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TESTE PORTACOLTELLI E FRESE SALDOBRASATE CUTTERHEADS AND BRAZED CUTTERS


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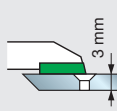
LEGENDA DEI SIMBOLI E DELLE ABBREVIAZIONI EXPLANATION OF SYMBOLS AND ABBREVIATIONS

D Diametro
Diameter

I Inerti
Inserts

R Rasanti
Spurs


 Rotazione dx e sx
Right hand and left hand

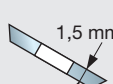
 Coltelli riaffilabili in HW
Resharpenable carbide knives

B Spessore di taglio
Cutting thickness

d Foro
Bore

S Spessore
Thickness

 Rotazione dx o sx
Right hand or left hand

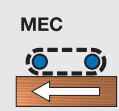
 Coltelli a gettare
Disposable knives

B-B1 Sp. di taglio regolabile
Adj. cutting thickness

Z Numero di denti
Number of teeth

Codice Codice articolo
Item code

MAN
 Utensili per avanzamento manuale
Tools for manual feed

MEC
 Utensili per avanzamento meccanico
Tools for automatic feed

Utensili collaudati secondo la Normativa
Tools tested according to the Norm

• **EN 847-1** •

Gli utensili a cui si riferisce questo simbolo hanno superato le prove tecnologiche richieste dalla normativa europea en 847-1. This symbol refers to tools that have passed the technical tests imposed by the european norm en 847-1.

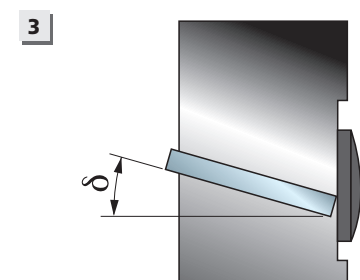
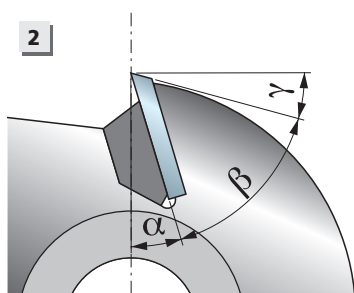
 Utensili saldobrasati
Brazed cutters

freud.



Tra tante copie,
meglio l'originale!

Nothing beats
the original!



■ Gli utensili Freud sono prodotti qualitativamente superiori perché realizzati con le più avanzate tecnologie, con materiali di prima scelta ed avvalendosi di personale altamente specializzato.

Norma Europea EN 847-1

■ Per il 2002 il programma teste portacoltelli standard è stato ridisegnato e rinnovato in base alla nuova norma europea UNI EN 847-1 per l'eliminazione e la riduzione dei pericoli derivanti dall'utilizzo di tali utensili. Nell'avanzamento manuale si limita il fenomeno del rifiuto a velocità facilmente controllabili e, in caso di contatto con l'utensile, si minimizza la gravità di eventuali lesioni. Gli utensili conformi riportano la scritta "MEC" o "MAN", rispettivamente per l'uso su macchine con avanzamento meccanico integrato e con avanzamento manuale.

■ Le modifiche apportate ai nostri utensili sono fondamentalmente le seguenti:

- per ridurre al minimo il rischio di infortuni, gli utensili sono costruiti a "forma chiusa" e con limitatore di truciolo avente sporgenza ridotta;
- sono state aggiunte delle spine per impedire la rotazione dei singoli utensili che compongono i gruppi;
- per agevolare lo scarico del truciolo sono stati revisionati i vani di scarico e previsti dei deflettori in corrispondenza degli inserti.

Caratteristiche tecnologiche delle teste portacoltelli

■ L'esclusivo metallo duro Freud di cui sono costituiti i taglienti viene prodotto in base all'utilizzo cui è destinato, per ottenere le maggiori durata e qualità di finitura possibili. Inoltre, le speciali e sofisticate apparecchiature utilizzate garantiscono una costante precisione nella produzione dei coltelli, che sono perfettamente sostituibili anche a distanza di tempo (la Fig. 1 mostra il metallo duro al microscopio elettronico).

■ Gli angoli caratteristici delle teste portacoltelli e Sistema Performance sono (Figg. 2 e 3):

- angolo mordente (α):** dipende dal tipo di materiale da lavorare.
- angolo di cuneo (β):** è la diretta conseguenza degli angoli α e γ .
- angolo di spoglia (γ):** varia secondo il materiale lavorato e lo spessore di taglio.
- angolo assiale (δ):** serve per ottenere una miglior penetrazione nel materiale lavorato ed un'asportazione graduale del truciolo. Nel caso di utensili con differenze di diametro sul profilo, serve a mantenere costante l'angolo mordente.

Freud products are superior tools because they are made using the most advanced technology, with premium quality materials and highly qualified staff.

European Norm EN 847-1

■ For 2002, the standard cutterhead programme has been re-designed and renewed, based on the new european norm UNI EN 847-1, to eliminate and reduce dangers that may derive from these tools. In the case of manual feed, the kick-back effect is greatly reduced and easily controlled by the operator, in case of physical contact with the tool, serious injury to the operator is minimized. Tools that conform to these norms have "MEC" or "MAN" incisioned on to them and are to be used respectively on machines with mechanical or manual feed.

■ The fundamental modifications carried out on our tools are the following

- to reduce the risk of injury, our tools are constructed with a "closed form" and an anti kick-back device with limited projection;
- pins have been added to stop each single component of the group, from rotating individually;
- large openings for better chip distribution have been revisioned and deflectors for inserts are foreseen.

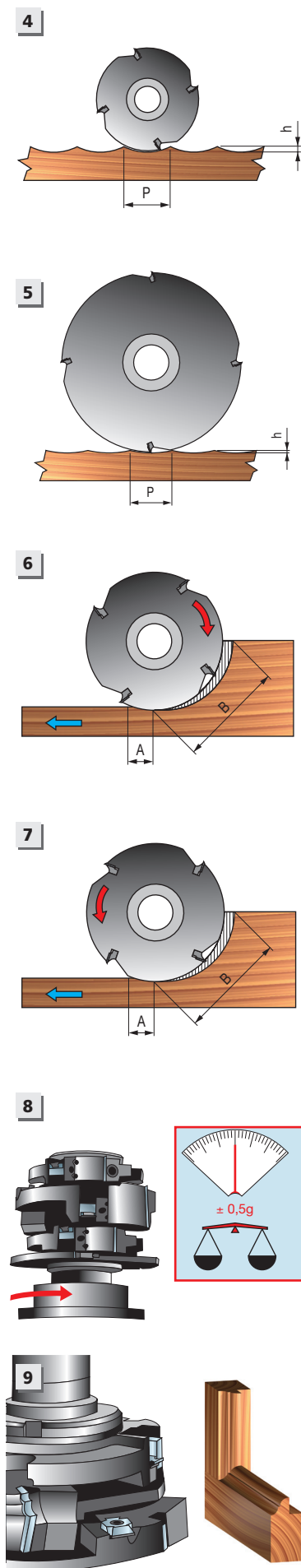
Technical features of traditional cutterheads

■ Freud's exclusive HW used to construct each cutter, is produced according to the kind of work which the tool will undergo, in order to obtain the best duration and quality finish possible. Special instruments guarantee precision and therefore perfect replacement of the knives we produce without the need to modify the cutterhead even after prolonged use (Fig. 1 shows hard metal under the microscope).

■ The most characteristic angles of a cutterhead are (Fig. 2 and 3):

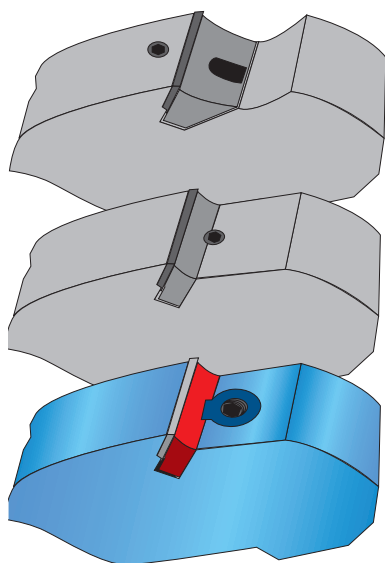
- hook angle (α):** depends on the type of material to be cut.
- wedge angle (β):** this angle is a direct consequence of angles α and γ .
- clearance angle (γ):** depends on the material to be cut and the thickness of the cutting edge.
- shear angle (δ):** necessary to obtain a better penetration into the material to be cut and a gradual removal of the chips. When the tools have different diameters, this angle allows the hook angle to remain constant.

CARATTERISTICHE TECNOLOGICHE TECHNOLOGICAL FEATURES



- La finitura ottenuta è misurata dalla rugosità superficiale del legno e dipende da molti fattori: l'avanzamento del legno in macchina, il numero di giri a cui lavora l'utensile, la concordanza o discordanza della lavorazione, le caratteristiche tecniche dell'utensile.
 - Oltre agli angoli mordente, di cono ed assiale, anche il diametro influenza la qualità della finitura (Figg. 4 e 5). A pari avanzamento e numero di giri si ha lo stesso passo (lunghezza di asportazione - P); mentre la profondità (h), e quindi la rugosità superficiale, si riduce proporzionalmente all'aumentare del diametro.
 - Per quanto riguarda la rotazione e l'avanzamento distinguiamo tra:
 - lavorazione in concordanza: si ha quando la direzione di avanzamento ed il senso di rotazione hanno lo stesso verso (Fig. 6).
 - lavorazione in discordanza: si ha quando la direzione di avanzamento ed il senso di rotazione sono opposti (Fig. 7).
 - Durante l'asportazione si verificano 2 situazioni (Figg. 6 e 7):
 - nella zona A si ha lo schiacciamento del materiale in lavorazione, nel caso in cui si lavori in discordanza;
 - la zona B è l'area dove l'utensile s'incunea nel materiale e ne asporta il truciolo.
 - Ogni utensile o gruppo per serramenti viene progettato dal nostro ufficio ricerche e sviluppo con una struttura informatica in grado di ottimizzarne le caratteristiche in base alle effettive necessità del Cliente. Tale tecnologia viene applicata anche alle macchine utensili per ottenere precisioni mai raggiunte nel campo degli utensili per la lavorazione del legno, grazie anche alla collaborazione di personale altamente specializzato.
 - Ogni utensile viene poi equilibrato per eliminare le vibrazioni che si avrebbero in fase di lavorazione, dovute alla disomogenea distribuzione della massa ferrosa. Vengono eseguite tre equilibrature distinte: sull'utensile singolo, sul gruppo completo ed infine la terza, importantissima, sull'insieme di gruppi che vanno assemblati sullo stesso albero della macchina (Fig. 8).
 - La messa a punto finale avviene nel reparto collaudo e consiste in una simulazione di produzione: per ogni singolo gruppo viene "battuto" un campione legno con il profilo richiesto. In tal modo si fornisce al Cliente un prodotto veramente "chiavi in mano", subito produttivo e quindi proficuo (Fig. 9).
-
- The work piece finish is given by the surface roughness and depends on many factors: the feed rate, the tool's RPM, if the tool cuts against or with the feed and the tool's general geometry such as the hook, wedge and shear angles.
 - The tool's diameter also influences the work piece finish (Fig. 4 and 5). If the feed rate and the tool's RPM are the same, the pitch (P) will also be the same, therefore the depth and the surface roughness (h) is reduced as the diameter of the tool increases.
 - The tool cuts "with the feed" when the rotation and feed direction are the same (Fig. 6), the tool cuts "against the feed" when the rotation and feed direction are opposite (Fig. 7).
 - During the removal of the chips, two areas can be distinguished: A and B (Fig. 6 and 7):
 - area A is where the material is compressed if the rotation is "against the feed";
 - area B is where the tool penetrates the material and removes the chips.
 - Every tool is designed by our research and development department based on the clients specific needs and the same technology is applied to manufacturing machines that, combined with highly specialised workers, allow precision levels never reached before in the woodworking field.
 - Every tool is balanced to remove vibrations caused by bizarre distribution of the tool's mass, harmful during the woodworking process. Three balancing operations are done: first on the single tool, second on the set and finally, the third, on the entire group of tools that will be fitted on the same spindle (Fig. 8).
 - The final tuning operation is done in the testing room and consists of simulating actual working conditions: each set is used to cut a wood sample of the requested profile. All of these testing phases allow FREUD to supply the Client with a product that is ready for use and immediately operational, allowing added savings for the Client (Fig.9).

CARATTERISTICHE TECNOLOGICHE TECHNOLOGICAL FEATURES



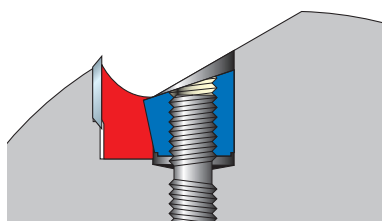
■ Sistema di Bloccaggio HRL

La vite frontale di grosse dimensioni non si spana e si intasa molto meno di una più piccola, qualsiasi sia la sua posizione.

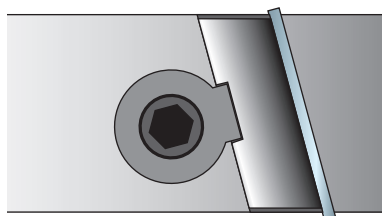
■ HRL Locking System

The large front screw does not strip and is less liable to block or get clogged up compared to a small screw, which ever may be its position.

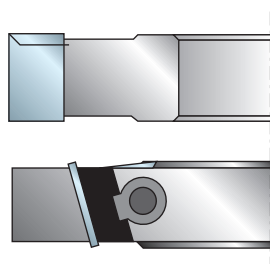
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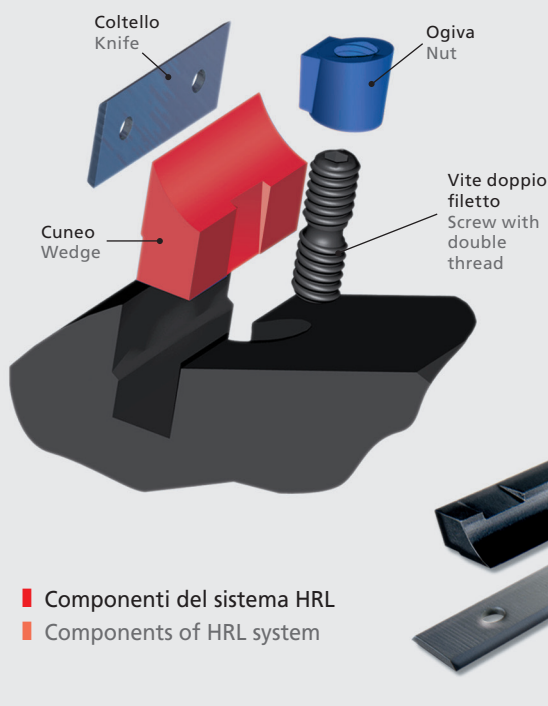


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VANTAGGI DELLE TESTE PORTACOLTELLI TRADIZIONALI

- Per Testa Portacoltelli si intende un utensile rotativo fornito di più taglienti, disposti geometricamente sulla sua circonferenza e costituiti da coltelli a gettare con spessore di 1,5 mm bloccati meccanicamente sul corpo dell'utensile (Fig. 12). Rispetto agli utensili saldobrasati, le teste portacoltelli con coltelli a gettare presentano indubbiamente dei vantaggi importanti. Infatti, per sostituire un coltello usurato o danneggiato non è necessario smontare l'utensile dalla macchina, poiché è sufficiente sbloccare le viti che lo trattengono nella sua sede. Un utensile saldobrasato, invece, dovrebbe essere sostituito completamente e quindi bisognerebbe avere a disposizione anche un utensile di scorta, per evitare fermi macchina con tempi troppo lunghi.
- Il Sistema di Bloccaggio HRL sfrutta la forza centrifuga data dalla rotazione dell'utensile per autobloccarsi. Questa caratteristica, unitamente al sovradimensionamento dei singoli elementi, evita rischi di rotture accidentali o di espulsione del coltello. Il sistema di bloccaggio HRL è anche sinonimo di robustezza: l'uso esclusivo di componenti sottoposti a speciali trattamenti termici e la precisione del sistema garantiscono un numero pressoché illimitato di smontaggi e rimontaggi senza diminuirne l'efficacia (Figg. 10 e 11).



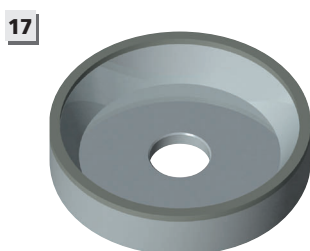
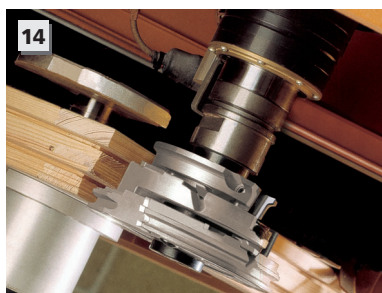
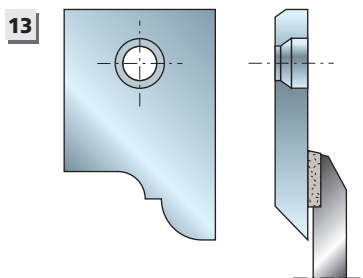
■ Componenti del sistema HRL

■ Components of HRL system

ADVANTAGES OF TRADITIONAL CUTTERHEADS

- A Cutterhead is a rotating tool consisting of various cutting edges, geometrically fitted on its circumference. The cutting edges are 1,5 mm thick disposable knives, mechanically locked to the tool's body (Fig. 12). With respect to brazed cutters, cutterheads with disposable knives have numerous advantages, in fact, to change a used or damaged knife it is not necessary to dismount the cutterhead from the machine, but simply loosen the screw that holds it in its seat. On the other hand a brazed cutter must be changed altogether and a substitute available so as to avoid time wastage.
- The HRL Locking System takes advantage of the centrifugal forces generated by the tool's rotation in order to block itself. This characteristic, along with other single elements avoid the risk of accidental breakage or expulsion of the knives. The HRL system is also synonymous of strength: the use of only specially treated components and the precision of this method guarantees a practically unlimited number of locking and unlocking operations without compromising the efficiency of the very same (Fig. 10 and 11).

CARATTERISTICHE TECNOLOGICHE TECHNOLOGICAL FEATURES



■ I coltelli Sistema Performance sono costruiti con metallo duro che la Freud produce in 6 gradi di durezza differenti, a seconda del materiale da lavorare: legni teneri e duri, massicci, abrasivi, truciolare, melaminico, placcati, M.D.F. ecc. È possibile utilizzare metallo duro con elevati gradi di durezza, tali da permettere una tenuta superiore addirittura del 30% rispetto all'HW impiegato per taglienti da saldobrasare e destinati alla lavorazione di materiali molto abrasivi.

■ Oltre ad essere una soluzione che praticamente sostituisce le frese saldobrasate, grazie all'intercambiabilità dei profili sullo stesso utensile e alla durata dello stesso, si ha una notevole convenienza nell'ambito della produzione su macchine CNC, dove i fermi macchina risultano molto costosi: infatti, dovendo sostituire un coltello usurato o danneggiato non è necessario smontare l'utensile dalla macchina, poiché è sufficiente sbloccare le viti che lo trattengono nella sua sede. Un utensile saldobrasato, invece, dovrebbe essere sostituito completamente e quindi bisognerebbe prevedere un utensile di scorta per evitare fermi macchina con tempi lunghi.

■ Oggi la Freud dispone anche di una gamma completa di utensili con coltelli performance standard o personalizzabili per pantografi manuali e a CNC (Fig. 14).

■ Il sistema performance risulta vantaggioso anche se paragonato alle teste portacoltelli tradizionali, grazie alla possibilità e alla facilità di affilatura dei coltelli e al basso costo dell'operazione, dato che non servono macchine particolari (è sufficiente un lapidello o un'affilatrice - vedi Fig. 15) né personale specializzato.

■ Anche dopo la riaffilatura, i coltelli Performance mantengono il profilo originale ed il diametro di taglio dell'utensile, poiché si possono avere perdite massime di $0,15 \pm 0,20$ mm (Fig. 16).

■ Consigli per una corretta affilatura su lapidello o affilatrice:

1) Applicare l'attrezzatura TA01M o TA02M (Fig. 16) sul piano del lapidello o dell'affilatrice.

2) Fissare i coltelli, per mezzo delle viti in dotazione, sull'attrezzatura.

3) Procedere all'operazione di affilatura contemporanea dell'intero set di coltelli.

Si raccomanda un'abbondante lubrificazione durante l'affilatura e l'utilizzo di mole diamantate (Fig. 17) con le seguenti caratteristiche: D6A2-C100-D54.

■ Su richiesta, l'affilatura può essere eseguita presso la nostra sede, inviando tutto il set di coltelli ed indicando sull'ordine il codice OPTAFF AA9.

■ Performance system knives are constructed in hard metal, which Freud produces in 6 grades of hardness, second to the material to be worked: soft and hardwoods, heavy, abrasive, chipboard, melamine, laminated, M.D.F. etc. It is possible to use HW with a high grade of hardness, so as to permit a superior hold of 30% more with respect to the HW used for brazed cutting edges destined to work very abrasive materials.

■ Other than being a solution that practically substitutes brazed cutters, thanks to the interchangeability of the profiles on the same tool and the duration of the tool itself, there is a notable advantage and convenience when working on overhead CNC router machines, where machine stoppages can result costly: infact the changing of a used or damaged knife does not require the dismounting of the cutterhead from the machine, since it is sufficient to loosen the screw that holds it in place. Instead a brazed cutter must be completely changed and a substitute available to avoid time wastage.

■ Freud has an entire range of tools with performance, standard or personalized knives for manual or overhead CNC router machines (Fig. 14).

■ The performance system results advantageous, even when confronted to traditional cutterheads, thanks to the easiness of sharpening, low operational cost and the need of no particular machinery (the use of a flat grinding wheel or surface grinding machine is sufficient - see Fig. 15) or specialized personnel.

■ Even after sharpening, performance knives maintain their original profile (Fig.16) and the tool's cutting diameter, considering maximum loses of $0,15 \pm 0,20$ mm.

■ Suggestions for correct sharpening on surface grinding machine or flat grinding machine:
1) Fix support TA01M or TA02M (Fig. 16) onto the surface grinding machine or flat grinding machine.

2) Fix the knives with the screws that are supplied.

3) Proceed with the sharpening of the entire set of knives.

Use of abundant cooling liquid during sharpening is recommended. Use diamond grinding wheels (Fig. 17) with the following characteristics: D6A2-C100-D54.

■ On request, sharpening can be carried out at our premisses by simply sending us the complete set of knives and indicating on the order the code OPTAFF AA9.

SISTEMA PER IL RECUPERO AUTOMATICO DEL DIAMETRO DI TAGLIO AUTOMATIC DIAMETER RECOVERY SYSTEM

**BREVETTO
REGISTRATO**

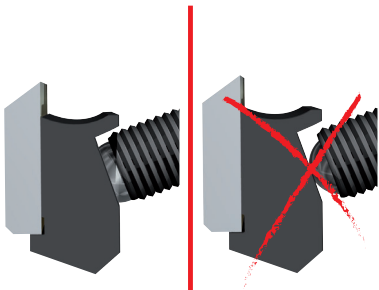
ISO  **profil**®

**REGISTERED
PATENT**



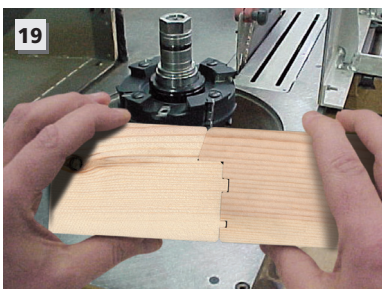
■ Viti con inserto sferico per sistema Isoprofil.

■ Screws with spherical insert, for Isoprofil System



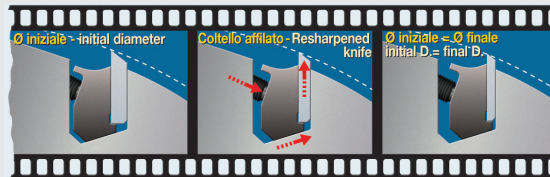
■ Il bloccaggio corretto si ha con la superficie piana dell'inserto sferico completamente aderente al cuneo.

■ Proper locking is obtained when the flat surface of the spherical insert completely adheres to the wedge.



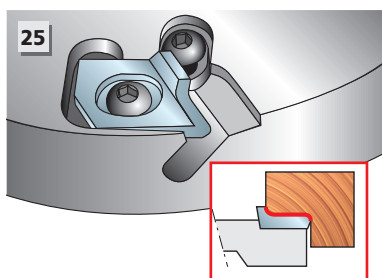
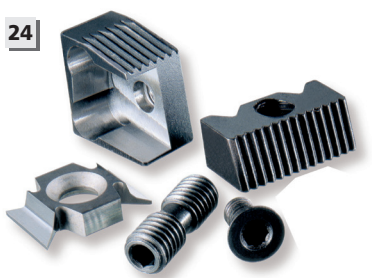
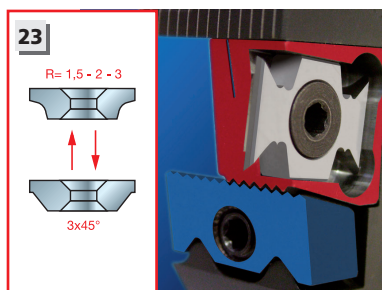
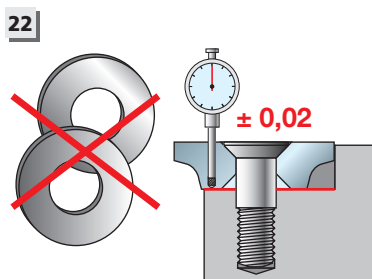
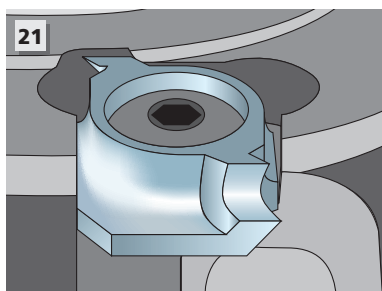
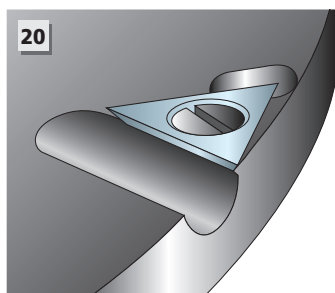
■ Isoprofil è un'innovazione straordinaria nata nel reparto "ricerca e sviluppo" della Freud: un'invenzione geniale, per risolvere i problemi dati da utensili che montano coltelli profilati già riaffilati. Com'è noto, infatti, l'affilatura dei coltelli Performance comporta delle variazioni sul diametro di taglio dell'utensile causando un'esecuzione errata del profilo: l'asportazione del materiale dal petto del coltello ne provoca la diminuzione dello spessore, dell'altezza e quindi del diametro di taglio dell'utensile. L'introduzione del Sistema Isoprofil permette di evitare in modo definitivo la riduzione del diametro, con estrema semplicità e senza l'ausilio di strumenti di misura per la verifica del corretto posizionamento dei coltelli dopo l'affilatura. L'idea si basa fondamentalmente sulle forme geometriche del cuneo e della sua sede ricavata sull'utensile (Fig. 18): avvitando il grano di serraggio si spinge il cuneo fino a bloccare il coltello sull'utensile. Il cuneo, scorrendo sul piano inclinato, solleva il coltello fino a compensare la diminuzione sul diametro di taglio determinata dall'affilatura. Ne trarranno particolare vantaggio gli utilizzatori di macchine a controllo numerico, che hanno l'esigenza di mantenere costante il diametro degli utensili senza dover intervenire sulla riprogrammazione della macchina operatrice per compensare gli errori dimensionali derivati dall'affilatura. Inoltre, per mantenere inalterato il profilo dei coltelli Performance anche dopo le affilature, Freud ha ideato e adottato un semplice ma determinante accorgimento, "spogliando" anche il lato di appoggio del coltello sulla vite di riscontro: in questo modo, anche quando lo spessore del coltello diminuisce per effetto delle affilature, il profilo non varia, come avverrebbe invece in un coltello tradizionale. L'utilizzatore trae sicuramente un vantaggio dal nuovo sistema: in lavorazioni come quella rappresentata in Fig. 19, dove si utilizzano i coltelli riaffilabili per il profilo e per il controprofilo, è evidente che il mantenimento della sagoma originale permette di ottenere un perfetto accoppiamento per tutta la durata dei coltelli, anche dopo 8 o 10 affilature, senza necessità di regolazioni delle guide o degli assi controllati. È possibile pertanto sfruttare gli indubbi vantaggi economici di gestione dei coltelli "Performance", senza alcuno svantaggio rispetto ai coltelli profilati "a gettare".

18



■ Isoprofil is an extraordinary innovation born in the company's very own research and development department. An ingenious invention, to solve problems related to tools that mount profiled knives that have already been resharpened. It is well known, sharpening Performance knives implicates variations in the tool's cutting diameter that cause the tool to definitively eliminate an incorrect profile. The removal of material from the knife's surface reduces its thickness, its height and therefore the diameter of the tool itself. The introduction of this Isoprofil system consents us to avoid in a definitive way the reduction of the diameter, with extreme operative simplicity and without the need of auxiliary measuring instruments to verify the correct functionality of the knife after sharpening. The idea is fundamentally based on the geometrical form of the wedge and its positioning seats on the tool (Fig. 18). Tightening the locking screw, pushes the wedge until it locks the knife on to the tool. The wedge running on the inclined surface blocks the knife and rises until it compensates the reduction in the cutting diameter, determined by the sharpening. Those liable to draw particular advantage, are those who use numerically controlled machines with the necessity of maintaining a tool with a constant diameter, without having to intervene on the reprogramming of the operating machine, so as to compensate dimensional errors that may derive from sharpening. Furthermore, in order to maintain the profile of Performance knives even after several resharpenings, Freud has invented and adopted a simple but determined device, by also creating a relief angle on the support side of the knife on the positioning screw. In this way whilst sharpening is carried out, the profile does not vary, as would happen with a traditional knife. The user is surely to gain an advantage from the new system. Carrying out work such as that illustrated in the picture 19, where there are resharpenable knives to create the profile and the scribe, it is evident that the maintenance of original shape allows to obtain a perfect fitting all through the knives' life, even after 8-10 sharpenings, without regulation of guides or cnc axes. In this way you can enjoy the reduced operating costs of "Performance" knives, without any limitation in comparison to disposable knives.

CARATTERISTICHE TECNOLOGICHE TECHNOLOGICAL FEATURES



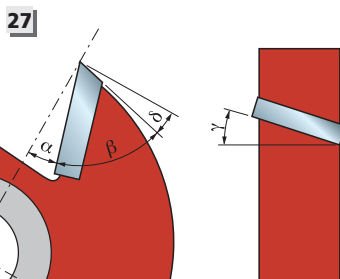
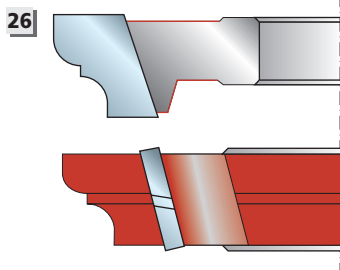
INSERTI E RASANTI

- Il rasante triangolare (Fig. 20), costruito in HW integrale per conferire 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. 20).
- Gli inserti smussatori e raggiatori 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 (Fig. 21) 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. 22).
- Il sistema di regolazione brevettato, denominato Sistema NSR, è l'unico che consente 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. 23). La Fig. 24 mostra le componenti del sistema NSR.
- Gli angoli dell'inserto consentono la massima finitura su qualsiasi materiale lavorato. Sulla stessa sede si possono montare inserti raggiatori ($R= 1,5 - 2 - 3$ mm) e smussatori (max smusso possibile: $3 \text{ mm} \times 45^\circ$).
- L'inserto rasante-raggiatore combina le funzioni dell'inserto raggiatore e del rasante. Infatti, in un'unica passata esegue la raggiatura interna, la raggiatura 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 raggiatori di diverse misure, in modo tale da produrre battute di varie profondità (Fig. 25) con la stessa testa portacoltelli.

INSERTS AND SPURS

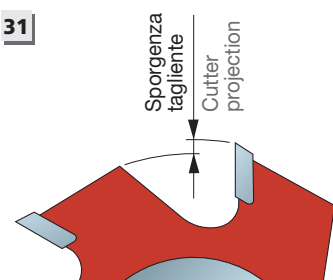
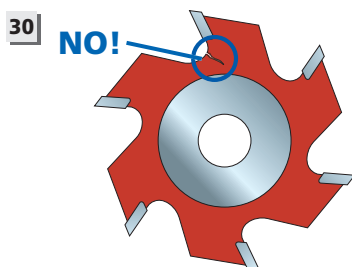
- The triangular spur (Fig. 20) is a component produced in HW to give the cutting edge a long life, used on cutterheads and on Performance tools to give a better finish on rebates. The width of the cutting surface (22 mm) and the position of the spur (positive hook angle) guarantees a perfect finish 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.20).
- The rounding and beveling inserts are used to remove sharp angles from the work piece. These inserts give a better quality finish allowing various wood coatings to deposit more uniformly.
- Inserts with a shear angle (Fig. 21) 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. 22).
- The new and patented 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. 23). Fig. 24 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 ($R= 1,5 - 2 - 3$ mm) or beveling inserts ($3 \text{ mm} \times 45^\circ$).
- 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. 25).

CARATTERISTICHE TECNOLOGICHE TECHNOLOGICAL FEATURES



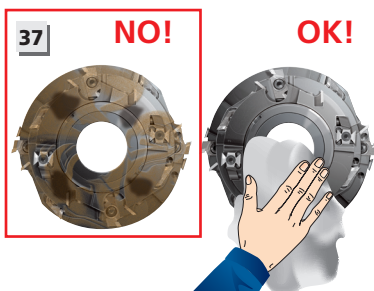
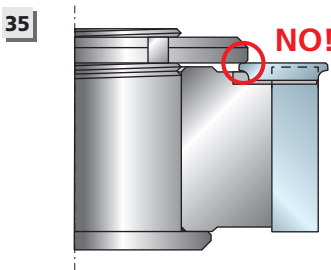
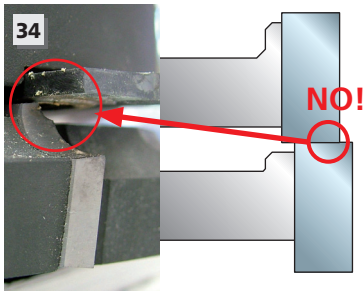
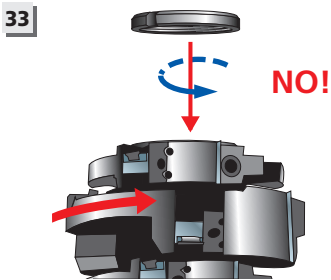
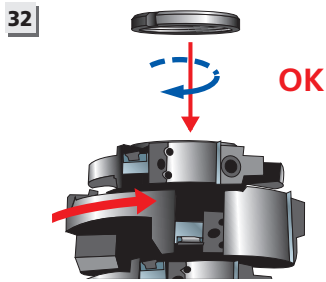
- Per Fresa si intende un utensile rotativo composto da più taglienti, disposti geometricamente sulla sua circonferenza e costituiti da placchette in HW o HSS fissati in modo definitivo (saldobrasati) sul suo corpo (Fig. 26).
- Gli angoli caratteristici delle frese saldobrasate (Fig. 27) sono gli stessi delle teste portacoltelli e svolgono le medesime funzioni (vedi pag. 97).
- I taglienti in HW sono saldati al corpo della fresa con una lega trimetallica composta da Ag-Cu-Ag, che assicura una resistente saldatura e consente alla placchetta di assorbire eventuali urti dovuti ai contraccolpi sul legno, garantendo una maggior durata dei taglienti e quindi della fresa stessa (Figg. 28 e 29). Questa lega funziona anche da "cuscinetto termico" per le diverse dilatazioni dell'acciaio e dell'HW durante l'esercizio.
- Per quanto riguarda la rotazione e l'avanzamento, la lavorazione in concordanza e in discordanza si veda a pag. 98.
- La Freud realizza anche utensili personalizzati in base alle esigenze del Cliente.
- A Cutter is a rotating tool consisting of various cutting edges, geometrically fitted on its circumference (Fig. 26). The cutting edges are HW or HSS inserts, fixed to the tool's body in a definitive way (brazed).
- Brazed cutterhead angles (Fig. 27) are similar to those described on the technical pages relative to the cutterheads and have much the same function (see page 97).
- The teeth in hard metal are brazed on to the cutters body with a special tri-metal alloy of copper-silver-copper, insuring a resistant soldering, permitting the teeth to absorb eventual blows due to kick-back and guaranteeing a longer duration of both the teeth and the cutter itself (Fig. 28 - 29).
- With regards to rotation and feed rate, for working in concordance or discordance, see page 98.
- Other than standard products, Freud offers personalized tools based on the Client's needs.

PROCEDURE DI LAVORO SICURE SAFE WORKING PRACTICE



- Per le frese saldobrasate si rimanda alle norme già descritte per le teste portacoltelli (pag. 97) Inoltre:
- Gli utensili con fessurazioni visibili non devono essere utilizzati (Fig. 30).
 - La manutenzione, riparazione e modifica delle frese e relativi componenti devono avvenire in accordo con i requisiti del progetto e/o delle istruzioni del produttore. Inoltre, devono essere sempre realizzate da una persona con esperienza e che abbia le conoscenze necessarie riguardo al livello di sicurezza che deve essere raggiunto.
 - Affilando le frese, rispettare sempre la sporgenza minima dei taglienti prevista (Fig. 31).
 - Nella rimozione a caldo di parti usurate e nella saldatura di nuovi taglienti ci si deve accertare che questi siano correttamente montati, al fine di evitare che il processo crei tensioni critiche nel corpo dell'utensile.
 - Modificando una fresa, per esempio il diametro del foro o riportando nuovi taglienti, ci si deve assicurare che i requisiti della norma relativi al bilanciamento dinamico siano ancora rispettati.
- For the use of brazed cutters, return to the norms already described in the section relative to cutterheads (page 97). Furthermore:
- Tools with visible cracks must on no account be used (Fig. 30).
 - The maintenance, repairing and modification of brazed cutters must be carried out in accordance with the manufacturers specific instructions. Furthermore they must always be carried out by competent and qualified personnel with the right understanding of the kind of safety levels to be reached.
 - When sharpening brazed cutters, always respect the minimum projection foreseen for the cutting edges (Fig. 31).
 - For the removal of used parts or the soldering of new cutting edges, insure that these are correctly mounted so as to avoid creating critical tension points on the tool's body.
 - Modifying a brazed cutter, e.g. the diameter of the bore, or applying cutting edges, insure that the requirements applied by the norm relative to dynamic balancing are still respected.

PROCEDURE DI LAVORO SICURE SAFE WORKING PRACTICE



- Gli utensili devono essere maneggiati e utilizzati da persone addestrate ed esperte, in possesso delle conoscenze necessarie.
 - Non si deve superare la massima velocità permessa, marcata sull'utensile. Quando definita, la gamma di velocità deve essere rispettata.
 - Utensili e parti di utensili devono essere bloccati in modo che non si allentino durante l'uso (Figg. 32 e 33).
 - 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. 34) o con elementi di bloccaggio (Fig. 35).
 - Viti e dadi di bloccaggio devono essere serrati usando utensili appropriati e alla coppia di serraggio prevista dal costruttore.
 - Prolunghe per attrezzi o serraggio con colpi di martello non sono permessi (Fig. 36).
 - Non utilizzare bussole di riduzione del foro diverse da quelle previste dal costruttore.
 - Le superfici di bloccaggio devono essere esenti da sporco, grasso, olio o acqua (Fig. 37). 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.
 - 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.
- La riparazione degli utensili è consentita solo in accordo con le istruzioni del fabbricante. Occorre prestare particolare attenzione ai seguenti punti:
La riparazione dovrà includere l'uso di parti di ricambio in accordo con le specifiche delle parti originali fornite dal costruttore.
- Mantenere le tolleranze che assicurano un bloccaggio corretto.
 - Dopo qualsiasi processo di manutenzione, un utensile marcato "MAN" deve continuare a rispettare i requisiti della norma relativi agli utensili per avanzamento manuale.
 - 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.).
- Tools must be used and handled by experienced and trained personnel, in possession of the necessary understanding.
 - The maximum speed marked on the tool shall not be exceeded. Where stated, the speed range must be respected.
 - Tools and tool bodies must be locked correctly, so they do not loosen during operation (Fig. 32 - 33).
 - When mounting tools, insure that locking reacts against the body and the cutting edges are not in contact with each other (Fig. 34) or with any other locking elements (Fig. 35).
 - Screws and nuts shall be tightened using the appropriate spanners etc. and to the torque value provided by the manufacturer.
 - Spanner extensions or tightening using hammer blows is strictly forbidden (Fig. 36).
 - Do not use reduction rings with a bore different to those specified by the constructor.
 - Clamping surfaces must be free of dirt, grease, oil and water (Fig. 37). Resins must be removed from tools with light alloy bodies using cleaners that do not damage the aluminium and compromise the materials mechanical features. Accurately clean the tool after every knife change.
 - Tools compiling a set, must be repaired by experienced and fully trained personnel, with the knowledge of the design requirements and security levels to be reached.
 - Repairing tools is allowed only in accordance to the tool manufacturer's instructions. Particular attention is drawn to the following:
Repair shall therefore include e. g. use of parts which are in accordance with the specification of the original parts provided by the manufacturer.
Tolerances which ensure correct locking shall be maintained.
 - 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.
 - 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.

**TAVOLA PER IL CALCOLO DEL DIAMETRO MINIMO DI UNA FRESA
IN FUNZIONE DELLA PROFONDITÀ DEL PROFILO E DEL FORO**
**TECHNICAL TABLE TO OBTAIN THE MINIMUM DIAMETER OF A PROFILED
CUTTER ACCORDING TO THE DEPTH OF THE PROFILE AND THE BORE**

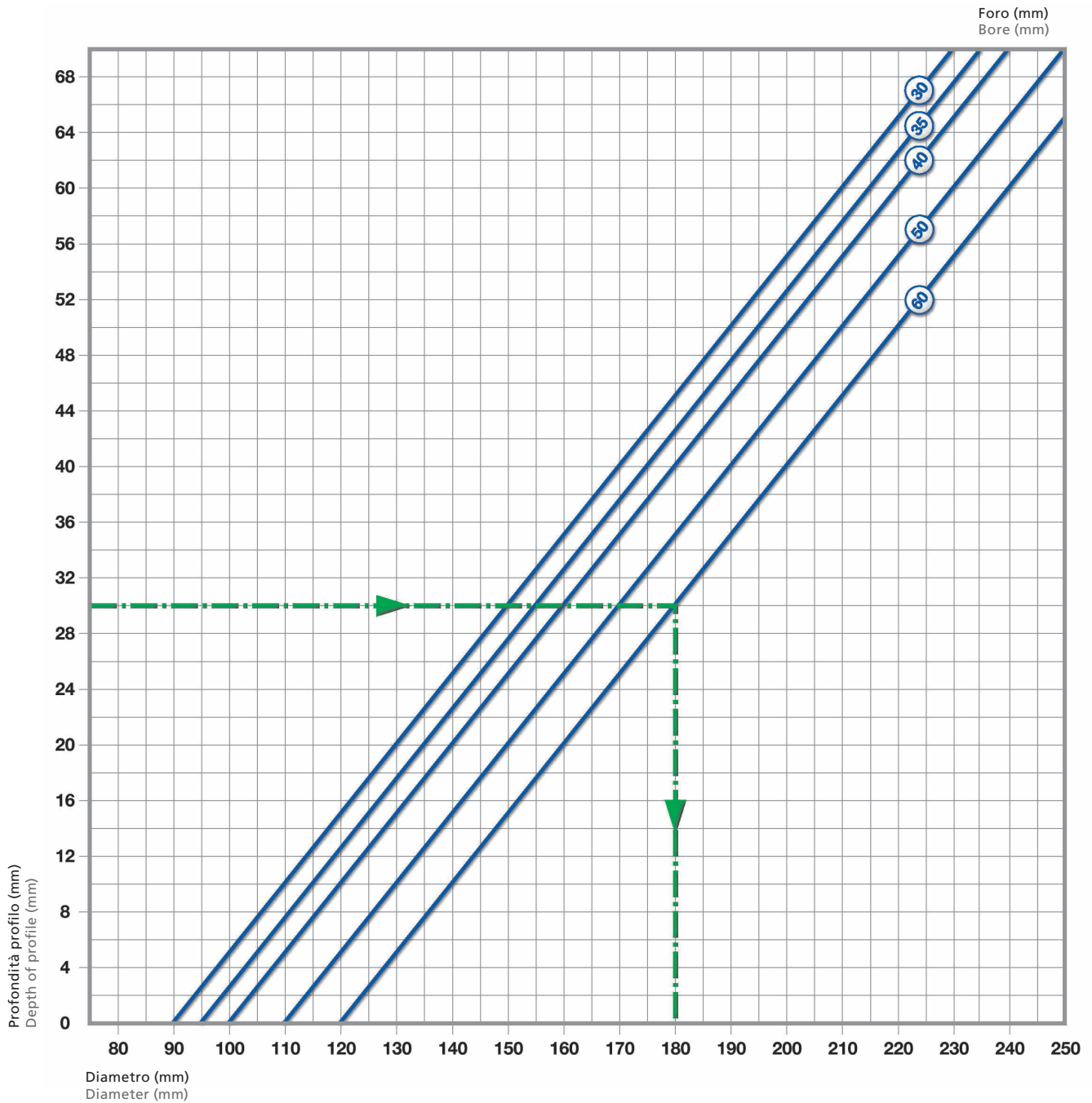
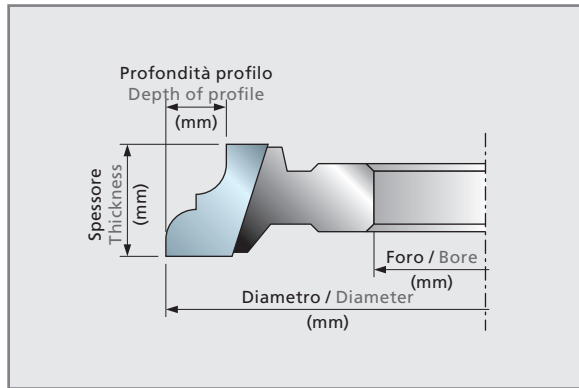


TAVOLA PER IL CALCOLO DELLA VELOCITÀ PERIFERICA, DEL DIAMETRO E DEL NUMERO DI GIRI DI UN UTENSILE

TECHNICAL DIAGRAM TO OBTAIN TIP SPEED, DIAMETER AND RPM OF A CUTTING TOOL

Valore della velocità periferica (V= m/s): Recommended tip speed (V= m/s):	Legno tenero Softwood	HSS 50-80 m/s	Legno duro Hardwood	HSS 40-60 m/s	Truciolare Chipboard	HW 60-80 m/s	Medium Density MDF	HW 30-50 m/s
		HW 60-90 m/s		HW 50-80 m/s				

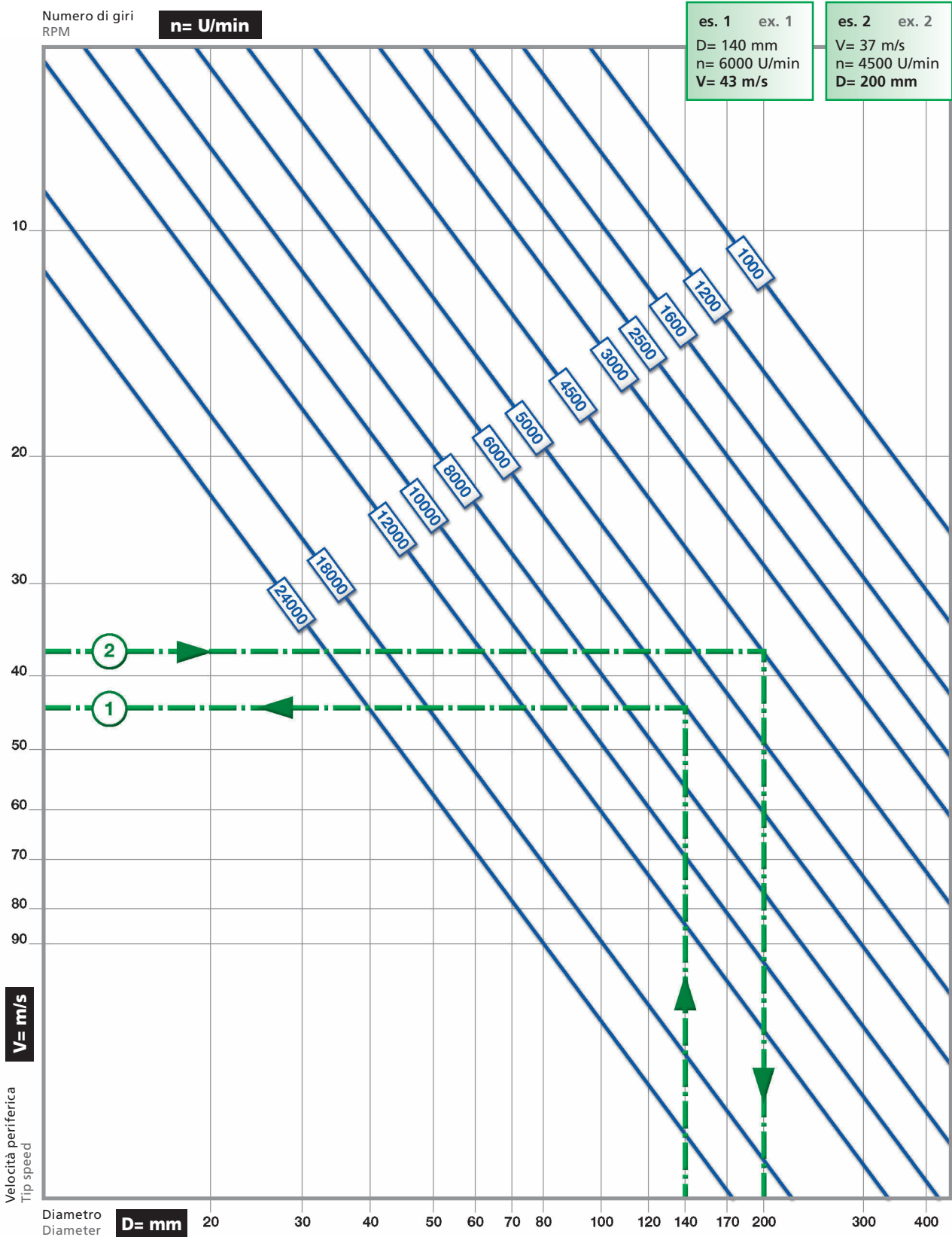
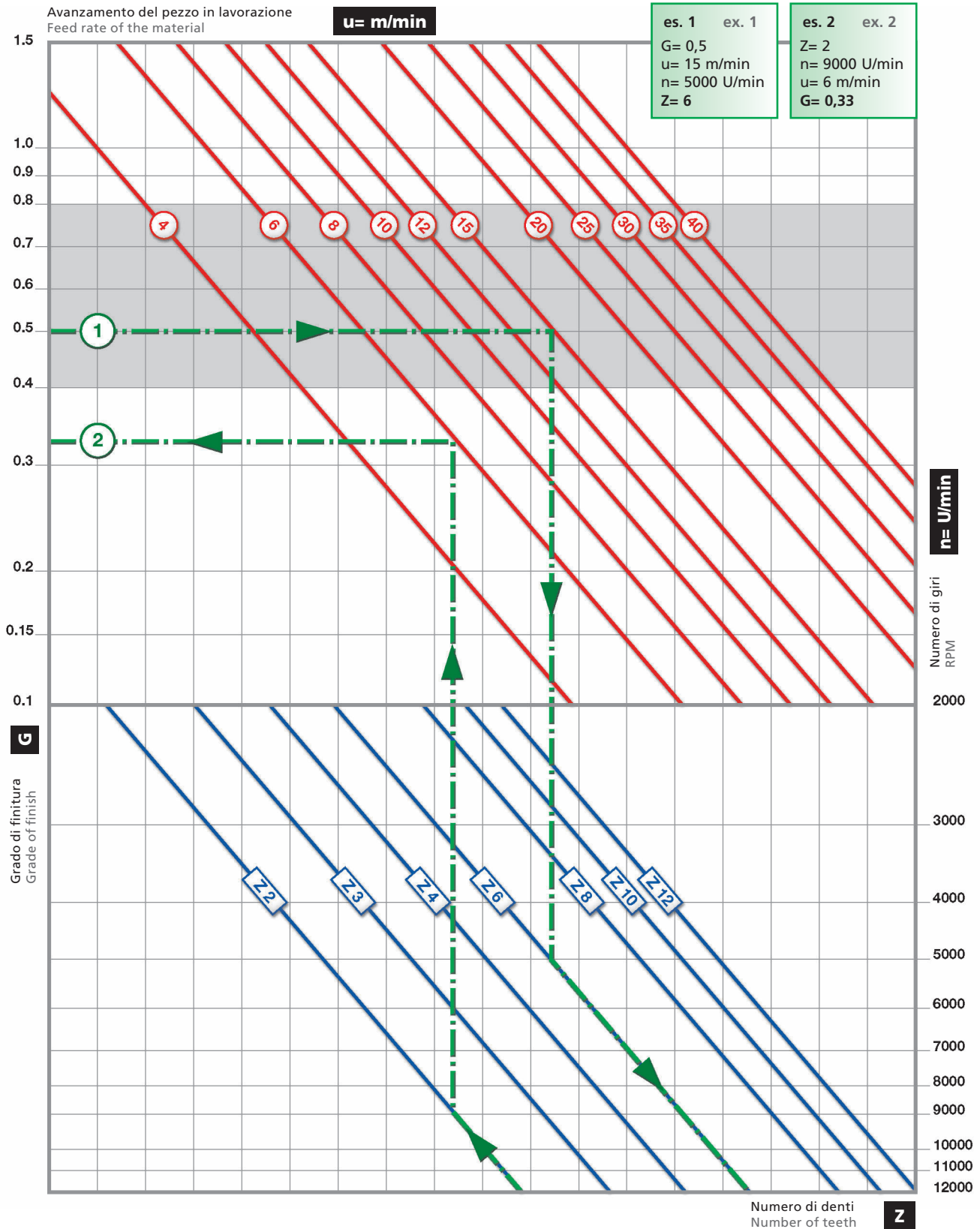


TAVOLA PER IL CALCOLO DEL NUMERO DI DENTI, DELLA VELOCITÀ DI ROTAZIONE, DELLA VELOCITÀ DI AVANZAMENTO E DEL GRADO DI FINITURA IDEALE DI UN UTENSILE

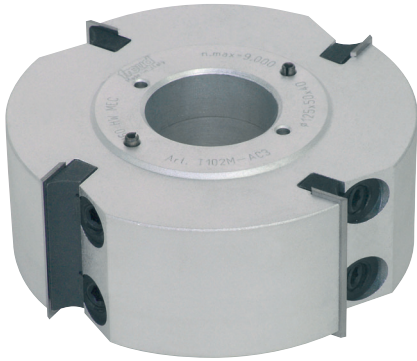
TECHNICAL DIAGRAM TO OBTAIN NUMBER OF TEETH, FEED RATE, RPM AND GRADE OF FINISH OF A CUTTING TOOL

Grado di finitura (G): Grade of finish (G):	Tracce di bruciatura Burning	Finitura su legno tenero Finish on softwood	Finitura su legno duro Finish on hardwood	Sgrossatura Rough finish
	0,10-0,40	0,40-0,60	0,60-0,80	0,80-1,50










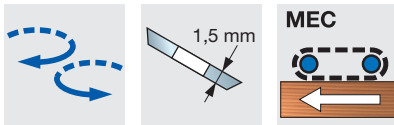
T102M

TESTE PORTACOLTELLI PER SPIANARE, PER SCORNICIATRICI MODULAR PLANER CUTTERHEADS WITH DISPOSABLE KNIVES



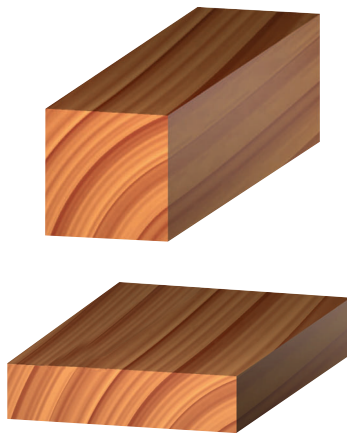
D	B	d*	Z	R	Codice
mm	mm	mm			Code
125	50	40	4		T102M AC3
125	50	50	4		T102M AD3
125	30	40 (50)	4		T102M AF3

Parti di ricambio	Dimensioni	Codice
Spare parts	Dimensions	Code
AC3 AD3 Coltello / Knife	 50 x 12 x 1,5	CG01M FA3
Cuneo / Wedge	 15 x 46 x 8	CN09M AP9
AF3 Coltello / Knife	 30 x 12 x 1,5	CG01M EA3
Cuneo / Wedge	 15 x 26 x 8	CN09M AD9
Vite / Screw	 M10 x 22	VT19M MA9
Ogiva / Nut	 15 x 13,3 x 10	VT20M MA9
Chiave / Allen key	 5 x 110	CB03M EA9



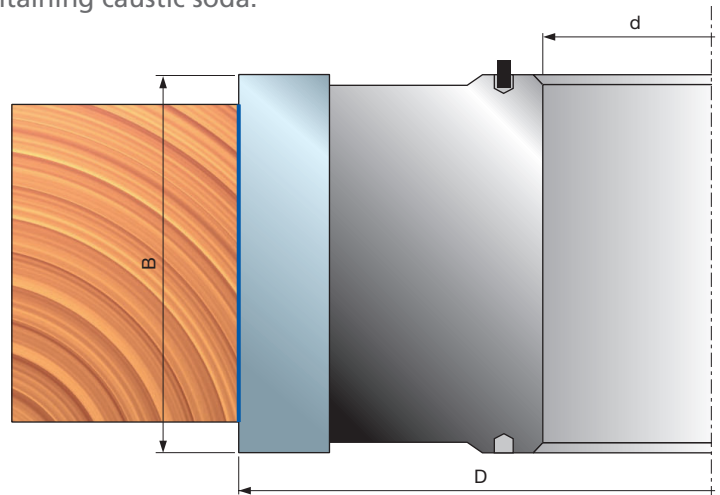
- Utilizzabile in accoppiamento con utensili T182M.
- Can be used in combination with item T182M to cut guiding rebates.

Articolo	Utilizzabile con:
Item	in conjunction with item:
T102M	T182M EA3
T102M	T182M EB3



- ESEMPI DI APPLICAZIONE
- APPLICATION EXAMPLES

- Corpo in lega leggera (Ergal). Per la pulizia non utilizzare prodotti contenenti soda caustica.
- Light alloy body (Ergal). For cleaning do not use products containing caustic soda.



- 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).
- 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).

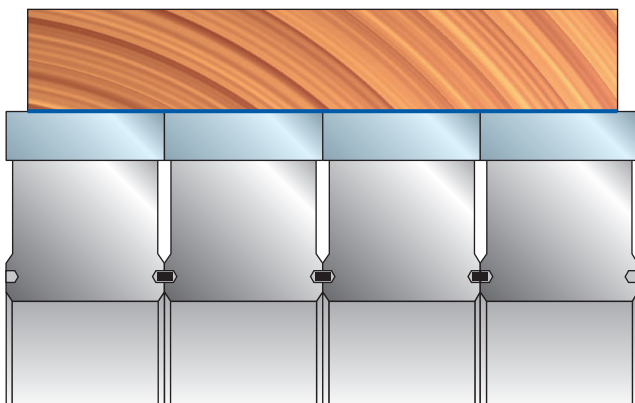


Fig. A

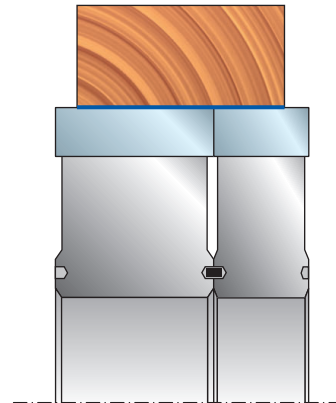
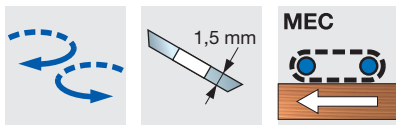


Fig. B

TM06M

TESTE PORTACOLTELLI PER SPIANARE - TAGLIANTI ELICOIDALI HELICAL PLANER CUTTERHEADS WITH DISPOSABLE KNIVES



- Utilizzabile in accoppiamento con utensili T182M.
- Can be used in combination with item T182M to cut guiding rebates.

Articolo Item	Utilizzabile con: in conjunction with item:
TM06M Ø125	T182M AB3
TM06M Ø125	T182M AA3
TM06M PC3 - TM06M PH3	T182M CB3
TM06M	T182M DB3

D	B ⁽¹⁾	d	Z	R	Codice Code
100	113	35	12		TM06M PC3
100	183	35	20		TM06M PH3
125	78,5	40	12		TM06M AB3
125	130	40	21		TM06M AD3
125	148,5	40	24		TM06M AF3
125	183,5	40	30		TM06M AH3
125	201	40	33		TM06M AI3
125	236	40	39		TM06M AM3

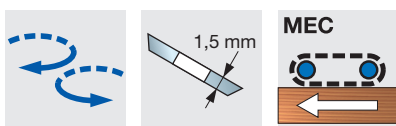
- (1) La misura "B" indica lo spessore utile di taglio; l'ingombro totale dell'utensile è B + 3,5 mm.
- (1) Dimension "B" indicates effective cutting length. The maximum tool length is B + 3,5 mm.

Parti di ricambio Spare parts	Dimensioni Dimensions	Codice Code
Coltello / Knife	24 x 12 x 1,5	CG18M BC3
Cuneo / Wedge	15 x 19,3 x 8	CN09M AM9
Vite / Screw	M10 x 22	VT19M MA9
Ogiva / Nut	15 x 13,3 x 10	VT20M MA9
Chiave / Allen key	5 x 110	CB03M EA9

- Corpo in lega leggera (Ergal). Per la pulizia non utilizzare prodotti contenenti soda caustica. Non è consentita l'allargatura del foro. Per grosse asportazioni di legno, con buona finitura, fino ad uno spessore massimo di 20 mm.
- Light alloy body (Ergal). For cleaning do not use products containing caustic soda. Rebore not available. Gives a good finish when cutting a maximum depth of 20 mm.

TM07M

TESTE PORTACOLTELLI PER SPIANARE - TAGLIANTI ELICOIDALI HELICAL PLANER CUTTERHEADS WITH DISPOSABLE KNIVES



Articolo Item	Utilizzabile con: in conjunction with item:
TM07M Ø125	T182M AB3
TM07M AF3	T182M BB3
TM07M	T182M AA3
TM07M	T182M DB3

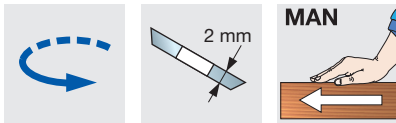
D	B	d	Z	R	Codice Code
125	130	40	9		TM07M GD3
125	138	40	9		TM07M GE3
125	180	40	12		TM07M GF3
125	226	40	15		TM07M GG3

Parti di ricambio Spare parts	Dimensioni Dimensions	Codice Code
Coltello / Knife	50 x 12 x 1,5	CG18M FC3
Cuneo / Wedge	15 x 46 x 8	CN09M AP9
Vite / Screw	M10 x 22	VT19M MA9
Ogiva / Nut	15 x 13,3 x 10	VT20M MA9
Chiave / Allen key	5 x 110	CB03M EA9

- Corpo in lega leggera (Ergal). Per la pulizia non utilizzare prodotti contenenti soda caustica. Non è consentita l'allargatura del foro. Per asportazioni normali di legno (5 - 6 mm), con buona finitura.
- Light alloy body (Ergal). For cleaning do not use products containing caustic soda. Rebore not available. Gives a good finish when cutting a maximum depth of 5 - 6 mm.
- Utilizzabile in accoppiamento con utensili T182M.
- Can be used in combination with item T182M to cut guiding rebates.

TM20M

PIALLETTO MULTITAGLIENTI PER CONTORNATURA CON CUSCINETTO MULTICUT PLANER CUTTERHEADS WITH BALL BEARING



- Le nuove teste TM20M per spianare offrono sia la qualità che il risparmio:
 - i multitaglianti 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 (Ergal) e l'utensile risulta più maneggevole e richiede meno potenza al motore della macchina. Per la pulizia non utilizzare prodotti contenenti soda caustica.

- The new 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 (Ergal) 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.

D	B	d	Z	R	Codice
mm	mm	mm			Code
55	59	30		10	TM20M ACC
62	59	35		10	TM20M BCD
68	59	40		10	TM20M CCE
80	59	50		10	TM20M DCF

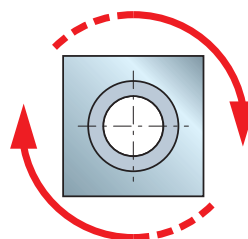
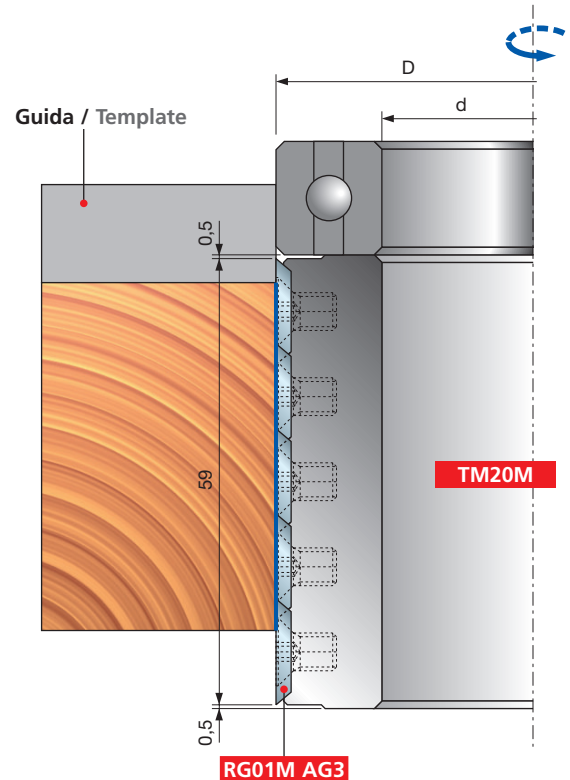
Parti di ricambio	Dimensioni	Codice
Spare parts	Dimensions	Code
Rasante smussato / Spur	14 x 14 x 2	RG01M AG3
Vite / Screw	M5 x 8	VT05M AA9
Chiave Torx / Torx key	T20	CB03M CC9

■ I CUSCINETTI 3101M VANNO ORDINATI A PARTE.

■ 3101M BEARINGS ARE NOT INCLUDED.

Cuscinetti per teste TM20M Bearings for cutterheads TM20M

Per testa	Dimensioni	Codice
For cutterhead	Dimensions	Code
TM20M ACC	55 x 13 x 30	3101M AC9
TM20M BCD	62 x 14 x 35	3101M AD9
TM20M CCE	68 x 15 x 40	3101M AE9
TM20M DCF	80 x 16 x 50	3101M AG9

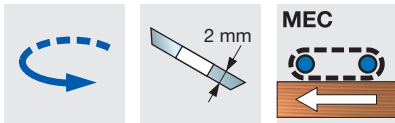


- I coltellini quadrati sono affilati su tutti e quattro i lati: questo significa che, per ben 4 volte, si ha un utensile affilato come appena uscito dalla fabbrica!

- The square knives are sharpened on all 4 edges, which means that you buy one item but infact receive four factory sharpened tools.

TM21M

TESTE MULTITAGLIENTI PER SPIANARE MULTICUT PLANER CUTTERHEADS



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

- i multitaglianti 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 (Ergal) e l'utensile risulta più maneggevole e richiede meno potenza al motore della macchina.

The new 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

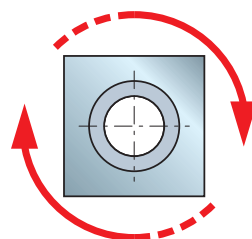
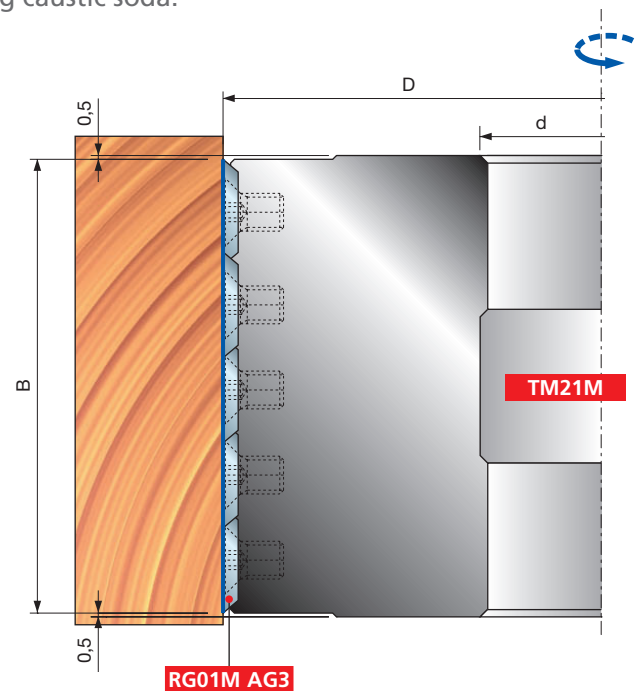
Freud planer cutterheads, moreover, are manufactured from light alloy (Ergal) which gives them the advantages of both being more manageable and of requiring less machine motor power.

D	B	d	Z	R	Codice
mm	mm	mm			Code
100	60	30		15	TM21M ECC
100	100	30		27	TM21M EEC
125	130	40		33	TM21M HGE
125	150	40		39	TM21M HHE
125	180	40		45	TM21M HIE

Parti di ricambio	Dimensioni	Codice
Spare parts	Dimensions	Code
Rasante smussato / Spur 	14 x 14 x 2	RG01M AG3
Vite / Screw 	M5 x 8	VT05M AA9
Chiave Torx / Torx key 	T20	CB03M CC9

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

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 (Ergal). For cleaning do not use products containing caustic soda.

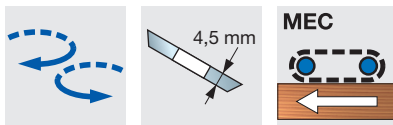
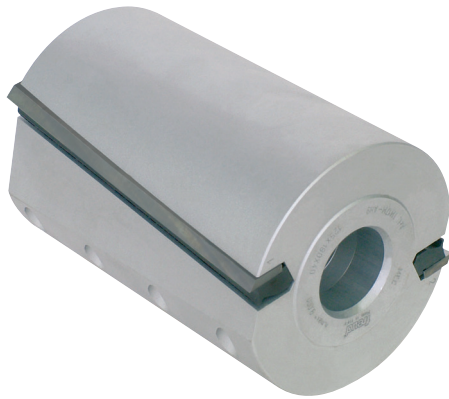


I coltellini quadrati sono affilati su tutti e quattro i lati: questo significa che, per ben 4 volte, si ha un utensile affilato come appena uscito dalla fabbrica!

The square knives are sharpened on all 4 edges, which means that you buy one item but infact receive four factory sharpened tools.

TM17M

TESTE PER SPIANARE ISOPROFIL ISOPROFIL PLANER CUTTERHEADS



ISOPROFIL®

**BREVETTO
REGISTRATO**

**REGISTERED
PATENT**

■ 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.

■ 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.

■ Utilizzabile in accoppiamento con utensili T182M.

■ Can be used in combination with item T182M to cut guiding rebates.

Articolo	Utilizzabile con:
Item	in conjunction with item:
TM17M	T182M EA3
TM17M	T182M EB3

Utensili con coltelli in HW Tools supplied with HW knives

D	B	d	Z	R	Codice
mm	mm	mm			Code
125	80	40	2		TM17M AA3
125	130	40	2		TM17M AD3
125	150	40	2		TM17M AF3
125	180	40	2		TM17M AH3
125	240	40	2		TM17M AM3

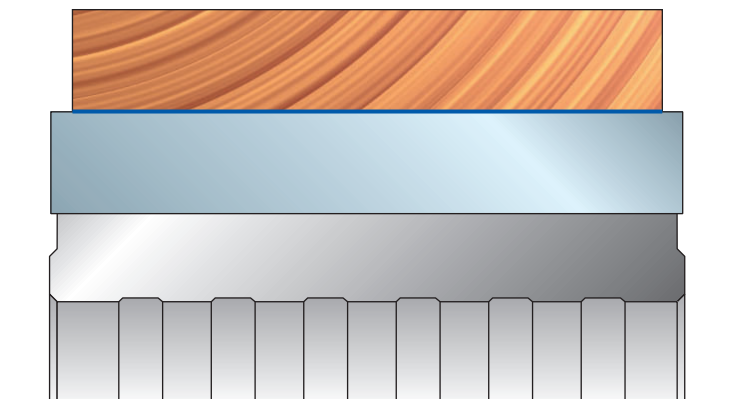
Utensili con coltelli in HSS Tools supplied with HSS knives

D	B	d	Z	R	Codice
mm	mm	mm			Code
125	80	40	2		TM17M AA2
125	130	40	2		TM17M AD2
125	150	40	2		TM17M AF2
125	180	40	2		TM17M AH2
125	240	40	2		TM17M AM2

■ Corpo in lega leggera (Ergal). Per la pulizia non utilizzare prodotti contenenti soda caustica.

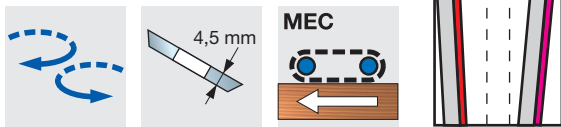
■ Light alloy body (Ergal). For cleaning do not use products containing caustic soda.

	Parti di ricambio	Dimensioni	Codice
	Spare parts	Dimensions	Code
AA2-AA3	Cuneo / Wedge	82 x 19,5 x 10	CN14M AA9
	Coltello in HW / HW knife	82 x 19 x 4,5	CP10M AA3
	Coltello in HSS / HSS knife	82 x 19 x 4,5	CP10M AA2
	Vite / Screw	M10 x 16	2616M EE9
AD2-AD3	Cuneo / Wedge	132 x 19,5 x 10	CN14M AD9
	Coltello in HW / HW knife	132 x 19 x 4,5	CP10M AD3
	Coltello in HSS / HSS knife	132 x 19 x 4,5	CP10M AD2
	Vite / Screw	M10 x 16	2616M EE9
AF2-AF3	Cuneo / Wedge	152 x 19,5 x 10	CN14M AF9
	Coltello in HW / HW knife	152 x 19 x 4,5	CP10M AF3
	Coltello in HSS / HSS knife	152 x 19 x 4,5	CP10M AF2
	Vite / Screw	M10 x 16	2616M EE9
AH2-AH3	Cuneo / Wedge	182 x 19,5 x 10	CN14M AH9
	Coltello in HW / HW knife	182 x 19 x 4,5	CP10M AH3
	Coltello in HSS / HSS knife	182 x 19 x 4,5	CP10M AH2
	Vite / Screw	M10 x 16	2616M EE9
AM2-AM3	Cuneo / Wedge	242 x 19,5 x 10	CN14M AM9
	Coltello in HW / HW knife	242 x 19 x 4,5	CP10M AM3
	Coltello in HSS / HSS knife	242 x 19 x 4,5	CP10M AM2
	Vite / Screw	M10 x 16	2616M EE9



TM28M

TESTE PER SPIANARE ISOPROFIL CON ANGOLO ASSIALE ALTERNO ISOPROFIL PLANER CUTTERHEADS WITH ALTERNATING SHEAR ANGLE



ISoprofil®

**BREVETTO
REGISTRATO**

**REGISTERED
PATENT**

■ 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.

■ 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.

■ Utilizzabile in accoppiamento con utensili T182M.

■ Can be used in combination with item T182M to cut guiding rebates.

Articolo Item	Utilizzabile con: in conjunction with item:
TM28M	T182M EA3
TM28M	T182M EB3

Utensili con coltelli in HW Tools supplied with HW knives

D	B	d	Z	R	Codice Code
125	80	40	4		TM28M AA3
125	130	40	4		TM28M AD3
125	150	40	4		TM28M AF3
125	180	40	4		TM28M AH3
125	240	40	4		TM28M AM3

Utensili con coltelli in HSS Tools supplied with HSS knives

D	B	d	Z	R	Codice Code
125	80	40	4		TM28M AA2
125	130	40	4		TM28M AD2
125	150	40	4		TM28M AF2
125	180	40	4		TM28M AH2
125	240	40	4		TM28M AM2

■ Corpo in lega leggera (Ergal). Per la pulizia non utilizzare prodotti contenenti soda caustica.

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

	Parti di ricambio Spare parts	Dimensioni Dimensions	Codice Code
AA3 - AA2	Cuneo DX / Wedge	82 x 19,5 x 10	CN28MD AA9
	Cuneo SX / Wedge	82 x 19,5 x 10	CN28MS AA9
	Coltello DX in HSS / HSS Knife	82 x 19 x 4,5	CP28MD AA2
	Coltello SX in HSS / HSS Knife	82 x 19 x 4,5	CP28MS AA2
	Coltello DX in HW / HW Knife	82 x 19 x 4,5	CP28MD AA3
AD3 - AD2	Cuneo DX / Wedge	132 x 19,5 x 10	CN28MD AD9
	Cuneo SX / Wedge	132 x 19,5 x 10	CN28MS AD9
	Coltello DX in HSS / HSS Knife	132 x 4,5 x 19	CP28MD AD2
	Coltello SX in HSS / HSS Knife	132 x 4,5 x 19	CP28MS AD2
	Coltello DX in HW / HW Knife	132 x 4,5 x 19	CP28MD AD3
AF3 - AF2	Cuneo DX / Wedge	152 x 19,5 x 10	CN28MD AF9
	Cuneo SX / Wedge	152 x 19,5 x 10	CN28MS AF9
	Coltello DX in HSS / HSS Knife	152 x 4,5 x 19	CP28MD AF2
	Coltello SX in HSS / HSS Knife	152 x 4,5 x 19	CP28MS AF2
	Coltello DX in HW / HW Knife	152 x 4,5 x 19	CP28MD AF3
AH3 - AH2	Cuneo DX / Wedge	182 x 19,5 x 10	CN28MD AH9
	Cuneo SX / Wedge	182 x 19,5 x 10	CN28MS AH9
	Coltello DX in HSS / HSS Knife	182 x 4,5 x 19	CP28MD AH2
	Coltello SX in HSS / HSS Knife	182 x 4,5 x 19	CP28MS AH2
	Coltello DX in HW / HW Knife	182 x 4,5 x 19	CP28MD AH3
AM3 - AM2	Cuneo DX / Wedge	242 x 19,5 x 10	CN28MD AM9
	Cuneo SX / Wedge	242 x 19,5 x 10	CN28MS AM9
	Coltello DX in HSS / HSS Knife	242 x 4,5 x 19	CP28MD AM2
	Coltello SX in HSS / HSS Knife	242 x 4,5 x 19	CP28MS AM2
	Coltello DX in HW / HW Knife	242 x 4,5 x 19	CP28MD AM3
	Coltello SX in HW / HW Knife	242 x 4,5 x 19	CP28MS AM3
	Piastrina di riscontro / Positioning plate	22 x 1,7 x 19	VT18M GB9
	Vite / Screw	M5 x 8	VT05M AA9
	Chiave / Allen key	5 x 110	CB03M EA9
	Vite / Screw	M10 x 16	2616M EE9

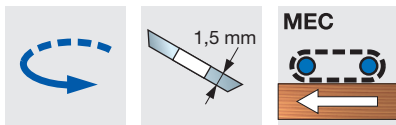
T183M

TESTA PORTACOLTELLI PER SCANALATURE DI GUIDA LATERALE GROOVE BEAD CUTTERHEAD WITH DISPOSABLE KNIVES

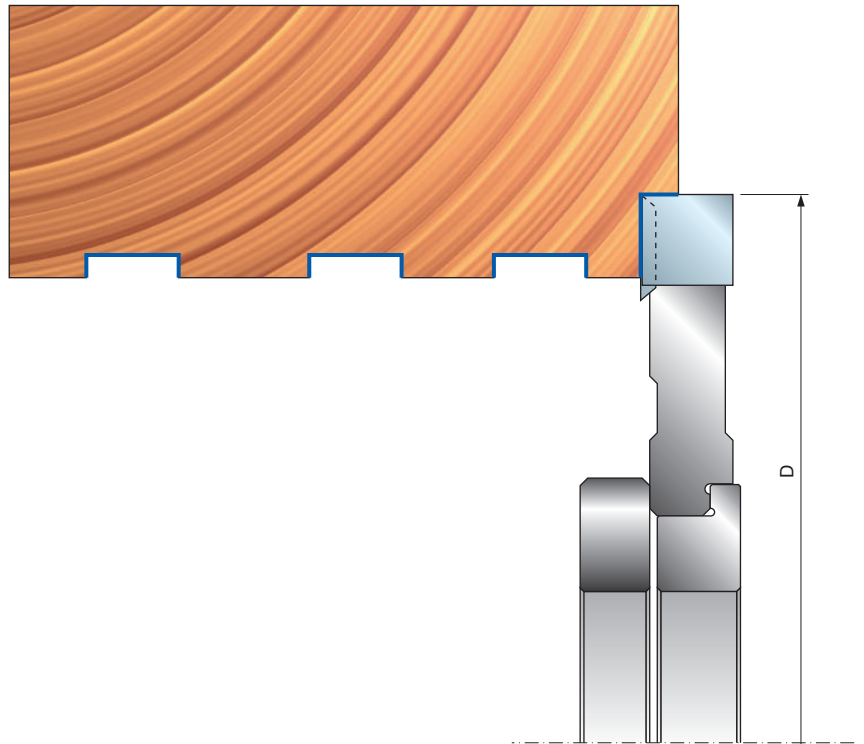


D	B	d	Z	R	Codice
mm	mm	mm			Code
145	12	40	4	2	T183M AA3

- **Art. T183M:** Per l'esecuzione di scanalature di guida su corniciatrice S.C.M.
- **Item T183M:** For cutting guide grooves in solid wood for S.C.M. moulding machines.

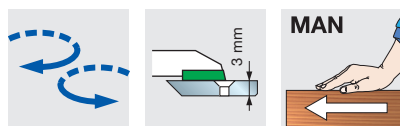


Parti di ricambio		Dimensioni	Codice
Spare parts		Dimensions	Code
Coltello / Knife		12 x 12 x 1,5	CG01M BA3
Cuneo / Wedge		15 x 10 x 8	CN09MS AA9
Vite / Screw		M6 x 22	VT19M AB9
Ogiva / Nut		10 x 11,5 x 6	VT20M AA9
Rasante / Spur		14 x 14 x 2	RG01M AA3
Vite / Screw		M5 x 8	VT05M AA9
Chiave / Allen key		3 x 110	CB03M AA9



TW23M Z = 2

TW20M Z = 4



PERFORMANCE

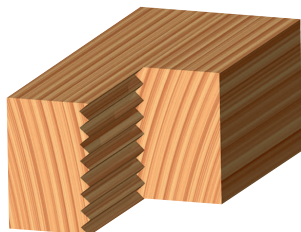
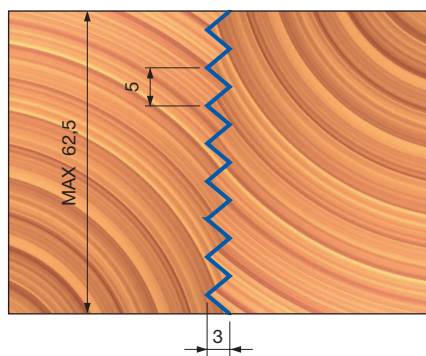
Coltelli Riaffilabili

SYSTEM

Resharpenable Knives

Utensili collaudati secondo la Normativa
Tools tested according to the Norm

• EN 847-1 •









■ 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.

■ 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.

TESTE PORTACOLTELLI PER GIUNZIONI

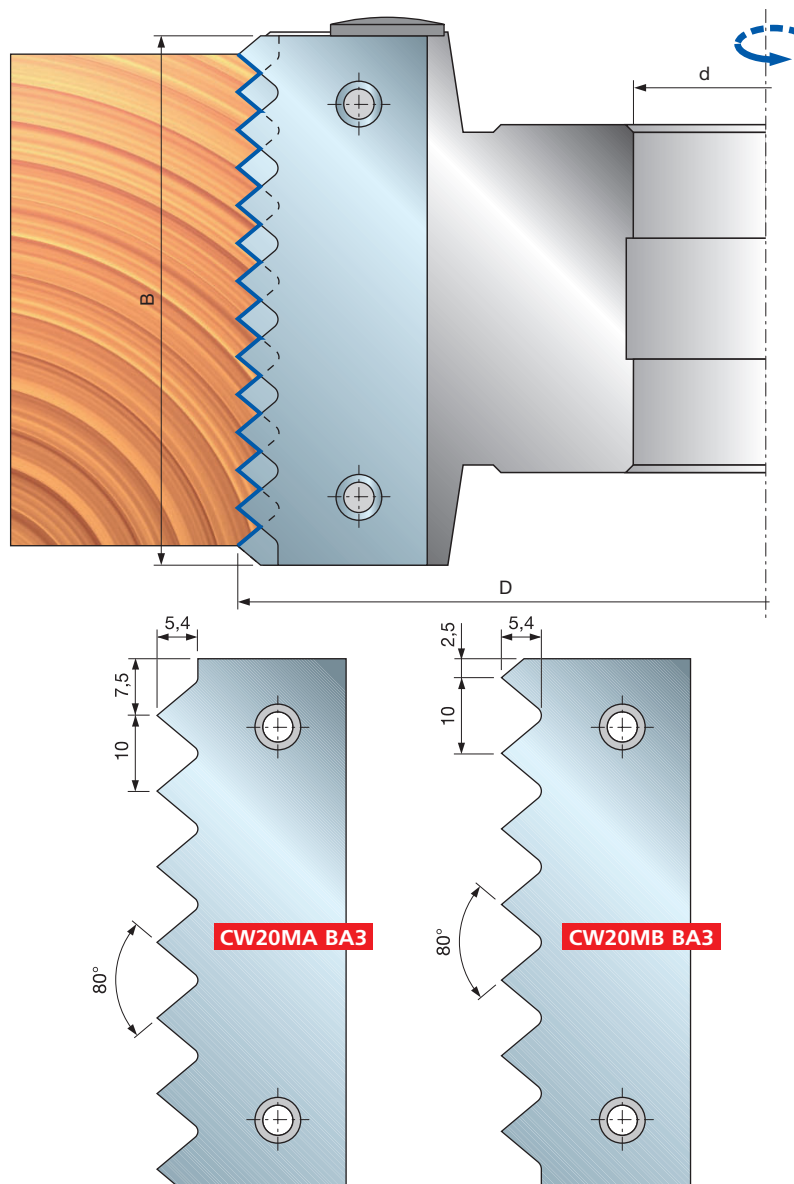
FINGER JOINT CUTTERHEADS

D	B	d*	Z	R	Codice
mm	mm	mm			Code
140	70	35 (50)	2		TW23M BF3
140	70	35 (50)	4		TW20M BF3

Parti di ricambio	Dimensioni	Codice
Spare parts	Dimensions	Code
Coltello / Knife 	70 x 25 x 3	CW20MA BA3
Coltello / Knife 	70 x 25 x 3	CW20MB BA3
Cuneo / Wedge 	66 x 19 x 8	CN13M AF9
Vite / Screw 	M10 x 18	VT03M CC9
Vite / Screw 	M5 x 7 x 16	VT08M AE9
Chiave / Allen key 	5 x 110	CB03M EA9

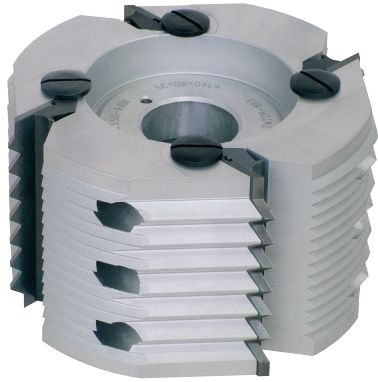
■ **UTENSILI PER LA LAVORAZIONE LUNGO VENA DI PEZZI CORTI.** Attenzione: sulle teste sono montati due tipi di coltelli diversi: **CW20MA** e **CW20MB**. Corpo in lega leggera (Ergal). Per la pulizia non utilizzare prodotti contenenti soda caustica.

■ **TOOLS FOR WORKING LONG GRAIN ON SHORT WORKPIECES.** Please note: two different types of knives are fitted on the cutterheads: **CW20MA** and **CW20MB**. Light alloy body (Ergal). For cleaning do not use products containing caustic soda.









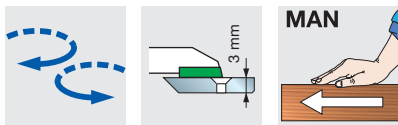
TW22M

TESTA PORTACOLTELLI PER GIUNZIONI FINGER JOINT CUTTERHEAD



D	B	d*	Z	R	Codice
mm	mm	mm			Code
140	80	35 (50)	4		TW22M BB3

Parti di ricambio	Dimensioni	Codice
Spare parts	Dimensions	Code
Coltello / Knife	 80 x 29 x 3	CW22MA AA3
Coltello / Knife	 80 x 29 x 3	CW22MB AA3
Cuneo / Wedge	 76 x 24 x 8	CN13M AG9
Vite / Screw	 M10 x 18	VT03M CC9
Vite / Screw	 M5 x 7 x 16	VT08M AE9
Chiave / Allen key	 5 x 110	CB03M EA9



PERFORMANCE
Coltelli Riaffilabili
SYSTEM
Resharpenable Knives

Utensili collaudati secondo la Normativa
Tools tested according to the Norm

• EN 847-1 •

■ **UTENSILI PER LA LAVORAZIONE LUNGO VENA DI PEZZI CORTI.** Corpo in lega leggera (Ergal). Per la pulizia non utilizzare prodotti contenenti soda caustica. Sulla testa vengono montati due tipi di coltelli: due **CW22MA AA3** + due **CW22MB AA3**.

■ **TOOLS FOR WORKING LONG GRAIN ON SHORT WORKPIECES.** Light alloy body (Ergal). For cleaning do not use products containing caustic soda. Please note: two different types of knives are fitted on the cutterheads: two **CW22MA AA3** and two **CW22MB AA3**.

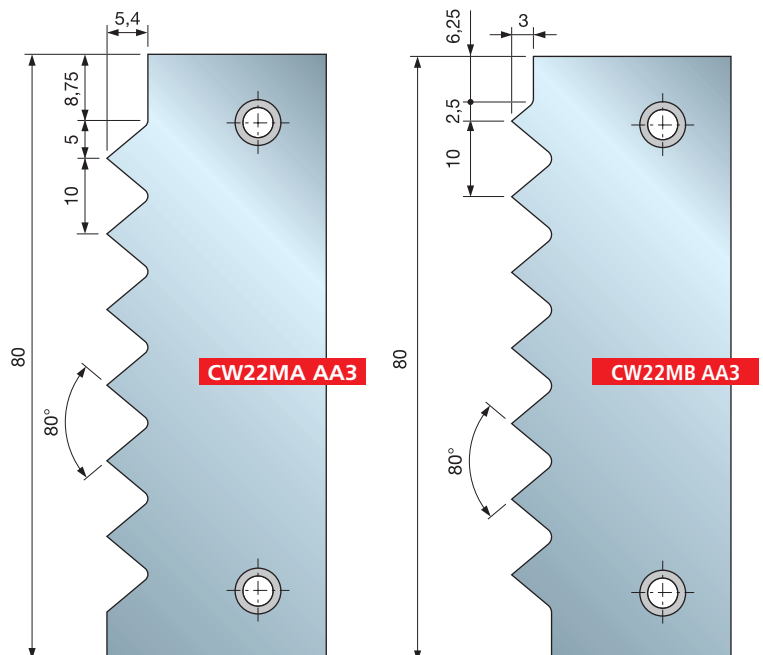
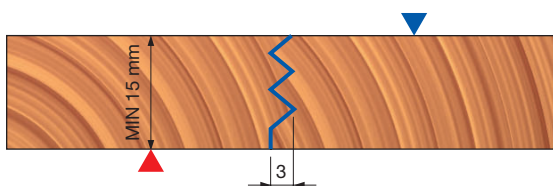
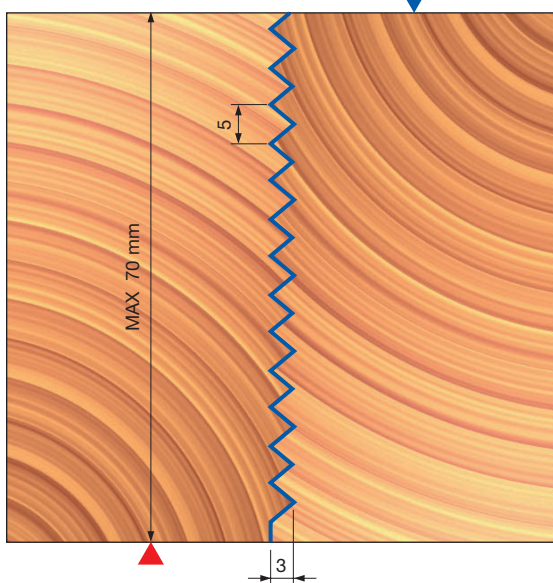
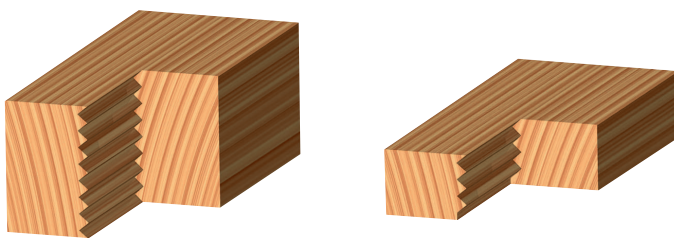
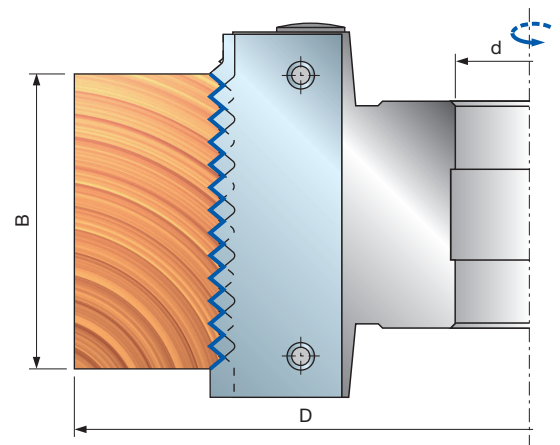


FIG. A: PROFILO / PROFILE

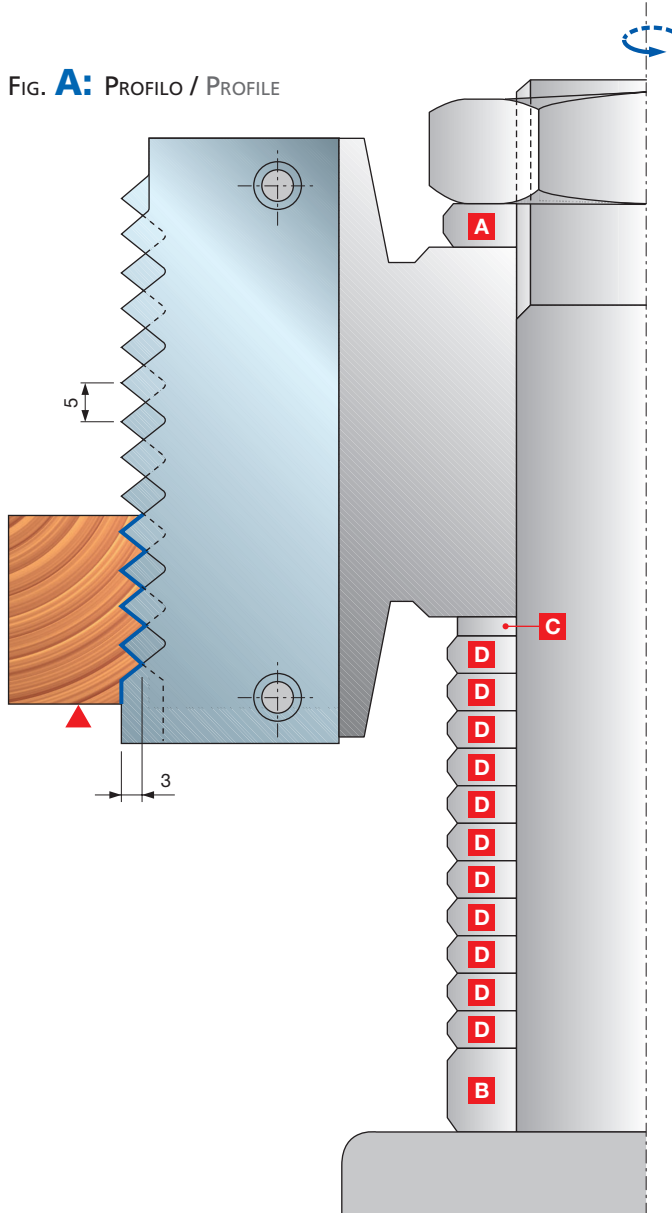
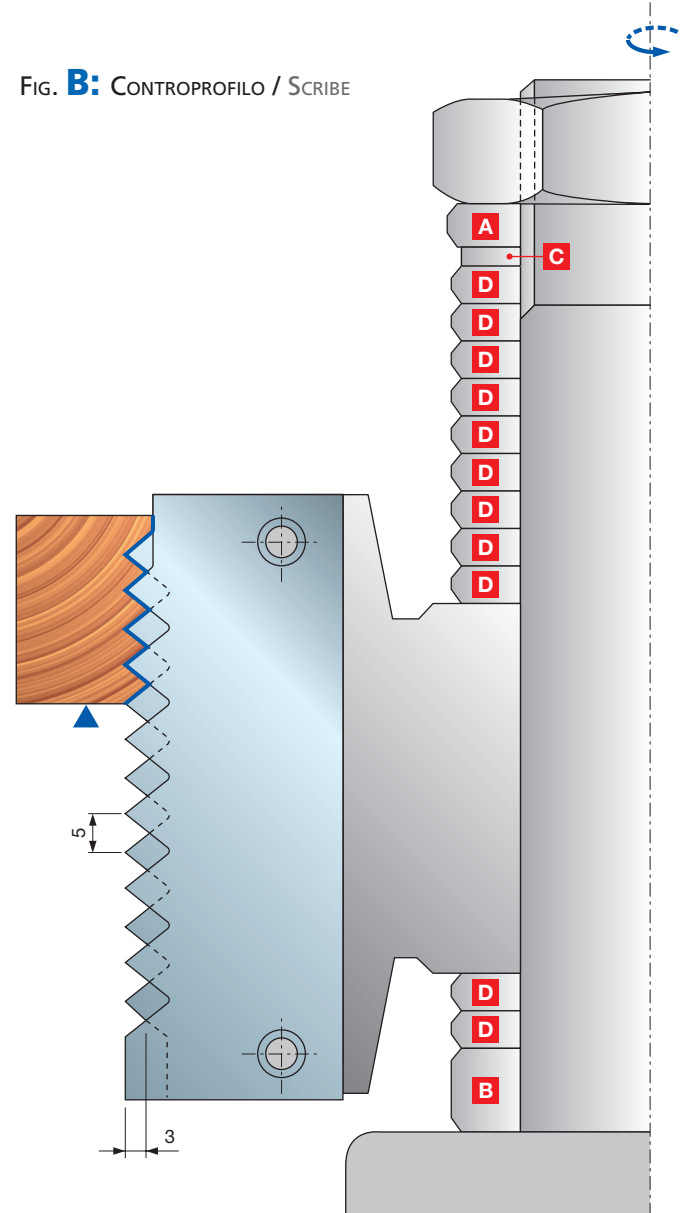


FIG. B: CONTROPROFILO / SCRIBE



- 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.
- 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 exact positioning of the tool, in order to carry out the counter profile.
 - Spacers "D": 5 mm thickness, equal to the tooth's pitch (supplied on request; cod: AN04M BB9).

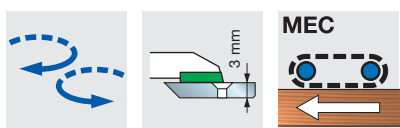
AN04M

SET DI ANELLI OPZIONALE
OPTIONAL SET OF SPACERS

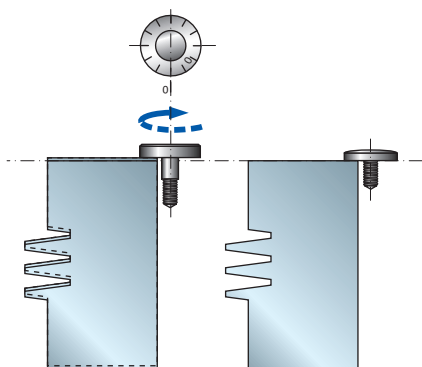
D	B	d	Z	R	Codice
mm	mm	mm			Code
55	5	35			AN04M BB9

TW01M

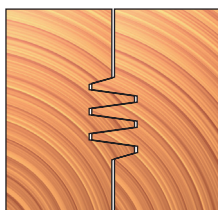
TESTA PORTACOLTELLI PER GIUNZIONI - PROFILO INTERCAMBIABILE FINGER JOINT CUTTERHEAD



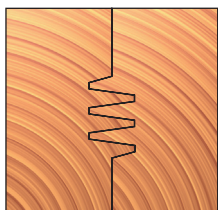
PERFORMANCE
Coltelli Riaffilabili
SYSTEM
Resharpenable Knives



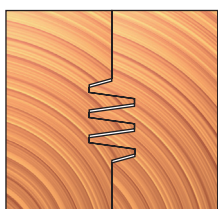
ESEMPI DI REGOLAZIONE ADJUSTMENT EXAMPLES



Giunzione forzata
Tight joint



Giunzione normale
Regular joint



Giunzione lasca
Loose joint

D	B	d*	Z	R	Codice
mm	mm	mm			Code
136	55	35 (50)	4		TW01M AB3

- Diametro della testa con i coltelli: 150 mm.
- Cutterhead diameter with knives is 150 mm.

Parti di ricambio	Dimensioni	Codice
Spare parts	Dimensions	Code
Cuneo / Wedge	53 x 19 x 8,5	CN11M C510A
Vite / Screw	M10 x 18	VT03M CC9
Vite / Screw	M5 x 8	VT08M AC9
Vite / Screw	M5 x 7 x 16	VT08M AE9
Vite / Screw	M4 x 6	2602M CE9
Chiave / Allen key	5 x 110	CB03M EA9

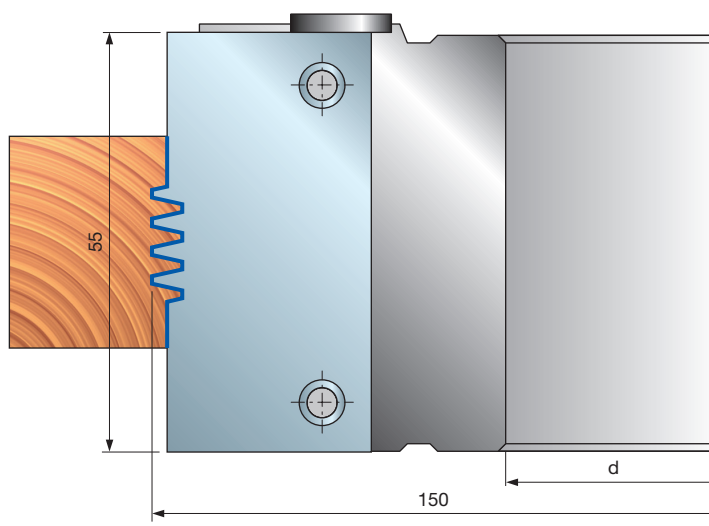
- **VANTAGGI:** Sullo stesso corpo possibilità di montaggio di differenti profili di giunzione (vedi pagina seguente). Possibilità di regolazione del gioco di accoppiamento (giunzione forzata, normale e lasca).
- **ADVANTAGES OF OUR TOOL:** On the same tool body, different jointing profiles can be fitted (see following page). It is possible to adjust the type of joint (tight, regular, loose) by means of a thumb screw mechanism.

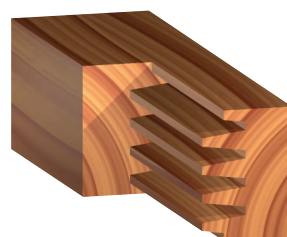
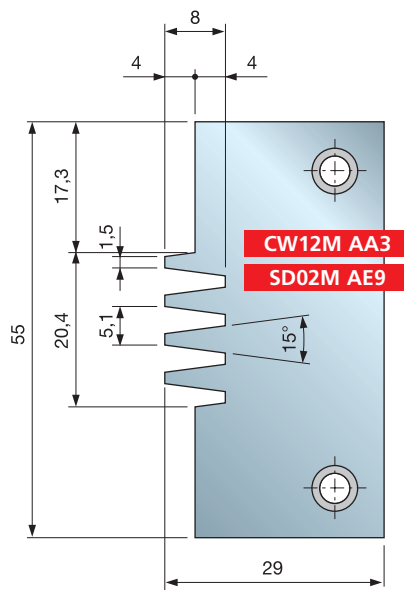
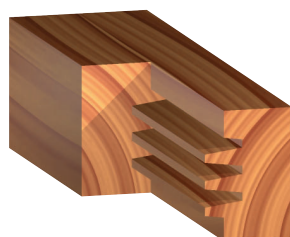
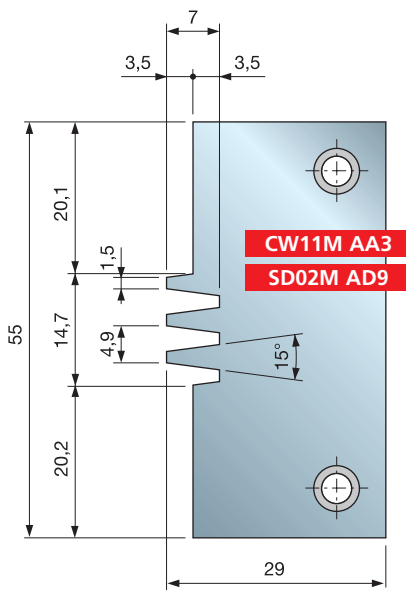
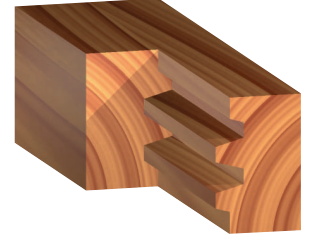
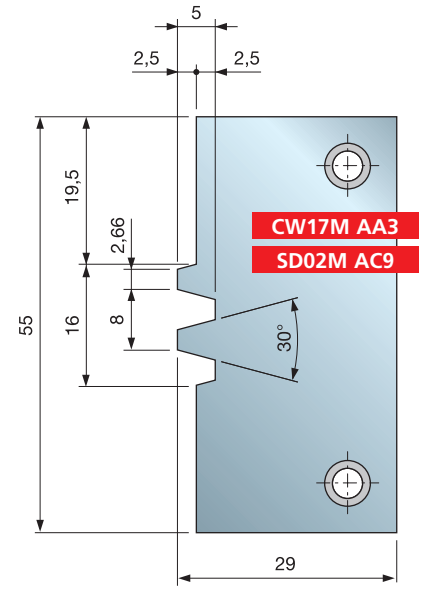
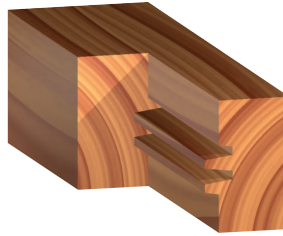
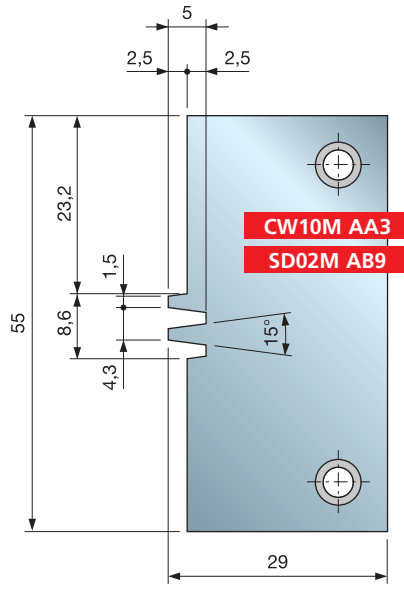
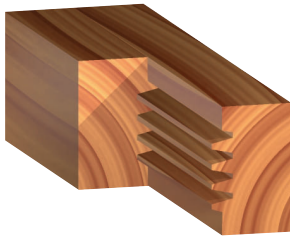
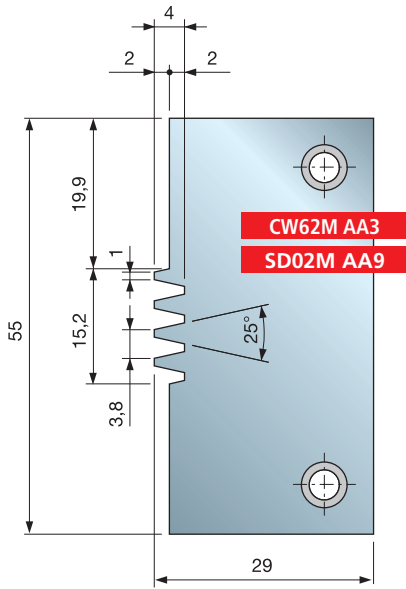
- **UTENSILI PER LA LAVORAZIONE LUNGO E TRAVERSO VENA DI PEZZI CORTI.**
- **TOOLS FOR WORKING LONG AND CROSS GRAIN ON SHORT WORKPIECES.**

- L'articolo non comprende i coltelli e i supporti
- The item does not include knives and support plates

Esempio di ordinazione: / Order example:

TW01M AB3 Ø	136x55x35	Z4	1 pezzo / piece
CW10M AA3	55x29x3		4 pezzi / pieces
SD02M AB9	55x27x5,5		4 pezzi / pieces





Dimensioni		Coltelli di ricambio
Dimensions		Spare Knives
	55 x 29 x 3	CW62M AA3
	55 x 29 x 3	CW10M AA3
	55 x 29 x 3	CW17M AA3
	55 x 29 x 3	CW11M AA3
	55 x 29 x 3	CW12M AA3

Dimensioni		Supporti di ricambio
Dimensions		Spare support plates
	55 x 27 x 5,5	SD02M AA9
	55 x 27 x 5,5	SD02M AB9
	55 x 27 x 5,5	SD02M AC9
	55 x 27 x 5,5	SD02M AD9
	55 x 27 x 5,5	SD02M AE9

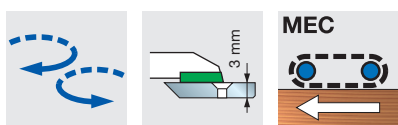
TW24M

GRUPPI DI TESTE PORTACOLTELLI PER GIUNZIONI FINGER JOINT CUTTERHEADS



D	B	d*	Z	R	Codice
mm	mm	mm			Code
150	35 (50)		2+2		TW24M AB3
150	40 (50)		2+2		TW24M AC3

Parti di ricambio	Dimensioni	Codice
Spare parts	Dimensions	Code
Colt. testa "A" - Knife for tool. "A"	45 x 30 x 3	CW24MA AA3
Colt. testa "B" - Knife for tool. "B"	45 x 30 x 3	CW24MB AA3
Vite / Screw	M5 x 7 x 16	VT08M AE9
Vite / Screw	M6 x 7 x 18	VT08M AG9
Cuneo / Wedge	41 x 17 x 8	CN11M B410
Vite / Screw	M10 x 18	VT03M CC9
Chiave / Allen key	5 x 110	CB03M EA9
Chiave esagonale a "L" - Allen key	2	2619M BA9



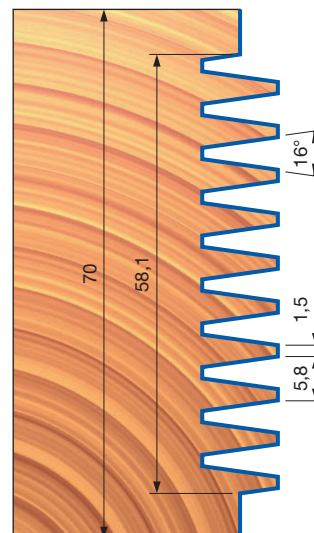
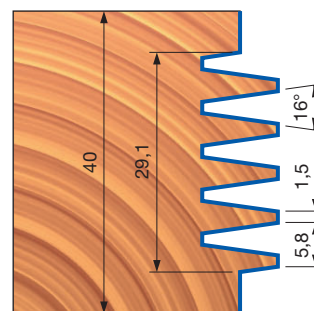
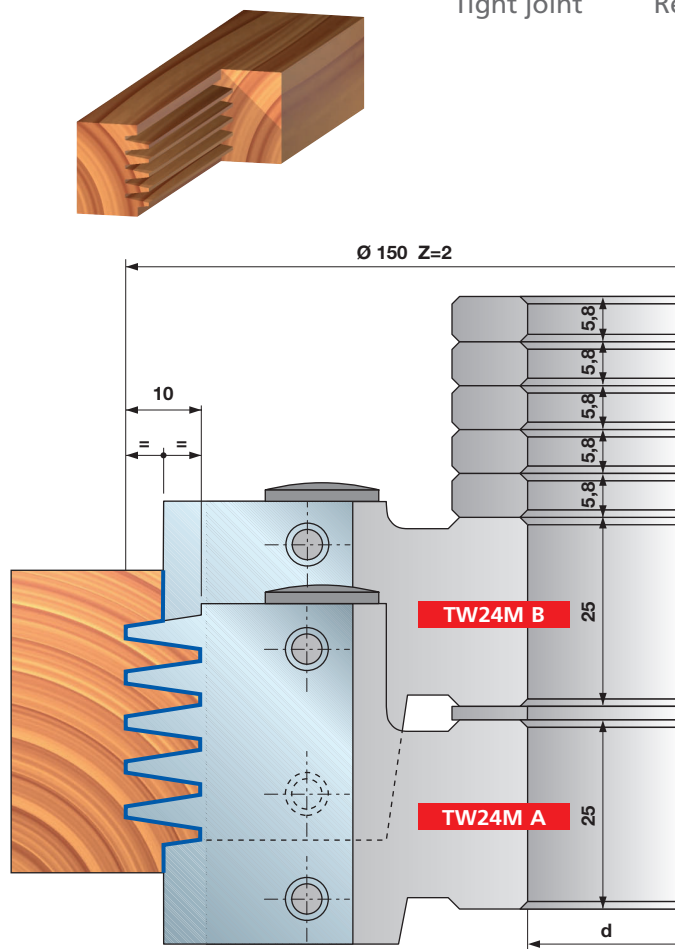
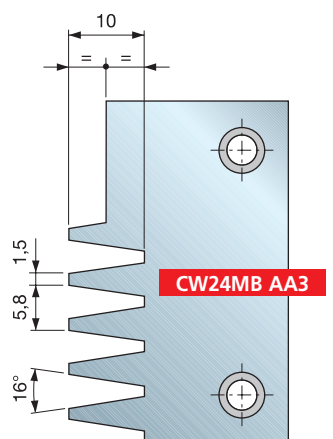
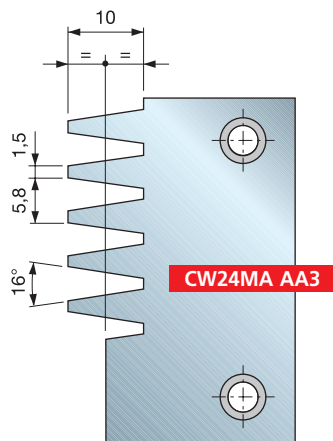
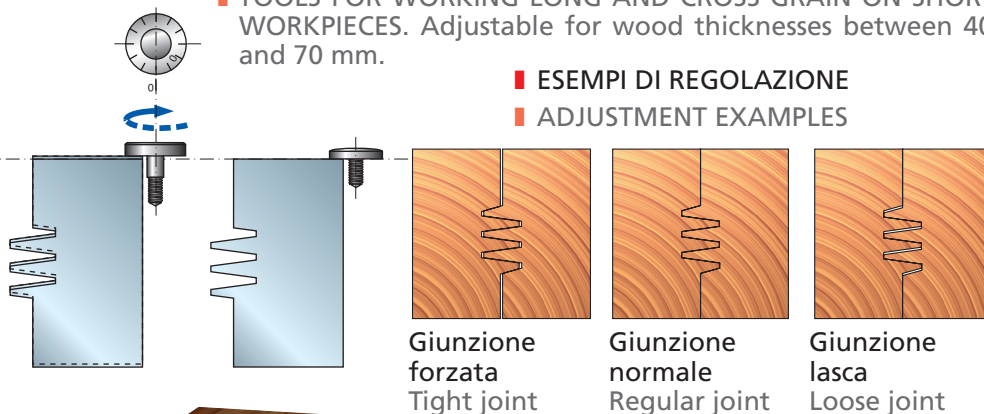
PERFORMANCE Coltelli Riaffilabili SYSTEM Resharpenable Knives

- TESTA FORNITA DI COLTELLI IN HW RIAFFILABILI.
- CUTTERHEAD SUPPLIED WITH RESHARPENABLE TC KNIVES.

UTENSILI PER LA LAVORAZIONE LUNGO E TRAVERSO VENA DI PEZZI CORTI. Regolazione per spessore legno: 40÷70 mm.

TOOLS FOR WORKING LONG AND CROSS GRAIN ON SHORT WORKPIECES. Adjustable for wood thicknesses between 40 and 70 mm.

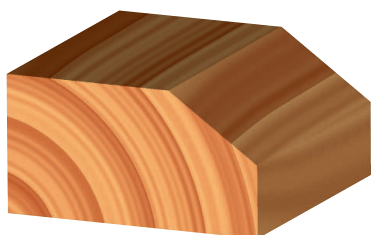
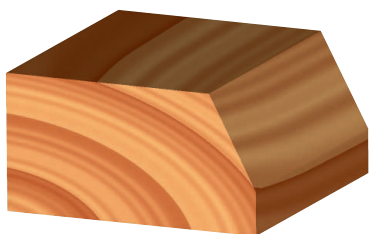
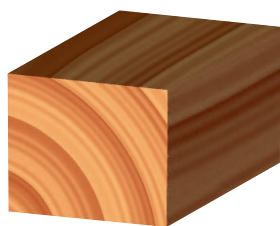
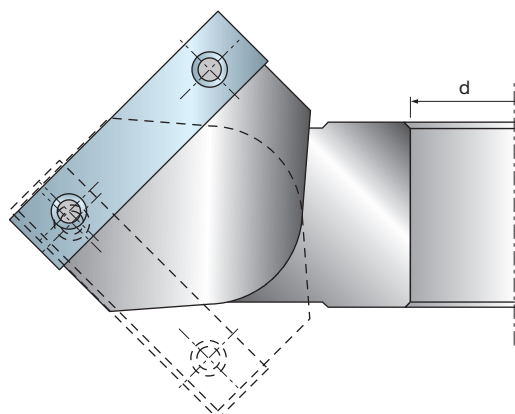
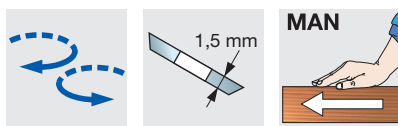
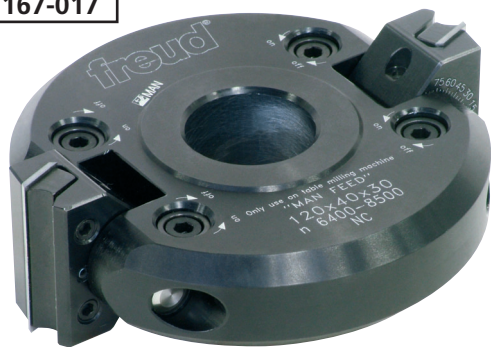
- ESEMPI DI REGOLAZIONE
- ADJUSTMENT EXAMPLES



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

TG08M

BG-TEST
167-017



TESTE PORTACOLTELLI AD INCLINAZIONE REGOLABILE ADJUSTABLE BEVEL CUTTERHEADS WITH DISPOSABLE KNIVES

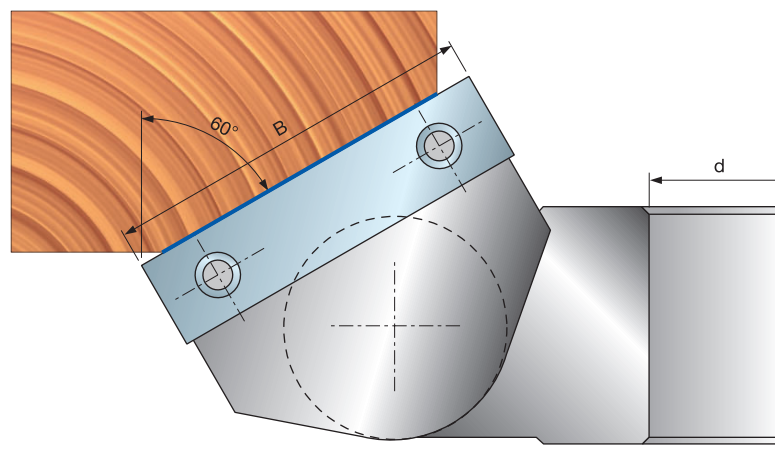
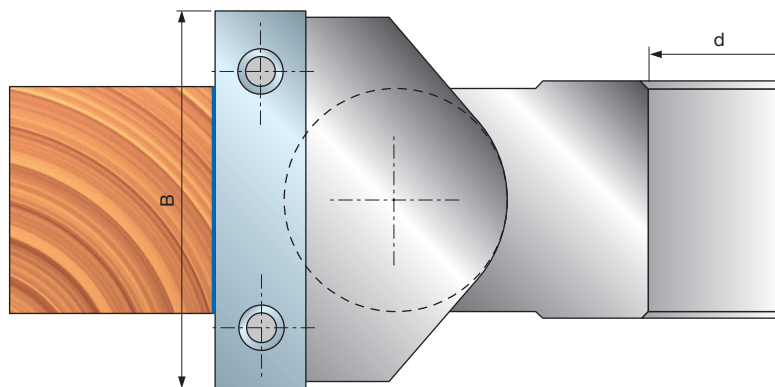
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mm	mm	mm			Code
120	40	30	2		TG08M LA3
150	50	30	2		TG08M MA3
150	50	35	2		TG08M MB3
150	50	40	2		TG08M MC3

- NON È CONSENTITA L'ALLARGATURA DEL FORO.
- REBORE NOT AVAILABLE.

Parti di ricambio	Dimensioni	Codice
Spare parts	Dimensions	Code
Vite / Screw	M5 x 16	2607M CF9
Vite / Screw	M6 x 8	VT03M DE9
Ogiva / Nut	12 x 12 x 6	VT20M DC9
Ogiva / Nut	12 x 10 x M5	VT20M DB9
Chiave esag. a "L" / Allen key	3	2619M DA9
Chiave / Allen key	4 x 110	CB03M BA9
Ø120 Coltello / Knife	40 x 12 x 1,5	CG01M LA3
Ø120 Cuneo / Wedge	38 x 11 x 6	CN03M DA9
Ø150 Coltello / Knife	50 x 12 x 1,5	CG01M FA3
Ø150 Cuneo / Wedge	48 x 11 x 6	CN03M DB9

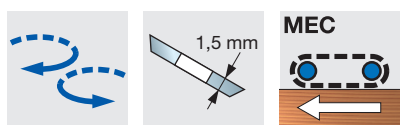
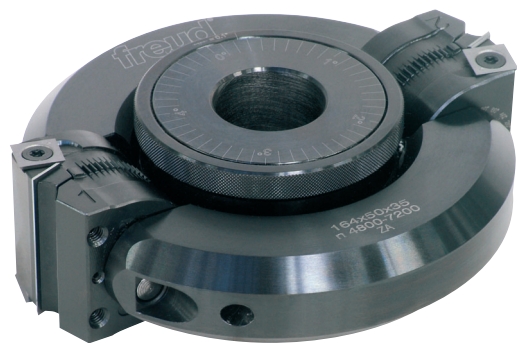
- LA REGOLAZIONE MINIMA OTTENIBILE È DI 1°.
- MINIMUM ADJUSTMENT OBTAINABLE IS 1 DEGREE.

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

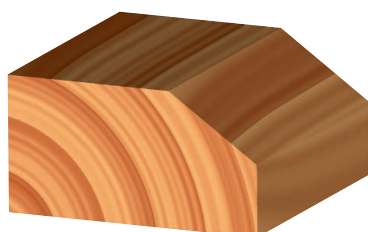
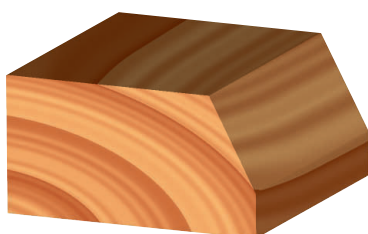
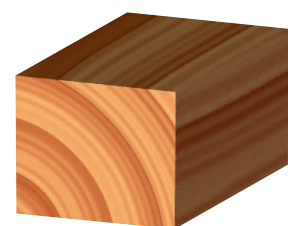
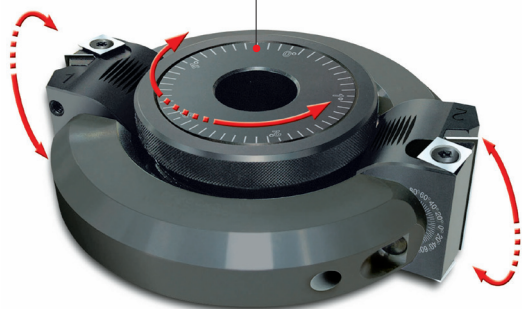


TG09M

TESTE PORTACOLTELLI AD INCLINAZIONE REGOLABILE ADJUSTABLE BEVEL CUTTERHEADS WITH DISPOSABLE KNIVES



CON GHIERA GRADUATA
WITH GRADUATED RING

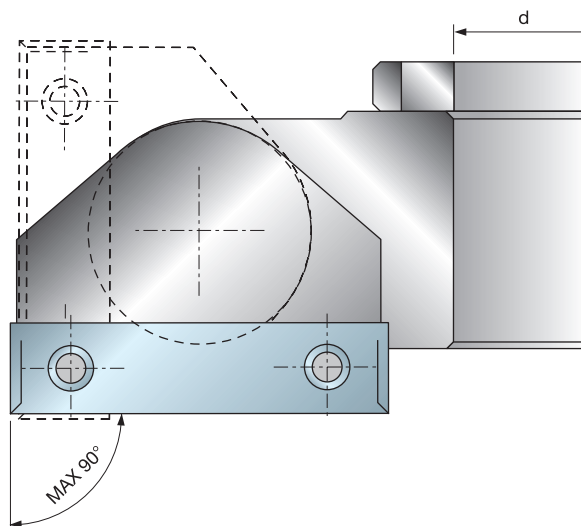
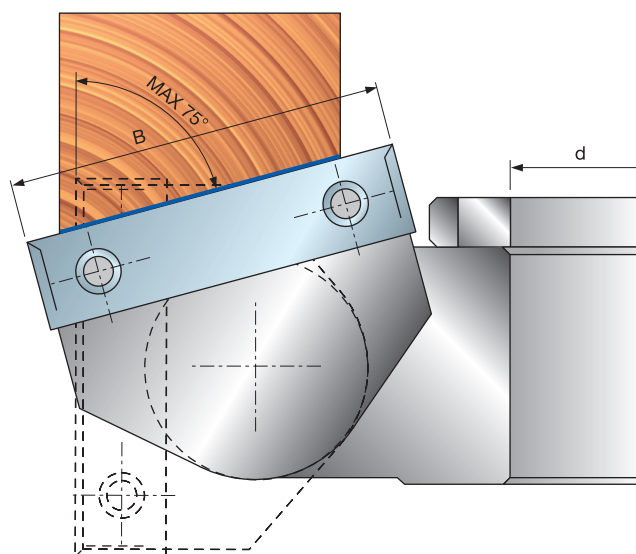


D	B	d	Z	R	Codice
mm	mm	mm			Code
165	50	30	2	4	TG09M AA3
165	50	35	2	4	TG09M AB3
165	50	40	2	4	TG09M AC3
165	50	50	2	4	TG09M AD3

- NON È CONSENTITA L'ALLARGATURA DEL FORO.
- REBORE NOT AVAILABLE.

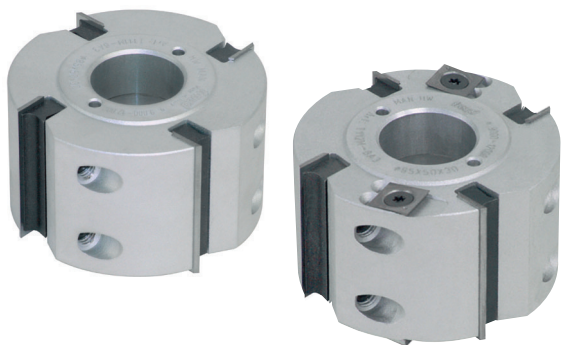
Parti di ricambio	Dimensioni	Codice
Spare parts	Dimensions	Code
Rasante / Spur	14 x 14 x 2	RG01M AA3
Vite / Screw	M5 x 8	VT05M AA9
Coltello / Knife	50 x 12 x 1,5	CG01M FA3
Vite / Screw	M6 x 16	VT03M DI9

- 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).
- 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).



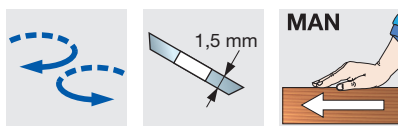
T111M Z = 4
T112M Z = 4+4

TESTE PORTACOLTELLI PER BATTUTE
CUTTERHEADS FOR REBATES



D	B	d	Z	R	Codice
mm	mm	mm			Code
85	50	30	4		T111M BA3
85	50	30	4	4	T112M BA3

- Corpo in lega leggera (Ergal). Per la pulizia non utilizzare prodotti contenenti soda caustica. Utilizzabile su pantografo.
- Light alloy body (Ergal). For cleaning do not use products containing caustic soda. Can be used on CNC machines.

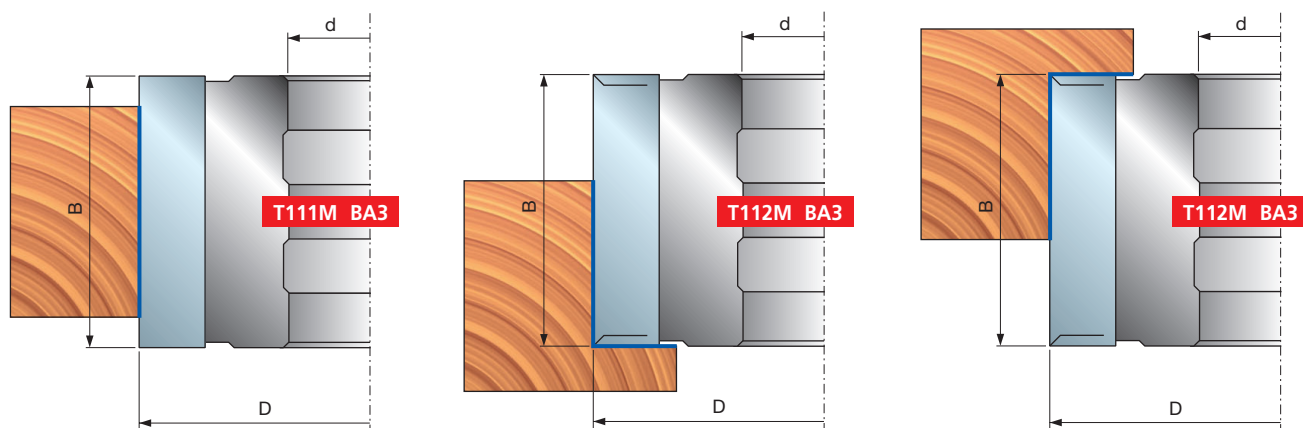
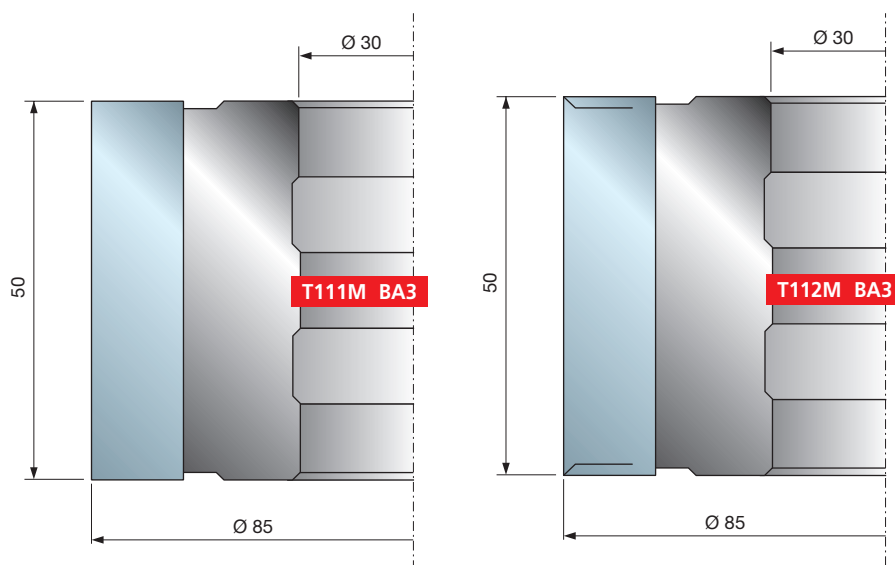
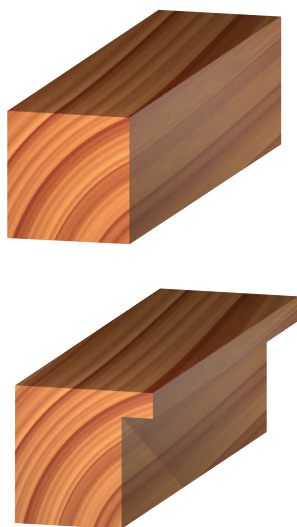


Parti di ricambio	Dimensioni	Codice
Spare parts	Dimensions	Code
Coltello / Knife	50 x 12 x 1,5	CG01M FA3
Vite / Screw	M8 x 16	VT03M AA9
Cuneo / Wedge	46	CN01M KA9
Chiave esag. a "L" / Allen key	4	2619M EA9
T112M Rasante / Spur	14 x 14 x 2	RG01M AA3
Vite / Screw	M5 x 8	VT05M AA9

Utensili collaudati secondo la Normativa
 Tools tested according to the Norm

• **EN 847-1** •

- NON È CONSENTITA L'ALLARGATURA DEL FORO.
- REBORE NOT AVAILABLE.

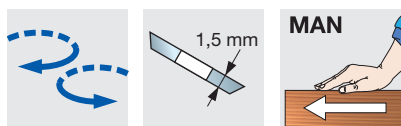


T191M Z = 4
T192M Z = 2

TESTE PORTACOLTELLI PER BATTUTE
CUTTERHEADS FOR REBATES



D	B	d*	Z	R	Codice
mm	mm	mm			Code
125	50	30 (50)	4	4	T191M BA3
125	50	35 (50)	4	4	T191M BB3
125	50	40 (50)	4	4	T191M BC3
125	50	50	4	4	T191M BD3
125	50	40 (50)	2	4	T192M BC3

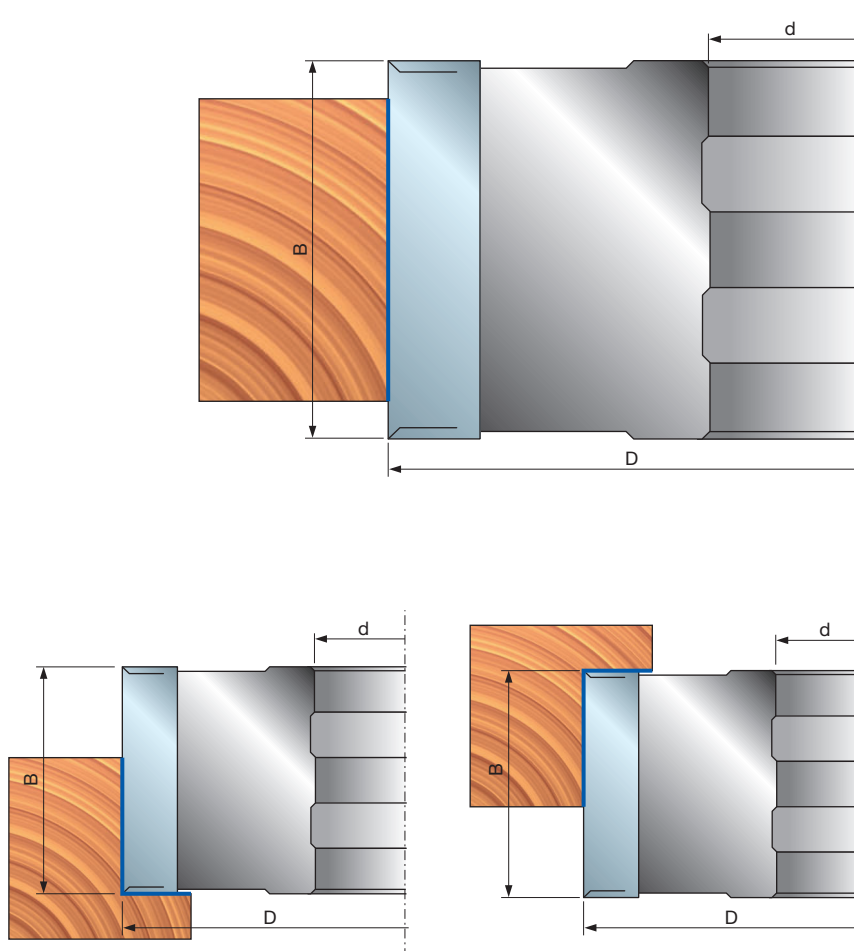
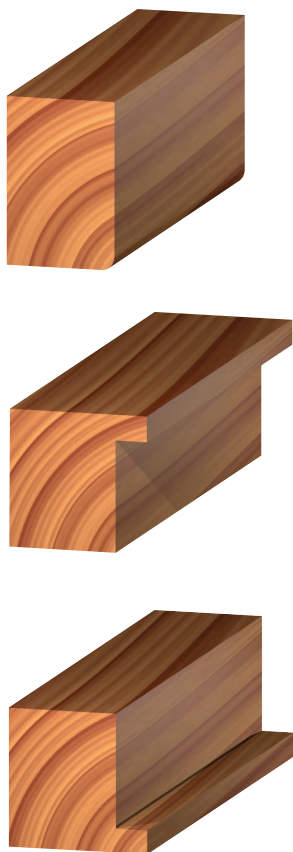


Parti di ricambio	Dimensioni	Codice
Spare parts	Dimensions	Code
Coltello / Knife	50 x 12 x 1,5	CG01M FA3
Cuneo / Wedge	15 x 46 x 8	CN09M AP9
Vite / Screw	M10 x 22	VT19M MA9
Vite / Screw	M5 x 8	VT05M AA9
Ogiva / Nut	15 x 13,3 x 10	VT20M MA9
Rasante / Spur	14 x 14 x 2	RG01M AA3
Chiave / Allen key	5 x 110	CB03M EA9

Utensili collaudati secondo la Normativa
 Tools tested according to the Norm

• **EN 847-1** •

- UTENSILI CON ANGOLO ASSIALE ALTERNO.
- TOOLS WITH ALTERNATE SHEAR ANGLE.

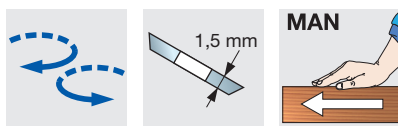
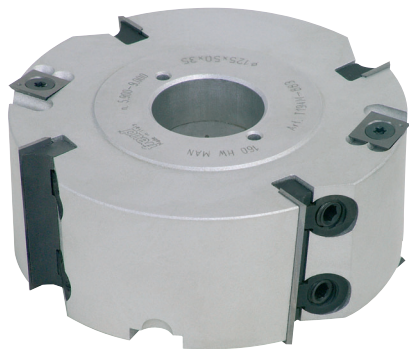


* La quota tra parentesi è la massima allargatura foro possibile • Size shown between brackets is the max. rebore possible

T194M Z = 4

T195M Z = 2

TESTE PORTACOLTELLI PER BATTUTE CUTTERHEADS FOR REBATES



Utensili collaudati secondo la Normativa
Tools tested according to the Norm

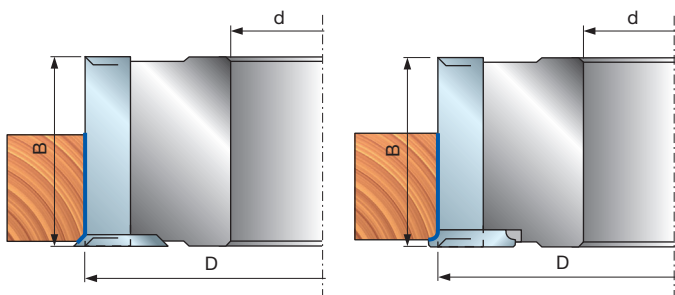
• **EN 847-1** •

D	B	d*	Z	R	Codice
mm	mm	mm			Code
125	30	35 (50)	4	4	T194M AB3
125	50	35 (50)	4	4	T194M BB3
125	50	35 (50)	2	4	T195M BB3

- Corpo in lega leggera (Ergal). Per la pulizia non utilizzare prodotti contenenti soda caustica.
- Light alloy body (Ergal). For cleaning do not use products containing caustic soda.

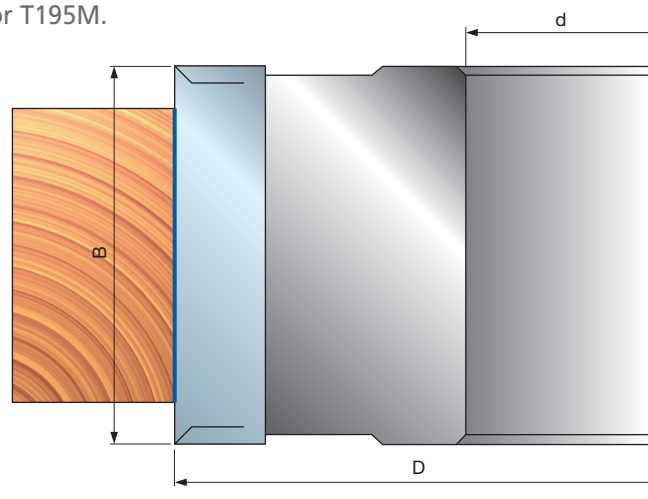
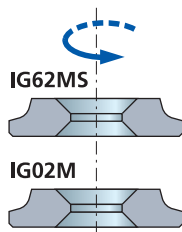
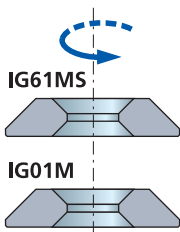
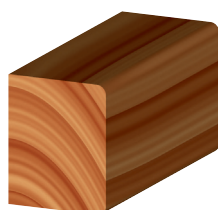
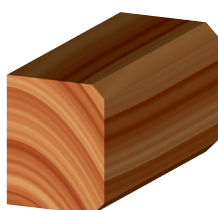
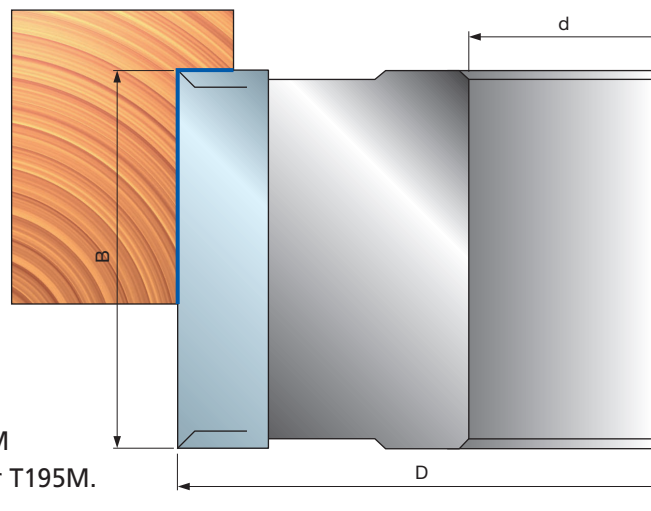
Parti di ricambio		Dimensioni	Codice
Spare parts		Dimensions	Code
AB3	Coltello / Knife	30 x 12 x 1,5	CG01M EA3
	Cuneo / Wedge	15 x 26 x 8	CN09M AD9
BB3	Coltello / Knife	50 x 12 x 1,5	CG01M FA3
	Cuneo / Wedge	15 x 46 x 8	CN09M AP9
	Vite / Screw	M10 x 22	VT19M MA9
	Ogiva / Nut	15 x 13,3 x 10	VT20M MA9
	Chiave / Allen key	5 x 110	CB03M EA9
	Rasante / Spur	14 x 14 x 2	RG01M AA3
	Vite / Screw	M5 x 8	VT05M AA9
	Vite per inserti Screw for inserts	M6 x 14,5	VT16M AA9

- UTENSILI CON ANGOLO ASSIALE ALTERNO.
- TOOLS WITH ALTERNATE SHEAR ANGLE.



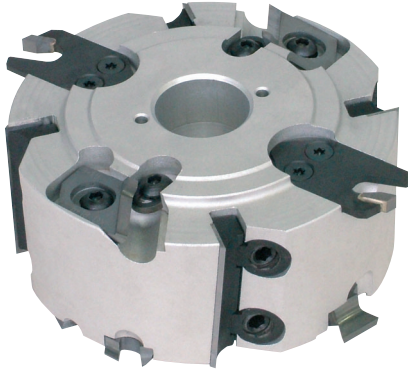
- Con sedi per il montaggio dei seguenti inserti (non inclusi):
IG61MS (smussatori) e IG62MS (R= 1,5 - 2 - 3 mm) per T194M
IG01M BA3 (smussatore) e IG02M (R= 1 - 1,5 - 2 - 3 mm) per T195M.

- 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.



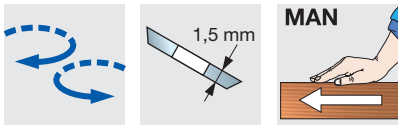
T193M

TESTA PORTACOLTELLI PER BATTUTE CUTTERHEAD FOR REBATES



D	B	d*	Z	R	Codice
mm	mm	mm			Code
125	50	30 (50)	4	2	T193M BA3

Parti di ricambio	Dimensioni	Codice
Spare parts	Dimensions	Code
Coltello / Knife	50 x 12 x 1,5	CG01M FA3
Cuneo / Wedge	15 x 46 x 8	CN09M AP9
Ogiva / Nut	15 x 13,3 x 10	VT20M MA9
Vite / Screw	M10 x 22	VT19M MA9
Rasante / Spur	14 x 14 x 2	RG01M AA3
Vite / Screw	M5 x 8	VT05M AA9
Rondella di reg. / Adjustment ring	16 x 11,9 x 2,6	VT18M AG9
Vite / Screw	M6 x 10	2622M CB9
Chiave / Allen key	5 x 110	CB03M EA9
Chiave / Allen key	4 x 110	CB03M BA9

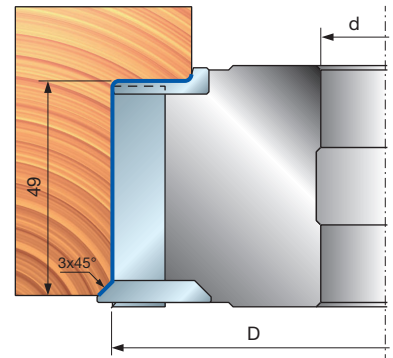
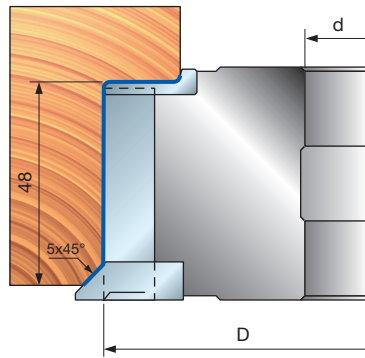
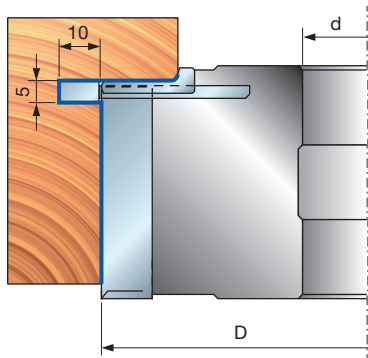
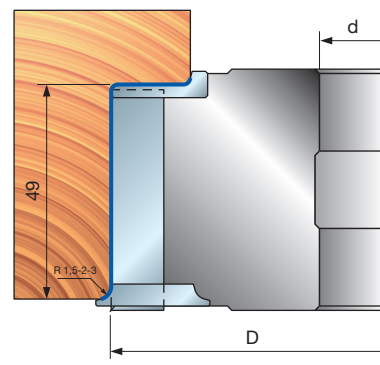
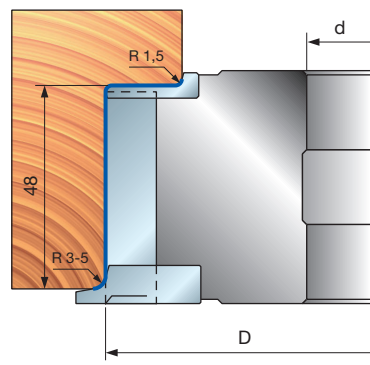
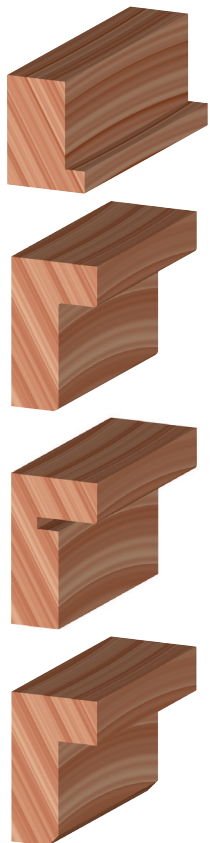
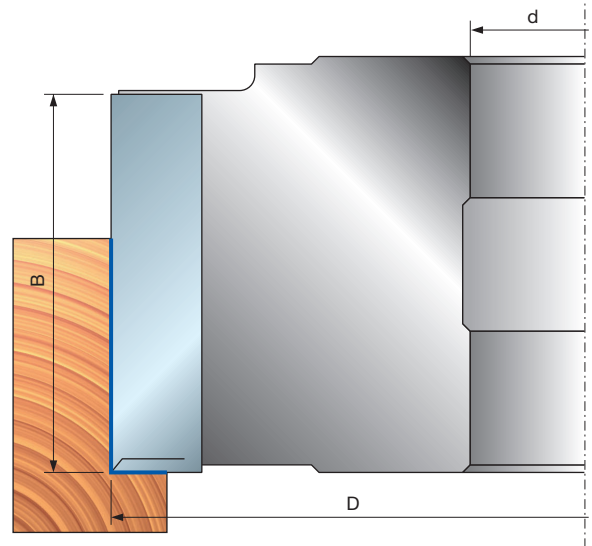


- UTENSILI CON ANGOLO ASSIALE ALTERNO.
- TOOLS WITH ALTERNATE SHEAR ANGLE.

- UTENSILE CON SEDI PER IL MONTAGGIO DEI SEGUENTI INSERTI (NON INCLUSI):
- TOOL WITH SEAT POCKETS FOR THE FOLLOWING INSERTS (NOT INCLUDED):

Inserti	Tipo e dimensioni viti	Viti	Pz.
Inserts	Screw type and dimensions	Screws	Pcs
IG25M	M6 x 10	2622M CB9	2
IG61M-IG62M-IG51M-IG52M	M6 x 14,5	VT16M AA9	2
IG33M	M6 x 18,5	VT16M AC9	2
SR11MD	M5 x 8	VT05M AA9	4

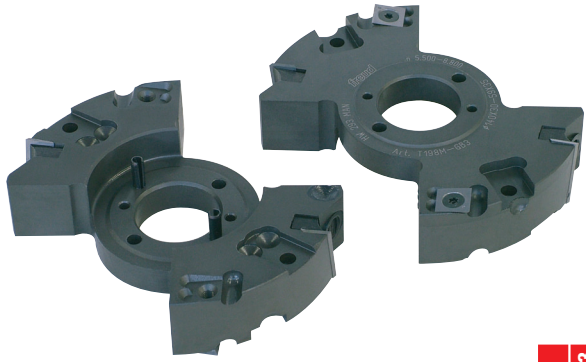
- Corpo in lega leggera (Ergal). Per la pulizia non utilizzare prodotti contenenti soda caustica.
- Light alloy body (Ergal). For cleaning do not use products containing caustic soda.



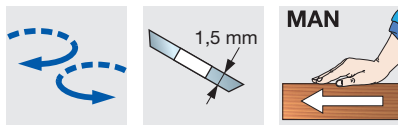
* La quota tra parentesi è la massima allargatura foro possibile • Size shown between brackets is the max. rebores possible

T198M

TESTE PORTACOLTELLI PER INCASTRI E BATTUTE REGOLABILI MULTIPURPOSE CUTTERHEADS SET WITH DISPOSABLE KNIVES



D	B-B1	d	Z	R	Codice
mm	mm	mm			Code
140	20,5-39	30	4	4	T198M FA3
140	20,5-39	35	4	4	T198M FB3
140	20,5-39	40	4	4	T198M FC3
140	30,4-59	30	4	4	T198M GA3
140	30,4-59	35	4	4	T198M GB3
140	30,4-59	40	4	4	T198M GC3



Utensili collaudati secondo la Normativa
Tools tested according to the Norm

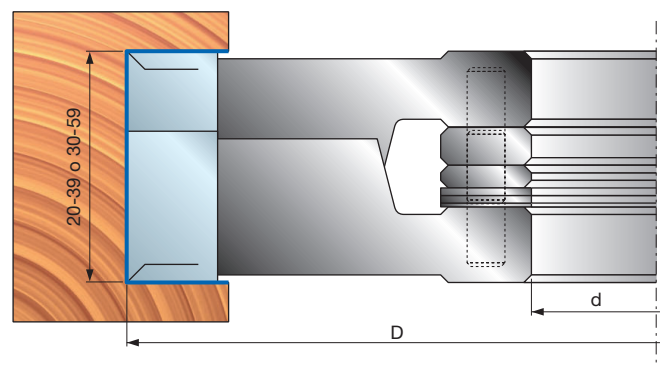
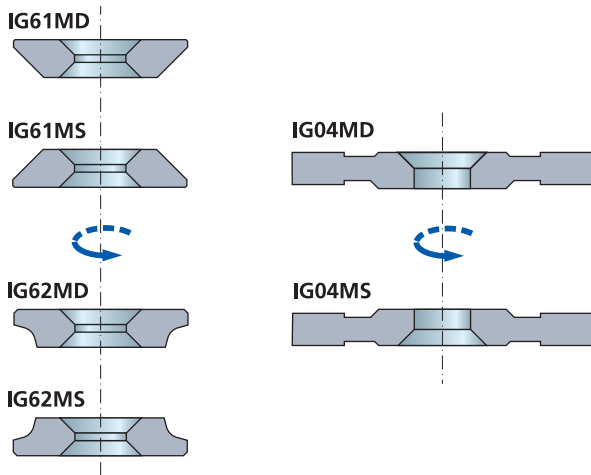
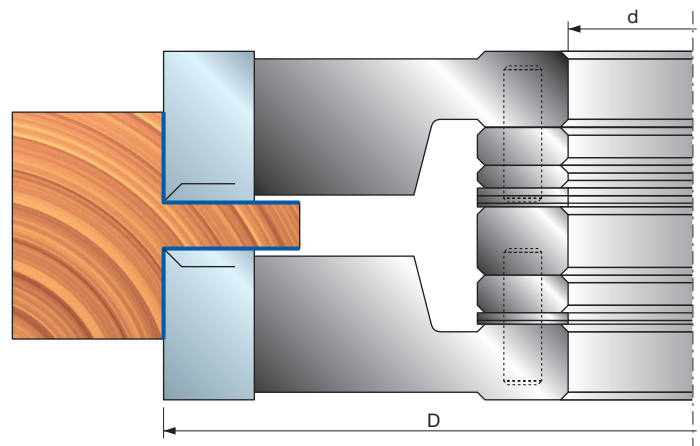
• **EN 847-1** •

Parti di ricambio		Dimensioni	Codice
Spare parts		Dimensions	Code
FA3 FB3-FC3	Coltello / Knife	20 x 12 x 1,5	CG01M DA3
	Cuneo / Wedge	15 x 16 x 8	CN09MD AO9
	Cuneo / Wedge	15 x 16 x 8	CN09MS AO9
GA3 GB3-GC3	Coltello / Knife	30 x 12 x 1,5	CG01M EA3
	Cuneo / Wedge	15 x 26 x 8	CN09MD AD9
	Cuneo / Wedge	15 x 26 x 8	CN09MS AD9
	Vite / Screw	M10 x 22	VT19M MA9
	Ogiva / Nut	15 x 13,3 x 10	VT20M NA9
	Chiave / Allen key	5 x 110	CB03M EA9
	Rasante / Spur	14 x 14 x 2	RG01M AA3
	Vite / Screw	M5 x 8	VT05M AA9
	Vite per: / Screw for: IG04MD/S	M6 x 14,5	VT16M AA9
Vite per: / Screw for: IG61MD/S IG62MD/S	M6 x 13	VT16M AE9	
Vite per: / Screw for: ID04M	M4 x 12	VT05M DA9	

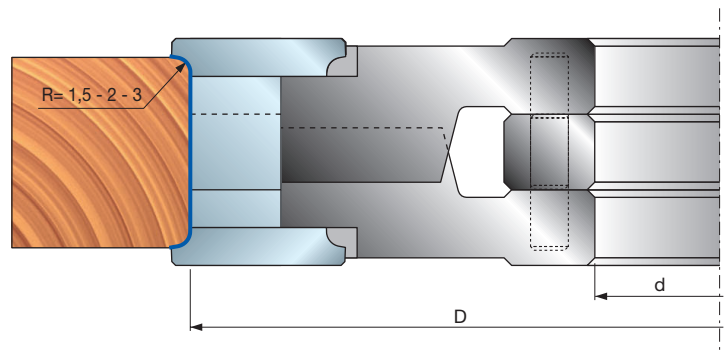
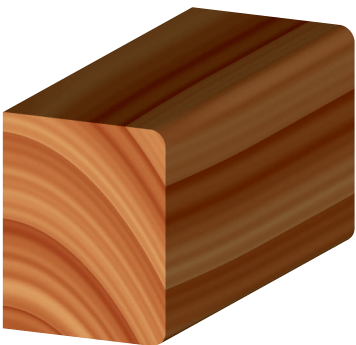
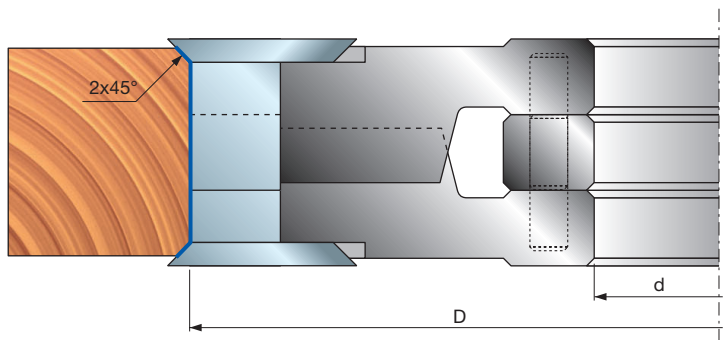
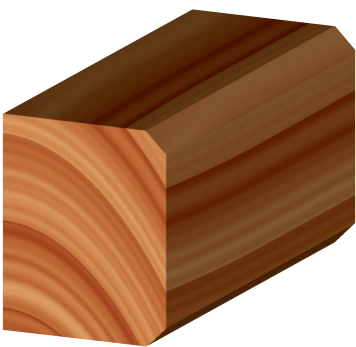
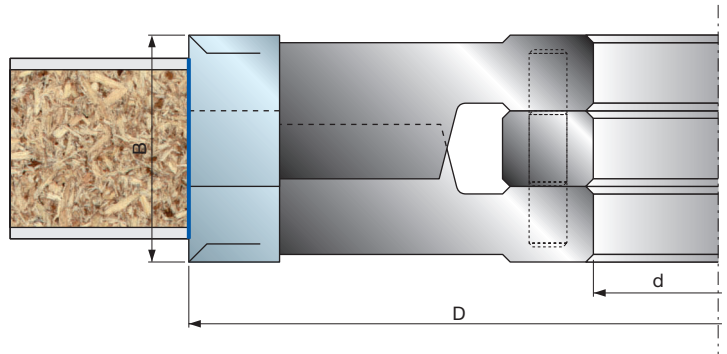
- UTENSILI CON ANGOLO ASSIALE.
- TOOLS WITH SHEAR ANGLE.

- NON È CONSENTITA L'ALLARGATURA DEL FORO.
- REBORE NOT AVAILABLE.

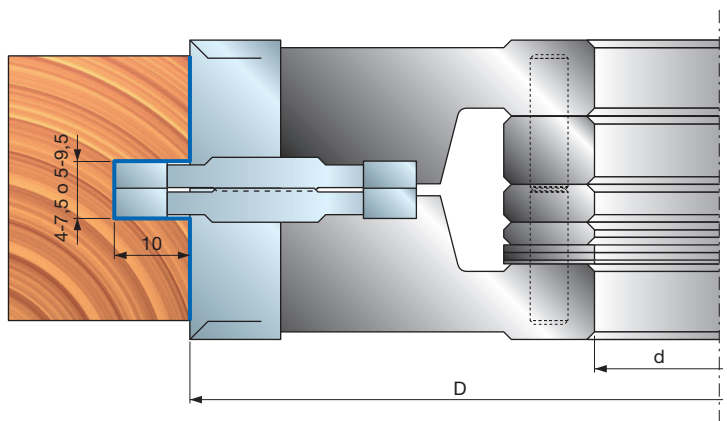
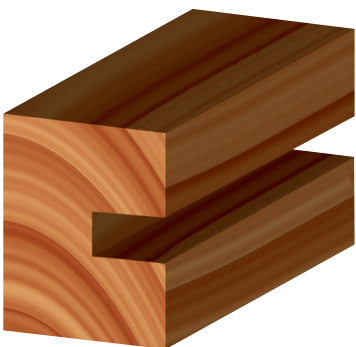
- Con sedi per il montaggio di inserti IG61MS (smussatori) e IG62MS (R= 1,5; 2; 3 mm) e di inserti per incastri IG04MD/S AA3 e AB3.
- With seat pockets for bevelling inserts IG61MS or radius inserts IG62MS (R= 1,5; 2; 3 mm) and for grooving inserts IG04MD/S AA3 and AB3.



ESEMPI DI PROFILI REALIZZABILI
EXAMPLE OF PROFILES

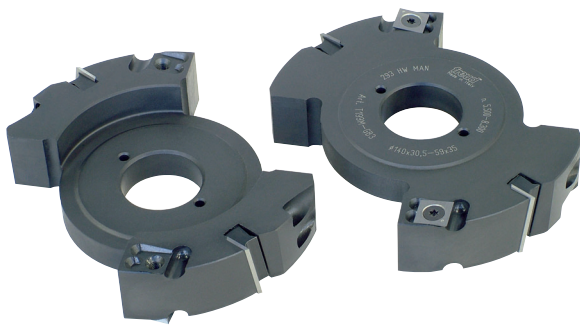


▼ QUESTO PROFILO È UTILIZZABILE SOLAMENTE
CON AVANZAMENTO MECCANICO.
THIS PROFILE IS USABLE WITH AUTOMATIC FEED ONLY.










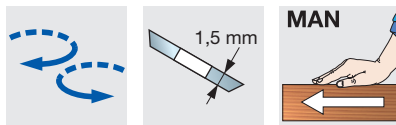
T199M

TESTE PORTACOLTELLI PER INCASTRI E BATTUTE REGOLABILI MULTIPURPOSE CUTTERHEADS SET WITH DISPOSABLE KNIVES



D	B-B1	d*	Z	R	Codice
mm	mm	mm			Code
140	30,4-59	30 (50)	4	4	T199M GA3
140	30,4-59	35 (50)	4	4	T199M GB3
140	30,4-59	40 (50)	4	4	T199M GC3

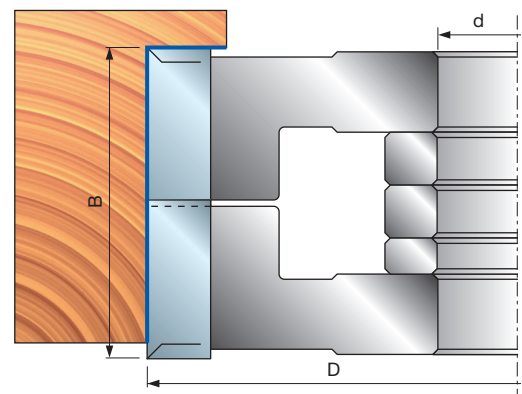
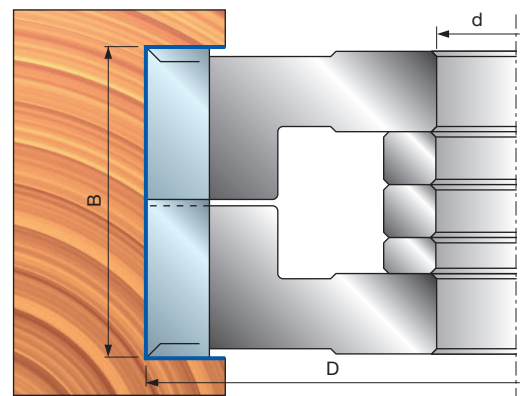
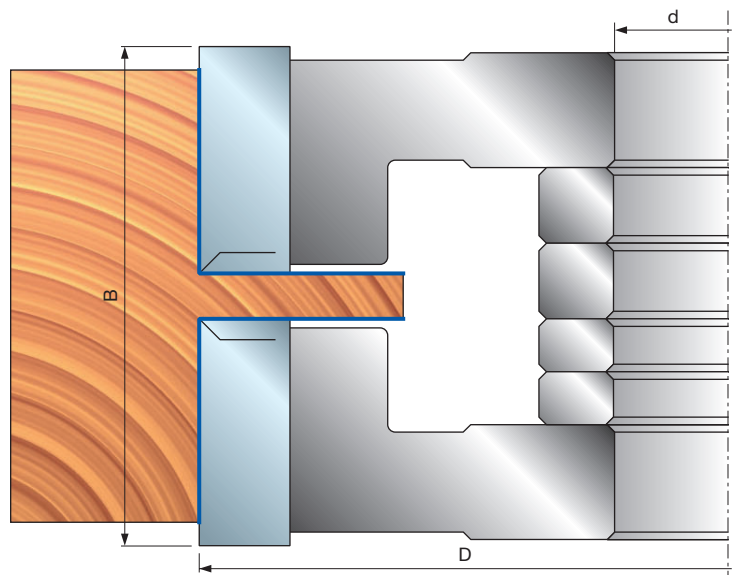
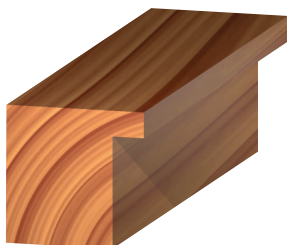
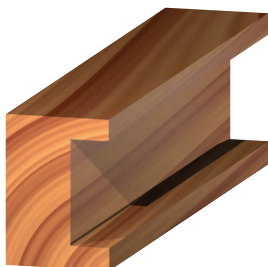
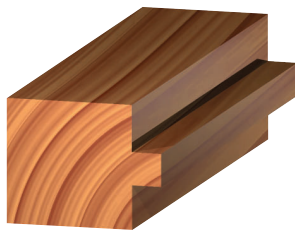
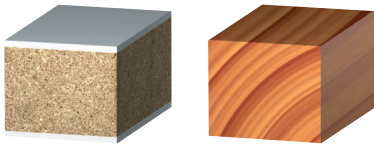
Parti di ricambio	Dimensioni	Codice
Spare parts	Dimensions	Code
Coltello / Knife 	30 x 12 x 1,5	CG01M EA3
Cuneo / Wedge 	12,3 x 26 x 8	CN01MD GA9
Cuneo / Wedge 	12,3 x 26 x 8	CN01MS GA9
Vite / Screw 	M5 x 8	VT05M AA9
Rasante / Spur 	14 x 14 x 2	RG01M AA3
Vite / Screw 	M8 x 16	VT03M AA9
Chiave / Allen key 	4 x 110	CB03M BA9



Utensili collaudati secondo la Normativa
Tools tested according to the Norm

• EN 847-1 •

- UTENSILI CON ANGOLO ASSIALE.
- TOOLS WITH SHEAR ANGLE.



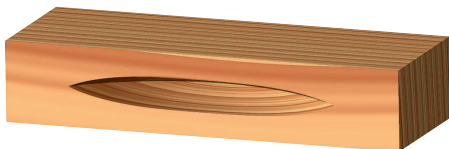
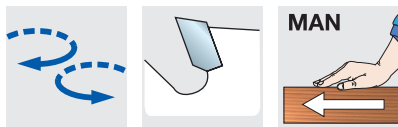
FI22M

FRESA PER INCASTRI BRAZED CUTTER

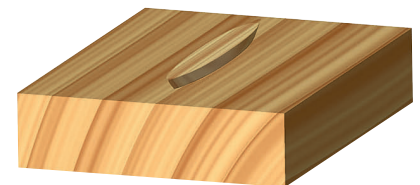
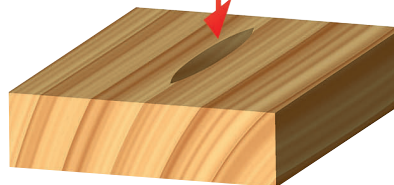
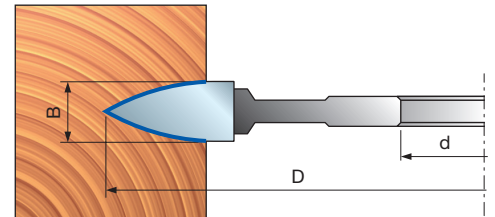
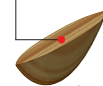


D	B	d	Z	R	Codice
mm	mm	mm			Code
100	8	22	4		FI22M AB3

- Fresa con corpo rivestito in materiale antiaderente, utilizzata per la riparazione di sacche di resina, fessure, bordi danneggiati ed altre imperfezioni del legno.
- Brazed cutter with non-stick coated body. Device for patching resin pockets, cracks, damaged edges and other wood flaws.



Inserto "minispot"
Patch "minispot"



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

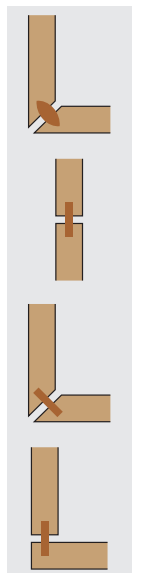
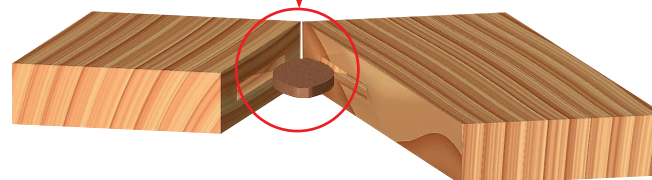
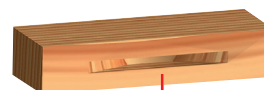
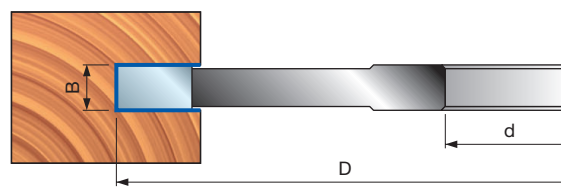
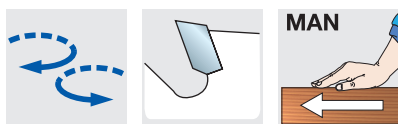
FI02M

FRESA PER INCASTRI BRAZED CUTTER FOR BISCUIT JOINERS



D	B	d	Z	R	Codice
mm	mm	mm			Code
100	3,95	22	6		FI02M BX3

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

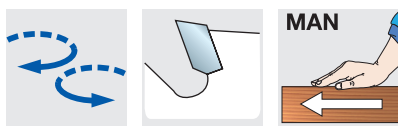


Utensili collaudati secondo la Normativa
Tools tested according to the Norm

• EN 847-1 •

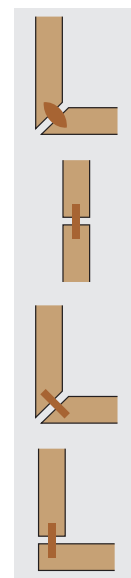
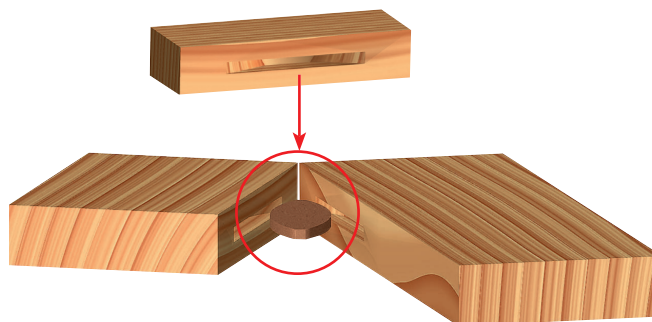
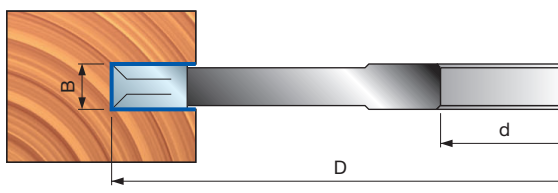
FI02M

FRESA PER INCASTRI CON RASANTI GROOVING CUTTER WITH SPURS



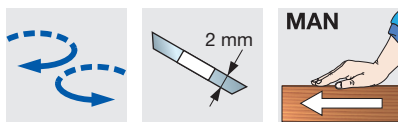
D	B	d	Z	R	Codice
mm	mm	mm			Code
100	4	22	2	4	FI02M BZ3

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



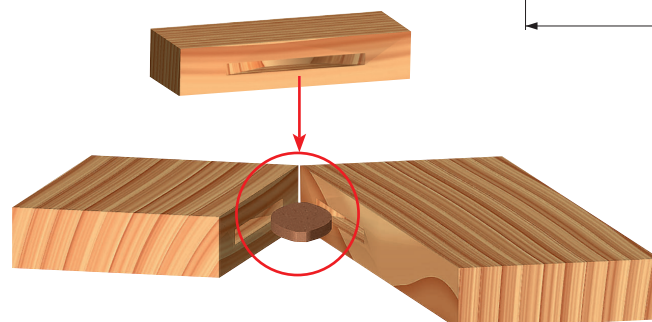
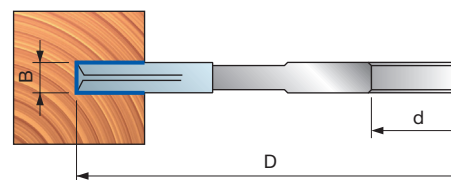
TG13M

TESTA PORTACOLTELLI PER INCASTRI GROOVING CUTTERHEAD



D	B	d	Z	R	Codice
mm	mm	mm			Code
100	4	22	4	4	TG13M AA3

Parti di ricambio	Dimensioni	Codice
Spare parts	Dimensions	Code
Coltello / Knife	18 x 1,9 x 18	CG03M AA3
Ghiera / Nut	11,6 x 1,5 x 4	VT18M BA9
Rasante / Spur	14 x 14 x 2	RG01M AA3
Ghiera / Nut	9,4 x 1,7 x 4	VT18M DA9
Vite / Screw	M4 x 3,2	VT05M BB9
Chiave Torx / Torx key	T9	CB03M CA9

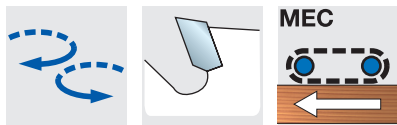
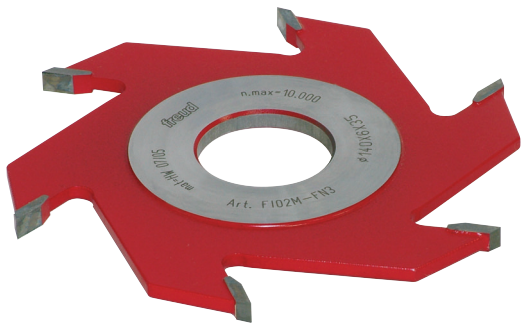


Utensili collaudati secondo la Normativa
Tools tested according to the Norm

• EN 847-1 •

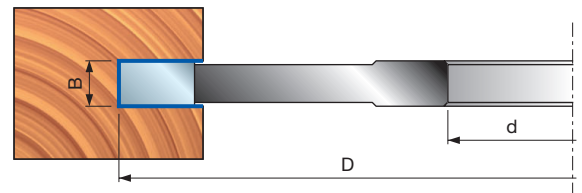
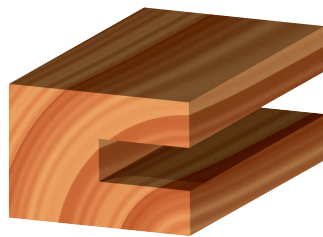
FI02M

FRESE PER INCASTRI GROOVING CUTTERS



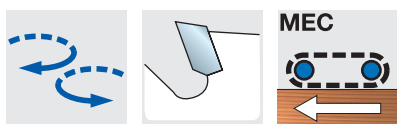
D	B	d*	Z	R	Codice
mm	mm	mm			Code
120	4	35 (40)	6		FI02M CD3
120	6	35 (40)	6		FI02M CI3
140	4	35 (50)	6		FI02M FE3
140	6	35 (50)	6		FI02M FN3
140	8	35 (50)	6		FI02M FS3
140	10	35 (50)	6		FI02M FY3
140	12	35 (40)	6		FI02M GB3
140	14	35 (40)	6		FI02M GF3
140	16	35 (40)	6		FI02M GK3
140	18	35 (40)	6		FI02M GN3
140	20	35 (40)	6		FI02M GP3

- Frese per incastri di ottima qualità su legni teneri e duri lungo vena e traverso vena; su multistrato, truciolari, laminati ed MDF.
- Brazed cutters for good quality grooving on soft and hard wood, both cross cutting and ripping, on chipboard, compressed laminated woods and MDF.



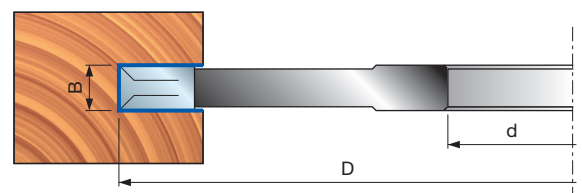
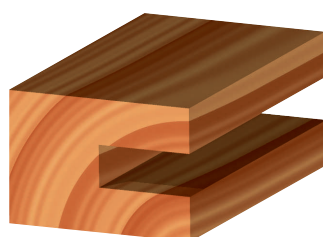
FI05M

FRESE CON RASANTI PER INCASTRI GROOVING CUTTERS WITH SPURS



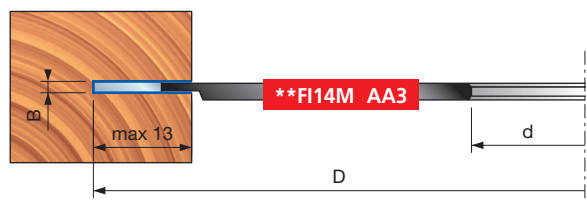
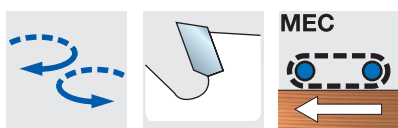
D	B	d*	Z	R	Codice
mm	mm	mm			Code
140	4	35 (50)	3	6	FI05M EB3
140	6	35 (50)	3	6	FI05M EH3
140	8	35 (50)	3	6	FI05M EN3
140	10	35 (50)	3	6	FI05M ER3

- Frese per incastri di ottima qualità su legni teneri e duri lungo vena e traverso vena; su multistrato, truciolari, laminati ed MDF.
- Brazed cutters for good quality grooving on soft and hard wood, both cross cutting and ripping, on chipboard, compressed laminated woods and MDF.



FI14M

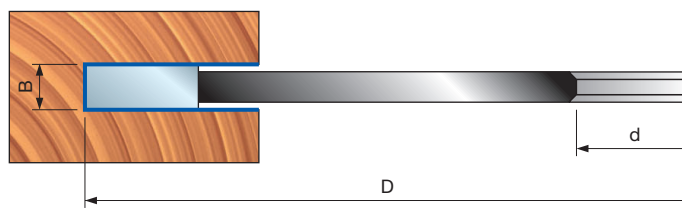
FRESE PER INCASTRI GROOVING CUTTERS



D	B	d*	Z	R	Codice
mm	mm	mm			Code
150	1,5	30 (50)	18		FI14M AA3**
150	2	30 (50)	18		FI14M AE3
150	2,5	30 (50)	18		FI14M AH3
150	3	30 (50)	18		FI14M AM3
150	4	30 (50)	18		FI14M AR3
150	5	30 (50)	18		FI14M AZ3
150	6	30 (50)	18		FI14M AT3
150	8	30 (50)	18		FI14M AU3
180	3	30 (50)	24		FI14M DA3
180	4	30 (50)	24		FI14M DC3
180	6	30 (50)	24		FI14M DE3

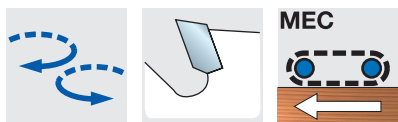
■ Frese per incastri di ottima qualità su legni teneri e duri lungo vena e trasverso vena; su multistrato, truciolari, laminati ed MDF.

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



FI07M

FRESE REGOLABILI, CON RASANTI, PER INCASTRI ADJUSTABLE GROOVING CUTTERS WITH SPURS



D	B	d*	Z	R	Codice
mm	mm	mm			Code
150	3 - 5,5	35 (50)	4	4	FI07M AB3
150	4 - 7,5	35 (50)	4	4	FI07M AE3
150	7,5 - 14	35 (50)	4	4	FI07M AL3
160	10 - 19	35 (50)	4	4	FI07M BB3

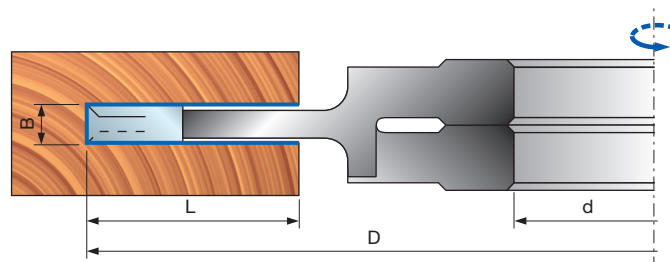
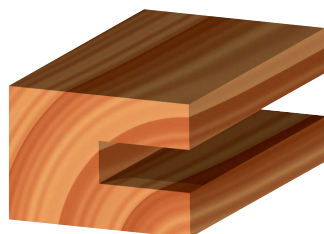
■ Frese per incastri regolabili di ottima qualità su legni teneri e duri lungo vena e trasverso vena; su multistrato, truciolari, laminati ed MDF. Regolazione con anelli.

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

■ PROFONDITÀ D'INCASTRO / DEPTH OF CUT

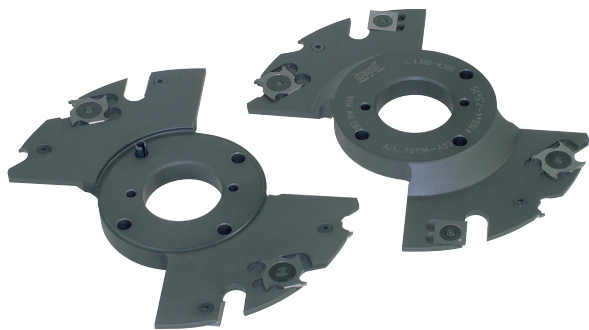
L = 27 mm con / with D = 150 mm

L = 32 mm con / with D = 160 mm

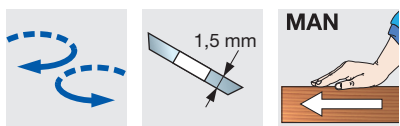


TG11M

TESTE PORTACOLTELLI PER INCASTRI REGOLABILI ADJUSTABLE GROOVING CUTTERHEADS



D	B-B1	d*	Z	R	Codice
mm	mm	mm			Code
160	4 - 7,5	30	8	4	TG11M AA3
160	4 - 7,5	35	8	4	TG11M AB3
160	4 - 7,5	40	8	4	TG11M AC3
160	8 - 15,5	30	4	4	TG11M DA3
160	8 - 15,5	35	4	4	TG11M DB3
160	8 - 15,5	40	4	4	TG11M DC3
160	12,5 - 24	30	4	4	TG11M TA3
160	12,5 - 24	35	4	4	TG11M TB3
160	12,5 - 24	40	4	4	TG11M TC3
200	4 - 7,5	35 (50)	8	4	TG11M FB3
200	8 - 15,5	35 (50)	4	4	TG11M HB3
200	12,5 - 24	35 (50)	4	4	TG11M VB3



Utensili collaudati secondo la Normativa
Tools tested according to the Norm

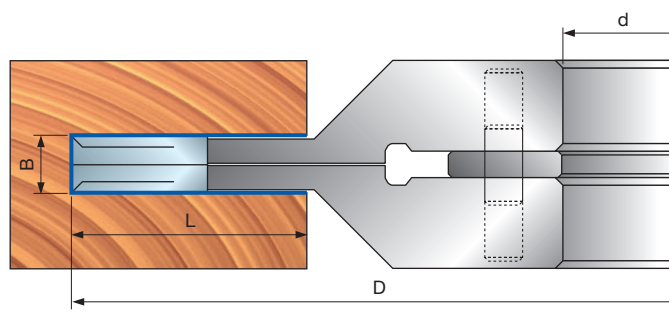
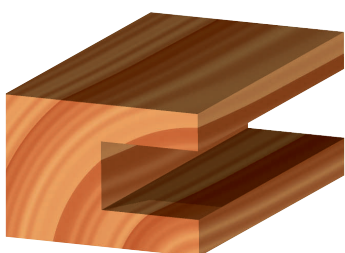
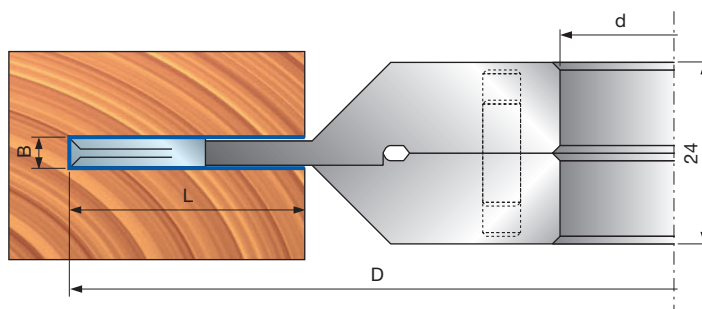
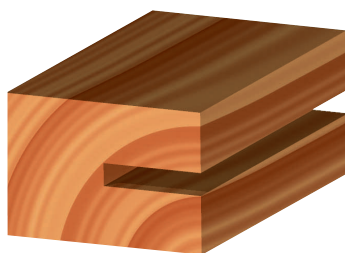
• **EN 847-1** •

	Parti di ricambio	Dimensioni	Codice
	Spare parts	Dimensions	Code
	Rasante / Spur	14 x 14 x 2	RG01M AA3
AA3-AB3-FB3-AC3	Coltello / Knife	18 x 1,9 x 18	CG03M AA3
	Ghiera / Nut	11,6 x 1,5 x 4	VT18M BA9
	Ghiera / Nut	9,4 x 1,7 x 4	VT18M DA9
	Vite / Screw	M4 x 3,2	VT05M BB9
	Chiave Torx / Torx key	T9	CB03M CA9
DA3-DB3-DC3-HB3	Coltello / Knife	7,6 x 12 x 1,5	CG01M AA3
	Cuneo / Wedge	15 x 7,2 x 8	CN09M DA9
	Vite / Screw	M5 x 19	VT11M AA9
	Vite / Screw	M5 x 6	VT05M AC9
	Chiave a forchetta / Fork wrench	5	CB04M 059
TA3-TB3-TC3-VB3	Coltello / Knife	12 x 12 x 1,5	CG01M BA3
	Cuneo / Wedge	15 x 10 x 8	CN09M AA9
	Vite / Screw	M6 x 22	VT19M AB9
	Ogiva / Nut	10 x 11,5 x 6	VT20M AA9
	Chiave / Allen key	3 x 110	CB03M AA9
	Vite / Screw	M5 x 8	VT05M AA9

PROFONDITÀ D'INCASTRO / DEPTH OF CUT

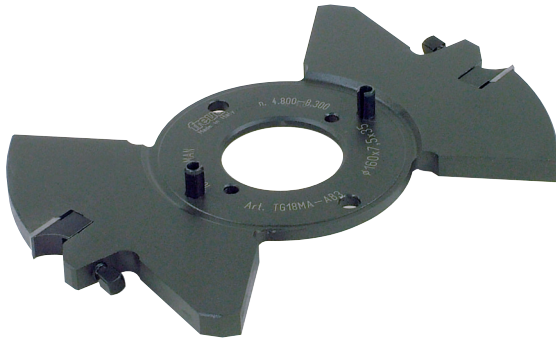
L = 30 mm con / with D = 160 mm

L = 40 mm con / with D = 200 mm






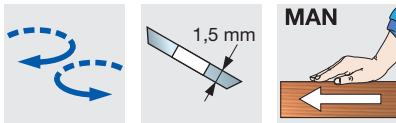
TG18MA

ELEMENTO CON COLTELLI A GETTARE PER TG11M ELEMENT WITH DISPOSABLE KNIVES FOR TG11M



D	B-B1	d*	Z	R	Codice
mm	mm	mm			Code
160	7,5	30 (50)	2		TG18MA AA3
160	7,5	35 (50)	2		TG18MA AB3
160	7,5	40 (50)	2		TG18MA AC3

Parti di ricambio	Dimensioni	Codice
Spare parts	Dimensions	Code
Coltello / Knife	 7,6 x 12 x 1,5	CG01M AA3
Cuneo / Wedge	 15 x 7,2 x 8	CN09M DA9
Vite / Screw	 M5 x 19	VT11M AA9

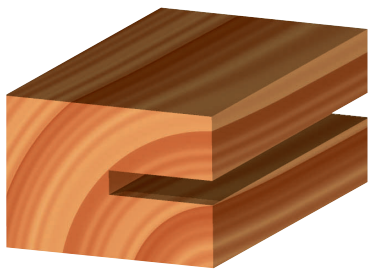


Utensili collaudati secondo la Normativa
Tools tested according to the Norm

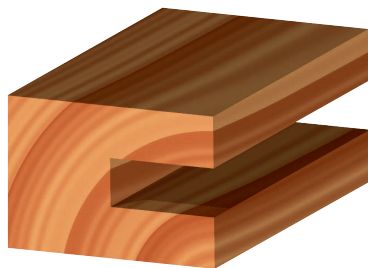
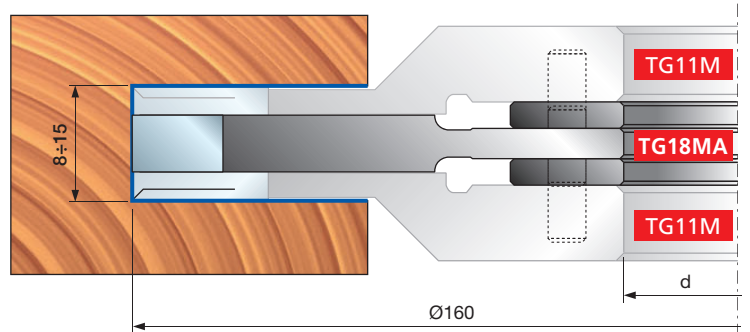
• EN 847-1 •

■ INCREMENTA LA POSSIBILITÀ DI REGOLAZIONE DELL'ARTICOLO TG11M.

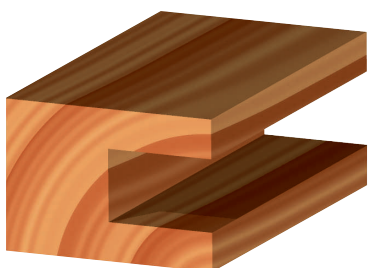
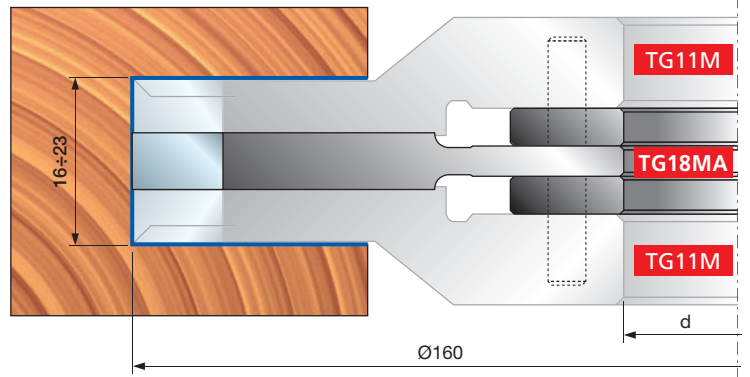
■ IMPROVES THE ADJUSTMENT RANGE OF ITEM CODE TG11M.



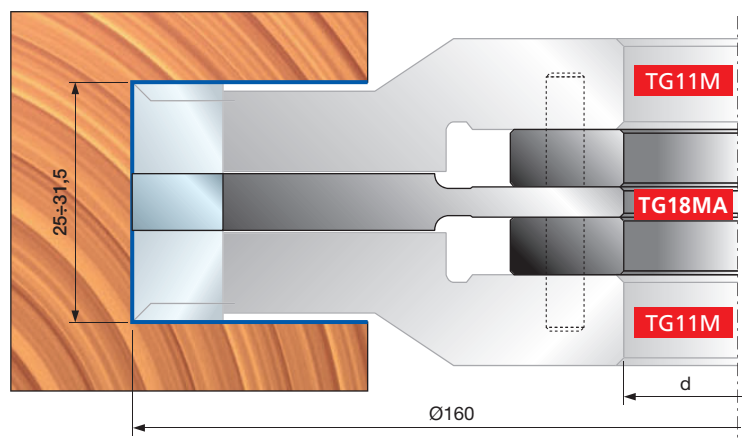
TG18MA
+
TG11M (4÷7,5)



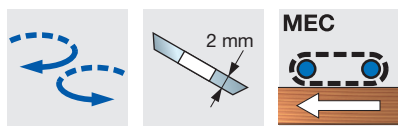
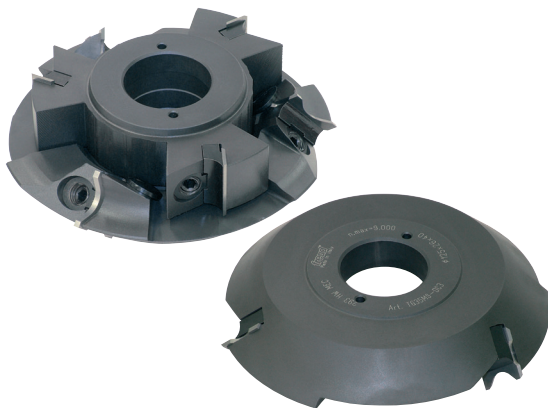
TG18MA
+
TG11M (8÷15,5)



TG18MA
+
TG11M (12,5÷24)



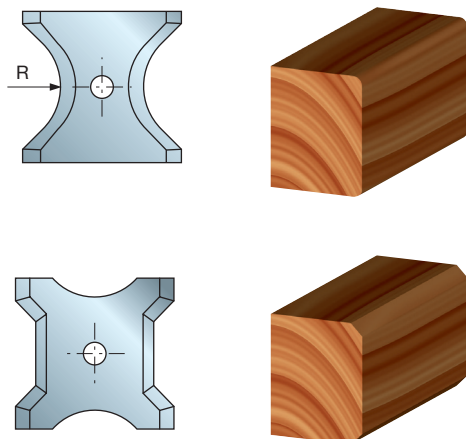
T135M TG35M



- QUESTI UTENSILI VENGONO FORNITI SENZA COLTELLI.
- THESE ITEMS ARE SUPPLIED WITHOUT KNIVES.

- Per la lavorazione di legni duri, truciolare melaminico, nobilitato, bilaminato ed MDF.
- Especially indicated to work hardwood, melamine chipboard panels, veneer, bilaminated panels and MDF.
- 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.
- 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.

- COLTELLI PER RAGGIARE.
- KNIVES FOR ROUNDING.



TESTE PER SPIANARE ED ARROTONDARE POST FORMING CUTTERHEADS SET WITH DISPOSABLE KNIVES

T135M per spianare / for planing

D	B	d*	Z	R	Codice
mm	mm	mm			Code
125	30	40 (50)	3		T135M AC3
125	50	40 (50)	3		T135M BC3

Parti di ricambio	Dimensioni	Codice
Spare parts	Dimensions	Code
Coltello / Knife	30 x 12 x 1,5	CG01M EA3
Cuneo / Wedge	15 x 26 x 8	CN09M AD9
Coltello / Knife	50 x 12 x 1,5	CG01M FA3
Cuneo / Wedge	15 x 46 x 8	CN09M AP9
Vite / Screw	M10 x 22	VT19M MA9
Ogiva / Nut	15 x 13,3 x 10	VT20M MA9
Chiave / Allen key	5 x 110	CB03M EA9

TG35MD - TG35MS per raggiare / for rounding

D	B	d*	Z	R	Codice
mm	mm	mm			Code
125	13	40 (50)	3		TG35MD EC3
125	20	40 (50)	3		TG35MD CC3
125	26	40 (50)	3		TG35MD DC3
125	13	40 (50)	3		TG35MS EC3
125	20	40 (50)	3		TG35MS CC3
125	26	40 (50)	3		TG35MS DC3

Parti di ricambio	Dimensioni	Codice
Spare parts	Dimensions	Code
Cuneo / Wedge	12 x 11 x 8	CN21M AC9
Vite / Screw	M6 x 22	VT19M AB9
Ogiva / Nut	10 x 11,5 x 6	VT20M AA9
Chiave / Allen key	3 x 110	CB03M AA9
Cuneo / Wedge	18 x 18 x 8	CN21M AA9
Cuneo / Wedge	18 x 26 x 8	CN21M AB9
Vite / Screw	M10 x 22	VT19M MA9
Ogiva / Nut	15 x 13,3 x 10	VT20M MA9
Chiave / Allen key	5 x 110	CB03M EA9
Vite / Screw	M5 x 7 x 16	VT08M AE9

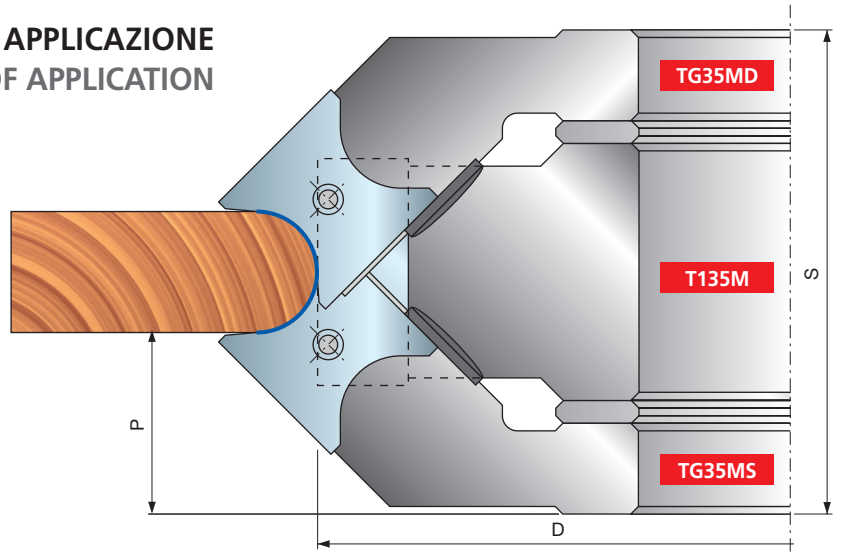
Coltelli di ricambio / Spare knives

Coltelli	Dimensioni	R	Sp. spianatura		Per teste
Knives	Dimensions		T135M AC3	T135M BC3	For cutterheads
CG50M CE3	13 x 16 x 2	45°			
CG50M CD3	13 x 16 x 2	1			
CG50M CA3	13 x 16 x 2	2	4÷30	24÷50	TG35MD EC3
CG50M CB3	13 x 16 x 2	3			TG35MS EC3
CG50M CC3	13 x 16 x 2	4			
CG50M AE3	20 x 21 x 2	45°			
CG50M AA3	20 x 21 x 2	5			
CG50M AB3	20 x 21 x 2	6	10÷40	30÷60	TG35MD CC3
CG50M AC3	20 x 21 x 2	7			TG35MS CC3
CG50M AD3	20 x 21 x 2	8			
CG50M BE3	26 x 24 x 2	45°			
CG50M BA3	26 x 24 x 2	9			
CG50M BB3	26 x 24 x 2	10	18÷48	36÷68	TG35MD DC3
CG50M BC3	26 x 24 x 2	11			TG35MS DC3
CG50M BD3	26 x 24 x 2	12			

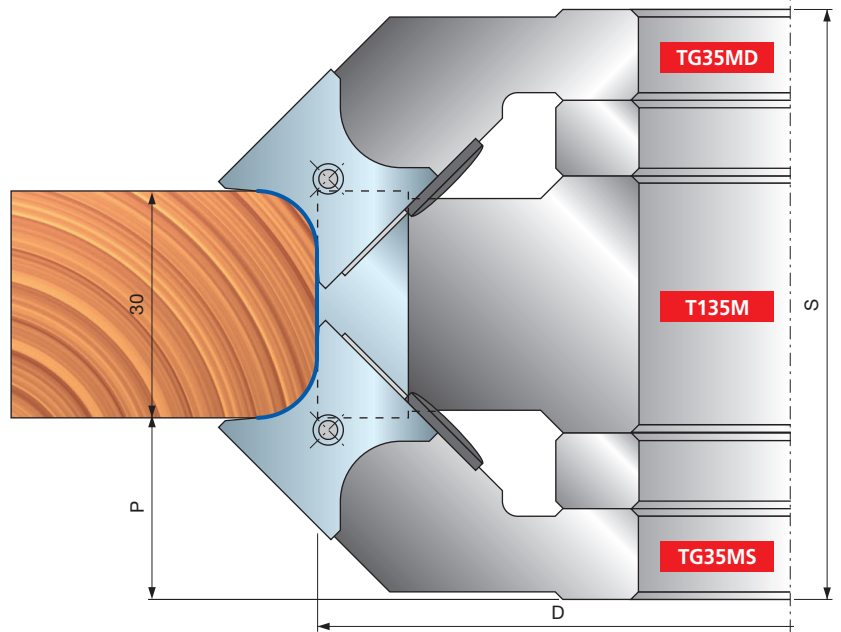
ESEMPI DI APPLICAZIONE EXAMPLES OF APPLICATION

Misure coltello	P	S
26 x 24 x 2	26	52 + Sp. legno / Wood thickness
20 x 21 x 2	24	48 + Sp. legno / Wood thickness
13 x 16 x 2	27	54 + Sp. legno / Wood thickness

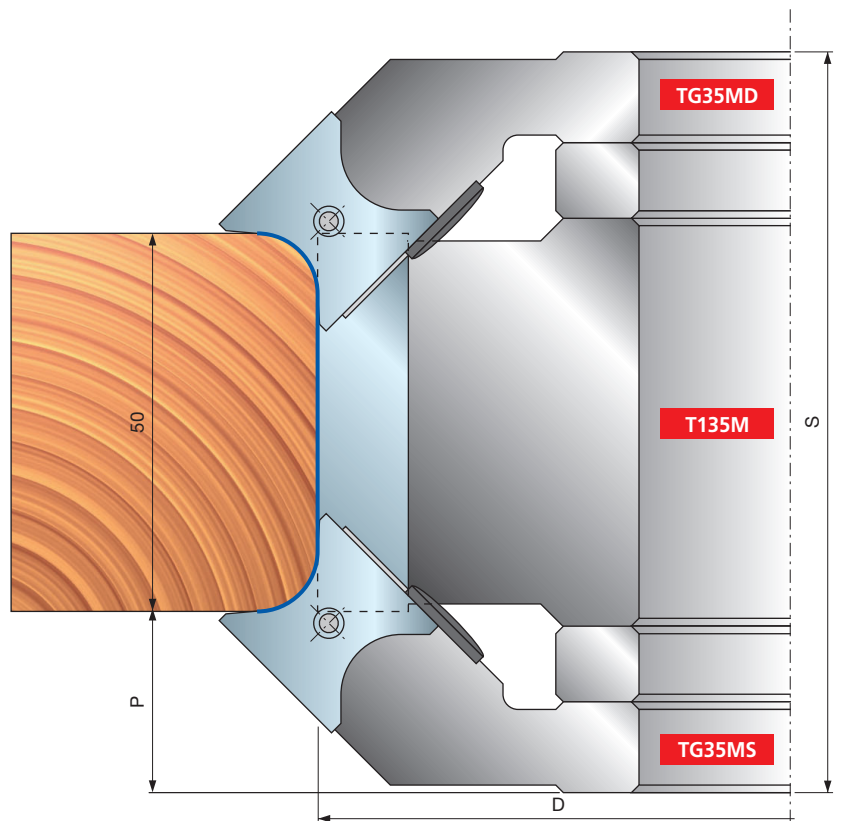
PROFILO / PROFILE **A**



PROFILO / PROFILE **B**

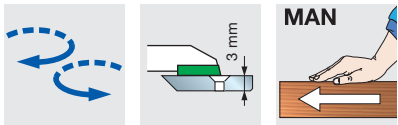


PROFILO / PROFILE **C**



TP22M

TESTE PORTACOLTELLI MULTIRAGGIO MULTI RADIUS CUTTERHEADS



PERFORMANCE
Coltelli Riaffilabili
SYSTEM
Resharpenable Knives

Utensili collaudati secondo la Normativa
Tools tested according to the Norm

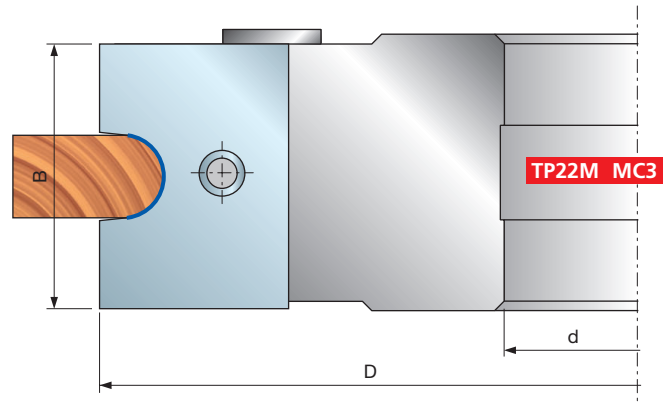
• **EN 847-1** •

D	B	d*	Z	Raggio	Codice
mm	mm	mm		Radius	Code
124	45	35 (40)	2	8-9-10-11	TP22M LB3
142	35	40 (50)	2	5-5,5-6	TP22M MC3

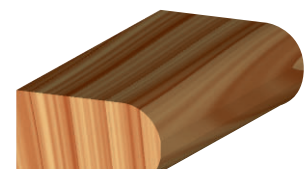
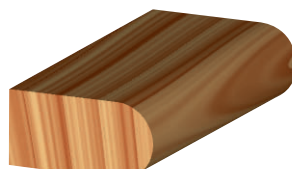
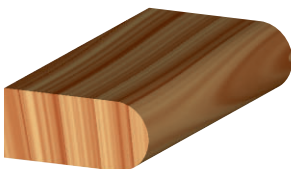
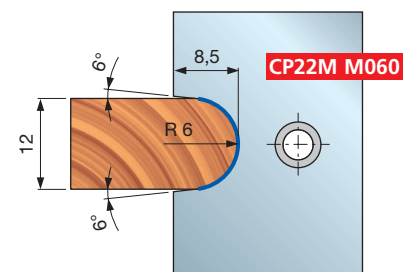
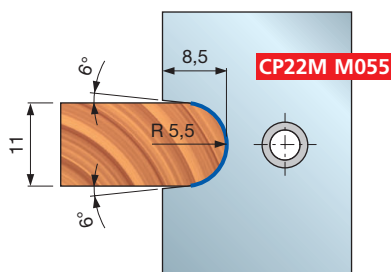
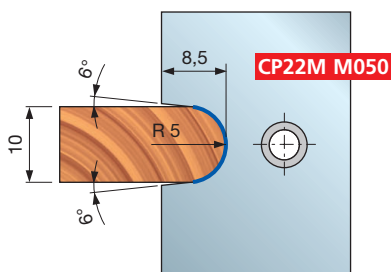
Parti di ricambio	Dimensioni	Codice	
Spare parts	Dimensions	Code	
LB3	Cuneo / Wedge	43 x 28 x 8,5	CN13M CH9A
	Coltello / Knife	45 x 29 x 3 R8	CP22M L080
	Coltello / Knife	45 x 29 x 3 R9	CP22M L090
	Coltello / Knife	45 x 29 x 3 R10	CP22M L100
	Coltello / Knife	45 x 29 x 3 R11	CP22M L110
MC3	Cuneo / Wedge	33 x 23 x 8,5	CN13M CI9A
	Coltello / Knife	35 x 24 x 3 R5	CP22M M050
	Coltello / Knife	35 x 24 x 3 R5,5	CP22M M055
	Coltello / Knife	35 x 24 x 3 R6	CP22M M060
	Vite / Screw	M5 x 7 x 16	VT08M AE9
	Vite / Screw	M10 x 18	VT03M CC9
Chiave / Allen key	5 x 110	CB03M EA9	

■ Corpo in lega leggera (Ergal). Per la pulizia non utilizzare prodotti contenenti soda caustica. L'articolo è fornito di coltelli.

■ Light alloy body (Ergal). For cleaning do not use products containing caustic soda. This item comes complete with knives in a practical carrying case.



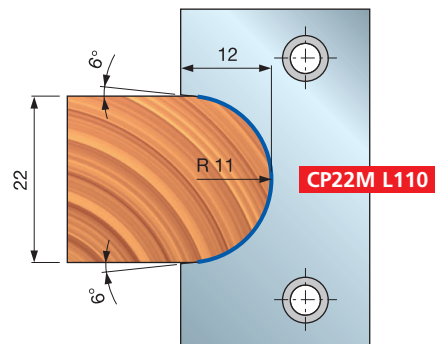
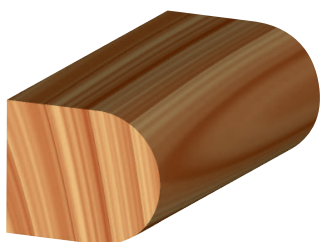
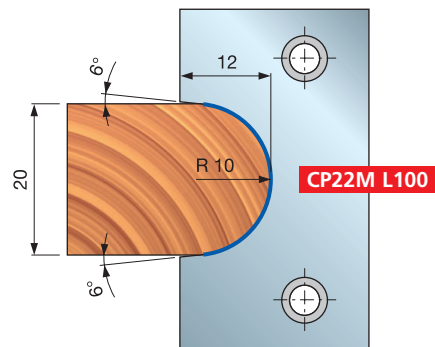
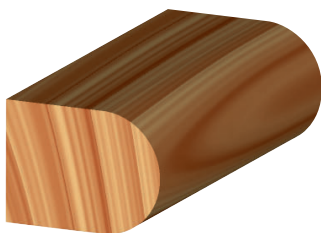
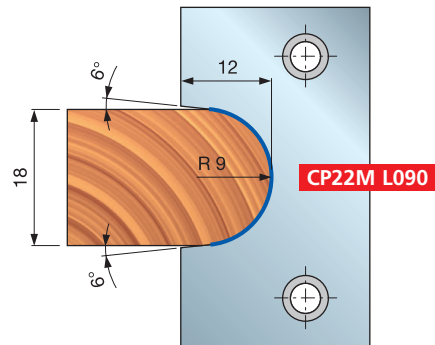
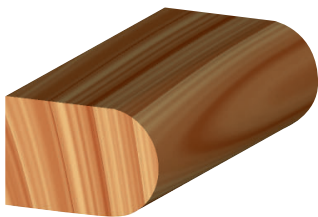
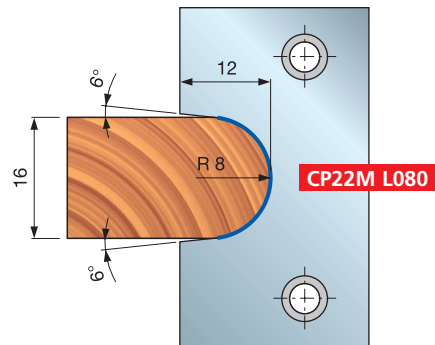
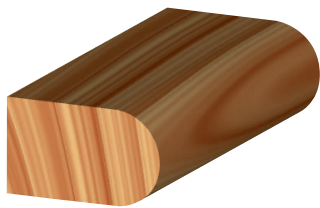
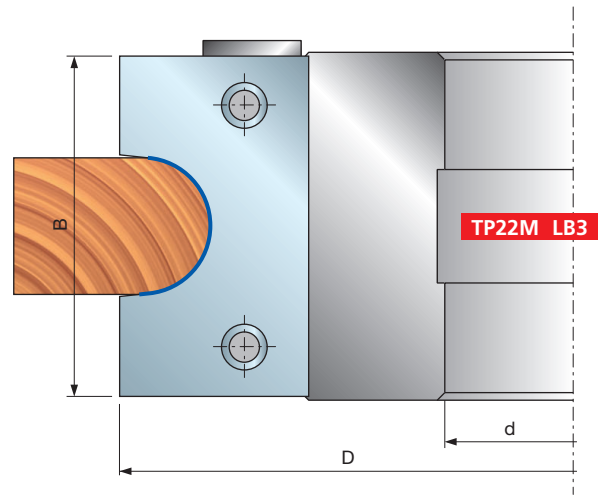
COLTELLI PER / KNIVES FOR TP22M MC3



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

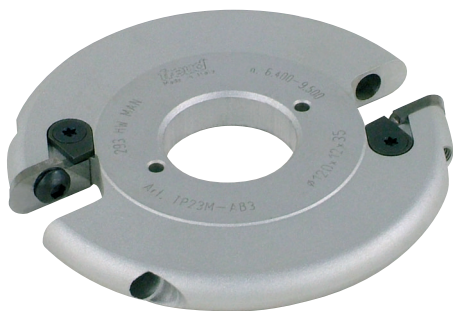
TESTE PORTACOLTELLI MULTIRAGGIO MULTI RADIUS CUTTERHEADS

COLTELLI PER / KNIVES FOR **TP22M LB3**



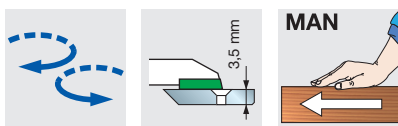
TP23M

TESTA PORTACOLTELLI MULTIRAGGIO MULTI RADIUS CUTTERHEAD



D	B	d*	Z	Raggio	Codice
mm	mm	mm		Radius	Code
120	12	35 (50)	2	6 - 8 - 10	TP23M AB3

Parti di ricambio		Dimensioni	Codice
Spare parts		Dimensions	Code
Coltello / Knife		12 x 24 x 3,5 R6	CP23M A060
Coltello / Knife		16 x 24 x 3,5 R8	CP23M A080
Coltello / Knife		20 x 24 x 3,5 R10	CP23M A100
Vite / Screw		M6 x 10	2622M CB9
Vite / Screw		M5 x 8	VT05M AA9
Piastra riscontro / Positioning plate		20 x 11,6 x 2,2	VT18M AR9
Chiave / Allen key		4 x 110	CB03M BA9

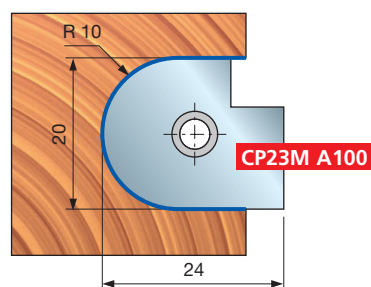
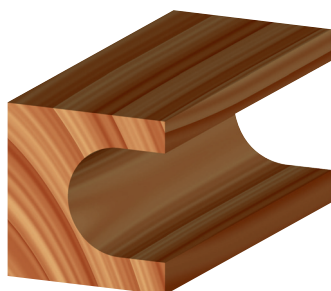
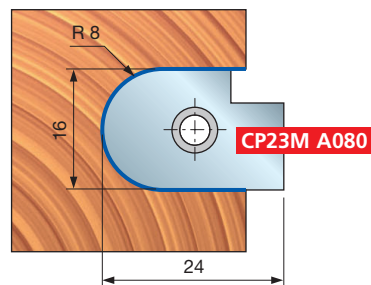
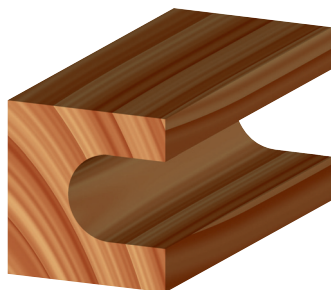
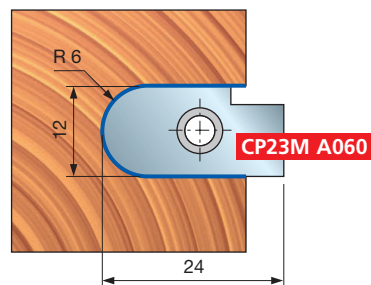
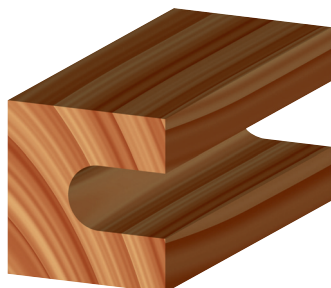
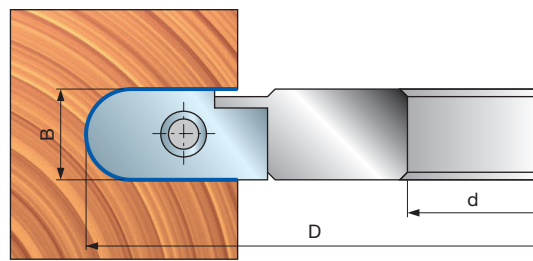


PERFORMANCE
Coltelli Riaffilabili
SYSTEM
Resharpenable Knives

Utensili collaudati secondo la Normativa
Tools tested according to the Norm

• **EN 847-1** •

- Corpo in lega leggera (Ergal). Per la pulizia non utilizzare prodotti contenenti soda caustica. L'articolo è fornito di coltelli.
- Light alloy body (Ergal). For cleaning do not use products containing caustic soda. This item comes complete with knives in a practical carrying case.



QUESTO PROFILO È UTILIZZABILE
SOLAMENTE CON AVANZAMENTO
MECCANICO. ▶
THIS PROFILE IS USABLE WITH
AUTOMATIC FEED ONLY.

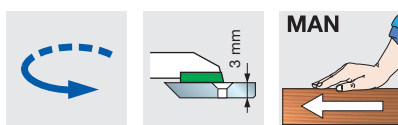
TP31M

TESTA PORTACOLTELLI MULTIRAGGIO MULTI RADIUS CUTTERHEAD



D	B	d*	Z	Raggio	Codice
mm	mm	mm		Radius	Code
150	24	35 (50)	2	8 - 10	TP31M AB3

Parti di ricambio	Dimensioni	Codice
Spare parts	Dimensions	Code
Coltello / Knife	24 x 30 x 3 R8	CP31M A080
Coltello / Knife	24 x 30 x 3 R10	CP31M A100
Cuneo / Wedge	18 x 17 x 8	CN11M B180
Vite / Screw	M10 x 18	VT03M CC9
Piastra riscontro / Positioning plate	20 x 11,6 x 2,2	VT18M AR9
Vite / Screw	M5 x 8	VT05M AA9
Chiave / Allen key	5 x 110	CB03M EA9

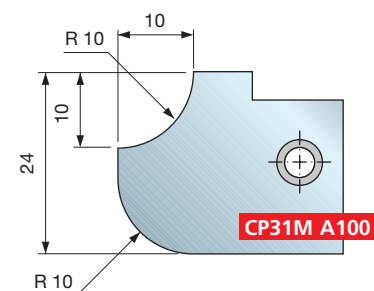
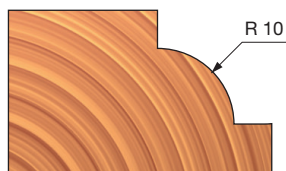
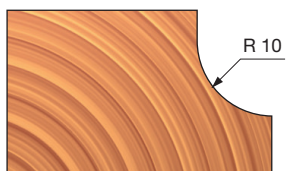
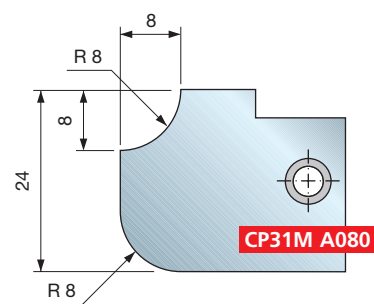
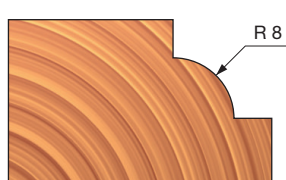
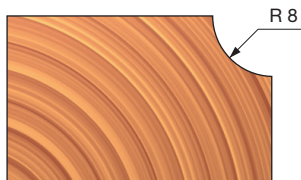
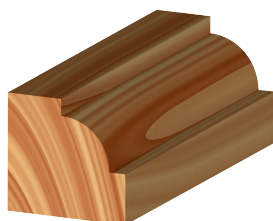
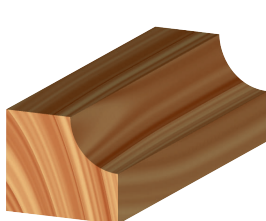
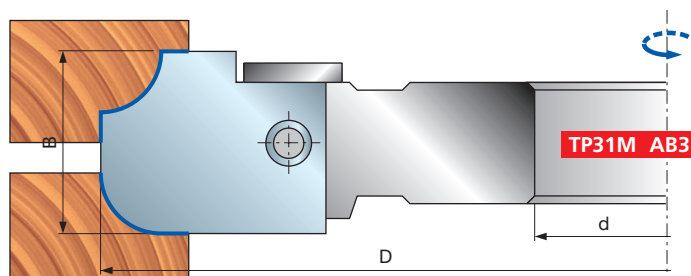


PERFORMANCE
Coltelli Riaffilabili
SYSTEM
Resharpenable Knives

Utensili collaudati secondo la Normativa
Tools tested according to the Norm

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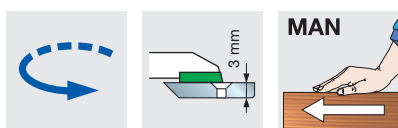
TP31M

TESTA PORTACOLTELLI MULTIRAGGIO MULTI RADIUS CUTTERHEAD



D	B	d*	Z	Raggio	Codice
mm	mm	mm		Radius	Code
150	34	35 (50)	2	10 - 12	TP31M EB3

Parti di ricambio	Dimensioni	Codice
Spare parts	Dimensions	Code
Coltello / Knife	34 x 34 x 3 R10	CP31M B100
Coltello / Knife	34 x 34 x 3 R12	CP31M B120
Cuneo / Wedge	32 x 32 x 8,5	CN13M CF9A
Vite / Screw	M10 x 18	VT03M CC9
Piastra riscontro / Positioning plate	20 x 11,6 x 2,2	VT18M AR9
Vite / Screw	M5 x 8	VT05M AA9
Chiave / Allen key	5 x 110	CB03M EA9

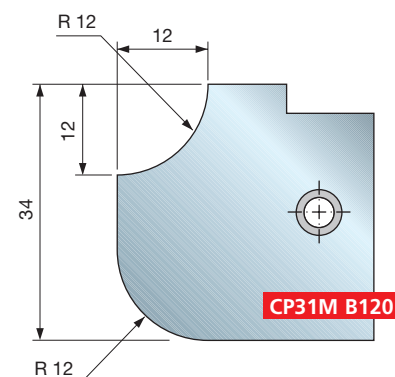
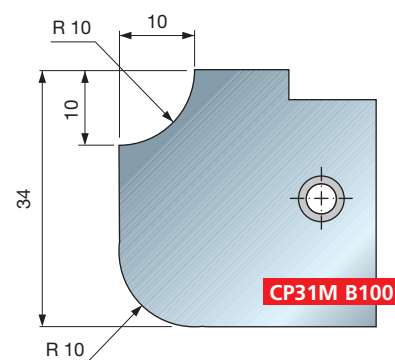
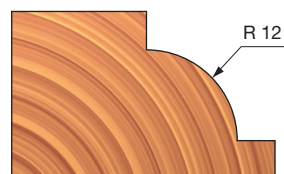
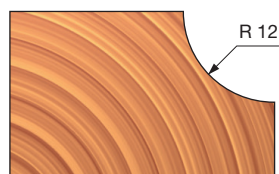
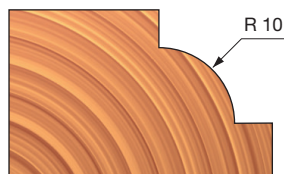
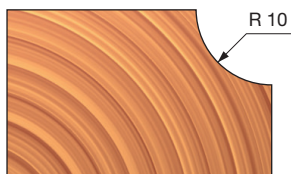
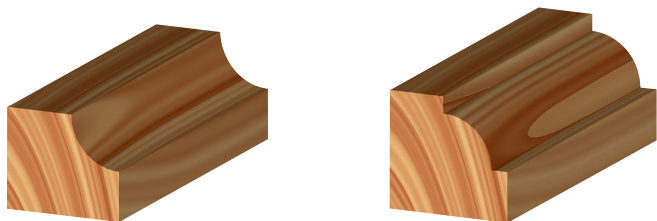
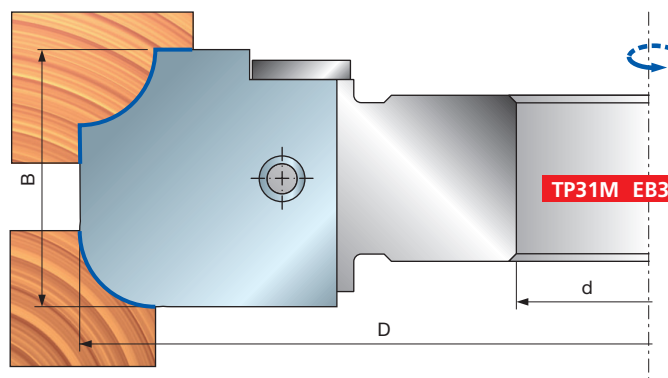


PERFORMANCE Coltelli Riaffilabili SYSTEM Resharpenable Knives

Utensili collaudati secondo la Normativa
Tools tested according to the Norm

• EN 847-1 •

- Corpo in lega leggera (Ergal). Per la pulizia non utilizzare prodotti contenenti soda caustica. L'articolo è fornito di coltelli.
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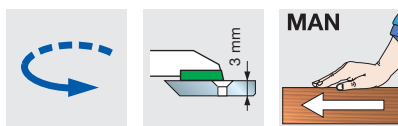
TP31M

TESTA PORTACOLTELLI MULTIRAGGIO MULTI RADIUS CUTTERHEAD



D	B	d*	Z	Raggio	Codice
mm	mm	mm		Radius	Code
150	34	35 (50)	2	15	TP31M FB3

Parti di ricambio	Dimensioni	Codice
Spare parts	Dimensions	Code
Coltello / Knife	34 x 34 x 3 R15	CP31M B150
Cuneo / Wedge	32 x 32 x 8,5	CN13M CF9A
Vite / Screw	M10 x 18	VT03M CC9
Piastra riscontro / Positioning plate	20 x 11,6 x 2,2	VT18M AR9
Vite / Screw	M5 x 8	VT05M AA9
Chiave / Allen key	5 x 110	CB03M EA9

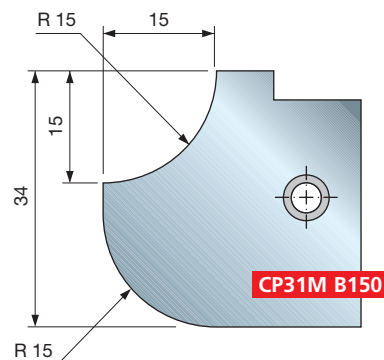
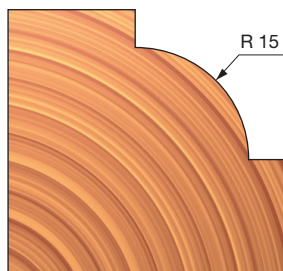
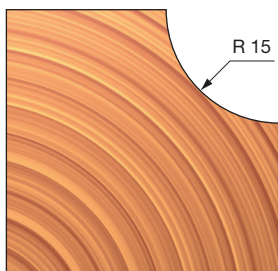
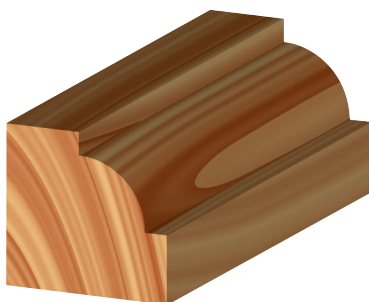
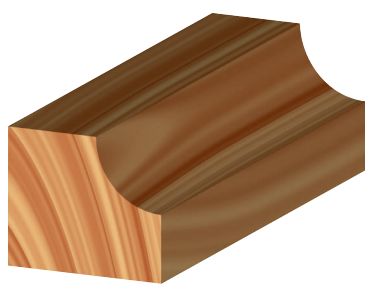
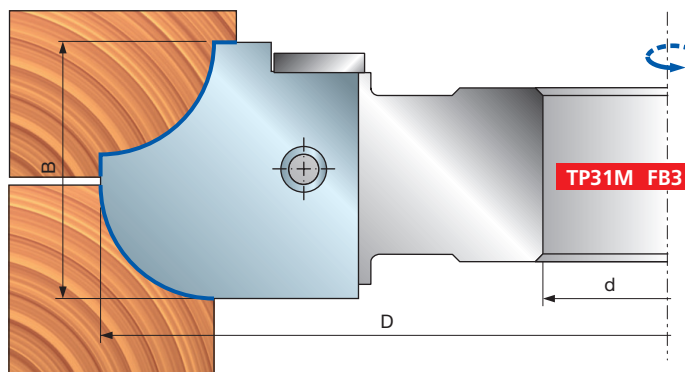


PERFORMANCE Coltelli Riaffilabili SYSTEM Resharpenable Knives

Utensili collaudati secondo la Normativa
Tools tested according to the Norm

• EN 847-1 •

- Corpo in lega leggera (Ergal). Per la pulizia non utilizzare prodotti contenenti soda caustica. L'articolo è fornito di coltelli.
- Light alloy body (Ergal). For cleaning do not use products containing caustic soda. This item comes complete with knives in a practical carrying case.



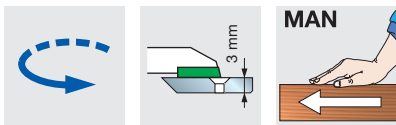
TP31M

TESTA PORTACOLTELLI MULTIRAGGIO MULTI RADIUS CUTTERHEAD



D	B	d*	Z	Raggio	Codice
mm	mm	mm		Radius	Code
160	40	35 (50)	2	8 - 10 - 12	TP31M GB3

Parti di ricambio	Dimensioni	Codice
Spare parts	Dimensions	Code
Coltello / Knife	40 x 40 x 3 R8	CP31M C080
Coltello / Knife	40 x 40 x 3 R10	CP31M C100
Coltello / Knife	40 x 40 x 3 R12	CP31M C120
Cuneo / Wedge	38 x 37 x 8,5	CN13M CG9A
Vite / Screw	M10 x 18	VT03M CC9
Piastra riscontro / Positioning plate	20 x 11,6 x 2,2	VT18M AR9
Chiave / Allen key	5 x 110	CB03M EA9

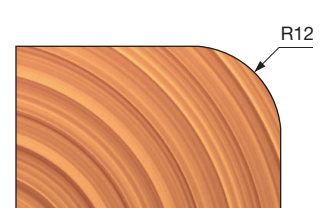
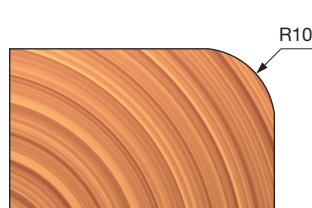
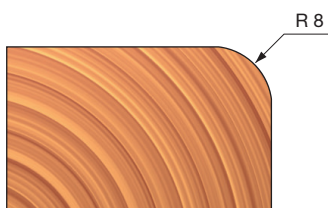
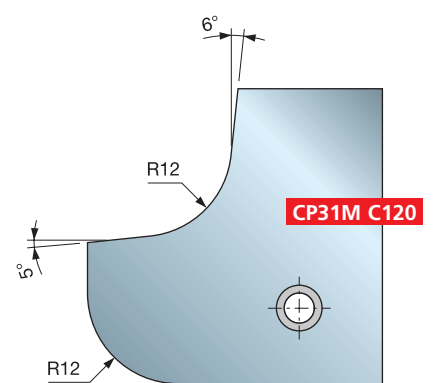
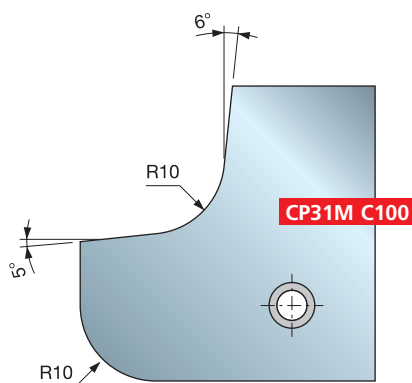
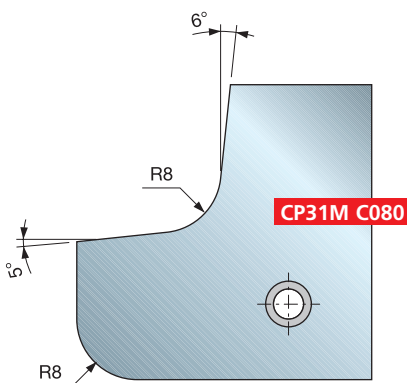
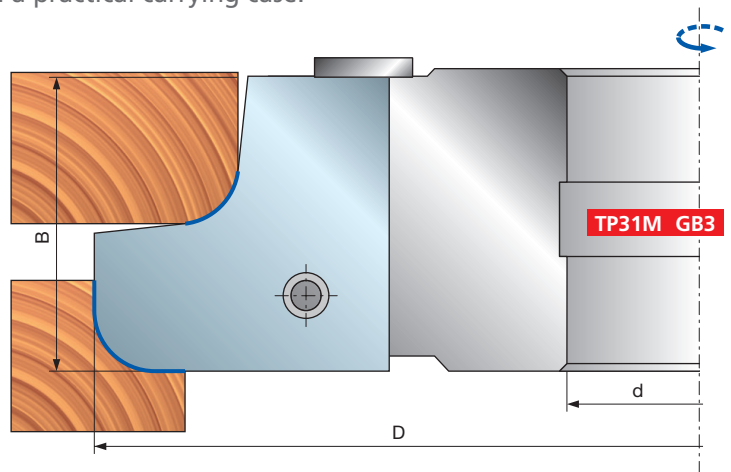
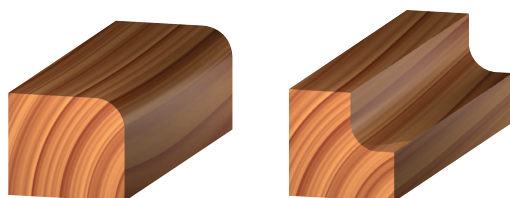


PERFORMANCE Coltelli Riaffilabili SYSTEM Resharpenable Knives

Utensili collaudati secondo la Normativa
Tools tested according to the Norm

• EN 847-1 •

- Corpo in lega leggera (Ergal). Per la pulizia non utilizzare prodotti contenenti soda caustica. L'articolo è fornito di coltelli.
- Light alloy body (Ergal). For cleaning do not use products containing caustic soda. This item comes complete with knives in a practical carrying case.



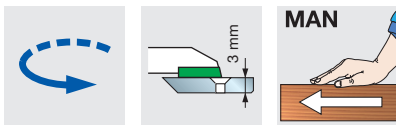
TP31M

TESTA PORTACOLTELLI MULTIRAGGIO MULTI RADIUS CUTTERHEAD



D	B	d*	Z	Raggio	Codice
mm	mm	mm		Radius	Code
160	40	35 (50)	2	12-15-17,5	TP31M HB3

Parti di ricambio	Dimensioni	Codice
Spare parts	Dimensions	Code
Coltello / Knife	40 x 40 x 3 R12	CP31M C120
Coltello / Knife	40 x 40 x 3 R15	CP31M C150
Coltello / Knife	40 x 40 x 3 R17,5	CP31M C175
Cuneo / Wedge	38 x 37 x 8,5	CN13M CG9A
Vite / Screw	M10 x 18	VT03M CC9
Piastra riscontro / Positioning plate	20 x 11,6 x 2,2	VT18M AR9
Chiave / Allen key	5 x 110	CB03M EA9

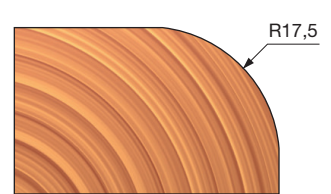
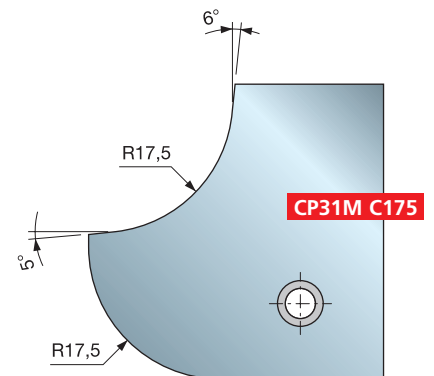
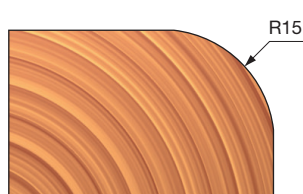
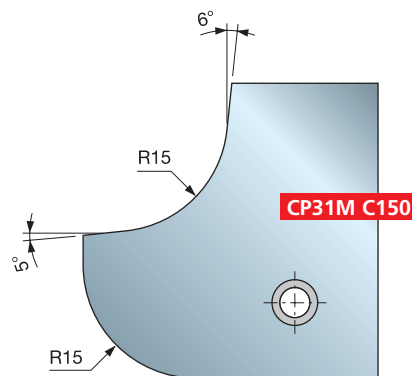
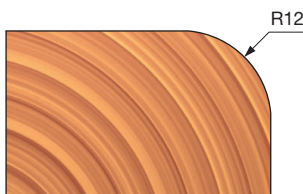
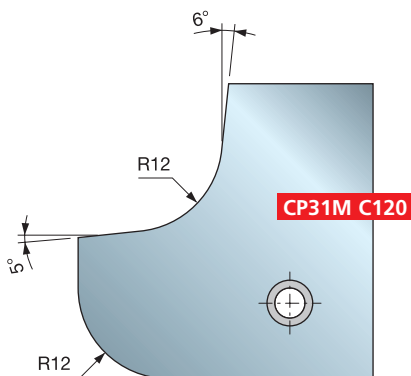
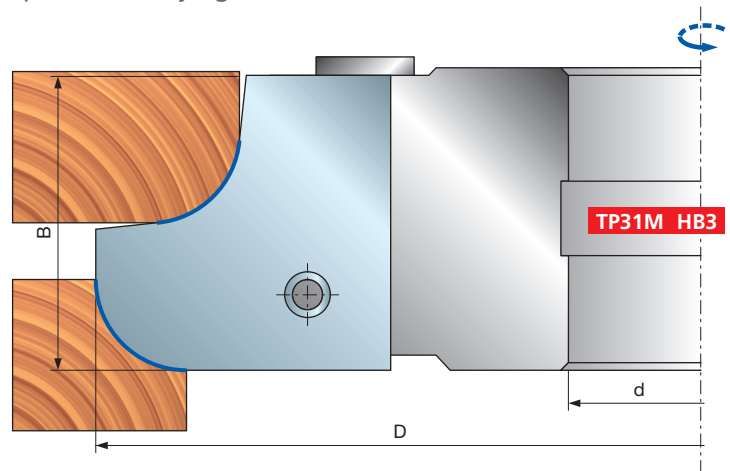
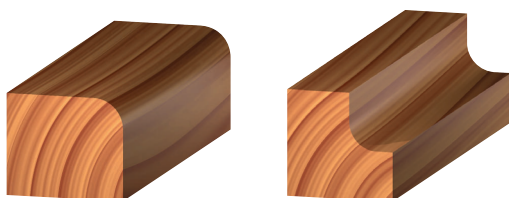


PERFORMANCE Coltelli Riaffilabili SYSTEM Resharpenable Knives

Utensili collaudati secondo la Normativa
Tools tested according to the Norm

• EN 847-1 •

- Corpo in lega leggera (Ergal). Per la pulizia non utilizzare prodotti contenenti soda caustica. L'articolo è fornito di coltelli.
- Light alloy body (Ergal). For cleaning do not use products containing caustic soda. This item comes complete with knives in a practical carrying case.



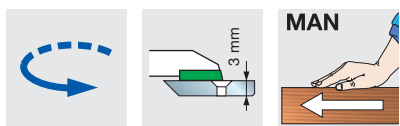
TP31M TP31MS

TESTE PORTACOLTELLI MULTIRAGGIO MULTI RADIUS CUTTERHEADS



D	B	d*	Z	Raggio	Codice
mm	mm	mm		Radius	Code
200	55	35 (50)	2	17,5-20-22,5-25	TP31M DB3
200	55	35 (50)	2	17,5-20-22,5-25	TP31MS DB3

Parti di ricambio	Dimensioni	Codice
Spare parts	Dimensions	Code
Coltello / Knife	55 x 29 x 3 R17,5	CP31M D175
Coltello / Knife	55 x 29 x 3 R20	CP31M D200
Coltello / Knife	55 x 29 x 3 R22,5	CP31M D225
Coltello / Knife	55 x 29 x 3 R25	CP31M D250
Cuneo / Wedge	51 x 19 x 8	CN11M C510
Vite / Screw	M5 x 7 x 16	VT08M AE9
Vite / Screw	M10 x 25	2602M F19
Chiave / Allen key	5 x 110	CB03M EA9



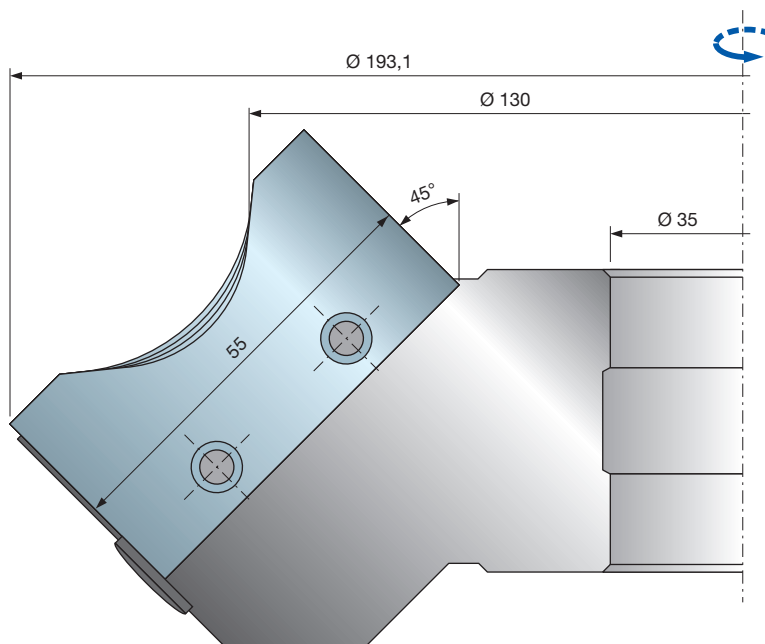
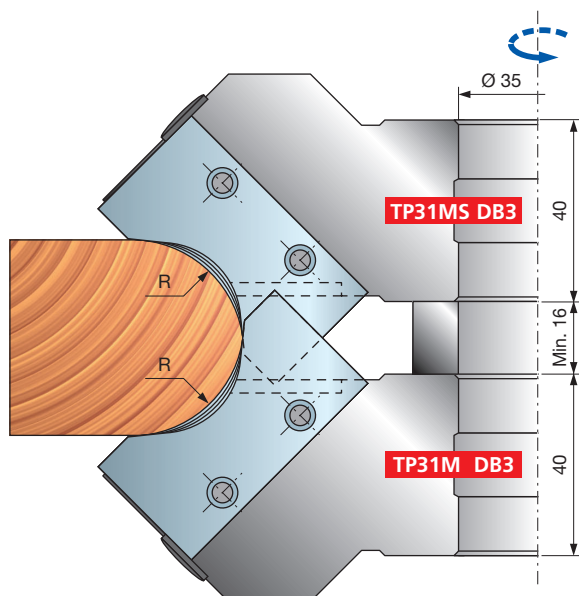
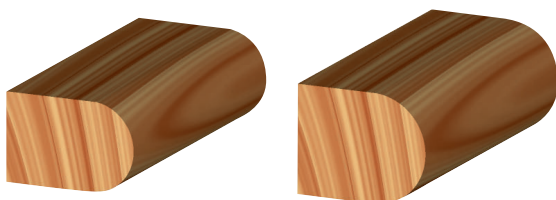
PERFORMANCE Coltelli Riaffilabili SYSTEM Resharpenable Knives

Utensili collaudati secondo la Normativa
Tools tested according to the Norm

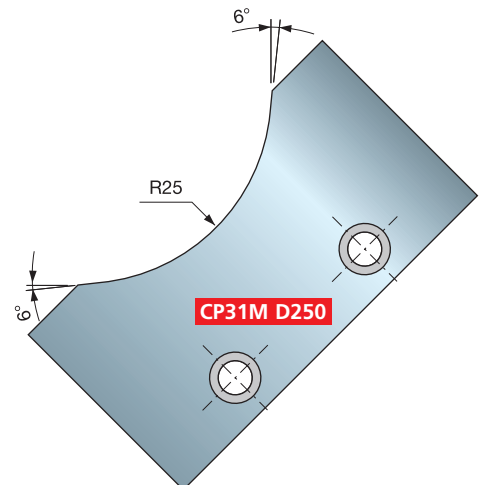
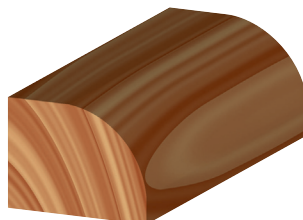
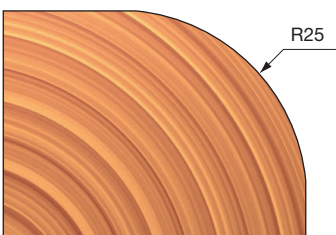
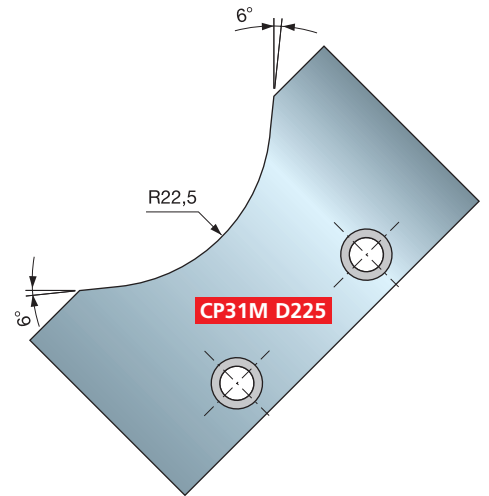
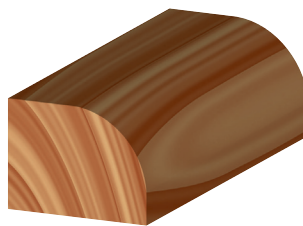
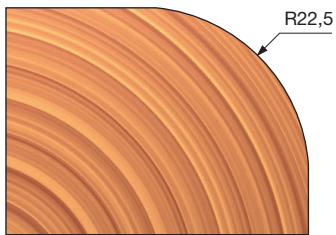
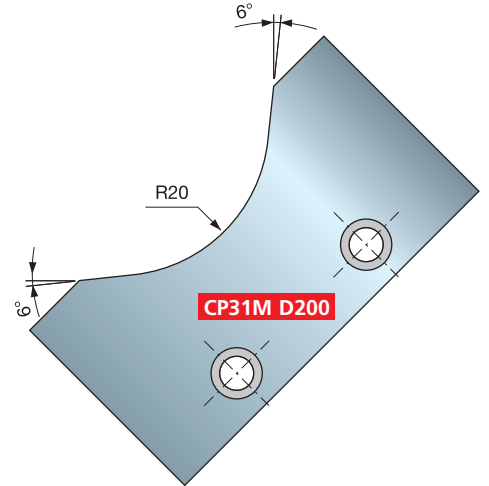
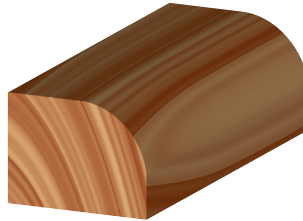
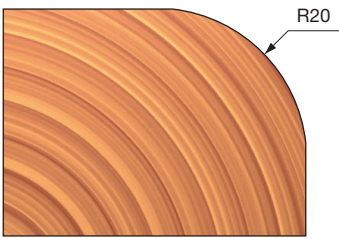
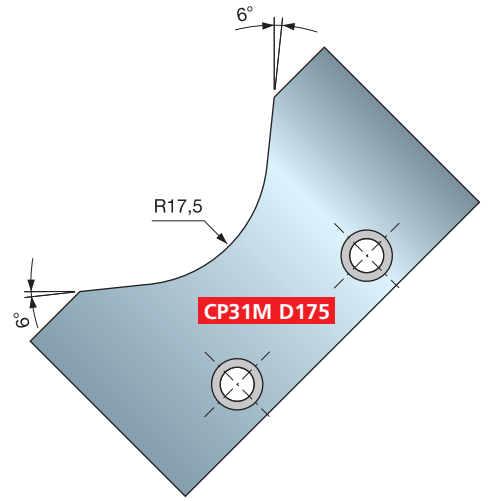
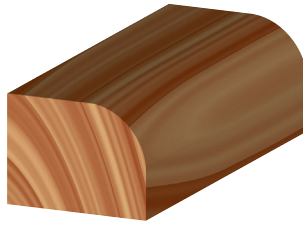
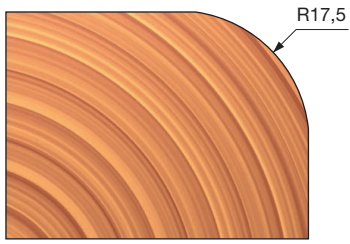
• EN 847-1 •

■ Corpo in lega leggera (Ergal). Per la pulizia non utilizzare prodotti contenenti soda caustica. Teste portacoltelli multiraggio, complete di 4 set di coltelli riaffilabili di diverso raggio, da utilizzare su macchina toupie. 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.

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



ESEMPI DI PROFILI REALIZZABILI
EXAMPLE OF PROFILES



FS39M $Z = 2$

FS39MS $Z = 2$

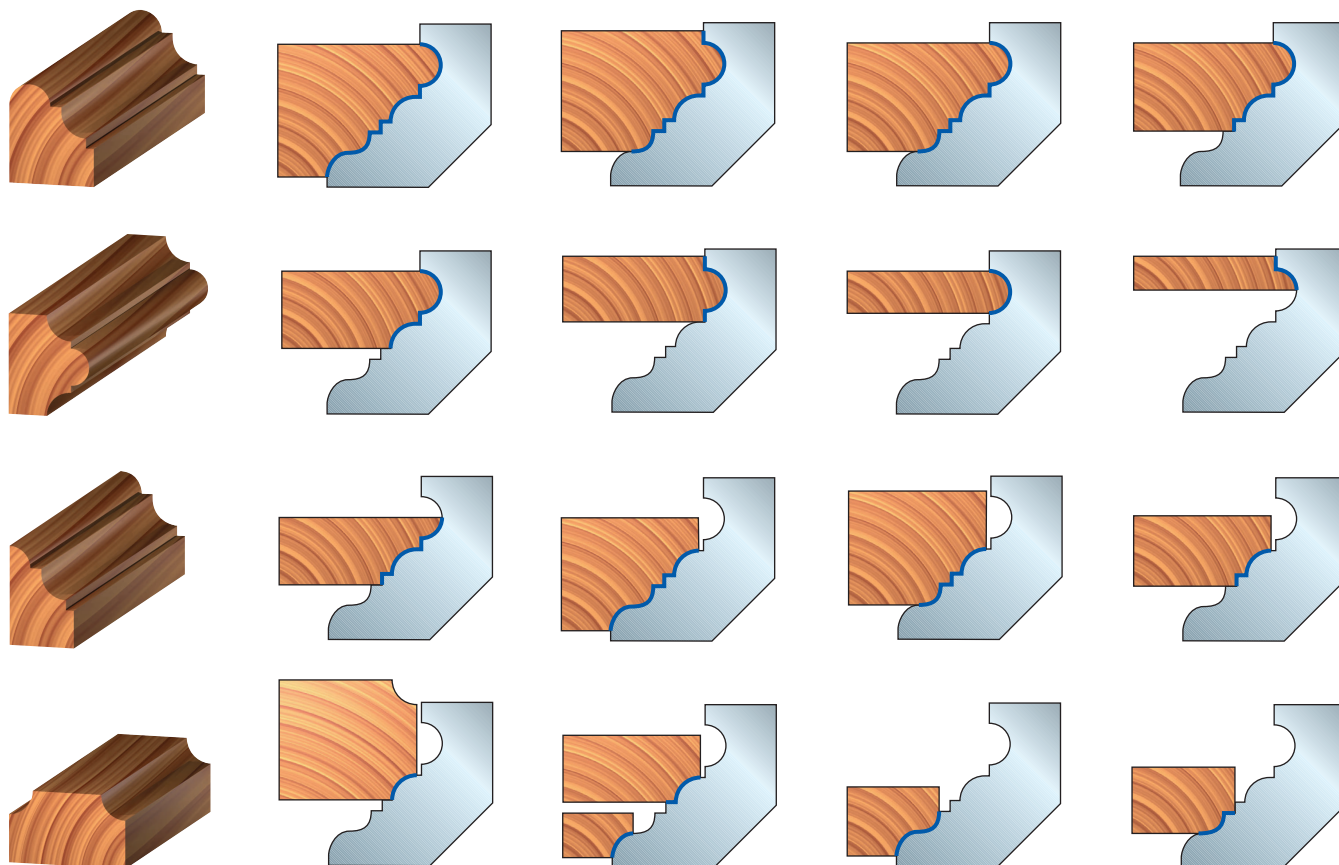
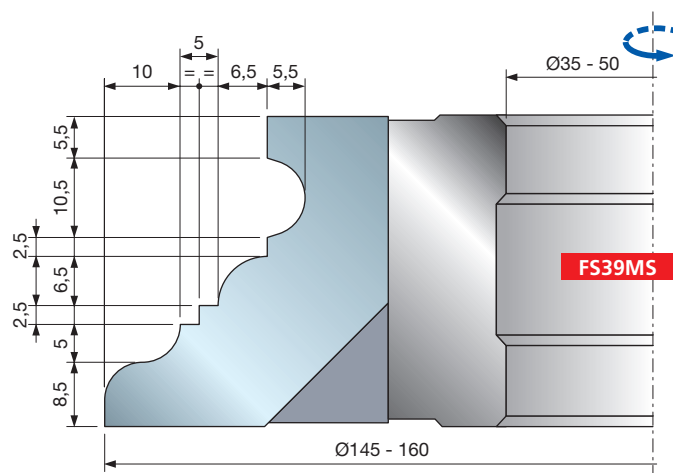
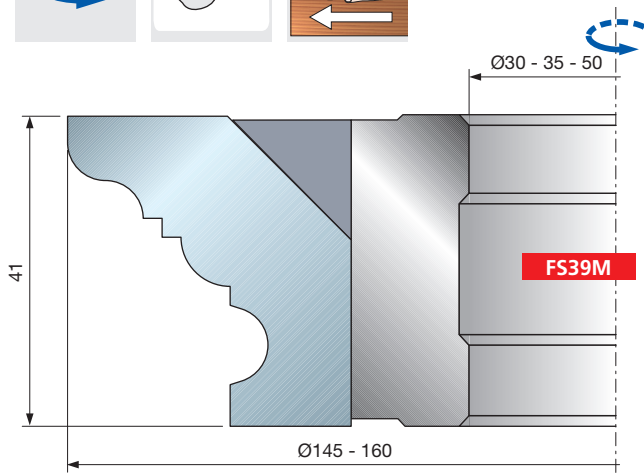
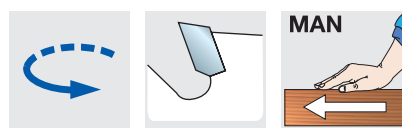
FRESE SAGOMATE MULTIPROFILO MULTIPROFILE BRAZED CUTTERS



D	B	d*	Z	R	Codice
mm	mm	mm			Code
145	41	30 (40)	2		FS39M AA3
145	41	35 (40)	2		FS39M AB3
160	41	50	2		FS39M AD3
145	41	35 (40)	2		FS39MS AB3
160	41	50	2		FS39MS AD3

Utensili collaudati secondo la Normativa
Tools tested according to the Norm

• **EN 847-1** •



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

FS40M

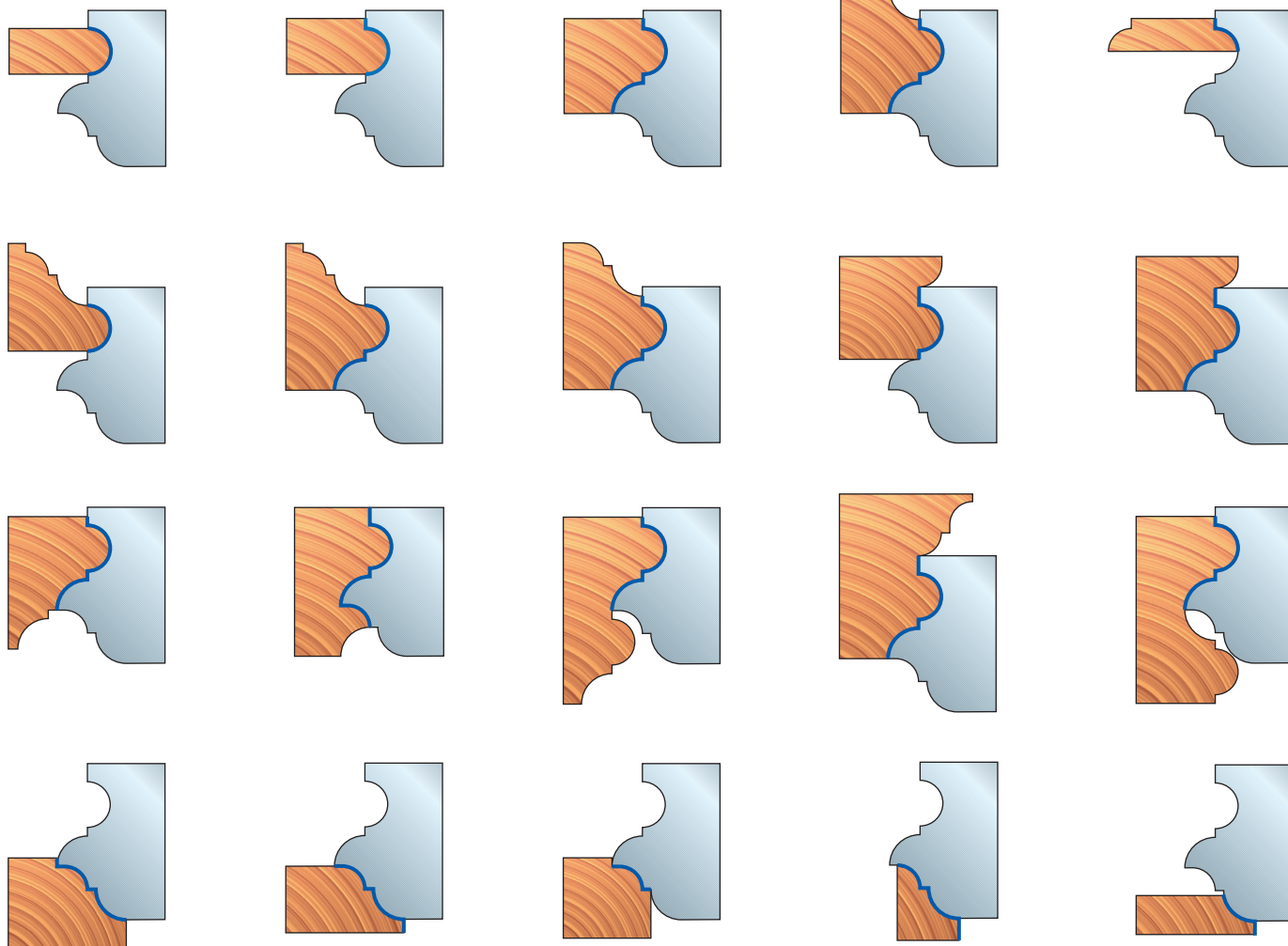
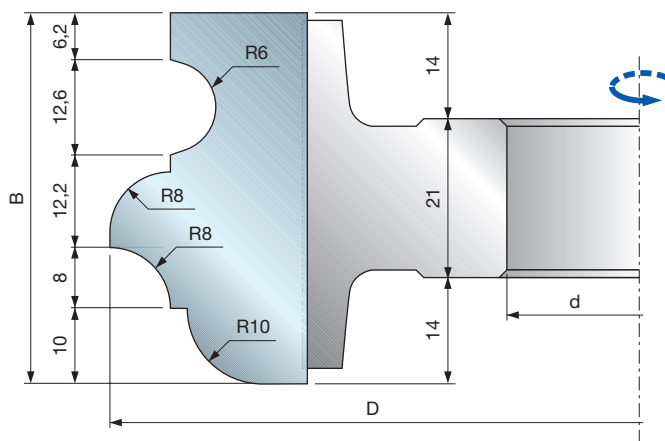
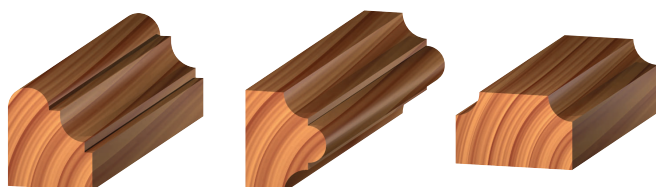
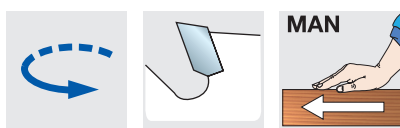
FRESE SAGOMATE MULTIPROFILO MULTIPROFILE BRAZED CUTTERS



D	B	d*	Z	R	Codice
mm	mm	mm			Code
140	49	35 (40)	2		FS40M CB3
140	49	50	2		FS40M CD3

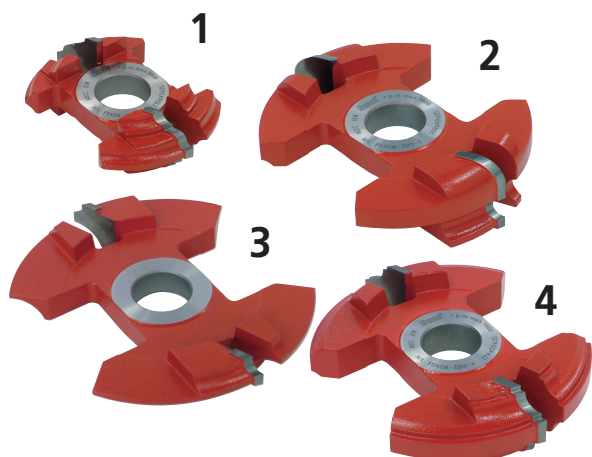
Utensili collaudati secondo la Normativa
Tools tested according to the Norm

• **EN 847-1** •

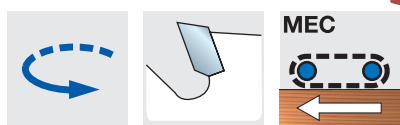


FS42M

SET DI FRESE SAGOMATE MULTIPROFILO SET OF MULTIPROFILE BRAZED CUTTERS

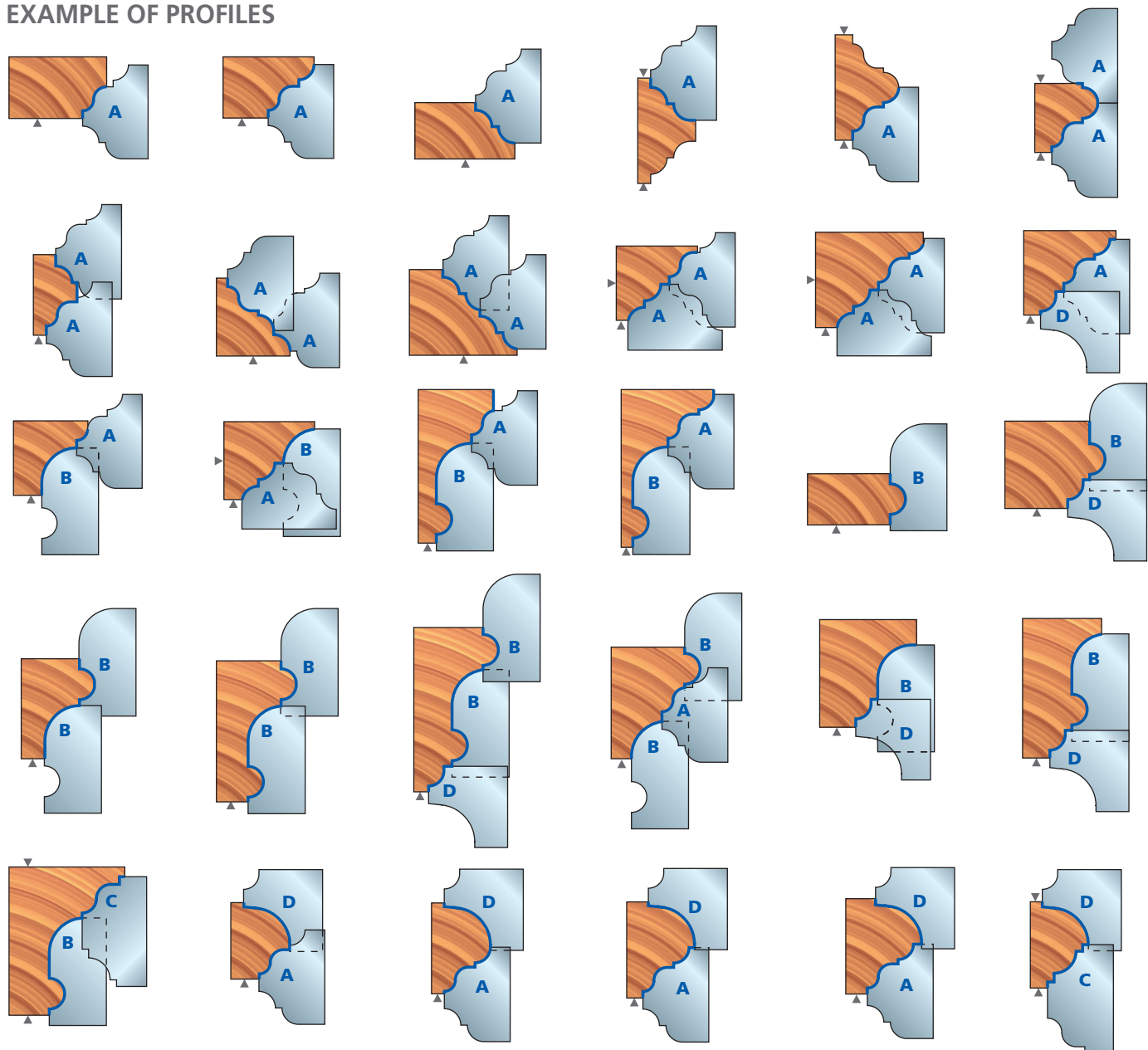


D	B	d	Z	R	Utensile	Codice Cassetta
mm	mm	mm			Tool	Cutterset code
133	43	35	2		A	FS42M EB3
169	49	35	2		B	
174	50	35	2		C	
188	37	35	2		D	
133	43	40	2		A	FS42M ED3
169	49	40	2		B	
174	50	40	2		C	
188	37	40	2		D	
148	43	50	2		A	FS42M EC3
184	49	50	2		B	
189	50	50	2		C	
203	37	50	2		D	



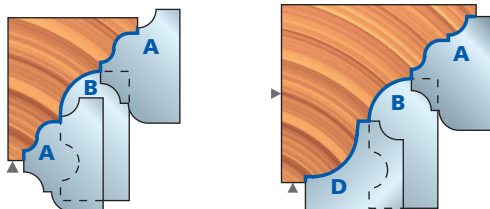
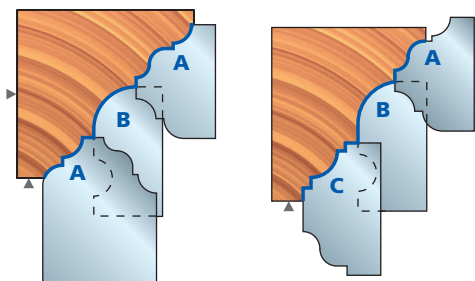
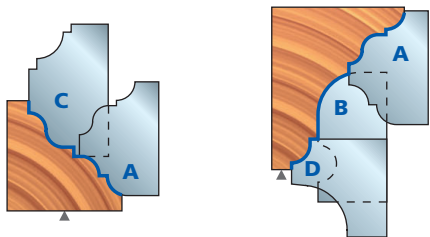
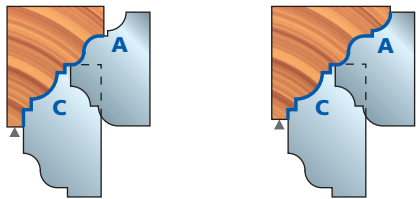
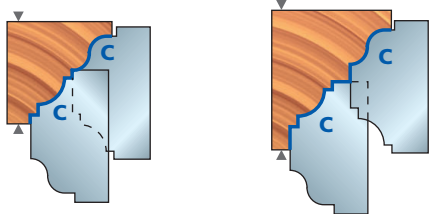
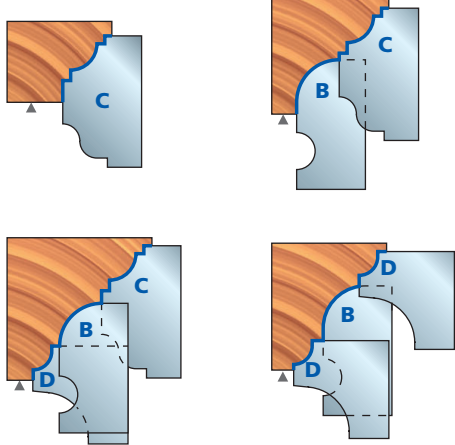
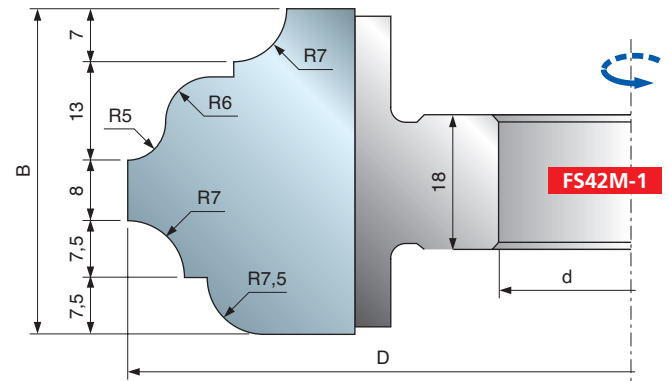
- Le cassette sono fornite esclusivamente complete di tutti gli elementi.
- The boxes are supplied only complete with all four tools.

ESEMPI DI PROFILI REALIZZABILI EXAMPLE OF PROFILES

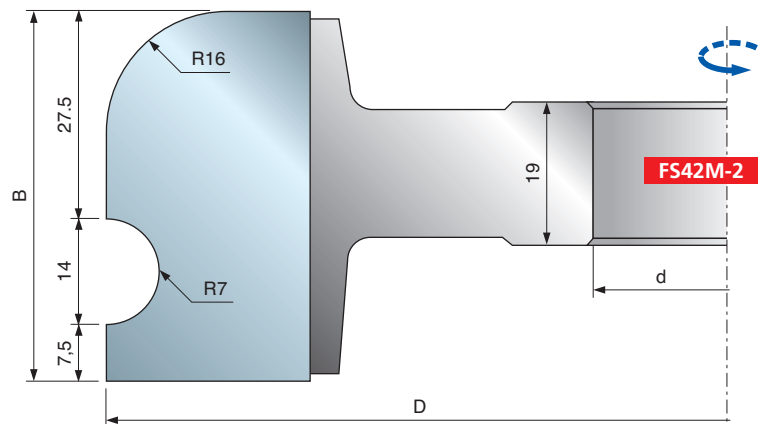


ESEMPI DI PROFILI REALIZZABILI
EXAMPLE OF PROFILES

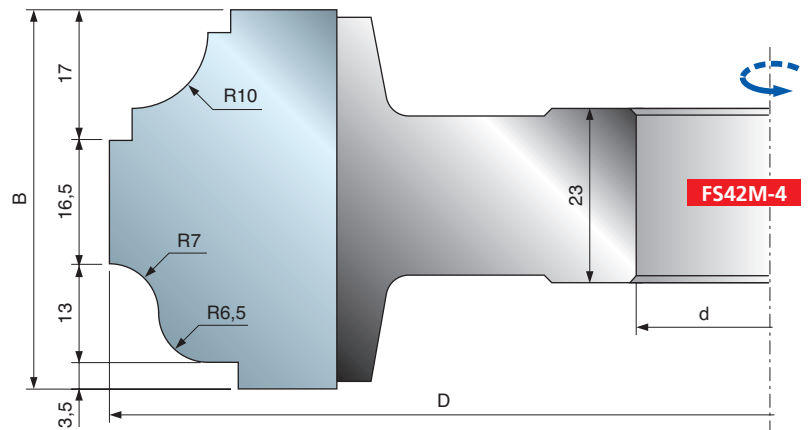
PROFILO / PROFILE **A**



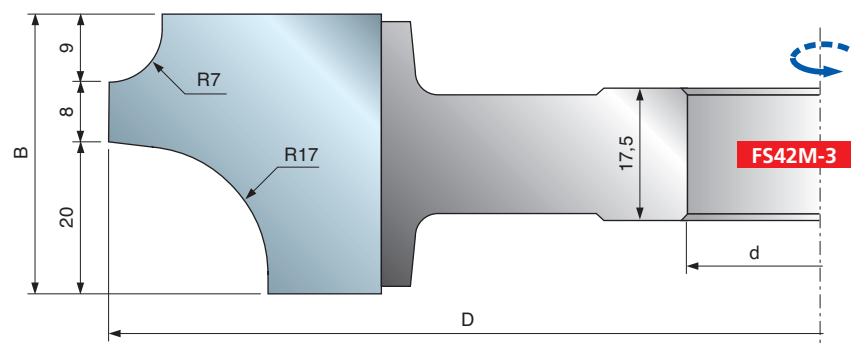
PROFILO / PROFILE **B**



PROFILO / PROFILE **C**



PROFILO / PROFILE **D**



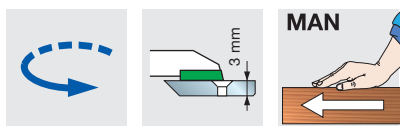
TP40M

TESTA PORTACOLTELLI MULTIPROFILO MULTIPROFILE CUTTERHEAD



D	B	d*	Z	R	Codice
mm	mm	mm			Code
160	55	35 (50)	2		TP40M AB3

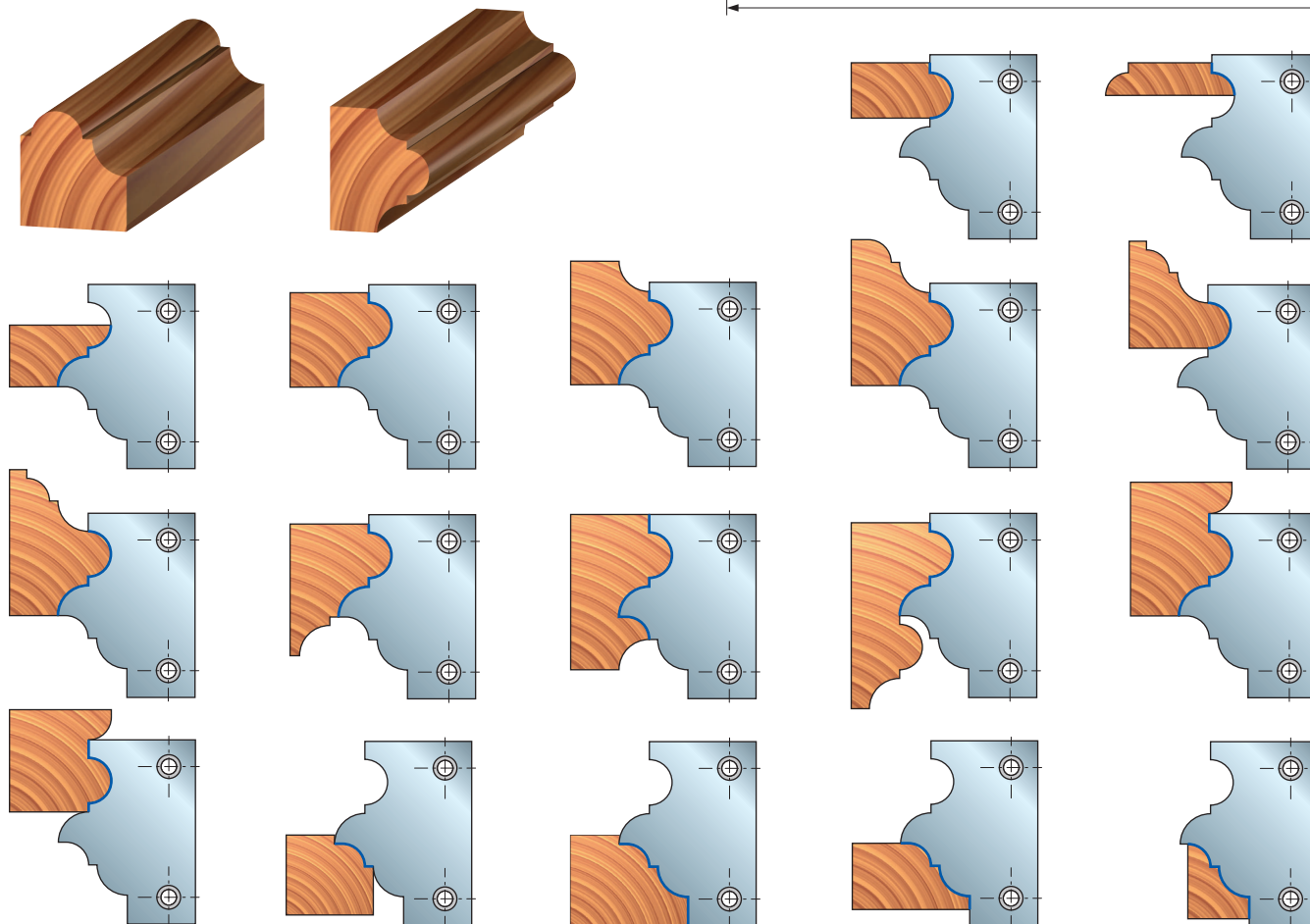
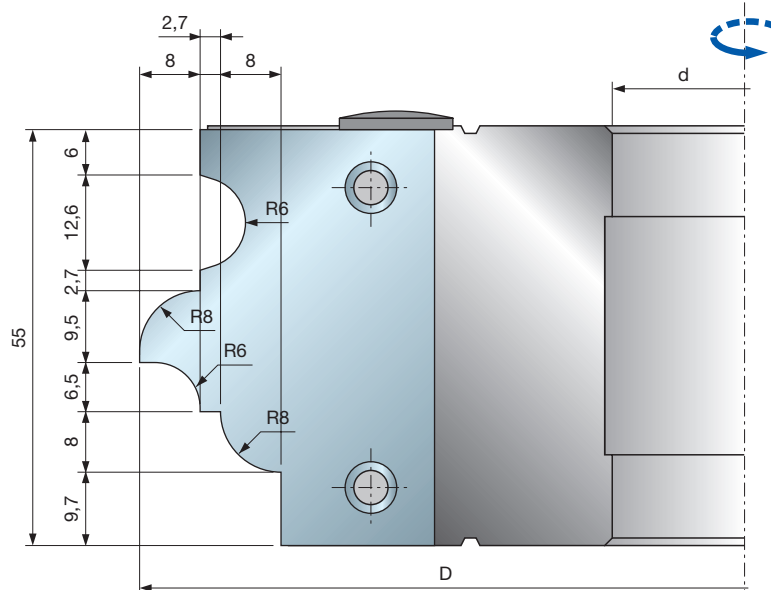
Parti di ricambio	Dimensioni	Codice
Spare parts	Dimensions	Code
Coltello / Knife	55 x 39 x 3	CP40M AA3
Cuneo / Wedge	51 x 35 x 8	CN13M AH9
Vite / Screw	M10 x 18	VT03M CC9
Vite / Screw	M5 x 7 x 16	VT08M AE9
Chiave / Allen key	5 x 110	CB03M EA9



PERFORMANCE
Coltelli Riaffilabili
SYSTEM
Resharpenable Knives

Utensili collaudati secondo la Normativa
Tools tested according to the Norm

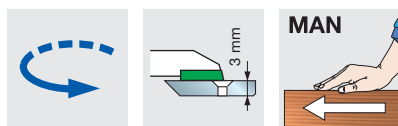
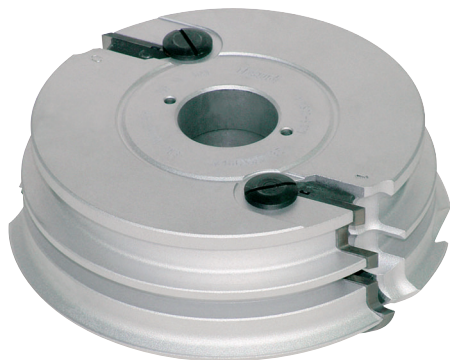
• **EN 847-1** •



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

TP44M

TESTA MULTIPROFILI MULTIPROFILE CUTTERHEAD



PERFORMANCE Coltelli Riaffilabili SYSTEM Resharpenable Knives

Utensili collaudati secondo la Normativa
Tools tested according to the Norm

• **EN 847-1** •

D	B	d*	Z	R	Codice
mm	mm	mm			Code
160	55	35 (50)	2		TP44M AB3

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

- Corpo in lega leggera (Ergal). Per la pulizia non utilizzare prodotti contenenti soda caustica. L'articolo viene fornito con coltelli.
- Light alloy body (Ergal). For cleaning do not use products containing caustic soda. This item is supplied with knives.

Profilo	Coltelli per TP44M	Codice
Profile	Knives for TP44M	Code
1	55 x 40 x 3	CP44M AA3
2	55 x 40 x 3	CP44M BA3

■ CARATTERISTICHE:

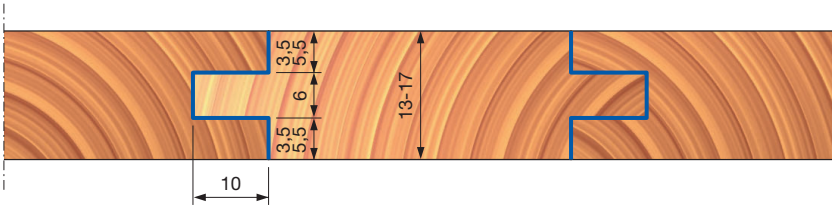
Testa multiprofilo per perline, antine e antoni, completa di 2 set di coltelli riaffilabili. Da utilizzare su macchine toupie. Particolarmente adatta per lavorazioni di contornatura e profilatura su legni teneri, duri ed esotici. Ottima finitura. La particolare versatilità dell'utensile permette l'esecuzione 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.

■ FEATURES:

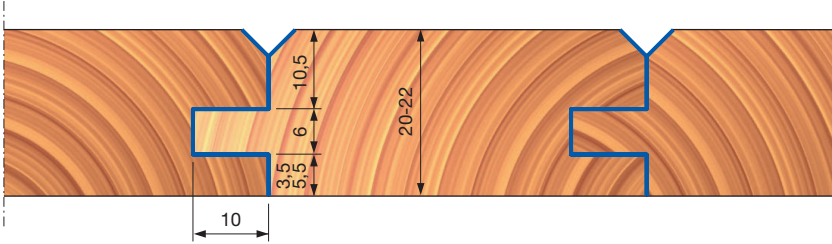
Multiprofile cutterhead for tongue, groove panels, flooring and cabinet doors, kitted with two sets of resharpenable knives. This tool is designed to be used on moulding machines. Mostly suitable for moulding and profiling on soft, hard and exotic wood, with a top quality finish. The tool's versatility 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.



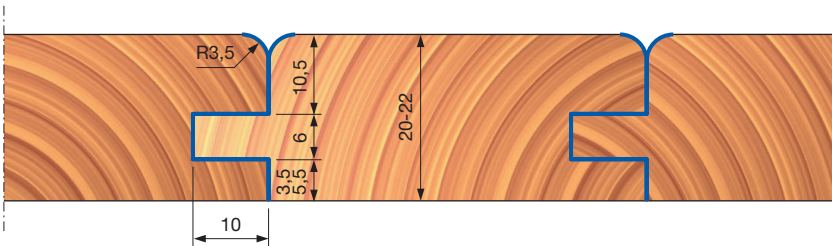
ESEMPI DI PERLINE
EXAMPLES OF TONGUE AND GROOVE PANELS



PROFILO / PROFILE **A**

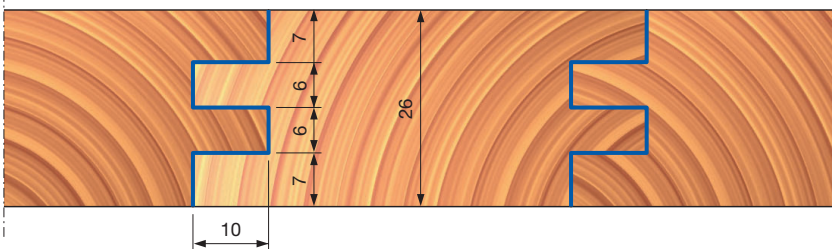


PROFILO / PROFILE **B**

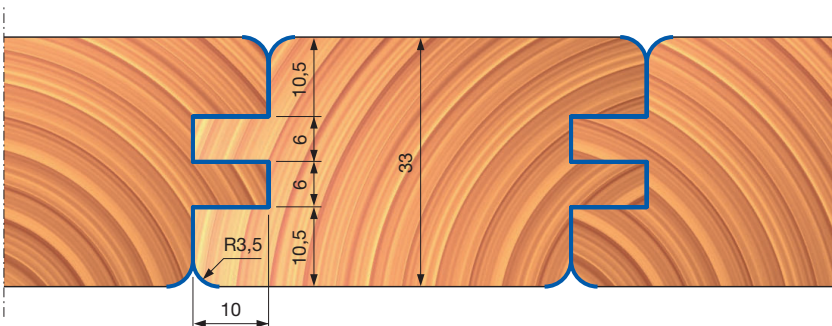


PROFILO / PROFILE **C**

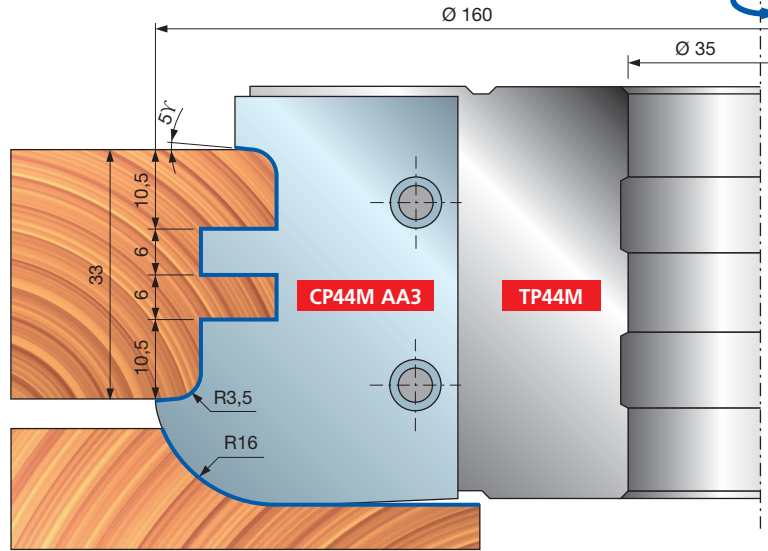
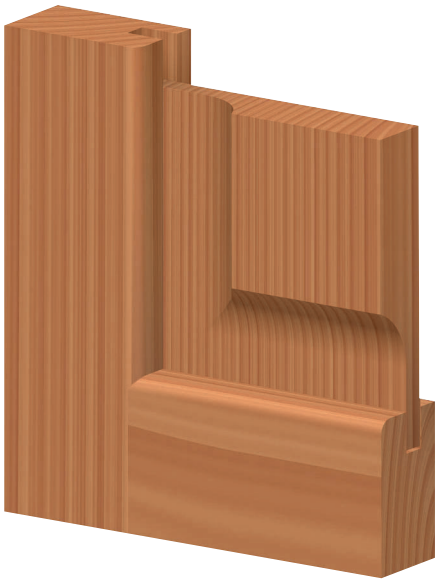
ESEMPI DI LISTONI
EXAMPLES OF SHUTTERS



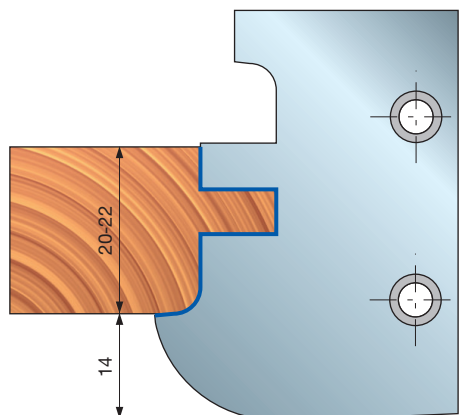
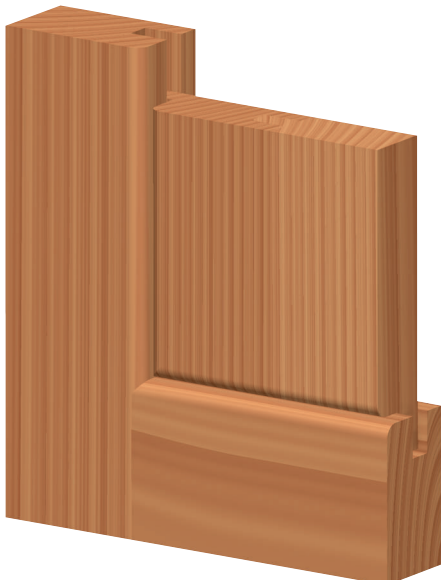
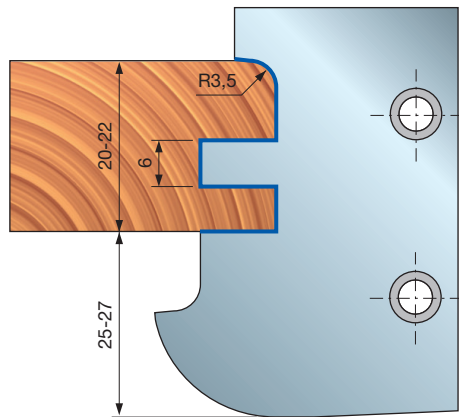
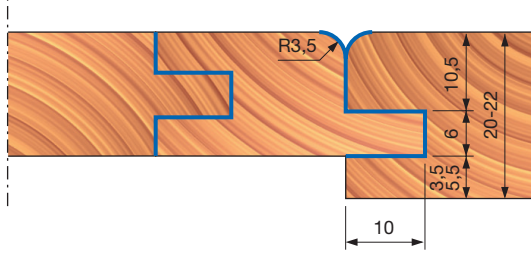
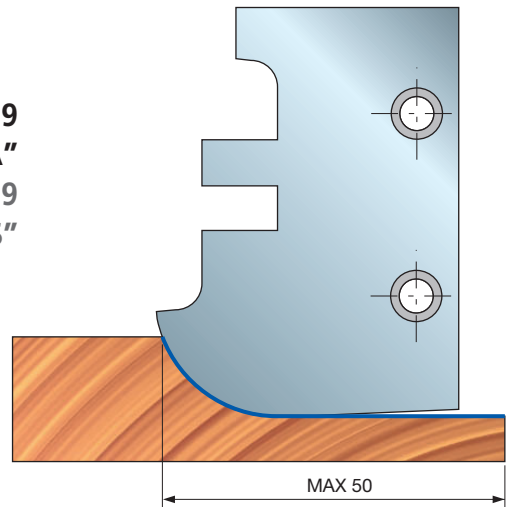
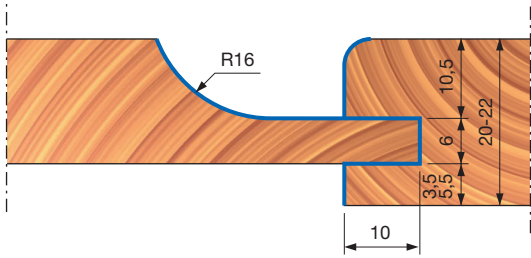
PROFILO / PROFILE **D**



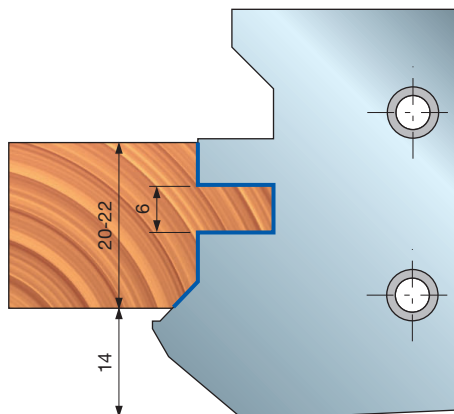
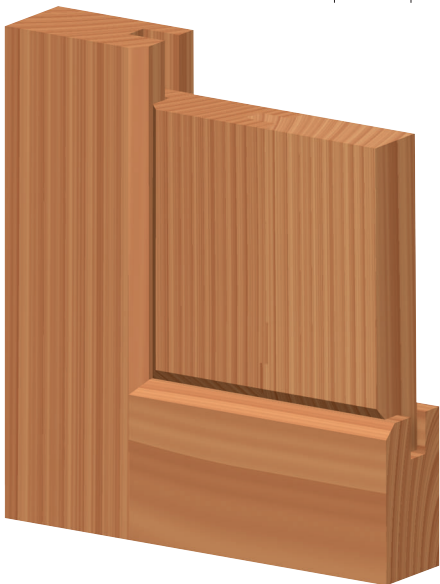
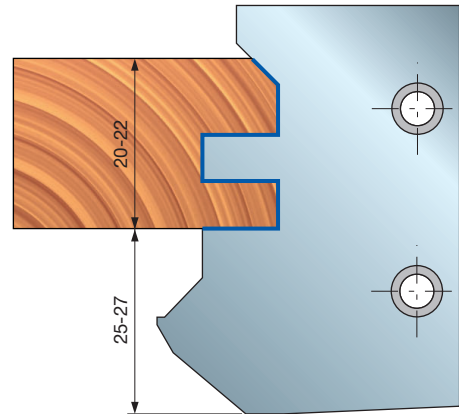
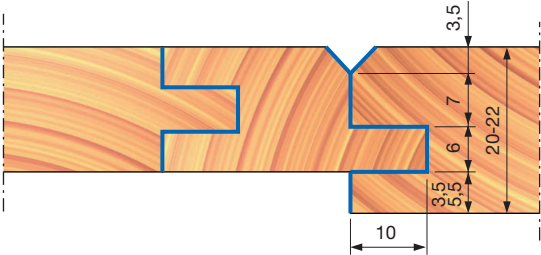
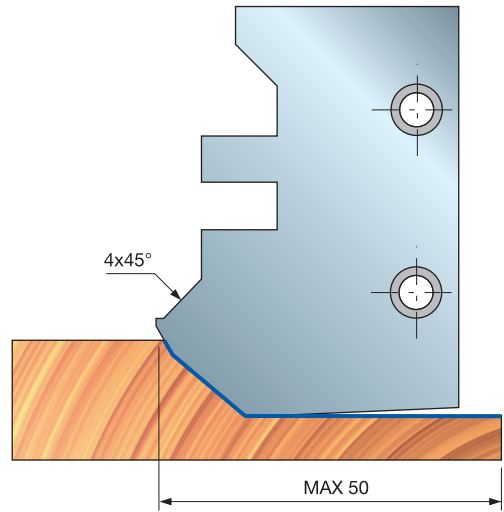
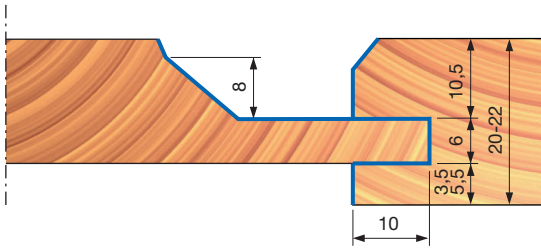
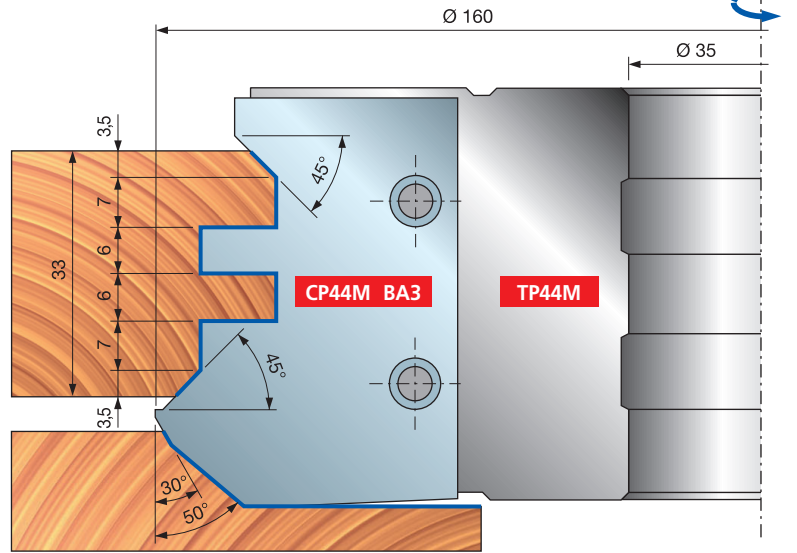
PROFILO / PROFILE **E**



VEDERE A PAG. 229
 "PROGETTI PER LA COSTRUZIONE DI UN'ANTINA"
 PLEASE REFER TO PAGE 229
 "CABINET DOOR MANUFACTURING PROJECTS"



PROFILO / PROFILE 2



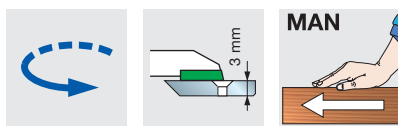
TP32M

SET DI TESTE PORTACOLTELLI PER ANTINE (SP. LEGNO: 22-24 mm)
CUTTERHEADS SET FOR CABINET DOORS (WOOD THICKNESS: 22-24 mm)



D	B	d*	Z	R	Codice
mm	mm	mm			Code
159		35 (50)	2+2	2	TP32M AB3

	Parti di ricambio		Dimensioni	Codice
	Spare parts		Dimensions	Code
A	Cuneo / Wedge		41 x 19 x 8	CN11M C410
	Inserto per incastrì / Grooving insert		34 x 6 x 16	SR06M AB3
	Piastra riscontro / Positioning plate		20 x 11,6 x 2,2	VT18M AR9
	Vite / Screw		M6 x 14,5	VT16M AA9
B	Cuneo / Wedge		19 x 17 x 8	CN11M B190
	Piastra riscontro / Positioning plate		20 x 11,6 x 2,2	VT18M AS9
	Vite / Screw		M10 x 18	VT03M CC9
	Vite / Screw		M5 x 8	VT05M AA9
	Chiave / Allen key		5 x 110	CB03M EA9
	Flangia superiore / Upper flange		159 x 12 x 35	FX32M AB9
	Flangia inferiore / Lower flange		159 x 24 x 35	FX32M BB9



PERFORMANCE
Coltelli Riaffilabili
SYSTEM
Resharpenable Knives

Utensili collaudati secondo la Normativa
Tools tested according to the Norm

• **EN 847-1** •

- Gruppo composto dagli utensili A e B. SONO COMPRESI SOLO I COLTELLI PER LA TESTA B.
- Set consisting of cutterheads A and B. ONLY KNIVES FOR CUTTERHEAD B ARE INCLUDED.

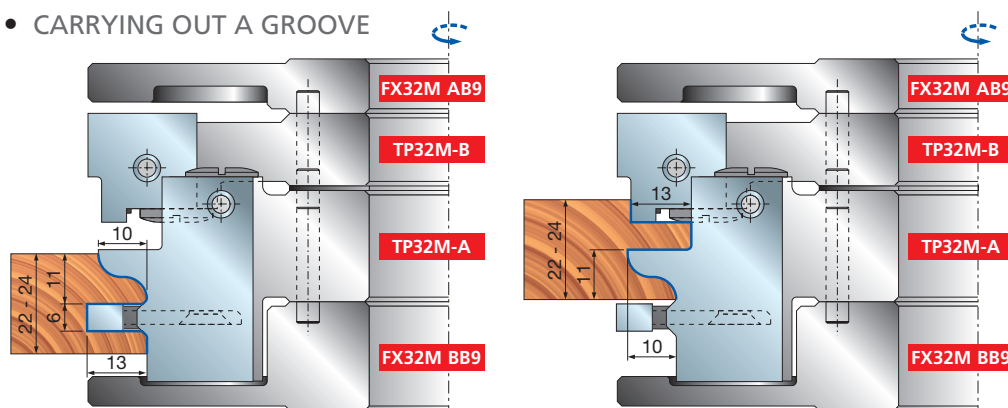
Importante

- 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.

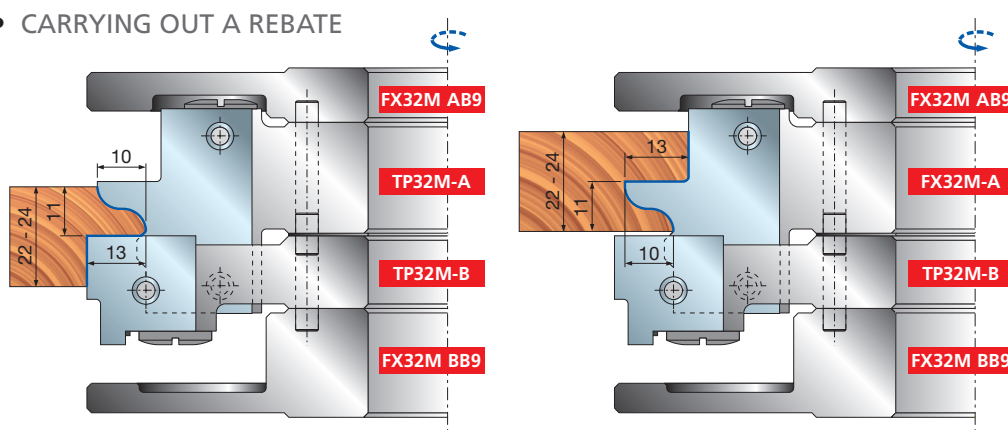
Important

- 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.

ESECUZIONE CON INCASTRO • CARRYING OUT A GROOVE



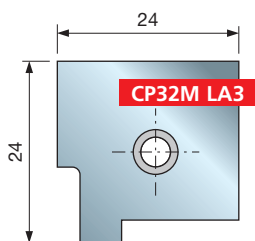
ESECUZIONE CON BATTUTA • CARRYING OUT A REBATE



CP32M

COLTELLI PROFILATI STANDARD PER TP32M KNIVES FOR TP32M

COLTELLO PER / KNIFE FOR TP32M - B

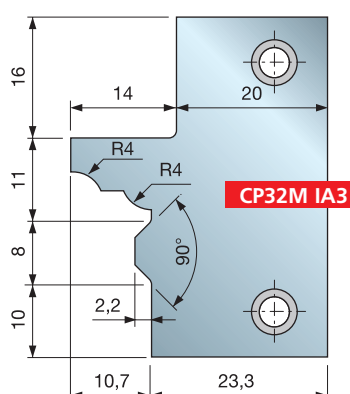
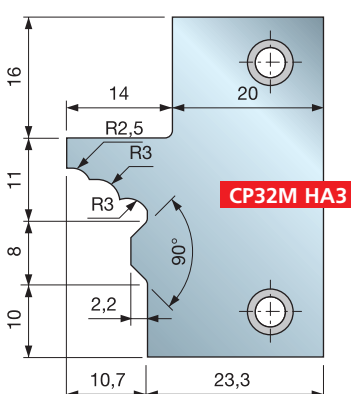
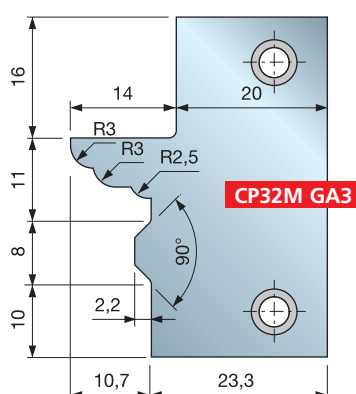
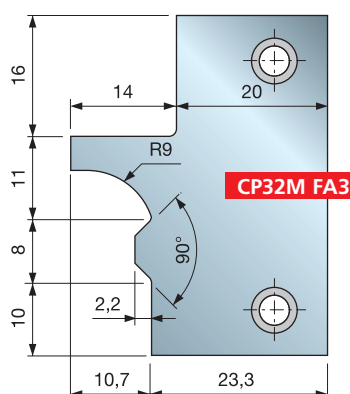
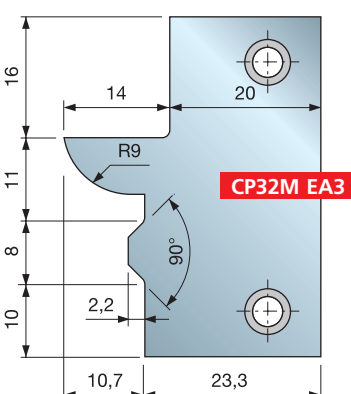
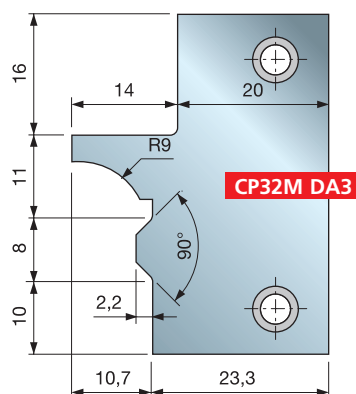
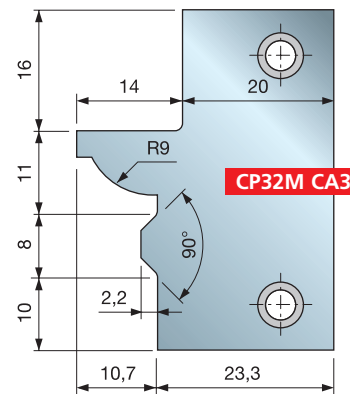
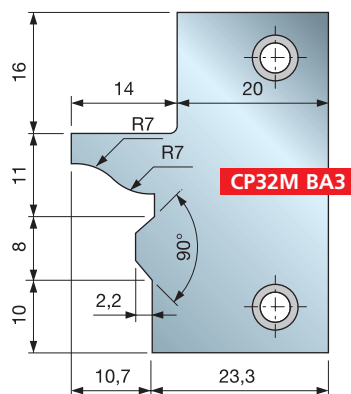
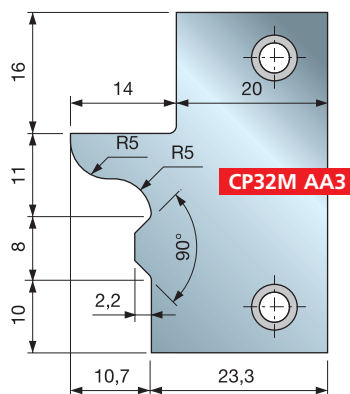


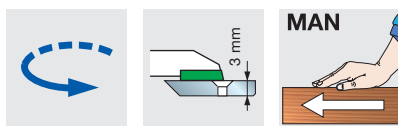
Coltelli di ricambio	Dimensioni	Codice
Spare knives	Dimensions	Code
	45 x 34 x 3	CP32M AA3
	45 x 34 x 3	CP32M BA3
	45 x 34 x 3	CP32M CA3
	45 x 34 x 3	CP32M DA3
	45 x 34 x 3	CP32M EA3
	45 x 34 x 3	CP32M FA3
	45 x 34 x 3	CP32M GA3
	45 x 34 x 3	CP32M HA3
	45 x 34 x 3	CP32M IA3
	24 x 24 x 3	CP32M LA3

INSERTO PER / INSERT FOR TP32M - B



COLTELLI PER / KNIVES FOR TP32M - A





PERFORMANCE
Coltelli Riaffilabili
SYSTEM
Resharpenable Knives

Utensili collaudati secondo la Normativa
Tools tested according to the Norm

• **EN 847-1** •

Importante

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.

Important

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.

D	B	d*	Z	R	Codice
mm	mm	mm			Code
160		35 (50)			TPSEM22GB3
160		35 (50)			TPSEM30GB3

- Gruppi completi per antine con spessori rispettivamente di 22 e 30 mm. ARTICOLI FORNITI IN VALIGETTA.
(1) Il gruppo TPSEM22GB3 è composto da: TPSEM AB3**, TPSEM CB3, TPSEMDB3, FXSEM AB9 e FXSEM BB9.
(2) Il gruppo TPSEM30GB3 è composto da: TPSEM BB3**, TPSEM CB3, TPSEMDB3, FXSEM AB9 e FXSEM BB9.
- Complete cabinet door sets with either 22 mm or 30 mm thickness. THIS ITEM COMES IN A PRATICAL CARRYING CASE.
(1) The TPSEM22GB3 set includes items: TPSEM AB3**, TPSEM CB3, TPSEMDB3, FXSEM AB9 and FXSEM BB9.
(2) The TPSEM30GB3 set includes items: TPSEM BB3**, TPSEM CB3, TPSEMDB3, FXSEM AB9 and FXSEM BB9.

	Parti di ricambio	Dimensioni	Codice
	Spare parts	Dimensions	Code
TPSEM AB3	Testa di ricambio / Spare Cutterh.	160 x 35 x 35 Z2+4	TPSEM AB3**
	Cuneo / Wedge	30,7 x 33 x 8	CN13MD AM9
	Vite / Screw	M10 x 18	VT03M CC9
	Vite / Screw	M5 x 7 x 16	VT08M AE9
	Insero per incastri / Grooving insert	40 x 16 x 4	IG04MS AA3
	Piastra riscontro / Positioning plate	34 x 4 x 16	SR06MD AL3
	Vite / Screw	M6 x 14,5	VT16M AA9
	Deflettore / Deflector	30,8 x 7 x 24,5	ID04MS AA9
	Vite per: / Screw for: ID04M	M4 x 12	VT05M DA9
	Insero per incastri / Grooving insert	20 x 11,6 x 2,2	VT18M AS9
TPSEM BB3	Testa di ricambio / Spare Cutterh.	160 x 35 x 35 Z2+4	TPSEM BB3**
	Cuneo / Wedge	30,7 x 33 x 8	CN13MD AM9
	Vite / Screw	M10 x 18	VT03M CC9
	Insero per incastri / Grooving insert	40 x 16 x 6	IG04MS AD3
	Insero rasante / Spur insert	34 x 4 x 16	SR06MD AL3
	Vite / Screw	M6 x 14,5	VT16M AA9
	Deflettore / Deflector	30,8 x 8 x 24,5	ID04MS AD9
	Vite per: / Screw for: ID04M	M4 x 12	VT05M DA9
	Piastra riscontro / Positioning plate	20 x 11,6 x 2,2	VT18M AS9
	TPSEM CB3	Testa di ricambio / Spare Cutterh.	152 x 20,4 x 35 Z2+4
Coltello / Knife		20 x 24 x 3	CPSEM CA3
Cuneo / Wedge		16 x 17 x 8	CN11M B160
Vite / Screw		M10 x 18	VT03M CC9
TPSEM DB3	Rasante / Spur	22,86 x 2,5	RG02M AA3
	Testa di ricambio / Spare Cutterh.	138 x 20 x 35 Z2+4	TPSEM DB3
	Coltello / Knife	17 x 24 x 3	CPSEM DA3
	Cuneo / Wedge	16 x 17 x 8	CN11M B160
	Vite / Screw	M10 x 18	VT03M CC9
	Piastra riscontro / Positioning plate	20 x 11,6 x 2,2	VT18M AR9
	Vite / Screw	M5 x 8	VT05M AA9
	Flangia superiore / Upper flange	152 x 13,6 x 35	FXSEM AB9
	Flangia inferiore / Lower flange	152 x 28 x 35	FXSEM BB9
	Chiave / Allen key	4 x 110	CB03M BA9
Chiave / Allen key	5 x 110	CB03M EA9	

**LE TESTE PORTACOLTELLI AB3 E BB3 VENGONO FORNITE SENZA I COLTELLI.

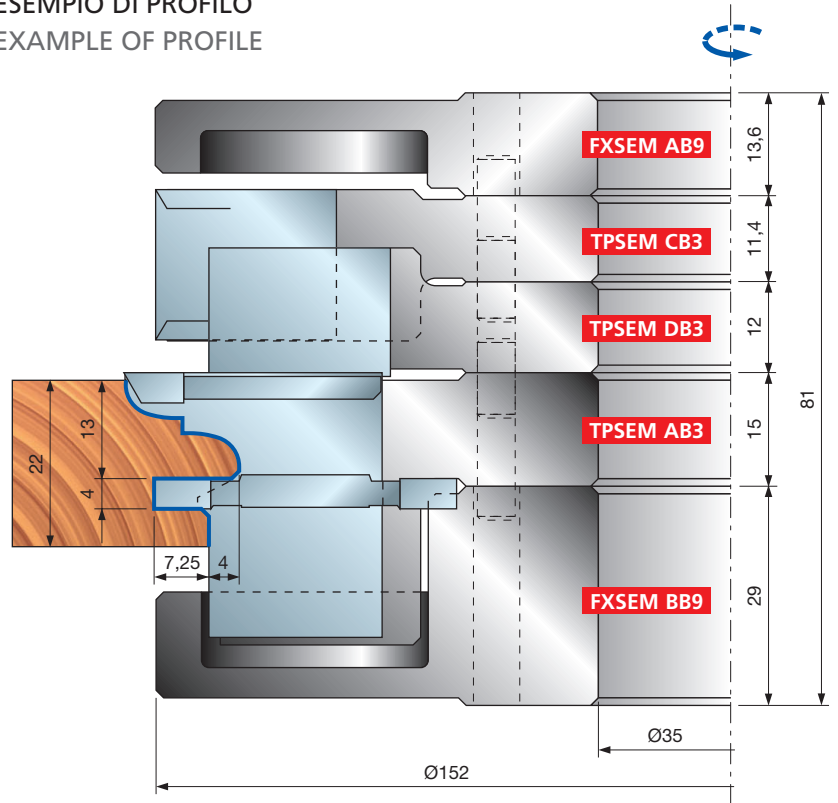
La testa TPSEM AB3 si utilizza per la produzione di antine di spessore 22 mm; la testa TPSEM BB3 per la produzione di antine di spessore 30 mm.

**CUTTERHEADS AB3 AND BB3 ARE SUPPLIED WITHOUT KNIVES.

Cutterhead TPSEM AB3 is used to produce cabinet doors with a 22 mm thickness; cutterhead TPSEM BB3 is used to produce cabinet doors with a 30 mm thickness.

ESEMPIO DI UTILIZZO DEL GRUPPO COD. TPSEM22GB3
EXAMPLES OF USE OF CUTTERHEAD SET CODE TPSEM22GB3

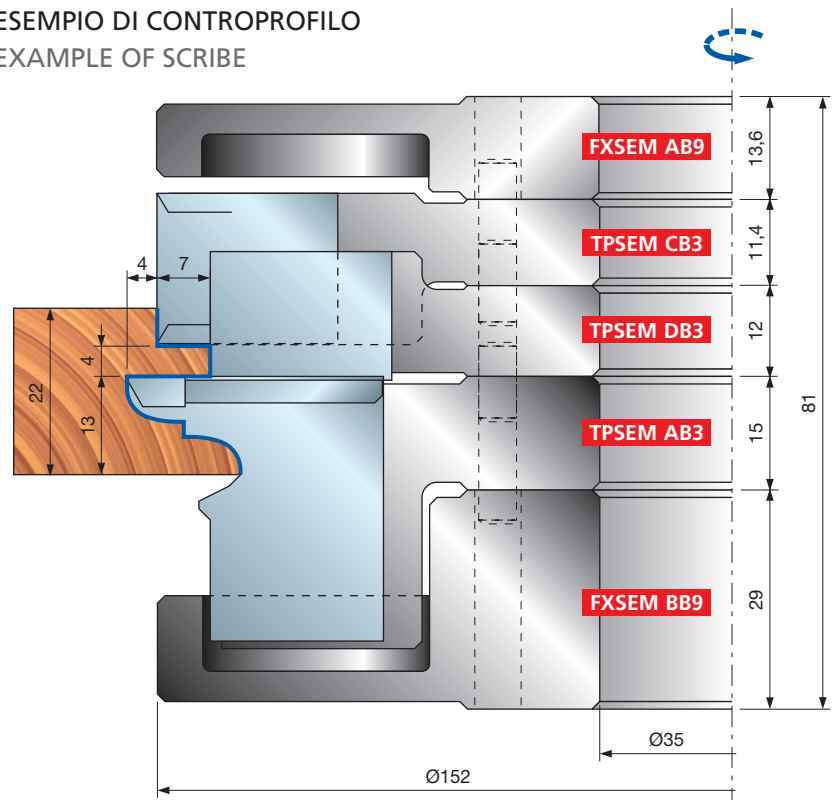
ESEMPIO DI PROFILO
EXAMPLE OF PROFILE



- Per eseguire lo spessore legno da 22 mm, utilizzare gli utensili:
- For 22 mm thick workpieces, use:

TPSEM AB3 + TPSEM DB3 + TPSEM CB3 + FXSEM AB9 + FXSEM BB9

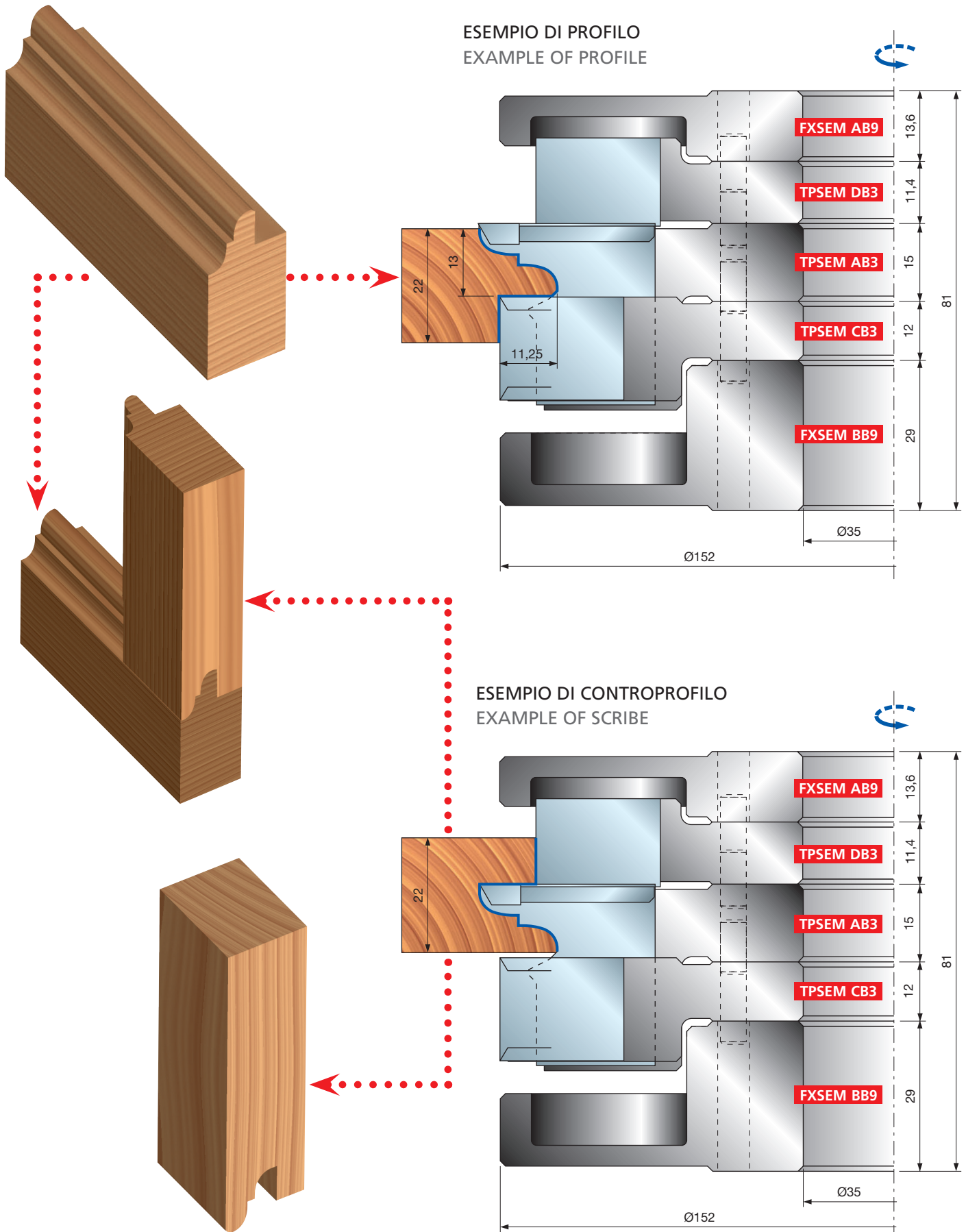
ESEMPIO DI CONTROPROFILO
EXAMPLE OF SCRIBE



ESEMPIO DI UTILIZZO DEL GRUPPO COD. TPSEM22GB3 EXAMPLES OF USE OF CUTTERHEAD SET CODE TPSEM22GB3

- ESECUZIONE ANTINA CON PROFILO VETRO: per eseguire lo spessore legno da 22 mm, utilizzare gli utensili:
- CARRYING OUT A GLASS CABINET DOOR: for 22 mm thick workpieces, use:

TPSEM DB3 + TPSEM AB3 + TPSEM CB3 + FXSEM AB9 + FXSEM BB9



ESEMPIO DI UTILIZZO DEL GRUPPO COD. TPSEM22GB3 EXAMPLES OF USE OF CUTTERHEAD SET CODE TPSEM22GB3

■ ESECUZIONE ANTINA CON SPINA APERTA.

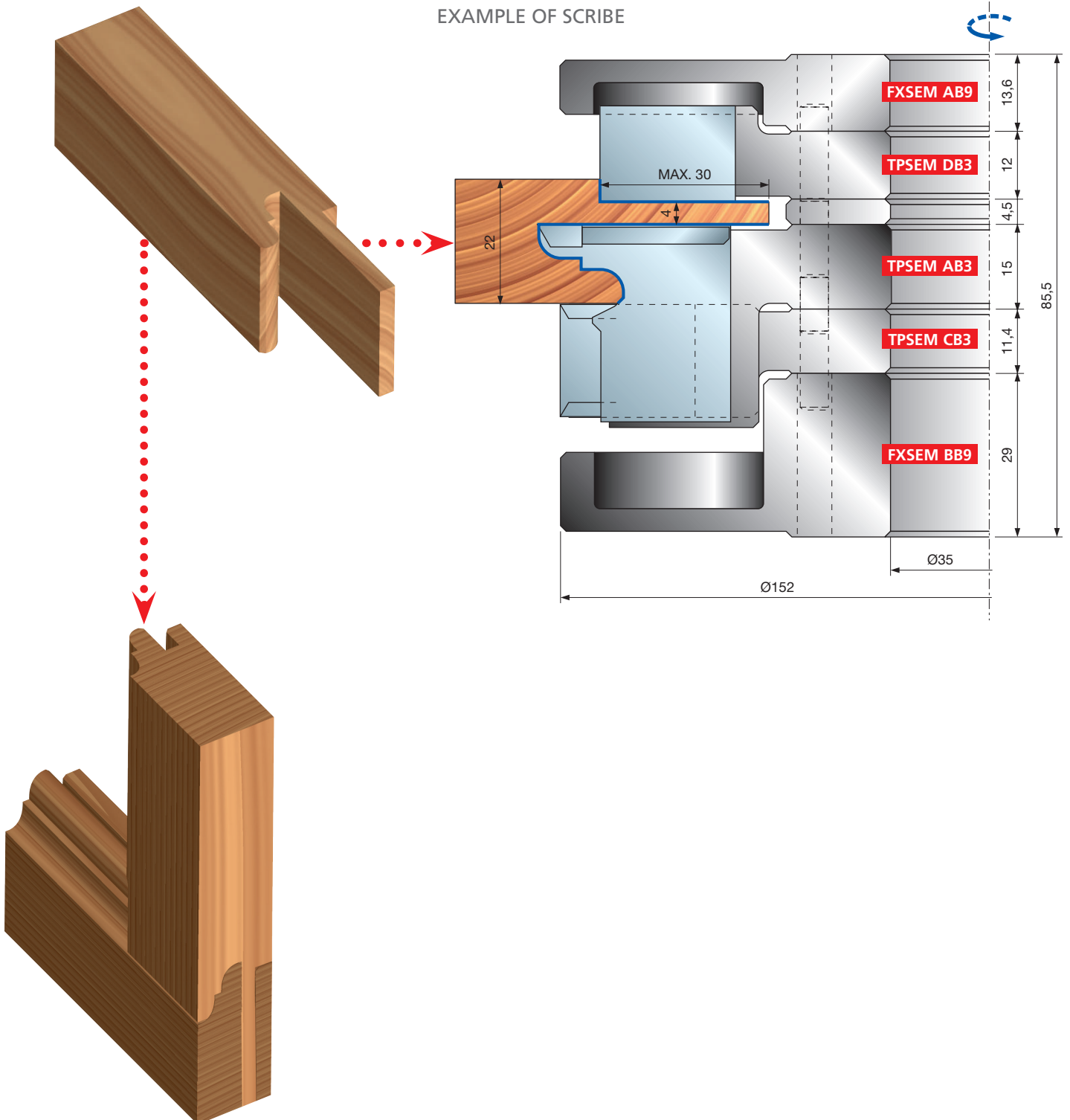
Per eseguire lo spessore legno da 22 mm, utilizzare gli utensili:

■ CARRYING OUT A CABINET DOOR WITH LONG SQUARE TENON SHOULDER.

For 22 mm thick workpieces, use:

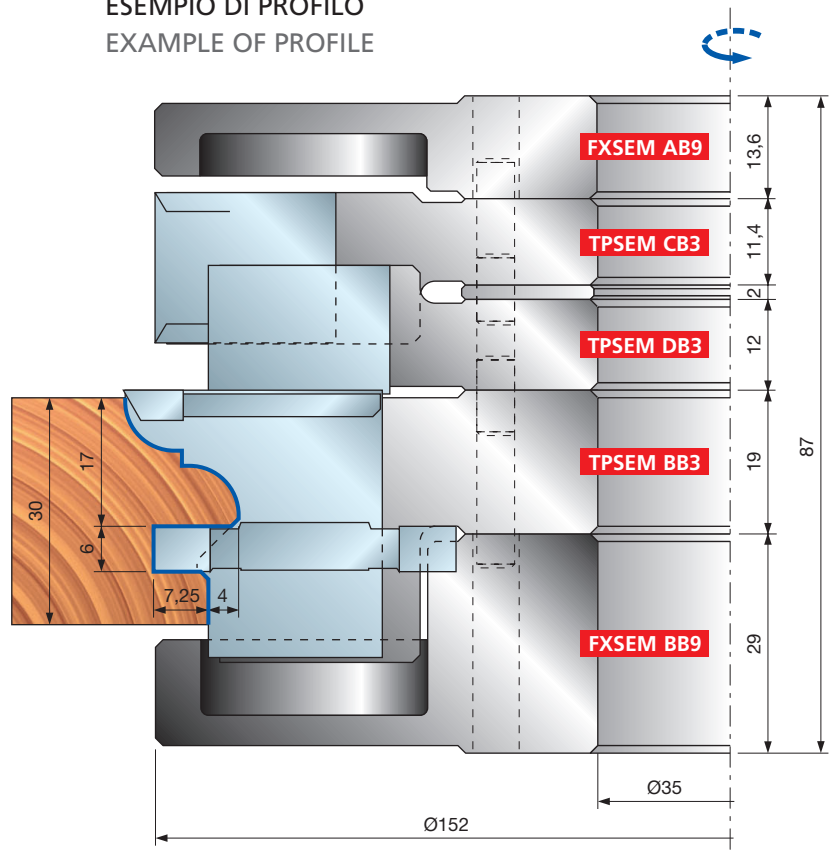
TPSEM AB3 + TPSEM DB3 + TPSEM CB3 + FXSEM AB9 + FXSEM BB9

ESEMPIO DI CONTROPROFILO EXAMPLE OF SCRIBE



ESEMPIO DI UTILIZZO DEL GRUPPO COD. TPSEM30GB3
EXAMPLES OF USE OF CUTTERHEAD SET CODE TPSEM30GB3

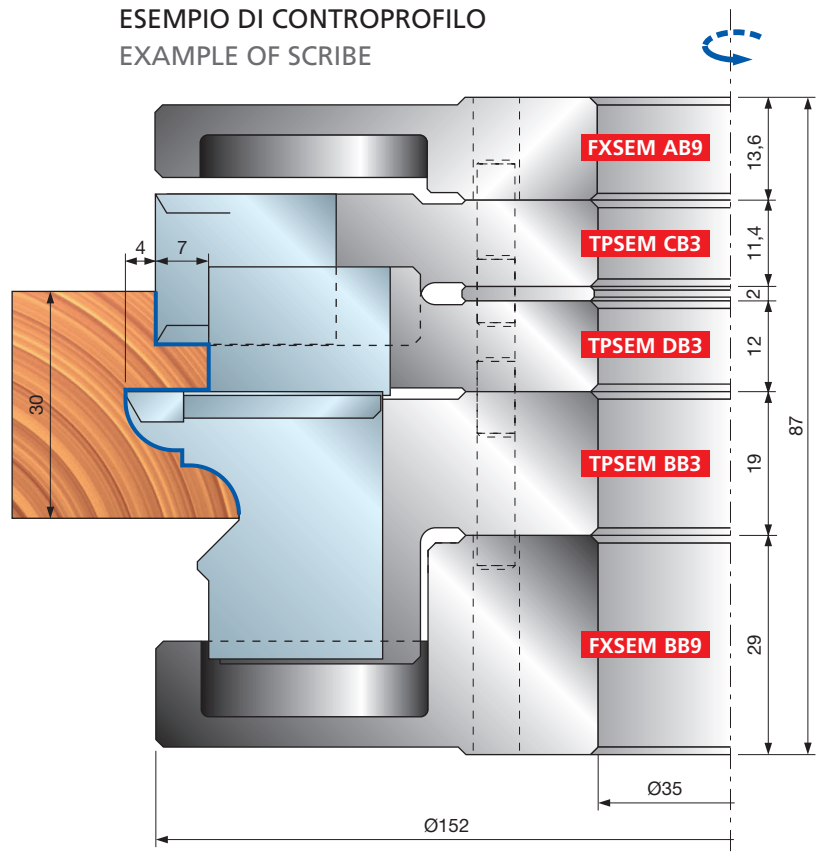
ESEMPIO DI PROFILO
EXAMPLE OF PROFILE



- Per eseguire lo spessore legno da 30 mm, utilizzare gli utensili:
- For 30 mm thick workpieces, use:

TPSEM BB3 + TPSEM DB3 + TPSEM CB3 + FXSEM AB9 + FXSEM BB9

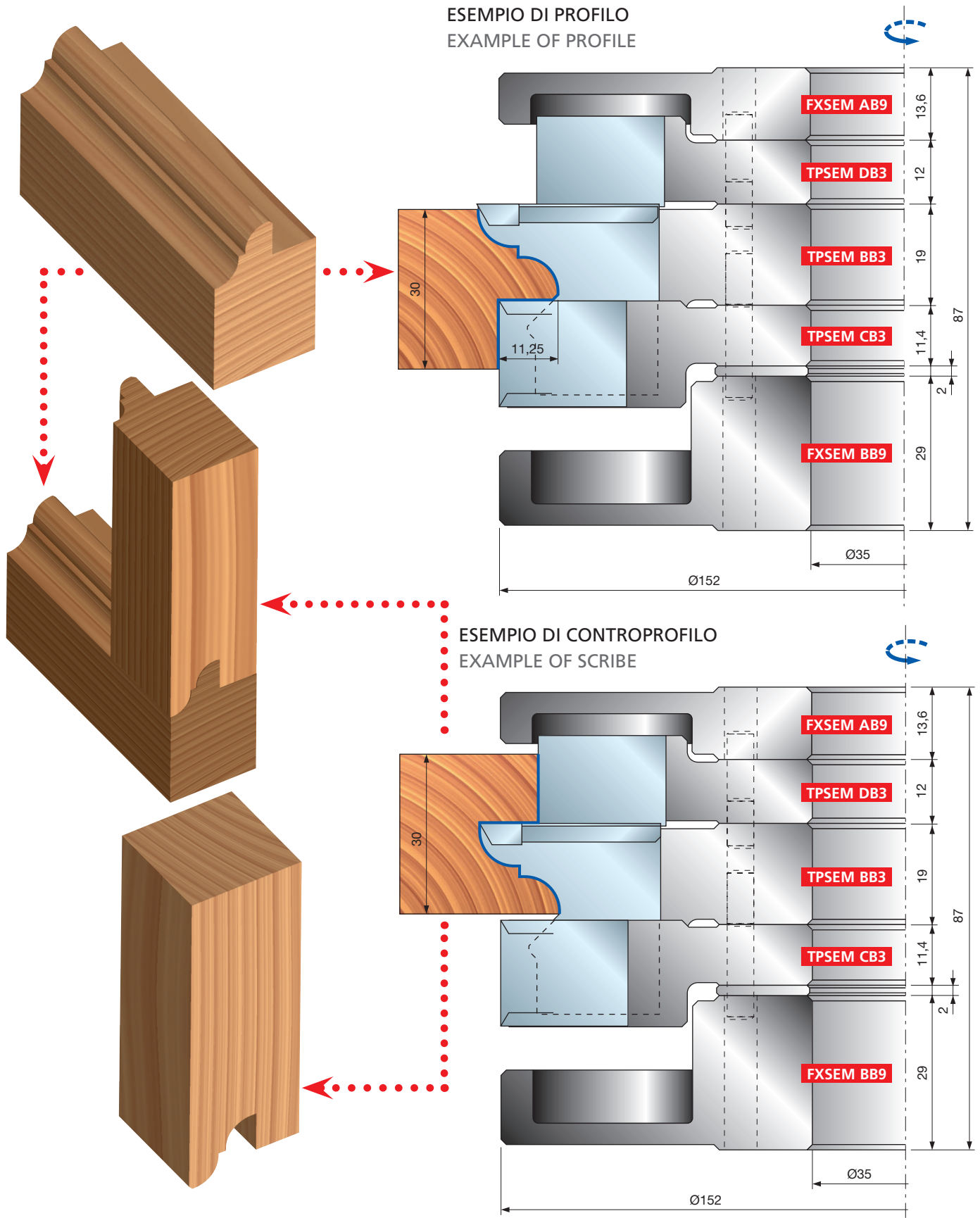
ESEMPIO DI CONTROPROFILO
EXAMPLE OF SCRIBE



ESEMPIO DI UTILIZZO DEL GRUPPO COD. TPSEM30GB3
EXAMPLES OF USE OF CUTTERHEAD SET CODE TPSEM30GB3

- Esecuzione antina con profilo vetro. Per eseguire lo spessore legno da 30 mm, utilizzare gli utensili:
- Carrying out a glass cabinet door. For 30 mm thick workpieces, use:

TPSEM DB3 + TPSEM BB3 + TPSEM CB3 + FXSEM AB9 + FXSEM BB9

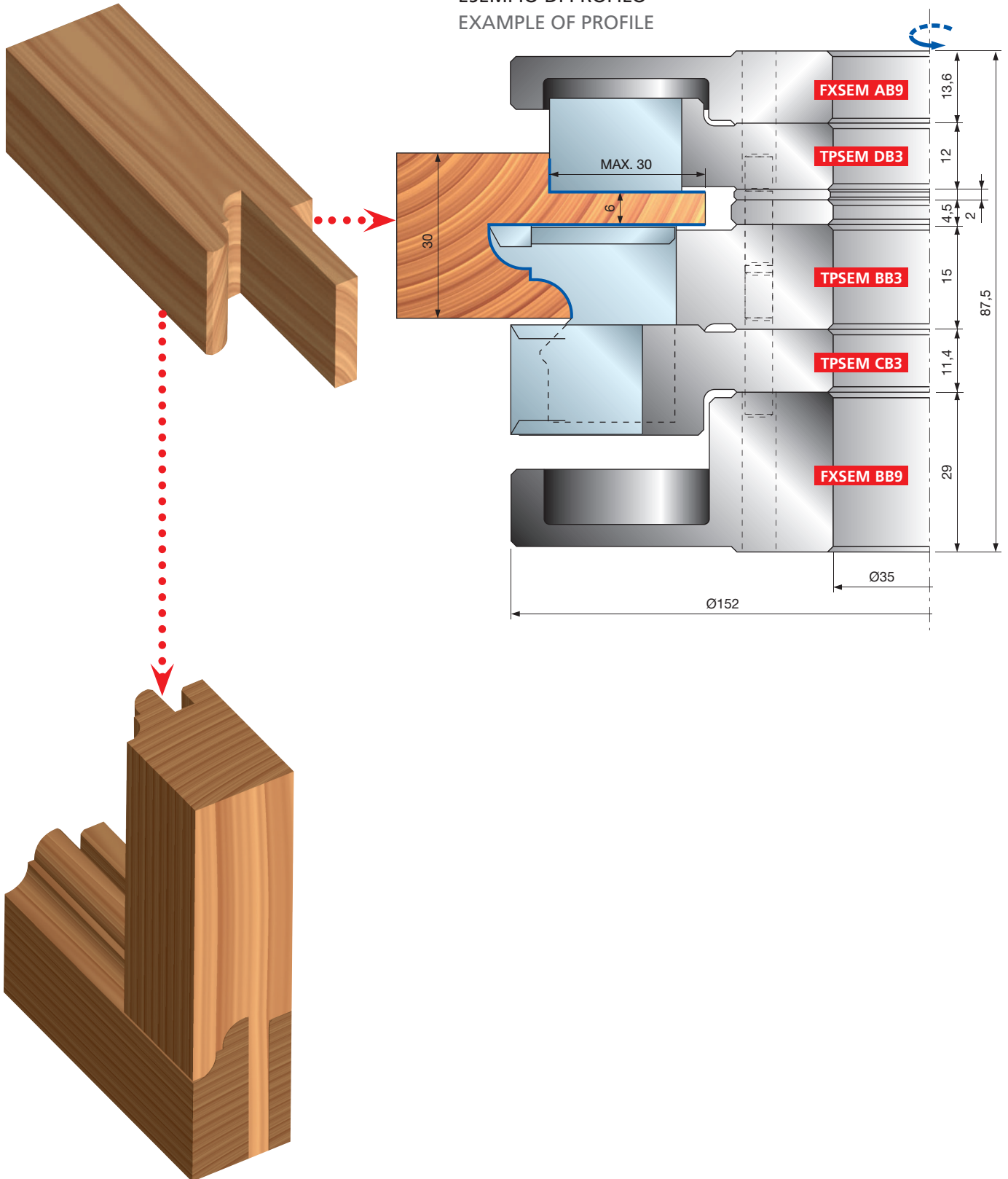


ESEMPIO DI UTILIZZO DEL GRUPPO COD. TPSEM30GB3
EXAMPLES OF USE OF CUTTERHEAD SET CODE TPSEM30GB3

- ESEMPIO DI UTILIZZO DEL GRUPPO COD. TPSEM30GB3
- EXAMPLES OF USE OF CUTTERHEAD SET CODE TPSEM30GB3

TPSEM BB3 + TPSEM DB3 + TPSEM CB3 + FXSEM AB9 + FXSEM BB9

ESEMPIO DI PROFILO
EXAMPLE OF PROFILE

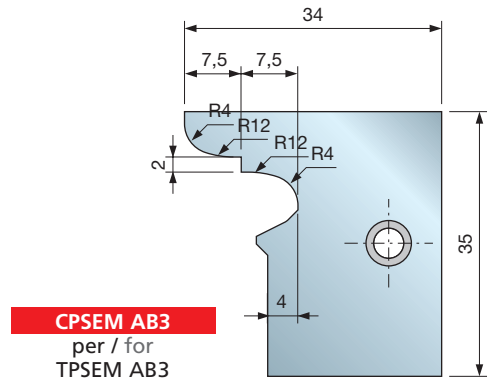
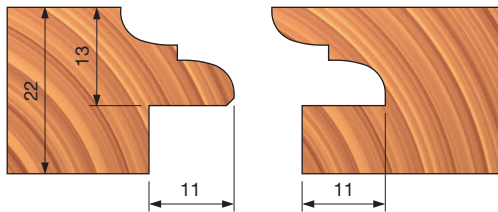
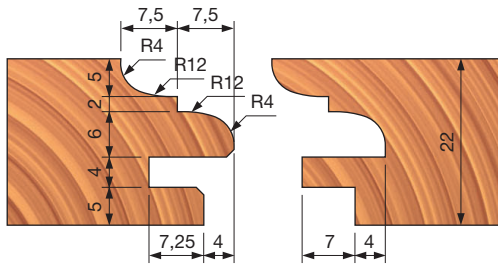


CPSEM AB3

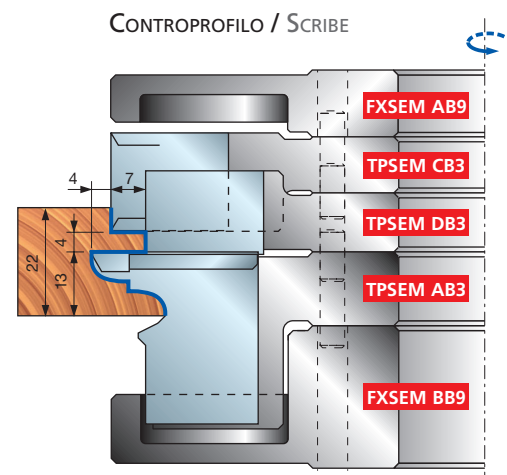
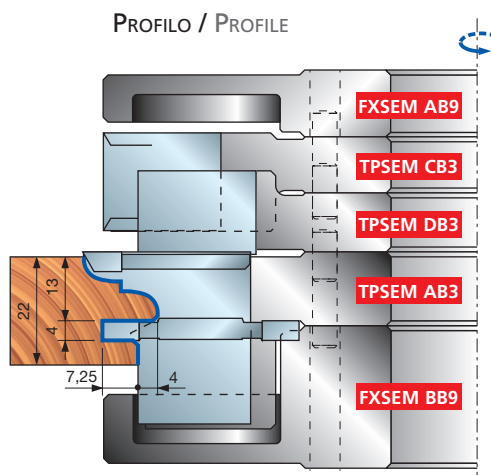
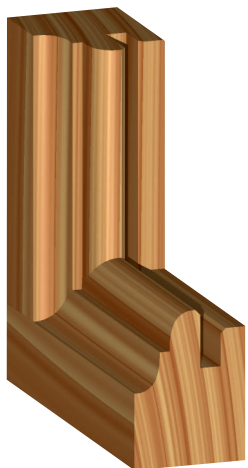
COLTELLI PER TPSEM AB3 (SPESSORE LEGNO: 22 mm)
KNIVES FOR TPSEM AB3 (WOOD THICKNESS: 22 mm)

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

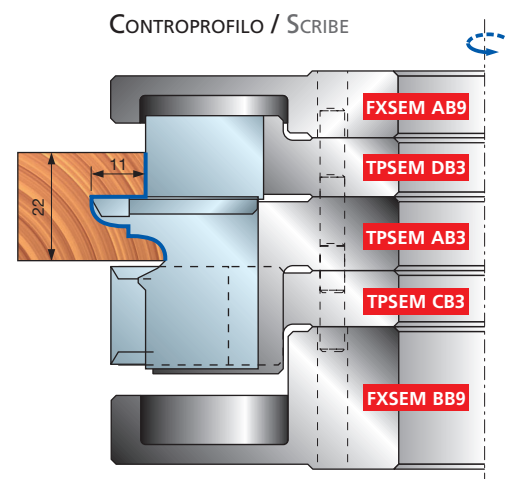
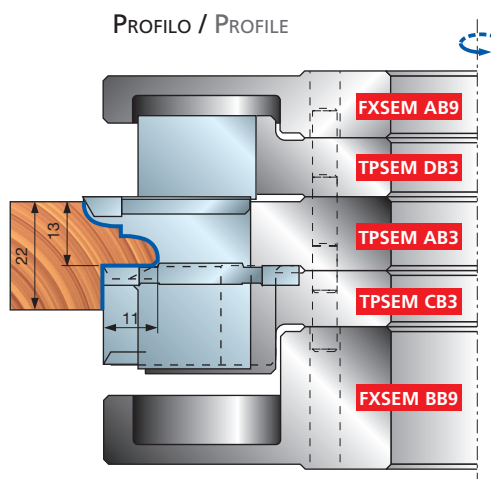
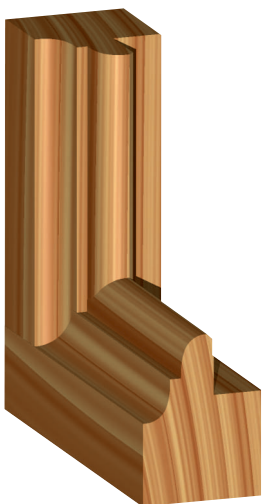
Pezzi	Dimensioni	Codice
Pieces	Dimensions	Code
1	160 x 35 (50)	TPSEM22GB3
2	35 x 34 x 3	CPSEM AB3



ESECUZIONE CON INCASTRO CARRYING OUT A GROOVE



ESECUZIONE CON BATTUTA CARRYING OUT A REBATE

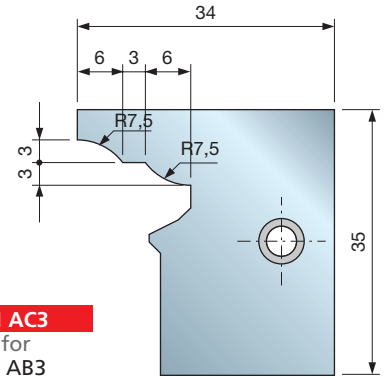
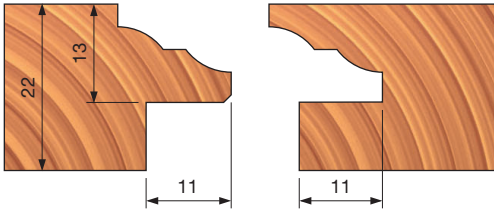
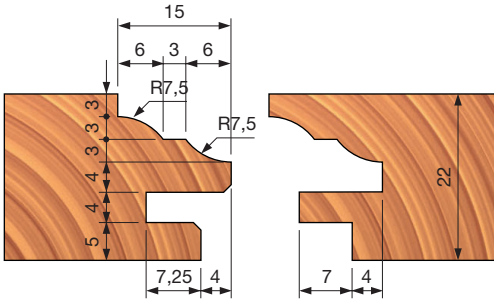


CPSEM AC3

COLTELLI PER TPSEM AB3 (SPESSORE LEGNO: 22 mm)
KNIVES FOR TPSEM AB3 (WOOD THICKNESS: 22 mm)

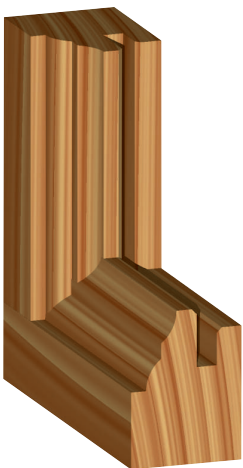
Esempio di ordinazione per l'esecuzione dei profili indicati
Order example for the profiles shown

Pezzi	Dimensioni	Codice
Pieces	Dimensions	Code
1	160 x 35 (50)	TPSEM22GB3
2	35 x 34 x 3	CPSEM AC3

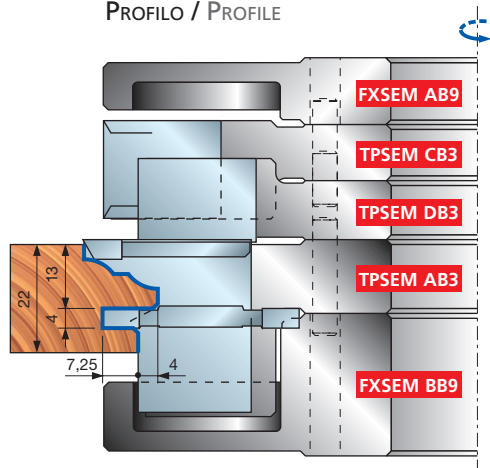


CPSEM AC3
per / for
TPSEM AB3

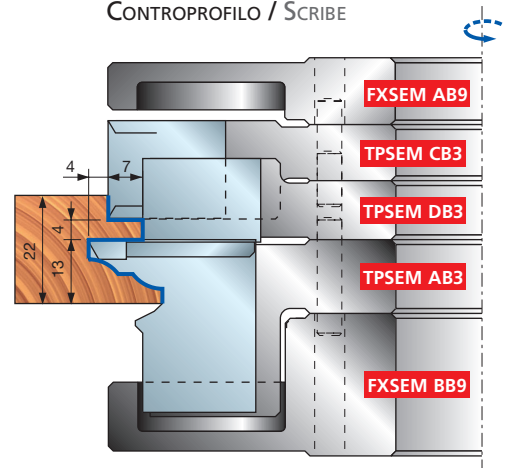
ESECUZIONE CON INCASTRO
CARRYING OUT A GROOVE



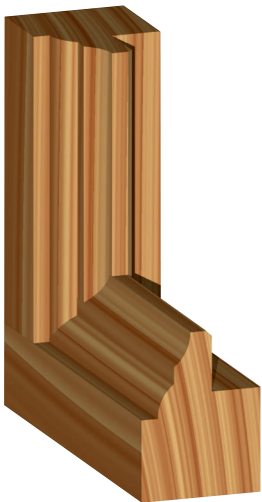
PROFILO / PROFILE



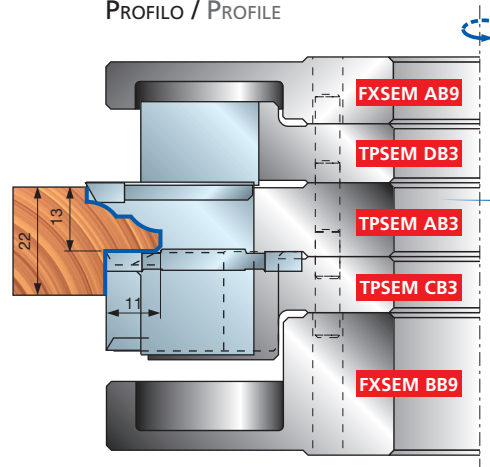
CONTROPROFILO / SCRIBE



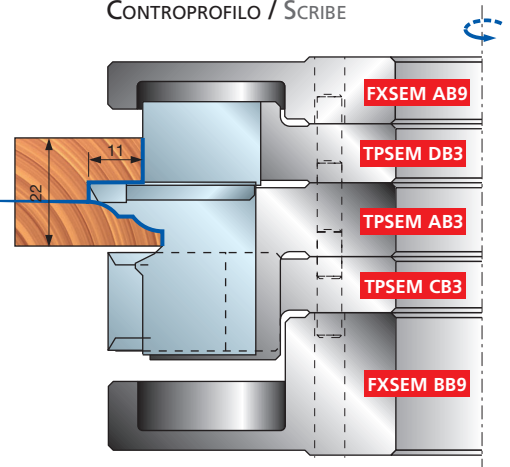
ESECUZIONE CON BATTUTA
CARRYING OUT A REBATE



PROFILO / PROFILE



CONTROPROFILO / SCRIBE

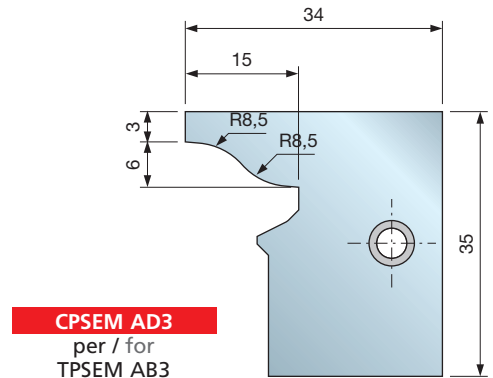
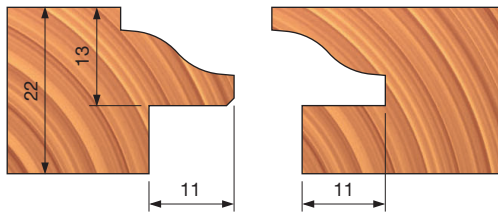
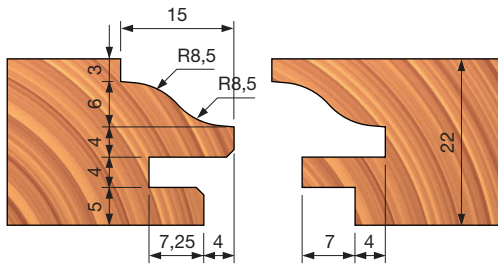


CPSEM AD3

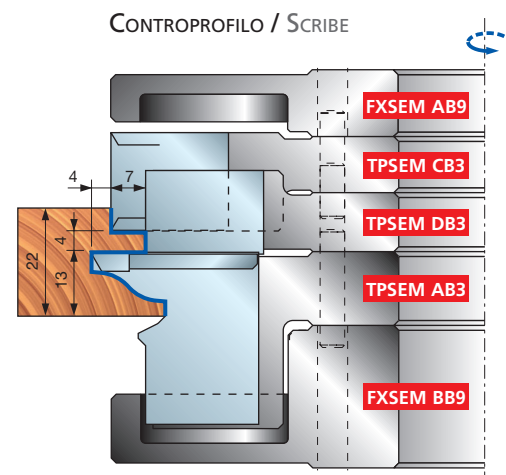
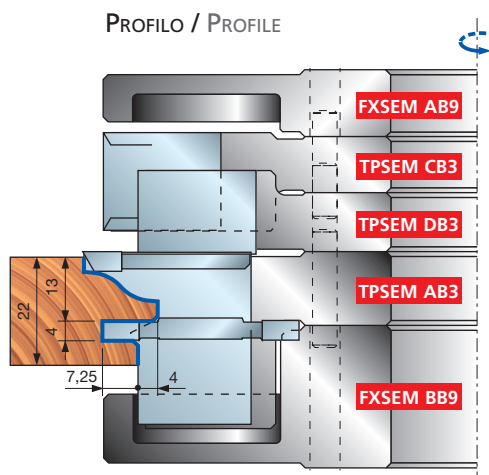
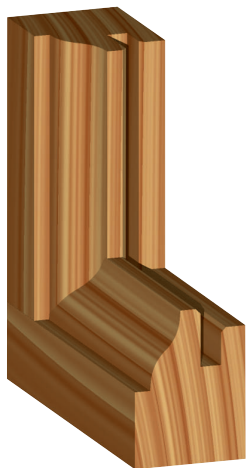
COLTELLI PER TPSEM AB3 (SPESSORE LEGNO: 22 mm)
KNIVES FOR TPSEM AB3 (WOOD THICKNESS: 22 mm)

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

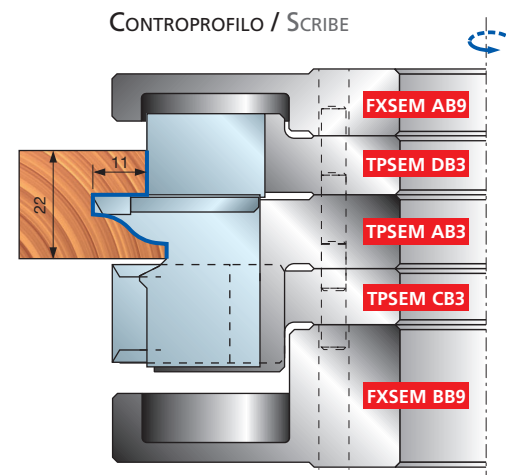
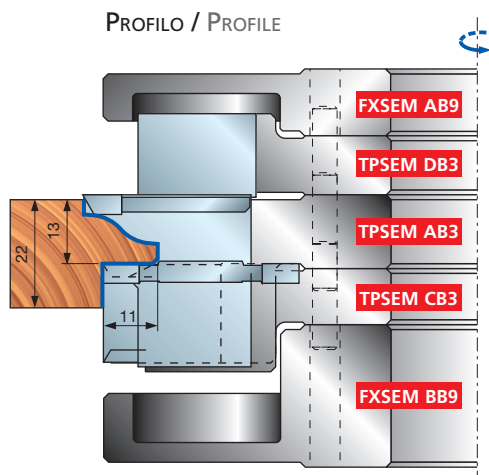
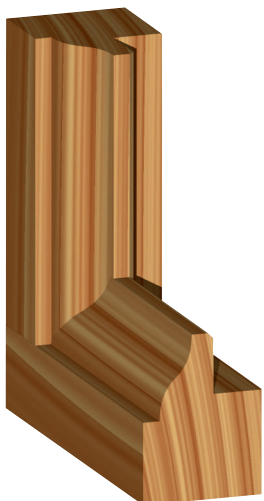
Pezzi	Dimensioni	Codice
Pieces	Dimensions	Code
1	160 x 35 (50)	TPSEM22GB3
2	35 x 34 x 3	CPSEM AD3



ESECUZIONE CON INCASTRO CARRYING OUT A GROOVE



ESECUZIONE CON BATTUTA CARRYING OUT A REBATE

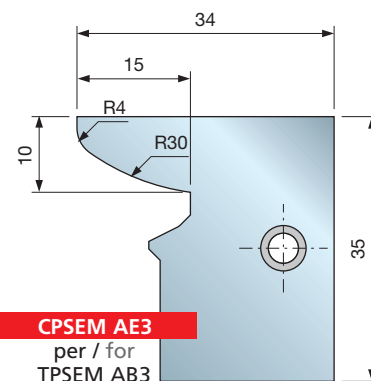
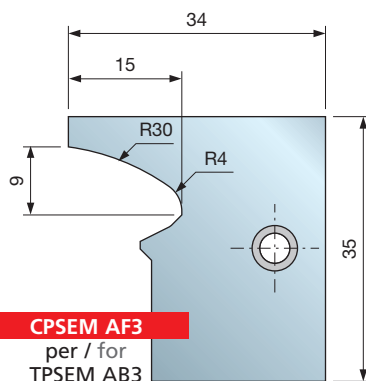
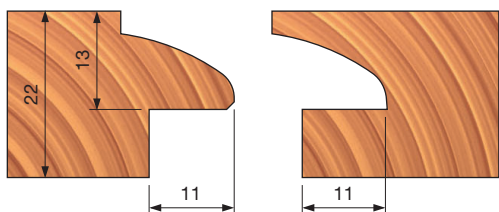
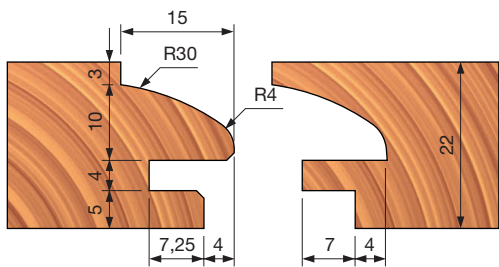


CPSEM AF3 CPSEM AE3

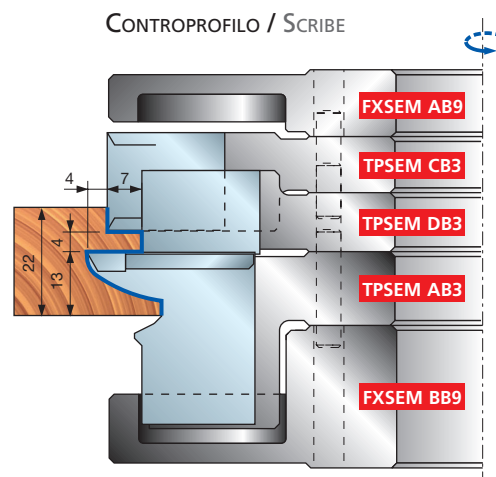
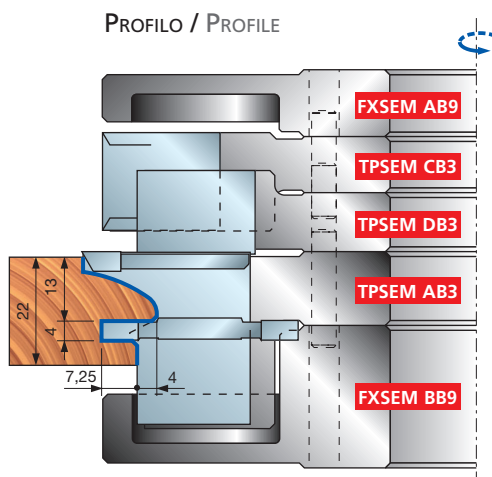
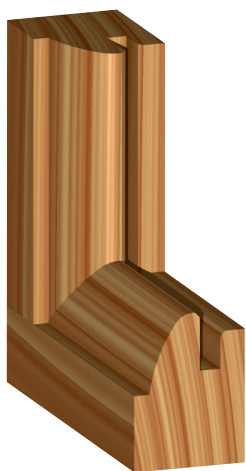
COLTELLI PER TPSEM AB3 (SPESSORE LEGNO: 22 mm)
KNIVES FOR TPSEM AB3 (WOOD THICKNESS: 22 mm)

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

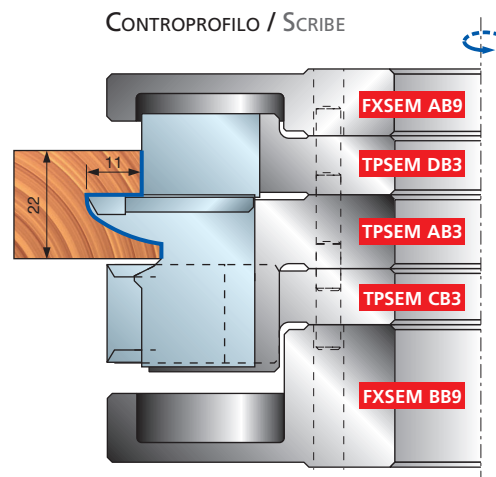
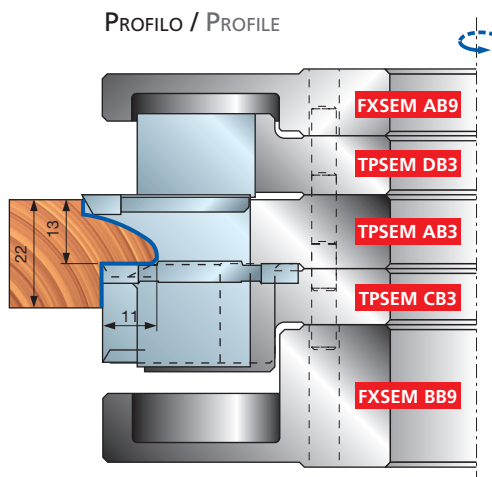
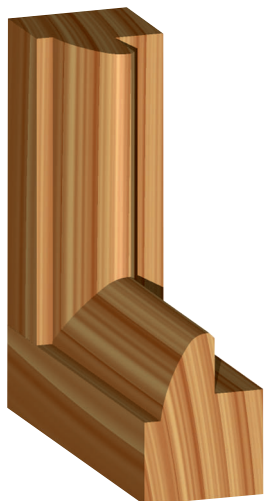
Pezzi	Dimensioni	Codice
Pieces	Dimensions	Code
1	160 x 35 (50)	TPSEM22GB3
2	35 x 34 x 3	CPSEM AE3
2	35 x 34 x 3	CPSEM AF3



ESECUZIONE CON INCASTRO
CARRYING OUT A GROOVE



ESECUZIONE CON BATTUTA
CARRYING OUT A REBATE

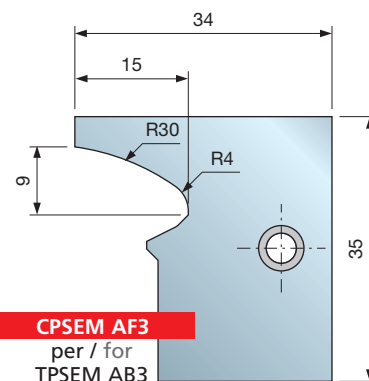
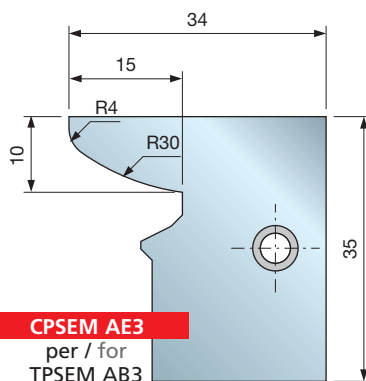
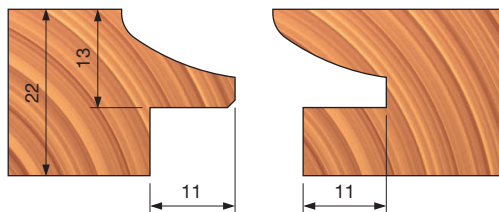
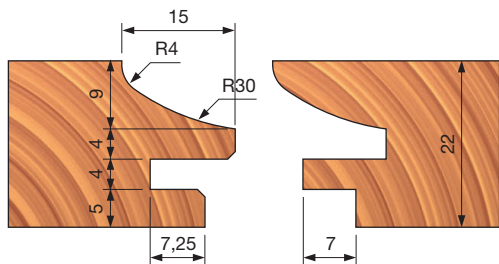


CPSEM AE3 CPSEM AF3

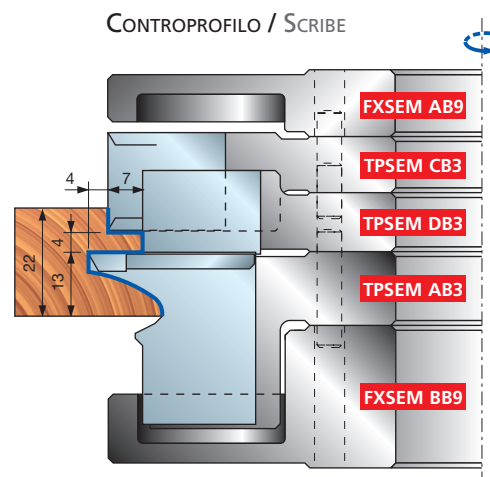
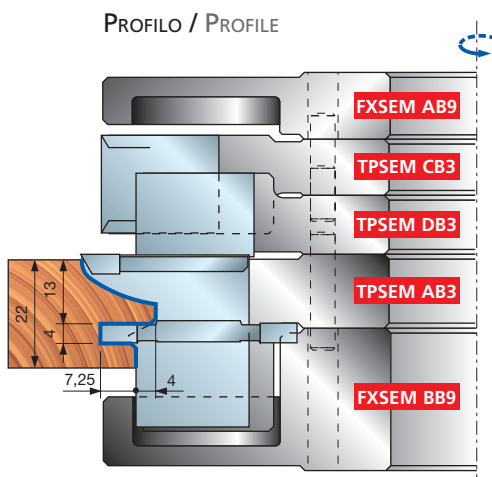
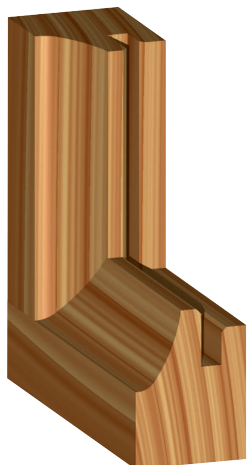
COLTELLI PER TPSEM AB3 (SPESSORE LEGNO: 22 mm)
KNIVES FOR TPSEM AB3 (WOOD THICKNESS: 22 mm)

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

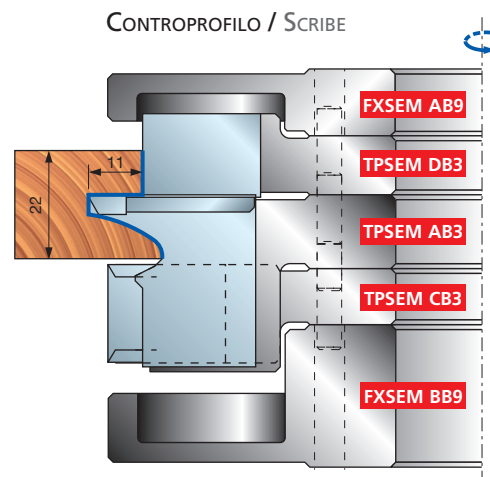
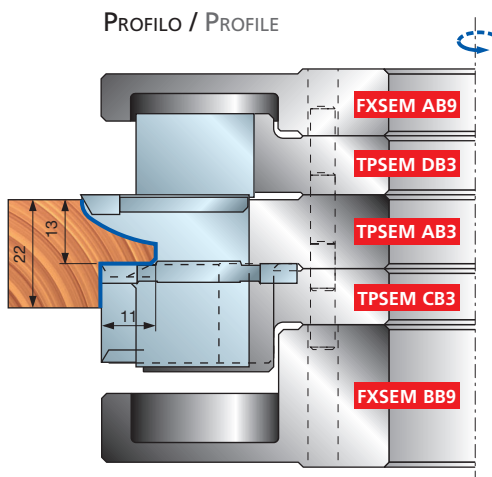
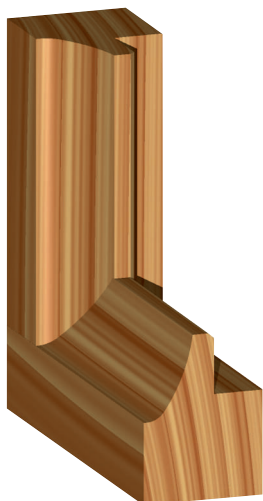
Pezzi	Dimensioni	Codice
Pieces	Dimensions	Code
1	160 x 35 (50)	TPSEM22GB3
2	35 x 34 x 3	CPSEM AE3
2	35 x 34 x 3	CPSEM AF3



ESECUZIONE CON INCASTRO
CARRYING OUT A GROOVE



ESECUZIONE CON BATTUTA
CARRYING OUT A REBATE

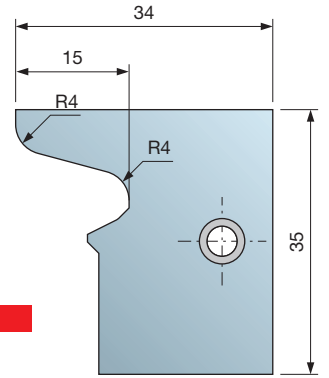
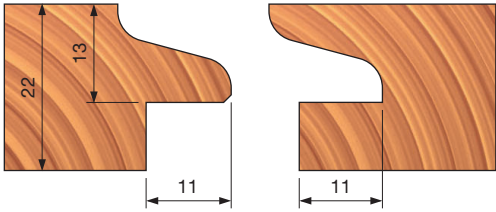
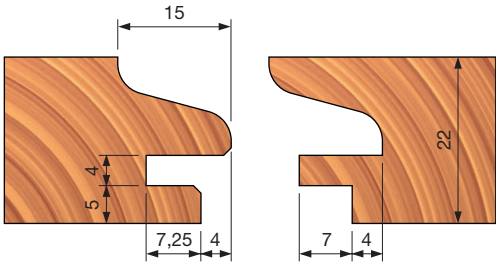


CPSEM AG3

COLTELLI PER TPSEM AB3 (SPESSORE LEGNO: 22 mm)
KNIVES FOR TPSEM AB3 (WOOD THICKNESS: 22 mm)

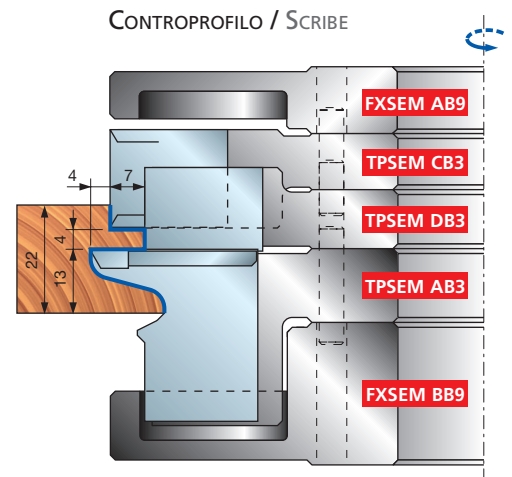
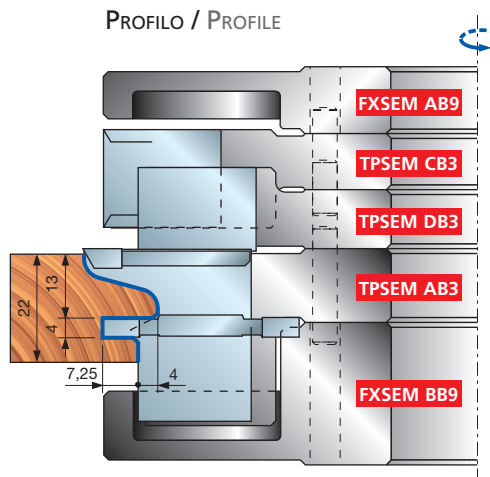
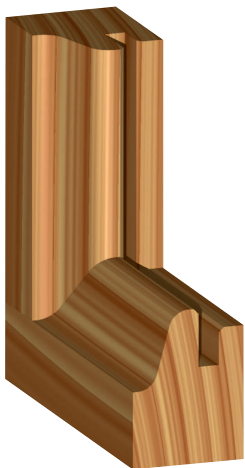
Esempio di ordinazione per l'esecuzione dei profili indicati
Order example for the profiles shown

Pezzi	Dimensioni	Codice
Pieces	Dimensions	Code
1	160 x 35 (50)	TPSEM22GB3
2	35 x 34 x 3	CPSEM AG3

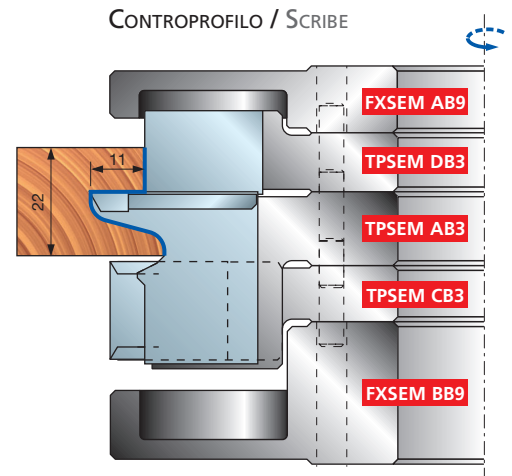
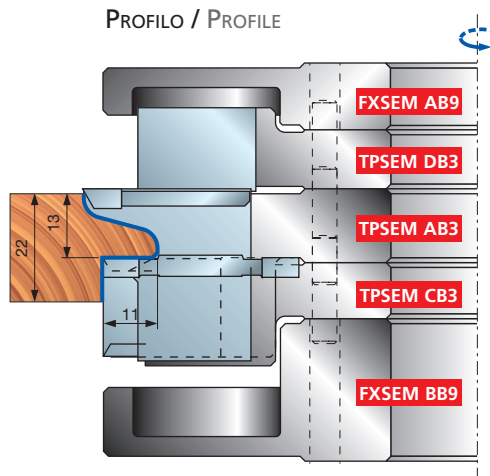
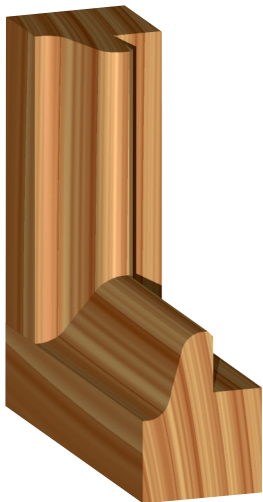


CPSEM AG3
per / for
TPSEM AB3

ESECUZIONE CON INCASTRO
CARRYING OUT A GROOVE



ESECUZIONE CON BATTUTA
CARRYING OUT A REBATE

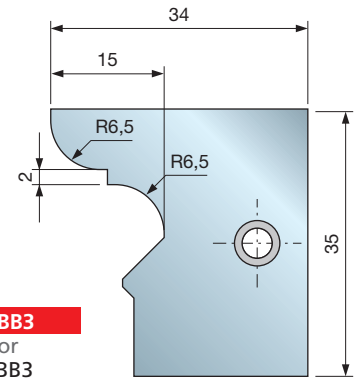
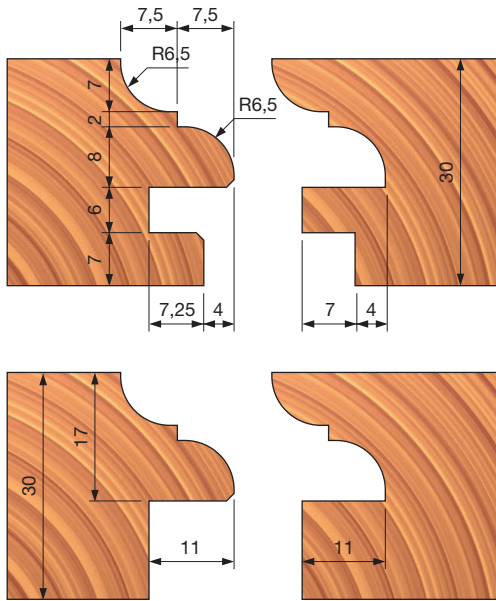


CPSEM BB3

COLTELLI PER TPSEM BB3 (SPESSORE LEGNO: 30 mm)
KNIVES FOR TPSEM BB3 (WOOD THICKNESS: 30 mm)

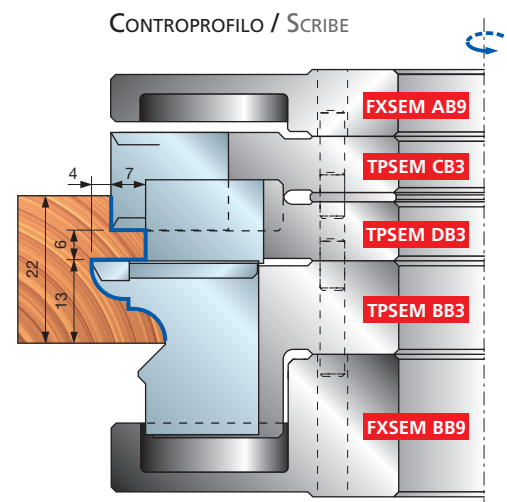
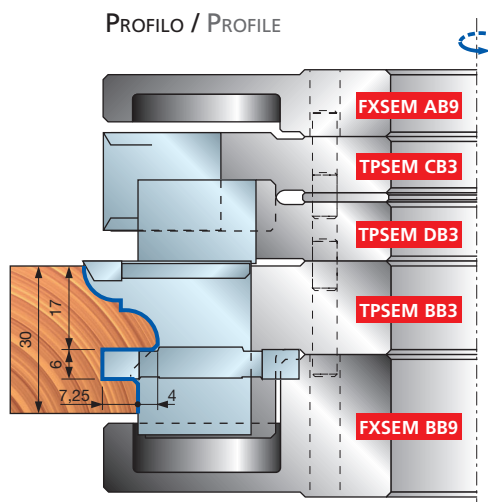
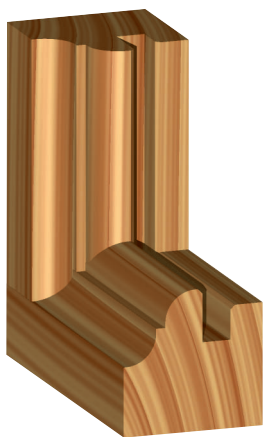
Esempio di ordinazione per l'esecuzione dei profili indicati
Order example for the profiles shown

Pezzi	Dimensioni	Codice
Pieces	Dimensions	Code
1	160 x 35 (50)	TPSEM30GB3
2	35 x 34 x 3	CPSEM BB3

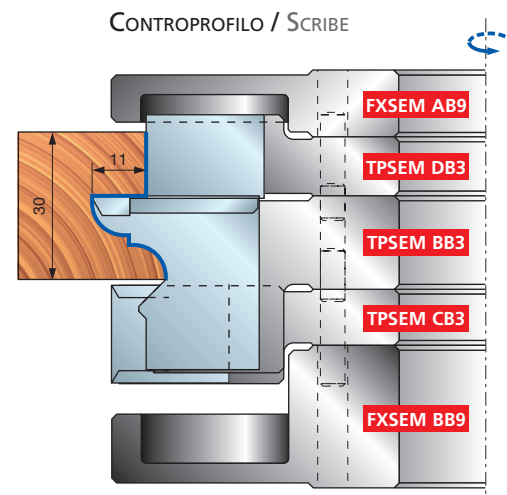
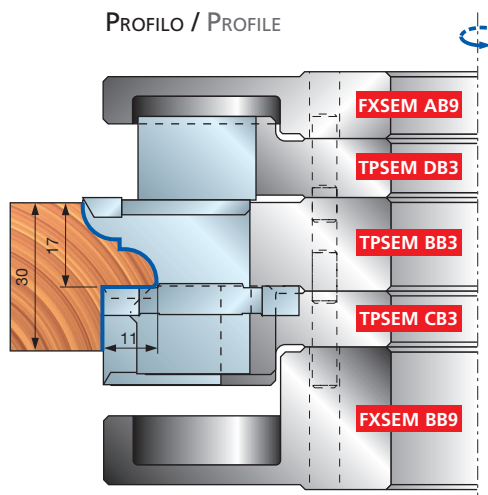
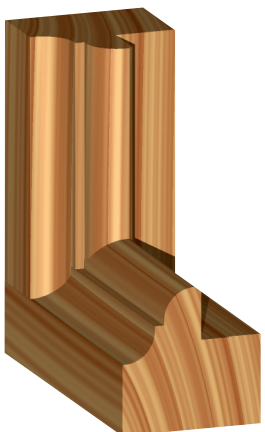


CPSEM BB3
per / for
TPSEM BB3

ESECUZIONE CON INCASTRO CARRYING OUT A GROOVE



ESECUZIONE CON BATTUTA CARRYING OUT A REBATE

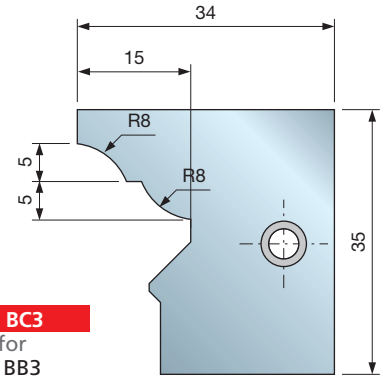
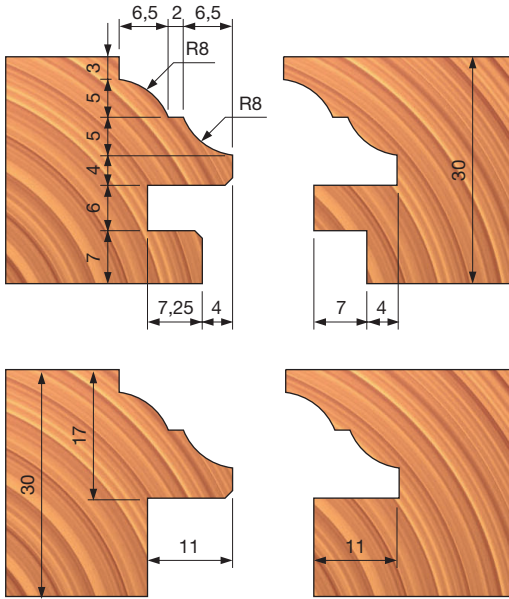


CPSEM BC3

COLTELLI PER TPSEM BB3 (SPESSORE LEGNO: 30 mm)
KNIVES FOR TPSEM BB3 (WOOD THICKNESS: 30 mm)

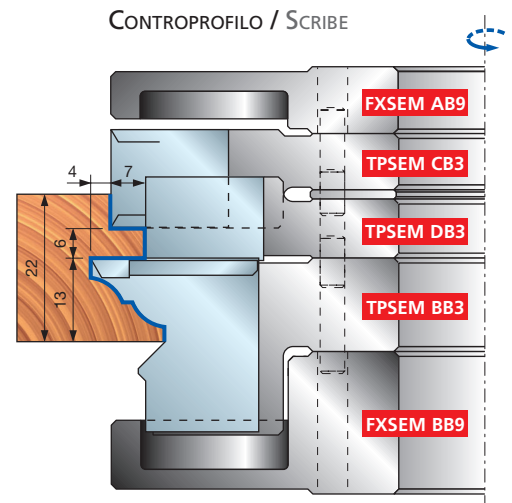
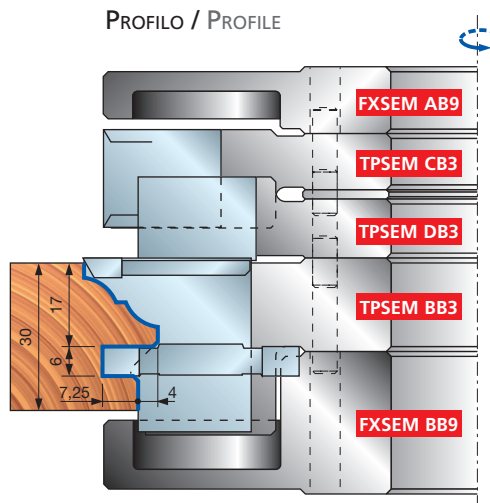
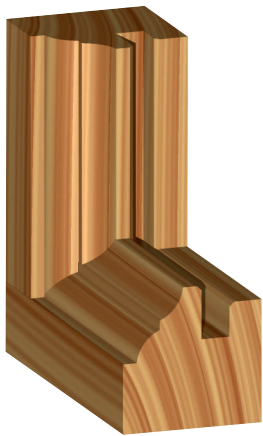
Esempio di ordinazione per l'esecuzione dei profili indicati
Order example for the profiles shown

Pezzi	Dimensioni	Codice
Pieces	Dimensions	Code
1	160 x 35 (50)	TPSEM30GB3
2	35 x 34 x 3	CPSEM BC3

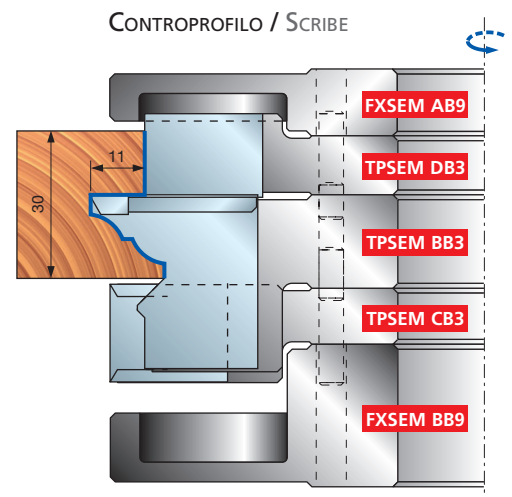
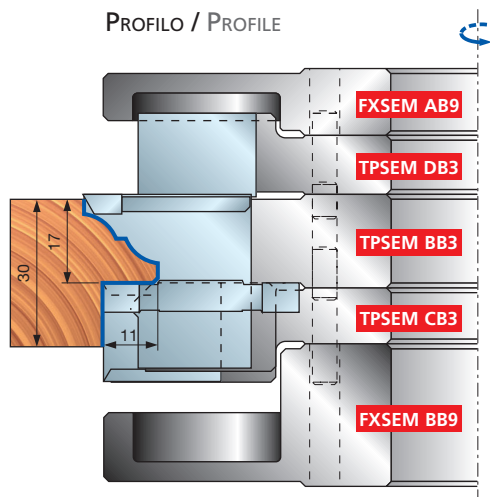
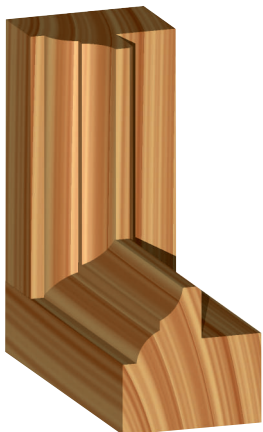


CPSEM BC3
per / for
TPSEM BB3

ESECUZIONE CON INCASTRO
CARRYING OUT A GROOVE



ESECUZIONE CON BATTUTA
CARRYING OUT A REBATE

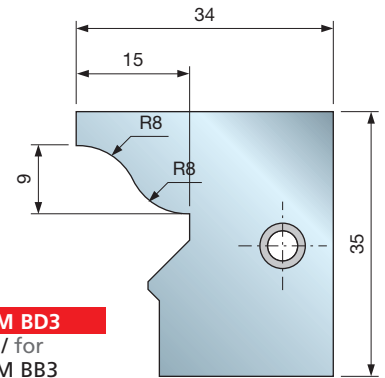
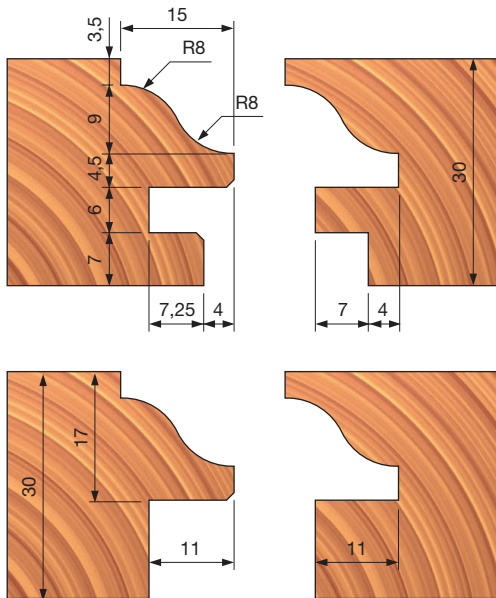


CPSEM BD3

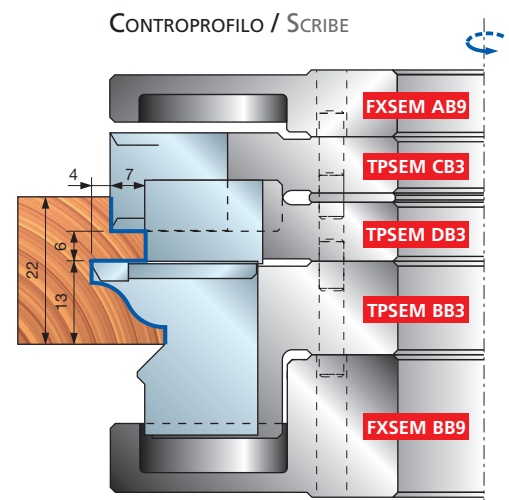
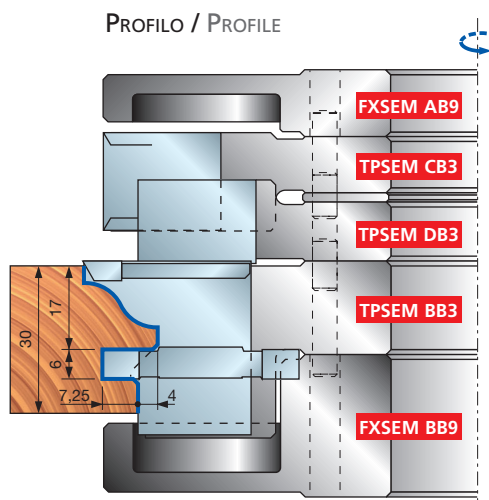
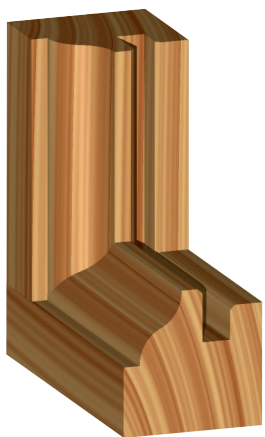
COLTELLI PER TPSEM BB3 (SPESSORE LEGNO: 30 mm)
KNIVES FOR TPSEM BB3 (WOOD THICKNESS: 30 mm)

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

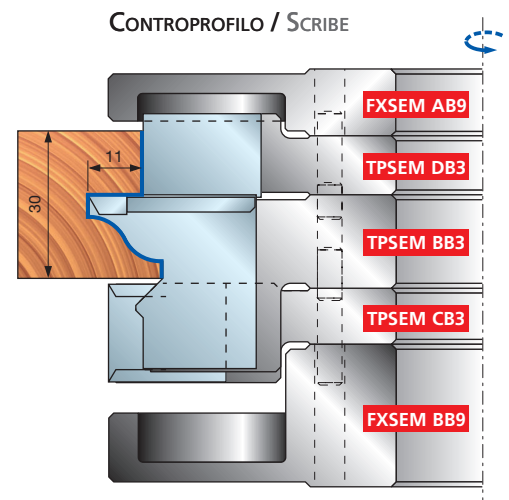
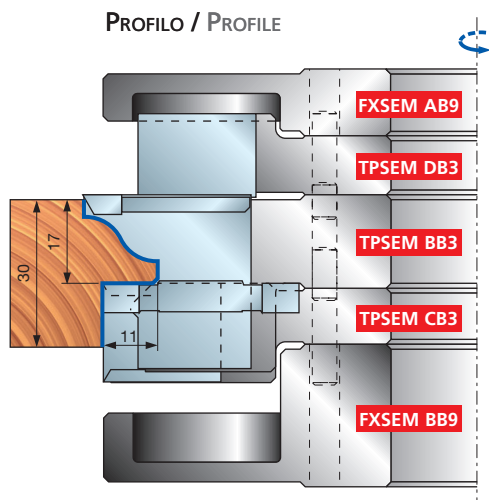
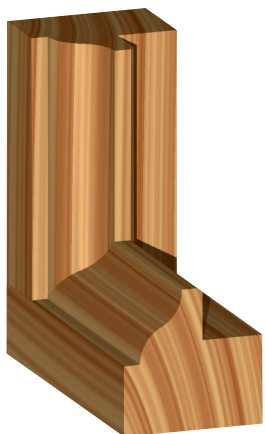
Pezzi	Dimensioni	Codice
Pieces	Dimensions	Code
1	160 x 35 (50)	TPSEM30GB3
2	35 x 34 x 3	CPSEM BD3



ESECUZIONE CON INCASTRO CARRYING OUT A GROOVE



ESECUZIONE CON BATTUTA CARRYING OUT A REBATE

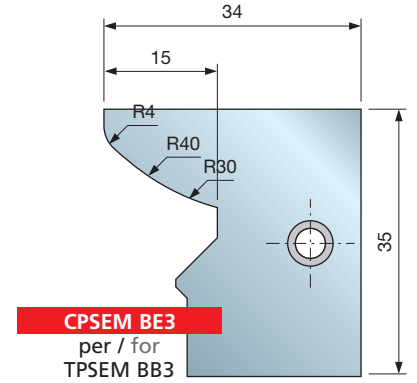
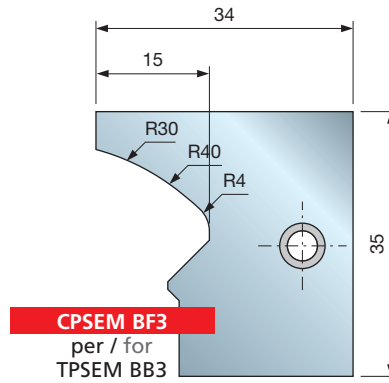
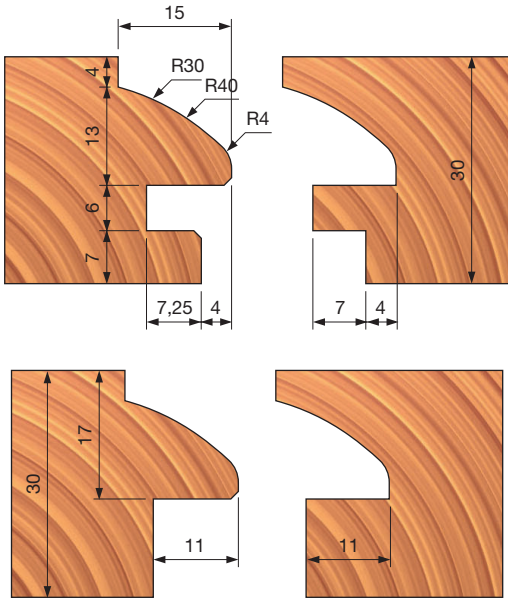


CPSEM BF3 CPSEM BE3

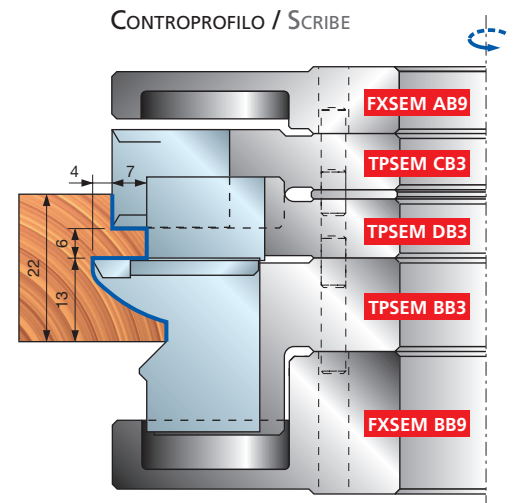
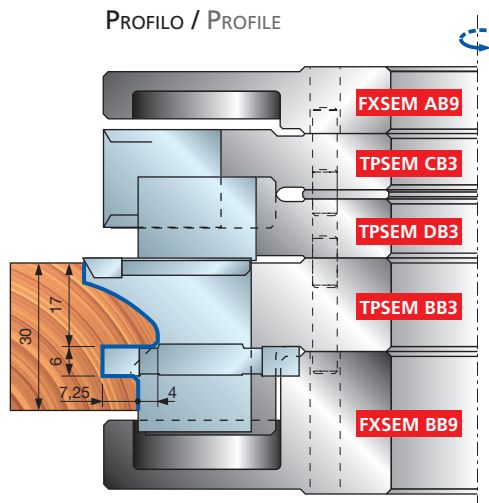
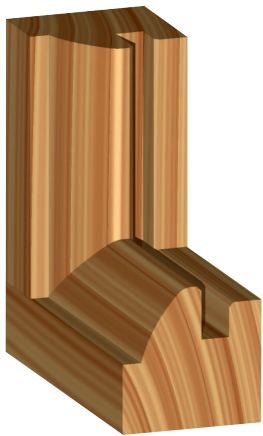
COLTELLI PER TPSEM BB3 (SPESSORE LEGNO: 22 mm)
KNIVES FOR TPSEM BB3 (WOOD THICKNESS: 22 mm)

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

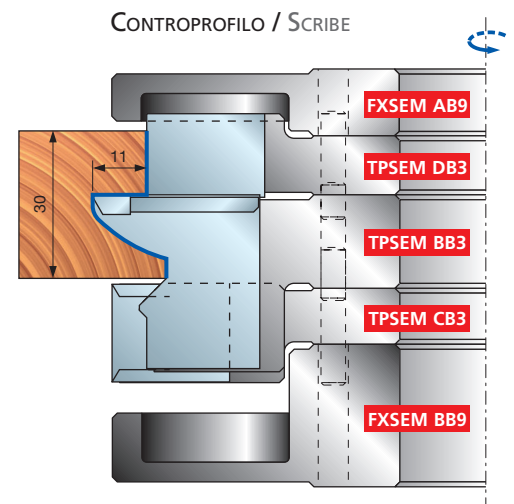
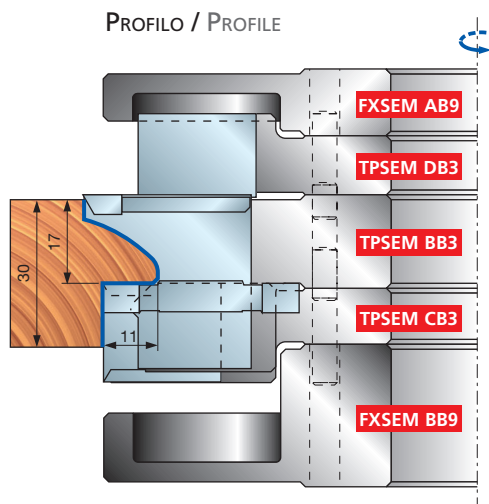
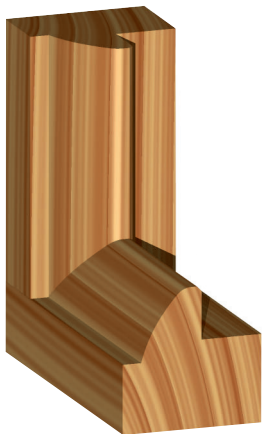
Pezzi	Dimensioni	Codice
Pieces	Dimensions	Code
1	160 x 35 (50)	TPSEM30GB3
2	35 x 34 x 3	CPSEM BE3
2	35 x 34 x 3	CPSEM BF3



ESECUZIONE CON INCASTRO
CARRYING OUT A GROOVE



ESECUZIONE CON BATTUTA
CARRYING OUT A REBATE

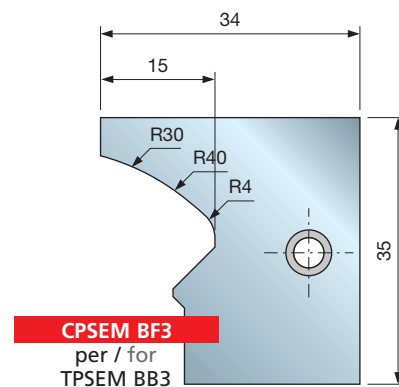
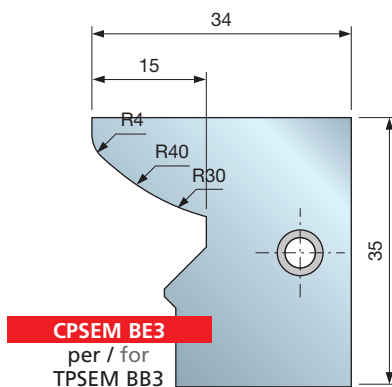
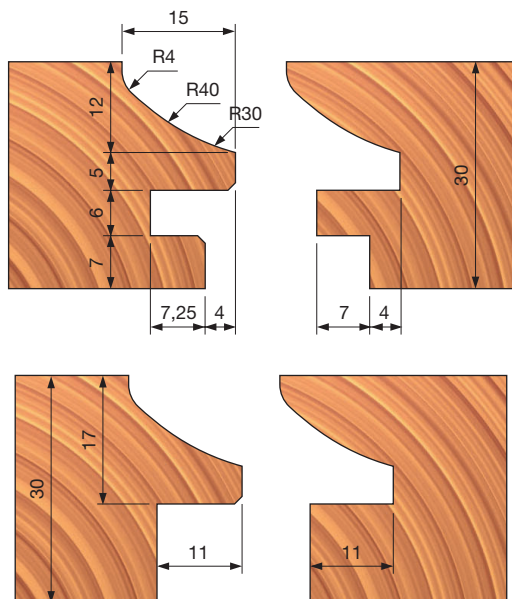


CPSEM BE3 CPSEM BF3

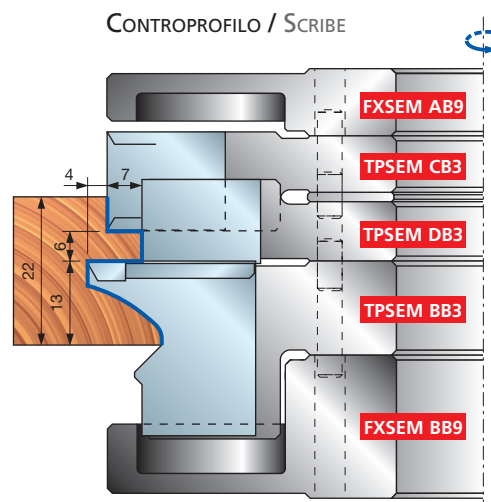
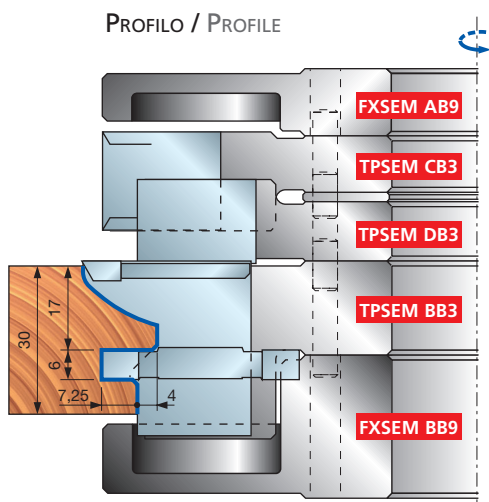
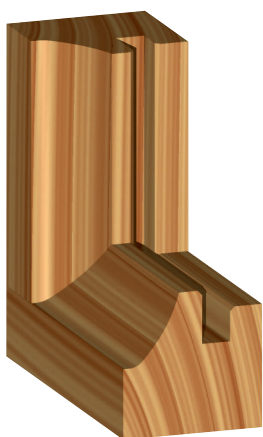
COLTELLI PER TPSEM BB3 (SPESSORE LEGNO: 30 mm)
KNIVES FOR TPSEM BB3 (WOOD THICKNESS: 30 mm)

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

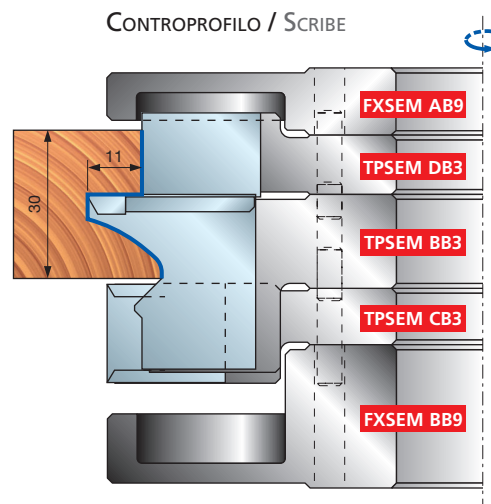
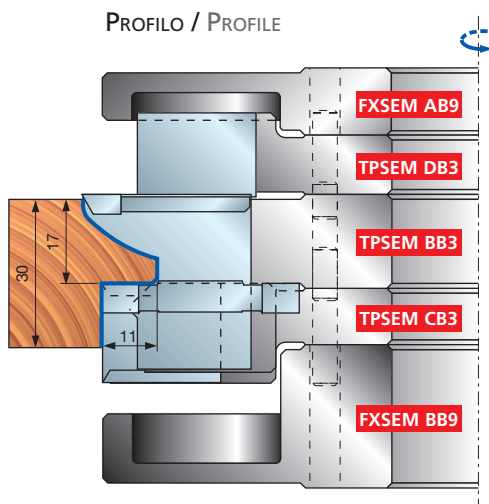
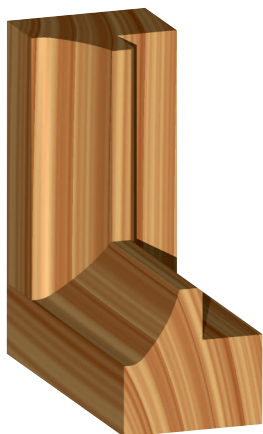
Pezzi	Dimensioni	Codice
Pieces	Dimensions	Code
1	160 x 35 (50)	TPSEM30GB3
2	35 x 34 x 3	CPSEM BE3
2	35 x 34 x 3	CPSEM BF3



ESECUZIONE CON INCASTRO
CARRYING OUT A GROOVE



ESECUZIONE CON BATTUTA
CARRYING OUT A REBATE

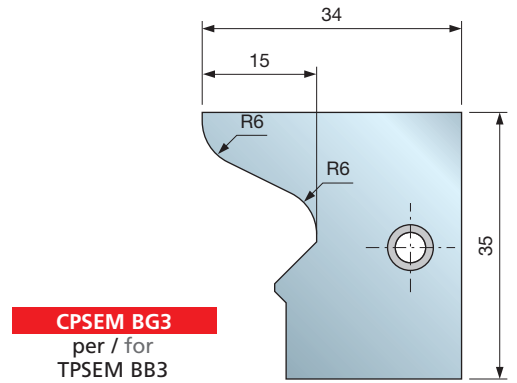
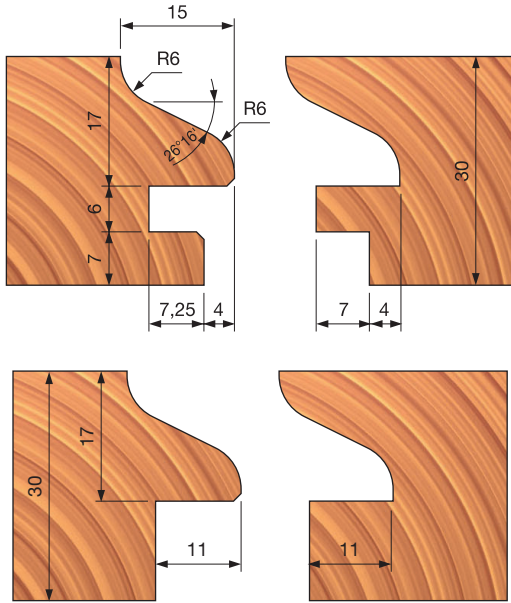


CPSEM BG3

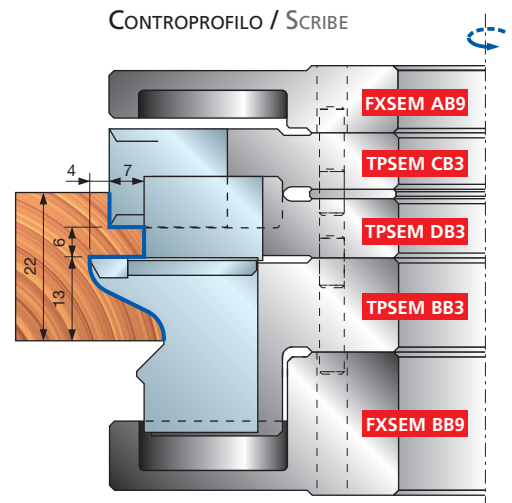
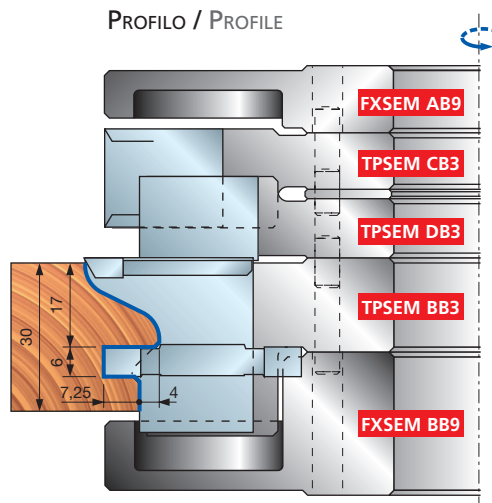
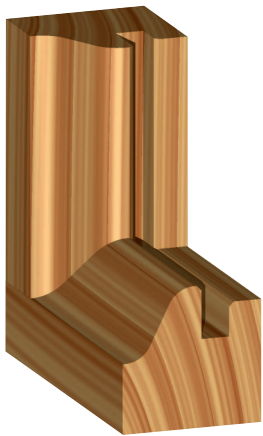
COLTELLI PER TPSEM BB3 (SPESSORE LEGNO: 30 mm)
KNIVES FOR TPSEM BB3 (WOOD THICKNESS: 30 mm)

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

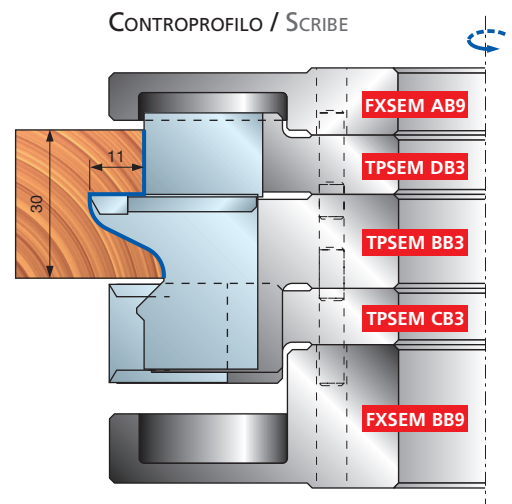
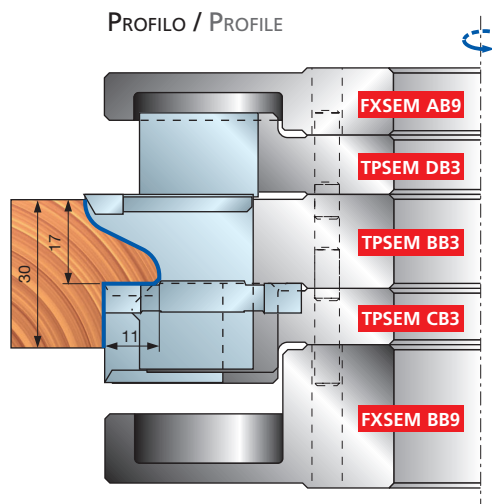
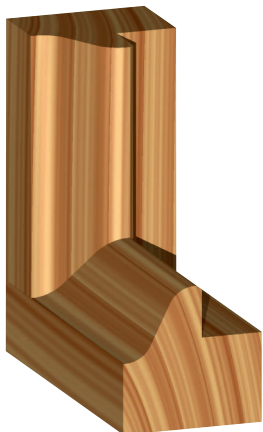
Pezzi	Dimensioni	Codice
Pieces	Dimensions	Code
1	160 x 35 (50)	TPSEM30GB3
2	35 x 34 x 3	CPSEM BG3



ESECUZIONE CON INCASTRO
CARRYING OUT A GROOVE

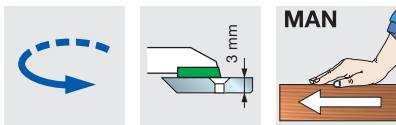
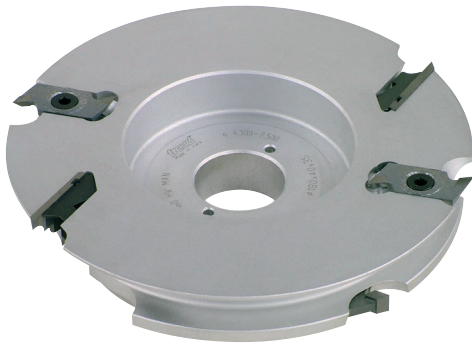


ESECUZIONE CON BATTUTA
CARRYING OUT A REBATE



TP42M

TESTA PORTACOLTELLI MULTIPROFILO PER PORTE MULTIPROFILE CUTTERHEAD FOR DOORS



PERFORMANCE Coltelli Riaffilabili SYSTEM Resharpenable Knives

Utensili collaudati secondo la Normativa
Tools tested according to the Norm

• **EN 847-1** •

■ CARATTERISTICHE:

Questo utensile è stato progettato per essere utilizzato su macchine toupie. 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.

■ FEATURES:

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.

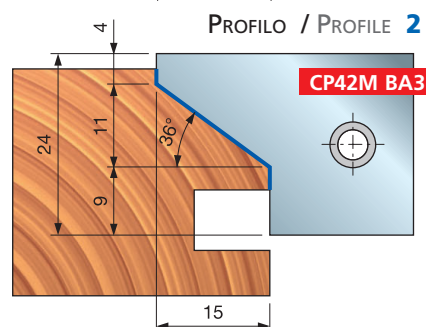
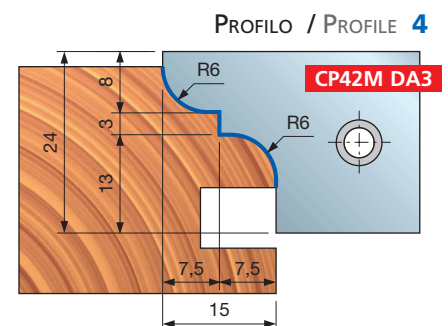
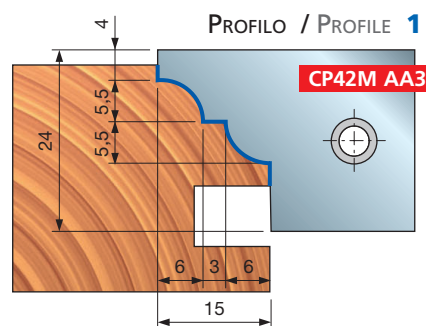
D	B	d*	Z	R	Codice
mm	mm	mm			Code
176	40	35 (50)	2	4	TP42M AB3

Parti di ricambio	Dimensioni	Codice
Spare parts	Dimensions	Code
Vite / Screw	M5 x 7 x 16	VT08M AE9
Cuneo / Wedge	21 x 19 x 8	CN13M AS9
Vite / Screw	M10 x 18	VT03M CC9
Inserto rasante / Spur insert	40 x 4 x 7	IG05MD AA3
Vite / Screw	M6 x 14,5	VT16M AA9
Inserto per incastri / Grooving insert	34 x 8 x 16	SR06M AM3
Vite / Screw	M6 x 11,5	VT16M AB9
Chiave / Allen key	4 x 110	CB03M BA9
Chiave / Allen key	5 x 110	CB03M EA9

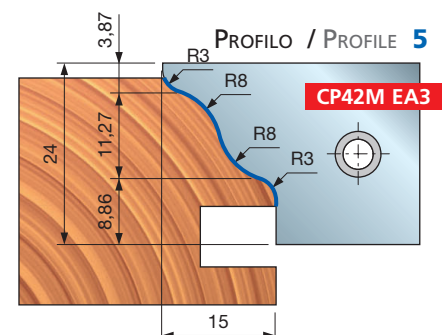
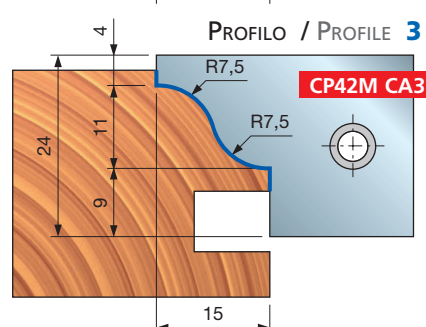
■ Corpo in lega leggera (Ergal). Per la pulizia non utilizzare prodotti contenenti soda caustica.
L'ARTICOLO VIENE FORNITO SENZA COLTELLI.

■ Light alloy body (Ergal). For cleaning do not use products containing caustic soda.
THIS ITEM IS SUPPLIED WITHOUT KNIVES.

Coltelli di ricambio	Dimensioni	Codice
Spare knives	Dimensions	Code
1	24 x 34 x 3	CP42M AA3
2	24 x 34 x 3	CP42M BA3
3	24 x 34 x 3	CP42M CA3
4	24 x 34 x 3	CP42M DA3
5	24 x 34 x 3	CP42M EA3



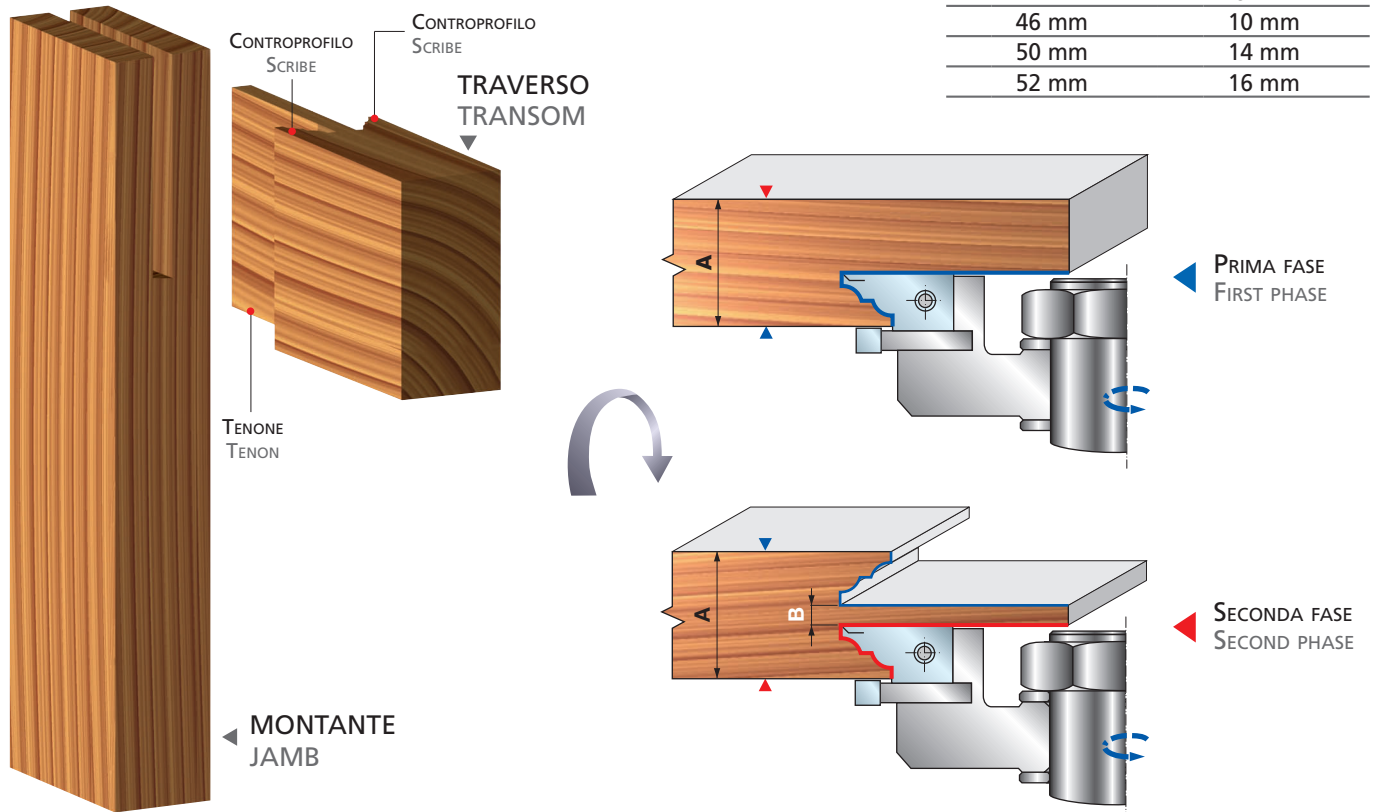
▲
I profili 4 e 5 sono utilizzabili solamente con avanzamento meccanico.
Profiles 4 and 5 are usable with automatic feed only.
▼



1

ESECUZIONE DEL CONTROPROFILO CON SPINA DOOR TENONING

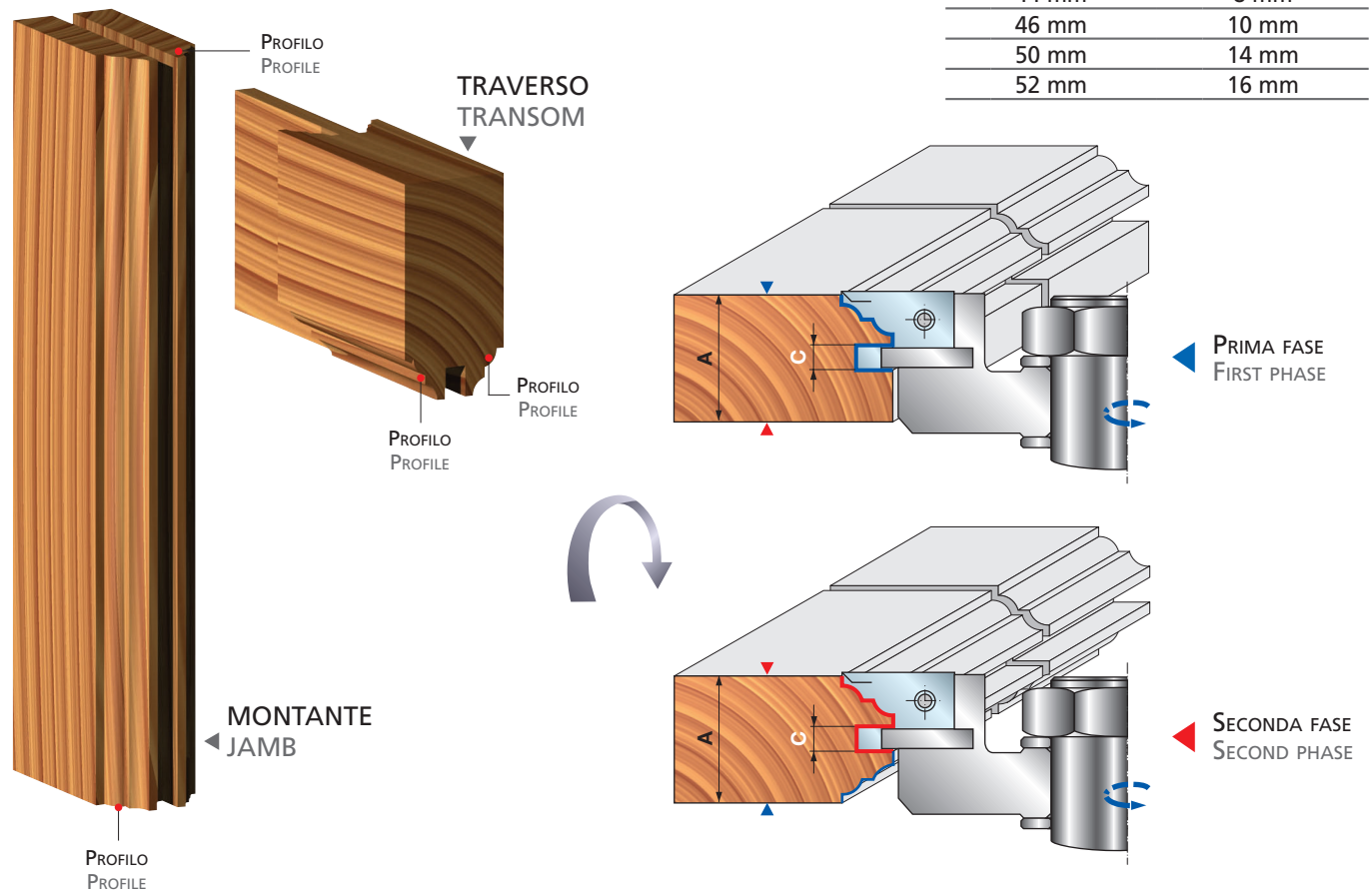
A	Spessore Porta Door thickness	B	Spessore Tenone Tenon thickness
	44 mm		8 mm
	46 mm		10 mm
	50 mm		14 mm
	52 mm		16 mm



2

PROFILATURA DEI MONTANTI E DEI TRAVERSI DOOR FRAME PROFILING

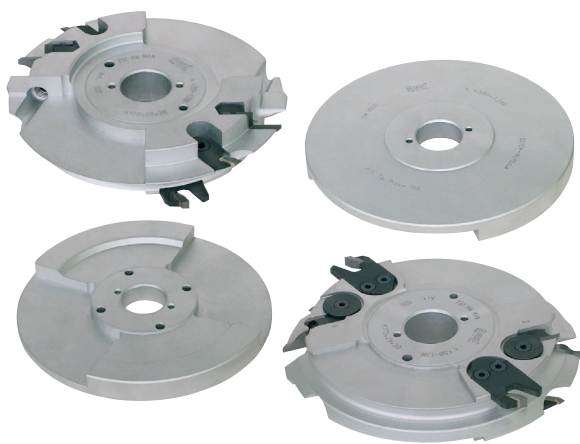
A	Spessore Porta Door thickness	C	Spessore Incastro Groove thickness
	44 mm		8 mm
	46 mm		10 mm
	50 mm		14 mm
	52 mm		16 mm



■ VEDERE A PAG. 242 "COSTRUZIONE DI UNA PORTA"
 ■ PLEASE REFER TO PAGE 242 "DOOR MANUFACTURING"

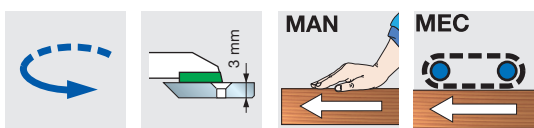
TP46M

SET DI TESTE PORTACOLTELLI PER PORTE CON SPESSORE 38-40 mm
MULTIPROFILE CUTTERHEAD SETS FOR DOORS (38-40 mm)



Set TP46MAN per avanzamento manuale
TP46MAN sets for manual feed

Profilo	D	d*	Z	I	R	Codice
Profile	mm	mm				Code
1	170	30 (50)	4	8		TP46MAN001
2	170	30 (50)	4	8		TP46MAN002
3	170	30 (50)	4	8		TP46MAN003
4	170	30 (50)	4	8		TP46MAN004
5	170	30 (50)	4	8		TP46MAN005
6	170	30 (50)	4	8		TP46MAN006
7	170	30 (50)	4	8		TP46MAN007
8	170	30 (50)	4	8		TP46MAN008



PERFORMANCE
Coltelli Riaffilabili
SYSTEM
Resharpenable Knives

■ Corpo in lega leggera (Ergal).
Per la pulizia non utilizzare
prodotti contenenti soda
caustica.

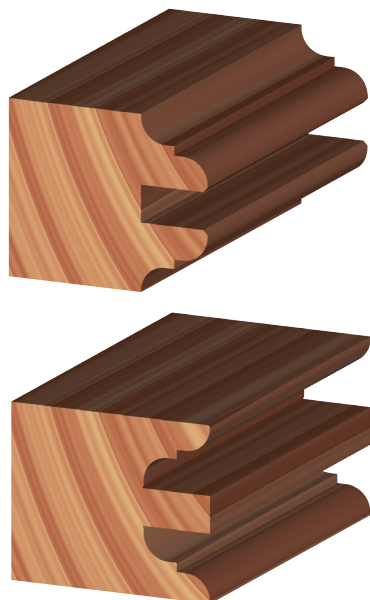
I GRUPPI VIENGONO FORNITI
CON COLTELLI.

N.B.: Per lo spessore legno
da 40 mm, usare l'anello
distanziale da 2 mm (cod.
AN01MA0209, incluso).

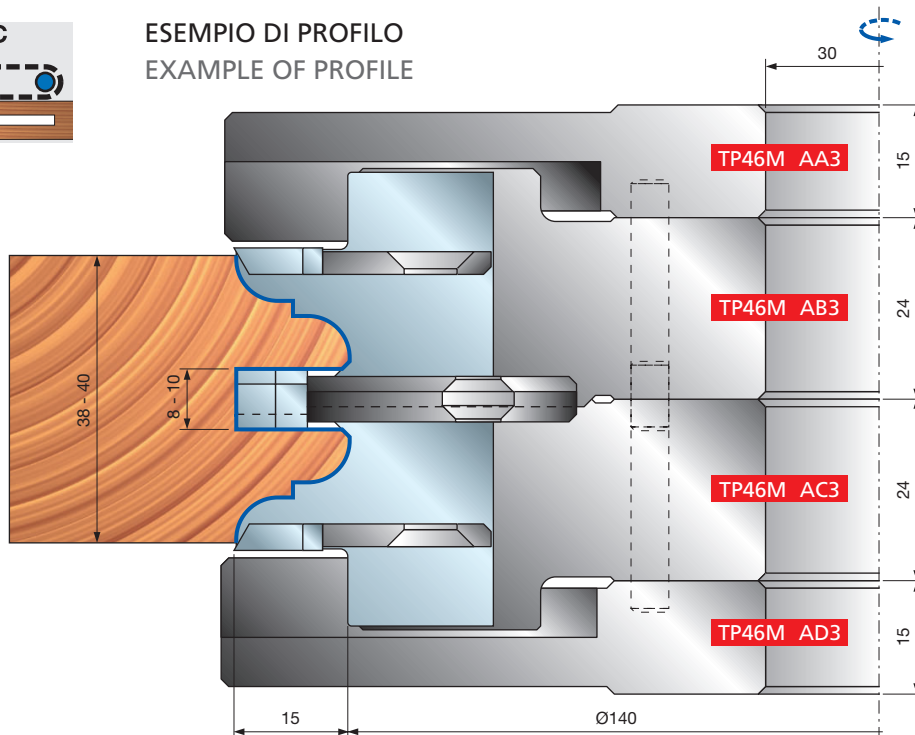
■ Light alloy body (Ergal). For
cleaning do not use products
containing caustic soda.

THESE SETS ARE SUPPLIED WITH
KNIVES.

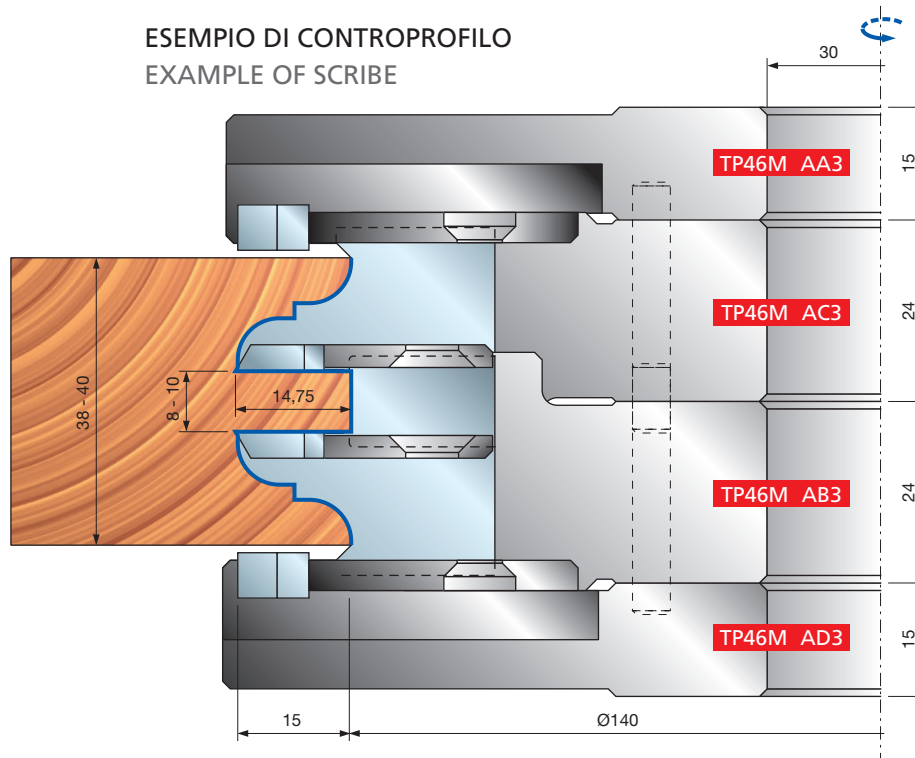
Please Note: To obtain a
workpiece of 40 mm, use
a spacer of 2 mm (item
AN01MA0209, included).



ESEMPIO DI PROFILO
EXAMPLE OF PROFILE



ESEMPIO DI CONTROPROFILO
EXAMPLE OF SCRIBE

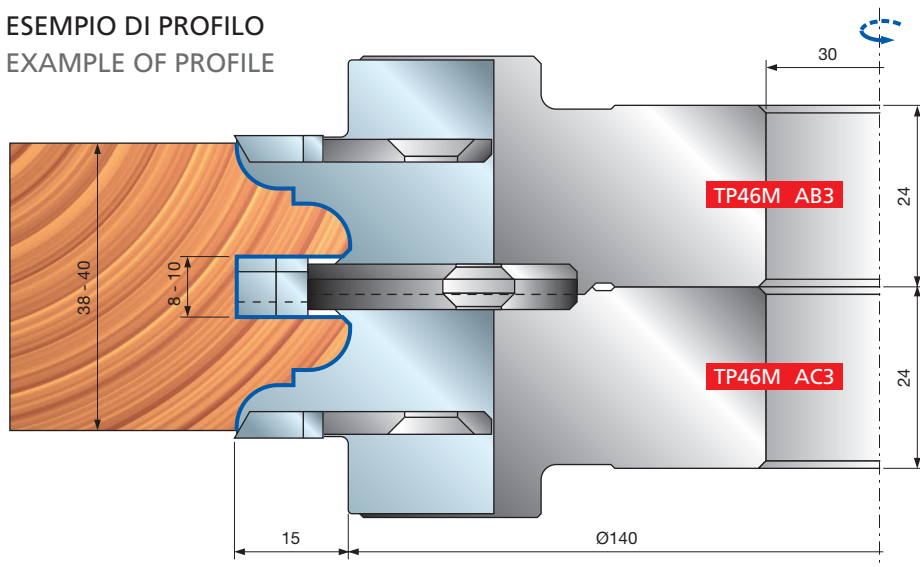
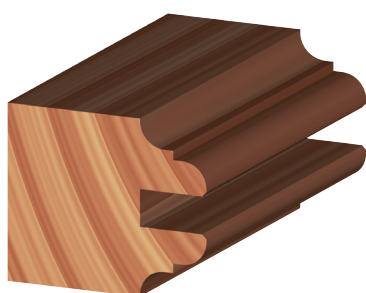


SET DI TESTE PORTACOLTELLI PER PORTE CON SPESSORE 38-40 MM MULTIPROFILE CUTTERHEAD SETS FOR DOORS (38-40 MM)

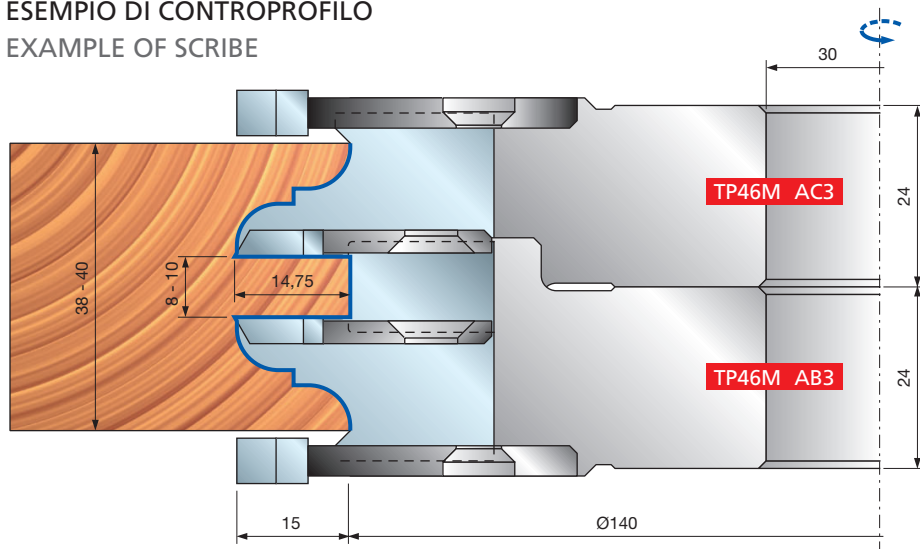
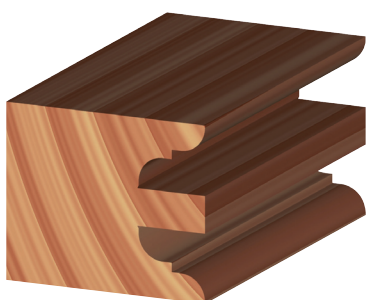
Set TP46MEC per avanzamento meccanico TP46MEC sets for automatic feed









Profilo	D	d*	Z	I	R	Codice
Profile	mm	mm				Code
1	170	30 (50)	4	8		TP46MEC001
2	170	30 (50)	4	8		TP46MEC002
3	170	30 (50)	4	8		TP46MEC003
4	170	30 (50)	4	8		TP46MEC004
5	170	30 (50)	4	8		TP46MEC005
6	170	30 (50)	4	8		TP46MEC006
7	170	30 (50)	4	8		TP46MEC007
8	170	30 (50)	4	8		TP46MEC008

ESEMPIO DI PROFILO
EXAMPLE OF PROFILE

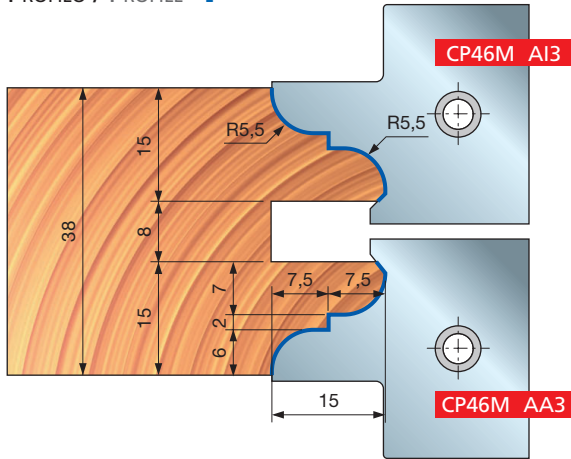


ESEMPIO DI CONTROPROFILO
EXAMPLE OF SCRIBE

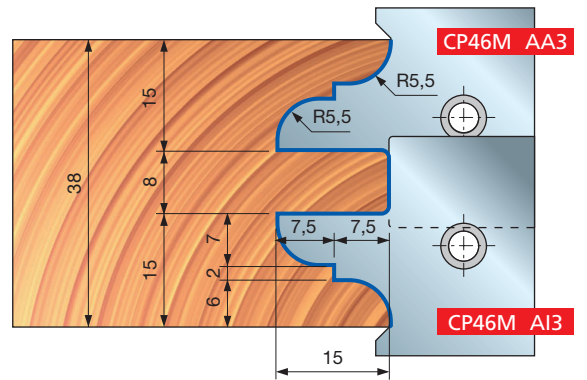


Parti di ricambio	Dimensioni	Codice
Spare parts	Dimensions	Code
Vite / Screw	 M5 x 8	VT05M AA9
Vite / Screw	 M5 x 7 x 16	VT08M AE9
Vite / Screw	 M6 x 11,5	VT16M AB9
Vite / Screw	 M10 x 18	VT03M CC9
AB3 Inserto rasante / Spur insert	 34 x 3,5 x 16	SR06MS BA3
Settore / Sector	 25 x 45 x 6 Z1	SR11MD BE3
AC3 Inserto rasante / Spur insert	 34 x 3,5 x 16	SR06MD BA3
Settore / Sector	 25 x 45 x 6 Z1	SR11MS BE3

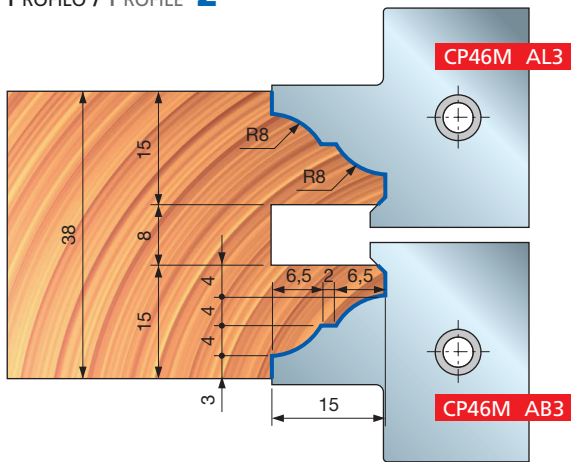
PROFILO / PROFILE **1**



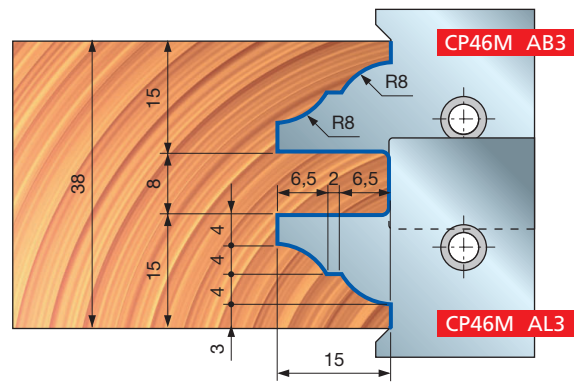
CONTROROFILO / SCRIBE **1**



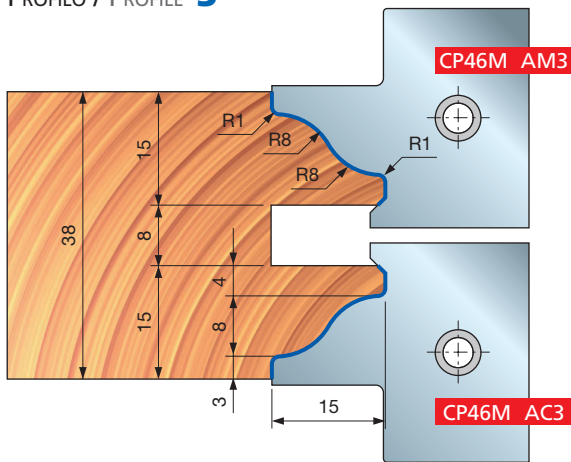
PROFILO / PROFILE **2**



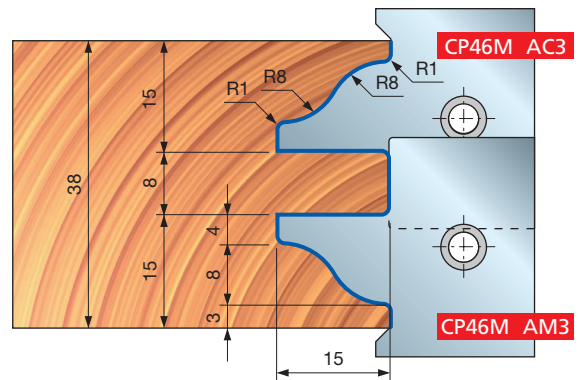
CONTROROFILO / SCRIBE **2**



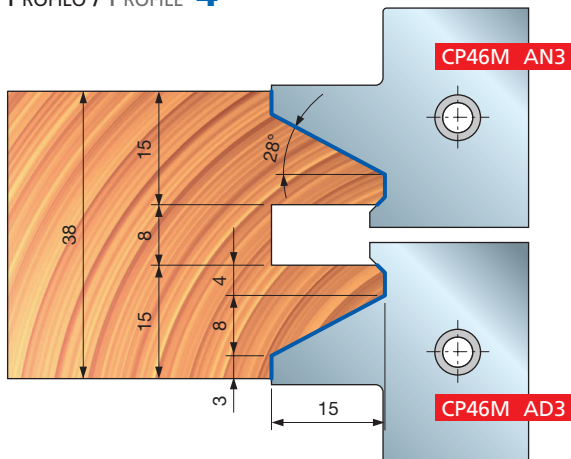
PROFILO / PROFILE **3**



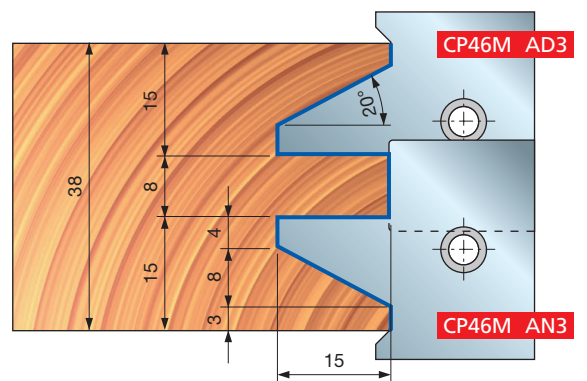
CONTROROFILO / SCRIBE **3**



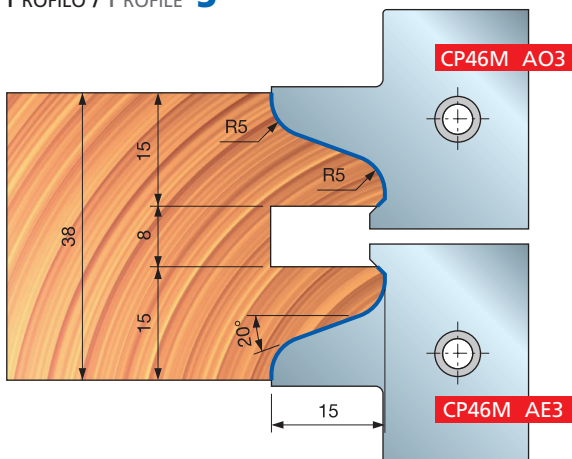
PROFILO / PROFILE **4**



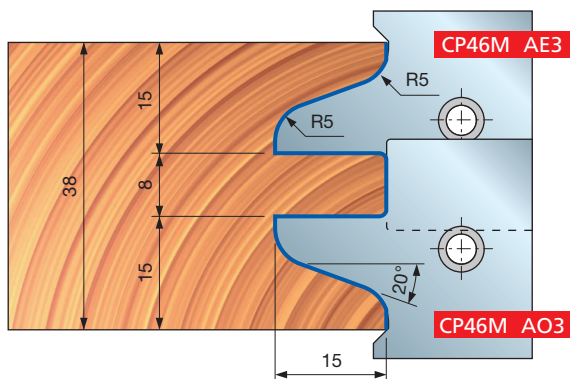
CONTROROFILO / SCRIBE **4**



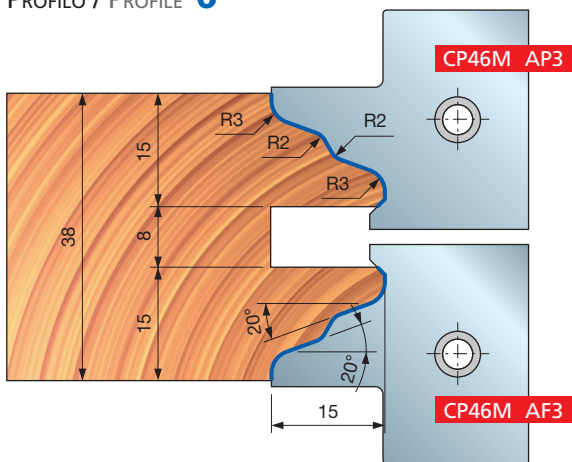
PROFILO / PROFILE **5**



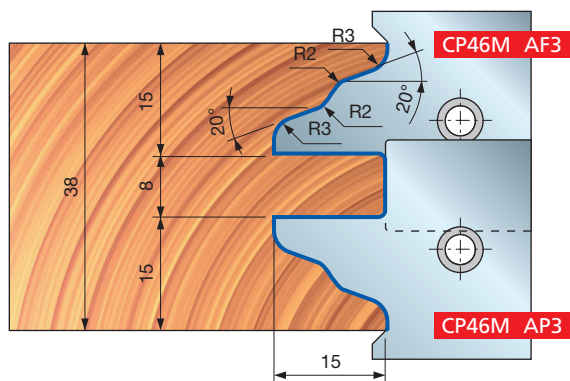
CONTROROFILO / SCRIBE **5**



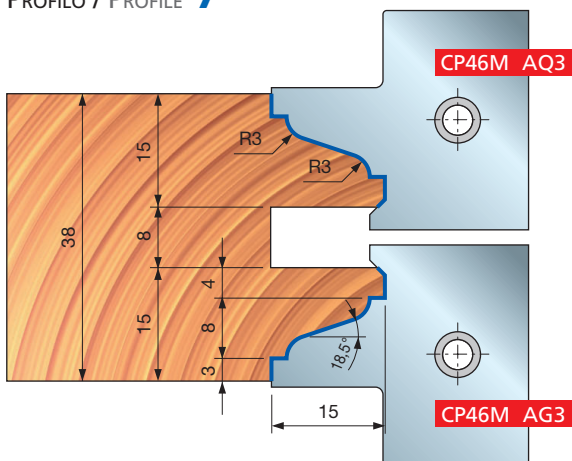
PROFILO / PROFILE **6**



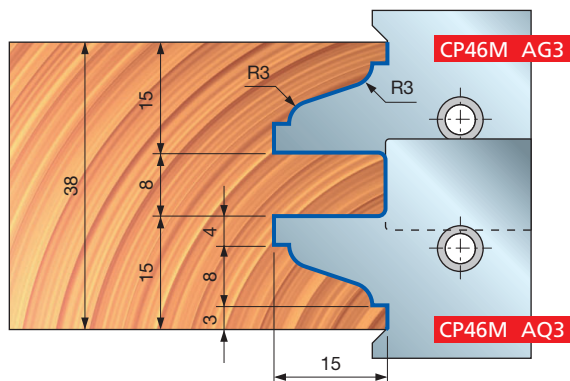
CONTROROFILO / SCRIBE **6**



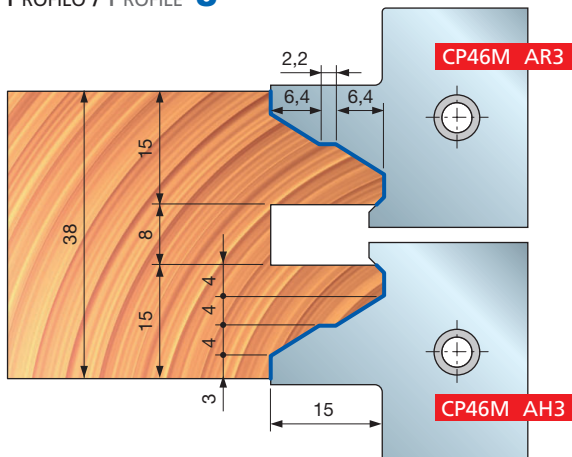
PROFILO / PROFILE **7**



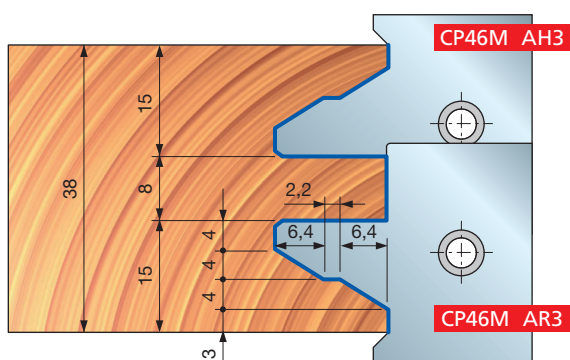
CONTROROFILO / SCRIBE **7**



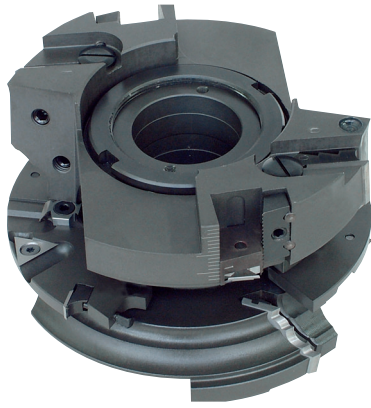
PROFILO / PROFILE **8**



CONTROROFILO / SCRIBE **8**



ST12MG



PERFORMANCE SYSTEM

Coltelli Riaffilabili
Resharpenable Knives

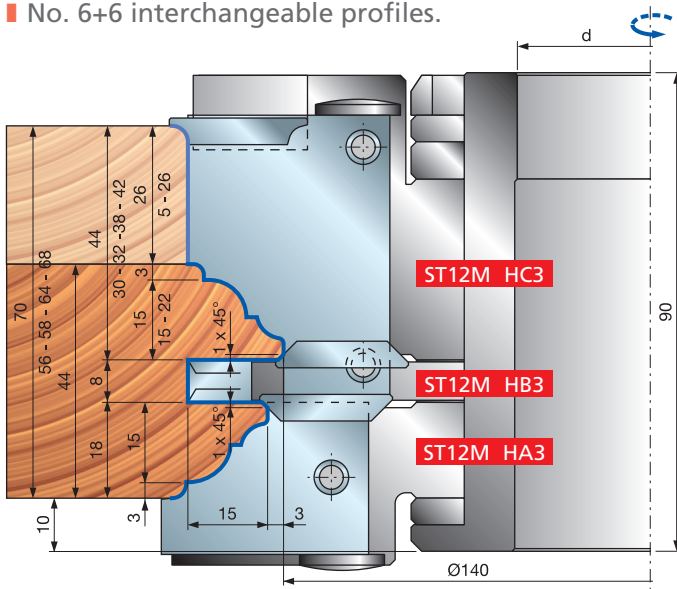
- La bussola BF10MD ed i coltelli per gli utensili HA3 e HC3 vanno ordinati a parte.
- BF10MD sleeve and knives for cutterheads HA3 and HC3 are not included.

Dimensioni	Codice bussola
Dimensions	Sleeve code
Ø70 x 90 x 50	BF10MD ED9
Ø70 x 90 x 40	BF10MD EC9
Ø70 x 90 x 35	BF10MD EB9

Sp. legno	Reg. vetrocamera
Dimensions	double-glazing thickness adj.
44	5 ÷ 8
56	13 ÷ 20
58	15 ÷ 22
64	21 ÷ 28
68	25 ÷ 32
70	27 ÷ 34

GRUPPO / SET ST12MG-800

- N. 6+6 profili intercambiabili.
- No. 6+6 interchangeable profiles.



GRUPPI PER PROFILI DI PORTE INTERNE E PORTONCINI PROFILING SETS FOR INTERNAL AND EXTERNAL DOORS

Utensili per gruppi ST12MG-800 e ST12MG-801 Tools for ST12MG-800 and ST12MG-801 sets

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

Parti di ricambio	Dimensioni	Codice
Spare parts	Dimensions	Code
HA3	Cuneo / Wedge	26 x 38 x 8 CN07M HA9
	Vite / Screw	M10 x 18 VT03M CC9
	Vite / Screw	M5 x 7 x 16 VT08M AE9
HC3	Vite / Screw	M10 x 18 VT03M CC9
	Cuneo / Wedge	50 x 38 x 8 CN07M HC9
	Vite / Screw	M5 x 7 x 16 VT08M AE9
	Insero raggatore / Rounding insert	22 x 16 X 5 IG52M AE3
	Vite / Screw	M6 x 13 VT16M AE9
	Supporto / Serrated support	14 x 21,5 X 22 CN03M BA9
HB3 - HD3	Cuneo / Wedge	28 x 9,5 X 8 CN03M BB9
	Vite / Screw	M8 x 22 VT19M BB9
	Coltello / Knife	7,6 x 12 x 1,5 CG06M HA3
	Cuneo / Wedge	15 x 7,2 x 8 CN09M DA9
	Vite / Screw	M5 x 19 VT11M AA9
	Rasante / Spur	22,86 x 2,5 RG02M AA3
	Vite / Screw	M5 x 6 VT05M AC9
Insero smussatore / Beveling insert	22 x 16 x 5 IG51M BA3	
Vite / Screw	M6 x 11,5 VT16M AB9	

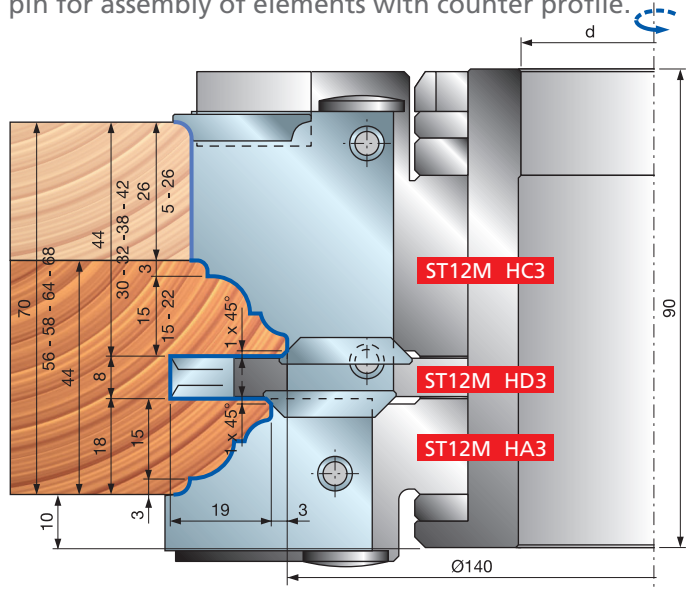
- TRAVERSI E MONTANTI INTERMEDI CON IL GRUPPO ST12MG-801: Tagliando la spina maschio come illustrato, si ottiene il controprofilo con spinetta di tenuta.

- JAMB AND TRANSOM WITH ST12MG-801 SET: By cutting the tenon as shown, the counter profile with anti-torsion pin is obtained.



GRUPPO / SET ST12MG-801

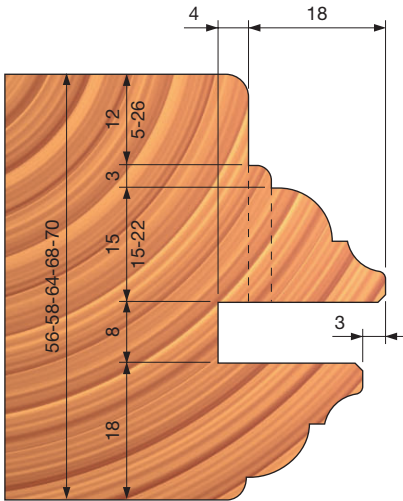
- N. 6+6 profili intercambiabili. Con incastro di tenuta per assemblaggio di elementi con controprofilo.
- No. 6+6 interchangeable profiles. With anti-torsion pin for assembly of elements with counter profile.



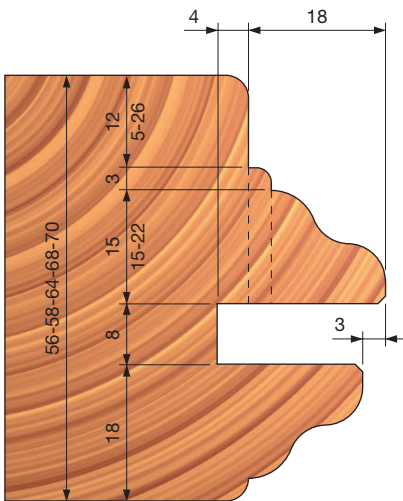
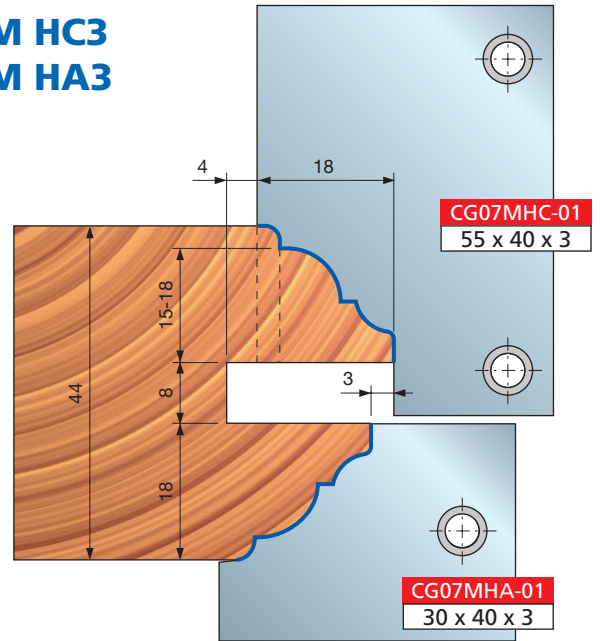
ST12MG

PROFILI CON RAGGIATURA ESTERNA DA 3 mm
PROFILES WITH 3 mm EXTERNAL ROUNDING

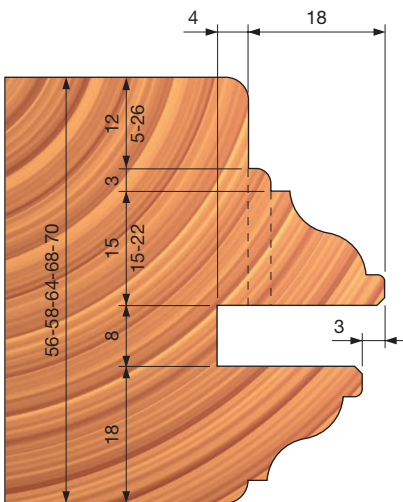
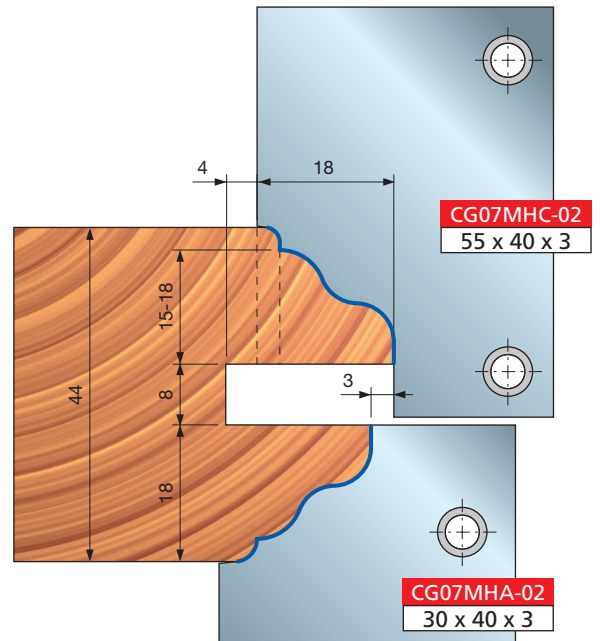
COLTELLI PER UTENSILI / KNIVES FOR CUTTERHEADS: **ST12M HC3**
ST12M HA3



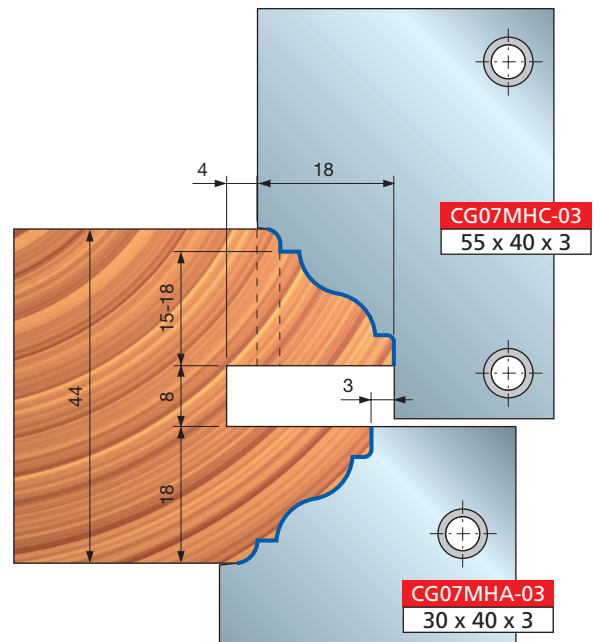
PROFILO / PROFILE **1**



PROFILO / PROFILE **2**



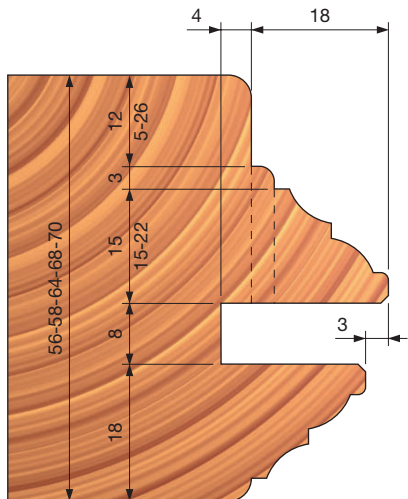
PROFILO / PROFILE **3**



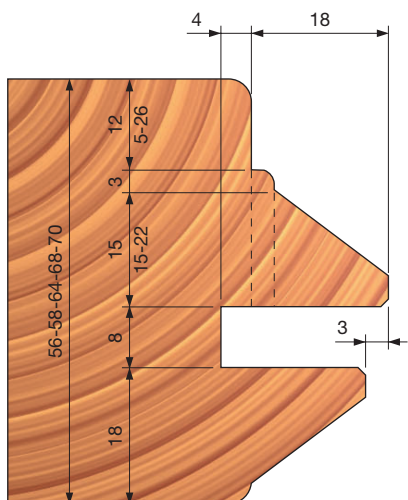
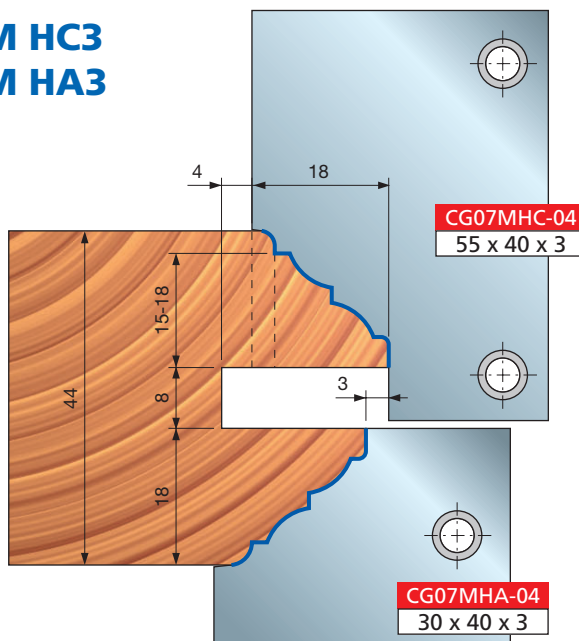
ST12MG

PROFILI CON RAGGIATURA ESTERNA DA 3 mm
PROFILES WITH 3 mm EXTERNAL ROUNDING

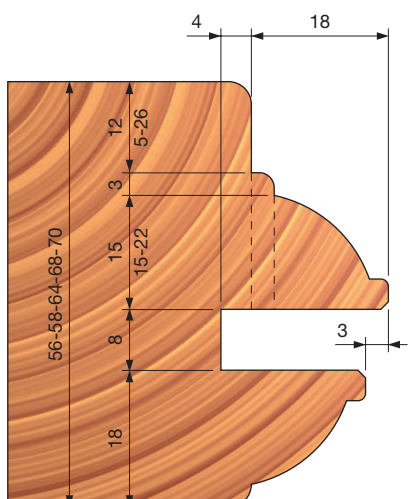
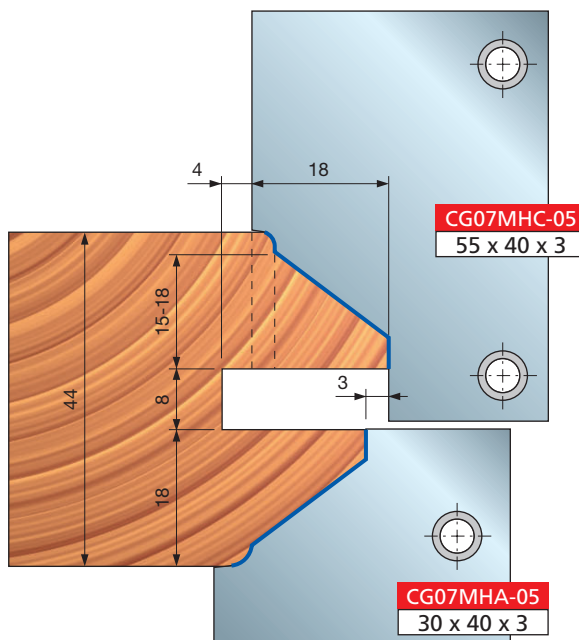
COLTELLI PER UTENSILI / KNIVES FOR CUTTERHEADS: **ST12M HC3**
ST12M HA3



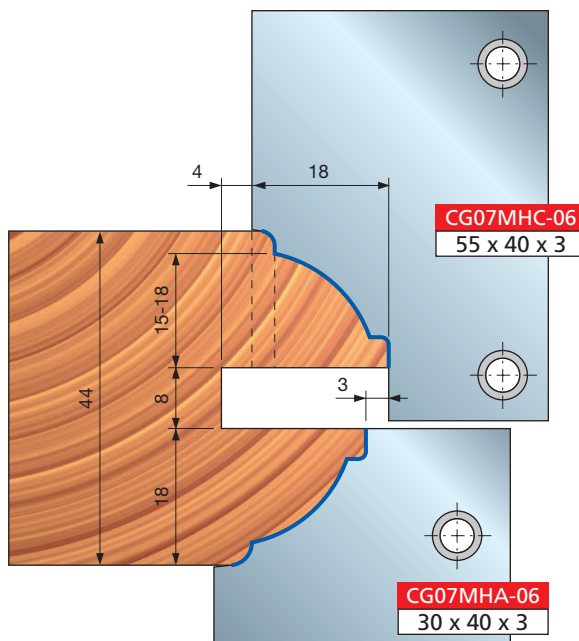
PROFILO / PROFILE **4**



PROFILO / PROFILE **5**



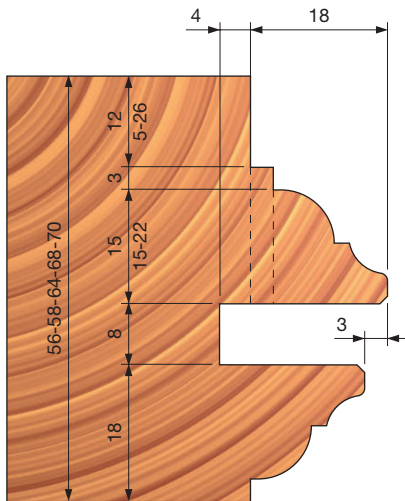
PROFILO / PROFILE **6**



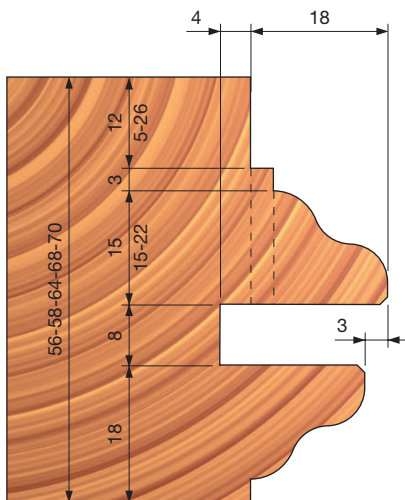
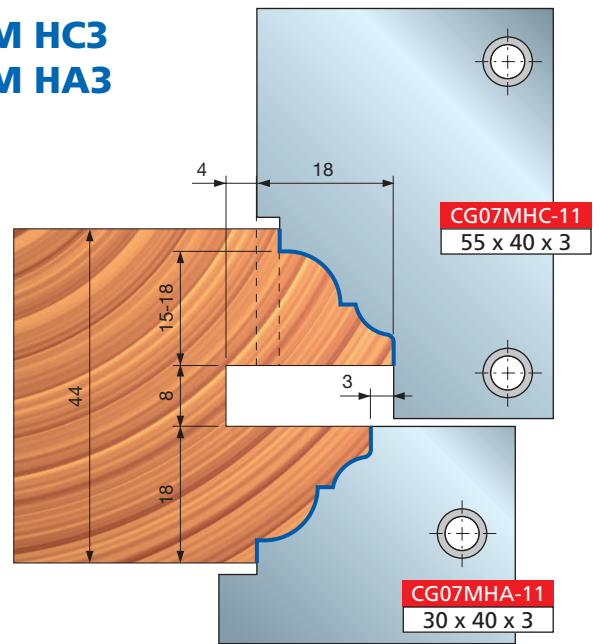
ST12MG

PROFILI SENZA RAGGIATURA ESTERNA PROFILES WITHOUT EXTERNAL ROUNDING

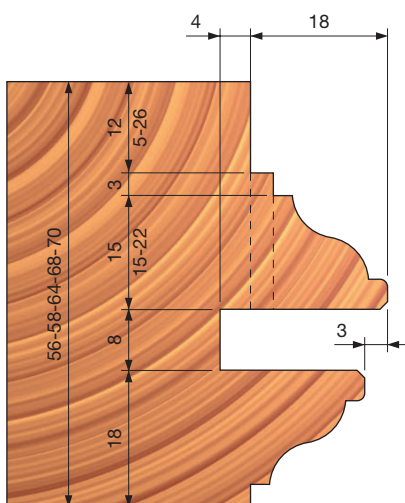
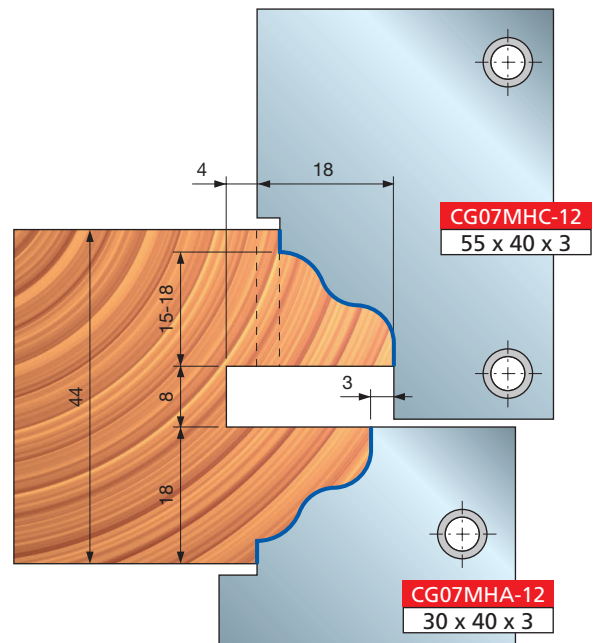
COLTELLI PER UTENSILI / KNIVES FOR CUTTERHEADS: **ST12M HC3**
ST12M HA3



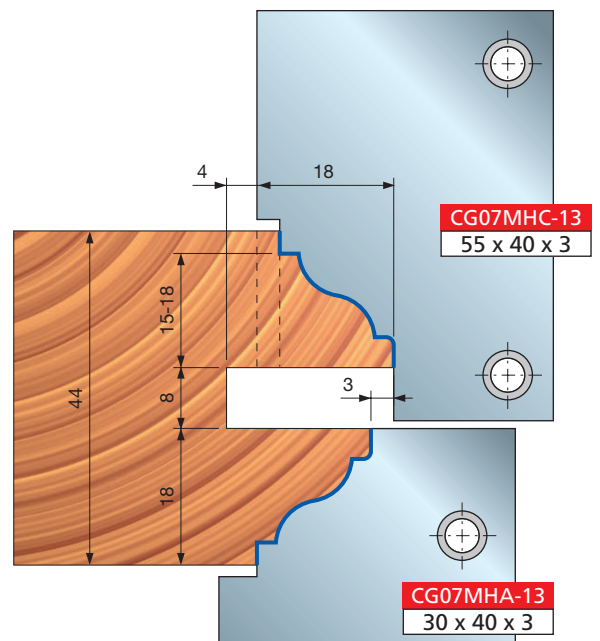
PROFILO / PROFILE **11**



PROFILO / PROFILE **12**



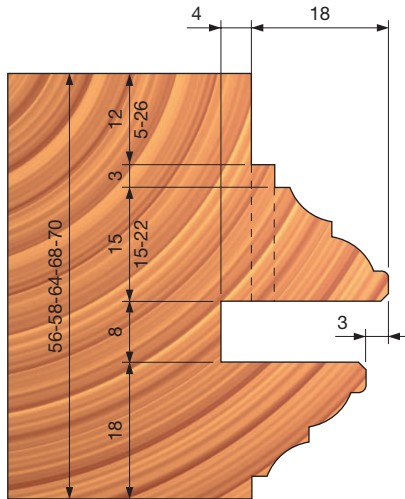
PROFILO / PROFILE **13**



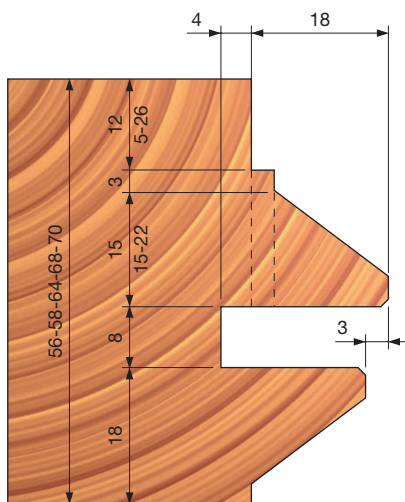
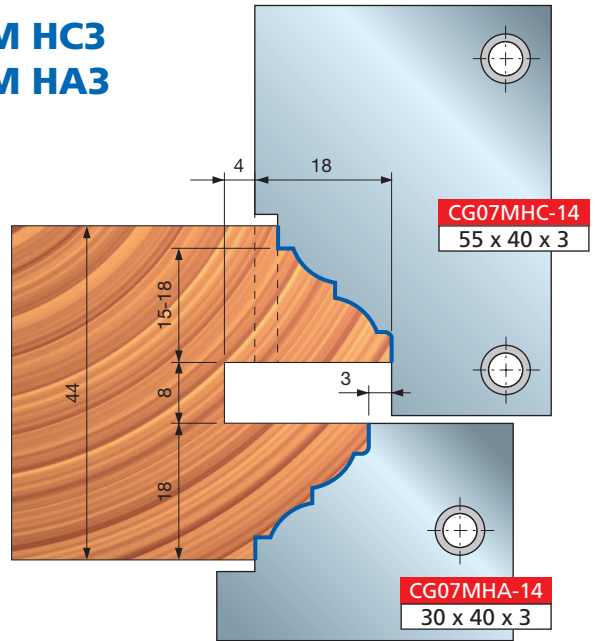
ST12MG

PROFILI SENZA RAGGIATURA ESTERNA PROFILES WITHOUT EXTERNAL ROUNDING

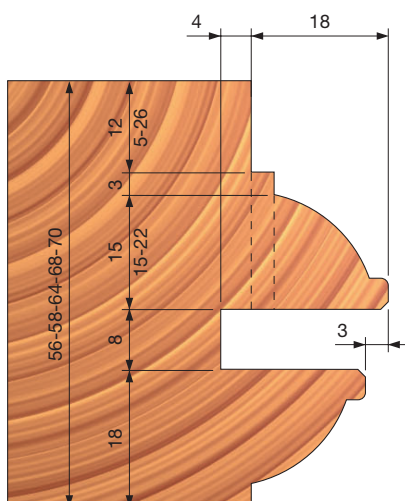
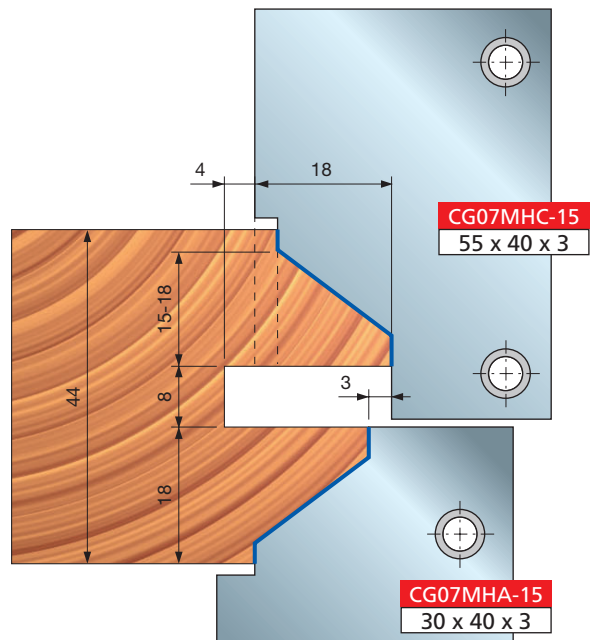
COLTELLI PER UTENSILI / KNIVES FOR CUTTERHEADS: **ST12M HC3**
ST12M HA3



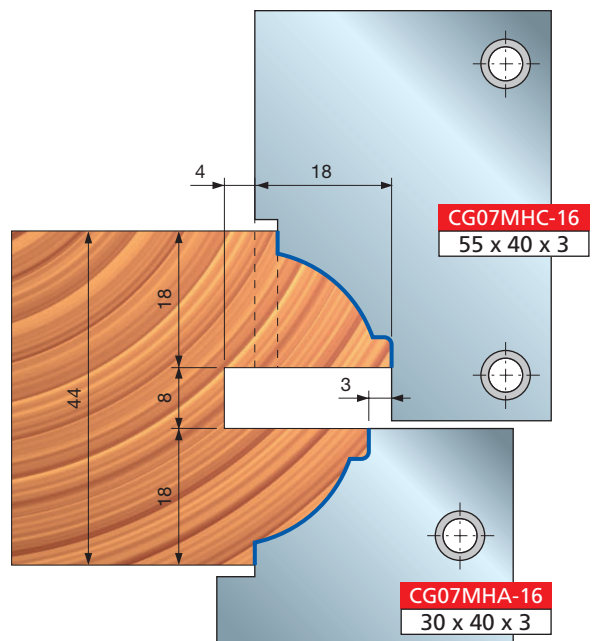
PROFILO / PROFILE **14**



PROFILO / PROFILE **15**

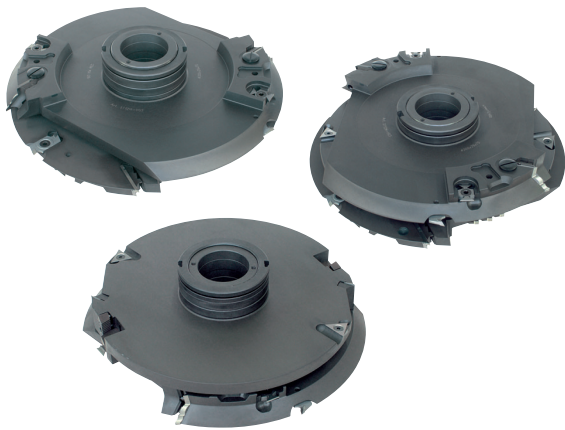


PROFILO / PROFILE **16**



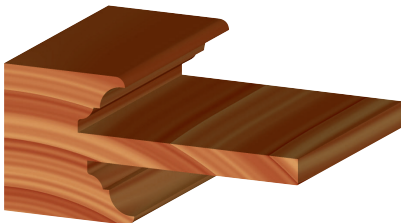
ST12MG

GRUPPI PER TENONI TENONING SETS



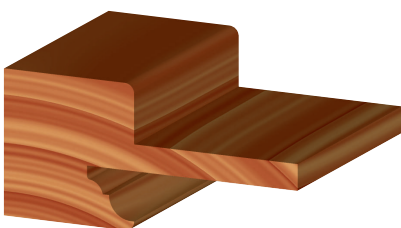
GRUPPO / SET **ST12MG-820**

- Esempio di controprofilo con spina semplice ottenibile con il gruppo **ST12MG-820** (vedi pagina seguente).
- Example of scribe with single tenon, obtainable with **ST12MG-820** set (see following page).



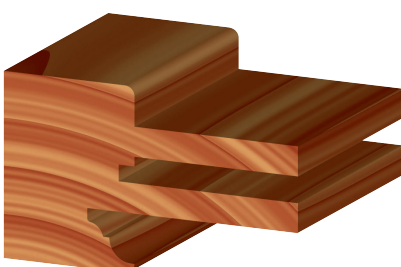
GRUPPO / SET **ST12MG-821**

- Esempio di controprofilo con spina semplice ottenibile con il gruppo **ST12MG-821** (vedi pagina seguente).
- Example of scribe with single tenon, obtainable with **ST12MG-821** set (see following page).



GRUPPO / SET **ST12MG-822**

- Esempio di controprofilo con spina doppia ottenibile con il gruppo **ST12MG-822** (vedi pagina seguente).
- Example of scribe with double tenon, obtainable with **ST12MG-822** set (see following page).



Utensili per gruppi: **ST12MG-820, ST12MG-821, ST12MG-822** Tools for **ST12MG-820, ST12MG-821, ST12MG-822** sets

D	B	d	Z	R	Codice
mm	mm	mm			Code
264	8	70	2	6	ST12M DB3
294	26	70	2	4	ST12M HF3
300	26	70	2	4	ST12M HG3
264	30	70	2	4	ST12M HH3

	Parti di ricambio	Dimensioni	Codice
	Spare parts	Dimensions	Code
DB3	Coltello / Knife	7,6 x 12 x 1,5	CG06M HA3
	Cuneo / Wedge	15 x 7,2 x 8	CN09M DA9
	Vite / Screw	M5 x 19	VT11M AA9
	Rasante / Spur	22,86 x 2,5	RG02M AA3
	Settore dentato / Grooving insert	40 x 5 x 8	SR01MS AA3
	Vite / Screw	M6 x 10	VT01M AA9
	Ghiera / Nut	11,7 x 2,5 x 4	VT18M BB9
	Vite / Screw	M4 x 6,5	VT05M BD9
	Vite / Screw	M5 x 6	VT05M AC9
	Vite / Screw	M5 x 7 x 16	VT08M AE9
HF3	Cuneo / Wedge	21 x 38 x 8	CN07M HF9
	Vite / Screw	M10 x 18	VT03M CC9
	Insero rasante / Spur insert	40 x 4 x 7	IG05MD AA3
	Vite / Screw	M6 x 11,5	VT16M AB9
	Insero raggiatore / Rounding insert	22 x 16 x 5	IG52M AE3
	Vite / Screw	M6 x 14,5	VT16M AA9
	Vite / Screw	M5 x 7 x 16	VT08M AE9
	Cuneo / Wedge	21 x 38 x 8	CN07M HG9
	Vite / Screw	M10 x 18	VT03M CC9
	Insero rasante / Spur insert	40 x 4 x 7	IG05MS AA3
HG3	Vite / Screw	M6 x 11,5	VT16M AB9
	Insero raggiatore / Rounding insert	22 x 16 x 5	IG52M AE3
	Vite / Screw	M6 x 14,5	VT16M AA9
	Coltello / Knife	30 x 12 x 15	CG06M DA3
	Cuneo / Wedge	15 x 26 x 8	CN09MS AD9
	Ogiva / Nut	15 x 13,3 x 10	VT20M MA9
	Vite / Screw	M10 x 22	VT19M MA9
	Rasante / Spur	22,86 x 2,5	RG02M AA3
	Vite / Screw	M5 x 8	VT05M AA9
	Insero raggiatore / Rounding insert	22 x 16 x 5	IG52M AE3
HH3	Vite / Screw	M6 x 13	VT16M AE9
	Supporto / Serrated support	14 x 21,5 x 22	CN03M BA9
	Cuneo / Wedge	28 x 9,5 x M8	CN03M BB9
	Vite / Screw	M8 x 22	VT19M BB9

- Le bussole BF10MD ed i coltelli per gli utensili HF3 e HG3 vanno ordinati a parte.
- BF10MD sleeves and knives for cutterheads HF3 and HG3 are not included.

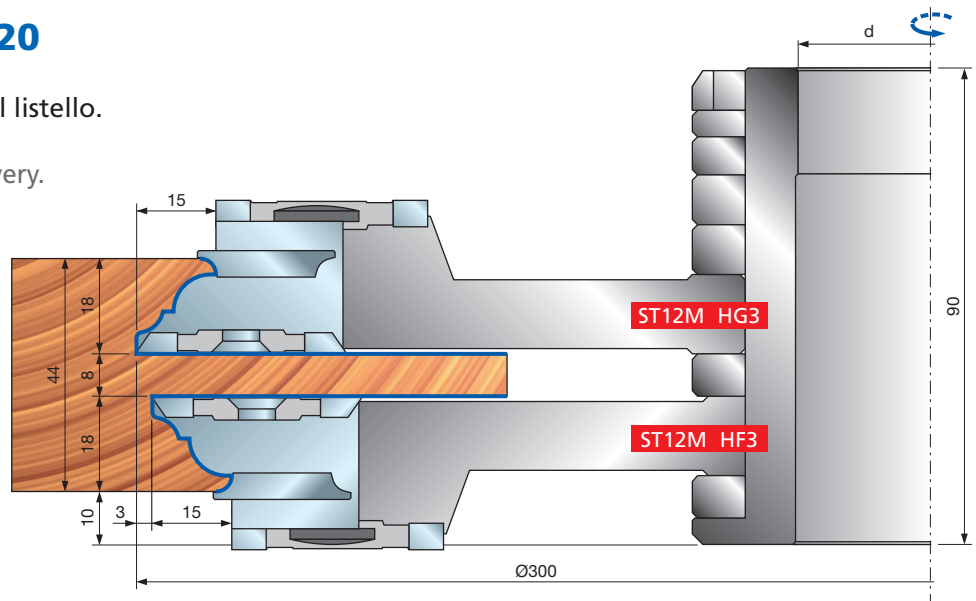
Dimensioni	Codice bussola
Dimensions	Sleeve code
Ø70 x 90 x 50	BF10MD ED9
Ø70 x 90 x 40	BF10MD EC9
Ø70 x 90 x 35	BF10MD EB9

ST12MG

GRUPPI PER TENONI TENONING SETS

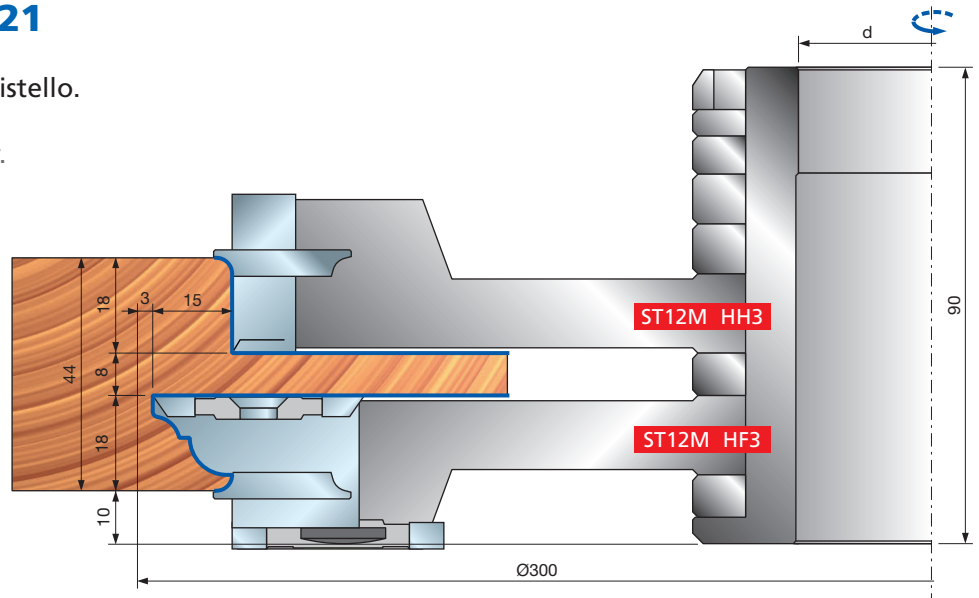
GRUPPO / SET **ST12MG-820**

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



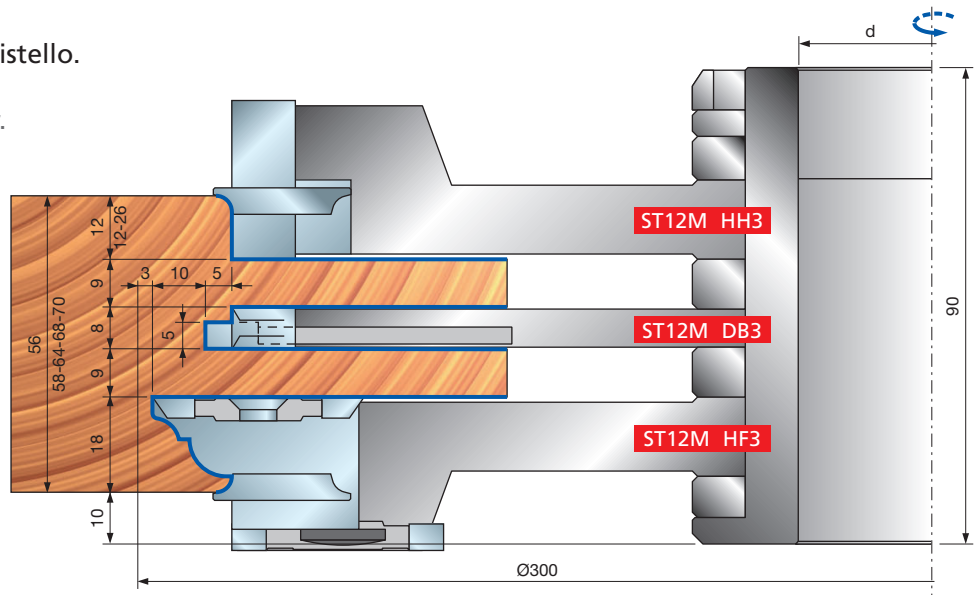
GRUPPO / SET **ST12MG-821**

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



GRUPPO / SET **ST12MG-822**

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



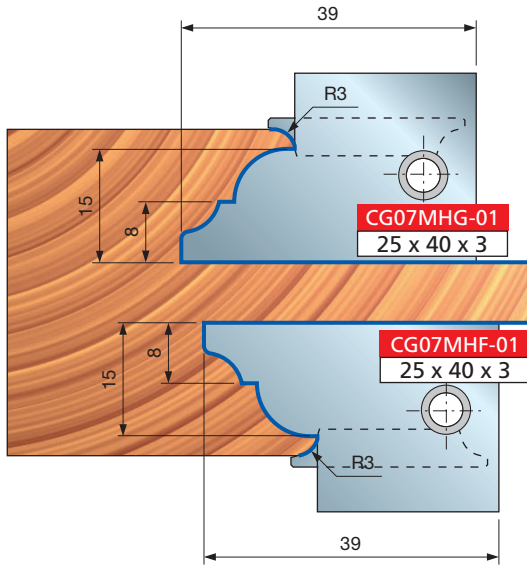
ST12MG

PROFILI CON RAGGIATURA ESTERNA DA 3 mm PROFILES WITH 3 mm EXTERNAL ROUNDING

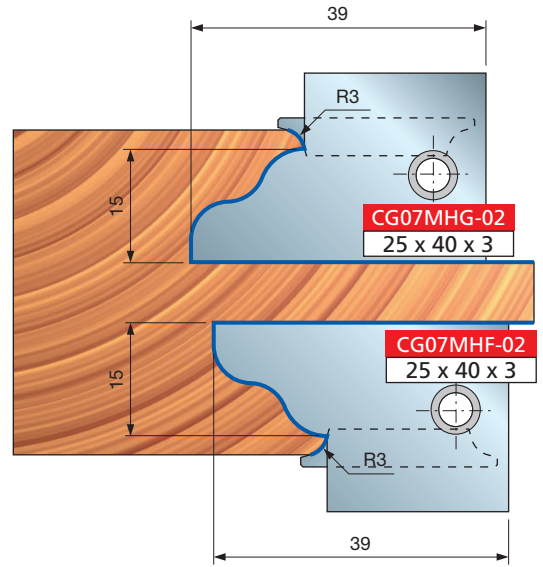
COLTELLI PER UTENSILI / KNIVES FOR CUTTERHEADS: **ST12M HG3**

ST12M HF3

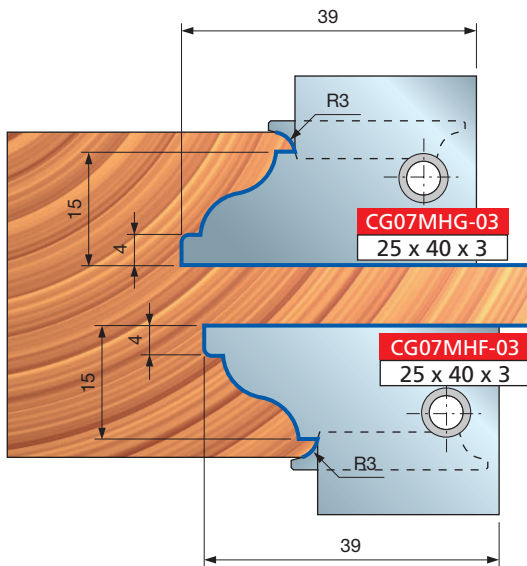
CONTROPROFILO / SCRIBE **1**



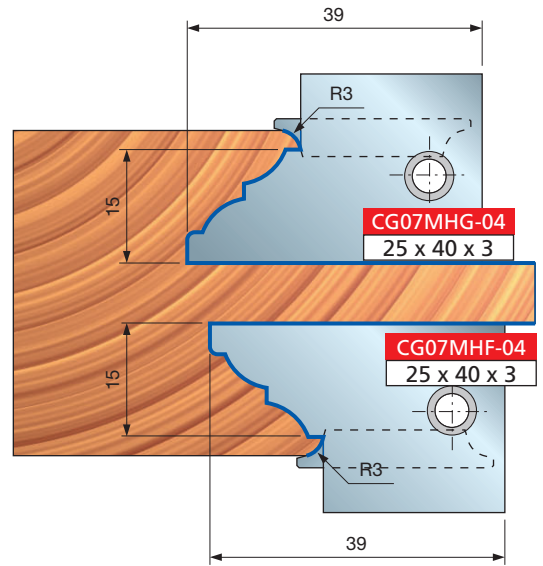
CONTROPROFILO / SCRIBE **2**



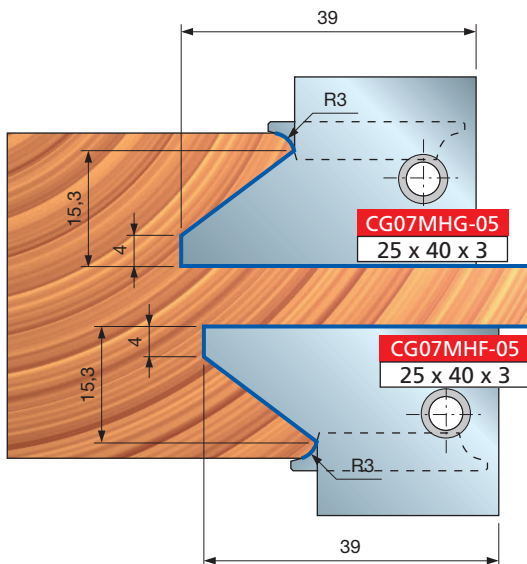
CONTROPROFILO / SCRIBE **3**



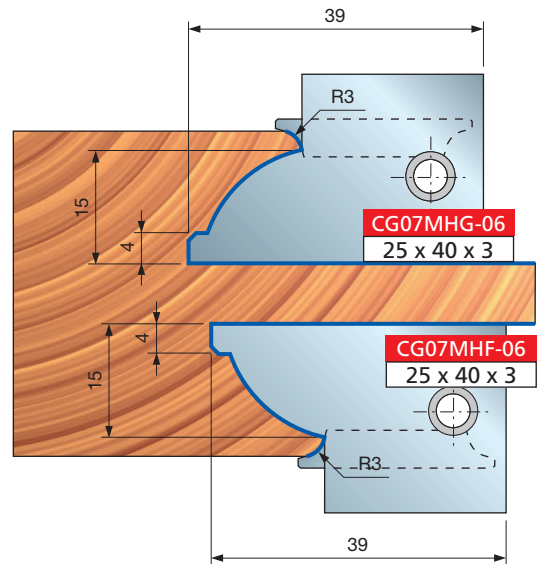
CONTROPROFILO / SCRIBE **4**



CONTROPROFILO / SCRIBE **5**



CONTROPROFILO / SCRIBE **6**

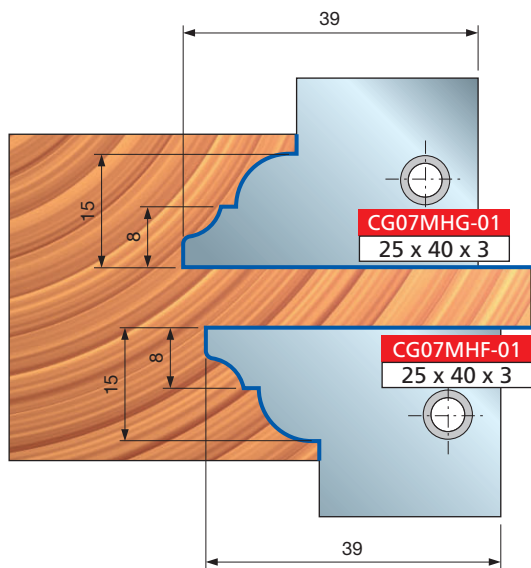


ST12MG

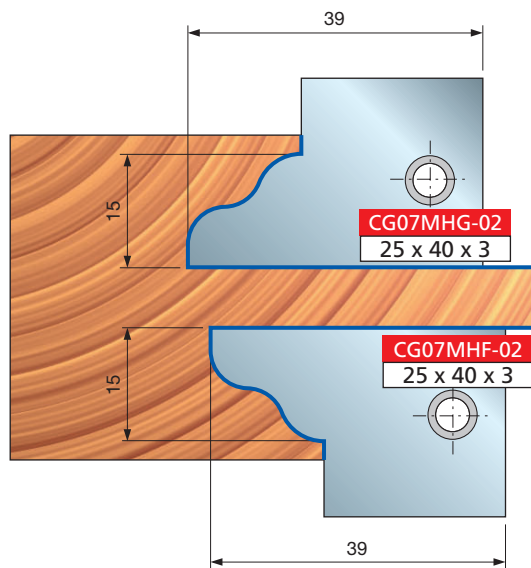
PROFILI SENZA RAGGIATURA ESTERNA PROFILES WITHOUT EXTERNAL ROUNDING

COLTELLI PER UTENSILI / KNIVES FOR CUTTERHEADS: **ST12M HG3**
ST12M HF3

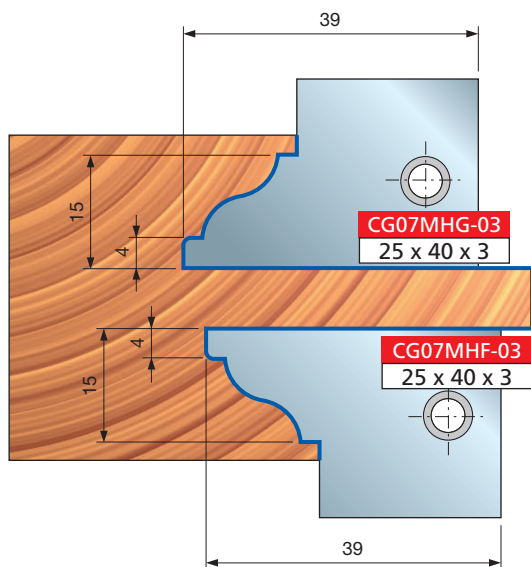
CONTROPROFILO / SCRIBE **11**



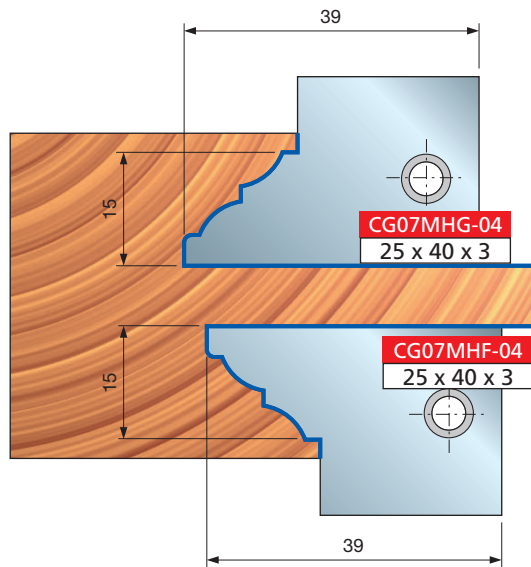
CONTROPROFILO / SCRIBE **12**



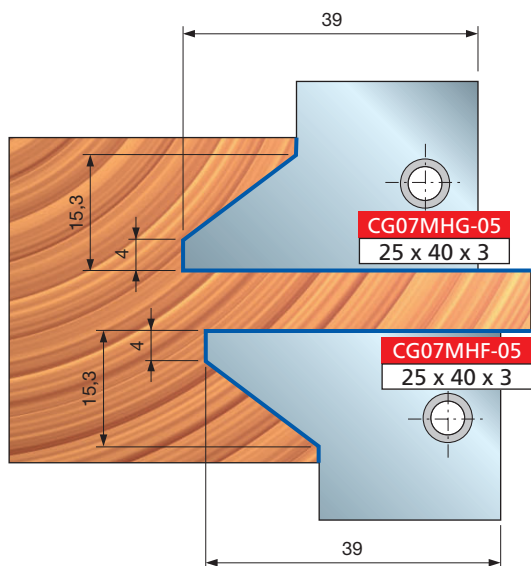
CONTROPROFILO / SCRIBE **13**



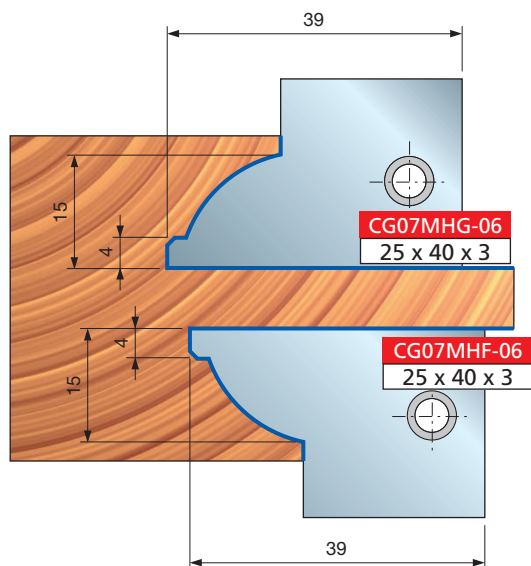
CONTROPROFILO / SCRIBE **14**



CONTROPROFILO / SCRIBE **15**

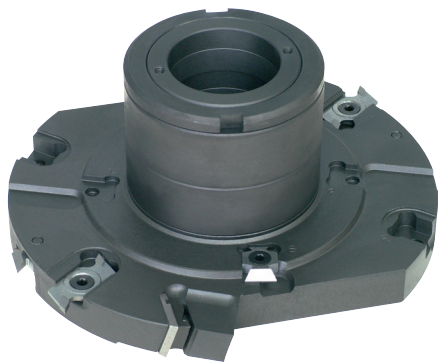


CONTROPROFILO / SCRIBE **16**



ST12MG

UTENSILI PER IMBOTTI
TOOLS FOR DOOR INTRADOS



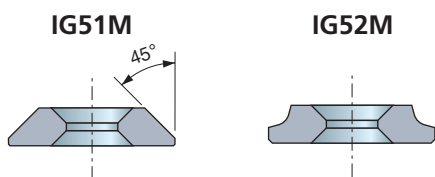
Utensili per gruppo: ST12MG-830
Tools for ST12MG-830 set

D	B	d	Z	R	Codice
mm	mm	mm			Code
204	24	70	2	6	ST12M HI3

Parti di ricambio	Dimensioni	Codice
Spare parts	Dimensions	Code
Coltello / Knife	20 x 25 x 3	CG07MD HI3
Cuneo / Wedge	18 x 23 x 8,5	CN12MS BA9A
Vite / Screw	M10 x 18	VT03M CC9
Vite / Screw	M5 x 7 x 16	VT08M AE9
Inserto per incastri / Grooving insert	40 x 16 x 3	IG04MD AC3
Vite per: / Screw for: IG04MD	M6 x 14,5	VT16M AA9

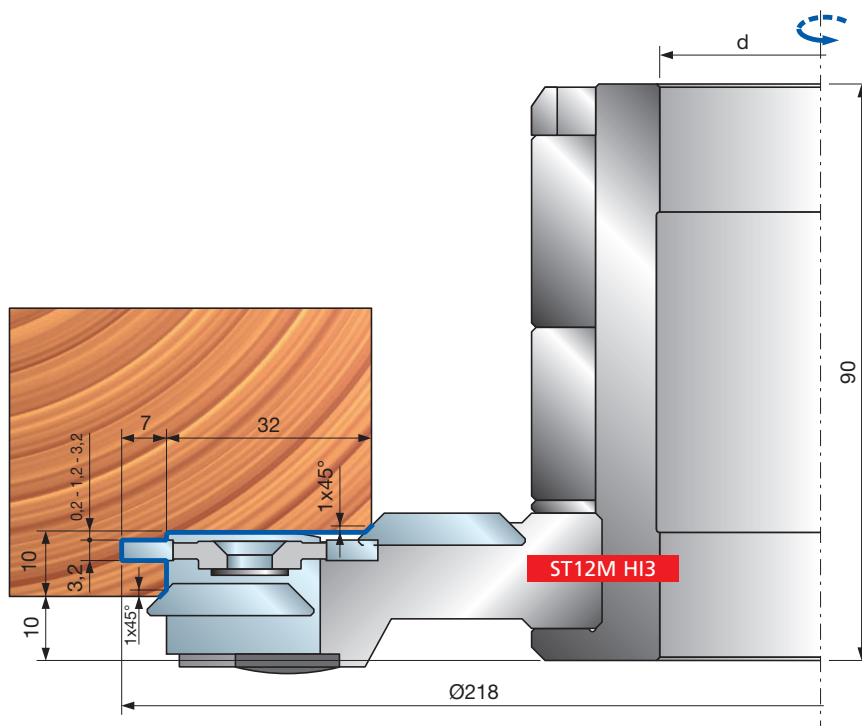
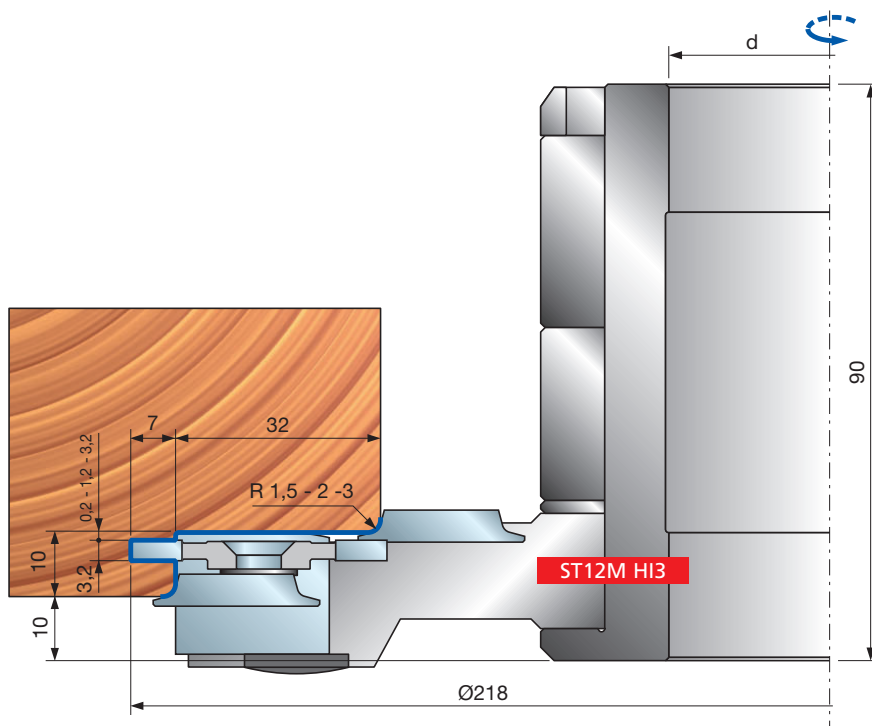
PERFORMANCE Coltelli Riaffilabili SYSTEM Resharpenable Knives

- Con sedi per il montaggio di inserti IG51M (smussatori) e IG52M (R= 1,5 - 2 - 3 mm).
- With seat pockets for bevelling inserts IG51M or radius inserts IG52M (R= 1,5 - 2 - 3 mm).



- La bussola BF10MD va ordinata a parte.
- BF10MD sleeve is not included.

Dimensioni	Codice
Dimensions	bussola / sleeves
Ø70 x 90 x 50	BF10MD ED9
Ø70 x 90 x 40	BF10MD EC9
Ø70 x 90 x 35	BF10MD EB9



ST12MG

UTENSILI PER BATTUTE DI PORTE TOOLS FOR DOOR REBATES



PERFORMANCE
Coltelli Riaffilabili
SYSTEM
Resharpenable Knives

- Le bussole BF10MD ed i coltelli per gli utensili HR3 vanno ordinati a parte.
- BF10MD sleeves and knives for cutterheads HR3 are not included.

Dimensioni	Codice bussola
Dimensions	Sleeve code
Ø70 x 90 x 50	BF10MD ED9
Ø70 x 90 x 40	BF10MD EC9
Ø70 x 90 x 35	BF10MD EB9

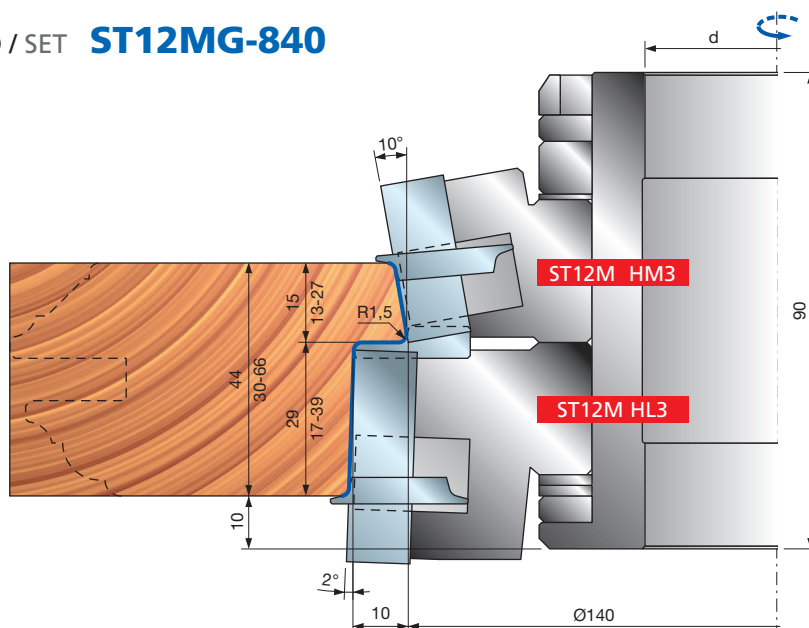
Utensili per gruppi: **ST12MG-840, ST12MG-841, ST12MG-842**
Tools for **ST12MG-840, ST12MG-841, ST12MG-842** sets

D	B	d	Z	R	Codice
mm	mm	mm			Code
161,8	41	70	2	4	ST12M HL3
147	33	70	2	2	ST12M HM3
140	30	70	2	2	ST12M HN3
166	35	70	2		ST12M HR3

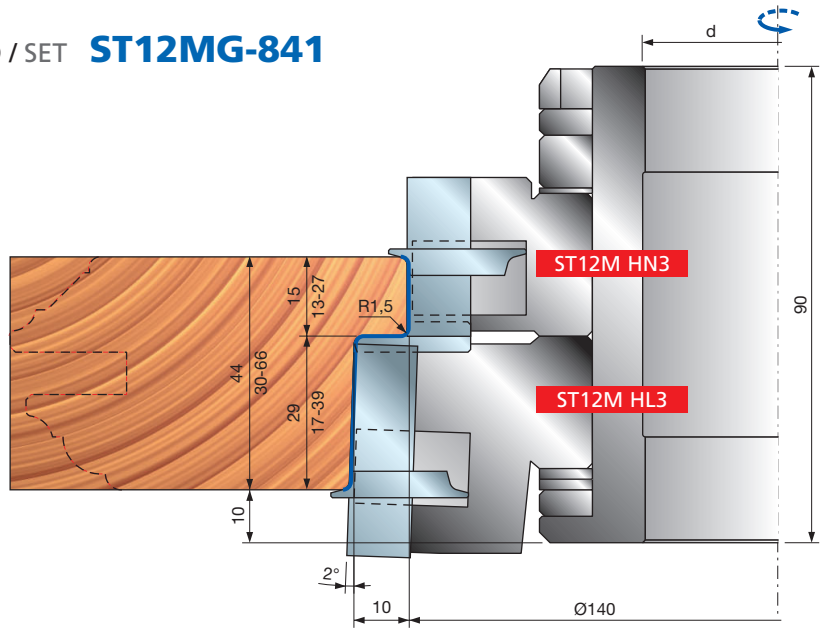
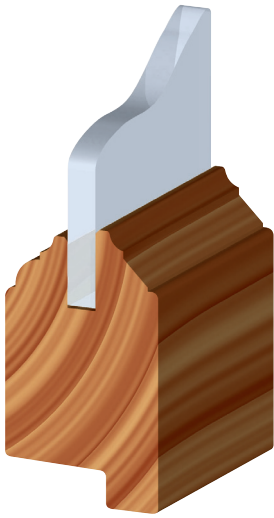
	Parti di ricambio	Dimensioni	Codice
	Spare parts	Dimensions	Code
HL3	Coltello / Knife	40 x 12 x 1,5	CG01M LA3
	Cuneo / Wedge	15 x 36 x 8	CN09MD AR9
	Vite / Screw	M10 x 22	VT19M MA9
	Ogiva / Nut	15 x 13,3 x 10	VT20M NA9
	Rasante ragg. / Multipurpose insert	10	IG25MD 103
	Vite / Screw	M6 x 10	2622M CB9
	Vite / Screw	M6 x 13	VT16M AE9
	Supporto / Serrated support	14 x 21,5 x 22	CN03M BA9
	Cuneo / Wedge	28 x 9,5 x 8	CN03M BB9
Vite / Screw	M8 x 22	VT19M BB9	
HM3 - HN3	Coltello / Knife	30 x 12 x 1,5	CG01M EA3
	Cuneo / Wedge	15 x 26 x 8	CN09MD AD9
	Vite / Screw	M10 x 22	VT19M MA9
	Ogiva / Nut	15 x 13,3 x 10	VT20M NA9
	Insero raggatore / Rounding insert	22 x 16 x 5	IG52M AB3
	Vite / Screw	M6 x 13	VT16M AE9
	Supporto / Serrated support	14 x 21,5 x 22	CN03M BA9
	Cuneo / Wedge	28 x 9,5 x 8	CN03M BB9
	Vite / Screw	M8 x 22	VT19M BB9
HR3	Cuneo / Wedge	30,7 x 33 x 8	CN07M HR9
	Vite / Screw	M10 x 18	VT03M CC9
	Vite / Screw	M5 x 7 x 16	VT08M AE9



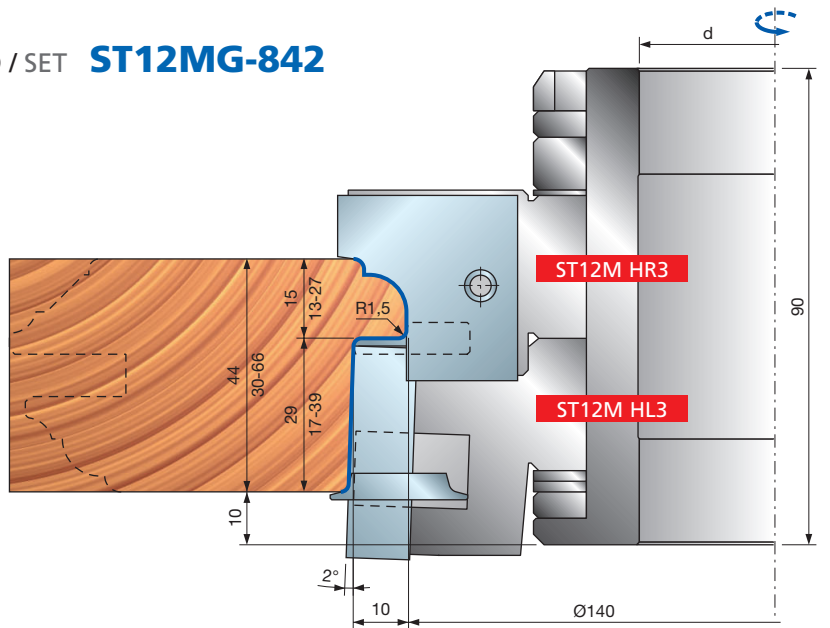
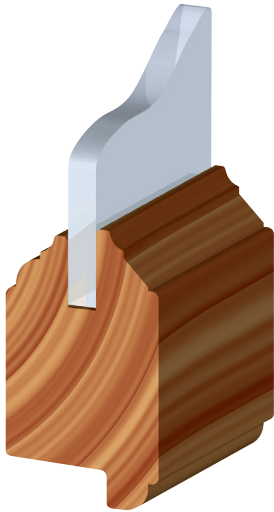
GRUPPO / SET **ST12MG-840**



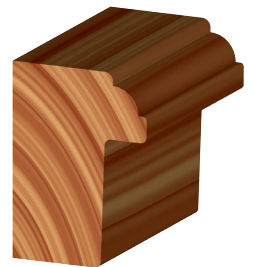
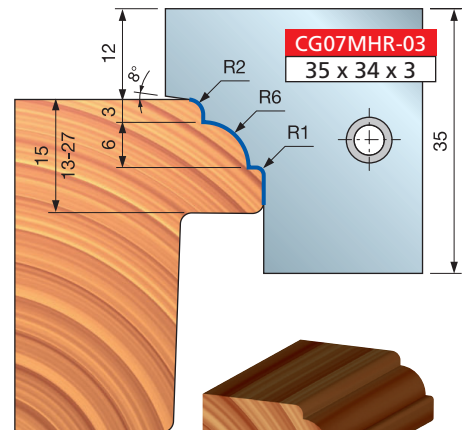
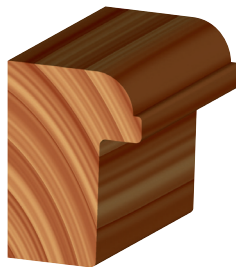
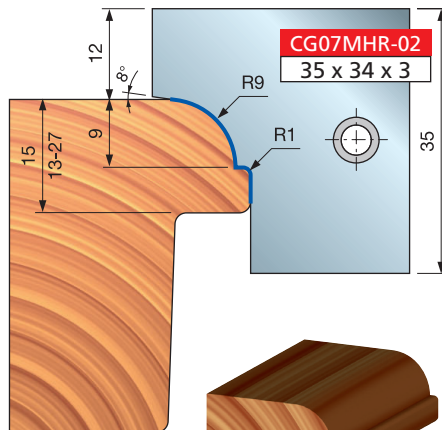
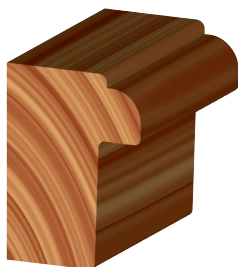
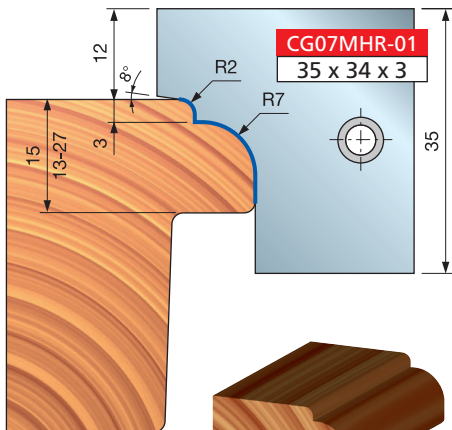
GRUPPO / SET **ST12MG-841**



GRUPPO / SET **ST12MG-842**



COLTELLI PER UTENSILE ST12M HR3
KNIVES FOR CUTTERHEAD ST12M HR3



ST12MG

UTENSILI PER RECUPERO LISTELLO BEAD RECOVERY TOOLS SET



Utensili per gruppi ST12MG-302 Tools for ST12MG-302

D	B	d	Z	R	I	Codice
mm	mm	mm				Code
144	13,5	60			4	ST12M CG3

Parti di ricambio	Dimensioni	Codice
Spare parts	Dimensions	Code
Lama / Sawblade	200 x 3 x 60 Z34	LL02M20060
Vite / Screw	M6 x 10	VT01M AA9
Insero raggiatore / Rounding insert	22 x 16 x 5	IG52M AE3
Vite / Screw	M6 x 14,5	VT16M AA9
Insero raggiatore / Rounding insert	18 x 26 x 8,5	IG23MD AE3
Vite / Screw	M6 x 15,5	VT16M AD9

■ La bussola BF10MD non è inclusa.

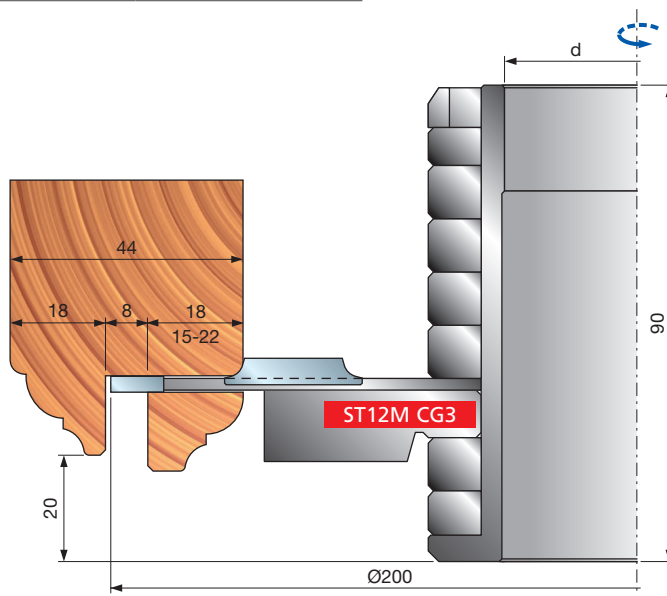
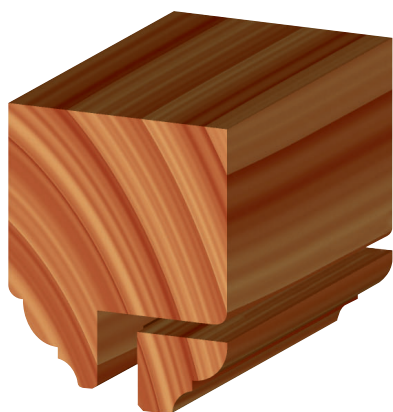
■ Sleeve BF10MD not included.

Dimensioni	Codice bussola
Dimensions	Sleeve code
Ø60 x 90 x 50	BF10MD DD9
Ø60 x 90 x 40	BF10MD DC9
Ø60 x 90 x 35	BF10MD DB9

GRUPPO / SET **ST12MG-302**

■ Spessore 44 mm con raggiatore.

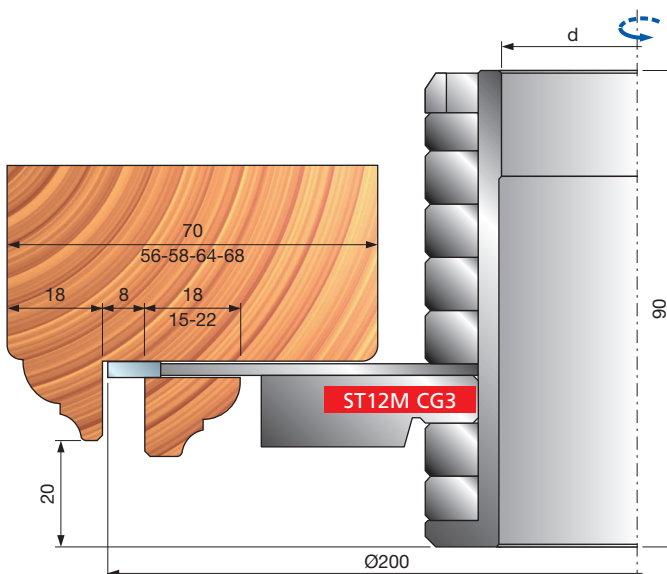
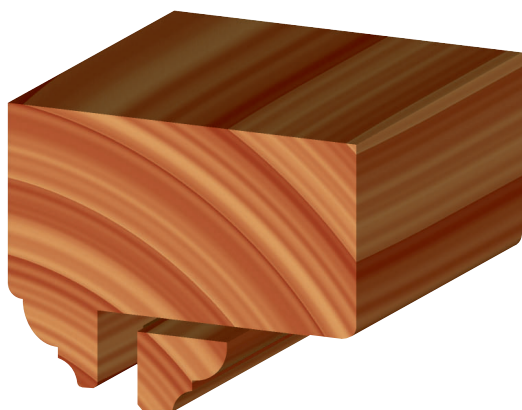
■ 44 mm thickness with rounding insert.



GRUPPO / SET **ST12MG-302**

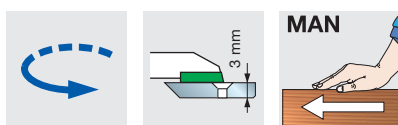
■ Spessori 56-58-64-68-70 mm senza raggiatore.

■ 56-58-64-68-70 thicknesses without rounding insert.



TD60M

TESTA PORTACOLTELLI PER PROFILI DI TELAI E MOSTRINE DI PORTE DOOR FRAME CUTTERHEAD

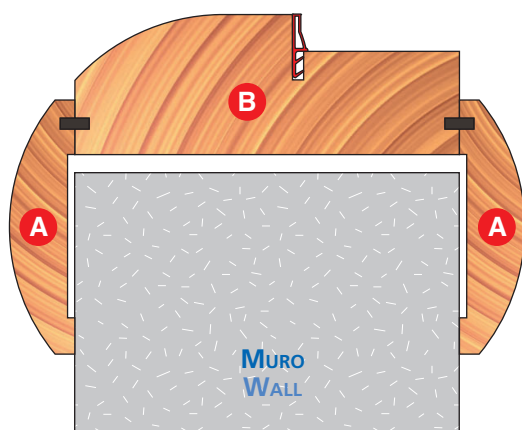


PERFORMANCE Coltelli Riaffilabili SYSTEM Resharpenable Knives






Utensili collaudati secondo la Normativa
Tools tested according to the Norm

• EN 847-1 •

ESEMPI DI TELAI REALIZZABILI EXAMPLE OF DOOR FRAMES

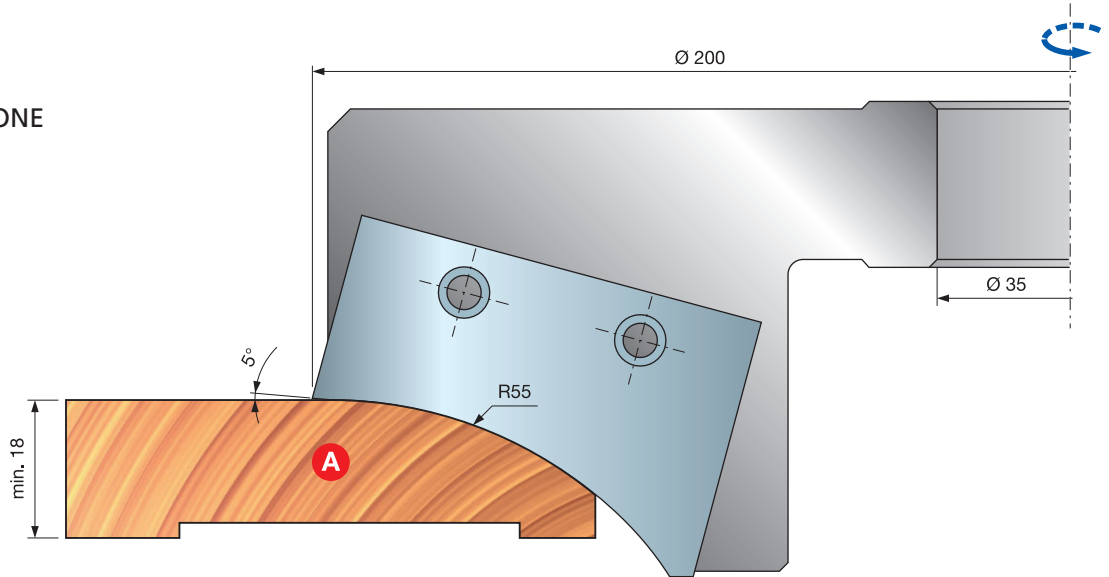


D	B	d*	Z	R	Codice
mm	mm	mm			Code
200	60	35 (40)	3		TD60M AB3

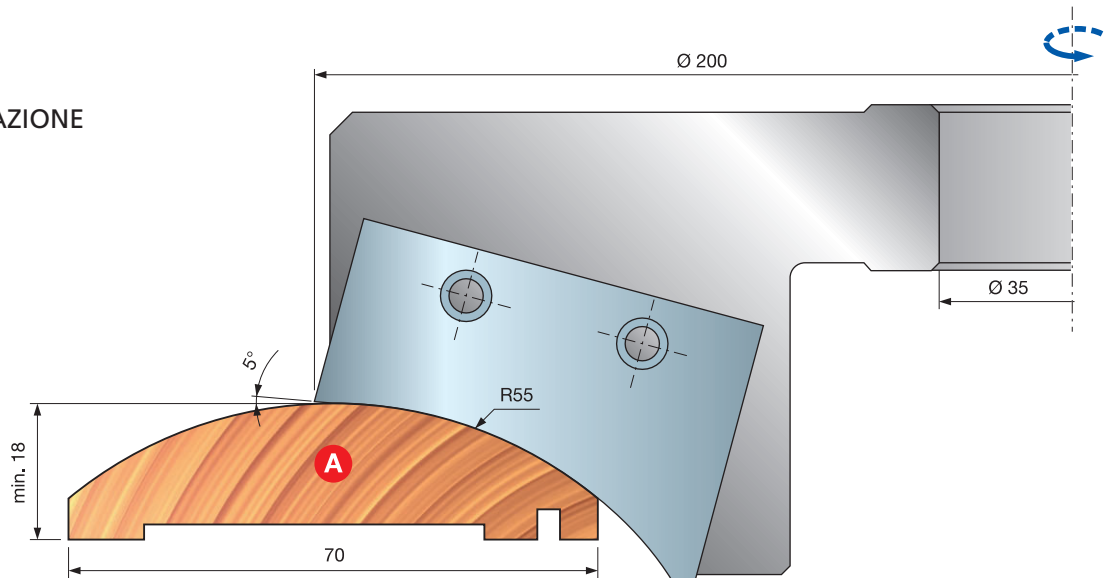
Parti di ricambio	Dimensioni	Codice
Spare parts	Dimensions	Code
Coltello / Knife	 55 x 35 x 3	CT60M AA3
Cuneo / Wedge	 50 x 23 x 8	CN60M AA9
Vite / Screw	 M10 x 25	2602M FI9
Vite / Screw	 M8 x 10 x 22	VT08M AD9
Chiave / Allen key	 5 x 110	CB03M EA9

- Corpo in lega leggera (Ergal). Per la pulizia non utilizzare prodotti contenenti soda caustica. Piattabanda con coltelli sagomati per profili di telai e mostrine di porte. Da utilizzare su macchina toupie. 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.
- Light alloy body (Ergal). For cleaning do not use products containing caustic soda. 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.

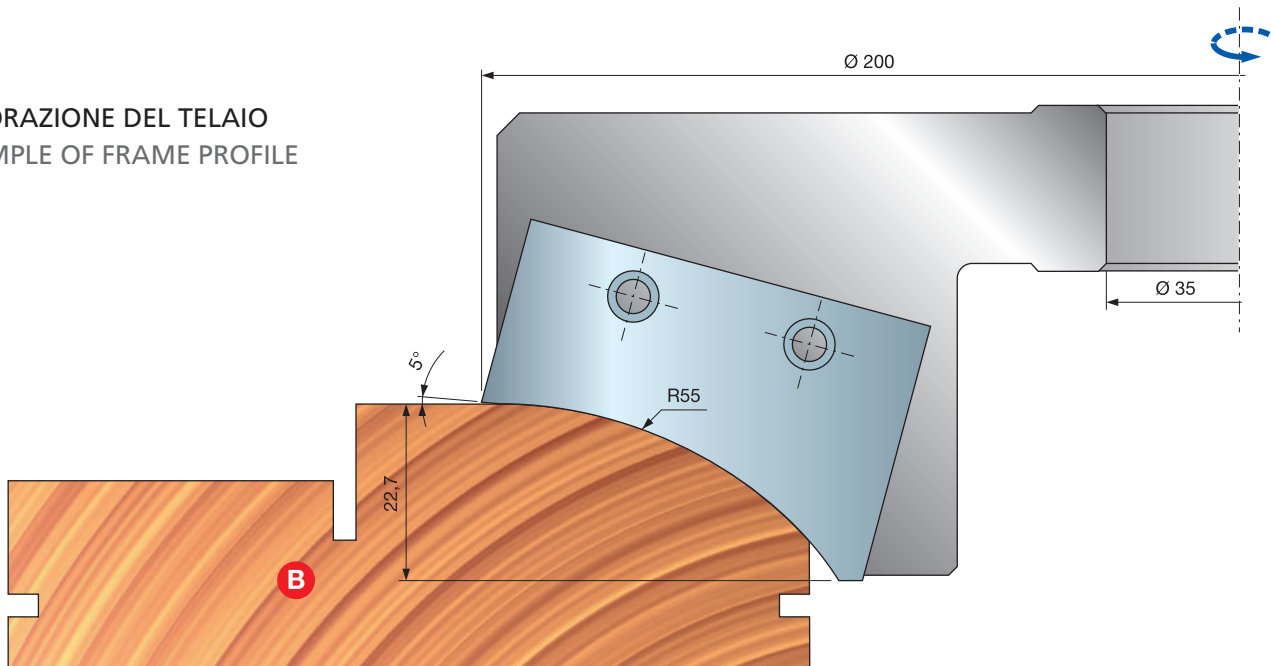
■ PRIMA LAVORAZIONE
■ FIRST STEP



■ SECONDA LAVORAZIONE
■ SECOND STEP

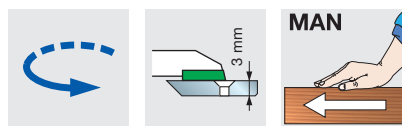
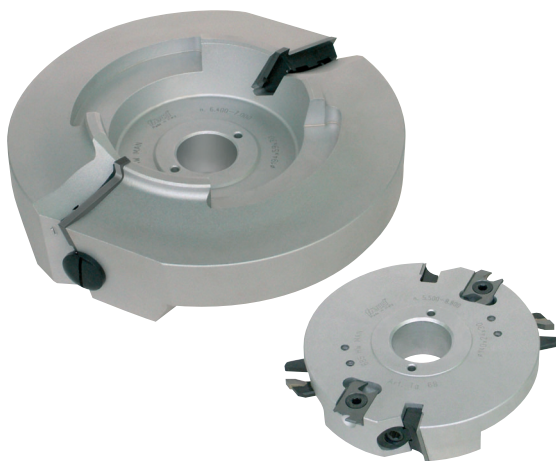


■ LAVORAZIONE DEL TELAIO
■ EXAMPLE OF FRAME PROFILE



TD61M

TESTE PORTACOLTELLI PER PROFILI DI TELAI DI PORTE CUTTERHEADS FOR DOOR FRAME PROFILES

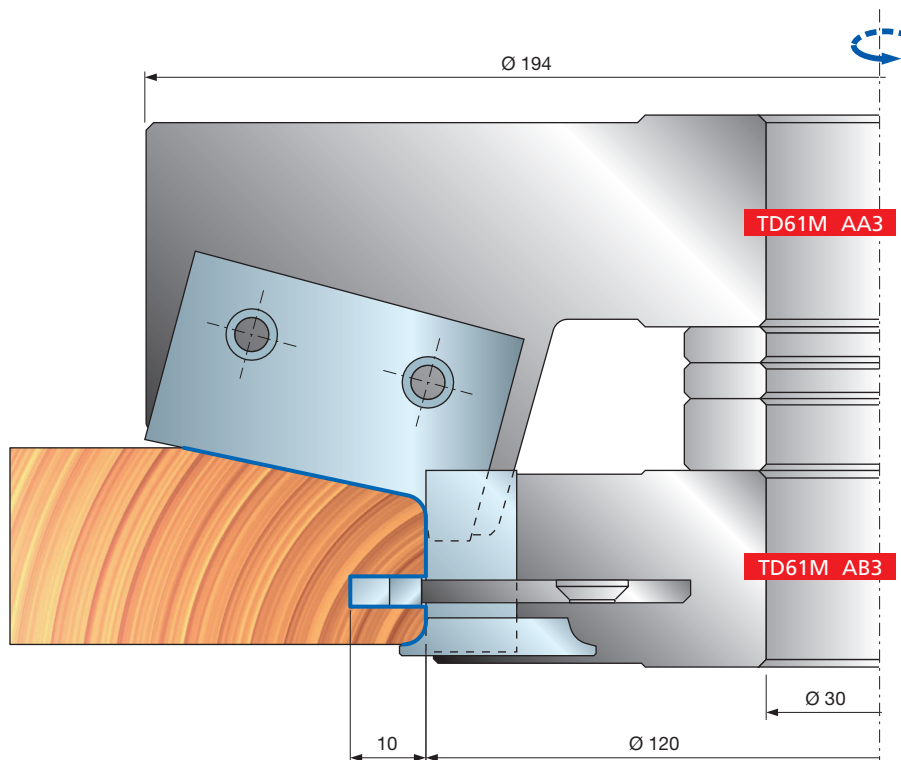


PERFORMANCE
Coltelli Riaffilabili
SYSTEM
Resharpenable Knives

D	B	d*	Z	R	Codice
mm	mm	mm			Code
194	59	30 (40)	2		TD61M AA3
140	25	30 (40)	2	4	TD61M AB3






	Parti di ricambio		Dimensioni	Codice
	Spare parts		Dimensions	Code
AA3	Vite / Screw		M10 x 18	VT03M CC9
	Cuneo / Wedge		43 x 28 x 8,5	CN12M CF9A
	Vite / Screw		M8 x 10 x 22	VT08M AD9
AB3	Coltello / Knife		24 x 12 x 1,5	CG01M OA3
	Cuneo / Wedge		15 x 20 x 8	CN09MD AK9
	Ogiva / Nut		15 x 13,3 x 10	VT20M MA9
	Vite / Screw		M10 x 22	VT19M MA9
	Settore / Sector		25 x 45 x 4 Z1	SR11MD BC3
	Vite / Screw		M5 x 8	VT05M AA9
	Inserto raggiatore / Rounding insert		26 x 16 x 5 R3	IG62MS AE3
	Vite per: / Screw for: IG62MS		M6 x 14,5	VT16M AA9

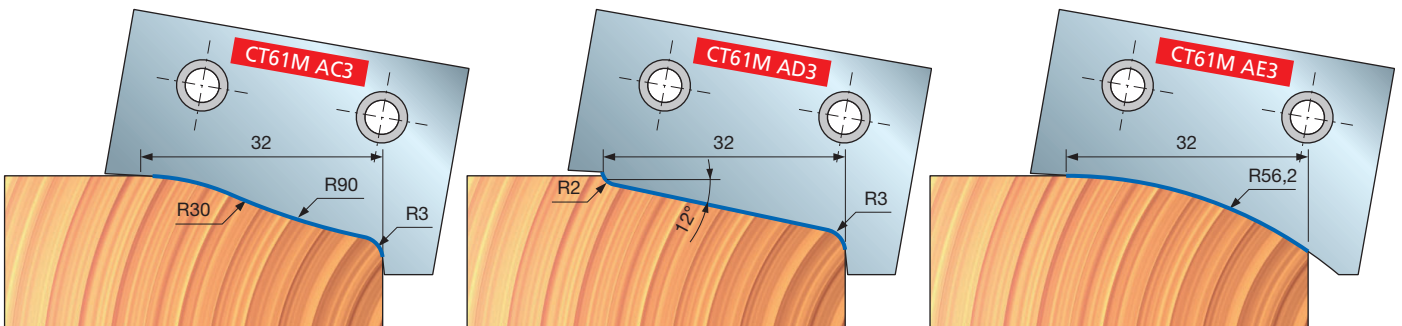
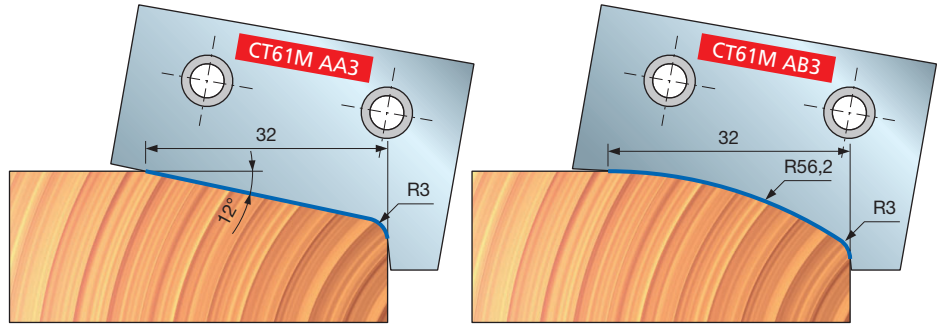
- Corpo in lega leggera (Ergal).
Per la pulizia non utilizzare prodotti contenenti soda caustica.
L'ARTICOLO TD61M AA3 VIENE FORNITO SENZA COLTELLI.
- Light alloy body (Ergal).
For cleaning do not use products containing caustic soda.
CUTTERHEAD TD61M AA3 IS SUPPLIED WITHOUT KNIVES.



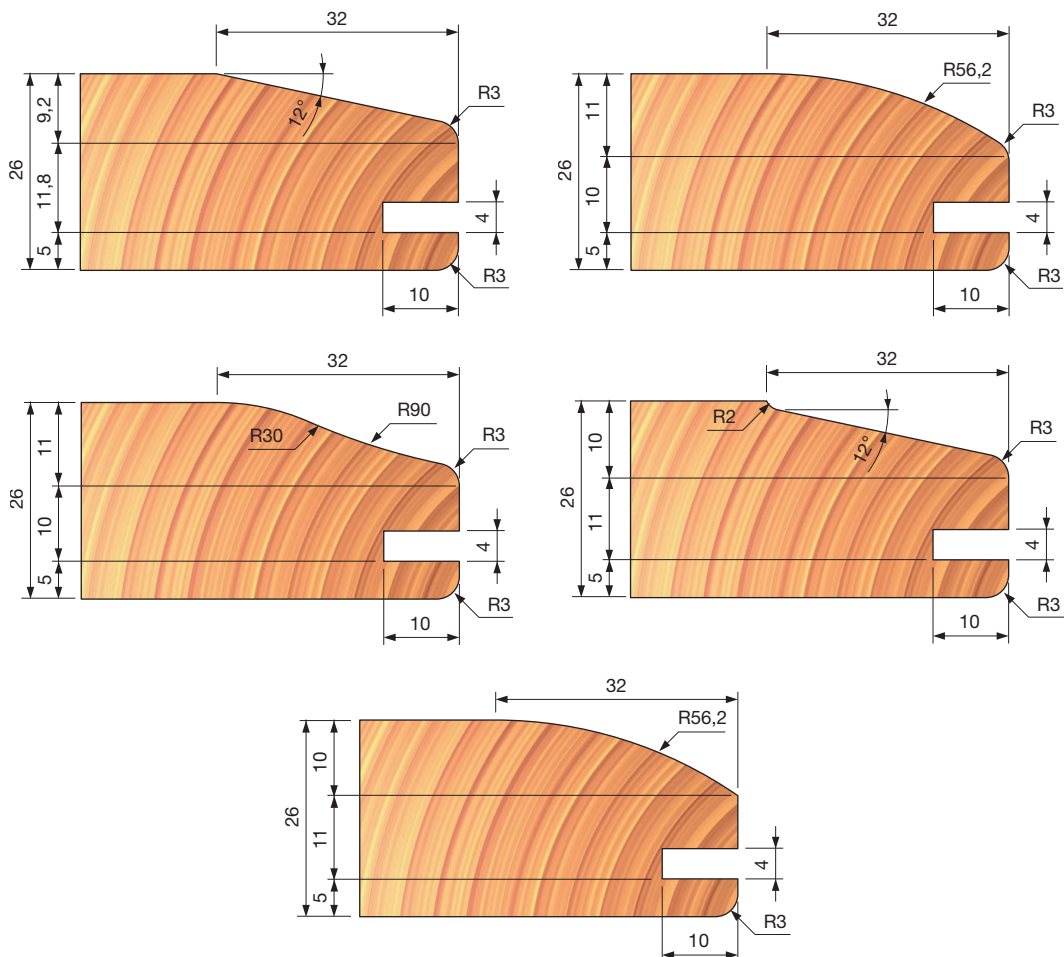
PROFILI REALIZZABILI CON L'UTENSILE TD61M AA3
PROFILES OBTAINABLE WITH THE CUTTERHEAD TD61M AA3

Coltelli per TD61M AA3
Knives for cutterhead TD61M AA3

Dimensioni		Coltelli di ricambio
Dimensions		Spare knives
	45 x 30 x 3	CT61M AA3
	45 x 30 x 3	CT61M AB3
	45 x 30 x 3	CT61M AC3
	45 x 30 x 3	CT61M AD3
	45 x 30 x 3	CT61M AE3

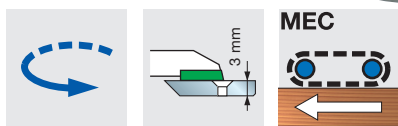


PROFILI REALIZZABILI UTILIZZANDO GLI UTENSILI TD61M AA3 E TD61M AB3
PROFILES OBTAINABLE USING BOTH THE CUTTERHEADS TD61M AA3 AND TD61M AB3



TP43M

GRUPPI PER SCURETTI A DOGHE VERTICALI SETS FOR VERTICAL SLAT SHUTTERS



PERFORMANCE
Coltelli Riaffilabili
SYSTEM
Resharpenable Knives

D	B	d	Z	R	Codice
mm	mm	mm			Code
125		50	2+2		TP43M MD3
125		50	2+2		TP43M FD3

	Utensile Parti di ricambio		Dimensioni	Codice
	Tool	Spare parts	Dimensions	Code
MD3	1	Coltello / Knife	34 x 24 x 3	CP43M 1MD3
	2	Coltello / Knife	34 x 24 x 3	CP43M 2MD3
	1	Cuneo / Wedge	30,7 x 23 X 8	CN13M AV9
	2	Cuneo / Wedge	30,7 x 23 X 8	CN13M AW9
FD3	1	Coltello / Knife	35 x 29 x 3	CP43M 1FD3
	2	Coltello / Knife	35 x 29 x 3	CP43M 2FD3
	1	Cuneo / Wedge	30,7 x 28 X 8	CN13M AT9
	2	Cuneo / Wedge	30,7 x 28 X 8	CN13M AU9
	Vite / Screw		M10 x 18	VT03M CC9
	Vite / Screw		M5 x 7 x 16	VT08M AE9

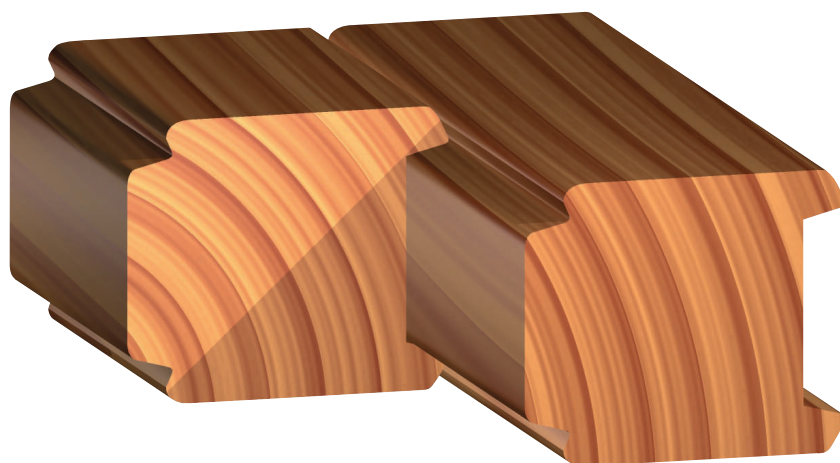
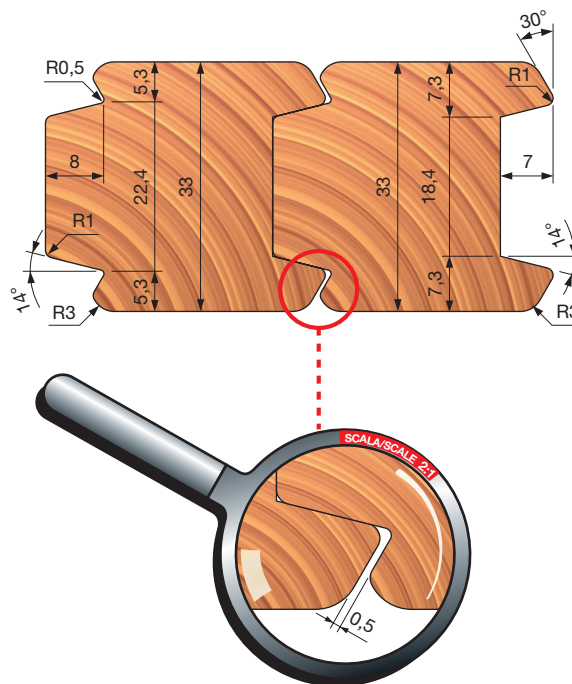
- Le bussole devono essere ordinate a parte.
N.B.: I gruppi si possono ordinare anche con rotazione oraria con la bussola cod. BF10MS.
- Sleeves must be ordered separately.
Please Note: The sets can be ordered with clockwise rotation with BF10MS sleeve.

Bussole con rotazione destra Right-hand sleeves

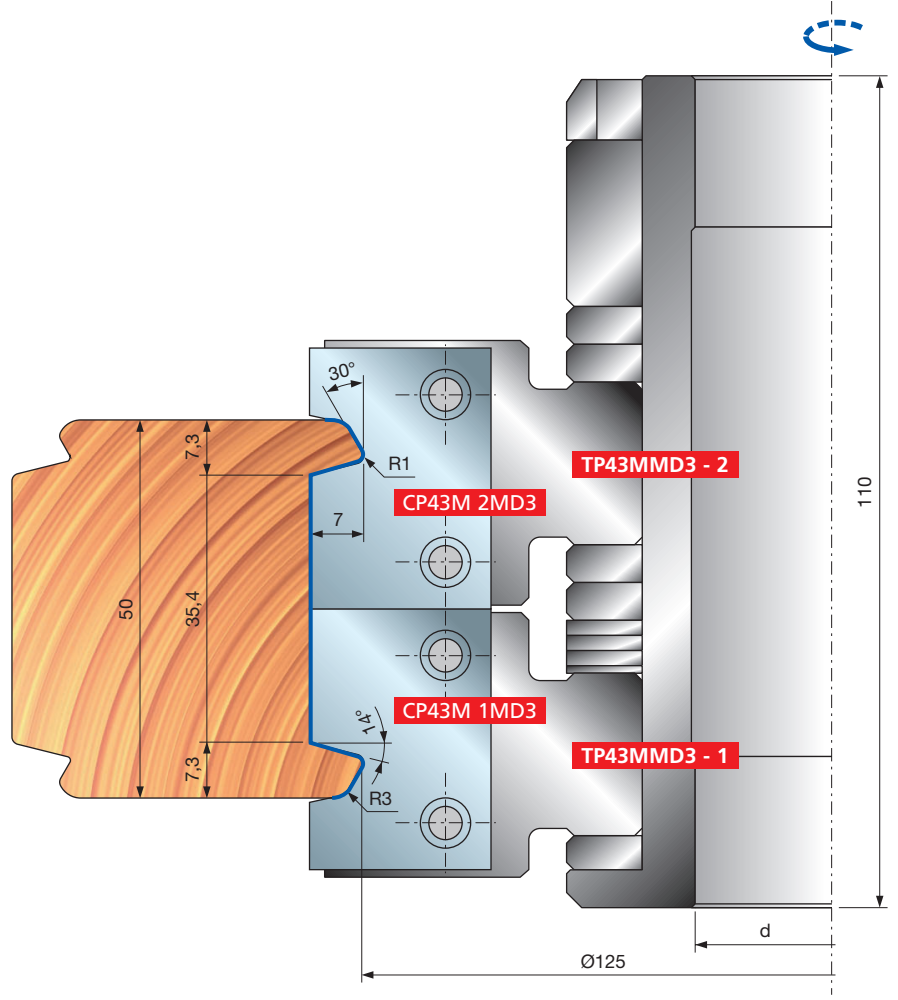
Dimensioni	Codice bussola
Dimensions	Sleeve code
Ø50 x 110 x 30	BF10MD AA9
Ø50 x 110 x 35	BF10MD AB9
Ø50 x 110 x 40	BF10MD AC9

Bussole con rotazione sinistra Left-hand sleeves

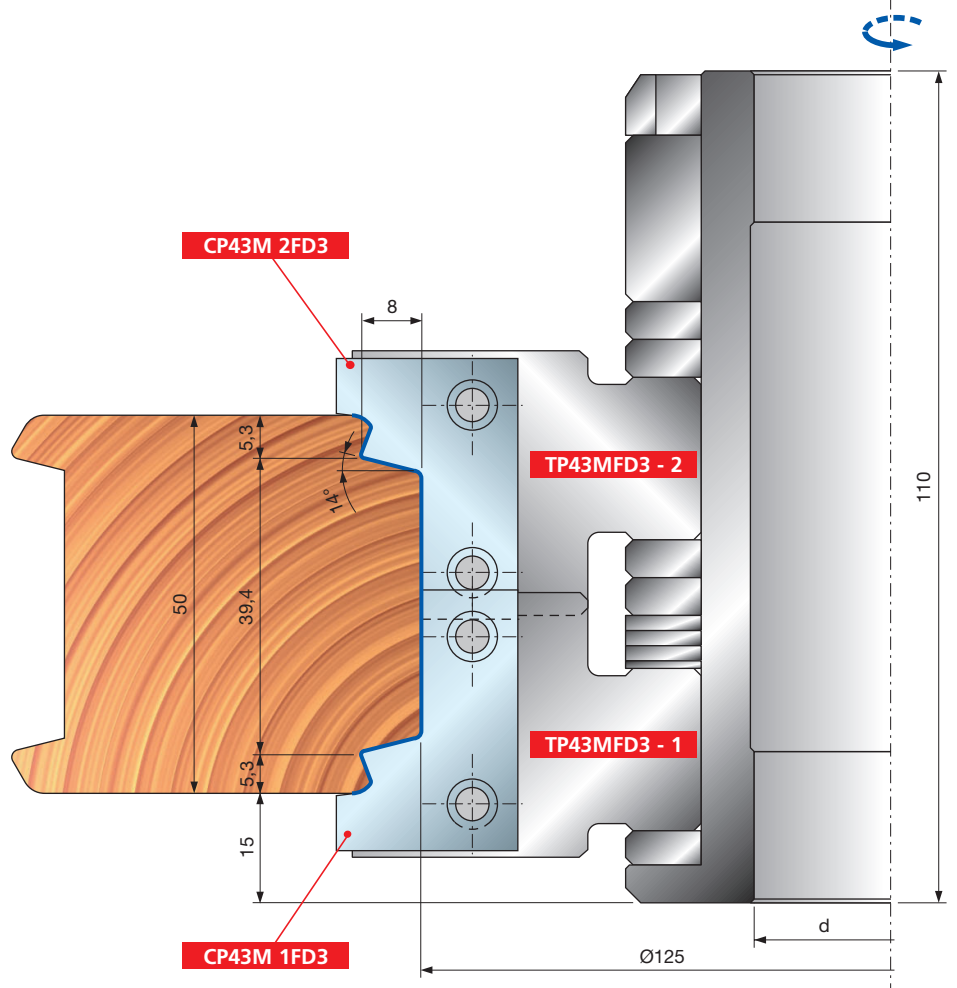
Dimensioni	Codice bussola
Dimensions	Sleeve code
Ø50 x 110 x 30	BF10MS AA9
Ø50 x 110 x 35	BF10MS AB9
Ø50 x 110 x 40	BF10MS AC9



GRUPPO / SET
TP43M MD3

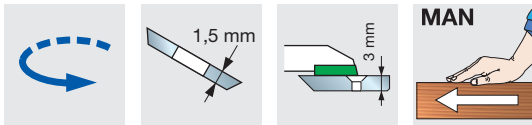
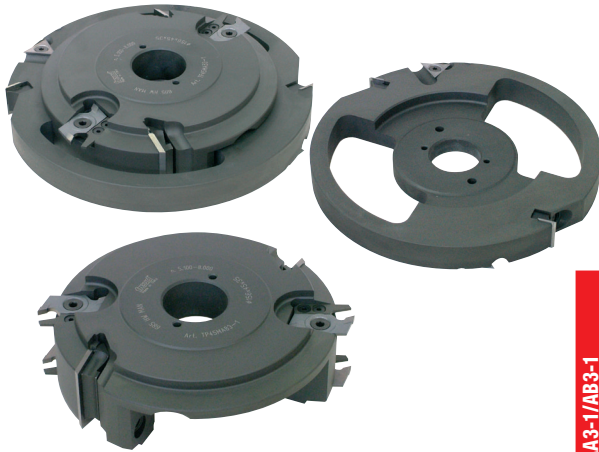


GRUPPO / SET
TP43M FD3



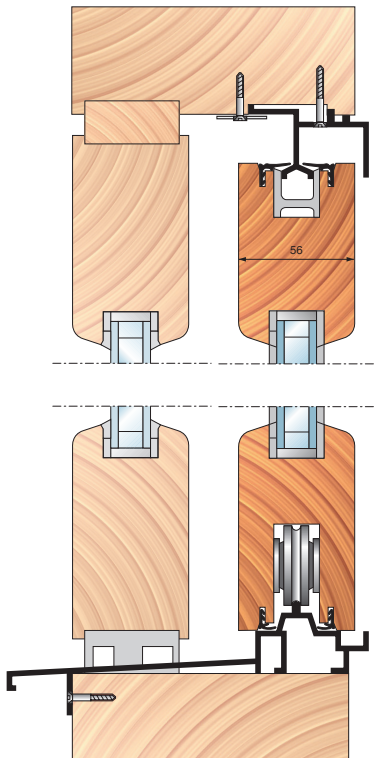
TP45M

SET DI TESTE PORTACOLTELLI PER ALZANTI-SCORREVOLI CUTTERHEADS SET FOR LIFTING-SLIDING DOORS



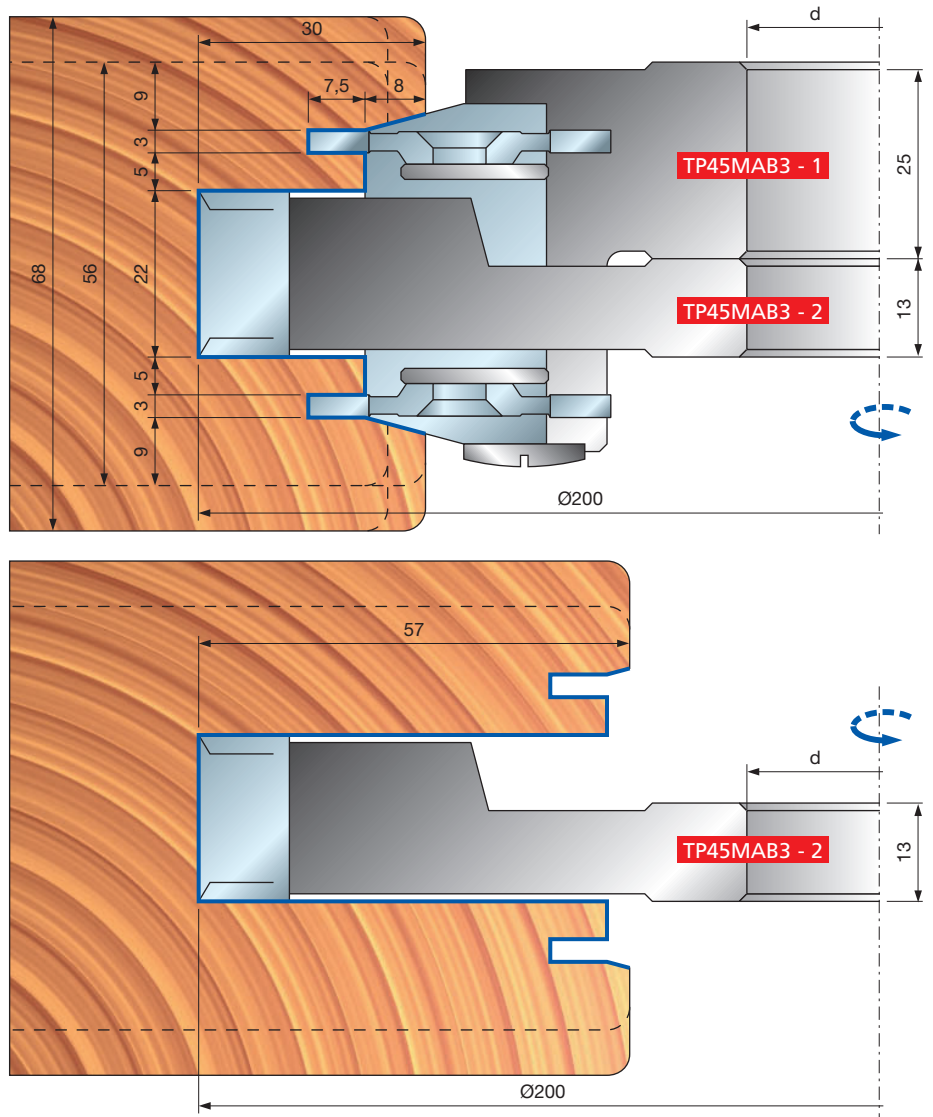
PERFORMANCE Coltelli Riaffilabili SYSTEM Resharpenable Knives

- Per la realizzazione di porte con peso complessivo max. 250 Kg, con l'applicazione della ferramenta tipo MAICO HS25, AGB o G.U. L'articolo comprende anche l'anello sp. 25 mm di programmazione sulla base (codice AN01MA2509).
- For doors with maximum weight of 250 Kg using hardware HS25 from MAICO, AGB or G.U. This item is supplied with 25 mm thick ring for base programming (item AN01MA2509).



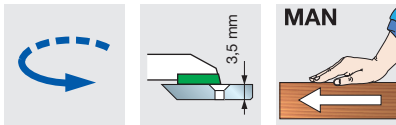
D	B	d*	Z	R	I	Codice
mm	mm	mm				Code
200	45	30 (50)	2+2	2	4	TP45M AA3
200	45	35 (50)	2+2	2	4	TP45M AB3

Parti di ricambio	Dimensioni	Codice
Spare parts	Dimensions	Code
Coltello / Knife	45 x 25 x 3	CP45M AA3
Vite / Screw	M5 x 16 x 7	VT08M AE9
Cuneo / Wedge	41 x 17 x 8	CN12M BF9A
Vite / Screw	M10 x 18	VT03M CC9
Insero per incastri / Grooving insert	40 x 16 x 3	IG04MD AC3
Insero per incastri / Grooving insert	40 x 16 x 3	IG04MS AC3
Vite / Screw	M6 x 14,5	VT16M AA9
Deflettore / Deflector	30,8 x 6 x 24,5	ID04MD AC9
Deflettore / Deflector	30,8 x 6 x 24,5	ID04MS AC9
Vite / Screw	M4 x 12	VT05M DA9
Spina elastica / Spring pin	5 x 12	2601M AM9
Coltello / Knife	21,6 x 12 x 1,5	CG06M TA3
Cuneo / Wedge	15 x 20 x 8	CN09M AO9
Ogiva / Nut	15 x 13,3 x 10	VT20M MA9
Vite / Screw	M10 x 22	VT19M MA9
Rasante / Spur	22,86 x 2,5	RG02M AA3
Vite / Screw	M5 x 8	VT05M AA9
Chiave / Allen key	4 x 110	CB03M BA9
Chiave / Allen key	5 x 110	CB03M EA9



TD21M

PIATTABANDA MULTIPROFILO RAISED PANEL CUTTERHEAD SET



D	B	d	Z	R	Codice
mm	mm	mm			Code
140	21	35	2		TD21M GB3

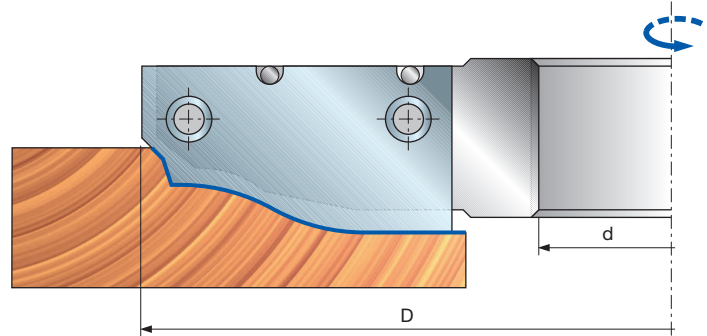
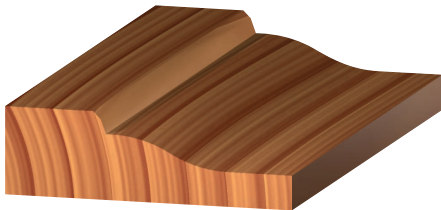
Parti di ricambio	Dimensioni	Codice
Spare parts	Dimensions	Code
Rondella / Ring		14 x 2 x 6 VT18M AL9
Piastra riscontro / Positioning plate		33 x 3 x 16 VT18M AI9
Vite / Screw		M6 x 12 2622M CC9
Vite / Screw		M6 x 10 2622M CB9
Chiave / Allen key		4 x 110 CB03M BA9

Coltelli di ricambio	Dimensioni	Codice
Spare knives	Dimensions	Code
1		41 x 22 x 3,5 CT21M AA3
2		41 x 22 x 3,5 CT21M BA3
3		41 x 22 x 3,5 CT21M CA3
4		41 x 22 x 3,5 CT21M DA3
5		41 x 22 x 3,5 CT21M EA3

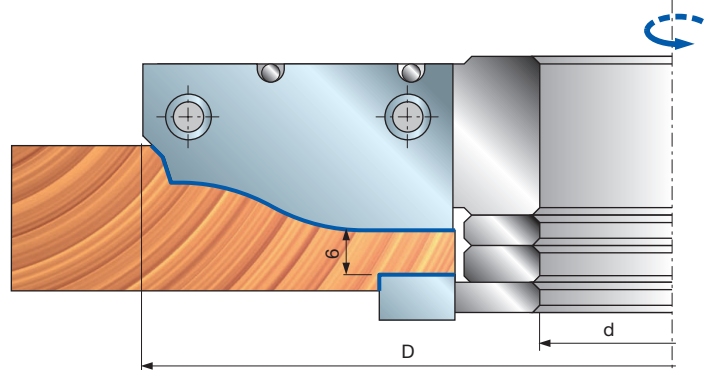
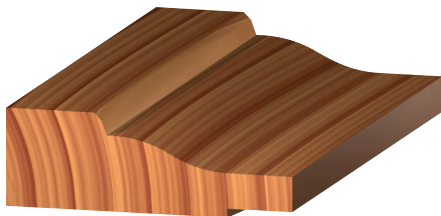
■ Corpo in lega leggera (Ergal). Per la pulizia non utilizzare prodotti contenenti soda caustica. Esecuzione di tipo economico che permette di usare i differenti profili rappresentati in queste pagine. L'ARTICOLO VIENE FORNITO CON COLTELLI E FRESE SUPPLEMENTARI.

■ Light alloy body (Ergal). For cleaning do not use products containing caustic soda. 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 WITH KNIVES AND OPTIONAL CUTTERS.

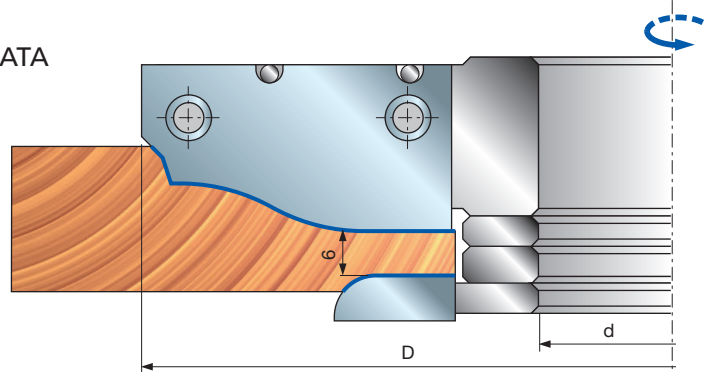
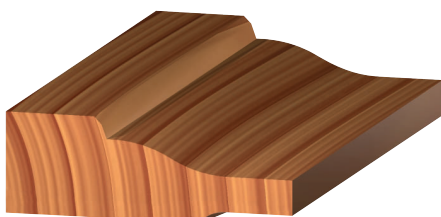
LAVORAZIONE CON PIATTABANDA WORKING WITH RAISED PANEL CUTTERHEAD



LAVORAZIONE CON FRESA SUPPLEMENTARE DIRITTA WORKING WITH OPTIONAL STRAIGHT CUTTER



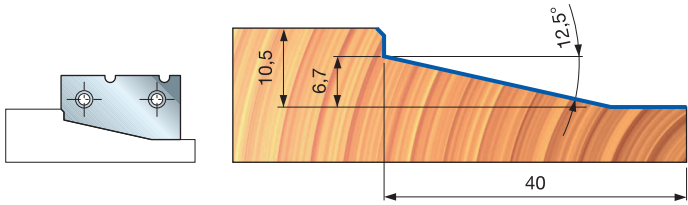
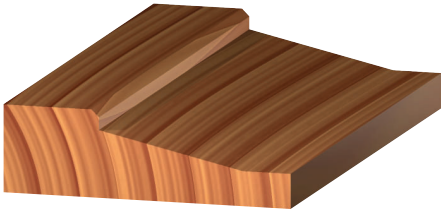
LAVORAZIONE CON FRESA SUPPLEMENTARE SAGOMATA WORKING WITH OPTIONAL ROUNDED CUTTER



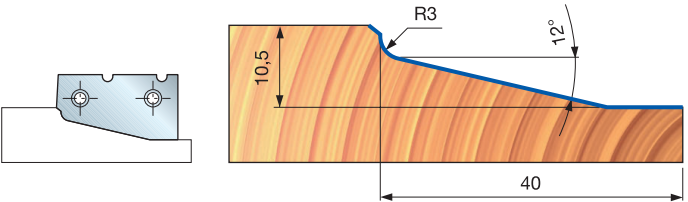
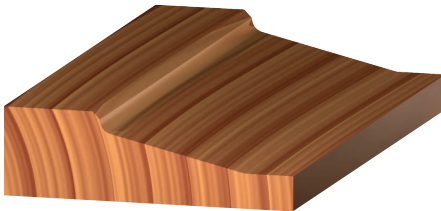
Utensili collaudati secondo la Normativa
 Tools tested according to the Norm

• EN 847-1 •

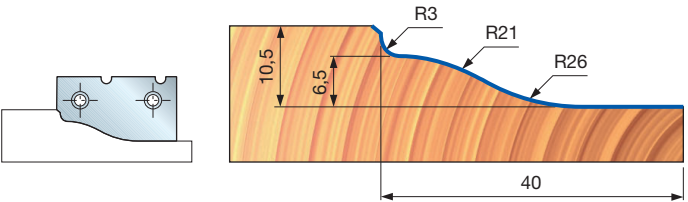
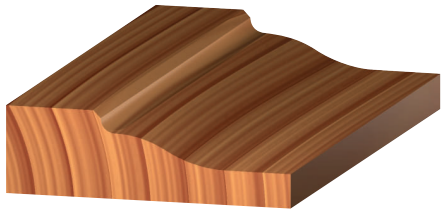
PROFILO / PROFILE 1



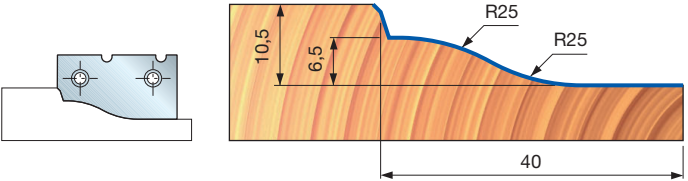
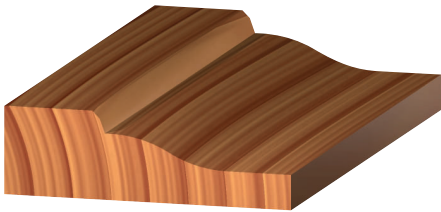
PROFILO / PROFILE 2



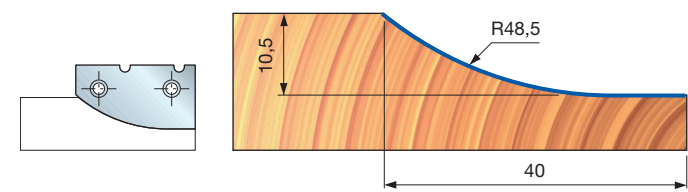
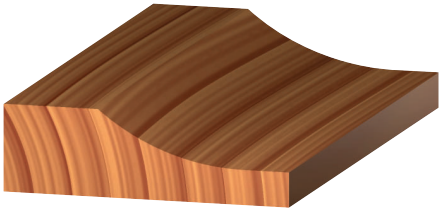
PROFILO / PROFILE 3



PROFILO / PROFILE 4

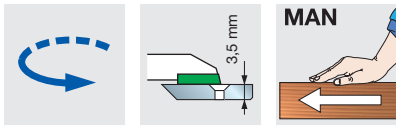
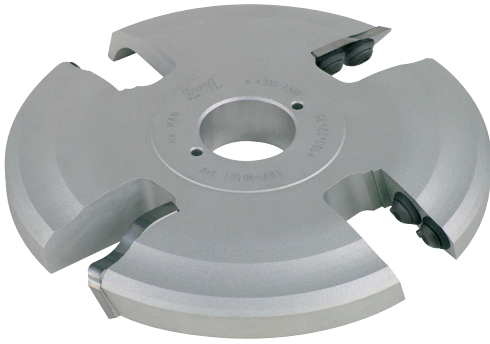


PROFILO / PROFILE 5



TD51M

PIATTABANDE MULTIPROFILO PER LEGNO TENERO E DURO RAISED PANEL CUTTERHEADS FOR SOFT AND HARD WOOD



PERFORMANCE Coltelli Riaffilabili SYSTEM Resharpenable Knives

Utensili collaudati secondo la Normativa
Tools tested according to the Norm

• **EN 847-1** •

■ CARATTERISTICHE:




L'utensile è concepito per poter lavorare con 2 taglianti su legno tenero oppure con gli altri 2 taglianti 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.

■ FEATURES:

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.



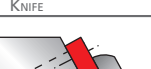


D	B	d*	Z	R	Codice
mm	mm	mm			Code
180	22	30 (50)	2+2		TD51M AA3
180	22	35 (50)	2+2		TD51M AB3
180	21	50	2+2		TD51M AD3

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

■ Corpo in lega leggera (Ergal). Per la pulizia non utilizzare prodotti contenenti soda caustica.
L'ARTICOLO VIENE FORNITO SENZA COLTELLI.



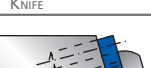


■ Light alloy body (Ergal). For cleaning do not use products containing caustic soda.
THIS ITEM IS SUPPLIED WITHOUT KNIVES.

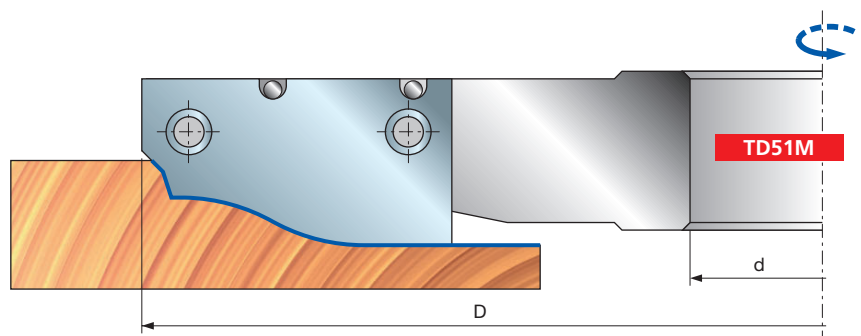
2 Coltelli per Legno Tenero 2 Knives for Softwood

Coltelli di ricambio	Dimensioni	Codice
Spare knives	Dimensions	Code
 1	41 x 28 x 3,5	CT51M AA3
 2	41 x 28 x 3,5	CT51M BA3
 3	41 x 28 x 3,5	CT51M CA3
 4	41 x 28 x 3,5	CT51M DA3
 5	41 x 28 x 3,5	CT51M EA3

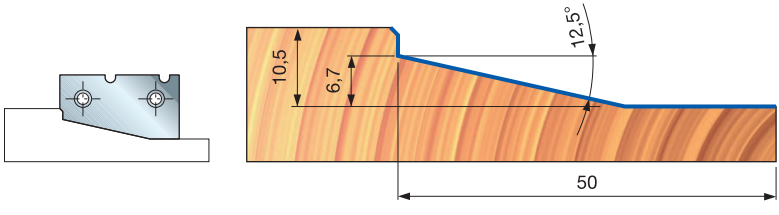
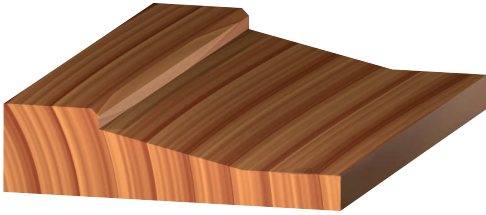


2 Coltelli per Legno Duro 2 Knives for Hardwood

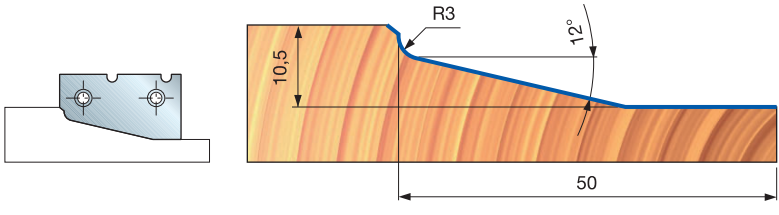
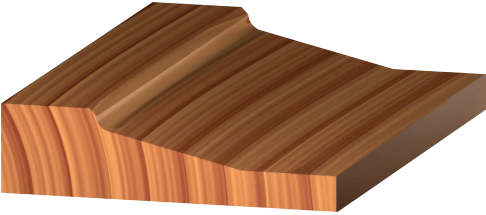
Coltelli di ricambio	Dimensioni	Codice
Spare knives	Dimensions	Code
 1	41 x 22 x 3,5	CT21M AA3
 2	41 x 22 x 3,5	CT21M BA3
 3	41 x 22 x 3,5	CT21M CA3
 4	41 x 22 x 3,5	CT21M DA3
 5	41 x 22 x 3,5	CT21M EA3



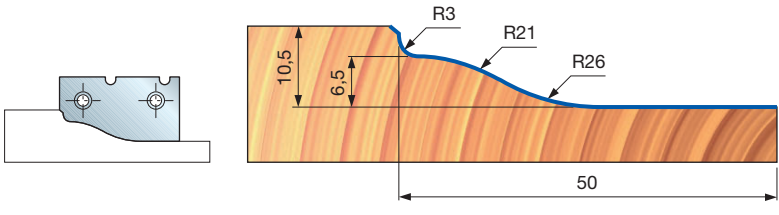
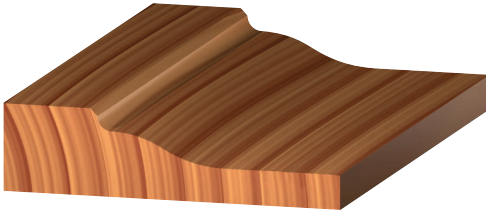
PROFILO / PROFILE 1



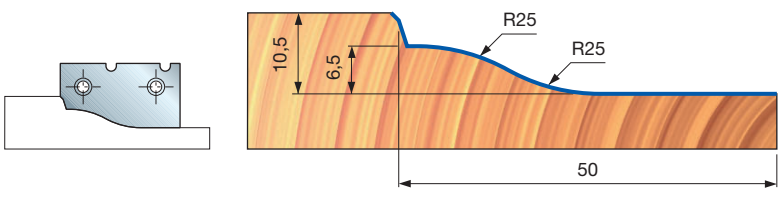
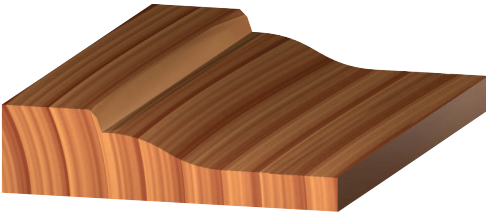
PROFILO / PROFILE 2



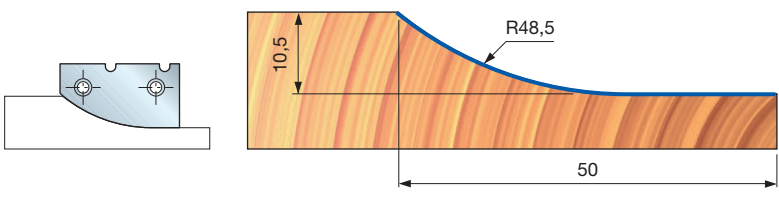
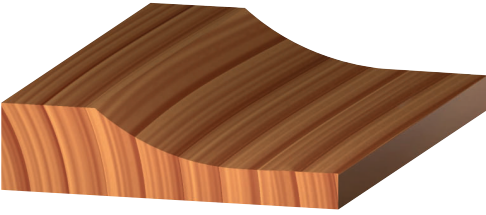
PROFILO / PROFILE 3



PROFILO / PROFILE 4

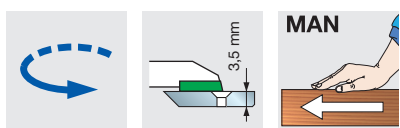
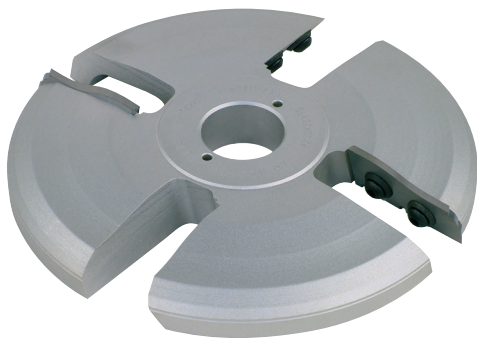


PROFILO / PROFILE 5

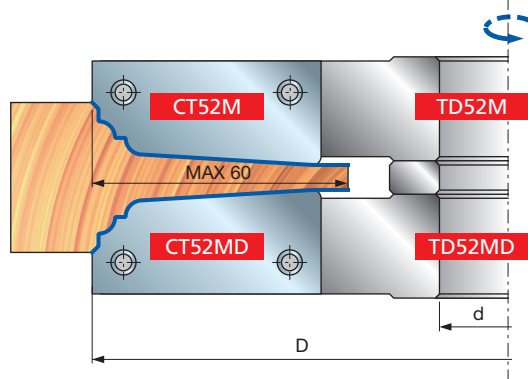


TD52M TD52MD

PIATTABANDE MULTIPROFILO PER LEGNO TENERO E DURO RAISED PANEL CUTTERHEADS FOR SOFT AND HARD WOOD



- Corpo in lega leggera (Ergal). Per la pulizia non utilizzare prodotti contenenti soda caustica.
- Light alloy body (Ergal). For cleaning do not use products containing caustic soda.



■ CARATTERISTICHE:

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.

■ FEATURES:

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.

D	B	d*	Z	R	Codice
mm	mm	mm			Code
200	25	35 (50)	2+2		TD52M CB3 ⁽¹⁾
200	25	35 (50)	2+2		TD52MD CB3 ⁽¹⁾




■ (1) QUESTI ARTICOLI VENGONO FORNITI CON COLTELLI.

■ (1) THESE ITEMS ARE SUPPLIED WITH KNIVES.

D	B	d*	Z	R	Codice
mm	mm	mm			Code
200	25	35 (50)	2+2		TD52M HB3 ⁽²⁾
200	25	35 (50)	2+2		TD52MD HB3 ⁽²⁾






■ (2) QUESTI ARTICOLI VENGONO FORNITI SENZA COLTELLI.

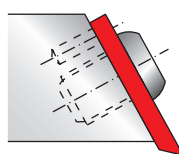
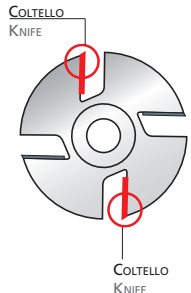
■ (2) THESE ITEMS ARE SUPPLIED WITHOUT KNIVES.

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

2 Coltelli per Legno Tenero

2 Knives for Softwood

Coltelli di ricambio	Dimensioni	Codice
Spare knives	Dimensions	Code
1 	55 x 30 x 3,5	CT52M TA3 CT52MD TA3
2 	55 x 30 x 3,5	CT52M TB3 CT52MD TB3
3 	55 x 30 x 3,5	CT52M TC3 CT52MD TC3
4 	55 x 30 x 3,5	CT52M TD3 CT52MD TD3
5 	55 x 30 x 3,5	CT52M TE3 CT52MD TE3








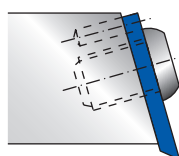
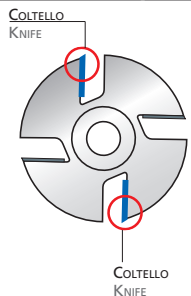
LEGNO TENERO / SOFTWOOD



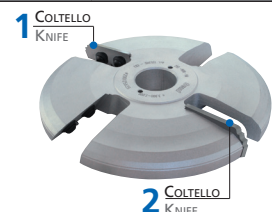
2 Coltelli per Legno Duro

2 Knives for Hardwood

Coltelli di ricambio	Dimensioni	Codice
Spare knives	Dimensions	Code
1 	55 x 25 x 3,5	CT52M DA3 CT52MD DA3
2 	55 x 25 x 3,5	CT52M DB3 CT52MD DB3
3 	55 x 25 x 3,5	CT52M DC3 CT52MD DC3
4 	55 x 25 x 3,5	CT52M DD3 CT52MD DD3
5 	55 x 25 x 3,5	CT52M DE3 CT52MD DE3



LEGNO DURO / HARDWOOD

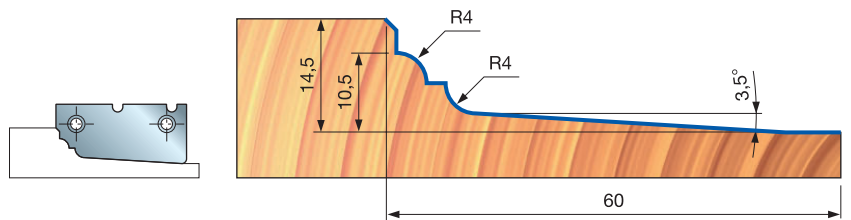
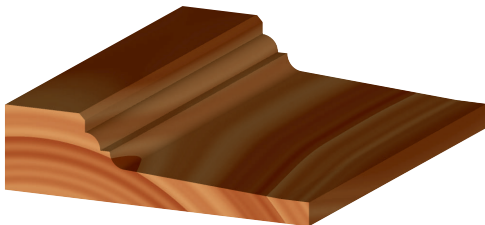


Utensili collaudati secondo la Normativa
Tools tested according to the Norm

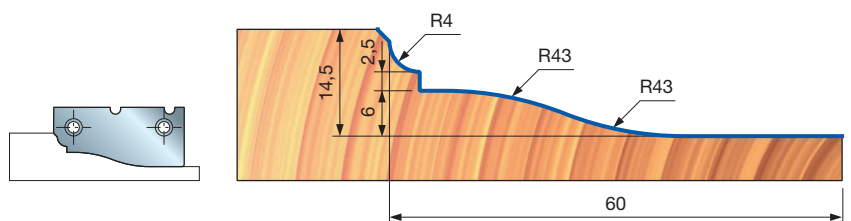
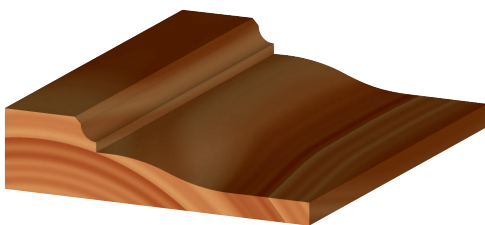
• **EN 847-1** •

▼ **QUESTO PROFILO È UTILIZZABILE SOLAMENTE
 CON AVANZAMENTO MECCANICO.**
THIS PROFILE IS USABLE WITH AUTOMATIC FEED ONLY.

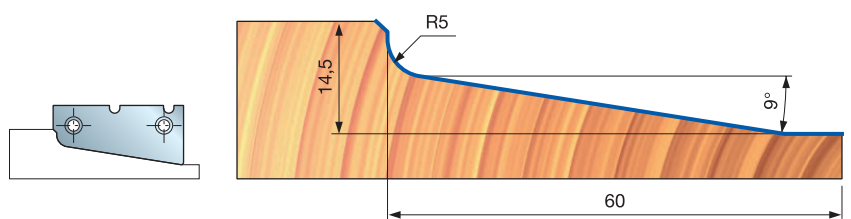
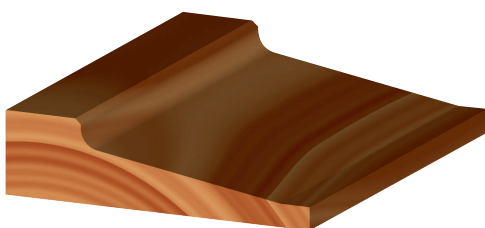
PROFILO / PROFILE **1**



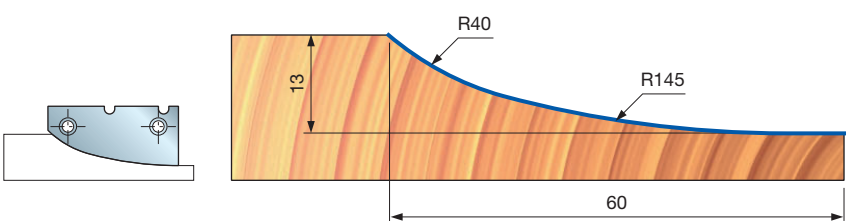
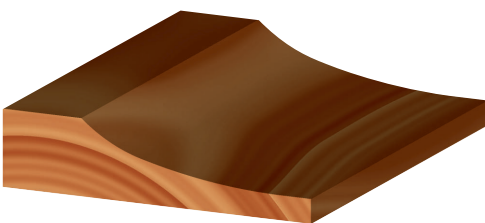
PROFILO / PROFILE **2**



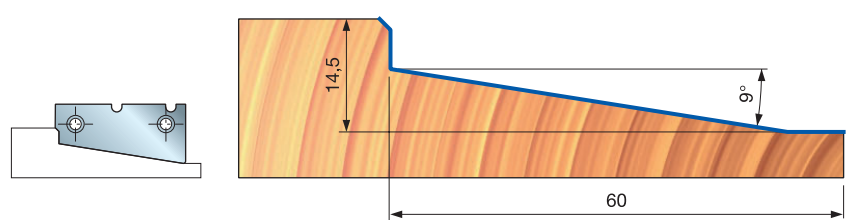
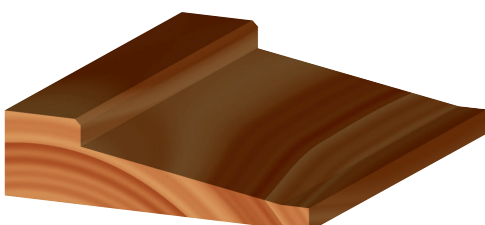
PROFILO / PROFILE **3**



PROFILO / PROFILE **4**

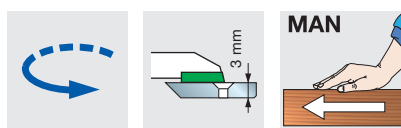
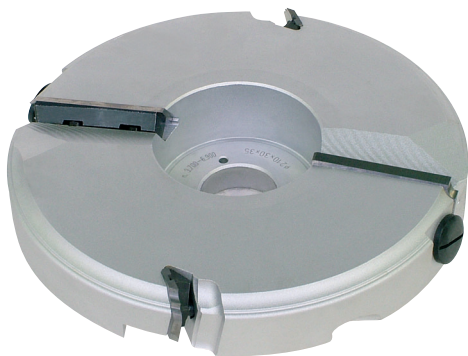


PROFILO / PROFILE **5**



TD55MD TD55MS

PIATTABANDE MULTIPROFILO RAISED PANEL CUTTERHEADS



- Corpo in lega leggera (Ergal). Per la pulizia non utilizzare prodotti contenenti soda caustica.
- Light alloy body (Ergal). For cleaning do not use products containing caustic soda.

■ CARATTERISTICHE:

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.

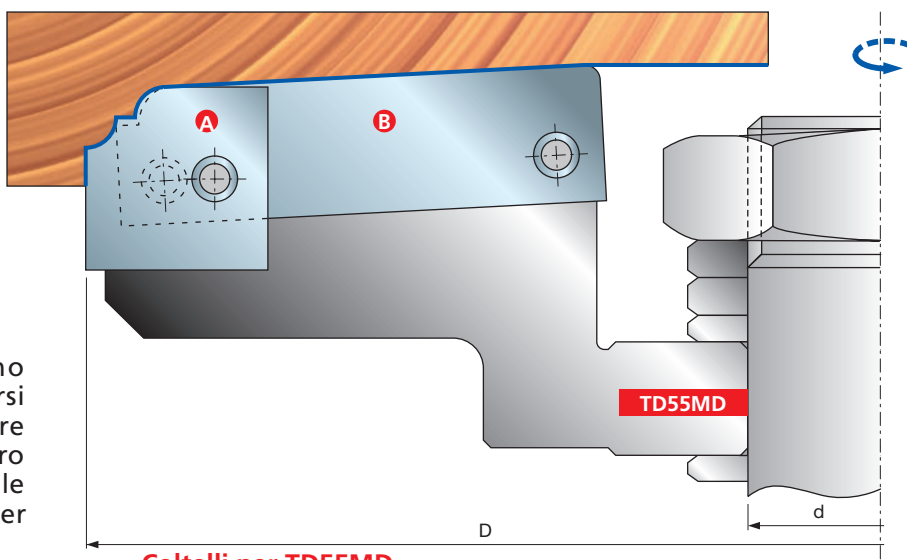
■ FEATURES:

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.

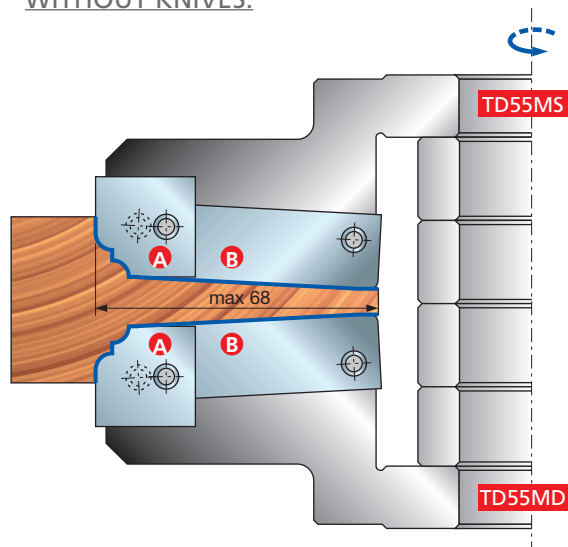
D	B	d*	Z	R	Codice
mm	mm	mm			Code
210		35 (50)	2+2		TD55MD BB3
210		35 (50)	2+2		TD55MS BB3

Parti di ricambio	Dimensioni	Codice
Spare parts	Dimensions	Code
TD55MD	Cuneo / Wedge A	21 x 23 x 8 CN55MD AA9
	Cuneo / Wedge B	61 x 18 x 8 CN55MD BA9
TD55MS	Cuneo / Wedge A	21 x 23 x 8 CN55MS AA9
	Cuneo / Wedge B	61 x 18 x 8 CN55MS BA9
Vite / Screw	M10 x 25	2602M F19
Vite / Screw	M8 x 10 x 22	VT08M AD9
Vite / Screw	M5 x 7 x 16	VT08M AE9
Chiave / Allen key	5 x 110	CB03M EA9



Coltelli per TD55MD Knives for TD55MD

Profilo	Dimensioni	Codice
Profile	Dimensions	Code
1	Colt. / knife A 23 x 24 x 3	CT55MD AA3
	Colt. / knife B 65 x 20 x 3	CT55MD BA3
2	Colt. / knife A 23 x 24 x 3	CT55MD AB3
	Colt. / knife B 65 x 20 x 3	CT55MD BB3
3	Colt. / knife A 23 x 24 x 3	CT55MD AC3
	Colt. / knife B 65 x 20 x 3	CT55MD BC3
4	Colt. / knife A 23 x 24 x 3	CT55MD AE3
	Colt. / knife B 65 x 20 x 3	CT55MD BE3
5	Colt. / knife A 23 x 24 x 3	CT55MD AF3
	Colt. / knife B 65 x 20 x 3	CT55MD BF3

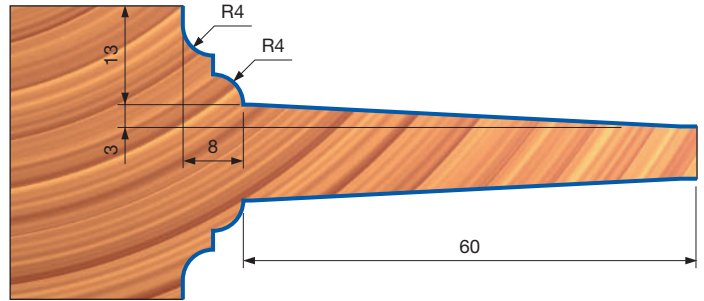


Coltelli per TD55MS Knives for TD55MS

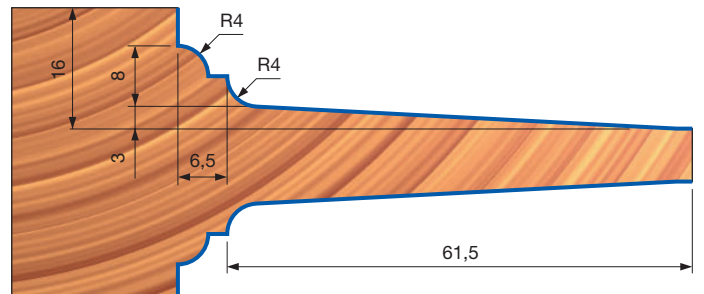
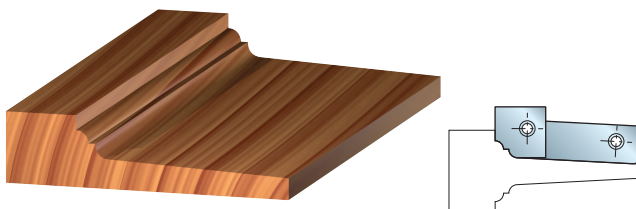
Profilo	Dimensioni	Codice
Profile	Dimensions	Code
1	Colt. / knife A 23 x 24 x 3	CT55MS AA3
	Colt. / knife B 65 x 20 x 3	CT55MS BA3
2	Colt. / knife A 23 x 24 x 3	CT55MS AB3
	Colt. / knife B 65 x 20 x 3	CT55MS BB3
3	Colt. / knife A 23 x 24 x 3	CT55MS AC3
	Colt. / knife B 65 x 20 x 3	CT55MS BC3
4	Colt. / knife A 23 x 24 x 3	CT55MS AE3
	Colt. / knife B 65 x 20 x 3	CT55MS BE3
5	Colt. / knife A 23 x 24 x 3	CT55MS AF3
	Colt. / knife B 65 x 20 x 3	CT55MS BF3

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

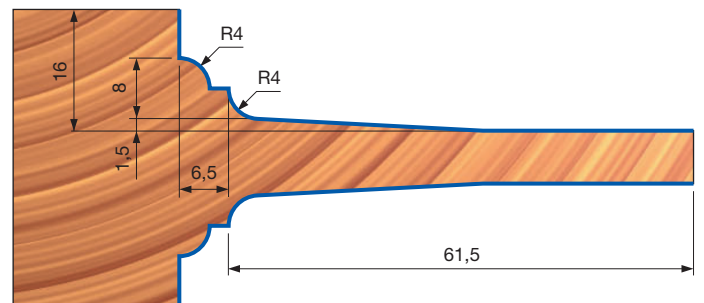
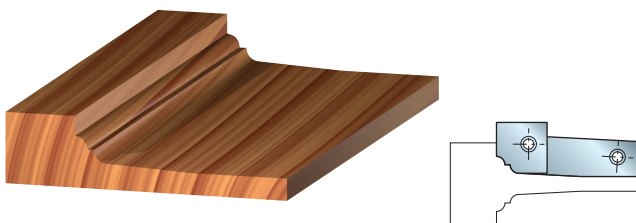
PROFILO / PROFILE **1**



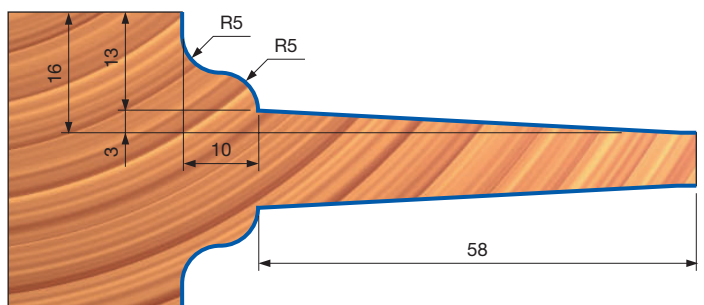
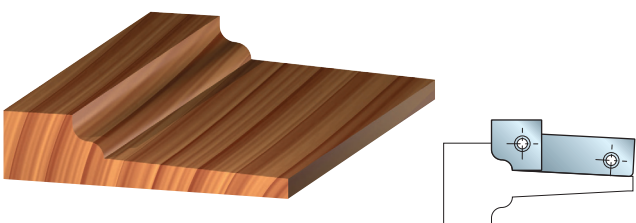
PROFILO / PROFILE **2**



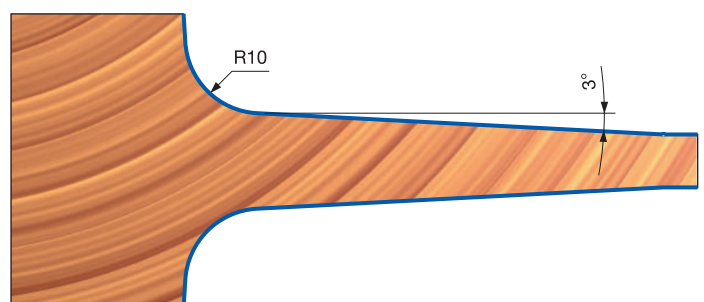
PROFILO / PROFILE **3**



PROFILO / PROFILE **4**



PROFILO / PROFILE **5**

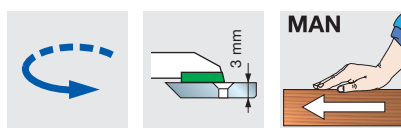
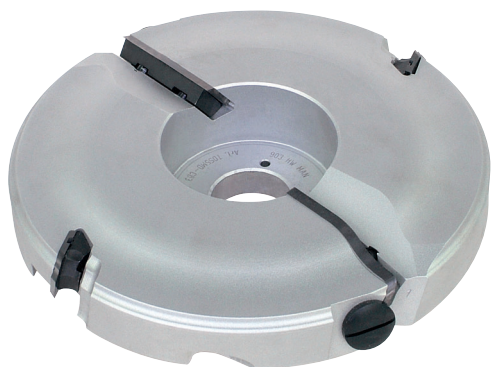


QUESTO PROFILO È UTILIZZABILE
 SOLAMENTE CON AVANZAMENTO
 MECCANICO.

THIS PROFILE IS USABLE WITH
 AUTOMATIC FEED ONLY. ▶

TD55MD TD55MS

PIATTABANDE MULTIPROFILO RAISED PANEL CUTTERHEADS



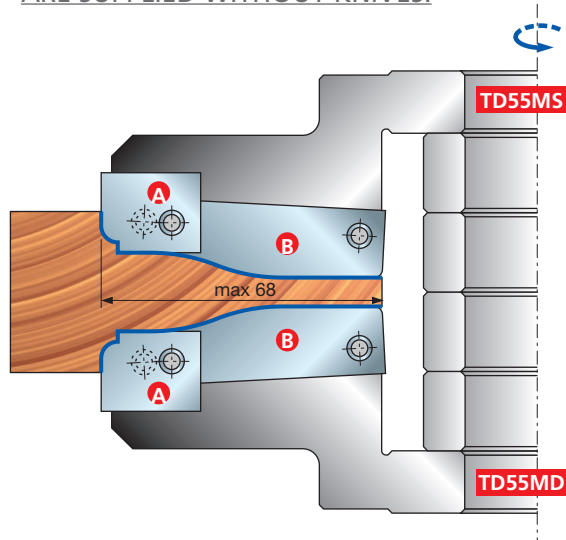
PERFORMANCE Coltelli Riaffilabili SYSTEM Resharpenable Knives

Utensili collaudati secondo la Normativa
Tools tested according to the Norm

• **EN 847-1** •

■ **CARATTERISITCHE:** 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.

■ **FEATURES:** It is possible to fit 4 types of standard knives for machining 4 different profiles (see drawings). Due to the particular tool geometry, this item is particularly indicated for cutting deep profiles. THESE ITEMS ARE SUPPLIED WITHOUT KNIVES.

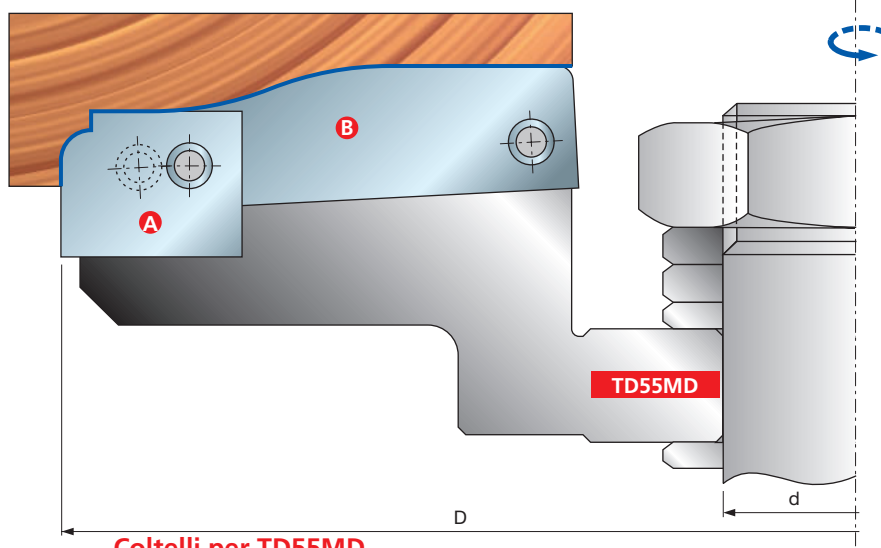


D	B	d*	Z	R	Codice
mm	mm	mm			Code
210	35 (50)	35 (50)	2+2		TD55MD CB3
210	35 (50)	35 (50)	2+2		TD55MS CB3

Parti di ricambio	Dimensioni	Codice
Spare parts	Dimensions	Code
TD55MD Cuneo / Wedge A	21 x 23 x 8	CN55MD AA9
TD55MD Cuneo / Wedge B	61 x 18 x 8	CN55MD BA9
TD55MS Cuneo / Wedge A	21 x 23 x 8	CN55MS AA9
TD55MS Cuneo / Wedge B	61 x 18 x 8	CN55MS BA9
Vite / Screw	M10 x 25	2602M F19
Vite / Screw	M8 x 10 x 22	VT08M AD9
Vite / Screw	M5 x 7 x 16	VT08M AE9
Chiave / Allen key	5 x 110	CB03M EA9

■ Corpo in lega leggera (Ergal). Per la pulizia non utilizzare prodotti contenenti soda caustica.

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



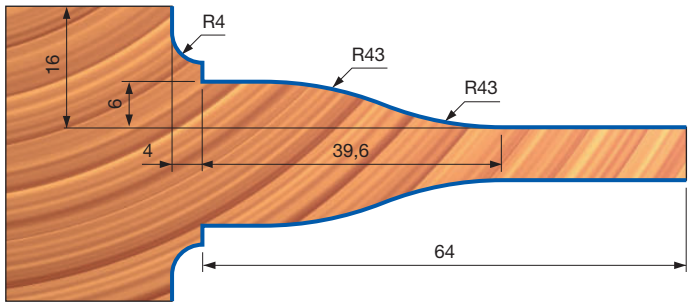
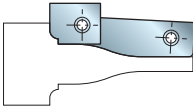
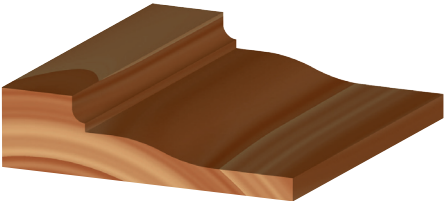
Coltelli per TD55MD Knives for TD55MD

Profilo	Dimensioni	Codice
Profile	Dimensions	Code
1	Colt. / knife A 20 x 24 x 3	CT55MD AD3
	Colt. / knife B 65 x 20 x 3	CT55MD BD3
2	Colt. / knife A 20 x 24 x 3	CT55MD AG3
	Colt. / knife B 65 x 20 x 3	CT55MD BG3
3	Colt. / knife A 20 x 24 x 3	CT55MD AH3
	Colt. / knife B 65 x 20 x 3	CT55MD BH3
4	Colt. / knife A 20 x 24 x 3	CT55MD AI3
	Colt. / knife B 65 x 20 x 3	CT55MD BI3

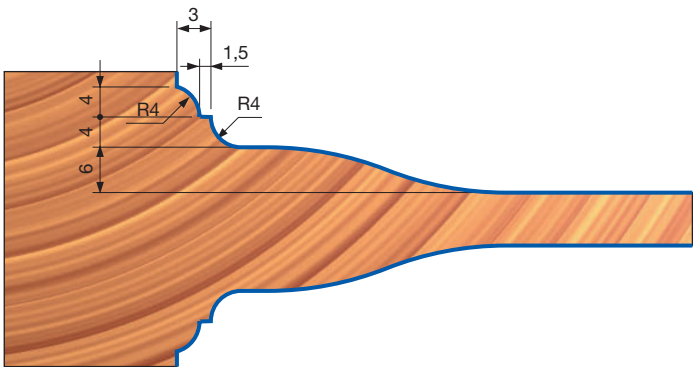
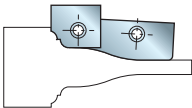
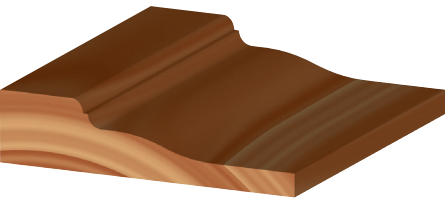
Coltelli per TD55MS Knives for TD55MS

Profilo	Dimensioni	Codice
Profile	Dimensions	Code
1	Colt. / knife A 20 x 24 x 3	CT55MS AD3
	Colt. / knife B 65 x 20 x 3	CT55MS BD3
2	Colt. / knife A 20 x 24 x 3	CT55MS AG3
	Colt. / knife B 65 x 20 x 3	CT55MS BG3
3	Colt. / knife A 20 x 24 x 3	CT55MS AH3
	Colt. / knife B 65 x 20 x 3	CT55MS BH3
4	Colt. / knife A 20 x 24 x 3	CT55MS AI3
	Colt. / knife B 65 x 20 x 3	CT55MS BI3

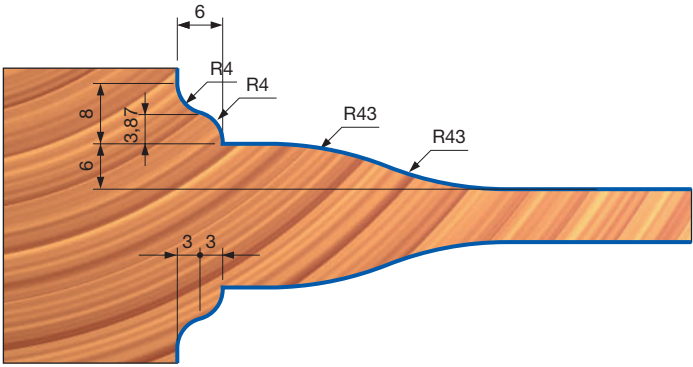
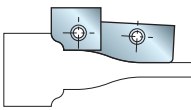
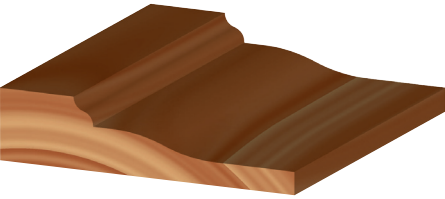
PROFILO / PROFILE 1



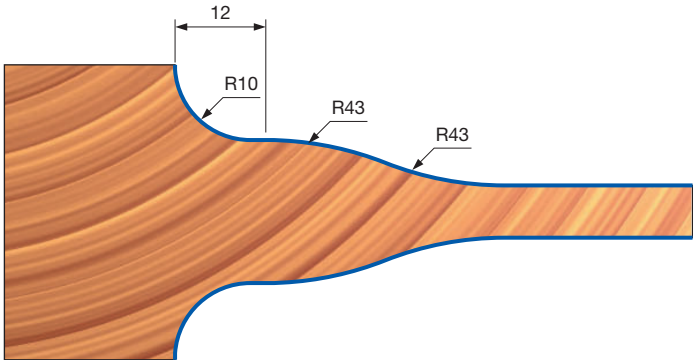
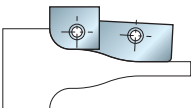
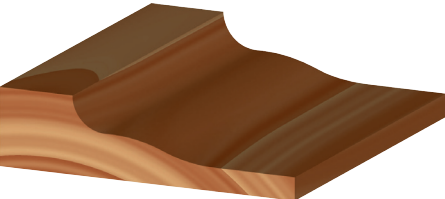
PROFILO / PROFILE 2



PROFILO / PROFILE 3



PROFILO / PROFILE 4



TG79M

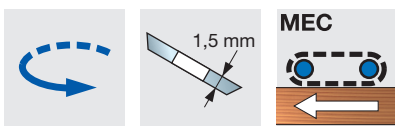
Z = 2

GRUPPI DI TESTE PORTACOLTELLI PER PERLINE E PARCHETTI PANELLING AND FLOORING CUTTERHEAD SETS



Utensili per gruppi TG79M Tools for TG79M sets

D	B	d	Z	R	Codice
mm	mm	mm			Code
125	20	50	2	2	TG79M AA3
125	20	50	2	2	TG79M AB3
143	20	50	2	2	TG79M AC3
128	8	50	2		TG79M AD3
143	20	50	2	4	TG79M AE3
144	20	50	2	4	TG79M AF3
125	20	50		4	TG79M AG3
125	20	50		4	TG79M AI3
143	20	50		4	TG79M AM3
143	20	50		4	TG79M AO3



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.

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.

Profilo	Gruppo per maschio	Gruppo per femmina
Profile	Tongue set	Groove set
1	TG79MG 002	TG79MG 001
2	TG79MG 003	TG79MG 001
3	TG79MG 006	TG79MG 004
4	TG79MG 025	TG79MG 020
5	TG79MG 007	TG79MG 005
6	TG79MG 026	TG79MG 021
7	TG79MG 027	TG79MG 022
8	TG79MG 028	TG79MG 023
9	TG79MG 029	TG79MG 024
10	TG79MG 010	TG79MG 008
11	TG79MG 035	TG79MG 030
12	TG79MG 011	TG79MG 009
13	TG79MG 036	TG79MG 031
14	TG79MG 037	TG79MG 032
15	TG79MG 038	TG79MG 033
16	TG79MG 039	TG79MG 034

	Parti di ricambio	Dimensioni	Codice
	Spare parts	Dimensions	Code
AA3	Coltello / Knife	20 x 12 x 1,5	CG01M DA3
	Cuneo / Wedge	16	CN01M DA9
	Vite / Screw	M8 x 16	VT03M AA9
	Insero per incastri / Grooving insert	40 x 16 x 4	IG04MD AA3
AB3	Vite / Screw	M6 x 14,5	VT16M AA9
	Coltello / Knife	20 x 12 x 1,5	CG01M DA3
	Cuneo / Wedge	16	CN01M DA9
	Vite / Screw	M8 x 16	VT03M AA9
AC3	Insero per incastri / Grooving insert	40 x 16 x 4	IG04MS AA3
	Vite / Screw	M6 x 14,5	VT16M AA9
	Coltello / Knife	20 x 12 x 1,5	CG01M DA3
	Cuneo / Wedge	16	CN01M DA9
AD3	Vite / Screw	M8 x 16	VT03M AA9
	Rasante / Spur	22,86 x 2,5	RG02M AA3
	Vite / Screw	M5 x 8	VT05M AA9
	Coltello / Knife	7,5 x 12 x 1,5	CG01M OB3
AE3 - AF3	Cuneo / Wedge	14 x 7,2 x 8	CN09M AT9
	Vite / Screw	M5 x 19	VT11M AA9
	Coltello / Knife	20 x 12 x 1,5	CG01M DA3
	Cuneo / Wedge	16	CN01M DA9
AG3 - AI3 - AM3 - AO3	Vite / Screw	M8 x 16	VT03M AA9
	Rasante / Spur	22,86 x 2,5	RG02M AA3
	Vite / Screw	M5 x 8	VT05M AA9
	Insero smussatore / Beveling insert	22 x 16 x 5 45°	IG51M BA3
AG3 - AI3 - AM3 - AO3	Vite / Screw	M6 x 14,5	VT16M AA9
	Insero smussatore / Beveling insert	22 x 16 x 5 45°	IG51M BA3
	Insero raggatore / Rounding insert	22 x 16 x 5 R=1,5	IG52M AB3
	Insero raggatore / Rounding insert	22 x 16 X 5 R=2	IG52M AC3
	Insero raggatore / Rounding insert	22 x 16 X 5 R=3	IG52M AE3
	Vite / Screw	M6 x 14,5	VT16M AA9
	Insero raggatore / Rounding insert	25,5 x 16 X 9 R3	IG33M AA3
	Insero raggatore / Rounding insert	25,5 x 16 X 9 R5	IG33M AB3
AG3 - AI3 - AM3 - AO3	Insero smussatore / Beveling insert	25,5 x 16 X 9 45°	IG33M AD3
	Vite / Screw	M6 x 15,5	VT16M AD9

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

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

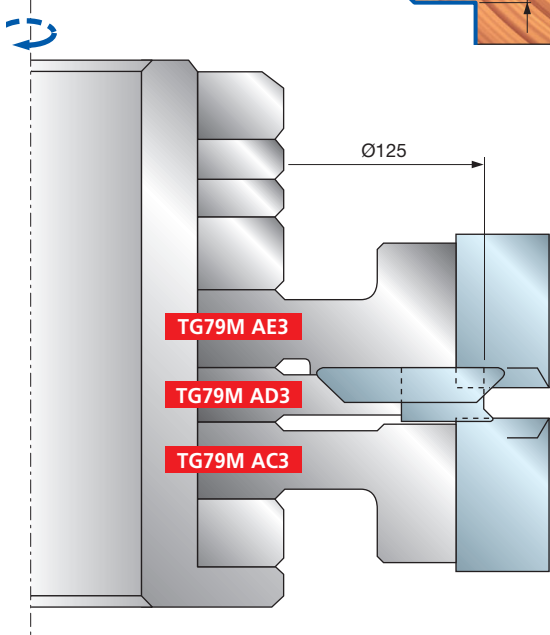
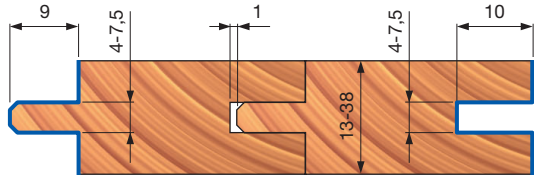
Bussole per albero destro Sleeves for fence side spindle

Dimensioni	Codice bussola
Dimensions	Sleeve code
Ø50 x 110 x 30	BF10MD AA9
Ø50 x 110 x 35	BF10MD AB9
Ø50 x 110 x 40	BF10MD AC9

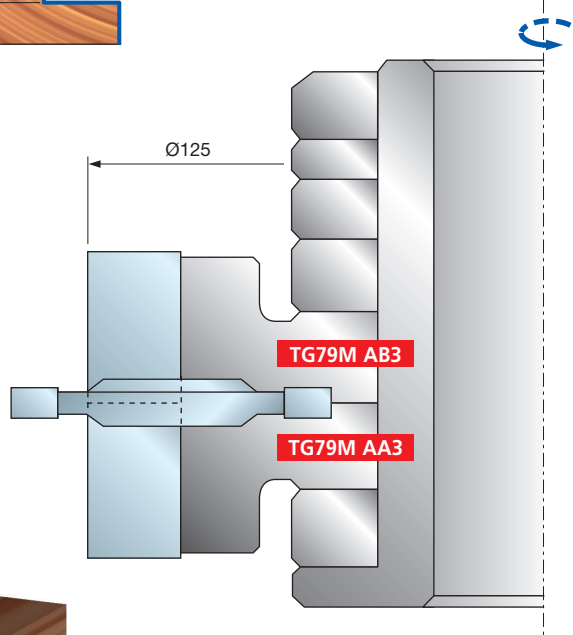
Bussole per albero sinistro Sleeves for off side spindle

Dimensioni	Codice bussola
Dimensions	Sleeve code
Ø50 x 110 x 30	BF10MS AA9
Ø50 x 110 x 35	BF10MS AB9
Ø50 x 110 x 40	BF10MS AC9

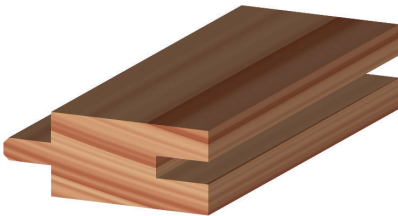
PROFILO / PROFILE 1



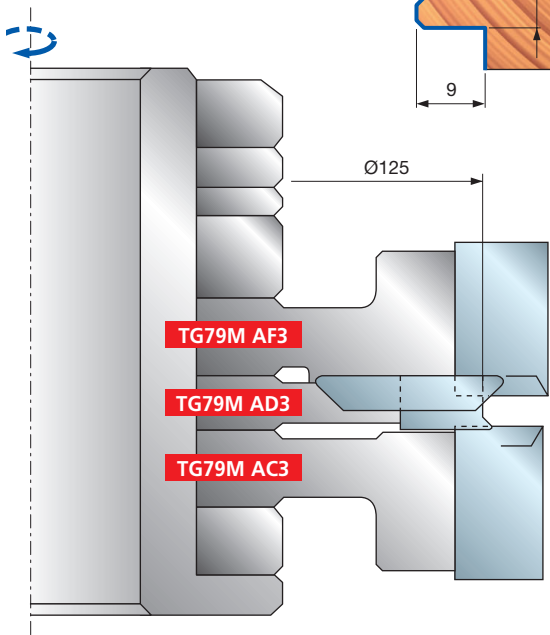
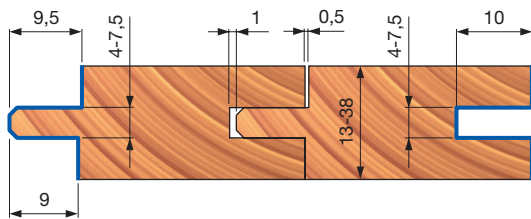
GRUPPO / CUTTERHEAD SET
 TG79MG-002



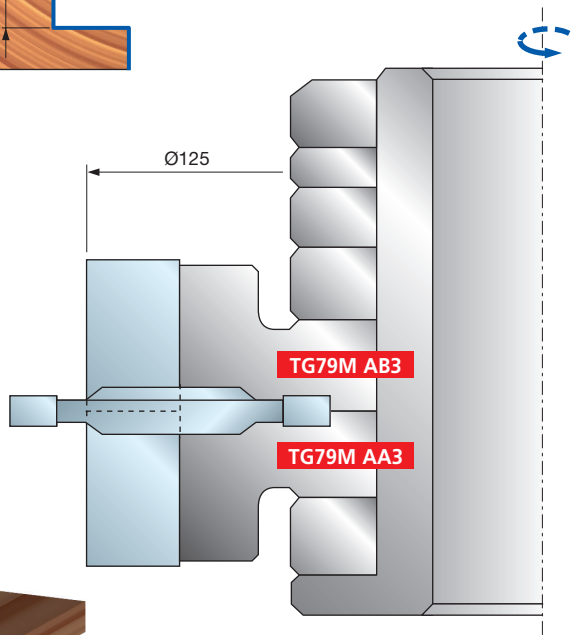
GRUPPO / CUTTERHEAD SET
 TG79MG-001



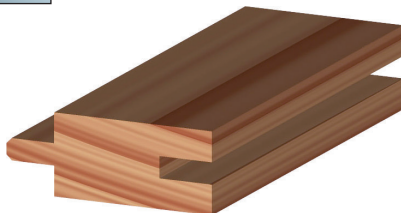
PROFILO / PROFILE 2



GRUPPO / CUTTERHEAD SET
 TG79MG-003

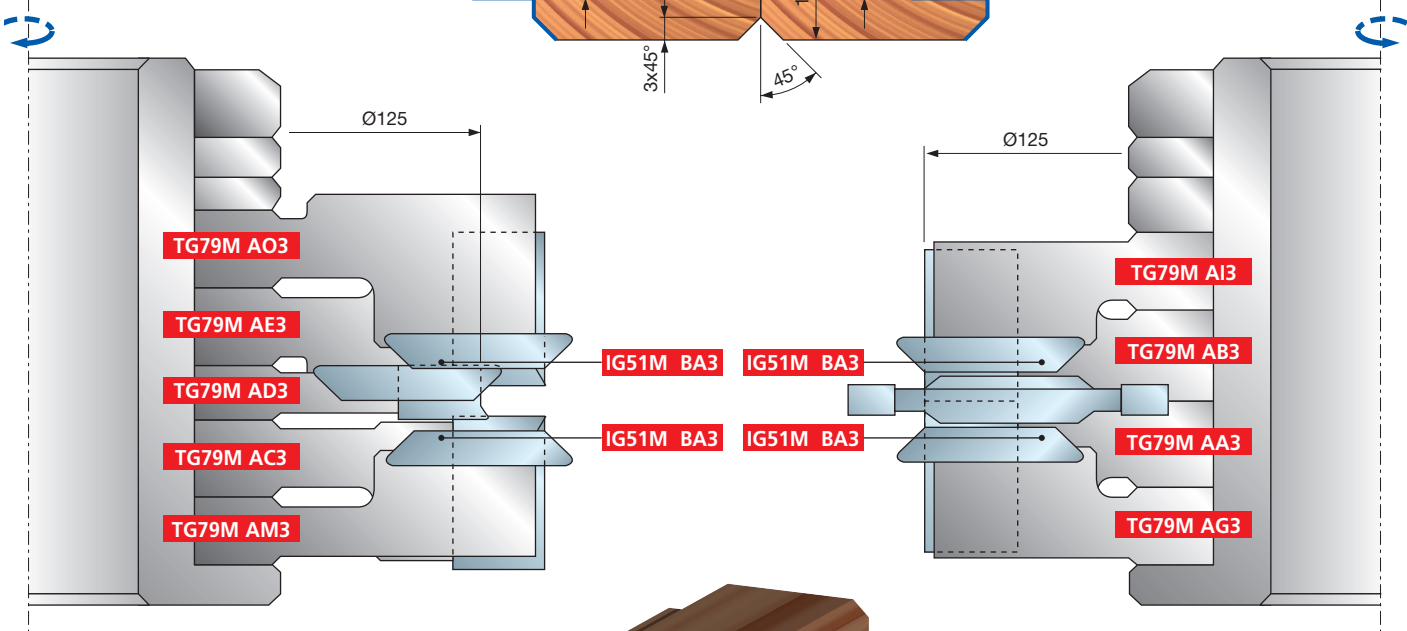
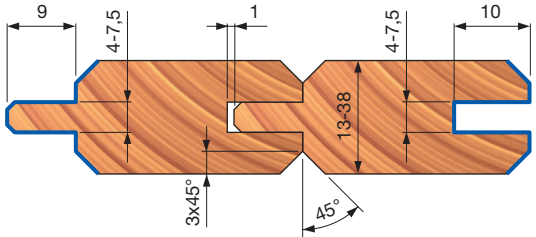


GRUPPO / CUTTERHEAD SET
 TG79MG-001



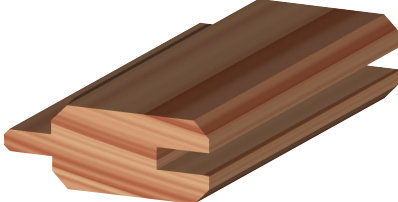
ESEMPI DI PROGRAMMAZIONE
EXAMPLES OF PROGRAMMING

PROFILO / PROFILE 3

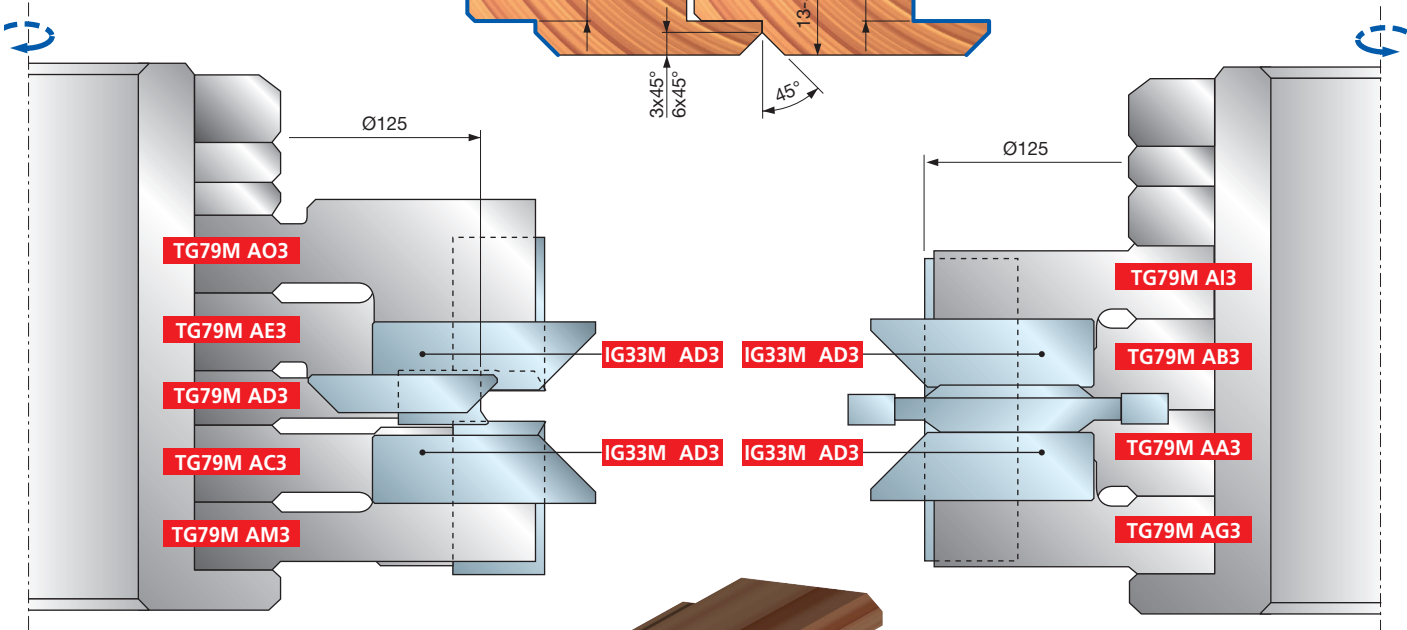
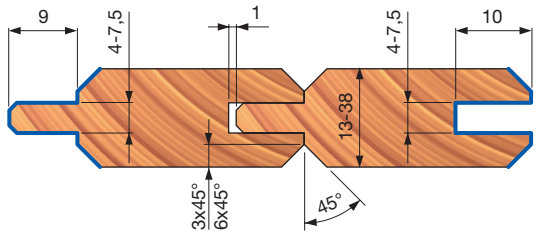


GRUPPO / CUTTERHEAD SET
TG79MG-006

GRUPPO / CUTTERHEAD SET
TG79MG-004

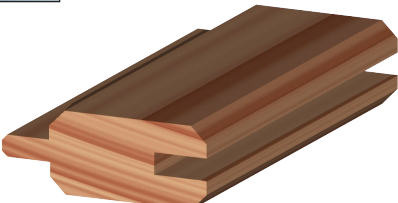


PROFILO / PROFILE 4

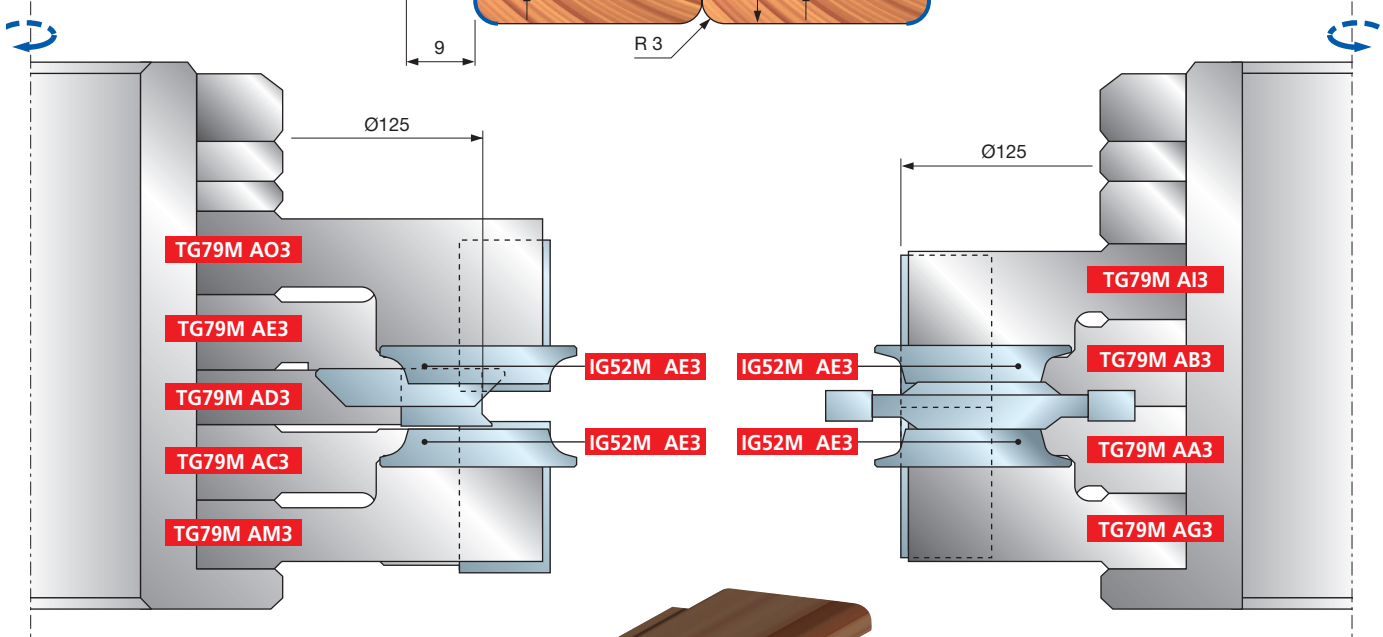
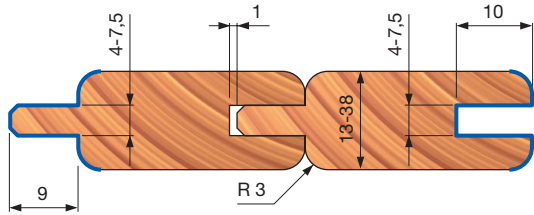


GRUPPO / CUTTERHEAD SET
TG79MG-025

GRUPPO / CUTTERHEAD SET
TG79MG-020



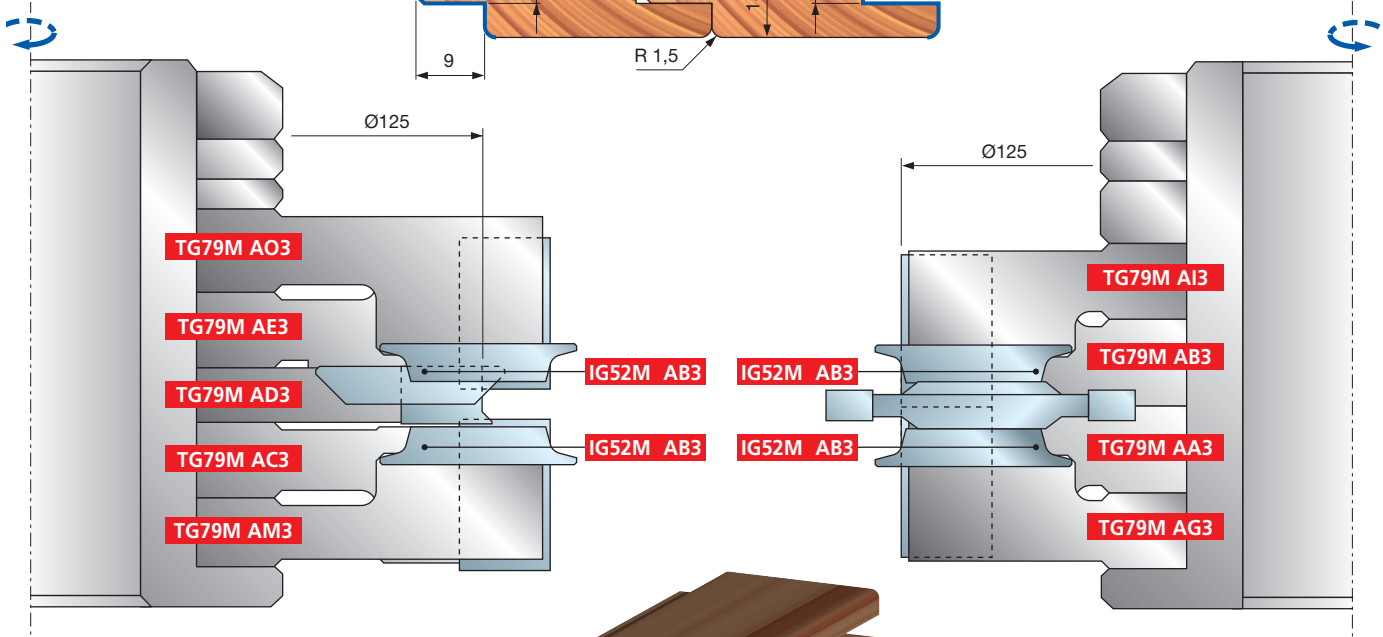
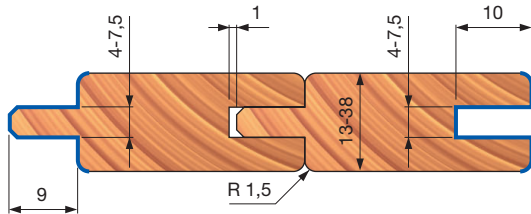
PROFILO / PROFILE 5



GRUPPO / CUTTERHEAD SET
 TG79MG-007

GRUPPO / CUTTERHEAD SET
 TG79MG-005

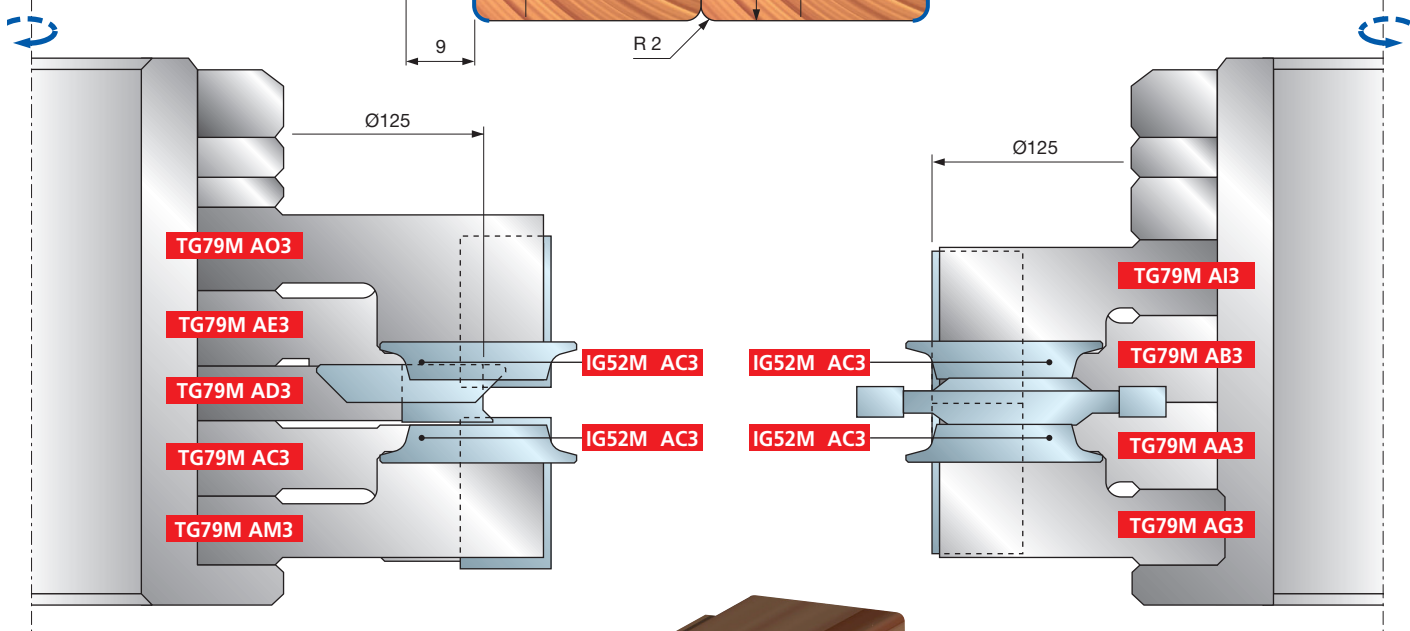
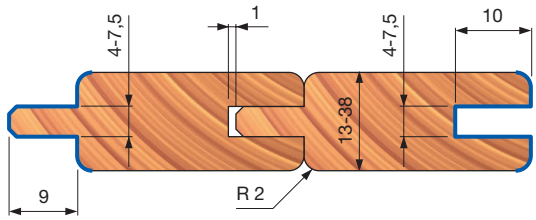
PROFILO / PROFILE 6



GRUPPO / CUTTERHEAD SET
 TG79MG-026

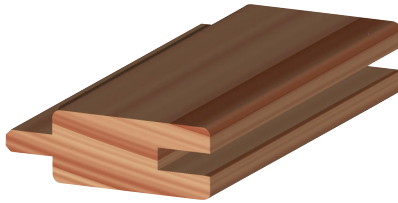
GRUPPO / CUTTERHEAD SET
 TG79MG-021

PROFILO / PROFILE 7

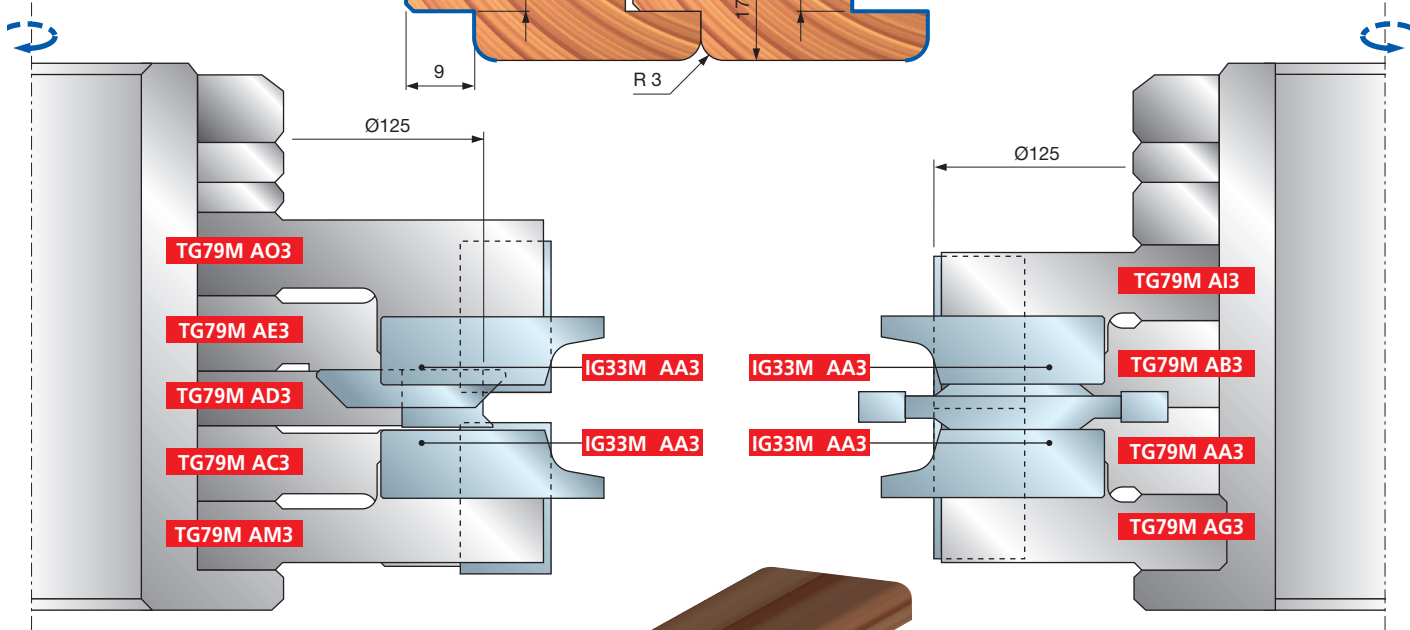
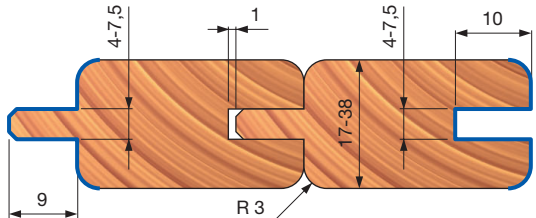


GRUPPO / CUTTERHEAD SET
 TG79MG-027

GRUPPO / CUTTERHEAD SET
 TG79MG-022

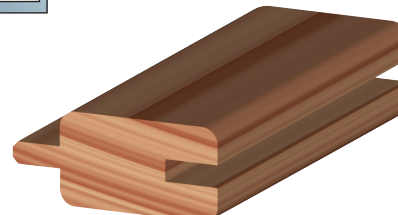


PROFILO / PROFILE 8

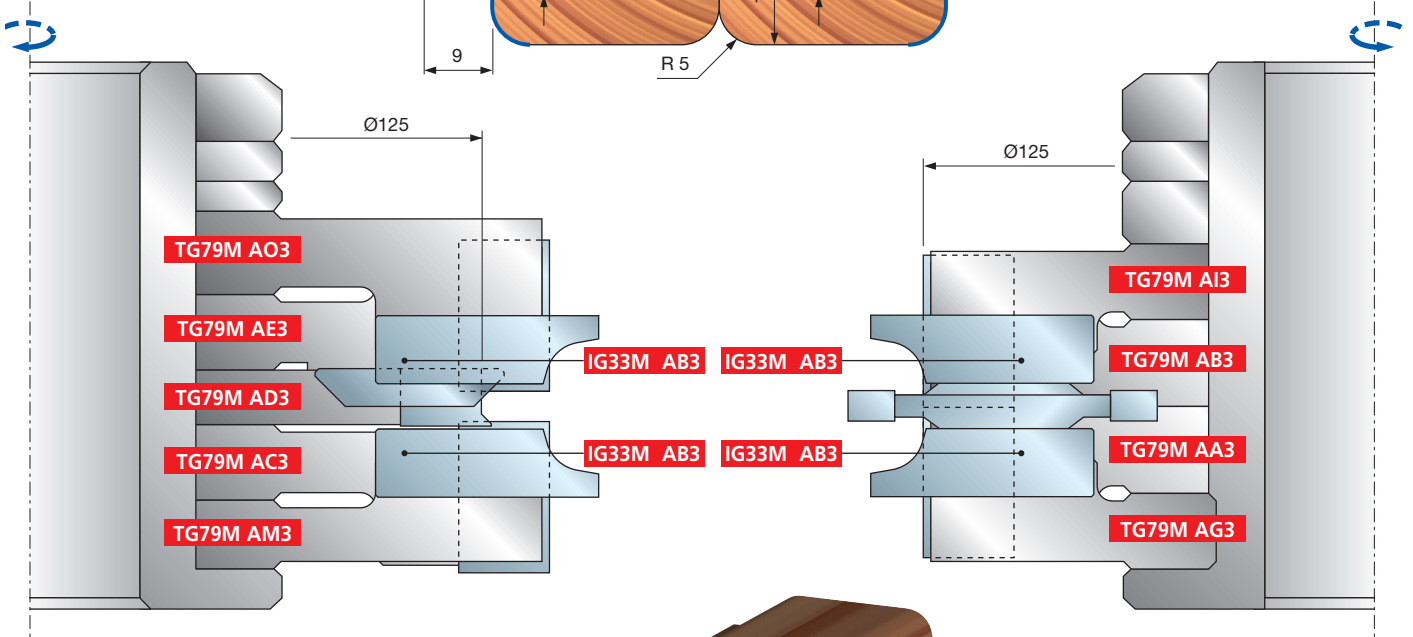
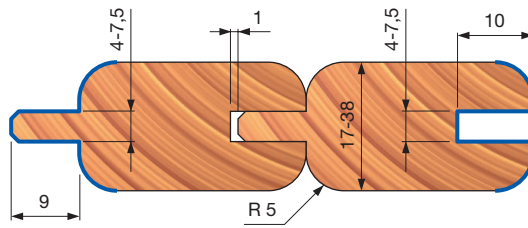


GRUPPO / CUTTERHEAD SET
 TG79MG-028

GRUPPO / CUTTERHEAD SET
 TG79MG-023

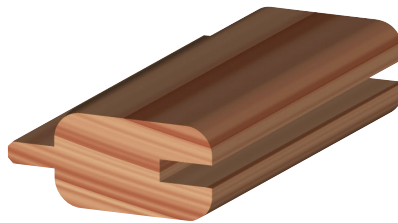


PROFILO / PROFILE 9

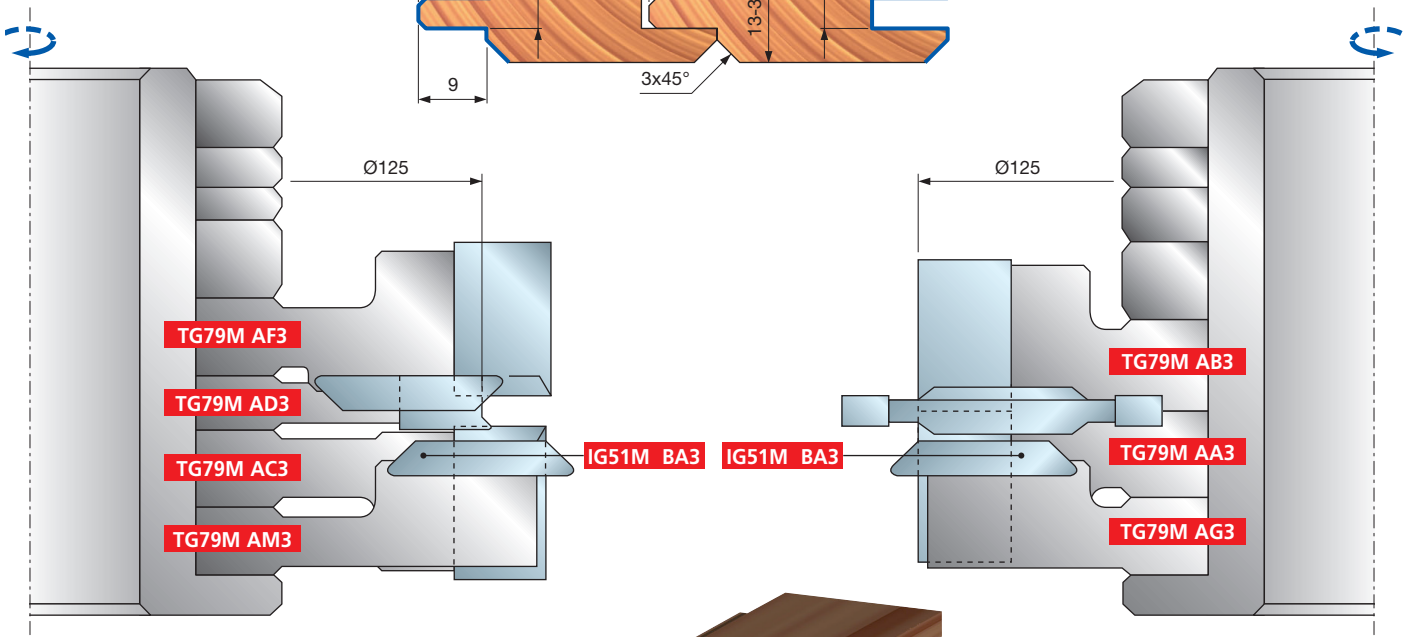
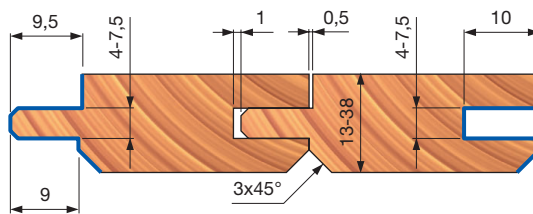


GRUPPO / CUTTERHEAD SET
TG79MG-029

GRUPPO / CUTTERHEAD SET
TG79MG-024

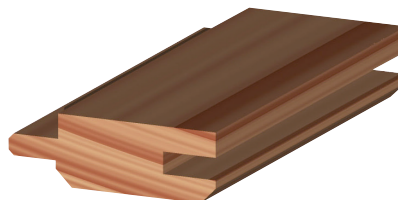


PROFILO / PROFILE 10

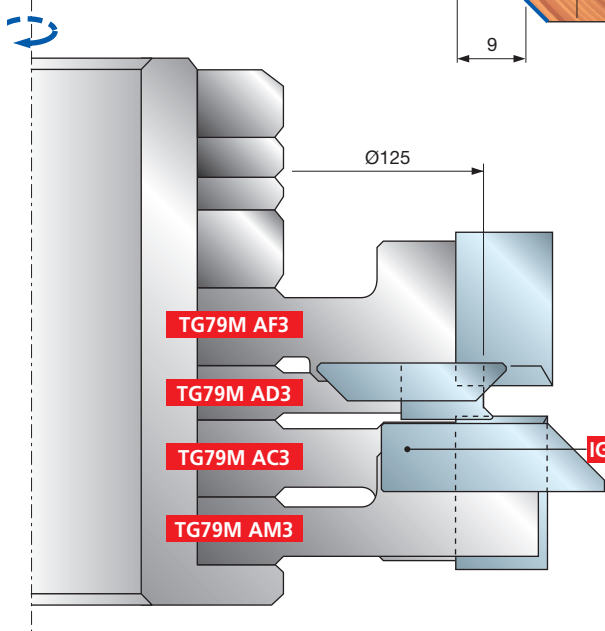
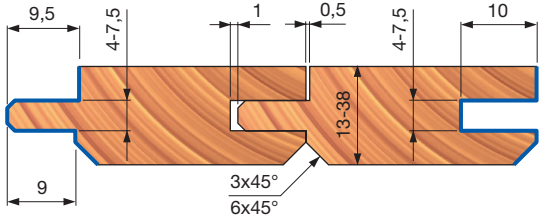


GRUPPO / CUTTERHEAD SET
TG79MG-010

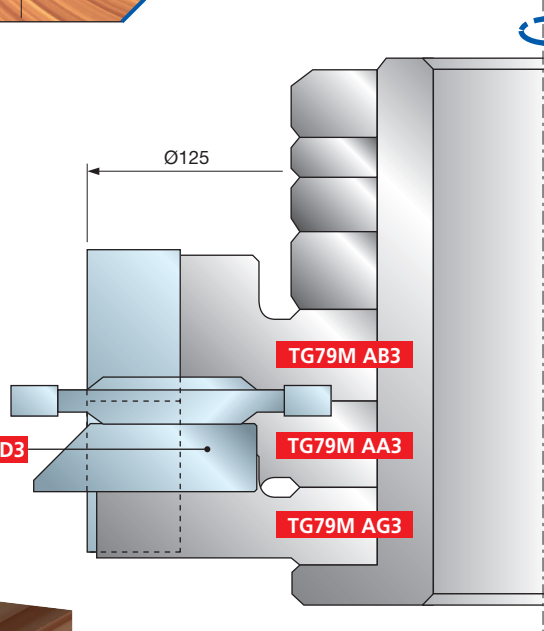
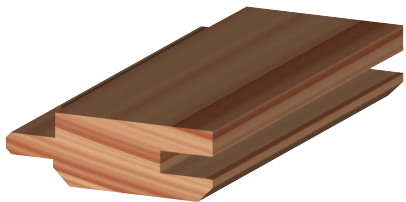
GRUPPO / CUTTERHEAD SET
TG79MG-008



PROFILO / PROFILE **11**

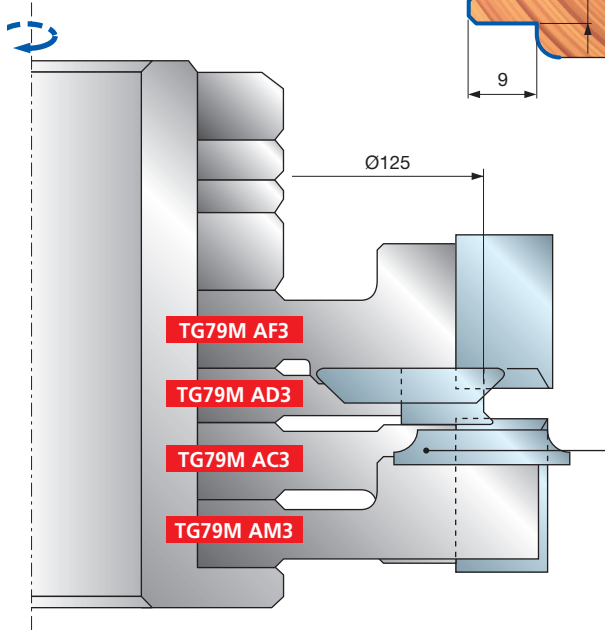
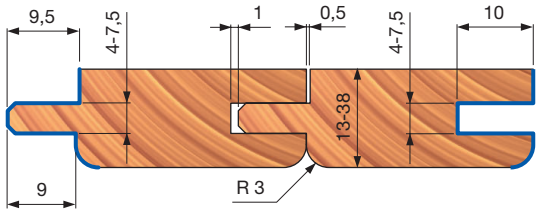


GRUPPO / CUTTERHEAD SET
 TG79MG-035

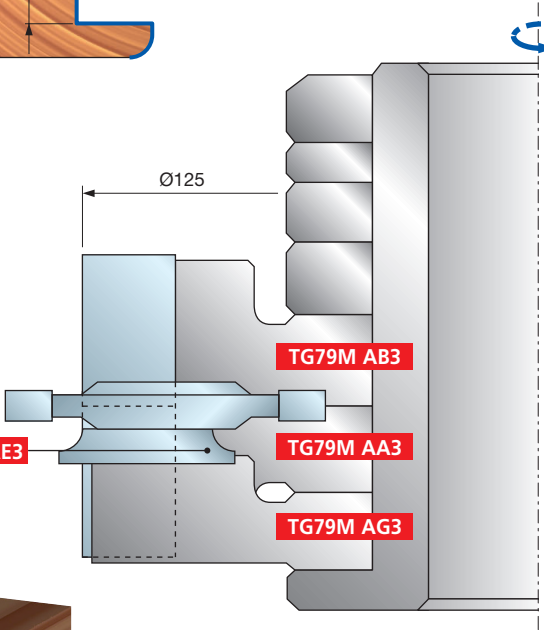
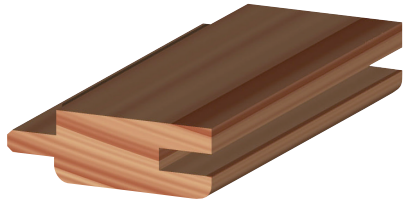


GRUPPO / CUTTERHEAD SET
 TG79MG-030

PROFILO / PROFILE **12**

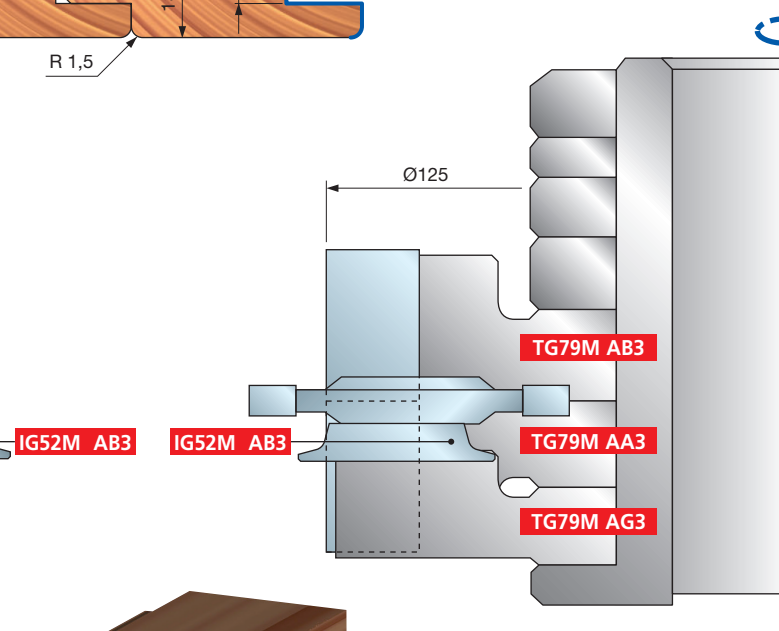
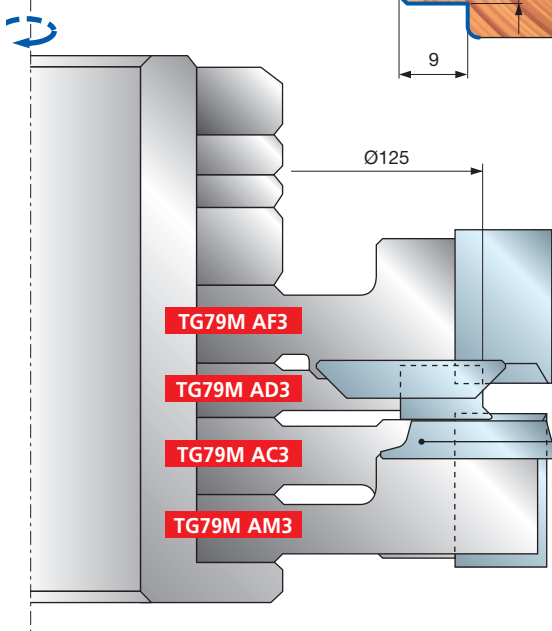
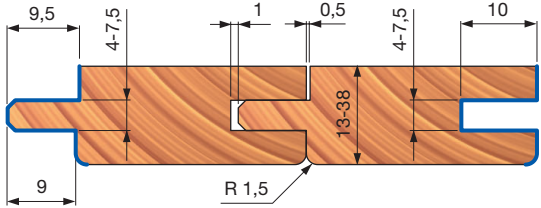


GRUPPO / CUTTERHEAD SET
 TG79MG-011



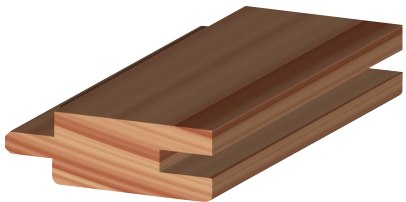
GRUPPO / CUTTERHEAD SET
 TG79MG-009

PROFILO / PROFILE **13**

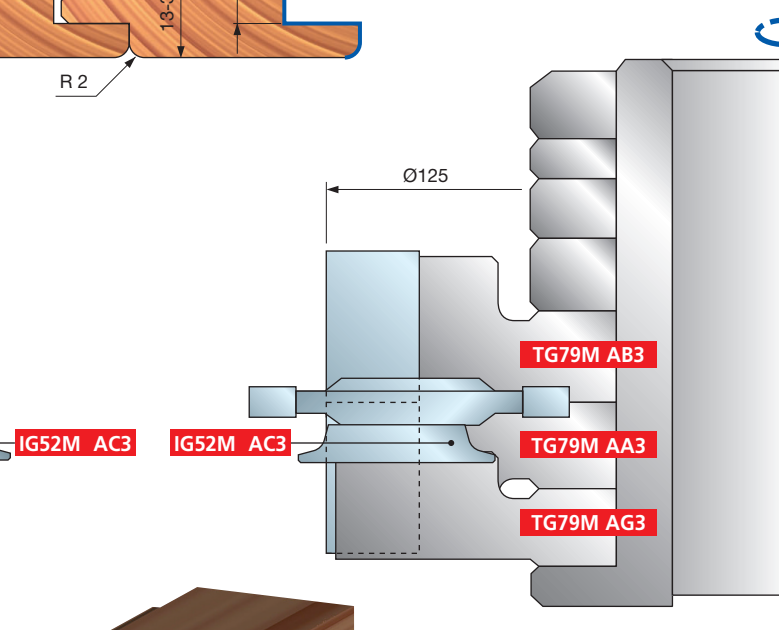
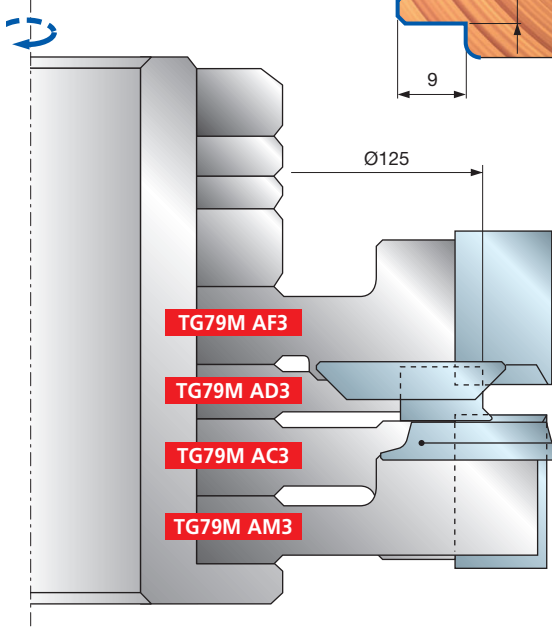
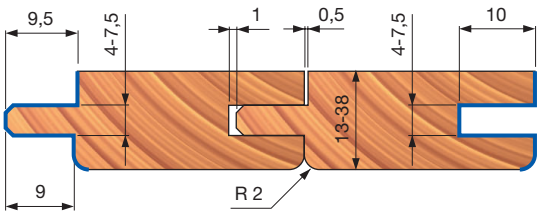


GRUPPO / CUTTERHEAD SET
 TG79MG-036

GRUPPO / CUTTERHEAD SET
 TG79MG-031

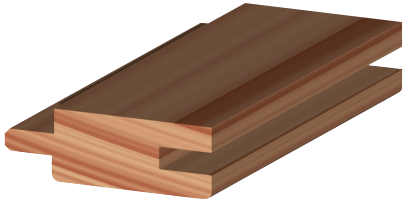


PROFILO / PROFILE **14**

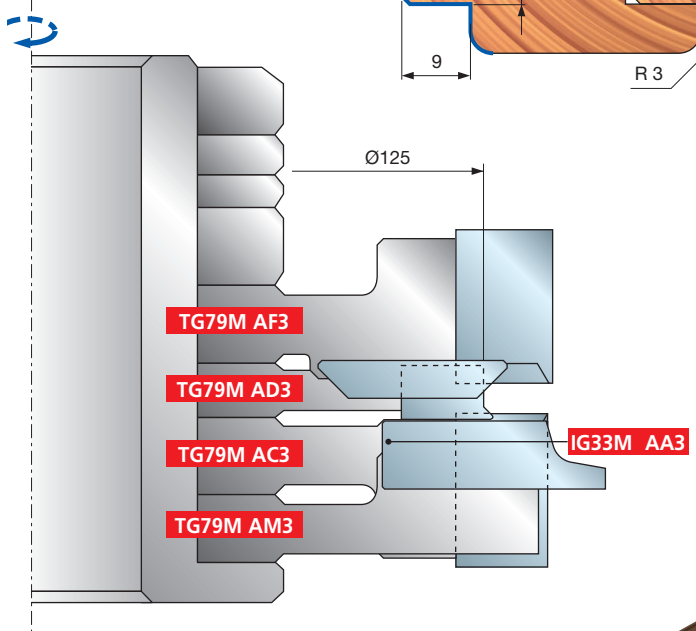
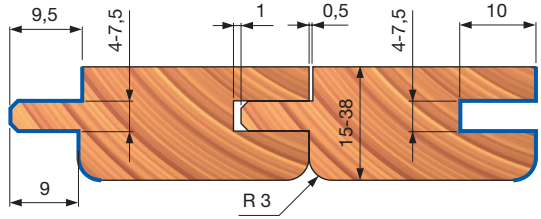


GRUPPO / CUTTERHEAD SET
 TG79MG-037

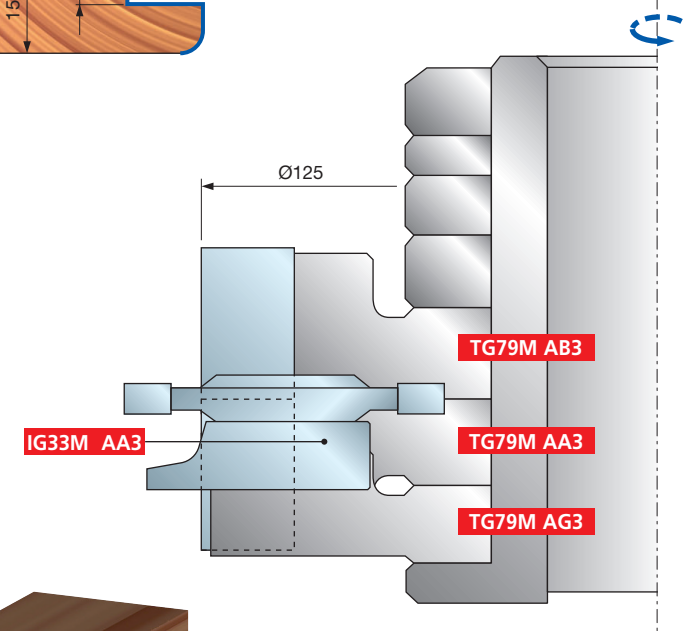
GRUPPO / CUTTERHEAD SET
 TG79MG-032



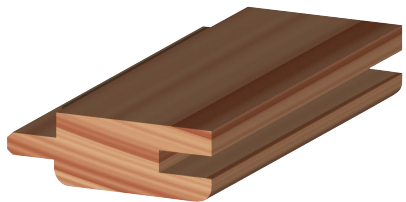
PROFILO / PROFILE **15**



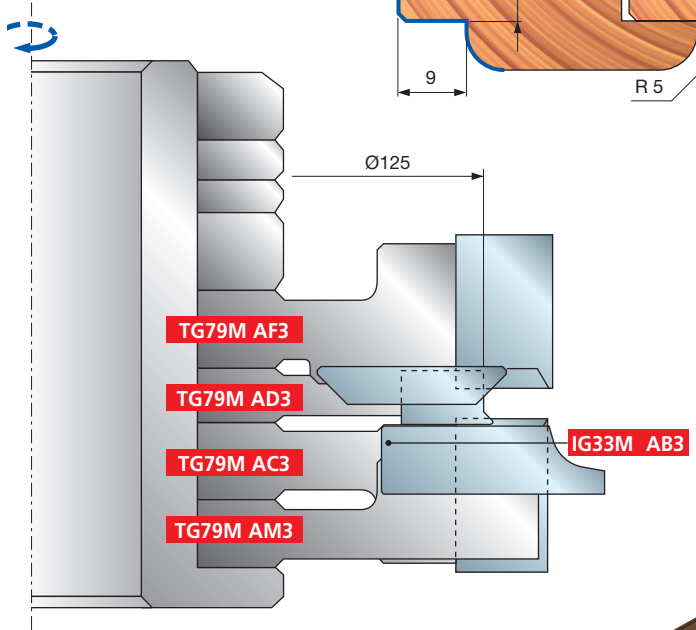
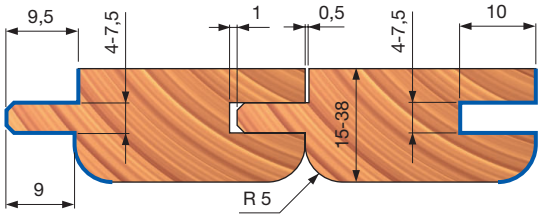
GRUPPO / CUTTERHEAD SET
 TG79MG-038



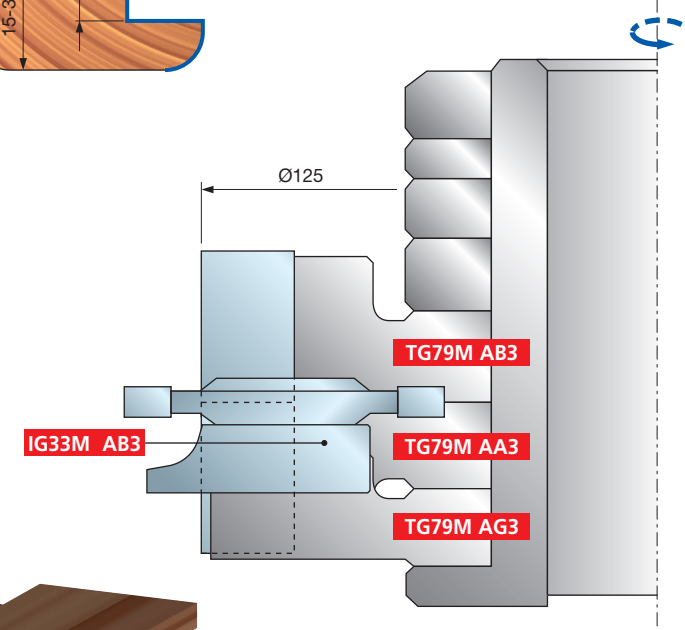
GRUPPO / CUTTERHEAD SET
 TG79MG-033



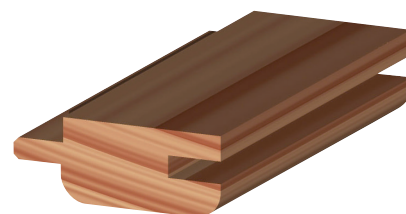
PROFILO / PROFILE **16**



GRUPPO / CUTTERHEAD SET
 TG79MG-039



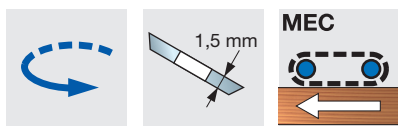
GRUPPO / CUTTERHEAD SET
 TG79MG-034



TG99M

Z = 4

GRUPPI DI TESTE PORTACOLTELLI PER PERLINE E PARCHETTI PANELLING AND FLOORING CUTTERHEAD SETS



Profilo	Gruppo per maschio	Gruppo per femmina
Profile	Tongue set	Groove set
A	TG99MG002	TG99MG001
B	TG99MG003	TG99MG001
C	TG99MG009	TG99MG008
D	TG99MG011	TG99MG010
E	TG99MG005	TG99MG004
F	TG99MG007	TG99MG006
G	TG99MG013	TG99MG012
H	TG99MG015	TG99MG014

Tabella per la scelta dei ricambi Chart for choosing spare parts

Ricambio	per testa - for cutterhead TG99M...										
	EA3	EB3	EC3	ED3	EE3	EF3	EG3	EH3	EI3	EK3	EL3
CG26M BA3											
CG26M DA3											
CG26M EA3	•	•	•	•			•				
CN03M BA9	•	•	•	•							
CN03M BB9	•	•	•	•							
CN09M AA9							•		•		•
CN09MD AD9	•			•							
CN09MD AO9					•				•		
CN09MS AD9		•	•	•	•		•		•	•	•
VT05M AA9			•	•	•		•		•	•	•
VT16M AA9			•	•	•		•		•	•	•
VT16M AD9	•	•									
VT16M AE9			•	•	•		•		•	•	•
VT19M AB9						•			•	•	•
VT19M BB9	•	•	•	•							
VT19M MA9	•	•	•	•					•	•	•
VT20M AA9							•				•
VT20M MA9			•	•	•		•		•	•	•
VT20M NA9	•	•					•				
IG04MS AA3							•				
IG16M AA3	•	•									
IG17MD AA3						•					•
IG51M BA3							•				
IG52M AB3			•	•	•				•	•	•
RG02M AA3			•	•	•				•	•	•
SR06MS BB3			•	•	•				•	•	•
CB03M CA9	•	•	•	•	•	•	•	•	•	•	•
CB03M AA9	•	•	•	•	•	•	•	•	•	•	•
CB03M BA9	•	•	•	•	•	•	•	•	•	•	•

Utensili per gruppi TG99M Tools for TG99M sets

D	B	d	Z	R	Codice
mm	mm	mm			Code
125	30	50	4	4	TG99M EA3
125	30	50	4	4	TG99M EB3
137	30	50	4	8	TG99M EC3
137	30	50	4	4	TG99M ED3
138	20	50	4	4	TG99M EE3
137	12	50	4	4	TG99M EF3
125	30	50	4	6	TG99M EG3
149	12	50	4	8	TG99M EH3
143	20	50	4	4	TG99M EI3
142	12	50	4	4	TG99M EK3
169	12	50	4	8	TG99M EL3

Parti di ricambio	Dimensioni	Codice
Spare parts	Dimensions	Code
Coltello / Knife	12x12x1,5	CG26M BA3
Cuneo / Wedge	15x10x8	CN09M AA9
Ogiva / Nut	10x11,5x6	VT20M AA9
Vite / Screw	M6x22	VT19M AB9
Coltello / Knife	20x12x1,5	CG26M DA3
Cuneo / Wedge	15x16x8	CN09MD AO9
Vite / Screw	M10x22	VT19M MA9
Ogiva / Nut	15x13,3x10	VT20M MA9
Coltello / Knife	30x12x1,5	CG26M EA3
Cuneo / Wedge	15x26x8	CN09MD AD9
Cuneo / Wedge	15x26x8	CN09MS AD9
Ogiva / Nut	15x13,3x10	VT20M NA9
Ogiva / Nut	15x13,3x10	VT20M MA9
Vite / Screw	M10x22	VT19M MA9
Cuneo / Wedge	28x9,5x8	CN03M BB9
Vite / Screw	M8x22	VT19M BB9
Cuneo / Wedge	14x21,5x22	CN03M BA9
Rasante / Spur	22,86x2,5	RG02M AA3
Vite / Screw	M5x8	VT05M AA9
Inserto rasante / Spur insert	34x9x16	SR06MS BB3
Vite / Screw	M6x13	VT16M AE9
Ins. incastrati smuss. / Beveled grooves ins.	32,7x16x8,5	IG16M AA3
Vite / Screw	M6x15,5	VT16M AD9
Inserto per incastrati / Grooving insert	40x16x4	IG04MS AA3
Inserto smussato / Beveled insert	35x4x7	IG17MD AA3
Inserto smussatore / Bevelling insert	22x16x5 45°	IG51M BA3
Inserto raggiatore / Rounding insert	22x16x5 R=1,5	IG52M AB3
Vite / Screw	M6x14,5	VT16M AA9
Chiave Torx / Torx key	T9	CB03M CA9
Chiave / Allen key	3 x 110	CB03M AA9
Chiave / Allen key	4 x 110	CB03M BA9

Bussolle per albero destro Sleeves for fence side spindle

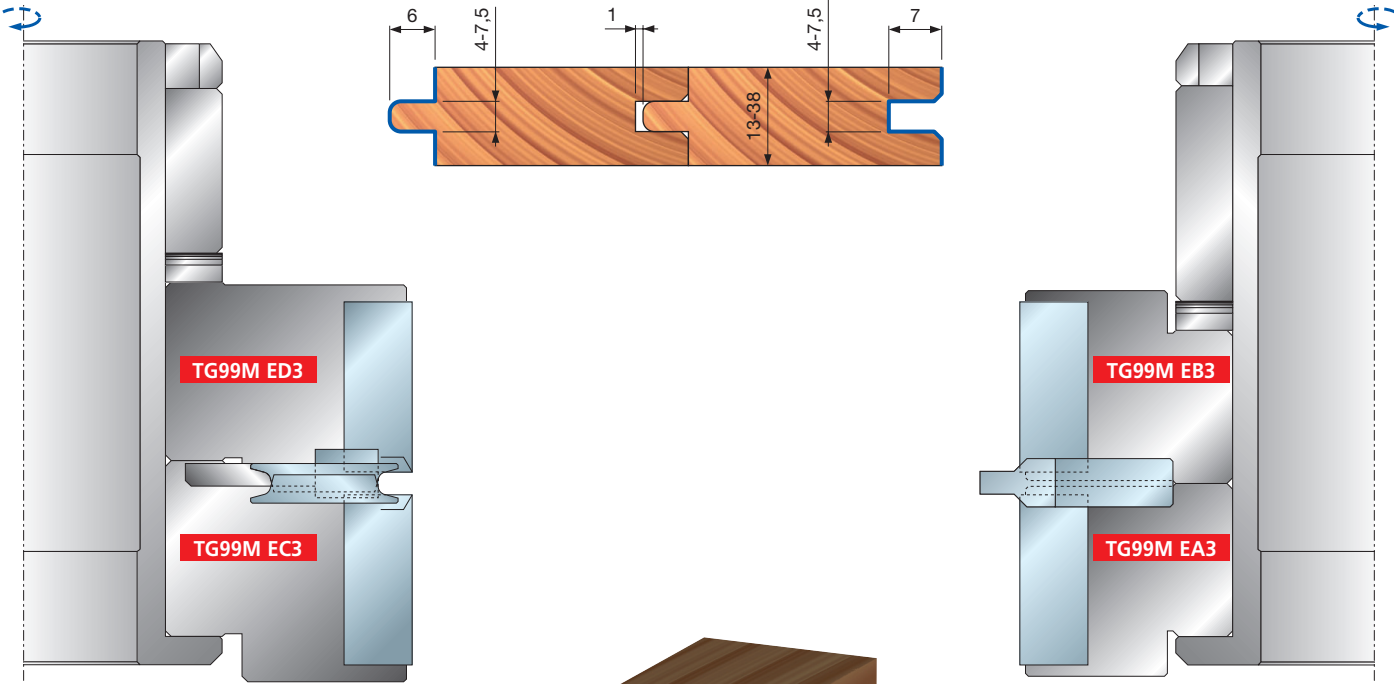
Dimensioni	Codice bussola
Dimensions	Sleeve code
Ø50 x 110 x 30	BF10MD AA9
Ø50 x 110 x 35	BF10MD AB9
Ø50 x 110 x 40	BF10MD AC9

Bussolle per albero sinistro Sleeves for off side spindle

Dimensioni	Codice bussola
Dimensions	Sleeve code
Ø50 x 110 x 30	BF10MS AA9
Ø50 x 110 x 35	BF10MS AB9
Ø50 x 110 x 40	BF10MS AC9

- I codici delle tabelle relative ai gruppi sono da considerarsi esclusa la bussola, la quale andrà ordinata a parte.
- The above codes are intended without sleeve, which should be ordered separately.

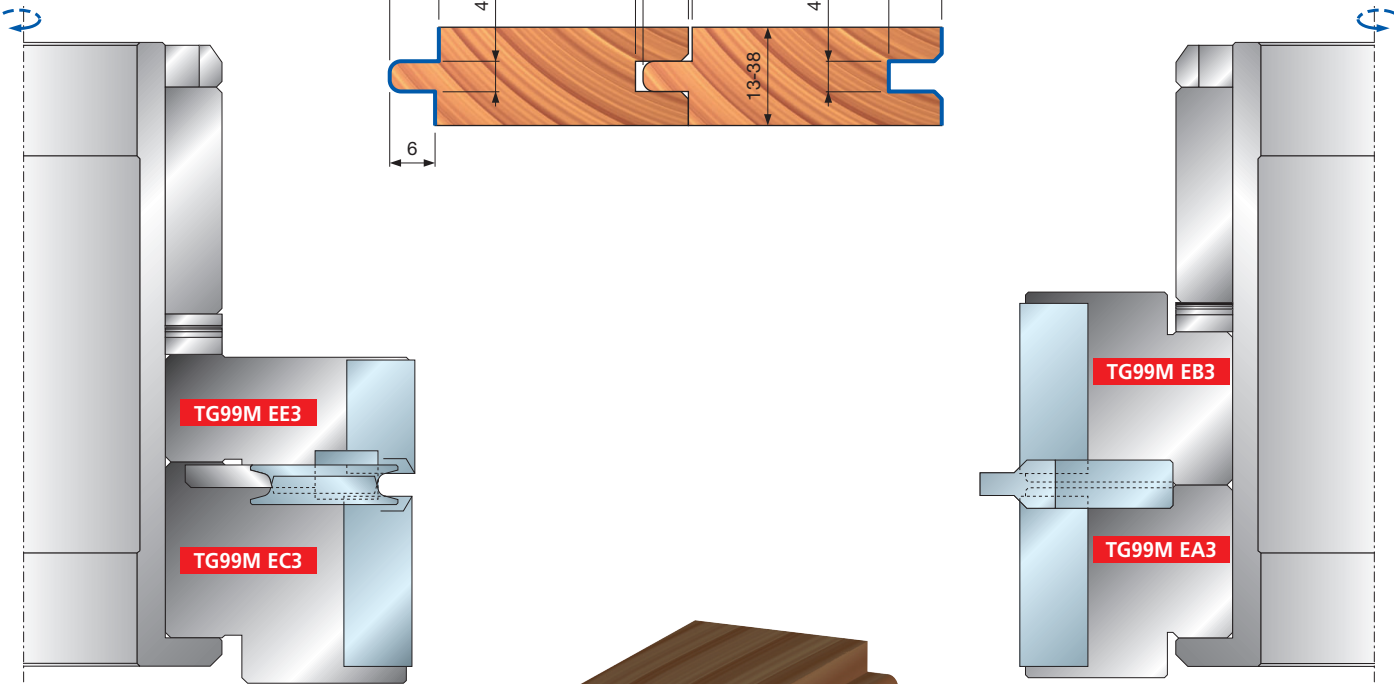
PROFILO / PROFILE **A**



GRUPPO / CUTTERHEAD SET
 TG99MG002

GRUPPO / CUTTERHEAD SET
 TG99MG001

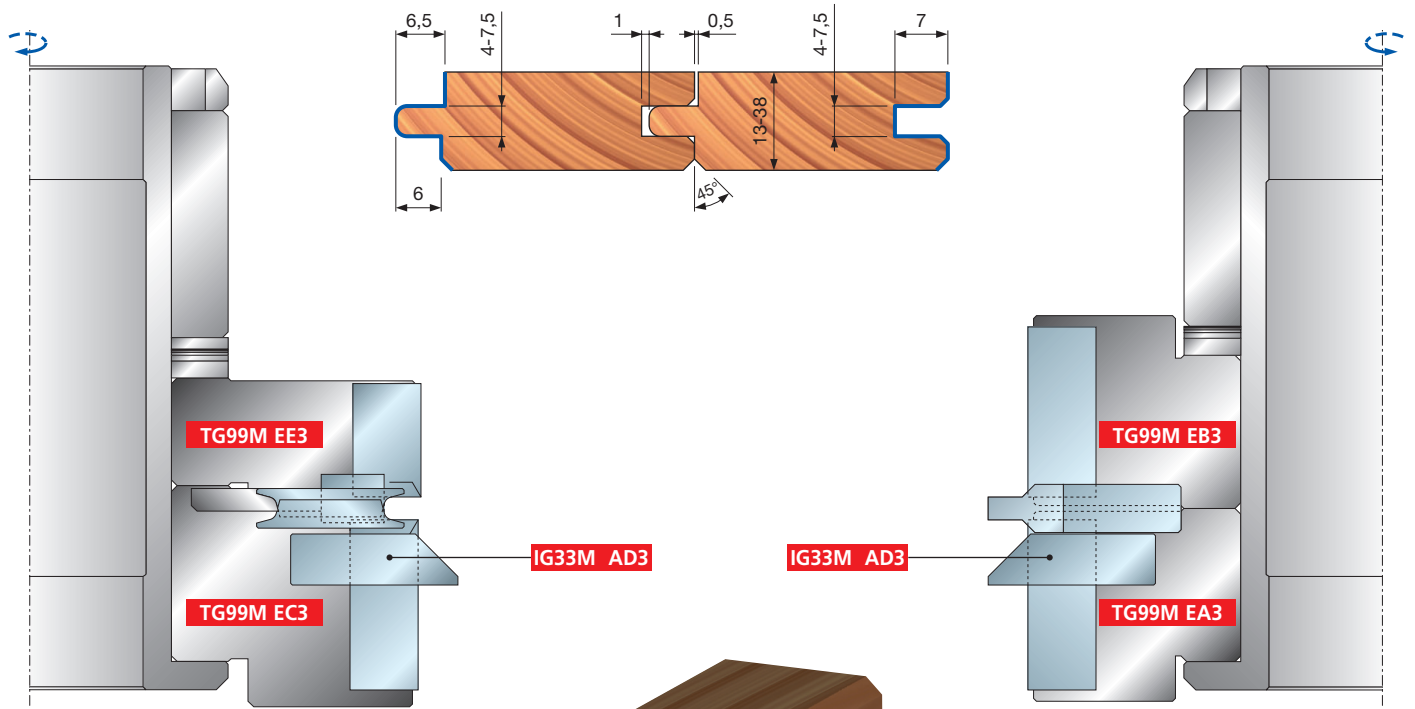
PROFILO / PROFILE **B**



GRUPPO / CUTTERHEAD SET
 TG99MG003

GRUPPO / CUTTERHEAD SET
 TG99MG001

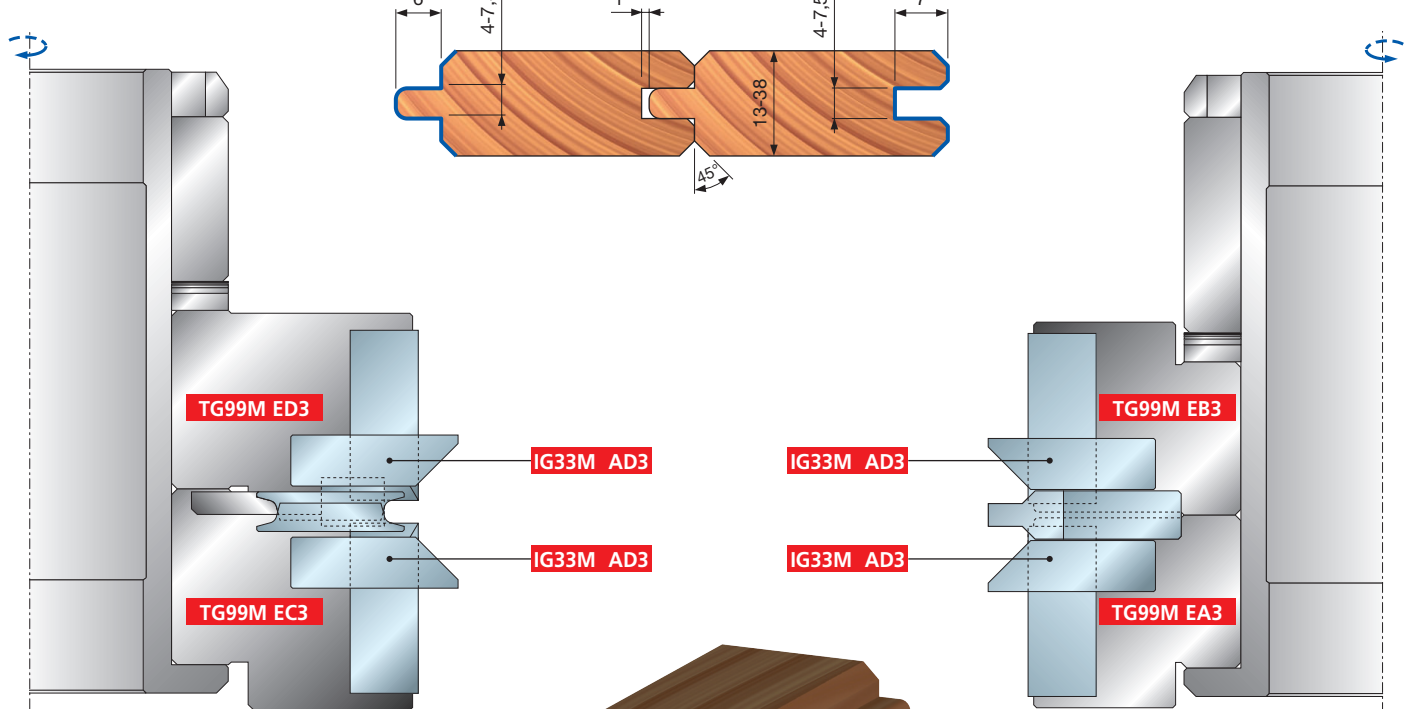
PROFILO / PROFILE **C**



GRUPPO / CUTTERHEAD SET
TG99MG009

GRUPPO / CUTTERHEAD SET
TG99MG008

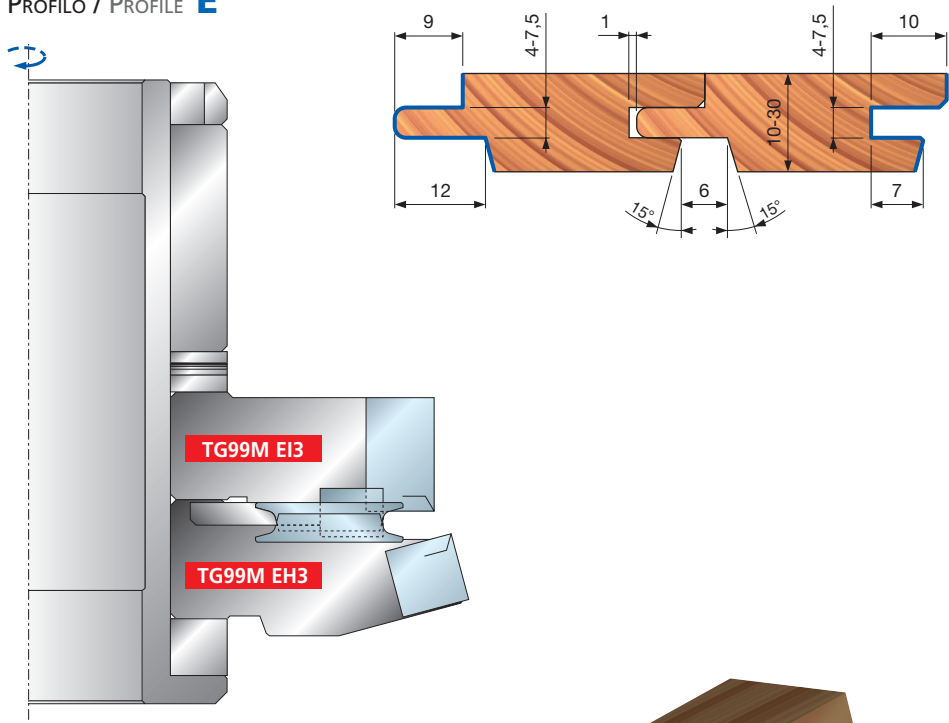
PROFILO / PROFILE **D**



GRUPPO / CUTTERHEAD SET
TG99MG011

GRUPPO / CUTTERHEAD SET
TG99MG010

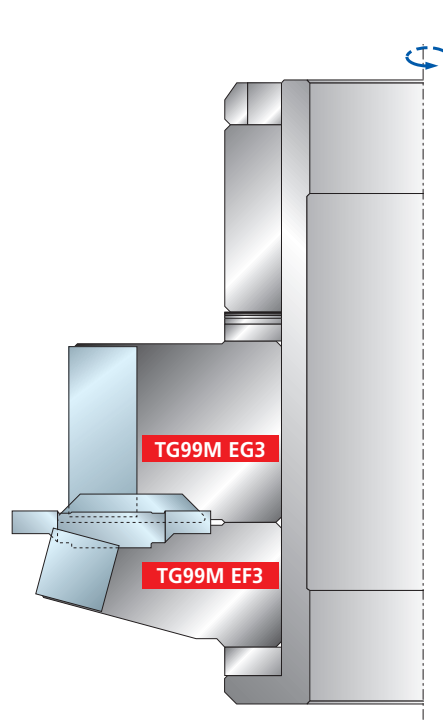
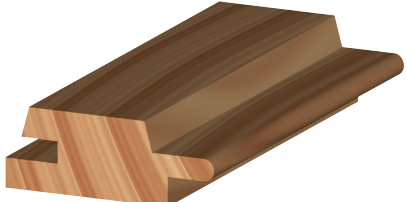
PROFILO / PROFILE **E**



TG99M E13

TG99M EH3

GRUPPO / CUTTERHEAD SET
 TG99MG005

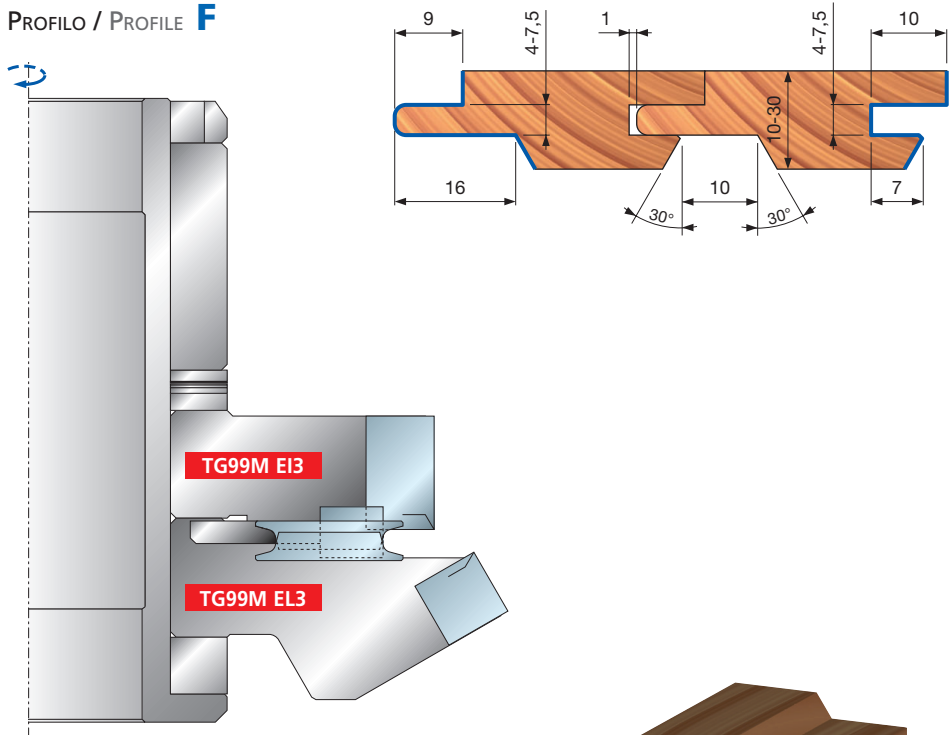


TG99M EG3

TG99M EF3

GRUPPO / CUTTERHEAD SET
 TG99MG004

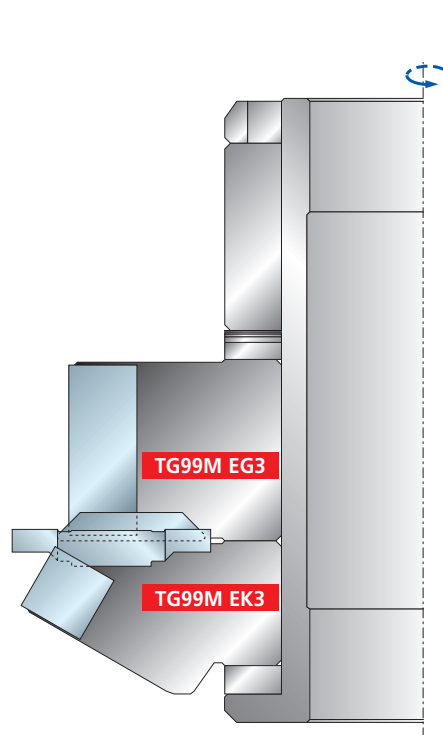
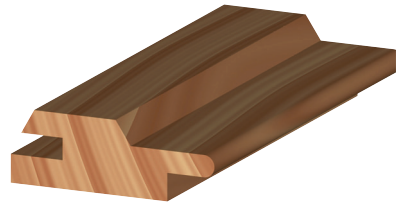
PROFILO / PROFILE **F**



TG99M E13

TG99M EL3

GRUPPO / CUTTERHEAD SET
 TG99MG007

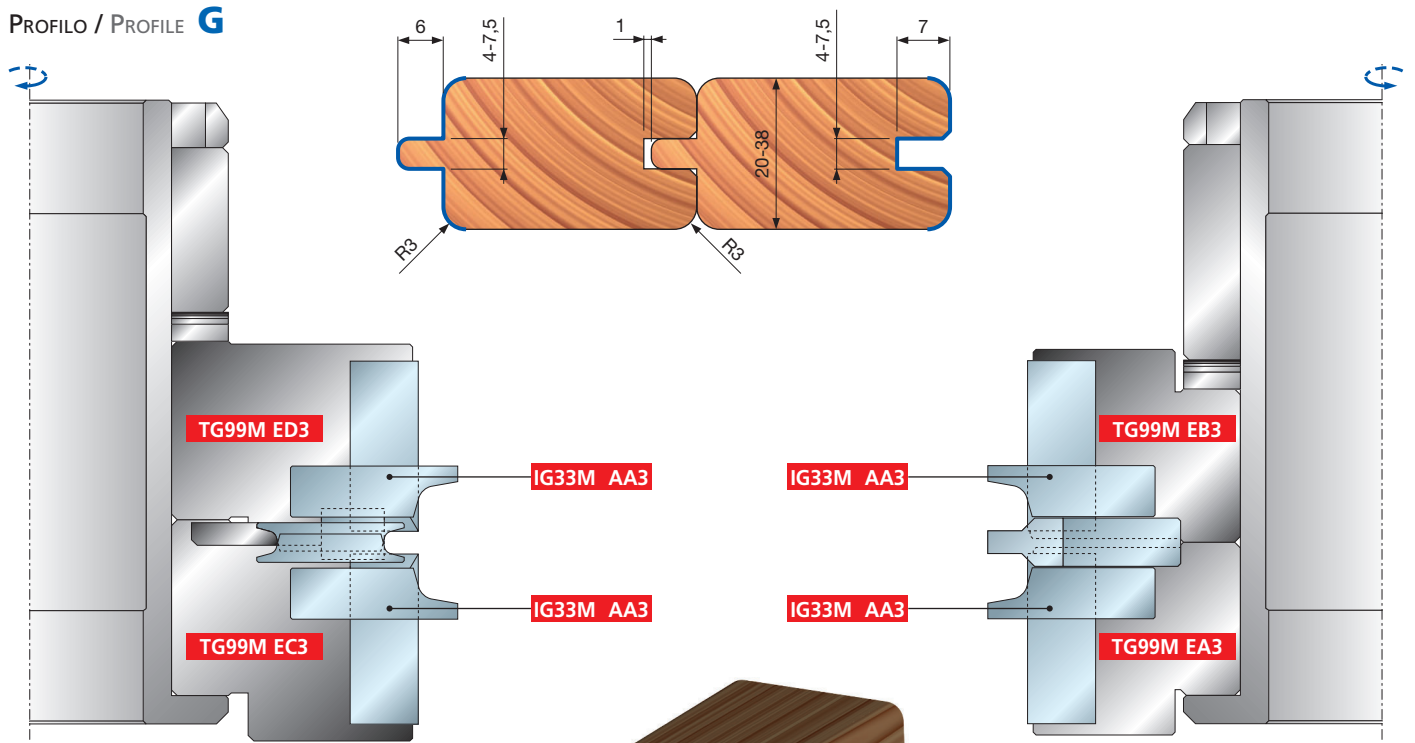


TG99M EG3

TG99M EK3

GRUPPO / CUTTERHEAD SET
 TG99MG006

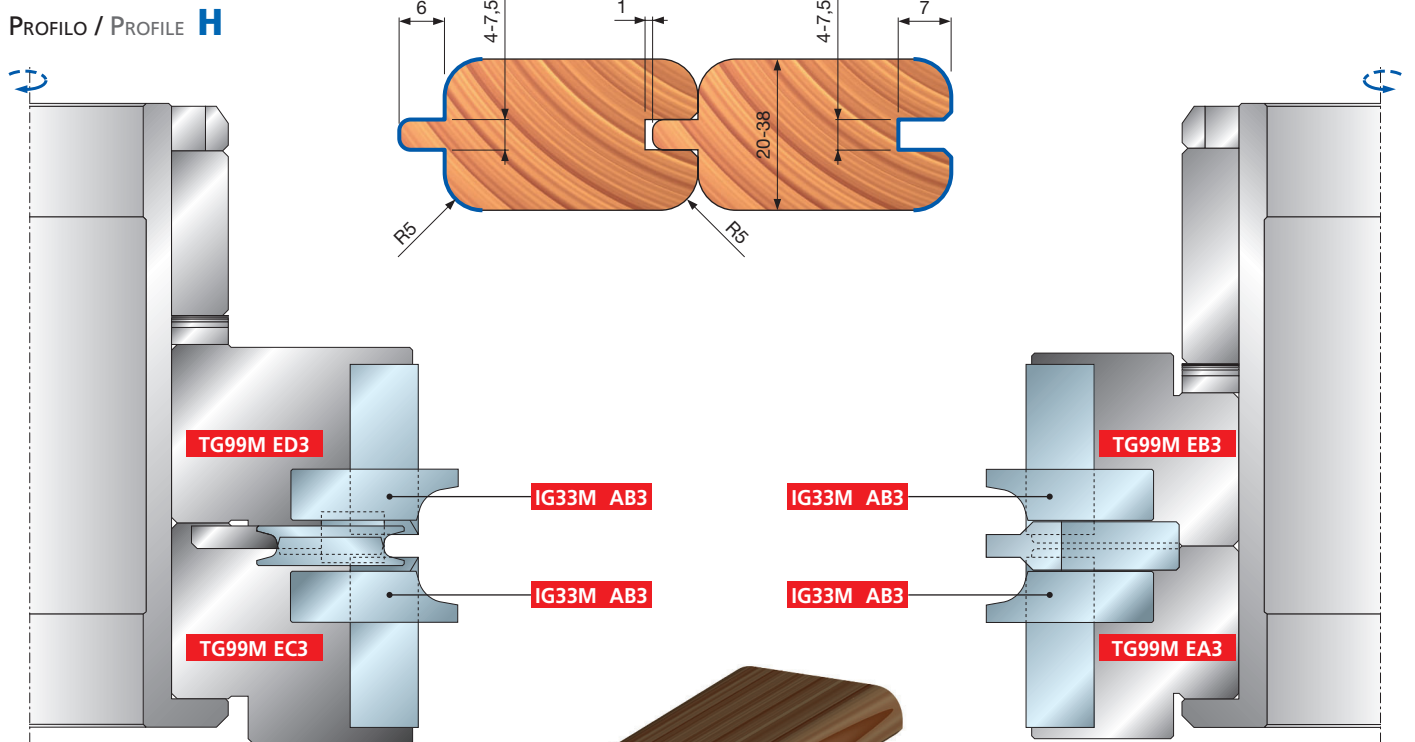
PROFILO / PROFILE **G**



GRUPPO / CUTTERHEAD SET
TG99MG013

GRUPPO / CUTTERHEAD SET
TG99MG012

PROFILO / PROFILE **H**

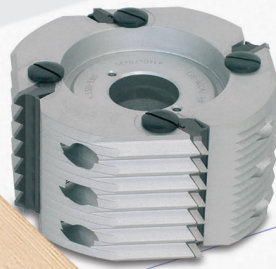


GRUPPO / CUTTERHEAD SET
TG99MG015

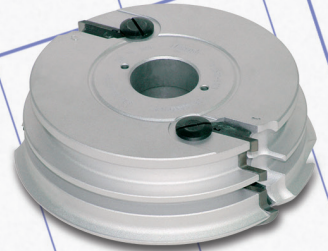
GRUPPO / CUTTERHEAD SET
TG99MG014

PROGETTI PER LA COSTRUZIONE DI UN'ANTINA
CABINET DOOR MANUFACTURING PROJECTS

TW20M BF3



58 58

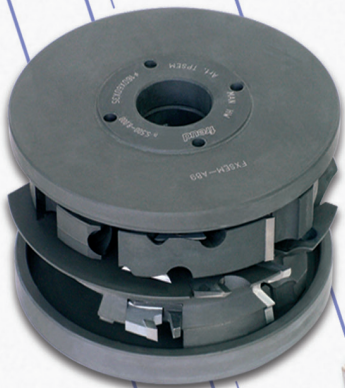


TP44M AB3



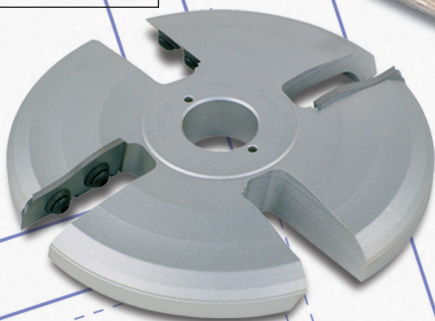
16

TPSEM

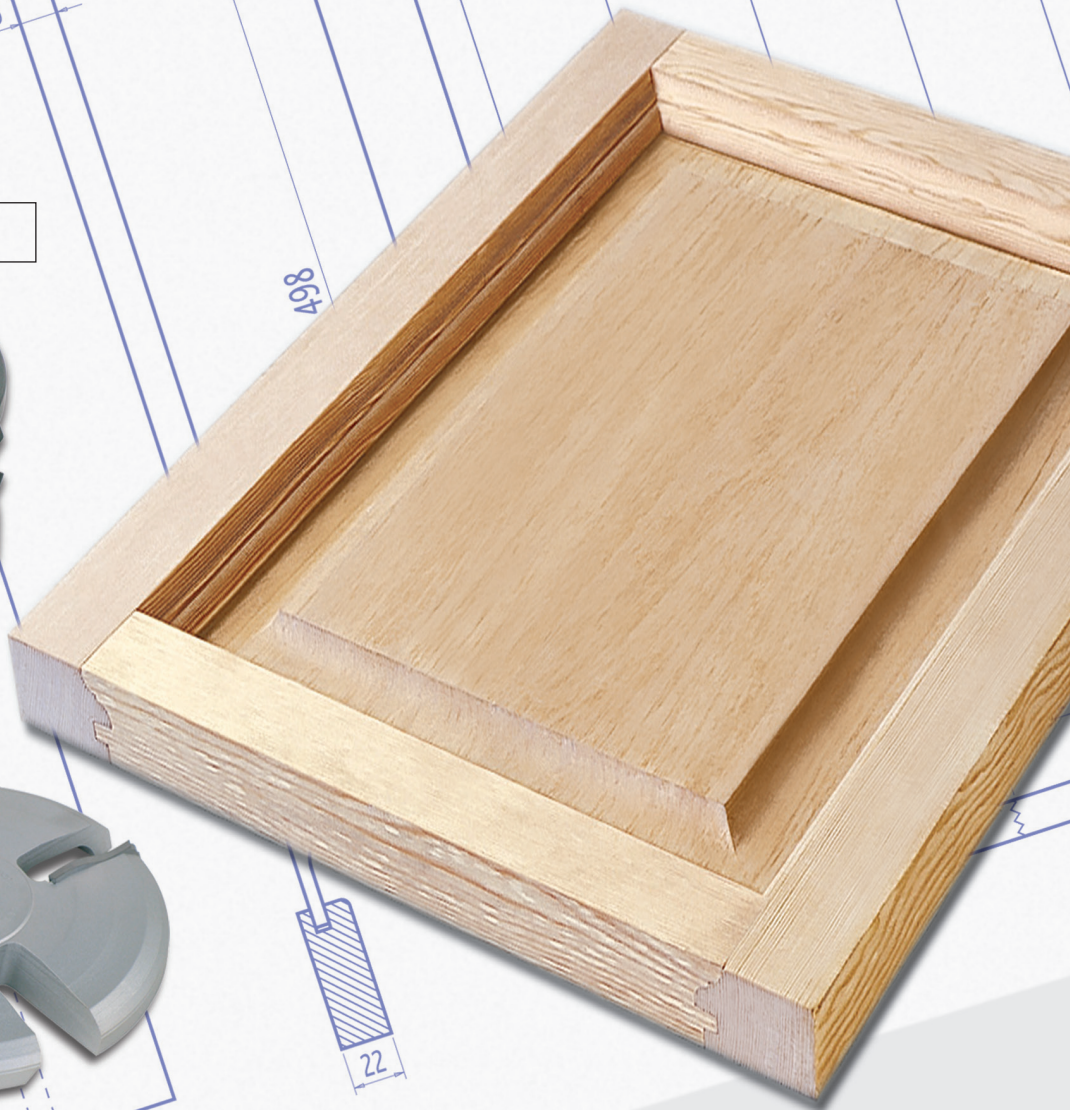


494

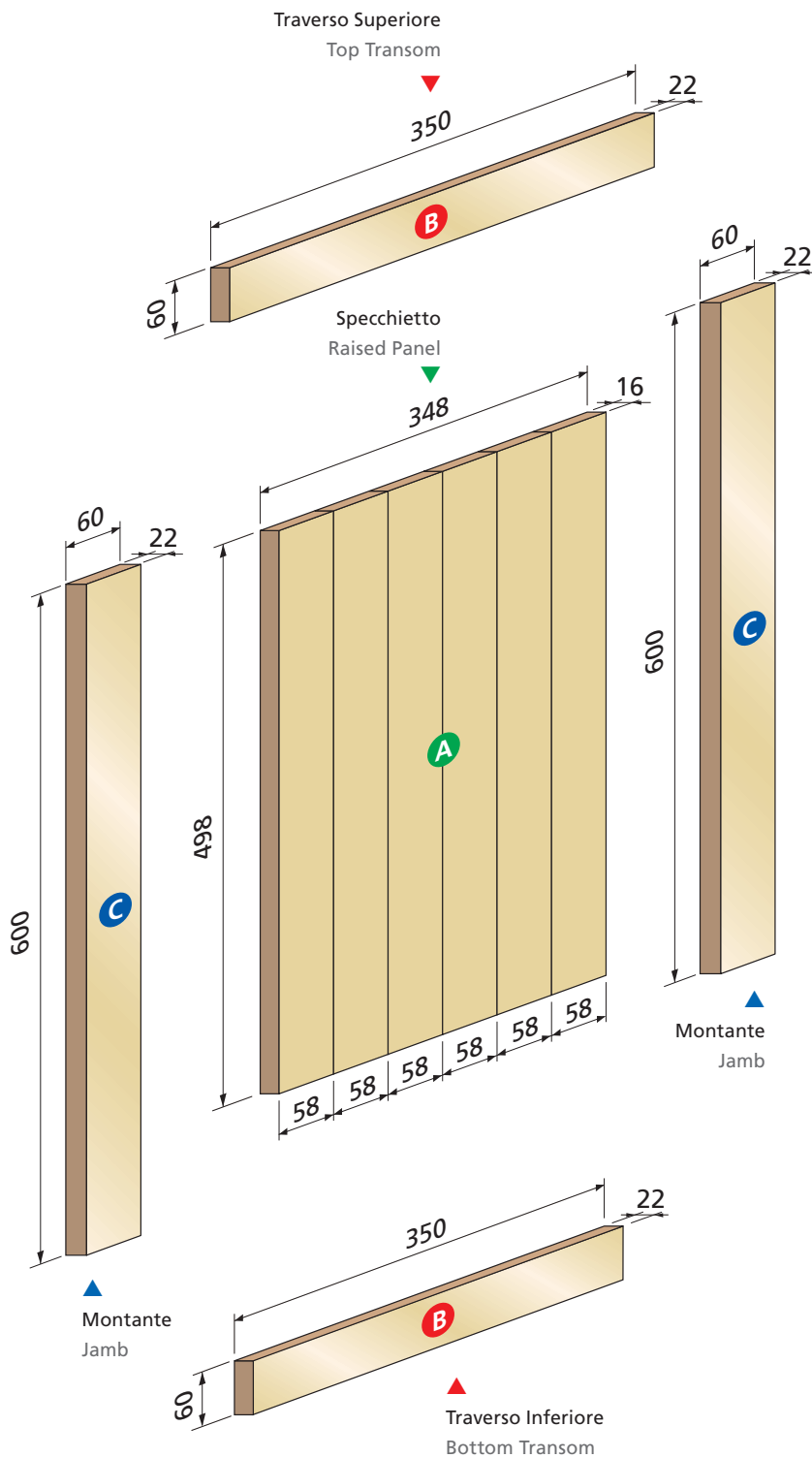
TD52M HB3



22



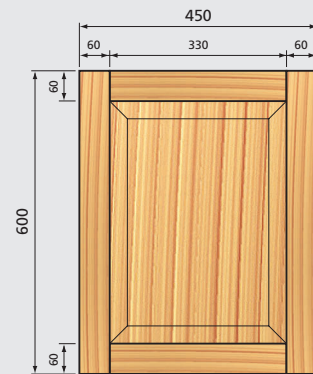
PROGETTO DELL'ANTINA THE CABINET DOOR PROJECT



Il progetto che vi proponiamo prevede la costruzione di una antina delle misure di 450 x 600 x 22 mm, realizzata con legno douglas. Per la realizzazione preparare dei listelli di legno perfettamente squadrati delle seguenti misure:

- A** per lo Specchietto:
n. 6 listelli 58 x 498 x 16 mm;
- B** per i Traversi:
n. 2 listelli 350 x 60 x 22 mm;
- C** per i Montanti:
n. 2 listelli 60 x 600 x 22 mm;

Per la lavorazione utilizzare i seguenti utensili **freud.**:
art. TW20M BF3;
art. TP44M AB3 + CP44M AA3



L'antina assemblata
Assembled cabinet door

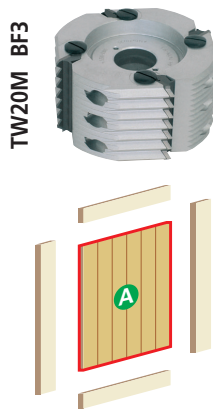
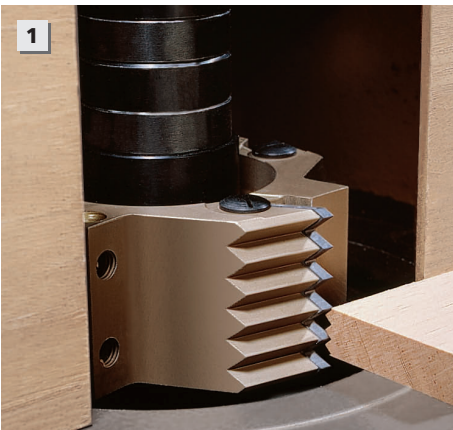
The project we propose entails the construction of a cabinet door measuring 450 x 600 x 22 mm with douglas wood. For the realization of this project prepare some perfectly sized panels with the following measurements.

- A** for the Raised Panel:
6 panels 58 x 498 x 16 mm;
- B** for the Top & Bottom Transoms:
2 panels 350 x 60 x 22 mm;
- C** for the Jamb:
2 panels 60 x 600 x 22 mm;

For wood machining use the following **freud.** tools:
cod. TW20M BF3;
cod. TP44M AB3 + CP44M AA3

PROGETTO DELL'ANTINA THE CABINET DOOR PROJECT

A Specchietto dell'Antina ♦ Raised Panel

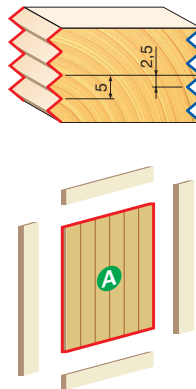
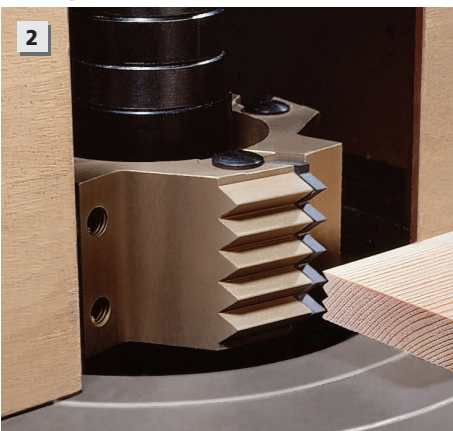


1ª FASE - GIUNZIONI

1st PHASE - JOINING ONE SIDE

- Come prima fase di lavorazione preparare il pannello per lo specchietto dell'antina. Inserire sulla toupie la testa portacoltelli per giunzioni TW20M BF3 e fresare 5 dei 6 listelli da 58x498x16 mm solo su un lato, lungo vena.
- To prepare the inner raised panel, take 6, 58 x 498 x 16 mm pieces. With the TW20M BF3 finger-joint cutterhead on the spindlemoulder, mould 5 of the 6 pieces on one side only, long grain.

A Specchietto dell'Antina ♦ Raised Panel

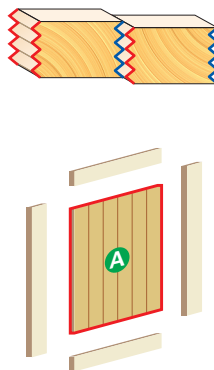


2ª FASE - GIUNZIONI

2nd PHASE - JOINING TWO SIDES

- Successivamente inserire l'anello distanziale di spessore 2,5 mm fornito in dotazione con la testa portacoltelli TW20M BF3. Riprendere quattro dei listelli lavorati precedentemente, più l'unico non lavorato ed eseguire la seconda fresatura sull'altro lato, lungo vena.
- Now insert the 2,5 mm spacer, supplied with the TW20M BF3 finger-joint cutterhead. Take 4 of the previously worked panels and carry out the second moulding on the opposite side, long grain. Now take the unworked panel and carry out a single moulding on one side, along the grain.

A Specchietto dell'Antina ♦ Raised Panel

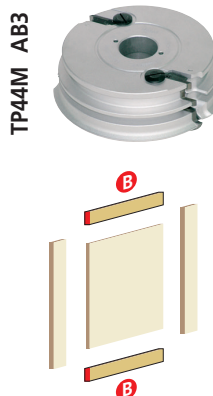


3ª FASE - ASSEMBLAGGIO

3rd PHASE - ASSEMBLY

- Assemblare ed incollare i listelli lavorati tenendoli uniti con un morsetto. Per una maggiore tenuta del pannello, aver cura di disporre i listelli in modo tale che al momento della giunzione la venatura degli stessi sia contraria.
- Assemble and glue the panels holding them together with a clamp. In order to obtain a better grip insure that at the moment of joining, the grain of each panel is facing the opposite direction.

B Traversi ♦ Transoms



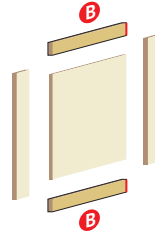
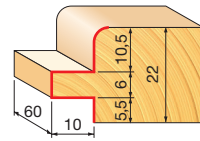
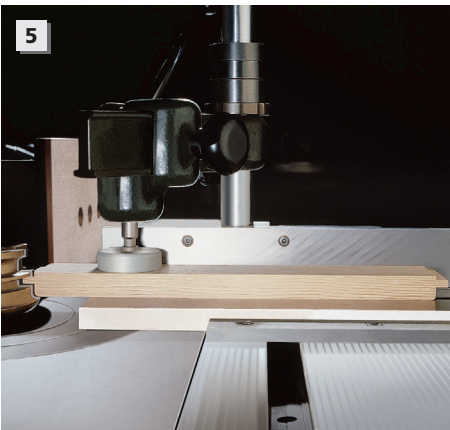
1ª FASE - TENONATURA

1st PHASE - TENONING

- Per la realizzazione dei traversi, utilizzare la testa portacoltelli Freud TP44M AB3. Lavorare i due listelli da 350x60x22 mm su uno dei lati corti, come illustrato nella Fig. 4.
- For the realization of the transoms use the Freud multi-profile cutterhead TP44M AB3. Work the short side of two of the 350 x 60 x 22 mm panels as illustrated in Fig. 4.

PROGETTO DELL'ANTINA THE CABINET DOOR PROJECT

B Traversi ♦ Transoms

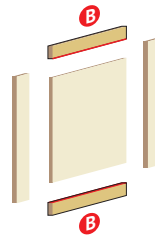
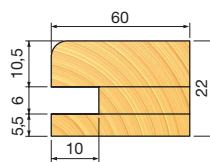
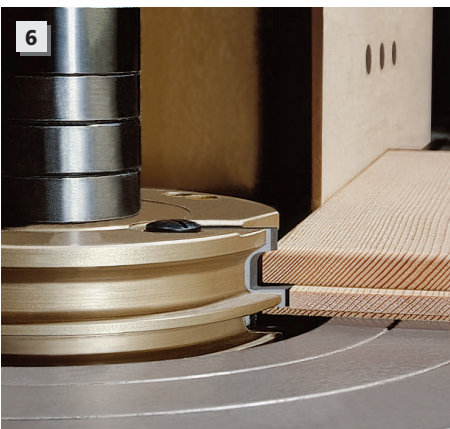


2ª FASE - TENONATURA

2nd PHASE - TENONING

- Come illustrato nella Fig. 5, compiere la medesima operazione sull'altro lato corto dei due listelli, avendo cura di appoggiarli sul piano di lavoro sempre sullo stesso lato.
- As illustrated in Fig. 5, complete the same operation on the other short side of the two panels, making sure you always place them the same way up on the work surface.

B Traversi ♦ Transoms

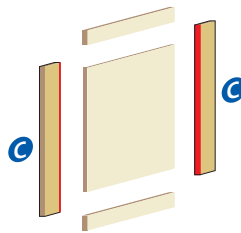
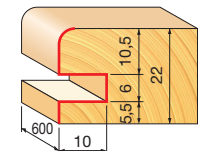


3ª FASE - PROFILATURA

3rd PHASE - PROFILING

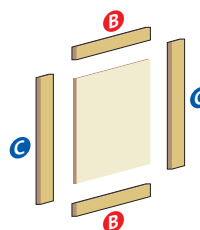
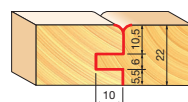
- Abbassare la testa portacoltelli in modo da far combaciare la spina del tagliente con il tenone eseguito sui traversi (Fig. 6). Eseguire il profilo su tutta la lunghezza dei due traversi (su uno dei lati lunghi, come illustrato).
- Lower the cutterhead so as the blades spine may coincide with the tenon (Fig. 6). Carry out the profiling along the entire length of the two transoms (on one of the length sides as illustrated).

C Montanti ♦ Jamb



PROFILATURA PROFILING

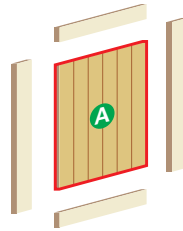
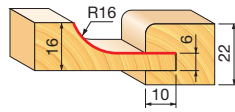
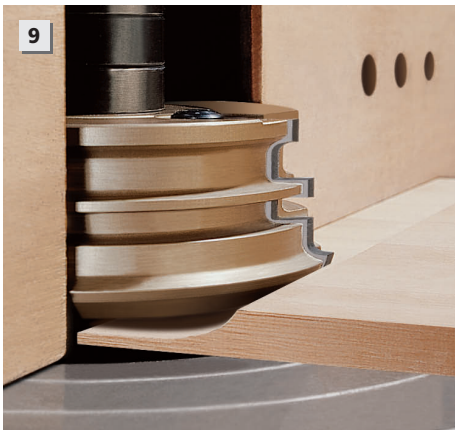
- Mantenendo la testa portacoltelli sempre alla stessa altezza, realizzare la profilatura dei due montanti (listelli da 60x600x22 mm) su uno dei lati lunghi, come illustrato nella Fig. 7.
- Prepare two 600x60x22 mm panels. Always maintaining the cutterhead at the same height, carry out the profiling of one length side of each jamb, as illustrated in Fig. 7.



- Abbiamo ottenuto i traversi ed i montanti. Se avete eseguito correttamente le precedenti operazioni, avrete ottenuto lo stesso risultato illustrato nella Fig. 8.
- We now have our transoms and jamb. If you have correctly followed the previous instructions you will have obtained the same results as illustrated in Fig. 8.

PROGETTO DELL'ANTINA THE CABINET DOOR PROJECT

A Specchietto dell'Antina ♦ Raised Panel

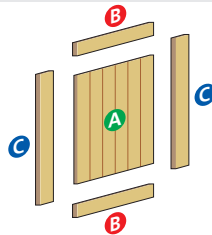


PROFILATURA

PROFILING

■ Riprendere i listelli assemblati ed incollati precedentemente per eseguire la profilatura dello specchietto dell'antina. Alzare la testa portacoltelli TP44M AB3 in modo da lavorare il pannello con la parte inferiore del coltello profilato, come illustrato nella Fig. 9. Eseguire la lavorazione sui quattro lati, avendo l'accortezza di lavorare per primi i due lati trasverso vena.

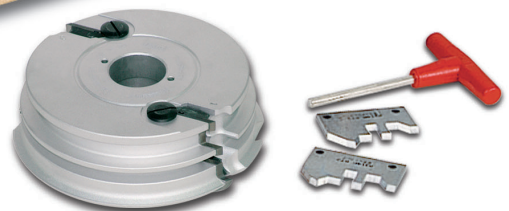
■ Take the previously glued and assembled panels (see Fig. 3) in order to carry out the profiling on the raised panel. Lift the TP44M AB3 so you can work the panel with the lower part of the profiled cutterhead, as illustrated in Fig. 9. Work all four sides making sure you work the cross grain sides first.



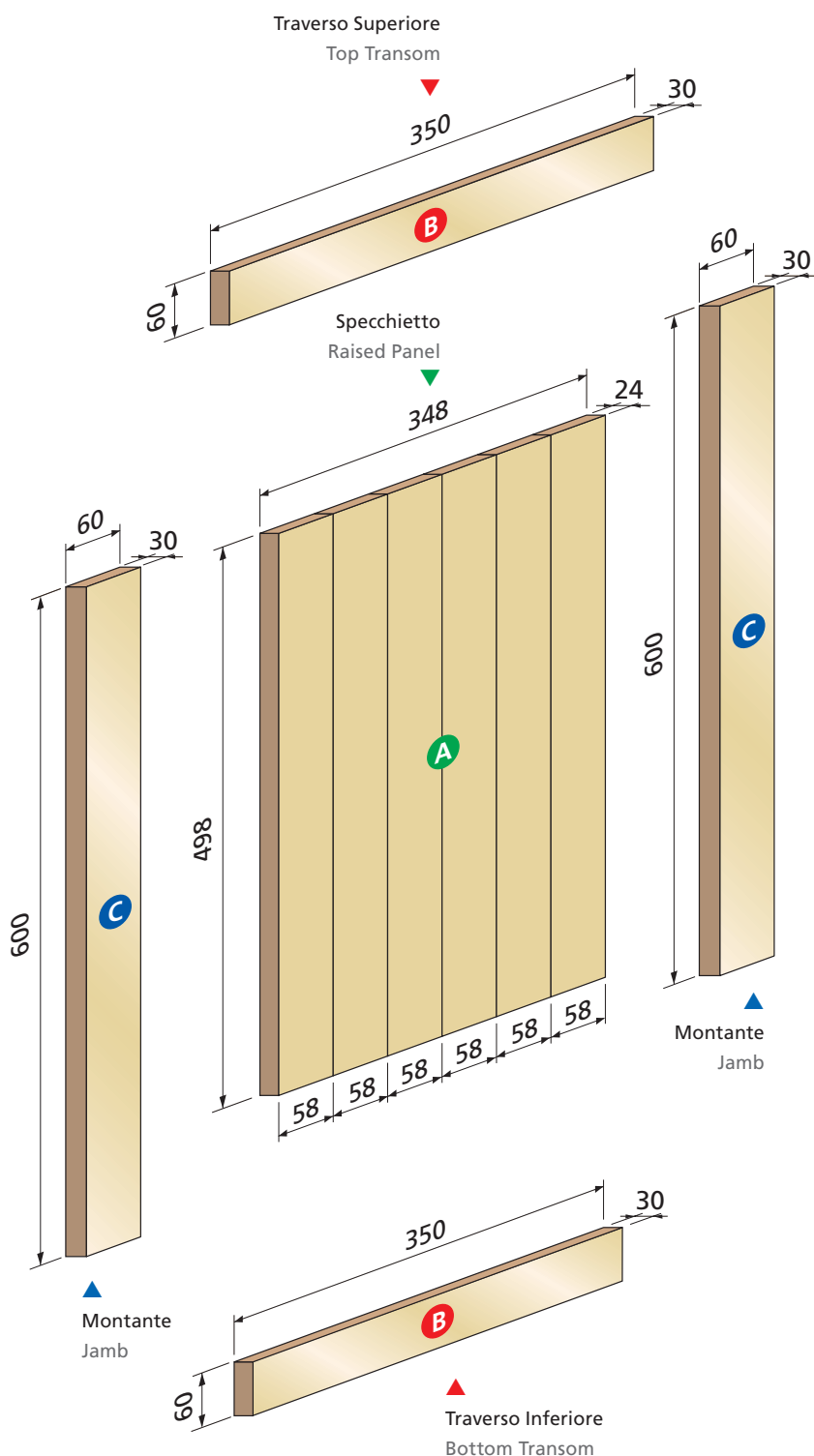
■ La Fig. 10 mostra i pezzi ottenuti eseguendo le semplici lavorazioni descritte.

■ Fig. 10 shows the final piece obtained by following these simple instructions.

L'antina assemblata.
Assembled cabinet door.



PROGETTO DELL'ANTINA THE CABINET DOOR PROJECT

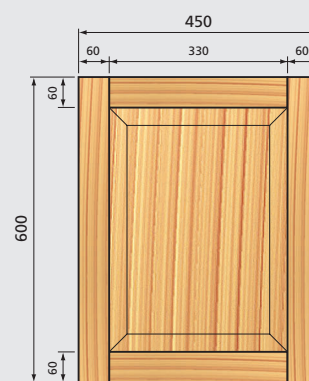


Il progetto che vi proponiamo prevede la costruzione di una antina delle misure di 450 x 600 x 30 mm, realizzata con legno douglas. Per la realizzazione preparare dei listelli di legno perfettamente squadrati delle seguenti misure:

- A** per lo Specchietto:
n. 6 listelli 58 x 498 x 24 mm;
- B** per i Traversi:
n. 2 listelli 350 x 60 x 30 mm;
- C** per i Montanti:
n. 2 listelli 60 x 600 x 30 mm;

Per la lavorazione utilizzare i seguenti utensili **freud.**:

- art. TW20M BF3;
- art. TPSEM BB3;
- art. TD52M HB3.



L'antina assemblata
Assembled cabinet door

The project we propose entails the construction of a cabinet door measuring 450 x 600 x 30 mm with douglas wood. For the realization of this project prepare some perfectly sized panels with the following measurements.

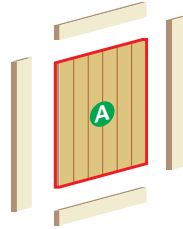
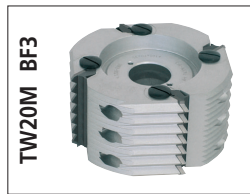
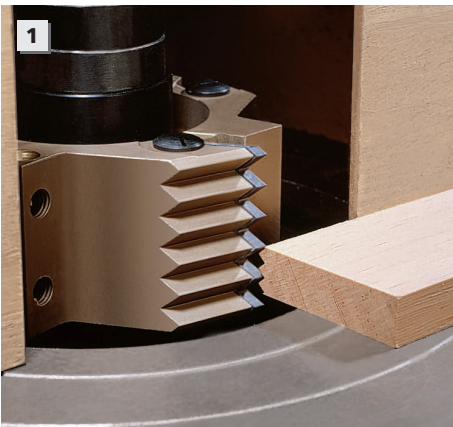
- A** for the Raised Panel:
6 panels 58 x 498 x 24 mm;
- B** for the Transoms:
2 panels 350 x 60 x 30 mm;
- C** for the Jambs:
2 panels 60 x 600 x 30 mm;

For wood machining use the following **freud.** tools:

- cod. TW20M BF3;
- cod. TPSEM BB3;
- cod. TD52M HB3.

PROGETTO DELL'ANTINA THE CABINET DOOR PROJECT

A Specchietto dell'Antina ♦ Raised Panel

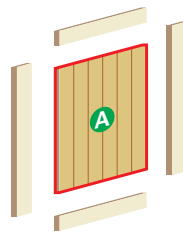
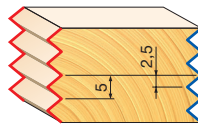
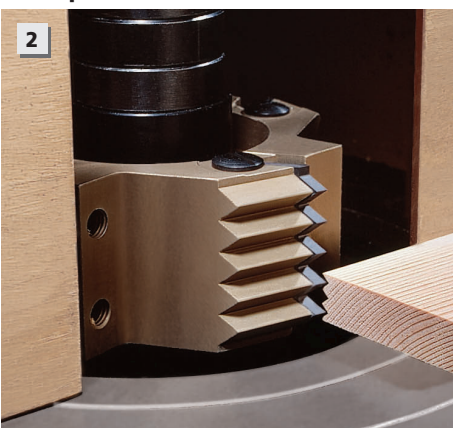


1ª FASE - GIUNZIONI

1st PHASE - JOINING ONE SIDE

- Come prima fase di lavorazione preparare il pannello per lo specchietto dell'antina. Inserire sulla toupie la testa portacoltelli TW20M BF3 e fresare 5 dei 6 listelli da 58x498x24 mm solo su un lato, lungo vena.
- To prepare the inner raised panel, take the 6,58x498x24 mm pieces. With the TW20M BF3 finger-joint cutterhead on the spindlemoulder, mould 5 of the 6 pieces on one side only, long grain.

A Specchietto dell'Antina ♦ Raised Panel

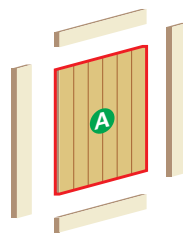
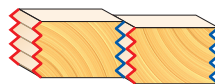


2ª FASE - GIUNZIONI

2nd PHASE - JOINING TWO SIDES

- Successivamente inserire l'anello distanziale di spessore 2,5 mm fornito in dotazione con la testa portacoltelli TW20M BF3. Riprendere quattro dei listelli lavorati precedentemente, più l'unico non lavorato ed eseguire la seconda fresatura sull'altro lato, lungo vena.
- Now insert the 2,5 mm spacer, supplied with the TW20M BF3 finger-joint cutterhead. Take 4 of the previously worked panels and carry out the second moulding on the opposite side, long grain. Now take the unworked panel and carry out a single moulding on one side, along the grain.

A Specchietto dell'Antina ♦ Raised Panel

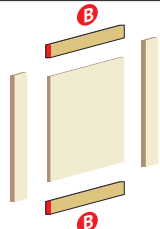
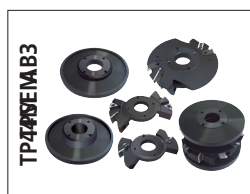
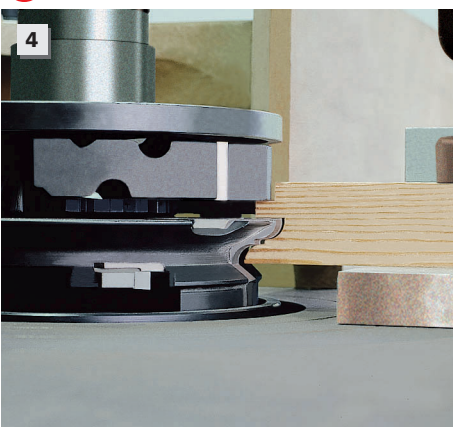


3ª FASE - ASSEMBLAGGIO

3rd PHASE - ASSEMBLY

- Assemblare ed incollare i listelli lavorati tenendoli uniti con un morsetto. Per una maggiore tenuta del pannello, aver cura di disporre i listelli in modo tale che al momento della giunzione la venatura degli stessi sia contraria.
- Assemble and glue the panels holding them together with a clamp. In order to obtain a better grip insure that at the moment of joining, the grain of each panel is facing the opposite direction.

B Traversi ♦ Transoms



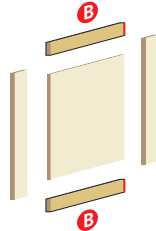
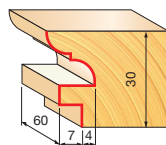
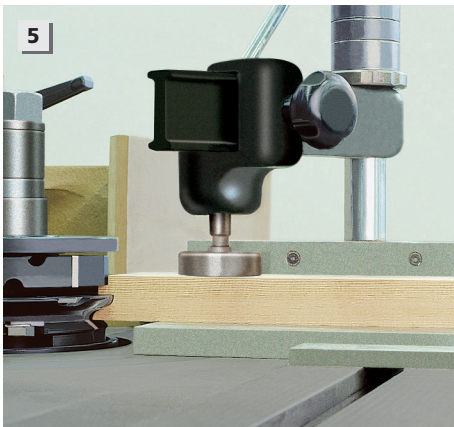
1ª FASE - TENONATURA

1st PHASE - TENONING

- Per la realizzazione dei traversi, utilizzare la testa portacoltelli Freud TPSEM BB3, DB3, CB3. Lavorare i due listelli da 350x60x30 mm su uno dei lati corti, come illustrato nella Fig. 4.
- For the realization of the transoms use the Freud multiprofile cutterhead TPSEM BB3, DB3, CB3. Work the short side of two of the 350x60x30 mm panels as illustrated in Fig. 4.

PROGETTO DELL'ANTINA THE CABINET DOOR PROJECT

B Traversi ♦ Transoms

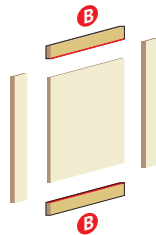
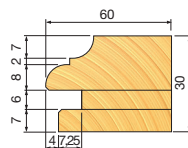
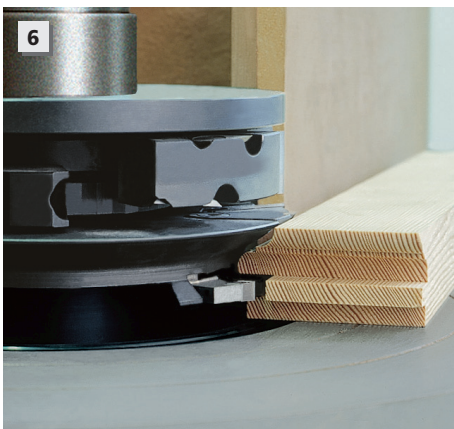


2ª FASE - TENONATURA

2nd PHASE - TENONING

- Come illustrato nella Fig. 5, compiere la medesima operazione sull'altro lato corto dei due listelli, avendo cura di appoggiarli sul piano di lavoro sempre sullo stesso lato.
- As illustrated in Fig. 5, complete the same operation on the other short side of the two panels, making sure you always place them the same way up on the work surface.

B Traversi ♦ Transoms

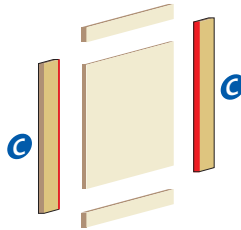
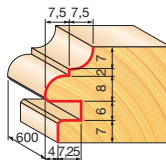
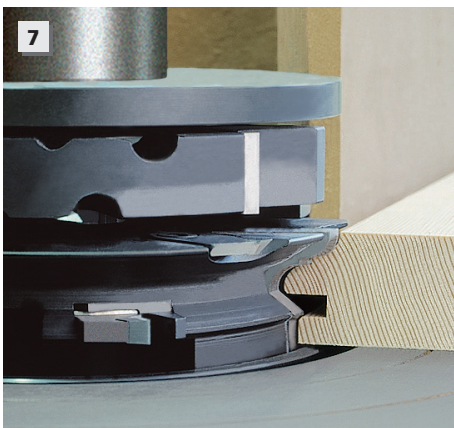


3ª FASE - PROFILATURA

3rd PHASE - PROFILING

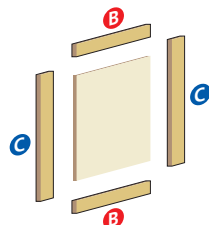
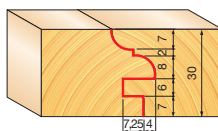
- Abbassare il gruppo testa portacoltelli in modo da far combaciare la spina del tagliente con il tenone eseguito sui traversi (Fig. 6). Eseguire il profilo su tutta la lunghezza dei due traversi (su uno dei lati lunghi, come illustrato).
- Lower the cutterhead set so as the blades spine may coincide with the tenon (Fig. 6). Carry out the profiling along the entire length of the two transoms (on one of the length sides as illustrated).

C Montanti ♦ Jamb



PROFILATURA PROFILING

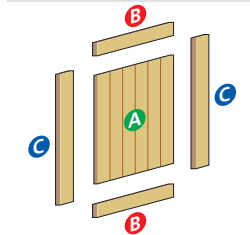
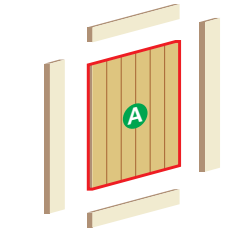
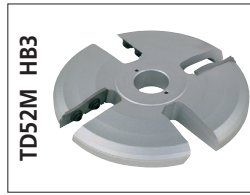
- Mantenendo il gruppo testa portacoltelli sempre alla stessa altezza, realizzare la profilatura dei due montanti (listelli da 60x600x30 mm) su uno dei lati lunghi, come illustrato nella Fig. 7.
- Prepare two 600x60x30 mm panels. Always maintaining the cutterhead set at the same height, carry out the profiling of one length side of each jamb, as illustrated in Fig. 7.



- Abbiamo ottenuto i traversi ed i montanti. Se avete eseguito correttamente le precedenti operazioni, avrete ottenuto lo stesso risultato illustrato nella Fig. 8.
- We now have our transoms and jamb. If you have correctly followed the previous instructions you will have obtained the same results as illustrated in Fig. 8.

PROGETTO DELL'ANTINA THE CABINET DOOR PROJECT

A Specchietti ♦ Inner Raised Panels



1ª FASE - PROFILATURA

1st PHASE - PROFILING

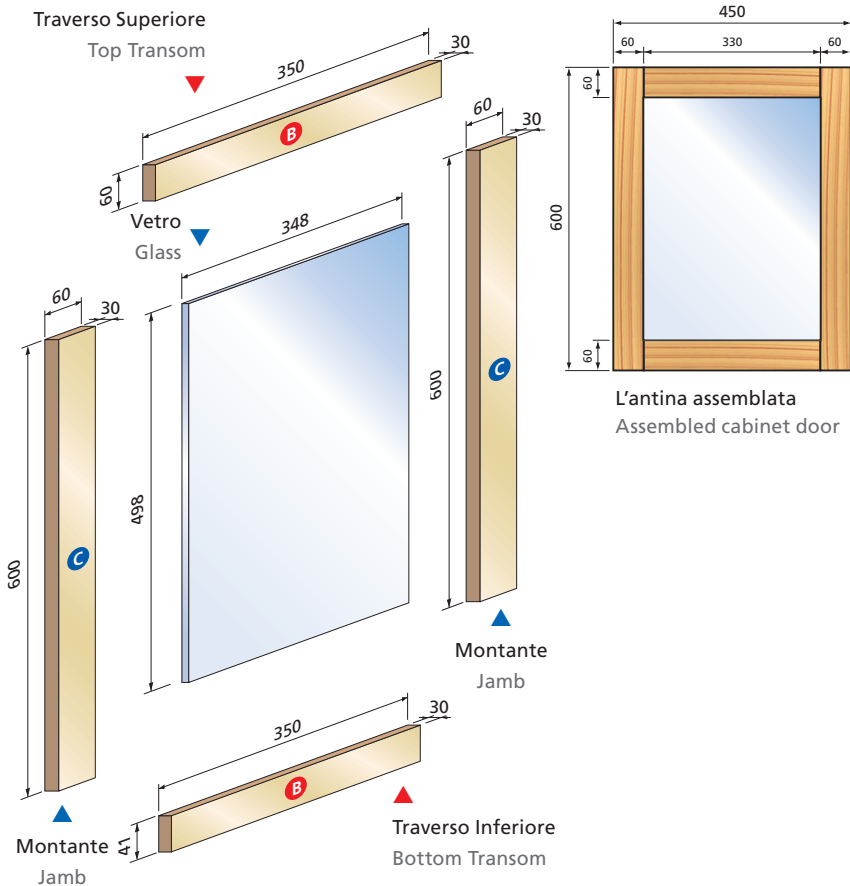
- Posizionare l'articolo TD52M HB3 sulla toupie. Lavorare su tutti i lati i due pannelli preparati precedentemente (vedi punti 1-2-3), avendo cura di fresare per primi i due lati lungo vena.
- Position item code TD52M HB3 on the spindle moulder. Work the two previously prepared panels on all sides (steps 1-2-3), making sure that you first machine the two sides along the grain.

- La Fig. 10 mostra i pezzi ottenuti eseguendo le semplici lavorazioni descritte.
- Fig. 10 shows the final piece obtained by following these simple instructions.



L'antina assemblata.
Assembled cabinet door.

PROGETTO DELL'ANTINA CON PROFILO VETRO CABINET DOOR PROJECT WITH GLASS



Il progetto che vi proponiamo prevede la costruzione di un'antina delle misure di 450 x 600 x 30 mm, realizzata con legno douglas. Per la realizzazione preparare dei listelli di legno perfettamente squadrati delle seguenti misure:

- B** per i Traversi:
n. 2 listelli 350 x 60 x 30 mm;
- C** per i Montanti:
n. 2 listelli 60 x 600 x 30 mm;

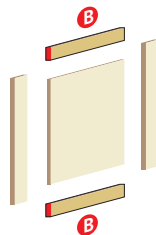
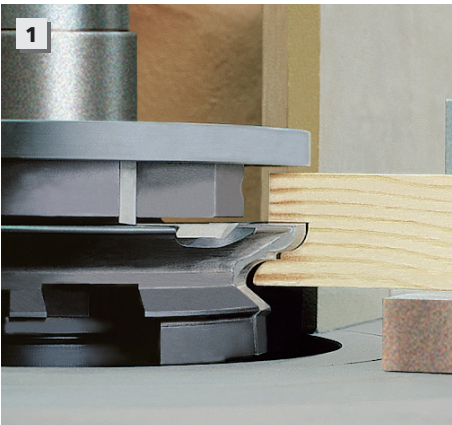
Per la lavorazione utilizzare i seguenti utensili **freud.**:
art. TPSEM BB3

The project we propose entails the construction of a cabinet door measuring 450 x 600 x 30 mm with douglas wood. For the realization of this project prepare some perfectly sized panels with the following measurements.

- B** for the Transoms:
2 panels 350 x 60 x 30 mm;
- C** for the Jamb:
2 panels 60 x 600 x 30 mm;

For wood machining use the following **freud.** tools: cod.
TPSEM BB3

B Traversi ♦ Transoms



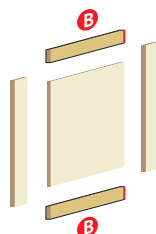
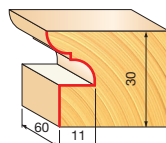
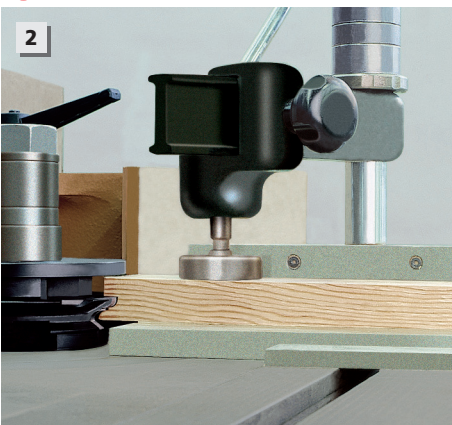
1ª FASE - TENONATURA

1st PHASE - TENONING

Per la realizzazione dei traversi, utilizzare la testa portacoltelli Freud TPSEM BB3, DB3, CB3. Lavorare i due listelli da 350x60x30 mm su uno dei lati corti, come illustrato nella Fig. 1.

For the realization of the transoms use the Freud multiprofile cutterhead TPSEM BB3, DB3, CB3. Work the two panels of 350x60x30 mm on one of the short sides of two of the 350x60x30 mm panels as illustrated in Fig. 1.

B Traversi ♦ Transoms



2ª FASE - TENONATURA

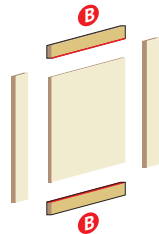
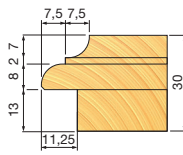
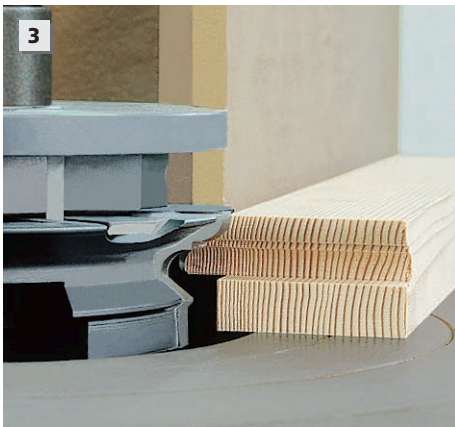
2nd PHASE - TENONING

Come illustrato nella Fig. 2, compiere la medesima operazione sull'altro lato corto dei due listelli, avendo cura di appoggiarli sul piano di lavoro sempre sullo stesso lato.

As illustrated in Fig. 2, complete the same operation on the other short side of the two panels, making sure you always place them the same way up on the work surface.

PROGETTO DELL'ANTINA CON PROFILO VETRO CABINET DOOR PROJECT WITH GLASS

B Traversi ♦ Transoms

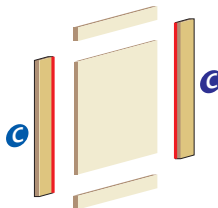
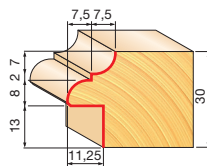


3ª FASE - PROFILATURA

3rd PHASE - PROFILING

- Abbassare la testa portacoltelli in modo da far combaciare il rasante della testa TPSEM CB3 con la battuta eseguita sui traversi (Fig. 3). Eseguire il profilo su tutta la lunghezza dei due traversi (su uno dei lati lunghi, come illustrato).
- Lower the TPSEM CB3 so its spur may coincide with the rebate carried out on the transoms (Fig. 3). Carry out the profiling along the entire length of the two transoms (on one of the length sides as illustrated).

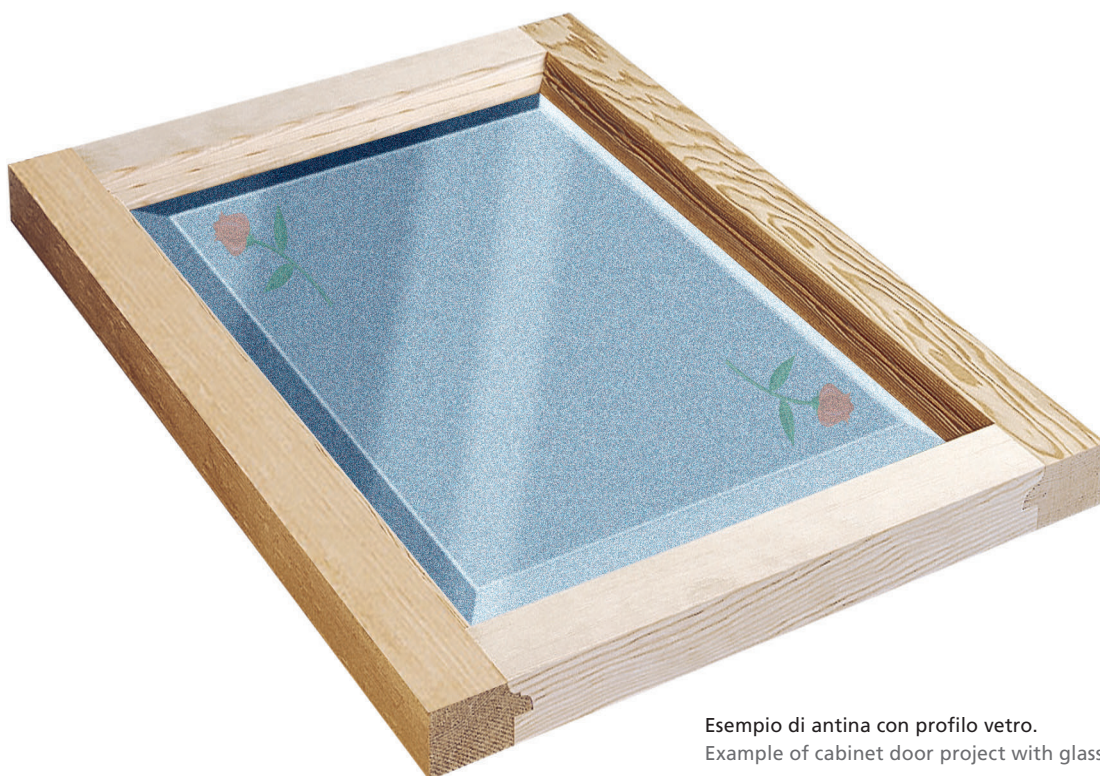
C Montanti ♦ Jambs



PROFILATURA

PROFILING

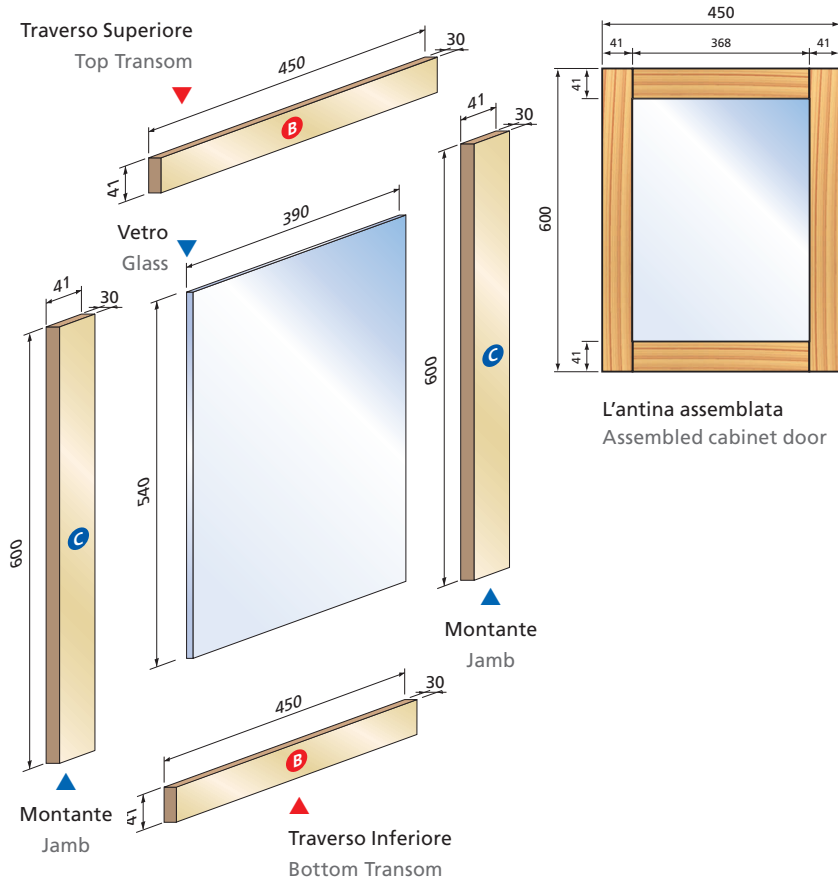
- Mantenendo la testa portacoltelli sempre alla stessa altezza, realizzare la profilatura dei due montanti (listelli da 60x600x30 mm) su uno dei lati lunghi, come illustrato nella Fig. 4.
- Prepare two 600x60x30 mm panels. Always maintaining the cutterhead at the same height, carry out the profiling of one length side of each jamb, as illustrated in Fig. 4.



Esempio di antina con profilo vetro.
Example of cabinet door project with glass.

PROGETTO DELL'ANTINA CON SPINA APERTA

CABINET DOOR PROJECT WITH LONG SQUARE TENON SHOULDER



Il progetto che vi proponiamo prevede la costruzione di un'antina delle misure di 450 x 600 x 30 mm, realizzata con legno douglas. Per la realizzazione preparare dei listelli di legno perfettamente squadrati delle seguenti misure:

- B** per i Traversi:
n. 2 listelli 450 x 41 x 30 mm;
- C** per i Montanti:
n. 2 listelli 41 x 600 x 30 mm;

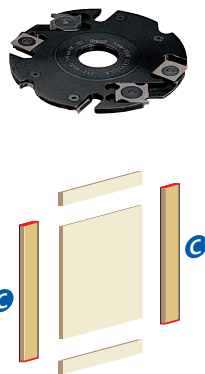
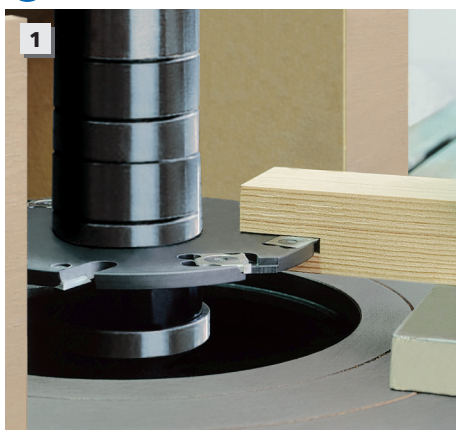
Per la lavorazione utilizzare i seguenti utensili **freud.**:
art. TPSEM BB3

The project we propose entails the construction of a cabinet door measuring 450 x 600 x 30 mm with douglas wood. For the realization of this project prepare some perfectly sized panels with the following measurements.

- B** for the Transoms:
2 panels 450 x 41 x 30 mm;
- C** for the Jambs:
2 panels 41 x 600 x 30 mm;

For wood machining use the following **freud.** tools:
cod. TPSEM BB3

C Montanti ♦ Jambs



B Traversi ♦ Transoms



TENONATURA TENONING

Posizionare sulla toppia la fresa per tenoni. Utilizzare 2 listelli da 41x600x30 mm. Realizzare su entrambe le estremità dei due listelli le sedi per i tenoni dei traversi superiore ed inferiore.

Position the tenonig brazed cutter onto the spindle moulder. Take 2, 41x600x30 mm pieces. Now groove each end of the top and bottom jambs.

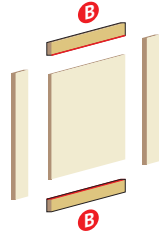
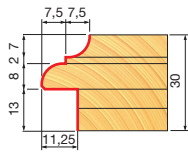
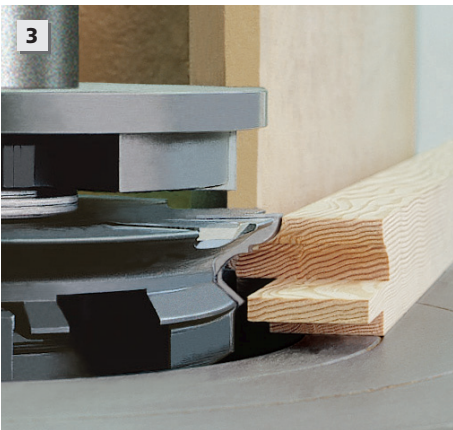
TENONATURA TENONING

Montare il gruppo di teste TPSEM. Posizionare correttamente l'utensile sulla toppia. Utilizzare 2 listelli da 450x41x30 mm. Eseguire una passata su un lato traverso vena dei due listelli. Ripetere l'operazione sull'altro lato dei traversi.

Correctly position the cutterhead set TPSEM onto the spindle moulder. Take 2, 450x41x30 mm pieces. Work one side, cross grain of the two pieces. Repeat the same operation on the other side.

PROGETTO DELL'ANTINA CON SPINA APERTA CABINET DOOR PROJECT WITH LONG SQUARE TENON SHOULDER

B Traversi ♦ Transoms

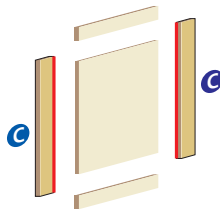
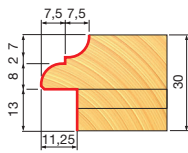
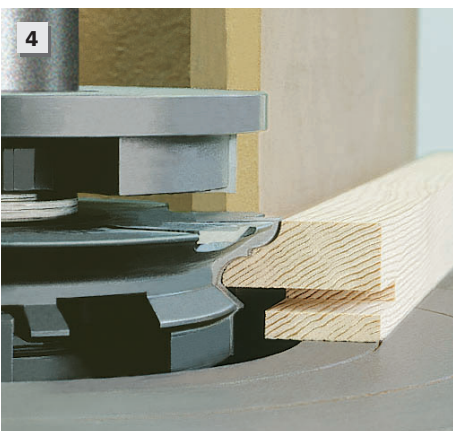


PROFILATURA

PROFILING

- Regolare l'altezza dell'utensile. Riprendere i traversi e profilarli solo su un lato, lungo vena.
- Adjust the tool height. Take the transoms and profile on one side, along the grain.

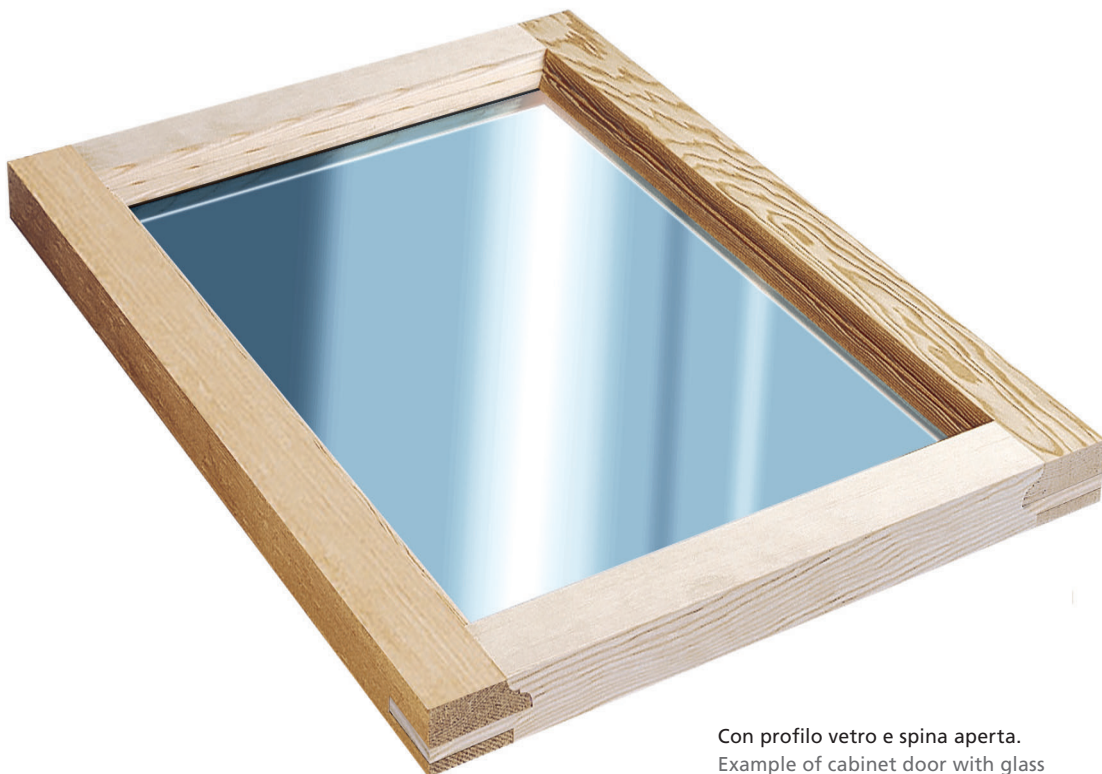
C Montanti ♦ Jambs



PROFILATURA

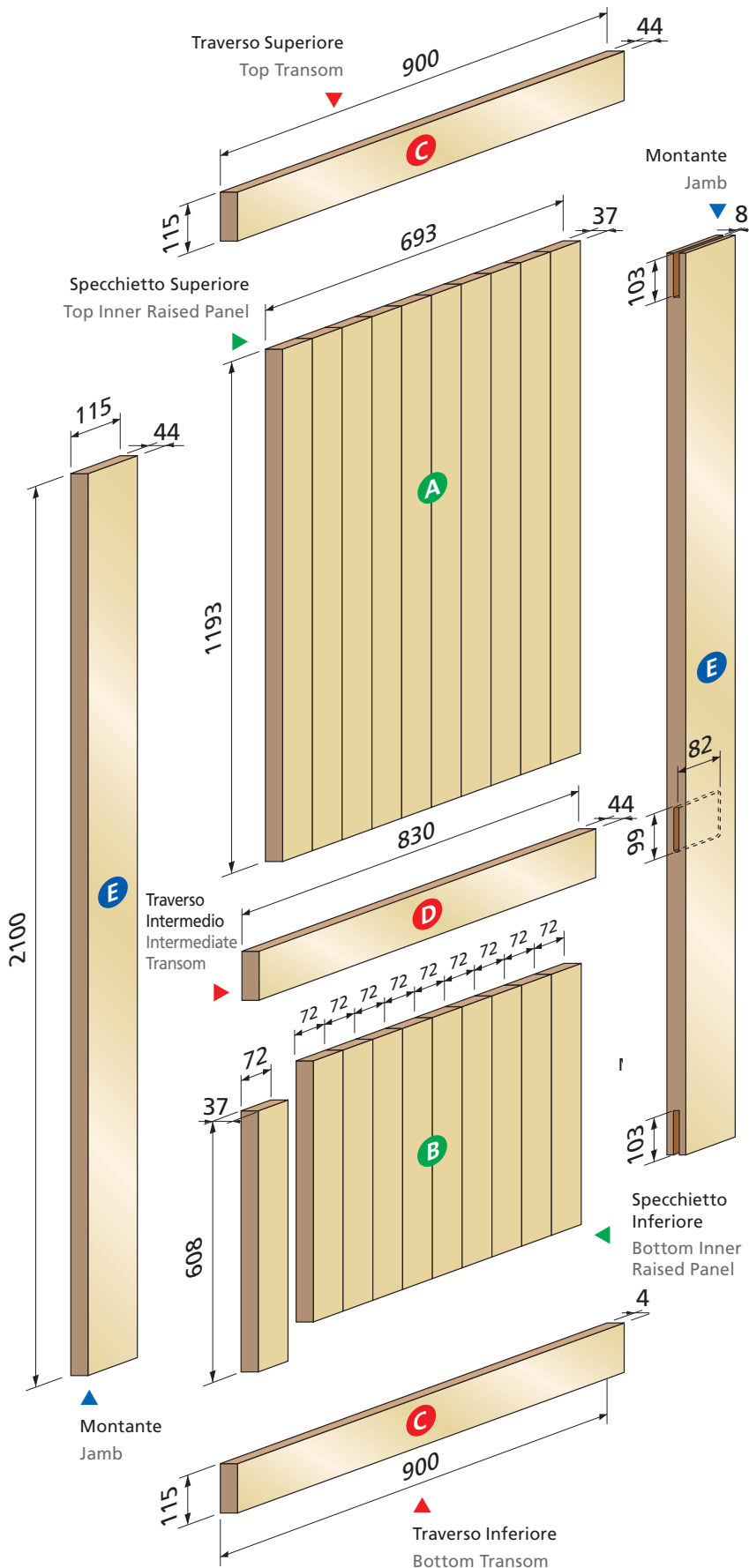
PROFILING

- Eseguire la stessa lavorazione del punto 3 anche su uno dei lati lunghi dei due montanti.
- Carry out on one of the length sides of the two jambs the same operation as specified in point 3.



Con profilo vetro e spina aperta.
Example of cabinet door with glass
and long square tenon shoulder.

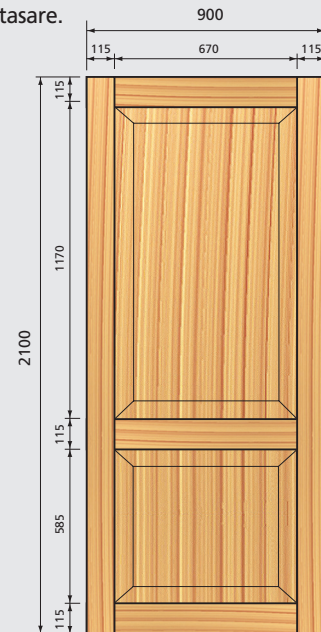
PROGETTO DELLA PORTA THE DOOR PROJECT



Il nostro progetto riguarda la costruzione di una porta da 2100x900x44 mm, in legno Douglas. Per realizzare questo progetto è necessario preparare dei pannelli perfettamente finiti, con le seguenti dimensioni:

- A** per lo Specchietto Superiore: n. 10 listelli da 72x1193x37 mm;
- B** per lo Specchietto Inferiore: n. 10 listelli da 72x608x37 mm;
- C** per i Traversi Superiore e Inferiore: n. 2 listelli da 115x900x44 mm;
- D** per il Traverso Intermedio: n. 1 pezzo da 115x830x44 mm;
- E** per i Montanti: n. 2 listelli da 115x2100x44 mm.

Per la lavorazione utilizzare i seguenti utensili **freud.**: art. TW23M BF3; art. TP42M AB3 + CP42M CA3; art. TD52M HB3 + CT52M TB3 più una fresa per tenoni e una punta per mortasare.



La porta assemblata - Assembled door

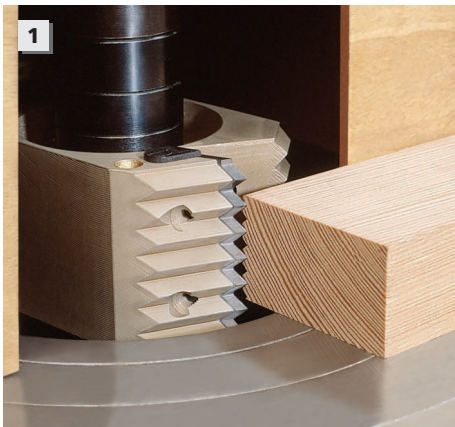
Our project entails the assembling of a 2100x900x44 mm door in Douglas wood. In order to do so you must prepare a number of perfectly finished wood panels with the following dimensions:

- A** for the Top Inner Raised Panel: no. 10, 72x1193x37 mm pieces;
- B** for the Bottom Inner Raised Panel: no. 10, 72x608x37 mm pieces;
- C** for the Top and Bottom Transoms: no. 2, 115x900x44 mm pieces;
- D** for the Intermediate Transom: no. 1, 115x830x44 mm piece;
- E** for the Jambs: no. 2, 115x2100x44 mm pieces;

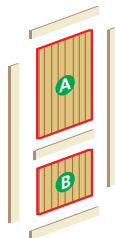
For wood machining use a mortising bit, a tenonig brazed cutter and the following **freud.** tools: cod. TW23M BF3; cod. TP42M AB3 + CP42M CA3; cod. TD52M HB3 + CT52M TB3.

PROGETTO DELLA PORTA THE DOOR PROJECT

A B Specchietti ♦ Inner Raised Panels



TW23M BF3



■ Come prima fase di lavorazione preparare i due pannelli per gli specchietti superiore (A) e inferiore (B) della porta. Inserire sulla toupie la testa portacoltelli per giunzioni cod. TW23M BF3.

A Specchietto Superiore

Lavorare solo su un lato 9 listelli dei 10 disponibili da 72x1193x37 mm.

B Specchietto Inferiore

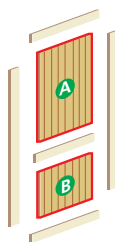
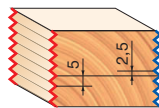
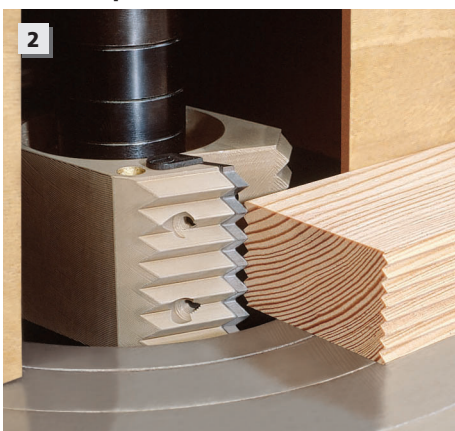
Lavorare solo su un lato 9 listelli dei 10 disponibili da 72x608x37 mm.

■ First of all prepare the top (A) and bottom (B) inner raised door panels. Mount the finger joint cutterhead item code TW23M BF3 on the spindle moulder.

A Top Inner Raised Panel
Work 9 of the 10, 72x1193x37 mm pieces on one side only.

B Bottom Inner Raised Panel
Work 9 of the 10, 72x608x37 mm pieces on one side only.

A B Specchietti ♦ Inner Raised Panels



■ Inserire sull'albero della toupie l'anello distanziale di spessore 2,5 mm, fornito con la testa portacoltelli cod. TW23M BF3.

A Specchietto Superiore

Riprendere 8 dei 9 pezzi precedentemente utilizzati, più l'unico listello da 72x1193x37 mm non lavorato ed eseguire la seconda fresatura sull'altro lato.

B Specchietto Inferiore

Riprendere 8 dei 9 pezzi precedentemente utilizzati, più l'unico listello da 72x608x37 mm non lavorato ed eseguire la seconda fresatura sull'altro lato.

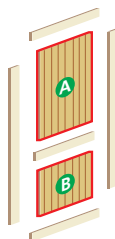
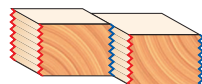
■ Position the 2,5 mm spacer, supplied with cutterhead item code TW23M BF3.

A Top Inner Raised Panel

Take 8 of the 9 previously machined 72x1193x37 mm pieces, plus the only non worked one and carry out the second moulding on the opposite side.

B Bottom Inner Raised Panel

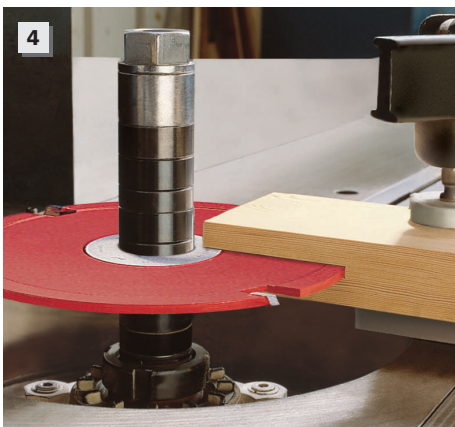
Take 8 of the 9 previously machined 72x608x37 mm pieces and the only non worked one and carry out the second moulding on the opposite side.



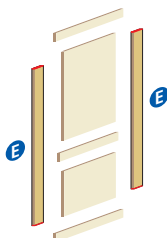
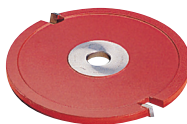
■ Assemblare ed incollare i listelli lavorati tenendoli uniti con un morsetto. Per una maggiore tenuta del pannello, fin dall'inizio disporre i listelli in modo tale che, al momento della giunzione, siano posizionati con venatura contraria, in modo alternato (vedi fig 3).

■ Assemble and glue together all the machined pieces, holding them tightly together with a clamp. When joining the pieces together, make sure you lay them out so as they show opposite and alternate wood grains (Fig. 3).

E Tenoni dei Montanti ♦ Jamb Grooving Tenons



FRESA PER TENONI
BRAZED CUTTER



■ Posizionare sulla toupie la fresa per tenoni.

Tenoni Femmina dei Montanti

Utilizzare 2 listelli da 115x2100x44 mm.

Realizzare su entrambe le estremità dei due listelli le sedi per i tenoni dei traversi superiore ed inferiore.

La profondità di lavorazione sarà di 103 mm, per uno spessore di 8 mm.

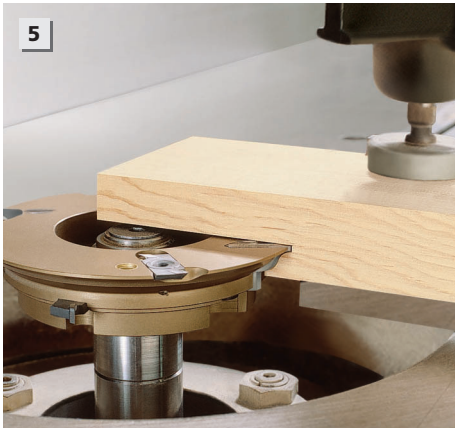
■ Position the tenonig brazed cutter onto the spindle moulder.

Jamb Grooving Tenons

Take 2, 115x2100x44 mm pieces. Now groove each end of the top and bottom jambs. Working depth must be 103 mm and 8 mm thick.

PROGETTO DELLA PORTA THE DOOR PROJECT

C Traversi Superiore e Inferiore ♦ Top and Bottom Transoms



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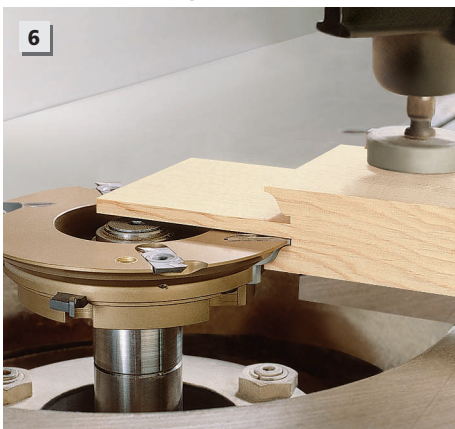


1ª FASE - TENONATURA

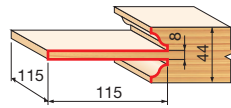
1st PHASE - TENONING

- Montare i coltelli alla testa multiprofilo per porte cod. TP42M AB3. Posizionare correttamente l'utensile sulla topie.
 - Fix the knives onto the multiprofile cutterhead for doors (item code TP42M AB3) and correctly position it onto the spindle moulder.
- Utilizzare 2 listelli da 115x900x44 mm. Eseguire una passata su un lato trasverso vena dei due listelli.
- Take 2, 115x900x44 mm pieces. Work one side, cross grain of the two pieces.

C Traversi Superiore e Inferiore ♦ Top and Bottom Transoms



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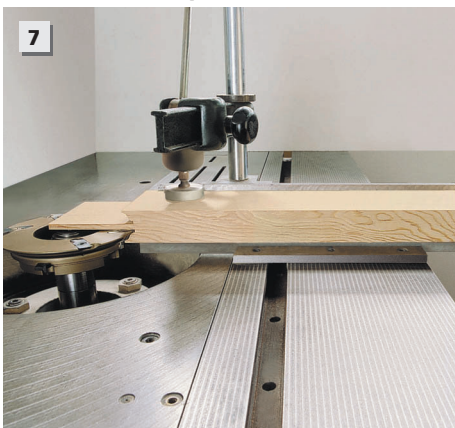


2ª FASE - TENONATURA

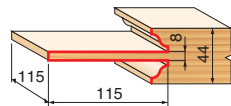
2nd PHASE - TENONING

- Girare i listelli di 180° ed eseguire una passata sullo stesso lato trasverso vena lavoro precedentemente.
- Turn the pieces upside down and work the same side cross grain again, as previously done.

C Traversi Superiore e Inferiore ♦ Top and Bottom Transoms



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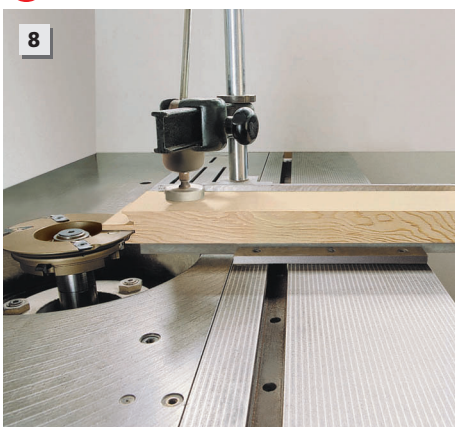


3ª E 4ª FASE - TENONATURA

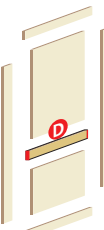
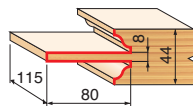
3rd AND 4th PHASE - ASSEMBLY

- Riprendere i due listelli fresati precedentemente e ripetere, sul lato opposto trasverso vena di ciascun pezzo, le medesime lavorazioni descritte ai punti 5 e 6.
- Take the two previously moulded pieces and repeat the same operation cross grain, on the opposite side of each one, as described in steps 5 - 6.

D Traverso Intermedio ♦ Intermediate transom



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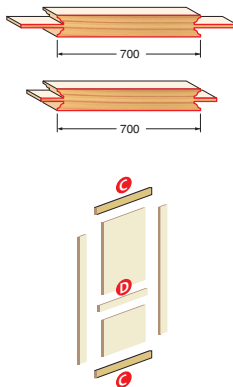
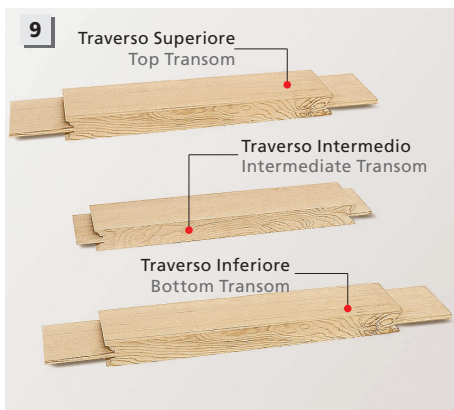


TENONATURA

TENONING

- Utilizzare 1 listello da 115x830x44 mm. Sui due lati trasverso vena ripetere le lavorazioni descritte ai punti 5 - 6 - 7.
- Take 1, 115x830x44 mm piece. On both sides cross grain, perform the same operations as described in steps 5 - 6 - 7.

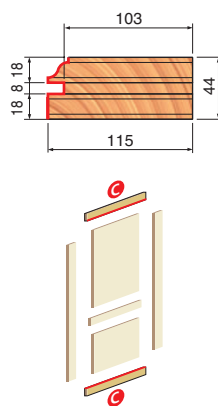
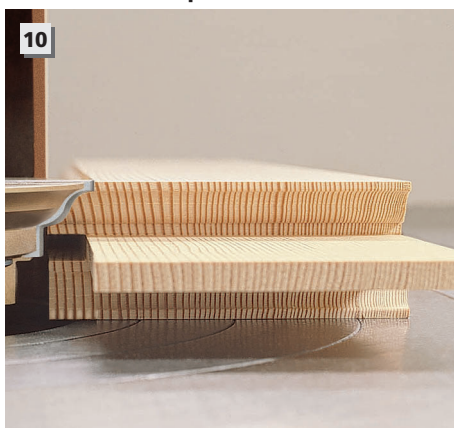
PROGETTO DELLA PORTA THE DOOR PROJECT



■ Nella foto a fianco compaiono i tre traversi della porta, su quali è stato realizzato il controprofilo con tenone.

■ This photo shows the three transoms, with scribe and tenon on both ends.

C Traversi Superiore e Inferiore ♦ Top and Bottom Transoms



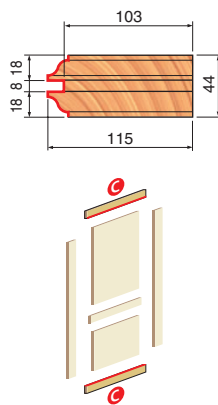
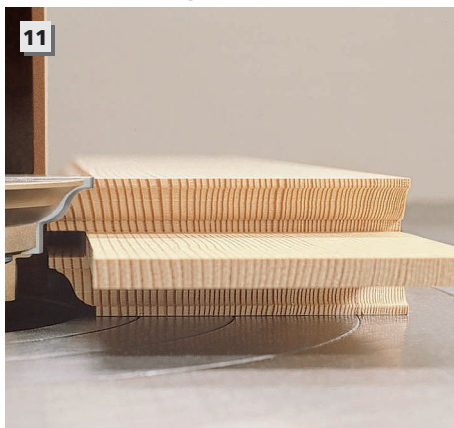
1ª FASE - PROFILATURA

1st PHASE - PROFILING

■ Regolare l'altezza dell'utensile. Riprendere i traversi superiore e inferiore e profilarli solo su un lato, lungo vena.

■ Adjust the tool height. Take the top and bottom transoms and profile on one side, along the grain.

C Traversi Superiore e Inferiore ♦ Top and Bottom Transoms



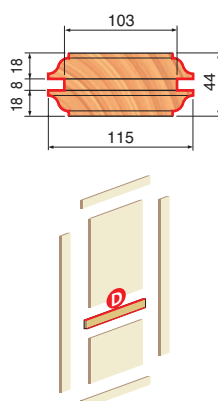
2ª FASE - PROFILATURA

2st PHASE - PROFILING

■ Ruotare i due traversi di 180° (sottosopra) e profilare lo stesso lato che si è lavorato al punto 10.

■ Turn the two transoms upside down and profile the same side as previously worked in step 10.

D Traverso Intermedio ♦ Intermediate Transom



PROFILATURA

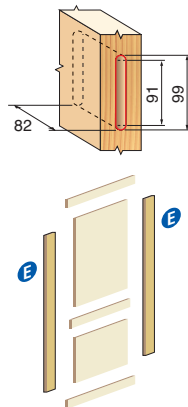
PROFILING

■ Riprendere il traverso intermedio e ripetere le medesime lavorazioni descritte ai punti 10 e 11 su entrambi i lati, lungo vena.

■ Take the intermediate transom and repeat the same operations, working both sides along the grain, as in steps 10 and 11.

PROGETTO DELLA PORTA THE DOOR PROJECT

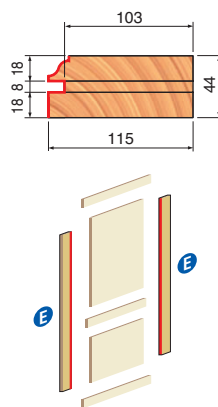
E Montanti ♦ Jamb



■ Riprendere i due listelli da 115x2100x44 mm già lavorati su entrambi i lati (vedi punto 4). Con una punta per mortasare con diametro da 8 mm, realizzare la scanalatura che permetterà l'alloggiamento dei tenoni del traverso intermedio.

■ Now take the two 115x2100x44 mm pieces already machined at both ends (see Fig. 4). With an 8 mm mortising bit make a slot which will allow the fixing of the jamb onto the intermediate transom when assembling the door.

E Profilatura dei Montanti ♦ Jamb Profiling

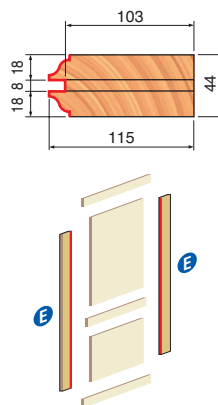


1ª FASE
1st PHASE

■ Con la testa multiprofili cod. TP42M AB3, profilare gli stessi listelli lavorati al punto 13, ciascuno su uno dei lati lunghi, lungo vena.

■ With multiprofile cutterhead TP42M AB3, profile the same pieces as worked in step 13. Machine one side of each piece length ways, along the grain.

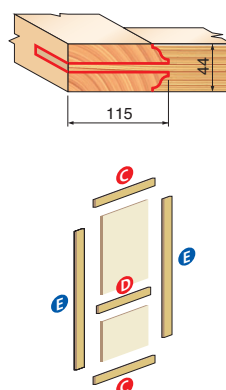
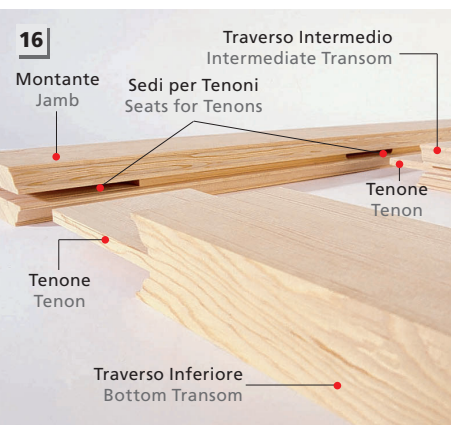
E Profilatura dei Montanti ♦ Jamb Profiling



2ª FASE
2nd PHASE

■ Ruotare di 180° (sottosopra) i listelli appena profilati ed eseguire la medesima lavorazione, sempre sullo stesso lato lungo, lungo vena.

■ Turn the previously machined pieces upside down and carry out the same operation on the same side length ways, along the grain.



■ L'immagine a lato evidenzia i tenoni dei traversi inferiore ed intermedio e gli alloggiamenti ricavati sul montante.

■ This picture highlights the jamb slots and the intermediate and bottom transoms tenons.

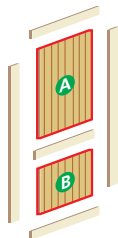
PROGETTO DELLA PORTA THE DOOR PROJECT

A B Specchietti ♦ Inner Raised Panels



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TD52M HB3



1ª FASE - PROFILATURA

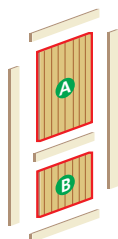
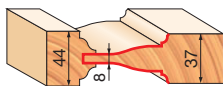
1st PHASE - PROFILING

- Posizionare l'articolo TD52M HB3 sulla toupie.
 - Position item code TD52M HB3 on the spindle moulder.
- Lavorare su tutti i lati i due pannelli preparati precedentemente (vedi punti 1-2-3), avendo cura di fresare per primi i due lati lungo vena.
- Work the two previously prepared panels on all sides (steps 1-2-3), making sure that you first machine the two sides along the grain.

A B Specchietti ♦ Inner Raised Panels



18



2ª FASE - PROFILATURA

2nd PHASE - PROFILING

- Ruotare i pannelli di 180° (sottosopra) ed eseguire le stesse procedure descritte al punto 17.
- Turn the panels upside down and carry out the same operations as those described in step 17.

Sezione della porta assemblata.
Section of assembled door.

