freud



General Product Catalogue

freud

Today

Circular Saw Blades
Lame Circolari

Cutterheads and Brazed Cutters
Teste Portacoltelli e Frese Saldobrasate

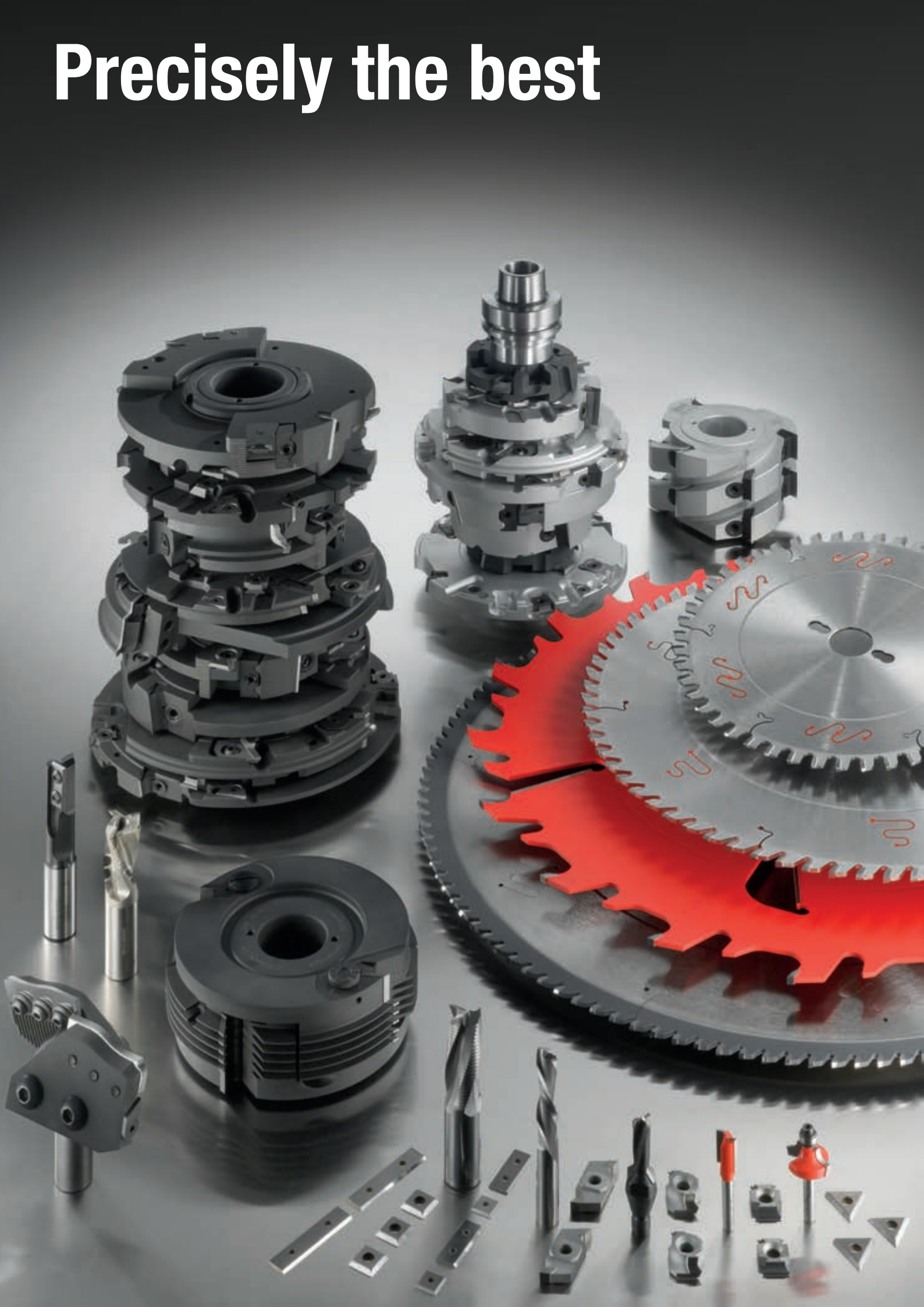
Drilling, Routing and CNC Tools
Punte, Frese e Utensili CNC

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Precisely the best



LEADING TECHNOLOGY



Freud - Leading the industrial market since 1962

Freud is a worldwide leader in the cutting tool industry and the biggest manufacturer of premium circular saw blades. Since 1962, Freud designs and produces an extensive range of superior quality circular saw blades, cutter heads & router bits, drilling, routing & CNC tools as well as knives and accessories.

Freud's technologies and solutions
Perfection crafted for your needs

Freud's premium quality cutting tools are produced with unique and innovative features. The company owns and controls the entire tool manufacturing process, with a full and strict monitoring over quality, across its plants in Italy. The continuous investment in Research & Development, combined with Freud's strong engineering competence and advanced technologies, results in products with innovative features, extreme precision and extended lifetime, always offering the right solution for any application need.





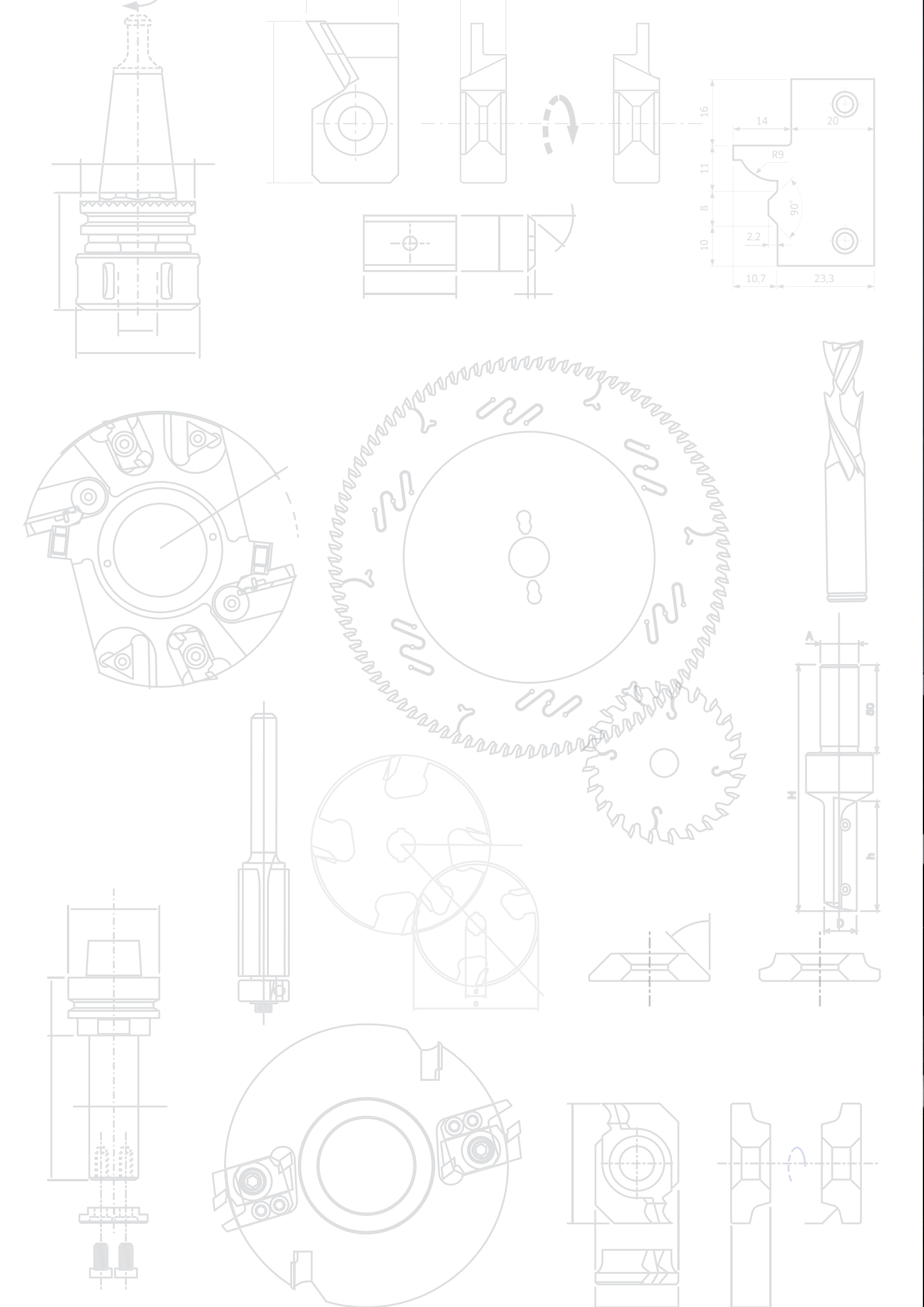
Technological supremacy
In-house Carbide production since 1980

Freud prides itself of a unique in the world in-house production and sintering of Carbide components, for superior quality cutting tools. Freud TiCo Carbide, a specially formulated, highly compact combination of Titanium and Cobalt Carbide, deliver maximum precision and long lasting sharpness of the cutting edge. The ability to formulate dedicated recipes, for standard and customised applications, grants the highest tool performance.

Global distribution network and extensive local support

Freud's belief in 'think global and act local' led the company to develop an extensive network of selected partners and subsidiaries, in over 90 countries worldwide. This to better support its customers wherever they are.




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Circular Saw Blades for Stationary Machines



Freud's circular saw blades are crafted using premium materials, innovative designs and the industry's most sophisticated manufacturing processes and technologies.
Every blade is specifically engineered to deliver superior performance and maximum lifetime.
The premium portfolio offers a wide variety of solutions for stationary machines and for specific applications, dedicated to solid wood, wood based panels, ferrous or non-ferrous metals, plastic materials and composites.
All circular saw blades feature Freud's unique and industry-first attributes.

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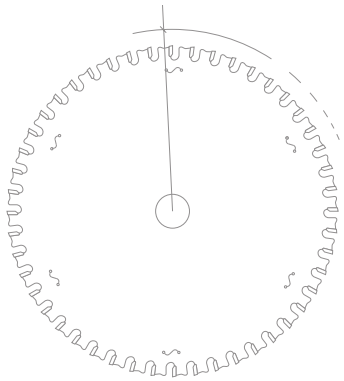
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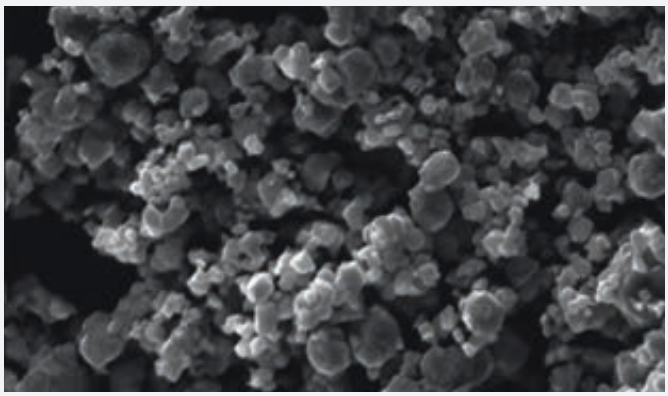
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LEADING TECHNOLOGY

TiCo CARBIDE TECHNOLOGY

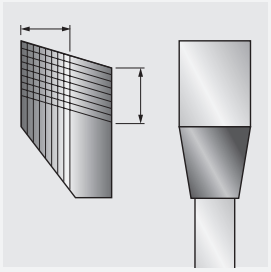
Freud's ownership and control of the entire Carbide production cycle ensures that the correct formula is used for the specific application needs, to constantly maximise the saw blade performance.

TiCo Carbide
A specially formulated, highly compact Titanium Cobalt Carbide, engineered and manufactured by freud.
It provides a sharper edge and flawless finish with a dramatically longer cutting life.



DESIGN INNOVATION

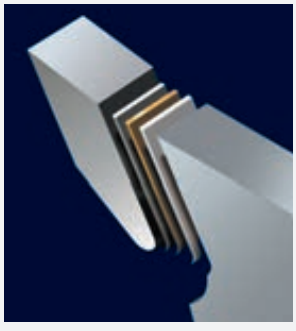
Freud's special tooth designs and geometries are engineered to perform perfect cuts and deliver extraordinary durability on industrial applications. Freud's tooth designs include: Super Square Tooth (below), Pyramid Tooth and SilenTip - each delivering outstanding precision and maximum lifetime.



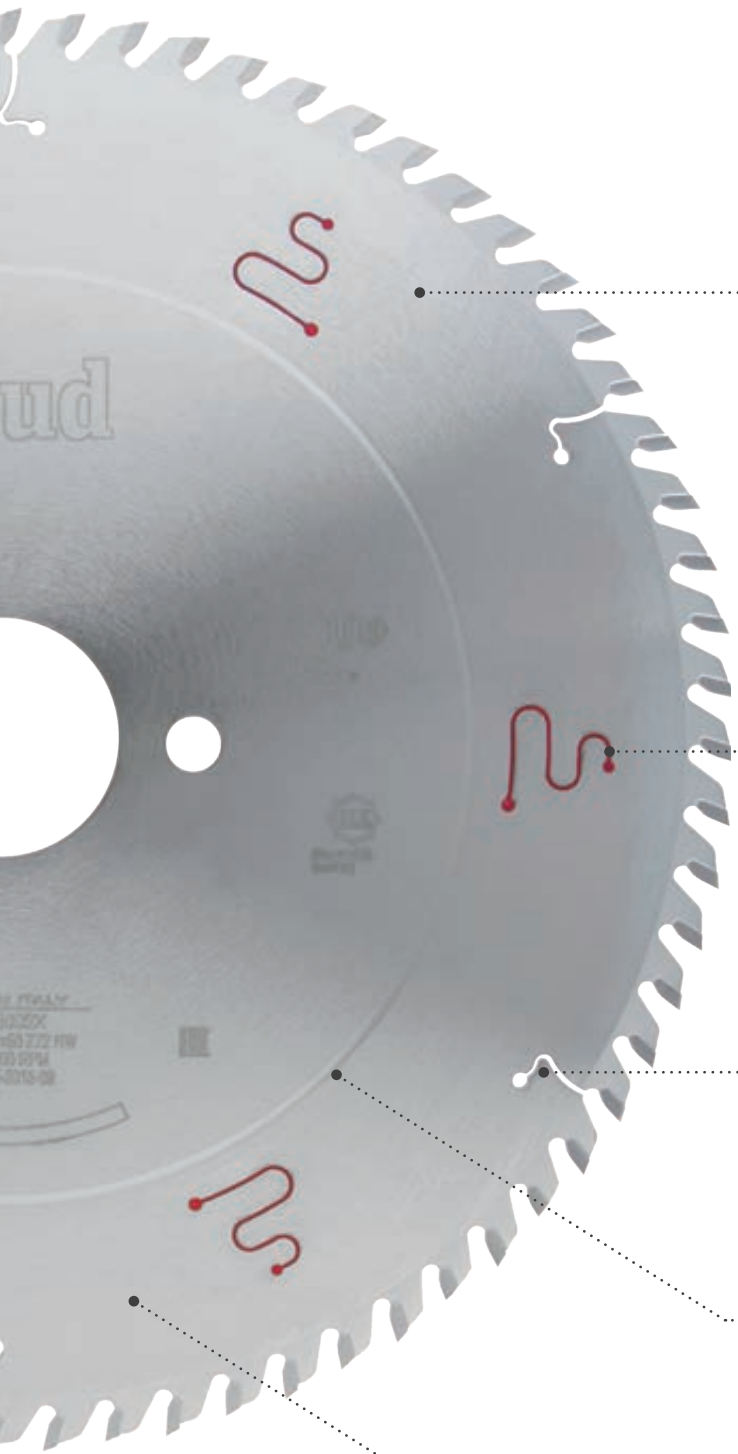
Super Square Tooth
Extended lifetime - up to 25 resharpenings. Tip thickness higher than standard for extra value for money.

EXTREME SHOCK RESISTANCE

All Freud's circular saw blades undergo an innovative **Tri-Metal Brazing** process that bonds the Carbide tips to the steel blade body. This special method consists of copper alloy sandwiched between layers of silver alloy, for extra flexibility and maximum impact resistance.







COATING TECHNOLOGY

All Freud's circular saw blades feature an industry-first premium coating for superior protection from heat, resin build-up and corrosion.
Freud's coatings for industrial blades include: Silver I.C.E. (below); Perma-SHIELD and Black Exrim - each providing the highest performance on specific applications.

Silver I.C.E. Coating
A high performing and anticorrosive coating to maintain the blade temperature low during the working process.
The non-stick feature improves chip ejection and notably reduces resin build-up, significantly reducing friction and extending the lifetime of the blade.

ANTI-VIBRATION SOLUTIONS

A wide selection of Freud's premium circular saw blades displays advanced features for the perfect finishing.

Anti-vibration slots
Body slots laser cut with freud innovative technology.
Also available with thermoplastic polyurethane filling, that considerably reduces vibration and minimizes noise.

LASER-CUT EXPANSION SLOTS

Special laser-cut expansion slots enable heat dispersion and prevent the blade deformation caused by overheating, granting the greatest blade stability.



TENSIONING

Freud's circular saw blades include a tensioning ring to maintain the blade flat, maximising cutting precision and performance.

PREMIUM MATERIAL

Premium Steel
Freud's circular saw blades for stationary machines are made from pre-hardened and pre-flattened superior quality steel (from 40 HRC to 48 HRC) that ensures the highest precision, performance and durability.

Saw blades teeth shape

FLAT TOOTH	DOUBLE TRIPLE CHIP TOOTH	CONICAL TOOTH	BEVELED TOOTH
LM01 - LM02 - LM05 - LM06 - LM07 - LM08 - LM10 - LU1E - LI20M - LI17M - LT18M - LT20M	LSC - LU4D - LU6A	LI25M - DLI25M	LU1B



Suitable for	Suitable for	Suitable for	Suitable for
Ripping of softwood	Laminates / bilaminates	Laminates (scoring saw blades)	Ripping and crosscutting of softwood
Ripping of hardwood	Solid surfaces		Ripping and crosscutting of hardwood
	Ferrous metals		Chipboard
			Solid wood and composites with nails and impurities

FLAT-TRIPLE CHIP TOOTH	INCLINED TOOTH	PYRAMID TOOTH	AXIAL TOOTH
LSB X - LU3D - LU3E - LU3F - LG3D - LU4A - LU5A - LU5B - LU5C - LU5D - LU5E	LI22M - LI13M - LI14M - LT16M - LT12M - LT14M	LU5F	LU1L - LU4B



Suitable for	Suitable for	Suitable for	Suitable for
Laminates / bilaminates	Crosscutting of softwood	Non-ferrous metals	Crosscutting of softwood
Chipboard	Crosscutting of hardwood	PVC	Crosscutting of hardwood
MDF	Laminates / bilaminates		Picture frames
Plywood	Plywood		Plexiglas
Plexiglas	Scoring saw blades, for laminates		Plastic materials
Plastic materials			
Non-ferrous metals			

CONCAVE TOOTH	ROUNDED TOOTH	ALTERNATE TOP BEVEL TOOTH
LU3B - LU3C	LU1G	LM03 - LM04 - LM08 - LU1A/C/D/F/H/I - LU1M - LP70M - LU2A/B/C/D/E/F - LG1C - LG2A - LG2B - LG2C - LU3A - LU34M - LI16M - DLI16M - LI27M -

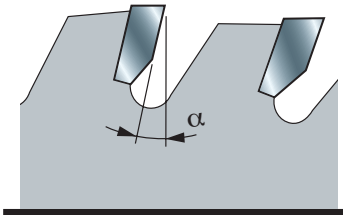


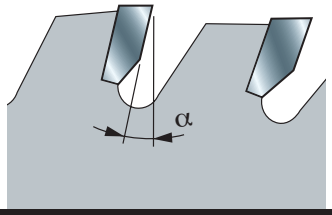


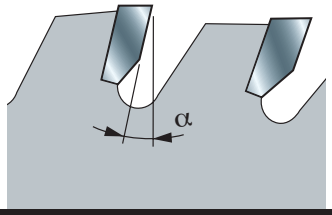
Suitable for	Suitable for	Suitable for
Laminates / bilaminates	Ripping of softwood	Ripping and crosscutting of softwood
		Ripping and crosscutting of hardwood
		Chipboard
		MDF
		Plywood
		Picture frames

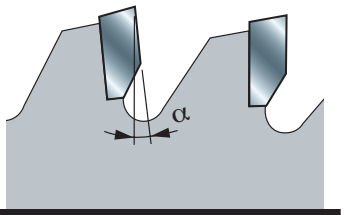
HOOK ANGLES

(α) 15° ÷ 25°	(α) 5° ÷ 15°	(α) 0° ÷ 5°	(α) 0° ÷ -10°









Suitable for	Suitable for	Suitable for	Suitable for
Crosscutting of softwood	Chipboard	Chipboard	Plexiglas
Crosscutting of hardwood	Plywood	Non-ferrous metals	Plastic materials
Solid surfaces	Laminates / bilaminates	Ferrous metals	Non-ferrous metals
	PVC		Laminates / bilaminates

Quick search by diameter

D mm	B mm	b mm	d mm	Z	Teeth	Freud Code	Art. No.	Material	Page
80	2,8 - 3,6	-	20	10 + 10	ATB 11°	**LI16M HA3**	F03FS02502	LP	81
80	2,8 - 3,6	-	20	12 + 12	ATB 11°	**LI16M GA3**	F03FS02501	LP	81
80	3,1 - 4,3	2,2	20	12	ATB 0°	**LI25M31AA3**	F03FS02606	LP	78
80	3,1 - 4,3	2,2	22	12	ATB 0°	**LI25M31AB3**	F03FS02608	LP	78
100	3,2	2,2	20	24	ATB 10°	**LI13MD AA3**	F03FS02452	LP	85
100	3,2	2,2	20	24	ATB 10°	**LI13MS AA3**	F03FS02466	LP	85
100	3,2	2,2	22	24	ATB 10°	**LI13MD AB3**	F03FS02454	LP	85
100	3,2	2,2	22	24	ATB 10°	**LI13MS AB3**	F03FS02468	LP	85
100	2,8 - 3,6	-	20	12 + 12	ATB 11°	**LI16M BA3**	F03FS02491	LP	81
100	2,8 - 3,6	-	20	12 + 12	ATB 10°	**DLI16MBAH6**	F03FS09635	LP	82
100	2,8 - 3,6	-	22	12 + 12	ATB 11°	**LI16M BB3**	F03FS02493	LP	81
100	2,8 - 3,6	-	25,4	12 + 12	ATB 11°	**LI16M BR3**	F03FS07433	LP	81
100	3,1 - 4,3	2,2	20	24	ATB 0°	**LI25M31BA3**	F03FS02610	LP	78
100	3,1 - 4,3	2,2	22	24	ATB 0°	**LI25M31BB3**	F03FS02612	LP	78
100	3,1 - 4,3	2,5	20	20	ATB 0°	**LI25M31BC3**	F03FS06099	LP	78
105	2,8 - 3,6	-	20	10 + 10	ATB 11°	**LI16M CA3**	F03FS02495	LP	81
110	3,1 - 4,3	2,2	20	24	ATB 0°	**LI25M31CA3**	F03FS02614	LP	78
110	3,1 - 4,3	2,2	22	24	ATB 0°	**LI25M31CB3**	F03FS02615	LP	78
115	3,2	2,2	20	30	FLAT 10°	**LI17M FA3**	F03FS02572	LP	84
115	3,1 - 4,3	2,2	20	24	ATB 0°	**LI25M31DA3**	F03FS02616	LP	78
115	3,1 - 4,3	2,2	22	24	ATB 0°	**LI25M31DB3**	F03FS02618	LP	78
115	4,1 - 5,3	3	45	24	ATB 0°	**LI25M41DE3**	F03FS08039	LP	78
120	1,7	1,2	20	24	ATB 20°	**FR02W003HC**	F03FS10043	WO	117
120	1,8	1,3	20	12	ATB 15°	**FR02W001H**	F03FS09663	WO	116
120	1,8	1,3	20	40	ATB 5°	**FR02W002H**	F03FS09664	WO	116
120	3,2	2,2	20	30	FLAT 10°	**LI17M GA3**	F03FS02574	LP	84
120	4	3	20	30	ATB 10°	**LU34M40EA3**	F03FS06367	WP	77
120	4	3	30	18	ATB 10°	**LU34M40AC3**	F03FS06095	WP	77
120	4	3	35	30	ATB 10°	**LU34M40EC3**	F03FS05141	WP	77
120	5	3	30	18	ATB 10°	**LU34M50AC3**	F03FS06096	WP	77
120	5	3	35	30	ATB 10°	**LU34M50EC3**	F03FS05143	WP	77
120	6	3	30	18	ATB 10°	**LU34M60AC3**	F03FS06097	WP	77
120	6	3	35	30	ATB 10°	**LU34M60EC3**	F03FS05145	WP	77
120	2,8 - 3,6	2,2	20	24	FLAT 6°	**DLI25M28EAH4**	F03FS09613	LP	80
120	2,8 - 3,6	2,2	20	24	FLAT 6°	**DLI25M28EAH6**	F03FS09614	LP	80
120	2,8 - 3,6	2,2	22	24	FLAT 6°	**DLI25M28EBH4**	F03FS09615	LP	80
120	2,8 - 3,6	2,2	22	24	FLAT 6°	**DLI25M28EBH6**	F03FS09616	LP	80
120	2,8 - 3,6	-	20	12 + 12	ATB 11°	**LI16M AA3**	F03FS02485	LP	81
120	2,8 - 3,6	-	20	12 + 12	ATB 10°	**DLI16MAAH6**	F03FS09636	LP	82
120	2,8 - 3,6	-	22	12 + 12	ATB 11°	**LI16M AB3**	F03FS02488	LP	81
120	2,8 - 3,6	-	22	12 + 12	ATB 10°	**DLI16MABH6**	F03FS09637	LP	82
120	2,8 - 3,6	-	50	12 + 12	ATB 11°	**LI16M PF3**	F03FS02512	LP	81
120	2,8 - 3,6	-	50	12 + 12	ATB 11°	**LI16M RF3**	F03FS06512	LP	81
120	2,8 - 4,0	2,2	20	24	ATB 0°	**LI25M28EA3**	F03FS02604	LP	78
120	2,8 - 4,0	2,2	22	24	ATB 0°	**LI25M28EB3**	F03FS02605	LP	78
120	3,1 - 3,9	2,2	20	24	FLAT 6°	**DLI25M31EAH4**	F03FS09617	LP	80
120	3,1 - 3,9	2,2	20	24	FLAT 6°	**DLI25M31EAH6**	F03FS09618	LP	80
120	3,1 - 4,3	2,2	20	24	ATB 0°	**LI25M31EA3**	F03FS02620	LP	78
120	3,1 - 4,3	2,2	22	24	ATB 0°	**LI25M31EB3**	F03FS02622	LP	78
120	3,1 - 4,3	2,5	20	24	ATB 0°	**LI25M31EC3**	F03FS05978	LP	78

D mm	B mm	b mm	d mm	Z	Teeth	Freud Code	Art. No.	Material	Page
120	3,4 - 4,6	2,2	20	24	ATB 0°	**LI25M34EA3**	F03FS02632	LP	78
120	4,0 - 5,0	-	50	12 + 12	ATB 11°	**LI16M IF3**	F03FS02504	LP	81
125	3,2	2,2	20	30	ATB 10°	**LI13MD BA3**	F03FS02455	LP	85
125	3,2	2,2	20	30	ATB 10°	**LI13MS BA3**	F03FS02470	LP	85
125	2,8 - 3,6	-	20	12 + 12	ATB 11°	**LI16M FA3**	F03FS02500	LP	81
125	2,8 - 3,6	-	20	14 + 14	ATB 11°	**LI16M EA3**	F03FS02498	LP	81
125	2,8 - 3,6	-	22	14 + 14	ATB 11°	**LI16M EB3**	F03FS02499	LP	81
125	3,1 - 3,9	2,2	20	24	FLAT 6°	**DLI25M31FAH4**	F03FS09619	LP	80
125	3,1 - 3,9	2,2	20	24	FLAT 6°	**DLI25M31FAH6**	F03FS09620	LP	80
125	3,1 - 4,3	2,2	20	24	ATB 0°	**LI25M31FA3**	F03FS02623	LP	78
125	3,1 - 4,3	2,2	22	24	ATB 0°	**LI25M31FB3**	F03FS02625	LP	78
125	3,1 - 4,3	2,5	20	24	ATB 0°	**LI25M31FC3**	F03FS05932	LP	78
125	3,4 - 4,6	2,2	20	24	ATB 0°	**LI25M34FA3**	F03FS02634	LP	78
125	3,4 - 4,6	2,2	45	24	ATB 0°	**LI25M34FE3**	F03FS02636	LP	78
125	4,0 - 4,7	-	20	20 + 20	ATB 11°	**LI16M DA3**	F03FS02496	LP	81
125	4,0 - 5,0	-	45	12 + 12	ATB 11°	**LI16M KE3**	F03FS02506	LP	81
125	4,3 - 5,5	3,2	20	24	ATB 0°	**LI25M43FA3**	F03FS02643	LP	78
125	4,3 - 5,5	3,2	45	24	ATB 0°	**LI25M43FE3**	F03FS02645	LP	78
125	4,5 - 5,7	3	20	24	ATB 0°	**LI25M45FA3**	F03FS02697	LP	78
125	4,5 - 5,7	3	45	24	ATB 0°	**LI25M45FE3**	F03FS02699	LP	78
130	2,4	1,6	20	24	ATB 15°	**FR03W001H**	F03FS09665	WO	116
130	2,4	1,6	20	36	ATB 5°	**FR03W002H**	F03FS09666	WO	116
136	1,5	1	20	24	ATB 20°	**FR03W003HC**	F03FS10044	WO	117
136	1,6	1	20	48	HLTCG 0°	**FR03A001HC**	F03FS10082	AL	129
140	1,8	1,3	20	24	ATB 15°	**FR04W001H**	F03FS09667	WO	116
140	1,8	1,3	20	36	ATB 10°	**FR04W002H**	F03FS09668	WO	116
140	1,8	1,3	20	42	ATB 5°	**FR04W003H**	F03FS09669	WO	116
140	1,8	1,3	20	42	ATB -5°	**FR04L001H**	F03FS09797	LP	124
140	1,8	1,3	20	42	HLTCG -5°	**FR04A001H**	F03FS09806	AL	129
140	1,8	1,3	20	4	TCG 10°	**FR04F001H**	F03FS09836	FC	133
140	1,8	1,3	20	42	HLTCG 0°	**FR04H001H**	F03FS09864	HPL	127
140	1,8	1,3	20	24	ATB 15°	**FR04W004HC**	F03FS10045	WO	117
140	1,8	1,3	20	42	ATB 5°	**FR04W005HC**	F03FS10046	WO	117
140	1,8	1,3	20	48	HLTCG -5°	**FR04A002HC**	F03FS10083	AL	129
140	3,2	2,2	30	28 + 4	ATB 10°	**LI14MD CA3**	F03FS02481	LP	85
140	3,2	2,2	30	28 + 4	ATB 10°	**LI14MS CA3**	F03FS02483	LP	85
140	3,1 - 4,3	2,2	16	28	ATB 8°	**LI25M31HM3**	F03FS02627	LP	78
140	3,4 - 4,6	3	45	24	ATB 8°	**LI25M34HE3**	F03FS02638	LP	78
140	4,3 - 5,5	3,2	45	28	ATB 8°	**LI25M43HE3**	F03FS02647	LP	78
140	4,5 - 5,7	3	45	24	ATB 8°	**LI25M45HE3**	F03FS02701	LP	78
145	4,3 - 5,5	3,2	45	30	ATB 8°	**LI25M43WE3**	F03FS08015	LP	78
150	1,8	1,3	20	48	HLTCG 0°	**FR05A002HC**	F03FS10084	AL	129
150	2	1,4	30	48	ATB 5°	**LU2D 0100**	F03FS04944	WP	50
150	2,4	1,6	16	24	ATB 15°	**FR05W001H**	F03FS09670	WO	116
150	2,4	1,6	20	24	ATB 15°	**FR05W002H**	F03FS09671	WO	116
150	2,4	1,6	20	42	ATB 5°	**FR05W003H**	F03FS09672	WO	116
150	2,5	1,6	20	42	HLTCG -5°	**FR05A001H**	F03FS09807	AL	129
150	3,2	2,2	30	24	ATB 15°	**LU2A 0100**	F03FS04806	WP	47
150	3,2	2,2	30	36	ATB 10°	**LU2B 0100**	F03FS04869	WP	48
150	3,2	2,2	30	48	ATB 5°	**LU2C 0100**	F03FS04908	WP	49

WO: Solid wood - **LP:** Chipboard and laminated panels - **WP:** Wood Based Panel - **PM:** Polymeric Materials - **AL:** Aluminium & Non-ferrous metals - **ST:** Steel - **CW:** Construct Wood - **FC:** Fibre Cement - **HPL:** High Pressure Laminate - **SP:** Sandwich Panel - **MM:** Multi Material

D mm	B mm	b mm	d mm	Z	Teeth		Freud Code	Art. No.	Material	Page
150	3,2	2,2	30	36	ATB	10°	**LI22MD KC3**	F03FS02581	LP	84
150	3,2	2,2	30	36	ATB	10°	**LI22MS KC3**	F03FS02592	LP	84
150	3,2	2,2	30	48	ATB	10°	**LI13MD DA3**	F03FS02459	LP	85
150	3,2	2,2	30	48	ATB	10°	**LI13MS DA3**	F03FS02474	LP	85
150	3,2	2,2	55	36	ATB	10°	**LI22MD KG3**	F03FS02583	LP	84
150	3,2	2,2	55	36	ATB	10°	**LI22MS KG3**	F03FS02594	LP	84
150	3,2	2,2	55	48	ATB	10°	**LI13MD DB3**	F03FS02461	LP	85
150	3,2	2,2	55	48	ATB	10°	**LI13MS DB3**	F03FS02476	LP	85
150	3,2	2,2	60	36	ATB	10°	**LI22MD KH3**	F03FS02584	LP	84
150	3,2	2,2	60	36	ATB	10°	**LI22MS KH3**	F03FS02595	LP	84
150	3,1 - 4,3	2,2	30	36	ATB	8°	**LI25M31KC3**	F03FS02628	LP	78
150	3,4 - 4,6	2,2	30	36	ATB	8°	**LI25M34KC3**	F03FS02639	LP	78
150	4,3 - 5,6	3,2	30	36	ATB	8°	**LI25M43KC3**	F03FS02649	LP	78
150	4,3 - 5,6	3,2	45	36	ATB	8°	**LI25M43KE3**	F03FS02651	LP	78
150	4,5 - 5,8	3	30	36	ATB	8°	**LI25M45KC3**	F03FS02702	LP	78
150	4,5 - 5,8	3	45	36	ATB	8°	**LI25M45KE3**	F03FS02704	LP	78
160	1,5	1	20	24	ATB	25°	**FR05W015HC**	F03FS10048	WO	117
160	1,5	1	20	36	ATB	15°	**FR05W016HC**	F03FS10049	WO	117
160	1,5	1	20	48	ATB	10°	**FR05W017HC**	F03FS10050	WO	117
160	1,8	1,2	20	48	ATB	-5°	**FR06L003HC**	F03FS10075	LP	124
160	1,8	1,2	20	4	TCG	10°	**FR06F002HC**	F03FS10095	FC	133
160	1,8	1,3	20	24	ATB	15°	**FR06W003H**	F03FS09675	WO	117
160	1,8	1,3	20	36	ATB	10°	**FR06W004H**	F03FS09676	WO	117
160	1,8	1,3	20	48	ATB	5°	**FR06W005H**	F03FS09677	WO	117
160	1,8	1,3	20	54	HLTCG	0°	**FR06A002HC**	F03FS10085	AL	129
160	2	1,3	20	14	ATB	18°	**FR06C001H**	F03FS09788	CW	122
160	2	1,6	20	30	DTCG	0°	**LU6A 0100**	F03FS05343	ST	102
160	2	1,6	20	30	HLTCG (Ch)	0°	**FR06X001H**	F03FS09852	SP	136
160	2	1,6	20	30	HLTCG (Ch)	0°	**FR06M001H**	F03FS10114	MM	138
160	2,2	1,6	20	24	ATB	15°	**LU2A 0301**	F03FS09233	WP	47
160	2,2	1,6	20	48	ATB	5°	**LU2C 0001**	F03FS09065	WP	49
160	2,2	1,6	20	48	ATB	-2°	**LU3A 0001**	F03FS07411	LP	70
160	2,2	1,6	20	24	ATB	15°	**FR06W006H**	F03FS09678	WO	117
160	2,2	1,6	20	36	ATB	10°	**FR06W007H**	F03FS09679	WO	117
160	2,2	1,6	20	48	ATB	5°	**FR06W008H**	F03FS09680	WO	118
160	2,2	1,6	20	48	ATB	-5°	**FR06L001H**	F03FS09798	LP	124
160	2,2	1,6	20	48	HLTCG	-5°	**FR06L002H**	F03FS09799	LP	124
160	2,2	1,6	20	52	HLTCG	-5°	**FR06A001H**	F03FS09808	AL	129
160	2,2	1,6	20	4	TCG	10°	**FR06F001H**	F03FS09837	FC	133
160	2,2	1,6	20	48	HLTCG	0°	**FR06H001H**	F03FS09865	HPL	127
160	2,4	1,6	16	24	ATB	15°	**FR06W001H**	F03FS09673	WO	116
160	2,4	1,6	16	48	ATB	5°	**FR06W002H**	F03FS09674	WO	116
160	2,4	1,6	20	24	ATB	15°	**FR06W009H**	F03FS09681	WO	116
160	2,4	1,6	20	36	ATB	10°	**FR06W010H**	F03FS09682	WO	116
160	2,4	1,6	20	48	ATB	5°	**FR06W011H**	F03FS09683	WO	116
160	2,4	1,6	30	24	ATB	15°	**FR06W012H**	F03FS09684	WO	116
160	2,4	1,6	30	48	ATB	5°	**FR06W013H**	F03FS09685	WO	116
160	2,8	2,2	20	42	TCG	-6°	**LU5D 0100**	F03FS05288	PM AL	98
160	3,2	2,2	20	24	ATB	15°	**LU2A 0300**	F03FS04809	WP	47
160	3,2	2,2	20	18	ATB	15°	**LU2A 0200**	F03FS04808	WP	47
160	3,2	2,2	20	48	ATB	5°	**LU2C 0200**	F03FS04910	WP	49
160	3,1 - 4,3	2,2	20	36	ATB	8°	**LI25M31LA3**	F03FS02630	LP	78
160	3,4 - 4,6	2,2	25,4	36	ATB	8°	**LI25M34LR3**	F03FS02641	LP	78
160	4,3 - 5,5	3,2	25,4	36	ATB	8°	**LI25M43LR3**	F03FS02660	LP	78
160	4,3 - 5,5	3,2	30	36	ATB	8°	**LI25M43LC3**	F03FS02653	LP	78
160	4,3 - 5,5	3,2	45	36	ATB	8°	**LI25M43LE3**	F03FS02655	LP	78
160	4,3 - 5,5	3,2	55	36	ATB	8°	**LI25M43LG3**	F03FS02657	LP	79
160	4,3 - 5,5	3,2	60	36	ATB	8°	**LI25M43LH3**	F03FS02659	LP	79
160	4,5 - 5,7	3	45	36	ATB	8°	**LI25M45LE3**	F03FS02706	LP	79
160	4,5 - 5,7	3	55	36	ATB	8°	**LI25M45LG3**	F03FS02708	LP	79
165	1,5	1	20	12	ATB	25°	**FR07W009HC**	F03FS10051	WO	118
165	1,5	1	20	24	ATB	25°	**FR07W010HC**	F03FS10052	WO	118
165	1,5	1	20	36	ATB	15°	**FR07W011HC**	F03FS10053	WO	118
165	1,5	1	20	48	ATB	10°	**FR07W012HC**	F03FS10054	WO	118
165	1,7	1,3	20	12	ATB	20°	**FR07W009H**	F03FS10040	WO	118
165	1,7	1,3	20	24	ATB	15°	**FR07W001H**	F03FS09686	WO	118
165	1,7	1,3	20	40	ATB	18°	**FR07W002H**	F03FS09687	WO	118

D mm	B mm	b mm	d mm	Z	Teeth		Freud Code	Art. No.	Material	Page
165	1,8	1,2	20	48	ATB	-5°	**FR07L002HC**	F03FS10076	LP	124
165	1,8	1,2	20	4	TCG	10°	**FR07F002HC**	F03FS10096	FC	133
165	1,8	1,3	20	54	HLTCG	0°	**FR07A002HC**	F03FS10086	AL	129
165	2	1,3	20	14	ATB	18°	**FR07C001H**	F03FS09789	CW	122
165	2	1,6	20	30	HLTCG (Ch)	0°	**FR07X001H**	F03FS09853	SP	136
165	2,2	1,6	20	4	TCG	10°	**FR07F001H**	F03FS09838	FC	133
165	2,4	1,6	20	24	ATB	15°	**FR07W003H**	F03FS09688	WO	116
165	2,4	1,6	20	36	ATB	10°	**FR07W004H**	F03FS09689	WO	116
165	2,4	1,6	20	48	ATB	5°	**FR07W005H**	F03FS09690	WO	116
165	2,4	1,6	20	56	ATB	5°	**FR07W013H**	F03FS11505	WO	116
165	2,4	1,6	30	24	ATB	15°	**FR07W006H**	F03FS09691	WO	116
165	2,4	1,6	30	36	ATB	10°	**FR07W007H**	F03FS09692	WO	116
165	2,4	1,6	30	48	ATB	5°	**FR07W008H**	F03FS09693	WO	116
165	2,5	1,6	20	52	HLTCG	-5°	**FR07A001H**	F03FS09809	AL	129
165	2,5	1,6	30	52	HLTCG	-5°	**FR07A002H**	F03FS09810	AL	129
165	2,6	1,6	20	48	ATB	-5°	**FR07L001H**	F03FS09800	LP	124
165	2,6	1,6	20	48	HLTCG	0°	**FR07H001H**	F03FS09866	HPL	127
170	2,4	1,6	30	40	ATB	10°	**FR08W002H**	F03FS09695	WO	116
175	4,3 - 5,5	3,2	75	36	ATB	8°	**LI25M43WT3**	F03FS07816	LP	79
178	1,5	1	25,4	80	AXL	15°	**LU4B 0500**	F03FS05173	PM	92
180	1,5	1	30	40	ATB	15°	**LU1H 0100**	F03FS04649	WO	41
180	1,5	1	40	24	FLAT	20°	**LM08 0100**	F03FS03169	WO	31
180	1,5	1	60	24	FLAT	20°	**LM08 0200**	F03FS03171	WO	31
180	2	1,3	30	14	ATB	18°	**FR09C001H**	F03FS09790	CW	122
180	2	1,4	30	56	ATB	5°	**LU2D 0200**	F03FS04948	WP	50
180	2	1,4	40	56	ATB	5°	**LU2D 0300**	F03FS04950	WP	50
180	2,2	1,6	40	16+2	FLAT	20°	**LM01 0100**	F03FS02751	WO	24
180	2,4	1,6	20	24	ATB	15°	**FR09W001H**	F03FS09696	WO	116
180	2,4	1,6	20	48	ATB	5°	**FR09W002H**	F03FS09697	WO	116
180	2,4	1,6	30	24	ATB	15°	**FR09W003H**	F03FS09698	WO	116
180	2,4	1,6	30	48	ATB	5°	**FR09W004H**	F03FS09699	WO	116
180	2,5	1,6	30	56	HLTCG	-5°	**FR09A001H**	F03FS09811	AL	129
180	2,8	2,2	20	42	TCG	-6°	**LU5C 0100**	F03FS07195	AL	97
180	2,8	2,2	30	42	TCG	-6°	**LU5C 0200**	F03FS05261	AL	97
180	3,2	2,2	20	24	ATB	10°	**LU2A 0400**	F03FS04810	WP	47
180	3,2	2,2	20	56	ATB	5°	**LU2C 0300**	F03FS04911	WP	49
180	3,2	2,2	30	30	ATB	15°	**LU2A 0500**	F03FS04811	WP	47
180	3,2	2,2	30	42	ATB	10°	**LU2B 0200**	F03FS04871	WP	48
180	3,2	2,2	30	56	ATB	5°	**LU2C 0400**	F03FS04912	WP	49
180	3,2	2,2	30	42	ATB	10°	**LI22MD NC3**	F03FS02585	LP	84
180	3,2	2,2	30	42	ATB	10°	**LI22MS NC3**	F03FS02596	LP	84
180	3,2	2,2	50	54	FLAT	10°	**LI20M BB3**	F03FS02579	LP	83
180	3,2	2,2	55	42	ATB	10°	**LI22MD NG3**	F03FS02586	LP	84
180	3,2	2,2	55	42	ATB	10°	**LI22MS NG3**	F03FS02598	LP	84
180	4	3	35	44	ATB	10°	**LU34M40NC3**	F03FS05142	WP	77
180	5	3	35	44	ATB	10°	**LU34M50NC3**	F03FS05144	WP	77
180	6	3	35	44	ATB	10°	**LU34M60NC3**	F03FS05146	WP	77
180	3,1 - 4,3	2,2	16	42	ATB	8°	**LI25M31NM3**	F03FS02631	LP	79
180	3,4 - 4,6	2,2	25,4	36	ATB	8°	**LI25M34NR3**	F03FS02642	LP	79
180	4,3 - 5,1	3,2	45	30	FLAT	6°	**DLI25M43NEH4**	F03FS09621	LP	80
180	4,3 - 5,1	3,2	45	30	FLAT	6°	**DLI25M43NEH6**	F03FS09622	LP	80
180	4,3 - 5,5	3,2	20	28	ATB	8°	**LI25M43NA3**	F03FS02661	LP	79
180	4,3 - 5,5	3,2	20	36	ATB	8°	**LI25M43XA3**	F03FS06372	LP	79
180	4,3 - 5,5	3,2	30	28	ATB	8°	**LI25M43NC3**	F03FS02663	LP	79
180	4,3 - 5,5	3,2	30	36	ATB	8°	**LI25M43XN3**	F03FS06373	LP	79
180	4,3 - 5,5	3,2	45	36	ATB	8°	**LI25M43NE3**	F03FS02664	LP	79
180	4,3 - 5,5	3,2	50	36	ATB	8°	**LI25M43NF3**	F03FS02666	LP	79
180	4,5 - 5,7	3	20	36	ATB	8°	**LI25M45NA3**	F03FS02710	LP	79
180	4,7 - 5,5	3,5	45	30	FLAT	6°	**DLI25M47NEH4**	F03FS09623	LP	80
180	4,7 - 5,5	3,5	45	30	FLAT	6°	**DLI25M47NEH6**	F03FS09624	LP	80
180	4,7 - 5,9	3,5	45	36	ATB	8°	**LI25M47NE3**	F03FS02715	LP	79
180	5,1 - 6,3	3,5	55	36	ATB	8°	**LI25M51NG3**	F03FS02724	LP	79
180	5,7 - 6,9	4	20	36	ATB	8°	**LI25M57NA3**	F03FS02727	LP	79
182	1,7	1,3	19,05	30	ATB	15°	**FR10W001H**	F03FS09700	WO	118
182	1,7	1,3	19,05	40	ATB	15°	**FR10W002H**	F03FS09701	WO	118
182	1,7	1,3	19,05	60	ATB	15°	**FR10W003H**	F03FS09702	WO	118
182	1,7	1,3	25,4	30	ATB	15°	**FR10W004H**	F03FS11507	WO	116

D mm	B mm	b mm	d mm	Z	Teeth	Freud Code	Art. No.	Material	Page
182	1,7	1,3	25,4	40	ATB 15°	**FR10W005H**	F03FS11508	WO	116
182	1,7	1,3	25,4	60	ATB 15°	**FR10W006H**	F03FS11509	WO	116
182	2	1,6	19,05	36	HLTCG (Ch) 0°	**FR10X001H**	F03FS11510	SP	136
182	2,2	1,6	19,05	4	TCG 10°	**FR10F001H**	F03FS11506	FC	133
184	1,6	1	20	24	ATB 25°	**FR11W010HC**	F03FS10055	WO	118
184	1,6	1	20	48	ATB 10°	**FR11W011HC**	F03FS10056	WO	118
184	2	1,3	16	14	ATB 18°	**FR11C001H**	F03FS09791	CW	122
184	2	1,6	15,88	38	DTCG 0°	**LU6A 0200**	F03FS05344	ST	102
184	2	1,6	15,88	48	DTCG 0°	**LU6A 1900**	F03FS06586	ST	102
184	2	1,6	30	36	HLTCG (Ch) 0°	**FR11M001H**	F03FS10113	MM	138
184	2,2	1,6	30	4	TCG 10°	**FR11F001H**	F03FS09840	FC	133
184	2,4	1,6	16	24	ATB 15°	**FR11W001H**	F03FS09703	WO	116
184	2,4	1,6	16	40	ATB 10°	**FR11W002H**	F03FS09704	WO	116
184	2,4	1,6	25,4	24	ATB 15°	**FR11W012H**	F03FS11511	WO	116
184	2,4	1,6	30	24	ATB 15°	**FR11W007H**	F03FS09709	WO	116
185	1,5	1	25,4	40	ATB 15°	**LU1H 0200**	F03FS04650	WO	41
185	2	1,6	20	36	HLTCG (Ch) 0°	**FR12M001H**	F03FS11512	MM	138
185	2,4	1,6	20	60	ATB -5°	**FR12L001H**	F03FS09801	LP	124
185	2,4	1,6	20	24	ATB 15°	**FR12W001H**	F03FS11513	WO	116
185	2,4	1,6	20	48	ATB 10°	**FR12W002H**	F03FS11514	WO	116
190	1,5	1	30	18	ATB 25°	**FR13W010HC**	F03FS10057	WO	118
190	1,5	1	30	24	ATB 25°	**FR13W011HC**	F03FS10058	WO	118
190	1,5	1	30	48	ATB 15°	**FR13W012HC**	F03FS10059	WO	118
190	1,5	1	30	60	ATB 10°	**FR13W013HC**	F03FS10060	WO	118
190	1,8	1,2	30	4	TCG 10°	**FR13F003HC**	F03FS10097	FC	133
190	1,8	1,3	30	54	HLTCG 0°	**FR13A003HC**	F03FS10088	AL	129
190	2	1,3	30	24	ATB 15°	**FR13W001T**	F03FS09767	WO	119
190	2	1,3	30	48	ATB 5°	**FR13W002T**	F03FS09768	WO	119
190	2	1,3	30	14	ATB 18°	**FR13C001H**	F03FS09792	CW	122
190	2	1,6	30	38	DTCG 0°	**LU6A 0300**	F03FS05345	ST	102
190	2	1,6	30	36	HLTCG (Ch) 0°	**FR13X001H**	F03FS09854	SP	136
190	2	1,6	30	38	HLTCG (Ch) 0°	**FR13M001H**	F03FS10041	MM	138
190	2,1	1,4	30	60	ATB -5°	**FR13L002HC**	F03FS10077	LP	124
190	2,2	1,6	20	4	TCG 10°	**FR13F001H**	F03FS09841	FC	133
190	2,2	1,6	30	4	TCG 10°	**FR13F002H**	F03FS09842	FC	133
190	2,4	1,6	16	24	ATB 15°	**FR13W001H**	F03FS09712	WO	116
190	2,4	1,6	16	48	ATB 10°	**FR13W002H**	F03FS09713	WO	117
190	2,4	1,6	20	24	ATB 15°	**FR13W003H**	F03FS09714	WO	117
190	2,4	1,6	20	48	ATB 10°	**FR13W004H**	F03FS09715	WO	117
190	2,4	1,6	20	56	ATB 5°	**FR13W005H**	F03FS09716	WO	117
190	2,4	1,6	30	24	ATB 15°	**FR13W006H**	F03FS09717	WO	117
190	2,4	1,6	30	40	ATB 10°	**FR13W007H**	F03FS09718	WO	117
190	2,4	1,6	30	48	ATB 10°	**FR13W008H**	F03FS09719	WO	117
190	2,4	1,6	30	56	ATB 5°	**FR13W009H**	F03FS09720	WO	117
190	2,4	1,6	Fast Fix	24	ATB 15°	**FR13W003T**	F03FS09769	WO	119
190	2,4	1,6	Fast Fix	48	ATB 5°	**FR13W004T**	F03FS09770	WO	119
190	2,5	1,6	20	56	HLTCG -5°	**FR13A001H**	F03FS09814	AL	129
190	2,5	1,6	30	56	HLTCG -5°	**FR13A002H**	F03FS09815	AL	129
190	2,5	1,8	30	48	ATB -2°	**LU3A 0002**	F03FS07412	LP	70
190	2,6	1,6	20	56	HLTCG 0°	**FR13H001H**	F03FS09867	HPL	127
190	2,6	1,6	30	60	ATB -5°	**FR13L001H**	F03FS09802	LP	124
190	2,6	1,6	30	56	HLTCG 0°	**FR13H002H**	F03FS09868	HPL	127
190	2,6	1,8	Fast Fix	58	HLTCG -5°	**FR13A001T**	F03FS09833	AL	130
190	2,8	2,2	30	54	TCG -6°	**LU5D 0200**	F03FS05289	PM AL	98
190	3,2	2,2	30	30	ATB 15°	**LU2A 0600**	F03FS04813	WP	47
190	3,2	2,2	30	56	ATB 5°	**LU2C 0500**	F03FS04914	WP	49
200	1,5	1	30	40	ATB 15°	**LU1H 0300**	F03FS07131	WO	41
200	1,5	1	30	60	ATB 15°	**LU1H 0400**	F03FS04651	WO	41
200	1,5	1	40	28	FLAT 20°	**LM08 0300**	F03FS03173	WO	31
200	1,5	1	60	28	FLAT 20°	**LM08 0400**	F03FS03176	WO	31
200	1,5	1	60	36	ATB 20°	**LM08 0500**	F03FS03179	WO	31
200	1,7	1,2	25,4	40	ATB 15°	**FR14W003H**	F03FS11515	WO	117
200	1,7	1,2	50	36	ATB 20°	**LM08 0600**	F03FS03182	WO	31
200	1,7	1,2	60	36	ATB 20°	**LM08 2800**	F03FS03240	WO	31

D mm	B mm	b mm	d mm	Z	Teeth	Freud Code	Art. No.	Material	Page
200	2	1,3	30	16	ATB 18°	**FR14C001H**	F03FS09793	CW	122
200	2,2	1,6	30	64	ATB 5°	**LU2D 0400**	F03FS04952	WP	50
200	2,2	1,6	40	16+2	FLAT 20°	**LM01 0200**	F03FS02753	WO	24
200	2,2	1,6	50	16+2	FLAT 20°	**LM01 0250**	F03FS09968	WO	24
200	2,2	1,6	60	16+2	FLAT 20°	**LM01 0300**	F03FS02755	WO	24
200	2,2	1,6	70	16+2	FLAT 20°	**LM01 0400**	F03FS02757	WO	24
200	2,4	1,6	30	24	ATB 15°	**FR14W001H**	F03FS09721	WO	117
200	2,4	1,6	30	48	ATB 10°	**FR14W002H**	F03FS09722	WO	117
200	2,5	1,8	30	64	ATB -2°	**FR14L001T**	F03FS09803	LP	125
200	2,8	1,8	30	60	HLTCG -5°	**FR14A001H**	F03FS09816	AL	129
200	2,8	2,2	30	54	TCG 10°	**LU5A 0100**	F03FS05181	AL	95
200	2,8	2,2	30	64	TCG 5°	**LU5B 0100**	F03FS05217	PM AL	96
200	2,8	2,2	30	48	TCG -6°	**LU5C 0300**	F03FS05262	AL	97
200	2,8	2,2	30	60	TCG -6°	**LU5D 0300**	F03FS05290	PM AL	98
200	3	2,5	30	64	ATB 10°	**LU1I 0100**	F03FS04673	WO	42
200	3,2	2,2	30	34	ATB 15°	**LU2A 0800**	F03FS04817	WP	47
200	3,2	2,2	30	24	ATB 15°	**LU2A 0700**	F03FS04814	WP	47
200	3,2	2,2	30	48	ATB 10°	**LU2B 0300**	F03FS04873	WP	48
200	3,2	2,2	30	64	ATB 5°	**LU2C 0600**	F03FS04915	WP	49
200	3,2	2,2	30	64	TCG 5°	**LU3D 0100**	F03FS05081	LP	73
200	3,2	2,2	30	48	ATB 10°	**LI22MD PC3**	F03FS02589	LP	84
200	3,2	2,2	30	48	ATB 10°	**LI22MS PC3**	F03FS02601	LP	84
200	3,2	2,2	35	34	ATB 15°	**LU2A 0900**	F03FS04819	WP	47
200	3,2	2,2	40	64	ATB 5°	**LU2C 0640**	F03FS09972	WP	49
200	3,2	2,2	60	48	ATB 10°	**LI22MD PH3**	F03FS02590	LP	84
200	3,2	2,2	60	48	ATB 10°	**LI22MS PH3**	F03FS02602	LP	84
200	4,2	3	30	48	ATB 10°	**LT14MD AA3**	F03FS04378	LP	87
200	4,2	3	30	48	ATB 10°	**LT14MS AA3**	F03FS04389	LP	87
200	4,7	3,5	80	42	ATB 15°	**LI27M FA3**	F03FS02749	LP	83
200	4,0 - 5,2	-	50	28 + 28	ATB 11°	**LI16M OF3**	F03FS02511	LP	81
200	4,3 - 5,1	3,2	65	36	FLAT 6°	**DLI25M43PIH4**	F03FS09625	LP	80
200	4,3 - 5,1	3,2	65	36	FLAT 6°	**DLI25M43PIH6**	F03FS09626	LP	80
200	4,3 - 5,1	3,2	80	36	FLAT 6°	**DLI25M43PLH4**	F03FS09627	LP	80
200	4,3 - 5,1	3,2	80	36	FLAT 6°	**DLI25M43PLH6**	F03FS09628	LP	80
200	4,3 - 5,5	3,2	20	36	ATB 8°	**LI25M43PA3**	F03FS02670	LP	79
200	4,3 - 5,5	3,2	22	36	ATB 8°	**LI25M43PB3**	F03FS02673	LP	79
200	4,3 - 5,5	3,2	30	36	ATB 8°	**LI25M43PC3**	F03FS02674	LP	79
200	4,3 - 5,5	3,2	45	36	ATB 8°	**LI25M43PE3**	F03FS02676	LP	79
200	4,3 - 5,5	3,2	50	36	ATB 8°	**LI25M43PF3**	F03FS02679	LP	79
200	4,3 - 5,5	3,2	65	36	ATB 8°	**LI25M43PI3**	F03FS02681	LP	79
200	4,3 - 5,5	3,2	75	36	ATB 8°	**LI25M43PT3**	F03FS07755	LP	79
200	4,3 - 5,5	3,2	80	36	ATB 8°	**LI25M43PL3**	F03FS02683	LP	79
200	4,5 - 5,7	3	22	36	ATB 8°	**LI25M45PB3**	F03FS02712	LP	79
200	4,5 - 5,7	3	65	36	ATB 8°	**LI25M45PI3**	F03FS02714	LP	79
200	4,7 - 5,5	3,5	45	36	FLAT 6°	**DLI25M47PEH4**	F03FS09629	LP	80
200	4,7 - 5,5	3,5	45	36	FLAT 6°	**DLI25M47PEH6**	F03FS09630	LP	80
200	4,7 - 5,5	3,5	65	36	FLAT 6°	**DLI25M47PIH4**	F03FS09631	LP	80
200	4,7 - 5,5	3,5	65	36	FLAT 6°	**DLI25M47PIH6**	F03FS09632	LP	80
200	4,7 - 5,9	3,5	20	36	ATB 8°	**LI25M47PA3**	F03FS02716	LP	79
200	4,7 - 5,9	3,5	22	36	ATB 8°	**LI25M47PB3**	F03FS02717	LP	79
200	4,7 - 5,9	3,5	30	36	ATB 8°	**LI25M47PC3**	F03FS02718	LP	79
200	4,7 - 5,9	3,5	45	36	ATB 8°	**LI25M47PE3**	F03FS02719	LP	79
200	4,7 - 5,9	3,5	65	36	ATB 8°	**LI25M47PI3**	F03FS02720	LP	79
200	5,4 - 6,6	4	20	36	ATB 8°	**LI25M54PA3**	F03FS02726	LP	79
200	5,7 - 6,9	3,5	65	36	ATB 8°	**LI25M57PI3BS**	F03FS08165	LP	79
200	5,7 - 6,9	4	45	36	ATB 8°	**LI25M57PE3**	F03FS02728	LP	79
200	6,1 - 7,3	4	20	36	ATB 8°	**LI25M61PA3**	F03FS02730	LP	79
203	2	1,4	25,4	90	AXL 15°	**LU4B 0100**	F03FS05167	PM	92
205	1,5	1	25,4	40	ATB 15°	**LU1H 0500**	F03FS04652	WO	41
205	1,5	1	25,4	60	ATB 15°	**LU1H 0600**	F03FS04653	WO	41
210	2	1,3	30	16	ATB 18°	**FR15C001H**	F03FS09794	CW	122
210	2	1,4	30	24	ATB 25°	**FR15W001TC**	F03FS10068	WO	120
210	2	1,4	30	48	ATB 15°	**FR15W002TC**	F03FS10069	WO	120
210	2	1,4	30	66	HLTCG 0°	**FR15A001TC**	F03FS10092	AL	131

WO: Solid wood - **LP:** Chipboard and laminated panels - **WP:** Wood Based Panel - **PM:** Polymeric Materials - **AL:** Aluminium & Non-ferrous metals - **ST:** Steel - **CW:** Construct Wood - **FC:** Fibre Cement - **HPL:** High Pressure Laminate - **SP:** Sandwich Panel - **MM:** Multi Material

D mm	B mm	b mm	d mm	Z	Teeth		Freud Code	Art. No.	Material	Page
210	2	1,6	25,4	40	HLTCG (Ch)	0°	**FR15M002M**	F03FS11516	MM	138
210	2	1,6	30	40	DTCG	0°	**LU6A 0400**	F03FS05346	ST	102
210	2	1,6	30	40	HLTCG (Ch)	0°	**FR15M001M**	F03FS09886	MM	138
210	2,1	1,4	30	66	ATB	-5°	**FR15L001TC**	F03FS10078	LP	125
210	2,2	1,6	30	6	TCG	10°	**FR15F001H**	F03FS09843	FC	133
210	2,3	1,8	30	72	HLTCG	-5°	**FR15A001H**	F03FS09817	AL	129
210	2,4	1,8	25,4	24	ATB	-5	**FR15W002M**	F03FS11566	WO	118
210	2,4	1,8	25,4	48	ATB	-5	**FR15W003M**	F03FS11517	WO	119
210	2,4	1,8	30	24	ATB	15°	**FR15W003H**	F03FS09725	WO	117
210	2,4	1,8	30	40	ATB	15°	**FR15W001H**	F03FS09723	WO	117
210	2,4	1,8	30	48	ATB	10°	**FR15W004H**	F03FS09726	WO	117
210	2,4	1,8	30	56	ATB	5°	**FR15W002H**	F03FS09724	WO	117
210	2,4	1,8	30	48	ATB	-5°	**FR15W001M**	F03FS09747	WO	118
210	2,4	2	30	36	HLTCG (Ch)	0°	**FR15X001H**	F03FS09855	SP	136
210	2,5	1,8	30	54	ATB	-2°	**LU3A 0003**	F03FS07413	LP	70
210	2,5	1,8	30	54	HLTCG	-5°	**FR15A001M**	F03FS09820	AL	130
210	2,8	1,8	30	60	HLTCG	0°	**FR15H001H**	F03FS09869	HPL	127
210	2,8	2,2	30	60	TCG	-6°	**LU5D 0400**	F03FS05291	PM AL	98
210	3,2	2,2	30	34	ATB	15°	**LU2A 1100**	F03FS04822	WP	47
210	3,2	2,2	30	24	ATB	15°	**LU2A 1000**	F03FS04821	WP	47
210	3,2	2,2	30	64	ATB	5°	**LU2C 0700**	F03FS04917	WP	49
215	4,3 - 5,1	3,2	50	42	FLAT	6°	**DLI25M43QFH4**	F03FS09633	LP	80
215	4,3 - 5,1	3,2	50	42	FLAT	6°	**DLI25M43QFH6**	F03FS09634	LP	80
215	4,3 - 5,5	3,2	50	42	ATB	8°	**LI25M43QF3**	F03FS02685	LP	79
215	4,5 - 5,7	3,2	50	42	ATB	8°	**LI25M45PF3**	F03FS02713	LP	79
216	1,7	1,2	30	24	ATB	5°	**FR16W006MC**	F03FS10061	WO	119
216	1,7	1,2	30	48	ATB	5°	**FR16W007MC**	F03FS10062	WO	119
216	2	1,4	30	24	ATB	25°	**FR16W001TC**	F03FS10070	WO	120
216	2	1,4	30	48	ATB	15°	**FR16W002TC**	F03FS10071	WO	120
216	2	1,4	30	66	HLTCG	0°	**FR16A002MC**	F03FS10089	AL	130
216	2	1,4	30	66	HLTCG	0°	**FR16A001TC**	F03FS10093	AL	131
216	2	1,4	30	6	TCG	10°	**FR16F002MC**	F03FS10098	FC	134
216	2	1,6	30	40	DTCG	0°	**LU6A 0500**	F03FS05347	ST	102
216	2	1,6	30	40	HLTCG (Ch)	0°	**FR16M001M**	F03FS09887	MM	138
216	2,1	1,4	30	66	ATB	-5°	**FR16L001TC**	F03FS10079	LP	125
216	2,2	1,6	30	6	TCG	10°	**FR16F001M**	F03FS09846	FC	134
216	2,4	1,8	25,4	48	ATB	-5°	**FR16W004M**	F03FS09751	WO	118
216	2,4	1,8	25,4	64	ATB	-5°	**FR16W005M**	F03FS09752	WO	118
216	2,4	1,8	30	24	ATB	-5°	**FR16W001M**	F03FS09748	WO	118
216	2,4	1,8	30	40	ATB	-5°	**FR16W002M**	F03FS09749	WO	118
216	2,4	1,8	30	48	ATB	-5°	**FR16W003M**	F03FS09750	WO	118
216	2,4	1,8	30	24	ATB	15°	**FR16W003T**	F03FS11519	WO	119
216	2,4	1,8	30	48	ATB	10°	**FR16W004T**	F03FS11520	WO	119
216	2,5	1,8	30	64	HLTCG	-5°	**FR16A001M**	F03FS09821	AL	130
216	2,5	1,8	30	60	HLTCG	5°	**FR16L002T**	F03FS11518	LP	125
216	2,8	1,8	30	64	HLTCG	-3°	**FR16H001M**	F03FS09872	HPL	126
216	2,8	2	30	24	ATB	-5°	**LU2F 0100**	F03FS06304	LP WP PM	52
216	2,8	2	30	48	ATB	-5°	**LU2F 0200**	F03FS04971	LP WP PM	52
216	2,8	2	30	60	ATB	-5°	**LU2F 0300**	F03FS04972	LP WP PM	52
216	2,8	2,2	30	60	TCG	-6°	**LU5D 0500**	F03FS05292	PM AL	98
216	3,2	2,2	30	34	ATB	15°	**LU2A 1200**	F03FS04823	WP	47
216	3,2	2,2	30	48	ATB	10°	**LU2B 0400**	F03FS04876	WP	48
216	3,2	2,2	30	64	ATB	5°	**LU2C 0800**	F03FS04918	WP	49
220	2,6	1,6	30	48	ATB	10°	**FR17W001T**	F03FS09771	WO	119
220	3	2,5	30	64	TCG	-6°	**LU5D 0600**	F03FS05293	PM AL	98
220	3,2	2,2	30	34	ATB	15°	**LU2A 1300**	F03FS04824	WP	47
220	3,2	2,2	30	64	ATB	5°	**LU2C 0900**	F03FS04919	WP	49
220	3,2	2,2	30	64	ATB	-5°	**LU3A 0100**	F03FS05059	LP	70
220	3,2	2,2	30	42	CON	10°	**LU3B 0100**	F03FS05069	LP	71
220	3,2	2,2	30	42	CON	-5°	**LU3C 0100**	F03FS05076	LP	72
220	3,2	2,2	30	64	TCG	5°	**LU3D 0200**	F03FS05083	LP	73
220	3,2	2,2	30	56	TCG	-6°	**LU3E 0100**	F03FS05109	LP	74
220	3,2	2,2	30	64	TCG	-3°	**LU3F 0100**	F03FS05117	LP PM	75
220	3,4	2,2	30	48	ATB	15°	**LI27M AA3**	F03FS02733	LP	83
220	6,3 - 7,5	4,4	20	36	ATB	8°	**LI25M63UA3**	F03FS02732	LP	79
225	1,5	1	40	28	FLAT	20°	**LM08 0700**	F03FS03185	WO	31
225	1,5	1	40	36	ATB	20°	**LM08 1000**	F03FS03194	WO	31

D mm	B mm	b mm	d mm	Z	Teeth		Freud Code	Art. No.	Material	Page
225	1,5	1	60	28	FLAT	20°	**LM08 0800**	F03FS03188	WO	31
225	1,5	1	60	36	ATB	20°	**LM08 1100**	F03FS03197	WO	31
225	1,5	1	70	28	FLAT	20°	**LM08 0900**	F03FS03191	WO	31
225	1,5	1	70	36	ATB	20°	**LM08 1200**	F03FS03200	WO	31
225	1,7	1,2	65	36	ATB	20°	**LM08 1300**	F03FS03203	WO	31
225	2,2	1,6	70	16+2	FLAT	20°	**LM01 0500**	F03FS02759	WO	24
225	2,5	1,8	70	16+2+2	ATB	20°	**LM03 0100**	F03FS02843	WO	26
225	2,6	1,6	30	32	ATB	15°	**FR18W001T**	F03FS09772	WO	119
225	2,6	1,6	30	48	ATB	10°	**FR18W002T**	F03FS09773	WO	119
225	2,6	1,8	30	68	HLTCG	-5°	**FR18A001T**	F03FS09834	AL	130
230	2	1,6	30	48	DTCG	0°	**LU6A 0600**	F03FS05348	ST	102
230	2,2	1,6	25,4	100	AXL	15°	**LU4B 0200**	F03FS05169	PM	92
230	2,2	1,6	30	20	ATB	18°	**FR19C001H**	F03FS09795	CW	122
230	2,2	1,6	30	6	TCG	10°	**FR19F001H**	F03FS09844	FC	133
230	2,2	1,8	30	48	HLTCG (Ch)	0°	**FR19X001H**	F03FS09856	SP	136
230	2,4	2	25,4	44	DTCG	0°	**LU6A 0700**	F03FS05349	ST	102
230	2,4	2	30	44	HLTCG (Ch)	0°	**FR19M001H**	F03FS10042	MM	138
230	2,8	1,8	30	24	ATB	15°	**FR19W001H**	F03FS09728	WO	117
230	2,8	1,8	30	36	ATB	15°	**FR19W002H**	F03FS09729	WO	117
230	2,8	1,8	30	48	ATB	15°	**FR19W003H**	F03FS09730	WO	117
230	2,8	1,8	30	64	HLTCG	-5°	**FR19A001H**	F03FS09818	AL	129
230	3	2,5	30	64	TCG	-6°	**LU5D 0700**	F03FS05294	PM AL	98
230	3,2	2,2	30	34	ATB	15°	**LU2A 1500**	F03FS04827	WP	47
230	3,2	2,2	30	24	ATB	15°	**LU2A 1400**	F03FS04826	WP	47
230	3,2	2,2	30	64	ATB	5°	**LU2C 1000**	F03FS04921	WP	49
235	2,2	1,6	25,4	60	ATB	10°	**FR20W007H**	F03FS11521	WO	117
235	2,2	1,6	30	20	ATB	18°	**FR20C001H**	F03FS09796	CW	122
235	2,2	1,6	30	6	TCG	10°	**FR20F001H**	F03FS09845	FC	133
235	2,2	1,8	30	50	HLTCG (Ch)	0°	**FR20X001H**	F03FS09857	SP	136
235	2,5	1,8	30	80	HLTCG	-5°	**FR20A001H**	F03FS09819	AL	129
235	2,8	1,8	30	24	ATB	15°	**FR20W003H**	F03FS09733	WO	117
235	2,8	1,8	30	36	ATB	15°	**FR20W004H**	F03FS09734	WO	117
235	2,8	1,8	30	48	ATB	15°	**FR20W005H**	F03FS09735	WO	117
235	2,8	1,8	30	56	ATB	10°	**FR20W006H**	F03FS09736	WO	117
235	2,8	1,8	30	64	HLTCG	0°	**FR20H001H**	F03FS09871	HPL	127
237	2,5	1,8	30	24	ATB	15°	**FR21W001H**	F03FS09737	WO	117
237	2,5	1,8	30	56	ATB	10°	**FR21W002H**	F03FS09738	WO	117
240	2,6	1,6	30	48	HLTCG (Ch)	0°	**FR22X001H**	F03FS09858	SP	136
240	2,8	1,8	30	48	ATB	15°	**FR22W001H**	F03FS09739	WO	117
250	1,7	1,2	40	24	FLAT	20°	**LM08 1400**	F03FS03206	WO	31
250	1,7	1,2	40	36	ATB	20°	**LM08 1700**	F03FS03215	WO	31
250	1,7	1,2	60	24	FLAT	20°	**LM08 1500**	F03FS03209	WO	31
250	1,7	1,2	60	36	ATB	20°	**LM08 1800**	F03FS03218	WO	31
250	1,7	1,2	70	24	FLAT	20°	**LM08 1600**	F03FS03212	WO	31
250	1,7	1,2	70	36	ATB	20°	**LM08 1900**	F03FS03223	WO	31
250	2,1	1,6	30	24	ATB	5°	**FR23W003MC**	F03FS10063	WO	119
250	2,1	1,6	30	48	ATB	5°	**FR23W004MC**	F03FS10064	WO	118
250	2,2	1,6	30	20+2	FLAT	20°	**LM01 0600**	F03FS02763	WO	24
250	2,2	1,6	30	100	AXL	15°	**LU4B 0300**	F03FS05170	PM	92
250	2,2	1,6	30	6	TCG	10°	**FR23F002MC**	F03FS10099	FC	134
250	2,2	1,6	50	24+2	FLAT	20°	**LM01 1400**	F03FS02780	WO	24
250	2,2	1,6	50	30	ATB	20°	**LM08 2500**	F03FS03237	WO	31
250	2,2	1,6	60	20+2	FLAT	20°	**LM01 0700**	F03FS02765	WO	24
250	2,2	1,6	60	24+2	FLAT	20°	**LM01 1500**	F03FS02781	WO	24
250	2,2	1,6	60	30	ATB	20°	**LM08 2600**	F03FS03238	WO	31
250	2,2	1,6	70	20+2	FLAT	20°	**LM01 0800**	F03FS02767	WO	24
250	2,2	1,6	70	24+2	FLAT	20°	**LM01 1600**	F03FS07200	WO	24
250	2,2	1,6	70	30	ATB	20°	**LM08 2700**	F03FS03239	WO	31
250	2,2	1,6	80	20+2	FLAT	20°	**LM01 0900**	F03FS02769	WO	24
250	2,4	1,8	25,4	48	ATB	15°	**FR23W005T**	F03FS11641	WO	119
250	2,4	1,8	25,4	60	ATB	15°	**FR23W006T**	F03FS11642	WO	119
250	2,4	1,8	25,4	80	ATB	15°	**FR23W007T**	F03FS11643	WO	119
250	2,4	1,8	25,4	100	ATB	15°	**FR23W008T**	F03FS11644	WO	119
250	2,4	1,8	30	40	ATB	-5°	**FR23W001M**	F03FS09753	WO	118
250	2,4	1,8	30	60	ATB	-5°	**FR23W002M**	F03FS09754	WO	118
250	2,4	1,8	30	6	TCG	10°	**FR23F001M**	F03FS09847	FC	134
250	2,4	1,8	30	78	HLTCG	0°	**FR23A002MC**	F03FS10090	AL	130

D mm	B mm	b mm	d mm	Z	Teeth	Freud Code	Art. No.	Material	Page
250	2,4	2	30	48	DTCG 0°	**LU6A 0800**	F03FS05350	ST	102
250	2,4	2	30	48	HLTCG (Ch) 0°	**FR23M001M**	F03FS09888	MM	138
250	2,5	1,6	30	24	FLAT 15°	**LU1E 0100**	F03FS04630	WO	38
250	2,5	1,6	30	24	ATB 22°	**LU1F 0100**	F03FS04640	WO	39
250	2,5	1,6	30	48	ATB 15°	**LU1H 0700**	F03FS04655	WO	41
250	2,5	1,6	30	60	ATB 15°	**LU1H 0800**	F03FS04657	WO	41
250	2,5	1,8	20	80	ATB 5°	**LU2D 0500**	F03FS04954	WP	50
250	2,5	1,8	30	80	ATB 5°	**LU2D 0700**	F03FS04957	WP	50
250	2,8	1,8	30	24	ATB 20°	**FR23W001T**	F03FS09774	WO	119
250	2,8	1,8	30	40	ATB 15°	**FR23W002T**	F03FS09775	WO	119
250	2,8	1,8	30	60	ATB 10°	**FR23W003T**	F03FS09776	WO	119
250	2,8	1,8	30	80	ATB 5°	**FR23W004T**	F03FS09777	WO	119
250	2,8	1,8	30	80	ATB -2°	**FR23L001T**	F03FS09804	LP	125
250	2,8	1,8	30	80	HLTCG -3°	**FR23H001M**	F03FS09873	HPL	126
250	2,8	1,8	30	80	HLTCG 10°	**FR23H001T**	F03FS09877	HPL	127
250	2,8	2	30	16+2	FLAT 20°	**LM02 0100**	F03FS02797	WO	25
250	2,8	2	30	16+2+2	ATB 20°	**LM03 0200**	F03FS02845	WO	26
250	2,8	2	30	30	FLAT 15°	**LU1H 1500**	F03FS04670	WO	41
250	2,8	2	30	40	FLAT 15°	**LU1H 1600**	F03FS07127	WO	41
250	2,8	2	30	48	ATB -5°	**LU2F 0400**	F03FS04973	LP WP PM	52
250	2,8	2	30	60	ATB -5°	**LU2F 0500**	F03FS04974	LP WP PM	52
250	2,8	2	30	80	HLTCG -5°	**FR23A001M**	F03FS09822	AL	130
250	2,8	2	30	68	HLTCG -5°	**FR23A001T**	F03FS09835	AL	130
250	2,8	2	60	16+2	FLAT 20°	**LM02 0200**	F03FS02799	WO	25
250	2,8	2	60	16+2+2	ATB 20°	**LM03 0300**	F03FS02847	WO	26
250	2,8	2	70	16+2	FLAT 20°	**LM02 0300**	F03FS02801	WO	25
250	2,8	2	70	16+2+2	ATB 20°	**LM03 0400**	F03FS02849	WO	26
250	2,8	2	80	16+2	FLAT 20°	**LM02 0400**	F03FS02803	WO	25
250	2,8	2	80	16+2+2	ATB 20°	**LM03 0500**	F03FS02851	WO	26
250	2,8	2,2	30	80	TCG -3°	**LU4A 0100**	F03FS05163	PM	91
250	2,8	2,2	30	100	TCG 5°	**LU5E 0100**	F03FS05324	AL	99
250	2,8	2,2	32	100	TCG 5°	**LU5E 0200**	F03FS05325	AL	99
250	3	2	30	40	RND 20°	**LU1G 0100**	F03FS04646	WO	40
250	3	2,2	30	100	AXL 15°	**LU1L 0100**	F03FS04690	WO PM	43
250	3	2,2	30	120	AXL 15°	**LU1L 0200**	F03FS04691	WO PM	43
250	3	2,5	20	80	ATB 10°	**LU1I 0200**	F03FS04675	WO	42
250	3	2,5	30	80	ATB 10°	**LU1I 0300**	F03FS04677	WO	42
250	3	2,5	30	96	ATB 10°	**LU1I 0400**	F03FS04679	WO	42
250	3,2	2,2	30	20+2+2	ATB 20°	**LM04 0100**	F03FS02891	WO	27
250	3,2	2,2	30	22	ATB 20°	**LU1C 0100**	F03FS04590	WO	36
250	3,2	2,2	30	24	ATB 20°	**LU1D 0100**	F03FS04615	WO	37
250	3,2	2,2	30	40	ATB 15°	**LU2A 1700**	F03FS04830	WP	47
250	3,2	2,2	30	30	ATB 10°	**LU2A 1600**	F03FS04828	WP	47
250	3,2	2,2	30	48	ATB 10°	**LU2B 0500**	F03FS04877	WP	48
250	3,2	2,2	30	60	ATB 10°	**LU2B 0700**	F03FS04880	WP	48
250	3,2	2,2	30	80	ATB 5°	**LU2C 1200**	F03FS04922	WP	49
250	3,2	2,2	30	100	ATB 5°	**LU2C 1300**	F03FS04924	WP	49
250	3,2	2,2	30	80	ATB -2°	**LU3A 0200**	F03FS05061	LP	70
250	3,2	2,2	30	48	CON 10°	**LU3B 0200**	F03FS05071	LP	71
250	3,2	2,2	30	48	CON -5°	**LU3C 0200**	F03FS05077	LP	72
250	3,2	2,2	30	80	TCG 5°	**LU3D 0400**	F03FS05088	LP	73
250	3,2	2,2	30	60	TCG 10°	**LU3D 1100**	F03FS05100	LP	73
250	3,2	2,2	30	60	TCG -6°	**LU3E 0200**	F03FS05111	LP	74
250	3,2	2,2	30	80	TCG -3°	**LU3F 0200**	F03FS05119	LP PM	75
250	3,2	2,2	30	22	ATB 20°	**LG1C 0100**	F03FS07559	WO	44
250	3,2	2,2	30	40	ATB 15°	**LG2A 1700**	F03FS07562	WP	53
250	3,2	2,2	30	60	ATB 10°	**LG2B 0700**	F03FS07566	WP	54
250	3,2	2,2	30	80	ATB 5°	**LG2C 1200**	F03FS07570	WP	55
250	3,2	2,2	30	80	TCG 5°	**LG3D 0400**	F03FS07438	LP	76
250	3,2	2,2	35	40	ATB 15°	**LU2A 1800**	F03FS04832	WP	47
250	3,2	2,2	35	60	ATB 10°	**LU2B 0800**	F03FS04882	WP	48
250	3,2	2,2	55	80	TCG 5°	**LU3D 0455**	F03FS09973	LP	73
250	3,2	2,2	60	20+2+2	ATB 20°	**LM04 0200**	F03FS02893	WO	27
250	3,2	2,2	60	60	TCG 10°	**LU3D 1160**	F03FS09974	LP	73
250	3,2	2,2	70	20+2+2	ATB 20°	**LM04 0300**	F03FS02895	WO	27
250	3,2	2,2	70	22	ATB 20°	**LU1C 0200**	F03FS04592	WO	36
250	3,2	2,2	70	24	ATB 20°	**LU1D 0200**	F03FS04617	WO	37
250	3,2	2,2	80	20+2+2	ATB 20°	**LM04 0400**	F03FS02897	WO	27
250	3,2	2,2	80	40	ATB 15°	**LU2A 1880**	F03FS09971	WP	47
250	3,2	2,5	30	80	DTCG 5°	**LU4D 0100**	F03FS07294	PM	93
250	3,4	2,2	30	16+2+2	FLAT 25°	**LM05 0100**	F03FS02973	WO	28
250	3,4	2,2	30	18	BEV 15°	**LU1B 0100**	F03FS04579	WO	34
250	3,4	2,2	60	16+2+2	FLAT 25°	**LM05 0200**	F03FS02975	WO	28
250	3,4	2,2	70	16+2+2	FLAT 25°	**LM05 0300**	F03FS02977	WO	28
250	3,4	2,2	80	16+2+2	FLAT 25°	**LM05 0400**	F03FS02979	WO	28
250	3,4	2,4	30	54	CON -2°	**LU3C 0204**	F03FS09537	LP	72
250	3,5	3	30	60	TCG 10°	**LU5A 0200**	F03FS05182	AL	95
250	3,5	3	30	80	TCG 5°	**LU5B 0200**	F03FS05218	PM AL	96
250	3,5	3	30	54	TCG -6°	**LU5C 0400**	F03FS05263	AL	97
250	3,5	3	30	80	TCG -6°	**LU5D 0800**	F03FS05295	PM AL	98
250	3,5	3	32	60	TCG 10°	**LU5A 0300**	F03FS05183	AL	95
250	3,5	3	32	80	TCG 5°	**LU5B 0300**	F03FS05221	PM AL	96
250	3,5	3	32	80	TCG -6°	**LU5D 0900**	F03FS05297	PM AL	98
250	3,5	3	40	80	TCG -6°	**LU5D 1000**	F03FS05299	PM AL	98
250	4	3	100	72	FLAT 12°	**LT20MD BB3**	F03FS04421	LP	88
250	4	3	100	72	FLAT 12°	**LT20MS BB3**	F03FS04422	LP	88
250	4,2	3	30	16+2+2	FLAT 25°	**LM06 0100**	F03FS03104	WO	29
250	4,2	3	30	60	TCG 15°	**LSB25003X**	F03FS10212	LP PM	66
250	4,2	3	30	60	ATB 10°	**LT14MD BA3**	F03FS04380	LP	87
250	4,2	3	30	60	ATB 10°	**LT14MS BA3**	F03FS04391	LP	87
250	4,2	3	50	60	TCG 15°	**LSB25005X**	F03FS10214	LP PM	66
250	4,2	3	55	60	TCG 15°	**LSB25002X**	F03FS10211	LP PM	66
250	4,2	3	60	16+2+2	FLAT 25°	**LM06 0200**	F03FS03106	WO	29
250	4,2	3	70	16+2+2	FLAT 25°	**LM06 0300**	F03FS03108	WO	29
250	4,2	3	80	16+2+2	FLAT 25°	**LM06 0400**	F03FS03110	WO	29
250	4,2	3	130	56	ATB 10°	**LT16MD BD3**	F03FS04401	LP	86
250	4,2	3	130	56	ATB 10°	**LT16MS BD3**	F03FS04409	LP	86
250	4,2	3	130	60	ATB 10°	**LT12MD BB3**	F03FS04372	LP	86
250	4,2	3	130	60	ATB 10°	**LT12MS BB3**	F03FS07063	LP	86
250	4,2	3	130	60	ATB 10°	**LT14MD BB3**	F03FS04382	LP	87
250	4,2	3	130	60	ATB 10°	**LT14MS BB3**	F03FS04393	LP	87
250	4,2	3	130	72	FLAT 10°	**LT18MD BB3**	F03FS04415	LP	88
250	4,2	3	130	72	FLAT 10°	**LT18MS BB3**	F03FS04417	LP	88
250	4,4	3	30	80	TCG 15°	**LSB25004X**	F03FS10213	LP PM	66
250	4,6	3	30	48	ATB 15°	**LI27M BA3**	F03FS02734	LP	83
250	5,5	3,5	30	16+2+2	FLAT 20°	**LM07 0100**	F03FS03141	WO	30
250	5,5	3,5	60	16+2+2	FLAT 20°	**LM07 0200**	F03FS03143	WO	30
250	5,5	3,5	70	16+2+2	FLAT 20°	**LM07 0300**	F03FS03145	WO	30
250	5,5	3,5	80	16+2+2	FLAT 20°	**LM07 0400**	F03FS03147	WO	30
250	3,1 - 4,3	2,2	30	54	ATB 8°	**LI25M310C3**	F03FS07595	LP	79
250	4,3 - 5,5	3,2	50	48	ATB 8°	**LI25M430F3**	F03FS02669	LP	79
250	4,3 - 5,5	3,2	30	48	ATB 8°	**LI25M430C3**	F03FS02668	LP	79
254	2,1	1,6	30	24	ATB 25°	**FR24W005TC**	F03FS10072	WO	120
254	2,1	1,6	30	40	ATB 20°	**FR24W006TC**	F03FS10073	WO	120
254	2,1	1,6	30	60	ATB 15°	**FR24W007TC**	F03FS10074	WO	120
254	2,1	1,6	30	24	ATB 5°	**FR24W002MC**	F03FS11527	WO	119
254	2,1	1,6	30	48	ATB 5°	**FR24W003MC**	F03FS11528	WO	119
254	2,4	1,8	30	60	ATB -5°	**FR24W001M**	F03FS09755	WO	118
254	2,4	1,8	30	6	TCG 10°	**FR24F001M**	F03FS09848	FC	134
254	2,4	1,8	30	78	HLTCG 0°	**FR24A002MC**	F03FS11526	AL	130
254	2,4	2	25,4	50	DTCG 0°	**LU6A 0900**	F03FS05351	ST	102
254	2,4	2	25,4	60	DTCG 0°	**LU6A 1000**	F03FS05352	ST	102
254	2,4	2	30	48	HLTCG (Ch) 0°	**FR24M001M**	F03FS09889	MM	138
254	2,6	1,8	30	24	ATB 20°	**FR24W001T**	F03FS09778	WO	119
254	2,6	1,8	30	40	ATB 15°	**FR24W002T**	F03FS09779	WO	119
254	2,6	1,8	30	60	ATB 10°	**FR24W003T**	F03FS09780	WO	119
254	2,6	1,8	30	80	ATB 5°	**FR24W004T**	F03FS09781	WO	119
254	2,8	1,8	30	80	HLTCG -3°	**FR24H001M**	F03FS09874	HPL	126

WO: Solid wood - **LP:** Chipboard and laminated panels - **WP:** Wood Based Panel - **PM:** Polymeric Materials - **AL:** Aluminium & Non-ferrous metals - **ST:** Steel - **CW:** Construct Wood - **FC:** Fibre Cement - **HPL:** High Pressure Laminate - **SP:** Sandwich Panel - **MM:** Multi Material

D mm	B mm	b mm	d mm	Z	Teeth	Freud Code	Art. No.	Material	Page
254	2,8	2	30	80	HLTCG -5°	**FR24A001M**	F03FS09823	AL	130
255	1,7	1,2	70	24	FLAT 20°	**LM08 2400**	F03FS03236	WO	31
255	2,2	1,6	25,4	100	AXL 15°	**LU4B 0400**	F03FS05172	PM	92
255	2,8	1,8	25,4	40	ATB 15°	**FR25W002T**	F03FS10134	WO	120
255	2,8	1,8	25,4	60	ATB 15°	**FR25W003T**	F03FS10135	WO	120
255	2,8	1,8	25,4	80	ATB 15°	**FR25W004T**	F03FS10136	WO	120
255	2,8	2,2	25,4	100	TCG 5°	**LU5E 0300**	F03FS05327	AL	99
255	2,8	2,2	25,4	120	TCG 5°	**LU5E 0400**	F03FS05329	AL	99
255	3	2,2	25,4	100	AXL 15°	**LU1L 0300**	F03FS04692	WO PM	43
255	3	2,2	25,4	120	AXL 15°	**LU1L 0400**	F03FS04693	WO PM	43
255	4,2	3	80	60	ATB 10°	**LT14MD FA3**	F03FS04387	LP	87
255	4,2	3	80	60	ATB 10°	**LT14MS FA3**	F03FS04398	LP	87
260	2,3	1,8	30	80	HLTCG -5°	**FR26A001M**	F03FS09827	AL	130
260	2,4	1,8	30	60	ATB -5°	**FR26W001M**	F03FS09760	WO	118
260	2,4	1,8	30	6	TCG 10°	**FR26F001M**	F03FS09849	FC	134
260	2,6	1,8	30	60	ATB 10°	**FR26W001T**	F03FS09782	WO	120
260	2,6	1,8	30	80	ATB 5°	**FR26W002T**	F03FS09783	WO	120
270	2,4	2	30	60	HLTCG (Ch) 0°	**FR27X001H**	F03FS09859	SP	136
270	2,8	1,8	30	60	ATB 10°	**FR27W001H**	F03FS09740	WO	117
270	4,2	3	55	60	TCG 15°	**LSB27001X**	F03FS10215	LP PM	66
275	3	2,5	20	84	ATB 10°	**LU1I 0500**	F03FS04681	WO	42
275	3,5	3	40	68	TCG 10°	**LU5A 0400**	F03FS05185	AL	95
275	3,5	3	40	84	TCG 5°	**LU5B 0400**	F03FS05223	PM AL	96
275	3,5	3	40	60	TCG -6°	**LU5C 0600**	F03FS05264	AL	97
275	3,5	3	40	84	TCG -6°	**LU5D 1100**	F03FS05300	PM AL	98
280	2,2	1,6	60	36	ATB 20°	**LM08 2200**	F03FS03232	WO	31
280	2,5	1,8	30	64	ATB 10°	**FR27W001T**	F03FS11530	WO	120
280	2,8	2	30	84	HLTCG -5	**FR27A001T**	F03FS11529	AL	130
280	2,8	2	80	18+2	FLAT 20°	**LM02 0500**	F03FS02805	WO	25
280	2,8	2	80	18+2+2	ATB 20°	**LM03 0600**	F03FS02853	WO	26
280	4,4	3,2	55	60	TCG 15°	**LSB28001X**	F03FS10216	LP PM	66
280	4,7	3,2	80	72	ATB 15°	**LI27M47VL3**	F03FS08014	LP	83
280	5	3,5	45	84	ATB 15°	**LI27M CA3**	F03FS02736	LP	83
280	4,3 - 5,5	3,2	30	48	ATB 12°	**LI25M43VC3**	F03FS07419	LP	79
290	4,2	3	55	60	TCG 15°	**LSB29001X**	F03FS10217	LP PM	66
300	2,2	1,6	50	36	ATB 20°	**LM08 2000**	F03FS03226	WO	31
300	2,2	1,6	70	36	ATB 20°	**LM08 2300**	F03FS03235	WO	31
300	2,4	1,8	30	72	ATB -5°	**FR28W001M**	F03FS09761	WO	118
300	2,4	1,8	30	8	TCG 10°	**FR28F001M**	F03FS09850	FC	134
300	2,5	1,8	30	24+2	FLAT 20°	**LM01 1000**	F03FS02772	WO	24
300	2,5	1,8	30	48	ATB 15°	**FR28W001T**	F03FS09784	WO	120
300	2,5	1,8	30	72	ATB 10°	**FR28W002T**	F03FS09785	WO	120
300	2,5	1,8	30	100	ATB 5°	**FR28W003T**	F03FS09786	WO	120
300	2,5	1,8	60	24+2	FLAT 20°	**LM01 1100**	F03FS02774	WO	24
300	2,5	1,8	70	24+2	FLAT 20°	**LM01 1200**	F03FS02776	WO	24
300	2,5	1,8	80	24+2	FLAT 20°	**LM01 1300**	F03FS02778	WO	24
300	2,6	1,8	25	24	ATB 15°	**LP70M 004P**	F03FS03766	WO	35
300	2,6	1,8	30	24	FLAT 15°	**LU1E 0500**	F03FS04638	WO	38
300	2,6	2	30	80	HLTCG (Ch) 0°	**FR28M001M**	F03FS09890	MM	138
300	2,6	2,2	30	60	DTCG 0°	**LU6A 1700**	F03FS05359	ST	102
300	2,6	2,2	30	80	DTCG 0°	**LU6A 1800**	F03FS05360	ST	102
300	2,7	1,8	25	28	FLAT 15°	**LU1E 0200**	F03FS04632	WO	38
300	2,7	1,8	30	28	FLAT 15°	**LU1E 0300**	F03FS04634	WO	38
300	2,7	1,8	30	28	ATB 22°	**LU1F 0200**	F03FS04642	WO	39
300	2,7	1,8	30	96	ATB 5°	**LU2D 0900**	F03FS04959	WP	50
300	2,8	1,8	30	24	FLAT 15°	**LP70M 001P**	F03FS03762	WO	35
300	2,8	1,8	30	96	ATB -2°	**FR28L001T**	F03FS09805	LP	125
300	2,8	2	30	20+2	FLAT 20°	**LM02 0600**	F03FS02807	WO	25
300	2,8	2	30	20+2+2	ATB 20°	**LM03 0700**	F03FS02855	WO	26
300	2,8	2	30	36	ATB 15°	**LU1H 1400**	F03FS04668	WO	41
300	2,8	2	30	54	ATB 15°	**LU1H 0900**	F03FS04659	WO	41
300	2,8	2	30	72	ATB 15°	**LU1H 1100**	F03FS04663	WO	41
300	2,8	2	30	96	HLTCG -5°	**FR28A001M**	F03FS09828	AL	130
300	2,8	2	35	54	ATB 15°	**LU1H 1000**	F03FS04661	WO	41
300	2,8	2	60	20+2	FLAT 20°	**LM02 0700**	F03FS02809	WO	25
300	2,8	2	60	20+2+2	ATB 20°	**LM03 0800**	F03FS02857	WO	26
300	2,8	2	70	20+2	FLAT 20°	**LM02 0800**	F03FS02811	WO	25

D mm	B mm	b mm	d mm	Z	Teeth	Freud Code	Art. No.	Material	Page
300	2,8	2	70	20+2+2	ATB 20°	**LM03 0900**	F03FS02859	WO	26
300	2,8	2	80	20+2	FLAT 20°	**LM02 0900**	F03FS02813	WO	25
300	2,8	2	80	20+2+2	ATB 20°	**LM03 1000**	F03FS02861	WO	26
300	2,8	2,2	30	96	TCG -3°	**LU4A 0200**	F03FS05165	PM	91
300	3	2	30	48	RND 20°	**LU1G 0200**	F03FS04647	WO	40
300	3	2,2	30	100	AXL 15°	**LU1L 0500**	F03FS04694	WO PM	43
300	3	2,2	30	120	AXL 15°	**LU1L 0600**	F03FS04695	WO PM	43
300	3	2,5	30	96	ATB 10°	**LU1I 0600**	F03FS04682	WO	42
300	3	2,5	30	112	ATB 10°	**LU1I 0700**	F03FS04684	WO	42
300	3	2,5	30	100	TCG 5°	**LU5E 0500**	F03FS05331	AL	99
300	3	2,5	30	120	TCG 5°	**LU5E 0700**	F03FS05334	AL	99
300	3	2,5	32	120	TCG 5°	**LU5E 0800**	F03FS05337	AL	99
300	3,2	2,2	25,4	96	ATB 2°	**LU3A 0600**	F03FS05807	LP	70
300	3,2	2,2	30	24+2+2	ATB 20°	**LM04 0500**	F03FS02899	WO	27
300	3,2	2,2	30	26	ATB 20°	**LU1C 0400**	F03FS04595	WO	36
300	3,2	2,2	30	28	ATB 20°	**LU1D 0500**	F03FS04620	WO	37
300	3,2	2,2	30	48	ATB 15°	**LU2A 2100**	F03FS04840	WP	47
300	3,2	2,2	30	36	ATB 10°	**LU2A 1900**	F03FS04834	WP	47
300	3,2	2,2	30	60	ATB 10°	**LU2B 0900**	F03FS04884	WP	48
300	3,2	2,2	30	72	ATB 10°	**LU2B 1100**	F03FS04887	WP	48
300	3,2	2,2	30	96	ATB 5°	**LU2C 1500**	F03FS04927	WP	49
300	3,2	2,2	30	120	ATB 5°	**LU2C 1700**	F03FS04932	WP	49
300	3,2	2,2	30	60	ATB 10°	**LU2E 0200**	F03FS04965	WP	51
300	3,2	2,2	30	72	ATB 10°	**LU2E 0400**	F03FS04967	WP	51
300	3,2	2,2	30	96	ATB 2°	**LU3A 0300**	F03FS05064	LP	70
300	3,2	2,2	30	96	TCG 5°	**LU3D 0600**	F03FS05093	LP	73
300	3,2	2,2	30	72	TCG 10°	**LU3D 2100**	F03FS05810	LP	73
300	3,2	2,2	30	84	TCG 10°	**LU3D 1300**	F03FS05101	LP	73
300	3,2	2,2	30	96	TCG 10°	**LU3D 1500**	F03FS05104	LP	73
300	3,2	2,2	30	72	TCG -6°	**LU3E 0300**	F03FS05113	LP	74
300	3,2	2,2	30	96	TCG -3°	**LU3F 0300**	F03FS05121	LP PM	75
300	3,2	2,2	30	26	ATB 20°	**LG1C 0400**	F03FS07560	WO	44
300	3,2	2,2	30	36	ATB 15°	**LG2A 1900**	F03FS07563	WP	53
300	3,2	2,2	30	48	ATB 15°	**LG2A 2100**	F03FS07564	WP	53
300	3,2	2,2	30	60	ATB 10°	**LG2B 0900**	F03FS07567	WP	54
300	3,2	2,2	30	72	ATB 10°	**LG2B 1100**	F03FS07439	WP	54
300	3,2	2,2	30	96	ATB 5°	**LG2C 1500**	F03FS07571	WP	55
300	3,2	2,2	30	96	TCG 5°	**LG3D 0600**	F03FS07436	LP	76
300	3,2	2,2	30	72	TCG 10°	**LG3D 2100**	F03FS07574	LP	76
300	3,2	2,2	30	96	HLTCG 10°	**FR28H001T**	F03FS09878	HPL	127
300	3,2	2,2	35	26	ATB 20°	**LU1C 0500**	F03FS04597	WO	36
300	3,2	2,2	35	48	ATB 15°	**LU2A 2300**	F03FS04843	WP	47
300	3,2	2,2	35	72	ATB 10°	**LU2B 1200**	F03FS04889	WP	48
300	3,2	2,2	35	96	ATB 5°	**LU2C 1600**	F03FS04930	WP	49
300	3,2	2,2	35	96	TCG 5°	**LU3D 0700**	F03FS05096	LP	73
300	3,2	2,2	60	24+2+2	ATB 20°	**LM04 0600**	F03FS02901	WO	27
300	3,2	2,2	60	28	ATB 20°	**LU1D 0600**	F03FS04622	WO	37
300	3,2	2,2	70	24+2+2	ATB 20°	**LM04 0700**	F03FS02903	WO	27
300	3,2	2,2	70	26	ATB 20°	**LU1C 0700**	F03FS04599	WO	36
300	3,2	2,2	70	28	ATB 20°	**LU1D 0800**	F03FS04624	WO	37
300	3,2	2,2	80	24+2+2	ATB 20°	**LM04 0800**	F03FS02906	WO	27
300	3,2	2,5	30	96	DTCG 5°	**LU4D 0200**	F03FS07295	PM	93
300	3,4	2,2	30	20+2+2	FLAT 25°	**LM05 0500**	F03FS02981	WO	28
300	3,4	2,2	30	20	BEV 15°	**LU1B 0200**	F03FS04580	WO	34
300	3,4	2,2	60	20+2+2	FLAT 25°	**LM05 0600**	F03FS02983	WO	28
300	3,4	2,2	70	20+2+2	FLAT 25°	**LM05 0700**	F03FS02985	WO	28
300	3,4	2,2	80	20+2+2	FLAT 25°	**LM05 0800**	F03FS02990	WO	28
300	3,5	2,5	70	20+2+2	FLAT 25°	**LM06 1500**	F03FS03133	WO	29
300	3,5	2,5	80	20+2+2	FLAT 25°	**LM06 1600**	F03FS03135	WO	29
300	3,5	3	30	72	TCG 10°	**LU5A 0500**	F03FS05186	AL	95
300	3,5	3	30	88	TCG 5°	**LU5B 0500**	F03FS05224	PM AL	96
300	3,5	3	30	96	TCG 5°	**LU5B 0800**	F03FS05228	PM AL	96
300	3,5	3	30	72	TCG -6°	**LU5C 0700**	F03FS05265	AL	97
300	3,5	3	30	96	TCG -6°	**LU5D 1200**	F03FS05301	PM AL	98
300	3,5	3	32	72	TCG 10°	**LU5A 0600**	F03FS05187	AL	95
300	3,5	3	32	88	TCG 5°	**LU5B 0600**	F03FS05225	PM AL	96
300	3,5	3	32	96	TCG 5°	**LU5B 0900**	F03FS05230	PM AL	96

D mm	B mm	b mm	d mm	Z	Teeth	Freud Code	Art. No.	Material	Page
300	3,5	3	32	72	TCG -6°	**LU5C 0800**	F03FS05266	AL	97
300	3,5	3	32	96	TCG -6°	**LU5D 1300**	F03FS05303	PM AL	98
300	3,5	3	40	88	TCG 5°	**LU5B 0700**	F03FS05227	PM AL	96
300	3,5	3	40	96	TCG 5°	**LU5B 1000**	F03FS05232	PM AL	96
300	3,5	3	40	72	TCG -6°	**LU5C 0900**	F03FS05267	AL	97
300	3,5	3	40	96	TCG -6°	**LU5D 1400**	F03FS05305	PM AL	98
300	4,2	3	30	20+2+2	FLAT 25°	**LM06 0500**	F03FS03113	WO	29
300	4,2	3	60	20+2+2	FLAT 25°	**LM06 0600**	F03FS03115	WO	29
300	4,2	3	70	20+2+2	FLAT 25°	**LM06 0700**	F03FS03117	WO	29
300	4,2	3	80	20+2+2	FLAT 25°	**LM06 0800**	F03FS03119	WO	29
300	4,2	3	130	68	ATB 10°	**LT16MD CD3**	F03FS04404	LP	86
300	4,2	3	130	68	ATB 10°	**LT16MS CD3**	F03FS04412	LP	86
300	4,4	3	30	36	ATB -5°	**LU1A 0100**	F03FS04572	WO	33
300	4,4	3	30	60	TCG 15°	**LSB30001X**	F03FS07802	LP PM	66
300	4,4	3	30	72	TCG 15°	**LSB30005X**	F03FS07803	LP PM	66
300	4,4	3	30	60	DTCG 10°	**LSC30001**	F03FS06322	LP	69
300	4,4	3	65	60	TCG 15°	**LSB30002X**	F03FS09159	LP PM	66
300	4,4	3	65	72	TCG 15°	**LSB30006X**	F03FS09158	LP PM	66
300	4,4	3	65	60	DTCG 10°	**LSC30002**	F03FS06325	LP	69
300	4,4	3	75	60	TCG 15°	**LSB30003X**	F03FS10218	LP PM	66
300	4,4	3	75	72	TCG 15°	**LSB30007X**	F03FS10219	LP PM	66
300	4,4	3	75	96	TCG 15°	**LSB30010X**	F03FS10220	LP PM	66
300	4,4	3	75	60	DTCG 10°	**LSC30003**	F03FS06326	LP	69
300	4,4	3	80	60	TCG 15°	**LSB30004X**	F03FS09157	LP PM	66
300	4,4	3	80	72	TCG 15°	**LSB30008X**	F03FS07804	LP PM	66
300	4,4	3	80	60	DTCG 10°	**LSC30004**	F03FS06327	LP	69
300	4,4	3,2	60	72	TCG 15°	**LSB30012X**	F03FS09207	LP PM	66
300	4,55	3	30	72	ATB 15°	**LI27M DF3**	F03FS02745	LP	83
300	4,6	3,2	50	72	ATB 15°	**LI27M DD3**	F03FS02743	LP	83
300	4,6	3,2	65	72	ATB 15°	**LI27M DA3**	F03FS02737	LP	83
300	4,7	3,2	80	72	ATB 15°	**LI27M DC3**	F03FS02741	LP	83
300	4,95	3	65	72	ATB 15°	**LI27M DB3**	F03FS02739	LP	83
300	5,5	3,5	30	20+2+2	FLAT 20°	**LM07 0500**	F03FS03149	WO	30
300	5,5	3,5	60	20+2+2	FLAT 20°	**LM07 0600**	F03FS03151	WO	30
300	5,5	3,5	70	20+2+2	FLAT 20°	**LM07 0700**	F03FS03153	WO	30
300	5,5	3,5	80	20+2+2	FLAT 20°	**LM07 0800**	F03FS03155	WO	30
300	4,3 - 5,5	3,2	65	72	ATB 12°	**LI25M43RI3**	F03FS02689	LP	79
300	4,3 - 5,5	3,2	80	72	ATB 12°	**LI25M43RL3**	F03FS02691	LP	79
300	4,3 - 5,5	3,5	50	48	ATB 12°	**LI25M43RM3**	F03FS02693	LP	79
300	4,3 - 5,5	3	65	48	ATB 12°	**LI25M43RX3**	F03FS07616	LP	79
300	4,3 - 5,5	3,2	30	48	ATB 12°	**LI25M43RC3**	F03FS07577	LP	79
300	4,7 - 5,9	3,5	65	48	ATB 6°	**LI25M47RX3**	F03FS07744	LP	79
303	3,2	2,2	30	60	CON 10°	**LU3B 0300**	F03FS05073	LP	71
303	3,2	2,2	30	60	CON 10°	**LU3B 1300**	F03FS06478	LP	71
303	3,2	2,2	30	60	CON -5°	**LU3C 0300**	F03FS05078	LP	72
303	3,4	2,4	30	66	CON 0°	**LU3C 0302**	F03FS09038	LP	72
305	2,2	1,6	30	42	ATB 5°	**FR29W004MC**	F03FS10065	WO	119
305	2,2	1,6	30	60	ATB 5°	**FR29W005MC**	F03FS10066	WO	119
305	2,2	1,6	30	96	ATB 5°	**FR29W006MC**	F03FS10067	WO	119
305	2,2	1,6	30	8	TCG 10°	**FR29F002MC**	F03FS10100	FC	134
305	2,4	1,8	30	48	ATB -5°	**FR29W001M**	F03FS09762	WO	118
305	2,4	1,8	30	72	ATB -5°	**FR29W002M**	F03FS09763	WO	118
305	2,4	1,8	30	8	TCG 10°	**FR29F001M**	F03FS09851	FC	134
305	2,4	1,8	30	96	HLTCG 0°	**FR29A004MC**	F03FS10091	AL	130
305	2,6	2	30	80	HLTCG (Ch) 0°	**FR29M001M**	F03FS09891	MM	138
305	2,6	2,2	25,4	60	DTCG 0°	**LU6A 1100**	F03FS05353	ST	102
305	2,6	2,2	25,4	80	DTCG 0°	**LU6A 1200**	F03FS05354	ST	102
305	2,8	1,8	25,4	96	ATB 15°	**FR29W002T**	F03FS10138	WO	120
305	2,8	1,8	30	100	ATB 5°	**FR29W001T**	F03FS09787	WO	120
305	2,8	1,8	30	96	HLTCG 5°	**FR29L001T**	F03FS11533	LP	125
305	2,8	2	30	96	HLTCG -5°	**FR29A001M**	F03FS09829	AL	130
305	3	2,2	25,4	100	AXL 15°	**LU1L 0700**	F03FS04696	WO PM	43
305	3	2,2	25,4	120	AXL 15°	**LU1L 0800**	F03FS04697	WO PM	43
305	3	2,2	30	100	AXL 15°	**LU1L 1100**	F03FS06410	WO PM	43
305	3	2,5	25,4	120	TCG 5°	**LU5E 0600**	F03FS05333	AL	99
305	3,2	2,2	30	96	HLTCG -3°	**FR29H001M**	F03FS09876	HPL	126
305	4,4	3	30	60	TCG 15°	**LSB30501X**	F03FS10221	LP PM	66
310	4,4	3,2	60	72	TCG 15°	**LSB31001X**	F03FS09949	LP PM	66
315	2,4	1,8	30	72	ATB -5°	**FR30W001M**	F03FS09766	WO	118
315	2,8	2,2	30	96	HLTCG -5°	**FR30A001M**	F03FS09832	AL	130
315	3,2	2,2	25	48	ATB 15°	**LP70M 006P**	F03FS03768	WO	35
315	3,2	2,2	30	24	ATB 15°	**LP70M 003P**	F03FS03765	WO	35
315	3,2	2,2	30	28	ATB 20°	**LU1C 0800**	F03FS04601	WO	36
315	3,2	2,2	30	48	ATB 15°	**LU2A 2400**	F03FS04844	WP	47
315	3,2	2,2	30	72	ATB 10°	**LU2B 1300**	F03FS04891	WP	48
315	3,4	2,2	30	20	BEV 15°	**LU1B 0300**	F03FS04582	WO	34
320	3	2,2	30	20+2+2	FLAT 20°	**LM02 1000**	F03FS02815	WO	25
320	3	2,2	30	20+2+2	ATB 20°	**LM03 1100**	F03FS02863	WO	26
320	3	2,2	80	20+2+2	FLAT 20°	**LM02 1100**	F03FS02817	WO	25
320	3	2,2	80	20+2+2	ATB 20°	**LM03 1200**	F03FS02865	WO	26
320	3,2	2,2	30	24+2+2	ATB 20°	**LM04 0900**	F03FS02908	WO	27
320	3,2	2,2	80	24+2+2	ATB 20°	**LM04 1000**	F03FS02910	WO	27
320	3,4	2,2	30	20+2+2	FLAT 25°	**LM05 0900**	F03FS02993	WO	28
320	3,4	2,2	80	20+2+2	FLAT 25°	**LM05 1000**	F03FS02995	WO	28
320	4,2	3	30	20+2+2	FLAT 25°	**LM06 0900**	F03FS03121	WO	29
320	4,2	3	70	20+2+2	FLAT 25°	**LM06 1900**	F03FS03140	WO	29
320	4,2	3	80	20+2+2	FLAT 25°	**LM06 1000**	F03FS03123	WO	29
320	4,4	3,2	30	60	TCG 15°	**LSB32005X**	F03FS09160	LP PM	66
320	4,4	3,2	50	60	TCG 15°	**LSB32004X**	F03FS10222	LP PM	66
320	4,4	3,2	50	60	DTCG 10°	**LSC32004**	F03FS06328	LP	69
320	4,4	3,2	60	72	TCG 15°	**LSB32008X**	F03FS10268	LP PM	66
320	4,4	3,2	65	60	TCG 15°	**LSB32003X**	F03FS09161	LP PM	66
320	4,4	3,2	65	72	TCG 15°	**LSB32001X**	F03FS07805	LP PM	66
320	4,4	3,2	65	60	DTCG 10°	**LSC32003**	F03FS06329	LP	69
320	4,4	3,2	75	72	TCG 15°	**LSB32002X**	F03FS09162	LP PM	66
320	4,4	3,2	80	60	TCG 15°	**LSB32006X**	F03FS10101	LP PM	66
320	4,4	3,2	80	72	TCG 15°	**LSB32007X**	F03FS10267	LP PM	66
320	5,5	3,5	30	20+2+2	FLAT 20°	**LM07 0900**	F03FS03157	WO	30
320	5,5	3,5	80	20+2+2	FLAT 20°	**LM07 1000**	F03FS03159	WO	30
320	4,3 - 5,5	3	45	48	ATB 12°	**LI25M43SE3**	F03FS02696	LP	79
320	4,3 - 5,5	3,2	45	48	ATB 12°	**LI25M43SA3**	F03FS02695	LP	79
330	3,2	2,2	20	96	ATB 5°	**LU2C 1800**	F03FS04934	WP	49
330	3,5	3	30	96	ATB 10°	**LU1I 0800**	F03FS04686	WO	42
330	3,5	3	30	84	TCG 10°	**LU5A 0800**	F03FS05190	AL	95
330	3,5	3	30	104	TCG 5°	**LU5B 1100**	F03FS05233	PM AL	96
330	3,5	3	30	80	TCG -6°	**LU5C 1000**	F03FS05268	AL	97
330	3,5	3	30	104	TCG -6°	**LU5D 1500**	F03FS05306	PM AL	98
330	3,5	3	32	84	TCG 10°	**LU5A 0900**	F03FS05192	AL	95
330	3,5	3	32	104	TCG 5°	**LU5B 1200**	F03FS05234	PM AL	96
330	3,5	3	32	80	TCG -6°	**LU5C 1100**	F03FS05269	AL	97
330	3,5	3	32	104	TCG -6°	**LU5D 1600**	F03FS05308	PM AL	98
340	5	3,5	45	48	ATB 15°	**LI27M EA3**	F03FS02746	LP	83
340	5	3,5	45	108	ATB 15°	**LI27M EB3**	F03FS02747	LP	83
340	4,7 - 5,9	3,5	45	72	ATB 12°	**LI25M47TE3**	F03FS02722	LP	79
350	2,5	1,8	50	40	ATB 20°	**LM08 2100**	F03FS03229	WO	31
350	2,6	2,2	30	72	DTCG 0°	**LU6A 1300**	F03FS05355	ST	102
350	2,6	2,2	30	90	DTCG 0°	**LU6A 1400**	F03FS05356	ST	102
350	2,9	2,5	30	60	HLTCG (Ch) 0°	**FR32X001H**	F03FS09861	SP	136
350	3	2,2	30	24+2+2	FLAT 20°	**LM02 1200**	F03FS02819	WO	25
350	3	2,2	30	24+2+2	ATB 20°	**LM03 1300**	F03FS02867	WO	26
350	3	2,2	30	28	FLAT 15°	**LP70M 002P**	F03FS03763	WO	35
350	3	2,2	30	32	FLAT 15°	**LU1E 0400**	F03FS04636	WO	38
350	3	2,2	30	32	ATB 22°	**LU1F 0300**	F03FS04644	WO	39
350	3	2,2	30	60	ATB 15°	**LU1H 1200**	F03FS04665	WO	41
350	3	2,2	30	84	ATB 15°	**LU1H 1300**	F03FS04667	WO	41
350	3	2,2	30	120	AXL 15°	**LU1L 0900**	F03FS04698	WO PM	43
350	3	2,2	30	108	ATB 5°	**LU2D 1100**	F03FS04963	WP	50
350	3	2,2	30	108	HLTCG 5°	**FR32A001M**	F03FS11534	AL	130

WO: Solid wood - **LP:** Chipboard and laminated panels - **WP:** Wood Based Panel - **PM:** Polymeric Materials - **AL:** Aluminium & Non-ferrous metals - **ST:** Steel - **CW:** Construct Wood - **FC:** Fibre Cement - **HPL:** High Pressure Laminate - **SP:** Sandwich Panel - **MM:** Multi Material

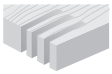
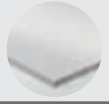
D mm	B mm	b mm	d mm	Z	Teeth	Freud Code	Art. No.	Material	Page
350	3	2,2	60	24+2+2	FLAT 20°	**LM02 1300**	F03FS02821	WO	25
350	3	2,2	60	24+2+2	ATB 20°	**LM03 1400**	F03FS02869	WO	26
350	3	2,2	70	24+2+2	FLAT 20°	**LM02 1400**	F03FS02823	WO	25
350	3	2,2	70	24+2+2	ATB 20°	**LM03 1500**	F03FS02871	WO	26
350	3	2,2	80	24+2+2	FLAT 20°	**LM02 1500**	F03FS02825	WO	25
350	3	2,2	80	24+2+2	ATB 20°	**LM03 1600**	F03FS02873	WO	26
350	3	2,2	90	24+2+2	ATB 20°	**LM03 1700**	F03FS05808	WO	26
350	3	2,5	30	100	TCG 5°	**LU5E 0900**	F03FS05339	AL	99
350	3	2,5	30	120	TCG 5°	**LU5E 1100**	F03FS05341	AL	99
350	3	2,5	32	100	TCG 5°	**LU5E 1000**	F03FS05340	AL	99
350	3	2,5	32	120	TCG 5°	**LU5E 1200**	F03FS05342	AL	99
350	3,2	2,2	30	60	RND 20°	**LU1G 0300**	F03FS04648	WO	40
350	3,2	2,2	30	72	CON 10°	**LU3B 0400**	F03FS05075	LP	71
350	3,2	2,2	30	72	CON -5°	**LU3C 0400**	F03FS05080	LP	72
350	3,5	2,2	30	24	ATB 20°	**FR32W001H**	F03FS09742	WO	117
350	3,5	2,5	30	28+2+4	ATB 20°	**LM04 1100**	F03FS02912	WO	27
350	3,5	2,5	30	30	ATB 20°	**LU1C 1000**	F03FS04603	WO	36
350	3,5	2,5	30	32	ATB 20°	**LU1D 1100**	F03FS04628	WO	37
350	3,5	2,5	30	54	ATB 15°	**LU2A 2800**	F03FS04849	WP	47
350	3,5	2,5	30	42	ATB 15°	**LU2A 2500**	F03FS04845	WP	47
350	3,5	2,5	30	72	ATB 10°	**LU2B 1400**	F03FS04893	WP	48
350	3,5	2,5	30	84	ATB 10°	**LU2B 1600**	F03FS04895	WP	48
350	3,5	2,5	30	108	ATB 5°	**LU2C 2000**	F03FS04936	WP	49
350	3,5	2,5	30	72	ATB 10°	**LU2E 0500**	F03FS04970	WP	51
350	3,5	2,5	30	108	ATB 5°	**LU3A 0400**	F03FS05066	LP	70
350	3,5	2,5	30	108	TCG 5°	**LU3D 0900**	F03FS05098	LP	73
350	3,5	2,5	30	72	TCG 10°	**LU3D 2000**	F03FS05108	LP	73
350	3,5	2,5	30	108	TCG 10°	**LU3D 1700**	F03FS05105	LP	73
350	3,5	2,5	30	84	TCG -6°	**LU3E 0400**	F03FS05115	LP	74
350	3,5	2,5	30	108	TCG -3°	**LU3F 0400**	F03FS05124	LP PM	75
350	3,5	2,5	30	30	ATB 20°	**LG1C 1000**	F03FS07561	WO	44
350	3,5	2,5	30	54	ATB 15°	**LG2A 2800**	F03FS07565	WP	53
350	3,5	2,5	30	72	ATB 10°	**LG2B 1400**	F03FS07568	WP	54
350	3,5	2,5	30	84	ATB 10°	**LG2B 1600**	F03FS07569	WP	54
350	3,5	2,5	30	108	ATB 5°	**LG2C 2000**	F03FS07572	WP	55
350	3,5	2,5	30	108	TCG 5°	**LG3D 0900**	F03FS07437	LP	76
350	3,5	2,5	30	72	TCG 10°	**LG3D 2000**	F03FS07573	LP	76
350	3,5	2,5	35	30	ATB 20°	**LU1C 1100**	F03FS04605	WO	36
350	3,5	2,5	35	54	ATB 15°	**LU2A 3000**	F03FS04851	WP	47
350	3,5	2,5	35	42	ATB 15°	**LU2A 2600**	F03FS04847	WP	47
350	3,5	2,5	35	84	ATB 10°	**LU2B 2400**	F03FS04905	WP	48
350	3,5	2,5	60	28+2+4	ATB 20°	**LM04 1200**	F03FS02914	WO	27
350	3,5	2,5	70	24+2+4	ATB 20°	**LM04 2400**	F03FS06243	WO	27
350	3,5	2,5	70	28+2+4	ATB 20°	**LM04 1300**	F03FS02916	WO	27
350	3,5	2,5	70	30	ATB 20°	**LU1C 1200**	F03FS04607	WO	36
350	3,5	2,5	70	32	ATB 20°	**LU1D 1000**	F03FS04626	WO	37
350	3,5	2,5	80	24+2+4	ATB 20°	**LM04 2500**	F03FS06244	WO	27
350	3,5	2,5	80	28+2+4	ATB 20°	**LM04 1400**	F03FS02919	WO	27
350	3,5	2,5	90	28+2+4	ATB 20°	**LM04 2200**	F03FS02935	WO	27
350	3,5	2,8	30	108	DTCG 5°	**LU4D 0300**	F03FS07296	PM	93
350	3,5	3	30	108	ATB 10°	**LU1I 0900**	F03FS04688	WO	42
350	3,5	3	30	84	TCG 10°	**LU5A 1000**	F03FS05193	AL	95
350	3,5	3	30	96	TCG 5°	**LU5B 1300**	F03FS05235	PM AL	96
350	3,5	3	30	108	TCG 5°	**LU5B 1600**	F03FS05239	PM AL	96
350	3,5	3	30	84	TCG -6°	**LU5C 1200**	F03FS05270	AL	97
350	3,5	3	30	108	TCG -6°	**LU5D 1700**	F03FS05309	PM AL	98
350	3,5	3	32	84	TCG 10°	**LU5A 1100**	F03FS05194	AL	95
350	3,5	3	32	96	TCG 5°	**LU5B 1400**	F03FS05236	PM AL	96
350	3,5	3	32	108	TCG 5°	**LU5B 1700**	F03FS05240	PM AL	96
350	3,5	3	32	84	TCG -6°	**LU5C 1300**	F03FS05271	AL	97
350	3,5	3	32	108	TCG -6°	**LU5D 1800**	F03FS05311	PM AL	98
350	3,5	3	40	84	TCG 10°	**LU5A 1200**	F03FS05196	AL	95
350	3,5	3	40	96	TCG 5°	**LU5B 1500**	F03FS05238	PM AL	96
350	3,5	3	40	108	TCG 5°	**LU5B 1800**	F03FS05242	PM AL	96
350	3,5	3	40	84	TCG -6°	**LU5C 1400**	F03FS05272	AL	97
350	3,5	3	40	108	TCG -6°	**LU5D 1900**	F03FS05313	PM AL	98
350	3,7	2,5	30	20+2+4	FLAT 25°	**LM05 1100**	F03FS02997	WO	28
350	3,7	2,5	30	24	BEV 15°	**LU1B 0400**	F03FS04583	WO	34
350	3,7	2,5	50	20+2+4	FLAT 25°	**LM05 1200**	F03FS02999	WO	28
350	3,7	2,5	60	20+2+4	FLAT 25°	**LM05 1300**	F03FS03001	WO	28
350	3,7	2,5	70	20+2+4	FLAT 25°	**LM05 1400**	F03FS03003	WO	28
350	3,7	2,5	80	20+2+4	FLAT 25°	**LM05 1500**	F03FS03005	WO	28
350	3,7	2,5	90	20+2+4	FLAT 25°	**LM05 4100**	F03FS03060	WO	28
350	3,9	2,5	50	18+2+2	FLAT 21°	**LM1035001**	F03FS07701	WO	32
350	4,2	3	30	20+2+4	FLAT 25°	**LM06 1100**	F03FS03125	WO	29
350	4,2	3	30	84	ATB 10°	**LT14MD DA3**	F03FS04386	LP	87
350	4,2	3	30	84	ATB 10°	**LT14MS DA3**	F03FS04397	LP	87
350	4,2	3	50	20+2+4	FLAT 25°	**LM06 1800**	F03FS03138	WO	29
350	4,2	3	60	20+2+4	FLAT 25°	**LM06 1200**	F03FS03127	WO	29
350	4,2	3	70	20+2+4	FLAT 25°	**LM06 1300**	F03FS03129	WO	29
350	4,2	3	80	20+2+4	FLAT 25°	**LM06 1400**	F03FS03131	WO	29
350	4,2	3,2	80	96	TCG 15°	**LSB35011X**	F03FS10225	LP PM	67
350	4,4	3	30	42	ATB -5°	**LU1A 0200**	F03FS04573	WO	33
350	4,4	3,2	30	54	TCG 15°	**LSB35001X**	F03FS10223	LP PM	67
350	4,4	3,2	30	72	TCG 15°	**LSB35003X**	F03FS07630	LP PM	67
350	4,4	3,2	30	72	DTCG 15°	**LSC35003**	F03FS06305	LP	69
350	4,4	3,2	50	72	TCG 15°	**LSB35006X**	F03FS07709	LP PM	67
350	4,4	3,2	50	72	DTCG 15°	**LSC35006**	F03FS06309	LP	69
350	4,4	3,2	60	54	TCG 15°	**LSB35002X**	F03FS10224	LP PM	67
350	4,4	3,2	60	72	TCG 15°	**LSB35004X**	F03FS07636	LP PM	67
350	4,4	3,2	60	72	DTCG 15°	**LSC35004**	F03FS06310	LP	69
350	4,4	3,2	65	72	TCG 15°	**LSB35013X**	F03FS09659	LP PM	67
350	4,4	3,2	75	72	TCG 15°	**LSB35008X**	F03FS07634	LP PM	67
350	4,4	3,2	80	72	TCG 15°	**LSB35005X**	F03FS07635	LP PM	67
350	4,4	3,2	80	72	DTCG 15°	**LSC35005**	F03FS06311	LP	69
350	5,5	3,5	30	24+2+4	FLAT 20°	**LM07 1100**	F03FS03161	WO	30
350	5,5	3,5	60	24+2+4	FLAT 20°	**LM07 1200**	F03FS03163	WO	30
350	5,5	3,5	70	24+2+4	FLAT 20°	**LM07 1300**	F03FS03165	WO	30
350	5,5	3,5	80	24+2+4	FLAT 20°	**LM07 1400**	F03FS03167	WO	30
355	2,6	2,2	25,4	72	DTCG 0°	**LU6A 1500**	F03FS05357	ST	102
355	2,6	2,2	25,4	90	DTCG 0°	**LU6A 1600**	F03FS05358	ST	102
355	2,6	2,2	30	80	HLTCG (Ch) 0°	**FR33X001H**	F03FS09862	SP	136
355	3	2,2	25,4	120	AXL 15°	**LU1L 1000**	F03FS04699	WO PM	43
355	3	2,2	25,4	108	ATB 15°	**FR33W001T**	F03FS10137	WO	120
355	3	2,2	30	60	ATB 15°	**FR33W001H**	F03FS09743	WO	117
355	4,4	3,2	30	72	TCG 15°	**LSB35504X**	F03FS07674	LP PM	67
355	4,4	3,2	30	72	DTCG 15°	**LSC35504**	F03FS06306	LP	69
355	4,4	3,2	65	72	TCG 15°	**LSB35508X**	F03FS08740	LP PM	67
355	4,4	3,2	65	72	DTCG 15°	**LSC35508BS**	F03FS07869	LP	69
355	4,4	3,2	75	54	TCG 15°	**LSB35502X**	F03FS10226	LP PM	67
355	4,4	3,2	75	72	TCG 15°	**LSB35505X**	F03FS07633	LP PM	67
355	4,4	3,2	75	72	TCG 15°	**LSB35507X**	F03FS07710	LP PM	67
355	4,4	3,2	75	72	DTCG 15°	**LSC35505**	F03FS06307	LP	69
355	4,4	3,2	80	54	TCG 15°	**LSB35503X**	F03FS09205	LP PM	67
355	4,4	3,2	80	72	TCG 15°	**LSB35506X**	F03FS09163	LP PM	67
360	4,4	3,2	30	72	TCG 15°	**LSB36003X**	F03FS09341	LP PM	67
360	4,4	3,2	65	60	TCG 15°	**LSB36001X**	F03FS10227	LP PM	67
360	4,4	3,2	65	72	TCG 15°	**LSB36002X**	F03FS07673	LP PM	67
360	4,4	3,2	65	72	DTCG 15°	**LSC36002**	F03FS06308	LP	69
370	3,5	3	30	90	TCG 10°	**LU5A 1300**	F03FS05197	AL	95
370	3,5	3	30	112	TCG 5°	**LU5B 1900**	F03FS07745	PM AL	96
370	3,5	3	30	90	TCG -6°	**LU5C 1500**	F03FS05273	AL	97
370	3,5	3	30	108	TCG -6°	**LU5D 2000**	F03FS05314	PM AL	98
370	3,5	3	50	90	TCG 10°	**LU5A 1400**	F03FS05198	AL	95
370	3,5	3	50	112	TCG 5°	**LU5B 2000**	F03FS05243	PM AL	96
370	3,5	3	50	90	TCG -6°	**LU5C 1600**	F03FS05274	AL	97
370	4,4	3,2	30	72	TCG 15°	**LSB37001X**	F03FS10228	LP PM	67
370	4,4	3,2	30	72	DTCG 15°	**LSC37001**	F03FS06312	LP	69
380	3,5	3	32	96	TCG 10°	**LU5A 1500**	F03FS05199	AL	95
380	3,5	3	32	112	TCG 5°	**LU5B 2100**	F03FS05244	PM AL	96
380	3,5	3	32	96	TCG -6°	**LU5C 1700**	F03FS05275	AL	97
380	3,5	3	32	108	TCG -6°	**LU5D 2200**	F03FS05315	PM AL	98
380	4	2,8	30	20+2+4	FLAT 25°	**LM05 1600**	F03FS03007	WO	28
380	4	2,8	70	20+2+4	FLAT 25°	**LM05 1700**	F03FS03009	WO	28

D mm	B mm	b mm	d mm	Z	Teeth	Freud Code	Art. No.	Material	Page
380	4	2,8	80	20+2+4	FLAT 25°	**LM05 1800**	F03FS03011	WO	28
380	4,4	3,2	30	72	TCG 15°	**LSB38011X**	F03FS10231	LP PM	67
380	4,4	3,2	50	60	TCG 15°	**LSB38007X**	F03FS10230	LP PM	67
380	4,4	3,2	50	72	TCG 15°	**LSB38008X**	F03FS09165	LP PM	67
380	4,4	3,2	50	72	DTCG 15°	**LSC38008**	F03FS06343	LP	69
380	4,4	3,2	60	60	TCG 15°	**LSB38001X**	F03FS07806	LP PM	67
380	4,4	3,2	60	72	TCG 15°	**LSB38002X**	F03FS07631	LP PM	67
380	4,4	3,2	60	84	TCG 15°	**LSB38015X**	F03FS08989	LP PM	67
380	4,4	3,2	60	72	DTCG 15°	**LSC38002**	F03FS06313	LP	69
380	4,4	3,2	65	72	TCG 15°	**LSB38014X**	F03FS09166	LP PM	67
380	4,4	3,2	75	72	TCG 15°	**LSB38012X**	F03FS07672	LP PM	67
380	4,4	3,2	80	48	TCG 15°	**LSB38009X**	F03FS09164	LP PM	67
380	4,4	3,2	80	72	TCG 15°	**LSB38010X**	F03FS07808	LP PM	67
380	4,4	3,2	80	96	TCG 15°	**LSB38013X**	F03FS07809	LP PM	67
380	4,4	3,2	80	72	DTCG 15°	**LSC38010**	F03FS06314	LP	69
380	4,8	3,5	60	60	TCG 15°	**LSB38003X**	F03FS10229	LP PM	67
380	4,8	3,5	60	72	TCG 15°	**LSB38004X**	F03FS07632	LP PM	67
380	4,8	3,5	60	84	TCG 15°	**LSB38005X**	F03FS07807	LP PM	67
380	4,8	3,5	60	72	DTCG 15°	**LSC38004**	F03FS06332	LP	69
390	4,4	3,2	80	72	TCG 15°	**LSB39001X**	F03FS09167	LP PM	67
400	3,5	3	30	96	TCG 10°	**LU5A 1600**	F03FS05200	AL	95
400	3,5	3	30	120	TCG 5°	**LU5B 2200**	F03FS05245	PM AL	96
400	3,5	3	30	96	TCG -6°	**LU5C 1800**	F03FS05276	AL	97
400	3,5	3	30	120	TCG -6°	**LU5D 2300**	F03FS05316	PM AL	98
400	3,5	3	30	96	PYR 7°	**LU5F40001**	F03FS07683	PM AL	100
400	3,5	3	30	120	PYR 7°	**LU5F40003**	F03FS07685	PM AL	100
400	3,5	3	32	96	TCG 10°	**LU5A 1700**	F03FS05202	AL	95
400	3,5	3	32	120	TCG 5°	**LU5B 2300**	F03FS05246	PM AL	96
400	3,5	3	32	96	TCG -6°	**LU5C 1900**	F03FS05277	AL	97
400	3,5	3	32	120	TCG -6°	**LU5D 2400**	F03FS05317	PM AL	98
400	3,5	3	32	96	PYR 7°	**LU5F40002**	F03FS07684	PM AL	100
400	3,5	3	32	120	PYR 7°	**LU5F40004**	F03FS07686	PM AL	100
400	3,5	3	40	96	TCG 10°	**LU5A 1800**	F03FS05205	AL	95
400	3,5	3	40	120	TCG 5°	**LU5B 2400**	F03FS05248	PM AL	96
400	3,5	3	40	96	TCG -6°	**LU5C 2000**	F03FS05278	AL	97
400	3,5	3	40	120	TCG -6°	**LU5D 2500**	F03FS05318	PM AL	98
400	3,5	3	50	96	TCG 10°	**LU5A 1900**	F03FS05206	AL	95
400	3,5	3	50	120	TCG 5°	**LU5B 2500**	F03FS05249	PM AL	96
400	3,5	3	50	96	TCG -6°	**LU5C 2100**	F03FS05279	AL	97
400	3,5	3	50	120	TCG -6°	**LU5D 2600**	F03FS05319	PM AL	98
400	3,5	3	75	120	TCG 5°	**LU5B 2275**	F03FS09967	PM AL	96
400	3,8	2,8	30	28	ATB 15°	**LP70M 008P**	F03FS03770	WO	35
400	3,8	2,8	30	120	ATB 5°	**LU2C 2100**	F03FS04938	WP	49
400	4	2,8	30	28+2+4	ATB 20°	**LM04 1500**	F03FS02921	WO	27
400	4	2,8	30	24+2+4	FLAT 25°	**LM05 1900**	F03FS03013	WO	28
400	4	2,8	30	28	BEV 15°	**LU1B 0500**	F03FS04585	WO	34
400	4	2,8	30	34	ATB 20°	**LU1C 1300**	F03FS04609	WO	36
400	4	2,8	30	60	ATB 15°	**LU2A 3300**	F03FS04856	WP	47
400	4	2,8	30	48	ATB 15°	**LU2A 3100**	F03FS04853	WP	47
400	4	2,8	30	96	ATB 10°	**LU2B 1900**	F03FS04897	WP	48
400	4	2,8	35	60	ATB 15°	**LU2A 3400**	F03FS04858	WP	47
400	4	2,8	50	24+2+4	FLAT 25°	**LM05 2000**	F03FS03015	WO	28
400	4	2,8	50	48	ATB 15°	**LU2A 3150**	F03FS09578	WP	47
400	4	2,8	70	28+2+4	ATB 20°	**LM04 1600**	F03FS02923	WO	27
400	4	2,8	70	24+2+4	FLAT 25°	**LM05 2100**	F03FS03017	WO	28
400	4	2,8	80	28+2+4	ATB 20°	**LM04 1700**	F03FS02926	WO	27
400	4	2,8	80	24+2+4	FLAT 25°	**LM05 2200**	F03FS03019	WO	28
400	4,4	3	30	48	ATB -5°	**LU1A 0300**	F03FS04574	WO	33
400	4,4	3	50	18+2+2	FLAT 21°	**LM1040001**	F03FS07702	WO	32
400	4,4	3,2	30	48	TCG 15°	**LSB40001X**	F03FS09168	LP PM	67
400	4,4	3,2	30	60	TCG 15°	**LSB40004X**	F03FS09169	LP PM	67
400	4,4	3,2	30	72	TCG 15°	**LSB40007X**	F03FS07725	LP PM	67
400	4,4	3,2	30	72	DTCG 15°	**LSC40007**	F03FS06315	LP	69
400	4,4	3,2	50,8	72	TCG 10°	**LSB40018X**	F03FS08957	LP PM	67
400	4,4	3,2	60	72	TCG 15°	**LSB40017X**	F03FS09272	LP PM	67
400	4,4	3,2	60	84	TCG 15°	**LSB40021X**	F03FS09255	LP PM	67
400	4,4	3,2	65	72	TCG 15°	**LSB40016X**	F03FS09172	LP PM	67
400	4,4	3,2	65	72	DTCG 15°	**LSC40016BS**	F03FS07870	LP	69
400	4,4	3,2	75	60	TCG 15°	**LSB40005X**	F03FS09170	LP PM	67
400	4,4	3,2	75	72	TCG 15°	**LSB40008X**	F03FS07726	LP PM	67
400	4,4	3,2	75	84	TCG 15°	**LSB40019X**	F03FS08990	LP PM	67
400	4,4	3,2	75	72	DTCG 15°	**LSC40008**	F03FS06317	LP	69
400	4,4	3,2	80	48	TCG 15°	**LSB40010X**	F03FS10233	LP PM	67
400	4,4	3,2	80	60	TCG 15°	**LSB40006X**	F03FS10232	LP PM	67
400	4,4	3,2	80	60	TCG 15°	**LSB40011X**	F03FS09171	LP PM	67
400	4,4	3,2	80	72	TCG 15°	**LSB40009X**	F03FS07810	LP PM	67
400	4,4	3,2	80	72	TCG 15°	**LSB40012X**	F03FS09173	LP PM	67
400	4,4	3,2	80	72	DTCG 15°	**LSC40009**	F03FS06319	LP	69
400	4,4	3,2	80	72	DTCG 15°	**LSC40012**	F03FS06320	LP	69
400	4,8	3,5	60	72	TCG 15°	**LSB40013X**	F03FS07711	LP PM	67
420	3,5	3	30	96	TCG 10°	**LU5A 2000**	F03FS05207	AL	95
420	3,5	3	30	120	TCG 5°	**LU5B 2600**	F03FS05250	PM AL	96
420	3,5	3	30	100	PYR 7°	**LU5F42001**	F03FS07687	PM AL	100
420	3,5	3	32	100	PYR 7°	**LU5F42002**	F03FS07688	PM AL	100
420	4	3,2	30	96	TCG -6°	**LU5C 2200**	F03FS05280	AL	97
420	4	3,2	30	120	TCG -6°	**LU5D 2700**	F03FS05320	PM AL	98
420	4	3,2	40	96	TCG -6°	**LU5C 2300**	F03FS05281	AL	97
420	4	3,2	40	120	TCG -6°	**LU5D 2800**	F03FS05321	PM AL	98
420	4,4	3,2	50	72	TCG 15°	**LSB42006X**	F03FS09174	LP PM	67
420	4,4	3,2	80	60	TCG 15°	**LSB42004X**	F03FS10235	LP PM	67
420	4,4	3,2	80	72	TCG 15°	**LSB42005X**	F03FS09175	LP PM	67
420	4,8	3,5	60	60	TCG 15°	**LSB42001X**	F03FS10234	LP PM	67
420	4,8	3,5	60	84	TCG 15°	**LSB42002X**	F03FS09176	LP PM	67
430	4,4	3,2	30	48	TCG 15°	**LSB43001X**	F03FS10236	LP PM	67
430	4,4	3,2	30	60	TCG 15°	**LSB43004X**	F03FS10238	LP PM	67
430	4,4	3,2	30	72	TCG 15°	**LSB43007X**	F03FS09177	LP PM	67
430	4,4	3,2	65	72	TCG 15°	**LSB43012X**	F03FS09178	LP PM	67
430	4,4	3,2	75	48	TCG 15°	**LSB43002X**	F03FS10237	LP PM	67
430	4,4	3,2	75	60	TCG 15°	**LSB43005X**	F03FS10239	LP PM	67
430	4,4	3,2	75	72	TCG 15°	**LSB43008X**	F03FS07908	LP PM	67
430	4,4	3,2	75	96	TCG 15°	**LSB43010X**	F03FS09179	LP PM	67
430	4,4	3,2	75	72	DTCG 15°	**LSC43008**	F03FS06316	LP	69
430	4,4	3,2	80	60	TCG 15°	**LSB43006X**	F03FS10240	LP PM	67
430	4,4	3,2	80	72	TCG 15°	**LSB43009X**	F03FS07909	LP PM	67
430	4,4	3,2	80	72	DTCG 15°	**LSC43009**	F03FS06321	LP	69
430	4,8	3,5	70	72	TCG 15°	**LSB43013X**	F03FS09180	LP PM	67
450	3,5	3	30	108	PYR 7°	**LU5F45001**	F03FS07689	PM AL	100
450	3,5	3	32	108	PYR 7°	**LU5F45002**	F03FS07690	PM AL	100
450	4	3	30	128	TCG 5°	**LU5B 2700**	F03FS05251	PM AL	96
450	4	3	32	128	TCG 5°	**LU5B 2800**	F03FS05252	PM AL	96
450	4	3,2	30	108	TCG 10°	**LU5A 2100**	F03FS05208	AL	95
450	4	3,2	30	108	TCG -6°	**LU5C 2400**	F03FS05282	AL	97
450	4	3,2	30	128	TCG -6°	**LU5D 2900**	F03FS05322	PM AL	98
450	4	3,2	32	108	TCG 10°	**LU5A 2200**	F03FS05210	AL	95
450	4	3,2	32	108	TCG -6°	**LU5C 2500**	F03FS05283	AL	97
450	4	3,2	40	108	TCG 10°	**LU5A 2300**	F03FS08047	AL	95
450	4	3,2	40	108	TCG -6°	**LU5C 2600**	F03FS05284	AL	97
450	4	3,2	50	108	TCG 10°	**LU5A 2400**	F03FS07420	AL	95
450	4	3,2	50	108	TCG -6°	**LU5C 2700**	F03FS05285	AL	97
450	4,2	3	30	32	BEV 15°	**LU1B 0600**	F03FS04586	WO	34
450	4,4	3	30	24+2+4	FLAT 25°	**LM05 2400**	F03FS03023	WO	28
450	4,4	3	30	54	ATB -5°	**LU1A 0400**	F03FS04575	WO	33
450	4,4	3	30	38	ATB 20°	**LU1C 1400**	F03FS04611	WO	36
450	4,4	3	30	66	ATB 15°	**LU2A 3600**	F03FS04862	WP	47
450	4,4	3	30	54	ATB 10°	**LU2A 3500**	F03FS04860	WP	47
450	4,4	3	30	96	ATB 10°	**LU2B 2000**	F03FS04899	WP	48
450	4,4	3	30	132	ATB 5°	**LU2C 2200**	F03FS04939	WP	49
450	4,4	3	50	24+2+4	FLAT 25°	**LM05 2500**	F03FS03025	WO	28

WO: Solid wood - **LP:** Chipboard and laminated panels - **WP:** Wood Based Panel - **PM:** Polymeric Materials - **AL:** Aluminium & Non-ferrous metals - **ST:** Steel - **CW:** Construct Wood - **FC:** Fibre Cement - **HPL:** High Pressure Laminate - **SP:** Sandwich Panel - **MM:** Multi Material

D mm	B mm	b mm	d mm	Z	Teeth	Freud Code	Art. No.	Material	Page
450	4,4	3	70	24+2+4	FLAT 25°	**LM05 2600**	F03FS03027	WO	28
450	4,4	3	80	24+2+4	FLAT 25°	**LM05 2700**	F03FS03029	WO	28
450	4,4	3,2	30	48	TCG 15°	**LSB45001X**	F03FS10241	LP PM	68
450	4,4	3,2	30	60	TCG 15°	**LSB45004X**	F03FS10243	LP PM	68
450	4,4	3,2	30	72	TCG 15°	**LSB45007X**	F03FS09181	LP PM	68
450	4,4	3,2	60	48	TCG 15°	**LSB45002X**	F03FS10242	LP PM	68
450	4,4	3,2	60	60	TCG 15°	**LSB45005X**	F03FS10244	LP PM	68
450	4,4	3,2	60	72	TCG 15°	**LSB45008X**	F03FS09182	LP PM	68
450	4,4	3,2	60	72	DTCG 15°	**LSC45008**	F03FS06318	LP	69
450	4,4	3,2	80	60	TCG 15°	**LSB45006X**	F03FS10245	LP PM	68
450	4,4	3,2	80	72	TCG 15°	**LSB45009X**	F03FS07811	LP PM	68
450	4,8	3	50	18+2+4	FLAT 21°	**LM1045001**	F03FS07703	WO	32
450	4,8	3,5	30	72	TCG 15°	**LSB45016X**	F03FS10246	LP PM	68
450	4,8	3,5	60	72	TCG 15°	**LSB45017X**	F03FS07391	LP PM	68
450	4,8	3,5	60	84	TCG 15°	**LSB45019X**	F03FS10247	LP PM	68
450	4,8	3,5	60	72	DTCG 15°	**LSC45017**	F03FS06323	LP	69
450	4,8	3,5	80	72	TCG 15°	**LSB45018X**	F03FS07812	LP PM	68
450	4,8	3,5	80	72	DTCG 15°	**LSC45018**	F03FS06324	LP	69
460	4,4	3,2	30	72	TCG 15°	**LSB46001X**	F03FS08922	LP PM	68
460	4,4	3,2	75	72	TCG 15°	**LSB46002X**	F03FS07914	LP PM	68
460	4,4	3,2	80	72	TCG 15°	**LSB46003X**	F03FS09950	LP PM	68
470	4,4	3,2	75	48	TCG 15°	**LSB47001X**	F03FS10248	LP PM	68
470	4,4	3,2	75	60	TCG 15°	**LSB47002X**	F03FS10249	LP PM	68
470	4,4	3,2	75	72	TCG 15°	**LSB47003X**	F03FS09183	LP PM	68
470	4,4	3,2	75	96	TCG 15°	**LSB47004X**	F03FS09184	LP PM	68
470	4,8	3,5	70	72	TCG 15°	**LSB47005X**	F03FS09185	LP PM	68
480	4,4	3,2	30	72	TCG 15°	**LSB48007X**	F03FS09914	LP PM	68
480	4,8	3,5	30	72	TCG 15°	**LSB48004X**	F03FS09187	LP PM	68
480	4,8	3,5	60	72	TCG 15°	**LSB48006X**	F03FS10269	LP PM	68
480	4,8	3,5	80	60	TCG 15°	**LSB48003X**	F03FS09186	LP PM	68
480	4,8	3,5	80	72	TCG 15°	**LSB48001X**	F03FS09188	LP PM	68
500	4	3,2	30	120	TCG 10°	**LU5A 2500**	F03FS05212	AL	95
500	4	3,2	30	140	TCG 5°	**LU5B 3100**	F03FS05254	PM AL	96
500	4	3,2	30	120	TCG -6°	**LU5C 2800**	F03FS06110	AL	97
500	4	3,2	32	120	TCG 10°	**LU5A 2600**	F03FS05214	AL	95
500	4	3,2	32	140	TCG 5°	**LU5B 3200**	F03FS05255	PM AL	96
500	4	3,2	32	120	TCG -6°	**LU5C 2900**	F03FS05286	AL	97
500	4	3,2	32	140	TCG -6°	**LU5D 3400**	F03FS05323	PM AL	98
500	4	3,2	50	120	TCG 10°	**LU5A 2700**	F03FS08244	AL	95
500	4	3,5	30	120	PYR 7°	**LU5F50001**	F03FS07691	PM AL	100
500	4	3,5	32	120	PYR 7°	**LU5F50002**	F03FS07692	PM AL	100
500	4,4	3,2	30	36	BEV 15°	**LU1B 0700**	F03FS04587	WO	34
500	4,4	3,2	30	36	ATB 15°	**LP70M 010P**	F03FS03772	WO	35
500	4,4	3,2	30	42	ATB 20°	**LU1C 1500**	F03FS04612	WO	36
500	4,4	3,2	30	72	ATB 15°	**LU2A 3800**	F03FS04865	WP	47
500	4,4	3,2	30	60	ATB 15°	**LU2A 3700**	F03FS04864	WP	47
500	4,4	3,2	30	108	ATB 10°	**LU2B 2100**	F03FS04901	WP	48
500	4,4	3,2	30	144	ATB 5°	**LU2C 2300**	F03FS04940	WP	49
500	4,4	3,2	30	60	TCG 15°	**LSB50003X**	F03FS10250	LP PM	68
500	4,4	3,2	30	72	TCG 15°	**LSB50005X**	F03FS10251	LP PM	68
500	4,4	3,2	35	144	ATB 5°	**LU2C 2335**	F03FS09975	WP	49
500	4,4	3,5	30	120	TCG 10°	**LU5A 3000**	F03FS07543	AL	95
500	4,8	3,2	30	60	ATB -5°	**LU1A 0500**	F03FS04576	WO	33
500	4,8	3,5	30	28+2+4	FLAT 25°	**LM05 2900**	F03FS03033	WO	28
500	4,8	3,5	30	144	AXL 10°	**LU1M50030**	F03FS09370	WO	44
500	4,8	3,5	50	28+2+4	FLAT 25°	**LM05 3000**	F03FS03036	WO	28
500	4,8	3,5	60	60	TCG 15°	**LSB50009X**	F03FS09189	LP PM	68
500	4,8	3,5	60	72	TCG 15°	**LSB50011X**	F03FS09191	LP PM	68
500	4,8	3,5	70	28+2+4	FLAT 25°	**LM05 3100**	F03FS03039	WO	28
500	4,8	3,5	75	60	TCG 15°	**LSB50010X**	F03FS09190	LP PM	68
500	4,8	3,5	80	28+2+4	FLAT 25°	**LM05 3200**	F03FS03041	WO	28
500	5,2	3,5	50	18+2+4	FLAT 21°	**LM1050001**	F03FS07704	WO	32
510	4,8	3,5	80	72	TCG 15°	**LSB51001X**	F03FS09984	LP PM	68
520	4,4	3,2	30	54	TCG 15°	**LSB52005X**	F03FS10253	LP PM	68
520	4,4	3,2	30	72	TCG 15°	**LSB52008X**	F03FS09602	LP PM	68
520	4,8	3,5	30	72	TCG 15°	**LSB52007X**	F03FS09319	LP PM	68
520	4,8	3,5	30	72	DTCG 18°	**LSC52007**	F03FS07879	LP	69
520	4,8	3,5	60	60	TCG 15°	**LSB52002X**	F03FS10252	LP PM	68
520	4,8	3,5	60	72	TCG 15°	**LSB52003X**	F03FS09192	LP PM	68
520	4,8	3,5	70	60	TCG 15°	**LSB52009X**	F03FS09958	LP PM	68
520	4,8	3,5	70	72	TCG 15°	**LSB52006X**	F03FS09193	LP PM	68
530	4	3,5	30	126	PYR 7°	**LU5F53001**	F03FS07693	PM AL	100
530	4	3,5	32	126	PYR 7°	**LU5F53002**	F03FS07694	PM AL	100
530	4,2	3,5	30	126	TCG 10°	**LU5A 2800**	F03FS06607	AL	95
530	4,8	3,5	75	72	TCG 15°	**LSB53004X**	F03FS09651	LP PM	68
530	5,2	3,5	30	60	TCG 15°	**LSB53001X**	F03FS09194	LP PM	68
530	5,2	3,5	100	60	TCG 15°	**LSB53003X**	F03FS09195	LP PM	68
530	5,8	4	60	60	TCG 15°	**LSB53002X**	F03FS10254	LP PM	68
540	4,8	3,5	60	60	TCG 15°	**LSB54002X**	F03FS10255	LP PM	68
540	4,8	3,5	60	72	TCG 15°	**LSB54003X**	F03FS10256	LP PM	68
550	4	3,5	30	132	PYR 7°	**LU5F55001**	F03FS07695	PM AL	100
550	4	3,5	32	132	PYR 7°	**LU5F55002**	F03FS07696	PM AL	100
550	4,2	3,5	30	132	TCG 10°	**LU5A 2900**	F03FS06608	AL	95
550	4,2	3,5	30	148	TCG 5°	**LU5B 3500**	F03FS05257	PM AL	96
550	4,2	3,5	32	148	TCG 5°	**LU5B 3800**	F03FS05260	PM AL	96
550	4,4	3,5	30	48	ATB 20°	**LU1C 1600**	F03FS04613	WO	36
550	4,8	3,2	30	72	ATB -5°	**LU1A 0600**	F03FS04577	WO	33
550	4,8	3,5	30	28+2+4	FLAT 25°	**LM05 3400**	F03FS03045	WO	28
550	4,8	3,5	30	44	BEV 15°	**LU1B 0800**	F03FS04588	WO	34
550	4,8	3,5	30	84	ATB 15°	**LU2A 3900**	F03FS04867	WP	47
550	4,8	3,5	30	120	ATB 10°	**LU2B 2200**	F03FS04903	WP	48
550	4,8	3,5	30	156	ATB 5°	**LU2C 2400**	F03FS04942	WP	49
550	4,8	3,5	50	28+2+4	FLAT 25°	**LM05 3500**	F03FS03047	WO	28
550	4,8	3,5	70	28+2+4	FLAT 25°	**LM05 3600**	F03FS03050	WO	28
550	4,8	3,5	80	28+2+4	FLAT 25°	**LM05 3700**	F03FS03052	WO	28
550	5	3,5	40	72	TCG 15°	**LSB55007X**	F03FS09216	LP PM	68
550	5,2	3,5	40	72	TCG 15°	**LSB55009X**	F03FS09915	LP PM	68
550	5,2	3,5	60	60	TCG 15°	**LSB55002X**	F03FS09196	LP PM	68
550	5,2	3,5	75	60	TCG 15°	**LSB55010X**	F03FS10030	LP PM	68
550	5,2	3,5	80	48	TCG 15°	**LSB55005X**	F03FS10257	LP PM	68
550	5,2	3,5	80	60	TCG 15°	**LSB55006X**	F03FS09197	LP PM	68
550	5,2	3,5	90	60	TCG 15°	**LSB55008X**	F03FS09970	LP PM	68
560	5,5	3,5	50	18+2+4	FLAT 21°	**LM1056001**	F03FS07705	WO	32
565	5	3,5	100	72	TCG 15°	**LSB56504X**	F03FS09215	LP PM	68
565	5,2	3,5	100	60	TCG 15°	**LSB56502X**	F03FS09198	LP PM	68
570	4,8	3,5	60	60	TCG 15°	**LSB57001X**	F03FS09199	LP PM	68
600	4,7	4	30	144	PYR 7°	**LU5F60001**	F03FS07697	PM AL	100
600	4,7	4	30	156	PYR 7°	**LU5F60003**	F03FS07699	PM AL	100
600	4,7	4	32	144	PYR 7°	**LU5F60002**	F03FS07698	PM AL	100
600	4,7	4	32	156	PYR 7°	**LU5F60004**	F03FS07700	PM AL	100
600	4,8	3,8	30	156	TCG 5°	**LU5B 3600**	F03FS05258	PM AL	96
600	5	3,5	30	72	ATB -5°	**LU1A 0700**	F03FS04578	WO	33
600	5,2	3,5	30	32+2+4	FLAT 25°	**LM05 4200**	F03FS05860	WO	28
600	5,2	3,5	35	32+2+4	FLAT 25°	**LM05 4235**	F03FS09976	WO	28
600	5,2	3,5	80	32+2+4	FLAT 25°	**LM05 3900**	F03FS03056	WO	28
600	5,2	4	30	48	BEV 15°	**LU1B 0900**	F03FS04589	WO	34
600	5,2	4	30	48	ATB 15°	**LP70M 012P**	F03FS03774	WO	35
600	5,4	4	30	96	ATB 15°	**LU2A 4000**	F03FS04868	WP	47
600	5,4	4	30	132	ATB 10°	**LU2B 2300**	F03FS04904	WP	48
600	5,4	4	30	168	ATB 5°	**LU2C 2500**	F03FS04943	WP	49
600	5,8	4	60	60	TCG 15°	**LSB60001X**	F03FS09200	LP PM	68
600	5,8	4	60	72	TCG 15°	**LSB60002X**	F03FS09201	LP PM	68
600	5,8	4	70	60	TCG 15°	**LSB60004X**	F03FS10258	LP PM	68
600	5,8	4	75	60	TCG 15°	**LSB60006X**	F03FS10259	LP PM	68
650	5,6	4,2	30	54	BEV 15°	**LU1B 1000**	F03FS08324	WO	34
670	6,2	4,2	40	60	TCG 18°	**LSB67003X**	F03FS09202	LP PM	68
670	6,2	4,2	40	72	TCG 18°	**LSB67004X**	F03FS10260	LP PM	68
680	6,2	4,2	40	60	TCG 18°	**LSB68001X**	F03FS09203	LP PM	68
700	5,6	4,2	30	60	BEV 15°	**LU1B 1100**	F03FS05892	WO	34
720	6,4	4,4	40	60	TCG 18°	**LSB72001X**	F03FS09204	LP PM	68
735	6	4,4	30	72	ATB 15°	**LU2A 4200**	F03FS05908	WP	47
760	6,2	4,5	30	72	ATB 15°	**LU2A 4300**	F03FS05903	WP	47

Circular saw blades for stationary machines

SUITABLE FOR		PERFORMANCE		
		Ultimate	High	Good
Solid wood	 Multirip saw blades for ripping	LM01 - LM10	LM02 - LM03 - LM04 - LM05 - LM06 - LM07 - LM08	
	 Ripping	LU1F - LU1G	LU1C - LU1D - LU1E - LU2A - LU2B - LG1C	
	 Crosscutting	LU2A - LU2B - LU2C- LU2D - LU2F - LU1M	LU2E - LG2C	LU1A - LU1E
	 Ripping and crosscutting		LG2A - LG2B - LU1H - LU34M	LU1B
Laminated	 Saw blades for cutting laminates	LSB X LU3A - LU3B - LU3C - LU3D - LU3E - LU3F	LG3D - LU34M	
	 Scoring saw blades for laminates	LI13MD - LI13MS - LI14MD - LI14MS - LI16M - DLI16M - LI17M - LI20M - LI22MD - LI22MS - LI25M - DLI25M - LI27M		
Wood composites		LSB X LU2C - LU2D - LU2E - LU2F - LU3A - LU3B - LU3C - LU3D - LU3F	LU2A - LU2B - LU3E - LG2A - LG2B - LG2C - LG3D - LU34M	LU1E-LU1H
Veneered		LU3A - LU3B - LU3C - LU3D - LU3E - LU3F	LG3D - LU34M	
Picture frames		LU1I - LU1L		
Non-ferrous metals		LU5F LU5A - LU5B - LU5C - LU5D - LU5E		
Ferrous metals		LU6A		
Plexiglas		LU4A - LU4B		
Plastic materials		LU5F LU4A - LU4B - LU5D - LU5B	LU2C - LU2D - LU2F - LG2C - LU3F	
PVC		LU5F	LU5B - LU5D	
Solid surfaces		LU4D		

Solid Wood



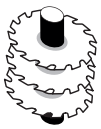
LM01

Thin kerf multiripping saw blades with rakers





Multiripping Machines



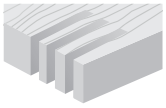
Moulders



Softwood



Hardwood

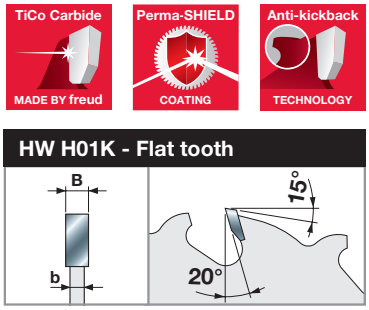


Multiripping

●●● Ultimate ●● High ● Good

D	B	b	d	Z	NL	Freud Code	Art. No.
mm	mm	mm	mm				
180	2,2	1,6	40	16+2	2CH 12x5	**LM01 0100**	F03FS02751
200	2,2	1,6	40	16+2	2CH 12x5	**LM01 0200**	F03FS02753
200	2,2	1,6	50	16+2	2CH 21x5	**LM01 0250**	F03FS09968
200	2,2	1,6	60	16+2	2CH 21x5	**LM01 0300**	F03FS02755
200	2,2	1,6	70	16+2	2CH 21x5	**LM01 0400**	F03FS02757
225	2,2	1,6	70	16+2	4CH 21x5	**LM01 0500**	F03FS02759
250	2,2	1,6	30	20+2	2CH 10x4 + FT02	**LM01 0600**	F03FS02763
250	2,2	1,6	60	20+2	4CH 21x5	**LM01 0700**	F03FS02765
250	2,2	1,6	70	20+2	4CH 21x5	**LM01 0800**	F03FS02767
250	2,2	1,6	80	20+2	2CH 13x5 + 2CH 21x5	**LM01 0900**	F03FS02769
250	2,2	1,6	50	24+2	4CH 21x5	**LM01 1400**	F03FS02780
250	2,2	1,6	60	24+2	4CH 21x5	**LM01 1500**	F03FS02781
250	2,2	1,6	70	24+2	4CH 21x5	**LM01 1600**	F03FS07200
300	2,5	1,8	30	24+2	2CH 10x4 + FT02	**LM01 1000**	F03FS02772
300	2,5	1,8	60	24+2	4CH 21x5	**LM01 1100**	F03FS02774
300	2,5	1,8	70	24+2	4CH 21x5	**LM01 1200**	F03FS02776
300	2,5	1,8	80	24+2	2CH 13x5 + 2CH 21x5	**LM01 1300**	F03FS02778

FT02 : 2/9/46,4 + 2/10/60



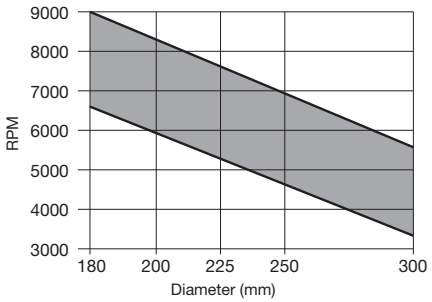
HW H01K - Flat tooth

Machines:
Multiripping machines and moulders.

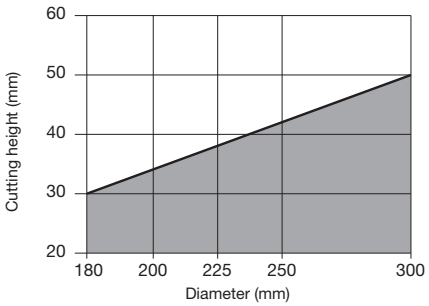
Materials:
Softwood and hardwood, both dried at max 10-12% humidity rate.

Applications:
Multiripping and moulding.

Technical information:
Ripping saw blades where the thin kerf minimises material wastes.
Not suitable for twisted timber.



Minimum and maximum RPM based on the blade diameter.

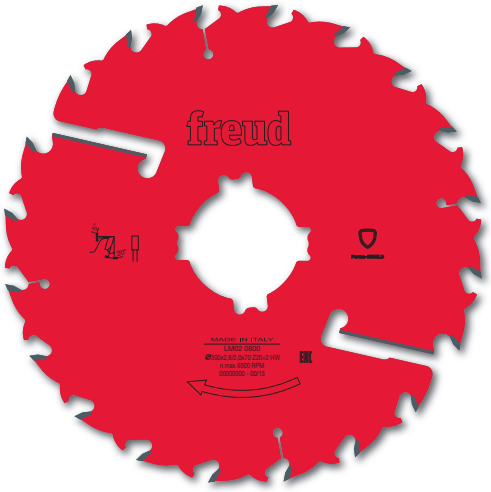


Maximum depth of rip and crosscut based on the blade diameter.

● Solid wood

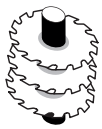
LM02

Reduced kerf multiripping saw blades with rakers





Multiripping Machines



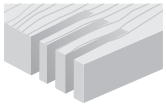
Moulders



Softwood



Hardwood



Multiripping

●●

●●● Ultimate ●● High ● Good

D mm	B mm	b mm	d mm	Z	NL	Freud Code	Art. No.
250	2,8	2,0	30	16+2	2CH 10x4 + FT02	**LM02 0100**	F03FS02797
250	2,8	2,0	60	16+2	4CH 21x5	**LM02 0200**	F03FS02799
250	2,8	2,0	70	16+2	4CH 21x5	**LM02 0300**	F03FS02801
250	2,8	2,0	80	16+2	2CH 13x5 + 2CH 21x5	**LM02 0400**	F03FS02803
280	2,8	2,0	80	18+2	2CH 13x5 + 2CH 21x5	**LM02 0500**	F03FS02805
300	2,8	2,0	30	20+2	2CH 10x4 + FT02	**LM02 0600**	F03FS02807
300	2,8	2,0	60	20+2	4CH 21x5	**LM02 0700**	F03FS02809
300	2,8	2,0	70	20+2	4CH 21x5	**LM02 0800**	F03FS02811
300	2,8	2,0	80	20+2	2CH 13x5 + 2CH 21x5	**LM02 0900**	F03FS02813
320	3,0	2,2	30	20+2+2	2CH 10x4 + FT02	**LM02 1000**	F03FS02815
320	3,0	2,2	80	20+2+2	2CH 13x5 + 2CH 21x5	**LM02 1100**	F03FS02817
350	3,0	2,2	30	24+2+2	2CH 10x4 + FT02	**LM02 1200**	F03FS02819
350	3,0	2,2	60	24+2+2	4CH 21x5	**LM02 1300**	F03FS02821
350	3,0	2,2	70	24+2+2	4CH 21x5	**LM02 1400**	F03FS02823
350	3,0	2,2	80	24+2+2	2CH 13x5 + 2CH 21x5	**LM02 1500**	F03FS02825

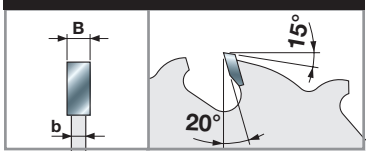
FT02 : 2/9/46,4 + 2/10/60

TiCo Carbide MADE BY freud

Perma-SHIELD COATING

Anti-kickback TECHNOLOGY

HW H01K - Flat tooth

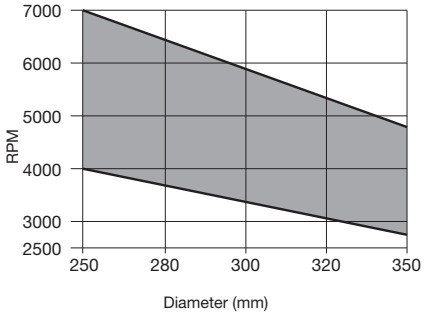


Machines:
Multiripping machines and moulders.

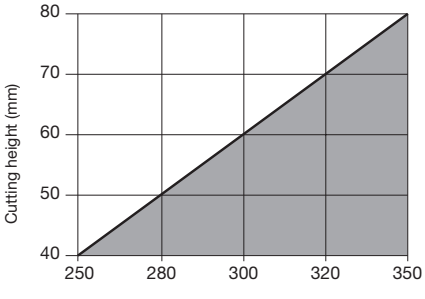
Materials:
Softwood and hardwood, both dried at max 15% humidity rate.

Applications:
Multiripping and moulding.

Technical information:
Ripping saw blades where the reduced kerf minimises material wastes.
Not suitable for twisted timber.



Minimum and maximum RPM based on the blade diameter.

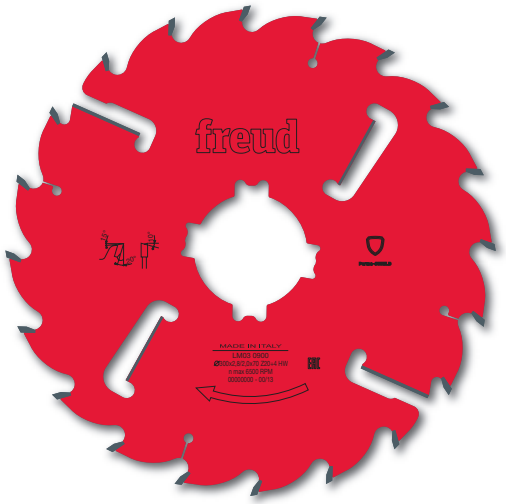


Maximum depth of rip and crosscut based on the blade diameter.

● Solid wood

LM03

Reduced kerf multiripping saw blades with rakers





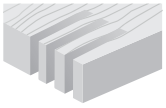
Multiripping Machines



Softwood



Hardwood



Multiripping

●●

●●● Ultimate ●● High ● Good

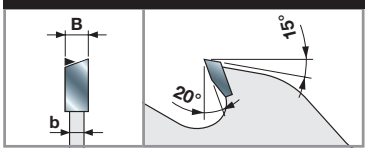
D mm	B mm	b mm	d mm	Z	NL	Freud Code	Art. No.
225	2,5	1,8	70	16+2+2	4CH 21x5	**LM03 0100**	F03FS02843
250	2,8	2,0	30	16+2+2	2CH 10x4 + FT02	**LM03 0200**	F03FS02845
250	2,8	2,0	60	16+2+2	4CH 21x5	**LM03 0300**	F03FS02847
250	2,8	2,0	70	16+2+2	4CH 21x5	**LM03 0400**	F03FS02849
250	2,8	2,0	80	16+2+2	2CH 13x5 + 2CH 21x5	**LM03 0500**	F03FS02851
280	2,8	2,0	80	18+2+2	2CH 13x5 + 2CH 21x5	**LM03 0600**	F03FS02853
300	2,8	2,0	30	20+2+2	2CH 10x4 + FT02	**LM03 0700**	F03FS02855
300	2,8	2,0	60	20+2+2	4CH 21x5	**LM03 0800**	F03FS02857
300	2,8	2,0	70	20+2+2	4CH 21x5	**LM03 0900**	F03FS02859
300	2,8	2,0	80	20+2+2	2CH 13x5 + 2CH 21x5	**LM03 1000**	F03FS02861
320	3,0	2,2	30	20+2+2	2CH 10x4 + FT02	**LM03 1100**	F03FS02863
320	3,0	2,2	80	20+2+2	2CH 13x5 + 2CH 21x5	**LM03 1200**	F03FS02865
350	3,0	2,2	30	24+2+2	2CH 10x4	**LM03 1300**	F03FS02867
350	3,0	2,2	60	24+2+2	4CH 21x5	**LM03 1400**	F03FS02869
350	3,0	2,2	70	24+2+2	4CH 21x5	**LM03 1500**	F03FS02871
350	3,0	2,2	80	24+2+2	2CH 13x5 + 2CH 21x5	**LM03 1600**	F03FS02873
350	3,0	2,2	90	24+2+2	4CH 20x7	**LM03 1700**	F03FS05808

FT02 : 2/9/46,4 + 2/10/60

TiCo Carbide MADE BY freud

Perma-SHIELD COATING

HW K10S - ATB 10° tooth

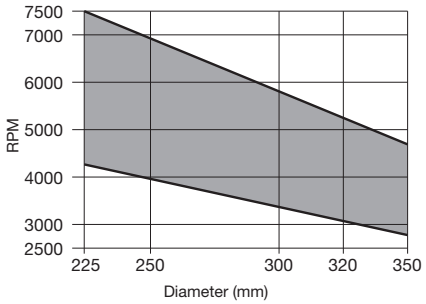


Machines:
Multiripping machines.

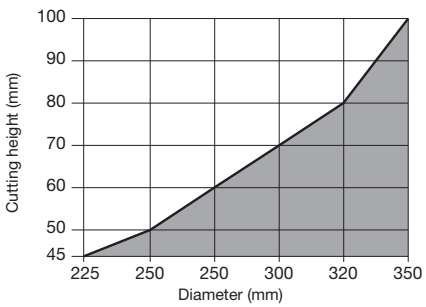
Materials:
Softwood and hardwood, both dried at max 15% humidity rate.

Applications:
Multiripping.

Technical information:
Ripping saw blades where the reduced kerf minimises material wastes.
Not suitable for cutting poplar.



Minimum and maximum RPM based on the blade diameter.

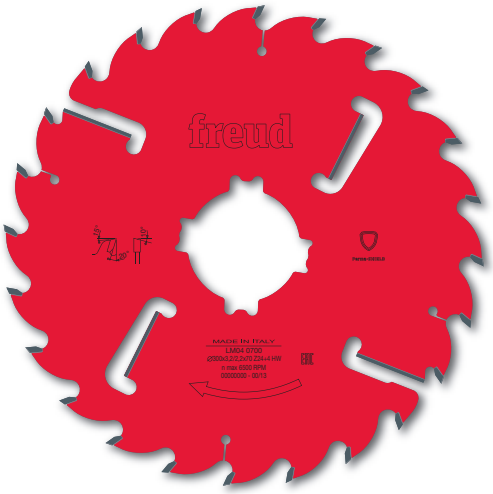


Maximum depth of rip and crosscut based on the blade diameter.

● Solid wood

LM04

Multiripping saw blades with rakers





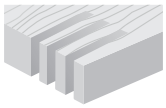
Multiripping Machines



Softwood



Hardwood



Multiripping

●●

●●● Ultimate ●● High ● Good

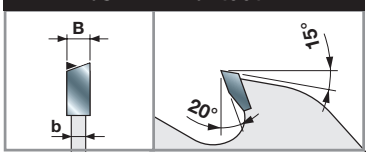
D mm	B mm	b mm	d mm	Z	NL	Freud Code	Art. No.
250	3,2	2,2	30	20+2+2	2CH 10x4 + FT02	**LM04 0100**	F03FS02891
250	3,2	2,2	60	20+2+2	4CH 21x5	**LM04 0200**	F03FS02893
250	3,2	2,2	70	20+2+2	4CH 21x5	**LM04 0300**	F03FS02895
250	3,2	2,2	80	20+2+2	2CH 13x5 + 2CH 21x5	**LM04 0400**	F03FS02897
300	3,2	2,2	30	24+2+2	2CH 10x4 + FT02	**LM04 0500**	F03FS02899
300	3,2	2,2	60	24+2+2	4CH 21x5	**LM04 0600**	F03FS02901
300	3,2	2,2	70	24+2+2	4CH 21x5	**LM04 0700**	F03FS02903
300	3,2	2,2	80	24+2+2	2CH 13x5 + 2CH 21x5	**LM04 0800**	F03FS02906
320	3,2	2,2	30	24+2+2	2CH 10x4 + FT02	**LM04 0900**	F03FS02908
320	3,2	2,2	80	24+2+2	2CH 13x5 + 2CH 21x5	**LM04 1000**	F03FS02910
350	3,5	2,5	70	24+2+4	4CH 21x5	**LM04 2400**	F03FS06243
350	3,5	2,5	80	24+2+4	2CH 13x5 + 2CH 21x5	**LM04 2500**	F03FS06244
350	3,5	2,5	30	28+2+4	2CH 10x4 + FT02	**LM04 1100**	F03FS02912
350	3,5	2,5	60	28+2+4	4CH 21x5	**LM04 1200**	F03FS02914
350	3,5	2,5	70	28+2+4	4CH 21x5	**LM04 1300**	F03FS02916
350	3,5	2,5	80	28+2+4	2CH 13x5 + 2CH 21x5	**LM04 1400**	F03FS02919
350	3,5	2,5	90	28+2+4	4CH 21x5	**LM04 2200**	F03FS02935
400	4,0	2,8	30	28+2+4	2CH 10X4 + FT02	**LM04 1500**	F03FS02921
400	4,0	2,8	70	28+2+4	4CH 21x5	**LM04 1600**	F03FS02923
400	4,0	2,8	80	28+2+4	2CH 13x5 + 2CH 21x5	**LM04 1700**	F03FS02926

FT02 : 2/9/46,4 + 2/10/60

TiCo Carbide
MADE BY freud

Perma-SHIELD
COATING

HW K10S - ATB 10° tooth

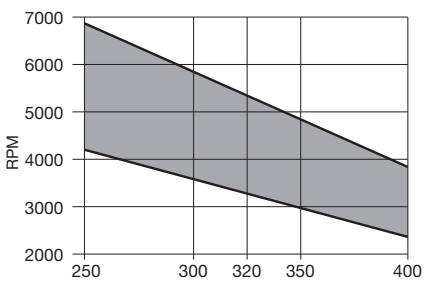


Machines:
Multiripping machines.

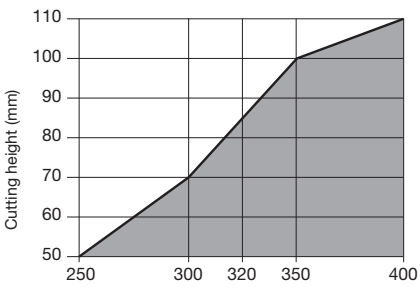
Materials:
Softwood and hardwood, both dried at max 15% humidity rate.

Applications:
Multiripping.

Technical information:
Saw blades suitable for ripping.



Minimum and maximum RPM based on the blade diameter.



Maximum depth of rip and crosscut based on the blade diameter.

● Solid wood

LM05

Multiripping saw blades with rakers





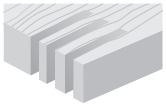
Multiripping Machines



Softwood



Hardwood



Multiripping

●●

●●● Ultimate ●● High ● Good

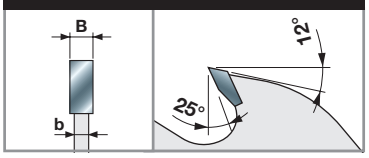
D mm	B mm	b mm	d mm	Z	NL	Freud Code	Art. No.
250	3,4	2,2	30	16+2+2	2CH 10x4 + FT02	**LM05 0100**	F03FS02973
250	3,4	2,2	60	16+2+2	4CH 21x5	**LM05 0200**	F03FS02975
250	3,4	2,2	70	16+2+2	4CH 21x5	**LM05 0300**	F03FS02977
250	3,4	2,2	80	16+2+2	2CH 13x5 + 2CH 21x5	**LM05 0400**	F03FS02979
300	3,4	2,2	30	20+2+2	2CH 10x4 + FT02	**LM05 0500**	F03FS02981
300	3,4	2,2	60	20+2+2	4CH 21x5	**LM05 0600**	F03FS02983
300	3,4	2,2	70	20+2+2	4CH 21x5	**LM05 0700**	F03FS02985
300	3,4	2,2	80	20+2+2	2CH 13x5 + 2CH 21x5	**LM05 0800**	F03FS02990
320	3,4	2,2	30	20+2+2	2CH 10x4 + FT02	**LM05 0900**	F03FS02993
320	3,4	2,2	80	20+2+2	2CH 13x5 + 2CH 21x5	**LM05 1000**	F03FS02995
350	3,7	2,5	30	20+2+4	2CH 10x4 + FT02	**LM05 1100**	F03FS02997
350	3,7	2,5	50	20+2+4	2CH 10x4	**LM05 1200**	F03FS02999
350	3,7	2,5	60	20+2+4	4CH 21x5	**LM05 1300**	F03FS03001
350	3,7	2,5	70	20+2+4	4CH 21x5	**LM05 1400**	F03FS03003
350	3,7	2,5	80	20+2+4	2CH 13x5 + 2CH 21x5	**LM05 1500**	F03FS03005
350	3,7	2,5	90	20+2+4	4CH 21x5	**LM05 4100**	F03FS03060
380	4,0	2,8	30	20+2+4	2CH 10x4 + FT02	**LM05 1600**	F03FS03007
380	4,0	2,8	70	20+2+4	4CH 21x5	**LM05 1700**	F03FS03009
380	4,0	2,8	80	20+2+4	2CH 13x5 + 2CH 21x5	**LM05 1800**	F03FS03011
400	4,0	2,8	30	24+2+4	2CH 10x4 + FT02	**LM05 1900**	F03FS03013
400	4,0	2,8	50	24+2+4	2CH 10x4	**LM05 2000**	F03FS03015
400	4,0	2,8	70	24+2+4	4CH 21x5	**LM05 2100**	F03FS03017
400	4,0	2,8	80	24+2+4	2CH 13x5 + 2CH 21x5	**LM05 2200**	F03FS03019
450	4,4	3,0	30	24+2+4	2CH 10x4 + FT02	**LM05 2400**	F03FS03023
450	4,4	3,0	50	24+2+4	2 CH 10X4	**LM05 2500**	F03FS03025
450	4,4	3,0	70	24+2+4	4CH 21x5	**LM05 2600**	F03FS03027
450	4,4	3,0	80	24+2+4	2CH 13x5 + 2CH 21x5	**LM05 2700**	F03FS03029
500	4,8	3,5	30	28+2+4	FT02+2CH 10x4	**LM05 2900**	F03FS03033
500	4,8	3,5	50	28+2+4	2CH 10x4	**LM05 3000**	F03FS03036
500	4,8	3,5	70	28+2+4	4CH 21x5	**LM05 3100**	F03FS03039
500	4,8	3,5	80	28+2+4	2CH 13x5 + 2CH 21x5	**LM05 3200**	F03FS03041
550	4,8	3,5	30	28+2+4	2CH 10x4 + FT02	**LM05 3400**	F03FS03045
550	4,8	3,5	50	28+2+4	2CH 10x4	**LM05 3500**	F03FS03047
550	4,8	3,5	70	28+2+4	4CH 21x5	**LM05 3600**	F03FS03050
550	4,8	3,5	80	28+2+4	2CH 13x5 + 2CH 21x5	**LM05 3700**	F03FS03052
600	5,2	3,5	30	32+2+4	2CH 10x4	**LM05 4200**	F03FS05860
600	5,2	3,5	35	32+2+4	2CH 21x5	**LM05 4235**	F03FS09976
600	5,2	3,5	80	32+2+4	4CH 21x5	**LM05 3900**	F03FS03056

FT02 : 2/9/46,4 + 2/10/60

TiCo Carbide MADE BY freud

Perma-SHIELD COATING

HW K10S - Flat tooth

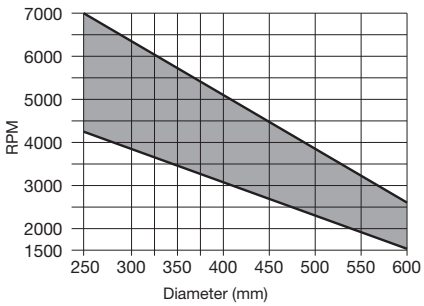


Machines:
Multiripping machines.

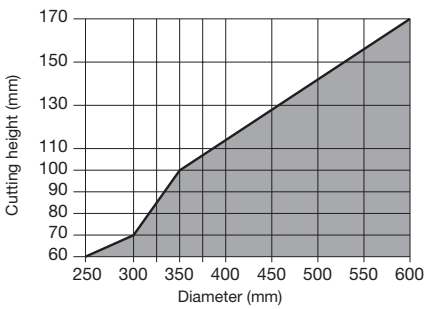
Materials:
Softwood and hardwood and long fibre wood.

Applications:
Multiripping.

Technical information:
Saw blades for ripping extra thick timber. Most suitable for cutting wood with humidity rate over 10%.



Minimum and maximum RPM based on the blade diameter.

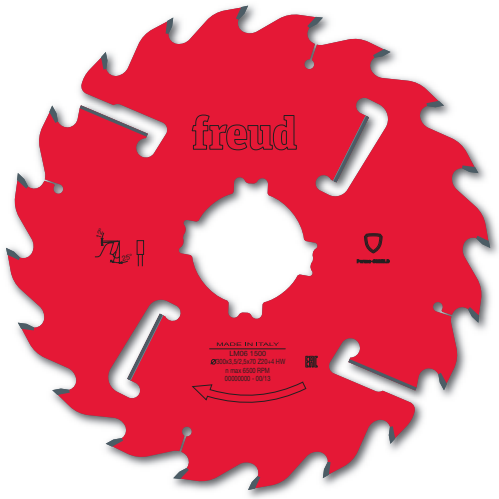


Maximum depth of rip and crosscut based on the blade diameter.

● Solid wood

LM06

Increased kerf multiripping saw blades with rakers





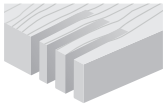
Multiripping Machines



Softwood



Hardwood



Multiripping

●●

●●● Ultimate ●● High ● Good

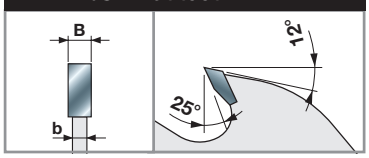
D mm	B mm	b mm	d mm	Z	NL	Freud Code	Art. No.
250	4,2	3,0	30	16+2+2	2CH 10x4 + FT02	**LM06 0100**	F03FS03104
250	4,2	3,0	60	16+2+2	4CH 21x5	**LM06 0200**	F03FS03106
250	4,2	3,0	70	16+2+2	4CH 21x5	**LM06 0300**	F03FS03108
250	4,2	3,0	80	16+2+2	2CH 21x5 + 2CH13x5	**LM06 0400**	F03FS03110
300	3,5	2,5	70	20+2+2	4CH 21x5	**LM06 1500**	F03FS03133
300	3,5	2,5	80	20+2+2	2CH 13x5 + 2CH 21x5	**LM06 1600**	F03FS03135
300	4,2	3,0	30	20+2+2	2CH 10x4 + FT02	**LM06 0500**	F03FS03113
300	4,2	3,0	60	20+2+2	4CH 21x5	**LM06 0600**	F03FS03115
300	4,2	3,0	70	20+2+2	4CH 21x5	**LM06 0700**	F03FS03117
300	4,2	3,0	80	20+2+2	2CH 13x5 + 2CH 21x5	**LM06 0800**	F03FS03119
320	4,2	3,0	30	20+2+2	2CH 10x4 + FT02	**LM06 0900**	F03FS03121
320	4,2	3,0	70	20+2+2	4CH 21x5	**LM06 1900**	F03FS03140
320	4,2	3,0	80	20+2+2	2CH 13x5 + 2CH 21x5	**LM06 1000**	F03FS03123
350	4,2	3,0	30	20+2+4	2CH 10x4 + FT02	**LM06 1100**	F03FS03125
350	4,2	3,0	50	20+2+4	2CH 10x4	**LM06 1800**	F03FS03138
350	4,2	3,0	60	20+2+4	4CH 21x5	**LM06 1200**	F03FS03127
350	4,2	3,0	70	20+2+4	4CH 21x5	**LM06 1300**	F03FS03129
350	4,2	3,0	80	20+2+4	2CH 13x5 + 2CH 21x5	**LM06 1400**	F03FS03131

FT02 : 2/9/46,4 + 2/10/60

TiCo Carbide MADE BY freud

Perma-SHIELD COATING

HW K10S - Flat tooth

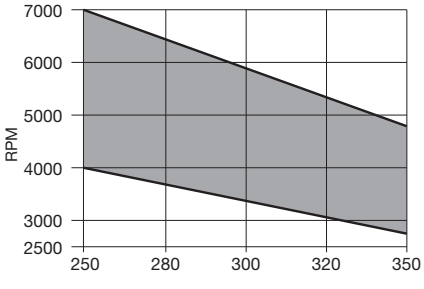


Machines:
Multiripping machines.

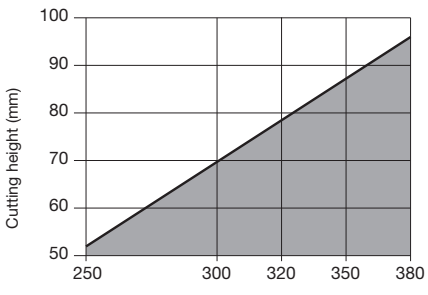
Materials:
Softwood and hardwood, both with humidity rate over 10%, long fibre wood.

Applications:
Multiripping.

Technical information:
Saw blades for ripping extra tick timber.
Suitable for cutting wet wood and wood with high resin content.



Minimum and maximum RPM based on the blade diameter.



Maximum depth of rip and crosscut based on the blade diameter.

● Solid wood

LM07

Shoulder thick kerf saw blades with rakers





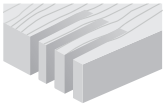
Multiripping Machines



Softwood



Hardwood



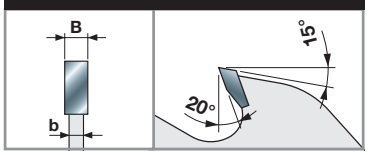
Multiripping

●● Ultimate ● High ● Good

TiCo Carbide MADE BY freud

Perma-SHIELD COATING

HW K10S - Flat tooth



D mm	B mm	b mm	d mm	Z	NL	Freud Code	Art. No.
250	5,5	3,5	30	16+2+2	2CH 10x4 + FT02	**LM07 0100**	F03FS03141
250	5,5	3,5	60	16+2+2	4CH 21x5	**LM07 0200**	F03FS03143
250	5,5	3,5	70	16+2+2	4CH 21x5	**LM07 0300**	F03FS03145
250	5,5	3,5	80	16+2+2	2CH 13x5 + 2CH 21x5	**LM07 0400**	F03FS03147
300	5,5	3,5	30	20+2+2	2CH 10x4 + FT02	**LM07 0500**	F03FS03149
300	5,5	3,5	60	20+2+2	4CH 21x5	**LM07 0600**	F03FS03151
300	5,5	3,5	70	20+2+2	4CH 21x5	**LM07 0700**	F03FS03153
300	5,5	3,5	80	20+2+2	2CH 13x5 + 2CH 21x5	**LM07 0800**	F03FS03155
320	5,5	3,5	30	20+2+2	2CH 10x4 + FT02	**LM07 0900**	F03FS03157
320	5,5	3,5	80	20+2+2	2CH 13x5 + 2CH 21x5	**LM07 1000**	F03FS03159
350	5,5	3,5	30	24+2+4	2CH 10x4 + FT02	**LM07 1100**	F03FS03161
350	5,5	3,5	60	24+2+4	4CH 21x5	**LM07 1200**	F03FS03163
350	5,5	3,5	70	24+2+4	4CH 21x5	**LM07 1300**	F03FS03165
350	5,5	3,5	80	24+2+4	4CH 21x5	**LM07 1400**	F03FS03167

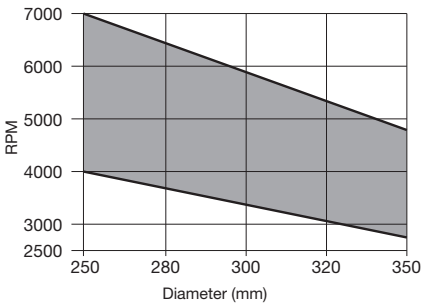
FT02 : 2/9/46,4 + 2/10/60

Machines:
Multiripping machines.

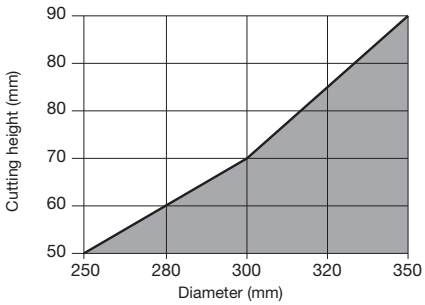
Materials:
Softwood and hardwood.

Applications:
Multiripping.

Technical information:
Ripping saw blades for the correct distribution of lateral forces, created by crooked plank in heavy duty use.
Mounted on multiripping machines as “shoulder blades”.
Suitable for dry and wet wood.



Minimum and maximum RPM based on the blade diameter.



Maximum depth of rip and crosscut based on the blade diameter.

● Solid wood

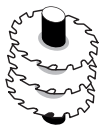
LM08

Ultra-thin kerf multiripping saw blades

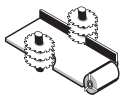




Multiripping Machines



Moulders



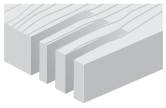
Cleaving Machines



Softwood



Hardwood



Multiripping

●●

●●● Ultimate ●● High ● Good

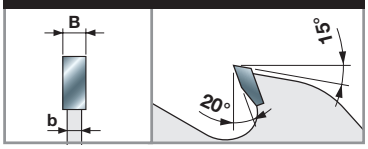
D mm	B mm	b mm	d mm	Z	NL	Freud Code	Art. No.
180	1,5	1,0	40	24 P	2CH 12x5	**LM08 0100**	F03FS03169
180	1,5	1,0	60	24 P	FT 3/10/75	**LM08 0200**	F03FS03171
200	1,5	1,0	40	28 P	2CH 12x5	**LM08 0300**	F03FS03173
200	1,5	1,0	60	28 P	FT 3/10/75	**LM08 0400**	F03FS03176
200	1,5	1,0	60	36 ATB*	FT 3/10/75	**LM08 0500**	F03FS03179
200	1,7	1,2	50	36 ATB*	-	**LM08 0600**	F03FS03182
200	1,7	1,2	60	36 ATB*	FT 3/10/75	**LM08 2800**	F03FS03240
225	1,5	1,0	40	28 P	2CH 12x5	**LM08 0700**	F03FS03185
225	1,5	1,0	60	28 P	FT 3/10/75	**LM08 0800**	F03FS03188
225	1,5	1,0	70	28 P	2CH 21x5	**LM08 0900**	F03FS03191
225	1,5	1,0	40	36 ATB	2CH 12x5	**LM08 1000**	F03FS03194
225	1,5	1,0	60	36 ATB	FT 3/10/75	**LM08 1100**	F03FS03197
225	1,5	1,0	70	36 ATB	2CH 21x5	**LM08 1200**	F03FS03200
225	1,7	1,2	65	36 ATB	FT 3/10/80	**LM08 1300**	F03FS03203
250	1,7	1,2	40	24 P	2CH 12x5	**LM08 1400**	F03FS03206
250	1,7	1,2	60	24 P	FT 3/10/75	**LM08 1500**	F03FS03209
250	1,7	1,2	70	24 P	2CH 21x5	**LM08 1600**	F03FS03212
250	1,7	1,2	40	36 ATB*	2CH 12x5	**LM08 1700**	F03FS03215
250	1,7	1,2	60	36 ATB*	FT 3/10/75	**LM08 1800**	F03FS03218
250	1,7	1,2	70	36 ATB*	2CH 21x5	**LM08 1900**	F03FS03223
250	2,2	1,6	50	30 ATB*	2CH 21x5	**LM08 2500**	F03FS03237
250	2,2	1,6	60	30 ATB*	2CH 21x5	**LM08 2600**	F03FS03238
250	2,2	1,6	70	30 ATB*	2CH 21x5	**LM08 2700**	F03FS03239
255	1,7	1,2	70	24 P	2CH 21x5	**LM08 2400**	F03FS03236
280	2,2	1,6	60	36 ATB	FT 3/10/75	**LM08 2200**	F03FS03232
300	2,2	1,6	50	36 ATB	-	**LM08 2000**	F03FS03226
300	2,2	1,6	70	36 ATB	2CH 21x5	**LM08 2300**	F03FS03235
350	2,5	1,8	50	40 ATB	-	**LM08 2100**	F03FS03229

FT03 : 2/7/42 + 2/10/60

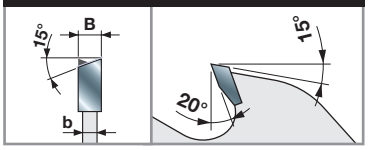
TiCo Carbide MADE BY freud

Perma-SHIELD COATING

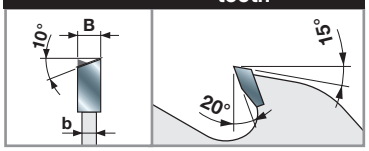
HW H01K - Flat tooth



HW H01K - ATB 15° tooth



HW H01K - ATB 10° tooth *

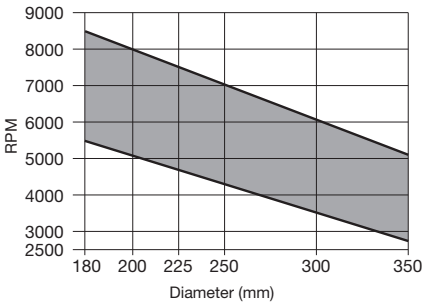


Machines:
Multiripping machines and cleaving machines.

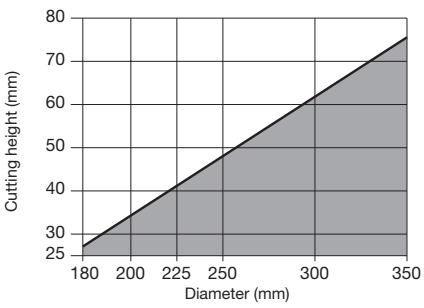
Materials:
Softwood and hardwood, both dried at max 10% humidity rate.

Applications:
Multiripping and moulding.

Technical information:
Ripping saw blades for minimum material waste.
Reboring and optional keyways not available.
A frequent blade cleaning is highly recommended to remove resin deposit.



Minimum and maximum RPM based on the blade diameter.



Maximum depth of rip and crosscut based on the blade diameter.

● Solid wood



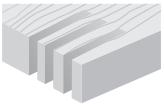
LM10 Multiripping saw blades with rakers for soft wet wood



Multiripping Machines



Softwood



Multiripping

●●

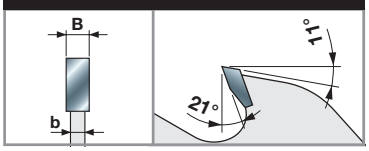
●●● Ultimate ●● High ● Good

D mm	B mm	b mm	d mm	Z	NL	Freud Code	Art. No.
350	3,9	2,5	50	18+2+2	-	**LM1035001**	F03FS07701
400	4,4	3,0	50	18+2+2	-	**LM1040001**	F03FS07702
450	4,8	3,0	50	18+2+4	-	**LM1045001**	F03FS07703
500	5,2	3,5	50	18+2+4	-	**LM1050001**	F03FS07704
560	5,5	3,5	50	18+2+4	-	**LM1056001**	F03FS07705

TiCo Carbide MADE BY freud

Perma-SHIELD COATING

HW K10S - Flat tooth

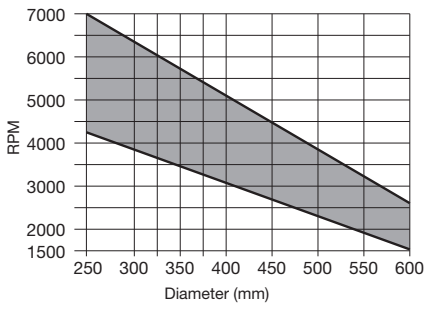


Machines:
Multiripping machines.

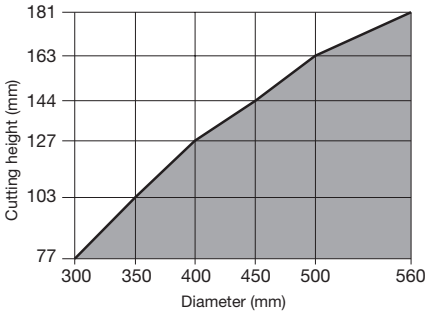
Materials:
Softwood.

Applications:
Multiripping.

Technical information:
Saw blades for ripping extra thick timber.
Most suitable for cutting wet wood and wood with high resin content.
Optimised teeth and rakers geometry for an excellent chip removal.



Minimum and maximum RPM based on the blade diameter.



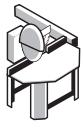
Maximum depth of rip and crosscut based on the blade diameter.

● Solid wood

LU1A

Saw blades for radial and pendulum machines





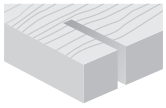
Radial Arm Saws



Softwood



Hardwood



Crosscutting

●●

●●● Ultimate ●● High ● Good

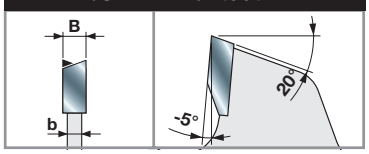
D mm	B mm	b mm	d mm	Z	NL	Freud Code	Art. No.
300	4,4	3,0	30	36	FT02	**LU1A 0100**	F03FS04572
350	4,4	3,0	30	42	2/10/60	**LU1A 0200**	F03FS04573
400	4,4	3,0	30	48	FT02	**LU1A 0300**	F03FS04574
450	4,4	3,0	30	54	FT03	**LU1A 0400**	F03FS04575
500	4,8	3,2	30	60	2/10/60	**LU1A 0500**	F03FS04576
550	4,8	3,2	30	72	FT03	**LU1A 0600**	F03FS04577
600	5,0	3,5	30	72	FT02	**LU1A 0700**	F03FS04578

FT02 : 2/9/46,4 + 2/10/60 - **FT03 :** 2/7/42 + 2/10/60

TiCo Carbide MADE BY freud

Silver I.C.E. COATING

HW K10S - ATB 15° tooth



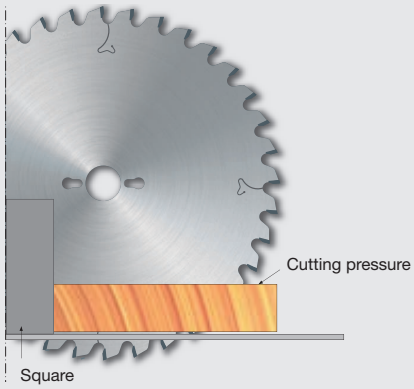
Machines:
Radial arm saws.

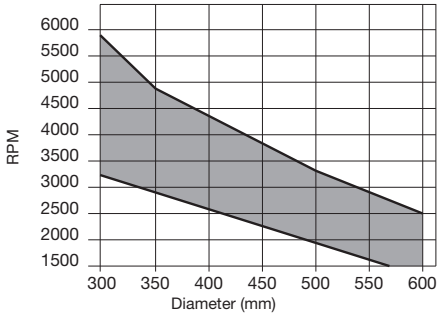
Materials:
Softwood and hardwood.

Applications:
Crosscutting.

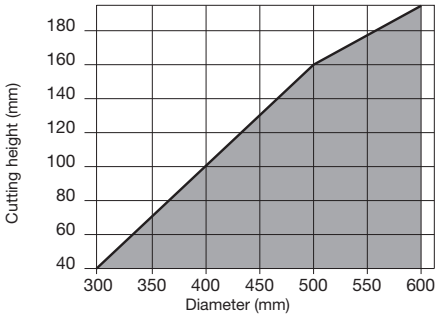
Technical information:
Saw blades suitable for crosscutting.
To be mounted on radial saws and pendulum cutting machines.

Working with spindle over the working plane





Minimum and maximum RPM based on the blade diameter.

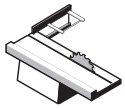


Maximum depth of rip and crosscut based on the blade diameter.

● Solid wood

LU1B Saw blades for carpentry works





Squaring Saws

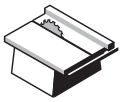


Table Saws



Softwood



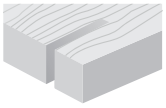
Hardwood



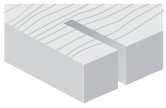
Construction Timber



Shuttering Board



Ripping ●



Crosscutting ●

●●● Ultimate ●● High ● Good

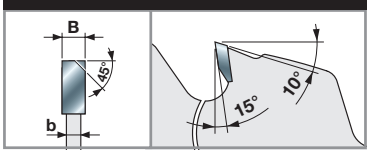
D mm	B mm	b mm	d mm	Z	NL	Freud Code	Art. No.
250	3,4	2,2	30	18	FT01	**LU1B 0100**	F03FS04579
300	3,4	2,2	30	20	FT01	**LU1B 0200**	F03FS04580
315	3,4	2,2	30	20	FT01	**LU1B 0300**	F03FS04582
350	3,7	2,5	30	24	FT02	**LU1B 0400**	F03FS04583
400	4,0	2,8	30	28	2/10/60	**LU1B 0500**	F03FS04585
450	4,2	3,0	30	32	FT03	**LU1B 0600**	F03FS04586
500	4,4	3,2	30	36	FT03	**LU1B 0700**	F03FS04587
550	4,8	3,5	30	44	2/10/60	**LU1B 0800**	F03FS04588
600	5,2	4,0	30	48	FT03	**LU1B 0900**	F03FS04589
650	5,6	4,2	30	54	FT02	**LU1B 1000**	F03FS08324
700	5,6	4,2	30	60	2/10/60	**LU1B 1100**	F03FS05892

FT01: 2/7/42 + 2/9/46,4 + 2/10/60 - **FT02:** 2/9/46,4 + 2/10/60 - **FT03:** 2/7/42 + 2/10/60

TiCo Carbide MADE BY freud

Silver I.C.E. COATING

HW K10S - Beveled tooth

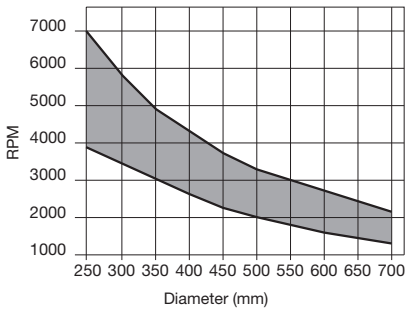


Machines:
Table and squaring saws.

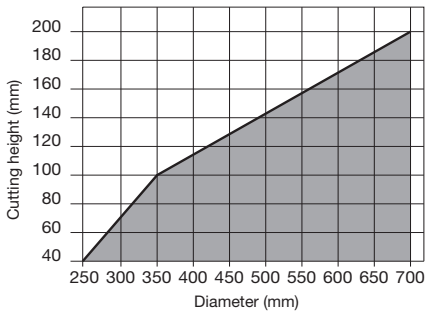
Materials:
Softwood, hardwood and construct wood.

Applications:
Ripping and crosscutting.

Technical information:
Saw blades suitable for ripping and crosscutting.
Optimised tooth shape to cut also construct wood with nails or metal clips.



Minimum and maximum RPM based on the blade diameter.



Maximum depth of rip and crosscut based on the blade diameter.

● Solid wood

LP70M Saw blades for on-site jobs



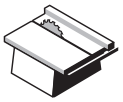


Table Saws



Softwood



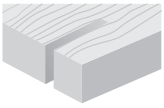
Hardwood



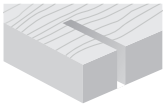
Construction Timber



Shuttering Board



Ripping ●



Crosscutting ●

●●● Ultimate ●● High ● Good

D mm	B mm	b mm	d mm	Z	NL - KN	Freud Code	Art. No.
300	2,8	1,8	30	24	2/10/60	**LP70M 001P***	F03FS03762
350	3,0	2,2	30	28	2/10/60	**LP70M 002P***	F03FS03763

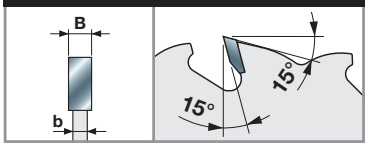
D mm	B mm	b mm	d mm	Z	NL - KN	Freud Code	Art. No.
300	2,6	1,8	25	24	-	**LP70M 004P**	F03FS03766
315	3,2	2,2	30	24	2/10/50	**LP70M 003P**	F03FS03765
315	3,2	2,2	25	48	-	**LP70M 006P**	F03FS03768
400	3,8	2,8	30	28	2/10/60	**LP70M 008P**	F03FS03770
500	4,4	3,2	30	36	2/10/60	**LP70M 010P**	F03FS03772
600	5,2	4,0	30	48	2/10/60	**LP70M 012P**	F03FS03774

TiCo Carbide MADE BY freud

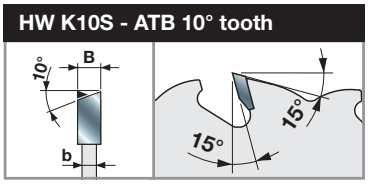
Perma-SHIELD COATING

Anti-kickback TECHNOLOGY

HW K10S - Flat tooth *



HW K10S - ATB 10° tooth



Machines:
Table saws.

Materials:
Softwood, hardwood and construct wood.

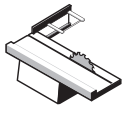
Applications:
Ripping and crosscutting also for on-site job.

Technical information:
Saw blades suitable for ripping and crosscutting, even construction wood with nails or metal clips.

LU1C

Saw blades for solid wood ripping





Squaring Saws



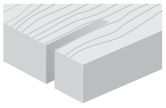
Multiripping Machines



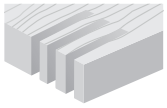
Softwood



Hardwood



Ripping ●●



Multiripping ●●

●●● Ultimate ●● High ● Good

D mm	B mm	b mm	d mm	Z	NL - KN		Freud Code	Art. No.
250	3,2	2,2	30	22	FT01		**LU1C 0100**	F03FS04590
250	3,2	2,2	70	22	4CH 21x5		**LU1C 0200**	F03FS04592
300	3,2	2,2	30	26	FT01		**LU1C 0400**	F03FS04595
300	3,2	2,2	35	26	-		**LU1C 0500**	F03FS04597
300	3,2	2,2	70	26	4CH 21x5		**LU1C 0700**	F03FS04599
315	3,2	2,2	30	28	FT01		**LU1C 0800**	F03FS04601
350	3,5	2,5	30	30	FT02		**LU1C 1000**	F03FS04603
350	3,5	2,5	35	30	-		**LU1C 1100**	F03FS04605
350	3,5	2,5	70	30	4CH 21x5		**LU1C 1200**	F03FS04607
400	4,0	2,8	30	34	2/10/60		**LU1C 1300**	F03FS04609
450	4,4	3,0	30	38	2/10/60		**LU1C 1400**	F03FS04611
500	4,4	3,2	30	42	2/10/60		**LU1C 1500**	F03FS04612
550	4,4	3,5	30	48	2/10/60		**LU1C 1600**	F03FS04613

FT01: 2/7/42 + 2/9/46,4 + 2/10/60 - **FT02:** 2/9/46,4 + 2/10/60

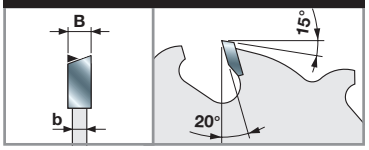








HW H01K - ATB 10° tooth

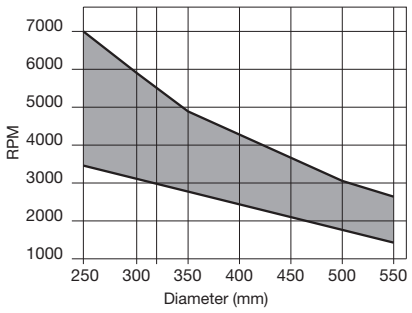


Machines:
Squaring saws and multiripping machines.

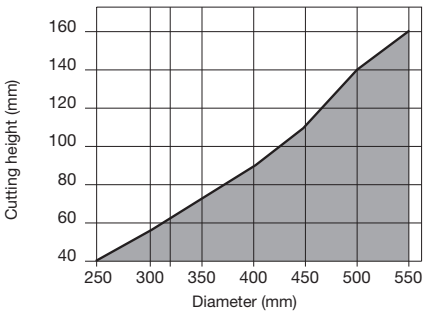
Materials:
Softwood and hardwood.

Applications:
Ripping and multiripping.

Technical information:
Saw blades with anti-kickback technology, suitable for ripping soft and hardwood also with loose knots.



Minimum and maximum RPM based on the blade diameter.



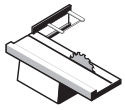
Maximum depth of rip and crosscut based on the blade diameter.

● Solid wood

LU1D

Saw blades for solid wood ripping





Squaring Saws



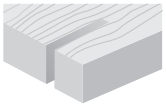
Multiripping Machines



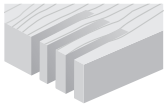
Softwood



Hardwood



Ripping ●●



Multiripping ●●

●●● Ultimate ●● High ● Good

D mm	B mm	b mm	d mm	Z	NL - KN	Freud Code	Art. No.
250	3,2	2,2	30	24	FT01	**LU1D 0100**	F03FS04615
250	3,2	2,2	70	24	4CH 21x5	**LU1D 0200**	F03FS04617
300	3,2	2,2	30	28	FT01	**LU1D 0500**	F03FS04620
300	3,2	2,2	60	28	4CH 21x5	**LU1D 0600**	F03FS04622
300	3,2	2,2	70	28	4CH 21x5	**LU1D 0800**	F03FS04624
350	3,5	2,5	30	32	FT02	**LU1D 1100**	F03FS04628
350	3,5	2,5	70	32	4CH 21x5	**LU1D 1000**	F03FS04626

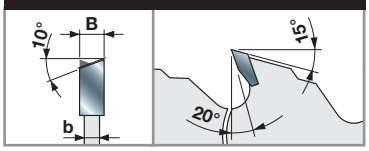
FT01: 2/7/42 + 2/9/46,4 + 2/10/60 - **FT02:** 2/9/46,4 + 2/10/60

TiCo Carbide MADE BY freud

Silver I.C.E. COATING

Anti-vibration TECHNOLOGY

HW H01K - ATB 10° tooth

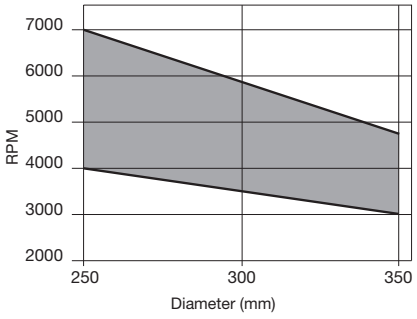


Machines:
Squaring saws and multiripping machines.

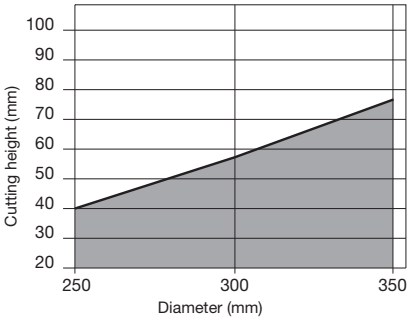
Materials:
Softwood and hardwood.

Applications:
Ripping and multiripping.

Technical information:
Saw blades suitable for ripping soft and hardwood also with loose knots.



Minimum and maximum RPM based on the blade diameter.



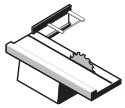
Maximum depth of rip and crosscut based on the blade diameter.

● Solid wood

LU1E

Think kerf saw blades for solid wood ripping





Squaring Saws

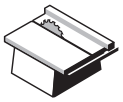
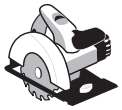


Table Saws



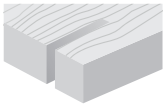
Hand-held Circular Saws



Softwood



Hardwood



Ripping

●●

●●● Ultimate ●● High ● Good

D mm	B mm	b mm	d mm	Z	NL	Freud Code	Art. No.
250	2,5	1,6	30	24	FT01	**LU1E 0100**	F03FS04630
300	2,6	1,8	30	24	-	**LU1E 0500**	F03FS04638
300	2,7	1,8	25	28	-	**LU1E 0200**	F03FS04632
300	2,7	1,8	30	28	FT01	**LU1E 0300**	F03FS04634
350	3,0	2,2	30	32	FT01	**LU1E 0400**	F03FS04636

FT01: 2/7/42 + 2/9/46,4 + 2/10/60

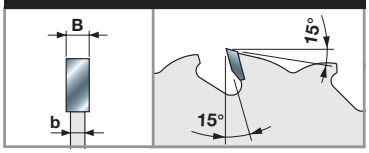
TiCo Carbide MADE BY freud

Silver I.C.E. COATING

Anti-vibration TECHNOLOGY

Anti-kickback TECHNOLOGY

HW H01K - Flat tooth

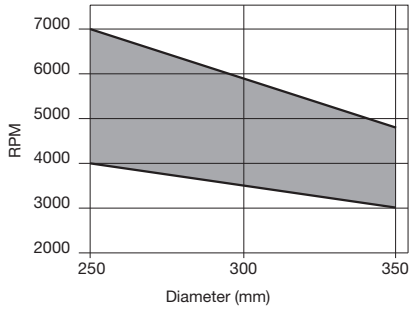


Machines:
Squaring saws and table saws, hand-held circular saws.

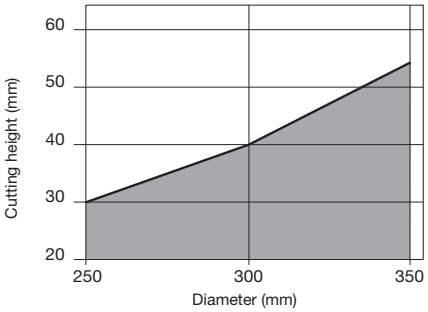
Materials:
Softwood and hardwood.

Applications:
Ripping.

Technical information:
The thin kerf design makes the workpiece feed easy when ripping soft and hard drywood, also with loose knots.
Anti-kickback technology.



Minimum and maximum RPM based on the blade diameter.



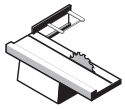
Maximum depth of rip and crosscut based on the blade diameter.

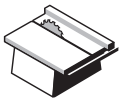
● Solid wood

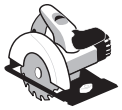


LU1F

Think kerf saw blades for solid wood ripping

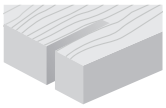

Squaring Saws


Table Saws


Hand-held Circular Saws


Softwood


Hardwood


Ripping

●●● Ultimate ●● High ● Good

D mm	B mm	b mm	d mm	Z	NL	Freud Code	Art. No.
250	2,5	1,6	30	24	FT01	**LU1F 0100**	F03FS04640
300	2,7	1,8	30	28	FT01	**LU1F 0200**	F03FS04642
350	3,0	2,2	30	32	FT01	**LU1F 0300**	F03FS04644

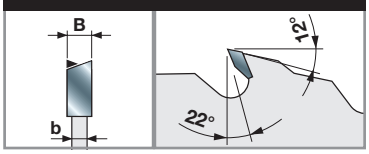
FT01: 2/7/42 + 2/9/46,4 + 2/10/60

TiCo Carbide MADE BY freud

Silver I.C.E. COATING

Anti-vibration TECHNOLOGY

HW H01K - ATB 10° tooth

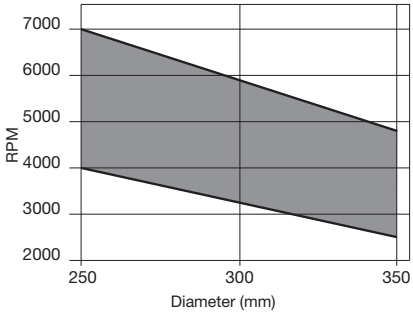


Machines:
Squaring saws and table saws, hand-held circular saws.

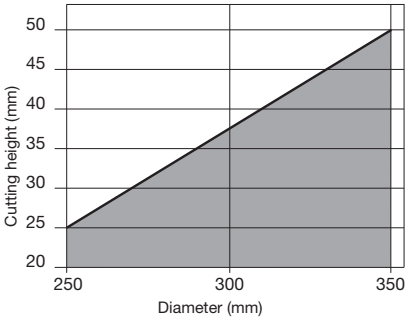
Materials:
Softwood and hardwood.

Applications:
Ripping.

Technical information:
The thin kerf design makes the workpiece feed easy when ripping soft and hard drywood without loose knots.



Minimum and maximum RPM based on the blade diameter.



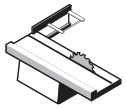
Maximum depth of rip and crosscut based on the blade diameter.

● Solid wood



LU1G

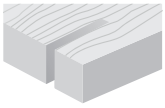
Saw blades with rounded teeth sides to cut solid wood



Squaring Saws



Softwood



Ripping

●●● Ultimate ●● High ● Good

D	B	b	d	Z	NL		Freud Code	Art. No.
mm	mm	mm	mm					
250	3,0	2,0	30	40	FT01		**LU1G 0100**	F03FS04646
300	3,0	2,0	30	48	FT01		**LU1G 0200**	F03FS04647
350	3,2	2,2	30	60	FT01		**LU1G 0300**	F03FS04648

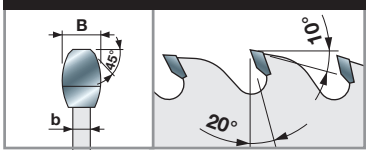
FT01: 2/7/42 + 2/9/46,4 + 2/10/60

TiCo Carbide MADE BY freud

Silver I.C.E. COATING

Anti-vibration TECHNOLOGY

HW H01K - Rounded tooth



Machines:
Squaring saws.

Materials:
Softwood.

Applications:
Ripping.

Technical information:
Saw blades suitable for ripping with scratchless finishing.
Ideal to achieve a perfectly smooth surface on softwood.

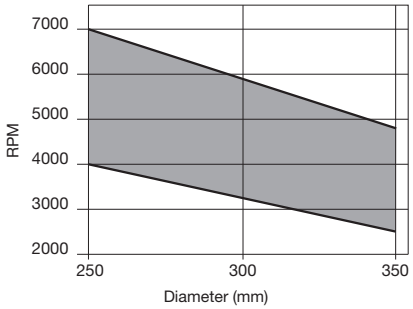
Comparison between the cut of a conventional saw blade and a saw blade equipped with teeth that are rounded on the side.



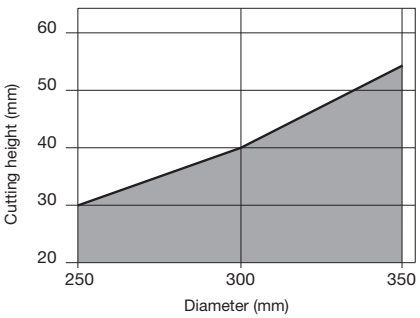
Conventional saw blades



LU1G saw blades



Minimum and maximum RPM based on the blade diameter.



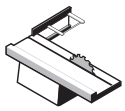
Maximum depth of rip and crosscut based on the blade diameter.

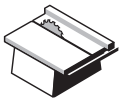
Solid wood



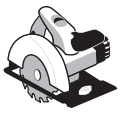
LU1H

Think kerf saw blades for solid wood ripping and crosscutting


Squaring Saws

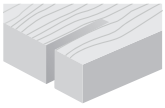

Table Saws

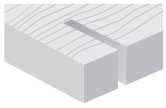

Multiripping Machines

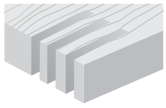

Hand-held Circular Saws


Softwood


Hardwood


Ripping ●●●


Crosscutting ●●●


Multiripping ●●

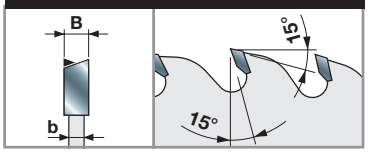
●●● Ultimate ●● High ● Good

TiCo Carbide MADE BY freud

Silver I.C.E. COATING

Anti-vibration TECHNOLOGY

HW H01K - ATB 15° tooth



Machines:
Squaring saws, table saws and multiripping machines, hand-held circular saws.

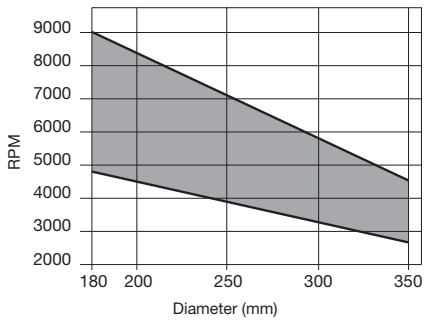
Materials:
Softwood and hardwood.

Applications:
Ripping, crosscutting and multiripping.

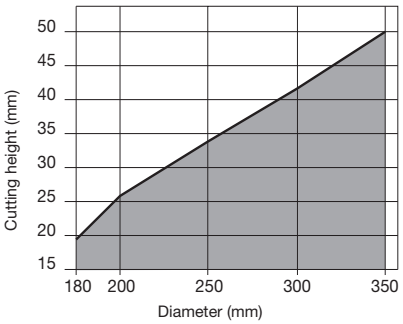
Technical information:
The thin kerf design makes the workpiece feed easy when ripping soft and hard drywood, minimising at the same time material waste.

D mm	B mm	b mm	d mm	Z	NL		Freud Code	Art. No.
180	1,5	1,0	30	40	2/7/42		**LU1H 0100**	F03FS04649
185	1,5	1,0	25,4	40	-		**LU1H 0200**	F03FS04650
200	1,5	1,0	30	40	2/7/42		**LU1H 0300**	F03FS07131
200	1,5	1,0	30	60	2/7/42		**LU1H 0400**	F03FS04651
205	1,5	1,0	25,4	40	-		**LU1H 0500**	F03FS04652
205	1,5	1,0	25,4	60	-		**LU1H 0600**	F03FS04653
250	2,5	1,6	30	48	FT01		**LU1H 0700**	F03FS04655
250	2,5	1,6	30	60	FT01		**LU1H 0800**	F03FS04657
250	2,8	2,0	30	30	2/10/60		**LU1H 1500**	F03FS04670
250	2,8	2,0	30	40	2/10/60		**LU1H 1600**	F03FS07127
300	2,8	2,0	30	36	FT01		**LU1H 1400**	F03FS04668
300	2,8	2,0	30	54	FT01		**LU1H 0900**	F03FS04659
300	2,8	2,0	35	54	-		**LU1H 1000**	F03FS04661
300	2,8	2,0	30	72	FT01		**LU1H 1100**	F03FS04663
350	3,0	2,2	30	60	FT01		**LU1H 1200**	F03FS04665
350	3,0	2,2	30	84	FT01		**LU1H 1300**	F03FS04667

FT01: 2/7/42 + 2/9/46,4 + 2/10/60



Minimum and maximum RPM based on the blade diameter.



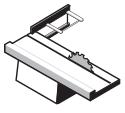
Maximum depth of rip and crosscut based on the blade diameter.

Solid wood

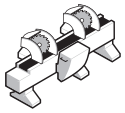


LU1I

Saw blades to cut solid wood frames



Squaring Saws



Duble Head Cutting Machines



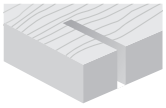
Softwood



Hardwood



MDF



Crosscutting ●●●



Frames Cutting ●●●

●●● Ultimate ●● High ● Good

D mm	B mm	b mm	d mm	Z	NL		Freud Code	Art. No.
200	2,95	2,5	30	64	2/7/42		**LU1I 0100**	F03FS04673
250	2,95	2,5	20	80	2/6/32		**LU1I 0200**	F03FS04675
250	2,95	2,5	30	80	FT02		**LU1I 0300**	F03FS04677
250	2,95	2,5	30	96	FT02		**LU1I 0400**	F03FS04679
275	2,95	2,5	20	84	2/6/32		**LU1I 0500**	F03FS04681
300	2,95	2,5	30	96	FT02		**LU1I 0600**	F03FS04682
300	2,95	2,5	30	112	FT02		**LU1I 0700**	F03FS04684
330	3,45	3,0	30	96	FT02		**LU1I 0800**	F03FS04686
350	3,45	3,0	30	108	FT02		**LU1I 0900**	F03FS04688

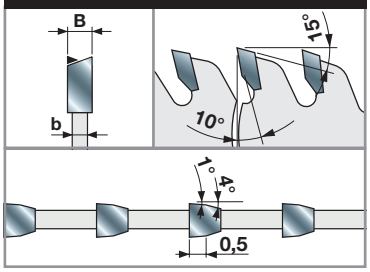
FT02: 2/9/46,4 + 2/10/60

TiCo Carbide MADE BY freud

Silver I.C.E. COATING

Anti-vibration TECHNOLOGY

HW H00K - ATB 20° tooth

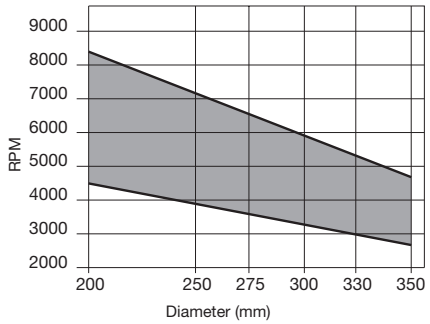


Machines:
Squaring saws and double head cutting machines.

Materials:
Softwood, hardwood and MDF.

Applications:
Crosscutting and wood frames cutting.

Technical information:
Saw blades suitable for crosscutting of wooden frames or profiled items.
Splintering-free surface and perfect matching of the cut parts guaranteed also if painted, covered by chalk or other delicate and abrasive coatings.

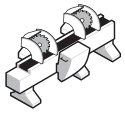


Minimum and maximum RPM based on the blade diameter.

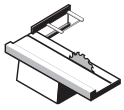


LU1L

Saw blades with axial angle to cut solid wood frames



Duble Head Cutting Machines



Squaring Saws



Softwood



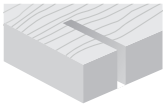
Hardwood



MDF



Plexiglas



Crosscutting



Frames Cutting

●●● ●●●

●●● Ultimate ●● High ● Good

D mm	B mm	b mm	d mm	Z	NL		Freud Code	Art. No.
250	3,0	2,2	30	100	FT01		**LU1L 0100**	F03FS04690
250	3,0	2,2	30	120	FT01		**LU1L 0200**	F03FS04691
255	3,0	2,2	25,4	100	-		**LU1L 0300**	F03FS04692
255	3,0	2,2	25,4	120	-		**LU1L 0400**	F03FS04693
300	3,0	2,2	30	100	FT01		**LU1L 0500**	F03FS04694
300	3,0	2,2	30	120	FT01		**LU1L 0600**	F03FS04695
305	3,0	2,2	25,4	100	-		**LU1L 0700**	F03FS04696
305	3,0	2,2	25,4	120	-		**LU1L 0800**	F03FS04697
305	3,0	2,2	30	100	-		**LU1L 1100**	F03FS06410
350	3,0	2,2	30	120	FT01		**LU1L 0900**	F03FS04698
355	3,0	2,2	25,4	120	-		**LU1L 1000**	F03FS04699

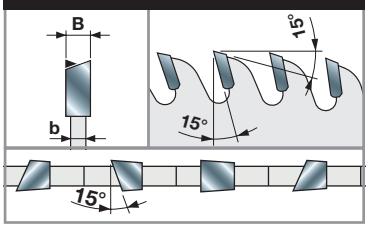
FT01: 2/7/42 + 2/9/46,4 + 2/10/60

TiCo Carbide MADE BY freud

Silver I.C.E. COATING

Anti-vibration TECHNOLOGY

HW H00K - Flat-ATB 10° axial tooth

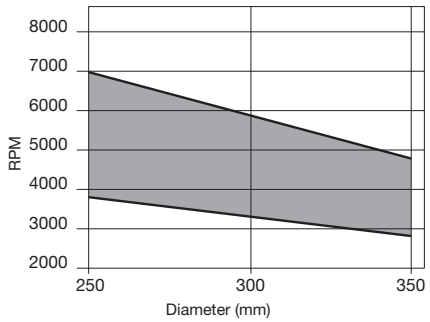


Machines:
Double head cutting machines and squaring saws.

Materials:
Softwood, hardwood, MDF and plexiglas.

Applications:
Crosscutting, wood and wood derivatives frames cutting.

Technical information:
Saw blades ideal for wooden frames and profiles end trims whose front-end cut stays visible.
The axial angle grants splinter-free surfacing, with a perfect matching of the parts, also when painted or covered in chalk and abrasive coatings.



Minimum and maximum RPM based on the blade diameter.

LU1M

Saw blades for optimising machines





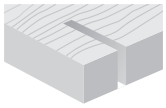
Optimising Machines



Softwood



Hardwood



Crosscutting

●●● Ultimate ●● High ● Good

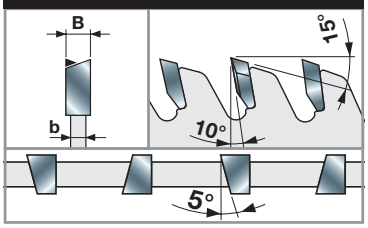
D mm	B mm	b mm	d mm	Z	NL	Freud Code	Art. No.
500	4,8	3,5	30	144	2/15/63	**LU1M50030**	F03FS09370

TiCo Carbide MADE BY freud

Silver I.C.E. COATING

Anti-vibration TECHNOLOGY

HW H01K - ATB 25° axial tooth

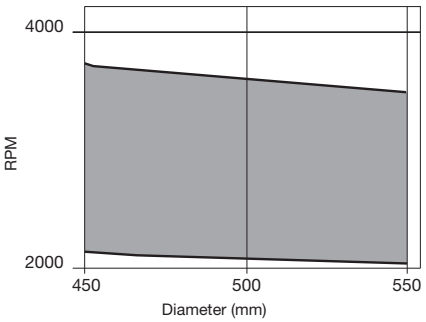


Machines:
Optimising machines.

Materials:
Softwood and hard drywood.

Applications:
Crosscutting at high feedrate.

Technical information:
Saw blades suitable for high feedrate and precise crosscutting of single boards of soft and hardwood.

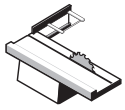


Minimum and maximum RPM based on the blade diameter.

LG1C

Saw blades for solid wood ripping





Squaring Saws



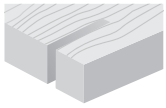
Multiripping Machines



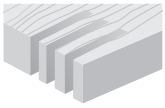
Softwood



Hardwood



Ripping

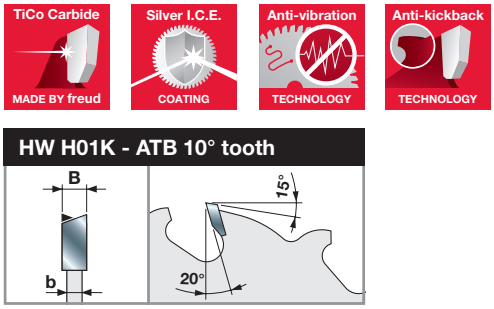


Multiripping

●●● Ultimate ●● High ● Good

D	B	b	d	Z	NL		Freud Code	Art. No.
mm	mm	mm	mm					
250	3,2	2,2	30	22	FT01		**LG1C 0100**	F03FS07559
300	3,2	2,2	30	26	FT01		**LG1C 0400**	F03FS07560
350	3,5	2,5	30	30	FT02		**LG1C 1000**	F03FS07561

FT01: 2/7/42 + 2/9/46,4 + 2/10/60 - **FT02:** 2/9/46,4 + 2/10/60



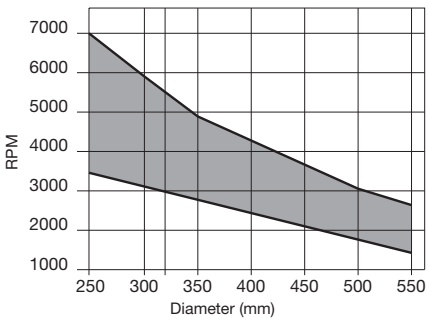
HW H01K - ATB 10° tooth

Machines:
Squaring saws and multiripping machines.

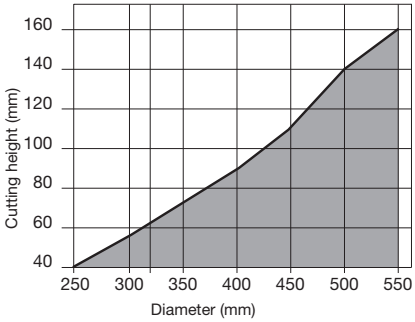
Materials:
Softwood and hardwood.

Applications:
Ripping and multiripping.

Technical information:
Saw blades with anti-kickback technology suitable for ripping soft and hardwood also with loose knots.



Minimum and maximum RPM based on the blade diameter.



Maximum depth of rip and crosscut based on the blade diameter.

● Solid wood

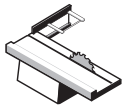
Wood Based Panels

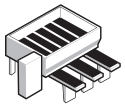


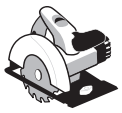
LU2A

Saw blades for wood based panels ripping and crosscutting




Squaring Saws


Horizontal Panel Sizing Machines


Hand-held Circular Saws

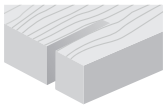

Softwood


Hardwood


Chipboard


Plywood


MDF


Ripping ●●

Crosscutting ●●●

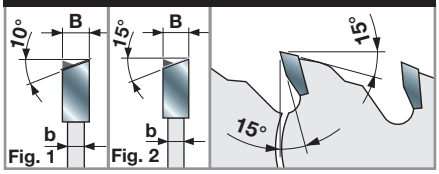
●●● Ultimate ●● High ● Good

TiCo Carbide MADE BY freud

Silver I.C.E. COATING

Anti-vibration TECHNOLOGY

HW H01K - ATB 10°/15° tooth

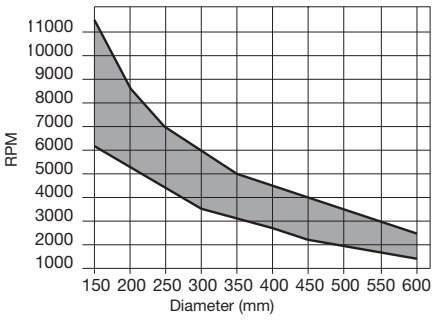


Machines:
Squaring saws and horizontal panel sizing machines, hand-held circular saws.

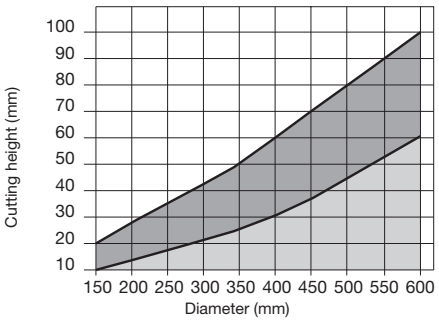
Materials:
Softwood, hardwood, chipboard, plywood and MDF.

Applications:
Ripping and crosscutting.

Technical information:
Saw blades suitable for ripping and crosscutting.



Minimum and maximum RPM based on the blade diameter.



Maximum depth of rip and crosscut based on the blade diameter.

● Solid wood ● Wood-based materials

ATB 10° tooth (Fig. 1)

D mm	B mm	b mm	d mm	Z	NL		Freud Code	Art. No.
150	3,2	2,2	30	24	2/7/42		**LU2A 0100**	F03FS04806
160	3,2	2,2	20	24	2/6/32		**LU2A 0300**	F03FS04809
180	3,2	2,2	20	24	2/6/32		**LU2A 0400**	F03FS04810
180	3,2	2,2	30	30	2/7/42		**LU2A 0500**	F03FS04811
190	3,2	2,2	30	30	2/7/42		**LU2A 0600**	F03FS04813
200	3,2	2,2	30	34	2/7/42		**LU2A 0800**	F03FS04817
200	3,2	2,2	35	34	-		**LU2A 0900**	F03FS04819
210	3,2	2,2	30	34	2/7/42		**LU2A 1100**	F03FS04822
216	3,2	2,2	30	34	-		**LU2A 1200**	F03FS04823
220	3,2	2,2	30	34	2/7/42		**LU2A 1300**	F03FS04824
230	3,2	2,2	30	34	2/7/42		**LU2A 1500**	F03FS04827
250	3,2	2,2	30	30	FT01		**LU2A 1600**	F03FS04828
250	3,2	2,2	30	40	FT01		**LU2A 1700**	F03FS04830
250	3,2	2,2	35	40	-		**LU2A 1800**	F03FS04832
250	3,2	2,2	80	40	-		**LU2A 1880**	F03FS09971
300	3,2	2,2	30	36	FT01		**LU2A 1900**	F03FS04834
300	3,2	2,2	30	48	FT01		**LU2A 2100**	F03FS04840
300	3,2	2,2	35	48	-		**LU2A 2300**	F03FS04843
315	3,2	2,2	30	48	FT01		**LU2A 2400**	F03FS04844
350	3,5	2,5	30	54	FT02		**LU2A 2800**	F03FS04849
350	3,5	2,5	35	54	-		**LU2A 3000**	F03FS04851
400	4,0	2,8	30	60	2/10/60		**LU2A 3300**	F03FS04856
400	4,0	2,8	35	60	-		**LU2A 3400**	F03FS04858
450	4,4	3,0	30	54	2/10/60		**LU2A 3500**	F03FS04860
450	4,4	3,0	30	66	2/10/60		**LU2A 3600**	F03FS04862
500	4,4	3,2	30	72	2/10/60 + 2/10/80		**LU2A 3800**	F03FS04865
550	4,8	3,5	30	84	2/10/60 + 2/10/80		**LU2A 3900**	F03FS04867
600	5,4	4	30	96	2/10/80		**LU2A 4000**	F03FS04868
735	6,0	4,4	30	72	2/8,5/90		**LU2A 4200***	F03FS05908
760	6,2	4,5	30	72	2/8,5/90		**LU2A 4300***	F03FS05903

* HW K10S

ATB 15° tooth (Fig. 2)

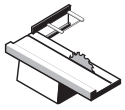
D mm	B mm	b mm	d mm	Z	NL		Freud Code	Art. No.
160	3,2	2,2	20	18	2/6/32		**LU2A 0200**	F03FS04808
160	2,2	1,6	20	24	-		**LU2A 0301**	F03FS09233
200	3,2	2,2	30	24	2/7/42		**LU2A 0700**	F03FS04814
210	3,2	2,2	30	24	2/7/42		**LU2A 1000**	F03FS04821
230	3,2	2,2	30	24	2/7/42		**LU2A 1400**	F03FS04826
350	3,5	2,5	30	42	FT02		**LU2A 2500**	F03FS04845
350	3,5	2,5	35	42	-		**LU2A 2600**	F03FS04847
400	4,0	2,8	30	48	2/10/60		**LU2A 3100**	F03FS04853
400	4,0	2,8	50	48	6/5,5/80 + 1/6/80		**LU2A 3150**	F03FS09578
500	4,4	3,2	30	60	2/10/60 + 2/10/80		**LU2A 3700**	F03FS04864

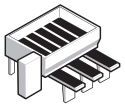
FT01: 2/7/42 + 2/9/46,4 + 2/10/60 - **FT02:** 2/9/46,4 + 2/10/60

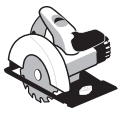


LU2B

Saw blades for wood based panels ripping & crosscutting


Squaring Saws


Horizontal Panel Sizing Machines


Hand-held Circular Saws

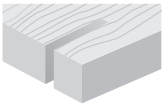

Softwood

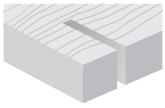

Hardwood


Chipboard


Plywood


MDF


Ripping


Crosscutting

●● ●●●

●●● Ultimate ●● High ● Good

D mm	B mm	b mm	d mm	Z	NL		Freud Code	Art. No.
150	3,2	2,2	30	36	2/7/42		**LU2B 0100**	F03FS04869
180	3,2	2,2	30	42	2/7/42		**LU2B 0200**	F03FS04871
200	3,2	2,2	30	48	2/7/42		**LU2B 0300**	F03FS04873
216	3,2	2,2	30	48	-		**LU2B 0400**	F03FS04876
250	3,2	2,2	30	48	FT01		**LU2B 0500**	F03FS04877
250	3,2	2,2	30	60	FT01		**LU2B 0700**	F03FS04880
250	3,2	2,2	35	60	-		**LU2B 0800**	F03FS04882
300	3,2	2,2	30	60	FT01		**LU2B 0900**	F03FS04884
300	3,2	2,2	30	72	FT01		**LU2B 1100**	F03FS04887
300	3,2	2,2	35	72	-		**LU2B 1200**	F03FS04889
315	3,2	2,2	30	72	FT01		**LU2B 1300**	F03FS04891
350	3,5	2,5	30	72	FT02		**LU2B 1400**	F03FS04893
350	3,5	2,5	30	84	FT02		**LU2B 1600**	F03FS04895
350	3,5	2,5	35	84	-		**LU2B 2400**	F03FS04905
400	4,0	2,8	30	96	2/10/60		**LU2B 1900**	F03FS04897
450	4,4	3,0	30	96	2/10/60		**LU2B 2000**	F03FS04899
500	4,4	3,2	30	108	2/10/60 + 2/10/80		**LU2B 2100**	F03FS04901
550	4,8	3,5	30	120	2/10/60 + 2/10/80		**LU2B 2200**	F03FS04903
600	5,4	4,0	30	132	2/10/80		**LU2B 2300**	F03FS04904

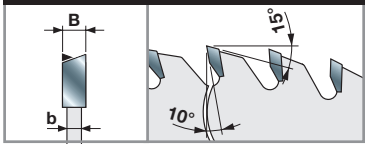
FT01: 2/7/42 + 2/9/46,4 + 2/10/60 - **FT02:** 2/9/46,4 + 2/10/60

TiCo Carbide MADE BY freud

Silver I.C.E. COATING

Anti-vibration TECHNOLOGY

HW H00K - ATB 15° tooth

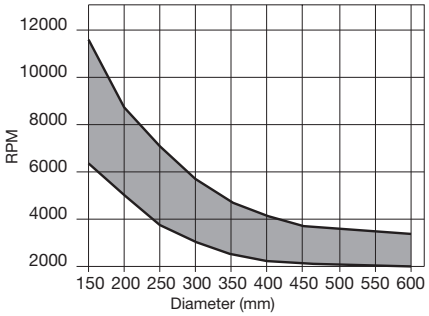


Machines:
Squaring saws and horizontal panel sizing machines, hand-held circular saws.

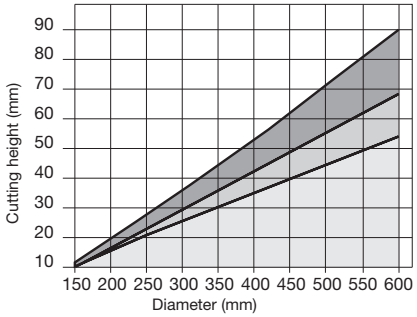
Materials:
Softwood, hardwood, chipboard, plywood and MDF.

Applications:
Ripping and crosscutting.

Technical information:
Saw blades suitable for ripping and crosscutting.



Minimum and maximum RPM based on the blade diameter.



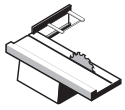
Maximum depth of rip and crosscut based on the blade diameter.

● Solid wood ● Wood-based materials ● Plywood

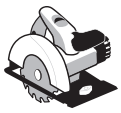
LU2C

Saw blades for wood based panels crosscutting





Squaring Saws



Hand-held Circular Saws



Softwood



Hardwood



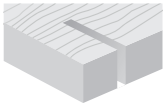
Chipboard



Laminated MDF



Thermoplastic Composites



Crosscutting

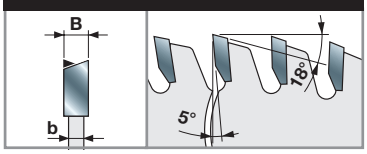
●●● Ultimate ●● High ● Good

TiCo Carbide MADE BY freud

Silver I.C.E. COATING

Anti-vibration TECHNOLOGY

HW H00K - ATB 15° tooth



Machines:
Squaring saws, hand-held circular saws.

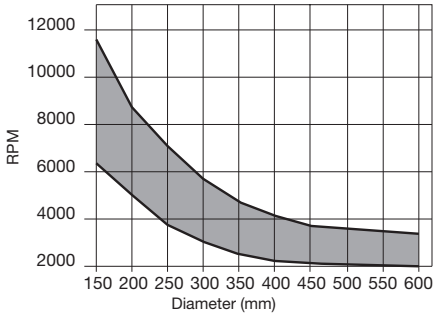
Materials:
Softwood, hardwood, chipboard, laminated MDF and thermoplastic composites.

Applications:
Crosscutting.

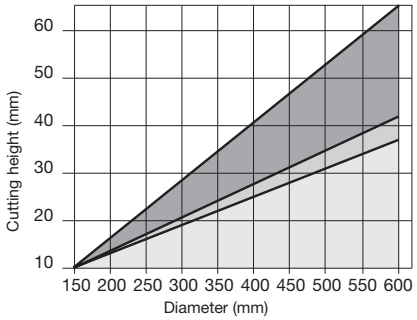
Technical information:
Saw blades suitable for crosscutting.

D mm	B mm	b mm	d mm	Z	NL		Freud Code	Art. No.
150	3,2	2,2	30	48	2/7/42		**LU2C 0100**	F03FS04908
160	2,2	1,6	20	48	2/6/32	≈	**LU2C 0001**	F03FS09065
160	3,2	2,2	20	48	2/6/32		**LU2C 0200**	F03FS04910
180	3,2	2,2	20	56	2/6/32		**LU2C 0300**	F03FS04911
180	3,2	2,2	30	56	2/7/42		**LU2C 0400**	F03FS04912
190	3,2	2,2	30	56	2/7/42		**LU2C 0500**	F03FS04914
200	3,2	2,2	30	64	2/7/42		**LU2C 0600**	F03FS04915
200	3,2	2,2	40	64	-		**LU2C 0640**	F03FS09972
210	3,2	2,2	30	64	2/7/42		**LU2C 0700**	F03FS04917
216	3,2	2,2	30	64	2/7/42		**LU2C 0800**	F03FS04918
220	3,2	2,2	30	64	2/7/42		**LU2C 0900**	F03FS04919
230	3,2	2,2	30	64	2/7/42	≈	**LU2C 1000**	F03FS04921
250	3,2	2,2	30	80	FT01	≈	**LU2C 1200**	F03FS04922
250	3,2	2,2	30	100	FT01	≈	**LU2C 1300**	F03FS04924
300	3,2	2,2	30	96	FT01	≈	**LU2C 1500**	F03FS04927
300	3,2	2,2	35	96	-	≈	**LU2C 1600**	F03FS04930
300	3,2	2,2	30	120	FT01	≈	**LU2C 1700**	F03FS04932
330	3,2	2,2	20	96	2/6/32	≈	**LU2C 1800**	F03FS04934
350	3,5	2,5	30	108	FT02	≈	**LU2C 2000**	F03FS04936
400	3,8	2,8	30	120	2/10/60	≈	**LU2C 2100**	F03FS04938
450	4,4	3,0	30	132	FT02	≈	**LU2C 2200**	F03FS04939
500	4,4	3,2	30	144	2/10/60 + 2/10/80	≈	**LU2C 2300**	F03FS04940
500	4,4	3,2	35	144	-	≈	**LU2C 2335**	F03FS09975
550	4,8	3,5	30	156	2/10/60 + 2/10/80	≈	**LU2C 2400**	F03FS04942
600	5,4	4,0	30	168	2/10/80	≈	**LU2C 2500**	F03FS04943

FT01: 2/7/42 + 2/9/46,4 + 2/10/60 - **FT02:** 2/9/46,4 + 2/10/60



Minimum and maximum RPM based on the blade diameter.



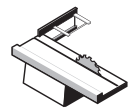
Maximum depth of rip and crosscut based on the blade diameter.

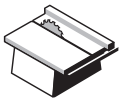
Solid wood Wood-based materials Plywood



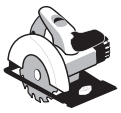
LU2D

Thin kerf saw blades for wood based panels crosscutting


Squaring Saws


Table Saws


Multiripping Machines


Hand-held Circular Saws


Softwood

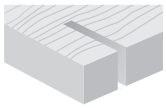

Hardwood


Chipboard


MDF


Laminated MDF

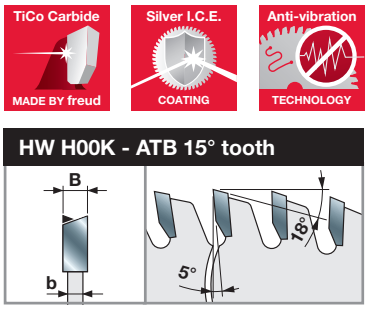

Thermoplastic Composites


Crosscutting

●●● Ultimate ●● High ● Good

D mm	B mm	b mm	d mm	Z	NL		Freud Code	Art. No.
150	2,0	1,4	30	48	2/7/42		**LU2D 0100**	F03FS04944
180	2,0	1,4	30	56	2/7/42		**LU2D 0200**	F03FS04948
180	2,0	1,4	40	56	-		**LU2D 0300**	F03FS04950
200	2,2	1,6	30	64	2/7/42		**LU2D 0400**	F03FS04952
250	2,5	1,8	20	80	2/6/32	≈	**LU2D 0500**	F03FS04954
250	2,5	1,8	30	80	FT01	≈	**LU2D 0700**	F03FS04957
300	2,7	1,8	30	96	FT01	≈	**LU2D 0900**	F03FS04959
350	3,0	2,2	30	108	FT01	≈	**LU2D 1100**	F03FS04963

FT01: 2/7/42 + 2/9/46,4 + 2/10/60



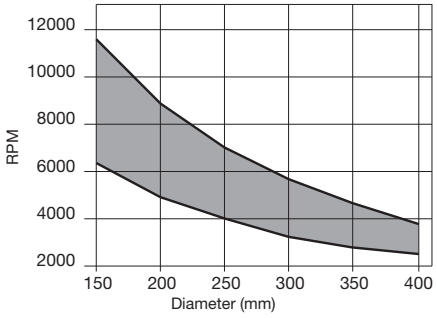
HW H00K - ATB 15° tooth

Machines:
Squaring saws, table saws and multiripping machines, hand-held circular saws.

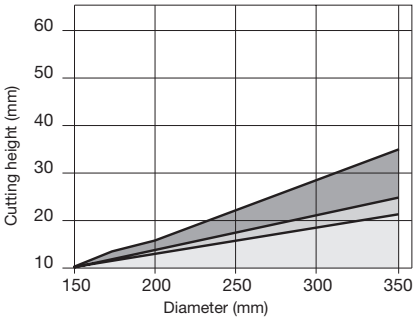
Materials:
Softwood, hardwood, chipboard, laminated MDF and thermoplastic composites.

Applications:
Crosscutting.

Technical information:
The thin kerf design makes the workpiece feed easy when crosscutting soft and hard drywood, minimising at the same time material wastes.



Minimum and maximum RPM based on the blade diameter.



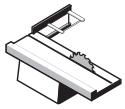
Maximum depth of rip and crosscut based on the blade diameter.

Solid wood Wood-based materials Plywood

LU2E

Saw blades to cut exotic abrasive wood and panels





Squaring Saws

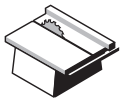
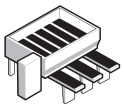


Table Saws



Horizontal Panel Sizing Machines



Softwood



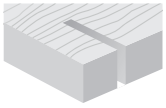
Hardwood



Laminated Chipboard



Laminated MDF



Crosscutting

●●

●●● Ultimate ●● High ● Good

D	B	b	d	Z	NL		Freud Code	Art. No.
mm	mm	mm	mm					
300	3,2	2,2	30	60	FT01		**LU2E 0200**	F03FS04965
300	3,2	2,2	30	72	FT01		**LU2E 0400**	F03FS04967
350	3,5	2,5	30	72	FT02		**LU2E 0500**	F03FS04970

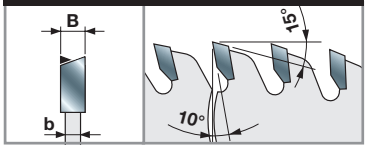
FT01: 2/7/42 + 2/9/46,4 + 2/10/60 - **FT02:** 2/9/46,4 + 2/10/60

TiCo Carbide MADE BY freud

Silver I.C.E. COATING

Anti-vibration TECHNOLOGY

HW H00XA - ATB 15° tooth

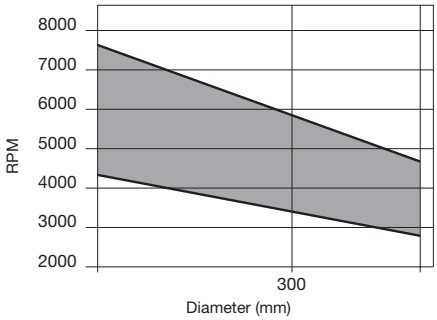


Machines:
Squaring saws, table saws and horizontal panel sizing machines.

Materials:
Softwood, hardwood, laminated chipboard and laminated MDF.

Applications:
Crosscutting and panel sizing.

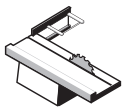
Technical information:
Good finishing in softwood and hardwood crosscutting.
Suitable also for chipboard (up to 50 mm thickness) and single-side laminated MDF (up to 30 mm thickness).



Maximum depth of rip and crosscut based on the blade diameter.



LU2F Saw blades to cut wood based panels, composites and plastic materials



Squaring Saws

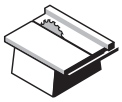
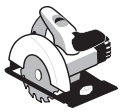


Table Saws



Hand-held Circular Saws



Mitre Saws



Softwood



Hardwood



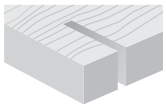
Laminated Chipboard



Laminated MDF



Thermoplastic Composites



Crosscutting

●●● Ultimate ●● High ● Good

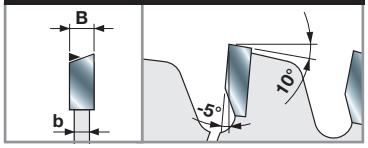
D	B	b	d	Z	NL		Freud Code	Art. No.
mm	mm	mm	mm					
216	2,8	2,0	30	24	-		**LU2F 0100**	F03FS06304
216	2,8	2,0	30	48	-		**LU2F 0200**	F03FS04971
216	2,8	2,0	30	60	-		**LU2F 0300**	F03FS04972
250	2,8	2,0	30	48	-		**LU2F 0400**	F03FS04973
250	2,8	2,0	30	60	-		**LU2F 0500**	F03FS04974

TiCo Carbide MADE BY freud

Silver I.C.E. COATING

Anti-vibration TECHNOLOGY

HW H00K - ATB 10° tooth

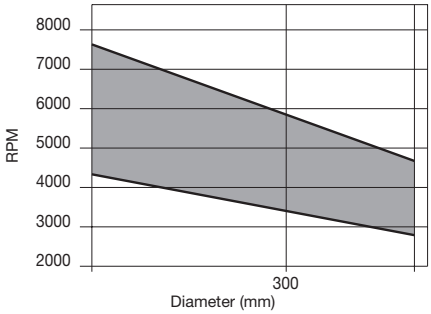


Machines:
Squaring saws and table saws, hand-held circular saws and mitre saws.

Materials:
Softwood, hardwood, laminated chipboard panels, laminated MDF and thermoplastic composites.

Applications:
Crosscutting and panel sizing.

Technical information:
To size bilaminated single panels without the use of the scoring saw blade, with good finishing and long cutting life.

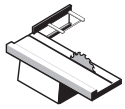


Minimum and maximum RPM based on the blade diameter.

LG2A

Saw blades for wood based panels ripping & crosscutting





Squaring Saws

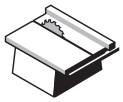


Table Saws



Softwood



Hardwood



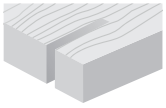
Plywood



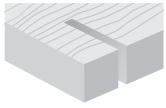
Chipboard



MDF



Ripping



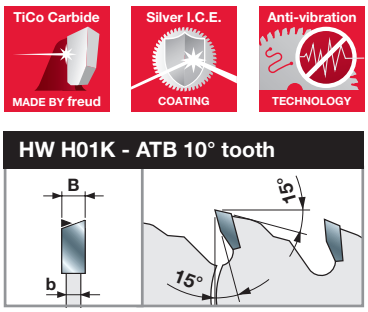
Crosscutting

●● ●●

●●● Ultimate ●● High ● Good

D mm	B mm	b mm	d mm	Z	NL		Freud Code	Art. No.
250	3,2	2,2	30	40	FT01		**LG2A 1700**	F03FS07562
300	3,2	2,2	30	36	FT01		**LG2A 1900**	F03FS07563
300	3,2	2,2	30	48	FT01		**LG2A 2100**	F03FS07564
350	3,5	2,5	30	54	FT02		**LG2A 2800**	F03FS07565

FT01: 2/7/42 + 2/9/46,4 + 2/10/60 - **FT02:** 2/9/46,4 + 2/10/60



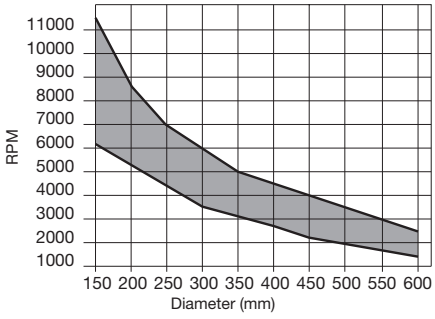
HW H01K - ATB 10° tooth

Machines:
Squaring saws and table saws.

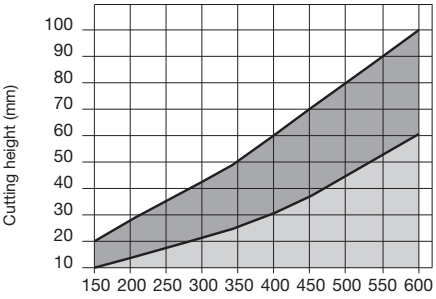
Materials:
Softwood, hardwood, plywood, chipboard and MDF.

Applications:
Ripping and crosscutting.

Technical information:
Saw blades suitable for ripping and crosscutting.



Minimum and maximum RPM based on the blade diameter.



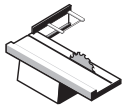
Maximum depth of rip and crosscut based on the blade diameter.

● Solid wood

LG2B

Saw blades for wood based panels ripping and crosscutting





Squaring Saws

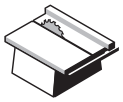


Table Saws



Softwood



Hardwood



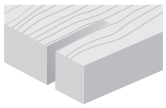
Plywood



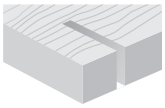
Chipboard



MDF



Ripping ●●



Crosscutting ●●

●●● Ultimate ●● High ● Good

D mm	B mm	b mm	d mm	Z	NL		Freud Code	Art. No.
250	3,2	2,2	30	60	FT01		**LG2B 0700**	F03FS07566
300	3,2	2,2	30	60	FT01		**LG2B 0900**	F03FS07567
300	3,2	2,2	30	72	FT01		**LG2B 1100**	F03FS07439
350	3,5	2,5	30	72	FT02		**LG2B 1400**	F03FS07568
350	3,5	2,5	30	84	FT02		**LG2B 1600**	F03FS07569

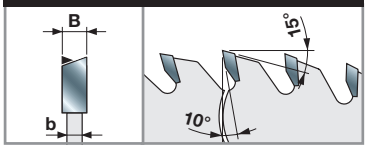
FT01: 2/7/42 + 2/9/46,4 + 2/10/60 - **FT02:** 2/9/46,4 + 2/10/60

TiCo Carbide MADE BY freud

Silver I.C.E. COATING

Anti-vibration TECHNOLOGY

HW H00K - ATB 15° tooth

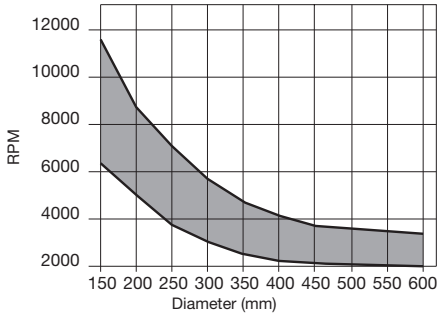


Machines:
Squaring saws and table saws.

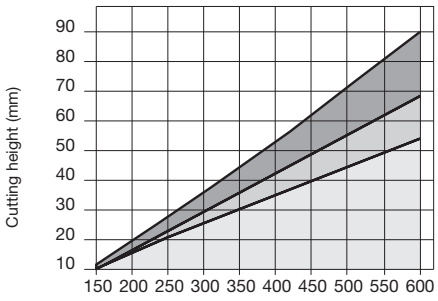
Materials:
Softwood, hardwood, plywood, chipboard and MDF.

Applications:
Ripping and crosscutting.

Technical information:
Saw blades suitable for ripping and crosscutting.



Minimum and maximum RPM based on the blade diameter.

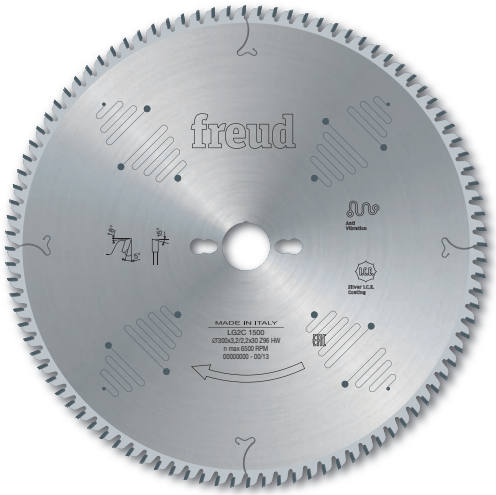


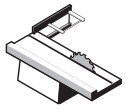
Maximum depth of rip and crosscut based on the blade diameter.

Solid wood ● Wood-base materials ● Plywood

LG2C

Saw blades for wood based panels crosscutting





Squaring Saws

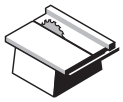


Table Saws



Softwood



Hardwood



Chipboard



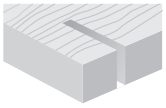
MDF



Laminated MDF



Thermoplastic Composites



Crosscutting

●●

●●● Ultimate ●● High ● Good

D mm	B mm	b mm	d mm	Z	NL	Freud Code	Art. No.
250	3,2	2,2	30	80	FT01	**LG2C 1200**	F03FS07570
300	3,2	2,2	30	96	FT01	**LG2C 1500**	F03FS07571
350	3,5	2,5	30	108	FT02	**LG2C 2000**	F03FS07572

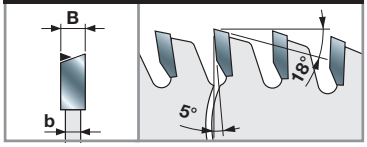
FT01: 2/7/42 + 2/9/46,4 + 2/10/60 - **FT02:** 2/9/46,4 + 2/10/60

TiCo Carbide MADE BY freud

Silver I.C.E. COATING

Anti-vibration TECHNOLOGY

HW H00K - ATB 15° tooth

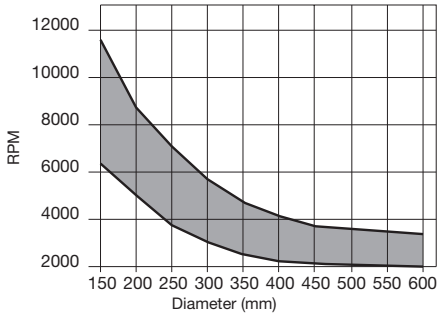


Machines:
Squaring saws and table saws.

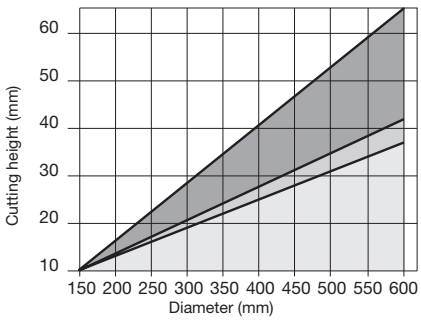
Materials:
Softwood, hardwood, chipboard, MDF, laminated MDF and thermoplastic composites.

Applications:
Crosscutting.

Technical information:
The thin kerf design makes the workpiece feed easy when crosscutting soft and hard drywood, minimising at the same time material wastes.



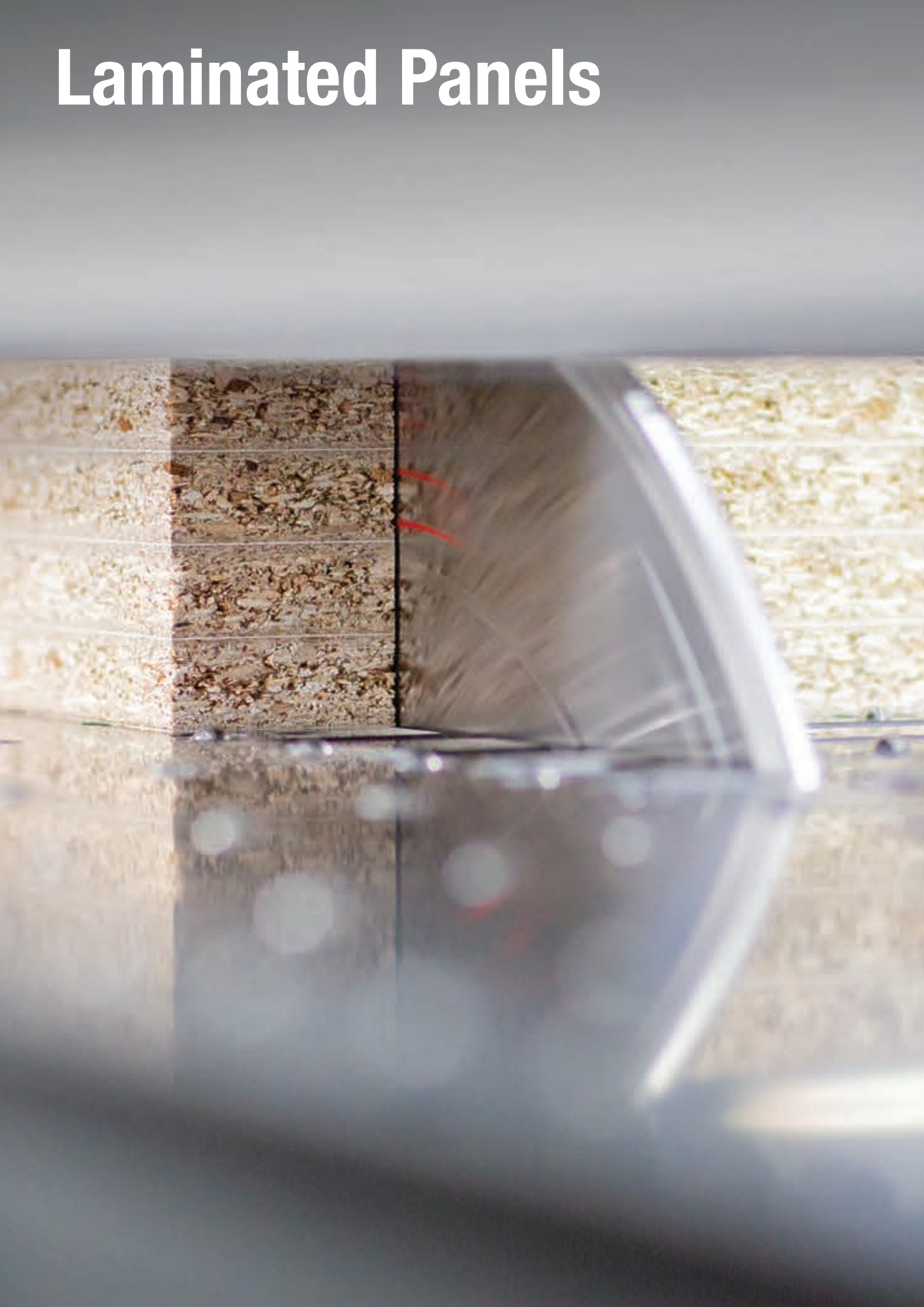
Minimum and maximum RPM based on the blade diameter.



Maximum depth of rip and crosscut based on the blade diameter.

● Solid wood ● Wood-based materials ● Plywood

Laminated Panels



Reference table of saw blades for panel sizing machines

Machine type	Tool type *	D	B-B1	b	d	Z	Tooth type	α	β	NL	Freud Code	Art. No.
		mm	mm	mm	mm							
BIESSE-SELCO												
EB 70 (L)	Main blade	300	4,4	3,0	65	60	TCG	15°	15°	2/9/110	**LSB30002X**	F03FS09159
	HW Scorer	200	4,3-5,5	3,2	65	36	ATB	8°	15°	2/9/100 + 2/9/110	**LI25M43PI3**	F03FS02681
	HW Scorer	300	4,3-5,5	3,0	65	48	ATB	12°	15°	2/9/100 + 2/9/110	**LI25M43RX3**	F03FS07616
	DP Scorer	200	4,3-5,1	3,2	65	36	FLAT	6°	14°	2/9/100 + 2/9/110	**DLI25M43PIH4**	F03FS09625
	DP Scorer	200	4,3-5,1	3,2	65	36	FLAT	6°	14°	2/9/100 + 2/9/110	**DLI25M43PIH6**	F03FS09626
	Postf.scorer	300	4,55	3,2	65	72	ATB	15°	15°	2/9/100 + 2/9/110	**LI27M DA3**	F03FS02737
EB 70 (KIT 80), 75 (SEKTOR 430), 80 (SEKTOR 450), SK350, SK450	Main blade	320	4,4	3,2	65	60	TCG	15°	15°	2/9/110	**LSB32003X**	F03FS09161
	Main blade	320	4,4	3,2	65	72	TCG	15°	15°	2/9/95 + 2/9/110	**LSB32001X**	F03FS07805
	HW Scorer	200	4,3-5,5	3,2	65	36	ATB	8°	15°	2/9/100 + 2/9/110	**LI25M43PI3**	F03FS02681
	HW Scorer	300	4,3-5,5	3,0	65	48	ATB	12°	15°	2/9/100 + 2/9/110	**LI25M43RX3**	F03FS07616
	DP Scorer	200	4,3-5,1	3,2	65	36	FLAT	6°	14°	2/9/100 + 2/9/110	**DLI25M43PIH4**	F03FS09625
	DP Scorer	200	4,3-5,1	3,2	65	36	FLAT	6°	14°	2/9/100 + 2/9/110	**DLI25M43PIH6**	F03FS09626
	Postf. scorer	300	4,55	3,2	65	72	ATB	15°	15°	2/9/100 + 2/9/110	**LI27M DA3**	F03FS02737
WN2, WN230, SK230	Main blade	320	4,4	3,2	65	72	TCG	15°	15°	2/9/95 + 2/9/110	**LSB32001X**	F03FS07805
	HW Scorer	200	4,3-5,5	3,2	65	36	ATB	8°	15°	2/9/100 + 2/9/110	**LI25M43PI3**	F03FS02681
	DP Scorer	200	4,3-5,1	3,2	65	36	FLAT	6°	14°	2/9/100 + 2/9/110	**DLI25M43PIH4**	F03FS09625
	DP Scorer	200	4,3-5,1	3,2	65	36	FLAT	6°	14°	2/9/100 + 2/9/110	**DLI25M43PIH6**	F03FS09626
WN 250	Main blade	350	4,4	3,2	65	72	TCG	15°	15°	2/9/110	**LSB35013X**	F03FS09659
	HW Scorer	200	4,3-5,5	3,2	65	36	ATB	8°	15°	2/9/100 + 2/9/110	**LI25M43PI3**	F03FS02681
	DP Scorer	200	4,3-5,1	3,2	65	36	FLAT	6°	14°	2/9/100 + 2/9/110	**DLI25M43PIH4**	F03FS09625
	DP Scorer	200	4,3-5,1	3,2	65	36	FLAT	6°	14°	2/9/100 + 2/9/110	**DLI25M43PIH6**	F03FS09626
EB 95, SEKTOR 470, K470, SK370	Main blade	355	4,4	3,2	65	72	TCG	15°	15°	2/9/95 + 2/9/110	**LSB35508X**	F03FS08740
	HW Scorer	200	4,3-5,5	3,2	65	36	ATB	8°	15°	2/9/100 + 2/9/110	**LI25M43PI3**	F03FS02681
	HW Scorer	300	4,3-5,5	3,0	65	48	ATB	12°	15°	2/9/100 + 2/9/110	**LI25M43RX3**	F03FS07616
	DP Scorer	200	4,3-5,1	3,2	65	36	FLAT	6°	14°	2/9/100 + 2/9/110	**DLI25M43PIH4**	F03FS09625
	DP Scorer	200	4,3-5,1	3,2	65	36	FLAT	6°	14°	2/9/100 + 2/9/110	**DLI25M43PIH6**	F03FS09626
	Postf. scorer	300	4,55	3,2	65	72	ATB	15°	15°	2/9/100 + 2/9/110	**LI27M DA3**	F03FS02737
EB100	Main blade	360	4,4	3,2	65	72	TCG	15°	15°	2/9/95 + 2/9/110	**LSB36002X**	F03FS07673
	HW Scorer	200	4,3-5,5	3,2	65	36	ATB	8°	15°	2/9/100 + 2/9/110	**LI25M43PI3**	F03FS02681
	HW Scorer	300	4,3-5,5	3,0	65	48	ATB	12°	15°	2/9/100 + 2/9/110	**LI25M43RX3**	F03FS07616
	DP Scorer	200	4,3-5,1	3,2	65	36	FLAT	6°	14°	2/9/100 + 2/9/110	**DLI25M43PIH4**	F03FS09625
	DP Scorer	200	4,3-5,1	3,2	65	36	FLAT	6°	14°	2/9/100 + 2/9/110	**DLI25M43PIH6**	F03FS09626
	Postf. scorer	300	4,55	3,2	65	72	ATB	15°	15°	2/9/100 + 2/9/110	**LI27M DA3**	F03FS02737
WN-WNA 610, WN-WNA 610 (PFS)	Main blade	380	4,4	3,2	65	72	TCG	15°	15°	2/9/110	**LSB38014X**	F03FS09166
	HW Scorer	200	4,3-5,5	3,2	65	36	ATB	8°	15°	2/9/100 + 2/9/110	**LI25M43PI3**	F03FS02681
	HW Scorer	300	4,3-5,5	3,0	65	48	ATB	12°	15°	2/9/100 + 2/9/110	**LI25M43RX3**	F03FS07616
	DP Scorer	200	4,3-5,1	3,2	65	36	FLAT	6°	14°	2/9/100 + 2/9/110	**DLI25M43PIH4**	F03FS09625
	DP Scorer	200	4,3-5,1	3,2	65	36	FLAT	6°	14°	2/9/100 + 2/9/110	**DLI25M43PIH6**	F03FS09626
EB108, EB110, EB120	Main blade	400	4,4	3,2	80	72	TCG	15°	15°	2/15/105 + 2/9/130 + 4/19/120	**LSB40009X**	F03FS07810
	HW Scorer	200	4,3-5,5	3,2	65	36	ATB	8°	15°	2/9/100 + 2/9/110	**LI25M43PI3**	F03FS02681
	HW Scorer	300	4,3-5,5	3,0	65	48	ATB	12°	15°	2/9/100 + 2/9/110	**LI25M43RX3**	F03FS07616
	DP Scorer	200	4,3-5,1	3,2	65	36	FLAT	6°	14°	2/9/100 + 2/9/110	**DLI25M43PIH4**	F03FS09625
	DP Scorer	200	4,3-5,1	3,2	65	36	FLAT	6°	14°	2/9/100 + 2/9/110	**DLI25M43PIH6**	F03FS09626
	Postf. scorer	300	4,55	3,2	65	72	ATB	15°	15°	2/9/100 + 2/9/110	**LI27M DA3**	F03FS02737
WN-WNA 630, WN-WNA 630 (PFS)	Main blade	400	4,4	3,2	65	72	TCG	15°	15°	2/9/110	**LSB40016X**	F03FS09172
	HW Scorer	200	4,3-5,5	3,2	65	36	ATB	8°	15°	2/9/100 + 2/9/110	**LI25M43PI3**	F03FS02681
	HW Scorer	300	4,3-5,5	3,0	65	48	ATB	12°	15°	2/9/100 + 2/9/110	**LI25M43RX3**	F03FS07616
	DP Scorer	200	4,3-5,1	3,2	65	36	FLAT	6°	14°	2/9/100 + 2/9/110	**DLI25M43PIH4**	F03FS09625
	DP Scorer	200	4,3-5,1	3,2	65	36	FLAT	6°	14°	2/9/100 + 2/9/110	**DLI25M43PIH6**	F03FS09626

*** Tool type:** Main saw blade, Scoring saw blade, Polycrystalline Diamond scorer and Postforming scorer.

Reference table of saw blades for panel sizing machines

Machine type	Tool type *	D	B-B1	b	d	Z	Tooth type	α	β	NL	Freud Code	Art. No.
		mm	mm	mm	mm							
EB/EBT 120, WN 125	Main blade	430	4,4	3,2	80	72	TCG	15°	15°	2/9/130 + 2/14/110 + 4/19/120	**LSB43009X**	F03FS07909
	HW Scorer	200	4,3-5,5	3,2	65	36	ATB	8°	15°	2/9/100 + 2/9/110	**LI25M43PI3**	F03FS02681
	HW Scorer	300	4,3-5,5	3,2	65	72	ATB	12°	15°	2/9/100 + 2/9/110	**LI25M43RI3**	F03FS02689
	DP Scorer	200	4,3-5,1	3,2	65	36	FLAT	6°	14°	2/9/100 + 2/9/110	**DLI25M43PIH4**	F03FS09625
	DP Scorer	200	4,3-5,1	3,2	65	36	FLAT	6°	14°	2/9/100 + 2/9/110	**DLI25M43PIH6**	F03FS09626
	Postf. scorer	300	4,55	3,2	65	72	ATB	15°	15°	2/9/100 + 2/9/110	**LI27M DA3**	F03FS02737
WN-WNA 650, WN-WNA 650 (PFS)	Main blade	430	4,4	3,2	65	72	TCG	15°	15°	2/9/110	**LSB43012X**	F03FS09178
	HW Scorer	200	4,3-5,5	3,2	65	36	ATB	8°	15°	2/9/100 + 2/9/110	**LI25M43PI3**	F03FS02681
	HW Scorer	300	4,3-5,5	3,0	65	48	ATB	12°	15°	2/9/100 + 2/9/110	**LI25M43RX3**	F03FS07616
	DP Scorer	200	4,3-5,1	3,2	65	36	FLAT	6°	14°	2/9/100 + 2/9/110	**DLI25M43PIH4**	F03FS09625
	DP Scorer	200	4,3-5,1	3,2	65	36	FLAT	6°	14°	2/9/100 + 2/9/110	**DLI25M43PIH6**	F03FS09626
WN 710, WN 710 (PFS)	Main blade	430	4,8	3,5	70	72	TCG	15°	15°	4/11/130	**LSB43013X**	F03FS09180
	HW Scorer	200	4,7-5,9	3,5	65	36	ATB	8°	15°	2/9/100 + 2/9/110	**LI25M47PI3**	F03FS02720
	HW Scorer	300	4,7-5,9	3,5	65	48	ATB	6°	15°	2/9/110	**LI25M47RX3**	F03FS07744
	DP Scorer	200	4,7-5,5	3,5	65	36	FLAT	6°	14°	2/9/100 + 2/9/110	**DLI25M47PIH4**	F03FS09631
	DP Scorer	200	4,7-5,5	3,5	65	36	FLAT	6°	14°	2/9/100 + 2/9/110	**DLI25M47PIH6**	F03FS09632
WN 600/132, WN 200	Main blade	450	4,8	3,5	80	72	TCG	15°	15°	2/14/125 + 2/9/130 + 4/19/120	**LSB45018X**	F03FS07812
	HW Scorer	200	4,7-5,9	3,5	65	36	ATB	8°	15°	2/9/100 + 2/9/110	**LI25M47PI3**	F03FS02720
	DP Scorer	200	4,7-5,5	3,5	65	36	FLAT	6°	14°	2/9/100 + 2/9/110	**DLI25M47PIH4**	F03FS09631
	DP Scorer	200	4,7-5,5	3,5	65	36	FLAT	6°	14°	2/9/100 + 2/9/110	**DLI25M47PIH6**	F03FS09632
	Postf. scorer	300	4,95	3,0	65	72	ATB	15°	15°	2/9/100 + 2/9/110	**LI27M DB3**	F03FS02739
WN 600/132, WN 200	Main blade	450	4,8	3,5	80	72	TCG	15°	15°	2/14/125 + 2/9/130 + 4/19/120	**LSB45018X**	F03FS07812
	HW Scorer	200	4,7-5,9	3,5	65	36	ATB	8°	15°	2/9/100 + 2/9/110	**LI25M47PI3**	F03FS02720
	DP Scorer	200	4,7-5,5	3,5	65	36	FLAT	6°	14°	2/9/100 + 2/9/110	**DLI25M47PIH4**	F03FS09631
	DP Scorer	200	4,7-5,5	3,5	65	36	FLAT	6°	14°	2/9/100 + 2/9/110	**DLI25M47PIH6**	F03FS09632
	Postf. scorer	300	4,95	3,0	65	72	ATB	15°	15°	2/9/100 + 2/9/110	**LI27M DB3**	F03FS02739
WN-WNA 730, WN-WNA 730 (PFS)	Main blade	470	4,8	3,5	70	72	TCG	15°	15°	4/11/130	**LSB47005X**	F03FS09185
	HW Scorer	200	4,7-5,9	3,5	65	36	ATB	8°	15°	2/9/100 + 2/9/110	**LI25M47PI3**	F03FS02720
	HW Scorer	300	4,7-5,9	3,5	65	48	ATB	6°	15°	2/9/110	**LI25M47RX3**	F03FS07744
	DP Scorer	200	4,7-5,5	3,5	65	36	FLAT	6°	14°	2/9/100 + 2/9/110	**DLI25M47PIH4**	F03FS09631
	DP Scorer	200	4,7-5,5	3,5	65	36	FLAT	6°	14°	2/9/100 + 2/9/110	**DLI25M47PIH6**	F03FS09632
WN-WNA 750, WN-WNA 750 (PFS)	Main blade	470	4,8	3,5	70	72	TCG	15°	15°	4/11/130	**LSB47005X**	F03FS09185
	Main blade	520	4,8	3,5	70	72	TCG	15°	15°	4/11/130	**LSB52006X**	F03FS09193
	HW Scorer	200	5,7-6,9	3,5	65	36	ATB	8°	15°	2/9/110	**LI25M57PI3BS**	F03FS08165
WN 600/145, WN 512	Main blade	480	4,8	3,5	80	72	TCG	15°	15°	2/9/130 + 4/19/120	**LSB48001X**	F03FS09188
	HW Scorer	200	4,7-5,9	3,5	65	36	ATB	8°	15°	2/9/100 + 2/9/110	**LI25M47PI3**	F03FS02720
	DP Scorer	200	4,7-5,5	3,5	65	36	FLAT	6°	14°	2/9/100 + 2/9/110	**DLI25M47PIH4**	F03FS09631
	DP Scorer	200	4,7-5,5	3,5	65	36	FLAT	6°	14°	2/9/100 + 2/9/110	**DLI25M47PIH6**	F03FS09632
	Postf. scorer	300	4,55	3,2	65	72	ATB	15°	15°	2/9/100 + 2/9/110	**LI27M DA3**	F03FS02737
WNA600/162	Main blade	510	4,8	3,5	80	72	TCG	15°	15°	2/9/130 + 4/19/120	**LSB51001X**	F03FS09984
	HW Scorer	200	4,7-5,9	3,5	65	36	ATB	8°	15°	2/9/100 + 2/9/110	**LI25M47PI3**	F03FS02720
	DP Scorer	200	4,7-5,5	3,5	65	36	FLAT	6°	14°	2/9/100 + 2/9/110	**DLI25M47PIH4**	F03FS09631
	DP Scorer	200	4,7-5,5	3,5	65	36	FLAT	6°	14°	2/9/100 + 2/9/110	**DLI25M47PIH6**	F03FS09632
	Postf. scorer	300	4,95	3,0	65	72	ATB	15°	15°	2/9/100 + 2/9/110	**LI27M DB3**	F03FS02739
WN-WNA 850	Main blade	600	5,8	4,0	70	60	TCG	15°	15°	4/11/130	**LSB60004X**	F03FS10258
	Main blade	600	5,8	4,0	75	60	TCG	15°	15°	4/6,5/130 + 4/11/130	**LSB60006X**	F03FS10259
	HW Scorer	200	5,7-6,9	3,5	65	36	ATB	8°	15°	2/9/110	**LI25M57PI3BS**	F03FS08165
AES												
ALPHA PS-03	Main blade	320	4,4	3,2	30	72	TCG	15°	15°	2/10/60 + 2/13/94	**LSB32009X**	F03FS10296
	HW Scorer	200	4,3-5,5	3,2	20	36	ATB	8°	15°	2/10/60 + 2/9/62 + 2/11/66	**LI25M43PA3**	F03FS02670
ALPHA PS-05	Main blade	430	4,4	3,2	30	72	TCG	15°	15°	2/13/94	**LSB43007X**	F03FS09177
	HW Scorer	200	4,3-5,5	3,2	20	36	ATB	8°	15°	2/11/66 + 2/10/60 + 2/9/62	**LI25M43PA3**	F03FS02670

* **Tool type:** Main saw blade, Scoring saw blade, Polycrystalline Diamond scorer and Postforming scorer.

Reference table of saw blades for panel sizing machines

Machine type	Tool type *	D	B-B1	b	d	Z	Tooth type	α	β	NL	Freud Code	Art. No.
		mm	mm	mm	mm							
ALPHA PS-06	Main blade	460	4,4	3,2	30	72	TCG	15°	15°	2/13/94	**LSB46001X**	F03FS08922
	HW Scorer	200	4,3-5,5	3,2	20	36	ATB	8°	15°	2/11/66 + 2/10/60 + 2/9/62	**LI25M43PA3**	F03FS02670
ANTHON												
LN (90)	400	4,4	3,2	60	72	72	TCG	15°	15°	2/14/100 + 2/11/85	**LSB40017X**	F03FS09272
	180	4,3-5,5	3,2	20	28	28	ATB	8°	15°	-	**LI25M43NA3**	F03FS02661
	180	4,3-5,5	3,2	20	36	36	ATB	8°	15°	-	**LI25M43XA3**	F03FS06372
PORTA 100	400	4,4	3,2	60	72	72	TCG	15°	15°	2/14/100 + 2/11/85	**LSB40017X**	F03FS09272
	180	4,3-5,5	3,2	20	36	36	ATB	8°	15°	-	**LI25M43XA3**	F03FS06372
LNA (100), LN (120)	450	4,4	3,2	60	72	72	TCG	15°	15°	2/14/125	**LSB45008X**	F03FS09182
	180	4,3-5,5	3,2	20	36	36	ATB	8°	15°	-	**LI25M43XA3**	F03FS06372
PORTA 150	500	4,8	3,5	60	60	60	TCG	15°	15°	2/11/115	**LSB50009X**	F03FS09189
	180	4,3-5,5	3,2	20	36	36	ATB	8°	15°	-	**LI25M43XA3**	F03FS06372
AYZA MIZRAK												
LANZA P3	Main blade	320	4,4	3,2	65	60	TCG	15°	15°	2/9/110	**LSB32003X**	F03FS09161
	Main blade	320	4,4	3,2	65	72	TCG	15°	15°	2/9/95 + 2/9/110	**LSB32001X**	F03FS07805
	HW Scorer	200	4,3-5,5	3,2	65	36	ATB	8°	15°	2/9/100 + 2/9/110	**LI25M43PI3**	F03FS02681
	Main blade	360	4,4	3,2	65	60	TCG	15°	15°	2/9/110	**LSB36001X**	F03FS10227
	Main blade	360	4,4	3,2	65	72	TCG	15°	15°	2/9/95 + 2/9/110	**LSB36002X**	F03FS07673
	HW Scorer	200	4,3-5,5	3,2	65	36	ATB	8°	15°	2/9/100 + 2/9/110	**LI25M43PI3**	F03FS02681
LANZA P4	Main blade	380	4,4	3,2	65	72	TCG	15°	15°	2/9/110	**LSB38014X**	F03FS09166
	HW Scorer	200	4,3-5,5	3,2	65	36	ATB	8°	15°	2/9/100 + 2/9/110	**LI25M43PI3**	F03FS02681
LANZA P5	Main blade	400	4,4	3,2	65	72	TCG	15°	15°	2/9/110	**LSB40016X**	F03FS09172
	HW Scorer	200	4,3-5,5	3,2	65	36	ATB	8°	15°	2/9/100 + 2/9/110	**LI25M43PI3**	F03FS02681
LANZA P5 CARRERA	Main blade	400	4,4	3,2	65	72	TCG	15°	15°	2/9/110	**LSB40016X**	F03FS09172
	HW Scorer	200	4,3-5,5	3,2	65	36	ATB	8°	15°	2/9/100 + 2/9/110	**LI25M43PI3**	F03FS02681
FELDER MAYER												
KAPPA AUTOMATIC 80	Main blade	320	4,4	3,2	30	60	TCG	15°	15°	2/10/60	**LSB32005X**	F03FS09160
	Main blade	320	4,4	3,2	30	72	TCG	15°	15°	2/10/60 + 2/13/94	**LSB32009X**	F03FS10296
	HW Scorer	150	4,3-5,6	3,2	30	36	ATB	8°	15°	-	**LI25M43KC3**	F03FS02649
KAPPA AUTOMATIC 80 EDITION	Main blade	320	4,4	3,2	30	60	TCG	15°	15°	2/10/60	**LSB32005X**	F03FS09160
	HW Scorer	150	4,3-5,6	3,2	30	36	ATB	8°	15°	-	**LI25M43KC3**	F03FS02649
KAPPA AUTOMATIC CLASSIC	Main blade	320	4,4	3,2	30	60	TCG	15°	15°	2/10/60	**LSB32005X**	F03FS09160
	HW Scorer	150	4,3-5,6	3,2	30	36	ATB	8°	15°	-	**LI25M43KC3**	F03FS02649
PS80	Main blade	320	4,4	3,2	30	60	TCG	15°	15°	2/10/60	**LSB32005X**	F03FS09160
	HW Scorer	150	4,3-5,6	3,2	30	36	ATB	8°	15°	-	**LI25M43KC3**	F03FS02649
KAPPA AUTOMATIC 100	Main blade	355	4,4	3,2	30	72	TCG	15°	15°	2/10/60	**LSB35504X**	F03FS07674
	HW Scorer	150	4,3-5,6	3,2	30	36	ATB	8°	15°	-	**LI25M43KC3**	F03FS02649
PS80 PREMIUM	Main blade	355	4,4	3,2	30	72	TCG	15°	15°	2/10/60	**LSB35504X**	F03FS07674
	HW Scorer	150	4,3-5,6	3,2	30	36	ATB	8°	15°	-	**LI25M43KC3**	F03FS02649
KAPPA AUTOMATIC 120	Main blade	400	4,4	3,2	30	48	TCG	15°	15°	2/10/60	**LSB40001X**	F03FS09168
	Main blade	400	4,4	3,2	30	60	TCG	15°	15°	2/10/60	**LSB40004X**	F03FS09169
	Main blade	400	4,4	3,2	30	72	TCG	15°	15°	2/10/60 + 2/13/94	**LSB40007X**	F03FS07725
	HW Scorer	150	4,3-5,6	3,2	30	36	ATB	8°	15°	-	**LI25M43KC3**	F03FS02649
PS100	Main blade	400	4,4	3,2	30	48	TCG	15°	15°	2/10/60	**LSB40001X**	F03FS09168
	Main blade	400	4,4	3,2	30	60	TCG	15°	15°	2/10/60	**LSB40004X**	F03FS09169
	Main blade	400	4,4	3,2	30	72	TCG	15°	15°	2/10/60 + 2/13/94	**LSB40007X**	F03FS07725
	HW Scorer	150	4,3-5,6	3,2	30	36	ATB	8°	15°	-	**LI25M43KC3**	F03FS02649
PS2 Z	Main blade	450	4,4	3,2	30	72	TCG	15°	15°	2/10/60 + 2/14/95	**LSB45007X**	F03FS09181
	HW Scorer	150	4,3-5,6	3,2	30	36	ATB	8°	15°	-	**LI25M43KC3**	F03FS02649
KAPPA AUTOMATIC 140	Main blade	450	4,4	3,2	30	72	TCG	15°	15°	2/10/60 + 2/14/95	**LSB45007X**	F03FS09181
	HW Scorer	150	4,3-5,6	3,2	30	36	ATB	8°	15°	-	**LI25M43KC3**	F03FS02649

*** Tool type:** Main saw blade, Scoring saw blade, Polycrystalline Diamond scorer and Postforming scorer.

Reference table of saw blades for panel sizing machines

Machine type	Tool type *	D	B-B1	b	d	Z	Tooth type	α	β	NL	Freud Code	Art. No.
		mm	mm	mm	mm							
FIMAL												
CONCEPT 350	Main blade	350	4,4	3,2	30	72	TCG	15°	15°	2/10/60	**LSB35003X**	F03FS07630
	Main blade	300	4,4	3,0	30	60	TCG	15°	15°	2/10/60	**LSB30001X**	F03FS07802
KR32	Main blade	350	4,4	3,2	30	72	TCG	15°	15°	2/10/60	**LSB35003X**	F03FS07630
KR43	Main blade	350	4,4	3,2	30	72	TCG	15°	15°	2/10/60	**LSB35003X**	F03FS07630
GIBEN												
MK, GAMMA, N, ST, SE, TREND	Main blade	355	4,4	3,2	75	72	TCG	15°	15°	4/15/105 + 2/7/110	**LSB35505X**	F03FS07633
	HW Scorer	125	4,3-5,5	3,2	45	24	ATB	0°	15°	-	**LI25M43FE3**	F03FS02645
SMART SP105, ICON 105	Main blade	380	4,4	3,2	50	72	TCG	15°	15°	4/13/80	**LSB38008X**	F03FS09165
	HW Scorer	250	4,3-5,5	3,2	50	48	ATB	8°	15°	3/13/80	**LI25M43QF3**	F03FS02669
G 2000 STARMATIC	Main blade	400	4,4	3,2	75	72	TCG	15°	15°	4/15/105 + 2/7/110 + 2/14/100	**LSB40008X**	F03FS07726
	Main blade	400	4,4	3,2	75	84	TCG	15°	15°	4/15/105 + 2/7/110	**LSB40019X**	F03FS08990
	HW Scorer	125	4,5-5,7	3,0	45	24	ATB	0°	15°	-	**LI25M45FE3**	F03FS02699
PRISMATIC 101	Main blade	400	4,4	3,2	75	72	TCG	15°	15°	4/15/105 + 2/7/110 + 2/14/100	**LSB40008X**	F03FS07726
	HW Scorer	160	4,3-5,5	3,2	45	36	ATB	8°	15°	3/11/70	**LI25M43LE3**	F03FS02655
PRISMATIC 201	Main blade	400	4,4	3,2	75	72	TCG	15°	15°	4/15/105 + 2/7/110 + 2/14/100	**LSB40008X**	F03FS07726
	Main blade	430	4,4	3,2	75	72	TCG	15°	15°	4/15/105 + 2/7/110	**LSB43008X**	F03FS07908
	HW Scorer	215	4,3-5,5	3,2	50	42	ATB	8°	15°	2/7/80 + 3/15/80	**LI25M43QF3**	F03FS02685
	HW Scorer	300	4,3-5,5	3,5	50	48	ATB	12°	15°	3/15/80	**LI25M43RM3**	F03FS02693
	DP Scorer	215	4,3-5,1	3,2	50	42	FLAT	6°	14°	2/7/80 + 3/15/80	**DLI25M43QFH4**	F03FS09633
	DP Scorer	215	4,3-5,1	3,2	50	42	FLAT	6°	14°	2/7/80 + 3/15/80	**DLI25M43QFH6**	F03FS09634
	Postf. Scorer	300	4,55	3,2	50	72	ATB	15°	15°	3/15/80	**LI27M DD3**	F03FS02743
PRISMATIC 2, 3	Main blade	470	4,4	3,2	75	96	TCG	15°	15°	4/15/105	**LSB47004X**	F03FS09184
	HW Scorer	215	4,3-5,5	3,2	50	42	ATB	8°	15°	2/7/80 + 3/15/80	**LI25M43QF3**	F03FS02685
	HW Scorer	215	4,5-5,7	3,2	50	42	ATB	8°	15°	3/15/80	**LI25M45PF3**	F03FS02713
	HW Scorer	300	4,3-5,5	3,5	50	48	ATB	12°	15°	3/15/80	**LI25M43RM3**	F03FS02693
	DP Scorer	215	4,3-5,1	3,2	50	42	FLAT	6°	14°	2/7/80 + 3/15/80	**DLI25M43QFH4**	F03FS09633
	DP Scorer	215	4,3-5,1	3,2	50	42	FLAT	6°	14°	2/7/80 + 3/15/80	**DLI25M43QFH6**	F03FS09634
	Postf. Scorer	300	4,55	3,2	50	72	ATB	15°	15°	3/15/80	**LI27M DD3**	F03FS02743
ICONFAST LM D-816	Main blade	530	4,8	3,5	75	72	TCG	15°	15°	2/7/110	**LSB53004X**	F03FS09651
	HW Scorer	215	4,7-5,9	3,5	50	42	ATB	8°	15°	2/7/80	**LI25M47QF3**	F03FS09650
HOLZHER												
CUT 85, 82	Main blade	350	4,4	3,2	30	72	TCG	15°	15°	2/10/60	**LSB35003X**	F03FS07630
	HW Scorer	180	4,3-5,5	3,2	30	28	ATB	8°	15°	2/7/42 + 2/10/60	**LI25M43NC3**	F03FS02663
	HW Scorer	180	4,3-5,5	3,2	30	36	ATB	8°	15°	2/7/42 + 2/10/60	**LI25M43XN3**	F03FS06373
	Postf. scorer	250	4,60	3,0	30	48	ATB	15°	15°	-	**LI27M BA3**	F03FS02734
TECTRA 6120 CLASSIC	Main blade	350	4,4	3,2	30	72	TCG	15°	15°	2/10/60	**LSB35003X**	F03FS07630
	HW Scorer	180	4,3-5,5	3,2	30	36	ATB	8°	15°	2/7/42 + 2/10/60	**LI25M43XN3**	F03FS06373
CUT 110	Main blade	400	4,4	3,2	30	72	TCG	15°	15°	2/10/60 + 2/13/94	**LSB40007X**	F03FS07725
	HW Scorer	250	4,3-5,5	3,2	30	48	CON	8°	15°	2/10/60	**LI25M43OC3**	F03FS02668
	Postf. scorer	250	4,60	3,0	30	48	ATB	15°	15°	-	**LI27M BA3**	F03FS02734
ZENTREX 6220 (POWER, LIFT, DYNAMIC)	Main blade	430	4,4	3,2	30	72	TCG	15°	15°	2/13/94	**LSB43007X**	F03FS09177
	HW Scorer	180	4,3-5,5	3,2	30	36	ATB	8°	15°	2/7/42 + 2/10/60	**LI25M43XN3**	F03FS06373
HOLZMA												
HPP130	Main blade	300	4,4	3,2	60	72	TCG	15°	15°	2/14/100	**LSB30012X**	F03FS09207
	DP Scorer	180	4,3-5,1	3,2	45	30	FLAT	6°	14°	-	**DLI25M43NEH4**	F03FS09621
	DP Scorer	180	4,3-5,1	3,2	45	30	FLAT	6°	14°	-	**DLI25M43NEH6**	F03FS09622
	HW Scorer	180	4,3-5,5	3,2	45	36	CON	8°	15°	-	**LI25M43NE3**	F03FS02664

* **Tool type:** Main saw blade, Scoring saw blade, Polycrystalline Diamond scorer and Postforming scorer.

Reference table of saw blades for panel sizing machines

Machine type	Tool type *	D	B-B1	b	d	Z	Tooth type	α	β	NL	Freud Code	Art. No.
		mm	mm	mm	mm							
HPP230, 250 (before 06/2014)	Main blade	300	4,4	3,2	60	72	TCG	15°	15°	2/14/100	LSB30012X	F03FS09207
	Main blade	350	4,4	3,2	60	72	TCG	15°	15°	2/14/100	LSB35004X	F03FS07636
	HW Scorer	200	4,3-5,5	3,2	45	36	ATB	8°	15°	-	LI25M43PE3	F03FS02676
	HW Scorer	180	4,3-5,5	3,2	45	36	ATB	8°	15°	-	LI25M43NE3	F03FS02664
	DP Scorer	180	4,3-5,1	3,2	45	30	FLAT	6°	14°	-	DLI25M43NEH4	F03FS09621
	DP Scorer	180	4,3-5,1	3,2	45	30	FLAT	6°	14°	-	DLI25M43NEH6	F03FS09622
SAWTEQ B-200	Main blade	310	4,4	3,2	60	72	TCG	15°	15°	2/14/100	LSB31001X	F03FS09949
	HW Scorer	200	4,3-5,5	3,2	45	36	ATB	8°	15°	-	LI25M43PE3	F03FS02676
HPP350	Main blade	350	4,4	3,2	75	72	TCG	15°	15°	-	LSB35008X	F03FS07634
	HW Scorer	180	4,3-5,5	3,2	45	36	ATB	8°	15°	-	LI25M43NE3	F03FS02664
	DP Scorer	180	4,3-5,1	3,2	45	30	FLAT	6°	14°	-	DLI25M43NEH4	F03FS09621
	DP Scorer	180	4,3-5,1	3,2	45	30	FLAT	6°	14°	-	DLI25M43NEH6	F03FS09622
HPP180	Main blade	380	4,4	3,2	60	72	TCG	15°	15°	2/14/100	LSB38002X	F03FS07631
	HW Scorer	180	4,3-5,5	3,2	45	36	ATB	8°	15°	-	LI25M43NE3	F03FS02664
	DP Scorer	180	4,3-5,1	3,2	45	30	FLAT	6°	14°	-	DLI25M43NEH4	F03FS09621
	DP Scorer	180	4,3-5,1	3,2	45	30	FLAT	6°	14°	-	DLI25M43NEH6	F03FS09622
HPP380, 82	Main blade	380	4,4	3,2	60	72	TCG	15°	15°	2/14/100	LSB38002X	F03FS07631
	Main blade	380	4,8	3,5	60	72	TCG	15°	15°	2/14/100	LSB38004X	F03FS07632
	Main blade	380	4,8	3,5	60	84	TCG	15°	15°	2/14/100	LSB38005X	F03FS07807
	HW Scorer	180	4,3-5,5	3,2	45	36	ATB	8°	15°	-	LI25M43NE3	F03FS02664
	HW Scorer	180	4,7-5,9	3,5	45	36	ATB	8°	15°	-	LI25M47NE3	F03FS02715
	DP Scorer	180	4,3-5,1	3,2	45	30	FLAT	6°	14°	-	DLI25M43NEH4	F03FS09621
	DP Scorer	180	4,3-5,1	3,2	45	30	FLAT	6°	14°	-	DLI25M43NEH6	F03FS09622
	DP Scorer	180	4,7-5,5	3,5	45	30	FLAT	6°	14°	-	DLI25M47NEH4	F03FS09623
	DP Scorer	180	4,7-5,5	3,5	45	30	FLAT	6°	14°	-	DLI25M47NEH6	F03FS09624
	Postf. scorer	280	5,0	3,5	45	84	ATB	15°	15°	-	LI27M CA3	F03FS02736
HPL410	Main blade	420	4,8	3,5	60	60	TCG	15°	15°	2/14/125	LSB42001X	F03FS10234
	Main blade	420	4,8	3,5	60	84	TCG	15°	15°	2/14/100 + 2/14/125	LSB42002X	F03FS09176
	HW Scorer	180	4,7-5,9	3,5	45	36	ATB	8°	15°	-	LI25M47NE3	F03FS02715
	DP Scorer	180	4,7-5,5	3,5	45	30	FLAT	6°	14°	-	DLI25M47NEH4	F03FS09623
	DP Scorer	180	4,7-5,5	3,5	45	30	FLAT	6°	14°	-	DLI25M47NEH6	F03FS09624
	Postf. scorer	340	5,0	3,5	45	108	ATB	15°	15°	3/14/65	LI27M EB3	F03FS02747
HPP430, 510, 11	Main blade	450	4,8	3,5	60	72	TCG	15°	15°	2/14/125 + 2/17/100	LSB45017X	F03FS07391
	HW Scorer	180	4,7-5,9	3,5	45	36	ATB	8°	15°	-	LI25M47NE3	F03FS02715
	DP Scorer	180	4,7-5,5	3,5	45	30	FLAT	6°	14°	-	DLI25M47NEH4	F03FS09623
	DP Scorer	180	4,7-5,5	3,5	45	30	FLAT	6°	14°	-	DLI25M47NEH6	F03FS09624
	Postf. scorer	340	5,0	3,5	45	108	ATB	15°	15°	3/14/65	LI27M EB3	F03FS02747
22	Main blade	500	4,8	3,5	60	72	TCG	15°	15°	2/11/115	LSB50011X	F03FS09191
	HW Scorer	200	4,7-5,9	3,5	45	36	ATB	8°	15°	-	LI25M47PE3	F03FS02719
	DP Scorer	200	4,7-5,5	3,5	45	36	FLAT	6°	14°	-	DLI25M47PEH4	F03FS09629
	DP Scorer	200	4,7-5,5	3,5	45	36	FLAT	6°	14°	-	DLI25M47PEH6	F03FS09630
	Postf. scorer	340	5,0	3,5	45	108	ATB	15°	15°	3/14/65	LI27M EB3	F03FS02747
HPL550	Main blade	520	4,8	3,5	60	72	TCG	15°	15°	2/11/115 + 2/19/120	LSB52003X	F03FS09192
	HW Scorer	200	4,7-5,9	3,5	45	36	ATB	8°	15°	-	LI25M47PE3	F03FS02719
	DP Scorer	200	4,7-5,5	3,5	45	36	FLAT	6°	14°	-	DLI25M47PEH4	F03FS09629
	DP Scorer	200	4,7-5,5	3,5	45	36	FLAT	6°	14°	-	DLI25M47PEH6	F03FS09630
	Postf. scorer	340	5,0	3,5	45	108	ATB	15°	15°	3/14/65	LI27M EB3	F03FS02747
HPL570	Main blade	570	4,8	3,5	60	60	TCG	15°	15°	2/11/115 + 2/19/120	LSB57001X	F03FS09199
	HW Scorer	200	4,7-5,9	3,5	45	36	ATB	8°	15°	-	LI25M47PE3	F03FS02719
	DP Scorer	200	4,7-5,5	3,5	45	36	FLAT	6°	14°	-	DLI25M47PEH4	F03FS09629
	DP Scorer	200	4,7-5,5	3,5	45	36	FLAT	6°	14°	-	DLI25M47PEH6	F03FS09630
	Postf. scorer	340	5,0	3,5	45	108	ATB	15°	15°	3/14/65	LI27M EB3	F03FS02747

* **Tool type:** Main saw blade, Scoring saw blade, Polycrystalline Diamond scorer and Postforming scorer.

Reference table of saw blades for panel sizing machines

Machine type	Tool type *	D	B-B1	b	d	Z	Tooth type	α	β	NL	Freud Code	Art. No.
		mm	mm	mm	mm							
HPP42, 33	Main blade	600	5,8	4,0	60	60	TCG	15°	15°	2/11/115 + 2/19/120	LSB60001X	F03FS09200
	Main blade	600	5,8	4,0	60	72	TCG	15°	15°	2/11/115 + 2/19/120	LSB60002X	F03FS09201
	HW Scorer	200	5,7-6,9	4,0	45	36	ATB	8°	15°	-	LI25M57PE3	F03FS02728
HOMAG												
CH 3	Main blade	300	4,4	3,0	75	60	TCG	15°	15°	-	LSB30003X	F03FS03916
	HW Scorer	125	4,3-5,5	3,2	45	24	ATB	0°	15°	-	LI25M43FE3	F03FS02645
CH 3	Main blade	300	4,4	3,0	75	60	TCG	15°	15°	-	LSB30003X	F03FS03916
	HW Scorer	125	4,3-5,5	3,2	45	24	ATB	0°	15°	-	LI25M43FE3	F03FS02645
CT 04/40	Main blade	300	4,4	3,0	75	60	TCG	15°	15°	-	LSB30003X	F03FS03916
	HW Scorer	150	4,3-5,6	3,2	45	36	ATB	8°	15°	-	LI25M43KE3	F03FS02651
CV'S	Main blade	300	4,4	3,0	75	60	TCG	15°	15°	-	LSB30003X	F03FS10218
	HW Scorer	125	4,3-5,5	3,2	45	24	ATB	0°	15°	-	LI25M43FE3	F03FS02645
CH 04	Main blade	355	4,4	3,2	75	72	TCG	15°	15°	3/7/100	LSB35507X	F03FS07710
	HW Scorer	180	4,3-5,5	3,2	45	36	ATB	8°	15°	-	LI25M43NE3	F03FS02664
	DP Scorer	180	4,3-5,1	3,2	45	30	FLAT	6°	14°	-	DLI25M43NEH4	F03FS09621
	DP Scorer	180	4,3-5,1	3,2	45	30	FLAT	6°	14°	-	DLI25M43NEH6	F03FS09622
CH 08/12	Main blade	400	4,4	3,2	75	72	TCG	15°	15°	4/15/105 + 2/7/110 + 2/14/100	LSB40008X	F03FS07726
	HW Scorer	150	4,3-5,6	3,2	45	36	ATB	8°	15°	-	LI25M43KE3	F03FS02651
NANXING												
NPC330	Main blade	380	4,4	3,2	60	72	TCG	15°	15°	2/14/100	LSB38002X	F03FS07631
	Main blade	350	4,4	3,2	60	72	TCG	15°	15°	2/14/100	LSB35004X	F03FS07636
	HW Scorer	200	4,3-5,5	3,2	45	36	ATB	8°	15°	-	LI25M43PE3	F03FS02676
MJB1327B	Main blade	450	4,8	3,5	60	72	TCG	15°	15°	2/14/125 + 2/17/100	LSB45017X	F03FS09272
	Main blade	400	4,4	3,2	60	84	TCG	15°	15°	2/14/100	LSB40021X	F03FS09255
	HW Scorer	180	4,3-5,5	3,2	30	36	ATB	8°	15°	2/7/42 + 2/10/60	LI25M43XN3	F03FS06373
NP280FG NP280F	Main blade	450	4,8	3,5	60	72	TCG	15°	15°	2/14/125 + 2/17/100	LSB45017X	F03FS09272
	Main blade	400	4,4	3,2	60	84	TCG	15°	15°	2/14/100	LSB40021X	F03FS09255
	Main blade	350	4,4	3,2	60	72	TCG	15°	15°	2/14/100	LSB35004X	F03FS07636
	HW Scorer	180	4,3-5,5	3,2	30	36	ATB	8°	15°	2/7/42 + 2/10/60	LI25M43XN3	F03FS06373
NPL330HG NP330H NP330HG	Main blade	450	4,8	3,5	60	72	TCG	15°	15°	2/14/125 + 2/17/100	LSB45017X	F03FS07391
	HW Scorer	180	4,7-5,9	3,5	45	36	ATB	8°	15°	-	LI25M47NE3	F03FS02715
	DP Scorer	180	4,7-5,5	3,5	45	30	FLAT	6°	14°	-	DLI25M47NEH4	F03FS09623
	DP Scorer	180	4,7-5,5	3,5	45	30	FLAT	6°	14°	-	DLI25M47NEH6	F03FS09624
NP380FG NP330FG NP330F	Main blade	450	4,8	3,5	60	72	TCG	15°	15°	2/14/125 + 2/17/100	LSB45017X	F03FS09272
	Main blade	400	4,4	3,2	60	84	TCG	15°	15°	2/14/100	LSB40021X	F03FS09255
	HW Scorer	180	4,7-5,9	3,5	45	36	ATB	8°	15°	-	LI25M47NE3	F03FS02715
	DP Scorer	180	4,7-5,5	3,5	45	30	FLAT	6°	14°	-	DLI25M47NEH4	F03FS09623
	DP Scorer	180	4,7-5,5	3,5	45	30	FLAT	6°	14°	-	DLI25M47NEH6	F03FS09624
NZH3318 NPD380	Main blade	450	4,8	3,5	60	72	TCG	15°	15°	2/14/125 + 2/17/100	LSB45017X	F03FS07391
	HW Scorer	180	4,7-5,9	3,5	45	36	ATB	8°	15°	-	LI25M47NE3	F03FS02715
	DP Scorer	180	4,7-5,5	3,5	45	30	FLAT	6°	14°	-	DLI25M47NEH4	F03FS09623
	DP Scorer	180	4,7-5,5	3,5	45	30	FLAT	6°	14°	-	DLI25M47NEH6	F03FS09624
NIMAC												
HERMES 70 CNC	Main blade	300	4,4	3,0	65	72	TCG	15°	15°	2/9/95 + 2/9/110	LSB30006X	F03FS09158
	Main blade	320	4,4	3,2	65	72	TCG	15°	15°	2/9/95 + 2/9/110	LSB32001X	F03FS07805
ATLAS 80	Main blade	320	4,4	3,2	65	72	TCG	15°	15°	2/9/95 + 2/9/110	LSB32001X	F03FS07805
ATLAS 100/100TL	Main blade	355	4,4	3,2	65	72	TCG	15°	15°	2/9/95 + 2/9/110	LSB35508X	F03FS08740
	Main blade	360	4,4	3,2	65	72	TCG	15°	15°	2/9/95 + 2/9/110	LSB36002X	F03FS07673
PANHANS												
EURO 10 SF	Main blade	300	4,4	3,0	30	60	TCG	15°	15°	2/10/60	LSB30001X	F03FS07802
	HW Scorer	250	4,3-5,5	3,2	30	48	CON	8°	15°	2/10/60	LI25M430C3	F03FS02668
	Postf. scorer	250	4,6	3,0	30	48	ATB	15°	15°	-	LI27M BA3	F03FS02734

* **Tool type:** Main saw blade, Scoring saw blade, Polycrystalline Diamond scorer and Postforming scorer.

Reference table of saw blades for panel sizing machines

Machine type	Tool type *	D	B-B1	b	d	Z	Tooth type	α	β	NL	Freud Code	Art. No.
		mm	mm	mm	mm							
EURO 5 (SF, COMPACT, ECOPAN)	Main blade	300	4,4	3,0	30	60	TCG	15°	15°	2/10/60	**LSB30001X**	F03FS07802
	HW Scorer	125	4,3-5,5	3,2	20	24	CON	0°	15°	-	**LI25M43FA3**	F03FS02643
EURO10, 693/SH 70	Main blade	300	4,4	3,0	30	60	TCG	15°	15°	2/10/60	**LSB30001X**	F03FS07802
	HW Scorer	125	4,3-5,5	3,2	20	24	CON	0°	15°	-	**LI25M43FA3**	F03FS02643
	HW Scorer	180	4,3-5,5	3,2	30	28	CON	8°	15°	2/7/42 + 2/10/60	**LI25M43NC3**	F03FS02663
S 45	Main blade	300	4,4	3,0	30	60	TCG	15°	15°	2/10/60	**LSB30001X**	F03FS07802
	Main blade	350	4,4	3,2	30	72	TCG	15°	15°	2/10/60	**LSB35003X**	F03FS07630
	HW Scorer	180	4,3-5,5	3,2	30	28	CON	8°	15°	2/7/42 + 2/10/60	**LI25M43NC3**	F03FS02663
EURO 12, 30	Main blade	350	4,4	3,2	30	72	TCG	15°	15°	2/10/60	**LSB35003X**	F03FS07630
	HW Scorer	180	4,3-5,5	3,2	30	28	CON	8°	15°	2/7/42 + 2/10/60	**LI25M43NC3**	F03FS02663
EURO 12 SF	Main blade	350	4,4	3,2	30	72	TCG	15°	15°	2/10/60	**LSB35003X**	F03FS07630
	HW Scorer	280	4,3-5,5	3,2	30	48	CON	12°	15°	2/10/60	**LI25M43VC3**	F03FS07419
POLYPAN 47	Main blade	350	4,4	3,2	30	72	TCG	15°	15°	2/10/60	**LSB35003X**	F03FS07630
	HW Scorer	180	4,3-5,5	3,2	30	28	CON	8°	15°	2/7/42 + 2/10/60	**LI25M43NC3**	F03FS02663
	Postf. scorer	300	4,55	3,0	30	72	ATB	15°	15°	-	**LI27M DF3**	F03FS02745
EUROSTAR 2 XL, POLYSTAR	Main blade	370	4,4	3,2	30	72	TCG	15°	15°	2/10/60	**LSC37001**	F03FS06312
	HW Scorer	180	4,3-5,5	3,2	30	28	CON	8°	15°	2/7/42 + 2/10/60	**LI25M43NC3**	F03FS02663
	HW Scorer	280	4,3-5,5	3,2	30	48	CON	6°	15°	2/10/60	**LI25M43VC3**	F03FS07419
EURO 32	Main blade	370	4,4	3,2	30	72	TCG	15°	15°	2/10/60	**LSB37001X**	F03FS10228
	HW Scorer	180	4,3-5,5	3,2	30	28	CON	8°	15°	2/7/42 + 2/10/60	**LI25M43NC3**	F03FS02663
693/SH 110	Main blade	400	4,4	3,2	30	72	TCG	15°	15°	2/10/60 + 2/13/94	**LSB40007X**	F03FS07725
	HW Scorer	180	4,3-5,5	3,2	30	28	CON	8°	15°	2/7/42 + 2/10/60	**LI25M43NC3**	F03FS02663
EUROSTAR 2 XXL	Main blade	400	4,4	3,2	30	72	TCG	15°	15°	2/10/60 + 2/13/94	**LSB40007X**	F03FS07725
	HW Scorer	180	4,3-5,5	3,2	30	28	CON	8°	15°	2/7/42 + 2/10/60	**LI25M43NC3**	F03FS02663
	HW Scorer	280	4,3-5,5	3,2	30	48	CON	6°	15°	2/10/60	**LI25M43VC3**	F03FS07419
SCHEER KOCH												
PA 6000, 5500	Main blade	350	4,4	3,2	30	72	TCG	15°	15°	2/10/60	**LSB35003X**	F03FS07630
	HW Scorer	200	4,3-5,5	3,2	20	36	ATB	8°	15°	2/11/66 + 2/10/60 + 2/9/62	**LI25M43PA3**	F03FS02670
	HW Scorer	200	4,3-5,5	3,2	30	36	ATB	8°	15°	2/9/60 + 2/10/60	**LI25M43PC3**	F03FS02674
SCHELLING												
FH3	Main blade	300	4,4	3,0	30	72	TCG	15°	15°	2/10/60	**LSB30005X**	F03FS07803
	Main blade	350	4,4	3,2	30	72	TCG	15°	15°	2/10/60	**LSB35003X**	F03FS07630
	HW Scorer	180	4,3-5,5	3,2	30	36	ATB	8°	15°	2/7/42 + 2/10/60	**LI25M43XN3**	F03FS06373
FH4 (till 06/2015)	Main blade	350	4,4	3,2	30	72	TCG	15°	15°	2/10/60	**LSB35003X**	F03FS07630
	HW Scorer	300	4,3-5,5	3,2	30	48	ATB	12°	15°	2/11/73 + 2/11/75 + 2/13/94	**LI25M43RC3**	F03FS07577
S45	Main blade	350	4,4	3,2	30	72	TCG	15°	15°	2/10/60	**LSB35003X**	F03FS07630
	Main blade	400	4,4	3,2	30	72	TCG	15°	15°	2/10/60 + 2/13/94	**LSB40007X**	F03FS07725
	HW Scorer	180	4,3-5,5	3,2	30	36	ATB	8°	15°	2/7/42 + 2/10/60	**LI25M43XN3**	F03FS06373
	HW Scorer	300	4,3-5,5	3,2	30	48	ATB	12°	15°	2/11/73 + 2/11/75 + 2/13/94	**LI25M43RC3**	F03FS07577
SCHELLING FH4 (from 07/2015 till 07/2017)	Main blade	360	4,4	3,2	30	72	TCG	15°	15°	2/13/94	**LSB36003X**	F03FS09341
	HW Scorer	200	4,3-5,5	3,2	20	36	ATB	8°	15°	2/11/66 + 2/10/60 + 2/9/62	**LI25M43PA3**	F03FS02670
FH4 (from 07/2017)	Main blade	360	4,4	3,2	30	72	TCG	15°	15°	2/13/94	**LSB36003X**	F03FS09341
	HW Scorer	300	4,3-5,5	3,2	30	48	ATB	12°	15°	2/11/73 + 2/11/75 + 2/13/94	**LI25M43RC3**	F03FS07577
FH5 (from 07/2015)	Main blade	400	4,4	3,2	30	72	TCG	15°	15°	2/10/60 + 2/13/94	**LSB40007X**	F03FS07725
	HW Scorer	300	4,3-5,5	3,2	30	48	ATB	12°	15°	2/11/73 + 2/11/75 + 2/13/94	**LI25M43RC3**	F03FS07577
FH5 (from 07/2015)	Main blade	400	4,4	3,2	30	72	TCG	15°	15°	2/10/60 + 2/13/94	**LSB40007X**	F03FS07725
	HW Scorer	300	4,3-5,5	3,2	30	48	ATB	12°	15°	2/11/73 + 2/11/75 + 2/13/94	**LI25M43RC3**	F03FS07577
FH5	Main blade	400	4,4	3,2	30	72	TCG	15°	15°	2/10/60 + 2/13/94	**LSB40007X**	F03FS07725
	HW Scorer	200	4,3-5,5	3,2	20	36	ATB	8°	15°	2/11/66 + 2/10/60 + 2/9/62	**LI25M43PA3**	F03FS02670
FK4 (from 07/2015)	Main blade	400	4,4	3,2	30	72	TCG	15°	15°	2/10/60 + 2/13/94	**LSB40007X**	F03FS07725
	HW Scorer	200	4,3-5,5	3,2	20	36	ATB	8°	15°	2/11/66 + 2/10/60 + 2/9/62	**LI25M43PA3**	F03FS02670
FK4 (from 07/2017)	Main blade	400	4,4	3,2	30	72	TCG	15°	15°	2/10/60 + 2/13/94	**LSB40007X**	F03FS07725
	HW Scorer	300	4,3-5,5	3,2	30	48	ATB	12°	15°	2/11/73 + 2/11/75 + 2/13/94	**LI25M43RC3**	F03FS07577

* **Tool type:** Main saw blade, Scoring saw blade, Polycrystalline Diamond scorer and Postforming scorer.

Reference table of saw blades for panel sizing machines

Machine type	Tool type *	D	B-B1	b	d	Z	Tooth type	α	β	NL	Freud Code	Art. No.
		mm	mm	mm	mm							
FH6, AH6, CH6 (till 06/2015)	Main blade	460	4,4	3,2	30	72	TCG	15°	15°	2/13/94	**LSB46001X**	F03FS08922
	HW Scorer	200	4,3-5,5	3,2	20	36	ATB	8°	15°	2/11/66 + 2/10/60 + 2/9/62	**LI25M43PA3**	F03FS02670
FK6, FP6, FM6	Main blade	460	4,4	3,2	30	72	TCG	15°	15°	2/13/94	**LSB46001X**	F03FS08922
	HW Scorer	200	4,3-5,5	3,2	20	36	ATB	8°	15°	2/11/66 + 2/10/60 + 2/9/62	**LI25M43PA3**	F03FS02670
FH6, AH6, CH6 (starting from 07/2015)	Main blade	480	4,8	3,5	30	72	TCG	15°	15°	2/10/60 + 2/13/94	**LSB48004X**	F03FS09187
	HW Scorer	220	4,7-5,9	3,5	20	36	ATB	8°	15°	2/9/62	**LI25M47UA3**	F03FS09266
	HW Scorer	200	4,7-5,9	3,5	20	36	ATB	8°	15°	2/11/66	**LI25M47PA3**	F03FS02716
FL	Main blade	480	4,4	3,2	30	72	TCG	15°	15°	2/10/60 + 2/13/94	**LSB48007X**	F03FS09914
	HW Scorer	200	4,3-5,5	3,2	20	36	ATB	8°	15°	2/11/66 + 2/10/60 + 2/9/62	**LI25M43PA3**	F03FS02670
FH8, AH8, CH8	Main blade	520	4,8	3,5	30	72	TCG	15°	15°	2/13/94	**LSB52007X**	F03FS09319
	Main blade	520	4,4	3,2	30	72	TCG	15°	15°	2/13/94	**LSB52008X**	F03FS09319
	HW Scorer	200	4,3-5,5	3,2	20	36	ATB	8°	15°	2/11/66 + 2/10/60 + 2/9/62	**LI25M43PA3**	F03FS02670
	HW Scorer	220	4,7-5,9	3,5	20	36	ATB	8°	15°	2/9/62	**LI25M47UA3**	F03FS09266
	HW Scorer	200	4,7-5,9	3,5	20	36	ATB	8°	15°	2/11/66	**LI25M47PA3**	F03FS02716
FK8, FM8	Main blade	520	4,8	3,5	30	72	TCG	15°	15°	2/13/94	**LSB52007X**	F03FS09319
	HW Scorer	200	4,7-5,9	3,5	20	36	ATB	8°	15°	2/11/66	**LI25M47PA3**	F03FS02716
	Main blade	520	4,4	3,2	30	72	TCG	15°	15°	2/13/94	**LSB52008X**	F03FS09319
	HW Scorer	200	4,3-5,5	3,2	20	36	ATB	8°	15°	2/11/66 + 2/10/60 + 2/9/62	**LI25M43PA3**	F03FS02670
FK10, FM10	Main blade	680	6,2	4,2	40	60	TCG	18°	13°	2/13/140 + 2/17/140 + 2/13/114	**LSB68001X**	F03FS09203
	HW Scorer	200	6,1-7,3	4,0	20	36	ATB	8°	15°	2/11/66	**LI25M61PA3**	F03FS02730
ASH (FSM)	Main blade	720	6,4	4,4	40	60	TCG	18°	13°	2/14/114 + 2/14/140	**LSB72001X**	F03FS09204
	HW Scorer	220	6,3-7,5	4,4	20	36	ATB	8°	15°	2/11/66	**LI25M63UA3**	F03FS02732
SCM												
PRIMA 50	Main blade	300	4,4	3,0	80	60	TCG	15°	15°	4/9/100 + 2/14/110	**LSB30004X**	F03FS09157
	Main blade	300	4,4	3,0	80	72	TCG	15°	15°	4/9/100 + 2/14/110	**LSB30008X**	F03FS07804
	HW Scorer	160	4,3-5,5	3,2	55	36	ATB	8°	15°	3/6/84 + 3/7/66	**LI25M43LG3**	F03FS02657
PRIMA 67	Main blade	320	4,4	3,2	80	60	TCG	10°	15°	4/9/100 + 2/9/110 + 2/14/110	**LSB32006X**	F03FS10101
	HW Scorer	160	4,3-5,5	3,2	55	36	ATB	8°	15°	3/6/84 + 3/7/66	**LI25M43LG3**	F03FS02657
	Postf. scorer	280	4,65	3,2	80	72	ATB	15°	15°	2/14/110	**LI27M47VL3**	F03FS08014
IMPACT 85 K	Main blade	350	4,4	3,2	80	72	TCG	15°	15°	4/9/100 + 2/9/110 + 2/14/110	**LSB35005X**	F03FS07635
	HW Scorer	160	4,3-5,5	3,2	55	36	ATB	8°	15°	3/6/84 + 3/7/66	**LI25M43LG3**	F03FS02657
IMPACT 105 C/D, PLUS 105 C/D/P	Main blade	380	4,4	3,2	80	72	TCG	15°	15°	4/9/100 + 2/9/110 + 2/14/110	**LSB38010X**	F03FS07808
	HW Scorer	160	4,3-5,5	3,2	55	36	ATB	8°	15°	3/6/84 + 3/7/66	**LI25M43LG3**	F03FS02657
IMPACT 90	Main blade	380	4,4	3,2	80	48	TCG	15°	15°	4/9/100 + 2/9/110 + 2/14/110	**LSB38009X**	F03FS09164
	HW Scorer	160	4,3-5,5	3,2	55	36	ATB	8°	15°	3/6/84 + 3/7/66	**LI25M43LG3**	F03FS02657
	HW Scorer	200	4,3-5,5	3,2	80	36	ATB	8°	15°	2/14/110	**LI25M43PL3**	F03FS02683
	DP Scorer	200	4,3-5,1	3,2	80	36	FLAT	6°	14°	2/14/110	**DLI25M43PLH4**	F03FS09627
	DP Scorer	200	4,3-5,1	3,2	80	36	FLAT	6°	14°	2/14/110	**DLI25M43PLH6**	F03FS09628
	Postf. scorer	300	4,70	3,2	80	72	ATB	15°	15°	2/14/110	**LI27M DC3**	F03FS02741
IMPACT 110	Main blade	400	4,4	3,2	80	72	TCG	15°	15°	4/9/100 + 2/9/110 + 2/14/110 + 2/14/125	**LSB40012X**	F03FS09173
	HW Scorer	160	4,3-5,5	3,2	55	36	ATB	8°	15°	3/6/84 + 3/7/66	**LI25M43LG3**	F03FS02657
	HW Scorer	200	4,3-5,5	3,2	80	36	ATB	8°	15°	2/14/110	**LI25M43PL3**	F03FS02683
	DP Scorer	200	4,3-5,1	3,2	80	36	FLAT	6°	14°	2/14/110	**DLI25M43PLH4**	F03FS09627
	DP Scorer	200	4,3-5,1	3,2	80	36	FLAT	6°	14°	2/14/110	**DLI25M43PLH6**	F03FS09628
	Postf. scorer	300	4,7	3,2	80	72	ATB	15°	15°	2/14/110	**LI27M DC3**	F03FS02741
SCM-GABBIANI												
GALAXY 90	Main blade	300	4,4	3,0	80	60	TCG	15°	15°	4/9/100 + 2/14/110	**LSB30004X**	F03FS09157
	Main blade	300	4,4	3,0	80	72	TCG	15°	15°	4/9/100 + 2/14/110	**LSB30008X**	F03FS07804
	HW Scorer	200	4,3-5,5	3,2	80	36	ATB	8°	15°	2/14/110	**LI25M43PL3**	F03FS02683
	DP Scorer	200	4,3-5,1	3,2	80	36	FLAT	6°	14°	2/14/110	**DLI25M43PLH4**	F03FS09627
	DP Scorer	200	4,3-5,1	3,2	80	36	FLAT	6°	14°	2/14/110	**DLI25M43PLH6**	F03FS09628
	Postf. scorer	300	4,70	3,2	80	72	ATB	15°	15°	2/14/110	**LI27M DC3**	F03FS02741

*** Tool type:** Main saw blade, Scoring saw blade, Polycrystalline Diamond scorer and Postforming scorer.

Reference table of saw blades for panel sizing machines

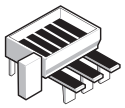
Machine type	Tool type *	D	B-B1	b	d	Z	Tooth type	α	β	NL	Freud Code	Art. No.
		mm	mm	mm	mm							
GALAXY 85	Main blade	350	4,4	3,2	80	72	TCG	15°	15°	4/9/100 + 2/9/110 + 2/14/110	LSB35005X	F03FS07635
	HW Scorer	200	4,3-5,5	3,2	80	36	ATB	8°	15°	2/14/110	LI25M43PL3	F03FS02683
	DP Scorer	200	4,3-5,1	3,2	80	36	FLAT	6°	14°	2/14/110	DLI25M43PLH4	F03FS09627
	DP Scorer	200	4,3-5,1	3,2	80	36	FLAT	6°	14°	2/14/110	DLI25M43PLH6	F03FS09628
GALAXY3 110, 110A	Main blade	400	4,4	3,2	80	72	TCG	15°	15°	4/9/100 + 2/9/110 + 2/14/110 + 2/14/125	LSB40012X	F03FS09173
	HW Scorer	200	4,3-5,5	3,2	80	36	ATB	8°	15°	2/14/110	LI25M43PL3	F03FS02683
	DP Scorer	200	4,3-5,1	3,2	80	36	FLAT	6°	14°	2/14/110	DLI25M43PLH4	F03FS09627
	DP Scorer	200	4,3-5,1	3,2	80	36	FLAT	6°	14°	2/14/110	DLI25M43PLH6	F03FS09628
	Postf. scorer	300	4,70	3,2	80	72	ATB	15°	15°	2/14/110	LI27M DC3	F03FS02741
GALAXY 115	Main blade	400	4,4	3,2	80	72	TCG	15°	15°	4/9/100 + 2/9/110 + 2/14/110 + 2/14/125	LSB40012X	F03FS09173
	HW Scorer	200	4,3-5,5	3,2	80	36	ATB	8°	15°	2/14/110	LI25M43PL3	F03FS02683
	DP Scorer	200	4,3-5,1	3,2	80	36	FLAT	6°	14°	2/14/110	DLI25M43PLH4	F03FS09627
	DP Scorer	200	4,3-5,1	3,2	80	36	FLAT	6°	14°	2/14/110	DLI25M43PLH6	F03FS09628
GALAXY3 130, 130A	Main blade	430	4,4	3,2	80	72	TCG	15°	15°	2/9/130 + 2/14/110 + 4/19/120	LSB43009X	F03FS07909
	HW Scorer	200	4,3-5,5	3,2	80	36	ATB	8°	15°	2/14/110	LI25M43PL3	F03FS02683
	DP Scorer	200	4,3-5,1	3,2	80	36	FLAT	6°	14°	2/14/110	DLI25M43PLH4	F03FS09627
	DP Scorer	200	4,3-5,1	3,2	80	36	FLAT	6°	14°	2/14/110	DLI25M43PLH6	F03FS09628
	Postf. scorer	300	4,70	3,2	80	72	ATB	15°	15°	2/14/110	LI27M DC3	F03FS02741
GALAXY3 145	Main blade	450	4,4	3,2	80	72	TCG	15°	15°	2/9/130 + 2/14/110 + 4/19/120	LSB45009X	F03FS07811
	HW Scorer	200	4,3-5,5	3,2	80	36	ATB	8°	15°	2/14/110	LI25M43PL3	F03FS02683
	DP Scorer	200	4,3-5,1	3,2	80	36	FLAT	6°	14°	2/14/110	DLI25M43PLH4	F03FS09627
	DP Scorer	200	4,3-5,1	3,2	80	36	FLAT	6°	14°	2/14/110	DLI25M43PLH6	F03FS09628
GALAXY 140, ELITE	Main blade	450	4,4	3,2	80	72	TCG	15°	15°	2/9/130 + 2/14/110 + 4/19/120	LSB45009X	F03FS07811
	HW Scorer	200	4,3-5,5	3,2	80	36	ATB	8°	15°	2/14/110	LI25M43PL3	F03FS02683
	DP Scorer	200	4,3-5,1	3,2	80	36	FLAT	6°	14°	2/14/110	DLI25M43PLH4	F03FS09627
	DP Scorer	200	4,3-5,1	3,2	80	36	FLAT	6°	14°	2/14/110	DLI25M43PLH6	F03FS09628
GALAXY3	Main blade	460	4,4	3,2	80	72	TCG	15°	15°	2/14/110 + 4/9/100	LSB46003X	F03FS09950
	HW Scorer	200	4,3-5,5	3,2	80	36	ATB	8°	15°	2/14/110	LI25M43PL3	F03FS02683
	DP Scorer	200	4,3-5,1	3,2	80	36	FLAT	6°	14°	2/14/110	DLI25M43PLH4	F03FS09627
	DP Scorer	200	4,3-5,1	3,2	80	36	FLAT	6°	14°	2/14/110	DLI25M43PLH6	F03FS09628
TÖRK MAKINE												
MP70R	Main blade	320	4,4	3,2	75	72	TCG	15°	15°	3/7/100 + 3/13/95	LSB32002X	F03FS09162
	HW Scorer	160	4,3-5,5	3,2	55	36	ATB	8°	15°	3/6/84 + 3/7/66	LI25M43LG3	F03FS02657
TURANLAR												
T-PE 433	Main blade	300	4,4	3,0	30	60	TCG	15°	15°	2/10/60	LSB30001X	F03FS07802
	Main blade	300	4,4	3,0	30	72	TCG	15°	15°	2/10/60	LSB30005X	F03FS07803
	HW Scorer	150	4,3-5,6	3,2	30	36	ATB	8°	15°	-	LI25M43KC3	F03FS02649
T-PE 434 (before 2020)	Main blade	400	4,4	3,2	80	72	TCG	15°	15°	4/9/100 + 2/9/110 + 2/14/110 + 2/14/125	LSB40012X	F03FS07810
	HW Scorer	200	4,3-5,5	3,2	65	36	ATB	8°	15°	2/9/100 + 2/9/110	LI25M43PI3	F03FS02681
T-PE 434	Main blade	430	4,4	3,2	80	72	TCG	15°	15°	2/9/130 + 2/14/110 + 4/19/120	LSB43009X	F03FS07909
	HW Scorer	200	4,3-5,5	3,2	65	36	ATB	8°	15°	2/9/100 + 2/9/110	LI25M43PI3	F03FS02681
T-PE 435	Main blade	430	4,4	3,2	80	72	TCG	15°	15°	2/9/130 + 2/14/110 + 4/19/120	LSB43009X	F03FS07909
	HW Scorer	200	4,3-5,5	3,2	65	36	ATB	8°	15°	2/9/100 + 2/9/110	LI25M43PI3	F03FS02681
T-PE 436 (before 2020)	Main blade	450	4,8	3,5	80	72	TCG	15°	15°	2/14/125 + 2/9/130 + 4/19/120	LSB45018X	F03FS07812
	HW Scorer	200	4,7-5,9	3,5	65	36	ATB	8°	15°	2/9/100 + 2/9/110	LI25M47PI3	F03FS02720

* **Tool type:** Main saw blade, Scoring saw blade, Polycrystalline Diamond scorer and Postforming scorer.



LSB X

Industrial panel sizing saw blades



Horizontal Panel Sizing Machines

Laminated Chipboard	Laminated MDF	HPL	Thermoplastic Composites	Plexiglas
●●●	●●●	●●	●●	●●

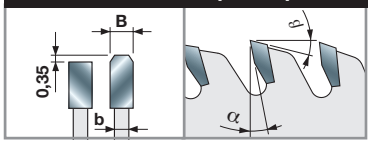
●●● Ultimate ●● High ● Good

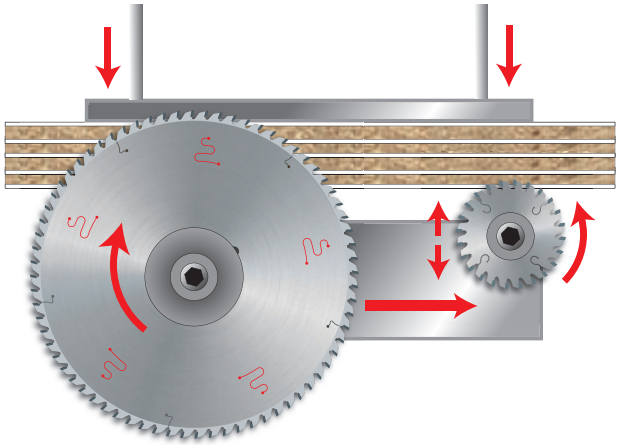
TiCo Carbide MADE BY freud

Silver I.C.E. COATING

Anti-vibration TECHNOLOGY

HW H00XA - Flat-triple chip tooth





Machines:
Horizontal panel sizing machines.

Materials:
Laminated chipboard, laminated MDF, HPL, thermoplastic composites and plexiglas.

Applications:
Industrial panel sizing.

Technical information:
The LSB X range represents the ideal choice for industrial panel sizing.
Saw blades suitable for chipboard and MDF bilaminated panels.
Good finishing also in HPL and acrylic panel cutting.

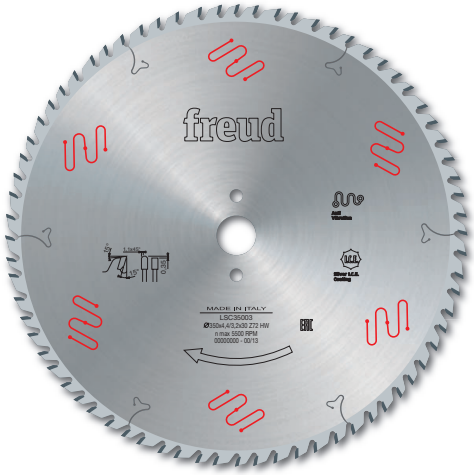
D mm	B mm	b mm	d mm	Z	α	β	NL	Machines		Freud Code	Art. No.
250	4,2	3,0	30	60	15°	15°	2/10/60	SCM - Techmatic, Verry		**LSB25003X**	F03FS10212
250	4,2	3,0	50	60	15°	15°	-	Usikraft		**LSB25005X**	F03FS10214
250	4,2	3,0	55	60	15°	15°	4/10/70	Baldan, SCM - Techmatic		**LSB25002X**	F03FS10211
250	4,4	3,0	30	80	15°	15°	2/9/46,4 + 2/10/60			**LSB25004X**	F03FS10213
270	4,2	3,0	55	60	15°	15°	-	SCM - Techmatic		**LSB27001X**	F03FS10215
280	4,4	3,2	55	60	15	15°	2/10/70	Baldan		**LSB28001X**	F03FS10216
290	4,2	3,0	55	60	15°	15°	-	SCM - Techmatic		**LSB29001X**	F03FS10217
300	4,4	3,0	30	60	15°	15°	2/10/60	Panhans		**LSB30001X**	F03FS07802
300	4,4	3,0	65	60	15°	15°	2/9/110	Selco		**LSB30002X**	F03FS09159
300	4,4	3,0	75	60	15	15°	-	Homag		**LSB30003X**	F03FS10218
300	4,4	3,0	80	60	15°	15°	4/9/100 + 2/14/110	SCM		**LSB30004X**	F03FS09157
300	4,4	3,0	30	72	15°	15°	2/10/60	Panhans, Verry		**LSB30005X**	F03FS07803
300	4,4	3,2	60	72	15°	15°	2/14/100	Holzma		**LSB30012X**	F03FS09207
300	4,4	3,0	65	72	15°	15°	2/9/95 + 2/9/110	Selco		**LSB30006X**	F03FS09158
300	4,4	3,0	75	72	15	15°	-	Holzma		**LSB30007X**	F03FS10219
300	4,4	3,0	80	72	15°	15°	4/9/100 + 2/14/110	SCM		**LSB30008X**	F03FS07804
300	4,4	3,0	75	96	15°	15°	-			**LSB30010X**	F03FS10220
305	4,4	3,0	30	60	15	15°	2/10/60	Mayer, Panhans, SCM		**LSB30501X**	F03FS10221
310	4,4	3,2	60	72	15°	15°	2/14/100	Holzma		**LSB31001X**	F03FS09949
320	4,4	3,2	30	60	15°	15°	2/10/60			**LSB32005X**	F03FS09160
320	4,4	3,2	50	60	15	15°	3/13/95 + 3/15/80	Giben		**LSB32004X**	F03FS10222
320	4,4	3,2	65	60	15°	15°	2/9/110	Selco		**LSB32003X**	F03FS09161
320	4,4	3,2	80	60	10°	15°	4/9/100 + 2/9/110 + 2/14/110			**LSB32006X**	F03FS10101
320	4,4	3,2	60	72	15	15	2/14/100			**LSB32008X**	F03FS10268
320	4,4	3,2	65	72	15°	15°	2/9/95 + 2/9/110	Selco		**LSB32001X**	F03FS07805
320	4,4	3,2	75	72	15°	15°	3/13/95 + 3/7/100	Giben		**LSB32002X**	F03FS09162
320	4,4	3,2	80	72	15°	15°	4/9/100 + 2/9/110 + 2/14/110			**LSB32007X**	F03FS10267
350	4,2	3,2	80	96	15°	15°				**LSB35011X**	F03FS10225

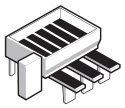
D mm	B mm	b mm	d mm	Z	α	β	NL	Machines	Freud Code	Art. No.
350	4,4	3,2	30	54	15°	15°	2/10/60	Panhans, Scheer	LSB35001X	F03FS10223
350	4,4	3,2	60	54	15°	15°	2/14/100	Holzma	LSB35002X	F03FS10224
350	4,4	3,2	30	72	15°	15°	2/10/60	Panhans, Scheer	LSB35003X	F03FS07630
350	4,4	3,2	50	72	15°	15°	4/13/80	Giben	LSB35006X	F03FS07709
350	4,4	3,2	60	72	15°	15°	2/14/100	Holzma	LSB35004X	F03FS07636
350	4,4	3,2	65	72	15°	15°	2/9/110	Selco	LSB35013X	F03FS09659
350	4,4	3,2	75	72	15°	15°	-	Giben, Hansol Machine	LSB35008X	F03FS07634
350	4,4	3,2	80	72	15°	15°	4/9/100 + 2/9/110 + 2/14/110	Gabbiani	LSB35005X	F03FS07635
355	4,4	3,2	75	54	15°	15°	-	Giben	LSB35502X	F03FS10226
355	4,4	3,2	80	54	15°	15°	4/9/100 + 2/9/110 + 2/14/110	Gabbiani	LSB35503X	F03FS09205
355	4,4	3,2	30	72	15°	15°	2/10/60	Panhans, SCM	LSB35504X	F03FS07674
355	4,4	3,2	65	72	15°	15°	2/9/95 + 2/9/110	Selco	LSB35508X	F03FS08740
355	4,4	3,2	75	72	15°	15°	4/15/105 + 2/7/110	Giben, KDT, Hold	LSB35505X	F03FS07633
355	4,4	3,2	75	72	15°	15°	3/7/100	Gabbiani	LSB35507X	F03FS07710
355	4,4	3,2	80	72	15°	15°	4/9/100 + 2/9/110 + 2/14/110	Gabbiani	LSB35506X	F03FS09163
360	4,4	3,2	65	60	15°	15°	2/9/110	Selco	LSB36001X	F03FS10227
360	4,4	3,2	30	72	15°	15°	2/13/94	Schelling	LSB36003X	F03FS09341
360	4,4	3,2	65	72	15°	15°	2/9/95 + 2/9/110	Selco	LSB36002X	F03FS07673
370	4,4	3,2	30	72	15°	15°	2/10/60	Schelling	LSB37001X	F03FS10228
380	4,4	3,2	80	48	15°	15°	4/9/100 + 2/9/110 + 2/14/110	Gabbiani	LSB38009X	F03FS09164
380	4,4	3,2	50	60	15°	15°	4/13/80	Giben	LSB38007X	F03FS10230
380	4,4	3,2	60	60	15°	15°	2/14/100	Holzma	LSB38001X	F03FS07806
380	4,4	3,2	30	72	15°	15°	2/10/60 + 2/8/83		LSB38011X	F03FS10231
380	4,4	3,2	50	72	15°	15°	4/13/80	Giben	LSB38008X	F03FS09165
380	4,4	3,2	60	72	15°	15°	2/14/100	Holzma	LSB38002X	F03FS07631
380	4,4	3,2	65	72	15°	15°	2/9/110	Selco	LSB38014X	F03FS09166
380	4,4	3,2	75	72	15°	15°	2/14/100	Holzma wp, Wonpoong	LSB38012X	F03FS07672
380	4,4	3,2	80	72	15°	15°	4/9/100 + 2/9/110 + 2/14/110	Gabbiani	LSB38010X	F03FS07808
380	4,4	3,2	60	84	15°	15°	2/14/100	Holzma	LSB38015X	F03FS08989
380	4,4	3,2	80	96	15°	15°	4/9/100 + 2/9/110 + 2/14/110	Gabbiani	LSB38013X	F03FS07809
380	4,8	3,5	60	60	15°	15°	2/14/100	Holzma	LSB38003X	F03FS10229
380	4,8	3,5	60	72	15°	15°	2/14/100	Holzma	LSB38004X	F03FS07632
380	4,8	3,5	60	84	15°	15°	2/14/100	Holzma	LSB38005X	F03FS07807
390	4,4	3,2	80	72	15°	15°	2/14/110	Sigma	LSB39001X	F03FS09167
400	4,4	3,2	30	48	15°	15°	2/10/60		LSB40001X	F03FS09168
400	4,4	3,2	80	48	15°	15°	2/9/110 + 4/9/100 + 2/14/110	Gabbiani	LSB40010X	F03FS10233
400	4,4	3,2	30	60	15°	15°	2/10/60		LSB40004X	F03FS09169
400	4,4	3,2	75	60	15°	15°	4/15/105	Giben	LSB40005X	F03FS09170
400	4,4	3,2	80	60	15°	15°	2/9/130 + 4/19/120	Selco	LSB40006X	F03FS10232
400	4,4	3,2	80	60	15°	15°	4/9/100 + 2/9/110 + 2/14/110	Gabbiani	LSB40011X	F03FS09171
400	4,4	3,2	30	72	15°	15°	2/10/60 + 2/13/94	Scheer	LSB40007X	F03FS07725
400	4,4	3,2	50,8	72	10°	15°	2/16/127 + 4/13/80		LSB40018X	F03FS08957
400	4,4	3,2	60	72	15°	15°	2/11/85 + 2/14/100	Anthon	LSB40017X	F03FS09272
400	4,4	3,2	65	72	15°	15°	2/9/110	Selco	LSB40016X	F03FS09172
400	4,4	3,2	75	72	15°	15°	4/15/105 + 2/7/110 + 2/14/100	Giben, Haisung Woodworking Machinery, Hansol Machine, HOMAG, Hyundai Sangi, KDT	LSB40008X	F03FS07726
400	4,4	3,2	80	72	15°	15°	2/15/105 + 2/9/130 + 4/19/120	Selco, MAS	LSB40009X	F03FS07810
400	4,4	3,2	80	72	15°	15°	4/9/100 + 2/9/110 + 2/14/110 + 2/14/125	Gabbiani	LSB40012X	F03FS09173
400	4,4	3,2	60	84	15°	15°	2/14/100	Nanxing	LSB40021X	F03FS09255
400	4,4	3,2	75	84	15°	15°	4/15/105 + 2/7/110	KDT	LSB40019X	F03FS08990
400	4,8	3,5	60	72	15°	15°	2/14/125	Holzma	LSB40013X	F03FS07711
420	4,4	3,2	80	60	15°	15°	4/9/100 + 2/9/110 + 2/14/110	Gabbiani	LSB42004X	F03FS10235
420	4,4	3,2	50	72	15°	15°	4/13/80	Selco	LSB42006X	F03FS09174
420	4,4	3,2	80	72	15°	15°	4/9/100 + 2/9/110 + 2/14/110	Gabbiani	LSB42005X	F03FS09175
420	4,8	3,5	60	60	15°	15°	2/14/125	Holzma	LSB42001X	F03FS10234
420	4,8	3,5	60	84	15°	15°	2/14/100 + 2/14/125	Holzma	LSB42002X	F03FS09176
430	4,4	3,2	30	48	15°	15°	-		LSB43001X	F03FS10236
430	4,4	3,2	75	48	15°	15°	4/15/105	Giben	LSB43002X	F03FS10237
430	4,4	3,2	30	60	15°	15°	2/10/60		LSB43004X	F03FS10238
430	4,4	3,2	75	60	15°	15°	4/15/105	Giben	LSB43005X	F03FS10239
430	4,4	3,2	80	60	15°	15°	2/9/130 + 2/14/110 + 4/19/120	Selco - Gabbiani	LSB43006X	F03FS10240
430	4,4	3,2	30	72	15°	15°	2/13/94		LSB43007X	F03FS09177
430	4,4	3,2	65	72	15°	15°	2/9/110	Selco	LSB43012X	F03FS09178
430	4,4	3,2	75	72	15°	15°	4/15/105 + 2/7/110	Giben	LSB43008X	F03FS07908
430	4,4	3,2	80	72	15°	15°	2/9/130 + 2/14/110 + 4/19/120	Selco, Gabbiani	LSB43009X	F03FS07909

D mm	B mm	b mm	d mm	Z	α	β	NL	Machines	Freud Code	Art. No.
430	4,4	3,2	75	96	15°	15°	4/15/105 + 2/7/110	Giben Prismatic	LSB43010X	F03FS09179
430	4,8	3,5	70	72	15°	15°	4/11/130	Selco	LSB43013X	F03FS09180
450	4,4	3,2	30	48	15°	15°	2/9/60	Mayer, Panhans, SCM	LSB45001X	F03FS10241
450	4,4	3,2	60	48	15°	15°	2/14/125	Holzma	LSB45002X	F03FS10242
450	4,4	3,2	30	60	15°	15°	2/10/60	Mayer, Panhans, SCM	LSB45004X	F03FS10243
450	4,4	3,2	60	60	15°	15°	2/14/125	Holzma	LSB45005X	F03FS10244
450	4,4	3,2	80	60	15°	15°	2/9/130 + 4/19/120 + 2/14/110	Selco - Gabbiani	LSB45006X	F03FS10245
450	4,4	3,2	30	72	15°	15°	2/10/60 + 2/14/95	Mayer, Panhans, SCM	LSB45007X	F03FS09181
450	4,4	3,2	60	72	15°	15°	2/14/125	Holzma	LSB45008X	F03FS09182
450	4,4	3,2	80	72	15°	15°	2/9/130 + 2/14/110 + 4/19/120	Selco, Gabbiani	LSB45009X	F03FS07811
450	4,8	3,5	30	72	15°	15°	2/9/60	Scheer	LSB45016X	F03FS10246
450	4,8	3,5	60	72	15°	15°	2/14/125 + 2/17/100	Holzma, Nanxing	LSB45017X	F03FS07391
450	4,8	3,5	80	72	15°	15°	2/14/125 + 2/9/130 + 4/19/120	Selco	LSB45018X	F03FS07812
450	4,8	3,5	60	84	15°	15°	2/14/125	Holzma	LSB45019X	F03FS10247
460	4,4	3,2	30	72	15°	15°	2/13/94	Schelling	LSB46001X	F03FS08922
460	4,4	3,2	75	72	15°	15°	2/7/110	Giben	LSB46002X	F03FS07914
460	4,4	3,2	80	72	15°	15°	2/14/110 + 4/9/100	Gabbiani	LSB46003X	F03FS09950
470	4,4	3,2	75	48	15°	15°	4/15/105	Giben	LSB47001X	F03FS10248
470	4,4	3,2	75	60	15°	15°	4/15/105	Giben	LSB47002X	F03FS10249
470	4,4	3,2	75	72	15°	15°	4/15/105	Giben, Hyundai Sangi	LSB47003X	F03FS09183
470	4,4	3,2	75	96	15°	15°	4/15/105	Giben	LSB47004X	F03FS09184
470	4,8	3,5	70	72	15°	15°	4/11/130	Selco	LSB47005X	F03FS09185
480	4,4	3,2	30	72	15°	15°	2/10/60 + 2/13/94	Schelling	LSB48007X	F03FS09914
480	4,8	3,5	80	60	15°	15°	2/9/130 + 4/19/120	Selco	LSB48003X	F03FS09186
480	4,8	3,5	30	72	15°	15°	2/10/60 + 2/13/94	Schelling	LSB48004X	F03FS09187
480	4,8	3,5	60	72	15°	15°	2/19/120		LSB48006X	F03FS10269
480	4,8	3,5	80	72	15°	15°	2/9/130 + 4/19/120	Selco	LSB48001X	F03FS09188
500	4,4	3,2	30	60	15°	15°	2/13/94	Schelling	LSB50003X	F03FS10250
500	4,4	3,2	30	72	15°	15°	2/13/94	Schelling	LSB50005X	F03FS10251
500	4,8	3,5	60	60	15°	15°	2/11/115	Holzma	LSB50009X	F03FS09189
500	4,8	3,5	75	60	15°	15°	4/15/105	Giben	LSB50010X	F03FS09190
500	4,8	3,5	60	72	15°	15°	2/11/115	Holzma	LSB50011X	F03FS09191
510	4,8	3,5	80	72	15°	15°	2/9/130 + 4/19/120	Selco	LSB51001X	F03FS09984
520	4,4	3,2	30	54	15°	15°	2/13/94	Schelling	LSB52005X	F03FS10253
520	4,4	3,2	30	72	15°	15°	2/13/94	Schelling	LSB52008X	F03FS09602
520	4,8	3,5	60	60	15°	15°	2/11/115 + 2/19/120	Holzma	LSB52002X	F03FS10252
520	4,8	3,5	70	60	15°	15°	4/11/130		LSB52009X	F03FS09958
520	4,8	3,5	30	72	15°	15°	2/13/94	Schelling	LSB52007X	F03FS09319
520	4,8	3,5	60	72	15°	15°	2/11/115 + 2/19/120	Holzma	LSB52003X	F03FS09192
520	4,8	3,5	70	72	15°	15°	4/11/130	Selco	LSB52006X	F03FS09193
530	4,8	3,5	75	72	15°	15°	2/7/110	Giben	LSB53004X	F03FS09651
530	5,2	3,5	30	60	15°	15°	-	Schelling	LSB53001X	F03FS09194
530	5,2	3,5	100	60	15°	15°	2/7/140		LSB53003X	F03FS09195
530	5,8	4,0	60	60	15°	15°	1/11/85	Anthon	LSB53002X	F03FS10254
540	4,8	3,5	60	60	15°	15°	2/11/115 + 2/19/120	Holzma Typ 33	LSB54002X	F03FS10255
540	4,8	3,5	60	72	15°	15°	2/11/115 + 2/19/120	Holzma Typ 33	LSB54003X	F03FS10256
550	5	3,5	40	72	15°	15°	2/13/122	Schelling	LSB55007X	F03FS09216
550	5,2	3,5	80	48	15°	15°	2/14/110	Gabbiani	LSB55005X	F03FS10257
550	5,2	3,5	40	72	15°	15°	2/13/122		LSB55009X	F03FS09915
550	5,2	3,5	60	60	15°	15°	-		LSB55002X	F03FS09196
550	5,2	3,5	75	60	15°	15°	4/10,5/140		LSB55010X	F03FS10030
550	5,2	3,5	80	60	15°	15°	2/14/110	Gabbiani	LSB55006X	F03FS09197
550	5,2	3,5	90	60	15°	15°	-	Giben	LSB55008X	F03FS09970
565	5	3,5	100	72	15°	15°	-	Giben	LSB56504X	F03FS09215
565	5,2	3,5	100	60	15°	15°	-	Giben	LSB56502X	F03FS09198
570	4,8	3,5	60	60	15°	15°	2/11/115 + 2/19/120	Holzma	LSB57001X	F03FS09199
600	5,8	4,0	60	60	15°	15°	2/11/115 + 2/19/120	Holzma Typ 33	LSB60001X	F03FS09200
600	5,8	4,0	70	60	15°	15°	4/11/130		LSB60004X	F03FS10258
600	5,8	4,0	75	60	15°	15°	4/6,5/130 + 4/11/130	Selco	LSB60006X	F03FS10259
600	5,8	4,0	60	72	15°	15°	2/11/115 + 2/19/120	Holzma Typ 33	LSB60002X	F03FS09201
670	6,2	4,2	40	60	18°	13°	2/17/140 + 2/13/140	Schelling	LSB67003X	F03FS09202
670	6,2	4,2	40	72	18°	13°	2/17/140 + 2/13/140	Schelling	LSB67004X	F03FS10260
680	6,2	4,2	40	60	18°	13°	2/13/140 + 2/17/140 + 2/13/114	Schelling	LSB68001X	F03FS09203
720	6,4	4,4	40	60	18°	13°	2/14/114 + 2/14/140	Schelling	LSB72001X	F03FS09204

LSC

"Supercut" panel sizing saw blades with variable pitch





Horizontal Panel Sizing Machines

Chipboard	Laminated Chipboard	MDF	Laminated MDF
●●	●●	●●	●●

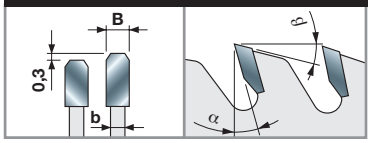
●●● Ultimate ●● High ● Good

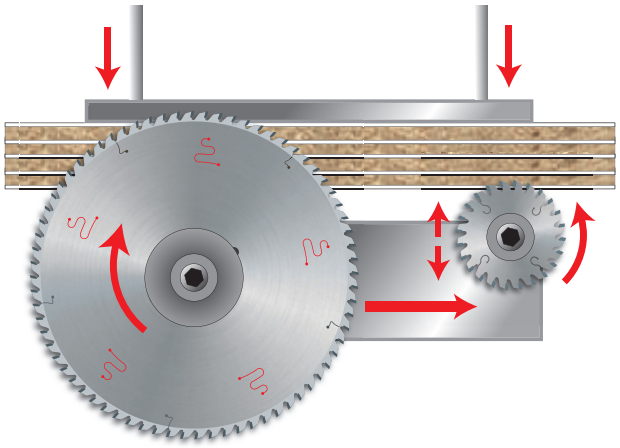
TiCo Carbide MADE BY freud

Silver I.C.E. COATING

Anti-vibration TECHNOLOGY

HW H00XA - Double triple chip tooth





Machines:
Horizontal panel sizing machines.

Materials:
Wood based panels, laminated chipboard, MDF and laminated MDF.

Applications:
Panel sizing.

Technical information:
Saw blades suitable for sizing of single panels or small stacks with very good finishing, thanks to the double triple chip tooth grinding.

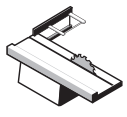
*Dedicated laser marking.

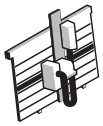
D mm	B mm	b mm	d mm	Z	α	β	NL	Machines		Freud Code	Art. No.
300	4,4	3,0	30	60	10°	15°	2/10/60	Panhans		**LSC30001**	F03FS06322
300	4,4	3,0	65	60	10°	15°	2/9/110	Selco		**LSC30002**	F03FS06325
300	4,4	3,0	75	60	10°	15°	-	Holzma		**LSC30003**	F03FS06326
300	4,4	3,0	80	60	10°	15°	2/14/110 + 4/9/100	SCM		**LSC30004**	F03FS06327
320	4,4	3,2	50	60	10°	15°	3/15/80 + 3/13/95	Giben		**LSC32004**	F03FS06328
320	4,4	3,2	65	60	10°	15°	2/9/110	Selco		**LSC32003**	F03FS06329
350	4,4	3,2	30	72	15°	15°	2/10/60	Panhans - Scheer		**LSC35003**	F03FS06305
350	4,4	3,2	50	72	15°	15°	4/13/80	Giben		**LSC35006**	F03FS06309
350	4,4	3,2	60	72	15°	15°	2/14/100	Holzma		**LSC35004**	F03FS06310
350	4,4	3,2	80	72	15°	15°	4/9/100 + 2/9/110 + 2/14/110	Gabbiani		**LSC35005**	F03FS06311
355	4,4	3,2	30	72	15°	15°	2/10/60	Panhans - SCM		**LSC35504**	F03FS06306
355	4,4	3,2	65	72	15°	15°	2/9/110	Selco		**LSC35508BS***	F03FS07869
355	4,4	3,2	75	72	15°	15°	-	Giben		**LSC35505**	F03FS06307
360	4,4	3,2	65	72	15°	15°	2/9/110	Selco		**LSC36002**	F03FS06308
370	4,4	3,2	30	72	15°	15°	2/10/60	Schelling		**LSC37001**	F03FS06312
380	4,4	3,2	50	72	15°	15°	4/13/80	Giben		**LSC38008**	F03FS06343
380	4,4	3,2	60	72	15°	15°	2/14/100	Holzma		**LSC38002**	F03FS06313
380	4,4	3,2	80	72	15°	15°	4/9/100 + 2/9/110 + 2/14/110	Gabbiani		**LSC38010**	F03FS06314
380	4,8	3,5	60	72	15°	15°	2/14/100	Holzma		**LSC38004**	F03FS06332
400	4,4	3,2	30	72	15°	15°	2/10/60	Scheer		**LSC40007**	F03FS06315
400	4,4	3,2	65	72	15°	15°	2/9/110	Selco		**LSC40016BS***	F03FS07870
400	4,4	3,2	75	72	15°	15°	4/15/105	Giben		**LSC40008**	F03FS06317
400	4,4	3,2	80	72	15°	15°	4/19/120 + 2/9/130	Selco		**LSC40009**	F03FS06319
400	4,4	3,2	80	72	15°	15°	4/9/100 + 2/9/110 + 2/14/110	Gabbiani		**LSC40012**	F03FS06320
430	4,4	3,2	75	72	15°	15°	4/15/105	Giben		**LSC43008**	F03FS06316
430	4,4	3,2	80	72	15°	15°	2/9/130 + 2/14/110 + 4/19/120	Selco - Gabbiani		**LSC43009**	F03FS06321
450	4,4	3,2	60	72	15°	15°	2/14/125	Holzma		**LSC45008**	F03FS06318
450	4,8	3,5	60	72	15°	15°	2/14/125	Holzma		**LSC45017**	F03FS06323
450	4,8	3,5	80	72	15°	15°	2/9/130 + 4/19/120	Selco		**LSC45018**	F03FS06324
520	4,8	3,5	30	72	18°	13°	2/13/94	Schelling		**LSC52007**	F03FS07879

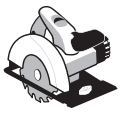
LU3A

Saw blades to cut bilaminated panels




Squaring Saws


Vertical Panel Sizing Machines


Hand-held Circular Saws


Laminated Chipboard ●●●


Laminated MDF ●●●


Plywood ●●●

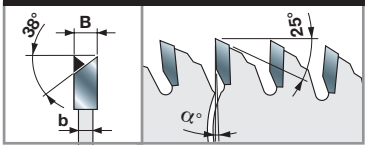
●●● Ultimate ●● High ● Good

TiCo Carbide MADE BY freud

Silver I.C.E. COATING

Anti-vibration TECHNOLOGY

HW H00K - ATB 38° tooth



D mm	B mm	b mm	d mm	Z	α	NL	Freud Code	Art. No.
160	2,2	1,6	20	48	-2°	-	LU3A 0001	F03FS07411
190	2,5	1,8	30	48	-2°	-	LU3A 0002	F03FS07412
210	2,5	1,8	30	54	-2°	-	LU3A 0003	F03FS07413

D mm	B mm	b mm	d mm	Z	α	NL	Freud Code	Art. No.
220	3,2	2,2	30	64	-5°	2/7/42	LU3A 0100	F03FS05059
250	3,2	2,2	30	80	-2°	FT01	LU3A 0200	F03FS05061
300	3,2	2,2	25,4	96	2°	-	LU3A 0600	F03FS05807
300	3,2	2,2	30	96	2°	FT01	LU3A 0300	F03FS05064
350	3,5	2,5	30	108	5°	FT02	LU3A 0400	F03FS05066

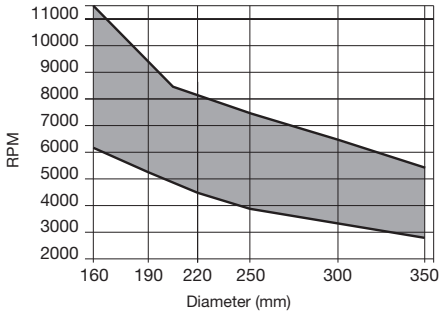
FT01: 2/7/42 + 2/9/46,4 + 2/10/60 - **FT02:** 2/9/46,4 + 2/10/60

Machines:
Squaring saws and vertical panel sizing machines, hand-held circular saws.

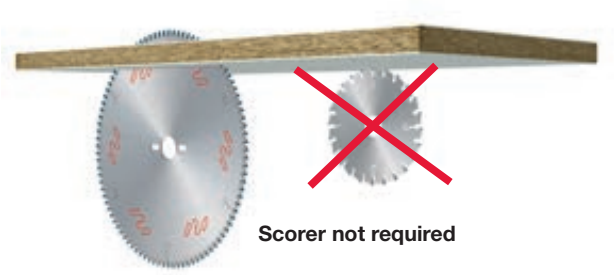
Materials:
Laminated chipboard, laminated MDF and plywood.

Applications:
Panel sizing.

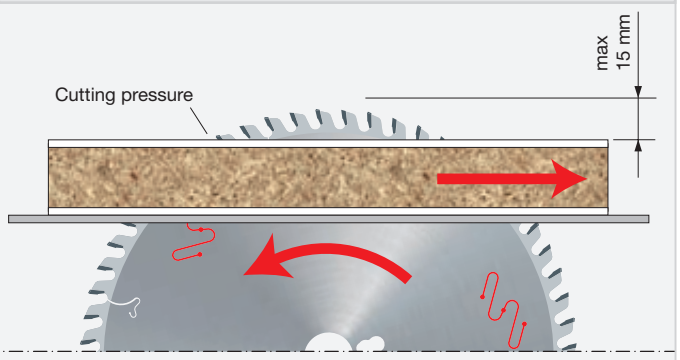
Technical information:
To size chipboard and MDF bilaminated panels. The ATB 38° tooth geometry grants perfect finishing on both sides.
No scoring saw blades needed.



Minimum and maximum RPM based on the blade diameter.


Scorer not required

Working with spindle under the working plane



The cutting pressure acts over the working plane.

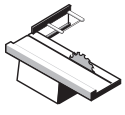


With negative hook angle, the cutting pressure acts over the working plane.

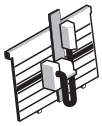
LU3B

Saw blades to cut bilaminated panels





Squaring Saws



Vertical Panel Sizing Machines



Plywood ●●●



Laminated Chipboard ●●●



Laminated MDF ●●●

●●● Ultimate ●● High ● Good

D mm	B mm	b mm	d mm	Z	NL		Freud Code	Art. No.
220	3,2	2,2	30	42	2/7/42		**LU3B 0100**	F03FS05069
250	3,2	2,2	30	48	FT01		**LU3B 0200**	F03FS05071
303	3,2	2,2	30	60	FT01		**LU3B 0300**	F03FS05073
350	3,2	2,2	30	72	FT01		**LU3B 0400**	F03FS05075

D mm	B mm	b mm	d mm	Z	NL		Freud Code	Art. No.
303	3,2	2,2	30	60	FT01		**LU3B 1300 ***	F03FS06478

Features: Flat - triple chip tooth with concave face and positive cutting angle.

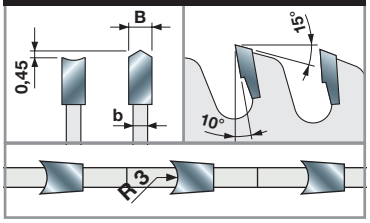
FT01: 2/7/42 + 2/9/46,4 + 2/10/60

TiCo Carbide MADE BY freud

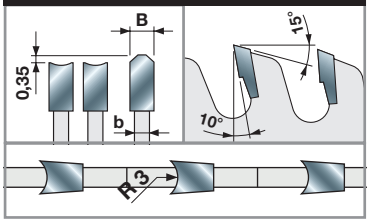
Silver I.C.E. COATING

Anti-vibration TECHNOLOGY

HW H00K - Concave tooth



HW H00K - Concave tooth *

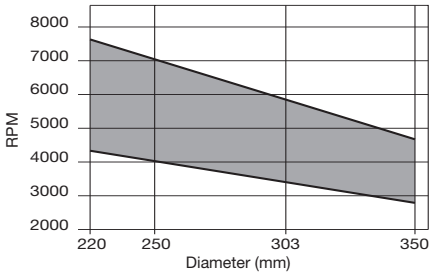


Machines:
Squaring saws and vertical panel sizing machines.

Materials:
Plywood, laminated chipboard and laminated MDF.

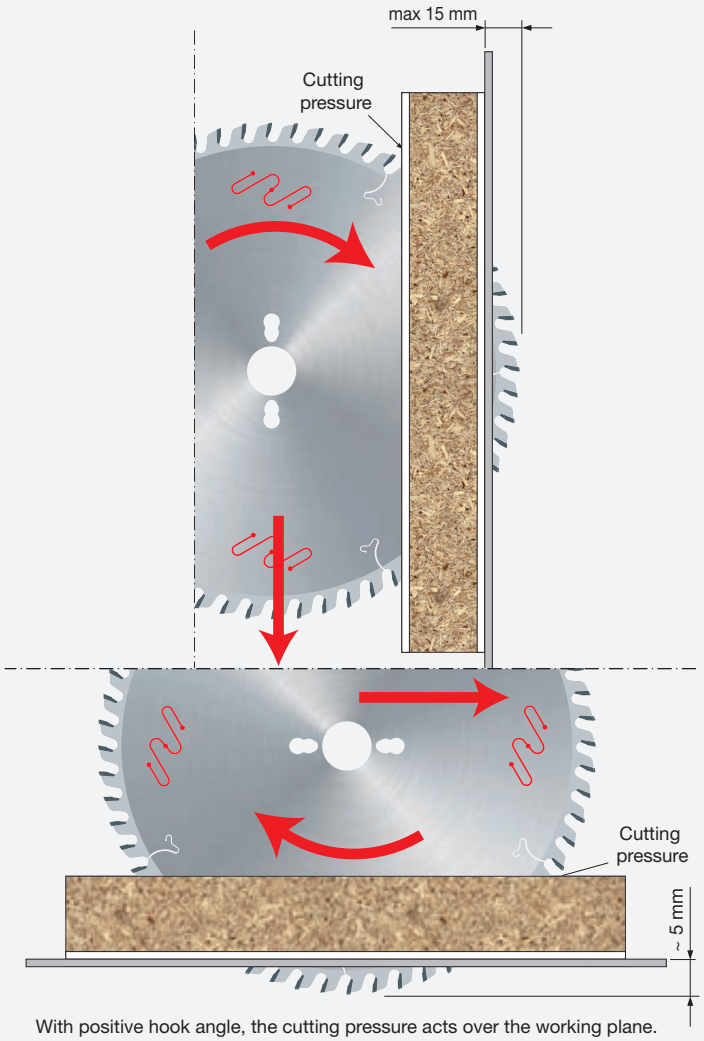
Applications:
Panel sizing.

Technical information:
To size chipboard and MDF bilaminated panels with good finishing and long cutting life.
No scoring saw blades needed.



Minimum and maximum RPM based on the blade diameter.

Working with spindle over the working plane

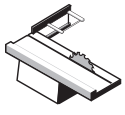


With positive hook angle, the cutting pressure acts over the working plane.

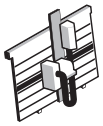
LU3C

Saw blades to cut bilaminated panels





Squaring Saws



Vertical Panel Sizing Machines



Plywood ●●●



Laminated Chipboard ●●●



Laminated MDF ●●●

●●● Ultimate ●● High ● Good

TiCo Carbide MADE BY freud

Silver I.C.E. COATING

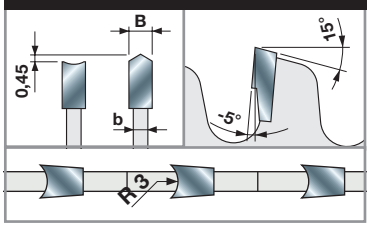
Anti-vibration TECHNOLOGY

D mm	B mm	b mm	d mm	Z	NL	Freud Code	Art. No.
220	3,2	2,2	30	42	2/7/42	LU3C 0100	F03FS05076
250	3,2	2,2	30	48	FT01	LU3C 0200	F03FS05077
303	3,2	2,2	30	60	FT01	LU3C 0300	F03FS05078
350	3,2	2,2	30	72	FT01	LU3C 0400	F03FS05080

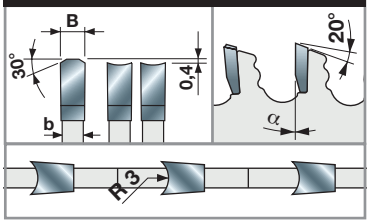
D mm	B mm	b mm	d mm	Z	α	NL	Freud Code	Art. No.
250	3,4	2,4	30	54	-2°	FT01	LU3C 0204 *	F03FS09537
303	3,4	2,4	30	66	0°	FT01	LU3C 0302 *	F03FS09038

FT01: 2/7/42 + 2/9/46,4 + 2/10/60

HW H00K - Concave tooth



HW H00K - Concave tooth *





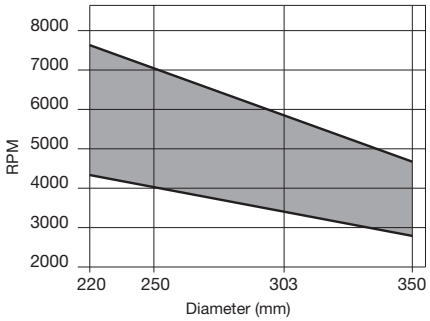
Scorer not required

Machines:
Squaring saws and vertical panel sizing machines.

Materials:
Plywood, laminated chipboard and laminated MDF.

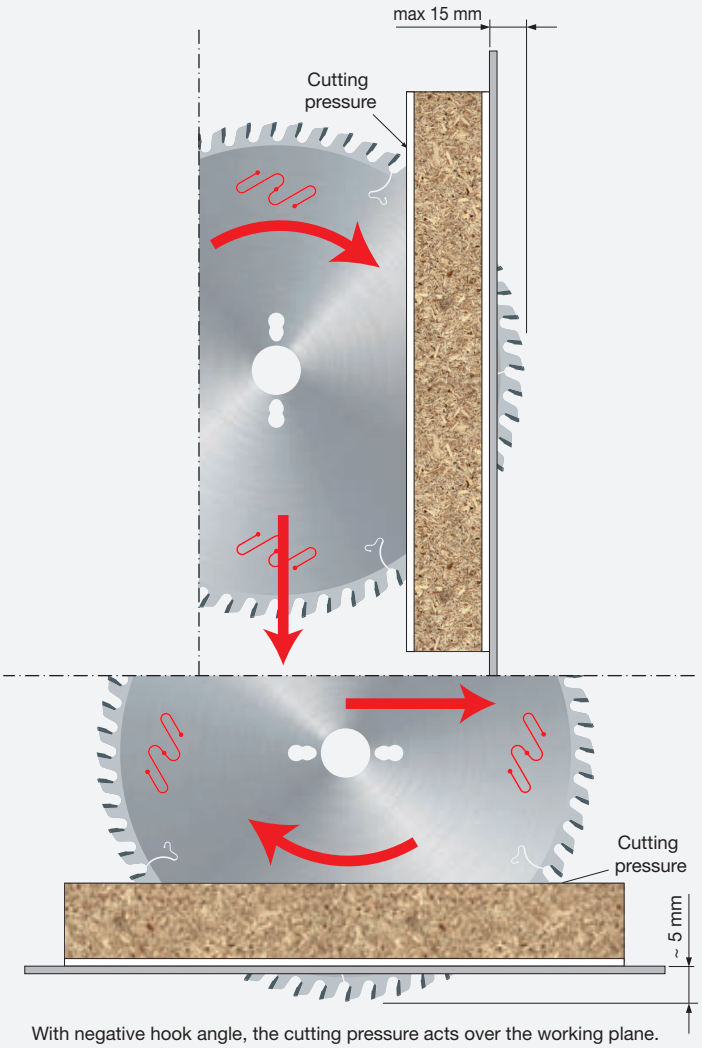
Applications:
Panel sizing.

Technical information:
Recommended for vertical panel sizing machines.
To size chipboard and MDF bilaminated panels with good finishing and long cutting life.
No scoring saw blades needed.



Minimum and maximum RPM based on the blade diameter.

Working with spindle over the working plane

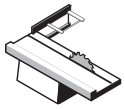


With negative hook angle, the cutting pressure acts over the working plane.



LU3D

Saw blades to cut bilaminated panels



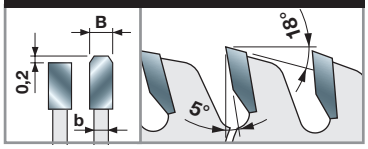
Squaring Saws



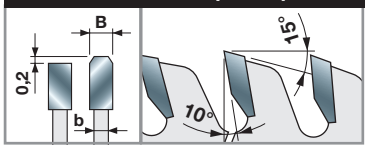
●●● Ultimate ●● High ● Good

TiCo Carbide MADE BY freud | Silver I.C.E. COATING | Anti-vibration TECHNOLOGY

HW H00XA - Flat-triple chip tooth



HW H00XA - Flat-triple chip tooth



Machines:
Squaring saws.

Materials:
Wood based panels, laminated chipboard, MDF and laminated MDF.

Applications:
Panel sizing.

Technical information:
To size chipboard and MDF bilaminated panels with the use of the scoring saw blade, in detail melamine-coated panels, with good finishing and long cutting life.

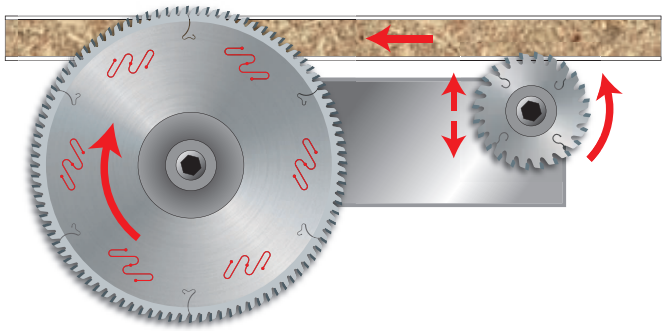
Hook angle 5° for cutting heights up to 30 mm

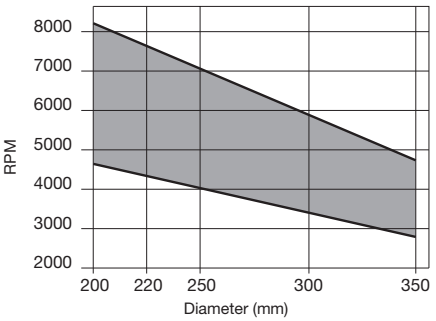
D	B	b	d	Z	α	NL		Freud Code	Art. No.
mm	mm	mm	mm						
200	3,2	2,2	30	64	5°	2/7/42		**LU3D 0100**	F03FS05081
220	3,2	2,2	30	64	5°	-		**LU3D 0200**	F03FS05083
250	3,2	2,2	30	80	5°	FT01		**LU3D 0400**	F03FS05088
250	3,2	2,2	55	80	5°	-		**LU3D 0455**	F03FS09973
300	3,2	2,2	30	96	5°	FT01		**LU3D 0600**	F03FS05093
300	3,2	2,2	35	96	5°	-		**LU3D 0700**	F03FS05096
350	3,5	2,5	30	108	5°	FT02		**LU3D 0900**	F03FS05098

Hook angle 10° for cutting heights up to 40 mm

D	B	b	d	Z	α	NL		Freud Code	Art. No.
mm	mm	mm	mm						
250	3,2	2,2	30	60	10°	FT01		**LU3D 1100**	F03FS05100
250	3,2	2,2	60	60	10°	2/11/85		**LU3D 1160**	F03FS09974
300	3,2	2,2	30	72	10°	FT01		**LU3D 2100**	F03FS05810
300	3,2	2,2	30	84	10°	FT01		**LU3D 1300**	F03FS05101
300	3,2	2,2	30	96	10°	FT01		**LU3D 1500**	F03FS05104
350	3,5	2,5	30	72	10°	FT02		**LU3D 2000**	F03FS05108
350	3,5	2,5	30	108	10°	FT02		**LU3D 1700**	F03FS05105

FT01: 2/7/42 + 2/9/46,4 + 2/10/60 - **FT02:** 2/9/46,4 + 2/10/60



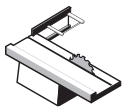


Minimum and maximum RPM based on the blade diameter.

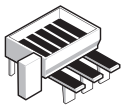


LU3E

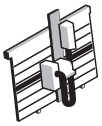
Saw blades to cut bilaminated panels



Squaring Saws



Horizontal Panel Sizing Machines



Vertical Panel Sizing Machines



Laminated Chipboard

●●●



Laminated MDF

●●●

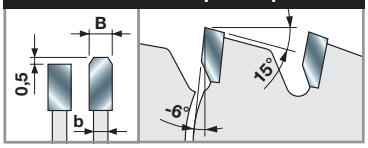
●●● Ultimate ●● High ● Good

TiCo Carbide MADE BY freud

Silver I.C.E. COATING

Anti-vibration TECHNOLOGY

HW H00K - Flat-triple chip tooth



D mm	B mm	b mm	d mm	Z	NL	Freud Code	Art. No.
220	3,2	2,2	30	56	2/7/42	**LU3E 0100**	F03FS05109
250	3,2	2,2	30	60	FT01	**LU3E 0200**	F03FS05111
300	3,2	2,2	30	72	FT01	**LU3E 0300**	F03FS05113
350	3,5	2,5	30	84	FT02	**LU3E 0400**	F03FS05115

FT01: 2/7/42 + 2/9/46,4 + 2/10/60 - **FT02:** 2/9/46,4 + 2/10/60

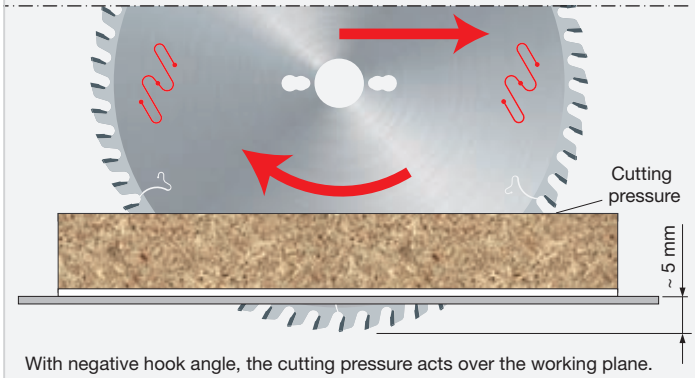
Machines:
Squaring saws, horizontal and vertical panel sizing machines.

Materials:
Laminated chipboard and laminated MDF.

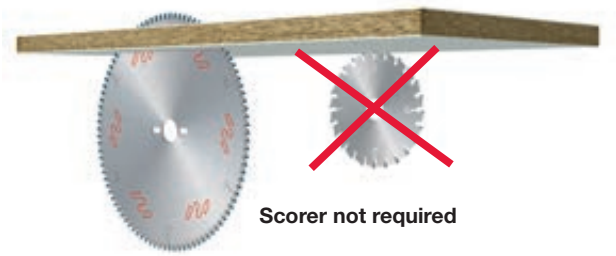
Applications:
Panel sizing.

Technical information:
To size chipboard and MDF bilaminated panels with thickness up to 40 mm.
In detail, it is suitable to work melamine-coated panels.
No scoring saw blades needed.

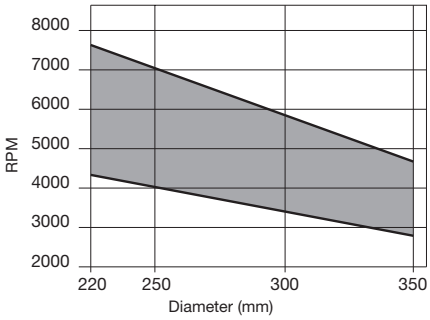
Working with spindle over the working plane



With negative hook angle, the cutting pressure acts over the working plane.



Scorer not required

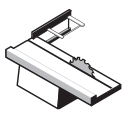


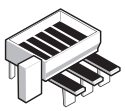
Minimum and maximum RPM based on the blade diameter.

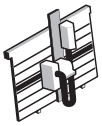


LU3F

Saw blades to cut bilaminated panels and plastic materials


Squaring Saws


Horizontal Panel Sizing Machines


Vertical Panel Sizing Machines


Laminated Chipboard ●●●


Laminated MDF ●●●


Thermoplastic Composites ●●●


HPL ●●●


Plastics ●●●

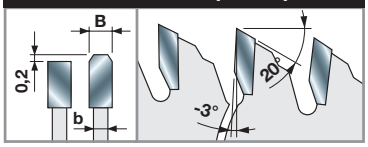
●●● Ultimate ●● High ● Good







HW H00XF - Flat-triple chip tooth



D mm	B mm	b mm	d mm	Z	NL	Freud Code	Art. No.
220	3,2	2,2	30	64	2/7/42	**LU3F 0100**	F03FS05117
250	3,2	2,2	30	80	FT01	**LU3F 0200**	F03FS05119
300	3,2	2,2	30	96	FT01	**LU3F 0300**	F03FS05121
350	3,5	2,5	30	108	FT02	**LU3F 0400**	F03FS05124

FT01: 2/7/42 + 2/9/46,4 + 2/10/60 - **FT02:** 2/9/46,4 + 2/10/60

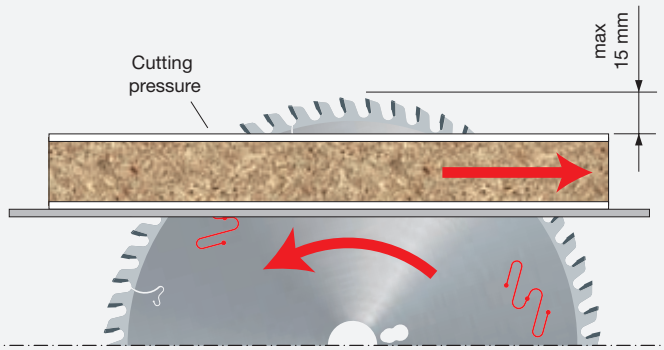
Machines:
Squaring saws, horizontal and vertical panel sizing machines.

Materials:
Laminated chipboard, laminated MDF, thermoplastic composites, HPL and plastics.

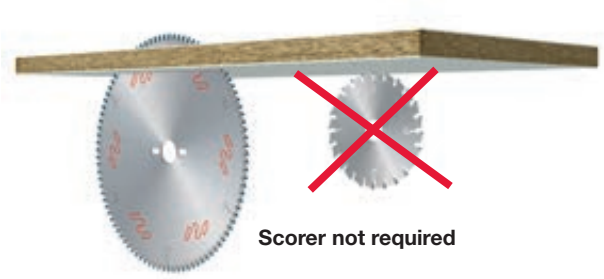
Applications:
Panel sizing.

Technical information:
Suitable to work melamine-coated chipboard and MDF panels and plastic materials.
No scoring saw blades needed.
The H00XF Carbide grants extremely long blade lifetime.

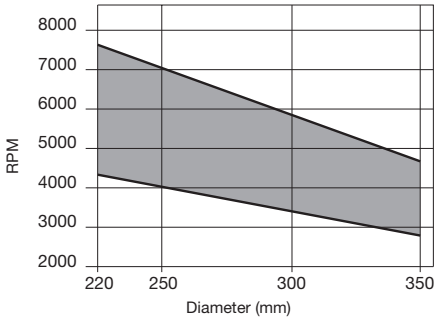
Working with spindle under the working plane



With negative hook angle, the cutting pressure acts over the working plane.



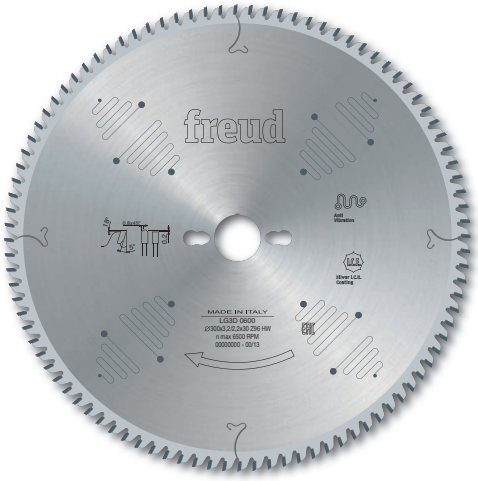
Scorer not required

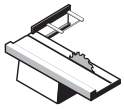


Minimum and maximum RPM based on the blade diameter.

LG3D

Saw blades to cut bilaminated panels





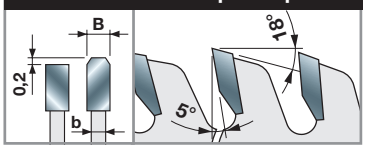
Squaring Saws

Chipboard	Laminated Chipboard	MDF	Laminated MDF
			
●●	●●	●●	●●

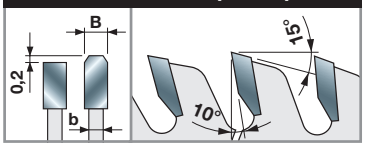
●●● Ultimate ●● High ● Good

TiCo Carbide MADE BY freud | Silver I.C.E. COATING | Anti-vibration TECHNOLOGY

HW H00XA - Flat-triple chip tooth



HW H00XA - Flat-triple chip tooth



Machines:
Squaring saws.

Materials:
Wood based panels, laminated chipboard, MDF and laminated MDF.

Applications:
Panel sizing.

Technical information:
To size chipboard and MDF bilaminated panels with the employment of the scoring saw blade, in detail melamine-coated panels, with good finishing and long cutting life.

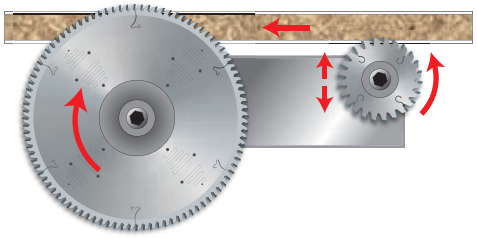
Hook angle 5°

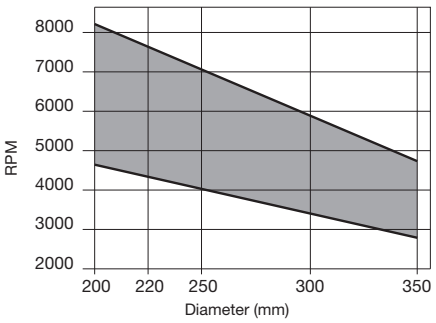
D mm	B mm	b mm	d mm	Z	α	NL	Freud Code	Art. No.
250	3,2	2,2	30	80	5°	FT01	**LG3D 0400**	F03FS07438
300	3,2	2,2	30	96	5°	FT01	**LG3D 0600**	F03FS07436
350	3,5	2,5	30	108	5°	FT02	**LG3D 0900**	F03FS07437

Hook angle 10°

D mm	B mm	b mm	d mm	Z	α	NL	Freud Code	Art. No.
300	3,2	2,2	30	72	10°	FT01	**LG3D 2100**	F03FS07574
350	3,5	2,5	30	72	10°	FT02	**LG3D 2000**	F03FS07573

FT01: 2/7/42 + 2/9/46,4 + 2/10/60 - **FT02:** 2/9/46,4 + 2/10/60



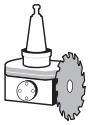


Minimum and maximum RPM based on the blade diameter.



LU34M

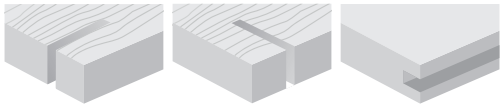
Saw blades for grooving and sizing on CNC units



CNC Cutting Units



Softwood | Hardwood | Laminated Chipboard | Laminated MDF | Plywood



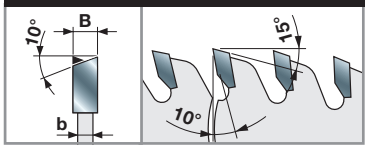
Ripping ●● | Crosscutting ●● | Grooving ●●

●●● Ultimate ●● High ● Good

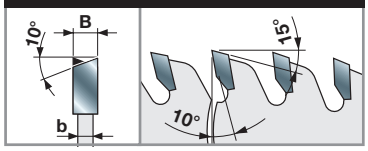
TiCo Carbide MADE BY freud

Silver I.C.E. COATING

HW H00K - ATB 10° tooth



HW H00XA - ATB 10° tooth **



D mm	B mm	b mm	d mm	Z	Max RPM 1/min.	Freud Code	Art. No.
120	4,0	3,0	30	18	12.000	**LU34M40AC3**	F03FS06095
120	4,0	3,0	20	30	12.000	**LU34M40EA3**	F03FS06367
120	4,0	3,0	35	30	12.000	**LU34M40EC3***	F03FS05141
120	5,0	3,0	30	18	12.000	**LU34M50AC3**	F03FS06096
120	5,0	3,0	35	30	12.000	**LU34M50EC3***	F03FS05143
120	6,0	3,0	30	18**	12.000	**LU34M60AC3**	F03FS06097
120	6,0	3,0	35	30**	12.000	**LU34M60EC3***	F03FS05145
180	4,0	3,0	35	44	10.000	**LU34M40NC3***	F03FS05142
180	5,0	3,0	35	44	10.000	**LU34M50NC3***	F03FS05144
180	6,0	3,0	35	44**	10.000	**LU34M60NC3***	F03FS05146

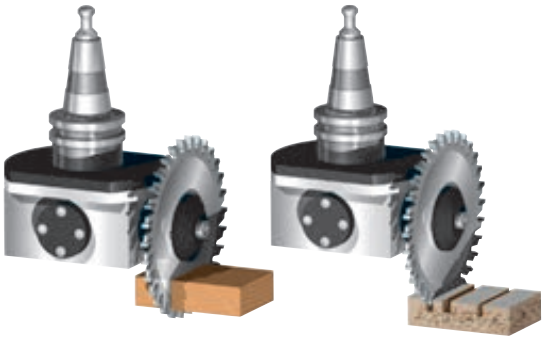
Machines:
CNC cutting units.

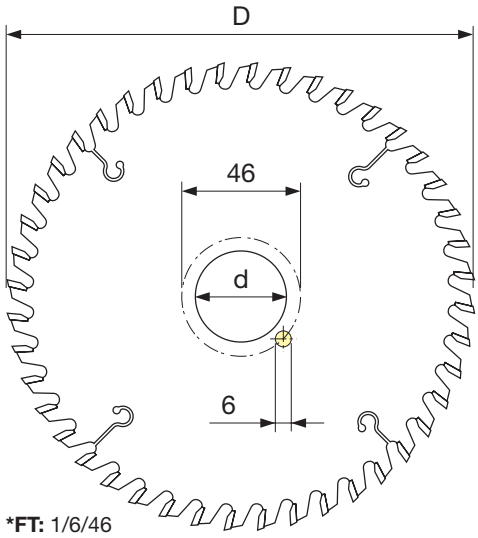
Materials:
Softwood, hardwood, laminated chipboard, laminated MDF and plywood.

Applications:
Sizing on CNC, ripping, crosscutting, grooving on CNC.

Technical information:
Saw blades dedicated to CNC machines.
For grooving along and across grain on softwood, hardwood and laminates.

Working examples

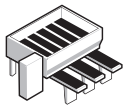




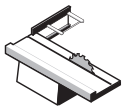
***FT:** 1/6/46

LI25M Conical scoring saw blades





Horizontal Panel Sizing Machines



Squaring Saws



Laminated Chipboard

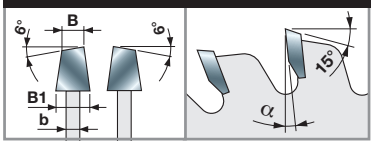


Laminated MDF

TiCo Carbide MADE BY freud

Silver I.C.E. COATING

HW H00XA - ATB 6° conical tooth



Machines:
Horizontal panel sizing machines and squaring saws.

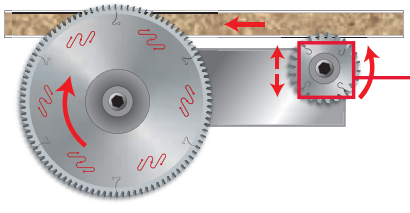
Materials:
Laminated chipboard and laminated MDF.

Applications:
Panel scoring.

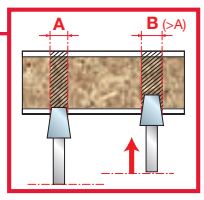
Technical information:
To score the coating on bilaminated panels.

D mm	B-B1 mm	b mm	d mm	Z	α	NL	Machines	Freud Code	Art. No.
80	3,1 - 4,3	2,2	20	12	0°	-	Casadei	**LI25M31AA3**	F03FS02606
80	3,1 - 4,3	2,2	22	12	0°	-		**LI25M31AB3**	F03FS02608
100	3,1 - 4,3	2,5	20	20	0°	-		**LI25M31BC3**	F03FS06099
100	3,1 - 4,3	2,2	20	24	0°	-	Schelling	**LI25M31BA3**	F03FS02610
100	3,1 - 4,3	2,2	22	24	0°	-		**LI25M31BB3**	F03FS02612
110	3,1 - 4,3	2,2	20	24	0°	-		**LI25M31CA3**	F03FS02614
110	3,1 - 4,3	2,2	22	24	0°	-		**LI25M31CB3**	F03FS02615
115	3,1 - 4,3	2,2	20	24	0°	-		**LI25M31DA3**	F03FS02616
115	3,1 - 4,3	2,2	22	24	0°	-		**LI25M31DB3**	F03FS02618
115	4,1 - 5,3	3,0	45	24	0°	-	SCM	**LI25M41DE3**	F03FS08039
120	2,8 - 4,0	2,2	20	24	0°	-	Schelling	**LI25M28EA3**	F03FS02604
120	2,8 - 4,0	2,2	22	24	0°	-		**LI25M28EB3**	F03FS02605
120	3,1 - 4,3	2,2	20	24	0°	-		**LI25M31EA3**	F03FS02620
120	3,1 - 4,3	2,2	22	24	0°	-		**LI25M31EB3**	F03FS02622
120	3,1 - 4,3	2,5	20	24	0°	-		**LI25M31EC3**	F03FS05978
120	3,4 - 4,6	2,2	20	24	0°	-	SCM	**LI25M34EA3**	F03FS02632
125	3,1 - 4,3	2,2	20	24	0°	-	Panhans - Schelling	**LI25M31FA3**	F03FS02623
125	3,1 - 4,3	2,2	22	24	0°	-	Martin	**LI25M31FB3**	F03FS02625
125	3,1 - 4,3	2,5	20	24	0°	-	Panhans - Schelling	**LI25M31FC3**	F03FS05932
125	3,4 - 4,6	2,2	20	24	0°	-		**LI25M34FA3**	F03FS02634
125	3,4 - 4,6	2,2	45	24	0°	-		**LI25M34FE3**	F03FS02636
125	4,3 - 5,5	3,2	20	24	0°	-	Panhans - Gabbiani	**LI25M43FA3**	F03FS02643
125	4,3 - 5,5	3,2	45	24	0°	-	Giben - Homag	**LI25M43FE3**	F03FS02645
125	4,5 - 5,7	3,0	20	24	0°	-		**LI25M45FA3**	F03FS02697
125	4,5 - 5,7	3,0	45	24	0°	-	Giben - Homag	**LI25M45FE3**	F03FS02699
140	3,1 - 4,3	2,2	16	28	8°	1/6/33	Scheer	**LI25M31HM3**	F03FS02627
140	3,4 - 4,6	3,0	45	24	8°	-		**LI25M34HE3**	F03FS02638
140	4,3 - 5,5	3,2	45	28	8°	-	Euromac	**LI25M43HE3**	F03FS02647
140	4,5 - 5,7	3,0	45	24	8°	-		**LI25M45HE3**	F03FS02701
145	4,3 - 5,5	3,2	45	30	8°	-	Hansol Machine	**LI25M43WE3**	F03FS08015
150	3,1 - 4,3	2,2	30	36	8°	-	SCM	**LI25M31KC3**	F03FS02628
150	3,4 - 4,6	2,2	30	36	8°	-	SCM	**LI25M34KC3**	F03FS02639
150	4,3 - 5,6	3,2	30	36	8°	-	SCM, Verry	**LI25M43KC3**	F03FS02649
150	4,3 - 5,6	3,2	45	36	8°	-	SCM, Holzma, Homag, Haisung Woodworking Machinery	**LI25M43KE3**	F03FS02651
150	4,5 - 5,8	3,0	30	36	8°	-	SCM	**LI25M45KC3**	F03FS02702
150	4,5 - 5,8	3,0	45	36	8°	-	SCM	**LI25M45KE3**	F03FS02704
160	3,1 - 4,3	2,2	20	36	8°	-	Langzauner	**LI25M31LA3**	F03FS02630
160	3,4 - 4,6	2,2	25,4	36	8°	-		**LI25M34LR3**	F03FS02641
160	4,3 - 5,5	3,2	25,4	36	8°	-		**LI25M43LR3**	F03FS02660
160	4,3 - 5,5	3,2	30	36	8°	-	Langzauner	**LI25M43LC3**	F03FS02653

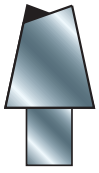
D mm	B-B1 mm	b mm	d mm	Z	α	NL	Machines	Freud Code	Art. No.
160	4,3 - 5,5	3,2	45	36	8°	3/11/70	Giben	**LI25M43LE3**	F03FS02655
160	4,3 - 5,5	3,2	55	36	8°	3/6/84 + 3/7/66	Gabbiani - SCM	**LI25M43LG3**	F03FS02657
160	4,3 - 5,5	3,2	60	36	8°	3/7/80		**LI25M43LH3**	F03FS02659
160	4,5 - 5,7	3,0	45	36	8°	3/11/70	Giben	**LI25M45LE3**	F03FS02706
160	4,5 - 5,7	3,0	55	36	8°	3/7/66 + 3/9/72	Gabbiani	**LI25M45LG3**	F03FS02708
175	4,3 - 5,5	3,2	75	36	8°	-	Wonpoong	**LI25M43WT3**	F03FS07816
180	3,1 - 4,3	2,2	16	42	8°	1/6/33	Scheer	**LI25M31NM3**	F03FS02631
180	3,4 - 4,6	2,2	25,4	36	8°	-		**LI25M34NR3**	F03FS02642
180	4,3 - 5,5	3,2	20	28	8°	-	Schelling - Anthon	**LI25M43NA3**	F03FS02661
180	4,3 - 5,5	3,2	30	28	8°	2/7/42 + 2/10/60	Panhans - Holzer	**LI25M43NC3**	F03FS02663
180	4,3 - 5,5	3,2	20	36	8°	-	Schelling - Anthon	**LI25M43XA3**	F03FS06372
180	4,3 - 5,5	3,2	30	36	8°	2/7/42 + 2/10/60	Holzher, Nanxing, KDT	**LI25M43XN3**	F03FS06373
180	4,3 - 5,5	3,2	45	36	8°	-	Holzma	**LI25M43NE3**	F03FS02664
180	4,3 - 5,5	3,2	50	36	8°	8/13/80	Giben	**LI25M43NF3**	F03FS02666
180	4,5 - 5,7	3,0	20	36	8°	-	Schelling - Anthon	**LI25M45NA3**	F03FS02710
180	4,7 - 5,9	3,5	45	36	8°	-	Holzma	**LI25M47NE3**	F03FS02715
180	5,1 - 6,3	3,5	55	36	8°	3/7/66	Gabbiani	**LI25M51NG3**	F03FS02724
180	5,7 - 6,9	4,0	20	36	8°	-	Anthon - Holzma	**LI25M57NA3**	F03FS02727
200	4,3 - 5,5	3,2	20	36	8°	2/10/60 + 2/9/62 + 2/11/66	Schelling	**LI25M43PA3**	F03FS02670
200	4,3 - 5,5	3,2	22	36	8°	-		**LI25M43PB3**	F03FS02673
200	4,3 - 5,5	3,2	30	36	8°	2/9/60 + 2/10/60	Scheer	**LI25M43PC3**	F03FS02674
200	4,3 - 5,5	3,2	45	36	8°	-	Holzma, Hyundai Sangi	**LI25M43PE3**	F03FS02676
200	4,3 - 5,5	3,2	50	36	8°	2/7/80 + 3/13/80	Giben, KDT	**LI25M43PF3**	F03FS02679
200	4,3 - 5,5	3,2	65	36	8°	2/9/100 + 2/9/110	Selco	**LI25M43PI3**	F03FS02681
200	4,3 - 5,5	3,2	75	36	8°	-	Hyundai Sangi	**LI25M43PT3**	F03FS07755
200	4,3 - 5,5	3,2	80	36	8°	2/14/110	Gabbiani	**LI25M43PL3**	F03FS02683
200	4,5 - 5,7	3,0	22	36	8°	-		**LI25M45PB3**	F03FS02712
200	4,5 - 5,7	3,0	65	36	8°	2/9/110	Selco	**LI25M45PI3**	F03FS02714
200	4,7 - 5,9	3,5	20	36	8°	2/11/66		**LI25M47PA3**	F03FS02716
200	4,7 - 5,9	3,5	22	36	8°	-		**LI25M47PB3**	F03FS02717
200	4,7 - 5,9	3,5	30	36	8°	2/9/60	Scheer	**LI25M47PC3**	F03FS02718
200	4,7 - 5,9	3,5	45	36	8°	-	Holzma	**LI25M47PE3**	F03FS02719
200	4,7 - 5,9	3,5	65	36	8°	2/9/100 + 2/9/110	Selco	**LI25M47PI3**	F03FS02720
200	5,4 - 6,6	4,0	20	36	8°	-		**LI25M54PA3**	F03FS02726
200	5,7 - 6,9	4,0	45	36	8°	-	Holzma	**LI25M57PE3**	F03FS02728
200	5,7 - 6,9	3,5	65	36	8°	2/9/110		**LI25M57PI3BS**	F03FS08165
200	6,1 - 7,3	4,0	20	36	8°	2/11/66	Schelling, Scheer	**LI25M61PA3**	F03FS02730
215	4,3 - 5,5	3,2	50	42	8°	2/7/80 + 3/15/80	Giben	**LI25M43QF3**	F03FS02685
215	4,5 - 5,7	3,2	50	42	8°	3/15/80	Giben	**LI25M45PF3**	F03FS02713
220	6,3 - 7,5	4,4	20	36	8°	2/11/66	Schelling	**LI25M63UA3**	F03FS02732
250	3,1 - 4,3	2,2	30	54	8°	-		**LI25M310C3**	F03FS07595
250	4,3 - 5,5	3,2	50	48	8°	3/13/80	Giben	**LI25M430F3**	F03FS02669
250	4,3 - 5,5	3,2	30	48	8°	2/10/60		**LI25M430C3**	F03FS02668
280	4,3 - 5,5	3,2	30	48	12°	2/10/60	Panhans	**LI25M43VC3**	F03FS07419
300	4,3 - 5,5	3,0	65	48	12°	2/9/100 + 2/9/110	Selco	**LI25M43RX3**	F03FS07616
300	4,3 - 5,5	3,2	30	48	12°	2/11/73 + 2/11/75 + 2/13/94	Schelling	**LI25M43RC3**	F03FS07577
300	4,3 - 5,5	3,5	50	48	12°	3/15/80	Giben	**LI25M43RM3**	F03FS02693
300	4,3 - 5,5	3,2	65	72	12°	2/9/100 + 2/9/110	Selco	**LI25M43RI3**	F03FS02689
300	4,3 - 5,5	3,2	80	72	12°	2/14/110		**LI25M43RL3**	F03FS02691
300	4,7 - 5,9	3,5	65	48	6°	2/9/110	Selco	**LI25M47RX3**	F03FS07744
320	4,3 - 5,5	3,0	45	48	12°	-		**LI25M43SE3**	F03FS02696
320	4,3 - 5,5	3,2	45	48	12°	-		**LI25M43SA3**	F03FS02695
340	4,7 - 5,9	3,5	45	72	12°	3/14/65	Holzma	**LI25M47TE3**	F03FS02722

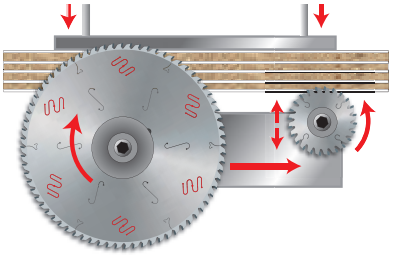


A= Minimum kerf of the scoring saw blade.
B= Maximum kerf of the scoring saw blade.



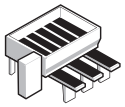
For each 1 mm height displacement the cut becomes 0,25 mm wider.



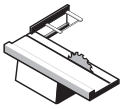


DLI25M Polycrystalline Diamond conical scoring saw blades (H4 - H6)





Horizontal Panel Sizing Machines



Squaring Saws



Laminated Chipboard

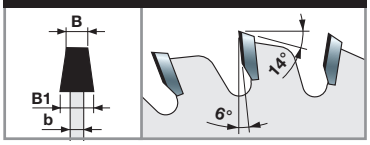


Laminated MDF

Polycrystalline Diamond TECHNOLOGY

Silver I.C.E. COATING

DP - Conical tooth



Machines:
Horizontal panel sizing machines and squaring saws.

Materials:
Laminated chipboard and laminated MDF.

Applications:
Panel scoring.

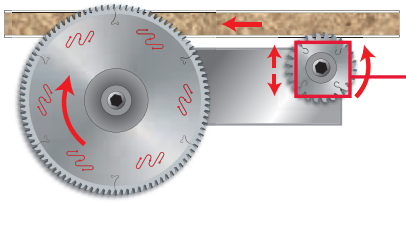
Technical information:
Extremely longer lifetime thanks to the Polycrystalline Diamond teeth material.
Delivered in dedicated wooden boxes.

Polycrystalline Diamond conical scoring saw blades H4

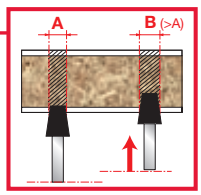
D mm	B-B1 mm	b mm	d mm	Z	NL	Machines	Freud Code	Art. No.
120	2,8 - 3,6	2,2	20	24	-	Schelling	**DLI25M28EAH4**	F03FS09613
120	2,8 - 3,6	2,2	22	24	-		**DLI25M28EBH4**	F03FS09615
120	3,1 - 3,9	2,2	20	24	-		**DLI25M31EAH4**	F03FS09617
125	3,1 - 3,9	2,2	20	24	-	Panhans - Schelling	**DLI25M31FAH4**	F03FS09619
180	4,3 - 5,1	3,2	45	30	-	Holzma	**DLI25M43NEH4**	F03FS09621
180	4,7 - 5,5	3,5	45	30	-	Holzma	**DLI25M47NEH4**	F03FS09623
200	4,3 - 5,1	3,2	65	36	2/9/100 + 2/9/110	Selco	**DLI25M43PIH4**	F03FS09625
200	4,3 - 5,1	3,2	80	36	2/14/110	Gabbiani	**DLI25M43PLH4**	F03FS09627
200	4,7 - 5,5	3,5	45	36	-	Holzma	**DLI25M47PEH4**	F03FS09629
200	4,7 - 5,5	3,5	65	36	2/9/100 + 2/9/110	Selco	**DLI25M47PIH4**	F03FS09631
215	4,3 - 5,1	3,2	50	42	2/7/80 + 3/15/80	Giben	**DLI25M43QFH4**	F03FS09633

Polycrystalline Diamond conical scoring saw blades H6

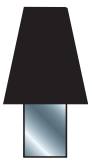
D mm	B-B1 mm	b mm	d mm	Z	NL	Machines	Freud Code	Art. No.
120	2,8 - 3,6	2,2	20	24	-	Schelling	**DLI25M28EAH6**	F03FS09614
120	2,8 - 3,6	2,2	22	24	-		**DLI25M28EBH6**	F03FS09616
120	3,1 - 3,9	2,2	20	24	-		**DLI25M31EAH6**	F03FS09618
125	3,1 - 3,9	2,2	20	24	-	Panhans - Schelling	**DLI25M31FAH6**	F03FS09620
180	4,3 - 5,1	3,2	45	30	-	Holzma	**DLI25M43NEH6**	F03FS09622
180	4,7 - 5,5	3,5	45	30	-	Holzma	**DLI25M47NEH6**	F03FS09624
200	4,3 - 5,1	3,2	65	36	2/9/100 + 2/9/110	Selco	**DLI25M43PIH6**	F03FS09626
200	4,3 - 5,1	3,2	80	36	2/14/110	Gabbiani	**DLI25M43PLH6**	F03FS09628
200	4,7 - 5,5	3,5	45	36	-	Holzma	**DLI25M47PEH6**	F03FS09630
200	4,7 - 5,5	3,5	65	36	2/9/100 + 2/9/110	Selco	**DLI25M47PIH6**	F03FS09632
215	4,3 - 5,1	3,2	50	42	2/7/80 + 3/15/80	Giben	**DLI25M43QFH6**	F03FS09634

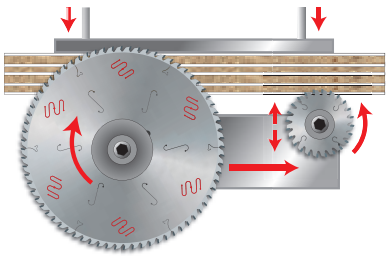


A= Minimum kerf of the scoring saw blade.
B= Maximum kerf of the scoring saw blade.



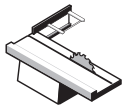
For each 1 mm height displacement the cut becomes 0,2 mm wider for H4 and 0,15 mm wider for H6.





LI16M Adjustable scoring saw blades





Squaring Saws



Laminated Chipboard

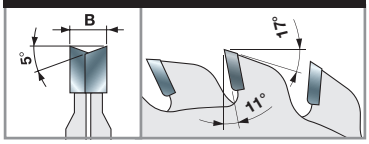


Laminated MDF

TiCo Carbide MADE BY freud

Silver I.C.E. COATING

HW H00XA - ATB 5° tooth



D mm	B mm	d mm	Z	Machines	Freud Code	Art. No.
80	2,8 - 3,6	20	10 + 10	Robland	**LI16M HA3**	F03FS02502
80	2,8 - 3,6	20	12 + 12	Felder	**LI16M GA3**	F03FS02501
100	2,8 - 3,6	20	12 + 12	Schelling - Panhans - Martin	**LI16M BA3**	F03FS02491
100	2,8 - 3,6	22	12 + 12	Altendorf - Striebig - Panhans	**LI16M BB3**	F03FS02493
100	2,8 - 3,6	25,4	12 + 12	Baldan	**LI16M BR3**	F03FS07433
105	2,8 - 3,6	20	10 + 10		**LI16M CA3**	F03FS02495
120	2,8 - 3,6	20	12 + 12	Holzher - SCM	**LI16M AA3**	F03FS02485
120	2,8 - 3,6	22	12 + 12	Altendorf - Martin - Mrozek	**LI16M AB3**	F03FS02488
120	2,8 - 3,6	50	12 + 12	Altendorf - Griggio	**LI16M PF3***	F03FS02512
120	2,8 - 3,6	50	12 + 12	Felder	**LI16M RF3***	F03FS06512
120	4,0 - 5,0	50	12 + 12		**LI16M IF3***	F03FS02504
125	2,8 - 3,6	20	12 + 12	Paoloni	**LI16M FA3**	F03FS02500
125	2,8 - 3,6	20	14 + 14		**LI16M EA3**	F03FS02498
125	2,8 - 3,6	22	14 + 14		**LI16M EB3**	F03FS02499
125	4,0 - 4,7	20	20 + 20	SCM	**LI16M DA3**	F03FS02496
125	4,0 - 5,0	45	12 + 12	Giben - Mayer	**LI16M KE3**	F03FS02506
200	4,0 - 5,2	50	28 + 28	Giben	**LI16M OF3**	F03FS02511

* Thickness adjustment controlled by the machines, no spacers required.

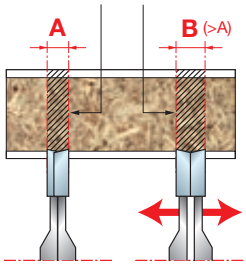
Machines:
Squaring saws.

Materials:
Laminated chipboard and laminated MDF.

Applications:
Panel scoring.

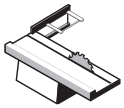
Technical information:
To score the coating on bilaminated panels.

A= Minimum kerf of the scoring saw blade.
B= Maximum kerf of the scoring saw blade.



DLI16M Polycrystalline Diamond adjustable scoring saw blades (H6)





Squaring Saws



Laminated Chipboard

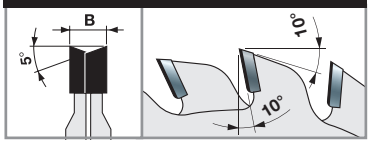


Laminated MDF

Polycrystalline Diamond TECHNOLOGY

Silver I.C.E. COATING

DP - ATB 5° tooth



Machines:
Squaring saws.

Materials:
Laminated chipboard and laminated MDF.

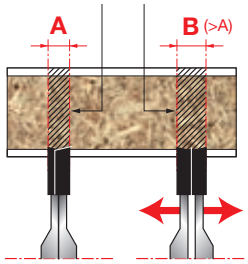
Applications:
Panel scoring.

Technical information:
To score the coating on bilaminated panels.
Extremely longer lifetime thanks to the Polycrystalline Diamond teeth material.
Delivered in dedicated wooden boxes.

DP - Polycrystalline Diamond adjustable scoring saw blades H6

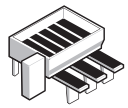
D mm	B mm	d mm	Z mm	NL	Freud Code	Art. No.
100	2,8 - 3,6	20	12 + 12	Schelling - Panhans - Martin	**DLI16MBAH6**	F03FS09635
120	2,8 - 3,6	20	12 + 12	Holzer - SCM	**DLI16MAAH6**	F03FS09636
120	2,8 - 3,6	22	12 + 12	Altendorf - Martin - Mrozek	**DLI16MABH6**	F03FS09637

A= Minimum kerf of the scoring saw blade.
B= Maximum kerf of the scoring saw blade.



LI27M Postforming scoring saw blades





Horizontal Panel Sizing Machines



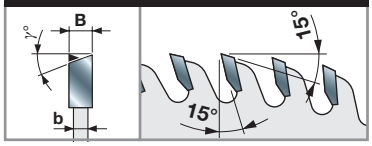
Laminated Chipboard | Laminated MDF

D mm	B mm	b mm	d mm	Z	γ	NL	Freud Code	Art. No.
200	4,7	3,5	80	42	10°	2/14/110	**LI27M FA3**	F03FS02749
220	3,4	2,2	30	48	10°	-	**LI27M AA3**	F03FS02733
250	4,6	3,0	30	48	10°	-	**LI27M BA3**	F03FS02734
280	4,65	3,2	80	72	15°	2/14/110	**LI27M47VL3**	F03FS08014
280	5,0	3,5	45	84	30°	-	**LI27M CA3**	F03FS02736
300	4,55	3,0	30	72	10°	-	**LI27M DF3**	F03FS02745
300	4,55	3,2	65	72	10°	2/9/100+2/9/110	**LI27M DA3**	F03FS02737
300	4,55	3,2	50	72	10°	3/15/80	**LI27M DD3**	F03FS02743
300	4,7	3,2	80	72	10°	2/14/110	**LI27M DC3**	F03FS02741
300	4,95	3,0	65	72	10°	2/9/100+2/9/110	**LI27M DB3**	F03FS02739
340	5,0	3,5	45	48	30°	3/14/65	**LI27M EA3**	F03FS02746
340	5,0	3,5	45	108	30°	3/14/65	**LI27M EB3**	F03FS02747

TiCo Carbide MADE BY freud

Silver I.C.E. COATING

HW H00XA - ATB tooth



Machines:
Horizontal panel sizing machines.

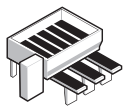
Materials:
Laminated chipboard and laminated MDF.

Applications:
Panel scoring.

Technical information:
To score the coating on bilaminated panels.

LI20M Flat tooth scoring saw blades





Horizontal Panel Sizing Machines



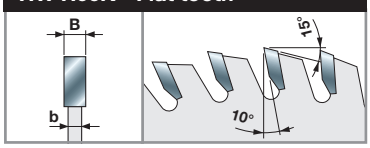
Laminated Chipboard | Laminated MDF

D mm	B mm	b mm	d mm	Z	NL	Freud Code	Art. No.
180	3,2	2,2	50	54	3/22/80	**LI20M BB3**	F03FS02579

TiCo Carbide MADE BY freud

Silver I.C.E. COATING

HW H00K - Flat tooth

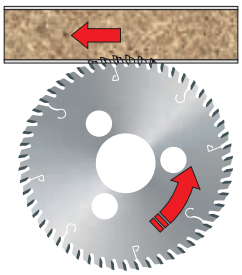


Machines:
Horizontal panel sizing machines.

Materials:
Laminated chipboard and laminated MDF.

Applications:
Panel scoring.

Technical information:
To score bilaminated panels with plastic coating.

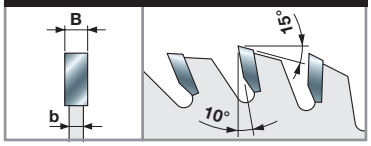




TiCo Carbide MADE BY freud

Silver I.C.E. COATING

HW H00K - Flat tooth



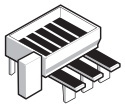
Machines:
SCM horizontal panel sizing machines.

Materials:
Laminated chipboard and laminated MDF.

Applications:
Panel scoring.

Technical information:
To score the coating on bilaminated panels.

LI17M Flat tooth scoring saw blades

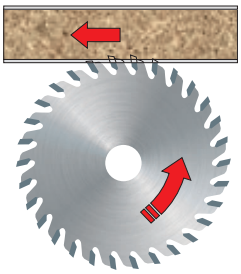


Horizontal Panel Sizing Machines



Laminated Chipboard | Laminated MDF

D mm	B mm	b mm	d mm	Z	NL	Freud Code	Art. No.
115	3,2	2,2	20	30	-	**LI17M FA3**	F03FS02572
120	3,2	2,2	20	30	-	**LI17M GA3**	F03FS02574

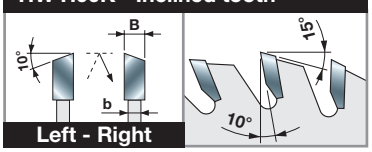




TiCo Carbide MADE BY freud

Silver I.C.E. COATING

HW H00K - Inclined tooth



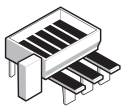
Machines:
Horizontal panel sizing machines.

Materials:
Laminated chipboard and laminated MDF.

Applications:
Panel scoring.

Technical information:
To score the coating on bilaminated panels.

LI22MD LI22MS Inclined tooth scoring saw blades



Horizontal Panel Sizing Machines

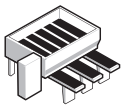


Laminated Chipboard | Laminated MDF

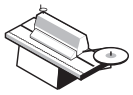
D mm	B mm	b mm	d mm	Z	NL	Freud Code Right (D)	Art. No. Right (D)	Freud Code Left (S)	Art. No. Left (S)
150	3,2	2,2	30	36		**LI22MD KC3**	F03FS02581	**LI22MS KC3**	F03FS02592
150	3,2	2,2	55	36		**LI22MD KG3**	F03FS02583	**LI22MS KG3**	F03FS02594
150	3,2	2,2	60	36		**LI22MD KH3**	F03FS02584	**LI22MS KH3**	F03FS02595
180	3,2	2,2	30	42		**LI22MD NC3**	F03FS02585	**LI22MS NC3**	F03FS02596
180	3,2	2,2	55	42		**LI22MD NG3**	F03FS02586	**LI22MS NG3**	F03FS02598
200	3,2	2,2	30	48		**LI22MD PC3**	F03FS02589	**LI22MS PC3**	F03FS02601
200	3,2	2,2	60	48		**LI22MD PH3**	F03FS02590	**LI22MS PH3**	F03FS02602

LI13MD LI13MS Inclined tooth scoring saw blades





Horizontal Panel Sizing Machines



Edge Banders



Chipboard



Laminated Chipboard



MDF

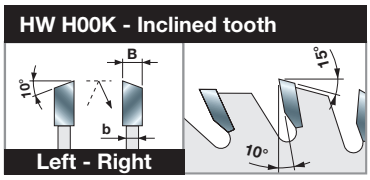


Laminated MDF

D	B	b	d	Z	NL	Freud Code	Art. No.	Freud Code	Art. No.
mm	mm	mm	mm			Right (D)		Left (S)	
100	3,2	2,2	20	24		**LI13MD AA3**	F03FS02452	**LI13MS AA3**	F03FS02466
100	3,2	2,2	22	24		**LI13MD AB3**	F03FS02454	**LI13MS AB3**	F03FS02468
125	3,2	2,2	20	30		**LI13MD BA3**	F03FS02455	**LI13MS BA3**	F03FS02470
150	3,2	2,2	30	48		**LI13MD DA3**	F03FS02459	**LI13MS DA3**	F03FS02474
150	3,2	2,2	55	48		**LI13MD DB3**	F03FS02461	**LI13MS DB3**	F03FS02476







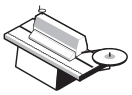
Machines:
Horizontal panel sizing machines and edge banders.

Materials:
Wood based panels, laminated chipboard and laminated MDF.

Applications:
Panel scoring.

Technical information:
To score the coating on bilaminated panels.
Especially dedicated to very fragile coating.

LI14MD LI14MS End trim unit for panels with banded edges



Edge Banders



Chipboard



Laminated Chipboard



MDF

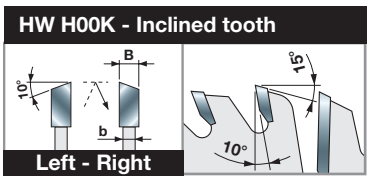


Laminated MDF

D	B	b	d	Z	NL	Freud Code	Art. No.	Freud Code	Art. No.
mm	mm	mm	mm			Right (D)		Left (S)	
140	3,2	2,2	30	28 + 4		**LI14MD CA3**	F03FS02481	**LI14MS CA3**	F03FS02483







Machines:
Edge banders.

Materials:
Wood based panels, laminated chipboard and laminated MDF.

Applications:
Panel scoring.

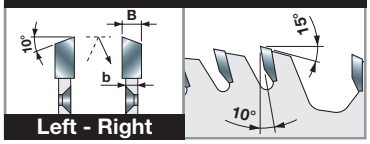
Technical information:
To score the coating on bilaminated panels.
Particularly dedicated to very fragile coatings.



TiCo Carbide MADE BY freud

Silver I.C.E. COATING

HW H00K - Inclined tooth



Machines:
Double end tenoners.

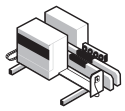
Materials:
Softwood, hardwood, MDF and plywood.

Applications:
Hogging.

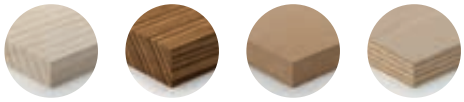
Technical information:
Saw blades suitable for squaring and trimming panels.

LT16MD LT16MS

Saw blades for Freud hogging units

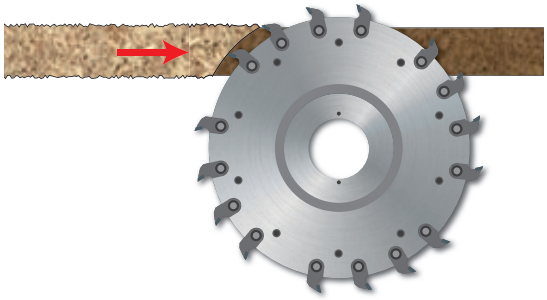


Double End Tenoners



Softwood Hardwood MDF Plywood

D mm	B mm	b mm	d mm	Z	NL	Freud Code Right (D)	Art. No. Right (D)	Freud Code Left (S)	Art. No. Left (S)
250	4,2	3,0	130	56	10/8,5/170	**LT16MD BD3**	F03FS04401	**LT16MS BD3**	F03FS04409
300	4,2	3,0	130	68	10/8,5/215	**LT16MD CD3**	F03FS04404	**LT16MS CD3**	F03FS04412

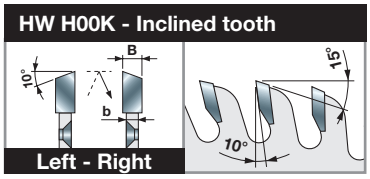




TiCo Carbide MADE BY freud

Silver I.C.E. COATING

HW H00K - Inclined tooth



Machines:
Squaring edge banding machines and double end tenoners.

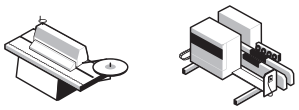
Materials:
Chipboard and MDF, laminated chipboard and laminated MDF.

Applications:
Hogging.

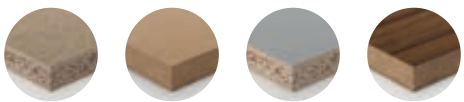
Technical information:
Saw blades suitable for squaring and trimming panels.

LT12MD LT12MS

Saw blades for hogging units

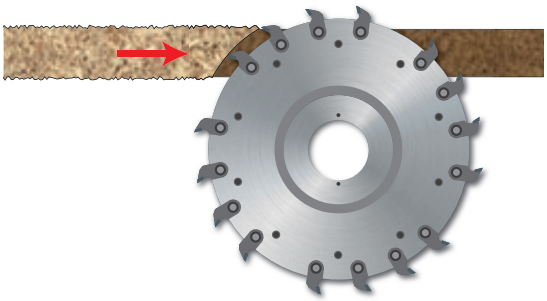


Edge Banders Double End Tenoners



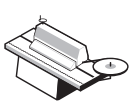
Chipboard MDF Laminated Chipboard Laminated MDF

D mm	B mm	b mm	d mm	Z	NL	Freud Code Right (D)	Art. No. Right (D)	Freud Code Left (S)	Art. No. Left (S)
250	4,2	3,0	130	60	4/8,5/185	**LT12MD BB3**	F03FS04372	**LT12MS BB3**	F03FS07063

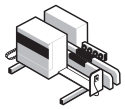


LT14MD LT14MS Saw blades for hogging units - customised





Edge Banders



Double End Tenoners



Chipboard



MDF



Laminated Chipboard

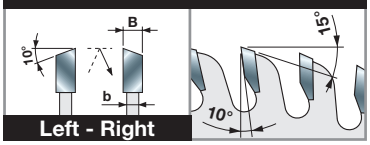


Laminated MDF

TiCo Carbide MADE BY freud

Silver I.C.E. COATING

HW H00K - Inclined tooth



D mm	B mm	b mm	d mm	Z	NL	Freud Code Right (D)	Art. No. Right (D)	Freud Code Left (S)	Art. No. Left (S)
200	4,2	3,0	30	48	*	**LT14MD AA3**	F03FS04378	**LT14MS AA3**	F03FS04389
250	4,2	3,0	30	60	*	**LT14MD BA3**	F03FS04380	**LT14MS BA3**	F03FS04391
250	4,2	3,0	130	60	*	**LT14MD BB3**	F03FS04382	**LT14MS BB3**	F03FS04393
255	4,2	3,0	80	60	*	**LT14MD FA3**	F03FS04387	**LT14MS FA3**	F03FS04398
350	4,2	3,0	30	84	*	**LT14MD DA3**	F03FS04386	**LT14MS DA3**	F03FS04397

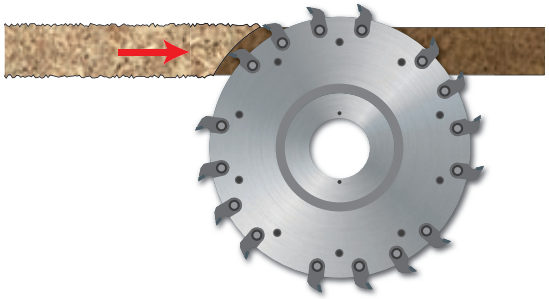
* **WHEN ORDERING, ALWAYS SPECIFY:**
a) **OPT08 AA9 -** to increase bore Ø;
b) **OPTFO... -** for pin holes (NL* - see page 92).
Send sample saw blade or drawing with bore size. Specify no. of pin holes, diameter of holes (D1) and the diameter of the circumference passing through the centre of the holes (D2).

Machines:
Squaring edge banding machines and double end tenoners.

Materials:
Chipboard, MDF, laminated chipboard and laminated MDF.

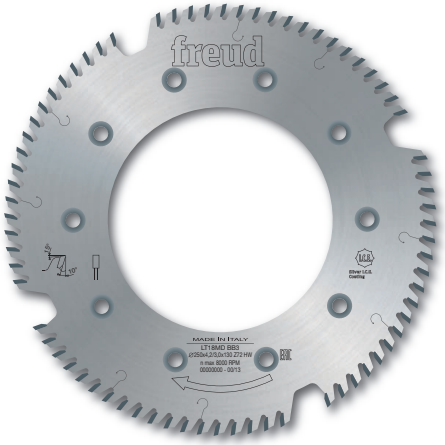
Applications:
Hogging.

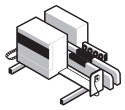
Technical information:
Saw blades suitable for squaring and trimming panels.



LT18MD
LT18MS

Saw blades for Freud hogging units





Double End Tenoners



Softwood



Hardwood



MDF



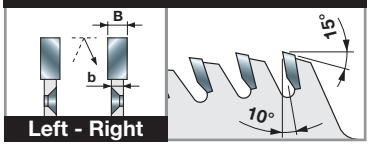
Plywood

D mm	B mm	b mm	d mm	Z	NL	Freud Code Right (D)	Art. No. Right (D)	Freud Code Left (S)	Art. No. Left (S)
250	4,2	3,0	130	72	10/8,5/170	**LT18MD BB3**	F03FS04415	**LT18MS BB3**	F03FS04417

TiCo Carbide MADE BY freud

Silver I.C.E. COATING

HW H00K - Flat tooth



Machines:
Double end tenoners.

Materials:
Softwood, hardwood, MDF and plywood.

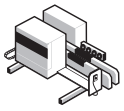
Applications:
Hogging.

Technical information:
Saw blades suitable for squaring and trimming panels.

LT20MD
LT20MS

Saw blades for Leuco hogging units





Double End Tenoners



Softwood



Hardwood



MDF



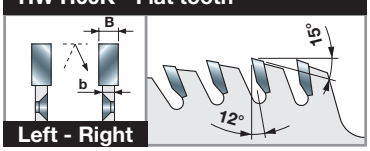
Plywood

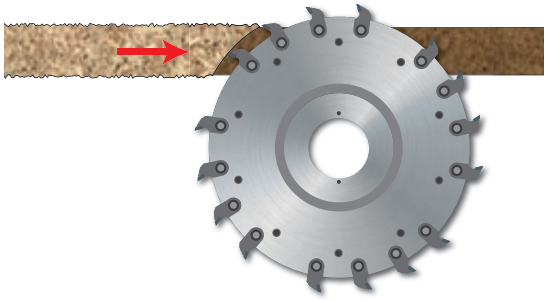
D mm	B mm	b mm	d mm	Z	NL	Freud Code Right (D)	Art. No. Right (D)	Freud Code Left (S)	Art. No. Left (S)
250	4,0	3,0	100	72	6/7/200	**LT20MD BB3**	F03FS04421	**LT20MS BB3**	F03FS04422

TiCo Carbide MADE BY freud

Silver I.C.E. COATING

HW H00K - Flat tooth





Machines:
Double end tenoners.

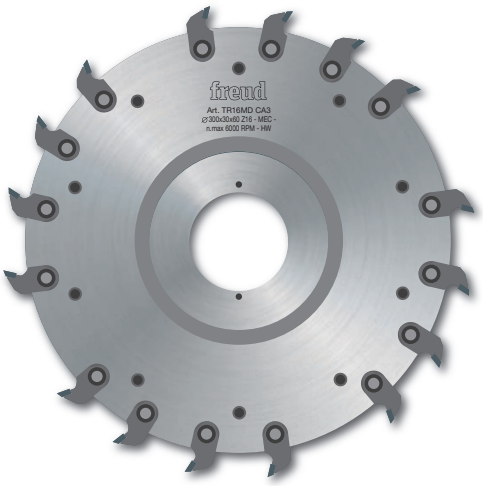
Materials:
Softwood, hardwood, MDF and plywood.

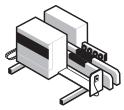
Applications:
Hogging.

Technical information:
Saw blades suitable for squaring and trimming panels.

TR16MD TR16MS

Hogging units with SR06M interchangeable inserts





Double End Tenoners



Softwood



Hardwood



MDF

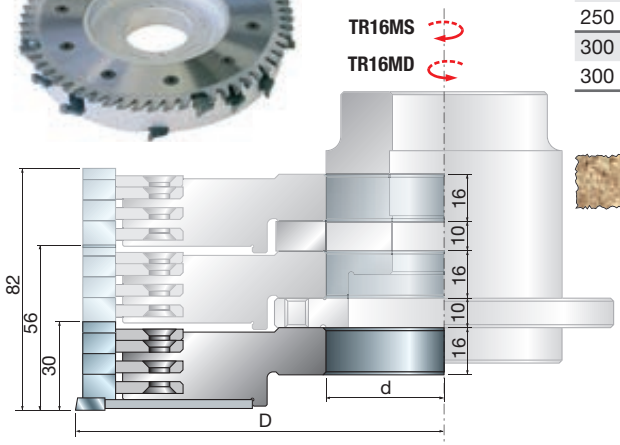


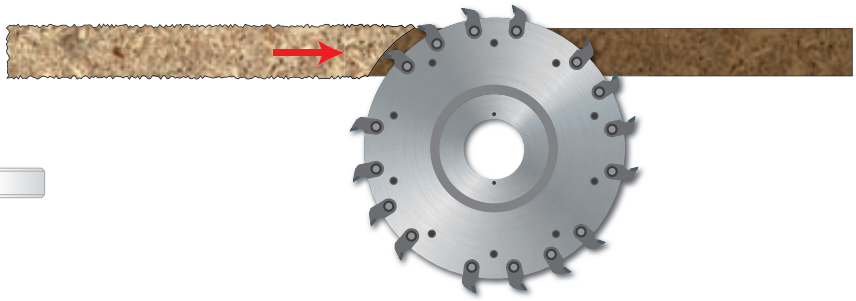
Plywood

* Nominal saw blade diameter.

D* mm	B mm	d mm	Z mm	Freud Code Right (D)	Art. No. Right (D)	Freud Code Left (S)	Art. No. Left (S)
200	30	80	16	**TR16MD AA3**	F03FC20547	**TR16MS AA3**	F03FC20550
250	30	60	16	**TR16MD BA3**	F03FC20548	**TR16MS BA3**	F03FC20551
250	30	80	16	**TR16MD BB3**	F03FC22094	**TR16MS BB3**	F03FC22096
300	30	60	16	**TR16MD CA3**	F03FC20549	**TR16MS CA3**	F03FC20552
300	30	80	16	**TR16MD CB3**	F03FC22095	**TR16MS CB3**	F03FC22097



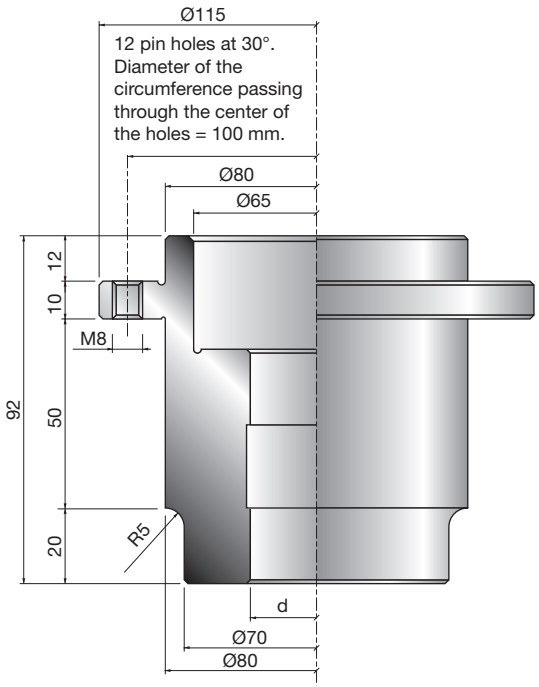




These tools can be stacked and used in multiples thus enabling the machining of a wider area.

Particularly indicated for squaring solid wood panels.

Spare parts	Dimensions	Freud Code	Art. No.
Grooving inserts	34 x 9 x 16	**SR06MDBB301**	F03FC24198
Grooving inserts	34 x 9 x 16	**SR06MSBB301**	F03FC24201
Screw	M6 x 11,5	**VT16M AB9**	F03FA04477
Screw	M6 x 10	**VT01M AA9**	F03FA04429
Allen key	4	**CB03M BA9**	F03FA00163



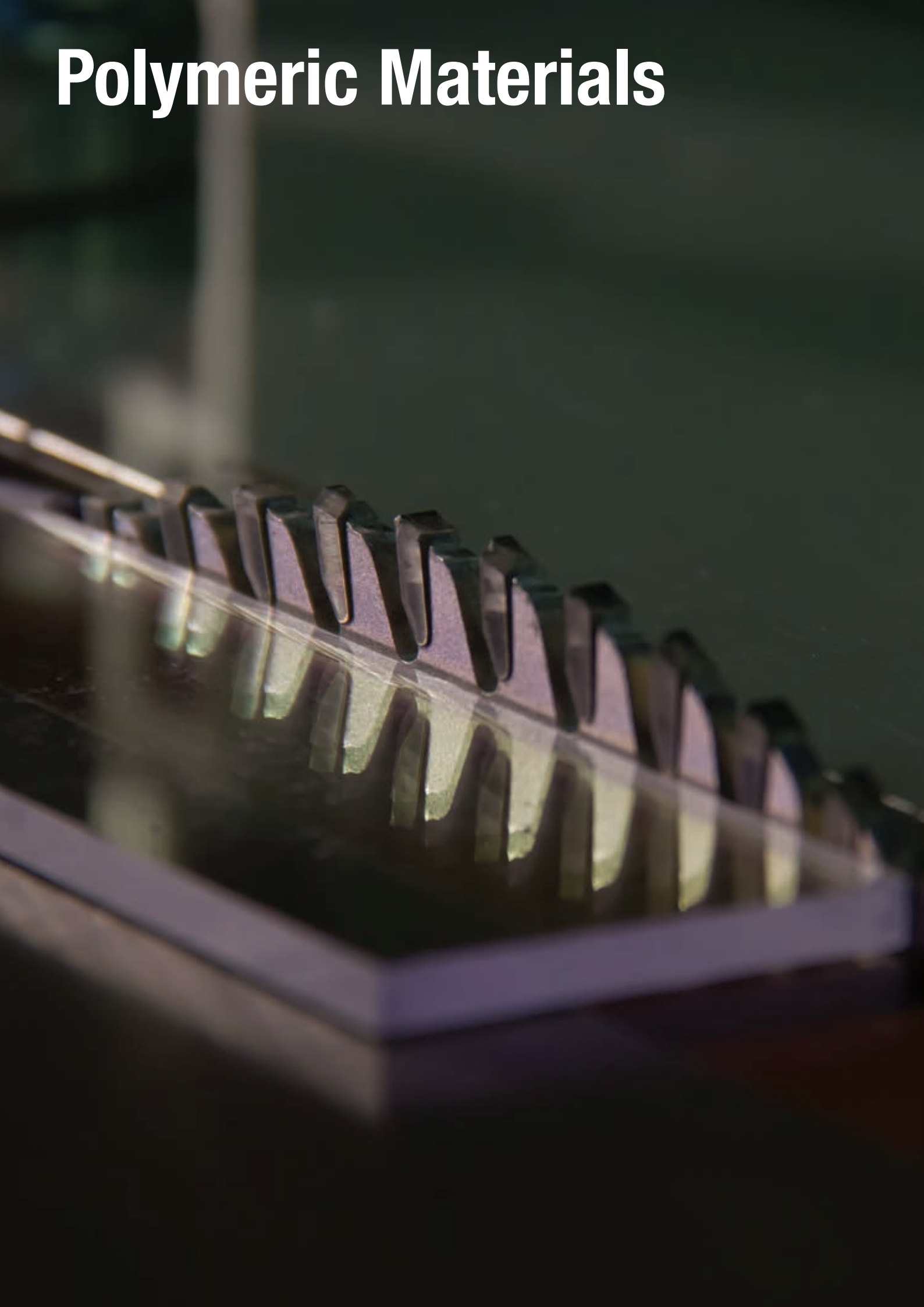
MT01M

Mounting sleeves for hogging units

d mm	KN	Freud Code	Art. No.
35	10 x 4	**MT01M DA9**	F03FC15424

Item **MT01M** includes the fixing operation of the mounting sleeve to the hogging unit.

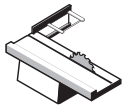
Polymeric Materials



LU4A

Saw blades to cut plastic materials





Squaring Saws

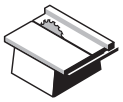
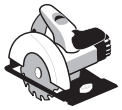


Table Saws



Hand-held Circular Saws



Plexiglas



Plastics

●●● ●●● ●●●

●●● Ultimate ●● High ● Good

D mm	B mm	b mm	d mm	Z	NL	Freud Code	Art. No.
250	2,8	2,2	30	80	FT01	**LU4A 0100**	F03FS05163
300	2,8	2,2	30	96	FT01	**LU4A 0200**	F03FS05165

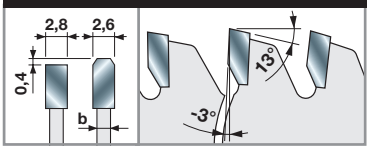
FT01: 2/7/42 + 2/9/46,4 + 2/10/60

TiCo Carbide MADE BY freud

Silver I.C.E. COATING

Anti-vibration TECHNOLOGY

HW H00K - Flat-triple chip tooth

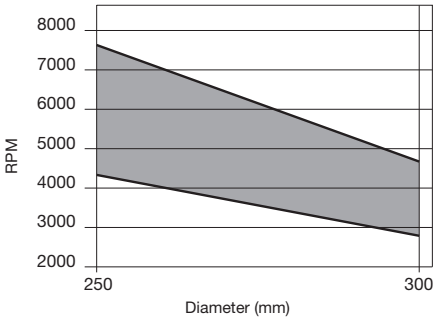


Machines:
Squaring saws and table saws, hand-held circular saws.

Materials:
Plexiglas and plastics.

Applications:
Plexiglas and plastic cutting.

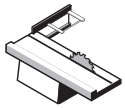
Technical information:
Saw blades with negative cutting angle suitable to cut plastic materials.
For a proper use, a blade projection of approximately 30 mm over the workpiece is recommended.

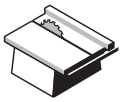


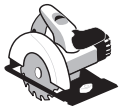
Minimum and maximum RPM based on the blade diameter.

LU4B Thin kerf saw blades to cut plastic materials and plexiglas - axial angle




Squaring Saws


Table Saws


Hand-held Circular Saws


Plexiglas


Plastics

●●● ●●●

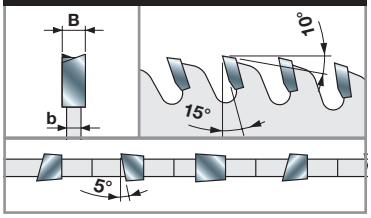
●●● Ultimate ●● High ● Good

D mm	B mm	b mm	d mm	Z	NL	Freud Code	Art. No.
178	1,5	1,0	25,4	80	-	**LU4B 0500**	F03FS05173
203	2,0	1,4	25,4	90	-	**LU4B 0100**	F03FS05167
230	2,2	1,6	25,4	100	-	**LU4B 0200**	F03FS05169
250	2,2	1,6	30	100	FT01	**LU4B 0300**	F03FS05170
255	2,2	1,6	25,4	100	-	**LU4B 0400**	F03FS05172

FT01: 2/7/42 + 2/9/46,4 + 2/10/60



HW H00K - ATB 10° axial Tooth

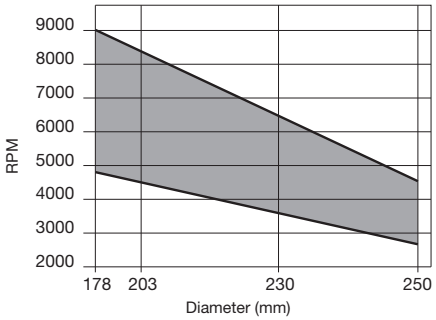


Machines:
Squaring saws and table saws, hand-held circular saws.

Materials:
Plexiglas and plastics.

Applications:
Plexiglas and plastic cutting.

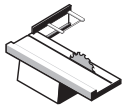
Technical information:
To size plexiglas and plastic panels.
The thin kerf design makes the workpiece feed easy especially when using low-power machines.
A perfect cutting finishing is granted by the 5° axial angle.

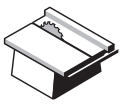


Minimum and maximum RPM based on the blade diameter.

LU4D Saw blades to cut solid surfaces




Squaring Saws


Table Saws


Mitre Saws


Solid Surfaces

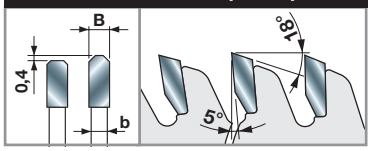
●●● Ultimate ●● High ● Good

D mm	B mm	b mm	d mm	Z	NL		Freud Code	Art. No.
250	3,2	2,5	30	80	FT02		**LU4D 0100**	F03FS07294
300	3,2	2,5	30	96	FT02		**LU4D 0200**	F03FS07295
350	3,5	2,8	30	108	FT02		**LU4D 0300**	F03FS07296

FT02: 2/9/46,4 + 2/10/60



HW H00XA - Double triple chip tooth

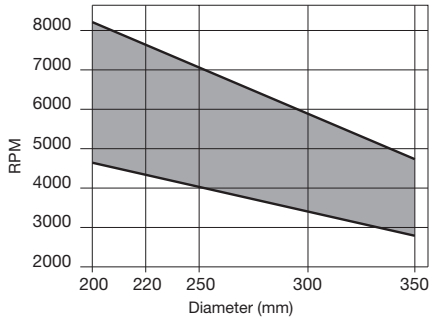


Machines:
Squaring saws and table saws, mitre saws.

Materials:
Solid surfaces.

Applications:
Solid surfaces cutting.

Technical information:
The double triple chip grinding ensures flawless finishing, moreover the H00XA Carbide grants a long blade lifetime, thanks to its extraordinary resistance to abrasive materials.



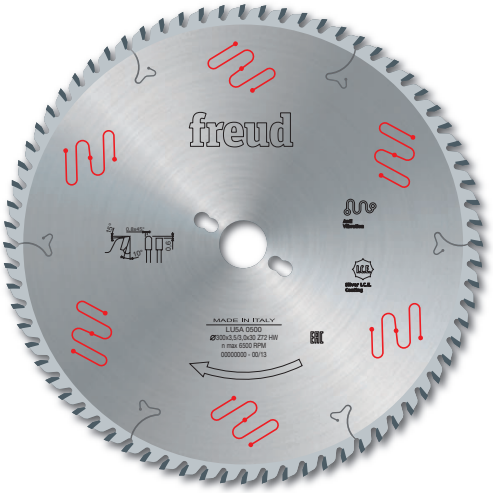
Minimum and maximum RPM based on the blade diameter.

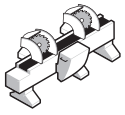
Non-ferrous Metals



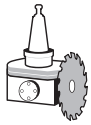
LU5A

Saw blades to cut non-ferrous metals





Double Head Cutting Machines



CNC Cutting Units



Aluminium



Copper and Brass

●●● ●●●

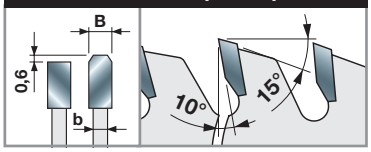
●●● Ultimate ●● High ● Good

TiCo Carbide MADE BY freud

Silver I.C.E. COATING

Anti-vibration TECHNOLOGY

HW H01K - Flat-triple chip tooth



Machines:
Double head cutting machines and CNC cutting units.

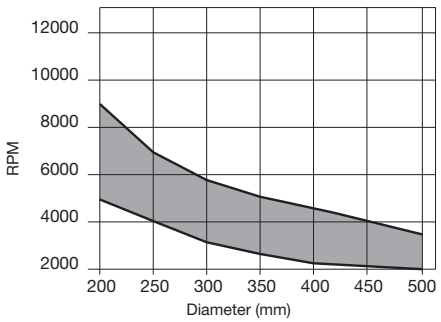
Materials:
Aluminium, copper and brass.

Applications:
Aluminium and non-ferrous metals cutting.

Technical information:
To cut solid drawn products with a thickness between 2 and 10 mm.

D mm	B mm	b mm	d mm	Z	NL	Freud Code	Art. No.
200	2,8	2,2	30	54	-	**LU5A 0100**	F03FS05181
250	3,5	3,0	30	60	FT02	**LU5A 0200**	F03FS05182
250	3,5	3,0	32	60	2/11/63	**LU5A 0300**	F03FS05183
275	3,5	3,0	40	68	2/9/55 + 4/12/64	**LU5A 0400**	F03FS05185
300	3,5	3,0	30	72	FT02	**LU5A 0500**	F03FS05186
300	3,5	3,0	32	72	2/11/63	**LU5A 0600**	F03FS05187
330	3,5	3,0	30	84	FT02	**LU5A 0800**	F03FS05190
330	3,5	3,0	32	84	2/11/63	**LU5A 0900**	F03FS05192
350	3,5	3,0	30	84	FT02	**LU5A 1000**	F03FS05193
350	3,5	3,0	32	84	2/11/63	**LU5A 1100**	F03FS05194
350	3,5	3,0	40	84	2/9/55 + 4/12/64	**LU5A 1200**	F03FS05196
370	3,5	3,0	30	90	-	**LU5A 1300**	F03FS05197
370	3,5	3,0	50	90	4/15/80	**LU5A 1400**	F03FS05198
380	3,5	3,0	32	96	2/11/63	**LU5A 1500**	F03FS05199
400	3,5	3,0	30	96	2/11/63	**LU5A 1600**	F03FS05200
400	3,5	3,0	32	96	2/11/63	**LU5A 1700**	F03FS05202
400	3,5	3,0	40	96	2/12/64 + 2/15/80	**LU5A 1800**	F03FS05205
400	3,5	3,0	50	96	4/15/80	**LU5A 1900**	F03FS05206
420	3,5	3,0	30	96	2/11/70	**LU5A 2000**	F03FS05207
450	4,0	3,2	30	108	2/11/63	**LU5A 2100**	F03FS05208
450	4,0	3,2	32	108	2/11/63	**LU5A 2200**	F03FS05210
450	4,0	3,2	40	108	2/12/64 + 2/15/80	**LU5A 2300**	F03FS08047
450	4,0	3,2	50	108	4/15/80	**LU5A 2400**	F03FS07420
500	4,0	3,2	30	120	2/10,5/70	**LU5A 2500**	F03FS05212
500	4,0	3,2	32	120	2/11/63	**LU5A 2600**	F03FS05214
500	4,0	3,2	50	120	4/15/80	**LU5A 2700**	F03FS08244
500	4,4	3,5	30	120	-	**LU5A 3000**	F03FS07543
530	4,2	3,5	30	126	2/10,5/70	**LU5A 2800**	F03FS06607
550	4,2	3,5	30	132	2/10,5/70	**LU5A 2900**	F03FS06608

FT02: 2/9/46,4 + 2/10/60

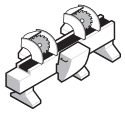


Minimum and maximum RPM based on the blade diameter.

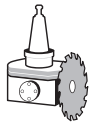
LU5B

Saw blades to cut non-ferrous metals and plastics





Double Head Cutting Machines



CNC Cutting Units



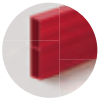
Aluminium ●●●



Copper and Brass ●●●



Plastics ●●



PVC ●●

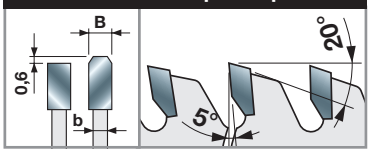
●●● Ultimate ●● High ● Good

TiCo Carbide MADE BY freud

Silver I.C.E. COATING

Anti-vibration TECHNOLOGY

HW H01K - Flat-triple chip tooth



Machines:
Double head cutting machines and CNC cutting units.

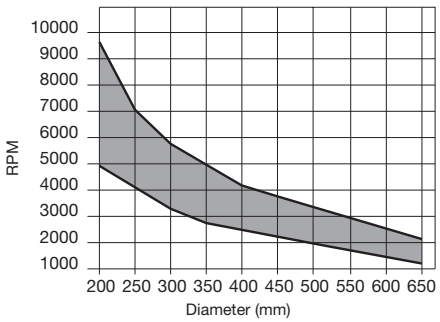
Materials:
Aluminium, copper, brass, plastics and PVC.

Applications:
Aluminium, non-ferrous metals and plastic cutting.

Technical information:
To cut drawn products and tubes with a thickness between 2 and 5 mm, as well as polymeric panels up to 20 mm. Suitable for PVC profiles cutting.

D mm	B mm	b mm	d mm	Z	NL	Freud Code	Art. No.
200	2,8	2,2	30	64	-	LU5B 0100	F03FS05217
250	3,5	3,0	30	80	FT02	LU5B 0200	F03FS05218
250	3,5	3,0	32	80	2/11/63	LU5B 0300	F03FS05221
275	3,5	3,0	40	84	2/9/55 + 4/12/64	LU5B 0400	F03FS05223
300	3,5	3,0	30	88	FT02	LU5B 0500	F03FS05224
300	3,5	3,0	32	88	2/11/63	LU5B 0600	F03FS05225
300	3,5	3,0	40	88	2/9/55 + 4/12/64	LU5B 0700	F03FS05227
300	3,5	3,0	30	96	FT02	LU5B 0800	F03FS05228
300	3,5	3,0	32	96	2/11/63	LU5B 0900	F03FS05230
300	3,5	3,0	40	96	2/9/55 + 4/12/64	LU5B 1000	F03FS05232
330	3,5	3,0	30	104	FT02	LU5B 1100	F03FS05233
330	3,5	3,0	32	104	2/11/63	LU5B 1200	F03FS05234
350	3,5	3,0	30	96	FT02	LU5B 1300	F03FS05235
350	3,5	3,0	32	96	2/11/63	LU5B 1400	F03FS05236
350	3,5	3,0	40	96	2/9/55 + 4/12/64	LU5B 1500	F03FS05238
350	3,5	3,0	30	108	FT02	LU5B 1600	F03FS05239
350	3,5	3,0	32	108	2/11/63	LU5B 1700	F03FS05240
350	3,5	3,0	40	108	2/9/55 + 4/12/64	LU5B 1800	F03FS05242
370	3,5	3,0	30	112	-	LU5B 1900	F03FS07745
370	3,5	3,0	50	112	4/15/80	LU5B 2000	F03FS05243
380	3,5	3,0	32	112	2/11/63	LU5B 2100	F03FS05244
400	3,5	3,0	30	120	2/11/63	LU5B 2200	F03FS05245
400	3,5	3,0	32	120	2/11/63	LU5B 2300	F03FS05246
400	3,5	3,0	40	120	2/12/64 + 2/15/80	LU5B 2400	F03FS05248
400	3,5	3,0	50	120	4/15/80	LU5B 2500	F03FS05249
400	3,5	3,0	75	120	2/15/96 + 2/15/114 + 4/18/105	LU5B 2275	F03FS09967
420	3,5	3,0	30	120	2/11/70	LU5B 2600	F03FS05250
450	4,0	3,0	30	128	-	LU5B 2700	F03FS05251
450	4,0	3,0	32	128	2/11/63	LU5B 2800	F03FS05252
500	4,0	3,2	30	140	2/10,5/70	LU5B 3100	F03FS05254
500	4,0	3,2	32	140	2/11/63	LU5B 3200	F03FS05255
550	4,2	3,5	30	148	2/11/63	LU5B 3500	F03FS05257
550	4,2	3,5	32	148	2/11/63	LU5B 3800	F03FS05260
600	4,8	3,8	30	156		LU5B 3600	F03FS05258

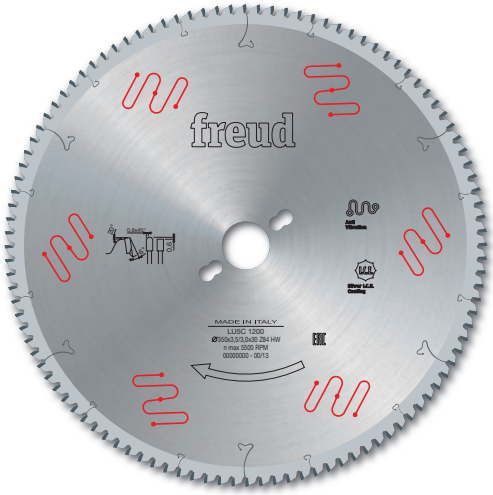
FT02: 2/9/46,4 + 2/10/60

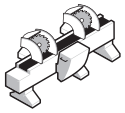


Minimum and maximum RPM based on the blade diameter.

LU5C

Saw blades to cut non-ferrous metals





Double Head Cutting Machines



Mitre Saws



Aluminium



Copper and Brass

●●● ●●●

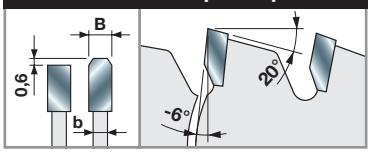
●●● Ultimate ●● High ● Good

TiCo Carbide MADE BY freud

Silver I.C.E. COATING

Anti-vibration TECHNOLOGY

HW H01K - Flat-triple chip tooth



Machines:
Double head cutting machines, mitre saws.

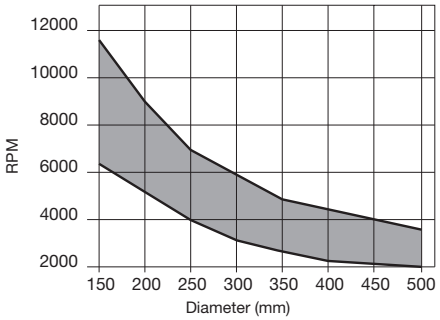
Materials:
Aluminium, copper and brass.

Applications:
Aluminium and non-ferrous metals cutting.

Technical information:
To cut solid drawn products whose thickness exceeds 3 mm.
It is recommended to use it on cutting machines where the saw blade is over the workpiece to be cut.

D mm	B mm	b mm	d mm	Z	NL		Freud Code	Art. No.
180	2,8	2,2	20	42	-		**LU5C 0100**	F03FS07195
180	2,8	2,2	30	42	-		**LU5C 0200**	F03FS05261
200	2,8	2,2	30	48	-		**LU5C 0300**	F03FS05262
250	3,5	3,0	30	54	-		**LU5C 0400**	F03FS05263
275	3,5	3,0	40	60	-		**LU5C 0600**	F03FS05264
300	3,5	3,0	30	72	FT02		**LU5C 0700**	F03FS05265
300	3,5	3,0	32	72	2/11/63		**LU5C 0800**	F03FS05266
300	3,5	3,0	40	72	2/9/55 + 4/12/64		**LU5C 0900**	F03FS05267
330	3,5	3,0	30	80	-		**LU5C 1000**	F03FS05268
330	3,5	3,0	32	80	2/11/63		**LU5C 1100**	F03FS05269
350	3,5	3,0	30	84	FT01		**LU5C 1200**	F03FS05270
350	3,5	3,0	32	84	2/11/63		**LU5C 1300**	F03FS05271
350	3,5	3,0	40	84	2/9/55 + 4/12/64		**LU5C 1400**	F03FS05272
370	3,5	3,0	30	90	-		**LU5C 1500**	F03FS05273
370	3,5	3,0	50	90	4/15/80		**LU5C 1600**	F03FS05274
380	3,5	3,0	32	96	2/11/63		**LU5C 1700**	F03FS05275
400	3,5	3,0	30	96	2/11/70		**LU5C 1800**	F03FS05276
400	3,5	3,0	32	96	2/11/63		**LU5C 1900**	F03FS05277
400	3,5	3,0	40	96	2/12/64 + 2/15/80		**LU5C 2000**	F03FS05278
400	3,5	3,0	50	96	4/15/80		**LU5C 2100**	F03FS05279
420	4,0	3,2	30	96	2/11/70		**LU5C 2200**	F03FS05280
420	4,0	3,2	40	96	-		**LU5C 2300**	F03FS05281
450	4,0	3,2	30	108	-		**LU5C 2400**	F03FS05282
450	4,0	3,2	32	108	2/11/63		**LU5C 2500**	F03FS05283
450	4,0	3,2	40	108	2/12/64 + 2/15/80		**LU5C 2600**	F03FS05284
450	4,0	3,2	50	108	4/15/80		**LU5C 2700**	F03FS05285
500	4,0	3,2	30	120	-		**LU5C 2800**	F03FS06110
500	4,0	3,2	32	120	2/11/63		**LU5C 2900**	F03FS05286

FT01: 2/7/42 + 2/9/46,4 + 2/10/60 - **FT02:** 2/9/46,4 + 2/10/60

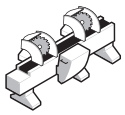


Minimum and maximum RPM based on the blade diameter.

LU5D

Saw blades to cut non-ferrous metals and plastics





Double Head Cutting Machines



Mitre Saws



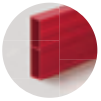
Aluminium



Copper and Brass



Plastics



PVC

●●● ●●● ●●● ●●

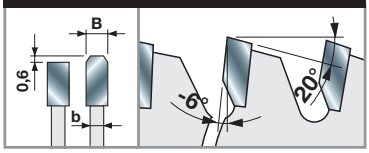
●●● Ultimate ●● High ● Good

TiCo Carbide MADE BY freud

Silver I.C.E. COATING

Anti-vibration TECHNOLOGY

HW H01K - Flat-triple chip tooth



Machines:
Double head cutting machines, mitre saws.

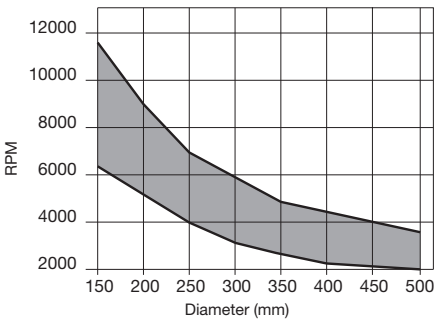
Materials:
Aluminium, copper, brass, plastics and PVC.

Applications:
Aluminium, non-ferrous metals and plastics cutting.

Technical information:
To cut drawn products and tubes whose thickness does not exceed 3 mm.
It is recommended to use it on cutting machines where the saw blade is over the workpiece to be cut.
Suitable for PVC profiles cutting.

D mm	B mm	b mm	d mm	Z	NL		Freud Code	Art. No.
160	2,8	2,2	20	42	-		**LU5D 0100**	F03FS05288
190	2,8	2,2	30	54	-		**LU5D 0200**	F03FS05289
200	2,8	2,2	30	60	-		**LU5D 0300**	F03FS05290
210	2,8	2,2	30	60	-		**LU5D 0400**	F03FS05291
216	2,8	2,2	30	60	-		**LU5D 0500**	F03FS05292
220	3,0	2,5	30	64	FT02		**LU5D 0600**	F03FS05293
230	3,0	2,5	30	64	-		**LU5D 0700**	F03FS05294
250	3,5	3,0	30	80	FT02		**LU5D 0800**	F03FS05295
250	3,5	3,0	32	80	2/11/63		**LU5D 0900**	F03FS05297
250	3,5	3,0	40	80	2/9/55 + 4/12/64		**LU5D 1000**	F03FS05299
275	3,5	3,0	40	84	2/9/55 + 4/12/64		**LU5D 1100**	F03FS05300
300	3,5	3,0	30	96	FT02		**LU5D 1200**	F03FS05301
300	3,5	3,0	32	96	2/11/63		**LU5D 1300**	F03FS05303
300	3,5	3,0	40	96	2/9/55 + 4/12/64		**LU5D 1400**	F03FS05305
330	3,5	3,0	30	104	FT02		**LU5D 1500**	F03FS05306
330	3,5	3,0	32	104	2/11/63		**LU5D 1600**	F03FS05308
350	3,5	3,0	30	108	FT02		**LU5D 1700**	F03FS05309
350	3,5	3,0	32	108	2/11/63		**LU5D 1800**	F03FS05311
350	3,5	3,0	40	108	2/9/55 + 4/12/64		**LU5D 1900**	F03FS05313
370	3,5	3,0	30	108	-		**LU5D 2000**	F03FS05314
380	3,5	3,0	32	108	2/11/63		**LU5D 2200**	F03FS05315
400	3,5	3,0	30	120	-		**LU5D 2300**	F03FS05316
400	3,5	3,0	32	120	2/11/63		**LU5D 2400**	F03FS05317
400	3,5	3,0	40	120	2/15/80 + 2/12/64		**LU5D 2500**	F03FS05318
400	3,5	3,0	50	120	4/15/80		**LU5D 2600**	F03FS05319
420	4,0	3,2	30	120	2/11/70		**LU5D 2700**	F03FS05320
420	4,0	3,2	40	120	-		**LU5D 2800**	F03FS05321
450	4,0	3,2	30	128	-		**LU5D 2900**	F03FS05322
500	4,0	3,2	32	140	2/11/63		**LU5D 3400**	F03FS05323

FT02: 2/9/46,4 + 2/10/60

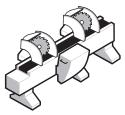


Minimum and maximum RPM based on the blade diameter.

LU5E

Reduced kerf saw blades to cut non-ferrous metals





Double Head Cutting Machines



Mitre Saws



Aluminium



Copper and Brass

●●● ●●●

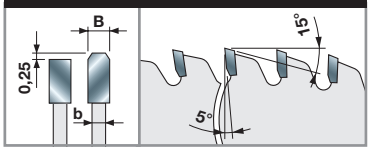
●●● Ultimate ●● High ● Good

TiCo Carbide MADE BY freud

Silver I.C.E. COATING

Anti-vibration TECHNOLOGY

HW H01K - Flat-triple chip tooth



D mm	B mm	b mm	d mm	Z	NL	Freud Code	Art. No.
250	2,8	2,2	30	100	FT01	**LU5E 0100**	F03FS05324
250	2,8	2,2	32	100	2/11/63	**LU5E 0200**	F03FS05325
255	2,8	2,2	25,4	100	-	**LU5E 0300**	F03FS05327
255	2,8	2,2	25,4	120	-	**LU5E 0400**	F03FS05329
300	3,0	2,5	30	100	FT02	**LU5E 0500**	F03FS05331
300	3,0	2,5	30	120	FT02	**LU5E 0700**	F03FS05334
300	3,0	2,5	32	120	2/11/63	**LU5E 0800**	F03FS05337
305	3,0	2,5	25,4	120	-	**LU5E 0600**	F03FS05333
350	3,0	2,5	30	100	FT02	**LU5E 0900**	F03FS05339
350	3,0	2,5	32	100	2/11/63	**LU5E 1000**	F03FS05340
350	3,0	2,5	30	120	FT02	**LU5E 1100**	F03FS05341
350	3,0	2,5	32	120	2/11/63	**LU5E 1200**	F03FS05342

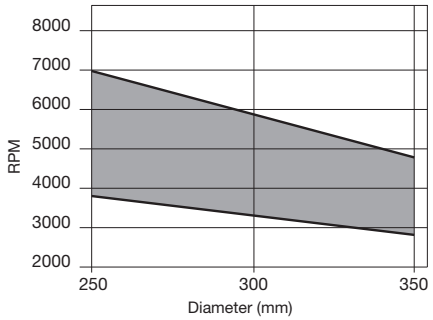
FT01: 2/7/42 + 2/9/46,4 + 2/10/60 - **FT02:** 2/9/46,4 + 2/10/60

Machines:
Double head cutting machines, mitre saws.

Materials:
Aluminium, copper and brass.

Applications:
Aluminium and non-ferrous metals cutting.

Technical information:
To cut special drawn products, such as tubes and profiles with ultra-thin walls.
The reduced kerf grants an excellent cutting finishing with no burns and enables the use of the blade on low-power cutting machines.

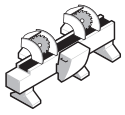


Minimum and maximum RPM based on the blade diameter.

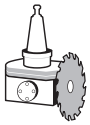
LU5F

Saw blades to cut non-ferrous metals and plastics





Double Head Cutting Machines



CNC Cutting Units



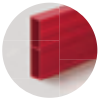
Aluminium ●●●



Copper and Brass ●●●



Plastics ●●●



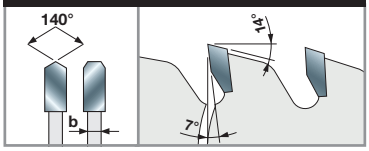
PVC ●●

●●● Ultimate ●● High ● Good

TiCo Carbide MADE BY freud

EXrim COATING

HW H01K - Pyramid tooth



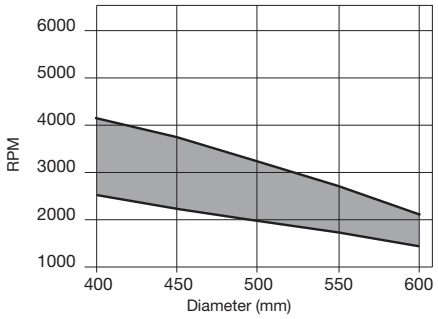
Machines:
Double head cutting machines and CNC cutting units.

Materials:
Aluminium, copper, brass, plastics and PVC.

Applications:
Aluminium, non-ferrous metals and plastics cutting.

Technical information:
Saw blades to cut thin wall aluminium profiles up to 4,5 mm for doors and windows, also including built-in plastic profiles.

D mm	B mm	b mm	d mm	Z	NL	Freud Code	Art. No.
400	3,5	3,0	30	96	2/11/63 + 2/11/70	**LU5F40001**	F03FS07683
400	3,5	3,0	32	96	2/11/63 + 2/11/70	**LU5F40002**	F03FS07684
400	3,5	3,0	30	120	2/11/63 + 2/11/70	**LU5F40003**	F03FS07685
400	3,5	3,0	32	120	2/11/63 + 2/11/70	**LU5F40004**	F03FS07686
420	3,5	3,0	30	100	2/11/63 + 2/11/70	**LU5F42001**	F03FS07687
420	3,5	3,0	32	100	2/11/63 + 2/11/70	**LU5F42002**	F03FS07688
450	3,5	3,0	30	108	2/11/63 + 2/11/70	**LU5F45001**	F03FS07689
450	3,5	3,0	32	108	2/11/63 + 2/11/70	**LU5F45002**	F03FS07690
500	4,0	3,5	30	120	2/11/63 + 2/11/70	**LU5F50001**	F03FS07691
500	4,0	3,5	32	120	2/11/63 + 2/11/70	**LU5F50002**	F03FS07692
530	4,0	3,5	30	126	2/11/63 + 2/11/70	**LU5F53001**	F03FS07693
530	4,0	3,5	32	126	2/11/63 + 2/11/70	**LU5F53002**	F03FS07694
550	4,0	3,5	30	132	2/11/63 + 2/11/70	**LU5F55001**	F03FS07695
550	4,0	3,5	32	132	2/11/63 + 2/11/70	**LU5F55002**	F03FS07696
600	4,7	4,0	30	144	2/11/63 + 2/11/70	**LU5F60001**	F03FS07697
600	4,7	4,0	32	144	2/11/63 + 2/11/70	**LU5F60002**	F03FS07698
600	4,7	4,0	30	156	2/11/63 + 2/11/70	**LU5F60003**	F03FS07699
600	4,7	4,0	32	156	2/11/63 + 2/11/70	**LU5F60004**	F03FS07700



Minimum and maximum RPM based on the blade diameter.

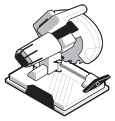
Ferrous Metals



LU6A

Saw blades to cut ferrous metal





Dry cut
Mitre Saws



Steel

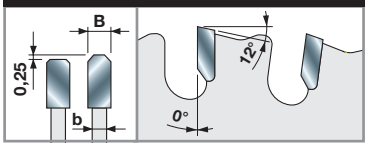
●●●

●●● Ultimate ●● High ● Good

TiCo Carbide
MADE BY freud

Silver I.C.E.
COATING

HW TF30 - Double triple chip tooth



D mm	B mm	b mm	d mm	Z	NL	Freud Code	Art. No.
160	2,0	1,6	20	30	-	**LU6A 0100**	F03FS05343
184	2,0	1,6	15,88	38	-	**LU6A 0200**	F03FS05344
184	2,0	1,6	15,88	48	-	**LU6A 1900**	F03FS06586
190	2,0	1,6	30	38	-	**LU6A 0300**	F03FS05345
210	2,0	1,6	30	40	-	**LU6A 0400**	F03FS05346
216	2,0	1,6	30	40	-	**LU6A 0500**	F03FS05347
230	2,0	1,6	30	48	FT01	**LU6A 0600**	F03FS05348
230	2,4	2,0	25,4	44	-	**LU6A 0700**	F03FS05349
250	2,4	2,0	30	48	FT01	**LU6A 0800**	F03FS05350
254	2,4	2,0	25,4	50	-	**LU6A 0900**	F03FS05351
254	2,4	2,0	25,4	60	-	**LU6A 1000**	F03FS05352
300	2,6	2,2	30	60	FT01	**LU6A 1700**	F03FS05359
300	2,6	2,2	30	80	FT01	**LU6A 1800**	F03FS05360
305	2,6	2,2	25,4	60	-	**LU6A 1100**	F03FS05353
305	2,6	2,2	25,4	80	-	**LU6A 1200**	F03FS05354
350	2,6	2,2	30	72	FT01	**LU6A 1300**	F03FS05355
350	2,6	2,2	30	90	FT01	**LU6A 1400**	F03FS05356
355	2,6	2,2	25,4	72	-	**LU6A 1500**	F03FS05357
355	2,6	2,2	25,4	90	-	**LU6A 1600**	F03FS05358

FT01: 2/7/42 + 2/9/46,4 + 2/10/60

Machines:
Dry cut mitre saws.

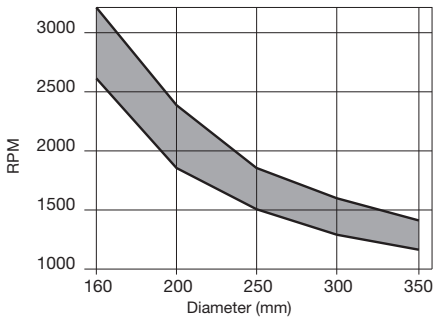
Materials:
Steel.

Applications:
Steel dry cutting.

Technical information:
Dry-cut saw blades for steel tubes and profiles.
Suitable also for small-size steel bars.
Ensure the workpiece is properly clamped when cutting.

Saw blade diameter	Maximum RPM
160 mm	**3.200**
184 mm	**3.000**
190 mm	**2.600**
210 mm	**2.300**
216 mm	**2.200**
230 mm	**2.100**
250 mm	**1.900**
255 mm	**1.900**
300 mm	**1.800**
305 mm	**1.800**
315 mm	**1.700**
350 mm	**1.600**
355 mm	**1.600**
400 mm	**1.400**

Table of maximum RPM based on the blade diameter, for saw blades to cut ferrous metals.



Minimum and maximum RPM based on the blade diameter.

BLA — Standard reduction rings for saw blades

D mm	S mm	d mm	Freud Code	Art. No.
15,88	0,8	10	**BLA08158100**	F03FA23018
20	1,2	12,7	**BL15M20127**	F03FC00694
20	1,5	16	**BLA15200160V01**	F03FS11956
20	1,8	16	**BLA18200160V01**	F03FS11960
25,4	1,0	19,05	**BLA10254190V01**	F03FS11954
25,4	1,2	20	**BLA12254200V01**	F03FS11955
30	1,5	15,88	**BLA15300158**	F03FA23019
30	1,8	15,88	**BLA18300158**	F03FA23020
30	1,5	20	**BLA15300200V01**	F03FS11957
30	1,8	20	**BLA18300200**	F03FA23021
30	1,5	25	**BLA15300250V01**	F03FS11958
30	1,8	25	**BLA18300250**	F03FA23022
30	1,5	25,4	**BLA15300254V01**	F03FS11959
30	1,8	25,4	**BLA18300254V01**	F03FS11961
35	1,8	25,4	**BLA18350254**	F03FA22201
35	1,8	30	**BLA18350300**	F03FA23023

OPT06 — Optional workings Standard keyways

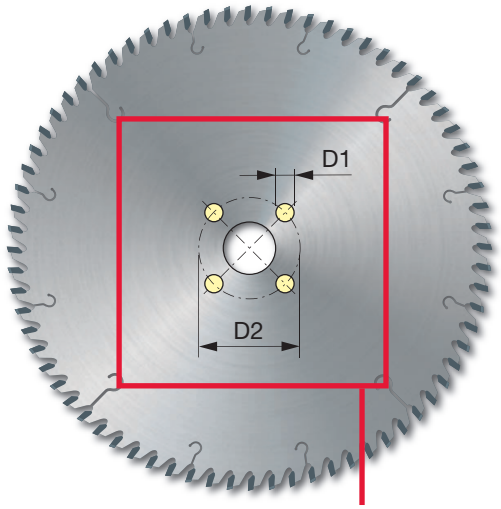
D mm	B mm	Freud Code	Art. No.
10	5	**OPT06 AA9**	F03FC16213
12	5	**OPT06 BA9**	F03FC16214
12,5	4	**OPT06 CA9**	F03FC16215
13	5	**OPT06 DA9**	F03FC16216
15	5	**OPT06 EA9**	F03FC16217
17	5	**OPT06 FA9**	F03FC16218
18	5	**OPT06 GA9**	F03FC16219
21	5	**OPT06 HA9**	F03FC16220

OPT07 — Optional workings Special keyways

	Freud Code	Art. No.
	OPT07 AA9	F03FC16221

OPT08 — Optional workings Special reboring

	Freud Code	Art. No.
	OPT08 AA9	F03FC16222



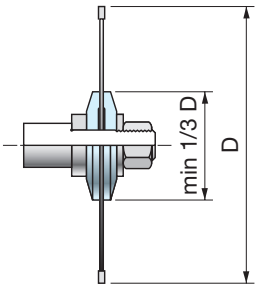
Specify no. of pin holes, diameter of holes (D1) and the diameter of the circumference passing through the centre of the holes (D2).

OPTF0 — Optional workings Safety pin holes for saw blades

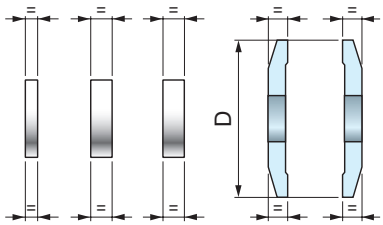
	Freud Code	Art. No.
1	**OPTF0 AA9**	F03FC16103
2	**OPTF0 AB9**	F03FC16104
3	**OPTF0 AC9**	F03FC16105
4	**OPTF0 AD9**	F03FC16106
5	**OPTF0 AE9**	F03FC16107
6	**OPTF0 AF9**	F03FC16108
7	**OPTF0 AG9**	F03FC16109
8	**OPTF0 AM9**	F03FC16111
10	**OPTF0 AH9**	F03FC16110

TIPS FOR THE CORRECT USE OF A CIRCULAR SAW BLADE

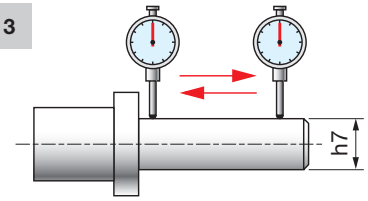
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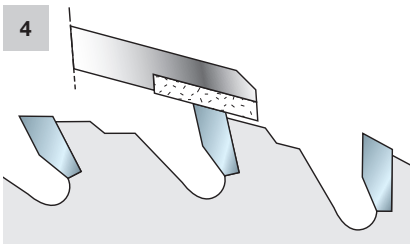
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3



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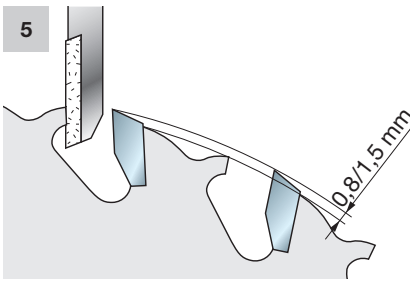
To obtain the best performance from a saw blade we suggest following these simple instructions:

- The machine must be in good condition, free from vibrations.
- The flanges used to secure the blade must be of the same diameter, at least 1/3 of the blade's diameter (Fig. 1).
- The flanges must be parallel to each other. Also check tolerances on diameters, sides and concentricity, by using a clock gauge (Fig. 2).
- The spacers must be perfectly parallel (Fig. 2).
- The spindle must be perfectly straight and with an h7 tolerance (Fig. 3).
- After continuous use, remove the blade and clean it with the appropriate solvents making sure to get rid of built up resin. For the synthetic coated (Perma-SHIELD Coating) blades, it is sufficient to use warm water. In any case, avoid using solvents containing caustic soda.
- The blades must be sharpened as soon as they become dull, maintaining the original tooth angles.
- For sharpening, always use the correct grinding wheels and plenty of cooling liquid.
- Always keep spacers and flanges clean.
- When sharpening, the shoulder of the teeth must not be lowered more than needed. This operation must be done with appropriate precision machinery and never by hand. There is the risk of breaking the tip or upsetting the blade balance (Fig. 4 - 5).
- On ripping machines, the feeding track must be levelled with the fixed table.
- Before starting the cut of the material, make sure the blade is correctly locked according to the machine specifications.

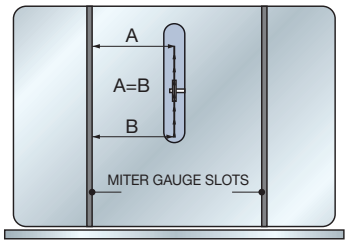
Saw blade alignment on a table saw:

- If the saw blade and the saw are not correctly aligned to the table and the fence, then there is the possibility that a serious accident may occur (for example, violent kickbacks) or that the workpiece may scorch or splinter. The first thing you must do is read the instruction sheet carefully. This is necessary to acquire the understanding and comprehension of the corrections suggested in this section.
- Before carrying out the following instuctions, make sure that the starter switch is off and that the machine is not connected to the socket.
- Mounting the saw blade onto the table:
  We advise you to use precise measuring instruments when mounting your saw blade. Clean the saw blade well, before mounting it onto the machine. Mount the saw blade onto the arbor. Adjust the arbor to its maximum height. With the aid of the most precise measuring instrument available, verify that the saw blade is parallel to the mitre gauge slots (Fig. 6). Adjust as needed. This step is necessary to obtain crosscuts with the maximum quality finish and for setting up the fence for ripping.
- Positioning the fence for ripping:
  After having positioned the saw blade so as it is parallel to the mitre gauge slots, you may proceed with setting the fence. The fence should ideally be parallel to the saw blade. However since it is impossible to position the guide "exactly" it is necessary to leave a slight margin of clearance on the exit side of the cut so as to avoid the wood becoming wedged in between the fence and the saw blade.
  Adjust the fence so as when it is aligned to the mitre gauge slots, there is a space of 0,1 mm (Fig. 7; for the correct adjustment, consult the machine's instruction manual).

5



6



7

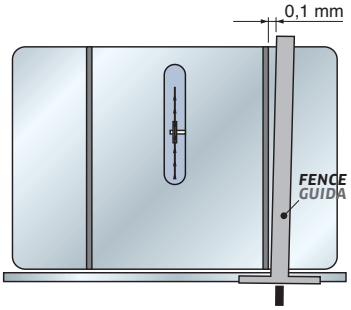


Table 1

Saw blade diameter	Maximum RPM
100 mm	23.000
125 mm	18.000
150 mm	14.500
180 mm	11.500
185 mm	11.000
200 mm	10.000
225 mm	8.500
250 mm	8.000
255 mm	7.800
280 mm	7.100
300 mm	6.500
320 mm	6.000
350 mm	5.500
380 mm	5.000
400 mm	4.700
430 mm	4.400
450 mm	4.200
500 mm	3.750
550 mm	3.400
600 mm	3.100
630 mm	2.950
650 mm	2.800
700 mm	2.600
730 mm	2.500
760 mm	2.400
800 mm	2.250

Not valid for saw blades to cut ferrous metals.

TIPS FOR THE CORRECT USE OF A CIRCULAR SAW BLADE

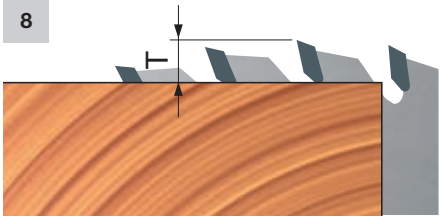
- The maximum RPM of a circular saw blade varies according to the diameter of the blade itself (table 1). If you exceed this limit, the saw blade will lose its characteristics, therefore influencing the cutting quality and the work life of the blade itself, not to mention the dangers implied to the user who may incur serious injury.
- The saw blade's projection (T) with respect to the workpiece must be at least equal to the height of the blade's tooth (Fig. 8). Increase or decrease the projection of the saw blade to improve the quality of the cutting finish.
- The number of teeth cutting the wood simultaneously (Fig. 9) must be between 3 or 4. With less than three teeth cutting, the saw blade begins to vibrate leading to an uneven cut. If you want to cut workpieces with increased thicknesses (S - Fig. 11), but wish to maintain the same diameter saw blade, then use a blade with less teeth. If instead you want to cut workpieces with a reduced thickness, but also maintain the same diameter saw blade, then use a blade with more teeth.
- To obtain the pitch **(P)** of a blade (the distance between teeth: Fig. 10 - see formula **"A"**) multiply the thickness of the workpiece by 1,4142 and divide by 3 (if you want 3 teeth cutting) or by 4 (if you want 4 teeth cutting).
- Formula **"B"**: to obtain the number of teeth **(Z)** of the saw blade, multiply the diameter **(D)** of the saw blade by 3,14 (π) and divide by the pitch of the saw blade - obtained from the previous formula. The shorter formula **"C"** allows you to obtain the number of the saw blade's teeth, knowing its diameter and the thickness of the workpiece.

Formula A	Formula B	Formula C
$P = \frac{S \times 1{,}4142}{3}$	$Z = \frac{D \times 3{,}14}{P}$	$Z = \frac{D \times 8}{S}$

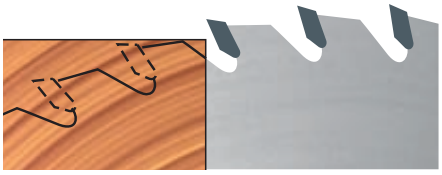
KEY:
P= Pitch
S= Thickness of the workpiece
Z= Number of teeth of the saw blade
D= Diameter of the saw blade

Attention:
These formulas are valid for crosscutting and cutting other wood composites (MDF, plywood, chipboard and laminated panels) and cannot be applied for ripping.

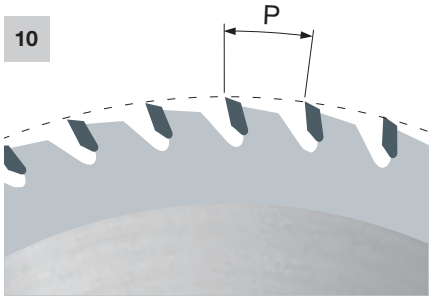
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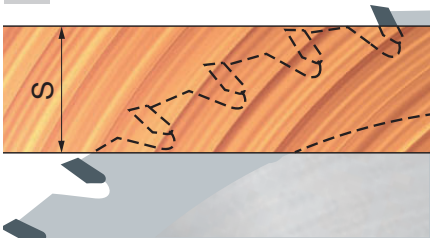
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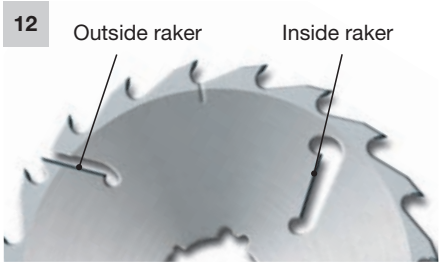
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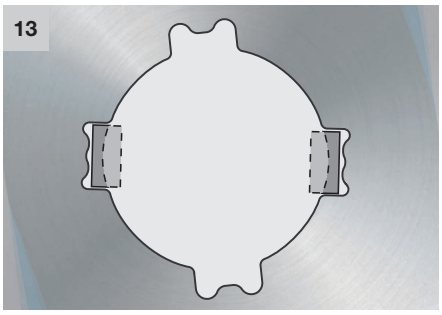
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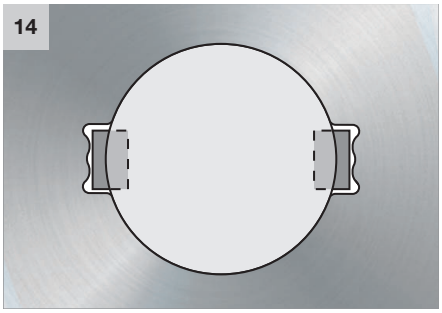
TIPS FOR THE CORRECT USE OF A CIRCULAR SAW BLADE

- Rakers (Fig. 12) are inserts in HW that are brazed onto saw blades exclusively for cutting wood. They help keep a distance between the saw blade body and the workpiece, in order to avoid friction and overheating which cause the blade to deform.
- On saw blades for multiripping machines, the anti-kickback device is advised in cases where wood has loose knots and discards cases insert themselves underneath the saw blade.
- The pairing of blade and arbor with keyways is excellent in all cases where the keyways are the same (Fig. 13) or smaller then the blade slots (Fig. 14).
- On machines with an arbor with 1 keyway, you can only mount blades with 1 keyway slot (Fig. 15); on machines with an arbor with 2 keyways, you can only mount blades with 2 or 4 keyway slots (Fig. 16).
- You cannot mount a saw blade with 2 keyways on an arbor with 1 keyway slot, because the pairing will not be balanced.
- In case multiripping saw blades are used, it is recommendable to assembly them with alternate keyways (Fig. 17).
- Shoulder blade ensures correct distribution of lateral forces created by crooked planks in heavy duty use. The shoulder blade must be the first blade on the guide side of the multiripping machine.
- Always use shoulder blade with the set of multiripping blades (Fig. 18).
- On multiripping saw blades, the thickness of the workpiece (S) varies according to the diameter of the blade (Ø) and the minimum diameter (Ø1) of the rakers (the rakers position may vary from blade to blade - Fig. 19).

13



14



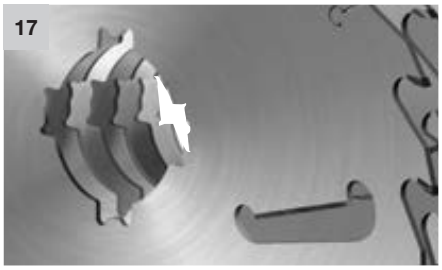
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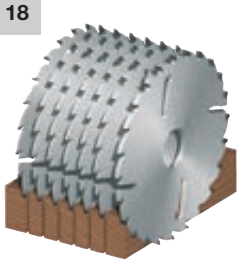
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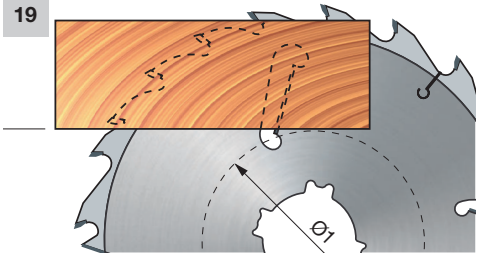
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18



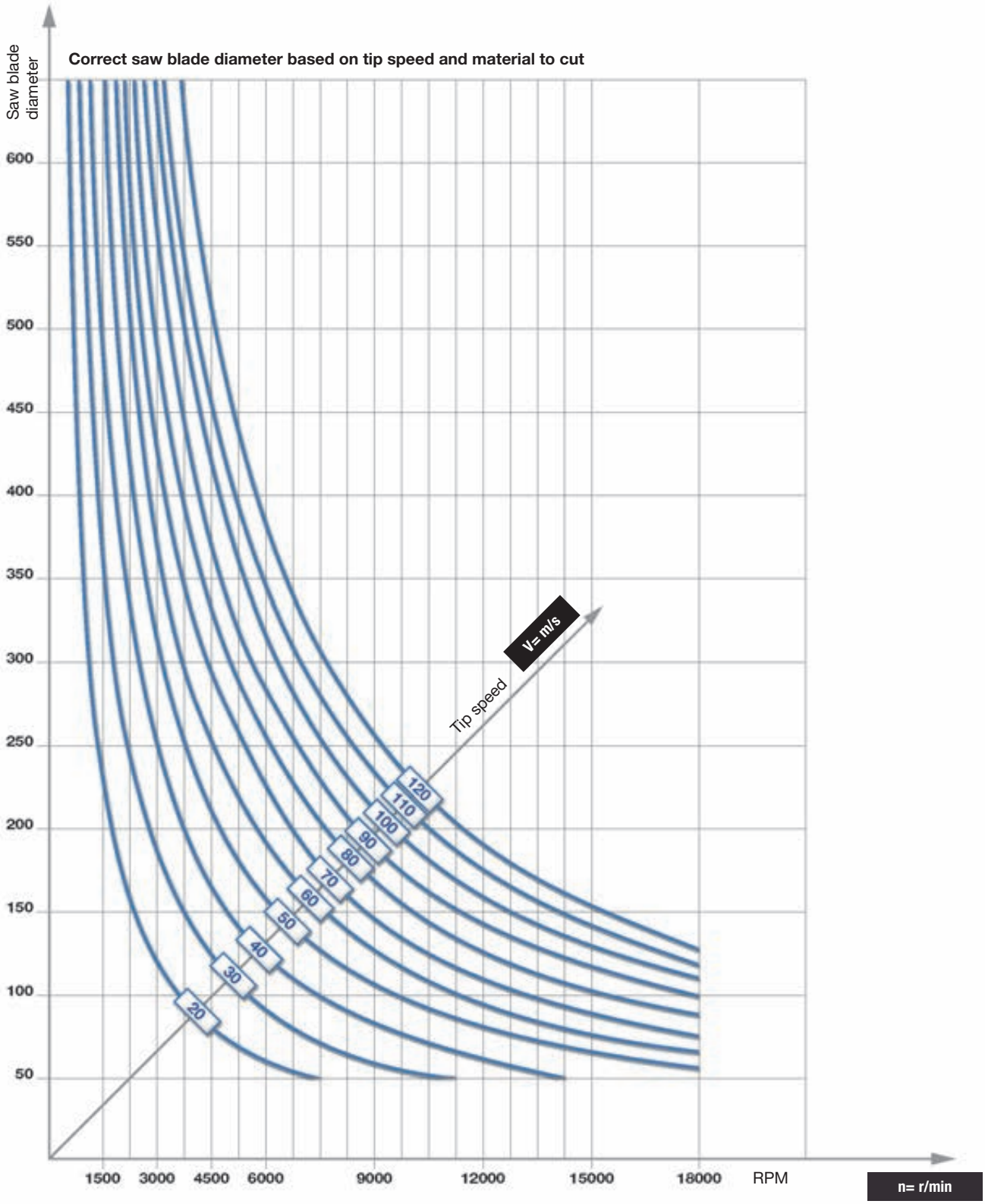
19



TIPS FOR THE CORRECT USE OF A CIRCULAR SAW BLADE

Tip speed (m/s)	Recommended for
50 - 90	Softwood
50 - 80	Hardwood
50 - 85	Exotic wood
60 - 80	Chipboard
60 - 80	Joinery wood
30 - 60	MDF
40 - 60	Laminated and bilaminated

Correct saw blade diameter based on tip speed and material to cut

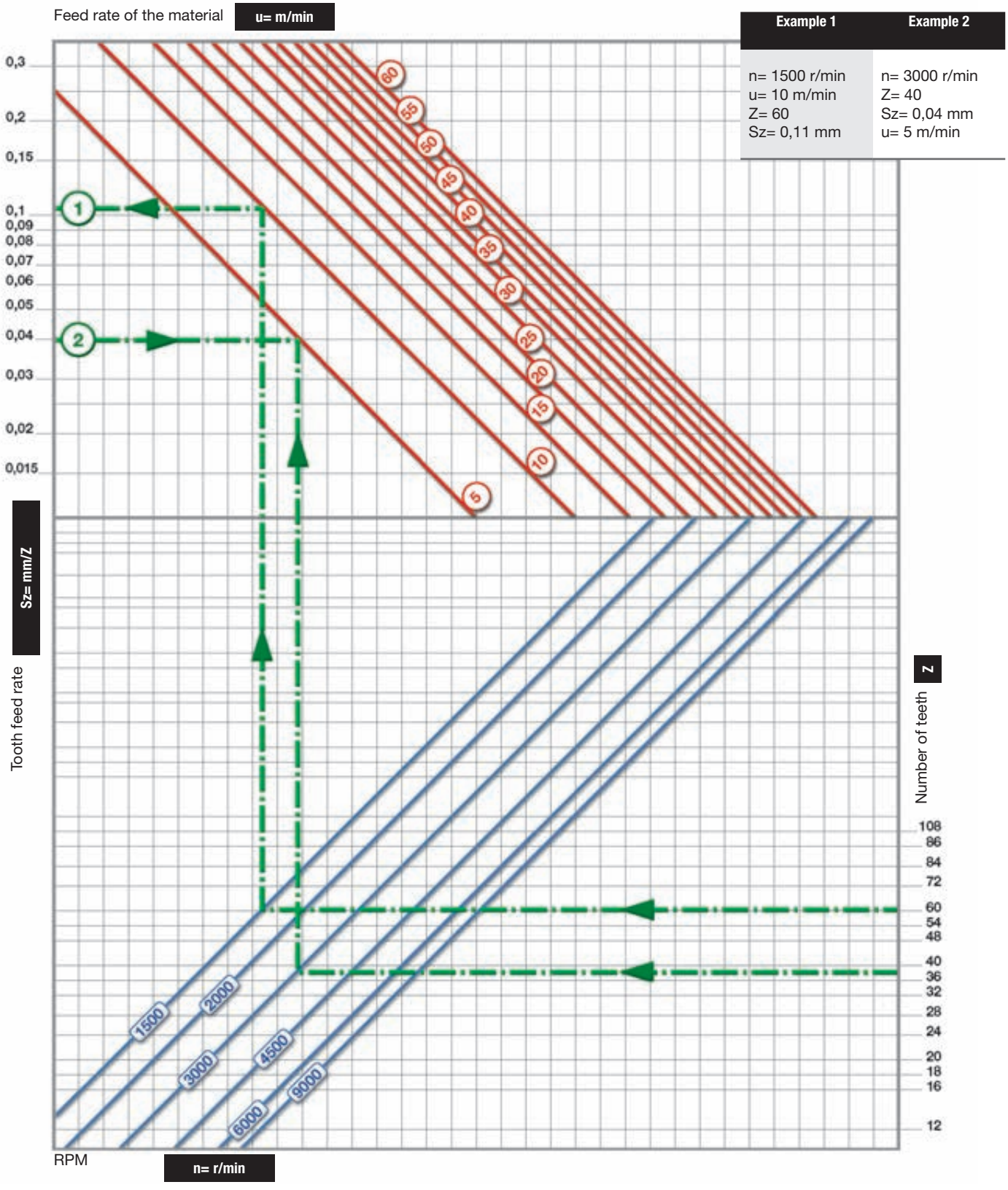


TIPS FOR THE CORRECT USE OF A CIRCULAR SAW BLADE

Correct tooth feed rate, material feedrate, number of teeth and RPM

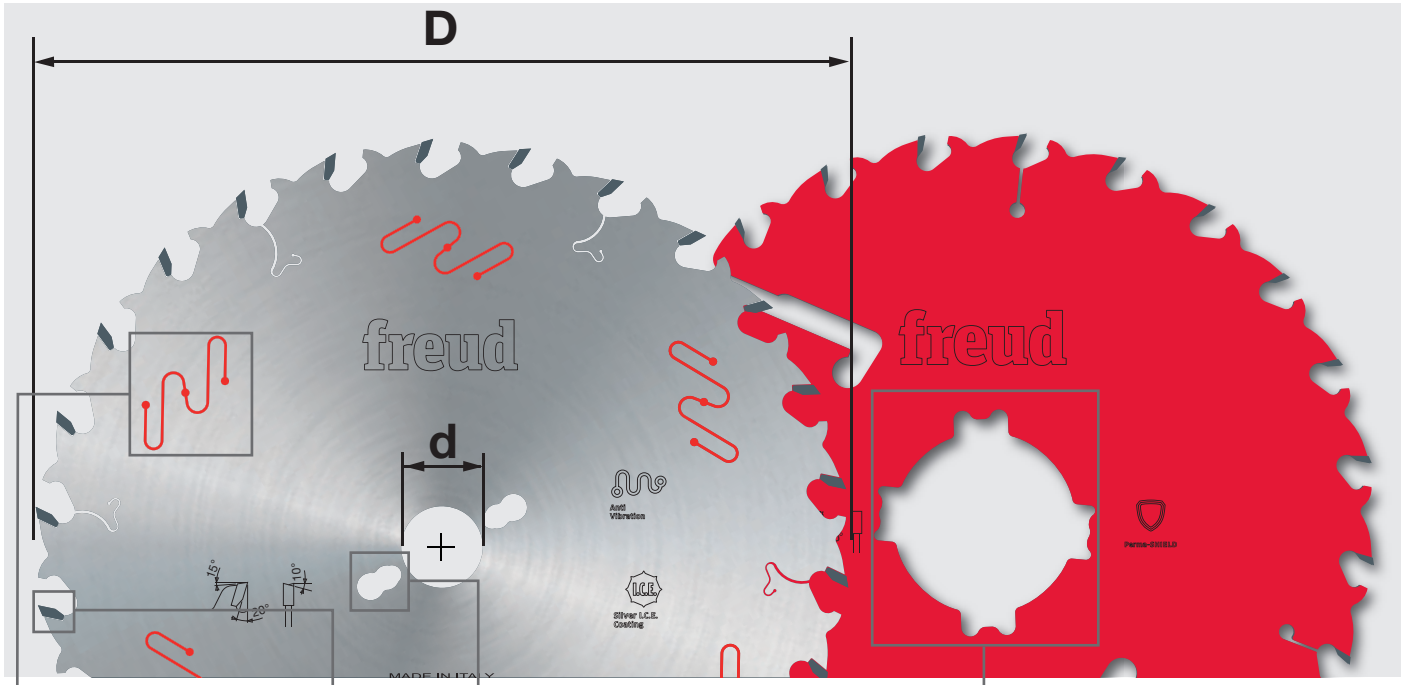
Recommended tooth feed rate (Sz= mm/tooth)	Recommended for
0,20 - 0,30	Softwood with grain
0,10 - 0,20	Softwood cross grain
0,06 - 0,15	Hardwood
0,10 - 0,25	Chipboard

Recommended tooth feed rate (Sz= mm/tooth)	Recommended for
0,05 - 0,12	Plywood
0,05 - 0,10	Laminated board
0,02 - 0,05	Aluminium and plastic laminated chipboard



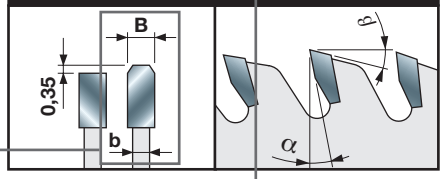
Example 1	Example 2
n= 1500 r/min u= 10 m/min Z= 60 Sz= 0,11 mm	n= 3000 r/min Z= 40 Sz= 0,04 mm u= 5 m/min

EXPLANATION OF SYMBOLS AND ABBREVIATIONS



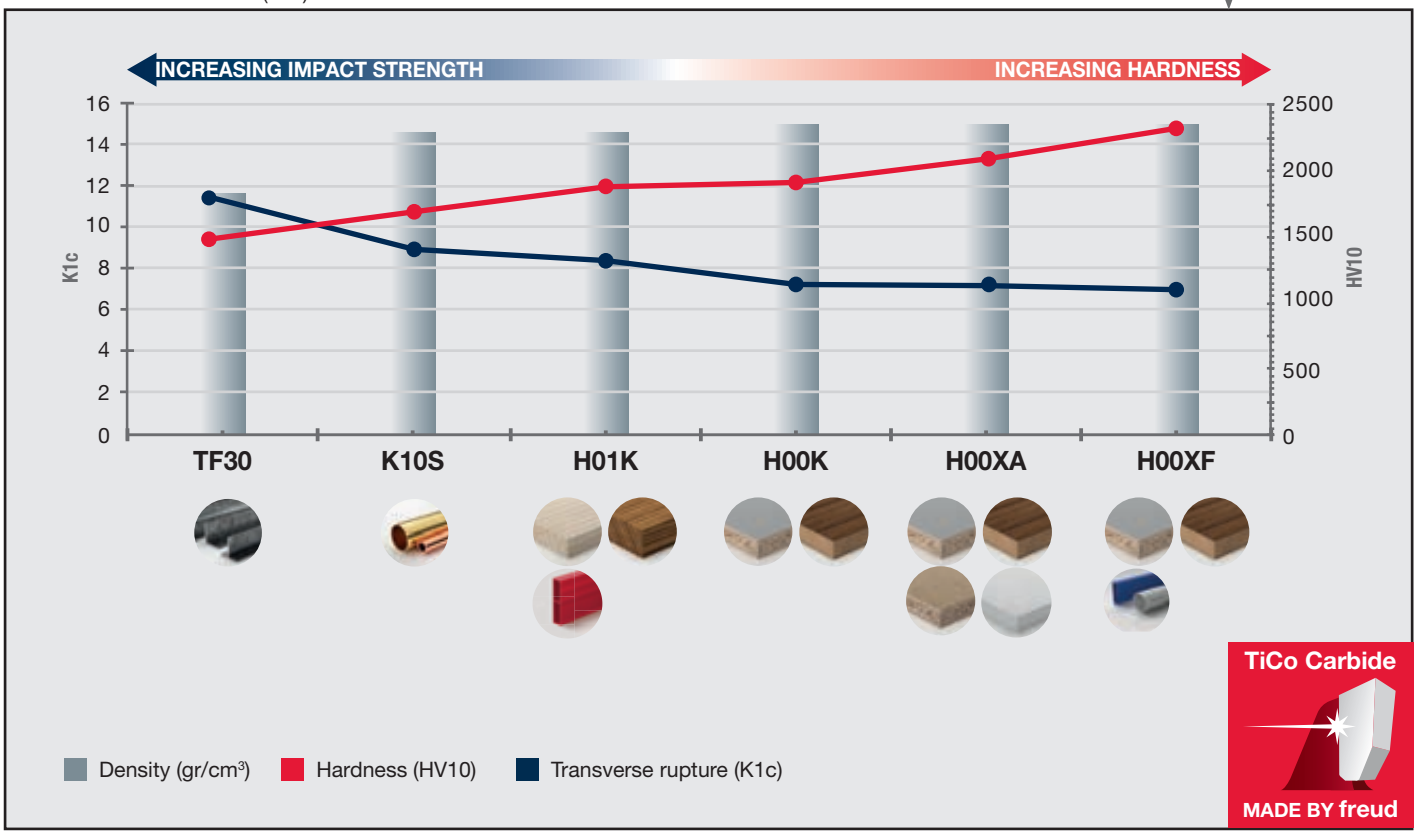
D mm	B mm	b mm	d mm	Z	NL - KN	Freud Code	Art. No.
250	3,2	2,2	30	22	FT01	**ABCD 1234**	A00BC01234
250	3,2	2,2	70	22	4CH 21x5	**ABCD 1234**	A00BC01234
300	3,2	2,2	30	26	FT01	**ABCD 1234**	A00BC01234

HW H00XA



Tooth features

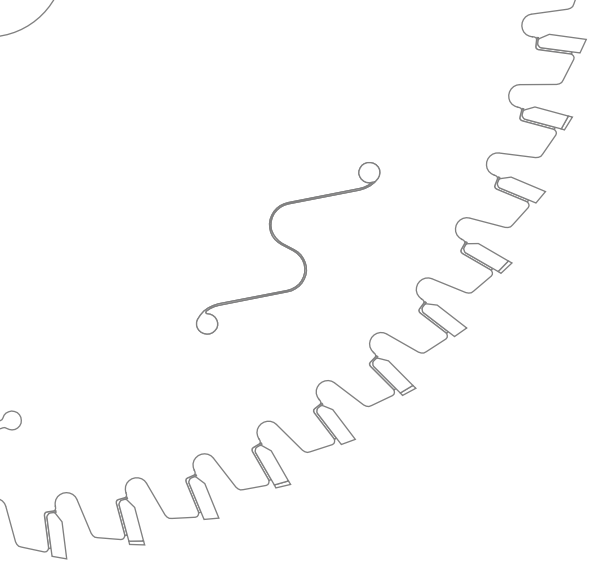
MICRO-GRAIN CARBIDE (HW) HARDNESS USED FOR MANUFACTURING TIPS



Circular Saw Blades for Portable Machines

Freud's wide range of circular saw blades for portable machines offers dedicated solutions for all main power tool brands. Each blade is specifically engineered per application material and machine type. The portfolio includes dedicated blades designed for cordless power tools and featuring extra thin kerf teeth with optimised geometries that enable maximised cuts per battery charge, optimum ease of cut and excellent lifetime.
The range offers a wide variety of solutions dedicated to wood, laminated panel, construct wood, high pressure laminate, aluminium, fibre cement, sandwich panel and multi material.
All circular saw blades feature Freud's unique and industry-first attributes.





CIRCULAR SAW BLADES FOR PORTABLE MACHINES

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The widest professional range for any application need ..... Page 114

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For cordless hand held and plunge circular saws ..... Page 117
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For cordless mitre saws ..... Page 118
For small table saws ..... Page 119
For cordless small table saws ..... Page 120

CONSTRUCT WOOD
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LAMINATED PANEL
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HIGH PRESSURE LAMINATE
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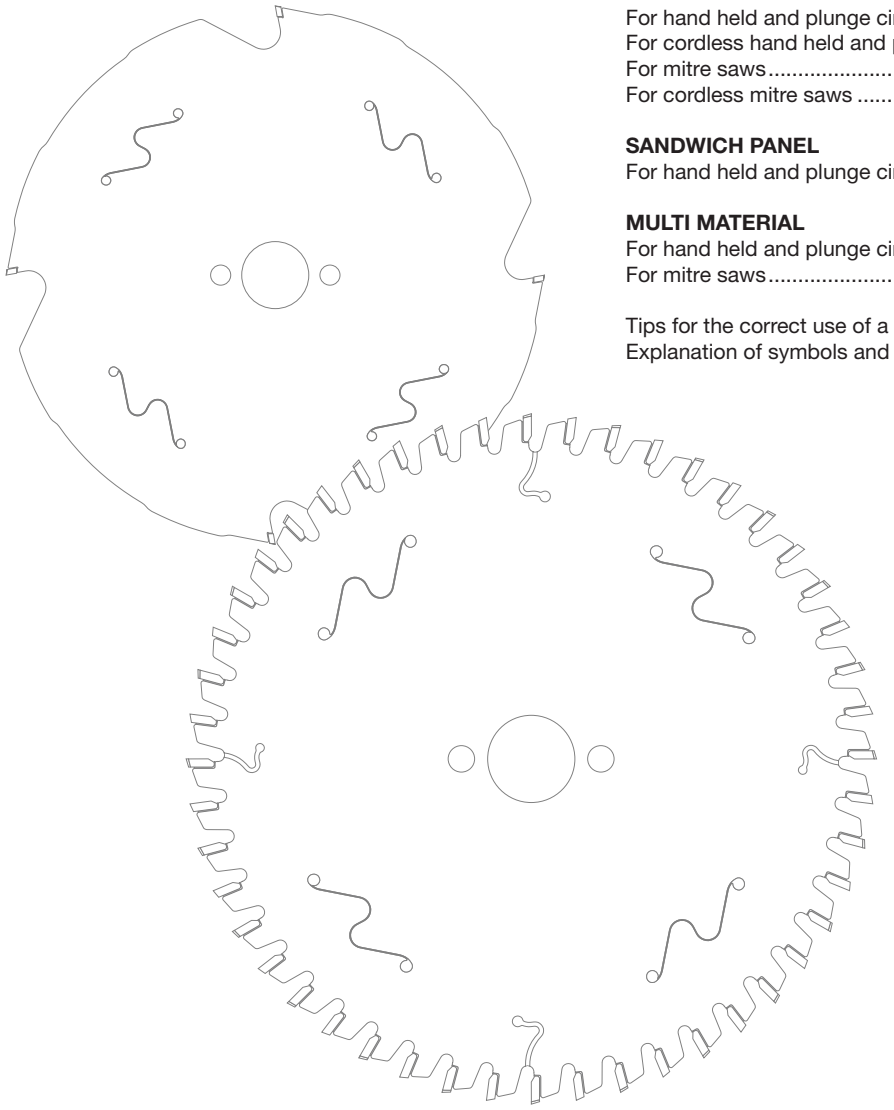
ALUMINIUM
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Tips for the correct use of a circular saw blade ..... Page 139
Explanation of symbols and abbreviations ..... Page 142

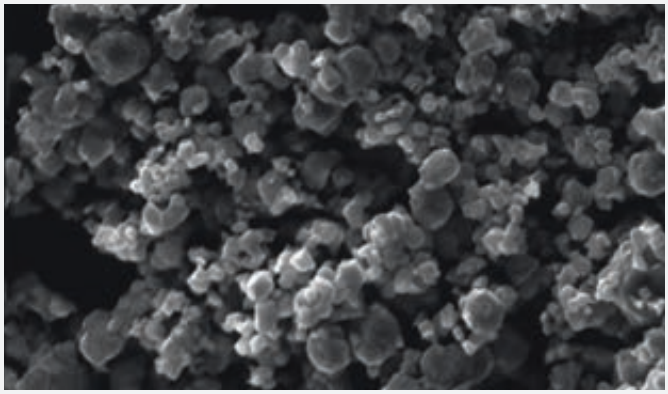


LEADING TECHNOLOGY

TiCo CARBIDE TECHNOLOGY

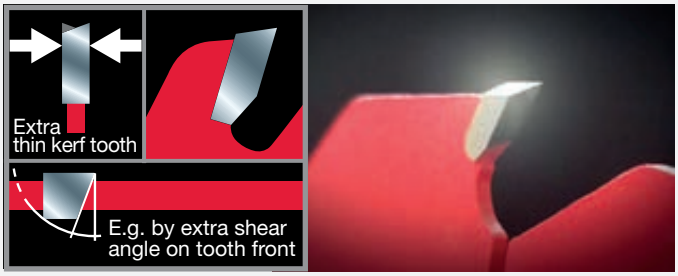
Freud's ownership and control of the entire Carbide production cycle ensures that the correct formula is used for the specific application needs, to constantly maximise the saw blade performance.

TiCo Carbide
A specially formulated, highly compact Titanium Cobalt Carbide, engineered and manufactured by freud.
It provides a sharper edge and flawless finish with a dramatically longer cutting life.



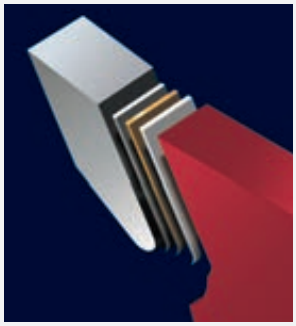
DESIGN INNOVATION

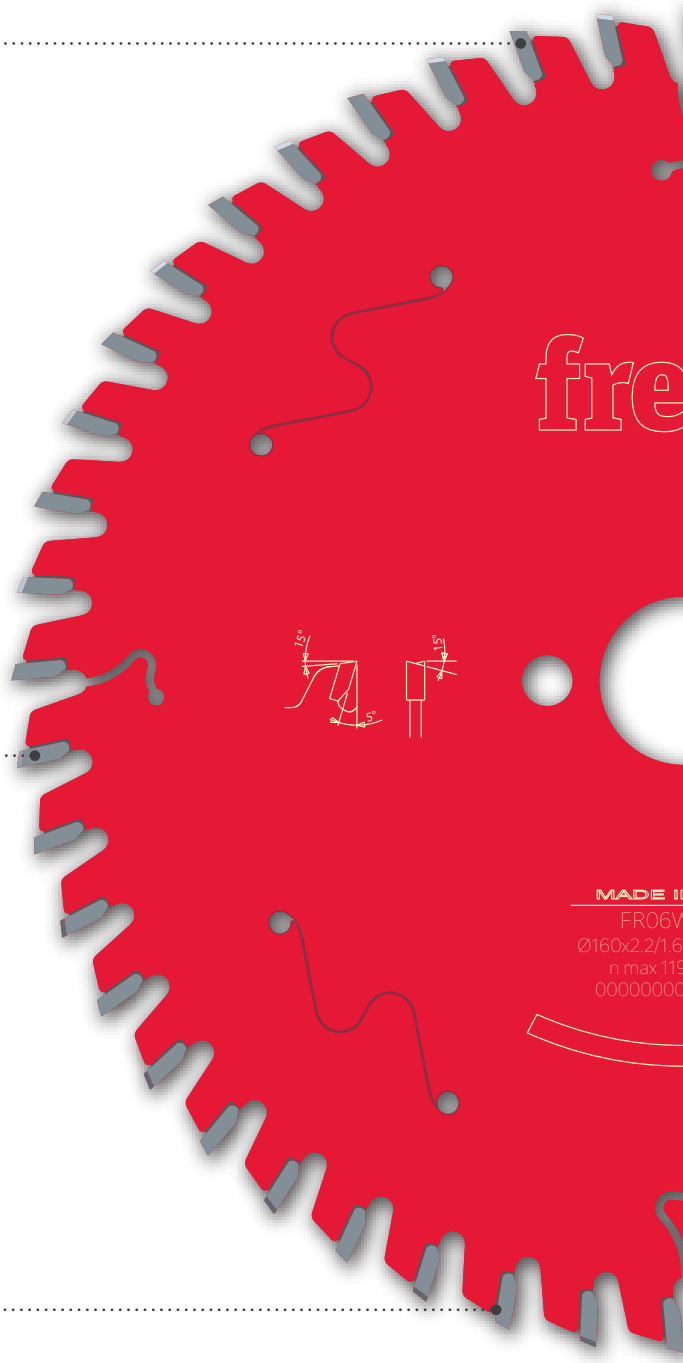
Freud's special tooth designs and geometries are engineered to perform perfect cuts and deliver extraordinary durability. Freud's tooth designs are optimised for specific material applications and portable machine types, both corded and cordless.

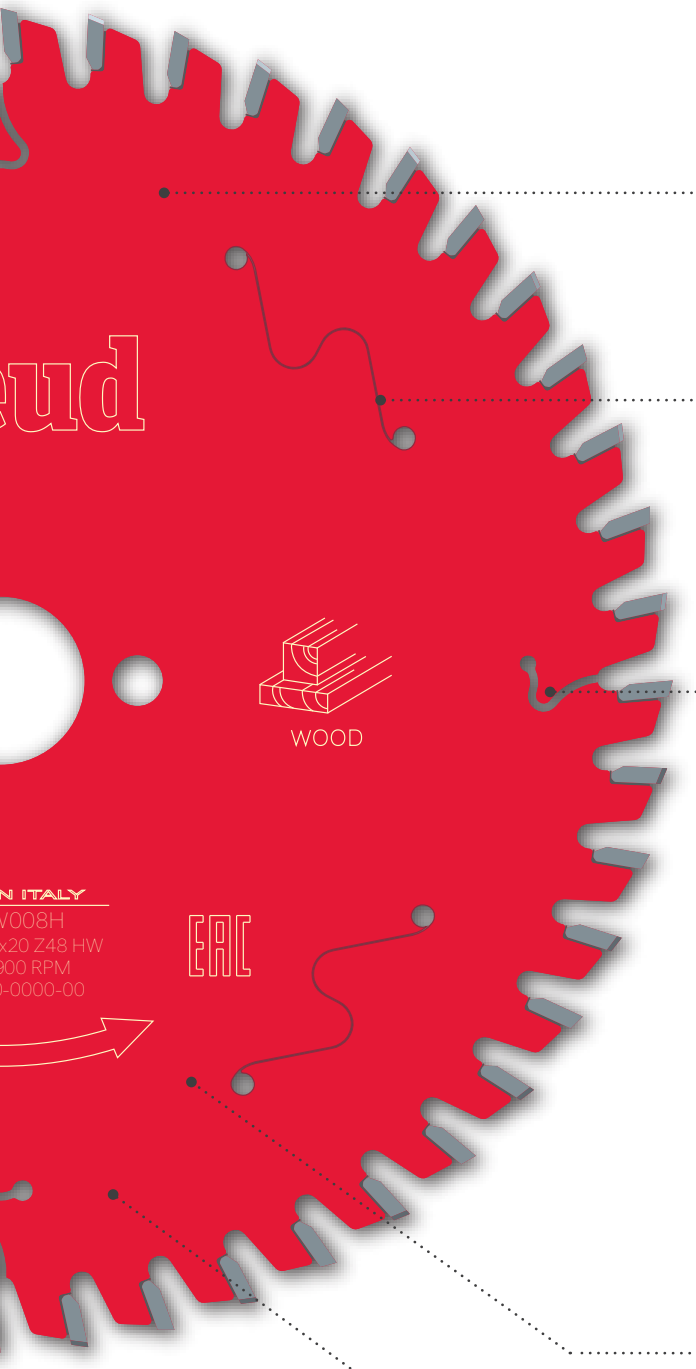


EXTREME SHOCK RESISTANCE

All Freud's circular saw blades undergo an innovative **Tri-Metal Brazing** process that bonds the Carbide tips to the steel blade body. This special method consists of copper alloy sandwiched between layers of silver alloy, for extra flexibility and maximum impact resistance.







COATING TECHNOLOGY

All Freud's circular saw blades feature an industry-first premium coating for superior protection from heat, pitch build-up and corrosion.
Freud's circular saws for portable machines display Perma-SHIELD Coating for the highest performance on dedicated applications.

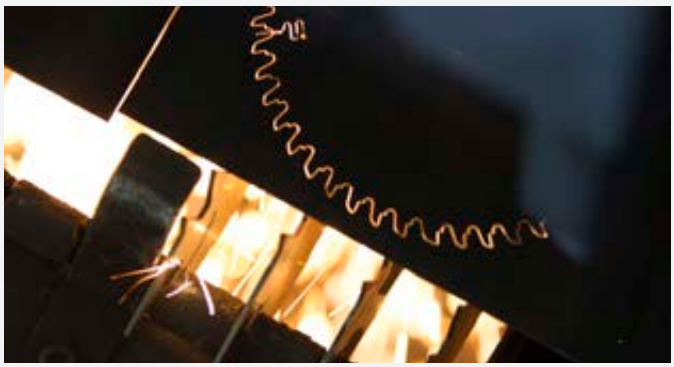
Perma-SHIELD Coating
A non-stick coating formulation that withstands the toughest applications. It provides thermal insulation, protects from corrosion and eliminates resin build-up, reducing downtime for cleaning.

ANTI-VIBRATION SOLUTIONS

Anti-vibration Slots
Freud's circular saw blades for portable machines display specially designed anti-vibration slots, laser cut on the blade body that enable a smooth running and minimise noise.

LASER-CUT EXPANSION SLOTS

Special laser-cut expansion slots enable heat dispersion and prevent the blade deformation caused by overheating, granting the greatest blade stability.



BALANCING

Tensioning
Freud's circular saw blades (≥200mm) include a tensioning ring to maintain the blade flat, maximising cutting precision and performance.

PREMIUM MATERIALS

Premium Steel
Freud's circular blades for portable machines are made from pre-hardened and pre-flattened superior quality steel (up to HRC 46) that delivers the highest precision, performance and durability.

THE WIDEST PROFESSIONAL RANGE FOR ANY APPLICATION NEED



OPTIMISED FOR
CORDLESS
POWER TOOLS





SPECIAL RANGE FOR CORDLESS POWER TOOLS

- Maximised battery runtime
- Optimised ease of cut

BATTERY RUNTIME

Optimised range (cordless)

Regular range (corded)

EASE OF CUT

Optimised range (cordless)

Regular range (corded)

BLADE LIFETIME

Optimised range (cordless)

Regular range (corded)

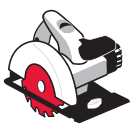
Wood



CIRCULAR SAW BLADES FOR WOOD

For hand-held and plunge circular saws

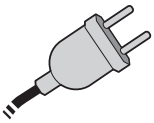




Hand-held Circular Saws



Plunge Saws



Corded



Softwood



Hardwood



Chipboard



Plywood

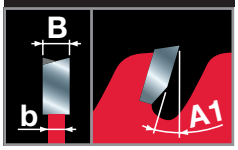


MDF

TiCo Carbide MADE BY freud

Perma-SHIELD COATING

HW K05S



Machines:
Hand-held circular saws and plunge circular saws.

Materials:
Soft and hard solid wood, chipboard, plywood, MDF and other wood based materials.

Technical information:
ATB tooth with positive cutting angle.



Ripping



Crosscutting

● Good
●● High
●●● Ultimate

D mm	B mm	b mm	d mm	Z	Hook A1	Rip cut quality	Cross cut quality	NL	Freud Code	Art. No.
120	1,8	1,3	20	12	15°	●●●	●	-	**FR02W001H**	F03FS09663
120	1,8	1,3	20	40	5°	●	●●●	-	**FR02W002H**	F03FS09664
130	2,4	1,6	20	24	15°	●●	●●	2/6/32,5	**FR03W001H**	F03FS09665
130	2,4	1,6	20	36	5°	●	●●●	2/6/32,5	**FR03W002H**	F03FS09666
140	1,8	1,3	20	24	15°	●●●	●	2/6/32,5	**FR04W001H**	F03FS09667
140	1,8	1,3	20	36	10°	●●	●●	2/6/32,5	**FR04W002H**	F03FS09668
140	1,8	1,3	20	42	5°	●	●●●	2/6/32,5	**FR04W003H**	F03FS09669
150	2,4	1,6	16	24	15°	●●●	●	2/6/32,5	**FR05W001H**	F03FS09670
150	2,4	1,6	20	24	15°	●●●	●	2/6/32,5	**FR05W002H**	F03FS09671
150	2,4	1,6	20	42	5°	●	●●●	2/6/32,5	**FR05W003H**	F03FS09672
160	2,4	1,6	16	24	15°	●●●	●	2/6/32,5	**FR06W001H**	F03FS09673
160	2,4	1,6	16	48	5°	●	●●●	2/6/32,5	**FR06W002H**	F03FS09674
160	1,8	1,3	20	24	15°	●●●	●	2/6/32,5	**FR06W003H**	F03FS09675
160	1,8	1,3	20	36	10°	●●	●●	2/6/32,5	**FR06W004H**	F03FS09676
160	1,8	1,3	20	48	5°	●	●●●	2/6/32,5	**FR06W005H**	F03FS09677
160	2,2	1,6	20	24	15°	●●●	●	2/6/32,5	**FR06W006H**	F03FS09678
160	2,2	1,6	20	36	10°	●●	●●	2/6/32,5	**FR06W007H**	F03FS09679
160	2,2	1,6	20	48	5°	●	●●●	2/6/32,5	**FR06W008H**	F03FS09680
160	2,4	1,6	20	24	15°	●●●	●	2/6/32,5	**FR06W009H**	F03FS09681
160	2,4	1,6	20	36	10°	●●	●●	2/6/32,5	**FR06W010H**	F03FS09682
160	2,4	1,6	20	48	5°	●	●●●	2/6/32,5	**FR06W011H**	F03FS09683
160	2,4	1,6	30	24	15°	●●●	●	2/6/42	**FR06W012H**	F03FS09684
160	2,4	1,6	30	48	5°	●	●●●	2/6/42	**FR06W013H**	F03FS09685
165	1,7	1,3	20	12	20°	●●●	●	-	**FR07W009H**	F03FS10040
165	1,7	1,3	20	24	15°	●●●	●	-	**FR07W001H**	F03FS09686
165	1,7	1,3	20	40	18°	●	●●●	-	**FR07W002H**	F03FS09687
165	2,4	1,6	20	24	15°	●●●	●	2/6/32,5	**FR07W003H**	F03FS09688
165	2,4	1,6	20	36	10°	●●	●●	2/6/32,5	**FR07W004H**	F03FS09689
165	2,4	1,6	20	48	5°	●	●●●	2/6/32,5	**FR07W005H**	F03FS09690
165	2,4	1,6	20	56	5°	●	●●●	2/6/32,5	**FR07W013H**	F03FS11505
165	2,4	1,6	30	24	15°	●●●	●	2/7/42	**FR07W006H**	F03FS09691
165	2,4	1,6	30	36	10°	●●	●●	2/7/42	**FR07W007H**	F03FS09692
165	2,4	1,6	30	48	5°	●	●●●	2/7/42	**FR07W008H**	F03FS09693
170	2,4	1,6	30	40	10°	●●	●●	2/7/42	**FR08W002H**	F03FS09695
180	2,4	1,6	20	24	15°	●●●	●	2/6/32,5	**FR09W001H**	F03FS09696
180	2,4	1,6	20	48	5°	●	●●●	2/6/32,5	**FR09W002H**	F03FS09697
180	2,4	1,6	30	24	15°	●●●	●	2/7/42	**FR09W003H**	F03FS09698
180	2,4	1,6	30	48	5°	●	●●●	2/7/42	**FR09W004H**	F03FS09699
182	1,7	1,3	19,05	30	15°	●●●	●	-	**FR10W001H**	F03FS09700
182	1,7	1,3	19,05	40	15°	●●	●●	-	**FR10W002H**	F03FS09701
182	1,7	1,3	19,05	60	15°	●	●●●	-	**FR10W003H**	F03FS09702
182	1,7	1,3	25,4	30	15°	●●●	●	-	**FR10W004H**	F03FS11507
182	1,7	1,3	25,4	40	15°	●●	●●	-	**FR10W005H**	F03FS11508
182	1,7	1,3	25,4	60	15°	●	●●●	-	**FR10W006H**	F03FS11509
184	2,4	1,6	16	24	15°	●●●	●	2/6/32,5	**FR11W001H**	F03FS09703
184	2,4	1,6	16	40	10°	●●	●●	2/6/32,5	**FR11W002H**	F03FS09704
184	2,4	1,6	16	24	15°	●●●	●	-	**FR11W012H**	F03FS11511
184	2,4	1,6	30	24	15°	●●●	●	2/7/42	**FR11W007H**	F03FS09709
185	2,4	1,6	20	24	15	●●●	●	-	**FR12W001H**	F03FS11513
185	2,4	1,6	20	48	10	●	●●●	-	**FR12W002H**	F03FS11514
190	2,4	1,6	16	24	15°	●●●	●	2/6/32,5	**FR13W001H**	F03FS09712
190	2,4	1,6	16	48	10°	●	●●●	2/6/32,5	**FR13W002H**	F03FS09713

CIRCULAR SAW BLADES FOR WOOD

D mm	B mm	b mm	d mm	Z	Hook A1	Rip cut quality	Cross cut quality	NL	Freud Code	Art. No.
190	2,4	1,6	20	24	15°	●●●	●	2/6/32,5	**FR13W003H**	F03FS09714
190	2,4	1,6	20	48	10°	●	●●●	2/6/32,5	**FR13W004H**	F03FS09715
190	2,4	1,6	20	56	5°	●	●●●	2/6/32,5	**FR13W005H**	F03FS09716
190	2,4	1,6	30	24	15°	●●●	●	2/7/42	**FR13W006H**	F03FS09717
190	2,4	1,6	30	40	10°	●●	●●	2/7/42	**FR13W007H**	F03FS09718
190	2,4	1,6	30	48	10°	●	●●●	2/7/42	**FR13W008H**	F03FS09719
190	2,4	1,6	30	56	5°	●	●●●	2/7/42	**FR13W009H**	F03FS09720
200	1,7	1,2	25,4	40	10°	●●	●●	-	**FR14W003H**	F03FS11515
200	2,4	1,6	30	24	15°	●●●	●	2/7/42	**FR14W001H**	F03FS09721
200	2,4	1,6	30	48	10°	●	●●●	2/7/42	**FR14W002H**	F03FS09722
210	2,4	1,8	30	24	15°	●●●	●	2/7/42	**FR15W003H**	F03FS09725
210	2,4	1,8	30	40	15°	●●	●●	2/7/42	**FR15W001H**	F03FS09723
210	2,4	1,8	30	48	10°	●	●●●	2/7/42	**FR15W004H**	F03FS09726
210	2,4	1,8	30	56	5°	●	●●●	2/7/42	**FR15W002H**	F03FS09724
230	2,8	1,8	30	24	15°	●●●	●	2/6/42	**FR19W001H**	F03FS09728
230	2,8	1,8	30	36	15°	●●	●●	2/7/42	**FR19W002H**	F03FS09729
230	2,8	1,8	30	48	15°	●●	●●	2/7/42	**FR19W003H**	F03FS09730
230	2,2	1,6	25,4	60	10°	●	●●●	-	**FR20W007H**	F03FS11521
235	2,8	1,8	30	24	15°	●●●	●	2/6/42	**FR20W003H**	F03FS09733
235	2,8	1,8	30	36	15°	●●	●●	2/7/42	**FR20W004H**	F03FS09734
235	2,8	1,8	30	48	15°	●●	●●	2/7/42	**FR20W005H**	F03FS09735
235	2,8	1,8	30	56	10°	●	●●●	2/7/42	**FR20W006H**	F03FS09736
237	2,5	1,8	30	24	15°	●●●	●	2/7/42	**FR21W001H**	F03FS09737
237	2,5	1,8	30	56	10°	●	●●●	2/7/42	**FR21W002H**	F03FS09738
240	2,8	1,8	30	48	15°	●●	●●	2/7/42	**FR22W001H**	F03FS09739
270	2,8	1,8	30	60	10°	●●	●●	FT121	**FR27W001H**	F03FS09740
350	3,5	2,2	30	24	20°	●●●	●	2/7/42	**FR32W001H***	F03FS09742
355	3,0	2,2	30	60	15°	●●●	●	FT121	**FR33W001H***	F03FS09743

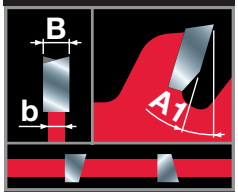
*HW K10S

FT121: 2/7/42 + 2/9/46 + 2/9,5/46,5 + 2/10/60

TiCo Carbide MADE BY freud

Perma-SHIELD COATING

HW K05S



Machines:
Cordless hand-held and plunge circular saws.

Materials:
Soft and hard solid wood, chipboard, plywood, MDF and other wood based materials.

Technical information:
Specifically designed to maximise battery runtime and optimise ease of cut on cordless saws.
Thin kerf teeth and axial shear angle on tooth front.
ATB tooth with positive cutting angle.


Ripping

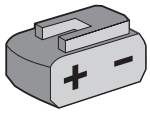

Crosscutting

● Good
●● High
●●● Ultimate

For cordless hand-held and plunge circular saws


Hand-held Circular Saws


Plunge Saws


Cordless

OPTIMISED FOR CORDLESS POWER TOOLS


Softwood


Hardwood


Chipboard


Plywood

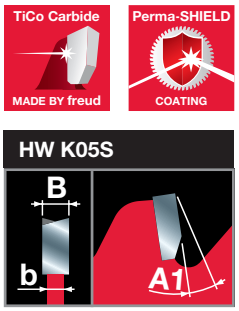

MDF

D mm	B mm	b mm	d mm	Z	Hook A1	Rip cut quality	Cross cut quality	NL	Freud Code	Art. No.
120	1,7	1,2	20	24	20°	●●	●●	-	**FR02W003HC**	F03FS10043
136	1,5	1,0	20	24	20°	●●	●●	-	**FR03W003HC**	F03FS10044
140	1,8	1,3	20	24	15°	●●●	●	-	**FR04W004HC**	F03FS10045
140	1,8	1,3	20	42	5°	●	●●●	-	**FR04W005HC**	F03FS10046
160	1,5	1,0	20	24	25°	●●●	●	-	**FR05W015HC**	F03FS10048
160	1,5	1,0	20	36	15°	●●	●●	-	**FR05W016HC**	F03FS10049
160	1,5	1,0	20	48	10°	●	●●●	-	**FR05W017HC**	F03FS10050
160	1,8	1,3	20	24	15°	●●●	●	2/6/32,5	**FR06W003H**	F03FS09675
160	1,8	1,3	20	36	10°	●●	●●	2/6/32,5	**FR06W004H**	F03FS09676
160	1,8	1,3	20	48	5°	●	●●●	2/6/32,5	**FR06W005H**	F03FS09677
160	2,2	1,6	20	24	15°	●●●	●	2/6/32,5	**FR06W006H**	F03FS09678
160	2,2	1,6	20	36	10°	●●	●●	2/6/32,5	**FR06W007H**	F03FS09679
160	2,2	1,6	20	48	5°	●	●●●	2/6/32,5	**FR06W008H**	F03FS09680
165	1,5	1,0	20	12	25°	●●●	●	-	**FR07W009HC**	F03FS10051
165	1,5	1,0	20	24	25°	●●●	●	-	**FR07W010HC**	F03FS10052
165	1,5	1,0	20	36	15°	●●	●●	-	**FR07W011HC**	F03FS10053
165	1,5	1,0	20	48	10°	●	●●●	-	**FR07W012HC**	F03FS10054
165	1,7	1,3	20	12	20°	●●●	●	-	**FR07W009H**	F03FS10040
165	1,7	1,3	20	24	15°	●●●	●	-	**FR07W001H**	F03FS09686
165	1,7	1,3	20	40	18°	●	●●●	-	**FR07W002H**	F03FS09687

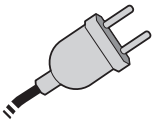
CIRCULAR SAW BLADES FOR WOOD

D mm	B mm	b mm	d mm	Z	Hook A1	Rip cut quality	Cross cut quality	NL	Freud Code	Art. No.
182	1,7	1,3	19,05	30	15°	•••	•	-	**FR10W001H**	F03FS09700
182	1,7	1,3	19,05	40	15°	••	••	-	**FR10W002H**	F03FS09701
182	1,7	1,3	19,05	60	15°	•	•••	-	**FR10W003H**	F03FS09702
184	1,6	1,0	20	24	25°	•••	•	-	**FR11W010HC**	F03FS10055
184	1,6	1,0	20	48	10°	•	•••	-	**FR11W011HC**	F03FS10056
190	1,5	1,0	30	18	25°	•••	•	-	**FR13W010HC**	F03FS10057
190	1,5	1,0	30	24	25°	•••	•	-	**FR13W011HC**	F03FS10058
190	1,5	1,0	30	48	15°	••	••	-	**FR13W012HC**	F03FS10059
190	1,5	1,0	30	60	10°	•	•••	-	**FR13W013HC**	F03FS10060

For mitre saws




Mitre Saws


Corded


Softwood


Hardwood


Chipboard


Plywood


MDF

Machines:
Mitre saws.

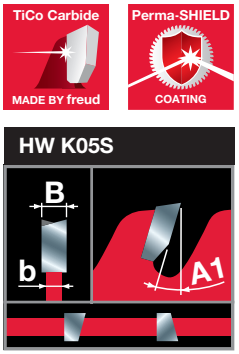
Materials:
Soft and hard solid wood, chipboard, plywood, MDF and other wood based materials.

Technical information:
ATB tooth with negative cutting angle.

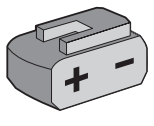
D mm	B mm	b mm	d mm	Z	Hook A1	NL	Freud Code	Art. No.
210	2,4	1,8	25,4	24	-5°	-	**FR15W002M**	F03FS11566
210	2,4	1,8	25,4	48	-5°	-	**FR15W003M**	F03FS11517
210	2,4	1,8	30	48	-5°	2/7/42	**FR15W001M**	F03FS09747
216	2,4	1,8	25,4	48	-5°	2/6/42	**FR16W004M**	F03FS09751
216	2,4	1,8	25,4	64	-5°	2/6/42	**FR16W005M**	F03FS09752
216	2,4	1,8	30	24	-5°	2/6/42	**FR16W001M**	F03FS09748
216	2,4	1,8	30	40	-5°	2/7/42	**FR16W002M**	F03FS09749
216	2,4	1,8	30	48	-5°	2/7/42	**FR16W003M**	F03FS09750
250	2,4	1,8	30	40	-5°	FT121	**FR23W001M**	F03FS09753
250	2,4	1,8	30	60	-5°	FT121	**FR23W002M**	F03FS09754
254	2,4	1,8	30	60	-5°	FT121	**FR24W001M**	F03FS09755
260	2,4	1,8	30	60	-5°	FT121	**FR26W001M**	F03FS09760
300	2,4	1,8	30	72	-5°	FT121	**FR28W001M**	F03FS09761
305	2,4	1,8	30	48	-5°	-	**FR29W001M**	F03FS09762
305	2,4	1,8	30	72	-5°	FT121	**FR29W002M**	F03FS09763
315	2,4	1,8	30	72	-5°	FT121	**FR30W001M**	F03FS09766

FT121: 2/7/42 + 2/9/46 + 2/9,5/46,5 + 2/10/60

For cordless mitre saws




Mitre Saws


Cordless

OPTIMISED FOR CORDLESS POWER TOOLS


Softwood


Hardwood


Chipboard


Plywood


MDF

Machines:
Cordless mitre saws.

Materials:
Soft and hard solid wood, chipboard, plywood, MDF and other wood based materials.

Technical information:
Specifically designed to maximise battery runtime and optimise ease of cut on cordless mitre saws. Thin kerf teeth and axial shear angle on tooth front. ATB tooth with positive cutting angle.

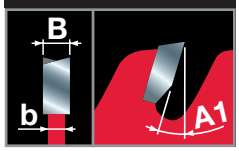
D mm	B mm	b mm	d mm	Z	Hook A1	NL	Freud Code	Art. No.
216	1,7	1,2	30	24	5°	-	**FR16W006MC**	F03FS10061
216	1,7	1,2	30	48	5°	-	**FR16W007MC**	F03FS10062
250	2,1	1,6	30	24	5°	-	**FR23W003MC**	F03FS10063
250	2,1	1,6	30	48	5°	-	**FR23W004MC**	F03FS10064

D mm	B mm	b mm	d mm	Z	Hook A1	NL	Freud Code	Art. No.
254	2,1	1,6	30	24	5°	-	**FR24W002MC**	F03FS11527
254	2,1	1,6	30	48	5°	-	**FR24W003MC**	F03FS11528
305	2,2	1,6	30	42	5°	-	**FR29W004MC**	F03FS10065
305	2,2	1,6	30	60	5°	-	**FR29W005MC**	F03FS10066
305	2,2	1,6	30	96	5°	-	**FR29W006MC**	F03FS10067

TiCo Carbide MADE BY freud

Perma-SHIELD COATING

HW K05S



Machines:
Small table saws.

Materials:
Soft and hard solid wood, chipboard, plywood, MDF and other wood based materials.

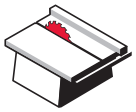
Technical information:
ATB tooth with positive cutting angle.

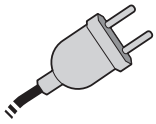

Ripping


Crosscutting

● Good
●● High
●●● Ultimate

For small table saws


Table saws


Corded


Softwood


Hardwood


Chipboard


Plywood


MDF

D mm	B mm	b mm	d mm	Z	Hook A1	Rip cut quality	Cross cut quality	NL	Freud Code	Art. No.
190	2,0	1,3	30	24	15°	●●●	●	2/7/42	**FR13W001T**	F03FS09767
190	2,0	1,3	30	48	5°	●	●●●	2/7/42	**FR13W002T**	F03FS09768
190	2,4	1,6	Star	24	15°	●●●	●	-	**FR13W003T**	F03FS09769
190	2,4	1,6	Star	48	5°	●	●●●	-	**FR13W004T**	F03FS09770
216	2,4	1,8	30	24	15°	●●●	●	2/6/42	**FR16W003T**	F03FS11519
216	2,4	1,8	30	48	10°	●	●●●	2/6/42	**FR16W004T**	F03FS11520
220	2,6	1,6	30	48	10°	●●	●●	2/7/42	**FR17W001T**	F03FS09771
225	2,6	1,6	30	32	15°	●●●	●	2/7/42	**FR18W001T**	F03FS09772
225	2,6	1,6	30	48	10°	●●	●●	2/7/42	**FR18W002T**	F03FS09773
250	2,4	1,8	25,4	48	15	●●●	●	-	**FR23W005T**	F03FS11641
250	2,4	1,8	25,4	60	15	●●	●●	-	**FR23W006T**	F03FS11642
250	2,4	1,8	25,4	80	15	●	●●●	-	**FR23W007T**	F03FS11643
250	2,4	1,8	25,4	100	15	●	●●●	-	**FR23W008T**	F03FS11644
250	2,8	1,8	30	24	20°	●●●	●	2/6/42	**FR23W001T**	F03FS09774
250	2,8	1,8	30	40	15°	●●●	●	2/6/42	**FR23W002T**	F03FS09775
250	2,8	1,8	30	60	10°	●●	●●	2/6/42	**FR23W003T**	F03FS09776
250	2,8	1,8	30	80	5°	●	●●●	FT121	**FR23W004T**	F03FS09777
254	2,6	1,8	30	24	20°	●●●	●	2/6/42	**FR24W001T**	F03FS09778
254	2,6	1,8	30	40	15°	●●●	●	2/6/42	**FR24W002T**	F03FS09779
254	2,6	1,8	30	60	10°	●●	●●	FT121	**FR24W003T**	F03FS09780
254	2,6	1,8	30	80	5°	●	●●●	FT121	**FR24W004T**	F03FS09781
255	2,8	1,8	25,4	40	15°	●●●	●	-	**FR25W002T**	F03FS10134
255	2,8	1,8	25,4	60	15°	●●	●●	-	**FR25W003T**	F03FS10135
255	2,8	1,8	25,4	80	15°	●	●●●	-	**FR25W004T**	F03FS10136
260	2,6	1,8	30	60	10°	●●	●●	-	**FR26W001T**	F03FS09782
260	2,6	1,8	30	80	5°	●	●●●	FT121	**FR26W002T**	F03FS09783
280	2,5	1,8	30	64	10°	●●	●●	2/10/60	**FR27W001T**	F03FS11530
300	2,5	1,8	30	48	15°	●●●	●	2/10/60	**FR28W001T**	F03FS09784
300	2,5	1,8	30	72	10°	●●	●●	2/10/60	**FR28W002T**	F03FS09785
300	2,5	1,8	30	100	5°	●	●●●	FT121	**FR28W003T**	F03FS09786
305	2,8	1,8	25,4	96	15°	●	●●●	-	**FR29W002T**	F03FS10138
305	2,8	1,8	30	100	5°	●	●●●	2/10/60	**FR29W001T**	F03FS09787
355	3,0	2,2	25,4	108	15°	●	●●●	-	**FR33W001T**	F03FS10137

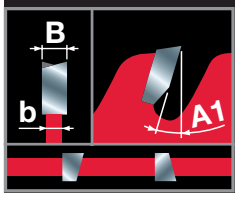
FT121: 2/7/42 + 2/9/46 + 2/9,5/46,5 + 2/10/60

For cordless small table saws

TiCo Carbide MADE BY freud

Perma-SHIELD COATING

HW K05S



Machines:
Cordless small table saws.

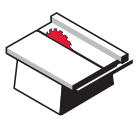
Materials:
Soft and hard solid wood, chipboard, plywood, MDF and other wood based materials.

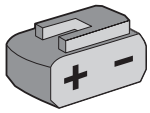
Technical information:
Specifically designed to maximise battery runtime and optimise ease of cut on cordless table saws. Thin kerf teeth and axial shear angle on tooth front. ATB tooth with positive cutting angle.


Ripping


Crosscutting

● Good
●● High
●●● Ultimate


Table saws


Cordless

OPTIMISED FOR CORDLESS POWER TOOLS


Softwood


Hardwood


Chipboard


Plywood


MDF

D mm	B mm	b mm	d mm	Z	Hook A1	Rip cut quality	Cross cut quality	NL	Freud Code	Art. No.
210	2,0	1,4	30	24	25°	•••	•	-	**FR15W001TC**	F03FS10068
210	2,0	1,4	30	48	15°	•	•••	-	**FR15W002TC**	F03FS10069
216	2,0	1,4	30	24	25°	•••	•	-	**FR16W001TC**	F03FS10070
216	2,0	1,4	30	48	15°	•	•••	-	**FR16W002TC**	F03FS10071
254	2,1	1,6	30	24	25°	•••	•	-	**FR24W005TC**	F03FS10072
254	2,1	1,6	30	40	20°	••	••	-	**FR24W006TC**	F03FS10073
254	2,1	1,6	30	60	15°	•	•••	-	**FR24W007TC**	F03FS10074

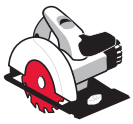
Construct Wood

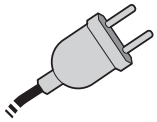


CIRCULAR SAW BLADES FOR CONSTRUCT WOOD

For hand-held circular saws




Hand-held Circular Saws


Corded


Construction Timber

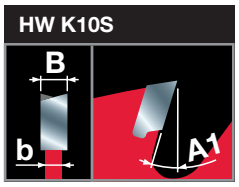

Shuttering Board


Chipboard









Machines:
Hand-held circular saws.

Materials:
Construction timber with nails and concrete residues, chipboard and formwork boards.

Technical information:
Special Carbide recipe and innovative tooth design ensure high cutting resistance, also when hitting nails.
ATB tooth with positive cutting angle.

D mm	B mm	b mm	d mm	Z	Hook A1	NL	Freud Code	Art. No.
160	2,0	1,3	20	14	18°	2/6/32,5	**FR06C001H**	F03FS09788
165	2,0	1,3	20	14	18°	2/6/32,5	**FR07C001H**	F03FS09789
180	2,0	1,3	30	14	18°	2/6/42	**FR09C001H**	F03FS09790
184	2,0	1,3	16	14	18°	2/6/32,5	**FR11C001H**	F03FS09791
190	2,0	1,3	30	14	18°	2/7/42	**FR13C001H**	F03FS09792
200	2,0	1,3	30	16	18°	2/7/42	**FR14C001H**	F03FS09793
210	2,0	1,3	30	16	18°	2/7/42	**FR15C001H**	F03FS09794
230	2,2	1,6	30	20	18°	2/7/42	**FR19C001H**	F03FS09795
235	2,2	1,6	30	20	18°	2/7/42	**FR20C001H**	F03FS09796

Laminated Panel



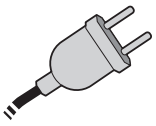
CIRCULAR SAW BLADES FOR LAMINATED PANEL

For hand-held and plunge circular saws




Hand-held Circular Saws


Plunge Saws


Corded


Laminated Chipboard


Laminated MDF


Chipboard

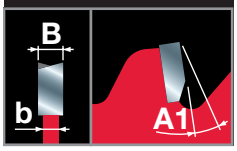

MDF

D mm	B mm	b mm	d mm	Z	Hook A1	NL	Freud Code	Art. No.
140	1,8	1,3	20	42	-5°	2/6/32,5	**FR04L001H**	F03FS09797
160	1,8	1,2	20	48	-5°	-	**FR06L003HC**	F03FS10075
160	2,2	1,6	20	48	-5°	2/6/32,5	**FR06L001H**	F03FS09798
160	2,2	1,6	20	48	-5°	-	**FR06L002H***	F03FS09799
165	2,6	1,6	20	48	-5°	2/6/32,5	**FR07L001H**	F03FS09800
185	2,4	1,6	20	60	-5°	-	**FR12L001H**	F03FS09801
190	2,6	1,6	30	60	-5°	2/7/42	**FR13L001H**	F03FS09802

TiCo Carbide MADE BY freud

Perma-SHIELD COATING

HW H00K





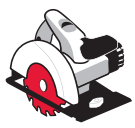
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Machines:
Hand-held and plunge circular saws.

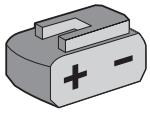
Materials:
Laminated and bilaminated panels, chipboard, MDF and fine-coated or veneered panels.

Technical information:
ATB tooth with negative cutting angle.
*HLTCG with negative cutting angle.

For cordless hand-held and plunge circular saws


Hand-held Circular Saws


Plunge Saws


Cordless

OPTIMISED FOR CORDLESS POWER TOOLS


Laminated Chipboard


Laminated MDF


Chipboard

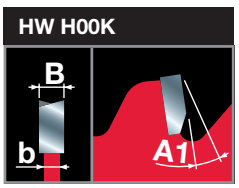

MDF

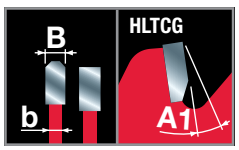
D mm	B mm	b mm	d mm	Z	Hook A1	NL	Freud Code	Art. No.
140	1,8	1,3	20	42	-5°	2/6/32,5	**FR04L001H**	F03FS09797
160	1,8	1,2	20	48	-5°	-	**FR06L003HC**	F03FS10075
160	2,2	1,6	20	48	-5°	2/6/32,5	**FR06L001H**	F03FS09798
160	2,2	1,6	20	48	-5°	-	**FR06L002H***	F03FS09799
165	1,8	1,2	20	48	-5°	-	**FR07L002HC**	F03FS10076
190	2,1	1,4	30	60	-5°	-	**FR13L002HC**	F03FS10077

TiCo Carbide MADE BY freud

Perma-SHIELD COATING

HW H00K





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Machines:
Cordless hand-held and plunge circular saws.

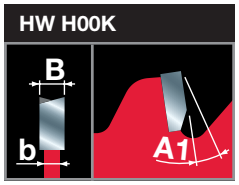
Materials:
Laminated and bilaminated panels, chipboard, MDF and fine-coated or veneered panels.

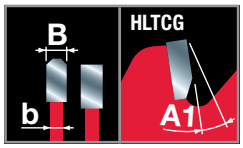
Technical information:
Specifically designed to maximise battery runtime and optimise ease of cut on cordless saws.
Thin kerf and ATB tooth with negative cutting angle.
*HLTCG with negative cutting angle.

CIRCULAR SAW BLADES FOR LAMINATED PANEL

For small table saws







*

Machines:
Small table saws.

Materials:
Laminated and bilaminated panels, chipboard, MDF and fine-coated or veneered panels.

Technical information:
ATB tooth with negative cutting angle.

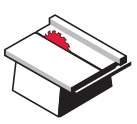
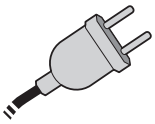


Table saws



Corded

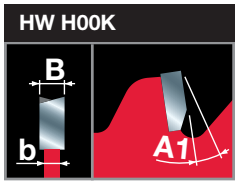


Laminated Chipboard | Laminated MDF | Chipboard | MDF

D mm	B mm	b mm	d mm	Z	Hook A1	NL	Freud Code	Art. No.
200	2,5	1,8	30	64	-2°	-	**FR14L001T**	F03FS09803
216	2,5	1,8	30	60	5°	2/6/42	**FR16L002T***	F03FS11518
250	2,8	1,8	30	80	-2°	-	**FR23L001T**	F03FS09804
300	2,8	1,8	30	96	-2°	-	**FR28L001T**	F03FS09805
305	2,8	1,8	30	96	5°	2/10/60	**FR29L001T***	F03FS11533

For cordless small table saws





Machines:
Cordless small table saws.

Materials:
Laminated and bilaminated panels, chipboard, MDF and fine-coated or veneered panels.

Technical information:
Specifically designed to maximise battery runtime and optimise ease of cut on cordless table saws. Thin kerf and ATB tooth with negative cutting angle.

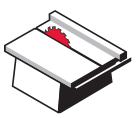
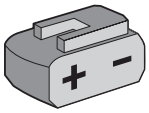


Table saws



Cordless





Laminated Chipboard | Laminated MDF | Chipboard | MDF

D mm	B mm	b mm	d mm	Z	Hook A1	NL	Freud Code	Art. No.
210	2,1	1,4	30	66	-5°	-	**FR15L001TC**	F03FS10078
216	2,1	1,4	30	66	-5°	-	**FR16L001TC**	F03FS10079

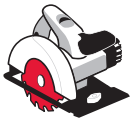
High Pressure Laminate



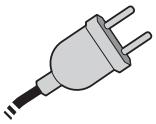


CIRCULAR SAW BLADES FOR HIGH PRESSURE LAMINATE

For hand-held and plunge circular saws


Hand-held Circular Saws


Plunge Saws

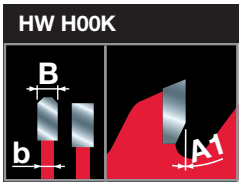

Corded


HPL


Solid surface

D mm	B mm	b mm	d mm	Z	Hook A1	NL	Freud Code	Art. No.
140	1,8	1,3	20	42	0°	2/6/32,5	**FR04H001H**	F03FS09864
160	2,2	1,6	20	48	0°	2/6/32,5	**FR06H001H**	F03FS09865
165	2,6	1,6	20	48	0°	2/6/32,5	**FR07H001H**	F03FS09866
190	2,6	1,6	20	56	0°	2/6/32,5	**FR13H001H**	F03FS09867
190	2,6	1,6	30	56	0°	2/7/42	**FR13H002H**	F03FS09868
210	2,8	1,8	30	60	0°	2/7/42	**FR15H001H**	F03FS09869
235	2,8	1,8	30	64	0°	2/7/42	**FR20H001H**	F03FS09871





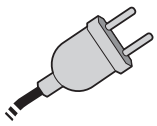
Machines:
Hand-held and plunge circular saws.

Materials:
High pressure laminate panels, suitable for Trespa© panels.

Technical information:
HLTCG with 0° cutting angle.

For mitre saws


Mitre saws


Corded

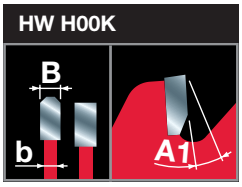

HPL


Solid surface

D mm	B mm	b mm	d mm	Z	Hook A1	NL	Freud Code	Art. No.
216	2,8	1,8	30	64	-3°	2/7/42	**FR16H001M**	F03FS09872
250	2,8	1,8	30	80	-3°	FT121	**FR23H001M**	F03FS09873
254	2,8	1,8	30	80	-3°	FT121	**FR24H001M**	F03FS09874
305	3,2	2,2	30	96	-3°	FT121	**FR29H001M**	F03FS09876

FT121: 2/7/42 + 2/9/46 + 2/9,5/46,5 + 2/10/60



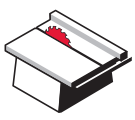


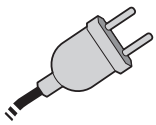
Machines:
Mitre saws.

Materials:
High pressure laminate panels, suitable for Trespa© panels.

Technical information:
HLTCG with negative cutting angle.

For small table saws


Table saws


Corded

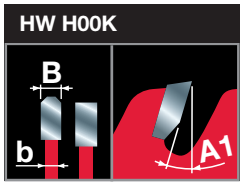

HPL


Solid surface

D mm	B mm	b mm	d mm	Z	Hook A1	NL	Freud Code	Art. No.
250	2,8	1,8	30	80	10°	FT121	**FR23H001T**	F03FS09877
300	3,2	2,2	30	96	10°	FT121	**FR28H001T**	F03FS09878

FT121: 2/7/42 + 2/9/46 + 2/9,5/46,5 + 2/10/60





Machines:
Small table saws.

Materials:
High pressure laminate panels, suitable for Trespa© panels.

Technical information:
HLTCG with positive cutting angle.

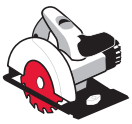
Aluminium



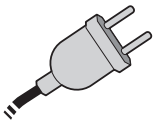
CIRCULAR SAW BLADES FOR ALUMINIUM



For hand-held and plunge circular saws

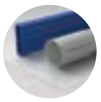

Hand-held Circular Saws


Plunge Saws


Corded


Aluminium

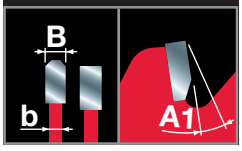

Copper and Brass


Plastics

TiCo Carbide MADE BY freud

Perma-SHIELD COATING

HW H01K



Machines:
Hand-held and plunge circular saws.

Materials:
Aluminium, other non-ferrous metals and plastics. Also suitable for chipboard and MDF.

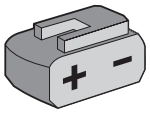
Technical information:
HLTCG tooth with negative cutting angle.

D mm	B mm	b mm	d mm	Z	Hook A1	NL	Freud Code	Art. No.
140	1,8	1,3	20	42	-5°	2/6/32,5	**FR04A001H**	F03FS09806
150	2,5	1,6	20	42	-5°	2/6/32,5	**FR05A001H**	F03FS09807
160	2,2	1,6	20	52	-5°	2/6/32,5	**FR06A001H**	F03FS09808
165	2,5	1,6	20	52	-5°	2/6/32,5	**FR07A001H**	F03FS09809
165	2,5	1,6	30	52	-5°	2/7/42	**FR07A002H**	F03FS09810
180	2,5	1,6	30	56	-5°	2/7/42	**FR09A001H**	F03FS09811
190	2,5	1,6	20	56	-5°	2/6/32,5	**FR13A001H**	F03FS09814
190	2,5	1,6	30	56	-5°	2/7/42	**FR13A002H**	F03FS09815
200	2,8	1,8	30	60	-5°	2/7/42	**FR14A001H**	F03FS09816
210	2,3	1,8	30	72	-5°	2/7/42	**FR15A001H**	F03FS09817
230	2,8	1,8	30	64	-5°	2/7/42	**FR19A001H**	F03FS09818
235	2,5	1,8	30	80	-5°	2/7/42	**FR20A001H**	F03FS09819

For cordless hand-held and plunge circular saws


Hand-held Circular Saws


Plunge Saws


Cordless

OPTIMISED FOR CORDLESS POWER TOOLS


Aluminium

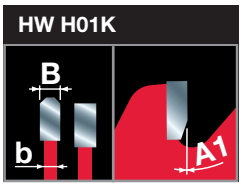

Copper and Brass


Plastics

TiCo Carbide MADE BY freud

Perma-SHIELD COATING

HW H01K



Machines:
Cordless hand-held and plunge circular saws.

Materials:
Aluminium, other non-ferrous metals and plastics. Also suitable for chipboard and MDF.

Technical information:
Specifically designed to maximise battery runtime and optimise ease of cut on cordless saws. Thin kerf and HLTCG tooth with 0° or negative cutting angle.

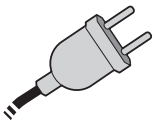
D mm	B mm	b mm	d mm	Z	Hook A1	NL	Freud Code	Art. No.
136	1,6	1,0	20	48	0°	-	**FR03A001HC**	F03FS10082
140	1,8	1,3	20	48	-5°	-	**FR04A002HC**	F03FS10083
150	1,8	1,3	20	48	0°	-	**FR05A002HC**	F03FS10084
160	1,8	1,3	20	54	0°	-	**FR06A002HC**	F03FS10085
160	2,2	1,6	20	52	-5°	2/6/32,5	**FR06A001H**	F03FS09808
165	1,8	1,3	20	54	0°	-	**FR07A002HC**	F03FS10086
190	1,8	1,3	30	54	0°	-	**FR13A003HC**	F03FS10088

CIRCULAR SAW BLADES FOR ALUMINIUM

For mitre saws



Mitre saws



Corded



Aluminium



Copper and Brass



Plastics

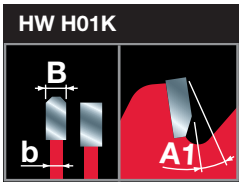
D mm	B mm	b mm	d mm	Z	Hook A1	NL	Freud Code	Art. No.
210	2,5	1,8	30	54	-5°	FT121	**FR15A001M**	F03FS09820
216	2,5	1,8	30	64	-5°	FT121	**FR16A001M**	F03FS09821
250	2,8	2,0	30	80	-5°	FT121	**FR23A001M**	F03FS09822
254	2,8	2,0	30	80	-5°	FT121	**FR24A001M**	F03FS09823
260	2,3	1,8	30	80	-5°	FT121	**FR26A001M**	F03FS09827
300	2,8	2,0	30	96	-5°	FT121	**FR28A001M**	F03FS09828
305	2,8	2,0	30	96	-5°	FT121	**FR29A001M**	F03FS09829
315	2,8	2,2	30	96	-5°	FT121	**FR30A001M**	F03FS09832
350	3,0	2,2	30	108	5°	2/10/60	**FR32A001M**	F03FS11534

FT121: 2/7/42 + 2/9/46 + 2/9,5/46,5 + 2/10/60

TiCo Carbide MADE BY freud

Perma-SHIELD COATING

HW H01K



Machines:
Mitre saws.

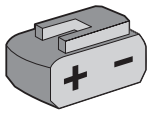
Materials:
Aluminium, other non-ferrous metals and plastics. Also suitable for chipboard and MDF.

Technical information:
HLTCG tooth with negative cutting angle.

For cordless mitre saws



Mitre saws



Cordless

OPTIMISED FOR CORDLESS POWER TOOLS



Aluminium



Copper and Brass



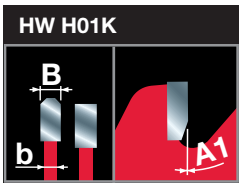
Plastics

D mm	B mm	b mm	d mm	Z	Hook A1	NL	Freud Code	Art. No.
216	2,0	1,4	30	66	0°	-	**FR16A002MC**	F03FS10089
250	2,4	1,8	30	78	0°	-	**FR23A002MC**	F03FS10090
254	2,4	1,8	30	78	0°	-	**FR24A002MC**	F03FS11526
305	2,4	1,8	30	96	0°	-	**FR29A004MC**	F03FS10091

TiCo Carbide MADE BY freud

Perma-SHIELD COATING

HW H01K



Machines:
Cordless mitre saws.

Materials:
Aluminium, other non-ferrous metals and plastics. Also suitable for chipboard and MDF.

Technical information:
Specifically designed to maximise battery runtime and optimise ease of cut on cordless mitre saws. Thin kerf and HLTCG tooth with 0° cutting angle.

For small table saws

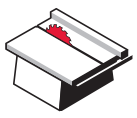
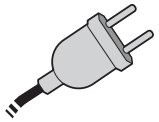


Table saws



Corded



Aluminium



Copper and Brass



Plastics

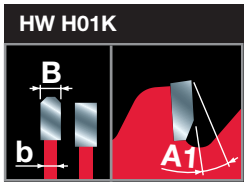
D mm	B mm	b mm	d mm	Z	Hook A1	NL	Freud Code	Art. No.
190	2,6	1,8	Star	58	-5°	-	**FR13A001T**	F03FS09833
225	2,6	1,8	30	68	-5°	FT121	**FR18A001T**	F03FS09834
250	2,8	2,0	30	68	-5°	FT121	**FR23A001T**	F03FS09835
280	2,8	2,0	30	84	-5°	2/10/60	**FR27A001T**	F03FS11529

FT121: 2/7/42 + 2/9/46 + 2/9,5/46,5 + 2/10/60

TiCo Carbide MADE BY freud

Perma-SHIELD COATING

HW H01K



Machines:
Small table saws.

Materials:
Aluminium, other non-ferrous metals and plastics. Also suitable for chipboard and MDF.

Technical information:
HLTCG tooth with negative cutting angle.

CIRCULAR SAW BLADES FOR ALUMINIUM

For cordless small table saws

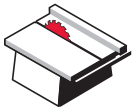
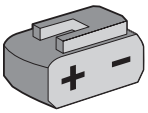


Table saws



Cordless

OPTIMISED FOR CORDLESS POWER TOOLS



Aluminium



Copper and Brass



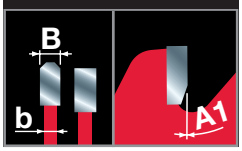
Plastics

D mm	B mm	b mm	d mm	Z	Hook A1	NL	Freud Code	Art. No.
210	2,0	1,4	30	66	0°	-	**FR15A001TC**	F03FS10092
216	2,0	1,4	30	66	0°	-	**FR16A001TC**	F03FS10093

TiCo Carbide MADE BY freud

Perma-SHIELD COATING

HW H01K



Machines:
Cordless small table saws.

Materials:
Aluminium, other non-ferrous metals and plastics. Also suitable for chipboard and MDF.

Technical information:
Specifically designed to maximise battery runtime and optimise ease of cut on cordless table saws. Thin kerf and HLTCG tooth with 0° cutting angle.

LP88M — Saw blades to cut non-ferrous metals



Mitre saws



Aluminium



Copper and Brass

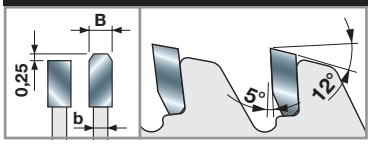
D mm	B mm	b mm	d mm	Z	Hook A1	Freud Code	Art. No.
255	2,6	2,0	15,88	100	5°	**LP88M 003P**	F03FS09410
255	2,6	2,0	25,4	100	5°	**LP88M 007P**	F03FS09590
255	2,6	2,0	15,88	120	5°	**LP88M 004P**	F03FS09411
255	2,6	2,0	25,4	120	5°	**LP88M 002P**	F03FS09289
305	2,8	2,2	25,4	100	5°	**LP88M 005P**	F03FS09412
305	2,8	2,2	25,4	120	5°	**LP88M 006P**	F03FS09413



TiCo Carbide MADE BY freud

Silver I.C.E. COATING

HW K10S - HLTCG



Machines:
Mitre saws.

Materials:
Aluminium and non-ferrous metals.

Technical information:
HLTCG with positive cutting angle.

Fibre Cement



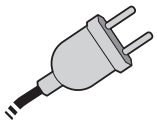
CIRCULAR SAW BLADES FOR FIBRE CEMENT

For hand-held and plunge circular saws




Hand-held Circular Saws


Plunge Saws


Corded

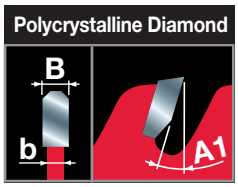

Fibre Cement


Plasterboard

D mm	B mm	b mm	d mm	Z	Hook A1	NL	Freud Code	Art. No.
140	1,8	1,3	20	4	10°	2/6/32,5	**FR04F001H**	F03FS09836
160	1,8	1,2	20	4	10°	-	**FR06F002HC**	F03FS10095
160	2,2	1,6	20	4	10°	2/6/32,5	**FR06F001H**	F03FS09837
165	2,2	1,6	20	4	10°	2/6/32,5	**FR07F001H**	F03FS09838
182	2,2	1,6	19,05	4	10°	-	**FR10F001H**	F03FS11506
184	2,2	1,6	30	4	10°	2/7/42	**FR11F001H**	F03FS09840
190	2,2	1,6	20	4	10°	2/6/32,5	**FR13F001H**	F03FS09841
190	2,2	1,6	30	4	10°	2/7/42	**FR13F002H**	F03FS09842
210	2,2	1,6	30	6	10°	2/7/42	**FR15F001H**	F03FS09843
230	2,2	1,6	30	6	10°	2/7/42	**FR19F001H**	F03FS09844
235	2,2	1,6	30	6	10°	2/7/42	**FR20F001H**	F03FS09845







Machines:
Hand-held and plunge circular saws.

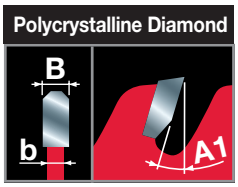
Materials:
Fibre cement and plasterboard.

Technical information:
Polycrystalline Diamond teeth for long lifetime in abrasive materials.
TCG tooth with positive cutting angle.

For cordless hand-held and plunge circular saws



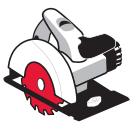




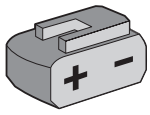
Machines:
Cordless hand-held and plunge circular saws.

Materials:
Fibre cement and plasterboard.

Technical information:
Specifically designed to maximise battery runtime and optimise ease of cut on cordless saws.
Thin kerf and TCG tooth with positive cutting angle.
Polycrystalline Diamond teeth for long lifetime in abrasive materials.


Hand-held Circular Saws


Plunge Saws


Cordless

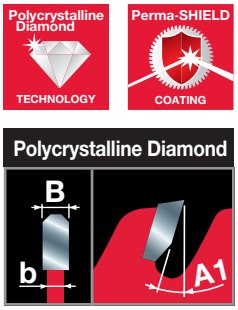



Fibre Cement

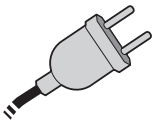

Plasterboard

D mm	B mm	b mm	d mm	Z	Hook A1	NL	Freud Code	Art. No.
140	1,8	1,3	20	4	10°	2/6/32,5	**FR04F001H**	F03FS09836
160	1,8	1,2	20	4	10°	-	**FR06F002HC**	F03FS10095
160	2,2	1,6	20	4	10°	2/6/32,5	**FR06F001H**	F03FS09837
165	1,8	1,2	20	4	10°	-	**FR07F002HC**	F03FS10096
190	1,8	1,2	30	4	10°	-	**FR13F003HC**	F03FS10097

For mitre saws




Mitre saws


Corded


Fibre Cement


Plasterboard

Machines:
Mitre saws.

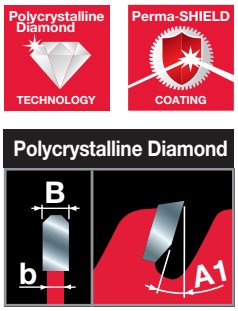
Materials:
Fibre cement and plasterboard.

Technical information:
Polycrystalline Diamond teeth for long lifetime in abrasive materials.
TCG tooth with positive cutting angle.

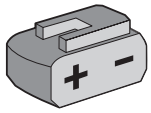
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250	2,4	1,8	30	6	10°	FT121	**FR23F001M**	F03FS09847
254	2,4	1,8	30	6	10°	FT121	**FR24F001M**	F03FS09848
260	2,4	1,8	30	6	10°	FT121	**FR26F001M**	F03FS09849
300	2,4	1,8	30	8	10°	FT121	**FR28F001M**	F03FS09850
305	2,4	1,8	30	8	10°	FT121	**FR29F001M**	F03FS09851

FT121: 2/7/42 + 2/9/46 + 2/9,5/46,5 + 2/10/60

For cordless mitre saws




Mitre saws


Cordless




Fibre Cement


Plasterboard

Machines:
Cordless mitre saws.

Materials:
Fibre cement and plasterboard.

Technical information:
Specifically designed to maximise battery runtime and optimise ease of cut on cordless mitre saws.
Thin kerf and TCG tooth with positive cutting angle.
Polycrystalline Diamond teeth for long lifetime in abrasive materials.

D mm	B mm	b mm	d mm	Z	Hook A1	NL	Freud Code	Art. No.
216	2,0	1,4	30	6	10°	-	**FR16F002MC**	F03FS10098
250	2,2	1,6	30	6	10°	-	**FR23F002MC**	F03FS10099
305	2,2	1,6	30	8	10°	-	**FR29F002MC**	F03FS10100

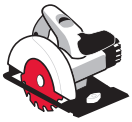
Sandwich Panel



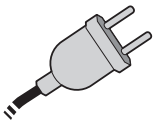
CIRCULAR SAW BLADES FOR SANDWICH PANEL

For hand-held circular saws





Hand-held Circular Saws



Corded

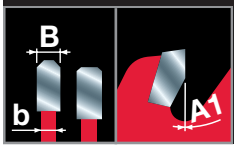


Sandwich Panel

TiCo Carbide MADE BY freud

Perma-SHIELD COATING

HW TF30



Machines:
Hand-held circular saws.

Materials:
Sandwich panels with sheet steel layers.

Technical information:
HLTCG with chamfer also on second tooth.
0° cutting angle.

D mm	B mm	b mm	d mm	Z	Hook A1	NL	Freud Code	Art. No.
160	2,0	1,6	20	30	0°	2/6/32,5	**FR06X001H**	F03FS09852
165	2,0	1,6	20	30	0°	2/6/32,5	**FR07X001H**	F03FS09853
182	2,0	1,6	19,05	36	0°	-	**FR10X001H**	F03FS11510
190	2,0	1,6	30	36	0°	2/7/42	**FR13X001H**	F03FS09854
210	2,4	2,0	30	36	0°	2/7/42	**FR15X001H**	F03FS09855
230	2,2	1,8	30	48	0°	2/7/42	**FR19X001H**	F03FS09856
235	2,2	1,8	30	50	0°	2/7/42	**FR20X001H**	F03FS09857
240	2,6	1,6	30	48	0°	2/7/42	**FR22X001H**	F03FS09858
270	2,4	2,0	30	60	0°	2/7/42	**FR27X001H**	F03FS09859
350	2,9	2,5	30	60	0°	2/7/42	**FR32X001H**	F03FS09861
355	2,6	2,2	30	80	0°	2/7/42	**FR33X001H**	F03FS09862

Multi Material



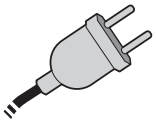
CIRCULAR SAW BLADES FOR MULTI MATERIAL



For hand-held and plunge circular saws


Hand-held Circular Saws


Plunge Saws


Corded


Plywood


Chipboard


MDF


Aluminium


Copper and Brass


Plastics

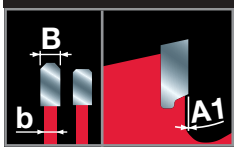

Thin-walled Steel

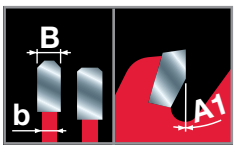
D mm	B mm	b mm	d mm	Z	Hook A1	NL	Freud Code	Art. No.
160	2,0	1,6	20	30	0°	-	**FR06M001H ***	F03FS10114
184	2,0	1,6	30	36	0°	-	**FR11M001H ***	F03FS10113
185	2,0	1,6	20	36	0°	-	**FR12M001H**	F03FS11512
190	2,0	1,6	30	38	0°	-	**FR13M001H ***	F03FS10041
230	2,4	2,0	30	44	0°	-	**FR19M001H**	F03FS10042





HW TF30 *





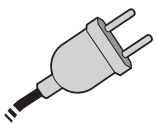
Machines:
Hand-held and plunge circular saws.

Materials:
Wood based materials, aluminium and other non-ferrous materials, plastics and thin-walled steel profiles.

Technical information:
Suitable to cut a variety of different materials.
HLTCG with chamfer also on second tooth.
0° cutting angle.

For mitre saws


Mitre Saws


Corded


Plywood


Chipboard


MDF


Aluminium


Copper and Brass


Plastics

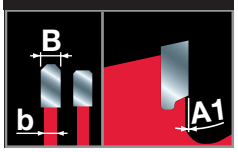

Thin-walled Steel

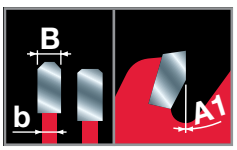
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210	2,0	1,6	30	40	0°	-	**FR15M001M ***	F03FS09886
216	2,0	1,6	30	40	0°	-	**FR16M001M ***	F03FS09887
250	2,4	2,0	30	48	0°	-	**FR23M001M**	F03FS09888
254	2,4	2,0	30	48	0°	-	**FR24M001M**	F03FS09889
300	2,6	2,0	30	80	0°	-	**FR28M001M**	F03FS09890
305	2,6	2,0	30	80	0°	-	**FR29M001M**	F03FS09891





HW TF30 *



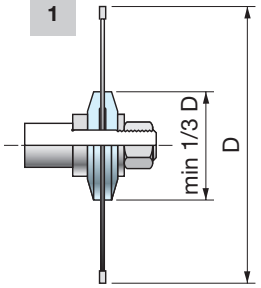


Machines:
Mitre saws.

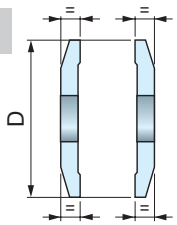
Materials:
Wood based materials, aluminium and other non-ferrous materials, plastics and thin-walled steel profiles.

Technical information:
Suitable to cut a variety of different materials.
HLTCG with chamfer also on second tooth.
0° cutting angle.

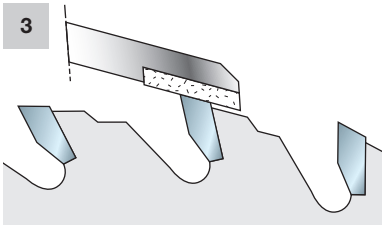
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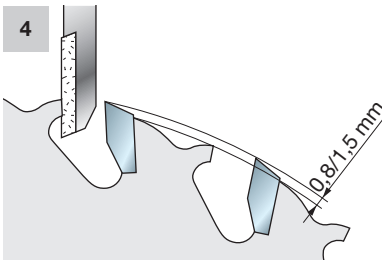
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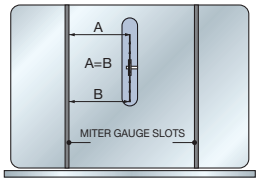
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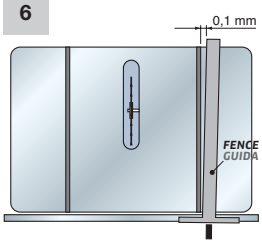
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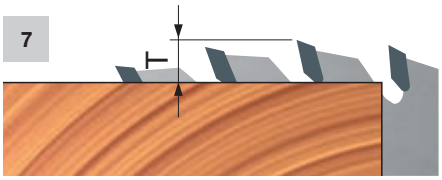
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6



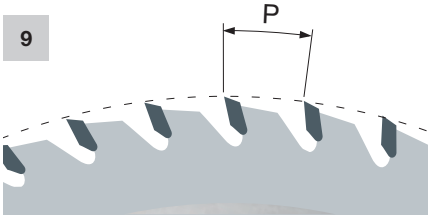
7



8



9



10



TIPS FOR THE CORRECT USE OF A CIRCULAR SAW BLADE

To obtain the best performance from a saw blade we suggest following these simple instructions:

- The machine must be in good condition, free from vibrations.
- The flanges used to secure the blade must be of the same diameter, at least 1/3 of the blade diameter (Fig. 1).
- The flanges must be parallel to each other. Also check tolerances on diameters, sides and concentricity, by using a clock gauge (Fig. 2).
- After continuous use, remove the blade and clean it with the appropriate solvents making sure to get rid of built up resin. For the synthetic coated (Perma-SHIELD Coating) blades, it is sufficient to use warm water. In any case, avoid using solvents containing caustic soda.
- The blades must be sharpened as soon as they become dull, maintaining the original tooth angles.
- For sharpening, always use the correct grinding wheels and plenty of cooling liquid.
- Always keep flanges clean.
- When sharpening, the shoulder of the teeth must not be lowered more than needed. This operation must be done with appropriate precision machinery and never by hand. There is the risk of breaking the tip or upsetting the blade balance (Fig. 3 - 4).
- Before starting the cut of the material, make sure the blade is correctly locked according to the machines specifications.

Saw blade alignment on a table saw

- If the saw blade and the saw are not correctly aligned to the table and the fence, then there is the possibility that a serious accident may occur (for example, violent kickbacks) or that the workpiece may scorch or splinter. The first thing you must do is read the instruction sheet carefully. This is necessary to acquire the understanding and comprehension of the corrections suggested in this section.
- Before carrying out the following instuctions, make sure that the starter switch is off and that the machine is not connected to the socket.
- Mounting the saw blade onto the table:
  We advise using precise measuring instruments when mounting a saw blade. Clean the saw blade well, before mounting it onto the machine. Mount the saw blade onto the arbor. Adjust the arbor to its maximum height. With the aid of the most precise measuring instrument available, verify that the saw blade is parallel to the mitre gauge slots (Fig. 5). Adjust as needed. This step is necessary to obtain crosscuts with the maximum in quality finish and for setting up the fence for ripping.
- Positioning the fence for ripping:
  After having positioned the saw blade so as it is parallel to the mitre gauge slots, you may proceed with setting the fence. The fence should ideally be parallel to the saw blade. However since it is impossible to position the guide “exactly” it is necessary to leave a slight margin of clearance on the exit side of the cut so as to avoid the wood becoming wedged in between the fence and the saw blade.
  Adjust the fence so as when it is aligned to the mitre gauge slots, there is a space of 0,1 mm (Fig. 6; for the correct adjustment, consult the machine’s instruction manual).
- The maximum RPM of a circular saw blade varies according to the diameter of the blade itself (table 1). If you exceed this limit, the saw blade will lose its characteristics, therefore influencing the cutting quality and the work life of the blade itself, not to mention the dangers implied to the user who may incur serious injury.
- The saw blade’s projection (T) with respect to the workpiece must be at least equal to the height of the blade’s tooth (Fig. 7). Increase or decrease the projection of the saw blade to improve the quality of the cutting finish.
- The number of teeth cutting the wood simultaneously (Fig. 8) must be between 3 or 4. With less than three teeth cutting, the saw blade begins to vibrate leading to an uneven cut. If you want to cut workpieces with increased thicknesses (S - Fig. 10), but wish to maintain the same diameter saw blade, then use a blade with less teeth. If instead you want to cut workpieces with a reduced thickness, but also maintain the same diameter saw blade, then use a blade with more teeth.
- To obtain the pitch **(P)** of a blade (the distance between teeth: Fig. 9 - see formula **“A”**) multiply the thickness of the workpiece by 1,4142 and divide by 3 (if you want 3 teeth cutting) or by 4 (if you want 4 teeth cutting).
- Formula **“B”**: to obtain the number of teeth **(Z)** of the saw blade, multiply the diameter **(D)** of the saw blade by 3,14 (π) and divide by the pitch of the saw blade - obtained from the previous formula. The shorter formula **“C”** allows you to obtain the number of the saw blade’s teeth, knowing its diameter and the thickness of the workpiece.

Formula A	Formula B	Formula C
$P = \frac{S \times 1,4142}{3}$	$Z = \frac{D \times 3,14}{P}$	$Z = \frac{D \times 8}{S}$

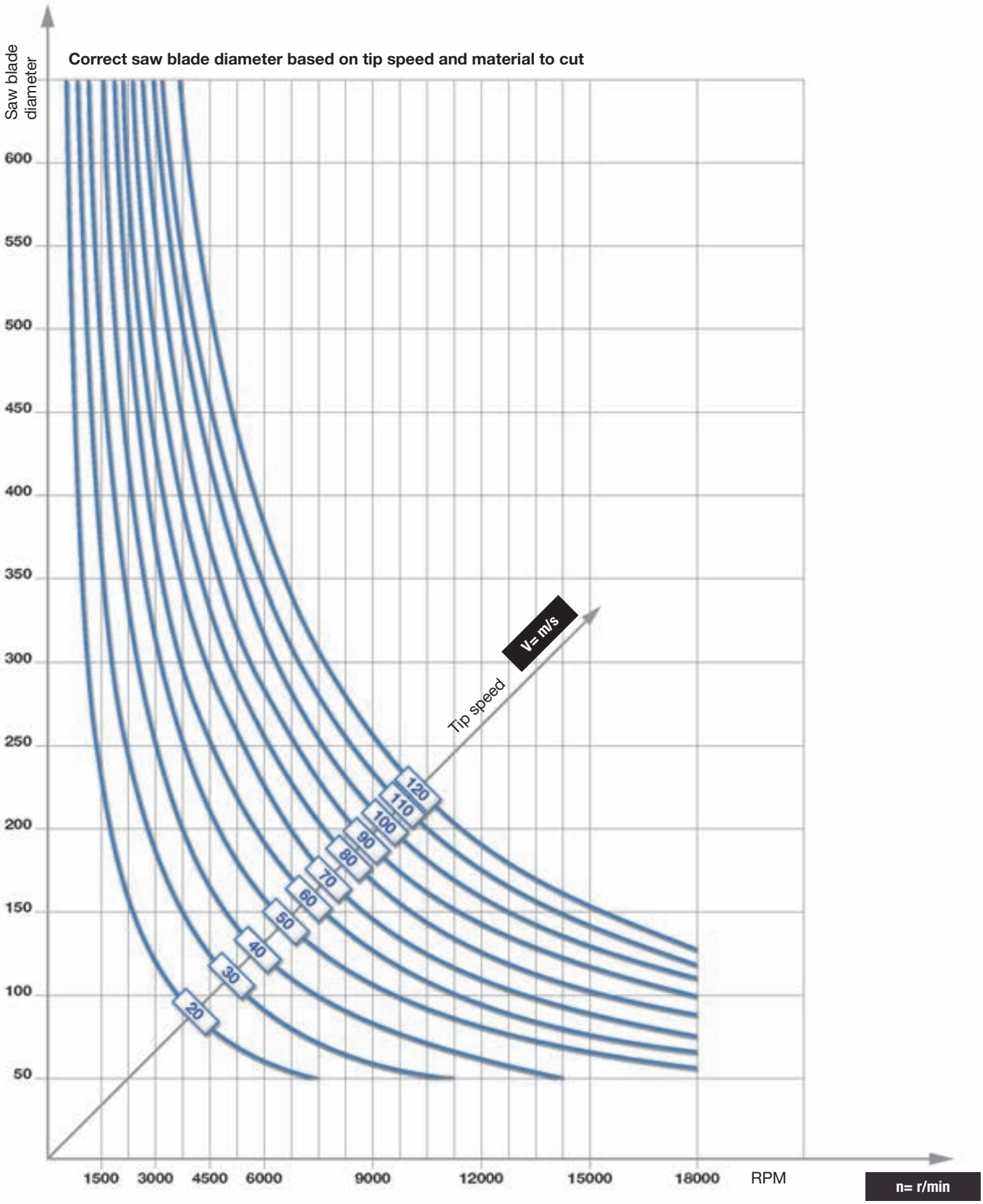
KEY:
P= Pitch
S= Thickness of the workpiece
Z= Number of teeth of the saw blade
D= Diameter of the saw blade

Attention:
These formulas are valid for crosscutting and cutting other wood composites (MDF, plywood, chipboard and laminated panels) and cannot be applied for ripping.

TIPS FOR THE CORRECT USE OF A CIRCULAR SAW BLADE

Tip speed (m/s)	Recommended for
50 - 90	Softwood
50 - 80	Hardwood
50 - 85	Exotic wood
60 - 80	Chipboard
60 - 80	Joinery wood
30 - 60	MDF
40 - 60	Laminated and bilaminated

Correct saw blade diameter based on tip speed and material to cut

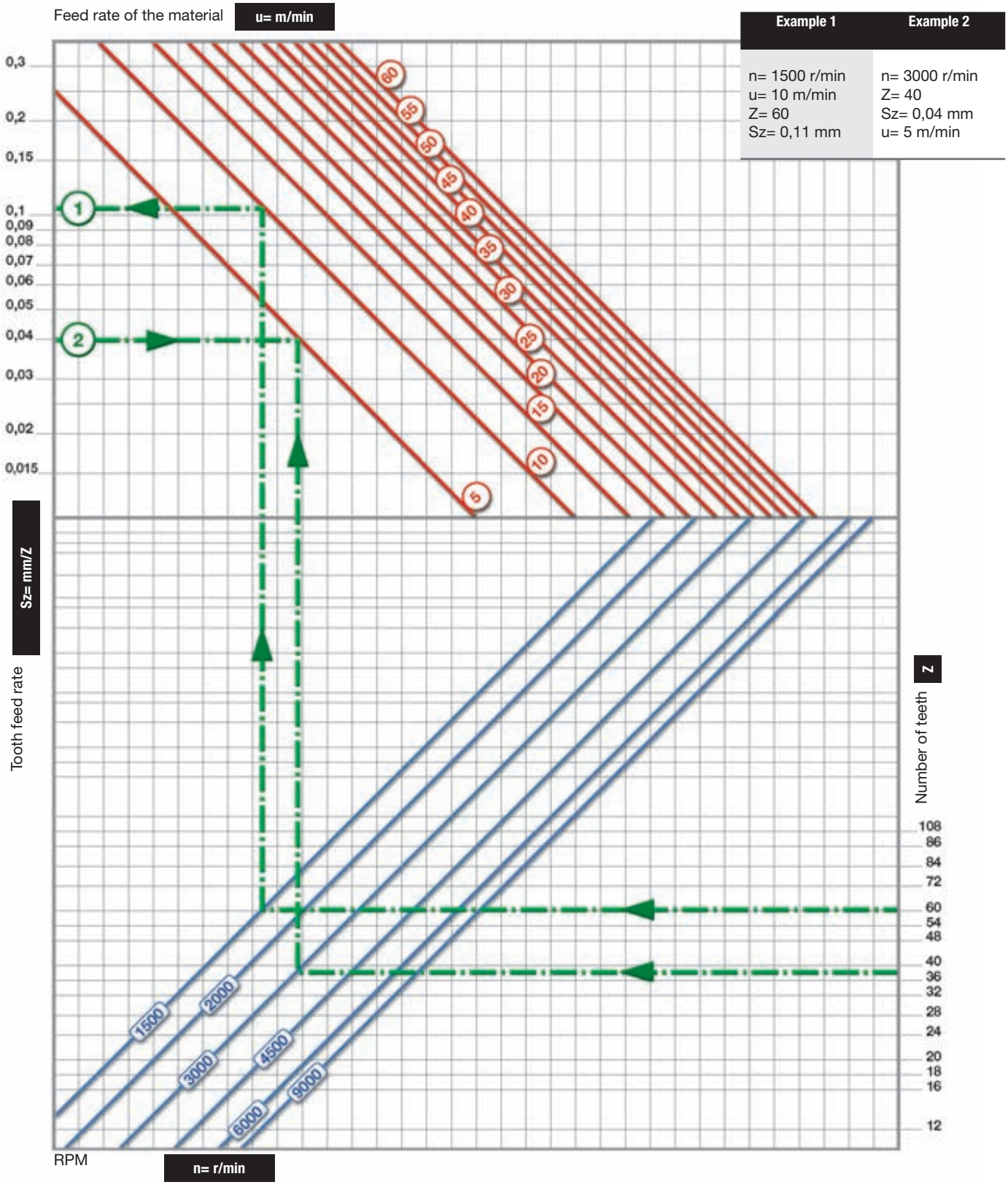


TIPS FOR THE CORRECT USE OF A CIRCULAR SAW BLADE

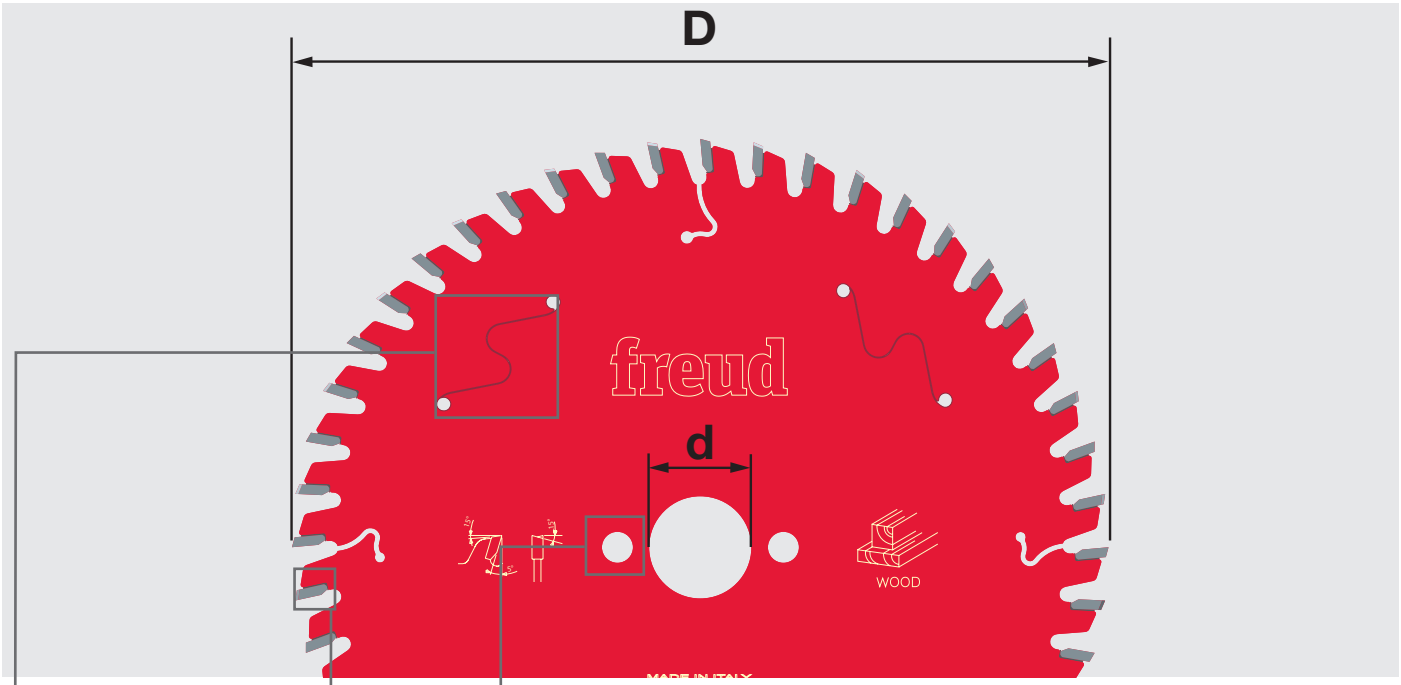
Correct tooth feed rate, material feedrate, number of teeth and RPM

Recommended tooth feed rate (Sz= mm/tooth)	Recommended for
0,20 - 0,30	Softwood with grain
0,10 - 0,20	Softwood cross grain
0,06 - 0,15	Hardwood
0,10 - 0,25	Chipboard

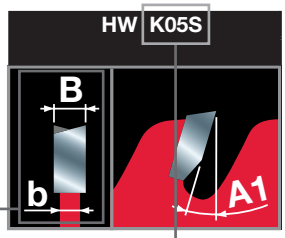
Recommended tooth feed rate (Sz= mm/tooth)	Recommended for
0,05 - 0,12	Plywood
0,05 - 0,10	Laminated board
0,02 - 0,05	Aluminium and plastic laminated chipboard



EXPLANATION OF SYMBOLS AND ABBREVIATIONS

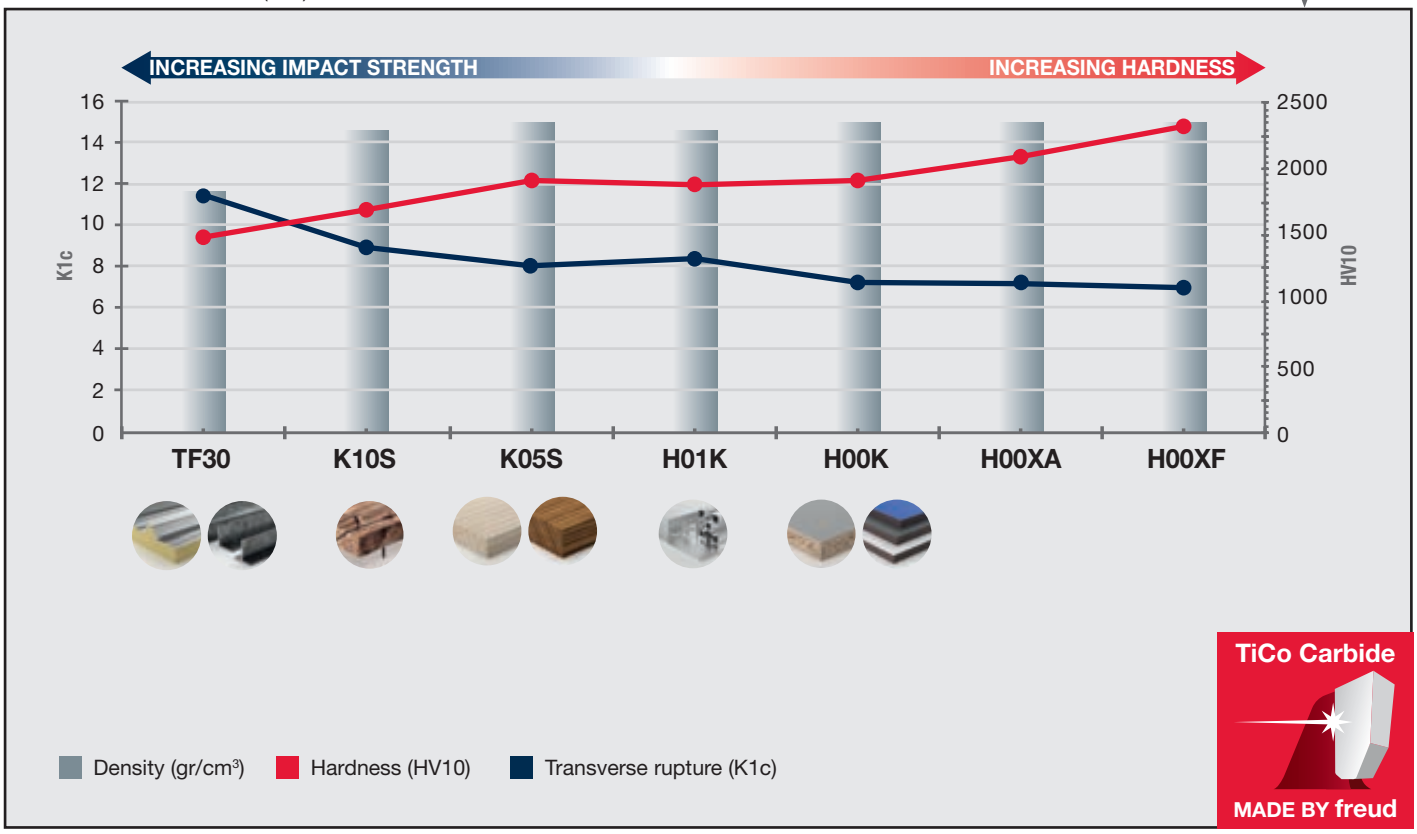


D mm	B mm	b mm	d mm	Z	NL	Code	SAP
250	3,2	2,2	30	22	FT01	**ABCD 1234**	A00BC01234
250	3,2	2,2	70	22	4CH 21x5	**ABCD 1234**	A00BC01234
300	3,2	2,2	30	26	FT01	**ABCD 1234**	A00BC01234



Tooth features

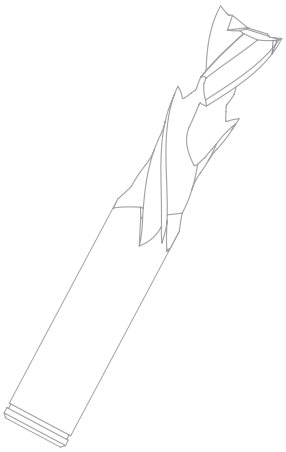
MICRO-GRAIN CARBIDE (HW) HARDNESS USED FOR MANUFACTURING TIPS

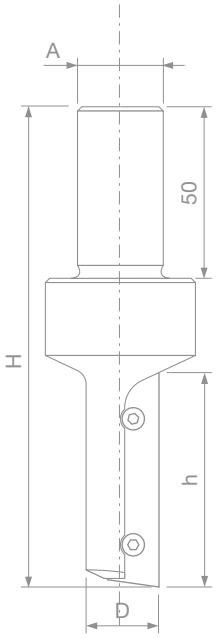


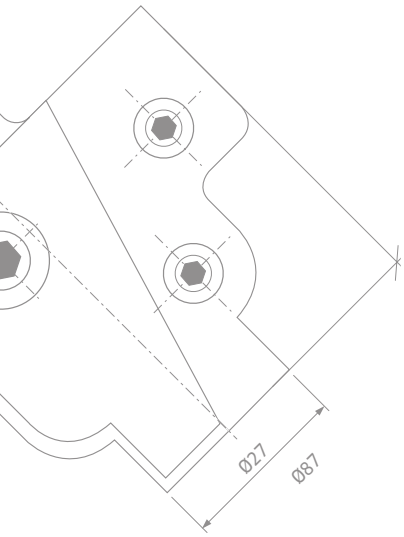
Routing Tools for CNC Machines

Freud's wide range of superior quality routing, drilling and CNC tools for high-speed and fully automated routing machines leverages outstanding technical know-how, advanced manufacturing processes and finest quality materials.
Designed to perform precise and burn free cuts, these tools deliver superior performance, perfect finishing and maximum lifetime.
All routing tools feature Freud's unique and industry-first attributes.









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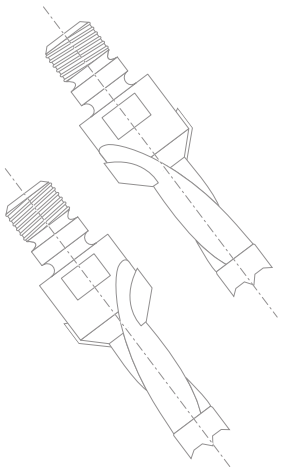
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PCN140 Customised CNC router cutter with profiled knives ..... Page 184
NC50MCA CNC router cutter with multiradius knives ..... Page 185
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DRILLING

Drill bits for blind holes

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Countersinks for drill bits

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Boring bits for hinges

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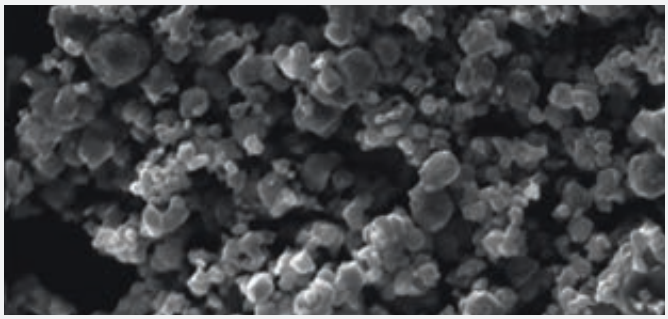
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LEADING TECHNOLOGY

TiCo CARBIDE TECHNOLOGY

Freud's ownership and control of the entire Carbide production cycle ensures that the correct formula is used for the specific application needs, to constantly maximise the routing tool performance.

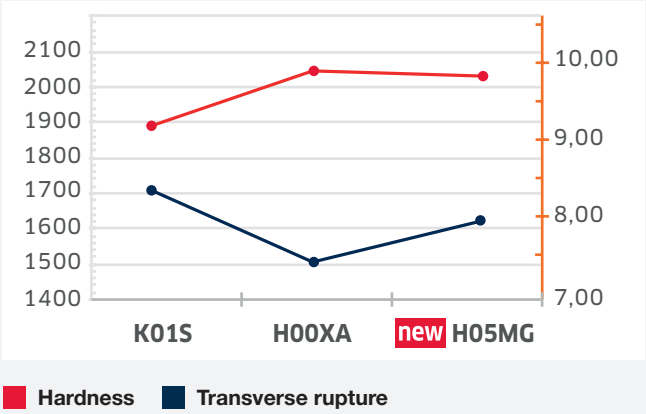
TiCo Carbide
A specially formulated, highly compact Titanium Cobalt Carbide, engineered and manufactured by freud.
It provides a sharper edge and flawless finish with a dramatically longer cutting life.

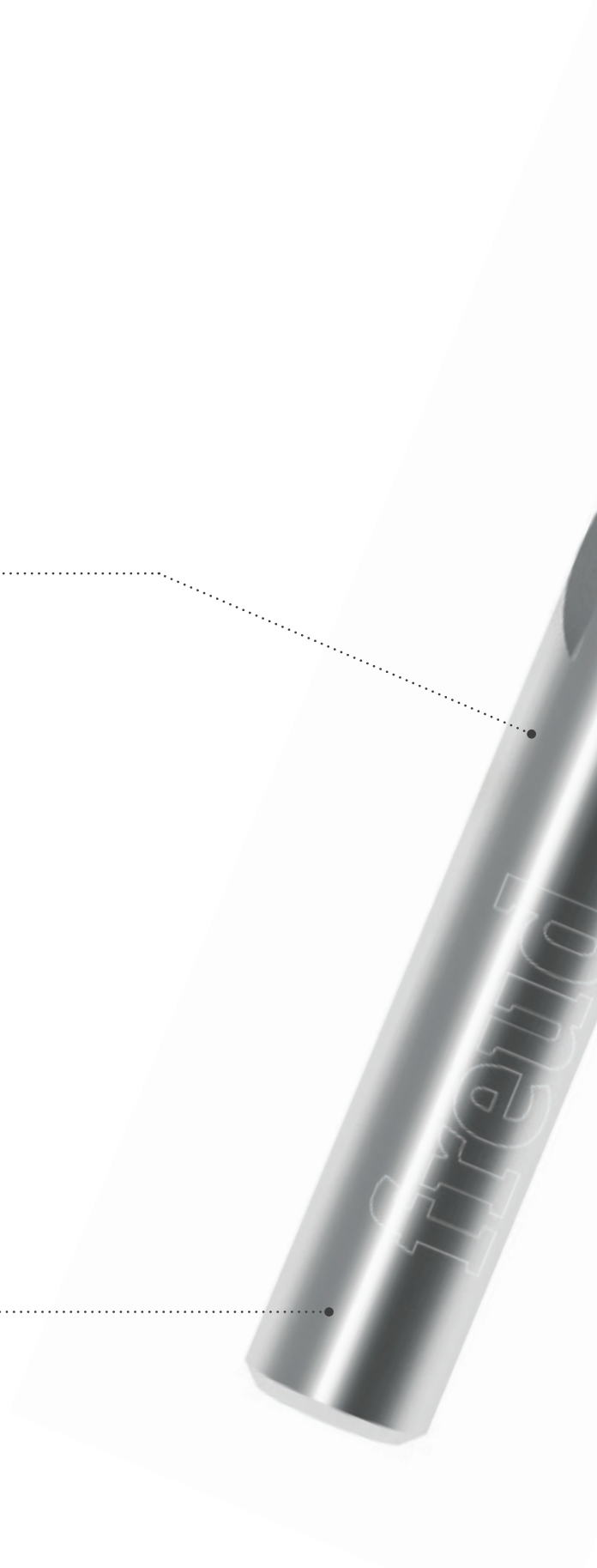


CARBIDE INNOVATION

The continuous investment in new Carbide recipe development maintains the router performance at unmatched quality levels.

For example, the SCH range features the new micro-grain Carbide **H05MG**, specifically formulated for a high level of hardness and tenacity, to achieve the greatest resistance to wear and impact.



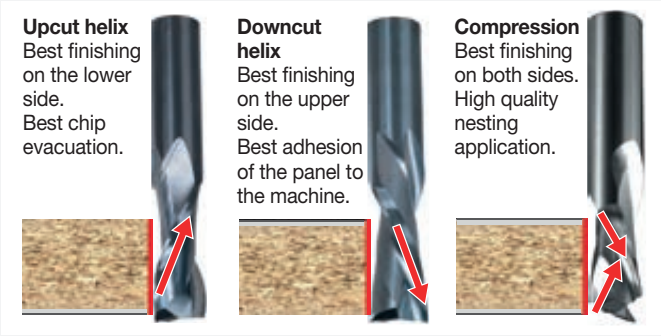




DESIGN INNOVATION

Freud leverages its market knowledge and technical know-how to constantly develop new geometries for its routing tools and guarantee superior cutting performance in demanding applications.

The new helix designs and geometries, designed for the SCH range, deliver flawless results and impeccable finishing across a number of applications:



EXTENSIVE RANGE

Freud offers different solutions for specific application needs. The wide range includes a selection of router cutters that combines the efficiency of the cutterheads with the versatility given by the shank.

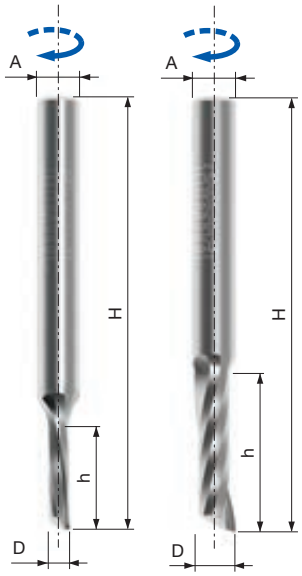


Sizing



SCH1UF

Finishing router cutter upcut with right-hand Z1

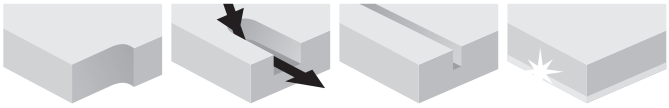




CNC Routers | Up spiral | For table mounted only



Softwood | Hardwood | Chipboard | Laminated Chipboard | MDF | Laminated MDF | Plywood



Sizing | Plunging | Grooving | Better Finishing on Bottom

Machines:
Nesting and CNC overhead routing machines.

Materials:
Softwood, hardwood and wood based panels.

Applications:
Sizing, plunging and grooving.

Technical information:
Solid Carbide bit with positive helix designed for CNC routing with large gullet space for high chips removal.

- Suitable for sizing, plunging and grooving with a perfect finishing.
- Upcut helix, good chip flow, upward chip removal for best finishing on the lower side of the panel.

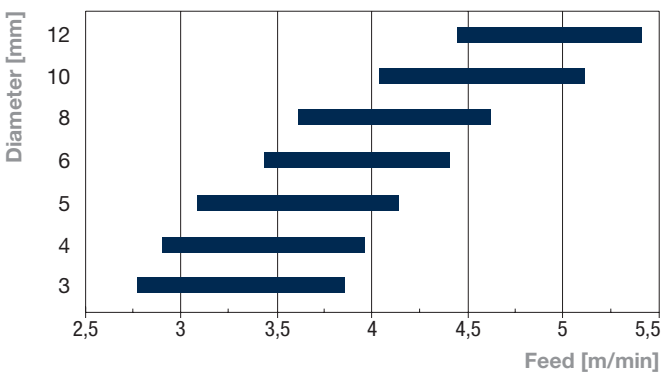
D mm	h mm	H mm	A mm	Quality of HW	Z	Max RPM	Freud Code	Art. No.
3	13	60	6	MG10	1	30.000	**SCH1UFN110R**	F03FR03639
4	15	50	4	MG10	1	30.000	**SCH1UFN210R**	F03FR03645
4	16	60	6	MG10	1	30.000	**SCH1UFN120R**	F03FR03640
5	17	50	5	MG10	1	30.000	**SCH1UFN215R**	F03FR03646
5	17	60	6	MG10	1	30.000	**SCH1UFN130R**	F03FR03641
5	17	60	8	MG10	1	30.000	**SCH1UFN160R**	F03FR03644
6	17	50	6	MG10	1	30.000	**SCH1UFN220R**	F03FR03647
6	22	60	6	MG10	1	30.000	**SCH1UFN225R**	F03FR03648
8	22	70	8	MG10	1	30.000	**SCH1UFN235R**	F03FR03650
8	32	80	8	MG10	1	30.000	**SCH1UFN240R**	F03FR03651
8	42	90	8	MG10	1	30.000	**SCH1UFN245R**	F03FR03652
10	32	80	10	H05MG	1	30.000	**SCH1UFN255R**	F03FR03654
10	42	100	10	H05MG	1	30.000	**SCH1UFN260R**	F03FR03655
10	52	100	10	H05MG	1	30.000	**SCH1UFN265R**	F03FR03656
12	32	80	12	H05MG	1	30.000	**SCH1UFN270R**	F03FR03657
12	52	100	12	H05MG	1	30.000	**SCH1UFN275R**	F03FR03658

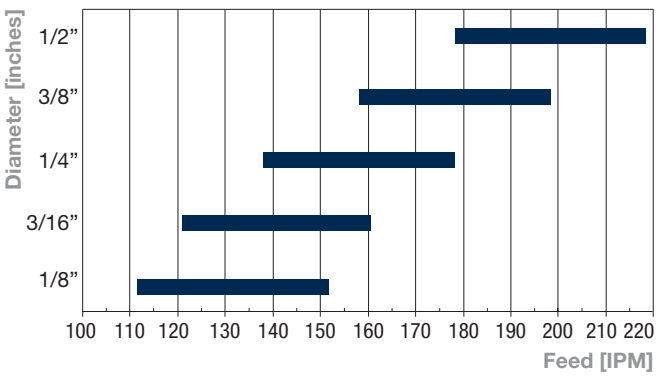
D inch	h inch	H inch	A inch	Quality of HW	Z	Max RPM	Freud Code	Art. No.
1/8	1/2	2-1/2	1/4	MG10	1	30.000	**SCH1UFN140R**	F03FR03642
3/16	3/4	2-1/2	1/4	MG10	1	30.000	**SCH1UFN150R**	F03FR03643
1/4	1	2-1/2	1/4	MG10	1	30.000	**SCH1UFN230R**	F03FR03649
3/8	1-1/8	3	3/8	H05MG	1	30.000	**SCH1UFN250R**	F03FR03653
1/2	1-5/16	3	1/2	H05MG	1	30.000	**SCH1UFN280R**	F03FR03659

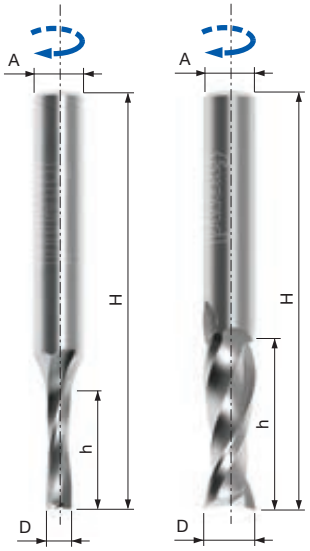
Working parameters
To find suggested feeding speeds see the tables below and apply the following correction factors.
Materials:
Hardwood: 0,9
MDF, Chipboard: 1,1
Depth of cut:
From 1 x **D** to 2 x **D** : 0,75
From 2 x **D** to 3 x **D** : 0,5
Over 3 x **D** : 0,4
Rotation speed:
Suggested speeds are proportional to RPM.
Examples:
Factor for 12.000 RPM: 12.000/18.000 = 0,66
Factor for 24.000 RPM: 24.000/18.000 =1,33

To maximise the tool lifetime, always set the maximum speed that delivers the needed quality of cut.

Suggested speeds for softwood: 18.000 RPM.
Depth of cut equal to cutting diameter.







SCH2UF

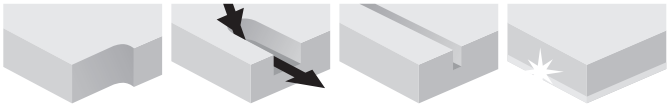
Finishing router cutter upcut with right-hand Z2



CNC Routers | Up spiral | For table mounted only



Softwood | Hardwood | Chipboard | Laminated Chipboard | MDF | Laminated MDF | Plywood



Sizing | Plunging | Grooving | Better Finishing on Bottom

Machines:
Nesting and CNC overhead routing machines.

Materials:
Softwood, hardwood and wood based panels.

Applications:
Sizing, plunging and grooving.

Technical information:
Solid Carbide with positive helix bit designed for CNC routing for general purpose with perfect finishing.

- Suitable for sizing, plunging and grooving with a perfect finishing.
- Upcut helix, good chip flow, upward chip removal for best finishing on the lower side of the panel.

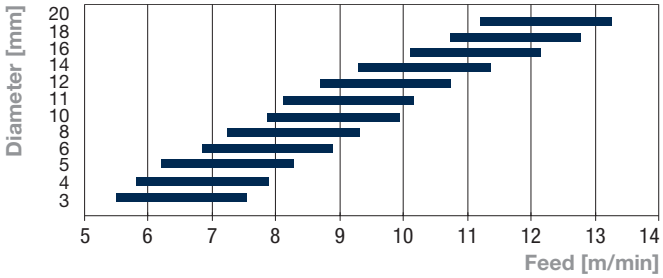
Working parameters
To find suggested feeding speeds see the tables below and apply the following correction factors.
Materials:
Hardwood: 0,9
MDF, Chipboard: 1,1
Depth of cut:
From 1 x **D** to 2 x D : 0,75
From 2 x **D** to 3 x D : 0,5
Over 3 x **D** : 0,4
Rotation speed:
Suggested speeds are proportional to RPM.
Examples:
Factor for 12.000 RPM: 12.000/18.000 = 0,66
Factor for 24.000 RPM: 24.000/18.000 =1,33

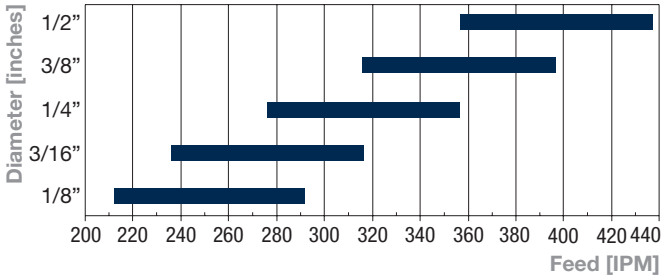
To maximise the tool lifetime, always set the maximum speed that delivers the needed quality of cut.

Suggested speeds for softwood: 18.000 RPM.
Depth of cut equal to cutting diameter.

D mm	h mm	H mm	A mm	Quality of HW	Z	Max RPM	Freud Code	Art. No.
3	13	50	6	MG10	2	30.000	**SCH2UFN110R**	F03FR03696
3	13	50	8	MG10	2	30.000	**SCH2UFN135R**	F03FR03701
4	15	50	4	MG10	2	30.000	**SCH2UFN204R**	F03FR03709
4	16	50	6	MG10	2	30.000	**SCH2UFN115R**	F03FR03697
4	16	50	8	MG10	2	30.000	**SCH2UFN140R**	F03FR03702
5	17	50	5	MG10	2	30.000	**SCH2UFN208R**	F03FR03710
5	17	60	6	MG10	2	30.000	**SCH2UFN120R**	F03FR03698
5	17	50	8	MG10	2	30.000	**SCH2UFN145R**	F03FR03703
6	17	60	6	MG10	2	30.000	**SCH2UFN212R**	F03FR03711
6	22	60	6	MG10	2	30.000	**SCH2UFN216R**	F03FR03712
6	25	60	8	MG10	2	30.000	**SCH2UFN150R**	F03FR03704
7	32	80	8	MG10	2	30.000	**SCH2UFN155R**	F03FR03705
8	22	70	8	MG10	2	30.000	**SCH2UFN224R**	F03FR03714
8	32	80	8	MG10	2	30.000	**SCH2UFN228R**	F03FR03715
8	42	90	8	MG10	2	30.000	**SCH2UFN232R**	F03FR03716
8	25	70	12	H05MG	2	30.000	**SCH2UFN160R**	F03FR03706
10	32	80	10	H05MG	2	30.000	**SCH2UFN240R**	F03FR03718
10	42	100	10	H05MG	2	30.000	**SCH2UFN244R**	F03FR03719
10	52	100	10	H05MG	2	30.000	**SCH2UFN248R**	F03FR03720
10	32	80	12	H05MG	2	30.000	**SCH2UFN170R**	F03FR03708
11	37	80	11	H05MG	2	30.000	**SCH2UFN252R**	F03FR03721
12	32	80	12	H05MG	2	30.000	**SCH2UFN256R**	F03FR03722
12	42	90	12	H05MG	2	30.000	**SCH2UFN260R**	F03FR03723
12	52	100	12	H05MG	2	30.000	**SCH2UFN264R**	F03FR03724
14	52	100	14	H05MG	2	25.000	**SCH2UFN276R**	F03FR03727
16	52	100	16	H05MG	2	25.000	**SCH2UFN280R**	F03FR03728
18	52	110	18	H05MG	2	25.000	**SCH2UFN284R**	F03FR03729
20	52	120	20	H05MG	2	25.000	**SCH2UFN288R**	F03FR03730
20	72	140	20	H05MG	2	25.000	**SCH2UFN292R**	F03FR03731

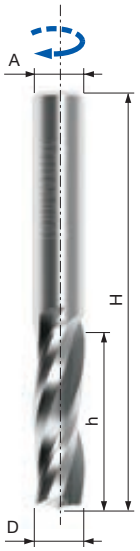
D inch	h inch	H inch	A inch	Quality of HW	Z	Max RPM	Freud Code	Art. No.
1/8	1/2	2	1/4	MG10	2	30.000	**SCH2UFN125R**	F03FR03699
3/16	3/4	2	1/4	MG10	2	30.000	**SCH2UFN130R**	F03FR03700
1/4	1	2-1/2	1/4	MG10	2	30.000	**SCH2UFN220R**	F03FR03713
3/8	1-1/8	3	3/8	H05MG	2	30.000	**SCH2UFN236R**	F03FR03717
3/8	1-1/4	3	1/2	H05MG	2	30.000	**SCH2UFN165R**	F03FR03707
1/2	1-1/4	3	1/2	H05MG	2	30.000	**SCH2UFN268R**	F03FR03725
1/2	2	4	1/2	H05MG	2	30.000	**SCH2UFN272R**	F03FR03726





SCH3UF

Finishing router cutter upcut with right-hand Z3

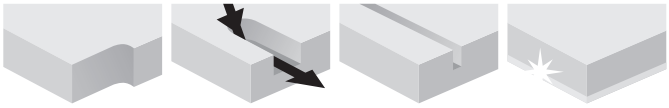




CNC Routers | Up spiral | For table mounted only



Softwood | Hardwood | Chipboard | Laminated Chipboard | MDF | Laminated MDF | Plywood



Sizing | Plunging | Grooving | Better Finishing on Bottom

Machines:
Nesting and CNC overhead routing machines.

Materials:
Softwood, hardwood and wood based panels.

Applications:
Sizing, plunging and grooving.

Technical information:
Solid Carbide bit with positive helix designed for CNC routing for high feed rate applications.
- Suitable for: sizing, plunging and grooving with a perfect finishing.
- Upcut helix, good chip flow, upward chip removal for best finishing on the lower side of the panel.

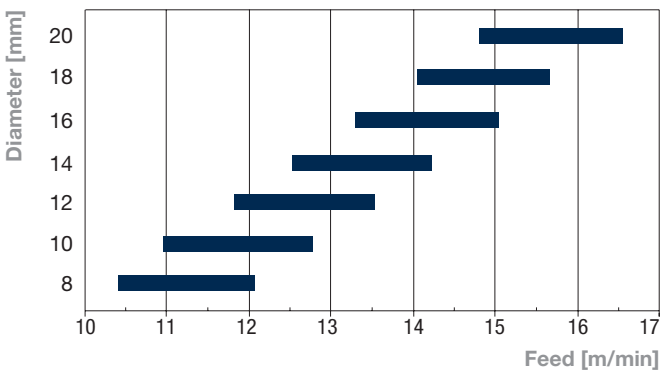
D mm	h mm	H mm	A mm	Quality of HW	Z	Max RPM	Freud Code	Art. No.
8	22	70	8	MG10	3	30.000	**SCH3UFN208R**	F03FR03807
8	32	80	8	MG10	3	30.000	**SCH3UFN212R**	F03FR03808
10	32	80	10	H05MG	3	30.000	**SCH3UFN220R**	F03FR03810
10	42	90	10	H05MG	3	30.000	**SCH3UFN224R**	F03FR03811
10	52	100	10	H05MG	3	30.000	**SCH3UFN228R**	F03FR03812
12	32	80	12	H05MG	3	30.000	**SCH3UFN232R**	F03FR03813
12	42	90	12	H05MG	3	30.000	**SCH3UFN236R**	F03FR03814
12	52	100	12	H05MG	3	30.000	**SCH3UFN240R**	F03FR03815
14	42	90	14	H05MG	3	25.000	**SCH3UFN248R**	F03FR03817
14	52	100	14	H05MG	3	25.000	**SCH3UFN252R**	F03FR03818
16	42	100	16	H05MG	3	25.000	**SCH3UFN256R**	F03FR03819
16	52	100	16	H05MG	3	25.000	**SCH3UFN260R**	F03FR03820
16	62	120	16	H05MG	3	25.000	**SCH3UFN264R**	F03FR03821
18	52	110	18	H05MG	3	25.000	**SCH3UFN268R**	F03FR03822
18	72	130	18	H05MG	3	25.000	**SCH3UFN272R**	F03FR03823
20	52	110	20	H05MG	3	25.000	**SCH3UFN276R**	F03FR03824
20	72	140	20	H05MG	3	25.000	**SCH3UFN280R**	F03FR03825
20	92	170	20	H05MG	3	25.000	**SCH3UFN284R**	F03FR03826

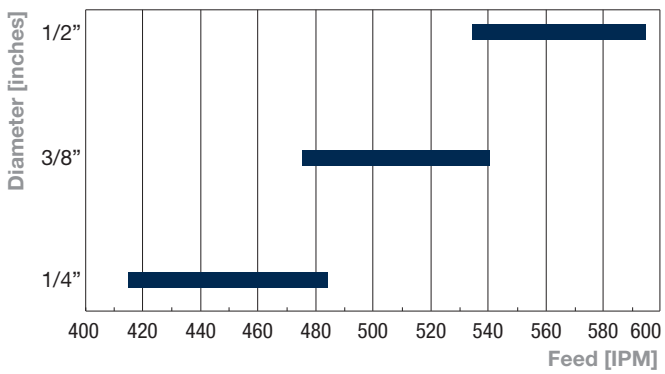
D inch	h inch	H inch	A inch	Quality of HW	Z	Max RPM	Freud Code	Art. No.
1/4	3/4	2-1/2	1/4	MG10	3	30.000	**SCH3UFN204R**	F03FR03806
3/8	1-1/8	3	3/8	H05MG	3	30.000	**SCH3UFN216R**	F03FR03809
1/2	2	4	1/2	H05MG	3	30.000	**SCH3UFN244R**	F03FR03816

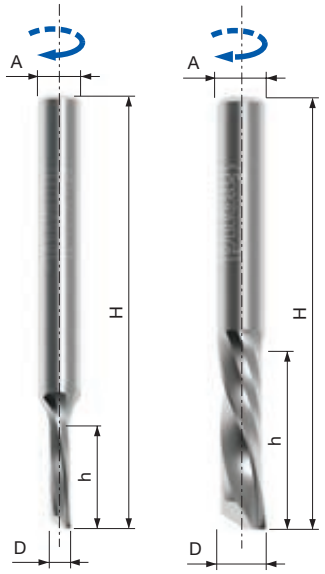
Working parameters
To find suggested feeding speeds see the tables below and apply the following correction factors.
Materials:
Hardwood: 0,9
MDF, Chipboard: 1,1
Depth of cut:
From 1 x D to 2 x D : 0,75
From 2 x D to 3 x D : 0,5
Over 3 x D : 0,4
Rotation speed:
Suggested speeds are proportional to RPM.
Examples:
Factor for 12.000 RPM: 12.000/18.000 = 0,66
Factor for 24.000 RPM: 24.000/18.000 =1,33

To maximise the tool lifetime, always set the maximum speed that delivers the needed quality of cut.

Suggested speeds for softwood: 18.000 RPM.
Depth of cut equal to cutting diameter.







SCH1DF

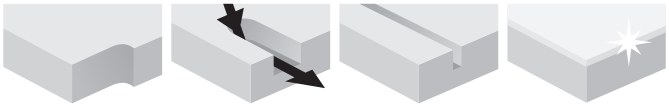
Finishing router cutter downcut with right-hand Z1



CNC Routers | Down spiral | For table mounted only



Softwood | Hardwood | Chipboard | Laminated Chipboard | MDF | Laminated MDF | Plywood



Sizing | Plunging | Grooving | Better Finishing on Top

Machines:
Nesting and CNC overhead routing machines.

Materials:
Softwood, hardwood and wood based panels.

Appications:
Sizing, plunging and grooving.

Technical information:
Solid Carbide bit with negative helix designed for CNC routing with large gullet space for high chips removal.

- Suitable for: sizing, ramp plunging and grooving with a perfect finishing.
- Downcut helix, helps the clamping of the workpiece, downward chip removal for best finishing on the upper side of the panel.

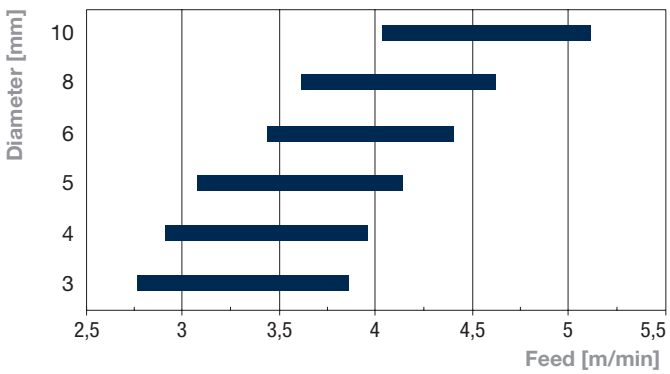
D mm	h mm	H mm	A mm	Quality of HW	Z	Max RPM	Freud Code	Art. No.
3	13	60	6	MG10	1	30.000	**SCH1DFN110R**	F03FR03623
4	15	50	4	MG10	1	30.000	**SCH1DFN210R**	F03FR03629
4	16	60	6	MG10	1	30.000	**SCH1DFN120R**	F03FR03624
5	17	50	5	MG10	1	30.000	**SCH1DFN215R**	F03FR03630
5	17	60	6	MG10	1	30.000	**SCH1DFN130R**	F03FR03625
5	17	60	8	MG10	1	30.000	**SCH1DFN160R**	F03FR03628
6	17	50	6	MG10	1	30.000	**SCH1DFN220R**	F03FR03631
6	22	60	6	MG10	1	30.000	**SCH1DFN225R**	F03FR03632
8	22	70	8	MG10	1	30.000	**SCH1DFN235R**	F03FR03634
8	32	80	8	MG10	1	30.000	**SCH1DFN240R**	F03FR03635
10	32	80	10	H05MG	1	30.000	**SCH1DFN255R**	F03FR03637
10	42	100	10	H05MG	1	30.000	**SCH1DFN260R**	F03FR03638

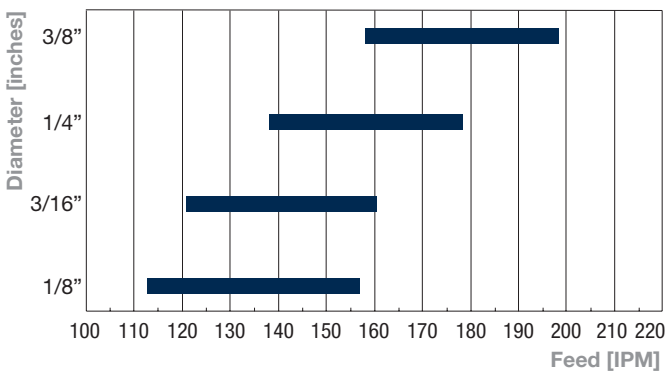
D inch	h inch	H inch	A inch	Quality of HW	Z	Max RPM	Freud Code	Art. No.
1/8	1/2	2-1/2	1/4	MG10	1	30.000	**SCH1DFN140R**	F03FR03626
3/16	3/4	2-1/2	1/4	MG10	1	30.000	**SCH1DFN150R**	F03FR03627
1/4	1	2-1/2	1/4	MG10	1	30.000	**SCH1DFN230R**	F03FR03633
3/8	1-1/8	3	3/8	H05MG	1	30.000	**SCH1DFN250R**	F03FR03636

Working parameters
To find suggested feeding speeds see the tables below and apply the following correction factors.
Materials:
Hardwood: 0,9
MDF, Chipboard: 1,1
Depth of cut:
From 1 x D to 2 x D : 0,75
From 2 x D to 3 x D : 0,5
Over 3 x D : 0,4
Rotation speed:
Suggested speeds are proportional to RPM.
Examples:
Factor for 12.000 RPM: 12.000/18.000 = 0,66
Factor for 24.000 RPM: 24.000/18.000 =1,33

To maximise the tool lifetime, always set the maximum speed that delivers the needed quality of cut.

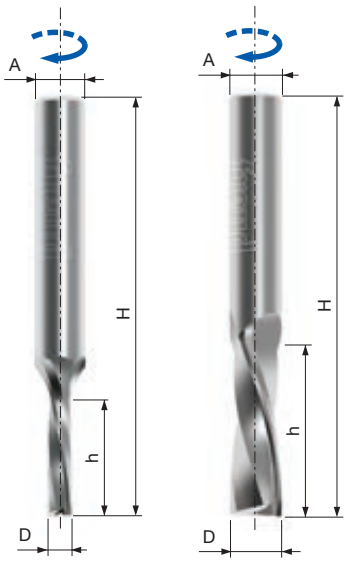
Suggested speeds for softwood: 18.000 RPM.
Depth of cut equal to cutting diameter.





SCH2DF

Finishing router cutter downcut with right-hand Z2




CNC Routers


Down spiral


For table mounted only


Softwood


Hardwood

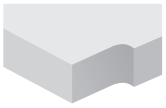

Chipboard

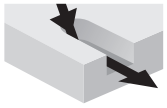

Laminated Chipboard


MDF


Laminated MDF


Plywood


Sizing


Plunging


Grooving


Better Finishing on Top

Machines:
Nesting and CNC overhead routing machines.

Materials:
Softwood, hardwood and wood based panels.

Applications:
Sizing, plunging and grooving.

Technical information:
Solid Carbide bit with negative helix, designed for CNC routing for general purpose with perfect finishing.

- Suitable for: sizing, ramp plunging and grooving with a perfect finishing.
- Downcut helix, helps the clamping of the workpiece, downward chip removal for best finishing on the upper side of the panel.

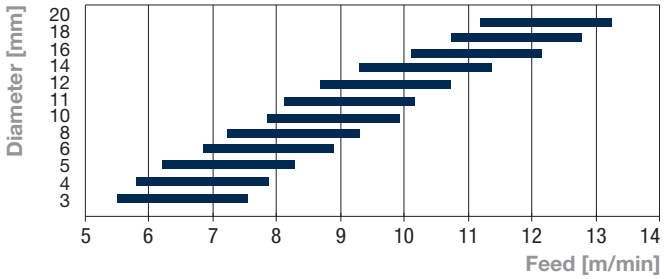
Working parameters
To find suggested feeding speeds see the tables below and apply the following correction factors.
Materials:
Hardwood: 0,9
MDF, Chipboard: 1,1
Depth of cut:
From 1 x D to 2 x D : 0,75
From 2 x D to 3 x D : 0,5
Over 3 x D : 0,4
Rotation speed:
Suggested speeds are proportional to RPM.
Examples:
Factor for 12.000 RPM: 12.000/18.000 = 0,66
Factor for 24.000 RPM: 24.000/18.000 =1,33

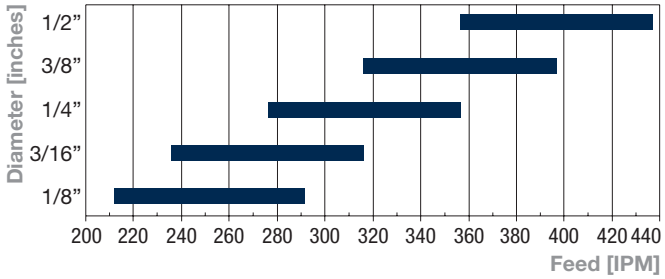
To maximise the tool lifetime, always set the maximum speed that delivers the needed quality of cut.

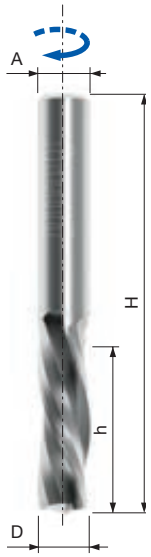
Suggested speeds for softwood: 18.000 RPM.
Depth of cut equal to cutting diameter.

D mm	h mm	H mm	A mm	Quality of HW	Z	Max RPM	Freud Code	Art. No.
3	13	50	6	MG10	2	30.000	**SCH2DFN110R**	F03FR03660
3	13	50	8	MG10	2	30.000	**SCH2DFN135R**	F03FR03665
4	15	50	4	MG10	2	30.000	**SCH2DFN204R**	F03FR03673
4	16	50	6	MG10	2	30.000	**SCH2DFN115R**	F03FR03661
4	16	50	8	MG10	2	30.000	**SCH2DFN140R**	F03FR03666
5	17	50	5	MG10	2	30.000	**SCH2DFN208R**	F03FR03674
5	17	60	6	MG10	2	30.000	**SCH2DFN120R**	F03FR03662
5	17	50	8	MG10	2	30.000	**SCH2DFN145R**	F03FR03667
6	17	60	6	MG10	2	30.000	**SCH2DFN212R**	F03FR03675
6	22	60	6	MG10	2	30.000	**SCH2DFN216R**	F03FR03676
6	25	60	8	MG10	2	30.000	**SCH2DFN150R**	F03FR03668
7	32	80	8	MG10	2	30.000	**SCH2DFN155R**	F03FR03669
8	22	70	8	MG10	2	30.000	**SCH2DFN224R**	F03FR03678
8	32	80	8	MG10	2	30.000	**SCH2DFN228R**	F03FR03679
8	42	90	8	MG10	2	30.000	**SCH2DFN232R**	F03FR03680
8	25	70	12	H05MG	2	30.000	**SCH2DFN160R**	F03FR03670
10	32	80	10	H05MG	2	30.000	**SCH2DFN240R**	F03FR03682
10	42	100	10	H05MG	2	30.000	**SCH2DFN244R**	F03FR03683
10	52	100	10	H05MG	2	30.000	**SCH2DFN248R**	F03FR03684
10	32	80	12	H05MG	2	30.000	**SCH2DFN170R**	F03FR03672
11	37	80	11	H05MG	2	30.000	**SCH2DFN252R**	F03FR03685
12	32	80	12	H05MG	2	30.000	**SCH2DFN256R**	F03FR03686
12	42	90	12	H05MG	2	30.000	**SCH2DFN260R**	F03FR03687
12	52	100	12	H05MG	2	30.000	**SCH2DFN264R**	F03FR03688
14	52	100	14	H05MG	2	25.000	**SCH2DFN276R**	F03FR03691
16	52	100	16	H05MG	2	25.000	**SCH2DFN280R**	F03FR03692
18	52	110	18	H05MG	2	25.000	**SCH2DFN284R**	F03FR03693
20	52	120	20	H05MG	2	25.000	**SCH2DFN288R**	F03FR03694
20	72	140	20	H05MG	2	25.000	**SCH2DFN292R**	F03FR03695

D inch	h inch	H inch	A inch	Quality of HW	Z	Max RPM	Freud Code	Art. No.
1/8	1/2	2	1/4	MG10	2	30.000	**SCH2DFN125R**	F03FR03663
3/16	3/4	2	1/4	MG10	2	30.000	**SCH2DFN130R**	F03FR03664
1/4	1	2-1/2	1/4	MG10	2	30.000	**SCH2DFN220R**	F03FR03677
3/8	1-1/8	3	3/8	H05MG	2	30.000	**SCH2DFN236R**	F03FR03681
3/8	1-1/4	3	1/2	H05MG	2	30.000	**SCH2DFN165R**	F03FR03671
1/2	1-1/4	3	1/2	H05MG	2	30.000	**SCH2DFN268R**	F03FR03689
1/2	2	4	1/2	H05MG	2	30.000	**SCH2DFN272R**	F03FR03690







SCH3DF

Finishing router cutter downcut with right-hand Z3


CNC Routers


Down spiral


For table mounted only


Softwood


Hardwood

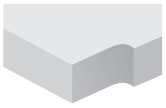

Chipboard

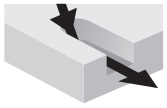

Laminated Chipboard


MDF


Laminated MDF


Plywood


Sizing


Plunging


Grooving


Better Finishing on Top

Machines:
Nesting and CNC overhead routing machines.

Materials:
Softwood, hardwood and wood based panels.

Applications:
Sizing, plunging and grooving.

Technical information:
Solid Carbide bit with negative helix designed for CNC routing for high feed rate applications.
- Suitable for: sizing, ramp plunging and grooving with a perfect finishing.
- Downcut helix, helps the clamping of the workpiece, downward chip removal for best finishing on the upper side of the panel.

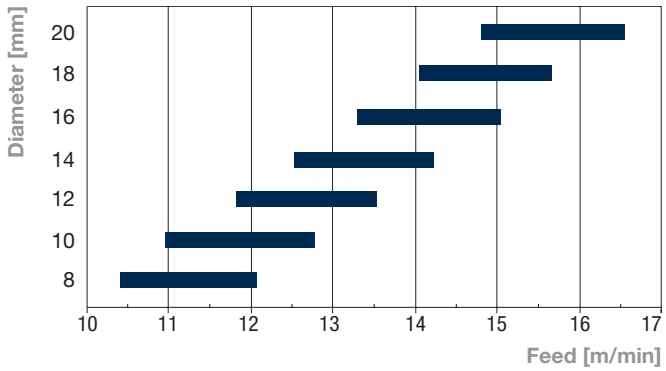
D mm	h mm	H mm	A mm	Quality of HW	Z	Max RPM	Freud Code	Art. No.
8	22	70	8	MG10	3	30.000	**SCH3DFN208R**	F03FR03755
8	32	80	8	MG10	3	30.000	**SCH3DFN212R**	F03FR03756
10	32	80	10	H05MG	3	30.000	**SCH3DFN220R**	F03FR03758
10	42	90	10	H05MG	3	30.000	**SCH3DFN224R**	F03FR03759
10	52	100	10	H05MG	3	30.000	**SCH3DFN228R**	F03FR03760
12	32	80	12	H05MG	3	30.000	**SCH3DFN232R**	F03FR03761
12	42	90	12	H05MG	3	30.000	**SCH3DFN236R**	F03FR03762
12	52	100	12	H05MG	3	30.000	**SCH3DFN240R**	F03FR03763
14	42	90	14	H05MG	3	25.000	**SCH3DFN248R**	F03FR03765
14	52	100	14	H05MG	3	25.000	**SCH3DFN252R**	F03FR03766
16	42	100	16	H05MG	3	25.000	**SCH3DFN256R**	F03FR03767
16	52	100	16	H05MG	3	25.000	**SCH3DFN260R**	F03FR03768
16	62	120	16	H05MG	3	25.000	**SCH3DFN264R**	F03FR03769
18	52	110	18	H05MG	3	25.000	**SCH3DFN268R**	F03FR03770
18	72	130	18	H05MG	3	25.000	**SCH3DFN272R**	F03FR03771
20	52	110	20	H05MG	3	25.000	**SCH3DFN276R**	F03FR03772
20	72	140	20	H05MG	3	25.000	**SCH3DFN280R**	F03FR03773
20	92	170	20	H05MG	3	25.000	**SCH3DFN284R**	F03FR03774

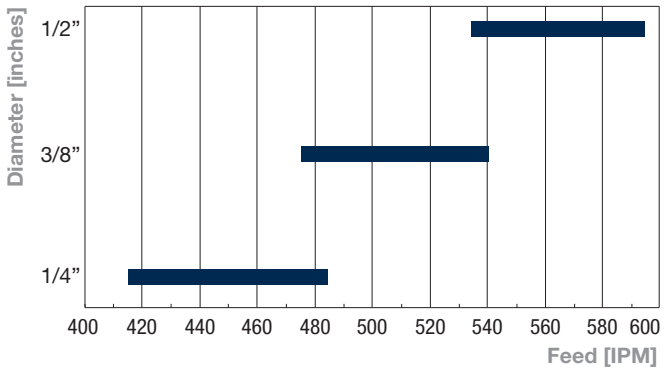
D inch	h inch	H inch	A inch	Quality of HW	Z	Max RPM	Freud Code	Art. No.
1/4	3/4	2-1/2	1/4	MG10	3	30.000	**SCH3DFN204R**	F03FR03754
3/8	1-1/8	3	3/8	H05MG	3	30.000	**SCH3DFN216R**	F03FR03757
1/2	2	4	1/2	H05MG	3	30.000	**SCH3DFN244R**	F03FR03764

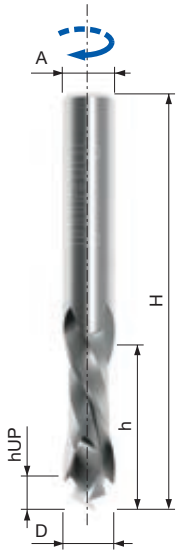
Working parameters
To find suggested feeding speeds see the tables below and apply the following correction factors.
Materials:
Hardwood: 0,9
MDF, Chipboard: 1,1
Depth of cut:
From 1 x D to 2 x D : 0,75
From 2 x D to 3 x D : 0,5
Over 3 x D : 0,4
Rotation speed:
Suggested speeds are proportional to RPM.
Examples:
Factor for 12.000 RPM: 12.000/18.000 = 0,66
Factor for 24.000 RPM: 24.000/18.000 =1,33

To maximise the tool lifetime, always set the maximum speed that delivers the needed quality of cut.

Suggested speeds for softwood: 18.000 RPM.
Depth of cut equal to cutting diameter.







SCH2XF Finishing router cutter compression with right-hand Z2+2


CNC Routers


Up and down spiral


For table mounted only


Softwood


Hardwood

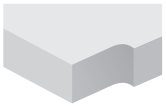

Chipboard

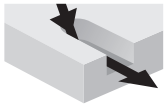

Laminated Chipboard


MDF


Laminated MDF


Plywood


Sizing


Plunging


Grooving


Better Finishing on Top and Bottom

Machines:
Nesting and CNC overhead routing machines.

Materials:
Softwood, hardwood and wood based panels.

Applications:
Sizing, plunging and grooving.

Technical information:
Solid Carbide bit with negative and positive helix designed for CNC routing for general purpose with perfect finishing on both sides of the panel.

- Suitable for: nesting, sizing, ramp plunging and grooving with a perfect finishing.
- Up helix and down helix for a best finishing on both sides of the panel.

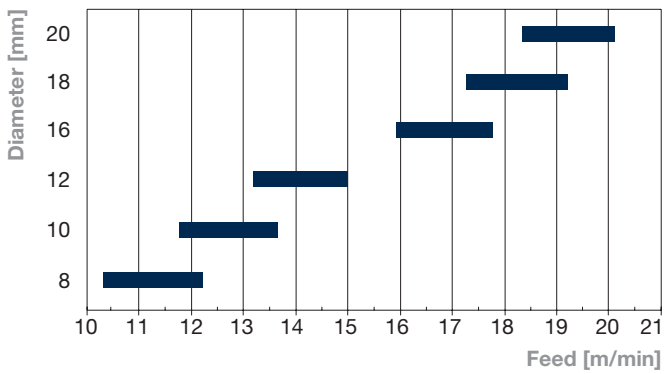
D mm	h mm	hUP mm	H mm	A mm	Quality of HW	Z	Max RPM 1/min.	Freud Code	Art. No.
8	22	5	70	8	MG10	2+2	30.000	**SCH2XFN310R**	F03FR03732
8	32	10	70	8	MG10	2+2	30.000	**SCH2XFN410R**	F03FR03741
10	26	5	70	10	H05MG	2+2	30.000	**SCH2XFN340R**	F03FR03735
10	32	5	80	10	H05MG	2+2	30.000	**SCH2XFN350R**	F03FR03736
10	29	10	80	10	H05MG	2+2	30.000	**SCH2XFN420R**	F03FR03743
12	32	5	90	12	H05MG	2+2	30.000	**SCH2XFN360R**	F03FR03737
12	42	5	100	12	H05MG	2+2	30.000	**SCH2XFN370R**	F03FR03738
12	32	12	80	12	H05MG	2+2	30.000	**SCH2XFN425R**	F03FR03744
12	42	12	100	12	H05MG	2+2	30.000	**SCH2XFN430R**	F03FR03745
16	35	14	90	16	H05MG	2+2	25.000	**SCH2XFN444R**	F03FR04012
18	55	24	110	18	H05MG	2+2	25.000	**SCH2XFN450R**	F03FR03749
20	55	30	120	20	H05MG	2+2	25.000	**SCH2XFN455R**	F03FR03750

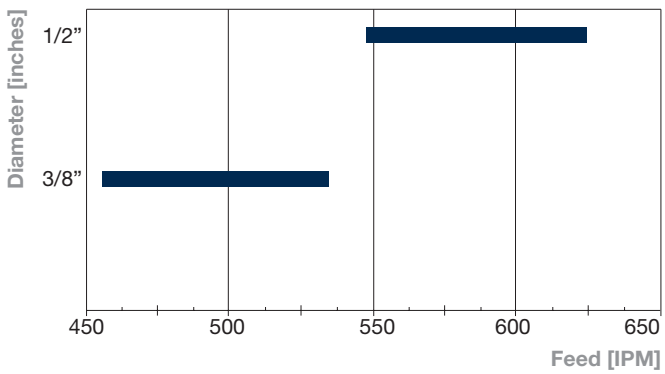
D inch	h inch	hUP inch	H inch	A inch	Quality of HW	Z	Max RPM 1/min.	Freud Code	Art. No.
3/8	1	3/16	3	3/8	H05MG	2+2	30.000	**SCH2XFN320R**	F03FR03733
3/8	1-1/8	3/8	3	3/8	H05MG	2+2	30.000	**SCH2XFN415R**	F03FR03742
3/8	1-1/4	3/16	3	3/8	H05MG	2+2	30.000	**SCH2XFN330R**	F03FR03734
1/2	1	3/16	3	1/2	H05MG	2+2	30.000	**SCH2XFN380R**	F03FR03739
1/2	1-1/2	3/16	3-1/2	1/2	H05MG	2+2	30.000	**SCH2XFN390R**	F03FR03740
1/2	1	9/16	3	1/2	H05MG	2+2	30.000	**SCH2XFN435R**	F03FR03746
1/2	1-1/2	9/16	3-1/2	1/2	H05MG	2+2	30.000	**SCH2XFN440R**	F03FR03747

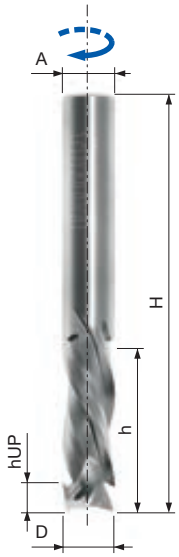
Working parameters
To find suggested feeding speeds see the tables below and apply the following correction factors.
Materials:
Softwood: 0,9
Hardwood: 0,8
Depth of cut:
2x19 mm or 2x3/4" : 0,75
2x19 mm or 3x3/4" : 0,75
Over 3 x D : 0,4
Rotation speed:
Suggested speeds are proportional to RPM.
Examples:
Factor for 12.000 RPM: 12.000/18.000 = 0,66
Factor for 24.000 RPM: 24.000/18.000 =1,33

To maximise the tool lifetime, always set the maximum speed that delivers the needed quality of cut.

Suggested speeds for softwood: 18.000 RPM.
Depth of cut: 3/4".







SCH3XF Finishing router cutter compression with right-hand Z3+3


CNC Routers


Up and down spiral


For table mounted only


Softwood


Hardwood

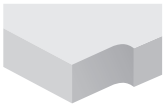

Chipboard

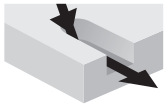

Laminated Chipboard


MDF


Laminated MDF


Plywood


Sizing


Plunging


Grooving


Better Finishing on Top and Bottom

Machines:
Nesting and CNC overhead routing machines.

Materials:
Softwood, hardwood and wood based panels.

Applications:
Sizing, plunging and grooving.

Technical information:
Solid Carbide bit with negative and positive helix designed for CNC routing for high speed demanding applications with perfect finishing on both sides of the panel.

- Suitable for: nesting, sizing, ramp plunging and grooving with a perfect finishing.
- Up helix and down helix for a best finishing on both sides of the panel.

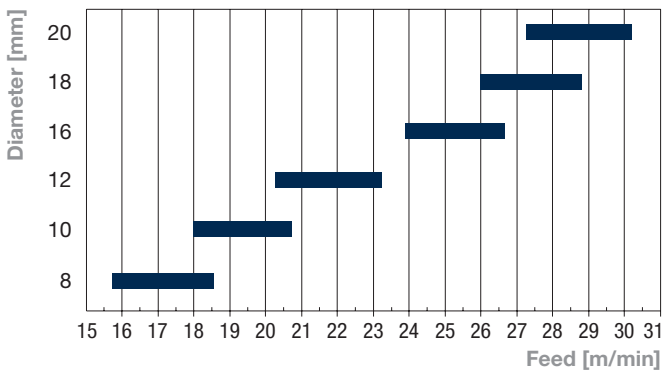
D mm	h mm	hUP mm	H mm	A mm	Quality of HW	Z	Max RPM 1/min.	Freud Code	Art. No.
8	22	5	70	8	MG10	3+3	30.000	**SCH3XFN310R**	F03FR03856
8	32	10	70	8	MG10	3+3	30.000	**SCH3XFN410R**	F03FR03866
10	26	5	70	10	H05MG	3+3	30.000	**SCH3XFN340R**	F03FR04013
10	29	10	80	10	H05MG	3+3	30.000	**SCH3XFN420R**	F03FR04014
10	32	5	80	10	H05MG	3+3	30.000	**SCH3XFN350R**	F03FR03860
10	42	13	90	10	H05MG	3+3	30.000	**SCH3XFN422R**	F03FR03869
12	22	5	80	12	H05MG	3+3	30.000	**SCH3XFN355R**	F03FR03861
12	32	5	90	12	H05MG	3+3	30.000	**SCH3XFN360R**	F03FR03862
12	42	5	100	12	H05MG	3+3	30.000	**SCH3XFN370R**	F03FR03863
12	32	12	80	12	H05MG	3+3	30.000	**SCH3XFN425R**	F03FR03870
12	42	14	100	12	H05MG	3+3	30.000	**SCH3XFN430R**	F03FR03871
12	52	16	100	12	H05MG	3+3	30.000	**SCH3XFN432R**	F03FR03872

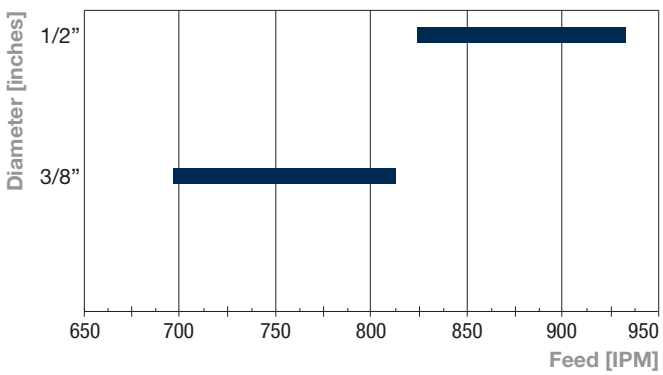
D inch	h inch	hUP inch	H inch	A inch	Quality of HW	Z	Max RPM 1/min.	Freud Code	Art. No.
3/8	1	3/16	3	3/8	H05MG	3+3	30.000	**SCH3XFN320R**	F03FR03857
3/8	1-1/8	3/8	3	3/8	H05MG	3+3	30.000	**SCH3XFN415R**	F03FR03867
3/8	1-1/4	3/16	3	3/8	H05MG	3+3	30.000	**SCH3XFN330R**	F03FR03858
1/2	1	3/16	3	1/2	H05MG	3+3	30.000	**SCH3XFN380R**	F03FR03864
1/2	1-1/8	1/2	3	1/2	H05MG	3+3	30.000	**SCH3XFN436R**	F03FR03873
1/2	1-1/2	3/16	3-1/2	1/2	H05MG	3+3	30.000	**SCH3XFN390R**	F03FR03865
1/2	1-5/8	3/4	3-1/2	1/2	H05MG	3+3	30.000	**SCH3XFN438R**	F03FR03874
1/2	2-1/4	3/4	4	1/2	H05MG	3+3	30.000	**SCH3XFN442R**	F03FR03875

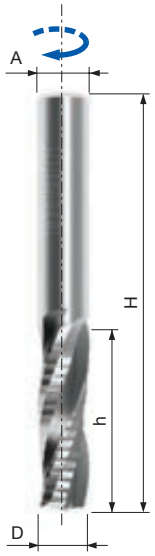
Working parameters
To find suggested feeding speeds see the tables below and apply the following correction factors.
Materials:
Softwood: 0,9
Hardwood: 0,8
Depth of cut:
2x19 mm or 2x3/4" : 0,75
2x19 mm or 3x3/4" : 0,75
Over 3 x D : 0,4
Rotation speed:
Suggested speeds are proportional to RPM.
Examples:
Factor for 12.000 RPM: 12.000/18.000 = 0,66
Factor for 24.000 RPM: 24.000/18.000 =1,33

To maximise the tool lifetime, always set the maximum speed that delivers the needed quality of cut.

Suggested speeds for softwood: 18.000 RPM.
Depth of cut: 3/4".







SCH3UR

Roughing router cutter upcut with right-hand Z3


CNC Routers


Up spiral


For table mounted only

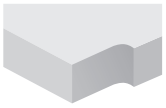

Softwood

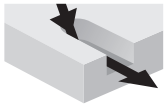

Hardwood


Chipboard


MDF


Plywood


Sizing


Plunging


Grooving

Machines:
Nesting and CNC overhead routing machines.

Materials:
Softwood, hardwood and wood based panels.

Applications:
Sizing, plunging and grooving.

Technical information:
Solid Carbide bit with positive helix designed for CNC routing with chip breaker for very high feed rate applications.
- Suitable for: sizing, plunging and grooving with a rough finishing.
- Upcut helix, good chip flow, upward chip removal.

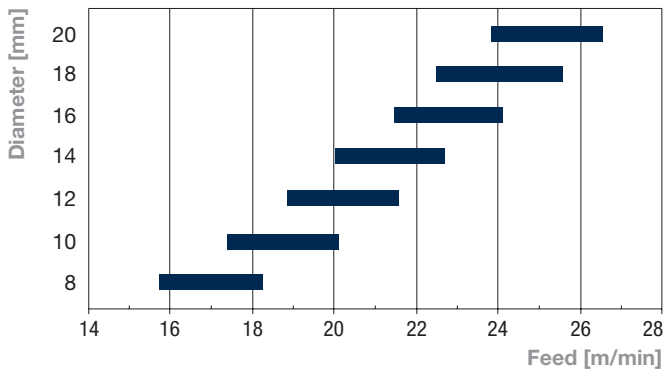
D mm	h mm	H mm	A mm	Quality of HW	Z	Max RPM	Freud Code	Art. No.
8	22	70	8	MG10	3	30.000	**SCH3URN504R**	F03FR03830
8	32	80	8	MG10	3	30.000	**SCH3URN506R**	F03FR03831
8	42	90	8	MG10	3	30.000	**SCH3URN508R**	F03FR03832
10	32	80	10	H05MG	3	30.000	**SCH3URN512R**	F03FR03834
10	42	90	10	H05MG	3	30.000	**SCH3URN514R**	F03FR03835
10	52	100	10	H05MG	3	30.000	**SCH3URN516R**	F03FR03836
12	32	80	12	H05MG	3	30.000	**SCH3URN518R**	F03FR03837
12	42	90	12	H05MG	3	30.000	**SCH3URN520R**	F03FR03838
12	52	100	12	H05MG	3	30.000	**SCH3URN522R**	F03FR03839
14	42	90	14	H05MG	3	25.000	**SCH3URN528R**	F03FR03842
14	52	100	14	H05MG	3	25.000	**SCH3URN530R**	F03FR03843
14	60	130	14	H05MG	3	25.000	**SCH3URN531R**	F03FR03844
16	42	100	16	H05MG	3	25.000	**SCH3URN534R**	F03FR03846
16	52	110	16	H05MG	3	25.000	**SCH3URN536R**	F03FR03847
16	62	120	16	H05MG	3	25.000	**SCH3URN538R**	F03FR03848
18	52	110	18	H05MG	3	25.000	**SCH3URN540R**	F03FR03849
18	72	130	18	H05MG	3	25.000	**SCH3URN542R**	F03FR03850
20	52	120	20	H05MG	3	25.000	**SCH3URN546R**	F03FR03852
20	72	140	20	H05MG	3	25.000	**SCH3URN548R**	F03FR03853
20	85	150	20	H05MG	3	25.000	**SCH3URN550R**	F03FR03854
20	102	170	20	H05MG	3	25.000	**SCH3URN552R**	F03FR03855

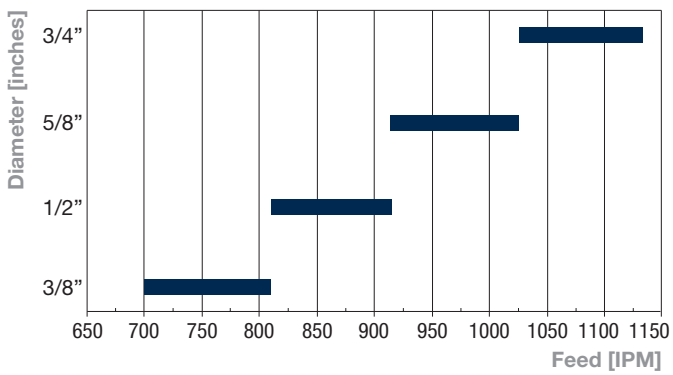
D inch	h inch	H inch	A inch	Quality of HW	Z	Max RPM	Freud Code	Art. No.
3/8	1-1/8	3-1/2	3/8	H05MG	3	30.000	**SCH3URN510R**	F03FR03833
1/2	1-1/8	3-1/2	1/2	H05MG	3	30.000	**SCH3URN524R**	F03FR03840
1/2	1-5/8	4	1/2	H05MG	3	30.000	**SCH3URN526R**	F03FR03841
5/8	2-1/8	5	5/8	H05MG	3	25.000	**SCH3URN532R**	F03FR03845
3/4	2-1/8	5	3/4	H05MG	3	25.000	**SCH3URN544R**	F03FR03851

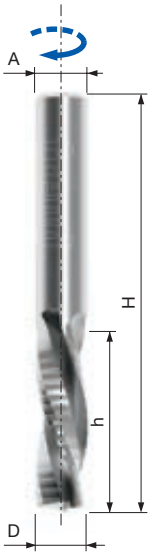
Working parameters
To find suggested feeding speeds see the tables below and apply the following correction factors.
Materials:
Hardwood: 0,9
MDF, Chipboard: 1,1
Depth of cut:
From 1 x D to 2 x D : 0,75
From 2 x D to 3 x D : 0,5
Over 3 x D : 0,4
Rotation speed:
Suggested speeds are proportional to RPM.
Examples:
Factor for 12.000 RPM: 12.000/18.000 = 0,66
Factor for 24.000 RPM: 24.000/18.000 =1,33

To maximise the tool lifetime, always set the maximum speed that delivers the needed quality of cut.

Suggested speeds for softwood: 18.000 RPM.
Depth of cut equal to cutting diameter.







SCH3DR

Roughing router cutter downcut with right-hand Z3


CNC Routers


Down spiral


For table mounted only

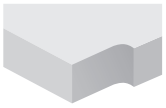

Softwood

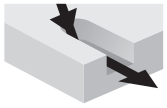

Hardwood


Chipboard


MDF


Plywood


Sizing


Plunging


Grooving

Machines:
Nesting and CNC overhead routing machines.

Materials:
Softwood, hardwood and wood based panels.

Applications:
Sizing, plunging and grooving.

Technical information:
Solid Carbide bit with negative helix designed for CNC routing with chip breaker for very high feed rate applications.

- Suitable for: sizing, ramp plunging and grooving with a rough finishing.
- Downcut helix, helps the clamping of the workpiece, downward chip removal.

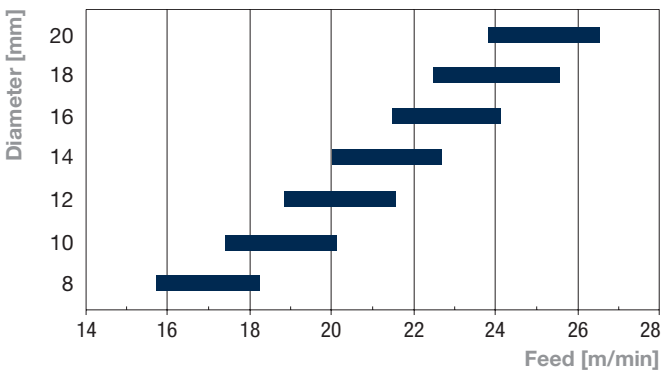
D mm	h mm	H mm	A mm	Quality of HW	Z	Max RPM	Freud Code	Art. No.
8	22	70	8	MG10	3	30.000	**SCH3DRN504R**	F03FR03778
8	32	80	8	MG10	3	30.000	**SCH3DRN506R**	F03FR03779
8	42	90	8	MG10	3	30.000	**SCH3DRN508R**	F03FR03780
10	32	80	10	H05MG	3	30.000	**SCH3DRN512R**	F03FR03782
10	42	90	10	H05MG	3	30.000	**SCH3DRN514R**	F03FR03783
10	52	100	10	H05MG	3	30.000	**SCH3DRN516R**	F03FR03784
12	32	80	12	H05MG	3	30.000	**SCH3DRN518R**	F03FR03785
12	42	90	12	H05MG	3	30.000	**SCH3DRN520R**	F03FR03786
12	52	100	12	H05MG	3	30.000	**SCH3DRN522R**	F03FR03787
14	42	90	14	H05MG	3	25.000	**SCH3DRN528R**	F03FR03790
14	52	100	14	H05MG	3	25.000	**SCH3DRN530R**	F03FR03791
16	42	100	16	H05MG	3	25.000	**SCH3DRN534R**	F03FR03793
16	52	110	16	H05MG	3	25.000	**SCH3DRN536R**	F03FR03794
16	62	120	16	H05MG	3	25.000	**SCH3DRN538R**	F03FR03795
18	52	110	18	H05MG	3	25.000	**SCH3DRN540R**	F03FR03796
18	72	130	18	H05MG	3	25.000	**SCH3DRN542R**	F03FR03797
20	52	120	20	H05MG	3	25.000	**SCH3DRN546R**	F03FR03799
20	72	140	20	H05MG	3	25.000	**SCH3DRN548R**	F03FR03800
20	85	150	20	H05MG	3	25.000	**SCH3DRN550R**	F03FR03801
20	102	170	20	H05MG	3	25.000	**SCH3DRN552R**	F03FR03802

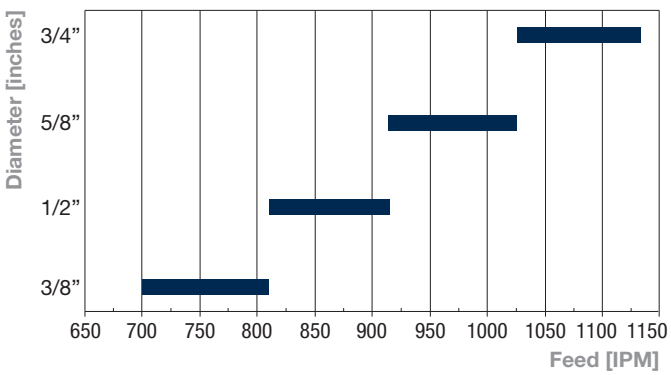
D inch	h inch	H inch	A inch	Quality of HW	Z	Max RPM	Freud Code	Art. No.
3/8	1-1/8	3-1/2	3/8	H05MG	3	30.000	**SCH3DRN510R**	F03FR03781
1/2	1-1/8	3-1/2	1/2	H05MG	3	30.000	**SCH3DRN524R**	F03FR03788
1/2	1-5/8	4	1/2	H05MG	3	30.000	**SCH3DRN526R**	F03FR03789
5/8	2-1/8	5	5/8	H05MG	3	25.000	**SCH3DRN532R**	F03FR03792
3/4	2-1/8	5	3/4	H05MG	3	25.000	**SCH3DRN544R**	F03FR03798

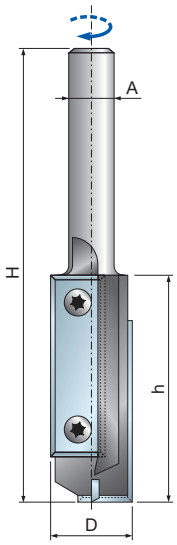
Working parameters
To find suggested feeding speeds see the tables below and apply the following correction factors.
Materials:
Hardwood: 0,9
MDF, Chipboard: 1,1
Depth of cut:
From 1 x D to 2 x D : 0,75
From 2 x D to 3 x D : 0,5
Over 3 x D : 0,4
Rotation speed:
Suggested speeds are proportional to RPM.
Examples:
Factor for 12.000 RPM: 12.000/18.000 = 0,66
Factor for 24.000 RPM: 24.000/18.000 =1,33

To maximise the tool lifetime, always set the maximum speed that delivers the needed quality of cut.

Suggested speeds for softwood: 18.000 RPM.
Depth of cut equal to cutting diameter.



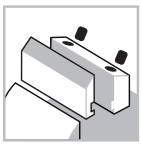


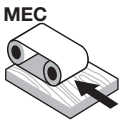


TG62MD

Disposable knives straight router cutters


CNC Routers


Clamping system

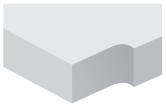


Automatic feed


Steel Body


Softwood


Hardwood


Sizing


Plunging

Machines:
CNC overhead routing machines.

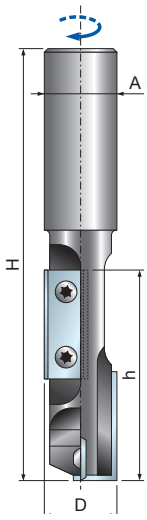
Materials:
Softwood and hardwood.

Applications:
Sizing and plunging.

Technical information:
For CNC machining centres or overhead routing machines.
- Suitable for plunging and sizing.
- The disposable knife guarantees a constant finish and cutting diameter.
- It is suggested a gradual feed rate when entering into the workpiece.
- Steel body.

D mm	h mm	H mm	A mm	Z	Max RPM 1/min.	Freud Code	Art. No.
16	50	105	12	2+1	-	**TG62MD AD3**	F03FA13927
18	50	105	20	2+1	-	**TG62MD BD3**	F03FA13928

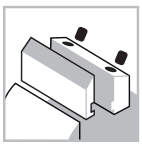
	Spare parts	Dimensions mm	Freud Code	Art. No.
	Knife	40 x 12 x 1,5	**CG44MLA310**	F03FA21938
	Screw	M4 x 10 x 9	**VT71M AA9**	F03FA04505
	Torx key	T15	**CB03M DA9**	F03FA00168

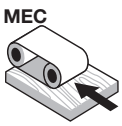


TG63MD

Disposable knives straight router cutters


CNC Routers


Clamping system



Automatic feed


Steel Body


Softwood


Hardwood


Sizing


Plunging

Machines:
CNC overhead routing machines.

Materials:
Softwood and hardwood.

Applications:
Sizing and plunging.

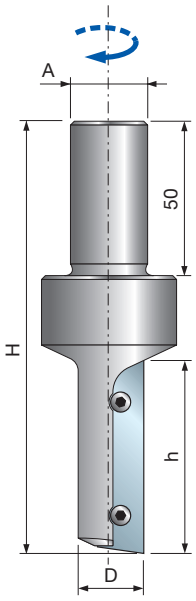
Technical information:
For CNC machining centres or overhead routing machines.
- Suitable for plunging and sizing.
- The disposable knife guarantees a constant finish and cutting diameter.
- It is suggested a gradual feed rate when entering into the workpiece.
- Steel body.

D mm	h mm	H mm	A mm	Z	Max RPM 1/min.	Freud Code	Art. No.
20	58	120	20	2+1	-	**TG63MD CD3**	F03FA13937

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Knife	30 x 12 x 1,5	**CG08MEA310**	F03FH02906
	Knife	9,6 x 12 x 1,5	**CG08MMA310**	F03FH02910
	Screw	M4 x 10 x 9	**VT71M AA9**	F03FA04505
	Torx key	T15	**CB03M DA9**	F03FA00168

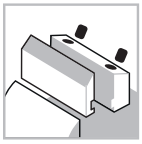
TG71MD

Disposable knives straight router cutters

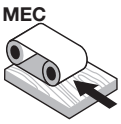




CNC Routers



Clamping system



Automatic feed



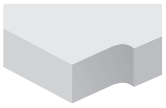
Steel Body



Softwood



Hardwood



Sizing



Plunging

Machines:
CNC overhead routing machines.

Materials:
Softwood and hardwood.

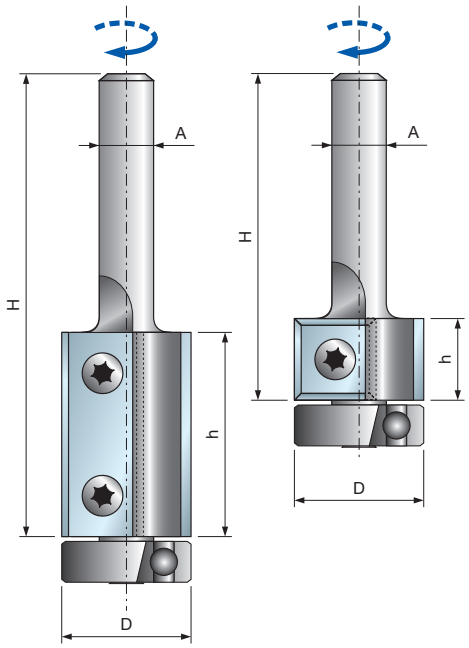
Applications:
Sizing and plunging.

Technical information:
For CNC machining centres or overhead routing machines.

- The disposable knife guarantees a constant finishing and cutting diameter.
- It is suggested a gradual feed rate when entering into the workpiece.
- Steel body.

D mm	h mm	H mm	A mm	Z	Max RPM 1/min.	Freud Code	Art. No.
16	50	120	20	1	-	**TG71MD AD3**	F03FA04272
18	50	120	20	1	-	**TG71MD BD3**	F03FA04273
20	50	120	20	1	-	**TG71MD CD3**	F03FA04274

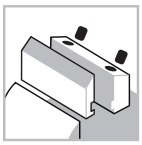
	Spare parts	Dimensions mm	Freud Code	Art. No.
	Knife	50 x 12 x 1,5	**CG71MAA310**	F03FC23923
	Screw	M4 x 10 x 9	**VT71M AA9**	F03FA04505
	Torx key	T15	**CB03M DA9**	F03FA00168

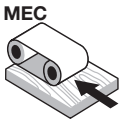


TG74MD

Bearing disposable knives straight router cutters


CNC Routers


Clamping system

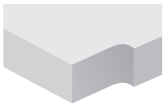


Automatic feed


Steel Body


Softwood


Hardwood


Sizing

Machines:
CNC routers.

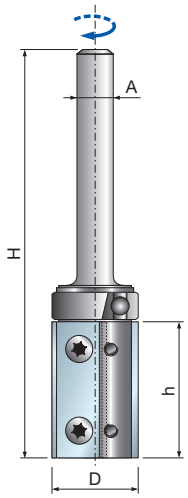
Materials:
Softwood and hardwood.

Applications:
Sizing.

Technical information:
For routers. Ideal for roughing and sizing.
• Steel body.

D mm	h mm	H mm	A mm	Z	Max RPM 1/min.	Freud Code	Art. No.
19	12	55	6	2	-	**TG74MD CA3**	F03FA14728
19	12	70	8	2	-	**TG74MD CB3**	F03FA14729
19	12	70	12	2	-	**TG74MD CC3**	F03FA14730
19	30	75	6	2	-	**TG74MD CD3**	F03FA14731
19	30	90	8	2	-	**TG74MD CE3**	F03FA13925
19	30	90	12	2	-	**TG74MD CF3**	F03FA13926

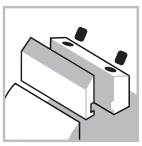
	Spare parts	Dimensions mm	Freud Code	Art. No.
	Knife	12 x 12 x 1,5	**CG08MBA310**	F03FH02903
	Knife	30 x 12 x 1,5	**CG08MEA310**	F03FH02906
	Screw	M4 x 10 x 9	**VT71M AA9**	F03FA04505
	Ball bearing	19 x 6 x 6	**3102M CA9**	F03FA14097
	Torx key	T15	**CB03M DA9**	F03FA00168

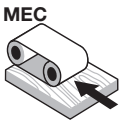


TG76MD

Bearing disposable knives straight router cutters


CNC Routers


Clamping system

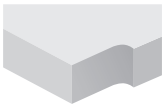


Automatic feed


Steel Body


Softwood


Hardwood


Sizing

Machines:
CNC routers.

Materials:
Softwood and hardwood.

Applications:
Sizing.

Technical information:
For routers. Ideal for roughing and sizing.
• Steel body.

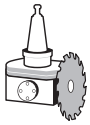
D mm	h mm	H mm	A mm	Z	Max RPM 1/min.	Freud Code	Art. No.
19	30	90	8	2	-	**TG76MD CD3**	F03FA13919
19	30	90	12	2	-	**TG76MD CE3**	F03FA13920

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Knife	30 x 12 x 1,5	**CG08MEA310**	F03FH02906
	Screw	M4 x 10 x 9	**VT71M AA9**	F03FA04505
	Torx key	T15	**CB03M DA9**	F03FA00168
	Retaining ring	11 x 13,9	**2621M AC9**	F03FA14741
	Ball bearing	19,05 x 4	**3102M CB9**	F03FA14098

LU34M

Saw blades for grooving and sizing on CNC units

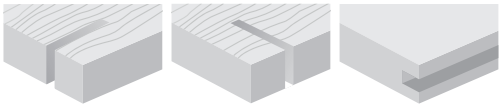




CNC Cutting Units



Softwood | Hardwood | Laminated Chipboard | Laminated MDF | Plywood



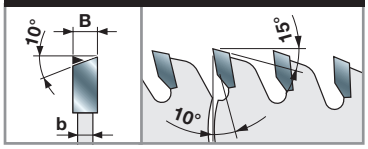
Ripping ●● | Crosscutting ●● | Grooving ●●

●●● Ultimate ●● High ● Good

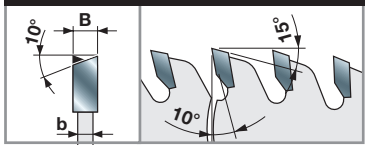
TiCo Carbide MADE BY freud

Silver I.C.E. COATING

HW H00K - ATB 10° tooth



HW H00XA - ATB 10° tooth **



D mm	B mm	b mm	d mm	Z	Max RPM 1/min.	Freud Code	Art. No.
120	4,0	3,0	30	18	12.000	**LU34M40AC3**	F03FS06095
120	4,0	3,0	20	30	12.000	**LU34M40EA3**	F03FS06367
120	4,0	3,0	35	30	12.000	**LU34M40EC3***	F03FS05141
120	5,0	3,0	30	18	12.000	**LU34M50AC3**	F03FS06096
120	5,0	3,0	35	30	12.000	**LU34M50EC3***	F03FS05143
120	6,0	3,0	30	18**	12.000	**LU34M60AC3**	F03FS06097
120	6,0	3,0	35	30**	12.000	**LU34M60EC3***	F03FS05145
180	4,0	3,0	35	44	10.000	**LU34M40NC3***	F03FS05142
180	5,0	3,0	35	44	10.000	**LU34M50NC3***	F03FS05144
180	6,0	3,0	35	44**	10.000	**LU34M60NC3***	F03FS05146

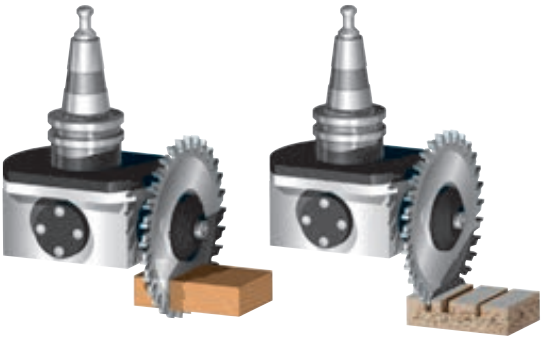
Machines:
CNC cutting units.

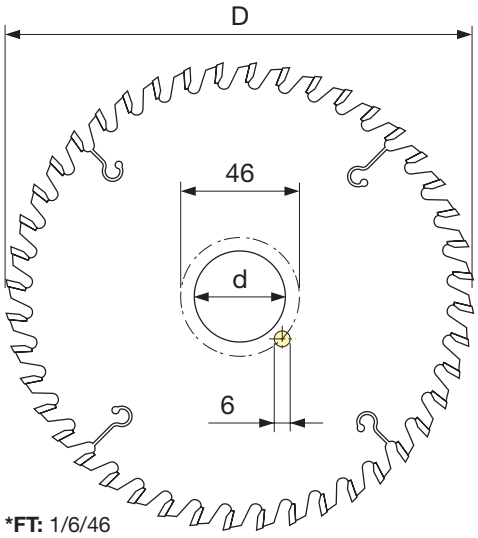
Materials:
Softwood, hardwood, laminated chipboard, laminated MDF and plywood.

Applications:
Sizing on CNC, ripping, crosscutting, grooving on CNC.

Technical information:
Saw blades dedicated to CNC machines.
For grooving along and across grain on softwood, hardwood and laminates.

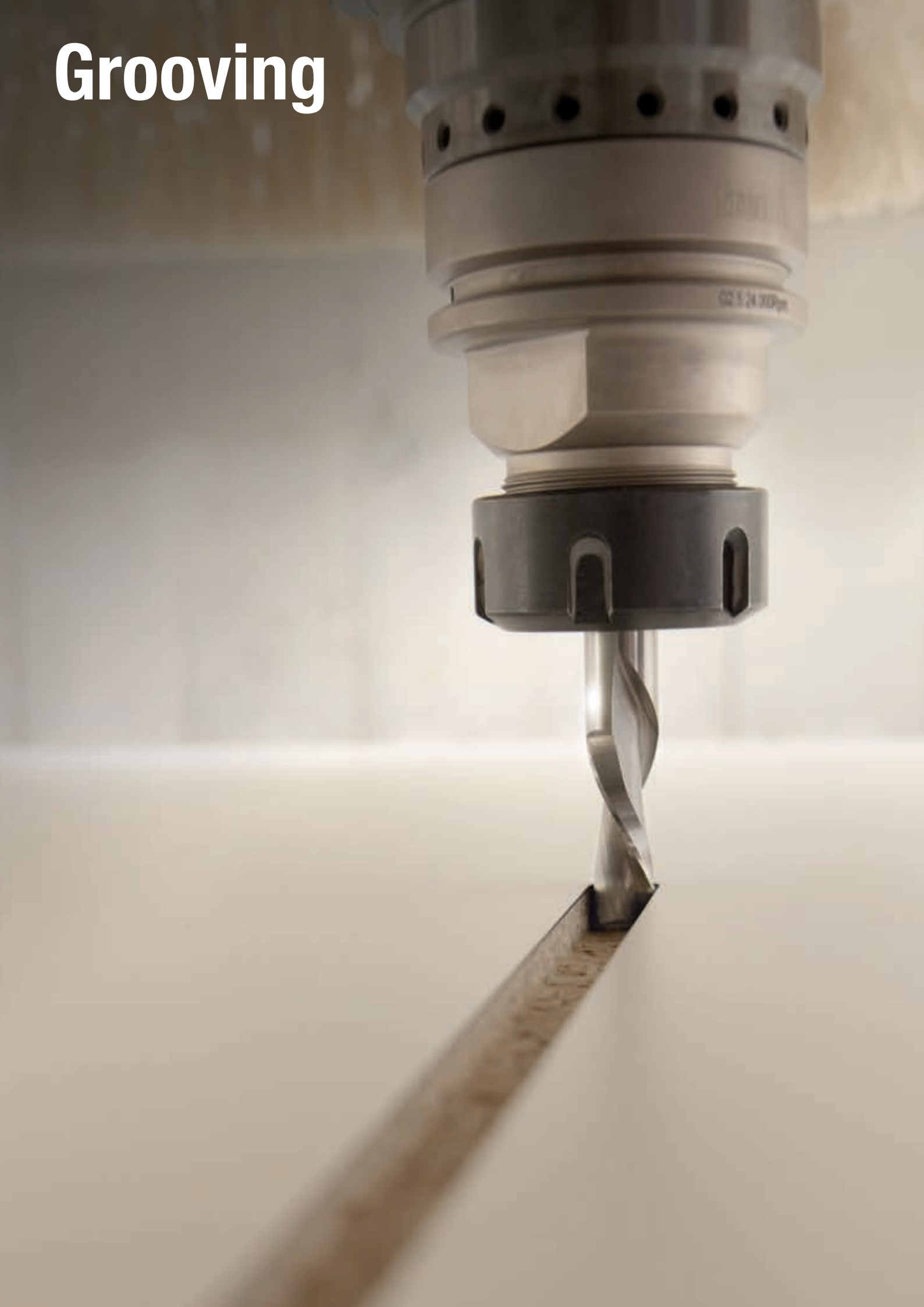
Working examples



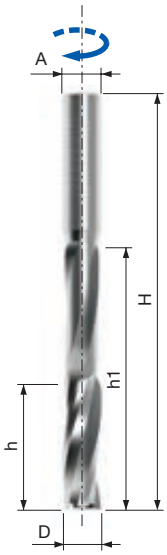


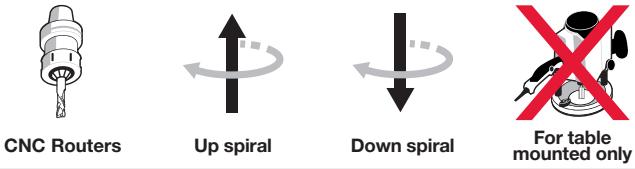
***FT:** 1/6/46

Grooving

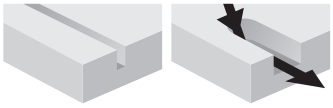


SCH3 Finishing hardware slot router cutter - right-hand Z3









Machines:
CNC routers.

Materials:
Softwood, hardwood and wood based panels.

Applications:
Grooving and plunging.

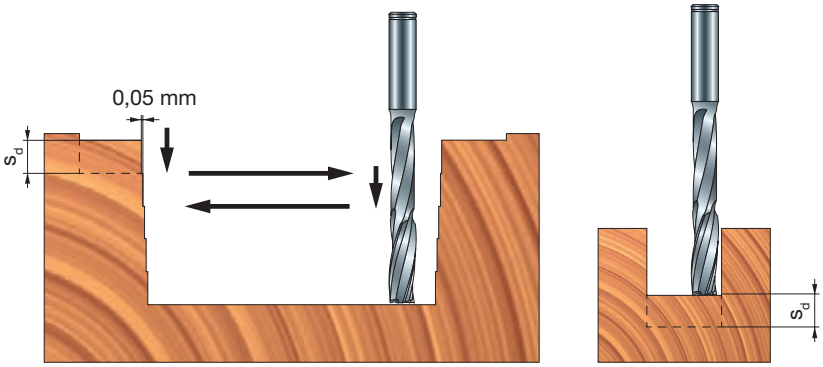
Technical information:
Solid Carbide bit with positive helix designed for CNC machines centres.
- Suitable for: windows, shutters and all hardware on laminates and solid wood.
- Upcut helix, good chip flow, upward chip removal for best finishing on the lower side.

Upcut

D mm	h mm	h1 mm	H mm	A mm	Quality of HW	Z	Max RPM 1/min.	Freud Code	Art. No.
14	45	95	150	14	H05MG	3	25.000	**SCH3UFN102R**	F03FR03803
16	45	95	150	16	H05MG	3	25.000	**SCH3UFN104R**	F03FR03804
18	45	95	150	18	H05MG	3	25.000	**SCH3UFN106R**	F03FR03805

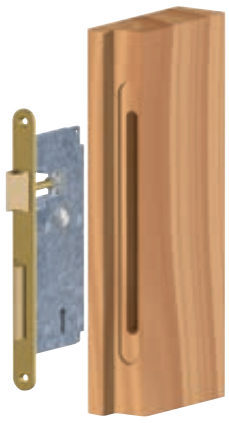
Downcut

D mm	h mm	h1 mm	H mm	A mm	Quality of HW	Z	Max RPM 1/min.	Freud Code	Art. No.
14	45	95	150	14	H05MG	3	25.000	**SCH3DFN102R**	F03FR03751
16	45	95	150	16	H05MG	3	25.000	**SCH3DFN104R**	F03FR03752
18	45	95	150	18	H05MG	3	25.000	**SCH3DFN106R**	F03FR03753



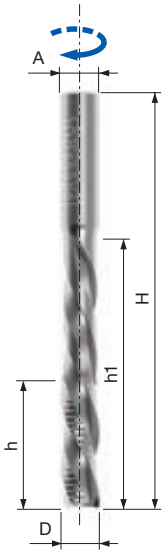
Working parameters
Solid wood feed and speeds:
Maximum depth per stroke s_d: 8 mm
Suggested infeed at 18.000 RPM: 15 m/min

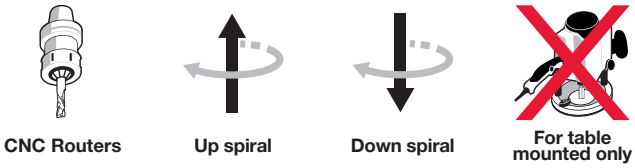
Chipboard feed and speeds:
Maximum depth per stroke s_d: 15 mm
Suggested infeed at 18.000 RPM: 12 m/min



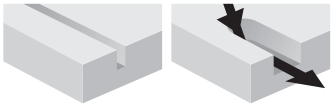
Solid wood - Best Downcut

SCH3 Roughing hardware slot router cutter - right-hand Z3









Machines:
CNC routers.

Materials:
Softwood, hardwood and wood based panels.

Applications:
Grooving and plunging.

Technical information:
Available until stock sells out.
- Solid Carbide bit with positive helix designed for CNC machining centres.
- Suitable for: windows, shutters and all hardware on solid wood.
- Downcut helix, good chip flow, upward chip removal.

Working parameters
Solid wood feed and speeds:
Maximum depth per stroke s_d: 8 mm
Suggested infeed at 18.000 RPM: 15 m/min

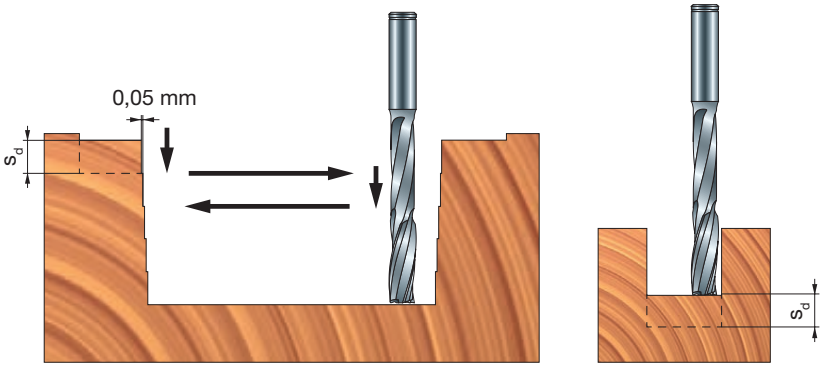
Chipboard feed and speed:
Maximum depth per stroke s_d: 15 mm
Suggested infeed at 18.000 RPM: 12 m/min

Upcut

D mm	h mm	h1 mm	H mm	A mm	Quality of HW	Z	Max RPM 1/min.	Freud Code	Art. No.
14	45	95	150	14	H05MG	3	25.000	**SCH3UMN102R**	F03FR03827
16	45	95	150	16	H05MG	3	25.000	**SCH3UMN104R**	F03FR03828
18	45	95	150	18	H05MG	3	25.000	**SCH3UMN106R**	F03FR03829

Downcut

D mm	h mm	h1 mm	H mm	A mm	Quality of HW	Z	Max RPM 1/min.	Freud Code	Art. No.
14	45	95	150	14	H05MG	3	25.000	**SCH3DMN102R**	F03FR03775
16	45	95	150	16	H05MG	3	25.000	**SCH3DMN104R**	F03FR03776
18	45	95	150	18	H05MG	3	25.000	**SCH3DMN106R**	F03FR03777

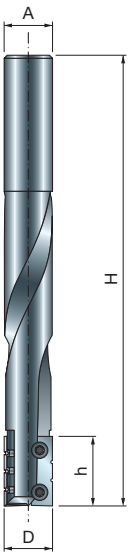




Solid wood - Best Downcut

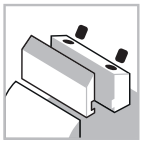
TG72MD

Disposable knife straight router cutter

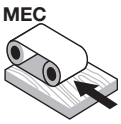




CNC Routers



Clamping system



Automatic feed



Steel Body



Softwood



Hardwood



Grooving



Plunging

Machines:
CNC overhead routing machines.

Materials:
Softwood and hardwood.

Applications:
Grooving and plunging.

Technical information:
For CNC machining centres or overhead routing machines.
- Suitable for plunging and sizing softwood and hardwood.
- The disposable knife guarantees a constant finishing and cutting diameter.
- It is suggested a gradual feed rate when entering into the workpiece.
- Steel body.

D mm	h mm	H mm	A mm	Z	Max RPM 1/min.	Freud Code	Art. No.
16	23	150	16	2	-	**TG72MD AA3**	F03FA04278

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Knife with 2 carvings	23 x 7 x 1,5	**CG72MAB310**	F03FA18190
	Knife with 3 carvings	23 x 7 x 1,5	**CG72MAA310**	F03FA18189
	Screw	M3 x 6 x 5	**VT72M AA9**	F03FA04506

Planing

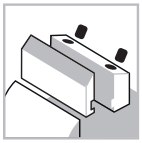


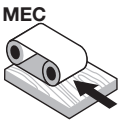


TM10MD

Disposable knives straight router cutter


CNC Routers


Clamping system



Automatic feed


Steel Body


Softwood


Hardwood


Planing


Rebating


Sizing

Machines:
CNC overhead routing machines.

Materials:
Softwood and hardwood.

Applications:
Planing, rebating and sizing.

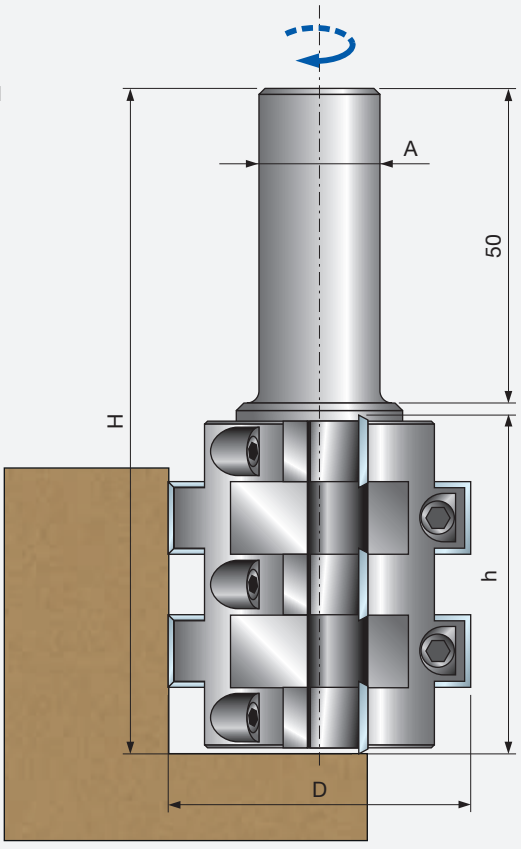
Technical information:
Disposable knives tool for roughing and sizing and suitable for cutting rebates.
- The multiple edge guarantees low noise running and optimum chip discharge.
- Steel body.

D mm	h mm	H mm	A mm	Z	Max RPM 1/min.	Freud Code	Art. No.
50	56	108	20	10	12.000	**TM10MD AA3**	F03FC20422
50	78	130	20	14	12.000	**TM10MD AC3**	F03FC20423

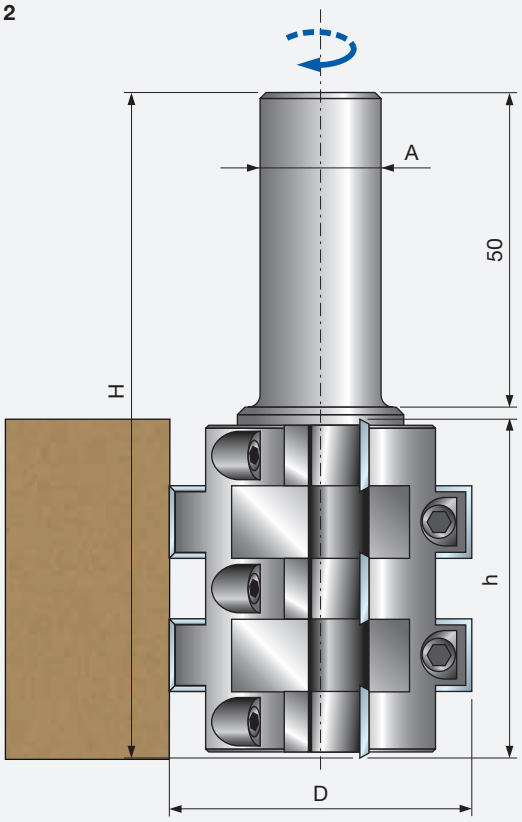
	Spare parts	Dimensions mm	Freud Code	Art. No.
	Knife	12 x 12 x 1,5	**CG08MBA310**	F03FH02903
	Wedge	15 x 10 x 8	**CN01M BA9**	F03FC01249
	Screw	M6 x 12	**VT03M DL9**	F03FA04441
	Allen key	3	**CB03M AA9**	F03FA00162

Working examples

1



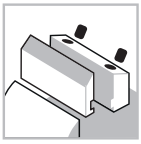
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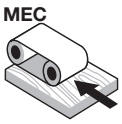




NC12M Spoilboard surfacing cutters


CNC Routers


Clamping system



Automatic feed


Steel Body


MDF


Planing


Rebating

Machines:
Nesting and CNC overhead routing machines.

Materials:
MDF.

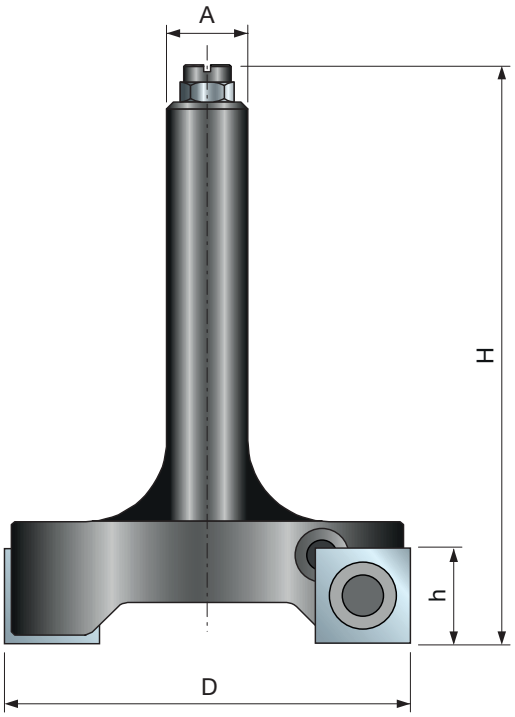
Applications:
Planing and rebating.

Technical information:
Spurs cutterhead for recover a spoil board.
- The cutters have 4 sides, so they can be used 4 times.
- **NC12M...** Positive shear angle - for solid wood and other board materials.
- **NC12M...N** Negative shear angle - for LDF, MDF or composite particle spoilboard for nesting.
- Steel body.

D mm	h mm	H mm	A mm	Z	Max RPM 1/min.	Freud Code	Art. No.
60	13	80	12	2	-	**NC12M60**	F03FR03949
80	13	80	20	3	-	**NC12M80**	F03FR03884
100	13	80	20	3	-	**NC12M100**	F03FR03886
60	13	80	12	2	-	**NC12M60N**	F03FR03950
80	13	80	20	3	-	**NC12M80N**	F03FR03885
100	13	80	20	3	-	**NC12M100N**	F03FR03887

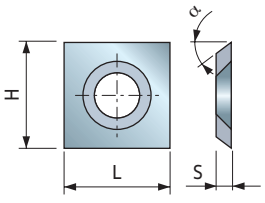
D inch	h inch	H inch	A inch	Z	Max RPM 1/min.	Freud Code	Art. No.
2-1/2	1/2	3	1/2	2	-	**NC12M61**	F03FR03951
4	1/2	3	3/4	3	-	**NC12M101**	F03FR03888
2-1/2	1/2	3	1/2	2	-	**NC12M61N**	F03FR03952
4	1/2	3	3/4	3	-	**NC12M101N**	F03FR03889

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Spur	14 x 14 x 2	**RG01MAI310**	F03FH03791
	Screw	M5 x 8	**VT05M AA9**	F03FA04444
	Hex nut	M4	**2606M CE9**	F03FA07360
	Slotted cheese head screw	M4 x 10	**2611M DB9**	F03FA07386
	Torx key	T20	**CB03M CC9**	F03FA00167



Optional square disposable spur

L mm	H mm	S mm	Type	Quality of HW	α	Freud Code	Art. No.
14	14	2	**1**	H00XA	31°	**RG01MAH310**	F03FH03037

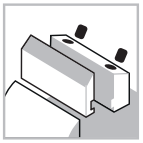


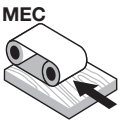


NC96MGC13

CNC multicut planer cutterhead


CNC Machines


Clamping system



Automatic feed


Aluminium body


Softwood


Hardwood


Planing


Rebating

Machines:
CNC overhead routing machines.

Materials:
Softwood and hardwood.

Applications:
Planing.

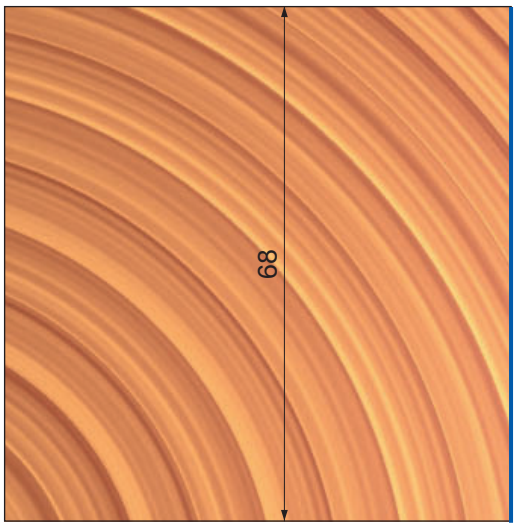
Technical information:
Multicut CNC tool suitable for planing, rebating and roughing.
- Timber up to 92 mm thickness, tool available in left and right hand rotation.
- Chuck and knives to be ordered separately.
- Aluminium light alloy body.

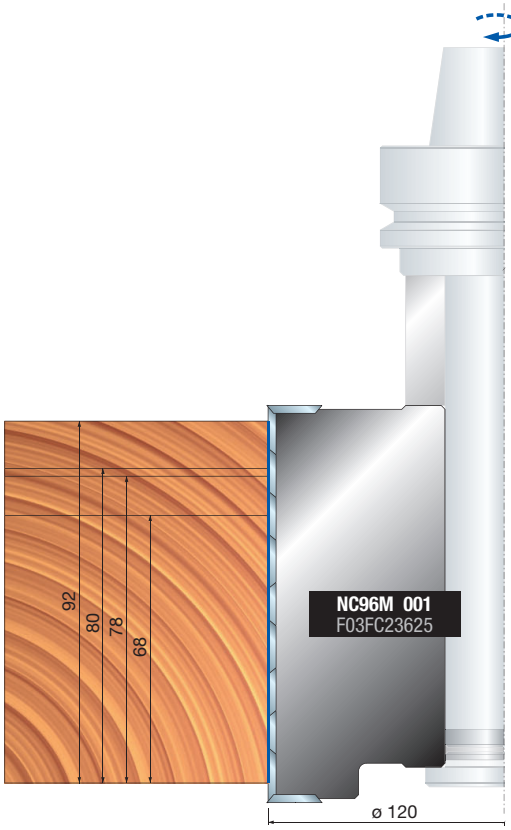
D mm	B mm	d mm	Max RPM 1/min.	Freud Code	Art. No.
120	104	30	11.000	**NC96MGC13**	F03FC23630

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Spacer	50 x 33 x 30	**AN01MA3309**	F03FC00067
	Steel pin	4 x 10	**2601M AB9**	F03FA07326
	Spur	14 x 14 x 2	**RG01MAG310**	F03FC24180
	Screw	M5 x 8	**VT05M AA9**	F03FA04444

Tools for set NC93M 100

D mm	B mm	d mm	Freud Code	Art. No.
120	101	30	**NC96MGC13**	F03FC23625

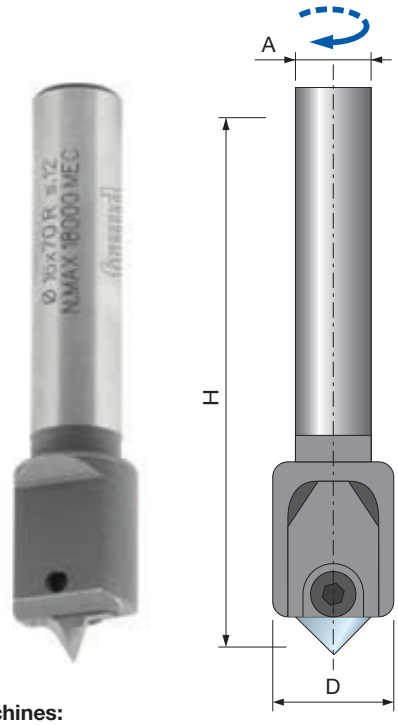




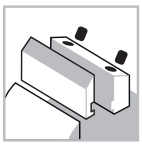
Profiling

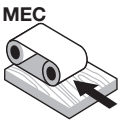


NC01M Multiprofile router cutter - Z1




CNC Routers


Clamping system



Automatic feed

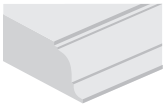

Steel Body


Softwood


Hardwood


Chipboard


MDF


Profiling


Grooving

D mm	H mm	A mm	Z	Max RPM 1/min.	Freud Code	Art. No.
16	70	12 x 50	1	18.000	**NC01MCA**	F03FA01710
16	70	12 x 50	1	18.000	**NC01M-A**	F03FA01709

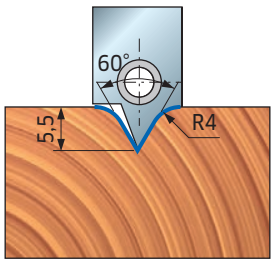
Profile	Spare knives	Dimensions mm	Freud Code	Art. No.
1	Knife	12x19 R=4	**CC01MT0101**	F03FA18124
2	Knife	12x19 R=4	**CC01MT0201**	F03FA18125
3	Knife	12x19 R=2,5	**CC01MT0301**	F03FA18126
4	Knife	12x19 α=90°	**CC01MT0401**	F03FA18127
5	Knife	12x19 R=5	**CC01MT0501**	F03FA18128
6	Knife	12x19 R=4	**CC01MT0601**	F03FA18129
7	Knife	12x19 R=2,5	**CC01MT0701**	F03FA18130
8	Knife	12x19 R=2,25	**CC01MT0801**	F03FA18131
9	Knife	12x19 R=5	**CC01MT0901**	F03FA18132
10	Knife	12x19 R=3	**CC01MT1001**	F03FA18133
11	Knife	12x19 R=3	**CC01MT1101**	F03FC25455

Machines:
CNC overhead routing machines.

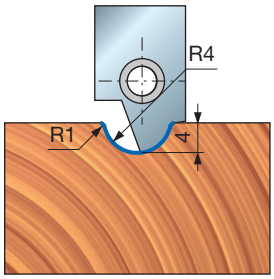
Materials:
Softwood, hardwood, wood based panels and MDF.

Applications:
Profiling and grooving.

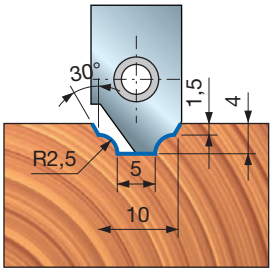
Technical information:
Multiprofile router cutter available with 11 different shape solutions.
- Item **NC01MCA** includes the router cutter body and 10 knives (1 for each profile).
- For making one profile only, please order the router cutter body **NC01M–A** and 1 knife with the desired profile.
- Steel body.



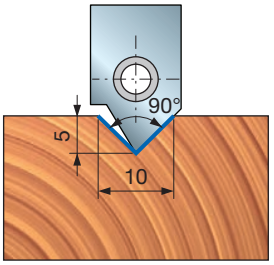
PROFILE 1



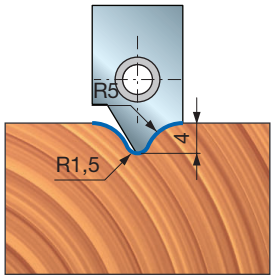
PROFILE 2



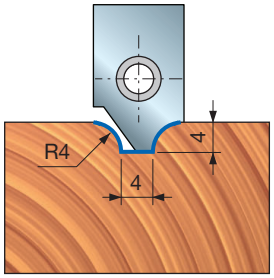
PROFILE 3



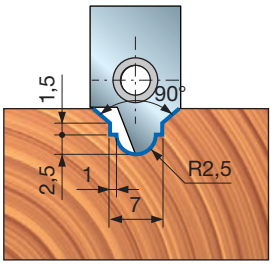
PROFILE 4



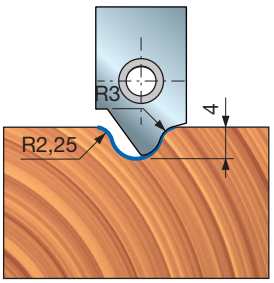
PROFILE 5



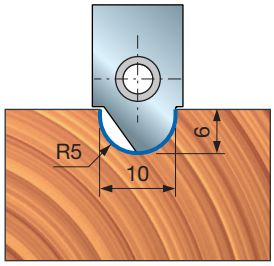
PROFILE 6



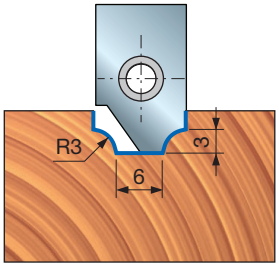
PROFILE 7



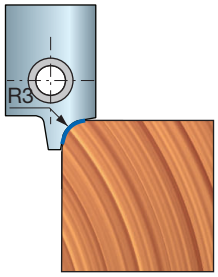
PROFILE 8



PROFILE 9



PROFILE 10



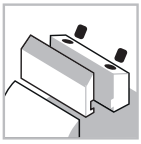
PROFILE 11

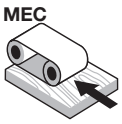


NC02M

CNC router cutter with profiled knives


CNC Routers


Clamping system



Automatic feed

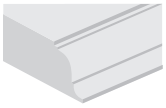

Steel Body


Softwood


Hardwood


Chipboard


MDF


Profiling

Grooving

D mm	h mm	A mm	Max RPM 1/min.	Freud Code	Art. No.
50	35	12	12.000	**NC02M11012**	F03FC15441
50	35	20	12.000	**NC02M11020**	F03FC15443

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Screw	M6 x 12	**2607M 006**	F03FA07456
	Screw	M5 x 5	**2615M CC9**	F03FA07420
	Washer	14 x 2 x 6	**VT18M AL9**	F03FC20662
	Allen key	4	**CB03M BA9**	F03FA00163
	Allen key	2,5	**2619M CA9**	F03FA07432

Profile	Spare knives	Dimensions mm	Freud Code	Art. No.
1	Knife	17,5 x 35 x 3	**CC02M110A01**	F03FC23740
2	Knife	17,5 x 35 x 3	**CC02M110B01**	F03FC23741
3	Knife	17,5 x 35 x 3	**CC02M110C01**	F03FC23742
4	Knife	17,5 x 35 x 3	**CC02M110D01**	F03FC23743
5	Knife	17,5 x 35 x 3	**CC02M110E01**	F03FC23744
6	Knife	17,5 x 35 x 3	**CC02M110F01**	F03FC23745

Performance System TECHNOLOGY

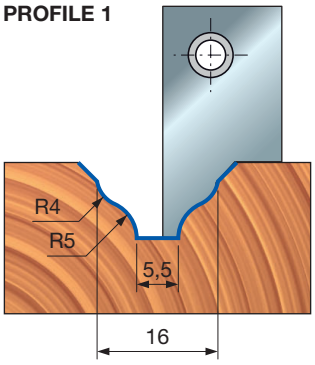
Machines:
CNC overhead routing machines.

Materials:
Softwood, hardwood, wood based panels and MDF.

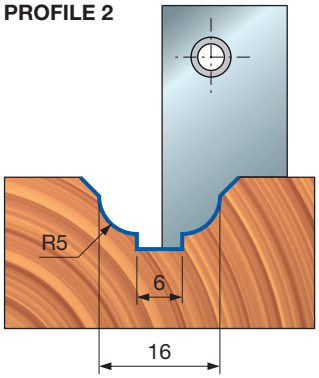
Applications:
Profiling and grooving.

Technical information:
Performance knives router cutter with 6 available profiles (knives included in the box).
- 12x50 mm and 20x50 mm shank available.
- Steel body.

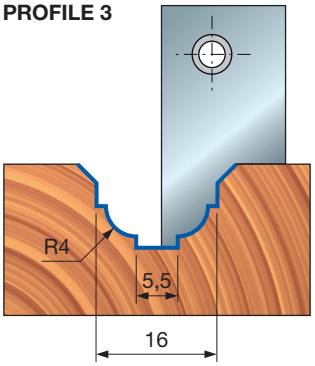
PROFILE 1



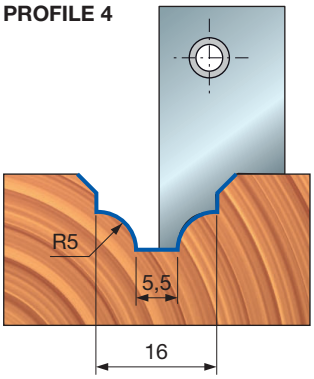
PROFILE 2



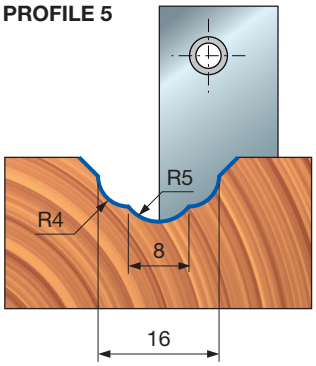
PROFILE 3



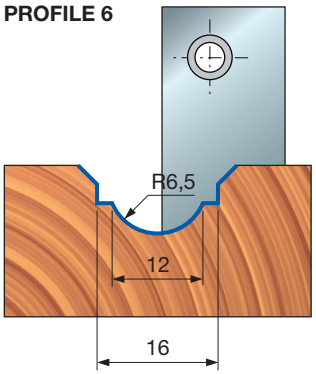
PROFILE 4



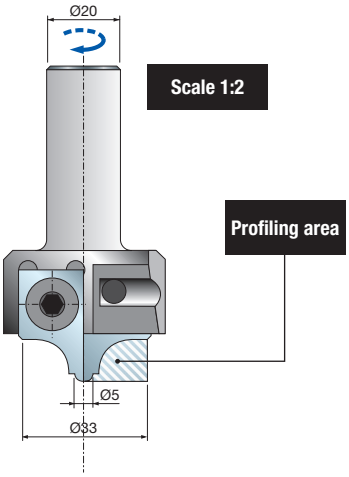
PROFILE 5



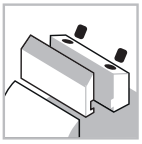
PROFILE 6

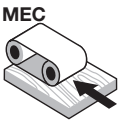


PCN110 Customised CNC router cutter with profiled knives




CNC Routers


Clamping system



Automatic feed

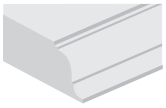

Steel Body


Softwood


Hardwood


Chipboard


MDF


Profiling


Grooving

D mm	B mm	A mm	Max RPM 1/min.	Freud Code	Art. No.
50	33	20 x 50	25.000	**PCN110**	-

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Knife	17,5 x 35 x 3	**CCN110**	
	Screw	M5 x 5	**2615M CC9**	F03FA07420
	Screw	M6 x 12	**2607M 006**	F03FA07456
	Washer	14 x 2 x 6	**VT18M AL9**	F03FC20662
	Allen key	4	**CB03M BA9**	F03FA00163
	Allen key	2,5	**2619M CA9**	F03FA07432

Machines:
CNC overhead routing machines.

Materials:
Softwood, hardwood, wood based panels and MDF.

Applications:
Profiling and grooving.

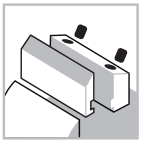
Technical information:
Performance CNC router cutter suitable for customised profiles.
- Steel body.
- **PCN110** item includes router cutter complete of components, knives (minimum order quantity 6 pieces) and maintenance keys for orders please specify: shank dimensions, profile drawing (please refer to knife profiling area).

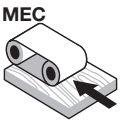


NC21MCA

CNC router cutter with multiradius knives


CNC Routers


Clamping system



Automatic feed

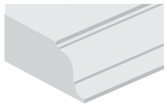

Steel Body


Softwood


Hardwood


Chipboard


MDF


Profiling


Grooving

D mm	h mm	A mm	Max RPM 1/min.	Freud Code	Art. No.
48	34	20 x 50	18.000	**NC21MCA***	F03FC15446
48	34	20 x 50	18.000	**NC21M-A****	F03FC15445

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Screw	M4 x 10	**2622M AB9**	F03FA07453
	Screw	M8 x 18	**2622M DF9**	F03FA07457
	Washer	9 x 1,5 x 4	**VT18M AH9**	F03FA04481
	Allen key	2,5	**2619M CA9**	F03FA07432

Profile	Spare knives	Dimensions mm	Freud Code	Art. No.
1 	Knife	24 x 34 x 2,5 R=8	**CC21MT0101**	F03FC23746
2 	Knife	24 x 34 x 2,5 R=10	**CC21MT0201**	F03FC23747
3 	Knife	24 x 34 x 2,5 R=12	**CC21MT0301**	F03FC23748

Performance System TECHNOLOGY

Machines:
CNC overhead routing machines.

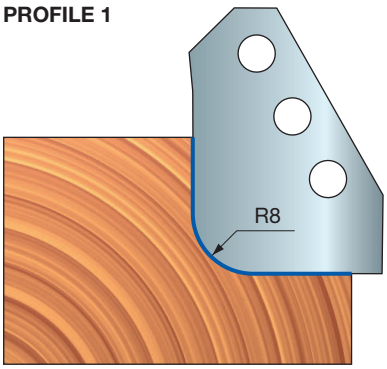
Materials:
Softwood, hardwood, wood based panels and MDF.

Applications:
Profiling and grooving.

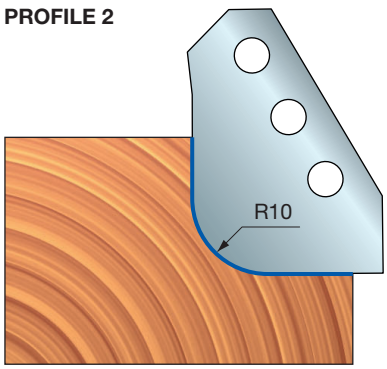
Technical information:
Performance knives router cutter suitable for profiling with 3 available profiles.
- Steel body.
- 20x50 mm shank.

***NC21MCA:** complete with all available knives.
****NC21M-A:** knives to be ordered separately.

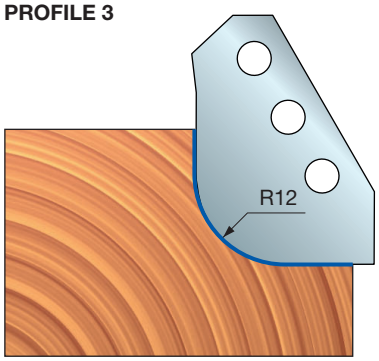
PROFILE 1



PROFILE 2



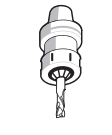
PROFILE 3

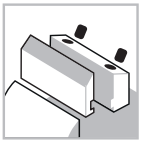


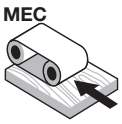


NC23MCA

CNC router cutter with multiradius knives


CNC Routers


Clamping system



Automatic feed

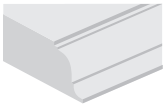

Steel Body


Softwood


Hardwood


Chipboard


MDF


Profiling


Grooving

D mm	h mm	A mm	Max RPM 1/min.	Freud Code	Art. No.
48	34	20 x 50	18.000	**NC23MCA***	F03FC15448
48	34	20 x 50	18.000	**NC23M-A****	F03FC15447

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Screw	M4 x 10	**2622M AB9**	F03FA07453
	Screw	M8 x 18	**2622M DF9**	F03FA07457
	Washer	9 x 1,5 x 4	**VT18M AH9**	F03FA04481
	Allen key	2,5	**2619M CA9**	F03FA07432

Profile	Spare knives	Dimensions mm	Freud Code	Art. No.
1 	Knife	24 x 34 x 2,5 R=15	**CC23MT0101**	F03FC23749
2 	Knife	24 x 34 x 2,5 R=17,5	**CC23MT0201**	F03FC23750
3 	Knife	24 x 34 x 2,5 R=20	**CC23MT0301**	F03FC23751

Performance System TECHNOLOGY

Machines:
CNC overhead routing machines.

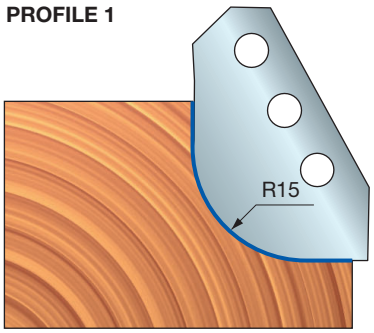
Materials:
Softwood, hardwood, wood based panels and MDF.

Applications:
Profiling and grooving.

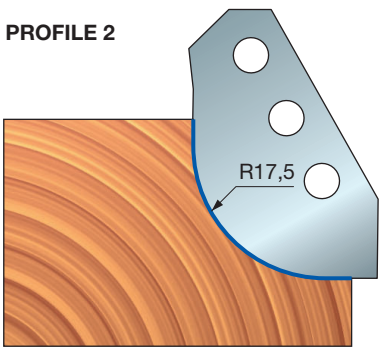
Technical information:
Performance knives router cutter suitable for profiling with 3 available profiles.
- Steel body.
- 20x50 mm shank.

***NC23MCA:** complete with all available knives.
****NC23M-A:** knives to be ordered separately.

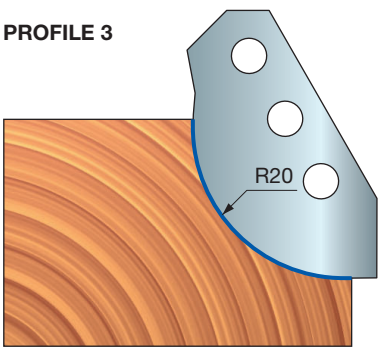
PROFILE 1



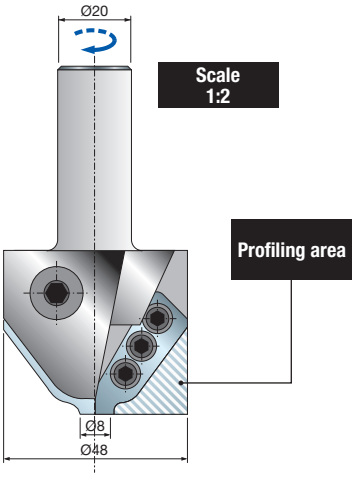
PROFILE 2



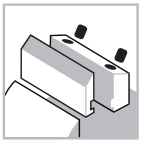
PROFILE 3

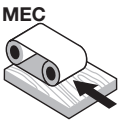


PCN121 Customised CNC router cutter with profiled knives




CNC Routers


Clamping system



Automatic feed

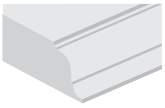

Steel Body


Softwood


Hardwood


Chipboard


MDF


Profiling


Grooving

D mm	B mm	A mm	Max RPM 1/min.	Freud Code	Art. No.
65	45	20 x 50	18.000	**PCN121**	-

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Knife	24,5 x 34 x 2,5	**CCN120**	-
	Screw	M8 x 18	**2622M DF9**	F03FA07457
	Screw	M4 x 10	**2622M AB9**	F03FA07453
	Washer	9 x 1,5 x 4	**VT18M AH9**	F03FA04481
	Allen key	2,5	**2619M CA9**	F03FA07432

Machines:
CNC overhead routing machines.

Materials:
Softwood, hardwood, wood based panels and MDF.

Applications:
Profiling and grooving.

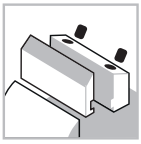
Technical information:
Performance CNC router cutter suitable for customised profiles.
- Steel body.
- **PCN121** item includes router cutter complete of components, knives (minimum order quantity 6 pieces) and maintenance keys. For orders please specify: shank dimensions and profile drawing (please refer to knife profiling area).

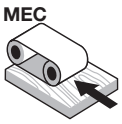


NC30MCA

CNC router cutter with multiradius knives


CNC Routers


Clamping system



Automatic feed

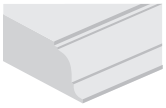

Steel Body


Softwood


Hardwood


Chipboard


MDF


Profiling

D mm	B mm	A mm	Max RPM 1/min.	Freud Code	Art. No.
96	55	20	11.000	**NC30MCA***	F03FC15451
96	55	20	11.000	**NC30M-A****	F03FC15449

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Allen key	4	**CB03M BA9**	F03FA00163

Profile	Spare knives	Dimensions mm	Freud Code	Art. No.
1	Knife	55 x 35 x 3 R=2	**CC30MT0201**	F03FC23752
2	Knife	55 x 35 x 3 R=3	**CC30MT0301**	F03FC23753
3	Knife	55 x 35 x 3 R=4	**CC30MT0401**	F03FC23754
4	Knife	55 x 35 x 3 R=5	**CC30MT0501**	F03FC23755
5	Knife	55 x 35 x 3 R=6	**CC30MT0601**	F03FC23756
6	Knife	55 x 35 x 3 R=7	**CC30MT0701**	F03FC23757

Machines:
CNC overhead routing machines.

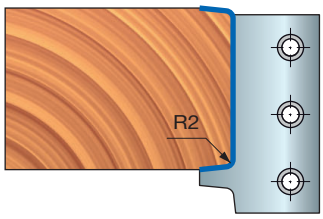
Materials:
Softwood, hardwood, wood based panels and MDF.

Applications:
Profiling.

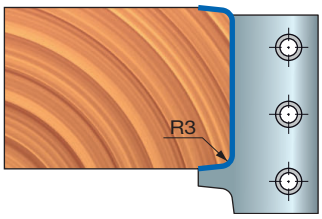
Technical information:
Performance knives router cutter suitable for profiling with 6 available radius profiles.
- Steel body.
- 20x50 mm shank.

***NC30MCA:** complete with all available knives.
****NC30M-A:** knives to be ordered separately.

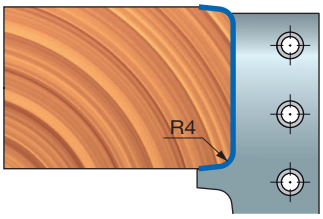
PROFILE 1



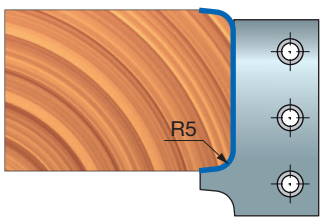
PROFILE 2



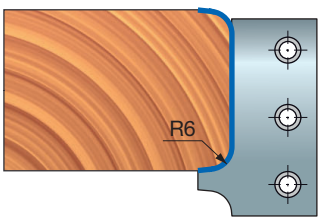
PROFILE 3



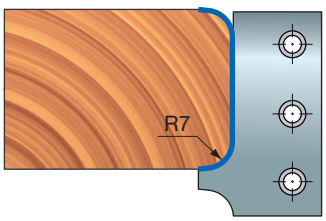
PROFILE 4



PROFILE 5



PROFILE 6

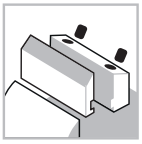


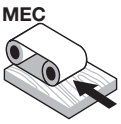


NC30MCB

CNC router cutter with multiradius knives


CNC Routers


Clamping system



Automatic feed

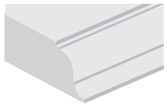

Steel Body


Softwood


Hardwood


Chipboard


MDF


Profiling

Performance System TECHNOLOGY

Machines:
CNC overhead routing machines.

Materials:
Softwood, hardwood, wood based panels and MDF.

Applications:
Profiling.

Technical information:
Performance knives router cutter suitable for profiling with 6 available radius profiles.
- Steel body.
- 20x50 mm shank.

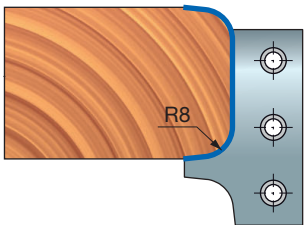
***NC30MCB:** complete with all available knives.
****NC30M-B:** knives to be ordered separately.

D mm	B mm	A mm	Max RPM 1/min.	Freud Code	Art. No.
96	55	20	11.000	**NC30MCB***	F03FC15452
96	55	20	11.000	**NC30M-B****	F03FC15450

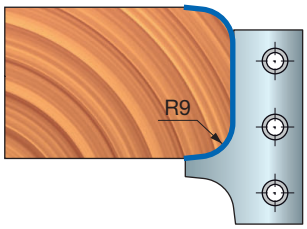
	Spare parts	Dimensions mm	Freud Code	Art. No.
	Allen key	4	**CB03M BA9**	F03FA00163

Profile	Spare knives	Dimensions mm	Freud Code	Art. No.
1	Knife	55 x 35 x 3 R=8	**CC30MT0801**	F03FC23758
2	Knife	55 x 35 x 3 R=9	**CC30MT0901**	F03FC23759
3	Knife	55 x 35 x 3 R=10	**CC30MT1001**	F03FC23760
4	Knife	55 x 35 x 3 R=11	**CC30MT1101**	F03FC23761
5	Knife	55 x 35 x 3 R=12	**CC30MT1201**	F03FC23762
6	Knife	55 x 35 x 3 R=13	**CC30MT1301**	F03FC23763

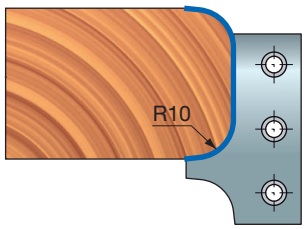
PROFILE 1



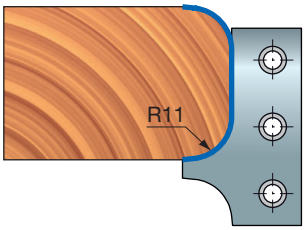
PROFILE 2



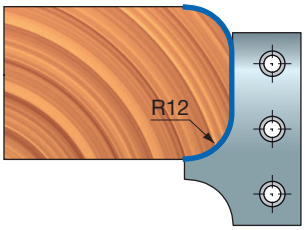
PROFILE 3



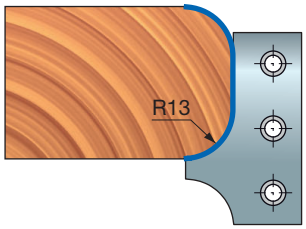
PROFILE 4

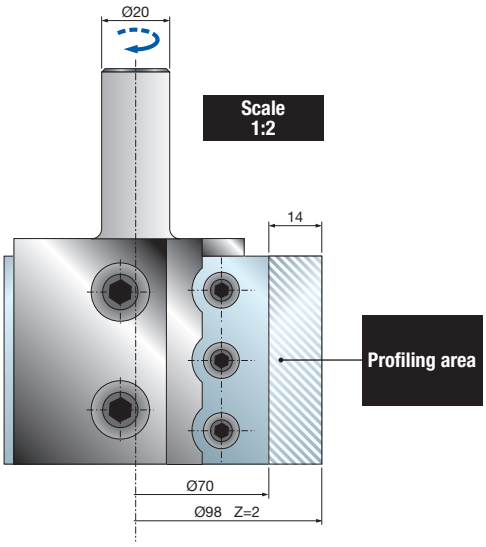


PROFILE 5

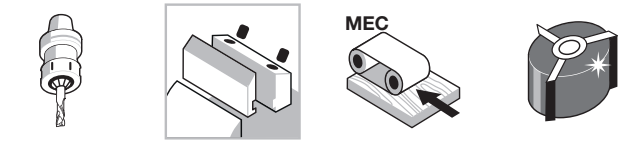


PROFILE 6





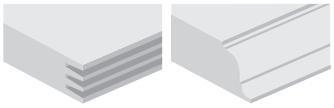
PCN130 Customised CNC router cutter with profiled knives



CNC Routers | Clamping system | Automatic feed | Steel Body



Softwood | Hardwood | Chipboard | MDF



Jointing | Profiling

D mm	B mm	A mm	Max RPM 1/min.	Freud Code	Art. No.
98	55	20 x 50	11.000	**PCN130**	-

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Knife	55 x 35 x 3	**CCN130**	-
	Screw	M6 x 12	**2607M 006**	F03FA07456
	Screw	M10 x 25	**2622M EH9**	F03FA07459
	Washer	14 x 2 x 6	**VT18M AL9**	F03FC20662
	Allen key	4	**CB03M BA9**	F03FA00163
	* Screw	M4 x 6	**2602M CE9**	F03FA07349
	* Screw	18 x 7 x M6	**VT08M AG9**	F03FC20653

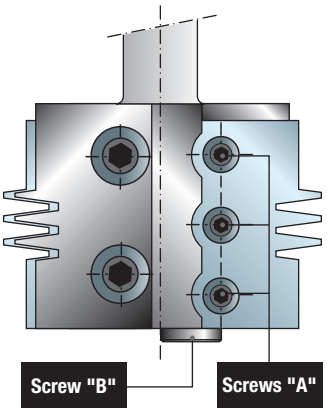
*Spare parts needed in case of jointing profiles.

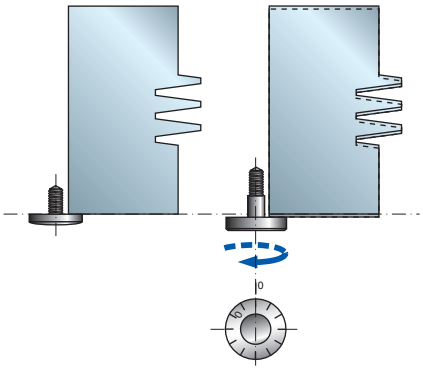
Machines:
CNC overhead routing machines.

Materials:
Softwood, hardwood, wood based panels and MDF.

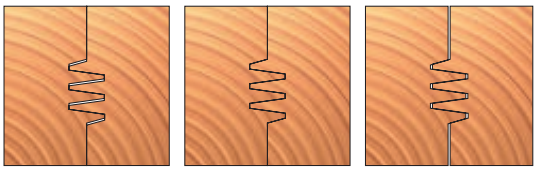
Applications:
Jointing and profiling.

Technical information:
Performance CNC router cutter suitable for customised profiles.
- Steel body.
- **PCN130** item includes router cutter complete of components, knives (minimum order quantity 6 pieces) and maintenance keys. For orders please specify: shank dimensions and profile drawing (please refer to knife profiling area).





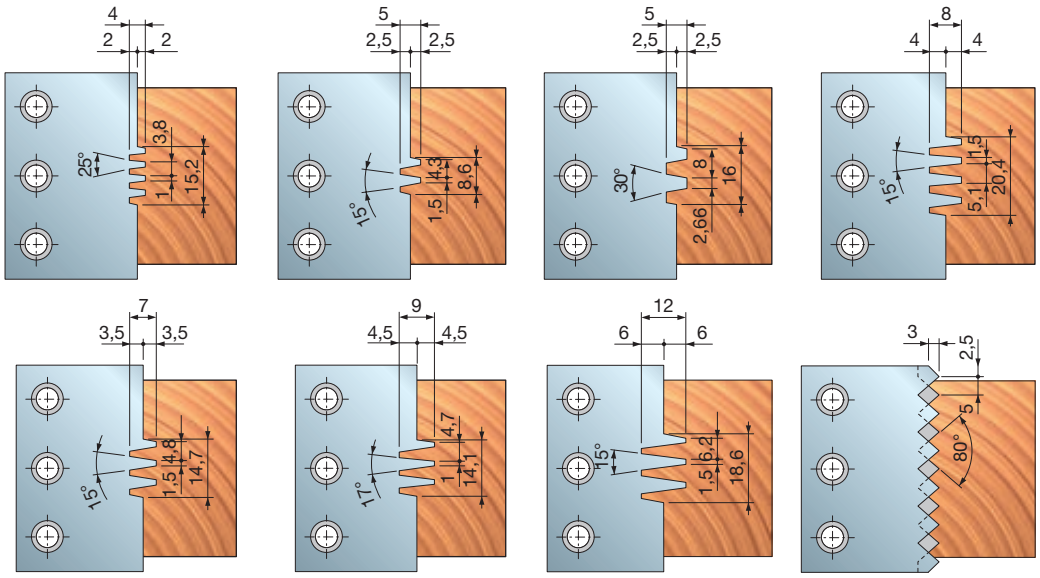
Adjustment examples



Regular joint | Tight joint | Loose joint

How to achieve different types of joint:
- Loosen screws "**A**" with the key supplied.
- Loosen or tighten screw "**B**" to obtain the desired type of joint.
- Tighten screws "**A**" while pushing the knife towards screw "**B**" and the knife seat.

PCN130 is suitable for jointing too, with 8 different joint proposals with adjusting system to manage regular, tight and loose joint.

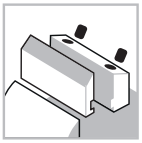


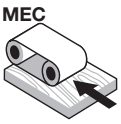


NC33MCA

CNC router cutter with multiradius knives


CNC Routers


Clamping system



Automatic feed

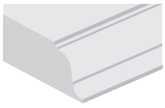

Steel Body


Softwood


Hardwood


Chipboard


MDF


Profiling

Performance System TECHNOLOGY

Machines:
CNC overhead routing machines.

Materials:
Softwood, hardwood, wood based panels and MDF.

Applications:
Profiling.

Technical information:
Performance knives router cutter suitable for profiling with 5 available radius profiles.
- Steel body.
- 20x88 mm shank.

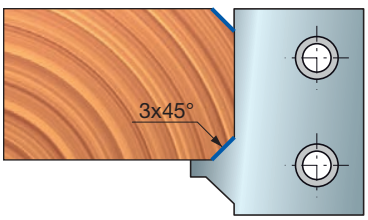
***NC33MCA:** complete with all available knives.
****NC33M-A:** knives to be ordered separately.

D mm	h mm	A mm	Max RPM 1/min.	Freud Code	Art. No.
87	35	20 x 88	11.000	**NC33MCA***	F03FC15454
87	35	20 x 88	11.000	**NC33M-A****	F03FC15453

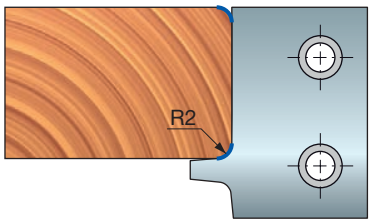
	Spare parts	Dimensions mm	Freud Code	Art. No.
	Screw	M6 x 12	**2607M 006**	F03FA07456
	Screw	M10 x 25	**2622M EH9**	F03FA07459
	Washer	14 x 2 x 6	**VT18M AL9**	F03FC20662
	Allen key	4	**CB03M BA9**	F03FA00163

Profile	Spare knives	Dimensions mm	Freud Code	Art. No.
1	Knife	35 x 34 x 3 3x45°	**CC33MT0101**	F03FC23764
2	Knife	35 x 34 x 3 R=2	**CC33MT0201**	F03FC23765
3	Knife	35 x 34 x 3 R=3	**CC33MT0301**	F03FC23766
4	Knife	35 x 34 x 3 R=4	**CC33MT0401**	F03FC23767
5	Knife	35 x 34 x 3 R=5	**CC33MT0501**	F03FC23768

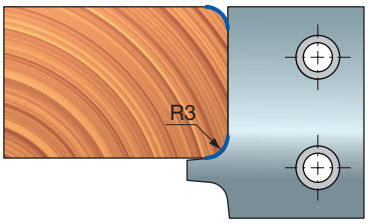
PROFILE 1



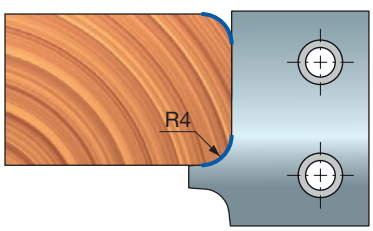
PROFILE 2



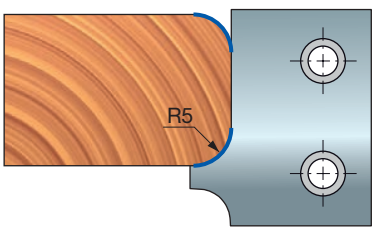
PROFILE 3

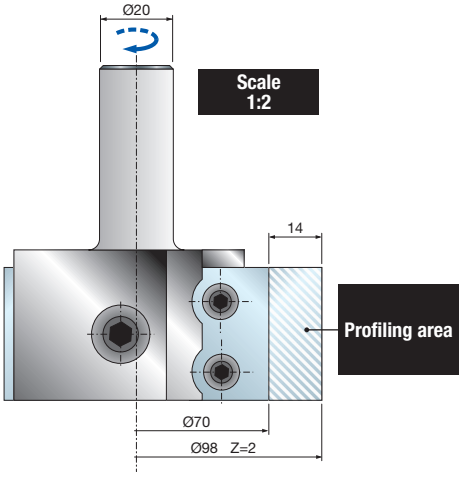


PROFILE 4

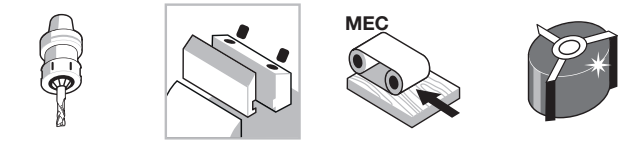


PROFILE 5





PCN133 Customised CNC router cutter with profiled knives



CNC Routers | Clamping system | Automatic feed | Steel Body



Softwood | Hardwood | Chipboard | MDF



Profiling | Jointing

D mm	B mm	A mm	Max RPM 1/min.	Freud Code	Art. No.
98	35	20 x 50	11.000	**PCN133**	-

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Knife	35 x 35 x 3	**CCN133**	
	Screw	M6 x 12	**2607M 006**	F03FA07456
	Screw	M10 x 25	**2622M EH9**	F03FA07459
	Washer	14 x 2 x 6	**VT18M AL9**	F03FC20662
	Allen key	4	**CB03M BA9**	F03FA00163

Machines:
CNC overhead routing machines.

Materials:
Softwood, hardwood, wood based panels and MDF.

Applications:
Profiling and jointing.

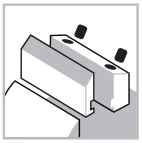
Technical information:
Performance CNC router cutter suitable for customised profiles.
- Steel body.
- **PCN133** item includes router cutter complete of components, knives (minimum order quantity 6 pieces) and maintenance keys. For orders please specify: shank dimensions and profile drawing (please refer to knife profiling area).

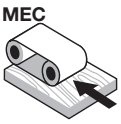
NC40MCA

CNC router cutter with multiradius knives




CNC Routers


Clamping system



Automatic feed

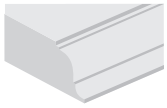

Steel Body


Softwood


Hardwood


Chipboard


MDF


Profiling


Grooving

D mm	h mm	A mm	Max RPM 1/min.	Freud Code	Art. No.
76	58	20 x 50	12.000	**NC40MCA***	F03FC15456
76	58	20 x 50	12.000	**NC40M-A****	F03FC15455

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Screw	M6 x 12	**2607M 006**	F03FA07456
	Screw	M10 x 25	**2622M EH9**	F03FA07459
	Washer	14 x 2 x 6	**VT18M AL9**	F03FC20662
	Allen key	4	**CB03M BA9**	F03FA00163

Profile	Spare knives	Dimensions mm	Freud Code	Art. No.
1	Knife	48 x 53 x 3 R=8	**CC40MT0101**	F03FC23769
2	Knife	48 x 53 x 3 R=10	**CC40MT0201**	F03FC23770
3	Knife	48 x 53 x 3 R=12	**CC40MT0301**	F03FC23771
4	Knife	48 x 53 x 3 R=15	**CC40MT0401**	F03FC23772

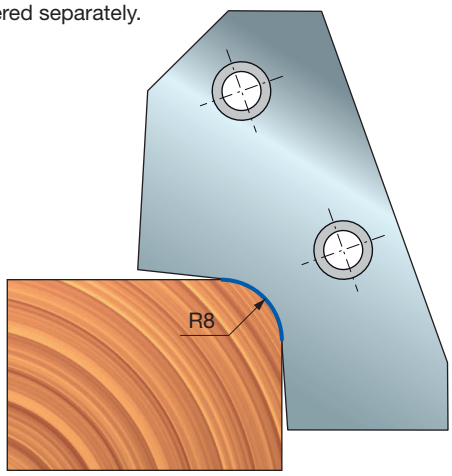
Machines:
CNC overhead routing machines.

Materials:
Softwood, hardwood, wood based panels and MDF.

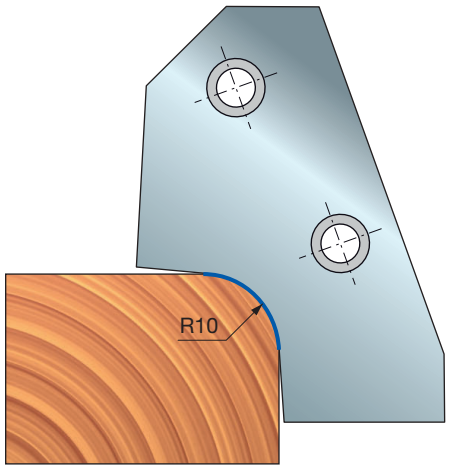
Applications:
Profiling and grooving.

Technical information:
Performance knives router cutter suitable for profiling with 4 available radius profiles.
- Steel body.
- 20x50 mm shank.

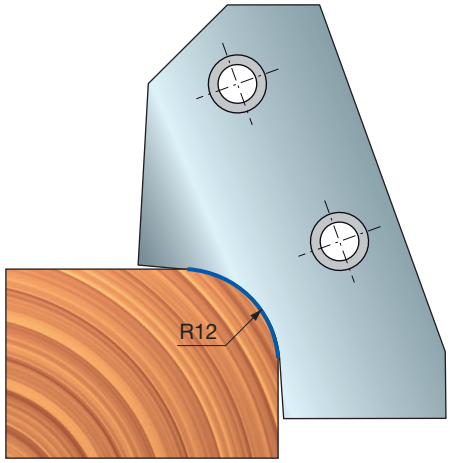
***NC40MCA:** complete with all available knives.
****NC40M-A:** knives to be ordered separately.



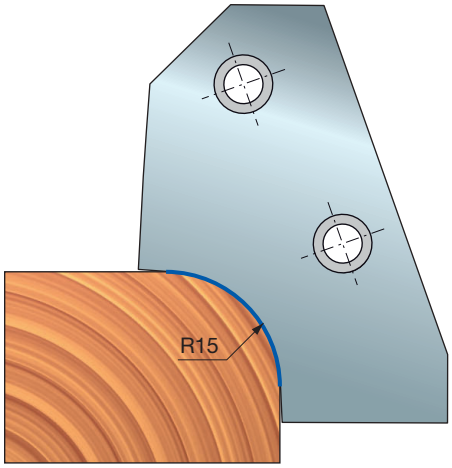
PROFILE 1



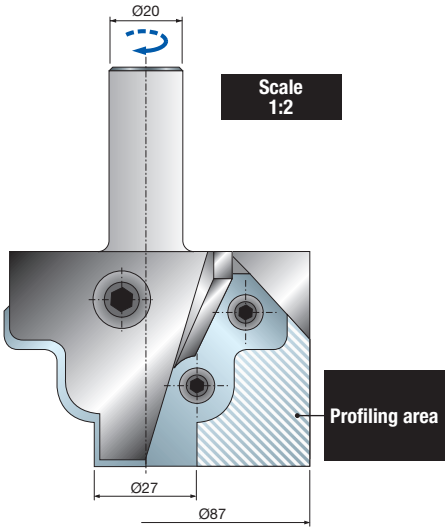
PROFILE 2



PROFILE 3

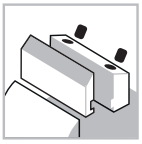


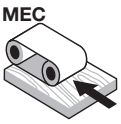
PROFILE 4



PCN140 Customised CNC router cutter with profiled knives


CNC Routers


Clamping system



Automatic feed

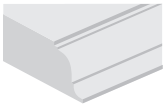

Steel Body


Softwood


Hardwood


Chipboard


MDF


Profiling

D mm	B mm	A mm	Max RPM 1/min.	Freud Code	Art. No.
90	58	20 x 50	12.000	**PCN140**	-

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Knife	48 x 53 x 3	**CCN140**	
	Screw	M6 x 12	**2607M 006**	F03FA07456
	Screw	M10 x 25	**2622M EH9**	F03FA07459
	Washer	14 x 2 x 6	**VT18M AL9**	F03FC20662
	Allen key	4	**CB03M BA9**	F03FA00163

Performance System TECHNOLOGY

Machines:
CNC overhead routing machines.

Materials:
Softwood, hardwood, wood based panels and MDF.

Applications:
Profiling and grooving.

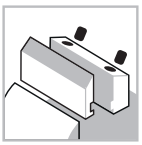
Technical information:
Performance CNC router cutter suitable for customised profiles.
- Steel body.
- **PCN140** item includes router cutter complete of components, knives (minimum order quantity 6 pieces) and maintenance keys. For orders please specify: shank dimensions and profile drawing (please refer to knife profiling area).

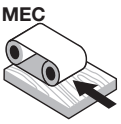
NC50MCA

CNC router cutter with multiradius knives




CNC Routers


Clamping system



Automatic feed

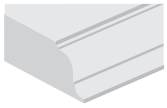

Steel Body


Softwood


Hardwood


Chipboard


MDF


Profiling

Grooving

Performance System TECHNOLOGY

D mm	h mm	A mm	Max RPM 1/min.	Freud Code	Art. No.
72	59	20 x 50	12.000	**NC50MCA***	F03FC15458
72	59	20 x 50	12.000	**NC50M-A****	F03FC15457

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Screw	M6 x 12	**2607M 006**	F03FA07456
	Screw	M10 x 25	**2622M EH9**	F03FA07459
	Washer	14 x 2 x 6	**VT18M AL9**	F03FC20662
	Allen key	4	**CB03M BA9**	F03FA00163

Profile	Spare knives	Dimensions mm	Freud Code	Art. No.
1	Knife	47 x 53 x 3 R=15	**CC50MT0101**	F03FC23773
2	Knife	47 x 53 x 3 R=17,5	**CC50MT0201**	F03FC23774
3	Knife	47 x 53 x 3 R=20	**CC50MT0301**	F03FC23775

Machines:
CNC overhead routing machines.

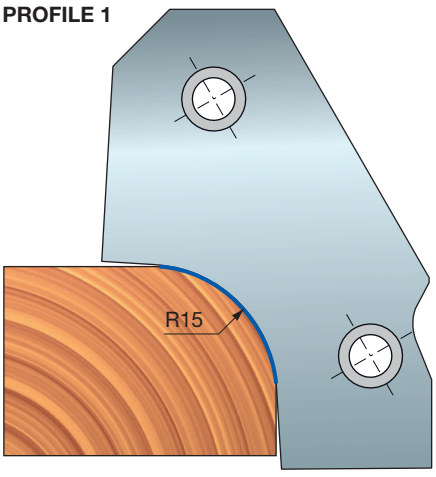
Materials:
Softwood, hardwood, wood based panels and MDF.

Applications:
Profiling and grooving.

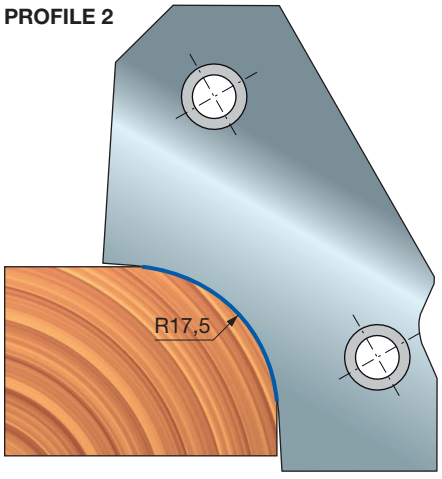
Technical information:
Performance knives router cutter suitable for profiling with 3 available radius profiles.
- Steel body.
- 20x50 mm shank.

***NC50MCA:** complete with all available knives.
****NC50M-A:** knives to be ordered separately.

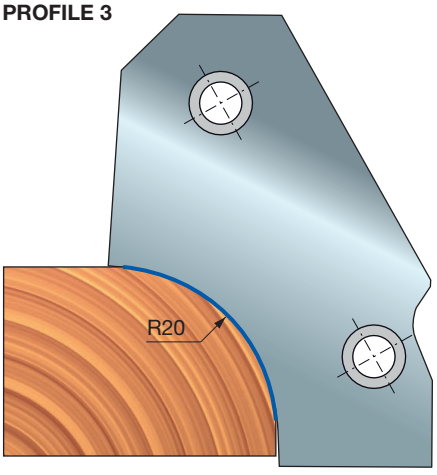
PROFILE 1



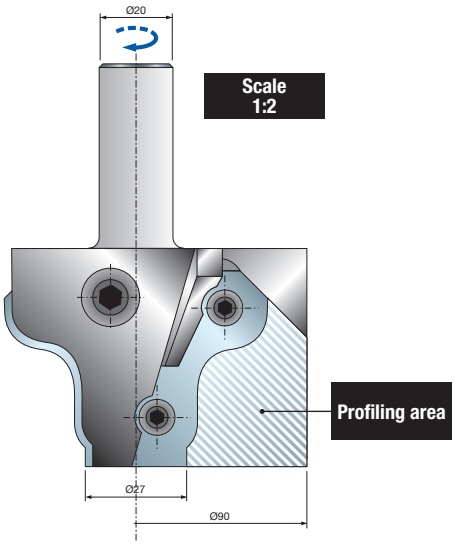
PROFILE 2



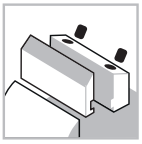
PROFILE 3

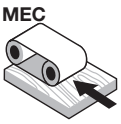


PCN150 Customised CNC router cutter with profiled knives




CNC Routers


Clamping system



Automatic feed

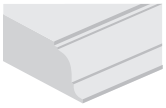

Steel Body


Softwood


Hardwood


Chipboard


MDF


Profiling


Grooving

D mm	B mm	A mm	Max RPM 1/min.	Freud Code	Art. No.
90	59	20 x 50	12.000	**PCN150**	-

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Knife	47 x 53 x 3	**CCN150**	
	Screw	M6 x 12	**2607M 006**	F03FA07456
	Screw	M10 x 25	**2622M EH9**	F03FA07459
	Washer	14 x 2 x 6	**VT18M AL9**	F03FC20662
	Allen key	4	**CB03M BA9**	F03FA00163

Machines:
CNC overhead routing machines.

Materials:
Softwood, hardwood, wood based panels and MDF.

Applications:
Profiling.

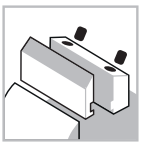
Technical information:
Performance CNC router cutter suitable for customised profiles.
- Steel body.
- **PCN150** item includes router cutter complete of components, knives (minimum order quantity 6 pieces) and maintenance keys. For orders please specify: shank dimensions and profile drawing (please refer to knife profiling area).

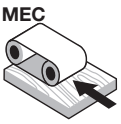
NC60MCA

CNC raised panel router cutter



CNC Routers


Clamping system

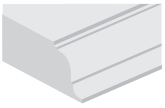


Automatic feed


Steel Body


Softwood


Hardwood


Profiling

Performance System TECHNOLOGY

Machines:
CNC overhead routing machines.

Materials:
Softwood and hardwood.

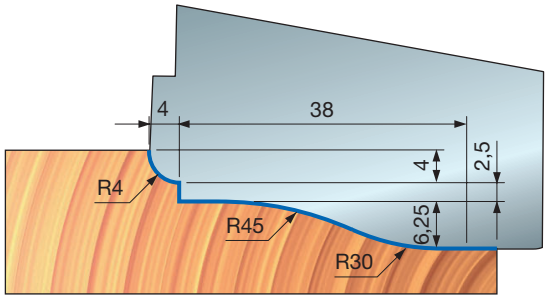
Applications:
Profiling.

Technical information:
Performance knives raised panel cutter.
- Knives included in the tool set.
- Steel body.
- 20x50 mm shank.

D mm	h mm	A mm	Max RPM 1/min.	Freud Code	Art. No.
114	54	20 x 50	9.000	**NC60MCA**	F03FC15459

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Screw	M5 x 8	**VT05M AA9**	F03FA04444
	Screw	M6 x 12	**2607M 006**	F03FA07456
	Screw	M10 x 25	**2622M EH9**	F03FA07459
	Positioning plate	20 x 11,6 x 2,2	**VT18M AS9**	F03FC20665
	Washer	14 x 2 x 6	**VT18M AL9**	F03FC20662
	Allen key	4	**CB03M BA9**	F03FA00163

Profile	Spare knives	Dimensions mm	Freud Code	Art. No.
	Knife	60 x 36 x 3	**CC60MT0101**	F03FC23776

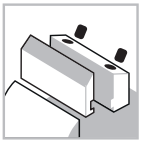


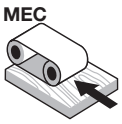


NC62MCA

CNC raised panel router cutter


CNC Routers


Clamping system

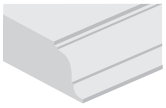


Automatic feed


Steel Body


Softwood


Hardwood


Profiling

Performance System TECHNOLOGY

Machines:
CNC overhead routing machines.

Materials:
Softwood and hardwood.

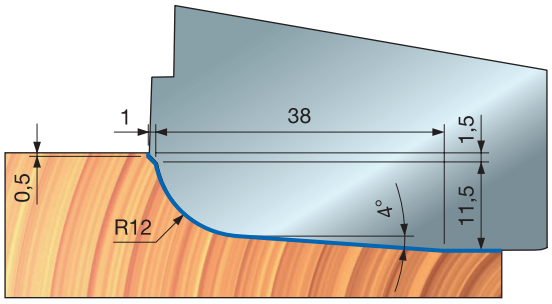
Applications:
Profiling.

Technical information:
Performance knives raised panel cutter.
- Knives included in the tool set.
- Steel body.
- 20x50 mm shank.

D mm	B mm	A mm	Max RPM 1/min.	Freud Code	Art. No.
114	54	20 x 50	9.000	**NC62MCA**	F03FC15460

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Screw	M5 x 8	**VT05M AA9**	F03FA04444
	Screw	M6 x 12	**2607M 006**	F03FA07456
	Screw	M10 x 25	**2622M EH9**	F03FA07459
	Positioning plate	20 x 11,6 x 2,2	**VT18M AS9**	F03FC20665
	Washer	14 x 2 x 6	**VT18M AL9**	F03FC20662
	Allen key	4	**CB03M BA9**	F03FA00163

Profile	Spare knives	Dimensions mm	Freud Code	Art. No.
	Knife	60 x 36 x 3	**CC62MT0101**	F03FC23777

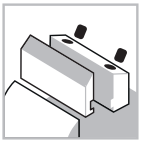


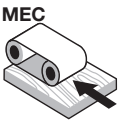


NC64MCA

CNC raised panel router cutter


CNC Routers


Clamping system



Automatic feed

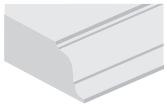

Steel Body


Softwood


Hardwood


Chipboard


MDF


Profiling

D mm	h mm	A mm	Max RPM 1/min.	Freud Code	Art. No.
114	54	20 x 50	9.000	**NC64MCA***	F03FC15462
114	54	20 x 50	9.000	**NC64M-A****	F03FC15461

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Screw	M6 x 12	**2607M 006**	F03FA07456
	Screw	M10 x 25	**2622M EH9**	F03FA07459
	Washer	14 x 2 x 6	**VT18M AL9**	F03FC20662
	Allen key	4	**CB03M BA9**	F03FA00163

Profile	Spare knives	Dimensions mm	Freud Code	Art. No.
1	Knife	60 x 36 x 3	**CC64MD0101**	F03FC23778
2	Knife	60 x 36 x 3	**CC64MD0201**	F03FC23779
3	Knife	60 x 36 x 3	**CC64MD0301**	F03FC23780
4	Knife	60 x 36 x 3	**CC64MD0401**	F03FC23781
5	Knife	60 x 36 x 3	**CC64MD0501**	F03FC23782

Performance System TECHNOLOGY

Machines:
CNC overhead routing machines.

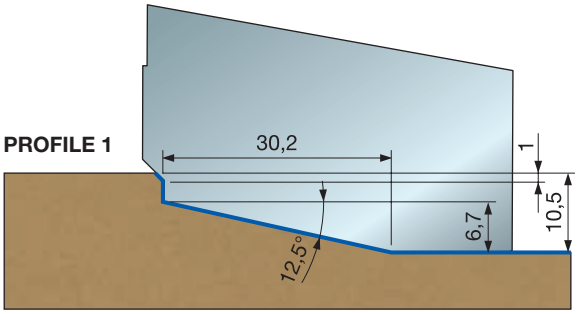
Materials:
Softwood, hardwood, wood based panels and MDF.

Applications:
Profiling.

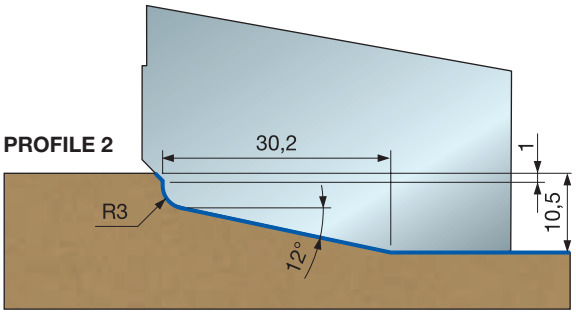
Technical information:
Performance knives raised panel cutter with 5 available profiles.
- Steel body.
- 20x50 mm shank.

***NC64MCA:** complete with all available knives.
****NC64M-A:** knives to be ordered separately.

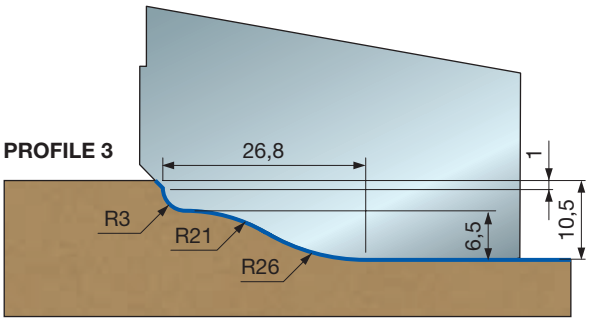
PROFILE 1



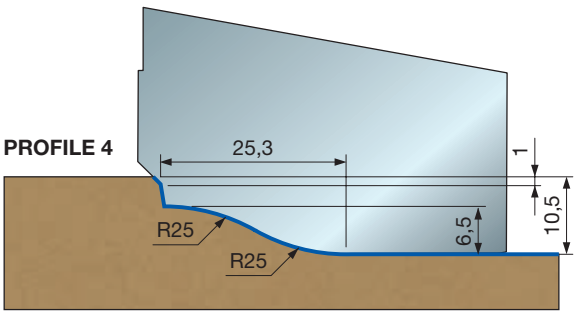
PROFILE 2



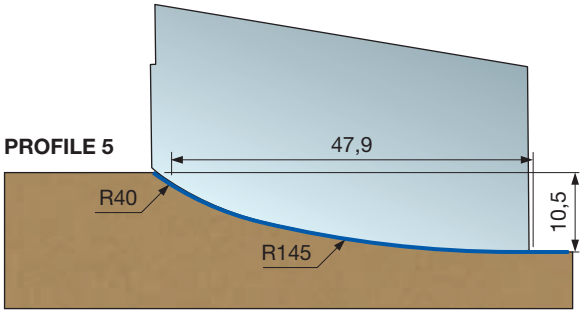
PROFILE 3

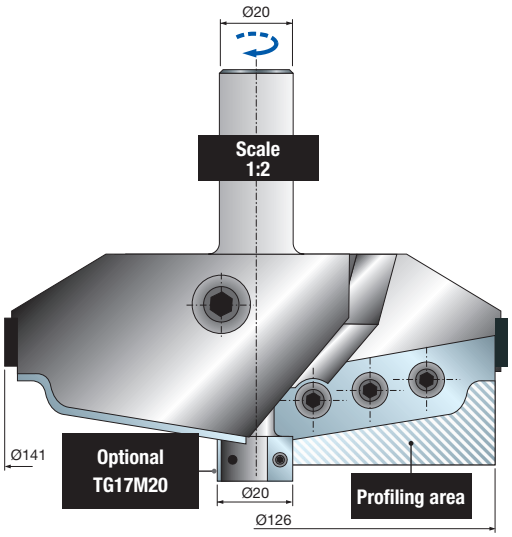


PROFILE 4



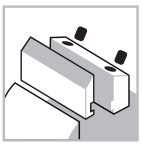
PROFILE 5

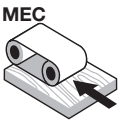




PCN160 Customised CNC raised panel router cutter


CNC Routers


Clamping system



Automatic feed

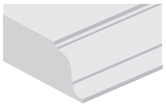

Steel Body


Softwood


Hardwood


Chipboard


MDF


Profiling

D mm	B mm	A mm	Max RPM 1/min.	Freud Code	Art. No.
141	54	20 x 50	9.000	**PCN160**	-

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Knife	60 x 35 x 3	**CCN160**	
	Screw	M6 x 12	**2607M 006**	F03FA07456
	Screw	M10 x 25	**2622M EH9**	F03FA07459
	Screw	M5 x 8	**VT05M AA9**	F03FA04444
	Washer	14 x 2 x 6	**VT18M AL9**	F03FC20662
	Positioning plate	20 x 11,6 x 2,2	**VT18M AS9**	F03FC20665
	Allen key	4	**CB03M BA9**	F03FA00163

Performance System TECHNOLOGY

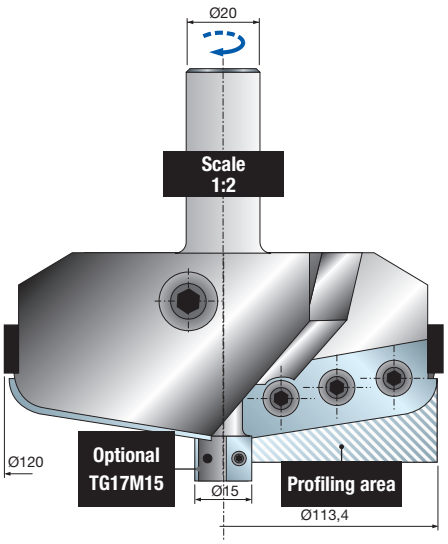
Machines:
CNC overhead routing machines.

Materials:
Softwood, hardwood, wood based panels and MDF.

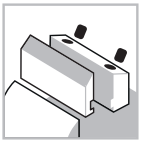
Applications:
Profiling.

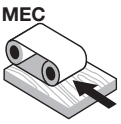
Technical information:
Performance CNC router cutter suitable for customised raised panels.
- Steel body.
- **PCN160** item includes router cutter complete of components, knives (minimum order quantity 6 pieces) and maintenance keys. For orders please specify: shank dimensions and profile drawing (please refer to knife profiling area).

PCN160R Customised CNC raised panel router cutter




CNC Routers


Clamping system



Automatic feed

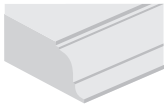

Steel Body


Softwood


Hardwood


Chipboard


MDF


Profiling

D mm	h mm	A mm	Max RPM 1/min.	Freud Code	Art. No.
120	54	20 x 50	9.000	**PCN160R**	-

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Knife	60 x 35 x 3	**CCN160**	
	Screw	M6 x 12	**2607M 006**	F03FA07456
	Screw	M10 x 25	**2622M EH9**	F03FA07459
	Screw	M5 x 8	**VT05M AA9**	F03FA04444
	Washer	14 x 2 x 6	**VT18M AL9**	F03FC20662
	Positioning plate	20 x 11,6 x 2,2	**VT18M AS9**	F03FC20665
	Allen key	4	**CB03M BA9**	F03FA00163

Machines:
CNC overhead routing machines.

Materials:
Softwood, hardwood, wood based panels and MDF.

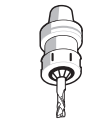
Applications:
Profiling.

Technical information:
Performance CNC router cutter suitable for customised raised panels.
- Steel body.
- **PCN160R** item includes router cutter complete of components, knives (minimum order quantity 6 pieces) and maintenance keys. For orders please specify: shank dimensions and profile drawing (please refer to knife profiling area).

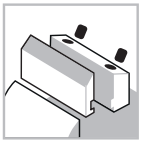


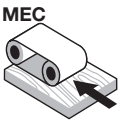
NC90MCA

CNC cabinet door router cutter - profile


CNC Routers


CNC Machines


Clamping system



Automatic feed

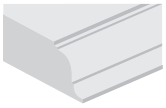

Steel Body


Softwood


Hardwood


Chipboard


MDF


Profiling

Performance System TECHNOLOGY

D mm	B mm	A mm	Max RPM 1/min.	Freud Code	Art. No.
102	35	20 x 50	10.500	**NC90MCA***	F03FC15465
102	35	20 x 50	10.500	**NC90M-A****	F03FC15463

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Screw	M10 x 18	**VT03M CC9**	F03FA04438
	Screw	M6 x 14,5	**VT16M AA9**	F03FA04476
	Screw	M5 x 7 x 18	**VT08M AE9**	F03FA04457
	Grooving insert	34 x 4	**SR06MDAG302**	F03FC24193
	Grooving insert	34 x 7	**SR06MDAH302**	F03FC24194
	Allen key	5	**CB03M EA9**	F03FA00169
	Chuck	20 x 33 x 93	**AP08M DA9**	F03FC00579

Machines:
CNC overhead routing machines.

Materials:
Softwood, hardwood, wood based panels and MDF.

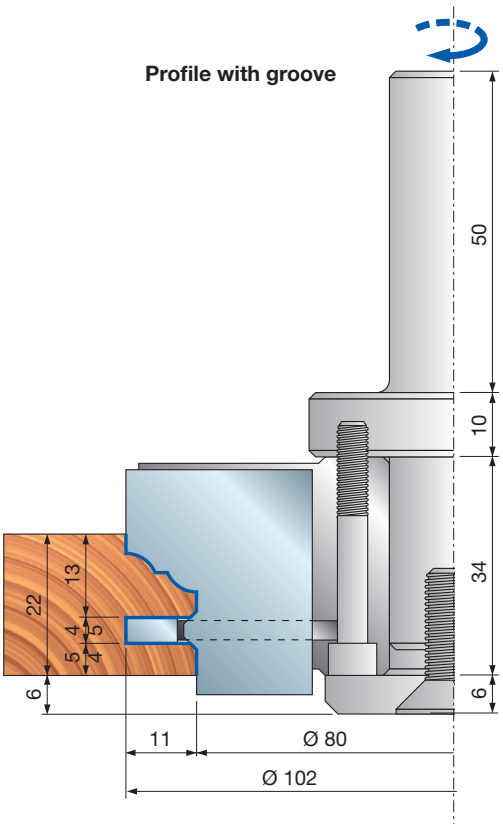
Applications:
Profiling.

Technical information:
Performance knives raised panel cutter.
- Knives included in the tool set.
- Steel body.
- 20x50 mm shank.

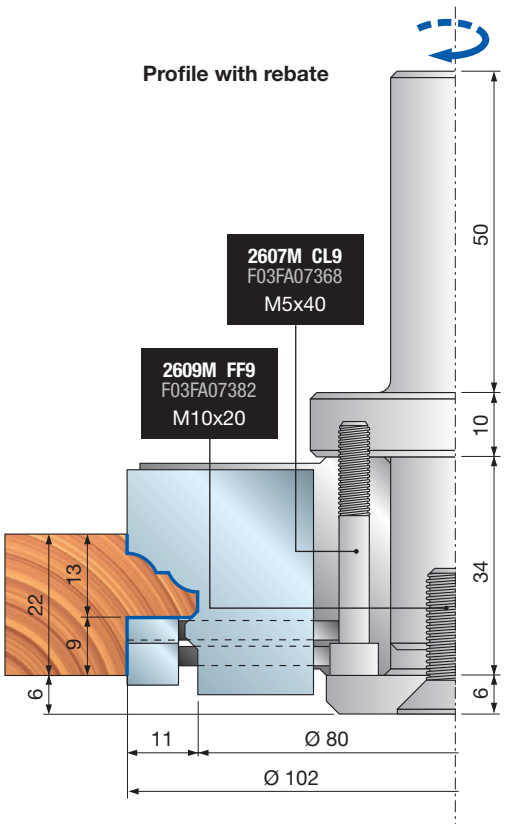
***NC90MCA:** complete with all available knives.
****NC90M-A:** knives to be ordered separately.

To obtain a 5 mm groove, it is necessary to replace the **SR06MDAG302** (4 mm thick) inserts with the **SR06MDAH302** (5 mm thick) inserts which must be ordered separately.

Profile with groove



Profile with rebate



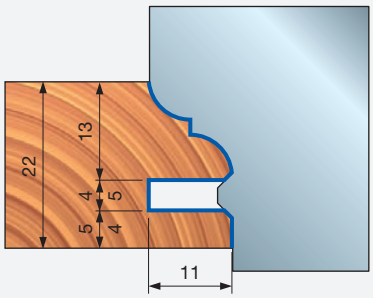
NC90MCA

CNC cabinet door router cutter - profile

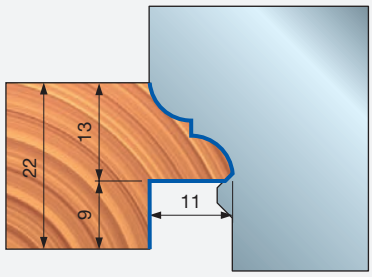
Profile	Spare knives	Dimensions mm	Freud Code	Art. No.
1/1A	Knife	35 x 30 x 3	**CC90MT0101**	F03FC23783
2/2A	Knife	35 x 30 x 3	**CC90MT0201**	F03FC23784
3/3A	Knife	35 x 30 x 3	**CC90MT0301**	F03FC23785
4/4A	Knife	35 x 30 x 3	**CC90MT0401**	F03FC23786
5/5A	Knife	35 x 30 x 3	**CC90MT0501**	F03FC23787

Example of profiles

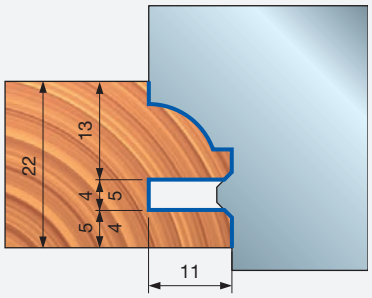
PROFILE 1



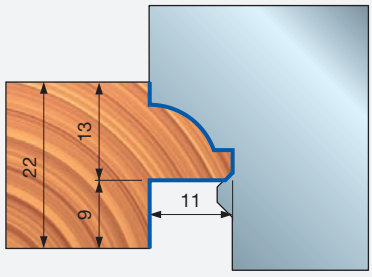
PROFILE 1A



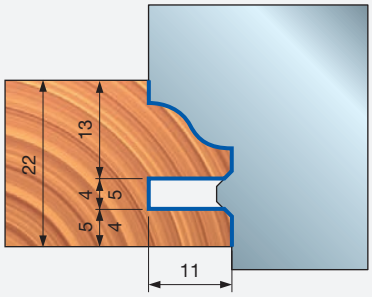
PROFILE 2



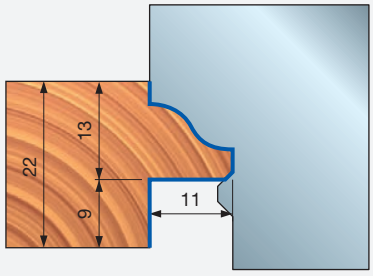
PROFILE 2A



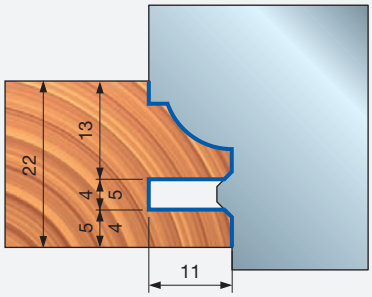
PROFILE 3



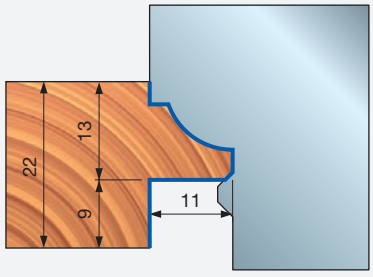
PROFILE 3A



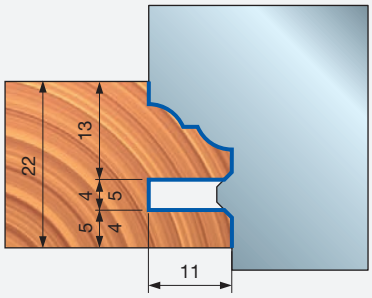
PROFILE 4



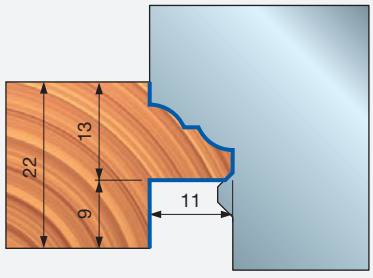
PROFILE 4A



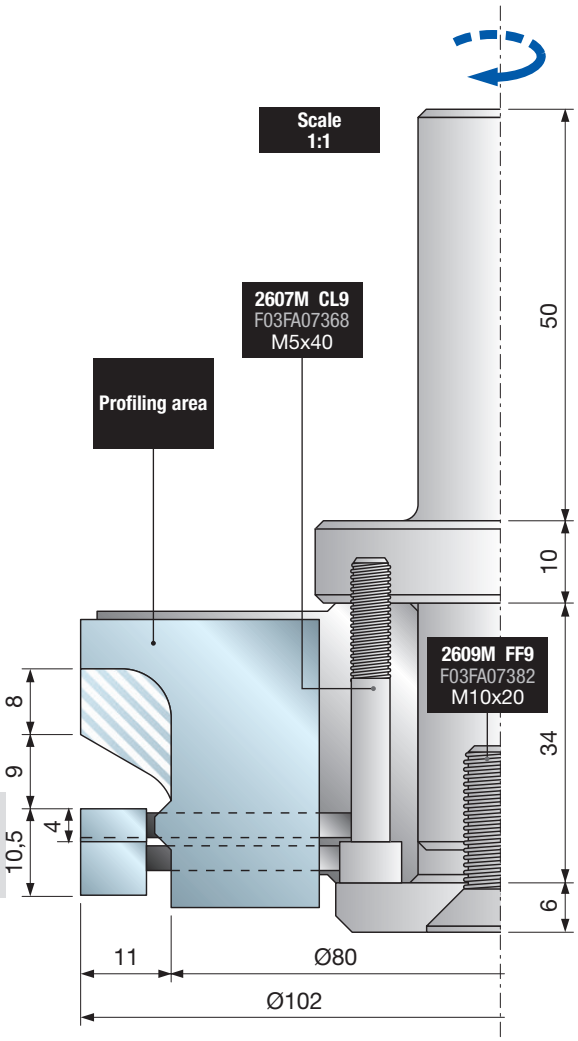
PROFILE 5

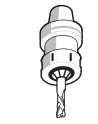


PROFILE 5A

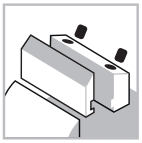


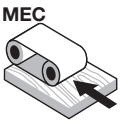
PCN300 Customised CNC cabinet door router cutter - profile




CNC Routers


CNC Machines


Clamping system



Automatic feed

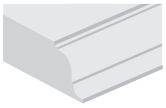

Steel Body


Softwood


Hardwood


Chipboard


MDF


Profiling

D mm	B mm	A mm	Max RPM 1/min.	Freud Code	Art. No.
102	35	20 x 50	10.500	**PCN300**	-

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Knife	35 x 30 x 3	**CK02 DC3**	
	Screw	M10 x 18	**VT03M CC9**	F03FA04438
	Screw	M6 x 14,5	**VT16M AA9**	F03FA04476
	Screw	M5 x 7 x 18	**VT08M AE9**	F03FA04457
	Grooving insert	34 x 4	**SR06MDAG302**	F03FC24193
	Grooving insert	34 x 7	**SR06MDAH302**	F03FC24194
	Allen key	5	**CB03M EA9**	F03FA00169

Performance System TECHNOLOGY

Machines:
CNC overhead routing machines.

Materials:
Softwood, hardwood, wood based panels and MDF.

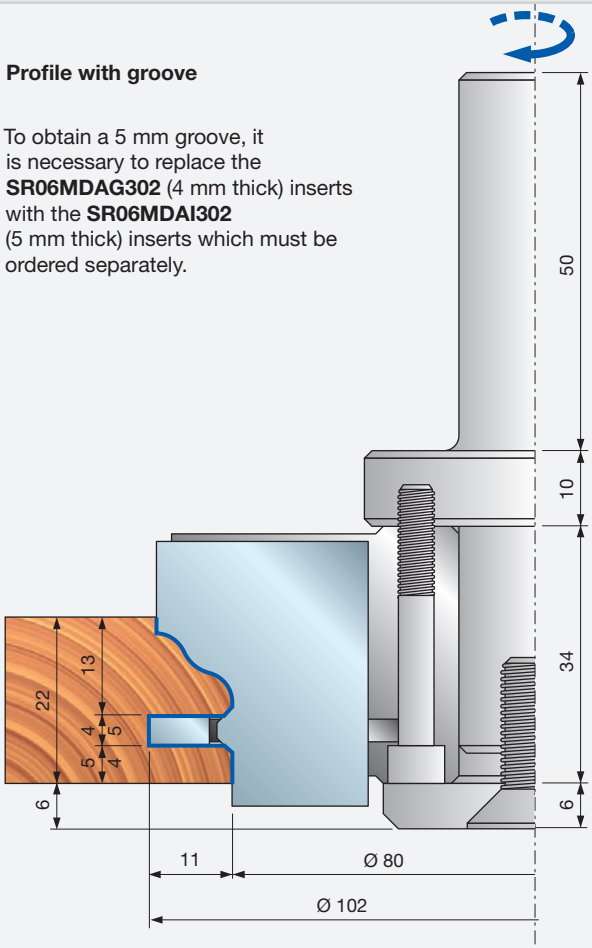
Applications:
Profiling.

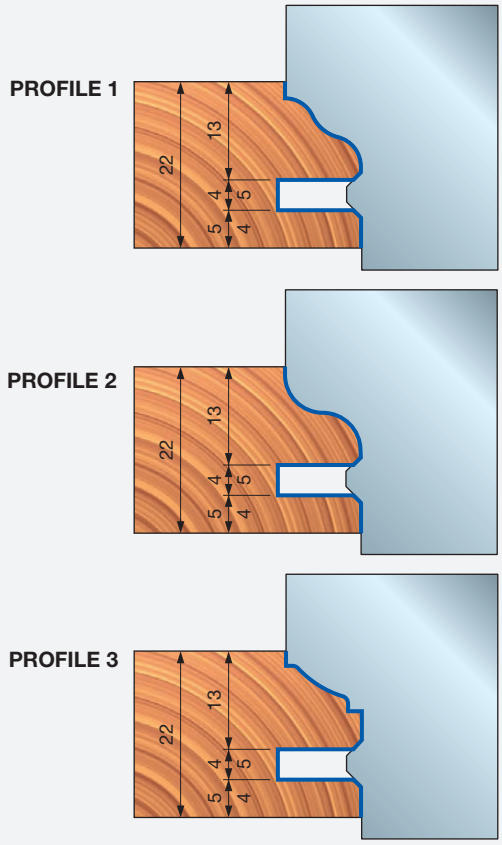
Technical information:
Performance CNC router cutter suitable for customised cabinet doors profiles.
- Profile available both with and without groove.
- 22 mm timber.
- Steel body.
- **PCN300** item includes router cutter complete of components, knives (minimum order quantity 6 pieces) and maintenance keys. For orders please specify: shank dimensions and profile drawing (please refer to knife profiling area).

Example of profiles

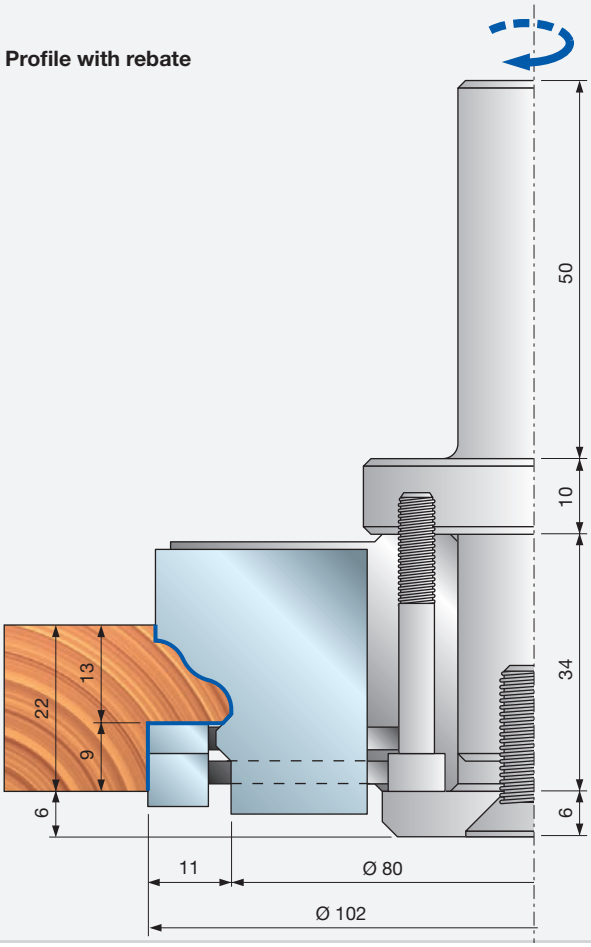
Profile with groove

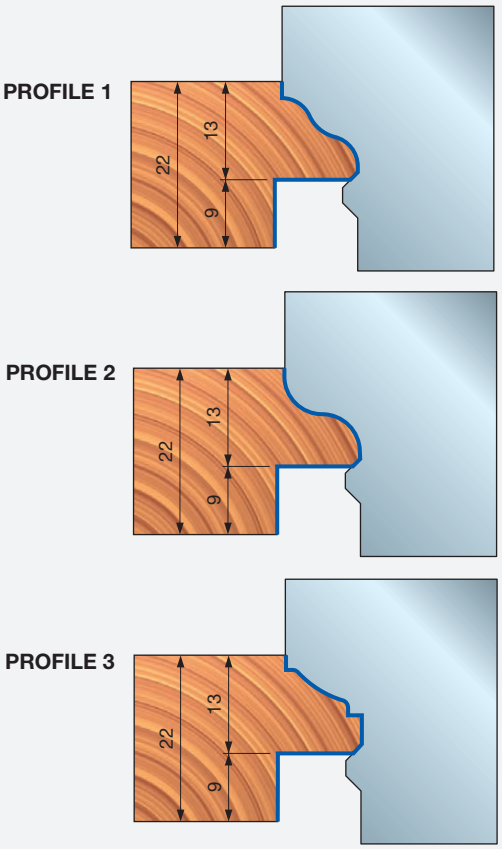
To obtain a 5 mm groove, it is necessary to replace the **SR06MDAG302** (4 mm thick) inserts with the **SR06MDAI302** (5 mm thick) inserts which must be ordered separately.





Profile with rebate





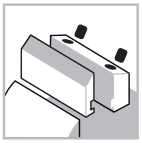


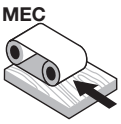
NC91MCA

CNC cabinet door router cutter - scribe


CNC Routers


CNC Machines


Clamping system



Automatic feed

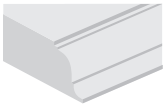

Steel Body


Softwood


Hardwood


Chipboard


MDF


Profiling

D mm	B mm	A mm	Max RPM 1/min.	Freud Code	Art. No.
102	35	20 x 50	10.500	**NC91MCA***	F03FC15468
102	35	20 x 50	10.500	**NC91M-A****	F03FC15466

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Screw	M10 x 18	**VT03M CC9**	F03FA04438
	Screw	M6 x 14,5	**VT16M AA9**	F03FA04476
	Screw	M5 x 7 x 18	**VT08M AE9**	F03FA04457
	Grooving insert	34 x 7	**SR06MDAH302**	F03FC24194
	Allen key	5	**CB03M EA9**	F03FA00169
	Chuck	20 x 33 x 93	**AP08M DA9**	F03FC00579

Machines:
CNC overhead routing machines.

Materials:
Softwood, hardwood, wood based panels and MDF.

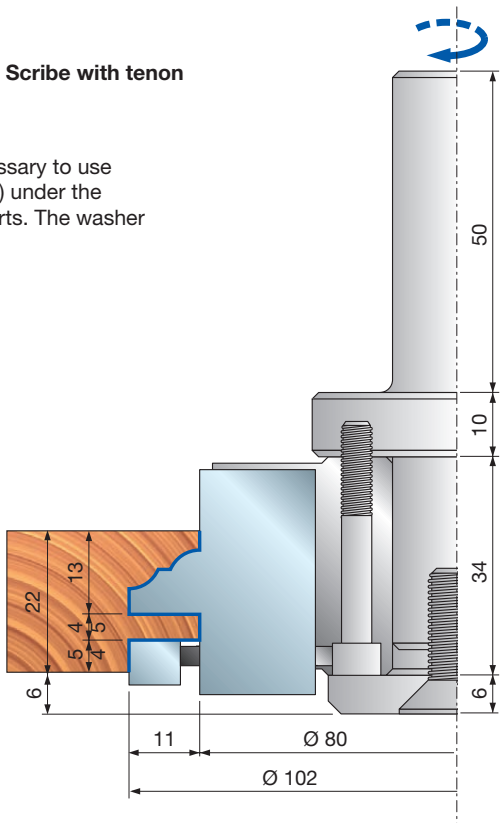
Applications:
Profiling.

Technical information:
Performance knives cutter suitable for cabinet doors scribes with 5 available profiles (please refer to NC90M profiles).
- Profile available both with and without groove.
- Steel body.
- 20x50 mm shank.
- Chuck not included.

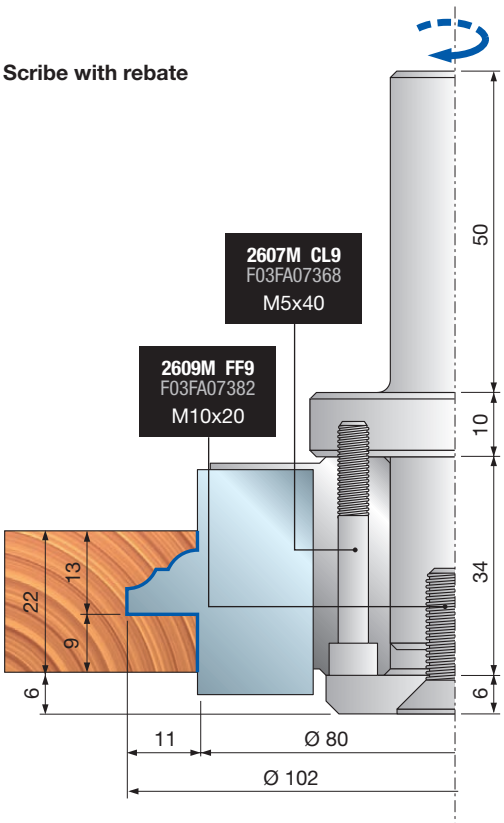
***NC91MCA:** complete with all available knives.
****NC91M-A:** knives to be ordered separately.

Scribe with tenon

To obtain a 5 mm tenon, it is necessary to use a washer **ST07M-109** (1 mm thick) under the **SR06MDAH302** (7 mm thick) inserts. The washer must be ordered separately.



Scribe with rebate



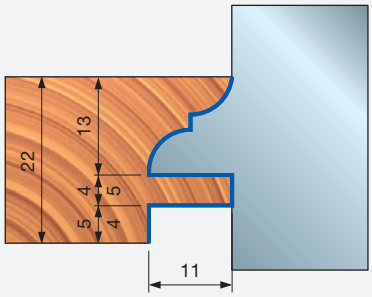
NC91MCA

CNC cabinet door router cutter - scribe

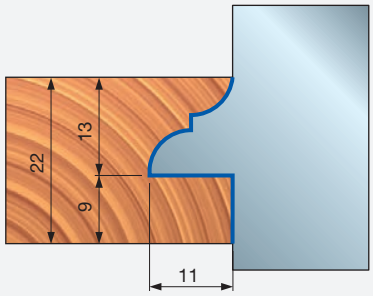
Profile	Spare knives	Dimensions mm	Freud Code	Art. No.
1/1A	Knife	35 x 30 x 3	**CC91MT0101**	F03FC23788
2/2A	Knife	35 x 30 x 3	**CC91MT0201**	F03FC23789
3/3A	Knife	35 x 30 x 3	**CC91MT0301**	F03FC23790
4/4A	Knife	35 x 30 x 3	**CC91MT0401**	F03FC23791
5/5A	Knife	35 x 30 x 3	**CC91MT0501**	F03FC23792

Example of profiles

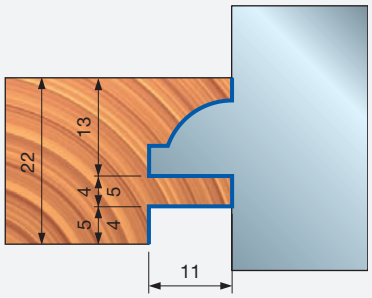
SCRIBE 1



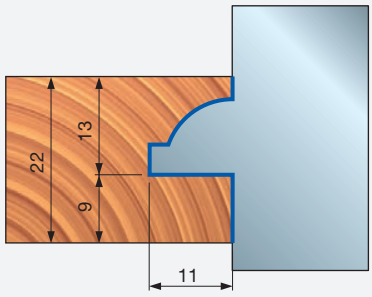
SCRIBE 1A



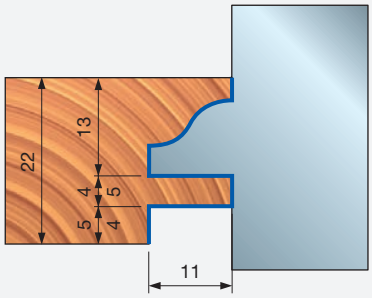
SCRIBE 2



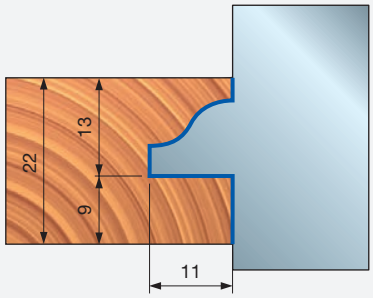
SCRIBE 2A



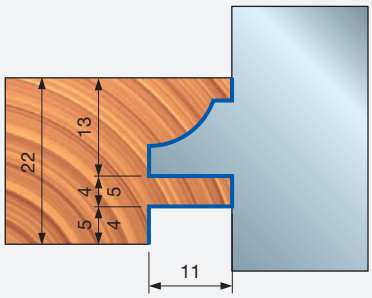
SCRIBE 3



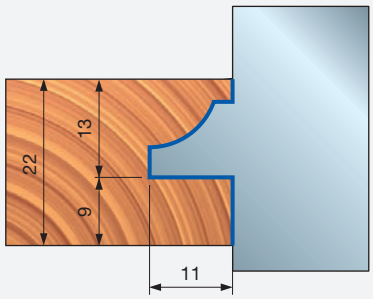
SCRIBE 3A



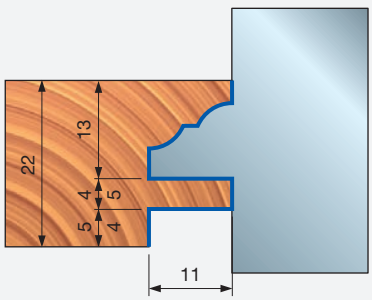
SCRIBE 4



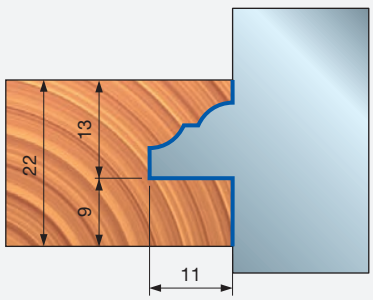
SCRIBE 4A



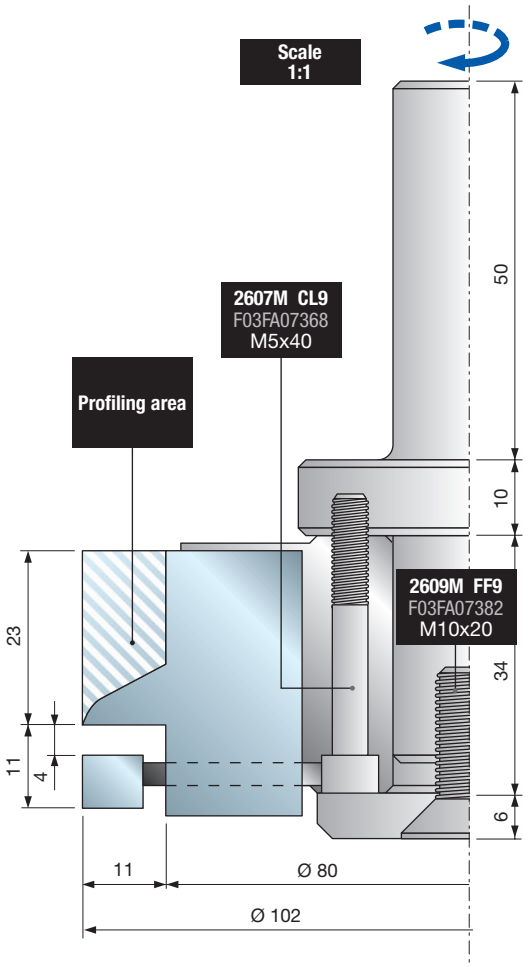
SCRIBE 5



SCRIBE 5A

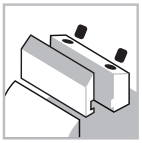


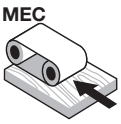
PCN310 Customised CNC cabinet door router cutter - scribe




CNC Routers


CNC Machines


Clamping system



Automatic feed

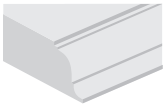

Steel Body


Softwood


Hardwood


Chipboard


MDF


Profiling

D mm	B mm	A mm	Max RPM 1/min.	Freud Code	Art. No.
102	35	20 x 50	10.500	**PCN310**	-

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Knife	35 x 30 x 3	**CK02 DC3**	-
	Screw	M10 x 18	**VT03M CC9**	F03FA04438
	Screw	M6 x 14,5	**VT16M AA9**	F03FA04476
	Screw	M5 x 7 x 18	**VT08M AE9**	F03FA04457
	Grooving insert	34 x 7	**SR06MDAH302**	F03FC24194
	Allen key	5	**CB03M EA9**	F03FA00169

Machines:
CNC overhead routing machines.

Materials:
Softwood, hardwood, wood based panels and MDF.

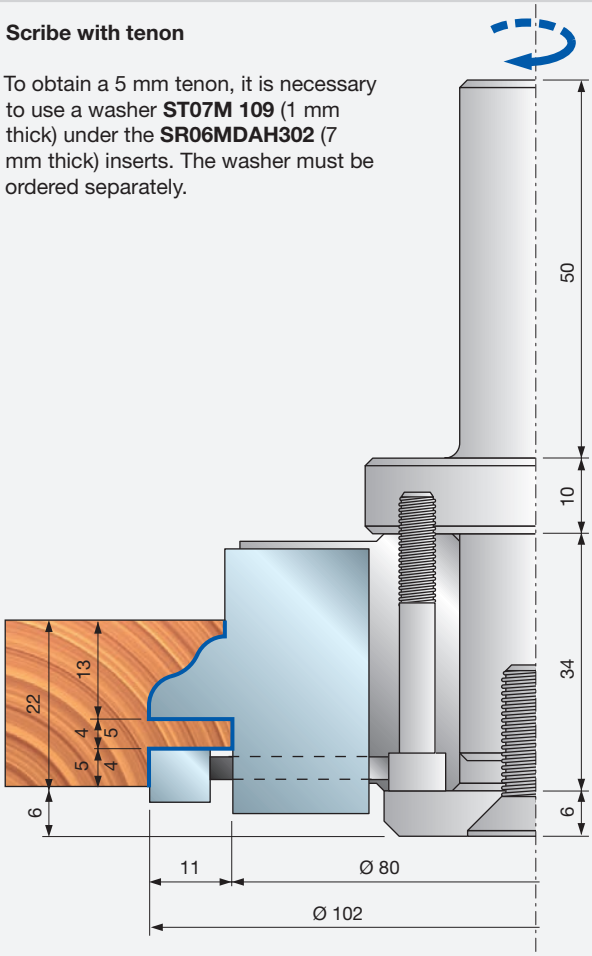
Applications:
Profiling.

Technical information:
Performance CNC router cutter suitable for customised cabinet doors counter-profiles.
- Profile available both with and without groove.
- 22 mm timber.
- Steel body.
- **PCN310** item includes router cutter complete of components, knives (minimum order quantity 6 pieces) and maintenance keys. For orders please specify: shank dimensions and profile drawing (please refer to knife profiling area).

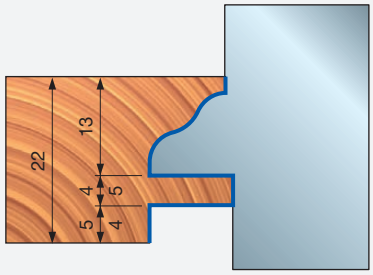
Example of scribes

Scribe with tenon

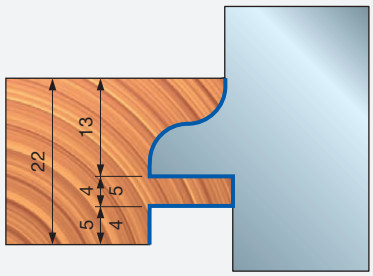
To obtain a 5 mm tenon, it is necessary to use a washer **ST07M 109** (1 mm thick) under the **SR06MDAH302** (7 mm thick) inserts. The washer must be ordered separately.



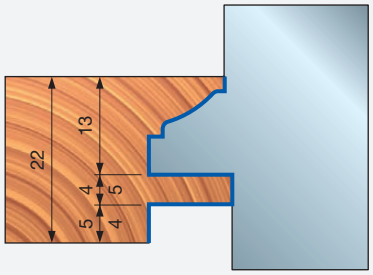
SCRIBE 1



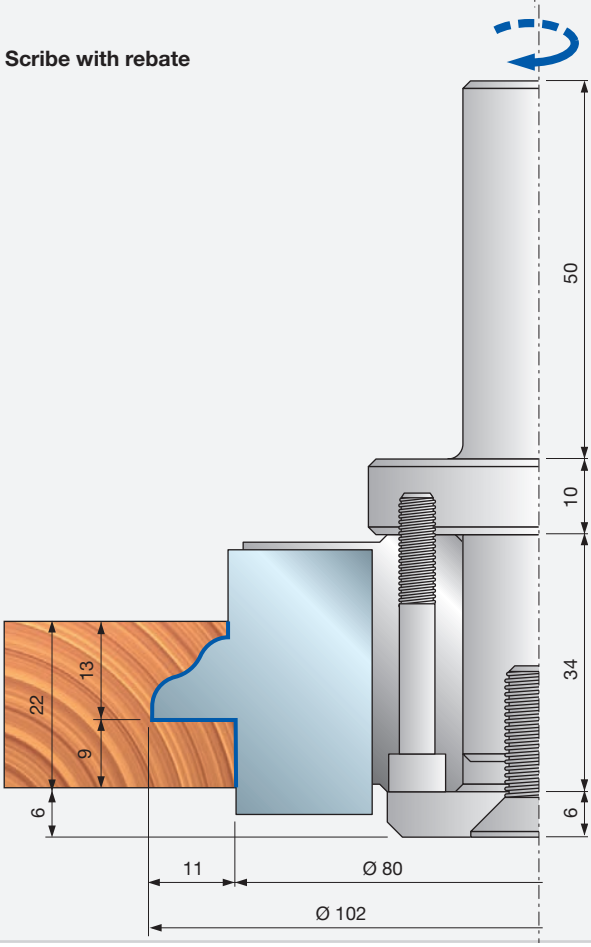
SCRIBE 2



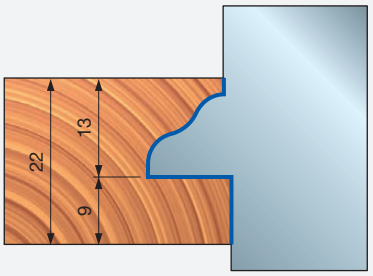
SCRIBE 3



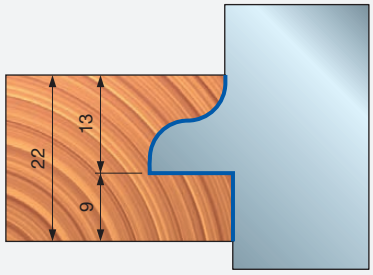
Scribe with rebate



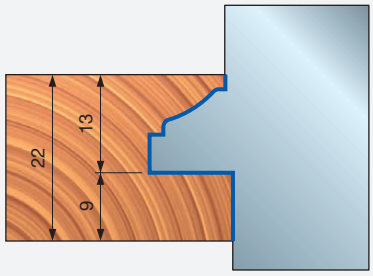
SCRIBE 1



SCRIBE 2



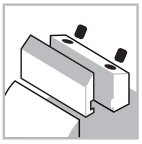
SCRIBE 3

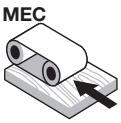




NCSEM22 — CNC tool for cabinet door frame profile - 22 mm


CNC Machines


Clamping system

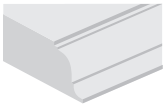


Automatic feed


Aluminium body


Softwood


Hardwood


Profiling

Performance System TECHNOLOGY

ISOprofil TECHNOLOGY

Machines:
CNC overhead routing machines.

Materials:
Softwood and hardwood.

Applications:
Profiling.

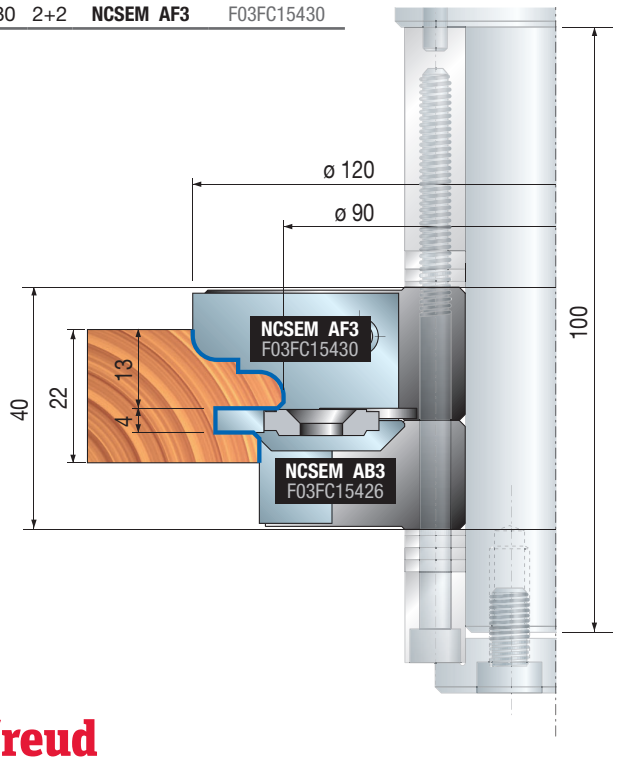
Technical information:
CNC tool set suitable for cabinet doors with 6 available profiles.
- Profile available both with and without groove.
- 22 mm timber.
- Aluminium light alloy body.
- Chuck and knives to be ordered separately.

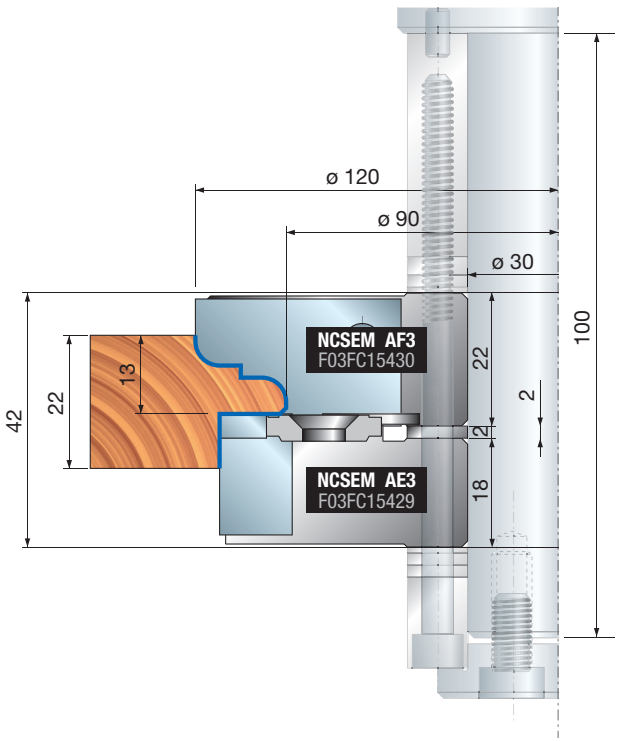
D mm	B mm	d mm	Z	Max RPM 1/min.	Freud Code	Art. No.
120	38	30	2	11.000	**NCSEM22A01**	F03FC15432
120	39	30	2	11.000	**NCSEM22A03**	F03FC15434

		Spare parts	Dimensions mm	Freud Code	Art. No.
NCSEM AB3		Knife	14,6 x 12 x 1,5	**CG06MBA310**	F03FH02890
		Wedge	13	**CN01M CA9**	F03FC01250
		Screw	M8 x 16	**VT03M AA9**	F03FA04435
		Beveling insert	22 x 16 x 5	**IG51MBA305**	F03FH03022
		Screw	M6 x 14,5	**VT16M AA9**	F03FA04476
		Grooving insert	27 x 4 x 16	**IG04MSAA3T05**	F03FC24155
		Screw	M6 x 14,5	**VT16M AA9**	F03FA04476
NCSEM AE3		Knife	20 x 12 x 1,5	**CG06MCA310**	F03FH02891
		Wedge	15 x 16 x 8	**CN09MS AC9**	F03FC01325
		Nut	10 x 11,5 x M6	**VT20M AA9**	F03FA04497
		Screw	M6 x 22	**VT19M AB9**	F03FA04491
		Spur	22,86 x 2,5	**RG02MAA305**	F03FH03041
		Screw	M5 x 8	**VT05M AA9**	F03FA04444
NCSEM AF3		Positioning plate	22 x 1,7 x 6,5	**VT18M GA9**	F03FA04488
		Screw	M10 x 16	**2616M EE9**	F03FA07426
		Grooving insert	27 x 4 x 16	**IG04MDAA3T05**	F03FC24151
		Screw	M6 x 14,5	**VT16M AA9**	F03FA04476
		Screw	M5 x 8	**VT05M AA9**	F03FA04444

Tools for NCSEM22A01 and NCSEM22A03 sets

D mm	B mm	d mm	Z	Freud Code	Art. No.
112	20	30	2+2	**NCSEM AE3**	F03FC15429
112,5	19	30	2+4	**NCSEM AB3**	F03FC15426
120	22	30	2+2	**NCSEM AF3**	F03FC15430



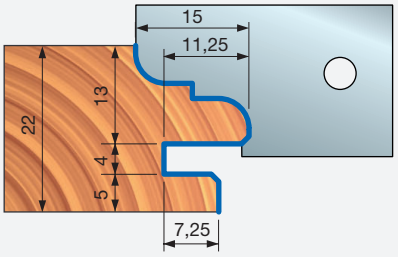


NCSEM22 — CNC tool for cabinet door frame profile - 22 mm

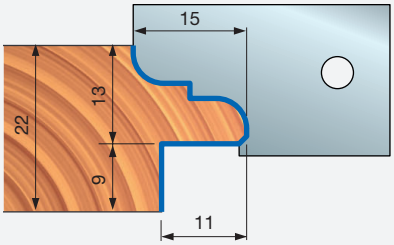
Profile	Spare knives	Dimensions mm	Freud Code	Art. No.
1/1A	Knife	20 x 34 x 3	CCSEMCA301	F03FC23728
2/2A	Knife	20 x 34 x 3	CCSEMCB301	F03FC23729
3/3A	Knife	20 x 34 x 3	CCSEMCC301	F03FC23730
4/4A	Knife	20 x 34 x 3	CCSEMCD301	F03FC23731
5/5A	Knife	20 x 34 x 3	CCSEMCE301	F03FC23732
6/6A	Knife	20 x 34 x 3	CCSEMCF301	F03FC23733

Example of profiles

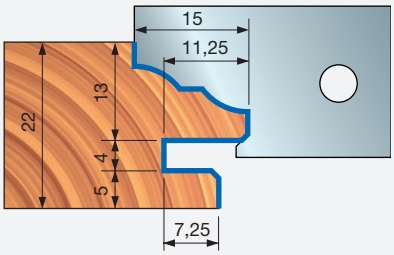
PROFILE 1



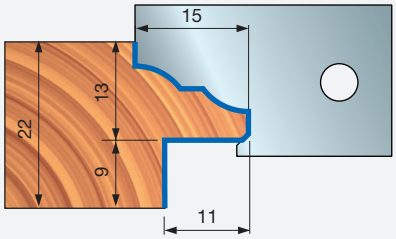
PROFILE 1A



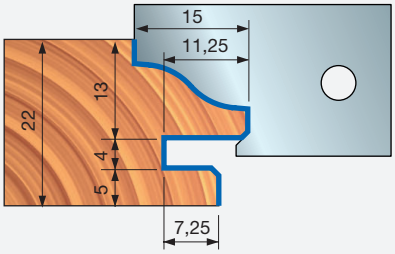
PROFILE 2



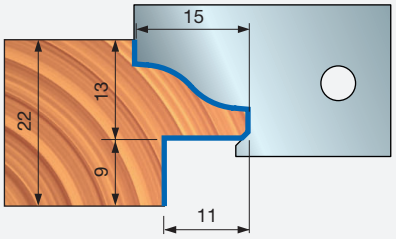
PROFILE 2A



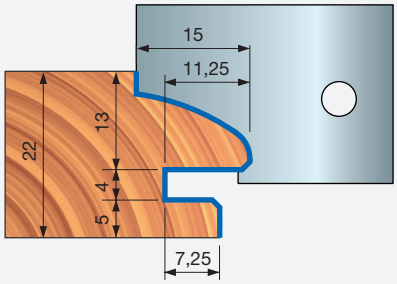
PROFILE 3



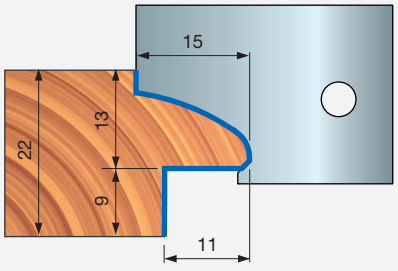
PROFILE 3A



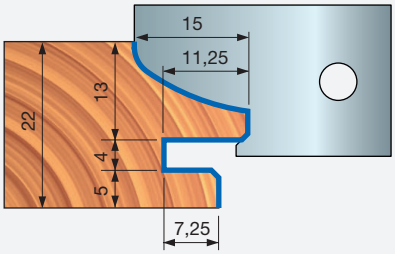
PROFILE 4



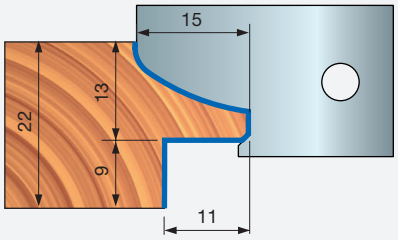
PROFILE 4A



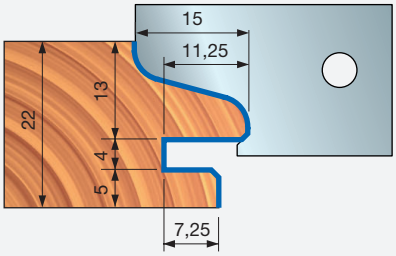
PROFILE 5



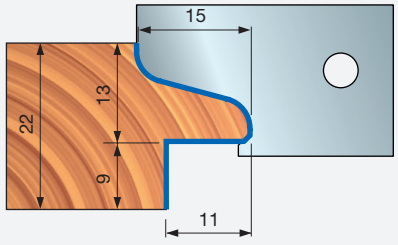
PROFILE 5A



PROFILE 6



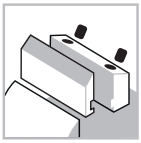
PROFILE 6A

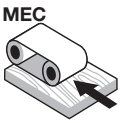


NCSEM22 — CNC tool for cabinet door frame scribe - 22 mm




CNC Machines


Clamping system

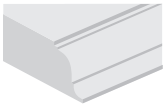


Automatic feed


Aluminium body


Softwood


Hardwood


Profiling

Performance System TECHNOLOGY

ISOprofil TECHNOLOGY

D mm	B mm	d mm	Z	Max RPM 1/min.	Freud Code	Art. No.
120	41	30	2	11.000	**NCSEM22A02**	F03FC15433
120	29	30	2	11.000	**NCSEM22A04**	F03FC15435

		Spare parts	Dimensions mm	Freud Code	Art. No.
NCSEM AD3		Knife	20 x 12 x 1,5	**CG06MCA310**	F03FH02891
		Wedge	16	**CN01MS DA9**	F03FC01264
		Screw	M8 x 16	**VT03M AA9**	F03FA04435
		Spur	22,86 x 2,5	**RG02MAA305**	F03FH03041
		Screw	M5 x 8	**VT05M AA9**	F03FA04444
NCSEM AG3		Positioning plate	22 x 1,7 x 6,5	**VT18M GA9**	F03FA04488
		Screw	M10 x 16	**2616M EE9**	F03FA07426
		Spur insert	34 x 3,5 x 16	**SR06MDBA302**	F03FC24197
		Screw	M6 x 11,5	**VT16M AB9**	F03FA04477
		Screw	M5 x 8	**VT05M AA9**	F03FA04444

Machines:
CNC overhead routing machines.

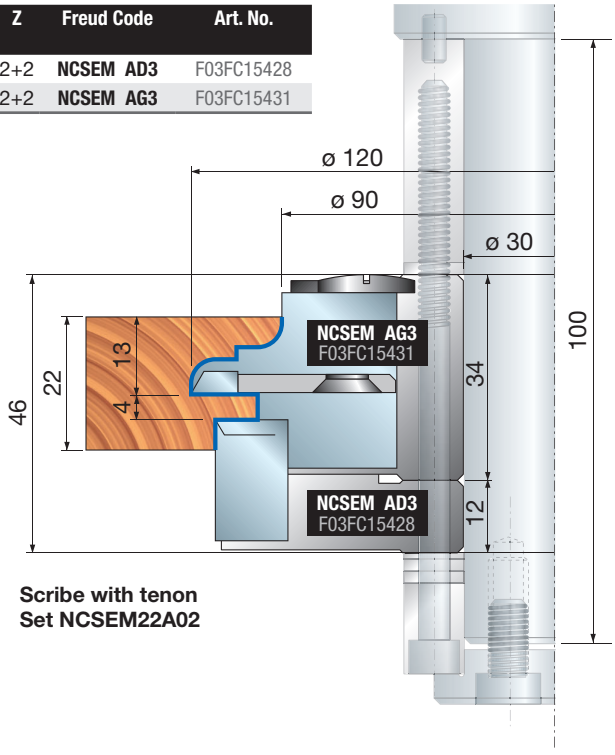
Materials:
Softwood and hardwood.

Applications:
Profiling.

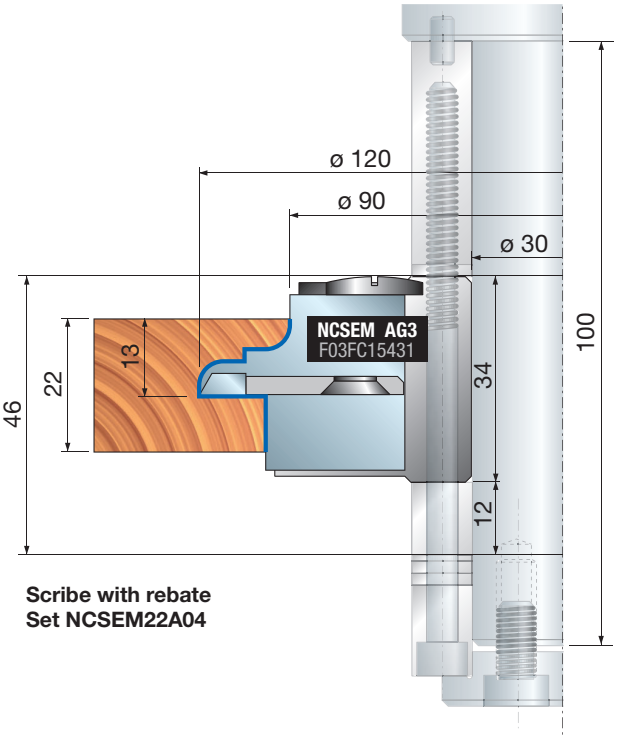
Technical information:
CNC tool set suitable for cabinet doors with 6 available counte-profiles (please refer to NCSEM22 profiles).
- Profile available both with and without groove.
- 22 mm timber.
- Aluminium light alloy body.
- Chuck and knives to be ordered separately.

Tools for NCSEM22A02 and NCSEM22A04 sets

D mm	B mm	d mm	Z	Freud Code	Art. No.
112	20	30	2+2	**NCSEM AD3**	F03FC15428
120	29	30	2+2	**NCSEM AG3**	F03FC15431



Scribe with tenon
Set NCSEM22A02



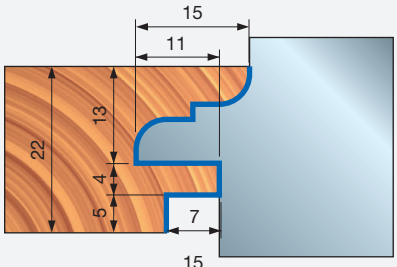
Scribe with rebate
Set NCSEM22A04

NCSEM22 CNC tool cutter for cabinet door frame scribe - 22 mm

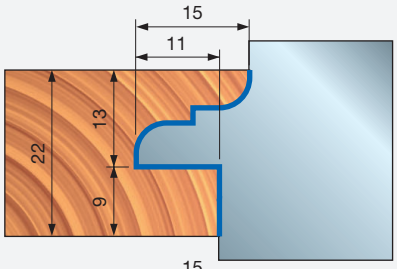
Profile	Spare knives	Dimensions mm	Freud Code	Art. No.
1/1A	Knife	30 x 34 x 3	**CCSEMDA301**	F03FC23734
2/2A	Knife	30 x 34 x 3	**CCSEMDB301**	F03FC23735
3/3A	Knife	30 x 34 x 3	**CCSEMDC301**	F03FC23736
4/4A	Knife	30 x 34 x 3	**CCSEMDD301**	F03FC23737
5/5A	Knife	30 x 34 x 3	**CCSEMDE301**	F03FC23738
6/6A	Knife	30 x 34 x 3	**CCSEMDF301**	F03FC23739

Example of scribes

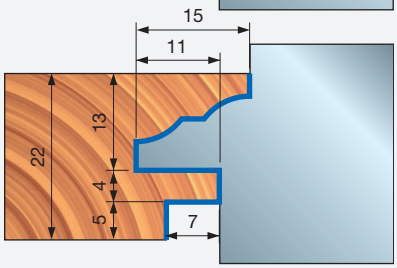
SCRIBE 1



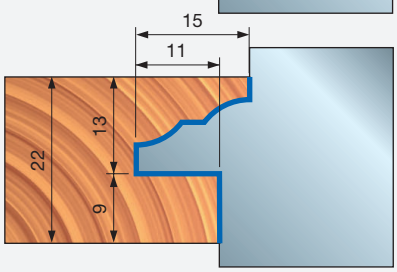
SCRIBE 1A



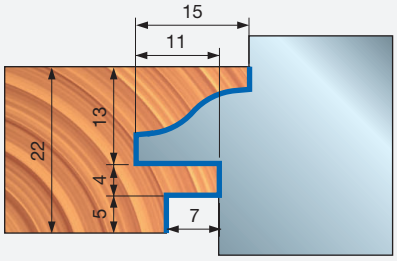
SCRIBE 2



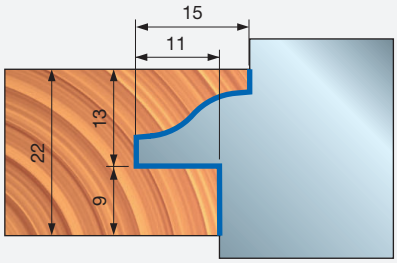
SCRIBE 2A



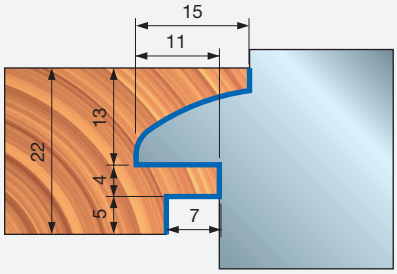
SCRIBE 3



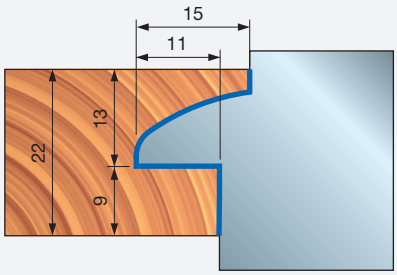
SCRIBE 3A



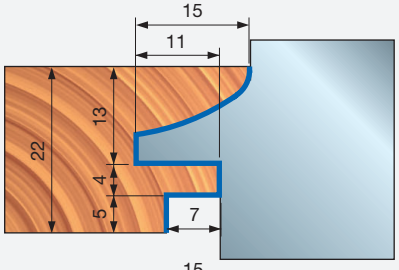
SCRIBE 4



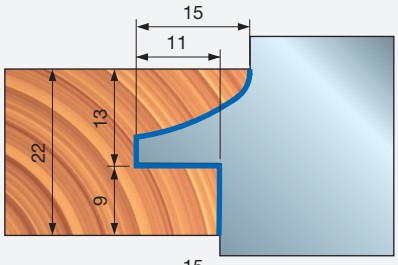
SCRIBE 4A



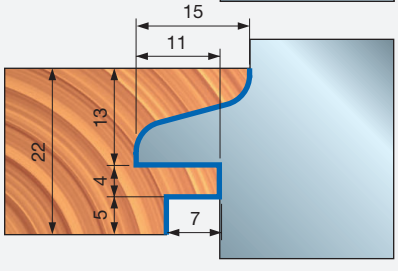
SCRIBE 5



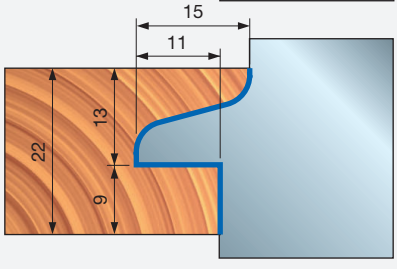
SCRIBE 5A



SCRIBE 6



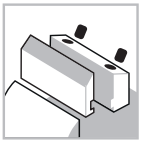
SCRIBE 6A

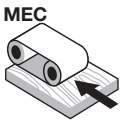


NCSEM30 CNC tool for cabinet door frame profile - 30 mm




CNC Machines


Clamping system

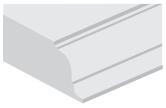


Automatic feed


Aluminium body


Softwood


Hardwood


Profiling

Performance System TECHNOLOGY

ISOprofil TECHNOLOGY

Machines:
CNC overhead routing machines.

Materials:
Softwood and hardwood.

Applications:
Profiling.

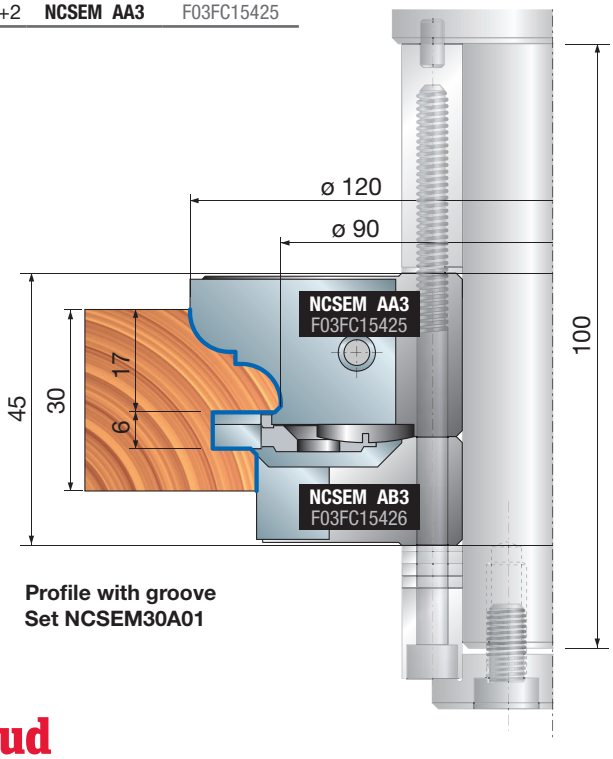
Technical information:
CNC tool set suitable for cabinet doors with 6 available profiles.
- Profile available both with and without groove.
- 30 mm timber.
- Aluminium light alloy body.
- Chuck and knives to be ordered separately.

D mm	B mm	d mm	Z	Max RPM 1/min.	Freud Code	Art. No.
120	43	30	2	11.000	**NCSEM30A01**	F03FC15436
120	42	30	2	11.000	**NCSEM30A03**	F03FC15438

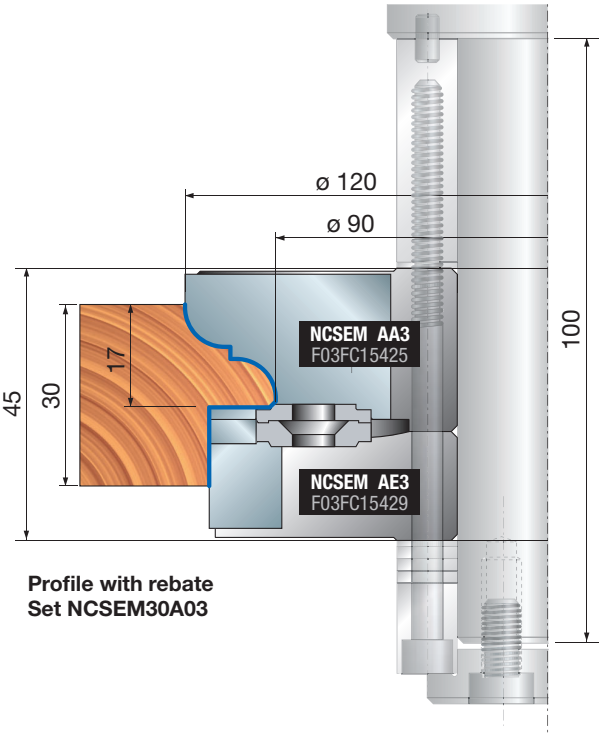
		Spare parts	Dimensions mm	Freud Code	Art. No.
NCSEM AA3		Positioning plate	22 x 1,7 x 6,5	**VT18M GA9**	F03FA04488
		Screw	M10 x 16	**2616M EE9**	F03FA07426
		Grooving insert	27 x 4 x 16	**IG04MDAA3T05**	F03FC24151
		Screw	M6 x 14,5	**VT16M AA9**	F03FA04476
		Screw	M5 x 8	**VT05M AA9**	F03FA04444
NCSEM AB3		Knife	14,6 x 12 x 1,5	**CG06MBA310**	F03FH02890
		Wedge	13	**CN01M CA9**	F03FC01250
		Screw	M8 x 16	**VT03M AA9**	F03FA04435
		Beveling insert	22 x 16 x 5	**IG51MBA305**	F03FH03022
		Screw	M6 x 14,5	**VT16M AA9**	F03FA04476
		Grooving insert	27 x 4 x 16	**IG04MSAA3T05**	F03FC24155
		Screw	M6 x 14,5	**VT16M AA9**	F03FA04476
NCSEM AE3		Knife	20 x 12 x 1,5	**CG06MCA310**	F03FH02891
		Wedge	15 x 16 x 8	**CN09MS AC9**	F03FC01325
		Nut	10 x 11,5 x M6	**VT20M AA9**	F03FA04497
		Screw	M6 x 22	**VT19M AB9**	F03FA04491
		Spur	22,86 x 2,5	**RG02MAA305**	F03FH03041
		Screw	M5 x 8	**VT05M AA9**	F03FA04444

Tools for NCSEM30A01 and NCSEM30A03 sets

D mm	B mm	d mm	Z	Freud Code	Art. No.
112	20	30	2+2	**NCSEM AE3**	F03FC15429
112,5	19	30	2+4	**NCSEM AB3**	F03FC15426
120	28	30	2+2	**NCSEM AA3**	F03FC15425



Profile with groove
Set NCSEM30A01



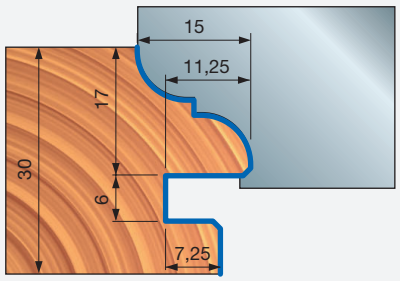
Profile with rebate
Set NCSEM30A03

NCSEM30 — CNC tool for cabinet door frame profile - 30 mm

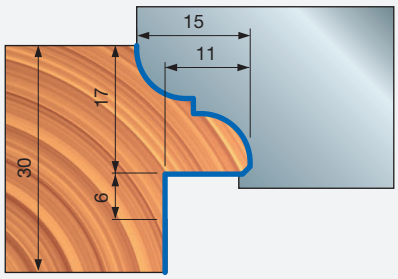
Profile	Spare knives	Dimensions mm	Freud Code	Art. No.
1/1A	Knife	24 x 34 x 3	CCSEMAA301	F03FC01398
2/2A	Knife	24 x 34 x 3	CCSEMAB301	F03FC23169
3/3A	Knife	24 x 34 x 3	CCSEMAC301	F03FC23657
4/4A	Knife	24 x 34 x 3	CCSEMAD301	F03FC23715
5/5A	Knife	24 x 34 x 3	CCSEMAE301	F03FC23717
6/6A	Knife	24 x 34 x 3	CCSEMAF301	F03FC23718

Example of profiles

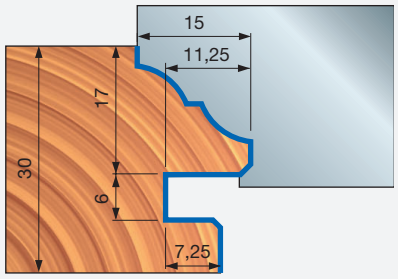
PROFILE 1



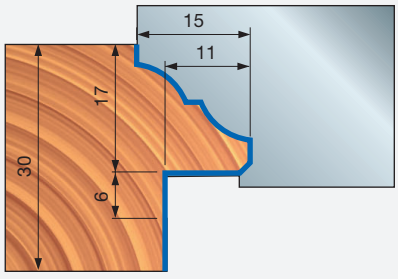
PROFILE 1A



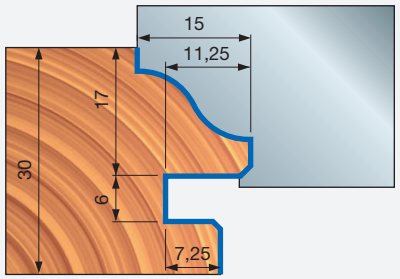
PROFILE 2



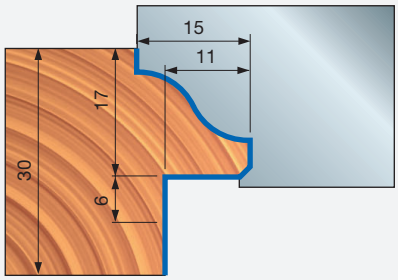
PROFILE 2A



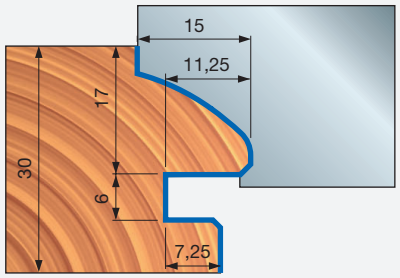
PROFILE 3



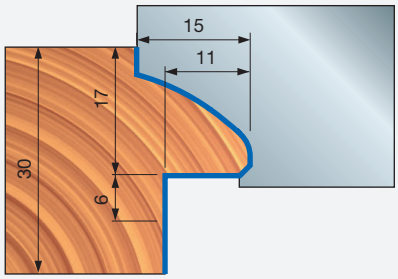
PROFILE 3A



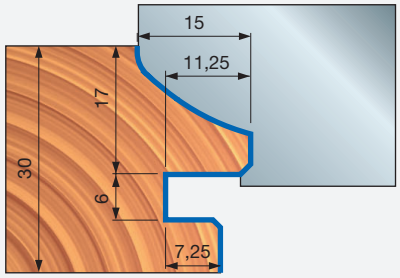
PROFILE 4



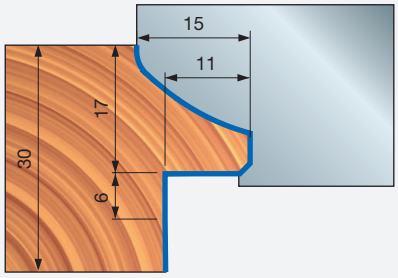
PROFILE 4A



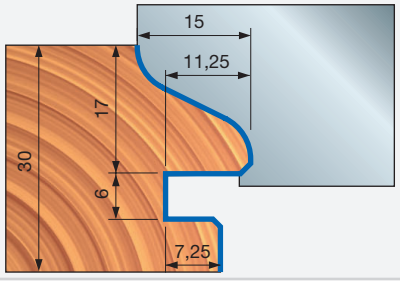
PROFILE 5



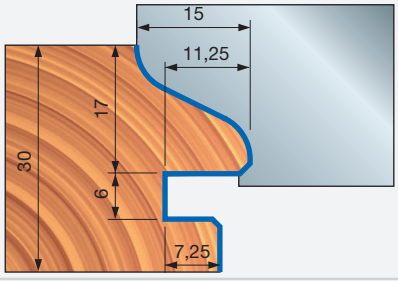
PROFILE 5A



PROFILE 6



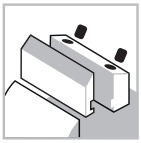
PROFILE 6A

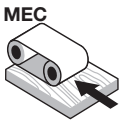


NCSEM30 — CNC tool for cabinet door frame scribe - 30 mm




CNC Machines


Clamping system

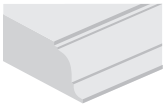


Automatic feed


Aluminium body


Softwood


Hardwood


Profiling

D mm	B mm	d mm	Z	Max RPM 1/min.	Freud Code	Art. No.
120	41	30	2	11.000	**NCSEM30A02**	F03FC15437
120	29	30	2	11.000	**NCSEM30A04**	F03FC15439

		Spare parts	Dimensions mm	Freud Code	Art. No.
NCSEM AC3		Positioning plate	22 x 1,7 x 6,5	**VT18M GA9**	F03FA04488
		Screw	M10 x 16	**2616M EE9**	F03FA07426
		Spur insert	34 x 3,5 x 16 x 3 x 3	**SR06MDBA302**	F03FC24197
		Screw	M6 x 11,5	**VT16M AB9**	F03FA04477
		Screw	M5 x 8	**VT05M AA9**	F03FA04444
		Knife	14,6 x 12 x 1,5	**CG06MBA310**	F03FH02890
NCSEM AD3		Wedge	13	**CN01M CA9**	F03FC01250
		Screw	M8 x 16	**VT03M AA9**	F03FA04435
		Beveling insert	22 x 16 x 5	**IG51MBA305**	F03FH03022
		Screw	M6 x 14,5	**VT16M AA9**	F03FA04476
		Grooving insert	27 x 4 x 16	**IG04MSAA3T05**	F03FC24155





Machines:
CNC overhead routing machines.

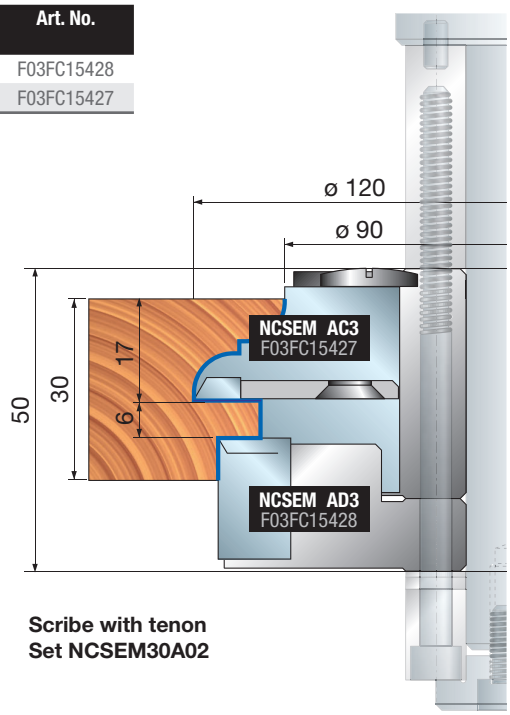
Materials:
Softwood and hardwood.

Applications:
Profiling.

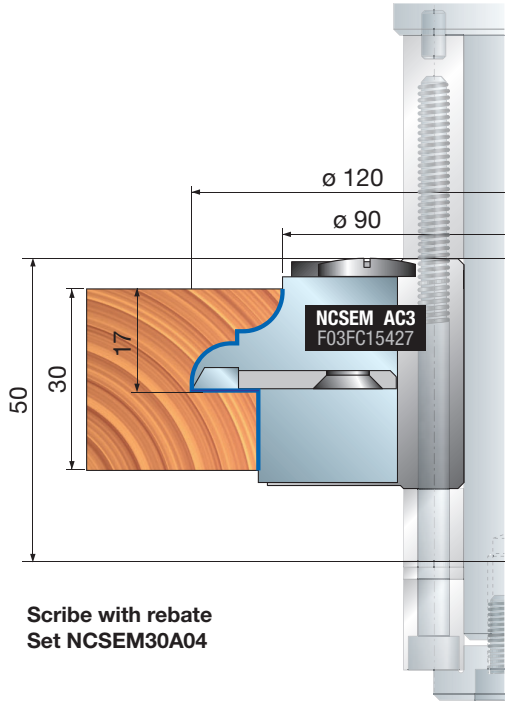
Technical information:
CNC tool set suitable for cabinet doors with 6 available counter profiles (please refer to NCSEM22 profiles).
- Profile available both with and without groove.
- 30 mm timber.
- Aluminium light alloy body.
- Chuck and knives to be ordered separately.

Tools for NCSEM30A02 and NCSEM30A04 sets

D mm	B mm	d mm	Z	Freud Code	Art. No.
112	20	30	2+2	**NCSEM AD3**	F03FC15428
120	34	30	2+2	**NCSEM AC3**	F03FC15427



Scribe with tenon
Set NCSEM30A02



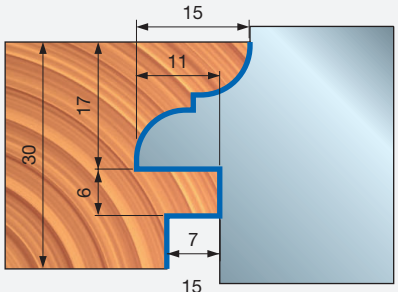
Scribe with rebate
Set NCSEM30A04

NCSEM30 — CNC tool for cabinet door frame scribe - 30 mm

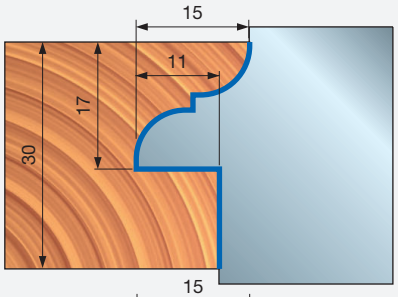
Profile	Spare knives	Dimensions mm	Freud Code	Art. No.
1/1A	Knife	24 x 34 x 3	CCSEMAA301	F03FC01398
2/2A	Knife	24 x 34 x 3	CCSEMAB301	F03FC23169
3/3A	Knife	24 x 34 x 3	CCSEMAC301	F03FC23657
4/4A	Knife	24 x 34 x 3	CCSEMAD301	F03FC23715
5/5A	Knife	24 x 34 x 3	CCSEMAE301	F03FC23717
6/6A	Knife	24 x 34 x 3	CCSEMAF301	F03FC23718

Example of scribes

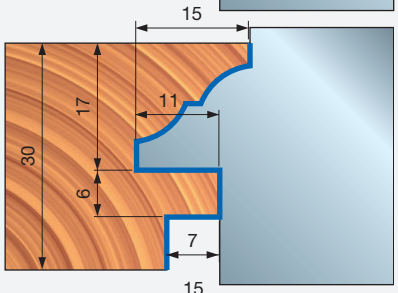
SCRIBE 1



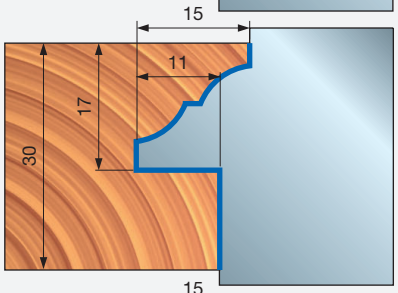
SCRIBE 1A



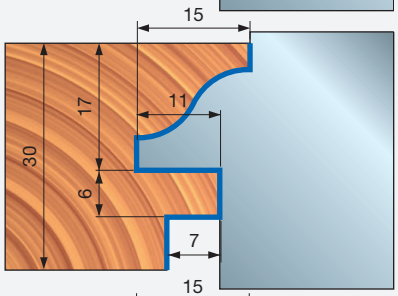
SCRIBE 2



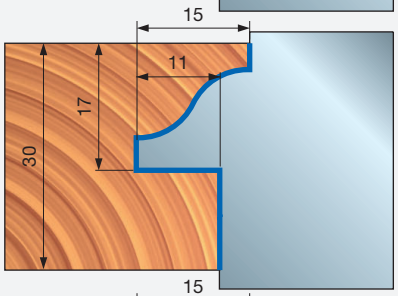
SCRIBE 2A



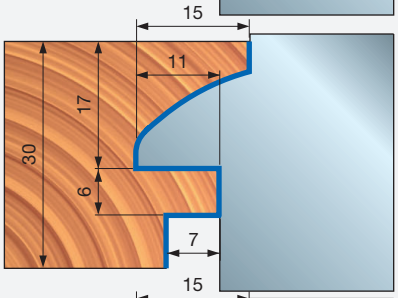
SCRIBE 3



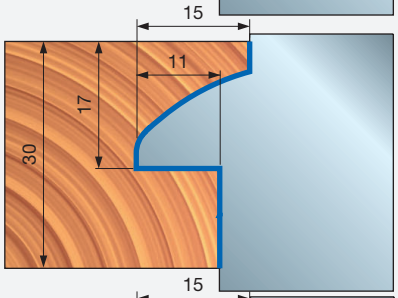
SCRIBE 3A



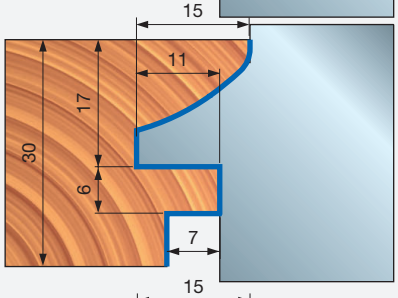
SCRIBE 4



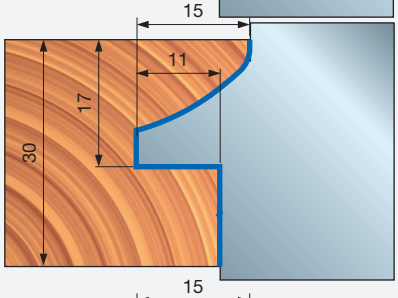
SCRIBE 4A



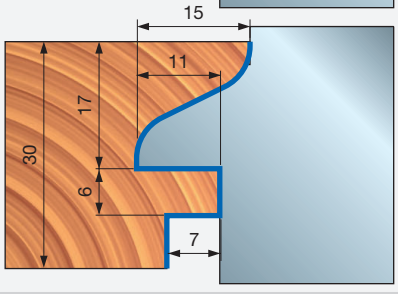
SCRIBE 5



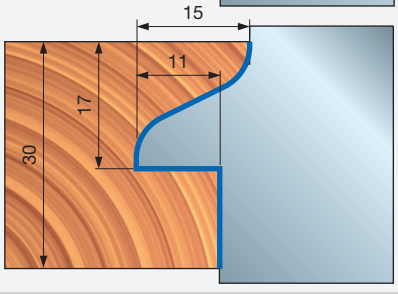
SCRIBE 5A



SCRIBE 6



SCRIBE 6A

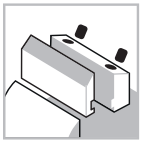


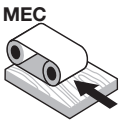
TD54MD

CNC multiprofile raised panel router cutter




CNC Machines


Clamping system



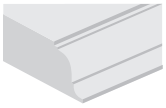
Automatic feed


Aluminium body


Softwood


Hardwood


Chipboard


Profiling

Performance System TECHNOLOGY

ISOprofil TECHNOLOGY

Machines:
CNC overhead routing machines.

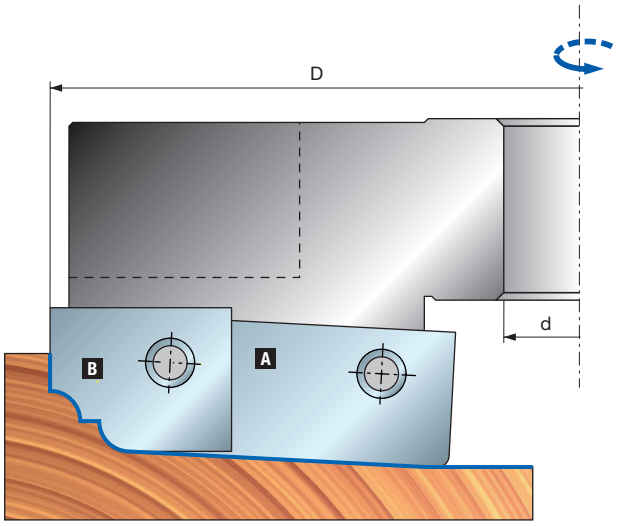
Materials:
Softwood, hardwood and chipboard.

Applications:
Profiling.

Technical information:
Performance knives raised panel cutter with 9 available profiles.
- 2+2 cutting design to reach maximum finishing.
- Aluminium light alloy body.
- 20x50 mm shank.
- Knives to be ordered separately.

D mm	A mm	d mm	Z	Max RPM 1/min.	Freud Code	Art. No.
140	20 x 50	20	2+2	9.600	**TD54MD AA3**	F03FC22230
140	20 x 50	20	2+2	9.600	**TD54MD BA3**	F03FC22204

		Spare parts	Dimensions mm	Freud Code	Art. No.
AA3		Wedge	42,9 x 18 x 7,8	**CN54M AA9**	F03FC22200
AA3		Wedge	16,6 x 21,3 x 8,5	**CN54M AB9**	F03FC22201
BA3		Wedge	42,M8 x 16,7 x 7,8	**CN54M BA9**	F03FC22202
BA3		Wedge	16,5 x 21,8 x 8,5	**CN54M BB9**	F03FC22203
		Screw	M10 x 18	**VT03M CC9**	F03FA04438
		Screw	M8 x 10 x 22	**VT08M AD9**	F03FA04456
		Screw	M5 x 7 x 18	**VT08M AE9**	F03FA04457
		Allen key	5	**CB03M EA9**	F03FA00169
		Chuck	20 x 33 x 93	**AP08M DA9**	F03FC00579



Knives for TD54MD AA3

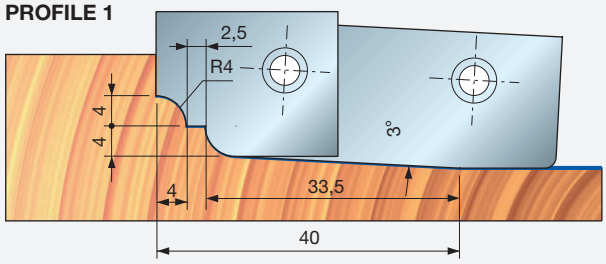
Profile	Spare knives	Dimensions mm	Freud Code	Art. No.
1	Knife A	64 x 20 x 3	**CT54MDBA301**	F03FC24069
	Knife B	19 x 24 x 3	**CT54MDAA301**	F03FC24061
2	Knife A	64 x 20 x 3	**CT54MDBB301**	F03FC24070
	Knife B	19 x 24 x 3	**CT54MDAA301**	F03FC24061
3	Knife A	64 x 20 x 3	**CT54MDBC301**	F03FC24071
	Knife B	19 x 24 x 3	**CT54MDAC301**	F03FC24062
4	Knife A	64 x 20 x 3	**CT54MDBD301**	F03FC24072
	Knife B	19 x 24 x 3	**CT54MDAD301**	F03FC24063
5	Knife A	64 x 20 x 3	**CT54MDBE301**	F03FC24073
	Knife B	19 x 24 x 3	**CT54MDAE301**	F03FC24064

Knives for TD54MD BA3

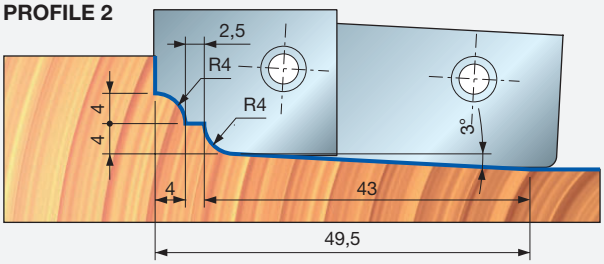
Profile	Spare knives	Dimensions mm	Freud Code	Art. No.
6	Knife A	64 x 20 x 3	**CT54MDBF301**	F03FC24074
	Knife B	19 x 24 x 3	**CT54MDAF301**	F03FC24065
7	Knife A	64 x 20 x 3	**CT54MDBG301**	F03FC24075
	Knife B	19 x 24 x 3	**CT54MDAG301**	F03FC24066
8	Knife A	64 x 20 x 3	**CT54MDBH301**	F03FC24076
	Knife B	19 x 24 x 3	**CT54MDAH301**	F03FC24067
9	Knife A	64 x 20 x 3	**CT54MDBL301**	F03FC24077
	Knife B	19 x 24 x 3	**CT54MDAL301**	F03FC24068

Example of scribes

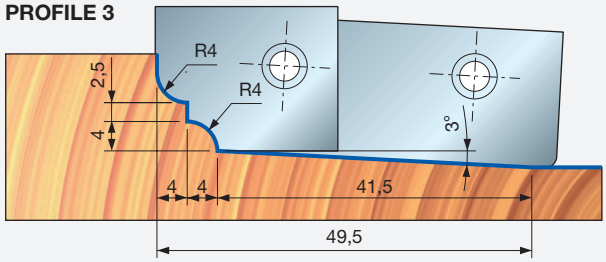
PROFILE 1



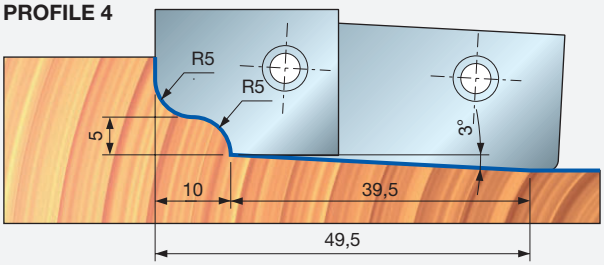
PROFILE 2



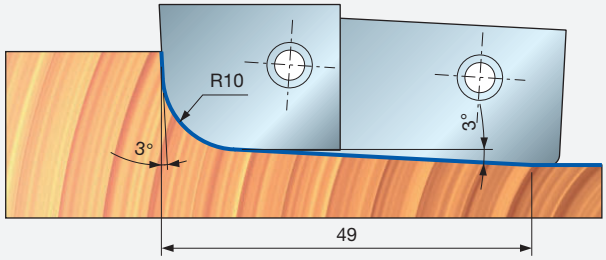
PROFILE 3



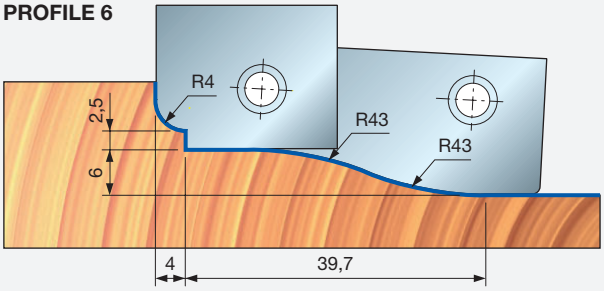
PROFILE 4



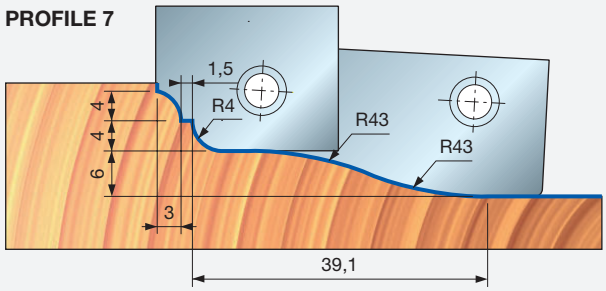
PROFILE 5



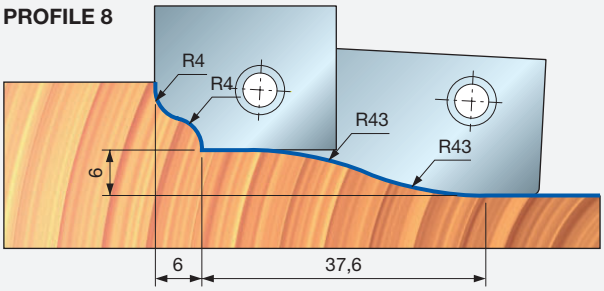
PROFILE 6



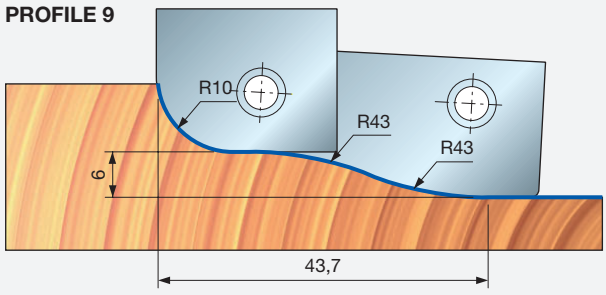
PROFILE 7



PROFILE 8



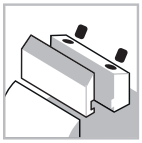
PROFILE 9

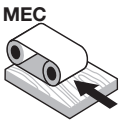




NC92M CNC tool with profiled knives


CNC Machines


Clamping system



Automatic feed

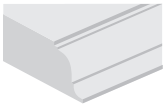

Aluminium body


Softwood


Hardwood


Chipboard


MDF


Profiling


Planing

D mm	B mm	d mm	Max RPM 1/min.	Freud Code	Art. No.
120	30	30	10.000	**NC92M 100***	F03FC15469

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Wedge	30,7 x 28 x 8	**CN13M CC9**	F03FC01391
	Wedge	50 x 28 x 8	**CN13M CD9**	F03FC01392
	Screw	M10 x 18	**VT03M CC9**	F03FC04438
	Screw	M5 x 7 x 18	**VT08M AE9**	F03FC04457
	Allen key	5	**CB03M EA9**	F03FA00169

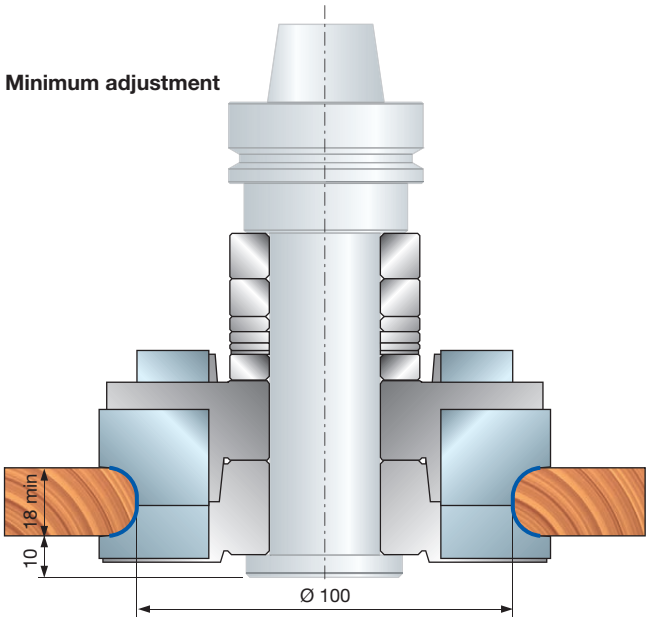
Machines:
CNC overhead routing machines.

Materials:
Softwood, hardwood, wood based panels and MDF.

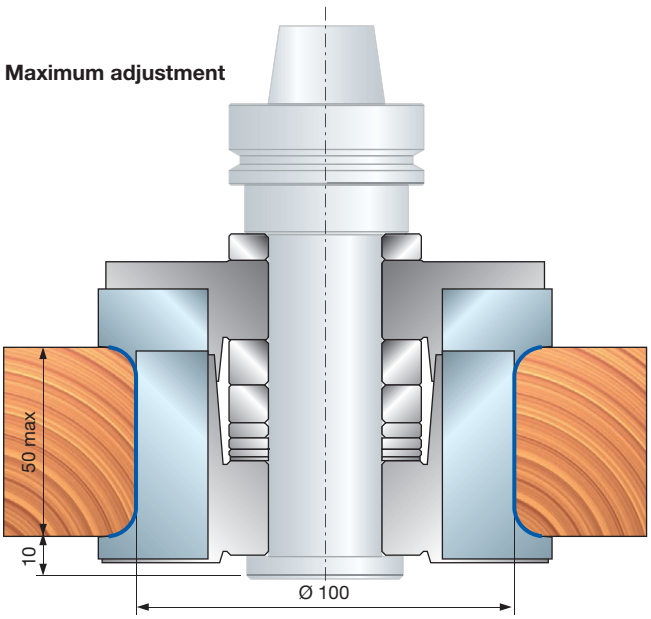
Applications:
Profiling and planing.

Technical information:
Performance CNC tool set suitable for profiling with 8 available radius and bevel profiles.
- Aluminium light alloy body.
- Chuck and knives to be ordered separately.

Minimum adjustment



Maximum adjustment



Tools for NC92M set

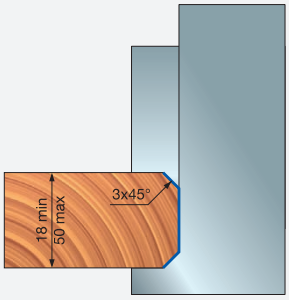
Profile	Spare knives	Dimensions mm	Freud Code	Art. No.
1	Knife	35 x 30 x 3 3x45°	**CC92M1T0101**	F03FC23793
2	Knife	35 x 30 x 3 5x45°	**CC92M1T0201**	F03FC23794
3	Knife	35 x 30 x 3 R=3	**CC92M1T0301**	F03FC23795
4	Knife	35 x 30 x 3 R=4	**CC92M1T0401**	F03FC23796
5	Knife	35 x 30 x 3 R=5	**CC92M1T0501**	F03FC23797
6	Knife	35 x 30 x 3 R=6	**CC92M1T0601**	F03FC23798
7	Knife	35 x 30 x 3 R=7	**CC92M1T0701**	F03FC23799
8	Knife	35 x 30 x 3 R=8	**CC92M1T0801**	F03FC23800

Profile	Spare knives	Dimensions mm	Freud Code	Art. No.
1	Knife	55 x 30 x 3 3x45°	**CC92M2T0101**	F03FC23801
2	Knife	55 x 30 x 3 5x45°	**CC92M2T0201**	F03FC23802
3	Knife	55 x 30 x 3 R=3	**CC92M2T0301**	F03FC23803
4	Knife	55 x 30 x 3 R=4	**CC92M2T0401**	F03FC23804
5	Knife	55 x 30 x 3 R=5	**CC92M2T0501**	F03FC23805
6	Knife	55 x 30 x 3 R=6	**CC92M2T0601**	F03FC23806
7	Knife	55 x 30 x 3 R=7	**CC92M2T0701**	F03FC23807
8	Knife	55 x 30 x 3 R=8	**CC92M2T0801**	F03FC23808

Example of scribes

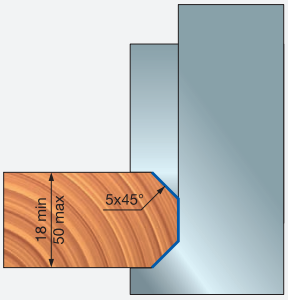
PROFILE 1

Obtainable with knives:
CC92M1T0101 + CC92M2T0101



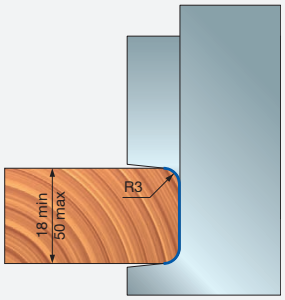
PROFILE 2

Obtainable with knives:
CC92M1T0201 + CC92M2T0201



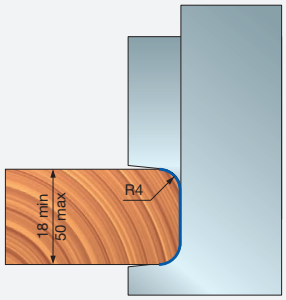
PROFILE 3

Obtainable with knives:
CC92M1T0301 + CC92M2T0301



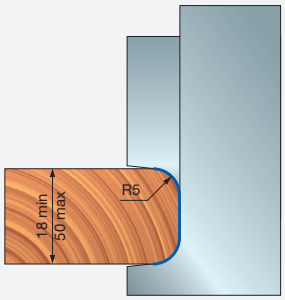
PROFILE 4

Obtainable with knives:
CC92M1T0401 + CC92M2T0401



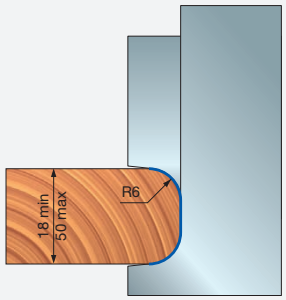
PROFILE 5

Obtainable with knives:
CC92M1T0501 + CC92M2T0501



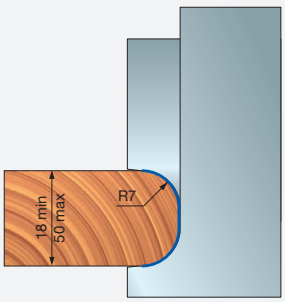
PROFILE 6

Obtainable with knives:
CC92M1T0601 + CC92M2T0601



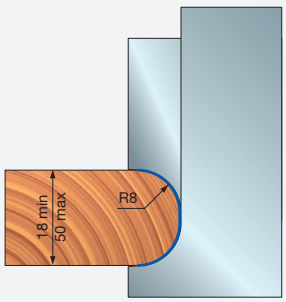
PROFILE 7

Obtainable with knives:
CC92M1T0701 + CC92M2T0701



PROFILE 8

Obtainable with knives:
CC92M1T0801 + CC92M2T0801



Item **NC92M 100** is supplied without chuck (for chuck ref. see the catalogue accessories).

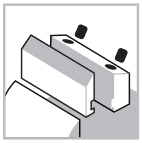
Order example:	**NC92M 100**	Group	1 piece
	CC92M1T0101	Knives	2 pieces
	CC92M2T0101	Knives	2 pieces
	MP05M AE9	Chuck	1 piece

NC93M CNC finger joint tool

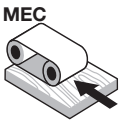




CNC Machines



Clamping system



Automatic feed



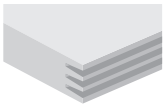
Aluminium body



Softwood



Hardwood



Jointing

D mm	B mm	d mm	Max RPM 1/min.	Freud Code	Art. No.
120	30	30	10.000	**NC93M 100***	F03FC15472

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Wedge	41 x 17 x 8	**CN11M B410**	F03FC01351
	Screw	M4 x 6	**2602M CE9**	F03FA07349
	Screw	M10 x 18	**VT03M CC9**	F03FA04438
	Screw	M5 x 7 x 18	**VT08M AE9**	F03FA04457
	Screw	18 x 7 x M6	**VT08M AG9**	F03FC20653
	Spacer	50 x 5,8 x 30	**AN04M AC9**	F03FC00500
	Allen key	2	**2619M BA9**	F03FA07431
	Allen key	5	**CB03M EA9**	F03FA00169

Profile	Spare knives	Dimensions mm	Freud Code	Art. No.
	Knife	45 x 30 x 3	**CW24MAAA301**	F03FC24128
	Knife	45 x 30 x 3	**CW24MBAA301**	F03FC24129

Tools for set NC93M 100

D mm	B mm	D mm	Z	Freud Code	Art. No.
120	52	30	2	**NC93M100-1**	F03FC15473
120	55	30	2	**NC93M100-2**	F03FC15474

Performance System TECHNOLOGY

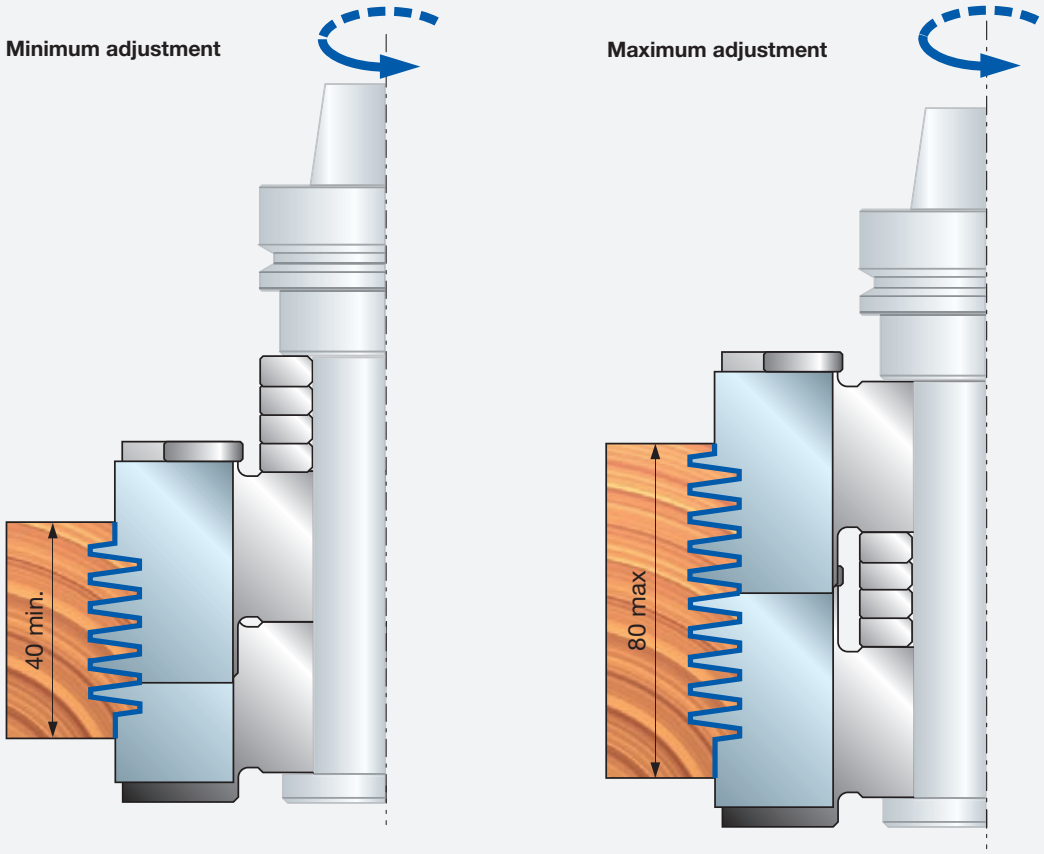
Machines:
CNC overhead routing machines.

Materials:
Softwood and hardwood.

Applications:
Jointing.

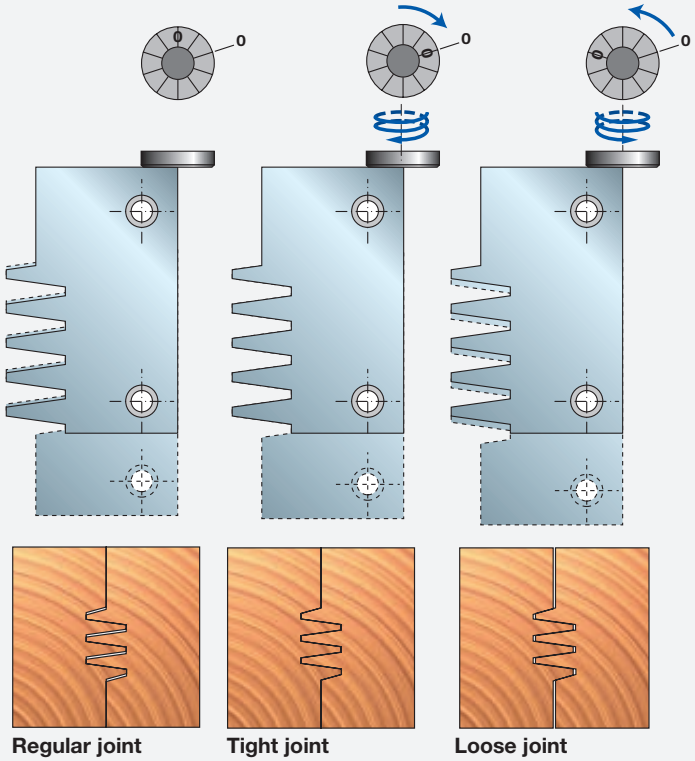
Technical information:
Adjustable CNC tool set suitable for jointing.
- Timber from 40 to 80 mm.
- Adjusting system to manage regular, tight and loose joint.
- Tool available in left and right hand rotation.
- Aluminium light alloy body.
- Chuck and knives to be ordered separately.

Adjustment examples:



Follow below instructions:

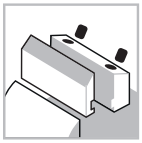
- Before rotating the adjusting screw, the clamping screw must be loosened.
- Rotating the adjusting screw clockwise, the tightness of the screw increases progressively (every notch on the adjusting screw corresponds to a movement of 1/10 mm). The perfect alignment of the knives is 0:0 (the “0” on the adjusting screw with the “0” on the tool body). This alignment results in a tight joint.
- Rotate the adjusting screw anti-clockwise in order to loosen the joint.

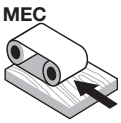


NC94MGC13 CNC finger joint tool




CNC Machines


Clamping system

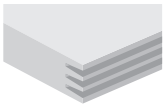


Automatic feed


Aluminium body


Softwood


Hardwood


Jointing

Performance System TECHNOLOGY

ISOprofil TECHNOLOGY

Machines:
CNC overhead routing machines.

Materials:
Softwood and hardwood.

Applications:
Jointing.

Technical information:
Adjustable CNC tool set suitable for jointing.
- Timber from 44 to 92 mm.
- Adjusting system to manage regular, tight and loose joint.
- Tool available in left and right hand rotation.
- Aluminium light alloy body.
- Chuck and knives to be ordered separately.

D mm	B mm	d mm	Z	Max RPM 1/min.	Freud Code	Art. No.
120	107	30	2	11.000	**NC94MGC13-D**	F03FC23626
120	107	30	2	11.000	**NC94MGC13-S**	F03FC23627

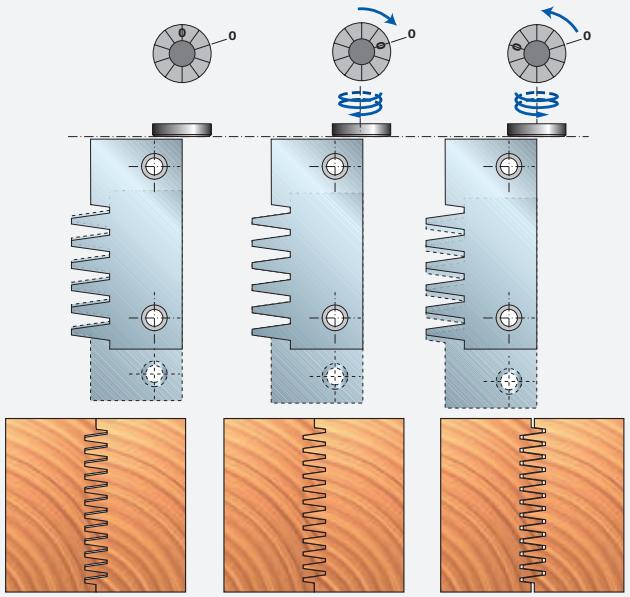
	Spare parts	Dimensions mm	Freud Code	Art. No.
	Spacer	50 x 5,8 x 30	**AN01MA0589**	F03FC00039
	Spacer	50 x 23 x 30	**AN01MA2309**	F03FC00057
	Steel pin	4 x 10	**2601M AB9**	F03FA07326
	Steel pin	2,5 x 6	**2601M AV9**	F03FA07342
	Screw	M5 x 90	**2607M CS9**	F03FA18898
	Wedge	53,5 x 32,5 x 8	**CN94M 001**	F03FC23364
	Wedge	53,5 x 32,5 x 8	**CN94M 002**	F03FC23365
	Screw	18 x 7 x M6	**VT08M AG9**	F03FC20653
	Screw	M4 x 6	**2602M CE9**	F03FA07349
	Screw	M10 x 16	**2616M EE9**	F03FA07426

	Profile	Spare knives	Dimensions mm	Freud Code	Art. No.
001		Knife	55 x 29 x 3	**CW94M00101**	-
002		Knife	55 x 29 x 3	**CW94M00201**	-

Tools for set NC94M 100

D mm	B mm	d mm	Z	Freud Code	Art. No.
120	59	30	2	**NC94M 001**	F03FC23620
120	59	30	2	**NC94M 002**	F03FC23621

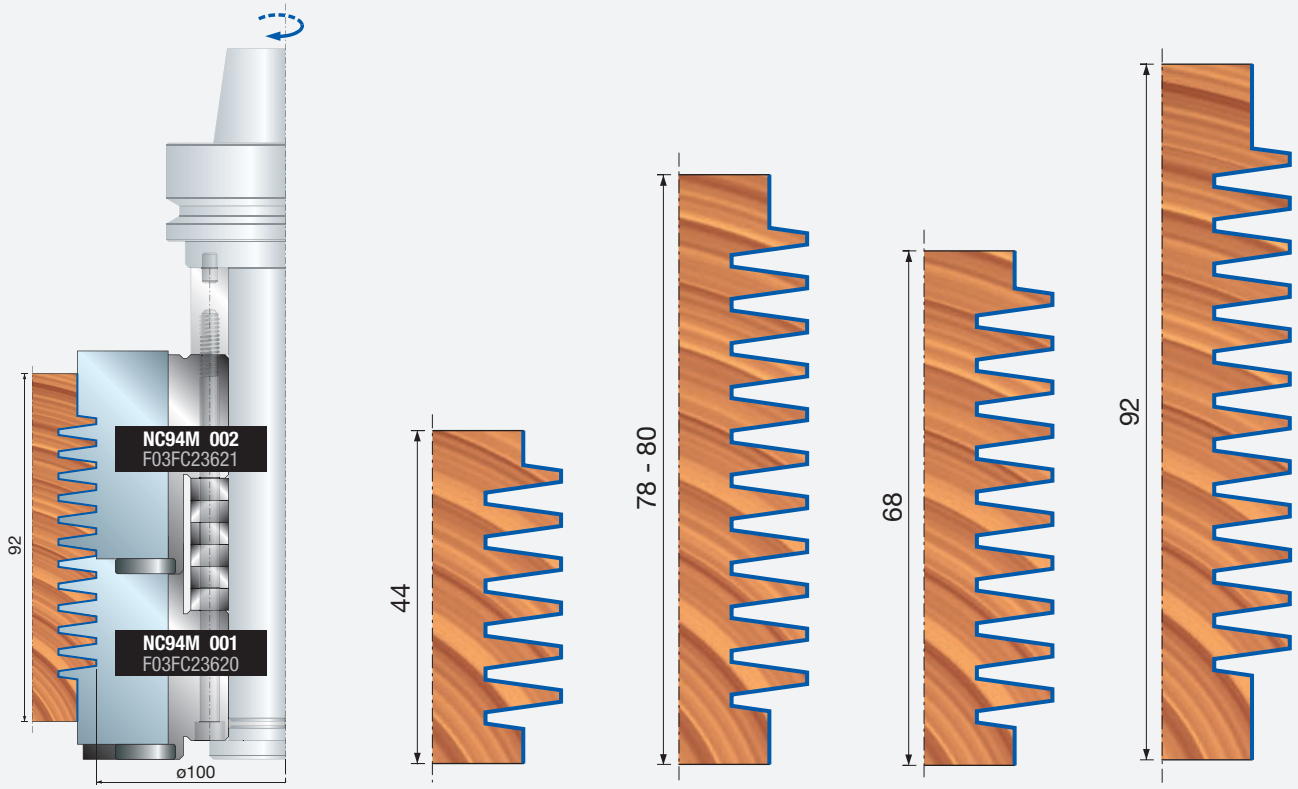
Adjustment examples:



Regular joint Tight joint Loose joint

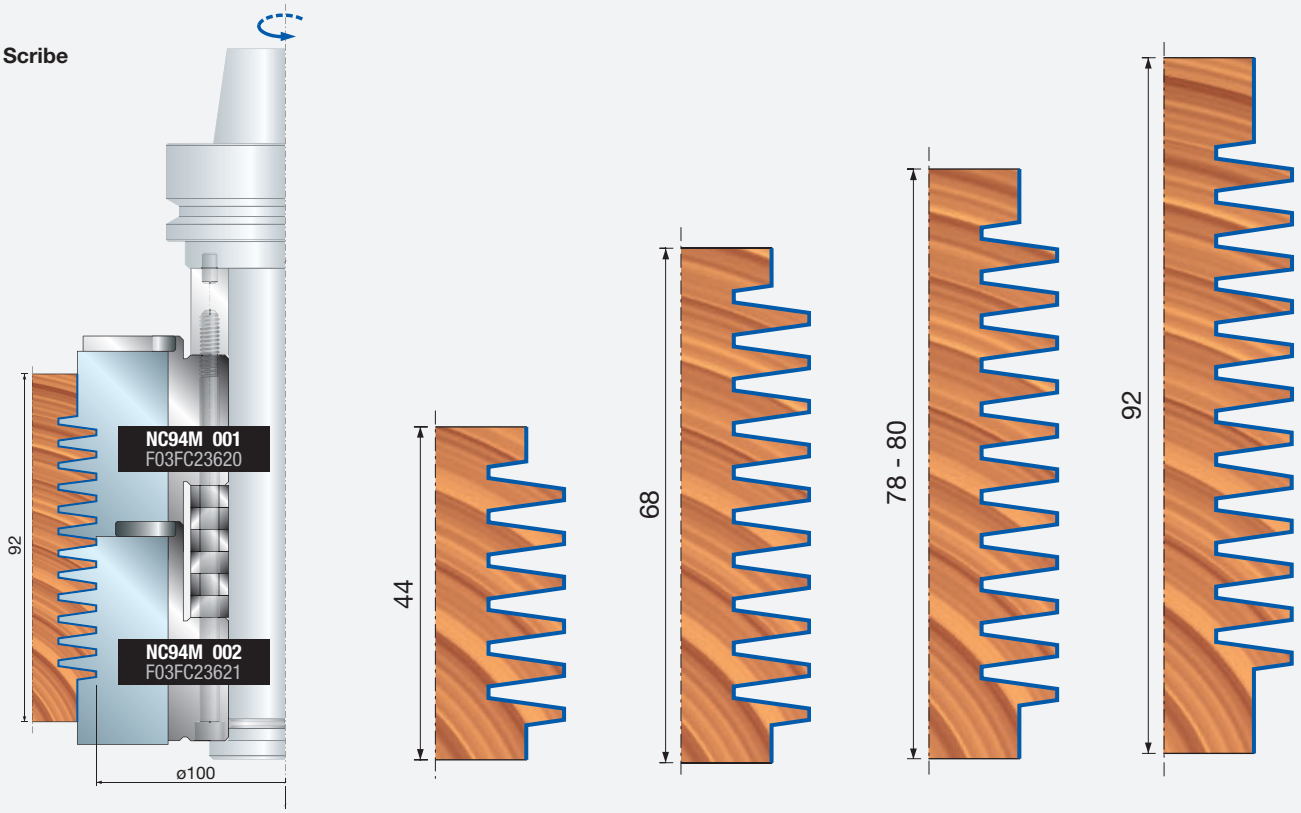
Profiles NC94MGC13-D

Profile



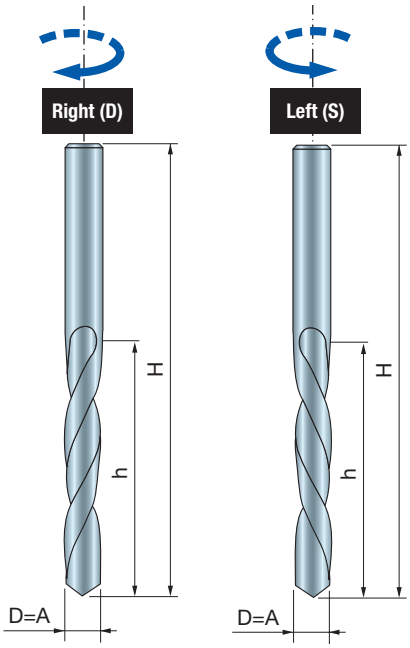
Scribes NC94MGC13-S

Scribe



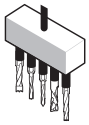
Drilling





PF03MD PF03MS

Solid Carbide multipurpose drilling - screw holes



Boring Machines



Softwood | Hardwood | Chipboard | Laminated Chipboard | MDF | Laminated MDF | Plywood



Blind Holes | Through Holes

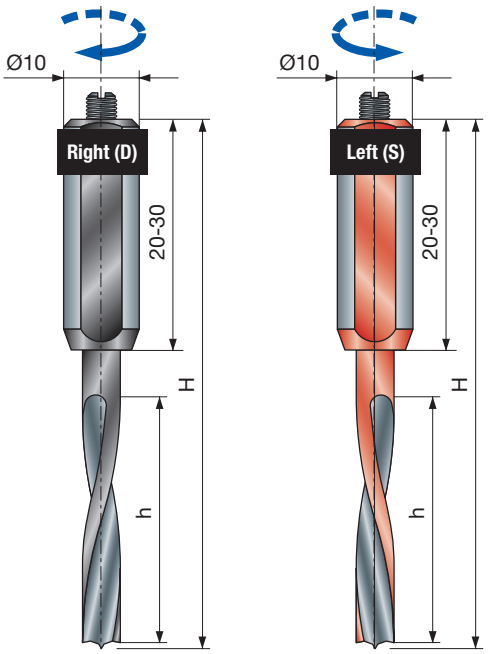
Machines:
CNC, boring and multi boring machines.

Materials:
Softwood, hardwood, wood based panels and MDF.

Applications:
Boring and drilling.

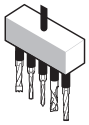
Technical information:
Solid Carbide drills in HW suitable for screw holes.
- Constructed with two spirals with back clearance angle.

D mm	h mm	H mm	A mm	Z	Freud Code	Art. No.
2	24	49	2	2	**PF03MD PA3**	F03FA02055
2,5	24	49	2,5	2	**PF03MD QA3**	F03FA02056
3	30	55	3	2	**PF03MD RA3**	F03FA02057
3,2	30	55	3,2	2	**PF03MD SA3**	F03FA02058
3,5	30	55	3,5	2	**PF03MD TA3**	F03FA02059
4	30	55	4	2	**PF03MD ZA3**	F03FA02062
4,5	35	60	4,5	2	**PF03MD UA3**	F03FA02060
5	35	60	5	2	**PF03MD VA3**	F03FA02061
2	24	49	2	2	**PF03MS PA3**	F03FA02063
2,5	24	49	2,5	2	**PF03MS QA3**	F03FA02064
3	30	55	3	2	**PF03MS RA3**	F03FA02065
3,2	30	55	3,2	2	**PF03MS SA3**	F03FA02066
3,5	30	55	3,5	2	**PF03MS TA3**	F03FA02067
4	30	55	4	2	**PF03MS ZA3**	F03FA02070
4,5	35	60	4,5	2	**PF03MS UA3**	F03FA02068
5	35	60	5	2	**PF03MS VA3**	F03FA02069



PF26MD PF26MS

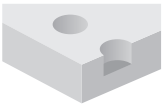
Dowel drills for blind holes



Boring Machines



Softwood | Hardwood | Chipboard | Laminated Chipboard | MDF | Laminated MDF | Plywood



Blind Holes

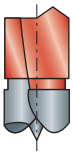
Machines:
CNC, boring and multi boring machines.

Materials:
Softwood, hardwood, wood based panels and MDF.

Applications:
Boring.

Technical information:
Solid Carbide dowel drills suitable for blind holes.
- Bit in HW with central point and cylindrical steel shank with M5 x 10 mm adjusting screw.

Geometry of the tip

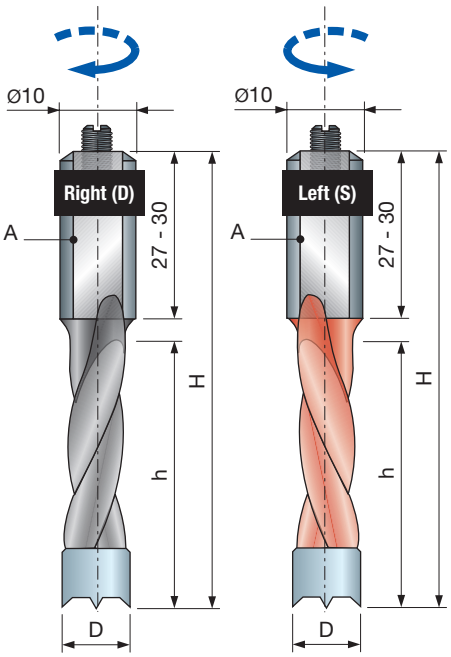


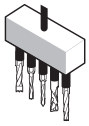
D mm	h mm	H mm	A mm	Z	Freud Code	Art. No.
3	22	70	10 x 33	2	**PF26MD VC3**	F03FA13217
4	27	70	10 x 30	2	**PF26MD ZC3**	F03FA03016
5	33	70	10 x 30	2	**PF26MD AC3**	F03FA03013
6	33	70	10 x 30	2	**PF26MD BC3**	F03FA03014
8	33	70	10 x 20	2	**PF26MD DC3**	F03FA03015
3	22	70	10 x 33	2	**PF26MS VC3**	F03FA13218
4	27	70	10 x 30	2	**PF26MS ZC3**	F03FA03020
5	33	70	10 x 30	2	**PF26MS AC3**	F03FA03017
6	33	70	10 x 30	2	**PF26MS BC3**	F03FA03018
8	33	70	10 x 20	2	**PF26MS DC3**	F03FA03019

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Screw	M5x10	**2602M DC9**	F03FA07350

PF04MD
PF04MS

Dowel drills with round spurs

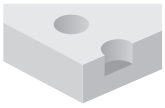




Boring Machines



Softwood | Hardwood | Chipboard | Laminated Chipboard | MDF | Laminated MDF | Plywood



Blind Holes

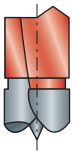
Machines:
CNC, boring and multi boring machines.

Materials:
Softwood, hardwood, wood based panels and MDF.

Applications:
Boring.

Technical information:
Dowel drills HW tipped with centre point for blind holes.
- Round edge spurs to avoid splintering.
- 10 mm cylindrical shank with M5 x 10 mm adjusting screw.

Geometry of the tip

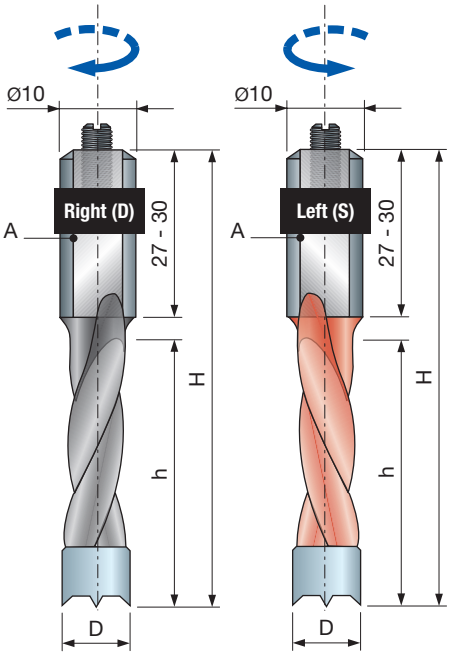


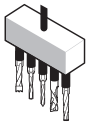
D mm	h mm	H mm	A mm	Z	Freud Code	Art. No.
5	27	57,5	10 x 27	2	**PF04MD AA3**	F03FA02071
6	27	57,5	10 x 27	2	**PF04MD BA3**	F03FA02073
8	27	57,5	10 x 27	2	**PF04MD DA3**	F03FA02075
10	27	57,5	10 x 27	2	**PF04MD FA3**	F03FA02077
5	35	70	10 x 30	2	**PF04MD AC3**	F03FA02072
6	35	70	10 x 30	2	**PF04MD BC3**	F03FA02074
8	35	70	10 x 30	2	**PF04MD DC3**	F03FA02076
10	35	70	10 x 30	2	**PF04MD FC3**	F03FA02078
5	27	57,5	10 x 27	2	**PF04MS AA3**	F03FA02079
6	27	57,5	10 x 27	2	**PF04MS BA3**	F03FA02081
8	27	57,5	10 x 27	2	**PF04MS DA3**	F03FA02083
10	27	57,5	10 x 27	2	**PF04MS FA3**	F03FA02085
5	35	70	10 x 30	2	**PF04MS AC3**	F03FA02080
6	35	70	10 x 30	2	**PF04MS BC3**	F03FA02082
8	35	70	10 x 30	2	**PF04MS DC3**	F03FA02084
10	35	70	10 x 30	2	**PF04MS FC3**	F03FA02086

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Screw	M5 x 10	**2602M DC9**	F03FA07350

PF06MD
PF06MS

Dowel drills for blind holes

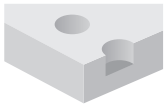




Boring Machines



Softwood | Hardwood | Chipboard | Laminated Chipboard | MDF | Laminated MDF | Plywood



Blind Holes

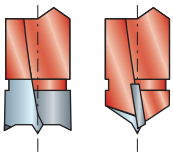
Machines:
CNC, boring and multi boring machines.

Materials:
Softwood, hardwood, wood based panels and MDF.

Applications:
Boring.

Technical information:
Dowel drills HW tipped with centre point for blind holes.
- 10 mm cylindrical shank with M5 x 10 mm adjusting screw.

Geometry of the tip
Router bit with negative spur

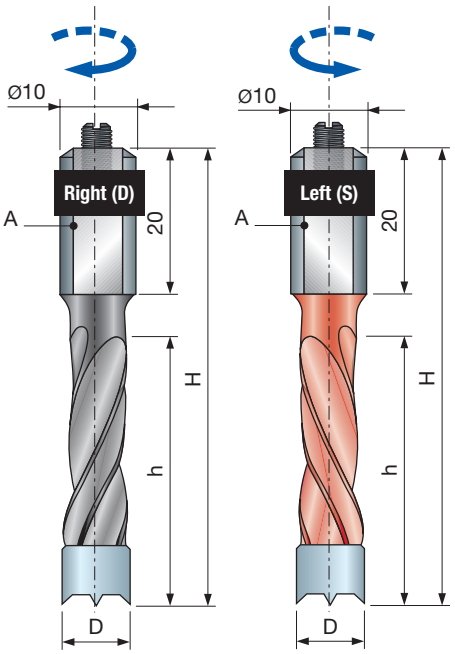


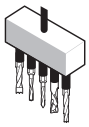
D mm	h mm	H mm	A mm	Z	Freud Code	Art. No.
5	27	57,5	10 x 27	2	**PF06MD AA3**	F03FA02103
6	27	57,5	10 x 27	2	**PF06MD BA3**	F03FA02106
7	27	57,5	10 x 27	2	**PF06MD CA3**	F03FA02109
8	27	57,5	10 x 27	2	**PF06MD DA3**	F03FA02112
9	27	57,5	10 x 27	2	**PF06MD EA3**	F03FA02115
10	27	57,5	10 x 27	2	**PF06MD FA3**	F03FA02117
12	27	57,5	10 x 27	2	**PF06MD GA3**	F03FA02120
14	27	57,5	10 x 27	2	**PF06MD HA3**	F03FA02123
15	27	57,5	10 x 27	2	**PF06MD IA3**	F03FA02125
16	27	57,5	10 x 27	2	**PF06MD KA3**	F03FA02127
4	27	57,5	10 x 27	2	**PF06MD ZA3**	F03FA02132
5	35	70	10 x 30	2	**PF06MD AC3**	F03FA02104
5	44	77	10 x 30	2	**PF06MD AD3**	F03FA02105
6	35	70	10 x 30	2	**PF06MD BC3**	F03FA02107
6	44	77	10 x 30	2	**PF06MD BD3**	F03FA02108
7	35	70	10 x 30	2	**PF06MD CC3**	F03FA02110
7	44	77	10 x 30	2	**PF06MD CD3**	F03FA02111
8	35	70	10 x 30	2	**PF06MD DC3**	F03FA02113
8	44	77	10 x 30	2	**PF06MD DD3**	F03FA02114
9	35	70	10 x 30	2	**PF06MD EC3**	F03FA02116
10	35	70	10 x 30	2	**PF06MD FC3**	F03FA02118
10	44	77	10 x 30	2	**PF06MD FD3**	F03FA02119
12	35	70	10 x 30	2	**PF06MD GC3**	F03FA02121
12	44	77	10 x 30	2	**PF06MD GD3**	F03FA02122
14	35	70	10 x 30	2	**PF06MD HC3**	F03FA02124
15	35	70	10 x 30	2	**PF06MD IC3**	F03FA02126
16	35	70	10 x 30	2	**PF06MD KC3**	F03FA02128
5	27	57,5	10 x 27	2	**PF06MS AA3**	F03FA02135
6	27	57,5	10 x 27	2	**PF06MS BA3**	F03FA02138
7	27	57,5	10 x 27	2	**PF06MS CA3**	F03FA02141
8	27	57,5	10 x 27	2	**PF06MS DA3**	F03FA02144
9	27	57,5	10 x 27	2	**PF06MS EA3**	F03FA02147
10	27	57,5	10 x 27	2	**PF06MS FA3**	F03FA02149
12	27	57,5	10 x 27	2	**PF06MS GA3**	F03FA02152
14	27	57,5	10 x 27	2	**PF06MS HA3**	F03FA02155
15	27	57,5	10 x 27	2	**PF06MS IA3**	F03FA02157
16	27	57,5	10 x 27	2	**PF06MS KA3**	F03FA02159
4	27	57,5	10 x 27	2	**PF06MS ZA3**	F03FA02164
5	35	70	10 x 30	2	**PF06MS AC3**	F03FA02136
5	44	77	10 x 30	2	**PF06MS AD3**	F03FA02137
6	35	70	10 x 30	2	**PF06MS BC3**	F03FA02139
6	44	77	10 x 30	2	**PF06MS BD3**	F03FA02140
7	35	70	10 x 30	2	**PF06MS CC3**	F03FA02142
7	44	77	10 x 30	2	**PF06MS CD3**	F03FA02143
8	35	70	10 x 30	2	**PF06MS DC3**	F03FA02145
8	44	77	10 x 30	2	**PF06MS DD3**	F03FA02146
9	35	70	10 x 30	2	**PF06MS EC3**	F03FA02148
10	35	70	10 x 30	2	**PF06MS FC3**	F03FA02150
10	44	77	10 x 30	2	**PF06MS FD3**	F03FA02151
12	35	70	10 x 30	2	**PF06MS GC3**	F03FA02153
12	44	77	10 x 30	2	**PF06MS GD3**	F03FA02154
14	35	70	10 x 30	2	**PF06MS HC3**	F03FA02156
15	35	70	10 x 30	2	**PF06MS IC3**	F03FA02158
16	35	70	10 x 30	2	**PF06MS KC3**	F03FA02160

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Screw	M5 x 10	**2602M DC9**	F03FA07350

PF07MD
PF07MS

Dowel drills for blind holes

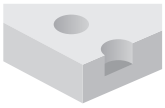




Boring Machines



Softwood | Hardwood | Chipboard | Laminated Chipboard | MDF | Laminated MDF | Plywood



Blind Holes

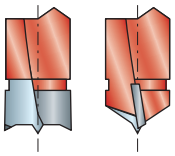
Machines:
CNC, boring and multi boring machines.

Materials:
Softwood, hardwood, wood based panels and MDF.

Applications:
Boring.

Technical information:
Dowel drills HW tipped with centre point for blind holes.
- Edge geometry to avoid splintering.
- 10 mm cylindrical shank with M5 x 10 mm adjusting screw.

Geometry of the tip
Router bit with negative spur

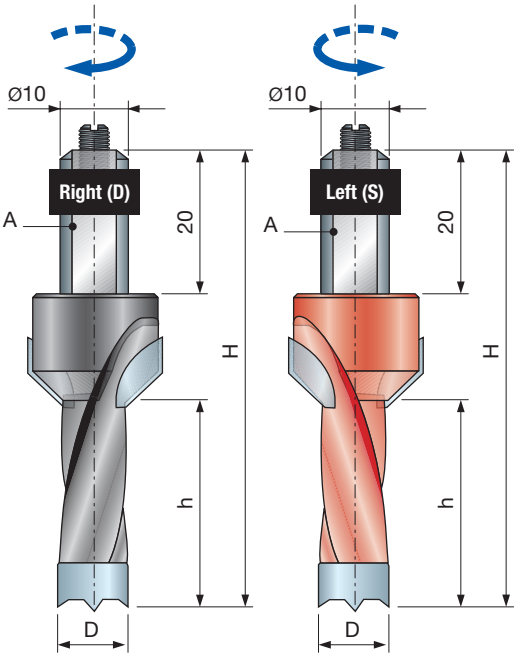


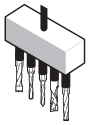
D mm	h mm	H mm	A mm	Z	Freud Code	Art. No.
4	27	57,5	10 x 20	2	**PF07MD ZA3**	F03FA02202
5	30	57,5	10 x 20	2	**PF07MD AA3**	F03FA02172
5	43	70	10 x 20	2	**PF07MD AC3**	F03FA02174
6	30	57,5	10 x 20	2	**PF07MD BA3**	F03FA02175
6	43	70	10 x 20	2	**PF07MD BC3**	F03FA02177
7	30	57,5	10 x 20	2	**PF07MD CA3**	F03FA02178
7	43	70	10 x 20	2	**PF07MD CC3**	F03FA02180
8	30	57,5	10 x 20	2	**PF07MD DA3**	F03FA02181
8	43	70	10 x 20	2	**PF07MD DC3**	F03FA02183
9	30	57,5	10 x 20	2	**PF07MD EA3**	F03FA02184
9	43	70	10 x 20	2	**PF07MD EC3**	F03FA02186
10	30	57,5	10 x 20	2	**PF07MD FA3**	F03FA02187
10	43	70	10 x 20	2	**PF07MD FC3**	F03FA02189
12	30	57,5	10 x 20	2	**PF07MD GA3**	F03FA02190
12	43	70	10 x 20	2	**PF07MD GC3**	F03FA02192
14	30	57,5	10 x 20	2	**PF07MD HA3**	F03FA02193
14	43	70	10 x 20	2	**PF07MD HC3**	F03FA02195
15	30	57,5	10 x 20	2	**PF07MD IA3**	F03FA02196
15	43	70	10 x 20	2	**PF07MD IC3**	F03FA02198
16	30	57,5	10 x 20	2	**PF07MD KA3**	F03FA02199
16	43	70	10 x 20	2	**PF07MD KC3**	F03FA02201
4	27	57,5	10 x 20	2	**PF07MS ZA3**	F03FA02235
5	30	57,5	10 x 20	2	**PF07MS AA3**	F03FA02205
5	43	70	10 x 20	2	**PF07MS AC3**	F03FA02207
6	30	57,5	10 x 20	2	**PF07MS BA3**	F03FA02208
6	43	70	10 x 20	2	**PF07MS BC3**	F03FA02210
7	30	57,5	10 x 20	2	**PF07MS CA3**	F03FA02211
7	43	70	10 x 20	2	**PF07MS CC3**	F03FA02213
8	30	57,5	10 x 20	2	**PF07MS DA3**	F03FA02214
8	43	70	10 x 20	2	**PF07MS DC3**	F03FA02216
9	30	57,5	10 x 20	2	**PF07MS EA3**	F03FA02217
9	43	70	10 x 20	2	**PF07MS EC3**	F03FA02219
10	30	57,5	10 x 20	2	**PF07MS FA3**	F03FA02220
10	43	70	10 x 20	2	**PF07MS FC3**	F03FA02222
12	30	57,5	10 x 20	2	**PF07MS GA3**	F03FA02223
12	43	70	10 x 20	2	**PF07MS GC3**	F03FA02225
14	30	57,5	10 x 20	2	**PF07MS HA3**	F03FA02226
14	43	70	10 x 20	2	**PF07MS HC3**	F03FA02228
15	30	57,5	10 x 20	2	**PF07MS IA3**	F03FA02229
15	43	70	10 x 20	2	**PF07MS IC3**	F03FA02231
16	30	57,5	10 x 20	2	**PF07MS KA3**	F03FA02232
16	43	70	10 x 20	2	**PF07MS KC3**	F03FA02234

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Screw	M5x10	**2602M DC9**	F03FA07350

PF08MDC PF08MSC

Dowel drills with countersink - blind holes





Boring Machines



Softwood | Hardwood | Chipboard | Laminated Chipboard | MDF | Laminated MDF | Plywood



Blind Holes | Blind Holes with Countersink

Machines:
CNC, boring and multi boring machines.

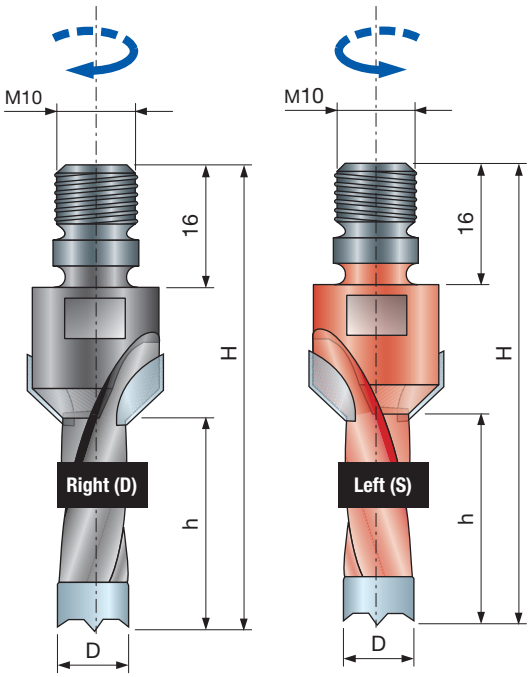
Materials:
Softwood, hardwood, wood based panels and MDF.

Applications:
Boring.

Technical information:
Dowel drills HW tipped with centre point for blind holes with 45° countersink.
- 10 mm cylindrical shank with M5 x 10 mm adjusting screw.

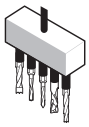
D mm	h mm	H mm	A mm	Z	Freud Code	Art. No.
5	15	57,5	10 x 20	2	**PF08MDCAB3**	F03FA02410
5	20	57,5	10 x 20	2	**PF08MDCAC3**	F03FA02411
6	15	57,5	10 x 20	2	**PF08MDCBB3**	F03FA02412
6	20	57,5	10 x 20	2	**PF08MDCBC3**	F03FA02413
8	15	57,5	10 x 20	2	**PF08MDCCB3**	F03FA02414
8	20	57,5	10 x 20	2	**PF08MDCCC3**	F03FA02415
10	15	57,5	10 x 20	2	**PF08MDCDB3**	F03FA02416
10	20	57,5	10 x 20	2	**PF08MDCDC3**	F03FA02417
5	15	57,5	10 x 20	2	**PF08MSCAB3**	F03FA02503
5	20	57,5	10 x 20	2	**PF08MSCAC3**	F03FA02504
6	15	57,5	10 x 20	2	**PF08MSCBB3**	F03FA02505
6	20	57,5	10 x 20	2	**PF08MSCBC3**	F03FA02506
8	15	57,5	10 x 20	2	**PF08MSCCB3**	F03FA02507
8	20	57,5	10 x 20	2	**PF08MSCCC3**	F03FA02508
10	15	57,5	10 x 20	2	**PF08MSCDB3**	F03FA02509
10	20	57,5	10 x 20	2	**PF08MSCDC3**	F03FA02510

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Screw	M5x10	**2602M DC9**	F03FA07350



PF08MDB PF08MSB

Dowel drills with countersink - blind holes



Boring Machines



Softwood | Hardwood | Chipboard | Laminated Chipboard | MDF | Laminated MDF | Plywood



Blind Holes | Blind Holes with Countersink

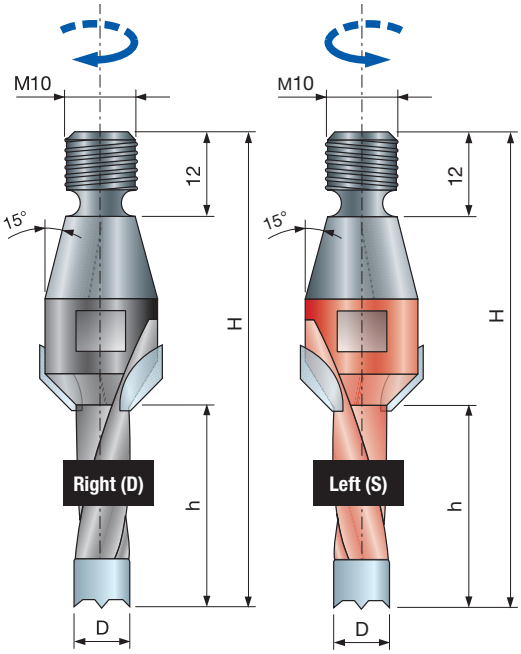
Machines:
CNC, boring and multi boring machines.

Materials:
Softwood, hardwood, wood based panels and MDF.

Applications:
Boring.

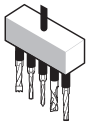
Technical information:
Dowel drills HW tipped with centre point for blind holes with 45° countersink.
• M10 threaded shank.

D mm	h mm	H mm	A mm	Z	Freud Code	Art. No.
5	30	61	-	2	**PF08MDBAB3**	F03FA02368
5	40	71	-	2	**PF08MDBAC3**	F03FA02370
5	50	81	-	2	**PF08MDBAD3**	F03FA02372
6	30	61	-	2	**PF08MDBBB3**	F03FA02375
6	40	71	-	2	**PF08MDBBC3**	F03FA02377
6	50	81	-	2	**PF08MDBBD3**	F03FA02379
8	30	61	-	2	**PF08MDBCB3**	F03FA02383
8	40	71	-	2	**PF08MDBCC3**	F03FA02385
8	50	81	-	2	**PF08MDBCD3**	F03FA02387
10	30	61	-	2	**PF08MDBDB3**	F03FA02391
10	40	71	-	2	**PF08MDBDC3**	F03FA02393
10	50	81	-	2	**PF08MDBDD3**	F03FA02395
12	30	61	-	2	**PF08MDBEB3**	F03FA02398
12	40	71	-	2	**PF08MDBEC3**	F03FA02400
12	50	81	-	2	**PF08MDBED3**	F03FA02402
14	30	61	-	2	**PF08MDBFB3**	F03FA02405
14	40	71	-	2	**PF08MDBFC3**	F03FA02407
14	50	81	-	2	**PF08MDBFD3**	F03FA02409
5	30	61	-	2	**PF08MSBAB3**	F03FA02462
5	40	71	-	2	**PF08MSBAC3**	F03FA02464
5	50	81	-	2	**PF08MSBAD3**	F03FA02466
6	30	61	-	2	**PF08MSBBB3**	F03FA02469
6	40	71	-	2	**PF08MSBBC3**	F03FA02471
6	50	81	-	2	**PF08MSBBD3**	F03FA02473
8	30	61	-	2	**PF08MSBCB3**	F03FA02476
8	40	71	-	2	**PF08MSBCC3**	F03FA02478
8	50	81	-	2	**PF08MSBCD3**	F03FA02480
10	30	61	-	2	**PF08MSBDB3**	F03FA02484
10	40	71	-	2	**PF08MSBDC3**	F03FA02486
10	50	81	-	2	**PF08MSBDD3**	F03FA02488
12	30	61	-	2	**PF08MSBEB3**	F03FA02491
12	40	71	-	2	**PF08MSBEC3**	F03FA02493
12	50	81	-	2	**PF08MSBED3**	F03FA02495
14	30	61	-	2	**PF08MSBFB3**	F03FA02498
14	40	71	-	2	**PF08MSBFC3**	F03FA02500
14	50	81	-	2	**PF08MSBFD3**	F03FA02502



PF08MDA PF08MSA

Dowel drills with countersink - blind holes



Boring Machines



Softwood | Hardwood | Chipboard | Laminated Chipboard | MDF | Laminated MDF | Plywood



Blind Holes | Blind Holes with Countersink

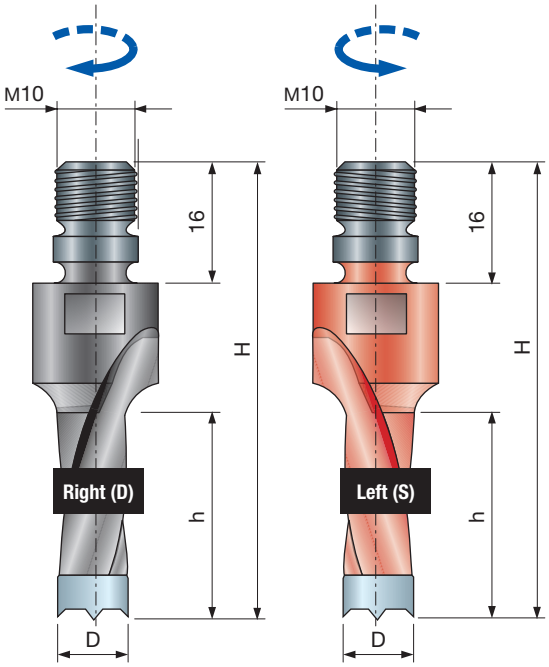
Machines:
CNC, boring and multi boring machines.

Materials:
Softwood, hardwood, wood based panels and MDF.

Applications:
Boring.

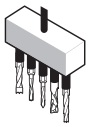
Technical information:
Dowel drills HW tipped with centre point for blind holes with 45° countersink.
• M10 threated shank.

D mm	h mm	H mm	A mm	Z	Freud Code	Art. No.
5	30	67	-	2	**PF08MDAAB3**	F03FA02325
5	40	77	-	2	**PF08MDAAC3**	F03FA02327
5	50	87	-	2	**PF08MDAAD3**	F03FA02329
6	30	67	-	2	**PF08MDABB3**	F03FA02332
6	40	77	-	2	**PF08MDABC3**	F03FA02334
6	50	87	-	2	**PF08MDABD3**	F03FA02336
8	30	67	-	2	**PF08MDACB3**	F03FA02340
8	40	77	-	2	**PF08MDACC3**	F03FA02342
8	50	87	-	2	**PF08MDACD3**	F03FA02344
10	30	67	-	2	**PF08MDADB3**	F03FA02347
10	40	77	-	2	**PF08MDADC3**	F03FA02349
10	50	87	-	2	**PF08MDADD3**	F03FA02351
12	30	67	-	2	**PF08MDAEB3**	F03FA02354
12	40	77	-	2	**PF08MDAEC3**	F03FA02356
12	50	87	-	2	**PF08MDAED3**	F03FA02358
14	30	67	-	2	**PF08MDAFB3**	F03FA02361
14	40	77	-	2	**PF08MDAFC3**	F03FA02363
14	50	87	-	2	**PF08MDAFD3**	F03FA02365
5	30	67	-	2	**PF08MSAAB3**	F03FA02420
5	40	77	-	2	**PF08MSAAC3**	F03FA02422
5	50	87	-	2	**PF08MSAAD3**	F03FA02424
6	30	67	-	2	**PF08MSABB3**	F03FA02427
6	40	77	-	2	**PF08MSABC3**	F03FA02429
6	50	87	-	2	**PF08MSABD3**	F03FA02431
8	30	67	-	2	**PF08MSACB3**	F03FA02434
8	40	77	-	2	**PF08MSACC3**	F03FA02436
8	50	87	-	2	**PF08MSACD3**	F03FA02438
10	30	67	-	2	**PF08MSADB3**	F03FA02441
10	40	77	-	2	**PF08MSADC3**	F03FA02443
10	50	87	-	2	**PF08MSADD3**	F03FA02445
12	30	67	-	2	**PF08MSAEB3**	F03FA02448
12	40	77	-	2	**PF08MSAEC3**	F03FA02450
12	50	87	-	2	**PF08MSAED3**	F03FA02452
14	30	67	-	2	**PF08MSAFB3**	F03FA02455
14	40	77	-	2	**PF08MSAFC3**	F03FA02457
14	50	87	-	2	**PF08MSAFD3**	F03FA02459



PF09MDB PF09MSB

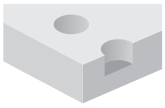
Dowel drills without countersink - blind holes



Boring Machines



Softwood | Hardwood | Chipboard | Laminated Chipboard | MDF | Laminated MDF | Plywood



Blind Holes

Machines:
CNC, boring and multi boring machines.

Materials:
Softwood, hardwood, wood based panels and MDF.

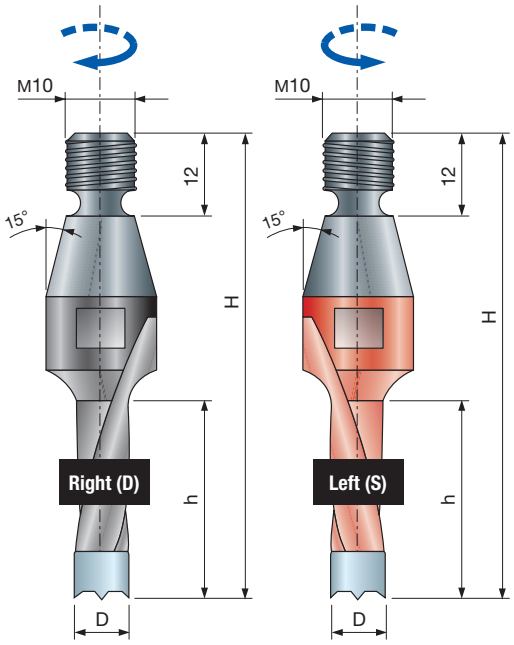
Applications:
Boring.

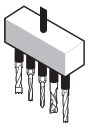
Technical information:
Dowel drills HW tipped with centre point for blind holes with round countersink.
• M10 threated shank.

D mm	h mm	H mm	A mm	Z	Freud Code	Art. No.
5	30	61	-	2	**PF09MDBAB3**	F03FA02719
5	40	71	-	2	**PF09MDBAC3**	F03FA02720
5	50	81	-	2	**PF09MDBAD3**	F03FA02721
6	30	61	-	2	**PF09MDBBB3**	F03FA02722
6	40	71	-	2	**PF09MDBBC3**	F03FA02723
6	50	81	-	2	**PF09MDBBD3**	F03FA02724
8	30	61	-	2	**PF09MDBCB3**	F03FA02726
8	40	71	-	2	**PF09MDBCC3**	F03FA02727
8	50	81	-	2	**PF09MDBCD3**	F03FA02728
10	30	61	-	2	**PF09MDBDB3**	F03FA02730
10	40	71	-	2	**PF09MDBDC3**	F03FA02731
10	50	81	-	2	**PF09MDBDD3**	F03FA02732
12	30	61	-	2	**PF09MDBEB3**	F03FA02734
12	40	71	-	2	**PF09MDBEC3**	F03FA02735
12	50	81	-	2	**PF09MDBED3**	F03FA02736
14	30	61	-	2	**PF09MDBFB3**	F03FA02737
14	40	71	-	2	**PF09MDBFC3**	F03FA02738
14	50	81	-	2	**PF09MDBFD3**	F03FA02739
5	30	61	-	2	**PF09MSBAB3**	F03FA02758
5	40	71	-	2	**PF09MSBAC3**	F03FA02759
5	50	81	-	2	**PF09MSBAD3**	F03FA02760
6	30	61	-	2	**PF09MSBBB3**	F03FA02761
6	40	71	-	2	**PF09MSBBC3**	F03FA02762
6	50	81	-	2	**PF09MSBBD3**	F03FA02763
8	30	61	-	2	**PF09MSBCB3**	F03FA02765
8	40	71	-	2	**PF09MSBCC3**	F03FA02766
8	50	81	-	2	**PF09MSBCD3**	F03FA02767
10	30	61	-	2	**PF09MSBDB3**	F03FA02769
10	40	71	-	2	**PF09MSBDC3**	F03FA02770
10	50	81	-	2	**PF09MSBDD3**	F03FA02771
12	30	61	-	2	**PF09MSBEB3**	F03FA02773
12	40	71	-	2	**PF09MSBEC3**	F03FA02774
12	50	81	-	2	**PF09MSBED3**	F03FA02775
14	30	61	-	2	**PF09MSBFB3**	F03FA02776
14	40	71	-	2	**PF09MSBFC3**	F03FA02777
14	50	81	-	2	**PF09MSBFD3**	F03FA02778

PF09MDA PF09MSA

Dowel drills without countersink - blind holes

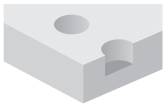




Boring Machines



Softwood | Hardwood | Chipboard | Laminated Chipboard | MDF | Laminated MDF | Plywood



Blind Holes

Machines:
CNC, boring and multi boring machines.

Materials:
Softwood, hardwood, wood based panels and MDF.

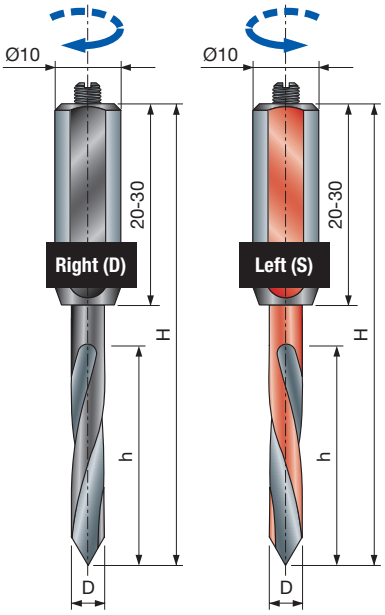
Applications:
Boring.

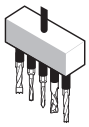
Technical information:
Dowel drills HW tipped with centre point for blind holes with round countersink.
• M10 threated shank.

D mm	h mm	H mm	A mm	Z	Freud Code	Art. No.
5	30	67	-	2	**PF09MDAAB3**	F03FA02701
5	40	77	-	2	**PF09MDAAC3**	F03FA02702
5	50	87	-	2	**PF09MDAAD3**	F03FA02703
6	30	67	-	2	**PF09MDABB3**	F03FA02704
6	40	77	-	2	**PF09MDABC3**	F03FA02705
6	50	87	-	2	**PF09MDABD3**	F03FA02706
8	30	67	-	2	**PF09MDACB3**	F03FA02707
8	40	77	-	2	**PF09MDACC3**	F03FA02708
8	50	87	-	2	**PF09MDACD3**	F03FA02709
10	30	67	-	2	**PF09MDADB3**	F03FA02710
10	40	77	-	2	**PF09MDADC3**	F03FA02711
10	50	87	-	2	**PF09MDADD3**	F03FA02712
12	30	67	-	2	**PF09MDAEB3**	F03FA02713
12	40	77	-	2	**PF09MDAEC3**	F03FA02714
12	50	87	-	2	**PF09MDAED3**	F03FA02715
14	30	67	-	2	**PF09MDAFB3**	F03FA02716
14	40	77	-	2	**PF09MDAFC3**	F03FA02717
14	50	87	-	2	**PF09MDAFD3**	F03FA02718
5	30	67	-	2	**PF09MSAAB3**	F03FA02740
5	40	77	-	2	**PF09MSAAC3**	F03FA02741
5	50	87	-	2	**PF09MSAAD3**	F03FA02742
6	30	67	-	2	**PF09MSABB3**	F03FA02743
6	40	77	-	2	**PF09MSABC3**	F03FA02744
6	50	87	-	2	**PF09MSABD3**	F03FA02745
8	30	67	-	2	**PF09MSACB3**	F03FA02746
8	40	77	-	2	**PF09MSACC3**	F03FA02747
8	50	87	-	2	**PF09MSACD3**	F03FA02748
10	30	67	-	2	**PF09MSADB3**	F03FA02749
10	40	77	-	2	**PF09MSADC3**	F03FA02750
10	50	87	-	2	**PF09MSADD3**	F03FA02751
12	30	67	-	2	**PF09MSAEB3**	F03FA02752
12	40	77	-	2	**PF09MSAEC3**	F03FA02753
12	50	87	-	2	**PF09MSAED3**	F03FA02754
14	30	67	-	2	**PF09MSAFB3**	F03FA02755
14	40	77	-	2	**PF09MSAFC3**	F03FA02756
14	50	87	-	2	**PF09MSAFD3**	F03FA02757

PF33MD
PF33MS

Solid Carbide through holes drills





Boring Machines



Softwood | Hardwood | Chipboard | Laminated Chipboard | MDF | Laminated MDF | Plywood



Through Holes

Machines:
CNC, boring and multi boring machines.

Materials:
Softwood, hardwood, wood based panels and MDF.

Applications:
Boring.

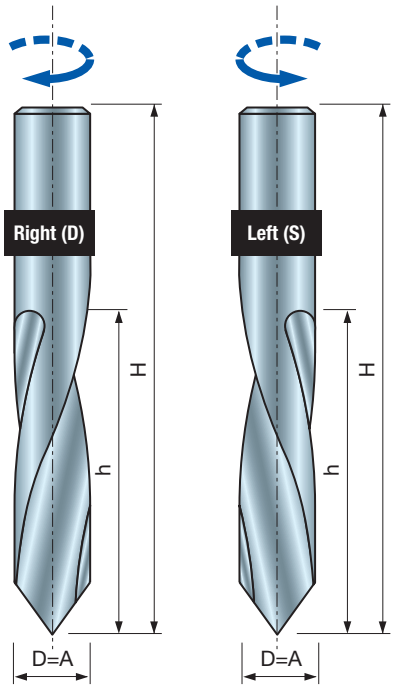
Technical information:
Solid Carbide drills suitable for through holes.
- Bit in HW and cylindrical steel shank with M5 x 10 mm adjusting screw.

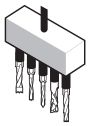
D mm	h mm	H mm	A mm	Z	Freud Code	Art. No.
3	20	70	10 x 40	2	**PF33MD VC3**	F03FA13215
4	27	70	10 x 30	2	**PF33MD ZC3**	F03FA03025
5	35	70	10 x 30	2	**PF33MD AC3**	F03FA03022
6	35	70	10 x 30	2	**PF33MD BC3**	F03FA03023
8	35	70	10 x 20	2	**PF33MD DC3**	F03FA03024
3	20	70	10 x 40	2	**PF33MS VC3**	F03FA13216
4	27	70	10 x 30	2	**PF33MS ZC3**	F03FA03030
5	35	70	10 x 30	2	**PF33MS AC3**	F03FA03027
6	35	70	10 x 30	2	**PF33MS BC3**	F03FA03028
8	35	70	10 x 20	2	**PF33MS DC3**	F03FA03029

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Screw	M5 x 10	**2602M DC9**	F03FA07350

PF31MD
PF31MS

Solid Carbide multipurpose drills





Boring Machines



Softwood | Hardwood | Chipboard | Laminated Chipboard | MDF | Laminated MDF | Plywood



Through Holes

D mm	h mm	H mm	A mm	Z	Freud Code	Art. No.
10	43	70	10	2	**PF31MD FC3**	F03FR00355
10	43	70	10	2	**PF31MS FC3**	F03FR00356

Machines:
CNC, boring and multi boring machines.

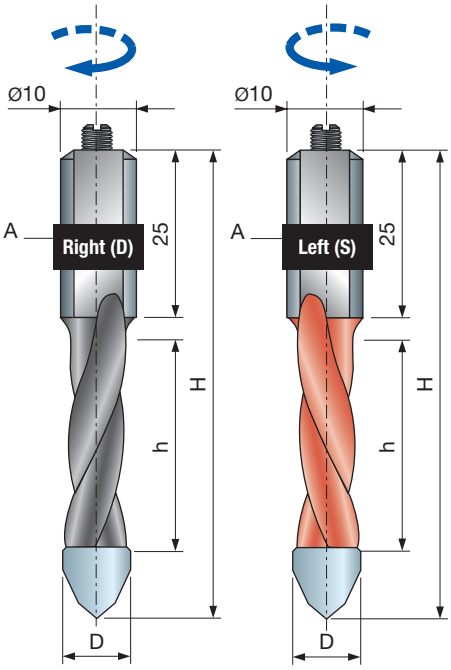
Materials:
Softwood, hardwood, wood based panels and MDF.

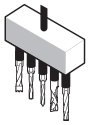
Applications:
Boring.

Technical information:
Solid Carbide drills in HW suitable for through holes.

PF05MD
PF05MS

Through holes drills





Boring Machines



Softwood | Hardwood | Chipboard | Laminated Chipboard | MDF | Laminated MDF | Plywood



Through Holes

Machines:
CNC, boring and multi boring machines.

Materials:
Softwood, hardwood, wood based panels and MDF.

Applications:
Boring.

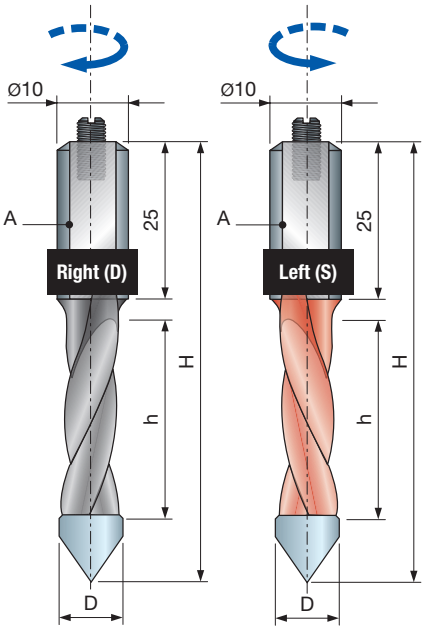
Technical information:
Through holes drills HW tipped.
- 10 mm cylindrical shank with M5 x 10 mm adjusting screw.

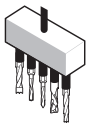
D mm	h mm	H mm	A mm	Z	Freud Code	Art. No.
5	22	57,5	10 x 25	2	**PF05MD AA3**	F03FA02087
5	35	70	10 x 25	2	**PF05MD AC3**	F03FA02088
6	22	57,5	10 x 25	2	**PF05MD BA3**	F03FA02089
6	35	70	10 x 25	2	**PF05MD BC3**	F03FA02090
8	22	57,5	10 x 25	2	**PF05MD DA3**	F03FA02091
8	35	70	10 x 25	2	**PF05MD DC3**	F03FA02092
10	22	57,5	10 x 25	2	**PF05MD FA3**	F03FA02093
10	35	70	10 x 25	2	**PF05MD FC3**	F03FA02094
5	22	57,5	10 x 25	2	**PF05MS AA3**	F03FA02095
5	35	70	10 x 25	2	**PF05MS AC3**	F03FA02096
6	22	57,5	10 x 25	2	**PF05MS BA3**	F03FA02097
6	35	70	10 x 25	2	**PF05MS BC3**	F03FA02098
8	22	57,5	10 x 25	2	**PF05MS DA3**	F03FA02099
8	35	70	10 x 25	2	**PF05MS DC3**	F03FA02100
10	22	57,5	10 x 25	2	**PF05MS FA3**	F03FA02101
10	35	70	10 x 25	2	**PF05MS FC3**	F03FA02102

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Screw	M5 x 10	**2602M DC9**	F03FA07350

PF10MD
PF10MS

Through holes drills





Boring Machines



Softwood | Hardwood | Chipboard | Laminated Chipboard | MDF | Laminated MDF | Plywood



Through Holes

Machines:
CNC, boring and multi boring machines.

Materials:
Softwood, hardwood, wood based panels and MDF.

Applications:
Boring.

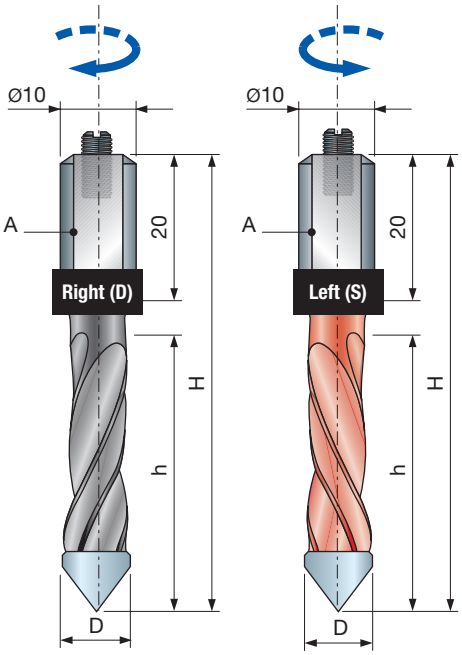
Technical information:
Through holes drills HW tipped.
- 10 mm cylindrical shank with M5 x 10 mm adjusting screw.

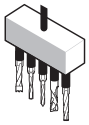
D mm	h mm	H mm	A mm	Z	Freud Code	Art. No.
4	22	57,5	10 x 25	2	**PF10MD ZA3**	F03FA02928
5	22	57,5	10 x 25	2	**PF10MD AA3**	F03FA02911
5	35	70	10 x 25	2	**PF10MD AC3**	F03FA02913
6	22	57,5	10 x 25	2	**PF10MD BA3**	F03FA02914
6	35	70	10 x 25	2	**PF10MD BC3**	F03FA02916
7	22	57,5	10 x 25	2	**PF10MD CA3**	F03FA02917
7	35	70	10 x 25	2	**PF10MD CC3**	F03FA02919
8	22	57,5	10 x 25	2	**PF10MD DA3**	F03FA02920
8	35	70	10 x 25	2	**PF10MD DC3**	F03FA02922
10	22	57,5	10 x 25	2	**PF10MD EA3**	F03FA02923
10	35	70	10 x 25	2	**PF10MD EC3**	F03FA02925
12	22	57,5	10 x 25	2	**PF10MD GA3**	F03FA02926
12	35	70	10 x 25	2	**PF10MD GC3**	F03FA02927
4	22	57,5	10 x 25	2	**PF10MS ZA3**	F03FA02947
5	22	57,5	10 x 25	2	**PF10MS AA3**	F03FA02930
5	35	70	10 x 25	2	**PF10MS AC3**	F03FA02932
6	22	57,5	10 x 25	2	**PF10MS BA3**	F03FA02933
6	35	70	10 x 25	2	**PF10MS BC3**	F03FA02935
7	22	57,5	10 x 25	2	**PF10MS CA3**	F03FA02936
7	35	70	10 x 25	2	**PF10MS CC3**	F03FA02938
8	22	57,5	10 x 25	2	**PF10MS DA3**	F03FA02939
8	35	70	10 x 25	2	**PF10MS DC3**	F03FA02941
10	22	57,5	10 x 25	2	**PF10MS EA3**	F03FA02942
10	35	70	10 x 25	2	**PF10MS EC3**	F03FA02944
12	22	57,5	10 x 25	2	**PF10MS GA3**	F03FA02945
12	35	70	10 x 25	2	**PF10MS GC3**	F03FA02946

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Screw	M5 x 10	**2602M DC9**	F03FA07350

PF11MD
PF11MS

Through holes drills





Boring Machines



Softwood | Hardwood | Chipboard | Laminated Chipboard | MDF | Laminated MDF | Plywood



Through Holes

Machines:
CNC, boring and multi boring machines.

Materials:
Softwood, hardwood, wood based panels and MDF.

Applications:
Boring.

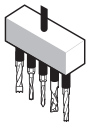
Technical information:
Through holes drills HW tipped.
- 10 mm cylindrical shank with M5 x 10 mm adjusting screw.

D mm	h mm	H mm	A mm	Z	Freud Code	Art. No.
5	27	57,5	10 x 20	2	**PF11MD AA3**	F03FA02977
5	40	70	10 x 20	2	**PF11MD AC3**	F03FA02979
6	27	57,5	10 x 20	2	**PF11MD BA3**	F03FA02980
6	40	70	10 x 20	2	**PF11MD BC3**	F03FA02982
8	27	57,5	10 x 20	2	**PF11MD DA3**	F03FA02984
8	40	70	10 x 20	2	**PF11MD DC3**	F03FA02986
10	27	57,5	10 x 20	2	**PF11MD FA3**	F03FA02987
10	40	70	10 x 20	2	**PF11MD FC3**	F03FA02989
12	27	57,5	10 x 20	2	**PF11MD GA3**	F03FA02990
12	40	70	10 x 20	2	**PF11MD GC3**	F03FA02992
5	27	57,5	10 x 20	2	**PF11MS AA3**	F03FA02993
5	40	70	10 x 20	2	**PF11MS AC3**	F03FA02995
6	27	57,5	10 x 20	2	**PF11MS BA3**	F03FA02996
6	40	70	10 x 20	2	**PF11MS BC3**	F03FA02998
8	27	57,5	10 x 20	2	**PF11MS DA3**	F03FA03000
8	40	70	10 x 20	2	**PF11MS DC3**	F03FA03002
10	27	57,5	10 x 20	2	**PF11MS FA3**	F03FA03003
10	40	70	10 x 20	2	**PF11MS FC3**	F03FA03005
12	27	57,5	10 x 20	2	**PF11MS GA3**	F03FA03006
12	40	70	10 x 20	2	**PF11MS GC3**	F03FA03008

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Screw	M5 x 10	**2602M DC9**	F03FA07350

SV05MD SV05MS

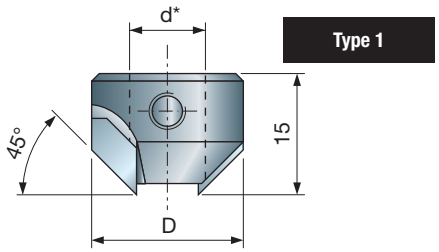
Carbide loose countersink cutters

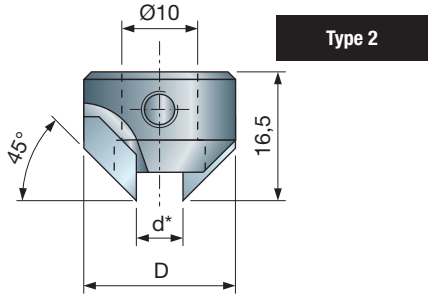


Boring Machines









Machines:
CNC, boring and multi boring machines.

Materials:
Softwood, hardwood, wood based panels and MDF.

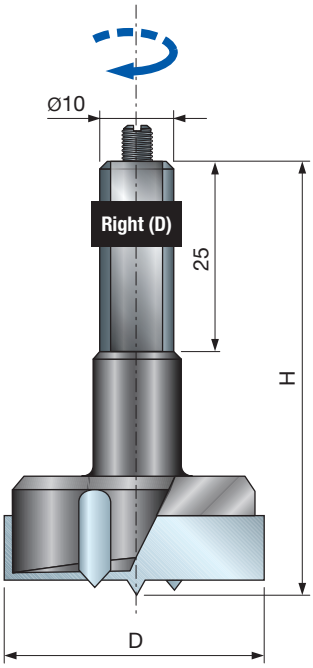
Applications:
Boring.

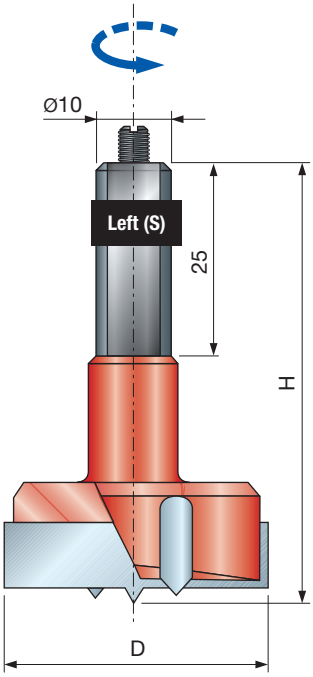
Technical information:
Countersink cutters HW tipped with side fixing screw.
*Type 1 suitable for **PF11M** and **PF07M** to fix on bits helix.
*Type 2 suitable for **PF10M** and **PF06M** to fix on bits shank.

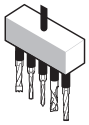
D mm	d* mm	H mm	A mm	Z	Freud Code	Art. No.
14	4	15	type 1	2	**SV05MD ZA3**	F03FA03901
16	5	15	type 1	2	**SV05MD AA3**	F03FA03890
16	6	15	type 1	2	**SV05MD BA3**	F03FA03891
18	7	15	type 1	2	**SV05MD CA3**	F03FA03892
18	8	15	type 1	2	**SV05MD DA3**	F03FA03893
20	9	15	type 1	2	**SV05MD EA3**	F03FA03894
20	10	15	type 1	2	**SV05MD FA3**	F03FA03895
22	12	15	type 1	2	**SV05MD GA3**	F03FA03896
24	14	15	type 1	2	**SV05MD HA3**	F03FA03897
20	5÷10	16,5	type 2	2	**SV05MD TA3**	F03FA03899
22	11÷12	16,5	type 2	2	**SV05MD TB3**	F03FA03900
14	4	15	type 1	2	**SV05MS ZA3**	F03FA03914
16	5	15	type 1	2	**SV05MS AA3**	F03FA03902
16	6	15	type 1	2	**SV05MS BA3**	F03FA03903
18	7	15	type 1	2	**SV05MS CA3**	F03FA03904
18	8	15	type 1	2	**SV05MS DA3**	F03FA03905
20	9	15	type 1	2	**SV05MS EA3**	F03FA03906
20	10	15	type 1	2	**SV05MS FA3**	F03FA03908
22	12	15	type 1	2	**SV05MS GA3**	F03FA03909
24	14	15	type 1	2	**SV05MS HA3**	F03FA03910
20	5÷10	16,5	type 2	2	**SV05MS TA3**	F03FA03912
22	11÷12	16,5	type 2	2	**SV05MS TB3**	F03FA03913

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Screw	M5 x 5	**2615M CC9**	F03FA07420
	Screw	M6 x 6	**2615M DD9**	F03FA07423

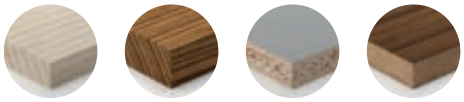
PC04MD PC04MS Carbide boring bits for hinges



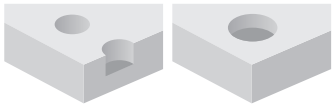




Boring Machines



Softwood | Hardwood | Laminated Chipboard | Laminated MDF



Blind Holes | Hinge Pockets

D mm	H mm	A mm	Z	Freud Code	Art. No.
12	57,5	10 x 25	2+2	**PC04MD 123**	F03FA01782
14	57,5	10 x 25	2+2	**PC04MD 143**	F03FA01783
15	57,5	10 x 25	2+2	**PC04MD 153**	F03FA01784
16	57,5	10 x 25	2+2	**PC04MD 163**	F03FA01785
18	57,5	10 x 25	2+2	**PC04MD 183**	F03FA01786
20	57,5	10 x 25	2+2	**PC04MD 203**	F03FA01787
22	57,5	10 x 25	2+2	**PC04MD 223**	F03FA01788
25	57,5	10 x 25	2+2	**PC04MD 253**	F03FA01789
26	57,5	10 x 25	2+2	**PC04MD 263**	F03FA01790
30	57,5	10 x 25	2+2	**PC04MD 303**	F03FA01791
35	57,5	10 x 25	2+2	**PC04MD 353**	F03FA01792
38	57,5	10 x 25	2+2	**PC04MD 383**	F03FA01793
40	57,5	10 x 25	2+2	**PC04MD 403**	F03FA01794
50	57,5	10 x 25	2+2	**PC04MD 503**	F03FA01795
60	57,5	10 x 25	2+2	**PC04MD 603**	F03FA13297
12	57,5	10 x 25	2+2	**PC04MS 123**	F03FA01796
14	57,5	10 x 25	2+2	**PC04MS 143**	F03FA01797
15	57,5	10 x 25	2+2	**PC04MS 153**	F03FA01798
16	57,5	10 x 25	2+2	**PC04MS 163**	F03FA01799
18	57,5	10 x 25	2+2	**PC04MS 183**	F03FA01800
20	57,5	10 x 25	2+2	**PC04MS 203**	F03FA01801
22	57,5	10 x 25	2+2	**PC04MS 223**	F03FA01802
25	57,5	10 x 25	2+2	**PC04MS 253**	F03FA01803
26	57,5	10 x 25	2+2	**PC04MS 263**	F03FA01804
30	57,5	10 x 25	2+2	**PC04MS 303**	F03FA01805
35	57,5	10 x 25	2+2	**PC04MS 353**	F03FA01806
38	57,5	10 x 25	2+2	**PC04MS 383**	F03FA01807
40	57,5	10 x 25	2+2	**PC04MS 403**	F03FA01808
50	57,5	10 x 25	2+2	**PC04MS 503**	F03FA13296
60	57,5	10 x 25	2+2	**PC04MS 603**	F03FA13298

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Screw	M5 x 10	**2602M DC9**	F03FA07350

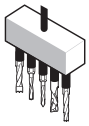
Machines:
CNC, boring and multi boring machines.

Materials:
Softwood, hardwood, wood based panels and MDF.

Applications:
Boring.

Technical information:
Boring bits HW tipped suitable for hinges.
- 10 mm cylindrical shank with M5 x 10 mm adjusting screw.

PC05MD PC05MS Carbide boring bits for hinges



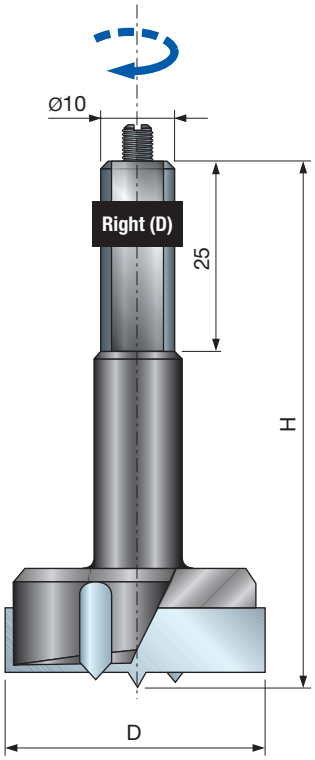
Boring Machines

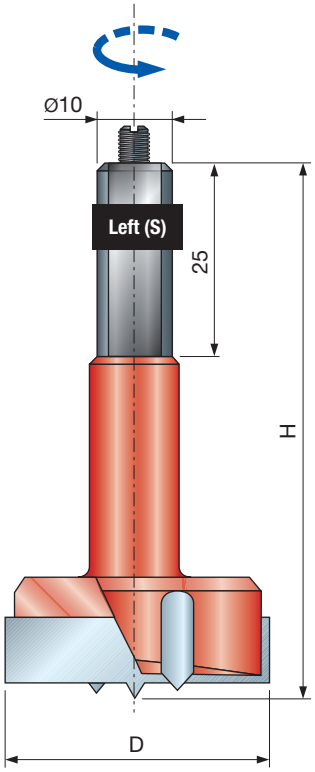


Softwood | Hardwood | Chipboard | Laminated Chipboard | MDF | Laminated MDF | Plywood



Blind Holes | Hinge Pockets





D mm	H mm	A mm	Z	Freud Code	Art. No.
12	70	10 x 25	2+2	**PC05MD 123**	F03FA01809
14	70	10 x 25	2+2	**PC05MD 143**	F03FA01810
15	70	10 x 25	2+2	**PC05MD 153**	F03FA01811
16	70	10 x 25	2+2	**PC05MD 163**	F03FA01812
18	70	10 x 25	2+2	**PC05MD 183**	F03FA01813
20	70	10 x 25	2+2	**PC05MD 203**	F03FA01814
22	70	10 x 25	2+2	**PC05MD 223**	F03FA01815
25	70	10 x 25	2+2	**PC05MD 253**	F03FA01816
26	70	10 x 25	2+2	**PC05MD 263**	F03FA01817
30	70	10 x 25	2+2	**PC05MD 303**	F03FA01818
35	70	10 x 25	2+2	**PC05MD 353**	F03FA01819
38	70	10 x 25	2+2	**PC05MD 383**	F03FA01820
40	70	10 x 25	2+2	**PC05MD 403**	F03FA01821
12	70	10 x 25	2+2	**PC05MS 123**	F03FA01822
14	70	10 x 25	2+2	**PC05MS 143**	F03FA01823
15	70	10 x 25	2+2	**PC05MS 153**	F03FA01824
16	70	10 x 25	2+2	**PC05MS 163**	F03FA01825
18	70	10 x 25	2+2	**PC05MS 183**	F03FA01826
20	70	10 x 25	2+2	**PC05MS 203**	F03FA01827
22	70	10 x 25	2+2	**PC05MS 223**	F03FA01828
25	70	10 x 25	2+2	**PC05MS 253**	F03FA01829
26	70	10 x 25	2+2	**PC05MS 263**	F03FA01830
30	70	10 x 25	2+2	**PC05MS 303**	F03FA01831
35	70	10 x 25	2+2	**PC05MS 353**	F03FA01832
38	70	10 x 25	2+2	**PC05MS 383**	F03FA01833
40	70	10 x 25	2+2	**PC05MS 403**	F03FA01834

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Screw	M5 x 10	**2602M DC9**	F03FA07350

Machines:
CNC, boring and multi boring machines.

Materials:
Softwood, hardwood, wood based panels and MDF.

Applications:
Boring.

Technical information:
Boring bits HW tipped suitable for hinges.
- 10 mm cylindrical shank with M5 x 10 mm adjusting screw.

TOOLS

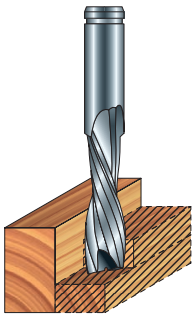
Tools shall be used only by persons of training and experience who have knowledge of how to use and handle tools.
The maximum rotational speed marked on the tool shall not be exceeded.
One piece tool with visible cracks shall not be used.
Clamping surfaces shall be cleaned to remove dirt, grease, oil and water.
Resin shall only be removed from light alloys with solvents that do not affect the mechanical characteristics of these materials.
Tools and tool bodies shall be clamped in such a way, that they shall not loosen during operation.
Tools with cylindrical shank must be clamped in a way that the mark of the maximum free shank length shall be covered, at least partially, by the clamping device or by the locking collet.
Care shall be taken of mounting tools to ensure that the clamping is by the hub respectively by the clamping surface of the tool and that the cutting edges are not in contact with each other or with the clamping elements.
Fastening screws and nuts shall be tightened using the appropriate spanners etc. and to the torque value provided by the manufacturer.
Extension of the spanner or tightening using hammer blows shall not be permitted.
Clamping screws shall be tightened according to instructions provided, by the manufacturer. Where instructions are not provided clamping screws shall be tightened in sequence from the centre outwards.
Use of fixed rings, e. g. pressed or held by adhesive fixing, in flanged sleeves, shall be permitted if made to the manufacturers specifications.
Repair and regrinding of tools shall only be allowed according to the tool manufacturer's instructions.
After repair and regrinding of tools it shall be ensured that the tools observe balancing requirements.
The design of composite (tipped) tools, shall not be changed in the process of repair.
Composite tools shall be repaired by a competent person, i.e. a person of training and experience, who has knowledge of the design requirements and understands the level of safety to be achieved.
Repair shall therefore include, e.g. use of spare parts which are in accordance with the specification of the original parts provided by the manufacturer.
Tolerances which ensure correct clamping shall be maintained.
For one piece tools care shall be taken that regrinding of the cutting edge will not cause weakening of the hub and the connection of the cutting edge to the hub.
To avoid injuries, tools shall be handled in accordance with the guidance provided by the manufacturer. Typically, safe handling involves the use of devices such as carrying hooks, proprietary handles, frames (e. g. for circular saw blades), boxes, trolleys etc.
The wearing of protective gloves improves the grip on the tool and further reduces the risk of injury.
Maintenance and modification of milling tools and related components and circular saw blades should always be in accordance with the design requirements/the manufacturer's instructions.
Maintenance and modification of milling tools and circular saw blades should only be carried out by a competent person, i. e. a person of training and experience, who has knowledge of the design requirements and understand levels of safety to be achieved.
When regrinding milling tools and circular saw blades, the minimum requirements of cutting blade thickness and cutting blade projection should be observed.
Composite tools should be repaired by persons experienced in and with understanding of design and use of milling tools for processing wood and similar materials, e.g. an expert with a relevant education and knowledge of the brazing process, including in particular the influence of the brazing process on tension in tool body and cutting material.
When brazing oft worn tips and subsequently brazing on new tips it should be made sure that the tip is correctly mounted in the tool body and that the process does not result in critical tension in the tool body.
After any type of maintenance, milling tools marked with MAN should continue to observe the requirements of the standards related to tools for hand feed.
When modifying milling tools, e. g. modification of bore diameter, modification of shank, retipping of composite tools and similar, it should be ensured that the requirements of the standard relating to balancing are still observed.
After being modified and/or retipped, milling tools and circular saw blades should be marked according to the rules applying to new tools. However, the name/logo of the company making the modification/ retipping should be added.
To avoid injuries, tools shall be handled in accordance with the guidance provided by the manufacturer.
Tools which weigh more than 15 kg may require the use of special handling devices or attachments, these will depend on the features that the manufacturer has designed into the tool to allow easy handling. The manufacturer can advise on the availability of necessary devices.

CLAMPING DEVICES

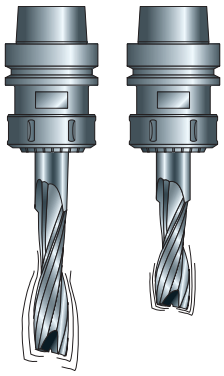
The speeds indicated on the clamping device and the tool to be clamped should be compared. For adjusting the speed on the machine the lower speed should be applied.
Screws and nuts should be tightened using the appropriate spanners;
Clamping surfaces should be cleaned to remove dirt, grease, oil and water.
Clamping devices and tools should be mounted or clamped according to given torques, pressures and wrenches to be used; extension of spanners or tightening or loosening by means of hammer blows should not be permitted.
Maximum tool diameters and tool lengths should not be exceeded;
Shank diameters must be in accordance with the clamping range of the clamping devices.
The minimum required clamping length must be kept.
Care should be taken that the data relevant to the safety of the clamped tool are always stored in the data medium.
Repairs should only be carried out by a competent person, i.e. a person with professional training and experience, who has knowledge of the design, construction and safety requirements.
Repair should therefore include the use of spare parts which are in compliance with the specifications of the original parts.

ADVICE FOR CORRECT USE

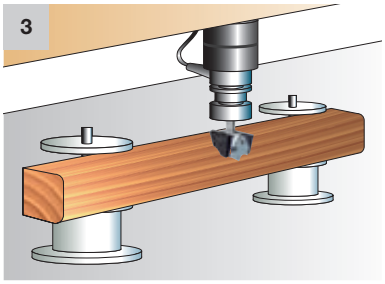
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2



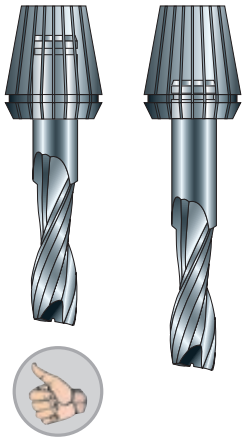
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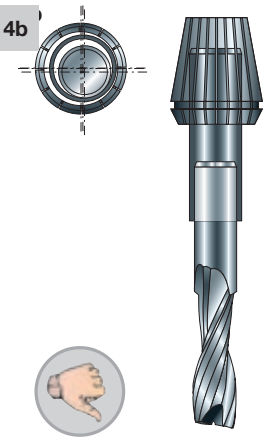
To reduce vibrations from the router bit, which can compromise the finish and cause damages to both the tool and the workpiece, it is necessary to respect the following conditions:

- For large removals, carry out more passes or proceed with a feedrate and RPM rate in proportion to the depth of cut (Fig. 1).
- A router bit with a shorter cutting height vibrates less than a router bit with the same diameter but with a longer cutting height (Fig. 2).
- Control your machine regularly (especially guides and ball bearings), making sure that there are no eccentricity problems, so as to avoid the arbor from vibrating hazardously.
- Accurately block the workpiece to the work table surface (Fig. 3).
- Respect the minimum fixing length of the shank with a preference to short chucks, with the aim of reducing eccentricity errors (Fig. 4a).
  For the same reason the use of extensions are generally avoided (Fig. 4b).
- Router bits with staggered cutters tend to leave marks caused by small eccentricity tollerances (Fig. 5).
- To identify eccentricity issues in a router bit or a chuck: make a milling on the workpiece, rotate the tool 90° on the chuck and repeat the operation. If the marks left on the wood are unvaried between the 2 processes then the tool is defective, if there's a difference the issue is probably on the chuck/collet.
- Do not exceed the maximum RPM limit marked on the tool. Higher RPM, extreme feedrate as well as an excessive cutting depth can cause the tool breakage.
- To avoid damaging router bits, we suggest controlling if the fixing surface of the chuck and the router bit are clean and that there are no imperfections (Fig. 6).
- Always choose router bits with the appropriate dimensions for the kind of work to carry out.
- Make sure that the workpiece is properly fixed to a support with appropriate dimensions.
  Place the locking devices (as suckers) sufficiently far from the tool path (Fig. 7).
- To avoid dangerous kick backs, we suggest fixing a spare piece of material and milling small parts of waste which have accumulated during the working process, by carrying out more passes (Fig. 8).

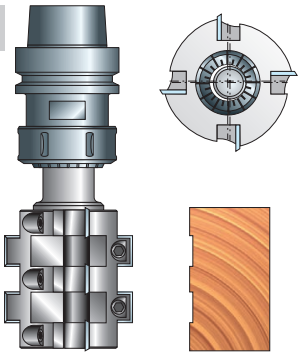
4a



4b



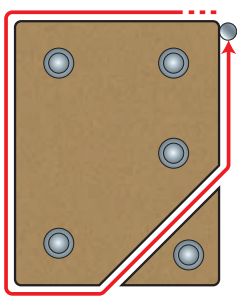
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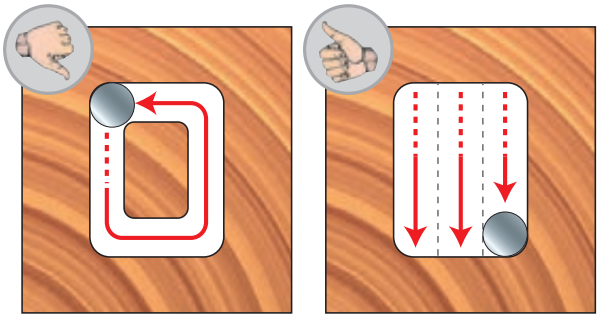
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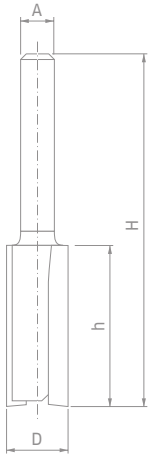
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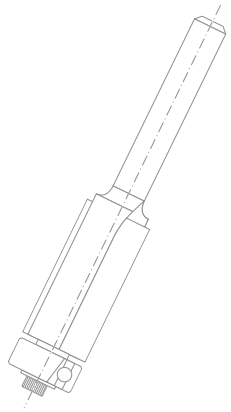


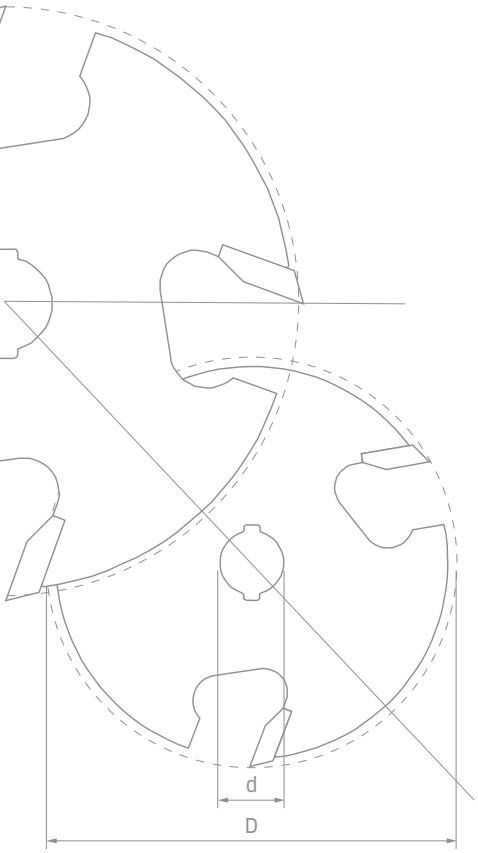
Routing tools for portable machines

Freud's wide range of superior quality router bits are the result of outstanding technical expertise and know-how, advanced manufacturing processes and finest quality materials. Designed to perform precise and burn free cuts, these tools deliver flawless finishing, unmatched precision and long-lasting performance.
All router bits feature Freud's unique and industry-first attributes.









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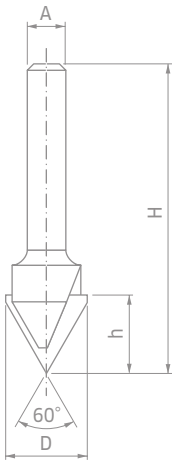
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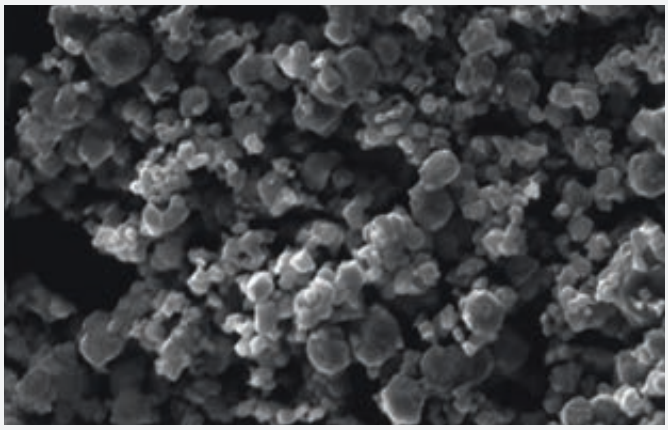
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LEADING TECHNOLOGY

TiCo CARBIDE TECHNOLOGY

Freud's ownership and control of the entire Carbide production cycle ensures that the correct formula is used for the specific application needs, to constantly maximise the router bit performance.

TiCo Carbide
A specially formulated, highly compact Titanium Cobalt Carbide, engineered and manufactured by Freud.
It provides a sharper edge and a flawless finish with a dramatically longer cutting life.



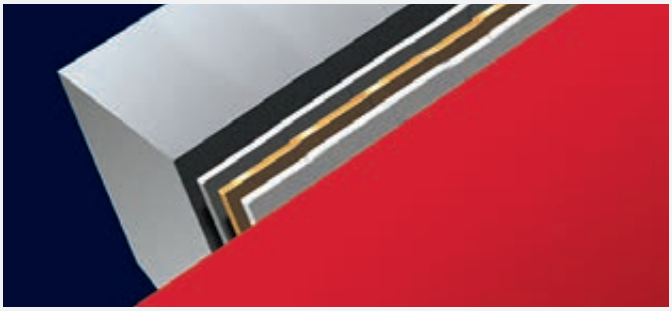
DESIGN INNOVATION

Freud's special tip designs and geometries are engineered to perform perfect cuts and deliver extraordinary durability.

Shear Angle Technology
Freud's Carbide tips are angled to slice through the wood fibers similar in principle to using a hand plane at an angle to the direction of the motion.
Freud's high shear angle bits leave a cross grain cut that requires virtually no sanding.

EXTREME SHOCK RESISTANCE

Freud's innovative **Tri-Metal Brazing** process bonds the Carbide tips to the cutter body. This special method consists of copper alloy sandwiched between layers of silver alloy, for extra flexibility and maximum impact resistance.







COATING TECHNOLOGY

Freud's router bits feature an exclusive industry-first coating that secures a superior protection from heat, pitch build-up and corrosion.

Perma-SHIELD Coating

- A non-stick coating formulation that withstands the toughest applications.
- It provides thermal insulation, protects from corrosion and eliminates resin build-up, reducing downtime for cleaning.



EXTENSIVE RANGE

Freud offers different solutions for specific application needs. The wide variety of router bits includes premium straight bits, trimming bits, edge forming bits, joinery bits, surface forming bits as well as mixed sets and spare parts. Each delivers flawless results and extraordinary lifetime.



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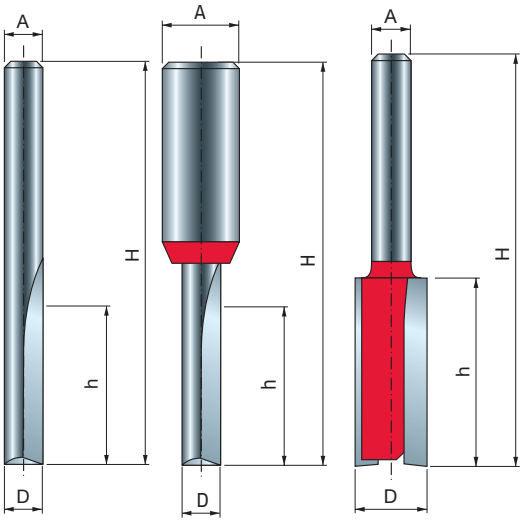
	Application picture	Description	Page reference
Straight bits		Freud's straight router bits in all relevant shank diameter 6 mm, 8 mm, 12 mm, 1/4", 1/2". Cutting diameters from 2 mm up to 25 mm. Freud Straight bits are designed to deliver clean, precise, splinter free results in hardwood and softwood and in almost any composite material they cover many applications such as grooving, rebating, slots, planning and hinge cut outs.	243-249
Trimming bits		Freud's trimming bits range includes bits for any trimming application. Use these bits for precise trim work on laminate or veneered counter tops, to follow patterns, to create or duplicate intricate shapes or for any task requiring a clean cut-off along a flush edge with a smooth, burn free cut. Hardwood, softwood, plywood, composites and laminates on hand-held or table-mounted routers.	250-254
Edge forming bits		Freud's edge forming bits are designed to cover every edge profiling application, such as rounding, chamfer, ogee, cove profiles and many more.	255-275
Joinery bits		Freud's joinery router bits are designed to create perfect wood joints. It is possible to choose a selection ranging from slotting cutters to dovetail router bits and many more.	276-302
Surface forming bits		All Freud's surface forming router bits are available without ball bearing for a perfect profile grooving on wooden surfaces.	303-313
Mixed sets		Freud offers several different router bit sets. Mixed router bit sets are available in the most common shank diameters, along with our classical cabinet door sets.	314-326

Straight Bits



DOUBLE FLUTE STRAIGHT BITS

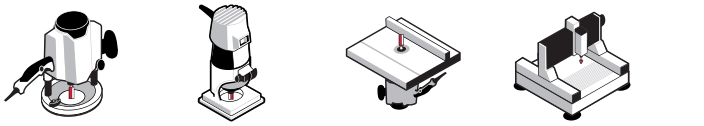
04- 12- MM- R006M



Type A
Solid Carbide bits

Type B
Solid Carbide cutting parts

Type C
HW tipped bits



Hand-held Routers | Table Routers | CNC Machines

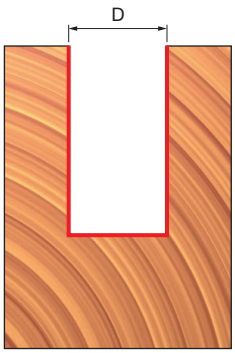


Softwood | Hardwood | Plywood | Wood Based Panels

Machines:
Hand-held routers, table routers and CNC machines.

Materials:
Softwood, hardwood, plywood and wood based panels.

Applications:
Type A: Small cutting diameter solid Carbide double flute straigth bits.
Ideal for grooving, edge-routing, plunge cuts and other general purpose routing tasks.
Type B: Small cutting diameter double flute straight bits, steel shank with integrated solid Carbide cutting part.
Type C: Ideal for grooving, edge-routing and other general purpose routing tasks.



Type A - Solid Carbide bits

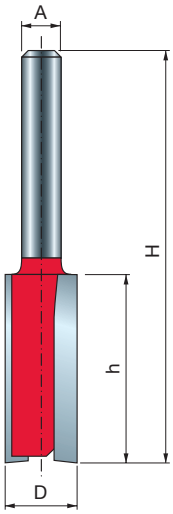
D mm	h mm	H mm	A mm	A inch	Z	Max RPM 1/min.	Freud Code	Art. No.
2	6,3	44,5	6		2	24.000	**04-09706P**	F03FR01413
3	9,5	44,5	6		2	24.000	**04-09906P**	F03FR01415
3	11	50,8	6		2	24.000	**04-10006P**	F03FR01418
3	12	50	6		2	24.000	**R006M03006**	F03FR01355
4	12	50,3	6		2	24.000	**R006M05006**	F03FR01356
4	12	50,8	6		2	24.000	**04-10206P**	F03FR01423
4	15,8	50,7	6		2	24.000	**04-10106P**	F03FR01420
5	12	50,3	6		2	24.000	**R006M07006**	F03FR01357
5	12,7	50,8	6		2	24.000	**04-11306P**	F03FR01437
5	16	51	6		2	24.000	**R006M07406**	F03FR01358
6	16	50,8	6		2	24.000	**04-11406P**	F03FR01440
6	16	57	6		2	24.000	**R006M09406**	F03FR01359
6	25	63	6		2	24.000	**R006M10206**	F03FR01360
6	25,4	76,2	6		2	24.000	**04-11006P**	F03FR01431
3	9,5	44,5	8		2	24.000	**04-09908P**	F03FR01416
4	15,8	50,7	8		2	24.000	**04-10108P**	F03FR01421
5	12,7	50,8	8		2	24.000	**04-11308P**	F03FR01438
6	16	50,8	8		2	24.000	**04-11408P**	F03FR01441
6	25,4	76,2	8		2	24.000	**04-11008P**	F03FR01432
1,58	6,4	44,5		1/4	2	24.000	**04-09625P**	F03FR01412
2	4	38,1		1/4	2	24.000	**04-50225P**	F03FR01502
2,38	9,5	38,1		1/4	2	24.000	**04-09825P**	F03FR01414
3	8	44,5		1/4	2	24.000	**04-50825P**	F03FR01503
3,18	9,5	44,5		1/4	2	24.000	**04-10025P**	F03FR01419
4	15,77	50,8		1/4	2	24.000	**04-10125P**	F03FR01422
4,76	12,7	49,2		1/4	2	24.000	**04-10225P**	F03FR01424
5	11,9	50,8		1/4	2	24.000	**04-51225P**	F03FR01504
6,35	12,7	50,5		1/4	2	24.000	**04-10425P**	F03FR01426
6,35	15,9	50,8		1/4	2	24.000	**04-10525P**	F03FR01427
6,35	19	57,1		1/4	2	24.000	**04-10625P**	F03FR01428
6,35	22,2	57,1		1/4	2	24.000	**04-10725P**	F03FR01429
6,35	25,4	63,5		1/4	2	24.000	**04-10825P**	F03FR01430
6,35	25,4	76,2		1/4	2	24.000	**04-11025P**	F03FR01433
6,35	19	61		1/2	2	24.000	**12-10050P**	F03FR01521
6,35	23	73		1/2	2	24.000	**12-10250P**	F03FR01522

Type B - Solid Carbide cutting parts

D mm	h mm	H mm	A mm	Z	Max RPM 1/min.	Freud Code	Art. No.
3	8	58	12	2	24.000	**12-09612P**	F03FR01517
4	10	58	12	2	24.000	**12-09712P**	F03FR01518
5	12,7	57	12	2	24.000	**12-09812P**	F03FR01519
6	19	64	12	2	24.000	**12-09912P**	F03FR01520

DOUBLE FLUTE STRAIGHT BITS

04- 12- MM- R006M



Type C
HW tipped bits

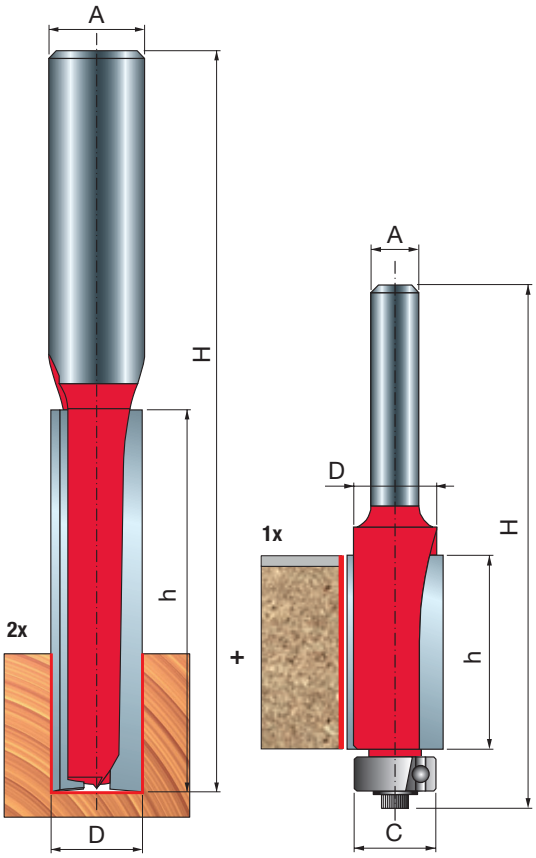
Type C - HW tipped bits

D mm	h mm	H mm	A mm	A inch	Z	Max RPM 1/min.	Freud Code	Art. No.
7	25,4	63,5	6		2	24.000	**04-11206P**	F03FR01434
8	19,1	52	6		2	24.000	**04-11506P**	F03FR01443
8	31,8	70	6		2	24.000	**04-11906P**	F03FR01447
9	25	63	6		2	24.000	**04-12406P**	F03FR01450
10	25,4	62,4	6		2	24.000	**MM-01006P**	F03FR00330
10	31,8	69	6		2	24.000	**MM-11006P**	F03FR00333
11	25,4	62	6		2	24.000	**04-13306P**	F03FR01458
12	19	55,5	6		2	24.000	**04-13506P**	F03FR01460
12	31,8	68	6		2	24.000	**04-13706P**	F03FR01464
13	25,4	62,4	6		2	24.000	**04-14206P**	F03FR01470
14	19	56	6		2	24.000	**04-14306P**	F03FR01472
14	31,8	68,2	6		2	24.000	**04-14506P**	F03FR01475
15	20	57,2	6		2	24.000	**04-14606P**	F03FR01478
15	31,8	68,2	6		2	24.000	**04-14706P**	F03FR01480
16	19	51	6		2	24.000	**04-14906P**	F03FR01483
16	31,8	66	6		2	24.000	**04-15006P**	F03FR01486
18	20	52	6		2	24.000	**04-15106P**	F03FR01488
19	19	54	6		2	24.000	**04-14006P**	F03FR01468
20	19	56	6		2	24.000	**04-15506P**	F03FR01492
22	19	51	6		2	24.000	**04-15706P**	F03FR01495
24	20	52	6		2	24.000	**04-15806P**	F03FR01498
25	19	56	6		2	24.000	**04-15906P**	F03FR01500
7	25,4	63,5	8		2	24.000	**04-11208P**	F03FR01435
8	19	52	8		2	24.000	**04-11508P**	F03FR01444
8	31,8	70	8		2	24.000	**04-11908P**	F03FR01448
9	25	63	8		2	24.000	**04-12408P**	F03FR01451
10	25,4	62,4	8		2	24.000	**MM-01008P**	F03FR00331
10	31,8	69	8		2	24.000	**MM-11008P**	F03FR00334
12	19	55,5	8		2	24.000	**04-13508P**	F03FR01461
12	31,8	63,8	8		2	24.000	**04-13708P**	F03FR01465
14	19	56	8		2	24.000	**04-14308P**	F03FR01473
14	31,8	68,2	8		2	24.000	**04-14508P**	F03FR01476
15	20	57,2	8		2	24.000	**04-14608P**	F03FR01479
15	31,8	68,2	8		2	24.000	**04-14708P**	F03FR01481
16	19	51	8		2	24.000	**04-14908P**	F03FR01484
16	31,8	66	8		2	24.000	**04-15008P**	F03FR01487
18	20	52	8		2	24.000	**04-15108P**	F03FR01489
20	19	56	8		2	24.000	**04-15508P**	F03FR01493
22	19	51	8		2	24.000	**04-15708P**	F03FR01496
24	20	52	8		2	24.000	**04-15808P**	F03FR01499
25	19	56	8		2	24.000	**04-15908P**	F03FR01501
7	18	67	12		2	24.000	**12-10312P**	F03FR01523
8	31,8	76	12		2	24.000	**12-10712P**	F03FR01525
9	31,8	76	12		2	24.000	**12-11012P**	F03FR01528
10	31,8	76	12		2	24.000	**12-11212P**	F03FR01530
12	38,1	80	12		2	24.000	**12-12212P**	F03FR01534
12	50,5	98	12		2	24.000	**12-12812P**	F03FR01537
13	25,4	66,7	12		2	24.000	**12-11612P**	F03FR01531
14	31,8	73	12		2	24.000	**12-13412P**	F03FR01540
15	31,8	69,8	12		2	24.000	**12-13512P**	F03FR01541
16	38,1	76,1	12		2	24.000	**12-14012P**	F03FR01544
18	38,1	80	12		2	24.000	**12-14312P**	F03FR01547
19	25,4	63,4	12		2	24.000	**12-15212P**	F03FR01548
20	38,1	80	12		2	24.000	**12-15912P**	F03FR01553
22	38,1	80	12		2	24.000	**12-16912P**	F03FR01556
7,14	25,4	65,4		1/4	2	24.000	**04-11225P**	F03FR01436
7,94	25,4	71,4		1/4	2	24.000	**04-11825P**	F03FR01446
9,53	22,2	59,2		1/4	2	24.000	**04-12025P**	F03FR01449
9,53	25,4	62,4		1/4	2	24.000	**04-12425P**	F03FR01452
9,53	31,8	68,7		1/4	2	24.000	**04-12625P**	F03FR01453
10	25,4	62,4		1/4	2	24.000	**MM-01025P**	F03FR00332
10	31,8	63,8		1/4	2	24.000	**04-52025P**	F03FR01505
11,11	25,4	62,4		1/4	2	24.000	**04-12925P**	F03FR01454
12	31,8	63,8		1/4	2	24.000	**04-52825P**	F03FR01506

DOUBLE FLUTE STRAIGHT BITS

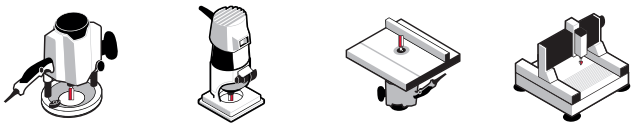
04- 12- MM- R006M

D mm	h mm	H mm	A mm	A cale	Z	Obr./min (maks.) 1/min	Kod Freud	Nr art.
12,7	19	55,5		1/4	2	24.000	**04-13025P**	F03FR01455
12,7	22,2	59,2		1/4	2	24.000	**04-13125P**	F03FR01456
12,7	25,4	62,4		1/4	2	24.000	**04-13225P**	F03FR01457
12,7	31,8	69,9		1/4	2	24.000	**04-13325P**	F03FR01459
15	31,8	66,7		1/4	2	24.000	**04-53625P**	F03FR01507
15,88	19	51		1/4	2	24.000	**04-13625P**	F03FR01463
15,88	31,8	69,9		1/4	2	24.000	**04-13725P**	F03FR01466
16	31,8	66,7		1/4	2	24.000	**04-54425P**	F03FR01508
17,46	19,1	56,1		1/4	2	24.000	**04-13825P**	F03FR01467
18	19,1	51,1		1/4	2	24.000	**04-54825P**	F03FR01509
19	19	57		1/4	2	24.000	**04-14025P**	F03FR01469
20	19,1	51,1		1/4	2	24.000	**04-55225P**	F03FR01510
22,23	19,1	56,1		1/4	2	24.000	**04-14825P**	F03FR01482
25,4	19,1	56,1		1/4	2	24.000	**04-15225P**	F03FR01491
7,94	25,4	78,9		1/2	2	24.000	**12-10650P**	F03FR01524
9,53	25,4	73,6		1/2	2	24.000	**12-10850P**	F03FR01526
9,53	31,8	82		1/2	2	24.000	**12-11050P**	F03FR01529
10	31,8	75		1/2	2	24.000	**12-52050P**	F03FR01558
12	31,8	75		1/2	2	24.000	**12-53050P**	F03FR01559
12,7	25,4	66,7		1/2	2	24.000	**12-11650P**	F03FR01532
12,7	31,8	77		1/2	2	24.000	**12-11850P**	F03FR01533
12,7	38,1	80,4		1/2	2	24.000	**12-12250P**	F03FR01535
12,7	38,1	108		1/2	2	24.000	**12-12450P**	F03FR01536
12,7	50,5	98		1/2	2	24.000	**12-12850P**	F03FR01538
12,7	63,2	110,7		1/2	2	24.000	**12-13050P**	F03FR01539
15,88	25,4	62,4		1/2	2	24.000	**12-13650P**	F03FR01542
15,88	31,8	71,8		1/2	2	24.000	**12-13850P**	F03FR01543
15,88	38,1	76,1		1/2	2	24.000	**12-14050P**	F03FR01545
15,88	50,8	103		1/2	2	24.000	**12-14250P**	F03FR01546
16	31,8	69,8		1/2	2	24.000	**12-54450P**	F03FR01560
19	25,4	63,4		1/2	2	24.000	**12-15250P**	F03FR01549
19	31,8	69,8		1/2	2	24.000	**12-15450P**	F03FR01550
19	38,1	76,1		1/2	2	24.000	**12-15650P**	F03FR01551
19,05	50,8	88,8		1/2	2	24.000	**12-15850P**	F03FR01552
20,63	31,8	76		1/2	2	24.000	**12-16250P**	F03FR01554
22,23	31,8	76		1/2	2	24.000	**12-16850P**	F03FR01555
25,4	31,8	69,8		1/2	2	24.000	**12-17250P**	F03FR01557



KITCHEN FITTER SET

88-



Hand-held Routers | Table Routers | CNC Machines



Softwood | Hardwood | Plywood | Wood Based Panels

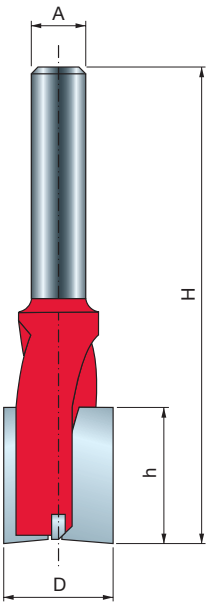
	A inch	Max RPM 1/min.	Freud Code	Art. No.
2x Straight bit and 1x flush trim bit set	1/2 1/4	24.000	**88-20075P**	F03FR04370

TiCo Carbide MADE BY freud

Perma-SHIELD COATING

DOUBLE FLUTE STRAIGHT BITS WITH BOTTOM TIP

17-





Hand-held Routers

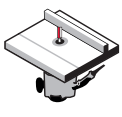
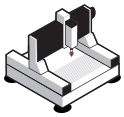


Table Routers



CNC Machines



Softwood | Hardwood | Plywood | Wood Based Panels

D mm	h mm	H mm	A mm	Z	Max RPM 1/min.	Freud Code	Art. No.
16	45	85	8	2+1	24.000	**17-10008P**	F03FR01577
18	18	70	8	2+1	24.000	**17-10208P**	F03FR01578
20	18	70	8	2+1	24.000	**17-10408P**	F03FR01579
22	25	70	8	2+1	24.000	**17-10608P**	F03FR01580
16	60	110	12	2+1	24.000	**17-10112P**	F03FA13994

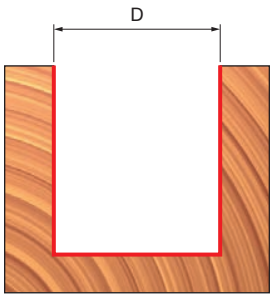
TiCo Carbide MADE BY freud

Perma-SHIELD COATING

Machines:
Hand-held routers, table routers and CNC machines.

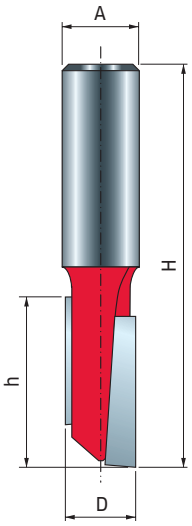
Materials:
Softwood, hardwood, plywood and wood based panels.

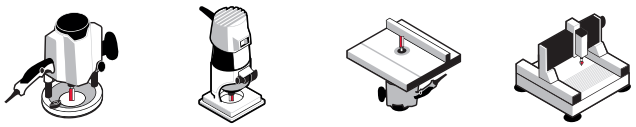
Applications:
Ideal for grooving, edge-routing, plunge cuts and other general purpose routing tasks.
The additional centred tip provides a smoother plunge cut with a clean bottom finish.





STAGGER BITS 14-



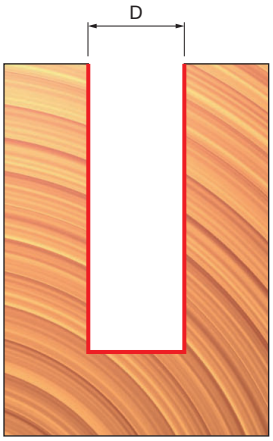


Hand-held Routers | Table Routers | CNC Machines



Softwood | Hardwood | Plywood | Wood Based Panels

D mm	h mm	H mm	A mm	Z	Max RPM 1/min.	Freud Code	Art. No.
9,53	37,8	82	12	2	24.000	**14-10212P**	F03FR01561
12,7	38,1	82	12	2	24.000	**14-10412P**	F03FR01562
12,7	37,8	79	12	2	24.000	**14-20412P**	F03FR01564
12,7	54	98,3	12	2	24.000	**14-10612P**	F03FR01563



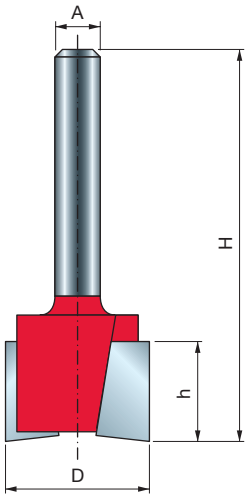
TiCo Carbide MADE BY freud

Perma-SHIELD COATING

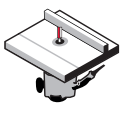
Machines:
Hand-held routers, table routers and CNC machines.

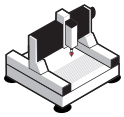
Materials:
Softwood, hardwood, plywood and wood based panels.

Applications:
Stagger bits combine the balance of a double fluted bit with the speed and versatility of a single flute bit.
Ideal for grooving, edge-routing, plunge cuts and other general purpose routing tasks.




Hand-held Routers


Table Routers


CNC Machines


Softwood Hardwood Plywood Wood Based Panels

D mm	h mm	H mm	A mm	A inch	Z	Max RPM 1/min.	Freud Code	Art. No.
12,7	12,5	51	6		2	24.000	**16-10006P**	F03FR01565
19	12,5	51	6		2	24.000	**16-10406P**	F03FR01568
19	19	62,15	6		2	24.000	**16-50406P**	F03FR01576
12,7	12,5	50,8	8		2	24.000	**16-10008P**	F03FR01566
19	12,5	50,8	8		2	24.000	**16-10408P**	F03FR01569
12,7	12,5	60,5	12		2	24.000	**16-11012P**	F03FR01573
31,75	12,1	56,2	12		2	24.000	**16-11812P**	F03FR01575
12,7	12,5	51		1/4	2	24.000	**16-10025P**	F03FR01567
19	12,5	51		1/4	2	24.000	**16-10425P**	F03FR01570
12,7	12,5	60,5		1/2	2	24.000	**16-11050P**	F03FR01574
31,75	12,7	56,2		1/2	2	18.000	**16-10850P**	F03FR01572

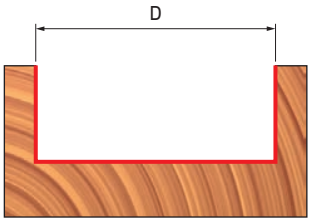
TiCo Carbide MADE BY freud

Perma-SHIELD COATING

Machines:
Hand-held routers, table routers and CNC machines.

Materials:
Softwood, hardwood, plywood and wood based panels.

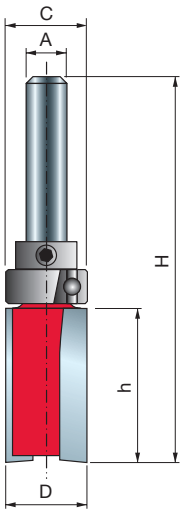
Applications:
Down shear design for clean top surfaces.



Trimming Bits



TOP BEARING FLUSH TRIM BITS 50-





Hand-held Routers



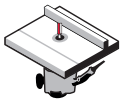


Table Routers



Softwood



Hardwood



Plywood







Wood Based Panels

D mm	h mm	H mm	A mm	A inch	C mm	Z	Max RPM 1/min.	Freud Code	Art. No.
13	20	60	6		13	2	24.000	**50-10206P**	F03FR02003
15	20	60	6		15	2	24.000	**50-10406P**	F03FR02006
19	25,4	67,5	6		19	2	24.000	**50-10606P**	F03FR02008
16	20	60	8		16	2	24.000	**50-10308P**	F03FR02005
22	20	60	8		22	2	24.000	**50-10808P**	F03FR02010
12,7	25,4	65,4		1/4	12,7	2	24.000	**50-10225P**	F03FR02004
15,88	25,4	65,4		1/4	15,88	2	24.000	**50-10425P**	F03FR02007
19	25,4	68,5		1/4	19	2	24.000	**50-10625P**	F03FR02009

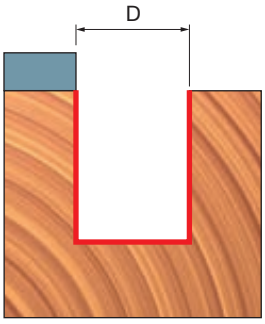
TiCo Carbide MADE BY freud

Perma-SHIELD COATING

Machines:
Hand-held routers and table routers.

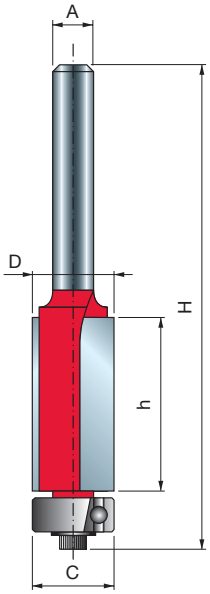
Materials:
Softwood, hardwood, plywood and wood based panels.

Applications:
Ideal for following templates and for other tasks where the pattern is placed on top of the workpiece.



FLUSH TRIM BITS

42- 44-





Hand-held Routers



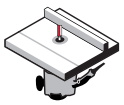


Table Routers



Softwood



Hardwood



Plywood







Wood Based Panels

D mm	h mm	H mm	A mm	A inch	C mm	Z	Max RPM 1/min.	Freud Code	Art. No.
9,53	12,7	60,9	6		9,53	2	24.000	**42-10206P**	F03FR01935
9,53	25,8	72,4	6		9,53	2	24.000	**42-10006P**	F03FR01932
12,7	25,7	72,9	6		12,7	2	24.000	**42-10406P**	F03FR01938
9,53	12,7	60,9	8		9,53	2	24.000	**42-10208P**	F03FR01936
9,53	25,8	72,4	8		9,53	2	24.000	**42-10008P**	F03FR01933
12,7	25,7	72,9	8		12,7	2	24.000	**42-10408P**	F03FR01939
12,7	40	84	8		12,7	2	24.000	**42-11508P**	F03FR02771
12,7	25,4	82,5	12		12,7	2	24.000	**42-11012P**	F03FR01942
12,7	38,5	94,1	12		12,7	2	24.000	**42-11412P**	F03FR01944
12,7	50,8	106,8	12		12,7	2	24.000	**42-11612P**	F03FR01946
9,53	12,7	60,9		1/4	9,53	2	24.000	**42-10225P**	F03FR01937
9,53	25,8	72,4		1/4	9,53	2	24.000	**42-10025P**	F03FR01934
12,7	12,7	60,2		1/4	12,7	2	24.000	**42-10625P**	F03FR01941
12,7	25,7	72,9		1/4	12,7	2	24.000	**42-10425P**	F03FR01940
12,7	25,7	82,5		1/2	12,7	2	24.000	**42-11050P**	F03FR01943
12,7	38,5	94,1		1/2	12,7	2	24.000	**42-11450P**	F03FR01945
12,7	50,8	109,8		1/2	12,7	2	24.000	**42-11650P**	F03FR01947
12,7	38,5	94,1		1/2	12,7	3	24.000	**44-10850P**	F03FR01952



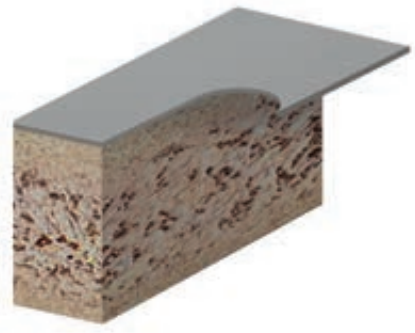


Machines:
Hand-held routers and table routers.

Materials:
Softwood, hardwood, plywood and wood based panels.

Applications:
Use these bits for precise trim work on laminated counter tops, to follow patterns and to create or duplicate complex shapes.

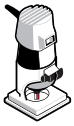




FLUSH TRIM “V” GROOVE BITS 48-



Hand-held Routers



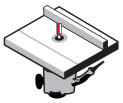


Table Routers



Softwood



Hardwood



Plywood

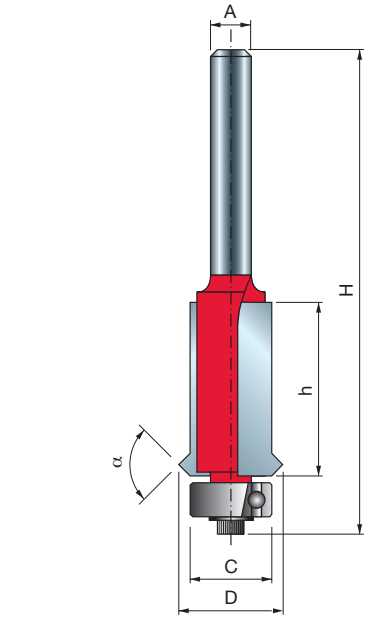






Wood Based Panels

D mm	h mm	H mm	A mm	C mm	α	Z	Max RPM 1/min.	Freud Code	Art. No.
15,88	25,4	76,2	6	12,7	90°	2	20.000	**48-10206P**	F03FR02000
15,88	25,4	76,2	8	12,7	90°	2	24.000	**48-10208P**	F03FR02001
15,88	25,4	87,2	12	12,7	90°	2	24.000	**48-11212P**	F03FR02002



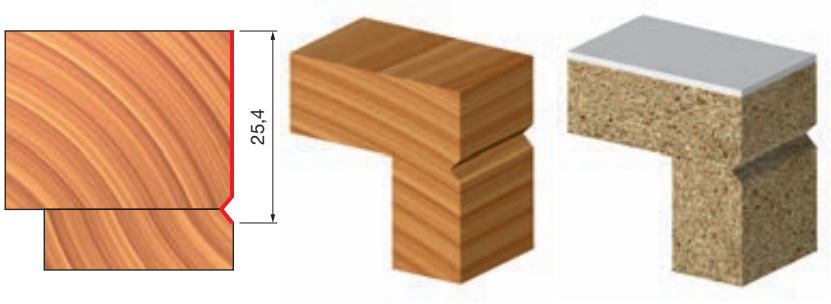
TiCo Carbide MADE BY freud

Perma-SHIELD COATING

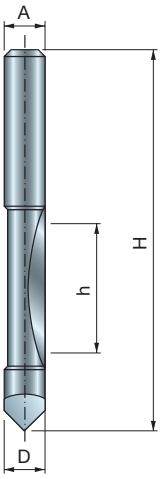
Machines:
Hand-held routers and table routers.

Materials:
Softwood, hardwood, plywood and wood based panels.

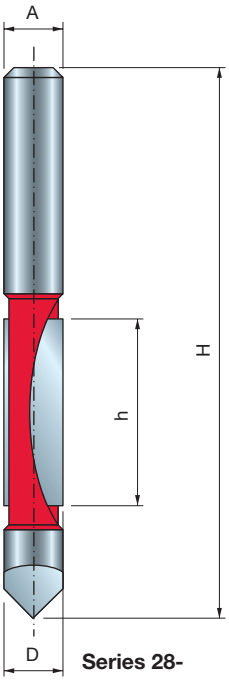
Applications:
Flush trimming bits rout a small, decorative “V” groove on the workpiece.



PANEL PILOT BITS 26- 28-



Series 26-



Series 28-



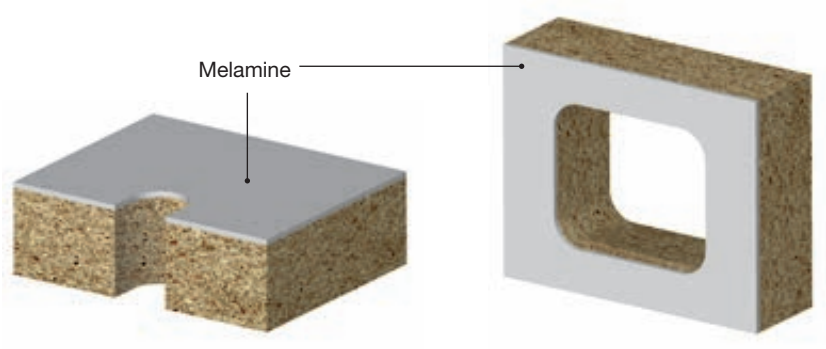
Hand-held Routers



Softwood Hardwood Plywood Wood Based Panels

	D mm	h mm	H mm	A mm	A inch	Z	Max RPM 1/min.	Freud Code	Art. No.
•	6	19	57	6		1	24.000	**26-10006P**	F03FR01664
•	8	19	75	8		1	24.000	**26-10008P**	F03FR01665
	12,7	31,75	96,2	12		2	24.000	**28-10412P**	F03FR01692
•	6,35	19	57		1/4	1	24.000	**26-10025P**	F03FR01666
	12,7	31,75	96,2		1/2	2	24.000	**28-10450P**	F03FR01693

• Solid Carbide Bits



TiCo Carbide MADE BY freud

Perma-SHIELD COATING

Machines:
Hand-held routers.

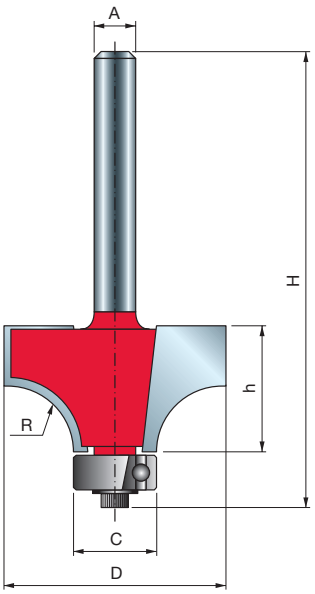
Materials:
Softwood, hardwood, plywood and wood based panels.

Applications:
Panel pilot bits are a fast, efficient solution for cutting openings and trimming in panelling and other applications.

Edge Forming Bits

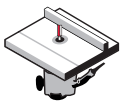


ROUNDING OVER BITS 34- 36-





Hand-held Routers


Table Routers


Softwood


Hardwood


Plywood

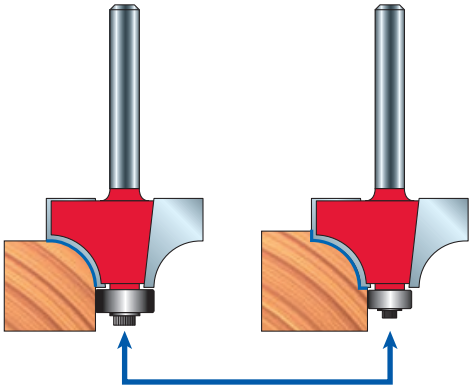



Wood Based Panels

Machines:
Hand-held routers and table routers.

Materials:
Softwood, hardwood, plywood and wood based panels.

Applications:
Rounding over bits soften sharp edges of any workpiece.



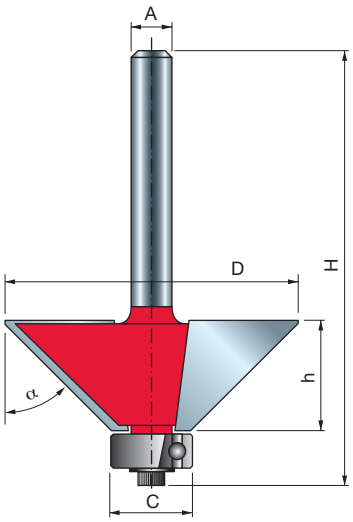


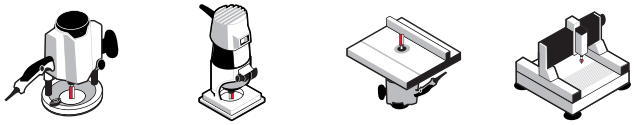
By ordering a smaller ball bearing and step washer you will be able to obtain a different profile:

- The Ball bearing **3102M AA9** (Ø 9,53 mm) and the Step washer **FX07M AA9** for series 34-
- The Ball bearing **3102M AB9** (Ø 12,7 mm) and the Step washer **FX07M AB9** for series 36-

D mm	h mm	H mm	A mm	A inch	C mm	R mm	Z	Max RPM 1/min.	Freud Code	Art. No.
15,88	12,7	54,9	6		12,7	1,59	2	24.000	**34-10006P**	F03FR01763
16,7	12,7	54,9	6		12,7	2	2	24.000	**34-10106P**	F03FR02766
19,05	12,7	55,2	6		12,7	3,18	2	24.000	**34-10406P**	F03FR01768
22,22	12,7	54,9	6		12,7	4,8	2	24.000	**34-10806P**	F03FR01771
25,4	12,7	54,7	6		9,53	6,35	2	24.000	**36-11006P**	F03FR01803
25,4	12,7	55,2	6		12,7	6,35	2	24.000	**34-11006P**	F03FR01774
28,58	12,7	55,2	6		12,7	8	2	18.000	**34-11206P**	F03FR01777
31,75	18	59,7	6		12,7	9,53	2	18.000	**34-11406P**	F03FR01780
31,75	18	59,2	6		9,53	9,53	2	18.000	**36-11406P**	F03FR01804
38,1	19,1	61,25	6		12,7	12,7	2	16.000	**34-11606P**	F03FR01783
15,88	12,7	54,9	8		12,7	1,59	2	24.000	**34-10008P**	F03FR01764
16,7	12,7	54,9	8		12,7	2	2	24.000	**34-10108P**	F03FR01766
18,7	12,7	54,9	8		12,7	3	2	24.000	**34-10308P**	F03FR01767
19,05	12,7	55,2	8		12,7	3,18	2	24.000	**34-10408P**	F03FR01769
22,22	13,2	54,9	8		12,7	4,75	2	24.000	**34-10808P**	F03FR01772
25,4	12,7	55,2	8		12,7	6,35	2	24.000	**34-11008P**	F03FR01775
28,58	12,7	55,2	8		12,7	7,94	2	18.000	**34-11208P**	F03FR01778
31,75	18	59,7	8		12,7	9,5	2	18.000	**34-11408P**	F03FR01781
38,1	19,1	61,25	8		12,7	12,7	2	16.000	**34-11608P**	F03FR01784
44,44	22,2	64,72	8		12,7	15,8	2	16.000	**34-12708P**	F03FR01793
25,4	12,7	61,2	12		12,7	6,35	2	24.000	**34-12012P**	F03FR01786
31,75	18	65,7	12		12,7	9,53	2	18.000	**34-12412P**	F03FR01788
38,1	19,05	67,25	12		12,7	12,7	2	16.000	**34-12612P**	F03FR01791
44,44	22,22	70,72	12		12,7	15,8	2	16.000	**34-12712P**	F03FR01794
50,8	25,4	73,9	12		12,7	19	2	16.000	**34-12812P**	F03FR01796
57,15	31,4	79,85	12		12,7	22,2	2	16.000	**34-13012P**	F03FR01798
63,5	31,3	79,75	12		12,7	25,4	2	12.000	**34-13212P**	F03FR01799
69,85	34,9	83,3	12		12,7	28,6	2	12.000	**34-13412P**	F03FR01801
76,2	38,1	86,6	12		12,7	31,8	2	12.000	**34-13612P**	F03FR01802
15,88	12,7	54,9		1/4	12,7	1,59	2	24.000	**34-10025P**	F03FR01765
19,05	12,7	55,2		1/4	12,7	3,18	2	24.000	**34-10425P**	F03FR01770
22,22	13,2	54,9		1/4	12,7	4,25	2	24.000	**34-10825P**	F03FR01773
25,4	12,7	55,2		1/4	12,7	6,35	2	24.000	**34-11025P**	F03FR01776
28,58	12,7	55,2		1/4	12,7	7,94	2	18.000	**34-11225P**	F03FR01779
31,75	18	59,7		1/4	12,7	9,53	2	18.000	**34-11425P**	F03FR01782
38,1	19,1	61,25		1/4	12,7	12,7	2	16.000	**34-11625P**	F03FR01785
25,4	12,7	61,2		1/2	12,7	6,35	2	24.000	**34-12050P**	F03FR01787
31,75	18	65,7		1/2	12,7	9,53	2	18.000	**34-12450P**	F03FR01790
38,1	19,1	67,25		1/2	12,7	12,7	2	16.000	**34-12650P**	F03FR01792
44,44	22,2	70,7		1/2	12,7	15,87	2	16.000	**34-12750P**	F03FR01795
50,8	25,4	73,9		1/2	12,7	19,05	2	16.000	**34-12850P**	F03FR01797
63,5	31,25	79,8		1/2	12,7	25,4	2	12.000	**34-13250P**	F03FR01800

CHAMFER BITS 40-





Hand-held Routers | Table Routers | CNC Machines



Softwood | Hardwood | Plywood | Wood Based Panels

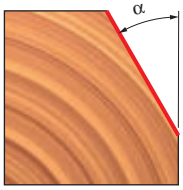
TiCo Carbide MADE BY freud

Perma-SHIELD COATING

Machines:
Hand-held routers, table routers and CNC machines.
Bits with ball bearing are not recommended to be used on CNC machines.

Materials:
Softwood, hardwood, plywood and wood based panels.

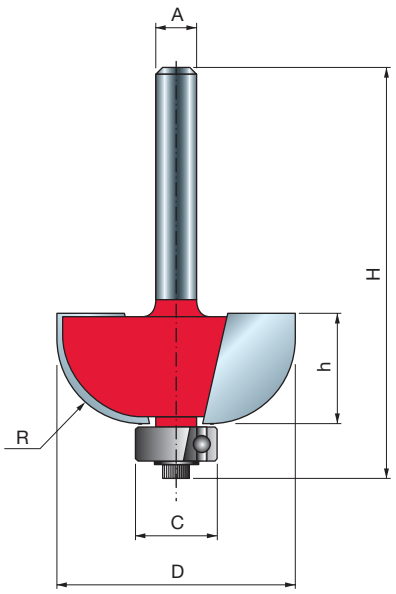
Applications:
Easing edges, chamfer bits create a uniform chamfer on the edge of any workpiece.



D mm	h mm	H mm	A mm	A inch	C mm	α	Z	Max RPM 1/min.	Freud Code	Art. No.
18,15	12,7	54,9	6		12,7	15°	2	24.000	**40-10006P**	F03FR01906
21,77	25	67,3	6		12,7	11.3°	2	24.000	**40-09406P**	F03FR01900
23,6	12,7	54,9	6		12,7	25°	2	24.000	**40-10206P**	F03FR01912
24	12	44	6		•	30°	2	24.000	**40-90206P**	F03FR01929
24	14	46	6		•	15°	2	24.000	**40-90006P**	F03FR01927
25	8	40,3	6		•	45°	2	24.000	**40-90406P**	F03FR01931
25,4	25,1	67,25	6		12,7	15°	2	24.000	**40-09806P**	F03FR01903
30,1	22,5	64,7	6		12,7	22.5°	2	18.000	**40-10106P**	F03FR01909
31	9,5	52,3	6		12,7	45°	2	18.000	**40-10506P**	F03FR01917
33	11,5	54	6		12,7	45°	2	16.000	**40-10406P**	F03FR01914
33	19	61,6	6		12,7	30°	2	16.000	**40-20206P**	F03FR01925
44	18,5	61	6		12,7	45°	2	16.000	**40-10606P**	F03FR01919
18,15	12,7	54,9	8		12,7	15°	2	24.000	**40-10008P**	F03FR01907
21,77	25	67,3	8		12,7	11.3°	2	24.000	**40-09408P**	F03FR01901
23,6	12,7	54,9	8		12,7	25°	2	24.000	**40-10208P**	F03FR01913
24	12	44	8		•	30°	2	24.000	**40-90208P**	F03FR01930
24	14	46	8		•	15°	2	24.000	**40-90008P**	F03FR01928
25	8	40,3	8		•	45°	2	24.000	**40-90408P**	F03FR03255
25,4	25,1	67,25	8		12,7	15°	2	24.000	**40-09808P**	F03FR01904
30,1	22,5	64,7	8		12,7	22.5°	2	18.000	**40-10108P**	F03FR01910
31	9,5	52,3	8		12,7	45°	2	18.000	**40-10508P**	F03FR01918
33	11,5	54	8		12,7	45°	2	16.000	**40-10408P**	F03FR01915
33	19	61,6	8		12,7	30°	2	16.000	**40-20208P**	F03FR01926
44	18,5	61	8		12,7	45°	2	16.000	**40-10608P**	F03FR01920
21,77	25	73,3	12		12,7	11.3°	2	24.000	**40-09412P**	F03FR01902
25,4	25,1	73,25	12		12,7	15°	2	24.000	**40-09812P**	F03FR01905
30,1	22,5	70,7	12		12,7	22.5°	2	18.000	**40-10112P**	F03FR01911
44	18,5	67	12		12,7	45°	2	16.000	**40-11412P**	F03FR01922
62,1	25,5	74	12		12,7	45°	2	12.000	**40-11812P**	F03FR01924
18,15	12,7	54,9		1/4	12,7	15°	2	24.000	**40-10025P**	F03FR01908
33	11,5	53,9		1/4	12,7	45°	2	24.000	**40-10425P**	F03FR01916
41,5	15,9	58,4		1/4	12,7	45°	2	16.000	**40-10625P**	F03FR01921
43	18,5	67		1/2	12,7	45°	2	16.000	**40-11450P**	F03FR01923

• Without ball bearing.

COVE BITS





Hand-held Routers



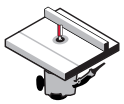


Table Routers



Softwood



Hardwood



Plywood







Wood Based Panels

D	h	H	A		C	R	Z	Max RPM	Freud Code	Art. No.
mm	mm	mm	mm	inch	mm	mm		1/min.		
19,05	14	56	6		9,53	4,76	2	24.000	**30-10006P**	F03FR01694
22,23	13,2	54,7	6		9,53	6,35	2	24.000	**30-10206P**	F03FR01697
25,4	12,7	54,7	6		9,53	8	2	24.000	**30-10306P**	F03FR01700
31,75	12,7	55,2	6		12,7	9,53	2	18.000	**30-10406P**	F03FR01703
38,1	16,4	58,9	6		12,7	12,7	2	16.000	**30-10606P**	F03FR01706
19,05	14	56	8		9,53	4,75	2	24.000	**30-10008P**	F03FR01695
22,23	13,2	54,7	8		9,53	6,35	2	24.000	**30-10208P**	F03FR01698
25,4	12,7	54,7	8		9,53	8	2	24.000	**30-10308P**	F03FR01701
31,75	12,7	55,2	8		12,7	9,53	2	18.000	**30-10408P**	F03FR01704
38,1	16,4	58,9	8		12,7	12,7	2	16.000	**30-10608P**	F03FR01707
19,05	14	62,4	12		9,53	4,75	2	24.000	**30-10012P**	F03FR01696
22,23	12,7	60,7	12		9,53	6,35	2	24.000	**30-11012P**	F03FR01709
25,4	12,7	60,7	12		9,53	8	2	24.000	**30-11112P**	F03FR01710
31,75	12,7	61,2	12		12,7	9,5	2	18.000	**30-11212P**	F03FR01711
38,1	16,4	64,9	12		12,7	12,7	2	16.000	**30-11412P**	F03FR01713
22,23	13,2	54,7		1/4	9,53	6,35	2	24.000	**30-10225P**	F03FR01699
25,4	12,7	54,7		1/4	9,53	7,94	2	24.000	**30-10325P**	F03FR01702
31,75	12,7	55,2		1/4	12,7	9,5	2	18.000	**30-10425P**	F03FR01705
38,1	16,4	58,9		1/4	12,7	12,7	2	16.000	**30-10625P**	F03FR01708
31,75	12,7	61,2		1/2	12,7	9,53	2	18.000	**30-11250P**	F03FR01712
38,1	16,4	64,9		1/2	12,7	12,7	2	16.000	**30-11450P**	F03FR01714

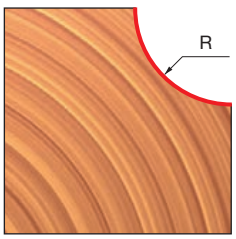
TiCo Carbide MADE BY freud

Perma-SHIELD COATING

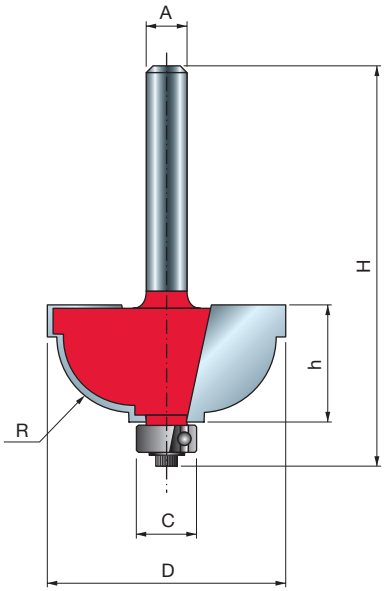
Machines:
Hand-held routers and table routers.

Materials:
Softwood, hardwood, plywood and wood based panels.

Applications:
Decorative concave edge for traditional furniture.

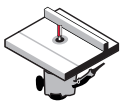


CLASSICAL COVE BITS 30-




Hand-held Routers




Table Routers


Softwood Hardwood Plywood Wood Based Panels

D mm	h mm	H mm	A mm	C mm	R mm	Z	Max RPM 1/min.	Freud Code	Art. No.
28,58	13	54,2	6	9,53	4,8	2	18.000	**30-30406P**	F03FR01719
31,75	15,1	56,8	6	9,53	4,8	2	18.000	**30-20206P**	F03FR01715
28,58	13	54,2	8	9,53	4,8	2	18.000	**30-30408P**	F03FR01720
31,75	15,1	56,8	8	9,53	8	2	18.000	**30-20208P**	F03FR01716
28,58	13	60,2	12	9,53	4,8	2	18.000	**30-32412P**	F03FR01722
31,75	15,1	62,8	12	9,53	8	2	18.000	**30-22212P**	F03FR01718

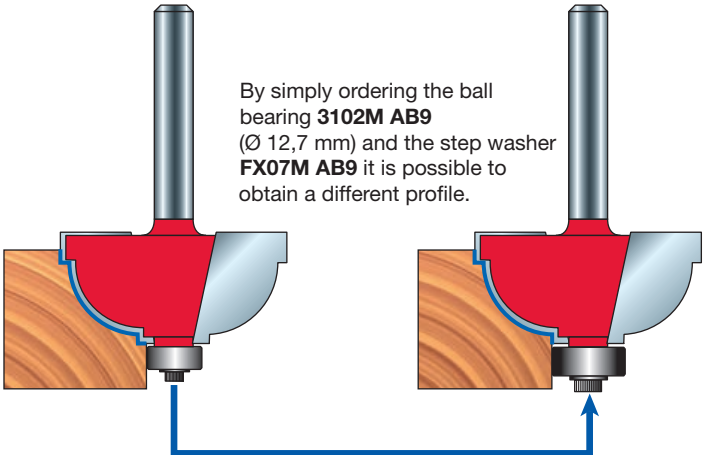
TiCo Carbide MADE BY freud

Perma-SHIELD COATING

Machines:
Hand-held routers and table routers.

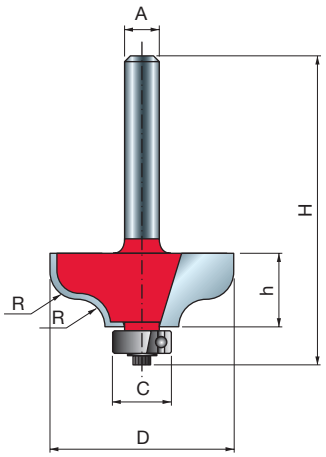
Materials:
Softwood, hardwood, plywood and wood based panels.

Applications:
Enhance edges and corners by adding an attractive cove profile, with a small fillet at the top and bottom.


By simply ordering the ball bearing **3102M AB9** (Ø 12,7 mm) and the step washer **FX07M AB9** it is possible to obtain a different profile.



OGEE FILLET BITS 38- 99-





Hand-held Routers | Table Routers



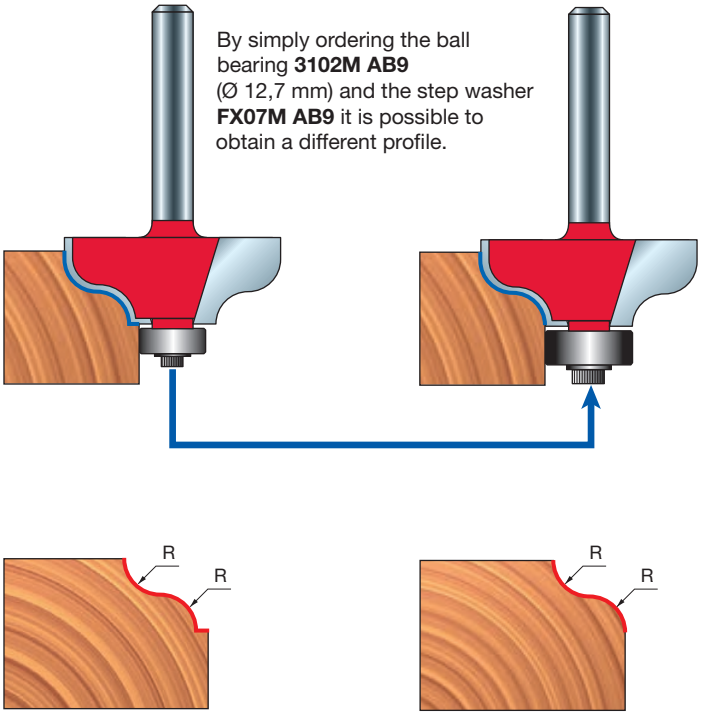
Softwood | Hardwood | Plywood | Wood Based Panels

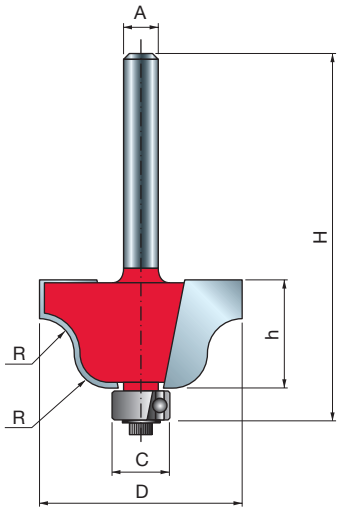
D mm	h mm	H mm	A mm	A inch	C mm	R mm	Z	Max RPM 1/min.	Freud Code	Art. No.
31,75	12,2	53,9	6		9,53	4,8	2	18.000	**38-20206P**	F03FR01815
38,1	16,2	57,4	6		9,53	6,35	2	16.000	**38-20406P**	F03FR01818
31,75	12,2	53,9	8		9,53	4,8	2	18.000	**38-20208P**	F03FR01816
38,1	16,2	57,4	8		9,53	6,35	2	16.000	**38-20408P**	F03FR01819
31,75	12,2	59,9	12		9,53	4,8	2	18.000	**38-21212P**	F03FR01821
38,1	16,2	63,4	12		9,53	6,35	2	16.000	**38-21412P**	F03FR01822
31,75	12,2	53,9		1/4	9,53	4,76	2	18.000	**38-20225P**	F03FR01817
31,75	12,2	54,4		1/4	12,7	4,76	2	18.000	**38-15225P**	F03FR01814
38,1	16,2	57,4		1/4	9,53	6,35	2	16.000	**38-20425P**	F03FR01820
38,1	16,5	64,7		1/2	12,7	8,25	2	16.000	**99-00650P**	F03FR02412

Machines:
Hand-held routers and table routers.

Materials:
Softwood, hardwood, plywood and wood based panels.

Applications:
Decorative edge detail on any workpiece.





TiCo Carbide MADE BY freud

Perma-SHIELD COATING

Machines:
Hand-held routers and table routers.

Material:
Softwood, hardwood, plywood and wood based panels.

Applications:
Decorative edge detail on any workpiece.

ROMAN OGEE BITS 38-

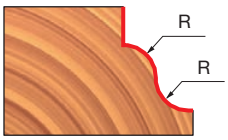


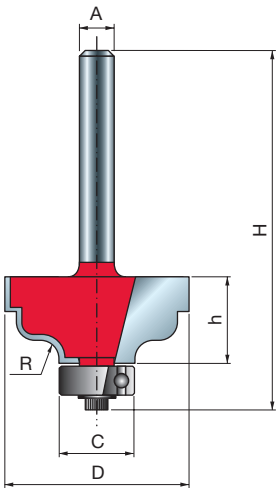
Hand-held Routers Table Routers



Softwood Hardwood Plywood Wood Based Panels

D mm	h mm	H mm	A mm	A inch	C mm	R mm	Z	Max RPM 1/min.	Freud Code	Art. No.
27	13,3	55,3	6		9,53	4	2	18.000	**38-10006P**	F03FR01805
35	18,5	60,5	6		9,53	6,35	2	16.000	**38-10206P**	F03FR01808
27	13,3	55,3	8		9,53	4	2	18.000	**38-10008P**	F03FR01806
35	18,5	60,5	8		9,53	6,35	2	16.000	**38-10208P**	F03FR01809
27	13,3	61,31	12		9,53	4	2	18.000	**38-10412P**	F03FR01811
35	18,5	66,5	12		9,53	6,35	2	16.000	**38-10612P**	F03FR01812
27	13,3	55,3		1/4	9,53	4	2	18.000	**38-10025P**	F03FR01807
35	18,5	66,5		1/4	9,53	6,35	2	16.000	**38-10225P**	F03FR01810
35	18,5	66,5		1/2	9,53	6,35	2	16.000	**38-10650P**	F03FR01813





TiCo Carbide MADE BY freud

Perma-SHIELD COATING

Machines:
Hand-held routers and table routers.

Materials:
Softwood, hardwood, plywood and wood based panels.

Applications:
Decorative edge detail on any workpiece.

CLASSICAL ROMAN OGEE BITS 38- 99-

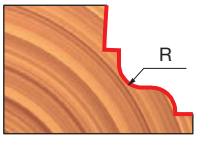


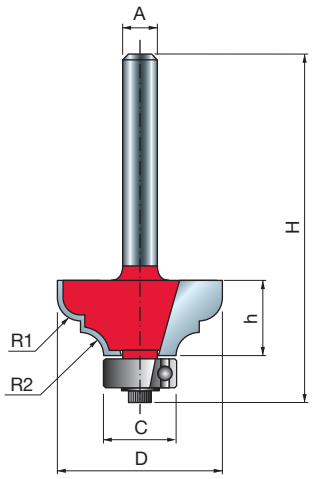
Hand-held Routers Table Routers



Softwood Hardwood Plywood Wood Based Panels

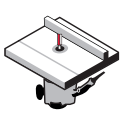
D mm	h mm	H mm	A mm	A inch	C mm	R mm	Z	Max RPM 1/min.	Freud Code	Art. No.
31,75	15	56,7	6		12,7	3,18	2	18.000	**38-40206P**	F03FR01832
31,75	15	56,7	8		12,7	3,18	2	18.000	**38-40208P**	F03FR01833
34,92	14,3	62,8	12		12,7	4,8	2	16.000	**99-00512P**	F03FR02411
31,75	15	56,7		1/4	12,7	3,18	2	18.000	**38-40225P**	F03FR01834





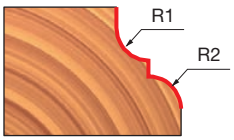
CLASSICAL OGEE BITS 38- 99-


Hand-held Routers


Table Routers


Softwood Hardwood Plywood Wood Based Panels

D mm	h mm	H mm	A mm	A inch	C mm	R1 mm	R2 mm	Z	Max RPM 1/min.	Freud Code	Art. No.
28,58	12,7	54,9	6		12,7	4	4	2	18.000	**38-60206P**	F03FR01838
34,92	18,3	60	6		12,7	6,35	4,76	2	16.000	**38-60406P**	F03FR01841
28,58	12,7	54,9	8		12,7	4	4	2	18.000	**38-60208P**	F03FR01839
34,92	18,3	60	8		12,7	6,35	4,76	2	16.000	**38-60408P**	F03FR01842
28,58	12,7	61,2	12		12,7	4	4	2	18.000	**38-61212P**	F03FR01843
34,92	17,5	65,7	12		12,7	6,35	4,76	2	16.000	**38-61412P**	F03FR01844
28,58	12,7	54,9		1/4	12,7	3,97	3,97	2	18.000	**38-60225P**	F03FR01840
34,93	14,7	62,4		1/2	9,53	5,35	5,35	2	16.000	**99-00950P**	F03FR02415
34,92	17,5	65,7		1/2	12,7	6,35	4,76	2	16.000	**38-61450P**	F03FR01845



TiCo Carbide MADE BY freud

Perma-SHIELD COATING

Machines:
Hand-held routers and table routers.

Materials:
Softwood, hardwood, plywood and wood based panels.

Applications:
Decorative edge detail on any workpiece.

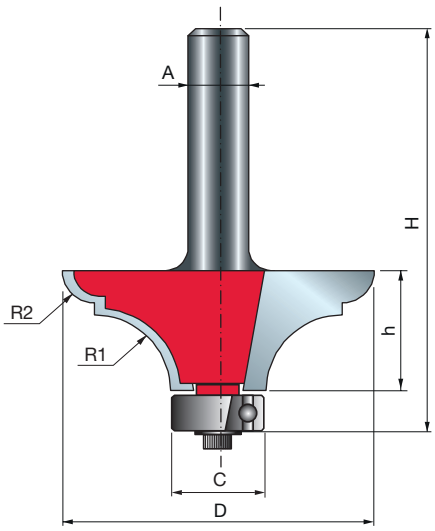
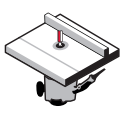


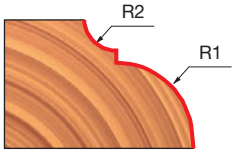
TABLE TOP CLASSICAL BOLD BITS 99-


Hand-held Routers


Table Routers


Softwood Hardwood Plywood Wood Based Panels

D mm	h mm	H mm	A mm	C mm	R1 mm	R2 mm	Z	Max RPM 1/min.	Freud Code	Art. No.
41,3	15,9	58,4	8	12,7	10	4,3	2	16.000	**99-01108P**	F03FR02416
41,3	15,9	64,4	12	12,7	10	4,3	2	16.000	**99-01112P**	F03FR02417



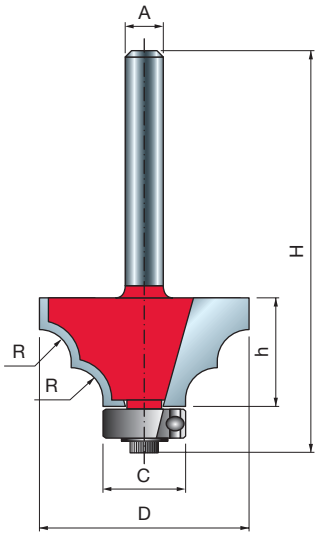
TiCo Carbide MADE BY freud

Perma-SHIELD COATING

Machines:
Hand-held routers and table routers.

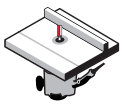
Materials:
Softwood, hardwood, plywood and wood based panels.

Applications:
Create a bold effect on furniture of all types.




Hand-held Routers




Table Routers


Softwood Hardwood Plywood Wood Based Panels

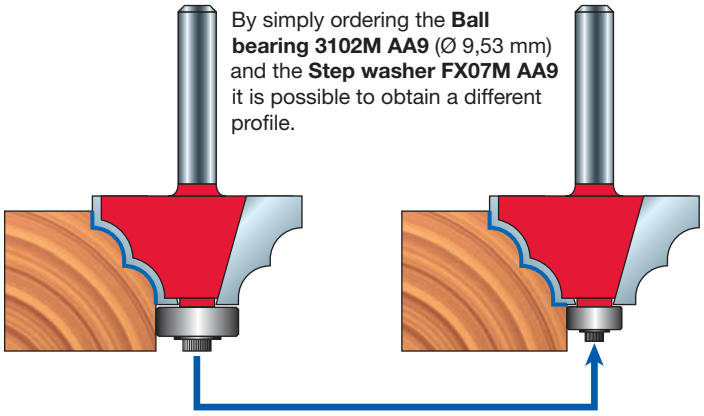
D mm	h mm	H mm	A mm	C mm	R mm	Z	Max RPM 1/min.	Freud Code	Art. No.
32,7	15	57,2	6	12,7	5	2	16.000	**38-90006P**	F03FR01852
32,7	15	57,2	8	12,7	5	2	16.000	**38-90008P**	F03FR01853

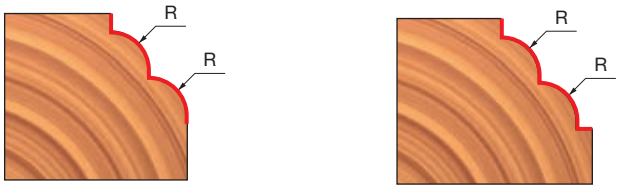
Machines:
Hand-held routers and table routers.

Materials:
Softwood, hardwood, plywood and wood based panels.

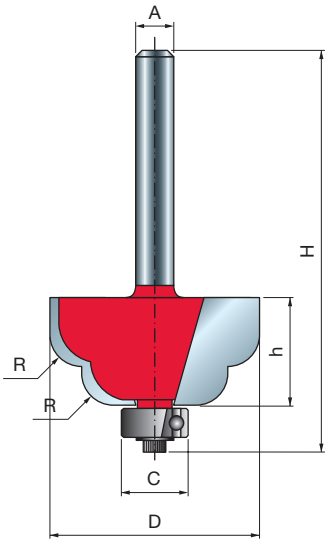
Applications:
Create two beads in one pass in the surface of the workpiece.

By simply ordering the **Ball bearing 3102M AA9** (Ø 9,53 mm) and the **Step washer FX07M AA9** it is possible to obtain a different profile.





DOUBLE COVE BITS 38-





Hand-held Routers | Table Routers



Softwood | Hardwood | Plywood | Wood Based Panels

D mm	h mm	H mm	A mm	C mm	R mm	Z	Max RPM 1/min.	Freud Code	Art. No.
32,7	15	57,2	6	12,7	5	2	16.000	**38-95006P**	F03FR01854
32,7	15	57,2	8	12,7	5	2	16.000	**38-95008P**	F03FR01855

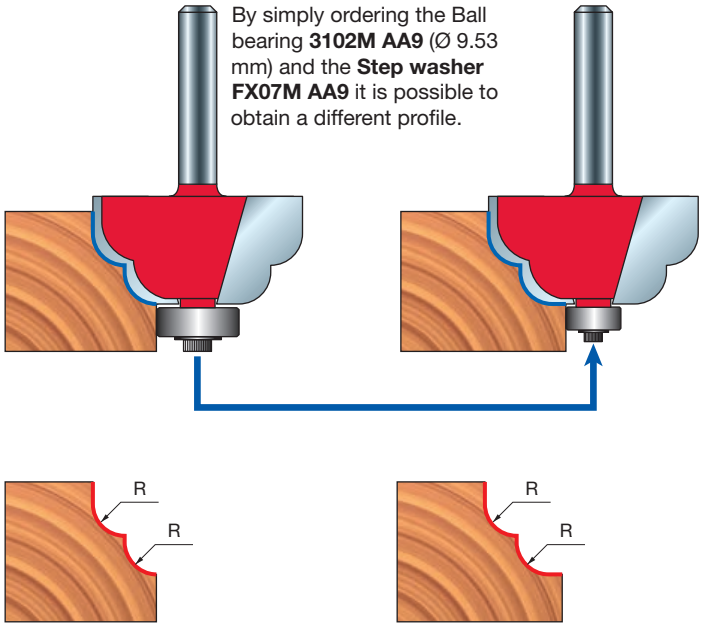
TiCo Carbide MADE BY freud

Perma-SHIELD COATING

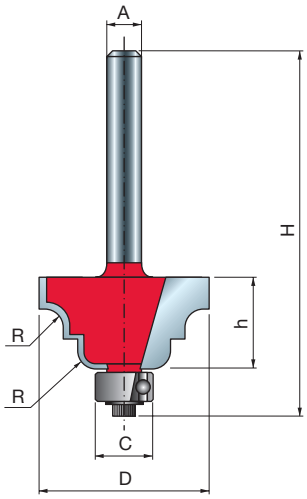
Machines:
Hand-held routers and table routers.

Materials:
Softwood, hardwood, plywood and wood based panels.

Applications:
Create two graceful curves to add character to the workpiece.



COVE AND BEAD BITS 38-





Hand-held Routers | Table Routers



Softwood | Hardwood | Plywood | Wood Based Panels

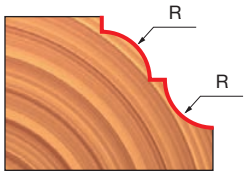
D mm	h mm	H mm	A mm	A inch	C mm	R mm	Z	Max RPM 1/min.	Freud Code	Art. No.
29,38	13,5	55,5	6		9,53	3,97	2	18.000	**38-30606P**	F03FR01826
38,9	18,3	60	6		9,53	6,35	2	16.000	**38-30406P**	F03FR01823
29,38	13,5	55,5	8		9,53	3,97	2	18.000	**38-30608P**	F03FR01827
38,9	18,3	60	8		9,53	6,35	2	16.000	**38-30408P**	F03FR01824
29,38	13,5	61,2	12		9,53	3,97	2	18.000	**38-31212P**	F03FR01829
38,92	18,3	66	12		9,53	6,35	2	16.000	**38-31412P**	F03FR01831
38,9	18,3	60,8		1/4	9,53	6,35	2	16.000	**38-30425P**	F03FR01825

TiCo Carbide MADE BY freud | Perma-SHIELD COATING

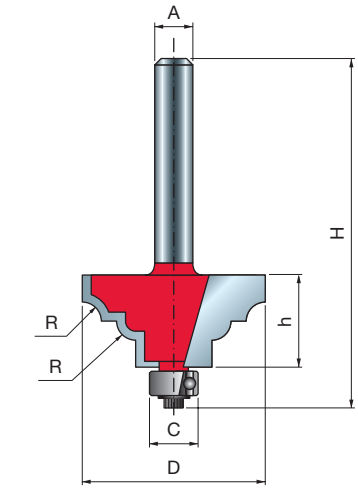
Machines:
Hand-held routers and table routers.

Materials:
Softwood, hardwood, plywood and wood based panels.

Applications:
Decorative edge detail on any workpiece.



FILLET COVE AND BEAD BITS 38-





Hand-held Routers | Table Routers



Softwood | Hardwood | Plywood | Wood Based Panels

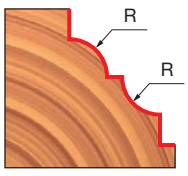
D mm	h mm	H mm	A mm	C mm	R mm	Z	Max RPM 1/min.	Freud Code	Art. No.
32,7	14,5	56,7	6	12,7	3	2	16.000	**38-80006P**	F03FR01846
36,7	16,5	58,7	6	12,7	4	2	16.000	**38-80206P**	F03FR01848
40,7	18	60,2	6	12,7	5	2	16.000	**38-80406P**	F03FR01850
32,7	14,5	56,7	8	12,7	3	2	16.000	**38-80008P**	F03FR01847
36,7	16,5	58,7	8	12,7	4	2	16.000	**38-80208P**	F03FR01849
40,7	18	60,2	8	12,7	5	2	16.000	**38-80408P**	F03FR01851

TiCo Carbide MADE BY freud | Perma-SHIELD COATING

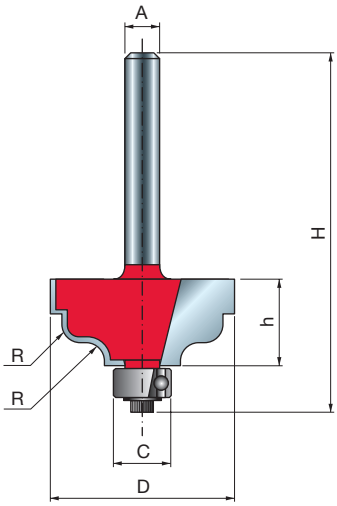
Machines:
Hand-held routers and table routers.

Materials:
Softwood, hardwood, plywood and wood based panels.

Applications:
Decorative edge detail on any workpiece.



DOUBLE FILLET OGEE BITS 38-



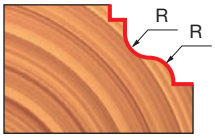


Hand-held Routers | Table Routers



Softwood | Hardwood | Plywood | Wood Based Panels

D mm	h mm	H mm	A mm	A inch	C mm	R mm	Z	Max RPM 1/min.	Freud Code	Art. No.
31,75	15	56,2	6		9,53	3,18	2	18.000	**38-45206P**	F03FR01835
31,75	15	56,2	8		9,53	3,18	2	18.000	**38-45208P**	F03FR01836
31,75	15	56,2		1/4	9,53	3,18	2	18.000	**38-45225P**	F03FR01837



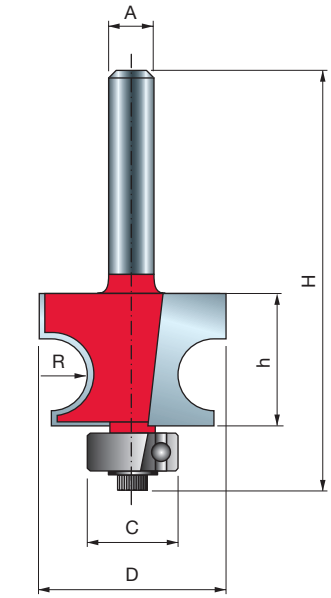
TiCo Carbide MADE BY freud | Perma-SHIELD COATING

Machines:
Hand-held routers and table routers.

Materials:
Softwood, hardwood, plywood and wood based panels.

Applications:
Decorative edge detail on any workpiece.

TRADITIONAL BEADING BITS 80-



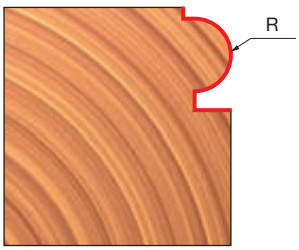


Hand-held Routers | Table Routers



Softwood | Hardwood | Plywood | Wood Based Panels

D mm	h mm	H mm	A mm	C mm	R mm	Z	Max RPM 1/min.	Freud Code	Art. No.
22,23	14,3	56,9	6	12,7	3,18	2	24.000	**80-10206P**	F03FR02192
25,4	17,5	60	6	12,7	4,76	2	24.000	**80-10406P**	F03FR02195
30,17	22,2	64,2	6	12,7	7,14	2	18.000	**80-10806P**	F03FR02198
22,23	14,3	57,1	8	12,7	3,18	2	24.000	**80-10208P**	F03FR02193
25,4	17,5	60	8	12,7	4,76	2	24.000	**80-10408P**	F03FR02196
30,17	22,2	64,2	8	12,7	7,14	2	18.000	**80-10808P**	F03FR02199
22,23	14,3	62,9	12	12,7	3,18	2	24.000	**80-12212P**	F03FR02201
25,4	17,5	66,4	12	12,7	4,76	2	24.000	**80-12412P**	F03FR02203
30,17	22,2	70,6	12	12,7	7,14	2	18.000	**80-12812P**	F03FR02204





TiCo Carbide MADE BY freud | Perma-SHIELD COATING

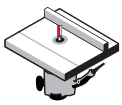
Machines:
Hand-held routers and table routers.

Materials:
Softwood, hardwood, plywood and wood based panels.

Applications:
Create single beads in one pass in the surface of the workpiece.

TRIPLE BEADING BITS 80-



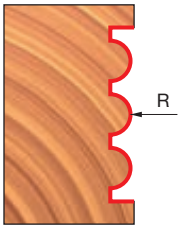


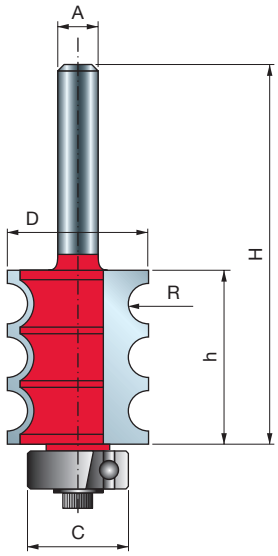
Hand-held Routers | Table Routers



Softwood | Hardwood | Plywood | Wood Based Panels

D mm	h mm	H mm	A mm	C mm	R mm	Z	Max RPM 1/min.	Freud Code	Art. No.
22,24	27,4	70,9	6	15,88	3,18	2	18.000	**80-55206P**	F03FR02205
22,24	27,4	70,9	8	15,88	3,18	2	24.000	**80-55208P**	F03FR02206
22,24	27,4	76,9	12	15,88	3,18	2	24.000	**80-57212P**	F03FR02207





TiCo Carbide MADE BY freud | Perma-SHIELD COATING

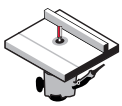
Machines:
Hand-held routers and table routers.

Materials:
Softwood, hardwood, plywood and wood based panels.

Applications:
Create three beads in one pass in the surface of the workpiece.

TRIPLE FLUTING BITS 84-



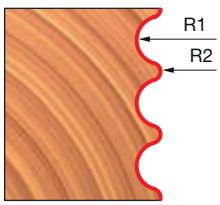


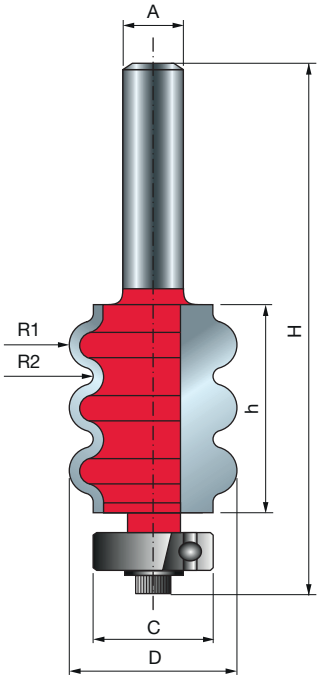
Hand-held Routers | Table Routers



Softwood | Hardwood | Plywood | Wood Based Panels

D mm	h mm	H mm	A mm	C mm	R1 mm	R2 mm	Z	Max RPM 1/min.	Freud Code	Art. No.
22,24	27,4	70,9	6	15,88	3,18	1,16	2	24.000	**84-10606P**	F03FR02220
22,24	27,4	70,9	8	15,88	3,18	1,16	2	24.000	**84-10608P**	F03FR02221
22,24	27,4	76,9	12	15,88	3,18	1,16	2	24.000	**84-12612P**	F03FR02222





TiCo Carbide MADE BY freud | Perma-SHIELD COATING

Machines:
Hand-held routers and table routers.

Materials:
Softwood, hardwood, plywood and wood based panels.

Applications:
Produce multiple flutes on the workpiece.

TOP BEARING OGEE AND COVE MOULDING BITS

Machines:
Table routers.

Materials:
Softwood, hardwood, plywood and wood based panels.

Applications:
Decorative edge detail on any workpiece.

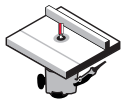
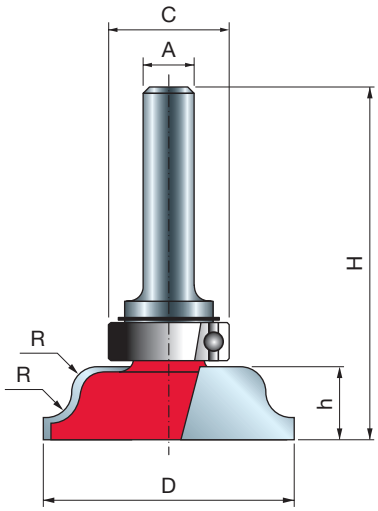


Table Routers

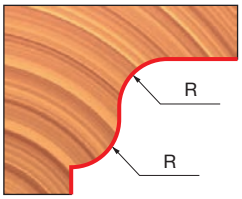


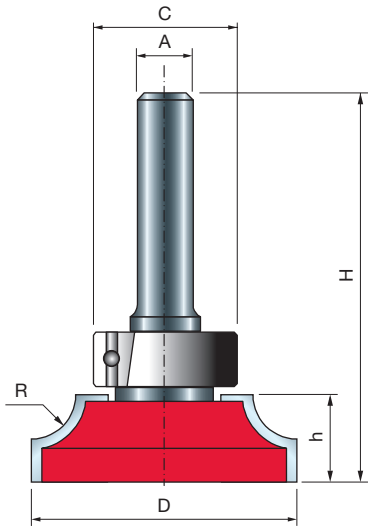
Softwood **Hardwood** **Plywood** **Wood Based Panels**



Type A

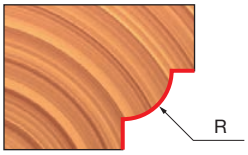
D mm	h mm	H mm	A mm	C mm	R mm	Z	Max RPM 1/min.	Freud Code	Art. No.
39,5	11,5	54,6	8	19	4	2	16.000	**23-10008P**	F03FR01654
39,5	11,5	58	12	19	4	2	16.000	**23-10012P**	F03FR01655
54	11,5	58	12	19	4	2	16.000	**23-10212P**	F03FR01656
60,5	17,3	63,8	12	19	6,35	2	12.000	**23-10412P**	F03FR01657

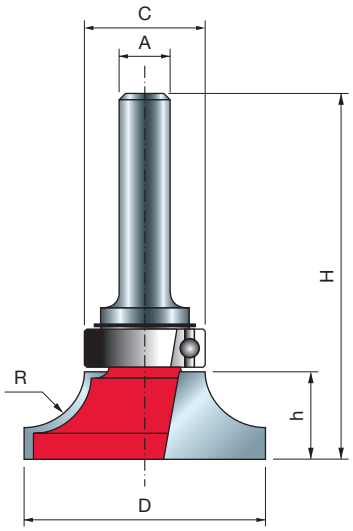




Type B

D mm	h mm	H mm	A mm	C mm	R mm	Z	Max RPM 1/min.	Freud Code	Art. No.
38	12,5	55,6	8	19	6,35	2	16.000	**23-20008P**	F03FR01658
38	12,5	59	12	19	6,35	2	16.000	**23-20012P**	F03FR01659





Type C

D mm	h mm	H mm	A mm	C mm	R mm	Z	Max RPM 1/min.	Freud Code	Art. No.
35	13,2	56,3	8	19	8	2	16.000	**23-20208P**	F03FR01660
38	14,5	57,6	8	19	9,53	2	16.000	**23-20408P**	F03FR01662
35	13,2	59,7	12	19	8	2	16.000	**23-20212P**	F03FR01661
38	14,5	61	12	19	9,53	2	16.000	**23-20412P**	F03FR01663

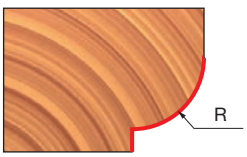


TABLE EDGE AND HAND RAIL BITS

Machines:
Table routers.

Materials:
Softwood, hardwood, plywood and wood based panels.

Applications:
Rout elegant table and furniture detail, hand rail shapes and much more.

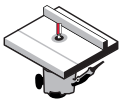
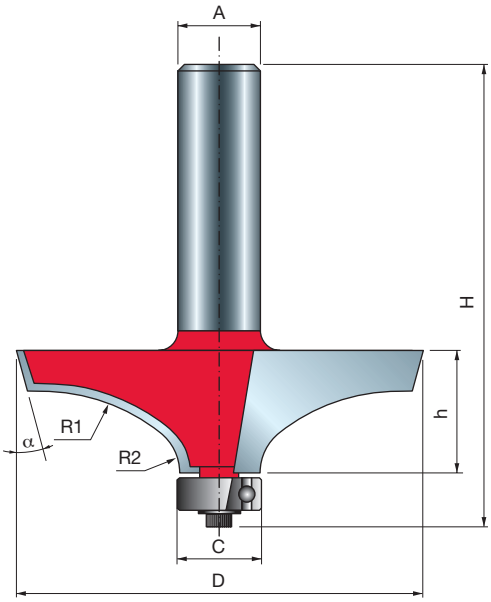


Table Routers

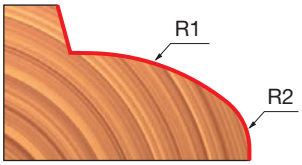


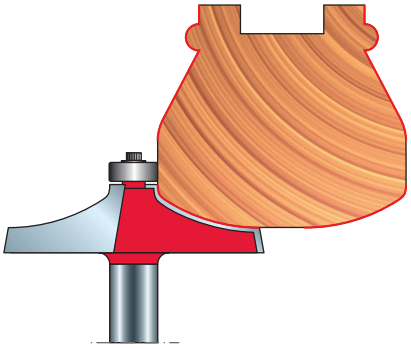
Softwood **Hardwood** **Plywood** **Wood Based Panels**

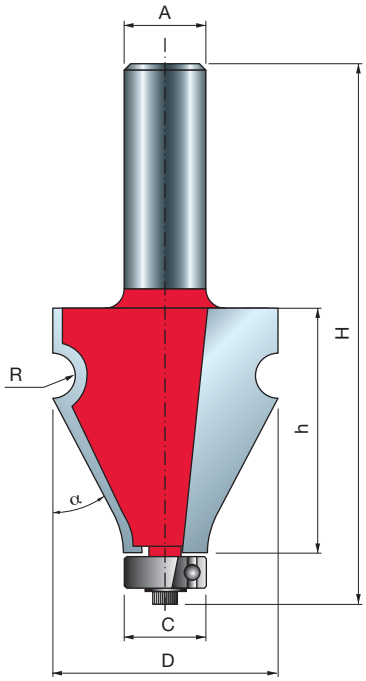


Type A

D mm	h mm	H mm	A mm	C mm	R1 mm	R2 mm	α	Z	Max RPM 1/min.	Freud Code	Art. No.
63,5	18	66,2	12	12,7	30	8	15°	2	12.000	**99-02712P**	F03FR02421



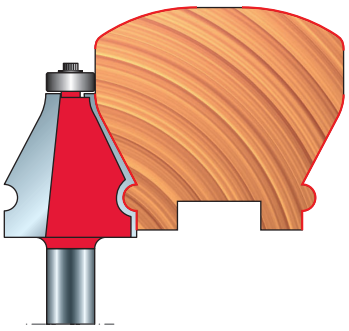




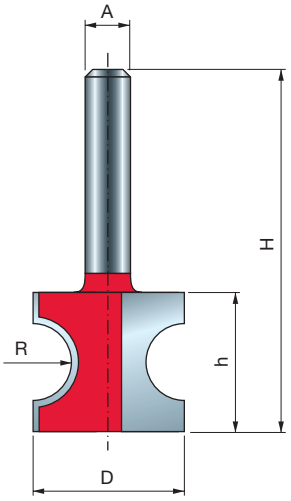
Type B

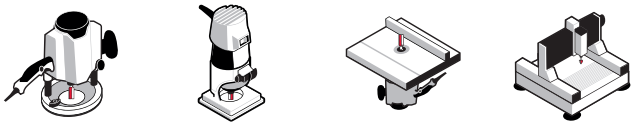
D mm	h mm	H mm	A mm	C mm	R mm	α	Z	Max RPM 1/min.	Freud Code	Art. No.
35	38,5	86,6	12	12,7	3,18	25°	2	16.000	**99-07212P**	F03FR02456





HALF ROUND BITS 82-





Hand-held Routers | Table Routers | CNC Machines



Softwood | Hardwood | Plywood | Wood Based Panels

D mm	h mm	H mm	A mm	A inch	R mm	Z	Max RPM 1/min.	Freud Code	Art. No.
19	12,4	44,4	6		3,18	2	24.000	**82-10206P**	F03FR02208
22,22	19,5	51,5	6		4,8	2	24.000	**82-10406P**	F03FR02210
25,4	22,9	54,9	6		6,35	2	24.000	**82-10606P**	F03FR02213
19	12,4	44,4	8		3,18	2	24.000	**82-10208P**	F03FR02209
22,22	19,5	51,5	8		4,76	2	24.000	**82-10408P**	F03FR02211
25,4	22,9	54,9	8		6,35	2	24.000	**82-10608P**	F03FR02214
19	12,4	53,4	12		3,2	2	24.000	**82-11012P**	F03FR02215
22,22	19,5	60,5	12		4,76	2	24.000	**82-11212P**	F03FR02216
25,4	22,9	64,9	12		6,35	2	24.000	**82-11412P**	F03FR02217
37	29,05	71,05	12		9,5	2	16.000	**82-11612P**	F03FR02218
45,9	35,4	73,4	12		12,7	2	16.000	**82-11812P**	F03FR02219
22	19,5	51,5		1/4	4,76	2	24.000	**82-10425P**	F03FR02212

TiCo Carbide MADE BY freud

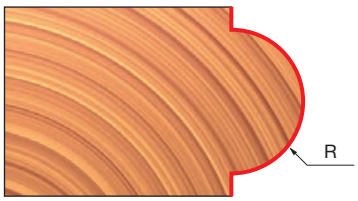
Perma-SHIELD COATING

Machines:
Hand-held routers, table routers and CNC machines.

Materials:
Softwood, hardwood, plywood and wood based panels.

Applications:
Perform fully rounded semicircular edge on any workpiece.





Machines:
Table routers.

Materials:
Softwood, hardwood, plywood and wood based panels.

Applications:
Produce an endless number of profile designs by varying the height and fence settings and making multiple passes.

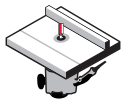
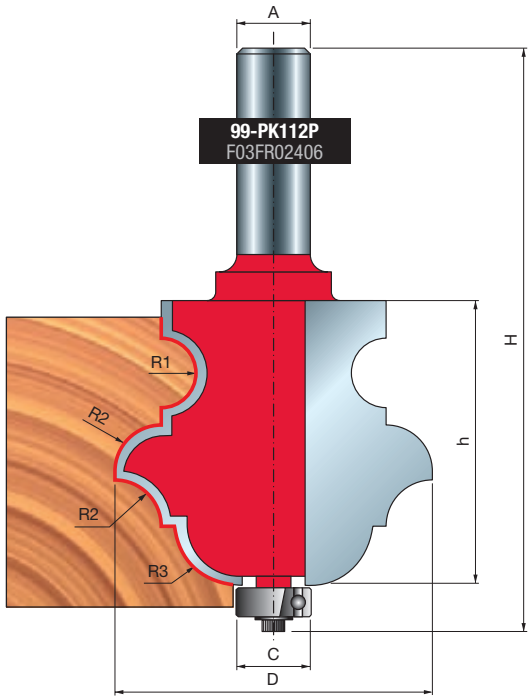


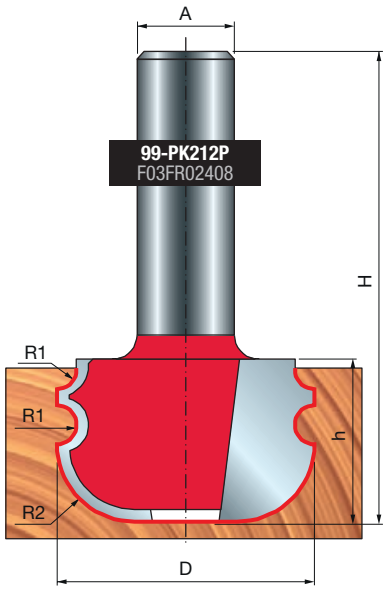
Table Routers

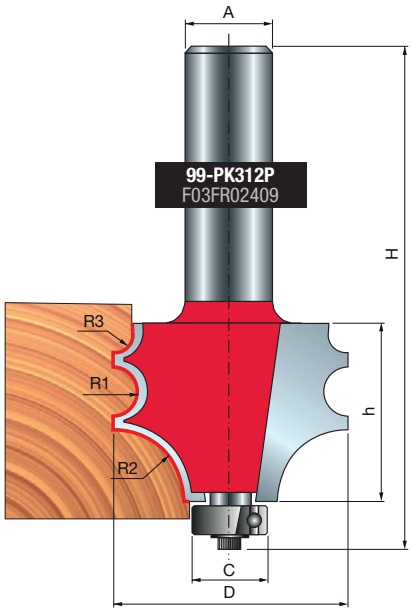


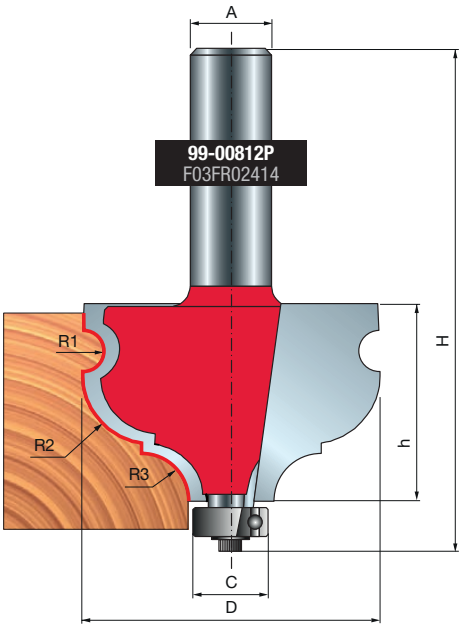
Softwood **Hardwood** **Plywood** **Wood Based Panels**

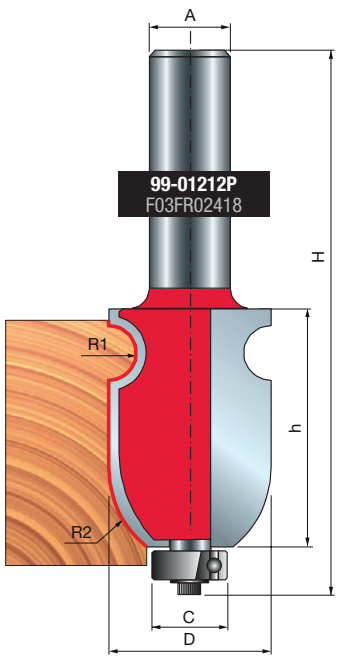
D mm	h mm	H mm	A mm	C mm	R1 mm	R2 mm	R3 mm	Z	Max RPM 1/min.	Freud Code	Art. No.
54,7	49	102	12	12,7	6	8	10	2	10.000	**99-PK112P**	F03FR02406
31,75	20	58	12	-	2,4	9,53	-	2	18.000	**99-PK212P**	F03FR02408
31,75	23,8	72	12	12,7	3,2	9,53	2,4	2	18.000	**99-PK312P**	F03FR02409
44,44	29	77,1	12	12,7	3	10,5	7	2	16.000	**99-00812P**	F03FR02414
23,8	35	83,5	12	12,7	4	15	-	2	24.000	**99-01212P**	F03FR02418
23,8	35	83,5	12	12,7	3,5	4,5	8,5	2	24.000	**99-01312P**	F03FR02419

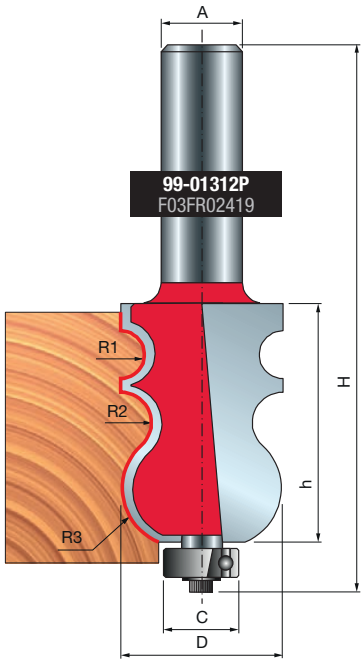




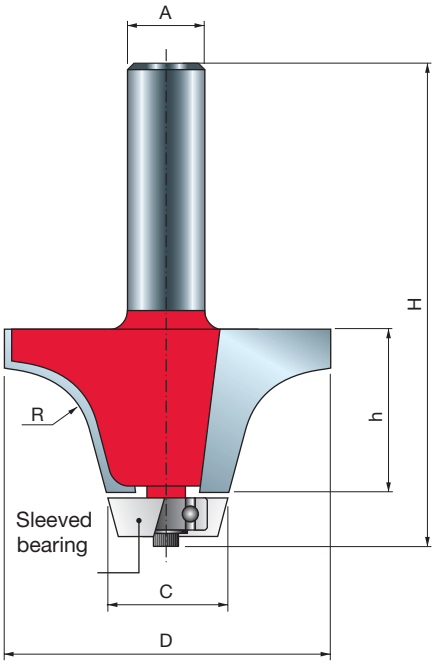




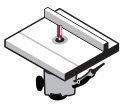




ROUND OVER BOWL BITS 85-




Hand-held Routers


Table Routers


Softwood


Hardwood


Plywood


Wood Based Panels




Solid Surfaces

D mm	h mm	H mm	A mm	A inch	C mm	R	Z	Max RPM 1/min.	Freud Code	Art. No.
54	25,4	74,6	12		22,2	12,7	2	16.000	**85-00112P**	F03FR02223
57,2	31,8	81	12		22,2	12,7	2	12.000	**85-00312P**	F03FR02225
50,8	25,4	73,6		1/2	19,1	12,7	2	16.000	**85-00150P**	F03FR02224

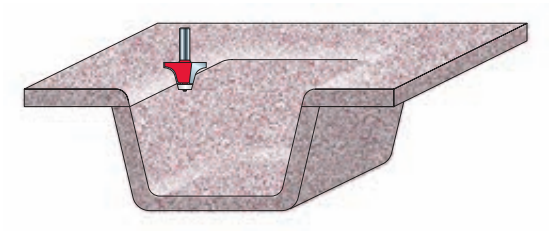
TiCo Carbide MADE BY freud

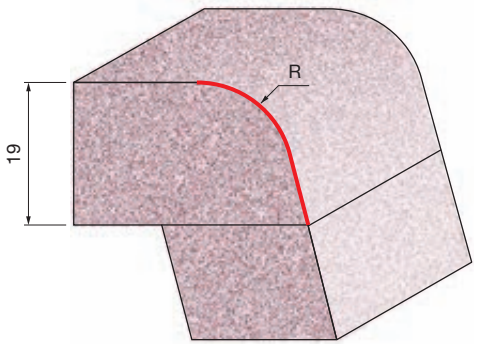
Perma-SHIELD COATING

Machines:
Hand-held routers and table routers.

Materials:
Softwood, hardwood, plywood, wood composites and all solid surface materials.

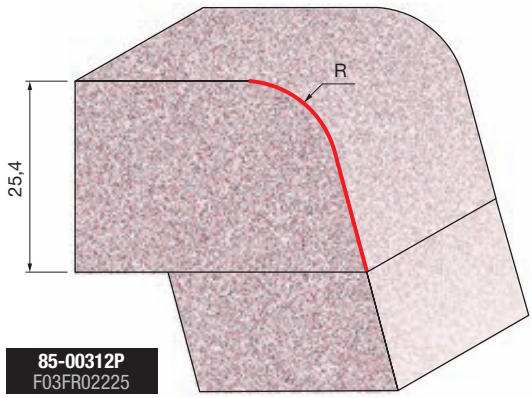
Applications:
Designed to trim the joint between solid surface countertops and solid surface sink bowls, in order to create a smooth, rounded edge.





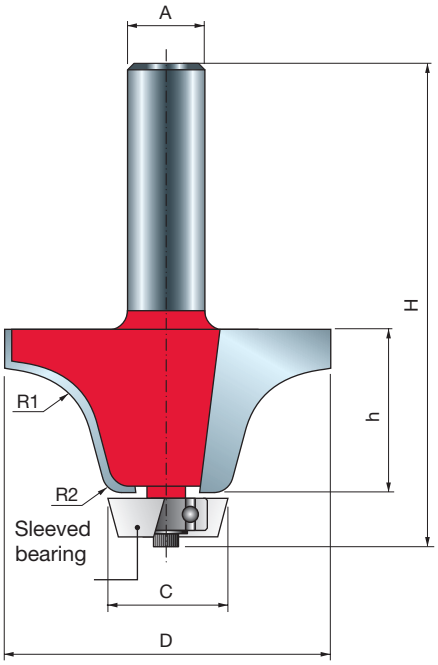
85-00112P
F03FR02223

85-00150P
F03FR02224



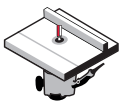
85-00312P
F03FR02225

OGEE BOWL BITS 85-




Hand-held Routers




Table Routers


Softwood


Hardwood


Plywood




Wood Based Panels




Solid Surfaces

D mm	h mm	H mm	A mm	C mm	R1 mm	R2 mm	Z	Max RPM 1/min.	Freud Code	Art. No.
54	25,4	74,6	12	19,2	12,7	6,35	2	16.000	**85-00512P**	F03FR02226
57,2	31,8	80,9	12	19,2	12,7	6,35	2	12.000	**85-00712P**	F03FR02227

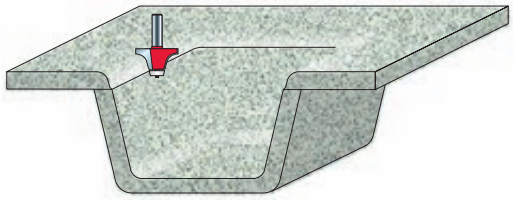
TiCo Carbide MADE BY freud

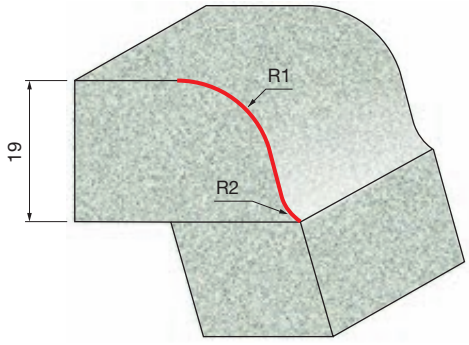
Perma-SHIELD COATING

Machines:
Hand-held routers and table routers.

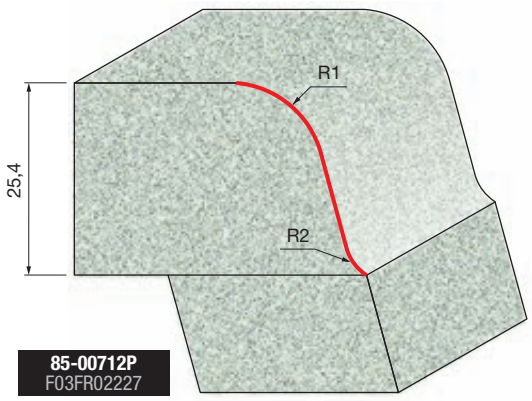
Materials:
Softwood, hardwood, plywood, wood based panels and all solid surface materials.

Applications:
Trim the counter flush with the bowl while creating an ogee edge.



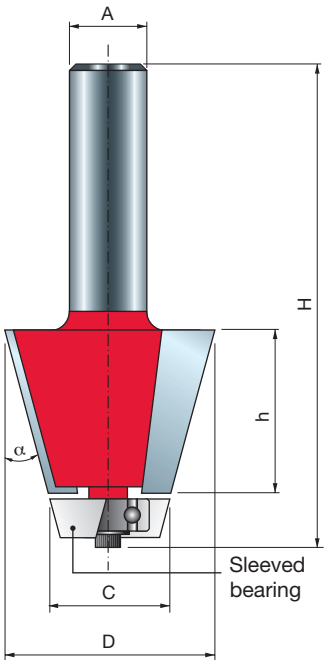


85-00512P
F03FR02226



85-00712P
F03FR02227

BEVEL BOWL BIT 85-





Hand-held Routers

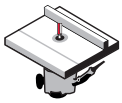


Table Routers



Softwood | Hardwood | Plywood | Wood Based Panels | Solid Surfaces

D	h	H	A	C	α	Z	Max RPM	Freud Code	Art. No.
mm	mm	mm	mm	mm			1/min.		
35,6	25,4	78,1	12	22,2	15°	2	16.000	**85-00912P**	F03FR02228

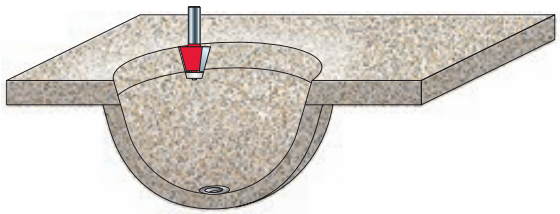
TiCo Carbide MADE BY freud

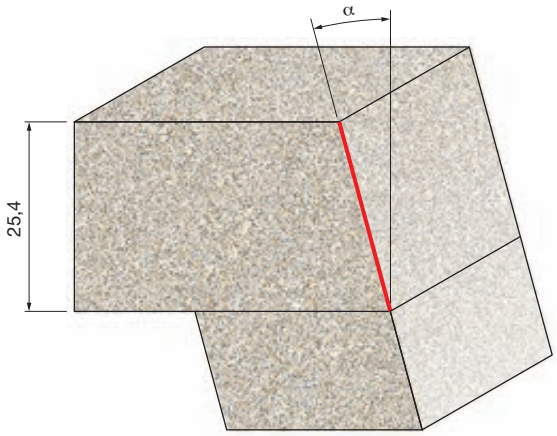
Perma-SHIELD COATING

Machines:
Hand-held routers and table routers.

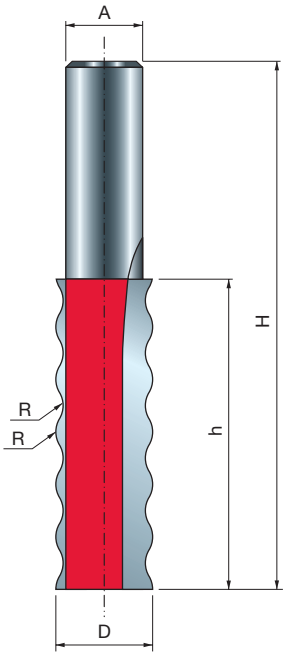
Materials:
Softwood, hardwood, plywood, wood based panels and all solid surface materials.

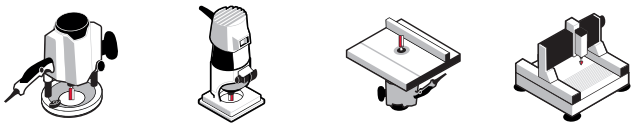
Applications:
Designed to trim the joint between solid surface countertops and solid surface sink bowls to create a smooth, chamfered edge.





WAVY JOINT BIT 85-





Hand-held Routers | Table Routers | CNC Machines



Softwood | Hardwood | Plywood | Wood Based Panels | Solid Surfaces

D mm	h mm	H mm	A mm	R mm	Z	Max RPM 1/min.	Freud Code	Art. No.
16	51,3	88	12	4	2	24.000	**85-03312P**	F03FR02229

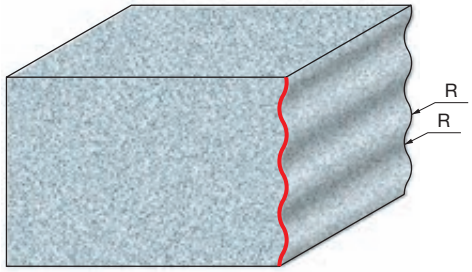
TiCo Carbide MADE BY freud

Perma-SHIELD COATING

Machines:
Hand-held routers, table routers and CNC machines.

Materials:
Softwood, hardwood, plywood, wood based panels and all solid surface materials.

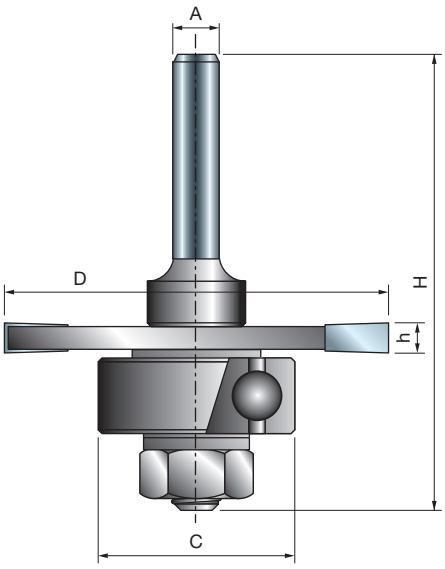
Applications:
Increase gluing area for a stronger joint.



Joinery Bits



WING SLOTTING CUTTERS 63-





Hand-held Routers



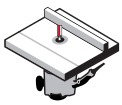


Table Routers



Softwood



Hardwood



Plywood







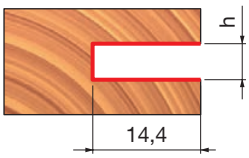
Wood Based Panels

TiCo Carbide
MADE BY freud

Machines:
Hand-held routers and table routers.

Materials:
Softwood, hardwood, plywood and wood based panels.

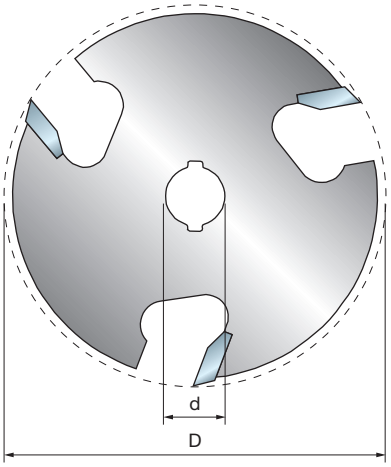
Applications:
A great choice to mill slots and grooves for T-moldings, spline joints, tongue and groove joints and many other applications.

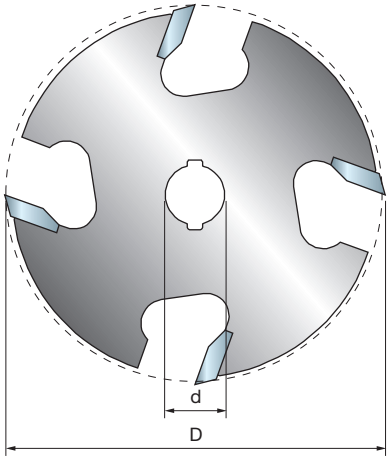


D mm	h mm	H mm	A mm	C mm	Z	Max RPM 1/min.	Freud Code	Art. No.
50,8	1,5	60,3	6	22	3	24.000	**63-09906P**	F03FR02049
50,8	1,6	60,3	6	22	3	24.000	**63-10006P**	F03FR02055
50,8	2	60,3	6	22	3	24.000	**63-10406P**	F03FR02058
50,8	2,4	60,3	6	22	3	24.000	**63-10606P**	F03FR02061
50,8	2,5	60,3	6	22	3	24.000	**63-11306P**	F03FR02079
50,8	3	60,3	6	22	3	24.000	**63-11406P**	F03FR02085
50,8	3,2	60,3	6	22	3	24.000	**63-10806P**	F03FR02064
50,8	3,5	60,3	6	22	3	24.000	**63-11506P**	F03FR02091
50,8	4	60,3	6	22	3	24.000	**63-10906P**	F03FR02067
50,8	4,8	60,3	6	22	3	24.000	**63-11006P**	F03FR02070
50,8	5	60,3	6	22	3	24.000	**63-11606P**	F03FR02097
50,8	6	60,3	6	22	3	24.000	**63-11106P**	F03FR02073
50,8	6,4	60,3	6	22	3	24.000	**63-11206P**	F03FR02076
50,8	1,5	60,3	8	22	3	24.000	**63-09908P**	F03FR02052
50,8	2,5	60,3	8	22	3	24.000	**63-11308P**	F03FR02082
50,8	3	60,3	8	22	3	24.000	**63-11408P**	F03FR02088
50,8	3,5	60,3	8	22	3	24.000	**63-11508P**	F03FR02094
50,8	5	60,3	8	22	3	24.000	**63-11608P**	F03FR02100
50,8	1,5	60,3	12	22	3	24.000	**63-14912P**	F03FR02105
50,8	1,6	60,3	12	22	3	24.000	**63-15012P**	F03FR02108
50,8	2	60,3	12	22	3	24.000	**63-15412P**	F03FR02111
50,8	2,4	60,3	12	22	3	24.000	**63-15612P**	F03FR02114
50,8	2,5	60,3	12	22	3	24.000	**63-16312P**	F03FR02132
50,8	3	60,3	12	22	3	24.000	**63-16412P**	F03FR03241
50,8	3,2	60,3	12	22	3	24.000	**63-15812P**	F03FR02117
50,8	3,5	60,3	12	22	3	24.000	**63-16512P**	F03FR02137
50,8	4	60,3	12	22	3	24.000	**63-15912P**	F03FR02120
50,8	4,8	60,3	12	22	3	24.000	**63-16012P**	F03FR02123
50,8	5	60,3	12	22	3	24.000	**63-16612P**	F03FR02140
50,8	6	60,3	12	22	3	24.000	**63-16112P**	F03FR02126
50,8	6,4	60,3	12	22	3	24.000	**63-16212P**	F03FR02129

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Washer	17 x 8,4 x 1,6	**2617M AG9**	F03F010005
	Hex nut	7,94 x 6,75	**2610M BB9**	F03F010003
	Ball bearing	22 x 8 x 7,1	**3102M AC9**	F03F010008

SLOTTING CUTTERS 56- 58-







Hand-held Routers

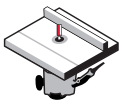


Table Routers



Softwood Hardwood Plywood Wood Based Panels

D mm	h mm	d mm	Z	Max RPM 1/min.	Freud Code	Art. No.
50,8	1,5	8	3	24.000	**56-09908P**	F03FR02014
50,8	1,6	8	3	16.000	**56-10008P**	F03FR02015
50,8	2	8	3	24.000	**56-10408P**	F03FR02016
50,8	2,4	8	3	16.000	**56-10608P**	F03FR02017
50,8	2,5	8	3	24.000	**56-11308P**	F03FR02028
50,8	3	8	3	24.000	**56-11408P**	F03FR02029
50,8	3,2	8	3	24.000	**56-10808P**	F03FR02019
50,8	3,5	8	3	24.000	**56-11508P**	F03FR02030
50,8	4	8	3	24.000	**56-10908P**	F03FR02021
50,8	4,8	8	3	24.000	**56-11008P**	F03FR02023
50,8	5	8	3	24.000	**56-11608P**	F03FR02031
50,8	6	8	3	24.000	**56-11108P**	F03FR02025
50,8	6,4	8	3	24.000	**56-11208P**	F03FR02026

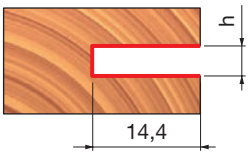
D mm	h mm	d mm	Z	Max RPM 1/min.	Freud Code	Art. No.
50,8	1,5	8	4	16.000	**58-09908P**	F03FR02032
50,8	2	8	4	16.000	**58-10408P**	F03FR02033
50,8	2,5	8	4	16.000	**58-11308P**	F03FR02036
50,8	3	8	4	16.000	**58-11408P**	F03FR02037
50,8	5	8	4	24.000	**58-11608P**	F03FR02038
50,8	6	8	4	16.000	**58-11108P**	F03FR02034

TiCo Carbide
MADE BY freud

Machines:
Hand-held routers and table routers.

Materials:
Softwood, hardwood, plywood and wood based panels.

Applications:
Produce slots and grooves on the workpiece. Slotting cutters are to be used with Freud's arbors series 60 (page 279) which come separately.



SLOTTING CUTTER ARBORS 60-



Hand-held Routers



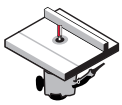


Table Routers



Softwood



Hardwood



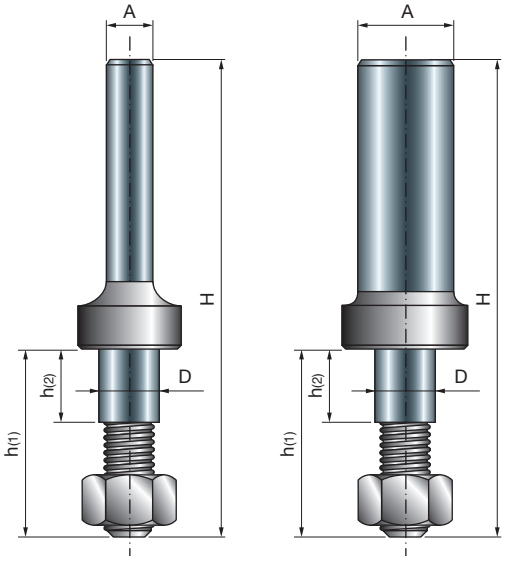
Plywood



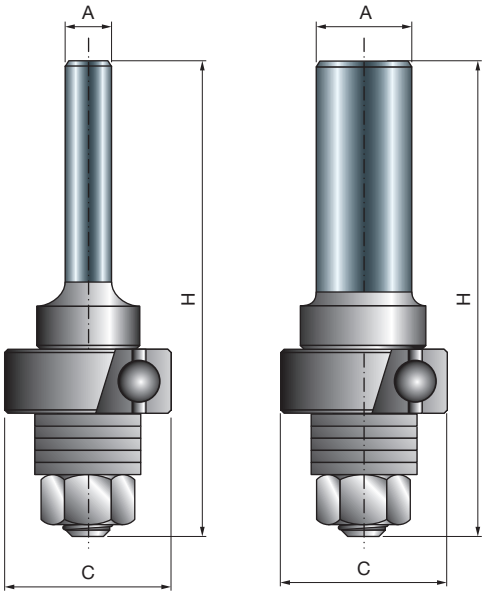




Wood Based Panels



Type A



Type B

Machines:
Hand-held routers and table routers.

Applications:
The perfect complement to Freud's slotting cutters. Compatible with any 8 mm bore hole slotting cutter.

D mm	h1 mm	h2 mm	H mm	C mm	A mm	A inch	Max RPM 1/min.	Freud Code	Art. No.
7,94	24,6	10	60,3	-	6		24.000	**60-10006P**	F03FR02039
7,94	24,6	10	60,3	22	6		24.000	**60-12006P**	F03FR02044
7,94	24,6	10	60,3	-	8		24.000	**60-10008P**	F03FR02040
7,94	24,6	10	60,3	22	8		24.000	**60-12008P**	F03FR02045
7,94	24,6	10	60,3	-	12		24.000	**60-10212P**	F03FR02042
7,94	24,6	10	60,3	22	12		24.000	**60-12212P**	F03FR02046
7,94	24,6	10	60,3	-		1/4	24.000	**60-10025P**	F03FR02041
7,94	24,6	10	60,3	-		1/2	24.000	**60-10250P**	F03FR02043

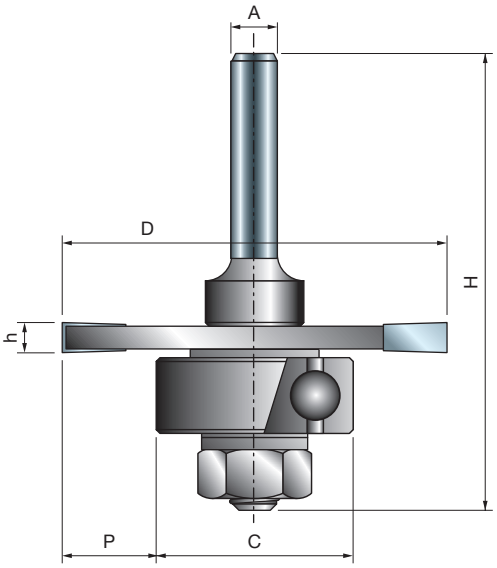
Type A
60-10006P - 60-10008P - 60-10212P - 60-10025P - 60-10250P

	Quantity	Spare parts	Dimensions mm	Freud Code	Art. No.
	7	Washer	17 x 8,4 x 1,6	**2617M AG9**	F03F010005
	1	Hex nut	7,94 x 6,75	**2610M BB9**	F03F010003

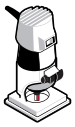
Type B
60-12006P - 60-12008P - 60-12212P

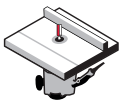
	Quantity	Spare parts	Dimensions mm	Freud Code	Art. No.
	5	Washer	17 x 8,4 x 1,6	**2617M AG9**	F03F010005
	1	Hex nut	7,94 x 6,75	**2610M BB9**	F03F010003
	1	Ball bearing	22 x 8 x 7	**3102M AC9**	F03F010008

BISCUIT JOINT SLOT CUTTER 63-




Hand-held Routers




Table Routers


Softwood Hardwood Plywood Wood Based Panels

TiCo Carbide
MADE BY freud

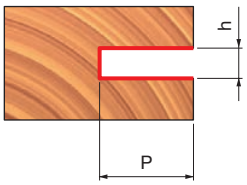
Machines:
Hand-held routers and table routers.

Materials:
Softwood, hardwood, plywood and wood based panels.

Applications:
Biscuit joining is one of the easiest and most economical methods of wood joinery.
Each biscuit joint slot cutter is delivered with 3 different diameter ball bearings.

D mm	h mm	H mm	C mm	P mm	A mm	A inch	Z	Max RPM 1/min.	Freud Code	Art. No.
50,8	3,97	60,3	26-30-34	12,4-10,4-8,4	6		3	24.000	**63-60906P**	F03FR02143
50,8	3,97	60,3	26-30-34	12,4-10,4-8,4	8		3	24.000	**63-60908P**	F03FR02146
50,8	3,97	60,3	26-30-34	12,4-10,4-8,4	12		3	24.000	**63-60912P**	F03FR02149
50,8	3,97	60,3	26-30-34	12,4-10,4-8,4		1/4	3	24.000	**63-60925P**	F03FR02152
50,8	3,97	60,3	26-30-34	12,4-10,4-8,4		1/2	3	24.000	**63-60950P**	F03FR02155

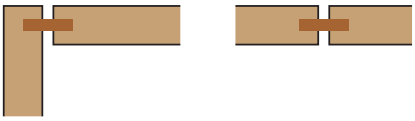
	Spare parts	Dimensions mm	Freud Code	Art. No.
	Hex nut	7,94 x 6,75	**2610M BB9**	F03F010003
	Washer	17 x 8,4 x 1,6	**2617M AG9**	F03F010005
	Washer	14 x 8,4 x 1,6	**2617M BG9**	F03FR01668
	Ball bearing	26 x 10 x 8	**RB62M 1249**	F03F011417
	Ball bearing	30 x 10 x 8	**RB62M 1289**	F03F011418
	Ball bearing	34 x 10 x 8	**RB62ME DA9**	F03FR01146

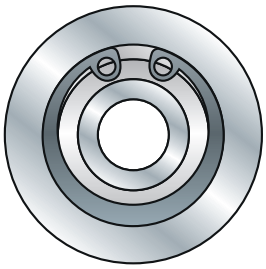


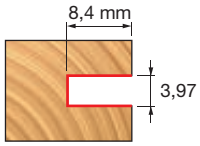
C mm	P mm
Ø 26	12,4
Ø 30	10,4
Ø 34	8,4





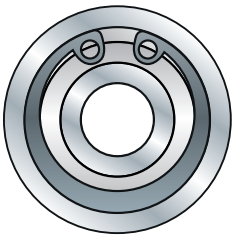


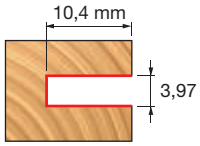




With Bearing **RB62M 1249**
(34mm)

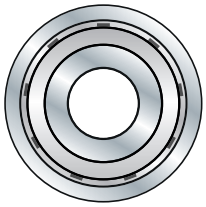

Biscuit Size–00
47mm x 15mm

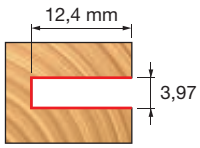




With Bearing **RB62M 1289**
(30mm)


Biscuit Size–10
54mm x 19mm





With Bearing **RB62ME DA9**
(26mm)


Biscuit Size–20
59mm x 22mm

ADJUSTABLE TONGUE AND GROOVE CUTTER SET

99-

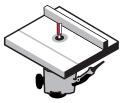


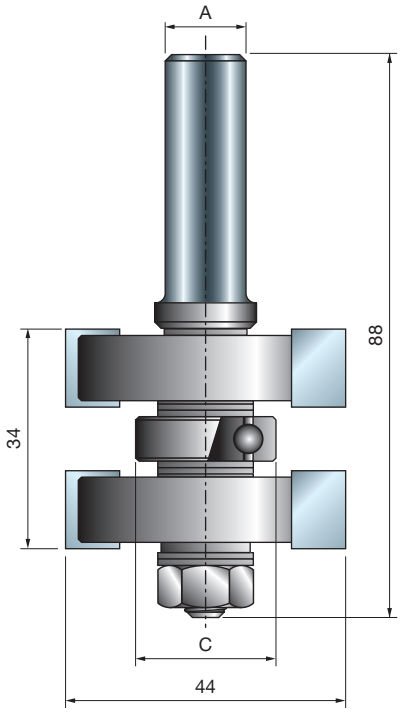
Table Routers

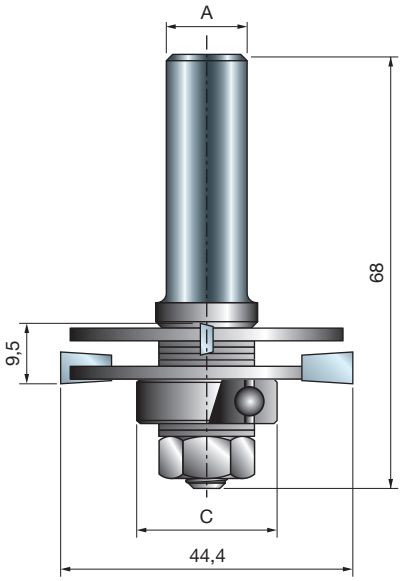


Softwood Hardwood Plywood Wood Based Panels

D mm	h mm	H mm	A mm	C mm	Z	Max RPM 1/min.	Freud Code	Art. No.
44	34	88	12	22	2	16.000	**99-03612P**	F03FR02432
44,4	9,5	68	12	22	2			

	Qty	Spare parts	Dimensions mm	Freud Code	Art. No.
	2	Hex nut	7,94 x 6,75	**2610M BB9**	F03F010003
	2	Washer	14 x 8,4 x 1,6	**2617M BG9**	F03FR01668
	2	Ball bearing	22 x 8 x 7,1	**3102M AC9**	F03F010008
	4	Spacer	18 x 0,1 x 8	**AN01MP0019**	F03FC00392
	4	Spacer	18 x 0,2 x 8	**AN01MP0029**	F03FC00393
	2	Spacer	18 x 0,5 x 8	**AN01MP0059**	F03FC00395
	8	Spacer	18 x 1 x 8	**AN01MP0109**	F03FC00396
	4	Spacer	18 x 0,15 x 8	**AN01MPAA99**	F03FC00391



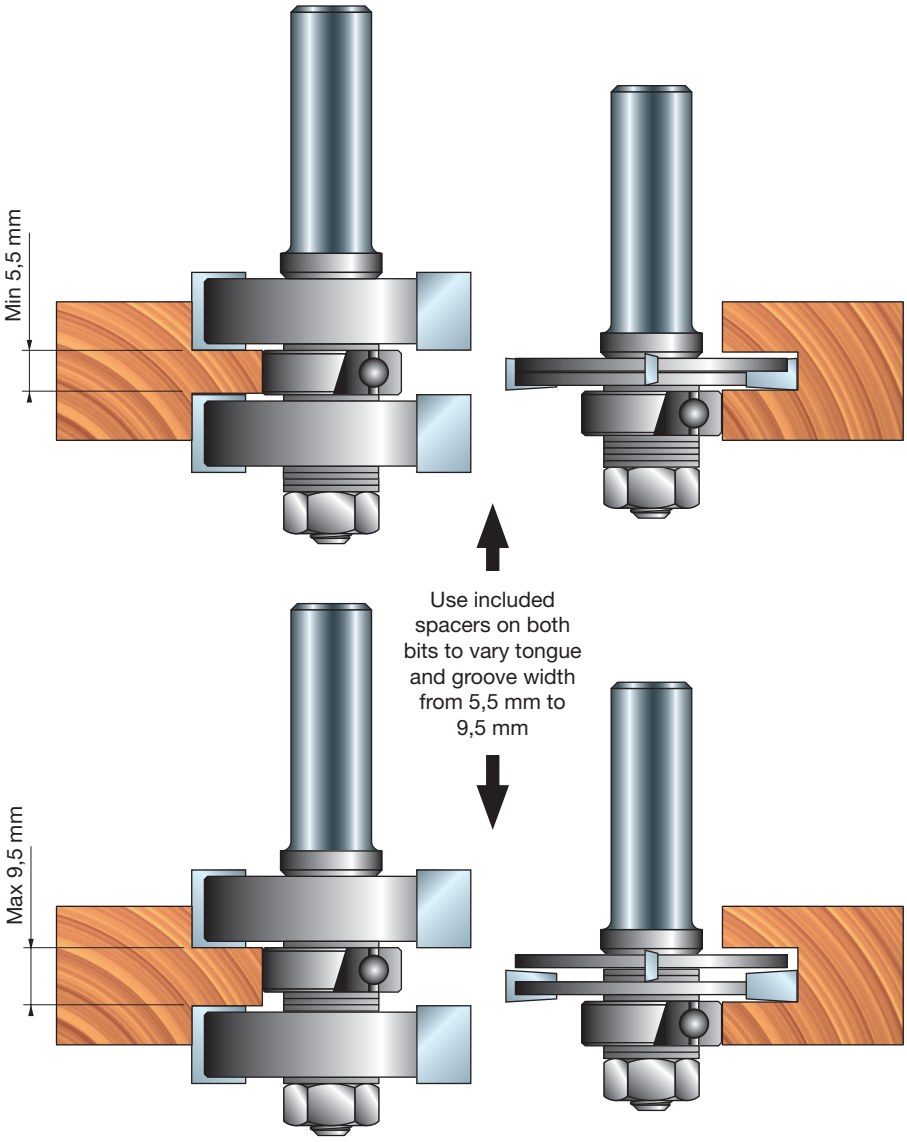


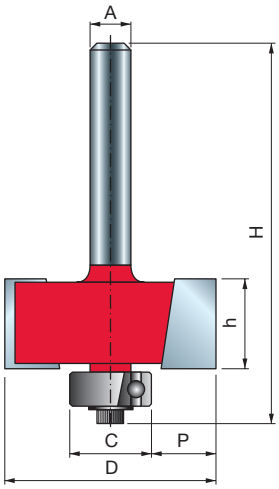
TiCo Carbide
MADE BY freud

Machines:
Table routers.

Materials:
Softwood, hardwood, plywood and wood based panels.

Applications:
Suitable for any project requiring precise tongue and groove joints with perfectly finished surfaces.
The set includes one tongue and one grooving bit.





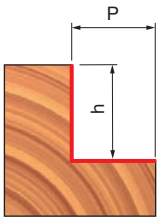
TiCo Carbide MADE BY freud

Perma-SHIELD COATING

Machines:
Hand-held routers and table routers.

Material:
Softwood, hardwood, plywood and wood based panels.

Applications:
Use to make strong lap joints, cut recesses to let in the back panels of cabinets or create an interesting detail on built-up moulding.

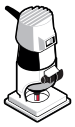


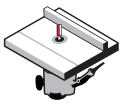
Set of 4 ball bearings	
C	P
mm	mm
9,53	12,7
12,7	11,1
15,88	9,53
19,05	7,94

Set of 7 ball bearings	
C	P
mm	mm
9,53	12,7
12,7	11,1
15,88	9,53
19,05	7,94
22,22	6,35
28,58	3,18
34,92	0

RABBETING BITS 32-


Hand-held Routers




Table Routers


Softwood


Hardwood


Plywood






Wood Based Panels

D	h	H	A		C	P	Z	Max RPM	Freud Code	Art. No.
mm	mm	mm	mm	inch	mm	mm		1/min.		
31,75	13,2	55,7	6		12,7	9,52	2	18.000	**32-10006P**	F03FR01745
34,92	12,7	54,4	6		12,7	11,1	2	16.000	**32-50006P**	F03FR01750
31,75	13,2	55,7	8		12,7	9,52	2	18.000	**32-10008P**	F03FR01746
34,92	12,7	54,7	8		12,7	11,1	2	16.000	**32-50008P**	F03FR01751
31,75	13,2	61,7	12		12,7	9,52	2	18.000	**32-10212P**	F03FR01748
34,92	12,7	60,7	12		12,7	11,1	2	16.000	**32-52012P**	F03FR01758
31,75	13,2	55,7		1/4	12,7	9,52	2	18.000	**32-10025P**	F03FR01747
31,75	13,2	61,7		1/2	12,7	9,52	2	18.000	**32-10250P**	F03FR01749

RABBETING BITS WITH BEARING SET 32-

Rabbeting bits with a set of 4 ball bearings

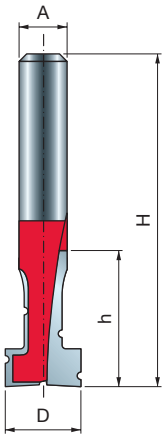
D	h	H	A		C	P	Z	Max RPM	Freud Code	Art. No.
mm	mm	mm	mm	inch	mm	mm		1/min.		
34,92	12,7	54,4	6		9,53-19,05	7,94-12,7	2	16.000	**32-50206P**	F03FR01752
34,92	12,7	54,4	8		9,53-19,05	7,94-12,7	2	16.000	**32-50208P**	F03FR01753
34,92	12,7	60,7	12		9,53-19,05	7,94-12,7	2	16.000	**32-52212P**	F03FR01759
34,92	12,7	60,7		1/2	9,53-15,88	9,53-12,7	2	16.000	**32-52250P**	F03FR01760

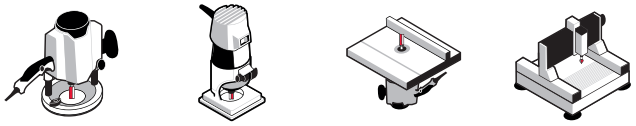
Rabbeting bits with a set of 7 ball bearings

D	h	H	A	C	P	Z	Max RPM	Freud Code	Art. No.
mm	mm	mm	mm	mm	mm		1/min.		
34,92	12,7	54,7	6	9,53-34,92	0-12,7	2	16.000	**32-50406P**	F03FR01755
34,92	12,7	54,4	8	9,53-34,92	0-12,7	2	16.000	**32-50408P**	F03FR01756
34,92	12,7	60,7	12	9,53-34,92	0-12,7	2	16.000	**32-52412P**	F03FR01761

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Screw	M3 x 7,6	**2607M 001**	F03F010000
	Allen key	2,5	**2619M CA9**	F03FA07432
	Washer	9 x 2 x 6	**FX07M AA9**	F03F010158
	Washer	12 x 1,1 x 4,8	**FX07M AB9**	F03F010159
32-52250P	Ball bearing	9,53 x 3,2 x 4,76	**3102M AA9**	F03F010006
	Ball bearing	12,7 x 4,98 x 4,76	**3102M AB9**	F03F010007
	Ball bearing	15,88 x 4,97 x 4,76	**3102M AJ9**	F03F010014
32-50206P 32-50208P 32-52212P	Ball bearing	9,53 x 3,2 x 4,76	**3102M AA9**	F03F010006
	Ball bearing	12,7 x 4,98 x 4,76	**3102M AB9**	F03F010007
	Ball bearing	15,88 x 4,97 x 4,76	**3102M AJ9**	F03F010014
	Ball bearing	19,05 x 8 x 4,76	**RB62M 1509**	F03F011422
32-50406P 32-50408P 32-52412P	Ball bearing	9,53 x 3,2 x 4,76	**3102M AA9**	F03F010006
	Ball bearing	12,7 x 4,98 x 4,76	**3102M AB9**	F03F010007
	Ball bearing	15,88 x 4,97 x 4,76	**3102M AJ9**	F03F010014
	Ball bearing	19,05 x 8 x 4,76	**RB62M 1509**	F03F011422
	Ball bearing	22,22 x 8 x 4,76	**RB62M 1529**	F03F011423
	Ball bearing	28,58 x 8 x 4,76	**RB62M 1549**	F03F011424
	Ball bearing	34,92 x 8 x 4,76	**RB62M 1569**	F03F011425

KEYHOLE BIT 70-



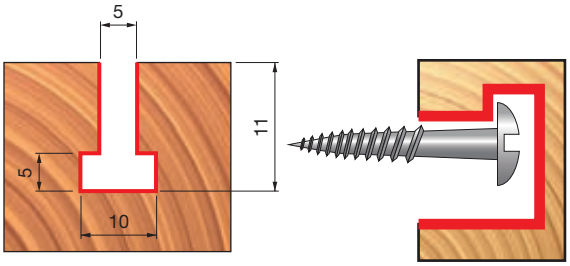


Hand-held Routers | Table Routers | CNC Machines



Softwood | Hardwood | Plywood | Wood Based Panels

D mm	h mm	H mm	A mm	Z	Max RPM 1/min.	Freud Code	Art. No.
10	17	48,2	6	2	24.000	**70-10406P**	F03FR02159



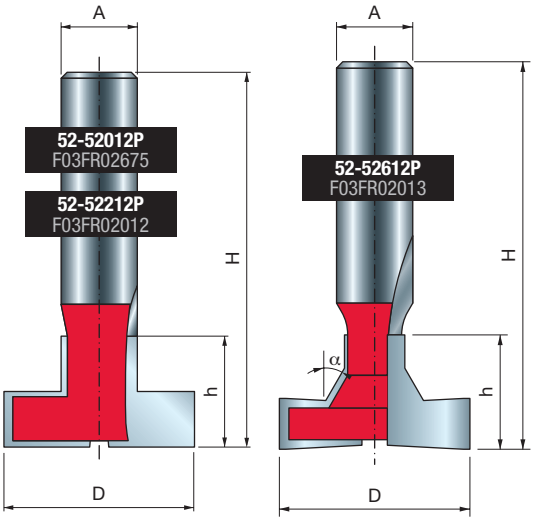


Example of keyhole

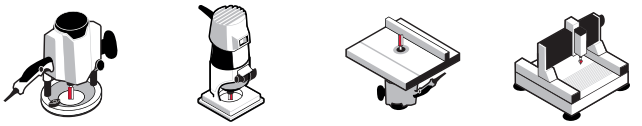
Machines:
Hand-held routers, table routers and CNC machines.

Materials:
Softwood, hardwood, plywood and wood based panels.

Applications:
The perfect way to hang flat workpieces. The large diameter bore hole allows nail or screw heads to enter the slot and the smaller diameter groove gives space for the shank of the nail or screw.



T - SLOTTING BITS 52-



Hand-held Routers | Table Routers | CNC Machines



Softwood | Hardwood | Plywood | Wood Based Panels

D mm	h mm	H mm	A mm	α	Z	Max RPM 1/min.	Freud Code	Art. No.
28	16	59	12	-	2	22.000	**52-52012P**	F03FR02675
28,58	20,6	63,5	12	-	2	18.000	**52-52212P**	F03FR02012
30	18	61	12	30°	2	18.000	**52-52612P**	F03FR02013

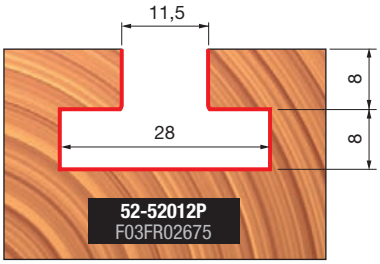
TiCo Carbide MADE BY freud

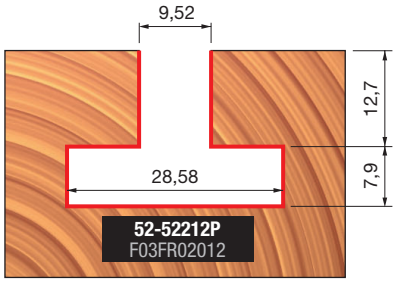
Perma-SHIELD COATING

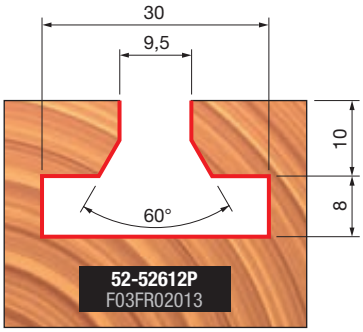
Machines:
Hand-held routers, table routers and CNC machines.

Materials:
Softwood, hardwood, plywood and wood based panels.

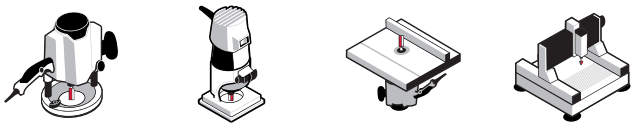
Applications:
Cut T shaped slots, used for many purposes.







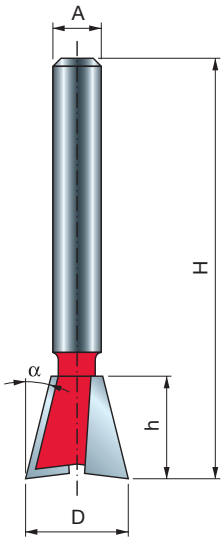
DOVETAIL BITS



Hand-held Routers | Table Routers | CNC Machines



Softwood | Hardwood | Plywood | Wood Based Panels



TiCo Carbide MADE BY freud

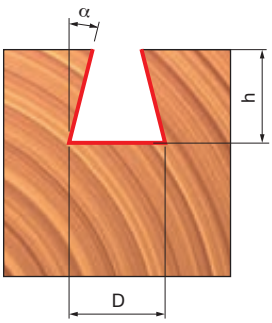
Perma-SHIELD COATING

Machines:
Hand-held routers, table routers and CNC machines.

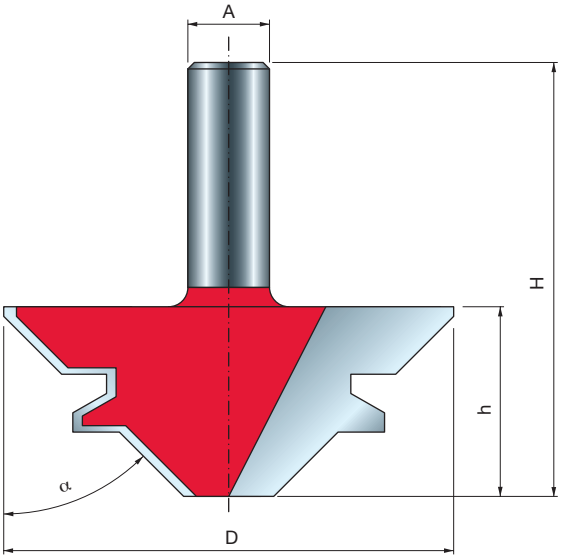
Materials:
Softwood, hardwood, plywood and wood based panels.

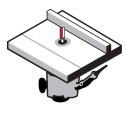
Applications:
Dovetail joints are the traditional choice for strong, attractive joints for drawers, boxes and exposed furniture joints.

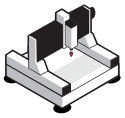
D mm	h mm	H mm	A mm	A inch	α	Z	Max RPM 1/min.	Freud Code	Art. No.
9,52	10,5	47,5	6		9°	2	24.000	**22-10206P**	F03FR01640
12,7	12,7	50,7	6		14°	2	24.000	**22-10406P**	F03FR01643
15,88	22,2	54,2	6		7°	2	24.000	**22-10506P**	F03FR01646
19,05	22,2	54,2	6		7°	2	24.000	**22-10606P**	F03FR01648
9,52	10,5	47,5	8		9°	2	24.000	**22-10208P**	F03FR01641
12,7	12,7	50,7	8		14°	2	24.000	**22-10408P**	F03FR01644
15,88	22,2	54,2	8		7°	2	24.000	**22-10508P**	F03FR01647
19,05	22,2	54,2	8		7°	2	24.000	**22-10608P**	F03FR01649
12,7	12,7	59,7	12		14°	2	24.000	**22-11212P**	F03FR01650
19,05	22,2	66,7	12		7°	2	24.000	**22-11412P**	F03FR01653
9,52	9,9	44,9		1/4	9°	2	24.000	**22-10225P**	F03FR01642
12,7	12,7	50,7		1/4	14°	2	24.000	**22-10425P**	F03FR01645
12,7	12,7	59,7		1/2	14°	2	24.000	**22-11250P**	F03FR01651



LOCK MITRE BITS 45° 99-




Table Routers


CNC Machines


Softwood


Hardwood


Plywood






Wood Based Panels

D mm	h mm	H mm	A mm	α	Z	Max RPM 1/min.	Freud Code	Art. No.
55	23	61	12	45°	2	16.000	**99-03512P**	F03FR02425
70	29,5	67,5	12	45°	2	12.000	**99-03412P**	F03FR02424

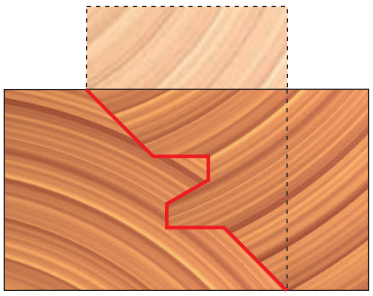
TiCo Carbide MADE BY freud

Perma-SHIELD COATING

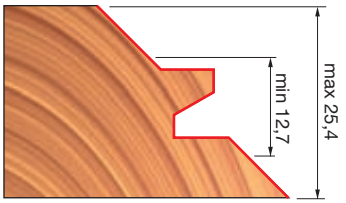
Machines:
Table routers and CNC machines.

Materials:
Softwood, hardwood, plywood and wood based panels.

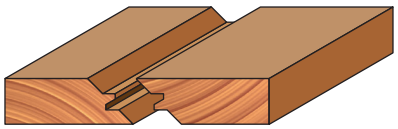
Applications:
Create remarkably strong interlocking joints.

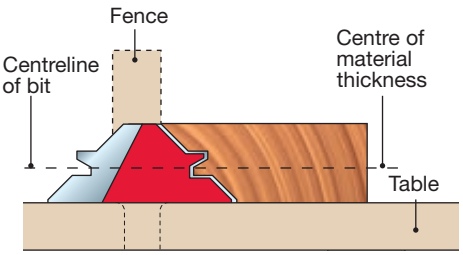


99-03412P
F03FR02424

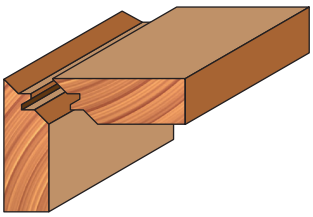


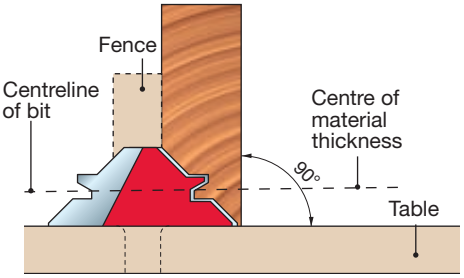
Simple Joint





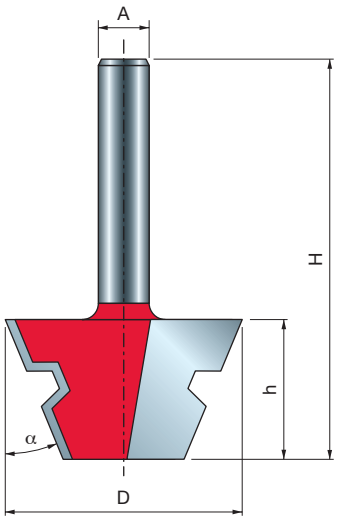
45° Mitre Join

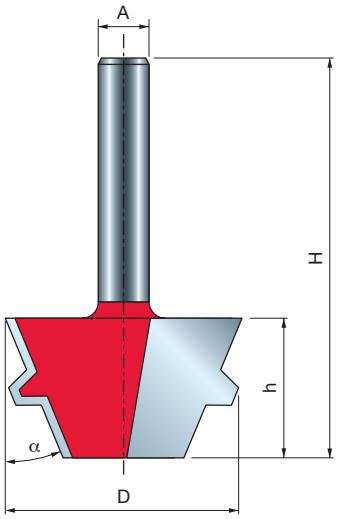




2 PIECE LOCK MITRE BIT SET 22,5°

99-





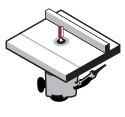
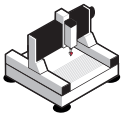


Table Routers

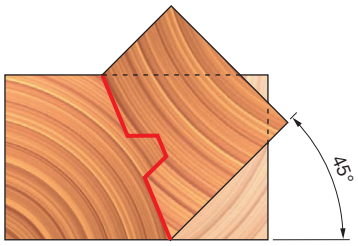


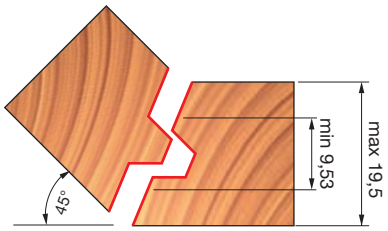
CNC Machines

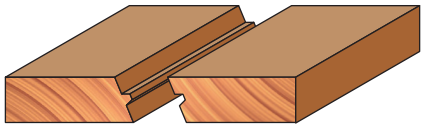


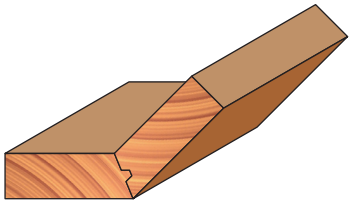
Softwood Hardwood Plywood Wood Based Panels

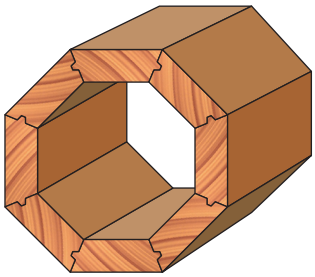
D mm	h mm	H mm	A mm	α	Z	Max RPM 1/min.	Freud Code	Art. No.
37,3	22,2	54,2	8	22,5°	2	24.000	**99-04308P**	F03FR02450











TiCo Carbide MADE BY freud

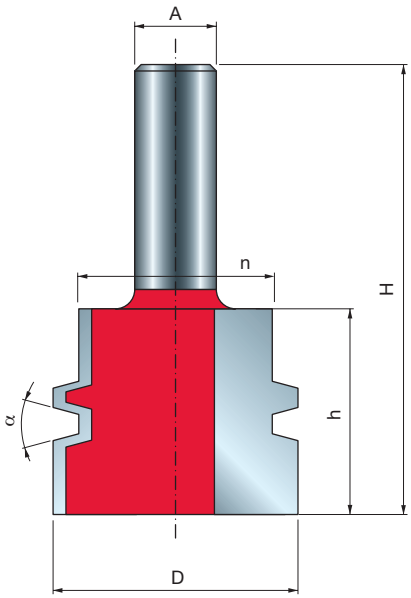
Perma-SHIELD COATING

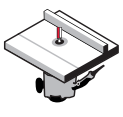
Machines:
Table routers and CNC machines.

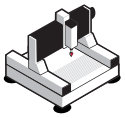
Materials:
Softwood, hardwood, plywood and wood based panels.

Applications:
Create remarkably strong interlocking joints.

REVERSIBLE GLUE JOINT BITS 99-

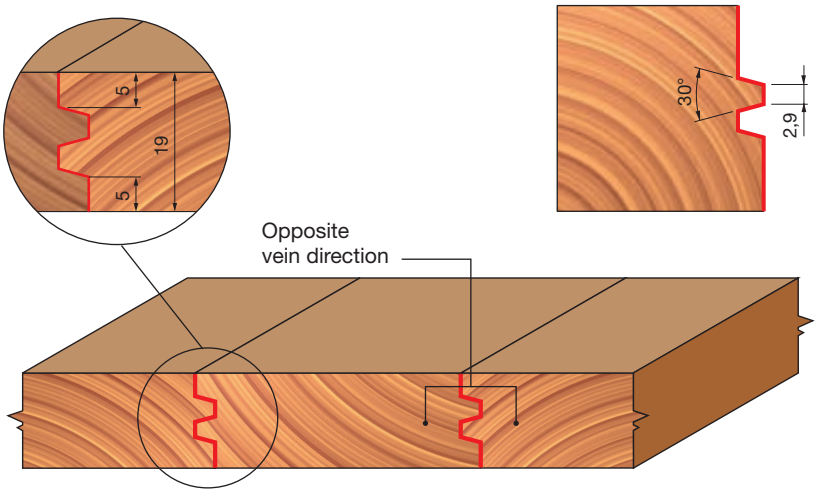



Table Routers


CNC Machines


Softwood Hardwood Plywood Wood Based Panels

D mm	h mm	H mm	n mm	A mm	A inch	α	Z	Max RPM 1/min.	Freud Code	Art. No.
38	32	70	30,2	12		15°	2	16.000	**99-03112P**	F03FR02422
38	32	70	30,2		1/2	15°	2	16.000	**99-03150P**	F03FR02423

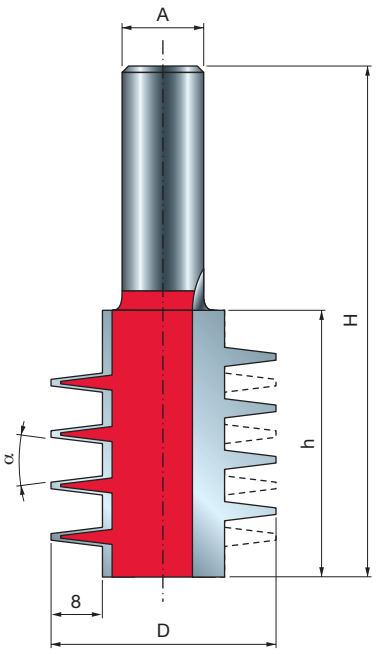


Machines:
Table routers and CNC machines.

Materials:
Softwood, hardwood, plywood and wood based panels.

Applications:
Provide a stronger joint by increasing the gluing area.

FINGER JOINT BIT 99-



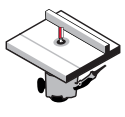
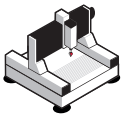


Table Routers



CNC Machines



Softwood | Hardwood | Plywood | Wood Based Panels

D mm	h mm	H mm	A mm	α	Z	Max RPM 1/min.	Freud Code	Art. No.
35	41,5	79,5	12	14°	2	16.000	**99-03712P**	F03FR02440

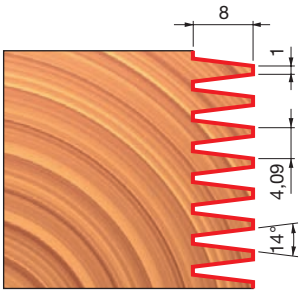
TiCo Carbide MADE BY freud

Perma-SHIELD COATING

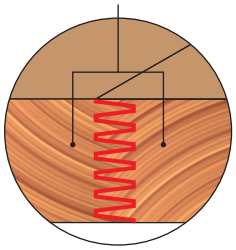
Machines:
Table routers and CNC machines.

Materials:
Softwood, hardwood, plywood and wood based panels.

Applications:
Create perfectly flat even surface and increase gluing area for a stronger joint.

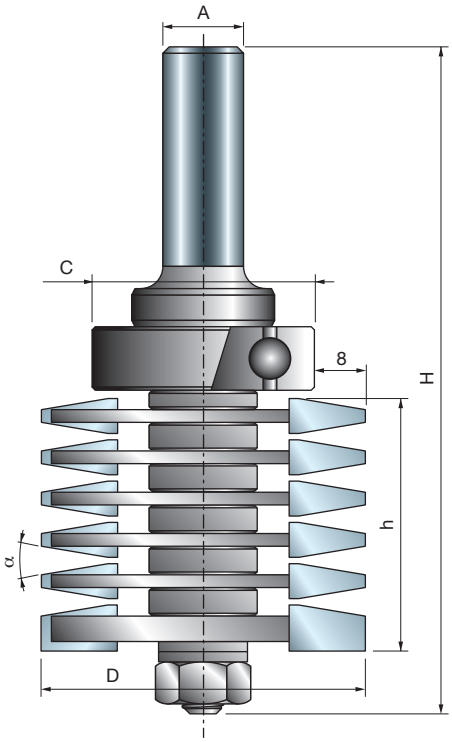


Opposite vein direction



TOP BEARING FINGER JOINT BIT - TYPE A

99-



TiCo Carbide
MADE BY freud

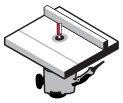


Table Routers



Softwood **Hardwood** **Plywood** **Wood Based Panels**

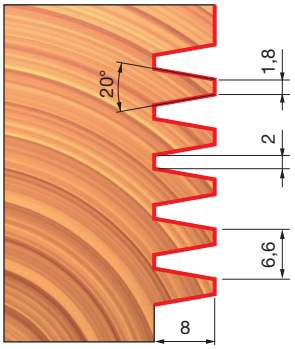
D mm	h mm	H mm	A mm	C mm	α	Z	Max RPM 1/min.	Freud Code	Art. No.
50,8	45,2	108	12	35	20°	2	24.000	**99-03912P**	F03FR02444

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Hex nut	7,94 x 6,75	**2610M BB9**	F03F010003
	Washer	14 x 8,4 x 1,6	**2617M BG9**	F03FR01668
	Ball bearing	35 x 15 x 11	**3102M AI9**	F03F012285
	Spacer	18 x 0,1 x 8	**AN01MP0019**	F03FC00392
	Spacer	18 x 1 x 8	**AN01MP0109**	F03FC00396
	Spacer	18 x 2,5 x 8	**AN01MP0259**	F03FC00398
	Spacer	18 x 4,4 x 8	**AN01MP0449**	F03FC00399

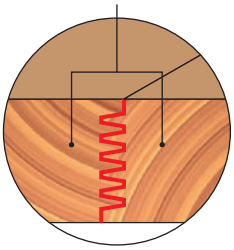
Machines:
Table routers.

Materials:
Softwood, hardwood, plywood and wood based panels.

Applications:
Provide a stronger joint by increasing the surface area for gluing.

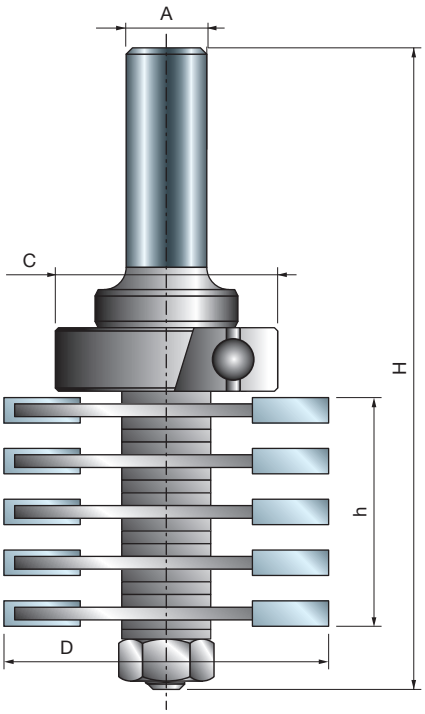


Opposite vein direction



TOP BEARING FINGER JOINT BIT - TYPE B

99-



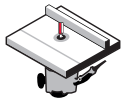


Table Routers



Softwood Hardwood Plywood Wood Based Panels

D mm	h mm	H mm	A mm	C mm	Z	Max RPM 1/min.	Freud Code	Art. No.
47	36	101	12	28	2	24.000	**99-04212P**	F03FR02447

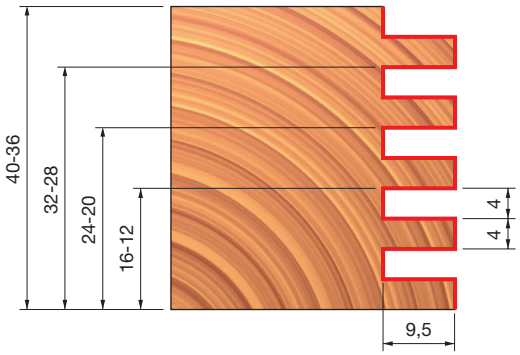
	Spare parts	Dimensions mm	Freud Code	Art. No.
	Hex nut	7,94 x 6,75	**2610M BB9**	F03F010003
	Washer	14 x 8,4 x 1,6	**2617M BG9**	F03FR01668
	Ball bearing	28 x 12 x 8	**3102M AH9**	F03F010013
	Spacer	18 x 0,2 x 8	**AN01MP0029**	F03FC00393
	Spacer	18 x 1 x 8	**AN01MP0109**	F03FC00396
	Spacer	18 x 0,5 x 8	**AN01MP0059**	F03FC00395
	Spacer	18 x 4,4 x 8	**AN01MP0449**	F03FC00399

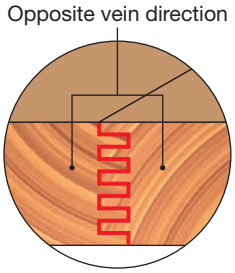
TiCo Carbide
MADE BY freud

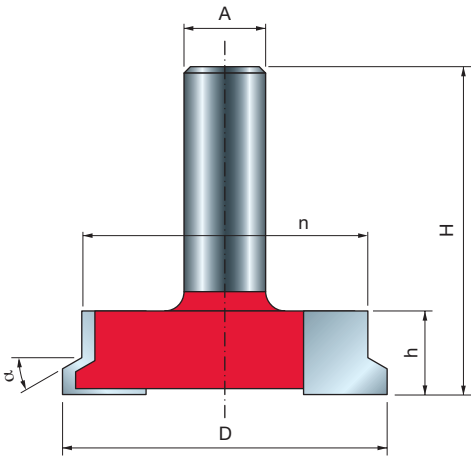
Machines:
Table routers.

Materials:
Softwood, hardwood, plywood and wood based panels.

Applications:
Create perfectly flat even surface and increas gluing area for a stronger joint.







DRAWER LOCK BIT 99-

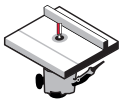


Table Routers



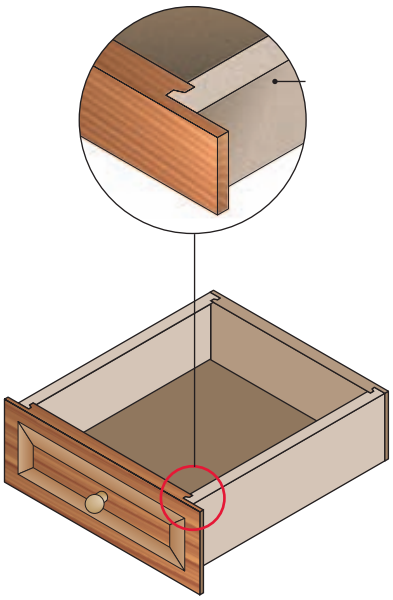
Softwood Hardwood Plywood Wood Based Panels

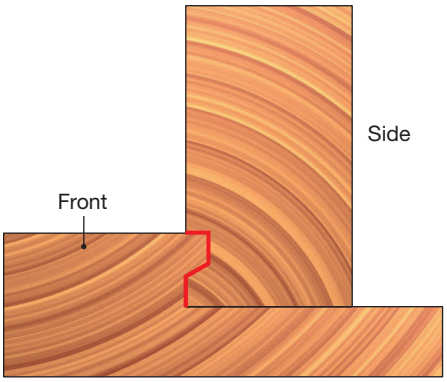
D mm	h mm	H mm	A mm	n mm	α	Z	Max RPM 1/min.	Freud Code	Art. No.
50,5	13	49	12	44,5	30°	2	16.000	**99-24012P**	F03FR02463

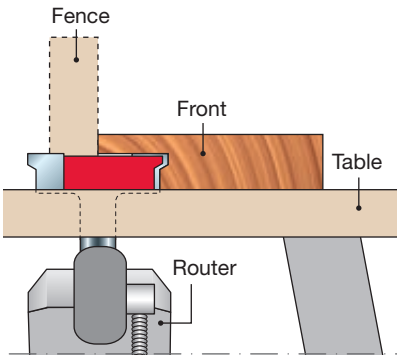
Machines:
Table routers.

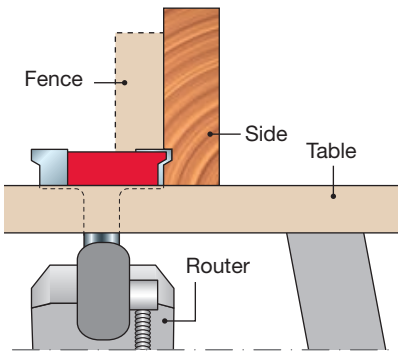
Materials:
Softwood, hardwood, plywood and wood based panels.

Applications:
One bit produces both the front and side drawer joints.

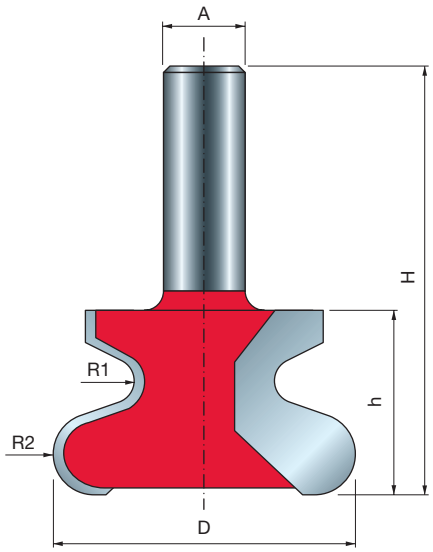








DOOR PULL BIT 99-



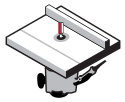
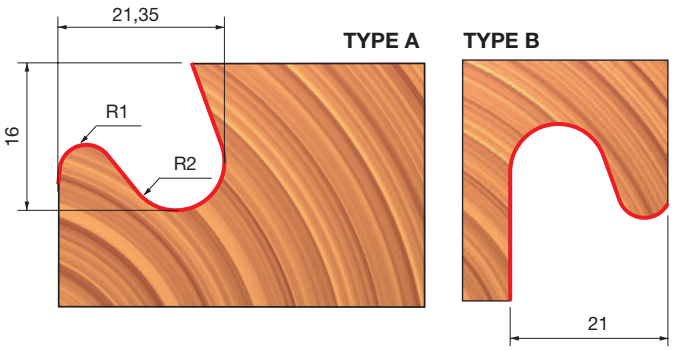


Table Routers



Softwood Hardwood Plywood Wood Based Panels

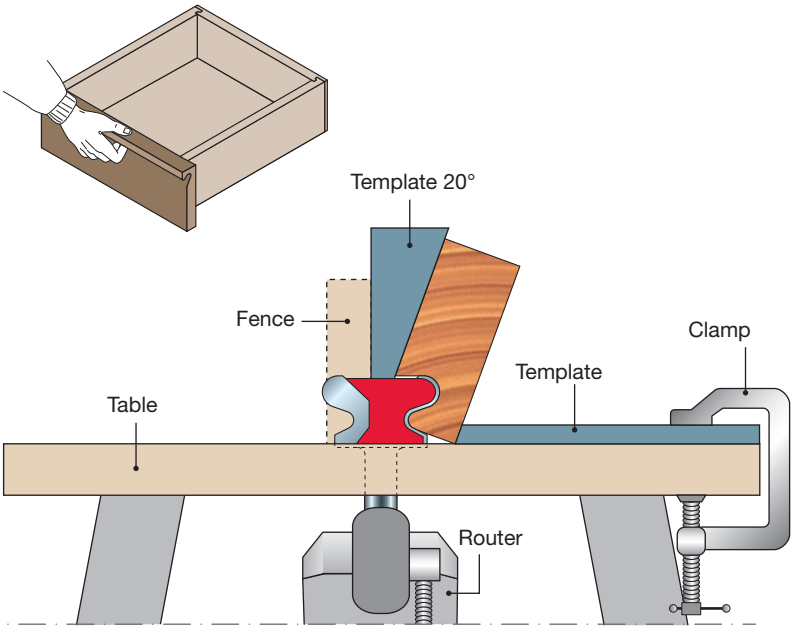
D mm	h mm	H mm	A mm	R1 mm	R2 mm	Z	Max RPM 1/min.	Freud Code	Art. No.
47	28,7	66,7	12	3,2	6,35	2	16.000	**99-00712P**	F03FR02413



Machines:
Table routers.

Materials:
Softwood, hardwood, plywood and wood based panels.

Applications:
Produce the finger pull groove found on popular contemporary cabinet doors.



MATCHED PROFILE AND SCRIBE BITS

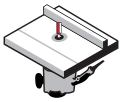


Table Routers



Softwood Hardwood Plywood Wood Based Panels

TiCo Carbide MADE BY freud

Perma-SHIELD COATING

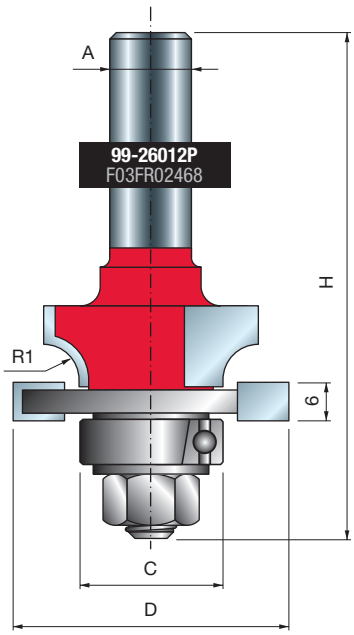
Machines:
Table routers.

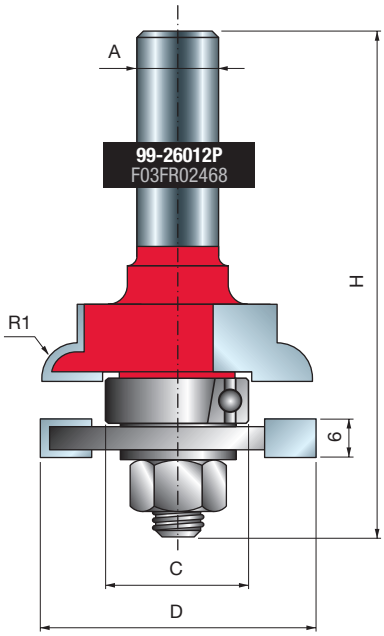
Materials:
Softwood, hardwood, plywood and wood based panels.

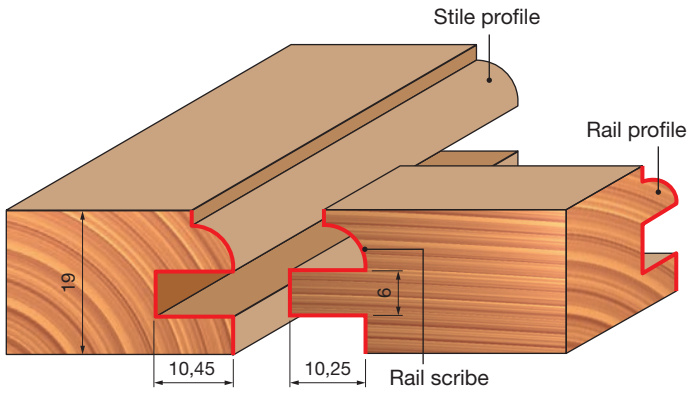
Applications:
These sets include rail and stile bits that are perfectly matched to produce perfect joints out of the box.
Each article number contains two items.

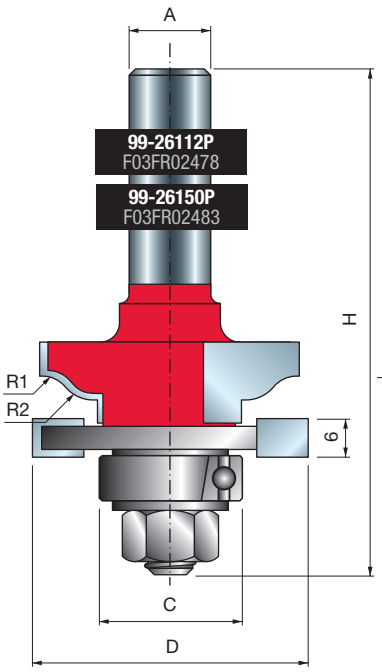
D mm	H mm	A mm	A inch	R1 mm	R2 mm	C	Z	Max RPM 1/min.	Freud Code	Art. No.
42,9	77	12		5,5	-	22	2	24.000	**99-26012P**	F03FR02468
42,9	77	12		4,5	5,5	22	2	24.000	**99-26112P**	F03FR02478
42,9	77	12		7	-	22	2	24.000	**99-26312P**	F03FR02488
42,9	77		1/2	4,5	5,5	22	2	24.000	**99-26150P**	F03FR02483
42,9	77		1/2	7	-	22	2	24.000	**99-26350P**	F03FR02493

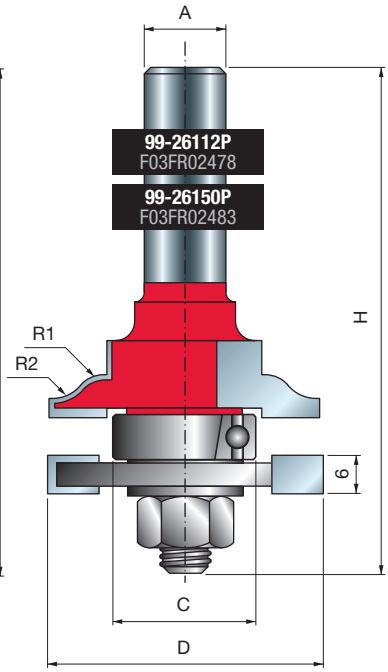
	Spare parts	Dimensions mm	Freud Code	Art. No.
	Hex nut	7,94 x 6,75	**2610M BB9**	F03F010003
	Spacer	18 x 0,1 x 8	**AN01MP0019**	F03FC00392
	Spacer	18 x 0,2 x 8	**AN01MP0029**	F03FC00393
	Spacer	18 x 0,5 x 8	**AN01MP0059**	F03FC00395
	Spacer	18 x 1 x 8	**AN01MP0109**	F03FC00396
	Ball bearing	22 x 8 x 7,1	**3102M AC9**	F03F010008

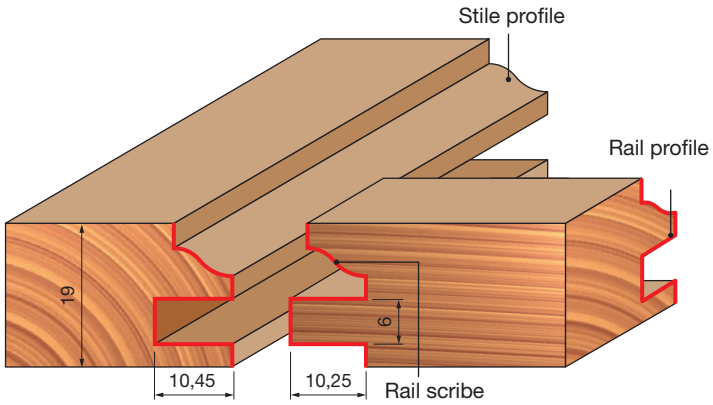


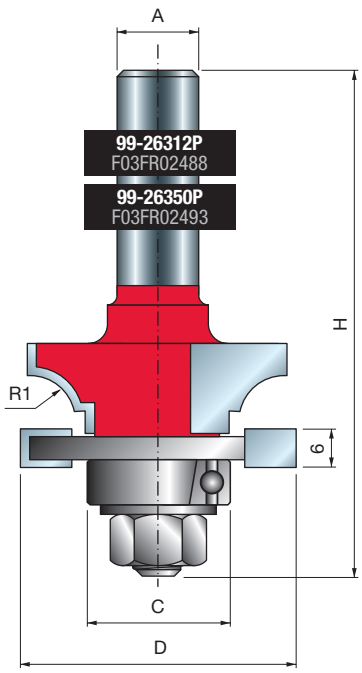


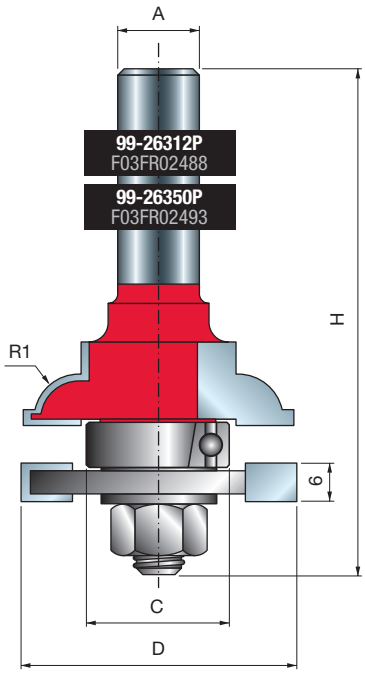


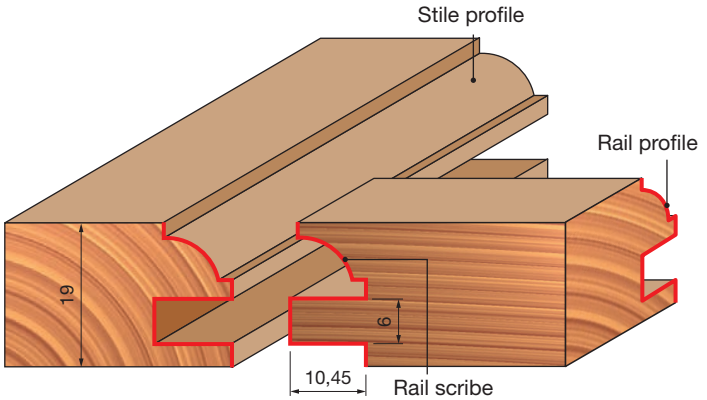

A
99-26112P
F03FR02478
99-26150P
F03FR02483
H
R1
R2
6
C
D


A
99-26112P
F03FR02478
99-26150P
F03FR02483
H
R1
R2
6
C
D


Stile profile
Rail profile
19
6
10,45
10,25
Rail scribe


A
99-26312P
F03FR02488
99-26350P
F03FR02493
H
R1
6
C
D


A
99-26312P
F03FR02488
99-26350P
F03FR02493
H
R1
6
C
D


Stile profile
Rail profile
19
6
10,45
Rail scribe

MATCHED PROFILE AND SCRIBE BITS

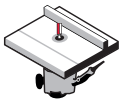


Table Routers



Softwood **Hardwood** **Plywood** **Wood Based Panels**

TiCo Carbide MADE BY freud

Perma-SHIELD COATING

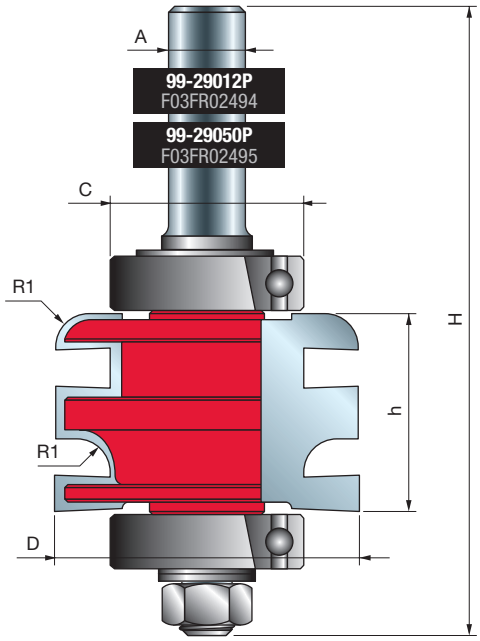
Machines:
Table routers.

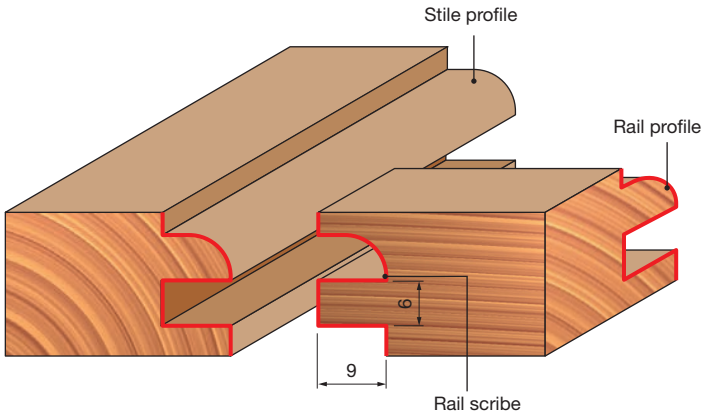
Materials:
Softwood, hardwood, plywood and wood based panels.

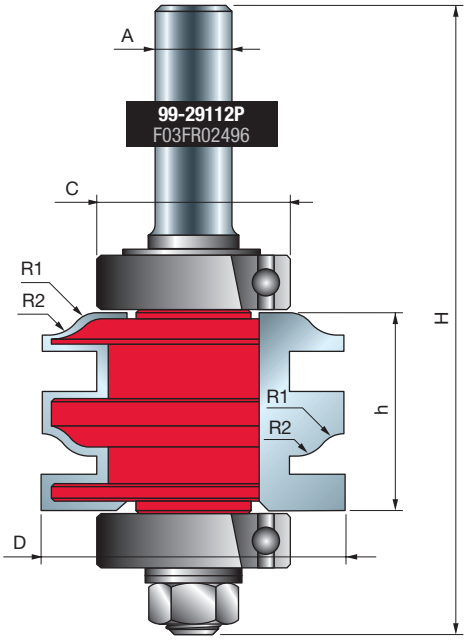
Applications:
A simple, efficient method to create beautiful cabinet doors without having to reconfigure or change cutters or fence settings.

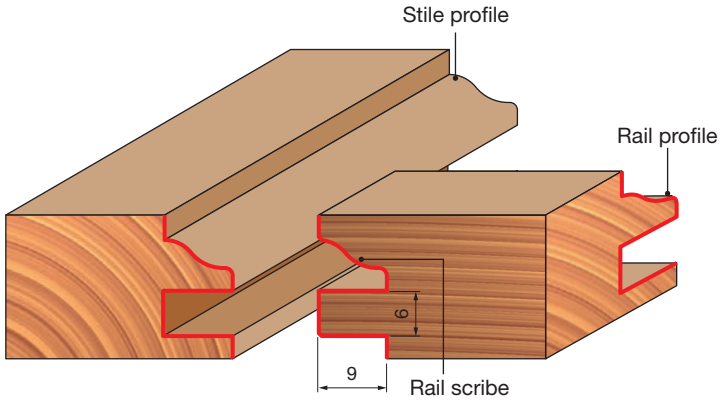
D	h	H	A		R1	R2	C	Z	Max RPM	Freud Code	Art. No.
mm	mm	mm	mm	inch	mm	mm	mm		1/min.		
50,4	32,7	104	12		5,5	-	32	2	14.000	**99-29012P**	F03FR02494
50,4	32,7	104	12		5,5	4,5	32	2	14.000	**99-29112P**	F03FR02496
50,4	32,7	104	12		7	-	32	2	14.000	**99-29312P**	F03FR02498
50,4	32,7	104		1/2	5,5	-	32	2	14.000	**99-29050P**	F03FR02495
50,4	32,7	104		1/2	7	-	32	2	14.000	**99-29350P**	F03FR02499

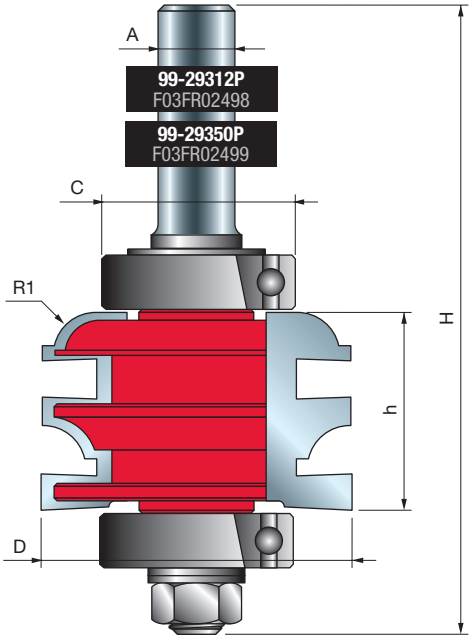
	Spare parts	Dimensions mm	Freud Code	Art. No.
	Hex nut	7,94 x 6,75	**2610M BB9**	F03F010003
	Retaining ring	15 x 13,9	**2621ME 015**	F03FA07444
	Ball bearing	32 x 15 x 9	**3102M AN9**	F03F010016
	Spacer	18 x 1 x 8	**AN01MP0109**	F03FC00396

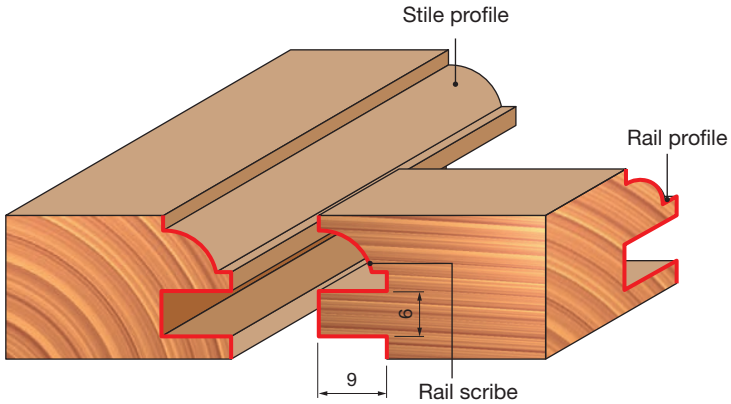





A
99-29112P
F03FR02496
C
R1
R2
H
h
R1
R2
D


Stile profile
Rail profile
6
9
Rail scribe


A
99-29312P
F03FR02498
99-29350P
F03FR02499
C
R1
H
h
D


Stile profile
Rail profile
6
9
Rail scribe

WINDOW ROUTER BITS 99-

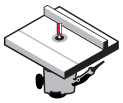


Table Routers



Softwood Hardwood Plywood Wood Based Panels

TiCo Carbide MADE BY freud

Perma-SHIELD COATING

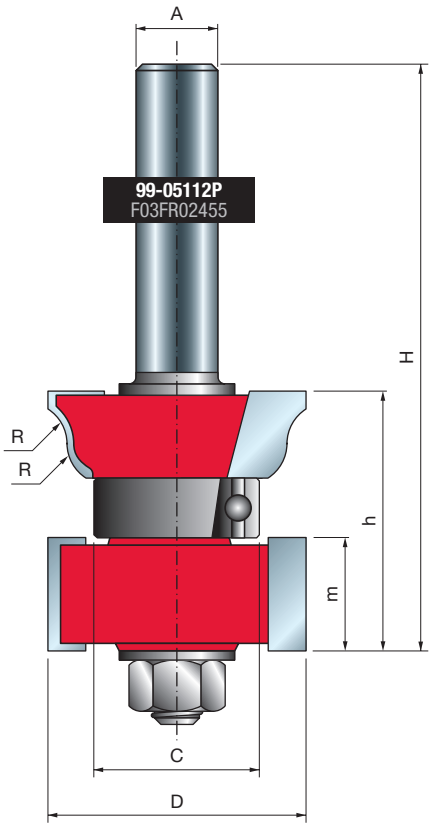
Machines:
Table routers.

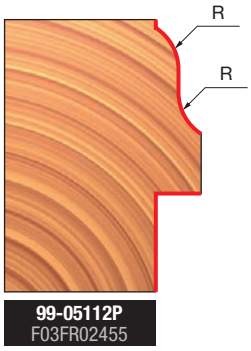
Materials:
Softwood, hardwood, plywood and wood based panels.

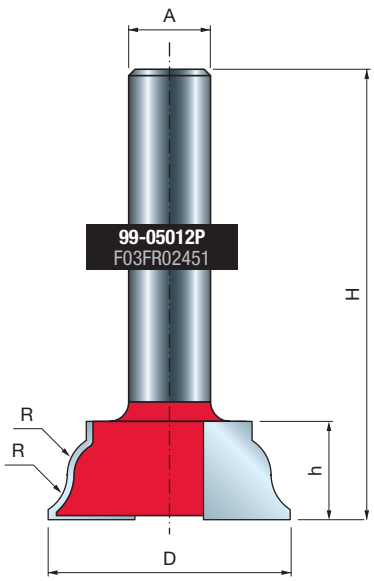
Applications:
The two bits work together to produce a completely divided lite sash.

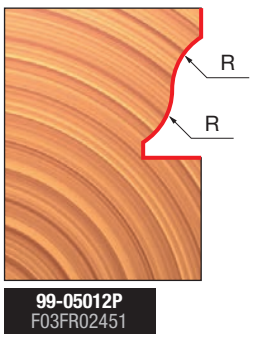
D mm	h mm	H mm	A mm	m mm	C mm	R mm	Z	Max RPM 1/min.	Freud Code	Art. No.
34	35,9	78,4	12	14,5	22	6	2	16.000	**99-05112P**	F03FR02455
38	15,5	53,5	12	-	-	6	2	16.000	**99-05012P**	F03FR02451

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Hex nut	7,94 x 6,75	**2610M BB9**	F03F010003
	Washer	14 x 8,4 x 1,6	**2617M BG9**	F03FR01668
	Ball bearing	22 x 8 x 7,1	**3102M AC9**	F03F010008
	Spacer	18 x 0,1 x 8	**AN01MP0019**	F03FC00392









RAISED PANEL BITS 99-

Machines:
Table routers.

Materials:
Softwood, hardwood, plywood and wood based panels.

Applications:
Create beautiful raised panels for cabinet doors or wall panelling.

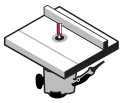
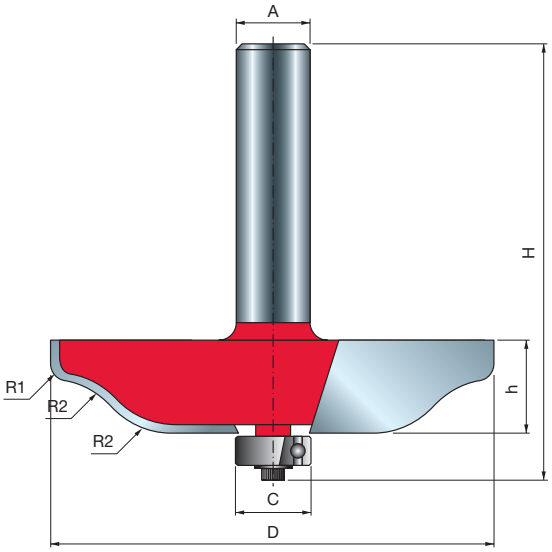


Table Routers



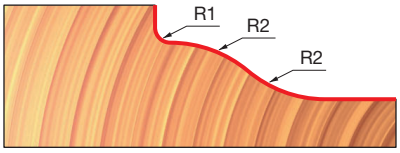
Softwood **Hardwood** **Plywood** **Wood Based Panels**

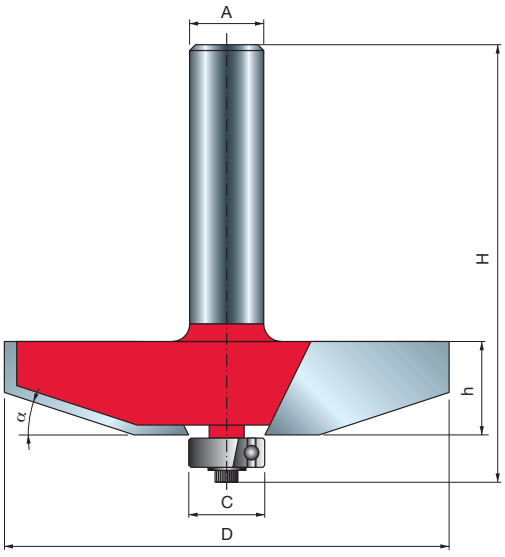


Type A

D mm	h mm	H mm	A mm	A inch	C mm	R1 mm	R2 mm	Z	Max RPM 1/min.	Freud Code	Art. No.
76,2	16	64,7	12		12,7	2	16	2	12.000	**99-22112P**	F03FR02458
70	16	64,5		1/2	12,7	14	3	4	12.000	**99-51050P**	F03FR02504
89	16	64,5		1/2	12,7	20	4	4	10.000	**99-52050P**	F03FR02512

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Screw	M3 x 7,6	**2607M 001**	F03F010000
	Ball bearing	12,7 x 4,98 x 4,76	**3102M AB9**	F03F010007
	Washer	12 x 1,1 x 4,8	**FX07M AB9**	F03F010159

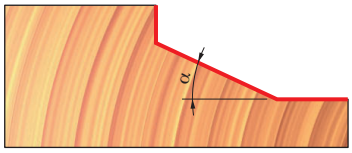


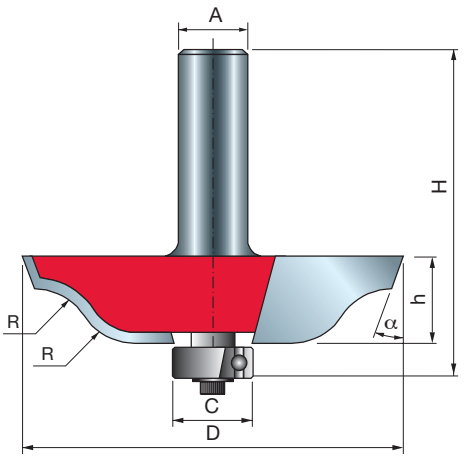


Type B

D mm	h mm	H mm	A mm	A inch	C mm	α	Z	Max RPM 1/min.	Freud Code	Art. No.
63,5	16	60	12		12,7	25°	2	12.000	**99-22212P**	F03FR02459
76,2	16	60	12		12,7	18°	2	12.000	**99-22312P**	F03FR02460
89	16,1	64,5		1/2	12,7	16,5°	4	10.000	**99-51550P**	F03FR02508

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Screw	M3 x 7,6	**2607M 001**	F03F010000
	Ball bearing	12,7 x 4,98 x 4,76	**3102M AB9**	F03F010007
	Washer	12 x 1,1 x 4,8	**FX07M AB9**	F03F010159

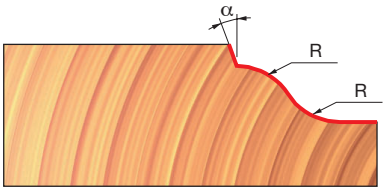


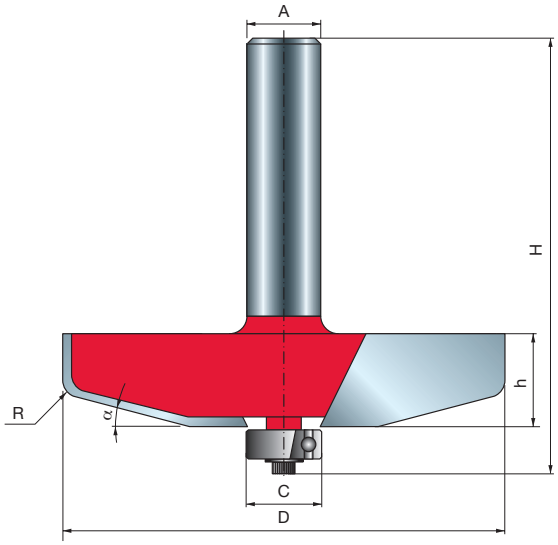


Type C

D mm	h mm	H mm	A inch	C mm	α	R mm	Z	Max RPM 1/min.	Freud Code	Art. No.
70	16	64,5	1/2	12,7	20°	11	4	12.000	**99-51350P**	F03FR02507

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Screw	M3 x 7,6	**2607M 001**	F03F010000
	Ball bearing	12,7 x 4,98 x 4,76	**3102M AB9**	F03F010007
	Washer	12 x 1,1 x 4,8	**FX07M AB9**	F03F010159

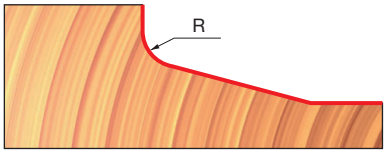


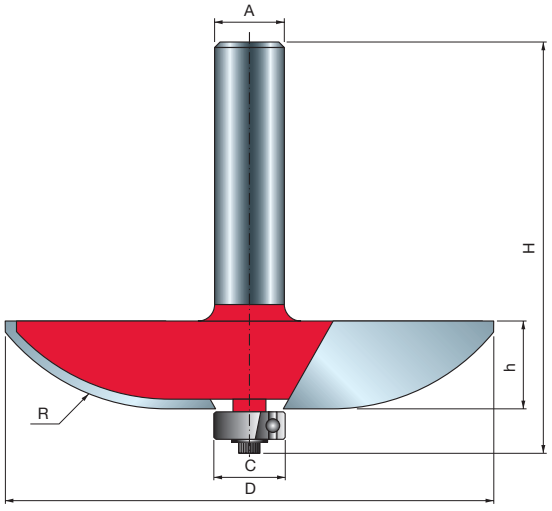


Type D

D mm	h mm	H mm	A mm	C mm	α	R mm	Z	Max RPM 1/min.	Freud Code	Art. No.
76,2	16	60	12	12,7	15°	4,8	2	12.000	**99-22412P**	F03FR02461

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Screw	M3 x 7,6	**2607M 001**	F03F010000
	Ball bearing	12,7 x 4,98 x 4,76	**3102M AB9**	F03F010007
	Washer	12 x 1,1 x 4,8	**FX07M AB9**	F03F010159

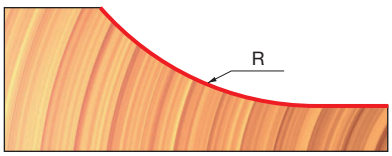




Type E

D mm	h mm	H mm	A mm	A inch	C mm	R mm	Z	Max RPM 1/min.	Freud Code	Art. No.
89	16	64,7	12		12,7	38,1	2	10.000	**99-22512P**	F03FR02462
89	16	64,5		1/2	12,7	38	4	10.000	**99-51850P**	F03FR02510

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Screw	M3 x 7,6	**2607M 001**	F03F010000
	Ball bearing	12,7 x 4,98 x 4,76	**3102M AB9**	F03F010007
	Washer	12 x 1,1 x 4,8	**FX07M AB9**	F03F010159



RAISED PANEL BITS WITH BACK CUTTERS

Machines:
Table routers.

Materials:
Softwood, hardwood, plywood and wood based panels.

Applications:
Create beautiful raised panels for cabinet doors or wall panelling. These raised panel bits include a backcutter that routs a rabbet on the back of the door panel.

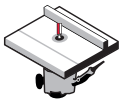


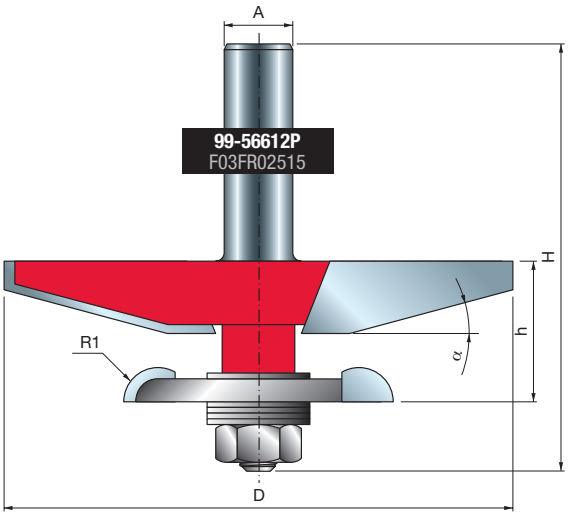
Table Routers

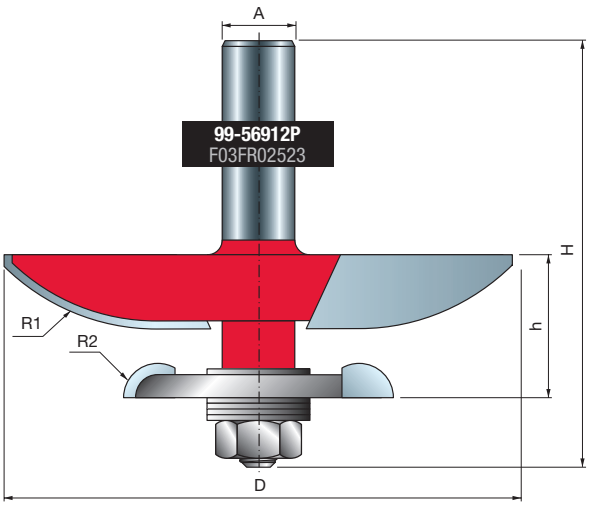


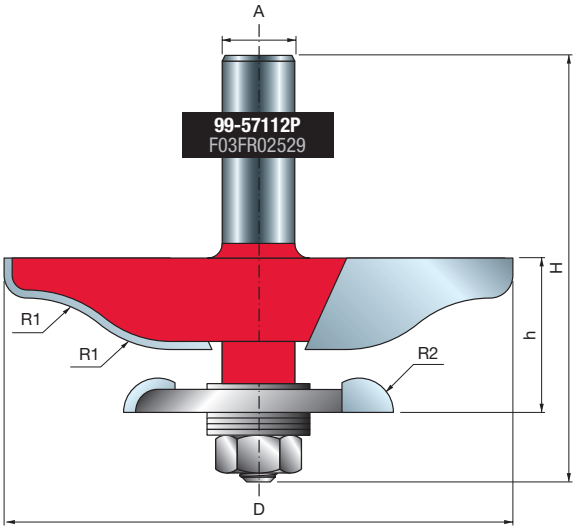
Softwood **Hardwood** **Plywood** **Wood Based Panels**

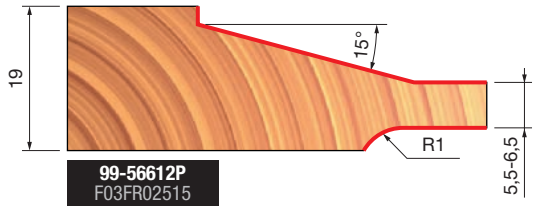
D mm	h mm	H mm	A mm	α	R1 mm	R2 mm	Z	Max RPM 1/min.	Freud Code	Art. No.
89	25	75	12	15°	6	-	2	14.000	**99-56612P**	F03FR02515
89	25	75	12	15°	38	6	2	14.000	**99-56912P**	F03FR02523
89	25	75	12	15°	30	6	2	14.000	**99-57112P**	F03FR02529

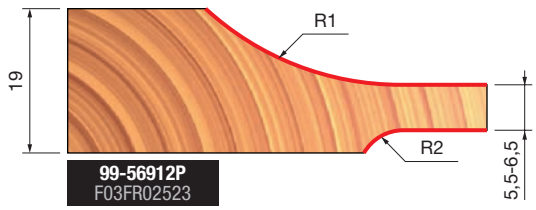
	Spare parts	Dimensions mm	Freud Code	Art. No.
	Hex nut	7,94 x 6,75	**2610M BB9**	F03F010003
	Spacer	18 x 0,1 x 8	**AN01MP0019**	F03FC00392
	Spacer	18 x 0,2 x 8	**AN01MP0029**	F03FC00393
	Spacer	18 x 0,5 x 8	**AN01MP0059**	F03FC00395
	Spacer	18 x 1 x 8	**AN01MP0109**	F03FC00396
	Spacer	18 x 0,15 x 8	**AN01MPAA99**	F03FC00391

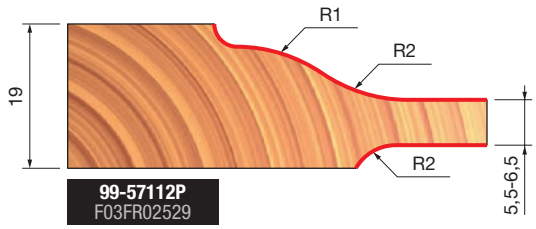


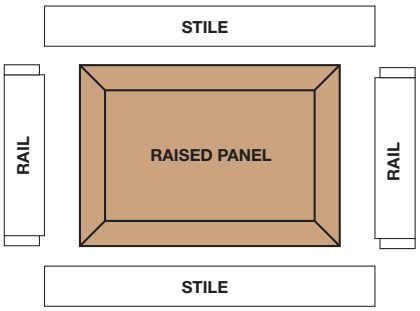












VERTICAL RAISED PANEL BITS 99-

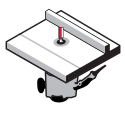
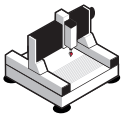


Table Routers



CNC Machines

TiCo Carbide MADE BY freud

Perma-SHIELD COATING



Softwood



Hardwood



Plywood







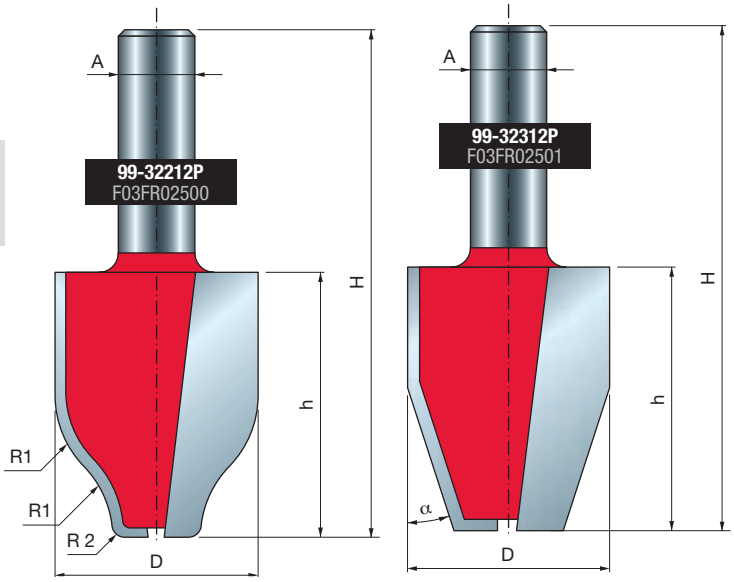
Wood Based Panels

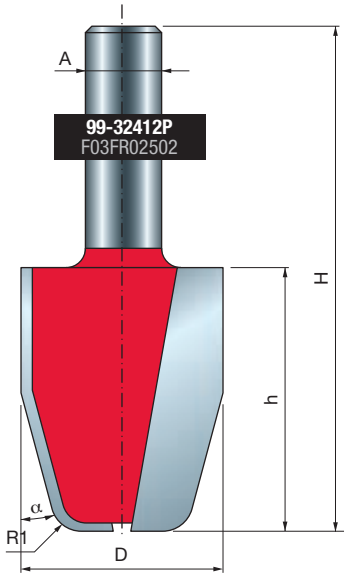
Machines:
Table routers and CNC machines.

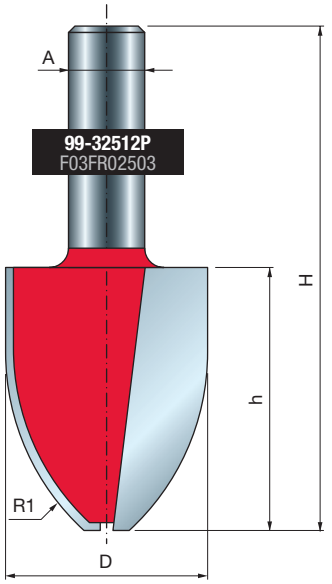
Materials:
Softwood, hardwood, plywood and wood based panels.

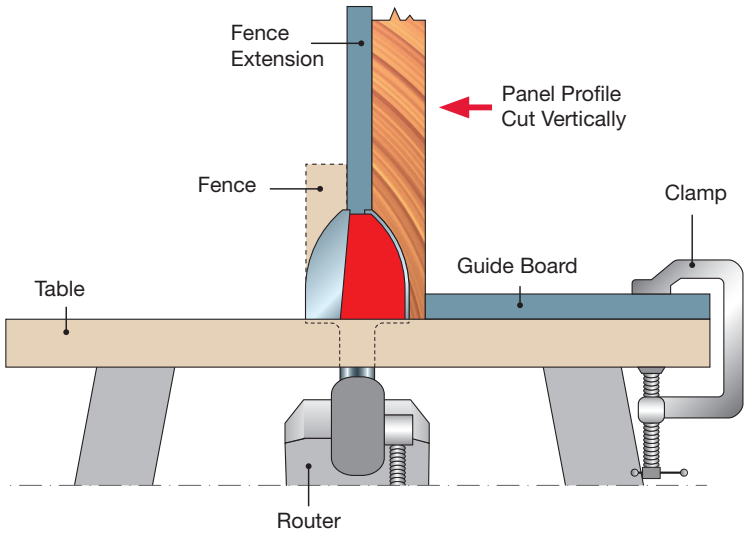
Applications:
Create beautiful raised panels for cabinet doors or wall panelling.

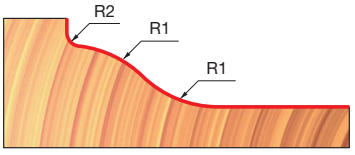
D mm	h mm	H mm	A	α	R1 mm	R2 mm	Z	Max RPM 1/min.	Freud Code	Art. No.
31,8	41,5	79,5	12	-	2	16	2	16.000	**99-32212P**	F03FR02500
31,8	41,5	79,5	12	18°	-	-	2	16.000	**99-32312P**	F03FR02501
31,8	41,5	79,5	12	15°	4,8	-	2	16.000	**99-32412P**	F03FR02502
31,8	41,5	79,5	12	-	38,1	-	2	16.000	**99-32512P**	F03FR02503



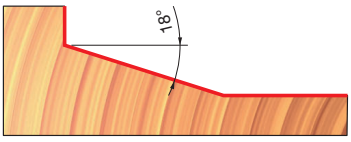




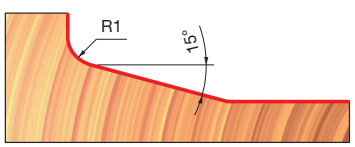




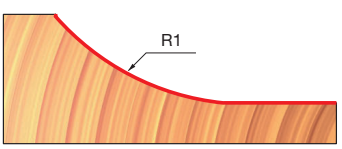
99-32212P
F03FR02500



99-32312P
F03FR02501



99-32412P
F03FR02502



99-32512P
F03FR02503

Surface Forming Bits

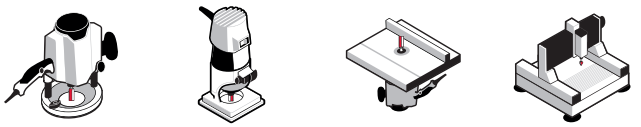


V-GROOVE BITS 20- PI01

Machines:
Hand-held routers, table routers and CNC machines.

Materials:
Softwood, hardwood, plywood and wood based panels.

Applications:
Perfect for V shaped grooves, signmaking, engraving and decorative details.



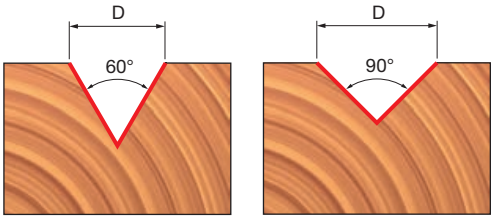
Hand-held Routers | Table Routers | CNC Machines

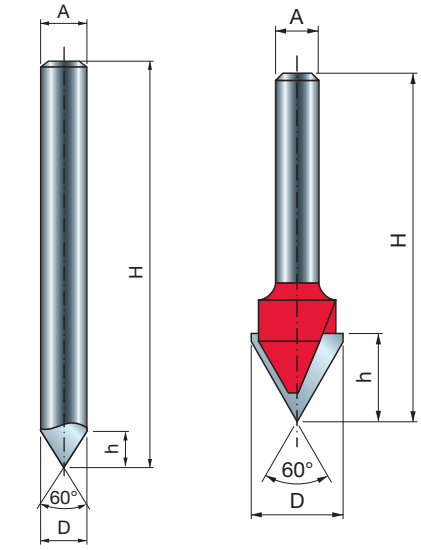


Softwood | Hardwood | Plywood | Wood Based Panels

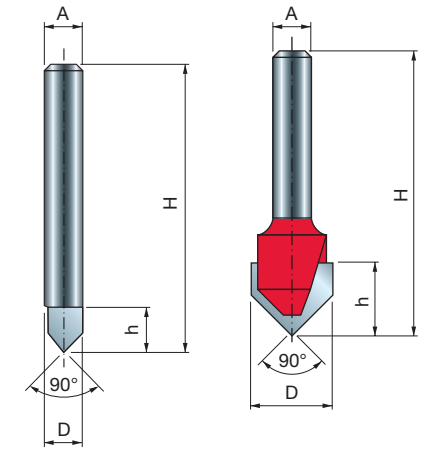
	D mm	h mm	H mm	A mm	A inch	α	Z	Max RPM 1/min.	Freud Code	Art. No.
•	6	6	38,1	6		90°	1	24.000	**20-10006P**	F03FR01617
	9,5	10	44,4	6		90°	2	24.000	**20-10206P**	F03FR01619
	12,7	10	44,4	6		90°	2	24.000	**20-10406P**	F03FR01622
	12,7	12,7	49,2	6		60°	2	24.000	**20-15206P**	F03FR01629
	12,7	11	57,3	6		60°	3	24.000	**20-15406P**	F03FR01632
•	6	6	38,1	8		90°	1	24.000	**20-10008P**	F03FR01618
•	8	6	70	8		60°	1	30.000	**PI01MD6083**	F03FR00382
•	8	8	70	8		60°	1	24.000	**20-16008P**	F03FR01634
	9,5	10	44,4	8		90°	2	24.000	**20-10208P**	F03FR01620
	12,7	10	44,4	8		90°	2	24.000	**20-10408P**	F03FR01623
	12,7	12,7	50,8	8		60°	2	24.000	**20-15208P**	F03FR01630
	12,7	11	54	8		60°	3	24.000	**20-15408P**	F03FR01633
	31,75	16	51	8		90°	2	24.000	**20-91408P**	F03FR02857
	15,88	12,5	56,5	12		90°	2	24.000	**20-10612P**	F03FR01625
	19,05	12,5	57,2	12		90°	2	24.000	**20-10812P**	F03FR01626
	9,53	10	44,4		1/4	90°	2	24.000	**20-10225P**	F03FR01621
	12,7	10	44,4		1/4	90°	2	24.000	**20-10425P**	F03FR01624
•	12,7	12,7	47,5		1/4	60°	2	24.000	**20-15225P**	F03FR01631
	12,7	12,7	54,7		1/2	90°	2	24.000	**20-10950P**	F03FR01628

• Solid Carbide Bit

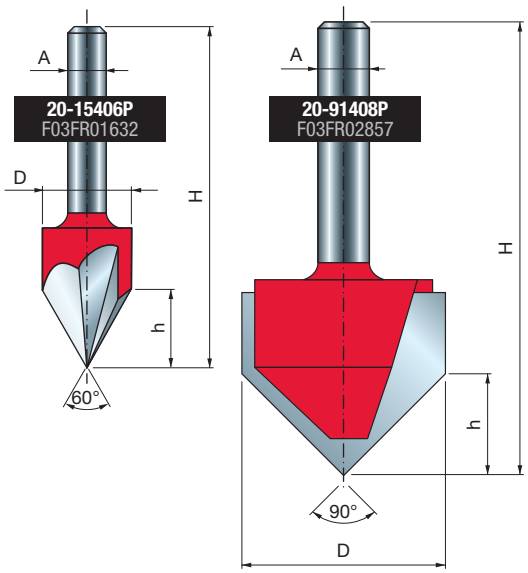




• Solid Carbide Bit

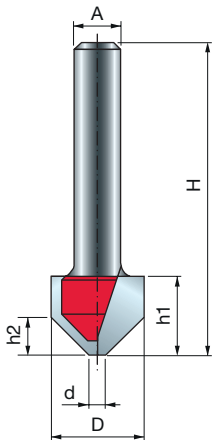


• Solid Carbide Bit



V-GROOVE BITS FOR ACM PANEL FOLDING

21-



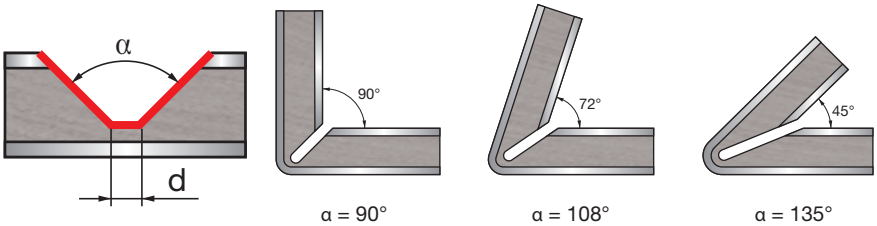


Hand-held Routers | Table Routers | CNC Machines



ACM | Softwood | Hardwood | Plywood | Wood Based Panels

D mm	h1 mm	h2 mm	H mm	A mm	A inch	d mm	α	Z	Max RPM 1/min.	Freud Code	Art. No.
16	12,5	6,8	50,8	6		2,5	90°	2	24.000	**21-11206P**	F03FR04018
19,05	12,5	6	50,8	6		2,5	108°	2	24.000	**21-14606P**	F03FR04021
22,23	12,5	4,2	50,8	6		2,29	135°	2	24.000	**21-18206P**	F03FR04024
16	12,5	6,8	50,8	8		2,5	90°	2	24.000	**21-11208P**	F03FR04019
19,05	12,5	6	50,8	8		2,5	108°	2	24.000	**21-14608P**	F03FR04022
22,23	12,5	4,2	50,8	8		2,29	135°	2	24.000	**21-18208P**	F03FR04025
12,7	10,8	5,2	50,8		1/4	2,29	90°	2	24.000	**21-11025P**	F03FR04017
16	12,7	6,8	50,8		1/4	2,5	90°	2	24.000	**21-11225P**	F03FR04020
19,05	12,7	6	50,8		1/4	2,5	108°	2	24.000	**21-14625P**	F03FR04023
22,23	12,7	4,2	50,8		1/4	2,29	135°	2	24.000	**21-18225P**	F03FR04026



α = 90° | α = 108° | α = 135°

TiCo Carbide MADE BY freud | Perma-SHIELD COATING

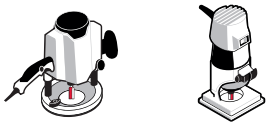
Machines:
Hand-held routers, table routers and CNC machines.

Materials:
ACM (Aluminium Composite Material) panels, softwood, hardwood, plywood and wood based panels.

Applications:
Designed to create a V groove on ACM panels, ensuring an easy bending of the panel without fractures.

RECTANGULAR GROOVE BITS FOR ACM PANEL FOLDING

21-

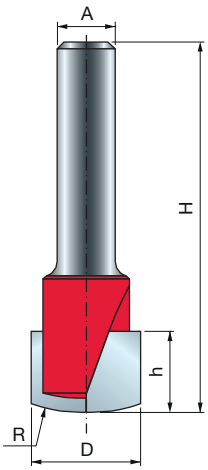


Hand-held Routers | Table Routers | CNC Machines



ACM | Softwood | Hardwood | Plywood | Wood Based Panels

D mm	h mm	H mm	A mm	A inch	R mm	Z	Max RPM 1/min.	Freud Code	Art. No.
15,88	11	50	8		23,8	2	24.000	**21-20008P**	F03FR03967
15,88	11	50,8		1/4	23,8	2	24.000	**21-20025P**	F03FR03963

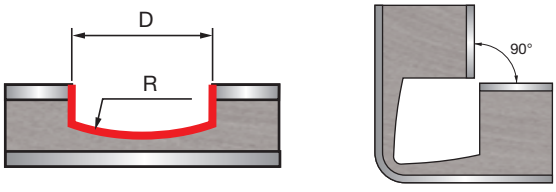


TiCo Carbide MADE BY freud | Perma-SHIELD COATING

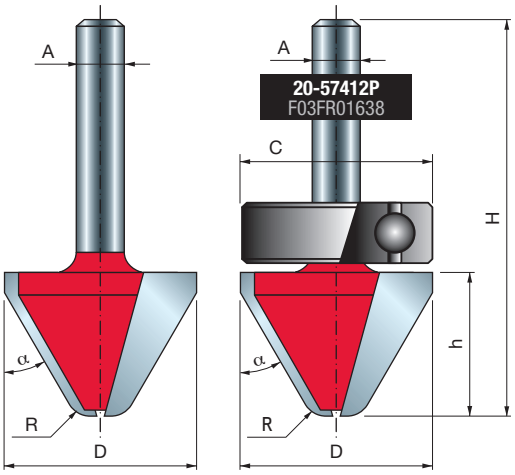
Machines:
Hand-held routers, table routers and CNC machines.

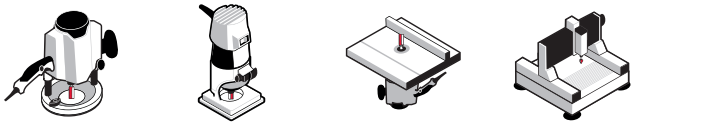
Materials:
ACM (Aluminium Composite Material) panels, softwood, hardwood, plywood and wood based panels.

Applications:
Designed to create a rectangular groove on thick ACM panels, ensuring an easy bending of the panel without fractures.



LETTERING BITS





Hand-held Routers | Table Routers | CNC Machines



Softwood | Hardwood | Plywood | Wood Based Panels

TiCo Carbide MADE BY freud

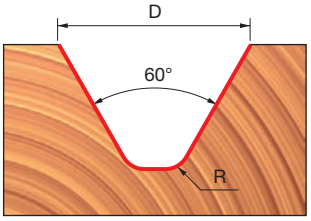
Perma-SHIELD COATING

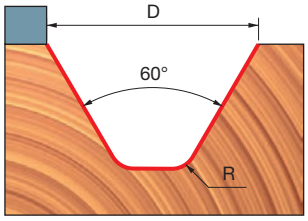
Machines:
Hand-held routers, table routers and CNC machines.
Bits with ball bearing are not recommended to be used on CNC machines.

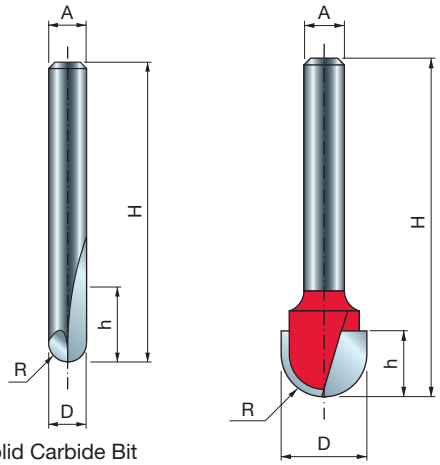
Materials:
Softwood, hardwood, plywood and wood based panels.

Applications:
Produce a 60° angle V shape groove with a flat bottom for highly readable relief lettering.

D mm	h mm	H mm	A mm	C mm	R mm	α	Z	Max RPM 1/min.	Freud Code	Art. No.
25,4	19	51,05	6	-	3	60°	2	24.000	**20-17206P**	F03FR01635
25,4	19	51,05	8	-	3	60°	2	24.000	**20-17208P**	F03FR01636
28,57	19	57	12	-	3	60°	2	18.000	**20-17412P**	F03FR01637
28	19	67,15	12	28	3	60°	2	18.000	**20-57412P**	F03FR01638







• Solid Carbide Bit



Hand-held Routers | Table Routers | CNC Machines

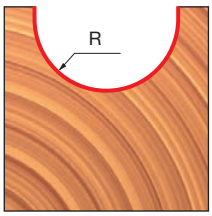


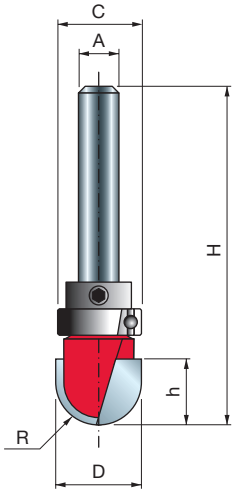
Softwood | Hardwood | Plywood | Wood Based Panels

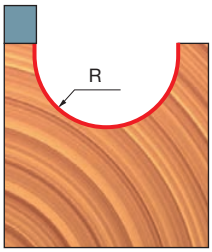
Machines:
Hand-held routers, table routers and CNC machines.
Bits with ball bearing are not recommended to be used on CNC machines.

Materials:
Softwood, hardwood, plywood and wood based panels.

Applications:
Perform beautiful semicircular engraved grooves in the workpiece.







	D mm	h mm	H mm	A mm	A inch	R mm	Z	Max RPM 1/min.	Freud Code	Art. No.
•	3,2	9,5	50,5	6		1,6	2	24.000	**18-10006P**	F03FR01581
•	4,8	9,5	50,5	6		2,4	2	24.000	**18-10206P**	F03FR01584
•	6	12,7	50,8	6		3	2	24.000	**18-10406P**	F03FR01587
	9,52	9	46	6		4,8	2	24.000	**18-10606P**	F03FR01590
	12	9	46	6		6	2	24.000	**18-10806P**	F03FR01593
	15,88	11	50,8	6		8	2	24.000	**18-11006P**	F03FR01596
	19,05	11	50,8	6		9,5	2	24.000	**18-11206P**	F03FR01599
•	3,2	9,5	50,5	8		1,6	2	24.000	**18-10008P**	F03FR01582
•	4,8	9,5	50,5	8		2,4	2	24.000	**18-10208P**	F03FR01585
•	6	12,7	50,8	8		3	2	24.000	**18-10408P**	F03FR01588
	9,52	9	46	8		4,8	2	24.000	**18-10608P**	F03FR01591
	12	9	46	8		6	2	24.000	**18-10808P**	F03FR01594
	15,88	11	50,8	8		8	2	24.000	**18-11008P**	F03FR01597
	19,05	11	50,8	8		9,5	2	24.000	**18-11208P**	F03FR01600
•	6	9,5	57	12		3	2	24.000	**18-11412P**	F03FR01602
	12,7	31,7	71,5	12		6,35	2	24.000	**18-11612P**	F03FR01604
	19,05	31,7	73	12		9,5	2	24.000	**18-12212P**	F03FR01606
	25,4	31,7	73	12		12,7	2	24.000	**18-12612P**	F03FR01608
•	3,18	9,5	50,5		1/4	1,59	2	24.000	**18-10025P**	F03FR01583
•	4,76	6,4	50,5		1/4	2,38	2	24.000	**18-10225P**	F03FR01586
•	6,35	12,7	50,5		1/4	3,18	2	24.000	**18-10425P**	F03FR01589
	9,52	9	45		1/4	4,77	2	24.000	**18-10625P**	F03FR01592
	12,7	9	45,5		1/4	6,35	2	24.000	**18-10825P**	F03FR01595
	15,88	11	48		1/4	7,94	2	24.000	**18-11025P**	F03FR01598
	19,05	11	48		1/4	9,53	2	24.000	**18-11225P**	F03FR01601
	6,35	12,7	61		1/2	3,18	2	24.000	**18-11450P**	F03FR01603
	12,7	31,7	72,7		1/2	6,35	2	24.000	**18-11650P**	F03FR01605
	19	31,7	73		1/2	9,5	2	24.000	**18-12250P**	F03FR01607

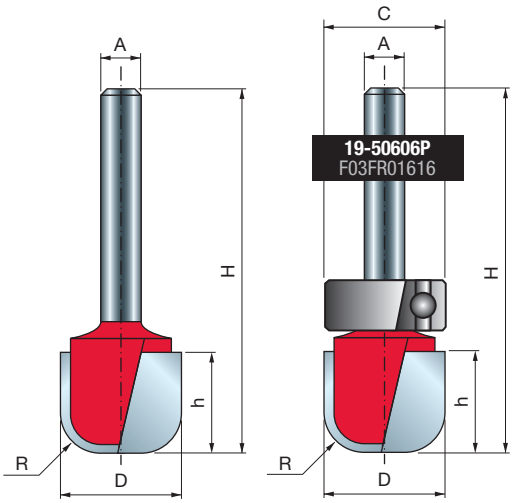
• Solid Carbide Bits

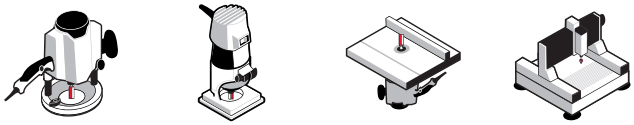
Bits with ball bearing (not suitable for CNC machines)

D mm	h mm	H mm	A mm	R mm	C mm	Z	Max RPM 1/min.	Freud Code	Art. No.
15,88	11	59,5	6	8	15,8	2	24.000	**18-51006P**	F03FR01609
19,05	11,1	59,5	6	9,5	19	2	24.000	**18-51206P**	F03FR01611
15,88	11	59,5	8	8	15,8	2	24.000	**18-51008P**	F03FR01610
19,05	11	59,5	8	9,5	19,05	2	24.000	**18-51208P**	F03FR01612

WOOD BOWL BITS

19- 99-



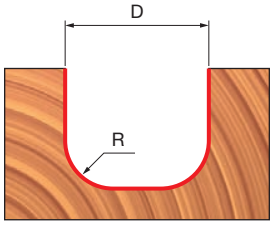


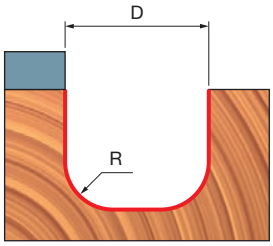
Hand-held Routers | Table Routers | CNC Machines



Softwood | Hardwood | Plywood | Wood Based Panels

D mm	h mm	H mm	A mm	R mm	C mm	Z	Max RPM 1/min.	Freud Code	Art. No.
19	15,9	64,1	6	6,35	19	2	24.000	**19-50606P**	F03FR01616
19,05	15,9	47,5	6	6,35	-	2	24.000	**19-10606P**	F03FR01613
19,05	15,9	47,5	8	6,35	-	2	24.000	**19-10608P**	F03FR01614
19,05	15,9	67	12	6,35	-	2	24.000	**19-12612P**	F03FR01615
31,75	15,8	53	12	6,35	-	2	18.000	**99-02612P**	F03FR02420

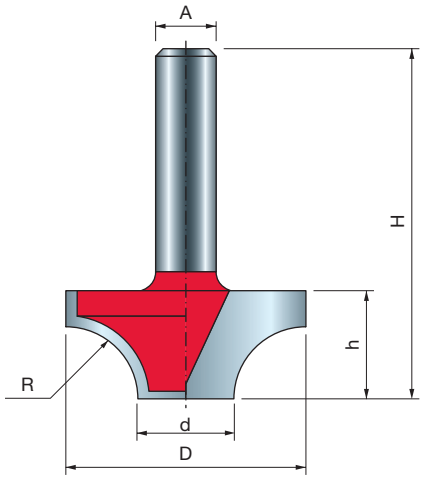


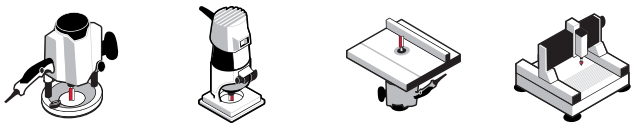


Machines:
Hand-held routers, table routers and CNC machines.
Bits with ball bearing are not recommended to be used on CNC machines.

Materials:
Softwood, hardwood, plywood and wood based panels.

Applications:
Perform beautiful bowl shaped engraved grooves with a flat bottom in the workpiece.







TiCo Carbide MADE BY freud

Perma-SHIELD COATING

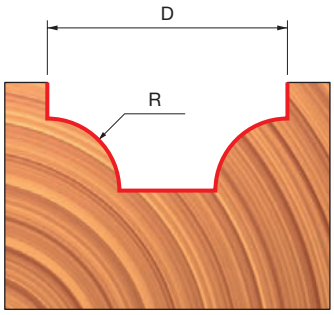
Machines:
Hand-held routers, table routers and CNC machines.

Material:
Softwood, hardwood, plywood and wood based panels.

Applications:
Create decorative grooves in moulding and furniture.

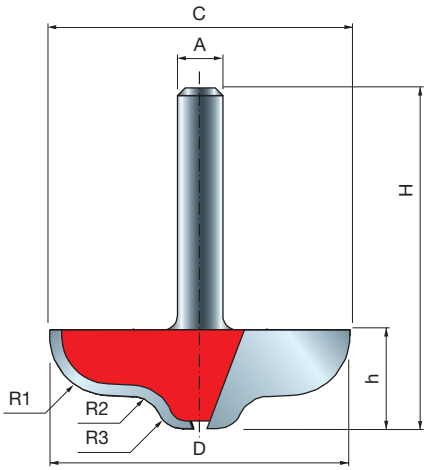
D mm	h mm	H mm	A mm	R mm	d mm	Z	Max RPM 1/min.	Freud Code	Art. No.
12,7	8	40	6	3,2	6,35	2	24.000	**39-20206P**	F03FR01871
24,7	12,7	44,7	8	6	12,7	2	24.000	**39-20908P**	F03FR01873
31,75	14,3	46,3	8	9,53	12,7	2	18.000	**39-20808P**	F03FR01872
63,5	33,3	71,3	12	25,4	12,7	2	12.000	**39-23812P***	F03FR01874

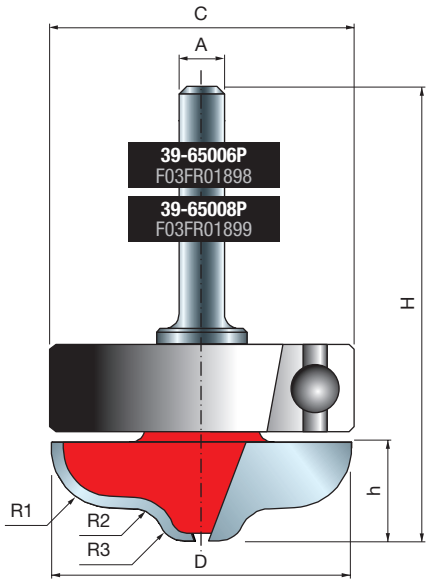
* Not suitable for hand-held machines



DOUBLE COVE AND BEAD GROOVE BITS

39-







Hand-held Routers

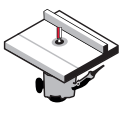
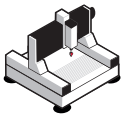


Table Routers

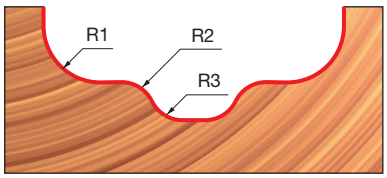


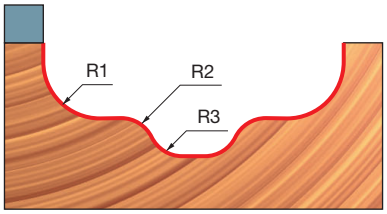
CNC Machines



Softwood | Hardwood | Plywood | Wood Based Panels

D mm	h mm	H mm	A mm	C mm	R1 mm	R2 mm	R3 mm	Z	Max RPM 1/min.	Freud Code	Art. No.
39,6	13	45	6	-	7,9	4,2	3,4	2	16.000	**39-60006P**	F03FR01896
39,6	13	60,1	6	39,6	7,9	4,2	3,4	2	16.000	**39-65006P**	F03FR01898
39,6	13	45	8	-	7,9	4,2	3,4	2	16.000	**39-60008P**	F03FR01897
39,6	13	60,1	8	39,6	7,9	4,2	3,4	2	16.000	**39-65008P**	F03FR01899





TiCo Carbide MADE BY freud

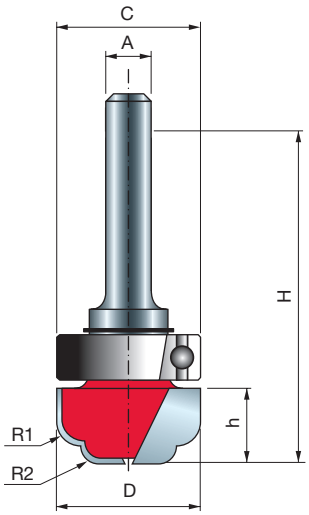
Perma-SHIELD COATING

Machines:
Hand-held routers, table routers and CNC machines.
Bits with ball bearing are not recommended to be used on CNC machines.

Materials:
Softwood, hardwood, plywood and wood based panels.

Applications:
Create decorative grooves in moulding and furniture.

TOP BEARING DOUBLE COVE GROOVE BIT 39-



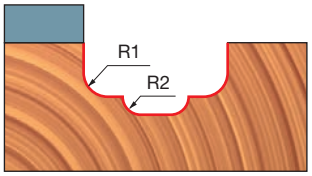


Hand-held Routers | Table Routers



Softwood | Hardwood | Plywood | Wood Based Panels

D mm	h mm	H mm	A mm	C mm	R1 mm	R2 mm	Z	Max RPM 1/min.	Freud Code	Art. No.
19	9,6	53	6	19	3,2	2,4	2	24.000	**39-51206P**	F03FR01887

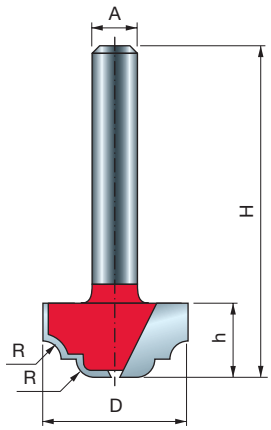


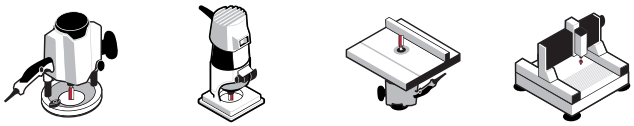
Machines:
Hand-held routers and table routers.

Materials:
Softwood, hardwood, plywood and wood based panels.

Applications:
Use with templates to create decorative grooves in moulding and furniture.

COVE AND BEAD GROOVE BITS 39-



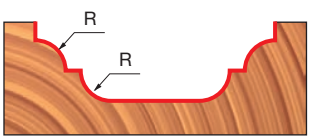


Hand-held Routers | Table Routers | CNC Machines



Softwood | Hardwood | Plywood | Wood Based Panels

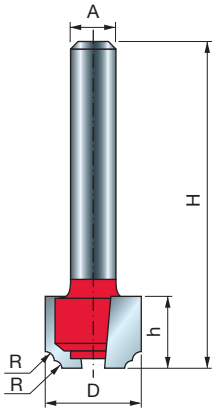
D mm	h mm	H mm	A mm	A inch	R mm	Z	Max RPM 1/min.	Freud Code	Art. No.
19,05	9,8	41,8	6		2,38	2	24.000	**39-10006P**	F03FR01856
25,4	12,7	44,7	6		3,18	2	24.000	**39-10206P**	F03FR01860
19,05	9,8	41,8	8		2,38	2	24.000	**39-10008P**	F03FR01857
19	12,7	44,7	8		4	2	24.000	**39-10108P**	F03FR01859
25,4	12,7	44,7	8		3,18	2	24.000	**39-10208P**	F03FR01861
31,75	12,7	44,7	8		4	2	18.000	**39-11408P**	F03FR01863
31,75	12,7	50,7	12		4	2	18.000	**39-11412P**	F03FR01864
19,05	9,8	41,8		1/4	2,38	2	24.000	**39-10025P**	F03FR01858
25,4	12,7	44,7		1/4	3,18	2	24.000	**39-10225P**	F03FR01862



Machines:
Hand-held routers, table routers and CNC machines.

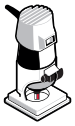
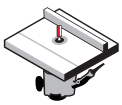
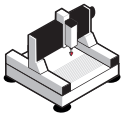
Materials:
Softwood, hardwood, plywood and wood based panels.

Applications:
Create decorative grooves in moulding and furniture.



CLASSICAL BEADING GROOVE BITS

39-

Hand-held Routers | Table Routers | CNC Machines



Softwood | Hardwood | Plywood | Wood Based Panels

TiCo Carbide MADE BY freud

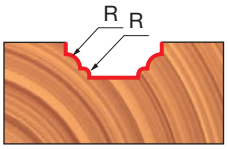
Perma-SHIELD COATING

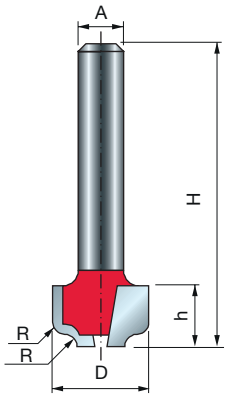
Machines:
Hand-held routers, table routers and CNC machines.

Materials:
Softwood, hardwood, plywood and wood based panels.

Applications:
Create decorative grooves in moulding and furniture.

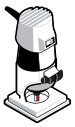
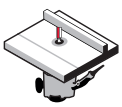
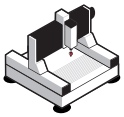
D mm	h mm	H mm	A mm	A inch	R mm	Z	Max RPM 1/min.	Freud Code	Art. No.
12,7	9,5	41,2	6		1,2	2	24.000	**39-30206P**	F03FR01878
15,88	9,5	41,2	6		2,38	2	24.000	**39-30406P**	F03FR01881
22,22	12	43,7	6		3,18	2	24.000	**39-30606P**	F03FR01884
12,7	9,5	41,2	8		1,2	2	24.000	**39-30208P**	F03FR01879
15,88	9,5	41,2	8		2,38	2	24.000	**39-30408P**	F03FR01882
22,22	12	43,7	8		3,2	2	24.000	**39-30608P**	F03FR01885
12,7	9,5	41,2		1/4	1,2	2	24.000	**39-30225P**	F03FR01880
15,88	9,5	41,2		1/4	2,38	2	24.000	**39-30425P**	F03FR01883
22,22	12	43,7		1/4	3,18	2	24.000	**39-30625P**	F03FR01886





OGEE GROOVE BITS

39-

Hand-held Routers | Table Routers | CNC Machines



Softwood | Hardwood | Plywood | Wood Based Panels

TiCo Carbide MADE BY freud

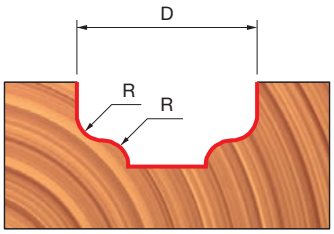
Perma-SHIELD COATING

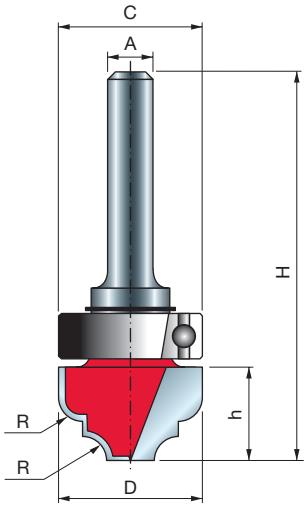
Machines:
Hand-held routers, table and CNC machines.

Materials:
Softwood, hardwood, plywood and wood based panels.

Applications:
Create decorative grooves in moulding and furniture.

D mm	h mm	H mm	A mm	A inch	R mm	Z	Max RPM 1/min.	Freud Code	Art. No.
12,7	8	40	6		1,59	2	24.000	**39-15206P**	F03FR01865
19,05	12,7	44,7	6		6,35	2	24.000	**39-24006P**	F03FR01875
22,23	10,36	42,4	6		3,18	2	24.000	**39-15406P**	F03FR01868
12,7	8	40	8		1,6	2	24.000	**39-15208P**	F03FR01866
19,05	12,7	44,7	8		6,4	2	24.000	**39-24008P**	F03FR01876
22,23	10,36	42,4	8		3,2	2	24.000	**39-15408P**	F03FR01869
19,05	12,7	50,7	12		6,4	2	24.000	**39-24012P**	F03FR01877
12,7	8	40		1/4	1,59	2	24.000	**39-15225P**	F03FR01867
22,23	10,4	42,4		1/4	3,18	2	24.000	**39-15425P**	F03FR01870





TiCo Carbide MADE BY freud

Perma-SHIELD COATING

Machines:
Hand-held routers and table routers.

Materials:
Softwood, hardwood, plywood and wood based panels.

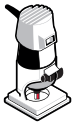
Applications:
Use with templates to create decorative grooves in moulding and furniture.

TOP BEARING COVE AND BEAD GROOVE BITS

39-



Hand-held Routers



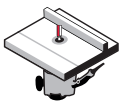
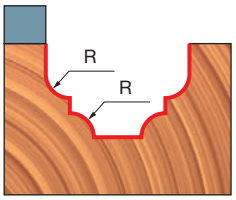


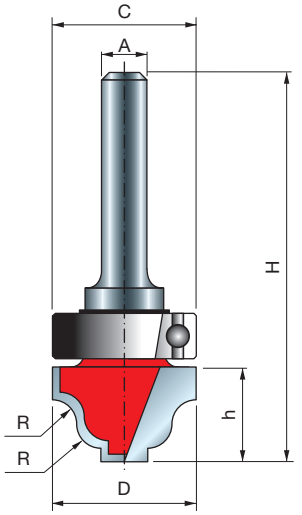
Table Routers



Softwood Hardwood Plywood Wood Based Panels

D mm	h mm	H mm	A mm	A inch	C mm	R mm	Z	Max RPM 1/min.	Freud Code	Art. No.
19	12,7	55,5	6		19	3,18	2	24.000	**39-53206P**	F03FR01892
28	14	58,1	8		28	3,18	2	18.000	**39-53808P**	F03FR01894
28	14	64,1	12		28	3,18	2	18.000	**39-53812P**	F03FR01895
19	12,7	55,5		1/4	19	3,18	2	24.000	**39-53225P**	F03FR01893





TiCo Carbide MADE BY freud

Perma-SHIELD COATING

Machines:
Hand-held routers and table routers.

Materials:
Softwood, hardwood, plywood and wood based panels.

Applications:
Use with templates to create decorative grooves in moulding and furniture.

TOP BEARING FILLET OGEE GROOVE BITS

39-



Hand-held Routers



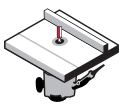
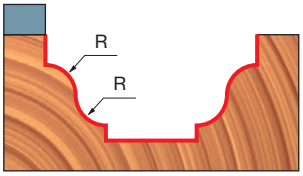


Table Routers

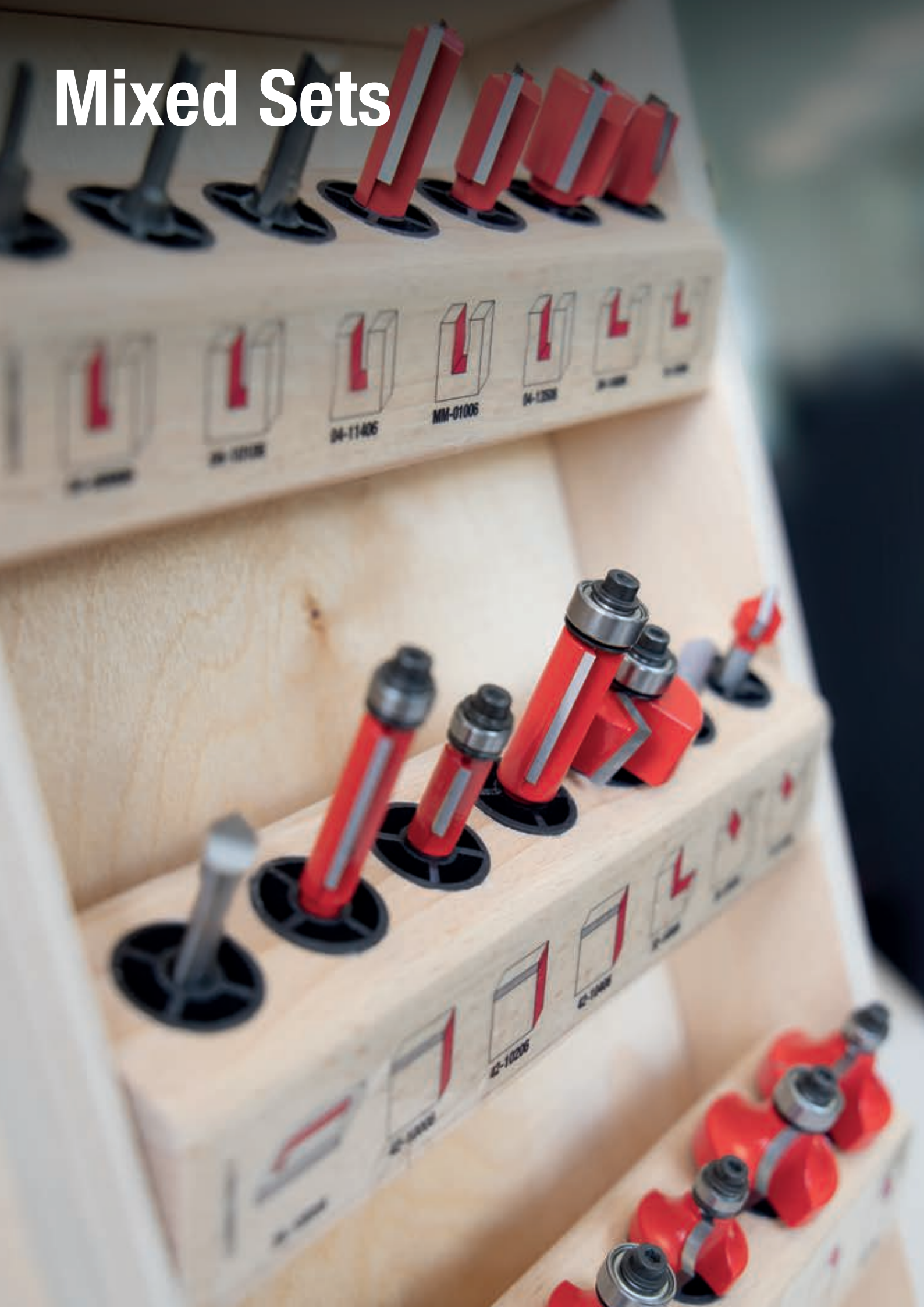


Softwood Hardwood Plywood Wood Based Panels

D mm	h mm	H mm	A mm	A inch	C mm	R mm	Z	Max RPM 1/min.	Freud Code	Art. No.
19	12,5	55,5	6		19	3,18	2	24.000	**39-52206P**	F03FR01888
28	14,4	58,1	8		28	4	2	18.000	**39-52808P**	F03FR01890
28	14,4	64,1	12		28	4	2	18.000	**39-52812P**	F03FR01891
19	12,5	55,5		1/4	19	3,18	2	24.000	**39-52225P**	F03FR01889



Mixed Sets

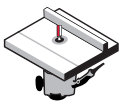
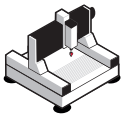




BASIC SET 4 ROUTER BITS

88-10606P (F03FR02255)



Hand-held Routers | Table Routers | CNC Machines*








Softwood | Hardwood | Plywood | Wood Based Panels

Set code 88-10606P (F03FR02255)

Bit type	Page reference	D mm	h mm	H mm	A mm	C mm	R mm	Z	Max RPM 1/min.	Freud Code	Art. No.
• Double flute straight bit	244	6	16	50,8	6	-	-	2	24.000	**04-11406P**	F03FR01440
Flush trim bit	252	12,7	25,7	72,9	6	12,7	-	2	24.000	**42-10406P**	F03FR01938
Roman ogee bit	261	27	13,3	55,3	6	9,53	4	2	18.000	**38-10006P**	F03FR01805
Rounding over bit	256	31,75	18	59,7	6	12,7	9,53	2	18.000	**34-11406P**	F03FR01780

• Solid Carbide Bit

TiCo Carbide MADE BY freud

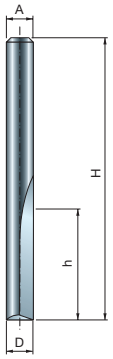
Perma-SHIELD COATING

Additional spare parts included

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Allen key	2,5	**2619M CA9**	F03FA07432
	Ball bearing	9,53 x 3,2 x4,76	**3102M AA9P**	F03F010006
	Washer	9 x 2 x 6	**FX07M AA9P**	F03F010158

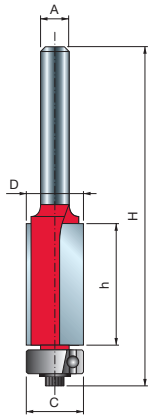
Machines:
To identify the correct machine for each router bit, refer to the corresponding page reference of each router bit.

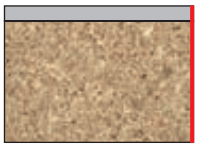
Materials:
Softwood, hardwood, plywood and wood based panels.



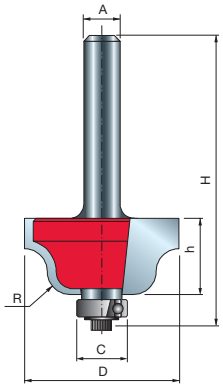


04-11406P
F03FR01440



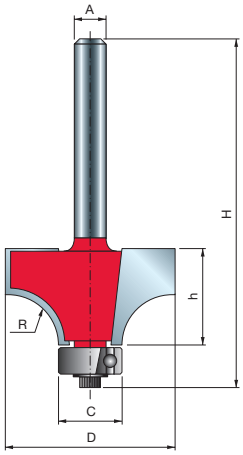


42-10406P
F03FR01938





38-10006P
F03FR01805



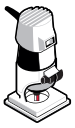
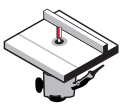
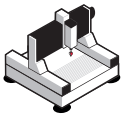


34-11406P
F03FR01780



STARTER 6 PIECE ROUTER BIT SET

91-10408P (F03FR02293)
91-10412P (F03FR02294)

Hand-held Routers | Table Routers | CNC Machines*








Softwood | Hardwood | Plywood | Wood Based Panels

Set code 91-10408P (F03FR02293)

Bit type	Page reference	D mm	h mm	H mm	A mm	C mm	P mm	α	R mm	Z	Max RPM 1/min.	Freud Code	Art. No.
Rabbeting bit	282	31,75	13,2	55,7	8	12,7	9,52	-	-	2	18.000	**32-10008P**	F03FR01746
Chamfer bit	257	44	18,5	61	8	12,7	-	45°	-	2	16.000	**40-10608P**	F03FR01920
Rounding over bit	256	31,75	18	59,7	8	12,7	-	-	9,5	2	18.000	**34-11408P**	F03FR01781
Round nose bit	307	12	9	46	8	-	-	-	6	2	24.000	**18-10808P**	F03FR01594
Cove bit	258	38,1	16,4	58,9	8	12,7	-	-	12,7	2	16.000	**30-10608P**	F03FR01707
Roman ogee bit	261	35	18,5	60,5	8	9,53	-	-	6,35	2	16.000	**38-10208P**	F03FR01809

Set code 91-10412P (F03FR02294)

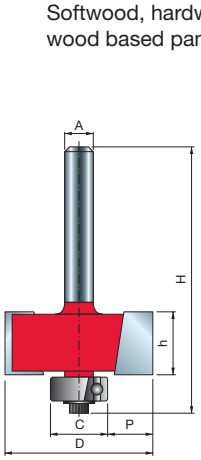
Bit type	Page reference	D mm	h mm	H mm	A mm	C mm	P mm	α	R mm	Z	Max RPM 1/min.	Freud Code	Art. No.
Rabbeting bit	282	31,75	13,2	61,7	12	12,7	9,52	-	-	2	18.000	**32-10212P**	F03FR01748
Chamfer bit	257	44	18,5	67	12	12,7	-	45°	-	2	16.000	**40-11412P**	F03FR01922
Rounding over bit	256	31,75	18	65,7	12	12,7	-	-	9,53	2	18.000	**34-12412P**	F03FR01788
Round nose bit	307	12,7	31,7	71,5	12	-	-	-	6,35	2	24.000	**18-11612P**	F03FR01604
Cove bit	258	38,1	16,4	64,9	12	12,7	-	-	12,7	2	16.000	**30-11412P**	F03FR01713
Roman ogee bit	261	35	18,5	66,5	12	9,53	-	-	6,35	2	16.000	**38-10612P**	F03FR01812

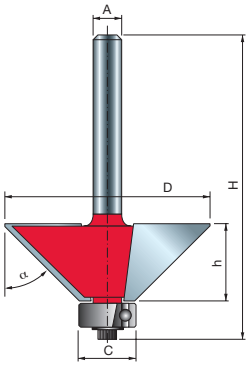


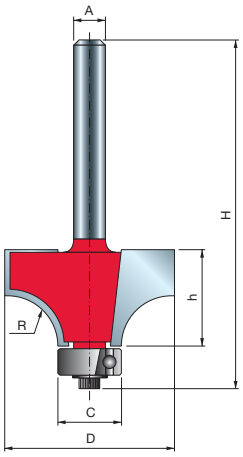


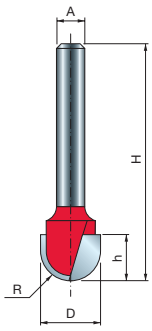
Machines:
To identify the correct machine for each router bit, refer to the corresponding page reference of each router bit.

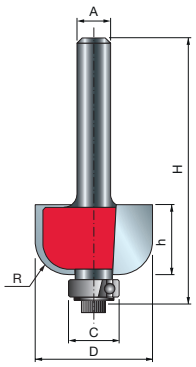
Materials:
Softwood, hardwood, plywood and wood based panels.

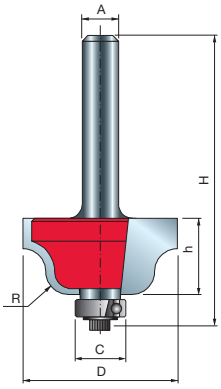




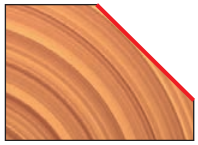









32-10008P F03FR01746
32-10212P F03FR01748


40-10608P F03FR01920
40-11412P F03FR01922


34-11408P F03FR01781
34-12412P F03FR01788


18-10808P F03FR01594
18-11612P F03FR01604

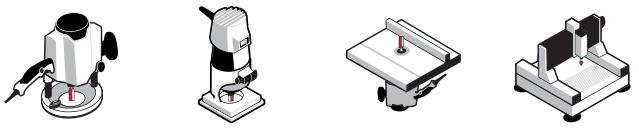

30-10608P F03FR01707
30-11412P F03FR01713


38-10208P F03FR01809
38-10612P F03FR01812



INTERMEDIATE 9 PIECE ROUTER BIT SET

88-10206P
(F03FR02250)



Hand-held Routers | Table Routers | CNC Machines*



Softwood | Hardwood | Plywood | Wood Based Panels

Set code 88-10206P (F03FR02250)

	Bit type	Page reference	D mm	h mm	H mm	A mm	C mm	S mm	R mm	P mm	α	Z	Max RPM 1/min.	Freud Code	Art. No.
•	Double flute straight bit	244	6	16	50,8	6	-	-	-	-	-	2	24.000	**04-11406P**	F03FR01440
	Double flute straight bit	244	9	25	63	6	-	-	-	-	-	2	24.000	**04-12406P**	F03FR01450
	Flush trim bit	252	12,7	25,7	72,9	6	12,7	25,4	-	-	-	2	24.000	**42-10406P**	F03FR01938
	Mortising bit	249	12,7	12,5	51	6	-	-	-	-	-	2	24.000	**16-10006P**	F03FR01565
	Rabbeting bit	282	31,75	13,2	55,7	6	12,7	-	-	9,52	-	2	18.000	**32-10006P**	F03FR01745
	Dovetail bit	285	12,7	12,7	50,7	6	-	-	-	-	14°	2	24.000	**22-10406P**	F03FR01643
	Rounding over bit	256	31,75	18	59,7	6	12,7	-	9,53	-	-	2	18.000	**34-11406P**	F03FR01780
•	Round nose bit	307	6	12,7	50,8	6	-	-	3	-	-	2	24.000	**18-10406P**	F03FR01587
	Roman ogee bit	261	27	13,3	54,7	6	9,53	-	4	-	-	2	18.000	**38-10006P**	F03FR01805

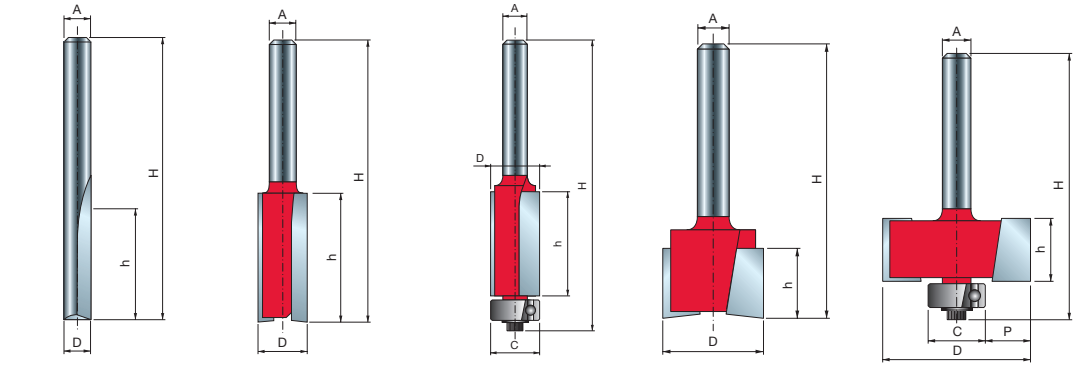
• Solid Carbide Bit

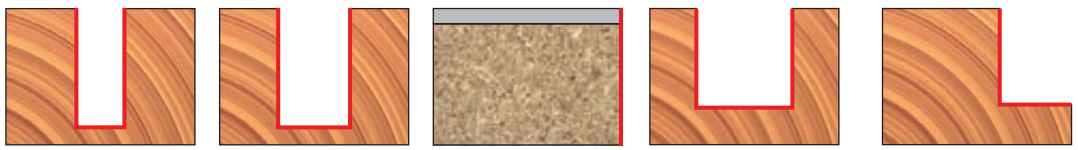
TiCo Carbide MADE BY freud

Perma-SHIELD COATING

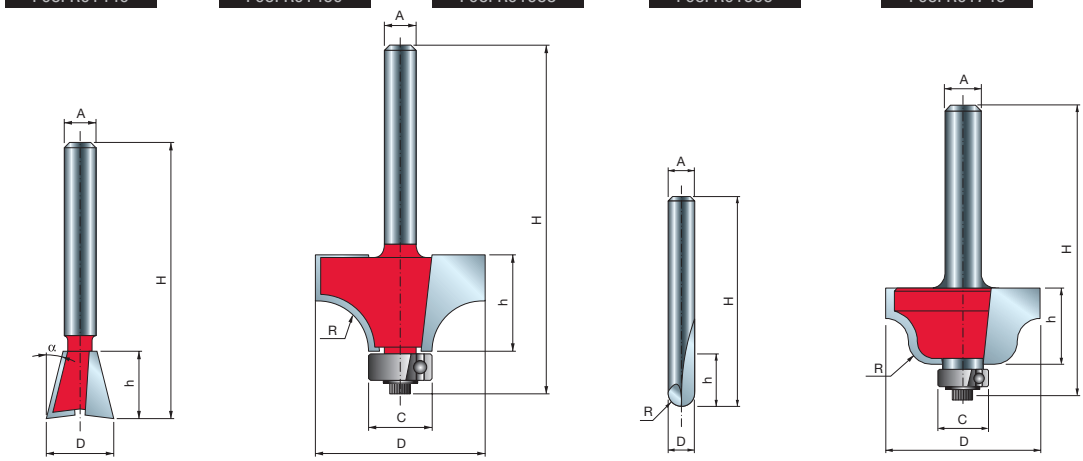
Machines:
To identify the correct machine for each router bit, refer to the corresponding page reference of each router bit.

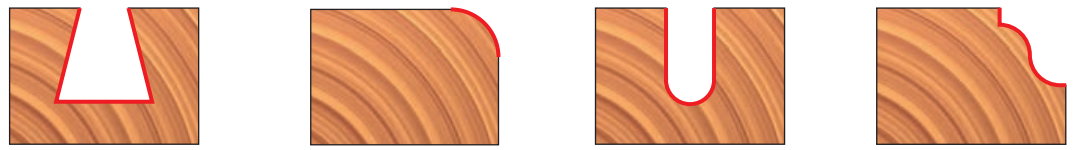
Materials:
Softwood, hardwood, plywood and wood based panels.





04-11406P F03FR01440 | **04-12406P** F03FR01450 | **42-10406P** F03FR01938 | **16-10006P** F03FR01565 | **32-10006P** F03FR01745



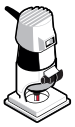
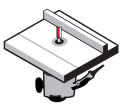
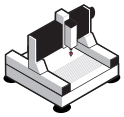


22-10406P F03FR01643 | **34-11006P** F03FR01774 | **18-10406P** F03FR01587 | **38-10006P** F03FR01805



SUPER 13 PIECE ROUTER BIT SET

91-10008P (F03FR02275)
91-10012P (F03FR02277)

Hand-held Routers | Table Routers | CNC Machines*








Softwood | Hardwood | Plywood | Wood Based Panels

Set code 91-10008P (F03FR02275)

	Bit type	Page reference	D mm	h mm	H mm	A mm	C mm	R mm	P mm	α	Z	Max RPM 1/min.	Freud Code	Art. No.
•	Double flute straight bit	244	6	16	50,8	8	-	-	-	-	2	24.000	**04-11408P**	F03FR01441
	Double flute straight bit	245	12	31,8	63,8	8	-	-	-	-	2	24.000	**04-13708P**	F03FR01465
	Double flute straight bit	245	20	19	56	8	-	-	-	-	2	24.000	**04-15508P**	F03FR01493
	Flush trim bit	252	12,7	25,7	72,9	8	12,7	-	-	-	2	24.000	**42-10408P**	F03FR01939
	Mortising bit	249	12,7	12,5	50,8	8	-	-	-	-	2	24.000	**16-10008P**	F03FR01566
	Rabbeting bit	282	31,75	12,7	55,2	8	12,7	-	9,52	-	2	18.000	**32-10008P**	F03FR01746
	V-groove bit	304	12,7	10	44,4	8	-	-	-	90°	2	24.000	**20-10408P**	F03FR01623
	Chamfer bit	257	44	18,5	61	8	12,7	-	-	45°	2	16.000	**40-10608P**	F03FR01920
	Dovetail bit	285	12,7	12,7	50,7	8	-	-	-	14°	2	24.000	**22-10408P**	F03FR01644
	Rounding over bit	256	31,75	18	59,7	8	12,7	9,53	-	-	2	18.000	**34-11408P**	F03FR01781
•	Round nose bit	307	6	12,7	50,8	8	-	3	-	-	2	24.000	**18-10408P**	F03FR01588
	Cove bit	258	38,1	16,4	58,9	8	12,7	12,7	-	-	2	16.000	**30-10608P**	F03FR01707
	Roman ogee bit	261	35	18,5	60,5	8	9,53	6,35	-	2	2	16.000	**38-10208P**	F03FR01809

Set code 91-10012P (F03FR02277)

	Bit type	Page reference	D mm	h mm	H mm	A mm	C mm	R mm	P mm	α	Z	Max RPM 1/min.	Freud Code	Art. No.
•	Double flute straight bit	244	6	19	64	12	-	-	-	-	2	24.000	**12-09912P**	F03FR01520
	Double flute straight bit	245	13	25,4	66,7	12	-	-	-	-	2	24.000	**12-11612P**	F03FR01531
	Double flute straight bit	245	19	25,4	63,4	12	-	-	-	-	2	24.000	**12-15212P**	F03FR01548
	Flush trim bit	252	12,7	25,4	82,5	12	12,7	-	-	-	2	24.000	**42-11012P**	F03FR01942
	Mortising bit	249	12,7	12,5	60,5	12	-	-	-	-	2	24.000	**16-11012P**	F03FR01573
	Rabbeting bit	282	31,75	13,2	61,7	12	12,7	-	9,53	-	2	18.000	**32-10212P**	F03FR01748
	V-groove bit	304	19,05	12,5	57,2	12	-	-	-	90°	2	24.000	**20-10812P**	F03FR01626
	Chamfer bit	257	44	18,5	67	12	12,7	-	-	45°	2	16.000	**40-11412P**	F03FR01922
	Dovetail bit	285	12,7	12,7	59,7	12	-	-	-	14°	2	24.000	**22-11212P**	F03FR01650
	Rounding over bit	156	31,75	18	65,7	12	12,7	9,53	-	-	2	18.000	**34-12412P**	F03FR01788
•	Round nose bit	307	6	9,5	57	12	-	3	-	-	2	24.000	**18-11412P**	F03FR01602
	Cove bit	258	38,1	16,4	64,9	12	12,7	12,7	-	-	2	16.000	**30-11412P**	F03FR01713
	Roman ogee bit	261	35	18,5	66	12	9,53	6,35	-	-	2	16.000	**38-10612P**	F03FR01812

• Solid Carbide Bit



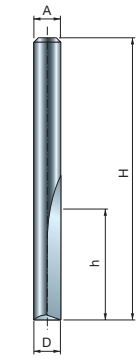


Machines:
To identify the correct machine for each router bit, refer to the corresponding page reference of each router bit.

Materials:
Softwood, hardwood, plywood and wood based panels.

SUPER 13 PIECE ROUTER BIT SET

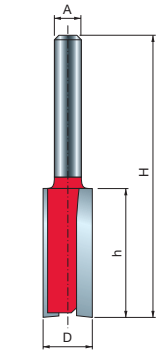
91-10008P (F03FR02275)
91-10012P (F03FR02277)





04-11408P
F03FR01441

12-09912P
F03FR01520



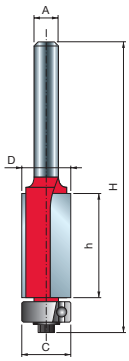


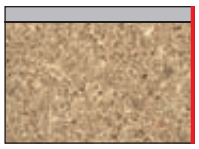
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F03FR01465

12-11612P
F03FR01531

04-15508P
F03FR01493

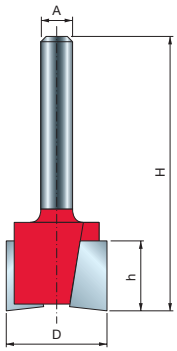
12-15212P
F03FR01548





42-10408P
F03FR01939

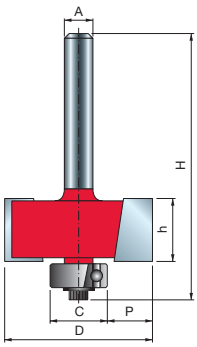
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F03FR01942





16-10008P
F03FR01566

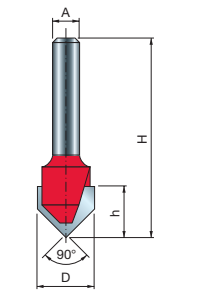
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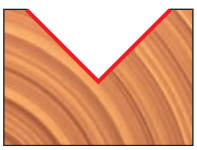




32-10008P
F03FR01746

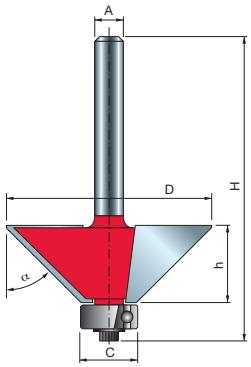
32-10212P
F03FR01748

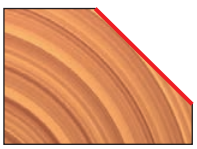




20-10812P
F03FR01626

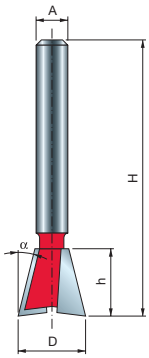
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F03FR01623





40-10608P
F03FR01920

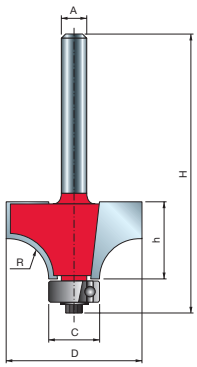
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F03FR01922





22-10408P
F03FR01644

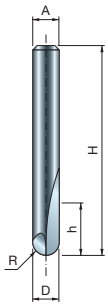
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F03FR01650





34-11408P
F03FR01781

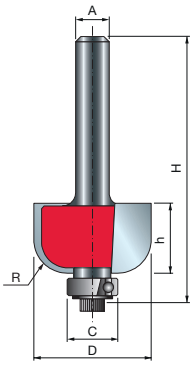
34-12412P
F03FR01788





18-10408P
F03FR01588

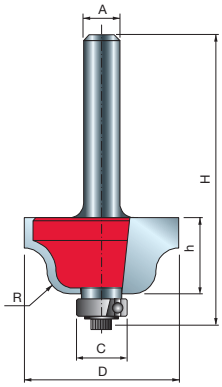
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F03FR01602





30-10608P
F03FR01707

30-11412P
F03FR01713





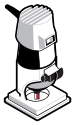
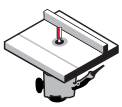
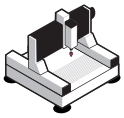
38-10208P
F03FR01809

38-10612P
F03FR01812



ADVANCED 15 PIECE ROUTER BIT SET

90-10006P
(F03FR02256)

Hand-held Routers | Table Routers | CNC Machines*








Softwood | Hardwood | Plywood | Wood Based Panels

Set code 90-10006P (F03FR02256)

	Bit type	Page reference	D mm	h mm	H mm	A mm	C mm	R mm	P mm	α	Z	Max RPM 1/min.	Freud Code	Art. No.
•	Double flute straight bit	244	4	15,8	50,7	6	-	-	-	-	2	24.000	**04-10106P**	F03FR01420
•	Double flute straight bit	244	6	16	50,8	6	-	-	-	-	2	24.000	**04-11406P**	F03FR01440
	Double flute straight bit	245	12	19	55,5	6	-	-	-	-	2	24.000	**04-13506P**	F03FR01460
	Double flute straight bit	245	19	19	54	6	-	-	-	-	2	24.000	**04-14006P**	F03FR01468
•	Panel pilot bit	254	6	19	57	6	-	-	-	-	1	24.000	**26-10006P**	F03FR01664
	Flush trim bit	252	9,53	12,7	60,9	6	9,53	-	-	-	2	24.000	**42-10206P**	F03FR01935
	Mortising bit	249	12,7	12,5	51	6	-	-	-	-	2	24.000	**16-10006P**	F03FR01565
	Rabbeting bit	282	31,75	13,2	55,7	6	12,7	-	9,52	-	2	18.000	**32-10006P**	F03FR01745
	V-groove bit	304	12,7	10	44,4	6	-	-	-	90°	2	24.000	**20-10406P**	F03FR01622
	Chamfer bit	257	44	18,5	61	6	12,7	-	-	45°	2	16.000	**40-10606P**	F03FR01919
	Dovetail bit	285	12,7	12,7	47,5	6	-	-	-	14°	2	24.000	**22-10406P**	F03FR01643
	Rounding over bit	256	31,75	18	59,7	6	12,7	9,53	-	-	2	18.000	**34-11406P**	F03FR01780
•	Round nose bit	307	6	12,7	50,8	6	-	3	-	-	2	24.000	**18-10406P**	F03FR01587
	Cove bit	258	38,1	16,4	58,9	6	12,7	12,7	-	-	2	16.000	**30-10606P**	F03FR01706
	Roman ogee bit	261	27	13,3	54,7	6	9,53	4	-	-	2	18.000	**38-10006P**	F03FR01805

• Solid Carbide Bit



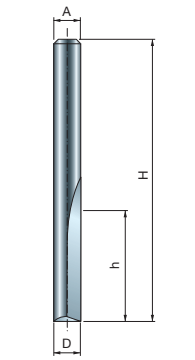


Machines:
To identify the correct machine for each router bit, refer to the corresponding page reference of each router bit.

Materials:
Softwood, hardwood, plywood and wood based panels.

ADVANCED 15 PIECE ROUTER BIT SET

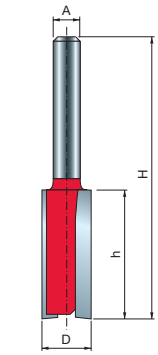
90-10006P
(F03FR02256)





04-10106P
F03FR01420

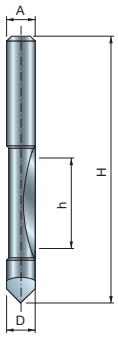
04-11406P
F03FR01440





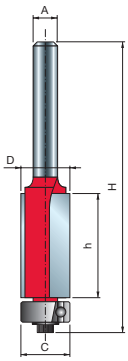
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F03FR01440

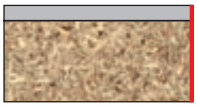
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F03FR01468



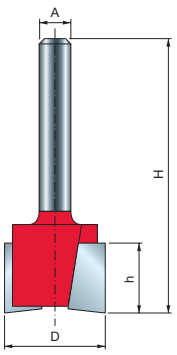


26-10006P
F03FR01664



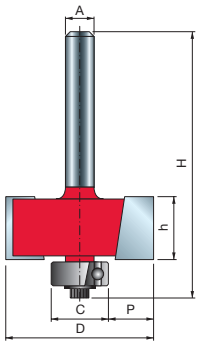


42-10206P
F03FR01935



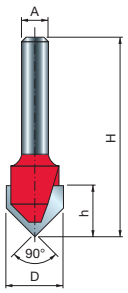


16-10006P
F03FR01565



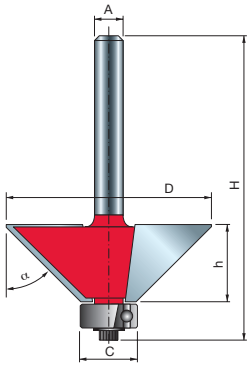


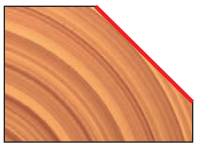
32-10006P
F03FR01745



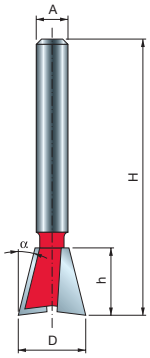


20-10406P
F03FR01622



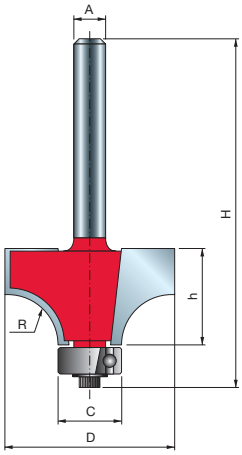


40-10606P
F03FR01919



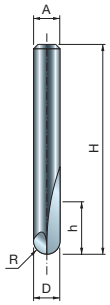


22-10406P
F03FR01643



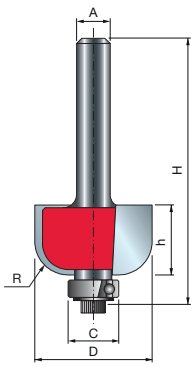


34-11406P
F03FR01780



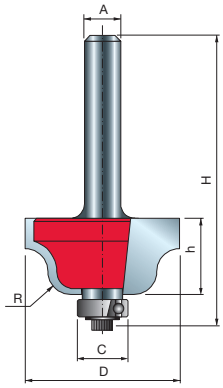


18-10406P
F03FR01587





30-10606P
F03FR01706





38-10006P
F03FR01805

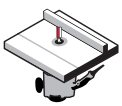


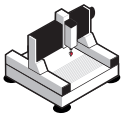
PROFESSIONAL 26 PIECE ROUTER BIT SET

92-10006P
(F03FR02308)


Hand-held Routers




Table Routers


CNC Machines*


Softwood


Hardwood


Plywood






Wood Based Panels

Set code 92-10006P (F03FR02308)

	Bit type	Page reference	D mm	h mm	H mm	A mm	C mm	R mm	P mm	α	Z	Max RPM 1/min.	Freud Code	Art. No.
•	Double flute straight bit	244	3	9,5	44,5	6	-	-	-	-	2	24.000	**04-09906P**	F03FR01415
•	Double flute straight bit	244	4	15,8	50,7	6	-	-	-	-	2	24.000	**04-10106P**	F03FR01420
•	Double flute straight bit	244	6	16	50,8	6	-	-	-	-	2	24.000	**04-11406P**	F03FR01440
	Double flute straight bit	244	10	25,4	62,4	6	-	-	-	-	2	24.000	**MM-01006P**	F03FR00330
	Double flute straight bit	245	12	19	55,5	6	-	-	-	-	2	24.000	**04-13506P**	F03FR01460
	Double flute straight bit	245	19	19	54	6	-	-	-	-	2	24.000	**04-14006P**	F03FR01468
•	Panel pilot bit	254	6	19	57	6	-	-	-	-	1	24.000	**26-10006P**	F03FR01664
	Flush trim bit	252	9,53	25,8	72,4	6	9,53	-	-	-	2	24.000	**42-10006P**	F03FR01932
	Flush trim bit	252	9,53	12,7	60,9	6	9,53	-	-	-	2	24.000	**42-10206P**	F03FR01935
	Flush trim bit	252	12,7	25,7	72,9	6	12,7	-	-	-	2	24.000	**42-10406P**	F03FR01938
	Mortising bit	249	12,7	12,5	51	6	-	-	-	-	2	24.000	**16-10006P**	F03FR01565
	Rabbeting bit	282	31,75	13,2	55,7	6	12,7	-	9,5	-	2	18.000	**32-10006P**	F03FR01745
•	V-groove bit	304	6	6	38,1	6	-	-	-	90°	1	24.000	**20-10006P**	F03FR01617
	V-groove bit	304	12,7	10	44,4	6	-	-	-	90°	2	24.000	**20-10406P**	F03FR01622
	Chamfer bit	257	44	18,5	61	6	12,7	-	-	45°	2	16.000	**40-10606P**	F03FR01919
	Dovetail bits	285	12,7	12,7	47,5	6	-	-	-	14°	2	24.000	**22-10406P**	F03FR01643
	Rounding over bit	256	25,4	12,7	55,2	6	12,7	6,35	-	-	2	24.000	**34-11006P**	F03FR01774
	Rounding over bit	256	31,75	18	59,7	6	12,7	9,53	-	-	2	18.000	**34-11406P**	F03FR01780
	Rounding over bit	256	25,4	12,7	54,7	6	9,53	6,35	-	-	2	24.000	**36-11006P**	F03FR01803
	Rounding over bit	256	31,75	18	59,2	6	9,53	9,53	-	-	2	18.000	**36-11406P**	F03FR01804
•	Round nose bit	307	6	12,7	50,8	6	-	3	-	-	2	24.000	**18-10406P**	F03FR01587
	Round nose bit	307	9,52	9	46	6	-	4,8	-	-	2	24.000	**18-10606P**	F03FR01590
	Cove bit	258	22,23	13,2	54,7	6	9,53	6,35	-	-	2	24.000	**30-10206P**	F03FR01697
	Cove bit	258	38,1	16,4	58,9	6	12,7	12,7	-	-	2	16.000	**30-10606P**	F03FR01706
	Roman ogee bit	261	27	13,3	54,7	6	9,53	4	-	-	2	18.000	**38-10006P**	F03FR01805
	Roman ogee bit	261	35	18,5	60,5	6	9,53	6,4	-	-	2	16.000	**38-10206P**	F03FR01808

•- Solid Carbide Bit



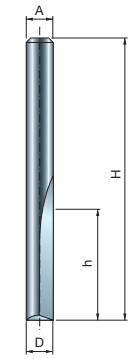


Machines:
To identify the correct machine for each router bit, refer to the corresponding page reference of each router bit.

Materials:
Softwood, hardwood, plywood and wood based panels.

PROFESSIONAL 26 PIECE ROUTER BIT SET

92-10006P
(F03FR02308)

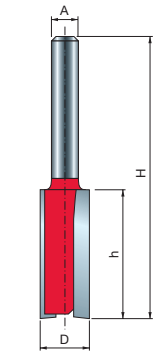




04-09906P
F03FR01415

04-10106P
F03FR01420

04-11406P
F03FR01420



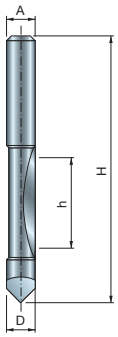


04-09906P
F03FR01415

MM-01006P
F03FR00330

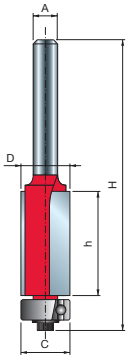
MM-13506P
F03FR01460

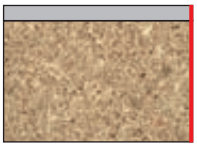
MM-14006P
F03FR01468





26-10006P
F03FR01664

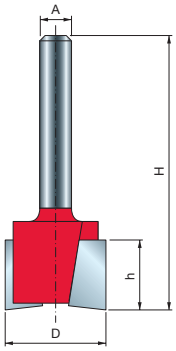




42-10006P
F03FR01932

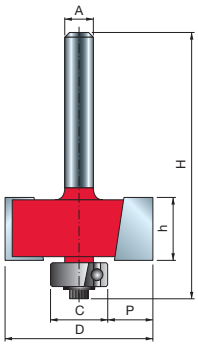
42-10206P
F03FR01935

42-10406P
F03FR01938



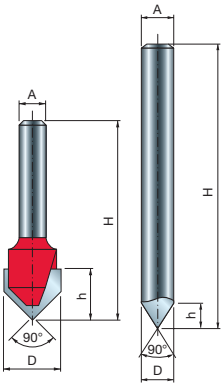


16-10006P
F03FR01565





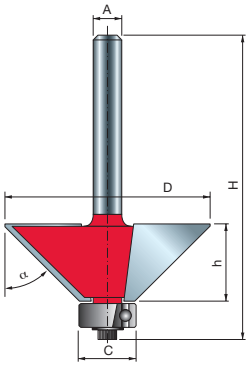
32-10006P
F03FR01745

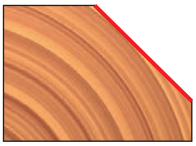




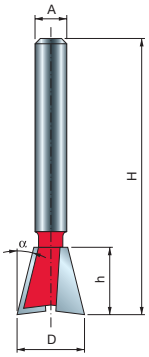
20-10006P
F03FR01617

20-10406P
F03FR01622



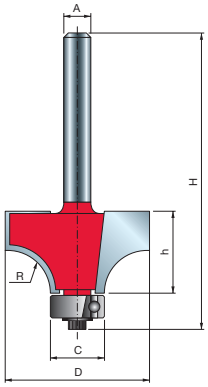


40-10606P
F03FR01919





22-10406P
F03FR01643



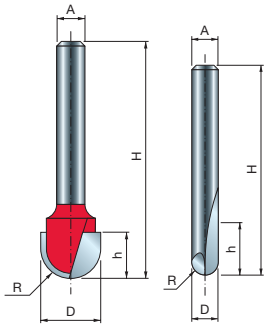


34-11006P
F03FR01774

34-11406P
F03FR01780

36-11006P
F03FR01803

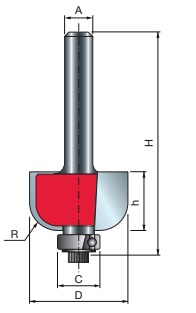
36-11406P
F03FR01804





18-10406P
F03FR01587

18-10606P*
F03FR01590

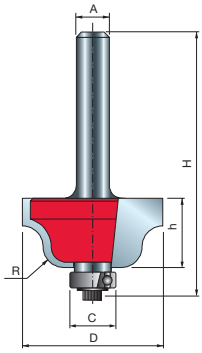




30-10206P
F03FR01697

30-10606P
F03FR01706

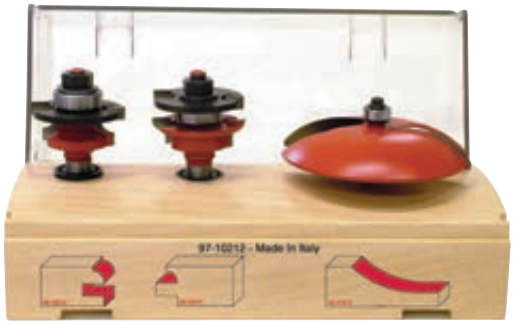
*





38-10006P
F03FR01805

38-10206P
F03FR01808



CABINET DOOR SET 3 ROUTER BITS

97-10212P
(F03FR02382)

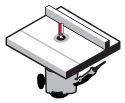


Table Routers



Softwood **Hardwood** **Plywood** **Wood Based Panels**

Set Freud Code 97-10212P (F03FR02382)

Bit type	Page reference	D mm	h mm	H mm	A mm	C mm	R1 mm	Z	Max RPM 1/min.	Freud Code	Art. No.
Raised panel bit	300	89	16	64,7	12	12,7	38,1	2	10.000	**99-22512P**	F03FR02462
Matched profile and scribe bits	294	42,9	-	77	12	22	5,5	2	24.000	**99-26012P**	F03FR02468

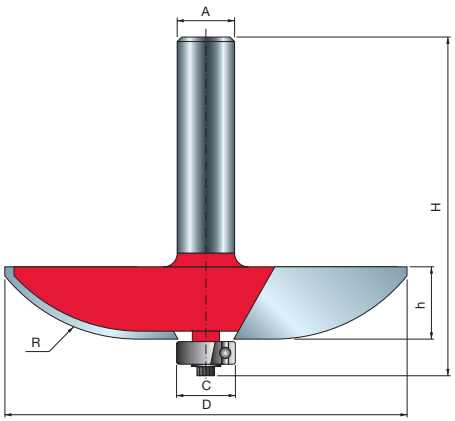
The set includes one raised panel bit and two matched profile and scribe bits.

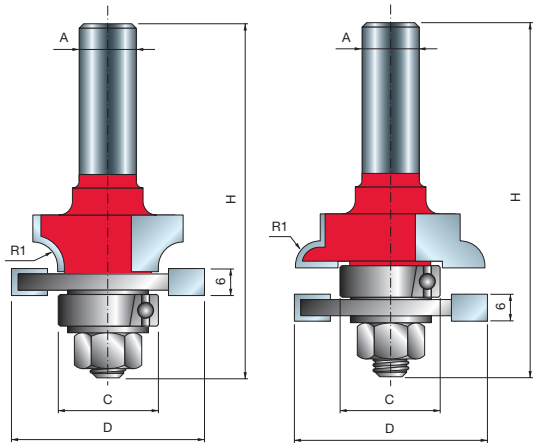
TiCo Carbide MADE BY freud

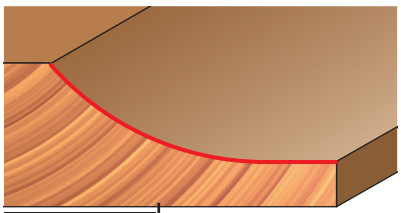
Perma-SHIELD COATING

Machines:
Table mounted routers.

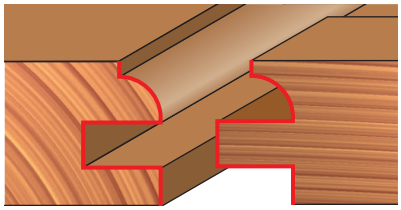
Materials:
Softwood, hardwood, plywood and wood based panels.



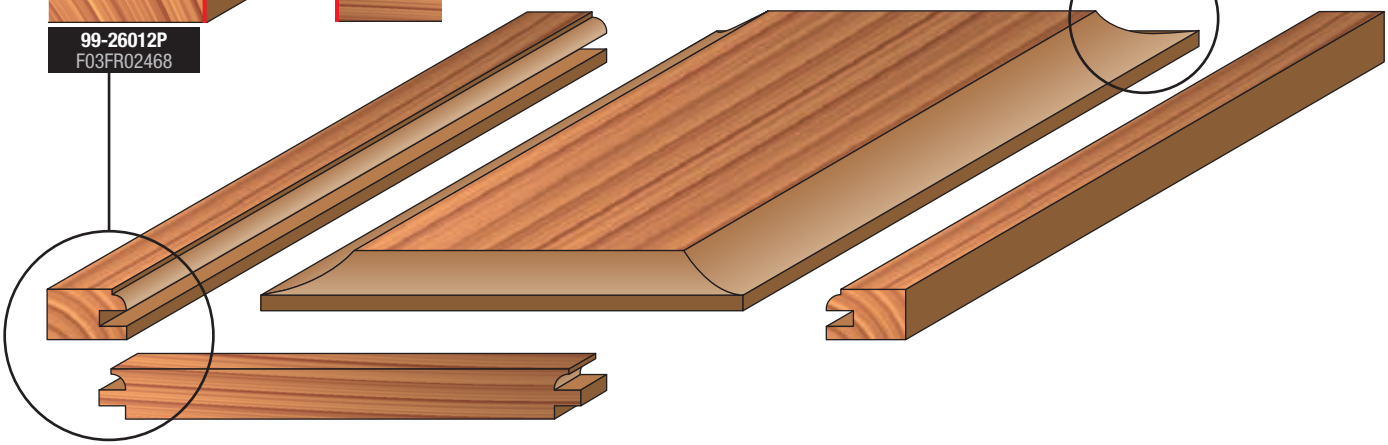




99-22512P
F03FR02462



99-26012P
F03FR02468





CABINET DOOR SET 3 ROUTER BITS

97-10412P
(F03FR02396)

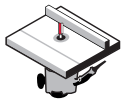


Table Routers



Softwood **Hardwood** **Plywood** **Wood Based Panels**

Set code 97-10412P (F03FR02396)

Bit type	Page reference	D mm	h mm	H mm	A mm	C mm	R1 mm	R2 mm	Z	Max RPM 1/min.	Freud Code	Art. No.
Raised panel bit	299	76,2	16	64,7	12	12,7	2	16	2	12.000	**99-22112P**	F03FR02458
Matched profile and scribe bits	294	42,9	-	77	12	22	4,5	5,5	2	24.000	**99-26112P**	F03FR02478

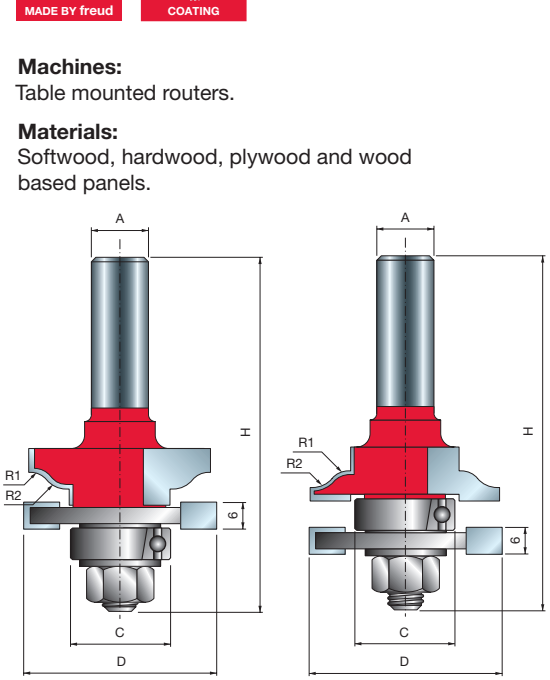
The set includes one raised panel bit and two matched profile and scribe bits.

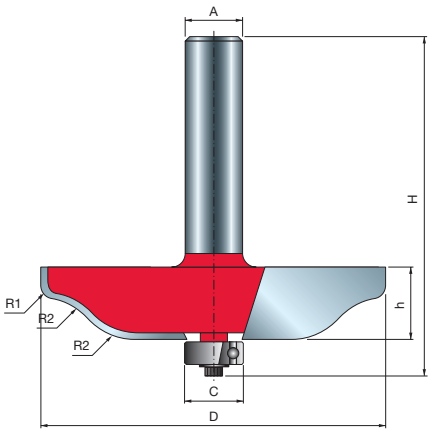
TiCo Carbide MADE BY freud

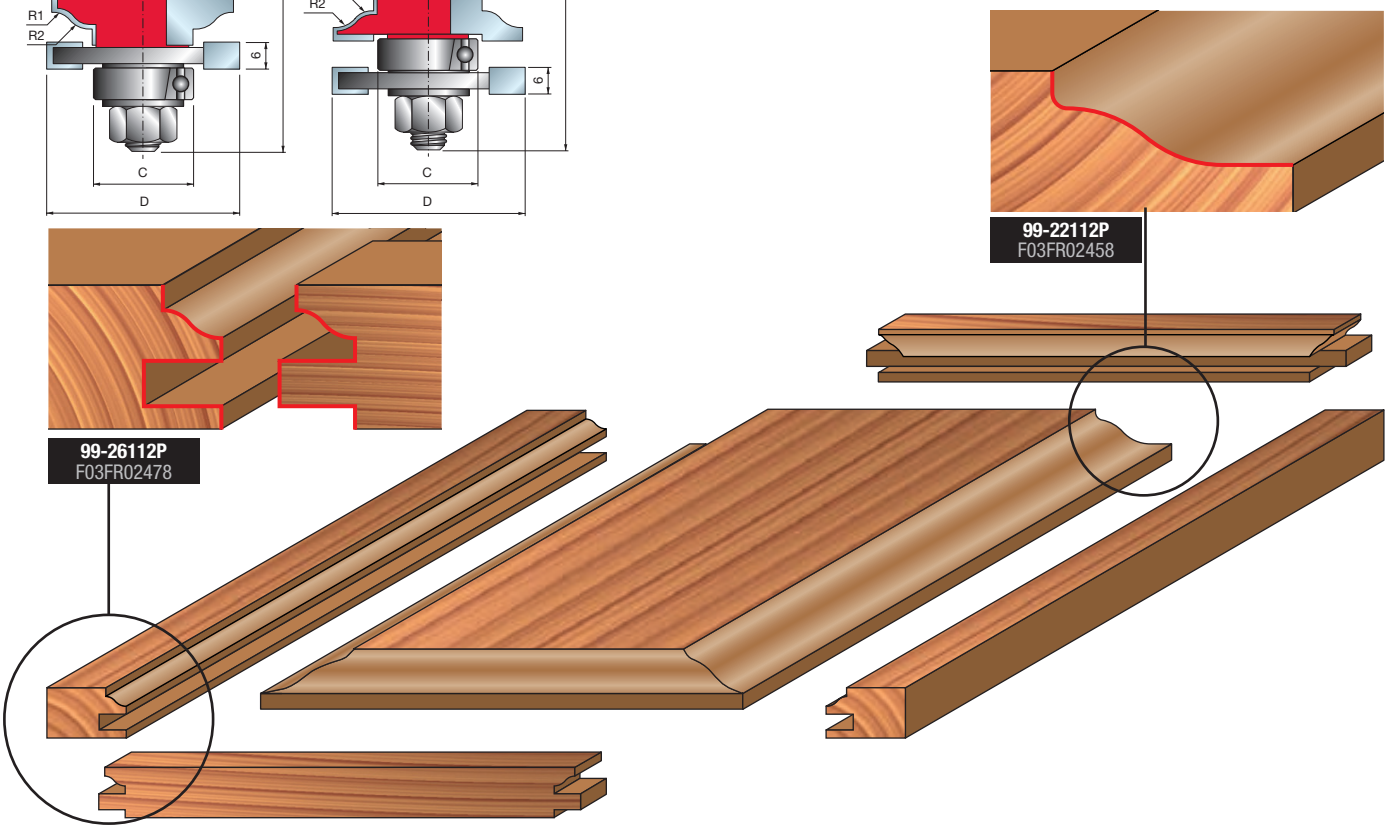
Perma-SHIELD COATING

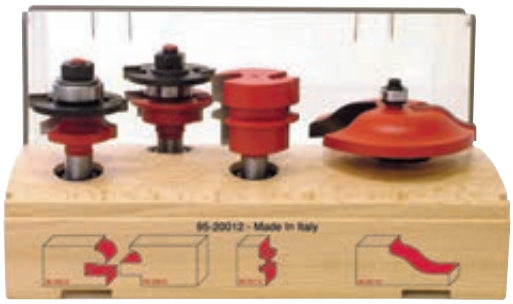
Machines:
Table mounted routers.

Materials:
Softwood, hardwood, plywood and wood based panels.









CABINET DOOR SET 4 ROUTER BITS

95-20012P
(F03FR02368)

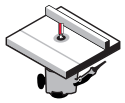


Table Routers



Softwood **Hardwood** **Plywood** **Wood Based Panels**

Set code 95-20012P (F03FR02368)

Bit type	Page reference	D mm	h mm	H mm	A mm	C mm	R1 mm	R2 mm	α	Z	Max RPM 1/min.	Freud Code	Art. No.
Reversible glue joint bit	288	38	32	70	12	-	-	-	15°	2	16.000	**99-03112P**	F03FR02422
Raised panel bit	299	76,2	16	64,7	12	12,7	2	16	-	2	12.000	**99-22112P**	F03FR02458
Matched profile and scribe bits	294	42,9	-	77	12	22	5,5	-	-	2	24.000	**99-26012P**	F03FR02468

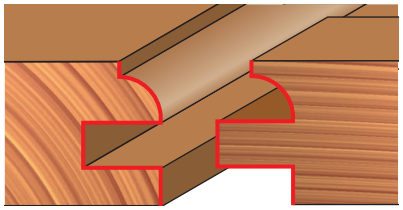
The set includes one reversible glue joint bit, one raised panel bit and two matched profile and scribe bits.

TiCo Carbide MADE BY freud

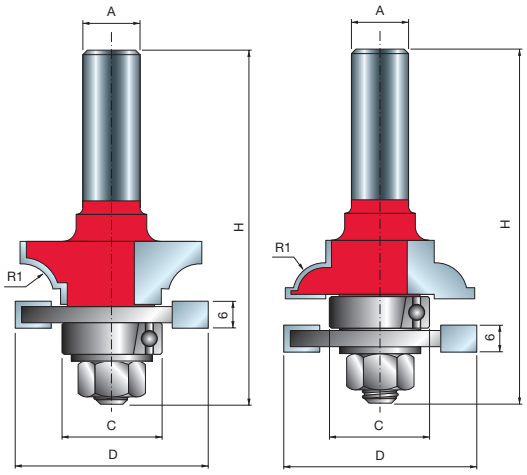
Perma-SHIELD COATING

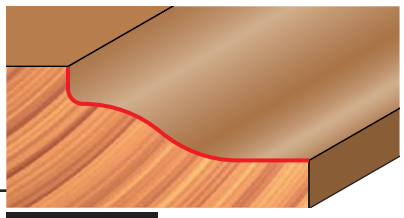
Machines:
Hand-held routers and table routers.

Materials:
Softwood, hardwood, plywood and wood based panels.

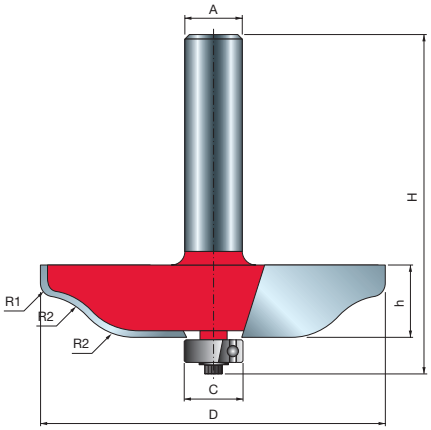


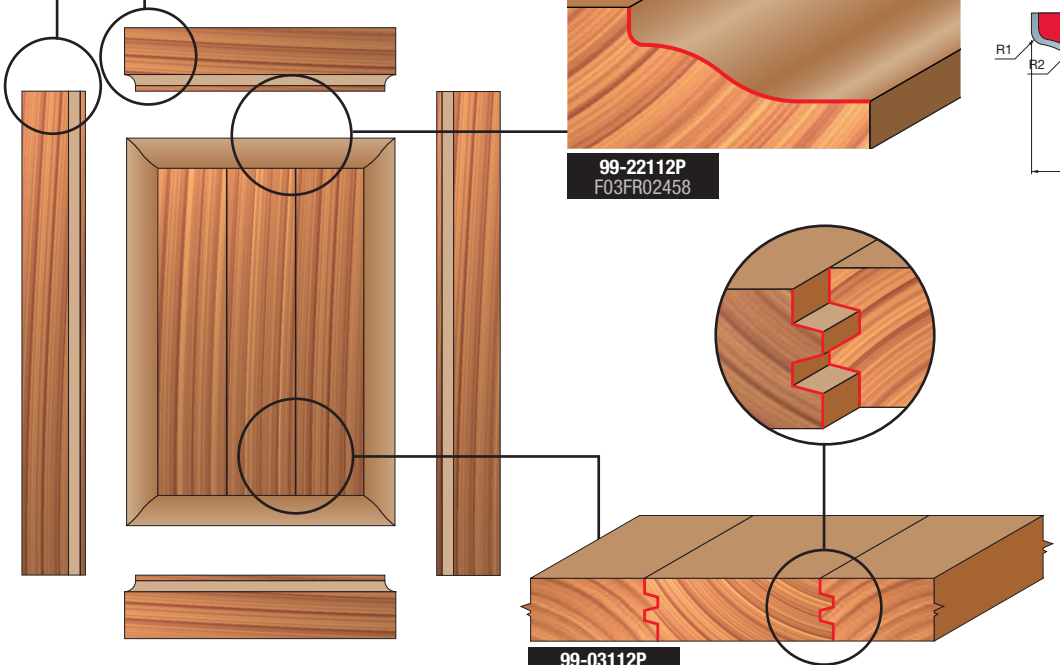
99-26012P
F03FR02468



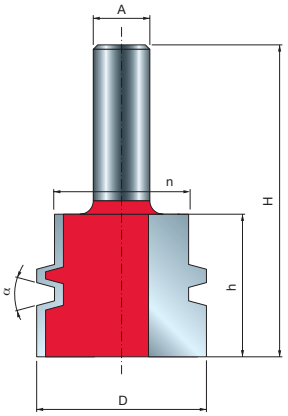


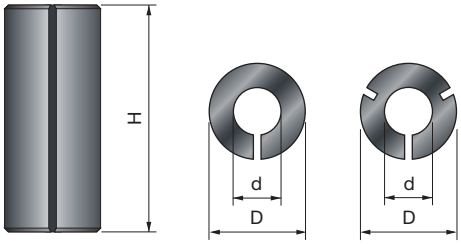
99-22112P
F03FR02458





99-03112P
F03FR02422

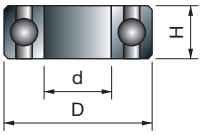


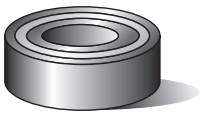


Reducing bushes for router bits.

3105M Reducing bushes

D mm	H mm	d mm	Freud Code	Art. No.
8	25	6	**3105MVY250**	F03FA10588
8	25	6,35	**3105MVX250**	F03FA10587
9,5	25	6	**3105MUY250**	F03FA10586
9,5	25	6,35	**3105MUX250**	F03FA10585
9,5	25	8	**3105MUV250**	F03FA10584
10	25	8	**3105MTV250**	F03FA10582
12	25	6	**3105MSY250**	F03FA10581
12	25	8	**3105MSV250**	F03FA10580
12	25	10	**3105MST250**	F03FA10579
12,7	25	6	**3105MRY250**	F03FA10578
12,7	25	6,35	**3105MRX250**	F03FA10577
12,7	25	8	**3105MRV250**	F03FA10576
12,7	25	9,53	**3105MRU250**	F03FA10575
16	25	13	**3105MOQ250**	F03FA10574

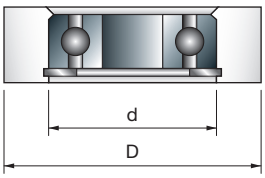


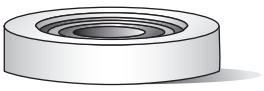


Ball bearing for router bits.

3102M Ball bearings

D mm	H mm	d mm	Freud Code	Art. No.
9,53	3,2	4,76	**3102M AA9**	F03F010006
12	4	6,05	**3102M BB9**	F03FA10568
12,7	4,98	4,76	**3102M AB9**	F03F010007
13	5	4	**3102M CD9**	F03FA14096
13	5	6	**3102M AP9**	F03FA10558
14	4	8,05	**3102M BC9**	F03FA10569
15	5	6	**3102M AQ9**	F03FA10559
15,88	4,98	4,76	**3102M AJ9**	F03F010014
16	5	5	**3102M CC9**	F03FA14095
16	5	8	**3102M AS9**	F03FA10561
19	6	6	**3102M CA9**	F03FA14097
19	7	10	**3102M AG9**	F03F010012
19,05	3,97	12,7	**3102M CB9**	F03FA14098
19,05	6,35	12,7	**3102M AV9**	F03F012286
22	7	8	**3102M AC9**	F03F010008
28	8	12	**3102M AH9**	F03F010013
32	9	15	**3102M AN9**	F03F010016
35	11	15	**3102M AI9**	F03F012285

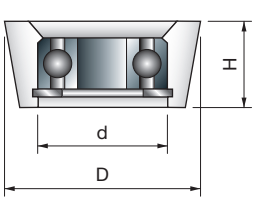


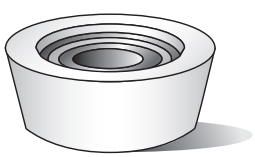


Cylindrical rub collars for ball bearing.

RB62M Sleeved bearings

D mm	H mm	d mm	Freud Code	Art. No.
19,05	8	4,76	**RB62M 1509**	F03F011422
22,22	8	4,76	**RB62M 1529**	F03F011423
26	10	8	**RB62M 1249**	F03F011417
28,58	8	4,76	**RB62M 1549**	F03F011424
30	10	8	**RB62M 1289**	F03F011418
34	10	8	**RB62ME DA9**	F03FR01146
34,92	8	4,76	**RB62M 1569**	F03F011425
39,6	11,2	12	**RB62ME FB9**	F03FR01147





Conical rub collars for ball bearing.

3103MC Sleeved bearings with angle

D mm	H mm	d mm	α	Freud Code	Art. No.
19,05	6,35	4,8	10°	**3103MC HB9**	F03F010019
22,2	9	12,7	15°	**3103MC HC9**	F03FR01724

TOOLS

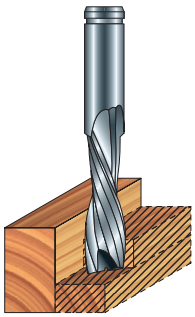
Tools shall be used only by persons of training and experience who have knowledge of how to use and handle tools.
The maximum rotational speed marked on the tool shall not be exceeded.
One piece tools with visible cracks shall not be used.
Clamping surfaces shall be cleaned to remove dirt, grease, oil and water.
Resin shall only be removed from light alloys with solvents that do not affect the mechanical characteristics of these materials.
Tools and tool bodies shall be clamped in such a way, that they shall not loosen during operation.
Tools with cylindrical shank must be clamped in a way that the mark of the maximum free shank length shall be covered, at least partially, by the clamping device or by the locking collet.
Care shall be taken of mounting tools to ensure that the clamping is by the hub respectively by the clamping surface of the tool and that the cutting edges are not in contact with each other or with the clamping elements.
Fastening screws and nuts shall be tightened using the appropriate spanners etc. and to the torque value provided by the manufacturer.
Extension of the spanner or tightening using hammer blows shall not be permitted.
Clamping screws shall be tightened according to instructions provided by the manufacturer. Where instructions are not provided clamping screws shall be tightened in sequence from the centre outwards.
Use of fixed rings, e. g. pressed or held by adhesive fixing, in flanged sleeves, shall be permitted if made to the manufacturers specifications.
Repair and regrinding of tools shall only be allowed according to the tool manufacturer's instructions.
After repair and regrinding of tools it shall be ensured that the tools observe balancing requirements.
The design of composite (tipped) tools shall not be changed in the process of repair.
Composite tools shall be repaired by a competent person, i.e. a person of training and experience, who has knowledge of the design requirements and understands the level of safety to be achieved.
Repair shall therefore include, e.g. use of spare parts which are in accordance with the specification of the original parts provided by the manufacturer.
Tolerances which ensure correct clamping shall be maintained.
For one piece tools care shall be taken that regrinding of the cutting edge will not cause weakening of the hub and the connection of the cutting edge to the hub.
To avoid injuries, tools shall be handled in accordance with the guidance provided by the manufacturer. Typically, safe handling involves the use of devices such as carrying hooks, proprietary handles, frames (e. g. for circular saw blades), boxes, trolleys etc.
The wearing of protective gloves improves the grip on the tool and further reduces the risk of injury.
Maintenance and modification of milling tools and related components and circular saw blades should always be in accordance with the design requirements/the manufacturer's instructions.
Maintenance and modification of milling tools and circular saw blades should only be carried out by a competent person, i. e. a person of training and experience, who has knowledge of the design requirements and understand levels of safety to be achieved.
When regrinding milling tools and circular saw blades, the minimum requirements of cutting blade thickness and cutting blade projection should be observed.
Composite tools should be repaired by persons experienced in and with understanding of design and use of milling tools for processing wood and similar materials, e.g. an expert with a relevant education and knowledge of the brazing process, including in particular the influence of the brazing process on tension in tool body and cutting material.
When brazing oft worn tips and subsequently brazing on new tips it should be made sure that the tip is correctly mounted in the tool body and that the process does not result in critical tension in the tool body.
After any type of maintenance, milling tools marked with MAN should continue to observe the requirements of the standards related to tools for hand feed.
When modifying milling tools, e. g. modification of bore diameter, modification of shank, retipping of composite tools and similar, it should be ensured that the requirements of the standard relating to balancing are still observed.
After being modified and/or retipped, milling tools and circular saw blades should be marked according to the rules applying to new tools. However, the name/logo of the company making the modification/ retipping should be added.
To avoid injuries, tools shall be handled in accordance with the guidance provided by the manufacturer.
Tools which weigh more than 15 kg may require the use of special handling devices or attachments, these will depend on the features that the manufacturer has designed into the tool to allow easy handling. The manufacturer can advise on the availability of necessary devices.

CLAMPING DEVICES

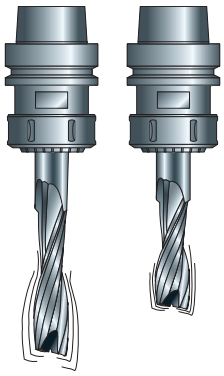
The speeds indicated on the clamping device and the tool to be clamped should be compared. For adjusting the speed on the machine the lower speed should be applied.
Screws and nuts should be tightened using the appropriate spanners;
Clamping surfaces should be cleaned to remove dirt, grease, oil and water.
Clamping devices and tools should be mounted or clamped according to given torques, pressures and wrenches to be used; extension of spanners or tightening or loosening by means of hammer blows should not be permitted.
Maximum tool diameters and tool lengths should not be exceeded.
Shank diameters must be in accordance with the clamping range of the clamping devices.
The minimum required clamping length must be kept.
Care should be taken that the data relevant to the safety of the clamped tool are always stored in the data medium.
Repairs should only be carried out by a competent person, i.e. a person with professional training and experience, who has knowledge of the design, construction and safety requirements.
Repair should therefore include the use of spare parts which are in compliance with the specifications of the original parts.

ADVICE FOR CORRECT USE

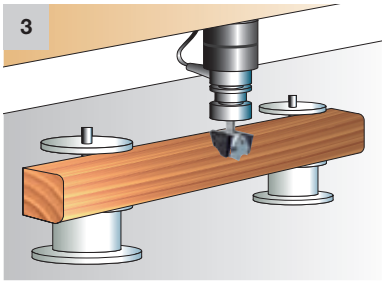
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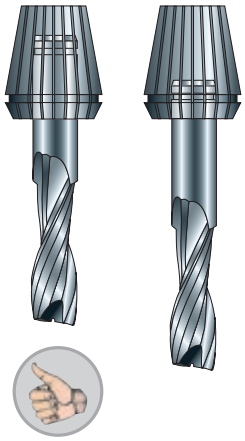
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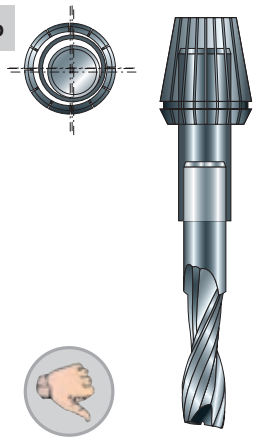
To reduce vibrations from the router bit, which can compromise the finish and cause damages to both the tool and the workpiece, it is necessary to respect the following conditions:

- For large removals, carry out more passes or proceed with a feedrate and RPM rate in proportion to the depth of cut (Fig. 1).
- A router bit with a shorter cutting height vibrates less than a router bit with the same diameter but with a longer cutting height (Fig. 2).
- Control your machine regularly (especially guides and ball bearings), making sure that there are no eccentricity problems, so as to avoid the arbor from vibrating hazardously.
- Accurately block the workpiece to the work table surface (Fig. 3).
- Respect the minimum fixing length of the shank with a preference to short chucks, with the aim of reducing eccentricity errors (Fig. 4a).
  For the same reason the use of extensions are generally avoided (Fig. 4b).
- Router bits with staggered cutters tend to leave marks caused by small eccentricity tollerances (Fig. 5).
- To identify eccentricity issues in a router bit or a chuck: make a milling on the workpiece, rotate the tool 90° on the chuck and repeat the operation. If the marks left on the wood are unvaried between the 2 processes then the tool is defective, if there's a difference the issue is probably on the chuck/collet.
- Do not exceed the maximum RPM limit marked on the tool. Higher RPM, extreme feedrate as well as an excessive cutting depth can cause the tool breakage.
- To avoid damaging router bits, we suggest controlling if the fixing surface of the chuck and the router bit are clean and that there are no imperfections (Fig. 6).
- Always choose router bits with the appropriate dimensions for the kind of work to carry out.
- Make sure that the workpiece is properly fixed to a support with appropriate dimensions.
  Place the locking devices (as suckers) sufficiently far from the tool path (Fig. 7).
- To avoid dangerous kick backs, we suggest fixing a spare piece of material and milling small parts of waste which have accumulated during the working process, by carrying out more passes (Fig. 8).

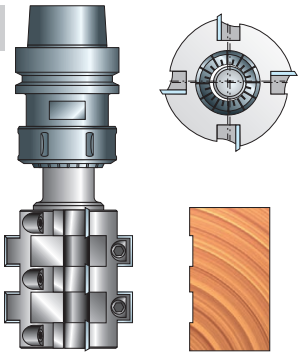
4a



4b



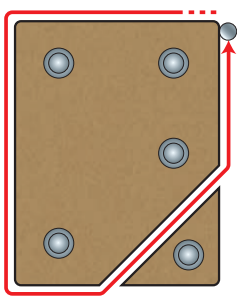
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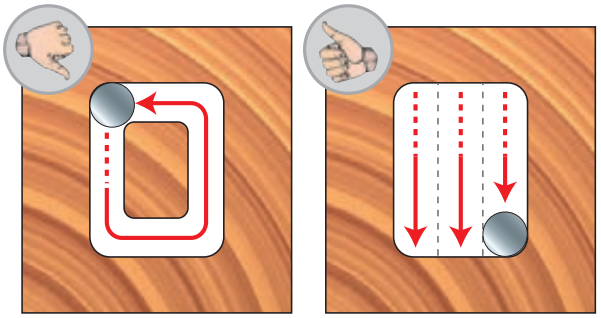
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7



8



ROUTER BIT FEED AND SPEED FOR CNC

GET THE MOST OUT OF YOUR FREUD BITS BY ROUTING AT IDEAL FEED RATES AND SPEEDS

Read all safety warnings and all instructions provided with the router bit and in the machine manual. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

To reduce the risk of injury, always check to ensure the rated speed of the router bit is higher than or equal to the maximum speed marked on the CNC machine. Router bits running faster than their RATED SPEED can break and fly apart.

To get the longest life and the best cut quality from your bits, you need to match the feed rate of your CNC and the speed (RPM) of your router spindle to the material you are routing and the bit you are using. Routing at the best combination of feed rate and RPM is critical to quality of your work and the durability of your Freud router bits.

1) There is no hard-and-fast rule for precisely what feed rate and speed will be best for your project and your CNC. The formulas and chip load values in the chart below provide a good range of feeds and speeds for you to start with, but you should always make some test cuts with your bits in scrap material to be sure you get the best possible results. As you make your test cuts, observe the following best practices:

- Always consult your machine's operation manual for bit capacities and recommended feed rates.
- Always start with shallow passes in your test cuts to reduce strain on your bit and your CNC.
- You should start your tests with the lower feed rates yielded by our formulas to reduce the chance of bit breakage. (Freud's chart contains recommended starting points, and does not warranty against tool breakage).
- Carbide tipped bits should not be used to drill directly into the workpiece.

2) Second, you need to consider the design of the bit you are using:

- **Number of flutes, or cutting edges:** more flutes on a bit may produce a finer finish on the workpiece than a bit with fewer cutting edges, but only if your feed and speed are set correctly. Our formulas include a variable where you will enter the number of flutes of your bit so you can consider this factor.
- **Cutting depth:** this is the depth that will be routed in a single pass. Our feed and speed recommendations are based on a depth of cut that is no greater than the bit diameter, such as a 12 mm diameter bit routing a 12 mm deep pass. If you plan to rout deeper than this in a single pass, you must reduce your feed rate.
- If cut depth is 2X the bit diameter, reduce the chip load by at least 25%.
- If cut depth is 3X the bit diameter, reduce the chip load by at least 50%.

Please see example 3 on next page for more information.
Never exceed the recommended cutting depth listed on the router bit package or the bit's safety instructions!

3) Next, use the formulas below to calculate starting points for your test cuts. You will notice that our formulas use values called "**chip loads**" to determine the feed rates and speeds. The chip load is the size (thickness) of the chip produced as your bit cuts. Why does this matter? If your chip is very small, or just sawdust, then it will not carry enough heat away from the edge of the bit. Excessive heat will prematurely dull the edge of the solid Carbide or Carbide tipped router bit. If the chip is too large, it will leave a rough surface or edge on your workpiece.

ROUTER BIT FEED AND SPEED FOR CNC

*** RECOMMENDED CHIP LOADS FOR FREUD CARBIDE TIPPED STRAIGHT AND PROFILE BITS**

Tool Diameter	MDF / Particle Board	Laminated Particle Board	Hardwood	Softwood	Acrylics / Plastics	Solid Surface / Hard Plastic	Plywood	Aluminum
mm	mm	mm	mm	mm	mm	mm	mm	mm
3	0.05 - 0.10	0.08 - 0.15	0.05 - 0.10	0.08 - 0.13	0.08 - 0.15	0.05 - 0.10	0.08 - 0.13	N/A
3,18	0.05 - 0.10	0.08 - 0.15	0.05 - 0.10	0.08 - 0.13	0.08 - 0.15	0.05 - 0.10	0.08 - 0.13	N/A
6	0.10 - 0.15	0.15 - 0.20	0.13 - 0.18	0.15 - 0.20	0.15 - 0.20	0.10 - 0.15	0.13 - 0.15	N/A
6,35	0.10 - 0.15	0.15 - 0.20	0.13 - 0.18	0.15 - 0.20	0.15 - 0.20	0.10 - 0.15	0.13 - 0.15	N/A
8	0.12 - 0.17	0.17 - 0.22	0.14 - 0.19	0.18 - 0.22	0.17 - 0.22	0.12 - 0.17	0.14 - 0.18	N/A
9,53	0.13 - 0.18	0.18 - 0.23	0.15 - 0.20	0.20 - 0.25	0.18 - 0.23	0.13 - 0.18	0.15 - 0.20	N/A
10	0.13 - 0.18	0.18 - 0.23	0.15 - 0.20	0.20 - 0.25	0.18 - 0.23	0.13 - 0.18	0.15 - 0.20	N/A
12	0.14 - 0.18	0.20 - 0.25	0.20 - 0.25	0.20 - 0.30	0.20 - 0.25	0.15 - 0.18	0.18 - 0.23	N/A
12,7	0.15 - 0.18	0.20 - 0.25	0.20 - 0.25	0.20 - 0.30	0.20 - 0.25	0.15 - 0.18	0.18 - 0.23	N/A
14	0.15 - 0.18	0.22 - 0.27	0.20 - 0.28	0.20 - 0.30	0.22 - 0.27	0.15 - 0.18	0.18 - 0.23	N/A
15,88	0.15 - 0.18	0.23 - 0.28	0.20 - 0.30	0.23 - 0.33	0.23 - 0.28	0.15 - 0.18	0.20 - 0.25	N/A
16	0.15 - 0.18	0.23 - 0.28	0.20 - 0.30	0.23 - 0.33	0.23 - 0.28	0.15 - 0.18	0.20 - 0.25	N/A
18	0.17 - 0.22	0.25 - 0.30	0.22 - 0.32	0.23 - 0.35	0.24 - 0.30	0.16 - 0.20	0.22 - 0.28	N/A
19,05	0.18 - 0.23	0.25 - 0.30	0.23 - 0.33	0.25 - 0.30	0.25 - 0.30	0.18 - 0.23	0.23 - 0.28	N/A
20	0.20 - 0.25	0.27 - 0.33	0.22 - 0.35	0.23 - 0.40	0.25 - 0.35	0.16 - 0.20	0.25 - 0.30	N/A

*This chart is a recommended starting point and does not warranty against tool breakage. Consult your machine's owners manual for bit capacities and recommended feed rates. Always make test cuts with shallow passes in scrap material to verify your feed & speed rates and cutting depths. Start your tests with the lower feed rates yielded by our formulas.

Here are the formulas to make feed and speed calculations using these values:
Chip load = Feed rate ÷ (RPM x number of flutes)
Feed rate = RPM x number of flutes x chip load
RPM = Feed rate ÷ (number of flutes x chip load)

Note:
Feed rate will be expressed in meters per minute.

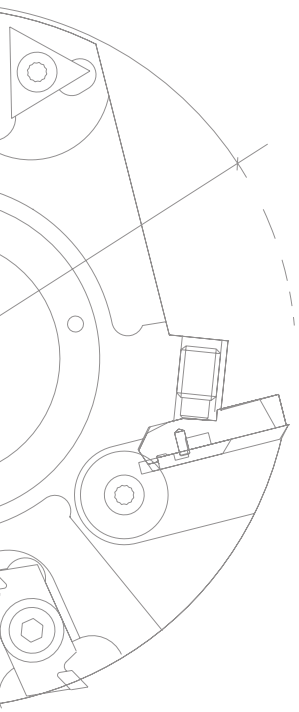
Here are some examples:

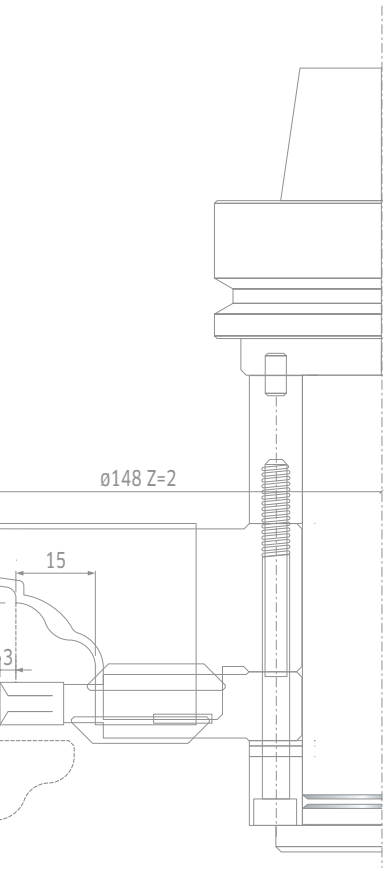
1. You decide to test a chip load of 0,20 mm for your cut. Your CNC spins the bit at 18,000 RPM, and the bit has 2 flutes (cutting edges). To determine the feed rate: **Feed Rate = 18.000 x 2 x 0,20 mm**. Therefore, your feed rate should be 7,2 meters per minute.
2. You already know that you want to use a feed rate of 7,2 meters per minute, and a speed of 18,000 RPM. Your bit has 2 flutes. To verify that the chip load will be within the recommended range:
   chip load = 7,2 meters per minute ÷ (18.000 RPM x 2 flutes). Therefore, your chip load is 0,20 mm.
3. Adjusting feed and speed for bit diameter: the chip loads in the table above are based a cutting depth that is equal to or less than the bit diameter. For deeper cuts, you need to adjust the chip load as follows:
   If cut depth is 2X the bit diameter, reduce the chip load by at least 25%
   If cut depth is 3X the bit diameter, reduce the chip load by at least 50%
   For example, let's say that our chart calls for a chip load of 0,20 mm for your application, BUT you decide to use a 12 mm diameter bit routing 24 mm deep. Since your cutting depth is now 2X the bit diameter, you must reduce the chip load as follows: **0,2 mm x 0,75 = 0,15 mm chip load.**

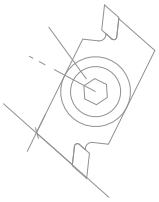
Cutterheads and Brazed Cutters

Freud's cutterheads and brazed cutters are carefully crafted, using the finest materials and the most advanced technologies. Designed for the profile processing and window tooling industry, these tools deliver perfect finishing and unmatched precision in demanding applications. The portfolio includes the most comprehensive range of solutions and the greatest variety of profiles produced, always with flawless results. All cutterheads and brazed cutters contain Freud's unique and industry-first features.









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TG79MG Cutterhead sets for panelling and flooring ..... Page 423
TG99MG Cutterhead sets for panelling and flooring ..... Page 433

Safe working practice ..... Page 439
Technological features ..... Page 440
Maintenance of tools ..... Page 445

LEADING TECHNOLOGY

TiCo CARBIDE TECHNOLOGY

Freud's ownership and control of the entire Carbide manufacturing cycle ensures that the correct formula is used for every application, to constantly maximise the knives performance. For its universal knives Freud engineered 20 different Carbide recipes to achieve the highest performance on specific application needs.



TiCo Carbide
A specially formulated, highly compact Titanium Cobalt Carbide, engineered and manufactured by freud.
It provides a sharper edge and flawless finish with a dramatically longer cutting life.

PREMIUM MATERIALS

Freud always selects the finest materials for its cutterheads.



Steel body
The cutter body in high quality Steel ensures maximum efficiency and performance in demanding applications, for the greatest results and durability.



Aluminium body
The cutter body in superior quality Ergal light alloy provides higher resistance and demands a lower machine engine power, for a maximised performance and efficiency.

DESIGN INNOVATION

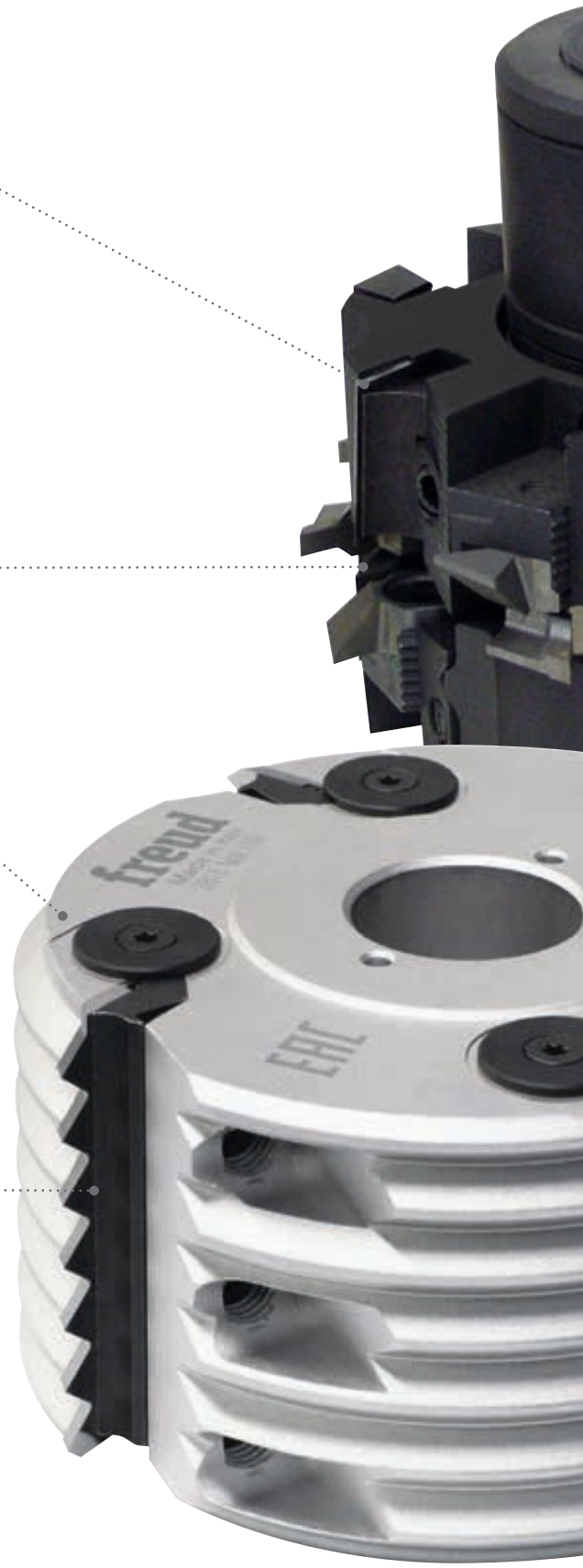
Freud's special tooth designs and geometries are engineered to perform perfect cuts and deliver extraordinary durability.



Performance System Technology
Freud's Performance System Technology knives are designed with extra thickness – 3mm – for up to 6 x resharping cycles and a prolonged durability.
These knives are available in a wide range of sizes.

EXTENSIVE RANGE

Freud offers the versatility to choose from a wide range of standard and custom cutterheads & brazed cutters, designed for automatic and manual feed machines that perform a great variety of profiles and material thicknesses.

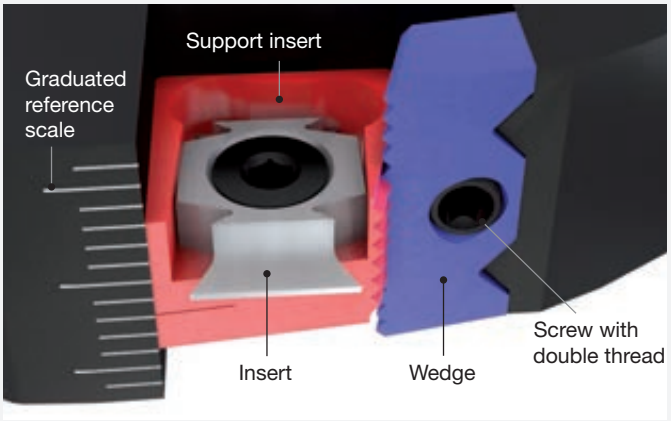




PIONEERING SOLUTIONS

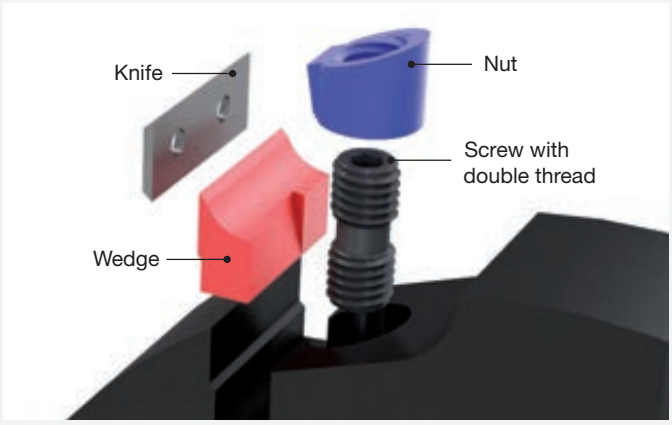
Freud leverages its long-term expertise, engineering know-how and industrial competence to offer safer, faster and more efficient solutions to fulfill the most challenging market needs.

NSR - Regulation System
Freud's innovative system enables the replacement of the inserts directly on the machine.
The NSR grants extraordinary precision – with no need for measuring instruments - leveraging Freud's specially grained set, for the perfect adjustment of the insert, with 1 mm steps and precision up to 1/100 of a mm.



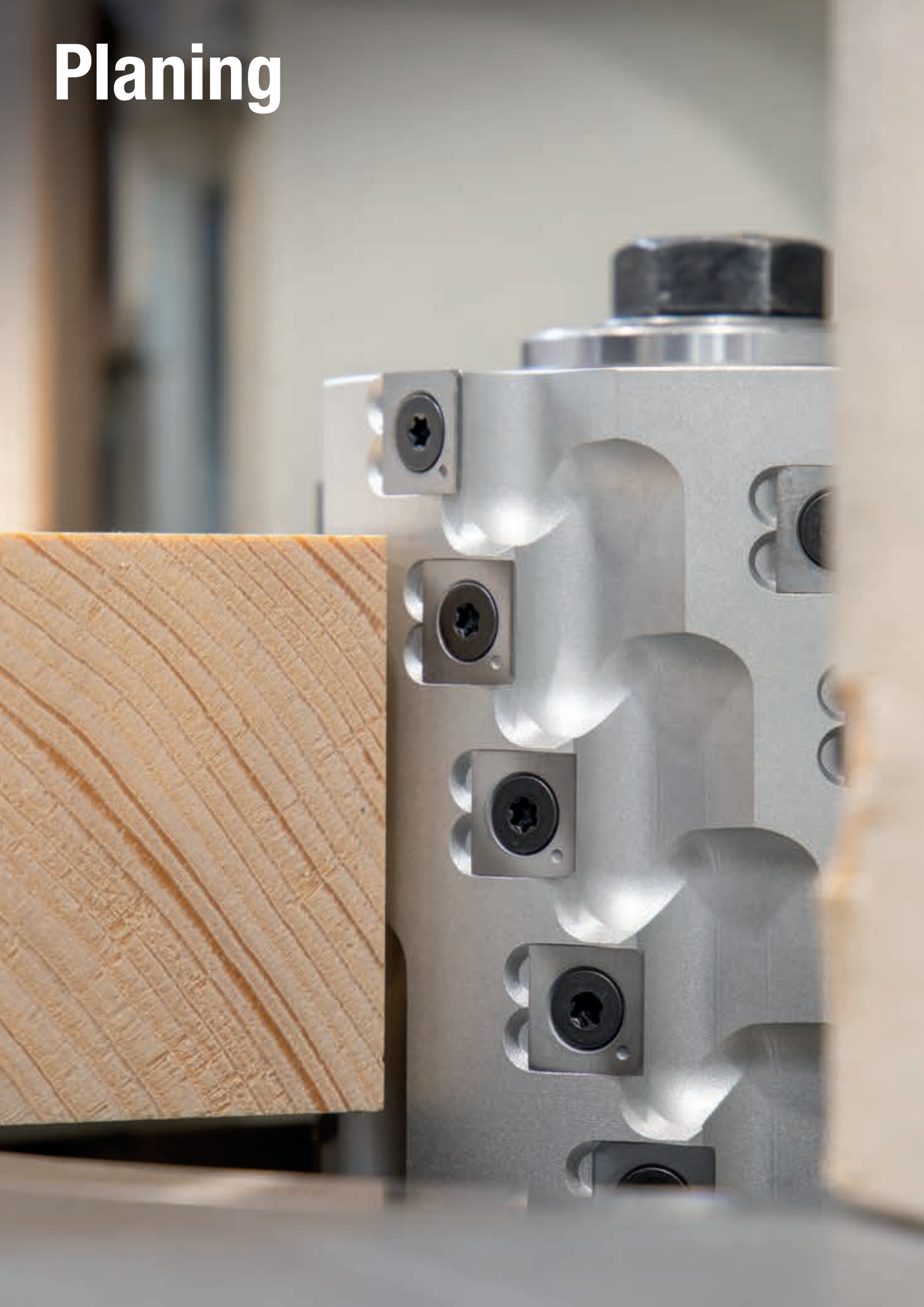
HRL - High Resistant Locking System
Freud's innovative system maximises the productivity, thanks to the fast knife removal, enabled by the front screw that reduces the machine downtime.

This system ensures extra safety through a double thread that prevents accidental breakage.



Optimised chip flow concept
Freud's cutterheads are designed to produce chips, larger in size and smaller in weight, for the optimal chip discharge. The quick removal of the material waste from the gullets results in an extended tool lifetime.

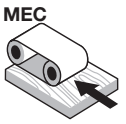
Planing



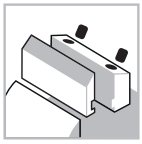


TM06M

Helical planer cutterheads with disposable knives



Automatic Feed



Clamping System



Aluminium Body



Softwood



Hardwood



Planing

Machines:
Moulders, automatic and throughfeed machines.

Materials:
Softwood and hardwood.

Applications:
Planing, moulding and roughing.

Technical information:
Planer cutterhead with good finish when cutting a maximum depth of 20 mm.

- Dimension “B” indicates effective cutting lenght. The maximum tool lenght is B + 3,5 mm.
- Use in combination with item **T182M** to cut guiding rebates.
- Aluminium light alloy body.
- Rebore not available.
- Equipped with disposable knives with bevels (CG18M).

Item	In conjunction with item:	Art. No.
TM06M Ø125	**T182M AB3**	F03FC20584
TM06M Ø125	**T182M AA3**	F03FC20583
TM06M PC3 **TM06M PH3**	**T182M CB3**	F03FC20586
TM06M	**T182M DB3**	F03FC20587

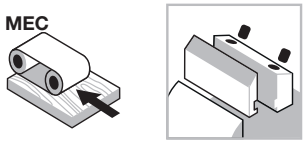
D mm	B mm	d mm	Z	Max RPM 1/min.	Freud Code	Art. No.
100	113	35	12	10.300	**TM06M PC3**	F03FC20384
100	183	35	20	10.300	**TM06M PH3**	F03FC20385
125	78,5	40	12	10.300	**TM06M AB3**	F03FC20371
125	130	40	21	10.300	**TM06M AD3**	F03FC20372
125	148,5	40	24	10.300	**TM06M AF3**	F03FC20373
125	183,5	40	30	10.300	**TM06M AH3**	F03FC20374
125	201	40	33	10.300	**TM06M AI3**	F03FC20375
125	236	40	39	10.300	**TM06M AM3**	F03FC20377

	Spare parts	Dimensions	Freud Code	Art. No.
	Knife	24 x 12 x 1,5	**CG18MBC310**	F03FH02919
	Wedge	15 x 19,3 x 8	**CN09M AM9**	F03FC01288
	Screw	M10 x 22	**VT19M MA9**	F03FA04496
	Nut	15 x 13,3 x M10	**VT20M MA9**	F03FC20670
	Allen key	5	**CB03M EA9**	F03FA00169

TM07M

Planer cutterheads with disposable knives





Automatic Feed

Clamping System



Aluminium Body



Softwood



Hardwood



Planing

Machines:
Moulders, automatic and throughfeed machines.

Materials:
Softwood and hardwood.

Applications:
Planing, moulding and finishing.

Technical information:
Planer cutterhead with good finish when cutting a maximum depth of 5 - 6 mm.

- Use in combination with item **T182M** to cut guiding rebates.
- Aluminium light alloy body.
- Rebore not available.
- Equipped with disposable knives with bevels (CG18M).

Item	In conjunction with item:	Art. No.
TM07M Ø125	**T182M AB3**	F03FC20584
TM07M	**T182M AA3**	F03FC20583
TM07M	**T182M DB3**	F03FC20587

D mm	B mm	d mm	Z	Max RPM 1/min.	Freud Code	Art. No.
100	120	35	9	10.300	**TM07M AE3**	F03FC20416
100	180	35	12	10.300	**TM07M AF3**	F03FC20417
125	130	40	9	10.300	**TM07M GD3**	F03FC20418
125	138	40	9	10.300	**TM07M GE3**	F03FC20419
125	180	40	12	10.300	**TM07M GF3**	F03FC20420
125	226	40	15	10.300	**TM07M GG3**	F03FC20421

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Knife	50 x 12 x 1,5	**CG18MFC310**	F03FH02921
	Wedge	15 x 46 x 8	**CN09M AP9**	F03FC01290
	Screw	M10 x 22	**VT19M MA9**	F03FA04496
	Nut	15 x 13,3 x M10	**VT20M MA9**	F03FC20670
	Allen key	5	**CB03M EA9**	F03FA00169

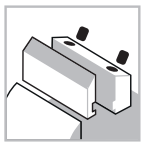


TM20M

Multicut planer cutterheads with ball bearing



Manual Feed



Clamping System



Aluminium Body



Softwood



Hardwood



Planing

Machines:
Spindle moulders and manual feed machines.

Materials:
Softwood and hardwood.

Applications:
Planing and roughing.

Technical information:
Planer cutterhead with helical design ideal for roughing.

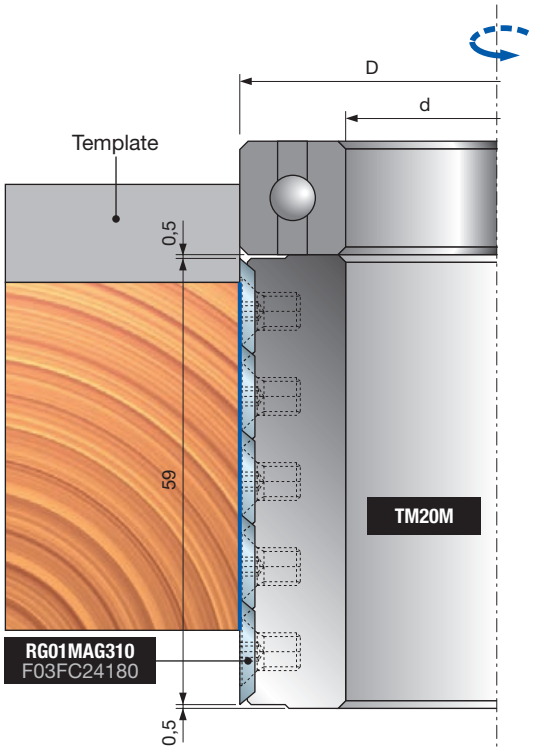
- Use in combination with ballbearing for round timbers.
- Aluminium light alloy body.
- Rebore not available.
- Equipped with 4 sides disposable spurs.

D mm	B mm	d mm	Z	V	Max RPM 1/min.	Freud Code	Art. No.
55	59	30		10	16.000	**TM20M ACC**	F03FC22098
62	59	35		10	16.000	**TM20M BCD**	F03FC22099
68	59	40		10	16.000	**TM20M CCE**	F03FC22100
80	59	50		10	16.000	**TM20M DCF**	F03FC21977

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Spur	14 x 14 x 2	**RG01MAG310**	F03FC24180
	Screw	M5 x 8	**VT05M AA9**	F03FA04444
	Torx key	T20	**CB03M CC9**	F03FA00167

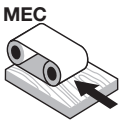
Bearings for cutterheads TM20M (not included)

For cutterhead	Art. No.	Dimensions mm	Freud Code	Art. No.
TM20M ACC	F03FC22098	55 x 13 x 30	**3101M AC9**	F03FA10543
TM20M BCD	F03FC22099	62 x 14 x 35	**3101M AD9**	F03FA10544
TM20M CCE	F03FC22100	68 x 15 x 40	**3101M AE9**	F03FA10545
TM20M DCF	F03FC21977	80 x 16 x 50	**3101M AG9**	F03FA10547

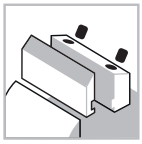




TM21M Multicut planer cutterheads



Automatic Feed



Clamping System



Aluminium Body



Softwood



Hardwood



Planing

Machines:
Moulders, automatic and throughfeed machines.

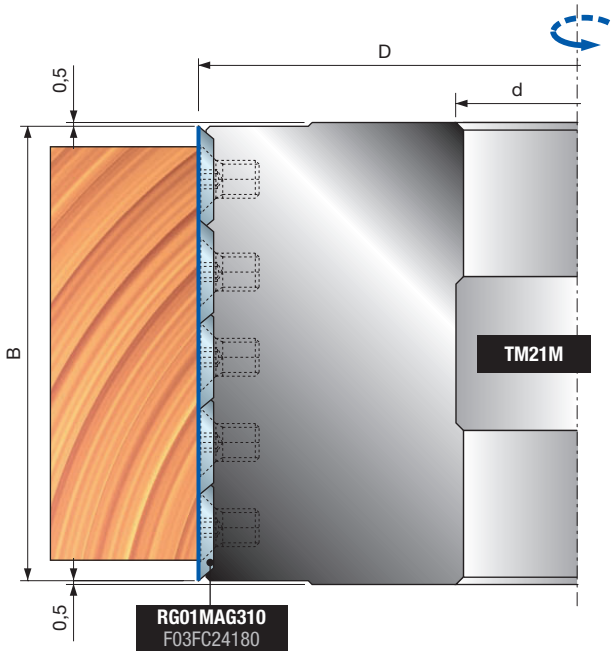
Materials:
Softwood and hardwood.

Applications:
Planing, moulding and roughing.

Technical information:
Planer cutterhead for automatic machines with helical design ideal for roughing.
- It can be used in combination with ballbearing for round timbers.
- Aluminium light alloy body.
- Rebore not available.
- Equipped with 4 sides disposable spurs.

D mm	B mm	d mm	Z	V	Max RPM 1/min.	Freud Code	Art. No.
100	60	30		15	10.300	**TM21M ECC**	F03FC20458
100	100	30		27	10.300	**TM21M EEC**	F03FC20459
125	130	40		33	10.300	**TM21M HGE**	F03FC20460
125	150	40		39	10.300	**TM21M HHE**	F03FC20461
125	180	40		45	10.300	**TM21M HIE**	F03FC20462

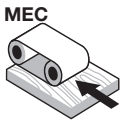
	Spare parts	Dimensions mm	Freud Code	Art. No.
	Spur	14 x 14 x 2	**RG01MAG310**	F03FC24180
	Screw	M5 x 8	**VT05M AA9**	F03FA04444
	Torx key	T20	**CB03M CC9**	F03FA00167



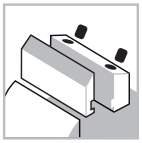


TP05M

Planer cutterheads with HSS knives



Automatic Feed



Clamping System



Aluminium Body



Softwood



Hardwood



Planing

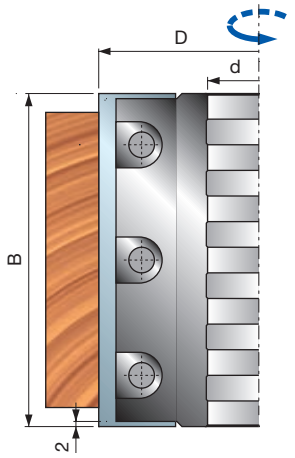
Machines:
Moulders, automatic and throughfeed machines.

Materials:
Softwood and hardwood.

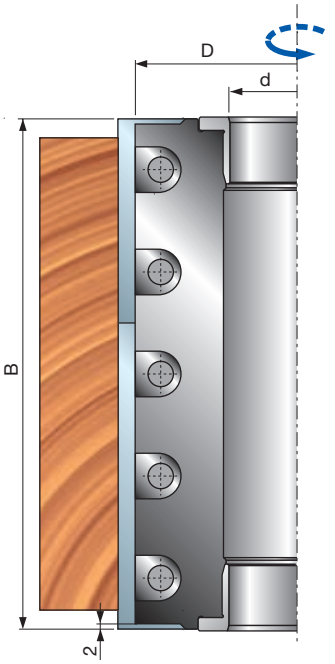
Applications:
Planing, moulding and finishing.

Technical information:
Planer cutterhead particulary indicated for softwood, maximum cutting depth 15 mm.
Type A: Cutteheads with traditional bore.
Type B: Bore realised on two side steel flanges fitted on Aluminium body:
- Better bore tolerances.
- Easy dismounting from the spindle.
- Rebore not available.
- Position the knives at the correct diameter with setting gauges.

Type A

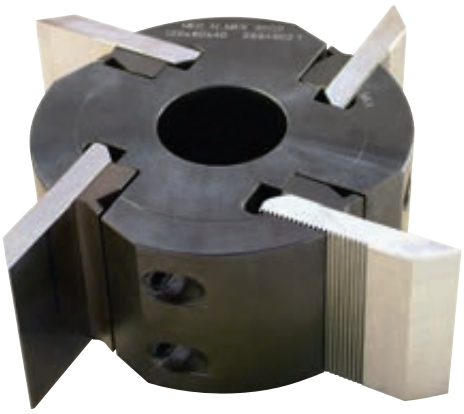


Type B

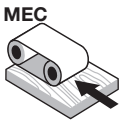


	D mm	B mm	d mm	Z	Max RPM 1/min.	Freud Code	Art. No.
Type A	125	100	40	4	10.300	**TP05M 100**	F03FC23661
	125	130	40	4	10.300	**TP05M 130**	F03FC21889
	125	150	40	4	10.300	**TP05M 150**	F03FC23663
	125	180	40	4	10.300	**TP05M 180**	F03FC24438
	125	200	40	4	10.300	**TP05M 200**	F03FC24439
	125	230	40	4	10.300	**TP05M 230**	F03FC21891
Type B	125	100	40	4	10.300	**TP05M 100B**	F03FC24440
	125	130	40	4	10.300	**TP05M 130B**	F03FC24442
	125	150	40	4	10.300	**TP05M 150B**	F03FC24444
	125	180	40	4	10.300	**TP05M 180B**	F03FC24446
	125	200	40	4	10.300	**TP05M 200B**	F03FC23134
	125	230	40	4	10.300	**TP05M 230B**	F03FC23135
	140	100	50	4	9.600	**TP05M 100C**	F03FC24441
	140	130	50	4	9.600	**TP05M 130C**	F03FC24443
	140	150	50	4	9.600	**TP05M 150C**	F03FC24445
	140	180	50	4	9.600	**TP05M 180C**	F03FC24447
	140	200	50	4	9.600	**TP05M 200C**	F03FC23665
	140	230	50	4	9.600	**TP05M 230C**	F03FC23666

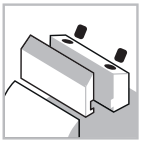
	Spare parts	Dimensions mm	Freud Code	Art. No.
	Screw	M10 x 25	**2602M FI9**	F03FA07353
	Allen key	5	**CB03M EA9**	F03FA00169
100	Knife	100 x 30 x 3	**CT01MDA202**	F03FA18167
	Wedge	96 x 19 x 8,5	**CN11M 096**	F03FC23670
130	Knife	130 x 30 x 3	**CT01MHA202**	F03FA18169
	Wedge	126 x 19 x 8,5	**CN11M 126**	F03FC21964
150	Knife	150 x 30 x 3	**CT01MLA202**	F03FA18171
	Wedge	146 x 19 x 8,5	**CN11M 146**	F03FC23672
180	Knife	180 x 30 x 3	**CT01MOA202**	F03FA18173
	Wedge	176 x 19 x 8,5	**CN11M 176**	F03FC24448
200	Knife	200 x 30 x 3	**CT01MPA202**	F03FA18174
	Wedge	196 x 19 x 8	**CN11M 196**	F03FC23132
230	Knife	230 x 30 x 3	**CT01MRA202**	F03FA18175
	Wedge	226 x 19 x 8,5	**CN11M 226**	F03FC21966



TPCZM — Cutterheads with serrated profilable knives



Automatic Feed

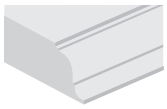

Clamping System


Steel Body


Softwood


Hardwood


Planing


Profiling

Machines:
Moulders, automatic and throughfeed machines.

Materials:
Softwood and hardwood.

Applications:
Planing, moulding and profiling.

Technical information:
Suitable for profiling all softwoods and hardwoods.
- The serrated surface ensures a perfect knife placement and lock.
- This item is supplied without knives.
- Do not exceed the number of knives regrindings that leaves a maximum distance between the seat and the knife of 6,4 mm.
- Steel body.
- Rebore not available.

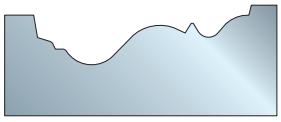
D mm	B mm	d mm	Z	Max RPM 1/min.	Freud Code	Art. No.
122	60	40	4	9.000	**TPCZM CB9**	F03FC22116
122	80	40	4	9.000	**TPCZM CC9**	F03FC22117
122	100	40	4	9.000	**TPCZM CD9**	F03FC22119
122	150	40	4	9.000	**TPCZM CF9**	F03FC22223

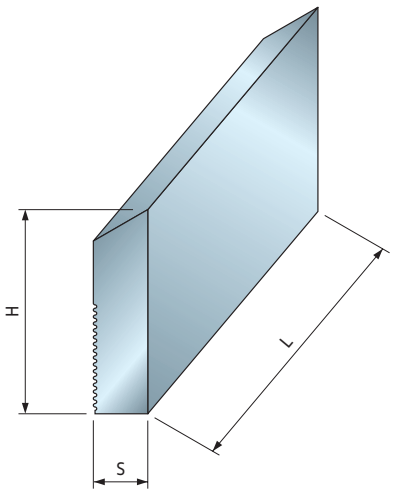
	Spare parts	Dimensions mm	Freud Code	Art. No.
	Allen key	5	**CB03M EA9**	F03FA00169
	Screw	M10 x 18	**VT03M CC9**	F03FA04438
CB9	Wedge	60 x 23,5 x 9,6	**CNB4M BA9**	F03FC21984
CC9	Wedge	80 x 23,5 x 9,6	**CNB4M CA9**	F03FC21986
CD9	Wedge	100 x 23,5 x 9,6	**CNB4M DA9**	F03FC21987
CF9	Wedge	150 x 23,5 x 9,6	**CNB4M FA9**	F03FC21989

Raw knife



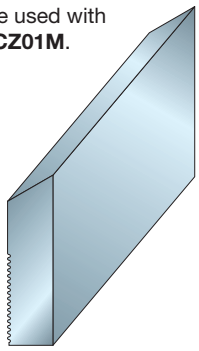
Profiled knife



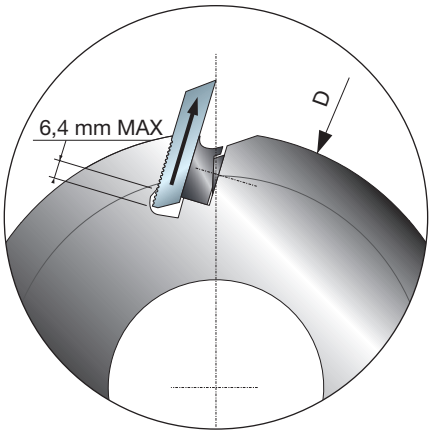


Profilable HSS knives with serrated surface.
- Suitable for Freud TPCZM planners.
- Suitable for cutting all softwoods and hardwoods.

It can be used with knives **CZ01M**.



Knife placement

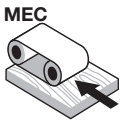


CZ01M — HSS serrated back knives

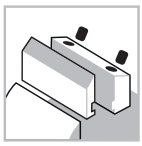
L mm	H mm	S mm	Freud Code	Art. No.
60	50	8	**CZ01MDB202**	F03FA21895
80	50	8	**CZ01MDC202**	F03FA21896
100	50	8	**CZ01MDD202**	F03FA21897
150	50	8	**CZ01MDF202**	F03FA21898
60	60	8	**CZ01MHB202**	F03FA21899
80	60	8	**CZ01MHC202**	F03FA21900
100	60	8	**CZ01MHD202**	F03FA21901
150	60	8	**CZ01MHF202**	F03FA21902
60	70	8	**CZ01MNB202**	F03FA21903
80	70	8	**CZ01MNC202**	F03FA21904
100	70	8	**CZ01MND202**	F03FA21905
150	70	8	**CZ01MNF202**	F03FA21906



TM28M ISOprofil planer cutterheads with alternating shear angle



Automatic Feed



Clamping System



Aluminium Body



Softwood



Hardwood



Planing

ISOprofil TECHNOLOGY

Shear Angle TECHNOLOGY

Machines:
Moulders, automatic and throughfeed machines.

Materials:
Softwood and hardwood.

Applications:
Planing and finishing.

Technical information:
ISOprofil locking system planer head.
- Z2+2 alternative shear angle system, tool body in light Aluminium alloy.
- Available with both HM or HSS knives.
- Max thickness to be removed 3 mm, ideal for top finishing.
- Use in combination with **T182M** rebate cutterhead.
- Aluminium light alloy body.
- Rebore not available.
- HM and HSS knives can be resharpened up to 3 mm.

Tools supplied with HW knives

D mm	B mm	d mm	Z	Max RPM 1/min.	Freud Code	Art. No.
125	80	40	4	10.300	**TM28M AA3**	F03FC22081
125	130	40	4	10.300	**TM28M AD3**	F03FC22083
125	150	40	4	10.300	**TM28M AF3**	F03FC22085
125	180	40	4	10.300	**TM28M AH3**	F03FC22086
125	240	40	4	10.300	**TM28M AM3**	F03FC22089

Tools supplied with HSS knives

D mm	B mm	d mm	Z	Max RPM 1/min.	Freud Code	Art. No.
125	80	40	4	10.300	**TM28M AA2**	F03FC22080
125	130	40	4	10.300	**TM28M AD2**	F03FC22082
125	150	40	4	10.300	**TM28M AF2**	F03FC22084
125	180	40	4	10.300	**TM28M AH2**	F03FC22087
125	240	40	4	10.300	**TM28M AM2**	F03FC22088

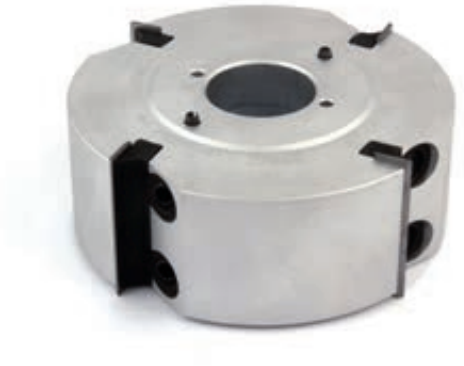
ATB 15° tooth (Fig. 2)

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Positioning plate	22 x 1,7 x 6,5	**VT18M GB9**	F03FA04489
	Screw	M5 x 8	**VT05M AA9**	F03FA04444
	Allen key	5	**CB03M EA9**	F03FA00169
	Screw	M10 x 16	**2616M EE9**	F03FA07426
AA2 - AA3	Wedge	76 x 19,5 x 11,5	**CN28M 080**	F03FC24599
AA2 - AA3	HSS right knife	82 x 19 x 4,5	**CP28MDAA201**	F03FC23958
AA2 - AA3	HSS left knife	82 x 19 x 4,5	**CP28MSAA201**	F03FC23968
AA2 - AA3	HW right knife	82 x 19 x 4,5	**CP28MDAA301**	F03FC23959
AA2 - AA3	HW left knife	82 x 19 x 4,5	**CP28MSAA301**	F03FC23969
AD2 - AD3	Wedge	126 x 19,5 x 11,5	**CN28M 130**	F03FC24600
AD2 - AD3	HSS right knife	132 x 4,5 x 19	**CP28MDAD201**	F03FC23960
AD2 - AD3	HSS left knife	132 x 4,5 x 19	**CP28MSAD201**	F03FC23970
AD2 - AD3	HW right knife	132 x 4,5 x 19	**CP28MDAD301**	F03FC23961
AD2 - AD3	HW left knife	132 x 4,5 x 19	**CP28MSAD301**	F03FC23971
AF2 - AF3	Wedge	146 x 19,5 x 11,5	**CN28M 150**	F03FC24601
AF2 - AF3	HSS right knife	152 x 4,5 x 19	**CP28MDAF201**	F03FC23962
AF2 - AF3	HSS left knife	152 x 4,5 x 19	**CP28MSAF201**	F03FC23972
AF2 - AF3	HW right knife	152 x 4,5 x 19	**CP28MDAF301**	F03FC23963
AF2 - AF3	HW left knife	152 x 4,5 x 19	**CP28MSAF301**	F03FC23973
AH2 - AH3	Wedge	176 x 19,5 x 11,5	**CN28M 180**	F03FC24602
AH2 - AH3	HSS right knife	182 x 4,5 x 19	**CP28MDAH201**	F03FC23964
AH2 - AH3	HSS left knife	182 x 4,5 x 19	**CP28MSAH201**	F03FC23974
AH2 - AH3	HW right knife	182 x 4,5 x 19	**CP28MDAH301**	F03FC23965
AH2 - AH3	HW left knife	182 x 4,5 x 19	**CP28MSAH301**	F03FC23975
AM2 - AM3	Wedge	236 x 19,5 x 11,5	**CN28M 240**	F03FC24603
AM2 - AM3	HSS right knife	242 x 4,5 x 19	**CP28MDAM201**	F03FC23966
AM2 - AM3	HSS left knife	242 x 4,5 x 19	**CP28MSAM201**	F03FC23976
AM2 - AM3	HW right knife	242 x 4,5 x 19	**CP28MDAM301**	F03FC23967
AM2 - AM3	HW left knife	242 x 4,5 x 19	**CP28MSAM301**	F03FC23977

Groove bead cutters

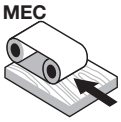
Item	In conjunction with item:	Art. No.
TM28M	**T182M EA3**	F03FC20588
TM28M	**T182M EB3**	F03FC20589

Aluminium light alloy body. For cleaning do not use products containing caustic soda. Can be used in combination with item T182M to cut guiding rebates.

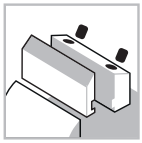


T102M

Modular planer cutterheads with disposable knives



Automatic Feed



Clamping System



Aluminium Body



Softwood



Hardwood



Planing

Machines:
Moulders, automatic and throughfeed machines.

Materials:
Softwood and hardwood.

Applications:
Planing and finishing.

Technical information:
Modular tool can be stacked and used in multiples thus enabling the machining of a wider area. Furthermore, one can either stack and use tool bearing the same identical knives (Picture A) or tool equipped with knives of different sizes, for example 50 mm - 30 mm (Picture B).

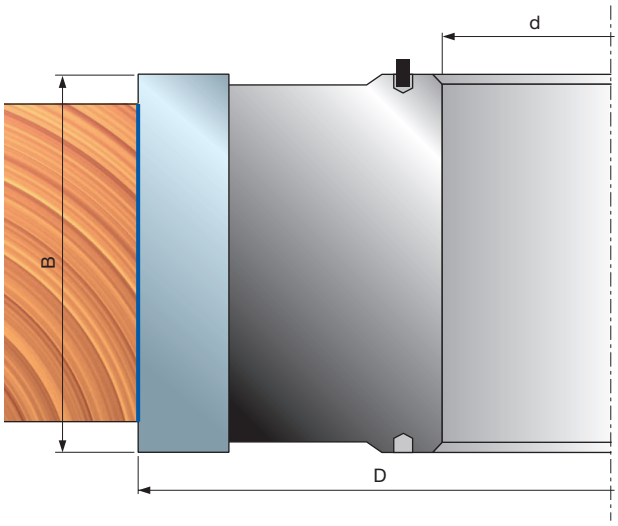
- Aluminium light alloy body.
- Rebore not available.
- Can be used in combination with item T182M to cut guiding rebates.

D mm	B mm	d mm	Z	Max RPM 1/min.	Freud Code	Art. No.
125	30	32	4	10.300	**T102M AL3**	F03F668305
125	30	40	4	10.300	**T102M AF3**	F03FC20577
125	50	32	4	10.300	**T102M AI3**	F03F668304
125	50	40	4	10.300	**T102M AC3**	F03FC20575
125	50	50	4	10.300	**T102M AD3**	F03FC20576

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Screw	M10 x 22	**VT19M MA9**	F03FA04496
	Nut	15 x 13,3 x M10	**VT20M MA9**	F03FC20670
	Allen key	5	**CB03M EA9**	F03FA00169
AC3 - AD3 AI3	Knife	50 x 12 x 1,5	**CG08MFA310**	F03FH02907
	Wedge	15 x 46 x 8	**CN09M AP9**	F03FC01290
AB3 - AE3 AF3 - AL3	Knife	30 x 12 x 1,5	**CG08MEA310**	F03FH02906
	Wedge	15 x 26 x 8	**CN09M AD9**	F03FC01283

Groove bead cutters

Item	In conjunction with item:	Art. No.
T102M AC3 - AF3	**T182M EA3**	F03FC20588
T102M AC3 - AF3	**T182M EB3**	F03FC20589



Application examples

Fig. A

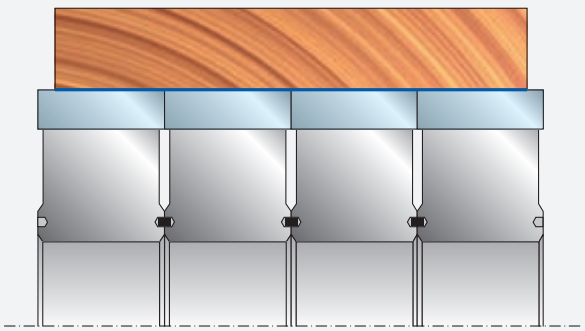
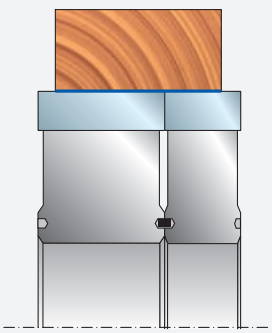


Fig. B



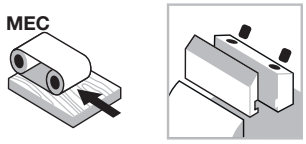
Rebating



T182M

Groove bead cutterheads with disposable knives





Automatic Feed

Clamping System



Steel Body



Softwood



Hardwood



Rebating

Machines:
Moulders, automatic and throughfeed machines.

Materials:
Softwood and hardwood.

Applications:
Rebating.

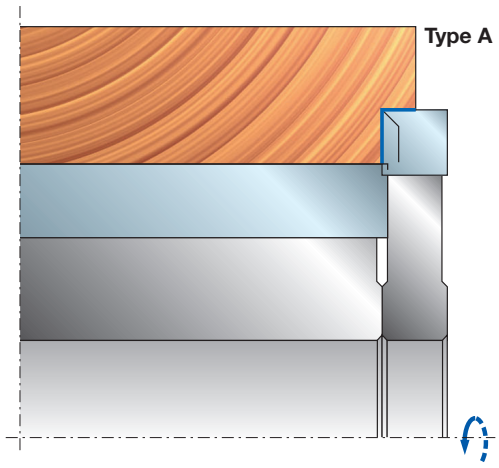
Technical information:
Tool to use in combination with **TM06M-TM07M** to cut guiding rebates.

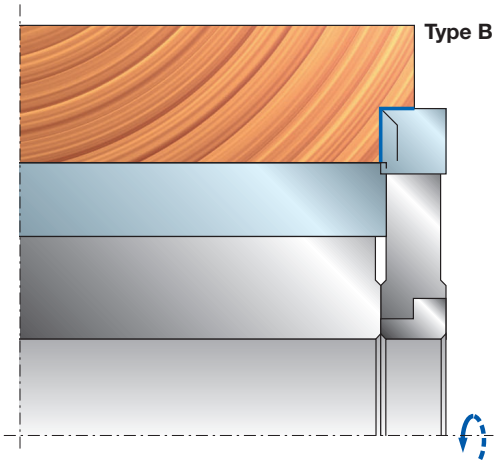
- Item **T182M AB3:** suitable for Casadei and S.C.M. moulders.
- Steel body.
- Rebore not available.

	D mm	B mm	d mm	Z	V	Max RPM 1/min.	Freud Code	Art. No.
Type A	120	12	35	3	3	11.000	**T182M BB3**	F03FC20585
	120	12	35	2	2	11.000	**T182M CB3**	F03FC20586
	145	10	40	3	3	9.000	**T182M AB3***	F03FC20584
	150	10	40	4	2	9.000	**T182M EB3**	F03FC20589
	150	10	40	3	3	9.000	**T182M DB3**	F03FC20587
Type B	145	12	40	4	2	9.000	**T182M EA3**	F03FC20588
	145	12	40	3	3	9.000	**T182M AA3**	F03FC20583

Item	Art. No.	In conjunction with item:
T182M AB3*	F03FC20584	**TM06M - TM07M Ø125**
T182M AA3	F03FC20583	**TM06M - TM07M Ø125**
T182M CB3	F03FC20586	**TM06M PC3 - TM06M PH3**
T182M DB3	F03FC20587	**TM06M - TM07M**
T182M EA3	F03FC20588	**TM28M - T102M**
T182M EB3	F03FC20589	**TM28M - T102M**

Item **T182M**: use in combination with **TM06M-TM07M** to cut guiding rebates.
* For use on Casadei and S.C.M. moulders.

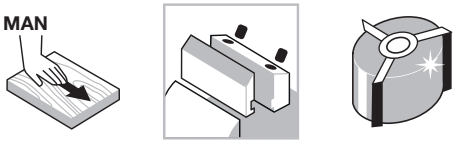




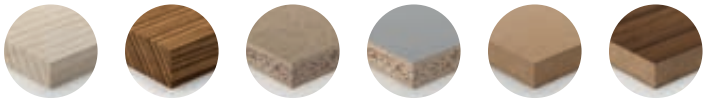
	Spare parts	Dimensions mm	Freud Code	Art. No.
	Torx key	T20	**CB03M CC9**	F03FA00167
	Spur	14 x 14 x 2	**RG01MAA310**	F03FH03034
	Screw	M5 x 8	**VT05M AA9**	F03FA04444
AA3	Knife	12 x 12 x 1,5	**CG08MBA310**	F03FH02903
	Wedge	15 x 10 x 8	**CN01M BA9**	F03FC01249
	Flange	68 x 10 x 40	**FX01M HC9**	F03FC15041
	Screw	M6 x 16	**VT03M DI9**	F03FA04440
	Allen key	3	**CB03M AA9**	F03FA00162
AB3	Knife	9,6 x 12 x 1,5	**CG08MMA310**	F03FH02910
	Wedge	15 x 8 x 8	**CN09M DB9**	F03FC01296
	Screw	M5 x 16	**VT03M BB9**	F03FA04437
	Allen key	2,5	**2619M CA9**	F03FA07432
BB3	Knife	11 x 12 x 1,5	**CG08MNA310**	F03FH03254
	Wedge	15 x 10 x 8	**CN01M BA9**	F03FC01249
	Screw	M6 x 16	**VT03M DI9**	F03FA04440
	Allen key	3	**CB03M AA9**	F03FA00162
CB3	Knife	12 x 12 x 1,5	**CG06MAA310**	F03FH02889
	Wedge	15 x 10 x 8	**CN01M BA9**	F03FC01249
	Screw	M6 x 16	**VT03M DI9**	F03FA04440
	Allen key	3	**CB03M AA9**	F03FA00162
DB3	Knife	9,6 x 12 x 1,5	**CG08MBA310**	F03FH02903
	Wedge	15 x 8 x 8	**CN09M DB9**	F03FC01296
	Screw	M5 x 16	**VT03M BB9**	F03FA04437
	Allen key	2,5	**2619M CA9**	F03FA07432
EA3	Knife	12 x 12 x 1,5	**CG08MBA310**	F03FH02903
	Wedge	15 x 10 x 8	**CN09MS AA9**	F03FC01323
	Flange	68 x 10 x 40	**FX01M HC9**	F03FC15041
	Screw	M6 x 22	**VT19M AB9**	F03FA04491
	Nut	10 x 11,5 x 6	**VT20M AA9**	F03FA04497
	Allen key	3	**CB03M AA9**	F03FA00162
EB3	Knife	9,6 x 12 x 1,5	**CG08MBA310**	F03FH02903
	Wedge	15 x 8 x 8	**CN09M AH9**	F03FC01285
	Screw	M6 x 22	**VT19M AB9**	F03FA04491
	Nut	9 x 10,5 x 6	**VT20M GA9**	F03FC20669
	Allen key	3	**CB03M AA9**	F03FA00162



T111M - T112M Disposable knives cutterheads for rebates



Manual Feed | Clamping System | Aluminium Body



Softwood | Hardwood | Chipboard | Laminated Chipboard | MDF | Laminated MDF



Planing | Rebating

Machines:
Spindle moulders and manual feed machines.

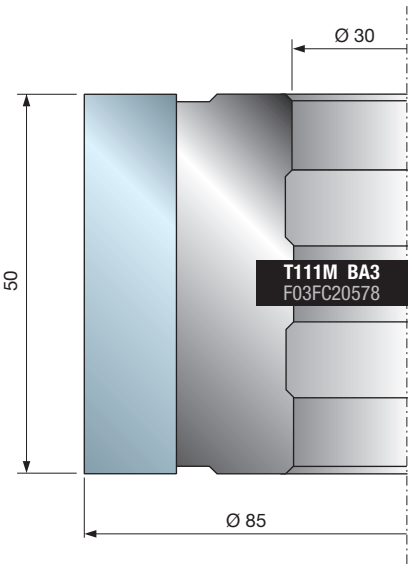
Materials:
Softwood, hardwood and wood based panels.

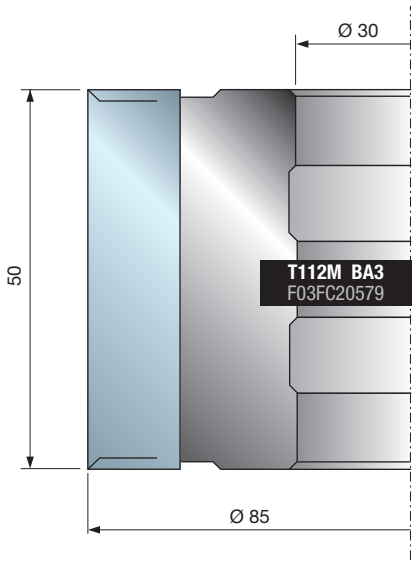
Applications:
Planing and rebating.

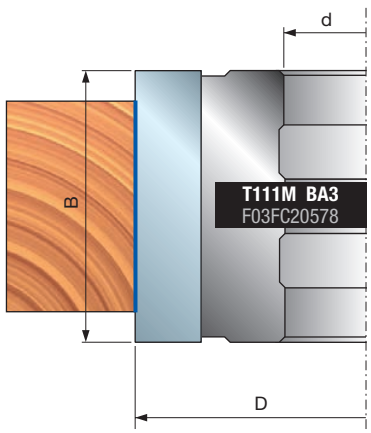
Technical information:
Disposable knives tool for planing and rebating.
- Aluminium light alloy body.
- Rebore not available.

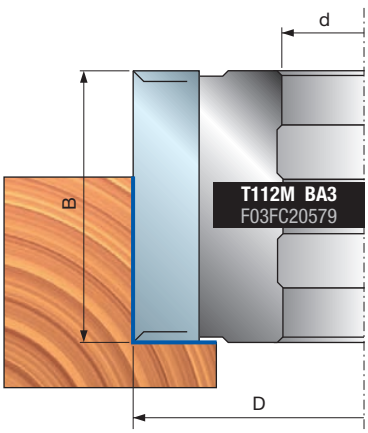
D mm	B mm	d mm	Z	V	Max RPM 1/min.	Freud Code	Art. No.
85	50	30	4		12.000	**T111M BA3**	F03FC20578
85	50	30	4	4	12.000	**T112M BA3**	F03FC20579

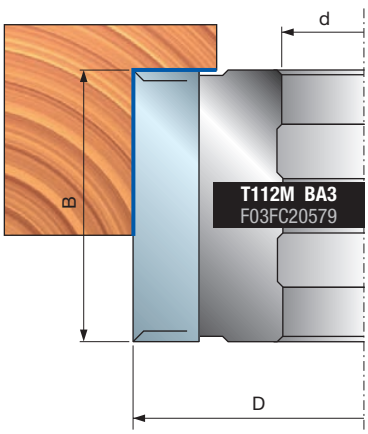
	Spare parts	Dimensions mm	Freud Code	Art. No.
	Knife	50 x 12 x 1,5	**CG08MFA310**	F03FH02907
	Screw	M8 x 16	**VT03M AA9**	F03FA04435
	Wedge	46	**CN01M KA9**	F03FC01255
	Allen key	4	**2619M EA9**	F03FA07434
	Torx key	T20	**CB03M CC9**	F03FA00167
T112M	Spur	14 x 14 x 2	**RG01MAA310**	F03FH03034
T112M	Screw	M5 x 8	**VT05M AA9**	F03FA04444





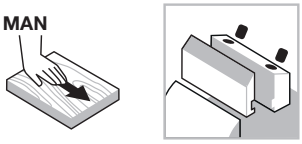






T191M - T192M Disposable knives cutterheads for rebates





Manual Feed

Clamping System



Steel Body



Softwood



Hardwood



Planing



Rebating

Shear Angle TECHNOLOGY

Machines:
Spindle moulders and manual feed machines.

Materials:
Softwood and hardwood.

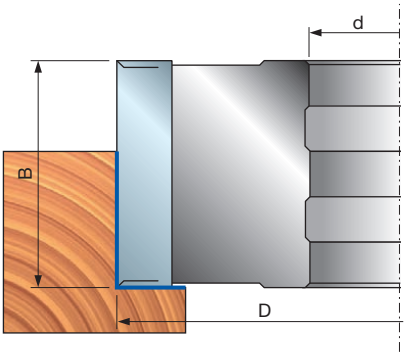
Applications:
Planing and rebating.

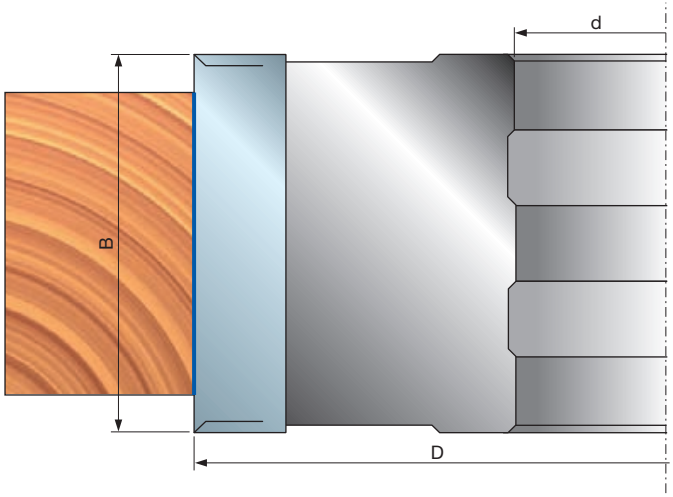
Technical information:
Disposable knives tool for planing and rebating with alternate shear angle.
- Steel body.
- Rebore not available.

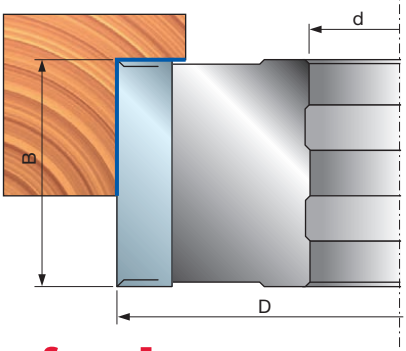
D mm	B mm	d mm	Z	V	Max RPM 1/min.	Freud Code	Art. No.
125	50,4	30	4	4	10.300	**T191M BA3**	F03FC20600
125	50,4	35	4	4	10.300	**T191M BB3**	F03FC20601
125	50,4	40	4	4	10.300	**T191M BC3**	F03FC20602
125	50,4	50	4	4	10.300	**T191M BD3**	F03FC20603
125	50,4	30	2	4	10.300	**T192M BA3**	F03FC20604
125	50,4	35	2	4	10.300	**T192M BB3**	F03FC24963
125	50,4	40	2	4	10.300	**T192M BC3**	F03FC20605
125	50,4	50	2	4	10.600	**T192M VC3**	F03F703931

T112M

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Knife	50 x 12 x 1,5	**CG08MFA310**	F03FH02907
	Wedge	15 x 46 x 8	**CN09M AP9**	F03FC01290
	Screw	M10 x 22	**VT19M MA9**	F03FA04496
	Screw	M5 x 8	**VT05M AA9**	F03FA04444
	Nut	15 x 13,3 x M10	**VT20M MA9**	F03FC20670
	Spur	14 x 14 x 2	**RG01MAA310**	F03FH03034
	Allen key	5	**CB03M EA9**	F03FA00169
	Torx key	T20	**CB03M CC9**	F03FA00167

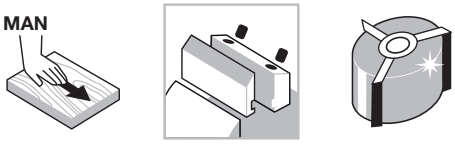




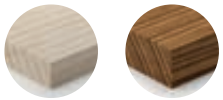




T194M - T195M Disposable knives cutterheads for rebates



Manual Feed | Clamping System | Aluminium Body



Softwood | Hardwood



Planing | Rebating

Shear Angle TECHNOLOGY

Machines:
Spindle moulders and manual feed machines.

Materials:
Softwood and hardwood.

Applications:
Planing and rebating.

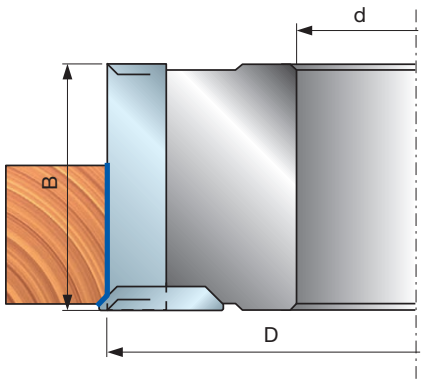
Technical information:
Disposable knives tool for planing and rebating with alternate shear angle.
- Seat pockets for chamfering and rounding inserts (not included).
- Aluminium light alloy body.
- Rebore not available.

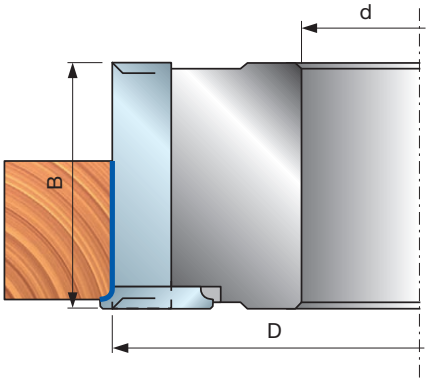
D mm	B mm	d mm	Z	V	Max RPM 1/min.	Freud Code	Art. No.
125	30,4	32	4	4	10.300	**T194M AC3**	F03F668307
125	30,4	35	4	4	10.300	**T194M AB3**	F03FC20607
125	30,4	50	4	4	10.300	**T194M AD3**	F03FC25546
125	50,4	32	4	4	10.300	**T194M BC3**	F03F668308
125	50,4	35	4	4	10.300	**T194M BB3**	F03FC20608
125	50,4	50	4	4	10.300	**T194M BD3**	F03FC23634
125	50,4	35	2	4	10.300	**T195M BB3**	F03FC20610
125	30,4	50	2	4	10.300	**T195M BD3**	F03FC23582

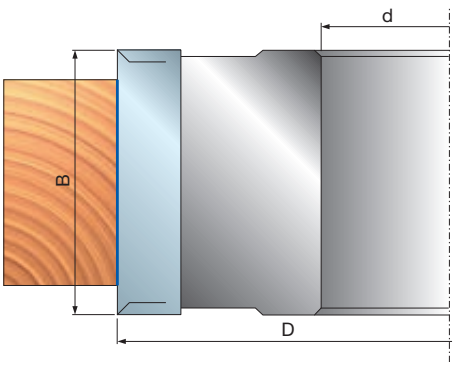
	Spare parts	Dimensions mm	Freud Code	Art. No.
	Spur	14 x 14 x 2	**RG01MAA310**	F03FH03034
	Screw	M5 x 8	**VT05M AA9**	F03FA04444
	Screw	M10 x 22	**VT19M MA9**	F03FA04496
	Nut	15 x 13,3 x M10	**VT20M MA9**	F03FC20670
	Allen key	5	**CB03M EA9**	F03FA00169
	Torx key	T20	**CB03M CC9**	F03FA00167
AB3 AC3	Knife	30 x 12 x 1,5	**CG08MEA310**	F03FH02907
AB3 AC3	Wedge	15 x 26 x 8	**CN09M AD9**	F03FC01283
BB3 BC3	Knife	50 x 12 x 1,5	**CG08MFA310**	F03FH02907
BB3 BC3	Wedge	15 x 46 x 8	**CN09M AP9**	F03FC01290

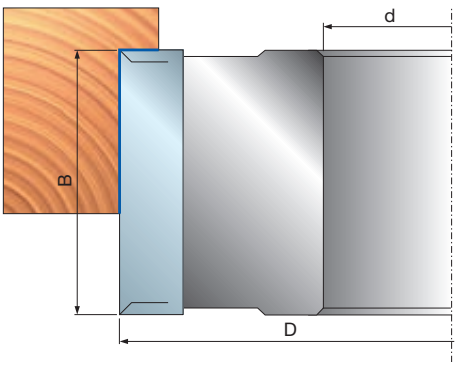
Tool with seat pockets for the following inserts (not included):

	Inserts	Dimensions mm	Freud Code	Art. No.
	Knife	26 x 16 x 5 45°	**IG61MSBA305**	F03FH03027
	Knife	26 x 16 x 5 R=1,5	**IG62MSAB305**	F03FH03031
	Knife	26 x 16 x 5 R=2	**IG62MSAC305**	F03FH03032
	Knife	26 x 16 x 5 R=3	**IG62MSAE305**	F03FH03033
	Screw	M6 x 14,5	**VT16M AA9**	F03FA04476









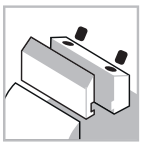


T193M

Disposable knives cutterheads for rebates



Manual Feed



Clamping System



Aluminium Body



Softwood



Hardwood



Planing



Rebating



Machines:
Spindle moulders and manual feed machines.

Materials:
Softwood and hardwood.

Applications:
Planing and rebating.

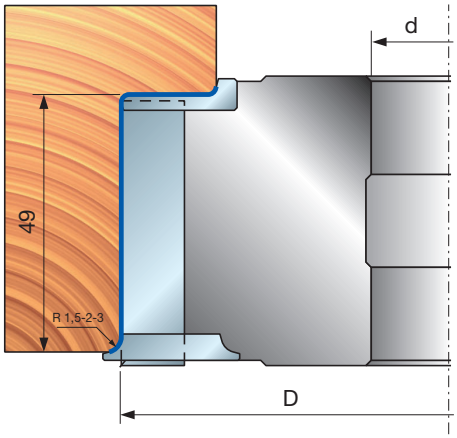
Technical information:
Disposable knives tool for planing and rebating with alternate shear angle.
- Seat pockets for chamfering, rounding and grooving inserts (not included).
- Aluminium light alloy body.
- Rebore not available.

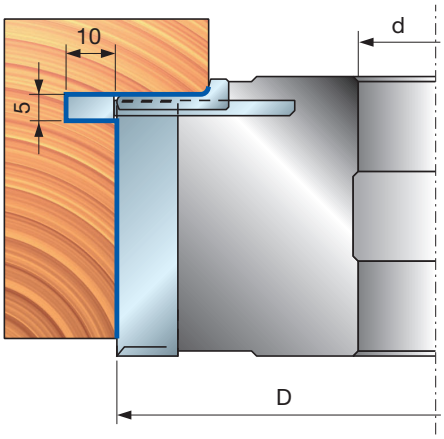
D mm	B mm	d mm	Z	V	Max RPM 1/min.	Freud Code	Art. No.
125	50	30	4	2	10.300	**T193M BA3**	F03FC20606
125	50	32	4	2	10.300	**T193M BC3**	F03F668306
140	50	50	4	2	9.600	**T193M BD3**	F03FC25545

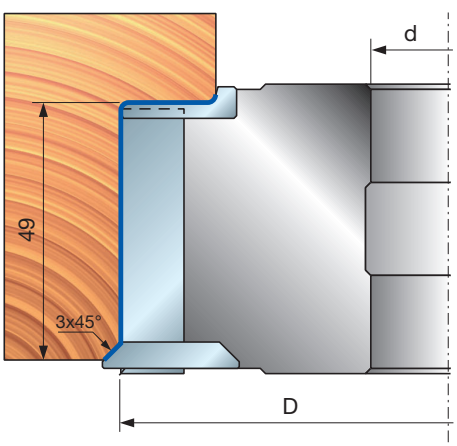
	Spare parts	Dimensions mm	Freud Code	Art. No.
	Knife	50 x 12 x 1,5	**CG08MFA310**	F03FH02907
	Wedge	15 x 46 x 8	**CN09M AP9**	F03FC01290
	Nut	15 x 13,3 x M10	**VT20M MA9**	F03FC20670
	Screw	M10 x 22	**VT19M MA9**	F03FA04496
	Spur	14 x 14 x 2	**RG01MAA310**	F03FH03034
	Screw	M5 x 8	**VT05M AA9**	F03FA04444
	Adjustment ring	16 x 11,9 x 2,6	**VT18M AG9**	F03FC20660
	Screw	M6 x 10	**2622M CB9**	F03FA07455
	Allen key	5	**CB03M EA9**	F03FA00169
	Allen key	4	**CB03M BA9**	F03FA00163
	Torx key	T20	**CB03M CC9**	F03FA00167

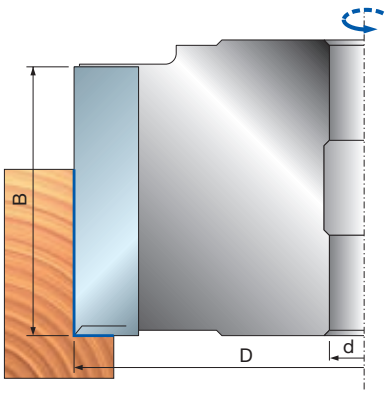
Tool with seat pockets for the following inserts (not included):

	Inserts	Dimensions mm	Freud Code	Art. No.
	Multipurpose insert	15	**IG25MD15302**	F03FC24169
	Multipurpose insert	16	**IG25MD16302**	F03FC24170
	Multipurpose insert	18	**IG25MD18302**	F03FC24171
	Screw	M6 x 10	**2622M CB9**	F03FA07455
	Knife	26 x 16 x 5 45°	**IG61MSBA305**	F03FH03027
	Knife	26 x 16 x 5 R=1,5	**IG62MSAB305**	F03FH03031
	Knife	26 x 16 x 5 R=2	**IG62MSAC305**	F03FH03032
	Knife	26 x 16 x 5 R=3	**IG62MSAE305**	F03FH03033
	Screw	M6 x 14,5	**VT16M AA9**	F03FA04476
	Sector	25 x 45 x 5 Z1	**SR11MDBD301**	F03FC24206
	Screw	M5 x 8	**VT05M AA9**	F03FA04444



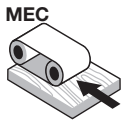




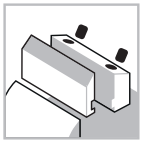


T198M Adjustable rebate and groove cutterhead sets with disposable knives





Automatic Feed



Clamping System



Steel Body



Softwood



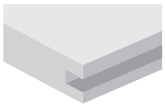
Hardwood



Planing



Rebating



Grooving

Shear Angle TECHNOLOGY

Machines:
Moulders, automatic and throughfeed machines.

Materials:
Softwood and hardwood.

Applications:
Planing, rebating and grooving.

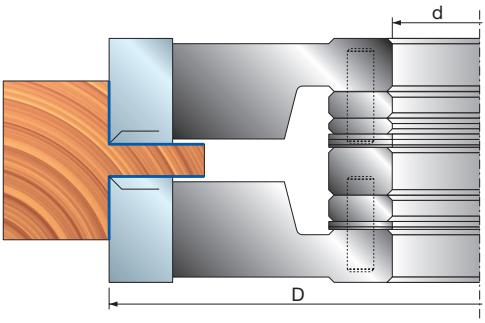
Technical information:
Disposable knives tool set with alternate shear angle.
- Rebore not available.
- Seat pockets for chamfering, rounding and grooving inserts (not included).
- Steel body.
- Rebore not available.

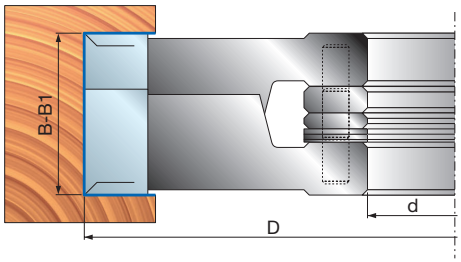
D mm	B-B1 mm	d mm	Z	V	Max RPM 1/min.	Freud Code	Art. No.
140	20,5-39	30	2+2	2+2	9.600	**T198M FA3**	F03FC22428
140	20,5-39	32	2+2	2+2	9.600	**T198M FD3**	F03FC24270
140	20,5-39	35	2+2	2+2	9.600	**T198M FB3**	F03FC20612
140	20,5-39	40	2+2	2+2	9.600	**T198M FC3**	F03FC20613
140	30,4-59	30	2+2	2+2	9.600	**T198M GA3**	F03FC22590
140	30,4-59	32	2+2	2+2	9.600	**T198M GD3**	F03FC24271
140	30,4-59	35	2+2	2+2	9.600	**T198M GB3**	F03FC20614
140	30,4-59	40	2+2	2+2	9.600	**T198M GC3**	F03FC20615

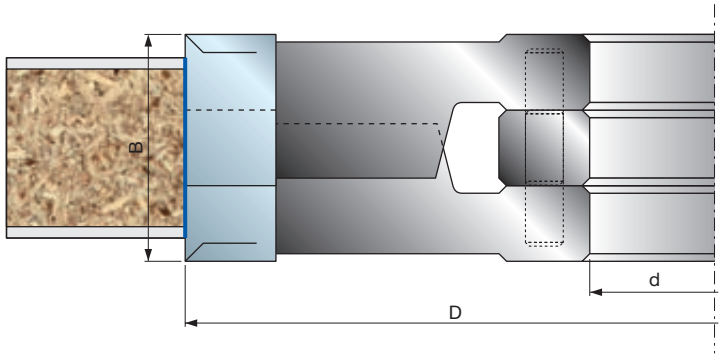
	Spare parts	Dimensions mm	Freud Code	Art. No.
	Spur	14 x 14 x 2	**RG01MAA310**	F03FH03034
	Nut	15 x 13,3 x M10	**VT20M NA9**	F03FC20671
	Screw	M10 x 22	**VT19M MA9**	F03FA04496
	Screw	M6 x 14,5	**VT16M AA9**	F03FA04476
	Screw	M5 x 8	**VT05M AA9**	F03FA04444
	Allen key	5	**CB03M EA9**	F03FA00169
	Torx key	T20	**CB03M CC9**	F03FA00167
FA3	Spacers set	50 x 20 x 30	**AN13M BA9**	F03FC22427
FB3	Spacers set	55 x 20 x 35	**AN13M BB9**	F03FC00543
FC3	Spacers set	60 x 20 x 40	**AN13M CB9**	F03FC00545
FD3	Spacers set	52 x 21,1 x 32	**AN13M BE9**	F03FC24531
FA3	Knife	20 x 12 x 1,5	**CG08MDA310**	F03FH02905
FB3	Wedge	15 x 16 x 8	**CN09MD A09**	F03FC01306
FC3	Wedge	15 x 16 x 8	**CN09MS A09**	F03FC01331
FD3				
GA3	Spacers set	50 x 30 x 30	**AN13M BD9**	F03FC22591
GB3	Spacers set	55 x 30 x 35	**AN13M BC9**	F03FC00544
GC3	Spacers set	60 x 30 x 40	**AN13M CC9**	F03FC00546
GD3	Spacers set	52 x 31,1 x 32	**AN13M BF9**	F03FC24532
GA3	Knife	30 x 12 x 1,5	**CG08MEA310**	F03FH02906
GB3	Wedge	15 x 26 x 8	**CN09MD AD9**	F03FC01300
GC3	Wedge	15 x 26 x 8	**CN09MS AD9**	F03FC01326
GD3				

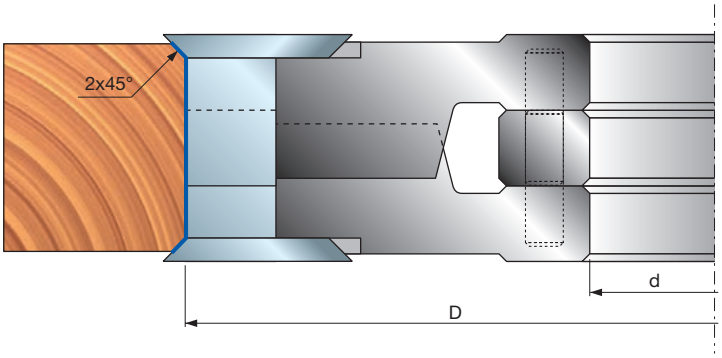
Tool with seat pockets for the following inserts (not included):

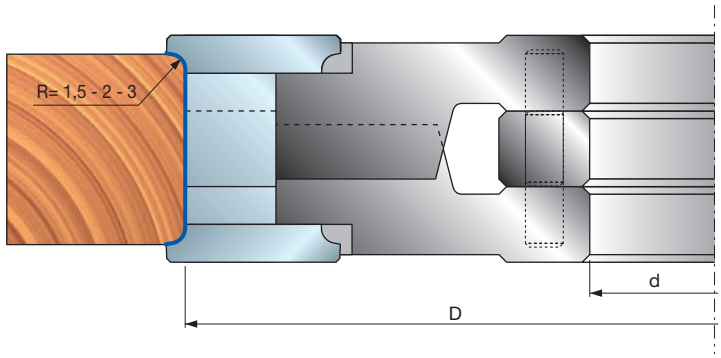
	Inserts	Dimensions mm	Freud Code	Art. No.
	Grooving insert	40 x 16 x 4	**IG04MDAA305**	F03FH03409
	Grooving insert	40 x 16 x 4	**IG04MSAA305**	F03FH02994
	Screw	M6 x 14,5	**VT16M AA9**	F03FA04476
	Knife	26 x 16 x 5 45°	**IG61MDBA305**	F03FH03026
	Knife	26 x 16 x 5 45°	**IG61MSBA305**	F03FH03027
	Knife	26 x 16 x 5 R=1,5	**IG62MDAB305**	F03FH03028
	Knife	26 x 16 x 5 R=2	**IG62MDAC305**	F03FH03029
	Knife	26 x 16 x 5 R=3	**IG62MDAE305**	F03FH03030
	Knife	26 x 16 x 5 R=1,5	**IG62MSAB305**	F03FH03031
	Knife	26 x 16 x 5 R=2	**IG62MSAC305**	F03FH03032
	Knife	26 x 16 x 5 R=3	**IG62MSAE305**	F03FH03033
	Screw	M6 x 14,5	**VT16M AA9**	F03FA04476

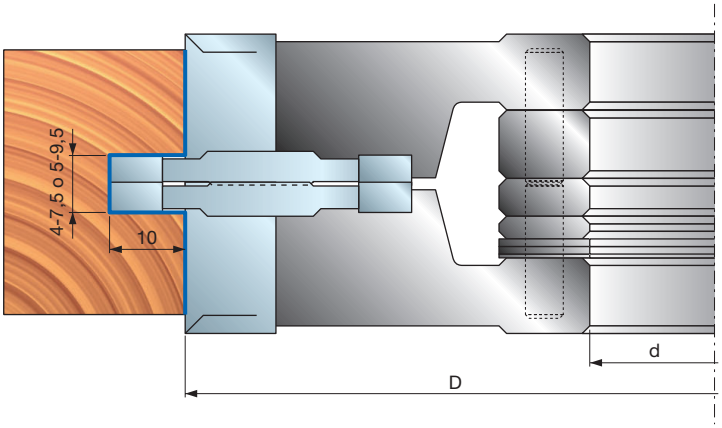





B
d
D

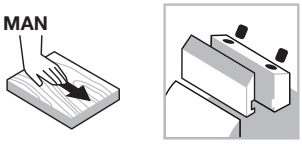

2x45°
d
D


R= 1,5 - 2 - 3
d
D


4-7,5 o 5-9,5
10
d
D

T199M Adjustable rebate and groove cutterhead sets with disposable knives





Manual Feed

Clamping System



Steel Body



Softwood



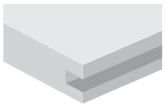
Hardwood



Planing



Rebating



Grooving

Shear Angle TECHNOLOGY

Machines:
Moulders, automatic and throughfeed machines.

Materials:
Softwood and hardwood.

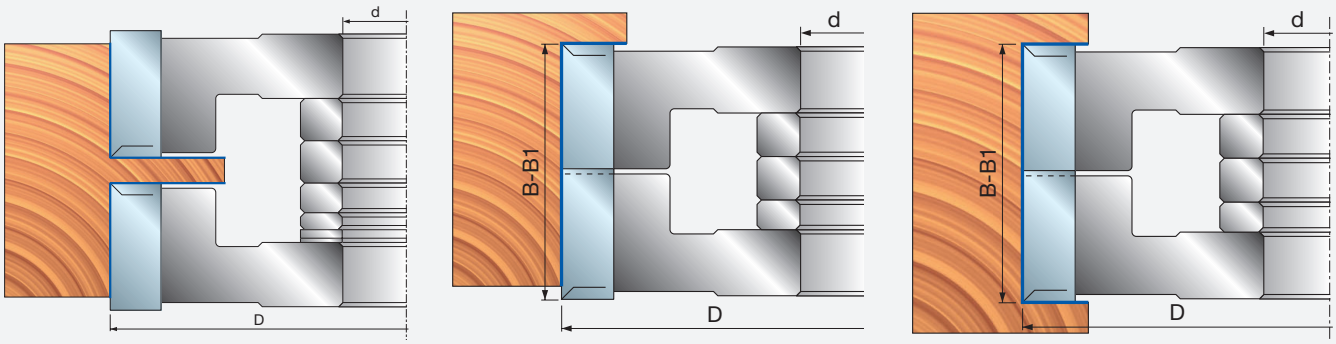
Applications:
Planing, rebating and grooving.

Technical information:
Disposable knives tool set with alternate shear angle.
- Seat pockets for chamfering, rounding and grooving inserts (not included).
- Steel body.
- Rebore not available.

D mm	B-B1 mm	d mm	Z	V	Max RPM 1/min.	Freud Code	Art. No.
140	30,4-59	30	2+2	2+2	9.600	**T199M GA3**	F03FC20624
140	30,4-59	32	2+2	2+2	9.600	**T199M GD3**	F03FC24474
140	30,4-59	35	2+2	2+2	9.600	**T199M GB3**	F03FC20625
140	30,4-59	40	2+2	2+2	9.600	**T199M GC3**	F03FC20626
140	30,4-59	50	2+2	2+2	9.600	**T199M GE3**	F03FC25267

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Knife	30 x 12 x 1,5	**CG08MEA310**	F03FH02906
	Wedge	12,3 x 26 x 8	**CN01MD GA9**	F03FC01263
	Wedge	12,3 x 26 x 8	**CN01MS GA9**	F03FC01266
	Screw	M5 x 8	**VT05M AA9**	F03FA04444
	Spur	14 x 14 x 2	**RG01MAA310**	F03FH03034
	Screw	M8 x 16	**VT03M AA9**	F03FA04435
	Allen key	4	**CB03M BA9**	F03FA00163
	Allen key	5	**CB03M EA9**	F03FA00169
	Torx key	T20	**CB03M CC9**	F03FA00167
GA3	Spacer set	50 x 30 x 30	**AN03M AC9**	F03FC00446
GB3	Spacer set	55 x 30 x 35	**AN03M BC9**	F03FC00456
GC3	Spacer set	60 x 30 x 40	**AN03M CC9**	F03FC00467
GD3	Spacer set	52 x 30 x 32	**AN03M DC9**	F03FC00475

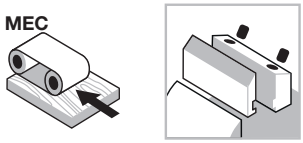
A 10 pieces set of spacers: Thickness: 0,1 - 0,2 - 0,3 - 0,5 - 1 - 2 - 3 - 6 - 8 - 10 mm



TP48M

ISOprofil cutterheads for door frames





Automatic Feed

Clamping System



Steel Body



Softwood



Hardwood



Rebating

Tool suitable for solid wood jamb board rebate machining.

D mm	B mm	d mm	Z	Max RPM 1/min.	Freud Code	Art. No.
176	23,5	35	2	8.000	**TP48M AB3**	F03F664005
176	23,5	50	2	8.000	**TP48M AD3**	F03FC25547

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Knife	24 x 24 x 3	**CP48MAA301**	F03FC24310
	Positioning plate	22 x 1,7 x 6,5	**VT18M GA9**	F03FA04488
	Screw	M5 x 8	**VT05M AA9**	F03FA04444
	Screw	M10 x 16	**2616M EE9**	F03FA07426
	Wedge	28 x 9,5 x 8	**CN03M BB9**	F03FA00585
	Screw	M8 x 22	**VT19M BB9**	F03FA04493
	Allen key	4	**CB03M BA9**	F03FA00163
	Allen key	5	**CB03M EA9**	F03FA00169
	Torx key	T9	**CB03M CA9**	F03FA00165

Tool with seat pockets for the following inserts (not included):

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Rounding insert	22 x 16 x 5 R=1,5	**IG52MAB305**	F03FH03023
	Rounding insert	22 x 16 X 5 R=2	**IG52MAC305**	F03FH03024
	Rounding insert	22 x 16 X 5 R=3	**IG52MAE305**	F03FH03025
	Beveling insert	22 x 16 x 5 45°	**IG51MBA305**	F03FH03022
	Spacer for inserts	13,6 x 0,1 x 7	**ST07M 019**	F03FA13619
	Grooving insert	40 x 16 x 3	**IG04MDAC305**	F03FH02992
	Screw for IG51-IG52	M6 x 13	**VT16M AE9**	F03FC20658
	Screw for IG04MD	M6 x 14,5	**VT16M AA9**	F03FA04476

ISOprofil TECHNOLOGY

Performance System TECHNOLOGY

Shear Angle TECHNOLOGY

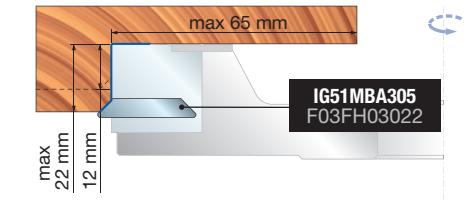
Machines:
Moulders, automatic and throughfeed machines.

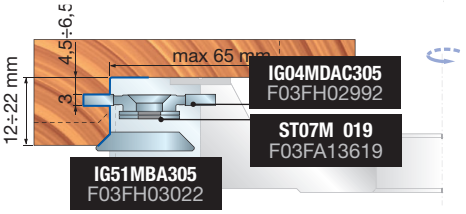
Materials:
Softwood and hardwood.

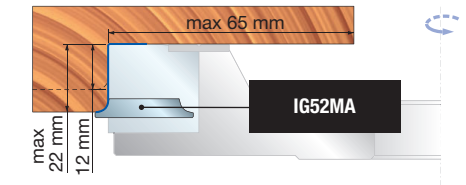
Applications:
Rebating.

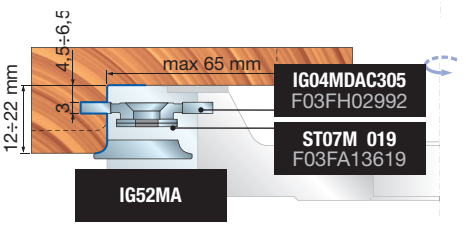
Technical information:
Performance tool for door rebating, front shear angle to guarantee a perfect step surface and a body able to reach 65 mm step depth.

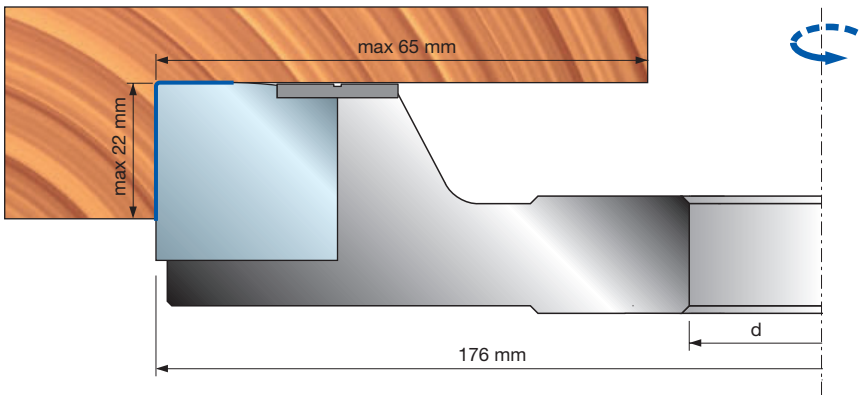
- Rounding and beveling insert to offer different solutions on step corners.
- Steel body.
- Rebore not available.
- Inserts to be ordered separately.









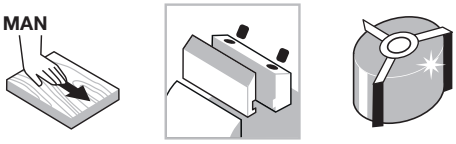


Jointing



TW23M - TW20M Jointing cutterheads





Manual Feed

Clamping System

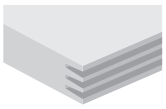
Aluminium Body



Softwood



Hardwood



Jointing

Performance System TECHNOLOGY

Machines:
Spindle moulders and manual feed machines.

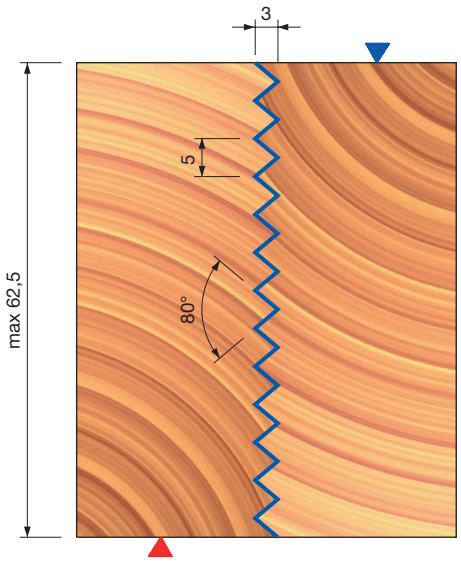
Materials:
Softwood and hardwood.

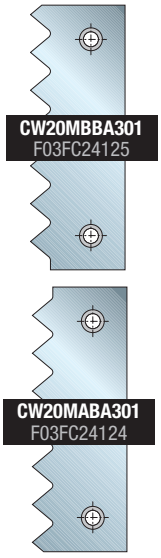
Applications:
Jointing.

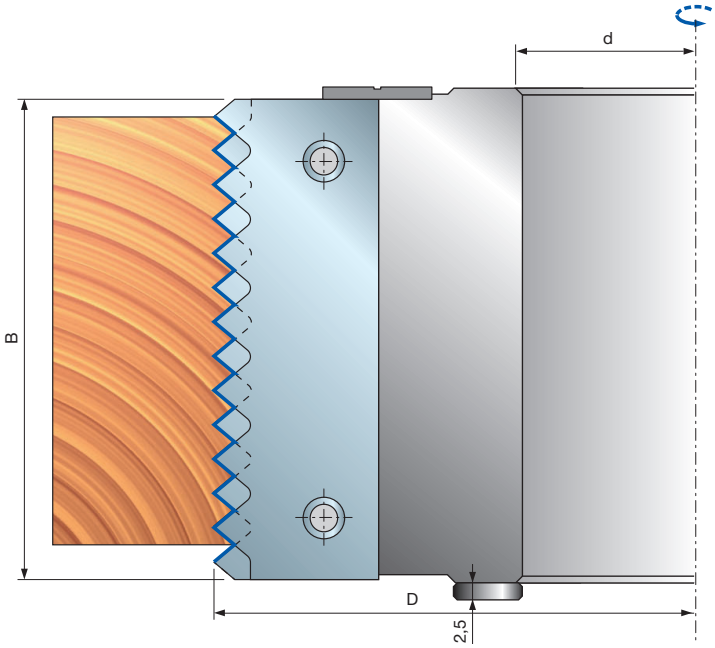
Technical information:
Performance knives tool to work long grain on short workpieces.
- Two different types of knives are fitted on the cutterhead to obtain a perfect joint with a 90° sharp edge.
- The max. timber thickness possible is 62,5 mm.
- Aluminium light alloy body.
- Rebore not available.

D mm	B mm	d mm	Z	Max RPM 1/min.	Freud Code	Art. No.
140	70	30	4	9.600	**TW20M BA3**	F03FC22727
140	70	32	4	9.600	**TW20M BG3**	F03F676528
140	70	35	4	9.600	**TW20M BF3**	F03FC20564
140	70	50	4	9.600	**TW20M BD3**	F03FC25548
140	70	30	2	9.600	**TW23M BE3**	F03FC24404
140	70	32	2	9.600	**TW23M BG3**	F03F668303
140	70	35	2	9.600	**TW23M BF3**	F03FC20567
140	70	50	2	9.600	**TW23M BD3**	F03FC25549

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Knife	70 x 25 x 3	**CW20MABA301**	F03FC24124
	Knife	70 x 25 x 3	**CW20MBBA301**	F03FC24125
	Wedge	68 x 19 x 8	**CN11M C660A**	F03FC01354
	Screw	M10 x 18	**VT03M CC9**	F03FA04438
	Screw	M5 x 8	**VT05M AA9**	F03FA04444
	Positioning plate	22 x 1,7 x 6,5	**VT18M GB9**	F03FA04489
	Allen key	5	**CB03M EA9**	F03FA00169
TW20M BA3 TW23M BE3	Spacer	50 x 2,5 x 30	**AN20M AI9**	F03FC00552
TW20M BF3 TW23M BF3	Spacer	55 x 2,5 x 35	**AN20M BI9**	F03FC00553
TW20M BG3 TW23M BG3	Spacer	52 x 2,5 x 32	**AN20M EI9**	F03FC24411





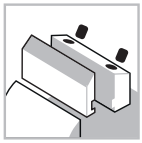


TW22M Jointing cutterheads





Manual Feed



Clamping System



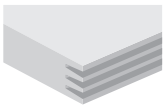
Aluminium Body



Softwood



Hardwood



Jointing

Performance System TECHNOLOGY

Machines:
Spindle moulders and manual feed machines.

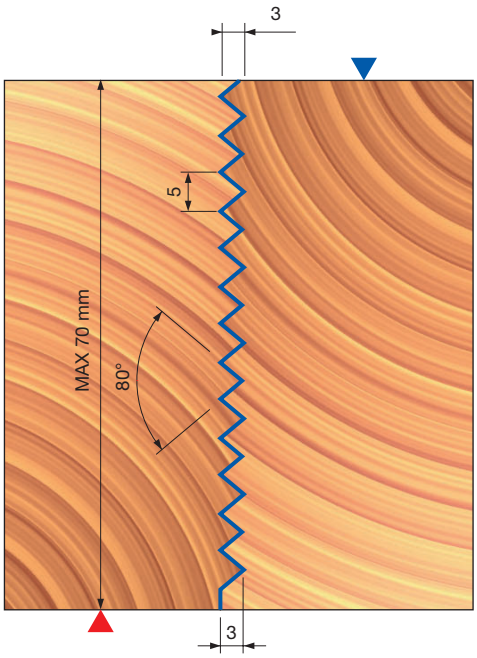
Materials:
Softwood and hardwood.

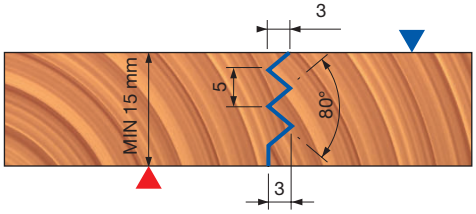
Applications:
Jointing.

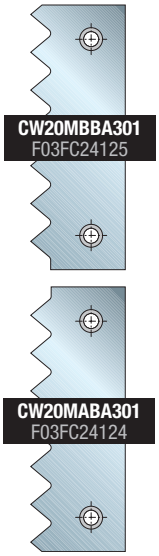
Technical information:
Performance knives tool to work long grain on short workpieces.
- Two different types of knives are fitted on the cutterhead to obtain a perfect joint with a 90° sharp edge.
- The max. timber thickness possible is 70 mm.
- Aluminium light alloy body.
- Rebore not available.

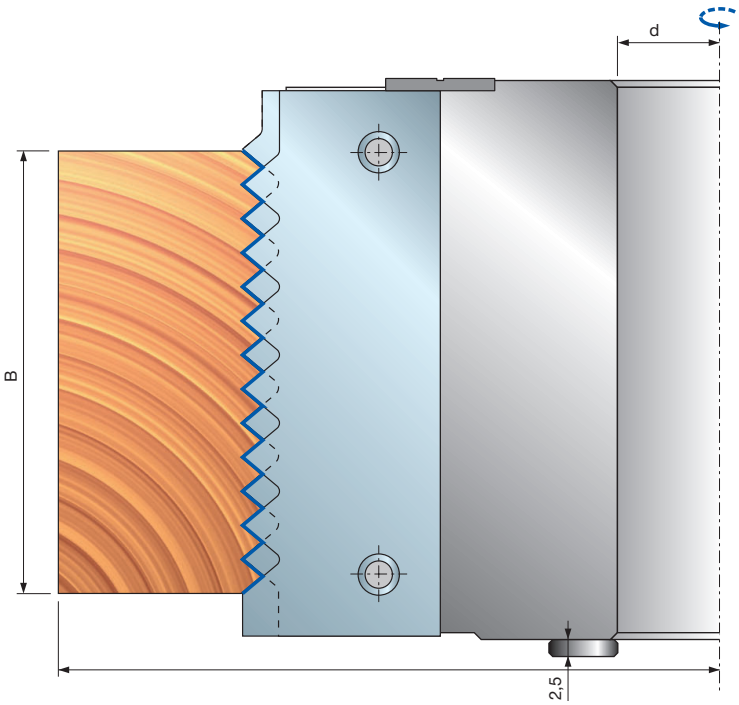
D mm	B mm	d mm	Z	V	Max RPM 1/min.	Freud Code	Art. No.
140	80	30	4	-	9.600	**TW22M BA3**	F03FC23047
140	80	32	4	-	9.600	**TW22M BG3**	F03FC24406
140	80	35	4	-	9.600	**TW22M BB3**	F03FC20566
140	80	50	4	2	9.600	**TW22M BD3**	F03FC24941

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Knife	80 x 29 x 3	**CW22MAAA301**	F03FC24126
	Knife	80 x 29 x 3	**CW22MBAA301**	F03FC24127
	Wedge	76 x 24 x 8	**CN13M AG9**	F03FC01388
	Screw	M10 x 18	**VT03M CC9**	F03FA04438
	Screw	M5 x 8	**VT05M AA9**	F03FA04444
	Positioning plate	22 x 1,7 x 6,5	**VT18M GB9**	F03FA04489
	Allen key	5	**CB03M EA9**	F03FA00169
TW22M BA3	Spacer	50 x 2,5 x 30	**AN20M AI9**	F03FC00552
TW22M BG3	Spacer	52 x 2,5 x 32	**AN20M EI9**	F03FC24411
TW22M BB3	Spacer	55 x 2,5 x 35	**AN20M BI9**	F03FC00553









Application examples

Fig. 1 Profile

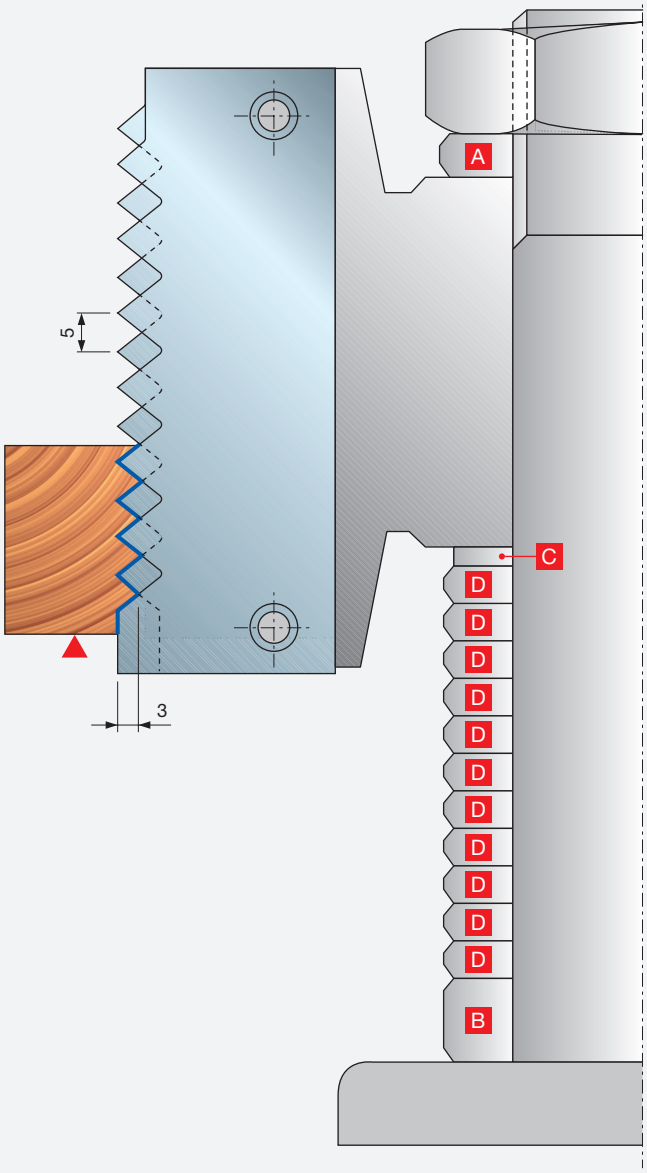
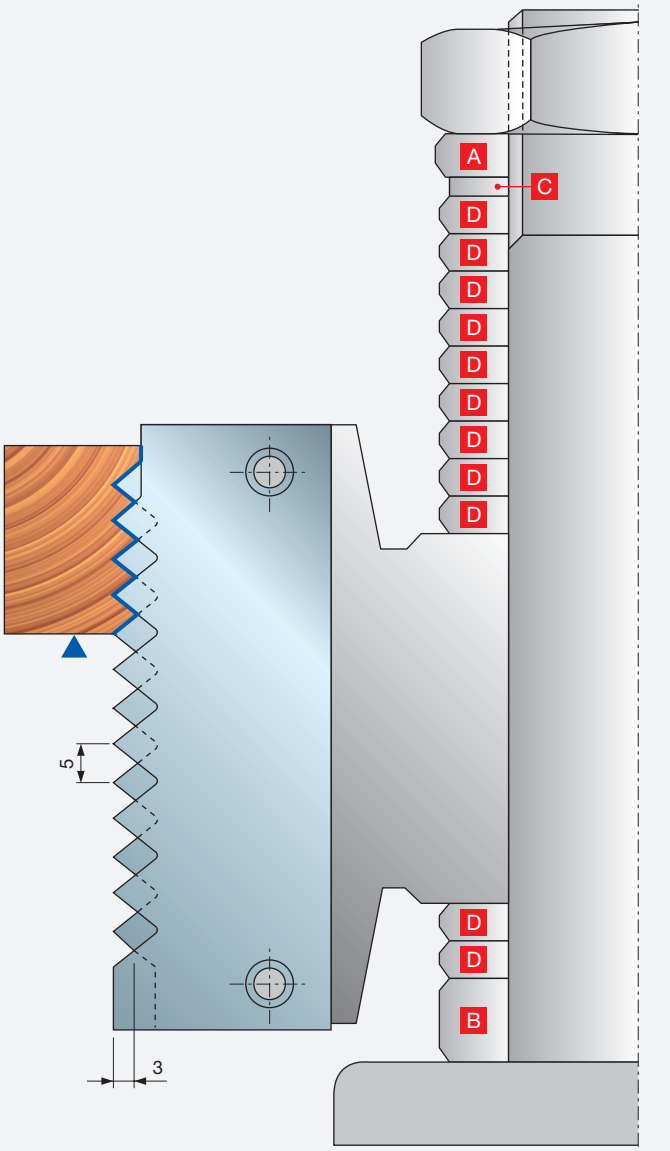


Fig. 2 Scribe

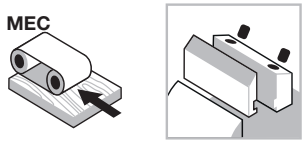


1: To obtain the profile, insert all spacers “C” and “D” below the tool as indicated in figure A.
2: To achieve the counterprofile remove spacer “C” and as many spacers “D” as the number of teeth not in use, placing them above the tool as indicated in figure B. In the example above there are 9 teeth not used (Fig. A), so 9 spacers “D” will be removed together with spacer “C” and placed above the tool (Fig. B).

- Spacers “A-B”: supplied with machine.
- Spacer “C”: 2,5 mm thickness, equal to 1/2 the tooth’s pitch, for the exactpositioning of the tool, in order to carry out the counter profile.
- Spacers “D”: 5 mm thickness, (equal to the tooth’s pitch) supplied onrequest; cod: **AN04M BB9**.

TW01M Finger joint cutterheads





Automatic Feed

Clamping System



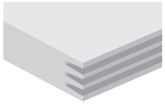
Steel Body



Softwood



Hardwood



Jointing

Performance System TECHNOLOGY

Machines:
Moulders, automatic and throughfeed machines.

Materials:
Softwood and hardwood.

Applications:
Jointing.

Technical information:
Performance knives tool able to produce different jointing profiles on the same tool body.

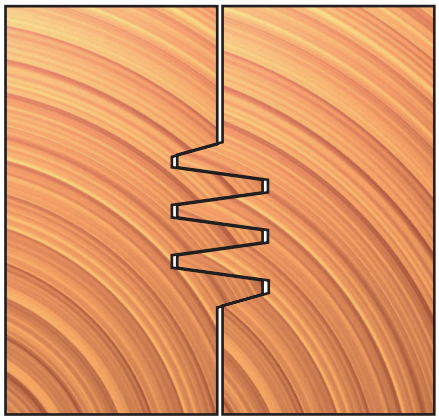
- Possible to adjust the type of joint (tight, regular, loose) by means of a thumb screw mechanism.
- Tool to work long and cross grain on short workpieces.
- The item does not include knives and support plates.
- Steel body.
- Rebore not available.

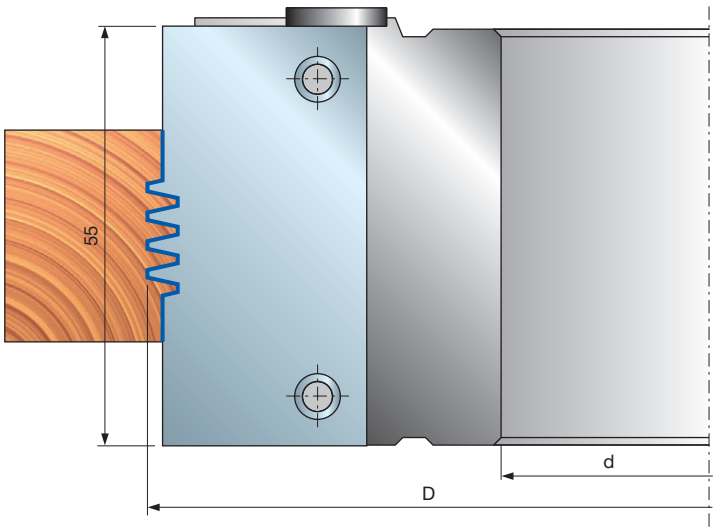
D mm	B mm	d mm	Z	Max RPM 1/min.	Freud Code	Art. No.
150	55	35	4	9.600	**TW01M AB3**	F03FC20555

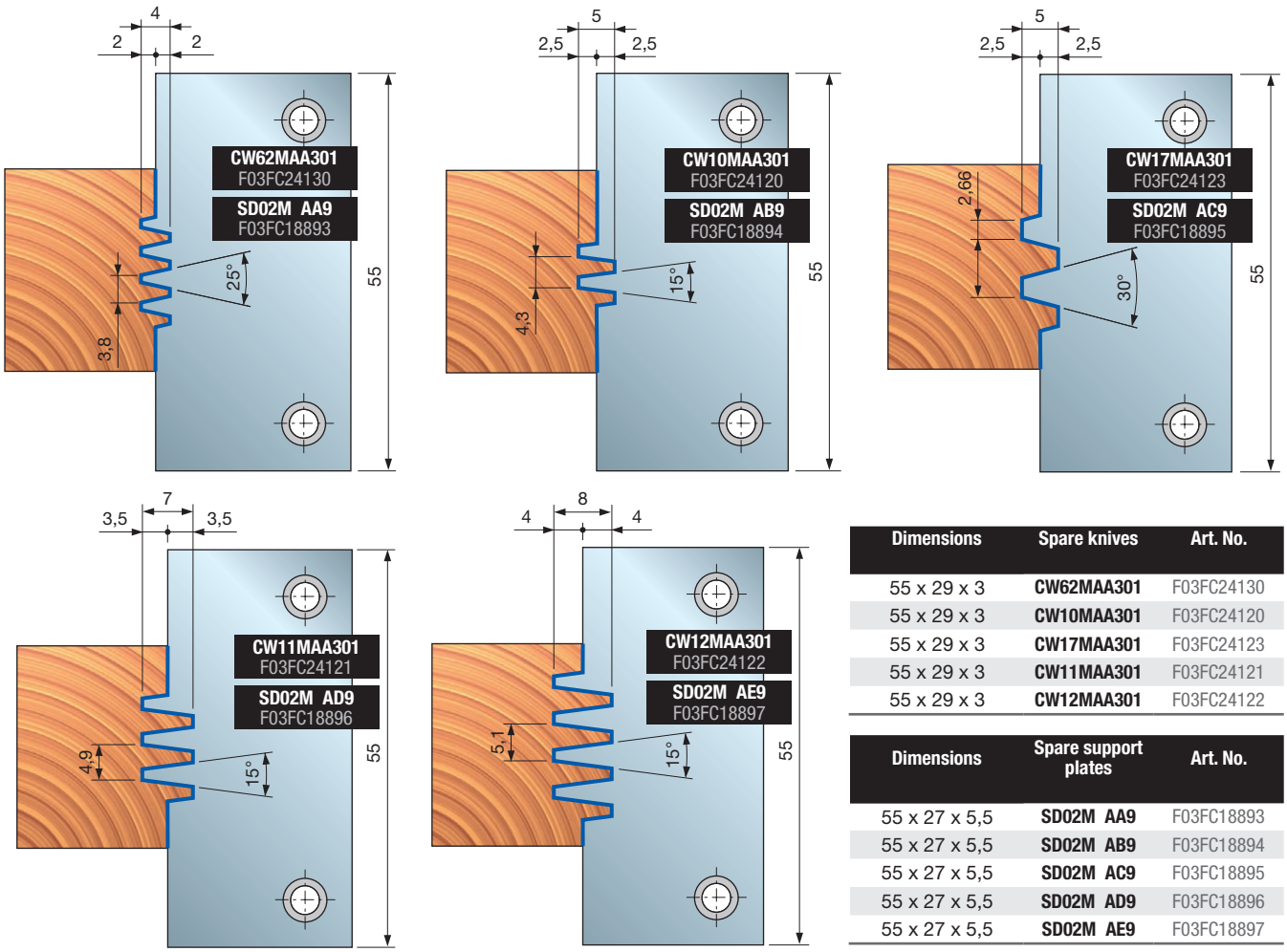
	Spare parts	Dimensions mm	Freud Code	Art. No.
	Wedge	53 x 19 x 8,5	**CN11M C510A**	F03FC24405
	Screw	M10 x 18	**VT03M CC9**	F03FA04438
	Screw	M5 x 8	**VT08M AC9**	F03FC20652
	Positioning plate	22 x 1,7 x 6,5	**VT18M GB9**	F03FA04489
	Screw	M5 x 8	**VT05M AA9**	F03FA04444
	Screw	M4 x 6	**2602M CE9**	F03FA07349
	Screw	M3 x 8	**2607M AB9**	F03F010001
	Allen key	5	**CB03M EA9**	F03FA00169

Order example

Item	Art. No.	Dimensions mm	Quantity PCS.
TW01M AB3	F03FC20555	150 x 55 x 35 Z4	**1**
CW10MAA301	F03FC24120	55 x 29 x 3	**4**
SD02M AB9	F03FC18894	55 x 27 x 5,5	**4**



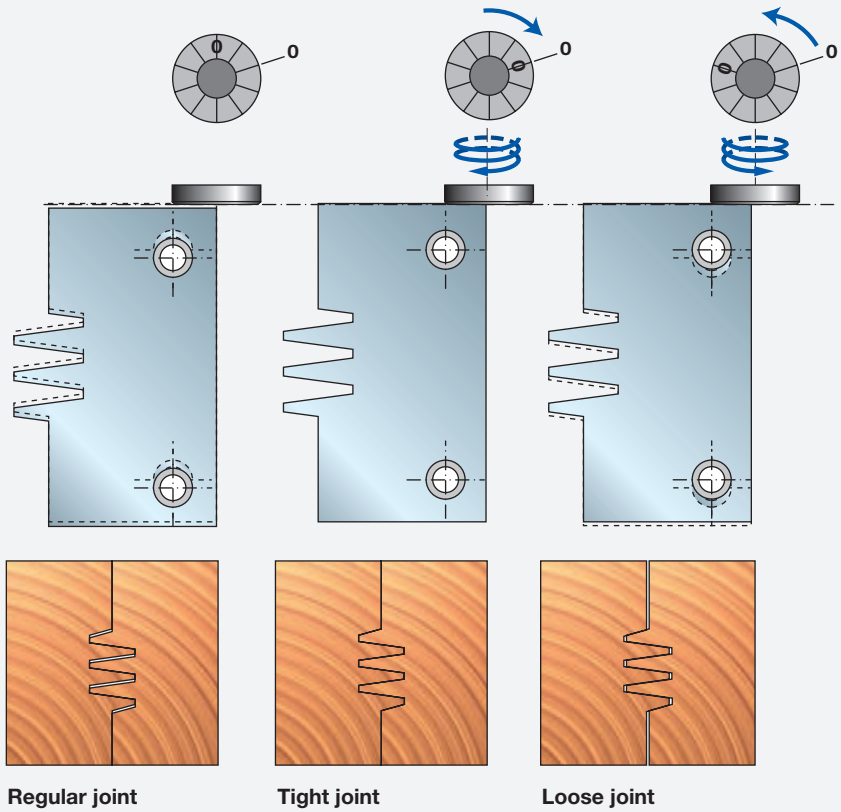




Dimensions	Spare knives	Art. No.
55 x 29 x 3	**CW62MAA301**	F03FC24130
55 x 29 x 3	**CW10MAA301**	F03FC24120
55 x 29 x 3	**CW17MAA301**	F03FC24123
55 x 29 x 3	**CW11MAA301**	F03FC24121
55 x 29 x 3	**CW12MAA301**	F03FC24122

Dimensions	Spare support plates	Art. No.
55 x 27 x 5,5	**SD02M AA9**	F03FC18893
55 x 27 x 5,5	**SD02M AB9**	F03FC18894
55 x 27 x 5,5	**SD02M AC9**	F03FC18895
55 x 27 x 5,5	**SD02M AD9**	F03FC18896
55 x 27 x 5,5	**SD02M AE9**	F03FC18897

Adjustment examples:

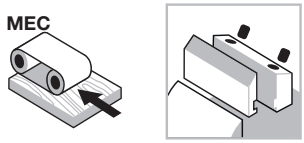


Regular joint **Tight joint** **Loose joint**

TW24M

Adjustable finger joint cutterheads set





Automatic Feed

Clamping System



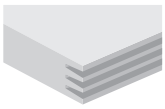
Steel Body



Softwood



Hardwood



Jointing

Performance System TECHNOLOGY

Machines:
Moulders, automatic and throughfeed machines.

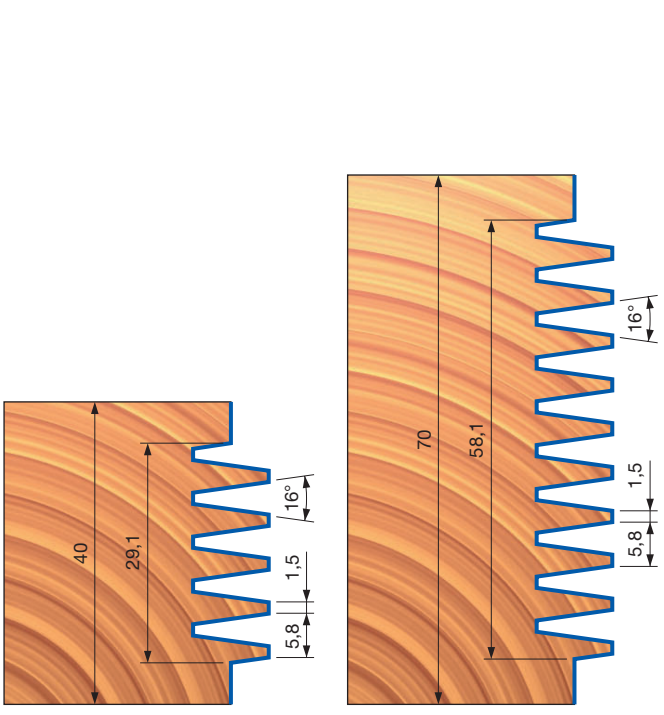
Materials:
Softwood and hardwood.

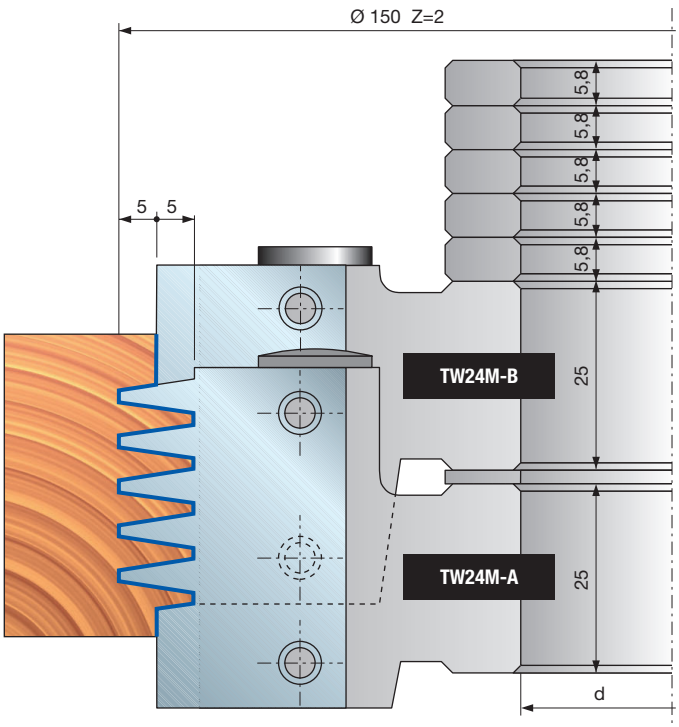
Applications:
Jointing.

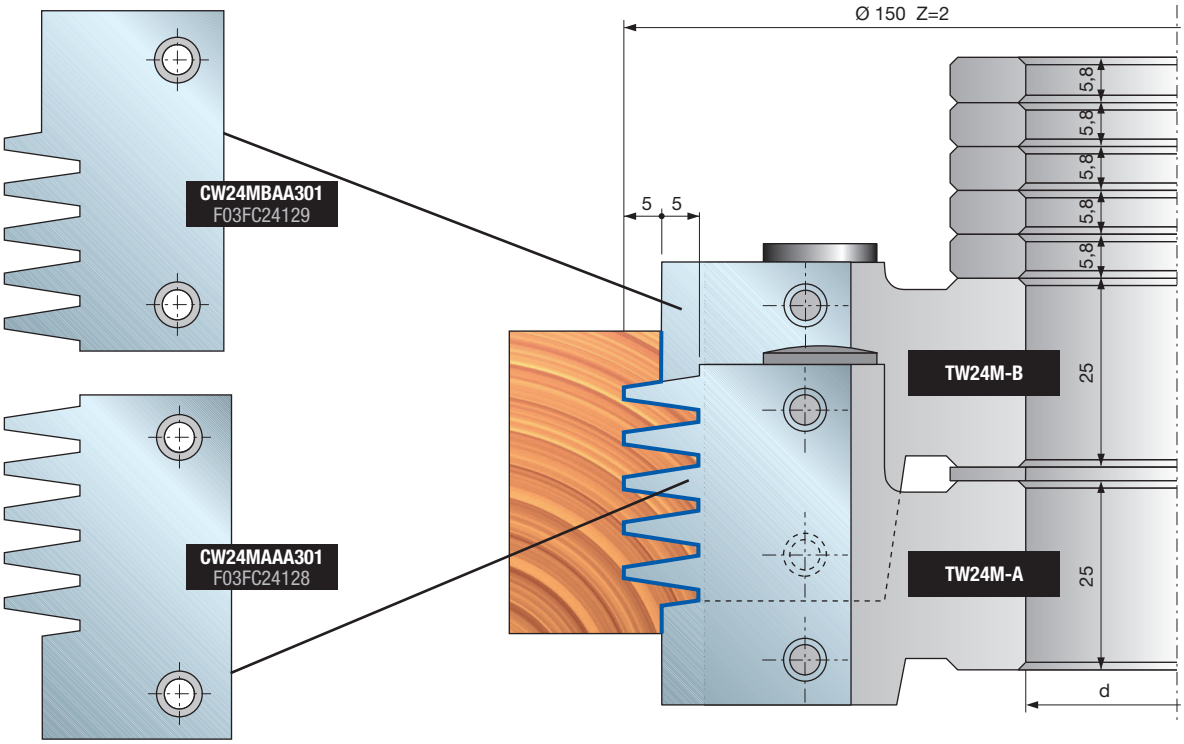
Technical information:
Adjustable tool to work long and cross grain on short workpieces.
- Adjustable for wood thicknesses between 40 and 70 mm.
- Cutterhead supplied with resharpenable HW knives and spacers.
- Steel body.
- Rebore not available.

D mm	B mm	d mm	Z	Max RPM 1/min.	Freud Code	Art. No.
150	-	30	2	9.000	**TW24M AA3**	F03FC24412
150	-	32	2	9.000	**TW24M AE3**	F03FC24413
150	-	35	2	9.000	**TW24M AB3**	F03FC20568
150	-	40	2	9.000	**TW24M AC3**	F03FC20569

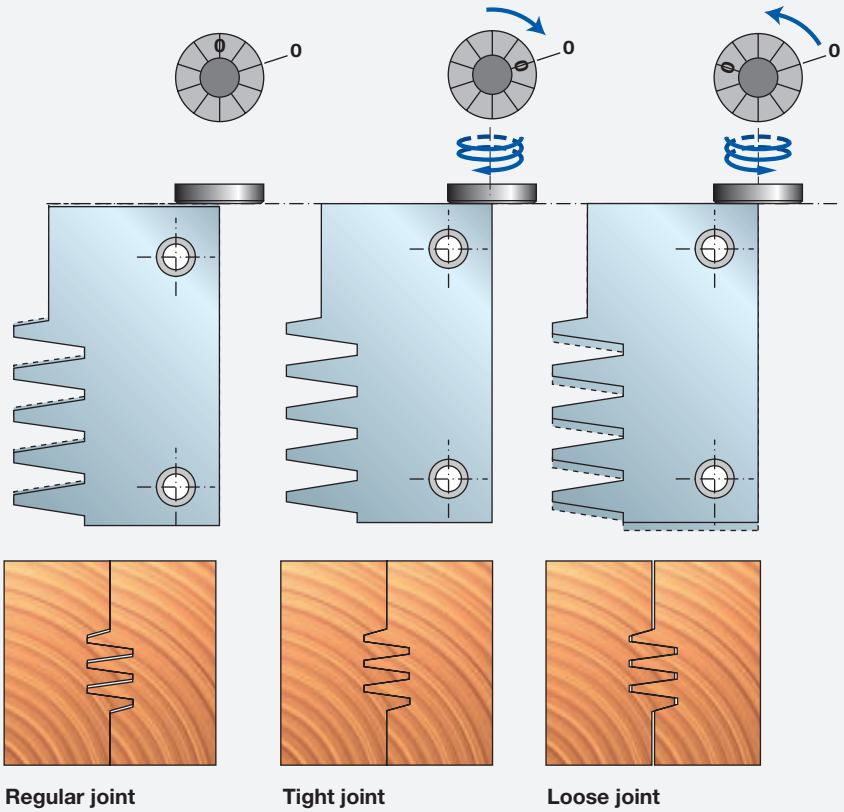
	Spare parts	Dimensions mm	Freud Code	Art. No.
	Knife for tool. “A”	45 x 30 x 3	**CW24MAAA301**	F03FC24128
	Knife for tool. “B”	45 x 30 x 3	**CW24MBAA301**	F03FC24129
	Screw	M5 x 7 x 16	**VT08M AE9**	F03FA04457
	Screw	M6 x 7 x 18	**VT08M AG9**	F03FC20653
	Wedge	41 x 17 x 8	**CN11M B410A**	F03FC01352
	Screw	M10 x 18	**VT03M CC9**	F03FA04438
	Screw	M4 x 6	**2602M CE9**	F03FA07349
	Allen key	5	**CB03M EA9**	F03FA00169
	Allen key	2	**2619M BA9**	F03FA07431
AA3	Set spacers	50 x 5,8 x 30	**AN04M AC9**	F03FC00500
AB3	Set spacers	55 x 5,8 x 35	**AN04M BC9**	F03FC00502
AC3	Set spacers	60 x 5,8 x 40	**AN04M CC9**	F03FC00503
AE3	Set spacers	82 x 5,8 x 32	**AN04M EC9**	F03FC24414







Adjustment examples:



Follow instructions below:

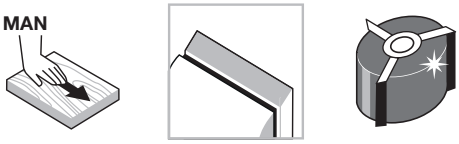
- Before rotating the adjusting screw, the clamping screw must be loosened.
- Rotating the adjusting screw clockwise, the tightness of the screw increases progressively (every notch on the adjusting screw corresponds to a movement of 1/10mm).
- The perfect alignment of the knives is 0:0 (the “0” on the adjusting screw with the “0” on the tool body). This alignment results in a tight joint.
- Rotate the adjusting screw anti-clockwise in order to loosen the joint.

Grooving



FI22M Brazed cutters for pockets





Manual Feed

Brazed Cutters

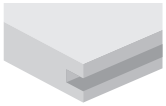
Steel Body



Softwood



Hardwood



Grooving

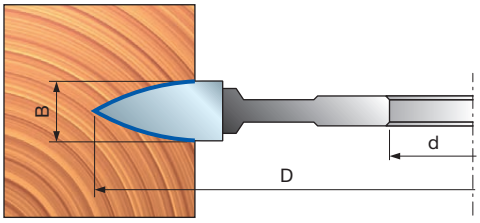
Machines:
Biscuit jointer.

Materials:
Softwood and hardwood.

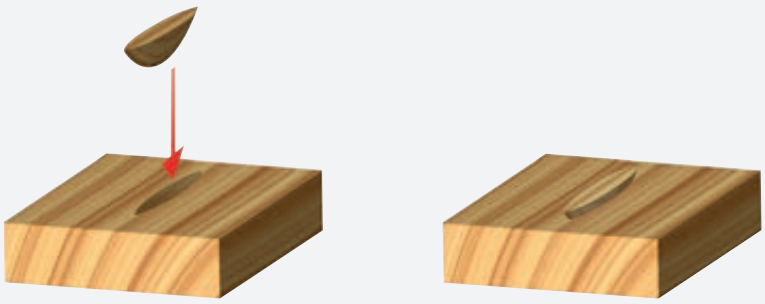
Applications:
Grooving.

Technical information:
Brazed cutter with non-stick coated body.
- Device for patching resin pockets, cracks, damaged edges and other wood flaws.
- Steel body.
- Rebore not available.

D mm	B mm	d mm	Z	Max RPM 1/min.	Freud Code	Art. No.
100	8	22	2+2	13.300	**FI22M AB3**	F03FS00680

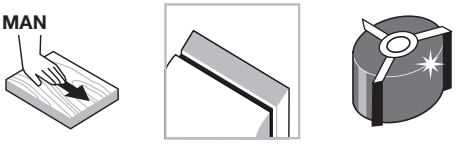


MINISPOT is a mark owned by LAMELLO AG

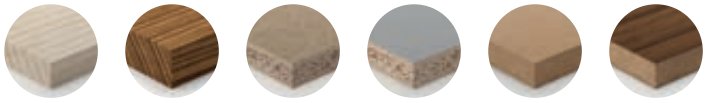




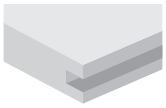
FI02M Brazed cutters for biscuit jointers



Manual Feed | Brazed Cutters | Steel Body



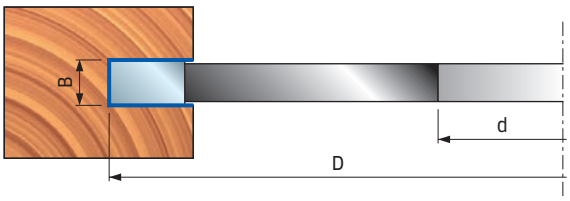
Softwood | Hardwood | Chipboard | Laminated Chipboard | MDF | Laminated MDF



Grooving

Anti-kickback TECHNOLOGY

D mm	B mm	d mm	Z	Max RPM 1/min.	Freud Code	Art. No.
100	3,95	22	6	23.000	**FI02M BX3**	F03FS00656



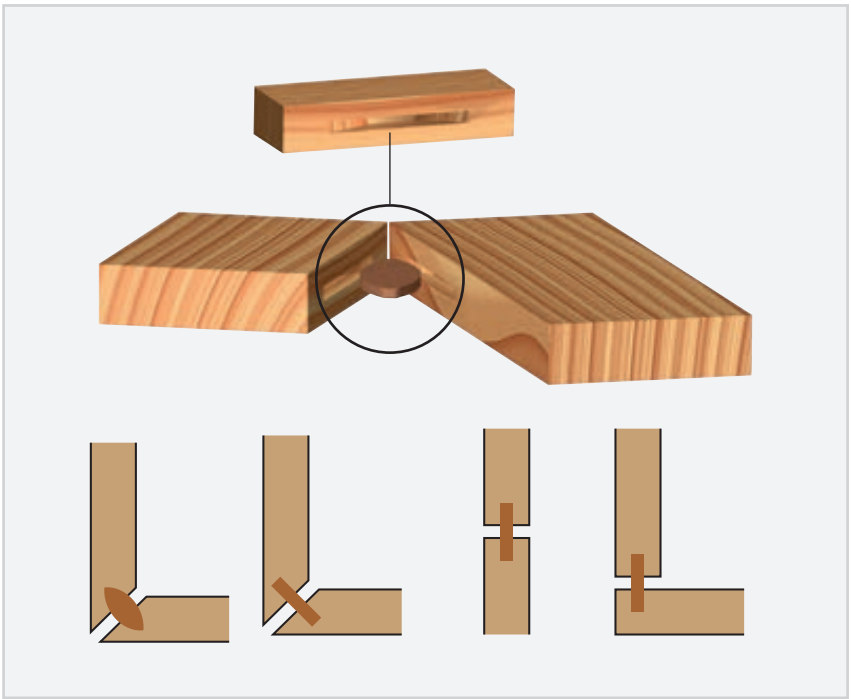
Machines:
Biscuit jointer.

Materials:
Softwood, hardwood and wood based panels.

Applications:
Grooving.

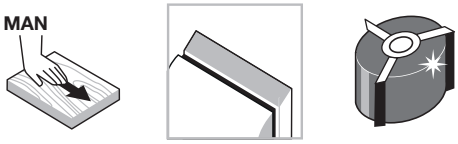
Technical information:
Brazed cutter for corner joints with anti-kickback technology.

- Good quality grooving on softwood and hardwood, both cross cutting and ripping, on chipboard, compressed laminated woods and MDF.
- Steel body.
- Rebore not available.

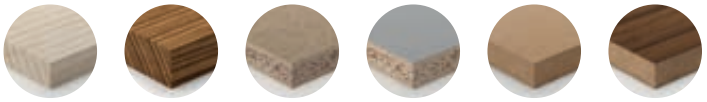


FI02M Grooving brazed cutters for biscuit jointers with spurs

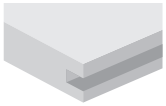




Manual Feed | Brazed Cutters | Steel Body



Softwood | Hardwood | Chipboard | Laminated chipboard | MDF | Laminated MDF



Grooving

Anti-kickback TECHNOLOGY

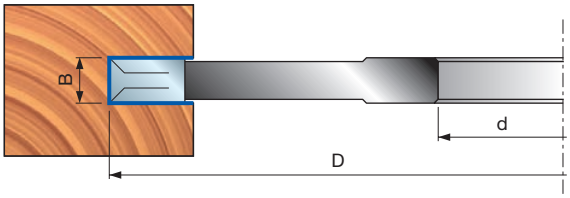
Machines:
Biscuit jointer.

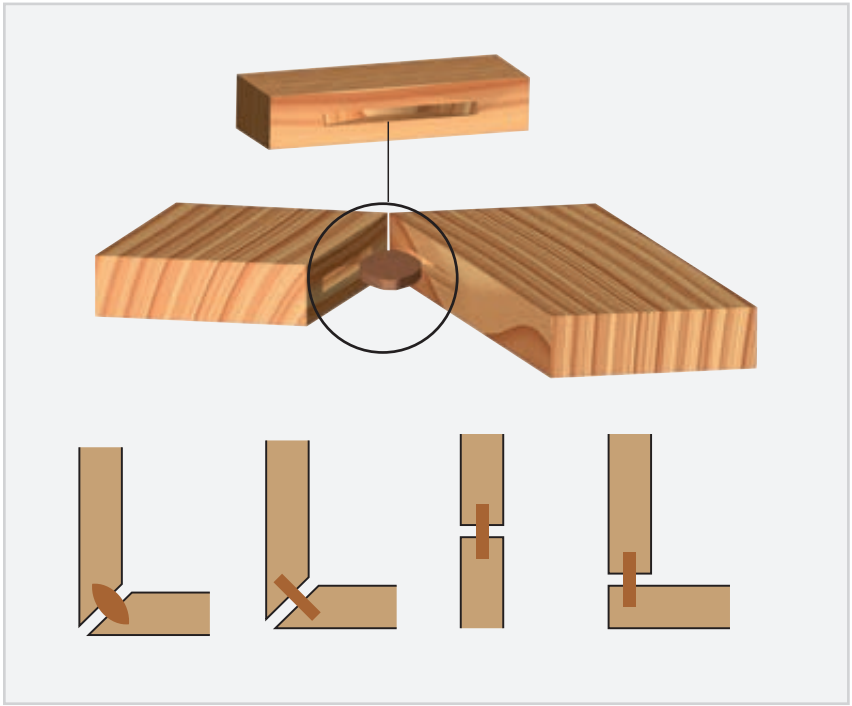
Materials:
Softwood, hardwood and wood based panels.

Applications:
Grooving.

Technical information:
Brazed cutters for corner joints.
- Good quality grooving on softwood and hardwood, both cross cutting and ripping, on chipboard, compressed laminated woods and MDF.
- Steel body.
- Rebore not available.

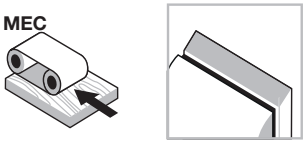
D mm	B mm	d mm	Z	V mm	Max RPM 1/min.	Freud Code	Art. No.
100	4	22	2	2 + 2	13.300	**FI02M BZ3**	F03FS00658





FI02M Grooving brazed cutters





Automatic Feed

Brazed Cutter



Steel Body



Softwood



Hardwood



Chipboard



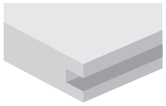
Laminated chipboard



MDF



Laminated MDF



Grooving

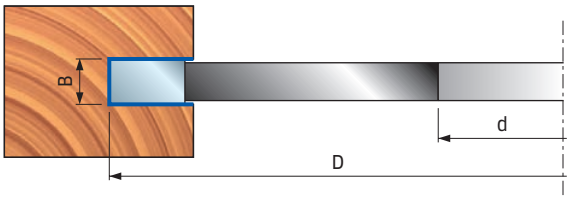
Machines:
Moulders, automatic and throughfeed machines.

Materials:
Softwood, hardwood and wood based panels.

Applications:
Grooving.

Technical information:
Brazed cutters for good quality grooving on softwood and hardwood, both cross cutting and ripping, on chipboard, compressed laminated woods and MDF.
- Steel body.
- Rebore not available.

D mm	B mm	d mm	Z	Max RPM 1/min.	Freud Code	Art. No.
120	4	35	6	12.000	**FI02M CD3**	F03FS00659
120	6	35	6	12.000	**FI02M CI3**	F03FS00660
140	4	35	6	10.000	**FI02M FE3**	F03FS00661
140	6	35	6	10.000	**FI02M FN3**	F03FS00662
140	8	35	6	10.000	**FI02M FS3**	F03FS00663
140	10	35	6	10.000	**FI02M FY3**	F03FS00664
140	12	35	6	10.000	**FI02M GB3**	F03FC07393
140	14	35	6	10.000	**FI02M GF3**	F03FC07400
140	16	35	6	10.000	**FI02M GK3**	F03FC07406
140	18	35	6	10.000	**FI02M GN3**	F03FC07409
140	20	35	6	10.000	**FI02M GP3**	F03FC07413

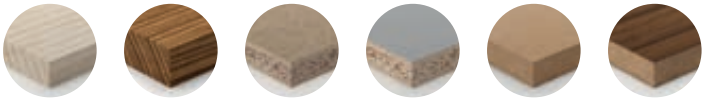


FI05M Grooving brazed cutters

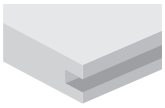




Automatic Feed | Brazed Cutter | Steel Body



Softwood | Hardwood | Chipboard | Laminated chipboard | MDF | Laminated MDF



Grooving

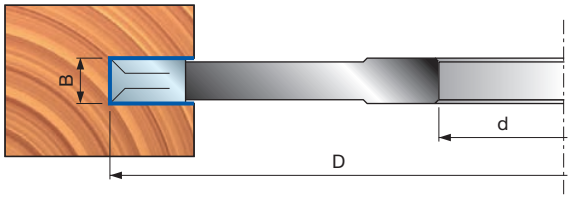
Machines:
Moulders, automatic and throughfeed machines.

Materials:
Softwood, hardwood and wood based panels.

Applications:
Grooving.

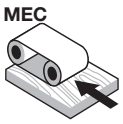
Technical information:
Brazed cutters for good quality grooving on softwood and hardwood, both cross cutting and ripping, on chipboard, compressed laminated woods and MDF.
- Steel body.
- Rebore not available.

D mm	B mm	d mm	Z	V	Max RPM 1/min.	Freud Code	Art. No.
140	4	35	3	3 + 3	10.000	**FI05M EB3**	F03FC07525
140	6	35	3	3 + 3	10.000	**FI05M EH3**	F03FC07533
140	8	35	3	3 + 3	10.000	**FI05M EN3**	F03FC07539
140	10	35	3	3 + 3	10.000	**FI05M ER3**	F03FC07545



FI14M Grooving brazed cutters





Automatic Feed



Brazed Cutter



Steel Body



Softwood



Hardwood



Chipboard



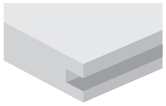
Laminated chipboard



MDF



Laminated MDF



Grooving

Silver I.C.E. COATING

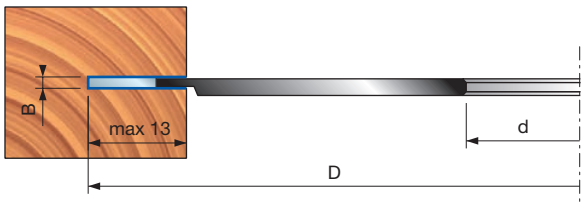
Machines:
Moulders, automatic and throughfeed machines.

Materials:
Softwood, hardwood and wood based panels.

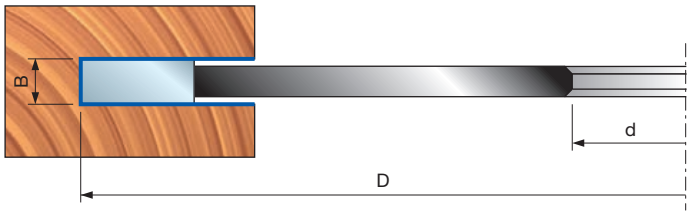
Applications:
Grooving.

Technical information:
Brazed cutters for good quality grooving on softwood and hardwood, both cross cutting and ripping, on chipboard, compressed laminated woods and MDF.
• Steel body.

D mm	B mm	d mm	Z	Max RPM 1/min.	Freud Code	Art. No.
150	1,5	30 (50)	18	14.500	**FI14M AA3**	F03FS00665
150	2	30 (50)	18	14.500	**FI14M AE3**	F03FS00667
150	2,5	30 (50)	18	14.500	**FI14M AH3**	F03FS00668
150	3	30 (50)	18	14.500	**FI14M AM3**	F03FS00669
150	4	30 (50)	18	14.500	**FI14M AR3**	F03FS00670
150	5	30 (50)	18	14.500	**FI14M AZ3**	F03FS00673
180	3	30 (50)	24	11.500	**FI14M DA3**	F03FS00677
180	4	30 (50)	24	11.500	**FI14M DC3**	F03FS00678



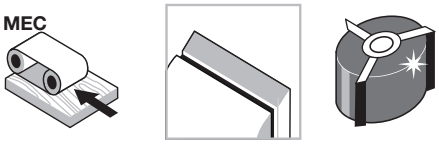
FI14M AA3
F03FS00665





FI07M

Adjustable grooving cutters with spurs



Automatic Feed

Brazed Cutter

Steel Body



Softwood



Hardwood



Chipboard



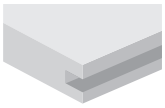
Laminated chipboard



MDF



Laminated MDF



Grooving

Machines:
Moulders, automatic and throughfeed machines.

Materials:
Softwood, hardwood and wood based panels.

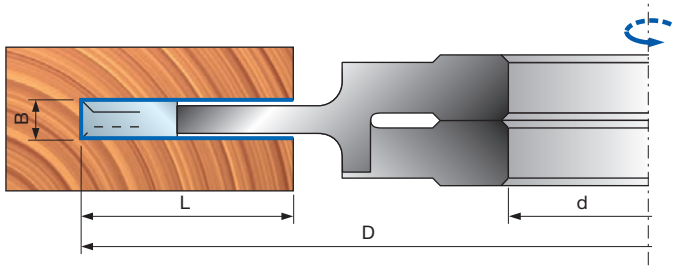
Applications:
Grooving.

Technical information:
Brazed cutters for good quality adjustable grooving on softwood and hardwood, both cross cutting and ripping, on chipboard, compressed laminated woods and MDF.
- Adjustable with spacers.
- Steel body.
- Rebore not available.

D mm	B-B1 mm	d mm	Z	V	Max RPM 1/min.	Freud Code	Art. No.
150	3-5,5	35	2+2	2+2	9.000	**FI07M AB3**	F03FC07629
150	4-7,5	35	2+2	2+2	9.000	**FI07M AE3**	F03FC07634
150	7,5-14,5	35	2+2	2+2	9.000	**FI07M AL3**	F03FC07643
160	10-19,5	35	2+2	2+2	9.000	**FI07M BB3**	F03FC07655

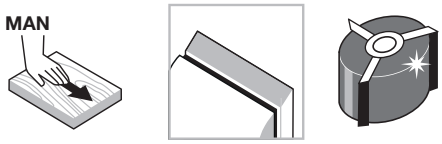
Depth of cut

L mm	D mm
27	150
32	160

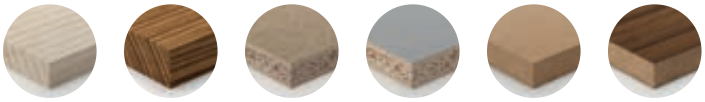


GL207M Dado set

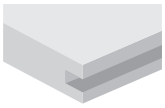




Manual Feed | Brazed Cutter | Steel Body



Softwood | Hardwood | Chipboard | Laminated chipboard | MDF | Laminated MDF



Grooving

Silver I.C.E. COATING

D mm	B-B1 mm	d mm	Z	Max RPM 1/min.	Freud Code	Art. No.
207,1	6-22	30	34	8.500	**GL20701M**	F03FS09237

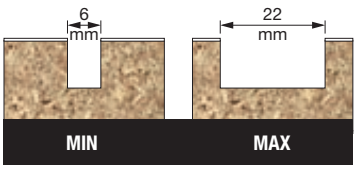
Machines:
Spindle moulders and manual feed machines.

Materials:
Softwood, hardwood and wood based panels.

Applications:
Grooving.

Technical information:
Tool set including 2 blades, 5 chippers and a spacers set for grooving thickness fine adjustment (Fig. 1).
• Steel body.

With 16 different combinations of the elements, it is possible to obtain a range of grooving thicknesses from 6 mm to 22 mm (7 mm excluded).
The matching pins in the set elements are preventing their mutual rotation (Fig. 2).



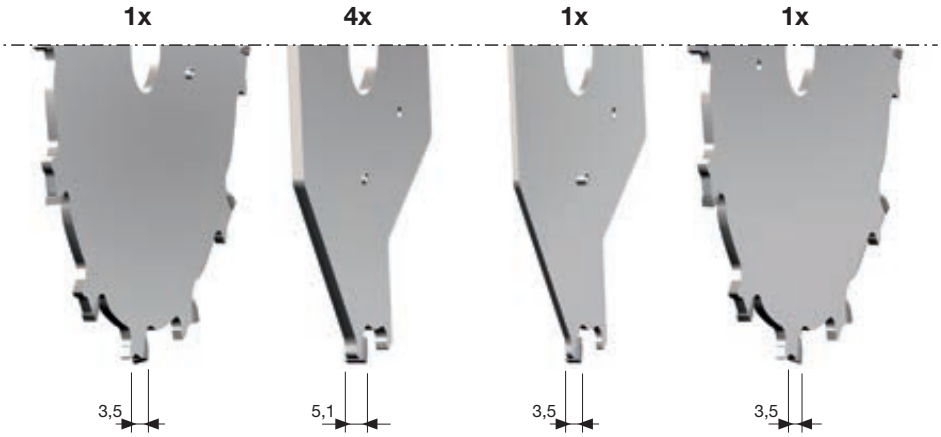
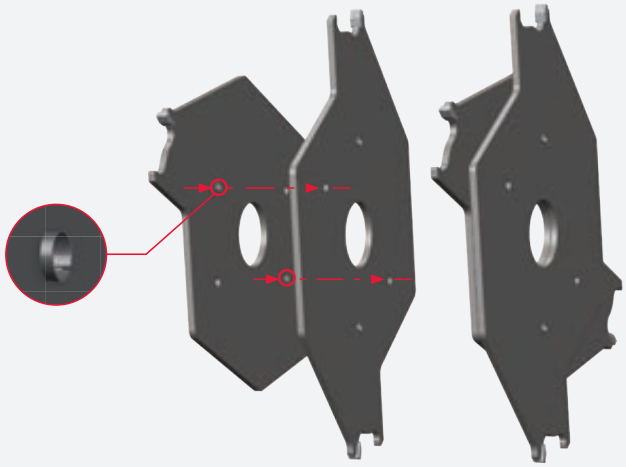


Fig. 1



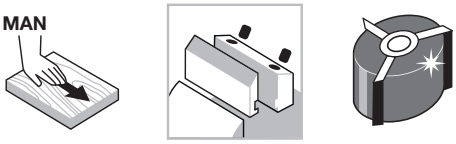
Fig. 2





TG13M

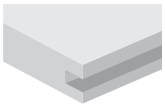
Grooving cutterheads for biscuit jointers



Manual Feed | Clamping System | Steel Body



Softwood | Hardwood | Chipboard | Laminated chipboard | MDF | Laminated MDF



Grooving

Machines:
Biscuit jointer.

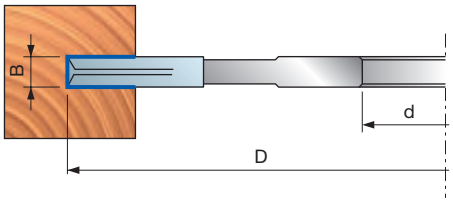
Materials:
Softwood, hardwood and wood based panels.

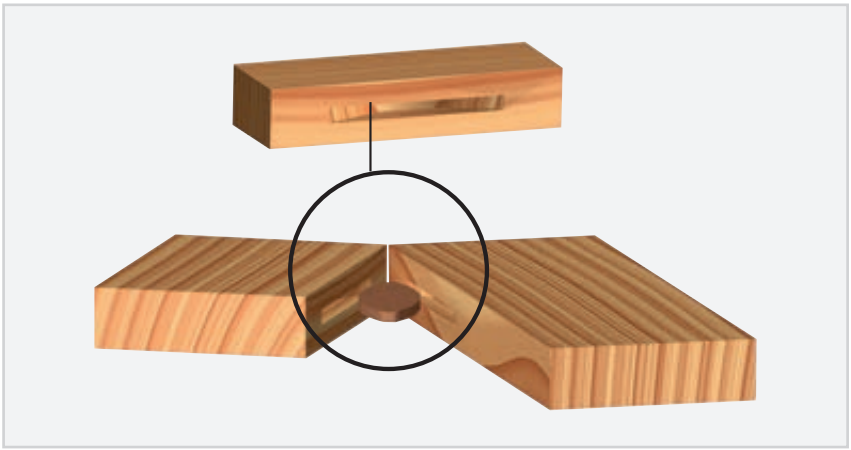
Applications:
Grooving.

Technical information:
Disposable insert cutterhead for corner joints.
- Ideal for softwood and hardwood, both cross cutting and ripping, on chipboard, compressed laminated woods and MDF.
- Steel body.
- Rebore not available.

D mm	B mm	d mm	Z	V	Max RPM 1/min.	Freud Code	Art. No.
100	4	22	4	4	10.500	**TG13M AA3**	F03FC20271

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Knife	18 x 1,9 x 18	**CG03MAA310**	F03FH02876
	Threaded ring	11,6 x 1,5 x 4	**VT18M BA9**	F03FA04483
	Spur	14 x 14 x 2	**RG01MAA310**	F03FH03034
	Threaded ring	9,4 x 1,7 x 4	**VT18M DA9**	F03FA04487
	Screw	M4 x 3,2	**VT05M BB9**	F03FA04447
	Torx key	T9	**CB03M CA9**	F03FA00165

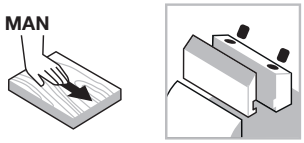




TG11M

Adjustable grooving cutterhead sets



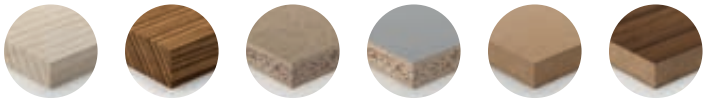


Manual Feed

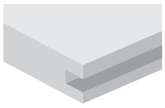
Clamping System



Steel Body



Softwood | Hardwood | Chipboard | Laminated chipboard | MDF | Laminated MDF



Grooving

Machines:
Spindle moulders and manual feed machines.

Materials:
Softwood, hardwood and wood based panels.

Applications:
Grooving.

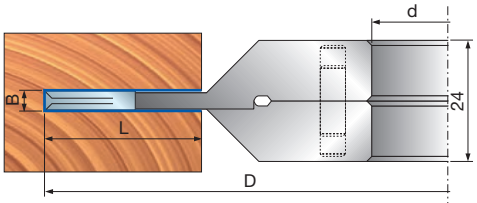
Technical information:
Disposable knives and insert set for adjustable grooves.
- Steel body.
- Rebore not available.

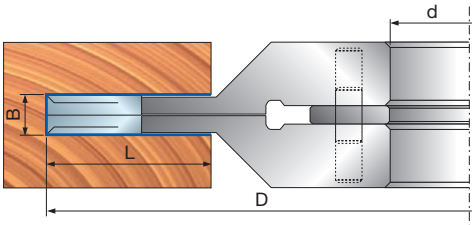
Depth of cut

L mm	D mm
30	160
40	200

Spare spacers set

Dimensions mm	Code	Art. No.
50 x 8 x 30	AN03M AH9	F03FC00451
50 x 4 x 30	AN03M AF9	F03FC00449
50 x 12 x 30	AN03M AI9	F03FC00452
52 x 8 x 32	AN03M GF9	F03FC24529
52 x 4 x 32	AN03M GE9	F03FC24528
52 x 12 x 32	AN03M GG9	F03FC24530
55 x 8 x 35	AN03M BH9	F03FC00461
55 x 4 x 35	AN03M BF9	F03FC00459
55 x 12 x 35	AN03M BI9	F03FC00462
60 x 8 x 40	AN11M CH9	F03FC00532
60 x 4 x 40	AN11M CF9	F03FC00531
60 x 12 x 40	AN11M CI9	F03FC00533





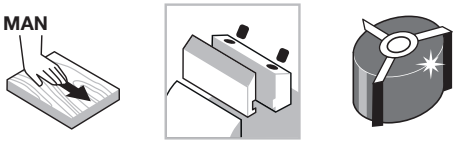
D mm	B-B1 mm	d mm	Z	V	Max RPM 1/min.	Freud Code	Art. No.
160	4 - 7,5	30	4+4	2+2	8.300	TG11M AA3	F03FC20228
160	4 - 7,5	32	4+4	2+2	8.300	TG11M AE3	F03FC24417
160	4 - 7,5	35	4+4	2+2	8.300	TG11M AB3	F03FC20229
160	4 - 7,5	40	4+4	2+2	8.300	TG11M AC3	F03FC20230
160	4 - 7,5	50	4+4	2+2	8.300	TG11M AD3	F03FC20231
160	8 - 15,5	30	2+2	2+2	8.300	TG11M DA3	F03FC20232
160	8 - 15,5	32	2+2	2+2	8.300	TG11M DE3	F03FC24418
160	8 - 15,5	35	2+2	2+2	8.300	TG11M DB3	F03FC20233
160	8 - 15,5	40	2+2	2+2	8.300	TG11M DC3	F03FC20234
160	8 - 15,5	50	2+2	2+2	8.300	TG11M DD3	F03FC23206
160	12,5 - 24	30	2+2	2+2	8.300	TG11M TA3	F03FC20237
160	12,5 - 24	32	2+2	2+2	8.300	TG11M TE3	F03FC24419
160	12,5 - 24	35	2+2	2+2	8.300	TG11M TB3	F03FC20238
160	12,5 - 24	40	2+2	2+2	8.300	TG11M TC3	F03FC20239
160	12,5 - 24	50	2+2	2+2	8.300	TG11M TD3	F03FC23207
200	4 - 7,5	32	4+4	2+2	6.600	TG11M FE3	F03FC24420
200	4 - 7,5	35	4+4	2+2	6.600	TG11M FB3	F03FC20235
200	8 - 15,5	35	2+2	2+2	7.000	TG11M HB3	F03FC20236
200	12,5 - 24	35	2+2	2+2	7.000	TG11M VB3	F03FC20240
200	12,5 - 24	50	2+2	2+2	7.000	TG11M VD3	F03FC25050

	Spare parts	Dimensions mm	Freud Code	Art. No.
AA3 - AB3 - AC3 AD3 - AE3 - FB3 - FE3	Knife	18 x 1,9 x 18	CG03MAA310	F03FH02876
	Spur	14 x 14 x 2	RG01MAA310	F03FH03034
	Screw	M4 x 3,2	VT05M BB9	F03FA04447
	Threaded ring	11,6 x 1,5 x 4	VT18M BA9	F03FA04483
	Threaded ring	9,4 x 1,7 x 4	VT18M DA9	F03FA04487
	Torx key	T9	CB03M CA9	F03FA00165
DA3 - DB3 - DC3 DD3 - DE3 - HB3	Knife	7,6 x 12 x 1,5	CG08MAA310	F03FH02902
	Wedge	15 x 7,2 x 8	CN09M DA9	F03FC01295
	Spur	14 x 14 x 2	RG01MAA310	F03FH03034
	Screw	M5 x 6	VT05M AC9	F03FA04446
	Screw	M5 x 16	VT03M BB9	F03FA04437
	Screw	M5 x 9,5	VT08M AH9	F03FC20654
	Allen key	2,5	2619M CA9	F03FA07432
	Torx key	T20	CB03M CC9	F03FA00167
TA3 - TB3 - TC3 - TD3 - TE3 - VB3 - VD3	Knife	12 x 12 x 1,5	CG08MBA310	F03FH02903
	Wedge	15 x 10 x 8	CN09M AA9	F03FC01280
	Spur	14 x 14 x 2	RG01MAA310	F03FH03034
	Screw	M5 x 8	VT05M AA9	F03FA04444
	Screw	M6 x 22	VT19M AB9	F03FA04491
	Nut	10 x 11,5 x 6	VT20M AA9	F03FA04497
	Allen key	3	CB03M AA9	F03FA00162
	Torx key	T20	CB03M CC9	F03FA00167

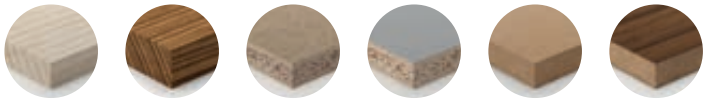
TG18MG

Adjustable grooving cutterhead sets

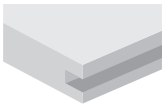




Manual Feed | Clamping System | Steel Body



Softwood | Hardwood | Chipboard | Laminated chipboard | MDF | Laminated MDF



Grooving

Machines:
Spindle moulders and manual feed machines.

Materials:
Softwood, hardwood and wood based panels.

Applications:
Grooving.

Technical information:
Disposable knives and insert set for adjustable grooves.
- Steel body.
- Rebore not available.

D mm	B-B1 mm	d mm	V	Max RPM 1/min.	Freud Code	Art. No.
160	4-15	30	2+2	8.500	**TG18MG AA3**	F03FC24546
160	4-15	32	2+2	8.500	**TG18MG AE3**	F03FC24549
160	4-15	35	2+2	8.500	**TG18MG AB3**	F03FC24547
160	4-15	40	2+2	8.500	**TG18MG AC3**	F03FC24548
160	4-15	50	2+2	8.500	**TG18MG AD3**	F03FC25051
160	8-23	30	2+2	8.500	**TG18MG DA3**	F03FC24550
160	8-23	32	2+2	8.500	**TG18MG DE3**	F03FC24553
160	8-23	35	2+2	8.500	**TG18MG DB3**	F03FC24551
160	8-23	40	2+2	8.500	**TG18MG DC3**	F03FC24552
160	8-23	50	2+2	8.500	**TG18MG DD3**	F03FC25052
160	12,5-31,5	30	2+2	8.500	**TG18MG TA3**	F03FC24554
160	12,5-31,5	32	2+2	8.500	**TG18MG TE3**	F03FC24557
160	12,5-31,5	35	2+2	8.500	**TG18MG TB3**	F03FC24555
160	12,5-31,5	40	2+2	8.500	**TG18MG TC3**	F03FC24556
160	12,5-31,5	50	2+2	8.500	**TG18MG TD3**	F03FC25053

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Knife	7,6 x 12 x 1,5	**CG08MAA310**	F03FH02902
	Wedge	15 x 7,2 x 8	**CN09M DA9**	F03FC01295
	Screw	M5 x 16	**VT03M BB9**	F03FA04437
	Spur	14 x 14 x 2	**RG01MAA310**	F03FH03034
	Screw	M5 x 9,5	**VT08M AH9**	F03FC20654
AA3 - AB3 AC3 - AE3	Knife	18 x 1,9 x 18	**CG03MAA310**	F03FH02876
	Screw	M4 x 3,2	**VT05M BB9**	F03FA04447
	Threaded ring	11,6 x 1,5 x 4	**VT18M BA9**	F03FA04483
	Threaded ring	9,4 x 1,7 x 4	**VT18M DA9**	F03FA04487
	Torx key	T9	**CB03M CA9**	F03FA00165
DA3 - DB3 DC3 - DE3	Screw	M5 x 8	**VT05M AA9**	F03FA04444
	Torx key	T20	**CB03M CC9**	F03FA00167
TA3 - TB3 TC3 - TE3	Knife	12 x 12 x 1,5	**CG08MBA310**	F03FH02903
	Wedge	15 x 10 x 8	**CN09M AA9**	F03FC01280
	Screw	M5 x 8	**VT05M AA9**	F03FA04444
	Screw	M6 x 22	**VT19M AB9**	F03FA04491
	Nut	10 x 11,5 x 6	**VT20M AA9**	F03FA04497
	Allen key	3	**CB03M AA9**	F03FA00162
	Torx key	T20	**CB03M CC9**	F03FA00167

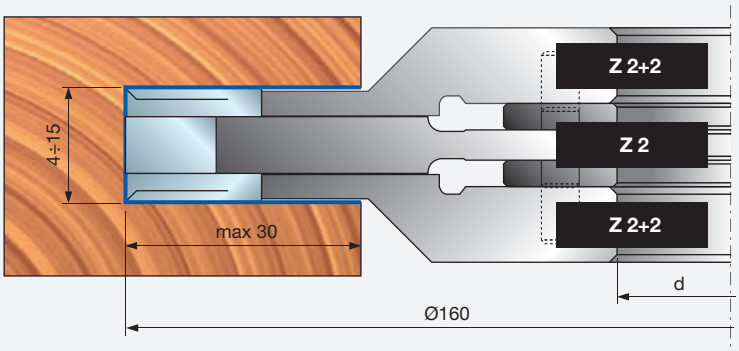
TG18MG

Adjustable grooving cutterheads sets

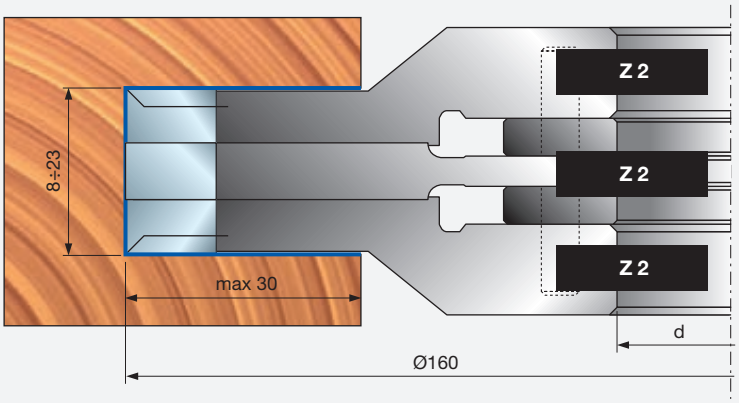
	Spare spacers set	Dimensions mm	Freud Code	Art. No.
	Spacers set	50 x 7,6 x 30	**AN03M AN9**	F03FC24566
	Spacers set	52 x 7,6 x 32	**AN03M GH9**	F03FC24569
	Spacers set	55 x 7,6 x 35	**AN03M BQ9**	F03FC24567
	Spacers set	55 x 7,6 x 40	**AN11M CL9**	F03FC24568
	Spacers set	50 x 11,6 x 30	**AN03M AO9**	F03FC24570
	Spacers set	52 x 11,6 x 32	**AN03M GI9**	F03FC24573
	Spacers set	55 x 11,6 x 35	**AN03M BR9**	F03FC24571
	Spacers set	55 x 11,6 x 40	**AN11M CM9**	F03FC24572
	Spacers set	50 x 15,6 x 30	**AN03M AP9**	F03FC24574
	Spacers set	52 x 15,6 x 32	**AN03M GL9**	F03FC24577
	Spacers set	55 x 15,6 x 35	**AN03M BS9**	F03FC24575
	Spacers set	55 x 15,6 x 40	**AN11M CN9**	F03FC24576

Example of profiles

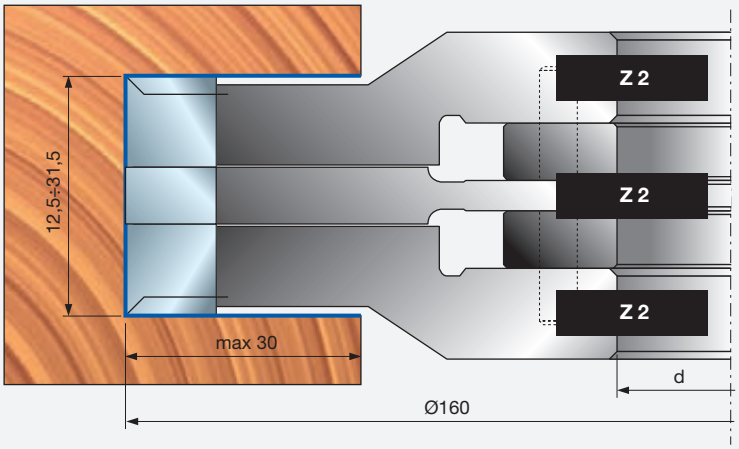
TG18MG
AA3 - AE3 - AB3 - AC3



TG18MG
DA3 - DE3 - DB3 - DC3



TG18MG
TA3 - TE3 - TB3 - TC3



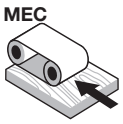
Profiling



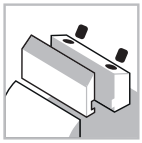


T135M - TG35M

Post forming cutterhead sets with disposable knives



Automatic Feed


Clamping System


Steel Body


Softwood

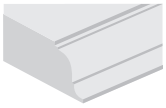

Hardwood


Chipboard


Laminated chipboard


MDF


Laminated MDF


Profiling

Machines:
Moulders, automatic and throughfeed machines.

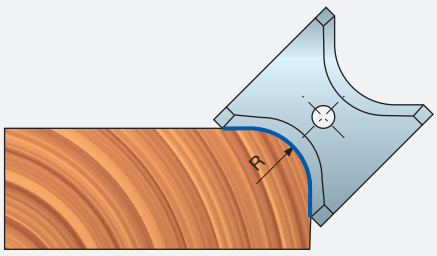
Materials:
Softwood, hardwood and wood based panels.

Applications:
Profiling.

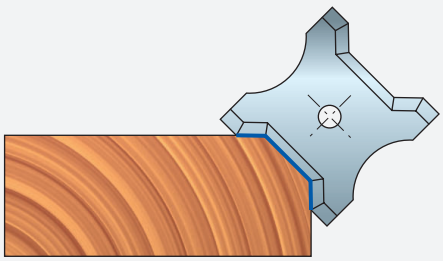
Technical information:
Disposable knives cutterheads set indicated to work hardwood, melamine chipboard panels, veneer, bilaminated panels and MDF.

- Adjustable in terms of timber thickness and profile.
- Steel body.
- Rebore not available.
- Profile knives not included.
- Series of spacers (item AN03M CC9 - not included) with the following thicknesses: 0,1 - 0,2 - 0,3 - 0,5 - 1 - 2 - 3 - 6 - 8 - 10 mm.

Knives for rounding



Knives for chamfering



T135M for planing

D mm	B mm	d mm	Z	Max RPM 1/min.	Freud Code	Art. No.
125	30	40	3	10.300	**T135M AC3**	F03FC20580
125	50	40	3	10.300	**T135M BC3**	F03FC20581

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Screw	M10 x 22	**VT19M MA9**	F03FA04496
	Nut	15 x 13,3 x M10	**VT20M MA9**	F03FC20670
	Allen key	5	**CB03M EA9**	F03FA00169
AC3	Knife	30 x 12 x 1,5	**CG08MEA310**	F03FH02906
AC3	Wedge	15 x 26 x 8	**CN09M AD9**	F03FC01283
BC3	Knife	50 x 12 x 1,5	**CG08MFA310**	F03FH02907
BC3	Wedge	15 x 46 x 8	**CN09M AP9**	F03FC01290

TG35MD - TG35MS for rounding

D mm	B mm	d mm	Z	Max RPM 1/min.	Freud Code	Art. No.
140	13	40	3	10.300	**TG35MD EC3**	F03FC20280
148,6	20	40	3	10.300	**TG35MD CC3**	F03FC20278
156,2	26	40	3	10.300	**TG35MD DC3**	F03FC20279
140	13	40	3	10.300	**TG35MS EC3**	F03FC20283
148,6	20	40	3	10.300	**TG35MS CC3**	F03FC20281
156,2	26	40	3	10.300	**TG35MS DC3**	F03FC20282

	Spare parts	Dimensions mm	Freud Code	Art. No.
EC3	Wedge	12 x 11 x 8	**CN21M AC9**	F03FC01408
EC3	Screw	M6 x 22	**VT19M AB9**	F03FA04491
EC3	Nut	10 x 11,5 x 6	**VT20M AA9**	F03FA04497
EC3	Allen key	3	**CB03M AA9**	F03FA00162
CC3	Wedge	18 x 18 x 8	**CN21M AA9**	F03FC01406
CC3	Screw	M10 x 22	**VT19M MA9**	F03FA04496
CC3	Nut	15 x 13,3 x M10	**VT20M MA9**	F03FC20670
CC3	Allen key	5	**CB03M EA9**	F03FA00169
CC3	Screw	M5 x 7 x 16	**VT08M AE9**	F03FA04457
DC3	Wedge	18 x 24 x 8	**CN21M AB9**	F03FC01407
DC3	Screw	M10 x 22	**VT19M MA9**	F03FA04496
DC3	Nut	15 x 13,3 x M10	**VT20M MA9**	F03FC20670
DC3	Allen key	5	**CB03M EA9**	F03FA00169
DC3	Screw	M5 x 7 x 16	**VT08M AE9**	F03FA04457

T135M - TG35M

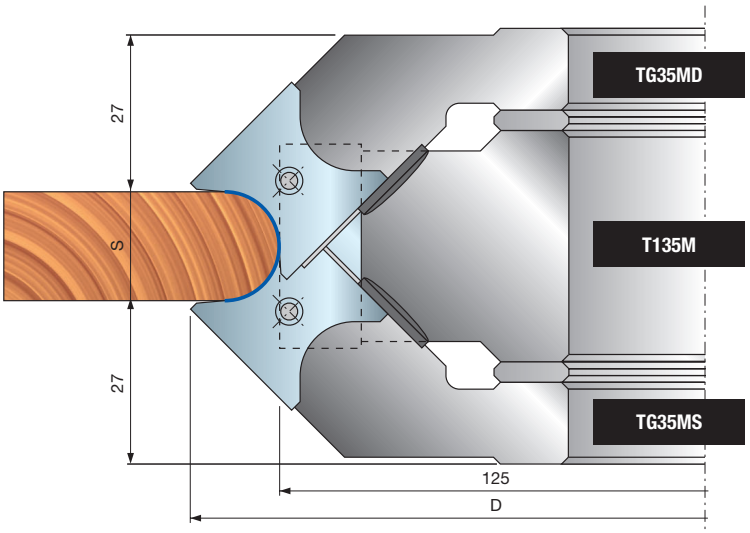
Post forming cutterhead sets with disposable knives

TG35MD EC3
TG35MS EC3

S mm	
T135M AC3	T135M BC3
4÷30	24÷50

Spare knives

Dimensions mm	Radius mm	Freud Code	Art. No.
13 x 16 x 2	45°	**CG50MCE305**	F03FC23920
13 x 16 x 2	1	**CG50MCD305**	F03FC23919
13 x 16 x 2	2	**CG50MCA305**	F03FC23916
13 x 16 x 2	3	**CG50MCB305**	F03FC23917
13 x 16 x 2	4	**CG50MCC305**	F03FC23918

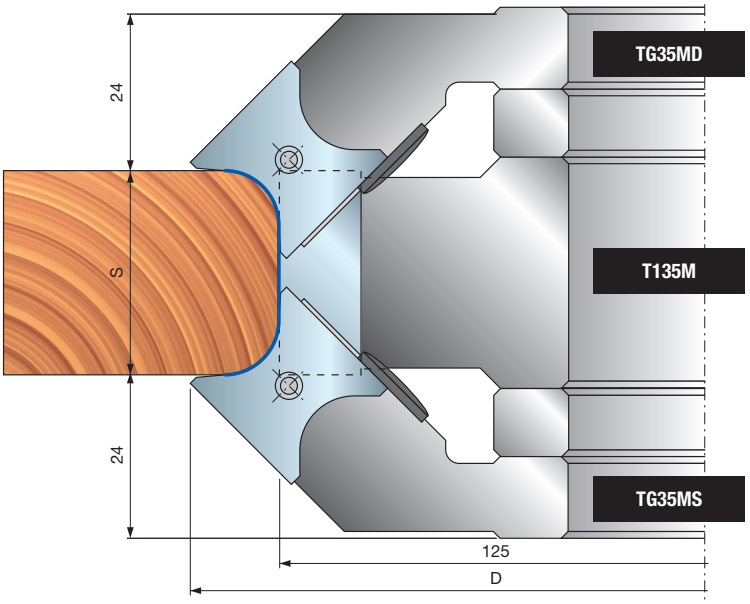


TG35MD CC3
TG35MS CC3

S mm	
T135M AC3	T135M BC3
10÷40	30÷60

Spare knives

Dimensions mm	Radius mm	Freud Code	Art. No.
20 x 21 x 2	45°	**CG50MAE305**	F03FC23910
20 x 21 x 2	5	**CG50MAA305**	F03FC23906
20 x 21 x 2	6	**CG50MAB305**	F03FC23907
20 x 21 x 2	7	**CG50MAC305**	F03FC23908
20 x 21 x 2	8	**CG50MAD305**	F03FC23909

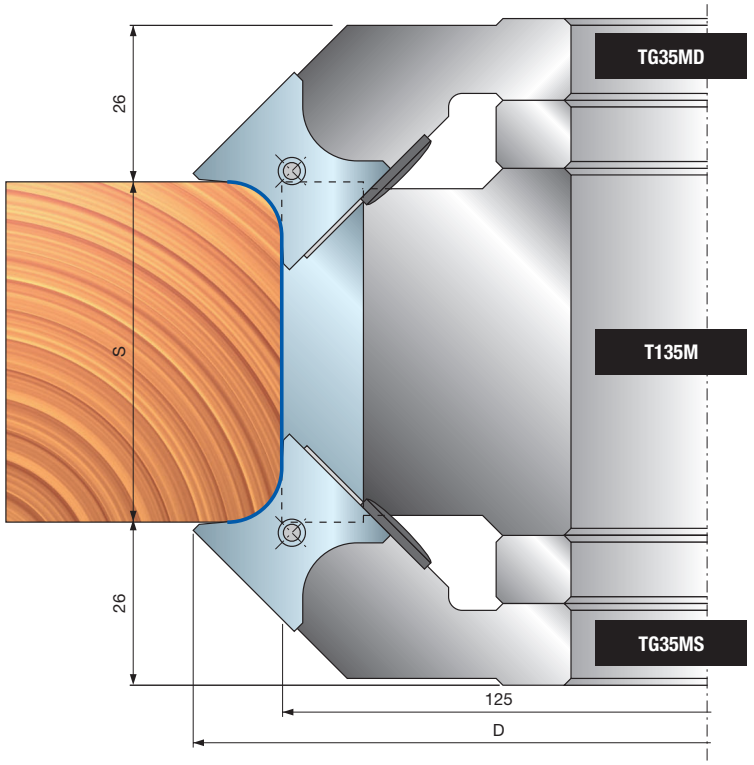


TG35MD DC3
TG35MS DC3

S mm	
T135M AC3	T135M BC3
18÷48	36÷68

Spare knives

Dimensions mm	Radius mm	Freud Code	Art. No.
26 x 24 x 2	45°	**CG50MBE305**	F03FC23915
26 x 24 x 2	9	**CG50MBA305**	F03FC23911
26 x 24 x 2	10	**CG50MBB305**	F03FC23912
26 x 24 x 2	11	**CG50MBC305**	F03FC23913
26 x 24 x 2	12	**CG50MBD305**	F03FC23914

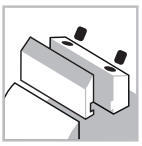




TP22M Multi radius cutterheads



Manual Feed



Clamping System



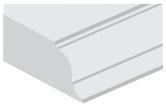
Aluminium Body



Softwood



Hardwood



Profiling

Performance System TECHNOLOGY

Machines:
Spindle moulders and manual feed machines.

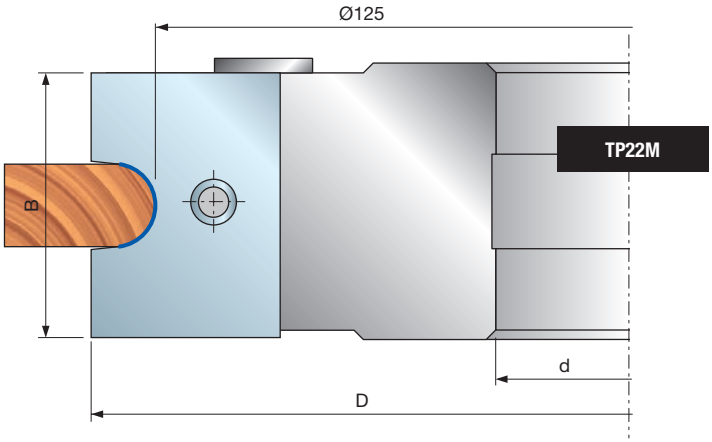
Materials:
Softwood and hardwood.

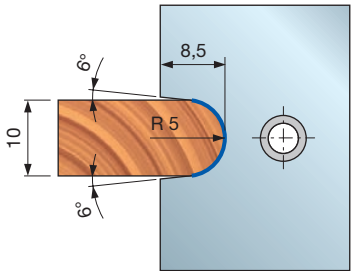
Applications:
Profiling.

Technical information:
Performance knives tool for multiradius profiles.
- Knives included.
- Aluminium light alloy body.
- Rebore not available.

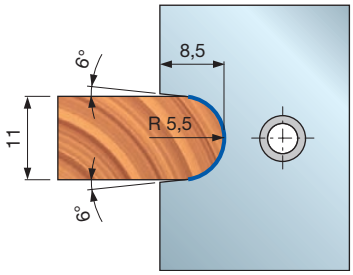
D mm	B mm	d mm	Z	Radius mm	Max RPM 1/min.	Freud Code	Art. No.
142	35	30	2	5 - 5,5 - 6	9.000	**TP22M MA3**	F03F668939
142	35	32	2	5 - 5,5 - 6	9.000	**TP22M MB3**	F03F668633
142	35	40	2	5 - 5,5 - 6	9.000	**TP22M MC3**	F03FC20480

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Screw	M5 x 8	**VT05M AA9**	F03FA04444
	Positioning plate	22 x 1,7 x 6,5	**VT18M GA9**	F03FA04488
	Screw	M10 x 18	**VT03M CC9**	F03FA04438
	Allen key	5	**CB03M EA9**	F03FA00169
	Wedge	33 x 23 x 8,5	**CN13M CI9A**	F03FC23042
	Knife	35 x 24 x 3 R5	**CP22MM05001**	F03FC23952
	Knife	35 x 24 x 3 R5,5	**CP22MM05501**	F03FC23953
	Knife	35 x 24 x 3 R6	**CP22MM06001**	F03FC23954

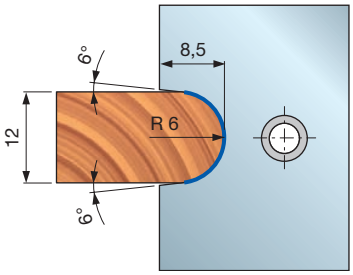




CP22MM05001
F03FC23952



CP22MM05501
F03FC23953



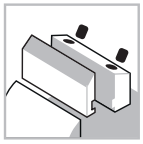
CP22MM06001
F03FC23954

TP22M Multi radius cutterheads





Manual Feed



Clamping System



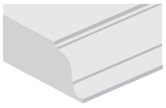
Aluminium Body



Softwood



Hardwood



Profiling

Performance System TECHNOLOGY

Machines:
Spindle moulders and manual feed machines.

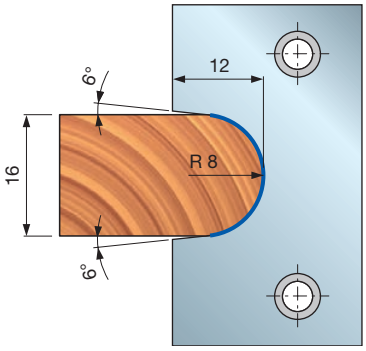
Materials:
Softwood and hardwood.

Applications:
Profiling.

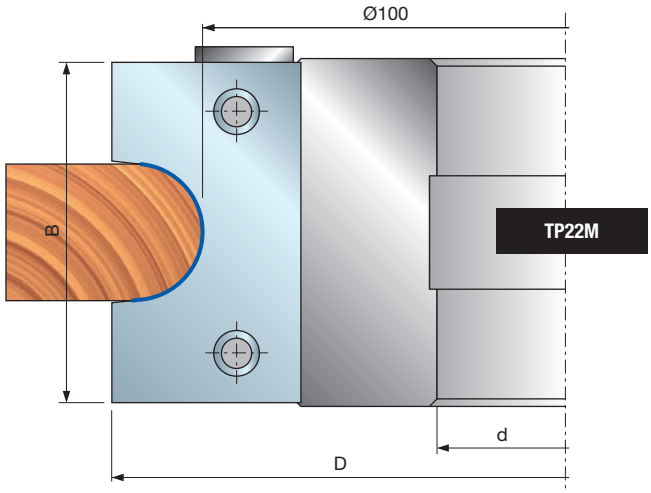
Technical information:
Performance knives tool for multiradius profiles.
- Knives included.
- Aluminium light alloy body.
- Rebore not available.

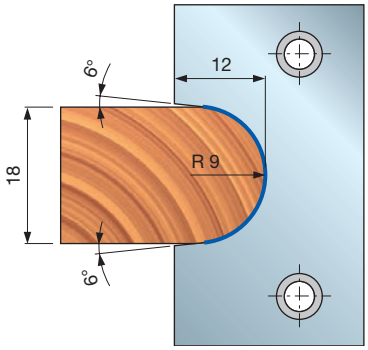
D mm	B mm	d mm	Z	Radius mm	Max RPM 1/min.	Freud Code	Art. No.
124	45	30	2	8-9-10-11	10.300	**TP22M LA3**	F03F668938
124	45	32	2	8-9-10-11	10.300	**TP22M LC3**	F03F668632
124	45	35	2	8-9-10-11	10.300	**TP22M LB3**	F03FC20479

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Screw	M5 x 8	**VT05M AA9**	F03FA04444
	Positioning plate	22 x 1,7 x 6,5	**VT18M GB9**	F03FA04489
	Screw	M10 x 18	**VT03M CC9**	F03FA04438
	Allen key	5	**CB03M EA9**	F03FA00169
	Wedge	43 x 28 x 8,5	**CN13M CH9A**	F03FC24449
	Knife	45 x 29 x 3 R8	**CP22ML08001**	F03FC23948
	Knife	45 x 29 x 3 R9	**CP22ML09001**	F03FC23949
	Knife	45 x 29 x 3 R10	**CP22ML10001**	F03FC23950
	Knife	45 x 29 x 3 R11	**CP22ML11001**	F03FC23951

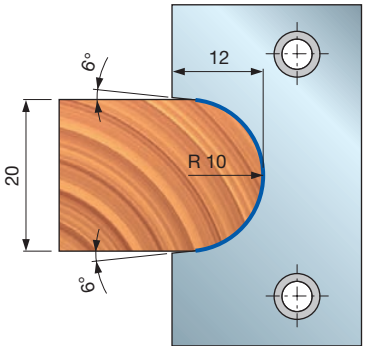


CP22ML08001
F03FC23948

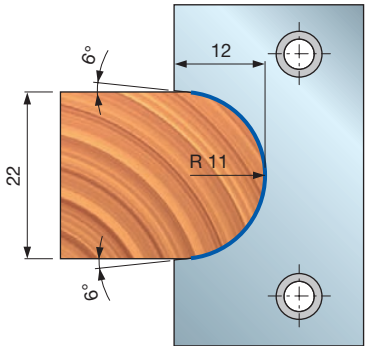




CP22ML09001
F03FC23949



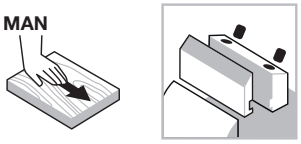
CP22ML10001
F03FC23950



CP22ML11001
F03FC23951

TP23M Multi radius cutterheads





Manual Feed

Clamping System



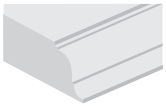
Aluminium Body



Softwood



Hardwood



Profiling

Performance System TECHNOLOGY

Machines:
Spindle moulders and manual feed machines.

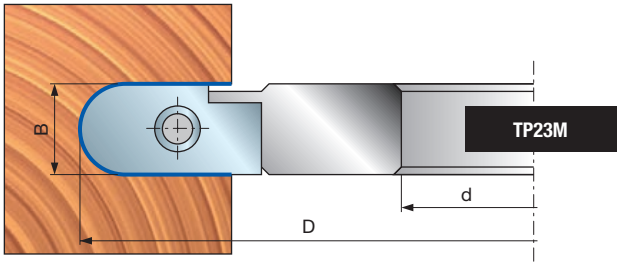
Materials:
Softwood and hardwood.

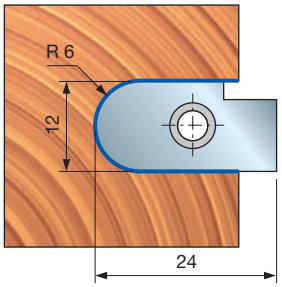
Applications:
Profiling.

Technical information:
Performance knives tool for multiradius profiles.
- Knives included.
- Aluminium light alloy body.
- Rebore not available.

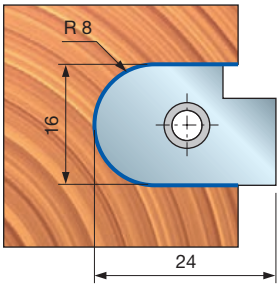
D mm	B mm	d mm	Z	Radius mm	Max RPM 1/min.	Freud Code	Art. No.
120	12	30	2	6-8	9.500	**TP23M AA3**	F03FC24450
120	12	32	2	6-8	9.500	**TP23M AC3**	F03FC24451
120	12	35	2	6-8	9.500	**TP23M AB3**	F03FC20481

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Knife	12 x 24 x 3,5 R6	**CP23MA06001**	F03FC23955
	Knife	16 x 24 x 3,5 R8	**CP23MA08001**	F03FC23956
	Screw	M6 x 10	**2622M CB9**	F03FA07455
	Screw	M5 x 8	**VT05M AA9**	F03FA04444
	Positioning plate	20 x 11,6 x 2,2	**VT18M AQ9**	F03FC21917
	Allen key	4	**CB03M BA9**	F03FA00163





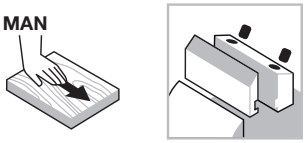
CP23MA06001
F03FC23955



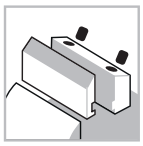
CP23MA08001
F03FC23956

TP31M Multi radius cutterheads





Manual Feed



Clamping System



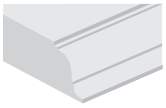
Aluminium Body



Softwood



Hardwood



Profiling

Performance System TECHNOLOGY

Machines:
Spindle moulders and manual feed machines.

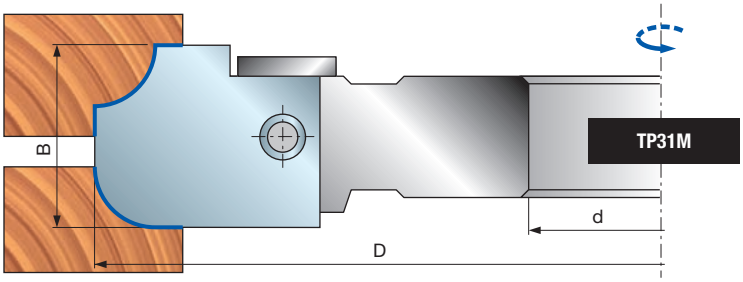
Materials:
Softwood and hardwood.

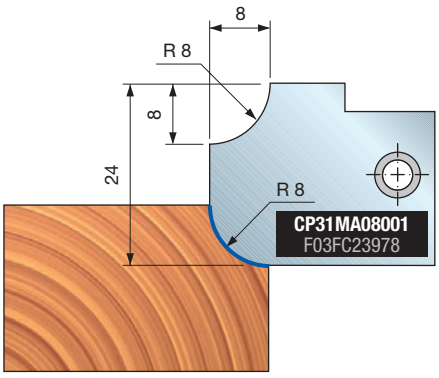
Applications:
Profiling.

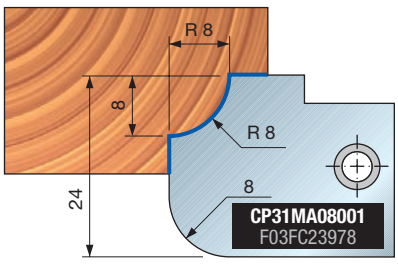
Technical information:
Performance knives tool for multiradius profiles.
- Knives included.
- Aluminium light alloy body.
- Rebore not available.

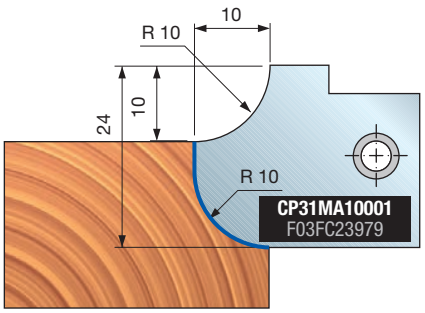
D mm	B mm	d mm	Z	Radius mm	Max RPM 1/min.	Freud Code	Art. No.
150	24	30	2	8-10	9.000	**TP31M AA3**	F03FC22683
150	24	32	2	8-10	9.000	**TP31M AC3**	F03FC24558
150	24	35	2	8-10	9.000	**TP31M AB3**	F03FC20482

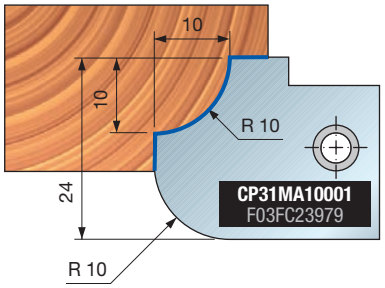
	Spare parts	Dimensions mm	Freud Code	Art. No.
	Knife	24 x 30 x 3 R8	**CP31MA08001**	F03FC23978
	Knife	24 x 30 x 3 R10	**CP31MA10001**	F03FC23979
	Wedge	18 x 17 x 8	**CN11M B180A**	F03FC23171
	Screw	M10 x 18	**VT03M CC9**	F03FA04438
	Positioning plate	22 x 1,7 x 6,5	**VT18M GB9**	F03FA04489
	Screw	M5 x 8	**VT05M AA9**	F03FA04444
	Allen key	5	**CB03M EA9**	F03FA00169





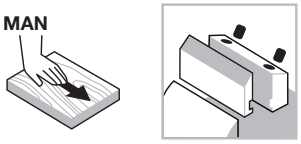






TP31M Multi radius cutterheads





Manual Feed

Clamping System



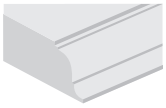
Aluminium Body



Softwood



Hardwood



Profiling

Performance System TECHNOLOGY

Machines:
Spindle moulders and manual feed machines.

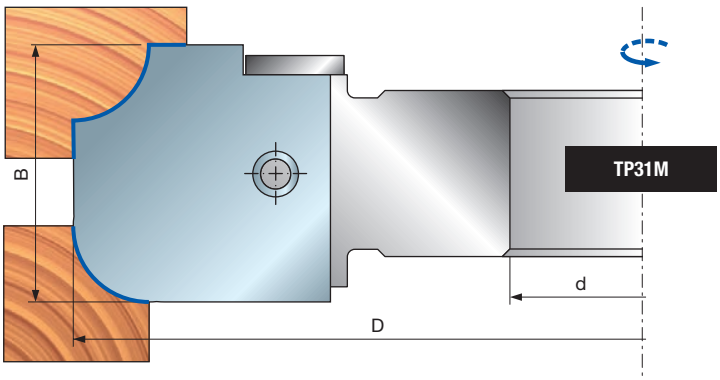
Materials:
Softwood and hardwood.

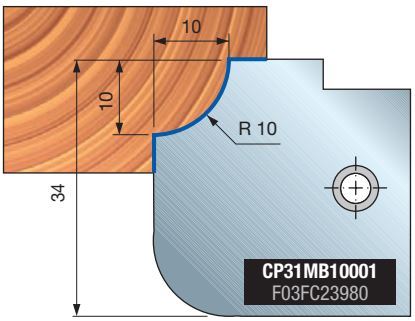
Applications:
Profiling.

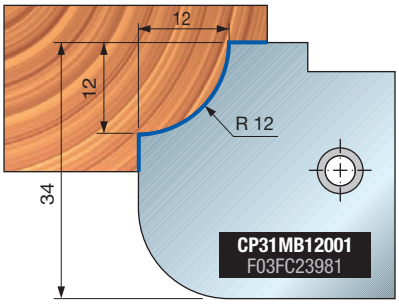
Technical information:
Performance knives tool for multiradius profiles.
- Knives included.
- Aluminium light alloy body.
- Rebore not available.

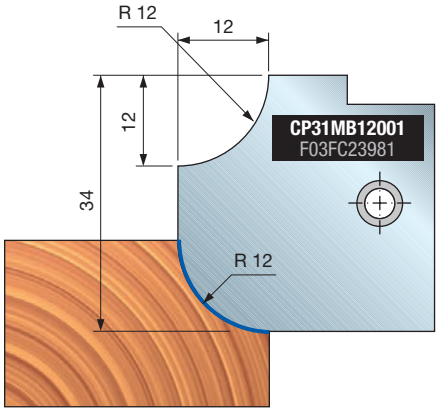
D mm	B mm	d mm	Z	Radius mm	Max RPM 1/min.	Freud Code	Art. No.
150	34	30	2	10-12	9.000	**TP31M EA3**	F03F668940
150	34	32	2	10-12	9.000	**TP31M EC3**	F03F668636
150	34	35	2	10-12	9.000	**TP31M EB3**	F03FC20484

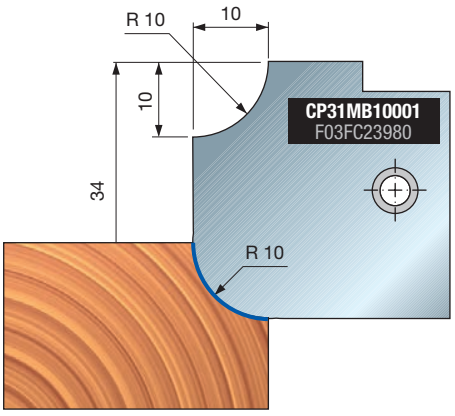
	Spare parts	Dimensions mm	Freud Code	Art. No.
	Knife	34 x 34 x 3 R10	**CP31MB10001**	F03FC23980
	Knife	34 x 34 x 3 R12	**CP31MB12001**	F03FC23981
	Wedge	32 x 32 x 8,5	**CN13M CF9A**	F03FC01393
	Screw	M10 x 18	**VT03M CC9**	F03FA04438
	Positioning plate	22 x 1,7 x 6,5	**VT18M GB9**	F03FA04489
	Screw	M5 x 8	**VT05M AA9**	F03FA04444
	Allen key	5	**CB03M EA9**	F03FA00169





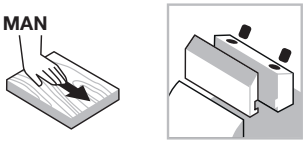




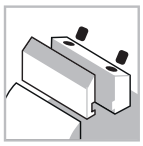


TP31M Multi radius cutterheads





Manual Feed



Clamping System



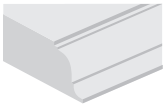
Aluminium Body



Softwood



Hardwood



Profiling

Performance System TECHNOLOGY

Machines:
Spindle moulders and manual feed machines.

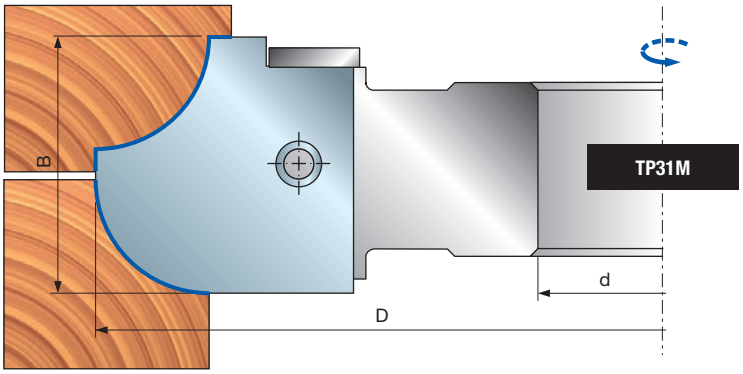
Materials:
Softwood and hardwood.

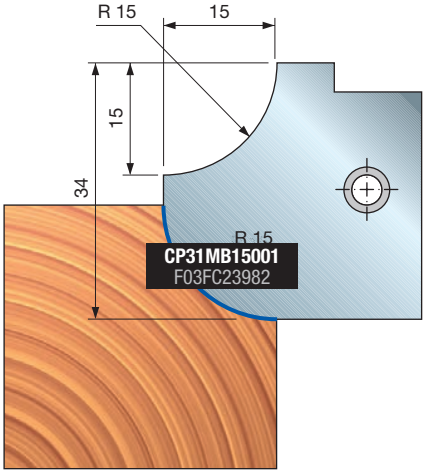
Applications:
Profiling.

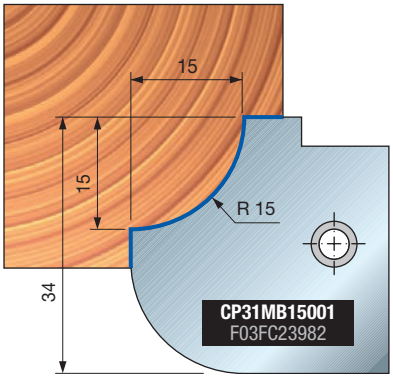
Technical information:
Performance knives tool for multiradius profiles.
- Knives included.
- Aluminium light alloy body.
- Rebore not available.

D mm	B mm	d mm	Z	Radius mm	Max RPM 1/min.	Freud Code	Art. No.
150	34	30	2	15	9.000	**TP31M FA3**	F03F668941
150	34	32	2	15	9.000	**TP31M FC3**	F03F668637
150	34	35	2	15	9.000	**TP31M FB3**	F03FC20485

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Knife	34 x 34 x 3 R15	**CP31MB15001**	F03FC23982
	Wedge	32 x 32 x 8,5	**CN13M CF9A**	F03FC01393
	Screw	M10 x 18	**VT03M CC9**	F03FA04438
	Positioning plate	22 x 1,7 x 6,5	**VT18M GB9**	F03FA04489
	Screw	M5 x 8	**VT05M AA9**	F03FA04444
	Allen key	5	**CB03M EA9**	F03FA00169

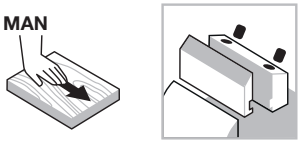






TP31M Multi radius cutterheads





Manual Feed

Clamping System



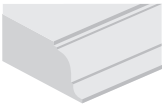
Aluminium Body



Softwood



Hardwood



Profiling

Performance System TECHNOLOGY

Machines:
Spindle moulders and manual feed machines.

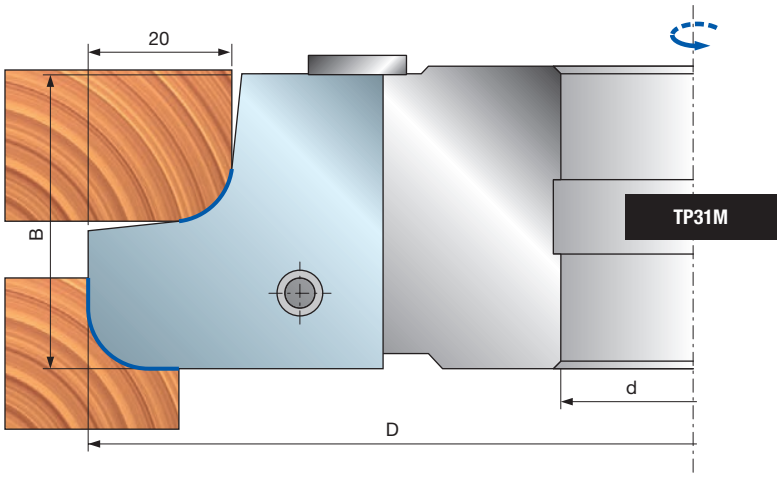
Materials:
Softwood and hardwood.

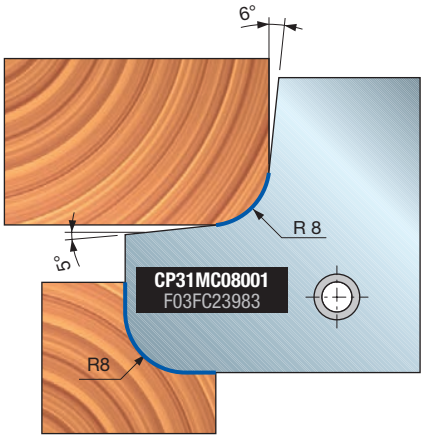
Applications:
Profiling.

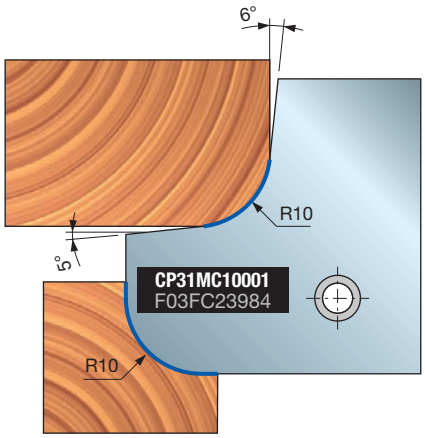
Technical information:
Performance knives tool for multiradius profiles.
- Knives included.
- Aluminium light alloy body.
- Rebore not available.

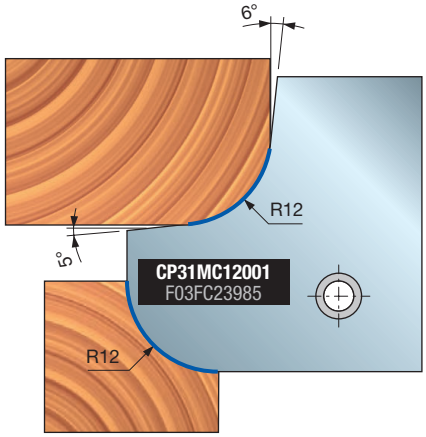
D mm	B mm	d mm	Z	Radius mm	Max RPM 1/min.	Freud Code	Art. No.
160	40	30	2	8-10-12	8.500	**TP31M GA3**	F03F668942
160	40	32	2	8-10-12	8.500	**TP31M GC3**	F03F668638
160	40	35	2	8-10-12	8.500	**TP31M GB3**	F03FC20486

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Knife	40 x 40 x 3 R8	**CP31MC08001**	F03FC23983
	Knife	40 x 40 x 3 R10	**CP31MC10001**	F03FC23984
	Knife	40 x 40 x 3 R12	**CP31MC12001**	F03FC23985
	Screw	M10 x 18	**VT03M CC9**	F03FA04438
	Positioning plate	22 x 1,7 x 6,5	**VT18M GA9**	F03FA04488
	Screw	M5 x 8	**VT05M AA9**	F03FA04444
	Allen key	5	**CB03M EA9**	F03FA00169



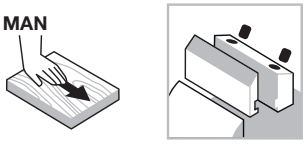






TP31M Multi radius cutterheads





Manual Feed

Clamping System



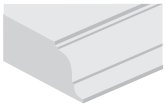
Aluminium Body



Softwood



Hardwood



Profiling

Performance System TECHNOLOGY

Machines:
Spindle moulders and manual feed machines.

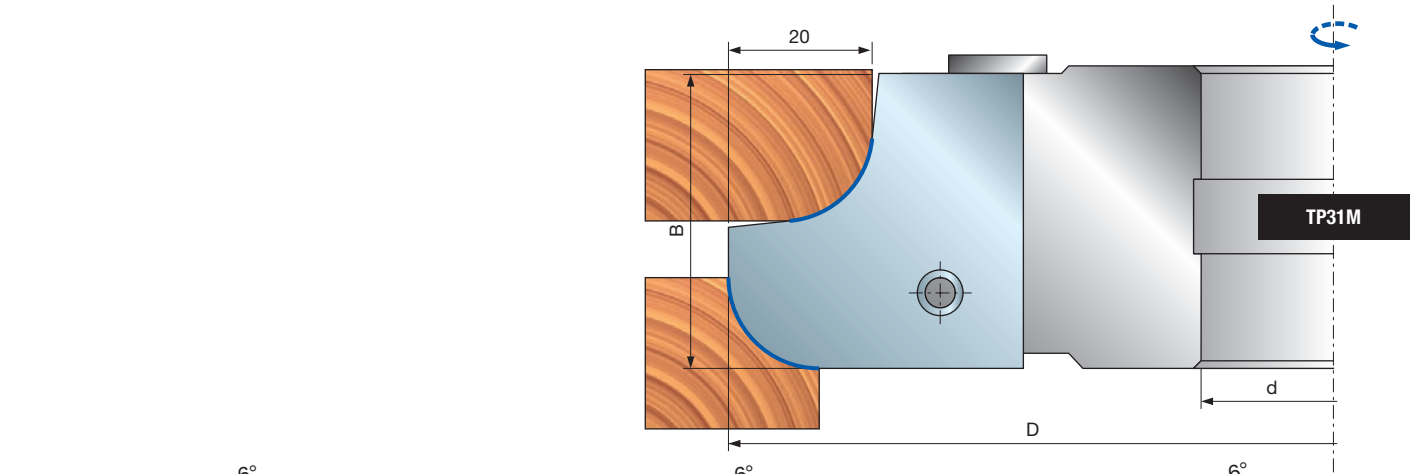
Materials:
Softwood and hardwood.

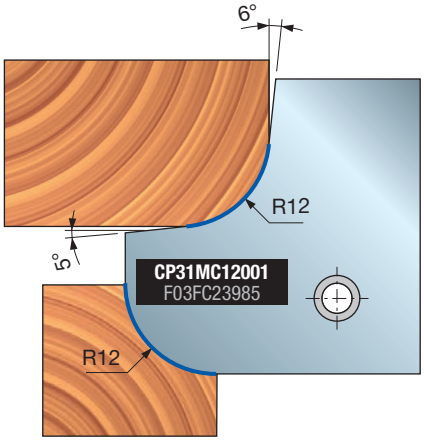
Applications:
Profiling.

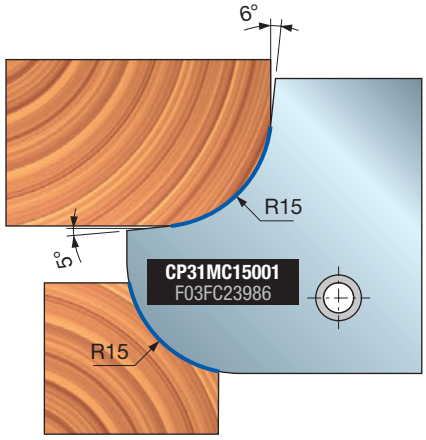
Technical information:
Performance knives tool for multiradius profiles.
- Knives included.
- Aluminium light alloy body.
- Rebore not available.

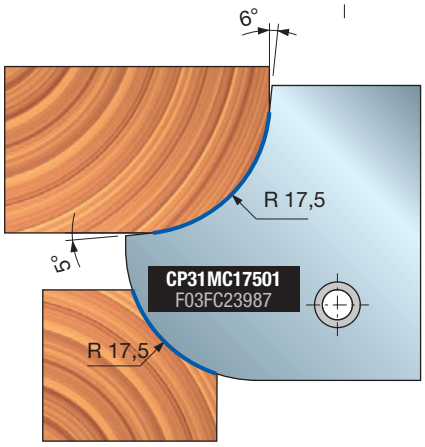
D mm	B mm	d mm	Z	Radius mm	Max RPM 1/min.	Freud Code	Art. No.
160	40	30	2	12-15-17,5	8.500	**TP31M HA3**	F03F668943
160	40	32	2	12-15-17,5	8.500	**TP31M HC3**	F03F668639
160	40	35	2	12-15-17,5	8.500	**TP31M HB3**	F03FC20487

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Knife	40 x 40 x 3 R12	**CP31MC12001**	F03FC23985
	Knife	40 x 40 x 3 R15	**CP31MC15001**	F03FC23986
	Knife	40 x 40 x 3 R17,5	**CP31MC17501**	F03FC23987
	Screw	M10 x 18	**VT03M CC9**	F03FA04438
	Positioning plate	22 x 1,7 x 6,5	**VT18M GA9**	F03FA04488
	Screw	M5 x 8	**VT05M AA9**	F03FA04444
	Allen key	5	**CB03M EA9**	F03FA00169





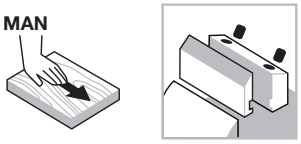




TP31M - TP31MS

Multi radius cutterheads





Manual Feed

Clamping System



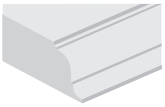
Aluminium Body



Softwood



Hardwood



Profiling

Performance System TECHNOLOGY

Machines:
Spindle moulders and manual feed machines.

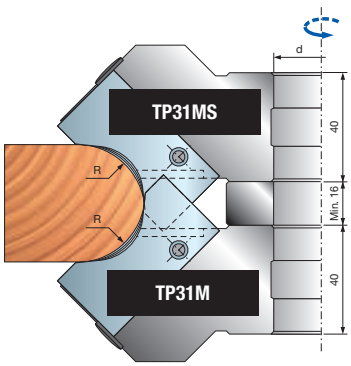
Materials:
Softwood and hardwood.

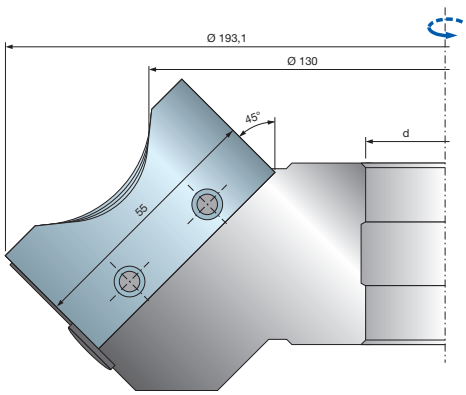
Applications:
Profiling.

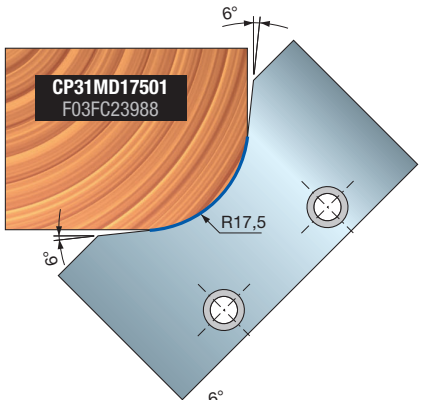
Technical information:
Performance knives tool for multiradius profiles.
- Knives included.
- Left and right hand tools can be combined in 1 set.
- Aluminium light alloy body.
- Rebore not available.

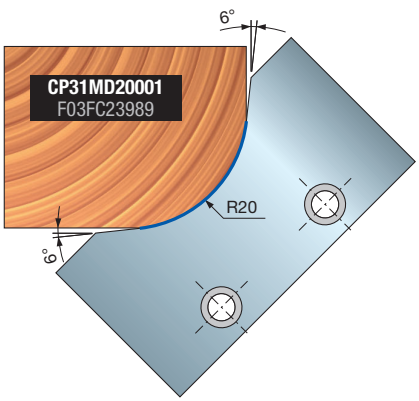
D mm	B mm	d mm	Z	Radius mm	Max RPM 1/min.	Freud Code	Art. No.
193,1	55	30	2	17,5-20-22,5-25	7.000	**TP31M DA3**	F03F668634
193,1	55	32	2	17,5-20-22,5-25	7.000	**TP31M DC3**	F03F668635
193,1	55	35	2	17,5-20-22,5-25	7.000	**TP31M DB3**	F03FC20483
193,1	55	30	2	17,5-20-22,5-25	7.000	**TP31MS DA3**	F03F668640
193,1	55	32	2	17,5-20-22,5-25	7.000	**TP31MS DC3**	F03F668641
193,1	55	35	2	17,5-20-22,5-25	7.000	**TP31MS DB3**	F03FC20488

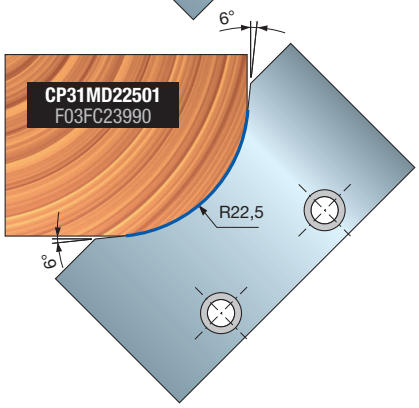
	Spare parts	Dimensions mm	Freud Code	Art. No.
	Knife	55 x 29 x 3 R17,5	**CP31MD17501**	F03FC23988
	Knife	55 x 29 x 3 R20	**CP31MD20001**	F03FC23989
	Knife	55 x 29 x 3 R22,5	**CP31MD22501**	F03FC23990
	Knife	55 x 29 x 3 R25	**CP31MD25001**	F03FC23991
	Wedge	51 x 19 x 8	**CN11M C510**	F03FC23658
	Screw	M5 x 7 x 16	**VT08M AE9**	F03FA04457
	Screw	M10 x 25	**2602M FI9**	F03FA07353
	Allen key	5	**CB03M EA9**	F03FA00169

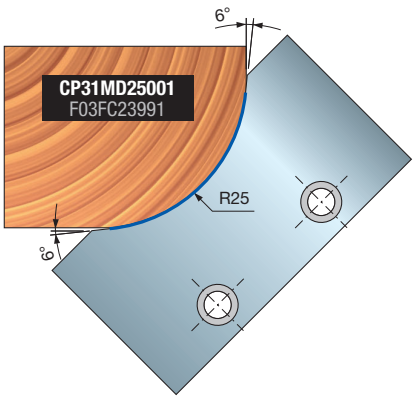










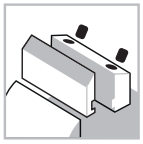


TP40M Multiprofile cutterheads





Manual Feed



Clamping System



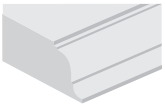
Steel Body



Softwood



Hardwood



Profiling

Performance System TECHNOLOGY

D mm	B mm	d mm	Z	Max RPM 1/min.	Freud Code	Art. No.
160	55	35	2	8.000	**TP40M AB3**	F03FC20493
160	55	50	2	8.000	**TP40M AD3**	F03FC24314

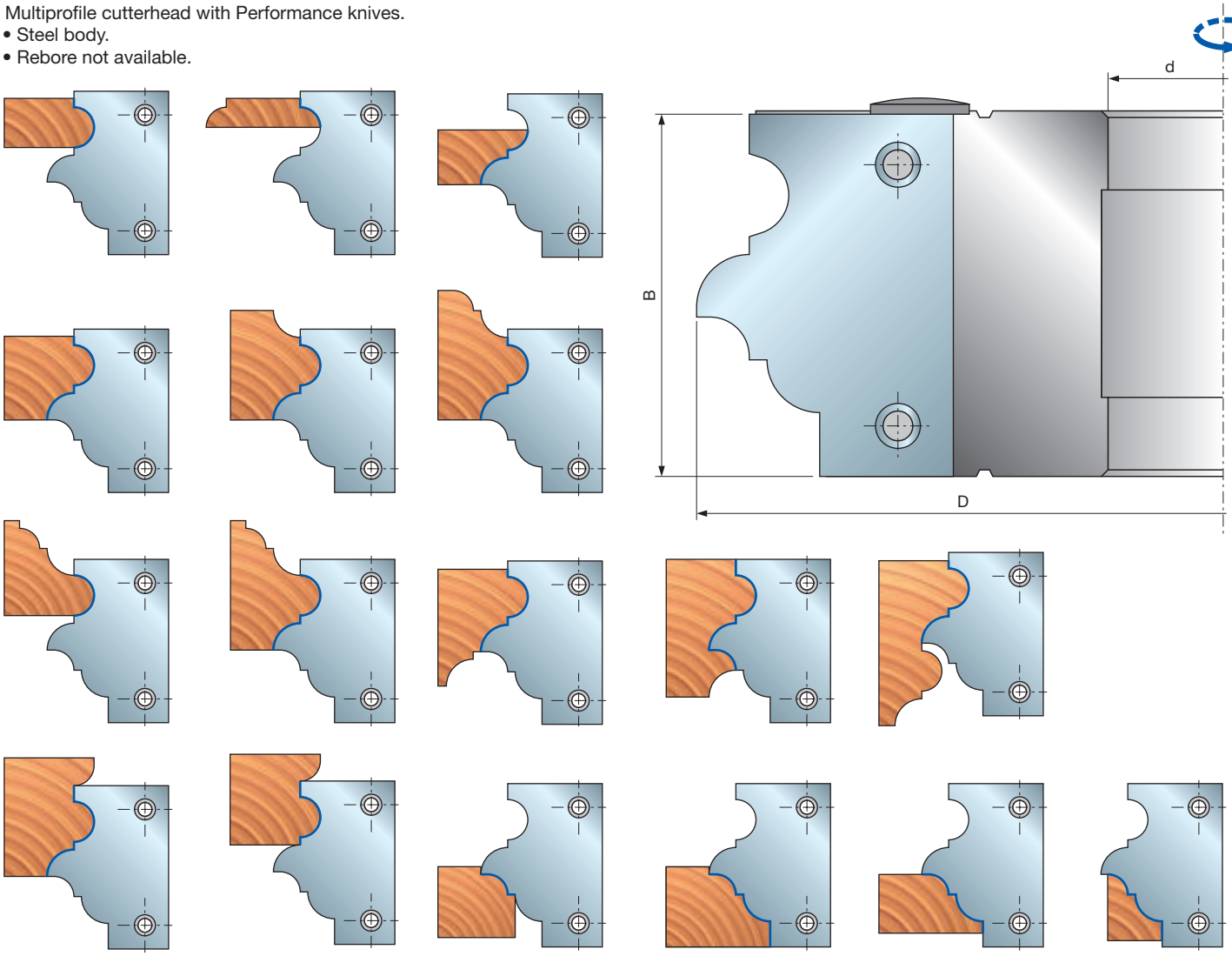
	Spare parts	Dimensions mm	Freud Code	Art. No.
	Knife	55 x 39 x 3	**CP40MAA301**	F03FC24002
	Wedge	51 x 35 x 8	**CN13M AH9**	F03FC23048
	Screw	M10 x 18	**VT03M CC9**	F03FA04438
	Screw	M5 x 7 x 16	**VT08M AE9**	F03FA04457
	Allen key	5	**CB03M EA9**	F03FA00169

Machines:
Spindle moulders and manual feed machines.

Materials:
Softwood and hardwood.

Applications:
Profiling.

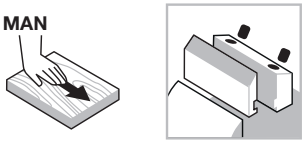
Technical information:
Multiprofile cutterhead with Performance knives.
- Steel body.
- Rebore not available.



TP44M

Multiprofile cutterheads for flooring and cabinet doors





Manual Feed

Clamping System



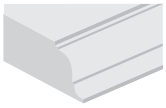
Aluminium Body



Softwood



Hardwood



Profiling

Performance System TECHNOLOGY

Machines:
Spindle moulders and manual feed machines.

Materials:
Softwood and hardwood.

Applications:
Profiling.

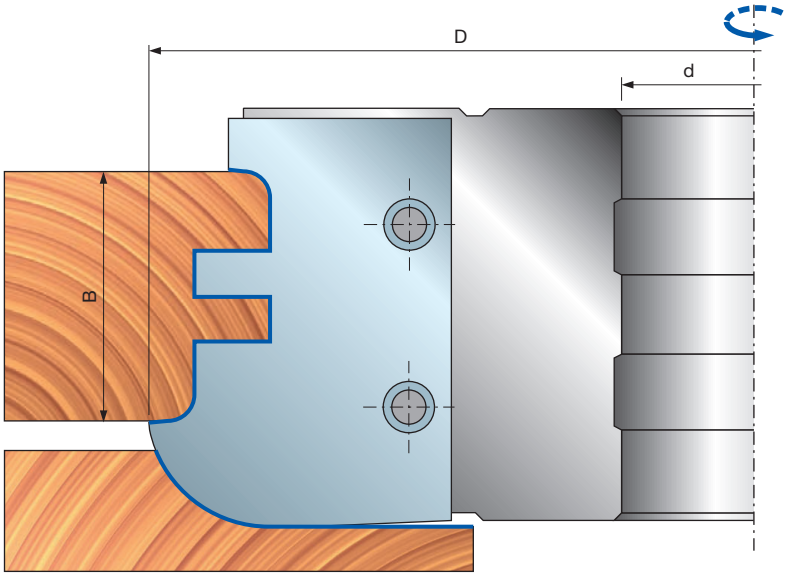
Technical information:
Multiprofile cutterhead with Performance knives for tongue, groove panels, flooring and cabinet doors.

- Mostly suitable for profiling on softwood, hardwood and exotic wood, with a top quality finish.
- The tool versatility allows the production of 20-22 mm thick cabinet doors, 13-17 mm and 20-22 mm thick floor boards and 26 or 33 mm thick shutters.
- The variously profiled knives are perfectly interchangeable and do not affect the minimum tool diameter.
- This item is supplied with knives.
- Aluminium light alloy body.
- Rebore not available.

D mm	B mm	d mm	Z	Max RPM 1/min.	Freud Code	Art. No.
160	55	30	2	8.500	**TP44M AA3**	F03F668643
160	55	32	2	8.500	**TP44M AC3**	F03F668644
160	55	35	2	8.500	**TP44M AB3**	F03FC20502
160	55	50	2	8.500	**TP44M AD3**	F03FC25268

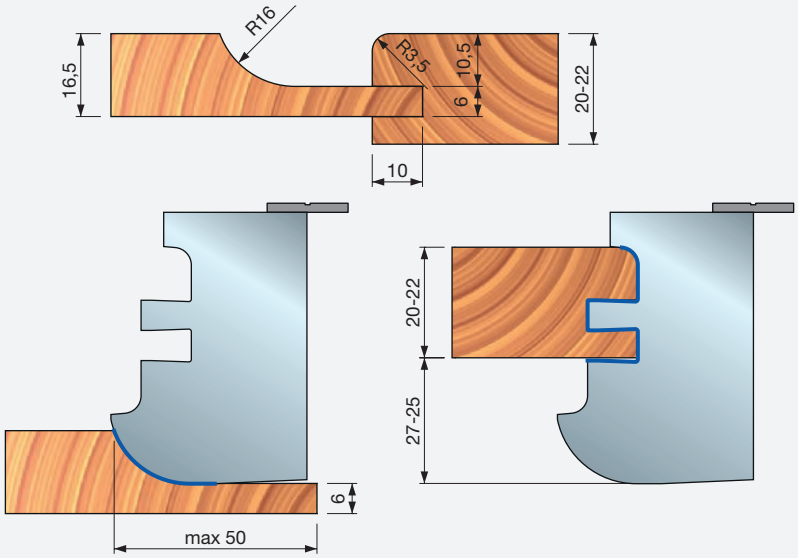
	Spare parts	Dimensions mm	Freud Code	Art. No.
	Wedge	38 x 51 x 8	**CN13M CE9A**	F03FC24964
	Screw	M5 x 8	**VT05M AA9**	F03FA04444
	Positioning plate	22 x 1,7 x 6,5	**VT18M GA9**	F03FA04488
	Screw	M10 x 18	**VT03M CC9**	F03FA04438
	Allen key	5	**CB03M EA9**	F03FA00169

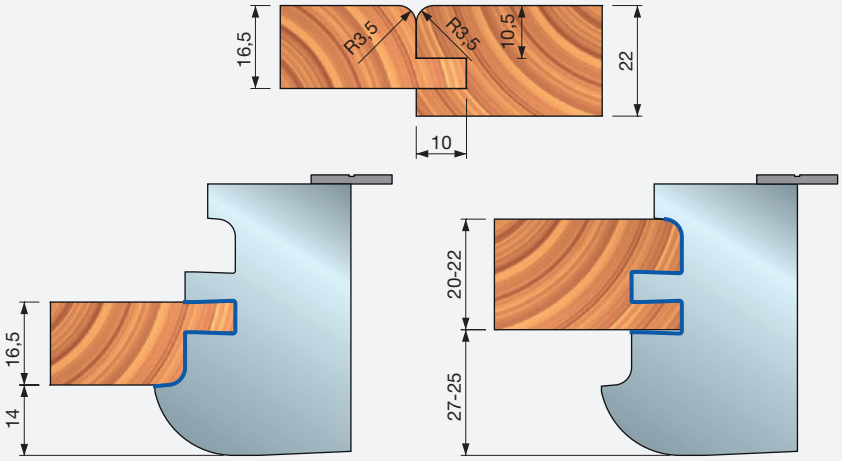
Profile	Spare knives	Dimensions mm	Freud Code	Art. No.
1	Knife	55 x 40 x 3	**CP44MAA301**	F03FC24012
2	Knife	55 x 40 x 3	**CP44MBA301**	F03FC24013



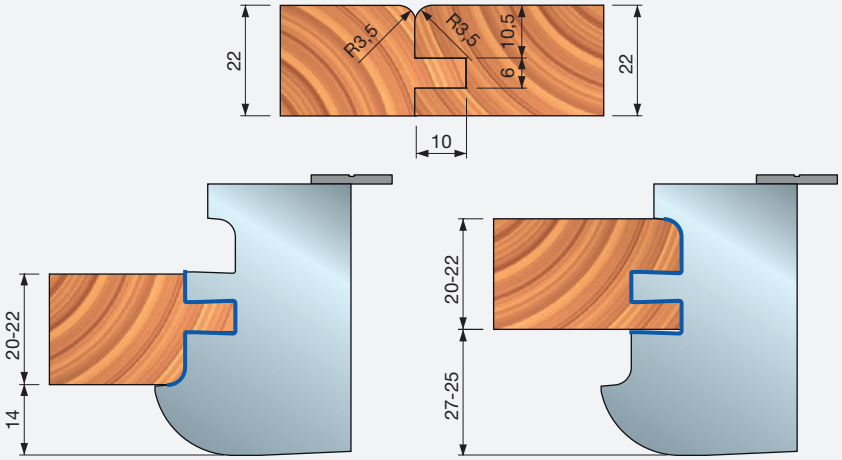
Profile 1




R16
16,5
R3,5
10,5
6
20-22
10
20-22
27-25
6
max 50

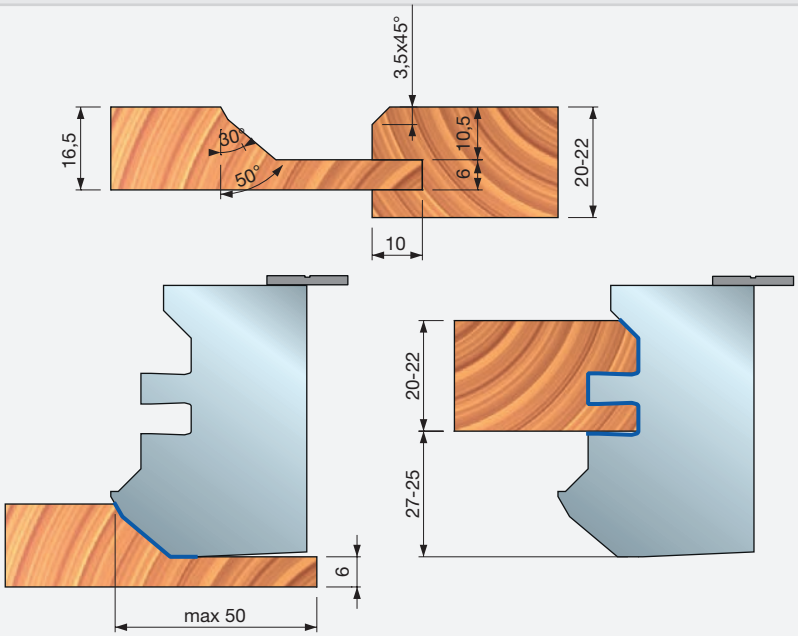

16,5
R3,5
R3,5
10,5
22
10
20-22
27-25
16,5
14

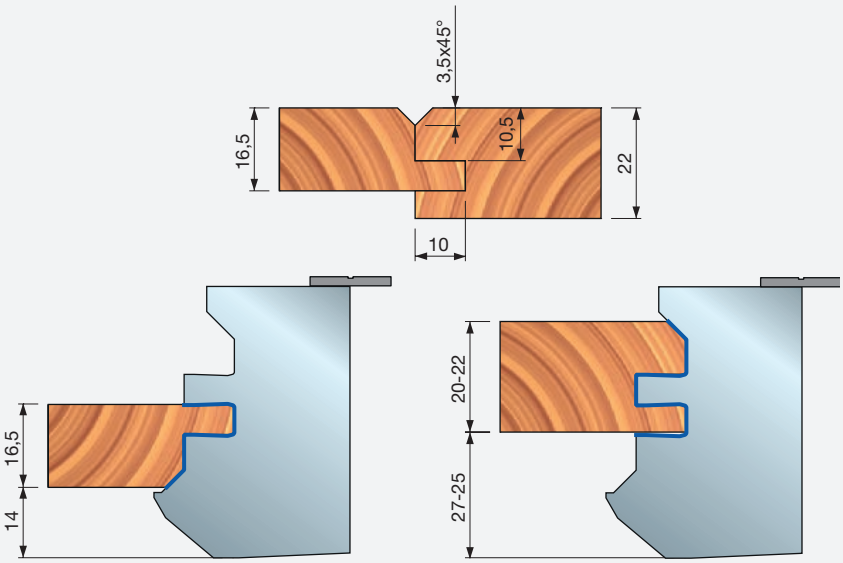



22
R3,5
R3,5
10,5
6
22
10
20-22
27-25
20-22
14

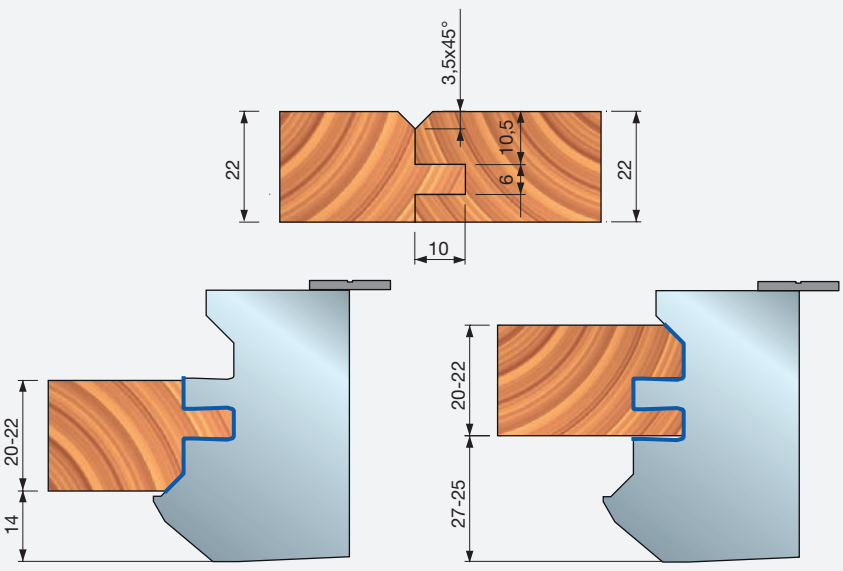
Profile 2




3,5x45°
16,5
30°
50°
10,5
6
20-22
10
20-22
27-25
6
max 50


3,5x45°
16,5
10,5
22
10
16,5
14
20-22
27-25



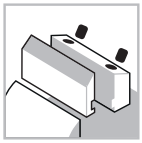

3,5x45°
22
10,5
6
22
10
20-22
14
20-22
27-25



TP32M Cutterhead sets for cabinet doors



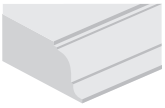
Manual Feed


Clamping System


Steel Body


Softwood


Hardwood


Profiling

Machines:
Spindle moulders and manual feed machines.

Materials:
Softwood and hardwood.

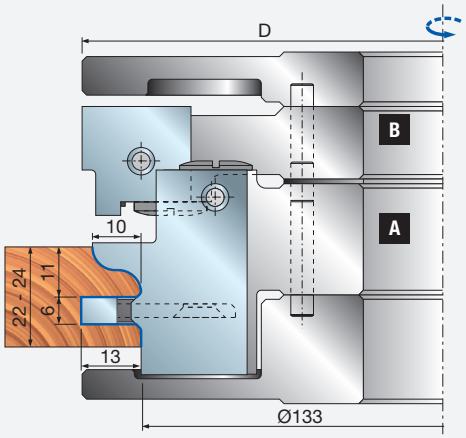
Applications:
Profiling.

Technical information:
Performance knives tool set for cabinet doors.
adjustable timber thickness 22-24 mm.
- Profile and counter-profile are both available with the same set (and different 0-point).
- The cutterhead set includes knives for tool B and mandatory flanges to work on manual feed machines.
- Profile knives and grooving inserts for tool A are not included, to be ordered separately.
- Steel body.
- Rebore not available.

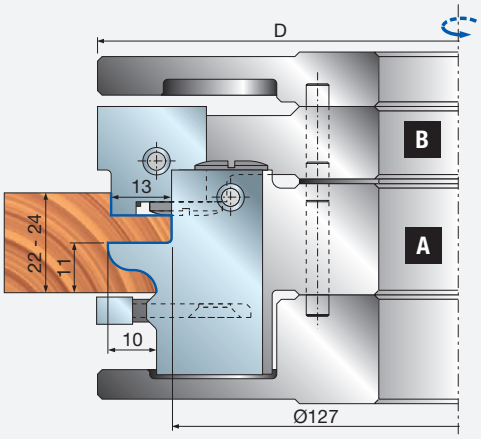
D mm	B mm	d mm	Z	Max RPM 1/min.	Freud Code	Art. No.
159	-	30	2+2	8.500	**TP32M AA3**	F03FC24452
159	-	35	2+2	8.500	**TP32M AB3**	F03FC20489

		Spare parts	Dimensions mm	Freud Code	Art. No.
AA2 - AA3		Wedge	43 x 19 x 8,5	**CN11M C410A**	F03FC23536
		Grooving insert	34 x 6 x 16	**SR06MAB302**	F03FC24191
		Screw	M10 x 18	**VT03M CC9**	F03FA04438
		Screw	M5 x 8	**VT05M AA9**	F03FA04444
		Screw	M6 x 13	**VT16M AE9**	F03FC20658
		Positioning plate	22 x 1,7 x 6,5	**VT18M GB9**	F03FA04489
		Wedge	16 x 17 x 8	**CN11M B160A**	F03FC24539
		Allen key	5	**CB03M EA9**	F03FA00169
		Allen key	4	**CB03M BA9**	F03FA00163
AD2 - AD3		Upper flange	159 x 12 x 30	**FX32M AA9**	F03FC24578
		Lower flange	159 x 24 x 30	**FX32M BA9**	F03FC24579
		Upper flange	159 x 12 x 35	**FX32M AB9**	F03FC15078
		Lower flange	159 x 24 x 35	**FX32M BB9**	F03FC15079

Carrying out a groove

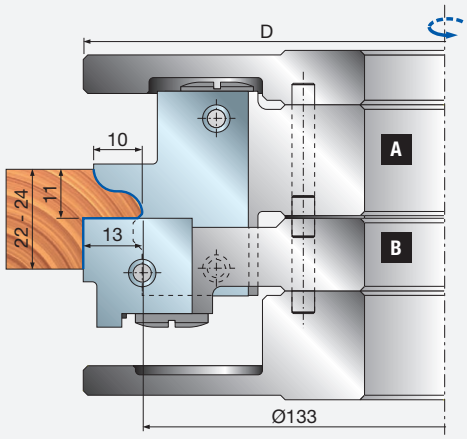


Carrying out a rebate

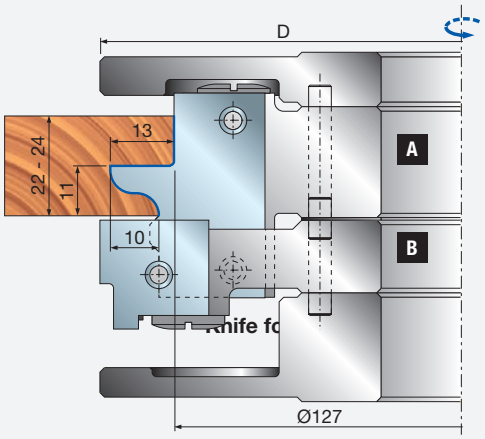


	Spare knives	Dimensions mm	Freud Code	Art. No.
	Knife	45 x 34 x 3	**CP32MAA301**	F03FC23992
	Knife	45 x 34 x 3	**CP32MBA301**	F03FC23993
	Knife	45 x 34 x 3	**CP32MCA301**	F03FC23994
	Knife	45 x 34 x 3	**CP32MDA301**	F03FC23995
	Knife	45 x 34 x 3	**CP32MEA301**	F03FC23996
	Knife	45 x 34 x 3	**CP32MFA301**	F03FC23997
	Knife	45 x 34 x 3	**CP32MGA301**	F03FC23998
	Knife	45 x 34 x 3	**CP32MHA301**	F03FC23999
	Knife	45 x 34 x 3	**CP32MIA301**	F03FC24000
	Knife	24 x 24 x 3	**CP32MLA301**	F03FC24001

Carrying out a groove

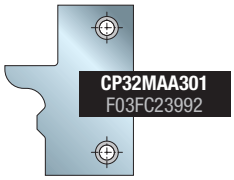


Carrying out a rebate



Order example for the profiles shown

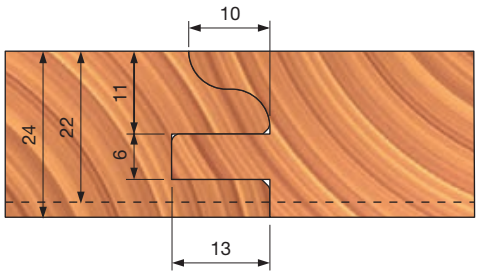
Pieces	Dimensions mm	Freud Code	Art. No.
1	159 x 30	**TP32M AA3**	F03FC24452
2	45 x 34 x 3	**CP32MAA301**	F03FC23992



Knives for TP32M - A
Not included

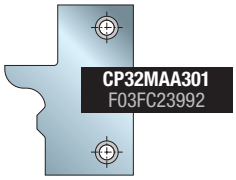


Insert for TP32M - B

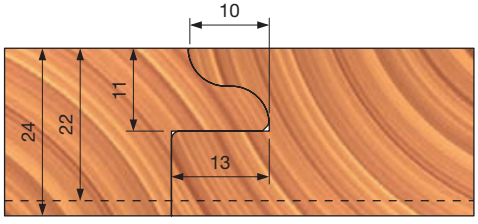


Order example for the profiles shown

Pieces	Dimensions mm	Freud Code	Art. No.
1	159 x 30	**TP32M AA3**	F03FC24452
2	45 x 34 x 3	**CP32MAA301**	F03FC23992

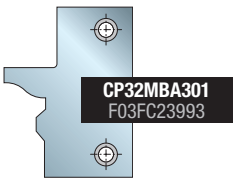


Knives for TP32M - A
Not included



Order example for the profiles shown

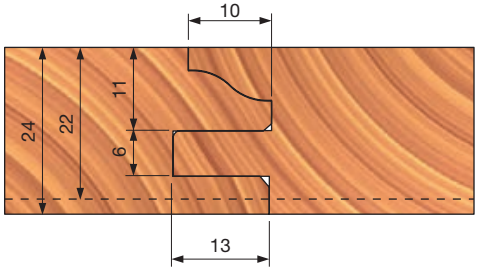
Pieces	Dimensions mm	Freud Code	Art. No.
1	159 x 30	**TP32M AA3**	F03FC24452
2	45 x 34 x 3	**CP32MBA301**	F03FC23993



Knives for TP32M - A
Not included

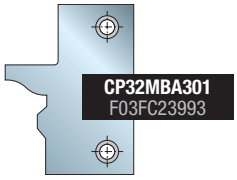


Insert for TP32M - B

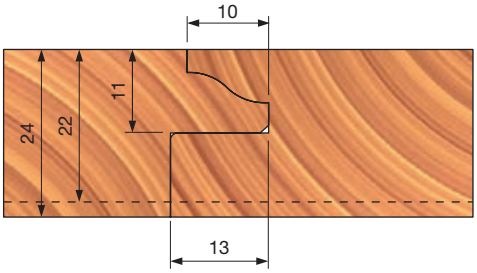


Order example for the profiles shown

Pieces	Dimensions mm	Freud Code	Art. No.
1	159 x 30	**TP32M AA3**	F03FC24452
2	45 x 34 x 3	**CP32MBA301**	F03FC23993

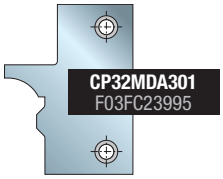


Knives for TP32M - A Not included



Order example for the profiles shown

Pieces	Dimensions mm	Freud Code	Art. No.
1	159 x 30	**TP32M AA3**	F03FC24452
2	45 x 34 x 3	**CP32MCA301**	F03FC23994
2	45 x 34 x 3	**CP32MDA301**	F03FC23995



Knives for TP32M - A Not included

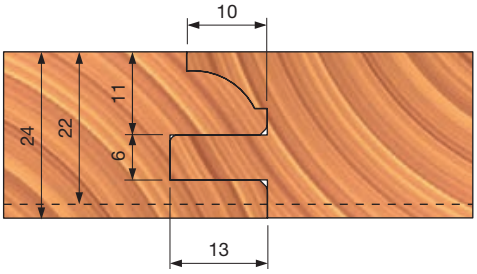


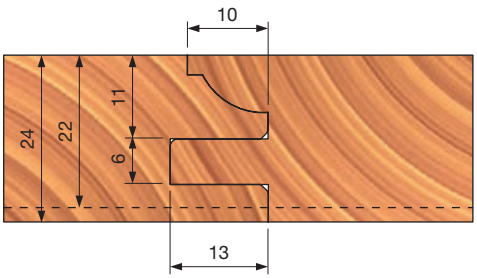
Knives for TP32M - A Not included





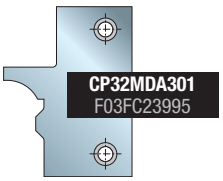
Insert for TP32M - B





Order example for the profiles shown

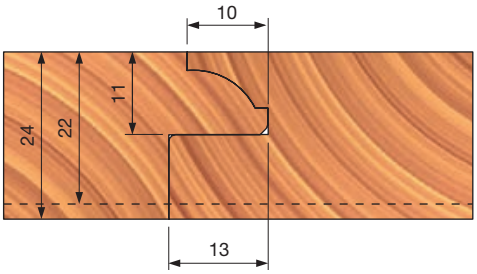
Pieces	Dimensions mm	Freud Code	Art. No.
1	159 x 30	**TP32M AA3**	F03FC24452
2	45 x 34 x 3	**CP32MCA301**	F03FC23994
2	45 x 34 x 3	**CP32MDA301**	F03FC23995

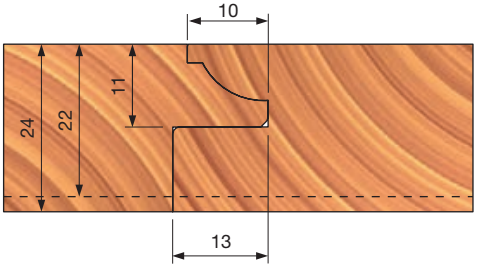


Knives for TP32M - A Not included



Knives for TP32M - A Not included



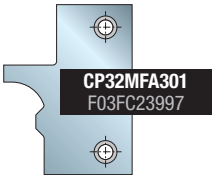


Order example for the profiles shown

Pieces	Dimensions mm	Freud Code	Art. No.
1	159 x 30	**TP32M AA3**	F03FC24452
2	45 x 34 x 3	**CP32MEA301**	F03FC23996
2	45 x 34 x 3	**CP32MFA301**	F03FC23997



Knives for
TP32M - A
Not included

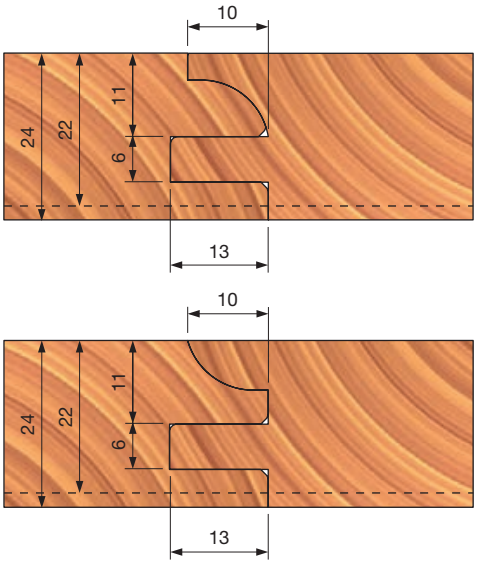


Knives for
TP32M - A
Not included



SR06MAB302
F03FC24191

Insert for
TP32M - B

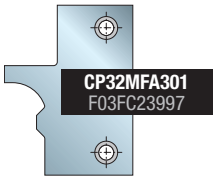


Order example for the profiles shown

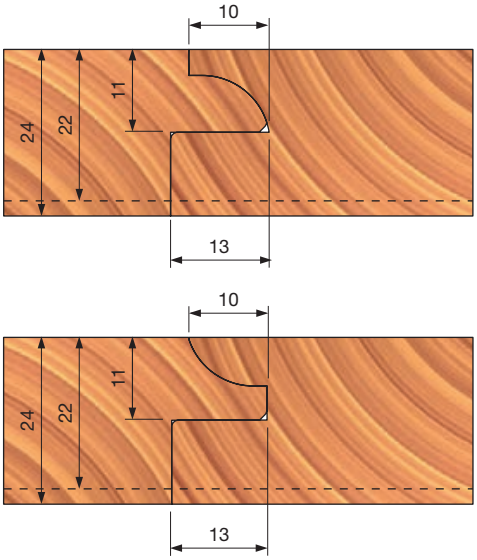
Pieces	Dimensions mm	Freud Code	Art. No.
1	159 x 30	**TP32M AA3**	F03FC24452
2	45 x 34 x 3	**CP32MEA301**	F03FC23996
2	45 x 34 x 3	**CP32MFA301**	F03FC23997



Knives for
TP32M - A
Not included



Knives for
TP32M - A
Not included

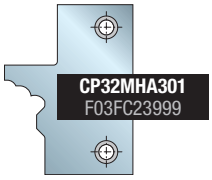


Order example for the profiles shown

Pieces	Dimensions mm	Freud Code	Art. No.
1	159 x 30	**TP32M AA3**	F03FC24452
2	45 x 34 x 3	**CP32MGA301**	F03FC23998
2	45 x 34 x 3	**CP32MHA301**	F03FC23999



Knives for
TP32M - A
Not included

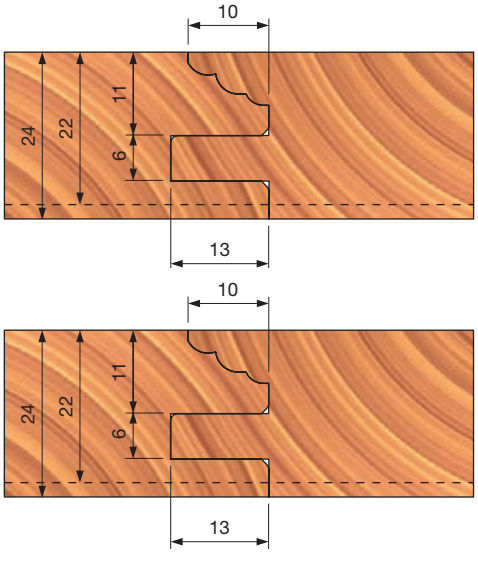


Knives for
TP32M - A
Not included



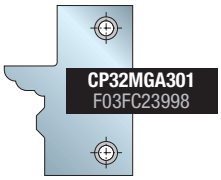
SR06MAB302
F03FC24191

Insert for
TP32M - B

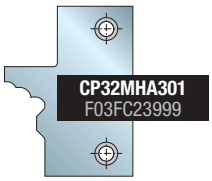


Order example for the profiles shown

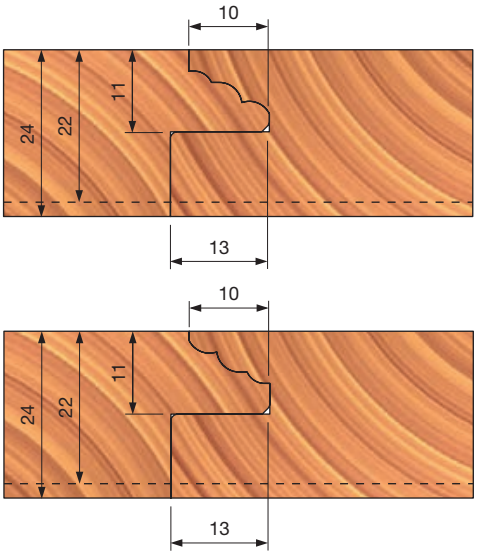
Pieces	Dimensions mm	Freud Code	Art. No.
1	159 x 30	**TP32M AA3**	F03FC24452
2	45 x 34 x 3	**CP32MGA301**	F03FC23998
2	45 x 34 x 3	**CP32MHA301**	F03FC23999



Knives for TP32M - A Not included

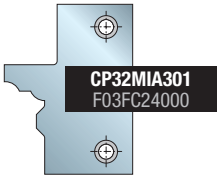


Knives for TP32M - A Not included



Order example for the profiles shown

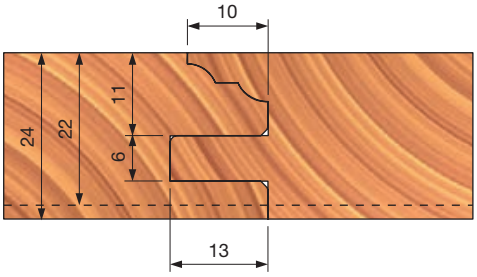
Pieces	Dimensions mm	Freud Code	Art. No.
1	159 x 30	**TP32M AA3**	F03FC24452
2	45 x 34 x 3	**CP32MIA301**	F03FC24000



Knives for TP32M - A Not included

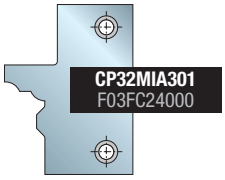


Insert for TP32M - B

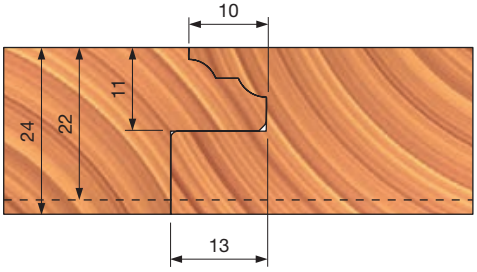


Order example for the profiles shown

Pieces	Dimensions mm	Freud Code	Art. No.
1	159 x 30	**TP32M AA3**	F03FC24452
2	45 x 34 x 3	**CP32MIA301**	F03FC24000

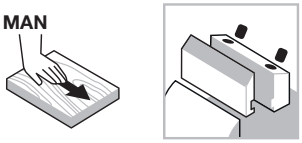


Knives for TP32M - A Not included



TPSEM Cutterhead sets for cabinet doors





Manual Feed

Clamping System



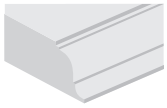
Steel Body



Softwood



Hardwood



Profiling

Performance System TECHNOLOGY

Machines:
Spindle moulders and manual feed machines.

Materials:
Softwood and hardwood.

Applications:
Profiling.

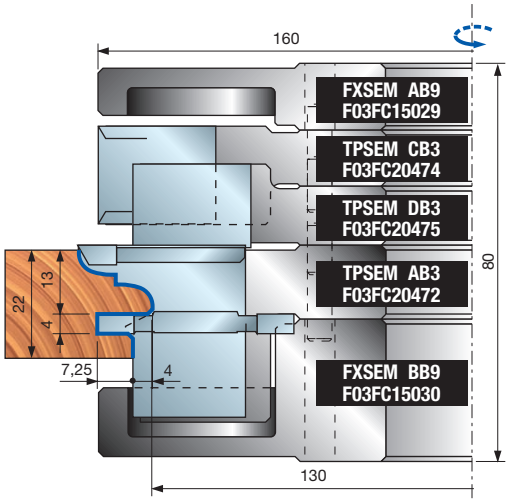
Technical information:
Performance knives tool set for cabinet doors.
adjustable timber thickness 22-30 mm.

- Profile and counter-profile are both available with the same set (and different 0-point).
- The cutterhead set includes knives for tool B and mandatory flanges to work on manual feed machines.
- Profile knives and grooving inserts for tool A are not included, to be ordered separately.
- Steel body.
- Rebore not available.

D mm	B mm	d mm	Max RPM 1/min.	Freud Code	Art. No.
160	-	30	8.500	**TPSEM22GA3**	F03FC23021
160	-	32	8.500	**TPSEM22GC3**	F03FC24432
160	-	35	8.500	**TPSEM22GB3**	F03FC20476
160	-	30	8.500	**TPSEM30GA3**	F03FC23024
160	-	32	8.500	**TPSEM30GC3**	F03FC24433
160	-	35	8.500	**TPSEM30GB3**	F03FC20477

Tools for TPSEM sets

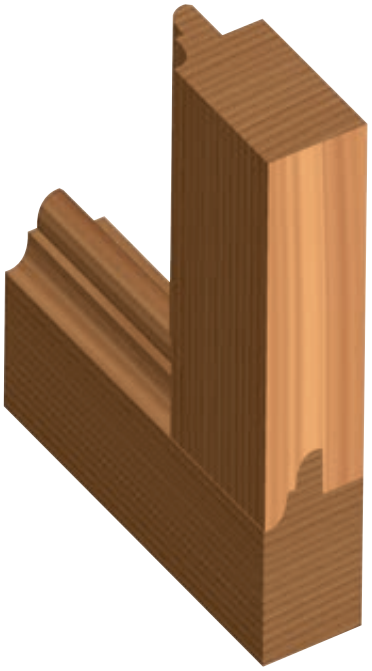
	D mm	B mm	d mm	Z	V	Freud Code	Art. No.
22GA3	135	-	30	2		**TPSEM DA3**	F03FC22726
	152	-	30	2	4	**TPSEM CA3**	F03FC22725
	160	-	30	2	4	**TPSEM AA3***	F03FC22723
22GB3	138	-	35	2		**TPSEM DB3**	F03FC20475
	152	-	35	2	4	**TPSEM CB3**	F03FC20474
	160	-	35	2	4	**TPSEM AB3***	F03FC20472
22GC3	138	-	32	2		**TPSEM DC3**	F03FC24431
	152	-	32	2	4	**TPSEM CC3**	F03FC24430
	160	-	32	2	4	**TPSEM AC3***	F03FC24428
30GA3	135	-	30	2		**TPSEM DA3**	F03FC22726
	152	-	30	2	4	**TPSEM CA3**	F03FC22725
	160	-	30	2	4	**TPSEM BA3***	F03FC22724
30GB3	138	-	35	2		**TPSEM DB3**	F03FC20475
	152	-	35	2	4	**TPSEM CB3**	F03FC20474
	160	-	35	2	4	**TPSEM BB3***	F03FC20473
30GC3	138	-	32	2		**TPSEM DC3**	F03FC24431
	152	-	32	2	4	**TPSEM CC3**	F03FC24430
	160	-	32	2	4	**TPSEM BC3***	F03FC24429



Knives for TPSEM sets

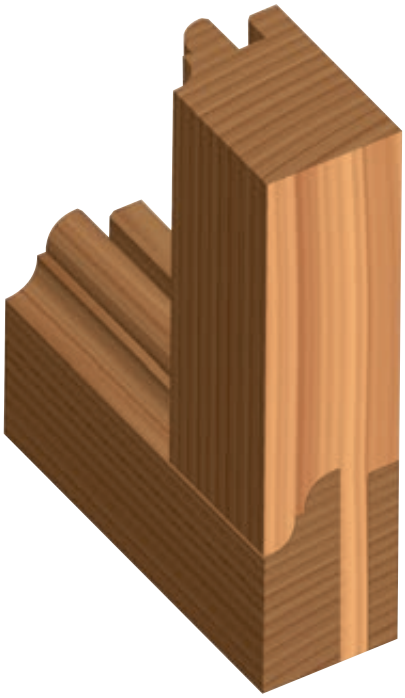
	Spare knives	Dimensions mm	Freud Code	Art. No.
	Knife	35 x 34 x 3	**CPSEMAB301**	F03FC23924
	Knife	35 x 34 x 3	**CPSEMAC301**	F03FC23925
	Knife	35 x 34 x 3	**CPSEMAD301**	F03FC23926
	Knife	35 x 34 x 3	**CPSEMAE301**	F03FC23927
	Knife	35 x 34 x 3	**CPSEMAF301**	F03FC23928
	Knife	35 x 34 x 3	**CPSEMAG301**	F03FC23929
	Knife	35 x 34 x 3	**CPSEMBB301**	F03FC23930
	Knife	35 x 34 x 3	**CPSEMBC301**	F03FC23931
	Knife	35 x 34 x 3	**CPSEMBD301**	F03FC23932
	Knife	35 x 34 x 3	**CPSEMBE301**	F03FC23933
	Knife	35 x 34 x 3	**CPSEMBF301**	F03FC23934
	Knife	35 x 34 x 3	**CPSEMBG301**	F03FC23935
	Knife	20 x 24 x 3	**CPSEMCA301**	F03FC23936
	Knife	17 x 24 x 3	**CPSEMDA301**	F03FC23937

TPSEM Cutterheads sets for cabinet doors



Spare parts for sets TPSEM22 - TPSEM30

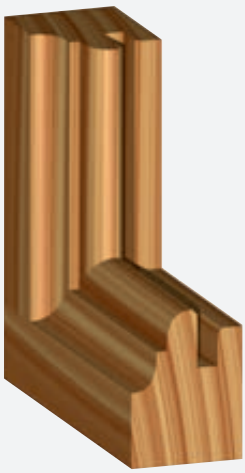
	Spare parts	Dimensions mm	Freud Code	Art. No.
AA3-AB3-AC3	Deflector	30,8 x 7 x 24,5	**ID04MSAA901**	F03FC24137
	Grooving insert	40 x 16 x 4	**IG04MSAA305**	F03FH02994
	Spur insert	34 x 4 x 16	**SR06MDAL302**	F03FC24196
	Screw	M10 x 18	**VT03M CC9**	F03FA04438
	Screw	M5 x 8	**VT05M AA9**	F03FA04444
	Screw for ID04M	M4 x 12	**VT05M DA9**	F03FC20647
	Screw	M6 x 14,5	**VT16M AA9**	F03FA04476
	Screw	M6 x 13	**VT16M AE9**	F03FC20658
	Positioning plate	20 x 11,6 x 2,2	**VT18M AS9**	F03FC20665
BA3-BB3-BC3	Deflector	30,8 x 8 x 24,5	**ID04MSAD901**	F03FC24140
	Grooving insert	40 x 16 x 6	**IG04MSAD305**	F03FH02997
	Spur insert	34 x 4 x 16	**SR06MDAL302**	F03FC24196
	Screw	M10 x 18	**VT03M CC9**	F03FA04438
	Screw	M5 x 8	**VT05M AA9**	F03FA04444
	Screw for ID04M	M4 x 12	**VT05M DA9**	F03FC20647
	Screw	M6 x 15,5	**VT16M AD9**	F03FC20657
	Screw	M6 x 13	**VT16M AE9**	F03FC20658
	Positioning plate	20 x 11,6 x 2,2	**VT18M AS9**	F03FC20665
CA3-CB3-CC3	Wedge	16 x 17 x 8	**CN11M B160A**	F03FC24539
	Knife	20 x 24 x 3	**CPSEMCA301**	F03FC23936
	Spur	22,86 x 2,5	**RG02MAA305**	F03FH03041
	Screw	M10 x 18	**VT03M CC9**	F03FA04438
	Screw	M5 x 8	**VT05M AA9**	F03FA04444
DA3-DB3-DC3	Wedge	16 x 17 x 8	**CN11M B130A**	F03FC01348
	Knife	17 x 24 x 3	**CPSEMDA301**	F03FC23937
	Screw	M10 x 18	**VT03M CC9**	F03FA04438
	Screw	M5 x 8	**VT05M AA9**	F03FA04444
	Positioning plate	20 x 11,6 x 2,2	**VT18M AR9**	F03FC20664



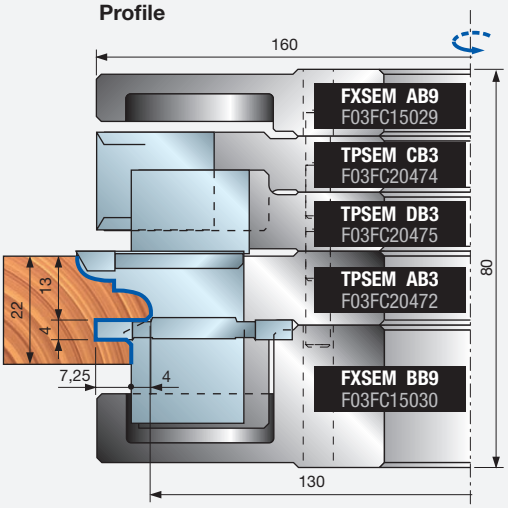
Spare parts for sets TPSEM22 - TPSEM30

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Torx key	T20	**CB03M CC9**	F03FA00167
	Allen key	4	**CB03M BA9**	F03FA00163
	Allen key	5	**CB03M EA9**	F03FA00169
22GA3	Spacer set	50 x 6,7 x 30	**AN03M BM9**	F03FC23022
	Upper flange	152 x 13,6 x 30	**FXSEM AA9**	F03FC23019
	Lower flange	152 x 28 x 30	**FXSEM BA9**	F03FC23020
22GB3	Spacer set	55 x 6,7 x 35	**AN03M BK9**	F03FC00463
	Upper flange	152 x 13,6 x 35	**FXSEM AB9**	F03FC15029
	Lower flange	152 x 28 x 35	**FXSEM BB9**	F03FC15030
22GC3	Spacer set	52 x 6,7 x 32	**AN03M BO9**	F03FC24434
	Upper flange	152 x 13,6 x 32	**FXSEM AC9**	F03FC24436
	Lower flange	152 x 28 x 32	**FXSEM BC9**	F03FC24437
30GA3	Spacer set	50 x 7,7 x 30	**AN03M BN9**	F03FC23023
	Upper flange	152 x 13,6 x 30	**FXSEM AA9**	F03FC23019
	Lower flange	152 x 28 x 30	**FXSEM BA9**	F03FC23020
30GB3	Spacer set	55 x 7,7 x 35	**AN03M BL9**	F03FC00464
	Upper flange	152 x 13,6 x 35	**FXSEM AB9**	F03FC15029
	Lower flange	152 x 28 x 35	**FXSEM BB9**	F03FC15030
30GC3	Spacer set	52 x 7,7 x 32	**AN03M BP9**	F03FC24435
	Upper flange	152 x 13,6 x 32	**FXSEM AC9**	F03FC24436
	Lower flange	152 x 28 x 32	**FXSEM BC9**	F03FC24437

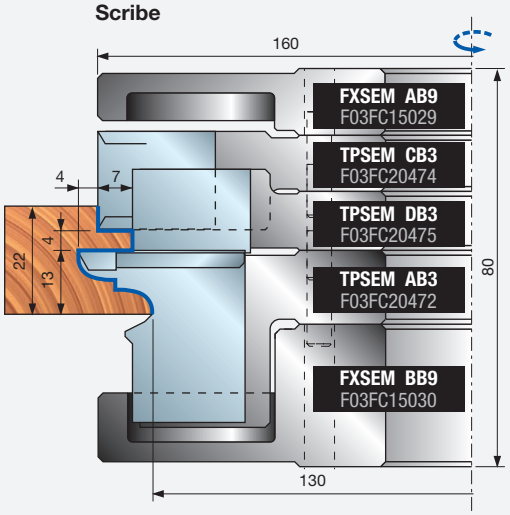
Carrying out a groove



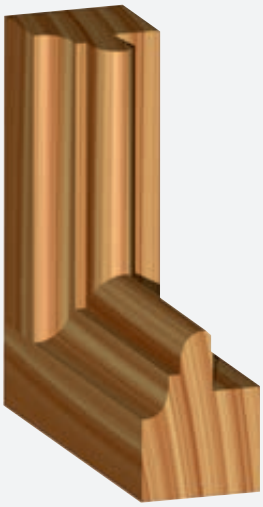
Profile



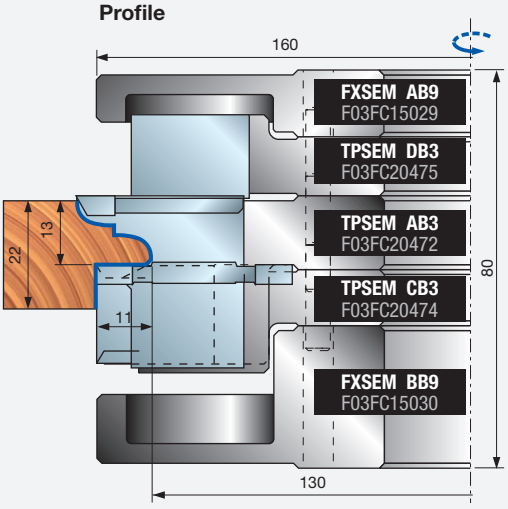
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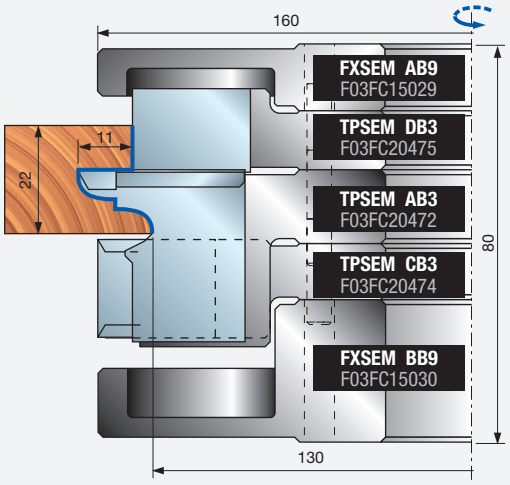
Carrying out a rebate



Profile

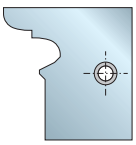


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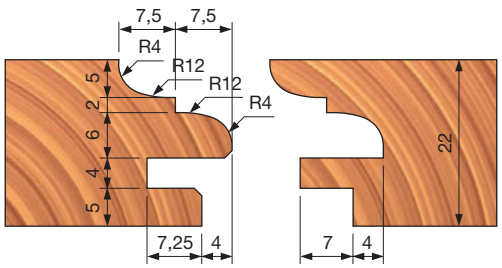
Order example for the profiles shown

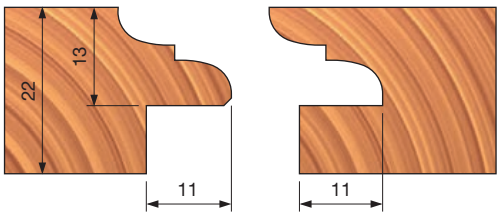
Pieces	Dimensions mm	Freud Code	Art. No.
1	160 x 35	**TPSEM22GB3**	F03FC20476
2	35 x 34 x 3	**CPSEMAB301**	F03FC23924

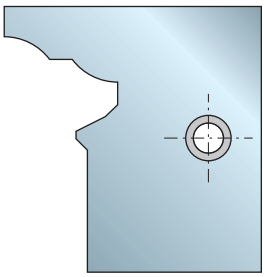


CPSEMAB301
F03FC23924

for TPSEM AA3 - AB3 - AC3

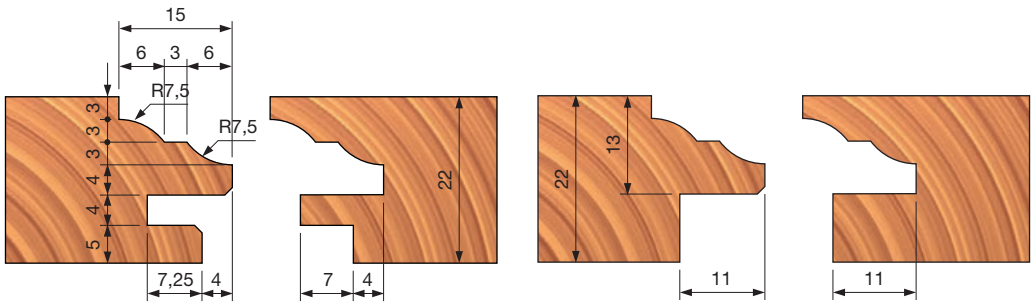


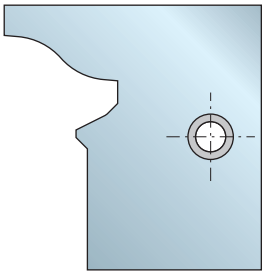




CPSEMAC301
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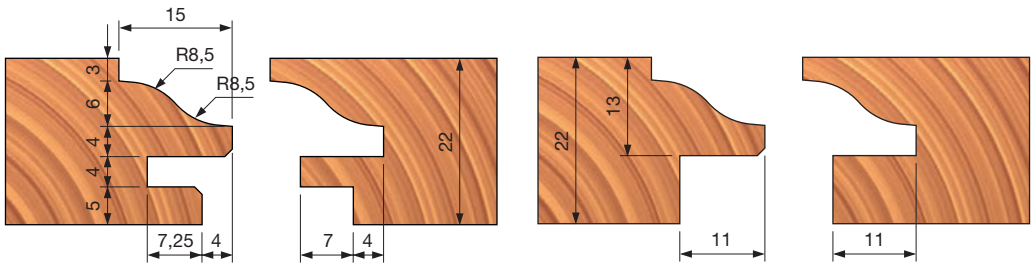
for TPSEM
AA3 - AB3 - AC3

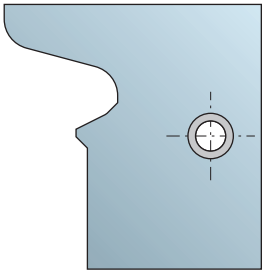




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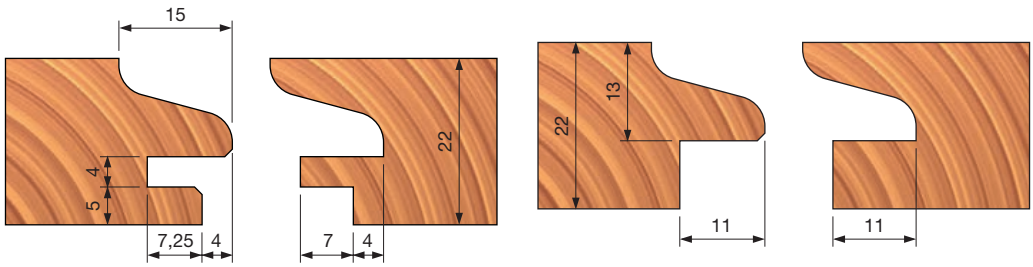
for TPSEM
AA3 - AB3 - AC3





CPSEMAG301
F03FC23929

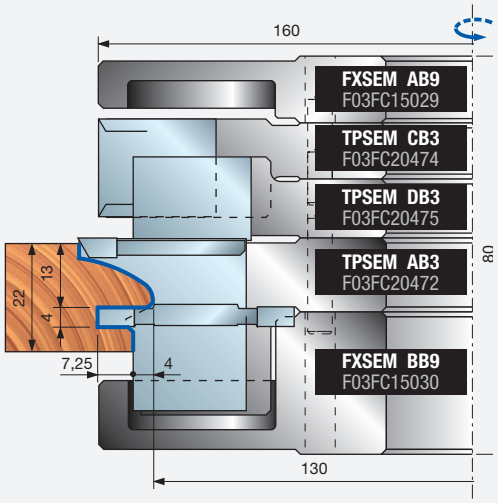
for TPSEM
AA3 - AB3 - AC3



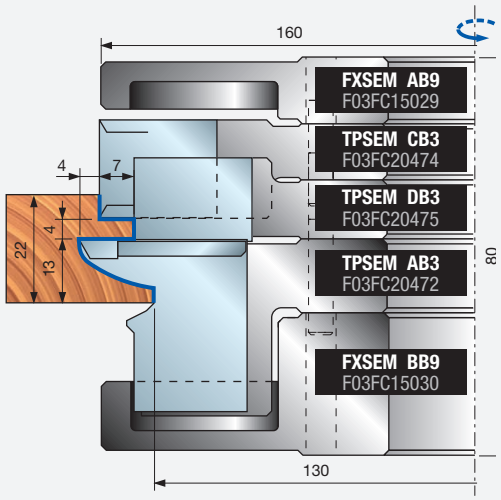
Carrying out a groove



Profile



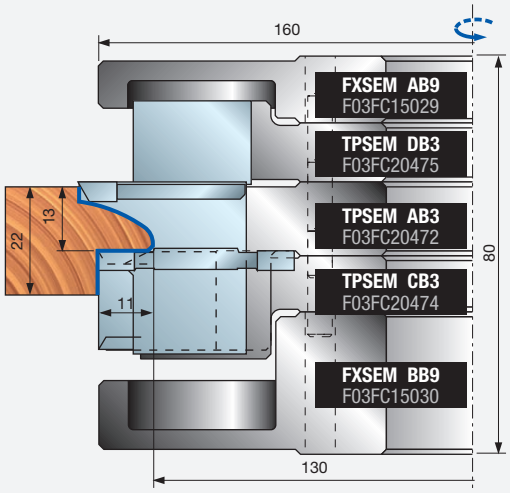
Scribe



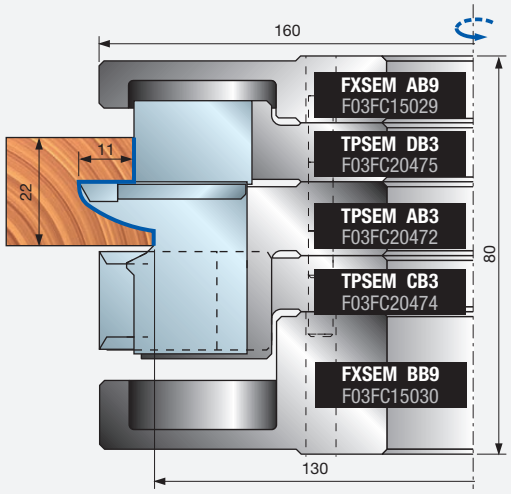
Carrying out a rebate



Profile

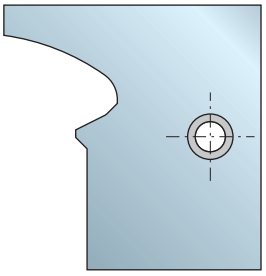


Scribe



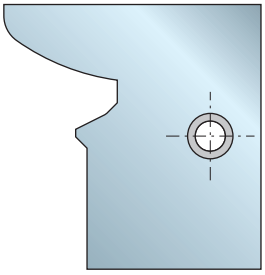
Order example for the profiles shown

Pieces	Dimensions mm	Freud Code	Art. No.
1	160 x 35	**TPSEM22GB3**	F03FC20476
2	35 x 34 x 3	**CPSEMAE301**	F03FC23927
2	35 x 34 x 3	**CPSEMAF301**	F03FC23928



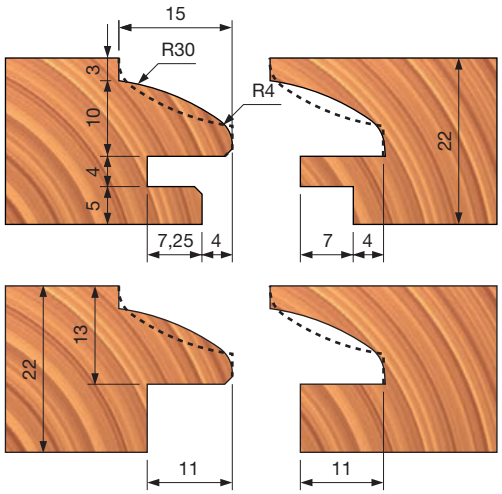
CPSEMAF301
F03FC23928

for TPSEM AA3 - AB3 - AC3



CPSEMAE301
F03FC23927

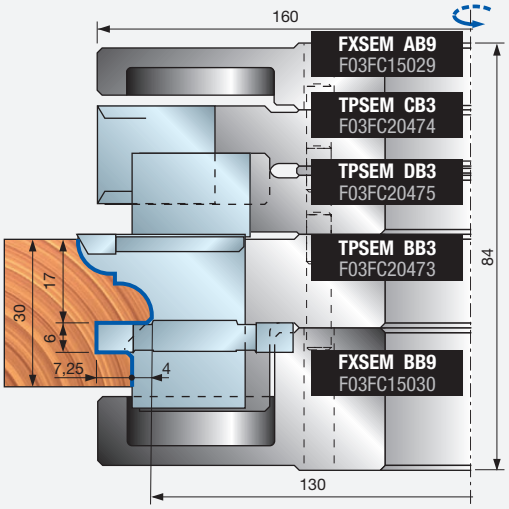
for TPSEM AA3 - AB3 - AC3



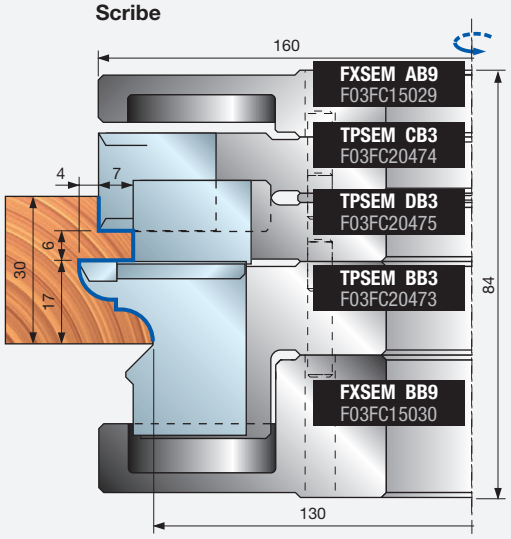
Carrying out a groove



Profile



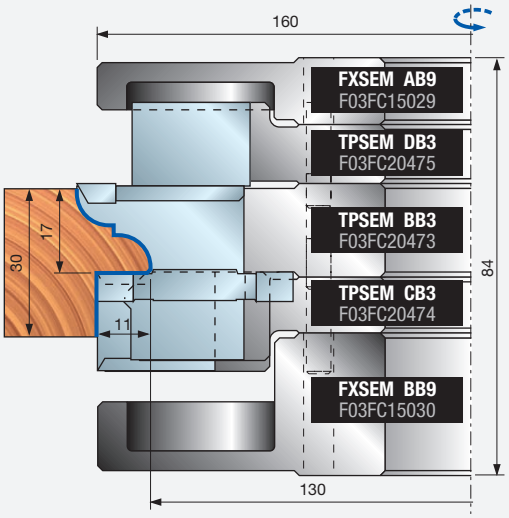
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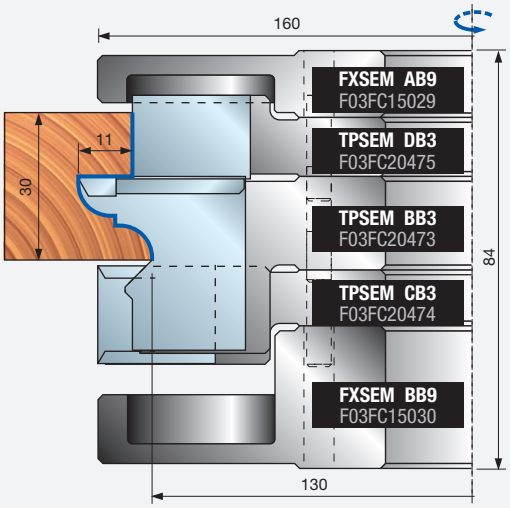
Carrying out a rebate



Profile

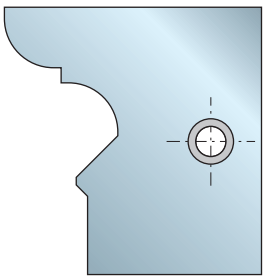


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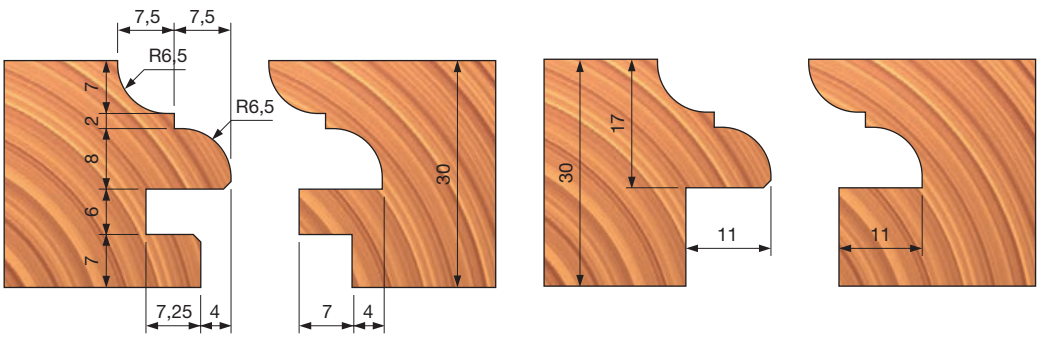
Order example for the profiles shown

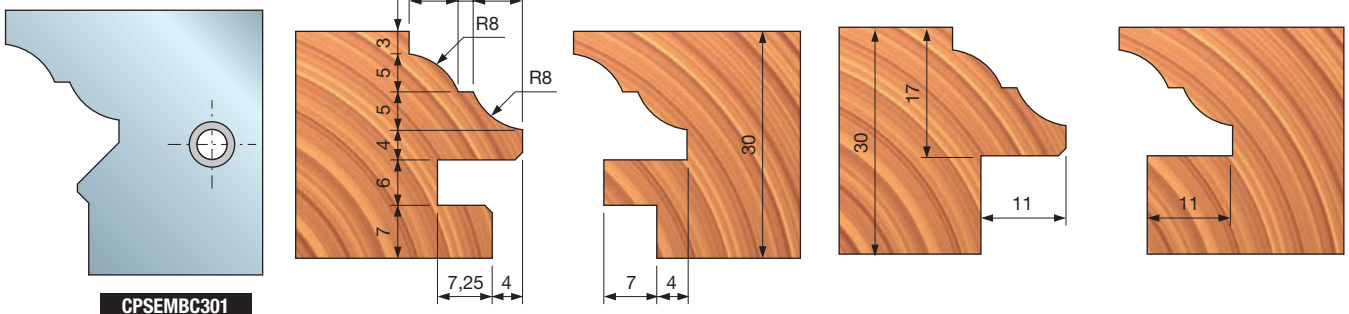
Pieces	Dimensions mm	Freud Code	Art. No.
1	160 x 35	**TPSEM30GB3**	F03FC20477
2	35 x 34 x 3	**CPSEMBB301**	F03FC23930



CPSEMBB301
F03FC23930

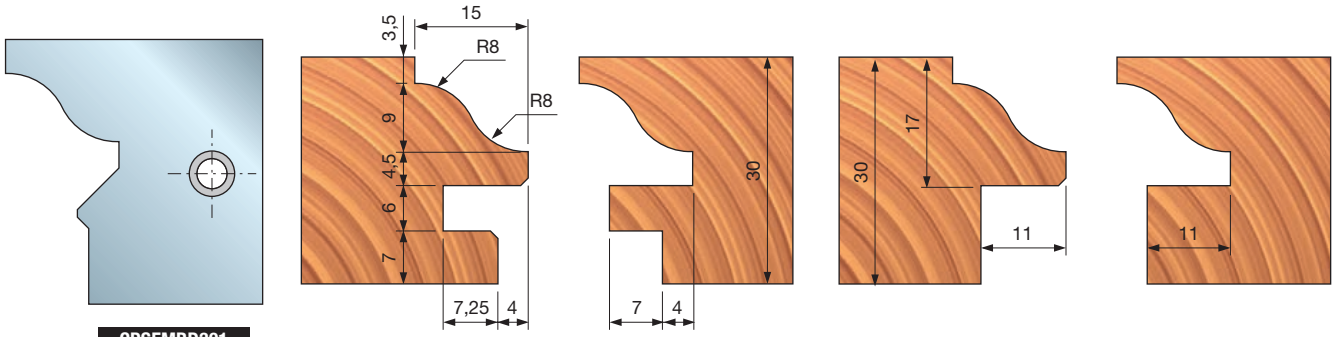
for TPSEM
BA3 - BB3 - BC3





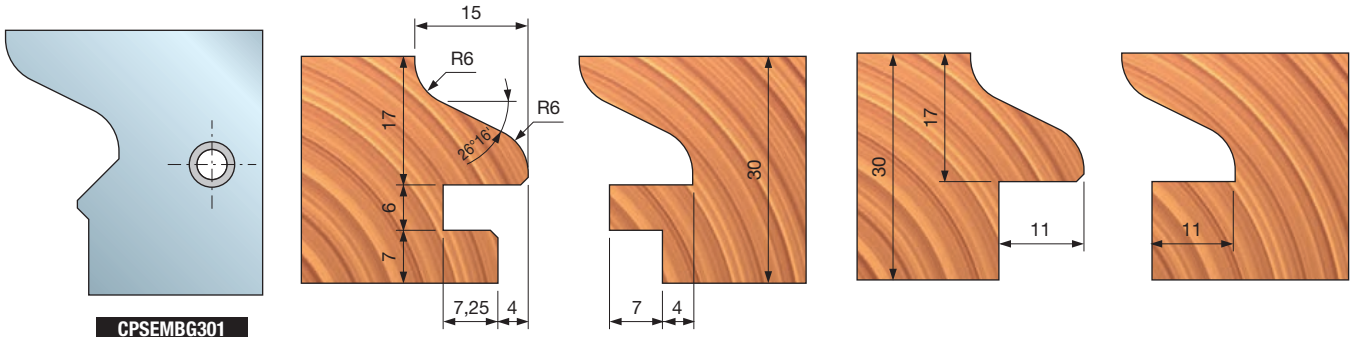
CPSEMBC301
F03FC23931

for TPSEM
BA3 - BB3 - BC3



CPSEMBD301
F03FC23932

for TPSEM
BA3 - BB3 - BC3



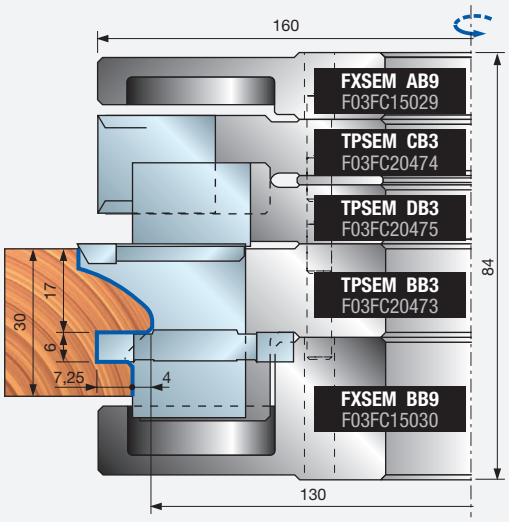
CPSEMBG301
F03FC23935

for TPSEM
BA3 - BB3 - BC3

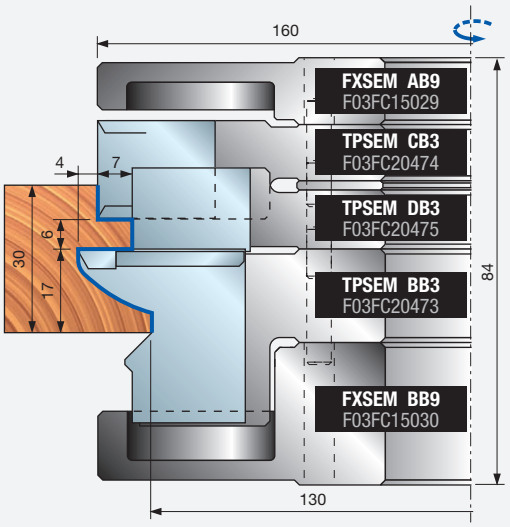
Carrying out a groove



Profile



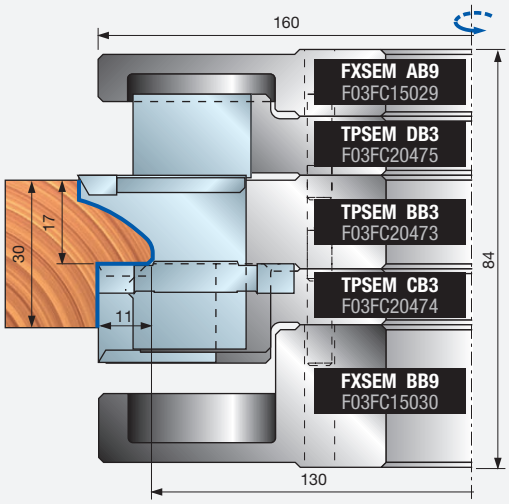
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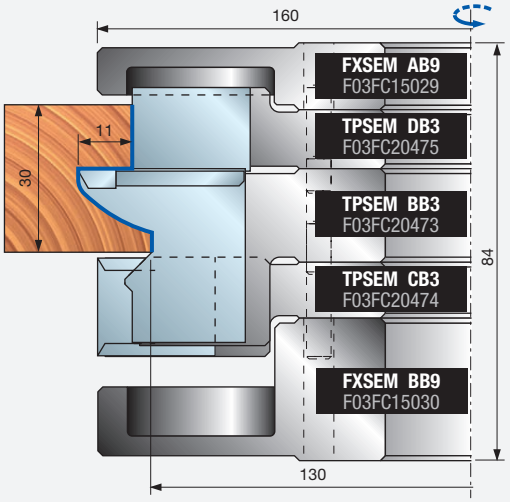
Carrying out a rebate



Profile

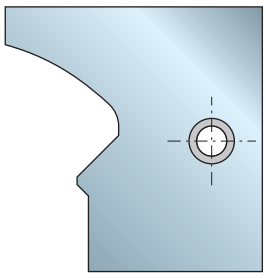


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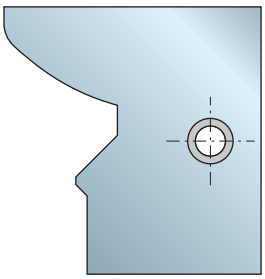
Order example for the profiles shown

Pieces	Dimensions mm	Freud Code	Art. No.
1	160 x 35	**TPSEM30GB3**	F03FC20477
2	35 x 34 x 3	**CPSEMBE301**	F03FC23933
2	35 x 34 x 3	**CPSEMBF301**	F03FC23934



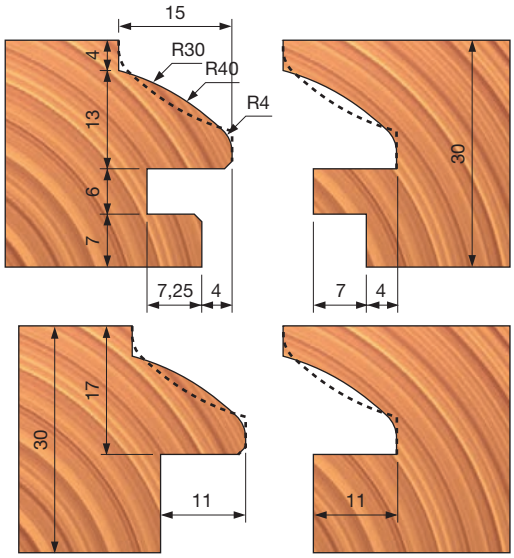
CPSEMBF301
F03FC23934

for TPSEM
BA3 - BB3 - BC3



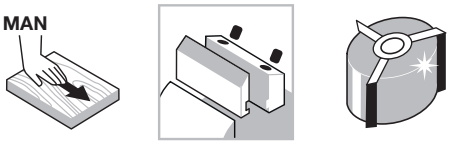
CPSEMBE301
F03FC23933

for TPSEM
BA3 - BB3 - BC3



TP42M Multiprofile cutterheads for doors





Manual Feed

Clamping System

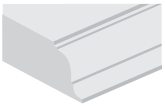
Aluminium Body



Softwood



Hardwood



Profiling

Machines:
Spindle moulders and manual feed machines.

Materials:
Softwood and hardwood.

Applications:
Profiling.

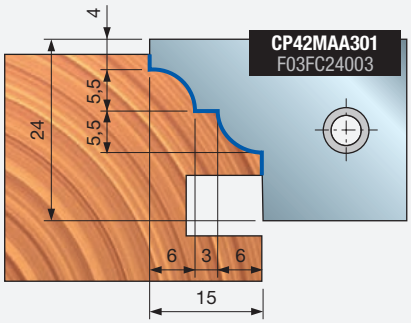
Technical information:
Performance knives tool set for doors.
- Mostly suitable for profiling on softwood, hardwood and exotic wood, with a top quality finish.
- The tool versatility allows the production of 44-52 mm thick doors in 2 steps, taking care to adjust the tool programmed height accordingly.
- The variously profiled knives are perfectly interchangeable and do not affect the minimum tool diameter.
- This item is supplied without knives.
- Aluminium light alloy body.
- Rebore not available.

D mm	B mm	d mm	Z	V	Max RPM 1/min.	Freud Code	Art. No.
180	27	32	2	4	8.000	**TP42M AC3**	F03F676527
180	27	35	2	4	8.000	**TP42M AB3**	F03FC20494

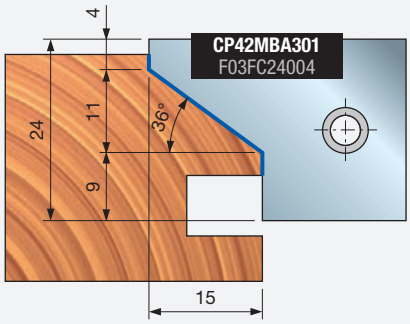
	Spare parts	Dimensions mm	Freud Code	Art. No.
	Screw	M5 x 8	**VT05M AA9**	F03FA04444
	Positioning plate	22 x 1,7 x 6,5	**VT18M GA9**	F03FA04488
	Wedge	21 x 19 x 8	**CN13M AS9A**	F03FC24221
	Screw	M10 x 18	**VT03M CC9**	F03FA04438
	Spur insert	40 x 16 x 4	**IG05MDAA305**	F03FH02998
	Screw	M6 x 13	**VT16M AE9**	F03FC20658
	Grooving insert	34 x 8 x 16	**SR06MAM301**	F03FC24192
	Screw	M6 x 11,5	**VT16M AB9**	F03FA04477
	Allen key	4	**CB03M BA9**	F03FA00163
	Allen key	5	**CB03M EA9**	F03FA00169

Profile		Spare knives	Dimensions mm	Freud Code	Art. No.
1		Knife	24 x 34 x 3	**CP42MAA301**	F03FC24003
2		Knife	24 x 34 x 3	**CP42MBA301**	F03FC24004
3		Knife	24 x 34 x 3	**CP42MCA301**	F03FC24005

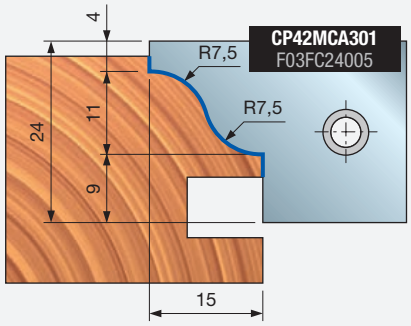
Profile 1



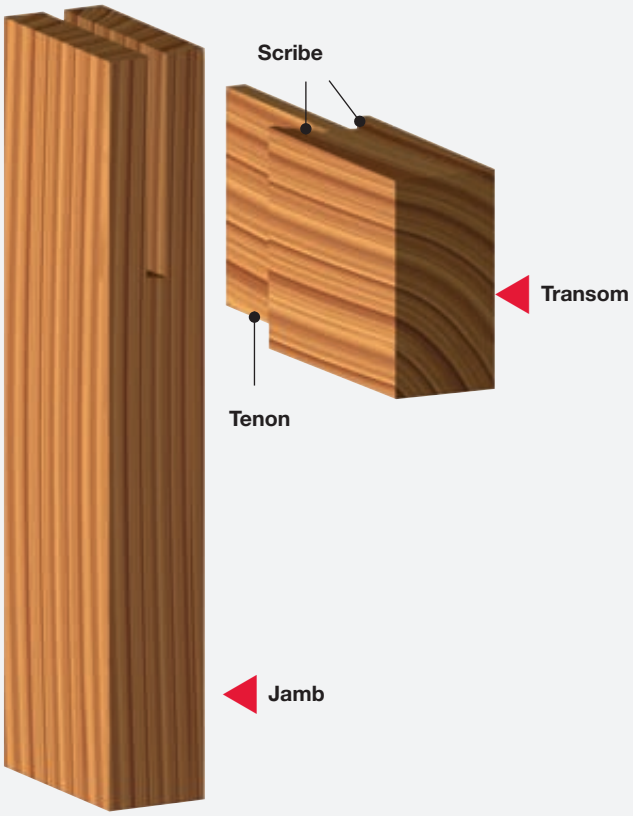
Profile 2



Profile 3

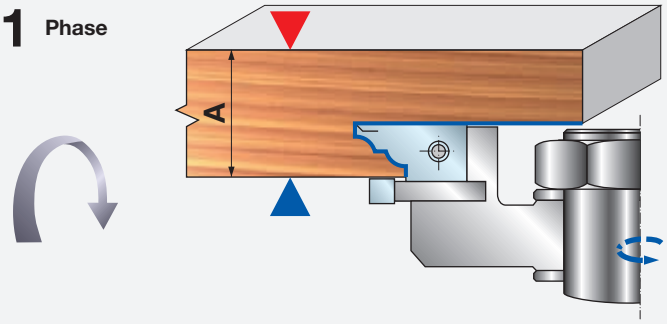


1 Door tenoning

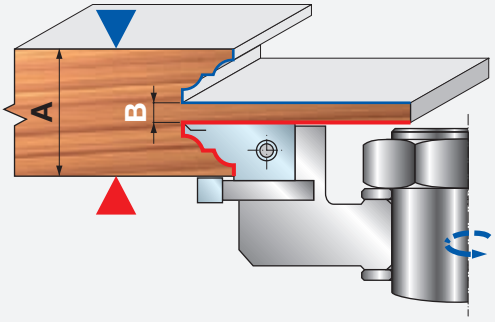


A	Door thickness mm	B	Tenon thickness mm
	44		8
	46		10
	50		14
	52		16

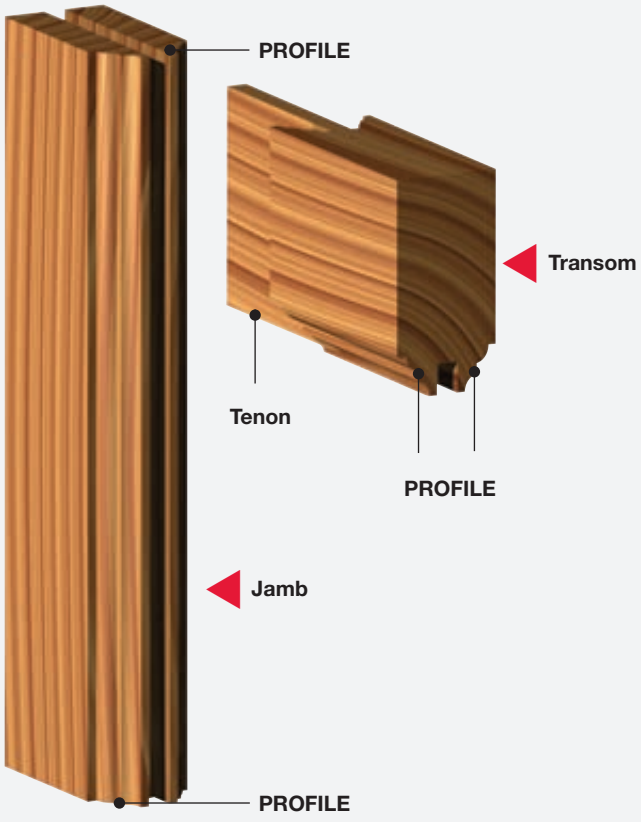
1 Phase



2 Phase

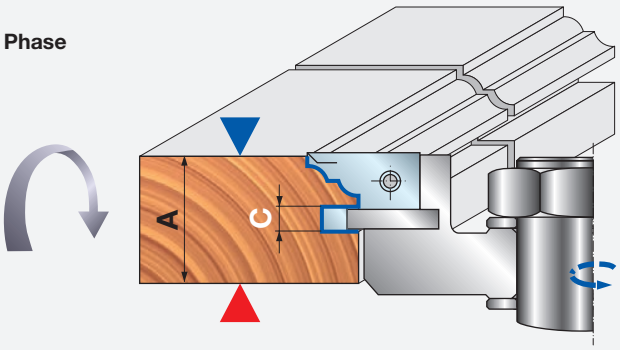


2 Door frame profiling

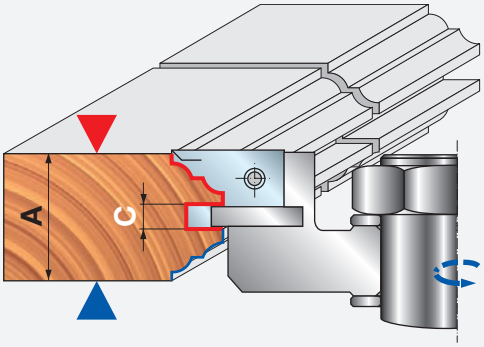


A	Door thickness mm	C	Groove thickness mm
	44		8
	46		10
	50		14
	52		16

1 Phase



2 Phase

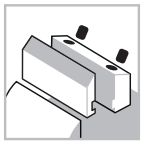


TP46MAN Multiprofile cutterhead sets for doors (38-40 mm)





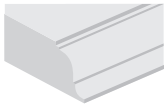
Manual Feed


Clamping System


Aluminium Body


Softwood


Hardwood


Profiling

ISOprofil TECHNOLOGY

Performance System TECHNOLOGY

Machines:
Moulders, automatic and throughfeed machines.

Materials:
Softwood and hardwood.

Applications:
Profiling.

Technical information:
Performance knives tool set for doors.
Adjustable timber thickness 38-40 mm.
- Profile and counter profile are both available with the same set (and same 0-point).
- The cutterhead set includes knives.
- Aluminium light alloy body.
- Rebore not available.

Flanges for TP46MAN sets

D mm	S mm	d mm	Freud Code	Art. No.
174	18	30	**TP46M AA3**	F03FC20506
174	18	30	**TP46M AD3**	F03FC20509
174	18	32	**TP46M AE3**	F03FC24454
174	18	32	**TP46M AH3**	F03FC24457

TP46MAN sets for manual feed

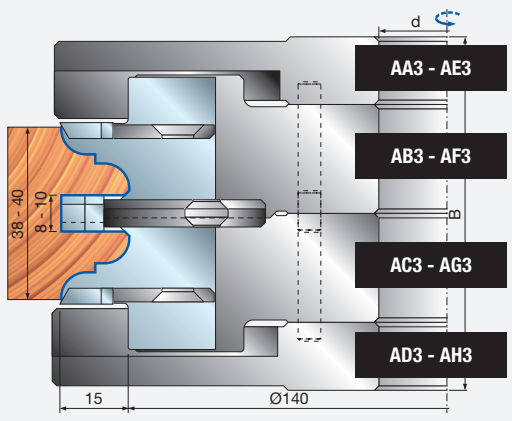
Profile	D mm	B mm	d mm	Z	Max RPM 1/min.	Freud Code	Art. No.
1	174	78	30	2	7.500	**TP46MAN001**	F03FC20510
2	174	78	30	2	7.500	**TP46MAN002**	F03FC20511
3	174	78	30	2	7.500	**TP46MAN003**	F03FC20512
4	174	78	30	2	7.500	**TP46MAN004**	F03FC20513
5	174	78	30	2	7.500	**TP46MAN005**	F03FC20514
6	174	78	30	2	7.500	**TP46MAN006**	F03FC20515
7	174	78	30	2	7.500	**TP46MAN007**	F03FC20516
8	174	78	30	2	7.500	**TP46MAN008**	F03FC20517
1	174	78	32	2	7.500	**TP46MAN321**	F03FC24458
2	174	78	32	2	7.500	**TP46MAN322**	F03FC24459
3	174	78	32	2	7.500	**TP46MAN323**	F03FC24460
4	174	78	32	2	7.500	**TP46MAN324**	F03FC24461
5	174	78	32	2	7.500	**TP46MAN325**	F03FC24462
6	174	78	32	2	7.500	**TP46MAN326**	F03FC24463
7	174	78	32	2	7.500	**TP46MAN327**	F03FC24464
8	174	78	32	2	7.500	**TP46MAN328**	F03FC24465

Cutterheads for TP46M sets

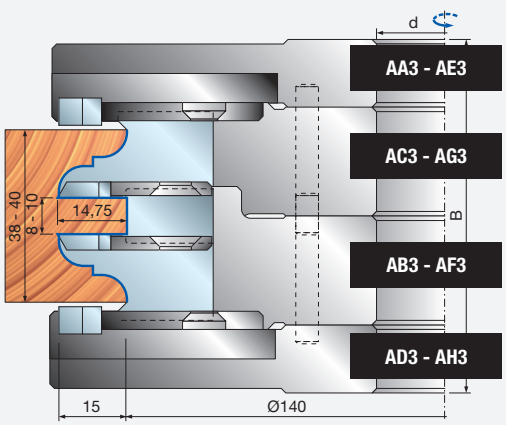
D mm	B mm	d mm	Z	Max RPM 1/min.	Freud Code	Art. No.
174	31,5	30	2	8.300	**TP46M AB3**	F03FC20507
174	31,5	30	2	8.300	**TP46M AC3**	F03FC20508
174	31,5	32	2	8.300	**TP46M AF3**	F03FC24455
174	31,5	32	2	8.300	**TP46M AG3**	F03FC24456

See page 408-409 for spare parts.

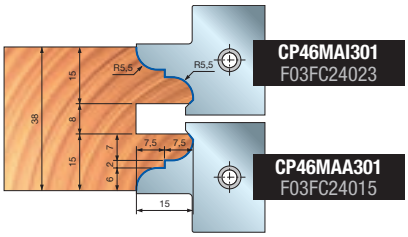
Example of profile



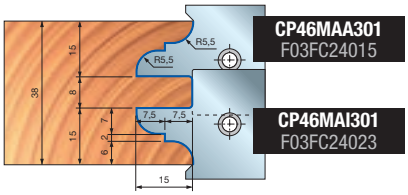
Example of scribe



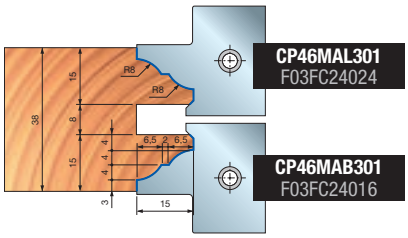
PROFILE 1



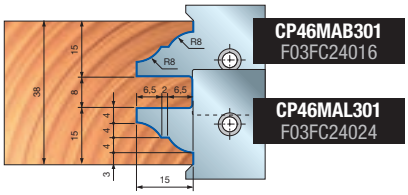
SCRIBE 1



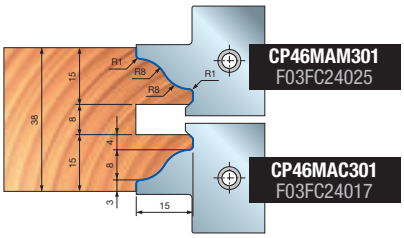
PROFILE 2



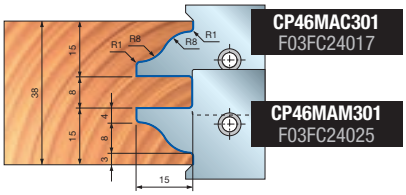
SCRIBE 2



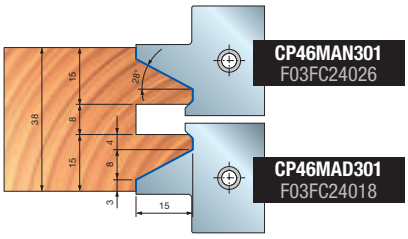
PROFILE 3



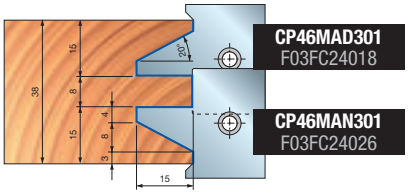
SCRIBE 3



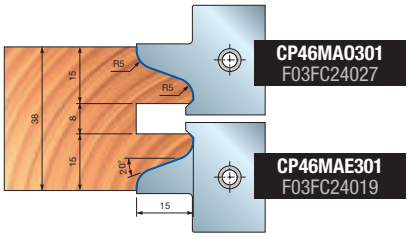
PROFILE 4



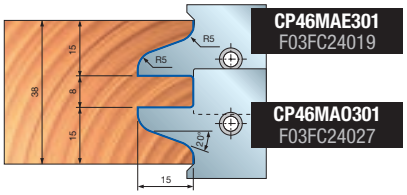
SCRIBE 4



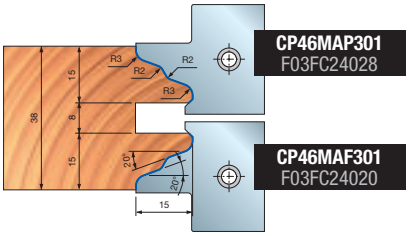
PROFILE 5



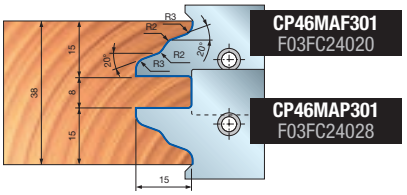
SCRIBE 5



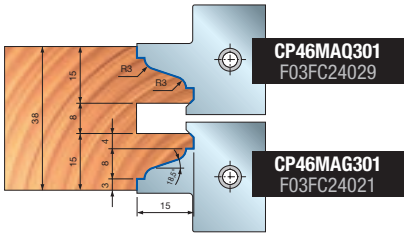
PROFILE 6



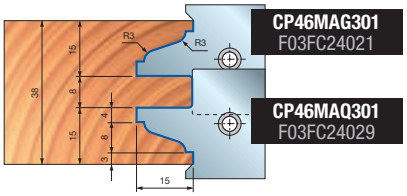
SCRIBE 6



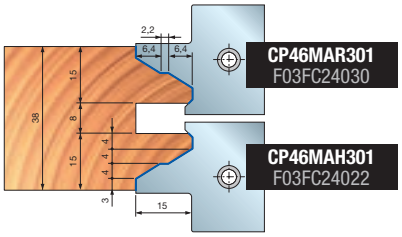
PROFILE 7



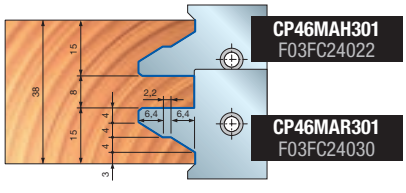
SCRIBE 7



PROFILE 8



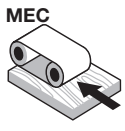
SCRIBE 8



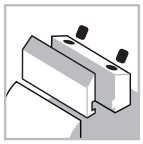


TP46MEC

Multiprofile cutterhead sets for doors (38-40 mm)



Automatic Feed



Clamping System



Aluminium Body

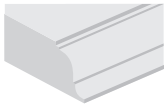


Softwood



Hardwood

ISOprofil TECHNOLOGY



Profiling

Machines:
Moulders, automatic and throughfeed machines.

Materials:
Softwood and hardwood.

Applications:
Profiling.

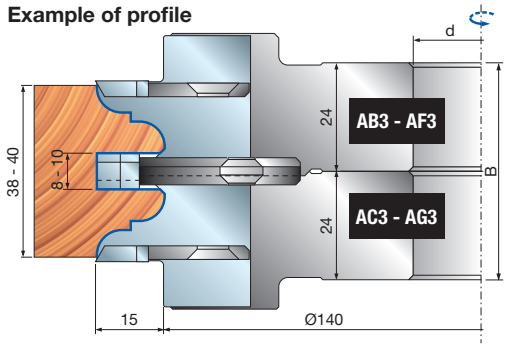
Technical information:
Performance knives tool set for doors.
Adjustable timber thickness 38-40 mm.
- Profile and counter profile are both available with the same set (and same 0-point).
- The cutterhead set includes knives.
- Aluminium light alloy body.
- Rebore not available.

Profile	D mm	B mm	d mm	Max RPM 1/min.	Freud Code	Art. No.
1	170	48	30	7.500	TP46MEC001	F03FC20518
2	170	48	30	7.500	TP46MEC002	F03FC20519
3	170	48	30	7.500	TP46MEC003	F03FC20520
4	170	48	30	7.500	TP46MEC004	F03FC20521
5	170	48	30	7.500	TP46MEC005	F03FC20522
6	170	48	30	7.500	TP46MEC006	F03FC20523
7	170	48	30	7.500	TP46MEC007	F03FC20524
8	170	48	30	7.500	TP46MEC008	F03FC20525
1	170	48	32	7.500	TP46MEC321	F03FC24466
2	170	48	32	7.500	TP46MEC322	F03FC24467
3	170	48	32	7.500	TP46MEC323	F03FC24468
4	170	48	32	7.500	TP46MEC324	F03FC24469
5	170	48	32	7.500	TP46MEC325	F03FC24470
6	170	48	32	7.500	TP46MEC326	F03FC24471
7	170	48	32	7.500	TP46MEC327	F03FC24472
8	170	48	32	7.500	TP46MEC328	F03FC24473

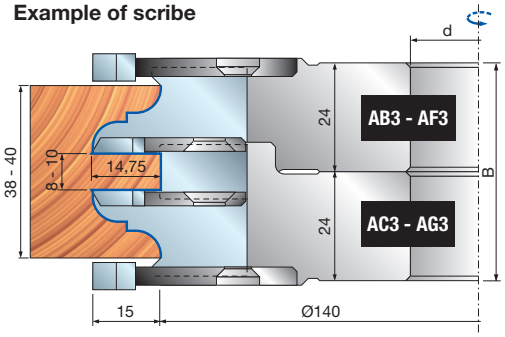
ATB 15° tooth (Fig. 2)

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Spacer	50 x 2 x 30	AN01MA0209	F03FC00035
	Spacer	52 x 2 x 32	AN01MX0209	F03FC24489
	Allen key	4	CB03M BA9	F03FA00163
	Allen key	5	CB03M EA9	F03FA00169
AB3 - AF3	Wedge	28 x 34,5 x 8	CN46M 001	F03FC01438
AB3 - AF3	Spur insert	34 x 3,5 x 16	SR06MDBA302	F03FC24197
AB3 - AF3	Sector	25 x 45 x 6 Z1	SR11MSBE301	F03FC24212
AB3 - AF3	Screw	M5 x 8	VT05M AA9	F03FA04444
AB3 - AF3	Screw	M6 x 13	VT16M AE9	F03FC20658
AB3 - AF3	Positioning plate	22 x 1,7 x 6,5	VT18M GA9	F03FA04488
AB3 - AF3	Screw	M10 x 16	2616M EE9	F03FA07426
AC3 - AG3	Wedge	28 x 34,5 x 8	CN46M 002	F03FC01439
AC3 - AG3	Spur insert	34 x 3,5 x 16	SR06MSBA302	F03FC24200
AC3 - AG3	Sector	25 x 45 x 6 Z1	SR11MDBE301	F03FC24207
AC3 - AG3	Screw	M5 x 8	VT05M AA9	F03FA04444
AC3 - AG3	Screw	M6 x 11,5	VT16M AB9	F03FA04477
AC3 - AG3	Positioning plate	22 x 1,7 x 6,5	VT18M GA9	F03FA04488
AC3 - AG3	Screw	M10 x 16	2616M EE9	F03FA07426

Example of profile



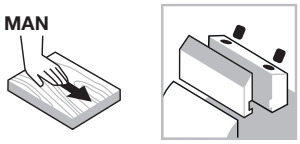
Example of scribe



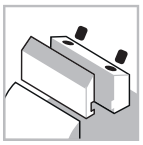
TD60M

Door frames profile cutterheads





Manual Feed



Clamping System



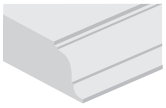
Aluminium Body



Softwood



Hardwood



Profiling

D mm	B mm	d mm	Z	Max RPM 1/min.	Freud Code	Art. No.
200	55	32	3	7.000	**TD60M AC3**	F03F668631
200	55	35	3	7.000	**TD60M AB3**	F03FC20222

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Knife	55 x 35 x 3	**CT60MAA301**	F03FC24114
	Wedge	50 x 23 x 8	**CN60M AA9**	F03FC01446
	Screw	M10 x 25	**2602M FI9**	F03FA07353
	Screw	M8 x 10 x 22	**VT08M AD9**	F03FA04456
	Allen key	5	**CB03M EA9**	F03FA00169

Machines:
Spindle moulders and manual feed machines.

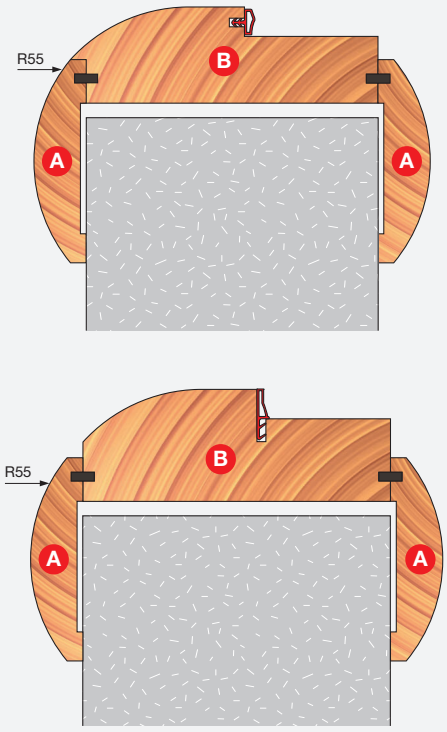
Materials:
Softwood and hardwood.

Applications:
Profiling.

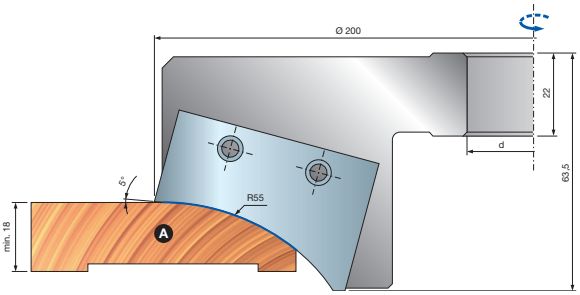
Technical information:
Panel sizing cutterhead with profiled knives suitable for door frames and door frame covers profiles.

- This tool is particularly suitable for profiling on hardwood and exotic wood, to produce door frames with rounded profile.
- Aluminium light alloy body.
- Rebore not available.

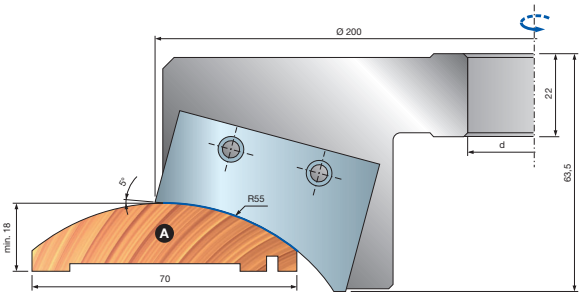
Example of door frame



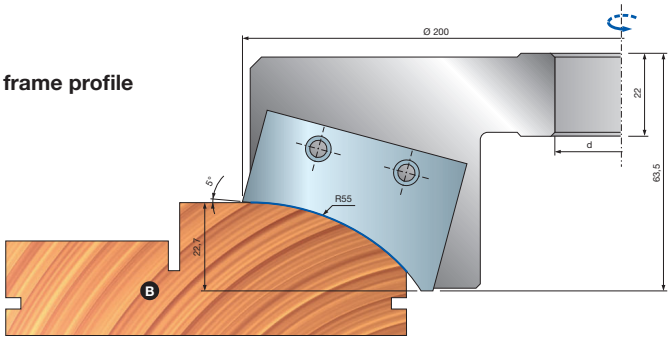
Step 1



Step 2



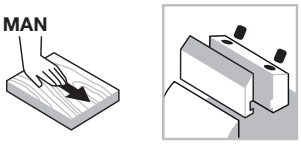
Example of frame profile



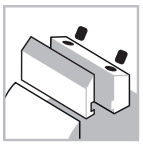


TD61M

Door frame profiles cutterhead set



Manual Feed



Clamping System



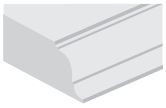
Aluminium Body



Softwood



Hardwood



Profiling

Performance System TECHNOLOGY

Machines:
Spindle moulders and manual feed machines.

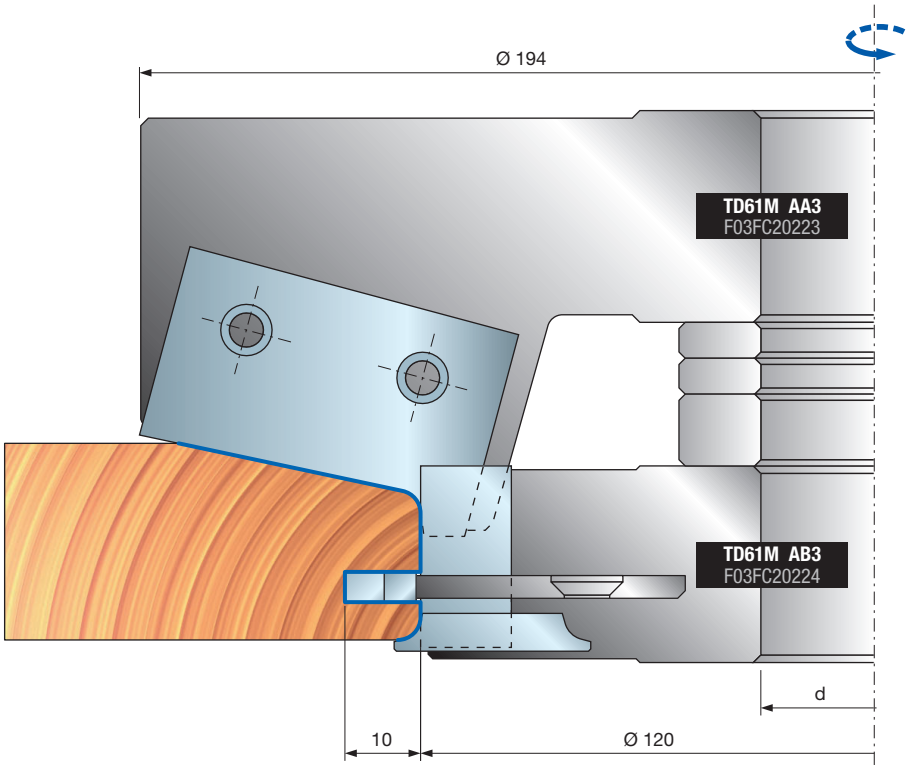
Materials:
Softwood and hardwood.

Applications:
Profiling.

Technical information:
Multiple profile tools set for door frames.
- Aluminium light alloy body.
- Rebore not available.
- Performance knives to be ordered separately.

D mm	B mm	d mm	Z	Max RPM 1/min.	Freud Code	Art. No.
194	59	30	2	7.000	**TD61M AA3**	F03FC20223
140	25	30	2	8.800	**TD61M AB3**	F03FC20224

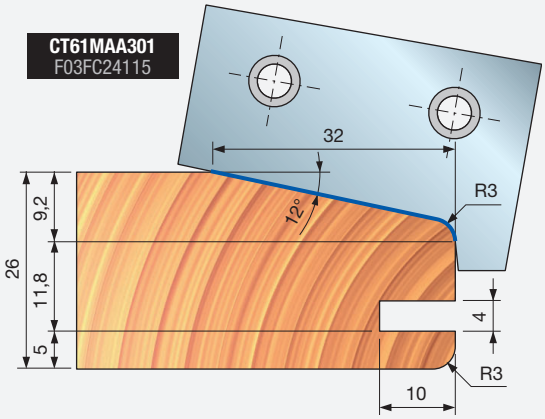
		Spare parts	Dimensions mm	Freud Code	Art. No.
AA3		Screw	M10 x 18	**VT03M CC9**	F03FA04438
		Screw	M8 x 10 x 22	**VT08M AD9**	F03FA04456
		Allen key	5	**CB03M EA9**	F03FA00169
AB3		Knife	24 x 12 x 1,5	**CG08MOA310**	F03FH02911
		Wedge	15 x 20 x 8	**CN09MD AK9**	F03FC01304
		Nut	15 x 13,3 x M10	**VT20M MA9**	F03FC20670
		Screw	M10 x 22	**VT19M MA9**	F03FA04496
		Sector	25 x 45 x 4 Z1	**SR11MDBC301**	F03FC24205
		Screw	M5 x 8	**VT05M AA9**	F03FA04444
		Rounding insert	26 x 16 x 5 R3	**IG62MSAE305**	F03FH03033
		Screw for IG62MS	M6 x 14,5	**VT16M AA9**	F03FA04476
		Allen key	4	**CB03M BA9**	F03FA00163
		Torx key	T20	**CB03M CC9**	F03FA00167



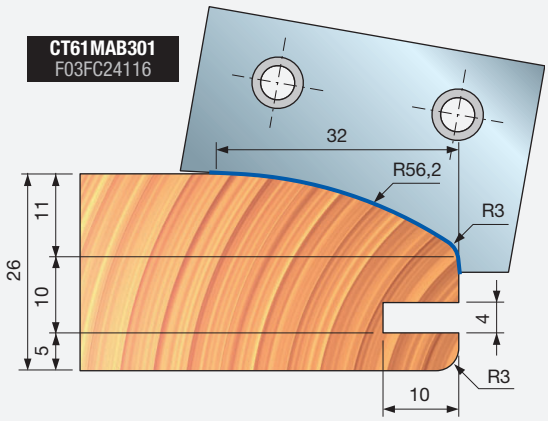
Dimensions mm	Spare knives	Art. No.
45 x 30 x 3	**CT61MAA301**	F03FC24115
45 x 30 x 3	**CT61MAB301**	F03FC24116
45 x 30 x 3	**CT61MAC301**	F03FC24117
45 x 30 x 3	**CT61MAD301**	F03FC24118
45 x 30 x 3	**CT61MAE301**	F03FC24119

Profiles obtainable using both the cutterheads TD61M AA3 and TD61M AB3

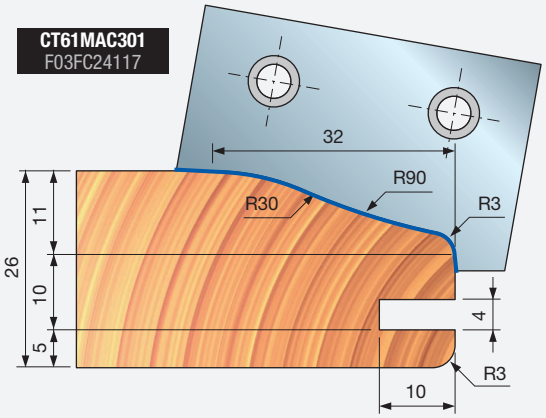
CT61MAA301
F03FC24115



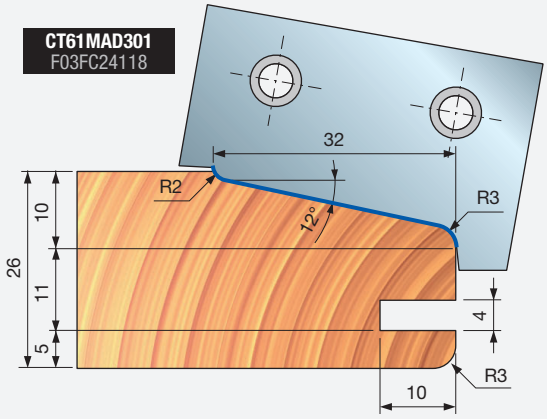
CT61MAB301
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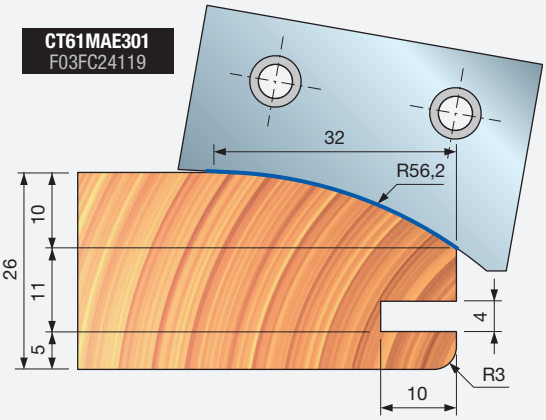
CT61MAC301
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CT61MAD301
F03FC24118

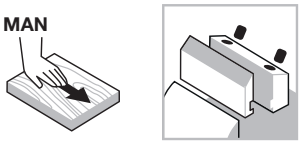


CT61MAE301
F03FC24119

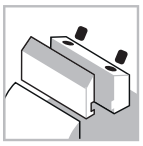


TD21M Raised panel cutterheads





Manual Feed



Clamping System



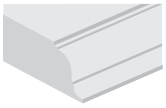
Aluminium Body



Softwood



Hardwood



Profiling

Performance System TECHNOLOGY

Machines:
Spindle moulders and manual feed machines.

Materials:
Softwood and hardwood.

Applications:
Profiling.

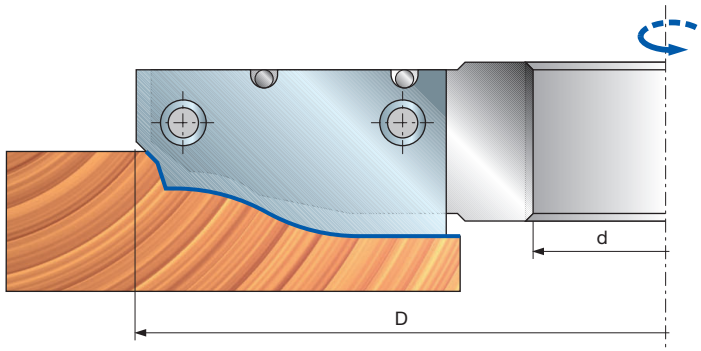
Technical information:
Performance knives raised panel with 5 different profiles available.
- Aluminium light alloy body.
- Rebore not available.
- Knives to be ordered separately.

D mm	B mm	d mm	Z	Max RPM 1/min.	Freud Code	Art. No.
140	-	30	2	9.600	**TD21M HA3**	F03FC24421
140	-	32	2	9.600	**TD21M HC3**	F03FC24422
140	-	35	2	9.600	**TD21M HB3**	F03FC23145

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Screw	M6 x 10	**2622M CB9**	F03FA07455
	Screw	M6 x 12	**2607M 006**	F03FA07456
	Washer	14 x 2 x 6	**VT18M AL9**	F03FC20662
	Positioning plate	33 x 3 x 16	**VT18M AI9**	F03FC20661
	Allen key	4	**CB03M BA9**	F03FA00163

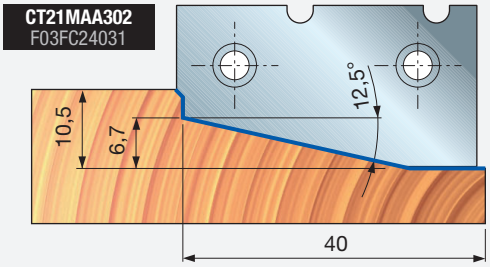
Profiled knives

Profile	Spare knives	Dimensions mm	Freud Code	Art. No.
1	Knife	41 x 22 x 3,5	**CT21MAA302**	F03FC24031
2	Knife	41 x 22 x 3,5	**CT21MBA302**	F03FC24032
3	Knife	41 x 22 x 3,5	**CT21MCA302**	F03FC24033
4	Knife	41 x 22 x 3,5	**CT21MDA302**	F03FC24034
5	Knife	41 x 22 x 3,5	**CT21MEA302**	F03FC24035

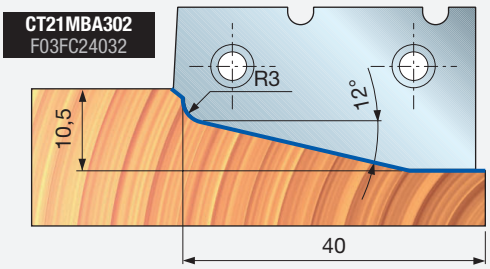


Example of profiles

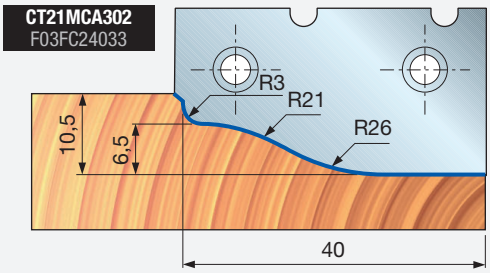
PROFILE 1



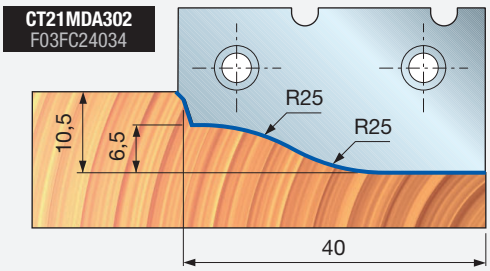
PROFILE 2



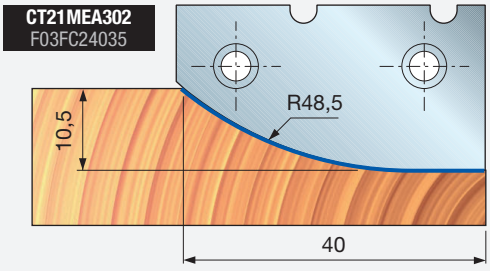
PROFILE 3



PROFILE 4



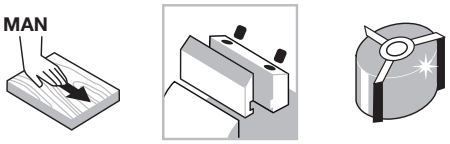
PROFILE 5



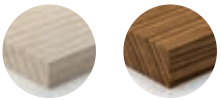


TD51M

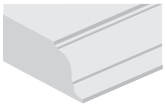
Raised panel cutterheads for softwood and hardwood



Manual Feed | Clamping System | Aluminium Body



Softwood | Hardwood



Profiling

Performance System TECHNOLOGY

Machines:
Spindle moulders and manual feed machines.

Materials:
Softwood and hardwood.

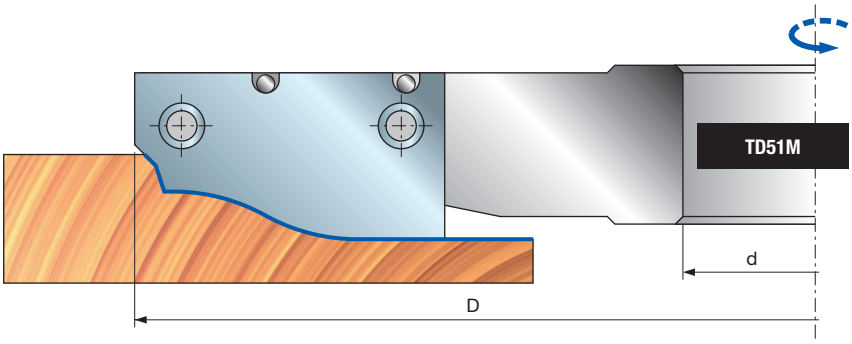
Applications:
Profiling.

Technical information:
Performance knives raised panel with 5 different profiles available designed to fit knives for softwood and hardwood.

- Designed to perfectly cut softwood or hardwood with two knives, with both along the grain or end grain feeding.
- This result has been achieved by choosing different cutting angles according to the type of wood to be machined.
- Only two knives are to be fitted on the tool at one time, in opposite direction.
- The dimensions of the knives for cutting hardwood and softwood are different but the same profile is achieved.
- This item is supplied without knives.
- Aluminium light alloy body.
- Rebore not available.

D mm	B mm	d mm	Z	Max RPM 1/min.	Freud Code	Art. No.
180	-	30	2+2	7.500	**TD51M AA3**	F03FC20209
180	-	32	2+2	7.500	**TD51M AC3**	F03FC24423
180	-	35	2+2	7.500	**TD51M AB3**	F03FC20210
180	-	50	2+2	7.500	**TD51M AD3**	F03FC20211

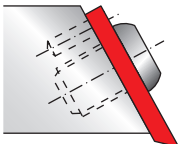
	Spare parts	Dimensions mm	Freud Code	Art. No.
	Washer	14 x 2 x 6	**VT18M AL9**	F03FC20662
	Screw	M6 x 12	**2607M 006**	F03FA07456
	Torx key	4	**CB03M BB9**	F03FA00164



1 Knife



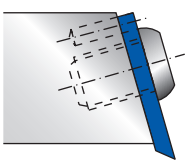
2 Knife



2 Knife



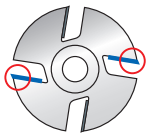
1 Knife



2 Knives for Softwood

	Profile	Dimensions mm	Freud Code	Art. No.
	1	41 x 28 x 3,5	**CT51MAA302**	F03FC24036
	2	41 x 28 x 3,5	**CT51MBA302**	F03FC24037
	3	41 x 28 x 3,5	**CT51MCA302**	F03FC24038
	4	41 x 28 x 3,5	**CT51MDA302**	F03FC24039
	5	41 x 28 x 3,5	**CT51MEA302**	F03FC24040

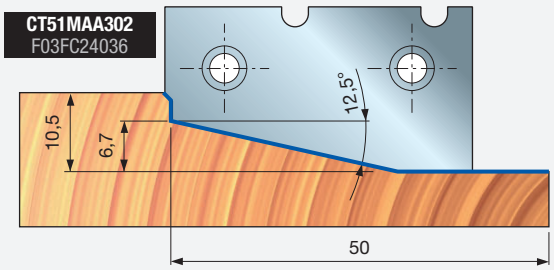
2 Knives for Hardwood

	Profile	Dimensions mm	Freud Code	Art. No.
	1	41 x 22 x 3,5	**CT21MAA302**	F03FC24031
	2	41 x 22 x 3,5	**CT21MBA302**	F03FC24032
	3	41 x 22 x 3,5	**CT21MCA302**	F03FC24033
	4	41 x 22 x 3,5	**CT21MDA302**	F03FC24034
	5	41 x 22 x 3,5	**CT21MEA302**	F03FC24035

Example of profiles

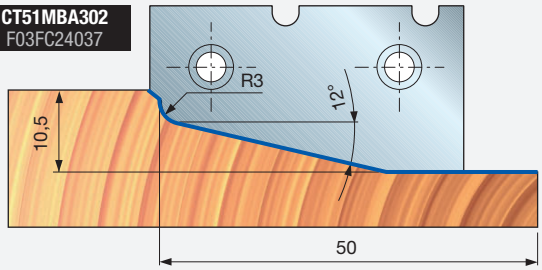
PROFILE 1

CT51MAA302
F03FC24036



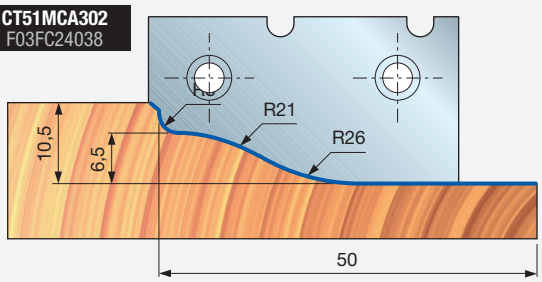
PROFILE 2

CT51MBA302
F03FC24037



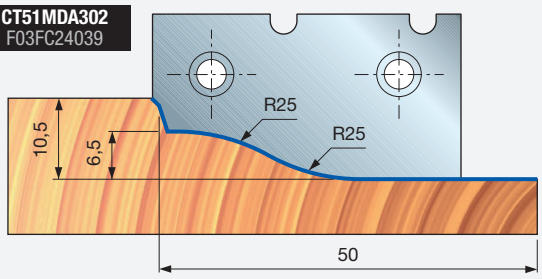
PROFILE 3

CT51MCA302
F03FC24038



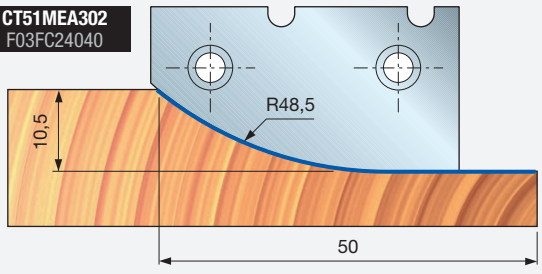
PROFILE 4

CT51MDA302
F03FC24039



PROFILE 5

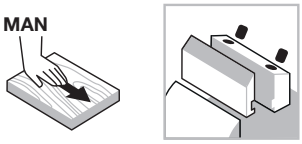
CT51MEA302
F03FC24040



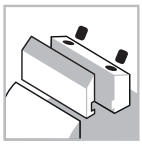
TD52M
TD52MD

Raised panel cutterheads for softwood and hardwood





Manual Feed



Clamping System



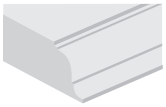
Aluminium Body



Softwood



Hardwood



Profiling

Performance System TECHNOLOGY

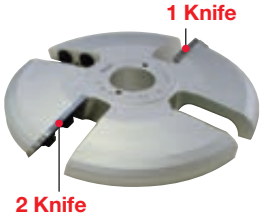
Machines:
Spindle moulders and manual feed machines.

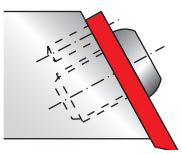
Materials:
Softwood and hardwood.

Applications:
Profiling.

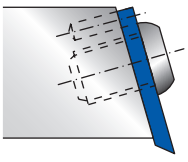
Technical information:
Performance knives raised panel with 5 different profiles available designed to fit knives for softwood and hardwood.

- This tool is designed to perfectly cut softwood or hardwood with two knives, with both along the grain or end grain feeding.
- This result has been achieved by choosing different cutting angles according to the type of wood to be machined.
- Only two knives are to be fitted on the tool at one time, in opposite direction.
- The dimensions of the knives for cutting hardwood and softwood are different but the same profile is achieved.
- This item is supplied without knives.
- Aluminium light alloy body. For cleaning do not use products containing caustic soda.
- Rebore not available.









Items are supplied with knives

D mm	B mm	d mm	Z	Max RPM 1/min.	Freud Code	Art. No.
200	25	30	2+2	7.000	**TD52M CA3**	F03FC24424
200	25	30	2+2	7.000	**TD52MD CA3**	F03FC24426
200	25	32	2+2	7.000	**TD52M CC3**	F03FC24425
200	25	32	2+2	7.000	**TD52MD CC3**	F03FC24427
200	25	35	2+2	7.000	**TD52M CB3**	F03FC20212
200	25	35	2+2	7.000	**TD52MD CB3**	F03FC20214

Items are supplied without knives

D mm	B mm	d mm	Z	Max RPM 1/min.	Freud Code	Art. No.
200	25	30	2+2	7.000	**TD52M HA3**	F03F668623
200	25	30	2+2	7.000	**TD52MD HA3**	F03F668625
200	25	32	2+2	7.000	**TD52M HC3**	F03F668624
200	25	32	2+2	7.000	**TD52MD HC3**	F03F668626
200	25	35	2+2	7.000	**TD52M HB3**	F03FC20213
200	25	35	2+2	7.000	**TD52MD HB3**	F03FC20215

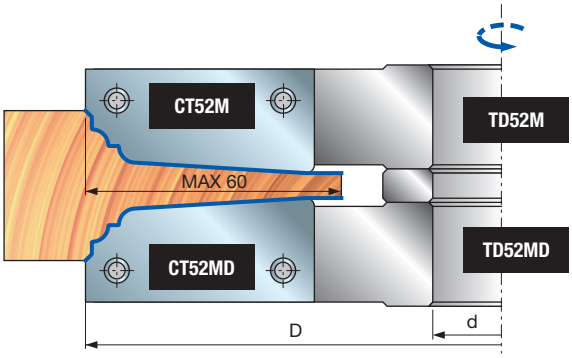
	Spare parts	Dimensions mm	Freud Code	Art. No.
	Washer	14 x 2 x 6	**VT18M AL9**	F03FC20662
	Screw	M6 x 12	**2607M 006**	F03FA07456
	Torx key	4	**CB03M BB9**	F03FA00164

2 Knives for Softwood

		Profile	Dimensions mm	Freud Code	Art. No.
Knife	2		55 x 30 x 3,5	**CT52MTB301**	F03FC24057
				CT52MDTB301	F03FC24052
	3		55 x 30 x 3,5	**CT52MTC301**	F03FC24058
				CT52MDTC301	F03FC24053
	4		55 x 30 x 3,5	**CT52MTD301**	F03FC24059
				CT52MDTD301	F03FC24054
Knife	5		55 x 30 x 3,5	**CT52MTE301**	F03FC24060
				CT52MDTE301	F03FC24055

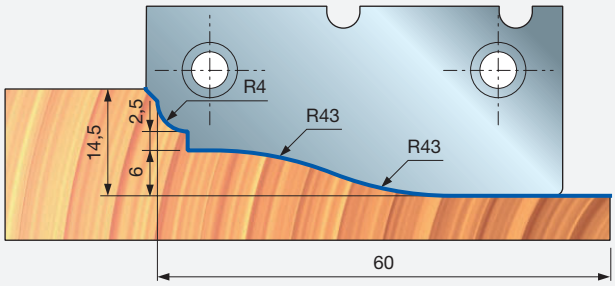
2 Knives for Hardwood

		Profile	Dimensions mm	Freud Code	Art. No.
Knife	2		55 x 25 x 3,5	**CT52MDB301**	F03FC24042
				CT52MDDB301	F03FC24045
	3		55 x 25 x 3,5	**CT52MDC301**	F03FC24043
				CT52MDDC301	F03FC24046
	4		55 x 25 x 3,5	**CT52MDD301**	F03FC24049
				CT52MDDD301	F03FC24047
Knife	5		55 x 25 x 3,5	**CT52MDE301**	F03FC24050
				CT52MDDE301	F03FC24048

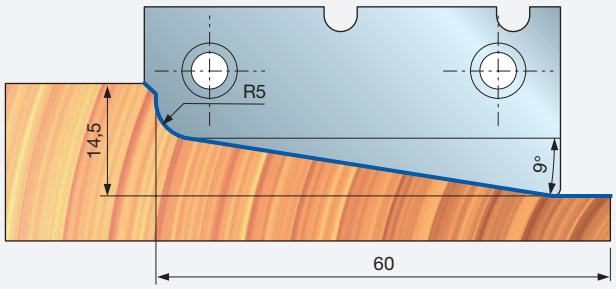


Example of profiles

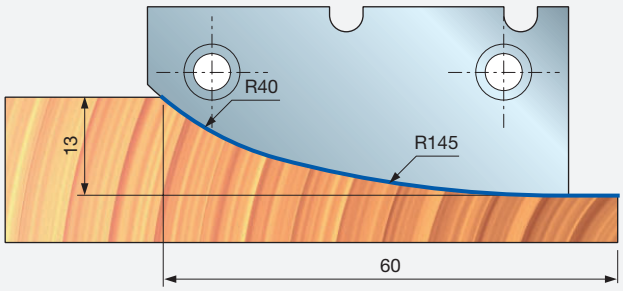
PROFILE 2



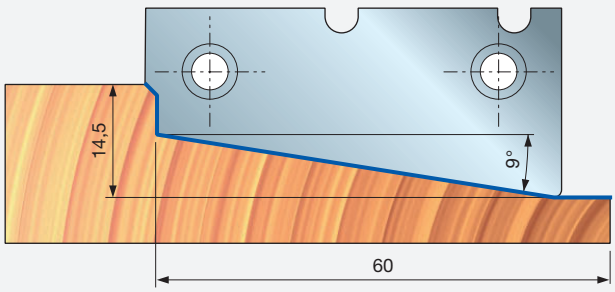
PROFILE 3

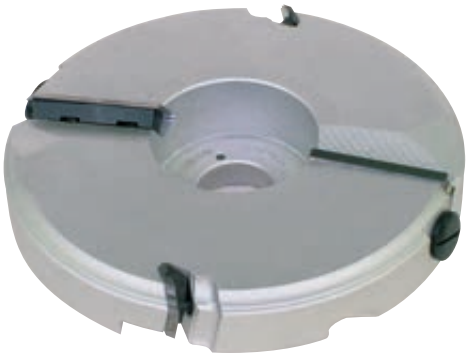


PROFILE 4



PROFILE 5

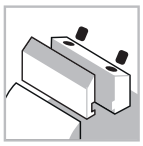




TD55MD TD55MS Raised panel cutterheads



Manual Feed



Clamping System



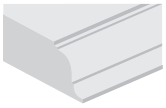
Aluminium Body



Softwood



Hardwood



Profiling

Performance System TECHNOLOGY

Machines:
Spindle moulders and manual feed machines.

Materials:
Softwood and hardwood.

Applications:
Profiling.

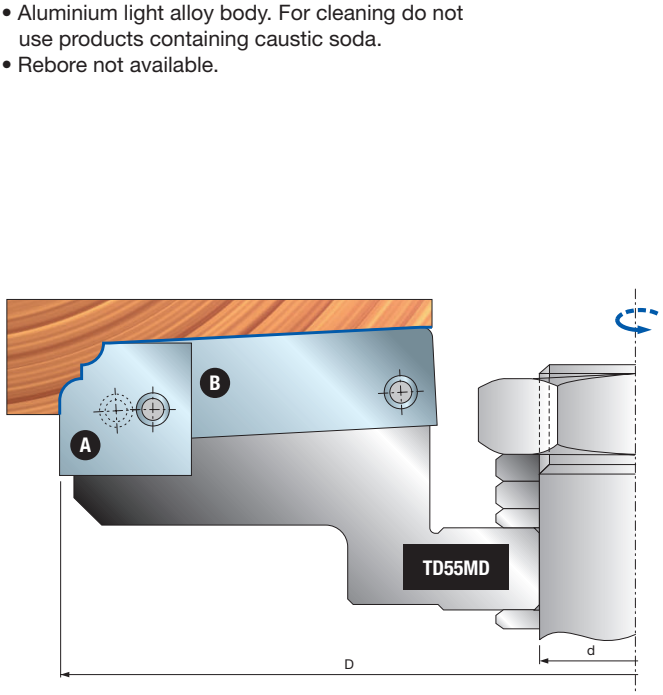
Technical information:
Performance knives raised panel with 4 different profiles available.

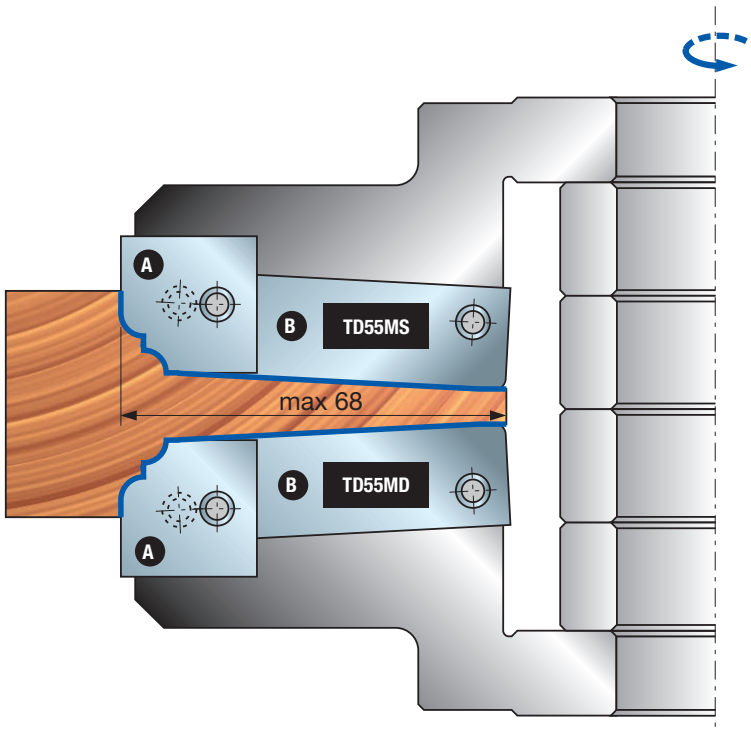
- The Z 2+2 design allows the tool to impact the wood perfectly along the entire depth profile (max 65mm).
- Raised panels are available in left and right hand and both can work combined for a one step profile.
- It is possible to fit 4 types of standard knives for machining 4 different profiles (see drawings).
- Due to the particular tool geometry, this item is particularly indicated for cutting deep profiles.
- These items are supplied without knives.
- Aluminium light alloy body. For cleaning do not use products containing caustic soda.
- Rebore not available.

D mm	B mm	d* mm	Z	Max RPM 1/min.	Freud Code	Art. No.
210	-	30	2+2	6.500	**TD55MD BA3**	F03F668627
210	-	32	2+2	6.500	**TD55MD BC3**	F03F668628
210	-	35	2+2	6.500	**TD55MD BB3**	F03FC20217
210	-	30	2+2	6.500	**TD55MS BA3**	F03F668629
210	-	32	2+2	6.500	**TD55MS BC3**	F03F668630
210	-	35	2+2	6.500	**TD55MS BB3**	F03FC20219

* Size shown between brackets is the max. rebore possible

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Screw	M10 x 25	**2602M FI9**	F03FA07353
	Screw	M8 x 10 x 22	**VT08M AD9**	F03FA04456
	Screw	M5 x 7 x 16	**VT08M AE9**	F03FA04457
	Allen key	5	**CB03M EC9**	F03FA00171
TD55MD	Wedge A	21 x 23 x 8	**CN55MD AA9A**	F03FC24544
TD55MD	Wedge B	61 x 18 x 8	**CN55MD BA9**	F03FC01441
TD55MS	Wedge A	21 x 23 x 8	**CN55MS AA9A**	F03FC24545
TD55MS	Wedge B	61 x 18 x 8	**CN55MS BA9**	F03FC01443





TD55MD TD55MS

Example of profiles

Knives for TD55MD

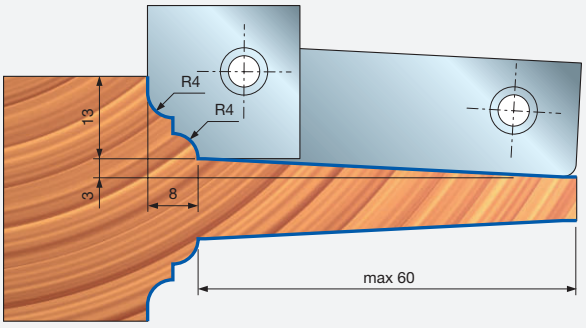
Profile	Spare knives	Dimensions mm	Freud Code	Art. No.
1	Knife **A**	23 x 24 x 3	**CT55MDAA301**	F03FC24078
	Knife **B**	65 x 20 x 3	**CT55MDBA301**	F03FC24087
2	Knife **A**	23 x 24 x 3	**CT55MDAB301**	F03FC24079
	Knife **B**	65 x 20 x 3	**CT55MDBB301**	F03FC24088
3	Knife **A**	23 x 24 x 3	**CT55MDAC301**	F03FC24080
	Knife **B**	65 x 20 x 3	**CT55MDBC301**	F03FC24089
4	Knife **A**	23 x 24 x 3	**CT55MDAE301**	F03FC24082
	Knife **B**	65 x 20 x 3	**CT55MDBE301**	F03FC24091

Knives for TD55MS

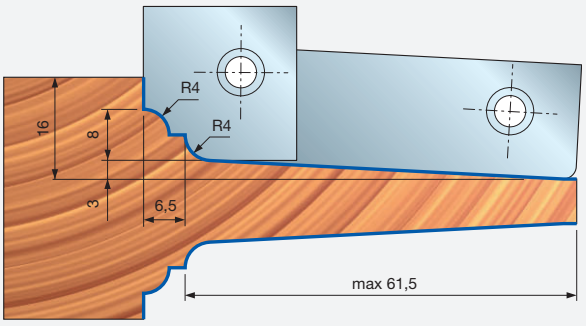
Profile	Spare knives	Dimensions mm	Freud Code	Art. No.
1	Knife **A**	23 x 24 x 3	**CT55MSAA301**	F03FC24096
	Knife **B**	65 x 20 x 3	**CT55MSBA301**	F03FC24105
2	Knife **A**	23 x 24 x 3	**CT55MSAB301**	F03FC24097
	Knife **B**	65 x 20 x 3	**CT55MSBB301**	F03FC24106
3	Knife **A**	23 x 24 x 3	**CT55MSAC301**	F03FC24098
	Knife **B**	65 x 20 x 3	**CT55MSBC301**	F03FC24107
4	Knife **A**	23 x 24 x 3	**CT55MSAE301**	F03FC24100
	Knife **B**	65 x 20 x 3	**CT55MSBE301**	F03FC24109

Example of profiles

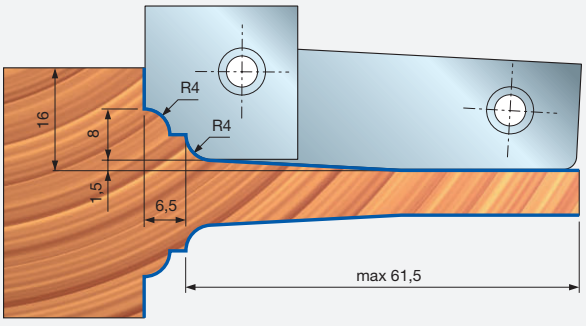
PROFILE 1



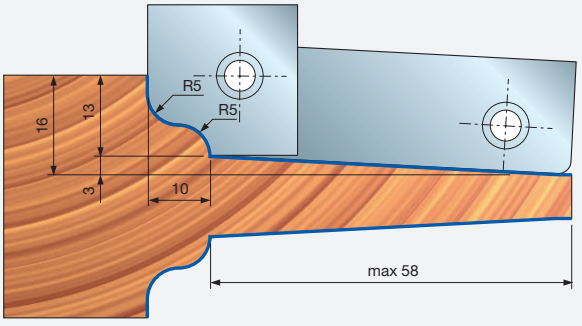
PROFILE 2



PROFILE 3



PROFILE 4

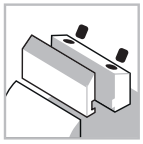




TD55MD TD55MS Raised panel cutterheads



Manual Feed



Clamping System



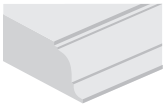
Aluminium Body



Softwood



Hardwood



Profiling



Machines:
Spindle moulders and manual feed machines.

Materials:
Softwood and hardwood.

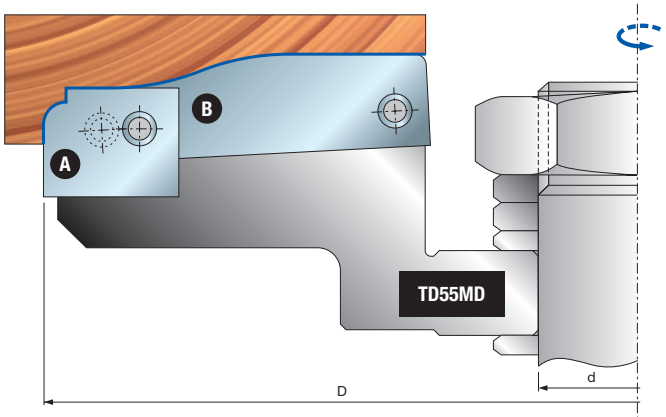
Applications:
Profiling.

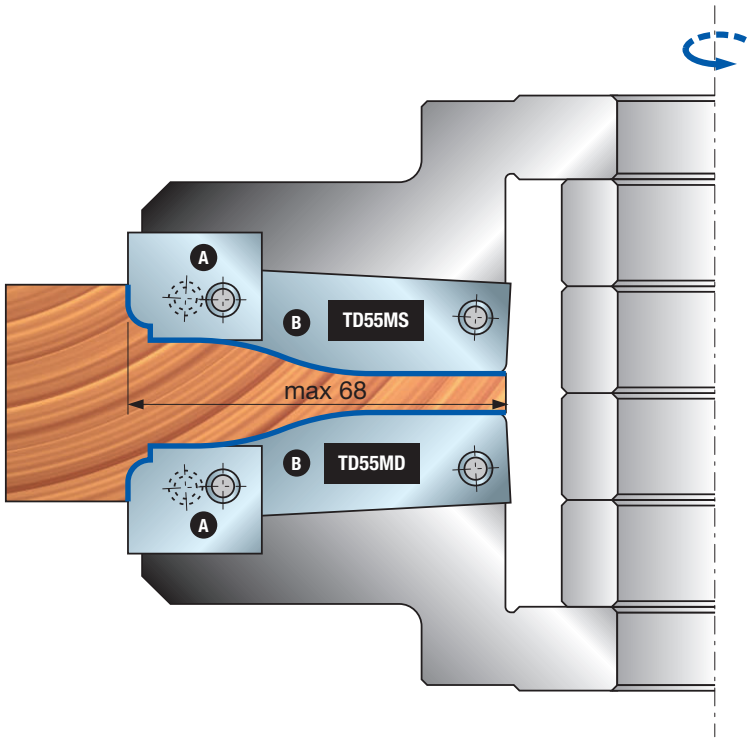
Technical information:
Performance knives raised panel with 4 different profiles available.

- The Z 2+2 design allows the tool to impact the wood perfectly along the entire depth profile (max 65mm).
- Raised panels are available in left and right hand and both can work combined for a one step profile.
- Is possible to fit 4 types of standard knives for machining 4 different profiles (see drawings).
- Due to the particular tool geometry, this item is particularly indicated for cutting deep profiles.
- These items are supplied without knives.
- Aluminium light alloy body.
- Rebore not available.

D mm	B mm	d mm	Z	Max RPM 1/min.	Freud Code	Art. No.
210	-	30	2+2	6.500	**TD55MD CA3**	F03F668934
210	-	32	2+2	6.500	**TD55MD CC3**	F03F668935
210	-	35	2+2	6.500	**TD55MD CB3**	F03FC20218
210	-	30	2+2	6.500	**TD55MS CA3**	F03F668936
210	-	32	2+2	6.500	**TD55MS CC3**	F03F668937
210	-	35	2+2	6.500	**TD55MS CB3**	F03FC20220

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Screw	M10 x 25	**2602M FI9**	F03FA07353
	Screw	M8 x 10 x 22	**VT08M AD9**	F03FA04456
	Screw	M5 x 7 x 16	**VT08M AE9**	F03FA04457
	Allen key	5	**CB03M EC9**	F03FA00171
TD55MD	Wedge A	21 x 23 x 8	**CN55MD AA9A**	F03FC24544
TD55MD	Wedge B	61 x 18 x 8	**CN55MD BA9**	F03FC01441
TD55MS	Wedge A	21 x 23 x 8	**CN55MS AA9A**	F03FC24545
TD55MS	Wedge B	61 x 18 x 8	**CN55MS BA9**	F03FC01443





TD55MD TD55MS

Example of profiles

Knives for TD55MD

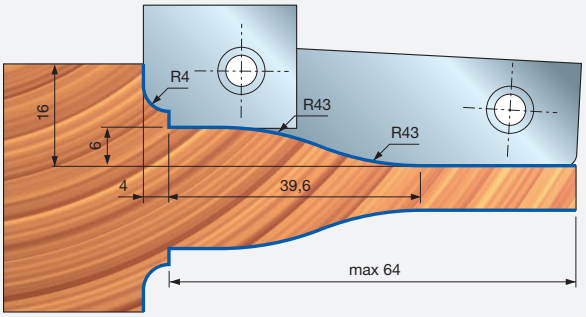
Profile	Spare knives	Dimensions mm	Freud Code	Art. No.
1	Knife **A**	20 x 24 x 3	**CT55MDAD301**	F03FC24081
	Knife **B**	65 x 20 x 3	**CT55MDBD301**	F03FC24090
2	Knife **A**	20 x 24 x 3	**CT55MDAG301**	F03FC24084
	Knife **B**	65 x 20 x 3	**CT55MDBG301**	F03FC24093
3	Knife **A**	20 x 24 x 3	**CT55MDAH301**	F03FC24085
	Knife **B**	65 x 20 x 3	**CT55MDBH301**	F03FC24094
4	Knife **A**	20 x 24 x 3	**CT55MDAI301**	F03FC24086
	Knife **B**	65 x 20 x 3	**CT55MDBI301**	F03FC24095

Knives for TD55MS

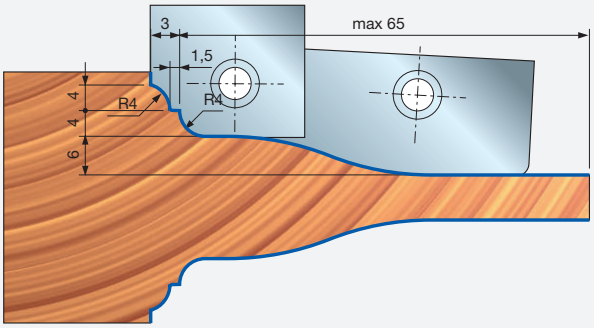
Profile	Spare knives	Dimensions mm	Freud Code	Art. No.
1	Knife **A**	20 x 24 x 3	**CT55MSAD301**	F03FC24099
	Knife **B**	65 x 20 x 3	**CT55MSBD301**	F03FC24108
2	Knife **A**	20 x 24 x 3	**CT55MSAG301**	F03FC24102
	Knife **B**	65 x 20 x 3	**CT55MSBG301**	F03FC24111
3	Knife **A**	20 x 24 x 3	**CT55MSAH301**	F03FC24103
	Knife **B**	65 x 20 x 3	**CT55MSBH301**	F03FC24112
4	Knife **A**	20 x 24 x 3	**CT55MSAI301**	F03FC24104
	Knife **B**	65 x 20 x 3	**CT55MSBI301**	F03FC24113

Example of profiles

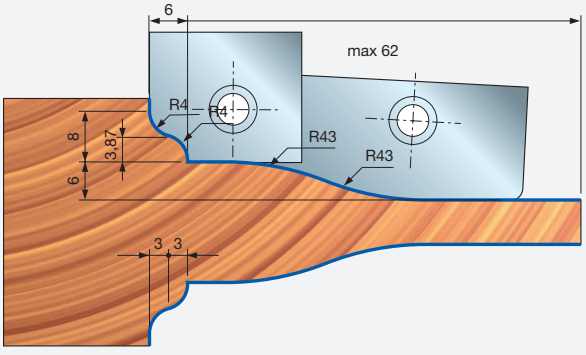
PROFILE 1



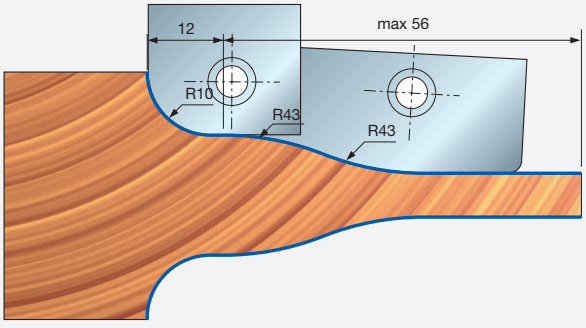
PROFILE 2



PROFILE 3



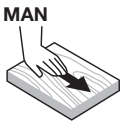
PROFILE 4



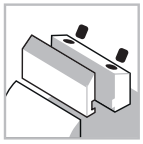


TG79MG

Cutterhead sets for panelling and flooring



Manual Feed



Clamping System



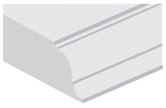
Steel Body



Softwood



Hardwood



Profiling

Machines:
Moulders, automatic and throughfeed machines.

Materials:
Softwood and hardwood.

Applications:
Profiling.

Technical information:
Z2 cutterhead sets for panelling and flooring; tongue and groove both available.

- 16 different combinations available in terms of profile and timber thickness (from 12 to 38 mm) tools sets provided with sleeves to fit different machine spindles.
- Steel body.
- Rebore not available.
- Optional inserts to be ordered separately.

Sleeves for off side spindle

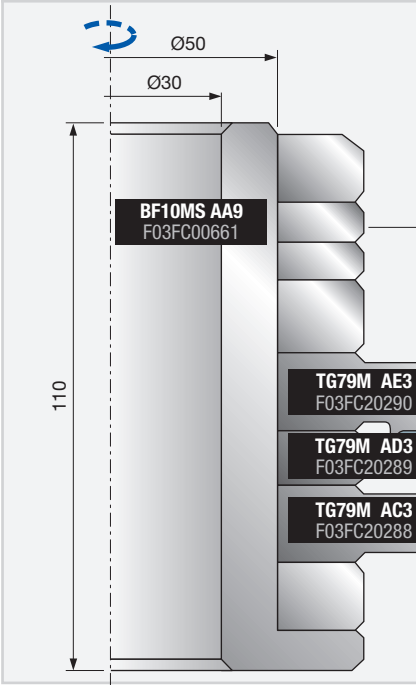
Dimensions mm	Sleeve code	Art. No.
Ø50 x 110 x 30	**BF10MS AA9**	F03FC00661
Ø50 x 110 x 32	**BF10MS AL9**	F03FC24538
Ø50 x 110 x 35	**BF10MS AB9**	F03FC00662
Ø50 x 110 x 40	**BF10MS AC9**	F03FC00663

Sleeves for fence side spindle

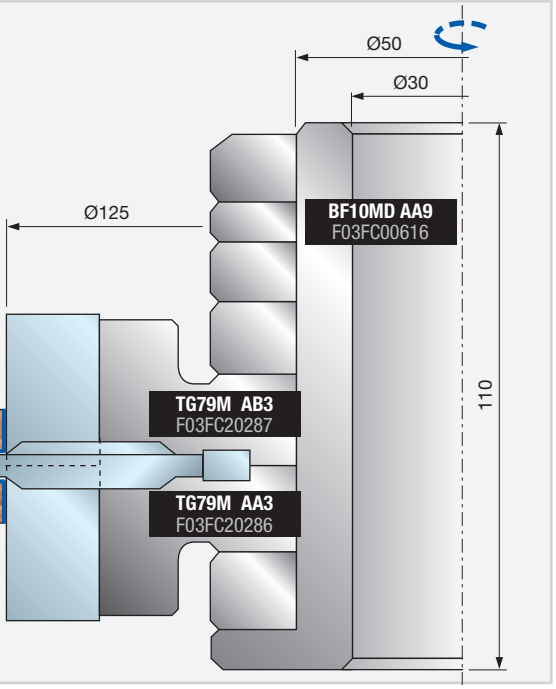
Dimensions mm	Sleeve code	Art. No.
Ø50 x 110 x 30	**BF10MD AA9**	F03FC00616
Ø50 x 110 x 32	**BF10MD AL9**	F03FC24533
Ø50 x 110 x 35	**BF10MD AB9**	F03FC00617
Ø50 x 110 x 40	**BF10MD AC9**	F03FC00618

Profile	Tongue set	Art. No.	Groove set	Art. No.
1	**TG79MG 002**	F03FC20305	**TG79MG 001**	F03FC20304
2	**TG79MG 003**	F03FC20306	**TG79MG 001**	F03FC20304
3	**TG79MG 006**	F03FC20309	**TG79MG 004**	F03FC20307
4	**TG79MG 025**	F03FC20320	**TG79MG 020**	F03FC20315
5	**TG79MG 007**	F03FC20310	**TG79MG 005**	F03FC20308
6	**TG79MG 026**	F03FC20321	**TG79MG 021**	F03FC20316
7	**TG79MG 027**	F03FC20322	**TG79MG 022**	F03FC20317
8	**TG79MG 028**	F03FC20323	**TG79MG 023**	F03FC20318
9	**TG79MG 029**	F03FC20324	**TG79MG 024**	F03FC20319
10	**TG79MG 010**	F03FC20313	**TG79MG 008**	F03FC20311
11	**TG79MG 035**	F03FC20330	**TG79MG 030**	F03FC20325
12	**TG79MG 011**	F03FC20314	**TG79MG 009**	F03FC20312
13	**TG79MG 036**	F03FC20331	**TG79MG 031**	F03FC20326
14	**TG79MG 037**	F03FC20332	**TG79MG 032**	F03FC20327
15	**TG79MG 038**	F03FC20333	**TG79MG 033**	F03FC20328
16	**TG79MG 039**	F03FC20334	**TG79MG 034**	F03FC20329

Cutterhead set TG79MG 002



Cutterhead set TG79MG 001



Tools for TG79MG sets

D mm	B mm	d mm	Z	V	Max RPM 1/min.	Freud Code	Art. No.
125	20	50	2	-	9.000	**TG79M AA3**	F03FC20286
125	20	50	2	-	9.000	**TG79M AB3**	F03FC20287
143	20	50	2	2	9.000	**TG79M AC3**	F03FC20288
128	8	50	2	-	9.000	**TG79M AD3**	F03FC20289
143	20	50	2	2	9.000	**TG79M AE3**	F03FC20290
144	20	50	2	2	9.000	**TG79M AF3**	F03FC20291
125	20	50	-	-	9.000	**TG79M AG3**	F03FC20292
125	20	50	-	-	9.000	**TG79M AI3**	F03FC20294
143	20	50	-	-	9.000	**TG79M AM3**	F03FC20296
143	20	50	-	-	9.000	**TG79M AO3**	F03FC20298

The above codes are intended without sleeve, which should be ordered separately.

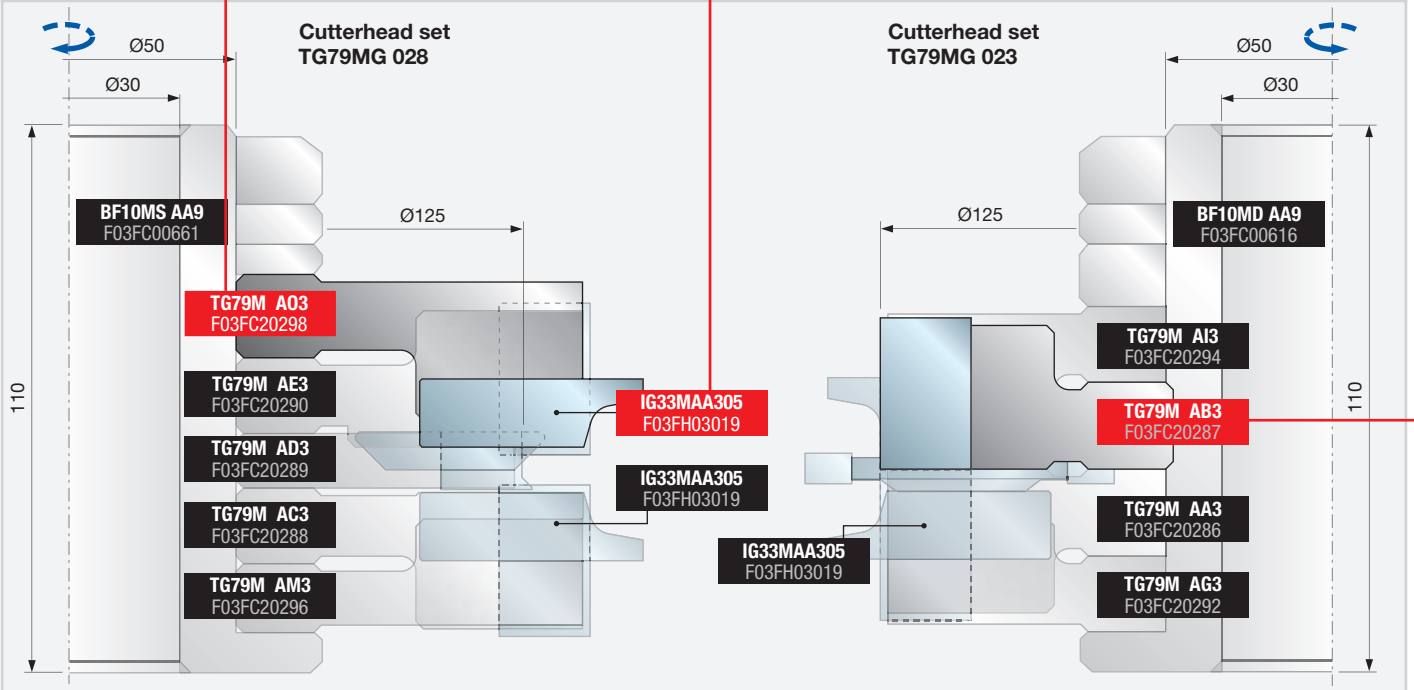
Spare parts for TG79MG tools

	Spare parts	Dimensions mm	Freud Code	Art. No.
AA3	Knife	20 x 12 x 1,5	**CG08MDA310**	F03FH02905
	Wedge	16	**CN01M DA9**	F03FC01251
	Screw	M8 x 16	**VT03M AA9**	F03FA04435
	Grooving insert	40 x 16 x 4	**IG04MDAA305**	F03FH03409
	Screw	M6 x 14,5	**VT16M AA9**	F03FA04476
AB3	Knife	20 x 12 x 1,5	**CG08MDA310**	F03FH02905
	Wedge	16	**CN01M DA9**	F03FC01251
	Screw	M8 x 16	**VT03M AA9**	F03FA04435
	Grooving insert	40 x 16 x 4	**IG04MSAA305**	F03FH02994
	Screw	M6 x 14,5	**VT16M AA9**	F03FA04476
AC3	Knife	20 x 12 x 1,5	**CG08MDA310**	F03FH02905
	Wedge	16	**CN01M DA9**	F03FC01251
	Screw	M8 x 16	**VT03M AA9**	F03FA04435
	Spur	22,86 x 2,5	**RG02MAA305**	F03FH03041
	Screw	M5 x 8	**VT05M AA9**	F03FA04444
AD3	Knife	7,5 x 12 x 1,5	**CG01M0B310**	F03FC23814
	Wedge	14 x 7,2 x 8	**CN09M AT9**	F03FC01294
	Screw	M5 x 19	**VT11M AA9**	F03FA04468
AE3 - AF3	Knife	20 x 12 x 1,5	**CG08MDA310**	F03FH02905
	Wedge	16	**CN01M DA9**	F03FC01251
	Screw	M8 x 16	**VT03M AA9**	F03FA04435
	Spur	22,86 x 2,5	**RG02MAA305**	F03FH03041
	Screw	M5 x 8	**VT05M AA9**	F03FA04444
	Beveled insert	22 x 16 x 5 45°	**IG51MBA305**	F03FH03022
	Screw	M6 x 14,5	**VT16M AA9**	F03FA04476

Optional inserts for TG79MG tools

	Spare parts	Dimensions mm	Freud Code	Art. No.
AO3	Beveled insert	22 x 16 x 5 45°	**IG51MBA305**	F03FH03022
AG3 - AI3 - AM3 - AO3	Rounding insert	22 x 16 x 5 R=1,5	**IG52MAB305**	F03FH03023
	Rounding insert	22 x 16 X 5 R=2	**IG52MAC305**	F03FH03024
	Rounding insert	22 x 16 X 5 R=3	**IG52MAE305**	F03FH03025
	Screw	M6 x 14,5	**VT16M AA9**	F03FA04476
	Rounding insert	25,5 x 16 x 9 R3	**IG33MAA305**	F03FH03019
	Rounding insert	25,5 x 16 x 9 R=5	**IG33MAB305**	F03FH03020
	Beveling insert	25,5 x 16 x 9 45°	**IG33MAD305**	F03FH03021
	Screw	M6 x 15,5	**VT16M AD9**	F03FC20657

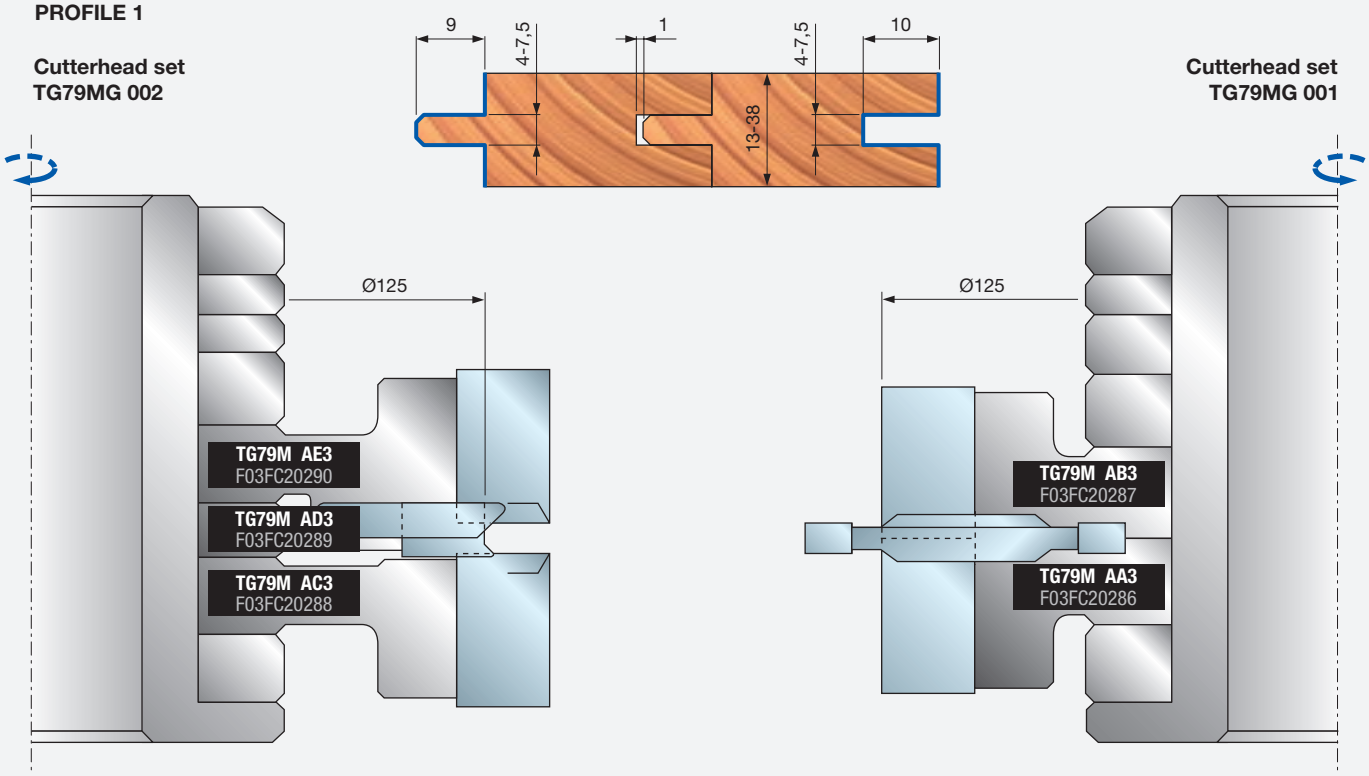
Example for choosing spare parts



Examples of programming

PROFILE 1

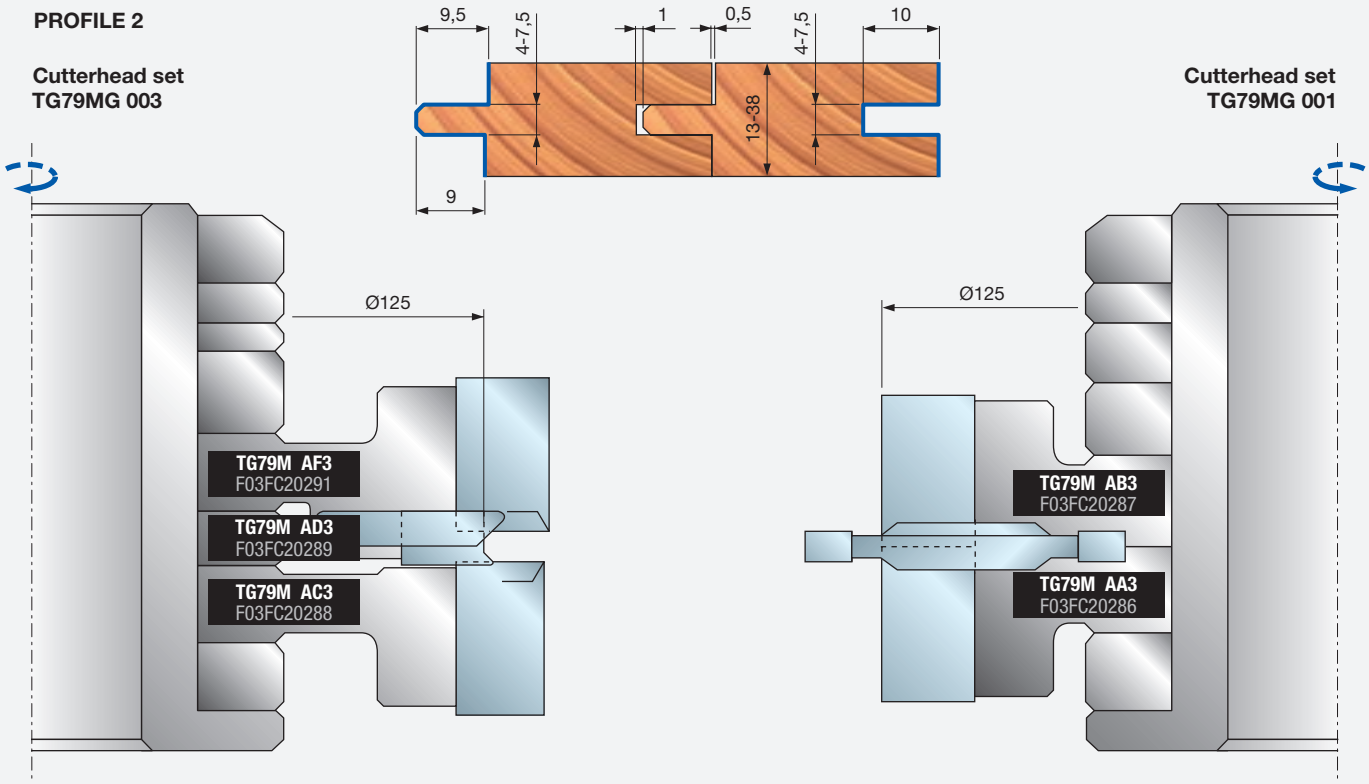
Cutterhead set TG79MG 002



Cutterhead set TG79MG 001

PROFILE 2

Cutterhead set TG79MG 003

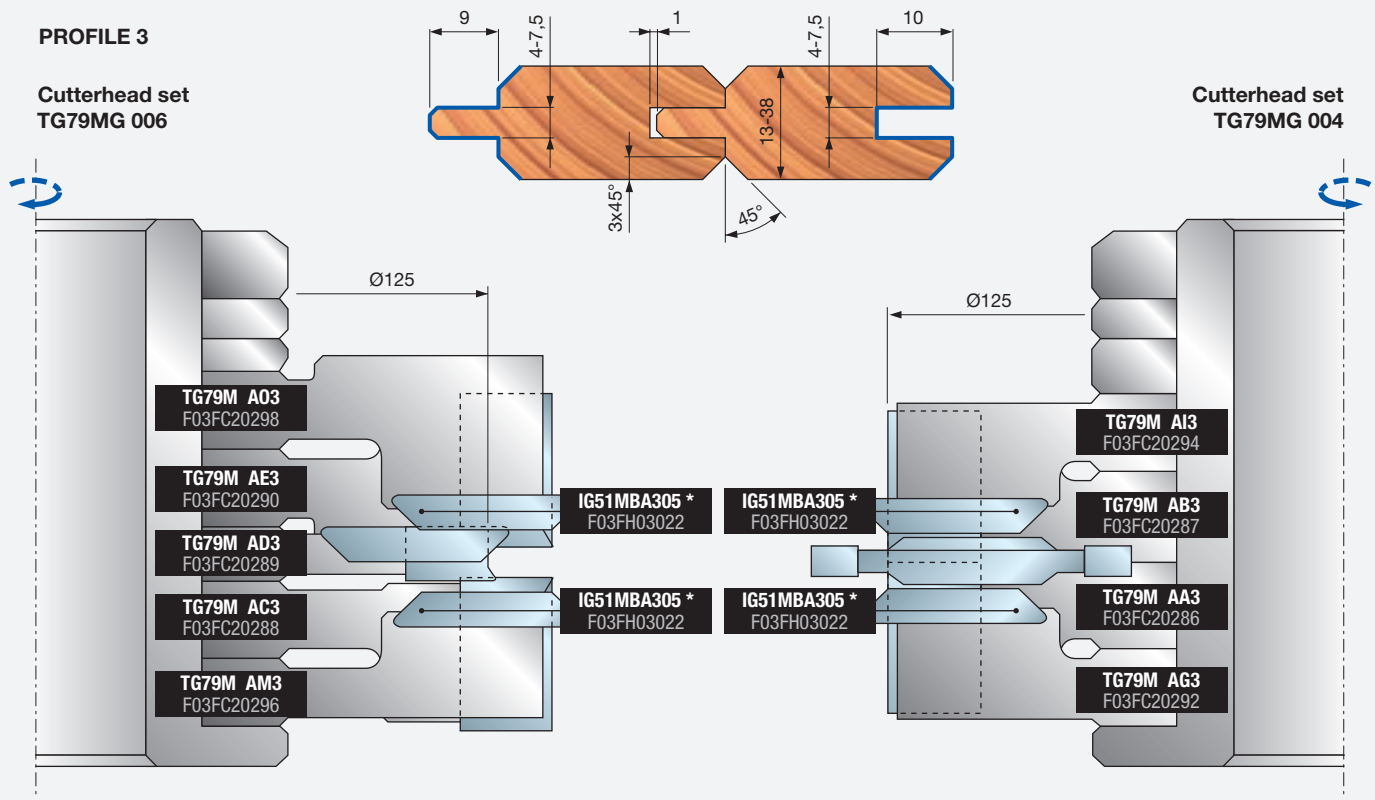


Cutterhead set TG79MG 001

Examples of programming

PROFILE 3

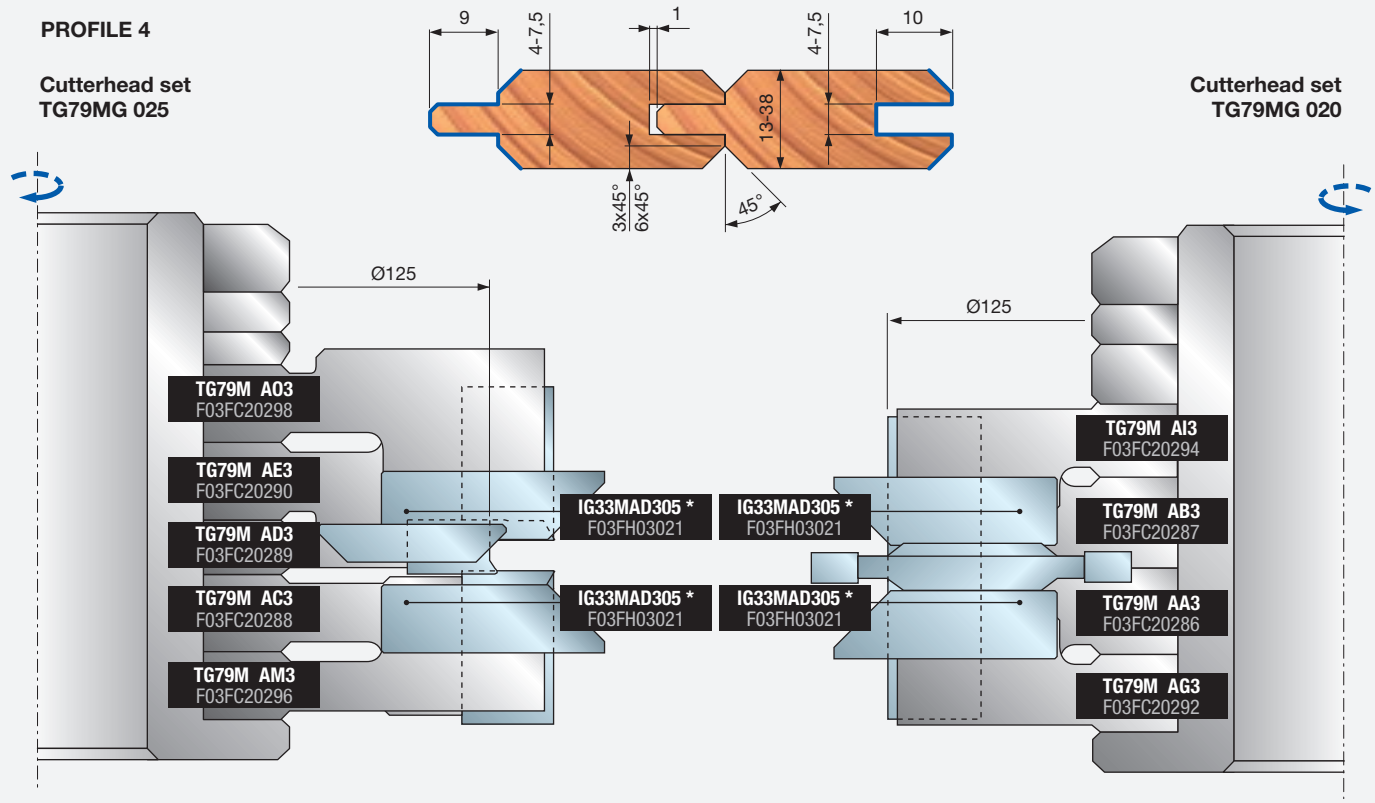
Cutterhead set TG79MG 006



Cutterhead set TG79MG 004

PROFILE 4

Cutterhead set TG79MG 025

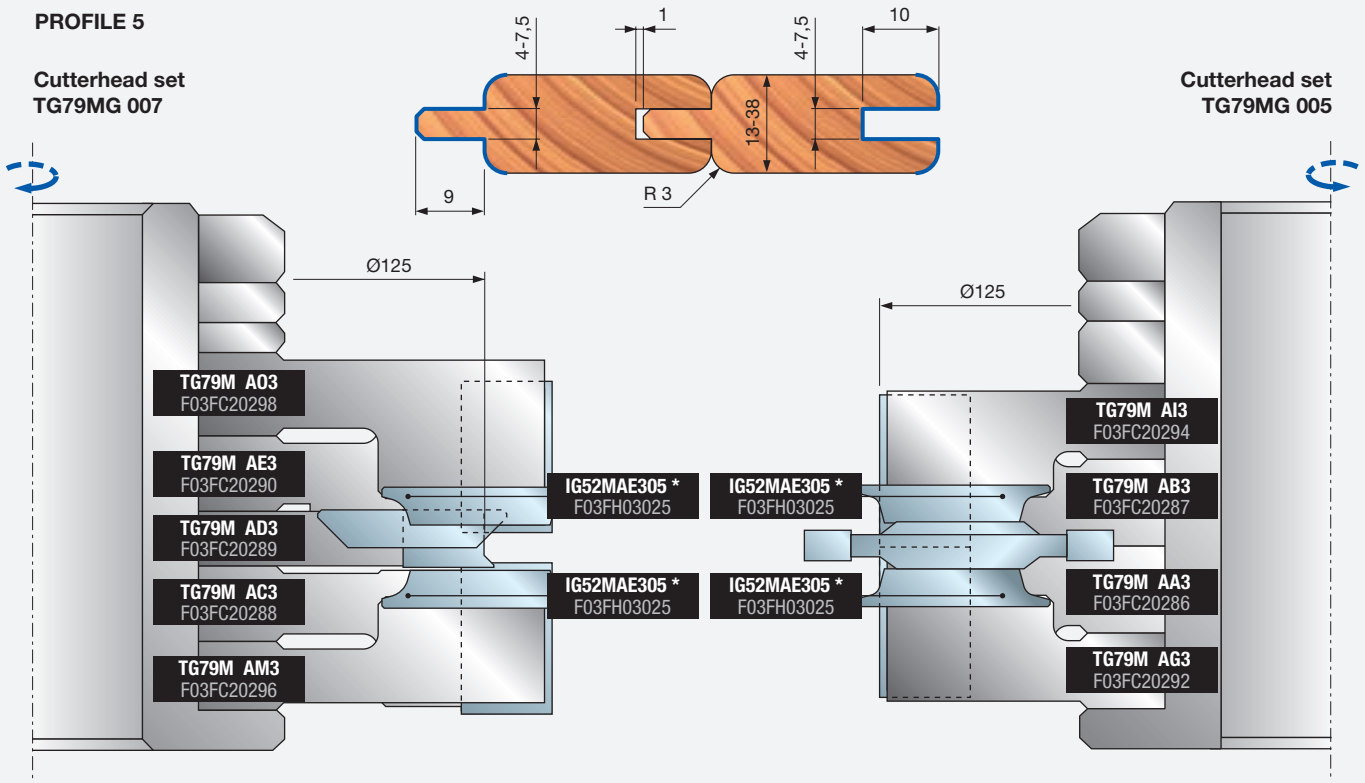


Cutterhead set TG79MG 020

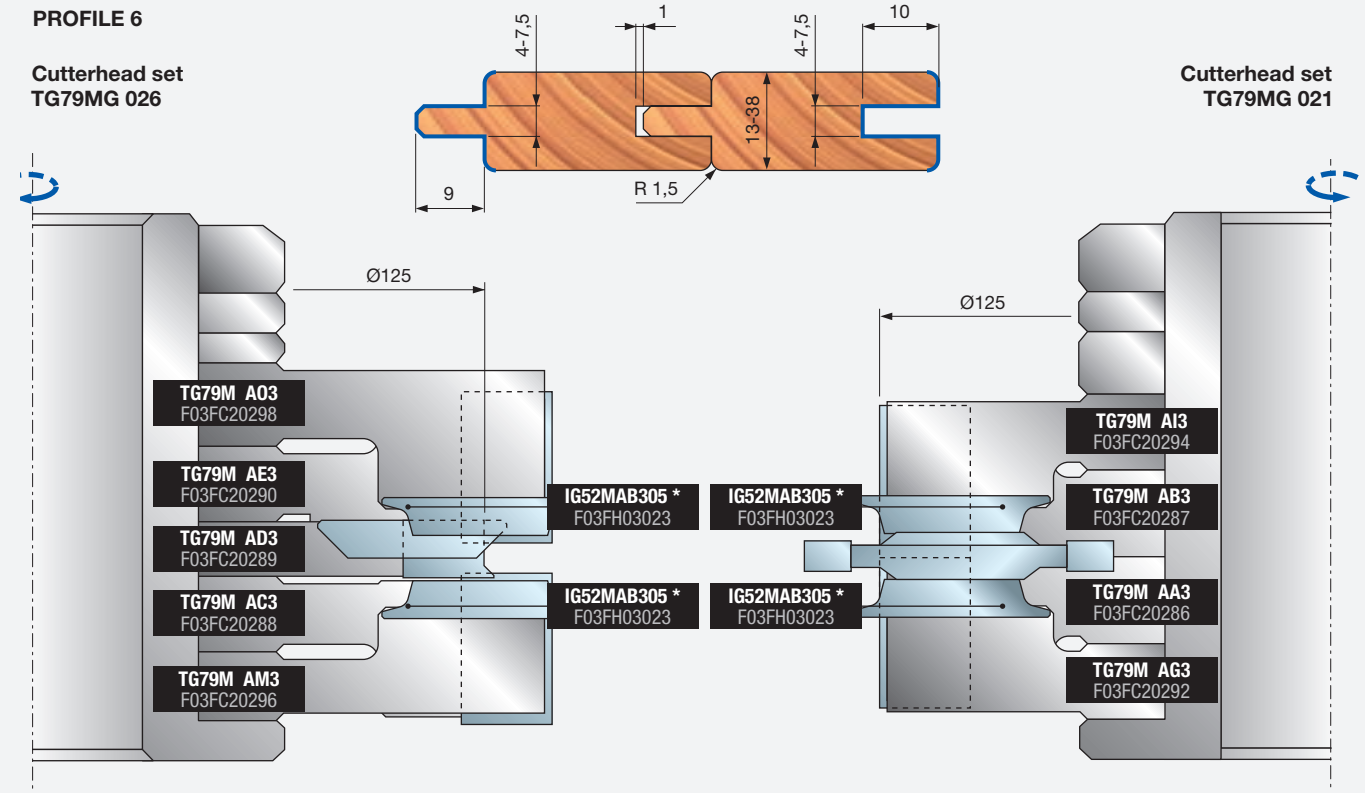
* Inserts are not included

Examples of programming

PROFILE 5



PROFILE 6

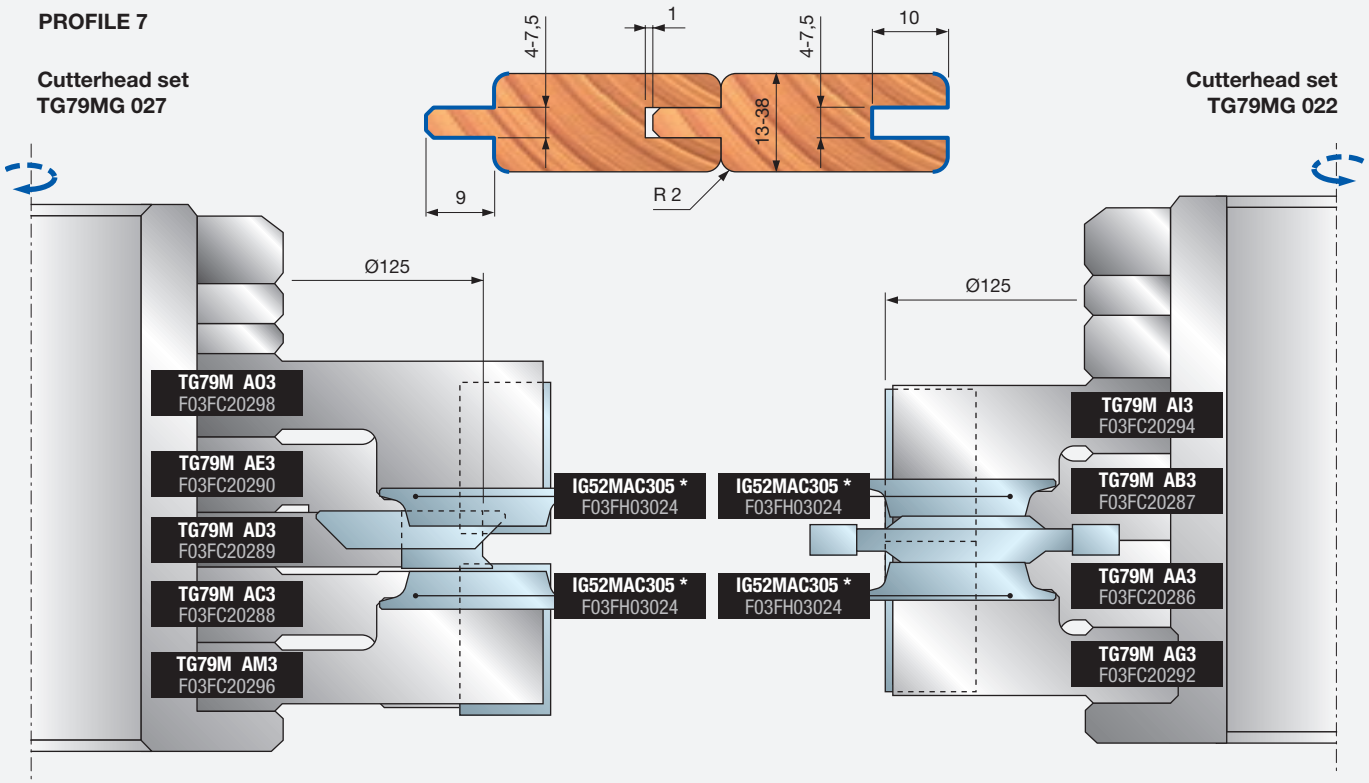


* Inserts are not included

Examples of programming

PROFILE 7

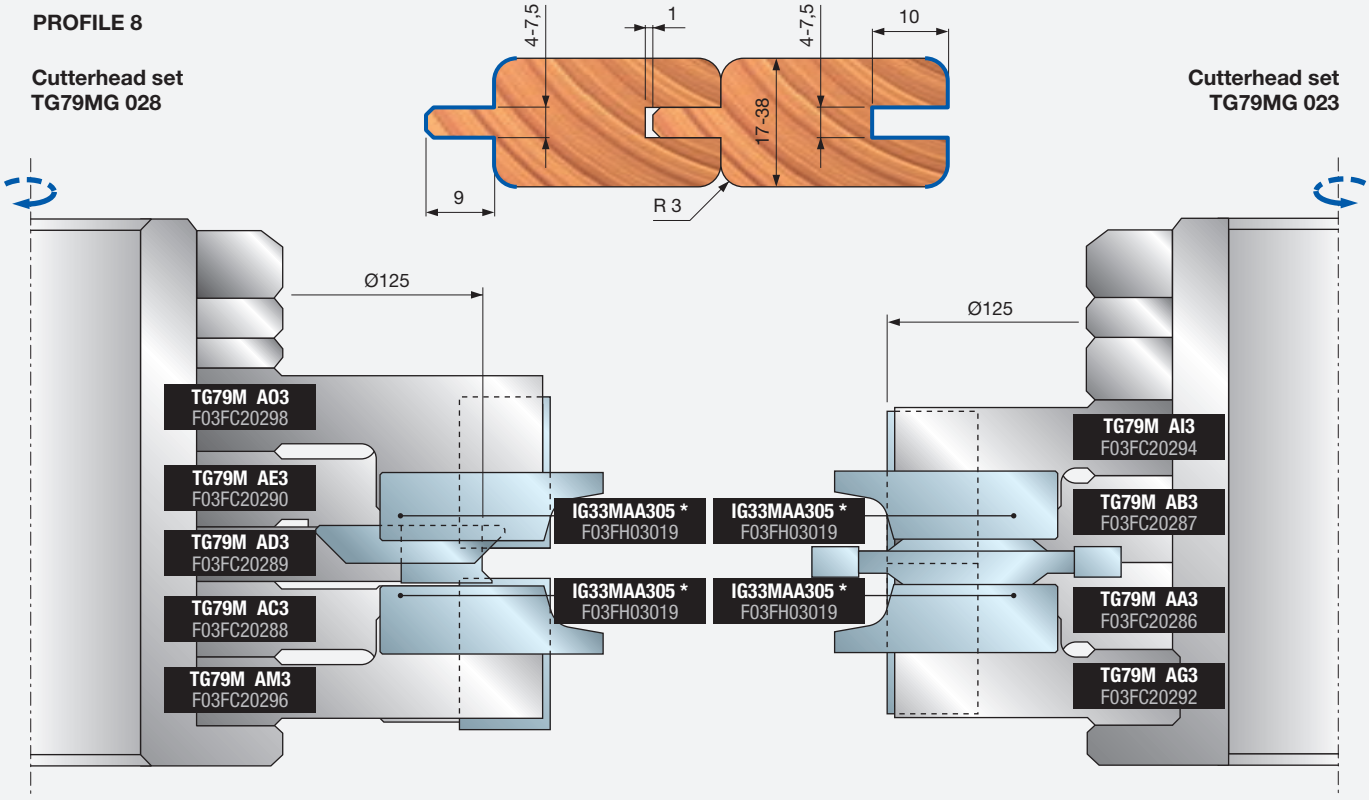
Cutterhead set TG79MG 027



Cutterhead set TG79MG 022

PROFILE 8

Cutterhead set TG79MG 028

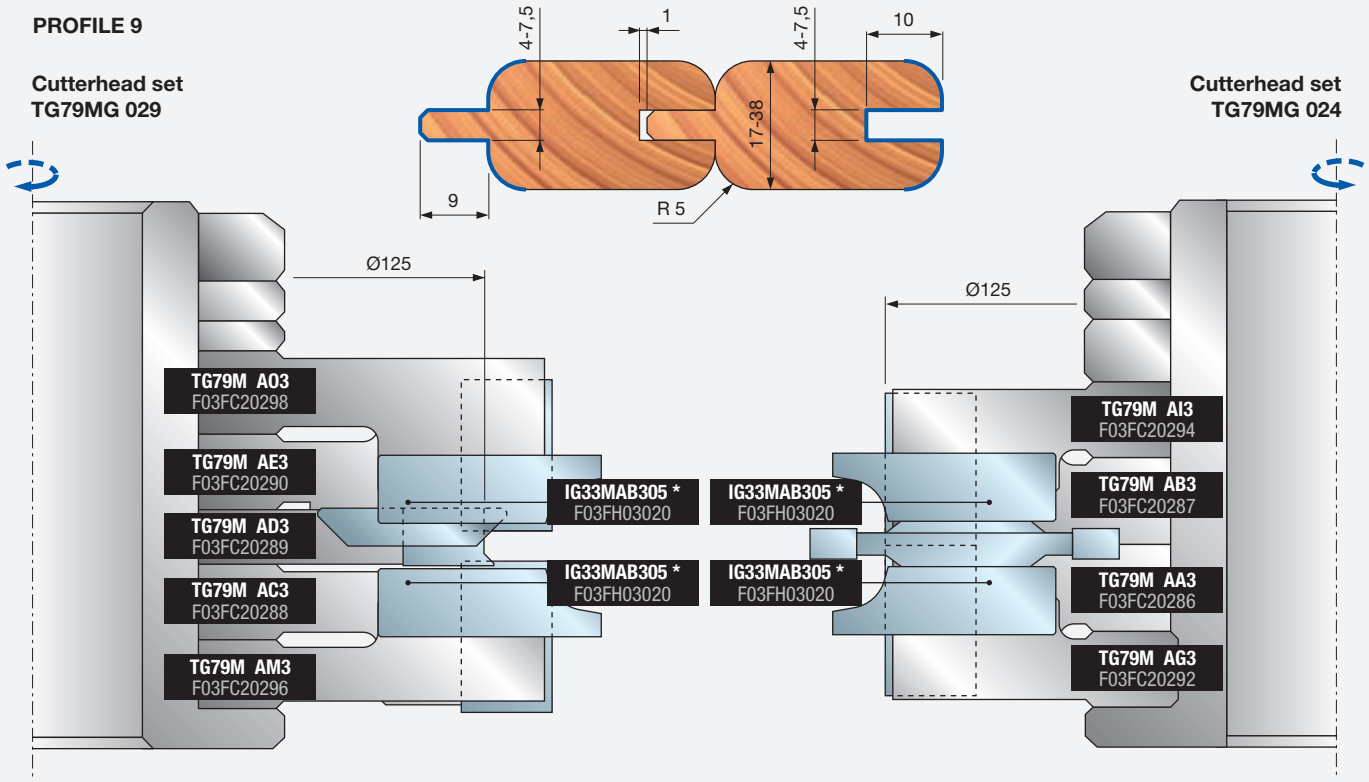


Cutterhead set TG79MG 023

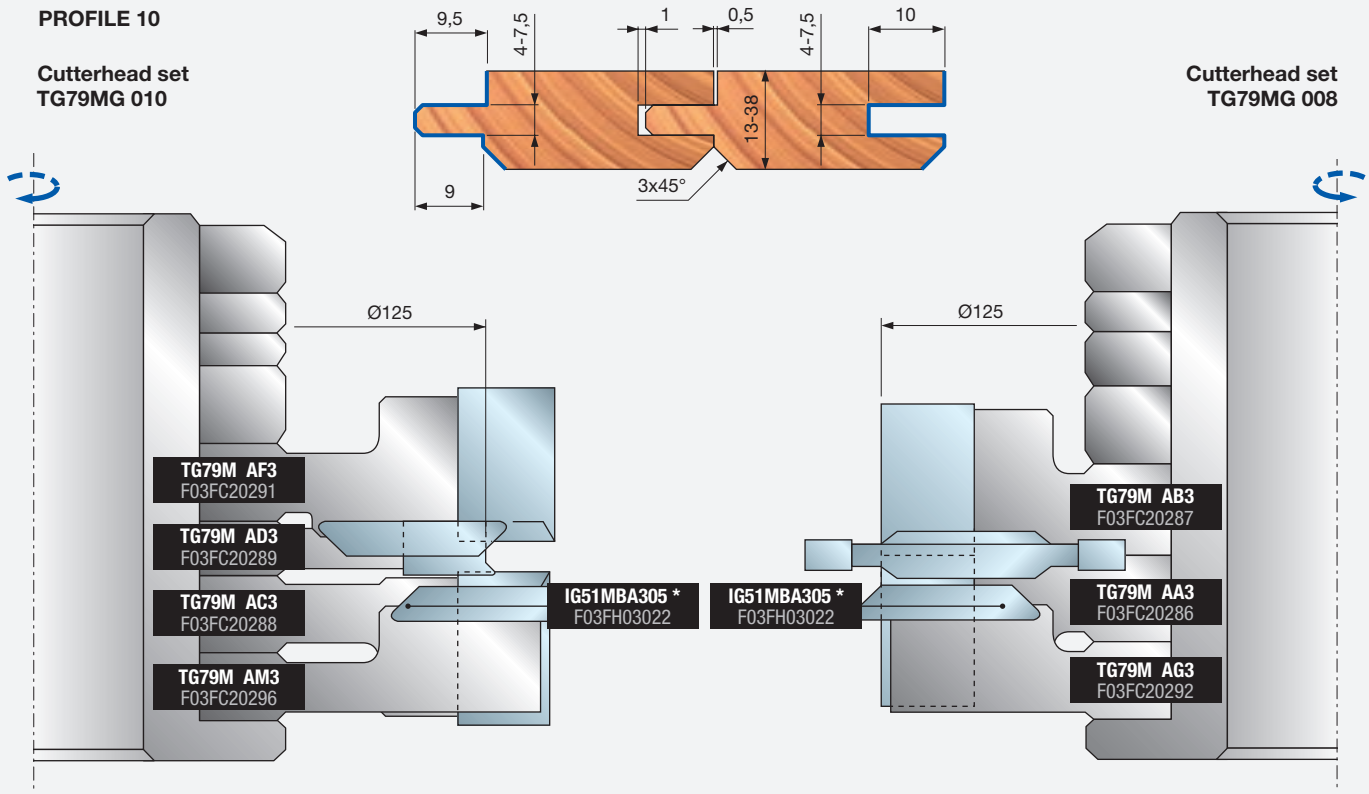
* Inserts are not included

Examples of programming

PROFILE 9



PROFILE 10

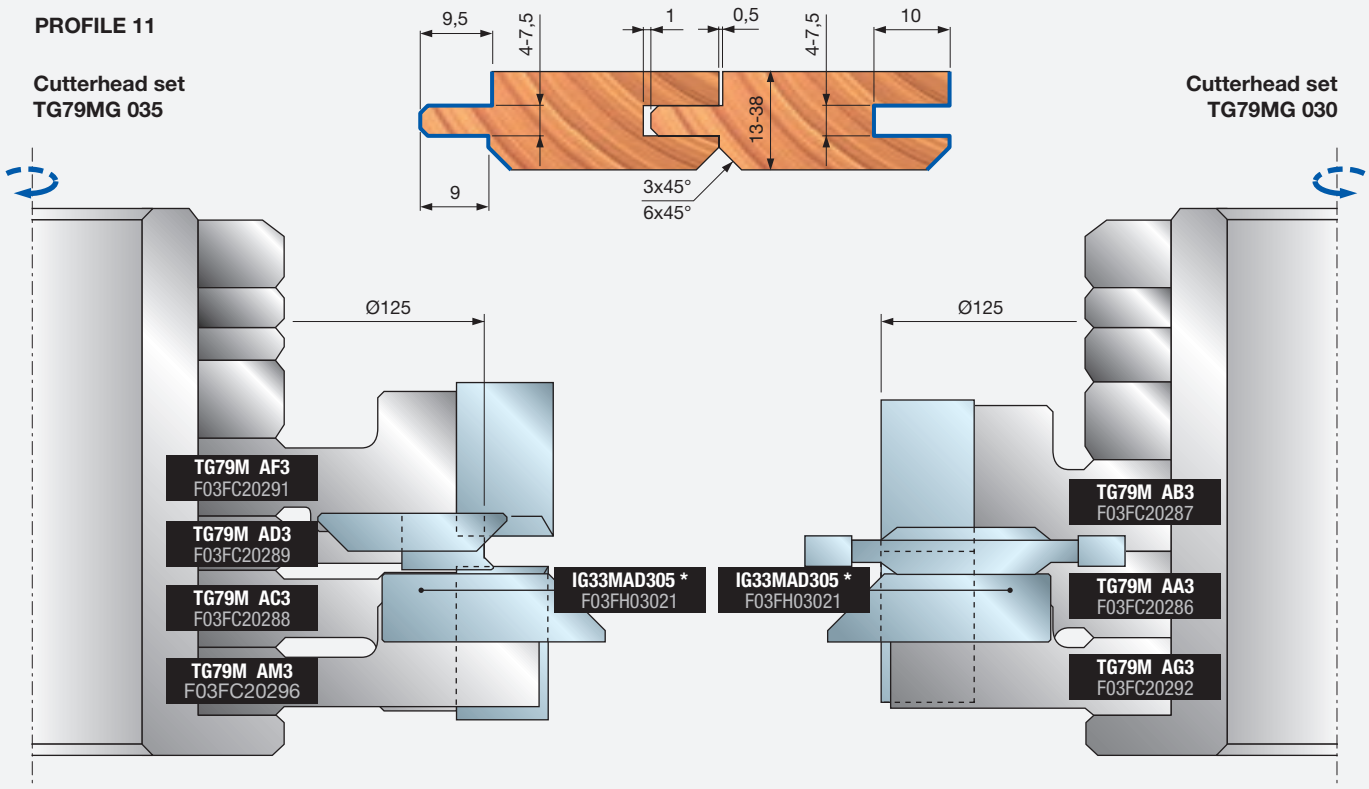


* Inserts are not included

Examples of programming

PROFILE 11

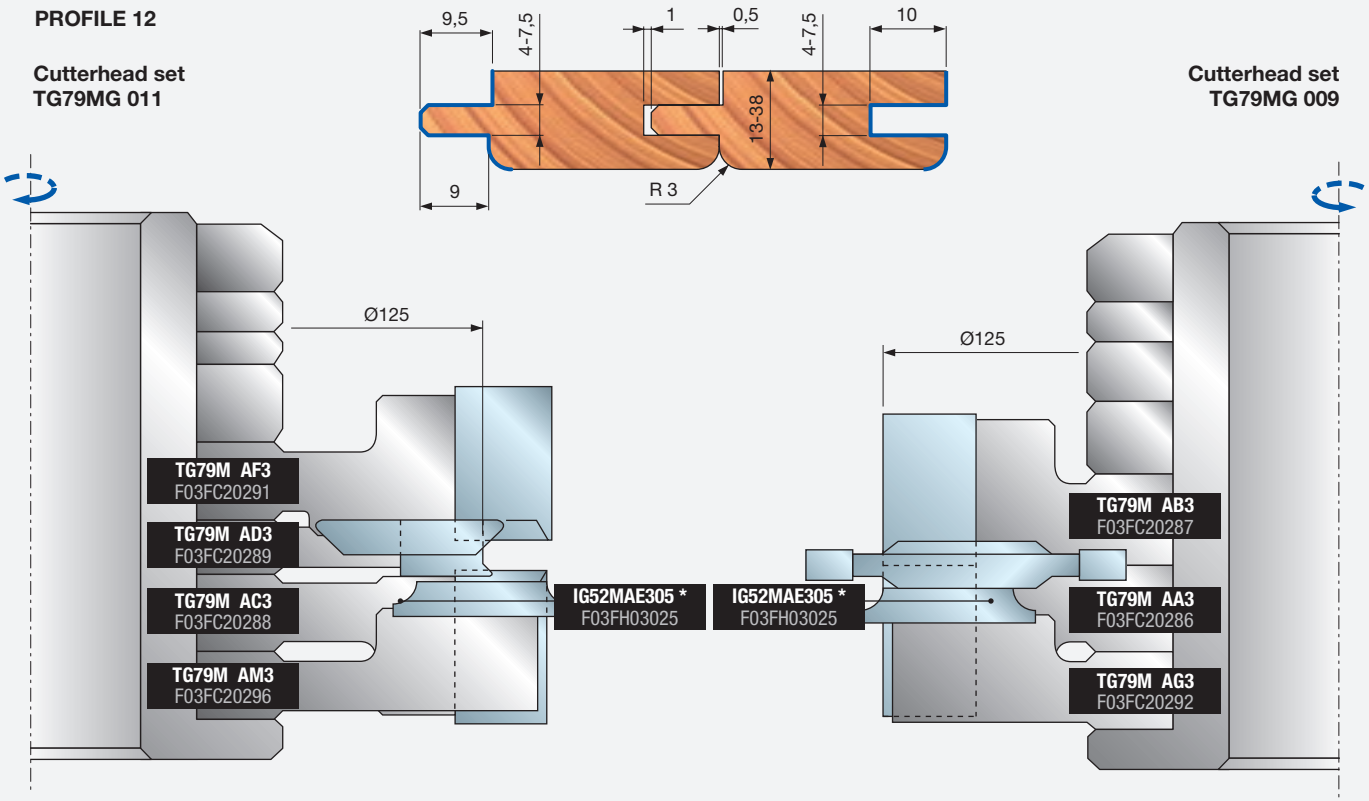
Cutterhead set TG79MG 035



Cutterhead set TG79MG 030

PROFILE 12

Cutterhead set TG79MG 011

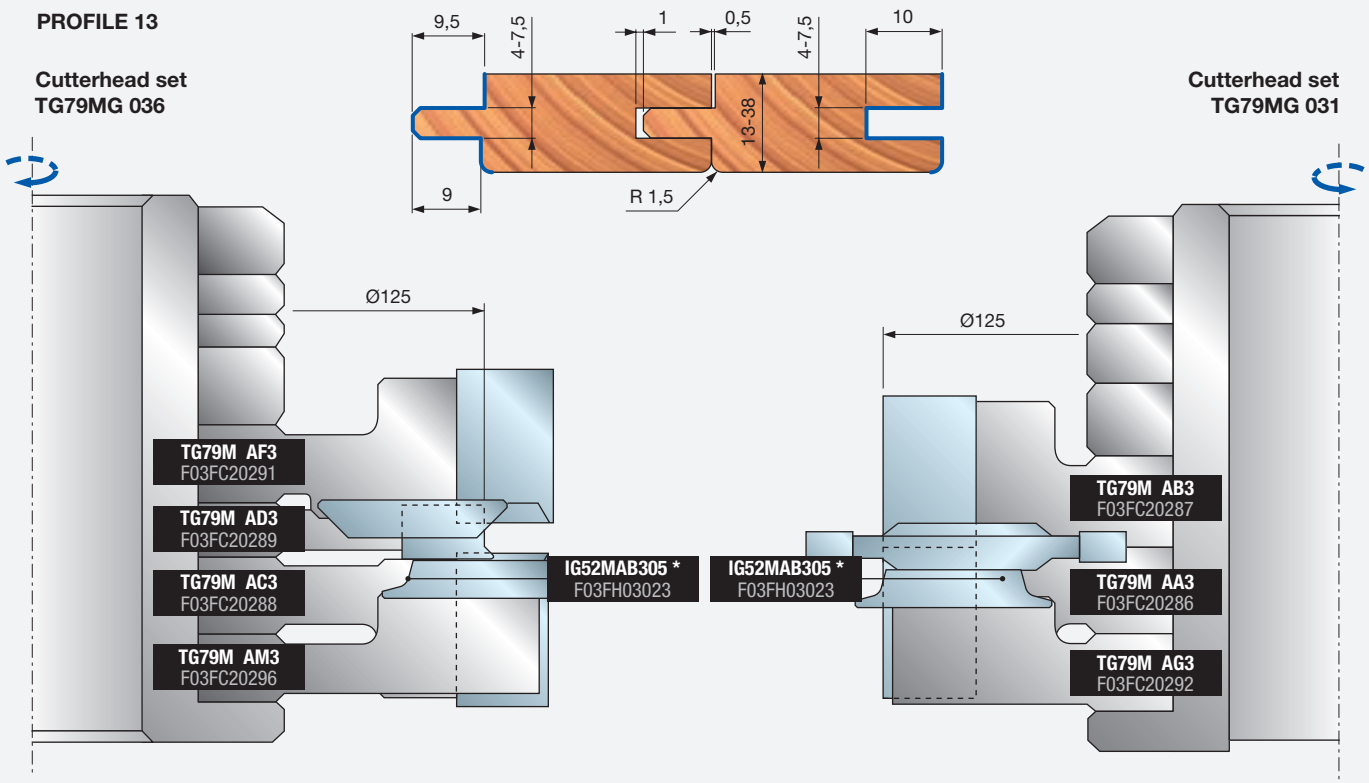


Cutterhead set TG79MG 009

* Inserts are not included

Examples of programming

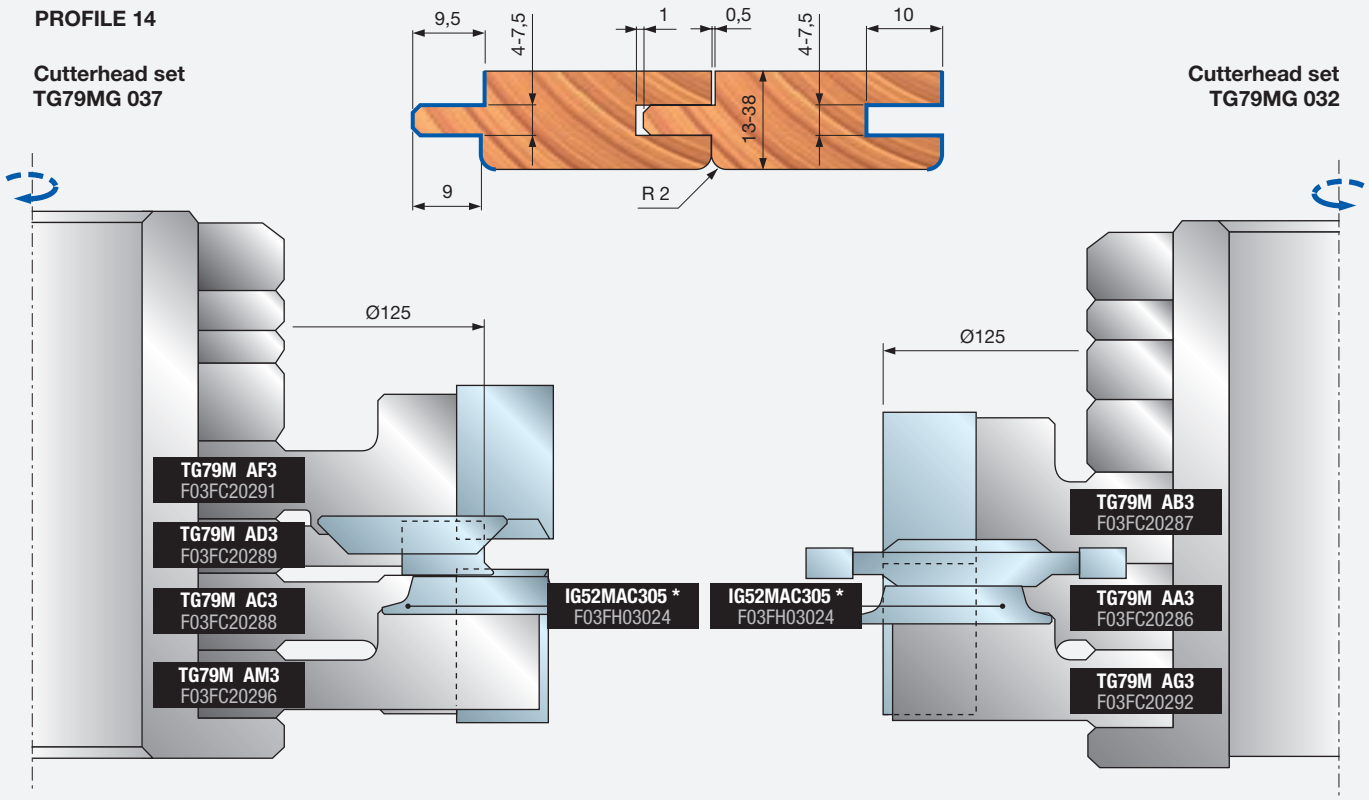
PROFILE 13



Cutterhead set TG79MG 036

Cutterhead set TG79MG 031

PROFILE 14



Cutterhead set TG79MG 037

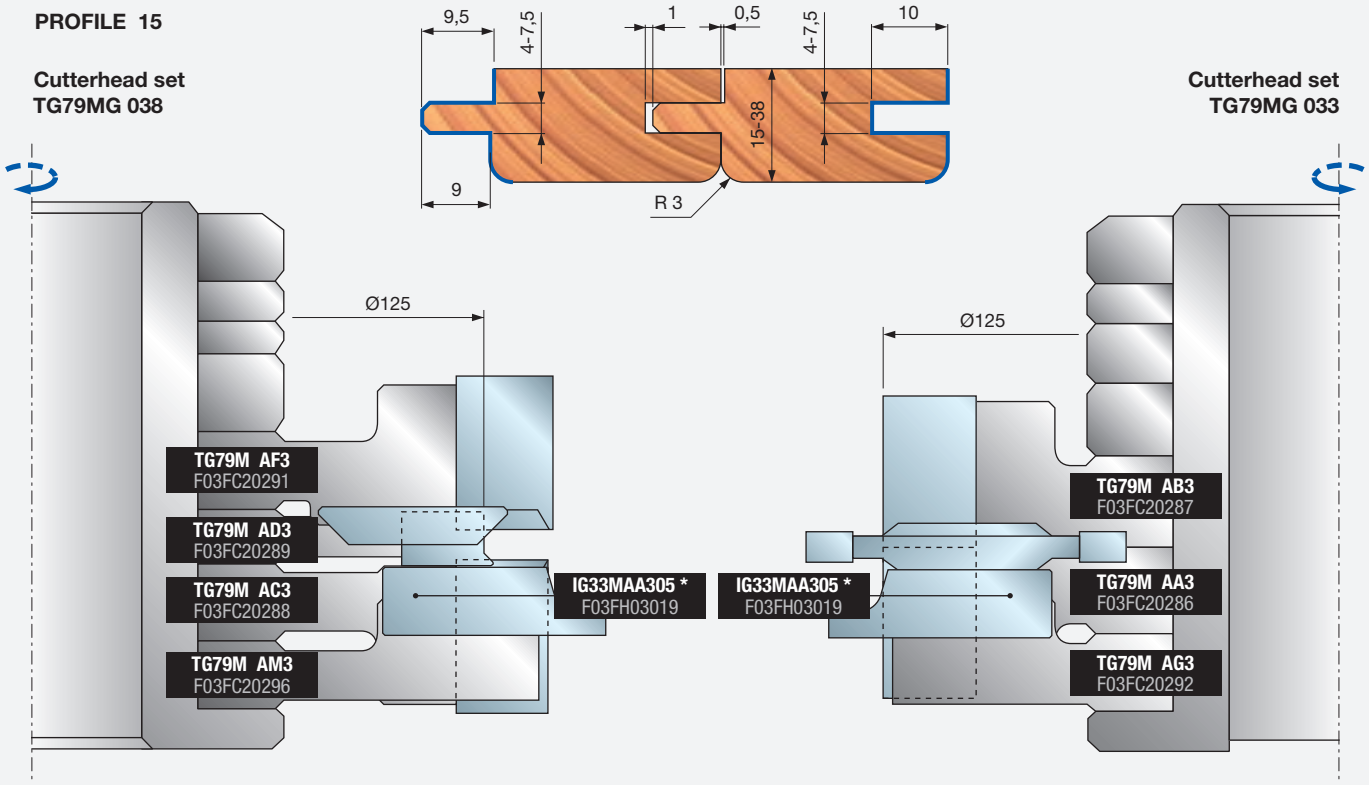
Cutterhead set TG79MG 032

* Inserts are not included

Examples of programming

PROFILE 15

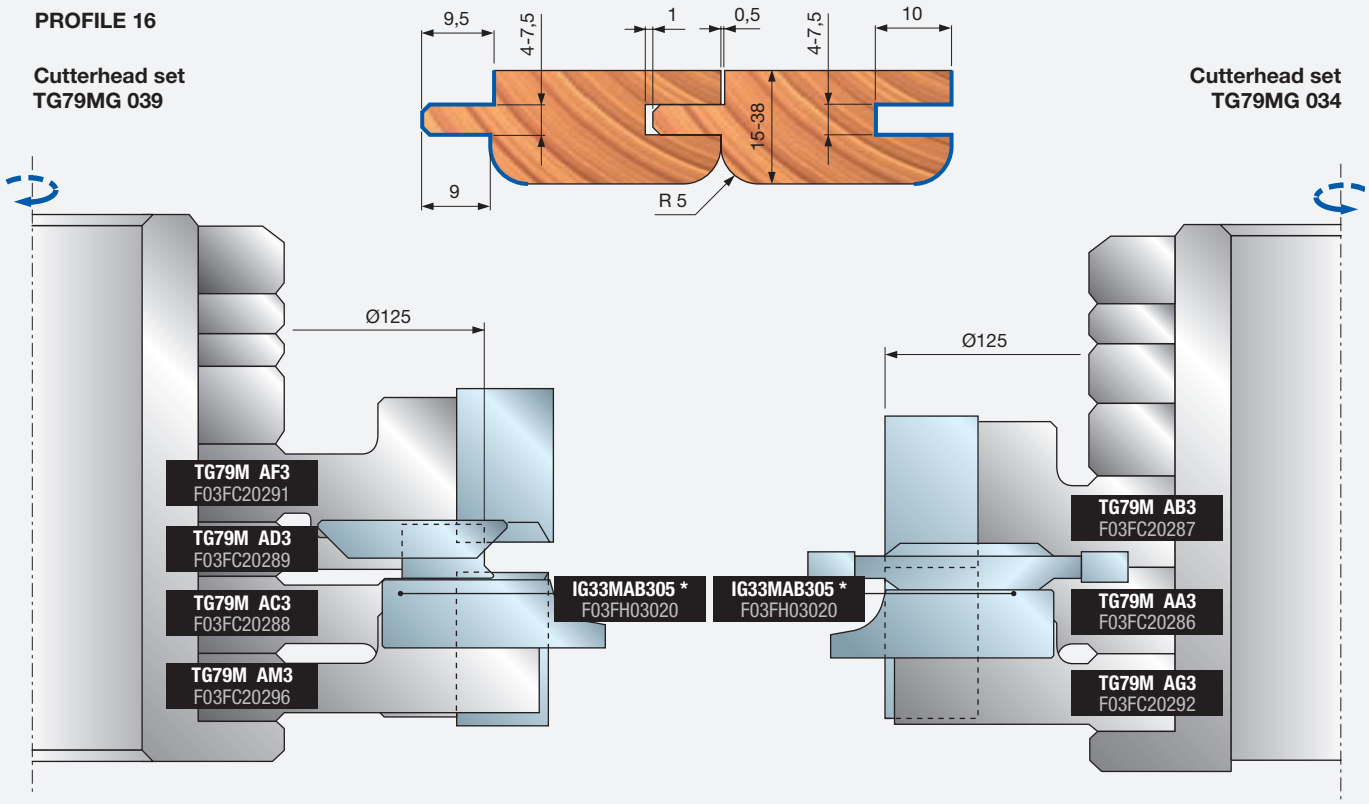
Cutterhead set TG79MG 038



Cutterhead set TG79MG 033

PROFILE 16

Cutterhead set TG79MG 039



Cutterhead set TG79MG 034

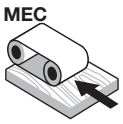
* Inserts are not included



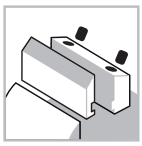


TG99MG

Cutterheads sets for panelling and flooring



Automatic Feed



Clamping System



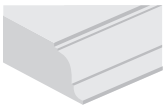
Steel Body



Softwood



Hardwood



Profiling

Machines:
Moulders, automatic and throughfeed machines.

Materials:
Softwood and hardwood.

Applications:
Profiling.

Technical information:
Z4 cutterhead sets for panelling and flooring; tongue and groove both available.

- 16 different combinations available in terms of profile and timber thickness (from 12 to 38 mm) tools sets provided with sleeves to fit different machine spindles.
- Steel body.
- Rebore not available.
- Optional inserts to be ordered separately.

Sleeves for fence side spindle

Dimensions mm	Sleeve code	Art. No.
Ø50 x 110 x 30	**BF10MD AA9**	F03FC00616
Ø50 x 110 x 32	**BF10MD AL9**	F03FC24533
Ø50 x 110 x 35	**BF10MD AB9**	F03FC00617
Ø50 x 110 x 40	**BF10MD AC9**	F03FC00618

Sleeves for off side spindle

Dimensions mm	Sleeve code	Art. No.
Ø50 x 110 x 30	**BF10MS AA9**	F03FC00661
Ø50 x 110 x 32	**BF10MS AL9**	F03FC24538
Ø50 x 110 x 35	**BF10MS AB9**	F03FC00662
Ø50 x 110 x 40	**BF10MS AC9**	F03FC00663

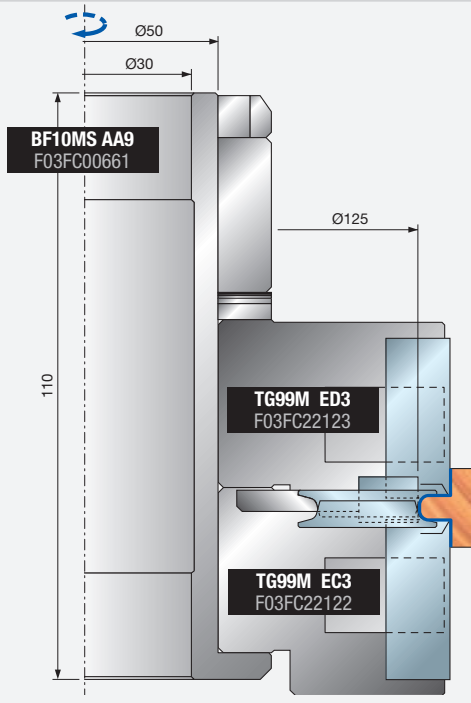
Profile	Tongue set	Art. No.	Groove set	Art. No.
A	**TG99MG002**	F03FC22132	**TG99MG001**	F03FC22131
B	**TG99MG003**	F03FC22133	**TG99MG001**	F03FC22131
C	**TG99MG009**	F03FC22140	**TG99MG008**	F03FC22139
D	**TG99MG011**	F03FC22142	**TG99MG010**	F03FC22141
E	**TG99MG005**	F03FC22135	**TG99MG004**	F03FC22134
F	**TG99MG007**	F03FC22137	**TG99MG006**	F03FC22136
G	**TG99MG013**	F03FC22145	**TG99MG012**	F03FC22143
H	**TG99MG015**	F03FC22146	**TG99MG014**	F03FC22144

The above codes are intended without sleeve, which should be ordered separately.

Tools for TG99MG sets

D mm	B mm	d mm	Z	V	Max RPM 1/min.	Freud Code	Art. No.
125	30	50	4	-	10.300	**TG99M EA3**	F03FC22120
125	30	50	4	-	10.300	**TG99M EB3**	F03FC22121
137	30	50	4	2	9.600	**TG99M EC3**	F03FC22122
137	30	50	4	2	9.600	**TG99M ED3**	F03FC22123
138	20	50	4	2	9.600	**TG99M EE3**	F03FC22124
137	12	50	4	-	9.600	**TG99M EF3**	F03FC22125
125	30	50	4	-	10.300	**TG99M EG3**	F03FC22126
149	12	50	4	2	9.000	**TG99M EH3**	F03FC22127
143	20	50	4	2	9.000	**TG99M EI3**	F03FC22128
142	12	50	4	-	9.000	**TG99M EK3**	F03FC22129
169	12	50	4	2	8.300	**TG99M EL3**	F03FC22130

Cutterhead set TG99MG002



Cutterhead set TG99MG001

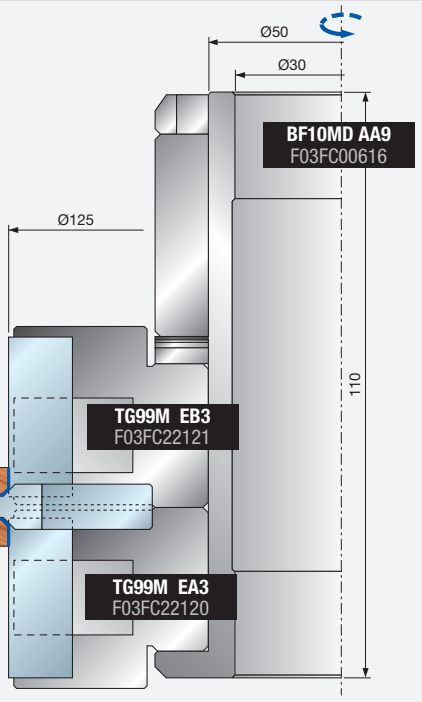
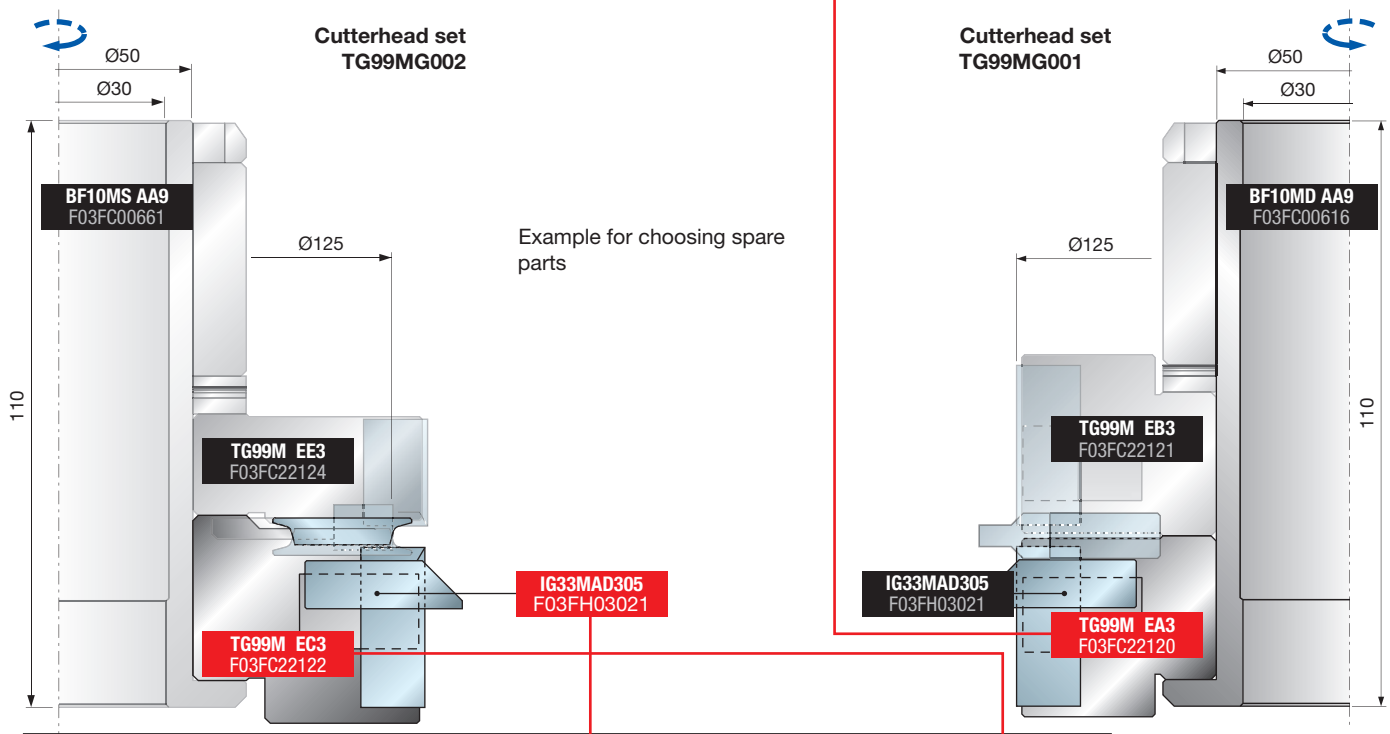


Chart for choosing spare parts

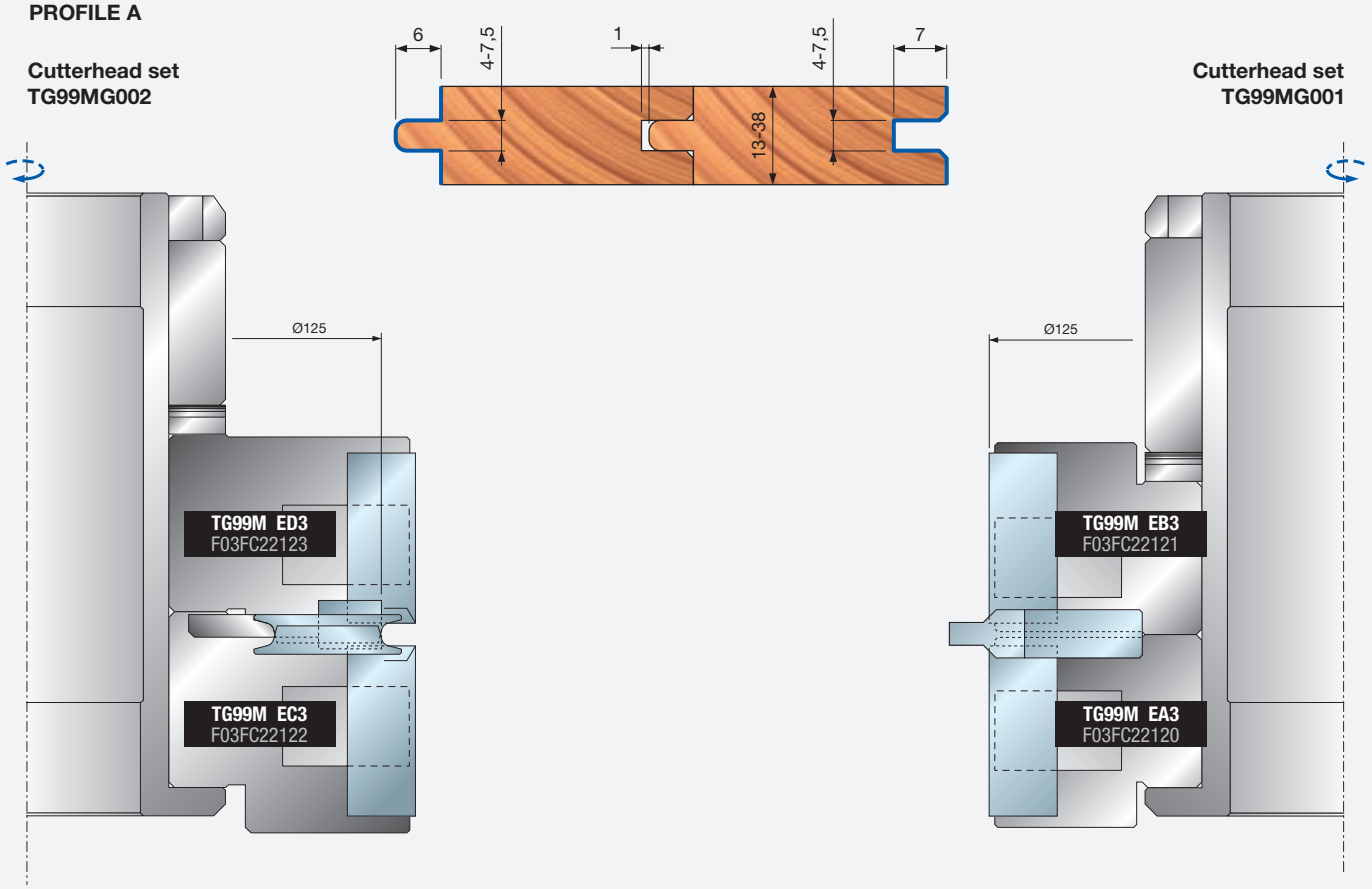
Spare parts	Dimensions mm	Freud Code	Art. No.	For cutterheads TG99M										
				EA3	EB3	EC3	ED3	EE3	EF3	EG3	EH3	EI3	EK3	EL3
Knife	12 x 12 x 1,5	CG26MBA310	F03FH02937						●		●		●	●
Wedge	15 x 10 x 8	CN09M AA9	F03FC01280						●		●		●	●
Nut	10 x 11,5 x 6	VT20M AA9	F03FA04497						●		●		●	●
Screw	M6 x 22	VT19M AB9	F03FA04491						●		●		●	●
Knife	20 x 12 x 1,5	CG26MDA310	F03FH02939					●				●		
Wedge	15 x 16 x 8	CN09MD AO9	F03FC01306					●				●		
Screw	M10 x 22	VT19M MA9	F03FA04496	●	●	●	●	●		●		●		
Nut	15 x 13,3 x M10	VT20M MA9	F03FC20670			●	●	●				●		
Knife	30 x 12 x 1,5	CG26MEA310	F03FH02940	●	●	●	●			●				
Wedge	15 x 26 x 8	CN09MD AD9	F03FC01300	●			●							
Wedge	15 x 26 x 8	CN09MS AD9	F03FC01326		●	●				●				
Nut	15 x 13,3 x M10	VT20M NA9	F03FC20671	●	●					●				
Nut	15 x 13,3 x M10	VT20M MA9	F03FC20670			●	●	●				●		
Screw	M10 x 22	VT19M MA9	F03FA04496	●	●	●	●	●		●		●		
Wedge	28 x 9,5 x 8	CN03M BB9	F03FA00585	●	●	●	●							
Screw	M8 x 22	VT19M BB9	F03FA04493	●	●	●	●							
Wedge	14 x 21,5 x 22	CN03M BA9	F03FA00584	●	●	●	●							
Spur	22,86 x 2,5	RG02MAA305	F03FH03041			●	●	●			●	●		●
Screw	M5x8	VT05M AA9	F03FA04444			●	●	●			●	●		●
Spur insert	34 x 9 x 16	SR06MSBB301	F03FC24201			●					●			●
Screw	M6 x 13	VT16M AE9	F03FC20658			●					●			●
Beveled grooves ins.	32,7 x 16 x 8,5	IG16MAA301	F03FC24161	●	●									
Screw	M6 x 15,5	VT16M AD9	F03FC20657	●	●									
Grooving insert	40 x 16 x 4	IG04MSAA305	F03FH02994							●				
Beveled insert	35 x 4 x 7	IG17MDAA305	F03FC24162						●				●	
Beveled insert	22 x 16 x 5 45°	IG51MBA305	F03FH03022							●				
Rounding insert	22 x 16 x 5 R=1,5	IG52MAB305	F03FH03023			●	●	●			●	●		●
Screw	M6 x 14,5	VT16M AA9	F03FA04476	●	●									
Torx key	T9	CB03M CA9	F03FA00165	●	●	●	●	●	●	●	●	●	●	●
Allen key	3	CB03M AA9	F03FA00162	●	●	●	●	●	●	●	●	●	●	●
Allen key	4	CB03M BA9	F03FA00163	●	●	●	●	●	●	●	●	●	●	●



Optional spare parts	Dimensions mm	Freud Code	Art. No.	For cutterheads TG99M			
				EA3	EB3	EC3	ED3
Beveling insert	25,5 x 16 x 9 45°	IG33MAD305	F03FH03021	●	●	●	●
Rounding insert	25,5 x 16 x 9 R3	IG33MAA305	F03FH03019	●	●	●	●
Rounding insert	25,5 x 16 x 9 R5	IG33MAB305	F03FH03020	●	●	●	●
Screw	M6x15,5	VT16M AD9	F03FC20657	●	●	●	●

Examples of programming

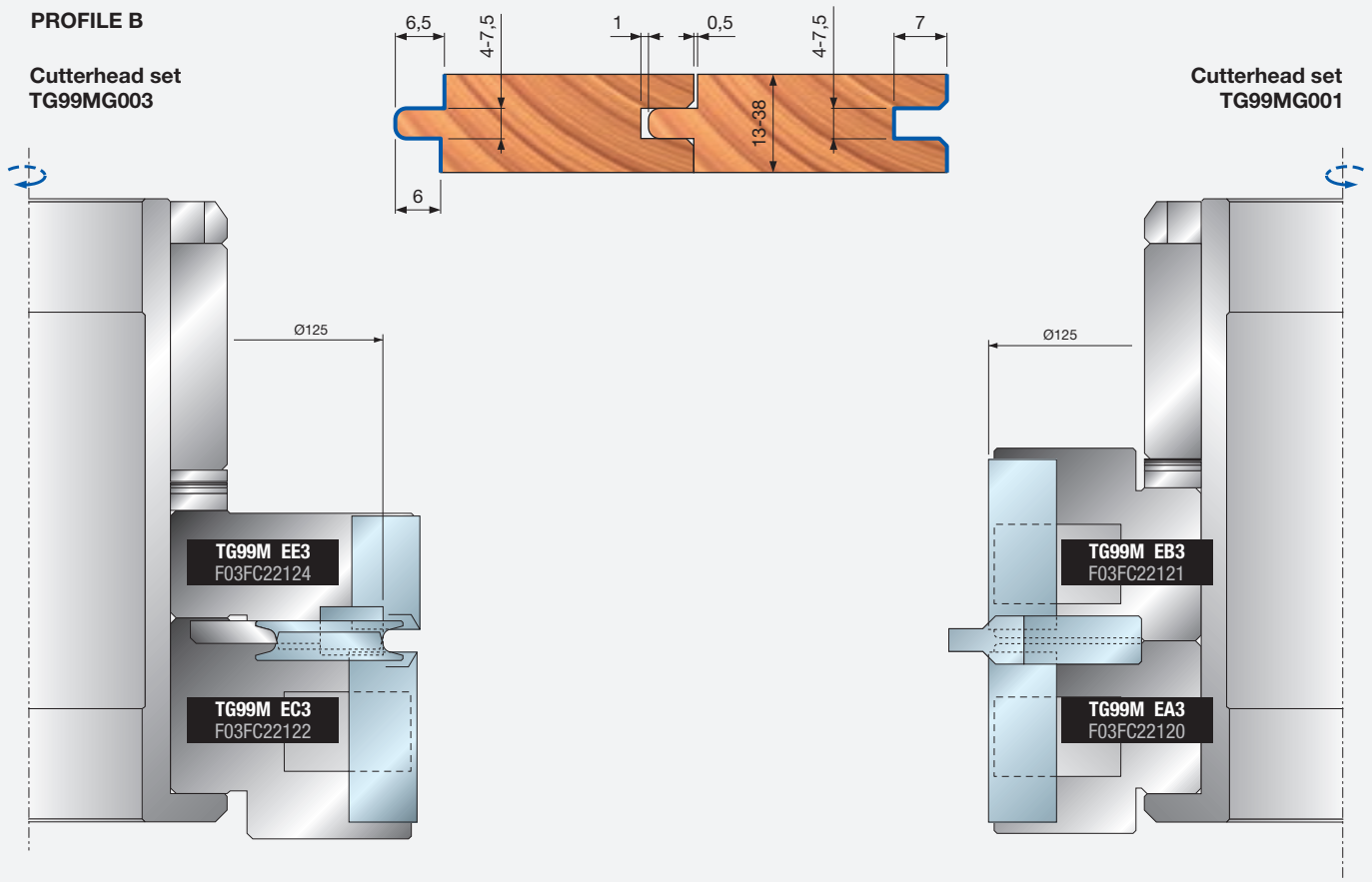
PROFILE A



Cutterhead set
TG99MG002

Cutterhead set
TG99MG001

PROFILE B



Cutterhead set
TG99MG003

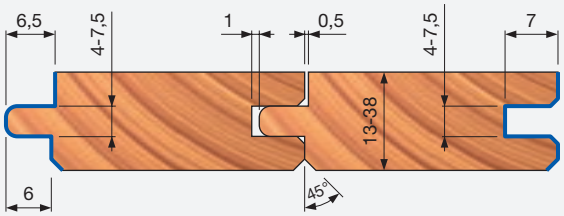
Cutterhead set
TG99MG001

* Inserts are not included

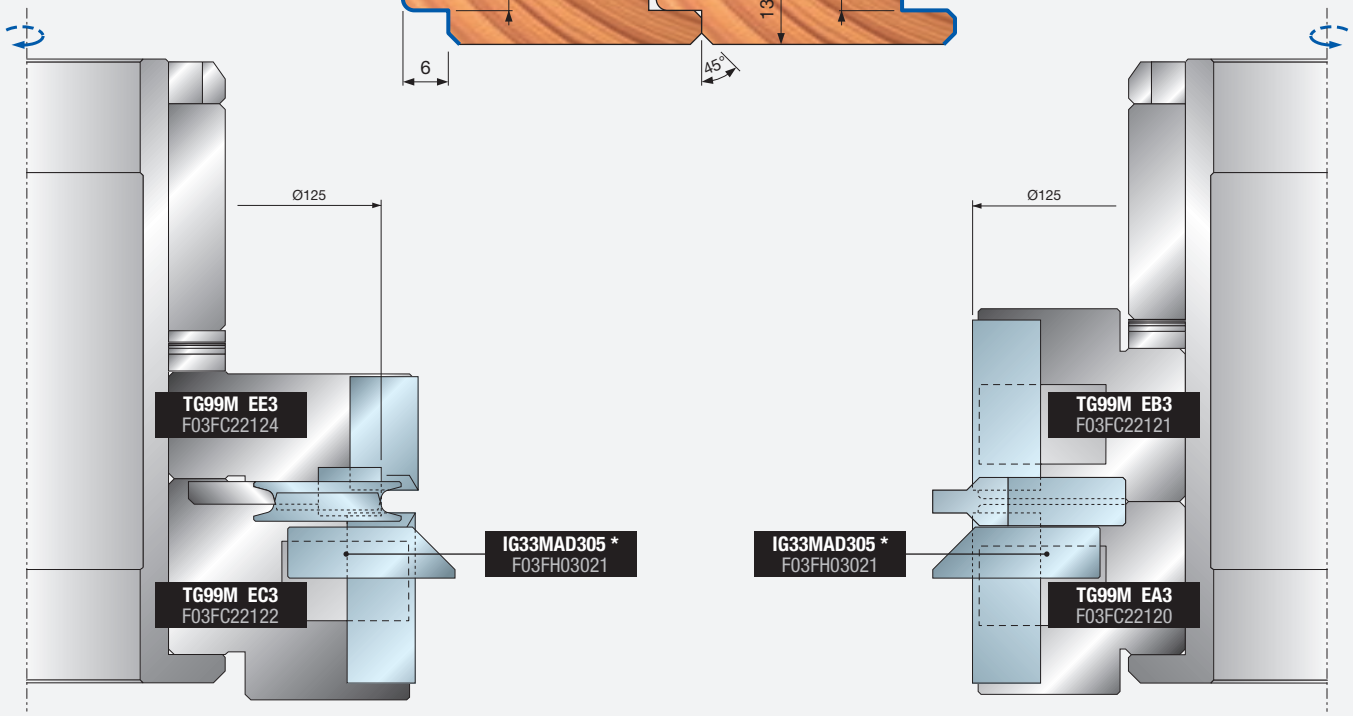
Examples of programming

PROFILE C

Cutterhead set
TG99MG009

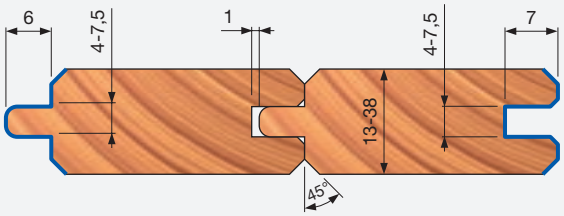


Cutterhead set
TG99MG008

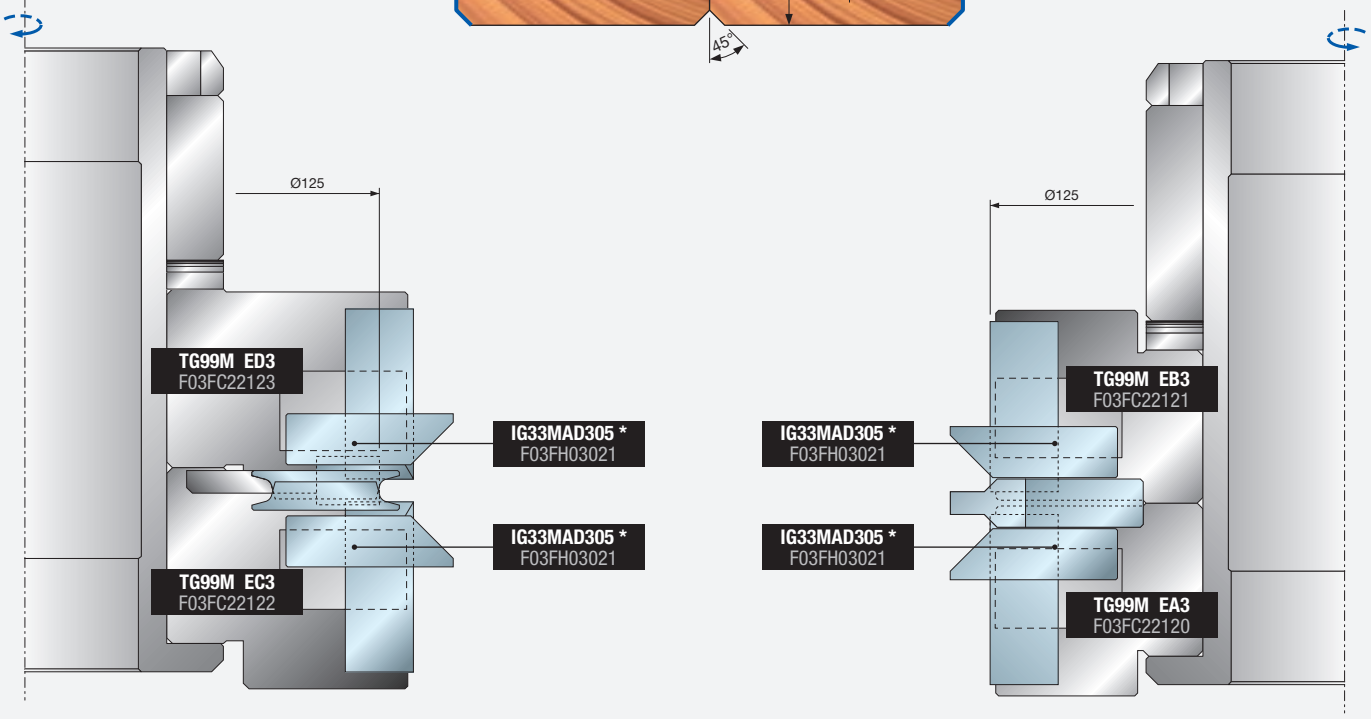


PROFILE D

Cutterhead set
TG99MG011



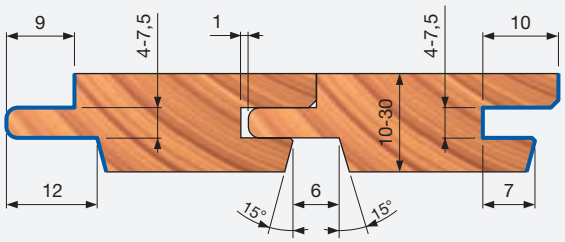
Cutterhead set
TG99MG010



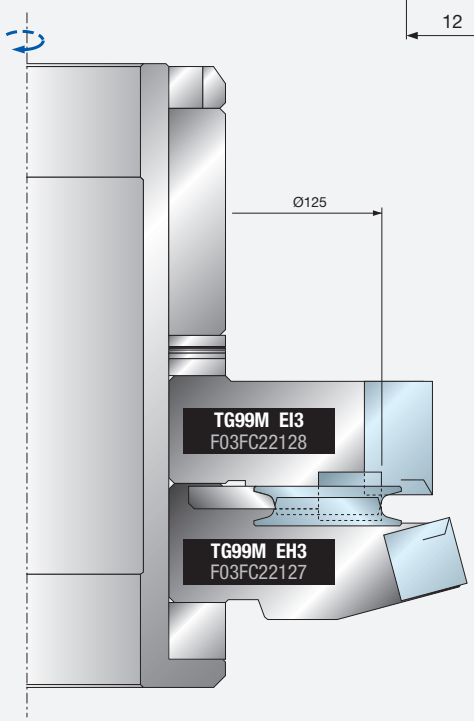
Examples of programming

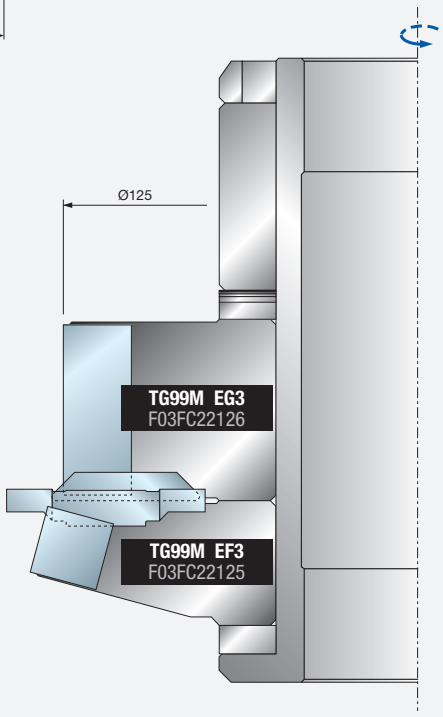
PROFILE E

Cutterhead set
TG99MG005



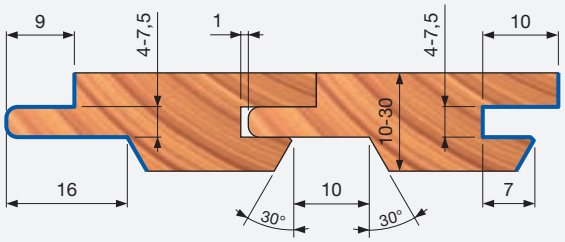
Cutterhead set
TG99MG004



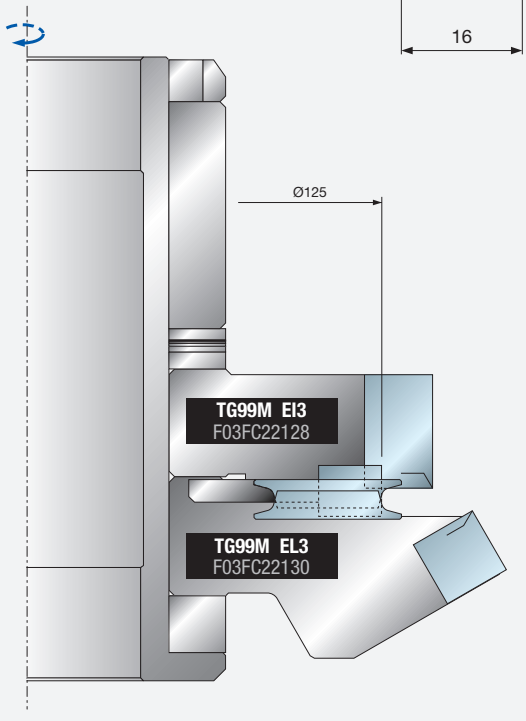


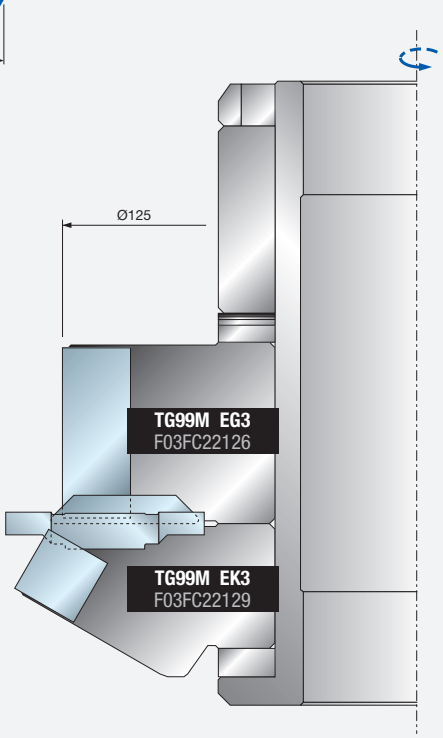
PROFILE F

Cutterhead set
TG99MG007



Cutterhead set
TG99MG006

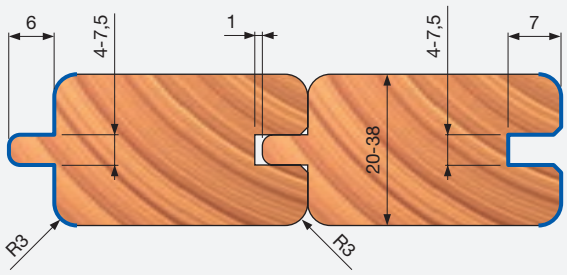




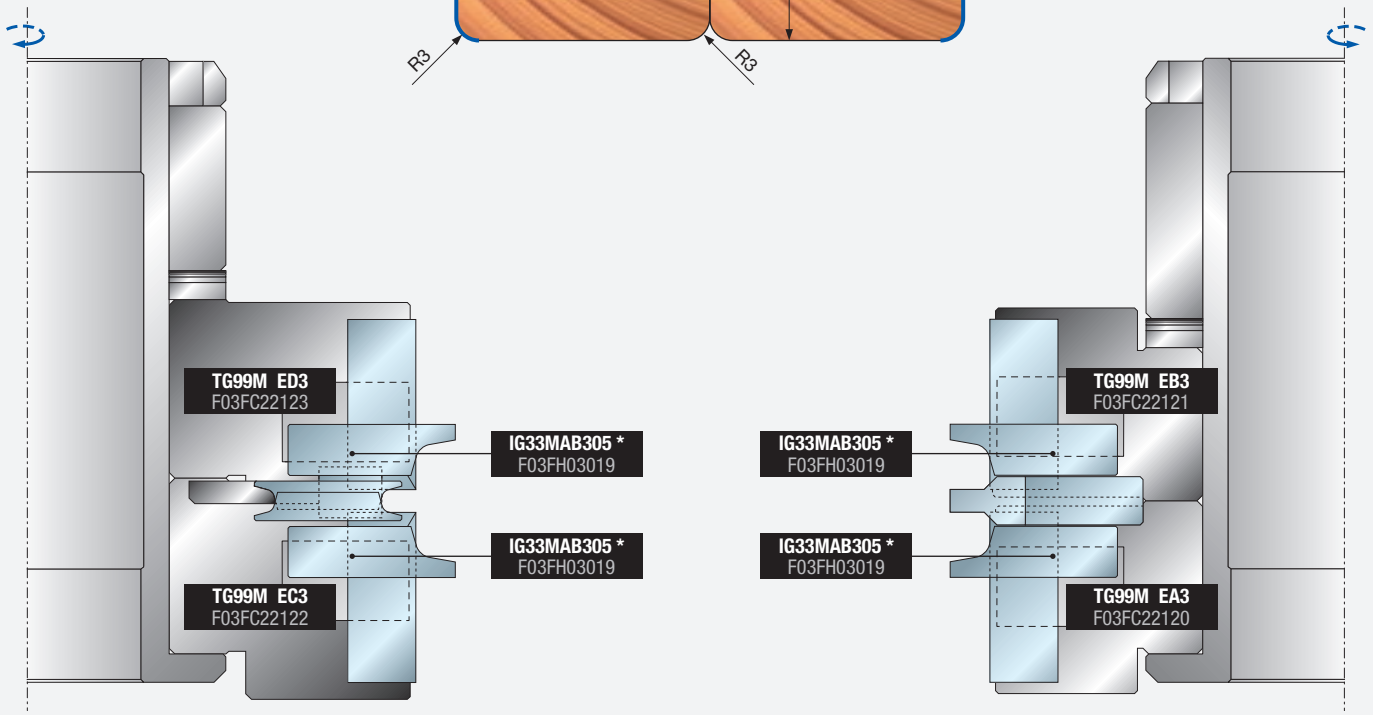
Examples of programming

PROFILE G

Cutterhead set
TG99MG013

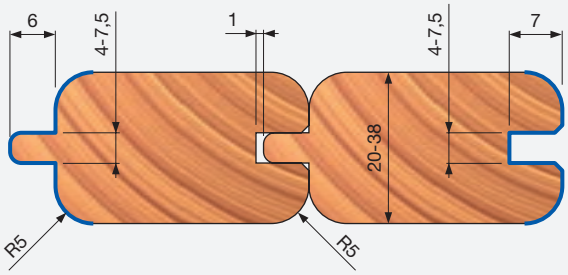


Cutterhead set
TG99MG012

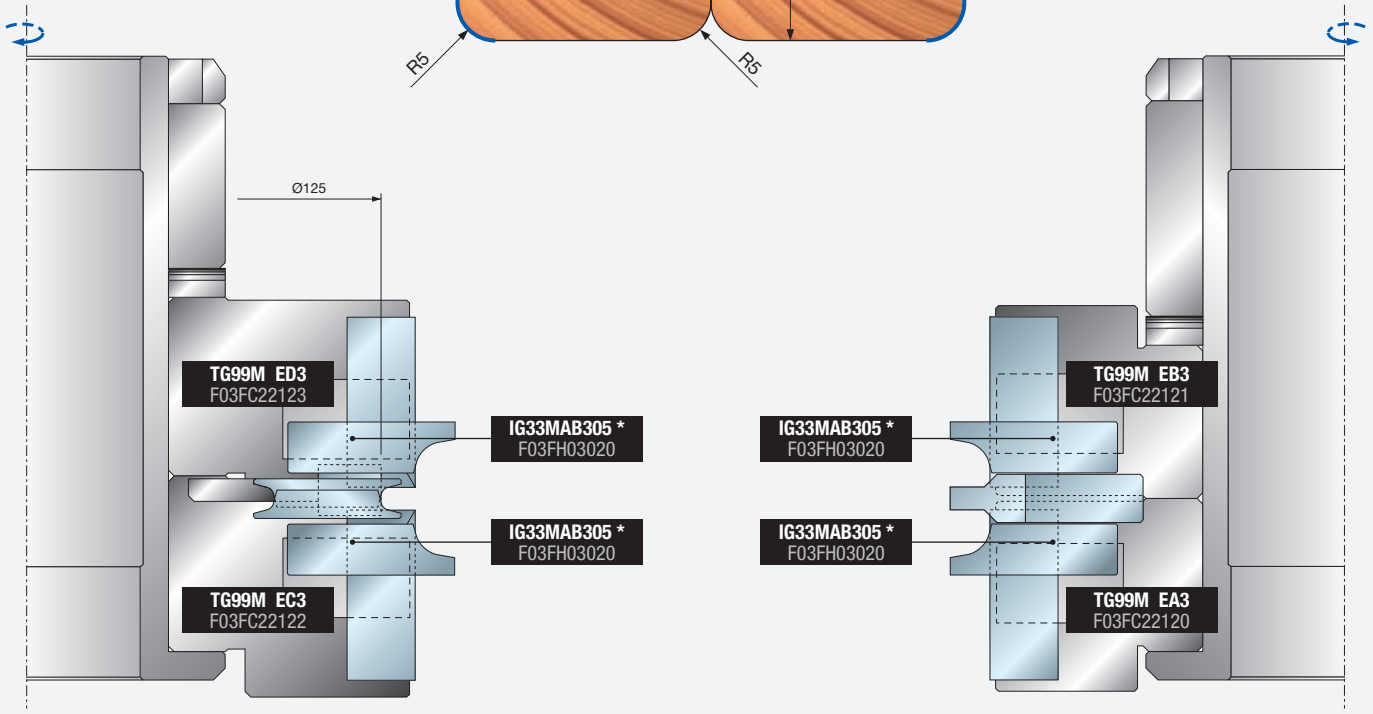


PROFILE H

Cutterhead set
TG99MG015



Cutterhead set
TG99MG014



The tools have been designed and manufactured in accordance with the European Safety Standard EN-847

TOOLS

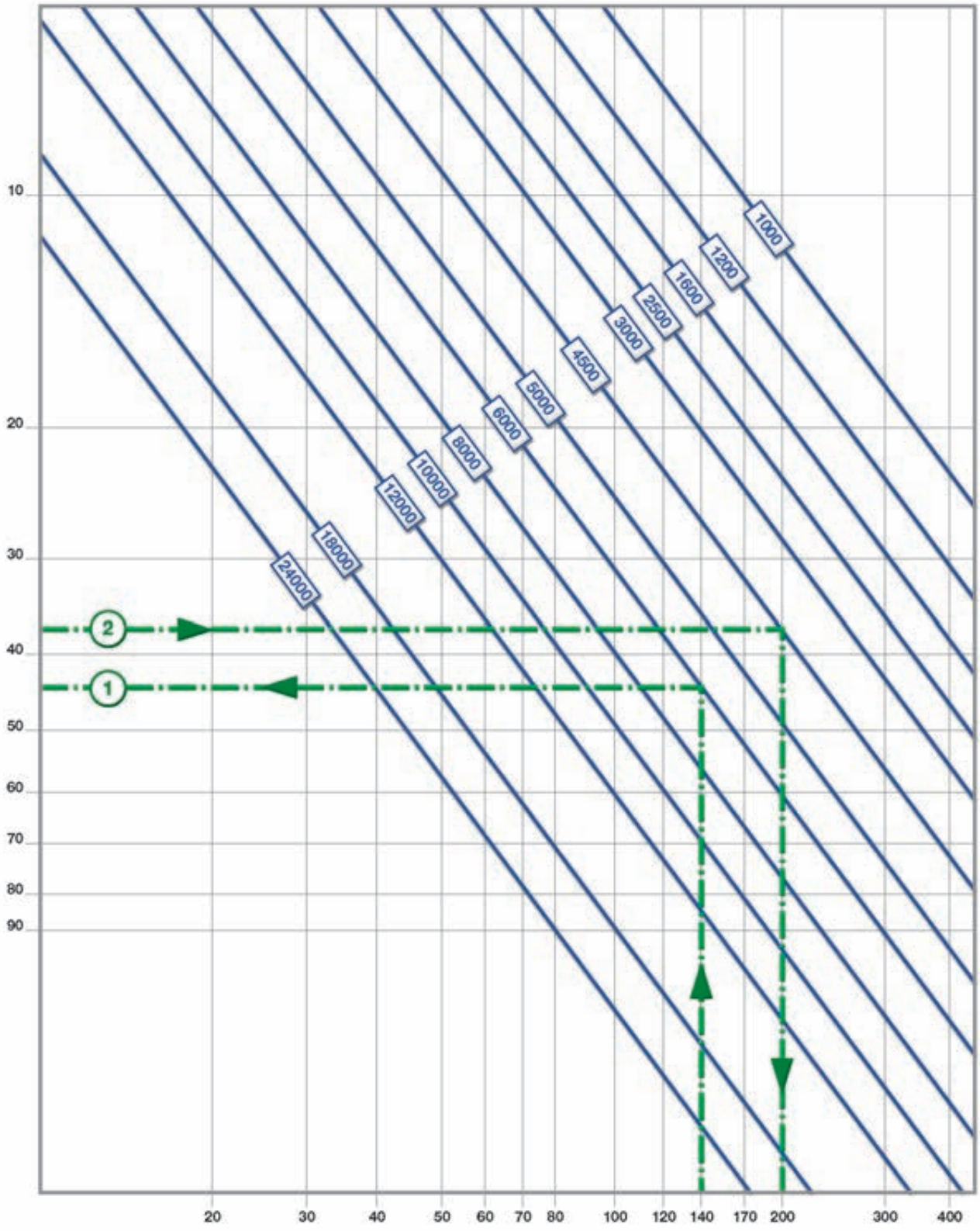
Tools shall be used only by persons of training and experience who have knowledge of how to use and handle tools.
The maximum rotational speed marked on the tool shall not be exceeded.
Circular saw blades, the bodies of which are cracked, shall be scrapped (repairing is not permitted).
One piece tool with visible cracks shall not be used.
Clamping surfaces shall be cleaned to remove dirt, grease, oil and water.

- Resin shall only be removed from light alloys with solvents that do not affect the mechanical characteristics of these materials.
  Tools and tool bodies shall be clamped in such a way that they shall not loosen during operation. Tools with cylindrical shank must be clamped in a way that the mark of the maximum free shank length shall be covered, at least partially, by the clamping device or by the locking collet.
- During assembly procedures, attention must be paid that knives, inserts and spurs do not collide with other elements.
  Fastening screws and nuts shall be tightened using the appropriate spanners etc. and to the torque value provided by the manufacturer. Extension of the spanner or tightening using hammer blows shall not be permitted.
  Clamping screws shall be tightened according to instructions provided by the manufacturer. Where instructions are not provided clamping screws shall be tightened in sequence from the centre outwards.
  Use of fixed rings, e. g. pressed or held by adhesive fixing, in flanged sleeves, shall be permitted if made to the manufacturers specifications.
- Repair and regrinding of tools shall only be allowed according to the tool manufacturer's instructions.
  After repair and regrinding of tools it shall be ensured that the tools observe balancing requirements.
  The design of composite (tipped) tools shall not be changed in the process of repair.
- Composite tools shall be repaired by a competent person, i.e. a person of training and experience, who has knowledge of the design requirements and understands the level of safety to be achieved.
  Repair shall therefore include, e.g. use of spare parts which are in accordance with the specification of the original parts provided by the manufacturer.
- Tolerances which ensure correct clamping shall be maintained.
  For one piece tools care shall be taken that regrinding of the cutting edge will not cause weakening of the hub and the connection of the cutting edge to the hub.
  To avoid injuries, tools shall be handled in accordance with the guidance provided by the manufacturer. Typically, safe handling involves the use of devices such as carrying hooks, proprietary handles, frames (e. g. for circular saw blades), boxes, trolleys etc.
  The wearing of protective gloves improves the grip on the tool and further reduces the risk of injury.
  Maintenance and modification of milling tools and related components and circular saw blades should always be in accordance with the design requirements/the manufacturer's instructions.
  Maintenance and modification of milling tools and circular saw blades should only be carried out by a competent person, i. e. a person of training and experience, who has knowledge of the design requirements and understand levels of safety to be achieved.
  When regrinding milling tools and circular saw blades, the minimum requirements of cutting blade thickness and cutting blade projection should be observed.
  Composite tools should be repaired by persons experienced in and with understanding of design and use of milling tools for processing wood and similar materials, e.g. an expert with a relevant education and knowledge of the brazing process, including in particular the influence of the brazing process on tension in tool body and cutting material. When brazing off worn tips and subsequently brazing on new tips it should be made sure that the tip is correctly mounted in the tool body and that the process does not result in critical tension in the tool body.
- After any type of maintenance, milling tools marked with MAN should continue to observe the requirements of the standards related to tools for hand feed.
  When modifying milling tools, e. g. modification of bore diameter, modification of shank, retipping of composite tools and similar, it should be ensured that the requirements of the standard relating to balancing are still observed.
  After being modified and/or retipped, milling tools and circular saw blades should be marked according to the rules applying to new tools. However, the name/logo of the company making the modification/ retipping should be added.
  To avoid injuries, tools shall be handled in accordance with the guidance provided by the manufacturer. Tools which weigh more than 15 kg may require the use of special handling devices or attachments, these will depend on the features that the manufacturer has designed into the tool to allow easy handling. The manufacturer can advise on the availability of necessary devices.

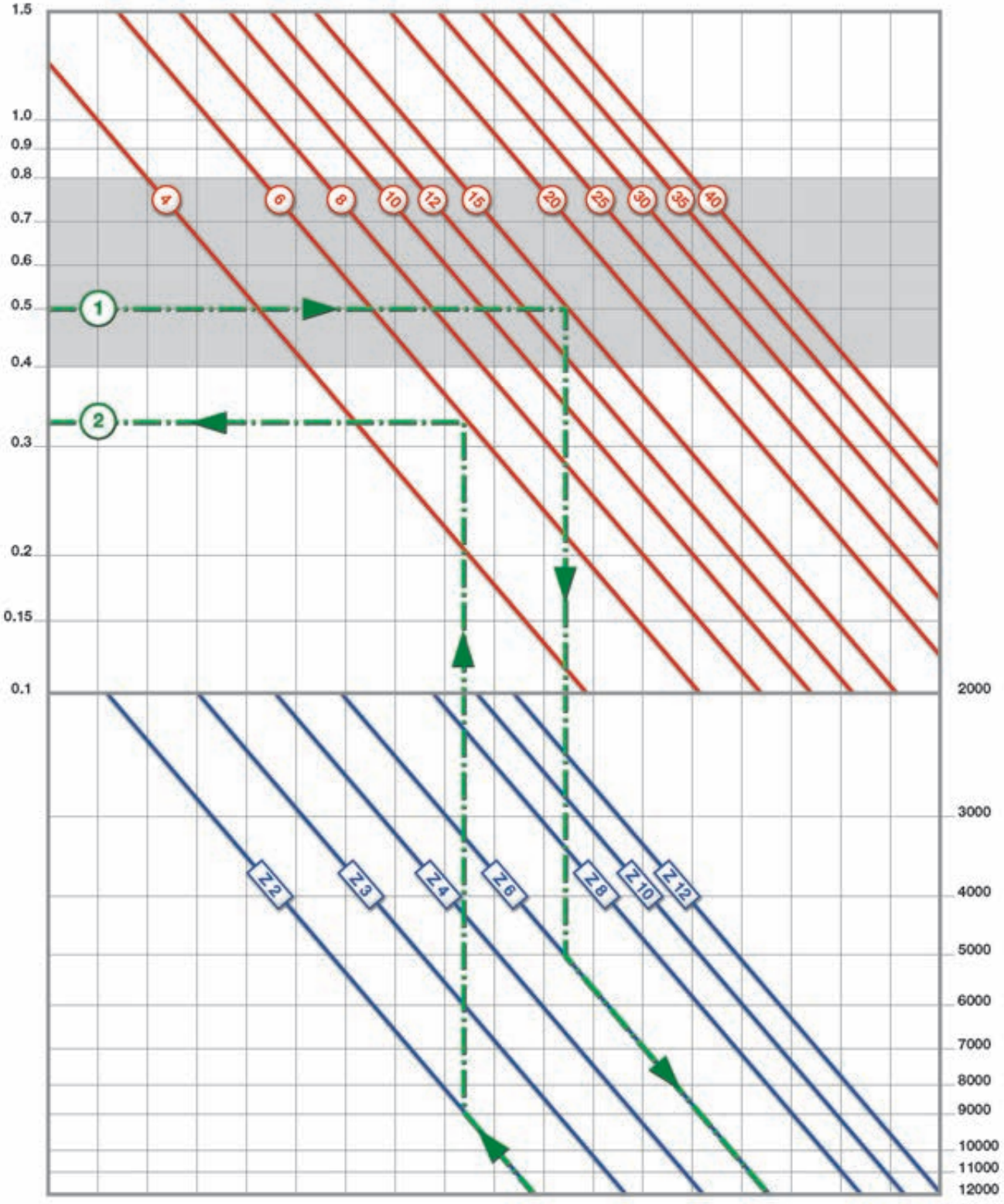
CLAMPING DEVICES

The speeds indicated on the clamping device and the tool to be clamped should be compared. For adjusting the speed on the machine the lower speed should be applied.
Screws and nuts should be tightened using the appropriate spanners.
Clamping surfaces should be cleaned to remove dirt, grease, oil and water.
Clamping devices and tools should be mounted or clamped according to given torques, pressures and wrenches to be used.
Extension of spanners or tightening or loosening by means of hammer blows should not be permitted.
Maximum tool diameters and tool lengths should not be exceeded.
Shank diameters must be in accordance with the clamping range of the clamping devices.
The minimum required clamping length must be kept.
Care should be taken that the data relevant to the safety of the clamped tool are always stored in the data medium.
Repairs should only be carried out by a competent person, i.e. a person with professional training and experience, who has knowledge of the design, construction and safety requirements.
Repair should therefore include the use of spare parts which are in compliance with the specifications of the original parts.

Technical diagram to obtain tip speed, diameter and RPM of a cutting tool



Technical diagram to obtain number of teeth, feed rate, RPM and grade of finish of a cutting tool

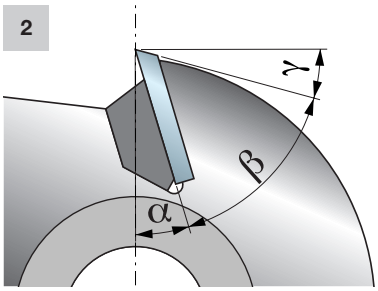


TECHNOLOGICAL FEATURES

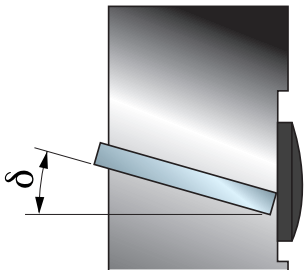
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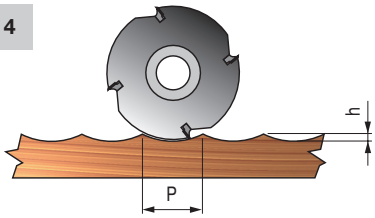
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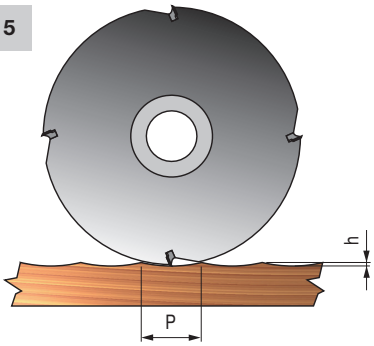
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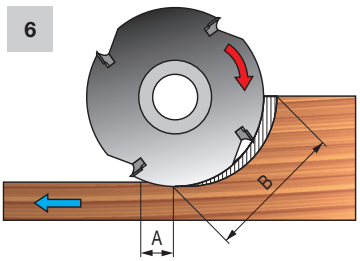
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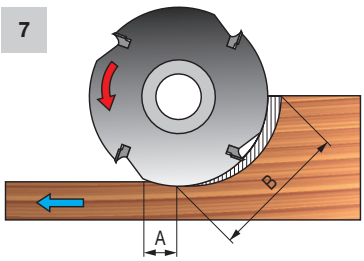
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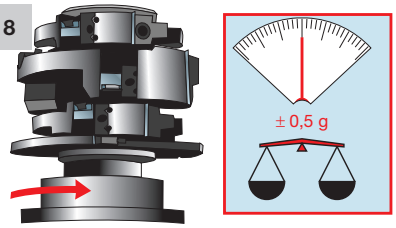
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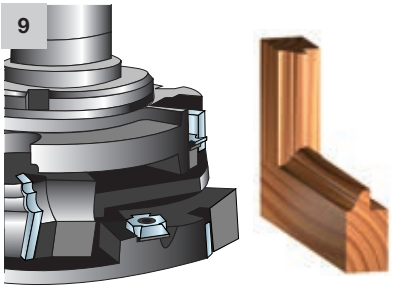
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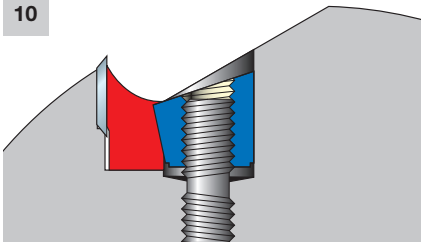
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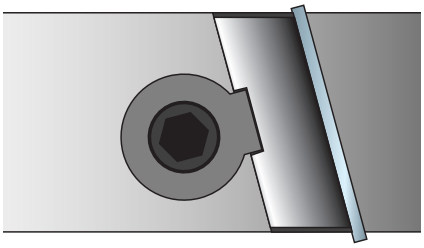
TECHNICAL FEATURES OF TRADITIONAL CUTTERHEADS

- Freud's exclusive HW used to construct each cutter, is produced according to the kind of work which the tool will undergo, in order to obtain the best duration and quality finish possible. Special instruments guarantee precision and therefore perfect replacement of the knives we produce without the need to modify the cutterhead even after prolonged use (Fig. 1 shows hard metal under the microscope).
- The most characteristic angles of a cutterhead are (Fig. 2 and 3):
  - Hook angle (α): depends on the type of material to be cut.
  - Wedge angle (β): this angle is a direct consequence of angles and y.
  - Clearance angle (γ): depends on the material to be cut and the thickness of the cutting edge.
  - Shear angle (δ): necessary to obtain a better penetration into the material to be cut and a gradual removal of the chips. When the tools have different diameters, this angle allows the hook angle to remain constant.
  The work piece finish is given by the surface roughness and depends on many factors: the feed rate, the tool's RPM, if the toot cuts against or with the feed and the tool's general geometry such as the hook, wedge and shear angles.
- The tool's diameter also influences the work piece finish (Fig. 4 and 5). If the feed rate and the tool's RPM are the same, the pitch (P) will also be the same, therefore the depth and the surface roughness (h) is reduced as the diameter of the tool increases.
- The tool cuts "with the feed" when the rotation and feed direction are the same (Fig. 6), the toot cuts "against the feed' when the rotation and feed direction are opposite (Fig. 7).
- During the removal of the chips, two areas can be distinguished: A and B (Fig. 6 and 7): area A is where the material is compressed if the rotation is "against the feed"; area B is where the tool penetrates the material and removes the chips.
- Every tool is designed by our research and development department based on the clients specific needs and the same technology is applied to manufacturing machines that, combined with highly specialised workers, allow precision levels never reached before in the woodworking field.
- Every tool is balanced to remove vibrations caused by bizarre distribution of the tool's mass, harmful during the woodworking process. Three balancing operations are done: first on the single tool, second on the set and finally, the third, on the entire group of tools that will be fitted on the same spindle (Fig. 8).
- The final tuning operation is done in the testing room and consists of simulating actual working conditions: each set is used to cut a wood sample of the requested profile. All of these testing phases allow Freud to supply the client with a product that is ready for use and immediately operational, allowing added savings for the client (Fig.9).

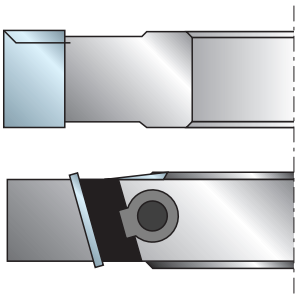
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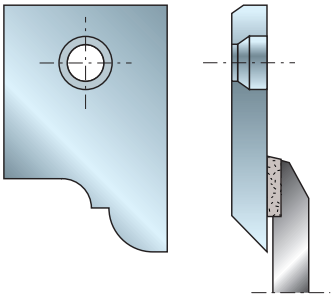
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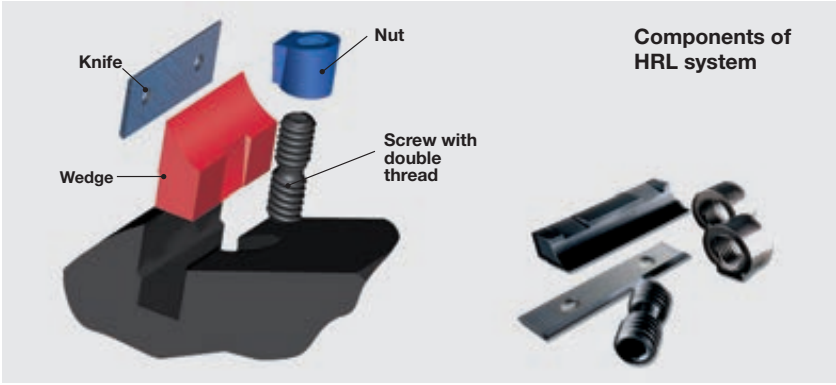
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TECHNOLOGICAL FEATURES

ADVANTAGES OF TRADITIONAL CUTTERHEADS

- A cutterhead is a rotating tool consisting of various cutting edges, geometrically fitted on its circumference. The cutting edges are 1,5 mm thick disposable knives, mechanically locked to the tool's body (Fig. 12). With respect to brazed cutters, cutterheads with disposable knives have numerous advantages, in fact, to change a used or damaged knife it is not necessary to dismount the cutterhead from the machine, but simply loosen the screw that holds it in its seat. On the other hand a brazed cutter must be changed altogether and a substitute available so as to avoid time wastage.
- The HRL Locking System takes advantage of the centrifugal forces generated by the tool rotation in order to block itself. This characteristic, along with other single elements avoid the risk of accidental breakage or expulsion of the knives.
  The HRL Locking System is also synonymous of strength; the use of only specially treated components and the precision of this method guarantees a practically unlimited number of locking and unlocking operations without compromising the efficiency. (Fig. 10 and 11).



- Performance System knives are constructed in hard metal, which Freud produces in 6 grades of hardness, second to the material to be worked: softwoods and hardwoods, heavy, abrasive, chipboard, melamine, laminated, MDF etc. It is possible to use HW with a high grade of hardness, so as to permit a superior hold of 30% more with respect to the HW used for brazed cutting edges destined to work very abrasive materials.
- Other than being a solution that practically substitutes brazed cutters, thanks to the interchangeability of the profiles on the same tool and the duration of the tool itself, there is a notable advantage and convenience when working on overhead CNC router machines, where machine downtimes can result costly: in fact the changing of a used or damaged knife does not require the dismounting of the cutterhead from the machine, since it is sufficient to loosen the screw that holds it in place. Instead a brazed cutter must be completely changed and a substitute available to avoid time wastage.
- Freud has an entire range of tools with performance, standard or personalised knives for manual or overhead CNC router machines (Fig. 14).
- The Performance System results advantageous, even when confronted to traditional cutterheads, thanks to the easiness of sharpening, low operational cost and the need of no particular machinery (the use of a flat grinding wheel or surface grinding machine is sufficient - see Fig. 15) or specialised personnel.
- Even after sharpening, performance knives maintain their original profile (Fig.16) and the tool's cutting diameter, considering maximum loses of 0,15~0,20 mm.
- Suggestions for correct sharpening on surface grinding machine or flat grinding machine:
  1) Fix support TA01M or TAO2M (Fig. 16) onto the surface grinding machine or flat grinding machine.
  2) Fix the knives with the screws that are supplied.
  3) Procede with the sharpening of the entire set of knives.
  Use of abundant cooling liquid during sharpening is recommended. Use diamond grinding wheels (Fig. 17) with the following characteristics: D6A2-C100-054.
- On request, sharpening can be carried out at our premises by simply sending us the complete set of knives and indicating on the order the code OPTAFF AA9.

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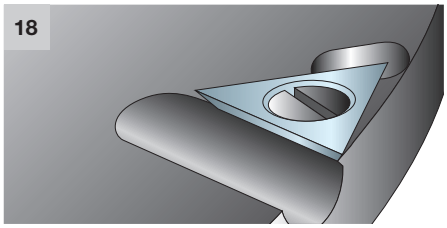


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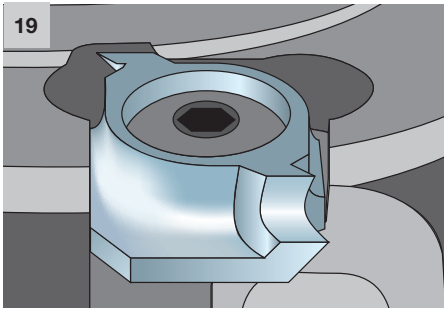


TECHNOLOGICAL FEATURES

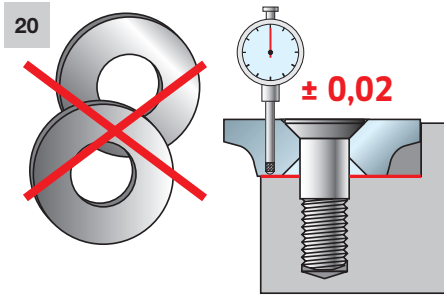
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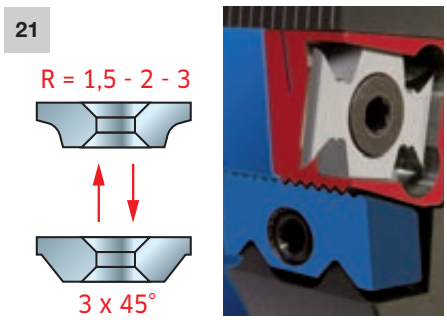
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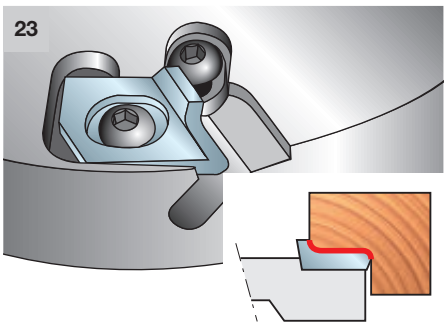
INSERTS AND SPURS

- The triangular spur (Fig. 18) is a component produced in HW to give the cutting edge a long life, used on cutterheads and on Performance tools to give a better finish on rebates. The width of the cutting surface (22 mm) and the position of the spur (positive hook angle) guarantees a perfect finish without leaving a trace (the length of the rebate is less than the length of the spur).
  Another important characteristic is the size of the chip discharge area in front of the spur: this allows excellent chip discharge and therefore the spur is more efficient (Fig. 19).
- The rounding and beveling inserts are used to remove sharp angles from the work piece. These inserts give a better quality finish allowing various wood coatings to deposit more uniformly.
  Inserts with a shear angle allow a better finish when the wood is cut across the grain. Inserts and their seats are manufactured with extreme precision and this allows them to be replaced without the need of spacing rings (Fig. 20).
- The new NSR Adjustable Insert System is the only one that allows adjustments without the need of measuring instruments. This particular system allows the inserts to be adjusted with precision of a hundredth of a millimetre on the entire length of the tool. The indelible reference marks are etched with extreme precision by lasers and allow a rapid and simple repositioning of the insert (Fig. 21). Fig. 22 shows the components. The inserts have a positive hook angle and a shear angle that allows an excellent finish on any type of material. The same seat can be fitted with rounding inserts or beveling inserts.
- The rounding spur combines the characteristics of a rounding insert and a spur. With a single operation, the rebate is internally and externally rounded and finished. These solid carbide inserts are manufactured with various rebate depths to satisfy clients needs. Extremely good finish is guaranteed by the inserts shear - hook angle combination.
  In the same seats, different inserts can be fitted so that the same tool can cut rebates of different depths (Fig. 23).
- A cutter is a rotating tool consisting of various cutting edges, geometrically fitted on its circumference (Fig. 24). The cutting edges are HW or HSS inserts, fixed to the tool's body in a definitive way (brazed).
- Brazed cutterhead angles (Fig. 25) are similar to those described on the technical pages relative to the cutterheads and have much the same function (see page 97).
- The teeth in hard metal are brazed on to the cutters body with a special tn-metal alloy of copper-silver-copper, insuring a resistent soldering, permitting the teeth to absorb eventual blows due to kick-back and guaranteeing a longer duration of both the teeth and the cutter itself (Fig. 26-27).
- With regards to rotation and feed rate, for working in concordance or discordance, see page 98.
- Other than standard products, Freud offers personalised tools based on the client's needs.

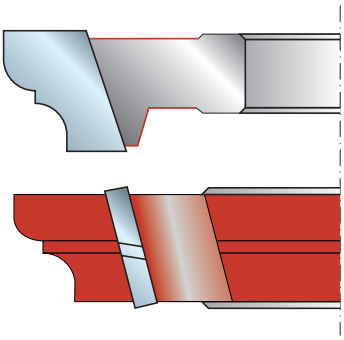
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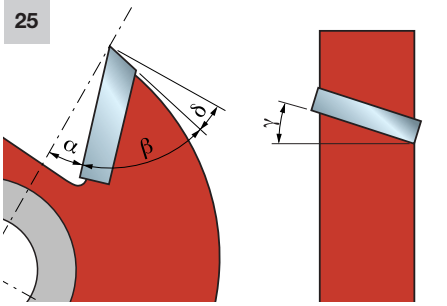
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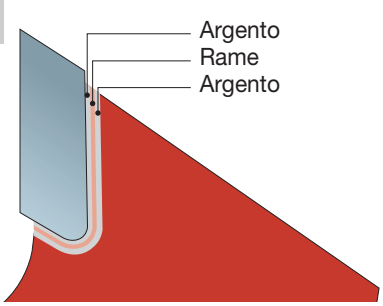
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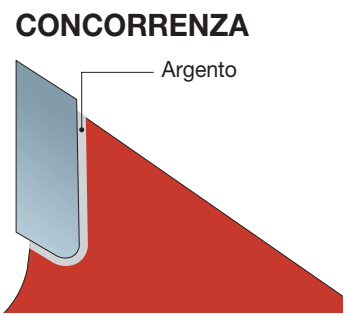
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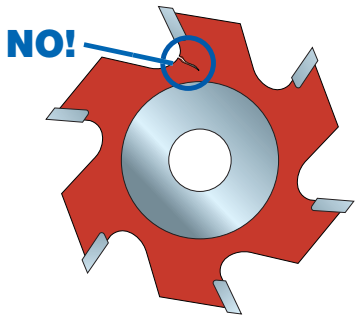
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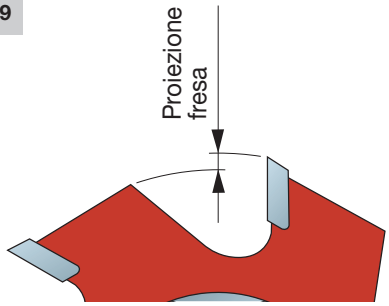
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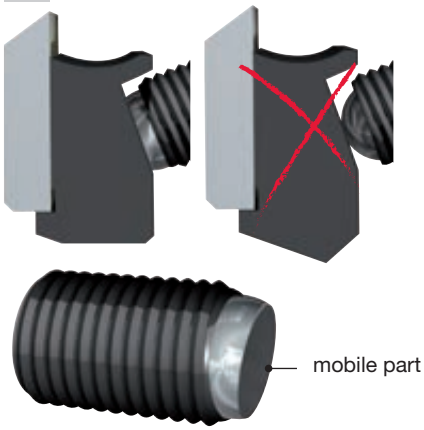


TECHNOLOGICAL FEATURES

For the use of brazed cutters, return to the norms already described in the section relative to cutterheads (page 97). Furthermore:

- Tools with visible cracks cannot be used (Fig. 28).
- The maintenance, repairing and modification of brazed cutters must be carried out in accordance with the manufacturers specific instructions. Furthermore they must always be carried out by competent and qualified personnel with the right understanding of the kind of safety levels to be reached.
- When sharpening brazed cutters, always respect the minimum projection foreseen for the cutting edges (Fig. 29).
- For the removal of used parts or the soldering of new cutting edges, insure that these are correctly mounted so as to avoid creating critical tension points on the tool's body.
- Modifying a brazed cutter, e.g. the diameter of the bore, or applying cutting edges, insure that the requirements applied by the norm relative to dynamic balancing are still respected.

1



Screws with spherical insert, for ISOprofil System

MAINTENANCE OF TOOLS

- On ISOprofil clamping system, proper locking is obtained when the flat surface of the spherical insert completely adheres to the wedge (Fig. 1).
- When mounting tools, insure that locking reacts against the body and the cutting edges are not in contact with each other (Fig. 2) or with any other locking elements (Fig. 3).
- Tools compiling a set, must be repaired by experienced and fully trained personnel, with the knowledge of the design requirements and security levels to be reached
- After any type of maintenance work, a tool marked "MAN" must continue to respect the requirements imposed by the norm relative to tools with manual feed. The use of tools for manual feed without deflectors if originally provided is not allowed.
- Wearing gloves increases grip and reduces the risk of injury. Tools for manual feed without deflectors if originally provided is not allowed.
- To avoid injury, tools must be handled with care using special appliances so as to transport them without exposing the user to injuries.

INSTRUCTIONS FOR CLEANING

Clamping surfaces must be free of dirt, grease, oil and water (Fig. 4). Resins must be removed from tools with light alloy bodies using cleaners that do not damage the aluminium and compromise the materials mechanical features. Accurately clean the tool after every knife change.

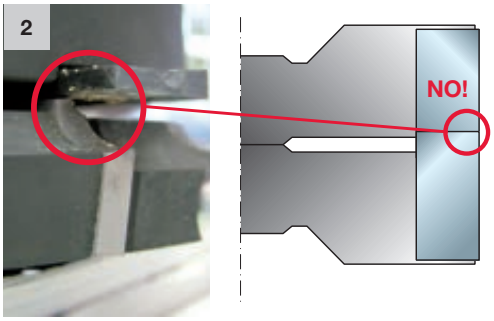
Washing: Tools must be washed with water and an appropriate cleaning product (contact local dealer if more info needed) that doesn't affect the body materials (manganese phosphated steel or aluminium alloy) burnished steel components (screws, washers) and carbide inserts (titanium, cobalt carbide). Use of ultrasonic machines decrease washing time and improves cleaning in the inner parts of the tools.

Drying: After the washing operations, tools must be dried by means of drainage and/or compressed air.

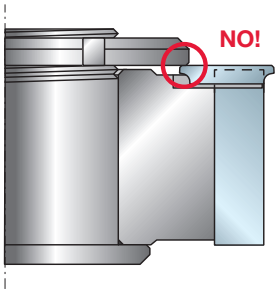
Oiling: If the tools are ready to be immediately used or stored for future use, always oil all the parts with a layer of an anti-rust protective fluid.

Before storing the tools always clean them from dirt and resin by washing, drying and oiling operations. Store the tools in a dry place.

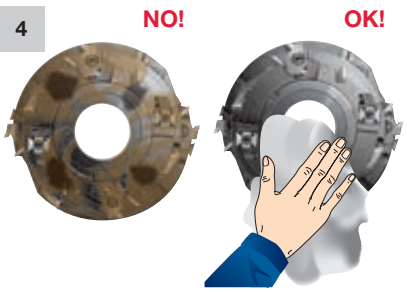
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Window Tooling

Freud produces a comprehensive range of standard and custom window systems, engineered and designed with advanced technologies and cutting-edge solutions. This increases the window & door efficiency levels and guarantees compliance to the latest energy regulations for buildings.
The superior quality solutions include a number of innovative projects and designs to produce windows & doors CE certified, via Freud Cascading Service.



WINDOW TOOLING

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Cascading Service ..... Pag. 450

PROFILING
Throughfeed machines tool sets

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ST12MG 840-841-842 Cutterhead sets for doors rebates ..... Pag. 458
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CNC tool sets

ST16MGC13 700-701 Profiling CNC sets for internal doors without bead recovery ..... Pag. 465
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Router bits for bead recovery

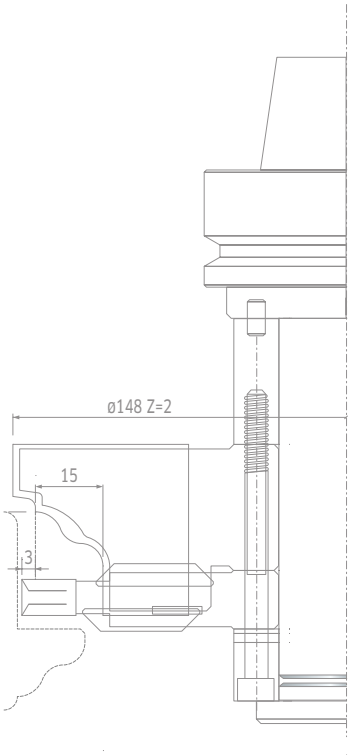
PR01MD Bead profiling router bits ..... Pag. 473
PCARM Bead recovering router bits ..... Pag. 474

BORING
Drill bits for hinges

PA01MD HS Stepped drill for hinges ..... Pag. 476

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HRL - High Resistance Locking System ..... Pag. 478
NSR Regulation System ..... Pag. 479
Profiled and resharpenable Performance System knives ..... Pag. 479
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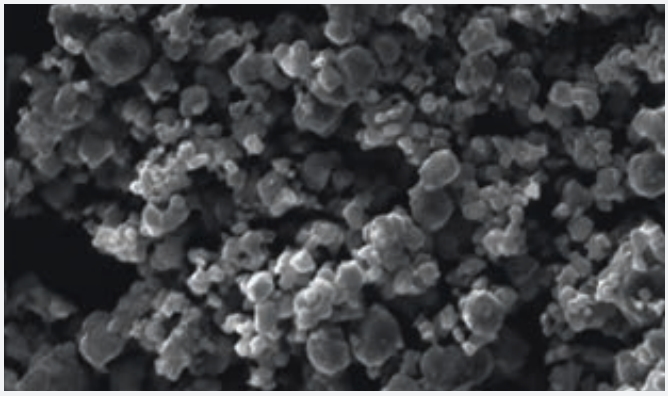


LEADING TECHNOLOGY

TiCo CARBIDE TECHNOLOGY

Freud ownership and control of the entire Carbide manufacturing cycle ensures that the correct formula is used for every application, to constantly maximise the knives performance.

TiCo Carbide
A specially formulated, highly compact Titanium Cobalt Carbide, engineered and manufactured by freud.
It provides a sharper edge and flawless finish with a dramatically longer cutting life.

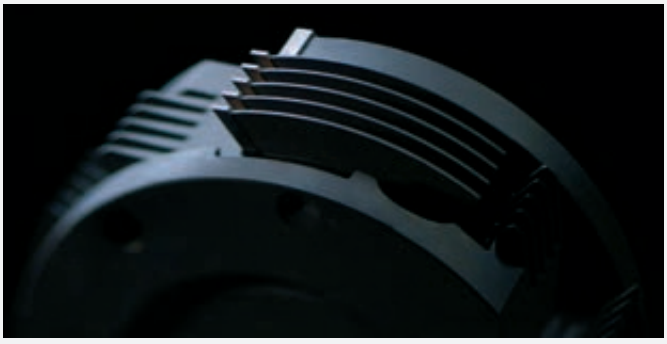


DESIGN INNOVATION

The design of Freud's special knives is engineered to perform perfect cuts and deliver extraordinary durability. The ISOprofil cutterheads are developed to work with 17 different knives.

Split Edge knives
Freud Split Edge knives reduce cutting pressure and prevent edge chip out.
These knives, resharpenable up to 6 times, both enhance the productivity and increase profitability, always delivering a flawless door and window joint profiling.

Performance System knives
Freud Performance System knives are designed with extra thickness - 3 mm - for up to 6 x resharping cycles and a prolonged durability.
These knives are available in a wide range of sizes.





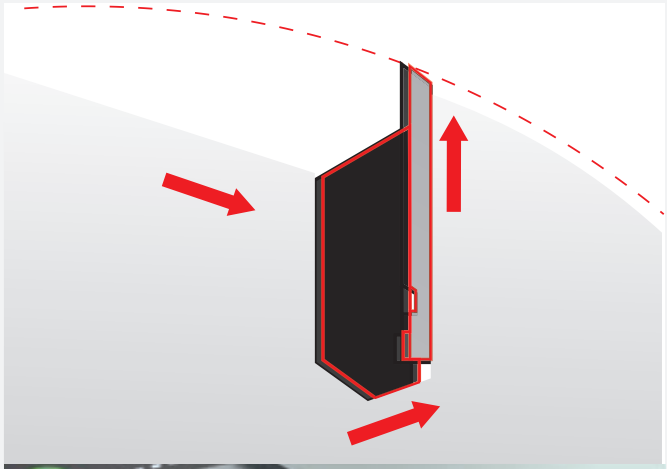


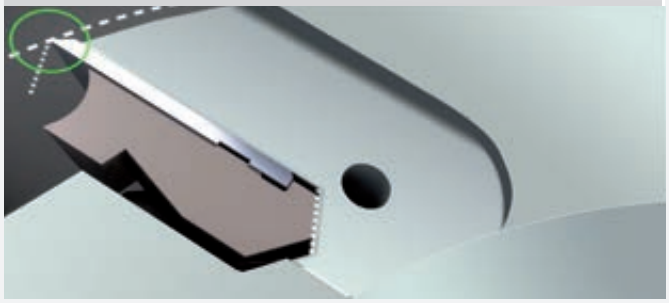
PIONEERING SOLUTIONS

Freud's continuous investment in R&D and its superior knowledge of the industry provide cutting-edge and patented solutions, for maximum production efficiency and increased safety.

ISOprofil technologies
Freud's **ISOprofil** is the only patented system in the world, with an automatic cutting profile recovery, at a rotating speed of 70 m/s.

The **High Speed ISOprofil (H.S.I.)** leverages this innovative technology at higher speed - 100 m/s - offering a solution for automated CNC machines as well as automated and throughfeed machines.





The ISOprofil solutions feature an exclusive and extra safe locking system that allows the use of resharpenable knives, also at high rotating speed and feed-rates, delivering higher production in a shorter time.

The easy access to knives and their fast re-positioning after sharpening reduce the set-up & maintenance time and, consequently, the machine downtime.

Hybrid technologies
Freud leverages the Hybrid technology, a combination of property and tested locking systems that processes, in one step only, the two-step phases of pre-cutting and finishing.
This results in an impeccable finishing and in an increased productivity.

Cascading Service





CE CERTIFICATION FREUD CASCADING

Freud is a “System House“ certified by the prestigious IFT Rosenheim Institute.
The offer to customers is more than a selection of premium cutting tools and it is enriched by a comprehensive Cascading Service.
Freud has developed a wide range of innovative projects and design solutions to produce windows & doors CE certified, leveraging a solid technical know-how, mastered over decades of experience in the window tooling industry.

The systems are tested and released using the designs and the window components (gaskets, hardware, Aluminium profiles etc.) of the main Italian and European System Houses.

Therefore, customers have access to a 100% turnkey solution, inclusive of all components and work cycles and completed by the competent assistance of Freud Customer Service, available also to fulfill specific needs.

In addition, Freud offers a broad ST12MG range for standard CNC tools to create tilt & turn, lift & slide, pivot windows as well as internal & external doors.

Freud Cascading Service includes:
- Documentation management via Freud’s Quasar software.
- Training, technical support and post sales assistance.
- Factory Production Control (FPC) to manufacture products compliant to the stated performance parameters.
- Freud’s Customer Service assistance.

Wood Window

System	Frame thickness mm	Sash Thickness mm	Hardware axis mm
Ermetic	56-58-64	56-58-64	9
Ermetic 17	58-64-68	58-64-68	9
Eurost	56-58-64-68	56-58-64-68	9
Eurost 17	58-64-68	58-64-68	9
Freumex	56-58-64-68	56-58-64-68	9
Freumex 17	58-64-68	58-64-68	9
Euronorm	68-70	68-70	9
Freumex C13	68-78-80	68-78-80-92	13
Euronorm C13	68 - 78 - 80	68 - 78 - 80	13
Freumex HP	80-92	80-92	13
Euronorm HP	80-92	80-92	13
Ghost	68-80	68-80	13
Luce	80	68	13
Fox 92	92	92	13
Excellence	68-78-88-98	68-78-88-98	13

Wood/Aluminium Window

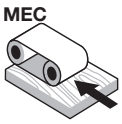
System	Frame thickness mm	Sash Thickness mm	Hardware axis mm
Ermetic	56-56	56-64	9
Ermetic 17	58-58	58-68	9
Eurost	58-61	58-68	9
Eurost 17	58-63	58-68	9
Freumex	56-61	56-68	9
Freumex 17	58-63	58-68	9
Euronorm	63	68	9
Freumex C13	65	68	13
Euronorm C13	68	68	13
Freumex HP	77	80	13
Euronorm HP	77-79	80	13
Ghost	68-80	68-80	13
Luce Freumex	74	68	13
Luce Euronorm	73	68	13
Easy slim	58	68	13
Excellence	68-72-82-92	68-78-88-98	13

Profiling

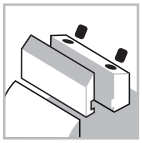




ST12MG — Profiling cutterhead sets for internal and external doors



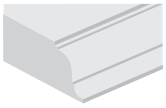
Automatic Feed


Clamping System


Steel Body


Softwood


Hardwood


Profiling

ISOprofil TECHNOLOGY

Performance System TECHNOLOGY

Machines:
Automatic feed and window tooling machines.

Materials:
Softwood and hardwood.

Applications:
Profiling.

Technical information:
Tool set for internal door profile with a 140 mm zero diameter.
- Performance cutterheads are designed to work with 17 different knives.
- Adjustable timber thickness from 44 to 70 mm. tool set is provided on sleeve to fit every machine spindle dimension.
- Steel body.
- Sleeve and Performance knives to be ordered separately.

Groove bead cutters

Dimensions mm	Sleeve code	Art. No.
Ø70 x 90 x 30	**BF10MD EA9**	F03FC24536
Ø70 x 90 x 32	**BF10MD EL9**	F03FC24537
Ø70 x 90 x 35	**BF10MD EB9**	F03FC00633
Ø70 x 90 x 40	**BF10MD EC9**	F03FC00634
Ø70 x 90 x 50	**BF10MD ED9**	F03FC00635

Wood thickness mm	Double-glazing thickness adj. mm
44	5 ÷ 8
56	13 ÷ 20
58	15 ÷ 22
64	21 ÷ 28
68	25 ÷ 32
70	27 ÷ 34

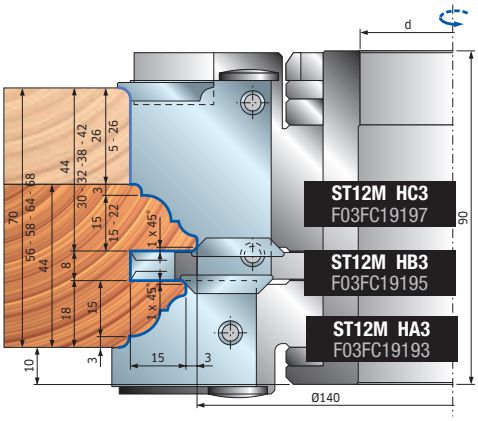
Tool set zero diameter: 140 mm

D mm	B mm	d mm	Z	V	Max RPM 1/min.	Freud Code	Art. No.
186	-	-	2	-	7.300	**ST12MG 800**	F03FC19647
186	-	-	2	-	7.300	**ST12MG 801**	F03FC19648

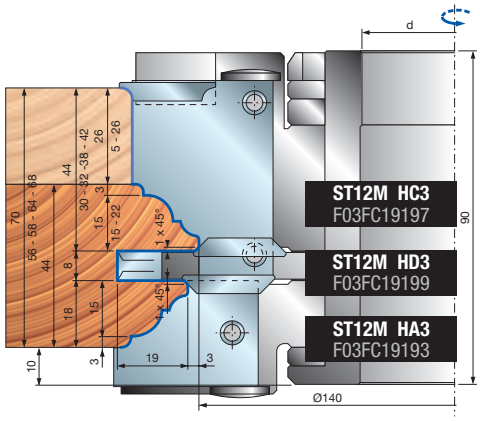
Tools for ST12MG-800 and ST12MG-801 sets

D mm	B mm	d mm	Z	V	Max RPM 1/min.	Freud Code	Art. No.
186	29	70	2	-		**ST12M HA3**	F03FC19193
176	8	70	2	4		**ST12M HB3**	F03FC19195
176	58,5	70	2	-		**ST12M HC3**	F03FC19197
184	8	70	2	4		**ST12M HD3**	F03FC19199

	Spare parts	Dimensions mm	Freud Code	Art. No.
HA3	Screw	M10 x 18	**VT03M CC9**	F03FA04438
	Screw	M5 x 7 x 16	**VT08M AE9**	F03FA04457
HC3	Screw	M10 x 18	**VT03M CC9**	F03FA04438
	Screw	M5 x 7 x 16	**VT08M AE9**	F03FA04457
	Rounding insert	22 x 16 x 5 R=3	**IG52MAE305**	F03FH03025
	Screw	M6 x 13	**VT16M AE9**	F03FC20658
	Wedge	28 x 9,5 x 8	**CN03M BB9**	F03FA00585
	Screw	M8 x 22	**VT19M BB9**	F03FA04493
HB3 - HD3	Knife	7,6 x 12 x 1,5	**CG06MHA310**	F03FH02897
	Wedge	15 x 7,2 x 8	**CN09M DA9**	F03FC01295
	Screw	M5 x 19	**VT11M AA9**	F03FA04468
	Spur	22,86 x 2,5	**RG02MAA305**	F03FH03041
	Screw	M5 x 6	**VT05M AC9**	F03FA04446
	Beveling insert	22 x 16 x 5	**IG51MBA305**	F03FH03022
	Screw	M6 x 11,5	**VT16M AB9**	F03FA04477



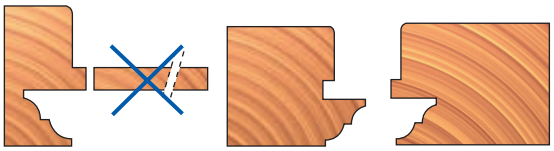
Set ST12MG-800
No. 7+7 interchangeable profiles.



Set ST12MG-801
No. 7+7 interchangeable profiles. With anti-torsion pin for assembly of elements with counter profile.

ST12MG

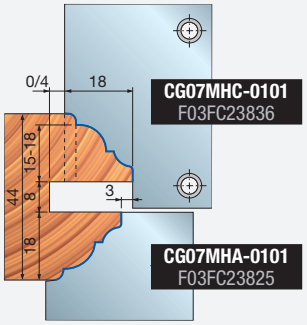
Profiling cutterhead sets for internal and external doors



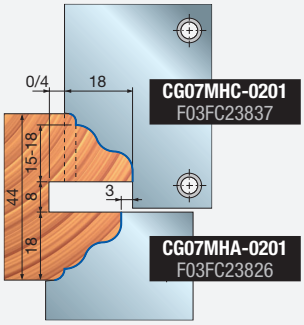
Jamb and transom with ST12MG-801 set: by cutting the tenon as shown, the counter profile with anti-torsion pin is obtained.

Profiles with 3 mm external rounding for cutterheads: ST12M HC3 - ST12M HA3

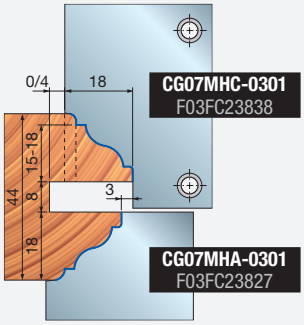
PROFILE 1



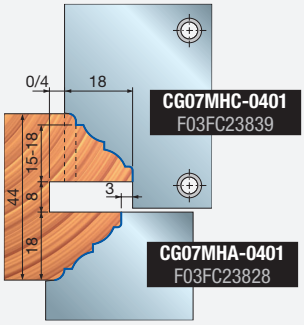
PROFILE 2



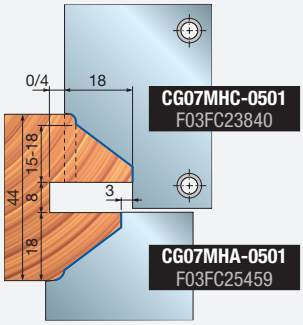
PROFILE 3



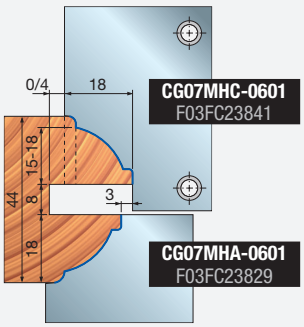
PROFILE 4



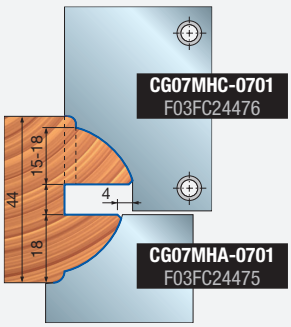
PROFILE 5



PROFILE 6

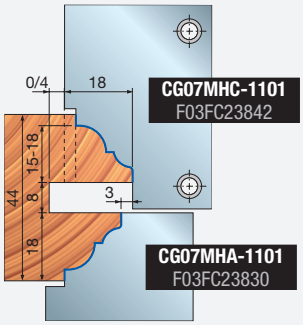


PROFILE 7

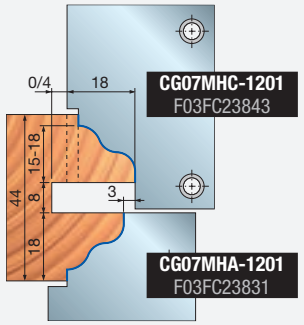


Profiles without external rounding for cutterheads: ST12M HC3 - ST12M HA3

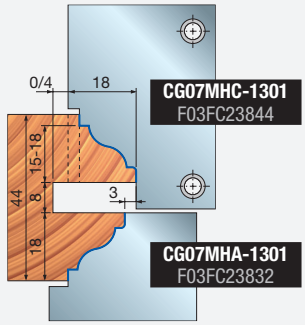
PROFILE 11



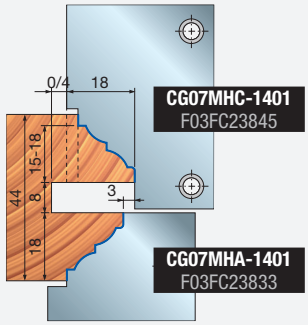
PROFILE 12



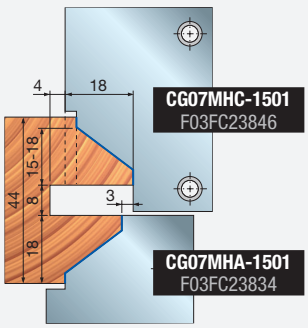
PROFILE 13



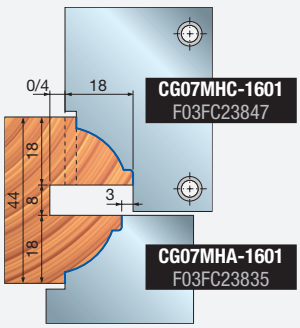
PROFILE 14



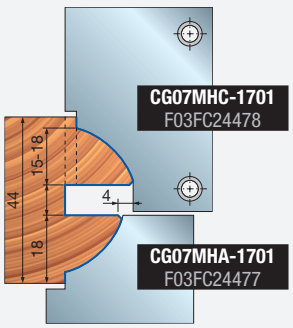
PROFILE 15



PROFILE 16

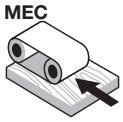


PROFILE 17

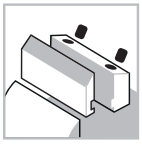


ST12MG Tenoning cutterhead sets





Automatic Feed



Clamping System



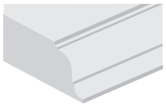
Steel Body



Softwood



Hardwood



Profiling

ISOprofil TECHNOLOGY

Performance System TECHNOLOGY

Machines:
Automatic feed and window tooling machines.

Materials:
Softwood and hardwood.

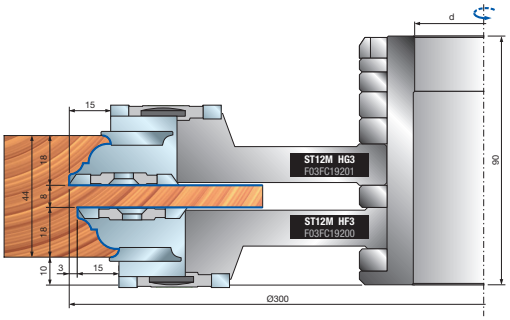
Applications:
Scribing.

Technical information:
Tool set for internal door profile with a 300 mm zero diameter.

- Performance cutterheads are designed to work with 17 different knives (to be combined with **ST12MG 800-801** profiles).
- Adjustable timber thickness from 44 to 70 mm, tool set is both available with and without bead recovery version and provided on sleeve to fit every machine spindle dimension.
- Steel body.
- Sleeve and Performance knives to be ordered separately.

Dimensions mm	Sleeve code	Art. No.
Ø70 x 90 x 30	**BF10MD EA9**	F03FC24536
Ø70 x 90 x 32	**BF10MD EL9**	F03FC24537
Ø70 x 90 x 35	**BF10MD EB9**	F03FC00633
Ø70 x 90 x 40	**BF10MD EC9**	F03FC00634
Ø70 x 90 x 50	**BF10MD ED9**	F03FC00635

BF10MD sleeves and knives for cutterheads HF3 and HG3 are not included.



Tool set zero diameter: 300 mm

D mm	B mm	d mm	Z	V	Max RPM 1/min.	Freud Code	Art. No.
294	-	-	-	-	5.000	**ST12MG 820**	F03FC19649
294	-	-	-	-	5.000	**ST12MG 821**	F03FC19650
294	-	-	-	-	5.000	**ST12MG 822**	F03FC19651

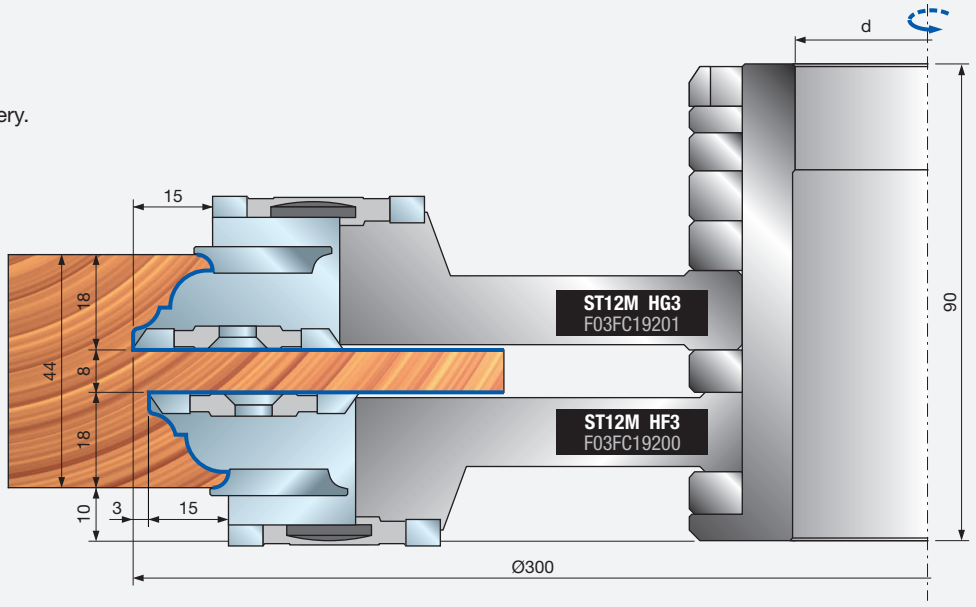
Tools for ST12MG-820, ST12MG-821, ST12MG-822 sets

D mm	B mm	d mm	Z	V	Max RPM 1/min.	Freud Code	Art. No.
264	8	70	2	4		**ST12M DB3**	F03FC19081
294	26	70	2	-		**ST12M HF3**	F03FC19200
300	26	70	2	-		**ST12M HG3**	F03FC19201
264	30	70	2	2		**ST12M HH3**	F03FC19202

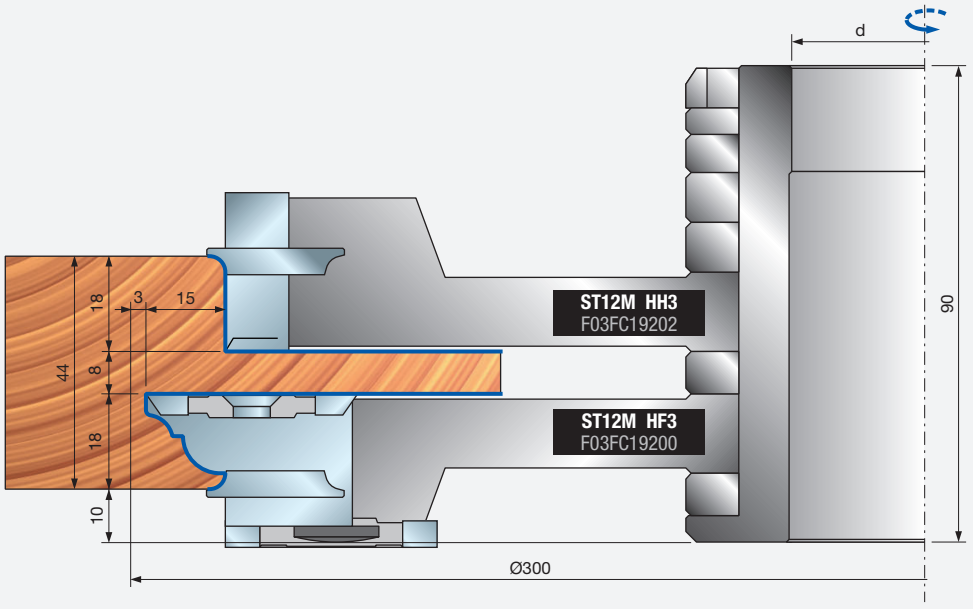
	Spare parts	Dimensions mm	Freud Code	Art. No.
DB3	Knife	7,6 x 12 x 1,5	**CG06MHA310**	F03FH02897
	Wedge	15 x 7,2 x 8	**CN09M DA9**	F03FC01295
	Screw	M5 x 19	**VT11M AA9**	F03FA04468
	Spur	22,86 x 2,5	**RG02MAA305**	F03FH03041
	Grooving insert	40 x 5 x 8	**SR01MSAA301**	F03FC24186
	Screw	M6 x 10	**VT01M AA9**	F03FA04429
	Threaded ring	11,7 x 2,5 x 4	**VT18M BB9**	F03FA04484
	Screw	M4 x 6,5	**VT05M BD9**	F03FA04449
	Screw	M5 x 6	**VT05M AC9**	F03FA04446
HF3	Screw	M5 x 7 x 16	**VT08M AE9**	F03FA04457
	Screw	M10 x 18	**VT03M CC9**	F03FA04438
	Spur insert	40 x 16 x 4	**IG05MDAA305**	F03FH02998
	Screw	M6 x 11,5	**VT16M AB9**	F03FA04477
	Rounding insert	22 x 16 X 5 R=3	**IG52MAE305**	F03FH03025
	Screw	M6 x 14,5	**VT16M AA9**	F03FA04476
HG3	Screw	M5 x 7 x 16	**VT08M AE9**	F03FA04457
	Screw	M10 x 18	**VT03M CC9**	F03FA04438
	Spur insert	40 x 16 x 4	**IG05MSAA305**	F03FH02999
	Screw	M6 x 11,5	**VT16M AB9**	F03FA04477
	Rounding insert	22 x 16 X 5 R=3	**IG52MAE305**	F03FH03025
	Screw	M6 x 14,5	**VT16M AA9**	F03FA04476
HH3	Knife	30 x 12 x 15	**CG06MDA310**	F03FH02892
	Wedge	15 x 26 x 8	**CN09MS AD9**	F03FC01326
	Nut	15 x 13,3 x M10	**VT20M MA9**	F03FC20670
	Screw	M10 x 22	**VT19M MA9**	F03FA04496
	Spur	22,86 x 2,5	**RG02MAA305**	F03FH03041
	Screw	M5 x 8	**VT05M AA9**	F03FA04444
	Rounding insert	22 x 16 X 5 R=3	**IG52MAE305**	F03FH03025
	Screw	M6 x 13	**VT16M AE9**	F03FC20658
	Wedge	14 x 21,5 x 22	**CN03M BA9**	F03FA00584
	Wedge	28 x 9,5 x 8	**CN03M BB9**	F03FA00585
	Screw	M8 x 22	**VT19M BB9**	F03FA04493

Profiles with 3 mm external rounding for cutterheads: ST12M HC3 - ST12M HA3

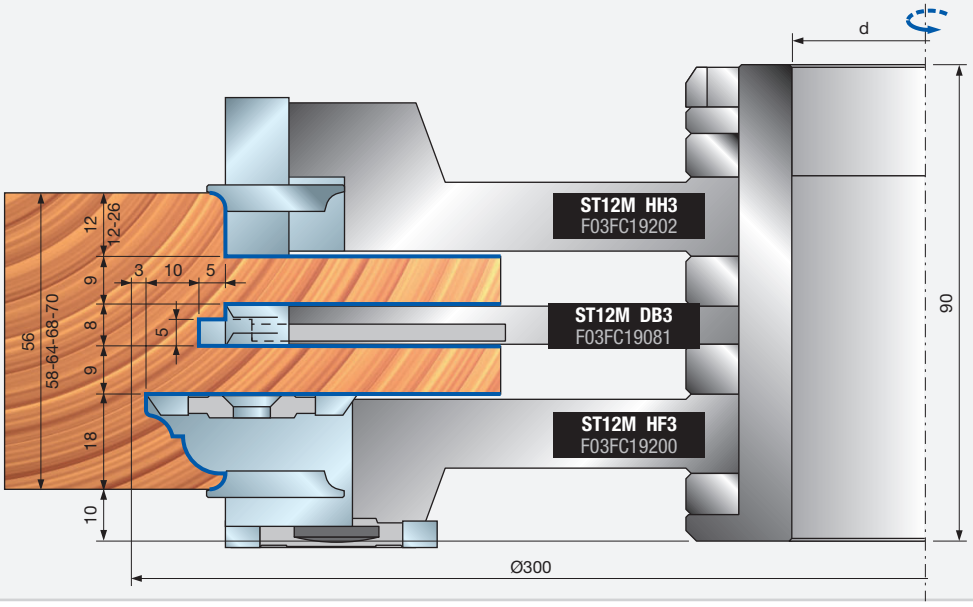
Set ST12MG-820
Single tenon.
For profile without bead recovery.



Set ST12MG-821
Single tenon.
For profile with bead recovery.

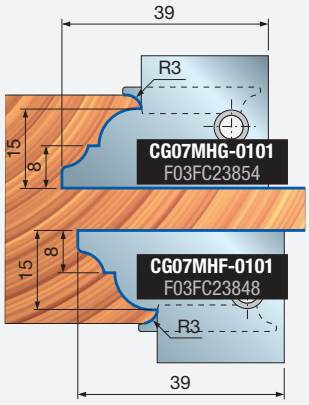


Set ST12MG-822
Double tenon.
For profile with bead recovery.

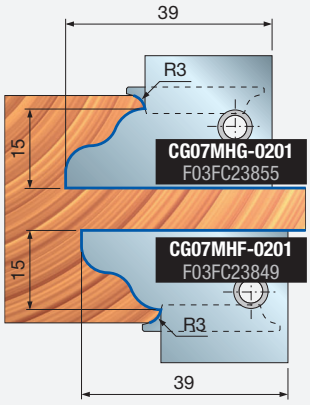


Scribes with 3 mm external rounding for cutterheads: ST12M HG3 - ST12M HF3

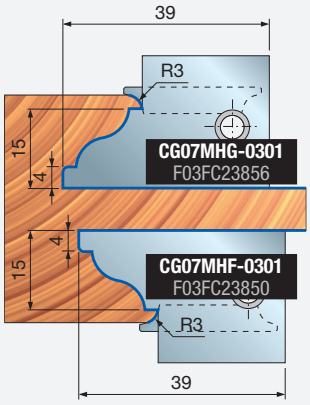
SCRIBE 1



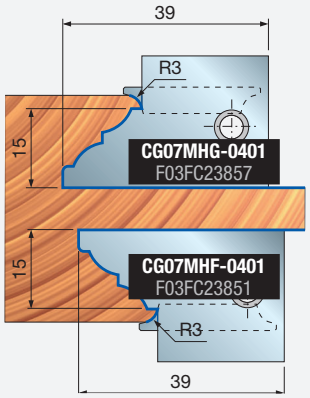
SCRIBE 2



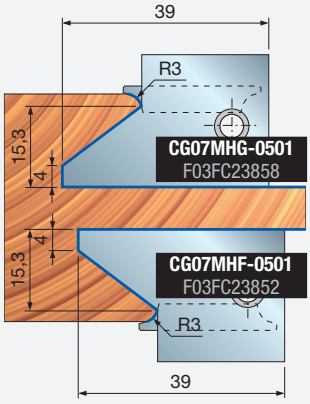
SCRIBE 3



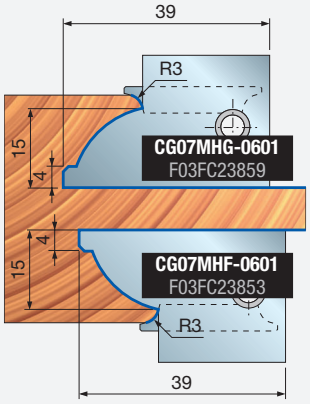
SCRIBE 4



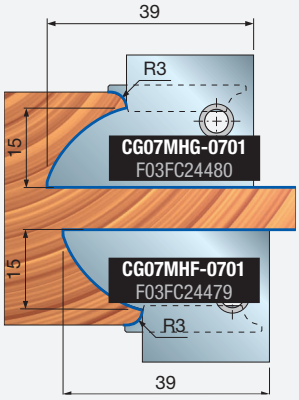
SCRIBE 5



SCRIBE 6

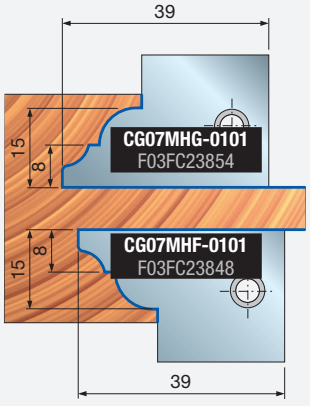


SCRIBE 7

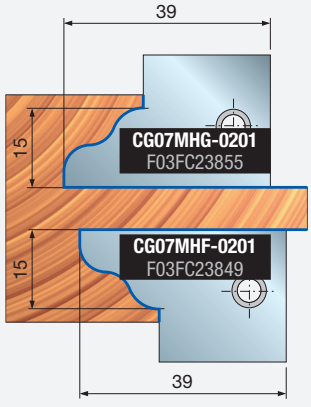


Scribes without external rounding for cutterheads: ST12M HG3 - ST12M HF3

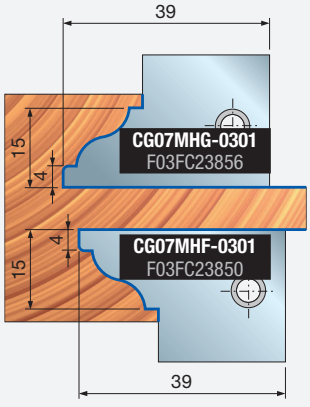
SCRIBE 11



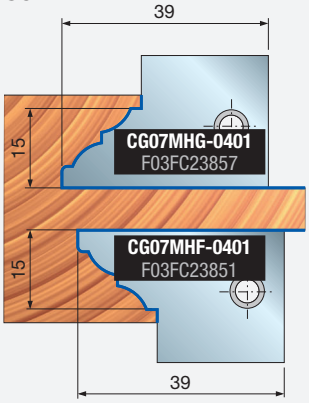
SCRIBE 12



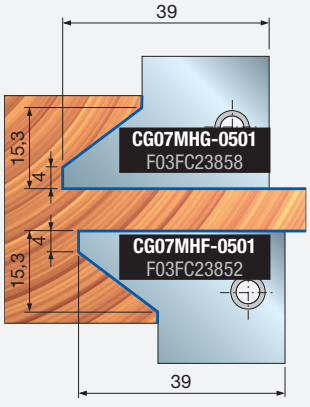
SCRIBE 13



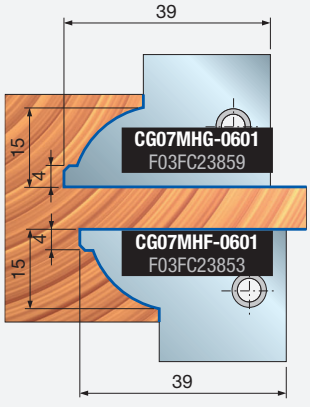
SCRIBE 14



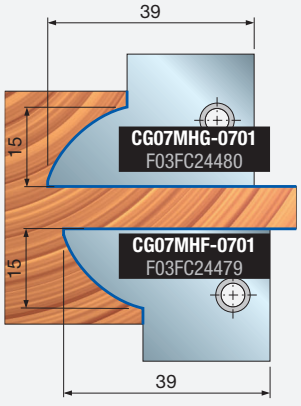
SCRIBE 15



SCRIBE 16



SCRIBE 17

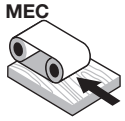


ST12MG

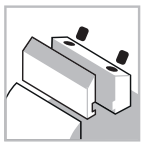
Cutterhead sets for doors rebates







Automatic Feed



Clamping System



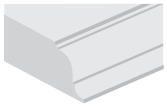
Steel Body



Softwood



Hardwood



Profiling



Rebating

Tool set zero diameter: 140 mm

D mm	B mm	d mm	Max RPM 1/min.	Freud Code	Art. No.
162	-	-	8.300	**ST12MG 840**	F03FC19653
162	-	-	8.300	**ST12MG 841**	F03FC19654
162	-	-	8.300	**ST12MG 842**	F03FC19655

Tools for ST12MG-840, ST12MG-841, ST12MG-842 sets

D mm	B mm	d mm	Z	Max RPM 1/min.	Freud Code	Art. No.
161,8	41	70	2		**ST12M HL3**	F03FC19208
147	33	70	2		**ST12M HM3**	F03FC19209
140	30	70	2		**ST12M HN3**	F03FC19210
166	35	70	2		**ST12M HR3**	F03FC19214

		Spare parts	Dimensions mm	Freud Code	Art. No.
HL3		Knife	40 x 12 x 1,5	**CG08MLA310**	F03FH02909
		Wedge	15 x 36 x 8	**CN09MD AR9**	F03FC01309
		Screw	M10 x 22	**VT19M MA9**	F03FA04496
		Nut	15 x 13,3 x M10	**VT20M NA9**	F03FC20671
		Multipurpose insert	10	**IG25MD10302**	F03FC24164
		Screw	M6 x 10	**2622M CB9**	F03FA07455
		Screw	M6 x 13	**VT16M AE9**	F03FC20658
		Wedge	28 x 9,5 x 8	**CN03M BB9**	F03FA00585
		Screw	M8 x 22	**VT19M BB9**	F03FA04493
HM3 - HN3		Knife	30 x 12 x 1,5	**CG08MEA310**	F03FH02906
		Wedge	15 x 26 x 8	**CN09MD AD9**	F03FC01300
		Screw	M10 x 22	**VT19M MA9**	F03FA04496
		Nut	15 x 13,3 x M10	**VT20M NA9**	F03FC20671
		Rounding insert	22 x 16 x 5 R=1,5	**IG52MAB305**	F03FH03023
		Screw	M6 x 13	**VT16M AE9**	F03FC20658
		Wedge	28 x 9,5 x 8	**CN03M BB9**	F03FA00585
		Screw	M8 x 22	**VT19M BB9**	F03FA04493
HR3		Screw	M10 x 18	**VT03M CC9**	F03FA04438
		Screw	M5 x 7 x 16	**VT08M AE9**	F03FA04457

ISOprofil TECHNOLOGY

Performance System TECHNOLOGY

Machines:
Automatic feed and window tooling machines.

Materials:
Softwood and hardwood.

Applications:
Profiling and rebating.

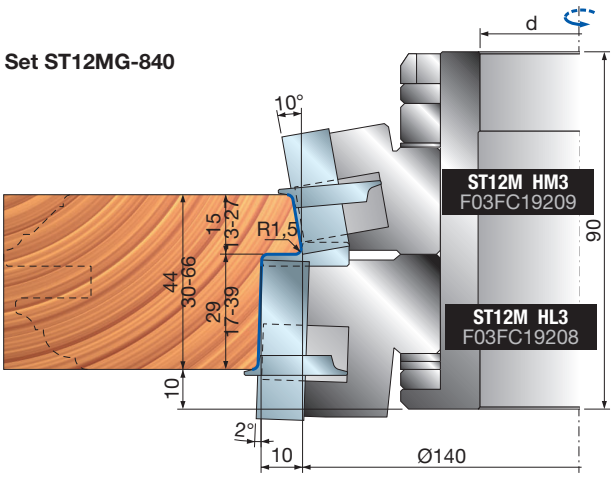
Technical information:
Tool set for internal door profile with a 140 mm zero diameter.

- Tool set can execute 5 different profiles.
- Adjustable timber thickness from 30 to 66 mm.
- Tool set is provided on sleeve to fit every machine spindle dimension.
- Steel body.
- Sleeve and Performance knives to be ordered separately.

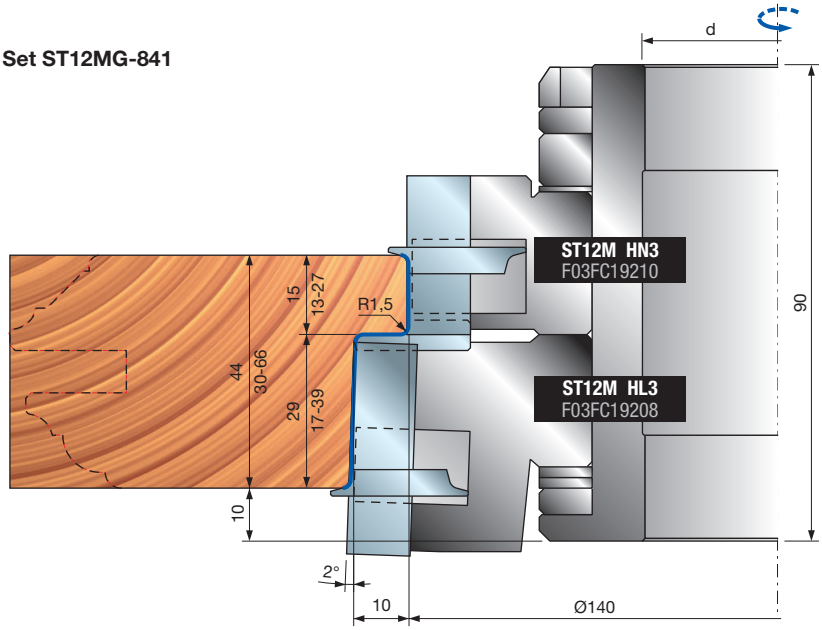
Dimensions mm	Sleeve code	Art. No.
Ø70 x 90 x 30	**BF10MD EA9**	F03FC24536
Ø70 x 90 x 32	**BF10MD EL9**	F03FC24537
Ø70 x 90 x 35	**BF10MD EB9**	F03FC00633
Ø70 x 90 x 40	**BF10MD EC9**	F03FC00634
Ø70 x 90 x 50	**BF10MD ED9**	F03FC00635

BF10MD sleeves and knives for cutterheads HR3 are not included.

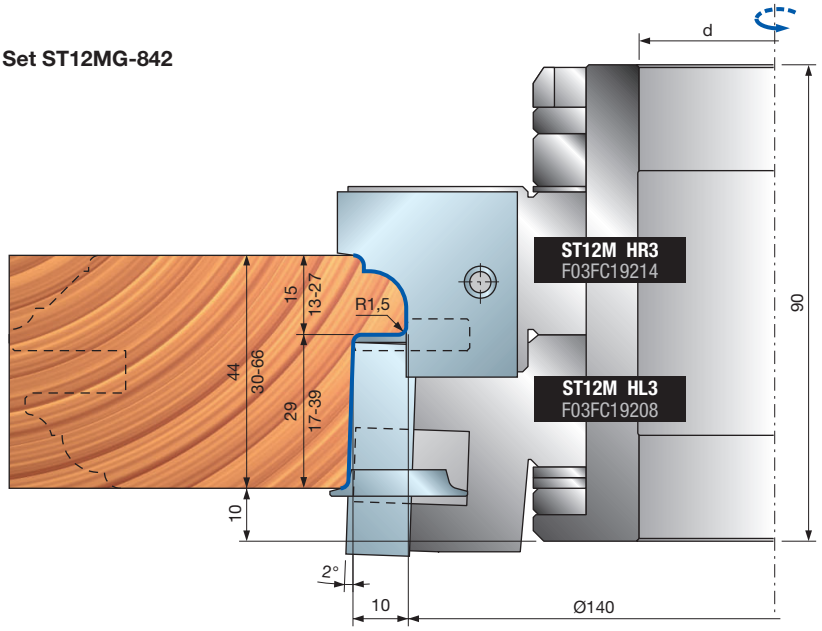
Set ST12MG-840



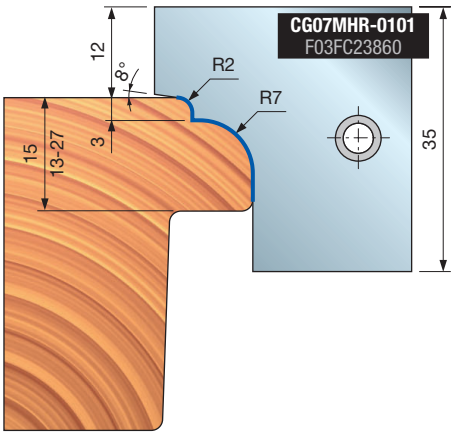
Set ST12MG-841

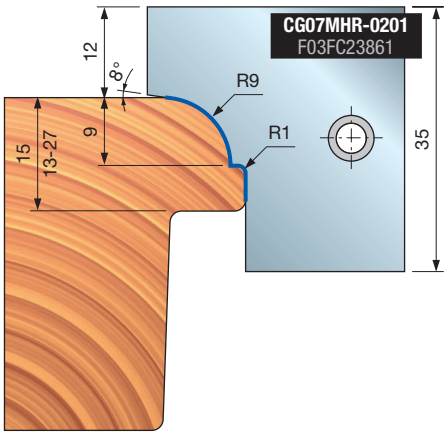


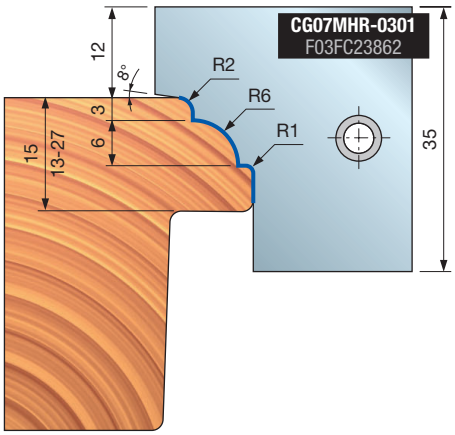
Set ST12MG-842



Knives for cutterhead ST12M HR3

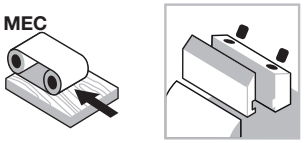






ST12MG Bead recovery cutterhead sets





Automatic Feed

Clamping System



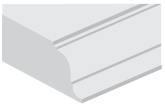
Steel Body



Softwood



Hardwood



Profiling

Machines:
Automatic feed and window tooling machines.

Materials:
Softwood and hardwood.

Applications:
Bead recovering.

Technical information:
Cutterhead for bead recovery with a 140 mm zero diameter.
- Adjustable Timber thickness from 44 to 70 mm.
- Bead thickness from 15 to 22 mm.
- Tool set is provided on sleeve to fit every machine spindle dimension.
- Steel body.

Dimensions mm	Sleeve code	Art. No.
Ø60 x 90 x 30	**BF10MD DA9**	F03FC24534
Ø60 x 90 x 32	**BF10MD DL9**	F03FC24535
Ø60 x 90 x 35	**BF10MD DB9**	F03FC00630
Ø60 x 90 x 40	**BF10MD DC9**	F03FC00631
Ø60 x 90 x 50	**BF10MD DD9**	F03FC00632

Tool set zero diameter: 140 mm

D mm	B mm	d mm	Max RPM 1/min.	Freud Code	Art. No.
200	-	-	9.000	**ST12MG 302**	F03FC19584

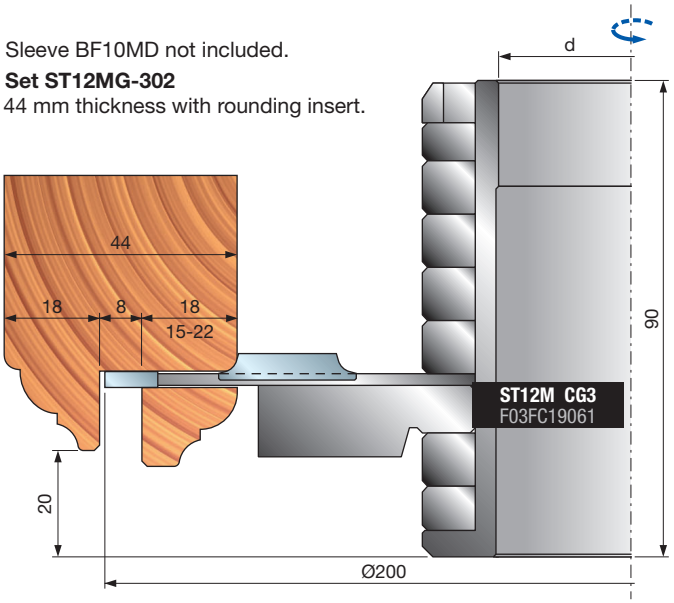
Tools for ST12MG-302

D mm	B mm	d mm	Z	Max RPM 1/min.	Freud Code	Art. No.
144	13,5	60	2		**ST12M CG3**	F03FC19061

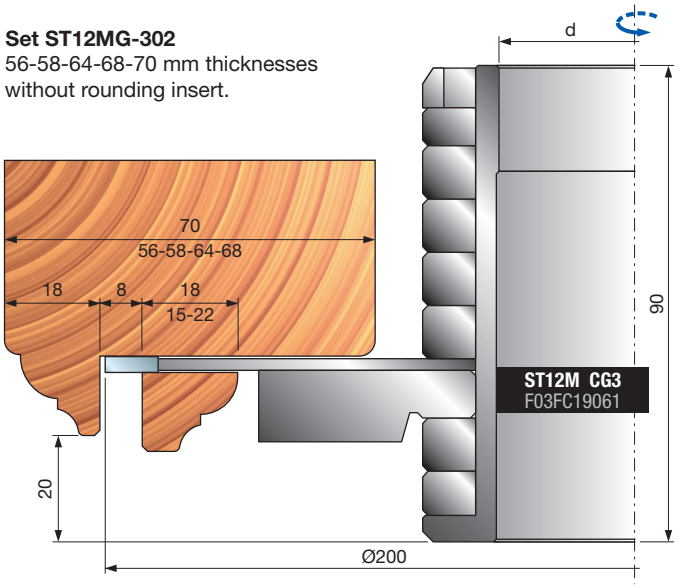
	Spare parts	Dimensions mm	Freud Code	Art. No.
	Saw blade	200 x 3 x 60 Z34	**LL02M20060**	F03FC15418
	Screw	M6 x 10	**VT01M AA9**	F03FA04429
	Rounding insert	22 x 16 X 5 R=3	**IG52MAE305**	F03FH03025
	Screw	M6 x 14,5	**VT16M AA9**	F03FA04476
	Rounding insert	18 x 26 x 8,5	**IG23MDAE305**	F03FC24163
	Screw	M6 x 15,5	**VT16M AD9**	F03FC20657

Sleeve BF10MD not included.

Set ST12MG-302
44 mm thickness with rounding insert.



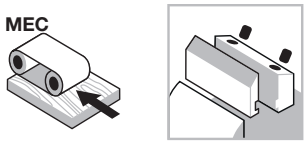
Set ST12MG-302
56-58-64-68-70 mm thicknesses without rounding insert.



ST12MG

Cutterhead sets for door frames





Automatic Feed

Clamping System



Steel Body



Softwood



Hardwood



Rebating







Machines:
Automatic feed and window tooling machines.

Materials:
Softwood and hardwood.

Applications:
Rebating.

Technical information:
Performance tool for door rebating, front shear angle to guarantee a perfect step surface, rounding and beveling insert to offer different solutions on step corners.

- Cuttherhead is provided on sleeve to fit every machine spindle dimension.
- Steel body.
- Sleeve and inserts to be ordered separately.

BF10MD sleeve is not included.

Dimensions mm	Sleeve code	Art. No.
Ø70 x 90 x 30	**BF10MD EA9**	F03FC24536
Ø70 x 90 x 32	**BF10MD EL9**	F03FC24537
Ø70 x 90 x 35	**BF10MD EB9**	F03FC00633
Ø70 x 90 x 40	**BF10MD EC9**	F03FC00634
Ø70 x 90 x 50	**BF10MD ED9**	F03FC00635

Tools supplied with HW knives

D mm	B mm	d mm	Max RPM 1/min.	Freud Code	Art. No.
218	-	-	6.500	**ST12MG 830**	F03FC19652

Tools supplied with HSS knives

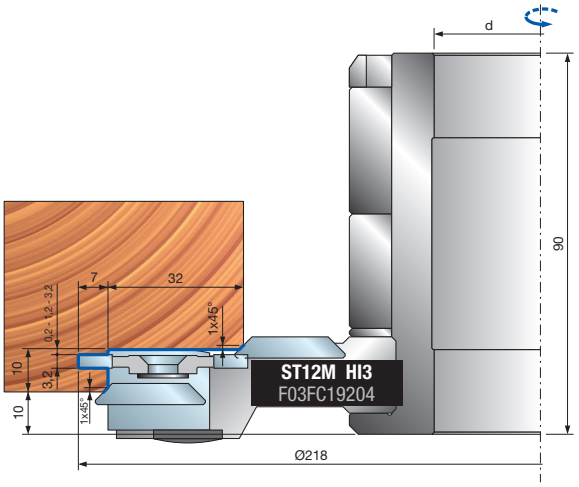
D mm	B mm	d mm	Z	Max RPM 1/min.	Freud Code	Art. No.
204	24	70	2		**ST12M HI3**	F03FC19204

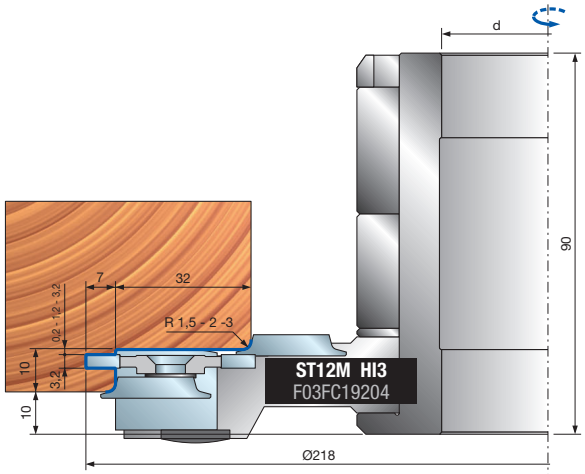
	Spare parts	Dimensions mm	Freud Code	Art. No.
	Knife	20 x 25 x 3	**CG07MDHI301**	F03FC23824
	Screw	M10 x 18	**VT03M CC9**	F03FA04438
	Screw	M5 x 7 x 16	**VT08M AE9**	F03FA04457
	Grooving insert	40 x 16 x 3	**IG04MDAC305**	F03FH02992
	Screw IG04MD	M6 x 14,5	**VT16M AA9**	F03FA04476
	Screw for IG51M and IG52M	M6 x 11,5	**VT16M AB9**	F03FA04477

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Knife	20 x 25 x 3	**CG07MDHI301**	F03FC23824
	Screw	M10 x 18	**VT03M CC9**	F03FA04438
	Screw	M5 x 7 x 16	**VT08M AE9**	F03FA04457
	Grooving insert	40 x 16 x 3	**IG04MDAC305**	F03FH02992
	Screw IG04MD	M6 x 14,5	**VT16M AA9**	F03FA04476
	Screw for IG51M and IG52M	M6 x 11,5	**VT16M AB9**	F03FA04477

With seat pockets for beveling inserts IG51M or radius inserts IG52M (R= 1,5 - 2 - 3 mm). (Not included).

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Rounding insert	22 x 16 X 5 R=3	**IG52Mì**	F03FH03025
	Beveling insert	22 x 16 x 5 45°	**IG51Mì**	F03FH03022
	Screw for IG51-IG52	M6 x 13	**VT16M AE9**	F03FC20658

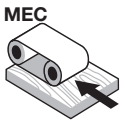




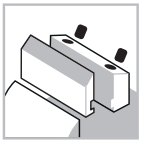


TP43M

Cutterhead sets for vertical slat shutters



Automatic Feed



Clamping System



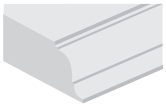
Steel Body



Softwood



Hardwood



Profiling

Tool set zero diameter: 125 mm

D mm	B mm	d mm	Z	Max RPM 1/min.	Freud Code	Art. No.
139	-	-	2+2	9.600	**TP43M MD3**	F03FC20497
147	-	-	2+2	9.000	**TP43M FD3**	F03FC20496

Tool		Spare parts	Dimensions mm	Freud Code	Art. No.
		Screw	M10 x 18	**VT03M CC9**	F03FA04438
		Screw	M5 x 7 x 16	**VT08M AE9**	F03FA04457
		Set of spacers	70 x 5 x 50	**AN01MD0509**	F03FC00175
		Set of spacers	70 x 17 x 50	**AN04MTP43**	F03FC00517
		Set of spacers	70 x 22 x 50	**AN01MD2209**	F03FC00194
MD3	1	Knife	34 x 24 x 3	**CP43M1MD301**	F03FC24009
	2	Knife	34 x 24 x 3	**CP43M2MD301**	F03FC24011
FD3	1	Knife	35 x 29 x 3	**CP43M1FD301**	F03FC24008
	2	Knife	35 x 29 x 3	**CP43M2FD301**	F03FC24010
		Spacer	70 x 10 x 50	**AN01MD1009**	F03FC00182

Performance System TECHNOLOGY

Machines:
Moulders, automatic and throughfeed machines.

Materials:
Softwood and hardwood.

Applications:
Profiling.

Technical information:
Performance cutterheads set for vertical slat shutters.

- Profile and counterprofile set can perfectly work as a left and right hand rotation tool (with different sleeves). Tools are provided on sleeve (to be ordered separately) to fit every machine spindle dimension.
- Steel body.
- Performance System knives included.

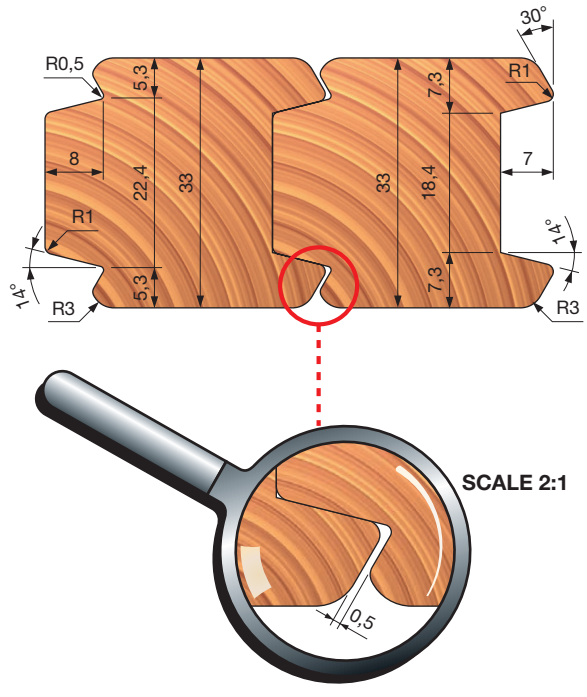
Right-hand sleeves

Dimensions mm	Sleeve code	Art. No.
Ø50 x 110 x 30	**BF10MD AA9**	F03FC00616
Ø50 x 110 x 32	**BF10MD AL9**	F03FC24533
Ø50 x 110 x 35	**BF10MD AB9**	F03FC00617
Ø50 x 110 x 40	**BF10MD AC9**	F03FC00618

Left-hand sleeves

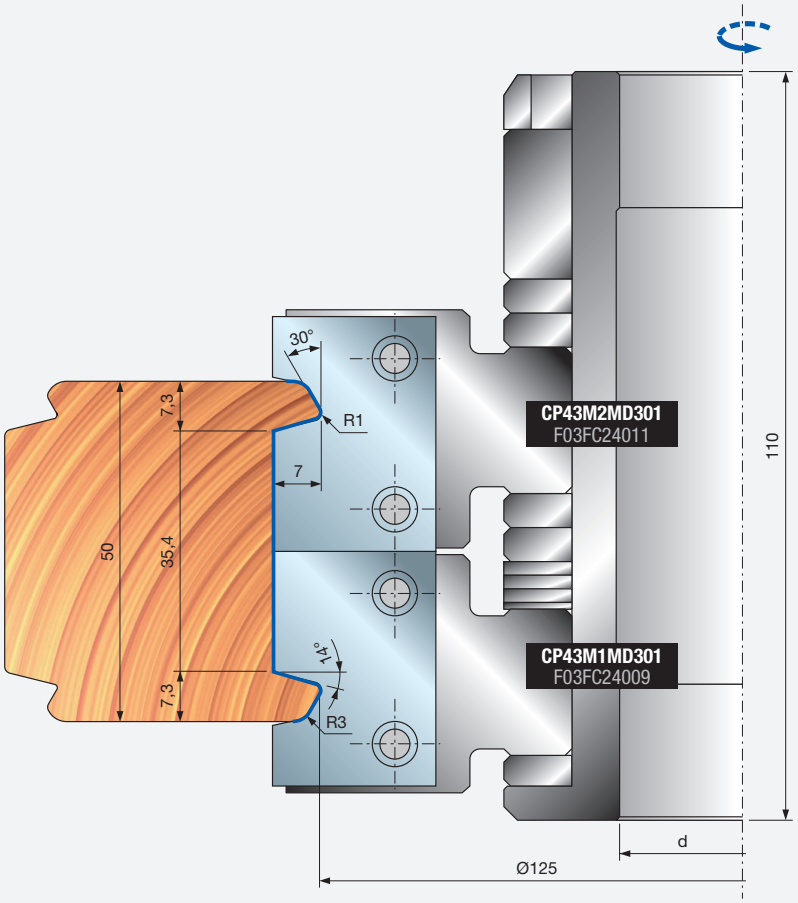
Dimensions mm	Sleeve code	Art. No.
Ø50 x 110 x 30	**BF10MS AA9**	F03FC00661
Ø50 x 110 x 32	**BF10MS AL9**	F03FC24538
Ø50 x 110 x 35	**BF10MS AB9**	F03FC00662
Ø50 x 110 x 40	**BF10MS AC9**	F03FC00663

Sleeves must be ordered separately.
Please note: The sets can be ordered with clockwise rotation with BF10MS sleeve.

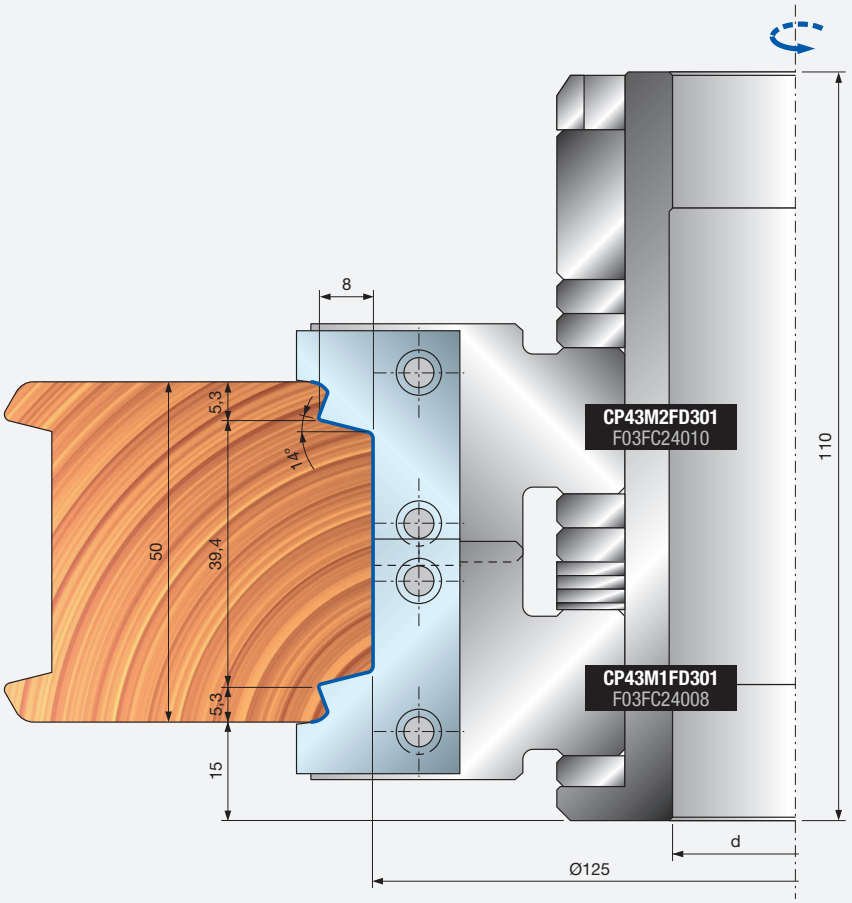


Cutterheads sets for vertical slat shutters

Set TP43M MD3



Set TP43M FD3



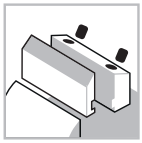


TP45M

Cutterhead sets for lifting-sliding doors



Manual Feed



Clamping System



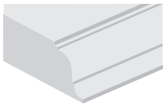
Steel Body



Softwood



Hardwood



Profiling

Performance System TECHNOLOGY

Machines:
Spindle moulders and manual feed machines.

Materials:
Softwood and hardwood.

Applications:
Profiling.

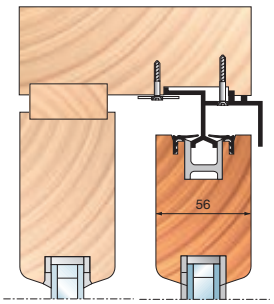
Technical information:
Cutterhead tool set for lift and sliding doors with maximum weight of 250 Kg using hardware.
- HS25 from MAICO, AGB or G.U.
- Steel body.
- Knives included.

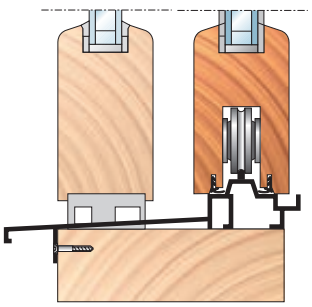
D mm	B mm	d mm	Z	Max RPM 1/min.	Freud Code	Art. No.
200	45	30	2	7.000	**TP45M AA3**	F03FC23136
200	45	32	2	7.000	**TP45M AC3**	F03FC24453
200	45	35	2	7.000	**TP45M AB3**	F03FC20503

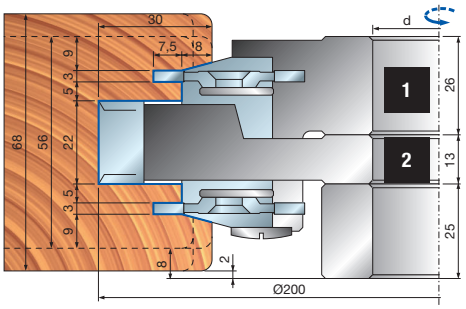
		Spare parts	Dimensions mm	Freud Code	Art. No.
		Torx key	T20	**CB03M CC9**	F03FA00167
		Allen key	4	**CB03M BA9**	F03FA00163
		Allen key	5	**CB03M EA9**	F03FA00169
1		Knife	45 x 25 x 3	**CP45MAA301**	F03FC24014
1		Screw	M5 x 16 x 7	**VT08M AE9**	F03FA04457
1		Screw	M10 x 18	**VT03M CC9**	F03FA04438
1		Grooving insert	40 x 16 x 3	**IG04MDAC305**	F03FH02992
1		Grooving insert	40 x 16 x 3	**IG04MSAC305**	F03FH02996
1		Screw	M6 x 14,5	**VT16M AA9**	F03FA04476
1		Deflector	30,8 x 6 x 24,5	**ID04MDAC901**	F03FC24135
1		Deflector	30,8 x 6 x 24,5	**ID04MSAC901**	F03FC24139
1		Screw	M4 x 12	**VT05M DA9**	F03FC20647
2		Knife	21,6 x 12 x 1,5	**CG06MTA310**	F03FC23821
2		Wedge	15 x 20 x 8	**CN09M AO9**	F03FC01289
2		Nut	15 x 13,3 x M10	**VT20M MA9**	F03FC20670
2		Screw	M10 x 22	**VT19M MA9**	F03FA04496
2		Spur	22,86 x 2,5	**RG02MAA305**	F03FH03041
2		Screw	M5 x 8	**VT05M AA9**	F03FA04444
AB3		Spacer	50 x 25 x 30	**AN01MB2509**	F03FC00110
AC3		Spacer	52 x 25 x 32	**AN01MX2509**	F03FC24512
AA3		Spacer	55 x 25 x 35	**AN01MA2509**	F03FC00059

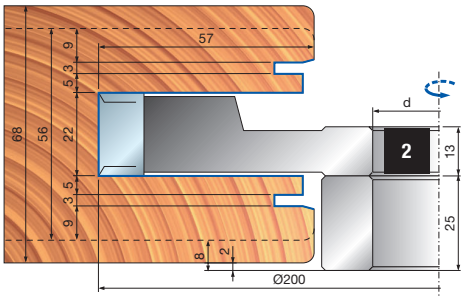
This item is supplied with 25 mm thick ring for base programming.

For doors with maximum weight of 250 Kg using hardware HS25 from MAICO, AGB or G.U.



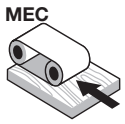






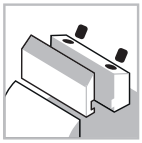
ST16MG Profiling CNC sets for internal doors without bead recovery




MEC

Automatic Feed

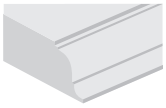

CNC Machines


Clamping System


Aluminium Body


Softwood


Hardwood


Profiling

ISOprofil TECHNOLOGY

Performance System TECHNOLOGY

Machines:
CNC overhead routing machines.

Materials:
Softwood and hardwood.

Applications:
Internal door profiling.

Technical information:
CNC tool set for internal door profile without bead recovery.
- ISOprofil cutterheads are designed to work with 17 different knives.
- Timber thickness 44 mm.
- Chuck and Performance knives to be ordered separately.
- Aluminium light alloy body.

D mm	B mm	d mm	Z	Max RPM 1/min.	Freud Code	Art. No.
154	123	-	2	8.500	**ST16MGC13700**	F03FC23497
154	123	-	2	8.500	**ST16MGC13701**	F03FC23498

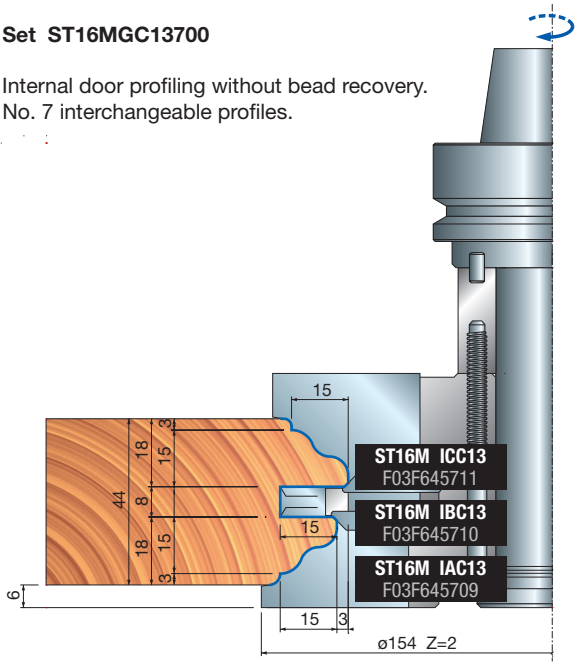
Cutterheads for ST16MGC13700 and ST16MGC13701 sets

D mm	B mm	d mm	Z	Max RPM 1/min.	Freud Code	Art. No.
144	15	30	2		**ST16M IBC13**	F03F645710
148	38	30	2		**ST16M ICC13**	F03F645711
152	15	30	2		**ST16M IDC13**	F03F645712
154	23,7	30	2		**ST16M IAC13**	F03F645709

		Spare parts	Dimensions mm	Freud Code	Art. No.
IAC13 ICC13		Screw	M5 x 8	**VT05M AA9**	F03FA04444
		Positioning plate	22 x 1,7 x 6,5	**VT18M GB9**	F03FA04489
		Screw	M10 x 16	**2616M EE9**	F03FA07426
IAC13		Wedge	21 x 42,5 x 8	**CN33M IA9**	F03FC23308
ICC13		Wedge	34,5 x 42,5 x 8	**CN33M IC9**	F03FC23309
IBC13 IDC13		Knife	7,6 x 12 x 1,5	**CG62MHA310**	F03FH02956
		Wedge	15 x 7,2 x 8	**CN09M DA9**	F03FC01295
		Beveling insert	22 x 16 x 5	**IG51MBA305**	F03FH03022
		Spur	22,86 x 2,5	**RG02MAA305**	F03FH03041
		Screw	M5 x 6	**VT05M AC9**	F03FA04446
		Screw	M5 x 19	**VT11M AA9**	F03FA04468
		Screw	M6 x 13	**VT16M AE9**	F03FC20658

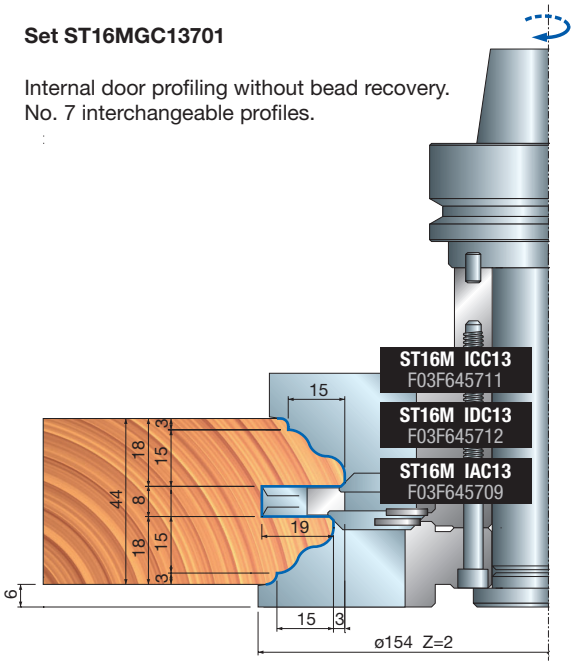
Set ST16MGC13700

Internal door profiling without bead recovery.
No. 7 interchangeable profiles.



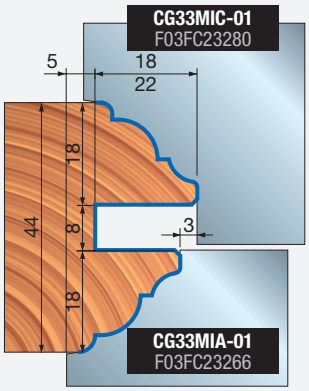
Set ST16MGC13701

Internal door profiling without bead recovery.
No. 7 interchangeable profiles.

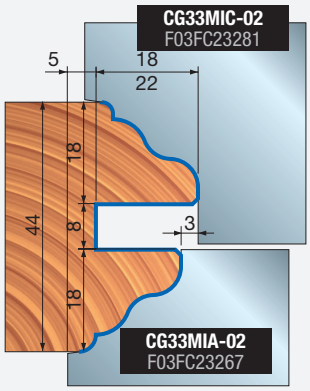


Profiling with external rounding - Knives for cutterheads ST16MIAC13 - ST16MICC13

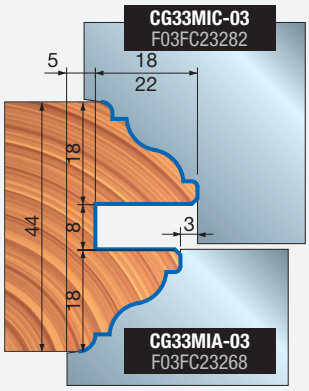
Profile 1



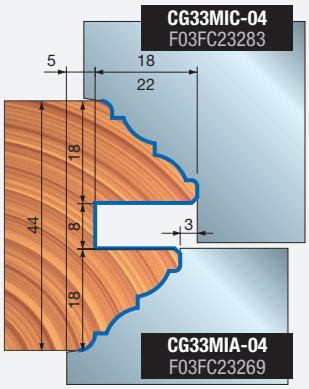
Profile 2



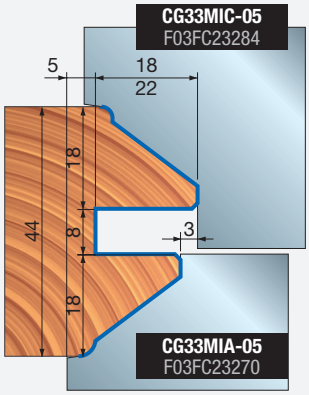
Profile 3



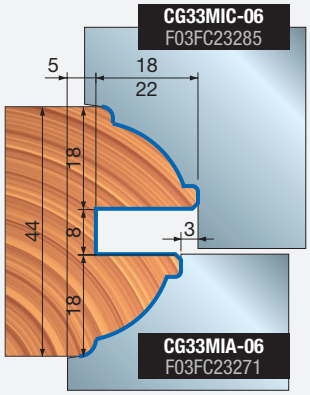
Profile 4



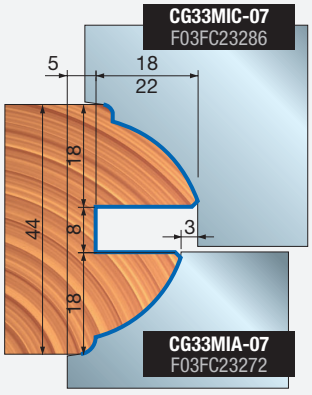
Profile 5



Profile 6

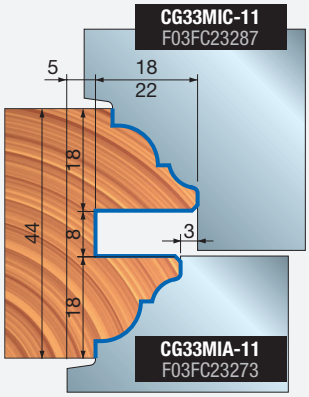


Profile 7

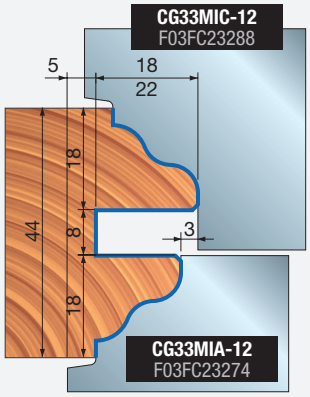


Profiling without external rounding - Knives for cutterheads ST16MIAC13 - ST16MICC13

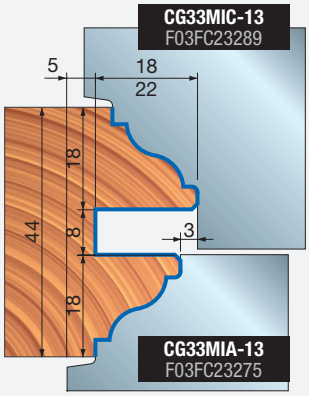
Profile 11



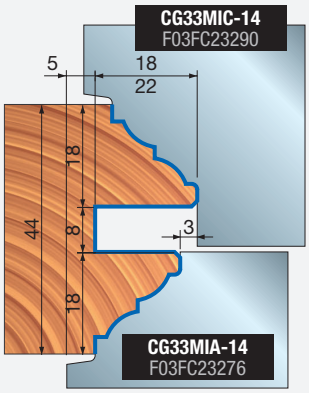
Profile 12



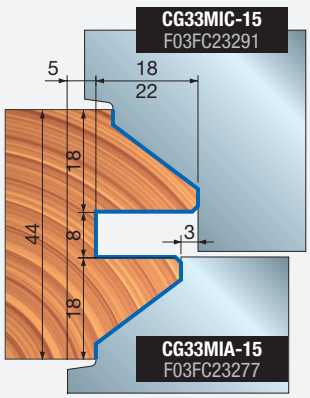
Profile 13



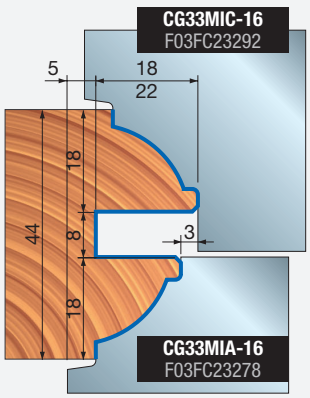
Profile 14



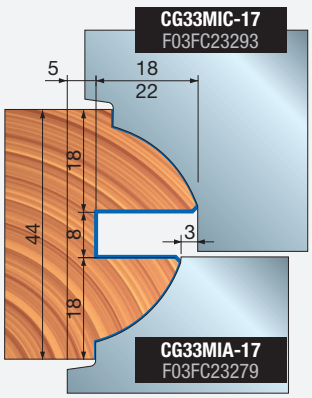
Profile 15



Profile 16



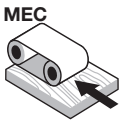
Profile 17



ST16MG

CNC sets for internal doors profiling with bead recovery

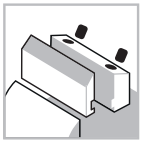




Automatic Feed



CNC Machines



Clamping System



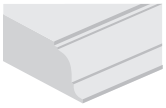
Aluminium Body



Softwood



Hardwood



Profiling



Rebating

ISOprofil TECHNOLOGY

Machines:
CNC overhead routing machines.

Materials:
Softwood and hardwood.

Applications:
Internal door profiling.

Technical information:
CNC tool set for internal door profile with bead recovery.

- ISOprofil cutterheads are designed to work with 17 different knives.
- Timber thickness 44 mm.
- Chuck and Performance knives to be ordered separately.
- Aluminium light alloy body.

D mm	B mm	d mm	Z	Max RPM 1/min.	Freud Code	Art. No.
148	123	-	2	9.000	**ST16MGC13702**	F03FC23499
154	123	-	2	8.500	**ST16MGC13703**	F03FC23500
154	123	-	2	8.500	**ST16MGC13704**	F03FC23501

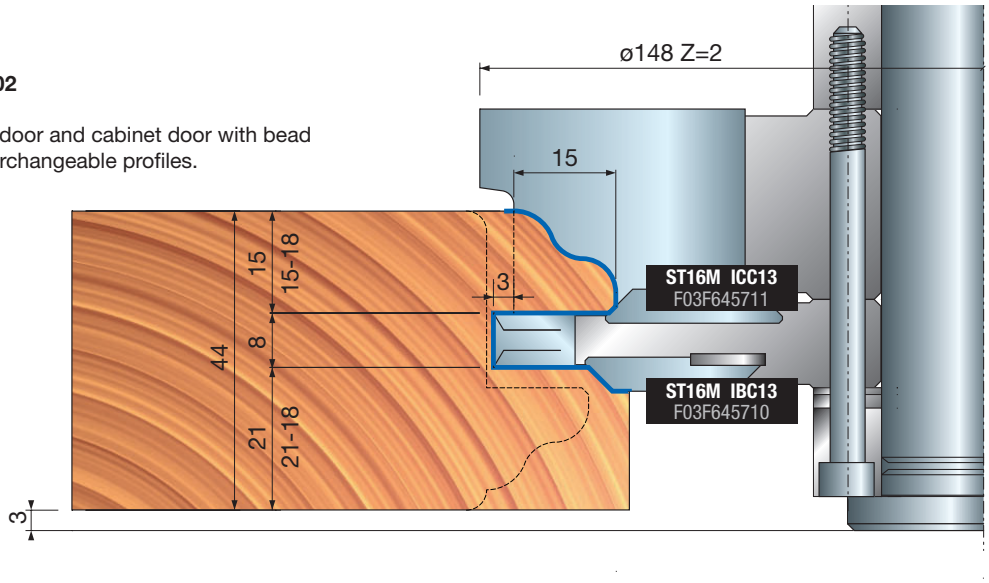
Tools for ST16MGC13702, ST16MGC13703 and ST16MGC13704 sets

D mm	B mm	d mm	Z	Max RPM 1/min.	Freud Code	Art. No.
144	15	30	2		**ST16M IBC13**	F03F645710
148	38	30	2		**ST16M ICC13**	F03F645711
151	22	30	2		**ST16M IFC13**	F03F645714
151	33	30	2		**ST16M IEC13**	F03F645713
152	15	30	2		**ST16M IDC13**	F03F645712
154	23,7	30	2		**ST16M IAC13**	F03F645709

		Spare parts	Dimensions mm	Freud Code	Art. No.
IAC13 ICC13		Screw	M5 x 8	**VT05M AA9**	F03FA04444
		Positioning plate	22 x 1,7 x 6,5	**VT18M GB9**	F03FA04489
		Screw	M10 x 16	**2616M EE9**	F03FA07426
ICC13		Wedge	34,5 x 42,5 x 8	**CN33M IC9**	F03FC23309
AA2 - AA3		Wedge	15 x 7,2 x 8	**CN09M DA9**	F03FC01295
		Beveling insert	22 x 16 x 5	**IG51MBA305**	F03FH03022
		Spur	22,86 x 2,5	**RG02MAA305**	F03FH03041
AA2 - AA3		Knife	7,6 x 12 x 1,5	**CG62MHA310**	F03FH02956
		Screw	M5 x 6	**VT05M AC9**	F03FA04446
		Screw	M5 x 19	**VT11M AA9**	F03FA04468
		Screw	M6 x 13	**VT16M AE9**	F03FC20658
AA2 - AA3		Knife	30 x 12 x 1,5	**CG62MDA310**	F03FH02951
		Screw	M5 x 8	**VT05M AA9**	F03FA04444
AA2 - AA3		Knife	21,6 x 12 x 1,5	**CG62MTA310**	F03FC25458
		Wedge	15 x 20 x 8	**CN09MD AK9**	F03FC01304
AA2 - AA3		Rounding insert	22 x 16 x 5 R=3	**IG52MAE305**	F03FH03025
		Screw	M6 x 14,5	**VT16M AA9**	F03FA04476
		Screw	M10 x 22	**VT19M MA9**	F03FA04496
		Nut	15 x 13,3 x M10	**VT20M MA9**	F03FC20670

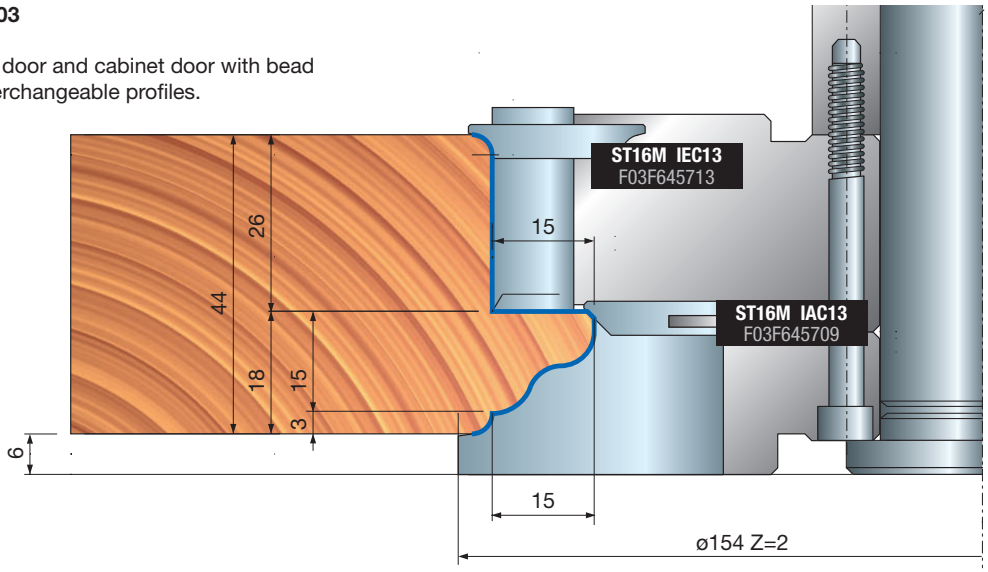
Set ST16MGC13702

Internal profiling of door and cabinet door with bead recovery. No. 7 interchangeable profiles.



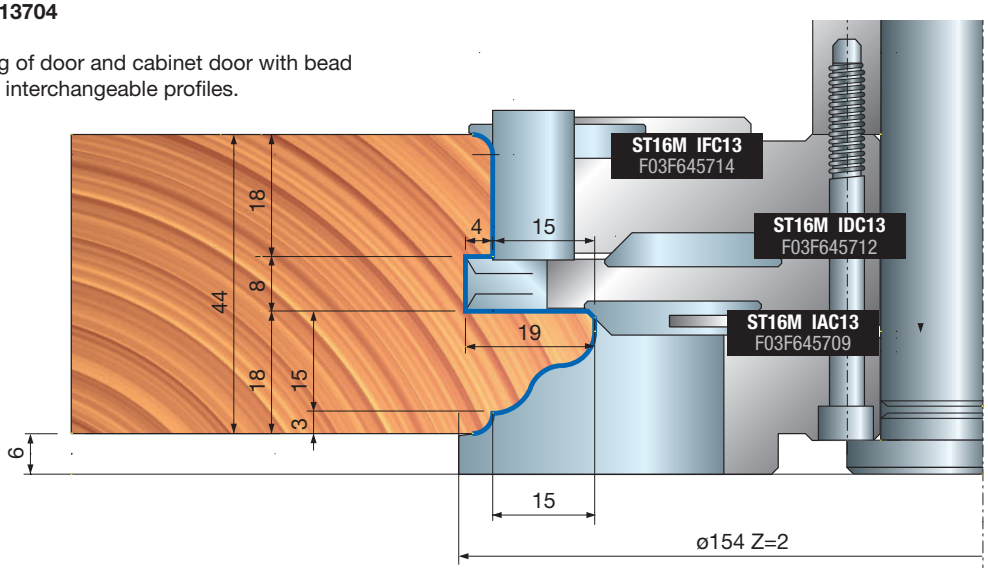
Set ST16MGC13703

Internal profiling of door and cabinet door with bead recovery. No. 7 interchangeable profiles.



Set ST16MGC13704

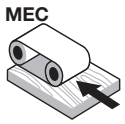
Internal profiling of door and cabinet door with bead recovery. No. 7 interchangeable profiles.



ST16MG

CNC scribing sets for internal doors

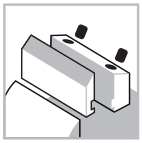




Automatic Feed



CNC Machines



Clamping System



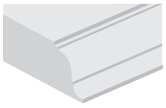
Aluminium Body



Softwood



Hardwood



Profiling



Rebating

ISOprofil TECHNOLOGY

Machines:
CNC overhead routing machines.

Materials:
Softwood and hardwood.

Applications:
Door profile scribing.

Technical information:
CNC tool set for internal door counterprofile.

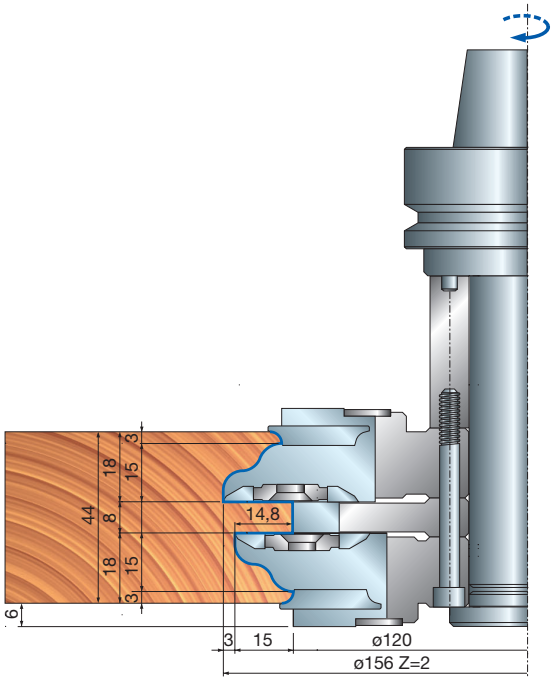
- ISOprofil cutterheads are designed to work with 6 different knives (please refer to ST16MGC13 700-701-702-703-704 profiles).
- Timber thickness 44 mm.
- Chuck and Performance knives to be ordered separately.
- Aluminium light alloy body.

D mm	B mm	d mm	Z	Max RPM 1/min.	Freud Code	Art. No.
156	123	-	2	8.500	**ST16MGC13705**	F03FC23502
156	123	-	2	8.500	**ST16MGC13706**	F03FC23503
150	123	-	2	9.000	**ST16MGC13707**	F03FC23504
150	123	-	2	9.000	**ST16MGC13708**	F03FC23505

Tools for ST16MGC13705, ST16MGC13706, ST16MGC13707 and ST16MGC13708 sets

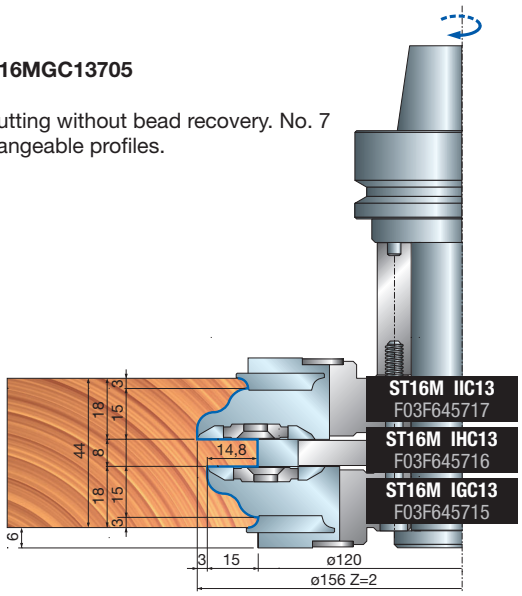
D mm	B mm	d mm	Z	V	Max RPM 1/min.	Freud Code	Art. No.
112,4	10	30	2	-		**ST16M IJC13**	F03F645718
120,4	10	30	2	-		**ST16M IHC13**	F03F645716
127	22	30	2	4		**ST16M ILC13**	F03F645720
127	30,5	30	2	2		**ST16M IKC13**	F03F645719
150	24	30	2	4		**ST16M IGC13**	F03F645715
156	24	30	2	4		**ST16M IIC13**	F03F645717

	Spare parts	Dimensions mm	Freud Code	Art. No.
IGC13	Screw	M10 x 16	**2616M EE9**	F03FA07426
	Wedge	20,5 x 42,5 x 8	**CN33M IG9**	F03FC23310
	Spur insert	40 x 16 x 4	**IG05MSAA305**	F03FH02999
	Rounding insert	22 x 16 x 5 R=3	**IG52MAE305**	F03FH03025
	Screw	M5 x 8	**VT05M AA9**	F03FA04444
	Screw	M6 x 14,5	**VT16M AA9**	F03FA04476
	Screw	M6 x 11,5	**VT16M AB9**	F03FA04477
	Positioning plate	22 x 1,7 x 6,5	**VT18M GA9**	F03FA04488
IHC13 IJC13	Knife	8,6 x 12 x 1,5	**CG62MJA310**	F03FH02958
	Wedge	15 x 7,2 x 8	**CN09M DA9**	F03FC01295
	Screw	M5 x 19	**VT11M AA9**	F03FA04468
IIC13	Screw	M10 x 16	**2616M EE9**	F03FA07426
	Wedge	20,5 x 42,5 x 8	**CN33M II9**	F03FC23311
	Spur insert	40 x 16 x 4	**IG05MDAA305**	F03FH02998
	Rounding insert	22 x 16 x 5 R=3	**IG52MAE305**	F03FH03025
	Screw	M5 x 8	**VT05M AA9**	F03FA04444
	Screw	M6 x 14,5	**VT16M AA9**	F03FA04476
	Screw	M6 x 11,5	**VT16M AB9**	F03FA04477
	Positioning plate	22 x 1,7 x 6,5	**VT18M GA9**	F03FA04488
IKC13	Knife	30 x 12 x 1,5	**CG62MDA310**	F03FH02951
	Wedge	15 x 26 x 8	**CN09MD AD9**	F03FC01300
	Rounding insert	22 x 16 x 5 R=3	**IG52MAE305**	F03FH03025
	Screw	M6 x 14,5	**VT16M AA9**	F03FA04476
	Screw	M10 x 22	**VT19M MA9**	F03FA04496
	Nut	15 x 13,3 x M10	**VT20M MA9**	F03FC20670
ILC13	Knife	21,6 x 12 x 1,5	**CG62MTA310**	F03FC25458
	Wedge	15 x 20 x 8	**CN09MD AK9**	F03FC01304
	Rounding insert	22 x 16 x 5 R=3	**IG52MAE305**	F03FH03025
	Spur	22,86 x 2,5	**RG02MAA305**	F03FH03041
	Screw	M5 x 8	**VT05M AA9**	F03FA04444
	Screw	M6 x 14,5	**VT16M AA9**	F03FA04476
	Screw	M10 x 22	**VT19M MA9**	F03FA04496
	Reduced nuts	15 x 13,3 x M10	**VT20M NA9**	F03FC20671



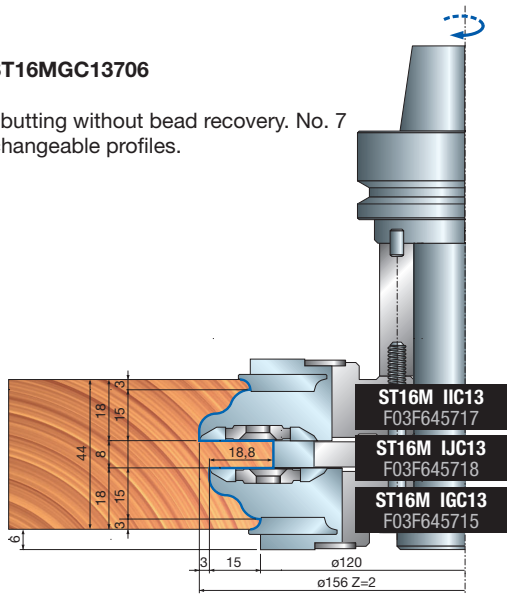
Set ST16MGC13705

Door butting without bead recovery. No. 7 interchangeable profiles.



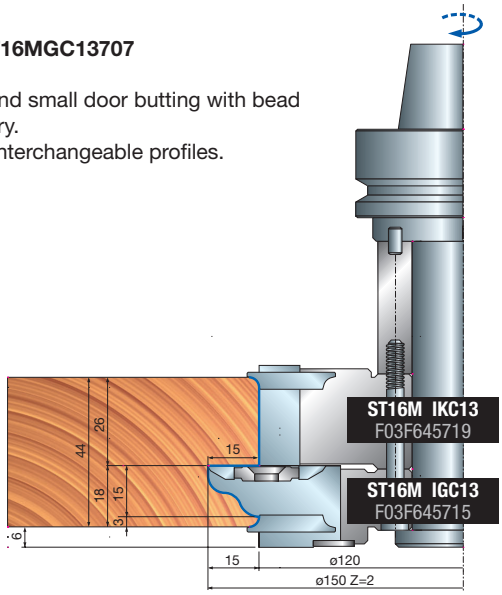
Set ST16MGC13706

Door butting without bead recovery. No. 7 interchangeable profiles.



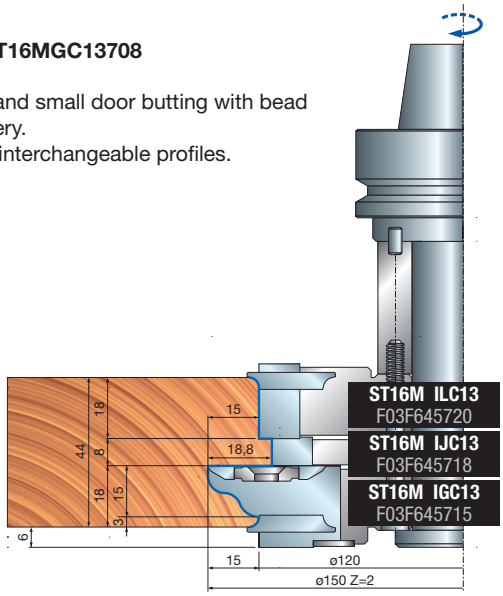
Set ST16MGC13707

Door and small door butting with bead recovery.
No. 7 interchangeable profiles.



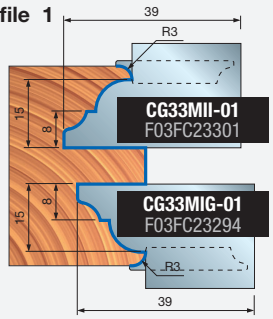
Set ST16MGC13708

Door and small door butting with bead recovery.
No. 7 interchangeable profiles.

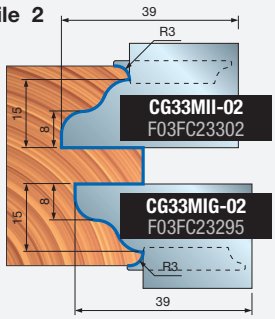


Profiling with 3 mm external rounding - Knives for cutterheads ST16M IGC13 - ST16M IIC13

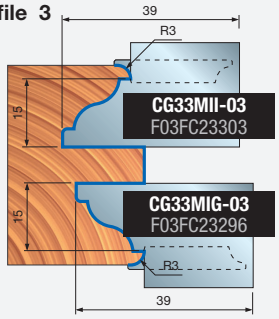
Profile 1



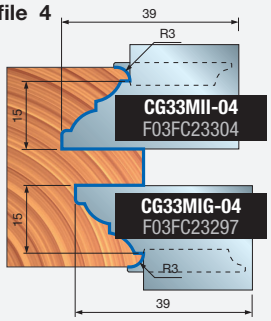
Profile 2



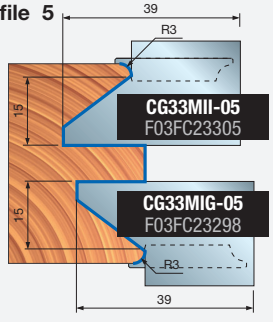
Profile 3



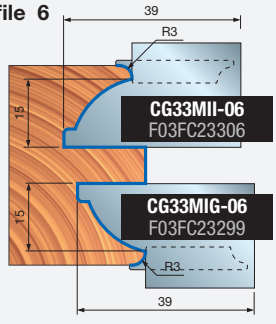
Profile 4



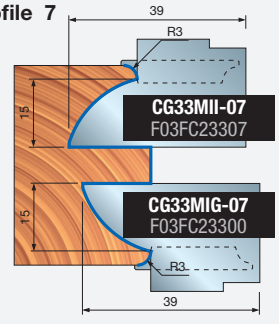
Profile 5



Profile 6

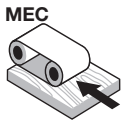


Profile 7



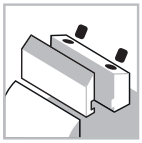


ST16MG CNC sets for door rebates



Automatic Feed

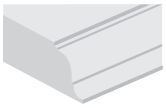

CNC Machines


Clamping System


Aluminium Body


Softwood


Hardwood


Profiling


Rebating

Machines:
CNC overhead routing machines.

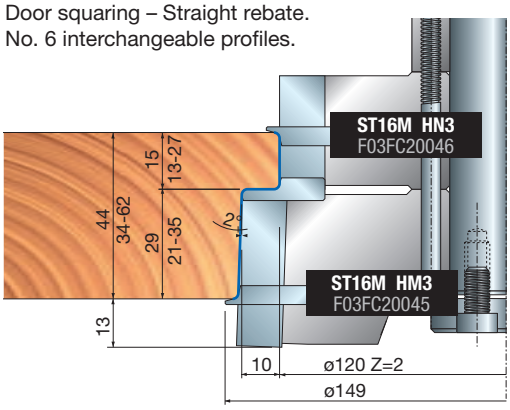
Materials:
Softwood and hardwood.

Applications:
Door rebate profiling.

Technical information:
Adjustable CNC tool set for internal door rebates.
- Adjustable rebate dimension with NSR system
- Chuck to be ordered separately.
- Aluminium light alloy body. For cleaning do not use products containing caustic soda.
- The tools for **ST16MG 820** and **ST16MG 821** are supplied without chuck.

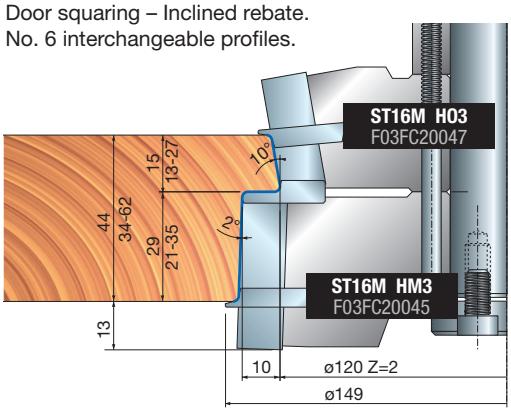
Set ST16MG 820

Door squaring – Straight rebate.
No. 6 interchangeable profiles.



Set ST16MG 821

Door squaring – Inclined rebate.
No. 6 interchangeable profiles.



D mm	B mm	d mm	Z	Max RPM 1/min.	Freud Code	Art. No.
149	127	-	2	9.000	**ST16MG 820**	F03FC20127
149	127	-	2	9.000	**ST16MG 821**	F03FC20128

Tools for ST16MG 820 and ST16MG 821 sets

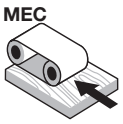
D mm	B mm	d mm	Z	I	Freud Code	Art. No.
120	30	30	2	2	**ST16M HN3**	F03FC20046
128,4	30	30	2	2	**ST16M HO3**	F03FC20047
141,8	40	30	2	4	**ST16M HM3**	F03FC20045

	Spare parts	Dimensions mm	Freud Code	Art. No.
	Knife	40 x 12 x 1,5	**CG08MLA310**	F03FH02909
	Wedge	15 x 36 x 8	**CN09MS AR9**	F03FC01334
	Nut	15 x 13,3 x M10	**VT20M MA9**	F03FC20670
	Screw	M10 x 22	**VT19M MA9**	F03FA04496
	Multipurpose insert	10	**IG25MS10302**	F03FC24172
	Screw	M6 x 10	**2622M CB9**	F03FA07455
	Adjustment ring	16 x 11,9 x 2,6	**VT18M AG9**	F03FC20660
	Wedge	28 x 9,5 x 8	**CN03M BB9**	F03FA00585
	Screw	M8 x 22	**VT19M BB9**	F03FA04493
	Rounding insert	22 x 16 x 5 R=1,5	**IG52MAB305**	F03FH03023
	Screw	M6 x 13	**VT16M AE9**	F03FC20658
	Knife	30 x 12 x 1,5	**CG08MEA310**	F03FH02906
	Wedge	15 x 26 x 8	**CN09MD AD9**	F03FC01300
	Nut	15 x 13,3 x M10	**VT20M MA9**	F03FC20670
	Screw	M10 x 22	**VT19M MA9**	F03FA04496
	Rounding insert	22 x 16 x 5 R=1,5	**IG52MAB305**	F03FH03023
	Screw	M6 x 13	**VT16M AE9**	F03FC20658
	Wedge	28 x 9,5 x 8	**CN03M BB9**	F03FA00585
	Screw	M8 x 22	**VT19M BB9**	F03FA04493
	Knife	30 x 12 x 1,5	**CG08MEA310**	F03FH02906
	Wedge	15 x 26 x 8	**CN09MS AD9**	F03FC01326
	Nut	15 x 13,3 x M10	**VT20M MA9**	F03FC20670
	Screw	M10 x 22	**VT19M MA9**	F03FA04496
	Rounding insert	22 x 16 x 5 R=1,5	**IG52MAB305**	F03FH03023
	Screw	M6 x 13	**VT16M AE9**	F03FC20658
	Wedge	28 x 9,5 x 8	**CN03M BB9**	F03FA00585
	Screw	M8 x 22	**VT19M BB9**	F03FA04493



ST16MG

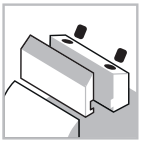
Window tooling set for door frame internal profiling



Automatic Feed



CNC Machines



Clamping System



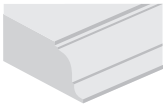
Aluminium Body



Softwood



Hardwood



Profiling



Rebating

ISOprofil TECHNOLOGY

Shear Angle TECHNOLOGY

Machines:
CNC overhead routing machines.

Materials:
Softwood and hardwood.

Applications:
Door fame profiling.

Technical information:
Performance CNC tool set suitable for door frames.

- Front shear angle to guarantee a perfect step surface, rounding and beveling insert to offer different solutions on step corners chuck and radius/chamfer inserts to be ordered separately.
- Aluminium light alloy body. For cleaning do not use products containing caustic soda.

D mm	B mm	d mm	Z	Max RPM 1/min.	Freud Code	Art. No.
158	123	-	2	9.000	**ST16MG 830**	F03FC20129

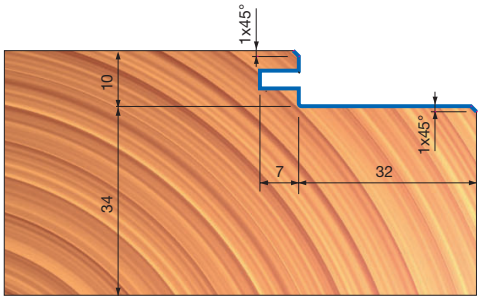
Tools for ST16MG 830 set

D mm	B mm	d mm	Z	V	Max RPM 1/min.	Freud Code	Art. No.
141	29	30	2	2		**ST16M HP3**	F03FC20048

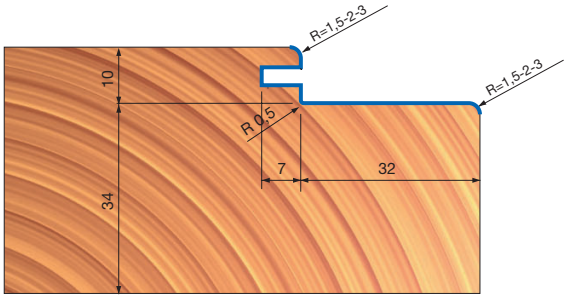
	Spare parts	Dimensions mm	Freud Code	Art. No.
	Knife	18,5 x 24 x 3	**CG30M02401**	F03FC23905
	Screw	5 x 7 x 18	**VT08M AE9**	F03FA04457
	Screw	M10 x 18	**VT03M CC9**	F03FA04438
	Grooving insert	40 x 16 x 3	**IG04MDAC305**	F03FH02992
	Screw	M6 x 14,5	**VT16M AA9**	F03FA04476

	Optional inserts	Dimensions mm	Freud Code	Art. No.
	Beveling insert	22 x 16 x 5 45°	**IG51MBA305**	F03FH03022
	Rounding insert	22 x 16 x 5 R=1,5	**IG52MAB305**	F03FH03023
	Rounding insert	22 x 16 x 5 R=2	**IG52MAC305**	F03FH03024
	Rounding insert	22 x 16 x 5 R=3	**IG52MAE305**	F03FH03025

With Beveling inserts

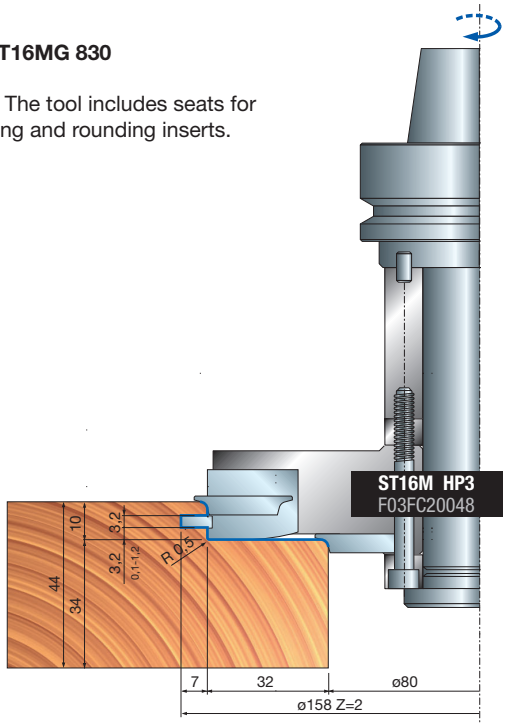


With Rounding inserts

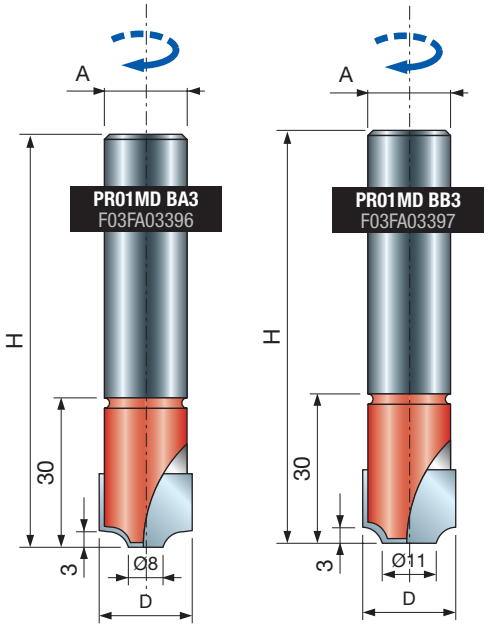


Set ST16MG 830

Note: The tool includes seats for beveling and rounding inserts.



PR01MD Bead profiling router bits





CNC Router



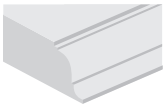
Brazed Cutters



Softwood



Hardwood



Profiling

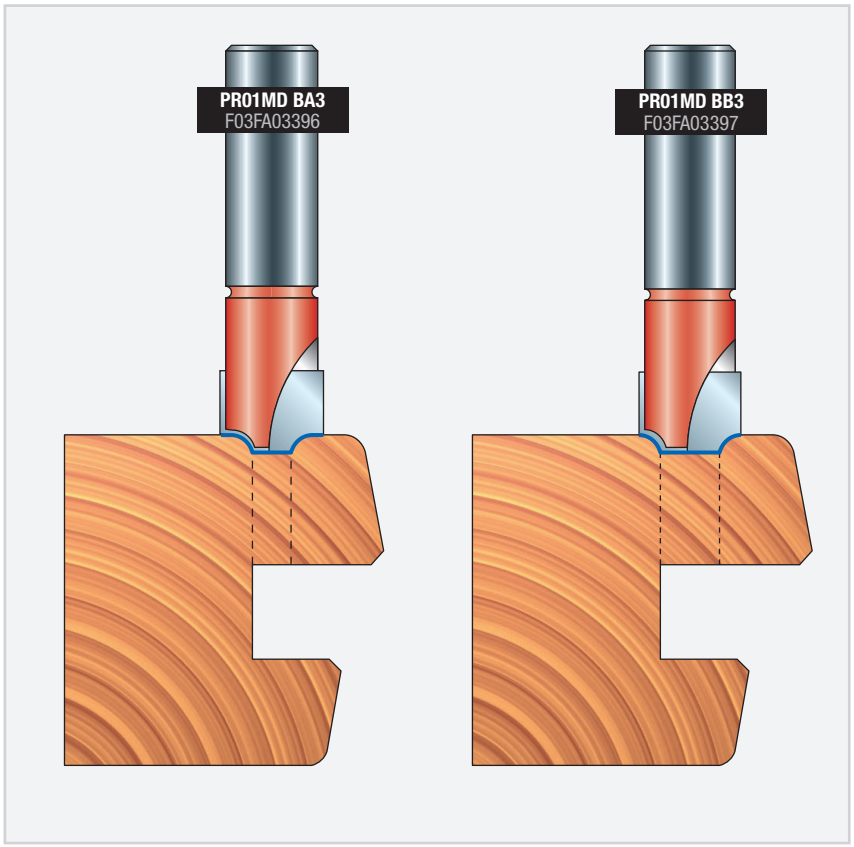
Machines:
CNC machines.

Materials:
Softwood and hardwood.

Applications:
Profiling.

Technical information:
Suitable for window bead recovery operations.
Manufactured in steel with brazed HW tips.

D mm	h mm	H mm	A mm	Z	Max RPM 1/min.	Freud Code	Art. No.
20	-	80	20	2	18.000	**PR01MD BA3**	F03FA03396
20	-	80	20	2	18.000	**PR01MD BB3**	F03FA03397



PCARM Bead recovering router bits



CNC Routers



Brazed Cutters



Softwood

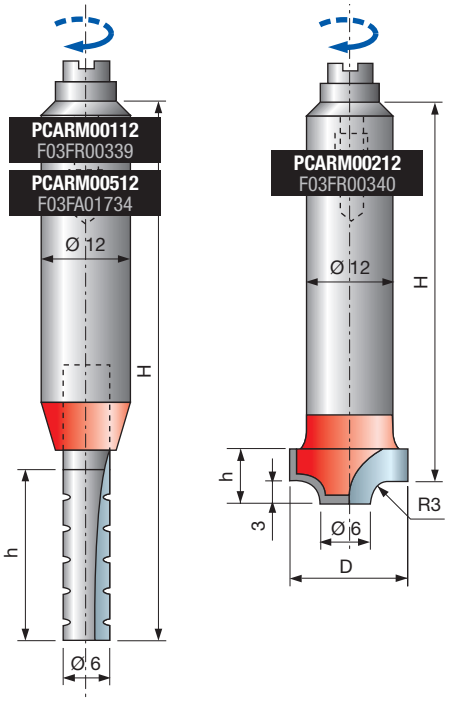


Hardwood



Profiling

D mm	h mm	H mm	A mm	Z	Max RPM 1/min.	Freud Code	Art. No.
6	23,5	71	12	1	24.000	**PCARM00112**	F03FR00339
6	30	80	12	1	24.000	**PCARM00512**	F03FA01734
16	8	56	12	2	24.000	**PCARM00212**	F03FR00340
19	8	56	12	2	24.000	**PCARM00312**	F03FR00341
20	26	71	12	2	24.000	**PCARM00412**	F03FR00342

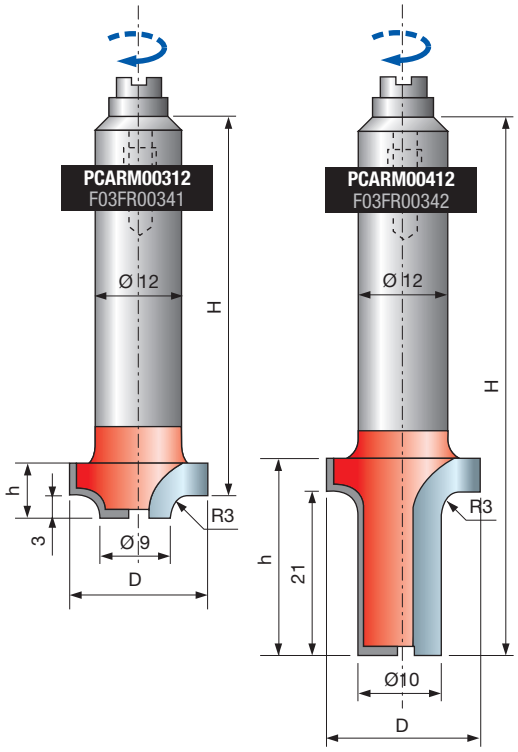


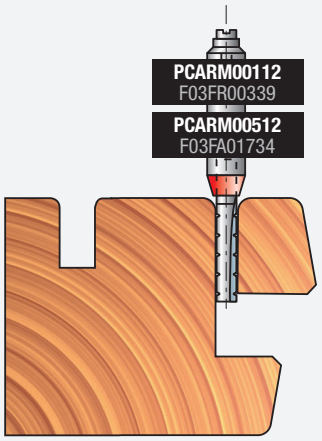
Machines:
CNC machines.

Materials:
Softwood and hardwood.

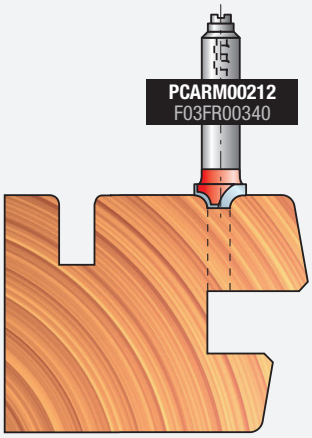
Applications:
Profiling.

Technical information:
Suitable for arch window bead recovery operations.
• Manufactured in steel with brazed HW tips.

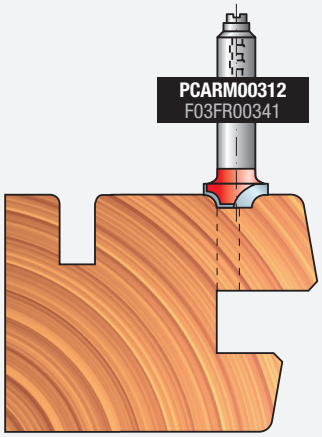




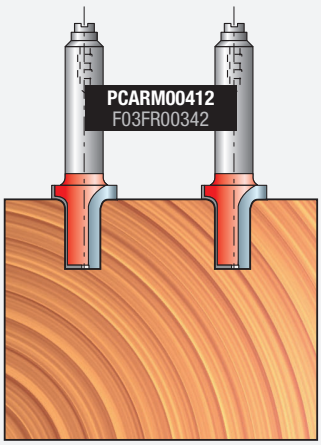
20-28 mm bead recovery bit.



Bead profiling bit.



Bead profiling bit.

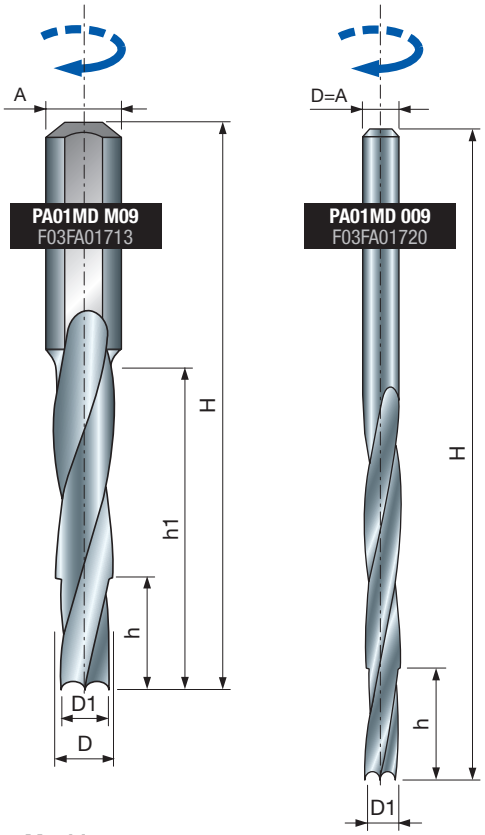


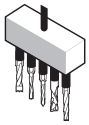
Arch tracing bit.

Boring



PA01MD HS stepped drill for hinges





Boring Machines



CNC Routers



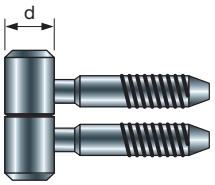
Softwood



Hardwood

D1 mm	D mm	h mm	h1 mm	H mm	A mm	d mm	Freud Code	Art. No.
3,8	5	20	40	75	10	9	**PA01MD M09**	F03FA01713
5,2	6,5	15	50	85	10	13	**PA01MD M13**	F03FA01715
5,5	7	15	55	90	10	14	**PA01MD M14**	F03FA01716
6	7,7	15	60	95	10	16	**PA01MD M16**	F03FA01717
6,6	8,2	20	70	105	10	18	**PA01MD M18**	F03FA01718
6,7	8,7	20	80	115	10	20	**PA01MD M20**	F03FA01719

D1 mm	D mm	h mm	h1 mm	H mm	A mm	d mm	Freud Code	Art. No.
4,5	5,25	10	45	83	5,25	9	**PA01MD 009**	F03FA01720
5,8	6,75	20	85	155	6,75	13	**PA01MD 013**	F03FA01722
6,3	7,25	19	95	165	7,25	14	**PA01MD 014**	F03FA01723
6,7	7,75	25	100	165	7,75	16	**PA01MD 016**	F03FA01724
7,7	8,75	20	70	121	8,75	18	**PA01MD 018**	F03FA01725



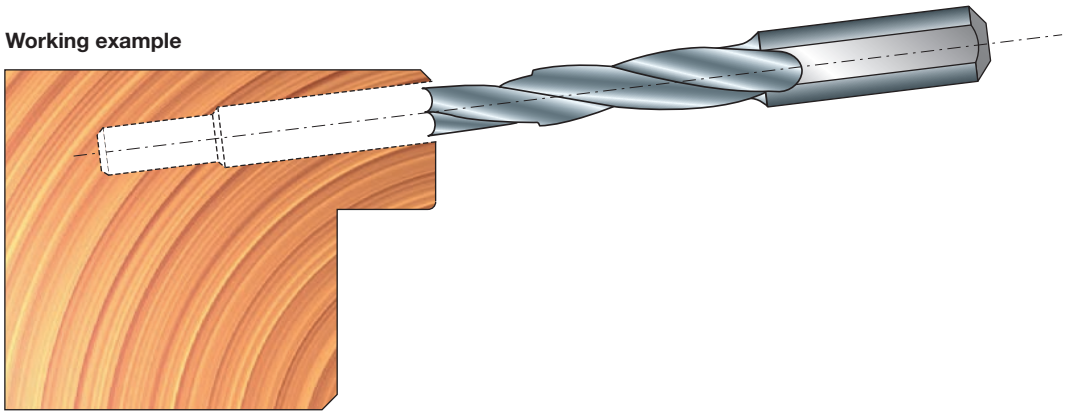
Machines:
Boring and CNC machines.

Materials:
Softwood and hardwood.

Applications:
Boring.

Technical information:
Right hand rotation router bit with double diameter for window hinges.

Working example



The tools have been designed and manufactured in accordance with the European Safety Standard EN-847

TOOLS

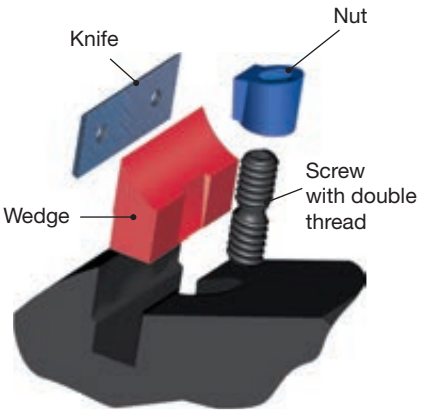
Tools shall be used only by persons of training and experience who have knowledge of how to use and handle tools.
The maximum rotational speed marked on the tool shall not be exceeded.
Circular saw blades, the bodies of which are cracked, shall be scrapped (repairing is not permitted).
One piece tool with visible cracks shall not be used.
Clamping surfaces shall be cleaned to remove dirt, grease, oil and water.

- Resin shall only be removed from light alloys with solvents that do not affect the mechanical characteristics of these materials.
  Tools and tool bodies shall be clamped in such a way that they shall not loosen during operation. Tools with cylindrical shank must be clamped in a way that the mark of the maximum free shank length shall be covered, at least partially, by the clamping device or by the locking collet.
- During assembly procedures, attention must be paid that knives, inserts and spurs do not collide with other elements.
  Fastening screws and nuts shall be tightened using the appropriate spanners etc. and to the torque value provided by the manufacturer. Extension of the spanner or tightening using hammer blows shall not be permitted.
  Clamping screws shall be tightened according to instructions provided by the manufacturer. Where instructions are not provided clamping screws shall be tightened in sequence from the centre outwards.
  Use of fixed rings, e. g. pressed or held by adhesive fixing, in flanged sleeves, shall be permitted if made to the manufacturers specifications.
- Repair and regrinding of tools shall only be allowed according to the tool manufacturer's instructions.
  After repair and regrinding of tools it shall be ensured that the tools observe balancing requirements.
  The design of composite (tipped) tools shall not be changed in the process of repair.
- Composite tools shall be repaired by a competent person, i.e. a person of training and experience, who has knowledge of the design requirements and understands the level of safety to be achieved.
  Repair shall therefore include, e.g. use of spare parts which are in accordance with the specification of the original parts provided by the manufacturer.
- Tolerances which ensure correct clamping shall be maintained.
  For one piece tools care shall be taken that regrinding of the cutting edge will not cause weakening of the hub and the connection of the cutting edge to the hub.
  To avoid injuries, tools shall be handled in accordance with the guidance provided by the manufacturer. Typically, safe handling involves the use of devices such as carrying hooks, proprietary handles, frames (e. g. for circular saw blades), boxes, trolleys etc.
  The wearing of protective gloves improves the grip on the tool and further reduces the risk of injury.
  Maintenance and modification of milling tools and related components and circular saw blades should always be in accordance with the design requirements/the manufacturer's instructions.
  Maintenance and modification of milling tools and circular saw blades should only be carried out by a competent person, i. e. a person of training and experience, who has knowledge of the design requirements and understand levels of safety to be achieved.
  When regrinding milling tools and circular saw blades, the minimum requirements of cutting blade thickness and cutting blade projection should be observed.
  Composite tools should be repaired by persons experienced in and with understanding of design and use of milling tools for processing wood and similar materials, e.g. an expert with a relevant education and knowledge of the brazing process, including in particular the influence of the brazing process on tension in tool body and cutting material. When brazing off worn tips and subsequently brazing on new tips it should be made sure that the tip is correctly mounted in the tool body and that the process does not result in critical tension in the tool body.
- After any type of maintenance, milling tools marked with MAN should continue to observe the requirements of the standards related to tools for hand feed.
  When modifying milling tools, e. g. modification of bore diameter, modification of shank, retipping of composite tools and similar, it should be ensured that the requirements of the standard relating to balancing are still observed.
  After being modified and/or retipped, milling tools and circular saw blades should be marked according to the rules applying to new tools. However, the name/logo of the company making the modification/ retipping should be added.
  To avoid injuries, tools shall be handled in accordance with the guidance provided by the manufacturer. Tools which weigh more than 15 kg may require the use of special handling devices or attachments, these will depend on the features that the manufacturer has designed into the tool to allow easy handling. The manufacturer can advise on the availability of necessary devices.

CLAMPING DEVICES

The speeds indicated on the clamping device and the tool to be clamped should be compared. For adjusting the speed on the machine the lower speed should be applied.
Screws and nuts should be tightened using the appropriate spanners.
Clamping surfaces should be cleaned to remove dirt, grease, oil and water.
Clamping devices and tools should be mounted or clamped according to given torques, pressures and wrenches to be used.
Extension of spanners or tightening or loosening by means of hammer blows should not be permitted.
Maximum tool diameters and tool lengths should not be exceeded.
Shank diameters must be in accordance with the clamping range of the clamping devices.
The minimum required clamping length must be kept.
Care should be taken that the data relevant to the safety of the clamped tool are always stored in the data medium.
Repairs should only be carried out by a competent person, i.e. a person with professional training and experience, who has knowledge of the design, construction and safety requirements.
Repair should therefore include the use of spare parts which are in compliance with the specifications of the original parts.

HRL HIGH RESISTANCE LOCKING SYSTEM



Components of HRL system



THE MOST TRIED AND TESTED SYSTEM:
Refined after many years of continuous improvements, both technologically as well as in the materials used to construct each component, without, however, losing sight of the functionability and security of the product. Furthermore, the HRL Locking System has undergone accurate controls, even from the mechanical and technological point of view.

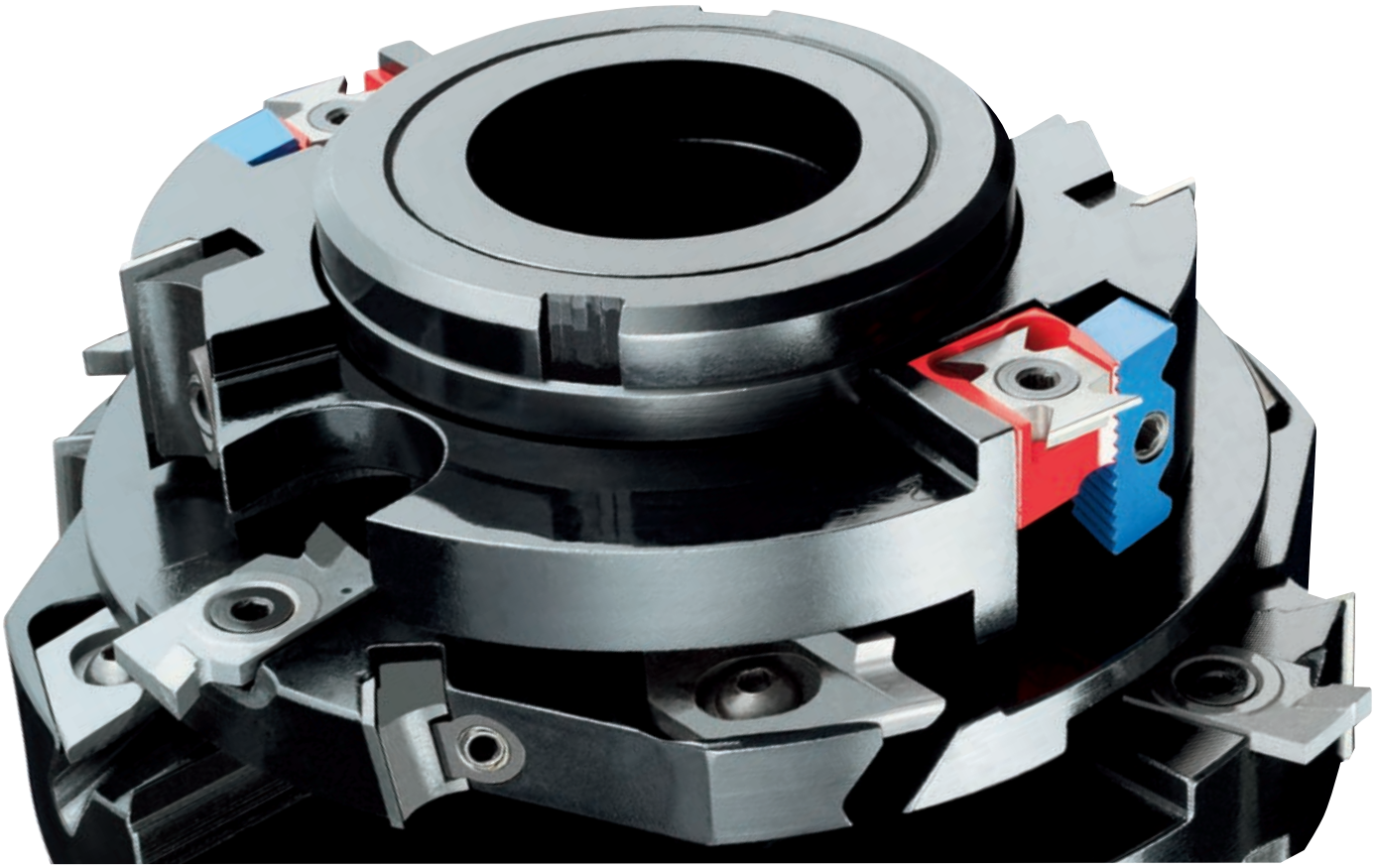
THE SAFEST SYSTEM:
Thanks to its wedge shaped design, the HRL Locking System takes advantage of centrifugal forces determined by the tool's rotation in order to block itself. For this reason as weil as the oversized components, there is no risk of accidental breakage or expulsion of the knife.

THE MOST PRECISE SYSTEM:
All seats and components are constructed using precision levels never before reached in the woodworking tools industry, guaranteeing an always perfect and efficient positioning.

THE SIMPLEST SYSTEM:
Complexity is not always synonymous of efficiency! There are other more complex locking methods than ours, but none as efficient. Our research centre has been able to carry out its realisation whilst keeping in consideration 2 fundamental points: have as few components as possible so as to be able to change knives quickly, even in the most difficult conditions.

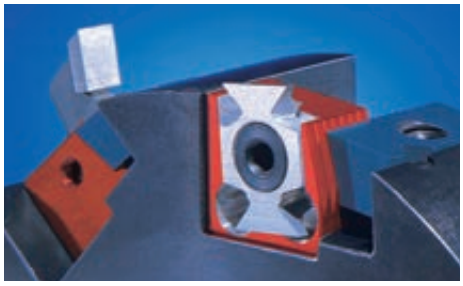
THE STRONGEST SYSTEM:
The use of wedges which have undergone special thermic treatment, the oversized screws and the precision of the HRL Locking System, guarantee an almost unlimited number of changes, without reducing its efficiency and in the most difficult conditions.

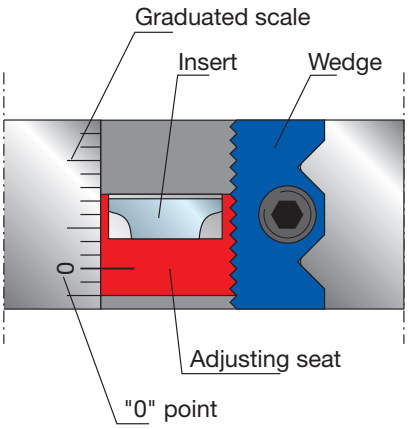
THE EASIEST SYSTEM TO MAINTAIN:
The use of only frontal screws, allow knife changes, without taking the tool off the operating machine, therefore reducing actual machine stoppages. It has been demonstrated by repeated tests, that a large frontal screw is less likely to become clogged up compared to a small one, whatever may be its position.

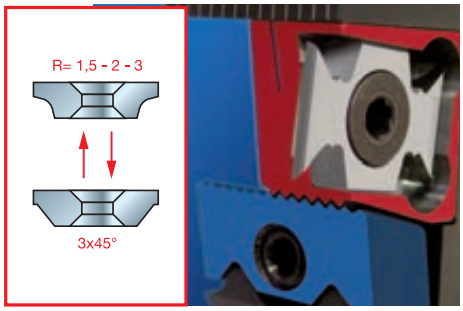


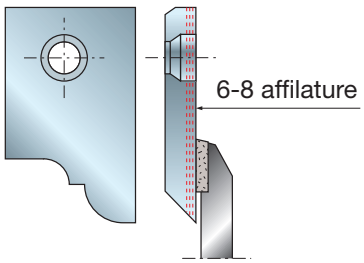
Components of NSR system

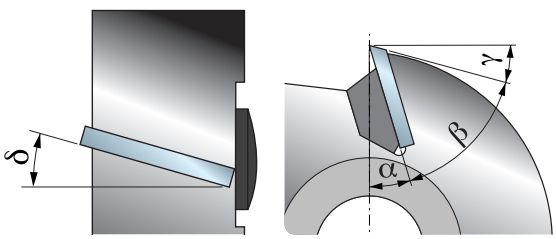












NSR REGULATION SYSTEM

- The NSR system, is currently the only one on the market which allows you to regulate and change the inserts directly on to the machine and without the need of any particular measuring instruments thanks to its particular technological charateristics and not to mention its constructive precision. The specially grained surface allows you to regulate the insert's height with increments of 1 mm and with precision of up to 1/100 of a mm, which in time will remain constant even after hundreds of changes. Furthermore the regulation is continuous along the thickness of the tool and not limited to fixed positions as happens with older systems.
- Special reference marks are incisioned using laser technology at intervals of 2 mm, in corrispondence to the grain's pass, allowing the user to carry out the easiest and most rapid positioning with absolute precision.
- Special incisioned markings consent a safe reference even after years of use. In the same seat and changing only the serrated support, it is possible to mount certain elements: rounding inserts, beveling inserts, inserts for grooves and spurs second to the necessity of use. Furthermore the insert has a positive cutting angle (hook angle) and a shear angle so as to consent the maximum finish possible on any type of workpiece.
- The insert's position with the NSR system is simple and requires the use of only a key. The very same key is also used to change the insert and is made up of very few components. With a simple gest, it is possible to take the insert off the serrated support or modify its position without even taking the tool of the operating machine, therefore avoiding useless and damaging machine stoppages.
- The exclusive type of hard metal used is produced directly by our own company. The hard metal is accurately controlled and its microstructure is modified second to the kind of use it will have to undergo, so as to obtain the best possible duration in corrispondence to the kind of finish required.

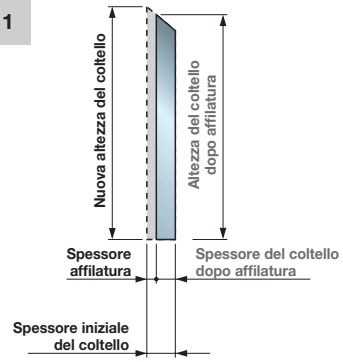
PROFILED AND RESHARPENABLE PERFORMANCE SYSTEM KNIVES

- Whereas on a traditional cutterhead, disposable blades are mounted with a thickness of 1.5 mm, on a Performance System cutter head, blades are mounted that can be sharpened 6 to 8 times, with a thickness of 3 mm, with straight or shaped profile. The second kind of tool undergoes more complex working to allow housing of blades with different profiles on the same body.
- Performance System knives are constructed in hard metal, which Freud produces in 6 grades of hardness, second to the material to be worked: softwoods and hardwoods, heavy, abrasive, chipboard, melamine, laminated, MDF etc. It is possible to use HW with a high grade of hardness, so as to permit a superior hold of 30% more with respect to the HW used for brazed cutting edges destined to work very abrasive materials.
- Other than being a solution that practically substitutes brazed cutters, thanks to the interchangeability of the profiles on the same tool and the duration of the tool itself, there is a notable advantage and convenience when working on overhead CNC router machines, where machine stoppages can result costly: infact the changing of a used or damaged knife does not require the dismounting of the cutterhead from the machine, since it is sufficient to loosen the screw that holds it in place. Instead a brazed cutter must be completely changed and a substitute available to avoid time wastage.
- Freud has an entire range of tools with performance, standard or personalised knives for manual or overhead CNC router machines.
- Even after sharpening, performance knives maintain their original profile and the tool's cutting diameter, considering maximum loses of 0,15~0,20 mm.
- We have already seen the economic advantage as compared to braze-welded tools. But the Performance System is also advantageous if compared to traditional cutterheads, thanks to the ease with which blades can be sharpened and the low cost of this operations, since no special machinery is required (all that is required is a grinder or a sharpener). Specialised personnel is also not required.

THE MOST CHARACTERISTIC ANGLES OF A CUTTERHEAD ARE:

- **Hook angle (α):** depends on the type of material to be cut.
- **Wedge angle (β):** this angle is a direct consequence of angles α and γ.
- **Clearance angle (γ):** depends on the material to be cut and the thickness of the cutting edge.
- **Shear angle (δ):** necessary to obtain a better penetration into the material to be cut and a gradual removal of the chips. When the tools have different diameters, this angle allows the hook angle to remain constant.

1

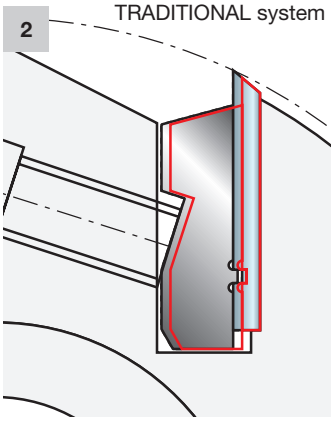


AUTOMATIC DIAMETER RECOVERY SYSTEM

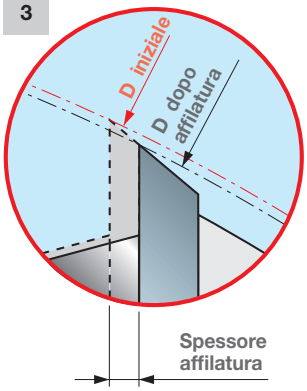
As is known, sharpening Performance System knives implicates variations in the tool cutting diameter that cause the tool to carry out an incorrect profile. The removal of material parallel to the knife surface causes a reduction in its thickness, its height (Fig. 1 and 2) and therefore in the diameter of the tool itself (Fig. 3).The introduction of this ISOprofil system consents us to avoid in a definitive way the reduction of the diameter, with extreme operative simplicity and without the need of auxiliary measuring instruments to verify the correct functionality of the knife after sharpening. The idea is fundamentally based on the geometrical form of the wedge and its positioning seats on the tool (Fig. 4). Tightning the locking screw, pushes the wedge until it locks the knife on to the tool. The wedge running on the inclined surface blocks the knife and rises until it compensates the reduction in the cutting diameter, determined by the sharpening. Those liable to draw particular advantage, are those who use numerically controlled machines with the necessity of maintaining a tool with a constant diameter, without having to intervene on the reprograming of the operating machine, so as to compensate dimensional errors that may derive from sharpening.

2

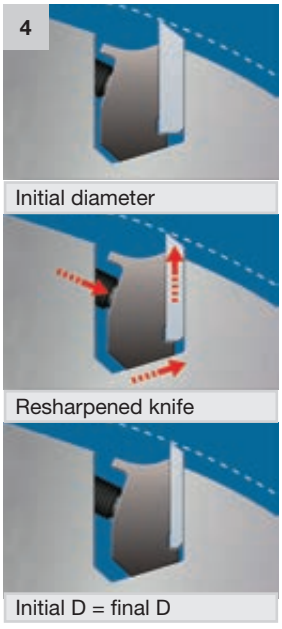
TRADITIONAL system

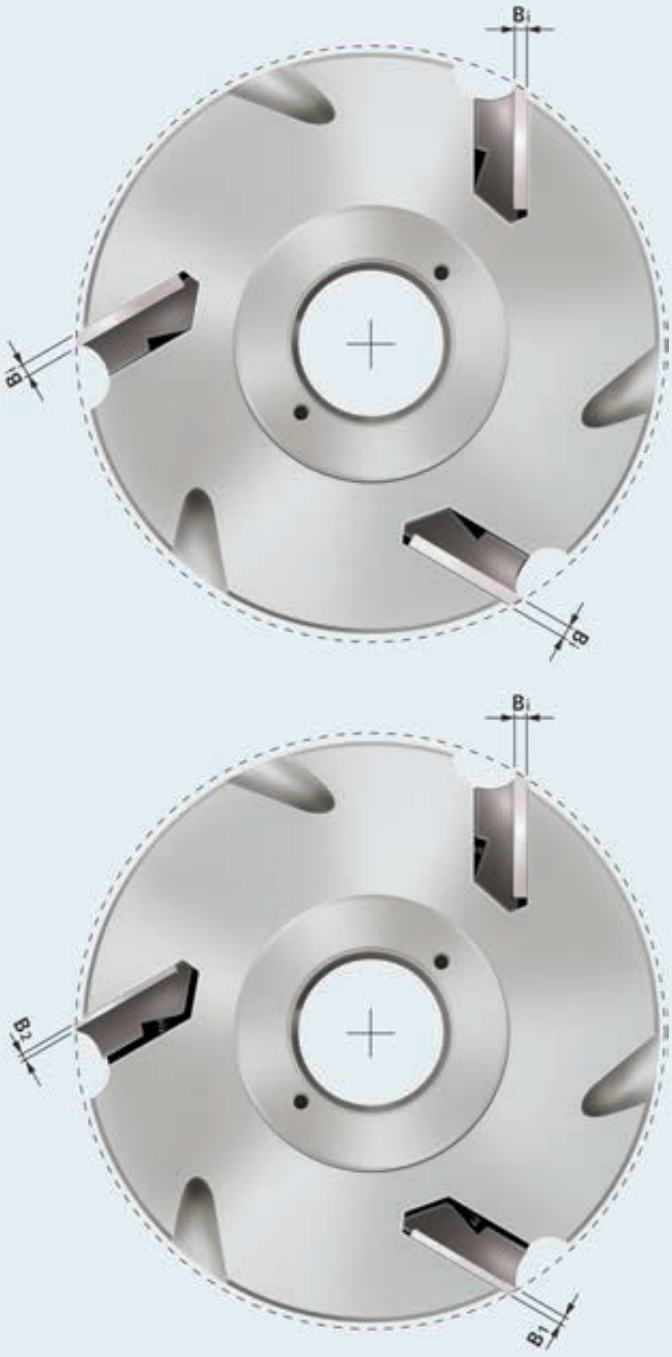


3



4





KEY

Bi: Initial knife's thickness
B1: Resharpened knife with thickness < Bi
B2: Resharpened knife with thickness < B1

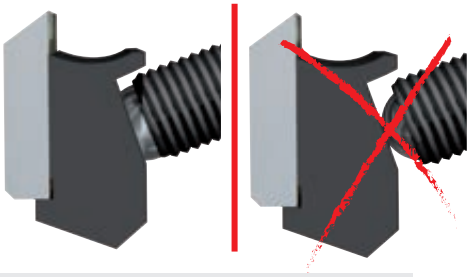


AUTOMATIC DIAMETER RECOVERY SYSTEM

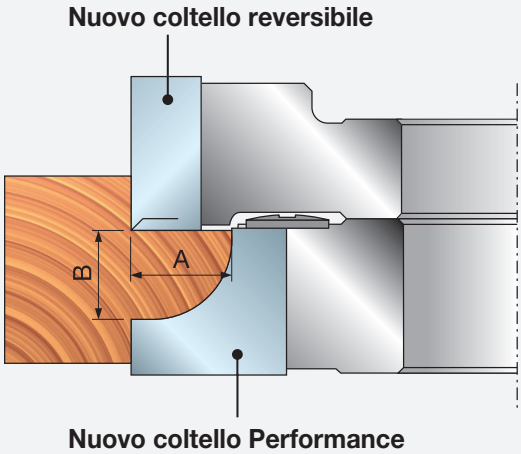
Furthermore, in order to maintain the profile of Performance knives even after several resharpenings, Freud has invented and adopted a simple but determined device, by also creating a relief angle on the support side of the knife on the positioning screw (Fig. 5a). In this way whilst sharpening is carried out, the profile does not vary, as would happen with a traditional knife. The user is surely to gain an advantage from the new system. Carrying out work where there are resharpenable knives to create the profile and the scribe (Fig. 6), it is evident that the maintenance of original shape allows to obtain a perfect fitting all through the knives'life, even after 8-10 sharpenings, without regulation of guides or CNC axes. In this way you can enjoy the reduced operating costs of "Performance" knives, without any limitation in comparison to disposable knives.
In the second example (Fig. 5b), thanks to the clearance angle on the underside, the sharpened knife would move to the value ΔS, until it rests on the positioning screw, maitaining an unaltered width a.



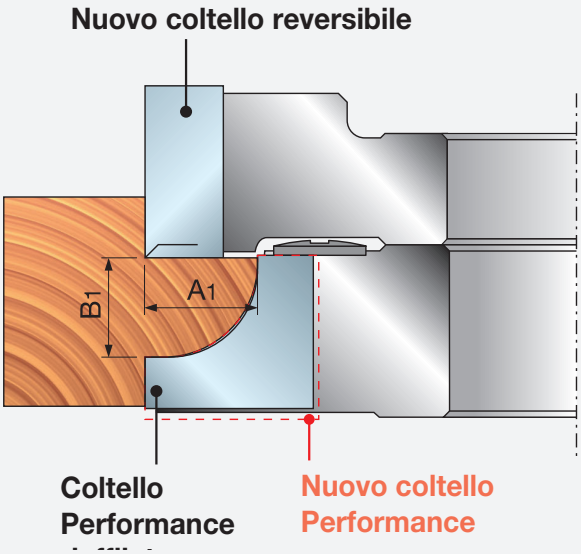
Screws with spherical insert, for ISOprofil System



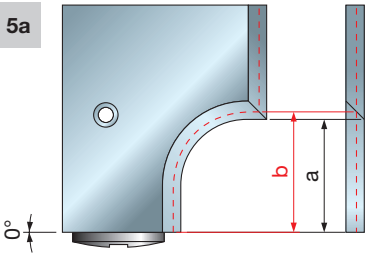
Proper locking is obtained when the flat surface of the spherical insert completely adheres to the wedge.



A= A1
B= B1

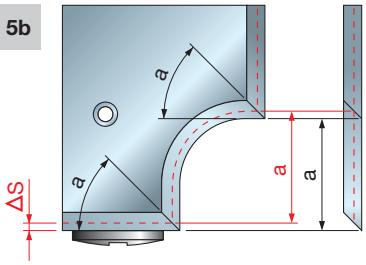


5a



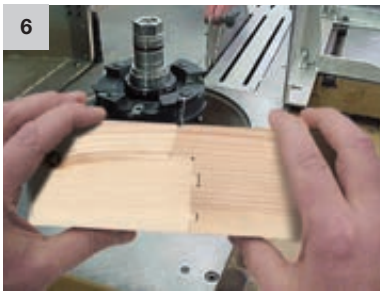
Traditional knife

5b

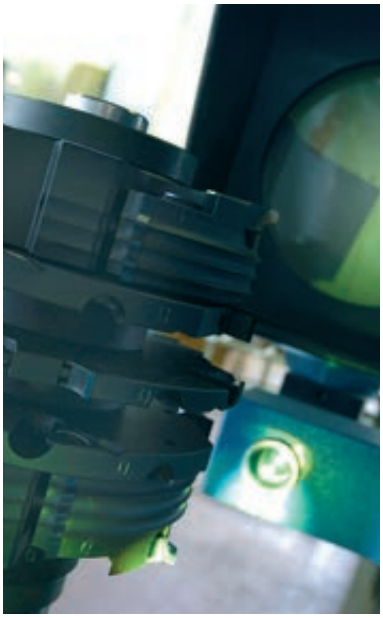


New type of knife

6









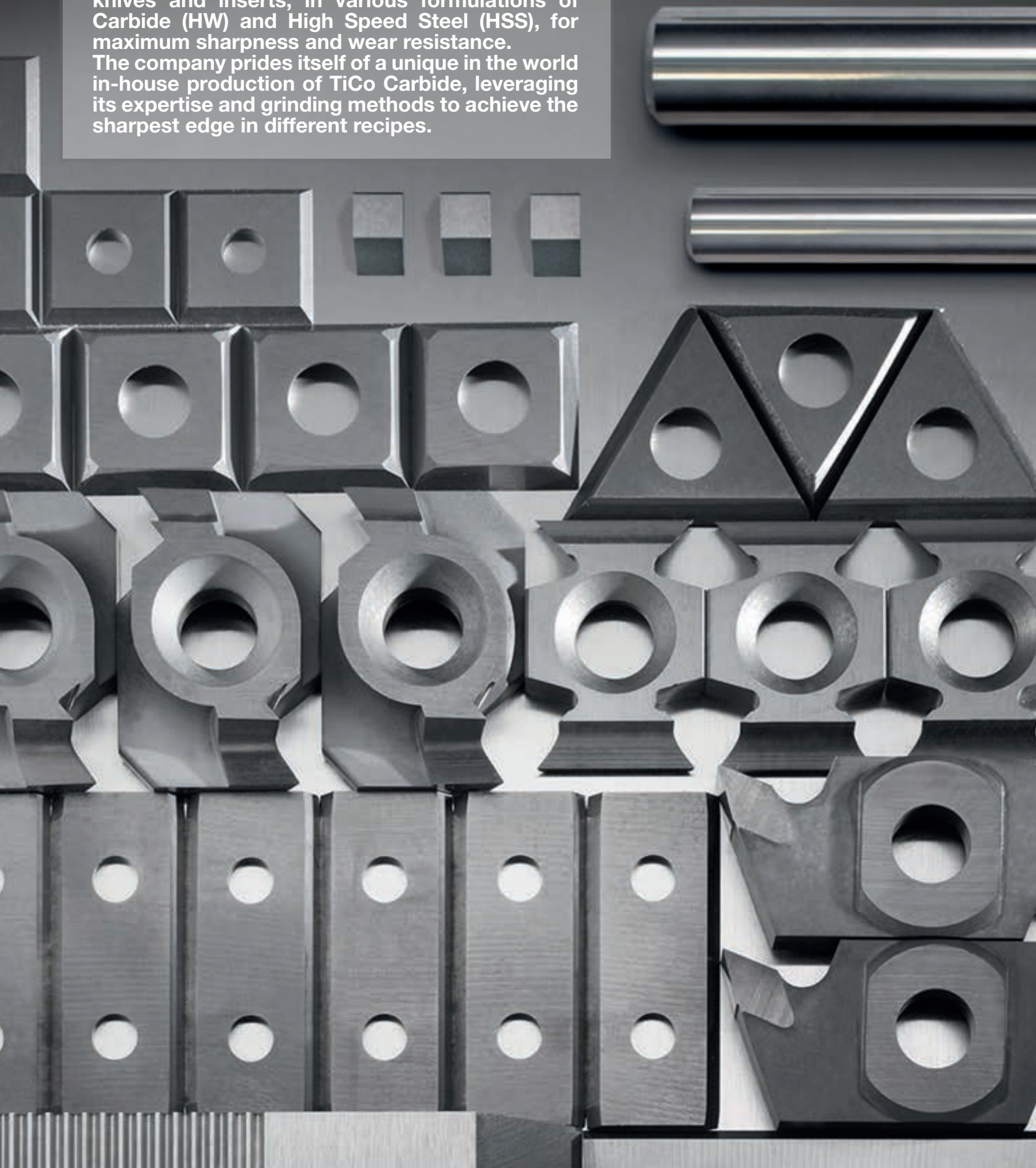
ABSOLUTE QUALITY

- The use of smart machines connected to a complex information system and the use of highly specialised personnel makes it possible to achieve a level of precision never before seen in the field of woodworking tools.
- Each tool is computer-designed in our design department, optimising characteristics based on customer needs. This leads to a tool with the utmost in performance for the desired applications.
- Each tool is then balanced to eliminate vibrations due to uneven distribution of the ferrous mass that would occur during work. Three different balancing operations are performed. The first is on the single tool, and the second is on the complete group. The third, of extreme importance, is on the set of groups that will be assembled on the machine shaft.
- Each tool is checked with a computerised system that makes it possible to verify, even before final testing, the precision of the required group.
- All of these working and verification phases mean that Freud can provide clients with a turnkey product that is immediately productive and therefore economically profitable.
- Fine tuning is performed by the testing department, where a production simulation is carried out. For each single group, a wood sample is worked with the requested profile. In this way, the customer is provided with a system that can be used right away without the need for any further adaptation.

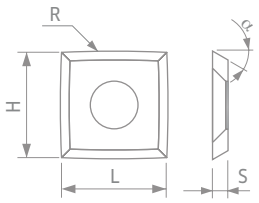


Knives and Inserts in HW and HSS

Freud offers the most comprehensive range of knives and inserts, in various formulations of Carbide (HW) and High Speed Steel (HSS), for maximum sharpness and wear resistance.
The company prides itself of a unique in the world in-house production of TiCo Carbide, leveraging its expertise and grinding methods to achieve the sharpest edge in different recipes.



INDEX - KNIVES AND INSERTS IN HW AND HSS

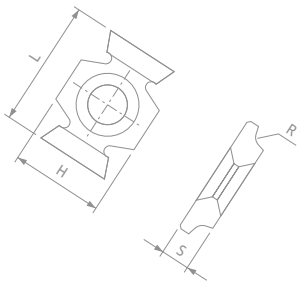


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KNIVES

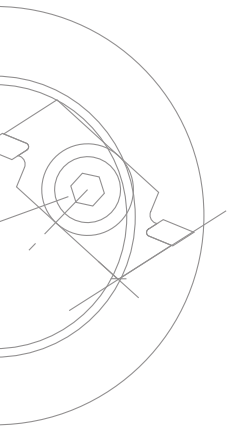
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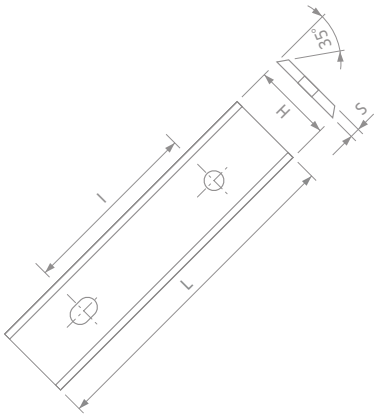
Spurs in HW for planing and finishing

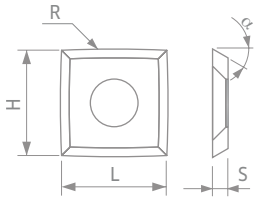
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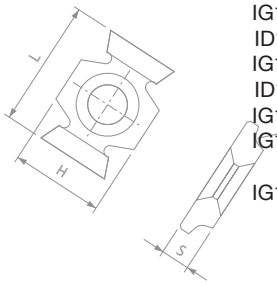
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Technical features ... Page 527

LEADING TECHNOLOGY

TiCo CARBIDE TECHNOLOGY

For its premium cutters Freud offers more than 20 Carbide blends, formulated both for standard and custom applications, crafted to deliver the correct grade, an optimised relief angle and maximum sharpness.

TiCo Carbide
A specially formulated, highly compact Titanium Cobalt Carbide, engineered and manufactured by freud.
It provides a sharper edge and flawless finish with a dramatically longer cutting life.





CARBIDE INNOVATION

The continuous investment in new Carbide recipe development maintains the knives performance at unmatched quality levels.

For its new Carbide Rounded Razors, Freud has formulated a dedicated fine-grain Carbide (**K01S**), specifically engineered to achieve a high level of hardness and tenacity. The formula guarantees the greatest resistance to wear and impact.













PIONEERING SOLUTIONS

Freud's production process, from raw material selection to final grinding, is based on the industry's most sophisticated manufacturing technologies, for knives and inserts with superior wear resistance.

Advanced testing methods and strict controls, throughout the entire cycle, guarantee 100% product compliance to quality parameters.



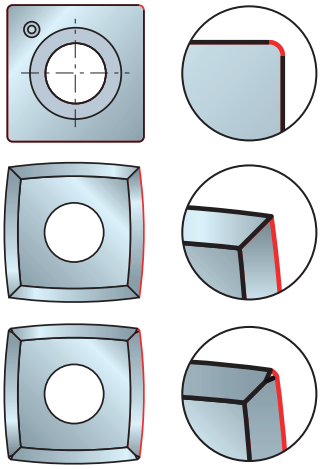
Freud takes pride in producing the sharpest knives in the world, in different Carbide formulas (cutting edge minimum roughness µm 0.12-0.15). This remarkable result is achieved leveraging a solid know-how and the most advanced grinding methods.

The sharpness of the cutting edge provides higher resistance to cutting pressure and abrasion, delivering extended lifetime and perfect finishing on wood and wood derivatives.

DESIGN INNOVATION

Freud leverages its market knowledge and technical know-how to constantly develop new geometries and shapes for its knives and inserts.

For its new range of Carbide Rounded Razors, for example, Freud has developed designs with rounded corners, rounded edges and with a combination of both, to achieve the highest results in demanding applications that require a perfect quality of cut.

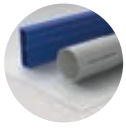


RR**01**
razor with rounded corners

RR**10**
razor with rounded edges

RR**11**
razor with both rounded corners and edges

HW - INDUSTRIAL QUALITY KNIVES
CHOOSE THE RIGHT TOOL

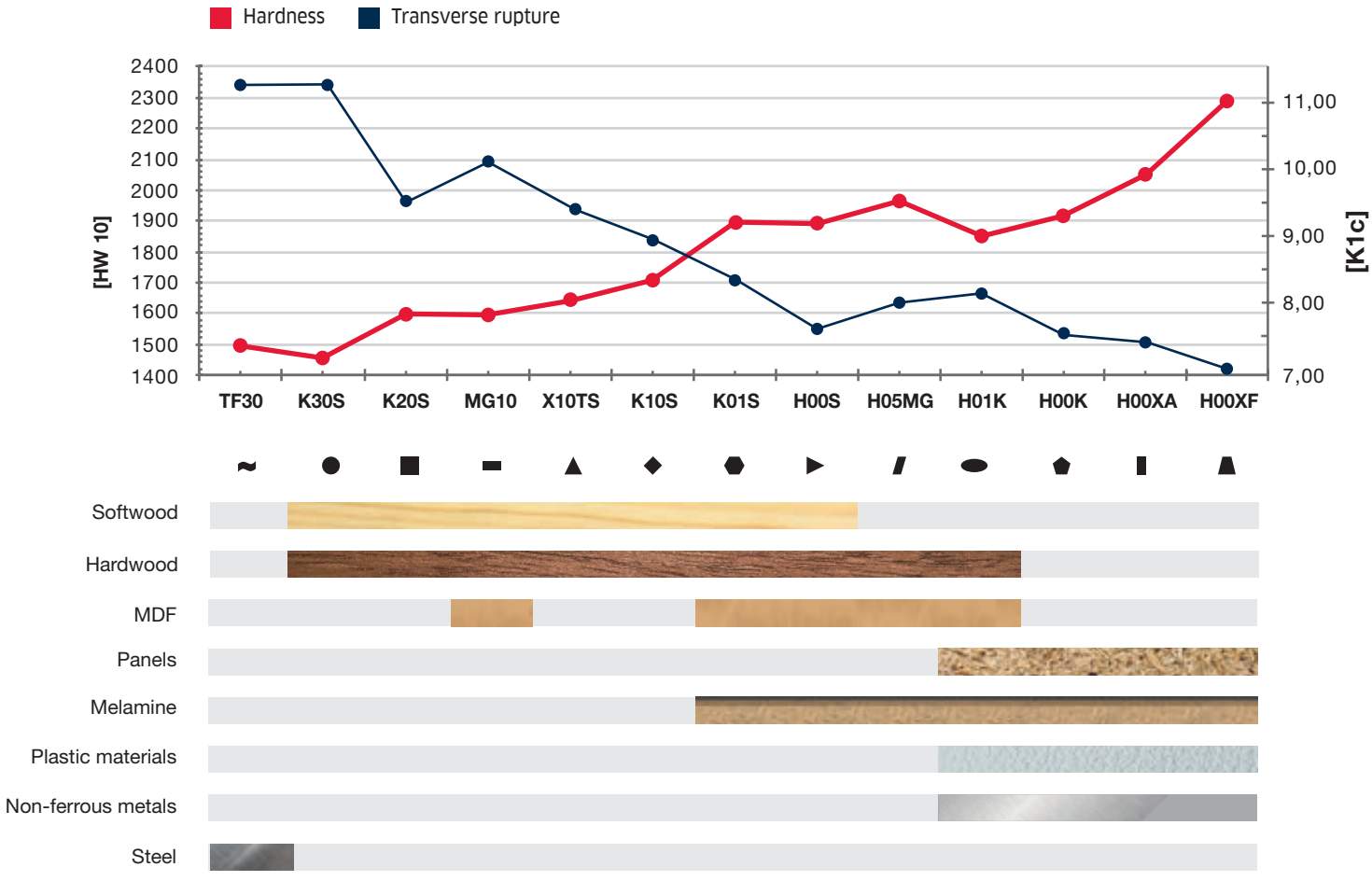
APPLICATION		PERFORMANCE	RELIEF ANGLES	FREUD CODE
	Universal		35°	CG26M
			35°	CG01M - CG10M
			35°	CG08M
			35°	CG19M
	Softwood		35°	CG26M
			35°	CG01M - CG10M
			35°	CG08M
			35°	CG19M
			40°	CG76M
			40°	CG66M
			40°	CG06M
			40°	CG18M
			45°	CG62M
			45°	CG22M
	Hardwood		35°	CG26M
			35°	CG01M - CG10M
			35°	CG08M
			35°	CG19M
			40°	CG76M
			40°	CG66M
			40°	CG06M
			40°	CG17M
			40°	CG18M
			45°	CG62M
			45°	CG22M
	Plywood panels		35°	CG04M*
			35°	CG05M
			35°	CG01M - CG10M
			35°	CG08M
			35°	CG19M
	Laminate chipboard		35°	CG20M*
			35°	CG04M*
			35°	CG05M
			35°	CG26M
			35°	CG01M - CG10M
			35°	CG08M
			35°	CG19M
	MDF		35°	CG20M*
			35°	CG04M*
			35°	CG05M
			35°	CG26M
			35°	CG01M - CG10M
			35°	CG08M
			35°	CG19M
			40°	CG76M
			40°	CG66M
	HDF		35°	CG20M*
			35°	CG04M*
	Plastics		35°	CG20M*
			35°	CG26M
			35°	CG01M - CG10M
			35°	CG08M
			35°	CG19M

HW - INDUSTRIAL QUALITY KNIVES
CHOOSE THE RIGHT TOOL

RELIEF ANGLE	CODE	APPLICATION								HW		HARDNESS
		Universal	Softwood	Hardwood	Plywood	Laminated	MDF	HDF	Plastics			HV 10
35°	CG20M*	-	-	-	-	●	●	●	●	H00XF	▲	2300
35°	CG04M*	-	-	-	◑	◕	◕	◑	-	H00XA	▮	2070
35°	CG05M	-	-	-	◑	◑	◑	-	-	H00K	⬟	1960
35°	CG26M	◑	◕	◑	-	◔	◔	-	◕	H01K	⬬	1870
35°	CG01M - CG10M	◕	◑	◕	◔	◔	◔	-	◑	H00S	▶	1860
35°	CG08M	◕	◑	◕	◔	◔	◔	-	◑	K01S	⬣	1850
35°	CG19M	◕	◑	◕	◔	◔	◔	-	◑	H00S	▶	1860
40°	CG76M	-	◕	●	-	-	◑	-	-	H01K	⬬	1870
40°	CG66M	-	◕	◕	-	-	◔	-	-	X10TS	▲	1650
40°	CG06M	-	◑	◑	-	-	-	-	-	K30S	●	1430
40°	CG17M	-	-	●	-	-	-	-	-	K10S	◆	1620
40°	CG18M	-	◑	◑	-	-	-	-	-	K30S	●	1430
45°	CG62M	-	●	◕	-	-	-	-	-	X10TS	▲	1650
45°	CG22M	-	◑	◑	-	-	-	-	-	K30S	●	1430

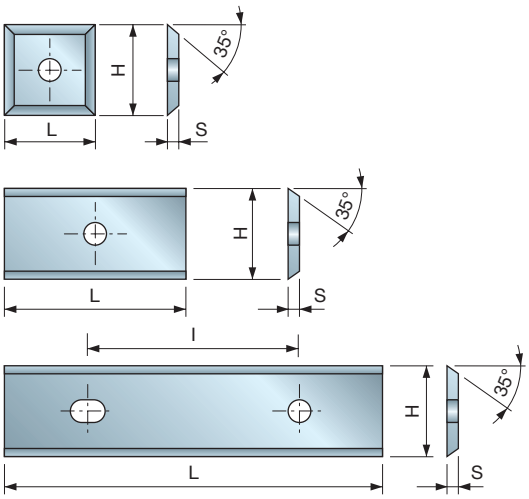
*** Not for board containing foreign materials**

● Ultimate performance ◕ High performance ◑ Standard performance ◔ Basic performance - Not recommended



Knives





HW
K01S

12 mm disposable knives made by K01S
Freud's Carbide with 35° relief angle.
• Ideal for a universal use.

CG08M HW - 35° Disposable knives



Softwood | Hardwood | Chipboard | Laminated Chipboard | MDF | Laminated MDF | Plastics

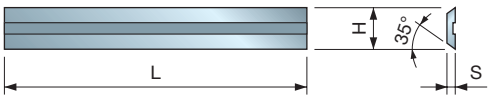
L mm	H mm	S mm	I mm	Freud Code	Art. No.
7,6	12	1,5	-	CG08MAA310	F03FH02902
8,6	12	1,5	-	CG08MJA310	F03FH03349
9,6	12	1,5	-	CG08MMA310	F03FH02910
11,6	12	1,5	-	CG08MNA310	F03FH03254
12	12	1,5	-	CG08MBA310	F03FH02903
15	12	1,5	-	CG08MCA310	F03FH02904
15,6	12	1,5	-	CG08MGB310	F03FH03350
16,3	12	1,5	-	CG08MJD310	F03FH03351
16,6	12	1,5	-	CG08MJB310	F03FH03352
20	12	1,5	-	CG08MDA310	F03FH02905
24	12	1,5	-	CG08MOA310	F03FH02911
25,8	12	1,5	14	CG08MJC310	F03FH03353
30	12	1,5	14	CG08MEA310	F03FH02906
40	12	1,5	26	CG08MLA310	F03FH02909
50	12	1,5	26	CG08MFA310	F03FH02907
60	12	1,5	26	CG08MGA310	F03FH02908

CG01M HW - 35° Disposable knives



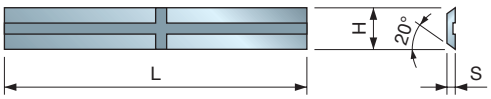
Softwood | Hardwood | Chipboard | Laminated Chipboard | MDF | Laminated MDF | Plastics

Type A



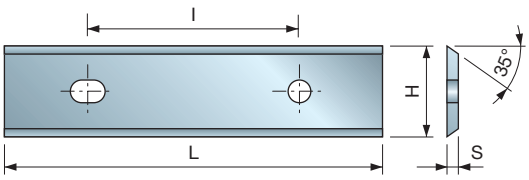
L mm	H mm	S mm	I mm	Freud Code	Art. No.
20	5,5	1,1	-	CG01MDB310	F03FH02735
30	5,5	1,1	-	CG01MEB310	F03FH02850
40	5,5	1,1	-	CG01MFJ310	F03FH02853
50	5,5	1,1	-	CG01MFB310	F03FH02852

Type B



L mm	H mm	S mm	I mm	Freud Code	Art. No.
20	5,5	1,1	-	CG01MBX310	F03FH03713
25	5,5	1,1	-	CG01MCX310	F03FH03715
30	5,5	1,1	-	CG01MEX310	F03FH03717
40	5,5	1,1	-	CG01MDX310	F03FH03719
50	5,5	1,1	-	CG01MFX310	F03FH03721

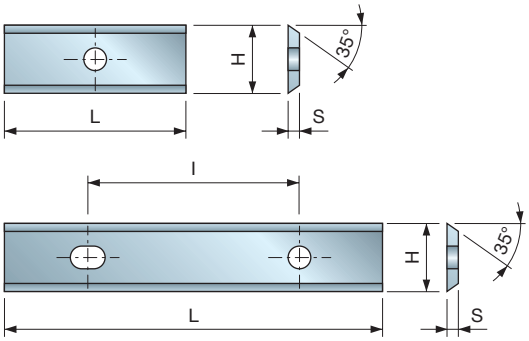
Type C



L mm	H mm	S mm	I mm	Freud Code	Art. No.
80	13	2,2	60	CG01MHA301	F03FA18134
100	13	2,2	60	CG01MIA301	F03FA18182
120	13	2,2	60	CG01MKA301	F03FA18183

HW
H00S

12 mm Disposable knives made by H00S
Freud's Carbide with 35° relief angle.
• Ideal for a universal use.



HW
H00S

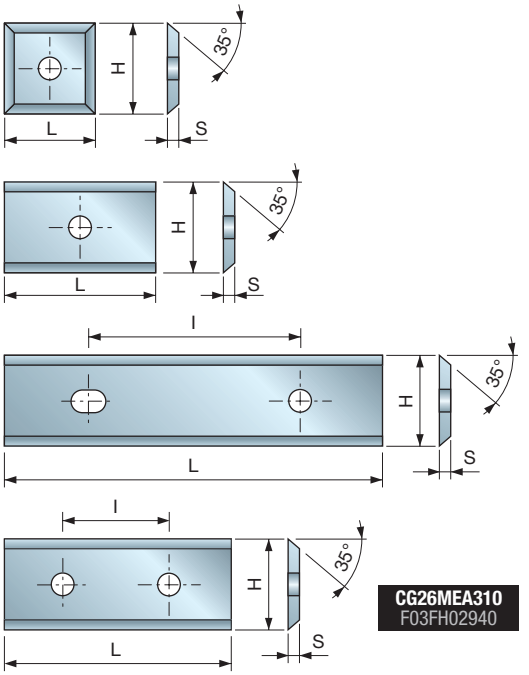
12 mm Disposable knives made by H00S
Freud's Carbide with 35° relief angle.
• Ideal for a universal use.

CG10M HW - 35° Disposable knives



Softwood | Hardwood | Chipboard | Laminated Chipboard | MDF | Laminated MDF | Plastics

L mm	H mm	S mm	I mm	Freud Code	Art. No.
7,5	9	1,5	-	CG10MAA310	F03FC23863
9,6	9	1,5	-	CG10MBA310	F03FC23864
12	9	1,5	-	CG10MCA310	F03FC23865
14,6	9	1,5	-	CG10MEA310	F03FH02912
20	9	1,5	-	CG10MGA310	F03FH02913
30	9	1,5	14	CG10MHA310	F03FH02914
40	9	1,5	26	CG10MIB310	F03FH02916
50	9	1,5	26	CG10MIA310	F03FH02915
60	9	1,5	26	CG10MKA310	F03FH02917



CG26MEA310
F03FH02940

HW
H01K

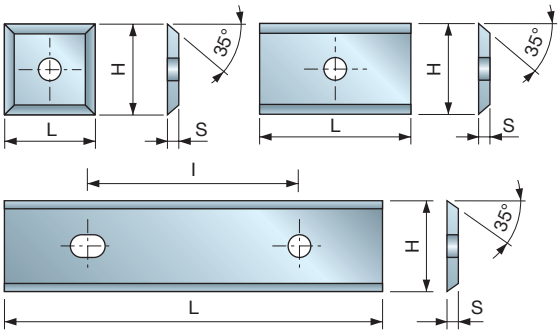
12 mm Disposable knives made by H01K
Freud's Carbide with 35° relief angle.
• Ideal for a universal use.

CG26M HW - 35° Disposable knives



Softwood | Hardwood | MDF | Laminated MDF | Plastics

L mm	H mm	S mm	I mm	Freud Code	Art. No.
7,6	12	1,5	-	CG26MAA310	F03FH02936
8,6	12	1,5	-	CG26MJA310	F03FH04114
9,6	12	1,5	-	CG26MMA310	F03FH02944
10,6	12	1,5	-	CG26MUE310	F03FH02947
11,6	12	1,5	-	CG26MNA310	F03FH02945
12	12	1,5	-	CG26MBA310	F03FH02937
15	12	1,5	-	CG26MCA310	F03FH02938
18,6	12	1,5	-	CG26MJE310	F03FC23866
20	12	1,5	-	CG26MDA310	F03FH02939
20,6	12	1,5	-	CG26MJF310	F03FC23867
22,6	12	1,5	-	CG26MJG310	F03FC23868
24	12	1,5	-	CG26MOA310	F03FH02946
30	12	1,5	14	CG26MEA310	F03FH02940
40	12	1,5	26	CG26MLA310	F03FH02943
50	12	1,5	26	CG26MFA310	F03FH02941
60	12	1,5	26	CG26MGA310	F03FH02942



HW
H00K

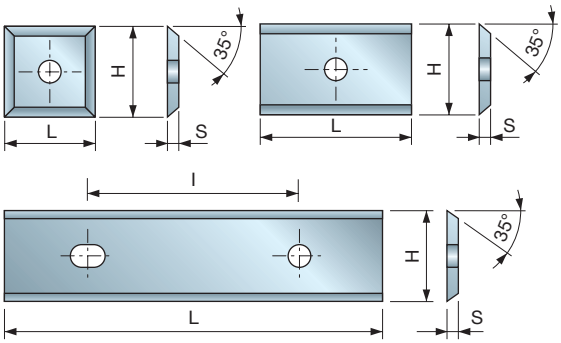
12 mm Disposable knives made by H00K
Freud's Carbide with 35° relief angle.
• Ideal for wood composites

CG05M HW - 35° Disposable knives



Chipboard | Laminated Chipboard | MDF | Laminated MDF | Plywood

L mm	H mm	S mm	I mm	Freud Code	Art. No.
12	12	1,5	-	CG05MBA310	F03FH02885
20	12	1,5	-	CG05MDA310	F03FH02886
30	12	1,5	14	CG05MEA310	F03FH02887
50	12	1,5	26	CG05MFA310	F03FH02888



HW
H00XA

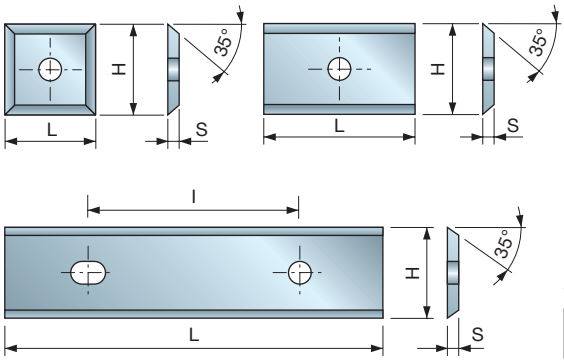
12 mm Disposable knives made by H00XA
Freud's Carbide with 35° relief angle.
• Ideal for wood composites.

CG04M HW - 35° Disposable knives



Chipboard | Laminated Chipboard | MDF | Laminated MDF | Plywood

L mm	H mm	S mm	I mm	Freud Code	Art. No.
12	12	1,5	-	CG04MBA310	F03FH02880
15	12	1,5	-	CG04MCA310	F03FH02881
20	12	1,5	-	CG04MDA310	F03FH02882
30	12	1,5	14	CG04MEA310	F03FH02883
50	12	1,5	26	CG04MFA310	F03FH02884



HW
H00XF

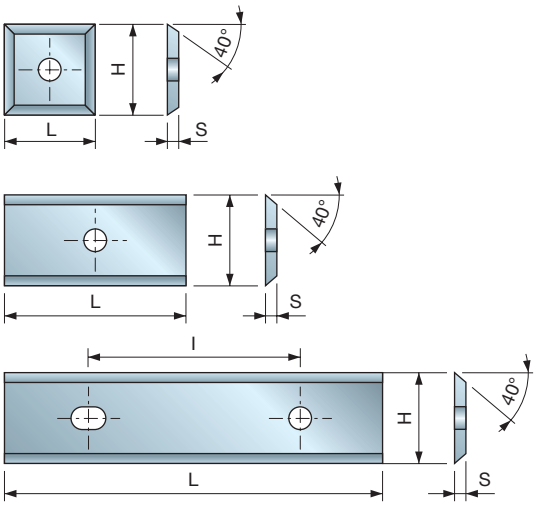
12 mm Disposable knives made by H00XF
Freud's Carbide with 35° relief angle.
• Especially indicated to work melamine chipboard panels, MDF, HDF wood composites and plastic materials.

CG20M HW - 35° Disposable knives



Chipboard | Laminated Chipboard | MDF | Laminated MDF | Plastics

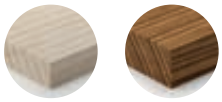
L mm	H mm	S mm	I mm	Freud Code	Art. No.
9,6	12	1,5	-	CG20MMA310	F03FH03354
12	12	1,5	-	CG20MBA310	F03FH02923
15	12	1,5	-	CG20MCA310	F03FH03355
20	12	1,5	-	CG20MDA310	F03FH02924
30	12	1,5	14	CG20MEA310	F03FH02925
40	12	1,5	26	CG20MLA310	F03FH03356
50	12	1,5	26	CG20MFA310	F03FH02926
60	12	1,5	26	CG20MGA310	F03FH03357



HW
K30S

12 mm Disposable knives made by K30S
Freud's Carbide with 40° relief angle.
• Particularly indicated for natural softwood and hardwood.

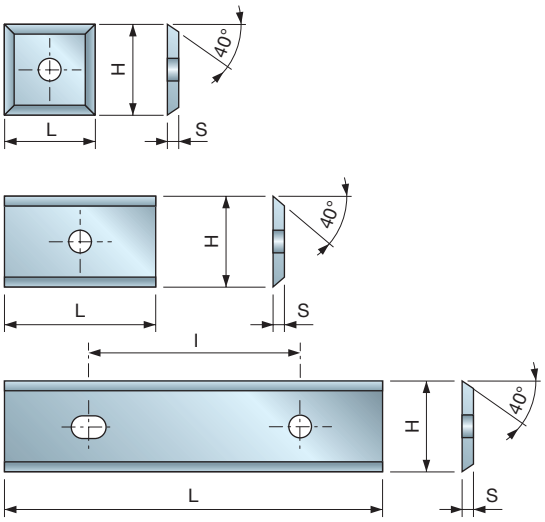
CG06M HW - 40° Disposable knives



Softwood | Hardwood

L mm	H mm	S mm	I mm	Freud Code	Art. No.
7,6	12	1,5	-	CG06MHA310	F03FH02897
8,6	12	1,5	-	CG06MJA310	F03FH02899
9,6	12	1,5	-	CG06MIA310	F03FH02898
11	12	1,5	-	CG06MUE310	F03FC23822
11,6	12	1,5	-	CG06MLA310	F03FH02901
12	12	1,5	-	CG06MAA310	F03FH02889
12,6	12	1,5	-	CG06MLB310	F03FC23819
13,6	12	1,5	-	CG06MOZ310	F03FC23820
14,6	12	1,5	-	CG06MBA310	F03FH02890
15,6	12	1,5	-	CG06MGB310	F03FH02896
16,3	12	1,5	-	CG06MJD310	F03FC23817
16,6	12	1,5	-	CG06MJB310	F03FC23815
18	12	1,5	-	CG06MUF310	F03FC23823
20	12	1,5	-	CG06MCA310	F03FH02891
24	12	1,5	-	CG06MKA310	F03FH02900
25,8	12	1,5	14	CG06MJC310	F03FC23816
26,6	12	1,5	14	CG06MKB310	F03FC23818
30	12	1,5	14	CG06MDA310	F03FH02892
40	12	1,5	26	CG06MEA310	F03FH02893
50	12	1,5	26	CG06MFA310	F03FH02894
60	12	1,5	26	CG06MGA310	F03FH02895

CG66M HW - 40° Disposable knives





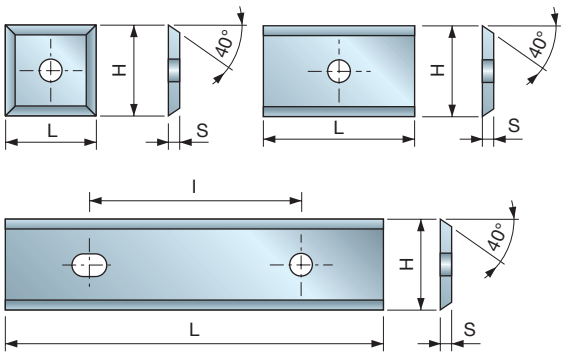
Softwood Hardwood Plywood

HW
X10TS

12 mm Disposable knives made by X10TS Freud's Carbide with 40° relief angle.
- Suitable for natural softwood, hardwood and plywood.
- Not suitable for chipboard and laminates.

L mm	H mm	S mm	l mm	Freud Code	Art. No.
7,6	12	1,5	-	CG66MHA310	F03FH02969
8,6	12	1,5	-	CG66MJA310	F03FH02971
9,6	12	1,5	-	CG66MIA310	F03FH02970
11	12	1,5	-	CG66MUE310	F03FH03814
11,6	12	1,5	-	CG66MLA310	F03FH02973
12	12	1,5	-	CG66MAA310	F03FH02961
13	12	1,5	-	CG66MLB310	F03FH03815
13,6	12	1,5	-	CG66MOZ310	F03FC23922
14,6	12	1,5	-	CG66MBA310	F03FH02962
15,6	12	1,5	-	CG66MGB310	F03FH02968
16,3	12	1,5	-	CG66MJD310	F03FH03816
17	12	1,5	-	CG66MJB310	F03FH03817
18	12	1,5	-	CG66MJG310	F03FH03818
18	12	1,5	-	CG66MUF310	F03FH03819
19	12	1,5	-	CG66MJE310	F03FH03820
20	12	1,5	-	CG66MCA310	F03FH02963
21	12	1,5	-	CG66MJF310	F03FH03821
22	12	1,5	-	CG66MTA310	F03FH03822
24	12	1,5	-	CG66MKA310	F03FH02972
27	12	1,5	14	CG66MKB310	F03FH03823
30	12	1,5	14	CG66MDA310	F03FH02964
40	12	1,5	26	CG66MEA310	F03FH02965
50	12	1,5	26	CG66MFA310	F03FH02966
60	12	1,5	26	CG66MGA310	F03FH02967

CG76M HW - 40° Disposable knives



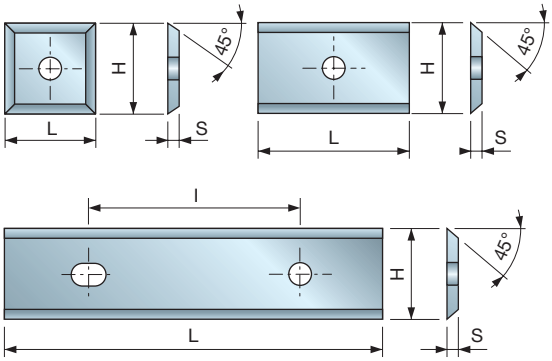


Softwood Hardwood MDF

HW
H01K

12 mm Disposable knives made by H01K Freud's Carbide with 40° relief angle.
- Particularly indicated for hardwood and abrasive wood.
- Not ideal for chipboard.

L mm	H mm	S mm	l mm	Freud Code	Art. No.
12	12	1,5	-	CG76MAA310	F03FH02975
14,6	12	1,5	-	CG76MBA310	F03FH02976
20	12	1,5	-	CG76MCA310	F03FH02977
24	12	1,5	-	CG76MKA310	F03FH02982
30	12	1,5	14	CG76MDA310	F03FH02978
40	12	1,5	26	CG76MEA310	F03FH02979
50	12	1,5	26	CG76MFA310	F03FH02980
60	12	1,5	26	CG76MGA310	F03FH02981



CG62M HW - 45° Disposable knives

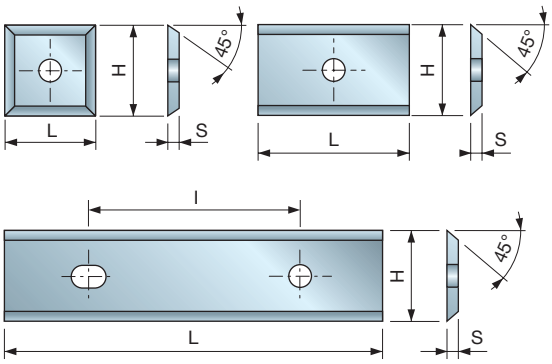


Softwood Hardwood Plywood

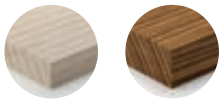
HW
X10TS

12 mm Disposable knives made by X10TS Freud's Carbide with 45° relief angle.
- Suitable for natural softwood, hardwood and plywood.
- Not suitable for chipboard and laminates.

L mm	H mm	S mm	l mm	Freud Code	Art. No.
7,6	12	1,5	-	**CG62MHA310**	F03FH02956
8,6	12	1,5	-	**CG62MJA310**	F03FH02958
9,6	12	1,5	-	**CG62MIA310**	F03FH02957
11,6	12	1,5	-	**CG62MLA310**	F03FH02960
12	12	1,5	-	**CG62MAA310**	F03FH02948
13,6	12	1,5	-	**CG62MOZ310**	F03FC23921
14,6	12	1,5	-	**CG62MBA310**	F03FH02949
15,6	12	1,5	-	**CG62MGB310**	F03FH02955
20	12	1,5	-	**CG62MCA310**	F03FH02950
24	12	1,5	-	**CG62MKA310**	F03FH02959
30	12	1,5	14	**CG62MDA310**	F03FH02951
40	12	1,5	26	**CG62MEA310**	F03FH02952
50	12	1,5	26	**CG62MFA310**	F03FH02953
60	12	1,5	26	**CG62MGA310**	F03FH02954



CG22M HW - 45° Disposable knives

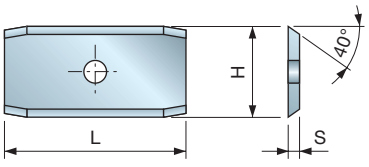


Softwood Hardwood

HW
K30S

12 mm Disposable knives made by K30S Freud's Carbide with 45° relief angle.
- Particularly indicated for natural softwood.

L mm	H mm	S mm	l mm	Freud Code	Art. No.
7,6	12	1,5	-	**CG22MHA310**	F03FH02933
9,6	12	1,5	-	**CG22MIA310**	F03FH02934
14,6	12	1,5	-	**CG22MBA310**	F03FH02927
20	12	1,5	-	**CG22MCA310**	F03FH02928
25	12	1,5	14	**CG22MVB310**	F03FH02935
30	12	1,5	14	**CG22MDA310**	F03FH02929
40	12	1,5	26	**CG22MEA310**	F03FH02930
50	12	1,5	26	**CG22MFA310**	F03FH02931
60	12	1,5	26	**CG22MGA310**	F03FH02932



CG17M HW - 40° Disposable knives with end bevels

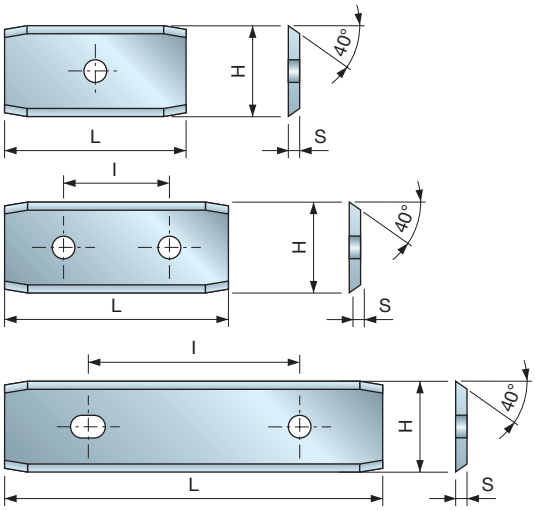


Softwood Hardwood

HW
K10S

12 mm Disposable knives made by K10S Freud's Carbide with 40° relief angle and bevel on both cutting edges.
- Suitable for hardwood with particularly sandy and abrasive surfaces (exotic woods).

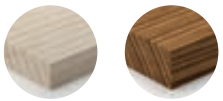
L mm	H mm	S mm	Freud Code	Art. No.
24	12	1,5	**CG17MBC310**	F03FH02918



HW
K30S

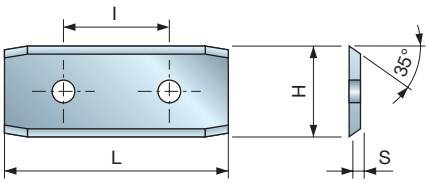
12 mm Disposable knives made by K30S Freud's Carbide with 40° relief angle and bevel on both cutting edges.
- Particularly indicated for natural softwood and hardwood.

CG18M HW - 40° Disposable knives with end bevels



Softwood Hardwood

L mm	H mm	S mm	I mm	Freud Code	Art. No.
24	12	1,5	-	CG18MBC310	F03FH02919
30	12	1,5	14	CG18MDC310	F03FH02920
50	12	1,5	26	CG18MFC310	F03FH02921



HW
H00S

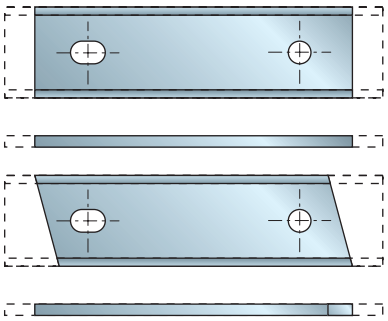
12mm Disposable knives made by H00S Freud's Carbide with 35° relief angle and bevel on both cutting edges.
- Ideal for universal use.

CG19M HW - 35° Disposable knives with end bevels



Softwood Hardwood Chipboard Laminated Chipboard MDF Laminated MDF

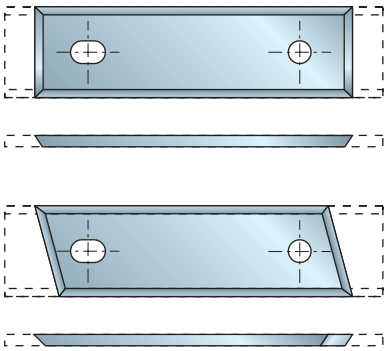
L mm	H mm	S mm	I mm	Freud Code	Art. No.
30	12	1,5	14	CG19M35EC310	F03FH02922



Disposable knives with 2 cutting edges without side clearance.
- Minimum order quantity: 1 set of 10 knives of the same type.
- The codes are just a guideline and should be used for ordering purposes only.
- In case of orders specify type of Carbide.

CG400 HW - Customised knives

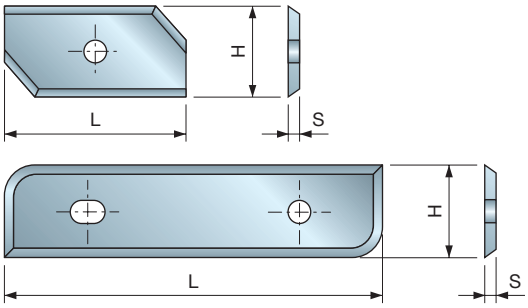
L mm	H mm	S mm	Freud Code	Art. No.
12	12	1,5	CG400 BA3	
15	12	1,5	CG400 CA3	
20	12	1,5	CG400 DA3	
30	12	1,5	CG400 EA3	
50	12	1,5	CG400 FA3	
60	12	1,5	CG400 GA3	
80	13	2,2	CG400 HA3	



CG401 HW - Customised knives

L mm	H mm	S mm	Freud Code	Art. No.
12	12	1,5	CG401 BA3	
15	12	1,5	CG401 CA3	
20	12	1,5	CG401 DA3	
30	12	1,5	CG401 EA3	
50	12	1,5	CG401 FA3	
60	12	1,5	CG401 GA3	
80	13	2,2	CG401 HA3	

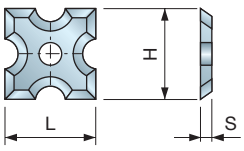
Disposable knives with 2 cutting edges with side clearance.
- Minimum order quantity: 1 set of 10 knives of the same type.
- The codes are just a guideline and should be used for ordering purposes only.
- In case of orders specify type of Carbide.



CG402 HW - Customised profiled knives

L mm	H mm	S mm	Freud Code	Art. No.
12	12	1,5	CG402 BA3	
15	12	1,5	CG402 CA3	
20	12	1,5	CG402 DA3	
30	12	1,5	CG402 EA3	
50	12	1,5	CG402 FA3	
60	12	1,5	CG402 GA3	

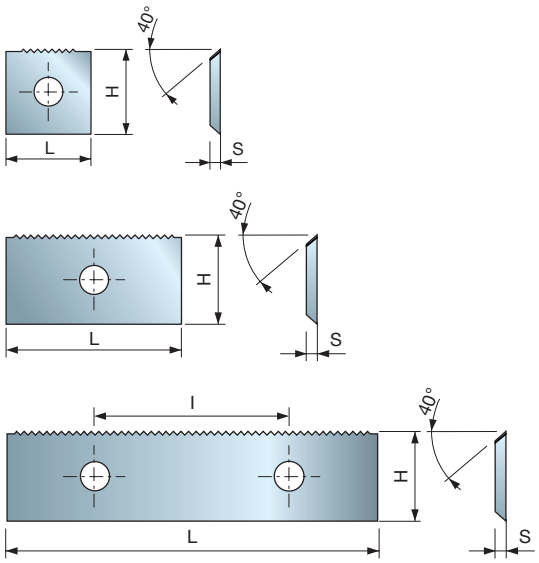
Shaped knives with 2 cutting edges.
- Minimum order quantity: 1 set of 10 knives of the same type.
- The codes are just a guideline and should be used for ordering purposes only.
- In case of orders specify type of Carbide.



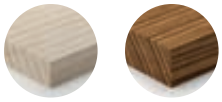
CG403 HW - Customised profiled knives

L mm	H mm	S mm	Freud Code	Art. No.
12	12	1,5	CG403 BA3	

Shaped knives with 4 cutting edges.
- Minimum order quantity: 1 set of 10 knives of the same type.
- The codes are just a guideline and should be used for ordering purposes only.



CGSEM HW - Split-Edge knives

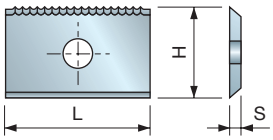


Softwood Hardwood

L mm	H mm	S mm	Freud Code	Art. No.
7,6	12	1,5	CGSEMHA310	F03FH03824
8,6	12	1,5	CGSEMJA310	F03FH03825
9,6	12	1,5	CGSEMIA310	F03FH03826
10,6	12	1,5	CGSEMUE310	F03FH03827
11,6	12	1,5	CGSEMLA310	F03FH03828
12	12	1,5	CGSEMAA310	F03FH03829
12,6	12	1,5	CGSEMLB310	F03FH03830
13,6	12	1,5	CGSEMOZ310	F03FH03831
14,6	12	1,5	CGSEMBA310	F03FH03832
15,6	12	1,5	CGSEMGB310	F03FH03833
16,3	12	1,5	CGSEMJD310	F03FH03834
16,6	12	1,5	CGSEMJB310	F03FH03835
17,6	12	1,5	CGSEMJG310	F03FH03836
17,8	12	1,5	CGSEMUF310	F03FH03837
18,6	12	1,5	CGSEMJE310	F03FH03838
20	12	1,5	CGSEMCA310	F03FH03839
20,6	12	1,5	CGSEMJF310	F03FH03840
21,6	12	1,5	CGSEMTA310	F03FH03841
24	12	1,5	CGSEMKA310	F03FH03842
26,6	12	1,5	CGSEMKB310	F03FH03844
30	12	1,5	CGSEMDA310	F03FH03845
40	12	1,5	CGSEMEA310	F03FH03846
50	12	1,5	CGSEMFA310	F03FH03847
60	12	1,5	CGSEMGA310	F03FH03848

HW X10TS

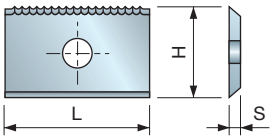
Disposable knives with Split Edge profile
- Suitable for cutterhead with dedicated knife seat.
- Particularly indicated for natural softwood, hardwood and plywood.
- The profiled knives have a Split-Edge profile only on one side (Z1 not reversible) and the height is 12 mm.



CG501 HW - Customised Split-Edge knives

L mm	H mm	S mm	I mm	Freud Code	Art. No.
12	12	1,5	-	CG501 BA3	
15	12	1,5	-	CG501 CA3	
20	12	1,5	-	CG501 DA3	
30	12	1,5	14	CG501 EA3	
50	12	1,5	26	CG501 FA3	
60	12	1,5	26	CG501 GA3	

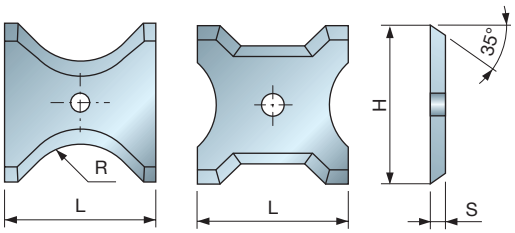
Customised knives with Split-Edge design.
- Suitable for original Split edge tools.
- Minimum order quantity: 1 set of 10 knives of the same type.
- The codes are just a guideline and should be used for ordering purpose only.



CG502 HW - Customised Split-Edge knives

L mm	H mm	S mm	I mm	Freud Code	Art. No.
12	12,33	1,5	-	CG502 BA3	
15	12,33	1,5	-	CG502 CA3	
20	12,33	1,5	-	CG502 DA3	
30	12,33	1,5	14	CG502 EA3	
50	12,33	1,5	26	CG502 FA3	
60	12,33	1,5	26	CG502 GA3	

Knives with 1 cutting edge, Split-Edge design.
- Suitable for no-Split edge tools.
- Minimum order quantity: 1 set of 10 knives of the same type.
- The codes are just a guideline and should be used for ordering purpose only.



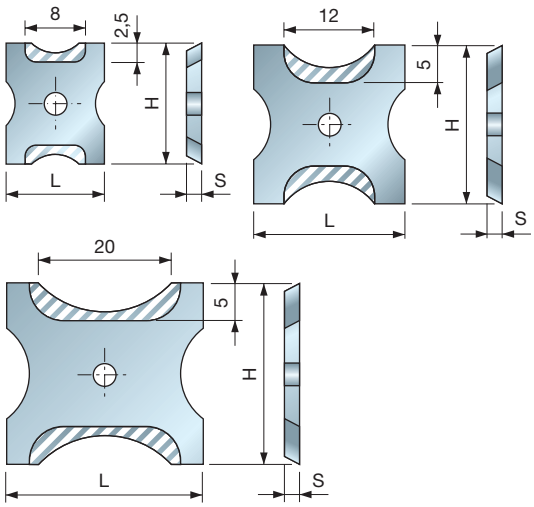
CG50M HW - 35° Disposable knives for TG35M



HW
H00S

Disposable knives made of H00S Freud's Carbide with 35° relief angle.
- Suitable for TG35M tools set.
- Ideal for universal use.

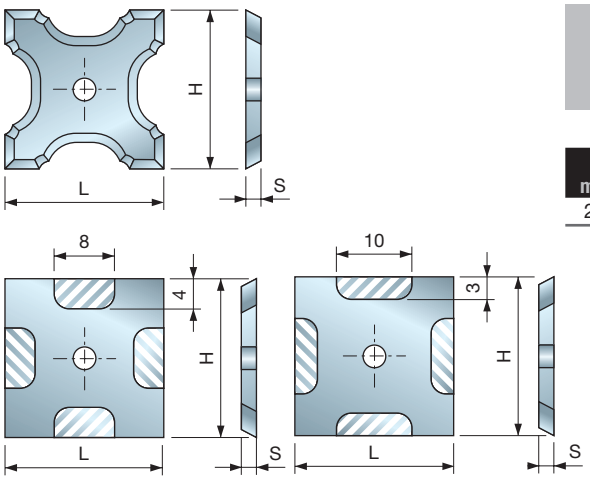
L mm	H mm	S mm	R mm	Freud Code	Art. No.
13	16	2	45°	CG50MCE305	F03FC23920
13	16	2	1	CG50MCD305	F03FC23919
13	16	2	2	CG50MCA305	F03FC23916
13	16	2	3	CG50MCB305	F03FC23917
13	16	2	4	CG50MCC305	F03FC23918
20	21	2	45°	CG50MAE305	F03FC23910
20	21	2	5	CG50MAA305	F03FC23906
20	21	2	6	CG50MAB305	F03FC23907
20	21	2	7	CG50MAC305	F03FC23908
20	21	2	8	CG50MAD305	F03FC23909
26	24	2	45°	CG50MBE305	F03FC23915
26	24	2	9	CG50MBA305	F03FC23911
26	24	2	10	CG50MBB305	F03FC23912
26	24	2	11	CG50MBC305	F03FC23913
26	24	2	12	CG50MBD305	F03FC23914



CG404 HW - Customised profiled knives

Shaped knives with 2 cutting edges.
- Minimum order quantity: 1 set of 10 knives of the same type.
- The codes are just a guideline and should be used for ordering purposes only.

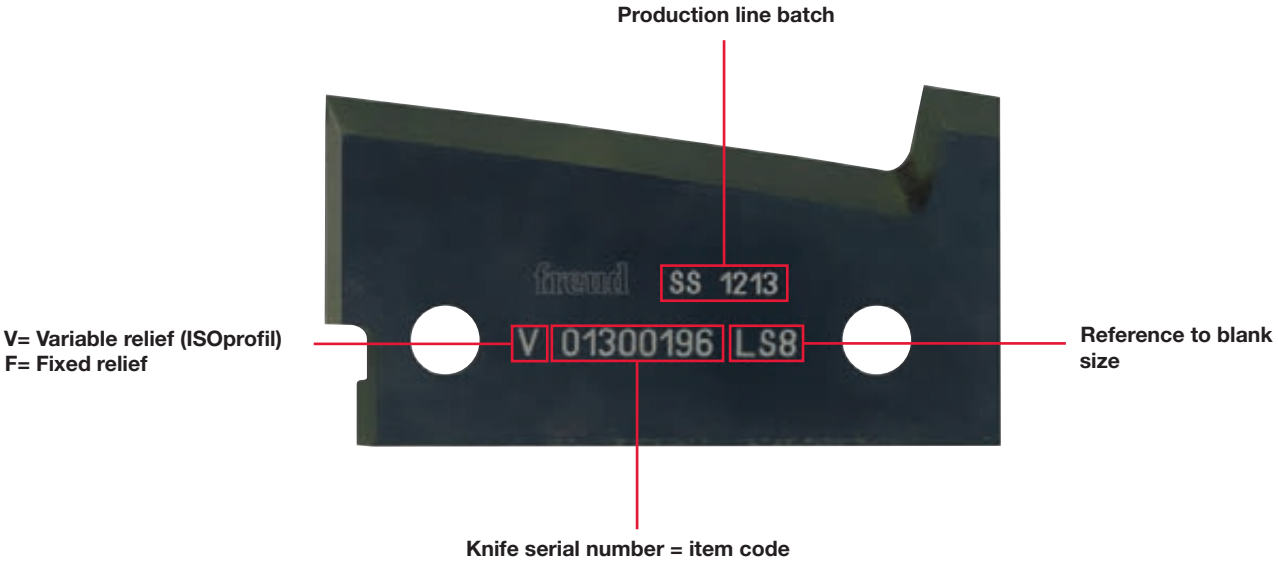
L mm	H mm	S mm	Freud Code	Art. No.
13	16	2	CG404 ZA3	
20	21	2	CG404 ZB3	
26	24	2	CG404 ZC3	

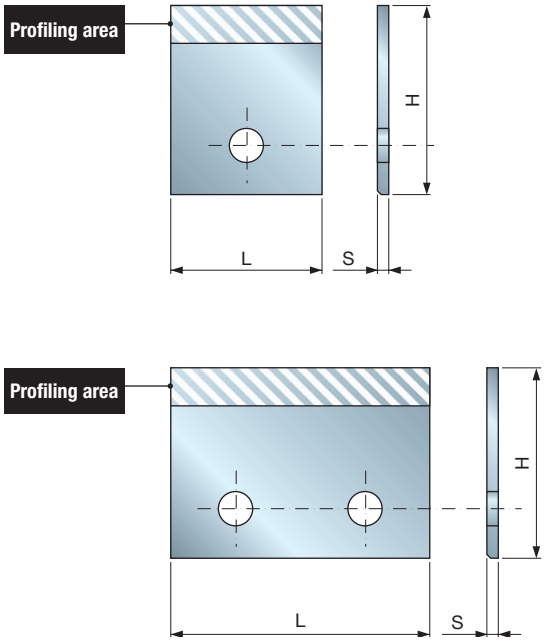


CG405 HW - Customised profiled knives

Shaped knives with 4 cutting edges.
- Minimum order quantity: 1 set of 10 knives of the same type.
- The codes are just a guideline and should be used for ordering purposes only.

L mm	H mm	S mm	Freud Code	Art. No.
21	21	2	CG405 DA3	



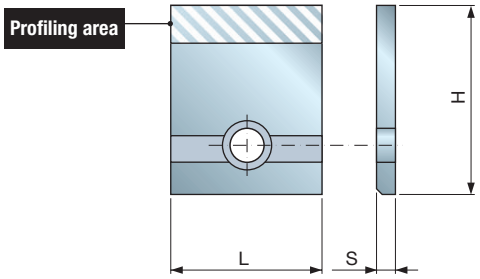


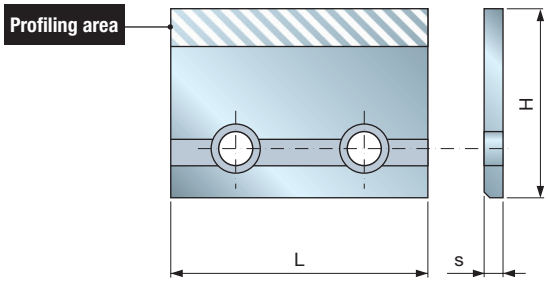
Profiled knives with 2 mm thickness.

The codes are just a guideline and should be used for ordering purpose only.

CK01 — HW - Knives 2 mm thickness - special profiling

L mm	H mm	S mm	Freud Code	Art. No.
20	20	2	CK01 AA3	
30	20	2	CK01 CA3	
40	20	2	CK01 EA3	
20	25	2	CK01 AB3	
25	25	2	CK01 BB3	
30	25	2	CK01 CB3	
35	25	2	CK01 DB3	
40	25	2	CK01 EB3	
50	25	2	CK01 GB3	
20	30	2	CK01 AC3	
25	30	2	CK01 BC3	
30	30	2	CK01 CC3	
35	30	2	CK01 DC3	
40	30	2	CK01 EC3	
50	30	2	CK01 GC3	
80	30	2	CK01 OC3	
25	35	2	CK01 BD3	
30	35	2	CK01 CD3	
35	35	2	CK01 DD3	
40	35	2	CK01 ED3	
50	35	2	CK01 GD3	
80	35	2	CK01 OD3	
25	40	2	CK01 BE3	
35	40	2	CK01 DE3	
40	40	2	CK01 EE3	
30	45	2	CK01 CF3	
35	50	2	CK01 HG3	





Performance System profiled knives with 3 mm thickness.

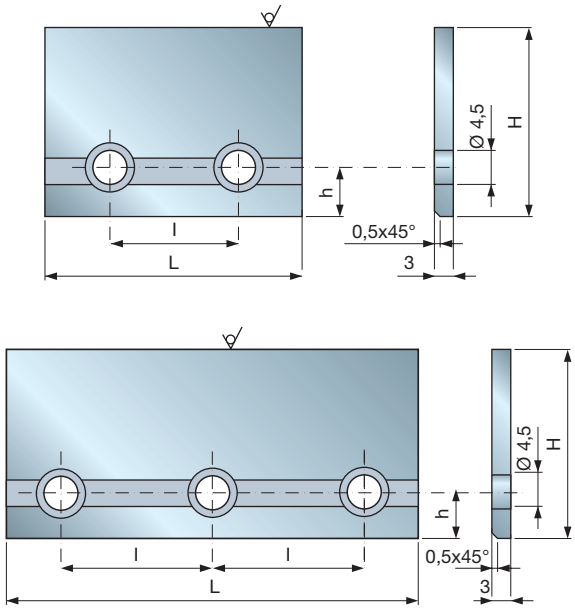
The codes are just a guideline and should be used for ordering purpose only.

CK02 HW - Performance knives 3 mm thickness - special profiling

L mm	H mm	S mm		Freud Code	Art. No.
65	20	3	HU7	CK02 LA3	
65	20	3	HU8	CK02 LA3	
20	25	3	LH7	CK02 AB3	
20	25	3	LH8	CK02 AB3	
25	25	3	LL7	CK02 BB3	
25	25	3	LL8	CK02 BB3	
30	25	3	LN7	CK02 CB3	
30	25	3	LN8	CK02 CB3	
35	25	3	LP7	CK02 DB3	
35	25	3	LP8	CK02 DB3	
45	25	3	LS7	CK02 FB3	
45	25	3	LS8	CK02 FB3	
55	25	3	LT7	CK02 HB3	
55	25	3	LT8	CK02 HB3	
70	25	3	LV7	CK02 MB3	
70	25	3	LV8	CK02 MB3	
21	30	3	NA7	CK02 GC3	
21	30	3	NA8	CK02 GC3	
25	30	3	NL7	CK02 BC3	
25	30	3	NL8	CK02 BC3	
35	30	3	NP7	CK02 DC3	
35	30	3	NP8	CK02 DC3	
45	30	3	NS7	CK02 FC3	
45	30	3	NS8	CK02 FC3	
55	30	3	NT7	CK02 HC3	
55	30	3	NT8	CK02 HC3	
80	30	3	NZ7	CK02 OC3	
80	30	3	NZ8	CK02 OC3	
14,4	35	3	PG8	CK02 ID3	
21	35	3	PA7	CK02 GD3	
21	35	3	PA8	CK02 GD3	
25	35	3	PL7	CK02 BD3	
25	35	3	PL8	CK02 BD3	
30	35	3	PN7	CK02 CD3	
30	35	3	PN8	CK02 CD3	
35	35	3	PP7	CK02 DD3	
35	35	3	PP8	CK02 DD3	
45	35	3	PS7	CK02 FD3	
45	35	3	PS8	CK02 FD3	
55	35	3	PT7	CK02 HD3	
55	35	3	PT8	CK02 HD3	
80	35	3	PZ7	CK02 OD3	
80	35	3	PZ8	CK02 OD3	
25	40	3	RL7	CK02 BE3	
25	40	3	RL8	CK02 BE3	
30	40	3	RN7	CK02 CE3	
30	40	3	RN8	CK02 CE3	
40	40	3	RR7	CK02 EE3	
40	40	3	RR8	CK02 EE3	
55	40	3	RT7	CK02 HE3	
55	40	3	RT8	CK02 HE3	

0317M

HW - Blanks for profiling 3 mm thickness





Chipboard | Laminated Chipboard | MDF | Laminated MDF | Plywood

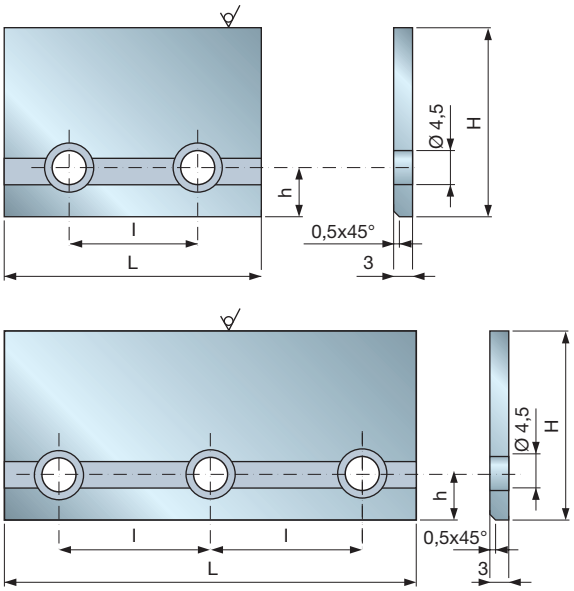
HW
H00S

Standard blanks made by H00S Freud's standard Carbide with 3 mm thickness.
• Suitable for hardwood and wood composites.

L mm	H mm	S mm	NL	l mm	Freud Code	Art. No.
65	20	3	-	-	**0317M HU3**	F03FH00685
20	25	3	1	-	**0317M LH3A**	F03FH00686
25	25	3	1	-	**0317M LL3A**	F03FH00687
30	25	3	1	-	**0317M LN3A**	F03FH02515
35	25	3	1	-	**0317M LP3A**	F03FH00688
45	25	3	2	28	**0317M LS3A**	F03FH00689
55	25	3	3	20,5	**0317M LT3A**	F03FH00690
70	25	3	2	41	**0317M LV3A**	F03FH00691
21	30	3	1	-	**0317M21030A**	F03FH00708
25	30	3	1	-	**0317M NL3A**	F03FH00692
35	30	3	1	-	**0317M NP3A**	F03FH00693
45	30	3	2	28	**0317M NS3A**	F03FH00694
55	30	3	2	41	**0317M NT3A**	F03FH00695
80	30	3	3	33	**0317M NZ3A**	F03FH00696
21	35	3	1	-	**0317M21035A**	F03FH00709
25	35	3	1	-	**0317M PL3A**	F03FH00697
30	35	3	1	-	**0317M PN3A**	F03FH00698
35	35	3	1	-	**0317M PP3A**	F03FH00699
45	35	3	2	28	**0317M PS3A**	F03FH00700
55	35	3	3	20,5	**0317M PT3A**	F03FH00701
80	35	3	3	33	**0317M PZ3A**	F03FH00702
25	40	3	1	-	**0317M RL3A**	F03FH00703
30	40	3	1	-	**0317M RN3A**	F03FH00704
40	40	3		-	**0317M RR3**	F03FH00705
40	40	3	1	-	**0317M RR3A**	F03FH00706
55	40	3	3	20,5	**0317M RT3A**	F03FH00707

0318M

HW - Blanks for profiling 3 mm thickness





Softwood



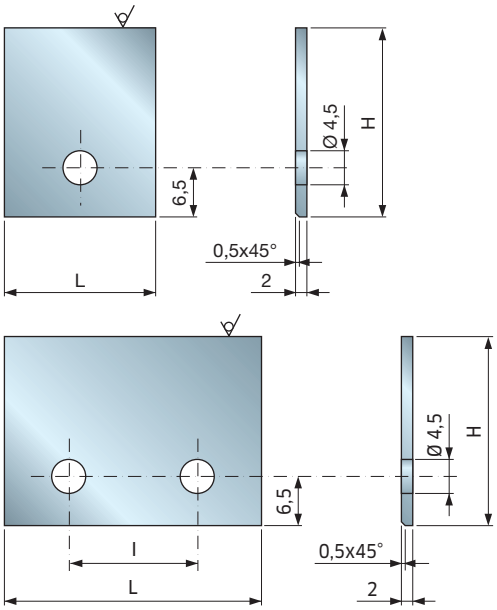
Hardwood

HW
X10TS

Standard blanks made by X10TS Freud's standard Carbide with 3 mm thickness.

- Suitable for natural softwood and hardwood.

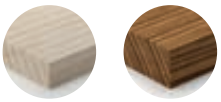
L mm	H mm	S mm	NL	l mm	Freud Code	Art. No.
65	20	3	2	28	**0318M HU3**	F03FH00710
20	25	3	1	-	**0318M LH3A**	F03FH00711
25	25	3	1	-	**0318M LL3A**	F03FH00712
30	25	3	1	-	**0318M LN3A**	F03FH02514
35	25	3	1	-	**0318M LP3A**	F03FH00713
45	25	3	2	28	**0318M LS3A**	F03FH00714
55	25	3	3	20,5	**0318M LT3A**	F03FH00715
70	25	3	2	41	**0318M LV3A**	F03FH00716
21	30	3	1	-	**0318M21030A**	F03FH00734
25	30	3	1	-	**0318M NL3A**	F03FH00717
35	30	3	1	-	**0318M NP3A**	F03FH00718
45	30	3	2	28	**0318M NS3A**	F03FH00719
55	30	3	3	20,5	**0318M NT3A**	F03FH00720
80	30	3	3	33	**0318M NZ3A**	F03FH00721
14,4	35	3	1	-	**0318M PG3A**	F03FH00722
21	35	3	1	-	**0318M21035A**	F03FH00735
25	35	3	1	-	**0318M PL3A**	F03FH00723
30	35	3	1	-	**0318M PN3A**	F03FH00724
35	35	3	1	-	**0318M PP3A**	F03FH00725
45	35	3	2	28	**0318M PS3A**	F03FH00726
55	35	3	3	20,5	**0318M PT3A**	F03FH00727
80	35	3	3	33	**0318M PZ3A**	F03FH00728
25	40	3	1	-	**0318M RL3A**	F03FH00729
30	40	3	1	-	**0318M RN3A**	F03FH00730
40	40	3	1	-	**0318M RR3**	F03FH00731
40	40	3	1	-	**0318M RR3A**	F03FH00732
55	40	3	3	20,5	**0318M RT3A**	F03FH00733



HW
X10TS

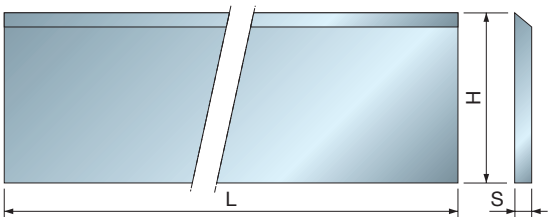
Standard blanks made by X10TS Freud's standard Carbide with 2 mm thickness.
• Suitable for natural softwood and hardwood.

0339M HW - Blanks for profiling 2 mm thickness - mirror finished



Softwood Hardwood

L mm	H mm	S mm	NL	l mm	Freud Code	Art. No.
15	15,3	2	1	-	0339M3WW2W	F03FH02551
16	15,3	2	1	-	0339M3XW2W	F03FH02537
15	20,3	2	1	-	0339M3WA2W	F03FH02548
16	20,3	2	1	-	0339M3XA2W	F03FH02552
20	20,3	2	1	-	0339M3AA2W	F03FH02560
25	20,3	2	1	-	0339M3BA2W	F03FH02557
30	20,3	2	1	-	0339M3DA2W	F03FH02538
30	20,3	2	2	14	0339M3DA2X	F03FH02587
35	20,3	2	1	-	0339M3FA2W	F03FH02559
35	20,3	2	2	14	0339M3FA2X	F03FH02585
40	20,3	2	2	26	0339M3GA2Y	F03FH02565
50	20,3	2	2	26	0339M3KA2Y	F03FH02563
60	20,3	2	2	26	0339M3LA2Y	F03FH02598
80	20,3	2	2	26	0339M3OA2Y	F03FH02602
15	25,3	2	1	-	0339M3WB2W	F03FH02549
16	25,3	2	1	-	0339M3XB2W	F03FH02536
20	25,3	2	1	-	0339M3AB2W	F03FH02571
25	25,3	2	1	-	0339M3BB2W	F03FH02572
30	25,3	2	1	-	0339M3DB2W	F03FH02573
30	25,3	2	2	14	0339M3DB2X	F03FH02574
35	25,3	2	1	-	0339M3FB2W	F03FH02541
35	25,3	2	2	14	0339M3FB2X	F03FH02590
40	25,3	2	2	26	0339M3GB2Y	F03FH02594
50	25,3	2	2	26	0339M3KB2Y	F03FH02597
60	25,3	2	2	26	0339M3LB2Y	F03FH02584
80	25,3	2	2	26	0339M3OB2Y	F03FH02544
15	30,3	2	1	-	0339M3WD2W	F03FH02550
16	30,3	2	1	-	0339M3XD2W	F03FH02553
20	30,3	2	1	-	0339M3AD2W	F03FH02579
25	30,3	2	1	-	0339M3BD2W	F03FH02580
30	30,3	2	1	-	0339M3DD2W	F03FH02539
30	30,3	2	2	14	0339M3DD2X	F03FH02581
35	30,3	2	1	-	0339M3FD2W	F03FH02591
35	30,3	2	2	14	0339M3FD2X	F03FH02575
40	30,3	2	2	26	0339M3GD2Y	F03FH02562
50	30,3	2	2	26	0339M3KD2Y	F03FH02564
60	30,3	2	2	26	0339M3LD2Y	F03FH02543
80	30,3	2	2	26	0339M3OD2Y	F03FH02569
20	35,3	2	1	-	0339M3AF2W	F03FH02554
25	35,3	2	1	-	0339M3BF2W	F03FH02561
30	35,3	2	1	-	0339M3DF2W	F03FH02540
30	35,3	2	2	14	0339M3DF2X	F03FH02582
35	35,3	2	1	-	0339M3FF2W	F03FH02583
35	35,3	2	2	14	0339M3FF2X	F03FH02576
40	35,3	2	2	26	0339M3GF2Y	F03FH02566
50	35,3	2	2	26	0339M3KF2Y	F03FH02577
60	35,3	2	2	26	0339M3LF2Y	F03FH02599
80	35,3	2	2	26	0339M3OF2Y	F03FH02601
20	40,3	2	1	-	0339M3AG2W	F03FH02555
25	40,3	2	1	-	0339M3BG2W	F03FH02586
30	40,3	2	1	-	0339M3DG2W	F03FH02588
30	40,3	2	2	14	0339M3DG2X	F03FH02558
35	40,3	2	1	-	0339M3FG2W	F03FH02592
35	40,3	2	2	14	0339M3FG2X	F03FH02593
40	40,3	2	2	26	0339M3GG2Y	F03FH02567
50	40,3	2	2	26	0339M3KG2Y	F03FH02542
60	40,3	2	2	26	0339M3LG2Y	F03FH02568
80	40,3	2	2	26	0339M3OG2Y	F03FH02545
30	45,3	2	1	-	0339M3DI2W	F03FH02589
40	45,3	2	2	26	0339M3GI2Y	F03FH02595
35	50,3	2	1	-	0339M3FK2W	F03FH02570
40	50,3	2	2	26	0339M3GK2Y	F03FH02596



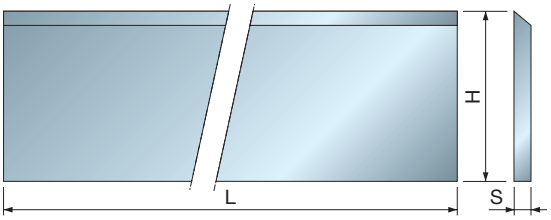
CT01M — 18%W HSS knives Standard dimensions



Softwood

Standard plannerhead knives with 18% HSS.
- Box contains 2 pieces with same weight.
- Per balancing reasons fit same box knives in opposite tools seats.

L mm	H mm	S mm	Freud Code	Art. No.
60	30	3	CT01MAA202	
80	30	3	CT01MBA202	
100	30	3	CT01MDA202	
120	30	3	CT01MGA202	
130	30	3	CT01MHA202	
140	30	3	CT01MIA202	
150	30	3	CT01MLA202	
160	30	3	CT01MMA202	
180	30	3	CT01MOA202	
200	30	3	CT01MPA202	
230	30	3	CT01MRA202	
410	30	3	CT01MTB202	



CT010S — 18%W HSS knives Special dimensions

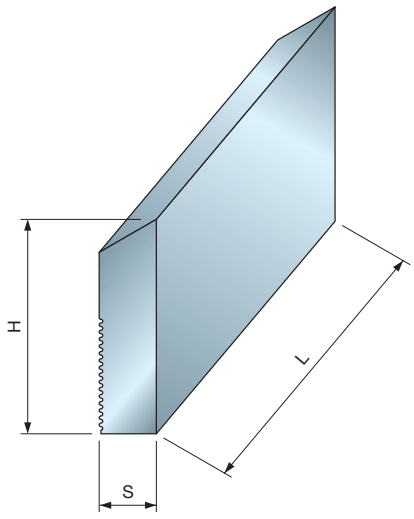


Softwood

Special plannerhead knives with 18% HSS.
- Box contains 2 pieces with same weight.
- Per balancing reasons fit same box knives in opposite tools seats.

The codes are just a guideline and should be used for ordering purpose only.

L mm	H mm	S mm	Freud Code	Art. No.
<59	30	3	CT010S AA2	
61-79	30	3	CT010S BA2	
81-99	30	3	CT010S CA2	
101-119	30	3	CT010S DA2	
121-129	30	3	CT010S EA2	
131-149	30	3	CT010S FA2	
151-159	30	3	CT010S GA2	
161-179	30	3	CT010S HA2	
181-199	30	3	CT010S IA2	
201-209	30	3	CT010S LA2	
211-229	30	3	CT010S MA2	



CZ01M — HSS serrated back knives



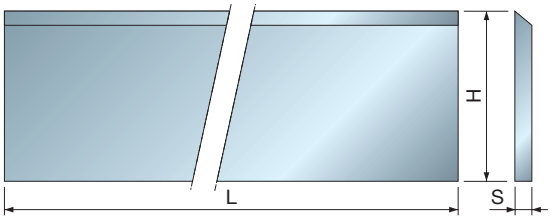
Softwood

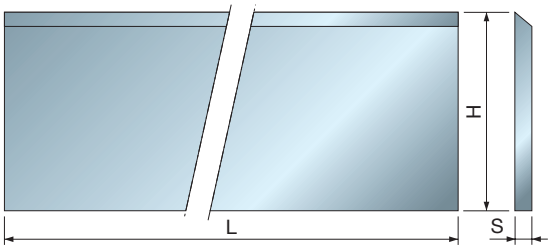
Profilable HSS knives with serrated surface.
- Suitable for Freud **TPCZM** planners.
- Suitable for cutting all softwood and hardwood.

L mm	H mm	S mm	Freud Code	Art. No.
60	50	8	CZ01MDB202	F03FA21895
80	50	8	CZ01MDC202	F03FA21896
100	50	8	CZ01MDD202	F03FA21897
150	50	8	CZ01MDF202	F03FA21898
60	60	8	CZ01MHB202	F03FA21899
80	60	8	CZ01MHC202	F03FA21900
100	60	8	CZ01MHD202	F03FA21901
150	60	8	CZ01MHF202	F03FA21902
60	70	8	CZ01MNB202	F03FA21903
80	70	8	CZ01MNC202	F03FA21904
100	70	8	CZ01MND202	F03FA21905
150	70	8	CZ01MNF202	F03FA21906

CP01M

18%W HSS planing knives
Standard dimensions







Softwood

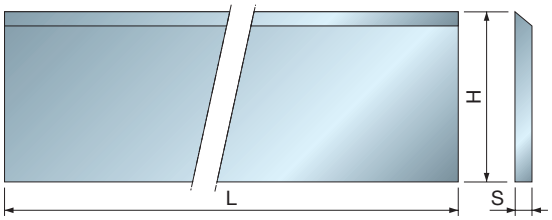
L mm	H mm	S mm	Freud Code	Art. No.
250	30	3	**CP01MAB202**	F03FA18136
300	30	3	**CP01MCB202**	F03FA18139
350	30	3	**CP01MDB202**	F03FA18141
400	30	3	**CP01MEB202**	F03FA18143
500	30	3	**CP01MGB202**	F03FA18147
510	30	3	**CP01MHB202**	F03FA18149
530	30	3	**CP01MIB402**	F03FA18151
600	30	3	**CP01MKB202**	F03FA18154
610	30	3	**CP01MLB202**	F03FA18156
630	30	3	**CP01MMB202**	F03FA18158
640	30	3	**CP01MNB402**	F03FA18160
710	30	3	**CP01MOB202**	F03FA18162
1010	30	3	**CP01MTB202**	F03FA18164

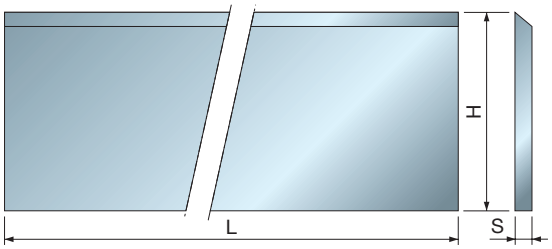
L mm	H mm	S mm	Freud Code	Art. No.
280	35	3	**CP01MBA202**	F03FA18137
300	35	3	**CP01MCA202**	F03FA18138
350	35	3	**CP01MDA202**	F03FA18140
400	35	3	**CP01MEA202**	F03FA18142
410	35	3	**CP01MFA202**	F03FA18144
450	35	3	**CP01MFB202**	F03FA18145
500	35	3	**CP01MGA202**	F03FA18146
510	35	3	**CP01MHA202**	F03FA18148
520	35	3	**CP01MJA202**	F03FA18152
530	35	3	**CP01MIA202**	F03FA18150
600	35	3	**CP01MKA202**	F03FA18153
610	35	3	**CP01MLA202**	F03FA18155
630	35	3	**CP01MMA202**	F03FA18157
640	35	3	**CP01MNA202**	F03FA18159
710	35	3	**CP01MOA202**	F03FA18161
1010	35	3	**CP01MTA202**	F03FA18163

Standard planerhead knives with 18% HSS.
- Box contains 2 pieces with same weight.
- Per balancing reasons fit same box knives in opposite tools seats.

CP010S

18%W HSS planing knives
Special dimensions







Softwood

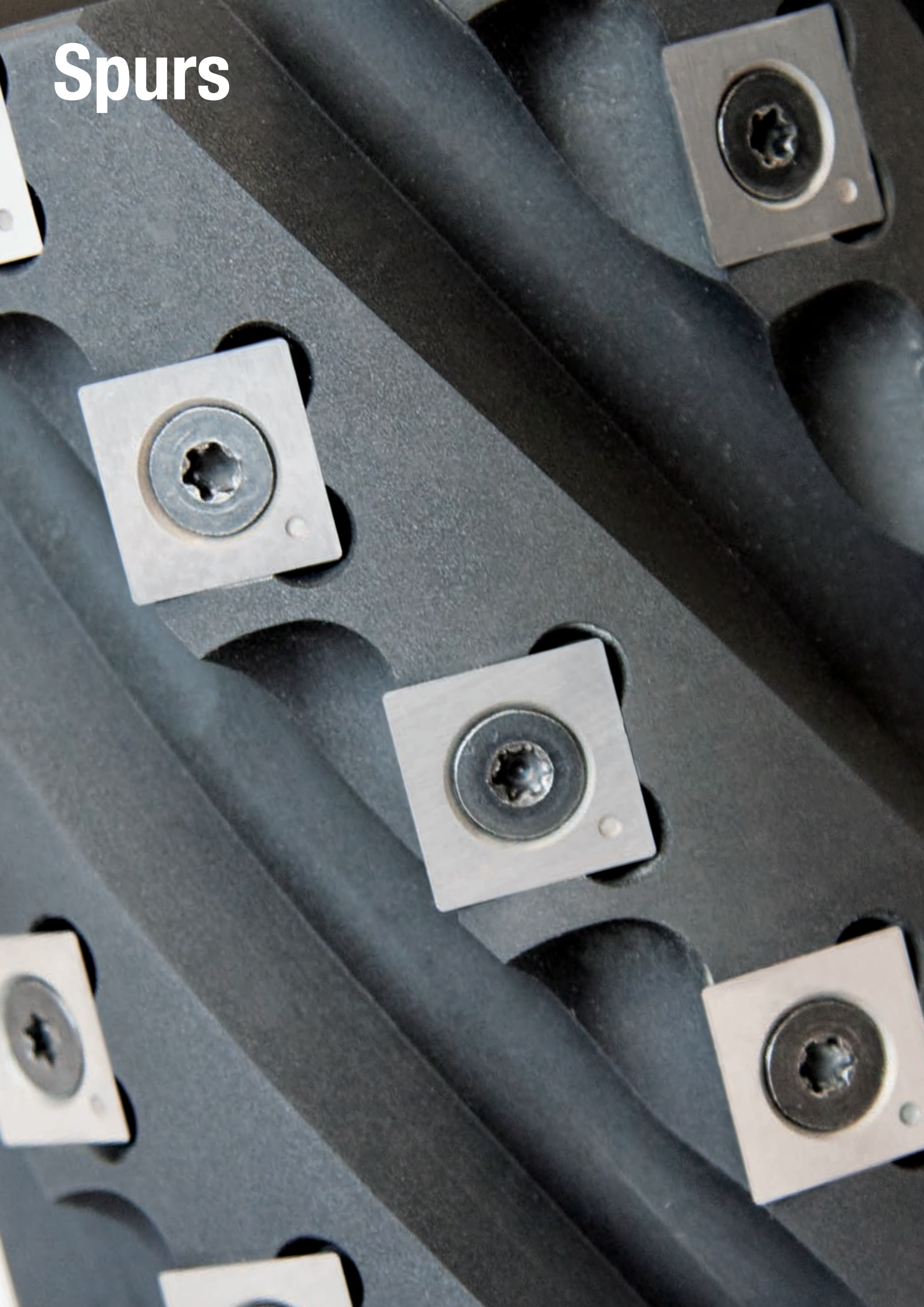
L mm	H mm	S mm	Freud Code	Art. No.
231-249	30	3	**CP010S AB2**	
251-299	30	3	**CP010S BB2**	
301-349	30	3	**CP010S CB2**	
351-399	30	3	**CP010S DB2**	
401-499	30	3	**CP010S EB2**	
501-599	30	3	**CP010S FB2**	
601-699	30	3	**CP010S GB2**	
701-799	30	3	**CP010S HB2**	

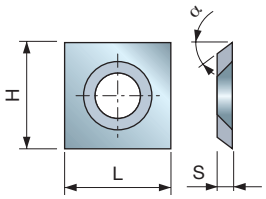
L mm	H mm	S mm	Freud Code	Art. No.
< 299	35	3	**CP010S AA2**	
301-349	35	3	**CP010S BA2**	
351-399	35	3	**CP010S CA2**	
411-499	35	3	**CP010S DA2**	
511-529	35	3	**CP010S EA2**	
531-599	35	3	**CP010S FA2**	
611-629	35	3	**CP010S GA2**	
641-709	35	3	**CP010S HA2**	

Special plannerhead knives with 18% HSS.
- Box contains 2 pieces with same weight.
- Per balancing reasons fit same box knives in opposite tools seats.

The codes are just a guideline and should be used for ordering purpose only.

Spurs





Wide range of squared spurs with 4 cutting sides with variable Carbide types and relief angle to cover all available materials.

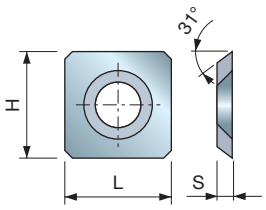
RG01M

HW - Square disposable spurs - Type A



Softwood | Hardwood | Chipboard | MDF | Plywood | Plastics

L mm	H mm	S mm	Quality of HW	α	Freud Code	Art. No.
13,5	13,5	3	H00S	30°	**RG01MDA310**	F03FH03582
14	14	1,2	K20S	31°	**RG01MAB310**	F03FH03035
14	14	2	K20S	30°	**RG01MAF310**	F03FH03285
14	14	2	MG10	31°	**RG01MAE310**	F03FH04113
14	14	2	K01S	30°	**RG01MAL310**	F03FH03777
14	14	2	K20S	31°	**RG01MAA310**	F03FH03034
14	14	2	H00S	31°	**RG01MAI310**	F03FH03791
14	14	2	H00XA	31°	**RG01MAH310**	F03FH03037
14	14	2	MG10	37°	**RG01MAD310**	F03FH03036
15	15	2,5	K01S	30°	**RG01MBE310**	F03FH03723



Range of squared spurs with 4 cutting sides and 4 beveled corners.

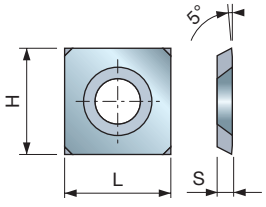
RG01M

HW - Square disposable spurs - Type B



Softwood | Hardwood | MDF

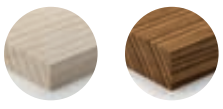
L mm	H mm	S mm	Quality of HW	α	Freud Code	Art. No.
15	15	2,5	K20S	31°	**RG01MBA310**	F03FH03038
14,6	14,6	2,5	MG10	31°	**RG01MCA310**	F03FH03040
15	15	2,5	MG10	37°	**RG01MBD310**	F03FH03039



Range of squared spurs with 4 cutting sides and 4 beveled corners.

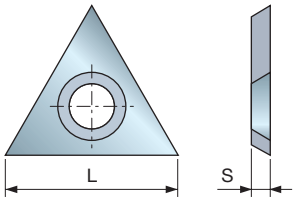
RG01M

HW - Square disposable spurs - Type C



Softwood | Hardwood

L mm	H mm	S mm	Quality of HW	α	Freud Code	Art. No.
14	14	2	K20S	31°	**RG01MAG310**	F03FC24180



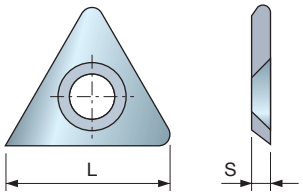
Triangular spurs with sharp edge.

RG02M HW - Triangular disposable spurs



Softwood | Hardwood | Laminated Chipboard

L mm	H mm	S mm	Quality of HW	α	Freud Code	Art. No.
22,86	-	2,5	K20S	31°	**RG02MAA305**	F03FH03041
22,86	-	2,5	K01S	31°	**RG02MBE305**	F03FH03725



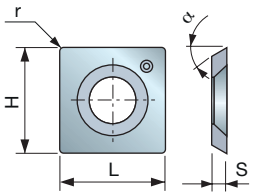
Triangular spurs with radius edge.

RG03M HW - Triangular disposable spurs with radius



Softwood | Hardwood | Laminated Chipboard

L mm	H mm	S mm	Quality of HW	α	Freud Code	Art. No.
21,9	-	2,5	K20S	31°	**RG03MAA305**	F03FH03042
21,9	-	2,5	K01S	31°	**RG03MBE305**	F03FH03727



RR01 HW - Razor with rounded corners

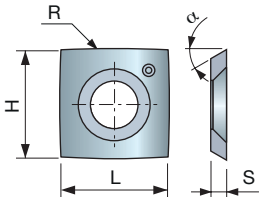


Softwood Hardwood Laminated Chipboard

HW K01S

Razors made by K01S Freud's Carbide with rounded corners improve the quality of cut on spiral cutterheads, avoiding the lines left by the sharp edges of conventional square spurs.

L mm	H mm	S mm	r mm	Quality of HW	α	Freud Code	Art. No.
14	14	2	0,5	K01S	30°	**RR01MAA310**	F03FH04007
14	14	2	0,5	K01S	37°	**RR01MAB310**	F03FH04008
14,6	14,6	2,5	0,5	K01S	30°	**RR01MBA310**	F03FH04009
15	15	2,5	0,5	K01S	30°	**RR01MCA310**	F03FH04010
15	15	2,5	0,5	K01S	37°	**RR01MCB310**	F03FH04011



RR10 HW - 30° razor with rounded edges



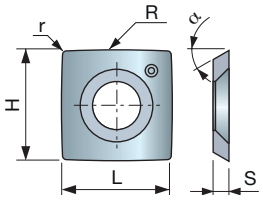
Softwood Hardwood Laminated Chipboard

HW K01S

Razors made by K01S Freud's Carbide with rounded edges greatly reduce tear-out on helical cutterheads and planers.

- Their design prevents from wave generation otherwise created by the shear angle positioning.

L mm	H mm	S mm	R mm	Quality of HW	α	Freud Code	Art. No.
14	14	2	150	K01S	30°	**RR10MAA310**	F03FH04012
14,6	14,6	2,5	150	K01S	30°	**RR10MBA310**	F03FH04043
15	15	2,5	150	K01S	30°	**RR10MCA310**	F03FH04014
15	15	2,5	50	K01S	30°	**RR10MCB310**	F03FH04015



RR11 HW - 30° razor with both rounded corners and edges



Softwood Hardwood Laminated Chipboard

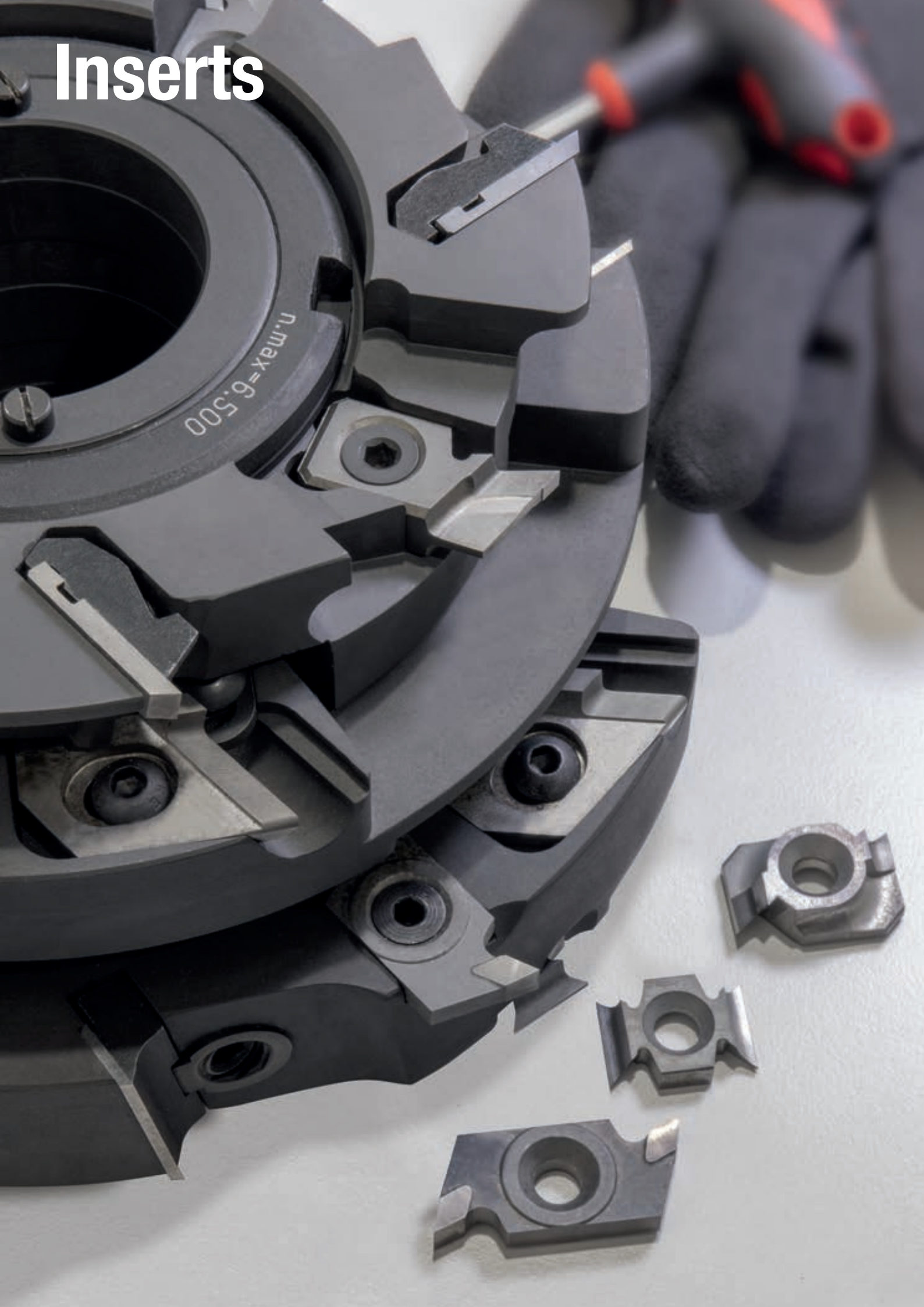
HW K01S

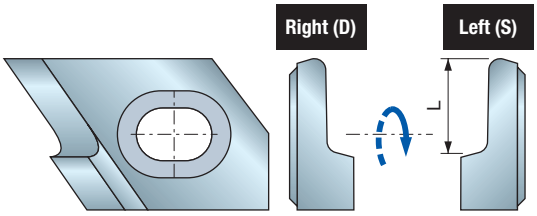
Razors made by K01S Freud's Carbide with rounded edges and corners greatly reduce tear-out on helical cutterheads and planers.

- Their design prevents from wave generation otherwise created by the shear angle positioning.

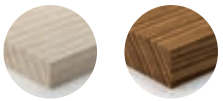
L mm	H mm	S mm	R mm	r mm	Quality of HW	α	Freud Code	Art. No.
14	14	2	150	0,5	K01S	30°	**RR11MAA310**	F03FH04016
14,6	14,6	2,5	150	0,5	K01S	30°	**RR11MBA310**	F03FH04017
15	15	2,5	150	0,5	K01S	30°	**RR11MCA310**	F03FH04018
15	15	2,5	50	0,5	K01S	30°	**RR11MCB310**	F03FH04020
15	15	2,5	115	0,5	K01S	30°	**RR11MCC310**	F03FH04019

Inserts





IG25MD IG25MS — HW - Multipurpose inserts



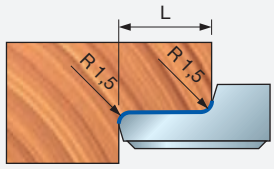
Softwood Hardwood

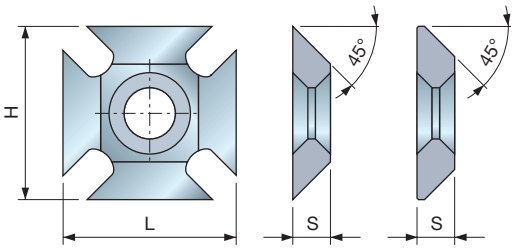
L mm	H mm	S mm	Freud Code Right (D)	Art. No.	Freud Code Left (S)	Art. No.
10	-	-	**IG25MD10302**	F03FC24164	**IG25MS10302**	F03FC24172
11	-	-	**IG25MD11302**	F03FC24165	**IG25MS11302**	F03FC24173
12	-	-	**IG25MD12302**	F03FC24166	**IG25MS12302**	F03FC24174
13	-	-	**IG25MD13302**	F03FC24167	**IG25MS13302**	F03FC24175
14	-	-	**IG25MD14302**	F03FC24168	**IG25MS14302**	F03FC24176
15	-	-	**IG25MD15302**	F03FC24169	**IG25MS15302**	F03FC24177
16	-	-	**IG25MD16302**	F03FC24170	**IG25MS16302**	F03FC24178
18	-	-	**IG25MD18302**	F03FC24171	**IG25MS18302**	F03FC24179

HW K20S

Resharpenable inserts made by K20S Freud's Carbide.
- Suitable for rounded rebates.
- Available in both left and right rotation.

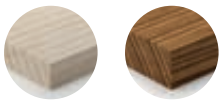
Example of application of inserts IG25M





IG01MAA305 F03FH02983 **IG01MBA305** F03FH02984

IG01M — HW - 45° Beveling inserts



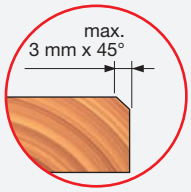
Softwood Hardwood

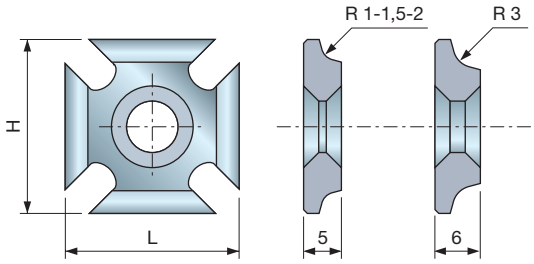
L mm	H mm	S mm	Freud Code	Art. No.
23	23	5	**IG01MAA305**	F03FH02983
23	23	5	**IG01MBA305**	F03FH02984

HW K20S

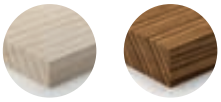
Beveling inserts made by K20S Freud's Carbide and 8 cutting edges.
- It can be used reversibly and with rotation in both senses.
- Particularly indicated for natural softwood and hardwood.
- Perfectly interchangeable with the rounding inserts **IG02M**.

Example of application of inserts IG01M





IG02M HW - Rounding inserts



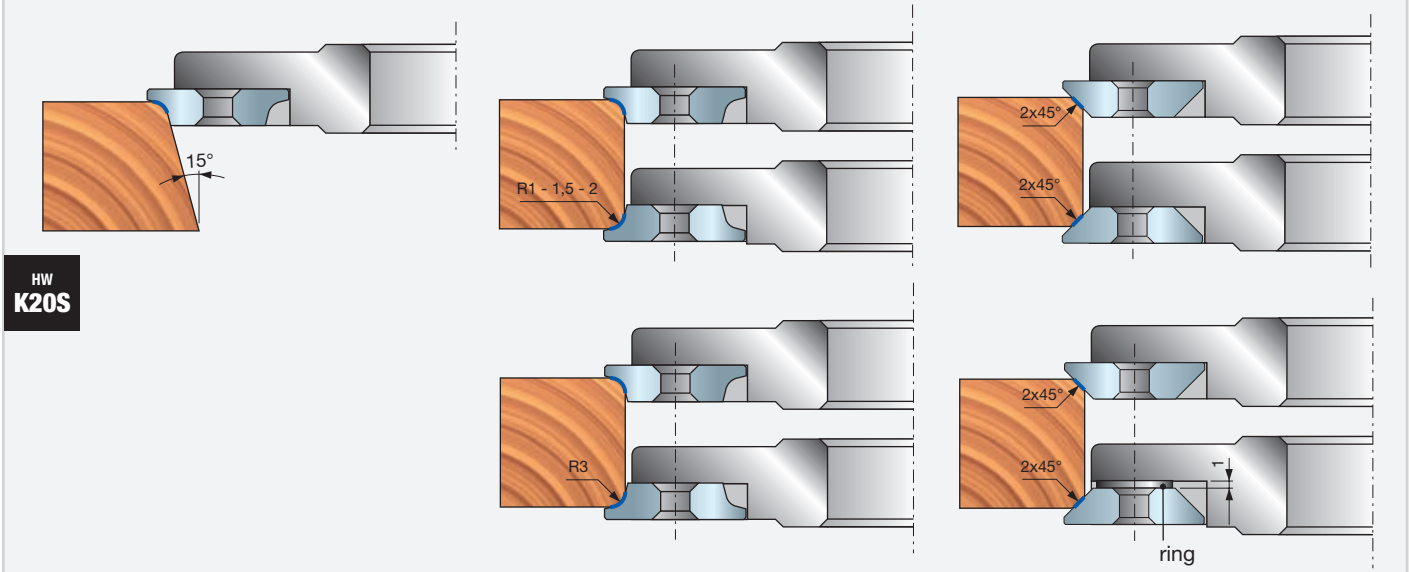
Softwood Hardwood

L mm	H mm	S mm	I mm	Freud Code	Art. No.
23	23	5	1	**IG02MAA305**	F03FH02985
23	23	5	1,5	**IG02MAB305**	F03FH02986
23	23	5	2	**IG02MAC305**	F03FH02987
23	23	6	3	**IG02MAE305**	F03FH02988

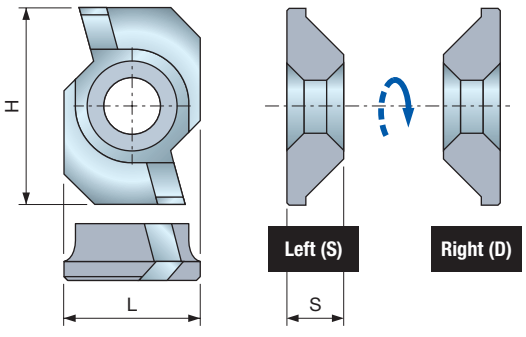
Rounding inserts made by K20S Freud's Carbide and 8 cutting edges.
- It can be used reversibly and with rotation in both senses.
- Particularly indicated for natural softwood and hardwood.
- Perfectly interchangeable with the rounding inserts **IG01M**.

Note: Rounding insert **IG02MAE305** is interchangeable with insert **IG01MBA305**, for carrying out bevels with a 2 mm x 45°, only if a 1 mm ring is used (see example).

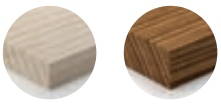
Example of application of inserts IG01M and IG02M



HW K20S



IG21MD IG21MS HW - 45° Beveling inserts with shear angle



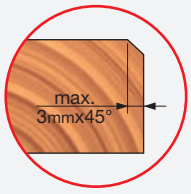
Softwood Hardwood

L mm	H mm	S mm	Freud Code Right (D)	Art. No.	Freud Code Left (S)	Art. No.
18	26	7,5	**IG21MDAA305**	F03FH03005	**IG21MSAA305**	F03FH03006

HW K20S

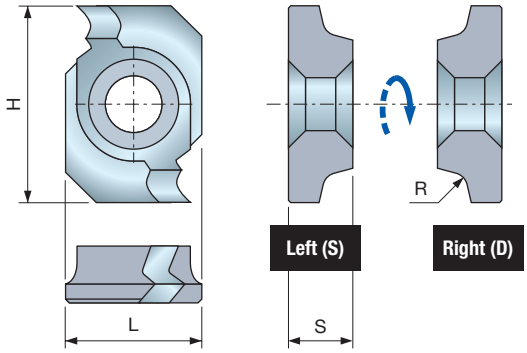
Beveling inserts made by K20S Freud's Carbide and designed with a shear angle.
- Particularly indicated for natural softwood and hardwood.
- Perfectly interchangeable with rounding inserts **IG22M**.

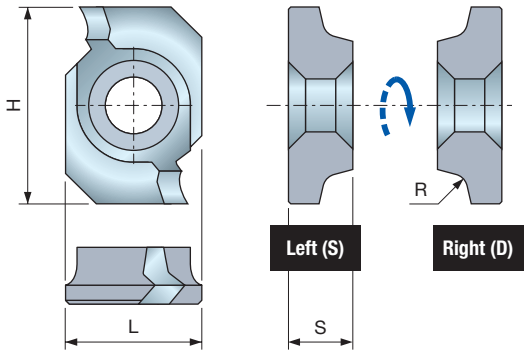
Example of application of inserts IG21MD/S

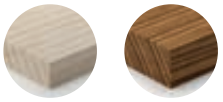


IG22MD
IG22MS

HW - Rounding inserts with shear angle







Softwood Hardwood

Inserts with positive shear angle

L	H	S	R	Freud Code	Art. No.	Freud Code	Art. No.
mm	mm	mm	mm	Right (D)		Left (S)	
18	26	8,5	1,5	**IG22MDAB305**	F03FH03007	**IG22MSAB305**	F03FH03013
18	26	8,5	2	**IG22MDAC305**	F03FH03008	**IG22MSAC305**	F03FH03014
18	26	8,5	3	**IG22MDAE305**	F03FH03009	**IG22MSAE305**	F03FH03015

Inserts with negative shear angle

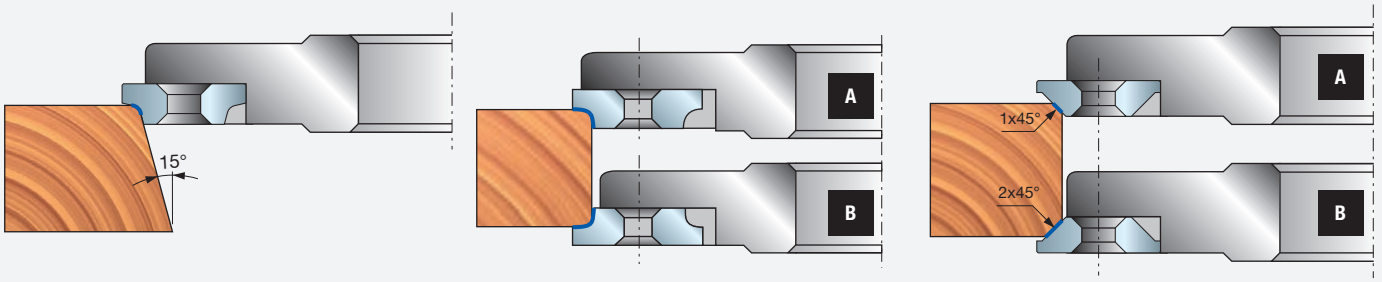
L	H	S	R	Freud Code	Art. No.	Freud Code	Art. No.
mm	mm	mm	mm	Right (D)		Left (S)	
18	26	8,5	1,5	**IG22MDZB305**	F03FH03010	**IG22MSZB305**	F03FH03016
18	26	8,5	2	**IG22MDZC305**	F03FH03011	**IG22MSZC305**	F03FH03017
18	26	8,5	3	**IG22MDZE305**	F03FH03012	**IG22MSZE305**	F03FH03018

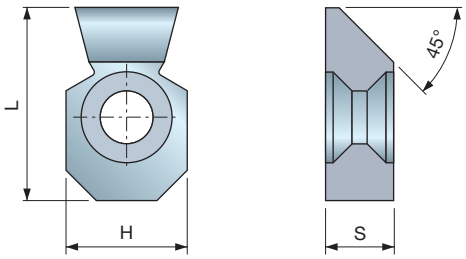
HW K20S

Rounding inserts made by K20S Freud's Carbide and designed with a shear angle.
- Particularly indicated for natural softwood and hardwood.
- Perfectly interchangeable with rounding inserts **IG21M**.

IG22MDA-MSA... Inserts with positive shear angle.
IG22MDZ-MSZ... Inserts with negative shear angle.

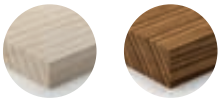
Example of application of inserts IG21MD/S and IG22MD/S





IG33M

HW - 45° Beveling inserts with shear angle



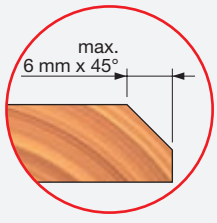
Softwood Hardwood

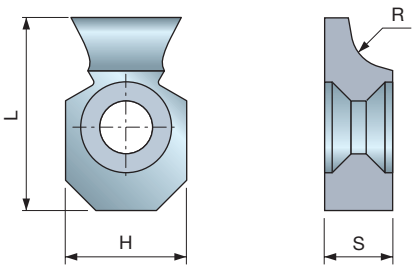
L	H	S	Chamfer	Freud Code	Art. No.
mm	mm	mm			
25,5	16	9	45°	**IG33MAD305**	F03FH03021

HW K20S

Beveling inserts made by K20S Freud's Carbide suitable for both rotation sense and 2 cutting edges (1 for right hand rotation and 1 for left hand rotation).
- Indicated for natural softwood and hardwood.
- Perfectly interchangeable with rounding inserts **IG33MAA305** and **IG33MAB305**.

Example of application of inserts IG33M



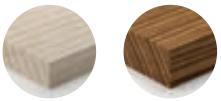


HW
K20S

Rounding inserts made by K20S Freud's Carbide suitable for both rotation sense and 2 cutting edges (1 for right hand rotation and 1 for left hand rotation).
- Indicated for natural softwood and hardwood.
- Perfectly interchangeable with beveling inserts **IG33MAD305**.

IG33M

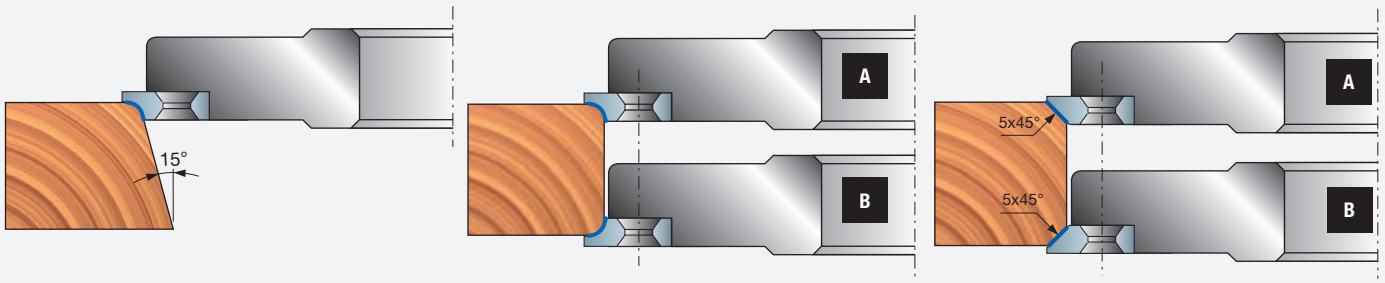
HW - Rounding inserts with shear angle

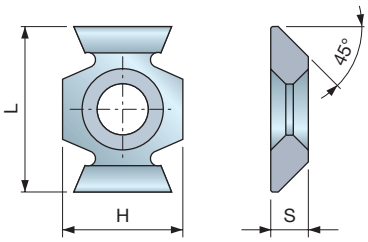


Softwood Hardwood

L mm	H mm	S mm	R mm	Freud Code	Art. No.
25,5	16	9	3	**IG33MAA305**	F03FH03019
25,5	16	9	5	**IG33MAB305**	F03FH03020

Example of application of inserts IG33M



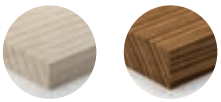


HW
K20S

Beveling insert made by K20S Freud's Carbide suitable for both rotation sense and 4 cutting edges (2 for right hand rotation and 2 for left hand rotation).
- Indicated for natural softwood and hardwood.
- Perfectly interchangeable with rounding inserts **IG52M**.

IG51M

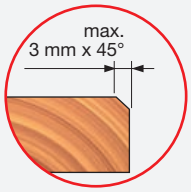
HW - 45° Beveling inserts with shear angle

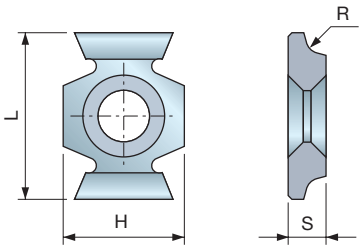


Softwood Hardwood

L mm	H mm	S mm	Freud Code	Art. No.
22	16	5	**IG51MBA305**	F03FH03022

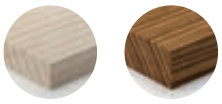
Example of application of inserts IG51M





IG52M

HW - Rounding inserts with shear angle



Softwood Hardwood

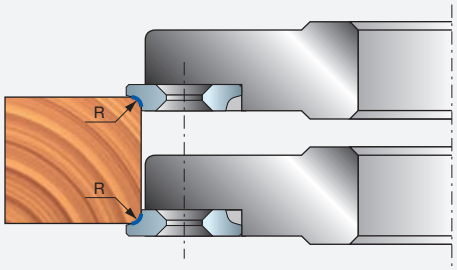
HW K20S

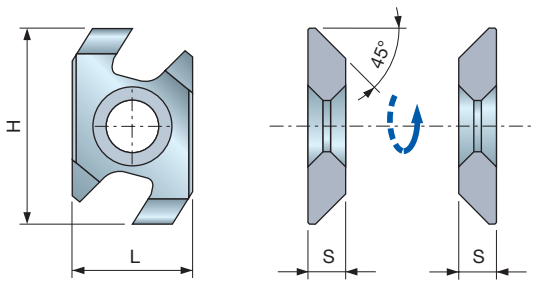
Rounding inserts made by K20S Freud's Carbide suitable for both rotation sense and 4 cutting edges (2 for right hand rotation and 2 for left hand rotation).

- Indicated for natural softwood and hardwood.
- Perfectly interchangeable with rounding inserts **IG52M**.

L mm	H mm	S mm	R mm	Freud Code	Art. No.
22	16	5	1,5	**IG52MAB305**	F03FH03023
22	16	5	2	**IG52MAC305**	F03FH03024
22	16	5	3	**IG52MAE305**	F03FH03025

Example of application of inserts IG52M

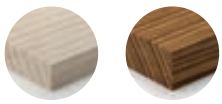




Right (D) Left (S)

IG61MD IG61MS

HW - Beveling inserts with anti-kickback technology



Softwood Hardwood

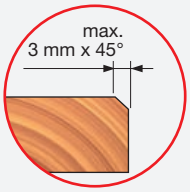
HW K20S

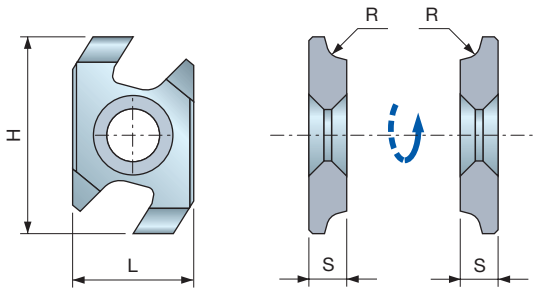
Beveling inserts in K20S Freud's Carbide with anti-kickback technology for MAN feed tools.

- Indicated for natural softwood and hardwood.
- Perfectly interchangeable with rounding inserts **IG62M**.

L mm	H mm	S mm	Freud Code Right (D)	Art. No.	Freud Code Left (S)	Art. No.
26	16	5	**IG61MDBA305**	F03FH03026	**IG61MSBA305**	F03FH03027

Example of application of inserts IG61MD/S





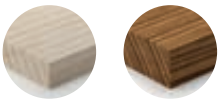
HW
K20S

Right (D)

Left (S)

IG62MD
IG62MS

HW - Rounding inserts with anti-kickback technology

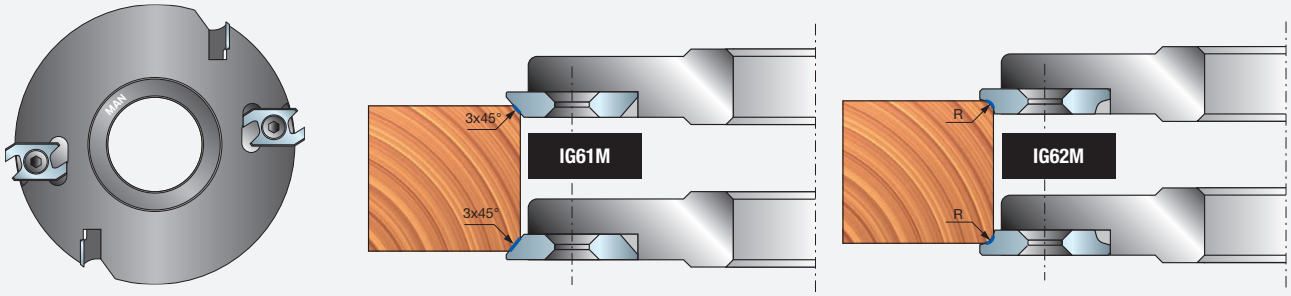


Softwood Hardwood

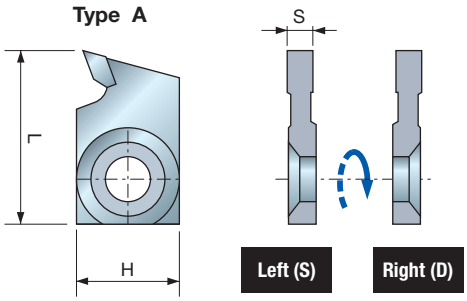
L mm	H mm	S mm	R mm	Freud Code Right (D)	Art. No.	Freud Code Left (S)	Art. No.
26	16	5	1,5	**IG62MDAB305**	F03FH03028	**IG62MSAB305**	F03FH03031
26	16	5	2	**IG62MDAC305**	F03FH03029	**IG62MSAC305**	F03FH03032
26	16	5	3	**IG62MDAE305**	F03FH03030	**IG62MSAE305**	F03FH03033

Rounding inserts in K20S Freud's Carbide with anti-kickback technology for MAN feed tools.
- Indicated for natural softwood and hardwood.
- Perfectly interchangeable with rounding inserts **IG61M**.

Example of application of inserts IG61MD/S and IG62MD/S

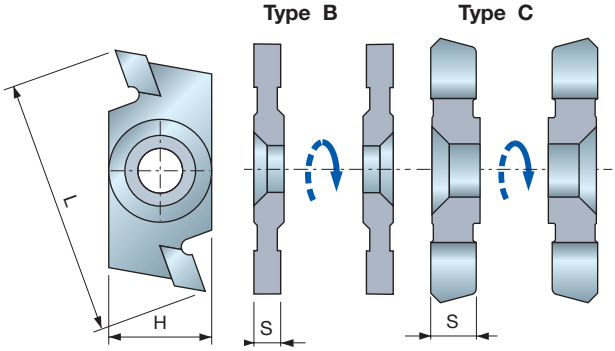


Type A



Left (S) Right (D)

Type B Type C



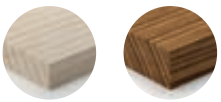
Left (S) Right (D) Left (S) Right (D)

HW
K30S

Grooving inserts made with K30S Freud's Carbide tips.
- Available in left and right rotation version.
- Max groove depth 10 mm.
- Indicated for natural softwood and hardwood.

IG04MD
IG04MS

HW - Grooving inserts



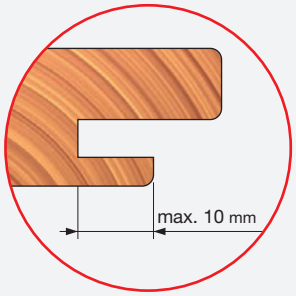
Softwood Hardwood

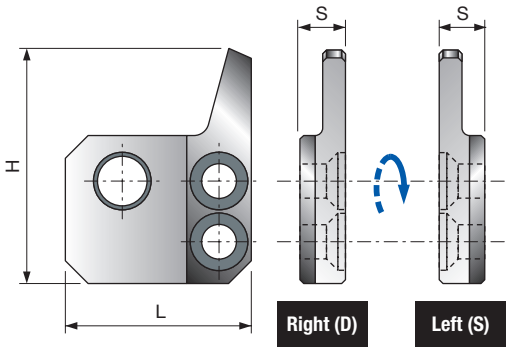
L mm	H mm	S mm	Type	Freud Code Right (D)	Art. No.	Freud Code Left (S)	Art. No.
27	16	3	A	**IG04MDAC3T05**	F03FC24153	**IG04MSAC3T05**	F03FC24153
27	16	4	A	**IG04MDAA3T05**	F03FC24151	**IG04MSAA3T05**	F03FC24151
27	16	5	A	**IG04MDAB3T05**	F03FC24152	**IG04MSAB3T05**	F03FC24152
27	16	6	A	**IG04MDAD3T05**	F03FC24154	**IG04MSAD3T05**	F03FC24154

L mm	H mm	S mm	Type	Freud Code Right (D)	Art. No.	Freud Code Left (S)	Art. No.
40	16	3	B	**IG04MDAC305**	F03FH02992	**IG04MSAC305**	F03FH02996
40	16	4	B	**IG04MDAA305**	F03FH03409	**IG04MSAA305**	F03FH02994
40	16	5	B	**IG04MDAB305**	F03FH02991	**IG04MSAB305**	F03FH02995
40	16	6	B	**IG04MDAD305**	F03FH02993	**IG04MSAD305**	F03FH02997

L mm	H mm	S mm	Type	Freud Code Right (D)	Art. No.	Freud Code Left (S)	Art. No.
12	12	1,5	C	**IG04MDAL305**	F03FH03358	**IG04MSAL305**	F03FH03359

Example of application of inserts IG04MD/S



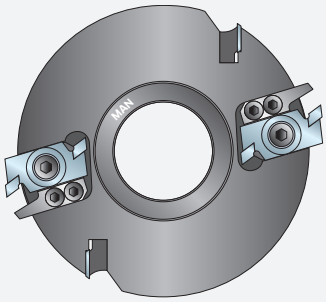


Deflectors suitable for standard **IG04M** grooving inserts as anti-kickback device.
• Component for MAN feed tools.

ID04MD ID04MS — Deflectors for inserts IG04MD and IG04MS

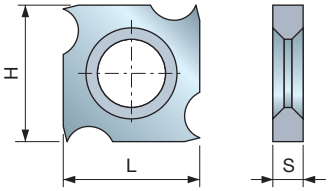
L mm	H mm	S mm	Use for	Freud Code	Art. No.
24,5	30,8	6	**IG04MDAA305**	**ID04MDAA901**	F03FC24133
24,5	30,8	7	**IG04MDAB305**	**ID04MDAB901**	F03FC24134
24,5	30,8	6	**IG04MDAC305**	**ID04MDAC901**	F03FC24135
24,5	30,8	8	**IG04MDAD305**	**ID04MDAD901**	F03FC24136
24,5	30,8	6	**IG04MSAA305**	**ID04MSAA901**	F03FC24137
24,5	30,8	7	**IG04MSAB305**	**ID04MSAB901**	F03FC24138
24,5	30,8	6	**IG04MSAC305**	**ID04MSAC901**	F03FC24139
24,5	30,8	8	**IG04MSAD305**	**ID04MSAD901**	F03FC24140

Example of application of deflector ID04MD/S

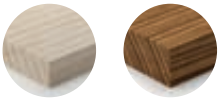








CG03M — HW - Disposable four cutting edges knives

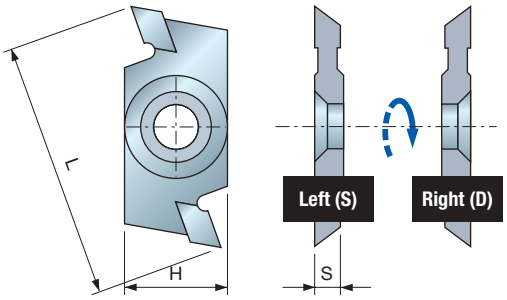


Softwood Hardwood

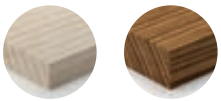
HW K20S

Disposable knives in K20S Freud's Carbide with 4 cutting edges.
• Indicated for softwood and hardwood.

L mm	H mm	S mm	Freud Code	Art. No.
18	18	1,9	**CG03MAA310**	F03FH02876
18	18	2,9	**CG03MAB310**	F03FH02877
18	18	4	**CG03MAC310**	F03FH02878
18	18	5,5	**CG03MAD310**	F03FH02879



IG05MD IG05MS — HW - Spur inserts

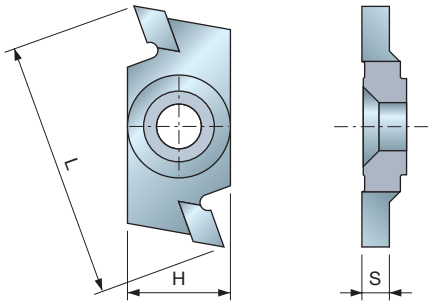


Softwood Hardwood

HW K30S

Spurs inserts made with K30S Freud's Carbide tips.
• Available in left and right rotation version.
• Indicated for natural softwood and hardwood.

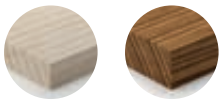
L mm	H mm	S mm	Freud Code Right (D)	Art. No. Right (D)	Freud Code Left (S)	Art. No. Left (S)
40	16	4	**IG05MDAA305**	F03FH02998	**IG05MSAA305**	F03FH02999



HW
K30S

Grooving insert made with K30S Freud's Carbide tips and designed for beveled grooves.
- Available in left and right rotation version.
- Max groove depth 6,5 mm.
- Indicated for natural softwood and hardwood.

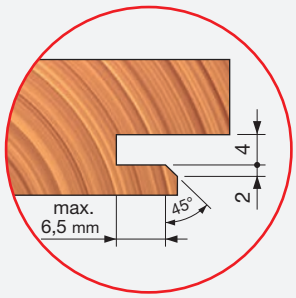
IG17MD HW - Insert for beveled grooves

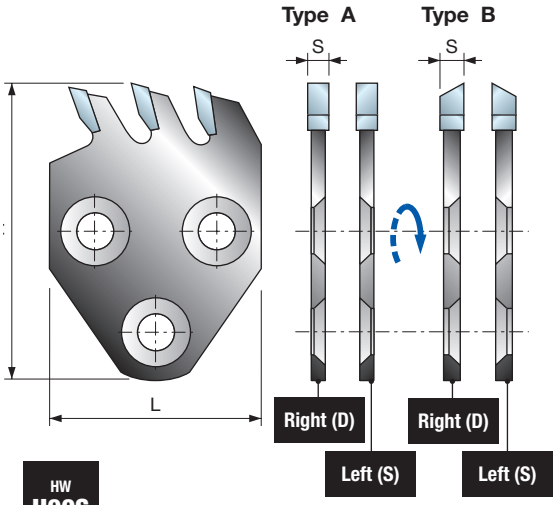


Softwood Hardwood

L mm	H mm	S mm	Freud Code	Art. No.
40	16	3	**IG17MDAA305**	F03FC24162

Example of application of inserts IG17MD

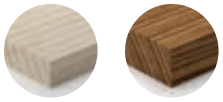




HW
H00S

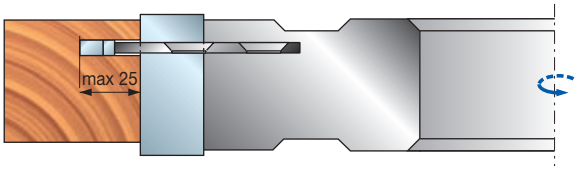
Grooving inserts made with H00S Freud's Carbide tips and 3 cutting edges.
- Max groove depth 25 mm.
- Available in left and right rotation version.
- Indicated for natural softwood and hardwood.

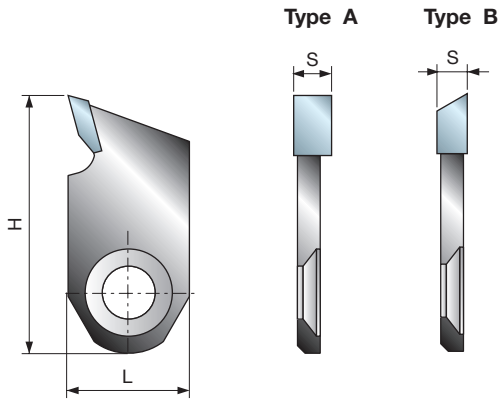
SR01MD SR01MS HW - Grooving inserts



Softwood Hardwood

L mm	H mm	S mm	Type	Freud Code Right (D)	Art. No. Right (D)	Freud Code Left (S)	Art. No. Left (S)
40	58	2,6	A	**SR01MDAE301**	F03FC24185	**SR01MSAE301**	F03FC24189
40	58	3	A	**SR01MDAB301**	F03FC24182	**SR01MSAB301**	F03FC24187
40	58	4	A	**SR01MDAC301**	F03FC24183	**SR01MSAC301**	F03FC24188
40	58	5	A	**SR01MDAA301**	F03FC24181	**SR01MSAA301**	F03FC24186
40	58	6	B	**SR01MDAD301**	F03FC24184	**SR01MSAF301**	F03FC24190

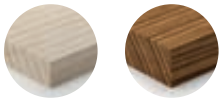




HW
H00S

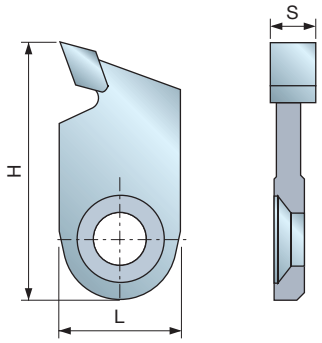
Grooving and spurs inserts made with H00S Freud's Carbide tips.
- Max groove depth 17 mm.
- Available in left and right rotation version.
- Indicated for natural softwood and hardwood.

SR06MD HW - Multipurpose inserts



Softwood Hardwood

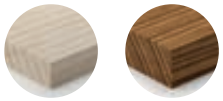
L mm	H mm	S mm	Type	Freud Code	Art. No.
16	34	4	A	**SR06MDAG302**	F03FC24193
16	34	7	A	**SR06MDAH302**	F03FC24194
16	34	5	A	**SR06MDAI302**	F03FC24195
16	34	4	B	**SR06MDAL302**	F03FC24196



HW
K30S

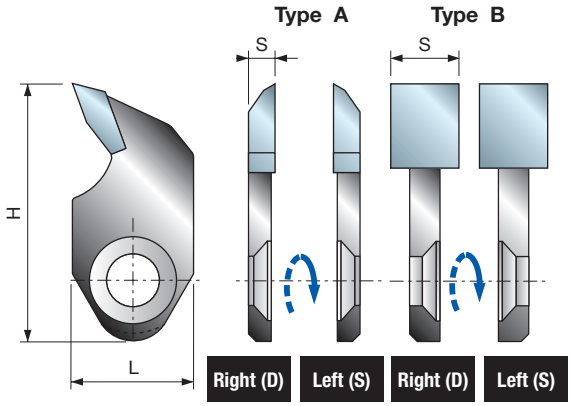
Grooving inserts made with K30S Freud's Carbide tips.
- Max groove depth 17 mm.
- Indicated for natural softwood and hardwood.

SR06M HW - Grooving inserts



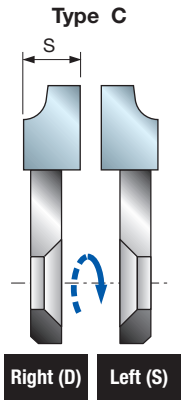
Softwood Hardwood

L mm	H mm	S mm	Freud Code	Art. No.
16	34	6	**SR06MAB302**	F03FC24191
16	34	6	**SR06MAM301**	F03FC24192

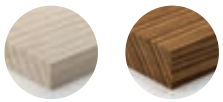


HW
H00S

Grooving inserts made with H00S Freud's Carbide tips.
- Max groove depth 17 mm.
- Indicated for natural softwood and hardwood.

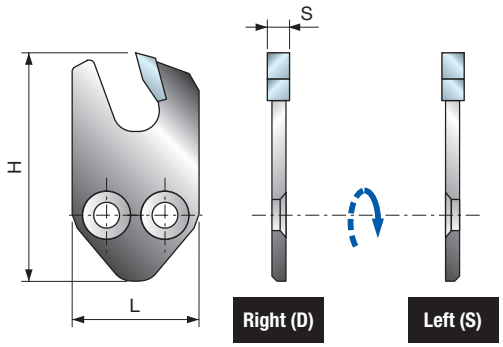


SR06MD SR06MS HW - Multipurpose inserts



Softwood Hardwood

L mm	H mm	S mm	Type	Freud Code Right (D)	Art. No.	Freud Code Left (S)	Art. No.
16	34	3,5	A	**SR06MDBA302**	F03FC24197	**SR06MSBA302**	F03FC24200
16	34	9	B	**SR06MDBB301**	F03FC24198	**SR06MSBB301**	F03FC24201
16	34	9	C	**SR06MDBG301**	F03FC24391	**SR06MSBG301**	F03FC24392
16	34	11	B	**SR06MDBC301**	F03FC24199	**SR06MSBC301**	F03FC24202



HW
H00S

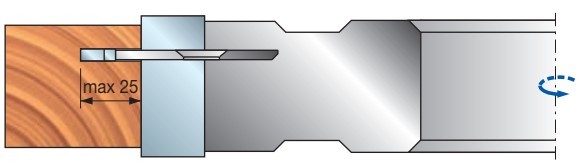
Grooving inserts made with H00S Freud's Carbide tips and 3 cutting edges.
- Max groove depth 25 mm.
- With anti-kickback technology for MAN feed tools.
- Available in left and right rotation version.
- Indicated for natural softwood and hardwood.

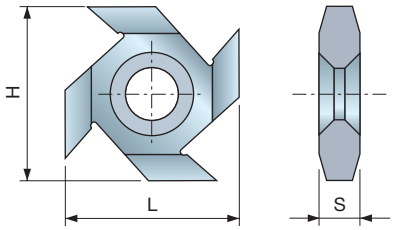
SR11MD SR11MS HW - Grooving inserts



Softwood Hardwood

L mm	H mm	S mm	Freud Code Right (D)	Art. No.	Freud Code Left (S)	Art. No.
25	45	2	**SR11MDBA301**	F03FC24203	**SR11MSBA301**	F03FC24208
25	45	3	**SR11MDBB301**	F03FC24204	**SR11MSBB301**	F03FC24209
25	45	4	**SR11MDBC301**	F03FC24205	**SR11MSBC301**	F03FC24210
25	45	5	**SR11MDBD301**	F03FC24206	**SR11MSBD301**	F03FC24211
25	45	6	**SR11MDBE301**	F03FC24207	**SR11MSBE301**	F03FC24212

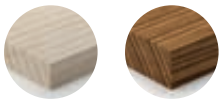




HW
K20S

Anti-capillary inserts made by K20S Freud's Carbide with 4 cutting edges.
• Suitable for natural softwood and hardwood.

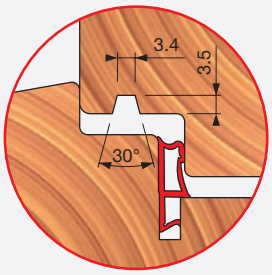
IG03M HW - Anti capillary groove inserts

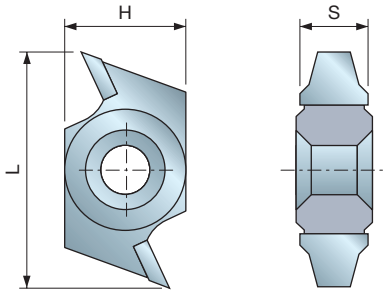


Softwood Hardwood

L mm	H mm	S mm	Freud Code	Art. No.
23	23	5,4	**IG03MAA305**	F03FH02989

Example of application of inserts IG03M

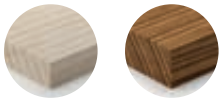




HW
K20S

Anti-capillary inserts made by K20S Freud's Carbide with 2 cutting edges.
• Suitable for natural softwood and hardwood.

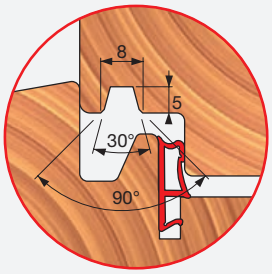
IG11M HW - Anti capillary groove inserts

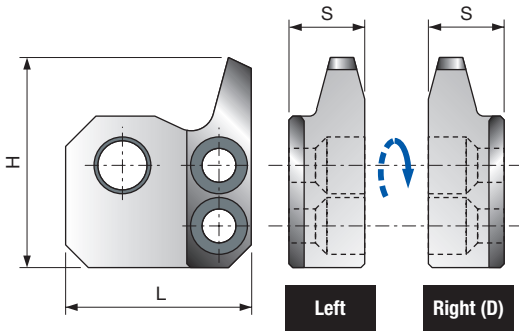


Softwood Hardwood

L mm	H mm	S mm	Freud Code	Art. No.
33,2	16	10	**IG11MAA301**	F03FH03002

Example of application of inserts IG11M

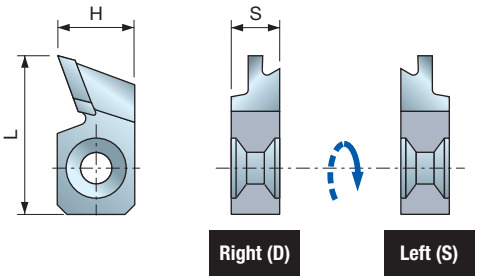




Deflectors suitable for standard **IG11M** anti-capillary inserts as anti-kickback device.
• Component for MAN feed tools.

ID11MD ID11MS Deflectors for inserts IG11M

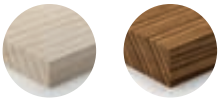
L mm	H mm	S mm	Use for	Freud Code	Art. No.	Freud Code	Art. No.
				Right (D)		Left (S)	
25	45	6	**IG11MAA301**	**ID11MDAA901**	F03FC24145	**ID11MSAA901**	F03FC24146



HW
K20S

Shaped inserts made by K20S Freud's Carbide for gasket seats, available in left and right rotation version.
• Suitable for natural softwood and hardwood.

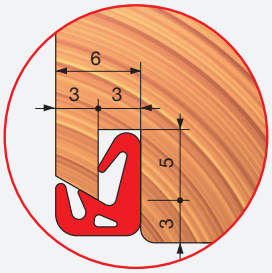
IG10MD IG10MS HW - Inserts for gasket seats

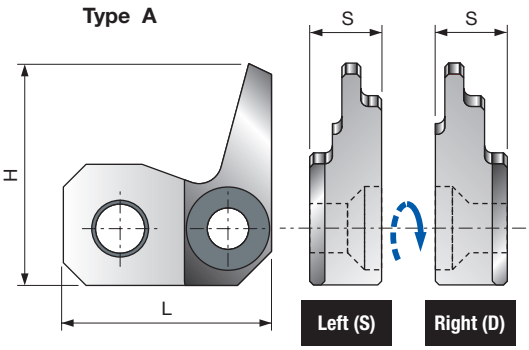


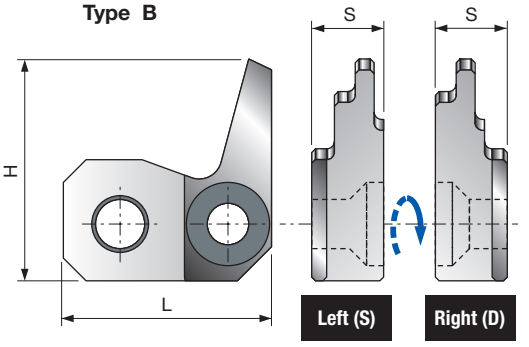
Softwood Hardwood

L mm	H mm	S mm	Freud Code Right (D)	Art. No.	Freud Code Left (S)	Art. No.
32,7	16	10	**IG10MDGA301**	F03FH03000	**IG10MSGA301**	F03FH03001

Example of application of inserts IG10MD/S







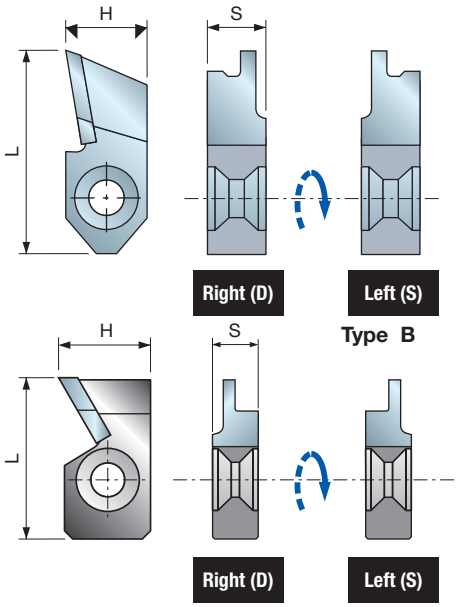
ID10MD ID10MS Deflectors for inserts IG10MD and IG10MS

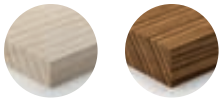
L mm	H mm	S mm	Type	Use for	Freud Code Right (D)	Art. No.	Freud Code Left (S)	Art. No.
27,5	29,3	11	A	**IG10MDGA301**	**ID10MDDGA901**	F03FC24141	**ID10MDSGA901**	F03FC24142
27,5	29,3	11	B	**IG10MSGA301**	**ID10MSDGA901**	F03FC24143	**ID10MSSGA901**	F03FC24144

Deflectors suitable for standard **IG10M** sealing inserts as anti-kickback device.
• Component for MAN feed tools.

IG13MD
IG13MS

HW - Inserts for sealing strip seats

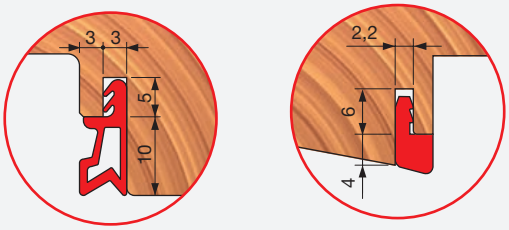




Softwood Hardwood

L mm	H mm	S mm	Type	Freud Code Right (D)	Art. No. Right (D)	Freud Code Left (S)	Art. No. Left (S)
41,5	16	11,5	A	**IG13MDAA301**	F03FH03003	**IG13MSAA301**	F03FH03004
30	16	8,5	B	**IG13MDBA301**	F03FC24159	**IG13MSBA301**	F03FC24160

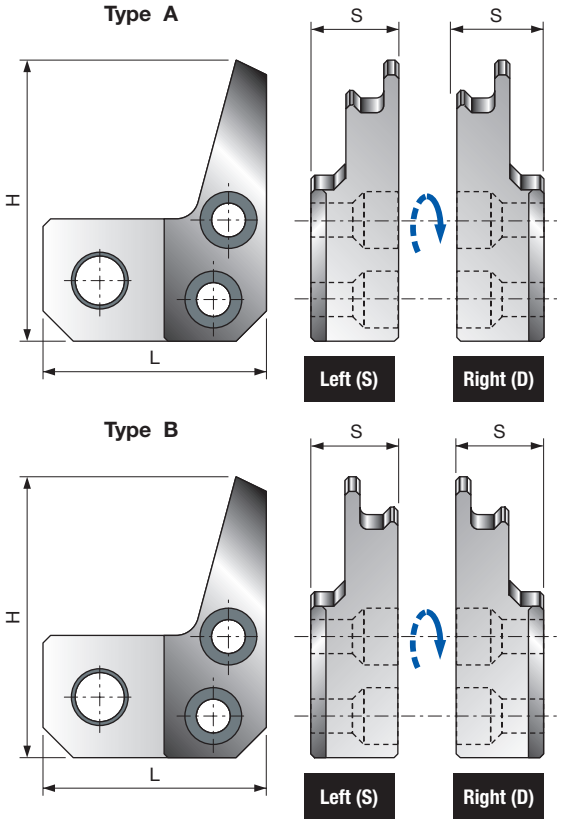
Examples of application of inserts IG13MD/S



AA3 BA3

HW K30S

Shaped inserts made by K30S Freud's Carbide for gasket seats.
- Available in left and right rotation version.
- Suitable for natural softwood and hardwood.

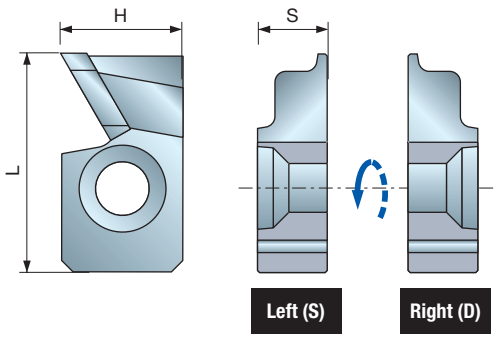


ID13MD
ID13MS

Deflectors for inserts IG13MD and IG13MS

L mm	H mm	S mm	Type	Use for	Freud Code Right (D)	Art. No. Right (D)	Freud Code Left (S)	Art. No. Left (S)
29,9	37,1	12,5	A	**IG13MDAA301**	**ID13MDDAA901**	F03FC24147	**ID13MDSAA901**	F03FC24148
29,9	37,1	12,5	B	**IG13MSAA301**	**ID13MSDAA901**	F03FC24149	**ID13MSSAA901**	F03FC24150

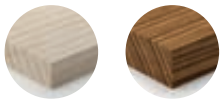
Deflectors suitable for standard **IG13M** sealing inserts as anti-kickback device.
- Component for MAN feed tools.



HW
K20S

Shaped inserts made by K20S Freud's Carbide for frame rebates (Euronorm C13 Freud systems 78/80 mm).
- Available in left and right rotation version.
- Suitable for natural softwood and hardwood.

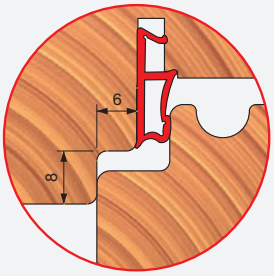
IG14MD IG14MS HW - Inserts for frame rebates

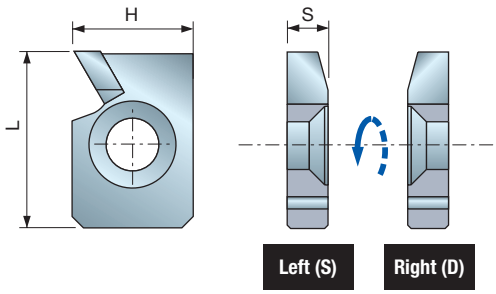


Softwood Hardwood

L	H	S	Freud Code	Art. No.	Freud Code	Art. No.
mm	mm	mm	Right (D)		Left (S)	
28,9	16	10	**IG14MD AA3**	F03FC15370	**IG14MS AA3**	F03FC15371

Example of application of inserts IG14MD/S





HW
K20S

Shaped inserts made by K20S Freud's Carbide for glass sealing, available in left and right rotation version.
- Suitable for natural softwood and hardwood.

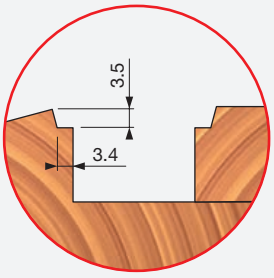
IG15MD IG15MS HW - Inserts for glass sealing

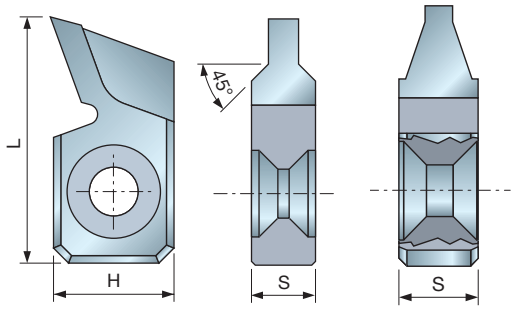


Softwood Hardwood

L	H	S	Freud Code	Art. No.	Freud Code	Art. No.
mm	mm	mm	Right (D)		Left (S)	
23,3	16	6	**IG15MD AA3**	F03FC15372	**IG15MS AA3**	F03FC15373

Example of application of inserts IG15MD/S



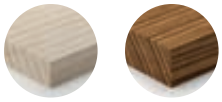


IG16MAA301 F03FC24161 | IG16MAB301 F03FC24381

HW
K20S

Shaped inserts made by K20S Freud's Carbide for glass sealing.
• Suitable for natural softwood and hardwood.

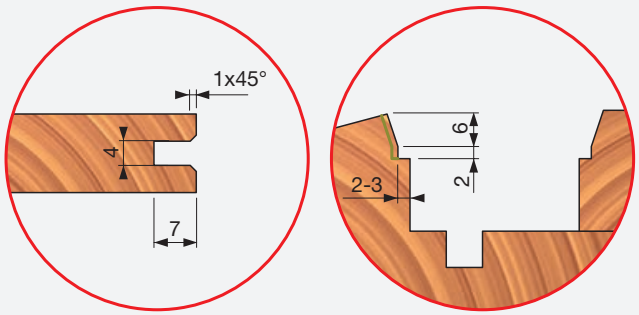
IG16M HW - Inserts for glass sealing

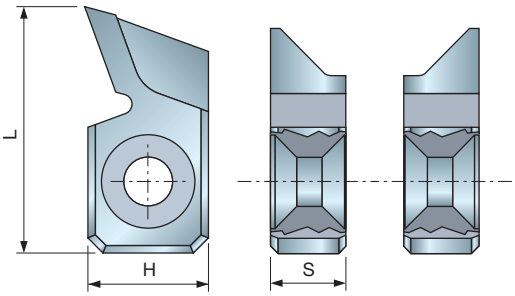


Softwood Hardwood

L mm	H mm	S mm	Freud Code	Art. No.
32,7	16	8,5	**IG16MAA301**	F03FC24161
32,7	16	10	**IG16MAB301**	F03FC24381

Examples of application of inserts IG16M



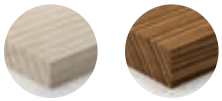


Right (D) | Left (S)

HW
K20S

Shaped inserts made by K20S Freud's Carbide for glass sealing.
• Suitable for natural softwood and hardwood.

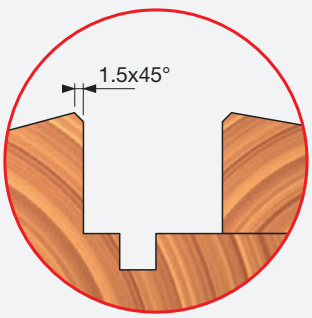
IG16MD IG16MS HW - Inserts for glass sealing



Softwood Hardwood

L mm	H mm	S mm	Freud Code Right (D)	Art. No.	Freud Code Left (S)	Art. No.
32,7	16	6	**IG16MDAC301**	F03FC24382	**IG16MSAC301**	F03FC24383

Examples of application of inserts IG16MD/S



TOOLS

Tools shall be used only by persons of training and experience who have knowledge of how to use and handle tools.
The maximum rotational speed marked on the tool shall not be exceeded.
One piece tools with visible cracks shall not be used.
Clamping surfaces shall be cleaned to remove dirt, grease, oil and water.
Resin shall only be removed from light alloys with solvents that do not affect the mechanical characteristics of these materials.
Tools and tool bodies shall be clamped in such a way, that they shall not loosen during operation.
Tools with cylindrical shank must be clamped in a way that the mark of the maximum free shank length shall be covered, at least partially, by the clamping device or by the locking collet.
Care shall be taken of mounting tools to ensure that the clamping is by the hub respectively by the clamping surface of the tool and that the cutting edges are not in contact with each other or with the clamping elements.
Fastening screws and nuts shall be tightened using the appropriate spanners etc. and to the torque value provided by the manufacturer.
Extension of the spanner or tightening using hammer blows shall not be permitted.
Clamping screws shall be tightened according to instructions provided by the manufacturer. Where instructions are not provided clamping screws shall be tightened in sequence from the centre outwards.
Use of fixed rings, e. g. pressed or held by adhesive fixing, in flanged sleeves, shall be permitted if made to the manufacturers specifications.
Repair and regrinding of tools shall only be allowed according to the tool manufacturer's instructions.
After repair and regrinding of tools it shall be ensured that the tools observe balancing requirements.
The design of composite (tipped) tools shall not be changed in the process of repair.
Composite tools shall be repaired by a competent person, i.e. a person of training and experience, who has knowledge of the design requirements and understands the level of safety to be achieved.
Repair shall therefore include, e.g. use of spare parts which are in accordance with the specification of the original parts provided by the manufacturer.
Tolerances which ensure correct clamping shall be maintained.
For one piece tools care shall be taken that regrinding of the cutting edge will not cause weakening of the hub and the connection of the cutting edge to the hub.
To avoid injuries, tools shall be handled in accordance with the guidance provided by the manufacturer. Typically, safe handling involves the use of devices such as carrying hooks, proprietary handles, frames (e. g. for circular saw blades), boxes, trolleys etc.
The wearing of protective gloves improves the grip on the tool and further reduces the risk of injury.
Maintenance and modification of milling tools and related components and circular saw blades should always be in accordance with the design requirements/the manufacturer's instructions.
Maintenance and modification of milling tools and circular saw blades should only be carried out by a competent person, i. e. a person of training and experience, who has knowledge of the design requirements and understand levels of safety to be achieved.
When regrinding milling tools and circular saw blades, the minimum requirements of cutting blade thickness and cutting blade projection should be observed.
Composite tools should be repaired by persons experienced in and with understanding of design and use of milling tools for processing wood and similar materials, e.g. an expert with a relevant education and knowledge of the brazing process, including in particular the influence of the brazing process on tension in tool body and cutting material. When brazing off worn tips and subsequently brazing on new tips it should be made sure that the tip is correctly mounted in the tool body and that the process does not result in critical tension in the tool body.
After any type of maintenance, milling tools marked with MAN should continue to observe the requirements of the standards related to tools for hand feed.
When modifying milling tools, e. g. modification of bore diameter, modification of shank, retipping of composite tools and similar, it should be ensured that the requirements of the standard relating to balancing are still observed.
After being modified and/or retipped, milling tools and circular saw blades should be marked according to the rules applying to new tools. However, the name/logo of the company making the modification/retipping should be added.
To avoid injuries, tools shall be handled in accordance with the guidance provided by the manufacturer.
Tools which weigh more than 15 kg may require the use of special handling devices or attachments, these will depend on the features that the manufacturer has designed into the tool to allow easy handling. The manufacturer can advise on the availability of necessary devices.

CLAMPING DEVICES

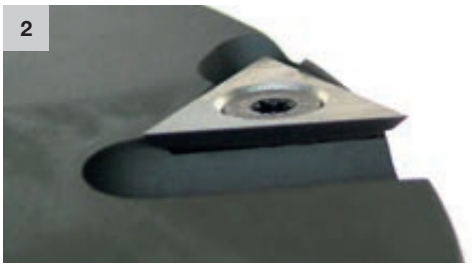
The speeds indicated on the clamping device and the tool to be clamped should be compared. For adjusting the speed on the machine the lower speed should be applied.
Screws and nuts should be tightened using the appropriate spanners;
Clamping surfaces should be cleaned to remove dirt, grease, oil and water.
Clamping devices and tools should be mounted or clamped according to given torques, pressures and wrenches to be used; extension of spanners or tightening or loosening by means of hammer blows should not be permitted.
Maximum tool diameters and tool lengths should not be exceeded;
Shank diameters must be in accordance with the clamping range of the clamping devices.
The minimum required clamping length must be kept;
Care should be taken that the data relevant to the safety of the clamped tool are always stored in the data medium.
Repairs should only be carried out by a competent person, i.e. a person with professional training and experience, who has knowledge of the design, construction and safety requirements;
Repair should therefore include the use of spare parts which are in compliance with the specifications of the original parts.

TECHNICAL FEATURES

1



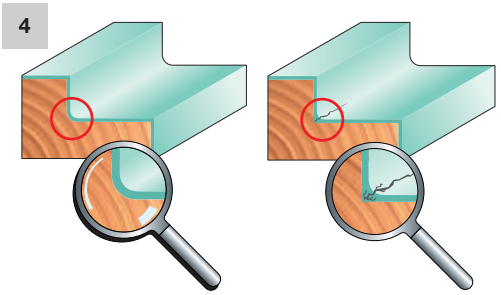
2



3



4



Spurs are inserts laterally positioned on a cutterheads body. They give a better finish on the side rebates of a profile. For this aim, Freud uses a **triangular insert** (**RG02M** - Fig. 1 and 2), constructed in Hard metal to obtain a longer duration of the cutting edge, mounted on cutterheads with disposable knives and Performance cutterheads. The 22 mm cutting edge allows the spur to work the rebate's whole depth, which generally and particularly in the case of windows, doesn't exceed 18 mm of depth. The triangular spur's particular conformation, allows a positioning on the tool so as to obtain a positive hook angle, which combined with the scale of work just described, guarantees an excellent finish on the work surface.
The front of the spur gives a uniform distribution of the shavings for a better finish. Competitors generally use a **square shaped** spur (dimensions: 14 x 14 x 2 mm), with naturally limited efficiency, caused by its geometry as well as by its reduced size. These characteristics and the negative hook angle confered by the positioning of the spur on the tool, do not allow it to work the whole depth of the rebate.
The surface obtained, will therefore have a precarious finish with possible signs of marking. Freud occasionaly uses this type of spur (**RG01M** - Fig. 3), for objective reasons such as insufficient space for the positioning of the spur.

Beveling and rounding inserts are used to eliminate hard edges from work pieces. Other than giving a better aesthetic finish, they also allow paint and varnish to be distributed in a more uniform way. Infact, paint and other coating substances, tend to accumulate and become clogged between the hard edges and once dry, tend to peel and lose their protective qualities, exposing the wood to all types of atmospheric conditions (Fig. 4).

TRIANGULAR ROUNDING SPUR (**RG03M** - Fig. 5): this spur carries out the same function as the triangular spur, but possesses a rounded side and carries out a rounding joint of the hard edge on the inside of the rebate. Suitable for carrying out casings or when the material has to be painted or varnished.

45° BEVELING INSERT (**IG01M** - Fig. 6): this insert in hard metal has, thanks to a particular geometry 8 cutting edges. Can be used reversibly and with a double rotation sense (right and left hand), it is particularly indicated for carrying out beveling with dimensions no greater than 3 mm at 45° and to be mounted on tools with a reduced body thickness, where it is not possible to carry out seats for the housing of inserts.

ROUNDING INSERT (**IG02M** - Fig. 7): is constructed with the same technology as the beveling insert (**IG01M**), therefore with 8 cutting edges with a double rotation sense (right and left hand), but also rounds hard edges.

5



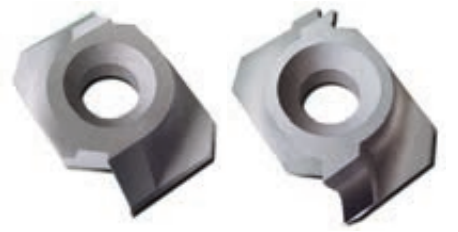
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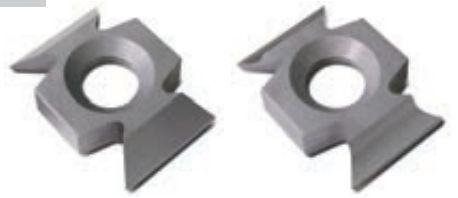


IG21MD IG22MD

9

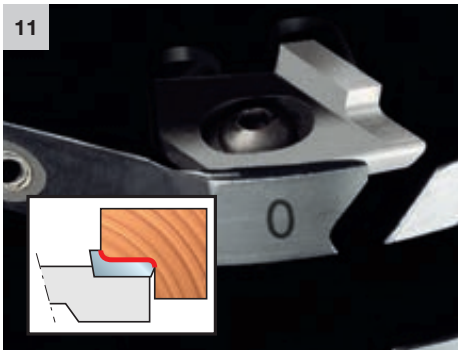


10



IG51MD IG52MD

11



TECHNICAL FEATURES

BEVELING INSERT WITH SHEAR ANGLE (**IG21MD/S** - Fig. 8): insert produced in hard metal with 2 cutting edges, constructed with a shear angle, obtained directly from the sintering process. This type of insert guarantees a better finish of the hard edge long grain but most of all cross grain, where working is more difficult.

ROUNDING INSERT WITH SHEAR ANGLE (**IG22MD/S** - Fig. 8): insert produced with the same technology, both in its construction as well as in its geometry, as beveling inserts (**IG21MD/S**). In more can carry out the rounding of hard edges. Beveling can be carried out by tilting the workpiece a maximum of 15° (corrisponding to the grade of the exit angle of the insert); beyond this limit, the workpiece would become marked by the very same insert. The **IG21MD/S** beveling inserts and **IG22MD/S** rounding inserts have the advantage of being perfectly interchangeable between themselves.

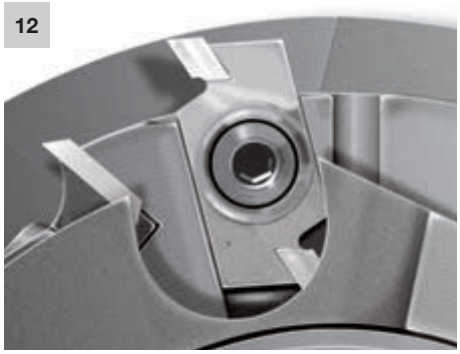
45° BEVELING INSERT WITH SHEAR ANGLE (**IG51M** - Fig. 9 AND 10): insert produced in hard metal, in which characteristics have been improved from the previous inserts. Has 4 cutting edges whose geometrical configuration permits both right and left hand rotation. The shear angle consents a better finish in the various woodworking conditions, for both long grain and cross grain. The reduced dimensions with respect to the previous inserts allow the insert to be positioned more easily and efficiently.

ROUNDING INSERT WITH SHEAR ANGLE (**IG52M** - Fig. 9 and 10): produced with the same technology, both in its construction as well as in its geometry as the **IG51M** beveling
inserts, with the only variant of carrying out the rounding of the hard edges. Even these inserts are interchangeable with the **IG52M** beveling inserts, always keeping in consideration the operational combinations already valued for articles **IG21MD/S** and **IG22MD/S** (see example Fig. 6).

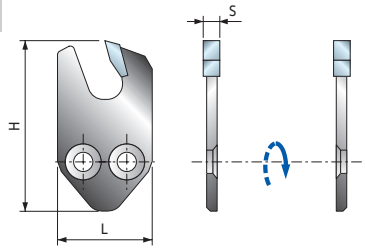
MULTIPURPOSE INSERT (**IG25M** - Fig. 11): produced in hard metal, carries out both the function of a rounding insert and rounding spur, obtaining both operational as well as economical advantages. With this spur and with a single pass, you obtain the finished rebate with the desired depth and the rounding of the hard edges internally as well as externally. These inserts are available with various rebate depths to satisfy all the working processess. Furthermore, being interchangeable between themselves it is possible to carry out rebates with various depths, using the same tool.

GROOVING INSERT (**IG04MD/S** - Fig. 12): produced in hard metal and particularly usefull for carrying out seats and canals for the application of rubber seals and aluminium profiles. The maximum groove depth obtainable is 11 mm. In certain situations it is possible to obtain a greater depth, but limited to only one side of the groove and only if the cutterhead has spurs that intervene on the part exceeding 11 mm, so as to insure a good finish on the work surface.

12



13



TECHNICAL FEATURES

GROOVING INSERTS (**SR11MD/S** - Fig. 13): are used for carrying out grooves with a depth of up to 25 mm. These grooving inserts are produced and cut with the same laser technology as that used for the circular saw blades.

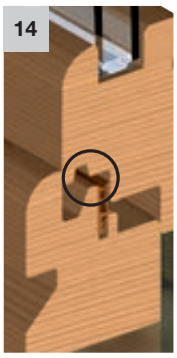
ANTI CAPILLARY GROOVE INSERTS (**IG03M**, **IG11M** - Fig. 14): produced integrally in hard metal for carrying out grooves for various applications. They possess technical characteristics and different dimensions to satisfy specific necessities for various sectors.

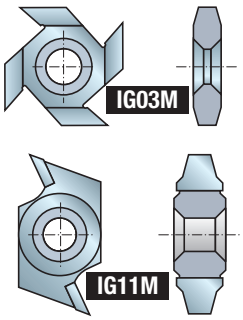
INSERTS FOR SEALING STRIP SEATS (**IG10MD/S - IG13MD/S** - Fig. 15): these articles are constructed in hard metal, used in the window production sector for carrying out grooves to house certain thermic and acoustic rubber seals (Fig. 16).

INSERTS ACCORDING TO THE NORM UNI EN 847-1 (**IG61MD/S**, **IG62MD/S** - Fig. 17 AN 18): the new European Norm UNI EN 847-1 states, that tools destined to be used with manual feed must adopt specific designs, to reduce to the minimum, dangers that may occur to the user. In particular, tools with a non circular form, deflectors must not exceed 1,1 mm in size with respect to the protrusion of the cutting edge. To conform to these new regulations we have produced new beveling inserts (**IG61MD/S**) and new rounding inserts **(IG62MD/S**) which act as deflectors to reduce anti-kickback as imposed by the current norms. Produced in hard metal with a constructive geometry that consents interchangeability between beveling and rounding inserts, using the very same tool's positioning seats. The maximum bevel obtainable is 3 mm x 45.

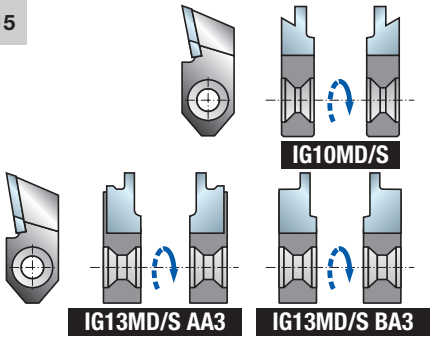
SUPPORTS WITH DEFLECTORS (**ID04MD/S** - Fig. 19 AND 20): to adapt the other more common inserts to the new European Norm and render them ideal for working with manual feed, they have been adapted with deflectors which reduce the possibility of anti-kickback. The insert is housed on the very sampe deflector, made in various versions, so as to combine different inserts which trace the profile. The choosen solution is surely more advantagious for the client, who will be able to use the very same standard insert with both manual and mechanical feed, without having to acquire a double set of spares. The supports with deflector have been studied to be compatible with the following inserts: **IG04MD/S, IG10MD/S, IGliM, IG13MD/S**.

14

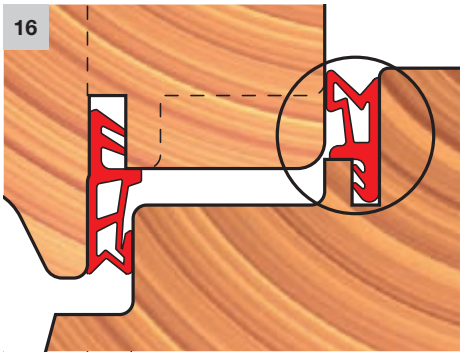




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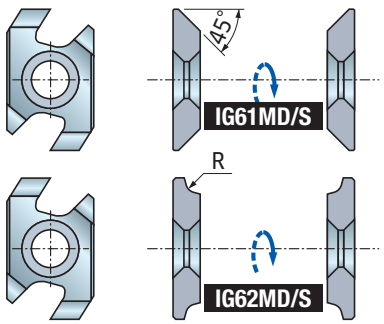
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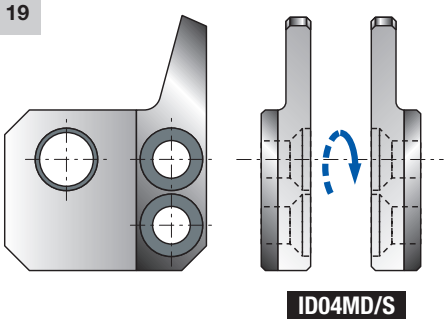
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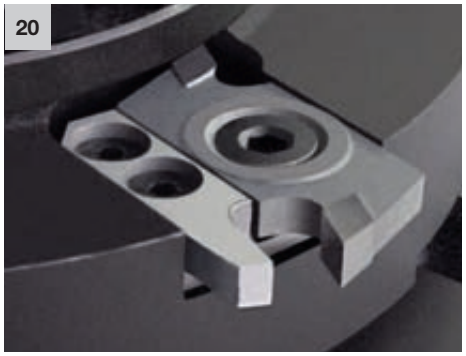
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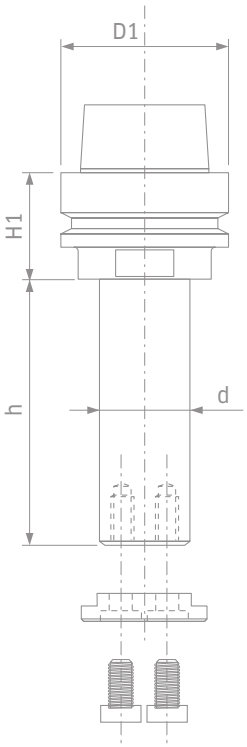


Accessories and Spare Parts

Freud offers the most complete range of industrial quality accessories and spare parts, suitable for all machine types, both stationary and portable. The portfolio includes an extensive selection of tool holders, spacers, screws and accessories designed to fulfill the demands of the industry.
Users benefit from a broad range of standard products, for cost effective solutions and custom accessories, for more specific needs. Standard or custom, Freud's solutions always grant the greatest precision and outstanding performance.



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COMPONENTS

Chucks for boring machines

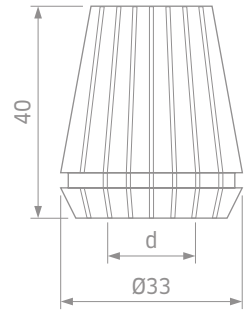
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LEADING TECHNOLOGY

EXTENSIVE RANGE

Freud provides a comprehensive range of premium accessories and spare parts, standard and custom. The wide range of bore sizes provides a suitable option for all machine types, both traditional and automated CNC machines.



MAINTENANCE KEYS & ACCESSORIES

Tool maintenance represents the best practice to maintain cutting edges sharp and ensure the proper tool alignment. Cutting tools for wood applications require special care, beyond regular cleaning. Clamping surfaces must be free of dirt, grease, oil and water to perform efficiently.

For this reason, Freud has specifically designed a range of accessories (including keys, wrenches and clamping devices) to perform the most accurate tool maintenance and provide the perfect solution to reach the highest results in the woodworking processes.







PIONEERING SOLUTIONS

Freud leverages its long-term expertise, engineering know-how and industrial competence to offer safer, faster and more efficient solutions to the most challenging market needs.

To achieve maximum results in all applications, Freud employs the most advanced technologies.
For its new Nickel Coated Mandrel range - for example - cementing and hardening treatments are used to withstand higher temperatures and improve wear resistance, for an extended lifetime and improved performance.

In addition to achieve the highest rust protection, the tools undergo a series of acid baths and ultrasonic cleaning before receivingthe final nickel-plating treatment (nickel depth 7 µm).

FINEST BALANCING - G2.5



ISO 1940-1 G2.5 grades at maximum RPM.

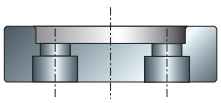
An accurate balancing at maximum speed (G2.5 ISO 1940-1), combined with the excellent rust protection, ensures an ideal and durable clamping of the tools, in the most demanding CNC routing applications.

All Freud's tool holders are designed to be equipped with a microchip, ready to be programmed for tool management systems.

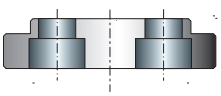
FLANGES

Freud provides different flange types.
Flange **Type B** is the standard.
Flange **Type A** is the optional with no. 3 M6 fixing screws.
Available on request.





Flange Type A

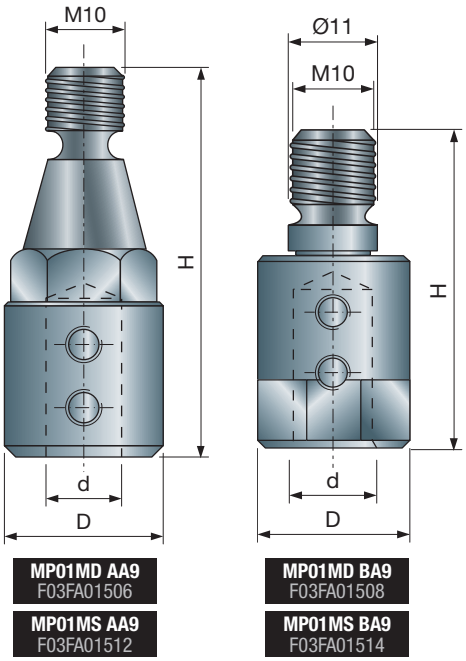


Flange Type B

Components



MP01MD MP01MS — Chucks for bits for multiboring machines



MP01MD AA9 F03FA01506
MP01MS AA9 F03FA01512
MP01MD BA9 F03FA01508
MP01MS BA9 F03FA01514

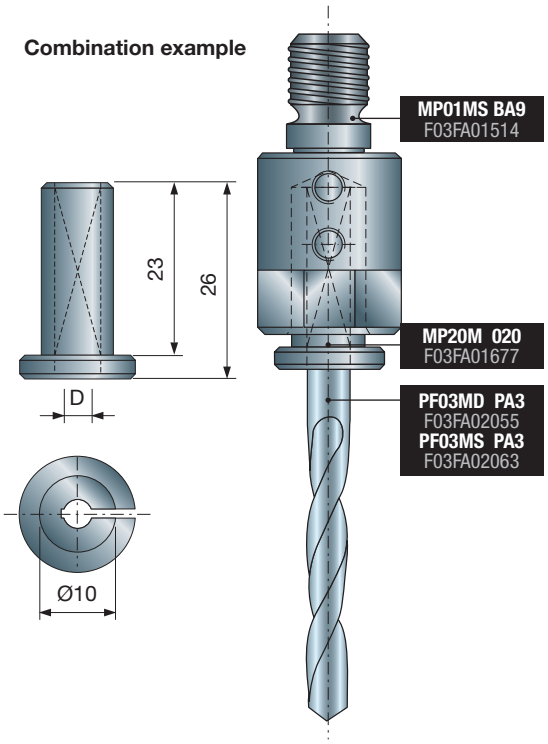
	D mm	H mm	d mm	Rotation	Freud Code Right (D)	Art. No.	Freud Code Left (S)	Art. No.
*	19	47	10	RH	**MP01MD AA9**	F03FA01506	**MP01MS AA9**	F03FA01512

	D mm	H mm	d mm	Rotation	Freud Code Right (D)	Art. No.	Freud Code Left (S)	Art. No.
**	19	41	10	LH	**MP01MD BA9**	F03FA01508	**MP01MS BA9**	F03FA01514

Spare parts	Dimensions mm	Freud Code	Art. No.
Screw	M6 x 6	**2615M DD9**	F03FA07423

Freud standard chucks for router bits.
* **MP...AA9:** Shanks for: Alberti, Balestrini, Bilek, Busellato, Ompec, Reimall, Schlicher, SCM, Tanzani, Viciani, Vitap, Weingärter.
** **MP...BA9:** Shanks for: Alberti, Balestrini, Biesse, Busellato, Gessner, Morbidelli, Torwegge, Weeke.

Combination example

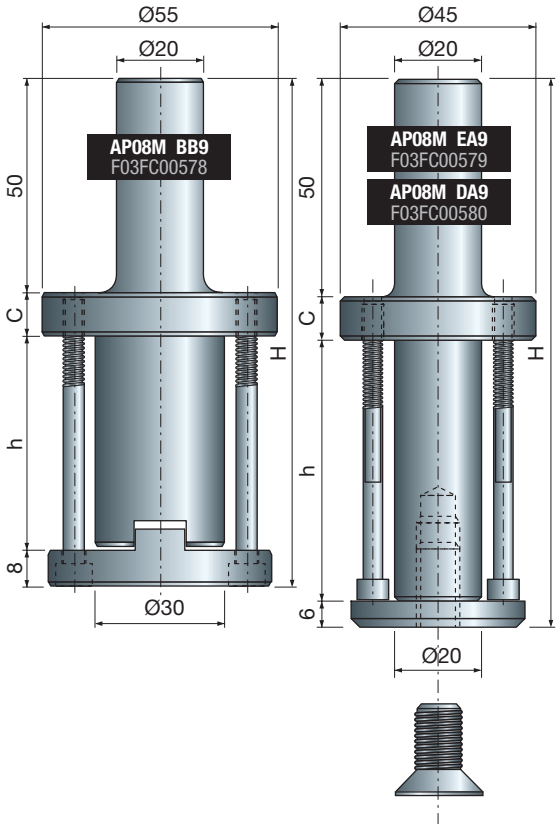


Adaptors for drill bits (as PF03MD/S) suitable for **MP01MD/S** chucks.

MP20M — Spring adaptors for twist drills

D mm	Freud Code	Art. No.
2	**MP20M 020**	F03FA01677
2,5	**MP20M 025**	F03FA01678
3	**MP20M 030**	F03FA01679
3,2	**MP20M 032**	F03FA01680
3,5	**MP20M 035**	F03FA01681
4	**MP20M 040**	F03FA01682
4,5	**MP20M 045**	F03FA01683
5	**MP20M 050**	F03FA01684
6	**MP20M 060**	F03FA01686
8	**MP20M 080**	F03FA01690

AP08M Spindle for overhead routers

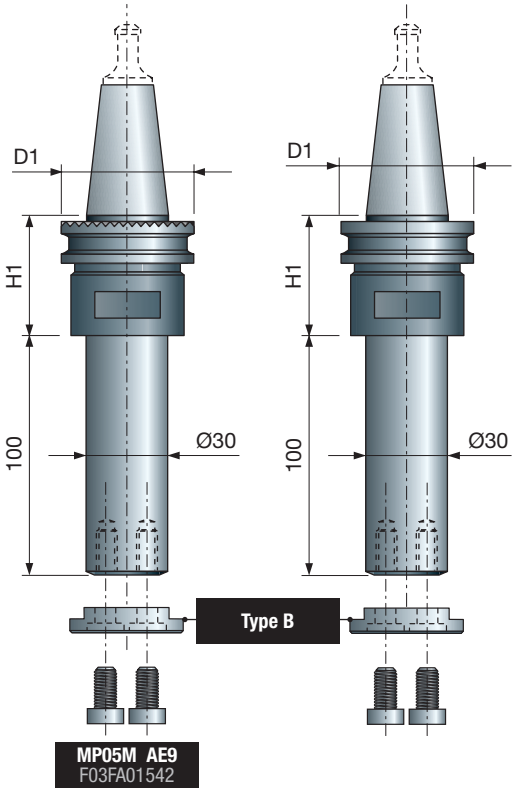


D mm	h mm	H mm	C	Freud Code	Art. No.
20	33	93	12	**AP08M DA9**	F03FC00579
20	60	120	10	**AP08M EA9**	F03FC00580
30	50	118	12	**AP08M BB9**	F03FC00578

Spindles for manual or overhead CNC router machines with 20x50 mm shank.
AP08M DA3 and **AP08M EA9** suitable for mounting tool with bore Ø20 mm, while the **AP08M BB9** is suitable for mounting tool with bore Ø30 mm.

- The **AP08M BB9** includes an anti-rotation ring nut and the housing for the screws that fasten the tool to the chuck.

MP05M High precision spindles - ISO30

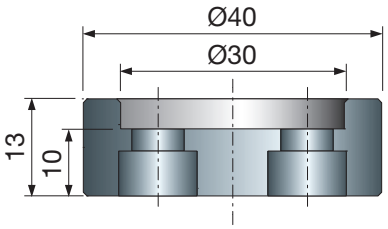


MP05M AE9
F03FA01542

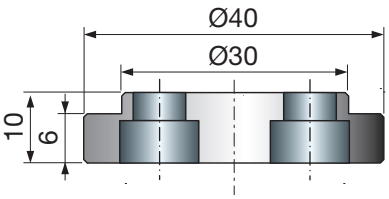
D1 mm	H1 mm	Router	Freud Code	Art. No.
50	35	Universal	**MP05M AA9**	F03FA01538
50	35	Biesse	**MP05M AB9**	F03FA01539
46	35	CMS	**MP05M AC9**	F03FA01540
49	41	SCM - Morbidelli	**MP05M AE9**	F03FA01542

Flange Type A

FX09M AA9
F03FA13481

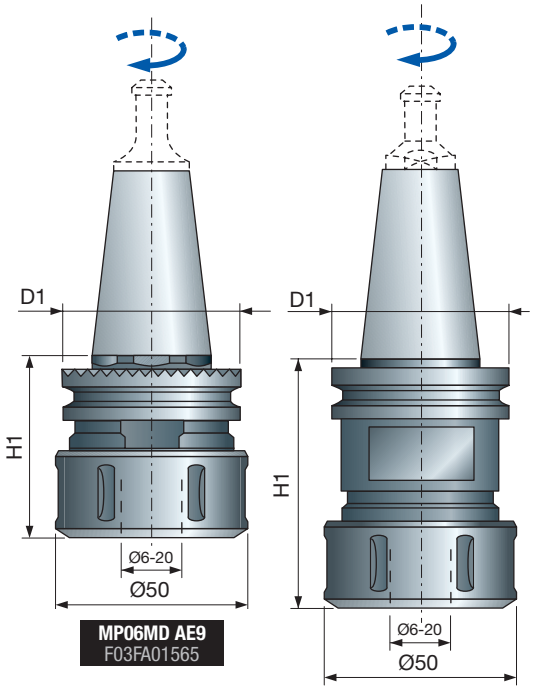


Flange Type B



Spindles for overhead CNC machines with **ISO30** shank for Ø30 mm tools bore.
- Standard chucks are provided with **Type B** flange **Type A** flange **Type A** is supplied on demand.
- Terminal pin **CD01M** is not included.

MP06MD High precision chucks - ISO30

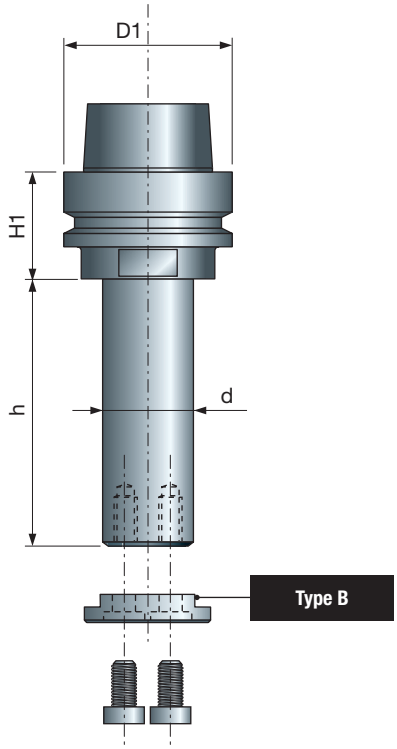


MP06MD AE9
F03FA01565

D mm	H mm	Router	Freud Code	Art. No.
50	67	Universal	**MP06MD AA9**	F03FA01561
50	50	Biesse	**MP06MD AB9**	F03FA01562
46	60	CMS	**MP06MD AC9**	F03FA01563
58	50	Esseteam	**MP06MD AD9**	F03FA01564
49	55	SCM - Morbidelli	**MP06MD AE9**	F03FA01565

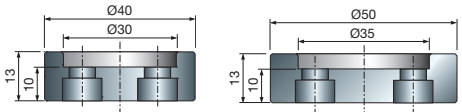
Chucks for overhead CNC machines with **ISO30** shank.
- Locking ring **ER32 RH**.
- Ideal for router bits with cylindrical shank.
- Terminal pin **CD01M** and **MP06M** collet not included.

MP07M High precision Nickel coated spindles - HSK 63 E



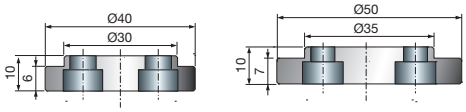
Spindles for CNC overhead CNC machines with **HSK 63 E** shank.
- Nickel coating treatment to prevent rust.
- G2,5 balancing for high speed applications.
- Standard spindles with **Type B** flange, **Type A** on demand.

Flange Type A



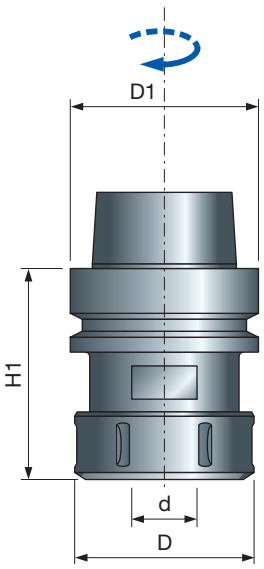
FX09M AA9
F03FA13481

Flange Type B



h mm	H1 mm	d mm	D1 mm	Freud Code	Art. No.
50	33	30	63	**MP07M30050**	F03FB22386
60	33	30	63	**MP07M30060**	F03FB22387
70	33	30	63	**MP07M30070**	F03FB22388
80	33	30	63	**MP07M30080**	F03FB22389
90	33	30	63	**MP07M30090**	F03FB22390
100	33	30	63	**MP07M30100**	F03FB22391
110	33	30	63	**MP07M30110**	F03FB22392
120	33	30	63	**MP07M30120**	F03FB22393
130	33	30	63	**MP07M30130**	F03FB22394
140	33	30	63	**MP07M30140**	F03FB22395
150	33	30	63	**MP07M30150**	F03FB22396
160	33	30	63	**MP07M30160**	F03FB22397
170	33	30	63	**MP07M30170**	F03FB22398
180	33	30	63	**MP07M30180**	F03FB22399
190	33	30	63	**MP07M30190**	F03FB22400
200	33	30	63	**MP07M30200**	F03FB22401
210	33	30	63	**MP07M30210**	F03FB22402
220	33	30	63	**MP07M30220**	F03FB22403
230	33	30	63	**MP07M30230**	F03FB22404
50	33	35	63	**MP07M35050**	F03FB22405
60	33	35	63	**MP07M35060**	F03FB22406
70	33	35	63	**MP07M35070**	F03FB22407
80	33	35	63	**MP07M35080**	F03FB22408
90	33	35	63	**MP07M35090**	F03FB22409
100	33	35	63	**MP07M35100**	F03FB22410
110	33	35	63	**MP07M35110**	F03FB22411
120	33	35	63	**MP07M35120**	F03FB22412
130	33	35	63	**MP07M35130**	F03FB22413
140	33	35	63	**MP07M35140**	F03FB22414
150	33	35	63	**MP07M35150**	F03FB22415
160	33	35	63	**MP07M35160**	F03FB22416
170	33	35	63	**MP07M35170**	F03FB22417
180	33	35	63	**MP07M35180**	F03FB22418
190	33	35	63	**MP07M35190**	F03FB22419
200	33	35	63	**MP07M35200**	F03FB22420
210	33	35	63	**MP07M35210**	F03FB22421
220	33	35	63	**MP07M35220**	F03FB22422
230	33	35	63	**MP07M35230**	F03FB22423
245	33	35	63	**MP07M35245**	F03FB22424
245	33	40	63	**MP07M40245**	F03FB22425

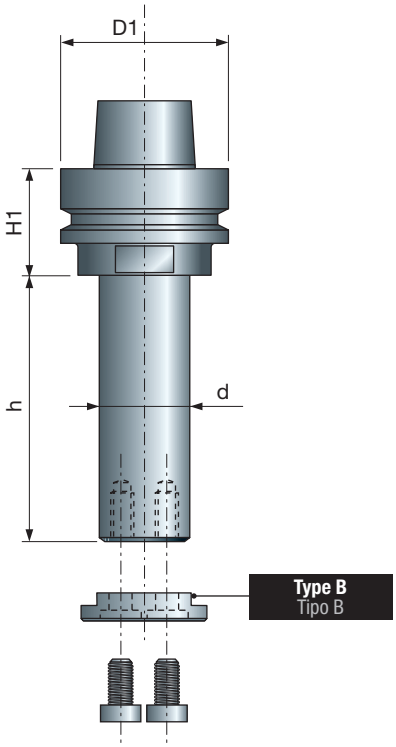
MP08M High precision Nickel coated chucks - HSK 63 E



H1 mm	D mm	d mm	D1 mm	Freud Code	Art. No.
73	50	4-20	63	**MP08MDC AA9**	F03FA19217
78	63	6-25	63	**MP08MDC BA9**	F03FA19218

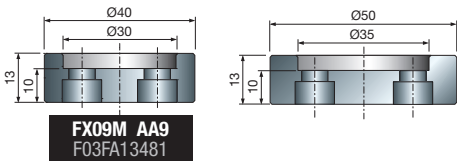
Chucks for CNC overhead CNC machines with **HSK 63 E** shank.
- Nickel coating treatment to prevent rust.
- G2,5 balancing for high speed applications.
- **ER32 RH** locking ring for item **MP08MDC AA9.**
- **ER40 RH** for **MP08MDC BA9**.
- Collet not included.

MP09M High precision Nickel coated spindles - HSK 63 F



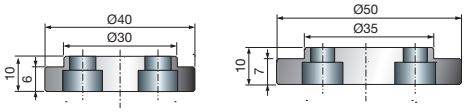
Spindles for CNC overhead CNC machines with **HSK 63 F** shank.
- Nichel coating treatment to prevent rust.
- G2,5 balancing for high speed applications.
- Standard spindles with **Type B** flange, **Type A** on demand.

Flange Type A



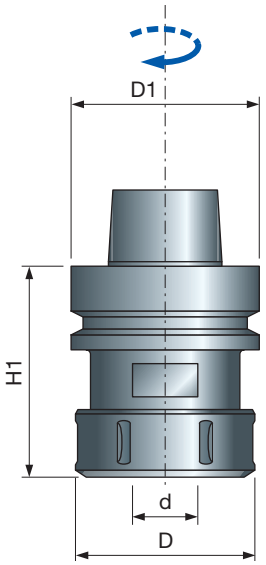
FX09M AA9
F03FA13481

Flange Type B



h mm	H1 mm	d mm	D1 mm	Freud Code	Art. No.
50	33	30	63	**MP09M30050**	F03FB22426
60	33	30	63	**MP09M30060**	F03FB22427
70	33	30	63	**MP09M30070**	F03FB22428
80	33	30	63	**MP09M30080**	F03FB22429
90	33	30	63	**MP09M30090**	F03FB22430
100	33	30	63	**MP09M30100**	F03FB22431
110	33	30	63	**MP09M30110**	F03FB22432
120	33	30	63	**MP09M30120**	F03FB22433
130	33	30	63	**MP09M30130**	F03FB22434
140	33	30	63	**MP09M30140**	F03FB22435
150	33	30	63	**MP09M30150**	F03FB22436
160	33	30	63	**MP09M30160**	F03FB22437
170	33	30	63	**MP09M30170**	F03FB22438
180	33	30	63	**MP09M30180**	F03FB22439
190	33	30	63	**MP09M30190**	F03FB22440
200	33	30	63	**MP09M30200**	F03FB22441
50	33	35	63	**MP09M35050**	F03FB22442
60	33	35	63	**MP09M35060**	F03FB22443
70	33	35	63	**MP09M35070**	F03FB22444
80	33	35	63	**MP09M35080**	F03FB22445
90	33	35	63	**MP09M35090**	F03FB22446
100	33	35	63	**MP09M35100**	F03FB22447
110	33	35	63	**MP09M35110**	F03FB22448
120	33	35	63	**MP09M35120**	F03FB22449
130	33	35	63	**MP09M35130**	F03FB22450
140	33	35	63	**MP09M35140**	F03FB22451
150	33	35	63	**MP09M35150**	F03FB22452
160	33	35	63	**MP09M35160**	F03FB22453
170	33	35	63	**MP09M35170**	F03FB22454
180	33	35	63	**MP09M35180**	F03FB22455
190	33	35	63	**MP09M35190**	F03FB22456
200	33	35	63	**MP09M35200**	F03FB22457

MP10M High precision Nickel coated chucks - HSK 63 F



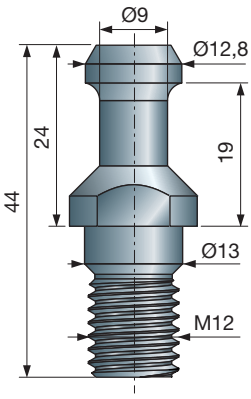
H1 mm	D mm	d mm	D1 mm	Freud Code	Art. No.
73	50	4-20	63	**MP10MDC AA9**	F03FA19227
78	63	6-25	63	**MP10MDC BA9**	F03FA19228

Chucks for CNC overhead CNC machines with **HSK 63 F** shank.
- Nickel coating treatment to prevent rust.
- G2,5 balancing for high speed applications.
- **ER32 RH** locking ring for item **MP10MDC AA9**.
- **ER40 RH** for **MP10MDC BA9**.
- Collet not included.

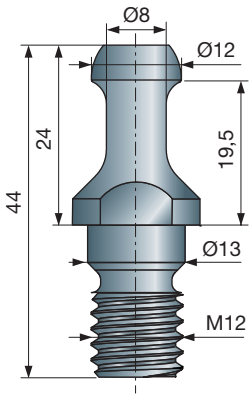
CD01M Pull studs for chucks ISO30

Terminal pins for ISO30 chucks and spindes.

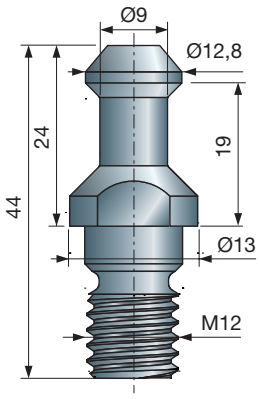
For routers:	Freud Code	Art. No.
	Left (S)	
CMS	**CD01M AA9**	F03FA00537
Biesse, Masterwood	**CD01M BA9**	F03FA00538
Alberti, Masterwood	**CD01M CA9**	F03FA00539
SCM, Morbidelli	**CD01M DA9**	F03FA00540
Busellato, IMA, Weeke, Maka	**CD01M EA9**	F03FA00541



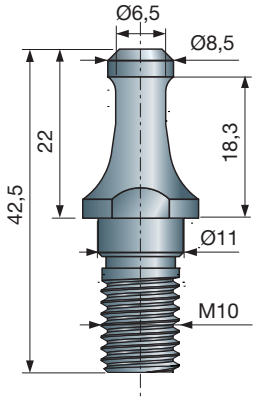
CD01M AA9
F03FA00537



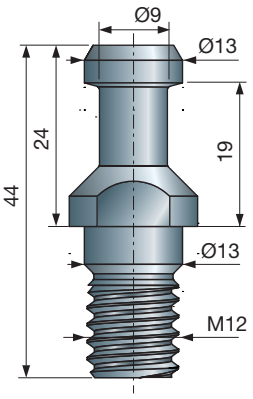
CD01M BA9
F03FA00538



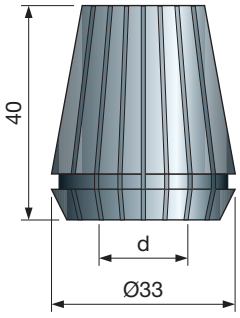
CD01M CA9
F03FA00539



CD01M DA9
F03FA00540



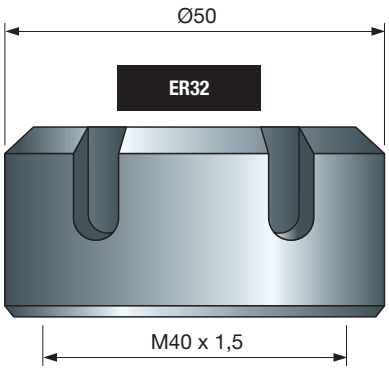
CD01M EA9
F03FA00541



Collet for router bits with cylindrical shank. Suitable for **MP06MD**, **MP08MDC AA9** and **MP10MDC AA9** chucks.

MP06M High precision collet for ER32 locking rings

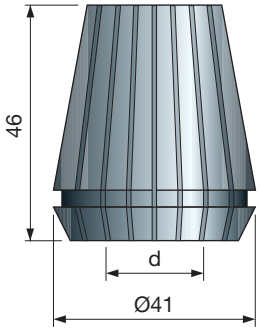
d mm	H mm	Clamping range	Freud Code	Art. No.
4	40	4÷3	**MP06M 049**	F03FA01550
6	40	6÷5	**MP06M 069**	F03FA01551
8	40	8÷7	**MP06M 089**	F03FA01553
10	40	10÷9	**MP06M 109**	F03FA01554
12	40	12÷11	**MP06M 129**	F03FA01555
14	40	14÷13	**MP06M 149**	F03FA01557
16	40	16÷15	**MP06M 169**	F03FA01558
18	40	18÷17	**MP06M 189**	F03FA01559
20	40	20÷19	**MP06M 209**	F03FA01560



Locking rings suitable for universal high precision chucks with **MP06M** collet.

GH32M High precision locking ring

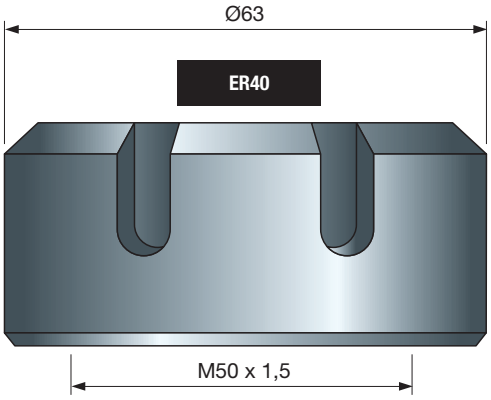
D mm	Locking ring	Freud Code	Art. No.
50	ER32	**GH32M AA9**	F03FA01400



Collets for router bits with cylindrical shank. Suitable for **MP08MDC BA9** and **MP10MDC BA9** chucks.

MP16M — High precision collet for ER40 locking rings

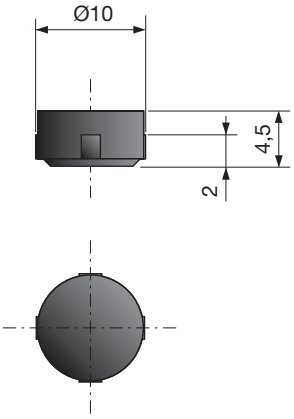
d mm	H mm	Clamping range	Freud Code	Art. No.
6	46	6÷5	**MP16M 069**	F03FA01666
8	46	8÷7	**MP16M 089**	F03FA01667
10	46	10÷9	**MP16M 109**	F03FA01668
12	46	12÷11	**MP16M 129**	F03FA01669
14	46	14÷13	**MP16M 149**	F03FA01670
16	46	16÷15	**MP16M 169**	F03FA01671
18	46	18÷17	**MP16M 189**	F03FA01672
20	46	20÷19	**MP16M 209**	F03FA01673
25	46	25÷24	**MP16M 259**	F03FA01675



Locking rings suitable for universal high precision chucks with **MP16M** collet.

GH40M — High precision locking ring

D mm	Locking ring	Freud Code	Art. No.
63	ER40	**GH40M AA9**	F03FA01401



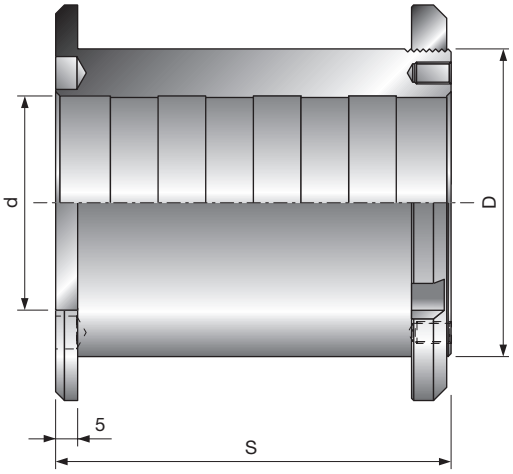
MC01M — Encoding microchip for smart tools

D mm	H mm	h mm	Freud Code	Art. No.
10	4,5	2	**MC01M 010**	F03FB01638

Microchip suitable for machines set up to read and write data for tool recognition.
- Circular in shape, it has storage capacity of 511 bytes.
- To be used at temperatures from 0° to + 70°.

BF10MD
BF10MS

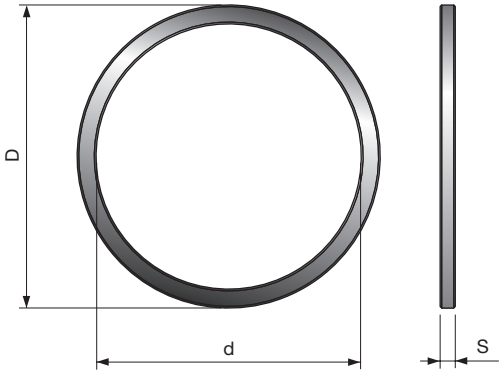
Sleeves with locking nut



Standard Freud's sleeves for complex tools with threated locking nut.

	D	S	d	Freud Code	Art. No.	Freud Code	Art. No.
	mm	mm	mm	Right (D)		Left (S)	
	50	110	30	**BF10MD AA9**	F03FC00616	**BF10MS AA9**	F03FC00661
	50	130	30	**BF10MD AD9**	F03FC00619	**BF10MS AD9**	F03FC00664
	50	60	35	**BF10MD AG9**	F03FC00622	-	-
	50	110	35	**BF10MD AB9**	F03FC00617	**BF10MS AB9**	F03FC00662
	50	130	35	**BF10MD AE9**	F03FC00620	-	-
	50	110	40	**BF10MD AC9**	F03FC00618	**BF10MS AC9**	F03FC00663
	50	130	40	**BF10MD AF9**	F03FC00621	**BF10MS AF9**	F03FC00665
	55	110	35	**BF10MD BA9**	F03FC00625	**BF10MS BA9**	F03FS07470
	55	130	35	**BF10MD BC9**	F03FS07469	**BF10MS BC9**	F03FS07471
	55	110	40	**BF10MD BB9**	F03FS07468	-	-
	55	130	40	**BF10MD BD9**	F03FC00626	**BF10MS BD9**	F03FC00668
	60	90	32	**BF10MD DL9**	F03FC24537	-	-
	60	85	35	**BF10MD KB9**	F03FC00643	-	-
	60	90	35	**BF10MD DB9**	F03FC00630	-	-
	60	110	35	**BF10MD CB9**	F03FC00627	-	-
	60	85	40	**BF10MD KC9**	F03FC00644	-	-
	60	90	40	**BF10MD DC9**	F03FC00631	**BF10MS DC9**	F03FC00669
	60	110	40	**BF10MD CC9**	F03FC00628	-	-
	60	85	50	**BF10MD KD9**	F03FC00645	-	-
	60	90	50	**BF10MD DD9**	F03FC00632	-	-
	60	110	50	**BF10MD CD9**	F03FC00629	-	-
	70	75	30	**BF10MD LA9**	F03FC00646	-	-
	70	85	30	-	-	**BF10MS HA9**	F03FC00676
	70	90	30	**BF10MD EA9**	F03FC24536	-	-
	70	90	32	**BF10MD EL9**	F03FC24537	**BF10MS EL9**	
	70	85	35	**BF10MD HB9**	F03FC00638	-	-
	70	90	35	**BF10MD EB9**	F03FC00633	**BF10MS EB9**	F03FC00671
	70	75	40	**BF10MD LC9**	F03FC00647	-	-
	70	85	40	**BF10MD HC9**	F03FC00639	-	-
	70	90	40	**BF10MD EC9**	F03FC00634	**BF10MS EC9**	F03FC00672
*	70	40	50	**BF10MD QD9**	F03FC00653	**BF10MS QD9**	F03FC00685
*	70	45	50	**BF10MD PD9**	F03FC00652	**BF10MS PD9**	F03FC00684
*	70	50	50	**BF10MD OD9**	F03FC00651	**BF10MS OD9**	F03FC00683
*	70	55	50	**BF10MD ND9**	F03FC00650	**BF10MS ND9**	F03FC00682
*	70	60	50	**BF10MD MD9**	F03FC00649	**BF10MS MD9**	F03FC00681
*	70	65	50	**BF10MD ID9**	F03FC00641	**BF10MS ID9**	F03FC00679
*	70	70	50	**BF10MD GD9**	F03FC00637	**BF10MS GD9**	F03FC00675
*	70	75	50	**BF10MD LD9**	F03FC00648	**BF10MS LD9**	F03FC00680
*	70	80	50	**BF10MD FD9**	F03FC00636	**BF10MS FD9**	F03FC00674
*	70	85	50	**BF10MD HD9**	F03FC00640	**BF10MS HD9**	F03FC00678
*	70	90	50	**BF10MD ED9**	F03FC00635	**BF10MS ED9**	F03FC00673

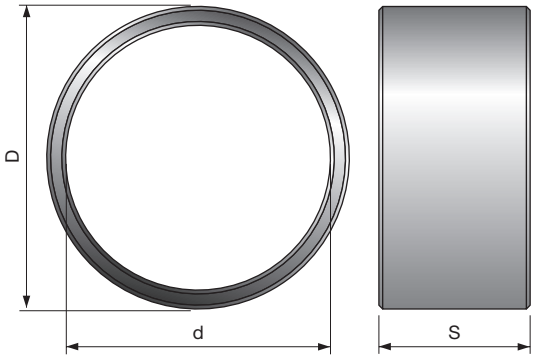
* Item already fitted with pin holes.



Standard reduction rings suitable for circular saw blades.

BLA — Standard reduction rings for saw blades

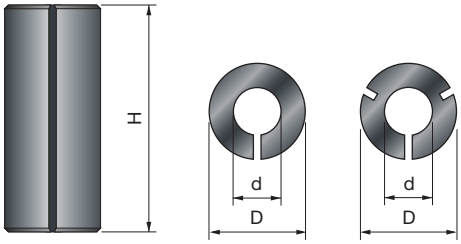
D mm	S mm	d mm	Freud Code	Art. No.
15.88	0.8	10	**BLA08158100**	F03FA23018
20	1.2	12.7	**BL15M20127**	F03FC00694
20	1.5	16	**BLA15200160V01**	F03FS11956
20	1.8	16	**BLA18200160V01**	F03FS11960
25.4	1.0	19.05	**BLA10254190V01**	F03FS11954
25.4	1.2	20	**BLA12254200V01**	F03FS11955
30	1.5	15.88	**BLA15300158**	F03FA23019
30	1.8	15.88	**BLA18300158**	F03FA23020
30	1.5	20	**BLA15300200V01**	F03FS11957
30	1.8	20	**BLA18300200**	F03FA23021
30	1.5	25	**BLA15300250V01**	F03FS11958
30	1.8	25	**BLA18300250**	F03FA23022
30	1.5	25.4	**BLA15300254V01**	F03FS11959
30	1.8	25.4	**BLA18300254V01**	F03FS11961
35	1.8	25.4	**BLA18350254**	F03FA22201
35	1.8	30	**BLA18350300**	F03FA23023



Standard reduction rings suitable for cutterheads.

BF01M — Standard reduction rings for cutterheads

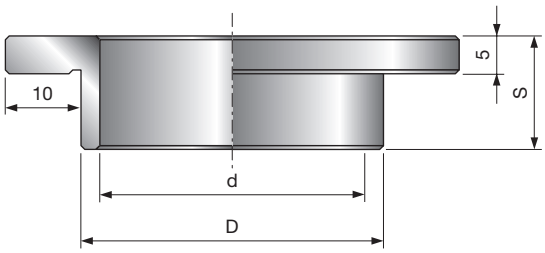
D mm	S mm	d mm	Freud Code	Art. No.
35	5	30	**BF01M AA9**	F03FC00604
35	10	30	**BF01M AB9**	F03FC00605
35	15	30	**BF01M AC9**	F03FC00606
35	20	30	**BF01M AD9**	F03FC00607
35	25	30	**BF01M AE9**	F03FC00608
35	50	30	**BF01M AF9**	F03FC00609
40	5	35	**BF01M BA9**	F03FC00610
40	10	35	**BF01M BB9**	F03FC00611
40	15	35	**BF01M BC9**	F03FC00612
40	20	35	**BF01M BD9**	F03FC00613
40	25	35	**BF01M BE9**	F03FC00614
40	50	35	**BF01M BF9**	F03FC00615



Reducing bushes for router bits.

3105M Reducing bushes

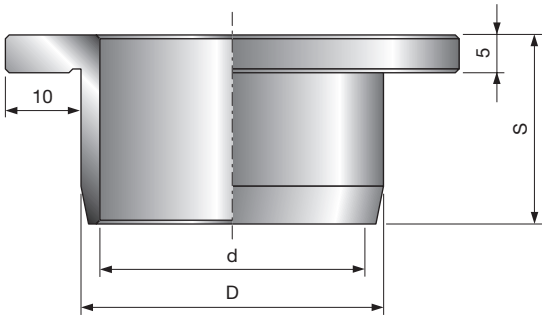
D mm	S mm	d mm	Freud Code	Art. No.
8	25	6	**3105MVY250**	F03FA10588
8	25	6,35	**3105MVX250**	F03FA10587
9,5	25	6	**3105MUY250**	F03FA10586
9,5	25	6,35	**3105MUX250**	F03FA10585
9,5	25	8	**3105MUV250**	F03FA10584
10	25	8	**3105MTV250**	F03FA10582
12	25	6	**3105MSY250**	F03FA10581
12	25	8	**3105MSV250**	F03FA10580
12	25	10	**3105MST250**	F03FA10579
12,7	25	6	**3105MRY250**	F03FA10578
12,7	25	6,35	**3105MRX250**	F03FA10577
12,7	25	8	**3105MRV250**	F03FA10576
12,7	25	9,5	**3105MRU250**	F03FA10575
16	25	13	**3105MOQ250**	F03FA10574



Reducing bushes for cutterheads with shoulder.

FX01M Reducing bushes

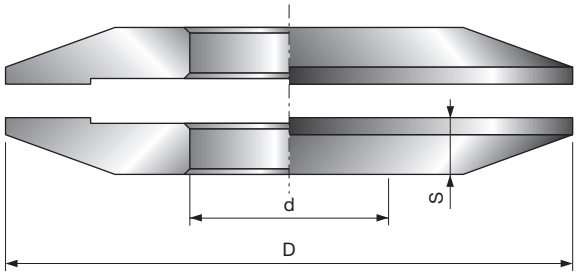
D mm	S mm	d mm	Freud Code	Art. No.
30	15	25	**FX01M AA9**	F03FC15031
35	15	30	**FX01M BA9**	F03FC15033
40	15	30	**FX01M CA9**	F03FC15035
40	15	35	**FX01M CB9**	F03FC15036
50	15	30	**FX01M DA9**	F03FC15037
50	15	35	**FX01M DB9**	F03FC15038
50	15	40	**FX01M DC9**	F03FC15039
68	10	40	**FX01M HC9**	F03FC15041



Reducing bushes for cutterheads with shoulder.
• Suitable for planer heads **TM06M** and **TM07M**.

FX02M Reducing bushes

D mm	S mm	d mm	Freud Code	Art. No.
40	25	35	**FX02M CB9**	F03FC15043

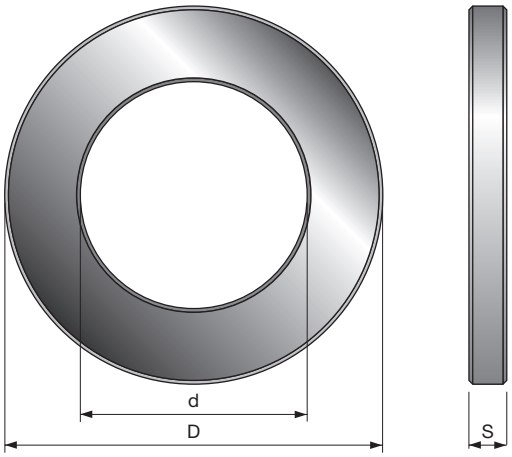


Stiffening collars suitable for circular saw blades.

FX03M Stiffening collars for saw blades

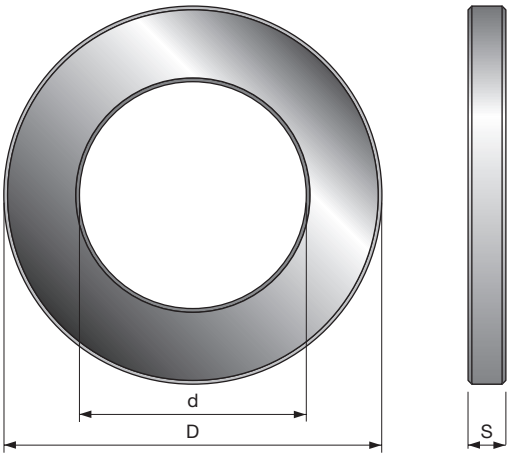
D mm	S mm	d mm	Freud Code	Art. No.
80	10	30	**FX03M AA9**	F03FC15045
80	10	35	**FX03M AB9**	F03FC15047
100	10	30	**FX03M BA9**	F03FC15049
100	10	35	**FX03M BB9**	F03FC15051
100	10	40	**FX03M BC9**	F03FC15053
125	10	30	**FX03M CA9**	F03FC15055
125	10	35	**FX03M CB9**	F03FC15057

AN01M Spacers



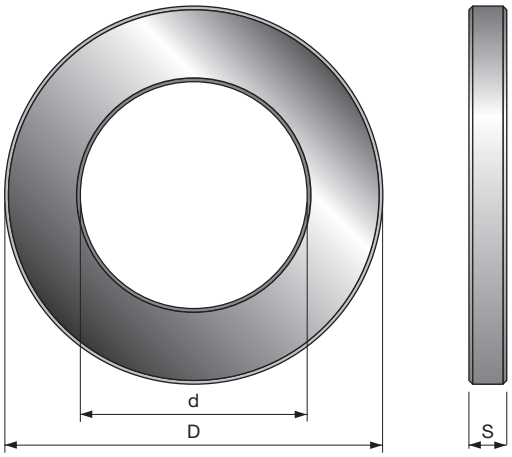
Standard spacers suitable for cutterheads.

D mm	S mm	d mm	Freud Code	Art. No.
30	0,1	20	**AN01MG0019**	F03FC00247
30	0,2	20	**AN01MG0029**	F03FC00248
30	0,3	20	**AN01MG0039**	F03FC00249
30	0,5	20	**AN01MG0059**	F03FC00250
30	1	20	**AN01MG0109**	F03FC00251
30	3	20	**AN01MG0309**	F03FC00252
30	6	20	**AN01MG0609**	F03FC00253
30	10	20	**AN01MG1009**	F03FC00254
33	0,1	19,05	**AN01ML0019**	F03FC00358
33	0,2	19,05	**AN01ML0029**	F03FC00359
33	0,3	19,05	**AN01ML0039**	F03FC00360
33	0,5	19,05	**AN01ML0059**	F03FC00361
33	1	19,05	**AN01ML0109**	F03FC00362
33	3,6	19,05	**AN01ML0369**	F03FC00363
33	6,8	19,05	**AN01ML0689**	F03FC00365
33	7,3	19,05	**AN01ML0739**	F03FC00366
48	0,1	31,75	**AN01MM0019**	F03FC00371
48	0,2	31,75	**AN01MM0029**	F03FC00372
48	0,3	31,75	**AN01MM0039**	F03FC00373
48	0,5	31,75	**AN01MM0059**	F03FC00374
48	1	31,75	**AN01MM0109**	F03FC00375
48	3,2	31,75	**AN01MM0329**	F03FC00376
48	3,6	31,75	**AN01MM0369**	F03FC00377
48	4	31,75	**AN01MM0409**	F03FC00378
48	5,5	31,75	**AN01MM0559**	F03FC00379
48	6,8	31,75	**AN01MM0689**	F03FC00380
48	7,3	31,75	**AN01MM0739**	F03FC00381
48	8,05	31,75	**AN01MM0809**	F03FC00382
48	8,35	31,75	**AN01MM0839**	F03FC24743
48	8,35	31,75	**AN01MM0849**	F03FC00383
48	9,4	31,75	**AN01MM0949**	F03FC00384
48	24,6	31,75	**AN01MM2469**	F03FC00385
48	99	31,75	**AN01MM9909**	F03FC00386
50	0,1	30	**AN01MA0019**	F03FC00030
50	0,2	30	**AN01MA0029**	F03FC00031
50	0,3	30	**AN01MA0039**	F03FC00032
50	0,5	30	**AN01MA0059**	F03FC00033
50	1	30	**AN01MA0109**	F03FC00034
50	2	30	**AN01MA0209**	F03FC00035
50	3	30	**AN01MA0309**	F03FC00036
50	4	30	**AN01MA0409**	F03FC00037
50	5	30	**AN01MA0509**	F03FC00038
50	6	30	**AN01MA0609**	F03FC00040
50	7	30	**AN01MA0709**	F03FC00041
50	8	30	**AN01MA0809**	F03FC00042
50	9	30	**AN01MA0909**	F03FC00043
50	10	30	**AN01MA1009**	F03FC00044
50	11	30	**AN01MA1109**	F03FC00045
50	12	30	**AN01MA1209**	F03FC00046
50	13	30	**AN01MA1309**	F03FC00047
50	14	30	**AN01MA1409**	F03FC00048
50	15	30	**AN01MA1509**	F03FC00049
50	16	30	**AN01MA1609**	F03FC00050
50	17	30	**AN01MA1709**	F03FC00051
50	18	30	**AN01MA1809**	F03FC00052
50	19	30	**AN01MA1909**	F03FC00053
50	20	30	**AN01MA2009**	F03FC00054
50	21	30	**AN01MA2109**	F03FC00055
50	22	30	**AN01MA2209**	F03FC00056
50	23	30	**AN01MA2309**	F03FC00057
50	24	30	**AN01MA2409**	F03FC00058
50	25	30	**AN01MA2509**	F03FC00059
50	26	30	**AN01MA2609**	F03FC00060
50	27	30	**AN01MA2709**	F03FC00061
50	28	30	**AN01MA2809**	F03FC00062
50	29	30	**AN01MA2909**	F03FC00063
50	30	30	**AN01MA3009**	F03FC00064
50	31	30	**AN01MA3109**	F03FC00065
50	32	30	**AN01MA3209**	F03FC00066
50	33	30	**AN01MA3309**	F03FC00067
50	34	30	**AN01MA3409**	F03FC00068
50	35	30	**AN01MA3509**	F03FC00069
50	36	30	**AN01MA3609**	F03FC00070
50	37	30	**AN01MA3709**	F03FC00071
50	38	30	**AN01MA3809**	F03FC00072
50	40	30	**AN01MA4009**	F03FC00073
50	41	30	**AN01MA4109**	F03FC00074
50	42	30	**AN01MA4209**	F03FC00075
50	53	30	**AN01MA5309**	F03FC00076
50	60	30	**AN01MA6009**	F03FC00077
50	93	30	**AN01MA9309**	F03FC00079
50	99	30	**AN01MA9909**	F03FC00080
55	0,1	35	**AN01MB0019**	F03FC00081
55	0,2	35	**AN01MB0029**	F03FC00082
55	0,3	35	**AN01MB0039**	F03FC00083
55	0,5	35	**AN01MB0059**	F03FC00084
55	1	35	**AN01MB0109**	F03FC00085
55	2	35	**AN01MB0209**	F03FC00086
55	3	35	**AN01MB0309**	F03FC00087
55	4	35	**AN01MB0409**	F03FC00088
55	5	35	**AN01MB0509**	F03FC00089
55	6	35	**AN01MB0609**	F03FC00091
55	7	35	**AN01MB0709**	F03FC00092
55	8	35	**AN01MB0809**	F03FC00093
55	9	35	**AN01MB0909**	F03FC00094
55	10	35	**AN01MB1009**	F03FC00095



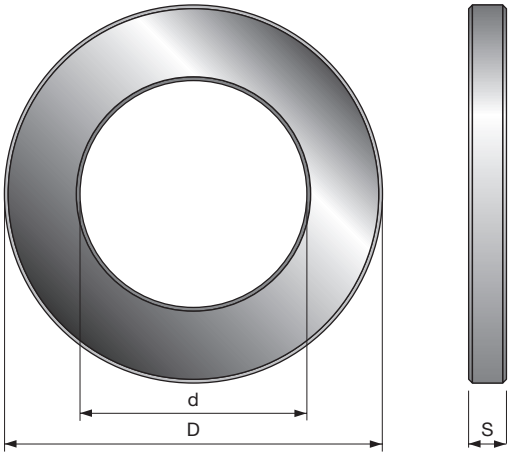
AN01M Spacers

D mm	S mm	d mm	Freud Code	Art. No.
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55	13	35	**AN01MB1309**	F03FC00098
55	14	35	**AN01MB1409**	F03FC00099
55	15	35	**AN01MB1509**	F03FC00100
55	16	35	**AN01MB1609**	F03FC00101
55	17	35	**AN01MB1709**	F03FC00102
55	18	35	**AN01MB1809**	F03FC00103
55	19	35	**AN01MB1909**	F03FC00104
55	20	35	**AN01MB2009**	F03FC00105
55	21	35	**AN01MB2109**	F03FC00106
55	22	35	**AN01MB2209**	F03FC00107
55	23	35	**AN01MB2309**	F03FC00108
55	24	35	**AN01MB2409**	F03FC00109
55	25	35	**AN01MB2509**	F03FC00110
55	26	35	**AN01MB2609**	F03FC00111
55	27	35	**AN01MB2709**	F03FC00112
55	28	35	**AN01MB2809**	F03FC00113
55	29	35	**AN01MB2909**	F03FC00114
55	30	35	**AN01MB3009**	F03FC00115
55	31	35	**AN01MB3109**	F03FC00116
55	32	35	**AN01MB3209**	F03FC00117
55	33	35	**AN01MB3309**	F03FC00118
55	34	35	**AN01MB3409**	F03FC00119
55	35	35	**AN01MB3509**	F03FC00120
55	40	35	**AN01MB4009**	F03FC00121
55	99	35	**AN01MB9909**	F03FC00122
60	0,1	40	**AN01MC0019**	F03FC00123
60	0,2	40	**AN01MC0029**	F03FC00124
60	0,3	40	**AN01MC0039**	F03FC00125
60	0,5	40	**AN01MC0059**	F03FC00126
60	1	40	**AN01MC0109**	F03FC00127
60	2	40	**AN01MC0209**	F03FC00128
60	3	40	**AN01MC0309**	F03FC00129
60	4	40	**AN01MC0409**	F03FC00130
60	5	40	**AN01MC0509**	F03FC00131
60	6	40	**AN01MC0609**	F03FC00133
60	7	40	**AN01MC0709**	F03FC00134
60	8	40	**AN01MC0809**	F03FC00135
60	9	40	**AN01MC0909**	F03FC00136
60	10	40	**AN01MC1009**	F03FC00137
60	11	40	**AN01MC1109**	F03FC00138
60	12	40	**AN01MC1209**	F03FC00139
60	13	40	**AN01MC1309**	F03FC00140
60	14	40	**AN01MC1409**	F03FC00141
60	15	40	**AN01MC1509**	F03FC00142
60	16	40	**AN01MC1609**	F03FC00143
60	17	40	**AN01MC1709**	F03FC00144
60	18	40	**AN01MC1809**	F03FC00145
60	19	40	**AN01MC1909**	F03FC00146
60	20	40	**AN01MC2009**	F03FC00147
60	21	40	**AN01MC2109**	F03FC00148
60	22	40	**AN01MC2209**	F03FC00149
60	23	40	**AN01MC2309**	F03FC00150
60	24	40	**AN01MC2409**	F03FC00151
60	25	40	**AN01MC2509**	F03FC00152
60	26	40	**AN01MC2609**	F03FC00153
60	27	40	**AN01MC2709**	F03FC00154
60	28	40	**AN01MC2809**	F03FC00155
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60	30	40	**AN01MC3009**	F03FC00157
60	31	40	**AN01MC3109**	F03FC00158
60	32	40	**AN01MC3209**	F03FC00159
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60	34	40	**AN01MC3409**	F03FC00161
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60	40	40	**AN01MC4009**	F03FC00163
60	42	40	**AN01MC4209**	F03FC00164
60	99	40	**AN01MC9909**	F03FC00165
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70	0,2	50	**AN01MD0029**	F03FC00167
70	0,3	50	**AN01MD0039**	F03FC00168
70	0,5	50	**AN01MD0059**	F03FC00169
70	1	50	**AN01MD0109**	F03FC00170
70	2	50	**AN01MD0209**	F03FC00171
70	3	50	**AN01MD0309**	F03FC00173
70	4	50	**AN01MD0409**	F03FC00174
70	5	50	**AN01MD0509**	F03FC00175
70	6	50	**AN01MD0609**	F03FC00178
70	7	50	**AN01MD0709**	F03FC00179
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70	9	50	**AN01MD0909**	F03FC00181
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70	15	50	**AN01MD1509**	F03FC00187
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70	18	50	**AN01MD1809**	F03FC00190
70	19	50	**AN01MD1909**	F03FC00191
70	20	50	**AN01MD2009**	F03FC00192
70	21	50	**AN01MD2109**	F03FC00193
70	22	50	**AN01MD2209**	F03FC00194
70	23	50	**AN01MD2309**	F03FC00195



AN01M Spacers

D mm	S mm	d mm	Freud Code	Art. No.
70	24	50	**AN01MD2409**	F03FC00196
70	25	50	**AN01MD2509**	F03FC00197
70	26	50	**AN01MD2609**	F03FC00198
70	27	50	**AN01MD2709**	F03FC00199
70	28	50	**AN01MD2809**	F03FC00200
70	29	50	**AN01MD2909**	F03FC00201
70	30	50	**AN01MD3009**	F03FC00202
70	31	50	**AN01MD3109**	F03FC00203
70	32	50	**AN01MD3209**	F03FC00204
70	33	50	**AN01MD3309**	F03FC00205
70	34	50	**AN01MD3409**	F03FC00206
70	35	50	**AN01MD3509**	F03FC00207
70	38	50	**AN01MD3809**	F03FC00208
70	40	50	**AN01MD4009**	F03FC00209
70	99	50	**AN01MD9909**	F03FC00210
80	0,1	60	**AN01MK0019**	F03FC00311
80	0,2	60	**AN01MK0029**	F03FC00312
80	0,3	60	**AN01MK0039**	F03FC00313
80	0,5	60	**AN01MK0059**	F03FC00314
80	1	60	**AN01MK0109**	F03FC00315
80	2	60	**AN01MK0209**	F03FC00316
80	3	60	**AN01MK0309**	F03FC00318
80	4	60	**AN01MK0409**	F03FC00319
80	5	60	**AN01MK0509**	F03FC00321
80	6	60	**AN01MK0609**	F03FC00322
80	7	60	**AN01MK0709**	F03FC00324
80	8	60	**AN01MK0809**	F03FC00325
80	9	60	**AN01MK0909**	F03FC00326
80	10	60	**AN01MK1009**	F03FC00327
80	11	60	**AN01MK1109**	F03FC00328
80	12	60	**AN01MK1209**	F03FC00329
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80	14	60	**AN01MK1409**	F03FC00331
80	15	60	**AN01MK1509**	F03FC00333
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80	17	60	**AN01MK1709**	F03FC00335
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80	19	60	**AN01MK1909**	F03FC00338
80	20	60	**AN01MK2009**	F03FC00339
80	21	60	**AN01MK2109**	F03FC00340
80	22	60	**AN01MK2209**	F03FC00341
80	23	60	**AN01MK2309**	F03FC00342
80	24	60	**AN01MK2409**	F03FC00343
80	25	60	**AN01MK2509**	F03FC00344
80	26	60	**AN01MK2609**	F03FC00345
80	27	60	**AN01MK2709**	F03FC00346
80	28	60	**AN01MK2809**	F03FC00347
80	29	60	**AN01MK2909**	F03FC00348
80	30	60	**AN01MK3009**	F03FC00349
80	31	60	**AN01MK3109**	F03FC00350
80	32	60	**AN01MK3209**	F03FC00351
80	33	60	**AN01MK3309**	F03FC00352
80	34	60	**AN01MK3409**	F03FC00353
80	35	60	**AN01MK3509**	F03FC00354
80	39,7	60	**AN01MK3979**	F03FC00355
80	40	60	**AN01MK4009**	F03FC00356
80	99	60	**AN01MK9909**	F03FC00357
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90	0,2	70	**AN01MH0029**	F03FC00256
90	0,3	70	**AN01MH0039**	F03FC00257
90	0,5	70	**AN01MH0059**	F03FC00258
90	1	70	**AN01MH0109**	F03FC00259
90	2	70	**AN01MH0209**	F03FC00260
90	3	70	**AN01MH0309**	F03FC00261
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90	17	70	**AN01MH1709**	F03FC00285
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90	24	70	**AN01MH2409**	F03FC00295
90	25	70	**AN01MH2509**	F03FC00296
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90	40	70	**AN01MH4009**	F03FC00307
90	99	70	**AN01MH9909**	F03FC00308

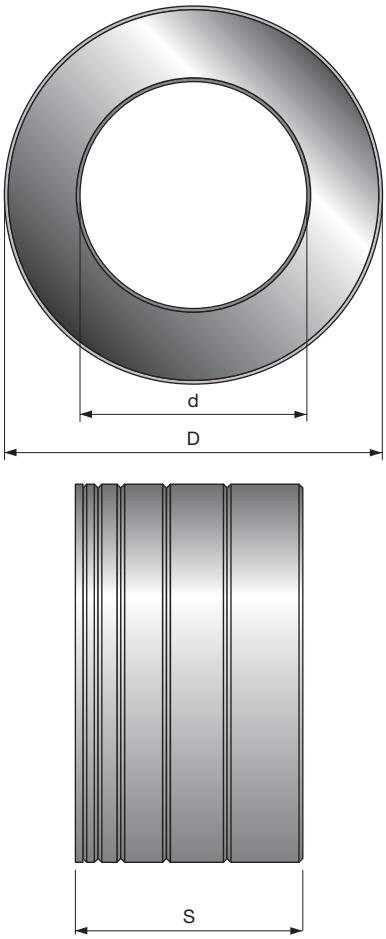


Special spacers suitable for cutterheads; minimum thickness 1mm.

- Please refer to the code as a guideline, applicable only while the order is processed.

AN01 Special spacers

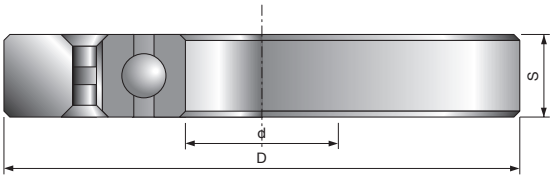
D mm	S mm	d mm	Freud Code	Art. No.
-	5	30 ÷ 40	AN01	
-	10	30 ÷ 40	AN01	
-	20	30 ÷ 40	AN01	
-	40	30 ÷ 40	AN01	
-	99	30 ÷ 40	AN01	
-	5	50 ÷ 70	AN01	
-	10	50 ÷ 70	AN01	
-	20	50 ÷ 70	AN01	
-	40	50 ÷ 70	AN01	
-	99	50 ÷ 70	AN01	



Standard spacers sets suitable for cutterheads.

AN03M Standard spacer set

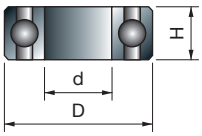
D mm	S mm	d mm	Freud Code	Art. No.
50	10	30	AN03M AA9	F03FC00444
50	20	30	AN03M AB9	F03FC00445
50	30	30	AN03M AC9	F03FC00446
50	40	30	AN03M AD9	F03FC00447
50	50	30	AN03M AE9	F03FC00448
55	10	35	AN03M BA9	F03FC00454
55	20	35	AN03M BB9	F03FC00455
55	30	35	AN03M BC9	F03FC00456
55	40	35	AN03M BD9	F03FC00457
55	50	35	AN03M BE9	F03FC00458
60	10	40	AN03M CA9	F03FC00465
60	20	40	AN03M CB9	F03FC00466
60	30	40	AN03M CC9	F03FC00467
60	40	40	AN03M CD9	F03FC00468
60	50	40	AN03M CE9	F03FC00469
70	10	50	AN03M DA9	F03FC00473
70	20	50	AN03M DB9	F03FC00474
70	30	50	AN03M DC9	F03FC00475
70	40	50	AN03M DD9	F03FC00476
70	50	50	AN03M DE9	F03FC00477
80	10	60	AN03M EA9	F03FC00484
80	20	60	AN03M EB9	F03FC00485
80	30	60	AN03M EC9	F03FC00486
80	40	60	AN03M ED9	F03FC00487
80	50	60	AN03M EE9	F03FC00488
90	10	70	AN03M FA9	F03FC00490
90	20	70	AN03M FB9	F03FC00491
90	30	70	AN03M FC9	F03FC00492
90	40	70	AN03M FD9	F03FC00493
90	50	70	AN03M FE9	F03FC00494

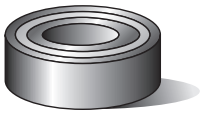


Ball bearing guide for cutterheads: please refer to the code as a guideline, applicable only while the order is processed.

CC01 Ball bearing guide for moulding

D mm	S mm	d mm	Freud Code	Art. No.
-	12	20	CC01 AA9	
-	12	25	CC01 BA9	
-	13	30	CC01 CA9	
-	14	35	CC01 DA9	
-	15	40	CC01 EA9	
-	16	45	CC01 FA9	
-	16	50	CC01 GA9	
-	18	55	CC01 HA9	
-	18	60	CC01 IA9	
-	20	70	CC01 LA9	

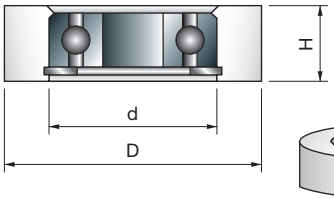


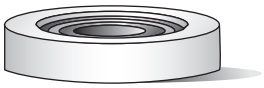


Ball bearing for router bits.

3102M Ball bearing

D mm	S mm	d mm	Freud Code	Art. No.
9,53	3,2	4,76	3102M AA9	F03F010006
12,7	4,98	4,76	3102M AB9	F03F010007
13	5	4	3102M CD9	F03FA14096
13	5	6	3102M AP9	F03FA10558
15	5	6	3102M AQ9	F03FA10559
15,88	4,97	4,76	3102M AJ9	F03F010014
16	5	5	3102M CC9	F03FA14095
16	5	8	3102M AS9	F03FA10561
19	6	6	3102M CA9	F03FA14097
19	7	10	3102M AG9	F03F010012
19,05	3,97	12,7	3102M CB9	F03FA14098
19,05	6,35	12,7	3102M AV9	F03F012286
22	7	8	3102M AC9	F03F010008
28	8	12	3102M AH9	F03F010013
32	9	15	3102M AN9	F03F010016
35	11	15	3102M AI9	F03F012285

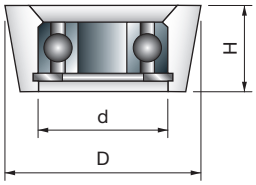


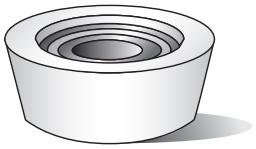


Cylindrical rub collars for ball bearing.

RB62M Ball bearing rub collars

D mm	S mm	d mm	Freud Code	Art. No.
19,05	8	4,76	RB62M 1509	F03F011422
22,22	8	4,76	RB62M 1529	F03F011423
26	10	8	RB62M 1249	F03F011417
28,58	8	4,76	RB62M 1549	F03F011424
30	10	8	RB62M 1289	F03F011418
34	10	8	RB62ME DA9	F03FR01146
34,92	8	4,76	RB62M 1569	F03F011425
39,6	11,2	12	RB62ME FB9	F03FR01147





Conical rub collars for ball bearing.

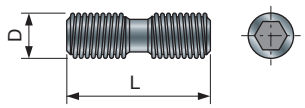
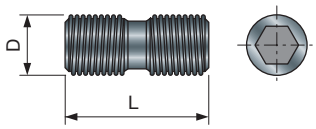
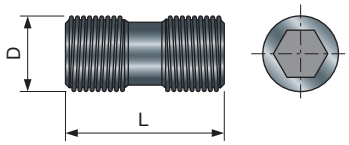
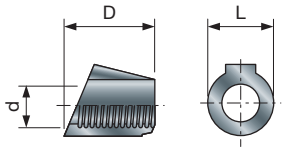
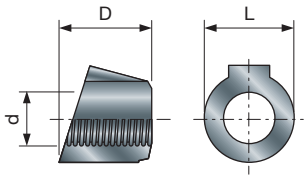
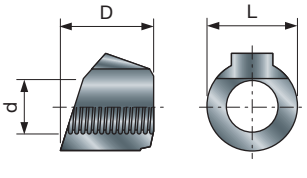
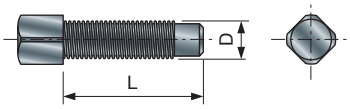
3103MC Sleeved speciality bearings

D mm	S mm	d mm	Freud Code	Art. No.
19,05	6,35	4,76	3103MC HB9	F03F010019
22,2	9	12,7	3103MC HC9	F03FR01724

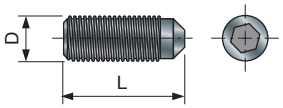
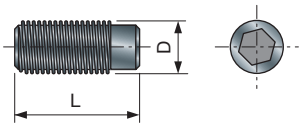
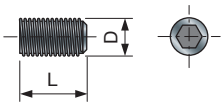
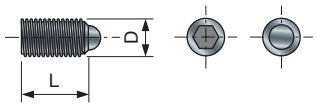
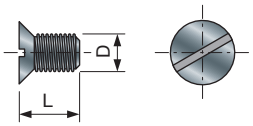
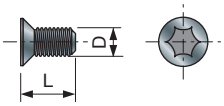
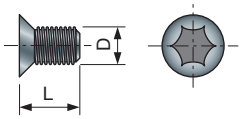
Keys and devices



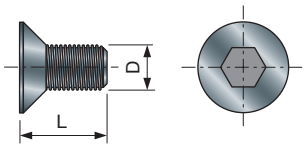
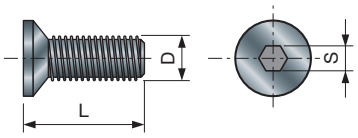
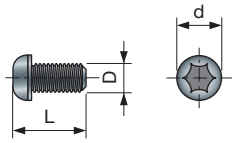
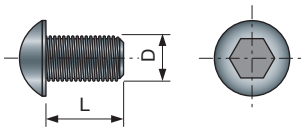
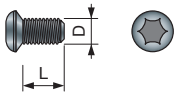
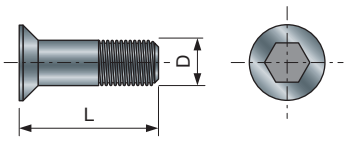
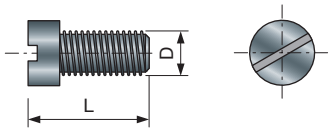
Spare screws, nuts, washers and keys

Spare parts	Description	Dimensions D/L x L/H x d/S (mm)	Freud Code	Art. No.
	RH-LH Hex print scews for disposable knives	M6 x 22	**VT19M AB9**	F03FA04491
	RH-LH Hex print scews for H.S.I. knives	M8 x 22	**VT19M BB9**	F03FA04493
	RH-LH Hex print scews for disposable knives	M10 x 22	**VT19M MA9**	F03FA04496
	Nuts for VT19M AB9 screws	10 x 11,5 x M6	**VT20M AA9**	F03FA04497
		9 x 10,5 x M6	**VT20M GA9**	F03FC20669
	Nuts for VT19M MA9-MB9 screws	15 x 13,3 x M10	**VT20M MA9**	F03FC20670
	Nuts for VT19M MA9-MB9 screws	15 x 13,3 x M10	**VT20M NA9**	F03FC20671
	Squared head screws for disposable knives	M5 x 19	**VT11M AA9**	F03FA04468

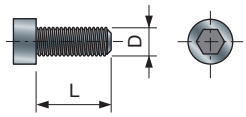
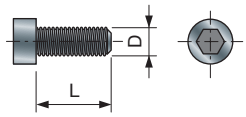
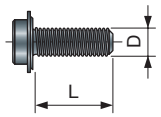
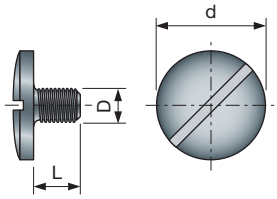
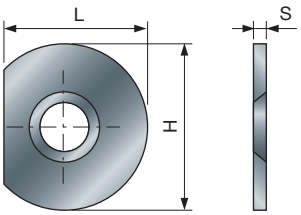
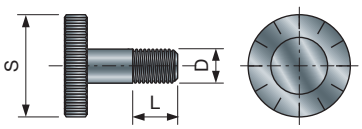
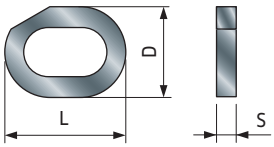
Spare screws, nuts, washers and keys

Spare parts	Description	Dimensions D/L x L/H x d/S (mm)	Freud Code	Art. No.
	Hex print screws for disposable knives	M6 x 8	**VT03M DE9**	F03FA04439
		M6 x 12	**VT03M DL9**	F03FA04441
		M6 x 16	**VT03M DI9**	F03FA04440
		M8 x 16	**VT03M AA9**	F03FA04435
	Hex print screws for disposable knives	M4 x 10	**2602M CB9**	F03FA07346
		M5 x 12	**VT03M BA9**	F03FA04436
		M5 x 16	**VT03M BB9**	F03FA04437
		M8 x 16	**2602M BB9**	F03FA07344
		M8 x 25	**2602M EI9**	F03FA07352
		M10 x 18	**VT03M CC9**	F03FA04438
		M10 x 25	**2602M FI9**	F03FA07353
	Hex print screws	M3 x 3	**2615M AA9**	F03FA07418
		M4 x 6	**2602M CE9**	F03FA07349
		M5 x 5	**2615M CC9**	F03FA07420
		M5 x 10	**2602M DC9**	F03FA07350
		M6 x 6	**2615M DD9**	F03FA07423
		M8 x 8	**2615M EE9**	F03FA07424
		M8 x 10	**2602M CC9**	F03FA07347
	Hex print screws with semi-sphere for ISOprofil Technology	M8 x 16	**2616M DE9**	F03FA07425
		M10 x 16	**2616M EE9**	F03FA07426
	Countersink screws for TA01-02 grinding devices	M4 x 6	**VT05M AB9**	F03FA04445
	Countersink Torx screws for IG03 inserts	M4 x 3,2	**VT05M BB9**	F03FA04447
		M4 x 4,2	**VT05M BC9**	F03FA04448
		M4 x 6,5	**VT05M BD9**	F03FA04449
	Countersink Torx screws for RG and RR spurs	M4 x 12	**VT71M AC9**	F03FA14740
		M5 x 6	**VT05M AC9**	F03FA04446
		M5 x 8	**VT05M AA9**	F03FA04444

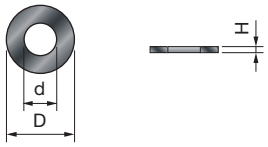
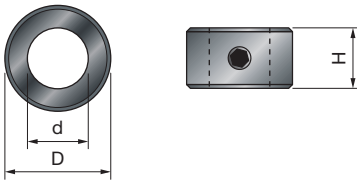
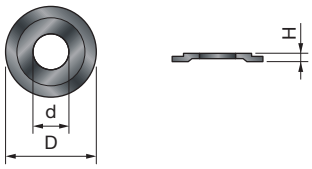
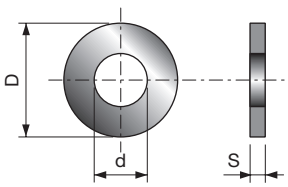
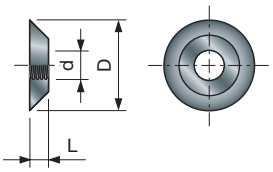
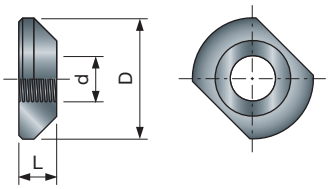
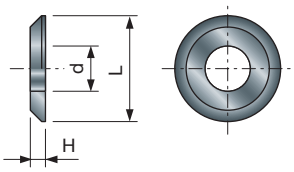
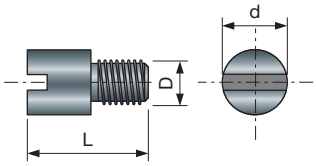
Spare screws, nuts, washers and keys

Spare parts	Description	Dimensions D/L x L/H x d/S (mm)	Freud Code	Art. No.
	Countersink Hex print screws	M5 x 8	**VT05M CA9**	F03FA04451
		M6 x 8	**VT01M AB9**	F03FA04430
		M6 x 10	**VT01M AA9**	F03FA04429
	Countersink Hex print screws for ID deflectors	M4 x 12	**VT05M DA9**	F03FC20647
		M4 x 14	**VT05M DB9**	F03FC20648
		M4 x 16	**2609M BD9**	F03FA07379
		M6 x 16	**VT05M DC9**	F03FC20649
		M6 x 16	**2609M DD9**	F03FA07381
		M8 x 40	**2609M EK9**	F03FB04618
		M10 x 20	**2609M FF9**	F03FA07382
		M10 x 35	**2609M FI9**	F03FA07383
	Round head Torx screw for disposable knives router cutters	M3 x 6 x 5	**VT72M AA9**	F03FA04506
		M4 x 8 x 6	**VT70M AA9**	F03FA04504
		M4 x 10 x 9	**VT71M AA9**	F03FA04505
	Round head Hex print screw	M4 x 10	**2622M AB9**	F03FA07453
		M6 x 8	**2622M CA9**	F03FA07454
		M6 x 10	**2622M CB9**	F03FA07455
		M6 x 12	**2622M CC9**	F03FA07456
		M8 x 18	**2622M DF9**	F03FA07457
		M8 x 30	**2622M DI9**	F03FA07458
		M10 x 25	**2622M EH9**	F03FA07459
	Round head Torx screw for scorers	M4 x 6	**VT71M AB9**	F03FA14739
	Countersink Hex print screws for IG inserts	M6 x 11,5	**VT16M AB9**	F03FA04477
		M6 x 13	**VT16M AE9**	F03FC20658
		M6 x 14,5	**VT16M AA9**	F03FA04476
		M6 x 15,5	**VT16M AD9**	F03FC20657
		M6 x 18,5	**VT16M AC9**	F03FC20656
		M6 x 20	**VT16M AF9**	F03FC20659
	Slotted screws	M4 x 10	**2611M DB9**	F03FA07386
		M5 x 10	**2606M DE9**	F03FA07361

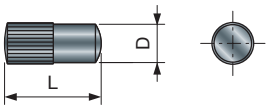
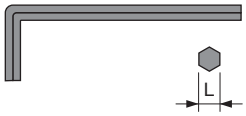
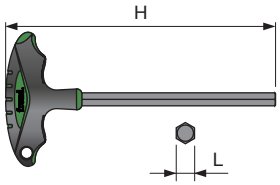
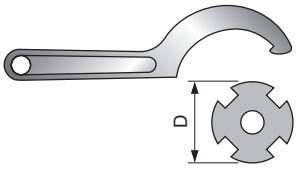
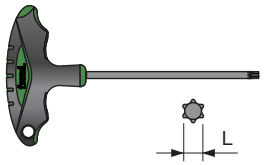
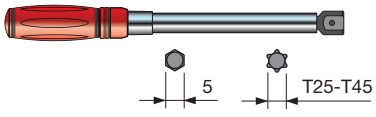
Spare screws, nuts, washers and keys

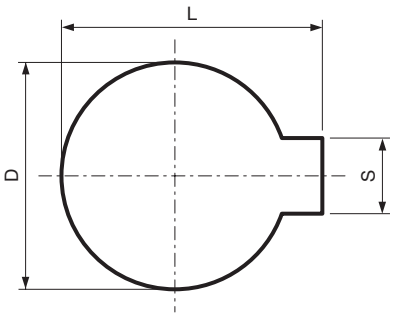
Spare parts	Description	Dimensions D/L x L/H x d/S (mm)	Freud Code	Art. No.
	Hex print allen screws	M3 x 6	**2607M AA9**	F03FA07362
		M3 x 8	**2607M AB9**	F03F010001
		M3 x 10	**2607M AC9**	F03FA07363
		M4 x 8	**2607M BB9**	F03FA07365
		M5 x 16	**2607M CF9**	F03FA07367
		M5 x 20	**2607M CH9**	F03FA17148
		M5 x 40	**2607M CL9**	F03FA07368
		M5 x 60	**2607M CP9**	F03FA07369
		M5 x 90	**2607M CS9**	F03FA18898
	Hex print allen screws	M6 x 16	**2607M AF9**	F03FB04614
		M8 x 16	**VT02M AA9**	F03FA04432
		M8 x 35	**2607M EK9**	F03FB04615
		M10 x 20	**2607M FH9**	F03FB04616
		M10 x 30	**2607M FJ9**	F03FB04617
	Flanged screws for router bits	M3 x 7,6	**2607M 001**	F03F010000
	Reference screws for cutterheads	M5 x 7 x 18	**VT08M AE9**	F03FA04457
		M5 x 8,8 x 18	**VT08M AM9**	F03FA04462
		M8 x 10 x 22	**VT08M AD9**	F03FA04456
	Reference plates for cutterheads	22 x 1,7 x 6,5	**VT18M GB9**	F03FA04489
	Adjustment screws for jointing cutterheads	M5 x 8 x 25	**VT08M AC9**	F03FC20652
		M6 x 7 x 18	**VT08M AG9**	F03FC20653
		M6 x 8 x 25	**VT08M AB9**	F03FC20651
	Adjustment shaped rings for IG25 inserts	16 x 11,9 x 2,6	**VT18M AG9**	F03FC20660

Spare screws, nuts, washers and keys

Spare parts	Description	Dimensions D/L x L/H x d/S (mm)	Freud Code	Art. No.
	Washer	14 x 1,6 x 8,4	**2617M BG9**	F03FR01668
		16 x 1,6 x 8,4	**2617M AG9**	F03F010005
		6 x 2 x 4	**VT18M AB9**	F03FA04480
	Stop collars for drill bits	12 x 4 x 6,05	**3102M BB9**	F03FA10568
		14 x 4 x 8,05	**3102M BC9**	F03FA10569
	Step washers	9 x 2 x 4,76	**FX07M AA9**	F03F010158
		12 x 1,1 x 4,76	**FX07M AB9**	F03F010159
	Spacers for inserts	13,6 x 0,1 x 7	**ST07M 019**	F03FA13619
		13,6 x 0,2 x 7	**ST07M 029**	F03FA13620
		13,6 x 0,5 x 7	**ST07M 059**	F03FA13621
		15 x 1 x 7	**ST07M 109**	F03FA03865
		15 x 2 x 7	**ST07M 209**	F03FA03867
	Threaded rings for locking screws	10,2 x 1 x M4	**VT18M AA9**	F03FA04479
		11,6 x 1,5 x M4	**VT18M BA9**	F03FA04483
		11,6 x 2,5 x M4	**VT18M BB9**	F03FA04484
		9,4 x 1,7 x M4	**VT18M DA9**	F03FA04487
		8 x 5 x M4	**VT18M CB9**	F03FA04486
	Threaded nuts for RH and LH VT19M AB9-IA9 screws	16 x 4 x M6	**VT18M CC9**	F03FC20666
		16 x 5 x M6	**VT18M CA9**	F03FA04485
	Washers for knives	14 x 2 x 6	**VT18M AL9**	F03FC20662
		9 x 1,5 x 4	**VT18M AH9**	F03FA04481
	Threaded pins for sleeves	M5 x 9,5 x 7	**VT08M AH9**	F03FC20654
		M6 x 15,5 x 8	**VT08M AI9**	F03FA04461

Spare screws, nuts, washers and keys

Spare parts	Description	Dimensions D/L x L/H x d/S (mm)	Freud Code	Art. No.
	Steel pins for tools	4 x 10	**2601M AB9**	F03FA07326
	L-shape Hex allen key	2	**2619M BA9**	F03FA07431
		2,5	**2619M CA9**	F03FA07432
		3	**2619M DA9**	F03FA07433
		4	**2619M EA9**	F03FA07434
		5	**2619M FA9**	F03FA07435
		6	**2619M GA9**	F03FA07436
		8	**2619M HA9**	F03FA07437
	T-shape Hex allen key with handle	3 x 110	**CB03M AA9**	F03FA00162
		4 x 110	**CB03M BA9**	F03FA00163
		5 x 110	**CB03M EA9**	F03FA00169
	C-spanners for shanks and sleeves locking rings	45 - 50 (ER32)	**CB07M 4550**	F03FB00145
		58 - 62 (ER40)	**CB07M 5862**	F03FB00146
		68 - 75	**CB02M BA9**	F03FA00160
		80 - 90	**CB02M CA9**	F03FA00161
	Socket wrench for sleeves locking rings - Ø40/50	70 x 95 x 50	**CB02M 6070**	F03FC00720
	Socket wrench for sleeves locking rings Ø60/70	88,9 x 95 x 68,9	**CB02M 8090**	F03FC00721
	T-shape Torx allen key with handle	T9 x 100	**CB03M CA9**	F03FA00165
		T15 x 100	**CB03M DA9**	F03FA00168
		T20 x 100	**CB03M CC9**	F03FA00167
		T25 x 100	**CB03M BB9**	F03FA00164
	Fork wrench	5	**CB04M 059**	F03FA00172
	Torque wrench	10-60 Nm	**CB06M106001**	F03FC25296
• 1/4 L-Lock-ratchet insert • Exagon insert 5mm • Torx insert T25 (long and short version) • Torx insert T45 (long and short version)	Inserts set fo torque wrench		**CB0BITSIMB01**	F03FC25602



Standard keyway for existing cutterheads.
- For other keyway sizes, use code **OPT05 AA9** and specify the necessary dimensions.
- Please refer to the code as a guideline, only applicable while order is processed.

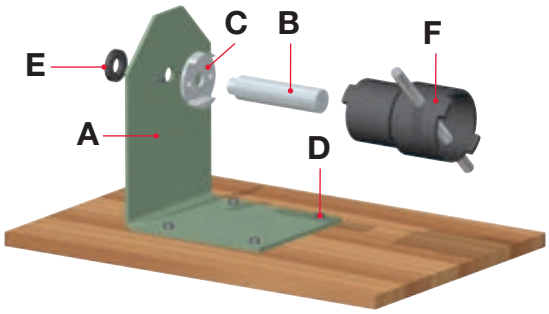
OPT04 Standard keyway

D mm	S mm	L mm	Freud Code	Art. No.
12	5	13,8	**OPT04 AA9**	F03FC16203
14	5	16,3	**OPT04 BA9**	F03FC16204
16	5	18,3	**OPT04 CA9**	F03FC16205
18	6	20,8	**OPT04 DA9**	F03FC16206
20	6	22,8	**OPT04 EA9**	F03FC16207
25	8	28,3	**OPT04 FA9**	F03FC16208
30	8	33,3	**OPT04 GA9**	F03FC16209
35	10	38,3	**OPT04 HA9**	F03FC16210
40	10	43,3	**OPT04 IA9**	F03FC16211

OPT09 Re-boring for cutterheads and brazed cutters

Re-boring for existing cutterheads and brazed cutters.
- Please refer to the code as a guideline, applicable only while the order is processed.

	Freud Code	Art. No.
	OPT09 AA9	F03FC16223



The maintenance tool consists of:
A: Steel support plate.
B: Replaceable arbor (diameter 35/40/50 mm based on sets bore diameter).
C: Replaceable coupling disk for jamming the base of the toolsets' sleeve (65/75/85 mm).
D: Screws for mounting support plate "A" to the workbench.
E: Locking ring pin "B" to support plate "A".
F: Coupling key for the sleeves threaded ring available in the following sizes:
- ø60/70 mm for sleeves with external diameter 40/50 mm.
- ø80/90 mm for sleeves with external diameter 60/70 mm.

SAG1M Maintenance tool for cutterhead sets

	Freud Code	Art. No.
	SAG1M AA9	F03FC18870
	SAG1M AB9	F03FC18871

Item code SAG1M AA9 components

	Spare parts		Dimensions mm	Freud Code	Art. No.
A	Support plate		150 x 230 x 250	**SAG1M BA9**	F03FA03851
E	Self-locking nut		50 x 8 x 30	**SAG1M DA9**	F03FA03852
C	Coupling disk		65 x 20 x 30 ø50	**SAG1M F65**	F03FC18872
C	Coupling disk		75 x 20 x 30 ø60	**SAG1M F75**	F03FC18873
C	Coupling disk		85 x 20 x 30 ø70	**SAG1M F85**	F03FC18874
B	Arbor		ø35 x 122	**SAG1M 035**	F03FC18875
B	Arbor		ø40 x 122	**SAG1M 040**	F03FC18876
B	Arbor		ø50 x 122	**SAG1M 050**	F03FC18877
F	Key ø40/50		70 x 95 x 50	**CB02M 6070**	F03FC00720
F	Key ø60/70		88,9 x 95 x 68,9	**CB02M 8090**	F03FC00721

Item code SAG1M AB9 components

	Spare parts		Dimensions mm	Freud Code	Art. No.
A	Support plate		150 x 230 x 250	**SAG1M BA9**	F03FA03851
E	Self-locking nut		50 x 8 x 30	**SAG1M DA9**	F03FA03852
C	Coupling disk		65 x 20 x 30 ø50	**SAG1M F65**	F03FC18872
C	Coupling disk		75 x 20 x 30 ø60	**SAG1M F75**	F03FC18873
C	Coupling disk		85 x 20 x 30 ø70	**SAG1M F85**	F03FC18874

Optional items

	Spare parts		Dimensions mm	Freud Code	Art. No.
B	Arbor		ø35 x 122	**SAG1M 035**	F03FC18875
B	Arbor		ø40 x 122	**SAG1M 040**	F03FC18876
B	Arbor		ø50 x 122	**SAG1M 050**	F03FC18877
F	Key ø40/50		70 x 95 x 50	**CB02M 6070**	F03FC00720
F	Key ø60/70		88,9 x 95 x 68,9	**CB02M 8090**	F03FC00721



SAG2M — Clamping device with rolling bearing

	Freud Code	Art. No.
	SAG2M AA9	F03FB22530



TA01M — Device for grinding Performance knives

L mm	H mm	S mm	Freud Code	Art. No.
260	60	15	**TA01M AA9**	F03FC20198

Spare parts	Dimensions mm	Freud Code	Art. No.
Screw	M4 x 6,5	**VT05M BD9**	F03FA04449
Screw	M4 x 6	**VT05M AB9**	F03FA04445
Torx key	T9	**CB03M CA9**	F03FA00165

Freud's standard device for knives to fit on horizontal grinding machines.This device must be fitted on the **TA03M** support to work on grinding machines.

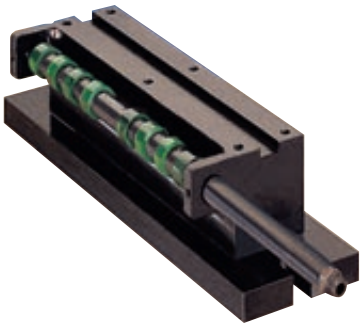


TA02M — Device for grinding Performance knives

L mm	H mm	S mm	Freud Code	Art. No.
220	100	100	**TA02M AA9**	F03FC20199

Spare parts	Dimensions	Freud Code	Art. No.
Screw	M4 x 6,5	**VT05M BD9**	F03FA04449
Screw	M4 x 6	**VT05M AB9**	F03FA04445
Torx key	T9	**CB03M CA9**	F03FA00165
Allen key	4 x 110	**CB03M BA9**	F03FA00163

Freud standard device for knives to fit on vertical grinding machines.



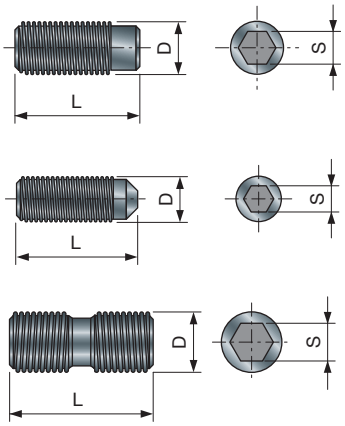
TA03M — Support for grinding Performance knives

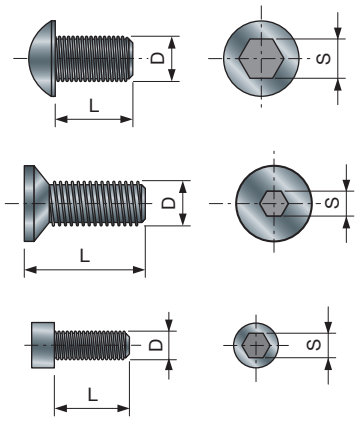
L mm	H mm	S mm	Freud Code	Art. No.
340	98	90	**TA03M AA9**	F03FC20202

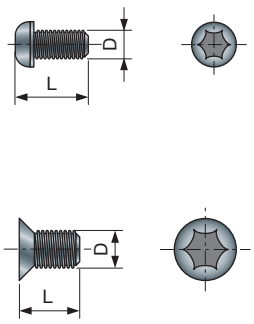
Support for **TA01M** device

Torque values for screws and grub screws used for tightening Freud knives and inserts

To avoid insufficient clamping forces or screw rupture due to overload, all the screws must be tightened with the required torque.
If not differently stated on the instruction manual or marked on the tools, use the following torque values.

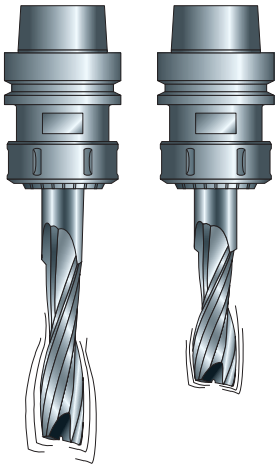
Spare parts	Description	Screw thread mm	Key (S) mm	Tightening torques 45H (Nm)
	Hexagon grub screws	M4	2	1,9
		M5	2,5	3,5
		M6	3	5,5
		M8	4	9,5
		M10	5	18
		M12	6	30

Spare parts	Description	Screw thread mm	Key (S) mm	Tightening torques 8,8 (Nm)
	Hex print screws	M3	2,5	1
		M4	3	2
		M5	4	5
		M6	5	8
		M8	6	12
		M10	8	30

Spare parts	Description	Screw thread mm	Key ⬣ mm	Tightening torques (Nm)
	Torx screws	M4 x 0,5	T9	2
		M4	T15	5,2
		M5	T20	8,6
		M6	T25	15

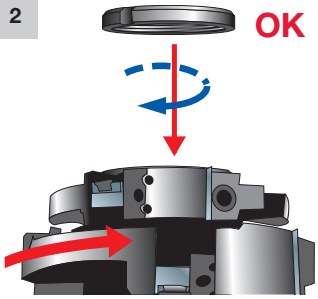
TIPS FOR THE CORRECT USE

1

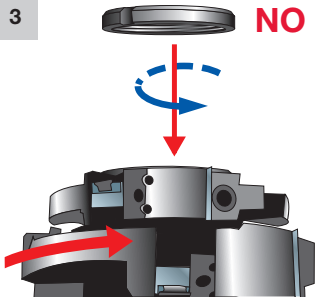


Tools must be used and handled by experienced and trained personnel, in possesion of the necessary understanding.
A router bit with a shorter cutting height vibrates less than a router bit with the same diameter but with a longer cutting height (Fig. 1).
Control your machine regularly (especially guides and ball bearings), making sure that there are no eccentricity problems, so as to avoid the arbor from vibrating hazardously, particularly dangerous for router bits with tips in Polycrystalline Diamond.
Tools and tool bodies must be locked correctly, so they do not loosen during operation (Fig. 2 - 3).
Accurately block the workpiece to the work table surface (Fig. 4).
Respect the minimum fixing length of the shank with a preference to short chucks, with the aim of reducing eccentricity errors (Fig. 5a). For the same reason the use of extensions are generally avoided (Fig. 5b).
To identify eccentricity defects in a router bit or a chuck: rotate the router bit by 90° in the chuck, carry out a moulding and observe the marks left on the workpiece. If they are invaried with respect to the previous moulding, then the tool is defective, if instead the marks vary, then it is possible that the error lies in the chuck.
Screws and nuts shall be tightened using the appropriate spanners etc. and to the torque value provided by the manufacturer.
Spanner extensions or tightening using hammer blows is strictly forbidden (see Fig. 6).
Do not use reduction rings with a bore different to those specified by the constructor.
Clamping surfaces must be free of dirt, grease, oil and water. Resins must be removed from tools with light alloy bodies using cleaners that do not damage the aluminium and compromise the materials mechanical features. Accurately clean the tool after every knife change.
Tools compiling a set, must be repaired by experienced and fully trained personnel, with the knowledge of the design requirements and security levels to be reached Repairing tools is allowed only in accordance to the tool manufacturer's instructions.

2



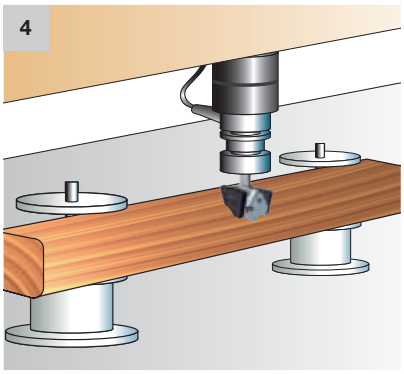
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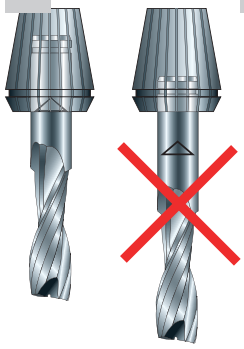
Particular attention is drawn to the following:
- Repair shall therefore include e. g. use of parts which are in accordance with the specification of the original parts provided by the manufacturer.
- Tolerances which ensure correct locking shall be maintained.

Do not exceed the maximum RPM limit marked on the tool. With too high an advancement rate, or an excessive cutting depth, there is the possibility that the tool may break.
To avoid damaging router bits, we suggest controlling if the fixing surface of the chuck and the router bit are clean and that there are no imperfections (Fig. 7).
To avoid dangerous kick backs, we suggest fixing a spare piece of material and moulding small parts of waste which have accumulated during the working process, by carrying out more passes (Fig. 8 - 9).
Wearing glooves increases grip and reduces the risk of injury.
To avoid injury, tools must be handled with care using special appliances so as to transport them without incuring injury to the user.

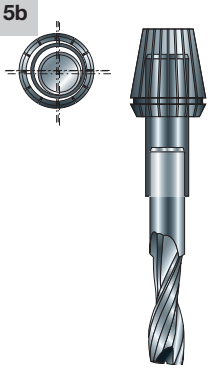
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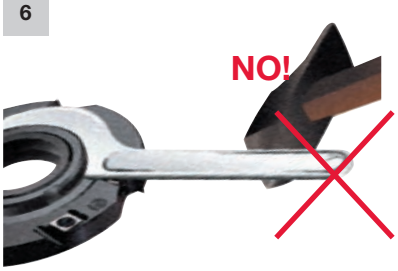
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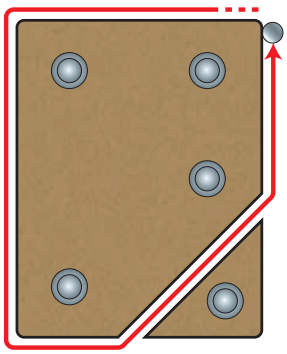
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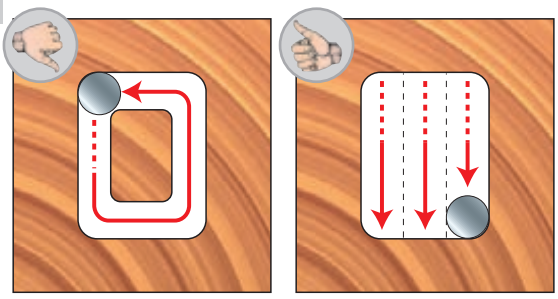
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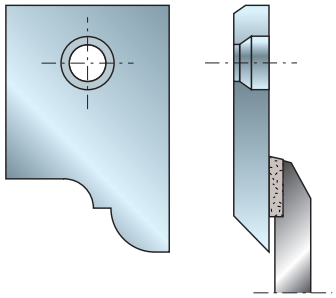
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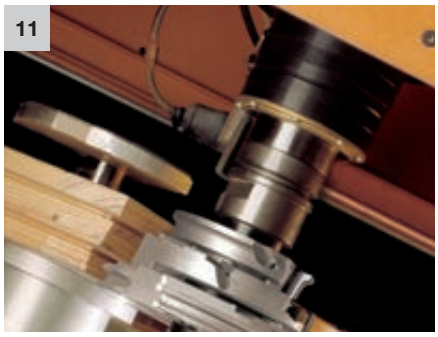
TECHNOLOGICAL FEATURES

- Performance system knives are constructed in hard metal, which Freud produces in 6 grades of hardness, second to the material to be worked: softwood and hardwood, heavy, abrasive, chipboard, melamine, laminated, M.D.F. etc. It is possible to use NW with a high grade of hardness, so as to permit a superior hold of 30% more with respect to the NW used for brazed cutting edges destined to work very abrasive materials.
- Other than being a solution that practically substitutes brazed cutters, thanks to the interchangeability of the profiles on the same tool and the duration of the tool itself, there is a notable advantage and convenience when working on overhead CNC router machines, where machine stoppages can result costly: infact the changing of a used or damaged knife does not require the dismounting of the cutterhead from the machine, since it is sufficient to loosen the screw that holds it in place. Instead a brazed cutter must be completely changed and a substitute available to avoid time wastage.
- Freud has an entire range of tools with performance, standard or personalised knives for manual or overhead CNC router machines (Fig. 11).
- The performance system results advantageous, even when confronted to traditional cutterheads, thanks to the easiness of sharpening, low operational cost and the need of no particular machinery (the use of a flat grinding wheel or surface grinding machine is sufficient - see Fig. 12) or specialised personnel.
- Even after sharpening, performance knives maintain their original profile (Fig.13) and the tool's cutting diameter, considering maximum loses of 0,15~0,20 mm.
- Suggestions for correct sharpening on surface gr inding machine or flat grinding machine:

1) Fix support TA01M or TAO2M (Fig. 13) onto the surface grinding machine or flat grinding machine.
2) Fix the knives with the screws that are supplied.
3) Procede with the sharpening of the entire set of knives. Use of abundant cooling liquid during sharpening is recommended. Use diamon grinding wheels (Fig. 14) with the following characteristics: D6A2-C100-054.

- On request, sharpening can be carried out at our premisses by simply sending us the complete set of knives and indicating on the order the code OPTAFF AA9.

11



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14



EXPLANATION OF SYMBOLS AND ABBREVIATIONS

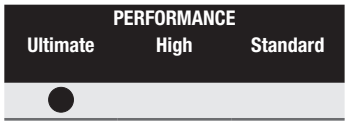


CHART ABOUT THE SAW BLADE'S PERFORMANCE

SYMBOLS TO READ THE PRODUCT TABLES

h1	Actual height	B-B1	Adjustable cutting thickness	γ	ATB angle	β	Back relief angle
C	Bearing diameter	d	Bore	h	Cutting height	B	Cutting thickness
D	Diameter	α	Hook angle	I	Interaxial distance (Inserts in RB section)	KN	Keyways
L	Length	Max RPM	Max RPM	Z	Number of teeth	H	Overall height
NL	Pin holes	R	Radius (Spurs in RB section)	R1	Radius	b	Saw blade body thickness
A	Shank	V	Spurs	S	Thickness	hUP	UP cut lenght
L.U.	Working length						

FEATURE ICONS

Anti-kickback TECHNOLOGY	Anti-kickback Technology	Anti-vibration TECHNOLOGY	Anti-vibration Technology	Cascading SYSTEM	Cascading System	EXrim COATING	EXrim Coating
ISOprofil TECHNOLOGY	ISOprofil Technology	Performance System TECHNOLOGY	Performance System Technology	Perma-SHIELD COATING	Perma-SHIELD Coating	Polycrystalline Diamond TECHNOLOGY	Polycrystalline Diamond Technology
Radial Access DESIGN	Radial Access Design	Shear Angle TECHNOLOGY	Shear Angle Technology	Silver I.C.E. COATING	Silver I.C.E. Coating	Split Edge DESIGN	Split Edge Design
Super Square Tooth DESIGN	Super Square Tooth Design	Tensioning TECHNOLOGY	Tensioning Technology	TiCo Carbide MADE BY freud	TiCo Carbide Technology	Tri-metal Brazing TECHNOLOGY	Tri-metal Brazing Technology

MATERIALS

ACM	Aluminium	Chipboard	Construct Wood
Copper and Brass	Fibre Cement	Hardwood	HPL
Laminated Chipboard	Laminated MDF	Laminates (scoring saw blades)	MDF
Plasterboard	Plastics	Plexiglas	Plywood
PVC	Sandwich Panel	Shuttering Board	Softwood
Solid Surfaces	Steel	Thermoplastic Composites	

EXPLANATION OF SYMBOLS AND ABBREVIATIONS

MACHINES

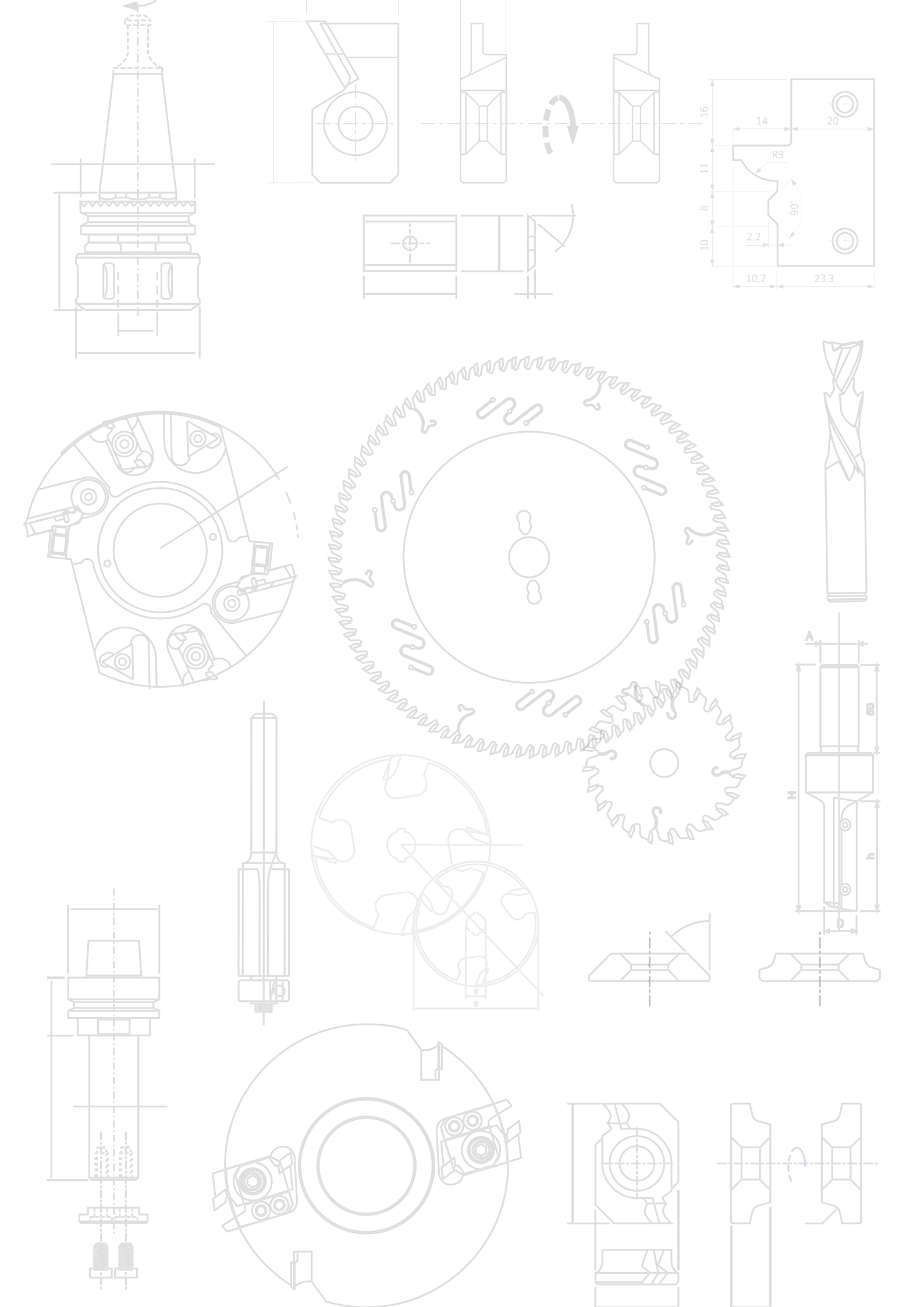
 Boring Machines	 Cleaving Machines	 CNC Cutting Units	 CNC Machines
 CNC Machines	 CNC Router	 Corded	 Corded/Cordless
 Cordless	 Double End Tenoners	 Double Head Cutting Machines	 Dry-Cut Mitre Saw
 Edge Banders	 For Table Mounted Only	 Hand-Held Circular Saws	 Hand-Held Routers
 Horizontal Panel Sizing Machines	 Mitre Saws	 Moulders	 Multiripping Machines
 Optimising Machines	 Palm Routers	 Plunge Saws	 Radial Arm Saws
 Squaring Saws	 Table Routers	 Table Saws	 Vertical Panel Sizing Machines

MECHANICAL FEATURES

 Aluminium Body	 Automatic Feed	 Brazed Cutters	 Clamping System
 Down Spiral	 Manual Feed	 Boring Machines	 Steel Body
 Up and Down Spiral	 Up Spiral		

APPLICATIONS

 Better Finishing on Bottom	 Better Finishing on Top	 Better Finishing on Top and Bottom	 Blind Hole
 Blind Hole with Countersink	 Crosscutting	 Frames Cutting	 Grooving
 Hinge Pockets	 Jointing	 Multiripping	 Planing
 Plunging	 Profiling	 Ramp Plunging	 Rebating
 Ripping	 Sizing	 Through Hole	 Through Hole with Countersink


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CIRCULAR SAW BLADES FOR STATIONARY MACHINES

CIRCULAR SAW BLADES FOR PORTABLE MACHINES

ROUTING TOOLS FOR CNC MACHINES

ROUTING TOOLS FOR PORTABLE MACHINES

CUTTERHEADS AND BRAZED CUTTERS

WINDOW TOOLING

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