

freud.

**Cutterheads and
Brazeed Cutters
Teste Portacoltelli e Frese
Saldobrasate**

Catalogue 2015/16 - Catalogo 2015/16



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freud.

**Cutterheads and
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Innovation leader Leader dell'innovazione

The flexibility to choose the cutterhead
you want.

La flessibilità di scegliere l'utensile che si
desidera.

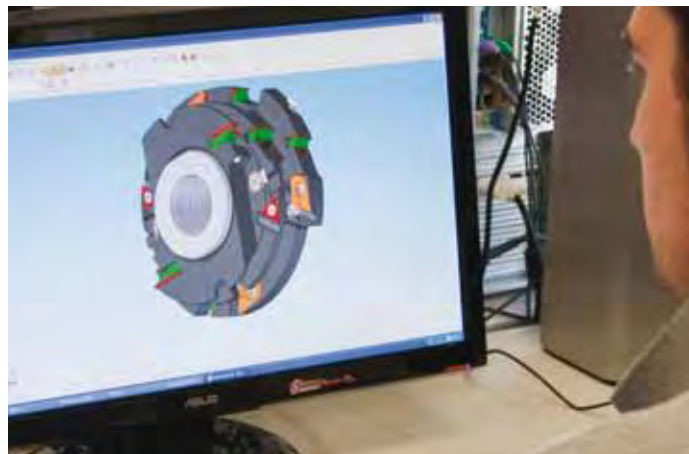


Innovative solutions due to:

- Manufacturing know-how.
- Advanced research and engineering capability: freud is investing in innovative ways to develop new products specially designed to serve the customer needs.

Soluzioni innovative grazie a:

- Know-how produttivo.
- Risorse avanzate per la ricerca ed i servizi di ingegneria: freud sta investendo in strumenti all'avanguardia per lo sviluppo di nuovi prodotti appositamente progettati per rispondere alle esigenze dei clienti.



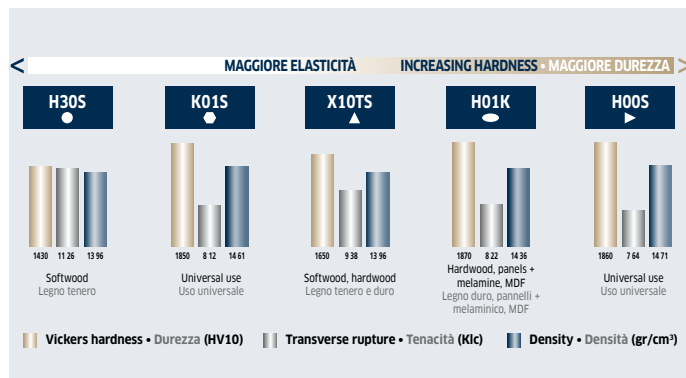
Advanced research and engineering department.
Centro avanzato di ricerca e ingegneria.

In-house Tungsten Carbide (HW) production for the ability to:

- Mix special HW grades according to the application needs.
- Develop special tooth geometries for perfect cuts.
- Perfectly control the quality of the carbide grades.

Produzione in proprio di Carburo di Tungsteno (HW) con la possibilità di:

- Miscelare specifici gradi di HW in base alle esigenze applicative.
- Sviluppare speciali geometrie dei denti per un taglio perfetto.
- Verificare con assoluta precisione la qualità dei singoli composti.



Overview of different standard HW grades.
Panoramica dei diversi standard di HW.

Excellent customized solution and service due to:

- Customized-to-Order (CTO) products.
- Open, friendly, approachable people in over 80 countries across the world supporting you with their knowledge.

Ottimi servizi e soluzioni personalizzate grazie a:

- Prodotti Customized-to-Order (CTO), personalizzati in base alle specifiche del cliente.
- Il team freud, aperto, amichevole e disponibile, è presente in oltre 80 paesi ed è sempre pronto a darvi un supporto esperto.



Present all over the world.
Presenti nel mondo.

Increase your productivity Aumentate la vostra produttività

Setting the highest standards in the
woodworking industry.

I più alti standard nell'industria della
lavorazione del legno.

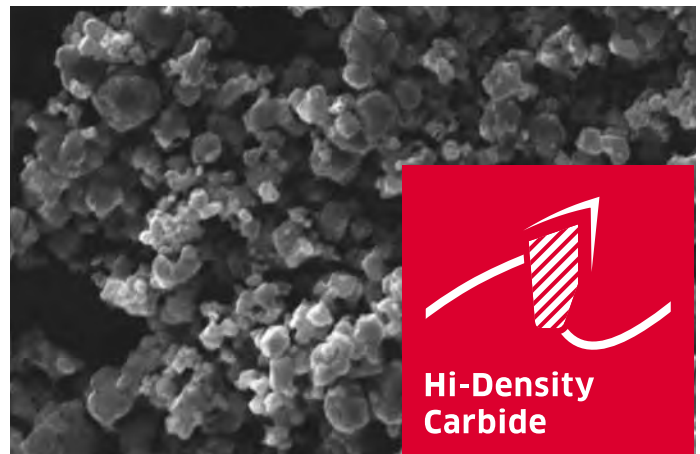


High resistance to heat and wear: TiCo Hi-Density Carbide.

- TiCo Hi-Density Carbide is a specially formulated, highly compact Titanium Cobalt Carbide engineered and manufactured by Freud.
- It maximizes performance on all Freud cutting tools.

Alta resistenza al calore e all'usura: Metallo Duro TiCo ad alta densità.

- Il TiCo, Metallo Duro ad alta densità, è uno speciale composto di Titanio e Cobalto, estremamente compatto.
- È progettato e prodotto da Freud per massimizzare le prestazioni di tutti gli utensili da taglio.



TiCo Hi-Density carbide.
Metallo Duro TiCo ad alta densità.

Performance knife: like a new knife for 8 times!

- **Oversized:** the performance knife is 3 times thicker than standard knives, to allow up to 8 re-sharpening cycles.
- **Always like new:** after each re-sharpening the edge of the knife reaches always the same excellent sharpness.

Coltello Performance: come nuovo per 8 volte!

- **Maggiore dimensione:** il coltello Performance è 3 volte più spesso rispetto allo standard per permettere fino a 8 riaffilature.
- **Sempre come nuovo:** dopo ogni affilatura il coltello ritorna alla stessa eccellente capacità di taglio iniziale.



Performance knife: the only one in the market to re-sharpen up to 8x.
Coltello Performance: l'unico sul mercato da riaffilare fino a 8 volte.

ISOprofil: Freud revolutionary system that has become the window tooling standard.

- **For a perfect profile:** the ISOprofil system automatically recovers the tool's cutting diameter after each re-sharpening.
- **No more machine re-programming:** the wedge raises the knife until it compensates the reduction of diameter. The creation of a relief angle on the support side of the Performance knife maintains its original profile constant - all throughout its life.

ISOprofil: il rivoluzionario sistema Freud diventato lo standard per serramenti.

- **Un profilo sempre perfetto:** il sistema ISOprofil recupera automaticamente il diametro di taglio dell'utensile dopo ogni affilatura.
- **Riprogrammazione macchine non necessaria:** il cuneo spinge il coltello compensando la riduzione del diametro. La creazione di un angolo di spoglia sul lato di appoggio del coltello Performance mantiene costante il profilo originale - per tutta la sua durata.



The ISOprofil revolution: for a perfect profile match - always.
La rivoluzione ISOprofil: per un perfetto accoppiamento del profilo.

Superior finishing Finitura superiore

Our technologies to improve your
production processes.

Le nostre tecnologie per migliorare i vostri
processi di produzione.

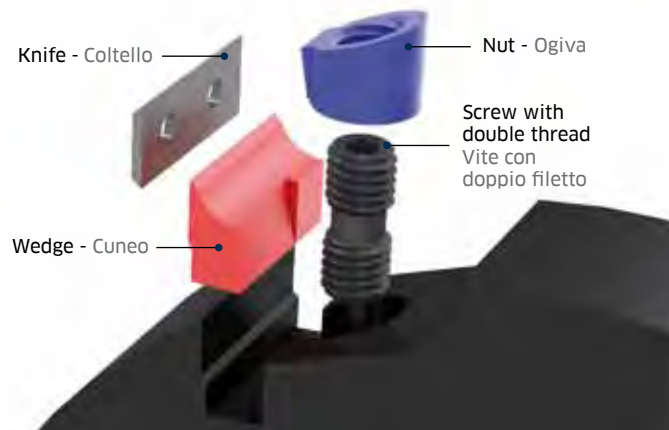


HRL - High resistant locking system: the fastest way to increase your productivity!

- **Fast:** the front screw allows to exchange the knife without removing the tool. This minimizes machine downtime.
- **Safe:** the double thread screw avoids the risk of accidental breakage. Extra safety is guaranteed.

HRL - sistema di bloccaggio ad alta resistenza: il modo più veloce per aumentare la vostra produttività!

- **Veloce:** la vite frontale permette di cambiare il coltello senza rimuovere l'utensile, minimizzando i tempi di fermo macchina.
- **Sicuro:** la vite con doppio filetto evita ogni rischio di rotture accidentali. Extra sicurezza garantita.



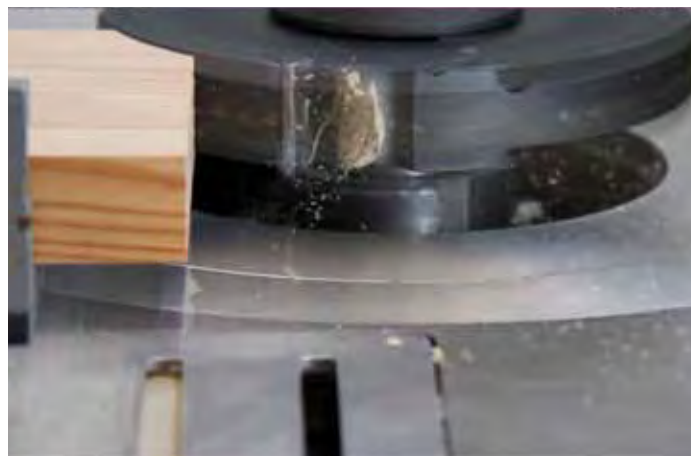
HRL: the fastest way to lock a knife.
HRL: il modo più veloce per fissare un coltello.

freud chip flow concept: for a longer lasting cutting edge.

- **Optimized chips discharge:** freud cutterheads are designed to produce chips large in size and small in weight. Quick removal of the waste material from the gullets results in an incredible longer lifetime of the tools.

Sistema di scarico del truciolo freud: per un tagliente con maggiore durata.

- **Scarico del truciolo ottimizzato:** le teste freud sono progettate per produrre trucioli di grandi dimensioni e peso contenuto. La rapida rimozione del materiale di scarto dalle gole si traduce in una maggiore durata degli utensili.



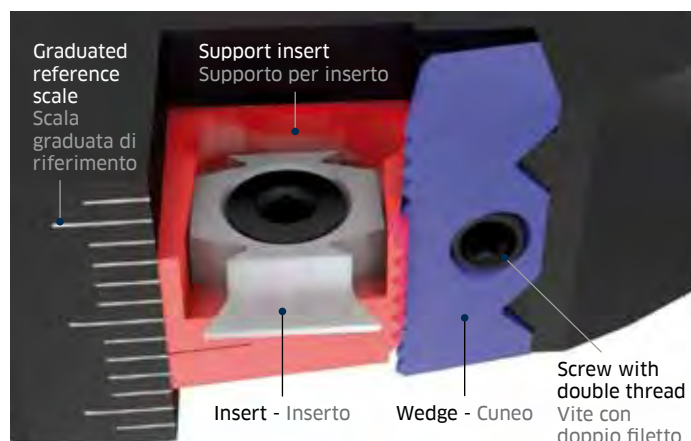
Chip flow system: designed to optimize the chips discharge.
Sistema di scarico del truciolo: ottimizza l'evacuazione del truciolo.

NSR - Regulation System: the first on the market to regulate and change the inserts directly onto the machine.

- **Extraordinary accuracy:** the specially grained seat allows the insert to be adjusted with steps of 1 mm and with precision of up to 1/100 of a mm. No more measuring instruments.

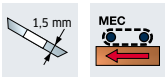
Sistema di regolazione NSR, il primo sul mercato per regolare e cambiare gli inserti direttamente sulla macchina.

- **Precisione straordinaria:** la particolare sede zigrinata consente di regolare l'altezza dell'inserto con incrementi di 1 mm e con una precisione al centesimo di millimetro. Niente più strumenti di misura.



NSR: rapid and simple inserts re-positioning.
NSR: rapido e semplice riposizionamento degli inserti.

TM06M



Item Articolo	In conjunction with item: Utilizzabile con:	SAP SAP
TM06M Ø125	T182M AB3	F03FC20584
TM06M Ø125	T182M AA3	F03FC20583
TM06M PC3 TM06M PH3	T182M CB3	F03FC20586
TM06M	T182M DB3	F03FC20587

Helical planer cutterheads with disposable knives Teste per spianare a taglienti elicoidali

Planer cutterheads with good finish when cutting a maximum depth of 20 mm. (1) Dimension "B" indicates effective cutting length. The maximum tool length is B + 3,5 mm. Can be used in combination with item T182M to cut guiding rebates. Light alloy body (Aluminum alloy). For cleaning do not use products containing caustic soda. Rebore not available.

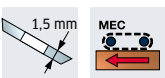
Teste portacoltelli per grosse asportazioni di legno, con buona finitura, fino ad uno spessore massimo di 20 mm.

(1) La misura "B" indica lo spessore utile di taglio; l'ingombro totale dell'utensile è B + 3,5 mm. Utilizzabile in accoppiamento con utensili T182M. Corpo in lega leggera (Lega di alluminio). Per la pulizia non utilizzare prodotti contenenti soda caustica. Non è consentita l'allargatura del foro.

D mm	B ⁽¹⁾ mm	d mm	Z	R mm	Max RPM 1/min.	Code Codice	SAP SAP
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 Parti di ricambio	Dimensions Dimensioni mm	Code Codice	SAP SAP
Knife / Coltello	24 x 12 x 1,5	CG18MBC310	F03FH02919
Wedge / Cuneo	15 x 19,3 x 8	CN09M AM9	F03FC01288
Screw / Vite	M10 x 22	VT19M MA9	F03FA04496
Nut / Ogiva	15 x 13,3 x 10	VT20M MA9	F03FC20670
Allen key / Chiave	5 x 110	CB03M EA9	F03FA00169

TM07M



Item Articolo	In conjunction with item: Utilizzabile con:	SAP SAP
TM07M Ø125	T182M AB3	F03FC20584
TM07M AF3	T182M BB3	F03FC20585
TM07M	T182M AA3	F03FC20583
TM07M	T182M DB3	F03FC20587

Helical planer cutterheads with disposable knives Teste per spianare - taglienti elicoidali

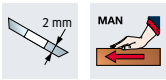
Planer cutterheads with good finish when cutting a maximum depth of 5 - 6 mm. Can be used in combination with item T182M to cut guiding rebates. Light alloy body (Aluminum alloy). For cleaning do not use products containing caustic soda. Rebore not available.

Teste portacoltelli per asportazioni normali di legno (5 - 6 mm), con buona finitura. Utilizzabile in accoppiamento con utensili T182M. Corpo in lega leggera (Lega di alluminio). Per la pulizia non utilizzare prodotti contenenti soda caustica. Non è consentita l'allargatura del foro.

D mm	B mm	d mm	Z	R mm	Max RPM 1/min.	Code Codice	SAP SAP
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 Parti di ricambio	Dimensions Dimensioni mm	Code Codice	SAP SAP
Knife / Coltello	50 x 12 x 1,5	CG18MFC310	F03FH02921
Wedge / Cuneo	15 x 46 x 8	CN09M AP9	F03FC01290
Screw / Vite	M10 x 22	VT19M MA9	F03FA04496
Nut / Ogiva	15 x 13,3 x 10	VT20M MA9	F03FC20670
Allen key / Chiave	5 x 110	CB03M EA9	F03FA00169

TM20M



Multicut planer cutterheads with ball bearing Teste multitaglienti per contornatura con cuscinetto

The TM20M planer cutterheads offer both quality and savings:

- the multiple cutters, arranged in a helicoidal fashion, divide the cutting operation between them, thereby reducing each cutter's contact with the surface being processed.
 - the cutting edges are less subject to wear and therefore the tool lasts longer,
 - when combined with the bearing it can be used for cornering, with shaped guides of your choice,
 - its compact diameter makes it easy to obtain small-sized and precise fittings.
- freud planer cutterheads, moreover, are manufactured from light alloy (Aluminum alloy) which gives them the advantages of both being more manageable and of requiring less machine motor power. For cleaning do not use products containing caustic soda.

Le teste TM20M per spianare offrono sia la qualità che il risparmio:

- i multitaglienti con disposizione elicoidale hanno la funzione di frazionare il taglio, diminuendo così la superficie d'impatto di ciascun tagliente con il materiale da lavorare,
- i taglienti sono meno soggetti ad usura e quindi l'utensile dura più a lungo,
- in abbinamento al cuscinetto, si possono eseguire contornature con guide sagomate a piacere,
- grazie al diametro ridotto è possibile eseguire con facilità raccordi precisi e di piccole dimensioni.

Inoltre, le teste per spianare freud sono costruite in lega leggera (Lega di alluminio) e l'utensile risulta più maneggevole e richiede meno potenza al motore della macchina. Per la pulizia non utilizzare prodotti contenenti soda caustica.

D mm	B mm	d mm	Z	R	Max RPM 1/min.	Code Codice	SAP SAP
55	59	30	10	16.000	16.000	TM20M ACC	F03FC22098
62	59	35	10	16.000	16.000	TM20M BCD	F03FC22099
68	59	40	10	16.000	16.000	TM20M CCE	F03FC22100
80	59	50	10	16.000	16.000	TM20M DCF	F03FC21977

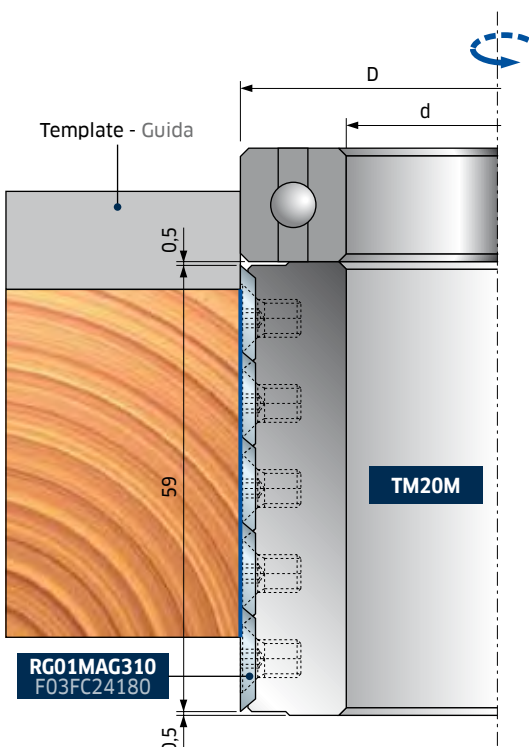
Spare parts Parti di ricambio		Dimensions Dimensioni mm	Code Codice	SAP SAP
	Spur / Rasante smussato	14 x 14 x 2	RG01MAG310	F03FC24180
	Screw / Vite	M5 x 8	VT05M AA9	F03FA04444
	Torx key / Chiave Torx	T20	CB03M CC9	F03FA00167

Bearings for cutterheads TM20M Cuscinetti per teste TM20M

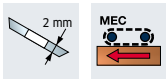
For cutterhead Per testa	SAP SAP	Dimensions Dimensioni mm	Code Codice	SAP SAP
TM20M ACC	F03FC22098	55 x 13 x 30	3101M AC9	F03FA10543
TM20M BCD	F03FC22099	62 x 14 x 35	3101M AD9	F03FA10544
TM20M CCE	F03FC22100	68 x 15 x 40	3101M AE9	F03FA10545
TM20M DCF	F03FC21977	80 x 16 x 50	3101M AG9	F03FA10547

3101M bearings are not included.

I cuscinetti **3101M** vanno ordinati a parte.



TM21M



Multicut planer cutterheads Teste multitaglienti per spianare

The TM21M planer cutterheads offer both quality and savings:

- the multiple cutters, arranged in a helicoidal fashion, divide the cutting operation between them, thereby reducing each cutter's contact with the surface being processed. This solution provides for multiple advantages:
- the cutters are less subject to wear and the tool, therefore, enjoys a longer working life,
- increased productivity,
- the facilitated wood shavings discharge makes the removal of the material easier and allows for more in-depth processing,
- the tool produces less noise.

freud planer cutterheads, moreover, are manufactured from light alloy (Aluminum alloy) which gives them the advantages of both being more manageable and of requiring less machine motor power.

Although the TM21M planer cutterhead series is suitable for regular planing operations, special tools can be manufactured, based both on designs as well as on tool samples, in order to satisfy all of the customer's needs. Light alloy body (Aluminum alloy). For cleaning do not use products containing caustic soda.

Le teste TM21M per spianare offrono sia la qualità che il risparmio:




- i multitaglienti con disposizione elicoidale hanno la funzione di frazionare il taglio, diminuendo così la superficie d'impatto di ciascun tagliente con il materiale da lavorare. I vantaggi di questa soluzione sono molteplici:
- i taglienti sono meno soggetti ad usura e quindi l'utensile dura più a lungo,
- la produttività aumenta,
- lo scarico del truciolo agevolato facilita l'asportazione del materiale e permette lavorazioni più profonde,
- l'utensile risulta più silenzioso.

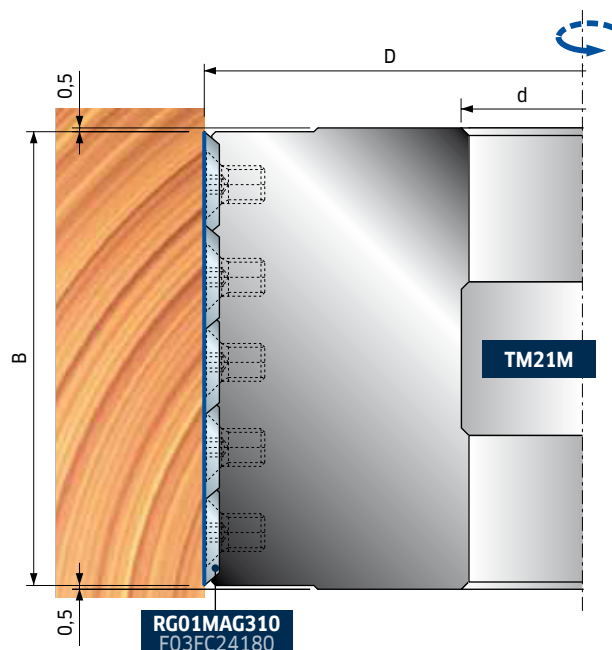
Inoltre, le teste per spianare sono costruite in lega leggera (Lega di alluminio) e l'utensile risulta più maneggevole e richiede meno potenza al motore della macchina.

Questa gamma di teste per spianare TM21M è adatta a soddisfare tutte le lavorazioni ordinarie di piallatura, tuttavia, si costruiscono utensili speciali a disegno o a campione per soddisfare ogni particolare esigenza del Cliente.

Per la pulizia non utilizzare prodotti contenenti soda caustica.

D mm	B mm	d mm	Z	R	Max RPM 1/min.	Code Codice	SAP SAP
100	60	30	15	10.300	10.300	TM21M ECC	F03FC20458
100	100	30	27	10.300	10.300	TM21M EEC	F03FC20459
125	130	40	33	10.300	10.300	TM21M HGE	F03FC20460
125	150	40	39	10.300	10.300	TM21M HHE	F03FC20461
125	180	40	45	10.300	10.300	TM21M HIE	F03FC20462

Spare parts Parti di ricambio		Dimensions Dimensioni mm	Code Codice	SAP SAP
	Spur / Rasante smussato	14 x 14 x 2	RG01MAG310	F03FC24180
	Screw / Vite	M5 x 8	VT05M AA9	F03FA04444
	Torx key / Chiave Torx	T20	CB03M CC9	F03FA00167



TP05M

Planer cutterheads with HSS knives Teste per spianare con coltelli in HSS

Planer cutterheads with good finish when cutting a maximum depth of 15 mm on softwood, 10 mm on hardwood.

Type A:

Cutterheads with traditional bore;

Type B:

Bore realized on two side steel flanges fitted on aluminum body:

- Better bore tolerances;
- Easier dismounting from the spindle.

position the knives at the correct diameter with setting gauges.

Le teste a spianare TP05M sono indicate per asportazioni massime di 15 mm su legno tenero e di 10 mm su legno duro.

Tipologia A

Foro finito sul corpo in alluminio.

Tipologia B

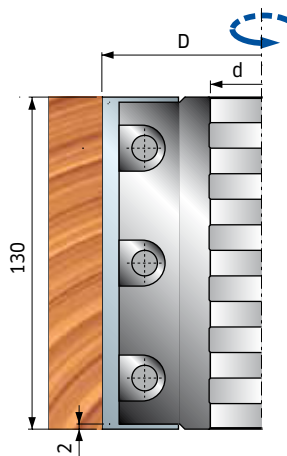
Foro finito realizzato con flange in acciaio calettate sul corpo:

- Migliore precisione;
- Più agevole lo smontaggio dall'albero.

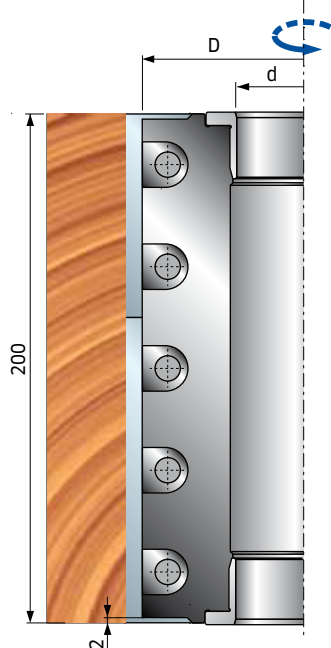
Regolare i coltelli al corretto diametro tramite calibro di posizionamento.



Type A - Tipo A



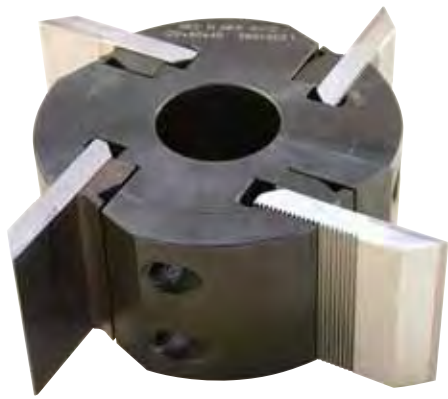
Type B - Tipo B



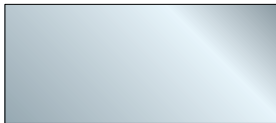
	D mm	B mm	d mm	Z	R	Max RPM 1/min.	Code Codice	SAP SAP
Type A - Tipo A	125	100	40	4		10.300	TP05M 100	F03FC23661
	125	130	40	4		10.300	TP05M 130	F03FC21889
	125	150	40	4		10.300	TP05M 150	F03FC23663
	125	180	40	4		10.300	TP05M 180	F03FC24438
	125	200	40	4		10.300	TP05M 200	F03FC24439
	125	230	40	4		10.300	TP05M 230	F03FC21891
Type B - Tipo 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 Parti di ricambio	Dimensions Dimensioni mm	Code Codice	SAP SAP
	Allen key / Chiave	5 x 110	CB03M EA9	F03FA00169
100	Knife / Coltello	100 x 30 x 3	CT01MDA202	F03FA18167
	Wedge / Cuneo	96 x 19 x 8,5	CN11M 096	F03FC23670
130	Knife / Coltello	130 x 30 x 3	CT01MHA202	F03FA18169
	Wedge / Cuneo	126 x 19 x 8,5	CN11M 126	F03FC21964
150	Knife / Coltello	150 x 30 x 3	CT01MLA202	F03FA18171
	Wedge / Cuneo	146 x 19 x 8,5	CN11M 146	F03FC23672
180	Knife / Coltello	180 x 30 x 3	CT01MOA202	F03FA18173
	Wedge / Cuneo	176 x 19 x 8,5	CN11M 176	F03FC24448
200	Knife / Coltello	200 x 30 x 3	CT01MPA202	F03FA18174
	Wedge / Cuneo	196 x 19 x 8	CN11M 196	F03FC23132
230	Knife / Coltello	230 x 30 x 3	CT01MRA202	F03FA18175
	Wedge / Cuneo	226 x 19 x 8,5	CN11M 226	F03FC21966

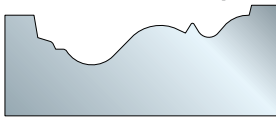
TPCZM



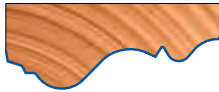
Raw knife - Coltello grezzo



Profiled knife - Coltello profilato



Wood profile - Profilo legno



Cutterheads with serrated profilable knives Teste con coltelli zigrinati profilabili

Suitable for profiling all soft and hardwoods. The serrated surface ensures a perfect knife placement and lock.

This item is supplied without knives.

Adatte per eseguire profili su tutti i tipi di legno, sia tenero che duro. La parte zigrinata assicura un perfetto posizionamento e serraggio.

L'articolo viene fornito senza coltelli.

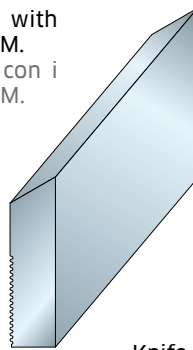
D mm	B mm	d mm	Z	R	Max RPM 1/min.	Code Codice	SAP SAP
122	60	40	4		9.000	TPCZM CB9	F03FC22116
122	80	40	4		9.000	TPCZM CC9	F03FC22117
122	100	40	4		9.000	TPCZM CD9	F03FC22119
122	150	40	4		9.000	TPCZM CF9	F03FC22223

Do not exceed the number of knives regrindings that leaves a maximum distance between the seat and the knife of 6,4 mm.

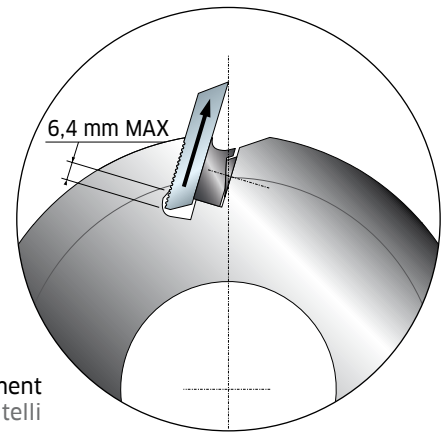
Non superare il numero di affilature che porti ad una luce tra sede e coltello superiore a 6,4 mm.

Can be used with knives CZ01M.

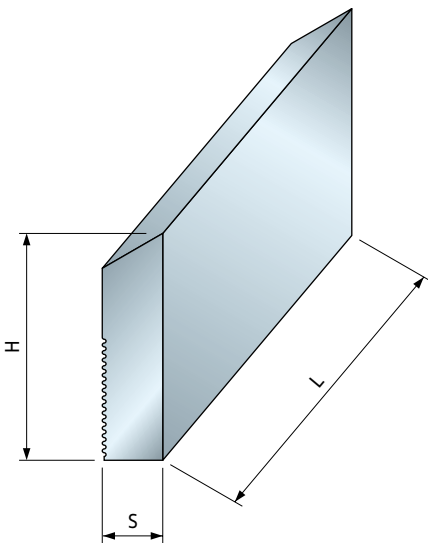
Utilizzabile con i coltelli CZ01M.



Knife placement
Posizionamento coltelli



CZ01M



For different dimensions, ask for a quote.

Richiedere preventivo per misure di lunghezza o altezza diverse da quelle indicate.

HSS serrated back knives Coltelli zigrinati in HSS

Profiling HSS knives. Can be used with cutterheads TPCZM.

The serrated surface ensures a perfect knife placement and lock.

Suitable for cutting all soft and hardwoods.

Coltelli, profilabili in HSS. Utilizzabili con le teste TPCZM, la parte zigrinata garantisce un serraggio sicuro e preciso.

Ideali per la lavorazione su tutti i tipi di legno, sia teneri che duri.

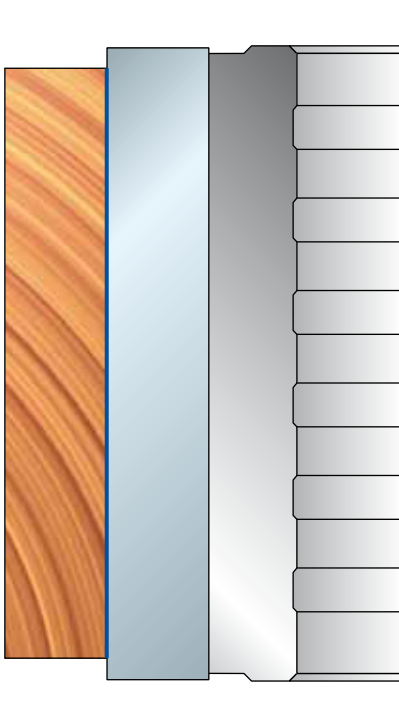
L mm	H mm	S mm	Code Codice	SAP SAP
60	50	8	CZ01M DB2	F03FA13922
80	50	8	CZ01M DC2	F03FA13923
100	50	8	CZ01M DD2	F03FA13935
150	50	8	CZ01M DF2	F03FA14552
60	60	8	CZ01M HB2	F03FA14601
80	60	8	CZ01M HC2	F03FA14603
100	60	8	CZ01M HD2	F03FA14105
150	60	8	CZ01M HF2	F03FA14607
60	70	8	CZ01M NB2	F03FA14656
80	70	8	CZ01M NC2	F03FA14658
100	70	8	CZ01M ND2	F03FA14106
150	70	8	CZ01M NF2	F03FA14662

TM17M



Groove bead cutters - Teste per guida laterale

Item Articolo	In conjunction with item: Utilizzabile con:	SAP SAP
TM17M	T182M EA3	F03FC20588
TM17M	T182M EB3	F03FC20589



ISOprofil planer cutterheads Teste ISOprofil per spianare

Cutterheads with shear angle and knives in hard metal micrograin of a new generation (X10TS). Top finish when removing small material quantity (up to 3 mm); particularly well suited for softwood. It is possible to manufacture the new planer heads with different dimensions respect to the standard ones, indicating, in the order, diameter, length and bore. The production is subject to the approval of our technical department.

Light alloy body (Aluminum alloy). For cleaning do not use products containing caustic soda. Can be used in combination with item T182M to cut guiding rebates.

Teste con angolo assiale e coltelli in metallo duro micrograno di nuova generazione (X10TS). Massima finitura nelle basse asportazioni (fino a 3 mm); particolarmente indicate per la lavorazione di legni teneri. È possibile costruire le nuove teste per pialla anche con misure diverse da quelle standard indicando, al momento dell'ordine, diametro, lunghezza e foro. La produzione è soggetta all'approvazione del nostro dipartimento tecnico. Corpo in lega leggera (Lega di alluminio). Per la pulizia non utilizzare prodotti contenenti soda caustica. Utilizzabile in accoppiamento con utensili T182M.

Tools supplied with HW knives Utensili con coltelli in HW

D mm	B mm	d mm	Z	R	Max RPM 1/min.	Code Codice	SAP SAP
125	80	40	2		10.300	TM17M AA3	F03FC20425
125	130	40	2		10.300	TM17M AD3	F03FC20428
125	150	40	2		10.300	TM17M AF3	F03FC20431
125	180	40	2		10.300	TM17M AH3	F03FC20434
125	240	40	2		10.300	TM17M AM3	F03FC20437

Tools supplied with HSS knives Utensili con coltelli in HSS

D mm	B mm	d mm	Z	R	Max RPM 1/min.	Code Codice	SAP SAP
125	80	40	2		10.300	TM17M AA2	F03FC20424
125	130	40	2		10.300	TM17M AD2	F03FC20427
125	150	40	2		10.300	TM17M AF2	F03FC20430
125	180	40	2		10.300	TM17M AH2	F03FC20433
125	240	40	2		10.300	TM17M AM2	F03FC20436

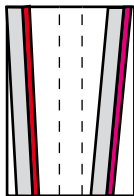
	Spare parts Parti di ricambio	Dimensions Dimensioni mm	Code Codice	SAP SAP
AA2 - AA3	Wedge / Cuneo	82 x 19,5 x 10	CN14M AA9	F03FC01396
	HW knife / Coltello in HW	82 x 19 x 4,5	CP10MAA301	F03FC23939
	HSS knife / Coltello in HSS	82 x 19 x 4,5	CP10MAA201	F03FC23938
AD2 - AD3	Screw / Vite	M10 x 16	2616M EE9	F03FA07426
	Wedge / Cuneo	132 x 19,5 x 10	CN14M AD9	F03FC22738
	HW knife / Coltello in HW	132 x 19 x 4,5	CP10MAD301	F03FC23941
AF2 - AF3	HSS knife / Coltello in HSS	132 x 19 x 4,5	CP10MAD201	F03FC23940
	Screw / Vite	M10 x 16	2616M EE9	F03FA07426
	Wedge / Cuneo	152 x 19,5 x 10	CN14M AF9	F03FC01399
AH2 - AH3	HW knife / Coltello in HW	152 x 19 x 4,5	CP10MAF301	F03FC23943
	HSS knife / Coltello in HSS	152 x 19 x 4,5	CP10MAF201	F03FC23942
	Screw / Vite	M10 x 16	2616M EE9	F03FA07426
AM2 - AM3	Wedge / Cuneo	182 x 19,5 x 10	CN14M AH9	F03FC01400
	HW knife / Coltello in HW	182 x 19 x 4,5	CP10MAH301	F03FC23945
	HSS knife / Coltello in HSS	182 x 19 x 4,5	CP10MAH201	F03FC23944
	Screw / Vite	M10 x 16	2616M EE9	F03FA07426
	Wedge / Cuneo	242 x 19,5 x 10	CN14M AM9	F03FC01401
	HW knife / Coltello in HW	242 x 19 x 4,5	CP10MAM301	F03FC23947
	HSS knife / Coltello in HSS	242 x 19 x 4,5	CP10MAM201	F03FC23946
	Screw / Vite	M10 x 16	2616M EE9	F03FA07426

TM28M



Groove bead cutters - Teste per guida laterale

Item Articolo	In conjunction with item: Utilizzabile con:	SAP SAP
TM28M	T182M EA3	F03FC20588
TM28M	T182M EB3	F03FC20589



Light alloy body (Aluminum alloy). For cleaning do not use products containing caustic soda. Can be used in combination with item T182M to cut guiding rebates.

Corpo in lega leggera (Lega di alluminio). Per la pulizia non utilizzare prodotti contenenti soda caustica. Utilizzabile in accoppiamento con utensili T182M.

ISOprofil planer cutterheads with alternating shear angle Teste ISOprofil per spianare con angolo assiale alterno

Cutterheads with alternating shear angle and knives in hard metal micrograin of a new generation (X10TS). Top finish when removing small material quantity (up to 3 mm); particularly well suited for hard and softwood. It is possible to manufacture the new planer heads with different dimensions respect to the standard ones, indicating, in the order, diameter, length and bore. The production is subject to the approval of our technical department.

Teste con angolo assiale alterno e coltelli in metallo duro micrograno di nuova generazione (X10TS). Massima finitura nelle basse asportazioni (fino a 3 mm); particolarmente indicate per la lavorazione di legni teneri e duri. È possibile costruire le nuove teste per pialla anche con misure diverse da quelle standard indicando, al momento dell'ordine, diametro, lunghezza e foro. La produzione è soggetta all'approvazione del nostro dipartimento tecnico.

Tools supplied with HW knives Utensili con coltelli in HW

D mm	B mm	d mm	Z	R	Max RPM 1/min.	Code Codice	SAP SAP
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 Utensili con coltelli in HSS

D mm	B mm	d mm	Z	R	Max RPM 1/min.	Code Codice	SAP SAP
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

	Spare parts Parti di ricambio	Dimensions Dimensioni mm	Code Codice	SAP SAP
	Positioning plate / Piastrina di riscontro	22 x 1,7 x 19	VT18M GB9	F03FA04489
	Screw / Vite	M5 x 8	VT05M AA9	F03FA04444
	Allen key / Chiave	5 x 110	CB03M EA9	F03FA00169
	Screw / Vite	M10 x 16	2616M EE9	F03FA07426
AA2 - AA3	Wedge / Cuneo DX	82 x 19,5 x 10	CN28MD AA9	F03FC22050
	Wedge / Cuneo SX	82 x 19,5 x 10	CN28MS AA9	F03FC22051
AD2 - AD3	HSS right knife / Coltello DX in HSS	82 x 19 x 4,5	CP28MDAA201	F03FC23958
	HSS left knife / Coltello SX in HSS	82 x 19 x 4,5	CP28MSAA201	F03FC23968
	HW right knife / Coltello DX in HW	82 x 19 x 4,5	CP28MDAA301	F03FC23959
	HW left knife / Coltello SX in HW	82 x 19 x 4,5	CP28MSAA301	F03FC23969
	Wedge / Cuneo DX	132 x 19,5 x 10	CN28MD AD9	F03FC22052
	Wedge / Cuneo SX	132 x 19,5 x 10	CN28MS AD9	F03FC22053
AF2 - AF3	HSS right knife / Coltello DX in HSS	132 x 4,5 x 19	CP28MDAD201	F03FC23960
	HSS left knife / Coltello SX in HSS	132 x 4,5 x 19	CP28MSAD201	F03FC23970
	HW right knife / Coltello DX in HW	132 x 4,5 x 19	CP28MDAD301	F03FC23961
	HW left knife / Coltello SX in HW	132 x 4,5 x 19	CP28MSAD301	F03FC23971
	Wedge / Cuneo DX	152 x 19,5 x 10	CN28MD AF9	F03FC22054
	Wedge / Cuneo SX	152 x 19,5 x 10	CN28MS AF9	F03FC22055
AH2 - AH3	HSS right knife / Coltello DX in HSS	152 x 4,5 x 19	CP28MDAF201	F03FC23962
	HSS left knife / Coltello SX in HSS	152 x 4,5 x 19	CP28MSAF201	F03FC23972
	HW right knife / Coltello DX in HW	152 x 4,5 x 19	CP28MDAF301	F03FC23963
	HW left knife / Coltello SX in HW	152 x 4,5 x 19	CP28MSAF301	F03FC23973
	Wedge / Cuneo DX	182 x 19,5 x 10	CN28MD AH9	F03FC22056
	Wedge / Cuneo SX	182 x 19,5 x 10	CN28MS AH9	F03FC22057
AM2 - AM3	HSS right knife / Coltello DX in HSS	182 x 4,5 x 19	CP28MDAH201	F03FC23964
	HSS left knife / Coltello SX in HSS	182 x 4,5 x 19	CP28MSAH201	F03FC23974
	HW right knife / Coltello DX in HW	182 x 4,5 x 19	CP28MDAH301	F03FC23965
	HW left knife / Coltello SX in HW	182 x 4,5 x 19	CP28MSAH301	F03FC23975
	Wedge / Cuneo DX	242 x 19,5 x 10	CN28MD AM9	F03FC22058
	Wedge / Cuneo SX	242 x 19,5 x 10	CN28MS AM9	F03FC22059
	HSS right knife / Coltello DX in HSS	242 x 4,5 x 19	CP28MDAM201	F03FC23966
	HSS left knife / Coltello SX in HSS	242 x 4,5 x 19	CP28MSAM201	F03FC23976
	HW right knife / Coltello DX in HW	242 x 4,5 x 19	CP28MDAM301	F03FC23967
	HW left knife / Coltello SX in HW	242 x 4,5 x 19	CP28MSAM301	F03FC23977

T102M

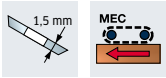
Modular planer cutterheads with disposable knives Teste per spianare per scorniciatrici

These tools can be stacked and used in multiples thus enabling the machining of a wider area. Furthermore, one can either stack and use tools bearing the same identical knives (picture A) or tools equipped with knives of different sizes, for example 50 mm - 30 mm (picture B).

Light alloy body (Aluminum alloy). For cleaning do not use products containing caustic soda. Can be used in combination with item T182M to cut guiding rebates.

Questi utensili possono essere sovrapposti e utilizzati insieme per la lavorazione di una superficie più ampia. Inoltre, è possibile sovrapporre ed utilizzare utensili che montino gli stessi coltelli (figura A) o utensili con coltelli di misure diverse, per es: 50 mm e 30 mm (figura B).

Corpo in lega leggera (Lega di alluminio). Per la pulizia non utilizzare prodotti contenenti soda caustica. Utilizzabile in accoppiamento con utensili T182M.

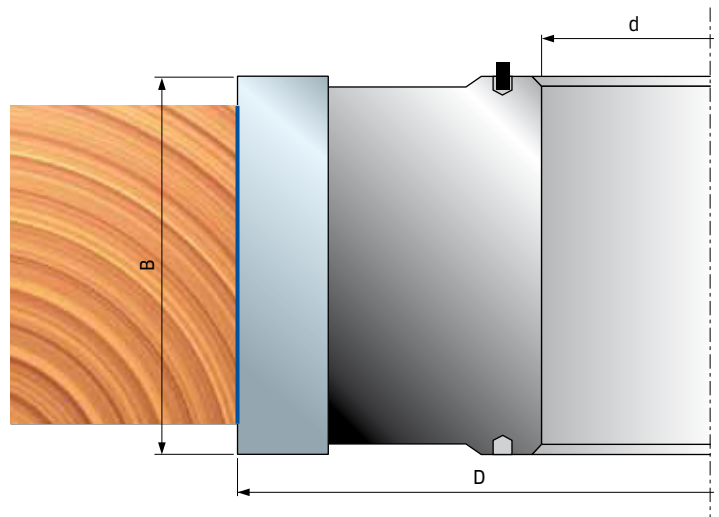


Groove bead cutters - Teste per guida laterale

Item Articolo	In conjunction with item: Utilizzabile con:	SAP SAP
T102M AC3 - AF3	T182M EA3	F03FC20588
T102M AC3 - AF3	T182M EB3	F03FC20589

D mm	B mm	d* mm	Z	R	Max RPM 1/min.	Code Codice	SAP SAP
125	30	32	4		10.300	T102M AL3	F03F668305
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
125	30	40 (50)	4		10.300	T102M AF3	F03FC20577

	Spare parts Parti di ricambio	Dimensions Dimensioni mm	Code Codice	SAP SAP
	Screw / Vite	M10 x 22	VT19M MA9	F03FA04496
	Nut / Ogiva	15 x 13,3 x 10	VT20M MA9	F03FC20670
	Allen key / Chiave	5 x 110	CB03M EA9	F03FA00169
AC3 AD3 AI3	Knife / Coltello	50 x 12 x 1,5	CG01MFA3 10	F03FH02851
	Wedge / Cuneo	15 x 46 x 8	CN09M AP9	F03FC01290
AF3 AL3	Knife / Coltello	30 x 12 x 1,5	CG01MEA3 10	F03FH02737
	Wedge / Cuneo	15 x 26 x 8	CN09M AD9	F03FC01283



Application examples Esempi di applicazione

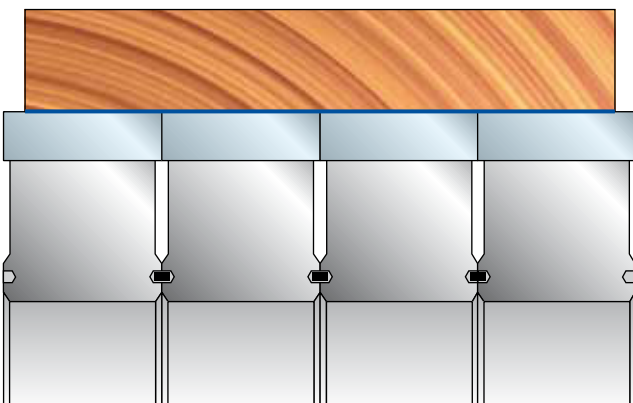


Fig. A

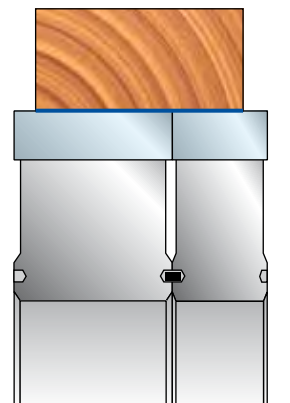
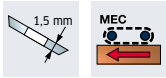


Fig. B

* Size shown between brackets is the max. rebore possible • La quota tra parentesi è la massima allargatura foro possibile

T182M

Groove bead cutterheads with disposable knives Teste per scanalature di guida laterale



D mm	B mm	d mm	Z	R	Max RPM 1/min.	Code Codice	SAP SAP
120	12	35	3	3	11.000	T182M BB3	F03FC20585
120	12	35	2	2	11.000	T182M CB3	F03FC20586
145	12	40	4	2	9.000	T182M EA3	F03FC20588
145	12	40	3	3	9.000	T182M AA3	F03FC20583
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

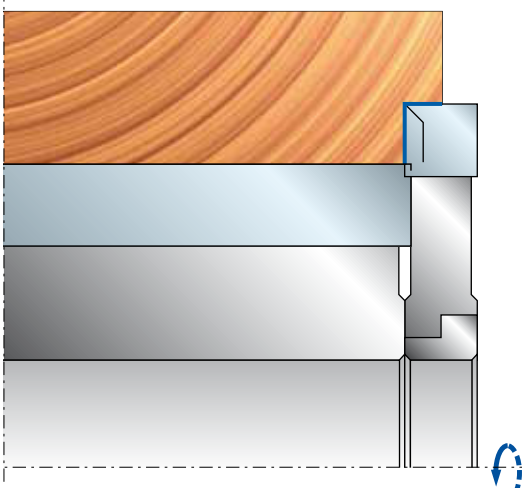
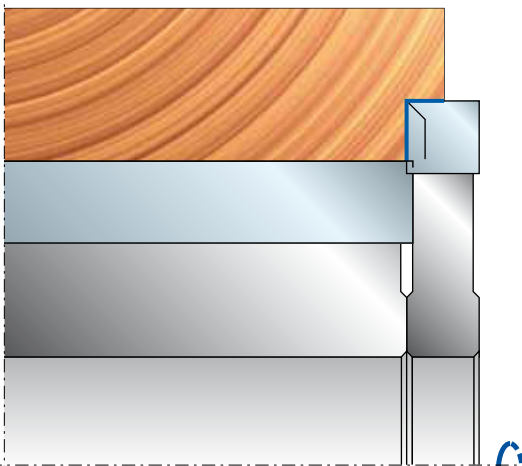
Item Articolo	SAP SAP	In conjunction with item: Utilizzabile con:
T182M AB3*	F03FC20584	TM06M - TM07M Ø125
T182M BB3	F03FC20585	TM07M AF3
T182M AA3	F03FC20583	TM06M - TM07M Ø125
T182M CB3	F03FC20586	TM06M PC3 - TM06M PH3
T182M DB3	F03FC20587	TM06M - TM07M
T182M EA3	F03FC20588	TM17M - TM28M - T102M
T182M EB3	F03FC20589	TM17M - TM28M - T102M

Item T182M: For use in combination with TM06M-TM07M to cut guiding rebates.

* For use on Casadei and S.C.M. moulders.

Art. T182M: Si utilizza in accoppiamento con utensili TM06M-TM07M.

* Va montata su scorniciatrici Casadei e S.C.M.



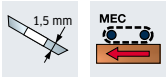
	Spare parts Parti di ricambio	Dimensions Dimensioni mm	Code Codice	SAP SAP
	Spur / Rasante	14 x 14 x 2	RG01MAA310	F03FH03034
	Screw / Vite	M5 x 8	VT05M AA9	F03FA04444
AA3	Knife / Coltello	12 x 12 x 1,5	CG01MBA310	F03FH01636
	Wedge / Cuneo	15 x 10 x 8	CN01M BA9	F03FC01249
	Flange / Flangia	68 x 10 x 40	FX01M HC9	F03FC15041
	Screw / Vite	M6 x 16	VT03M DI9	F03FA04440
AB3	Knife / Coltello	9,6 x 12 x 1,5	CG01MMA310	F03FH02873
	Wedge / Cuneo	15 x 8 x 8	CN09M DB9	F03FC01296
	Screw / Vite	M5 x 19	VT11M AA9	F03FA04468
BB3	Knife / Coltello	11 x 12 x 1,5	CG01MNA310	F03FH02874
	Wedge / Cuneo	15 x 10 x 8	CN01M BA9	F03FC01249
	Screw / Vite	M6 x 16	VT03M DI9	F03FA04440
CB3	Knife / Coltello	12 x 12 x 1,5	CG06MAA310	F03FH02889
	Wedge / Cuneo	15 x 10 x 8	CN01M BA9	F03FC01249
	Screw / Vite	M6 x 16	VT03M DI9	F03FA04440
DB3	Knife / Coltello	9,6 x 12 x 1,5	CG01MMA310	F03FH02873
	Wedge / Cuneo	15 x 8 x 8	CN09M DB9	F03FC01296
	Screw / Vite	M5 x 16	VT03M BB9	F03FA04437
EA3	Knife / Coltello	12 x 12 x 1,5	CG01MBA310	F03FH01636
	Wedge / Cuneo	15 x 10 x 8	CN09MS AA9	F03FC01323
	Flange / Flangia	68 x 10 x 40	FX01M HC9	F03FC15041
	Screw / Vite	M6 x 22	VT19M AB9	F03FA04491
EB3	Nut / Ogiva	10 x 11,5 x 6	VT20M AA9	F03FA04497
	Knife / Coltello	9,6 x 12 x 1,5	CG01MMA310	F03FH02873
	Wedge / Cuneo	15 x 8 x 8	CN09M AH9	F03FC01285
	Screw / Vite	M6 x 22	VT19M AB9	F03FA04491
	Nut / Ogiva	9 x 10,5 x 6	VT20M GA9	F03FC20669

T183M

Groove bead cutterheads with disposable knives Teste per scanalature di guida laterale

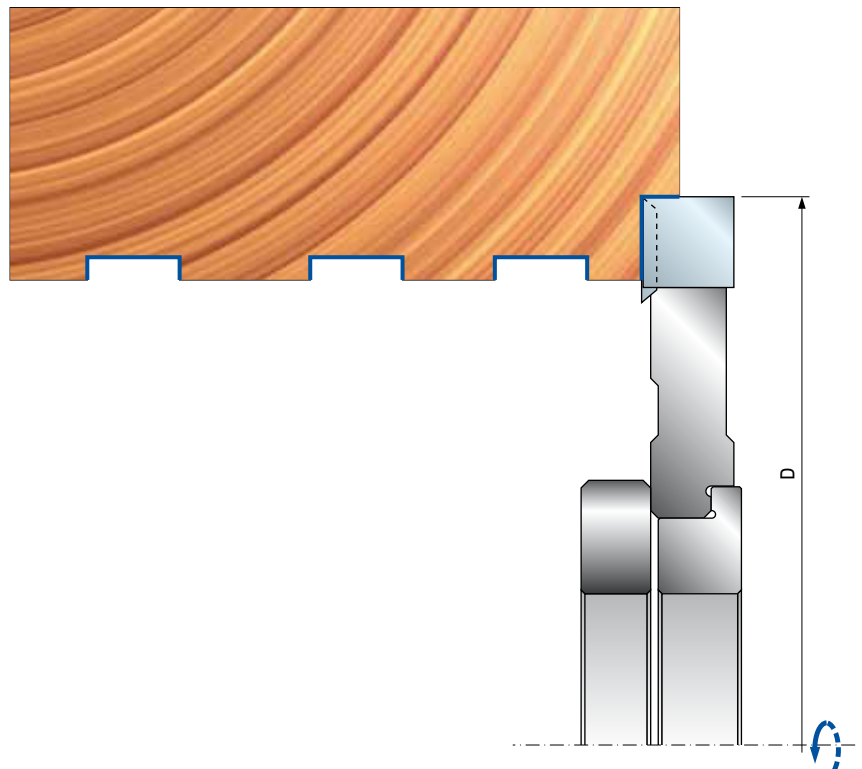
Item T183M: For cutting guide grooves in solid wood for S.C.M. moulding machines.

Art. T183M: Per l'esecuzione di scanalature di guida su corniciatrice S.C.M.



D mm	B mm	d mm	Z	R	Max RPM 1/min.	Code Codice	SAP SAP
145	12	40	4	2	9.000	T183M AA3	F03FC20591

	Spare parts Parti di ricambio	Dimensions Dimensioni mm	Code Codice	SAP SAP
	Knife / Coltello	12 x 12 x 1,5	CG01MBA310	F03FH01636
	Wedge / Cuneo	15 x 10 x 8	CN09MS AA9	F03FC01323
	Screw / Vite	M6 x 22	VT19M AB9	F03FA04491
	Nut / Ogiva	10 x 11,5 x 6	VT20M AA9	F03FA04497
	Spur / Rasante	14 x 14 x 2	RG01MAA310	F03FH03034
	Screw / Vite	M5 x 8	VT05M AA9	F03FA04444
	Allen key / Chiave	3 x 110	CB03M AA9	F03FA00162



TW23M - TW20M

Z = 2

Z = 4



Finger joint cutterheads Teste per giunzioni

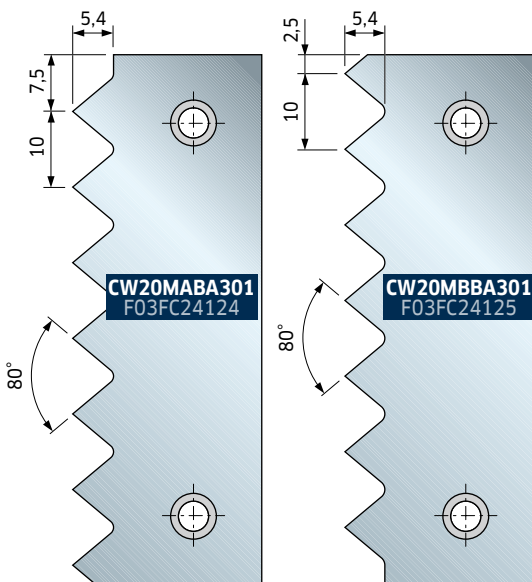
Tools for working long grain on short workpieces.

Please note: two different types of knives are fitted on the cutterheads: **CW20MA** and **CW20MB**. The tool is supplied with a spacing ring $S=2,5$ mm so that a perfect joint can be obtained and the initial zero-point programming maintained. The max. thickness possible is 62,5 mm. Light alloy body (Aluminum alloy). For cleaning do not use products containing caustic soda.

Utensili per la lavorazione lungo vena di pezzi corti.

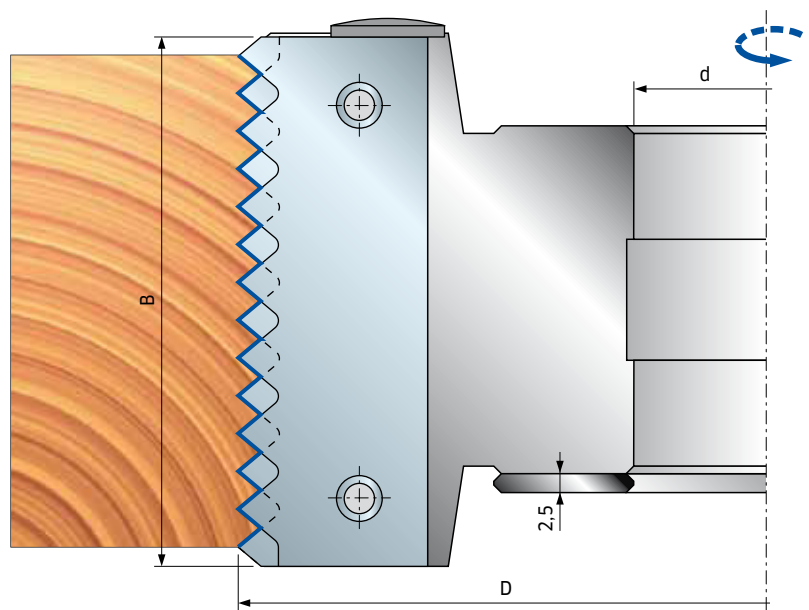
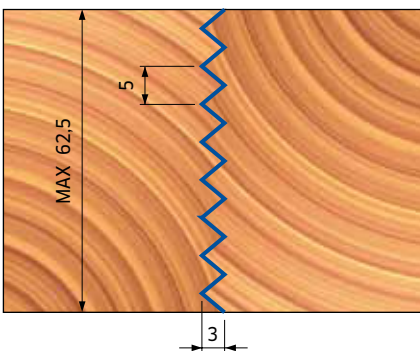
Attenzione: sulle teste sono montati due tipi di coltelli diversi: **CW20MA** e **CW20MB**. Vengono forniti in dotazione i coltelli ed un anello distanziale $S=2,5$ mm per ottenere una perfetta giunzione mantenendo la programmazione iniziale inalterata. Lo spessore massimo ottenibile è di 62,5 mm. Corpo in lega leggera (Lega di alluminio). Per la pulizia non utilizzare prodotti contenenti soda caustica.

D mm	B mm	d* mm	Z	R	Max RPM 1/min.	Code Codice	SAP SAP
140	70	30	4		9.600	TW20M BA3	F03FC22727
140	70	35 (50)	4		9.600	TW20M BF3	F03FC20564
140	70	30	2		9.600	TW23M BE3	F03FC24404
140	70	32	2		9.600	TW23M BG3	F03F668303
140	70	35 (50)	2		9.600	TW23M BF3	F03FC20567



Spare parts Parti di ricambio	Dimensions Dimensioni mm	Code Codice	SAP SAP
Knife / Coltello	70 x 25 x 3	CW20MABA301	F03FC24124
Knife / Coltello	70 x 25 x 3	CW20MBBA301	F03FC24125
Wedge / Cuneo	68 x 19 x 8	CN11M C660A	F03FC01354
Screw / Vite	M10 x 18	VT03M CC9	F03FA04438
Screw / Vite	M5 x 8	VT05M AA9	F03FA04444
Positioning plate / Piastrina di riscontro	22 x 1,7 x 19	VT18M GB9	F03FA04489
Allen key / Chiave	5 x 110	CB03M EA9	F03FA00169
Spacer / Anello distanziale	50 x 2,5 x 30	AN20M AI9	F03FC00552
Spacer / Anello distanziale	55 x 2,5 x 35	AN20M BI9	F03FC00553
Spacer / Anello distanziale	52 x 2,5 x 32	AN20M EI9	F03FC24411

TW20M BA3
TW23M BE3
TW20M BF3
TW23M BF3
TW23M BG3



TW22M

Finger joint cutterheads Teste per giunzioni

Tools for working long grain on short workpieces.

Please note: two different types of knives are fitted on the cutterheads: two **CW22MAAA301** and two **CW22MBAA301**.

Light alloy body (Aluminum alloy). For cleaning do not use products containing caustic soda.

Utensili per la lavorazione lungo vena di pezzi corti.

Sulla testa vengono montati due tipi di coltelli: due **CW22MAAA301** + due **CW22MBAA301**.

Corpo in lega leggera (Lega di alluminio). Per la pulizia non utilizzare prodotti contenenti soda caustica.



D mm	B mm	d* mm	Z	R	Max RPM 1/min.	Code Codice	SAP SAP
140	80	30	4		9.600	TW22M BA3	F03FC23047
140	80	32	4		9.600	TW22M BG3	F03FC24406
140	80	35 (50)	4		9.600	TW22M BB3	F03FC20566

Spare parts Parti di ricambio	Dimensions Dimensioni mm	Code Codice	SAP SAP
Knife / Coltello	80 x 29 x 3	CW22MAAA301	F03FC24126
Knife / Coltello	80 x 29 x 3	CW22MBAA301	F03FC24127
Spacer / Anello distanziale	50 x 2,5 x 30	AN20M AI9	F03FC00552
Spacer / Anello distanziale	55 x 2,5 x 35	AN20M BI9	F03FC00553
Spacer / Anello distanziale	52 x 2,5 x 32	AN20M EI9	F03FC24411
Wedge / Cuneo	76 x 24 x 8	CN13M AG9	F03FC01388
Screw / Vite	M10 x 18	VT03M CC9	F03FA04438
Screw / Vite	M5 x 7 x 16	VT08M AE9	F03FA04457
Allen key / Chiave	5 x 110	CB03M EA9	F03FA00169

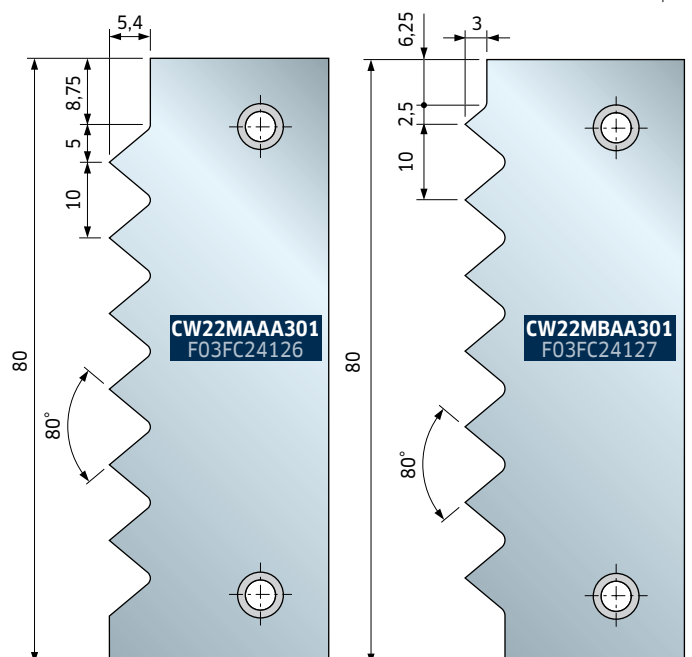
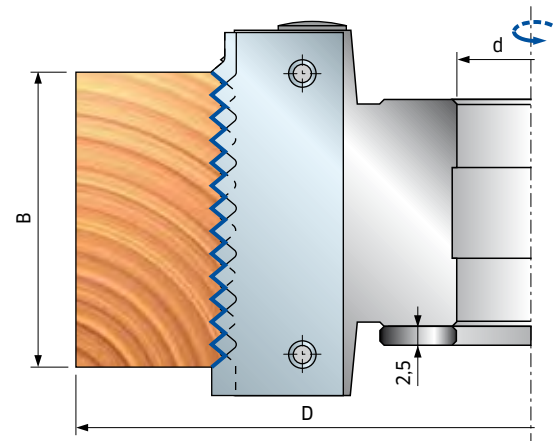
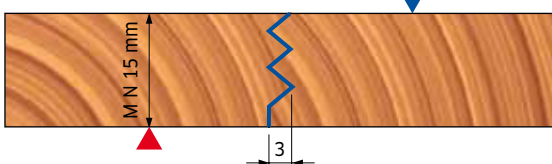
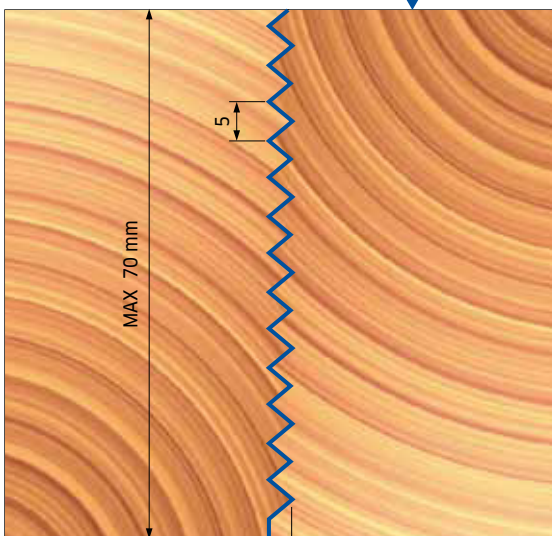
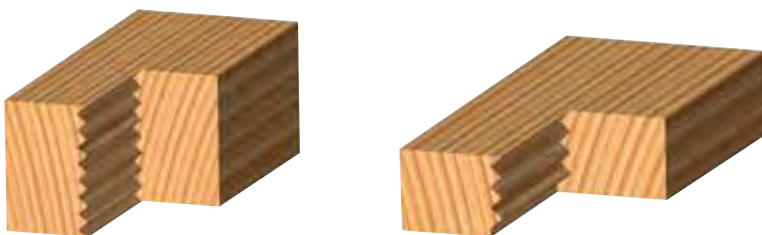


Fig. 1 PROFILE / PROFILO

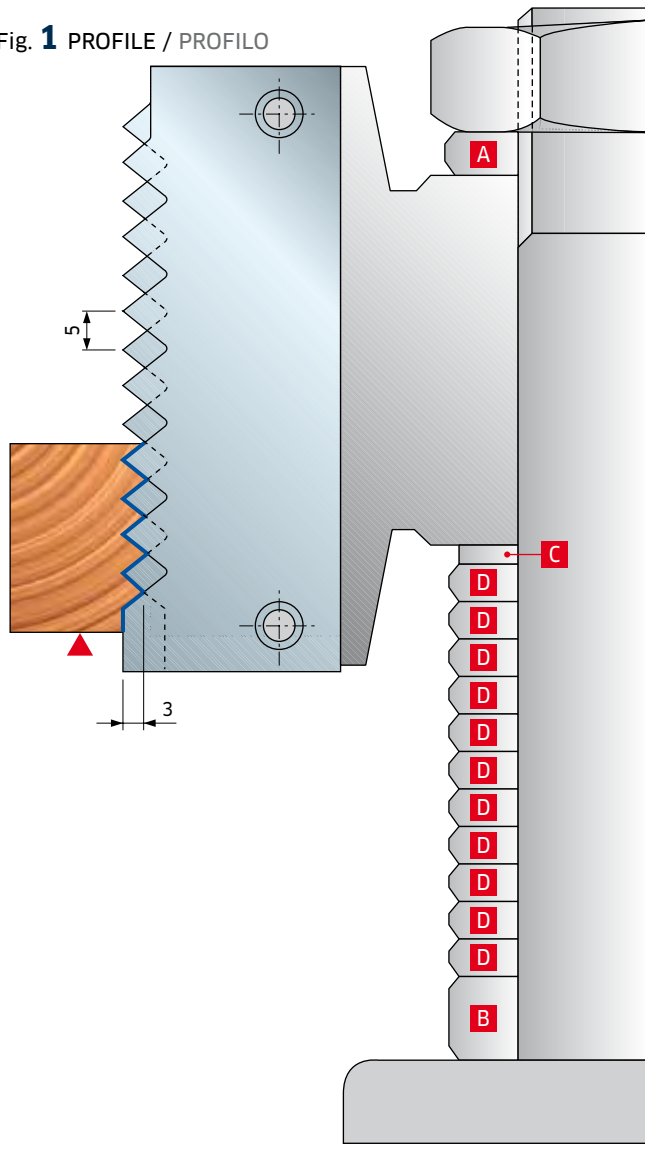
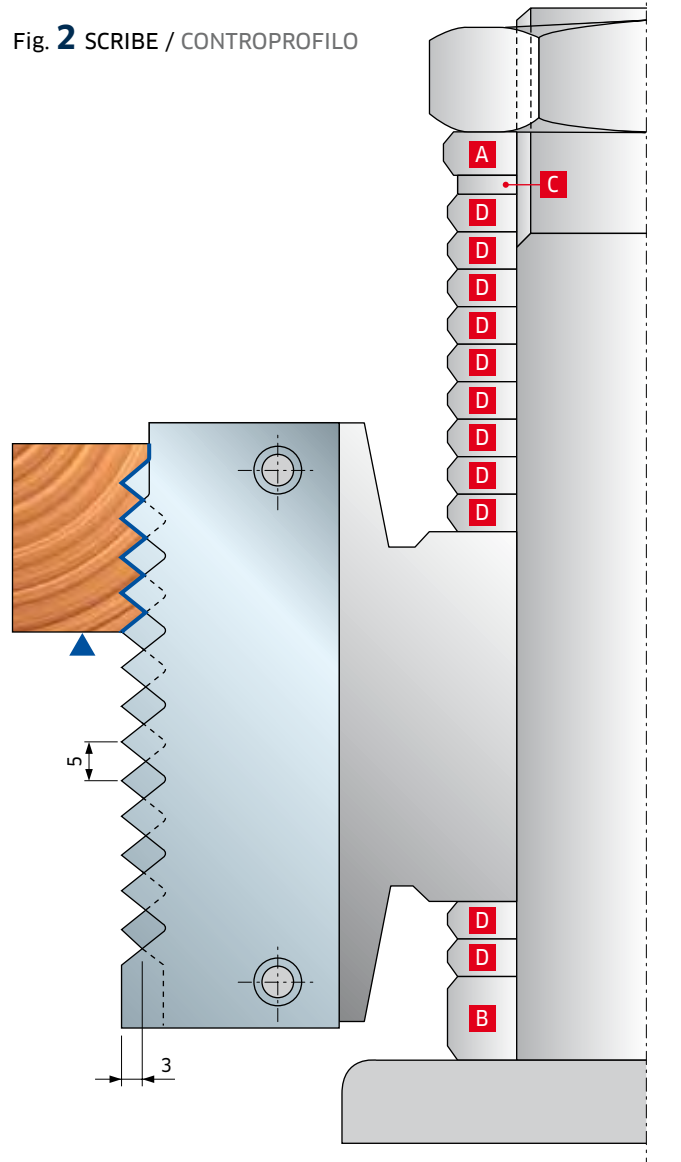


Fig. 2 SCRIBE / CONTROPROFILO



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**.

1: Eseguire il profilo inserendo sotto l'utensile l'anello "C" (in dotazione) e tutti gli anelli "D" (AN04M) come indicato nella figura A.

2: Per eseguire il controprofilo togliere l'anello "C" e gli anelli "D" (tanti quanti sono i dentelli non interessati alla lavorazione), inserendoli nella parte superiore dell'utensile, come indicato nella figura B. Nell'esempio raffigurato i dentelli non interessati sono 9 (fig. A): bisognerà quindi togliere n. 9 anelli "D", oltre all'anello "C", ed inserirli sopra l'utensile (fig. B).

- Anelli "A-B": in dotazione alla macchina.
- Anello "C": in dotazione all'utensile, spessore 2,5 mm (equivalente a 1/2 passo del dentello per il posizionamento esatto dell'utensile nell'esecuzione del controprofilo).
- Anelli "D": spessore 5 mm (equivalente al passo del dentello), forniti a richiesta. Codice: **AN04M BB9**.

Optional set of spacers Set di anelli opzionale

D mm	B mm	d mm	Description Descrizione	Code Codice	SAP SAP
50	5	30	Set of 11 spacers / Set da 11 anelli	AN04M AB9	F03FC24407
52	5	32	Set of 11 spacers / Set da 11 anelli	AN04M EB9	F03FC24408
55	5	35	Set of 11 spacers / Set da 11 anelli	AN04M BB9	F03FC00501

TW01M



Finger joint cutterheads

Teste per giunzioni - profilo intercambiabile

Cutterhead diameter with knives is 150 mm.

Advantages of our tool: On the same tool body, different jointing profiles can be fitted (see following page). It is possible to adjust the type of joint (tight, regular, loose) by means of a thumb screw mechanism.

Tools for working long and cross grain on short workpieces.

The item does not include knives and support plates.

Diametro della testa con i coltelli: 150 mm.

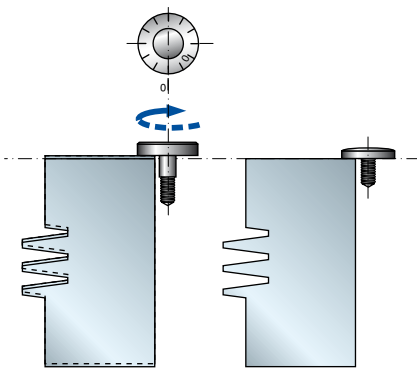
Vantaggi: Sullo stesso corpo possibilità di montaggio di differenti profili di giunzione (vedi pagina seguente). Possibilità di regolazione del gioco di accoppiamento (giunzione forzata, normale e lasca).

Utensili per la lavorazione lungo e traverso vena di pezzi corti.

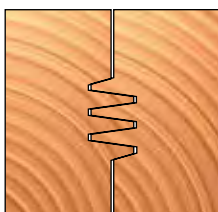
L'articolo non comprende i coltelli e i supporti.

D mm	B mm	d* mm	Z	R	Max RPM 1/min.	Code Codice	SAP SAP
136	55	35 (50)	4		9.600	TW01M AB3	F03FC20555

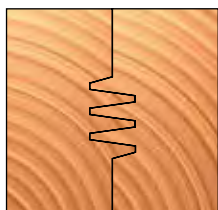
Spare parts Parti di ricambio		Dimensions Dimensioni mm	Code Codice	SAP SAP
	Wedge / Cuneo	53 x 19 x 8,5	CN11M C510A	F03FC24405
	Screw / Vite	M10 x 18	VT03M CC9	F03FA04438
	Screw / Vite	M5 x 8	VT08M AC9	F03FC20652
	Positioning plate / Piastrina di riscontro	22 x 1,7 x 19	VT18M GB9	F03FA04489
	Screw / Vite	M5 x 8	VT05M AA9	F03FA04444
	Screw / Vite	M4 x 6	2602M CE9	F03FA07349
	Screw / Vite	M3 x 8	2607M AB3	F03F010001
	Allen key / Chiave	5 x 110	CB03M EA9	F03FA00169



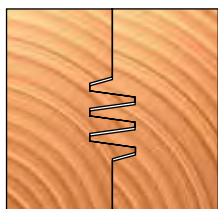
Adjustment examples: Esempi di regolazione:



Tight joint
Giunzione forzata



Regular joint
Giunzione normale

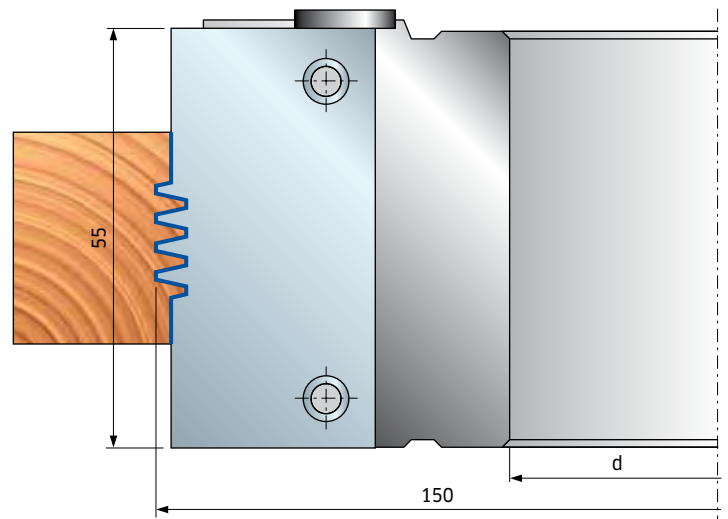


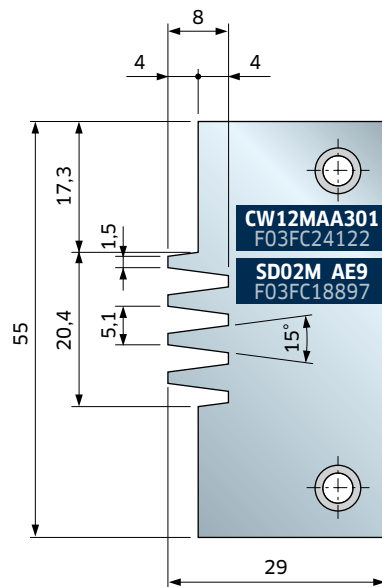
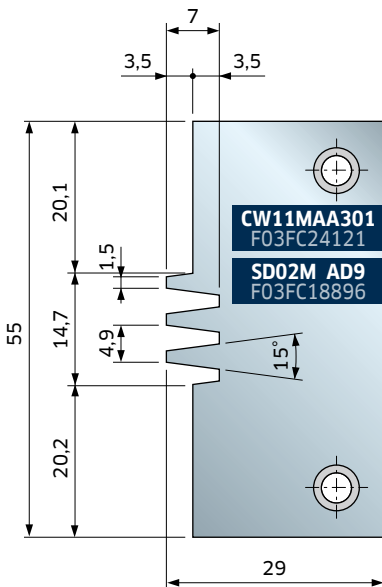
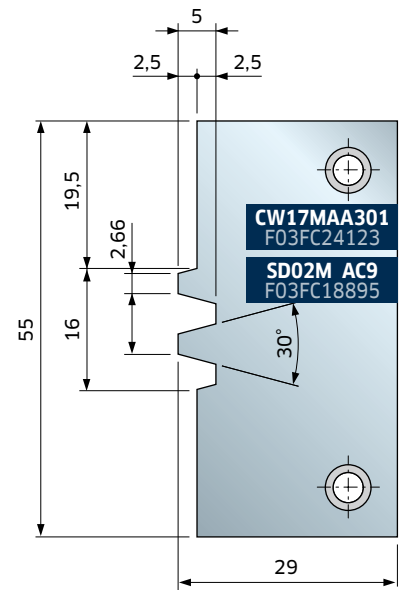
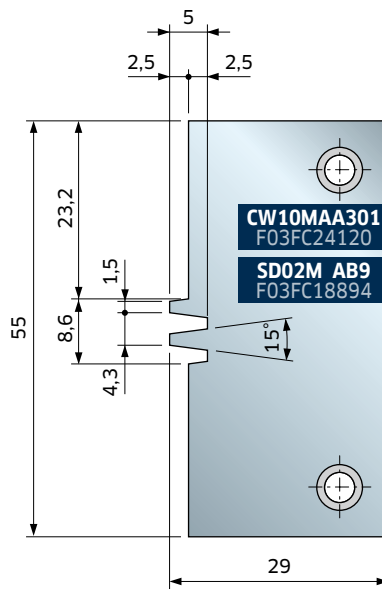
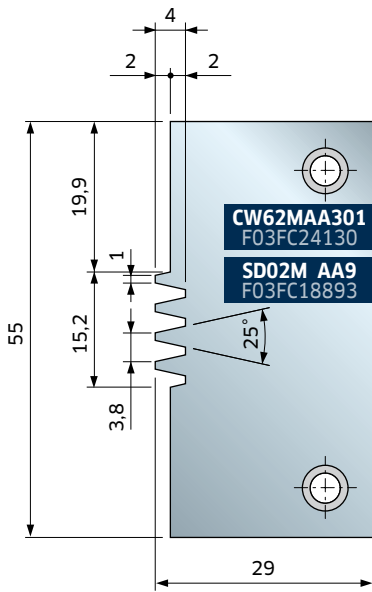
Loose joint
Giunzione lasca

Order example:

Esempio di ordinazione:

Item Articolo	SAP SAP	Dimensions Dimensioni mm	Quantity Quantità PCS. - PZ.
TW01M AB3	F03FC20555	136 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 Dimensioni mm	Spare knives Coltelli di ricambio	SAP SAP
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 Dimensioni mm	Spare support plates Supporti di ricambio	SAP SAP
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

TW24M

Adjustable finger joint cutterheads set Gruppi di teste per giunzioni regolabili

Tools for working long and cross grain on short workpieces. Adjustable for wood thicknesses between 40 and 70 mm.

Cutterhead supplied with resharpenable HW knives and spacers.

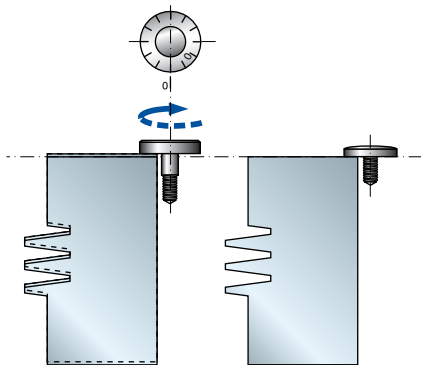
Utensili per la lavorazione lungo e trasverso vena di pezzi corti. Regolazione per spessore legno: 40÷70 mm.

Testa fornita di coltelli in HW riaffilabili e set anelli.

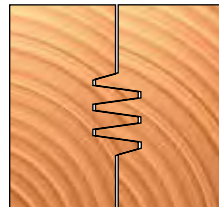


D mm	B mm	d* mm	Z	R	Max RPM 1/min.	Code Codice	SAP SAP
150		30	2+2		9.000	TW24M AA3	F03FC24412
150		32	2+2		9.000	TW24M AE3	F03FC24413
150		35 (50)	2+2		9.000	TW24M AB3	F03FC20568
150		40 (50)	2+2		9.000	TW24M AC3	F03FC20569

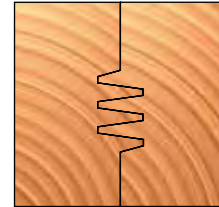
Spare parts Parti di ricambio		Dimensions Dimensioni mm	Code Codice	SAP SAP
	Knife for tool. "A" / Colt. testa "A"	45 x 30 x 3	CW24MAAA301	F03FC24128
	Knife for tool. "B" / Colt. testa "B"	45 x 30 x 3	CW24MBAA301	F03FC24129
	Screw / Vite	M5 x 7 x 16	VT08M AE9	F03FA04457
	Screw / Vite	M6 x 7 x 18	VT08M AG9	F03FC20653
	Wedge / Cuneo	41 x 17 x 8	CN11M B410A	F03FC01352
	Screw / Vite	M10 x 18	VT03M CC9	F03FA04438
	Screw / Vite	M4 x 6	2602M CE9	F03FA07349
	Allen key / Chiave	5 x 110	CB03M EA9	F03FA00169
	Allen key / Chiave a "L"	2	2619M BA9	F03FA07431
AA3	Set spacers / Set anelli	50 x 5,8 x 30	AN04M AC9	F03FC00500
AB3	Set spacers / Set anelli	55 x 5,8 x 35	AN04M BC9	F03FC00502
AC3	Set spacers / Set anelli	60 x 5,8 x 40	AN04M CC9	F03FC00503
AE3	Set spacers / Set anelli	82 x 5,8 x 32	AN04M EC9	F03FC24414



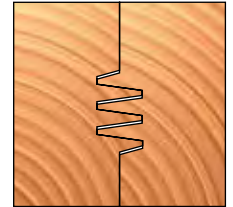
Adjustment examples: Esempi di regolazione:



Tight joint
Giunzione forzata

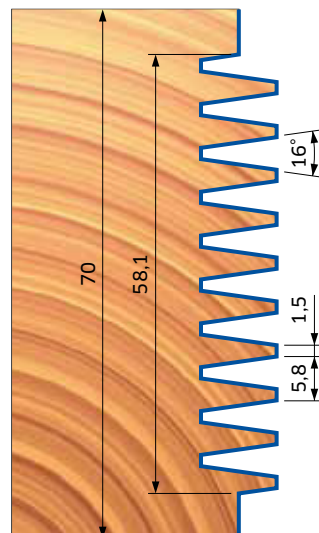
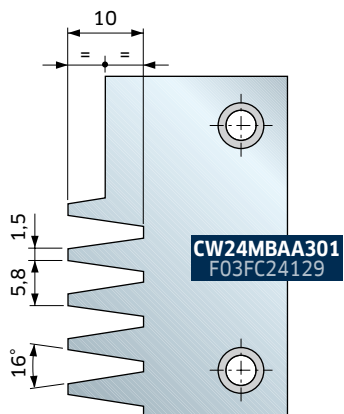
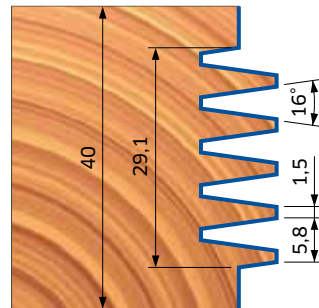
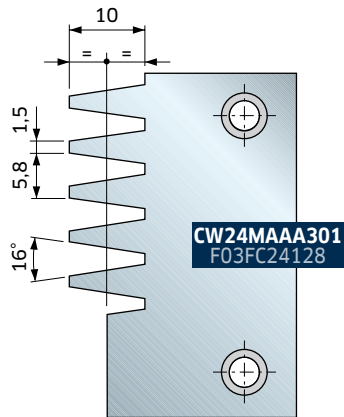
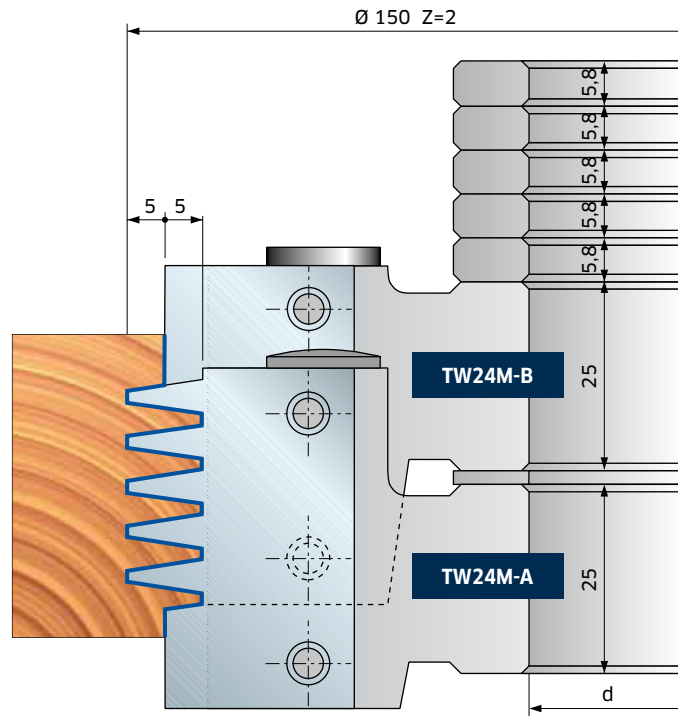


Regular joint
Giunzione normale



Loose joint
Giunzione lasca





TW05M



Enlargement of hard coating
Particolare del rivestimento



Finger joint cutterheads with resharpenable knives Teste per giunzioni con coltelli riaffilabili

Steel tool body with exchangeable knives. Individually replaceable knives if damaged. Always sharpen sets of tools to the same diameter. Finger joint machines with and without cut off saw.

- Advantages:
- Possibility of single knives substitution;
 - Same amount of regrinding options than brazed solution;
 - Easy maintenance.

PVD coating of the knives:

- Advantages:
- Great reduction of friction coefficient;
 - Longer lifetime.

Testa a fissaggio meccanico. Riaffilare sempre i coltelli in un pacco utensili allo stesso diametro. Utensili indicati per macchine con o senza lama intestatrice.

- Vantaggi:
- Sostituzione dei soli coltelli a fine vita degli stessi.
 - Numero di affilature uguale alla soluzione saldobrasata.
 - Facile manutenzione in caso di rottura accidentale.

Rivestimento PVD dei coltelli.

- Vantaggi:
- Riduzione di oltre metà del coefficiente d'attrito.
 - Durata di taglio superiore.

Tools (supplied without knives) - Utensile (fornito senza coltelli)

D mm	B mm	d* mm	Joint lenght L. giunzione mm	Z	Max RPM 1/min.	Code Codice	SAP SAP
160	30,4	40 (50)	10/10-10/11	4	8.500	TW05M CA9	F03FA18836
250	30,4	40 (50)	10/10-10/11	6	5.500	TW05M CC9	F03FA18837
170	30,4	40 (50)	15/15-15/16,5	4	8.000	TW05M DA9	F03FA18838
260	30,4	40 (50)	15/15-15/16,5	6	5.200	TW05M DC9	F03FA18839
180	37,2	40 (50)	20/20-20/22	4	7.500	TW05M EA9	F03FA18840
260	37,2	40 (50)	20/20-20/22	6	5.200	TW05M EC9	F03FA18841
160	30,4	50	10/10-10/11	4	8.500	TW05M50CA9	F03FA18973
250	30,4	50 (60)	10/10-10/11	6	5.500	TW05M50CC9	F03FA18974
170	30,4	50	15/15-15/16,5	4	8.000	TW05M50DA9	F03FA18975
260	30,4	50 (60)	15/15-15/16,5	6	5.200	TW05M50DC9	F03FA18976
180	37,2	50	20/20-20/22	4	7.500	TW05M50EA9	F03FA18977
260	37,2	50 (60)	20/20-20/22	6	5.200	TW05M50EC9	F03FA18978

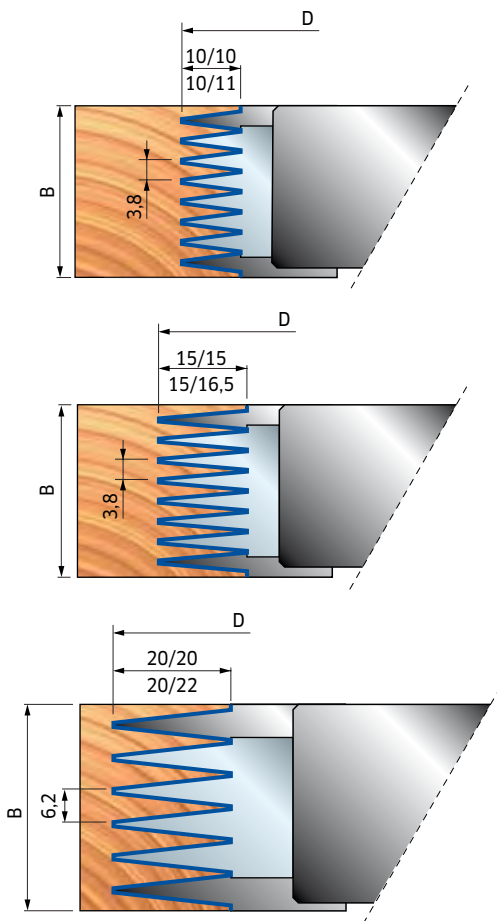
Spare knives - Coltelli di ricambio

Joint lenght Lunghezza giunzione mm	Pitch Passo mm	Dimensions Dimensioni mm	Code Codice	SAP SAP
10/10	3,8	28,4 x 38,5 x 14	CW05MCA201	F03FA18842
10/11	3,8	28,4 x 38,5 x 14	CW05MCB201	F03FA18843
15/15	3,8	28,4 x 43,5 x 14	CW05MDA201	F03FA18844
15/16,5	3,8	28,4 x 43,5 x 14	CW05MDB201	F03FA18845
20/20	6,2	32,5 x 48,5 x 14	CW05MEA201	F03FA18846
20/22	6,2	32,5 x 48,5 x 14	CW05MEB201	F03FA18847

L mm	Pitch Passo mm	B max mm	No. cutters N. teste
10/10 10/11	3,8	29,8	1
		60,2	2
		90,6	3
		121	4
		151,4	5
		181,8	6
		212,2	7
15/15 15/16,5	3,8	29,8	1
		60,2	2
		90,6	3
		121	4
		151,4	5
		181,8	6
		212,2	7
20/20 20/22	6,2	36,3	1
		73,6	2
		110,7	3
		147,9	4
		185,1	5
		222,3	6
		259,5	7

Table for determination of maximum wood thickness depending on the number of cutterheads used.

Tabella per determinare il massimo spessore legno lavorato in base al numero di teste utilizzate.



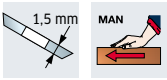
* Size shown between brackets is the max. rebore possible • La quota tra parentesi è la massima allargatura foro possibile

TG08M

Adjustable bevel cutterheads with disposable knives Teste ad inclinazione regolabile

Rebore not available.

Non è consentita l'allargatura del foro.



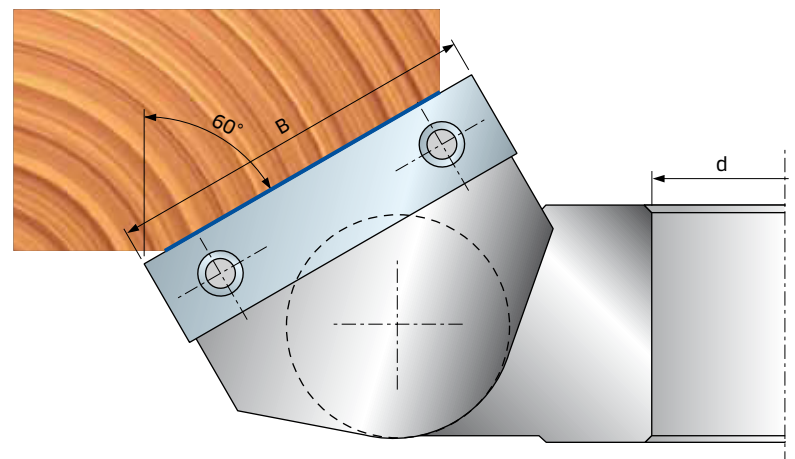
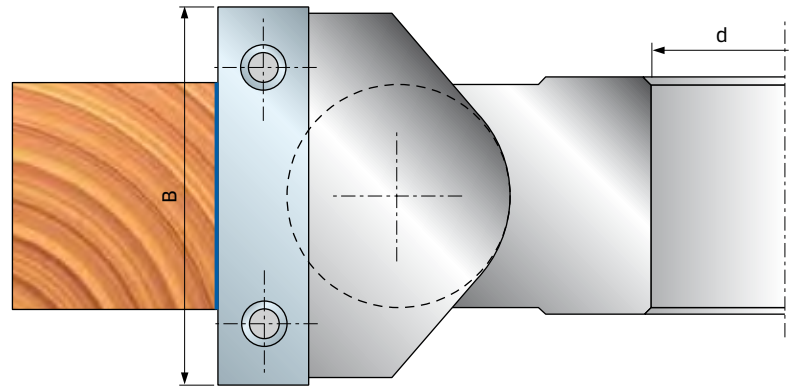
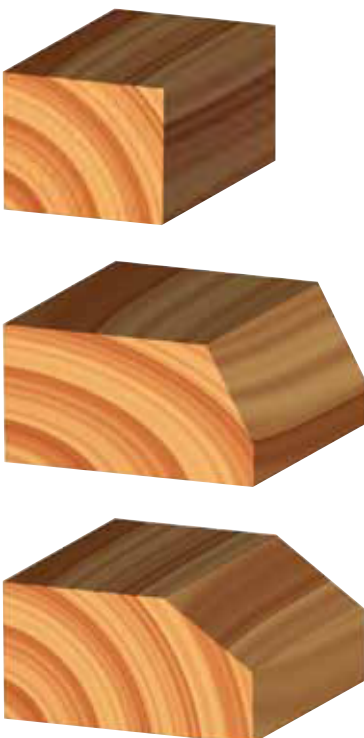
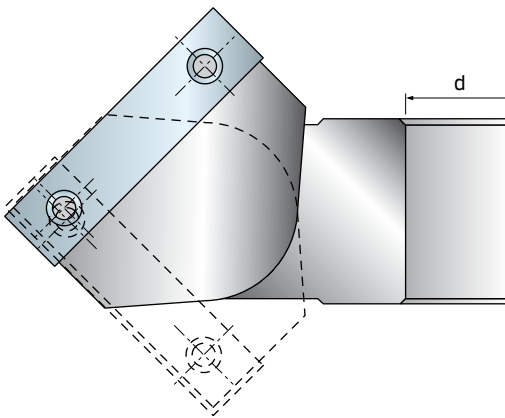
D mm	B mm	d mm	Z	R	Max RPM 1/min.	Code Codice	SAP SAP
120	40	30	2		8.500	TG08M LA3	F03FA04245
150	50	30	2		7.400	TG08M MA3	F03FA04246
150	50	35	2		7.400	TG08M MB3	F03FA04247
150	50	40	2		7.400	TG08M MC3	F03FA04248

	Spare parts Parti di ricambio	Dimensions Dimensioni mm	Code Codice	SAP SAP
	Screw / Vite	M5 x 16	2607M CF9	F03FA07367
	Screw / Vite	M6 x 8	VT03M DE9	F03FA04439
	Nut / Ogiva	12 x 12 x 6	VT20M DC9	F03FA04502
	Nut / Ogiva	12 x 10 x M5	VT20M DB9	F03FA04501
	Allen key / Chiave a "L"	3	2619M DA9	F03FA07433
	Allen key / Chiave	4 x 110	CB03M BA9	F03FA00163
ø 150 ø 120	Knife / Coltello	40 x 12 x 1,5	CG01MLA310	F03FH02872
	Wedge / Cuneo	38 x 11 x 6	CN03M DA9	F03FA00588
	Knife / Coltello	50 x 12 x 1,5	CG01MFA310	F03FH02851
	Wedge / Cuneo	48 x 11 x 6	CN03M DB9	F03FA00589

Minimum adjustment obtainable is 1 degree.

La regolazione minima ottenibile è di 1°.

Diameter Diametro mm	Inclination Inclinazione	
	Min.	Max.
120	0°	60°
150	0°	90°



TG09M

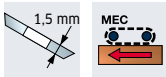
Adjustable bevel cutterheads with disposable knives Teste ad inclinazione regolabile

Mostly suitable for chamfering on wood and composites. The particular knife locking system guarantees an angle regulation up to 90° or 75° (please refer to the drawings). Rebore not available.

Ideale per la smussatura su legno e suoi derivati.

Il particolare sistema di bloccaggio dei taglienti garantisce l'esecuzione di smussi con una regolazione dell'angolo fino a 90° o 75° (v. disegni).

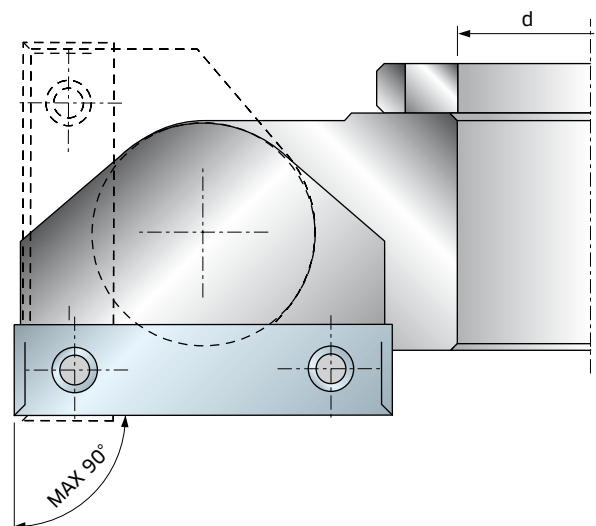
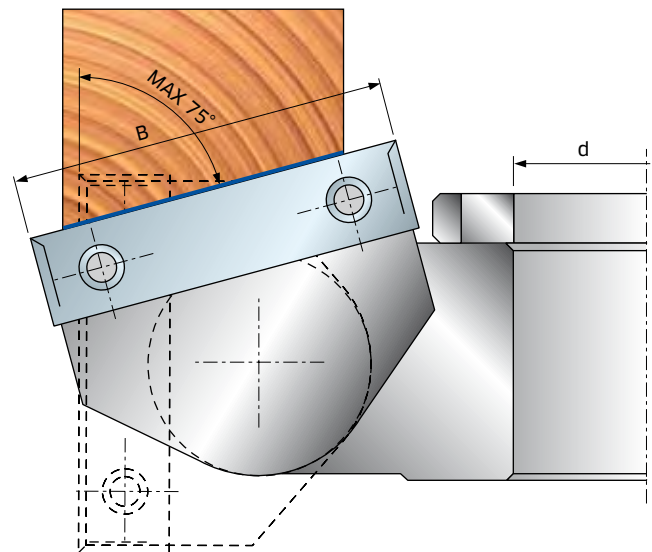
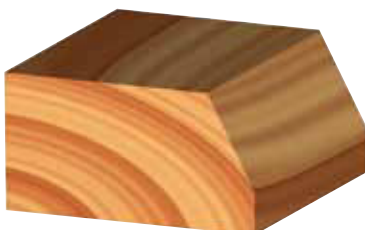
Non è consentita l'allargatura del foro.



D mm	B mm	d mm	Z	R	Max RPM 1/min.	Code Codice	SAP SAP
165	50	30	2	4	6.000	TG09M AA3	F03FC23044
165	50	35	2	4	6.000	TG09M AB3	F03FC20225
165	50	40	2	4	6.000	TG09M AC3	F03FC20226
165	50	50	2	4	6.000	TG09M AD3	F03FC20227

Spare parts Parti di ricambio		Dimensions Dimensioni mm	Code Codice	SAP SAP
	Spur / Rasante	14 x 14 x 2	RG01MAA310	F03FH03034
	Screw / Vite	M5 x 8	VT05M AA9	F03FA04444
	Knife / Coltello	50 x 12 x 1,5	CG01MFA310	F03FH02851
	Screw / Vite	M6 x 16	VT03M DI9	F03FA04440

with graduated ring
con ghiera graduata



T111M - T112M

Z = 4

Z = 4+4

Cutterheads for rebates

Teste per battute

Can be used on CNC machines.

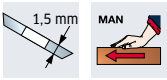
Rebore not available.

Light alloy body (Aluminum alloy). For cleaning do not use products containing caustic soda.

Utilizzabile su pantografo.

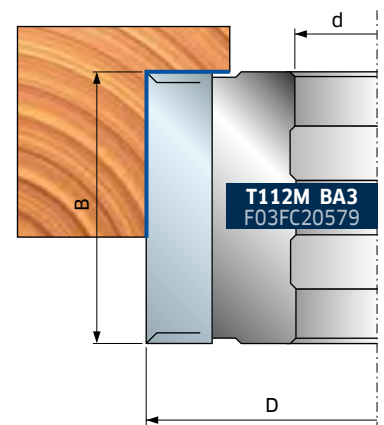
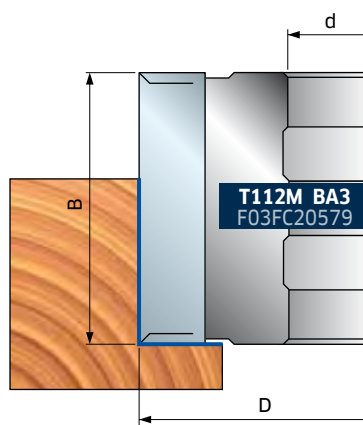
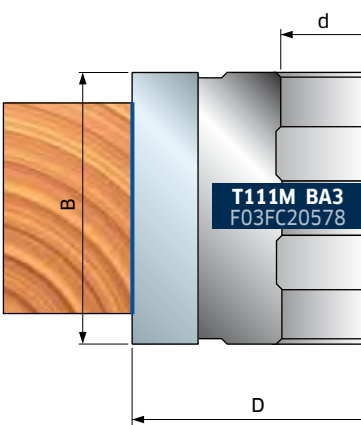
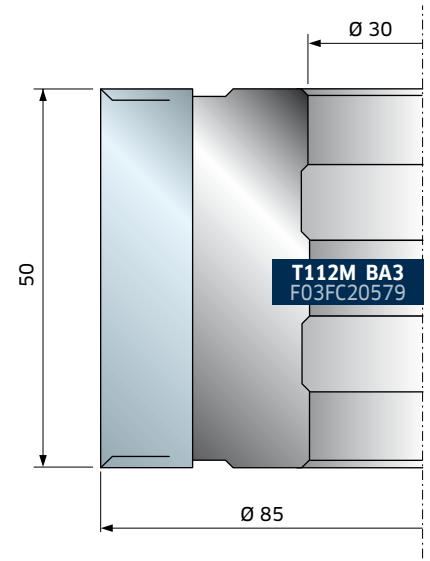
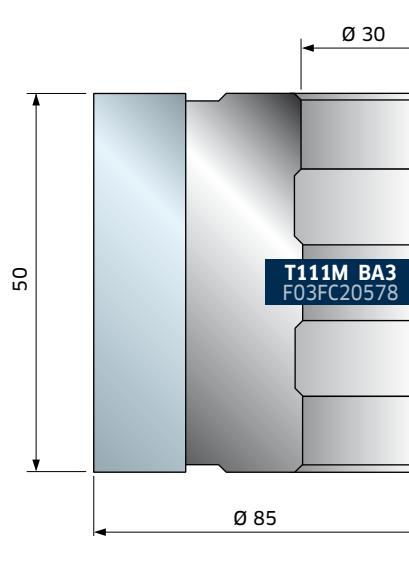
Non è consentita l'allargatura del foro.

Corpo in lega leggera (Lega di alluminio). Per la pulizia non utilizzare prodotti contenenti soda caustica.



D mm	B mm	d mm	Z	R	Max RPM 1/min.	Code Codice	SAP SAP
85	50	30	4		12.000	T111M BA3	F03FC20578
85	50	30	4	4	12.000	T112M BA3	F03FC20579

Spare parts Parti di ricambio		Dimensions Dimensioni mm	Code Codice	SAP SAP
	Knife / Coltello	50 x 12 x 1,5	CG01MFA310	F03FH02851
	Screw / Vite	M8 x 16	VT03M AA9	F03FA04435
	Wedge / Cuneo	46	CN01M KA9	F03FC01255
	Allen key / Chiave a "L"	4	2619M EA9	F03FA07434
	Torx key / Chiave Torx	T20	CB03M CC9	F03FA00167
T112M	Spur / Rasante	14 x 14 x 2	RG01MAA310	F03FH03034
	Screw / Vite	M5 x 8	VT05M AA9	F03FA04444



T191M - T192M

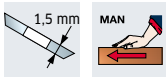
Z = 4

Z = 2

Cutterheads for rebates

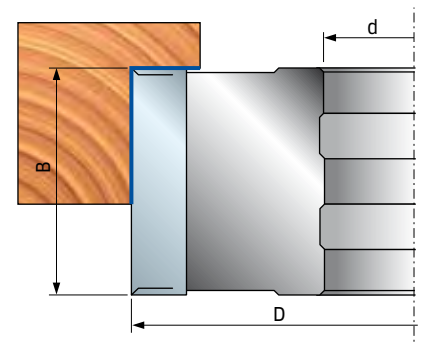
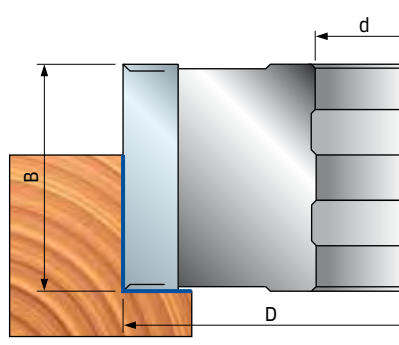
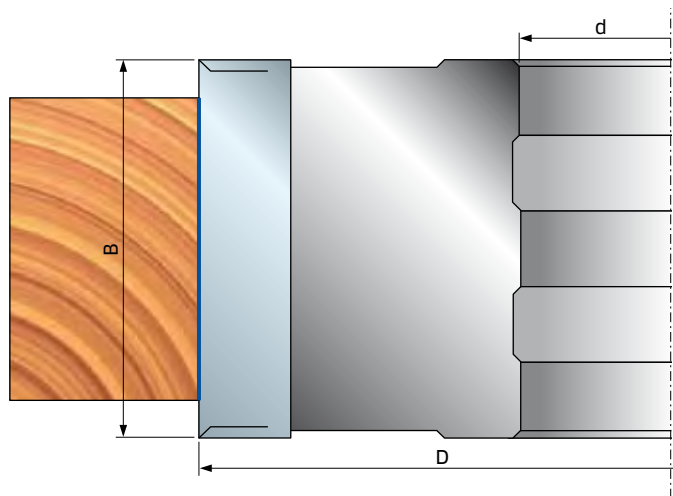
Teste per battute

Tools with alternate shear angle.
Utensili con angolo assiale alterno.



D mm	B mm	d* mm	Z	R	Max RPM 1/min.	Code Codice	SAP SAP
125	50	30 (50)	4	4	10.600	T191M BA3	F03FC20600
125	50	35 (50)	4	4	10.300	T191M BB3	F03FC20601
125	50	40 (50)	4	4	10.300	T191M BC3	F03FC20602
125	50	50	4	4	10.600	T191M BD3	F03FC20603
125	50	40 (50)	2	4	10.600	T192M BC3	F03FC20605

Spare parts Parti di ricambio	Dimensions Dimensioni mm	Code Codice	SAP SAP
	Knife / Coltello 50 x 12 x 1,5	CG01MFA310	F03FH02851
	Wedge / Cuneo 15 x 46 x 8	CN09M AP9	F03FC01290
	Screw / Vite M10 x 22	VT19M MA9	F03FA04496
	Screw / Vite M5 x 8	VT05M AA9	F03FA04444
	Nut / Ogiva 15 x 13,3 x 10	VT20M MA9	F03FC20670
	Spur / Rasante 14 x 14 x 2	RG01MAA310	F03FH03034
	Allen key / Chiave 5 x 110	CB03M EA9	F03FA00169
	Torx key / Chiave Torx T20	CB03M CC9	F03FA00167



* Size shown between brackets is the max. rebore possible • La quota tra parentesi è la massima allargatura foro possibile

T194M - T195M

Z = 4

Z = 2

Cutterheads for rebates

Teste per battute

Tools with alternate shear angle.

With seat pockets for bevelling inserts (not included):

IG61MS or radius inserts IG62MS (R= 1,5 - 2 - 3 mm) for T194M

IG01M BA3 or radius inserts IG02M (R= 1 - 1,5 - 2 - 3 mm) for T195M.

Light alloy body (Aluminum alloy). For cleaning do not use products containing caustic soda.

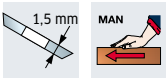
Utensili con angolo assiale alterno.

Con sedi per il montaggio dei seguenti inserti (non inclusi):

IG61MS (smussatori) e IG62MS (R= 1,5 - 2 - 3 mm) per T194M

IG01M BA3 (smussatore) e IG02M (R= 1 - 1,5 - 2 - 3 mm) per T195M.

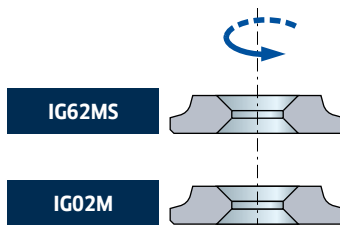
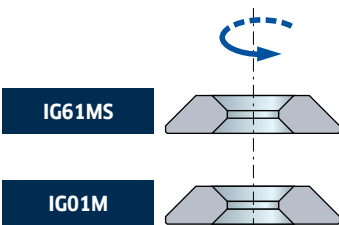
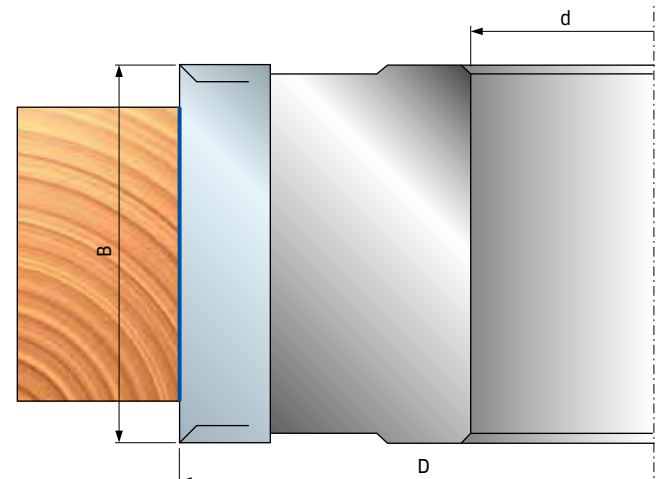
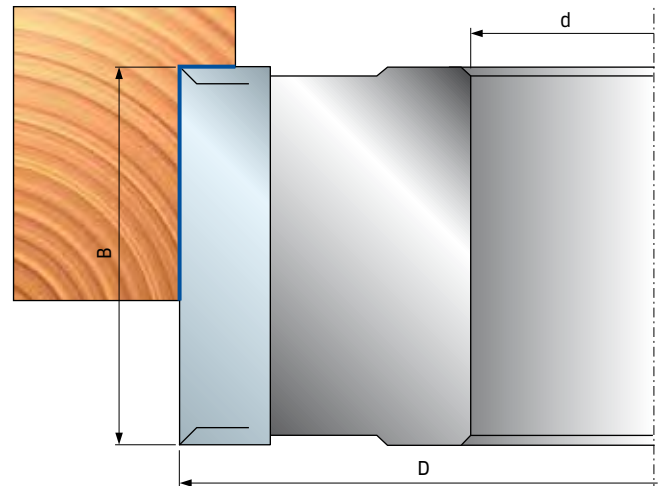
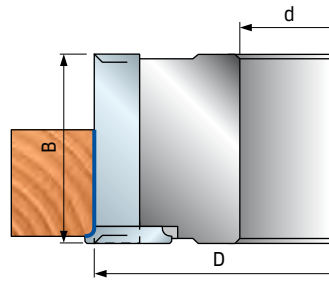
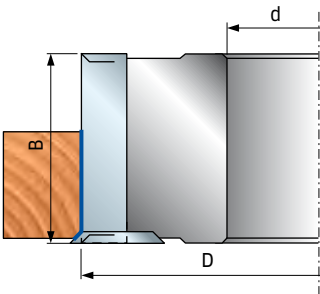
Corpo in lega leggera (Lega di alluminio). Per la pulizia non utilizzare prodotti contenenti soda caustica.



D mm	B mm	d* mm	Z	R	Max RPM 1/min.	Code Codice	SAP SAP
125	30	32	4	4	10.300	T194M AC3	F03F668307
125	50	32	4	4	10.300	T194M BC3	F03F668308
125	30	35 (50)	4	4	10.300	T194M AB3	F03FC20607
125	50	35 (50)	4	4	10.300	T194M BB3	F03FC20608
125	50	35 (50)	2	4	10.300	T195M BB3	F03FC20610

Spare parts Parti di ricambio		Dimensions Dimensioni mm	Code Codice	SAP SAP	
	Spur / Rasante	14 x 14 x 2	RG01MAA310	F03FH03034	
	Screw / Vite	M5 x 8	VT05M AA9	F03FA04444	
	Screw / Vite	M10 x 22	VT19M MA9	F03FA04496	
	Screw / Vite	M6 x 14,5	VT16M AA9	F03FA04476	
	Nut / Ogiva	15 x 13,3 x 10	VT20M MA9	F03FC20670	
	Allen key / Chiave	5 x 110	CB03M EA9	F03FA00169	
	Torx key / Chiave Torx	T20	CB03M CC9	F03FA00167	
BB3 BC3 AC3		Knife / Coltello	30 x 12 x 1,5	CG01MEA310	F03FH02737
		Wedge / Cuneo	15 x 26 x 8	CN09M AD9	F03FC01283
		Knife / Coltello	50 x 12 x 1,5	CG01MFA310	F03FH02851
		Wedge / Cuneo	15 x 46 x 8	CN09M AP9	F03FC01290

Application examples Esempi di applicazione



T193M

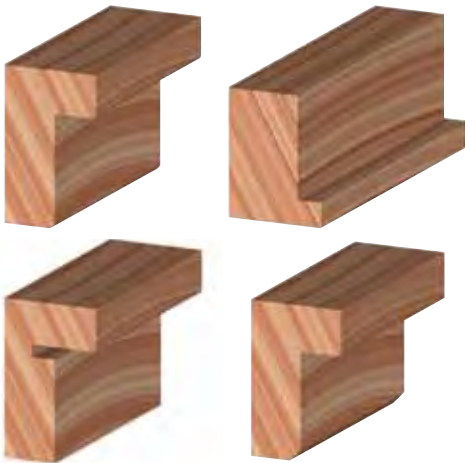
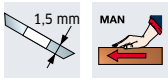
Cutterheads for rebates Teste per battute

Tools with alternate shear angle.

Light alloy body (Aluminum alloy). For cleaning do not use products containing caustic soda.

Utensili con angolo assiale alterno.

Corpo in lega leggera (Legga di alluminio). Per la pulizia non utilizzare prodotti contenenti soda caustica.



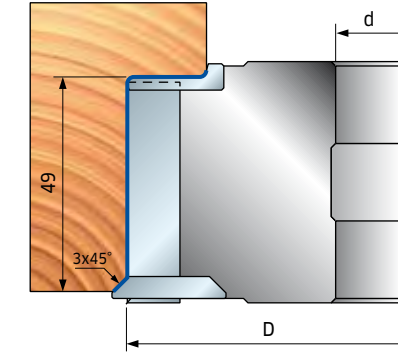
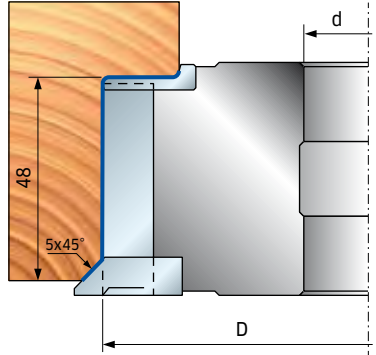
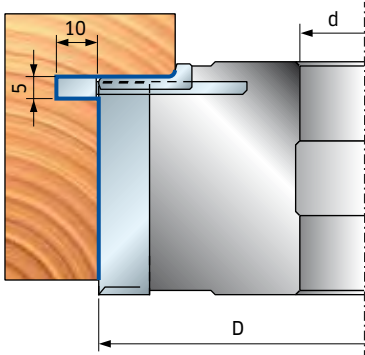
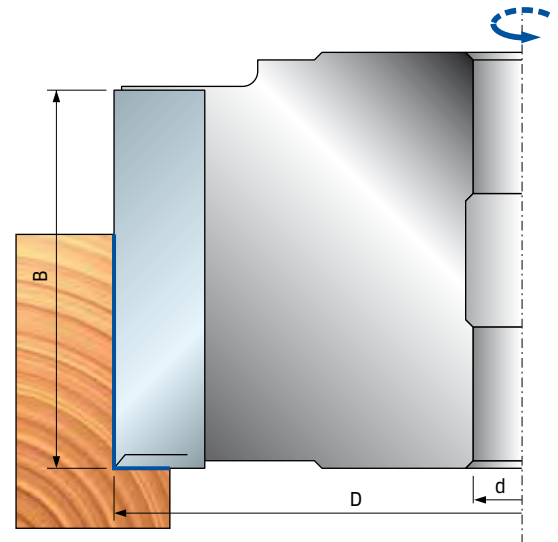
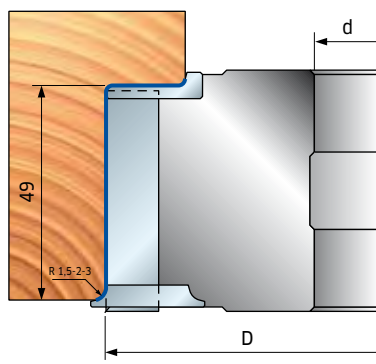
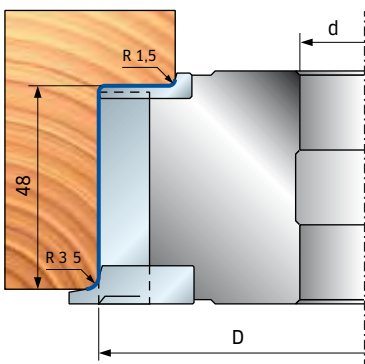
D mm	B mm	d* mm	Z	R	Max RPM 1/min.	Code Codice	SAP SAP
125	50	32	4	2	10.300	T193M BC3	F03F668306
125	50	30 (50)	4	2	10.300	T193M BA3	F03FC20606

Spare parts Parti di ricambio	Dimensions Dimensioni mm	Code Codice	SAP SAP
	Knife / Coltello 50 x 12 x 1,5	CG01MFA310	F03FH02851
	Wedge / Cuneo 15 x 46 x 8	CN09M AP9	F03FC01290
	Nut / Ogiva 15 x 13,3 x 10	VT20M MA9	F03FC20670
	Screw / Vite M10 x 22	VT19M MA9	F03FA04496
	Spur / Rasante 14 x 14 x 2	RG01MAA310	F03FH03034
	Screw / Vite M5 x 8	VT05M AA9	F03FA04444
	Adjustment ring / Rondella di reg. 16 x 11,9 x 2,6	VT18M AG9	F03FC20660
	Screw / Vite M6 x 10	2622M CB9	F03FA07455
	Allen key / Chiave 5 x 110	CB03M EA9	F03FA00169
	Allen key / Chiave 4 x 110	CB03M BA9	F03FA00163
	Torx key / Chiave Torx T20	CB03M CC9	F03FA00167

Tool with seat pockets for the following inserts (not included):

Utensile con sedi per il montaggio dei seguenti inserti (non inclusi):

Inserts Inserti	Screw type and dimensions Tipo e dimensioni viti	Code screws Codice viti	SAP SAP	Pcs Pz.
IG25M	M6 x 10	2622M CB9	F03FA07455	2
IG61M-IG62M-IG51M-IG52M	M6 x 14,5	VT16M AA9	F03FA04476	2
IG33M	M6 x 18,5	VT16M AC9	F03FC20656	2
SR11MD	M5 x 8	VT05M AA9	F03FA04444	4



* Size shown between brackets is the max. rebore possible • La quota tra parentesi è la massima allargatura foro possibile

T198M

Adjustable rebate and grooves cutterheads sets with disposable knives

Gruppi di teste per incastri e battute regolabili

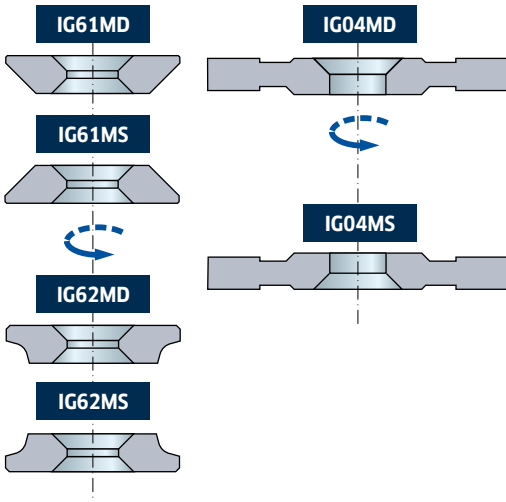
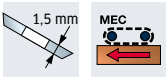
Tools with shear angle. Rebore not available. With seat pockets for bevelling inserts IG61MS or radius inserts IG62MS (R= 1,5; 2; 3 mm) and for grooving inserts IG04MD/S AA3 and AB3.

Utensili con angolo assiale. Non è consentita l'allargatura del foro.

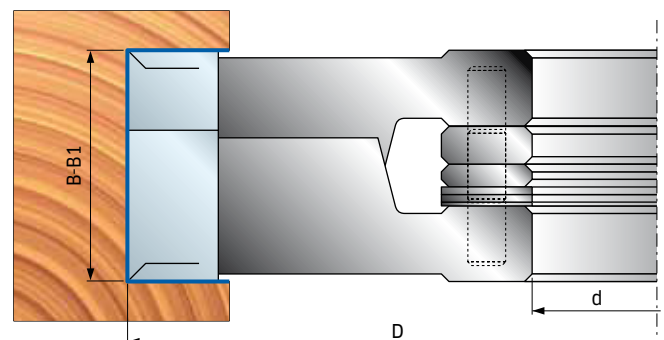
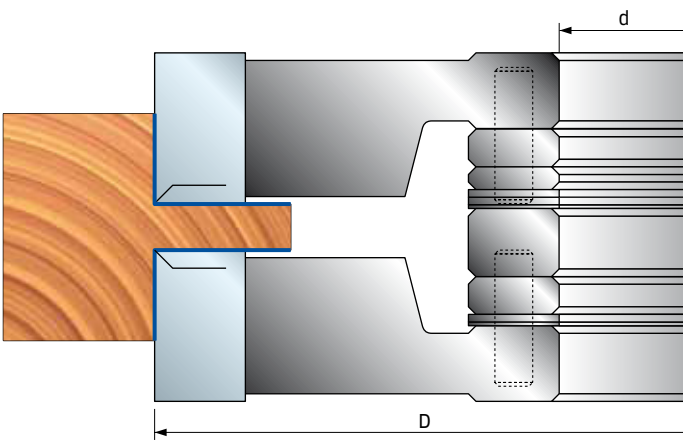
Con sedi per il montaggio di inserti IG61MS (smussatori) e IG62MS (R= 1,5; 2; 3 mm) e di inserti per incastri IG04MD/S AA3 e AB3.



D mm	B-B1 mm	d mm	Z	R	Max RPM 1/min.	Code Codice	SAP SAP
140	20,5-39	30	4	4	9.600	T198M FA3	F03FC22428
140	20,5-39	32	4	4	9.600	T198M FD3	F03FC24270
140	20,5-39	35	4	4	9.600	T198M FB3	F03FC20612
140	20,5-39	40	4	4	9.600	T198M FC3	F03FC20613
140	30,4-59	30	4	4	9.600	T198M GA3	F03FC22590
140	30,4-59	32	4	4	9.600	T198M GD3	F03FC24271
140	30,4-59	35	4	4	9.600	T198M GB3	F03FC20614
140	30,4-59	40	4	4	9.600	T198M GC3	F03FC20615

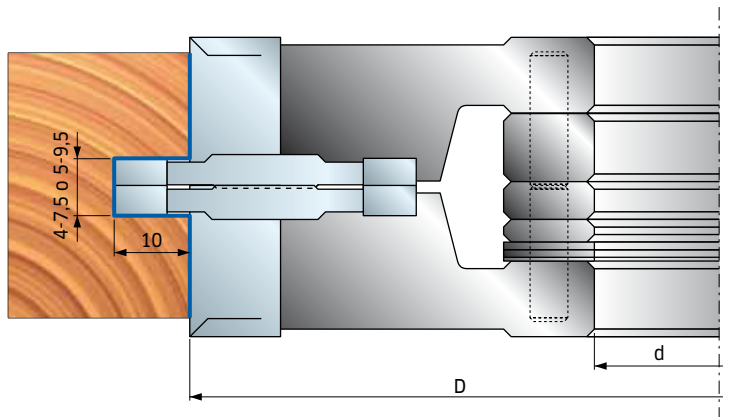
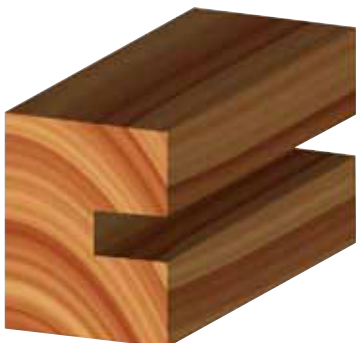
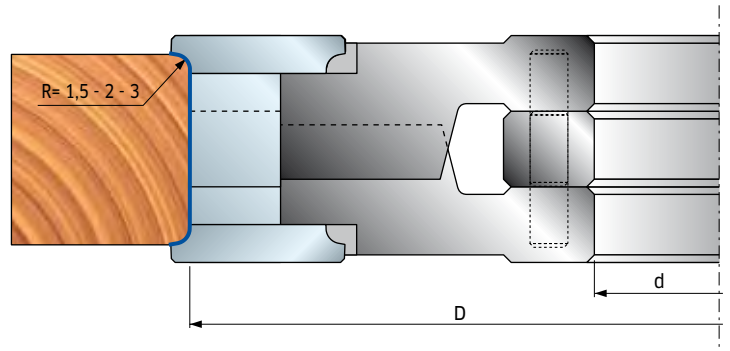
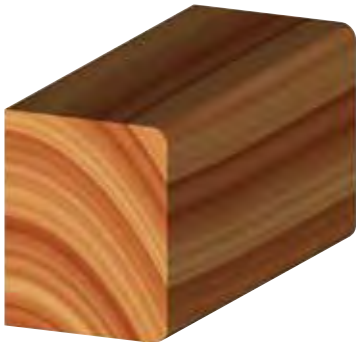
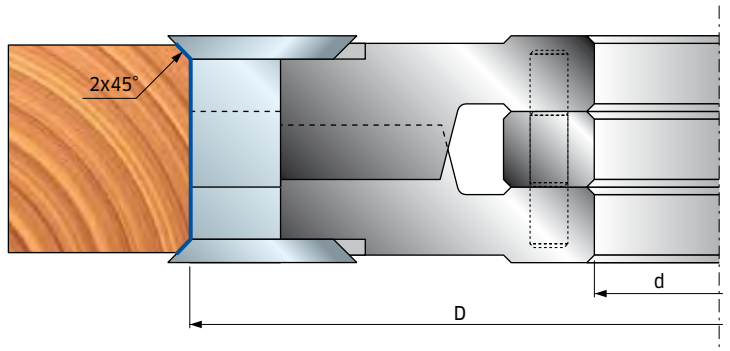
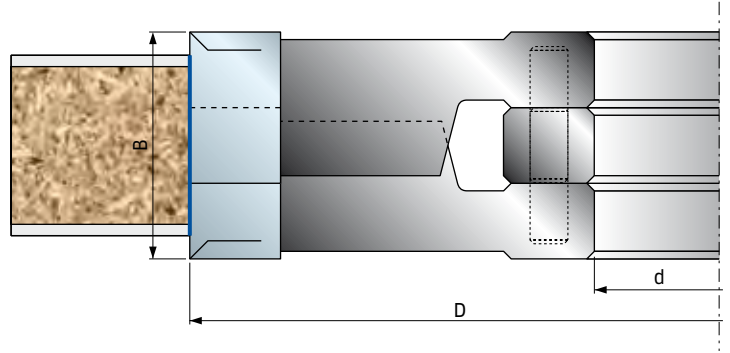


	Spare parts Parti di ricambio	Dimensions Dimensioni mm	Code Codice	SAP SAP
	Spur / Rasante	14 x 14 x 2	RG01MAA310	F03FH03034
	Nut / Ogiva	15 x 13,3 x 10	VT20M NA9	F03FC20671
	Screw / Vite	M10 x 22	VT19M MA9	F03FA04496
	Screw / Vite	M6 x 14,5	VT16M AA9	F03FA04476
	Screw / Vite	M5 x 8	VT05M AA9	F03FA04444
	Allen key / Chiave	5 x 110	CB03M EA9	F03FA00169
FA3	Spacers set / Set anelli	50 x 20 x 30	AN13M BA9	F03FC22427
FB3	Spacers set / Set anelli	55 x 20 x 35	AN13M BB9	F03FC00543
FC3	Spacers set / Set anelli	60 x 20 x 40	AN13M CB9	F03FC00545
FD3	Spacers set / Set anelli	52 x 21,1 x 32	AN13M BE9	F03FC24531
FA3	Knife / Coltello	20 x 12 x 1,5	CG01MDA310	F03FH02727
FB3	Wedge / Cuneo	15 x 16 x 8	CN09MD A09	F03FC01306
FC3	Wedge / Cuneo	15 x 16 x 8	CN09MS A09	F03FC01331
FD3	Wedge / Cuneo	15 x 16 x 8	CN09MS A09	F03FC01331
GA3	Spacers set / Set anelli	50 x 30 x 30	AN13M BD9	F03FC22591
GB3	Spacers set / Set anelli	55 x 30 x 35	AN13M BC9	F03FC00544
GC3	Spacers set / Set anelli	60 x 30 x 40	AN13M CC9	F03FC00546
GD3	Spacers set / Set anelli	52 x 31,1 x 32	AN13M BF9	F03FC24532
GA3	Knife / Coltello	30 x 12 x 1,5	CG01MEA310	F03FH02737
GB3	Wedge / Cuneo	15 x 26 x 8	CN09MD AD9	F03FC01300
GC3	Wedge / Cuneo	15 x 26 x 8	CN09MS AD9	F03FC01326
GD3	Wedge / Cuneo	15 x 26 x 8	CN09MS AD9	F03FC01326



T198M

Example of profiles Esempi di profili realizzabili

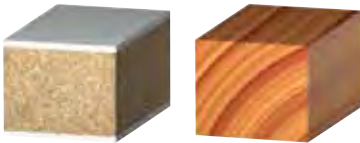
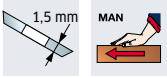


T199M

Adjustable rebate cutterheads sets with disposable knives Gruppi di teste per incastri e battute regolabili

Tools with shear angle.

Utensili con angolo assiale.



D mm	B-B1 mm	d* mm	Z	R	Max RPM 1/min.	Code Codice	SAP SAP
140	30,4-59	30 (50)	4	4	9.600	T199M GA3	F03FC20624
140	30,4-59	32 (50)	4	4	9.600	T199M GD3	F03FC24474
140	30,4-59	35 (50)	4	4	9.600	T199M GB3	F03FC20625
140	30,4-59	40 (50)	4	4	9.600	T199M GC3	F03FC20626

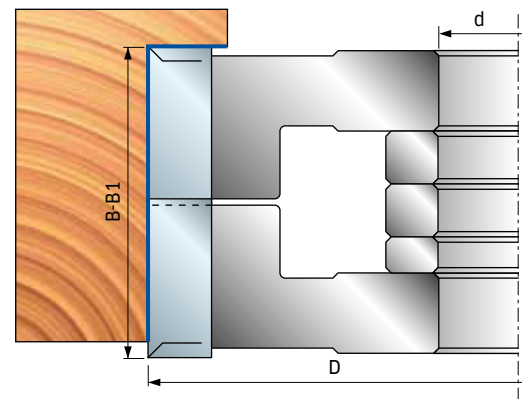
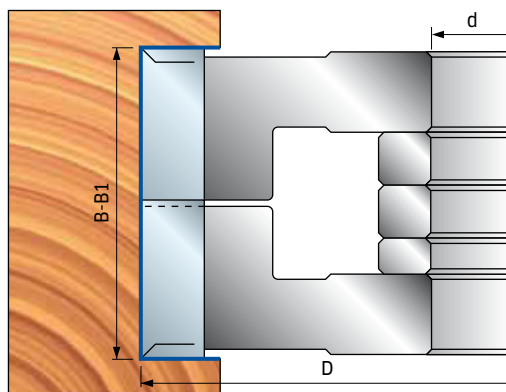
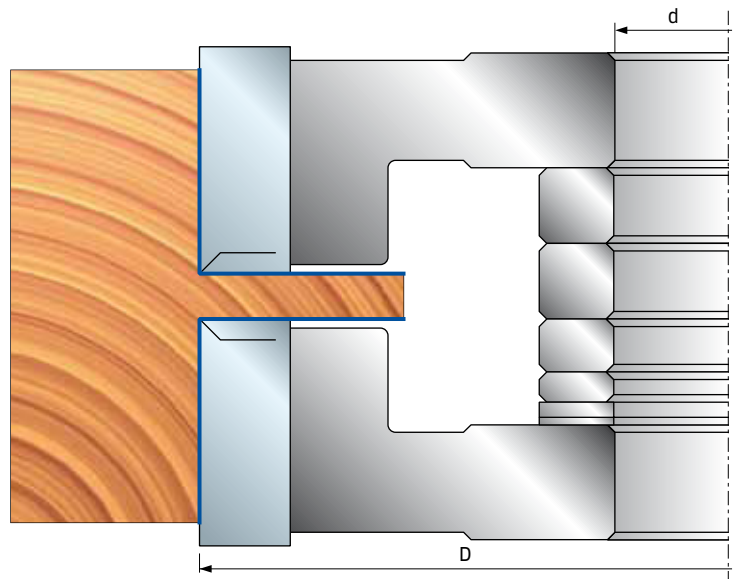
	Spare parts Parti di ricambio	Dimensions Dimensioni mm	Code Codice	SAP SAP
	Coltello / Knife	30 x 12 x 1,5	CG01MEA310	F03FH02737
	Cuneo / Wedge	12,3 x 26 x 8	CN01MD GA9	F03FC01263
	Cuneo / Wedge	12,3 x 26 x 8	CN01MS GA9	F03FC01266
	Vite / Screw	M5 x 8	VT05M AA9	F03FA04444
	Rasante / Spur	14 x 14 x 2	RG01MAA310	F03FH03034
	Vite / Screw	M8 x 16	VT03M AA9	F03FA04435
	Chiave / Allen key	4 x 110	CB03M BA9	F03FA00163
	Allen key / Chiave	5 x 110	CB03M EA9	F03FA00169
	Torx key / Chiave Torx	T20	CB03M CC9	F03FA00167
GA3	Spacer set / Set anelli	50 x 30 x 30	AN03M AC9	F03FC00446
GB3	Spacer set / Set anelli	55 x 30 x 35	AN03M BC9	F03FC00456
GC3	Spacer set / Set anelli	60 x 30 x 40	AN03M CC9	F03FC00467
GD3	Spacer set / Set anelli	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

Set da 10 anelli:

Spessore: 0,1 - 0,2 - 0,3 - 0,5 - 1 - 2 - 3 - 6 - 8 - 10 mm



FI22M

Brazed cutters Frese per incastri

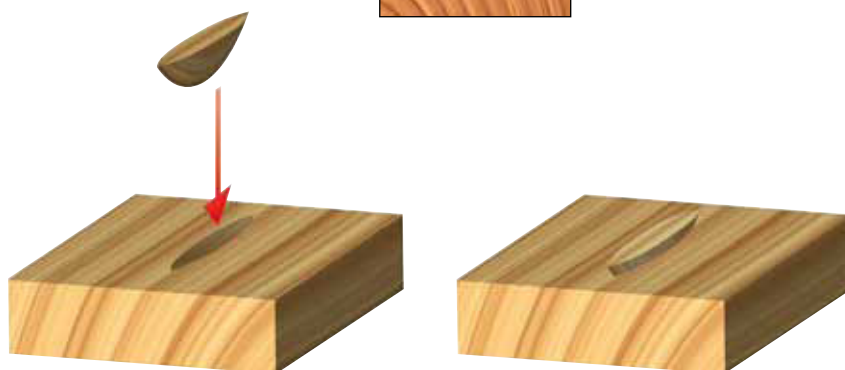
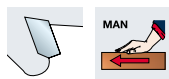
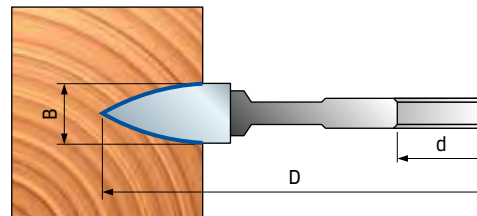
Brazed cutter with non-stick coated body. Device for patching resin pockets, cracks, damaged edges and other wood flaws.

Fresa con corpo rivestito in materiale antiaderente, utilizzata per la riparazione di sacche di resina, fessure, bordi danneggiati ed altre imperfezioni del legno.



D mm	B mm	d mm	Z	R	Max RPM 1/min.	Code Codice	SAP SAP
100	8	22	4		13.300	FI22M AB3	F03F500680

Patch "minispot"
Inserito "minispot"



MINISPOT is a mark owned by LAMELLO AG. - Il marchio MINISPOT è di proprietà di LAMELLO AG.

FI02M

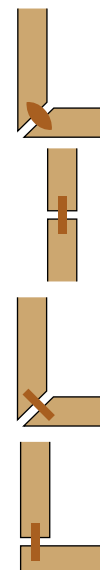
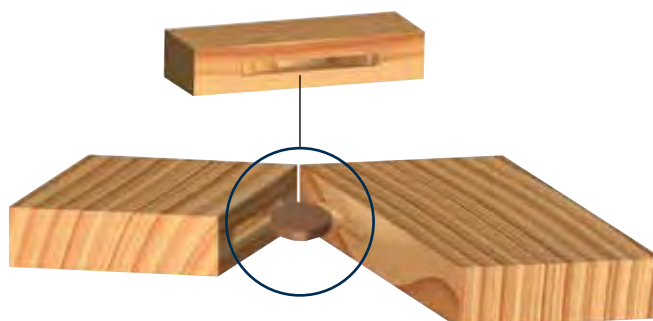
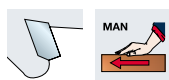
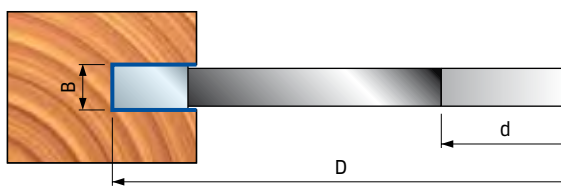
Brazed cutters for biscuit joiners Frese per incastri

Brazed cutter with anti-kickback device for good quality grooving on soft and hardwood, both cross cutting and ripping, on chipboard, compressed laminated woods and MDF.

Fresa con limitatore di truciolo per incastri di ottima qualità su legni teneri e duri lungo vena e trasverso vena; su multistrato, truciolari, laminati ed MDF.



D mm	B mm	d mm	Z	R	Max RPM 1/min.	Code Codice	SAP SAP
100	3,95	22	6		23.000	FI02M BX3	F03F500656



FI02M

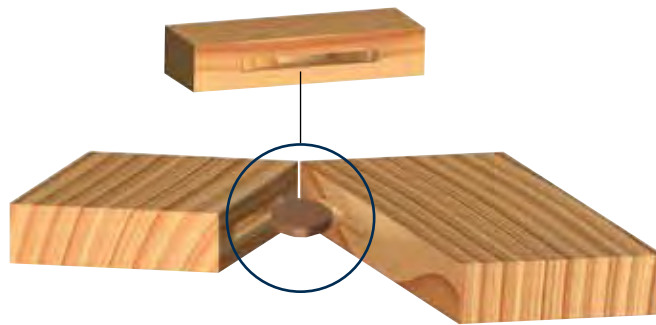
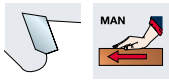
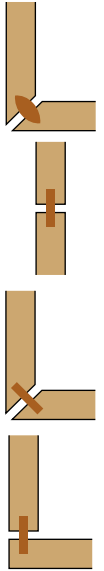
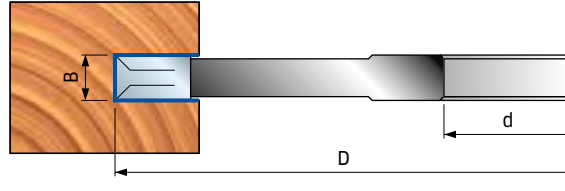
Grooving cutters with spurs Frese per incastri con rasanti

Brazed cutter with anti-kickback device for good quality grooving on soft and hardwood, both cross cutting and ripping, on chipboard, compressed laminated woods and MDF.

Fresa con limitatore di truciolo per incastri di ottima qualità su legni teneri e duri lungo vena e trasverso vena; su multistrato, truciolari, laminati ed MDF.



D mm	B mm	d mm	Z	R	Max RPM 1/min.	Code Codice	SAP SAP
100	4	22	2	4	13.300	FI02M BZ3	F03FS00658



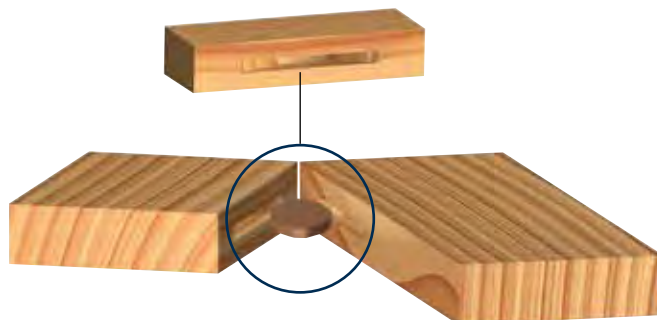
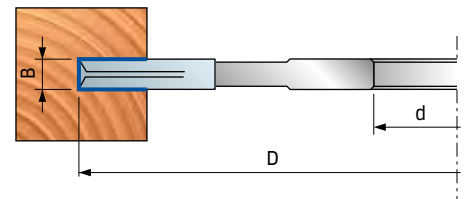
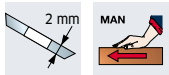
TG13M

Grooving cutterheads Teste per incastri

D mm	B mm	d mm	Z	R	Max RPM 1/min.	Code Codice	SAP SAP
100	4	22	4	4	10.500	TG13M AA3	F03FC20271



Spare parts Parti di ricambio		Dimensions Dimensioni mm	Code Codice	SAP SAP
	Coltello / Knife	18 x 1,9 x 18	CG03MAA310	F03FH02876
	Ghiera / Nut	11,6 x 1,5 x 4	VT18M BA9	F03FA04483
	Rasante / Spur	14 x 14 x 2	RG01MAA310	F03FH03034
	Ghiera / Nut	9,4 x 1,7 x 4	VT18M DA9	F03FA04487
	Vite / Screw	M4 x 3,2	VT05M BB9	F03FA04447
	Chiave Torx / Torx key	T9	CB03M CA9	F03FA00165



FI02M

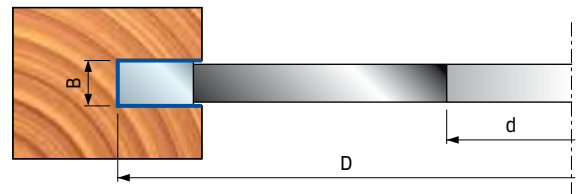
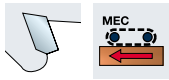
Grooving cutters Frese per incastri

Brazed cutters for good quality grooving on soft and hardwood, both cross cutting and ripping, on chipboard, compressed laminated woods and MDF.

Frese per incastri di ottima qualità su legni teneri e duri lungo vena e trasverso vena; su multistrato, truciolari, laminati ed MDF.



D mm	B mm	d* mm	Z	R	Max RPM 1/min.	Code Codice	SAP SAP
120	4	35 (40)	6		12.000	FI02M CD3	F03FS00659
120	6	35 (40)	6		12.000	FI02M CI3	F03FS00660
140	4	35 (50)	6		10.000	FI02M FE3	F03FS00661
140	6	35 (50)	6		10.000	FI02M FN3	F03FS00662
140	8	35 (50)	6		10.000	FI02M FS3	F03FS00663
140	10	35 (50)	6		10.000	FI02M FY3	F03FS00664
140	12	35 (40)	6		10.000	FI02M GB3	F03FC07393
140	14	35 (40)	6		10.000	FI02M GF3	F03FC07400
140	16	35 (40)	6		10.000	FI02M GK3	F03FC07406
140	18	35 (40)	6		10.000	FI02M GN3	F03FC07409
140	20	35 (40)	6		10.000	FI02M GP3	F03FC07413



FI05M

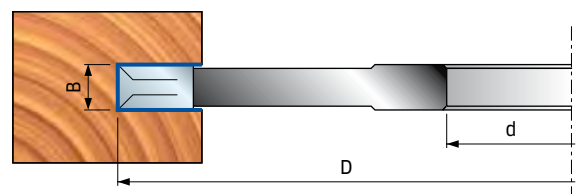
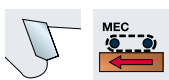
Grooving cutters with spurs Frese per incastri con rasanti

Brazed cutters for good quality grooving on soft and hardwood, both cross cutting and ripping, on chipboard, compressed laminated woods and MDF.

Frese per incastri di ottima qualità su legni teneri e duri lungo vena e trasverso vena; su multistrato, truciolari, laminati ed MDF.



D mm	B mm	d* mm	Z	R	Max RPM 1/min.	Code Codice	SAP SAP
140	4	35 (50)	3	6	10.000	FI05M EB3	F03FC07525
140	6	35 (50)	3	6	10.000	FI05M EH3	F03FC07533
140	8	35 (50)	3	6	10.000	FI05M EN3	F03FC07539
140	10	35 (50)	3	6	10.000	FI05M ER3	F03FC07545



FI14M

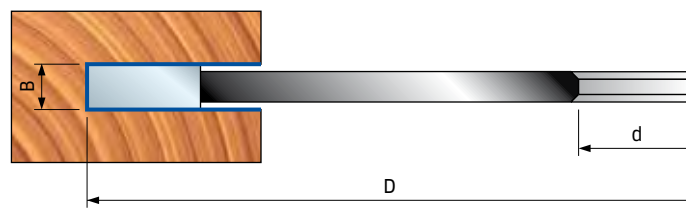
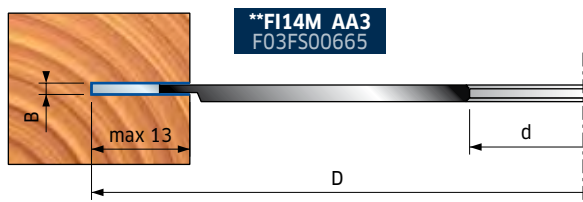
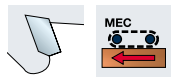
Grooving cutters Frese per incastri

Brazed cutters for good quality grooving on soft and hardwood, both cross cutting and ripping, on chipboard, compressed laminated woods and MDF.

Frese per incastri di ottima qualità su legni teneri e duri lungo vena e trasverso vena; su multistrato, truciolari, laminati ed MDF.



D mm	B mm	d* mm	Z	R	Max RPM 1/min.	Code Codice	SAP SAP
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



FI07M

Adjustable grooving cutters with spurs Frese regolabili per incastri con rasanti

Brazed cutters for good quality adjustable grooving on soft and hardwood, both cross cutting and ripping, on chipboard, compressed laminated woods and MDF. Adjustable with spacers.

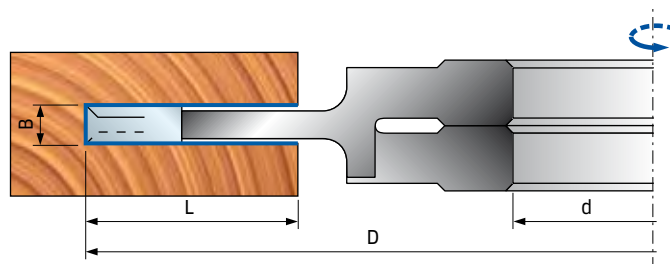
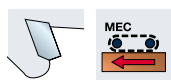
Frese per incastri regolabili di ottima qualità su legni teneri e duri lungo vena e trasverso vena; su multistrato, truciolari, laminati ed MDF. Regolazione con anelli.



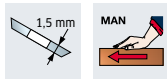
D mm	B mm	d* mm	Z	R	Max RPM 1/min.	Code Codice	SAP SAP
150	3 - 5,5	35 (50)	4	4	9.400	FI07M AB3	F03FC07629
150	4 - 7,5	35 (50)	4	4	9.400	FI07M AE3	F03FC07634
150	7,5 - 14	35 (50)	4	4	9.400	FI07M AL3	F03FC07643
160	10 - 19	35 (50)	4	4	9.000	FI07M BB3	F03FC07655

Depth of cut
Profondità
d'incastro

L mm	D mm
27	150
32	160



TG11M



Depth of cut - Profondità d'incastro

L mm	D mm
30	160
40	200

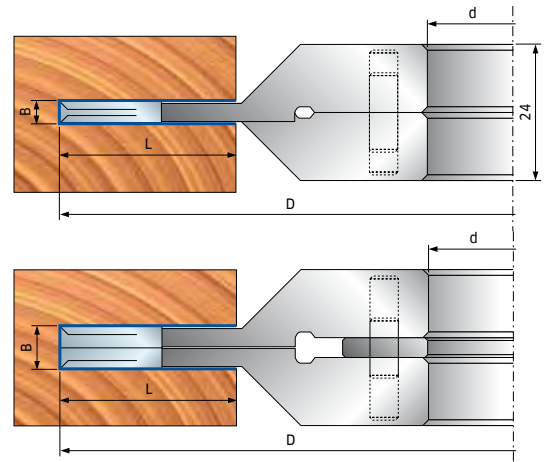
Spare spacers set - Set anelli di ricambio

Dimensions Dimensioni mm	Code Codice	SAP SAP
50 x 0,1 x 30	AN01MA0019	F03FC00030
50 x 0,2 x 30	AN01MA0029	F03FC00031
50 x 0,5 x 30	AN01MA0059	F03FC00033
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 0,1 x 32	AN01MX0019	F03FC24484
52 x 0,2 x 32	AN01MX0029	F03FC24485
52 x 0,5 x 32	AN01MX0059	F03FC24487
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 0,1 x 35	AN01MB0019	F03FC00081
55 x 0,2 x 35	AN01MB0029	F03FC00082
55 x 0,5 x 35	AN01MB0059	F03FC00084
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 0,1 x 40	AN01MC0019	F03FC00123
60 x 0,2 x 40	AN01MC0029	F03FC00124
60 x 0,5 x 40	AN01MC0059	F03FC00126
60 x 8 x 40	AN11M CH9	F03FC00532
60 x 4 x 40	AN11M CF9	F03FC00531
60 x 12 x 40	AN11M CI9	F03FC00533

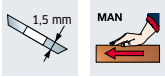
Adjustable grooving cutterheads Teste per incastri regolabili

D mm	B-B1 mm	d* mm	Z	R	Max RPM 1/min.	Code Codice	SAP SAP
160	4 - 7,5	30	8	4	8.300	TG11M AA3	F03FC20228
160	4 - 7,5	32	8	4	8.300	TG11M AE3	F03FC24417
160	4 - 7,5	35	8	4	8.300	TG11M AB3	F03FC20229
160	4 - 7,5	40	8	4	8.300	TG11M AC3	F03FC20230
160	8 - 15,5	30	4	4	8.300	TG11M DA3	F03FC20232
160	8 - 15,5	32	4	4	8.300	TG11M DE3	F03FC24418
160	8 - 15,5	35	4	4	8.300	TG11M DB3	F03FC20233
160	8 - 15,5	40	4	4	8.300	TG11M DC3	F03FC20234
160	12,5 - 24	30	4	4	8.300	TG11M TA3	F03FC20237
160	12,5 - 24	32	4	4	8.300	TG11M TE3	F03FC24419
160	12,5 - 24	35	4	4	8.300	TG11M TB3	F03FC20238
160	12,5 - 24	40	4	4	8.300	TG11M TC3	F03FC20239
200	4 - 7,5	32	8	4	6.600	TG11M FE3	F03FC24420
200	4 - 7,5	35 (50)	8	4	6.600	TG11M FB3	F03FC20235
200	8 - 15,5	35 (50)	4	4	7.000	TG11M HB3	F03FC20236
200	12,5 - 24	35 (50)	4	4	7.000	TG11M VB3	F03FC20240

	Spare parts Parti di ricambio	Dimensions Dimensioni mm	Code Codice	SAP SAP
AA3 - AB3 AC3 - AE3	Torx key / Chiave Torx	T20	CB03M CC9	F03FA00167
	Knife / Coltello	18 x 1,9 x 18	CG03MAA310	F03FH02876
	Screw / Vite	M4 x 3,2	VT05M BB9	F03FA04447
	Threaded rings / Ghiera	11,6 x 1,5 x 4	VT18M BA9	F03FA04483
	Threaded rings / Ghiera	9,4 x 1,7 x 4	VT18M DA9	F03FA04487
	Torx key / Chiave Torx	T9	CB03M CA9	F03FA00165
	Knife / Coltello	7,6 x 12 x 1,5	CG01MAA310	F03FH01543
	Wedge / Cuneo	15 x 7,2 x 8	CN09M DA9	F03FC01295
	Spur / Rasante	14 x 14 x 2	RG01MAA310	F03FH03034
	Screw / Vite	M5 x 6	VT05M AC9	F03FA04446
DA3 - DB3 DC3 - DE3	Screw / Vite	M5 x 19	VT11M AA9	F03FA04468
	Allen key / Chiave a "L"	2,5	2619M CA9	F03FA07432
	Torx key / Chiave Torx	T9	CB03M CA9	F03FA00165
	Knife / Coltello	12 x 12 x 1,5	CG01MBA310	F03FH01636
TA3 - TB3 TC3 - TE3	Wedge / Cuneo	15 x 10 x 8	CN09M AA9	F03FC01280
	Screw / Vite	M5 x 8	VT05M AA9	F03FA04444
	Screw / Vite	M6 x 22	VT19M AB9	F03FA04491
	Nut / Ogiva	10 x 11,5 x 6	VT20M AA9	F03FA04497
	Allen key / Chiave	3 x 110	CB03M AA9	F03FA00162



TG18MG



Adjustable grooving cutterheads sets Gruppi di teste per incastri regolabili

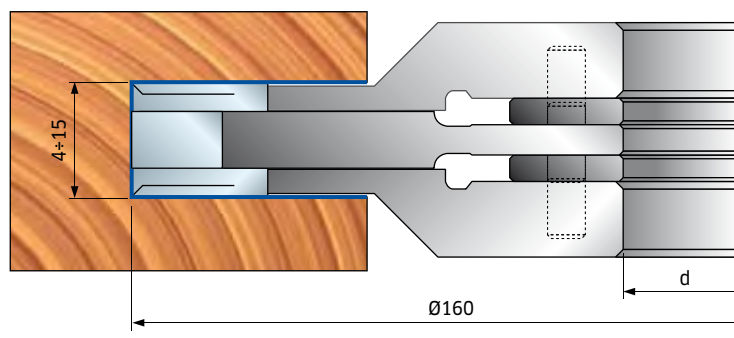
D mm	B-B1 mm	d* mm	Z	R	Max RPM 1/min.	Code Codice	SAP SAP
160	4-15	30			8.500	TG18MG AA3	F03FC24546
160	4-15	32			8.500	TG18MG AE3	F03FC24549
160	4-15	35			8.500	TG18MG AB3	F03FC24547
160	4-15	40			8.500	TG18MG AC3	F03FC24548
160	8-23	30			8.500	TG18MG DA3	F03FC24550
160	8-23	32			8.500	TG18MG DE3	F03FC24553
160	8-23	35			8.500	TG18MG DB3	F03FC24551
160	8-23	40			8.500	TG18MG DC3	F03FC24552
160	12,5-31,5	30			8.500	TG18MG TA3	F03FC24554
160	12,5-31,5	32			8.500	TG18MG TE3	F03FC24557
160	12,5-31,5	35			8.500	TG18MG TB3	F03FC24555
160	12,5-31,5	40			8.500	TG18MG TC3	F03FC24556

	Spare parts Parti di ricambio	Dimensions Dimensioni mm	Code Codice	SAP SAP
AA3 - AB3 AC3 - AE3	Knife / Coltello	18 x 1,9 x 18	CG03MAA310	F03FH02876
	Screw / Vite	M4 x 3,2	VT05M BB9	F03FA04447
	Threaded rings / Ghiera	11,6 x 1,5 x 4	VT18M BA9	F03FA04483
	Threaded rings / Ghiera	9,4 x 1,7 x 4	VT18M DA9	F03FA04487
	Torx key / Chiave Torx	T9	CB03M CA9	F03FA00165
DA3 - DB3 DC3 - DE3	Knife / Coltello	7,6 x 12 x 1,5	CG01MAA310	F03FH01543
	Wedge / Cuneo	15 x 7,2 x 8	CN09M DA9	F03FC01295
	Spur / Rasante	14 x 14 x 2	RG01MAA310	F03FH03034
	Screw / Vite	M5 x 6	VT05M AC9	F03FA04446
	Screw / Vite	M5 x 19	VT11M AA9	F03FA04468
	Fork wrench / Chiave a forchetta	5	CB04M 059	F03FA00172
TA3 - TB3 TC3 - TE3	Knife / Coltello	12 x 12 x 1,5	CG01MBA310	F03FH01636
	Wedge / Cuneo	15 x 10 x 8	CN09M AA9	F03FC01280
	Screw / Vite	M5 x 8	VT05M AA9	F03FA04444
	Screw / Vite	M6 x 22	VT19M AB9	F03FA04491
	Nut / Ogiva	10 x 11,5 x 6	VT20M AA9	F03FA04497
	Allen key / Chiave	3 x 110	CB03M AA9	F03FA00162

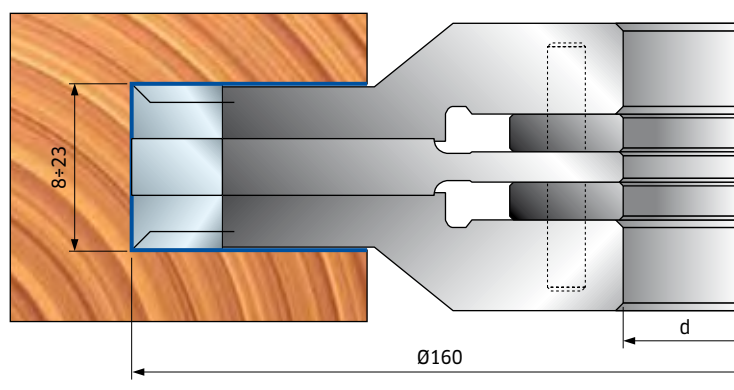
	Spare spacers set Set anelli di ricambio	Dimensions Dimensioni mm	Code Codice	SAP SAP
	Spacers set / Set anelli	50 x 7,6 x 30	AN03M AN9	F03FC24566
	Spacers set / Set anelli	55 x 7,6 x 35	AN03M BQ9	F03FC24567
	Spacers set / Set anelli	55 x 7,6 x 40	AN11M CL9	F03FC24568
	Spacers set / Set anelli	52 x 7,6 x 32	AN03M GH9	F03FC24569
	Spacers set / Set anelli	50 x 11,6 x 30	AN03M AO9	F03FC24570
	Spacers set / Set anelli	55 x 11,6 x 35	AN03M BR9	F03FC24571
	Spacers set / Set anelli	55 x 11,6 x 40	AN11M CM9	F03FC24572
	Spacers set / Set anelli	52 x 11,6 x 32	AN03M GI9	F03FC24573
	Spacers set / Set anelli	50 x 15,6 x 30	AN03M AP9	F03FC24574
	Spacers set / Set anelli	55 x 15,6 x 35	AN03M BS9	F03FC24575
	Spacers set / Set anelli	55 x 15,6 x 40	AN11M CN9	F03FC24576
	Spacers set / Set anelli	52 x 15,6 x 32	AN03M GL9	F03FC24577



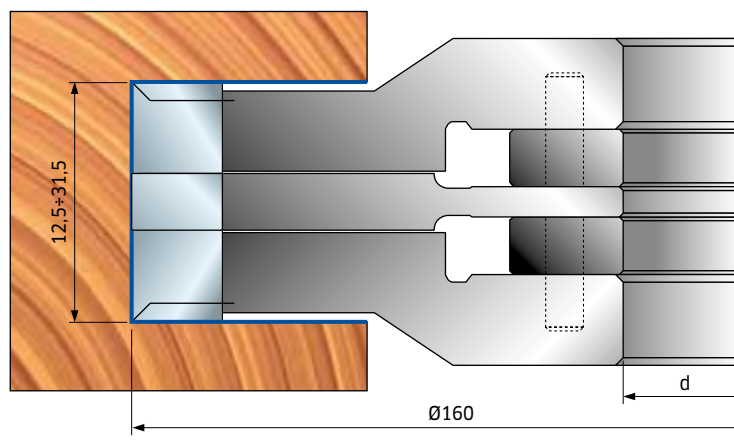
TG18M AA3
AE3 - AB3 - AC3



TG18M DA3
DE3 - DB3 - DC3



TG18M TA3
TE3 - TB3 - TC3



T135M - TG35M

Post forming cutterheads sets with disposable knives Gruppi di teste per spianare e arrotondare








Especially indicated to work hardwood, melamine chipboard panels, veneer, bilaminated panels and MDF.

These items are supplied without knives.

Per la lavorazione di legni duri, truciolare melaminico, nobilitato, bilaminato ed MDF. **Questi utensili vengono forniti senza coltelli.**











T135M for planing - per spianare

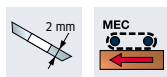
D mm	B mm	d* mm	Z	R	Max RPM 1/min.	Code Codice	SAP SAP
125	30	40 (50)	3		10.300	T135M AC3	F03FC20580
125	50	40 (50)	3		10.300	T135M BC3	F03FC20581

Spare parts Parti di ricambio		Dimensions Dimensioni mm	Code Codice	SAP SAP	
	Screw / Vite	M10 x 22	VT19M MA9	F03FA04496	
	Nut / Ogiva	15 x 13,3 x 10	VT20M MA9	F03FC20670	
	Allen key / Chiave	5 x 110	CB03M EA9	F03FA00169	
BC3 AC3		Knife / Coltello	30 x 12 x 1,5	CG01MEA310	F03FH02737
		Wedge / Cuneo	15 x 26 x 8	CN09M AD9	F03FC01283
		Knife / Coltello	50 x 12 x 1,5	CG01MFA310	F03FH02851
		Wedge / Cuneo	15 x 46 x 8	CN09M AP9	F03FC01290

TG35MD - TG35MS for rounding - per raggiare

D mm	B mm	d* mm	Z	R	Max RPM 1/min.	Code Codice	SAP SAP
125	13	40 (50)	3		10.300	TG35MD EC3	F03FC20280
125	20	40 (50)	3		10.300	TG35MD CC3	F03FC20278
125	26	40 (50)	3		10.300	TG35MD DC3	F03FC20279
125	13	40 (50)	3		10.300	TG35MS EC3	F03FC20283
125	20	40 (50)	3		10.300	TG35MS CC3	F03FC20281
125	26	40 (50)	3		10.300	TG35MS DC3	F03FC20282

Spare parts Parti di ricambio		Dimensions Dimensioni mm	Code Codice	SAP SAP	
EC3		Wedge / Cuneo	12 x 11 x 8	CN21M AC9	F03FC01408
		Screw / Vite	M6 x 22	VT19M AB9	F03FA04491
		Nut / Ogiva	10 x 11,5 x 6	VT20M AA9	F03FA04497
CC3 - DC3		Allen key / Chiave	3 x 110	CB03M AA9	F03FA00162
		Wedge / Cuneo	18 x 18 x 8	CN21M AA9	F03FC01406
		Wedge / Cuneo	18 x 26 x 8	CN21M AB9	F03FC01407
		Screw / Vite	M10 x 22	VT19M MA9	F03FA04496
		Nut / Ogiva	15 x 13,3 x 10	VT20M MA9	F03FC20670
		Allen key / Chiave	5 x 110	CB03M EA9	F03FA00169
		Screw / Vite	M5 x 7 x 16	VT08M AE9	F03FA04457



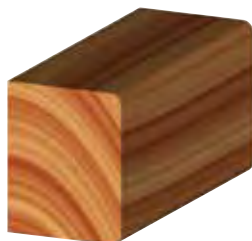
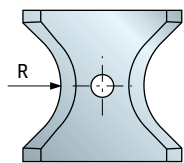
Series of spacers (item AN03M CC9) with the following thicknesses:

0,1 - 0,2 - 0,3 - 0,5 - 1 - 2 - 3 - 6 - 8 - 10 mm.

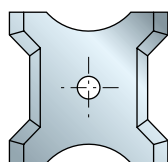
Set di anelli distanziali (cod. AN03M CC9) con i seguenti spessori:

0,1 - 0,2 - 0,3 - 0,5 - 1 - 2 - 3 - 6 - 8 - 10 mm.

Knives for rounding Coltelli per raggiare



Knives for chamfering Coltelli per smussare



T135M - TG35M

TG35MD EC3
TG35MS EC3

S mm	
T135M AC3 4÷30	T135M BC3 24÷50

Spare knives - Coltelli di ricambio

Dimensions Dimensioni mm	Radius Raggio mm	Code Codice	SAP SAP
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

TG35MD CC3
TG35MS CC3

S mm	
T135M AC3 10÷40	T135M BC3 30÷60

Spare knives - Coltelli di ricambio

Dimensions Dimensioni mm	Radius Raggio mm	Code Codice	SAP SAP
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

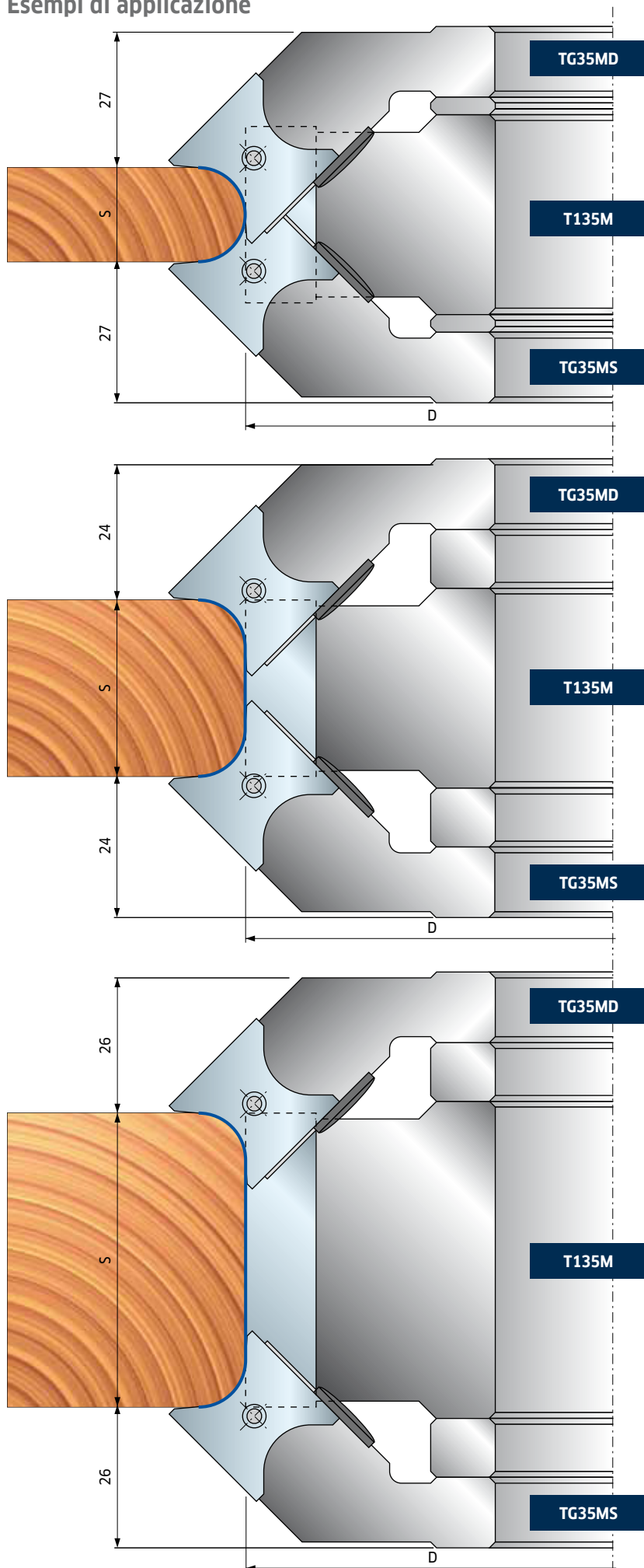
TG35MD DC3
TG35MS DC3

S mm	
T135M AC3 18÷48	T135M BC3 36÷68

Spare knives - Coltelli di ricambio

Dimensions Dimensioni mm	Radius Raggio mm	Code Codice	SAP SAP
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

Examples of application Esempi di applicazione



TP22M

Multi radius cutterheads Teste multiraggio

This item comes complete with knives in a practical carrying case.

Light alloy body (Aluminum alloy). For cleaning do not use products containing caustic soda.

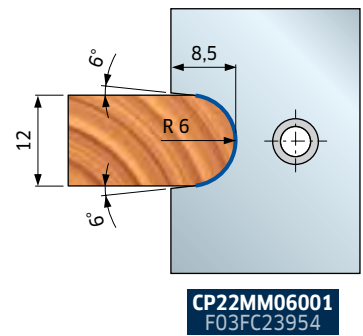
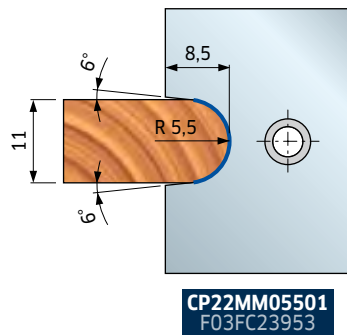
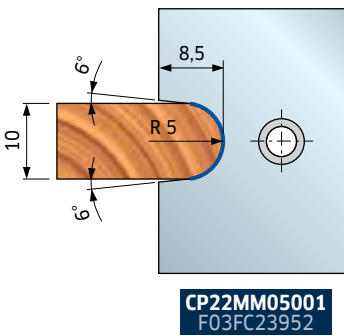
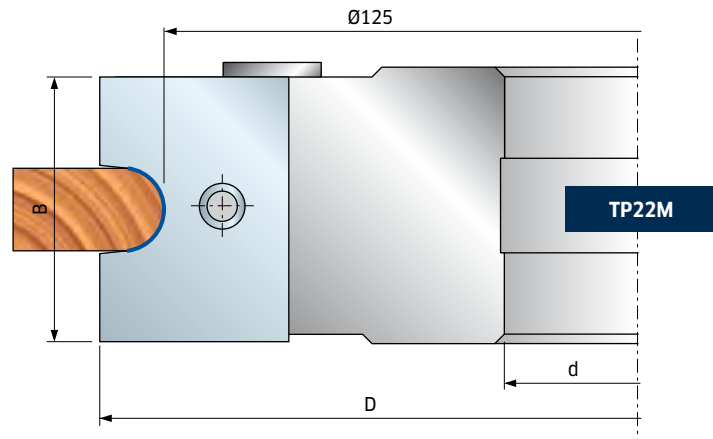
L'articolo è fornito di coltelli in valigetta.

Corpo in lega leggera (Lega di alluminio). Per la pulizia non utilizzare prodotti contenenti soda caustica.



D mm	B mm	d* mm	Z	Radius Raggio mm	Max RPM 1/min.	Code Codice	SAP SAP
142	35	30	2	5 - 5,5 - 6		TP22M MA3	F03F668939
142	35	32	2	5 - 5,5 - 6		TP22M MB3	F03F668633
142	35	40 (50)	2	5 - 5,5 - 6		TP22M MC3	F03FC20480

	Spare parts Parti di ricambio	Dimensions Dimensioni mm	Code Codice	SAP SAP	
	Screw / Vite	M5 x 7 x 16	VT08M AE9	F03FA04457	
	Screw / Vite	M10 x 18	VT03M CC9	F03FA04438	
	Allen key / Chiave	5 x 110	CB03M EA9	F03FA00169	
MC3		Wedge / Cuneo	33 x 23 x 8,5	CN13M CI9A	F03FC23042
		Knife / Coltello	35 x 24 x 3 R5	CP22MM05001	F03FC23952
		Knife / Coltello	35 x 24 x 3 R5,5	CP22MM05501	F03FC23953
		Knife / Coltello	35 x 24 x 3 R6	CP22MM06001	F03FC23954



TP22M

Multi radius cutterheads Teste multiraggio

This item comes complete with knives in a practical carrying case.

Light alloy body (Aluminum alloy). For cleaning do not use products containing caustic soda.

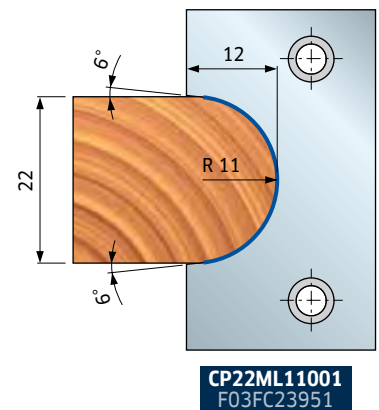
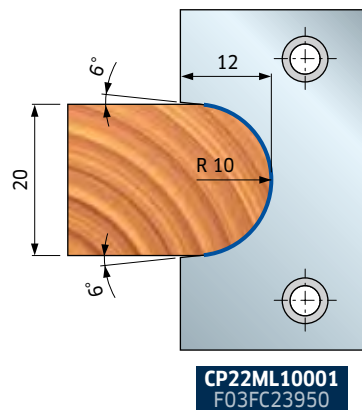
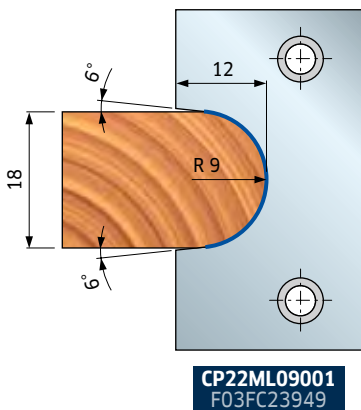
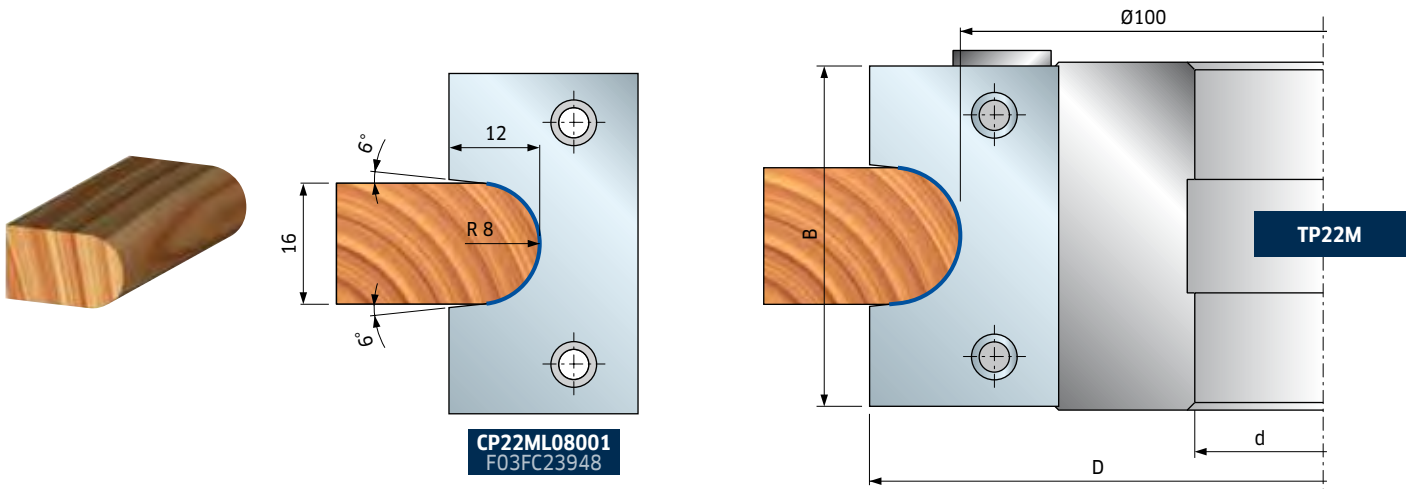
L'articolo è fornito di coltelli in valigetta.

Corpo in lega leggera (Lega di alluminio). Per la pulizia non utilizzare prodotti contenenti soda caustica.



D mm	B mm	d* mm	Z	Radius Raggio mm	Max RPM 1/min.	Code Codice	SAP SAP
124	45	30	2	8-9-10-11		TP22M LA3	F03F668938
124	45	32	2	8-9-10-11		TP22M LC3	F03F668632
124	45	35 (40)	2	8-9-10-11		TP22M LB3	F03FC20479

	Spare parts Parti di ricambio	Dimensions Dimensioni mm	Code Codice	SAP SAP	
	Screw / Vite	M5 x 7 x 16	VT08M AE9	F03FA04457	
	Screw / Vite	M10 x 18	VT03M CC9	F03FA04438	
	Allen key / Chiave	5 x 110	CB03M EA9	F03FA00169	
LB3		Wedge / Cuneo	43 x 28 x 8,5	CN13M CH9A	F03FC24449
		Knife / Coltello	45 x 29 x 3 R8	CP22ML08001	F03FC23948
		Knife / Coltello	45 x 29 x 3 R9	CP22ML09001	F03FC23949
		Knife / Coltello	45 x 29 x 3 R10	CP22ML10001	F03FC23950
		Knife / Coltello	45 x 29 x 3 R11	CP22ML11001	F03FC23951



* Size shown between brackets is the max. rebore possible • La quota tra parentesi è la massima allargatura foro possibile

TP23M

Multi radius cutterheads Teste multiraggio

This item comes complete with knives in a practical carrying case.

Light alloy body (Aluminum alloy). For cleaning do not use products containing caustic soda.

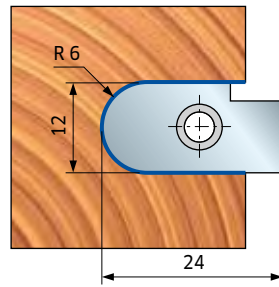
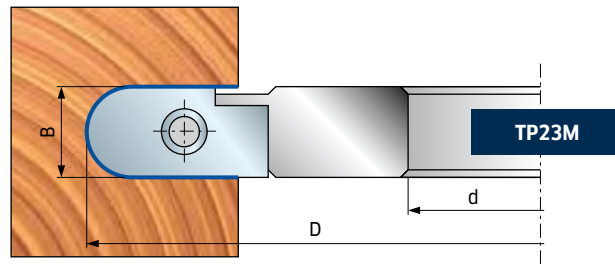
L'articolo è fornito di coltelli in valigetta.

Corpo in lega leggera (Lega di alluminio). Per la pulizia non utilizzare prodotti contenenti soda caustica.

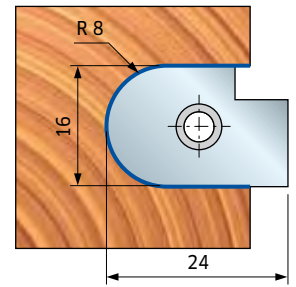


D mm	B mm	d* mm	Z	Radius Raggio mm	Max RPM 1/min.	Code Codice	SAP SAP
120	12	30	2	6 - 8 - 10	9.500	TP23M AA3	F03FC24450
120	12	32	2	6 - 8 - 10	9.500	TP23M AC3	F03FC24451
120	12	35 (50)	2	6 - 8 - 10	9.500	TP23M AB3	F03FC20481

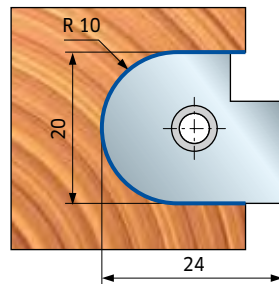
Spare parts Parti di ricambio		Dimensions Dimensioni mm	Code Codice	SAP SAP
	Knife / Coltello	12 x 24 x 3,5 R6	CP23MA06001	F03FC23955
	Knife / Coltello	16 x 24 x 3,5 R8	CP23MA08001	F03FC23956
	Knife / Coltello	20 x 24 x 3,5 R10	CP23MA10001	F03FC23957
	Screw / Vite	M6 x 10	2622M CB9	F03FA07455
	Screw / Vite	M5 x 8	VT05M AA9	F03FA04444
	Positioning plate / Piastra riscontro	20 x 11,6 x 2,2	VT18M AR9	F03FC20664
	Allen key / Chiave	4 x 110	CB03M BA9	F03FA00163
	Torx key / Chiave Torx	T20	CB03M CC9	F03FA00167



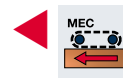
CP23MA06001
F03FC23955



CP23MA08001
F03FC23956



CP23MA10001
F03FC23957



This profile is usable with automatic feed only.

Questo profilo è utilizzabile solamente con avanzamento meccanico.

TP31M

Multi radius cutterheads Teste multiraggio

This item comes complete with knives in a practical carrying case.

Light alloy body (Aluminum alloy). For cleaning do not use products containing caustic soda.

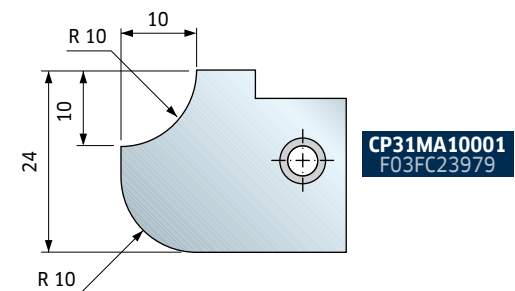
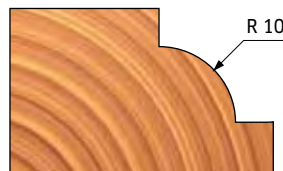
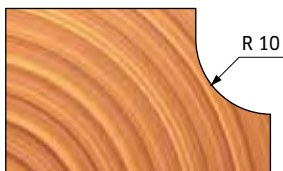
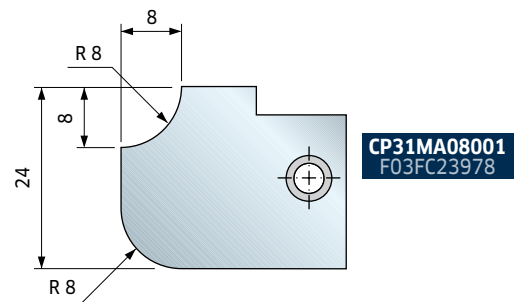
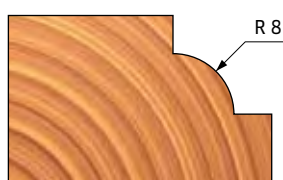
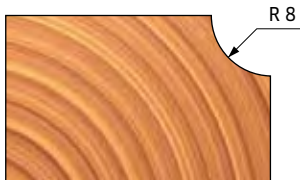
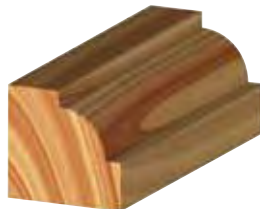
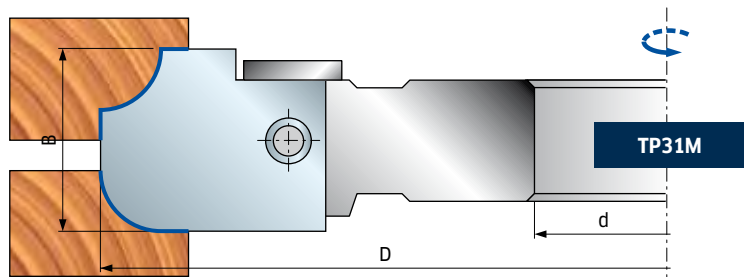
L'articolo è fornito di coltelli in valigetta.

Corpo in lega leggera (Lega di alluminio). Per la pulizia non utilizzare prodotti contenenti soda caustica.



D mm	B mm	d* mm	Z	Radius Raggio mm	Max RPM 1/min.	Code Codice	SAP SAP
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 (50)	2	8 - 10	9.000	TP31M AB3	F03FC20482

	Spare parts Parti di ricambio	Dimensions Dimensioni mm	Code Codice	SAP SAP
	Knife / Coltello	24 x 30 x 3 R8	CP31MA08001	F03FC23978
	Knife / Coltello	24 x 30 x 3 R10	CP31MA10001	F03FC23979
	Wedge / Cuneo	18 x 17 x 8	CN11M B180	F03FC01349
	Screw / Vite	M10 x 18	VT03M CC9	F03FA04438
	Positioning plate / Piastra riscontro	20 x 11,6 x 2,2	VT18M AR9	F03FC20664
	Screw / Vite	M5 x 8	VT05M AA9	F03FA04444
	Allen key / Chiave	5 x 110	CB03M EA9	F03FA00169
	Torx key / Chiave Torx	T20	CB03M CC9	F03FA00167



* Size shown between brackets is the max. rebore possible • La quota tra parentesi è la massima allargatura foro possibile

TP31M

Multi radius cutterheads Teste multiraggio

This item comes complete with knives in a practical carrying case.

Light alloy body (Aluminum alloy). For cleaning do not use products containing caustic soda.

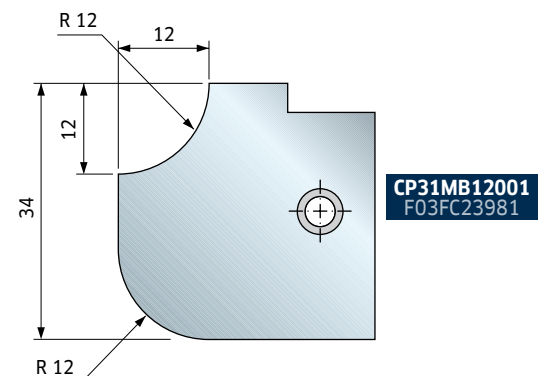
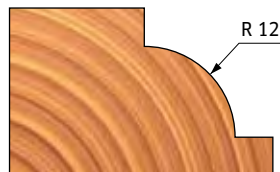
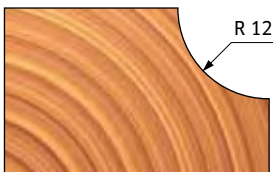
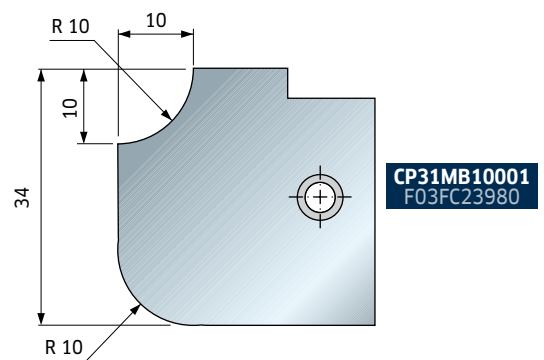
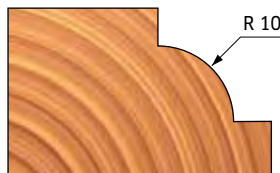
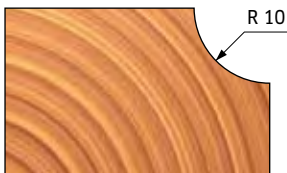
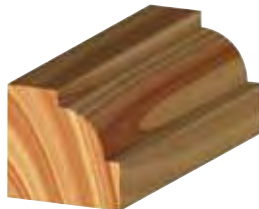
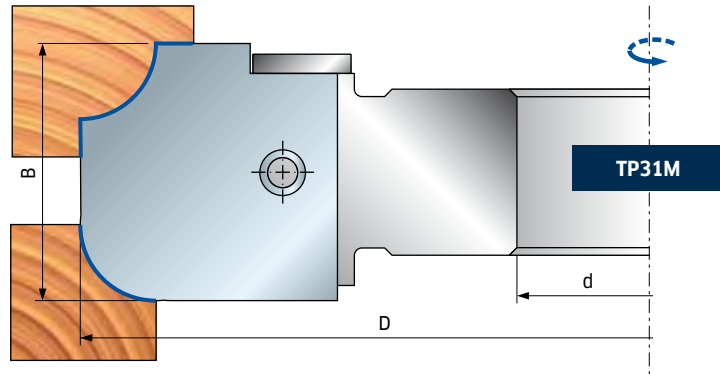
L'articolo è fornito di coltelli in valigetta.

Corpo in lega leggera (Lega di alluminio). Per la pulizia non utilizzare prodotti contenenti soda caustica.



D mm	B mm	d* mm	Z	Radius Raggio mm	Max RPM 1/min.	Code Codice	SAP SAP
150	34	30 (35)	2	10 - 12	9.000	TP31M EA3	F03F668940
150	34	32	2	10 - 12	9.000	TP31M EC3	F03F668636
150	34	35 (50)	2	10 - 12	9.000	TP31M EB3	F03FC20484

Spare parts Parti di ricambio		Dimensions Dimensioni mm	Code Codice	SAP SAP
	Knife / Coltello	34 x 34 x 3 R10	CP31MB10001	F03FC23980
	Knife / Coltello	34 x 34 x 3 R12	CP31MB12001	F03FC23981
	Wedge / Cuneo	32 x 32 x 8,5	CN13M CF9A	F03FC01393
	Screw / Vite	M10 x 18	VT03M CC9	F03FA04438
	Positioning plate / Piastra riscontro	20 x 11,6 x 2,2	VT18M AR9	F03FC20664
	Screw / Vite	M5 x 8	VT05M AA9	F03FA04444
	Allen key / Chiave	5 x 110	CB03M EA9	F03FA00169
	Torx key / Chiave Torx	T20	CB03M CC9	F03FA00167



TP31M

Multi radius cutterheads Teste multiraggio

This item comes complete with knives in a practical carrying case.

Light alloy body (Aluminum alloy). For cleaning do not use products containing caustic soda.

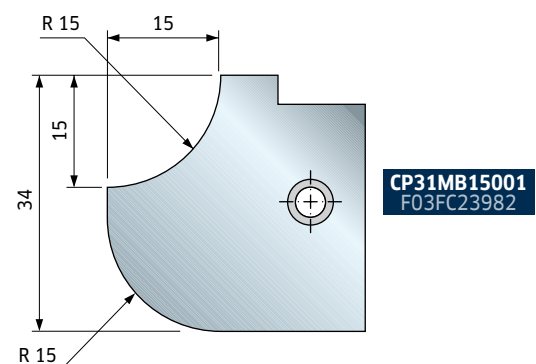
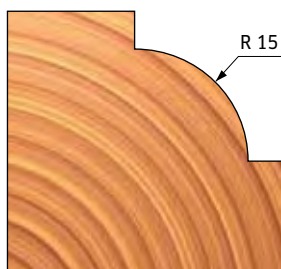
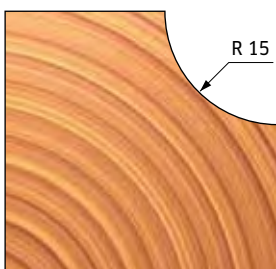
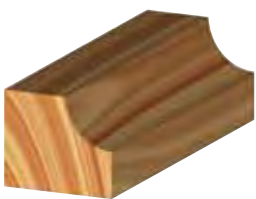
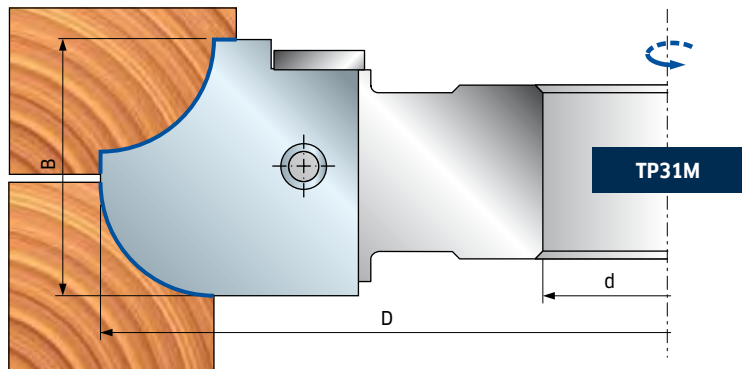
L'articolo è fornito di coltelli in valigetta.

Corpo in lega leggera (Lega di alluminio). Per la pulizia non utilizzare prodotti contenenti soda caustica.



D mm	B mm	d* mm	Z	Radius Raggio mm	Max RPM 1/min.	Code Codice	SAP SAP
150	34	30	2	15	9.000	TP31M FA3	F03F668941
150	34	32	2	15	9.000	TP31M FC3	F03F668637
150	34	35 (50)	2	15	9.000	TP31M FB3	F03FC20485

	Spare parts Parti di ricambio	Dimensions Dimensioni mm	Code Codice	SAP SAP
	Knife / Coltello	34 x 34 x 3 R15	CP31MB15001	F03FC23982
	Wedge / Cuneo	32 x 32 x 8,5	CN13M CF9A	F03FC01393
	Screw / Vite	M10 x 18	VT03M CC9	F03FA04438
	Positioning plate / Piastra riscontro	20 x 11,6 x 2,2	VT18M AR9	F03FC20664
	Screw / Vite	M5 x 8	VT05M AA9	F03FA04444
	Allen key / Chiave	5 x 110	CB03M EA9	F03FA00169
	Torx key / Chiave Torx	T20	CB03M CC9	F03FA00167



TP31M

Multi radius cutterheads Teste multiraggio

This item comes complete with knives in a practical carrying case.

Light alloy body (Aluminum alloy). For cleaning do not use products containing caustic soda.

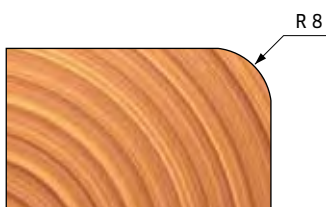
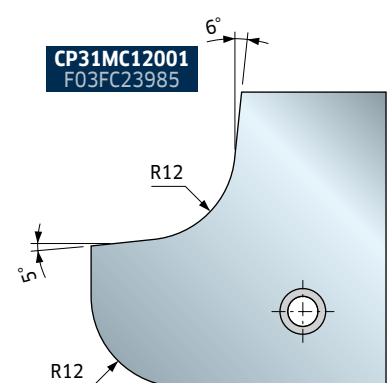
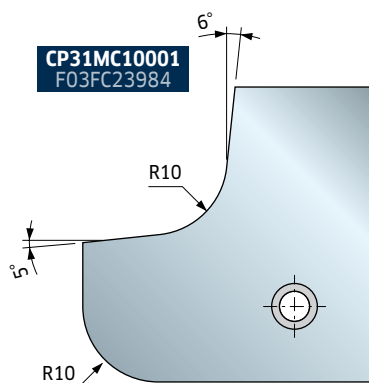
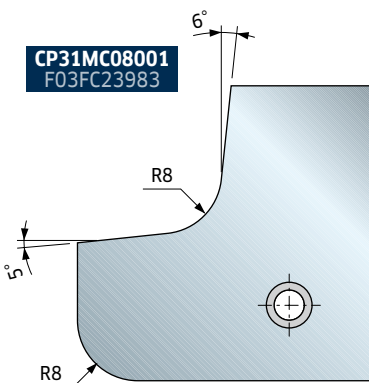
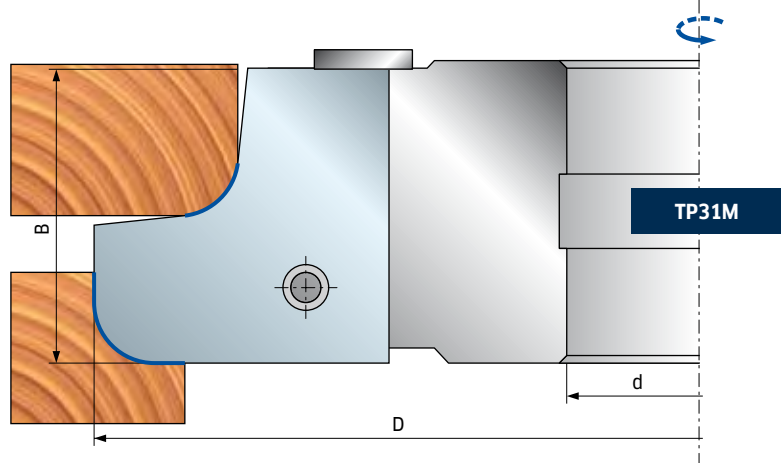
L'articolo è fornito di coltelli in valigetta.

Corpo in lega leggera (Lega di alluminio). Per la pulizia non utilizzare prodotti contenenti soda caustica.



D mm	B mm	d* mm	Z	Radius Raggio mm	Max RPM 1/min.	Code Codice	SAP SAP
160	40	30 (35)	2	8 - 10 - 12	9.500	TP31M GA3	F03F668942
160	40	32	2	8 - 10 - 12	9.500	TP31M GC3	F03F668638
160	40	35 (50)	2	8 - 10 - 12	9.500	TP31M GB3	F03FC20486

	Spare parts Parti di ricambio	Dimensions Dimensioni mm	Code Codice	SAP SAP
	Knife / Coltello	40 x 40 x 3 R8	CP31MC08001	F03FC23983
	Knife / Coltello	40 x 40 x 3 R10	CP31MC10001	F03FC23984
	Knife / Coltello	40 x 40 x 3 R12	CP31MC12001	F03FC23985
	Wedge / Cuneo	38 x 37 x 8,5	CN13M CG9A	F03FC01394
	Screw / Vite	M10 x 18	VT03M CC9	F03FA04438
	Positioning plate / Piastra riscontro	20 x 11,6 x 2,2	VT18M AR9	F03FC20664
	Allen key / Chiave	5 x 110	CB03M EA9	F03FA00169
	Torx key / Chiave Torx	T20	CB03M CC9	F03FA00167



TP31M

Multi radius cutterheads Teste multiraggio

This item comes complete with knives in a practical carrying case.

Light alloy body (Aluminum alloy). For cleaning do not use products containing caustic soda.

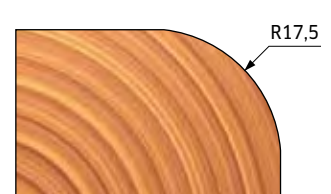
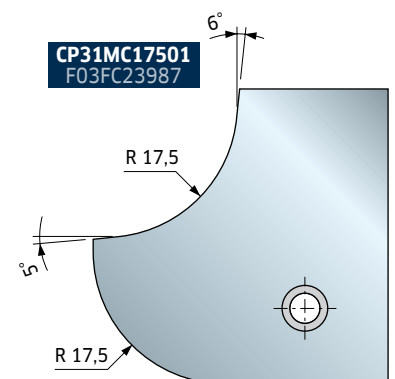
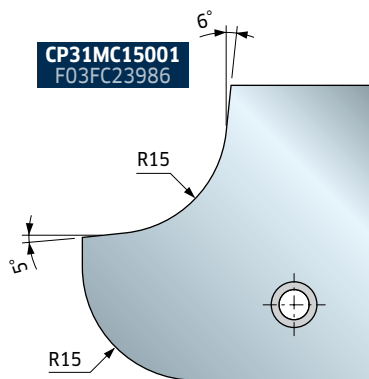
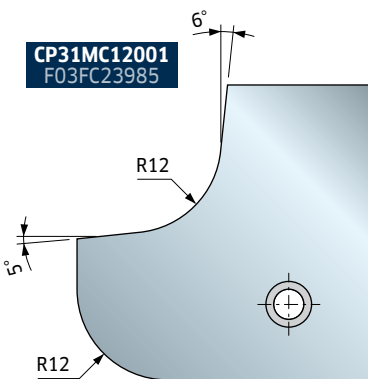
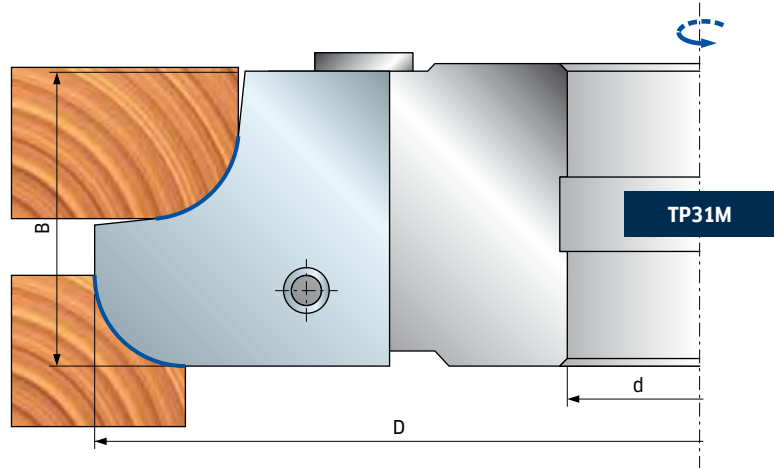
L'articolo è fornito di coltelli in valigetta.

Corpo in lega leggera (Lega di alluminio). Per la pulizia non utilizzare prodotti contenenti soda caustica.



D mm	B mm	d* mm	Z	Radius Raggio mm	Max RPM 1/min.	Code Codice	SAP SAP
160	40	30 (35)	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 (50)	2	12-15-17,5	8.500	TP31M HB3	F03FC20487

	Spare parts Parti di ricambio	Dimensions Dimensioni mm	Code Codice	SAP SAP
	Knife / Coltello	40 x 40 x 3 R12	CP31MC12001	F03FC23985
	Knife / Coltello	40 x 40 x 3 R15	CP31MC15001	F03FC23986
	Knife / Coltello	40 x 40 x 3 R17,5	CP31MC17501	F03FC23987
	Wedge / Cuneo	38 x 37 x 8,5	CN13M CG9A	F03FC01394
	Screw / Vite	M10 x 18	VT03M CC9	F03FA04438
	Positioning plate / Piastra riscontro	20 x 11,6 x 2,2	VT18M AR9	F03FC20664
	Allen key / Chiave	5 x 110	CB03M EA9	F03FA00169
	Torx key / Chiave Torx	T20	CB03M CC9	F03FA00167



* Size shown between brackets is the max. rebore possible • La quota tra parentesi è la massima allargatura foro possibile

TP31M - TP31MS

Multi radius cutterheads Teste multiraggio

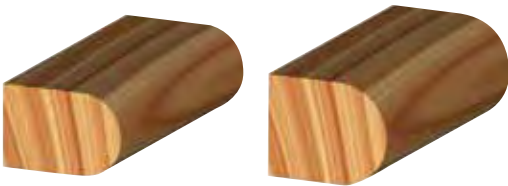
Cutterheads with multi radius knives, fitted with 4 sets of resharpenable knives of various radii.

To be used on a moulding machine. This tool is particularly suitable for moulding and profiling on soft, hard and exotic wood. Top quality finish. The knives have various radii and are fully interchangeable and keep the minimum working diameter. It is therefore possible to replace a knife with a different radius without resetting the fence with respect to the machined part. The knives are the same for both cutterheads.

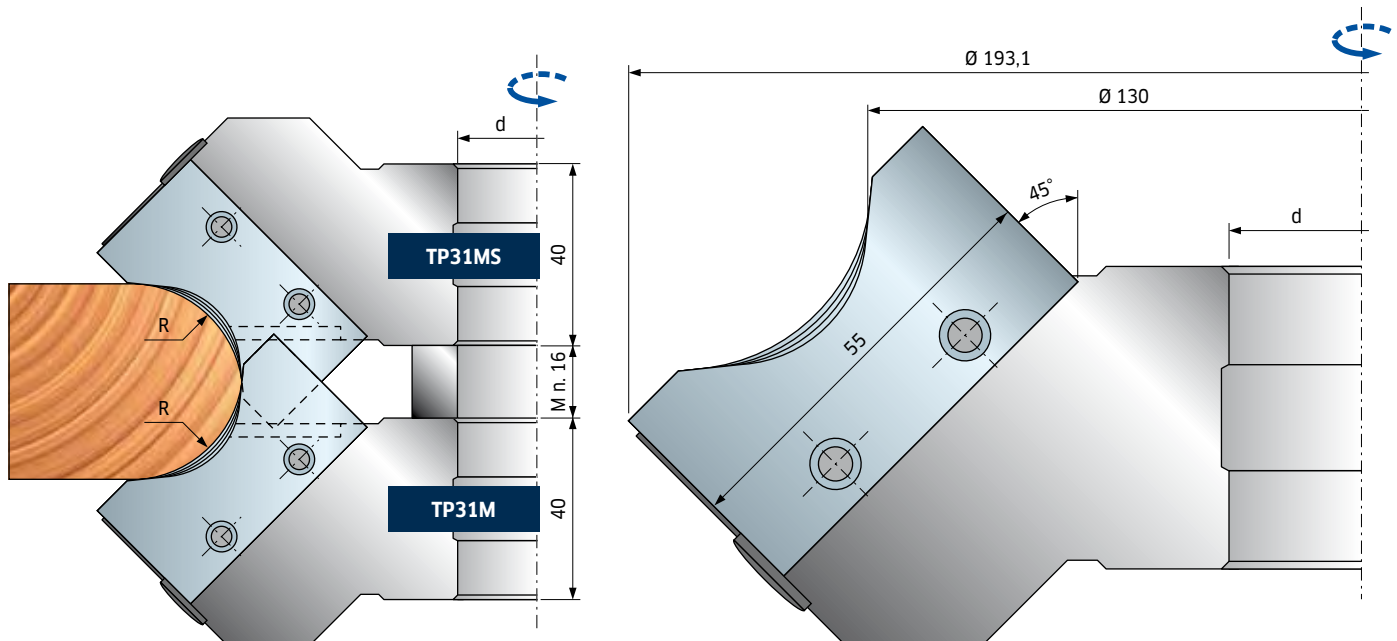
Light alloy body (Aluminum alloy). For cleaning do not use products containing caustic soda.

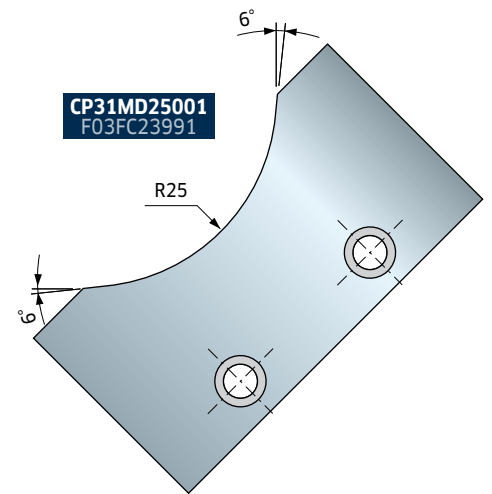
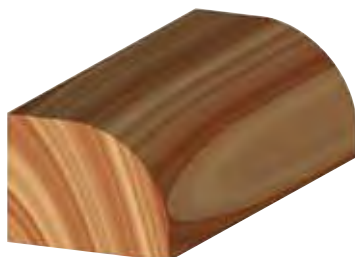
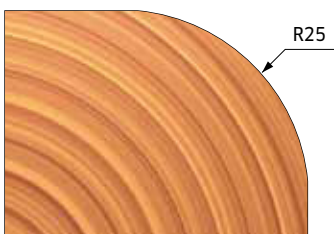
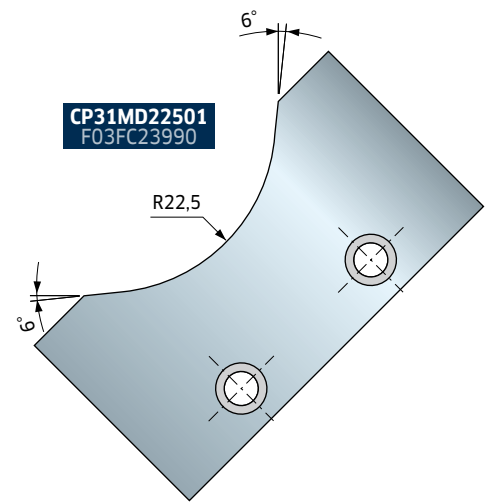
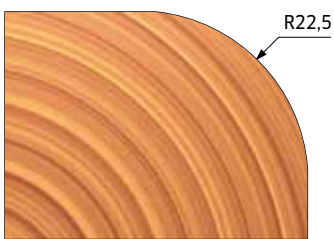
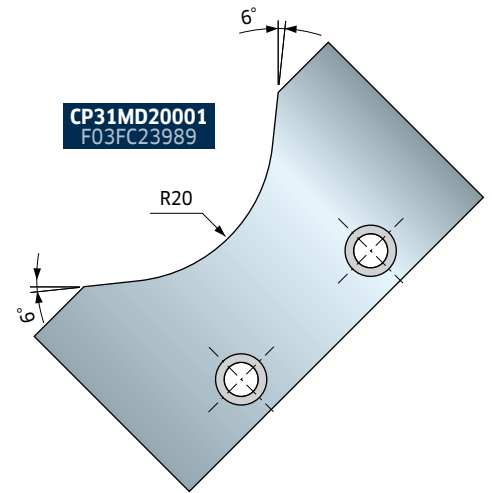
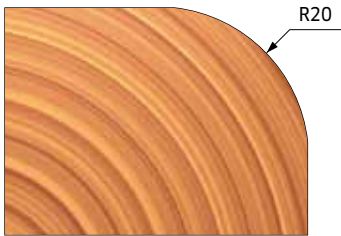
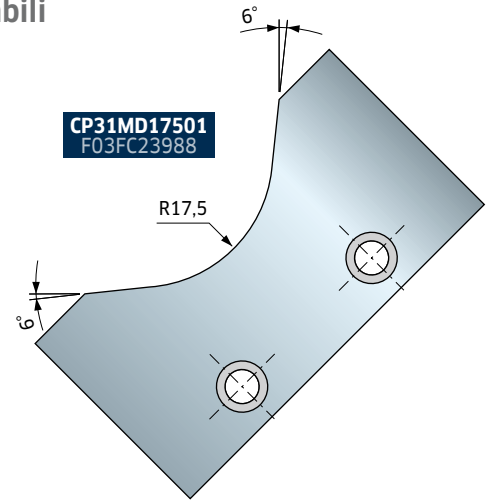
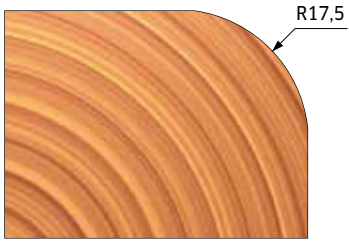
Teste portacoltelli multiraggio, complete di 4 set di coltelli riaffilabili di diverso raggio, da utilizzare su macchina topiere. Particolarmente adatte per lavorazioni di contornatura e profilatura su legni teneri, duri ed esotici, con ottima finitura. I coltelli sono perfettamente intercambiabili tra loro e mantengono il diametro minimo di lavorazione; pertanto è possibile sostituire sulle teste un coltello con raggio diverso senza modificare il posizionamento della guida rispetto al pezzo lavorato. Le due teste montano gli stessi coltelli. Corpo in lega leggera (Lega di alluminio). Per la pulizia non utilizzare prodotti contenenti soda caustica.

D mm	B mm	d* mm	Z	Radius Raggio mm	Max RPM 1/min.	Code Codice	SAP SAP
200	55	30 (35)	2	17,5-20-22,5-25	7.000	TP31M DA3	F03F668634
200	55	32	2	17,5-20-22,5-25	7.000	TP31M DC3	F03F668635
200	55	35 (50)	2	17,5-20-22,5-25	7.000	TP31M DB3	F03FC20483
200	55	30 (35)	2	17,5-20-22,5-25	7.000	TP31MS DA3	F03F668640
200	55	32	2	17,5-20-22,5-25	7.000	TP31MS DC3	F03F668641
200	55	35 (50)	2	17,5-20-22,5-25	7.000	TP31MS DB3	F03FC20488



	Spare parts Parti di ricambio	Dimensions Dimensioni mm	Code Codice	SAP SAP
	Knife / Coltello	55 x 29 x 3 R17,5	CP31MD17501	F03FC23988
	Knife / Coltello	55 x 29 x 3 R20	CP31MD20001	F03FC23989
	Knife / Coltello	55 x 29 x 3 R22,5	CP31MD22501	F03FC23990
	Knife / Coltello	55 x 29 x 3 R25	CP31MD25001	F03FC23991
	Wedge / Cuneo	51 x 19 x 8	CN11M C510	F03FC23658
	Screw / Vite	M5 x 7 x 16	VT08M AE9	F03FA04457
	Screw / Vite	M10 x 25	2602M FI9	F03FA07353
	Allen key / Chiave	5 x 110	CB03M EA9	F03FA00169
	Torx key / Chiave Torx	T20	CB03M CC9	F03FA00167








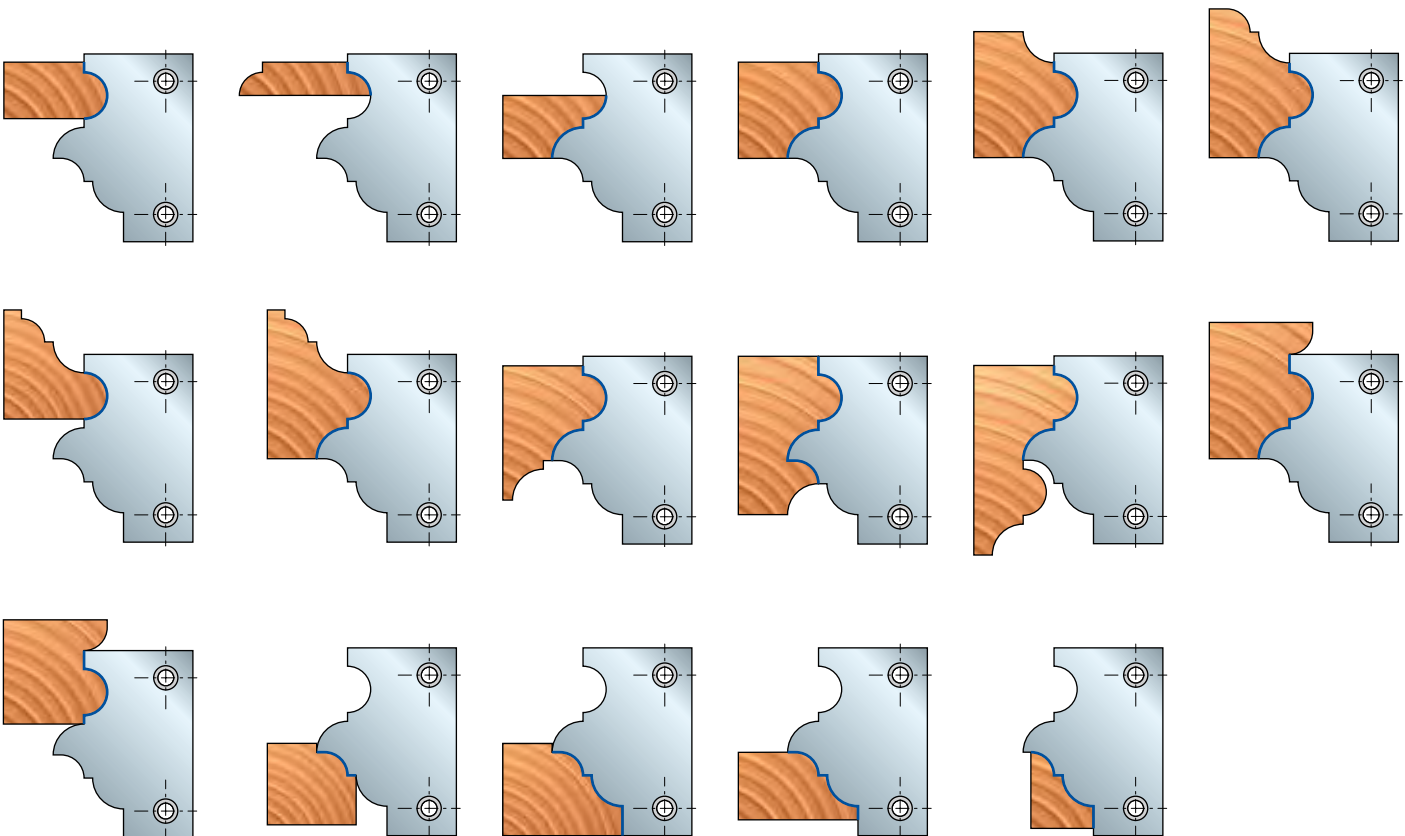
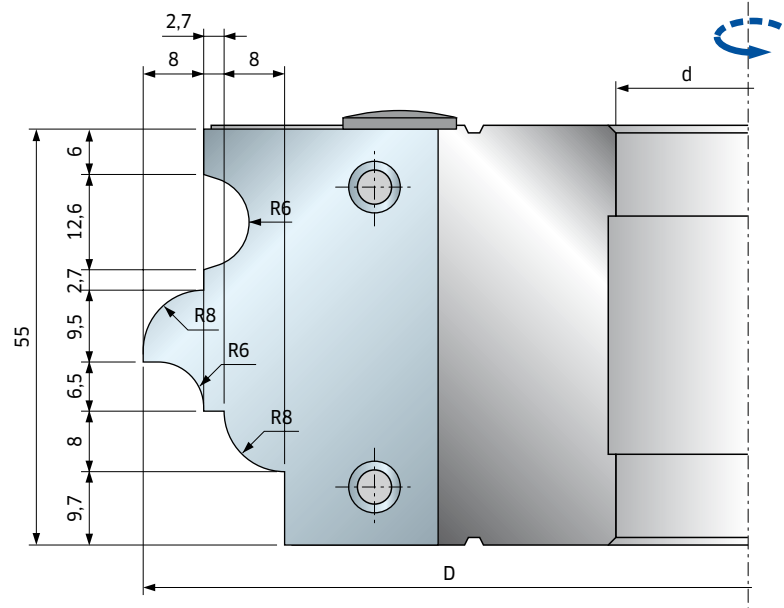


TP40M

Multiprofile cutterheads Teste multiprofilo

D mm	B mm	d* mm	Z	R	Max RPM 1/min.	Code Codice	SAP SAP
160	55	35 (50)	2		8.000	TP40M AB3	F03FC20493

Spare parts Parti di ricambio	Dimensions Dimensioni mm	Code Codice	SAP SAP
 Knife / Coltello	55 x 39 x 3	CP40MAA301	F03FC24002
 Wedge / Cuneo	51 x 35 x 8	CN13M AH9	F03FC23048
 Screw / Vite	M10 x 18	VT03M CC9	F03FA04438
 Screw / Vite	M5 x 7 x 16	VT08M AE9	F03FA04457
 Allen key / Chiave	5 x 110	CB03M EA9	F03FA00169



TP44M



Multiprofile cutterheads Teste multiprofilo

Multiprofile cutterhead for tongue, groove panels, flooring and cabinet doors, kitted with two sets of resharpenable knives. This tool is designed to be used on moulding machines. Mostly suitable for moulding and profiling on soft, hard and exotic wood, with a top quality finish. The tool's versatility allows you to produce 20-22 mm thick cabinet doors, 13-17 mm and 20-22 mm thick floor boards and 26 or 33 mm thick shutters. This can be achieved with two passes and by capsiding the machined part for the second run, taking care to adjust the tool's programmed height accordingly. The variously profiled knives are perfectly interchangeable and do not affect the minimum tool diameter.

This item is supplied with knives.

Light alloy body (Aluminum alloy). For cleaning do not use products containing caustic soda.

Testa multiprofilo per perline, antine e antoni, completa di 2 set di coltelli riaffilabili. Da utilizzare su macchine toupie. Particolarmente adatta per lavorazioni di contornatura e profilatura su legni teneri, duri ed esotici. Ottima finitura. La particolare versatilità dell'utensile permette l'esecuzione di antine di spessore 20-22 mm complete di specchietto, l'esecuzione di perline di spessore 13-17 mm e 20-22 mm, di antoni di spessore di 26 oppure 33 mm. Il tutto viene sempre eseguito con doppie passate invertendo la base di appoggio del pezzo tra una lavorazione e l'altra e modificando opportunamente la programmazione in altezza. I coltelli, di diverso profilo, sono perfettamente intercambiabili tra loro e mantengono il diametro minimo di lavorazione.

L'articolo viene fornito con coltelli.

Corpo in lega leggera (Lega di alluminio). Per la pulizia non utilizzare prodotti contenenti soda caustica.



D mm	B mm	d* mm	Z	R	Max RPM 1/min.	Code Codice	SAP SAP
160	55	30 (35)	2		8.500	TP44M AA3	F03F668643
160	55	32	2		8.500	TP44M AC3	F03F668644
160	55	35 (50)	2		8.500	TP44M AB3	F03FC20502

Spare parts Parti di ricambio		Dimensions Dimensioni mm	Code Codice	SAP SAP
	Wedge / Cuneo	38 x 51 x 8	CN13M CE9	F03FC22737
	Screw / Vite	M5 x 7 x 16	VT08M AE9	F03FA04457
	Screw / Vite	M10 x 18	VT03M CC9	F03FA04438
	Allen key / Chiave	5 x 110	CB03M EA9	F03FA00169

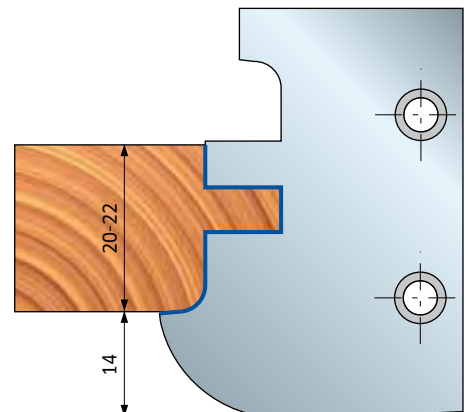
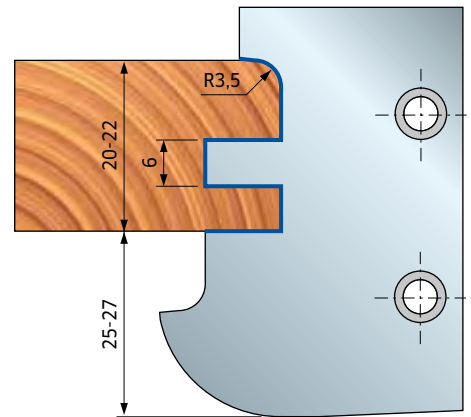
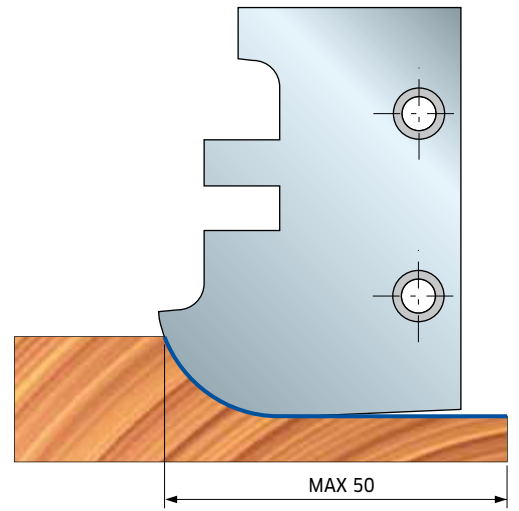
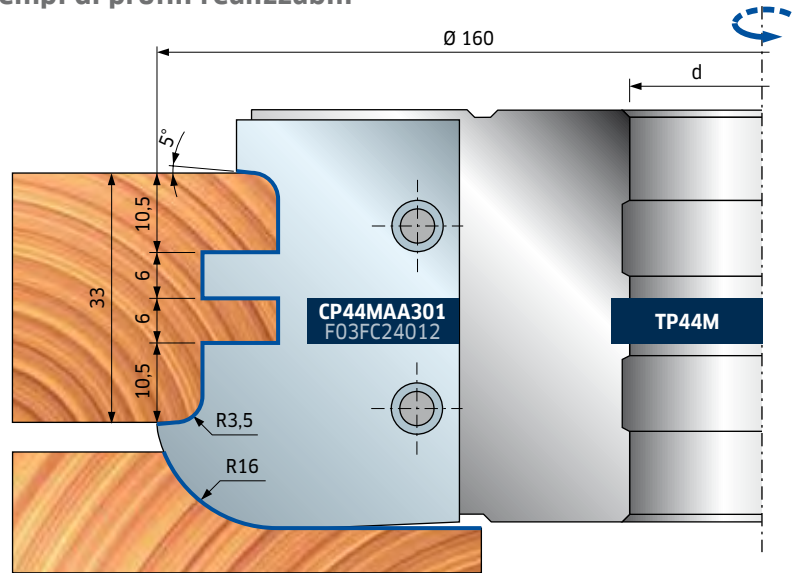
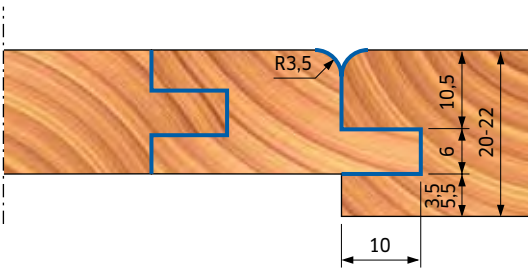
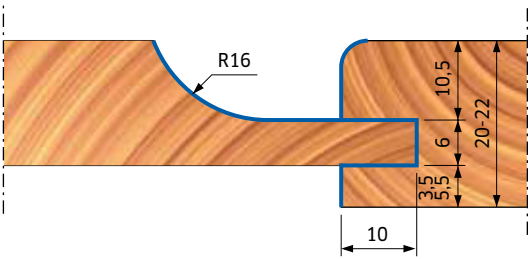
Profile Profilo	Spare knives Coltelli di ricambio	Dimensions Dimensioni mm	Code Codice	SAP SAP
1	Knife / Coltello	55 x 40 x 3	CP44MAA301	F03FC24012
2	Knife / Coltello	55 x 40 x 3	CP44MBA301	F03FC24013



TP44M

Example of profiles Esempi di profili realizzabili

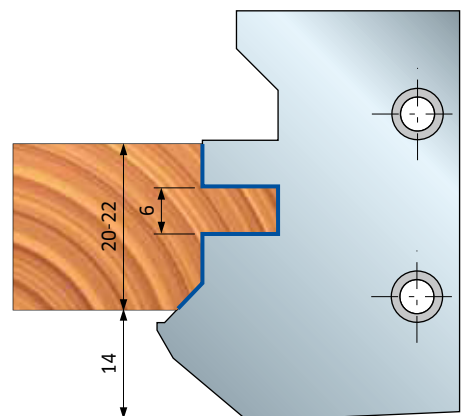
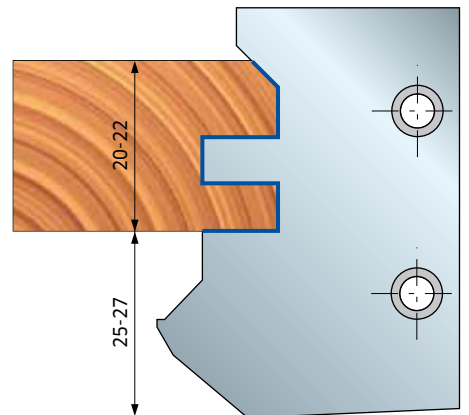
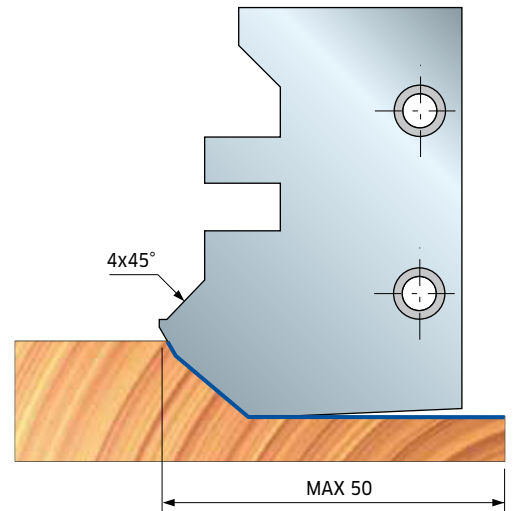
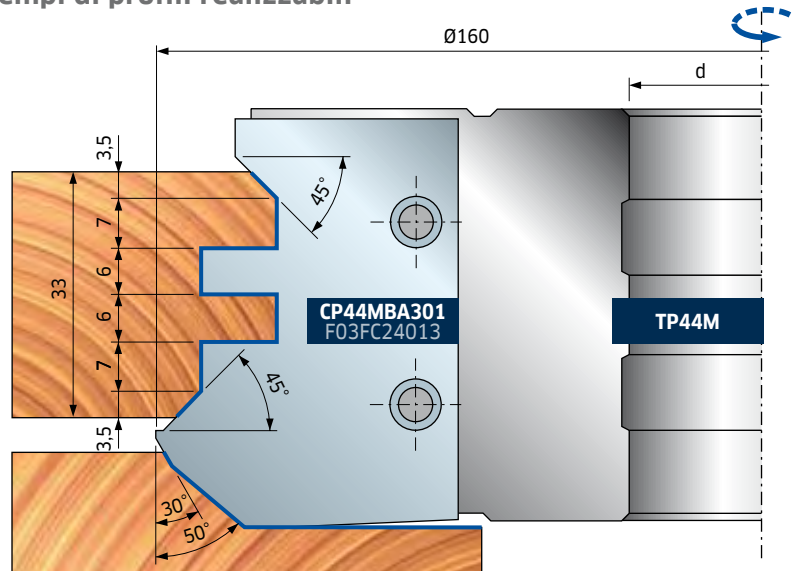
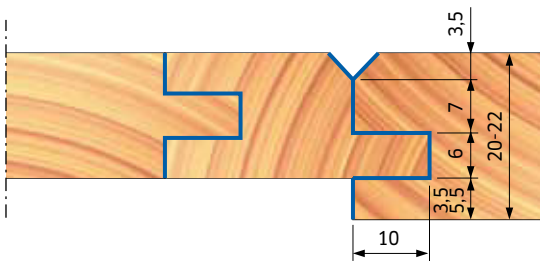
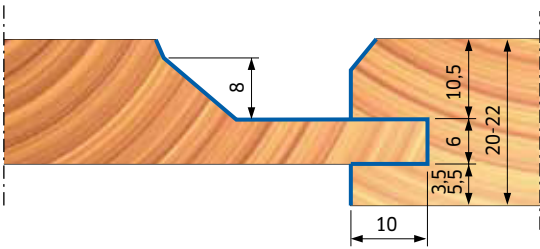
PROFILE / PROFILO 1



TP44M

Example of profiles Esempi di profili realizzabili

PROFILE / PROFILO 2



TP32M

Cutterheads sets for cabinet doors (wood thickness: 22-24 mm) Gruppi di teste per antine (sp. legno: 22-24 mm)

The cutterhead set must be used exclusively with upper and lower flanges mounted. The use of each cutterhead as a singular piece is not consented on machines with manual feed. The constructor declines any responsibility for improper use.

Set consisting of cutterheads A and B and flanges. Only knives for cutterhead B are included.

Il gruppo di teste portacoltelli deve essere utilizzato esclusivamente con flange superiore ed inferiore montate. L'utilizzo degli utensili singolarmente non è consentito su macchine ad avanzamento manuale. Il costruttore declina ogni responsabilità sull'uso improprio degli utensili.

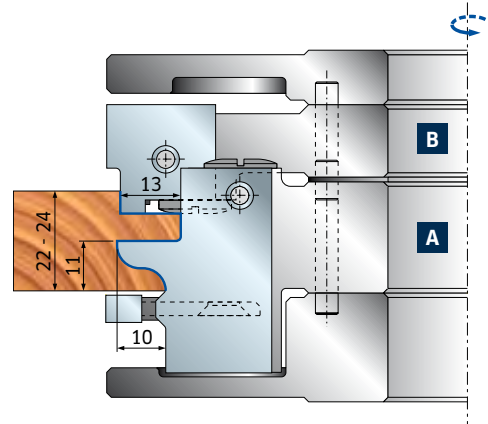
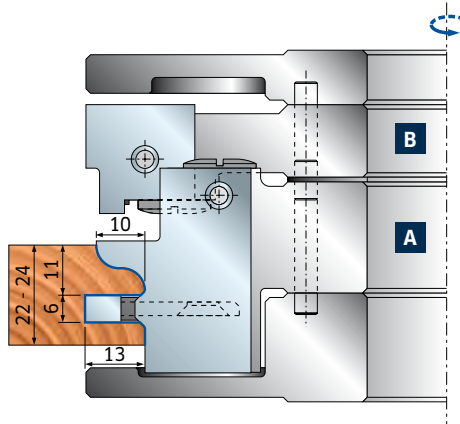
Gruppo composto dagli utensili A e B e flange. Sono compresi solo i coltelli per la testa B.



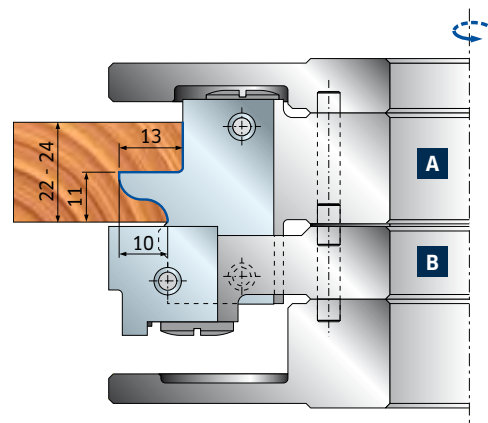
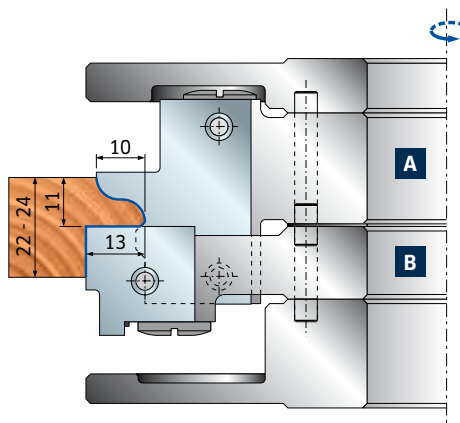
D mm	B mm	d* mm	Z	R	Max RPM 1/min.	Code Codice	SAP SAP
159		30	2+2	2	8.500	TP32M AA3	F03FC24452
159		35 (50)	2+2	2	8.500	TP32M AB3	F03FC20489

Spare parts Parti di ricambio		Dimensions Dimensioni mm	Code Codice	SAP SAP	
	Wedge / Cuneo	43 x 19 x 8,5	CN11M C410A	F03FC23536	
	Grooving insert / Insero per incastri	34 x 6 x 16	SR06MAB302	F03FC24191	
	Screw / Vite	M10 x 18	VT03M CC9	F03FA04438	
	Screw / Vite	M5 x 8	VT05M AA9	F03FA04444	
	Screw / Vite	M6 x 13	VT16M AE9	F03FC20658	
	Positioning plate / Piastrina di riscontro	22 x 1,7 x 19	VT18M GB9	F03FA04489	
	Wedge / Cuneo	16 x 17 x 8	CN11M B160A	F03FC24539	
	Chiave / Allen key	5 x 110	CB03M EA9	F03FA00169	
	Torx key / Chiave Torx	T20	CB03M CC9	F03FA00167	
AA3		Upper flange / Flangia superiore	159 x 12 x 30	FX32M AA9	F03FC24578
		Lower flange / Flangia inferiore	159 x 24 x 30	FX32M BA9	F03FC24579
		Upper flange / Flangia superiore	159 x 12 x 35	FX32M AB9	F03FC15078
		Lower flange / Flangia inferiore	159 x 24 x 35	FX32M BB9	F03FC15079

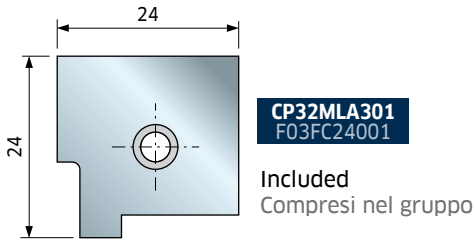
Carrying out a groove - Esecuzione con incastro



Carrying out a rebate - Esecuzione con battuta



KNIFE FOR / COLTELLO PER TP32M - B

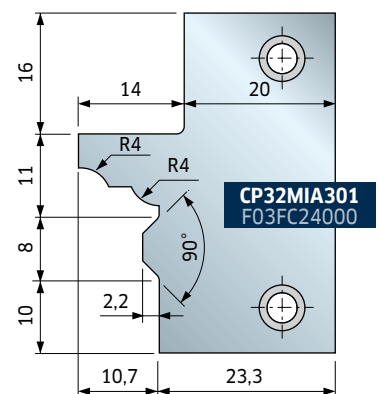
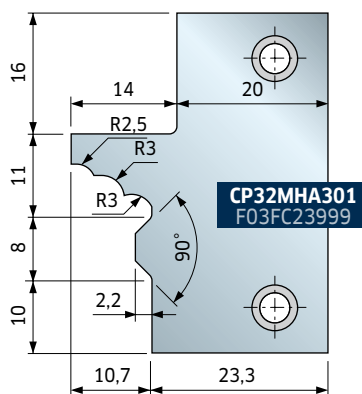
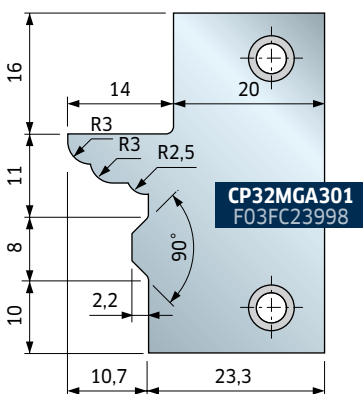
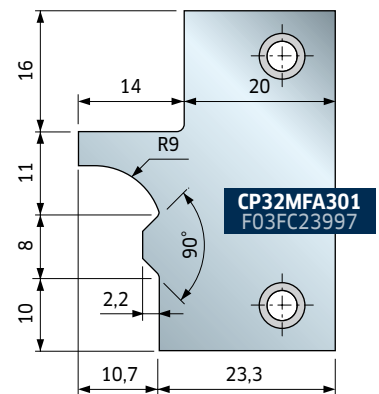
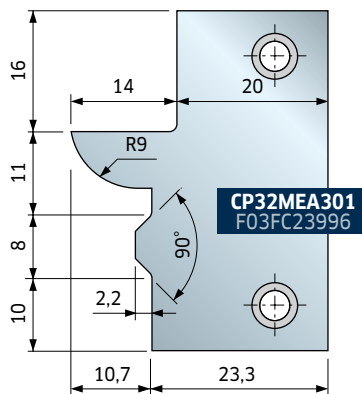
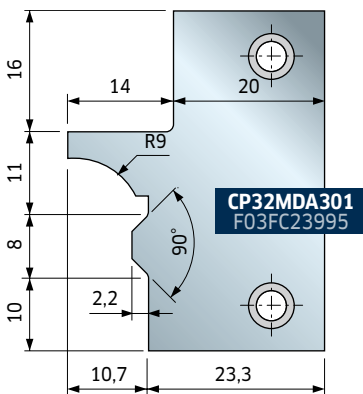
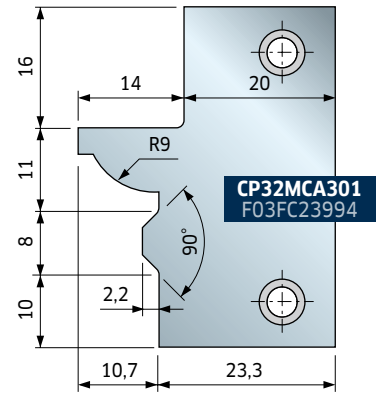
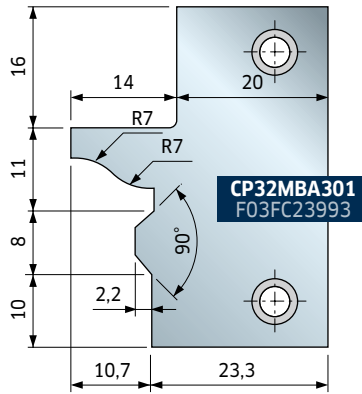
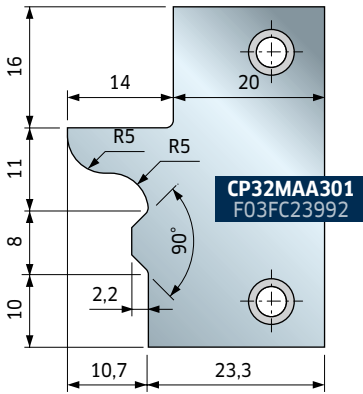


	Spare knives Coltelli di ricambio	Dimensions Dimensioni mm	Code Codice	SAP SAP
	Knife / Coltello	45 x 34 x 3	CP32MAA301	F03FC23992
	Knife / Coltello	45 x 34 x 3	CP32MBA301	F03FC23993
	Knife / Coltello	45 x 34 x 3	CP32MCA301	F03FC23994
	Knife / Coltello	45 x 34 x 3	CP32MDA301	F03FC23995
	Knife / Coltello	45 x 34 x 3	CP32MEA301	F03FC23996
	Knife / Coltello	45 x 34 x 3	CP32MFA301	F03FC23997
	Knife / Coltello	45 x 34 x 3	CP32MGA301	F03FC23998
	Knife / Coltello	45 x 34 x 3	CP32MHA301	F03FC23999
	Knife / Coltello	45 x 34 x 3	CP32MIA301	F03FC24000
	Knife / Coltello	24 x 24 x 3	CP32MLA301	F03FC24001

INSERT FOR / INSERTO PER TP32M - B



KNIVES FOR / COLTELLI PER TP32M - A Not included - Da ordinare a parte





****Cutterheads AA3 - AB3 - AC3 and BA3 - BB3 - BC3 are supplied without knives.**

Cutterheads TPSEM AA3 - AB3 - AC3 are used to produce cabinet doors with a 22 mm thickness; cutterheads TPSEM BA3 - BB3 - BC3 are used to produce cabinet doors with a 30 mm thickness.

****Le teste portacoltelli AA3 - AB3 - AC3 e BA3 - BB3 - BC3 vengono fornite senza i coltelli.**

Le teste TPSEM AA3 - AB3 - AC3 si utilizzano per la produzione di antine di spessore 22 mm; le teste TPSEM BA3 - BB3 - BC3 per la produzione di antine di spessore 30 mm.

Cutterheads sets for cabinet doors (wood thickness: 22-30 mm) Gruppi di teste per antine (sp. legno: 22-30 mm)

The cutterhead set must be used exclusively with upper and lower flanges mounted. The use of each cutterhead as a singular piece is not consented on machines with manual feed. The constructor declines any responsibility for improper use.

Complete cabinet door sets with either 22 mm or 30 mm thickness. This item comes in a practical carrying case.

Il gruppo di teste portacoltelli deve essere utilizzato esclusivamente con flange superiore ed inferiore montate. L'utilizzo degli utensili singolarmente non è consentito su macchine ad avanzamento manuale. Il costruttore declina ogni responsabilità sull'uso improprio degli utensili.

Gruppi completi per antine con spessori rispettivamente di 22 e 30 mm. Articoli forniti in valigetta.

D mm	B mm	d* mm	Z	R	Max RPM 1/min.	Code Codice	SAP SAP
160		30			8.000	TPSEM22GA3	F03FC23021
160		32			8.000	TPSEM22GC3	F03FC24432
160		35			8.000	TPSEM22GB3	F03FC20476
160		30			8.000	TPSEM30GA3	F03FC23024
160		32			8.000	TPSEM30GC3	F03FC24433
160		35			8.000	TPSEM30GB3	F03FC20477

Tools for TPSEM sets Utensili per gruppi TPSEM

D mm	B mm	d* mm	Z	R	Code Codice	SAP SAP
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 Coltelli per gruppi TPSEM

	Spare knives Coltelli di ricambio	Dimensions Dimensioni mm	Code Codice	SAP SAP
	Knife / Coltello	35 x 34 x 3	CPSEMAB301	F03FC23924
	Knife / Coltello	35 x 34 x 3	CPSEMAC301	F03FC23925
	Knife / Coltello	35 x 34 x 3	CPSEMAD301	F03FC23926
	Knife / Coltello	35 x 34 x 3	CPSEMAE301	F03FC23927
	Knife / Coltello	35 x 34 x 3	CPSEMAF301	F03FC23928
	Knife / Coltello	35 x 34 x 3	CPSEMAG301	F03FC23929
	Knife / Coltello	35 x 34 x 3	CPSEMAB301	F03FC23930
	Knife / Coltello	35 x 34 x 3	CPSEMBC301	F03FC23931
	Knife / Coltello	35 x 34 x 3	CPSEMBD301	F03FC23932
	Knife / Coltello	35 x 34 x 3	CPSEMBE301	F03FC23933
	Knife / Coltello	35 x 34 x 3	CPSEMBF301	F03FC23934
	Knife / Coltello	35 x 34 x 3	CPSEMBG301	F03FC23935
	Knife / Coltello	20 x 24 x 3	CPSEMCA301	F03FC23936
	Knife / Coltello	17 x 24 x 3	CPSEMDA301	F03FC23937

Cutterheads sets for cabinet doors (wood thickness: 22-30 mm) Gruppi di teste per antine (sp. legno: 22-30 mm)

Spare parts for cutterheads TPSEM Parti di ricambio per teste TPSEM



	Spare parts Parti di ricambio	Dimensions Dimensioni mm	Code Codice	SAP SAP
AA3-AB3-AC3	Deflector / Deflettore	30,8 x 7 x 24,5	ID04MSAA901	F03FC24137
	Grooving insert / Insetto per incastri	40 x 16 x 4	IG04MSAA305	F03FH02994
	Positioning plate / Piastra riscontro	34 x 4 x 16	SR06MDAL302	F03FC24196
	Screw / Vite	M10 x 18	VT03M CC9	F03FA04438
	Screw / Vite	M5 x 8	VT05M AA9	F03FA04444
	Screw for: / Vite per: ID04M	M4 x 12	VT05M DA9	F03FC20647
	Screw / Vite	M6 x 14,5	VT16M AA9	F03FA04476
	Screw / Vite	M6 x 13	VT16M AE9	F03FC20658
	Positioning plate / Piastra riscontro	20 x 11,6 x 2,2	VT18M AS9	F03FC20665
	BA3-BB3-BC3	Deflector / Deflettore	30,8 x 8 x 24,5	ID04MSAD901
Grooving insert / Insetto per incastri		40 x 16 x 6	IG04MSAD305	F03FH02997
Spur insert / Insetto rasante		34 x 4 x 16	SR06MDAL302	F03FC24196
Screw / Vite		M10 x 18	VT03M CC9	F03FA04438
Screw / Vite		M5 x 8	VT05M AA9	F03FA04444
Screw for: / Vite per: ID04M		M4 x 12	VT05M DA9	F03FC20647
Screw / Vite		M6 x 15,5	VT16M AD9	F03FC20657
Screw / Vite		M6 x 13	VT16M AE9	F03FC20658
Positioning plate / Piastra riscontro		20 x 11,6 x 2,2	VT18M AS9	F03FC20665
CA3-CB3 CC3		Wedge / Cuneo	16 x 17 x 8	CN11M B160A
	Knife / Coltello	20 x 24 x 3	CPSEMCA301	F03FC23936
	Spur / Rasante	22,86 x 2,5	RG02MAA305	F03FH03041
	Screw / Vite	M10 x 18	VT03M CC9	F03FA04438
	Screw / Vite	M5 x 8	VT05M AA9	F03FA04444
DA3-DB3 DC3	Wedge / Cuneo	16 x 17 x 8	CN11M B130A	F03FC01348
	Knife / Coltello	17 x 24 x 3	CPSEMDA301	F03FC23937
	Screw / Vite	M10 x 18	VT03M CC9	F03FA04438
	Screw / Vite	M5 x 8	VT05M AA9	F03FA04444
	Positioning plate / Piastra riscontro	20 x 11,6 x 2,2	VT18M AR9	F03FC20664

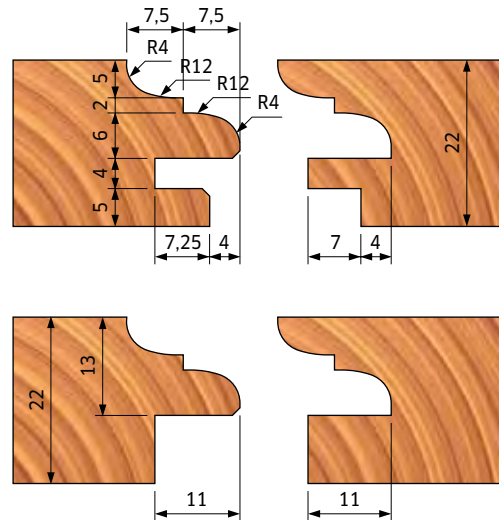
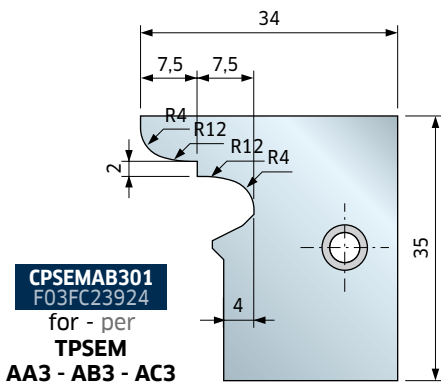
Spare parts for sets TPSEM22 - TPSEM30 Parti di ricambio per gruppi TPSEM22 - TPSEM30



	Spare parts Parti di ricambio	Dimensions Dimensioni mm	Code Codice	SAP SAP
	Torx key / Chiave Torx	T20	CB03M CC9	F03FA00167
	Allen key / Chiave	4 x 110	CB03M BA9	F03FA00163
	Allen key / Chiave	5 x 110	CB03M EA9	F03FA00169
22GA3	Spacer set / Set anelli	50 x 6,7 x 30	AN03M BM9	F03FC23022
	Upper flange / Flangia superiore	152 x 13,6 x 30	FXSEM AA9	F03FC23019
22GB3	Lower flange / Flangia inferiore	152 x 28 x 30	FXSEM BA9	F03FC23020
	Spacer set / Set anelli	55 x 6,7 x 35	AN03M BK9	F03FC00463
22GC3	Upper flange / Flangia superiore	152 x 13,6 x 35	FXSEM AB9	F03FC15029
	Lower flange / Flangia inferiore	152 x 28 x 35	FXSEM BB9	F03FC15030
30GA3	Spacer set / Set anelli	52 x 6,7 x 32	AN03M B09	F03FC24434
	Upper flange / Flangia superiore	152 x 13,6 x 32	FXSEM AC9	F03FC24436
30GB3	Lower flange / Flangia inferiore	152 x 28 x 32	FXSEM BC9	F03FC24437
	Spacer set / Set anelli	50 x 7,7 x 30	AN03M BN9	F03FC23023
30GC3	Upper flange / Flangia superiore	152 x 13,6 x 30	FXSEM AA9	F03FC23019
	Lower flange / Flangia inferiore	152 x 28 x 30	FXSEM BA9	F03FC23020
30GB3	Spacer set / Set anelli	55 x 7,7 x 35	AN03M BL9	F03FC00464
	Upper flange / Flangia superiore	152 x 13,6 x 35	FXSEM AB9	F03FC15029
30GC3	Lower flange / Flangia inferiore	152 x 28 x 35	FXSEM BB9	F03FC15030
	Spacer set / Set anelli	52 x 7,7 x 32	AN03M BP9	F03FC24435
30GC3	Upper flange / Flangia superiore	152 x 13,6 x 32	FXSEM AC9	F03FC24436
	Lower flange / Flangia inferiore	152 x 28 x 32	FXSEM BC9	F03FC24437

CPSEMAB301

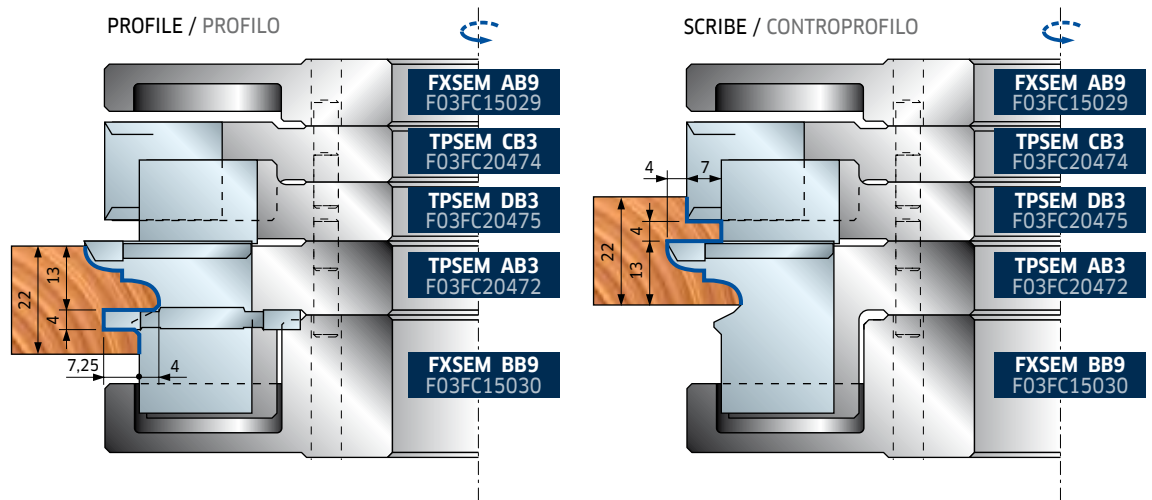
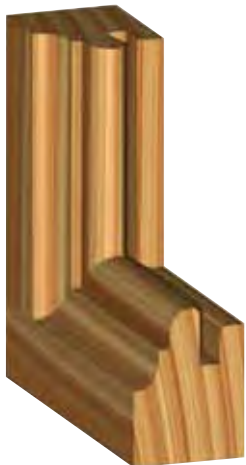
Knives for TPSEM AA3 - AB3 - AC3 (wood thickness: 22 mm)
 Coltelli per TPSEM AA3 - AB3 - AC3 (spessore legno: 22 mm)



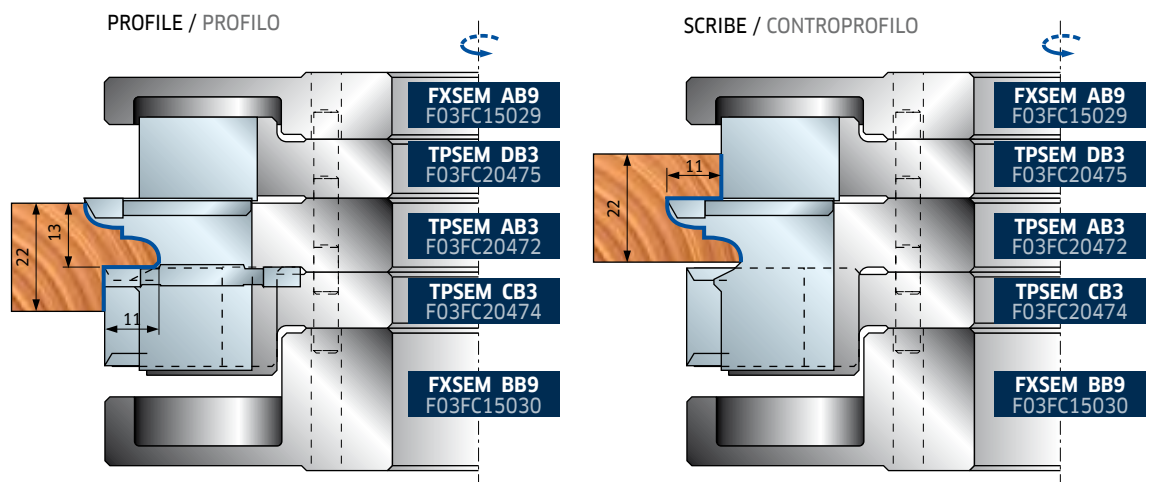
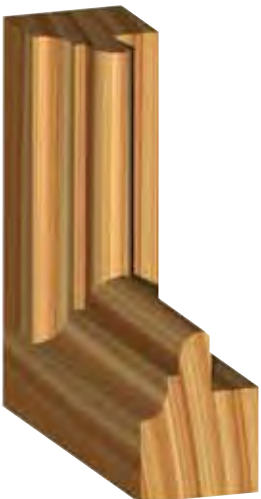
Order example for the profiles shown
 Esempio di ordinazione per l'esecuzione dei profili indicati

Pieces Pezzi	Dimensions Dimensioni mm	Code Codice	SAP SAP
1	160 x 35	TPSEM22GB3	F03FC20476
2	35 x 34 x 3	CPSEM AB3	F03FC01457

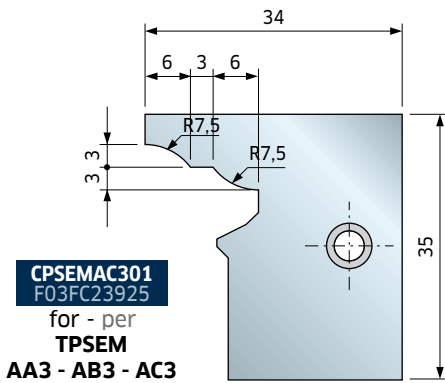
Carrying out a groove
 Esecuzione con incastro



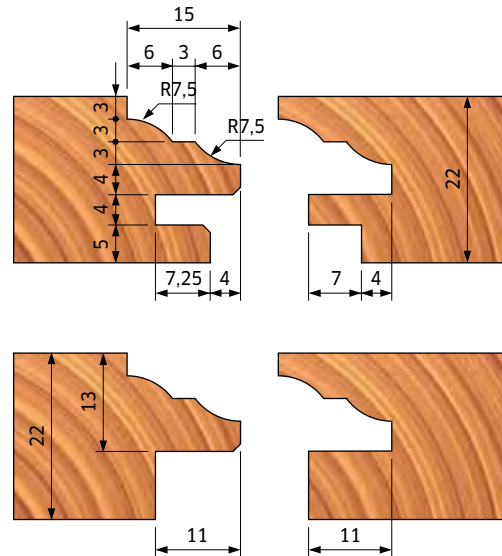
Carrying out a rebate
 Esecuzione con battuta



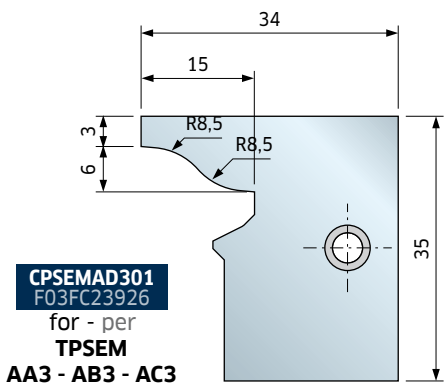
CPSEMAC301



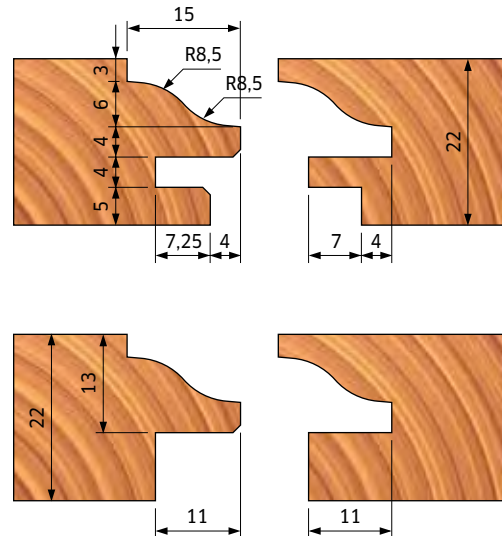
Knives for TPSEM AA3 - AB3 - AC3 (wood thickness: 22 mm)
Coltelli per TPSEM AA3 - AB3 - AC3 (spessore legno: 22 mm)



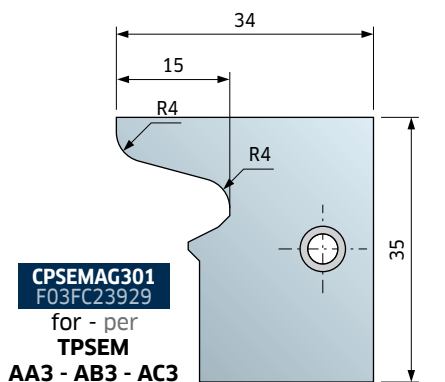
CPSEMAC301



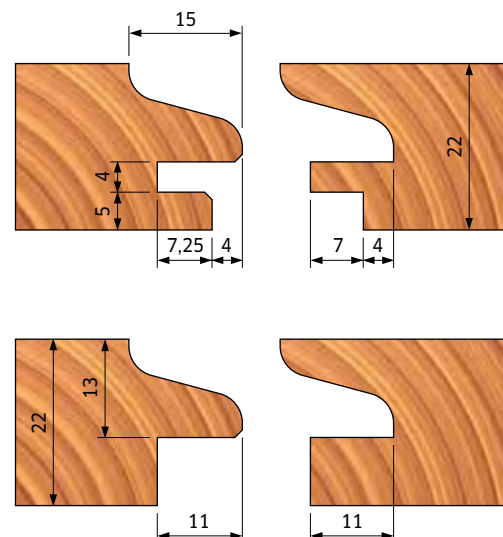
Knives for TPSEM AA3 - AB3 - AC3 (wood thickness: 22 mm)
Coltelli per TPSEM AA3 - AB3 - AC3 (spessore legno: 22 mm)



CPSEMAC301

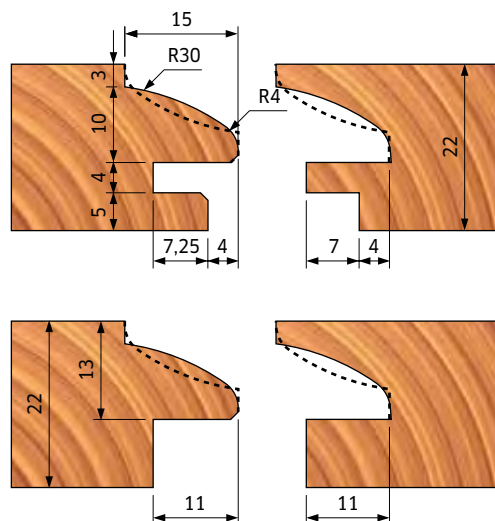
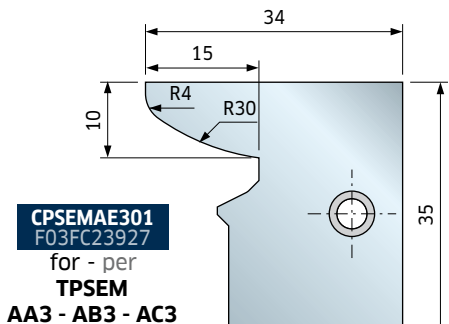
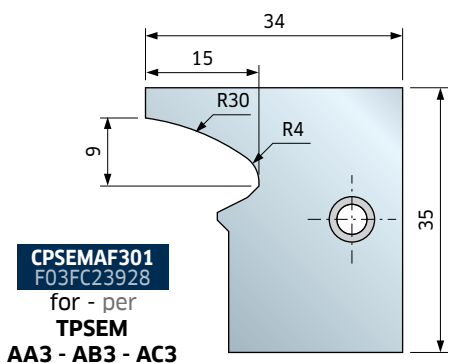


Knives for TPSEM AA3 - AB3 - AC3 (wood thickness: 22 mm)
Coltelli per TPSEM AA3 - AB3 - AC3 (spessore legno: 22 mm)



CPSEMAF301 - CPSEMAE301 CPSEMAE301 - CPSEMAF301

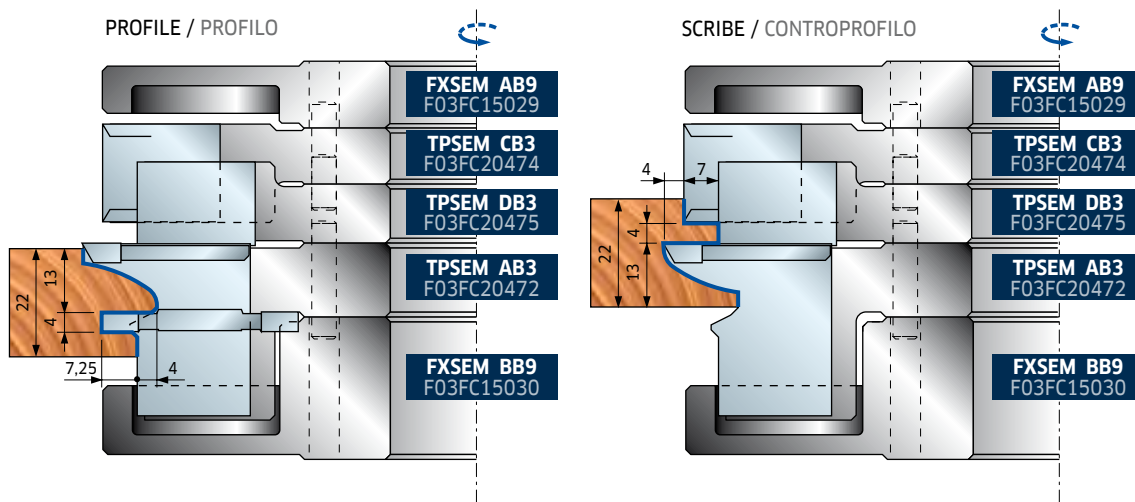
Knives for TPSEM AA3 - AB3 - AC3 (wood thickness: 22 mm)
Coltelli per TPSEM AA3 - AB3 - AC3 (spessore legno: 22 mm)



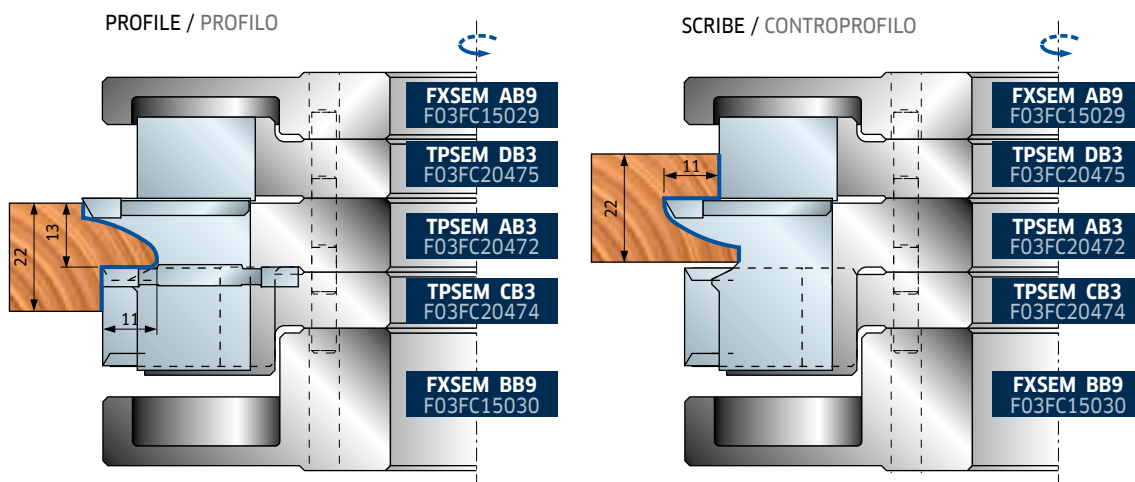
Order example for the profiles shown
Esempio di ordinazione per l'esecuzione dei profili indicati

Pieces Pezzi	Dimensions Dimensioni mm	Code Codice	SAP SAP
1	160 x 35	TPSEM22GB3	F03FC20476
2	35 x 34 x 3	CPSEMAE301	F03FC23927
2	35 x 34 x 3	CPSEMAF301	F03FC23928

Carrying out a groove
Esecuzione con incastro

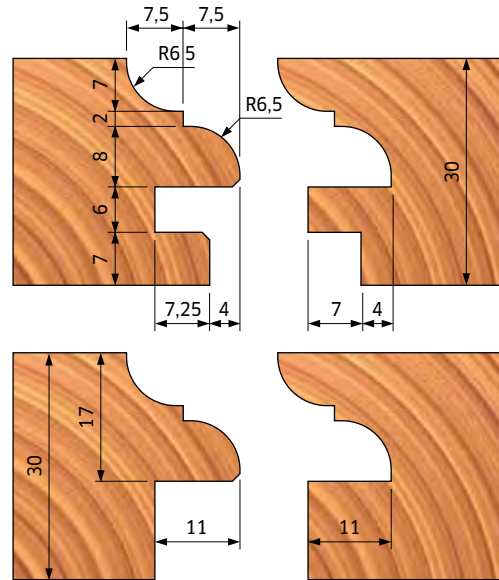
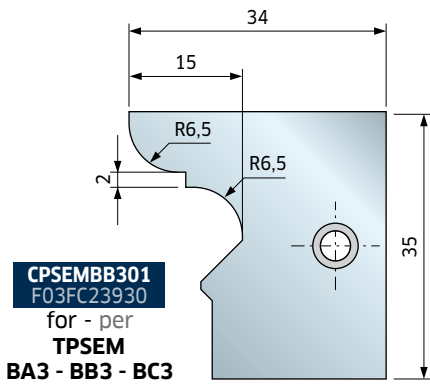


Carrying out a rebate
Esecuzione con battuta



CPSEMBB301

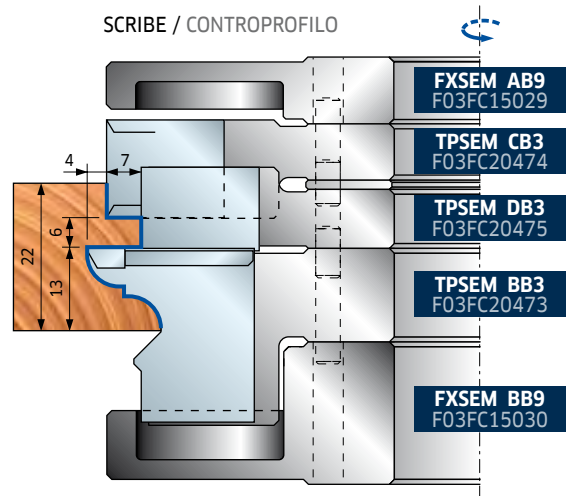
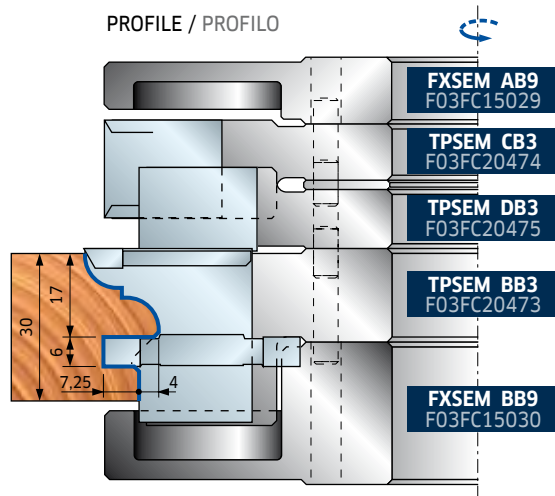
Knives for TPSEM BA3 - BB3 - BC3 (wood thickness: 30 mm)
 Coltelli per TPSEM BA3 - BB3 - BC3 (spessore legno: 30 mm)



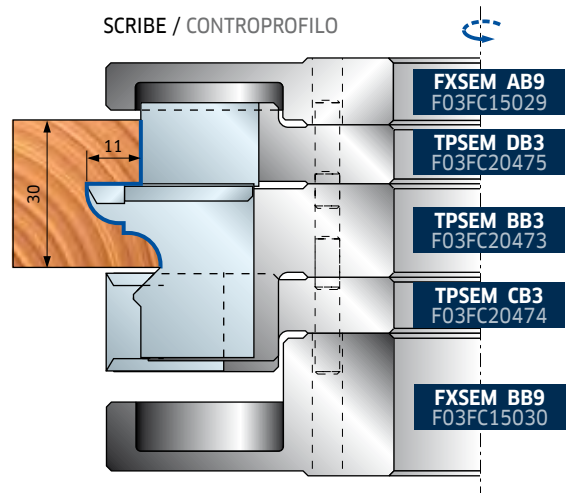
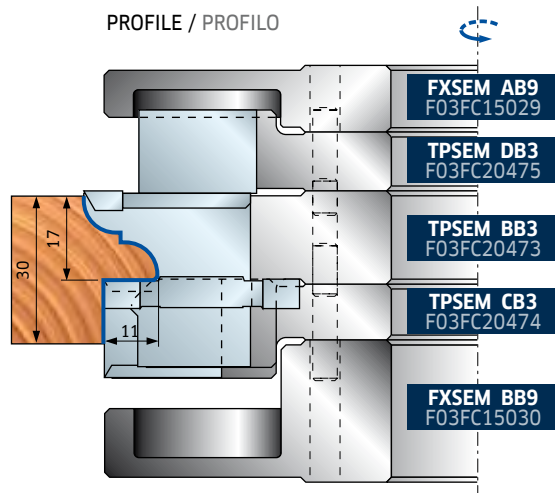
Order example for the profiles shown
 Esempio di ordinazione per l'esecuzione dei profili indicati

Pieces Pezzi	Dimensions Dimensioni mm	Code Codice	SAP SAP
1	160 x 35	TPSEM22GB3	F03FC20476
2	35 x 34 x 3	CPSEMAE301	F03FC23927
2	35 x 34 x 3	CPSEMAF301	F03FC23928

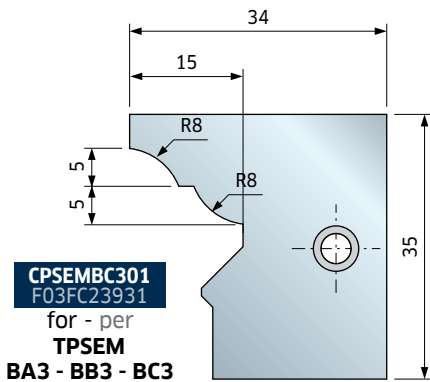
Carrying out a groove
 Esecuzione con incastro



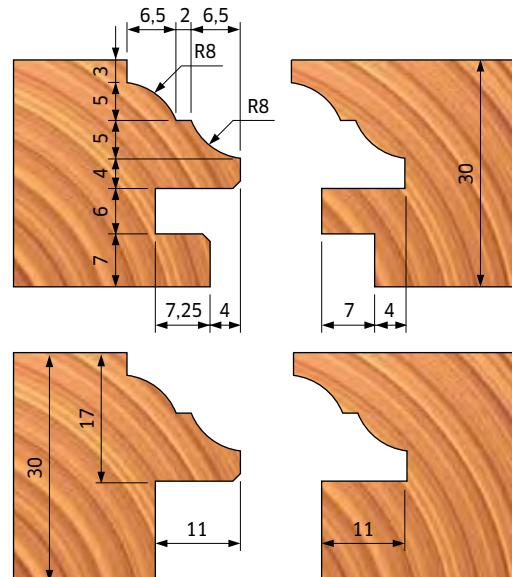
Carrying out a rebate
 Esecuzione con battuta



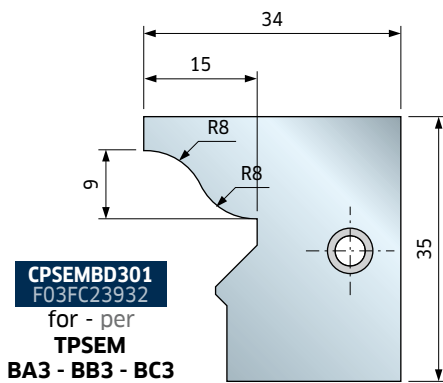
CPSEMBC301



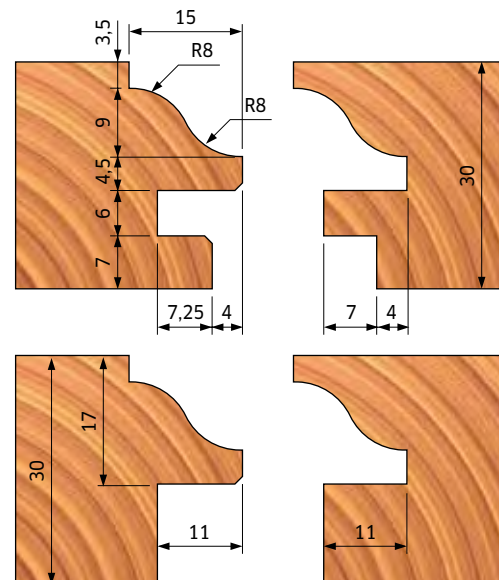
Knives for TPSEM BA3 - BB3 - BC3 (wood thickness: 30 mm)
Coltelli per TPSEM BA3 - BB3 - BC3 (spessore legno: 30 mm)



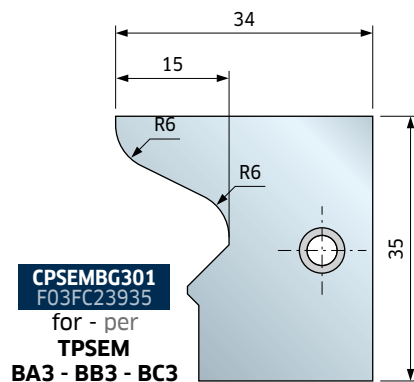
CPSEMBD301



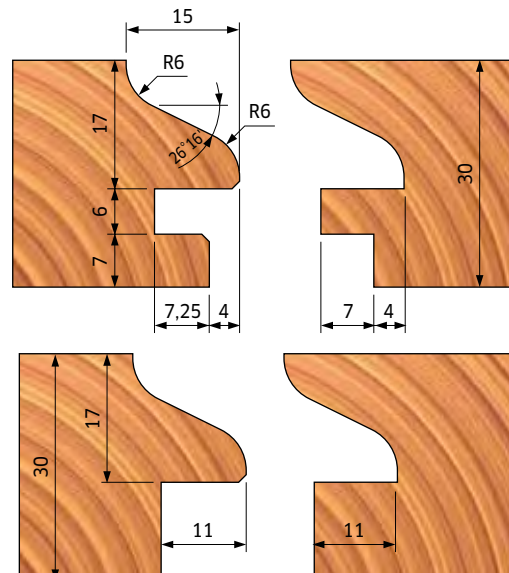
Knives for TPSEM BA3 - BB3 - BC3 (wood thickness: 30 mm)
Coltelli per TPSEM BA3 - BB3 - BC3 (spessore legno: 30 mm)



CPSEMBG301

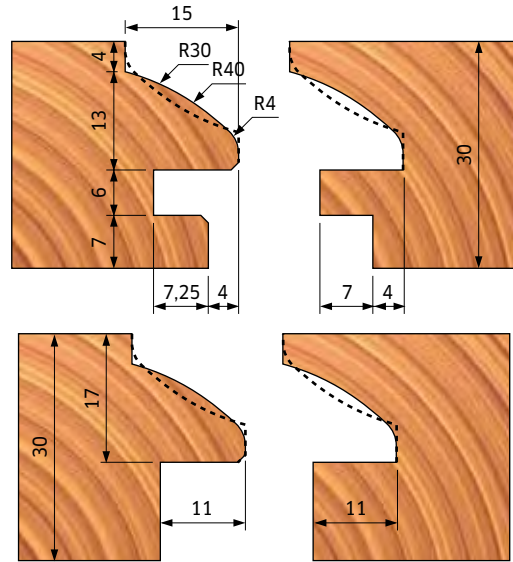
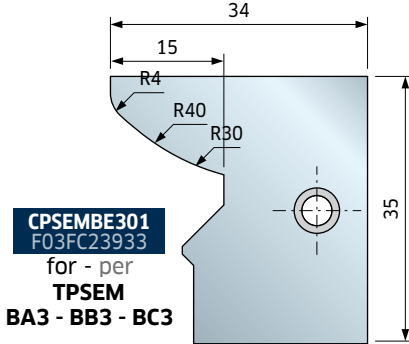
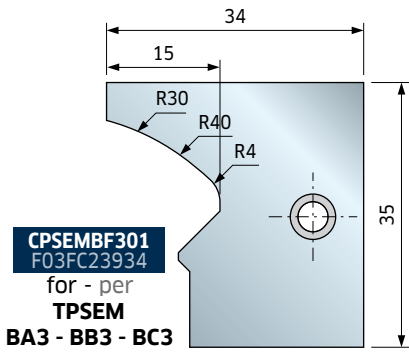


Knives for TPSEM BA3 - BB3 - BC3 (wood thickness: 30 mm)
Coltelli per TPSEM BA3 - BB3 - BC3 (spessore legno: 30 mm)



CPSEMBF301 - CPSEMBE301
CPSEMBE301 - CPSEMBF301

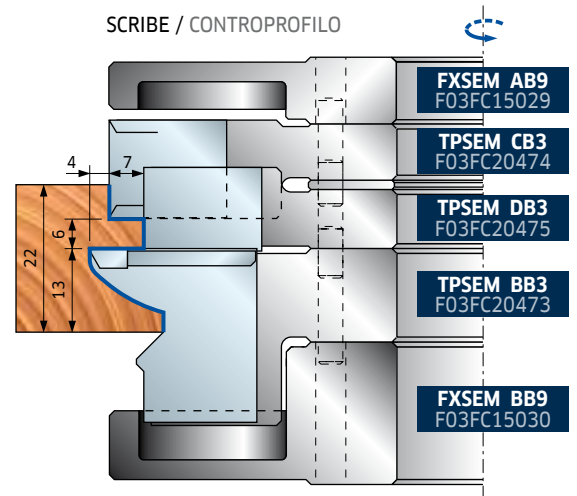
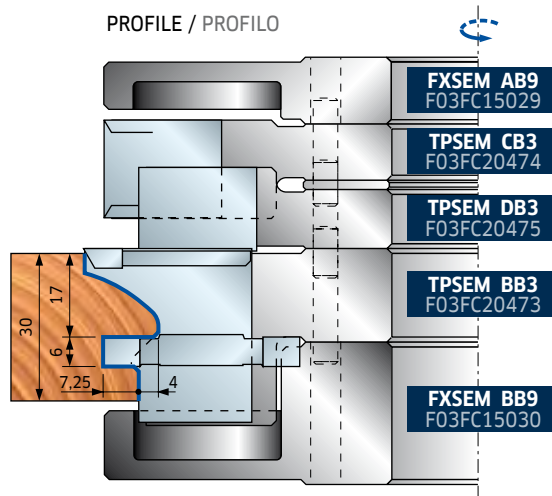
Knives for TPSEM BA3 - BB3 - BC3 (wood thickness: 30 mm)
Coltelli per TPSEM BA3 - BB3 - BC3 (spessore legno: 30 mm)



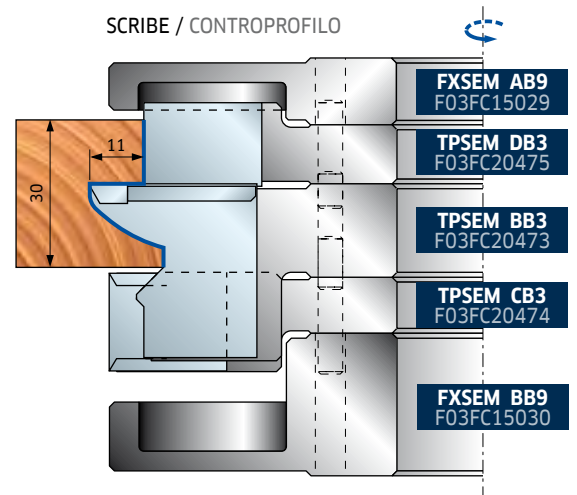
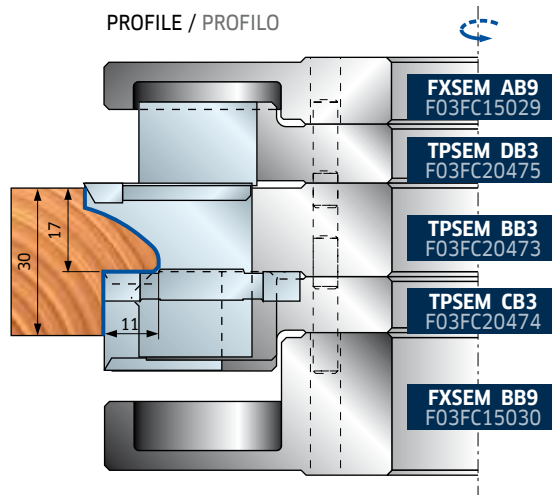
Order example for the profiles shown
Esempio di ordinazione per l'esecuzione dei profili indicati

Pieces Pezzi	Dimensions Dimensioni mm	Code Codice	SAP SAP
1	160 x 35	TPSEM30GB3	F03FC20477
2	35 x 34 x 3	CPSEMBE301	F03FC23933
2	35 x 34 x 3	CPSEMBF301	F03FC23934

Carrying out a groove
Esecuzione con incastro



Carrying out a rebate
Esecuzione con battuta



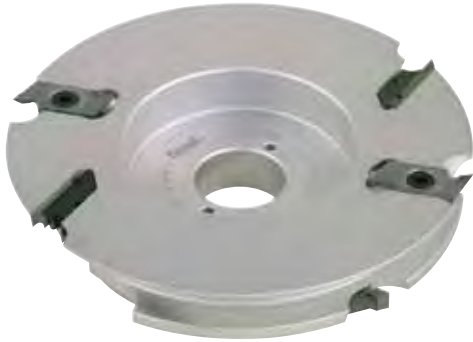
TP42M

Multiprofile cutterheads for doors Teste multiprofilo per porte

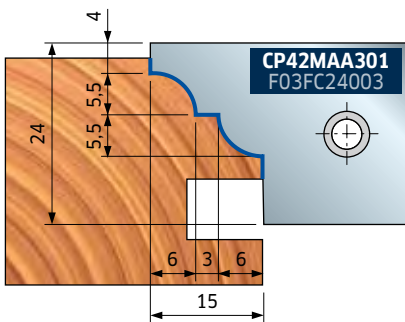
This tool is designed to be used on moulding. Mostly suitable for moulding and profiling on soft, hard and exotic wood, with a top quality finish. The tool's versatility allows you to produce 44 - 52 mm thick doors. This can be achieved with two passes and by capsiding the machined part for the second run, taking care to adjust the tool's programmed height accordingly. The variously profiled knives are perfectly interchangeable and do not affect the minimum tool diameter. Light alloy body (Aluminum alloy). For cleaning do not use products containing caustic soda. **This item is supplied without knives.**

Questo utensile è stato progettato per essere utilizzato su macchine toipie. Particolarmente indicato per la profilatura di legni teneri, duri ed esotici, con ottima finitura. La versatilità di questo utensile permette di produrre porte con spessori da 44 a 52 mm. Questo può essere ottenuto con due passate, capovolgendo la parte già lavorata per la seconda lavorazione ed avendo l'accortezza di regolare l'altezza di programmazione dell'utensile. I coltelli, di diverso profilo, sono perfettamente intercambiabili tra loro e mantengono il diametro minimo di lavorazione.

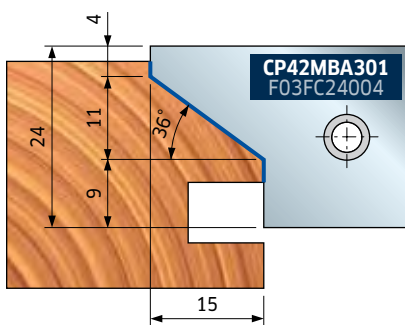
Corpo in lega leggera (Lega di alluminio). Per la pulizia non utilizzare prodotti contenenti soda caustica. **L'articolo viene fornito senza coltelli.**



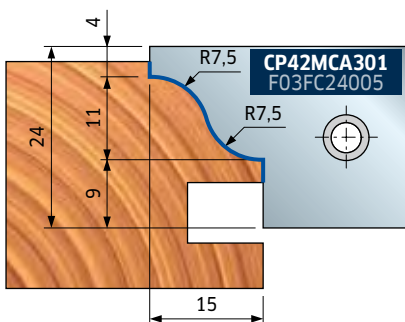
PROFILE / PROFILO 1



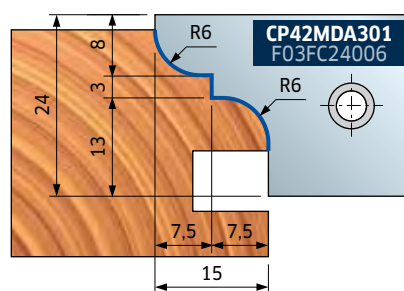
PROFILE / PROFILO 2



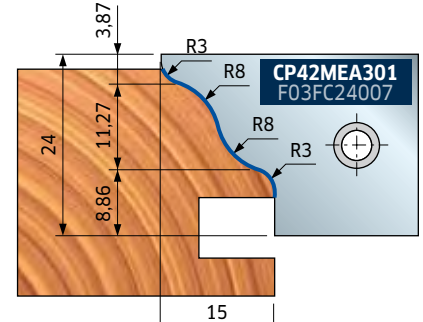
PROFILE / PROFILO 3



PROFILE / PROFILO 4



PROFILE / PROFILO 5



D mm	B mm	d* mm	Z	R	Max RPM 1/min.	Code Codice	SAP SAP
176	40	32	2	4	7.500	TP42M HC3	F03F668642
176	40	35 (50)	2	4	7.500	TP42M AB3	F03FC20494

Spare parts Parti di ricambio	Dimensions Dimensioni mm	Code Codice	SAP SAP
Screw / Vite	M5 x 7 x 16	VT08M AE9	F03FA04457
Wedge / Cuneo	21 x 19 x 8	CN13M AS9	F03FC01390
Screw / Vite	M10 x 18	VT03M CC9	F03FA04438
Spur insert / Inserto rasante	40 x 4 x 7	IG05MDAA305	F03FH02998
Screw / Vite	M6 x 14,5	VT16M AA9	F03FA04476
Grooving insert / Inserto per incastri	34 x 8 x 16	SR06MAM301	F03FC24192
Screw / Vite	M6 x 11,5	VT16M AB9	F03FA04477
Allen key / Chiave	4 x 110	CB03M BA9	F03FA00163
Allen key / Chiave	5 x 110	CB03M EA9	F03FA00169

Profile Profilo	Spare knives Coltelli di ricambio	Dimensions Dimensioni mm	Code Codice	SAP SAP
1	Knife / Coltello	24 x 34 x 3	CP42MAA301	F03FC24003
2	Knife / Coltello	24 x 34 x 3	CP42MBA301	F03FC24004
3	Knife / Coltello	24 x 34 x 3	CP42MCA301	F03FC24005
4	Knife / Coltello	24 x 34 x 3	CP42MDA301	F03FC24006
5	Knife / Coltello	24 x 34 x 3	CP42MEA301	F03FC24007



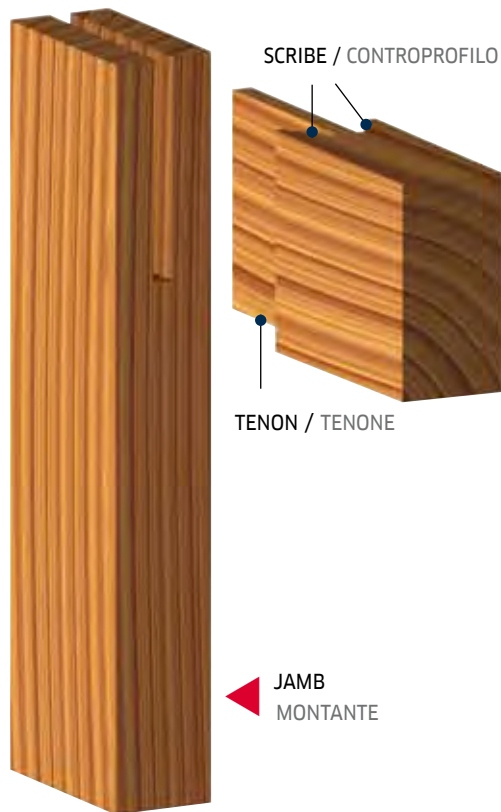
Profiles 4 and 5 are usable with automatic feed only.

I profili 4 e 5 sono utilizzabili solamente con avanzamento meccanico.

TP42M

1 Door tenoning Esecuzione del controprofilo con spina

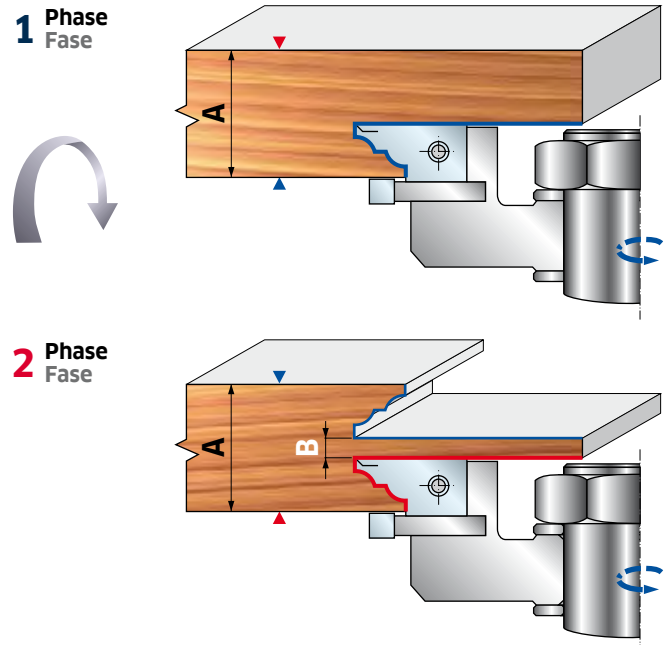
A	Door thickness Spessore Porta mm	B	Tenon thickness Spessore Tenone mm
	44		8
	46		10
	50		14
	52		16



TRANSOM
TRAVERSO

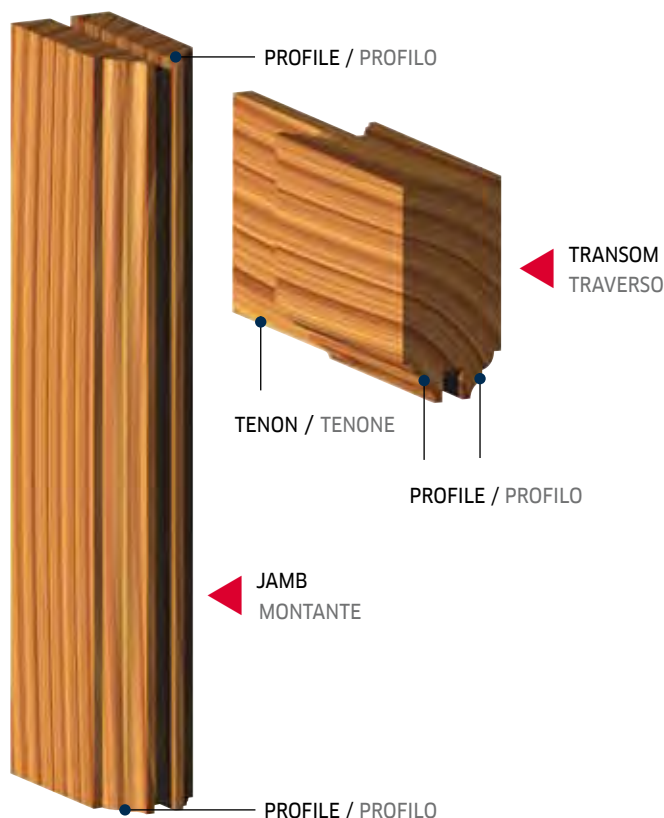
TENON / TENONE

JAMB
MONTANTE



2 Door frame profiling Profilatura dei montanti e dei traveri

A	Door thickness Spessore Porta mm	C	Groove thickness Spessore Incastro mm
	44		8
	46		10
	50		14
	52		16



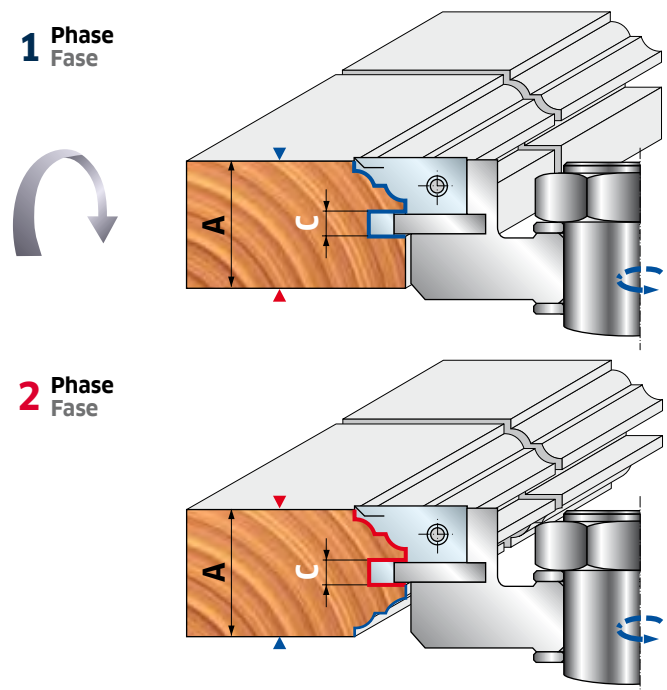
TRANSOM
TRAVERSO

TENON / TENONE

PROFILE / PROFILO

JAMB
MONTANTE

PROFILE / PROFILO



TP46MAN

Multiprofile cutterheads sets for doors (38-40 mm) Gruppi di teste per porte con spessore 38-40 mm

Please Note: To obtain a workpiece of 40 mm, use a spacer of 2 mm.
These sets are supplied with knives. Light alloy body (Aluminum alloy). For cleaning do not use products containing caustic soda.

N.B.: Per lo spessore legno da 40 mm, usare l'anello distanziale da 2 mm.
I gruppi vengono forniti con coltelli. Corpo in lega leggera (Lega di alluminio). Per la pulizia non utilizzare prodotti contenenti soda caustica.



TP46MAN sets for manual feed - Set TP46MAN per avanzamento manuale

Profile Profilo	D mm	d* mm	Z	l	Max RPM 1/min.	Code Codice	SAP SAP
1	170	30 (35)	4	8	7.500	TP46MAN001	F03FC20510
2	170	30 (35)	4	8	7.500	TP46MAN002	F03FC20511
3	170	30 (35)	4	8	7.500	TP46MAN003	F03FC20512
4	170	30 (35)	4	8	7.500	TP46MAN004	F03FC20513
5	170	30 (35)	4	8	7.500	TP46MAN005	F03FC20514
6	170	30 (35)	4	8	7.500	TP46MAN006	F03FC20515
7	170	30 (35)	4	8	7.500	TP46MAN007	F03FC20516
8	170	30 (35)	4	8	7.500	TP46MAN008	F03FC20517
1	170	32	4	8	7.500	TP46MAN321	F03FC24458
2	170	32	4	8	7.500	TP46MAN322	F03FC24459
3	170	32	4	8	7.500	TP46MAN323	F03FC24460
4	170	32	4	8	7.500	TP46MAN324	F03FC24461
5	170	32	4	8	7.500	TP46MAN325	F03FC24462
6	170	32	4	8	7.500	TP46MAN326	F03FC24463
7	170	32	4	8	7.500	TP46MAN327	F03FC24464
8	170	32	4	8	7.500	TP46MAN328	F03FC24465

Flanges for TP46M sets Flange per gruppi TP46M

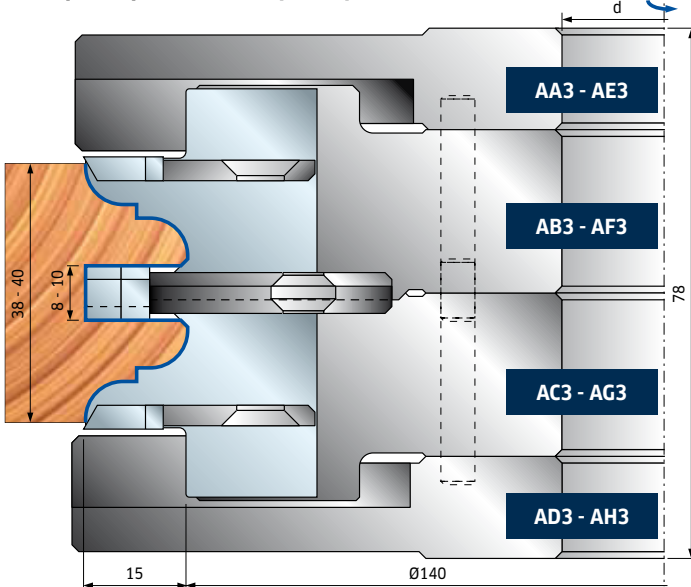
D mm	S mm	d mm	Code Codice	SAP SAP
174	18	30	TP46M AA3	F03FC20506
174	18	30	TP46M AD3	F03FC20509
174	18	32	TP46M AE3	F03FC24454
174	18	32	TP46M AH3	F03FC24457

Cutterheads for TP46M sets - Teste per gruppi TP46M

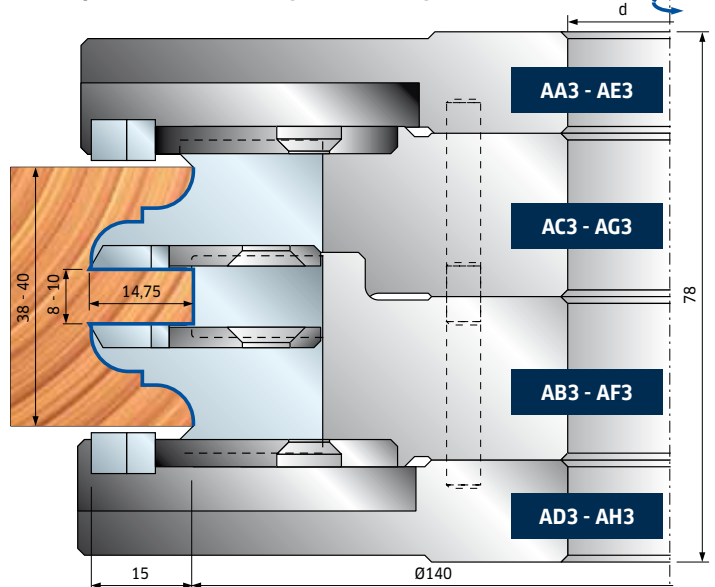
D mm	B mm	d mm	Z	R	Max RPM 1/min.	Code Codice	SAP SAP
170	31,5	30	2	4	8.300	TP46M AB3	F03FC20507
170	31,5	30	2	4	8.300	TP46M AC3	F03FC20508
170	31,5	32	2	4	8.300	TP46M AF3	F03FC24455
170	31,5	32	2	4	8.300	TP46M AG3	F03FC24456

See page 73 for spare parts.
Per le parti di ricambio fare riferimento alla tabella a pag. 73.

Example of profile - Esempio di profilo



Example of scribe - Esempio di controprofilo



TP46MEC

Multiprofile cutterheads sets for doors (38-40 mm) Gruppi di teste per porte con spessore 38-40 mm

TP46MEC sets for automatic feed

Set TP46MEC per avanzamento meccanico

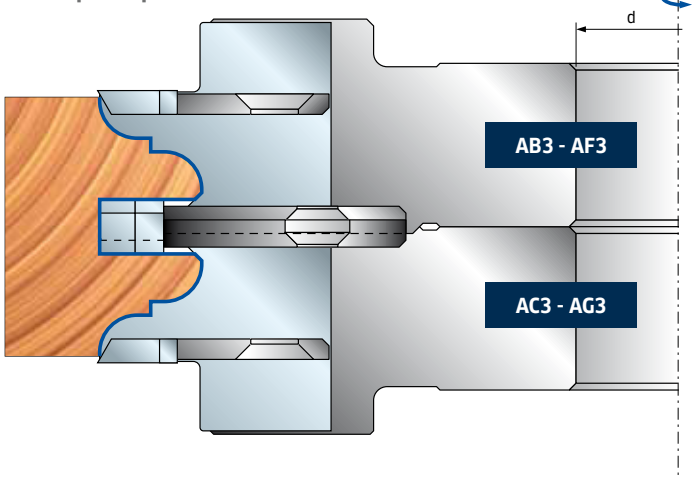


Profile Profilo	D mm	d* mm	Z	l	Max RPM 1/min.	Code Codice	SAP SAP
1	170	30 (35)	4	8	7.500	TP46MEC001	F03FC20518
2	170	30 (35)	4	8	7.500	TP46MEC002	F03FC20519
3	170	30 (35)	4	8	7.500	TP46MEC003	F03FC20520
4	170	30 (35)	4	8	7.500	TP46MEC004	F03FC20521
5	170	30 (35)	4	8	7.500	TP46MEC005	F03FC20522
6	170	30 (35)	4	8	7.500	TP46MEC006	F03FC20523
7	170	30 (35)	4	8	7.500	TP46MEC007	F03FC20524
8	170	30 (35)	4	8	7.500	TP46MEC008	F03FC20525
1	170	32	4	8	7.500	TP46MEC321	F03FC24466
2	170	32	4	8	7.500	TP46MEC322	F03FC24467
3	170	32	4	8	7.500	TP46MEC323	F03FC24468
4	170	32	4	8	7.500	TP46MEC324	F03FC24469
5	170	32	4	8	7.500	TP46MEC325	F03FC24470
6	170	32	4	8	7.500	TP46MEC326	F03FC24471
7	170	32	4	8	7.500	TP46MEC327	F03FC24472
8	170	32	4	8	7.500	TP46MEC328	F03FC24473

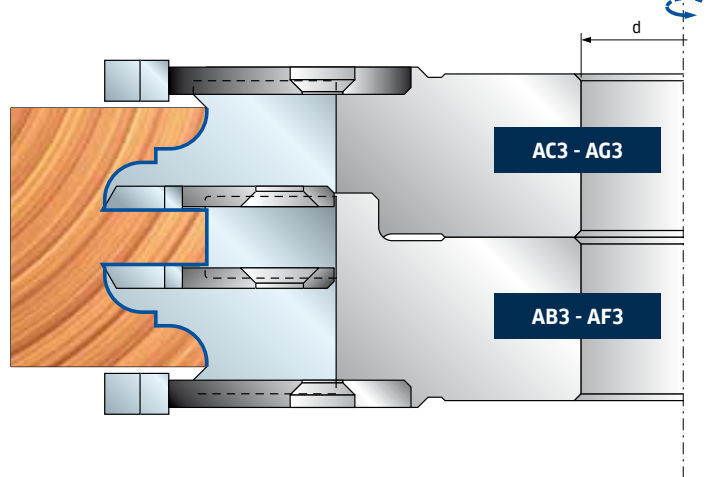


	Spare parts Parti di ricambio	Dimensions Dimensioni mm	Code Codice	SAP SAP	
	Spacer / Anello	50 x 2 x 30	AN01MA0209	F03FC00035	
	Spacer / Anello	52 x 2 x 32	AN01MX0209	F03FC24489	
	Allen key / Chiave	4 x 110	CB03M BA9	F03FA00163	
	Allen key / Chiave	5 x 110	CB03M EA9	F03FA00169	
	Torx key / Chiave Torx	T20	CB03M CC9	F03FA00167	
AB3 - AF3		Wedge / Cuneo	28 x 34,5 x 8	CN46M 001	F03FC01438
		Spur insert / Inserto rasante	34 x 3,5 x 16	SR06MDBA302	F03FC24197
		Sector / Settore	25 x 45 x 6 Z1	SR11MSBE301	F03FC24212
		Screw / Vite	M5 x 8	VT05M AA9	F03FA04444
		Screw / Vite	M6 x 13	VT16M AE9	F03FC20658
		Positioning plate / Piastrina di riscontro	22 x 1,7 x 6,5	VT18M GA9	F03FA04488
AC3 - AG3		Screw / Vite	M10 x 16	2616M EE9	F03FA07426
		Wedge / Cuneo	28 x 34,5 x 8	CN46M 002	F03FC01439
		Spur insert / Inserto rasante	34 x 3,5 x 16	SR06MSBA302	F03FC24200
		Sector / Settore	25 x 45 x 6 Z1	SR11MDBE301	F03FC24207
		Screw / Vite	M5 x 8	VT05M AA9	F03FA04444
		Screw / Vite	M6 x 11,5	VT16M AB9	F03FA04477
	Positioning plate / Piastrina di riscontro	22 x 1,7 x 6,5	VT18M GA9	F03FA04488	
	Screw / Vite	M10 x 16	2616M EE9	F03FA07426	

Example of profile
Esempio di profilo

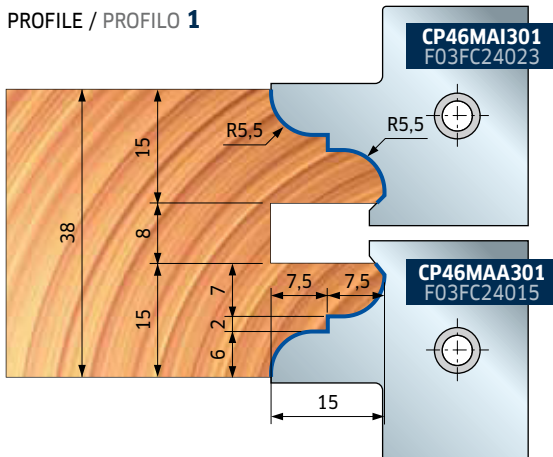


Example of scribe
Esempio di controprofilo

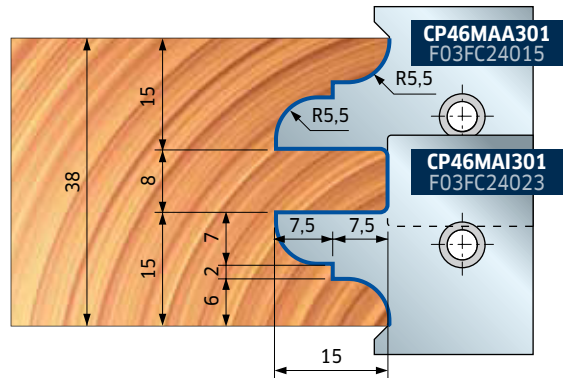


* Size shown between brackets is the max. rebore possible • La quota tra parentesi è la massima allargatura foro possibile

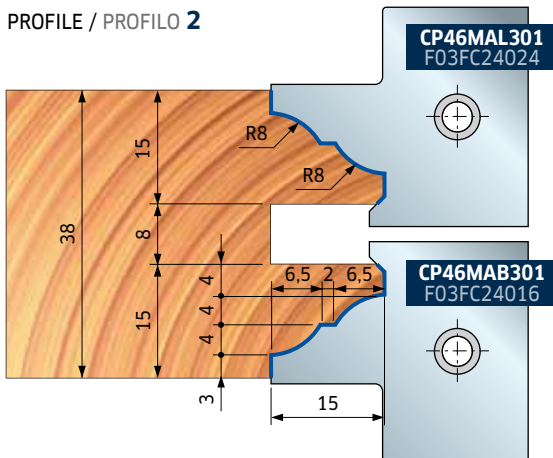
PROFILE / PROFILO 1



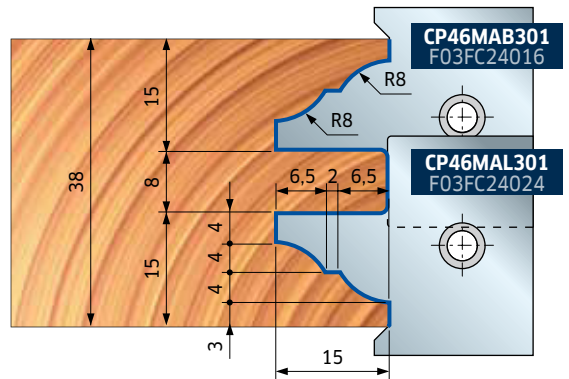
SCRIBE / CONTROPROFILO 1



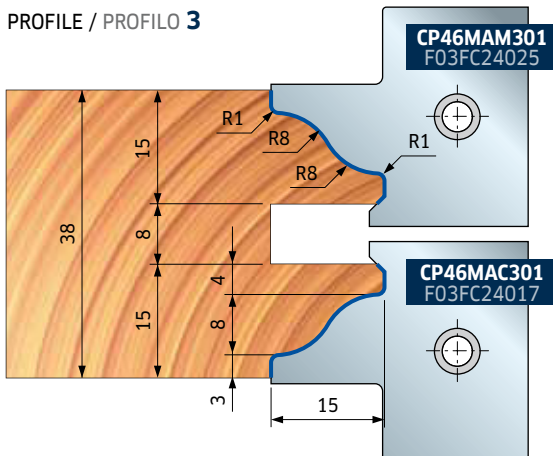
PROFILE / PROFILO 2



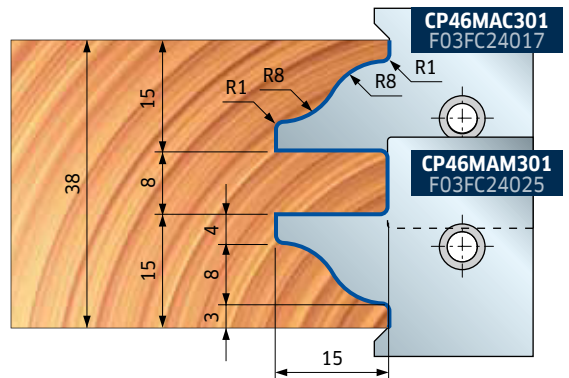
SCRIBE / CONTROPROFILO 2



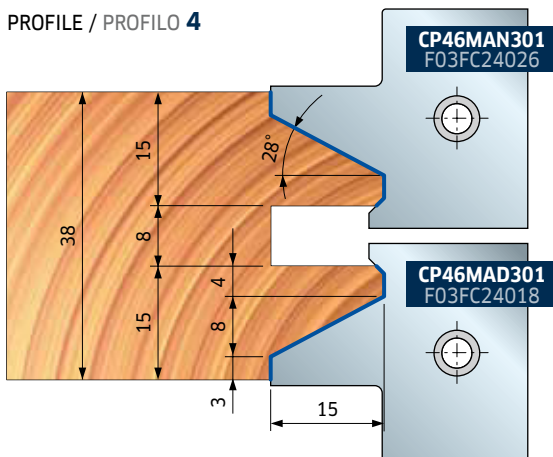
PROFILE / PROFILO 3



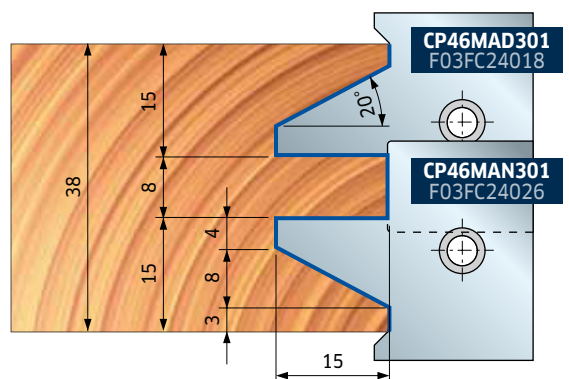
SCRIBE / CONTROPROFILO 3



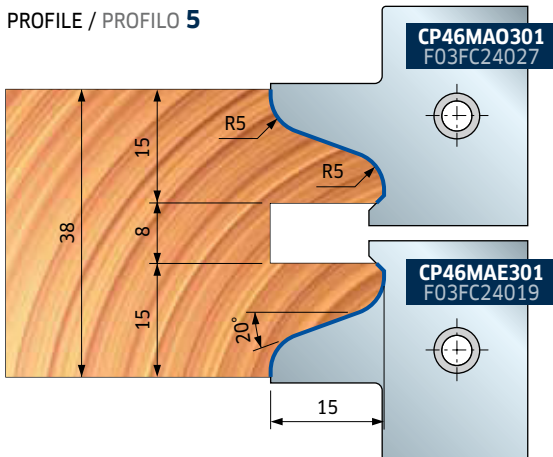
PROFILE / PROFILO 4



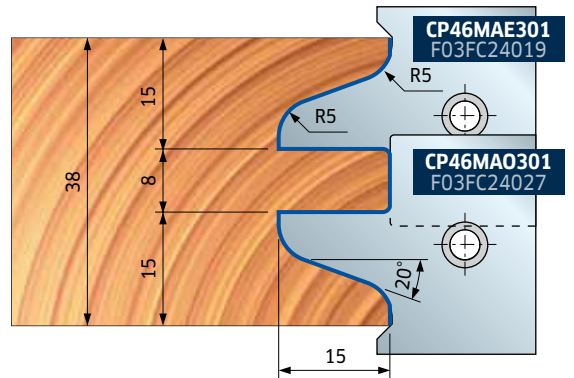
SCRIBE / CONTROPROFILO 4



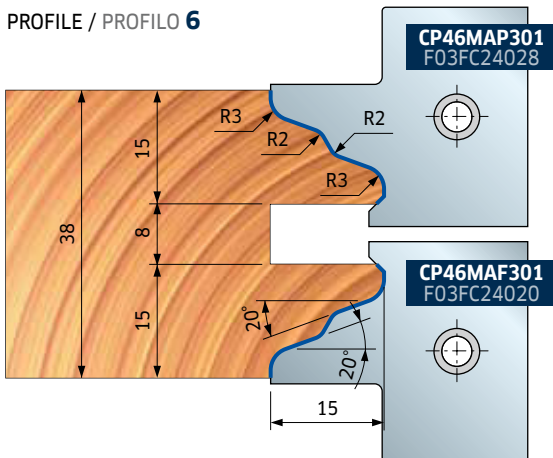
PROFILE / PROFILO 5



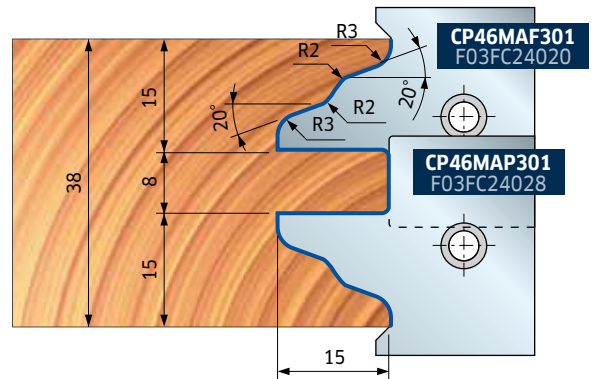
SCRIBE / CONTROPROFILO 5



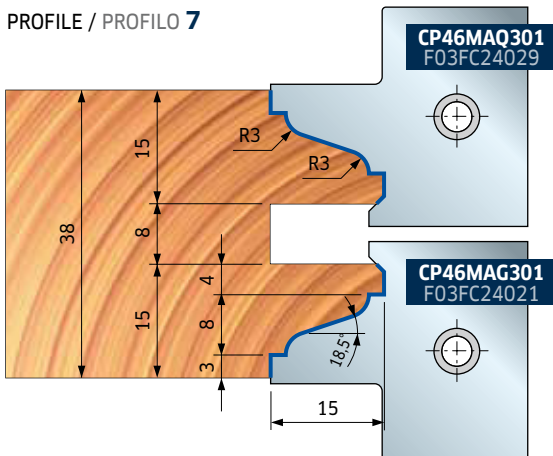
PROFILE / PROFILO 6



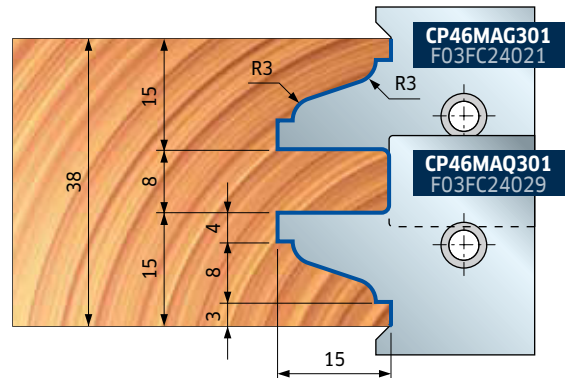
SCRIBE / CONTROPROFILO 6



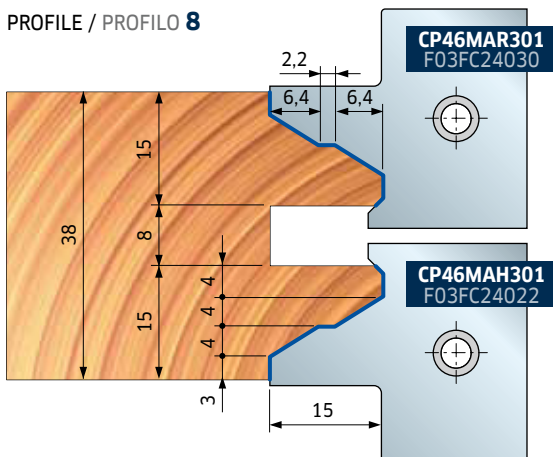
PROFILE / PROFILO 7



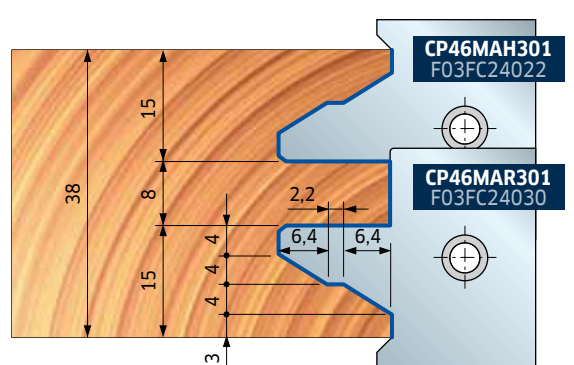
SCRIBE / CONTROPROFILO 7



PROFILE / PROFILO 8



SCRIBE / CONTROPROFILO 8






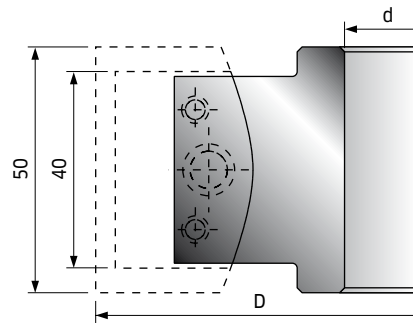
CS28MA



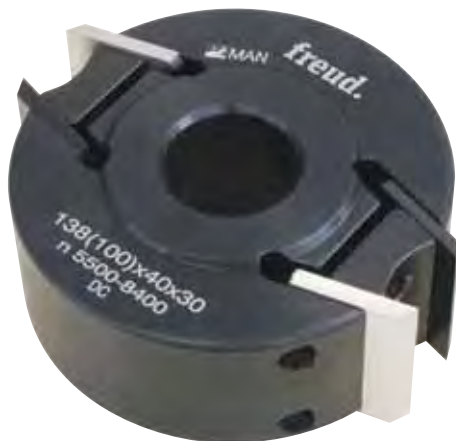
Multiprofile cutterheads Teste multiprofilo

D mm	B mm	d mm	Z	R	Max RPM 1/min.	Code Codice	SAP SAP
100	40-50	30	2		8.400	CS28MA FC2	F03FA01112
100	40-50	35	2		8.400	CS28MA FE2	F03FA01114
120	40-50	50	2		7.400	CS28MA IG2	F03FA01115

Spare parts Parti di ricambio		Dimensions Dimensioni mm	Code Codice	SAP SAP
	Screw / Vite	M8 x 16	2602M BB9	F03FA07344
	Wedge / Cuneo	38 x 26 x 13	CN03M CA9	F03FA00586
	Allen key / Chiave a "L"	4	2619M EA9	F03FA07434






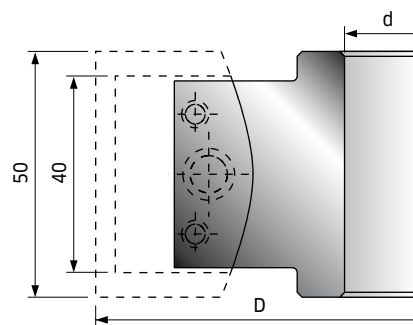
CS28MB



Multiprofile cutterheads with limiters Teste multiprofilo con limitatori

D mm	B mm	d mm	Z	R	Max RPM 1/min.	Code Codice	SAP SAP
100	40-50	30	2		8.400	CS28MB FC2	F03FA01116
100	40-50	35	2		8.400	CS28MB FE2	F03FA01118
120	40-50	50	2		7.400	CS28MB IG2	F03FA01119

Spare parts Parti di ricambio		Dimensions Dimensioni mm	Code Codice	SAP SAP
	Screw / Vite	M8 x 12	2602M EG9	F03FA07351
	Wedge / Cuneo	38 x 26 x 13	CN03M CB9	F03FA00587
	Allen key / Chiave a "L"	4	2619M EA9	F03FA07434



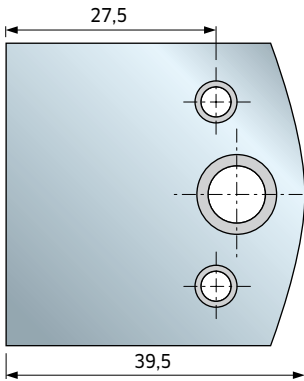
CS27MC - CS27ML

Knife
Coltello

Limiter
Limitatore

Profiled knives with cutting length of 40 mm
Coltelli profilati con altezza di taglio di 40 mm

Raw Knife - Coltello Grezzo



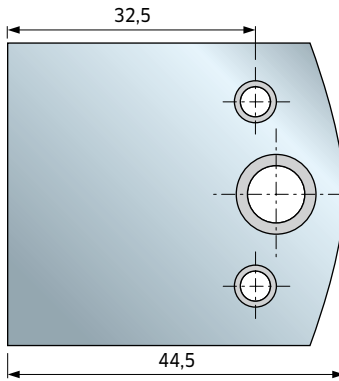
CS27MC194
F03FA00926

CS27ML194
F03FA01109

Knife - Coltello

Limiter - Limitatore

Raw Knife - Coltello Grezzo



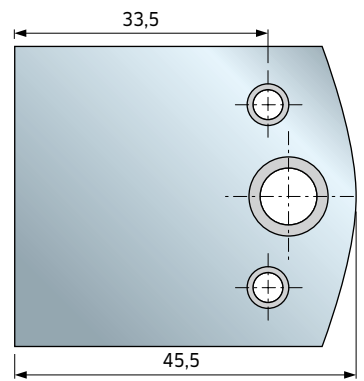
CS27MC193
F03FA00925

CS27ML193
F03FA01108

Knife - Coltello

Limiter - Limitatore

Raw Knife - Coltello Grezzo



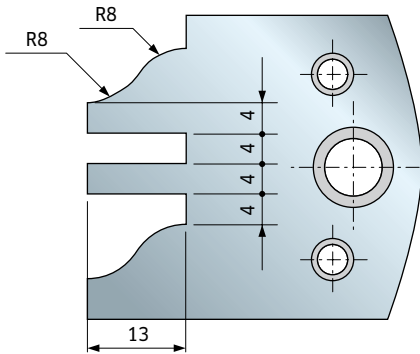
CS27MC195
F03FA00927

CS27ML195
F03FA01110

Knife - Coltello

Limiter - Limitatore

Example profiled knife - Esempio di coltello profilato



CS27MC097
F03FA00841

CS27ML097
F03FA01024

Knife - Coltello

Limiter - Limitatore

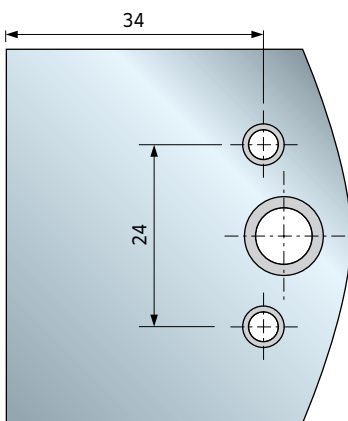
CS28MC - CS28ML

Knife
Coltello

Limiter
Limitatore

Profiled knives with cutting length of 50 mm
Coltelli profilati con altezza di taglio di 50 mm

Raw Knife - Coltello Grezzo



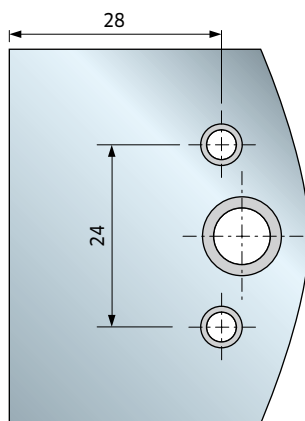
CS28MC599
F03FA01203

CS28ML599
F03FA01286

Knife - Coltello

Limiter - Limitatore

Raw Knife - Coltello Grezzo



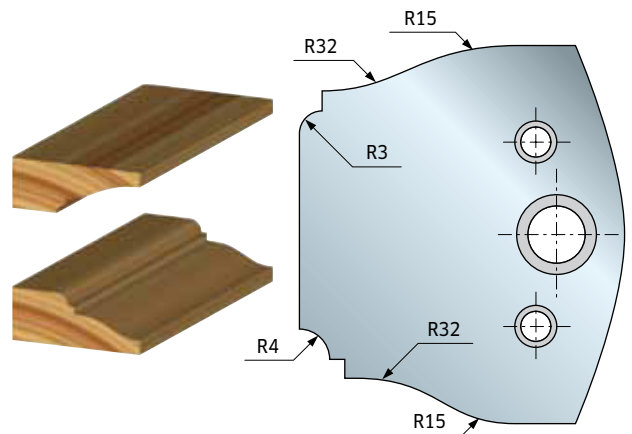
CS28MC598
F03FA01202

CS28ML598
F03FA01285

Knife - Coltello

Limiter - Limitatore

Example of profiled knife - Esempio di coltello profilato



CS28MC568
F03FA01188

CS28ML568
F03FA01272

Knife - Coltello

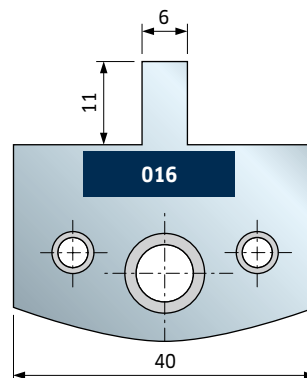
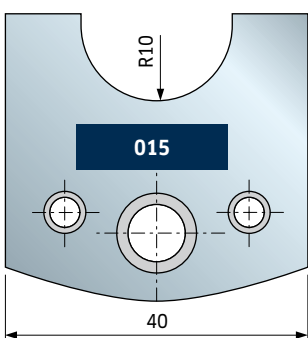
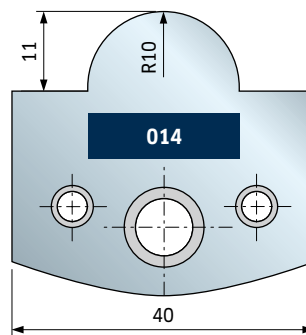
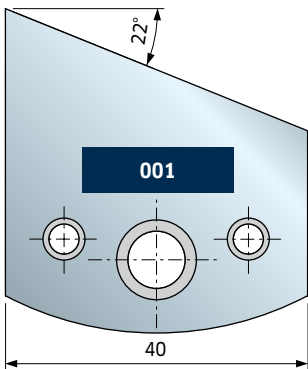
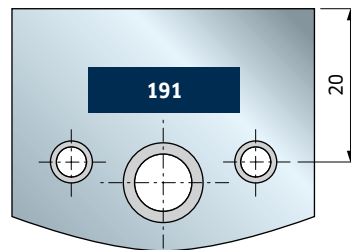
Limiter - Limitatore

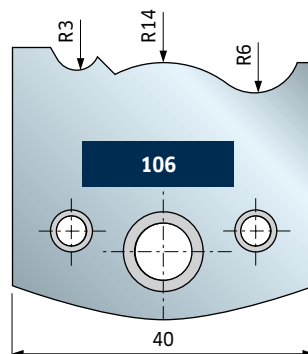
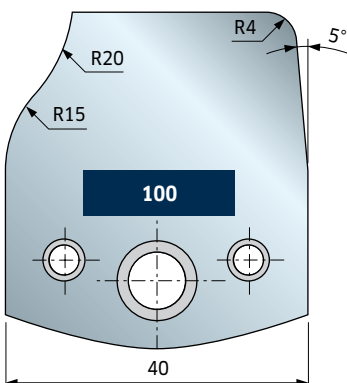
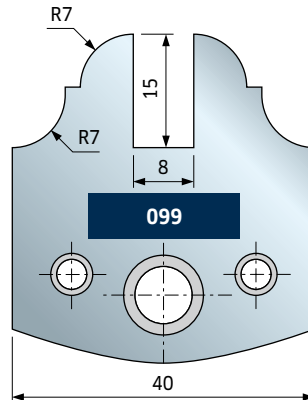
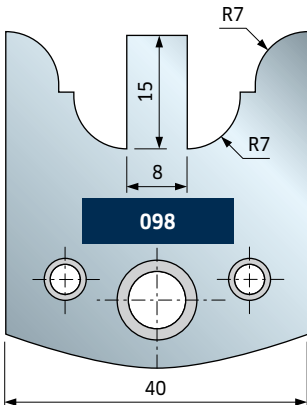
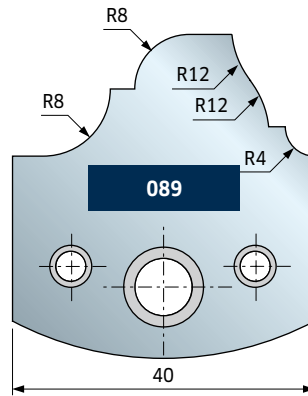
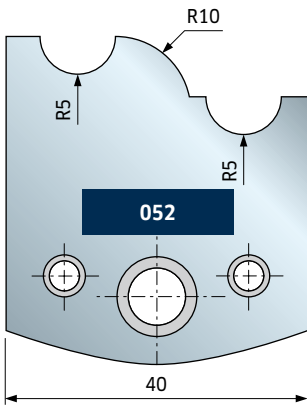
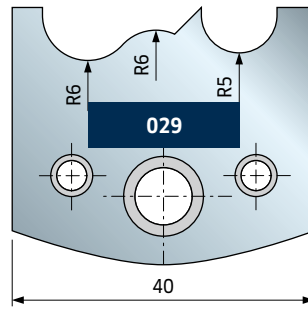
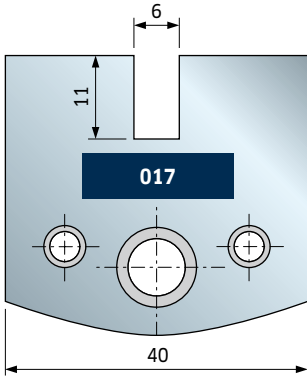
Multiprofile cutterheads with knives sets Teste multiprofilo con set coltelli

This item includes 13 pairs of profiled knives.
L'articolo include 13 coppie di coltelli profilati.



D mm	B mm	d mm	Z	R	Max RPM 1/min.	Code Codice	SAP SAP
100	40	30	2		8.400	CS27MA131FC	F03FA00726
100	40	35	2		8.400	CS27MA131FE	F03FA00728



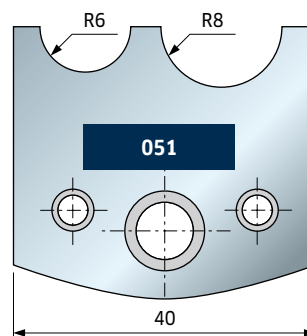
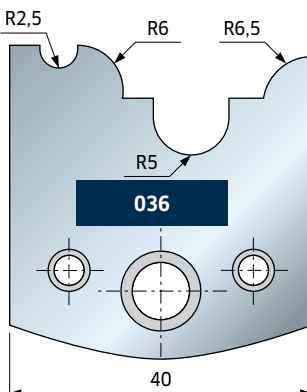
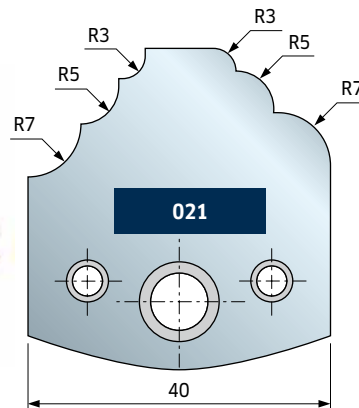
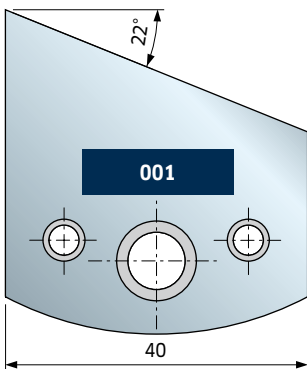
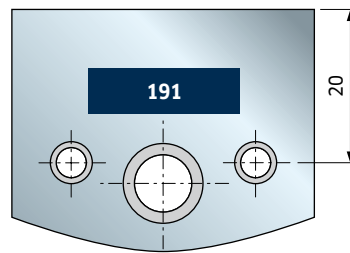
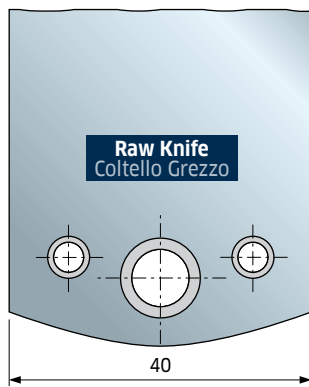


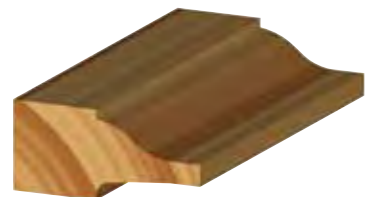
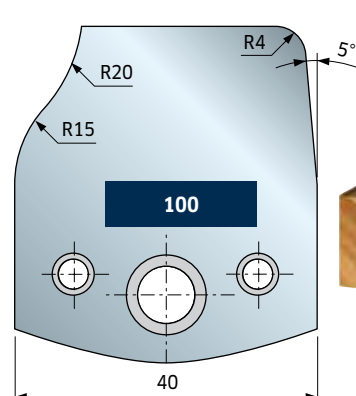
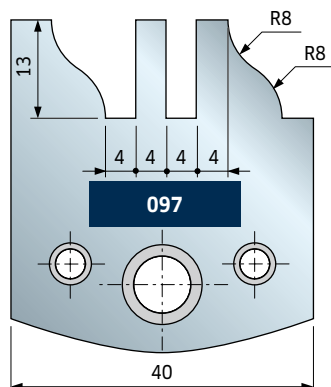
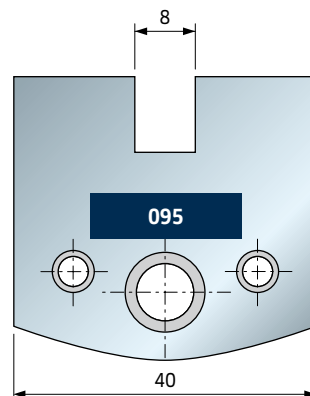
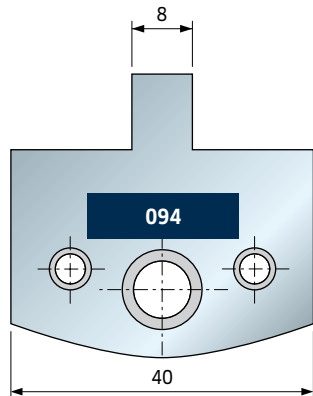
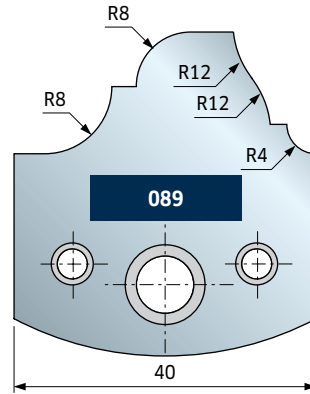
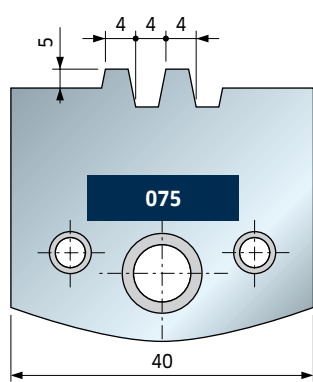
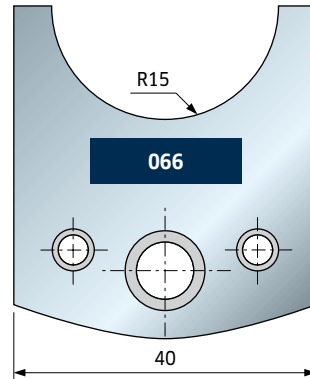
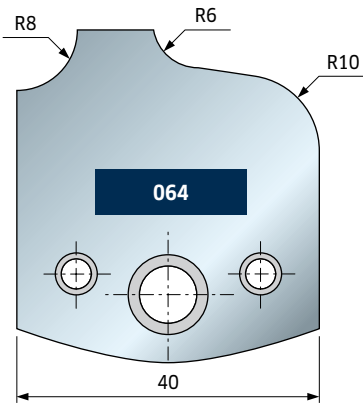
Multiprofile cutterheads with knives sets Teste multiprofilo con set coltelli

This item includes 14 pairs of profiled knives.
L'articolo include 14 coppie di coltelli profilati.



D mm	B mm	d mm	Z	R	Max RPM 1/min.	Code Codice	SAP SAP
100	40	35	2		8.400	CS27MA133FE	F03FA13654





Higher efficiency Efficienza superiore

Full range of standard windows & doors profiles and CE marking release: freud tools and consultancy for your business. Gamma completa di serramenti standard e rilascio marcatura CE: gli utensili e la consulenza freud per il vostro successo.



The entire range of freud standard windows systems: all it takes for creating successful products.

freud offers a broad ST12MG range for standard CNC tools. They will enable you to implement tilt&turn, lift&slide and pivot windows, as well as internal and external doors.

- **Competence:** freud is not new to the market. Our technical know-how has been researched and developed over decades of planning and creation. This allows for a guarantee of secure and state-of-the-art products.
- **Functionality and readiness:** Fast delivery ensures immediate high productivity. Additional you can count on our customer service and complete assistance.

L'intera gamma freud di sistemi per infissi standard: tutto ciò che serve per creare un prodotto di successo.

freud dispone di un ampio programma ST12MG di utensili standard per CNC per realizzare finestre anta ribalta, a bilico, alzanti scorrevoli, porte e portoncini.

- **Competenza:** freud non è nuova del mercato, la nostra competenza tecnica si è affinata in decenni di progettazione e creazione, a garanzia di un prodotto sicuro e d'avanguardia.
- **Funzionalità e prontezza:** la certezza di un prodotto in pronta consegna da subito altamente produttivo, e di poter contare sempre su un servizio di assistenza e consulenza completo.

freud Cascading System for CE marking of windows and doors.

freud is a "System House", offering you more than just a product. Certified by the IFT Rosenheim, we are creating innovative projects with the finished product. Customers will receive access to freud's solutions through the **Cascading contract** that offers:

- Initial Type Testing (ITT) on any range of product.
- Management of all documentation with our software "quasar-freud".
- Training, technical support and after-sale assistance.
- Factory Production Control (FPC), the guarantee to be conform to the stated performance characteristics.

Il Sistema Cascading freud per la marcatura CE di finestre e porte.

freud offre molto di più di un set di utensili. In qualità di "sistemista", abilitato dai più prestigiosi istituti di prova e certificazione europei, freud crea progetti all'avanguardia sul prodotto finito. Il cliente può accedere alle soluzioni e certificazioni freud attraverso il **contratto di Cascading** che prevede:

- Prove Iniziali di Tipo (ITT) su qualsiasi gamma di serramento standard.
- Gestione della documentazione con il software freud dedicato.
- Formazione, supporto tecnico e assistenza post-vendita.
- Controllo di Produzione in Fabbrica (FPC), la garanzia di conformità alle caratteristiche prestazionali dichiarate.

System Sistema	Thickness Spessore mm	Hardware Ferramenta mm
Ermetic	56	9
Ermetic	64	9
Ermetic 17	58	9
Ermetic 17	68	9
Euronorm	68	9
Euronorm C13	68	13
Euronorm C13	78	13
Eurost	56	9
Eurost	68	9
Eurost 17	58	9
Eurost 17	68	9
Fox 92	92	13
Freumex	56	9
Freumex	68	9
Freumex 17	58	9
Freumex 17	68	9
Freumex C13	68	13
Freumex C13	78	13
Freumex HP	80	13
Freumex HP	92	13

Wide solutions to achieve your objectives.
Tutte le soluzioni per realizzare i vostri progetti.



freud Cascading System: we do everything for you.
Sistema Cascading freud: pensiamo a tutto noi.

Technical features Caratteristiche tecniche



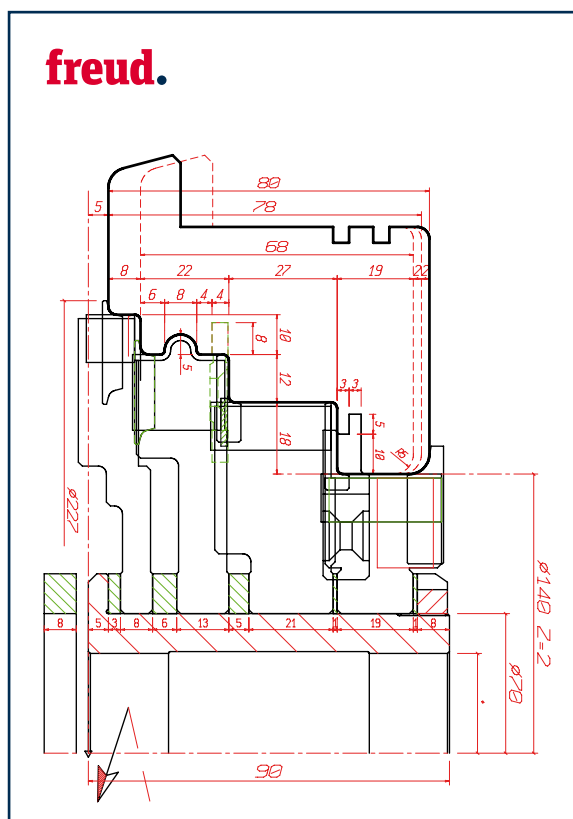
freud standard tools and systems features for windows and doors:

- Number of teeth: 2/4.
- Body in high strength steel.
- Balancing levels adapted to the most innovative machines.
- Fit any reducer.
- Regulation System NSR to regulate the insert's height with increments of 1 mm and precision of up to 1/100 of a mm.
- Multiprofile tools for a wide selection of windows applications.

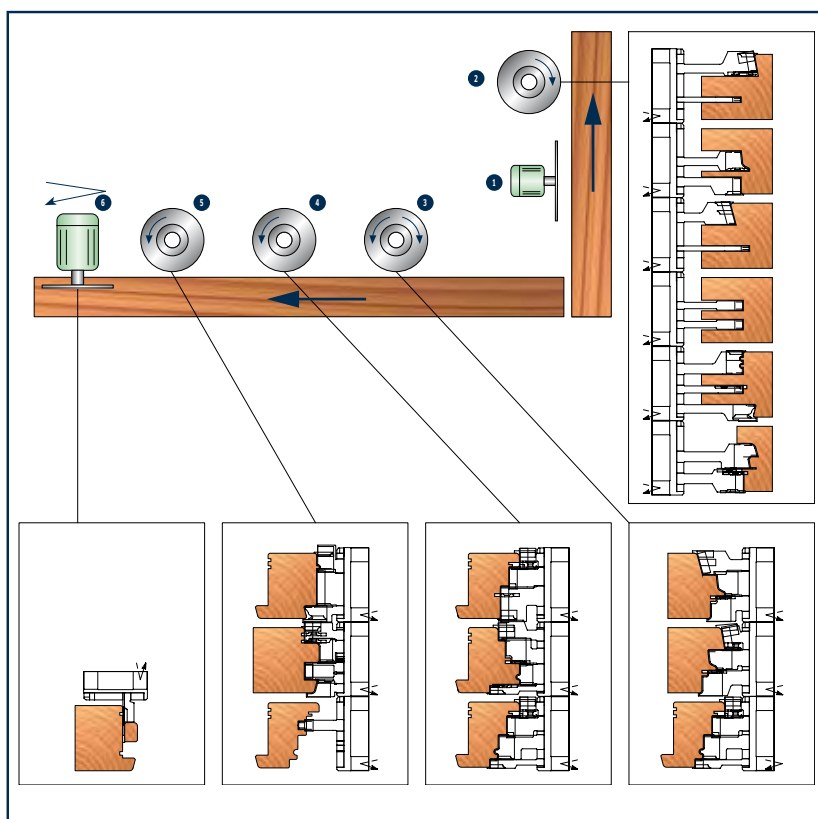
Caratteristiche degli utensili e dei sistemi standard freud per serramenti:

- Numero di denti: 2/4.
- Corpo in acciaio ad alta resistenza.
- Livelli di equilibratura adeguati alle applicazioni più innovative.
- Adattabilità a tutti i tipi di bussola.
- Sistema di regolazione NSR per regolare l'altezza dell'inserto con incrementi di 1 mm e precisione fino a 1/100 di mm.
- Utensili multiprofilo per una vasta scelta di applicazioni per finestra.

ST12MG: range example.
ST12MG: esempio di gamma.



Example of section view.
Esempio utensile in sezione.



Equipment example on CNC machine.
Esempio programmazione utensili per macchina CNC.

ST12MG



BF10MD sleeve and knives for cutterheads HA3 and HC3 are not included.

La bussola BF10MD ed i coltelli per gli utensili HA3 e HC3 vanno ordinati a parte.

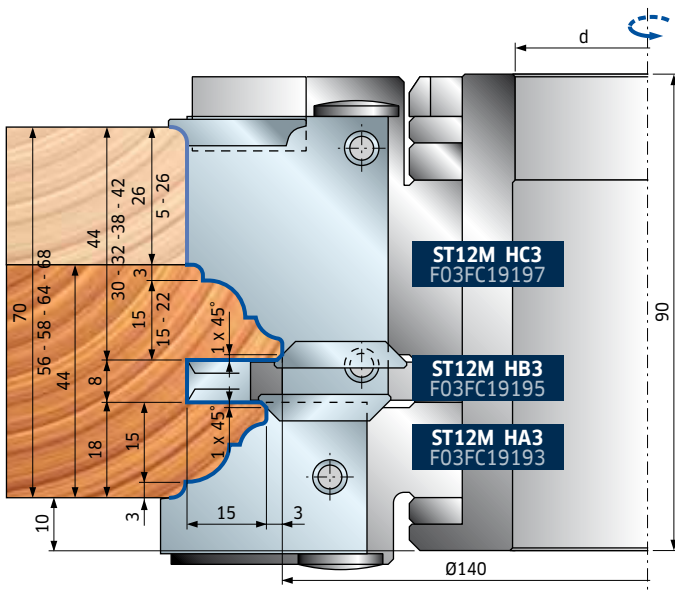
Dimensions Dimensioni mm	Sleeve code Codice bussola	SAP SAP
Ø70 x 90 x 30	BF10MD EA9	F03FC24536
Ø70 x 90 x 32	BF10MD EL9	F03FC24537
Ø70 x 90 x 35	BF10MD EB9	F03FC00633
Ø70 x 90 x 40	BF10MD EC9	F03FC00634
Ø70 x 90 x 50	BF10MD ED9	F03FC00635

Wood thickness Spessore legno mm	Double-glazing thickness adj. Reg. vetrocamera mm
44	5 ÷ 8
56	13 ÷ 20
58	15 ÷ 22
64	21 ÷ 28
68	25 ÷ 32
70	27 ÷ 34

Set / Gruppo ST12MG-800

No. 6+6 interchangeable profiles.

N. 6+6 profili intercambiabili.



Profiling cutterheads sets for internal and external doors Gruppi di teste per profili di porte interne e portoncini

Tool set zero diameter: 140 mm

Diametro di programmazione: 140 mm

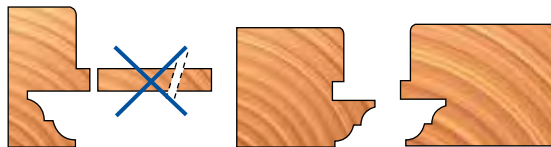
D mm	B mm	d mm	Z	R	Max RPM 1/min.	Code Codice	SAP SAP
186					7.300	ST12MG 800	F03FC19647
186					7.300	ST12MG 801	F03FC19648

Tools for ST12MG-800 and ST12MG-801 sets

Utensili per gruppi ST12MG-800 e ST12MG-801

D mm	B mm	d mm	Z	R	Code Codice	SAP SAP
186	29	70	2		ST12M HA3	F03FC19193
176	8	70	2	8	ST12M HB3	F03FC19195
176	58,5	70	2		ST12M HC3	F03FC19197
184	8	70	2	8	ST12M HD3	F03FC19199

	Spare parts Parti di ricambio	Dimensions Dimensioni mm	Code Codice	SAP SAP
HA3	Screw / Vite	M10 x 18	VT03M CC9	F03FA04438
	Screw / Vite	M5 x 7 x 16	VT08M AE9	F03FA04457
HC3	Screw / Vite	M10 x 18	VT03M CC9	F03FA04438
	Screw / Vite	M5 x 7 x 16	VT08M AE9	F03FA04457
	Rounding insert / Inserto raggiatore	22 x 16 X 5	IG52MAE305	F03FH03025
	Screw / Vite	M6 x 13	VT16M AE9	F03FC20658
HB3 - HD3	Wedge / Cuneo	28 x 9,5 X 8	CN03M BB9	F03FA00585
	Screw / Vite	M8 x 22	VT19M BB9	F03FA04493
	Knife / Coltello	7,6 x 12 x 1,5	CG06MHA310	F03FH02897
	Wedge / Cuneo	15 x 7,2 x 8	CN09M DA9	F03FC01295
	Screw / Vite	M5 x 19	VT11M AA9	F03FA04468
	Spur / Rasante	22,86 x 2,5	RG02MAA305	F03FH03041
	Screw / Vite	M5 x 6	VT05M AC9	F03FA04446
	Bevelling insert / Inserto smussatore	22 x 16 x 5	IG51MBA305	F03FH03022
	Screw / Vite	M6 x 11,5	VT16M AB9	F03FA04477



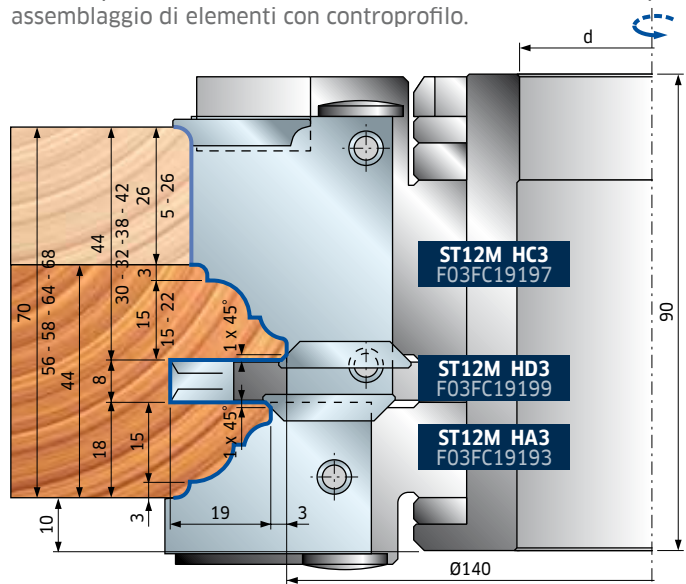
Jamb and transom with ST12MG-801 set: By cutting the tenon as shown, the counter profile with anti-torsion pin is obtained.

Traversi e montanti intermedi con il gruppo ST12MG-801: Tagliando la spina maschio come illustrato, si ottiene il controprofilo con spinetta di tenuta.

Set / Gruppo ST12MG-801

No. 6+6 interchangeable profiles. With anti-torsion pin for assembly of elements with counter profile.

N. 6+6 profili intercambiabili. Con incastro di tenuta per assemblaggio di elementi con controprofilo.



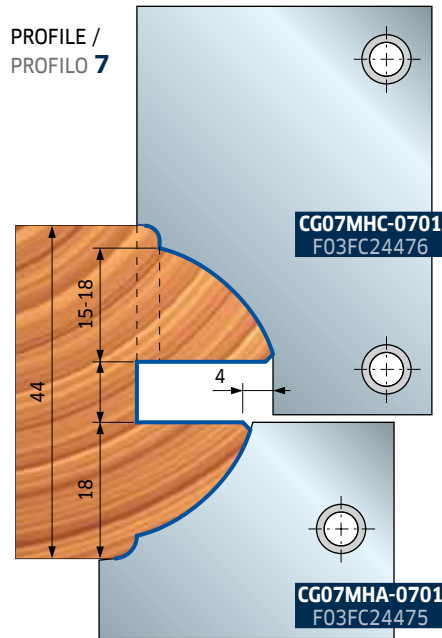
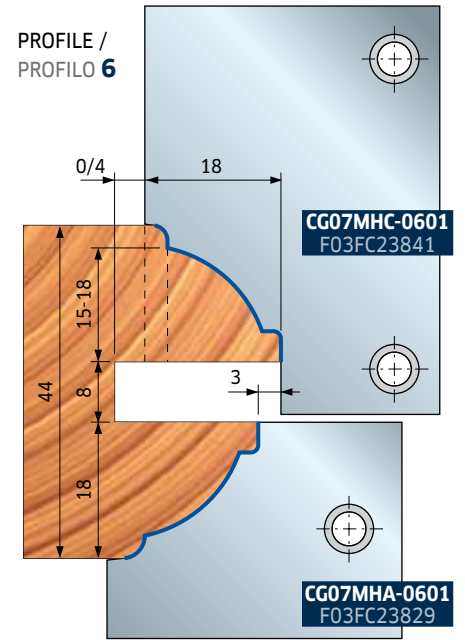
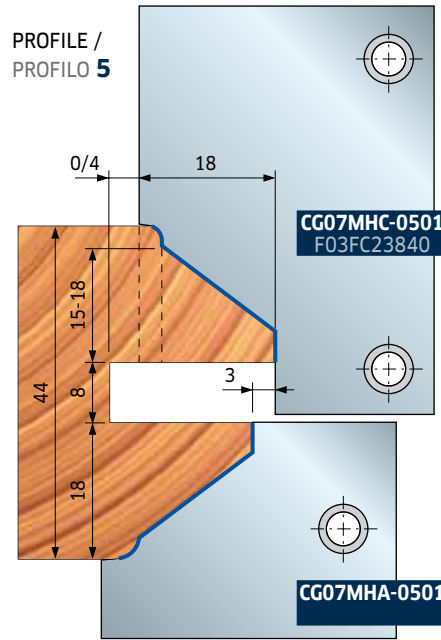
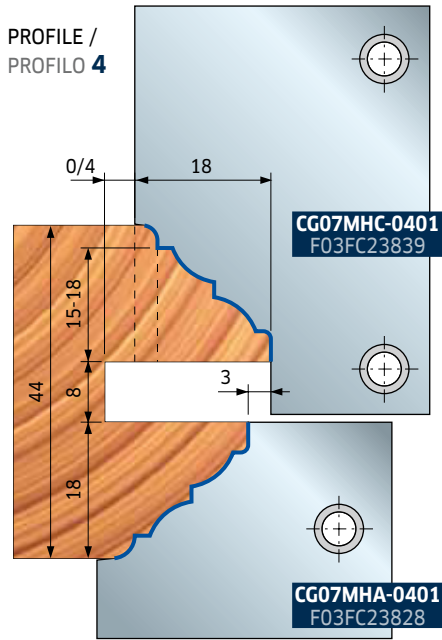
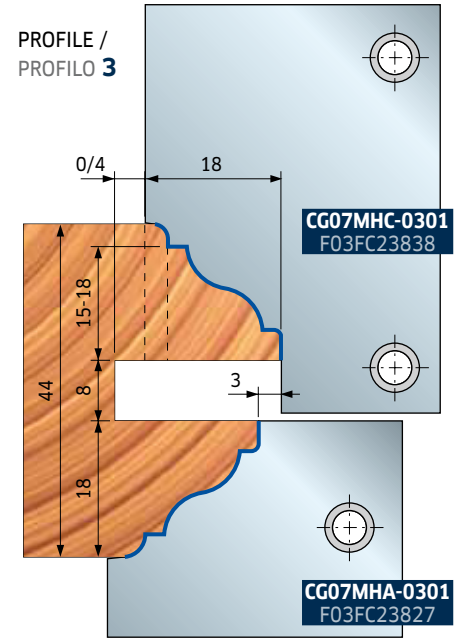
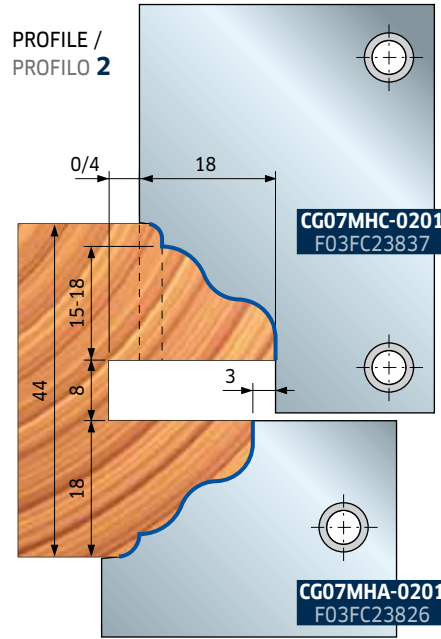
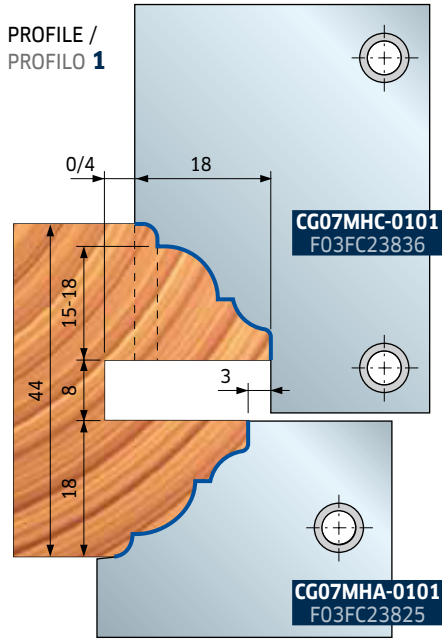
ST12MG

Profiles with 3 mm external rounding for cutterheads:

ST12M HC3 - ST12M HA3

Profili con raggatura esterna da 3 mm per teste:

ST12M HC3 - ST12M HA3



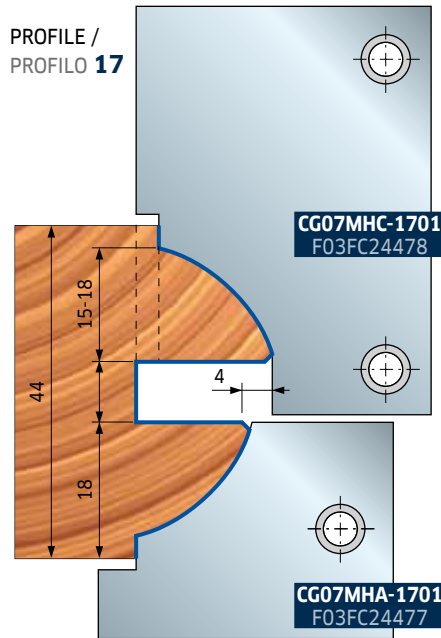
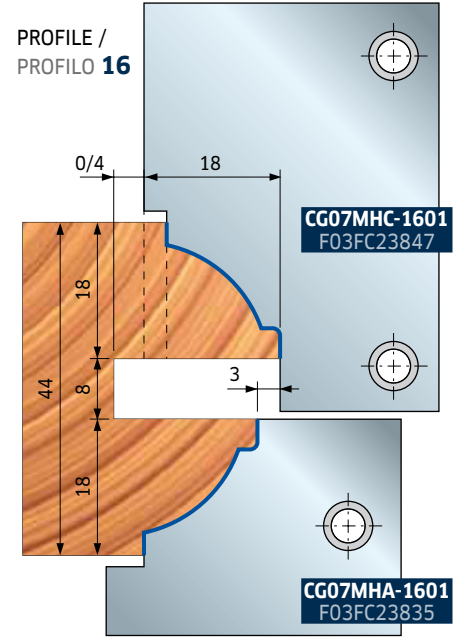
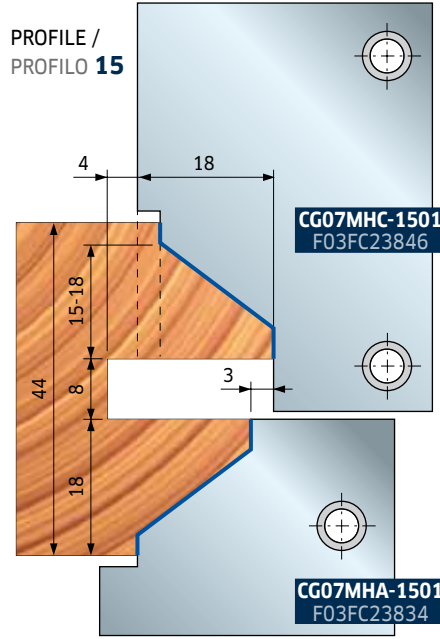
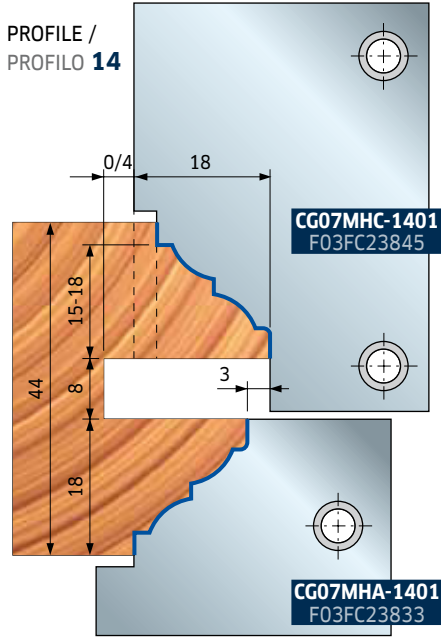
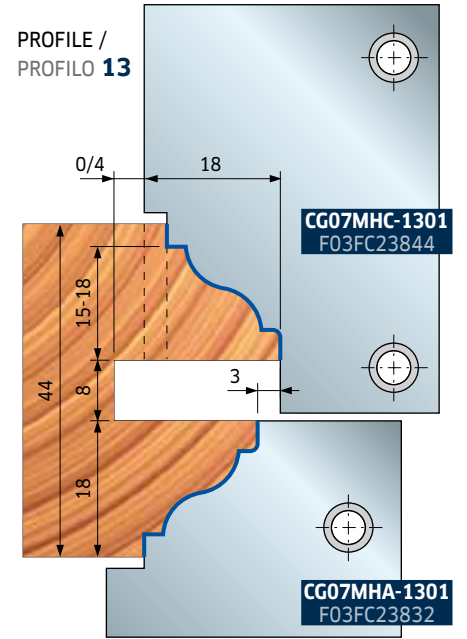
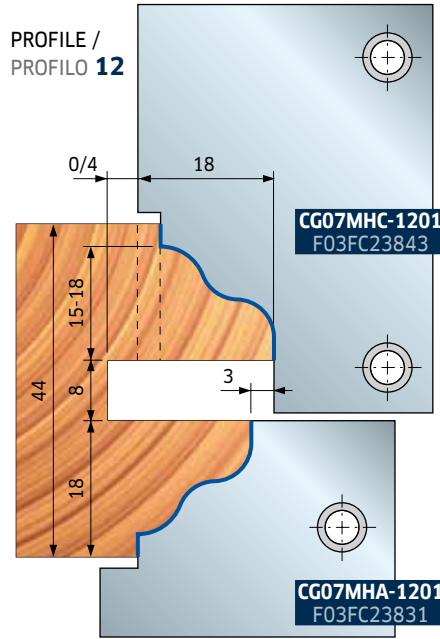
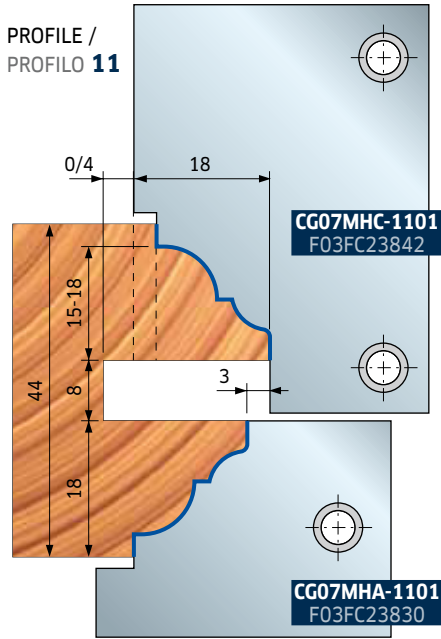
ST12MG

Profiles without external rounding for cutterheads:

ST12M HC3 - ST12M HA3

Profili senza raggatura esterna per teste:

ST12M HC3 - ST12M HA3



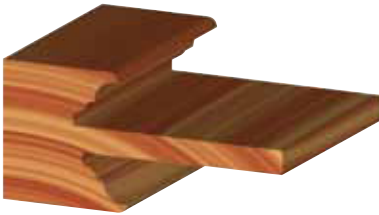
ST12MG



Set / Gruppo ST12MG-820

Example of scribe with single tenon, obtainable with ST12MG-820 set (see following page).

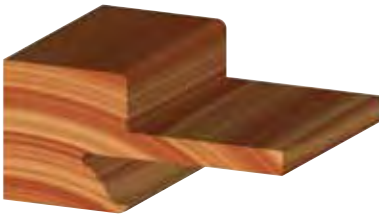
Esempio di controprofilo con spina semplice ottenibile con il gruppo ST12MG-820 (vedi pagina seguente).



Set / Gruppo ST12MG-821

Example of scribe with single tenon, obtainable with ST12MG-821 set (see following page).

Esempio di controprofilo con spina semplice ottenibile con il gruppo ST12MG-821 (vedi pagina seguente).



Set / Gruppo ST12MG-822

Example of scribe with double tenon, obtainable with ST12MG-822 set (see following page).

Esempio di controprofilo con spina doppia ottenibile con il gruppo ST12MG-822 (vedi pagina seguente).



Tenoning cutterheads sets Gruppi di teste per tenoni

Tool set zero diameter: 300 mm
Diametro di programmazione: 300 mm

D mm	B mm	d mm	Z	R	Max RPM 1/min.	Code Codice	SAP SAP
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
Utensili per gruppi: ST12MG-820, ST12MG-821, ST12MG-822

D mm	B mm	d mm	Z	R	Max RPM 1/min.	Code Codice	SAP SAP
264	8	70	2	6		ST12M DB3	F03FC19081
294	26	70	2	4		ST12M HF3	F03FC19200
300	26	70	2	4		ST12M HG3	F03FC19201
264	30	70	2	4		ST12M HH3	F03FC19202

	Spare parts Parti di ricambio	Dimensions Dimensioni mm	Code Codice	SAP SAP
DB3	Knife / Coltello	7,6 x 12 x 1,5	CG06MHA310	F03FH02897
	Wedge / Cuneo	15 x 7,2 x 8	CN09M DA9	F03FC01295
	Screw / Vite	M5 x 19	VT11M AA9	F03FA04468
	Spur / Rasante	22,86 x 2,5	RG02MAA305	F03FH03041
	Grooving insert / Settore dentato	40 x 5 x 8	SR01MSAA301	F03FC24186
	Screw / Vite	M6 x 10	VT01M AA9	F03FA04429
	Nut / Ghiera	11,7 x 2,5 x 4	VT18M BB9	F03FA04484
HF3	Screw / Vite	M4 x 6,5	VT05M BD9	F03FA04449
	Screw / Vite	M5 x 6	VT05M AC9	F03FA04446
	Screw / Vite	M5 x 7 x 16	VT08M AE9	F03FA04457
	Screw / Vite	M10 x 18	VT03M CC9	F03FA04438
	Spur insert / Inserto rasante	40 x 4 x 7	IG05MDAA305	F03FH02998
	Screw / Vite	M6 x 11,5	VT16M AB9	F03FA04477
	Rounding insert / Inserto raggaiatore	22 x 16 x 5	IG52MAE305	F03FH03025
HG3	Screw / Vite	M6 x 14,5	VT16M AA9	F03FA04476
	Screw / Vite	M5 x 7 x 16	VT08M AE9	F03FA04457
	Screw / Vite	M10 x 18	VT03M CC9	F03FA04438
	Spur insert / Inserto rasante	40 x 4 x 7	IG05MSAA305	F03FH02999
	Screw / Vite	M6 x 11,5	VT16M AB9	F03FA04477
	Rounding insert / Inserto raggaiatore	22 x 16 x 5	IG52MAE305	F03FH03025
	Screw / Vite	M6 x 14,5	VT16M AA9	F03FA04476
HH3	Knife / Coltello	30 x 12 x 15	CG06MDA310	F03FH02892
	Wedge / Cuneo	15 x 26 x 8	CN09MS AD9	F03FC01326
	Nut / Ogiva	15 x 13,3 x 10	VT20M MA9	F03FC20670
	Screw / Vite	M10 x 22	VT19M MA9	F03FA04496
	Spur / Rasante	22,86 x 2,5	RG02MAA305	F03FH03041
	Screw / Vite	M5 x 8	VT05M AA9	F03FA04444
	Rounding insert / Inserto raggaiatore	22 x 16 x 5	IG52MAE305	F03FH03025
	Screw / Vite	M6 x 13	VT16M AE9	F03FC20658
	Serrated support / Supporto	14 x 21,5 x 22	CN03M BA9	F03FA00584
	Wedge / Cuneo	28 x 9,5 x M8	CN03M BB9	F03FA00585
	Screw / Vite	M8 x 22	VT19M BB9	F03FA04493

Dimensions Dimensioni mm	Sleeve code Codice bussola	SAP SAP
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.

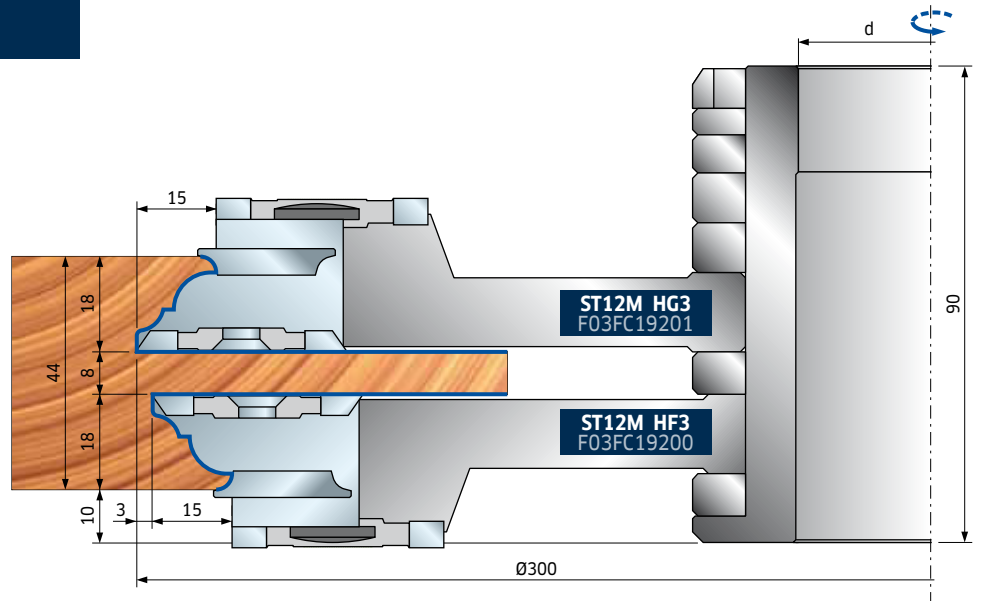
Le bussole BF10MD ed i coltelli per gli utensili HF3 e HG3 vanno ordinati a parte.

ST12MG

Tenoning cutterheads sets Gruppi di teste per tenoni

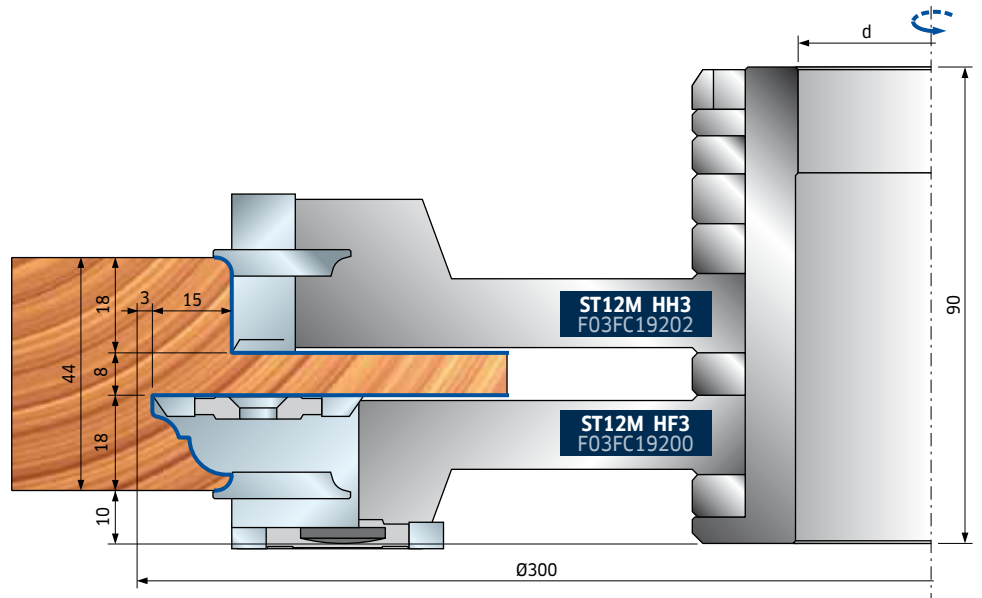
Set / Gruppo ST12MG-820

Single tenon.
For profile without bead recovery.
Spina semplice.
Per profilo senza recupero del listello.



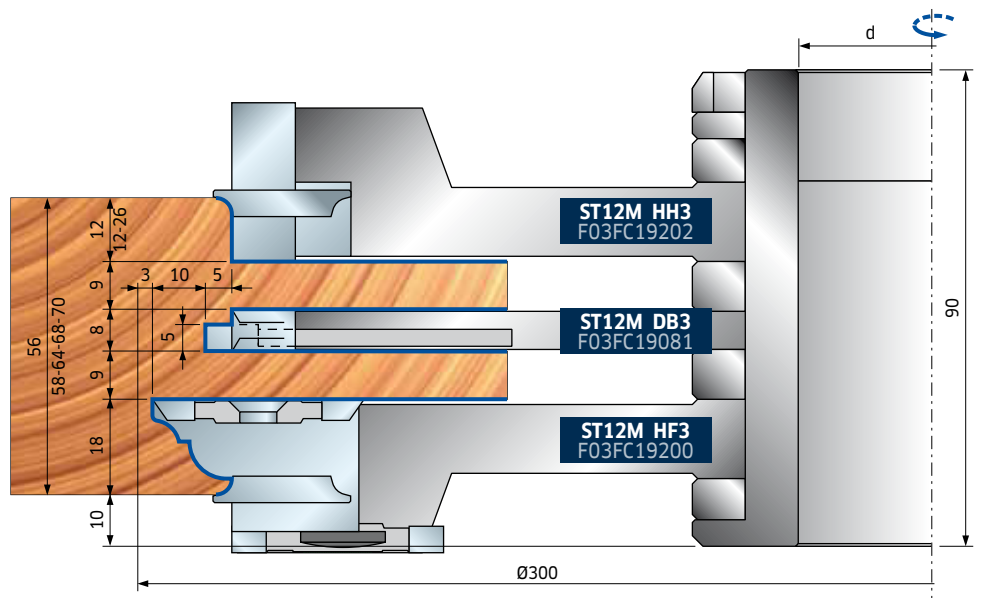
Set / Gruppo ST12MG-821

Single tenon.
For profile with bead recovery.
Spina semplice.
Per profilo con recupero del listello.



Set / Gruppo ST12MG-822

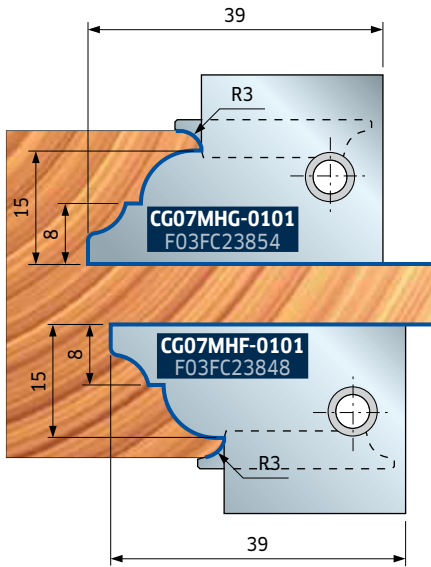
Double tenon.
For profile with bead recovery.
Spina doppia.
Per profilo con recupero del listello.



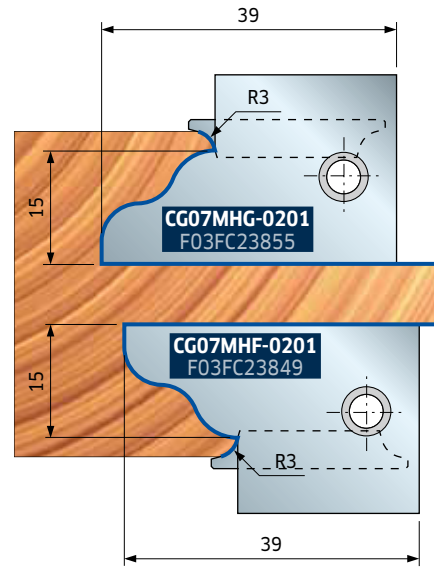
ST12MG

Scribes with 3 mm external rounding for cutterheads:
ST12M HG3 - ST12M HF3
Controrofili con raggiatura esterna da 3 mm per teste:
ST12M HG3 - ST12M HF3

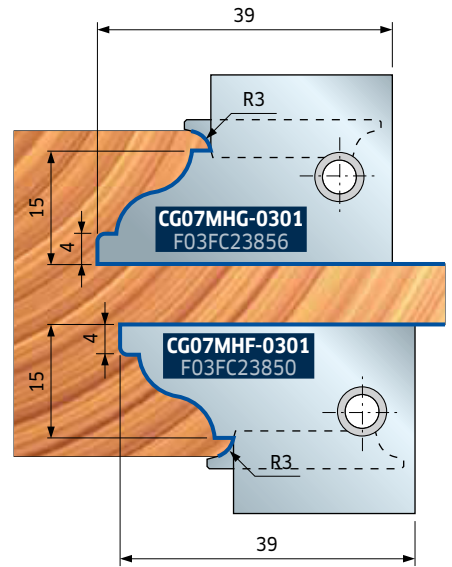
SCRIBE / CONTROPROFILO 1



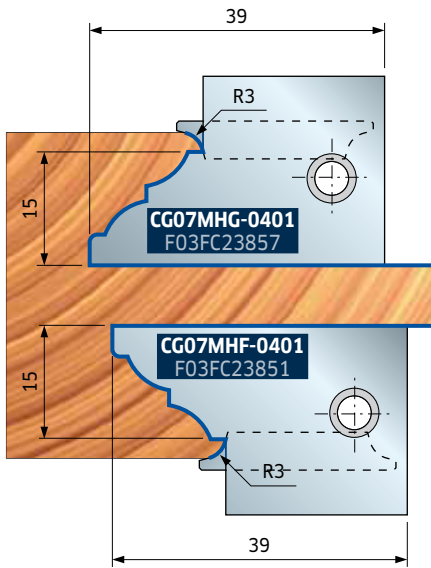
SCRIBE / CONTROPROFILO 2



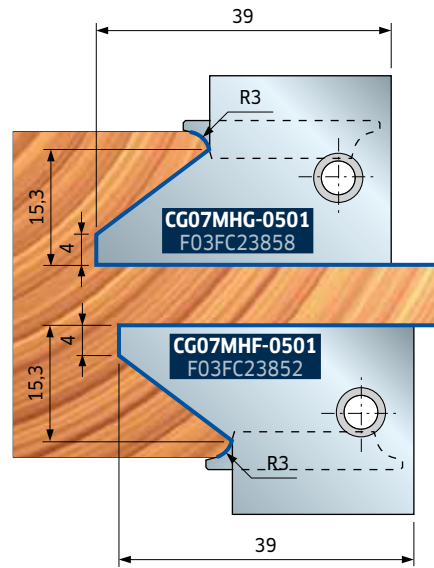
SCRIBE / CONTROPROFILO 3



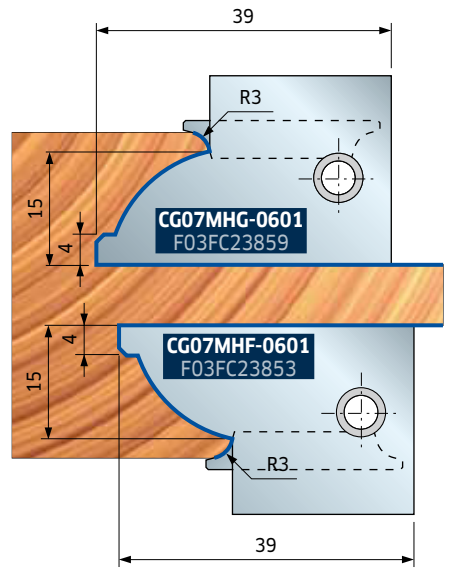
SCRIBE / CONTROPROFILO 4



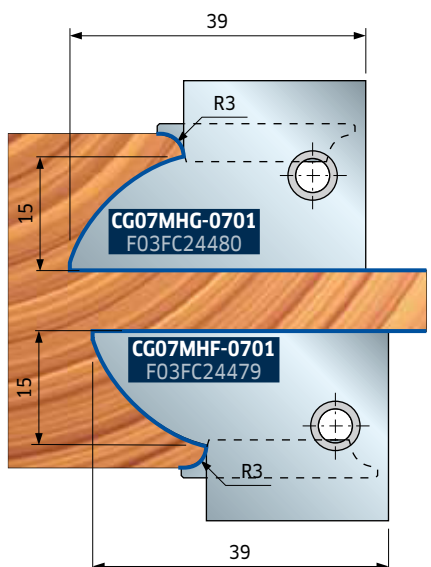
SCRIBE / CONTROPROFILO 5



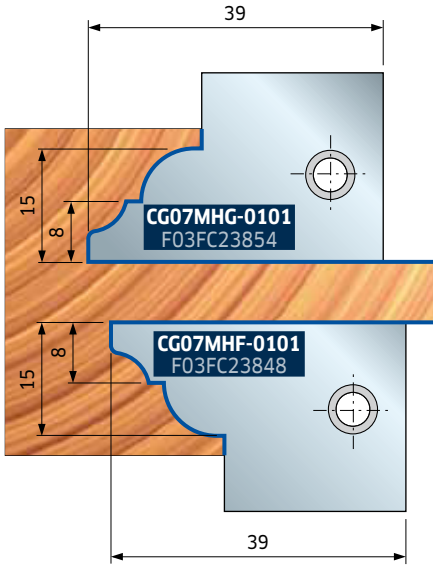
SCRIBE / CONTROPROFILO 6



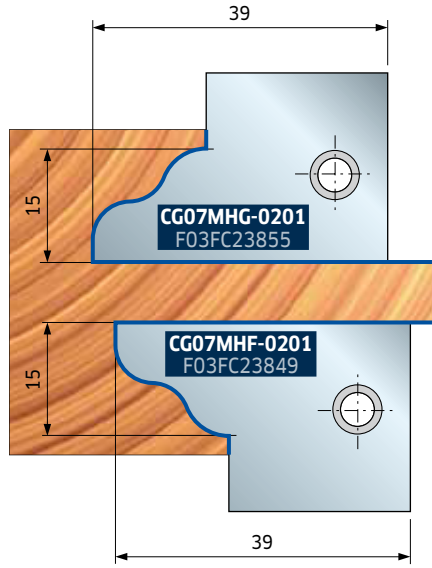
SCRIBE / CONTROPROFILO 7



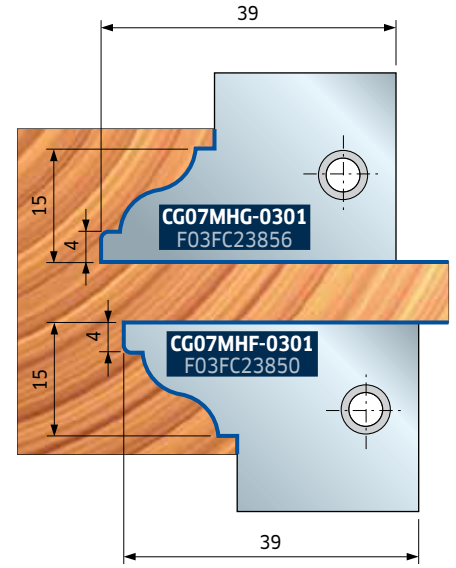
SCRIBE / CONTROPROFILO 11



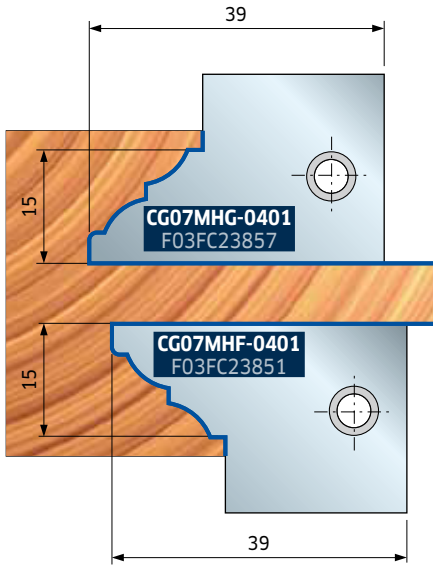
SCRIBE / CONTROPROFILO 12



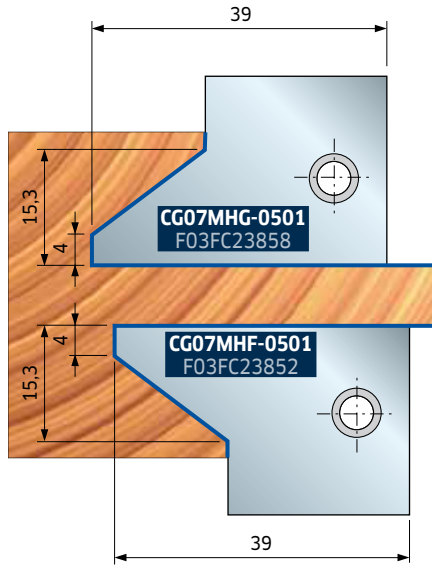
SCRIBE / CONTROPROFILO 13



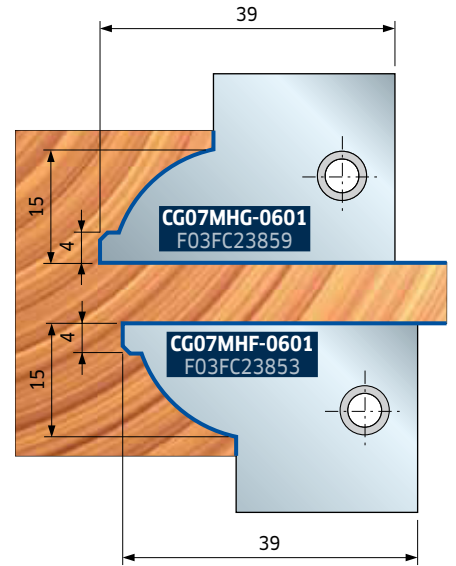
SCRIBE / CONTROPROFILO 14



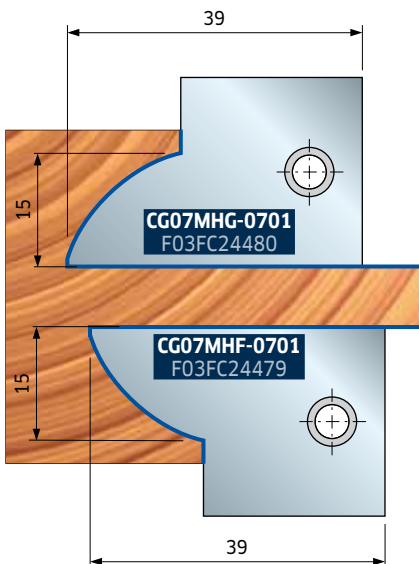
SCRIBE / CONTROPROFILO 15



SCRIBE / CONTROPROFILO 16



SCRIBE / CONTROPROFILO 17



ST12MG



BF10MD sleeves and knives for cutterheads HR3 are not included.

Le bussole BF10MD ed i coltelli per gli utensili HR3 vanno ordinati a parte.

Dimensions Dimensioni mm	Sleeve code Codice bussola	SAP SAP
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



Cutterheads sets for doors rebates Gruppi di teste per battute di porte

Tool set zero diameter: 140 mm

Diametro di programmazione: 140 mm

D mm	B mm	d mm	Z	R	Max RPM 1/min.	Code Codice	SAP SAP
162					8.300	ST12MG 840	F03FC19653
162					8.300	ST12MG 841	F03FC19654
162					8.300	ST12MG 842	F03FC19655

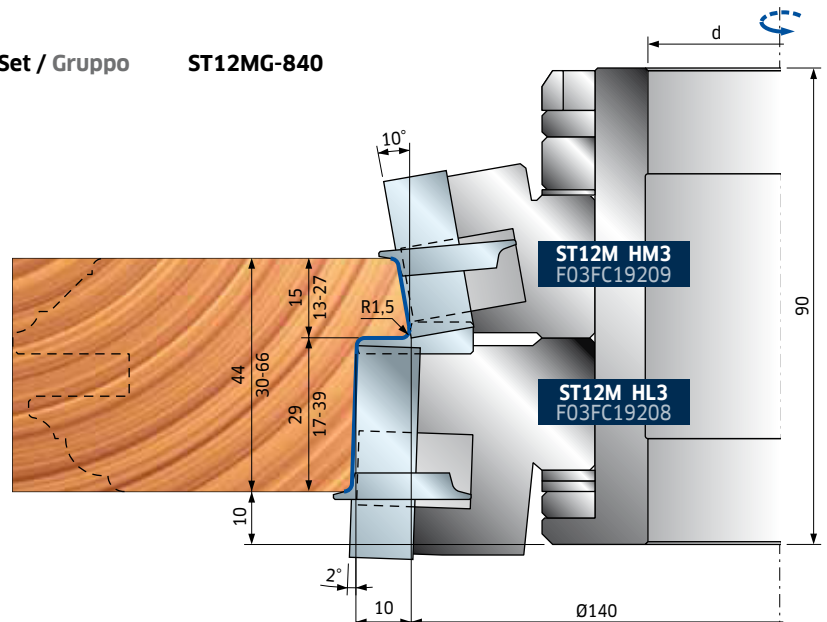
Tools for ST12MG-840, ST12MG-841, ST12MG-842 sets

Utensili per gruppi: ST12MG-840, ST12MG-841, ST12MG-842

D mm	B mm	d mm	Z	R	Max RPM 1/min.	Code Codice	SAP SAP
161,8	41	70	2	4		ST12M HL3	F03FC19208
147	33	70	2	2		ST12M HM3	F03FC19209
140	30	70	2	2		ST12M HN3	F03FC19210
166	35	70	2			ST12M HR3	F03FC19214

	Spare parts Parti di ricambio	Dimensions Dimensioni mm	Code Codice	SAP SAP
HL3	Knife / Coltello	40 x 12 x 1,5	CG01MLA310	F03FH02872
	Wedge / Cuneo	15 x 36 x 8	CN09MD AR9	F03FC01309
	Vite / Screw	M10 x 22	VT19M MA9	F03FA04496
	Nut / Ogiva	15 x 13,3 x 10	VT20M NA9	F03FC20671
	Multipurpose insert / Rasante ragg.	10	IG25MD10302	F03FC24164
	Screw / Vite	M6 x 10	2622M CB9	F03FA07455
	Screw / Vite	M6 x 13	VT16M AE9	F03FC20658
	Wedge / Cuneo	28 x 9,5 x 8	CN03M BB9	F03FA00585
HM3 - HN3	Screw / Vite	M8 x 22	VT19M BB9	F03FA04493
	Knife / Coltello	30 x 12 x 1,5	CG01MEA310	F03FH02737
	Wedge / Cuneo	15 x 26 x 8	CN09MD AD9	F03FC01300
	Screw / Vite	M10 x 22	VT19M MA9	F03FA04496
	Nut / Ogiva	15 x 13,3 x 10	VT20M NA9	F03FC20671
	Rounding insert / Inserto raggiatore	22 x 16 x 5	IG52MAB305	F03FH03023
HR3	Screw / Vite	M6 x 13	VT16M AE9	F03FC20658
	Wedge / Cuneo	28 x 9,5 x 8	CN03M BB9	F03FA00585
	Screw / Vite	M8 x 22	VT19M BB9	F03FA04493
	Screw / Vite	M10 x 18	VT03M CC9	F03FA04438
	Screw / Vite	M5 x 7 x 16	VT08M AE9	F03FA04457

Set / Gruppo **ST12MG-840**

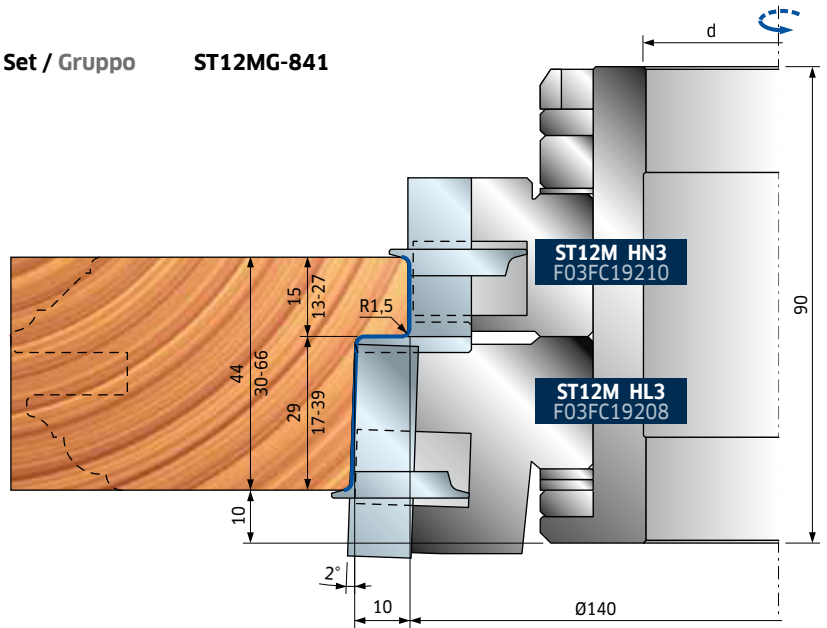


ST12MG

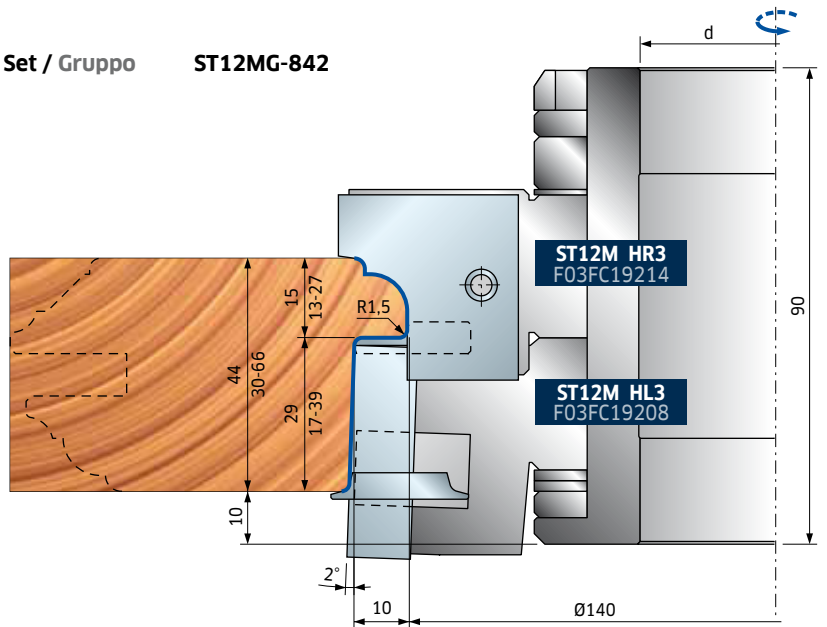
Cutterheads sets for doors rebates Gruppi di teste per battute di porte



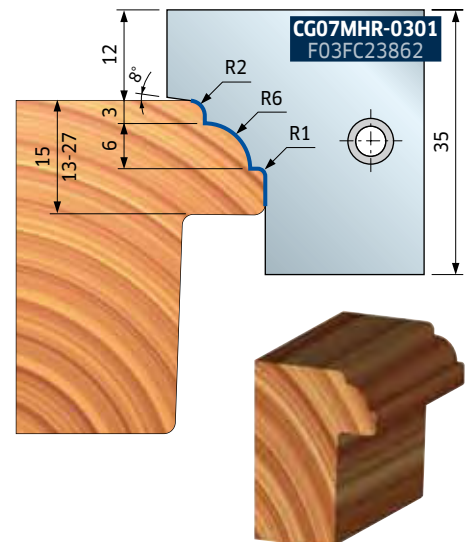
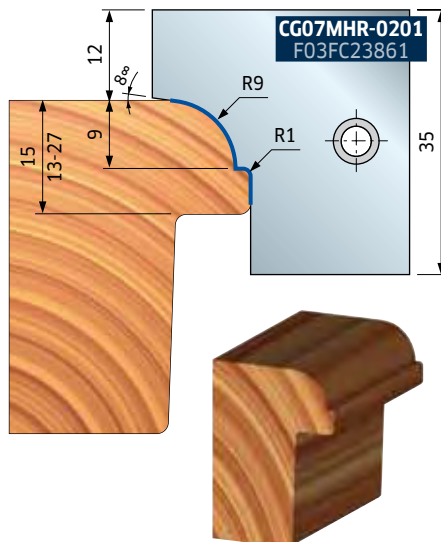
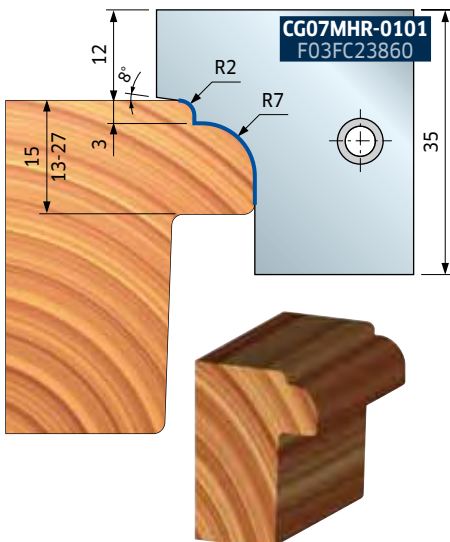
Set / Gruppo **ST12MG-841**



Set / Gruppo **ST12MG-842**



Knives for cutterhead ST12M HR3 Coltelli per utensile ST12M HR3



ST12MG

Bead recovery cutterheads sets Gruppi di teste per recupero listello

Tool set zero diameter: 140 mm

Diametro di programmazione: 140 mm

D mm	B mm	d mm	Z	R	Max RPM 1/min.	Code Codice	SAP SAP
200					9.000	ST12MG 302	F03FC19584



Tools for ST12MG-302

Utensili per gruppi ST12MG-302

D mm	B mm	d mm	Z	l	Max RPM 1/min.	Code Codice	SAP SAP
144	13,5	60	4			ST12M CG3	F03FC19061

Spare parts Parti di ricambio		Dimensions Dimensioni mm	Code Codice	SAP SAP
	Saw blade / Lama	200 x 3 x 60 Z34	LL02M20060	F03FC15418
	Screw / Vite	M6 x 10	VT01M AA9	F03FA04429
	Rounding insert / Inserto raggiatore	22 x 16 x 5	IG52MAE305	F03FH03025
	Screw / Vite	M6 x 14,5	VT16M AA9	F03FA04476
	Rounding insert / Inserto raggiatore	18 x 26 x 8,5	IG23MDAE305	F03FC24163
	Screw / Vite	M6 x 15,5	VT16M AD9	F03FC20657



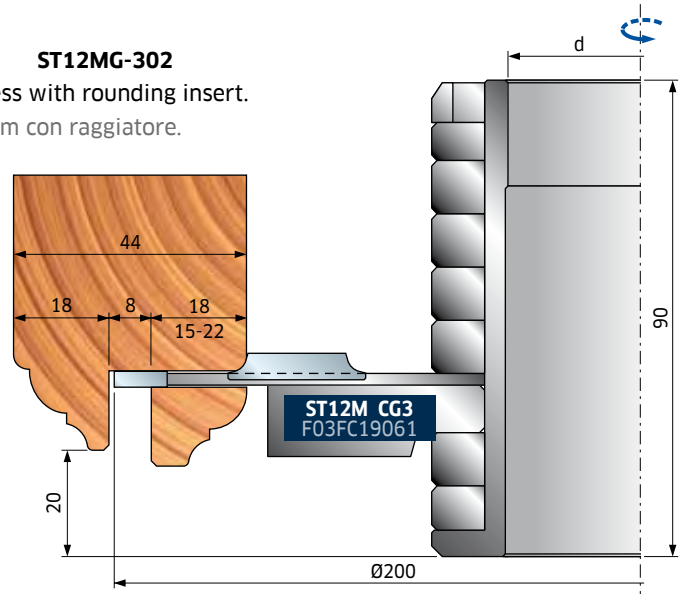
Sleeve BF10MD not included.

La bussola BF10MD non è inclusa.

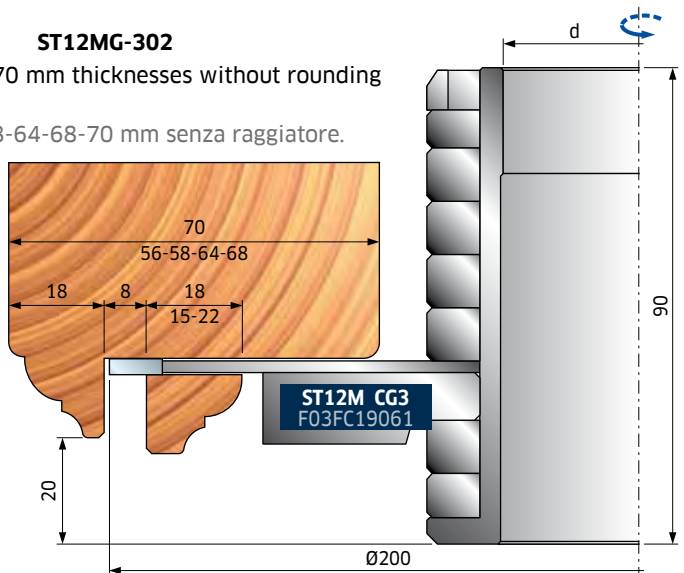
Dimensions Dimensioni mm	Sleeve code Codice bussola	SAP SAP
Ø60 x 90 x 30	BF10MD DA9	F03FC24534
Ø60 x 90 x 32	BF10MD DL9	F03FC24535
Ø60 x 90 x 35	BF10MD DB9	F03FC00630
Ø60 x 90 x 40	BF10MD DC9	F03FC00631
Ø60 x 90 x 50	BF10MD DD9	F03FC00632



Set / Gruppo **ST12MG-302**
44 mm thickness with rounding insert.
Spessore 44 mm con raggiatore.



Set / Gruppo **ST12MG-302**
56-58-64-68-70 mm thicknesses without rounding insert.
Spessori 56-58-64-68-70 mm senza raggiatore.



TD60M



Doors frames profiles cutterheads Teste per profili di telai e mostrine di porte

Panel sizing cutterhead with profiled knives suitable for door frames and door frame covers profiles. To be used on moulders. This tool is particularly suitable for moulding and profiling on hard and exotic wood, to produce door frames with rounded profile. Top quality finish.

The profiling of the door frame covers is achieved with two passes and without altering the tool's position with respect to the working surface.

Light alloy body (Aluminum alloy). For cleaning do not use products containing caustic soda.

Piattabanda con coltelli sagomati per profili di telai e mostrine di porte. Da utilizzare su macchina toouple. Particolarmente adatta per lavorazioni di contornatura e profilatura su legni duri ed esotici, per l'esecuzione di telai di porte con profilo raggiato, con ottima finitura.

La profilatura delle mostrine viene eseguita in doppia passata, senza modificare il posizionamento dell'utensile rispetto al piano di lavoro.

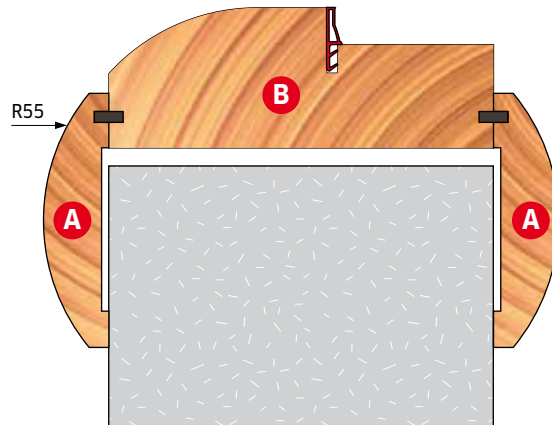
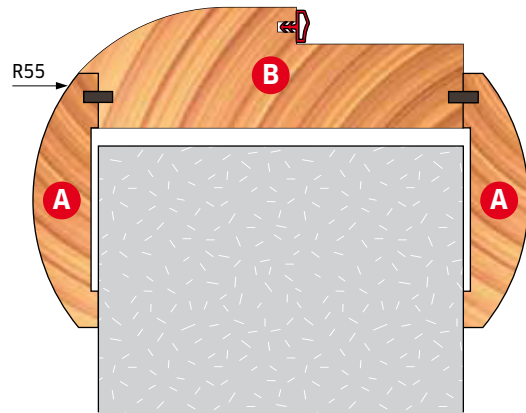
Corpo in lega leggera (Lega di alluminio). Per la pulizia non utilizzare prodotti contenenti soda caustica.

D mm	B mm	d* mm	Z	R	Max RPM 1/min.	Code Codice	SAP SAP
200	60	32	3		7.000	TD60M AC3	F03F668631
200	60	35 (40)	3		7.000	TD60M AB3	F03FC20222

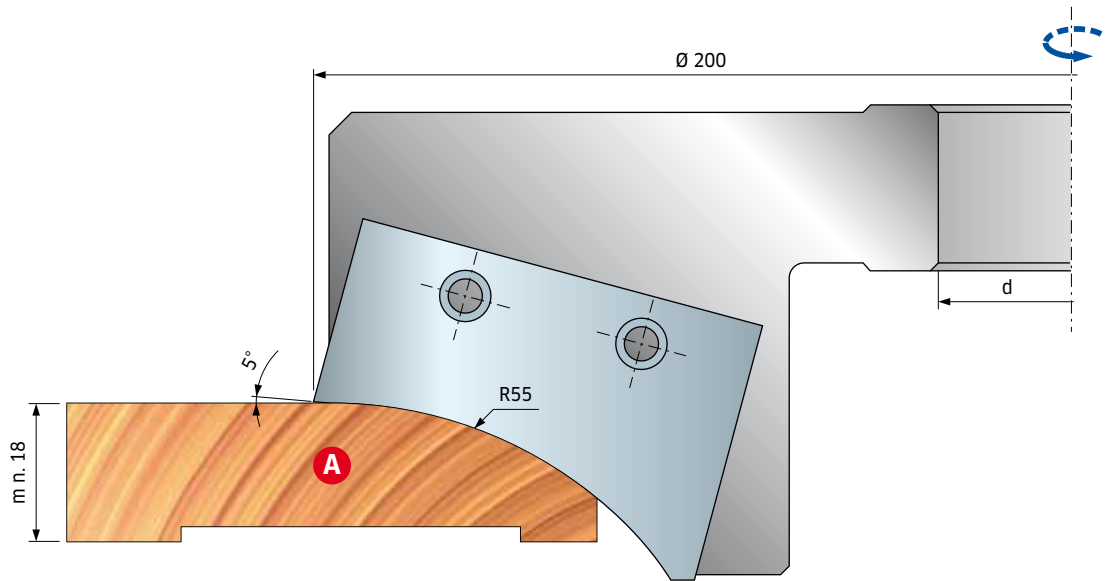
Spare parts Parti di ricambio	Dimensions Dimensioni mm	Code Codice	SAP SAP
Knife / Coltello	55 x 35 x 3	CT60MAA301	F03FC24114
Wedge / Cuneo	50 x 23 x 8	CN60M AA9	F03FC01446
Screw / Vite	M10 x 25	2602M FI9	F03FA07353
Screw / Vite	M8 x 10 x 22	VT08M AD9	F03FA04456
Allen key / Chiave	5 x 110	CB03M EA9	F03FA00169

Example of door frames

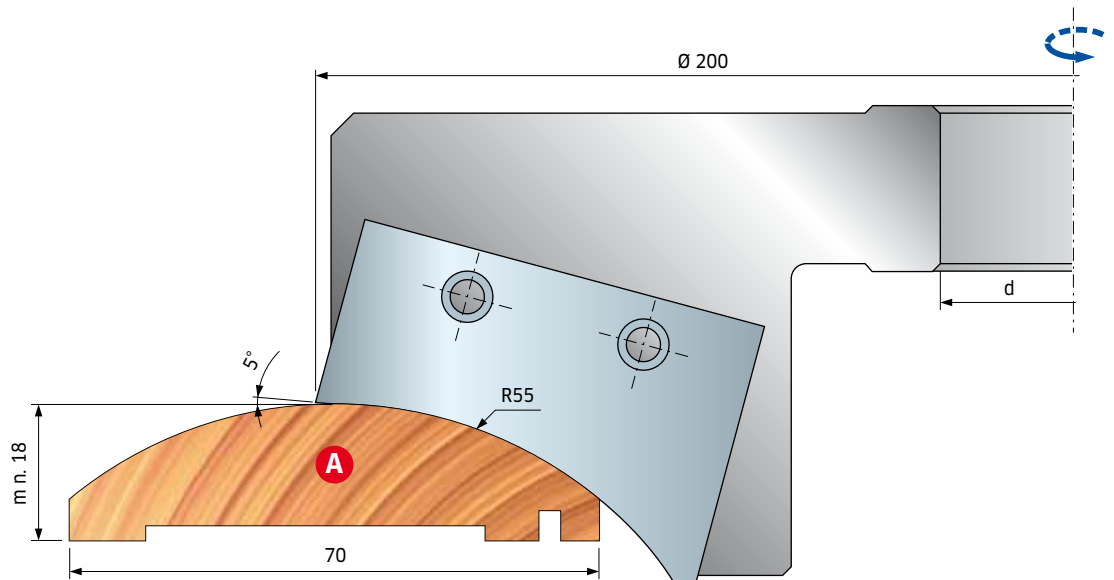
Esempi di telai realizzabili



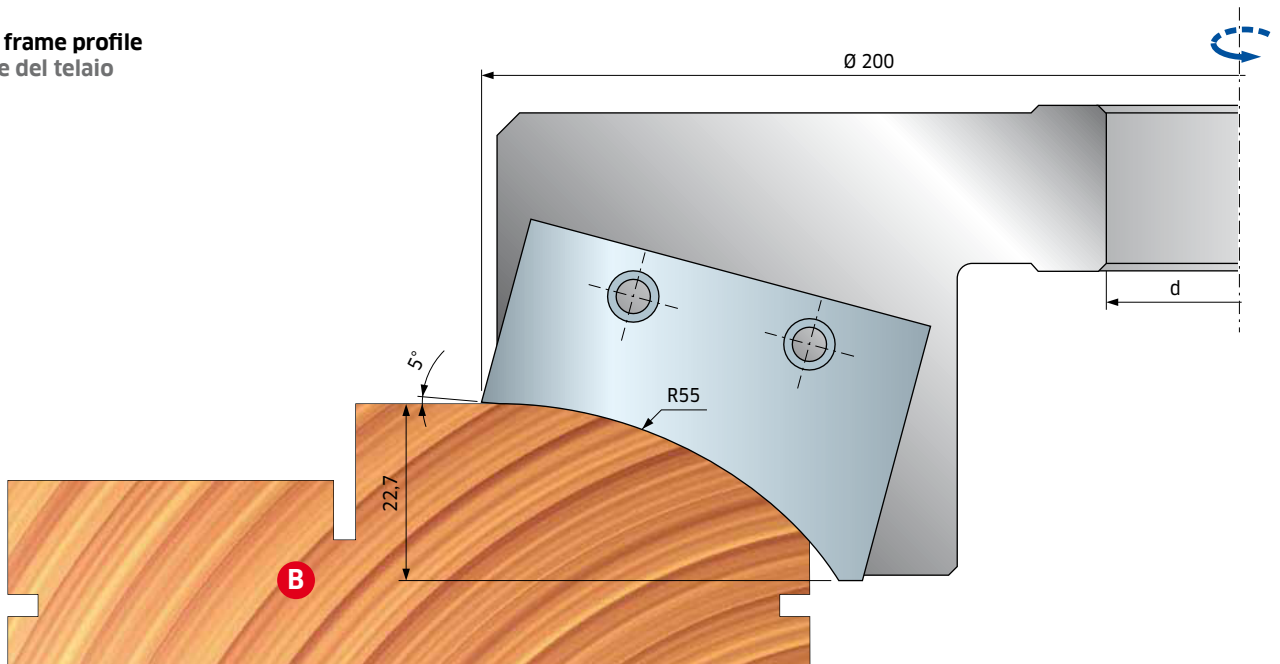
STEP - LAVORAZIONE 1



STEP - LAVORAZIONE 2



Example of frame profile Lavorazione del telaio



ST12MG

Cutterheads sets for doors intrados Gruppi di teste per imbotti porte

Tool set zero diameter: 140 mm

Diametro di programmazione: 140 mm

D mm	B mm	d mm	Z	R	Max RPM 1/min.	Code Codice	SAP SAP
218					6.500	ST12MG 830	F03FC19652



Tools for ST12MG-830 set

Utensili per gruppo ST12MG-830

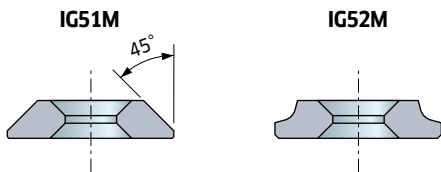
D mm	B mm	d mm	Z	R	Max RPM 1/min.	Code Codice	SAP SAP
204	24	70	2	6		ST12M HI3	F03FC19204

Spare parts Parti di ricambio		Dimensions Dimensioni mm	Code Codice	SAP SAP
	Knife / Coltello	20 x 25 x 3	CG07MDHI301	F03FC23824
	Screw / Vite	M10 x 18	VT03M CC9	F03FA04438
	Screw / Vite	M5 x 7 x 16	VT08M AE9	F03FA04457
	Grooving insert / Insetto per incastri	40 x 16 x 3	IG04MDAC305	F03FH02992
	Screw for: / Vite per: IG04MD	M6 x 14,5	VT16M AA9	F03FA04476
	Screw for: / Vite per: IG51M e IG52M	M6 x 11,5	VT16M AB9	F03FA04477



With seat pockets for bevelling inserts IG51M or radius inserts IG52M (R= 1,5 - 2 - 3 mm).

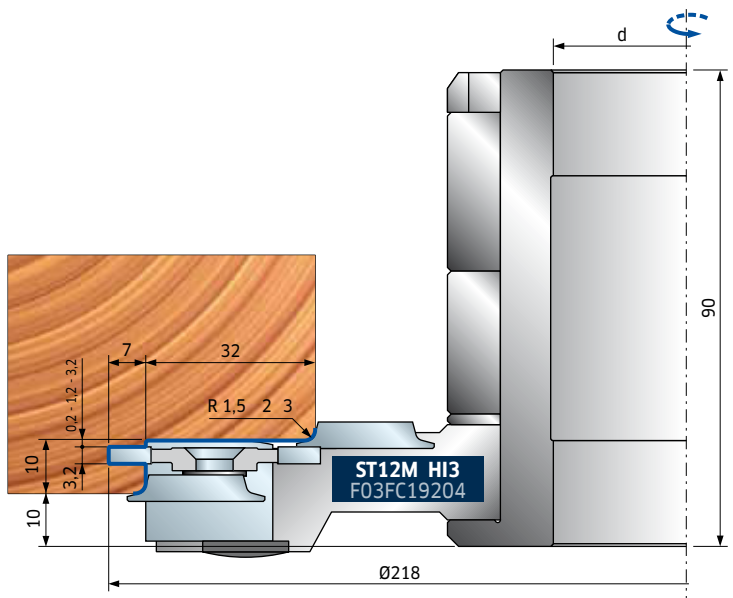
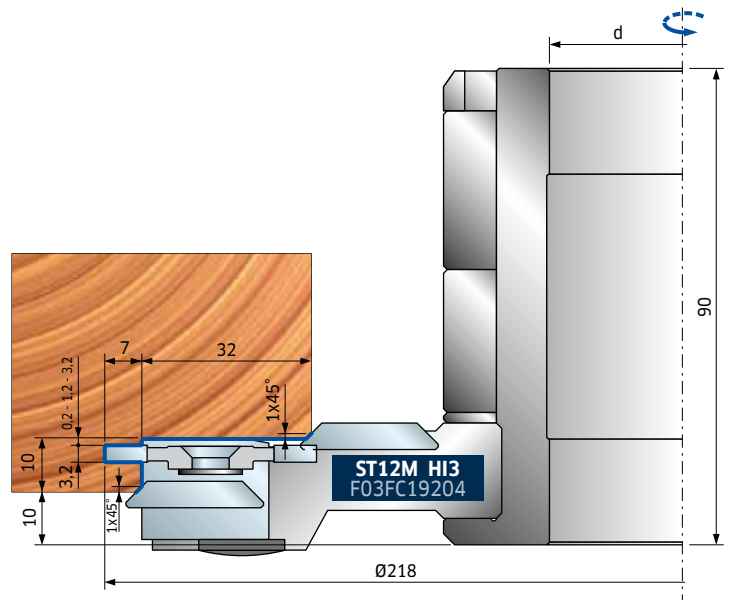
Con sedi per il montaggio di inserti IG51M (smussatori) e IG52M (R= 1,5 - 2 - 3 mm).



BF10MD sleeve is not included.

La bussola BF10MD va ordinata a parte.

Dimensions Dimensioni mm	Sleeve code Codice bussola	SAP SAP
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



TP48M

ISOprofil cutterheads for doors frames Teste ISOprofil per battute porte

Tool suitable for solid wood jamb board rebate machining.

Utensile per la lavorazione della battuta sullo stipite della porta in legno massiccio.



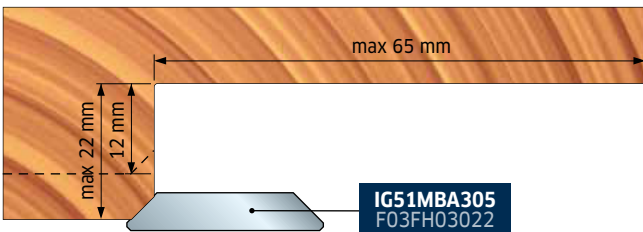
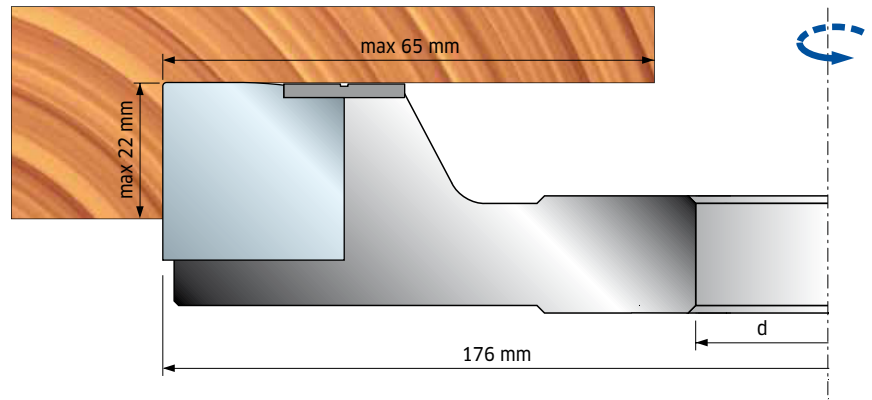
D mm	B mm	d* mm	Z	R	Max RPM 1/min.	Code Codice	SAP SAP
176	23,5	35 (50)	2		8.000	TP48M AB3	F03F664005

Spare parts Parti di ricambio		Dimensions Dimensioni mm	Code Codice	SAP SAP
	Knife / Coltello	24 x 24 x 3	CP48MAA301	F03FC24310
	Positioning plate / Piastrina di riscontro	22 x 1,7 x 6,5	VT18M GA9	F03FA04488
	Screw / Vite	M5 x 8	VT05M AA9	F03FA04444
	Screw / Vite	M10 x 16	2616M EE9	F03FA07426
	Wedge / Cuneo	28 x 9,5 x 8	CN03M BB9	F03FA00585
	Screw / Vite	M8 x 22	VT19M BB9	F03FA04493

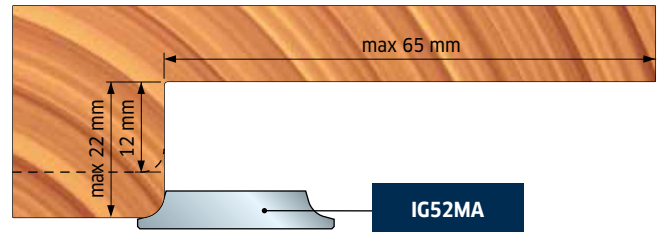
Tool with seat pockets for the following inserts (not included):

Utensile con sedi per il montaggio dei seguenti inserti (non inclusi):

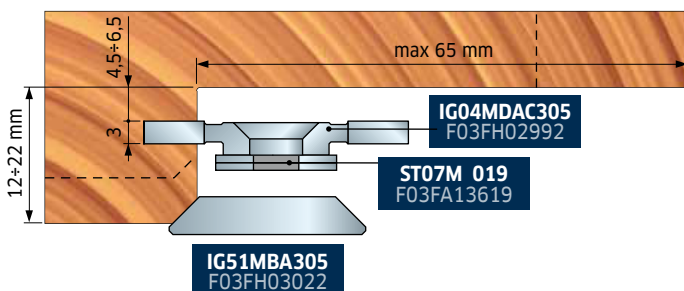
Optional parts Articoli opzionali		Dimensions Dimensioni mm	Code Codice	SAP SAP
	Rounding insert / Inserto raggiatore	22 x 16 x 5 R=1,5	IG52MAB305	F03FH03023
	Rounding insert / Inserto raggiatore	22 x 16 x 5 R=2	IG52MAC305	F03FH03024
	Rounding insert / Inserto raggiatore	22 x 16 x 5 R=3	IG52MAE305	F03FH03025
	Bevelling insert / Inserto smussatore	22 x 16 x 5 45°	IG51MBA305	F03FH03022
	Spacer for inserts / Anello per inserti	13,6 x 0,1 x 7	ST07M 019	F03FA13619
	Grooving insert / Inserto per incastri	40 x 16 x 3	IG04MDAC305	F03FH02992
	Screw for IG51-IG52 / Vite per IG51-IG52	M6 x 13	VT16M AE9	F03FC20658
	Screw for IG04MD / Vite per IG04MD	M6 x 14,5	VT16M AA9	F03FA04476



IG51MBA305
F03FH03022



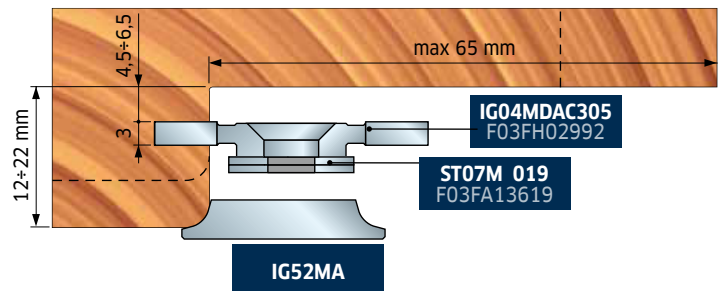
IG52MA



IG04MDAC305
F03FH02992

ST07M 019
F03FA13619

IG51MBA305
F03FH03022



IG04MDAC305
F03FH02992

ST07M 019
F03FA13619

IG52MA

TD61M

Doors frames profiles cutterheads Teste per profili di telai di porte

Cutterhead TD61M AA3 is supplied without knives.

Light alloy body (Aluminum alloy). For cleaning do not use products containing caustic soda.

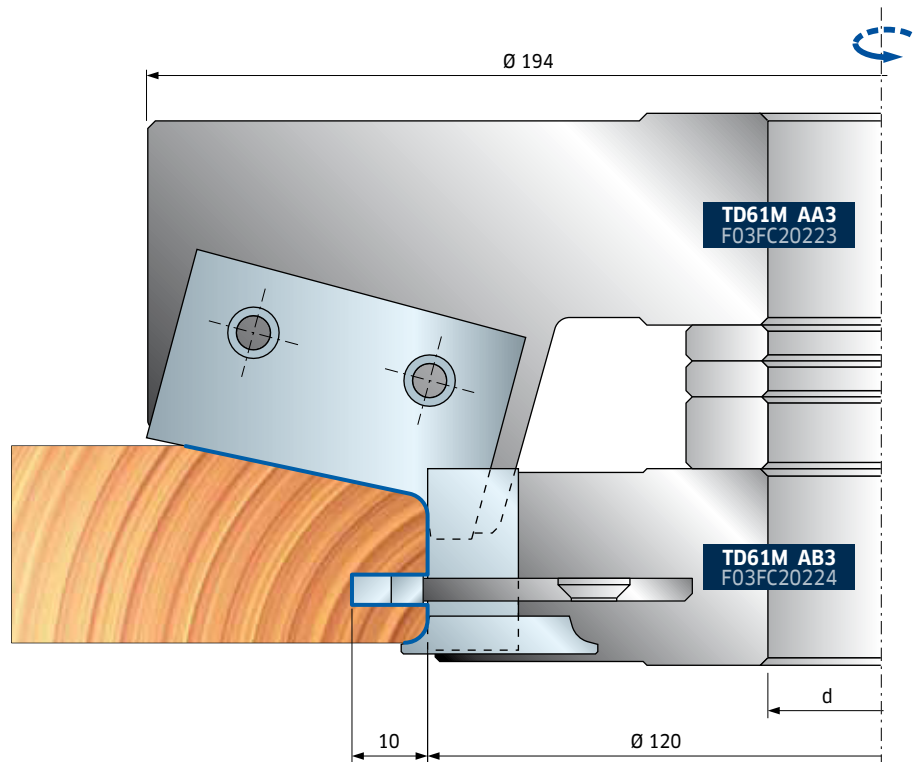
L'articolo TD61M AA3 viene fornito senza coltelli.

Corpo in lega leggera (Lega di alluminio). Per la pulizia non utilizzare prodotti contenenti soda caustica.

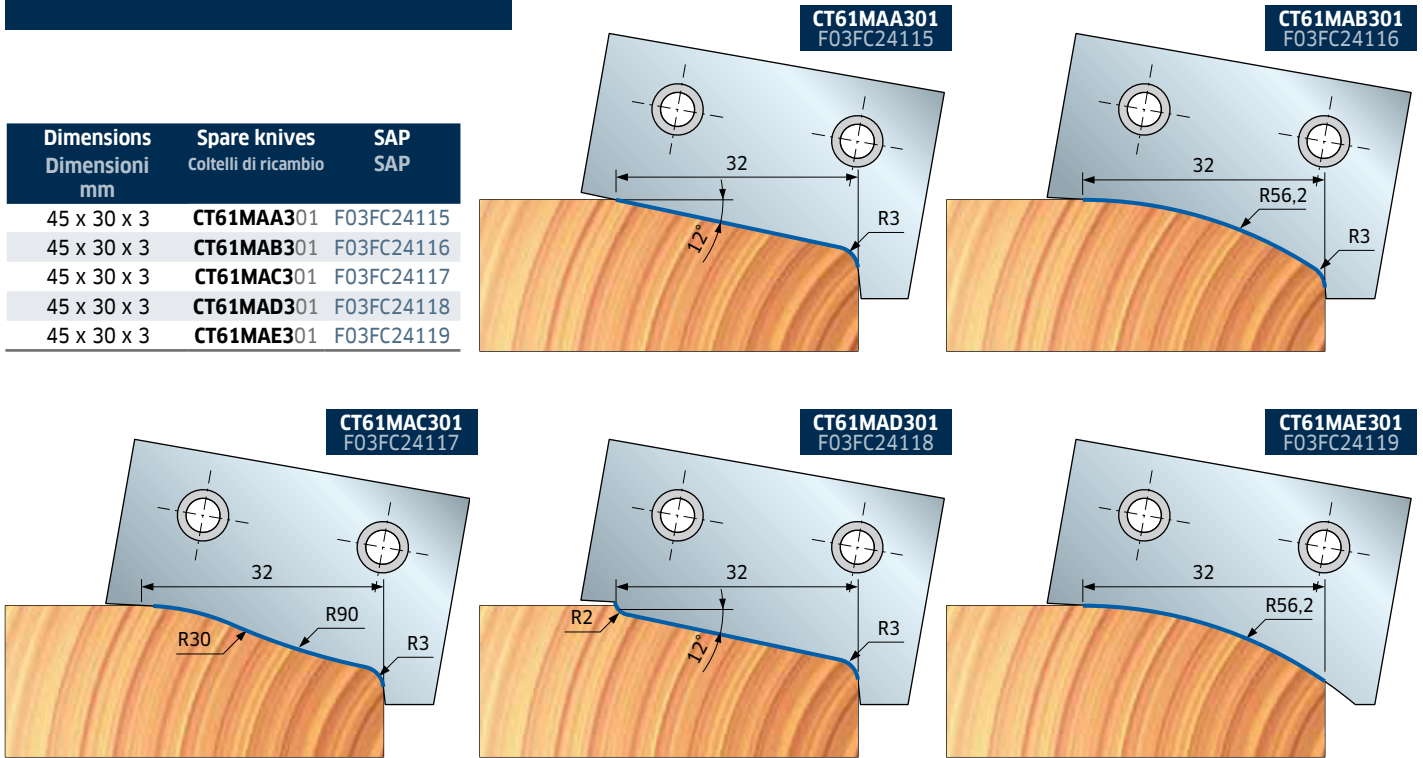


D mm	B mm	d* mm	Z	R	Max RPM 1/min.	Code Codice	SAP SAP
194	59	30 (40)	2		7.000	TD61M AA3	F03FC20223
140	25	30 (40)	2	4	8.800	TD61M AB3	F03FC20224

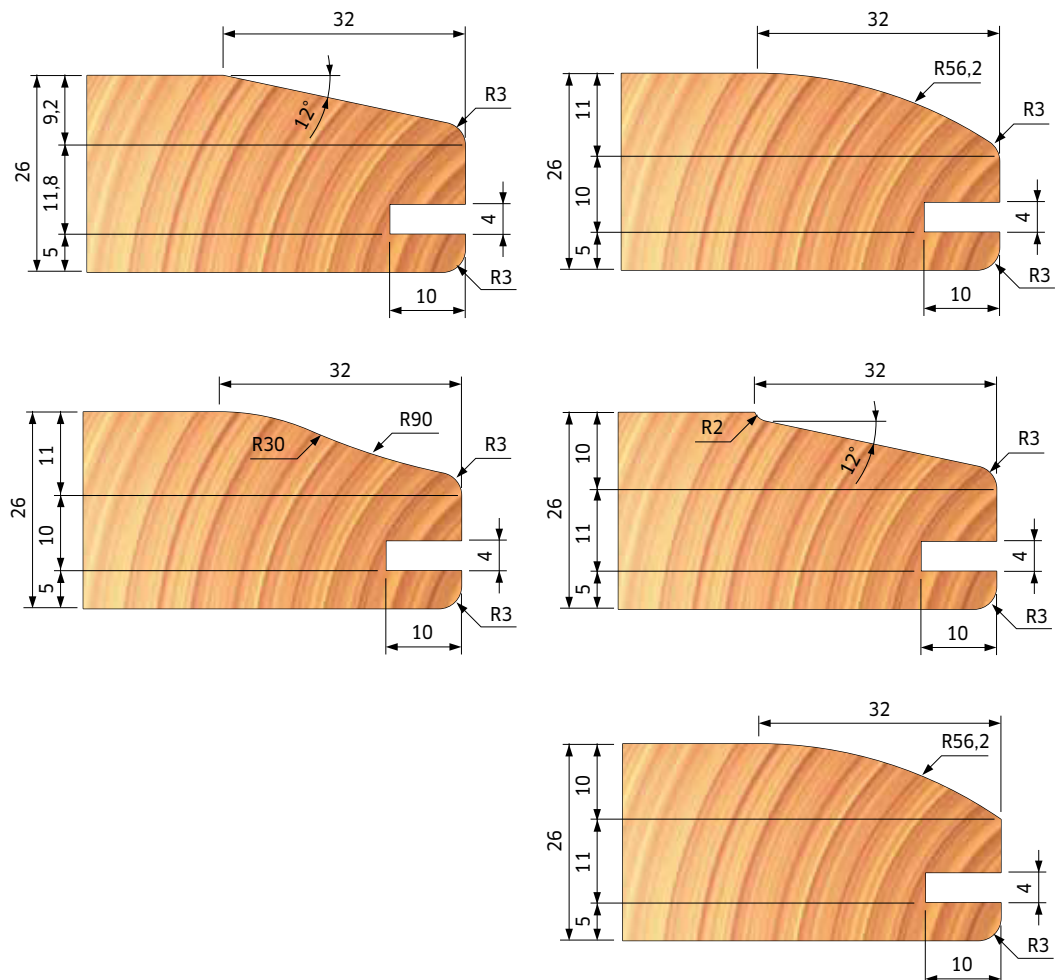
	Spare parts Parti di ricambio	Dimensions Dimensioni mm	Code Codice	SAP SAP
AA3	Screw / Vite	M10 x 18	VT03M CC9	F03FA04438
	Screw / Vite	M8 x 10 x 22	VT08M AD9	F03FA04456
	Knife / Coltello	24 x 12 x 1,5	CG01MOA310	F03FH02875
	Wedge / Cuneo	15 x 20 x 8	CN09MD AK9	F03FC01304
AB3	Nut / Ogiva	15 x 13,3 x 10	VT20M MA9	F03FC20670
	Screw / Vite	M10 x 22	VT19M MA9	F03FA04496
	Sector / Settore	25 x 45 x 4 Z1	SR11MDBC301	F03FC24205
	Screw / Vite	M5 x 8	VT05M AA9	F03FA04444
	Rounding insert / Inserto raggiatore	26 x 16 x 5 R3	IG62MSAE305	F03FH03033
	Screw for: / Vite per: IG62MS	M6 x 14,5	VT16M AA9	F03FA04476



Dimensions Dimensioni mm	Spare knives Coltelli di ricambio	SAP SAP
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 Profili realizzabili utilizzando gli utensili TD61M AA3 e TD61M AB3



TP43M

Cutterheads sets for vertical slat shutters Gruppi di teste per scuretti a doghe verticali

Sleeves must be ordered separately.

Please Note: The sets can be ordered with clockwise rotation with BF10MS sleeve.

Le bussole devono essere ordinate a parte.

N.B.: I gruppi si possono ordinare anche con rotazione oraria con la bussola cod. BF10MS.

Tool set zero diameter: 125 mm

Diametro di programmazione: 125 mm

D mm	B mm	d mm	Z	R	Max RPM 1/min.	Code Codice	SAP SAP
139					9.600	TP43M MD3	F03FC20497
147					9.000	TP43M FD3	F03FC20496



Tool Utensile	Spare parts Parti di ricambio	Dimensions Dimensioni mm	Code Codice	SAP SAP
	Screw / Vite	M10 x 18	VT03M CC9	F03FA04438
	Screw / Vite	M5 x 7 x 16	VT08M AE9	F03FA04457
MD3	1 Knife / Coltello	34 x 24 x 3	CP43M1MD301	F03FC24009
	2 Knife / Coltello	34 x 24 x 3	CP43M2MD301	F03FC24011
	1 Wedge / Cuneo	30,7 x 23 x 8	CN13M AV9	F03FC24542
	2 Wedge / Cuneo	30,7 x 23 x 8	CN13M AW9	F03FC24543
FD3	1 Knife / Coltello	35 x 29 x 3	CP43M1FD301	F03FC24008
	2 Knife / Coltello	35 x 29 x 3	CP43M2FD301	F03FC24010
	1 Wedge / Cuneo	30,7 x 28 x 8	CN13M AT9	F03FC24540
	2 Wedge / Cuneo	30,7 x 28 x 8	CN13M AU9	F03FC24541

Right-hand sleeves

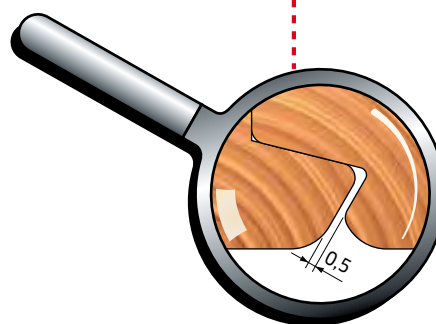
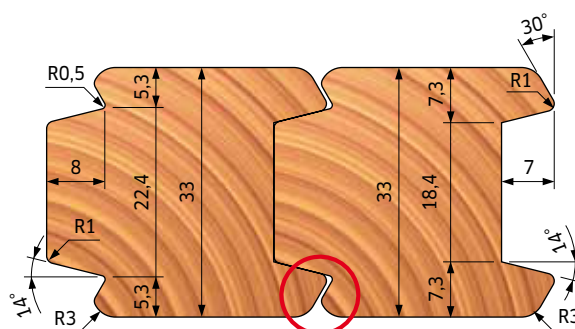
Bussole con rotazione destra

Dimensions Dimensioni mm	Sleeve code Codice bussola	SAP SAP
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

Bussole con rotazione sinistra

Dimensions Dimensioni mm	Sleeve code Codice bussola	SAP SAP
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



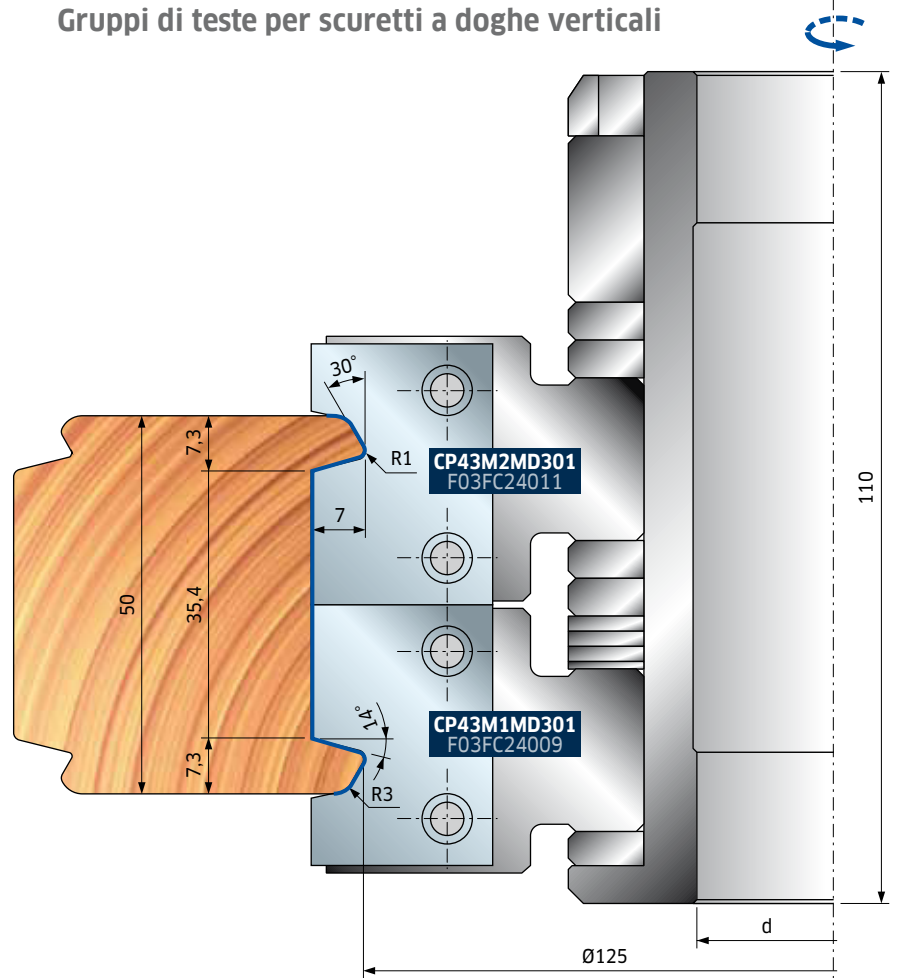
SCALE / SCALA
2:1



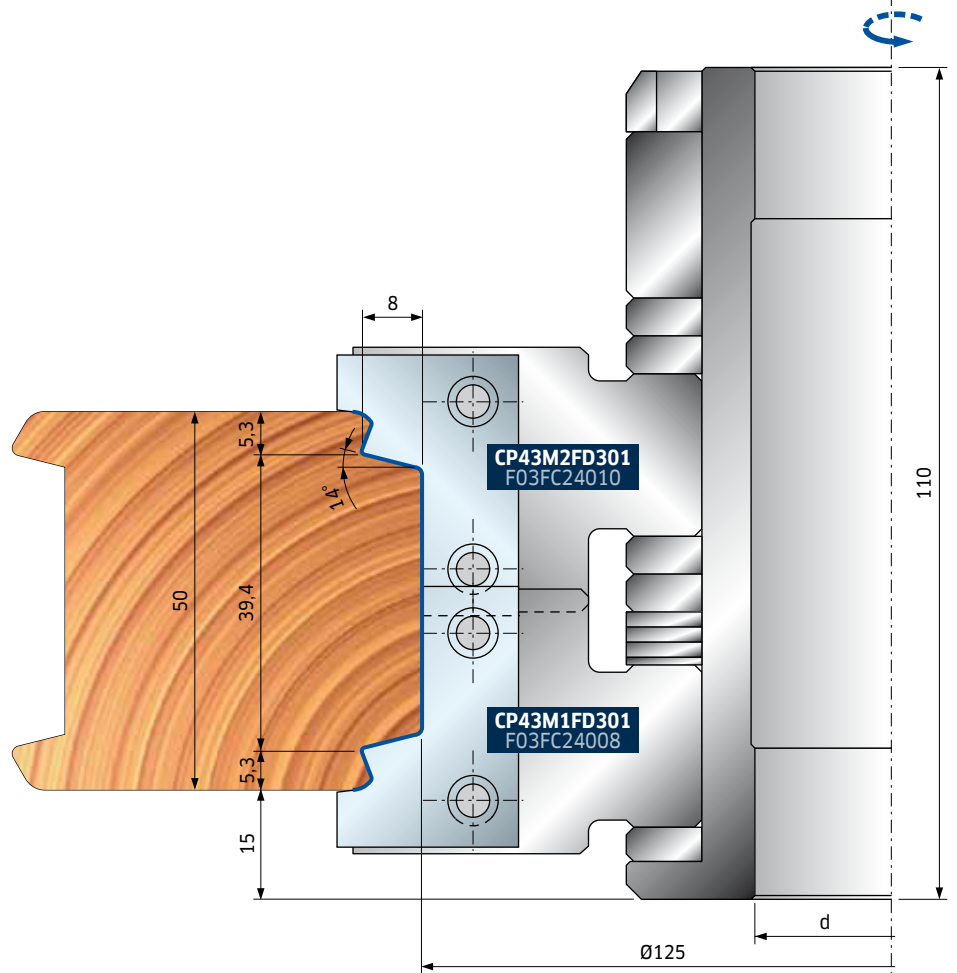
TP43M

Cutterheads sets for vertical slat shutters Gruppi di teste per scuretti a doghe verticali

Set / Gruppo TP43M MD3



Set / Gruppo TP43M FD3



TP45M

Cutterheads sets for lifting-sliding doors Gruppi di teste per alzanti-scorrevoli

For doors with maximum weight of 250 Kg using hardware HS25 from MAICO, AGB or G.U.

Per la realizzazione di porte con peso complessivo max. 250 Kg, con l'applicazione della ferramenta tipo MAICO HS25, AGB o G.U.



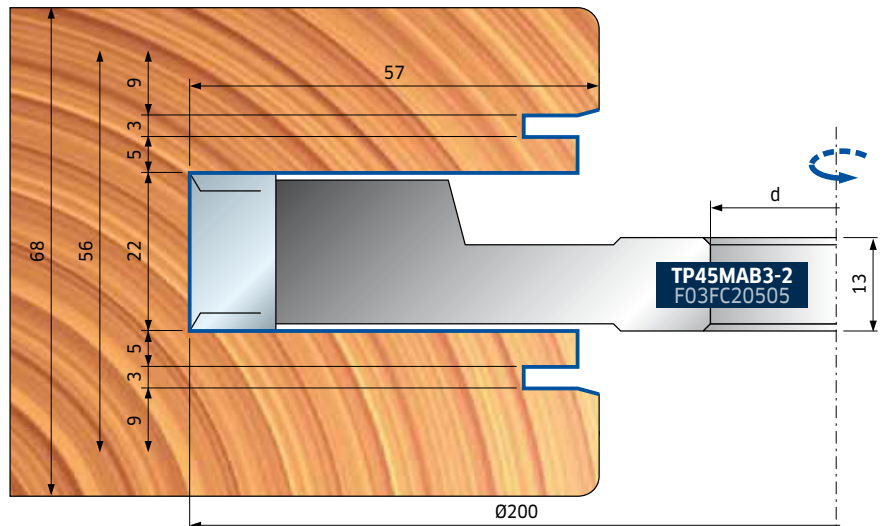
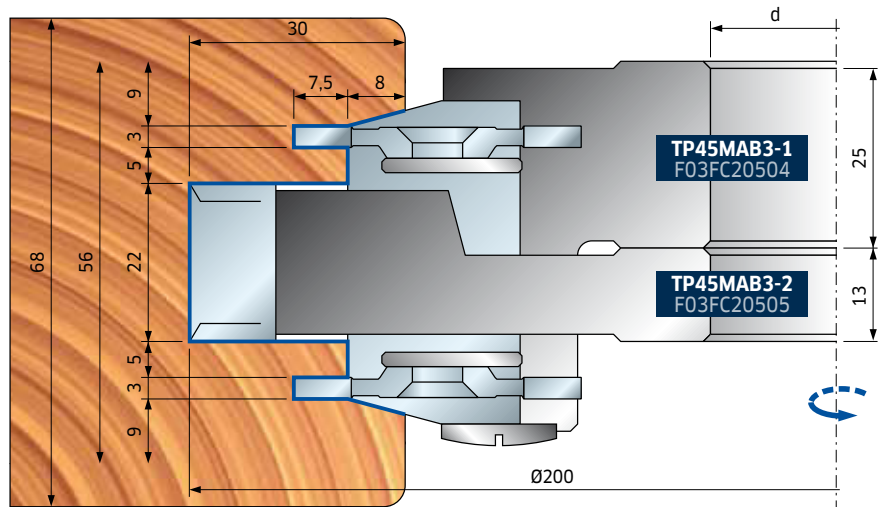
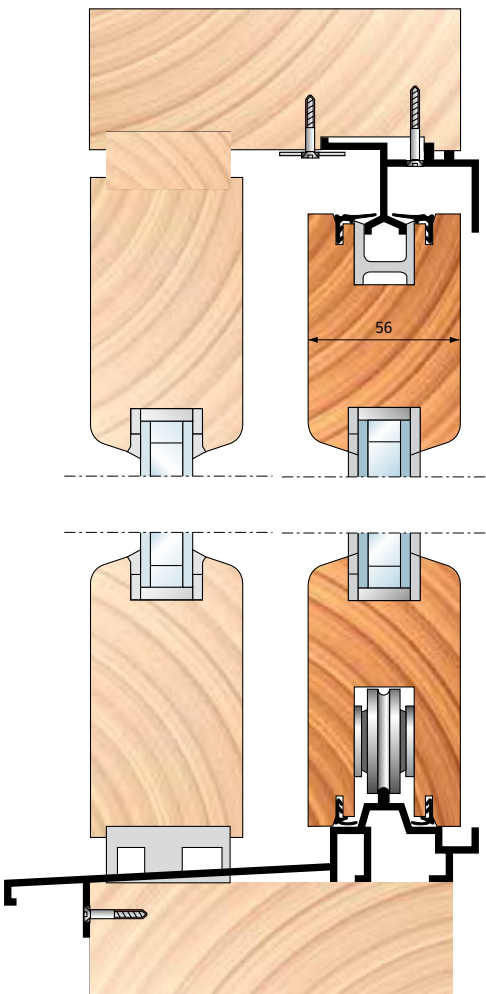
This item is supplied with 25 mm thick ring for base programming.

L'articolo comprende anche l'anello sp. 25 mm di programmazione sulla base.

D mm	B mm	d* mm	Z	R	I	Max RPM 1/min.	Code Codice	SAP SAP
200	45	30	2+2	2	4	7.000	TP45M AA3	F03FC23136
200	45	32	2+2	2	4	7.000	TP45M AC3	F03FC24453
200	45	35 (50)	2+2	2	4	7.000	TP45M AB3	F03FC20503

Spare parts Parti di ricambio	Dimensions Dimensioni mm	Code Codice	SAP SAP
Torx key / Chiave Torx	T20	CB03M CC9	F03FA00167
Allen key / Chiave	4 x 110	CB03M BA9	F03FA00163
Allen key / Chiave	5 x 110	CB03M EA9	F03FA00169
Knife / Coltello	45 x 25 x 3	CP45MAA301	F03FC24014
Screw / Vite	M5 x 16 x 7	VT08M AE9	F03FA04457
Screw / Vite	M10 x 18	VT03M CC9	F03FA04438
Grooving insert / Inserto per incastri	40 x 16 x 3	IG04MDAC305	F03FH02992
Grooving insert / Inserto per incastri	40 x 16 x 3	IG04MSAC305	F03FH02996
Screw / Vite	M6 x 14,5	VT16M AA9	F03FA04476
Deflector / Deflettore	30,8 x 6 x 24,5	ID04MDAC901	F03FC24135
Deflector / Deflettore	30,8 x 6 x 24,5	ID04MSAC901	F03FC24139
Screw / Vite	M4 x 12	VT05M DA9	F03FC20647
Knife / Coltello	21,6 x 12 x 1,5	CG06MTA310	F03FC23821
Wedge / Cuneo	15 x 20 x 8	CN09M A09	F03FC01289
Nut / Ogiva	15 x 13,3 x 10	VT20M MA9	F03FC20670
Screw / Vite	M10 x 22	VT19M MA9	F03FA04496
Spur / Rasante	22,86 x 2,5	RG02MAA305	F03FH03041
Screw / Vite	M5 x 8	VT05M AA9	F03FA04444

AA3-1 - AB3-1 - AC3-1
AA3-2 - AB3-2 - AC3-2



* Size shown between brackets is the max. rebore possible • La quota tra parentesi è la massima allargatura foro possibile

TD21M

Raised panel cutterheads Piattabande multiprofilo

This item is supplied with knives and optional cutters. Cost saving: 5 different raised panels can be produced with this cutter at a fraction of the cost of individual tools.

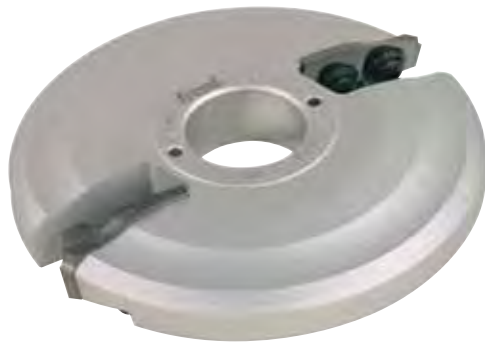
This item is supplied without knives.

Light alloy body (Aluminum alloy). For cleaning do not use products containing caustic soda.

Esecuzione che permette di usare i differenti profili rappresentati in queste pagine.

L'articolo viene fornito senza coltelli.

Corpo in lega leggera (Lega di alluminio). Per la pulizia non utilizzare prodotti contenenti soda caustica.

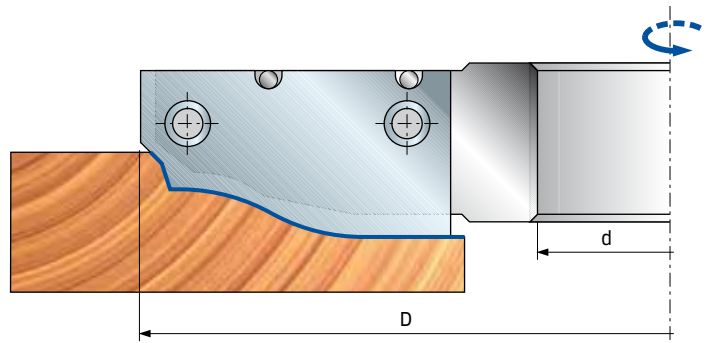


D mm	B mm	d mm	Z	R	Max RPM 1/min.	Code Codice	SAP SAP
140	23	30	2		9.600	TD21M HA3	F03FC24421
140	23	32	2		9.600	TD21M HC3	F03FC24422
140	23	35	2		9.600	TD21M HB3	F03FC23145

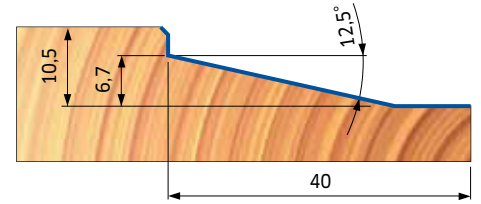
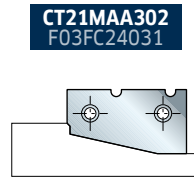
Spare parts Parti di ricambio		Dimensions Dimensioni mm	Code Codice	SAP SAP
	Positioning plate / Piastra riscontro	33 x 3 x 16	VT18M AI9	F03FC20661
	Screw / Vite	M6 x 10	2622M CB9	F03FA07455
	Allen key / Chiave	4 x 110	CB03M BA9	F03FA00163
	Bushing / Bussola	35 x 20 x 30	BF01M AD9	F03FC00607

Profiled knives Coltelli profilati

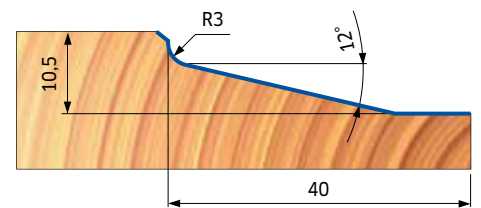
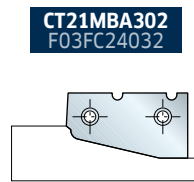
Profile Profilo	Spare knives Coltelli di ricambio	Dimensions Dimensioni mm	Code Codice	SAP SAP
1	Knife / Coltello	41 x 22 x 3,5	CT21MAA302	F03FC24031
2	Knife / Coltello	41 x 22 x 3,5	CT21MBA302	F03FC24032
3	Knife / Coltello	41 x 22 x 3,5	CT21MCA302	F03FC24033
4	Knife / Coltello	41 x 22 x 3,5	CT21MDA302	F03FC24034
5	Knife / Coltello	41 x 22 x 3,5	CT21MEA302	F03FC24035



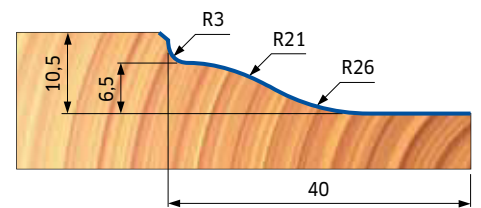
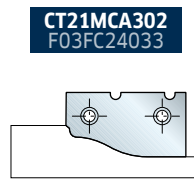
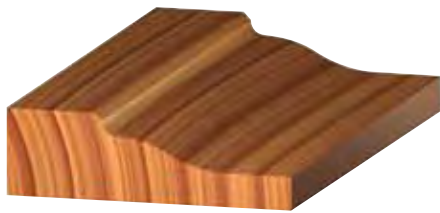
PROFILE / PROFILO 1



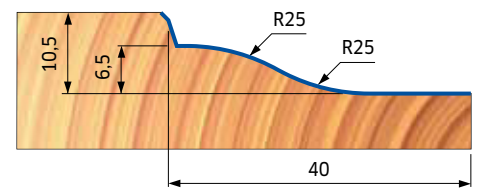
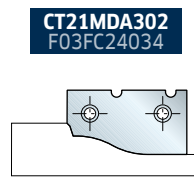
PROFILE / PROFILO 2



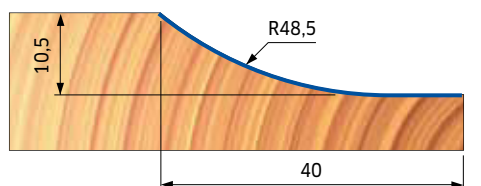
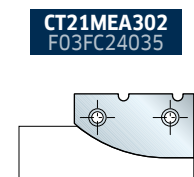
PROFILE / PROFILO 3



PROFILE / PROFILO 4



PROFILE / PROFILO 5



TD51M

Raised panel cutterheads for soft and hardwood Piattabande multiprofilo per legno tenero e duro

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.

Light alloy body (Aluminum alloy). For cleaning do not use products containing caustic soda.

L'utensile è concepito per poter lavorare con 2 taglienti su legno tenero oppure con gli altri 2 taglienti su legno duro, con perfetta finitura, sia di testa che lungovena. Questo risultato si è potuto ottenere grazie alla scelta di diversi angoli di taglio sulle sedi per coltello. Si possono montare solo 2 coltelli alla volta e vanno montati diametralmente opposti. Le dimensioni dei coltelli per il legno duro sono diverse da quelle per legno tenero, però realizzano lo stesso profilo.

L'articolo viene fornito senza coltelli.

Corpo in lega leggera (Lega di alluminio). Per la pulizia non utilizzare prodotti contenenti soda caustica.



D mm	B mm	d* mm	Z	R	Max RPM 1/min.	Code Codice	SAP SAP
180	22	30	2+2		7.500	TD51M AA3	F03FC20209
180	22	32	2+2		7.500	TD51M AC3	F03FC24423
180	22	35 (50)	2+2		7.500	TD51M AB3	F03FC20210
180	21	50	2+2		7.500	TD51M AD3	F03FC20211

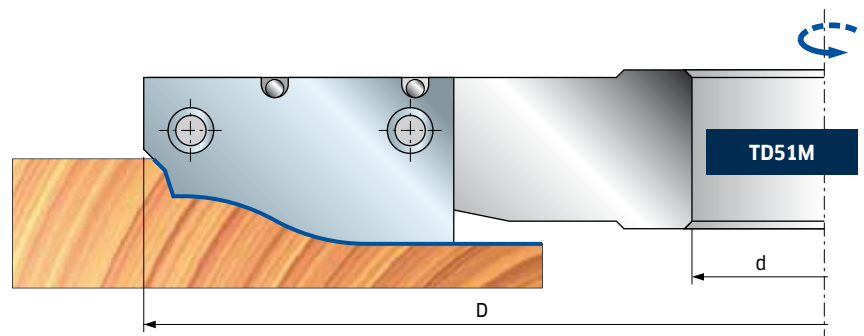
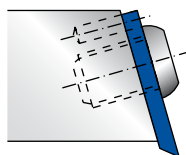
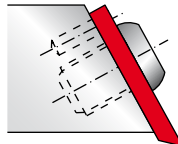
Spare parts Parti di ricambio		Dimensions Dimensioni mm	Code Codice	SAP SAP
	Ring / Rondella	14 x 2 x 6	VT18M AL9	F03FC20662
	Screw / Vite	M6 x 12	2622M CC9	F03FA07456
	Allen key / Chiave	4 x 130	CB03M BB9	F03FA00164

2 Knives for Softwood 2 Coltelli per Legno Tenero

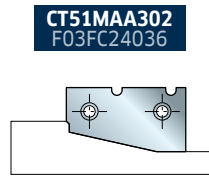
	Profile Profilo	Dimensions Dimensioni mm	Code Codice	SAP SAP
	1	41 x 28 x 3,5	CT51MAA302	F03FC24036
	2	41 x 28 x 3,5	CT51MBA302	F03FC24037
	3	41 x 28 x 3,5	CT51MCA302	F03FC24038
	4	41 x 28 x 3,5	CT51MDA302	F03FC24039
	5	41 x 28 x 3,5	CT51MEA302	F03FC24040

2 Knives for Hardwood 2 Coltelli per Legno Duro

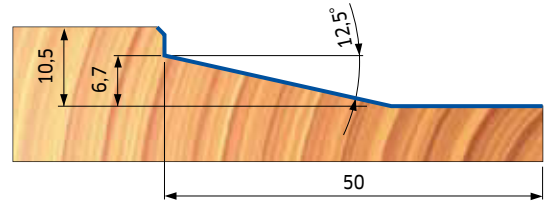
	Profile Profilo	Dimensions Dimensioni mm	Code Codice	SAP SAP
	1	41 x 22 x 3,5	CT21MAA302	F03FC24031
	2	41 x 22 x 3,5	CT21MBA302	F03FC24032
	3	41 x 22 x 3,5	CT21MCA302	F03FC24033
	4	41 x 22 x 3,5	CT21MDA302	F03FC24034
	5	41 x 22 x 3,5	CT21MEA302	F03FC24035



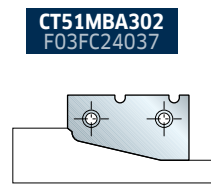
PROFILE / PROFILO 1



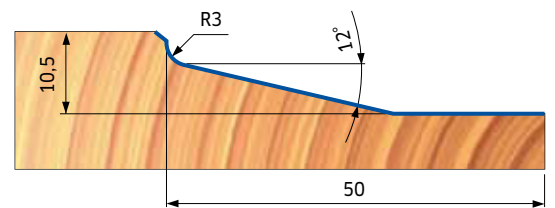
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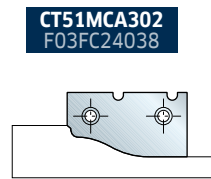
PROFILE / PROFILO 2



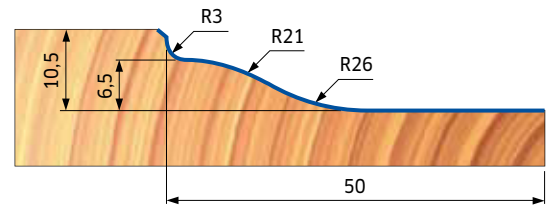
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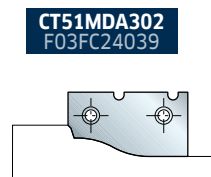
PROFILE / PROFILO 3



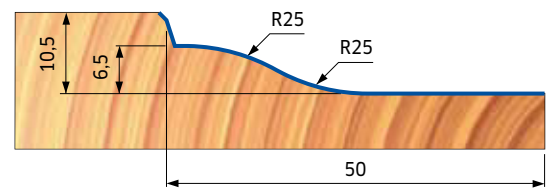
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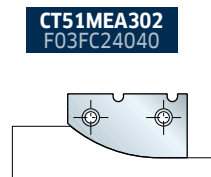
PROFILE / PROFILO 4



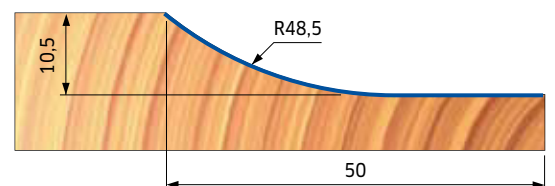
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PROFILE / PROFILO 5



CT51MEA302
F03FC24040

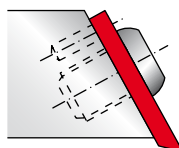
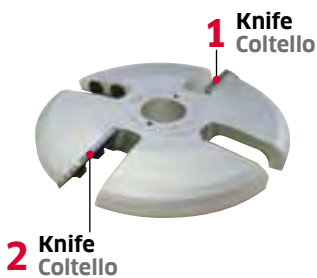
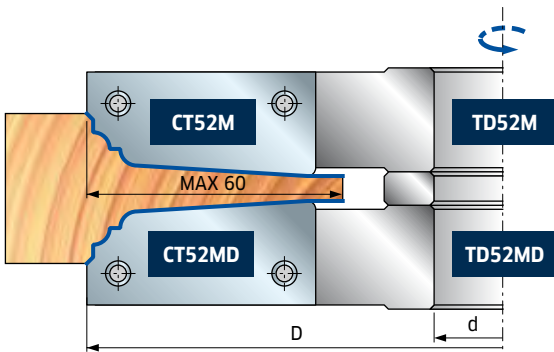


TD52M - TD52MD



Light alloy body (Aluminum alloy). For cleaning do not use products containing caustic soda.

Corpo in lega leggera (Lega di alluminio). Per la pulizia non utilizzare prodotti contenenti soda caustica.



Raised panel cutterheads for soft and hardwood Piattabande multiprofilo per legno tenero e duro

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 the opposite direction. The dimensions of the knives for cutting hardwood and softwood are different but the same profile is achieved.

L'utensile è concepito per poter lavorare con 2 taglienti su legno tenero oppure con gli altri 2 taglienti su legno duro, con perfetta finitura, sia di testa che lungovena. Questo risultato si è potuto ottenere grazie alla scelta di diversi angoli di taglio sulle sedi per coltello. Si possono montare solo 2 coltelli alla volta e vanno montati diametralmente opposti. Le dimensioni dei coltelli per il legno duro sono diverse da quelle per legno tenero, però realizzano lo stesso profilo.

Items are supplied with knives - Articoli forniti con coltelli

D mm	B mm	d* mm	Z	Max RPM 1/min.	Code Codice	SAP SAP
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 (50)	2+2	7.000	TD52M CB3	F03FC20212
200	25	35 (50)	2+2	7.000	TD52MD CB3	F03FC20214

Items are supplied without knives - Articoli forniti senza coltelli

D mm	B mm	d* mm	Z	Max RPM 1/min.	Code Codice	SAP SAP
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 (50)	2+2	7.000	TD52M HB3	F03FC20213
200	25	35 (50)	2+2	7.000	TD52MD HB3	F03FC20215

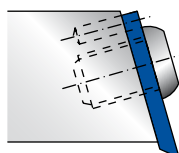
Spare parts Parti di ricambio	Dimensions Dimensioni mm	Code Codice	SAP SAP
Ring / Rondella	14 x 2 x 6	VT18M AL9	F03FC20662
Screw / Vite	M6 x 12	2622M CC9	F03FA07456
Allen key / Chiave	4 x 130	CB03M BB9	F03FA00164

2 Knives for Softwood - 2 Coltelli per Legno Tenero

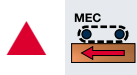
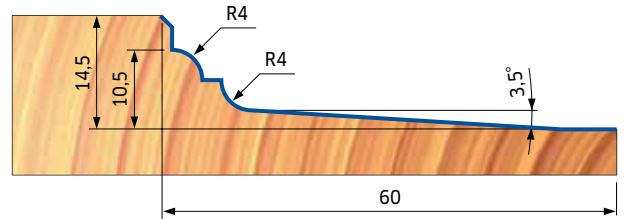
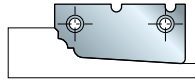
Profile Profilo	Dimensions Dimensioni mm	Code Codice	SAP SAP
Knife Coltello 1	55 x 30 x 3,5	CT52MTA301	F03FC24056
		CT52MDTA301	F03FC24051
Knife Coltello 2	55 x 30 x 3,5	CT52MTB301	F03FC24057
		CT52MDTB301	F03FC24052
Knife Coltello 3	55 x 30 x 3,5	CT52MTC301	F03FC24058
		CT52MDTC301	F03FC24053
Knife Coltello 4	55 x 30 x 3,5	CT52MTD301	F03FC24059
		CT52MDTD301	F03FC24054
Knife Coltello 5	55 x 30 x 3,5	CT52MTE301	F03FC24060
		CT52MDTE301	F03FC24055

2 Knives for Hardwood - 2 Coltelli per Legno Duro

Profile Profilo	Dimensions Dimensioni mm	Code Codice	SAP SAP
Knife Coltello 1	55 x 25 x 3,5	CT52MDA301	F03FC24041
		CT52MDDA301	F03FC24044
Knife Coltello 2	55 x 25 x 3,5	CT52MDB301	F03FC24042
		CT52MDDB301	F03FC24045
Knife Coltello 3	55 x 25 x 3,5	CT52MDC301	F03FC24043
		CT52MDCC301	F03FC24046
Knife Coltello 4	55 x 25 x 3,5	CT52MDD301	F03FC24049
		CT52MDDD301	F03FC24047
Knife Coltello 5	55 x 25 x 3,5	CT52MDE301	F03FC24050
		CT52MDDE301	F03FC24048

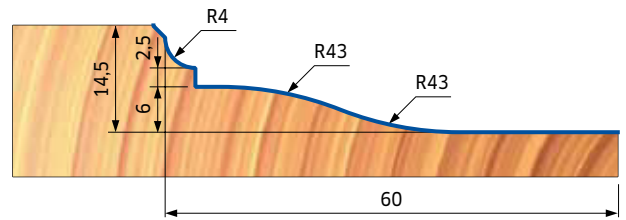
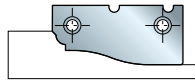


PROFILE / PROFILO 1

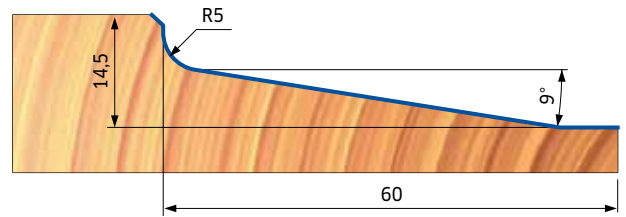
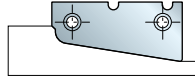


This profile is usable with automatic feed only.
Questo profilo è utilizzabile solamente con avanzamento meccanico.

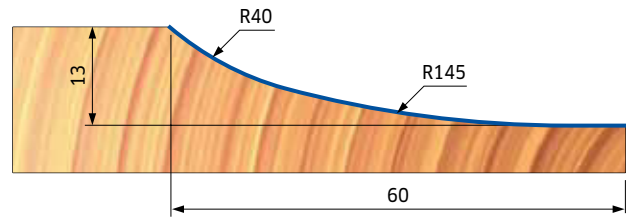
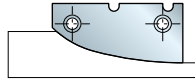
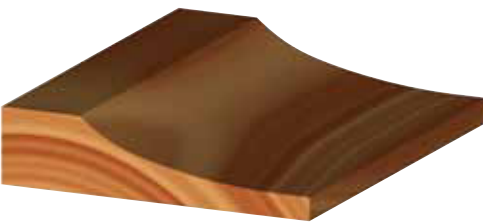
PROFILE / PROFILO 2



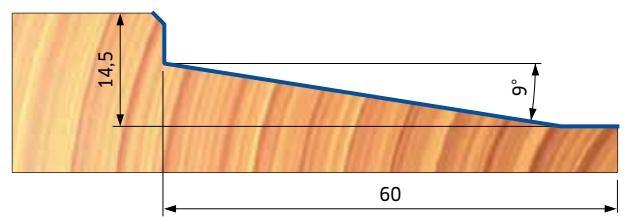
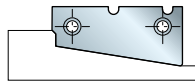
PROFILE / PROFILO 3



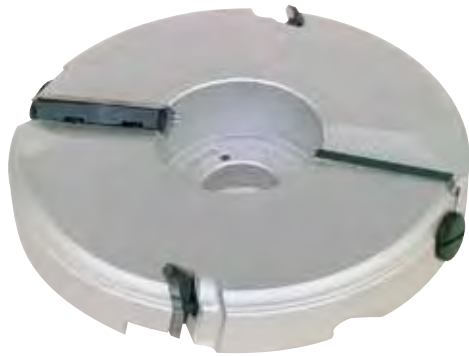
PROFILE / PROFILO 4



PROFILE / PROFILO 5



TD55MD - TD55MS



It is possible to fit 5 types of standard knives for machining 5 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.

Light alloy body (Aluminum alloy). For cleaning do not use products containing caustic soda.

Con questo utensile si possono ottenere n. 5 tipi di profili diversi (vedi disegni). Possibilità di realizzare specchietti lunghi anche oltre l'albero portautensili (particolarmente utile per l'esecuzione di specchietti per portoni).

Questi articoli vengono forniti senza coltelli.

Corpo in lega leggera (Lega di alluminio). Per la pulizia non utilizzare prodotti contenenti soda caustica.

Raised panel cutterheads Piattabande multiprofilo

D mm	B mm	d* mm	Z	R	Max RPM 1/min.	Code Codice	SAP SAP
210		30	2+2		6.500	TD55MD BA3	F03F668627
210		32	2+2		6.500	TD55MD BC3	F03F668628
210		35 (50)	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 (50)	2+2		6.500	TD55MS BB3	F03FC20219

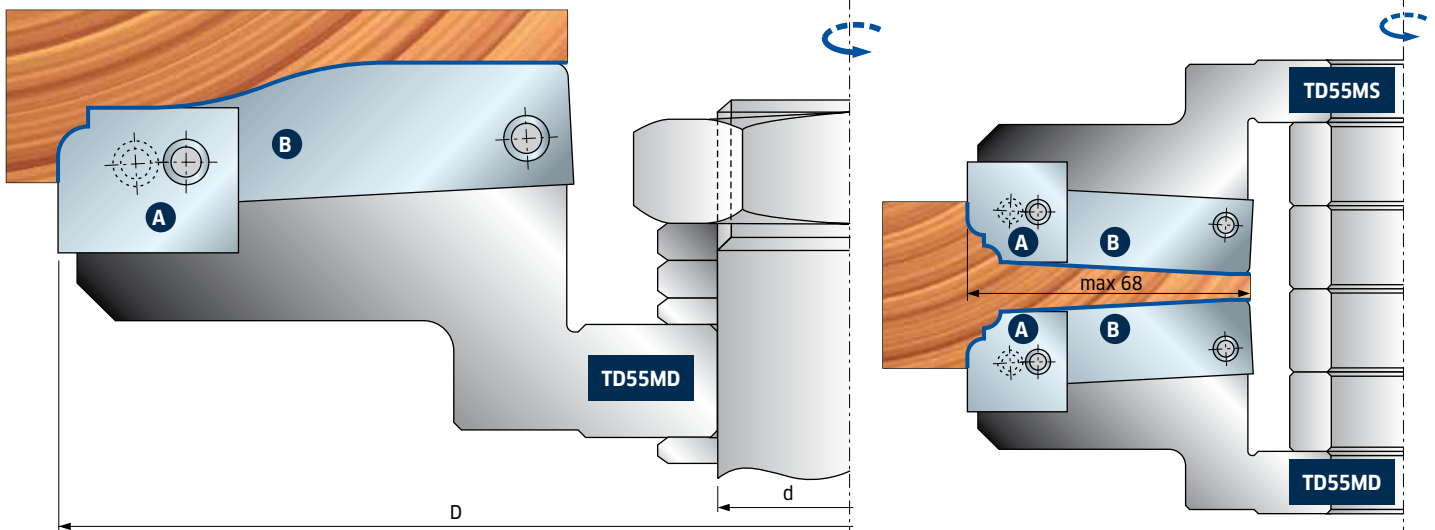
	Spare parts Parti di ricambio	Dimensions Dimensioni mm	Code Codice	SAP SAP	
	Screw / Vite	M10 x 25	2602M F19	F03FA07353	
	Screw / Vite	M8 x 10 x 22	VT08M AD9	F03FA04456	
	Screw / Vite	M5 x 7 x 16	VT08M AE9	F03FA04457	
	Allen key / Chiave	5 x 110	CB03M EC9	F03FA00171	
TD55MD		Wedge / Cuneo A	21 x 23 x 8	CN55MD AA9A	F03FC24544
		Wedge / Cuneo B	61 x 18 x 8	CN55MD BA9	F03FC01441
		Wedge / Cuneo A	21 x 23 x 8	CN55MS AA9A	F03FC24545
		Wedge / Cuneo B	61 x 18 x 8	CN55MS BA9	F03FC01443

Knives for TD55MD - Coltelli per TD55MD

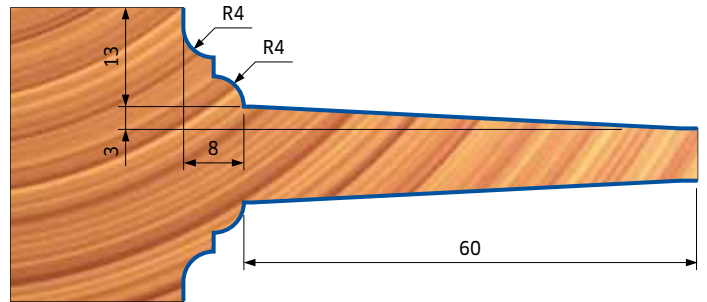
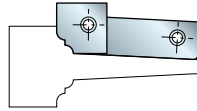
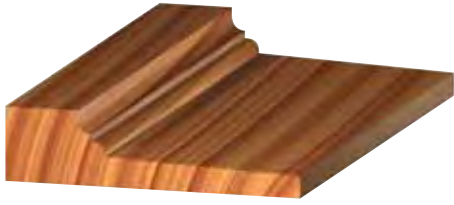
Profile Profilo	Spare knives Coltelli di ricambio	Dimensions Dimensioni mm	Code Codice	SAP SAP
1	Knife / Coltello A	23 x 24 x 3	CT55MDAA301	F03FC24078
	Knife / Coltello B	65 x 20 x 3	CT55MDBA301	F03FC24087
2	Knife / Coltello A	23 x 24 x 3	CT55MDAB301	F03FC24079
	Knife / Coltello B	65 x 20 x 3	CT55MDBB301	F03FC24088
3	Knife / Coltello A	23 x 24 x 3	CT55MDAC301	F03FC24080
	Knife / Coltello B	65 x 20 x 3	CT55MDBC301	F03FC24089
4	Knife / Coltello A	23 x 24 x 3	CT55MDAE301	F03FC24082
	Knife / Coltello B	65 x 20 x 3	CT55MDBE301	F03FC24091
5	Knife / Coltello A	23 x 24 x 3	CT55MDAF301	F03FC24083
	Knife / Coltello B	65 x 20 x 3	CT55MDBF301	F03FC24092

Knives for TD55MS - Coltelli per TD55MS

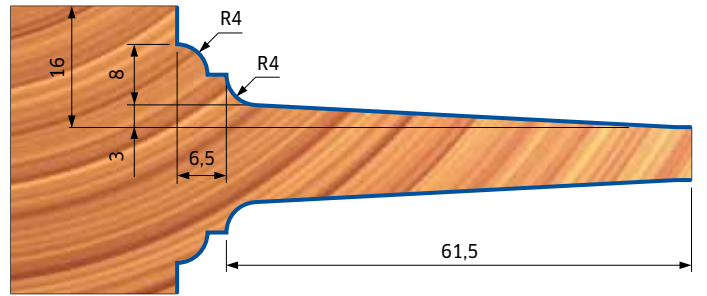
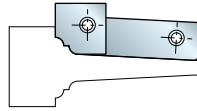
Profile Profilo	Spare knives Coltelli di ricambio	Dimensions Dimensioni mm	Code Codice	SAP SAP
1	Knife / Coltello A	23 x 24 x 3	CT55MSAA301	F03FC24096
	Knife / Coltello B	65 x 20 x 3	CT55MSBA301	F03FC24105
2	Knife / Coltello A	23 x 24 x 3	CT55MSAB301	F03FC24097
	Knife / Coltello B	65 x 20 x 3	CT55MSBB301	F03FC24106
3	Knife / Coltello A	23 x 24 x 3	CT55MSAC301	F03FC24098
	Knife / Coltello B	65 x 20 x 3	CT55MSBC301	F03FC24107
4	Knife / Coltello A	23 x 24 x 3	CT55MSAE301	F03FC24100
	Knife / Coltello B	65 x 20 x 3	CT55MSBE301	F03FC24109
5	Knife / Coltello A	23 x 24 x 3	CT55MSAF301	F03FC24101
	Knife / Coltello B	65 x 20 x 3	CT55MSBF301	F03FC24110



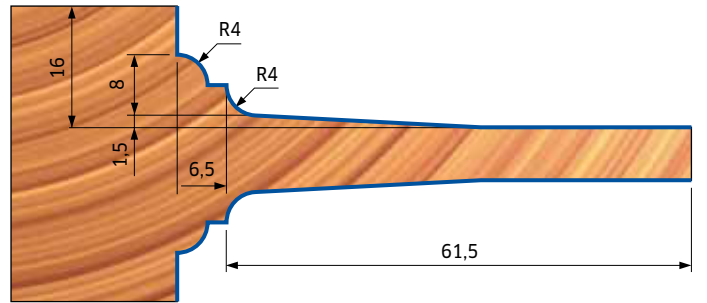
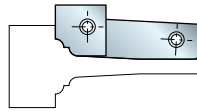
PROFILE / PROFILO 1



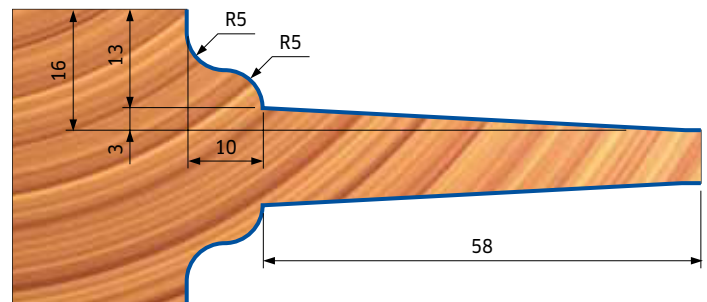
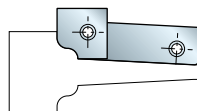
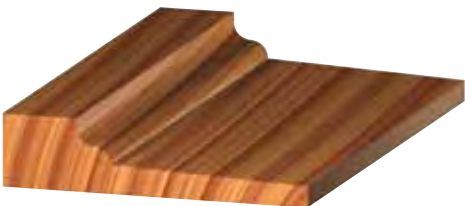
PROFILE / PROFILO 2



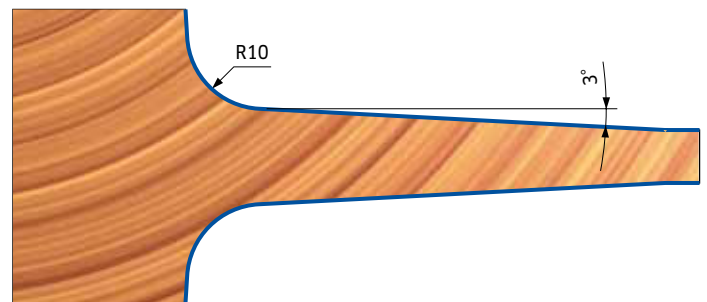
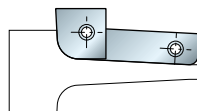
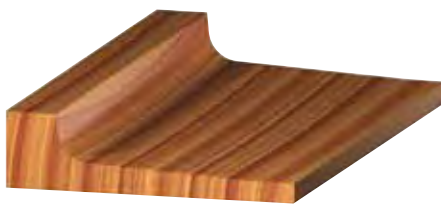
PROFILE / PROFILO 3



PROFILE / PROFILO 4

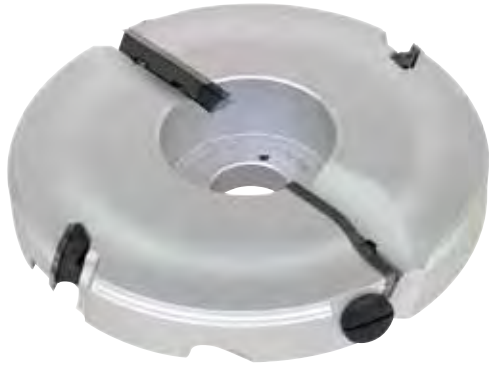


PROFILE / PROFILO 5



This profile is usable with automatic feed only.
Questo profilo è utilizzabile solamente con avanzamento meccanico.

TD55MD - TD55MS



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.

Light alloy body (Aluminum alloy). For cleaning do not use products containing caustic soda.

Con questo utensile si possono ottenere n. 4 tipi di profili diversi (vedi disegni). Possibilità di realizzare specchietti lunghi anche oltre l'albero portautensili (particolarmente utile per l'esecuzione di specchietti per portoni).

Questi articoli vengono forniti senza coltelli.

Corpo in lega leggera (Lega di alluminio). Per la pulizia non utilizzare prodotti contenenti soda caustica.

Raised panel cutterheads Piattabande multiprofilo

D mm	B mm	d* mm	Z	R	Max RPM 1/min.	Code Codice	SAP SAP
210		30	2+2		6.500	TD55MD CA3	F03F668934
210		32	2+2		6.500	TD55MD CC3	F03F668935
210	35 (50)	30	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 (50)	30	2+2		6.500	TD55MS CB3	F03FC20220

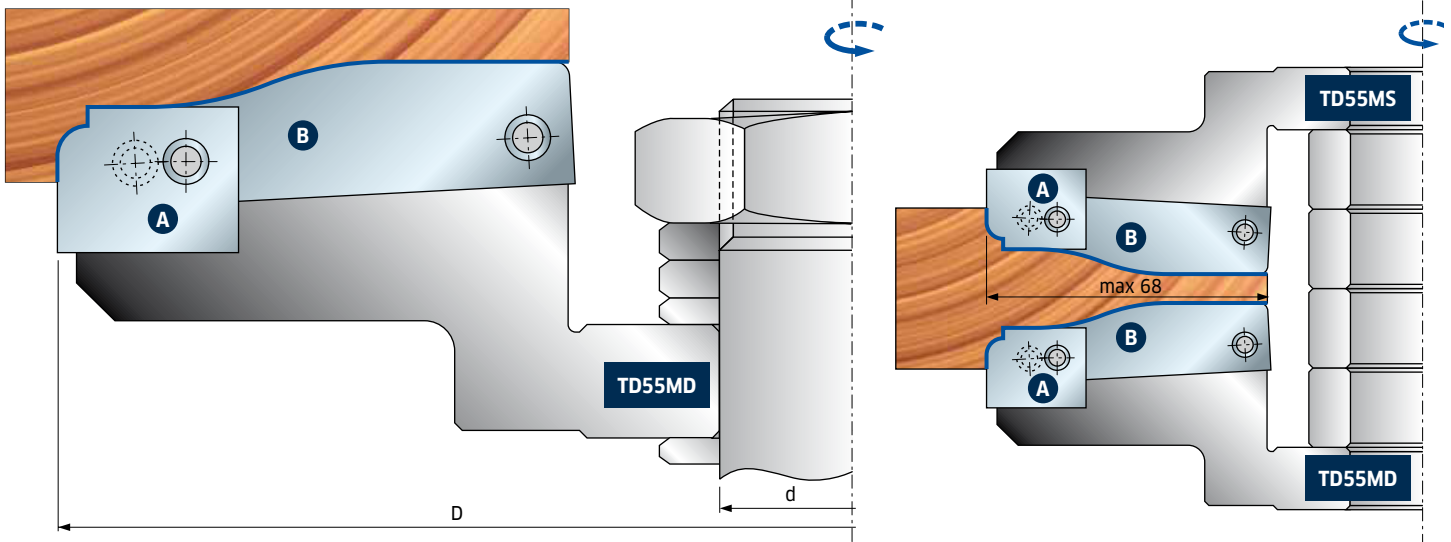
Spare parts Parti di ricambio		Dimensions Dimensioni mm	Code Codice	SAP SAP
	Vite / Screw	M10 x 25	2602M FI9	F03FA07353
	Vite / Screw	M8 x 10 x 22	VT08M AD9	F03FA04456
	Vite / Screw	M5 x 7 x 16	VT08M AE9	F03FA04457
	Chiave / Allen key	5 x 110	CB03M EC9	F03FA00171
TD55MS TD55MD	Wedge / Cuneo A	21 x 23 x 8	CN55MD AA9A	F03FC24544
	Wedge / Cuneo B	61 x 18 x 8	CN55MD BA9	F03FC01441
	Wedge / Cuneo A	21 x 23 x 8	CN55MS AA9A	F03FC24545
	Wedge / Cuneo B	61 x 18 x 8	CN55MS BA9	F03FC01443

Knives for TD55MD - Coltelli per TD55MD

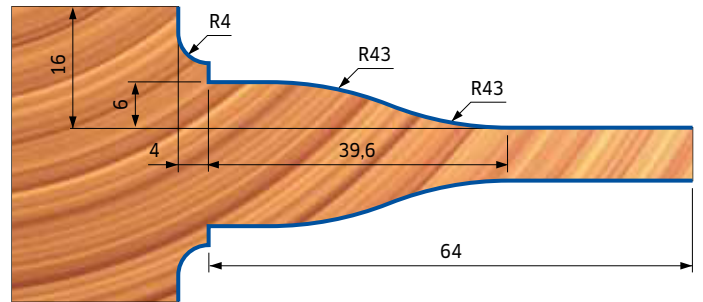
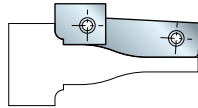
Profile Profilo	Spare knives Coltelli di ricambio	Dimensions Dimensioni mm	Code Codice	SAP SAP
1	Knife / Coltello A	20 x 24 x 3	CT55MDAD301	F03FC24081
	Knife / Coltello B	65 x 20 x 3	CT55MDBD301	F03FC24090
2	Knife / Coltello A	20 x 24 x 3	CT55MDAG301	F03FC24084
	Knife / Coltello B	65 x 20 x 3	CT55MDBG301	F03FC24093
3	Knife / Coltello A	20 x 24 x 3	CT55MDAH301	F03FC24085
	Knife / Coltello B	65 x 20 x 3	CT55MDBH301	F03FC24094
4	Knife / Coltello A	20 x 24 x 3	CT55MDAI301	F03FC24086
	Knife / Coltello B	65 x 20 x 3	CT55MDBI301	F03FC24095

Knives for TD55MS - Coltelli per TD55MS

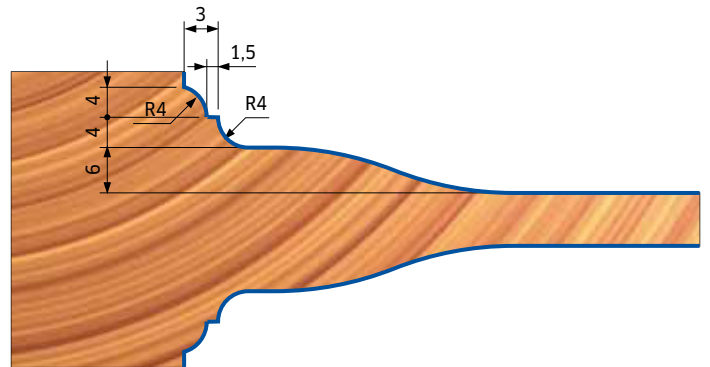
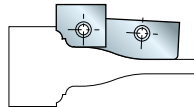
Profile Profilo	Spare knives Coltelli di ricambio	Dimensions Dimensioni mm	Code Codice	SAP SAP
1	Knife / Coltello A	20 x 24 x 3	CT55MSAD301	F03FC24099
	Knife / Coltello B	65 x 20 x 3	CT55MSBD301	F03FC24108
2	Knife / Coltello A	20 x 24 x 3	CT55MSAG301	F03FC24102
	Knife / Coltello B	65 x 20 x 3	CT55MSBG301	F03FC24111
3	Knife / Coltello A	20 x 24 x 3	CT55MSAH301	F03FC24103
	Knife / Coltello B	65 x 20 x 3	CT55MSBH301	F03FC24112
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	Knife / Coltello B	65 x 20 x 3	CT55MSBI301	F03FC24113



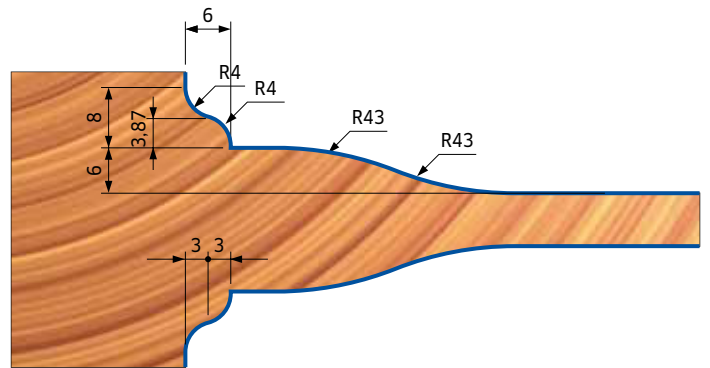
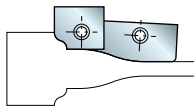
PROFILE / PROFILO 1



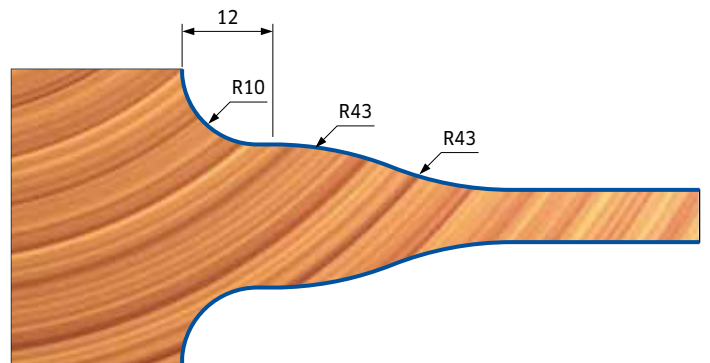
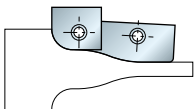
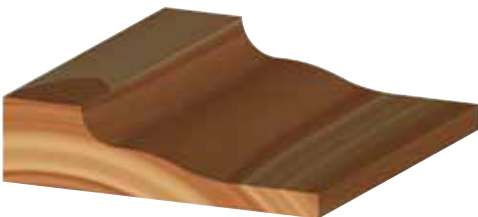
PROFILE / PROFILO 2



PROFILE / PROFILO 3

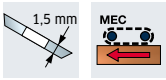


PROFILE / PROFILO 4



TG79MG

Z = 2



Cutterheads sets for panelling and flooring Gruppi di teste per perline e parchetti

The cutterhead sets come complete with bevelling inserts. The AG3-AI3-AM3-AO3 spare cutterheads are supplied without inserts and screws, which should be ordered separately.

I gruppi sono disponibili a magazzino, completi di inserti. Le teste di ricambio AG3-AI3-AM3-AO3 vengono fornite senza inserti e relative viti, i quali andranno ordinati a parte.

Profile Profilo	Tongue set Gruppo per maschio	SAP SAP	Groove set Gruppo per femmina	SAP SAP
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

Tools for TG79MG sets - Utensili per gruppi TG79MG

D mm	B mm	d mm	Z	R	Max RPM 1/min.	Code Codice	SAP SAP
125	20	50	2	2	9.000	TG79M AA3	F03FC20286
125	20	50	2	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	4	9.000	TG79M AE3	F03FC20290
144	20	50	2	4	9.000	TG79M AF3	F03FC20291
125	20	50		4	9.000	TG79M AG3	F03FC20292
125	20	50		4	9.000	TG79M AI3	F03FC20294
143	20	50		4	9.000	TG79M AM3	F03FC20296
143	20	50		4	9.000	TG79M AO3	F03FC20298

The above codes are intended without sleeve, which should be ordered separately.

I codici delle tabelle relative ai gruppi sono da considerarsi esclusa la bussola, la quale andrà ordinata a parte.

Sleeves for fence side spindle Bussolle per albero destro

Dimensions Dimensioni mm	Sleeve code Codice bussola	SAP SAP
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

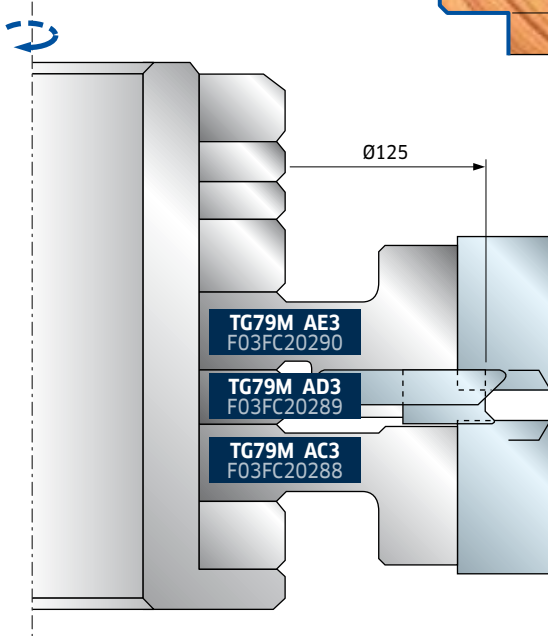
Sleeves for off side spindle Bussolle per albero sinistro

Dimensions Dimensioni mm	Sleeve code Codice bussola	SAP SAP
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

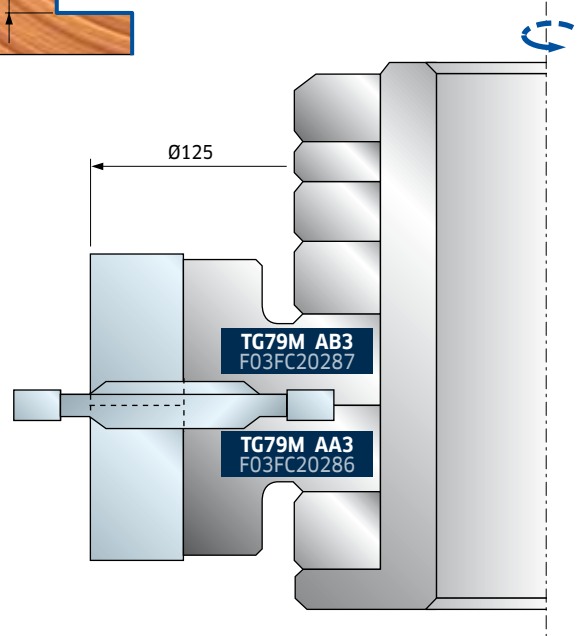
	Dimensions Dimensioni mm	Code Codice	SAP SAP
AA3	20 x 12 x 1,5	CG01MDA310	F03FH02727
	16	CN01M DA9	F03FC01251
	M8 x 16	VT03M AA9	F03FA04435
	40 x 16 x 4	IG04MDAA305	F03FH03409
	M6 x 14,5	VT16M AA9	F03FA04476
AB3	20 x 12 x 1,5	CG01MDA310	F03FH02727
	16	CN01M DA9	F03FC01251
	M8 x 16	VT03M AA9	F03FA04435
	40 x 16 x 4	IG04MSAA305	F03FH02994
	M6 x 14,5	VT16M AA9	F03FA04476
AC3	20 x 12 x 1,5	CG01MDA310	F03FH02727
	16	CN01M DA9	F03FC01251
	M8 x 16	VT03M AA9	F03FA04435
	22,86 x 2,5	RG02MAA305	F03FH03041
	M5 x 8	VT05M AA9	F03FA04444
AD3	7,5 x 12 x 1,5	CG01MOB310	F03FC23814
	14 x 7,2 x 8	CN09M AT9	F03FC01294
	M5 x 19	VT11M AA9	F03FA04468
AE3 - AF3	20 x 12 x 1,5	CG01MDA310	F03FH02727
	16	CN01M DA9	F03FC01251
	M8 x 16	VT03M AA9	F03FA04435
	22,86 x 2,5	RG02MAA305	F03FH03041
	M5 x 8	VT05M AA9	F03FA04444
AG3 - AI3 - AM3 - AO3	22 x 16 x 5 45°	IG51MBA305	F03FH03022
	M6 x 14,5	VT16M AA9	F03FA04476
	22 x 16 x 5 45°	IG51MBA305	F03FH03022
	22 x 16 x 5 R=1,5	IG52MAB305	F03FH03023
	22 x 16 x 5 R=2	IG52MAC305	F03FH03024
22 x 16 x 5 R=3	IG52MAE305	F03FH03025	
M6 x 14,5	VT16M AA9	F03FA04476	
25,5 x 16 x 9 R3	IG33MAA305	F03FH03019	
25,5 x 16 x 9 R5	IG33MAB305	F03FH03020	
25,5 x 16 x 9 45°	IG33MAD305	F03FH03021	
M6 x 15,5	VT16M AD9	F03FC20657	

PROFILE / PROFILO 1

Cutterhead set / Gruppo
TG79MG 002

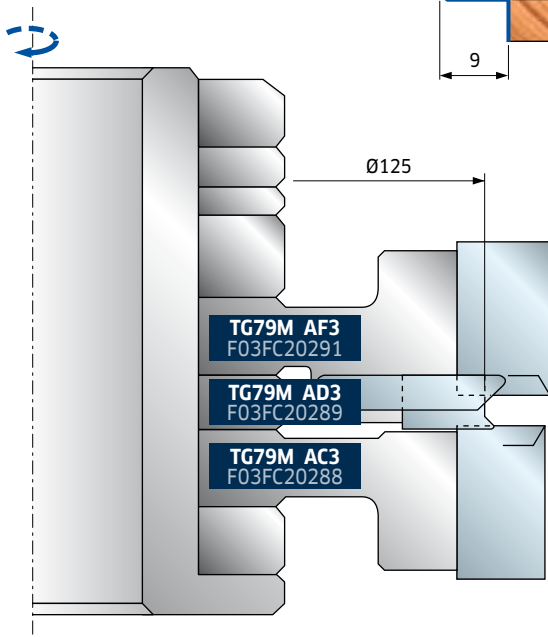


Cutterhead set / Gruppo
TG79MG 001

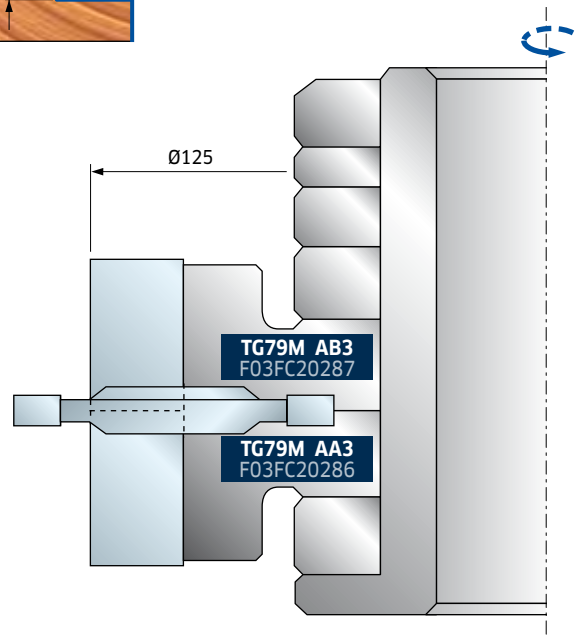


PROFILE / PROFILO 2

Cutterhead set / Gruppo
TG79MG 003

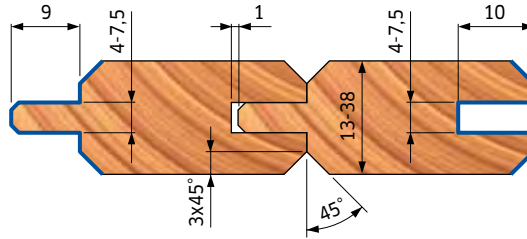


Cutterhead set / Gruppo
TG79MG 001

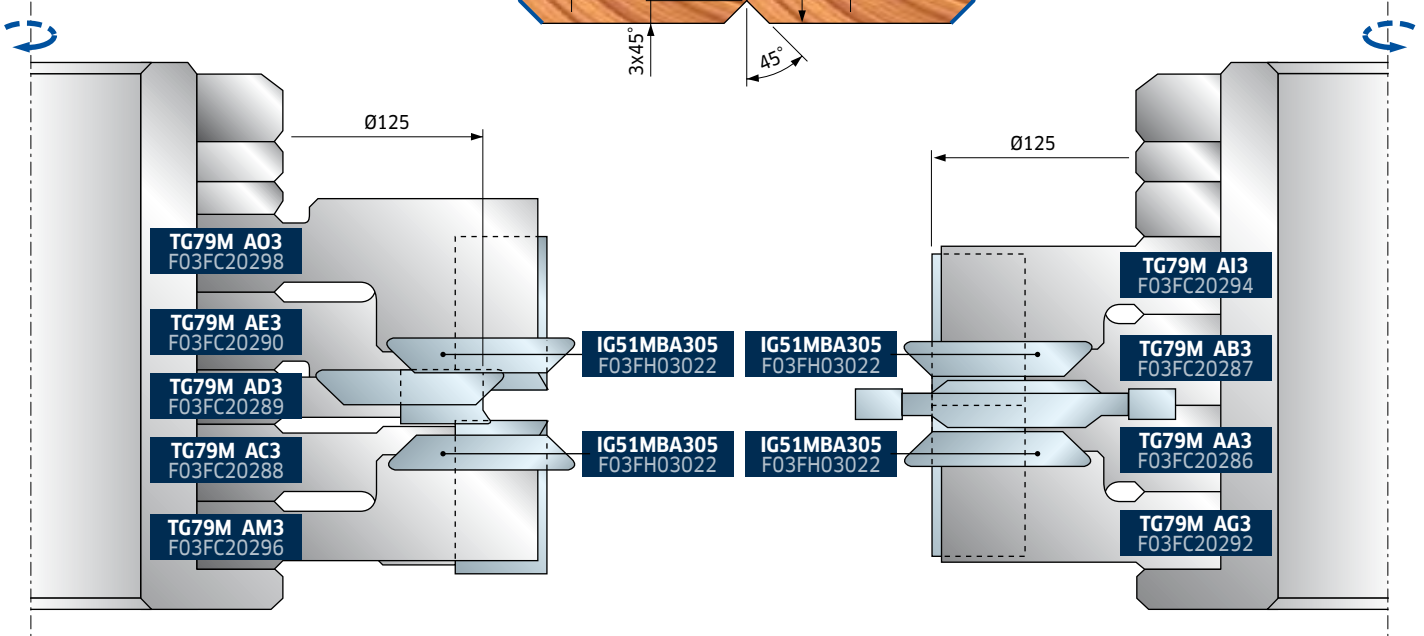


PROFILE / PROFILO 3

Cutterhead set / Gruppo TG79MG 006

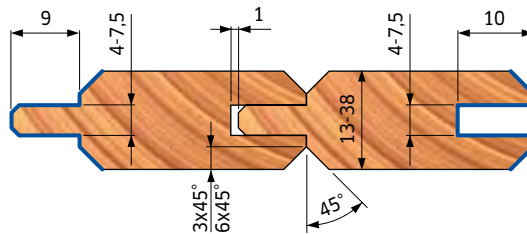


Cutterhead set / Gruppo TG79MG 004

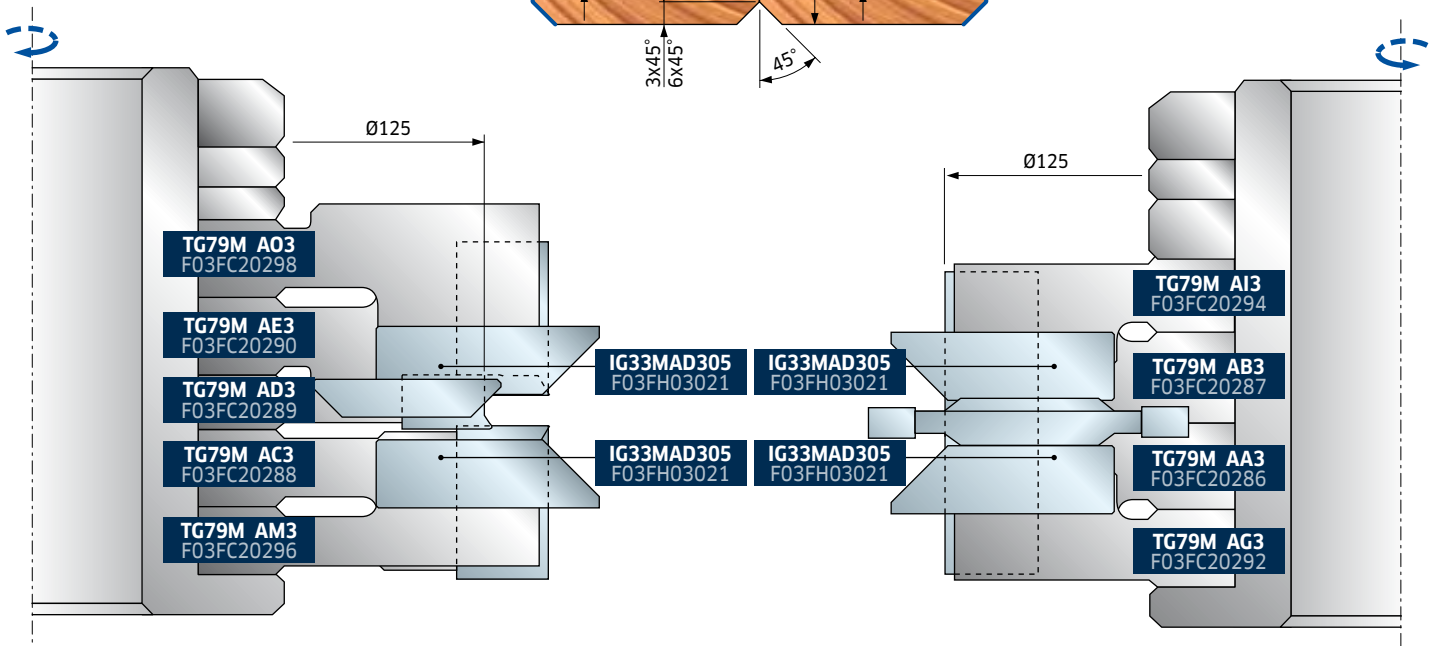


PROFILE / PROFILO 4

Cutterhead set / Gruppo TG79MG 025

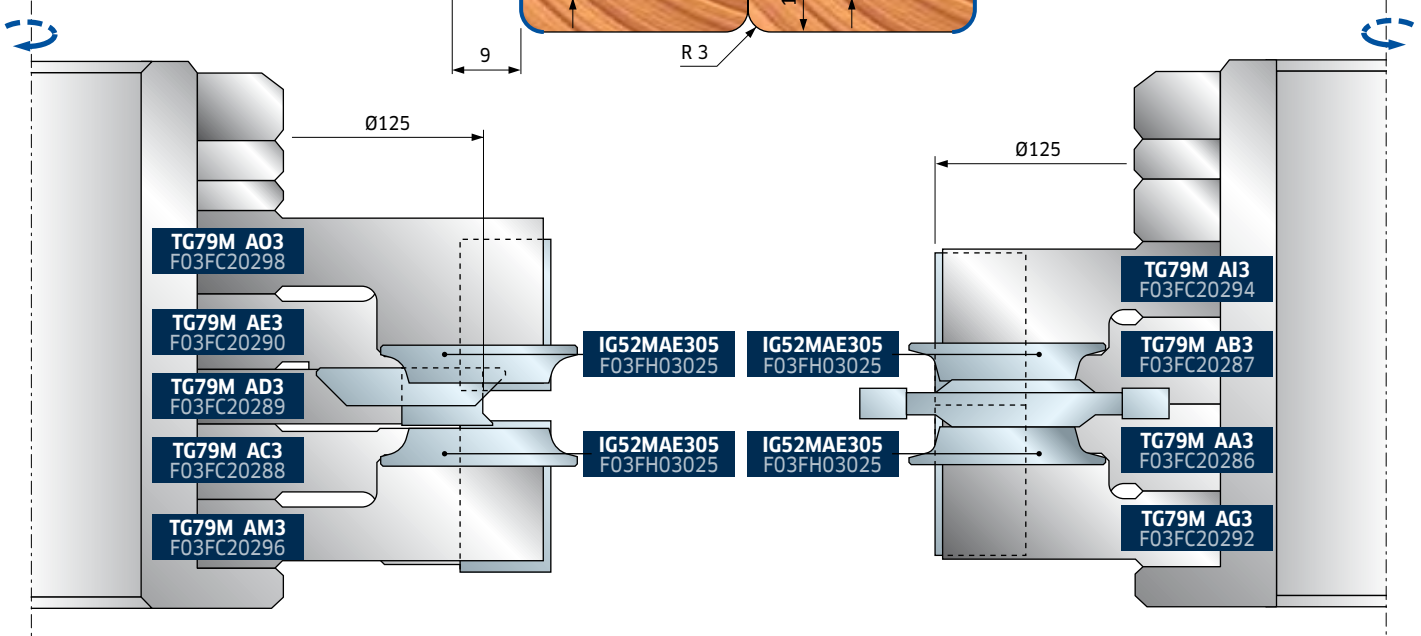


Cutterhead set / Gruppo TG79MG 020



PROFILE / PROFILO 5

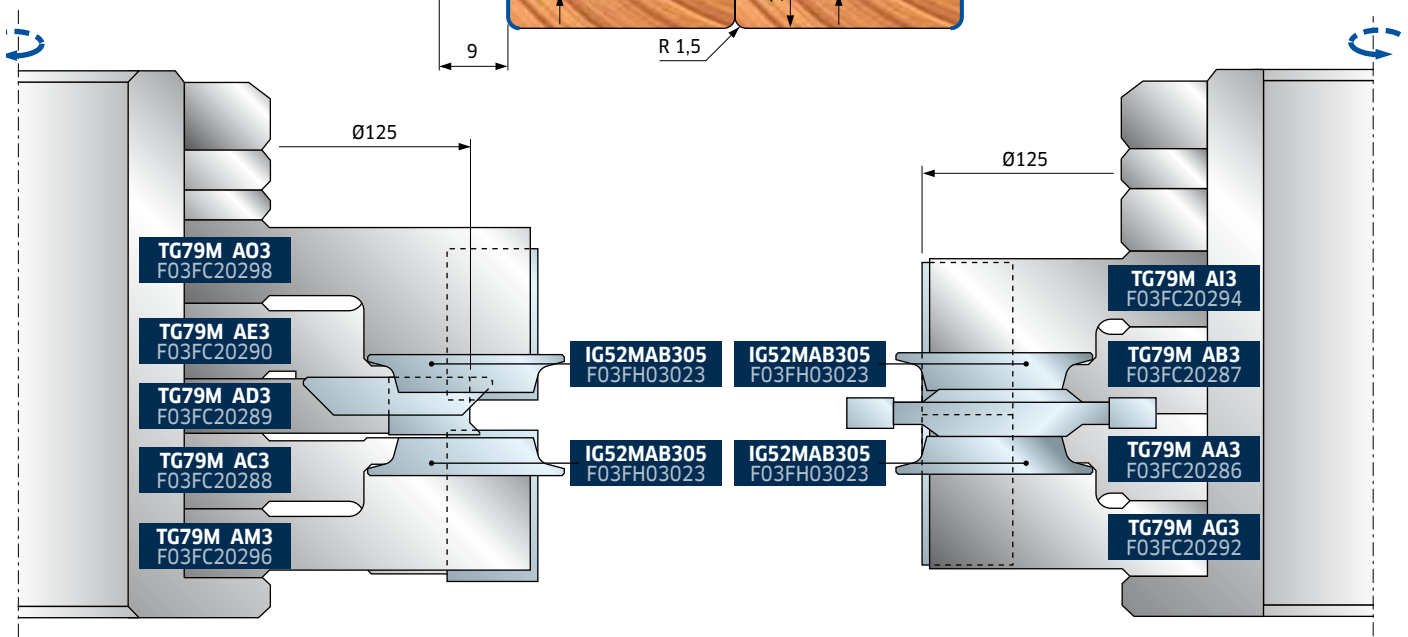
Cutterhead set / Gruppo TG79MG 007



Cutterhead set / Gruppo TG79MG 005

PROFILE / PROFILO 6

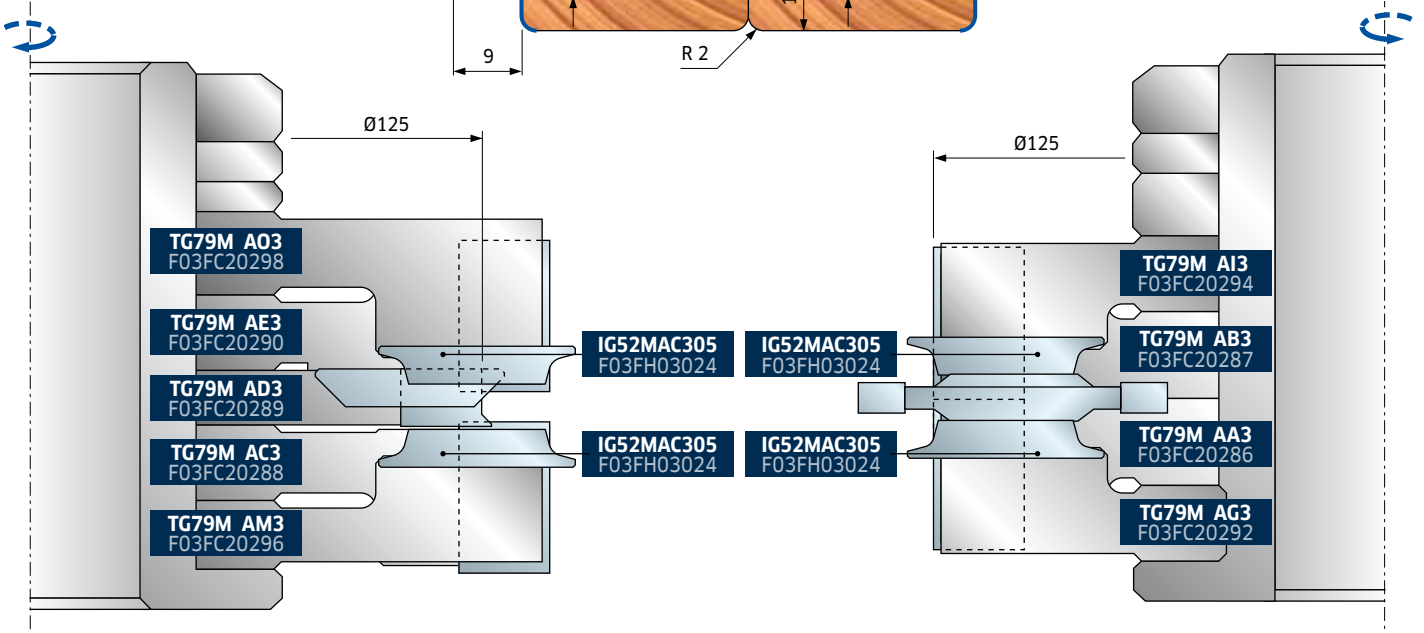
Cutterhead set / Gruppo TG79MG 026



Cutterhead set / Gruppo TG79MG 021

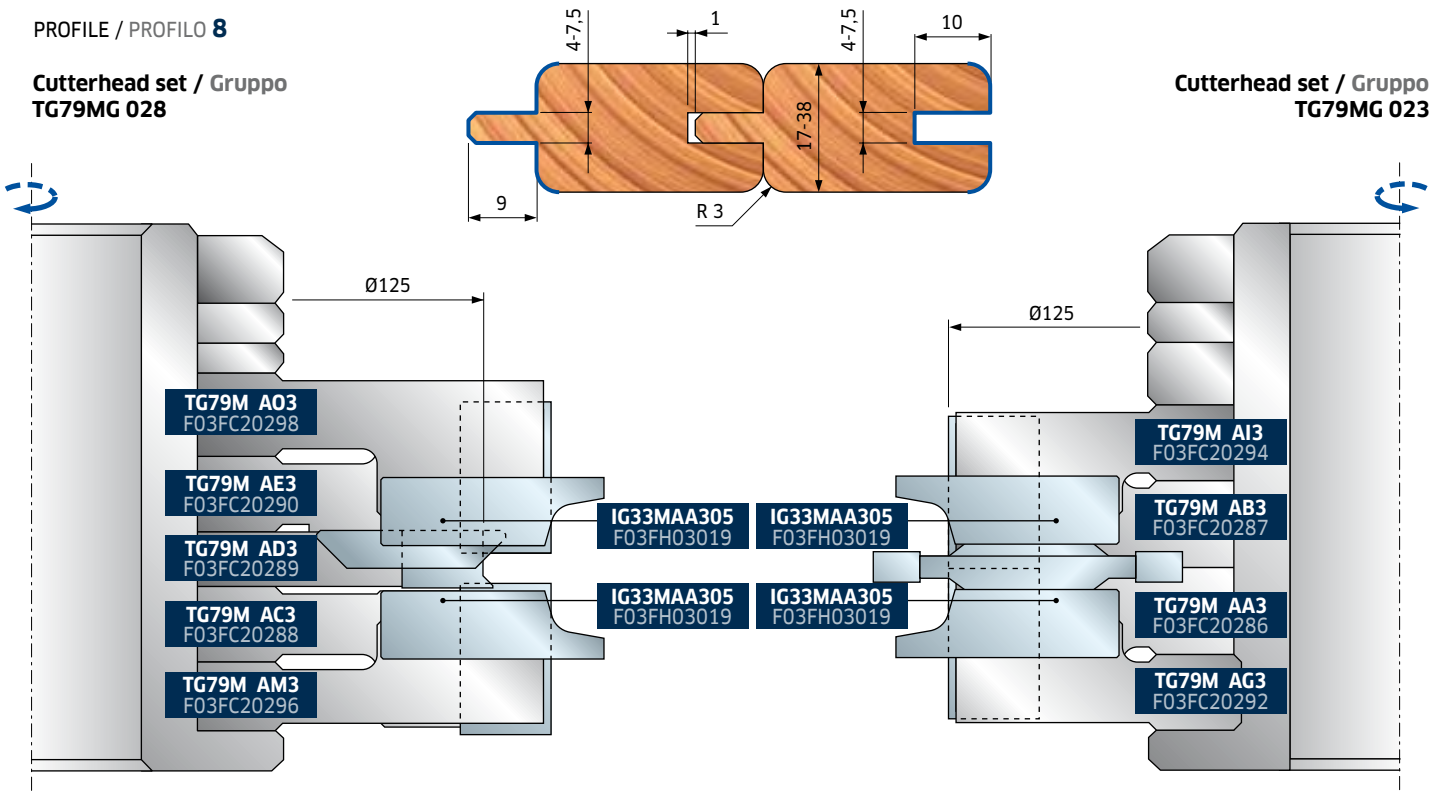
PROFILE / PROFILO 7

Cutterhead set / Gruppo TG79MG 027



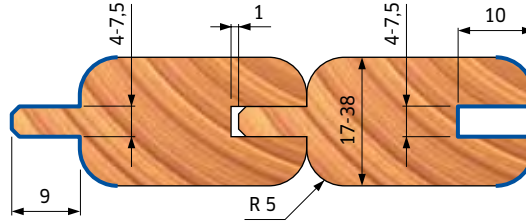
PROFILE / PROFILO 8

Cutterhead set / Gruppo TG79MG 028

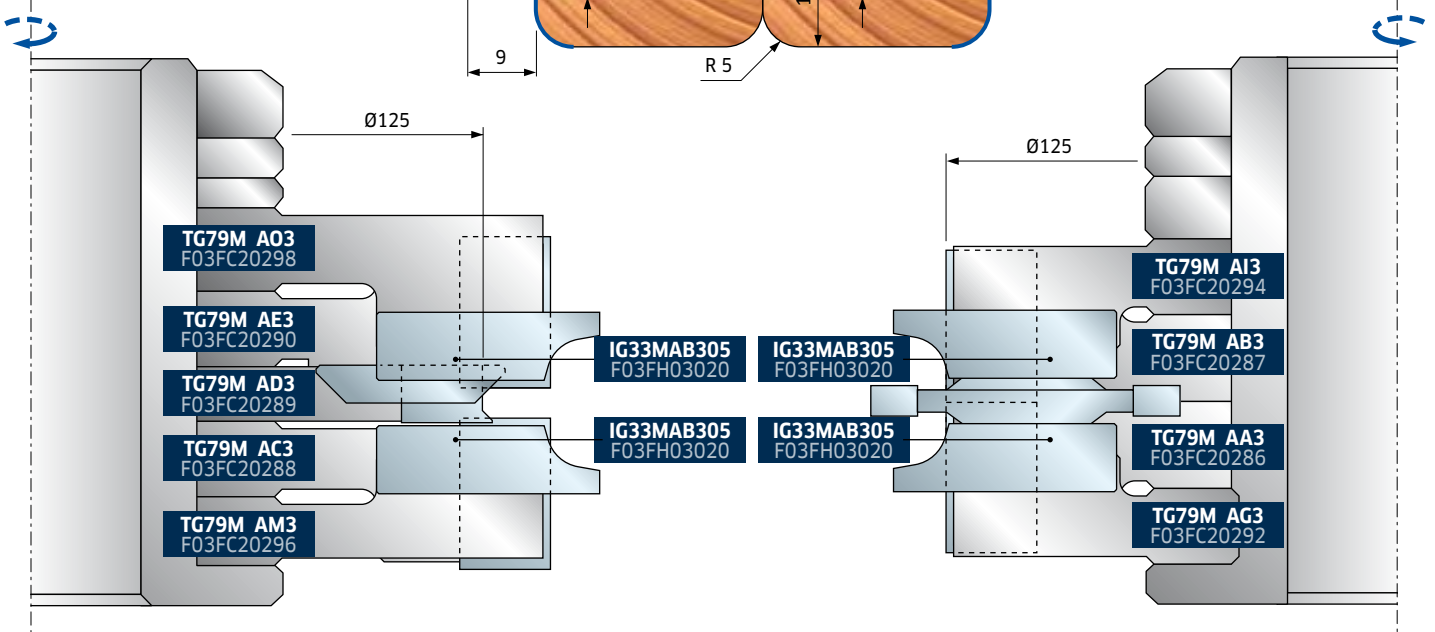


PROFILE / PROFILO 9

Cutterhead set / Gruppo
TG79MG 029

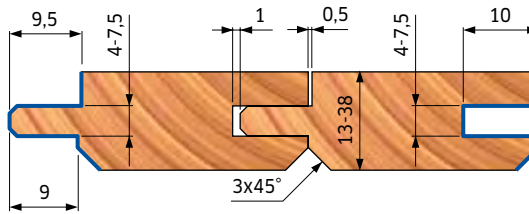


Cutterhead set / Gruppo
TG79MG 024

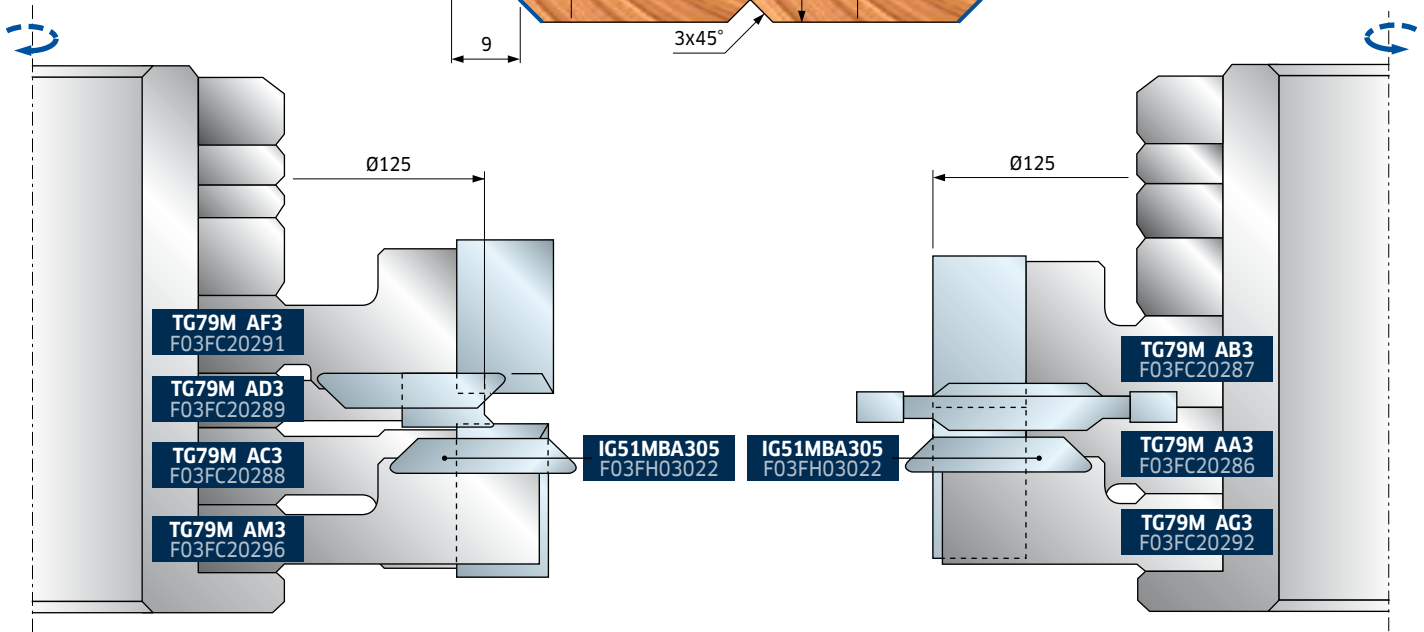


PROFILE / PROFILO 10

Cutterhead set / Gruppo
TG79MG 010

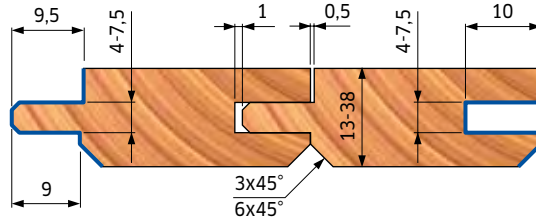


Cutterhead set / Gruppo
TG79MG 008

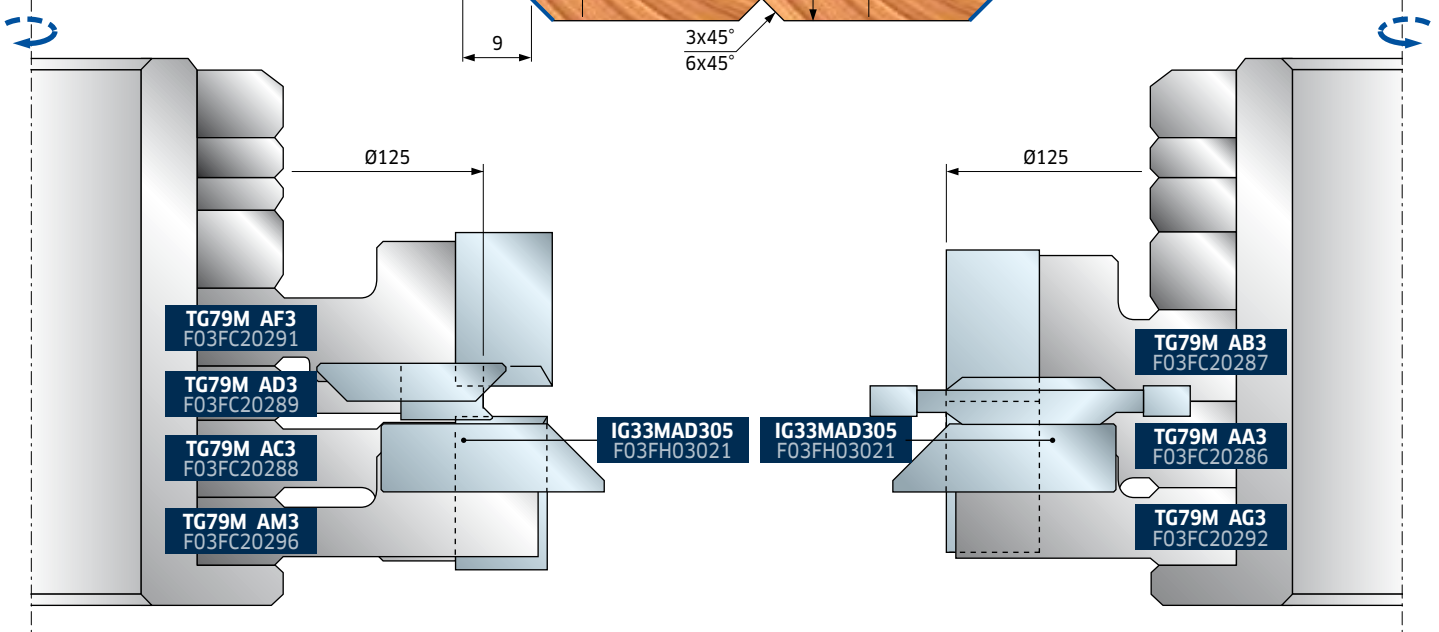


PROFILE / PROFILO 11

Cutterhead set / Gruppo
TG79MG 035

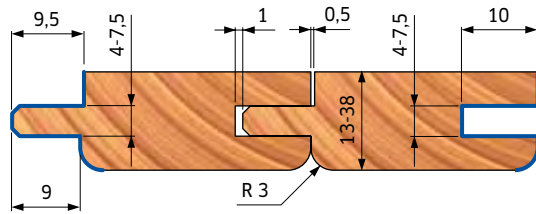


Cutterhead set / Gruppo
TG79MG 030

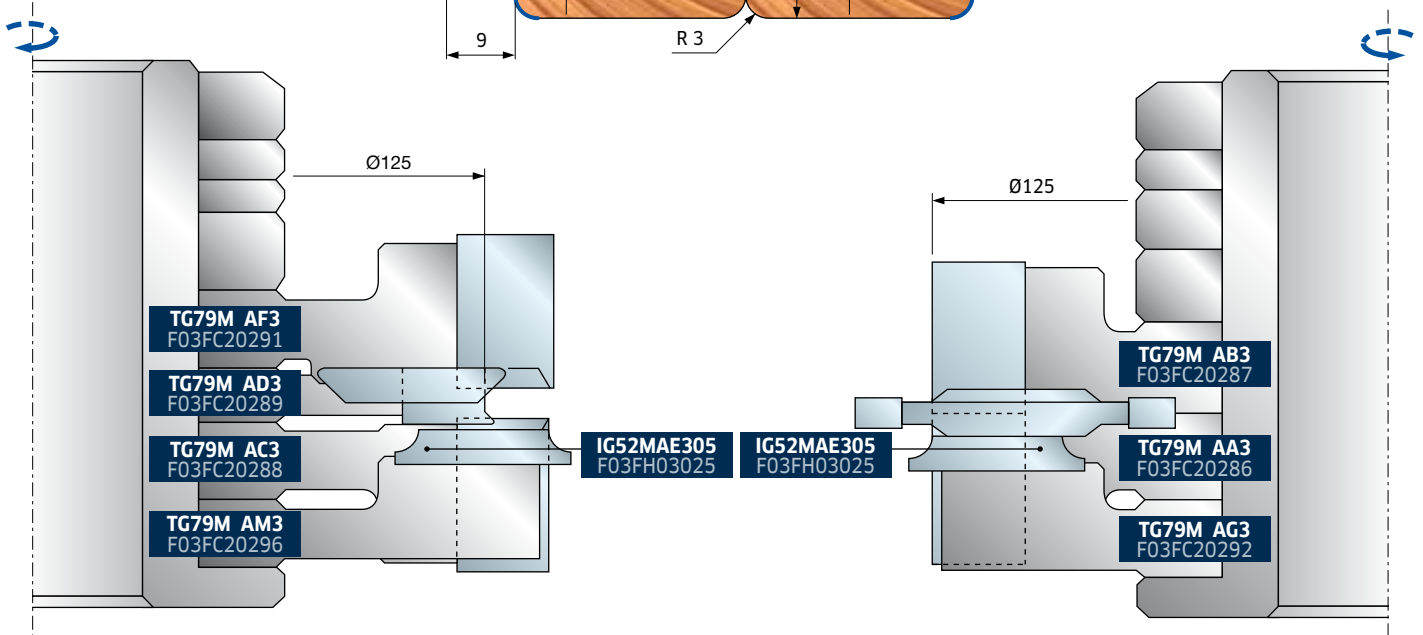


PROFILE / PROFILO 12

Cutterhead set / Gruppo
TG79MG 011

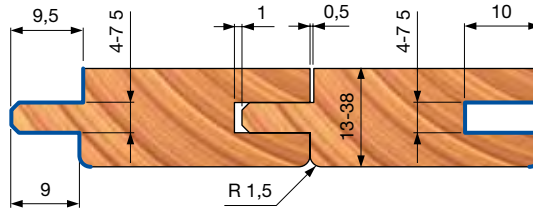
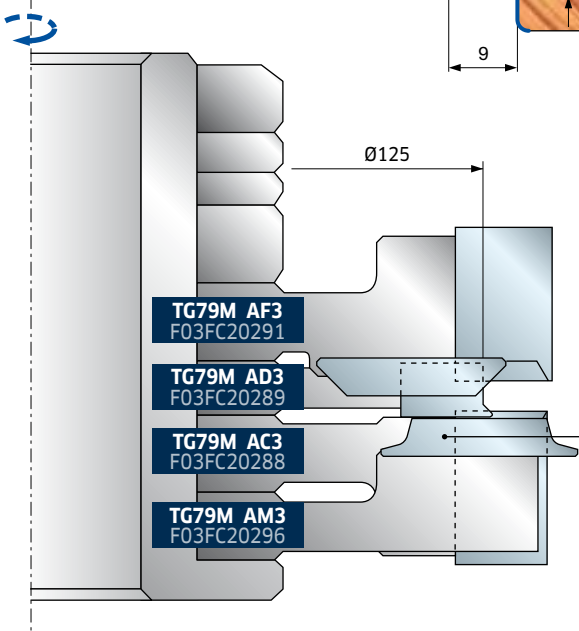


Cutterhead set / Gruppo
TG79MG 009

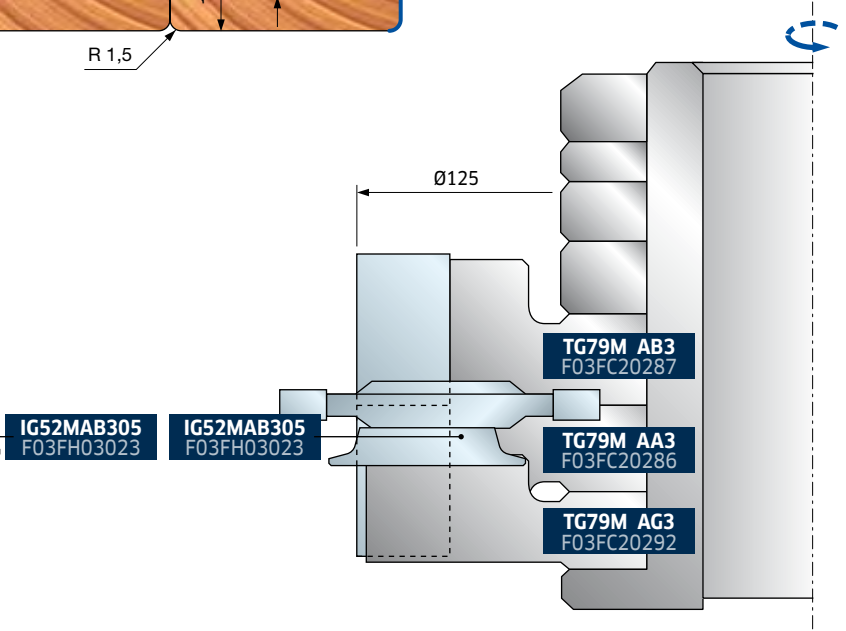


PROFILE / PROFILO 13

Cutterhead set / Gruppo TG79MG 036

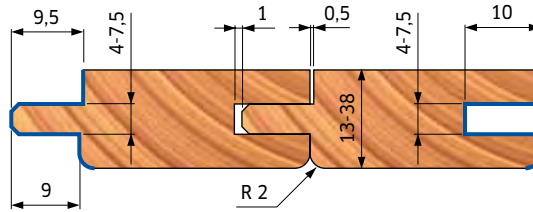
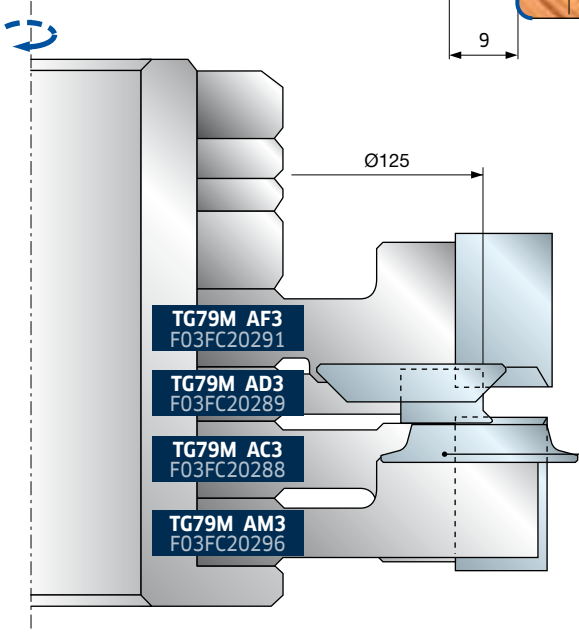


Cutterhead set / Gruppo TG79MG 031

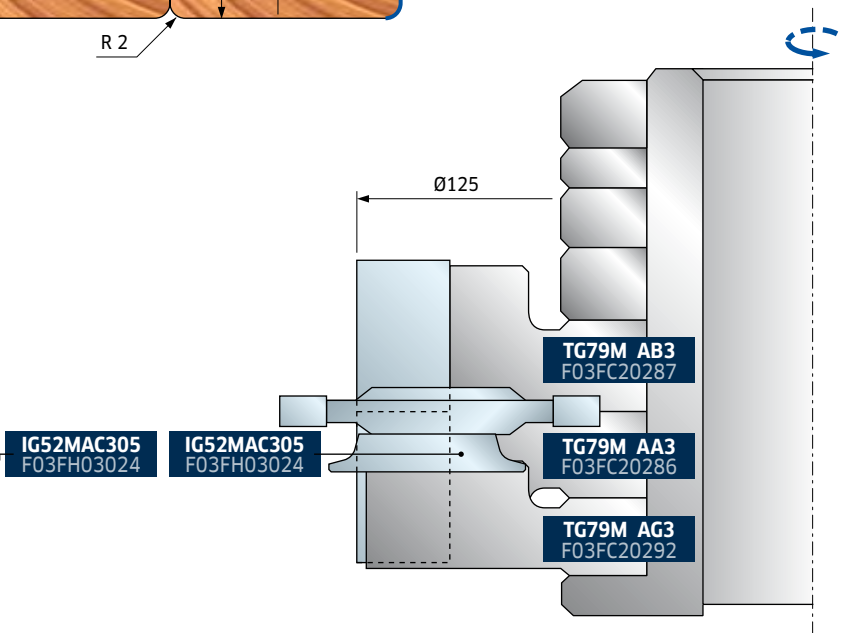


PROFILE / PROFILO 14

Cutterhead set / Gruppo TG79MG 037

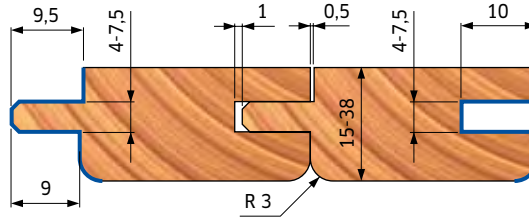


Cutterhead set / Gruppo TG79MG 032

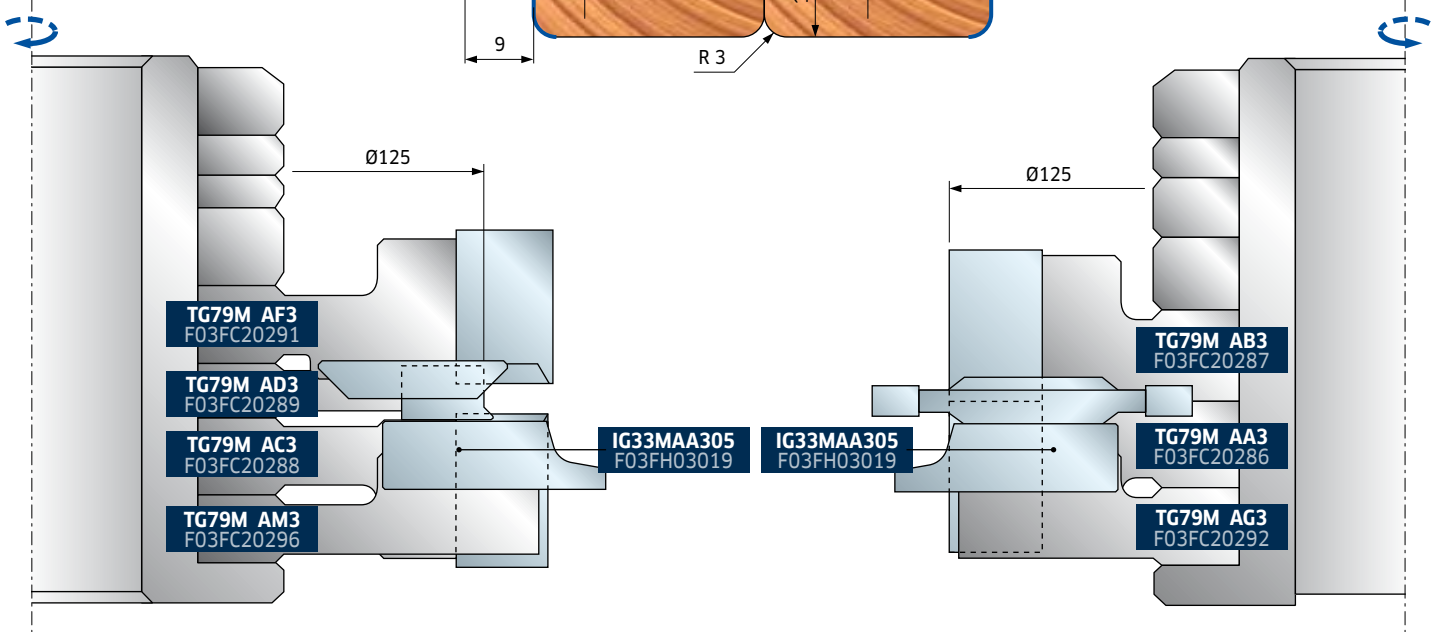


PROFILE / PROFILO 15

Cutterhead set / Gruppo
TG79MG 038

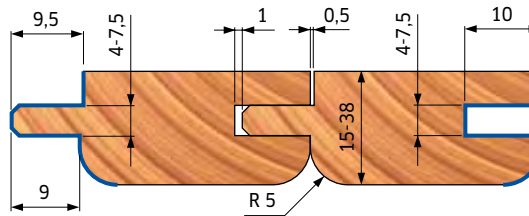


Cutterhead set / Gruppo
TG79MG 033

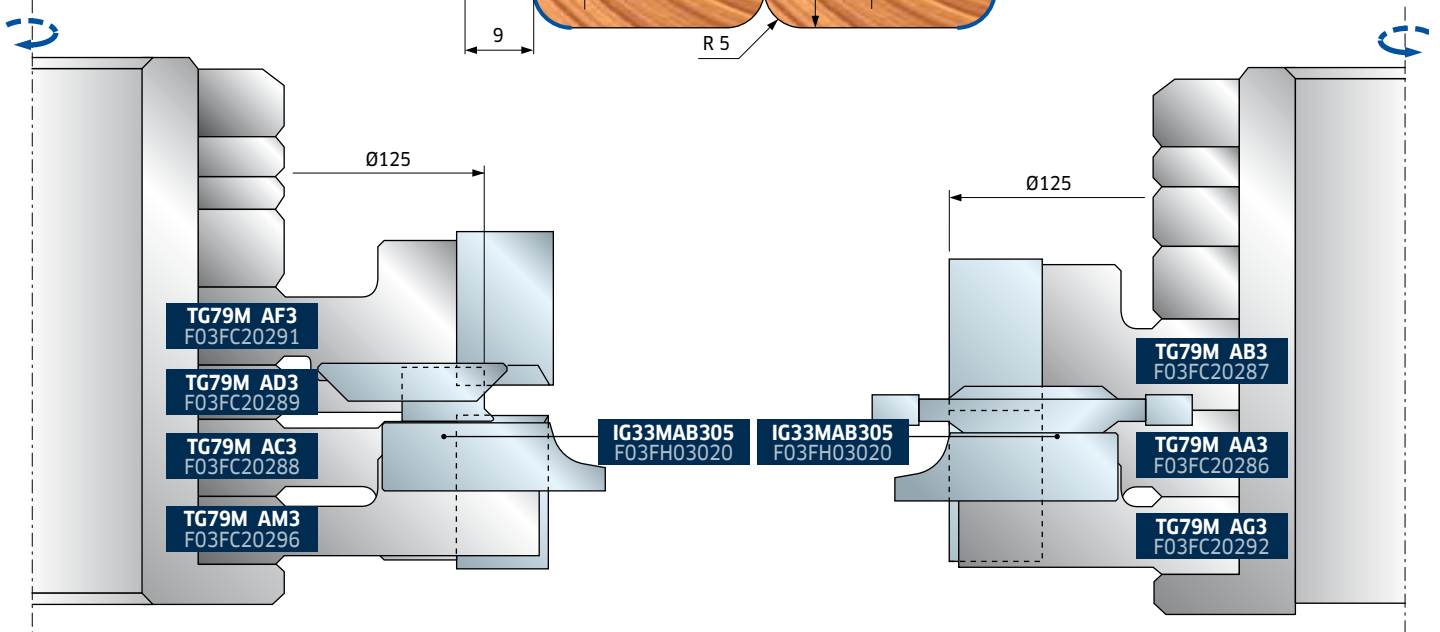


PROFILE / PROFILO 16

Cutterhead set / Gruppo
TG79MG 039



Cutterhead set / Gruppo
TG79MG 034



TG99MG Z = 4

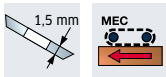


Chart for choosing spare parts
Tabella per la scelta dei ricambi

Code Codice	SAP SAP	For cutterheads TG99MG Per teste TG99MG									
		EA3	EB3	EC3	ED3	EE3	EF3	EG3	EH3	EI3	EL3
CG26MBA310	F03FH02937					●	●	●	●	●	●
CG26MDA310	F03FH02939				●					●	
CG26MEA310	F03FH02940	●	●	●	●			●			
CN03M BA9	F03FA00584	●	●	●							
CN03M BB9	F03FA00585	●	●	●							
CN09M AA9	F03FC01280					●		●	●	●	
CN09MD AD9	F03FC01300	●			●						
CN09MD A09	F03FC01306					●				●	
CN09MS AD9	F03FC01326	●	●				●				
VT05M AA9	F03FA04444	●	●	●	●			●	●	●	●
VT16M AA9	F03FA04476	●	●	●	●	●	●	●	●	●	●
VT16M AD9	F03FC20657	●	●								
VT16M AE9	F03FC20658			●					●		●
VT19M AB9	F03FA04491					●		●	●	●	
VT19M BB9	F03FA04493	●	●	●	●						
VT19M MA9	F03FA04496	●	●	●	●	●	●	●	●	●	●
VT20M AA9	F03FA04497					●		●	●	●	●
VT20M MA9	F03FC20670	●	●	●						●	
VT20M NA9	F03FC20671	●	●					●			
IG04MSAA305	F03FH02994							●			
IG16MAA301	F03FC24161	●	●								
IG17MDAA305	F03FC24162					●				●	
IG51MBA305	F03FH03022							●			
IG52MAB305	F03FH03023	●	●	●					●	●	●
RG02MAA305	F03FH03041	●	●	●	●	●	●	●	●	●	●
SR06MSBB301	F03FC24201			●						●	●
CB03M CA9	F03FA00165	●	●	●	●	●	●	●	●	●	●
CB03M AA9	F03FA00162	●	●	●	●	●	●	●	●	●	●
CB03M BA9	F03FA00163	●	●	●	●	●	●	●	●	●	●

Sleeves for fence side spindle Bussole per albero destro

Dimensions Dimensioni mm	Sleeve code Codice bussola	SAP
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 Bussole per albero sinistro

Dimensions Dimensioni mm	Sleeve code Codice bussola	SAP
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

Cutterheads sets for panelling and flooring Gruppi di teste per perline e parchetti

Profile Profilo	Tongue set Gruppo per maschio	SAP SAP	Groove set Gruppo per femmina	SAP SAP
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

Tools for TG99MG sets - Utensili per gruppi TG99MG

D mm	B mm	d mm	Z	R	Max RPM 1/min.	Code Codice	SAP SAP
125	30	50	4	4	10.300	TG99M EA3	F03FC22120
125	30	50	4	4	10.300	TG99M EB3	F03FC22121
137	30	50	4	8	9.600	TG99M EC3	F03FC22122
137	30	50	4	4	9.600	TG99M ED3	F03FC22123
138	20	50	4	4	9.600	TG99M EE3	F03FC22124
137	12	50	4	4	9.600	TG99M EF3	F03FC22125
125	30	50	4	6	10.300	TG99M EG3	F03FC22126
149	12	50	4	8	9.000	TG99M EH3	F03FC22127
143	20	50	4	4	9.000	TG99M EI3	F03FC22128
142	12	50	4	4	9.000	TG99M EK3	F03FC22129
169	12	50	4	8	8.300	TG99M EL3	F03FC22130

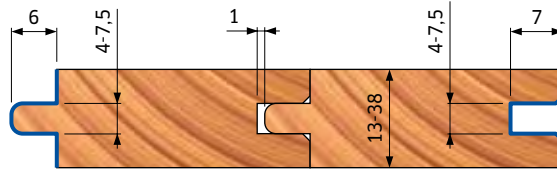
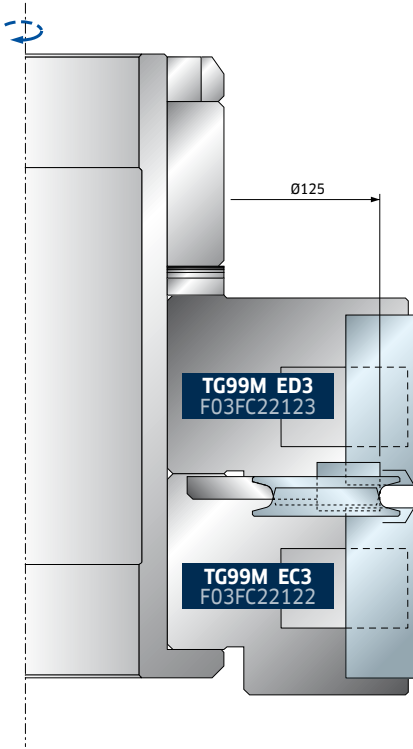
	Spare parts Parti di ricambio	Dimensions Dimensioni mm	Code Codice	SAP SAP
	Knife / Coltello	12x12x1,5	CG26MBA310	F03FH02937
	Wedge / Cuneo	15x10x8	CN09M AA9	F03FC01280
	Nut / Ogiva	10x11,5x6	VT20M AA9	F03FA04497
	Screw / Vite	M6x22	VT19M AB9	F03FA04491
	Knife / Coltello	20x12x1,5	CG26MDA310	F03FH02939
	Wedge / Cuneo	15x16x8	CN09MD A09	F03FC01306
	Screw / Vite	M10x22	VT19M MA9	F03FA04496
	Nut / Ogiva	15x13,3x10	VT20M MA9	F03FC20670
	Knife / Coltello	30x12x1,5	CG26MEA310	F03FH02940
	Wedge / Cuneo	15x26x8	CN09MD AD9	F03FC01300
	Wedge / Cuneo	15x26x8	CN09MS AD9	F03FC01326
	Nut / Ogiva	15x13,3x10	VT20M NA9	F03FC20671
	Nut / Ogiva	15x13,3x10	VT20M MA9	F03FC20670
	Screw / Vite	M10x22	VT19M MA9	F03FA04496
	Wedge / Cuneo	28x9,5x8	CN03M BB9	F03FA00585
	Screw / Vite	M8x22	VT19M BB9	F03FA04493
	Wedge / Cuneo	14x21,5x22	CN03M BA9	F03FA00584
	Spur / Rasante	22,86x2,5	RG02MAA305	F03FH03041
	Spur insert / Inserto rasante	34x9x16	SR06MSBB301	F03FC24201
	Screw / Vite	M6x13	VT16M AE9	F03FC20658
	Beveled grooves ins. / Ins. incastri smuss.	32,7x16x8,5	IG16MAA301	F03FC24161
	Screw / Vite	M6x15,5	VT16M AD9	F03FC20657
	Grooving insert / Inserto per incastri	40x16x4	IG04MSAA305	F03FH02994
	Beveled insert / Inserto smussato	35x4x7	IG17MDAA305	F03FC24162
	Beveled insert / Inserto smussato	22x16x5 45°	IG51MBA305	F03FH03022
	Rounding insert / Inserto raggiatore	22x16x5 R=1,5	IG52MAB305	F03FH03023
	Screw / Vite	M6x14,5	VT16M AA9	F03FA04476
	Torx key / Chiave Torx	T9	CB03M CA9	F03FA00165
	Allen key / Chiave	3 x 110	CB03M AA9	F03FA00162
	Allen key / Chiave	4 x 110	CB03M BA9	F03FA00163

The above codes are intended without sleeve, which should be ordered separately.

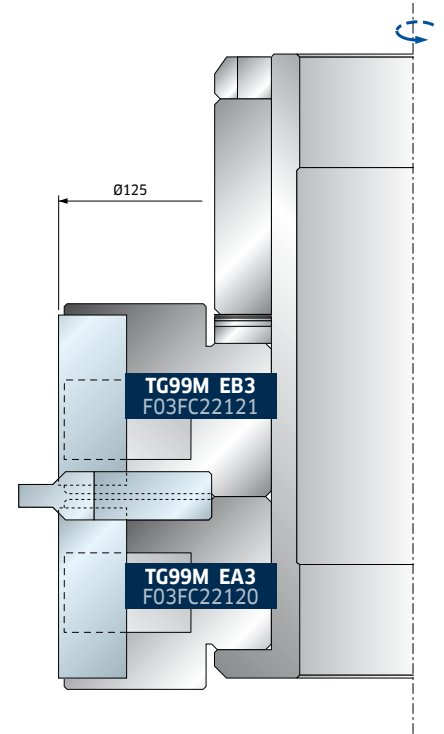
I codici delle tabelle relative ai gruppi sono da considerarsi esclusa la bussola, la quale andrà ordinata a parte.

PROFILE / PROFILO A

Cutterhead set / Gruppo
TG99MG002

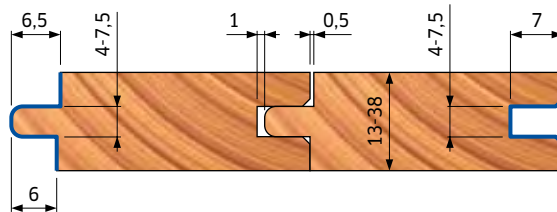
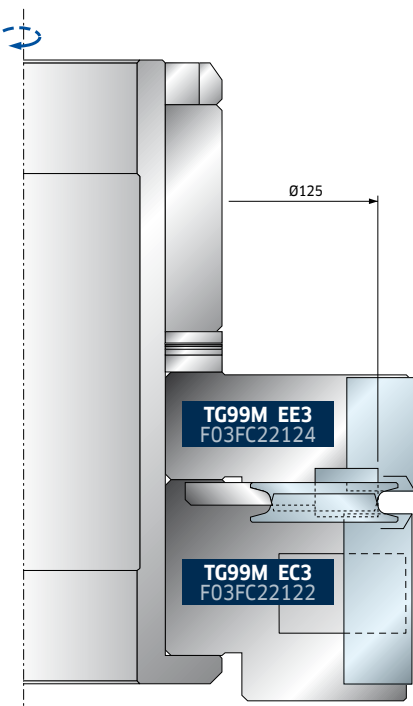


Cutterhead set / Gruppo
TG99MG001

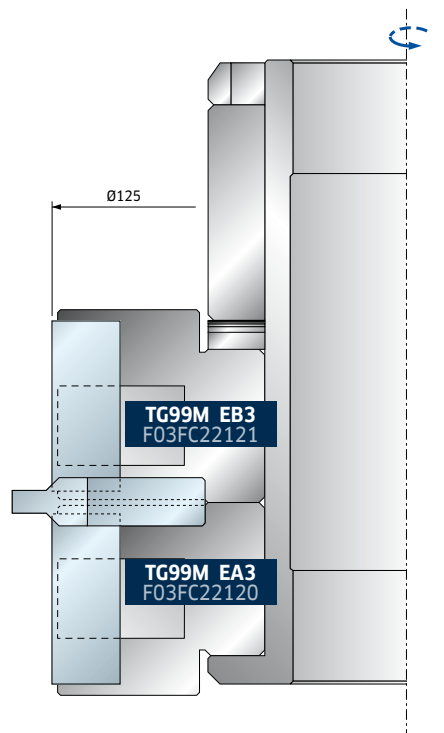


PROFILE / PROFILO B

Cutterhead set / Gruppo
TG99MG003

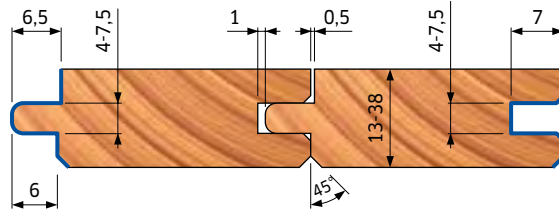
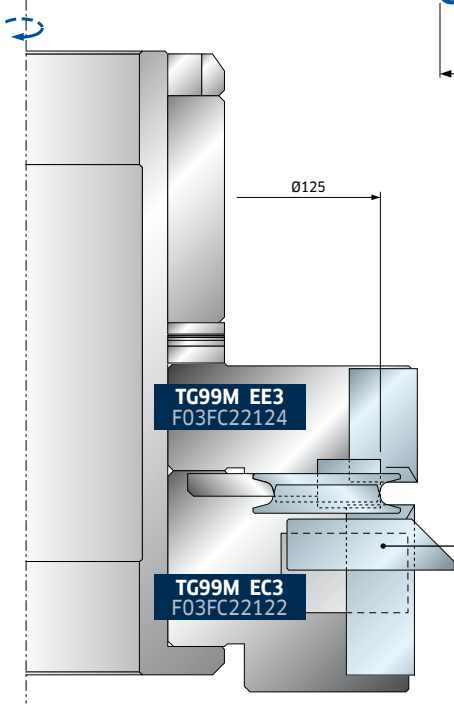


Cutterhead set / Gruppo
TG99MG001

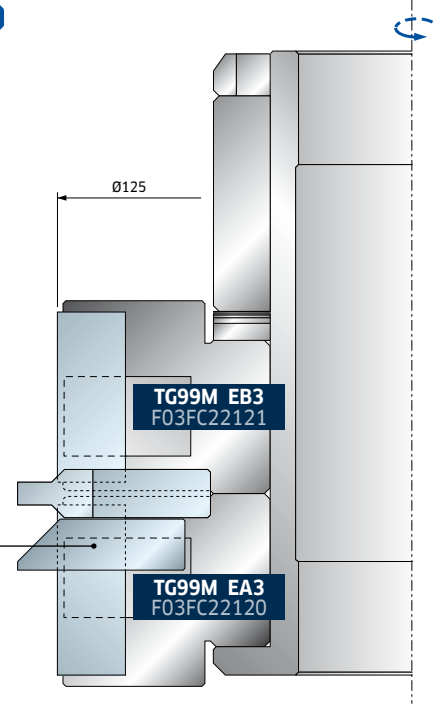


PROFILE / PROFILO C

Cutterhead set / Gruppo TG99MG009

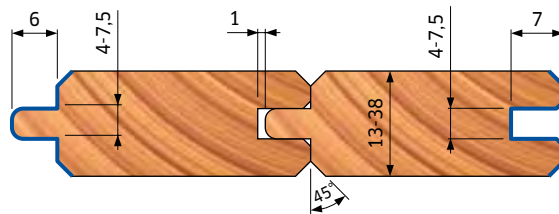
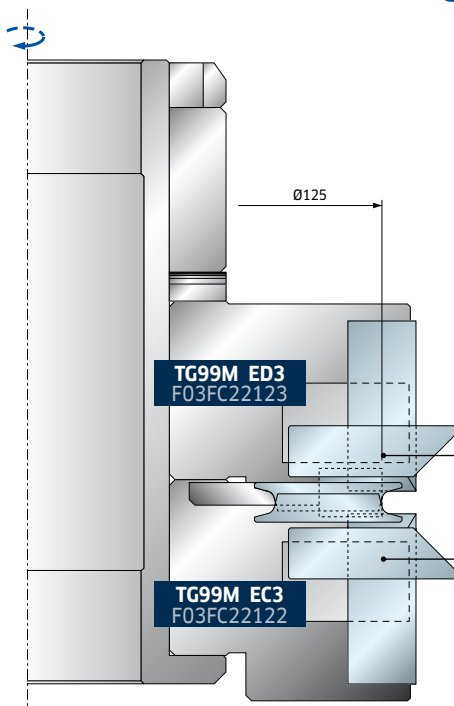


Cutterhead set / Gruppo TG99MG008

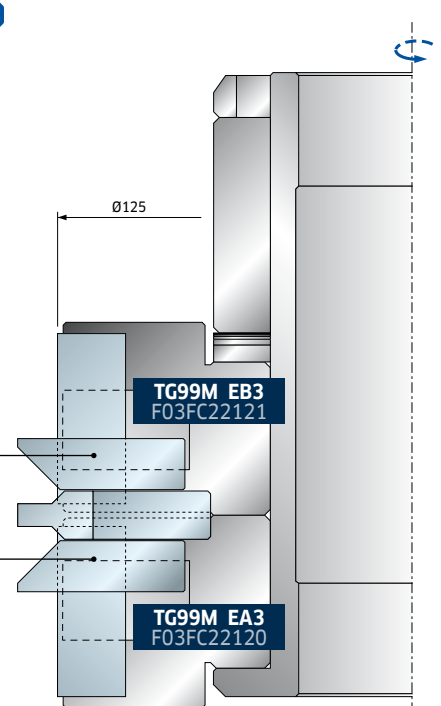


PROFILE / PROFILO D

Cutterhead set / Gruppo TG99MG011

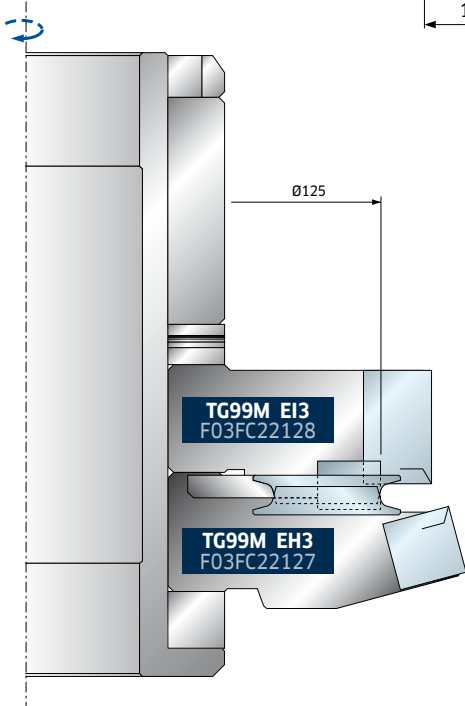
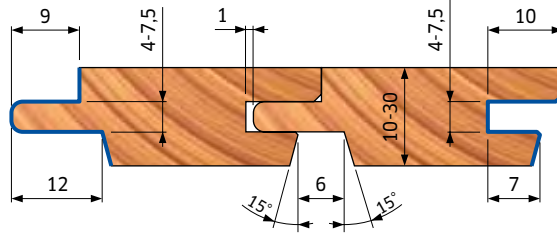


Cutterhead set / Gruppo TG99MG010

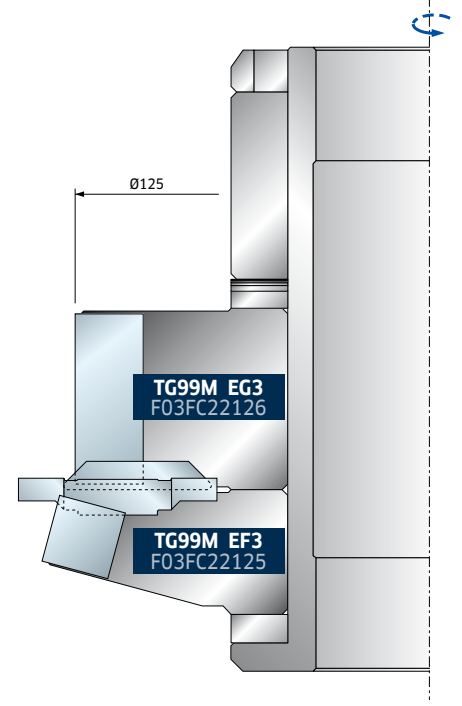


PROFILE / PROFILO E

Cutterhead set / Gruppo
TG99MG005

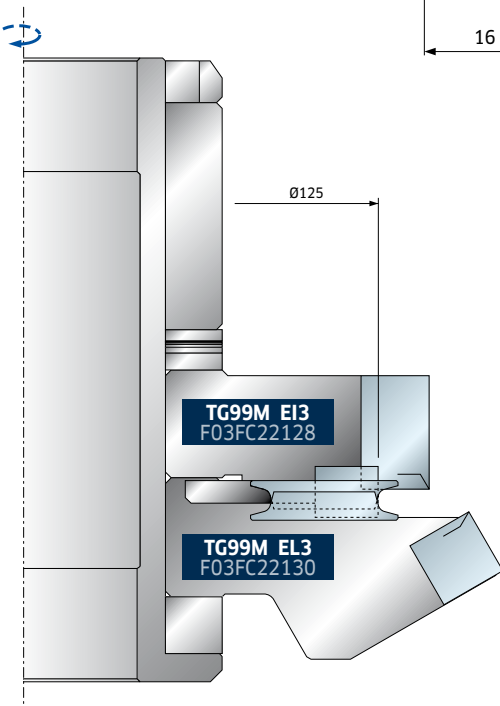
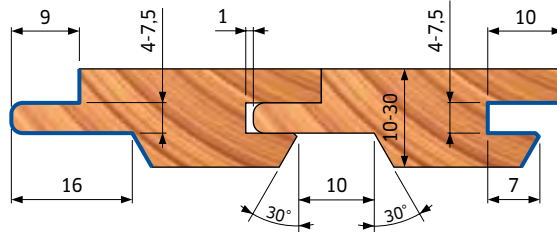


Cutterhead set / Gruppo
TG99MG004

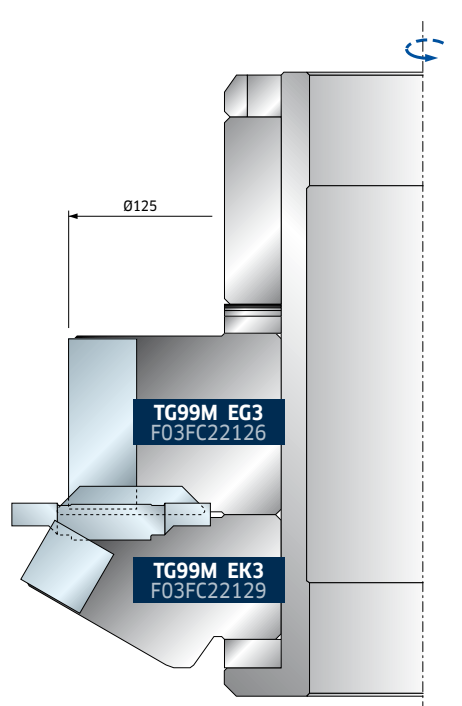


PROFILE / PROFILO F

Cutterhead set / Gruppo
TG99MG007

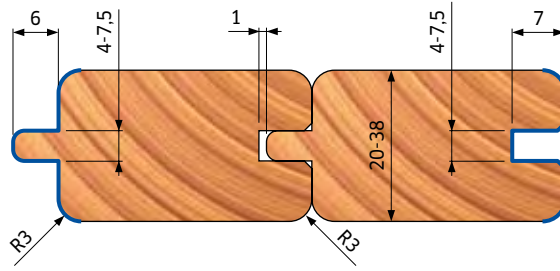


Cutterhead set / Gruppo
TG99MG006

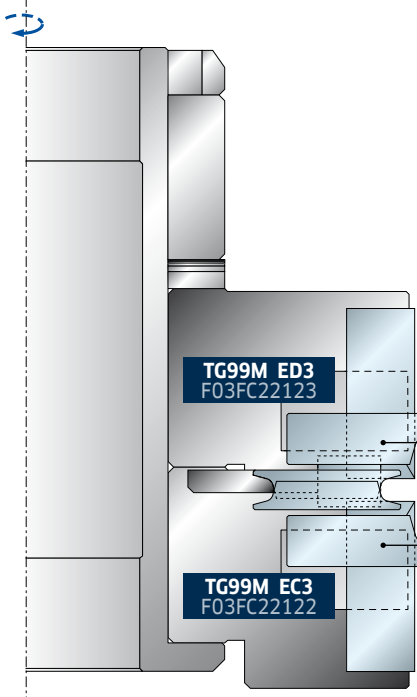


PROFILE / PROFILO G

Cutterhead set / Gruppo TG99MG013



Cutterhead set / Gruppo TG99MG012

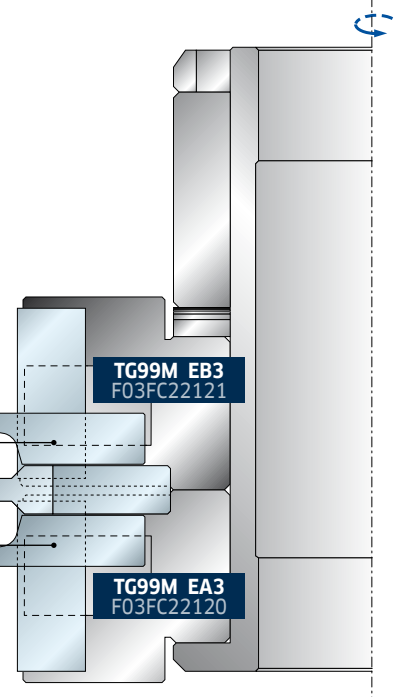


IG33MAA305
F03FH03019

IG33MAA305
F03FH03019

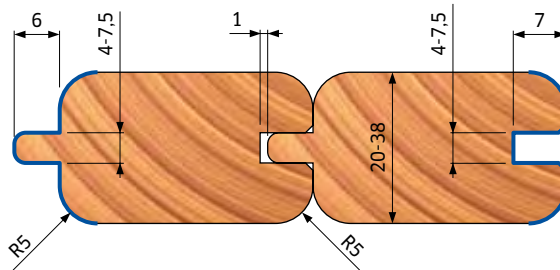
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F03FH03019

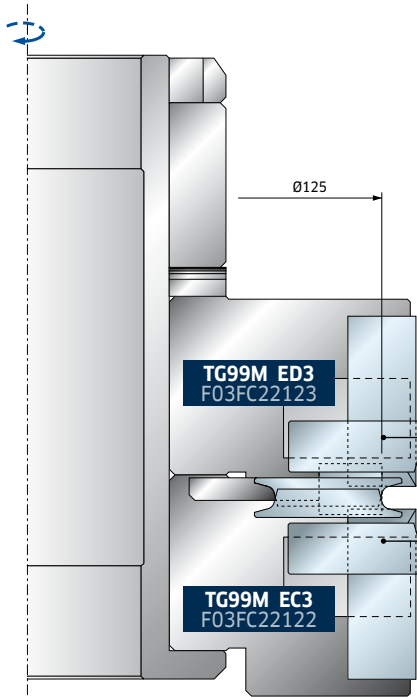


PROFILE / PROFILO H

Cutterhead set / Gruppo TG99MG015



Cutterhead set / Gruppo TG99MG014

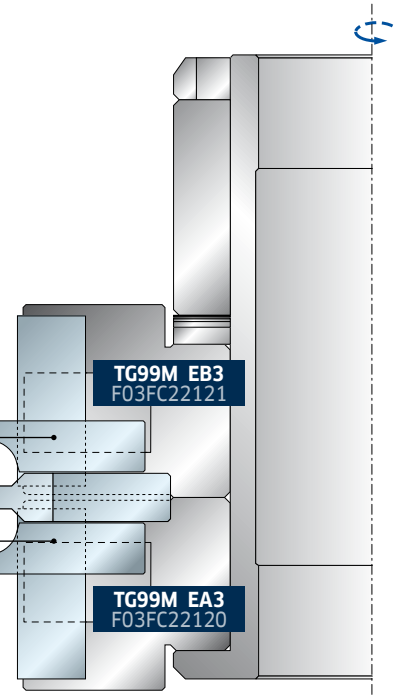


IG33MAB305
F03FH03020

IG33MAB305
F03FH03020

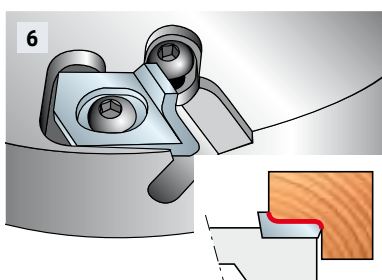
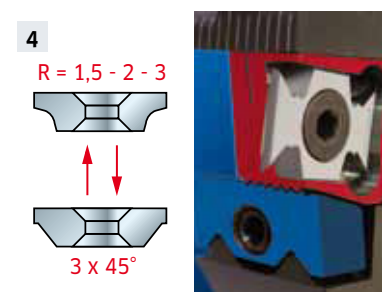
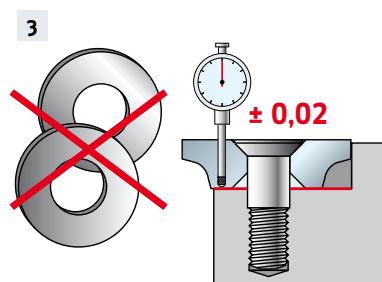
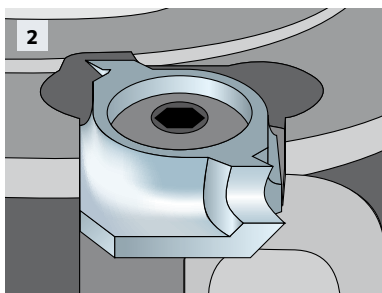
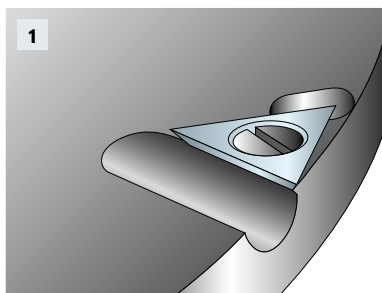
IG33MAB305
F03FH03020

IG33MAB305
F03FH03020



Tips for the correct use of the tools

Consigli per un uso corretto degli utensili



INSERTS AND SPURS

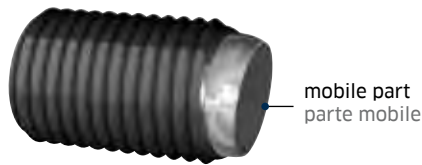
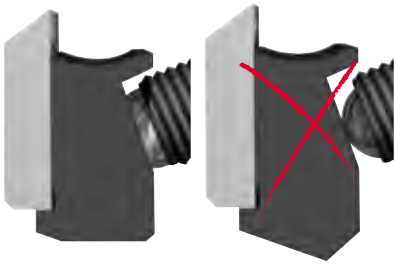
- The triangular spur (Fig. 1) is a component produced in HW to give the cutting edge a long life, used on cutterheads and on Performance tools to give a better finish on rebates. The width of the cutting surface (22 mm) and the position of the spur (positive hook angle) guarantees a perfect finish without 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. 2).
- The rounding and bevelling 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. 3).
- 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. 4). Fig. 5 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 bevelling 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. 6).

INSERTI E RASANTI

- Il rasante triangolare (Fig. 1), costruito in HW integrale conferisce una maggiore durata al filo tagliente, è un componente utilizzato su teste con coltelli a gettare e su teste Performance per dare maggior finitura alle battute eseguite. L'ampiezza della superficie di lavoro (22 mm) ed il posizionamento del rasante sull'utensile (con angolo mordente positivo) garantiscono una finitura perfetta senza rigature (la lunghezza della battuta è minore della lunghezza del rasante). Caratteristica altrettanto importante è la dimensione dello scarico sul fronte: esso consente una miglior fuoriuscita del truciolo e quindi una miglior lavorabilità del rasante. (Fig. 2)
- Gli inserti smussatori e raggianti vengono utilizzati per eliminare gli spigoli vivi dai pezzi lavorati. Oltre a dare una miglior qualità estetica essi contribuiscono, in fase di verniciatura, a fare in modo che la vernice si depositi uniformemente sul legno. Gli inserti sono progettati con angolo assiale per consentire una miglior finitura nella lavorazione del legno trasverso vena (si evita "l'estrazione" della parte tenera della venatura). Essi, come pure le sedi portainseriti, sono costruiti con la massima precisione per garantire una costante intercambiabilità ed evitare l'uso di anellini distanziali. (Fig. 3)
- Il sistema di regolazione, denominato Sistema NSR è l'unico del mercato, a consentire di regolare gli inserti senza l'uso di strumenti di misura. La particolare sede zigrinata consente di regolare l'altezza dell'inserto con incrementi di 1 millimetro su tutto lo spessore dell'utensile, non limitatamente a posizioni fisse e con una precisione al centesimo di millimetro. Le tacche di riferimento, marcate in modo indelebile e preciso con tecnologia laser, consentono il più rapido, preciso e facile posizionamento possibile (Fig. 4). La Fig. 5 mostra i componenti del sistema NSR. Gli angoli dell'inserto consentono la massima finitura su qualsiasi materiale lavorato. Sulla stessa sede si possono montare inserti raggianti e smussatori.
- L'inserto rasante-raggiatore combina le funzioni dell'inserto raggiatore e del rasante. Infatti, in un'unica passata esegue la raggatura interna, la raggatura esterna e la finitura della battuta. Esso viene costruito in HW integrale con diverse profondità di battuta e con angoli mordente ed assiale in grado di garantire la massima finitura. Nella stessa sede si possono montare inserti raggianti di diverse misure, in modo tale da produrre battute di varie profondità (Fig. 6) con la stessa testa portacoltelli.

Maintenance of tools Manutenzione degli utensili

7



Screws with spherical insert, for ISOprofil System

Viti con inserto sferico per sistema ISOprofil

- On ISOprofil clamping system, proper locking is obtained when the flat surface of the spherical insert completely adheres to the wedge (Fig. 7).
- When mounting tools, insure that locking reacts against the body and the cutting edges are not in contact with each other (Fig. 8) or with any other locking elements (Fig. 9).
- 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.
- To avoid injury, tools must be handled with care using special appliances so as to transport them without incurring injury to the user.

INSTRUCTIONS FOR CLEANING

- Clamping surfaces must be free of dirt, grease, oil and water (Fig. 10). Resins must be removed from tools with light alloy bodies using cleaners that do not damage the Aluminum 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 aluminum 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.

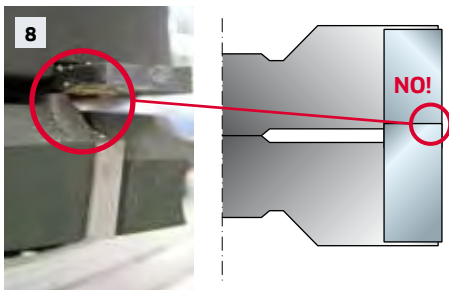
Drying: After the washing operations, tools must be dried by means of drainage and/or compressed air.

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.

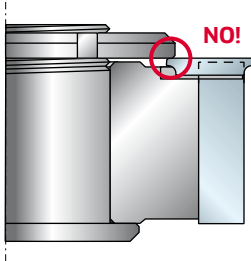
Before storing the tools always clean them from dirt and resin by washing, drying and oiling operations, store the tools in a dry place.

- Nel sistema ISOprofil, il bloccaggio corretto si ha con la superficie piana dell'inserto sferico completamente aderente al cuneo (Fig. 7).
- Nel montaggio degli utensili, bisogna prestare attenzione che il bloccaggio agisca sul corpo e che i taglienti non siano in contatto con altri taglienti (Fig. 8) o con elementi di bloccaggio (Fig. 9).
- Gli utensili composti devono essere riparati da personale competente, addestrato ed esperto, che ha conoscenza dei requisiti progettuali e conosca il livello di sicurezza che deve essere raggiunto.
- Dopo qualsiasi processo di manutenzione, un utensile marcato "MAN" deve continuare a rispettare i requisiti della norma relativi agli utensili per avanzamento manuale. L'uso di utensili per avanzamento manuale senza deflettori, se originalmente previsti, non deve essere permesso.
- Indossare guanti migliora la presa e riduce ulteriormente il rischio di lesioni.
- Per evitare lesioni, gli utensili devono essere maneggiati con cautela e utilizzando dispositivi come ganci di trasporto, maniglie specifiche, telai, contenitori, carrelli, ecc.).

8



9



10



ISTRUZIONI PER LA PULIZIA

- Le superfici di bloccaggio devono essere esenti da sporco, grasso, olio o acqua (Fig. 10). La resina deve essere rimossa dal corpo di utensili in leghe leggere solo con solventi che non intacchino l'alluminio e non pregiudichino le caratteristiche meccaniche di questi materiali. Pulire accuratamente l'utensile ad ogni sostituzione dei taglienti.

Lavaggio: Gli utensili devono essere lavati con acqua ed un appropriato liquido detergente (per maggiori informazioni contattare il rivenditore locale) che non intacchi il materiale del corpo (acciaio fosfatato al manganese o lega d'alluminio), i componenti bruniti (viti, anelli) e gli inserti in metallo duro (carburi di tungsteno, titanio, cobalto). L'uso di lavatrici ad ultrasuoni riduce il tempo di lavaggio e migliora il lavaggio stesso nelle zone poco accessibili.

Asciugatura: dopo le operazioni di lavaggio gli utensili devono essere asciugati attraverso sgocciolatura e/o aria compressa.

Oliatura: Sia che gli utensili siano subito riutilizzati che immagazzinati per uso futuro, oliare tutte le parti con fluido protettivo anti ruggine.

Prima di immagazzinare gli utensili eseguire sempre le operazioni di lavaggio, asciugatura ed oliatura. Immagazzinarli in ambienti asciutti.

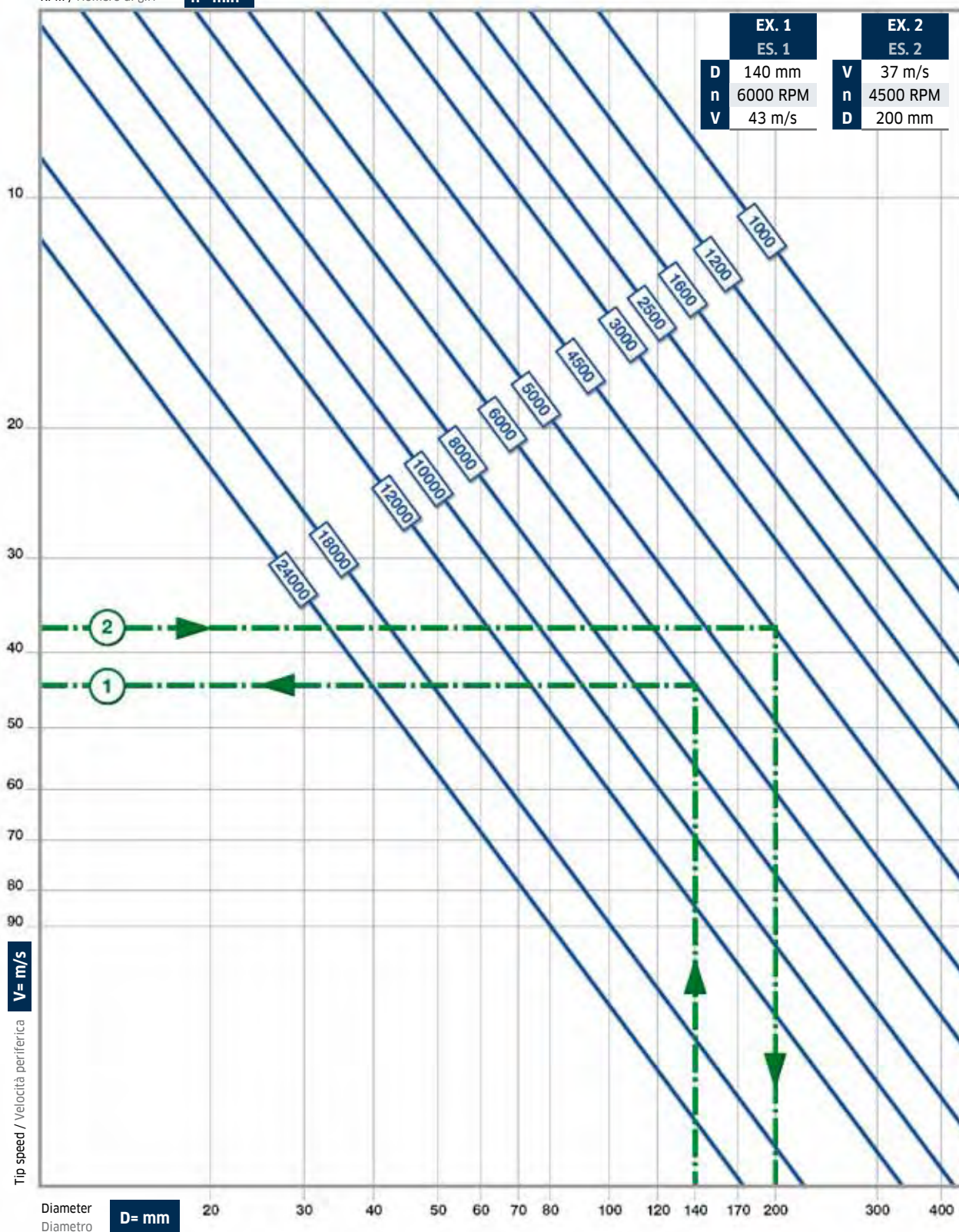
Technical diagram to obtain tip speed, diameter and RPM of a cutting tool Tavola per il calcolo della velocità periferica, del diametro e del numero di giri di un utensile

Recommended tip speed (V= m/s) - Valore della velocità periferica (V= m/s)

Softwood Legno tenero		Hardwood Legno duro		Chipboard Truciolare	Medium Density MDF
HSS	HW	HSS	HW	HW	HW
50 - 80	60 - 90	40 - 60	50 - 80	60 - 80	30 - 50

RPM / Numero di giri

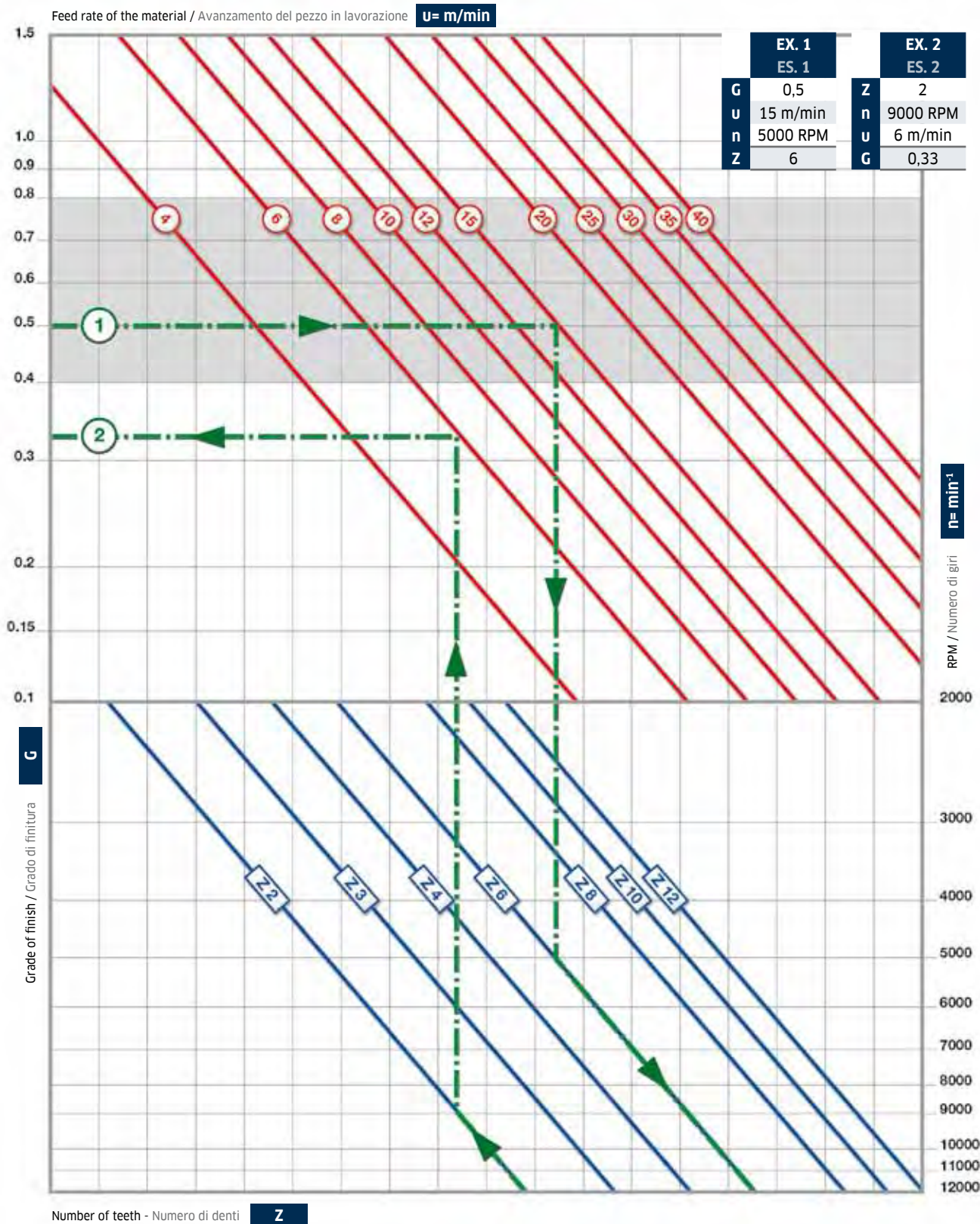
$n = \text{min}^{-1}$



Technical diagram to obtain number of teeth, feed rate, RPM and grade of finish of a cutting tool Tavola per il calcolo del numero di denti, della velocità di rotazione, della velocità di avanzamento e del grado di finitura ideale di un utensile

Grade of finish (G) - Grado di finitura (G)

Burning Tracce di bruciatura	Finish on softwood Finitura su legno tenero	Finish on hardwood Finitura su legno duro	Rough finish Sgrossatura
0,10 - 0,40	0,40 - 0,60	0,60 - 0,80	0,80 - 1,50



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 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 center 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.

Safe working practice

Informazioni di sicurezza

Tutti gli utensili del presente catalogo rispettano le normative di sicurezza EN-847

UTENSILI

Gli utensili devono essere usati solo da personale addestrato ed esperto che ha conoscenza di come usare e movimentare gli utensili. Non deve essere superata la velocità massima marcata sull'utensile. Lame di seghe circolari con i corpi incrinati devono essere scartate (non è ammessa la riparazione).

Gli utensili in un solo pezzo (integrali) con fessurazioni visibili non devono essere utilizzati.

Gli utensili devono essere puliti regolarmente.

Utensili in lega leggera devono essere puliti, per esempio per la rimozione della resina, con solventi che non pregiudichino le caratteristiche meccaniche di tali materiali.

Utensili e corpi di utensili devono essere bloccati in modo che non si allentino durante l'uso.

Utensili con fissaggio con codolo devono essere fissati in modo che il marchio della lunghezza minima di bloccaggio sia coperto almeno parzialmente dall'attacco o dalla pinza di serraggio.

Si deve prestare attenzione nel montaggio degli utensili per garantire che il bloccaggio agisca mediante il mozzo o la superficie di bloccaggio dell'utensile e che i bordi taglienti non siano in contatto tra di loro o con gli elementi di bloccaggio.

Viti e dadi di bloccaggio devono essere serrati usando le chiavi appropriate ecc. e al valore di coppia di serraggio prevista dal fabbricante.

Non deve essere consentito l'uso di prolunghe per le chiavi o il serraggio con colpi di martello.

Le superfici di bloccaggio devono essere pulite per rimuovere sporco, grasso, olio e acqua.

Le viti di serraggio devono essere serrate secondo le istruzioni fornite dal fabbricante. Qualora le istruzioni non siano state fornite, le viti di bloccaggio devono essere serrate in sequenza dal centro verso l'esterno.

Non deve essere consentito l'uso di anelli o bussole amovibili per regolare le dimensioni di alesaggio delle seghe circolari.

L'uso di anelli fissi, per esempio a pressione o fissati con adesivo deve essere permesso se eseguito in conformità alle specifiche del fabbricante.

Per il montaggio di parti taglienti regolabili radialmente o assialmente, rispettare i limiti di posizionamento marcati sull'utensile.

La manutenzione degli utensili, ad esempio riparazione e riaffilatura, deve essere consentita solo secondo le istruzioni del fabbricante dell'utensile.

Dopo la riparazione e la riaffilatura degli utensili si deve garantire che gli utensili rispettino i requisiti di bilanciamento.

Le caratteristiche progettuali degli utensili composti (con taglienti riportati) non devono essere cambiate durante la riparazione.

Gli utensili composti devono essere riparati da persona competente, ossia persona addestrata ed esperta che ha conoscenza dei requisiti progettuali e conosca il livello di sicurezza che deve essere raggiunto.

La riparazione deve comprendere l'uso di parti di ricambio in conformità alle specifiche delle parti originali fornite dal fabbricante. Si devono mantenere le tolleranze che assicurano un bloccaggio corretto.

Per gli utensili in un solo pezzo si deve aver cura di riaffilare il bordo tagliente in modo tale da non causare indebolimento del mozzo e il collegamento del bordo tagliente al mozzo.

Nella riaffilatura di utensili a fresare o lame di seghe circolari, si deve porre particolare attenzione al rispetto dei requisiti minimi di spessore minimo e proiezione radiale ed assiale della lama tagliente.

Utensili composti devono essere riparati da personale esperto e con competenza specifica sulla progettazione ed utilizzo di utensili per la lavorazione del legno o materiali similari, per esempio un esperto con formazione e competenza sul processo di brasatura, inclusa conoscenza dell'influenza che il processo di brasatura ha sulle tensioni indotte nel corpo utensile e sul materiale da tagliare.

Nello sbrascare denti saldo brasati e successivamente ribrasare nuovi denti, deve essere assicurato che i nuovi denti siano montati correttamente sul corpo dell'utensile e che il processo di brasatura non abbia prodotto tensioni critiche al corpo dell'utensile. Dopo qualunque operazione di manutenzione, gli utensili marcati MAN devono continuare a rispettare tutti i requisiti previsti per l'avanzamento manuale.

Dopo qualunque modifica di utensili a fresare, per esempio modifica dell'attacco, alesatura del foro, riplacchettatura di utensili composti o altro, deve essere assicurato che vengano rispettati i requisiti di equilibratura previsti.

Dopo essere modificati o riplacchettati, gli utensili devono essere marcati secondo le regole che si applicano agli utensili nuovi; deve essere inoltre aggiunto il nome/logo della società che ha effettuato le modifiche/riplacchettature.

Per evitare lesioni, gli utensili devono essere movimentati in conformità alle indicazioni fornite dal fabbricante.

Generalmente, la movimentazione sicura richiede l'uso di dispositivi quali ganci di trasporto, maniglie brevettate, telai (per esempio per lame di sega circolari), scatole, carrelli, ecc. L'uso di guanti di protezione migliora la presa sull'utensile e riduce ulteriormente il rischio di lesioni.

Gli utensili con un peso maggiore di 15 kg possono richiedere l'uso di dispositivi o accessori speciali per la movimentazione, questi dipendono dalle caratteristiche che il fabbricante ha progettato nell'utensile per agevolarne la movimentazione. Il fabbricante può dare suggerimenti sulla disponibilità dei dispositivi necessari.

DISPOSITIVI DI BLOCCAGGIO

Le velocità indicate sul dispositivo di bloccaggio e sull'utensile da bloccare dovrebbero essere confrontate. Per regolare la velocità sulla macchina non superare mai la velocità più bassa tra le due. Viti e dadi devono essere serrati utilizzando le chiavi appropriate. Le superfici di bloccaggio devono essere pulite per rimuovere sporco, grasso, olio e acqua.

I dispositivi di bloccaggio e gli utensili devono essere montati o bloccati secondo le coppie di serraggio indicate, alle pressioni e con le chiavi prescritte.

Non si devono superare le lunghezze e i diametri massimi degli utensili.

Il diametro del codolo deve essere all'interno della gamma prescritta per il dispositivo di bloccaggio.

Per l'uso di dispositivi di bloccaggio con supporto dati integrato, avere cura che i dati pertinenti la sicurezza dell'utensile siano sempre memorizzati nel supporto dati.

Le riparazioni devono essere effettuate solo da persona competente, ossia persona con formazione ed esperienza professionale, a conoscenza dei requisiti di progettazione, costruzione e sicurezza.

La riparazione deve includere l'utilizzo di parti di ricambio in conformità alle specifiche dei pezzi originali.

Devono essere mantenute le tolleranze che garantiscono un bloccaggio corretto.

Explanation of symbols and abbreviations

Legenda dei simboli e delle abbreviazioni

SYMBOLS TO READ THE PRODUCT TABLES

SPIEGAZIONE DEI SIMBOLI PER LA LETTURA DELLE TABELLE PRODOTTO

D	Diameter Diametro	B	Cutting thickness Spessore di taglio	B-B1	Adj. cutting thickness Sp. di taglio regolabile	d	Bore Foro
R	Spurs Rasanti	Z	Number of teeth Numero di denti	I	Inserts Inserti	S	Thickness Spessore
Max RPM	Max RPM Numero di giri massimo	Code Codice	Item code Codice articolo	SAP SAP	Item code - for SAP users only Codice articolo - solo per utenti SAP		

OTHER SYMBOLS

ALTRI SIMBOLI

	Performance system Sistema Performance		ISOprofil - Automatic diameter recovery system ISOprofil - Sistema automatico per il recupero del diametro di taglio		Automatic feed tools Utensili ad avanzamento meccanico		Manual feed tools Utensili ad avanzamento manuale
	Disposable knives Coltelli a gettare		Brazen cutters Utensili saldobrasati				

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