

**freud.**

---

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

Catalogue 2015/16 - Catalogo 2015/16



|  |           |
|--|-----------|
| <b>Overview - Introduzione</b> .....   | 4 - 9     |
| <b>PLANER CUTTERHEADS - TESTE PORTACOLTELLI PER SPIANARE</b>   |           |
| T102M Modular planer cutterheads with disposable knives - Teste per spianare per scorniciatrici .....                                  | 17        |
| TM06M - TM07M Helical planer cutterheads with disposable knives - Teste per spianare a taglienti elicoidali .....                      | 10        |
| TM20M Multicut planer cutterheads with ball bearing - Teste multitaglienti per contornatura con cuscinetto .....                       | 11        |
| TM21M Multicut planer cutterheads - Teste multitaglienti per spianare .....  | 12        |
| TM17M ISOprofil planer cutterheads - Teste ISOprofil per spianare .....  | 15        |
| TM28M ISOprofil planer cutterheads with alternating shear angle - Teste ISOprofil per spianare con angolo assiale alterno .....        | 16        |
| TP05M Planer cutterheads with HSS knives - Teste per spianare con coltelli in HSS .....  | 13        |
| T182M Groove bead cutterheads with disposable knives - Teste per scanalature di guida laterale .....                                   | 18        |
| T183M Groove bead cutterheads with disposable knives - Teste per scanalature di guida laterale .....                                   | 19        |
| <b>FINGER JOINT CUTTERHEADS - TESTE PORTACOLTELLI PER GIUNZIONI</b>  |           |
| TW01M Finger joint cutterheads - Teste per giunzioni - profilo intercambiabile .....   | 23, 24    |
| TW05M Finger joint cutterheads with resharpenable knives - Teste per giunzioni con coltelli riaffilabili .....                         | 27        |
| TW22M Finger joint cutterheads - Teste per giunzioni .....   | 21        |
| TW23M - TW20M Finger joint cutterheads - Teste per giunzioni .....   | 20        |
| TW24M Adjustable finger joint cutterheads sets - Gruppi di teste per giunzioni regolabili .....  | 25, 26    |
| <b>CUTTERHEADS FOR REBATES - TESTE PORTACOLTELLI PER BATTUTE</b>   |           |
| T111M - T112M Cutterheads for rebates - Teste per battute .....  | 30        |
| T191M - T192M Cutterheads for rebates - Teste per battute .....  | 31        |
| T193M Cutterheads for rebates - Teste per battute .....  | 33        |
| T194M - T195M Cutterheads for rebates - Teste per battute .....  | 32        |
| T198M Adjustable rebate and grooves cutterheads sets with disposable knives<br>Gruppi di teste per incastri e battute regolabili ..... | 34, 35    |
| T199M Adjustable rebate cutterheads sets with disposable knives - Teste per incastri e battute regolabili .....                        | 36        |
| TG08M Adjustable bevel cutterheads with disposable knives - Teste ad inclinazione regolabile .....                                     | 28        |
| TG09M Adjustable bevel cutterheads with disposable knives - Teste ad inclinazione regolabile .....                                     | 29        |
| <b>GROOVING BRAZED CUTTERS - FRESE PER INCASTRI</b>  |           |
| F122M Brazed cutters - Frese per incastri .....  | 37        |
| F102M Brazed cutters for biscuit joiners - Frese per incastri .....  | 37        |
| F102M Grooving cutters - Frese per incastri .....  | 39        |
| F102M Grooving cutters with spurs - Frese per incastri con rasanti .....   | 38        |
| F105M Grooving cutters with spurs - Frese per incastri con rasanti .....   | 39        |
| F114M Grooving cutters - Frese per incastri .....  | 40        |
| F107M Adjustable grooving cutters with spurs - Frese regolabili per incastri con rasanti .....   | 40        |
| <b>GROOVING CUTTERHEADS - TESTE PORTACOLTELLI PER INCASTRI</b>   |           |
| TG13M Grooving cutterheads - Teste per incastri .....  | 38        |
| TG11M Adjustable grooving cutterheads - Teste per incastri regolabili .....  | 41        |
| TG18MG Adjustable grooving cutterheads sets - Gruppi di teste per incastri regolabili .....  | 42, 43    |
| <b>CUTTERHEADS FOR PROFILING - TESTE PORTACOLTELLI PER PROFILARE</b>   |           |
| T135M - TG35M Post forming cutterheads sets with disposable knives - Gruppi di teste per spianare e arrotondare .....                  | 44, 45    |
| TP22M Multi radius cutterheads - Teste multiraggio .....   | 46, 47    |
| TP23M Multi radius cutterheads - Teste multiraggio .....   | 48        |
| TP31M - TP31MS Multi radius cutterheads - Teste multiraggio .....  | 49 - 55   |
| TP40M Multiprofile cutterheads - Teste multiprofilo .....  | 56        |
| <b>CUTTERHEADS WITH SERRATED PROFILABLE KNIVES - TESTE PORTACOLTELLI CON COLTELLI ZIGRINATI PROFILABILI</b>                            |           |
| TPCZM Cutterheads with serrated profilable knives - Teste con coltelli zigrinati profilabili .....                                     | 14        |
| <b>MULTIPROFILE CUTTERHEADS - TESTE PORTACOLTELLI MULTIPROFILO</b>   |           |
| CS28MA Multiprofile cutterheads - Teste multiprofilo .....   | 76        |
| CS28MB Multiprofile cutterheads with limiters - Teste multiprofilo con limitatori .....  | 76        |
| CS27MC - CS27ML Profiled knives with cutting length of 40 mm - Coltelli profilati con altezza di taglio di 40 mm .....                 | 77        |
| CS28MC - CS28ML Profiled knives with cutting length of 50 mm - Coltelli profilati con altezza di taglio di 50 mm .....                 | 77        |
| CS27MA Multiprofile cutterheads with knives sets - Teste multiprofilo con set coltelli .....   | 78 - 81   |
| <b>CUTTERHEADS FOR CABINET DOORS - TESTE PORTACOLTELLI PER ANTINE</b>  |           |
| TP44M Multiprofile cutterheads - Teste multiprofilo .....  | 57 - 59   |
| TP32M Cutterheads sets for cabinet doors (wood thickness: 22-24 mm) - Gruppi di teste per antine (sp. legno: 22-24 mm)                 | 60, 61    |
| TPSEM Cutterheads sets for cabinet doors (wood thickness: 22-30 mm) - Gruppi di teste per antine (sp. legno: 22-30 mm)                 | 62 - 69   |
| <b>RAISED PANEL CUTTERHEADS - PIATTABANDE MULTIPROFILO</b>   |           |
| TD21M Raised panel cutterheads - Piattabande multiprofilo .....  | 104, 105  |
| TD51M Raised panel cutterheads for soft and hardwood - Piattabande multiprofilo per legno tenero e duro .....                          | 106, 107  |
| TD52M - TD52MD Raised panel cutterheads for soft and hardwood - Piattabande multiprofilo per legno tenero e duro .....                 | 108, 109  |
| TD55MD - TD55MS Raised panel cutterheads - Piattabande multiprofilo .....  | 110 - 113 |
| <b>CUTTERHEADS FOR DOORS - TESTE PORTACOLTELLI PER PORTE</b>   |           |
| TP42M Multiprofile cutterheads for doors - Teste multiprofilo per porte .....  | 70, 71    |
| TP46MAN Multiprofile cutterheads sets for doors (38-40 mm) - Gruppi di teste per porte con spessore 38-40 mm .....                     | 72 - 75   |
| TP46MEC Multiprofile cutterheads sets for doors (38-40 mm) - Gruppi di teste per porte con spessore 38-40 mm .....                     | 72 - 75   |
| TP48M ISOprofil cutterheads for doors frames - Teste ISOprofil per battute porte .....   | 98        |
| TD60M Doors frames profiles cutterheads - Teste per profili di telai e mostrine di porte .....   | 95        |
| TD61M Doors frames profiles cutterheads - Teste per profili di telai di porte .....  | 99        |
| <b>CUTTERHEADS SETS FOR PANELLING AND FLOORING - GRUPPI DI TESTE PORTACOLTELLI PER PERLINE E PARCHETTI</b>                             |           |
| TG79MG Cutterheads sets for panelling and flooring - Gruppi di teste per perline e parchetti .....                                     | 114 - 122 |
| TG99MG Cutterheads sets for panelling and flooring - Gruppi di teste per perline e parchetti .....                                     | 123 - 127 |

|  |           |
|--|-----------|
| <b>Overview - Introduzione</b> .....   | 82, 83    |
| <b>Technical features - Caratteristiche tecniche</b> .....   | 84        |
| <b>PROFILING CUTTERHEADS SETS FOR INTERNAL AND EXTERNAL DOORS - GRUPPI DI TESTE PORTACOLTELLI PER PROFILI DI PORTE INTERNE E PORTONCINI</b>    |           |
| ST12MG-800 - ST12MG-801 Profiling cutterheads sets for internal and external doors - Gruppi di teste per profili di porte interne e portoncini | 85 - 87   |
| ST12MG-820 - ST12MG-821 - ST12MG-822 Tenoning cutterheads sets - Gruppi di teste per tenoni .....  | 88 - 91   |
| ST12MG-840 - ST12MG-841 - ST12MG-842 Cutterheads sets for doors rebates - Gruppi di teste per battute di porte.....                            | 92, 93    |
| ST12MG-302 Bead recovery cutterheads sets - Gruppi di teste per recupero listello.....   | 94        |
| ST12MG-830 Cutterheads sets for doors intrados - Gruppi di teste per imbotti porte .....   | 97        |
| <b>CUTTERHEADS SETS FOR VERTICAL SLAT SHUTTERS - GRUPPI DI TESTE PORTACOLTELLI PER SCURETTI A DOGHE VERTICALI</b>                              |           |
| TP43M Cutterheads sets for vertical slat shutters - Gruppi di teste per scuretti a doghe verticali .....                                       | 101, 102  |
| <b>CUTTERHEADS SETS FOR LIFTING-SLIDING DOORS - GRUPPI DI TESTE PORTACOLTELLI PER ALZANTI-SCORREVOLI</b>                                       |           |
| TP45M Cutterheads sets for lifting-sliding doors - Gruppi di teste per alzanti-scorrevoli .....  | 103       |
| <b>Tips for the correct use of the tools - Consigli per un uso corretto degli utensili</b> .....   | 129 - 133 |
| <b>Safe working practice - Informazioni di sicurezza</b> .....   | 134, 135  |
| <b>Explanation of symbols and abbreviations - Legenda dei simboli e delle abbreviazioni</b> .....  | 136       |

**freud.**

---

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

Catalogue 2015/16 - Catalogo 2015/16

# Innovation leader Leader dell'innovazione

The flexibility to choose the cutterhead  
you want.

La flessibilità di scegliere l'utensile che si  
desidera.

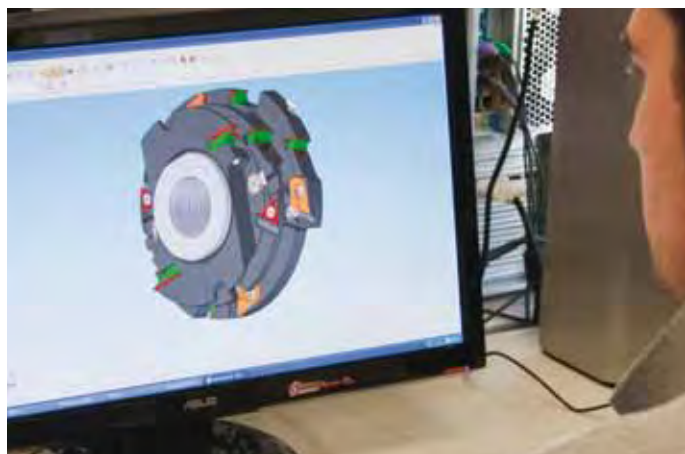


### Innovative solutions due to:

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

### Soluzioni innovative grazie a:

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



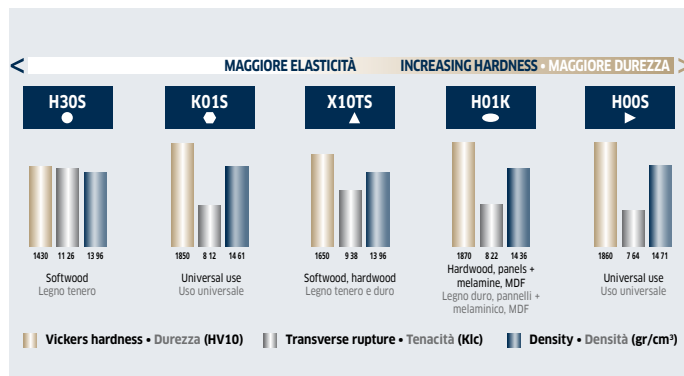
Advanced research and engineering department.  
Centro avanzato di ricerca e ingegneria.

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

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

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

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



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

### Excellent customized solution and service due to:

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

### Ottimi servizi e soluzioni personalizzate grazie a:

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



Present all over the world.  
Presenti nel mondo.

# Increase your productivity Aumentate la vostra produttività

Setting the highest standards in the  
woodworking industry.

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

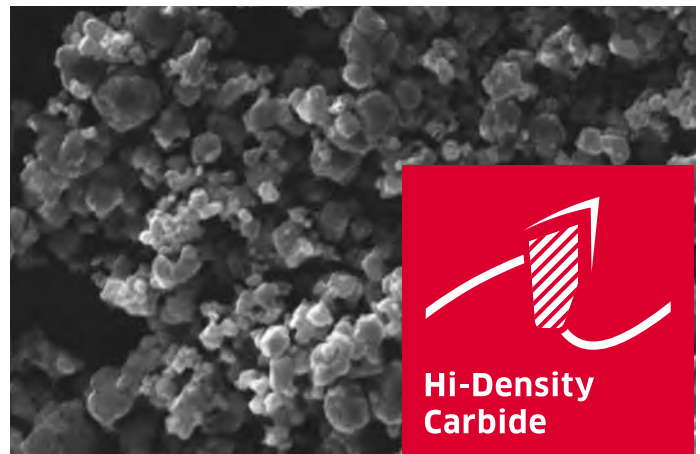


### High resistance to heat and wear: TiCo Hi-Density Carbide.

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

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

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



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

### Performance knife: like a new knife for 8 times!

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

### Coltello Performance: come nuovo per 8 volte!

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



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

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

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

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

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



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



# Superior finishing Finitura superiore

Our technologies to improve your  
production processes.

Le nostre tecnologie per migliorare i vostri  
processi di produzione.

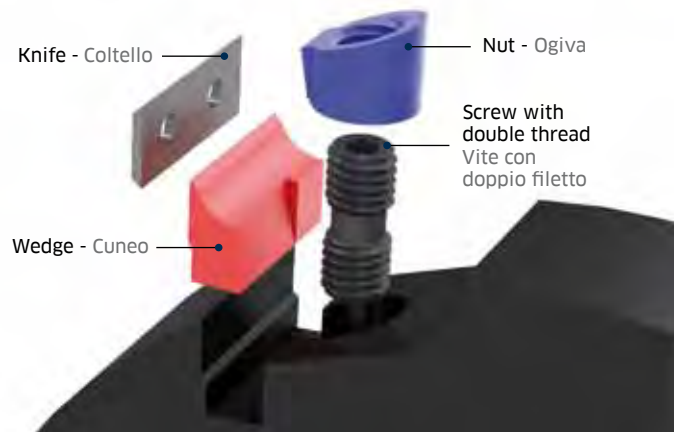


### HRL - High resistant locking system: the fastest way to increase your productivity!

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

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

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



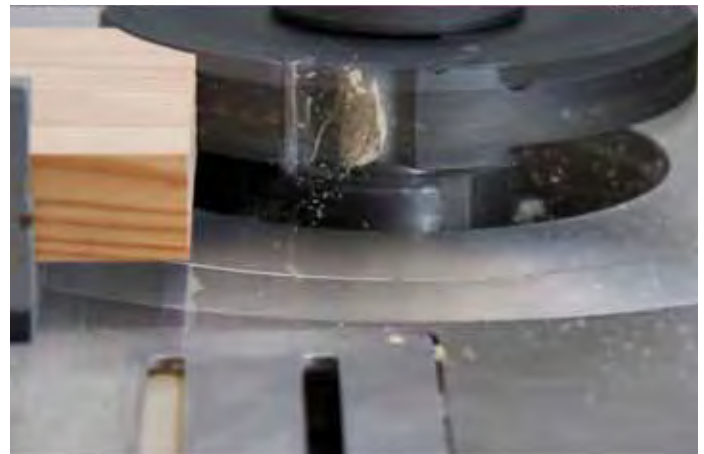
HRL: the fastest way to lock a knife.  
HRL: il modo più veloce per fissare un coltello.

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

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

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

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



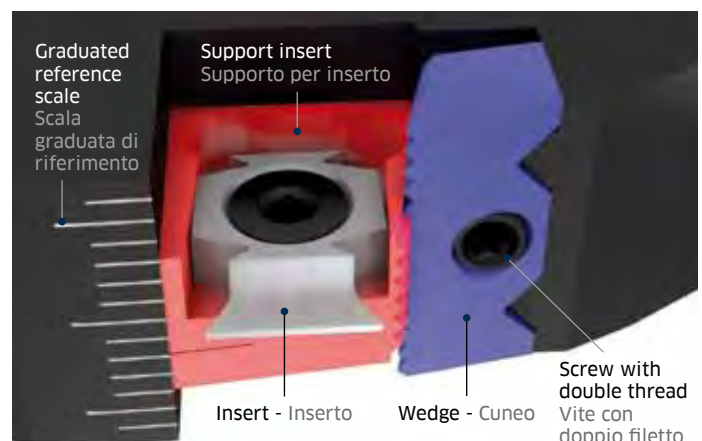
Chip flow system: designed to optimize the chips discharge.  
Sistema di scarico del truciolo: ottimizza l'evacuazione del truciolo.

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

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

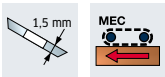
### Sistema di regolazione NSR, il primo sul mercato per regolare e cambiare gli inserti direttamente sulla macchina.

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



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

# TM06M



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

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

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

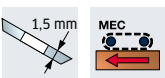
Teste portacoltelli per grosse asportazioni di legno, con buona finitura, fino ad uno spessore massimo di 20 mm.

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

| D<br>mm | B <sup>(1)</sup><br>mm | d<br>mm | Z  | R<br>mm | Max RPM<br>1/min. | Code<br>Codice | SAP<br>SAP |
|---------|------------------------|---------|----|---------|-------------------|----------------|------------|
| 100     | 113                    | 35      | 12 |         | 10.300            | TM06M PC3      | F03FC20384 |
| 100     | 183                    | 35      | 20 |         | 10.300            | TM06M PH3      | F03FC20385 |
| 125     | 78,5                   | 40      | 12 |         | 10.300            | TM06M AB3      | F03FC20371 |
| 125     | 130                    | 40      | 21 |         | 10.300            | TM06M AD3      | F03FC20372 |
| 125     | 148,5                  | 40      | 24 |         | 10.300            | TM06M AF3      | F03FC20373 |
| 125     | 183,5                  | 40      | 30 |         | 10.300            | TM06M AH3      | F03FC20374 |
| 125     | 201                    | 40      | 33 |         | 10.300            | TM06M AI3      | F03FC20375 |
| 125     | 236                    | 40      | 39 |         | 10.300            | TM06M AM3      | F03FC20377 |

| Spare parts<br>Parti di ricambio | Dimensions<br>Dimensioni<br>mm | Code<br>Codice | SAP<br>SAP |
|----------------------------------|--------------------------------|----------------|------------|
| Knife / Coltello                 | 24 x 12 x 1,5                  | CG18MBC310     | F03FH02919 |
| Wedge / Cuneo                    | 15 x 19,3 x 8                  | CN09M AM9      | F03FC01288 |
| Screw / Vite                     | M10 x 22                       | VT19M MA9      | F03FA04496 |
| Nut / Ogiva                      | 15 x 13,3 x 10                 | VT20M MA9      | F03FC20670 |
| Allen key / Chiave               | 5 x 110                        | CB03M EA9      | F03FA00169 |

# TM07M



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

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

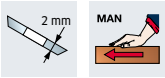
Planer cutterheads with good finish when cutting a maximum depth of 5 - 6 mm. Can be used in combination with item T182M to cut guiding rebates. Light alloy body (Aluminum alloy). For cleaning do not use products containing caustic soda. Rebore not available.

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

| D<br>mm | B<br>mm | d<br>mm | Z  | R<br>mm | Max RPM<br>1/min. | Code<br>Codice | SAP<br>SAP |
|---------|---------|---------|----|---------|-------------------|----------------|------------|
| 125     | 130     | 40      | 9  |         | 10.300            | TM07M GD3      | F03FC20418 |
| 125     | 138     | 40      | 9  |         | 10.300            | TM07M GE3      | F03FC20419 |
| 125     | 180     | 40      | 12 |         | 10.300            | TM07M GF3      | F03FC20420 |
| 125     | 226     | 40      | 15 |         | 10.300            | TM07M GG3      | F03FC20421 |

| Spare parts<br>Parti di ricambio | Dimensions<br>Dimensioni<br>mm | Code<br>Codice | SAP<br>SAP |
|----------------------------------|--------------------------------|----------------|------------|
| Knife / Coltello                 | 50 x 12 x 1,5                  | CG18MFC310     | F03FH02921 |
| Wedge / Cuneo                    | 15 x 46 x 8                    | CN09M AP9      | F03FC01290 |
| Screw / Vite                     | M10 x 22                       | VT19M MA9      | F03FA04496 |
| Nut / Ogiva                      | 15 x 13,3 x 10                 | VT20M MA9      | F03FC20670 |
| Allen key / Chiave               | 5 x 110                        | CB03M EA9      | F03FA00169 |

# TM20M



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

The TM20M planer cutterheads offer both quality and savings:

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

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

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

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

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

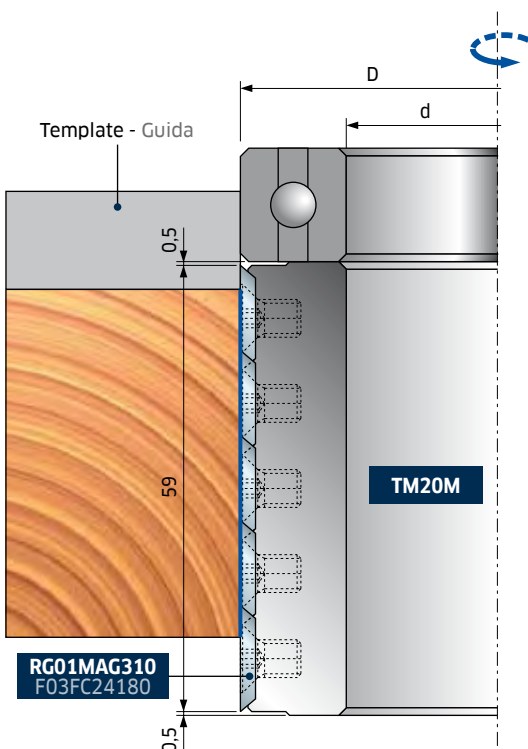
| Spare parts<br>Parti di ricambio |                         | Dimensions<br>Dimensioni<br>mm | Code<br>Codice    | SAP<br>SAP |
|----------------------------------|-------------------------|--------------------------------|-------------------|------------|
|                                  | Spur /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

### Bearings for cutterheads TM20M Cuscinetti per teste TM20M

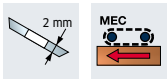
| For cutterhead<br>Per testa | SAP<br>SAP | Dimensions<br>Dimensioni<br>mm | Code<br>Codice   | SAP<br>SAP |
|-----------------------------|------------|--------------------------------|------------------|------------|
| <b>TM20M ACC</b>            | F03FC22098 | 55 x 13 x 30                   | <b>3101M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

**3101M** bearings are not included.

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



# TM21M



## Multicut planer cutterheads Teste multitaglienti per spianare

The TM21M planer cutterheads offer both quality and savings:

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

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

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

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




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

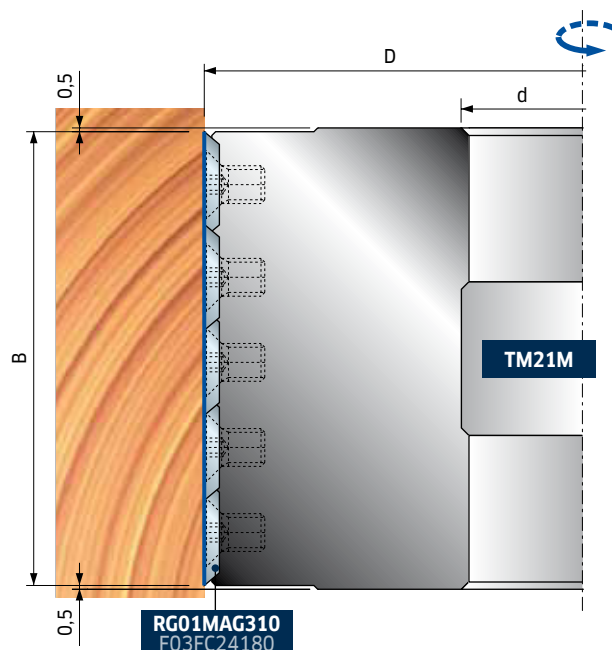
Inoltre, le teste per spianare sono costruite in lega leggera (Lega di alluminio) e l'utensile risulta più maneggevole e richiede meno potenza al motore della macchina.

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

Per la pulizia non utilizzare prodotti contenenti soda caustica.

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

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



# TP05M

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

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

### Type A:

Cutterheads with traditional bore;

### Type B:

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

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

position the knives at the correct diameter with setting gauges.

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

### Tipologia A

Foro finito sul corpo in alluminio.

### Tipologia B

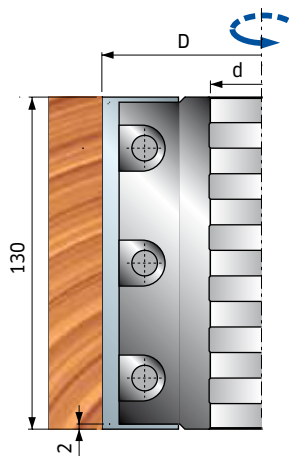
Foro finito realizzato con flange in acciaio calettate sul corpo:

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

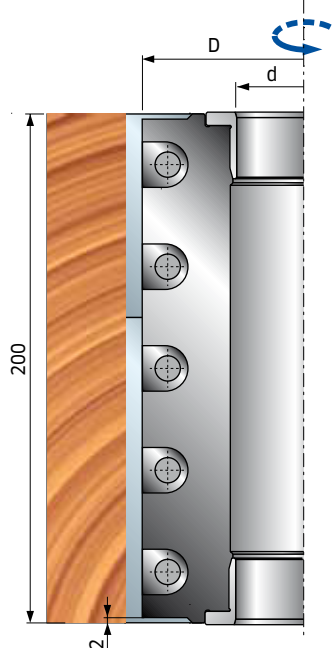
Regolare i coltelli al corretto diametro tramite calibro di posizionamento.



Type A - Tipo A



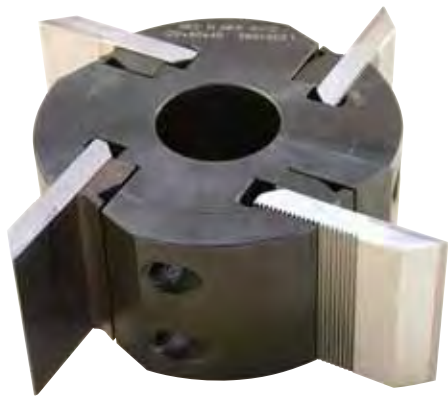
Type B - Tipo B



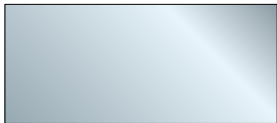
|                 | D<br>mm | B<br>mm | d<br>mm | Z | R | Max RPM<br>1/min. | Code<br>Codice    | SAP<br>SAP |
|-----------------|---------|---------|---------|---|---|-------------------|-------------------|------------|
| Type A - Tipo A | 125     | 100     | 40      | 4 |   | 10.300            | <b>TP05M 100</b>  | F03FC23661 |
|                 | 125     | 130     | 40      | 4 |   | 10.300            | <b>TP05M 130</b>  | F03FC21889 |
|                 | 125     | 150     | 40      | 4 |   | 10.300            | <b>TP05M 150</b>  | F03FC23663 |
|                 | 125     | 180     | 40      | 4 |   | 10.300            | <b>TP05M 180</b>  | F03FC24438 |
|                 | 125     | 200     | 40      | 4 |   | 10.300            | <b>TP05M 200</b>  | F03FC24439 |
|                 | 125     | 230     | 40      | 4 |   | 10.300            | <b>TP05M 230</b>  | F03FC21891 |
| Type B - Tipo B | 125     | 100     | 40      | 4 |   | 10.300            | <b>TP05M 100B</b> | F03FC24440 |
|                 | 125     | 130     | 40      | 4 |   | 10.300            | <b>TP05M 130B</b> | F03FC24442 |
|                 | 125     | 150     | 40      | 4 |   | 10.300            | <b>TP05M 150B</b> | F03FC24444 |
|                 | 125     | 180     | 40      | 4 |   | 10.300            | <b>TP05M 180B</b> | F03FC24446 |
|                 | 125     | 200     | 40      | 4 |   | 10.300            | <b>TP05M 200B</b> | F03FC23134 |
|                 | 125     | 230     | 40      | 4 |   | 10.300            | <b>TP05M 230B</b> | F03FC23135 |
|                 | 140     | 100     | 50      | 4 |   | 9.600             | <b>TP05M 100C</b> | F03FC24441 |
|                 | 140     | 130     | 50      | 4 |   | 9.600             | <b>TP05M 130C</b> | F03FC24443 |
|                 | 140     | 150     | 50      | 4 |   | 9.600             | <b>TP05M 150C</b> | F03FC24445 |
|                 | 140     | 180     | 50      | 4 |   | 9.600             | <b>TP05M 180C</b> | F03FC24447 |
|                 | 140     | 200     | 50      | 4 |   | 9.600             | <b>TP05M 200C</b> | F03FC23665 |
|                 | 140     | 230     | 50      | 4 |   | 9.600             | <b>TP05M 230C</b> | F03FC23666 |

|     | Spare parts<br>Parti di ricambio | Dimensions<br>Dimensioni<br>mm | Code<br>Codice    | SAP<br>SAP |
|-----|----------------------------------|--------------------------------|-------------------|------------|
|     | Allen key / Chiave               | 5 x 110                        | <b>CB03M EA9</b>  | F03FA00169 |
| 100 | Knife / Coltello                 | 100 x 30 x 3                   | <b>CT01MDA202</b> | F03FA18167 |
|     | Wedge / Cuneo                    | 96 x 19 x 8,5                  | <b>CN11M 096</b>  | F03FC23670 |
| 130 | Knife / Coltello                 | 130 x 30 x 3                   | <b>CT01MHA202</b> | F03FA18169 |
|     | Wedge / Cuneo                    | 126 x 19 x 8,5                 | <b>CN11M 126</b>  | F03FC21964 |
| 150 | Knife / Coltello                 | 150 x 30 x 3                   | <b>CT01MLA202</b> | F03FA18171 |
|     | Wedge / Cuneo                    | 146 x 19 x 8,5                 | <b>CN11M 146</b>  | F03FC23672 |
| 180 | Knife / Coltello                 | 180 x 30 x 3                   | <b>CT01MOA202</b> | F03FA18173 |
|     | Wedge / Cuneo                    | 176 x 19 x 8,5                 | <b>CN11M 176</b>  | F03FC24448 |
| 200 | Knife / Coltello                 | 200 x 30 x 3                   | <b>CT01MPA202</b> | F03FA18174 |
|     | Wedge / Cuneo                    | 196 x 19 x 8                   | <b>CN11M 196</b>  | F03FC23132 |
| 230 | Knife / Coltello                 | 230 x 30 x 3                   | <b>CT01MRA202</b> | F03FA18175 |
|     | Wedge / Cuneo                    | 226 x 19 x 8,5                 | <b>CN11M 226</b>  | F03FC21966 |

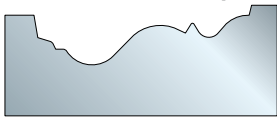
# TPCZM



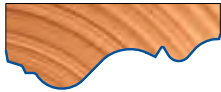
Raw knife - Coltello grezzo



Profiled knife - Coltello profilato



Wood profile - Profilo legno



## Cutterheads with serrated profilable knives Teste con coltelli zigrinati profilabili

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

**This item is supplied without knives.**

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

L'articolo viene fornito senza coltelli.

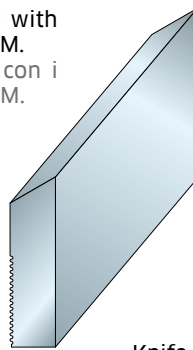
| D<br>mm | B<br>mm | d<br>mm | Z | R | Max RPM<br>1/min. | Code<br>Codice   | SAP<br>SAP |
|---------|---------|---------|---|---|-------------------|------------------|------------|
| 122     | 60      | 40      | 4 |   | 9.000             | <b>TPCZM CB9</b> | F03FC22116 |
| 122     | 80      | 40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

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

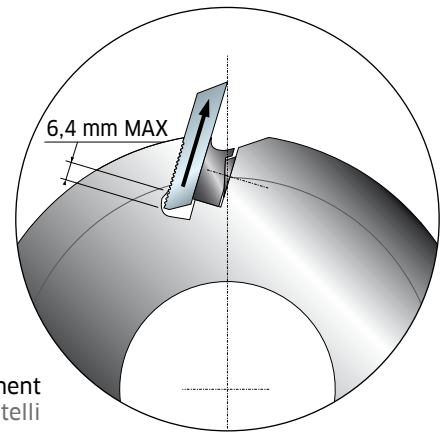
Non superare il numero di affilature che porti ad una luce tra sede e coltello superiore a 6,4 mm.

Can be used with knives CZ01M.

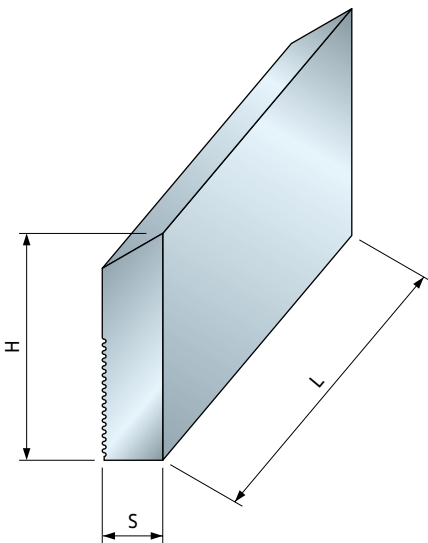
Utilizzabile con i coltelli CZ01M.



Knife placement  
Posizionamento coltelli



# CZ01M



For different dimensions, ask for a quote.

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

## HSS serrated back knives Coltelli zigrinati in HSS

Profiling HSS knives. Can be used with cutterheads TPCZM.

The serrated surface ensures a perfect knife placement and lock.

Suitable for cutting all soft and hardwoods.

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

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

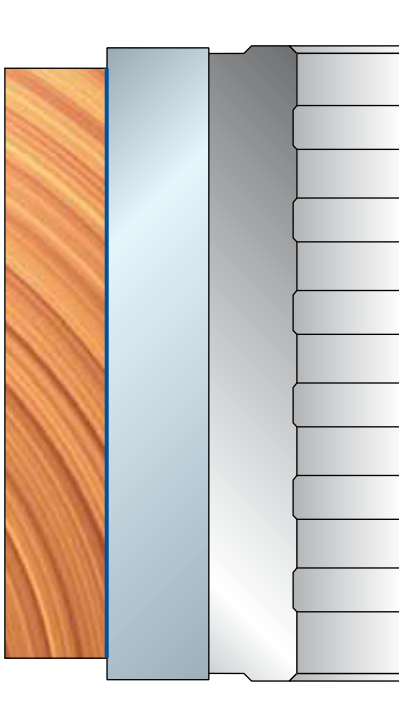
| L<br>mm | H<br>mm | S<br>mm | Code<br>Codice   | SAP<br>SAP |
|---------|---------|---------|------------------|------------|
| 60      | 50      | 8       | <b>CZ01M DB2</b> | F03FA13922 |
| 80      | 50      | 8       | <b>CZ01M DC2</b> | F03FA13923 |
| 100     | 50      | 8       | <b>CZ01M DD2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

# TM17M



## Groove bead cutters - Teste per guida laterale

| Item<br>Articolo | In conjunction with item:<br>Utilizzabile con: | SAP<br>SAP |
|------------------|--|------------|
| TM17M            | T182M EA3                                      | F03FC20588 |
| TM17M            | T182M EB3                                      | F03FC20589 |



## ISOprofil planer cutterheads Teste ISOprofil per spianare

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

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

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

### Tools supplied with HW knives Utensili con coltelli in HW

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

### Tools supplied with HSS knives Utensili con coltelli in HSS

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

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

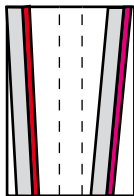


# TM28M



## Groove bead cutters - Teste per guida laterale

| Item<br>Articolo | In conjunction with item:<br>Utilizzabile con: | SAP<br>SAP |
|------------------|--|------------|
| TM28M            | T182M EA3                                      | F03FC20588 |
| TM28M            | T182M EB3                                      | F03FC20589 |



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

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

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

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

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

### Tools supplied with HW knives Utensili con coltelli in HW

| D<br>mm | B<br>mm | d<br>mm | Z | R | Max RPM<br>1/min. | Code<br>Codice | SAP<br>SAP |
|---------|---------|---------|---|---|-------------------|----------------|------------|
| 125     | 80      | 40      | 4 |   | 10.300            | TM28M AA3      | F03FC22081 |
| 125     | 130     | 40      | 4 |   | 10.300            | TM28M AD3      | F03FC22083 |
| 125     | 150     | 40      | 4 |   | 10.300            | TM28M AF3      | F03FC22085 |
| 125     | 180     | 40      | 4 |   | 10.300            | TM28M AH3      | F03FC22086 |
| 125     | 240     | 40      | 4 |   | 10.300            | TM28M AM3      | F03FC22089 |

### Tools supplied with HSS knives Utensili con coltelli in HSS

| D<br>mm | B<br>mm | d<br>mm | Z | R | Max RPM<br>1/min. | Code<br>Codice | SAP<br>SAP |
|---------|---------|---------|---|---|-------------------|----------------|------------|
| 125     | 80      | 40      | 4 |   | 10.300            | TM28M AA2      | F03FC22080 |
| 125     | 130     | 40      | 4 |   | 10.300            | TM28M AD2      | F03FC22082 |
| 125     | 150     | 40      | 4 |   | 10.300            | TM28M AF2      | F03FC22084 |
| 125     | 180     | 40      | 4 |   | 10.300            | TM28M AH2      | F03FC22087 |
| 125     | 240     | 40      | 4 |   | 10.300            | TM28M AM2      | F03FC22088 |

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

# T102M

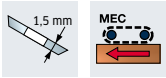
## Modular planer cutterheads with disposable knives Teste per spianare per scorniciatrici

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

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

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

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

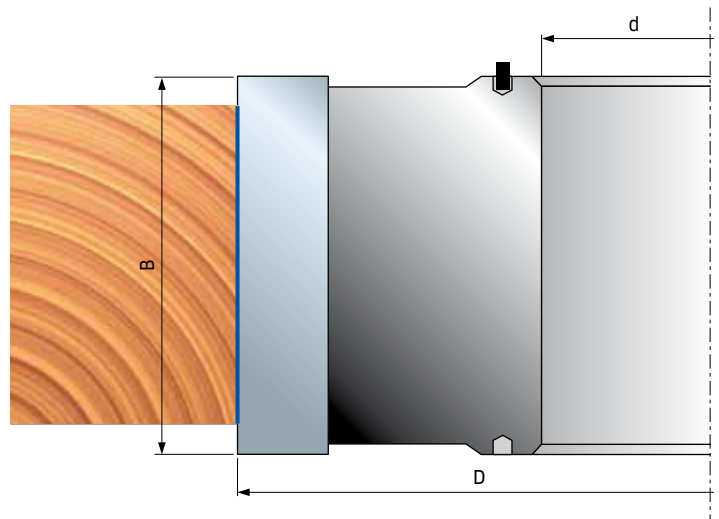


### Groove bead cutters - Teste per guida laterale

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

| D<br>mm | B<br>mm | d*<br>mm | Z | R | Max RPM<br>1/min. | Code<br>Codice   | SAP<br>SAP |
|---------|---------|----------|---|---|-------------------|------------------|------------|
| 125     | 30      | 32       | 4 |   | 10.300            | <b>T102M AL3</b> | F03F668305 |
| 125     | 50      | 32       | 4 |   | 10.300            | <b>T102M AI3</b> | F03F668304 |
| 125     | 50      | 40       | 4 |   | 10.300            | <b>T102M AC3</b> | F03FC20575 |
| 125     | 50      | 50       | 4 |   | 10.300            | <b>T102M AD3</b> | F03FC20576 |
| 125     | 30      | 40 (50)  | 4 |   | 10.300            | <b>T102M AF3</b> | F03FC20577 |

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



### Application examples Esempi di applicazione

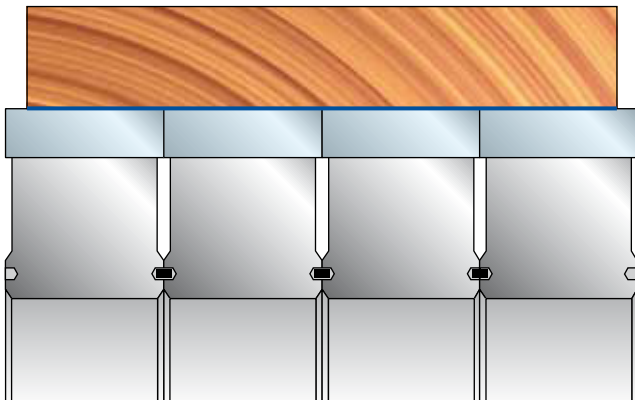


Fig. A

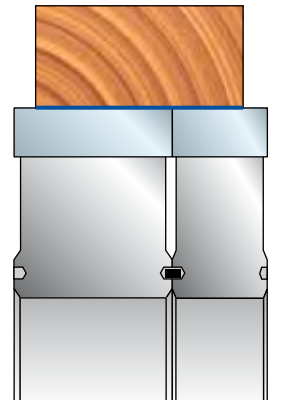
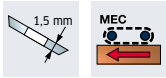


Fig. B

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

# T182M

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



| D<br>mm | B<br>mm | d<br>mm | Z | R | Max RPM<br>1/min. | Code<br>Codice    | SAP<br>SAP |
|---------|---------|---------|---|---|-------------------|-------------------|------------|
| 120     | 12      | 35      | 3 | 3 | 11.000            | <b>T182M BB3</b>  | F03FC20585 |
| 120     | 12      | 35      | 2 | 2 | 11.000            | <b>T182M CB3</b>  | F03FC20586 |
| 145     | 12      | 40      | 4 | 2 | 9.000             | <b>T182M EA3</b>  | F03FC20588 |
| 145     | 12      | 40      | 3 | 3 | 9.000             | <b>T182M AA3</b>  | F03FC20583 |
| 145     | 10      | 40      | 3 | 3 | 9.000             | <b>T182M AB3*</b> | F03FC20584 |
| 150     | 10      | 40      | 4 | 2 | 9.000             | <b>T182M EB3</b>  | F03FC20589 |
| 150     | 10      | 40      | 3 | 3 | 9.000             | <b>T182M DB3</b>  | F03FC20587 |

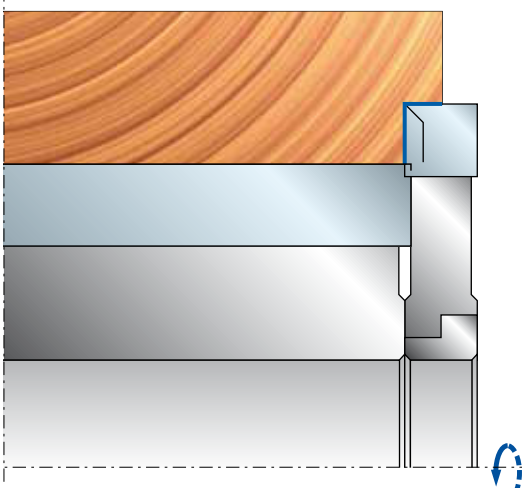
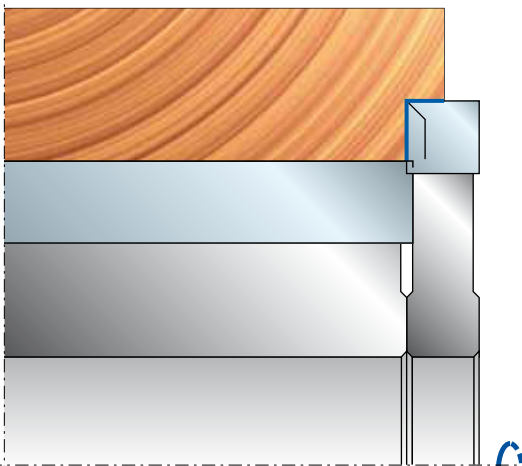
| Item<br>Articolo  | SAP<br>SAP | In conjunction with item:<br>Utilizzabile con: |
|-------------------|------------|--|
| <b>T182M AB3*</b> | F03FC20584 | TM06M - TM07M Ø125                             |
| <b>T182M BB3</b>  | F03FC20585 | TM07M AF3                                      |
| <b>T182M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

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

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

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

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



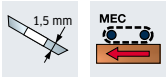
|            | Spare parts<br>Parti di ricambio | Dimensions<br>Dimensioni<br>mm | Code<br>Codice    | SAP<br>SAP |
|------------|----------------------------------|--------------------------------|-------------------|------------|
|            | Spur / Rasante                   | 14 x 14 x 2       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

# T183M

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

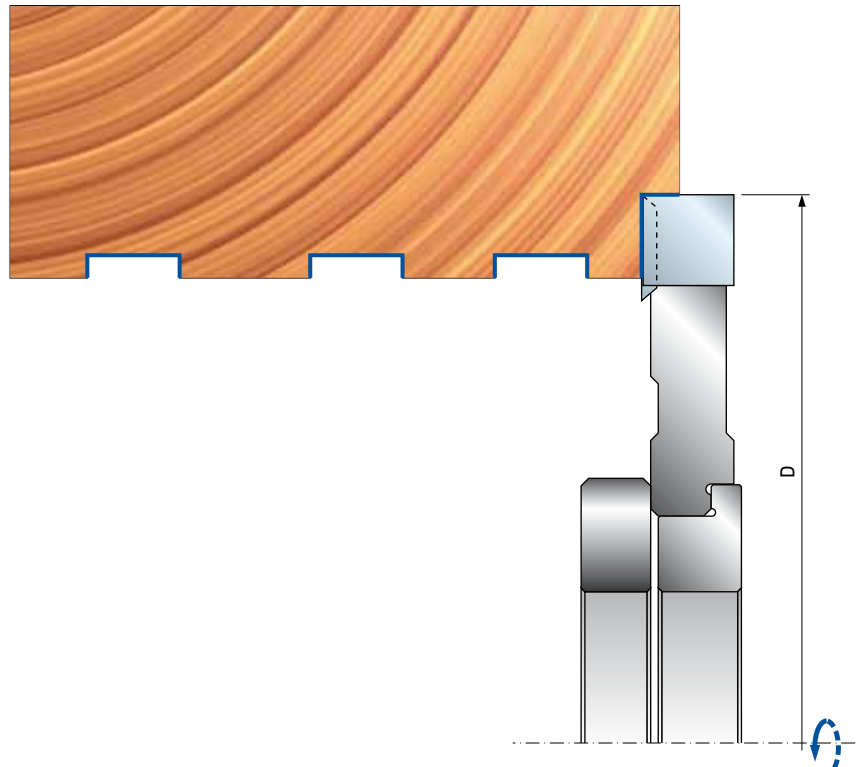
Item T183M: For cutting guide grooves in solid wood for S.C.M. moulding machines.

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



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

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



# TW23M - TW20M

Z = 2

Z = 4



## Finger joint cutterheads Teste per giunzioni

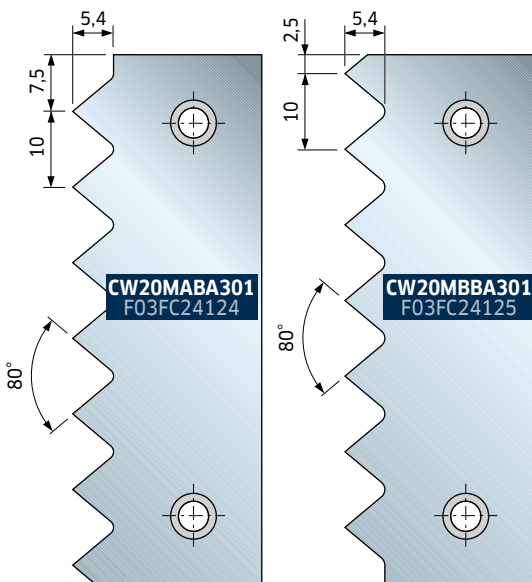
Tools for working long grain on short workpieces.

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

Utensili per la lavorazione lungo vena di pezzi corti.

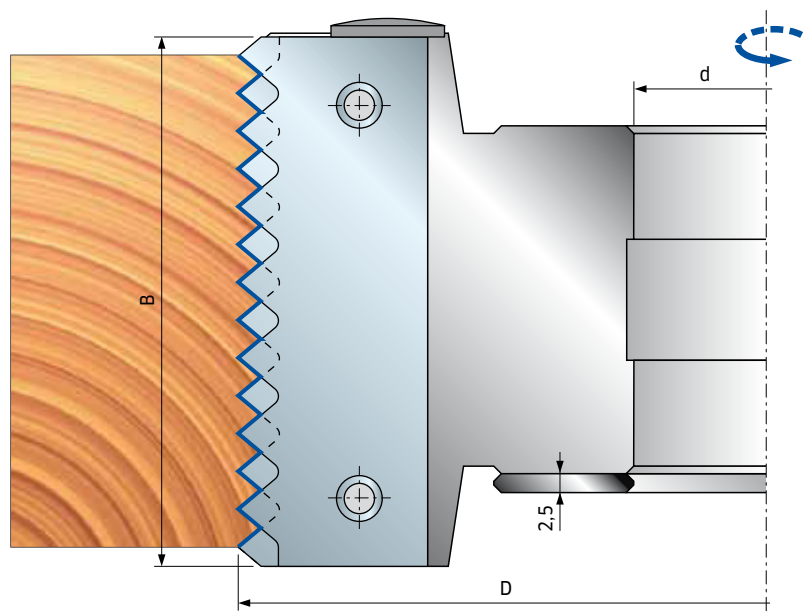
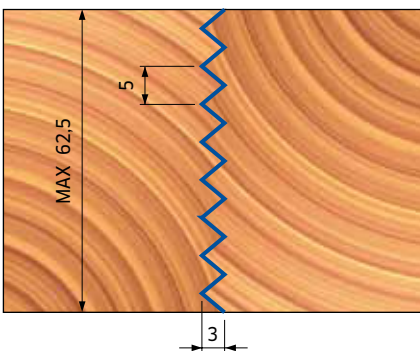
**Attenzione:** sulle teste sono montati due tipi di coltelli diversi: **CW20MA** e **CW20MB**. Vengono forniti in dotazione i coltelli ed un anello distanziale  $S=2,5$  mm per ottenere una perfetta giunzione mantenendo la programmazione iniziale inalterata. Lo spessore massimo ottenibile è di 62,5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

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



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

TW20M BA3  
TW23M BE3  
TW20M BF3  
TW23M BF3  
TW23M BG3



# TW22M

## Finger joint cutterheads Teste per giunzioni

Tools for working long grain on short workpieces.

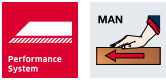
**Please note:** two different types of knives are fitted on the cutterheads: two **CW22MAAA301** and two **CW22MBAA301**.

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

Utensili per la lavorazione lungo vena di pezzi corti.

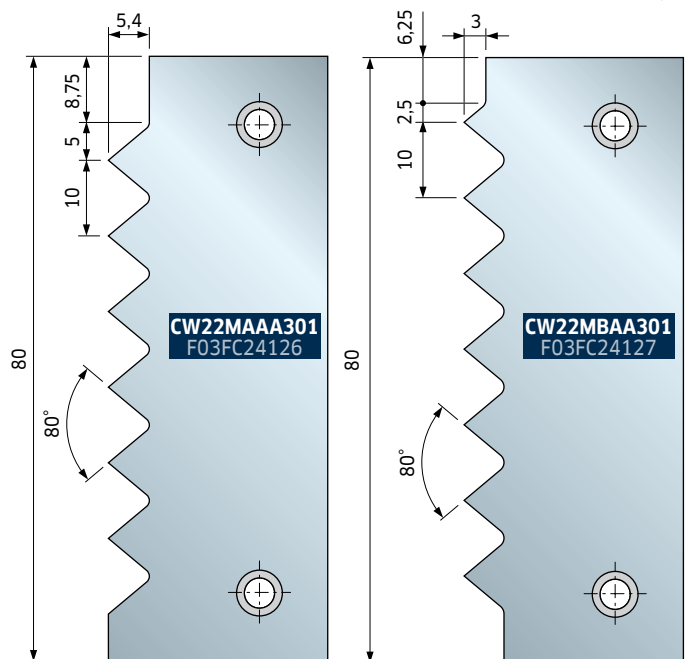
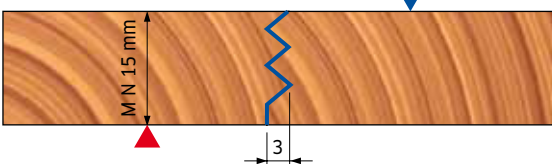
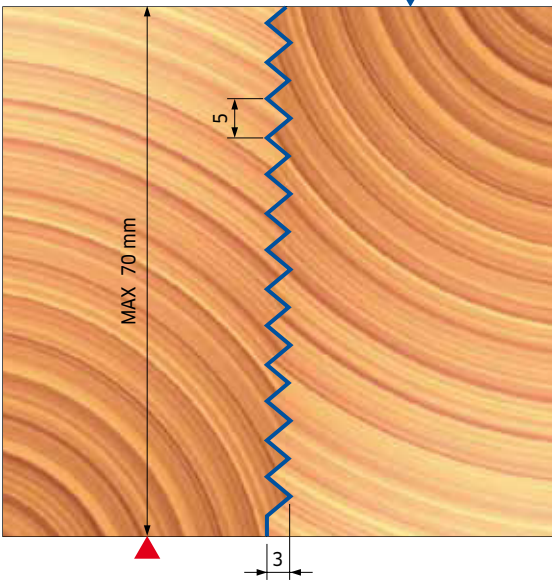
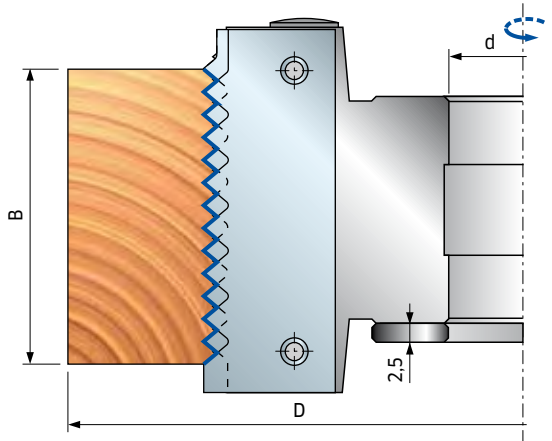
Sulla testa vengono montati due tipi di coltelli: due **CW22MAAA301** + due **CW22MBAA301**.

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



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

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



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

Fig. 1 PROFILE / PROFILO

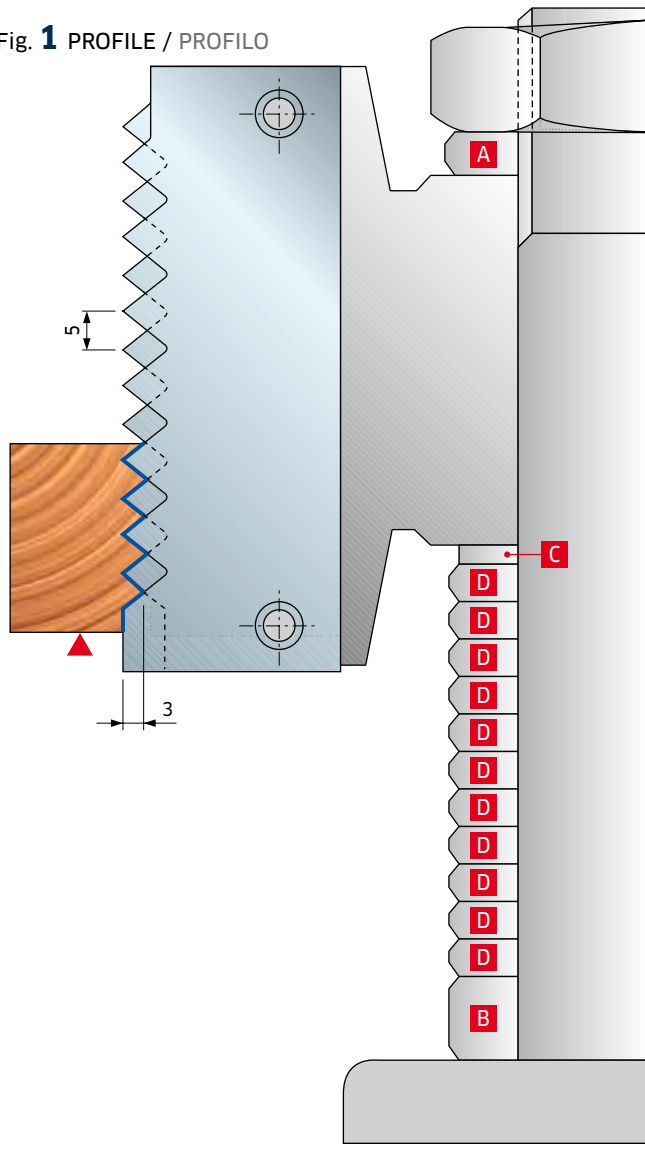
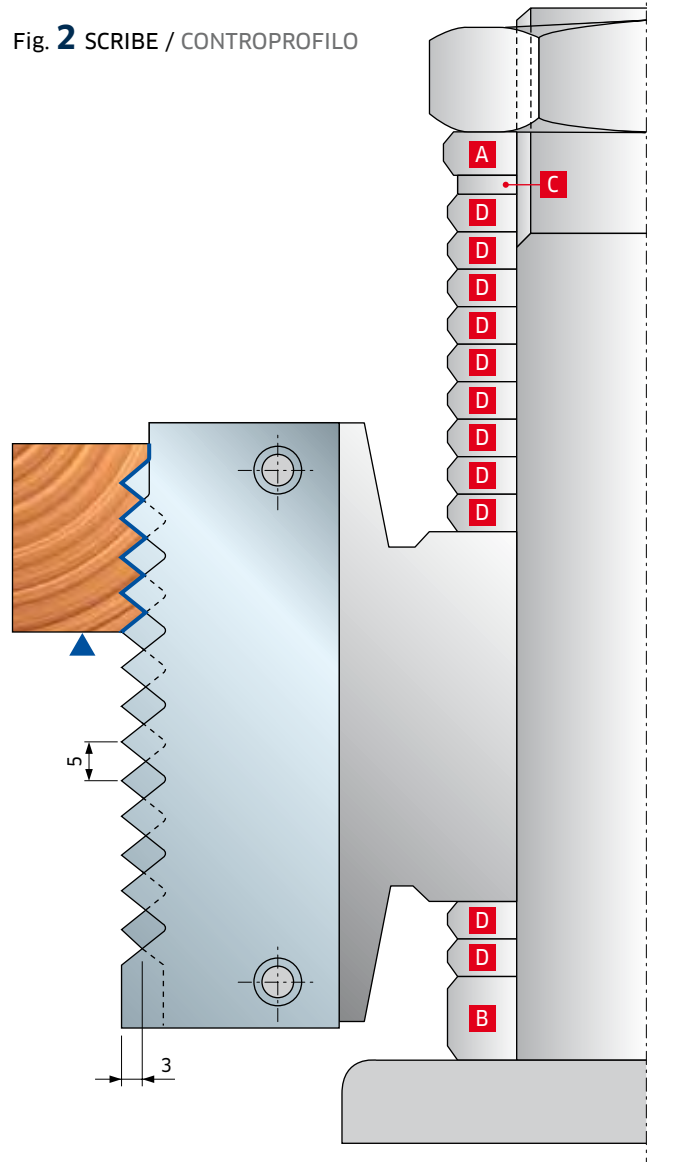


Fig. 2 SCRIBE / CONTROPROFILO



**1:** To obtain the profile, insert all spacers "C" and "D" below the tool as indicated in figure A.

**2:** To achieve the counterprofile remove spacer "C" and as many spacers "D" as the number of teeth not in use, placing them above the tool as indicated in figure B. In the example above there are 9 teeth not used (fig. A), so 9 spacers "D" will be removed together with spacer "C" and placed above the tool (fig. B).

- Spacers "A-B": supplied with machine.
- Spacer "C": 2,5 mm thickness, equal to 1/2 the tooth's pitch, for the exactpositioning of the tool, in order to carry out the counter profile.
- Spacers "D": 5 mm thickness, (equal to the tooth's pitch) supplied onrequest; cod: **AN04M BB9**.

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

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

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

## Optional set of spacers Set di anelli opzionale

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

# TW01M



## Finger joint cutterheads

### Teste per giunzioni - profilo intercambiabile

Cutterhead diameter with knives is 150 mm.

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

Tools for working long and cross grain on short workpieces.

**The item does not include knives and support plates.**

Diametro della testa con i coltelli: 150 mm.

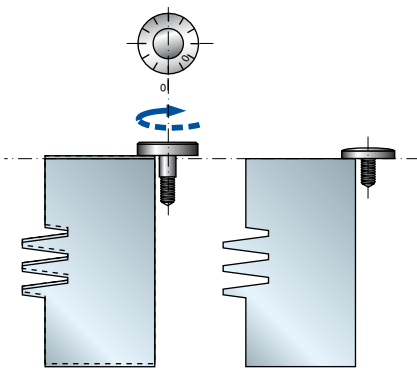
Vantaggi: Sullo stesso corpo possibilità di montaggio di differenti profili di giunzione (vedi pagina seguente). Possibilità di regolazione del gioco di accoppiamento (giunzione forzata, normale e lasca).

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

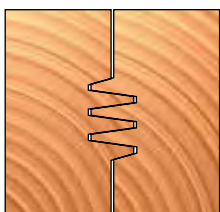
**L'articolo non comprende i coltelli e i supporti.**

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

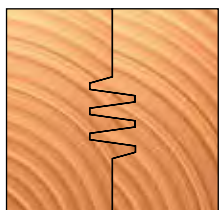
| Spare parts<br>Parti di ricambio |  | Dimensions<br>Dimensioni<br>mm | Code<br>Codice     | SAP<br>SAP |
|----------------------------------|--|--------------------------------|--------------------|------------|
|                                  | Wedge / Cuneo                              | 53 x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



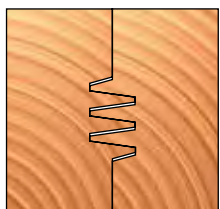
#### Adjustment examples: Esempi di regolazione:



**Tight joint**  
Giunzione forzata



**Regular joint**  
Giunzione normale

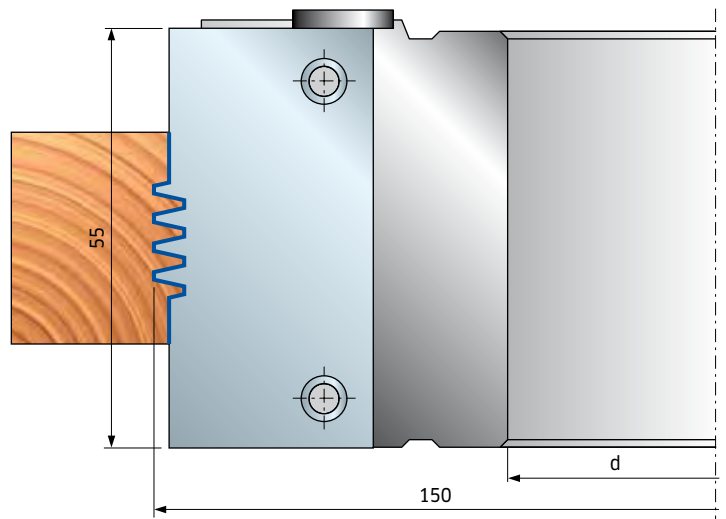


**Loose joint**  
Giunzione lasca

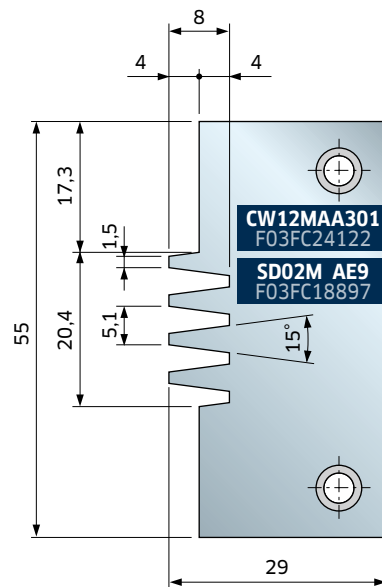
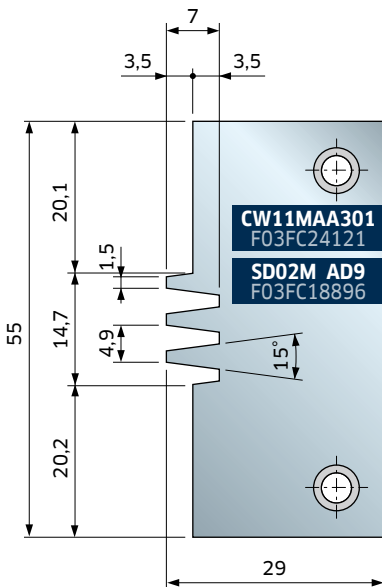
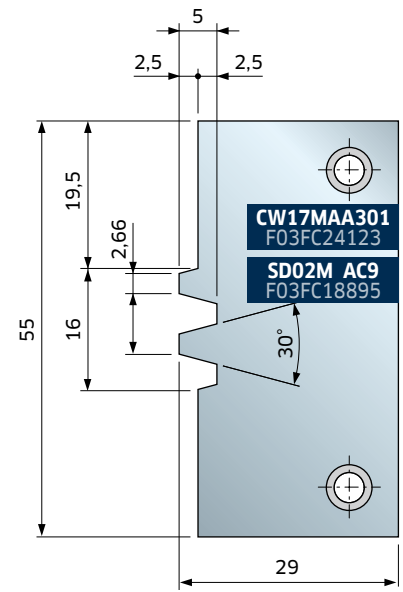
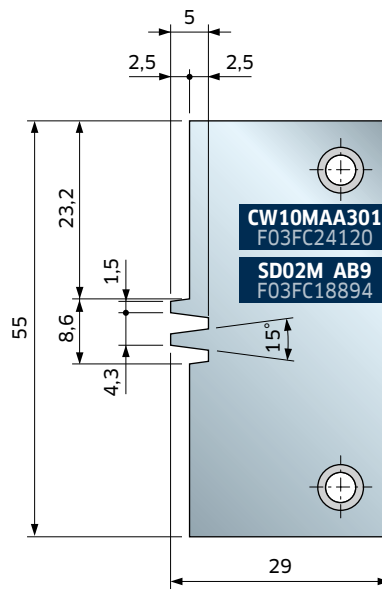
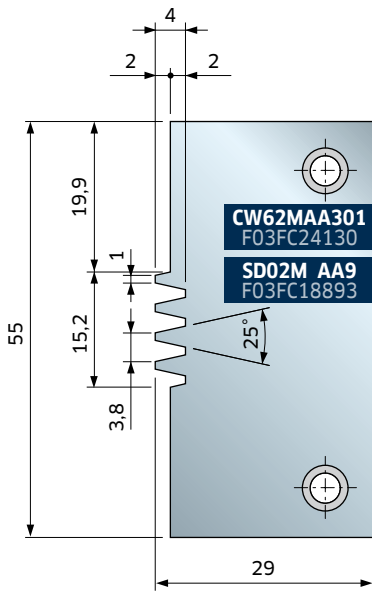
#### Order example:

##### Esempio di ordinazione:

| Item<br>Articolo  | SAP<br>SAP | Dimensions<br>Dimensioni<br>mm | Quantity<br>Quantità<br>PCS. - PZ. |
|-------------------|------------|--------------------------------|------------------------------------|
| <b>TW01M AB3</b>  | F03FC20555 | 136 x 55 x 35 Z4               | 1                                  |
| <b>CW10MAA301</b> | F03FC24120 | 55 x 29 x 3                    | 4                                  |
| <b>SD02M AB9</b>  | F03FC18894 | 55 x 27 x 5,5                  | 4                                  |







| Dimensions<br>Dimensioni<br>mm | Spare knives<br>Coltelli di<br>ricambio | SAP<br>SAP |
|--------------------------------|---|------------|
| 55 x 29 x 3                    | <b>CW62MAA301</b>                       | F03FC24130 |
| 55 x 29 x 3                    | <b>CW10MAA301</b>                       | F03FC24120 |
| 55 x 29 x 3                    | <b>CW17MAA301</b>                       | F03FC24123 |
| 55 x 29 x 3                    | <b>CW11MAA301</b>                       | F03FC24121 |
| 55 x 29 x 3                    | <b>CW12MAA301</b>                       | F03FC24122 |

| Dimensions<br>Dimensioni<br>mm | Spare support<br>plates<br>Supporti di<br>ricambio | SAP<br>SAP |
|--------------------------------|--|------------|
| 55 x 27 x 5,5                  | <b>SD02M AA9</b>                                   | F03FC18893 |
| 55 x 27 x 5,5                  | <b>SD02M AB9</b>                                   | F03FC18894 |
| 55 x 27 x 5,5                  | <b>SD02M AC9</b>                                   | F03FC18895 |
| 55 x 27 x 5,5                  | <b>SD02M AD9</b>                                   | F03FC18896 |
| 55 x 27 x 5,5                  | <b>SD02M AE9</b>                                   | F03FC18897 |

# TW24M

## Adjustable finger joint cutterheads set Gruppi di teste per giunzioni regolabili

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

**Cutterhead supplied with resharpenable HW knives and spacers.**

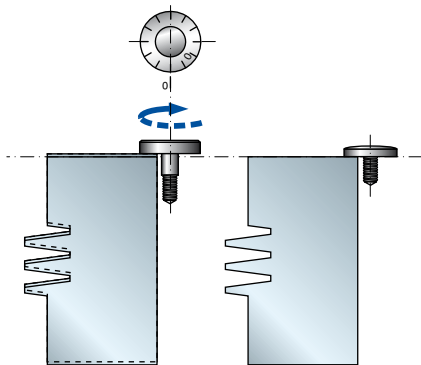
Utensili per la lavorazione lungo e trasverso vena di pezzi corti. Regolazione per spessore legno: 40÷70 mm.

**Testa fornita di coltelli in HW riaffilabili e set anelli.**

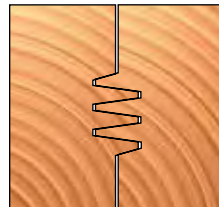


| D mm | B mm | d* mm   | Z   | R | Max RPM 1/min. | Code Codice      | SAP SAP    |
|------|------|---------|-----|---|----------------|------------------|------------|
| 150  |      | 30      | 2+2 |   | 9.000          | <b>TW24M AA3</b> | F03FC24412 |
| 150  |      | 32      | 2+2 |   | 9.000    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

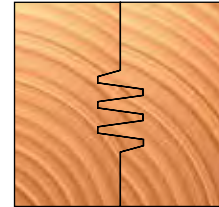
| Spare parts<br>Parti di ricambio |                                       | Dimensions<br>Dimensioni mm | Code<br>Codice     | SAP<br>SAP |
|----------------------------------|---------------------------------------|-----------------------------|--------------------|------------|
|                 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



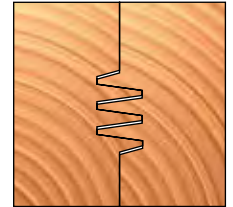
### Adjustment examples: Esempi di regolazione:



**Tight joint**  
Giunzione forzata

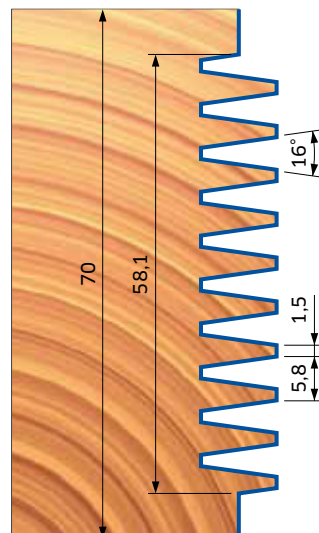
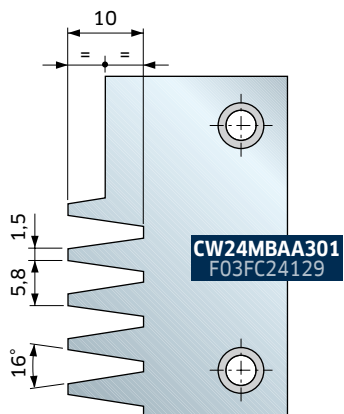
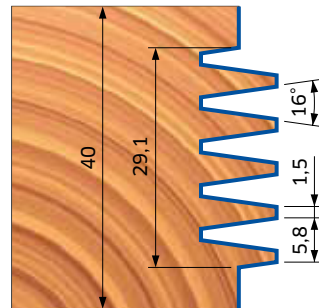
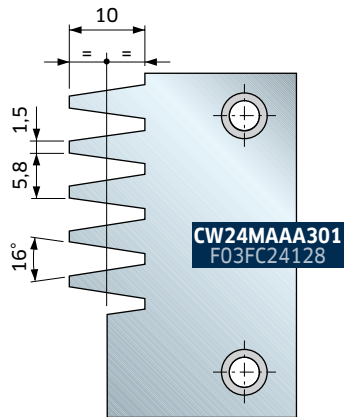
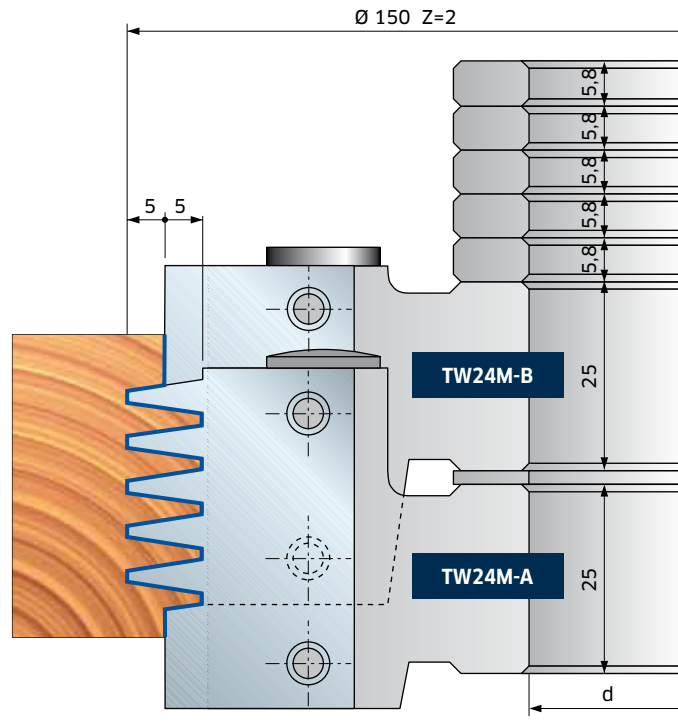


**Regular joint**  
Giunzione normale



**Loose joint**  
Giunzione lasca

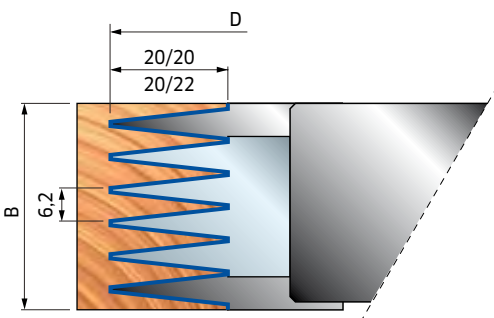
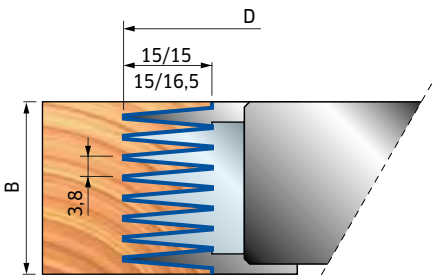
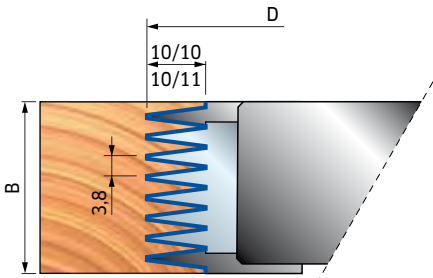




# TW05M



Enlargement of hard coating  
Particolare del rivestimento



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

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

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

PVD coating of the knives:

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

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

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

Rivestimento PVD dei coltelli.

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

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

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

### Spare knives - Coltelli di ricambio

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

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

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

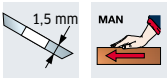
Tabella per determinare il massimo spessore legno lavorato in base al numero di teste utilizzate.

# TG08M

## Adjustable bevel cutterheads with disposable knives Teste ad inclinazione regolabile

Rebore not available.

Non è consentita l'allargatura del foro.



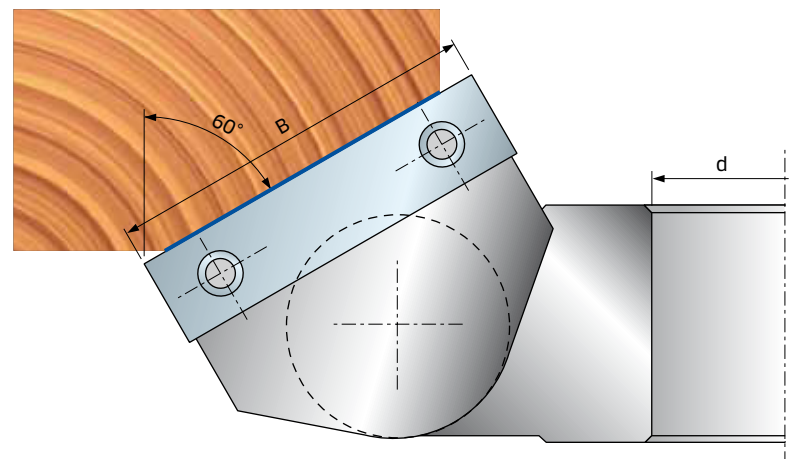
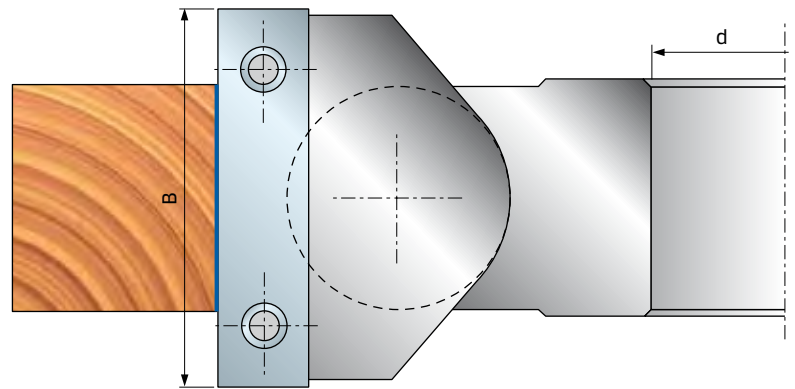
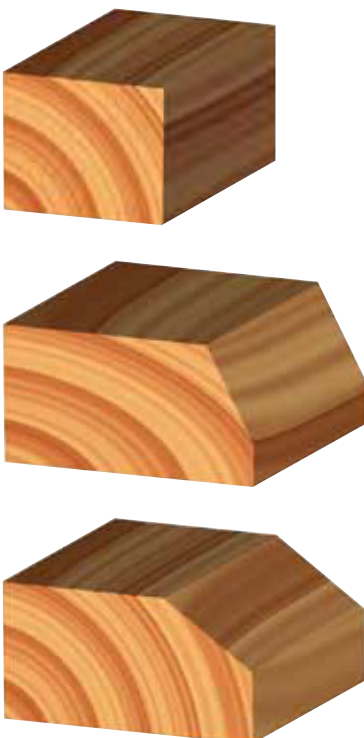
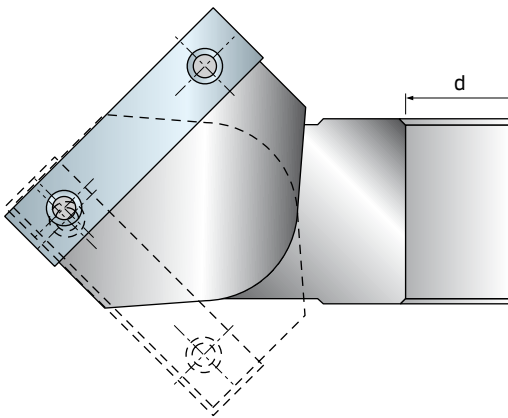
| D<br>mm | B<br>mm | d<br>mm | Z | R | Max RPM<br>1/min. | Code<br>Codice   | SAP<br>SAP |
|---------|---------|---------|---|---|-------------------|------------------|------------|
| 120     | 40      | 30      | 2 |   | 8.500             | <b>TG08M LA3</b> | F03FA04245 |
| 150     | 50      | 30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

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

Minimum adjustment obtainable is 1 degree.

La regolazione minima ottenibile è di 1°.

| Diameter<br>Diametro<br>mm | Inclination<br>Inclinazione |      |
|----------------------------|-----------------------------|------|
|                            | Min.                        | Max. |
| 120                        | 0°                          | 60°  |
| 150                        | 0°                          | 90°  |



# TG09M

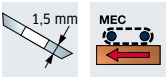
## Adjustable bevel cutterheads with disposable knives Teste ad inclinazione regolabile

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

Ideale per la smussatura su legno e suoi derivati.

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

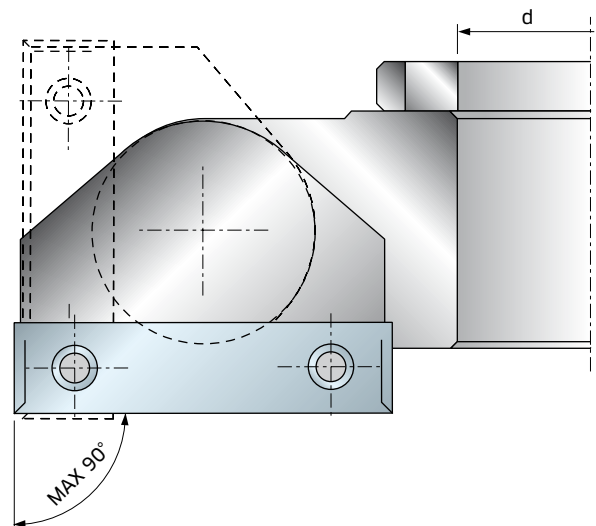
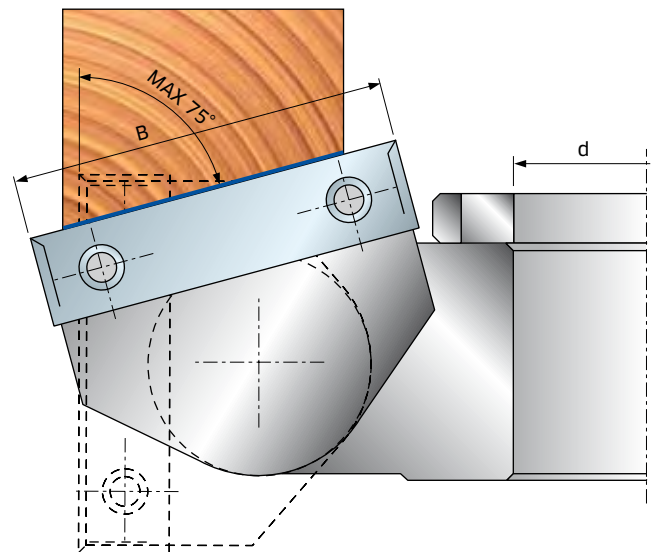
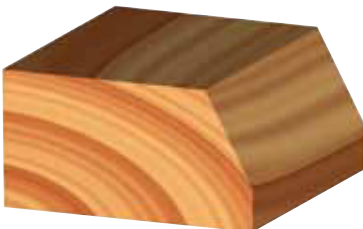
Non è consentita l'allargatura del foro.



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

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

with graduated ring  
con ghiera graduata



# T111M - T112M

Z = 4

Z = 4+4

## Cutterheads for rebates

### Teste per battute

Can be used on CNC machines.

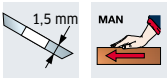
Rebore not available.

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

Utilizzabile su pantografo.

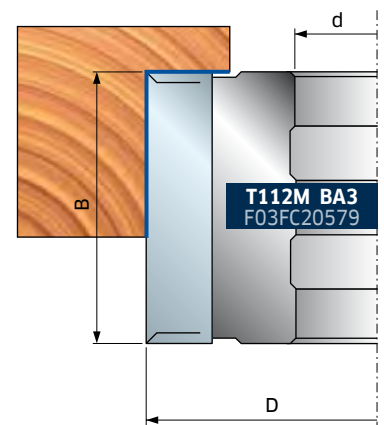
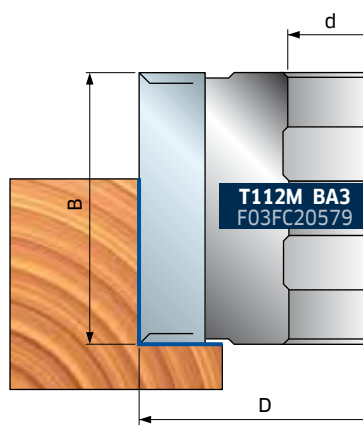
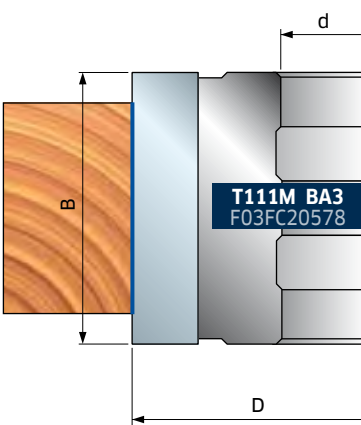
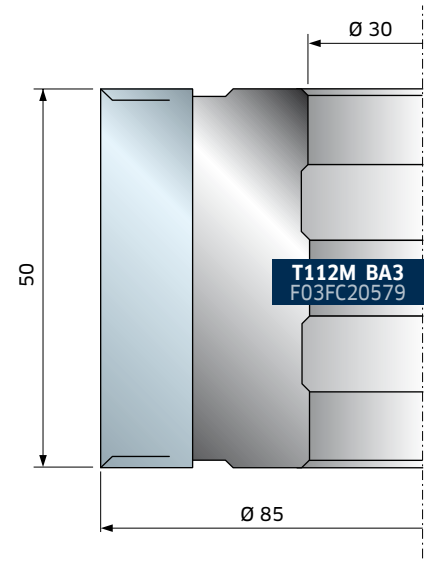
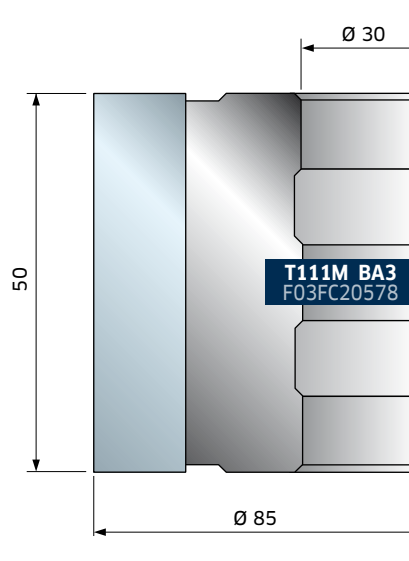
Non è consentita l'allargatura del foro.

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



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

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



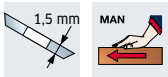
# T191M - T192M

Z = 4

Z = 2

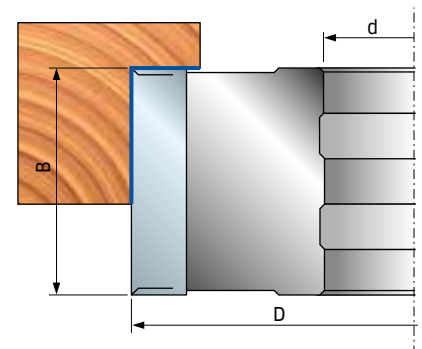
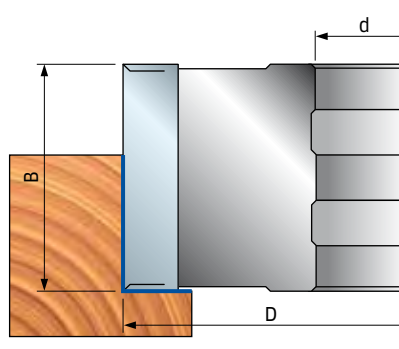
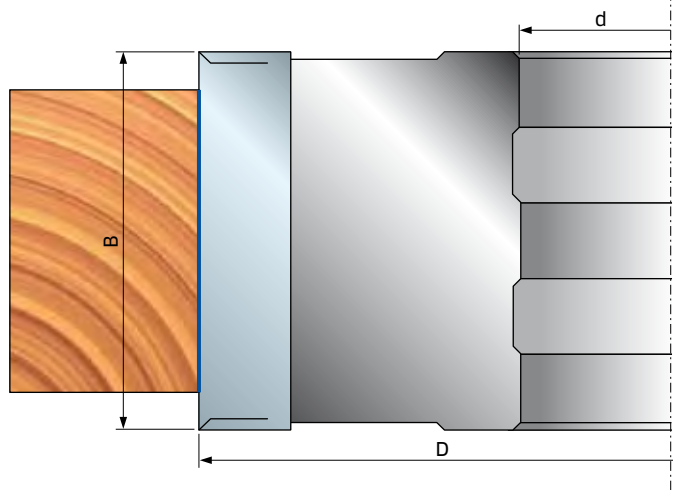
## Cutterheads for rebates Teste per battute

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



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

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



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



# T194M - T195M

Z = 4

Z = 2

## Cutterheads for rebates

### Teste per battute

Tools with alternate shear angle.

With seat pockets for bevelling inserts (not included):

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

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

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

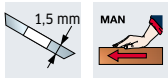
Utensili con angolo assiale alterno.

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

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

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

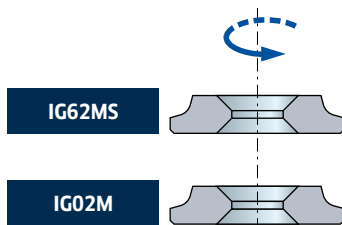
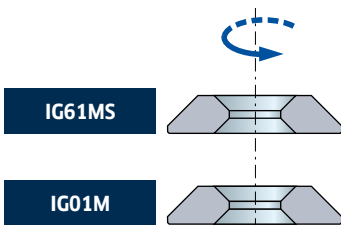
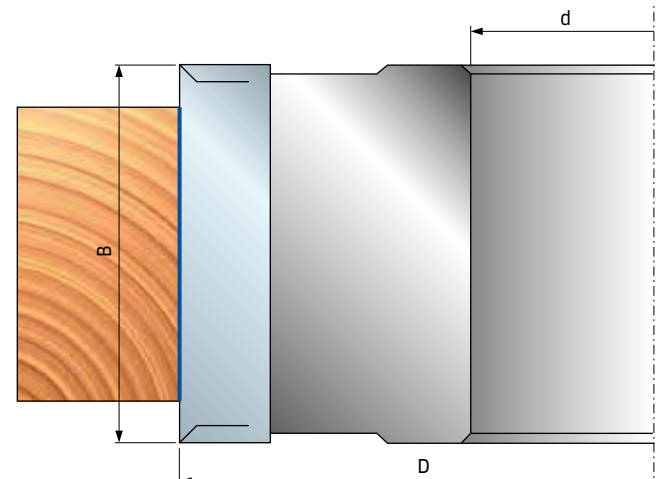
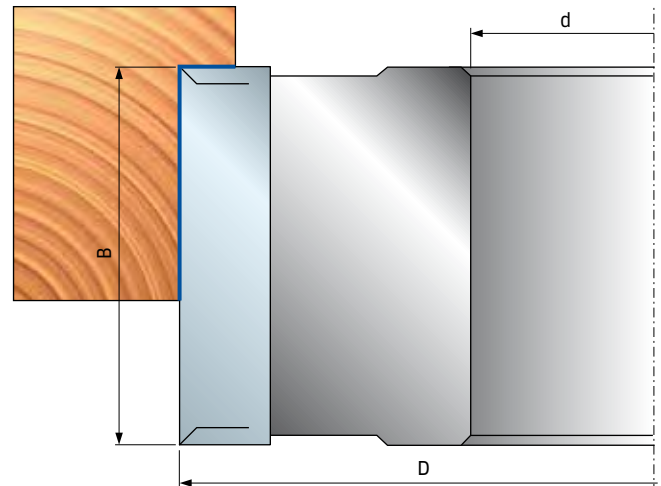
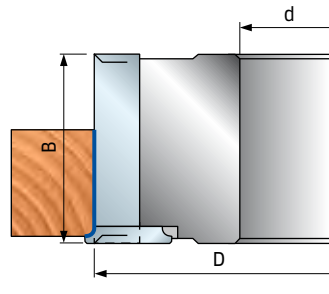
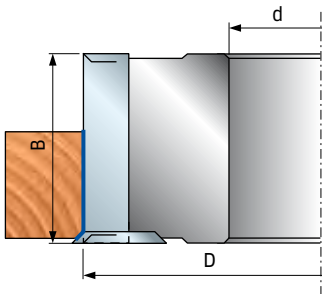
Corpo in lega leggera (Lega di alluminio). Per la pulizia non utilizzare prodotti contenenti soda caustica.



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

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

### Application examples Esempi di applicazione



# T193M

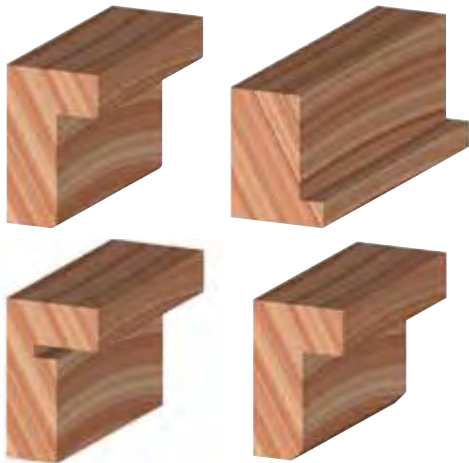
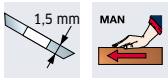
## Cutterheads for rebates Teste per battute

Tools with alternate shear angle.

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

Utensili con angolo assiale alterno.

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



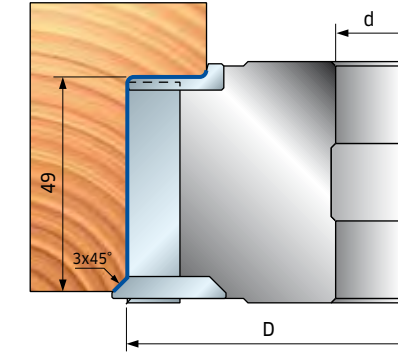
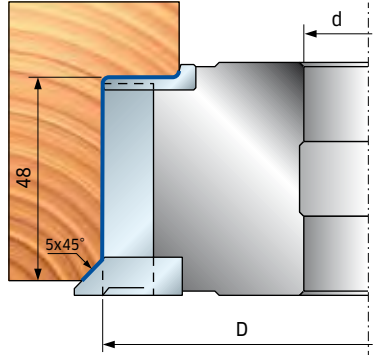
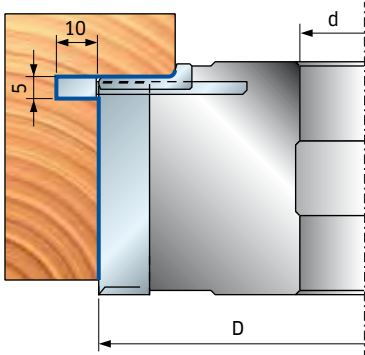
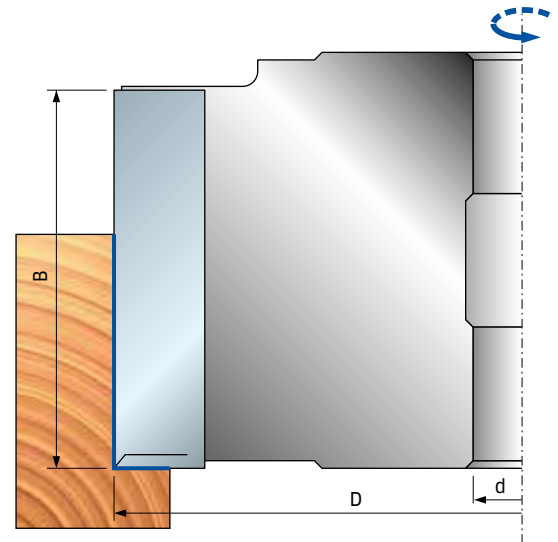
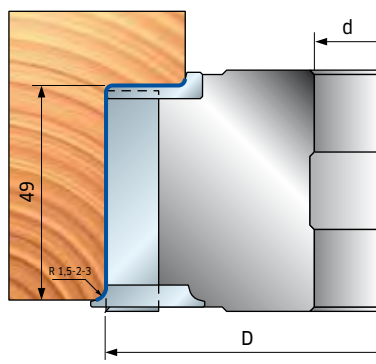
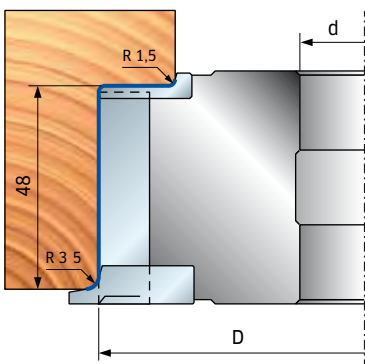
| D<br>mm | B<br>mm | d*<br>mm | Z | R | Max RPM<br>1/min. | Code<br>Codice   | SAP<br>SAP |
|---------|---------|----------|---|---|-------------------|------------------|------------|
| 125     | 50      | 32       | 4 | 2 | 10.300            | <b>T193M BC3</b> | F03F668306 |
| 125     | 50      |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

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

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

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

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



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

# T198M

## Adjustable rebate and grooves cutterheads sets with disposable knives

### Gruppi di teste per incastri e battute regolabili

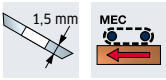
Tools with shear angle. Rebore not available. With seat pockets for bevelling inserts IG61MS or radius inserts IG62MS (R= 1,5; 2; 3 mm) and for grooving inserts IG04MD/S AA3 and AB3.

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

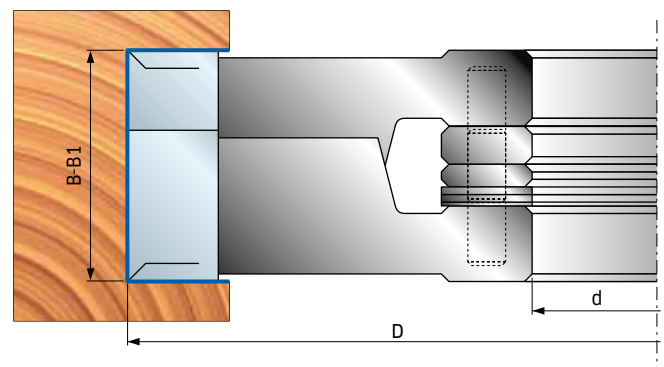
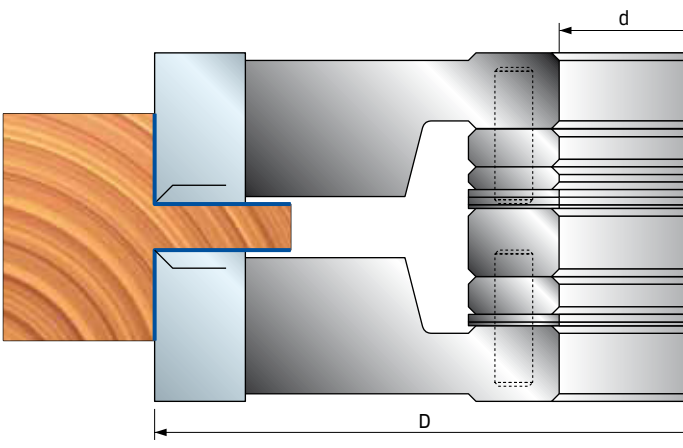
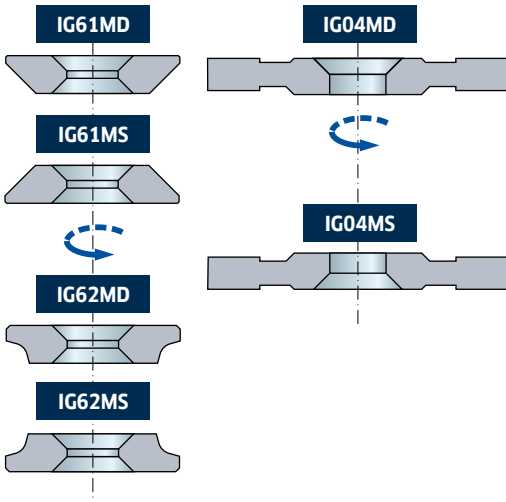
Con sedi per il montaggio di inserti IG61MS (smussatori) e IG62MS (R= 1,5; 2; 3 mm) e di inserti per incastri IG04MD/S AA3 e AB3.



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

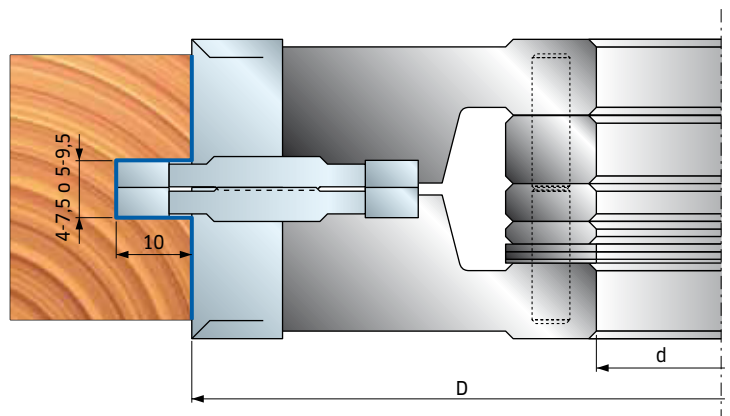
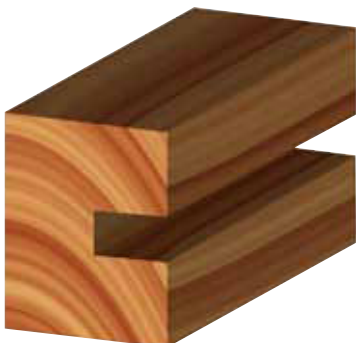
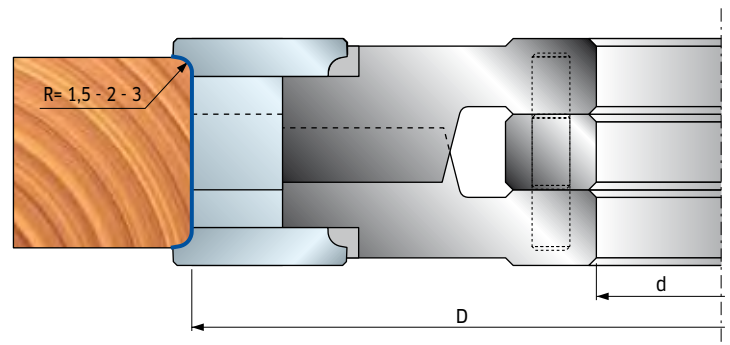
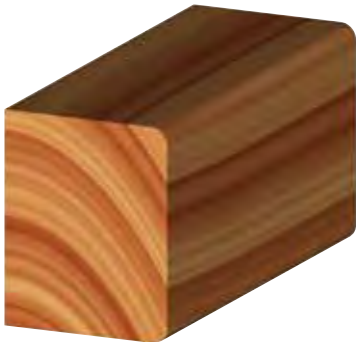
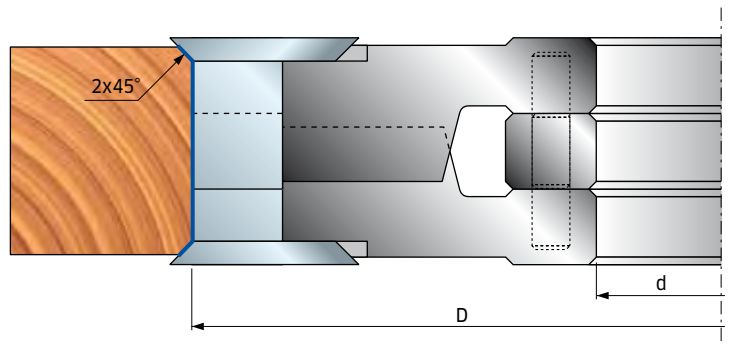
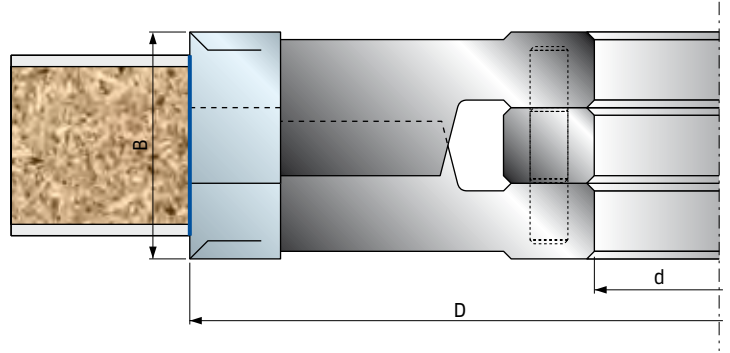


|            | Spare parts<br>Parti di ricambio | Dimensions<br>Dimensioni<br>mm | Code<br>Codice    | SAP<br>SAP |
|------------|----------------------------------|--------------------------------|-------------------|------------|
|            | Spur / Rasante                   | 14 x 14 x 2       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



# T198M

## Example of profiles Esempi di profili realizzabili

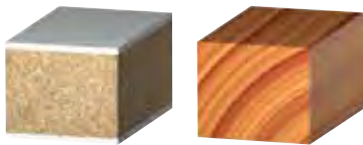
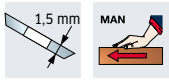


# T199M

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

Tools with shear angle.

Utensili con angolo assiale.



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

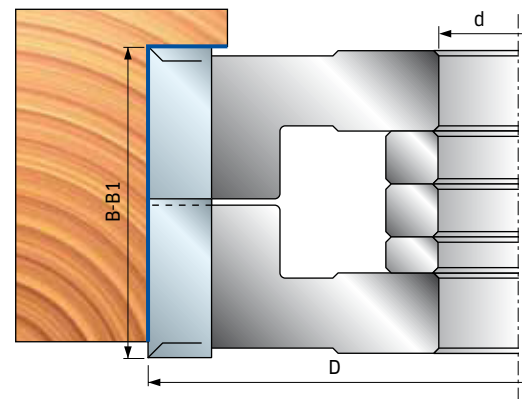
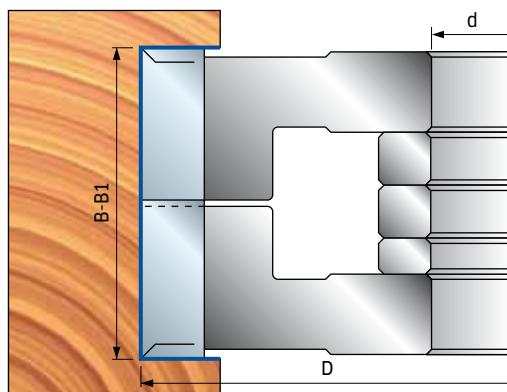
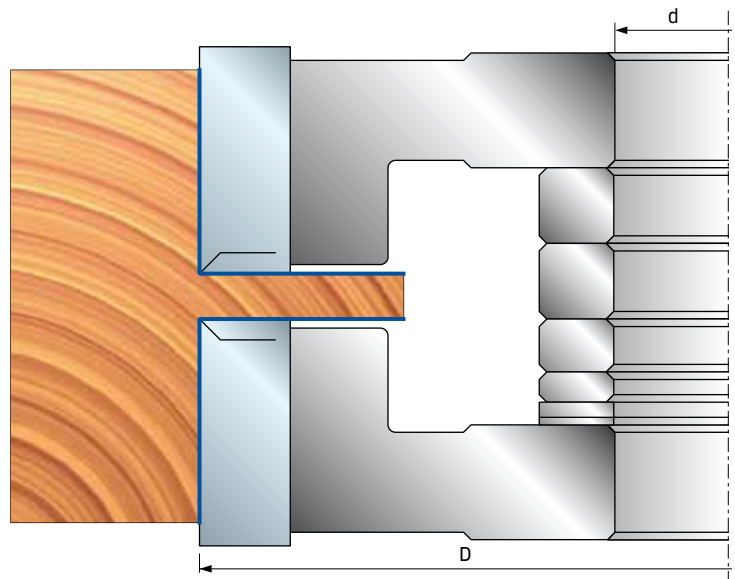
| Spare parts<br>Parti di ricambio |                         | Dimensions<br>Dimensioni<br>mm | Code<br>Codice    | SAP<br>SAP |
|----------------------------------|-------------------------|--------------------------------|-------------------|------------|
|                                  | Coltello / Knife        | 30 x 12 x 1,5                  | <b>CG01MEA310</b> | F03FH02737 |
|                                  | Cuneo / Wedge           | 12,3 x 26 x 8                  | <b>CN01MD GA9</b> | F03FC01263 |
|                                  | Cuneo / Wedge           | 12,3 x 26 x 8                  | <b>CN01MS GA9</b> | F03FC01266 |
|                                  | Vite / Screw            | M5 x 8                         | <b>VT05M AA9</b>  | F03FA04444 |
|                                  | Rasante / Spur          | 14 x 14 x 2                    | <b>RG01MAA310</b> | F03FH03034 |
|                                  | Vite / Screw            | M8 x 16                        | <b>VT03M AA9</b>  | F03FA04435 |
|                                  | Chiave / Allen key      | 4 x 110                        | <b>CB03M BA9</b>  | F03FA00163 |
|                                  | Allen key / Chiave      | 5 x 110                        | <b>CB03M EA9</b>  | F03FA00169 |
|                                  | Torx key / Chiave Torx  | T20                            | <b>CB03M CC9</b>  | F03FA00167 |
| <b>GA3</b>                       | Spacer set / Set anelli | 50 x 30 x 30                   | <b>AN03M AC9</b>  | F03FC00446 |
| <b>GB3</b>                       | Spacer set / Set anelli | 55 x 30 x 35                   | <b>AN03M BC9</b>  | F03FC00456 |
| <b>GC3</b>                       | Spacer set / Set anelli | 60 x 30 x 40                   | <b>AN03M CC9</b>  | F03FC00467 |
| <b>GD3</b>                       | Spacer set / Set anelli | 52 x 30 x 32                   | <b>AN03M DC9</b>  | F03FC00475 |

### A 10 pieces set of spacers:

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

Set da 10 anelli:

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



# FI22M

## Brazed cutters Frese per incastri

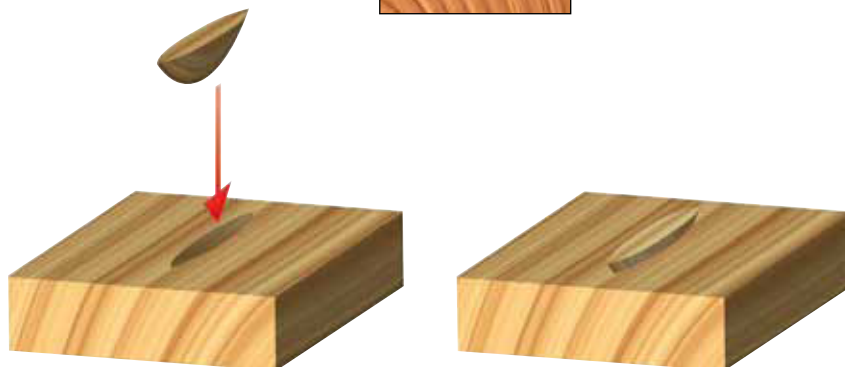
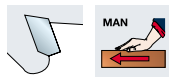
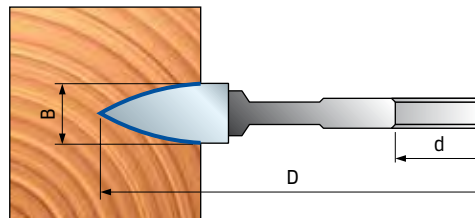
Brazed cutter with non-stick coated body. Device for patching resin pockets, cracks, damaged edges and other wood flaws.

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



| D<br>mm | B<br>mm | d<br>mm | Z | R | Max RPM<br>1/min. | Code<br>Codice   | SAP<br>SAP |
|---------|---------|---------|---|---|-------------------|------------------|------------|
| 100     | 8       | 22      | 4 |   | 13.300            | <b>FI22M AB3</b> | F03F500680 |

Patch "minispot"  
Inserito "minispot"



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

# FI02M

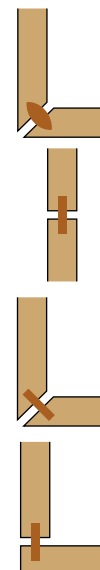
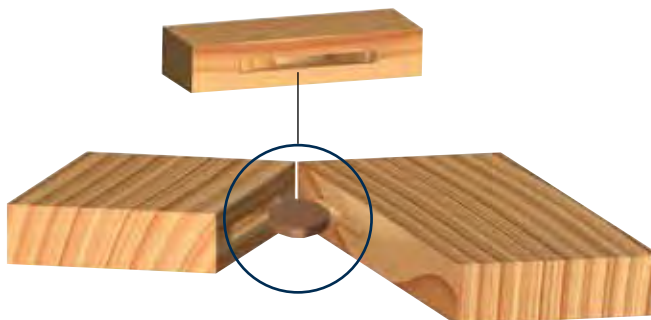
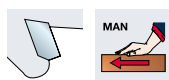
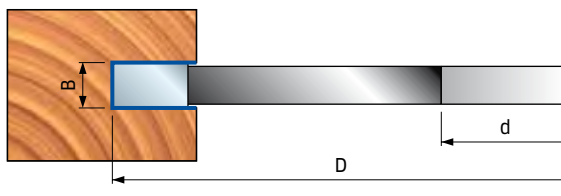
## Brazed cutters for biscuit joiners Frese per incastri

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

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



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



# FI02M

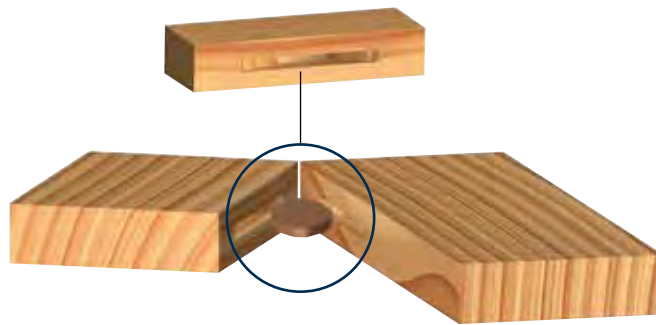
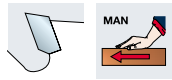
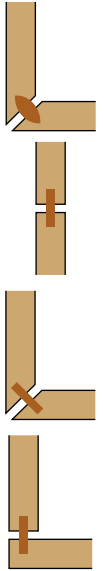
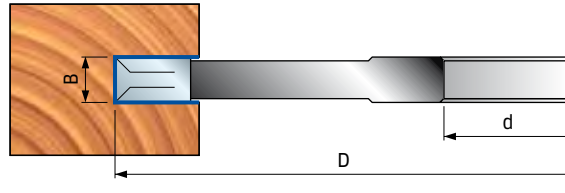
## Grooving cutters with spurs Frese per incastri con rasanti

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

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



| D<br>mm | B<br>mm | d<br>mm | Z | R | Max RPM<br>1/min. | Code<br>Codice   | SAP<br>SAP |
|---------|---------|---------|---|---|-------------------|------------------|------------|
| 100     | 4       | 22      | 2 | 4 | 13.300            | <b>FI02M BZ3</b> | F03FS00658 |

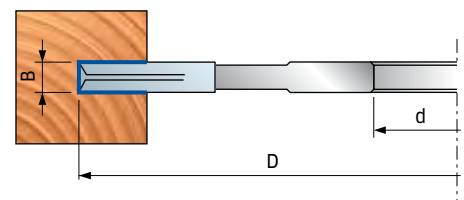
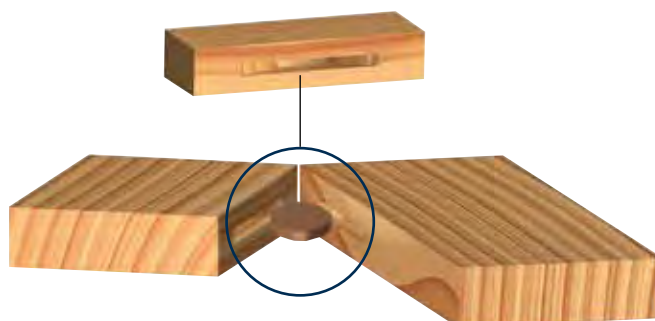
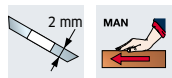


# TG13M

## Grooving cutterheads Teste per incastri

| D<br>mm | B<br>mm | d<br>mm | Z | R | Max RPM<br>1/min. | Code<br>Codice   | SAP<br>SAP |
|---------|---------|---------|---|---|-------------------|------------------|------------|
| 100     | 4       | 22      | 4 | 4 | 10.500            | <b>TG13M AA3</b> | F03FC20271 |

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



# FI02M

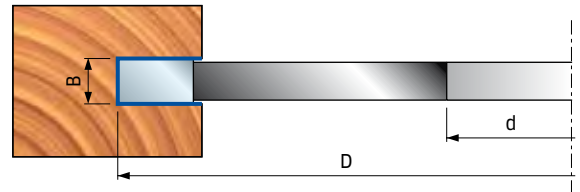
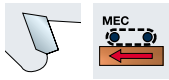
## Grooving cutters Frese per incastri

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

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



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



# FI05M

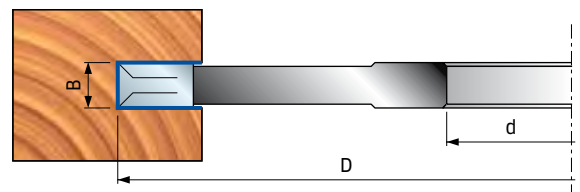
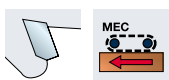
## Grooving cutters with spurs Frese per incastri con rasanti

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

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



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





# FI14M

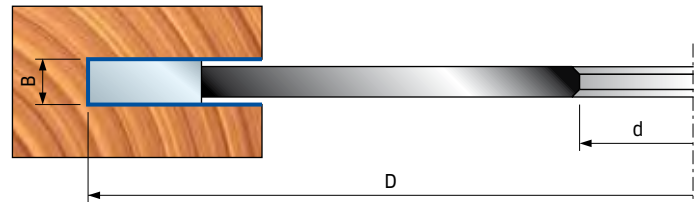
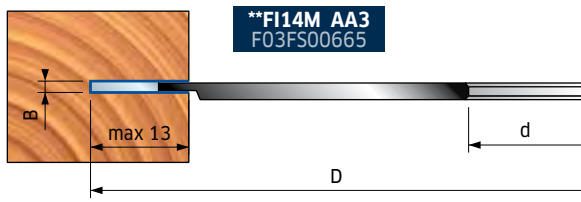
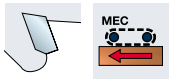
## Grooving cutters Frese per incastri

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

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



| D<br>mm | B<br>mm | d*<br>mm | Z  | R | Max RPM<br>1/min. | Code<br>Codice     | SAP<br>SAP |
|---------|---------|----------|----|---|-------------------|--------------------|------------|
| 150     | 1,5     | 30 (50)  | 18 |   | 14.500            | <b>FI14M AA3**</b> | F03FS00665 |
| 150     | 2       | 30 (50)  | 18 |   | 14.500            | <b>FI14M AE3</b>   | F03FS00667 |
| 150     | 2,5     | 30 (50)  | 18 |   | 14.500            | <b>FI14M AH3</b>   | F03FS00668 |
| 150     | 3       | 30 (50)  | 18 |   | 14.500            | <b>FI14M AM3</b>   | F03FS00669 |
| 150     | 4       | 30 (50)  | 18 |   | 14.500            | <b>FI14M AR3</b>   | F03FS00670 |
| 150     | 5       | 30 (50)  | 18 |   | 14.500            | <b>FI14M AZ3</b>   | F03FS00673 |
| 180     | 3       | 30 (50)  | 24 |   | 11.500            | <b>FI14M DA3</b>   | F03FS00677 |
| 180     | 4       | 30 (50)  | 24 |   | 11.500            | <b>FI14M DC3</b>   | F03FS00678 |



# FI07M

## Adjustable grooving cutters with spurs Frese regolabili per incastri con rasanti

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

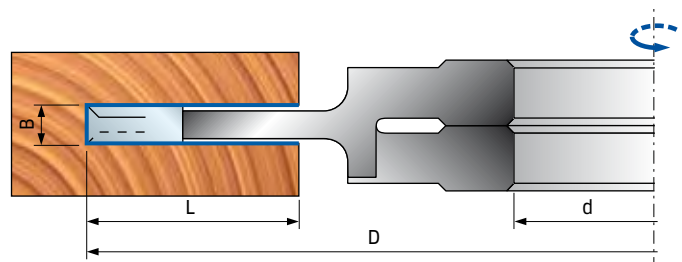
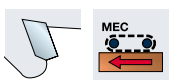
Frese per incastri regolabili di ottima qualità su legni teneri e duri lungo vena e trasverso vena; su multistrato, truciolari, laminati ed MDF. Regolazione con anelli.



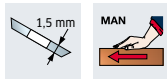
| D<br>mm | B<br>mm  | d*<br>mm | Z | R | Max RPM<br>1/min. | Code<br>Codice   | SAP<br>SAP |
|---------|----------|----------|---|---|-------------------|------------------|------------|
| 150     | 3 - 5,5  | 35 (50)  | 4 | 4 | 9.400             | <b>FI07M AB3</b> | F03FC07629 |
| 150     | 4 - 7,5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

Depth of cut  
Profondità  
d'incastro

| L<br>mm | D<br>mm |
|---------|---------|
| 27      | 150     |
| 32      | 160     |



# TG11M



## Depth of cut - Profondità d'incastro

| L<br>mm | D<br>mm |
|---------|---------|
| 30      | 160     |
| 40      | 200     |

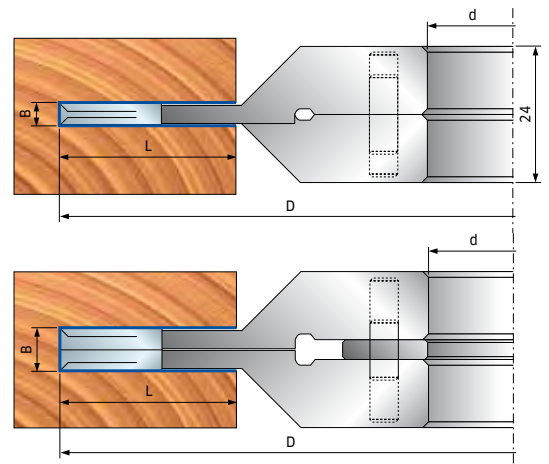
## Spare spacers set - Set anelli di ricambio

| Dimensions<br>Dimensioni<br>mm | Code<br>Codice | SAP<br>SAP |
|--------------------------------|----------------|------------|
| 50 x 0,1 x 30                  | AN01MA0019     | F03FC00030 |
| 50 x 0,2 x 30                  | AN01MA0029     | F03FC00031 |
| 50 x 0,5 x 30                  | AN01MA0059     | F03FC00033 |
| 50 x 8 x 30                    | AN03M AH9      | F03FC00451 |
| 50 x 4 x 30                    | AN03M AF9      | F03FC00449 |
| 50 x 12 x 30                   | AN03M AI9      | F03FC00452 |
| 52 x 0,1 x 32                  | AN01MX0019     | F03FC24484 |
| 52 x 0,2 x 32                  | AN01MX0029     | F03FC24485 |
| 52 x 0,5 x 32                  | AN01MX0059     | F03FC24487 |
| 52 x 8 x 32                    | AN03M GF9      | F03FC24529 |
| 52 x 4 x 32                    | AN03M GE9      | F03FC24528 |
| 52 x 12 x 32                   | AN03M GG9      | F03FC24530 |
| 55 x 0,1 x 35                  | AN01MB0019     | F03FC00081 |
| 55 x 0,2 x 35                  | AN01MB0029     | F03FC00082 |
| 55 x 0,5 x 35                  | AN01MB0059     | F03FC00084 |
| 55 x 8 x 35                    | AN03M BH9      | F03FC00461 |
| 55 x 4 x 35                    | AN03M BF9      | F03FC00459 |
| 55 x 12 x 35                   | AN03M BI9      | F03FC00462 |
| 60 x 0,1 x 40                  | AN01MC0019     | F03FC00123 |
| 60 x 0,2 x 40                  | AN01MC0029     | F03FC00124 |
| 60 x 0,5 x 40                  | AN01MC0059     | F03FC00126 |
| 60 x 8 x 40                    | AN11M CH9      | F03FC00532 |
| 60 x 4 x 40                    | AN11M CF9      | F03FC00531 |
| 60 x 12 x 40                   | AN11M CI9      | F03FC00533 |

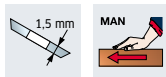
## Adjustable grooving cutterheads Teste per incastri regolabili

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

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



# TG18MG



## Adjustable grooving cutterheads sets Gruppi di teste per incastrati regolabili

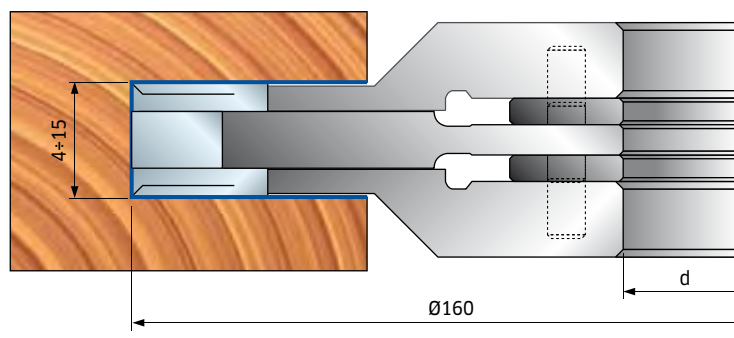
| D<br>mm | B-B1<br>mm | d*<br>mm | Z | R | Max RPM<br>1/min. | Code<br>Codice    | SAP<br>SAP |
|---------|------------|----------|---|---|-------------------|-------------------|------------|
| 160     | 4-15       | 30       |   |   | 8.500             | <b>TG18MG AA3</b> | F03FC24546 |
| 160    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

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

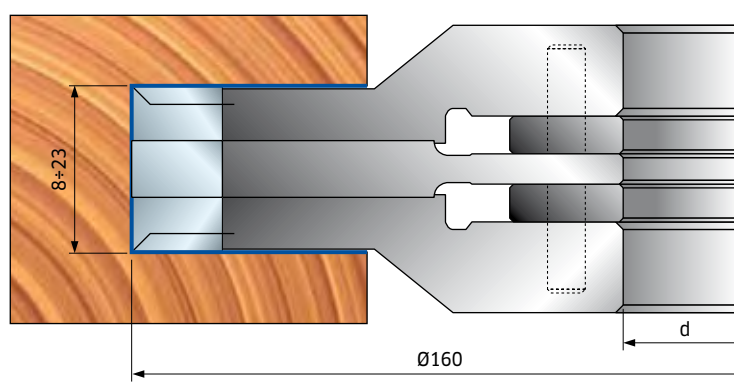
|  | Spare spacers set<br>Set anelli di ricambio | Dimensions<br>Dimensioni<br>mm | Code<br>Codice   | SAP<br>SAP |
|--|---|--------------------------------|------------------|------------|
|  | Spacers set / Set anelli                    | 50 x 7,6 x 30                  | <b>AN03M AN9</b> | F03FC24566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



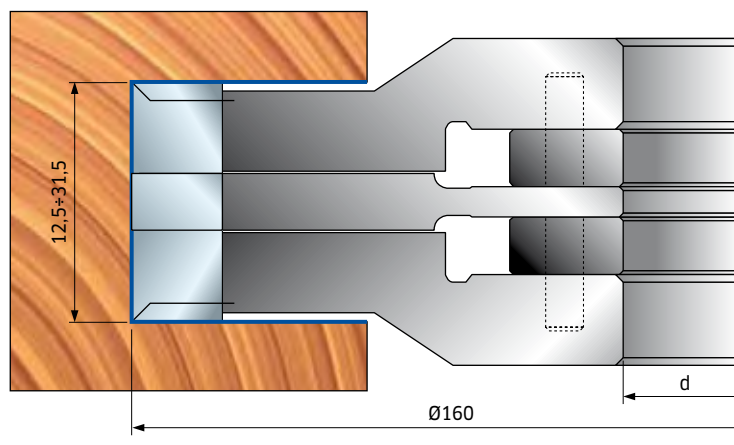
TG18M AA3  
AE3 - AB3 - AC3



TG18M DA3  
DE3 - DB3 - DC3



TG18M TA3  
TE3 - TB3 - TC3



# T135M - TG35M

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








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

**These items are supplied without knives.**

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











### T135M for planing - per spianare

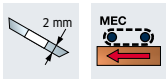
| D<br>mm | B<br>mm | d*<br>mm | Z | R | Max RPM<br>1/min. | Code<br>Codice   | SAP<br>SAP |
|---------|---------|----------|---|---|-------------------|------------------|------------|
| 125     | 30      | 40 (50)  | 3 |   | 10.300            | <b>T135M AC3</b> | F03FC20580 |
| 125     | 50      |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

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

### TG35MD - TG35MS for rounding - per raggiare

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

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



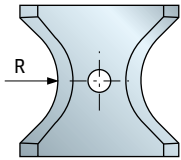
Series of spacers (item AN03M CC9) with the following thicknesses:

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

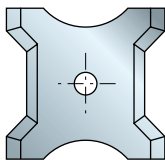
Set di anelli distanziali (cod. AN03M CC9) con i seguenti spessori:

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

### Knives for rounding Coltelli per raggiare



### Knives for chamfering Coltelli per smussare



# T135M - TG35M

TG35MD EC3  
TG35MS EC3

| S<br>mm           |                    |
|-------------------|--------------------|
| T135M AC3<br>4÷30 | T135M BC3<br>24÷50 |

Spare knives - Coltelli di ricambio

| Dimensions<br>Dimensioni<br>mm | R   | Code<br>Codice | SAP<br>SAP |
|--------------------------------|-----|----------------|------------|
| 13 x 16 x 2                    | 45° | CG50MCE305     | F03FC23920 |
| 13 x 16 x 2                    | 1   | CG50MCD305     | F03FC23919 |
| 13 x 16 x 2                    | 2   | CG50MCA305     | F03FC23916 |
| 13 x 16 x 2                    | 3   | CG50MCB305     | F03FC23917 |

TG35MD CC3  
TG35MS CC3

| S<br>mm            |                    |
|--------------------|--------------------|
| T135M AC3<br>10÷40 | T135M BC3<br>30÷60 |

Spare knives - Coltelli di ricambio

| Dimensions<br>Dimensioni<br>mm | R   | Code<br>Codice | SAP<br>SAP |
|--------------------------------|-----|----------------|------------|
| 20 x 21 x 2                    | 45° | CG50MAE305     | F03FC23910 |
| 20 x 21 x 2                    | 5   | CG50MAA305     | F03FC23906 |
| 20 x 21 x 2                    | 6   | CG50MAB305     | F03FC23907 |
| 20 x 21 x 2                    | 7   | CG50MAC305     | F03FC23908 |
| 20 x 21 x 2                    | 8   | CG50MAD305     | F03FC23909 |

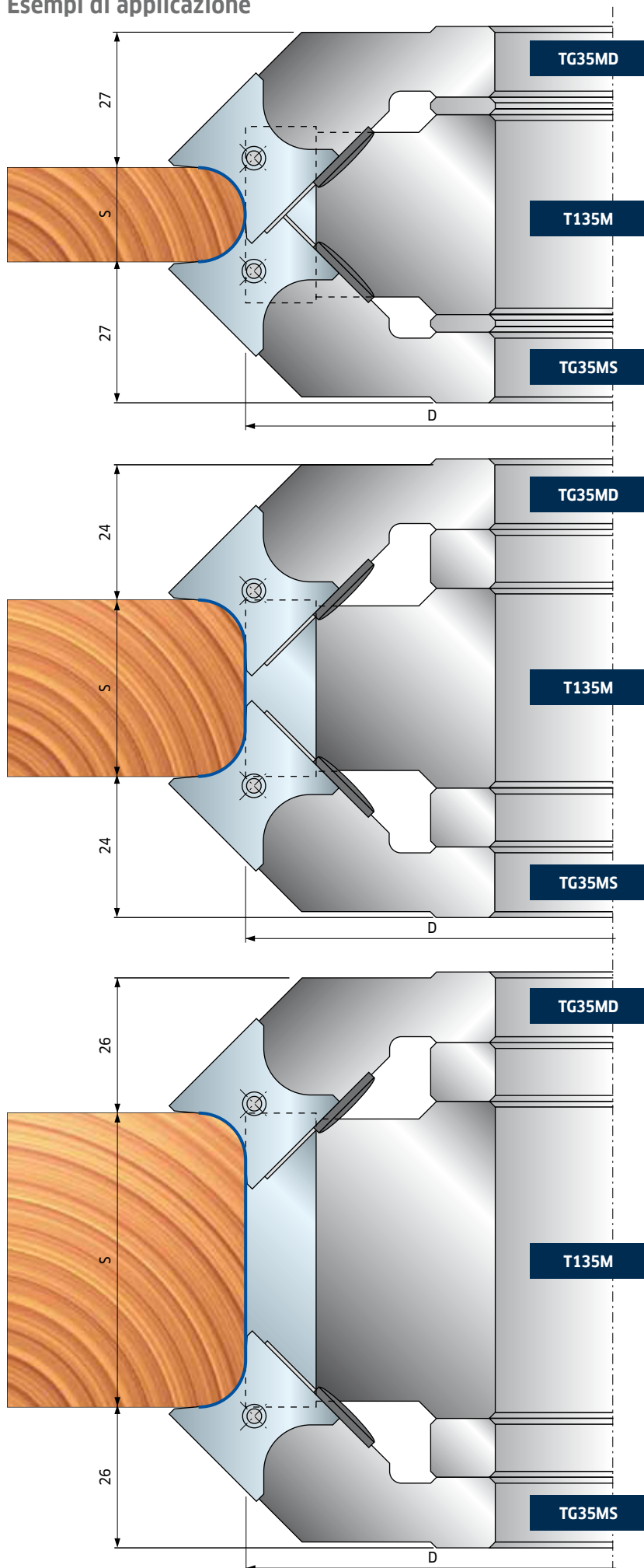
TG35MD DC3  
TG35MS DC3

| S<br>mm            |                    |
|--------------------|--------------------|
| T135M AC3<br>18÷48 | T135M BC3<br>36÷68 |

Spare knives - Coltelli di ricambio

| Dimensions<br>Dimensioni<br>mm | R   | Code<br>Codice | SAP<br>SAP |
|--------------------------------|-----|----------------|------------|
| 26 x 24 x 2                    | 45° | CG50MBE305     | F03FC23915 |
| 26 x 24 x 2                    | 9   | CG50MBA305     | F03FC23911 |
| 26 x 24 x 2                    | 10  | CG50MBB305     | F03FC23912 |
| 26 x 24 x 2                    | 11  | CG50MBC305     | F03FC23913 |
| 26 x 24 x 2                    | 12  | CG50MBD305     | F03FC23914 |

## Examples of application Esempi di applicazione



# TP22M

## Multi radius cutterheads Teste multiraggio

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

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

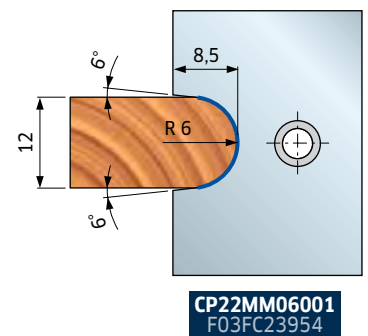
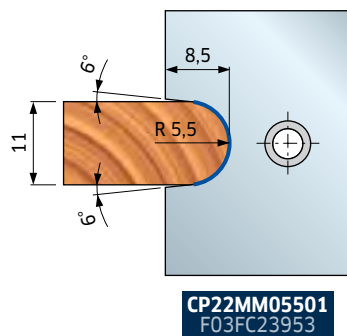
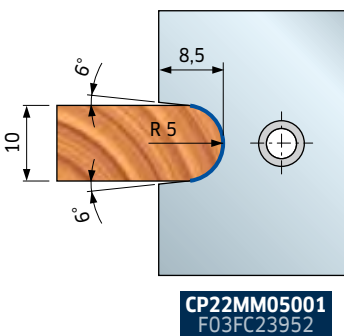
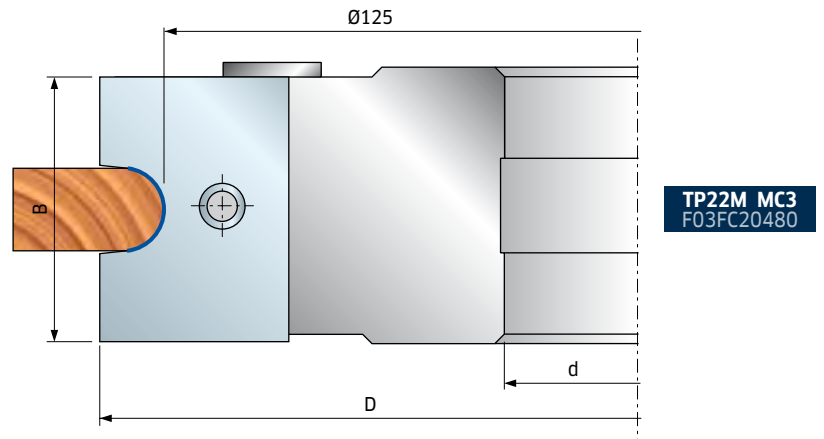
L'articolo è fornito di coltelli in valigetta.

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



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

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



# TP22M

## Multi radius cutterheads Teste multiraggio

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

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

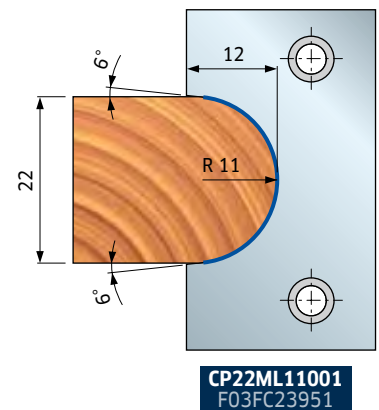
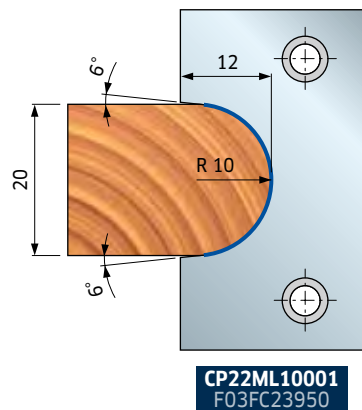
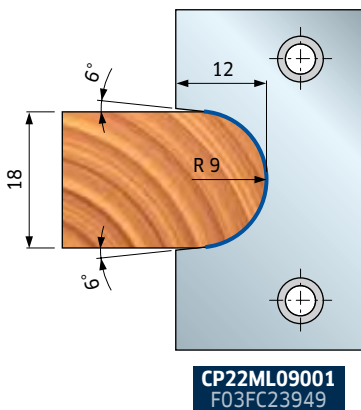
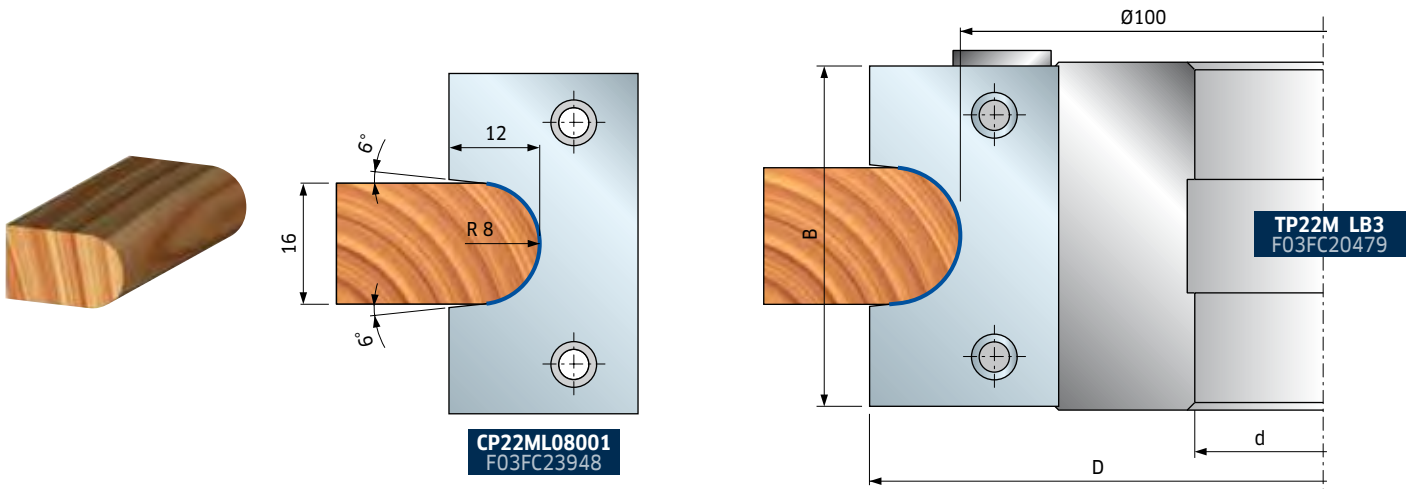
L'articolo è fornito di coltelli in valigetta.

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



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

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



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



# TP23M

## Multi radius cutterheads Teste multiraggio

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

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

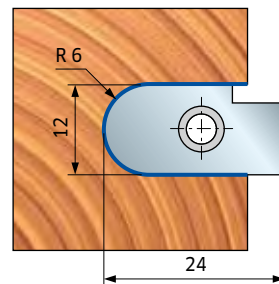
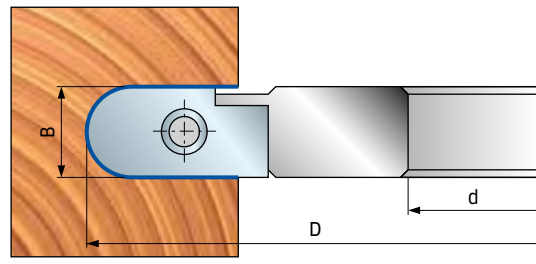
L'articolo è fornito di coltelli in valigetta.

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

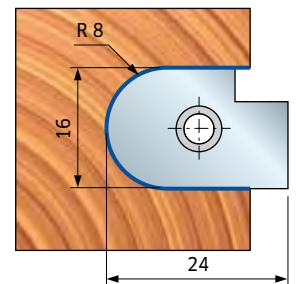


| D<br>mm | B<br>mm | d*<br>mm | Z | Radius<br>Raggio<br>mm | Max RPM<br>1/min. | Code<br>Codice   | SAP<br>SAP |
|---------|---------|----------|---|------------------------|-------------------|------------------|------------|
| 120     | 12      | 30       | 2 | 6 - 8 - 10             | 9.500     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

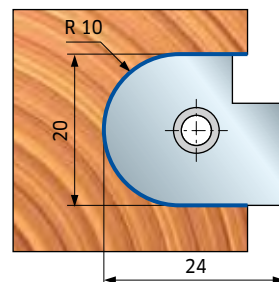
|  | Spare parts<br>Parti di ricambio      | Dimensions<br>Dimensioni<br>mm | Code<br>Codice     | SAP<br>SAP |
|--|---------------------------------------|--------------------------------|--------------------|------------|
|  | Knife / Coltello                      | 12 x 24 x 3,5 R6               |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



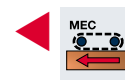
**CP23MA06001**  
F03FC23955



**CP23MA08001**  
F03FC23956



**CP23MA10001**  
F03FC23957



This profile is usable with automatic feed only.

Questo profilo è utilizzabile solamente con avanzamento meccanico.

# TP31M

## Multi radius cutterheads Teste multiraggio

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

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

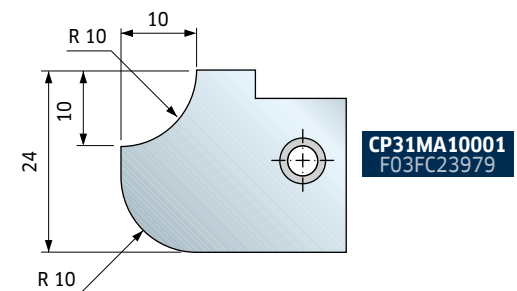
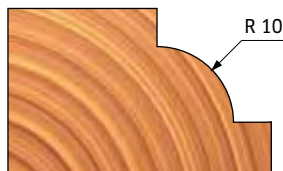
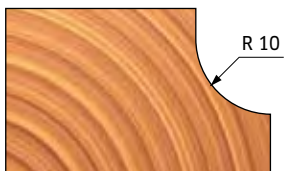
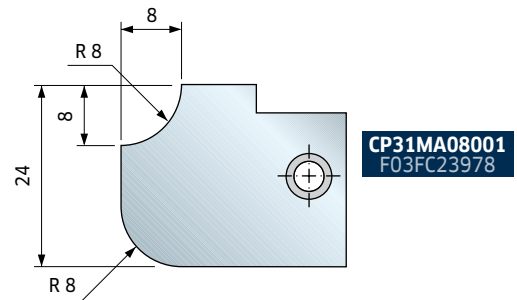
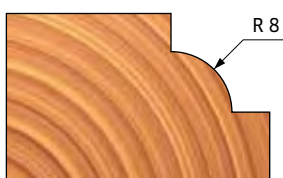
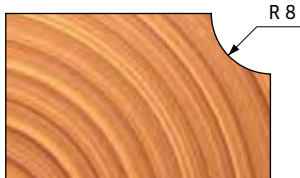
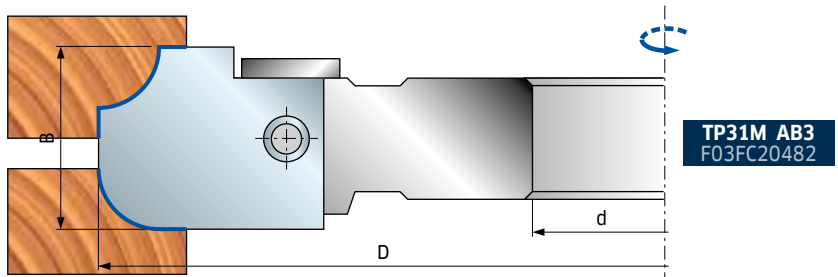
L'articolo è fornito di coltelli in valigetta.

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



| D<br>mm | B<br>mm | d*<br>mm | Z | Radius<br>Raggio<br>mm | Max RPM<br>1/min. | Code<br>Codice   | SAP<br>SAP |
|---------|---------|----------|---|------------------------|-------------------|------------------|------------|
| 150     | 24      | 30       | 2 | 8 - 10                 | 9.000             | <b>TP31M AA3</b> | F03FC22683 |
| 150     | 24      | 32       | 2 | 8 - 10                 | 9.000             | <b>TP31M AC3</b> | F03FC24558 |
| 150     | 24      | 35 (50)  | 2 | 8 - 10                 | 9.000             | <b>TP31M AB3</b> | F03FC20482 |

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



# TP31M

## Multi radius cutterheads Teste multiraggio

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

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

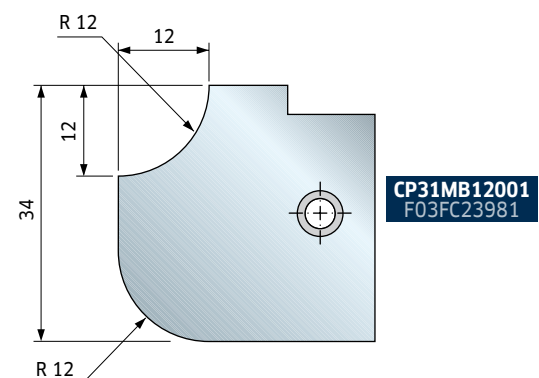
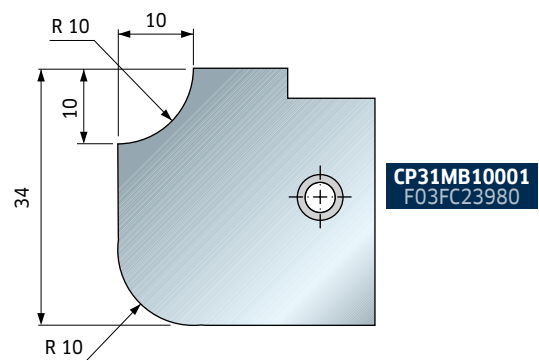
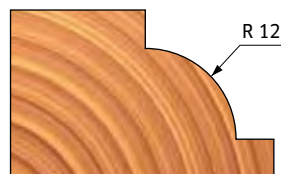
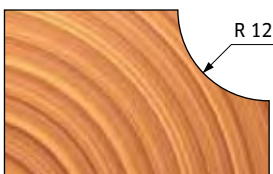
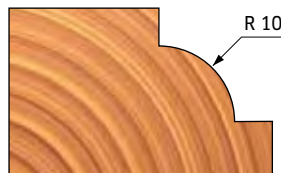
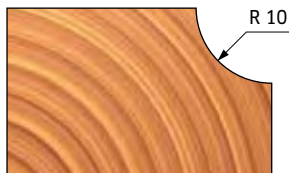
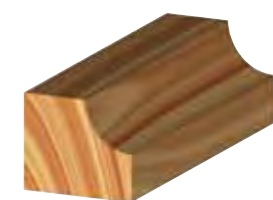
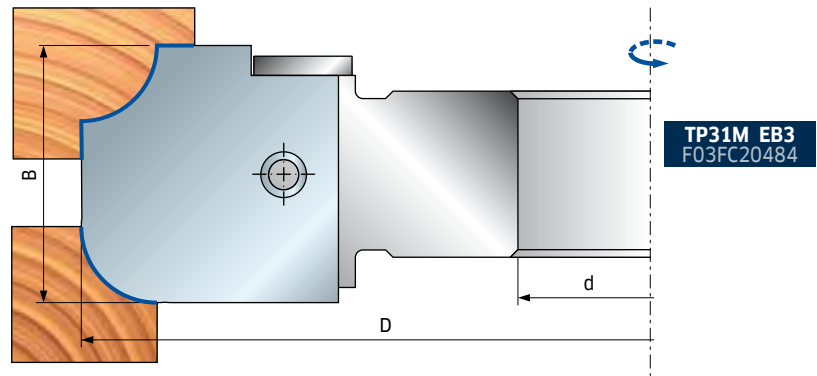
L'articolo è fornito di coltelli in valigetta.

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



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

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



# TP31M

## Multi radius cutterheads Teste multiraggio

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

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

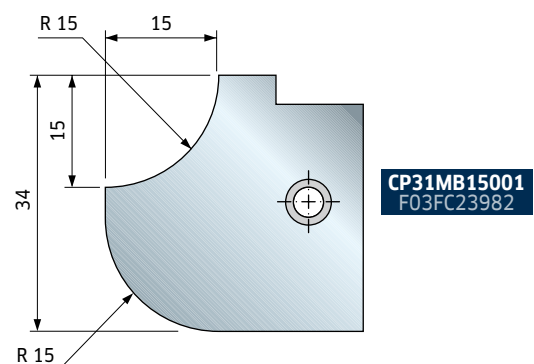
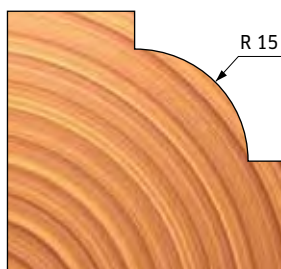
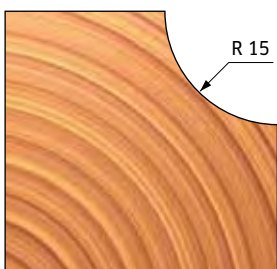
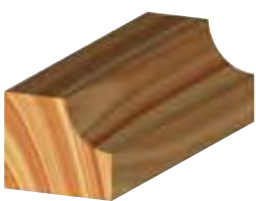
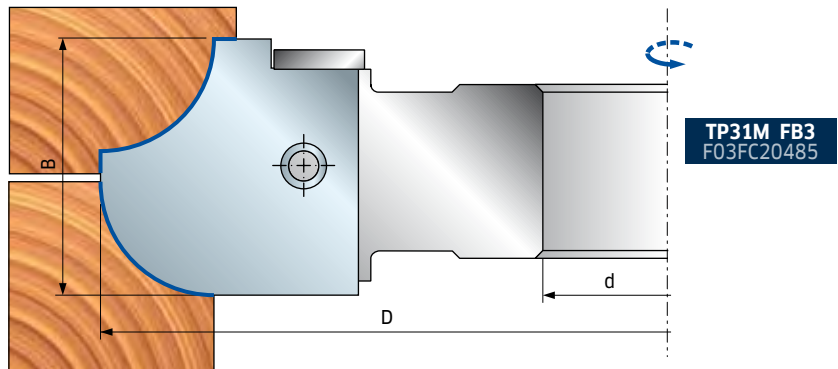
L'articolo è fornito di coltelli in valigetta.

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



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

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



# TP31M

## Multi radius cutterheads Teste multiraggio

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

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

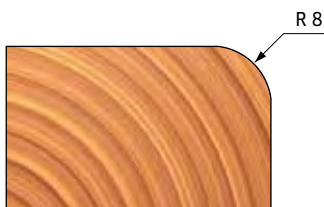
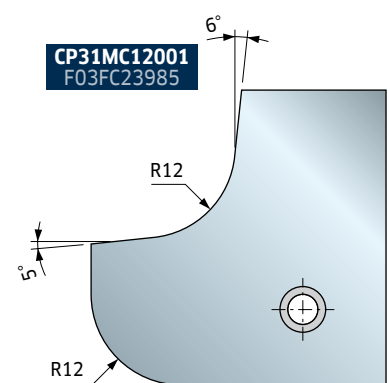
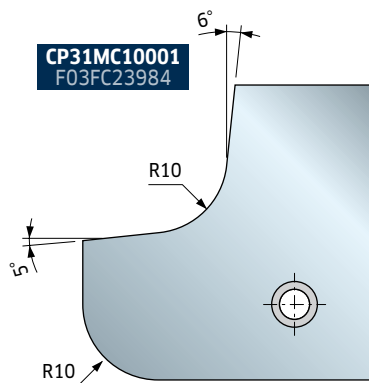
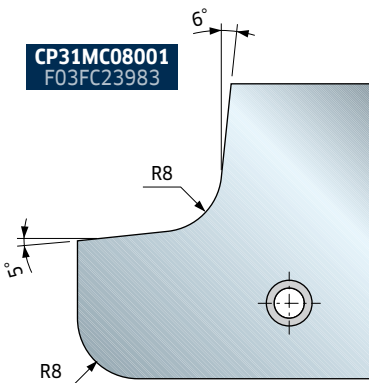
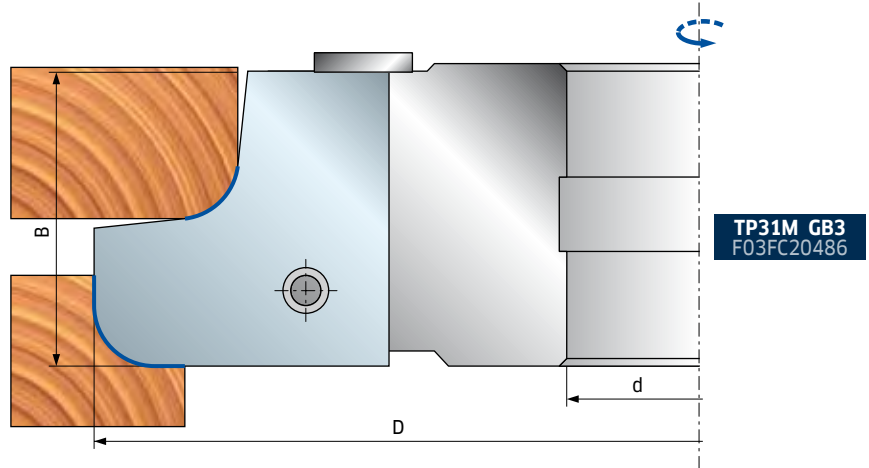
L'articolo è fornito di coltelli in valigetta.

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



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

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



# TP31M

## Multi radius cutterheads Teste multiraggio

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

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

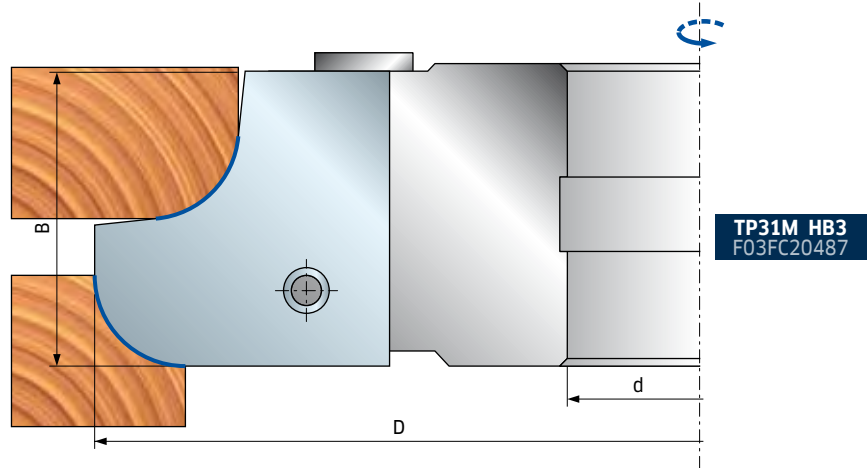
L'articolo è fornito di coltelli in valigetta.

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

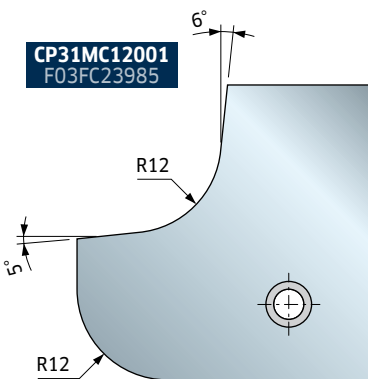


| D<br>mm | B<br>mm | d*<br>mm | Z | Radius<br>Raggio<br>mm | Max RPM<br>1/min. | Code<br>Codice   | SAP<br>SAP |
|---------|---------|----------|---|------------------------|-------------------|------------------|------------|
| 160     | 40      | 30 (35)  | 2 | 12-15-17,5             | 8.500             | <b>TP31M HA3</b> | F03F668943 |
| 160     | 40      | 32       | 2 | 12-15-17,5             | 8.500             | <b>TP31M HC3</b> | F03F668639 |
| 160     | 40      | 35 (50)  | 2 | 12-15-17,5             | 8.500             | <b>TP31M HB3</b> | F03FC20487 |

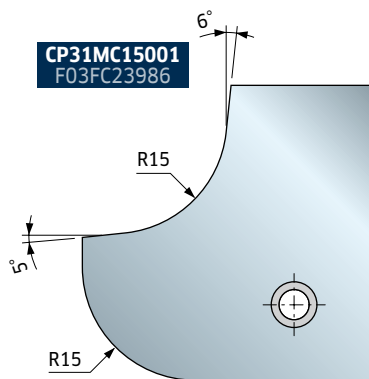
|  | Spare parts<br>Parti di ricambio      | Dimensions<br>Dimensioni<br>mm | Code<br>Codice     | SAP<br>SAP |
|--|---------------------------------------|--------------------------------|--------------------|------------|
|  | Knife / Coltello                      | 40 x 40 x 3 R12                |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



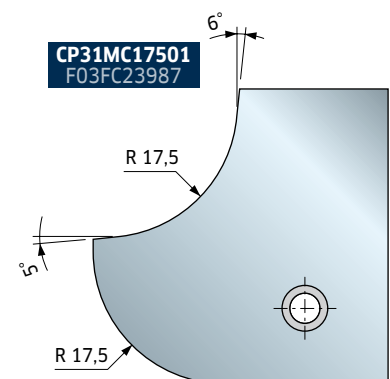
**TP31M HB3**  
F03FC20487



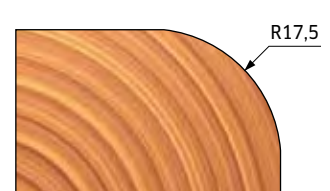
**CP31MC12001**  
F03FC23985



**CP31MC15001**  
F03FC23986



**CP31MC17501**  
F03FC23987



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

# TP31M - TP31MS

## Multi radius cutterheads Teste multiraggio

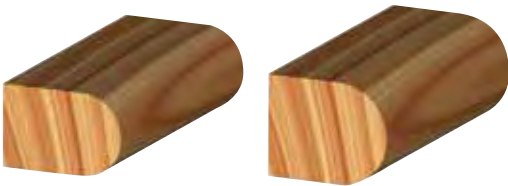
Cutterheads with multi radius knives, fitted with 4 sets of resharpenable knives of various radii.

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

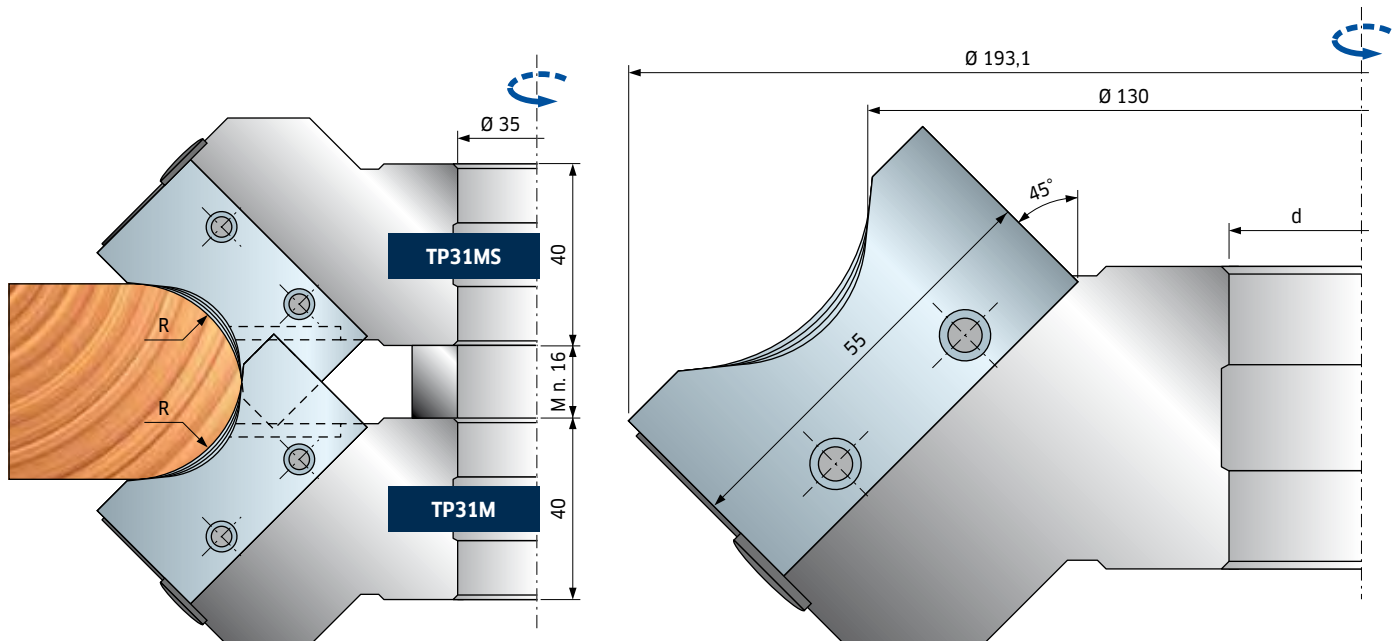
Light alloy body (Aluminum alloy). For cleaning do not use products containing caustic soda.

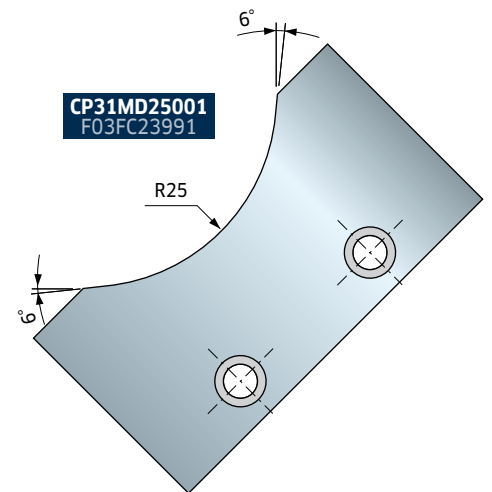
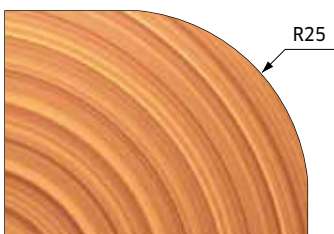
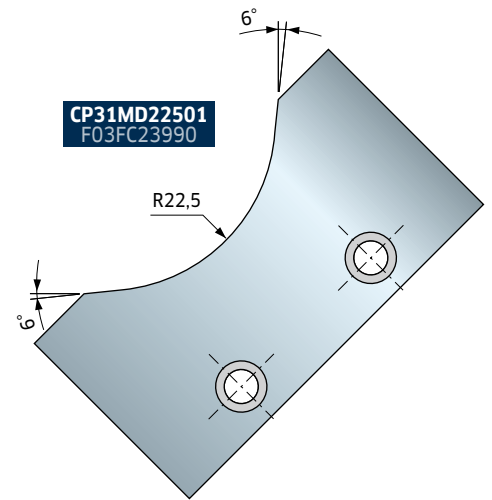
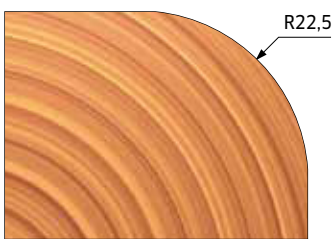
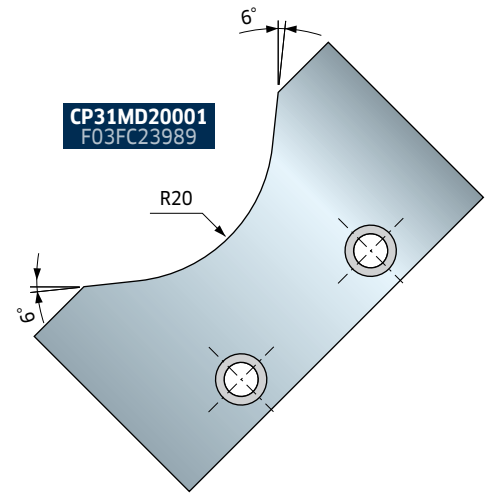
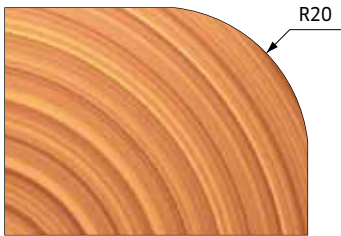
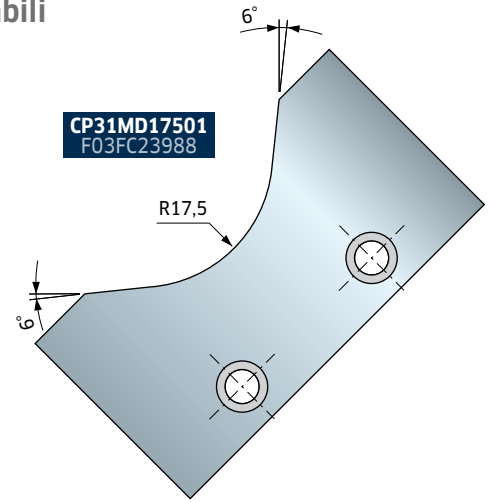
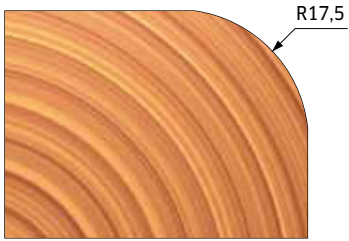
Teste portacoltelli multiraggio, complete di 4 set di coltelli riaffilabili di diverso raggio, da utilizzare su macchina topiere. Particolarmente adatte per lavorazioni di contornatura e profilatura su legni teneri, duri ed esotici, con ottima finitura. I coltelli sono perfettamente intercambiabili tra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

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



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










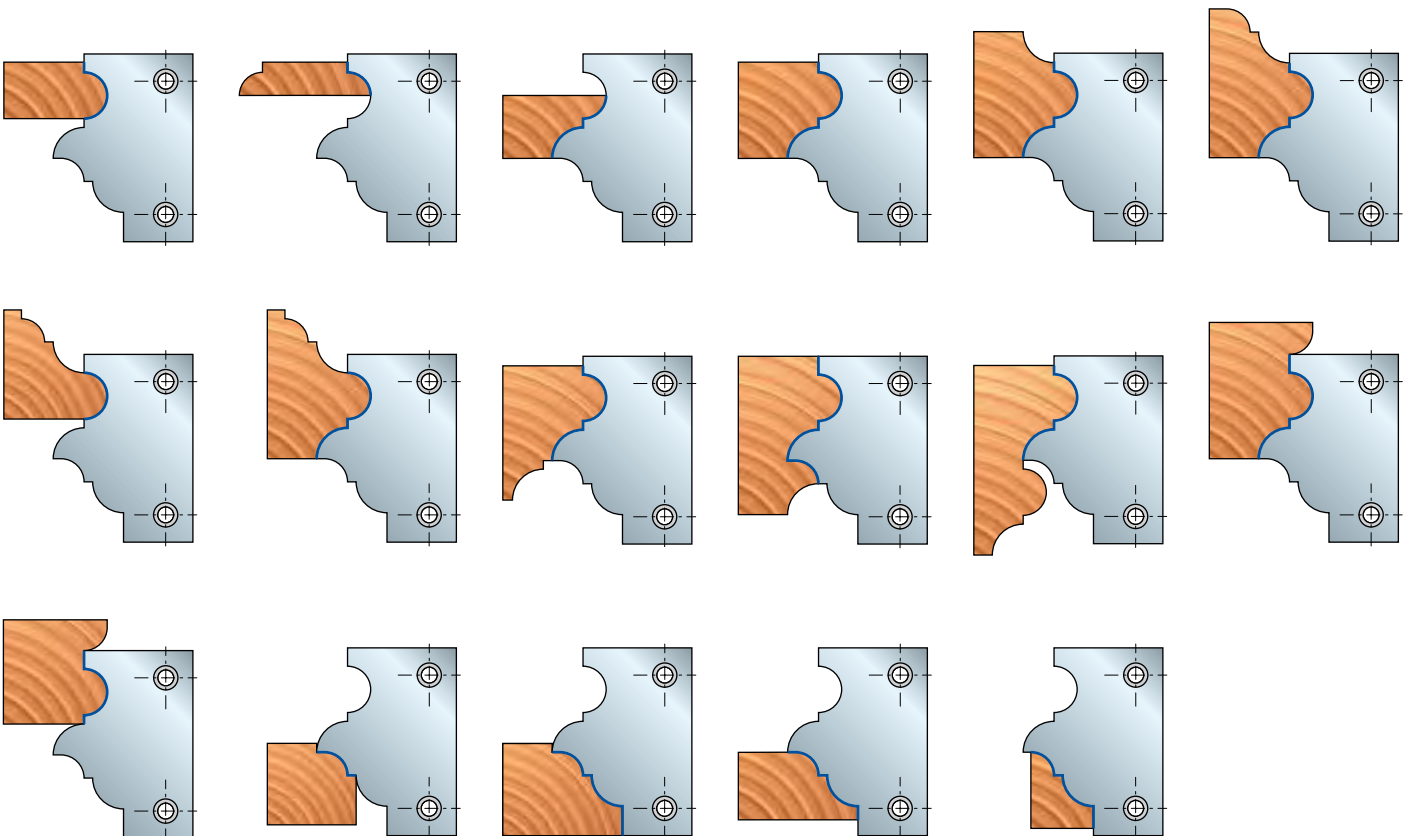
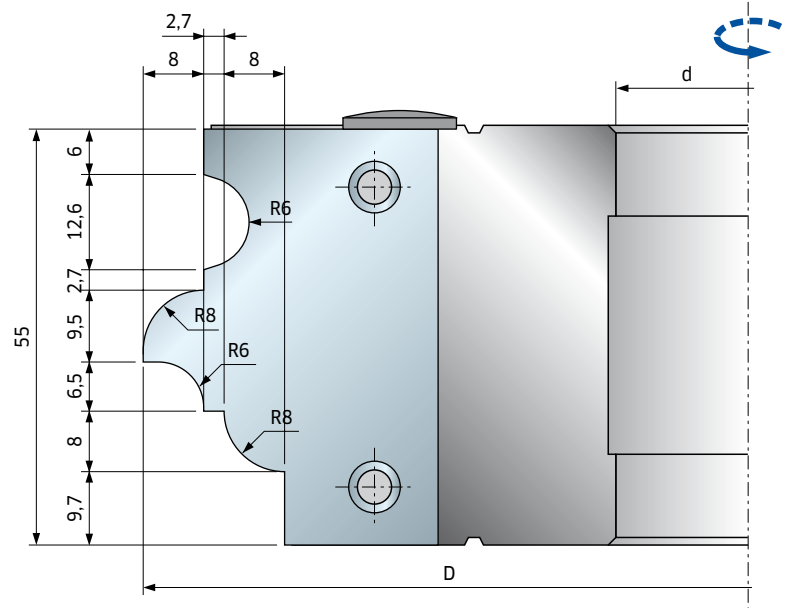


# TP40M

## Multiprofile cutterheads Teste multiprofilo

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

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



# TP44M



## Multiprofile cutterheads Teste multiprofilo

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

**This item is supplied with knives.**





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

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

**L'articolo viene fornito con coltelli.**

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

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

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

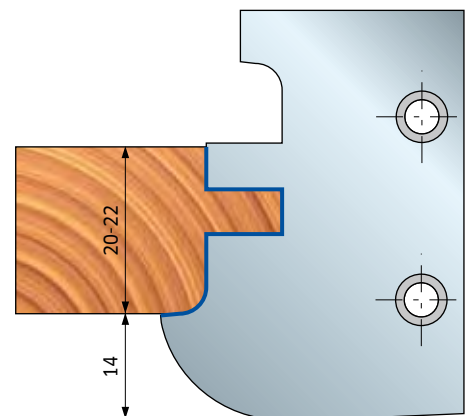
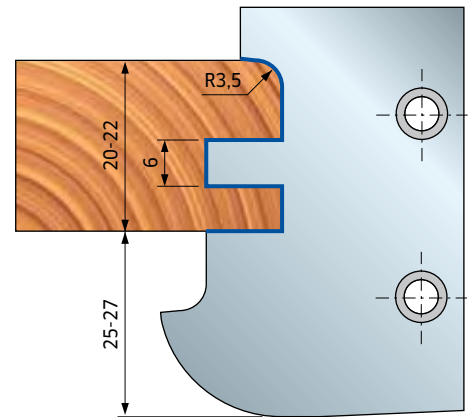
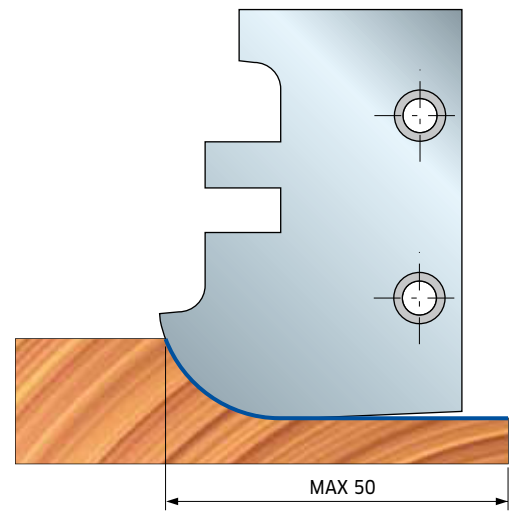
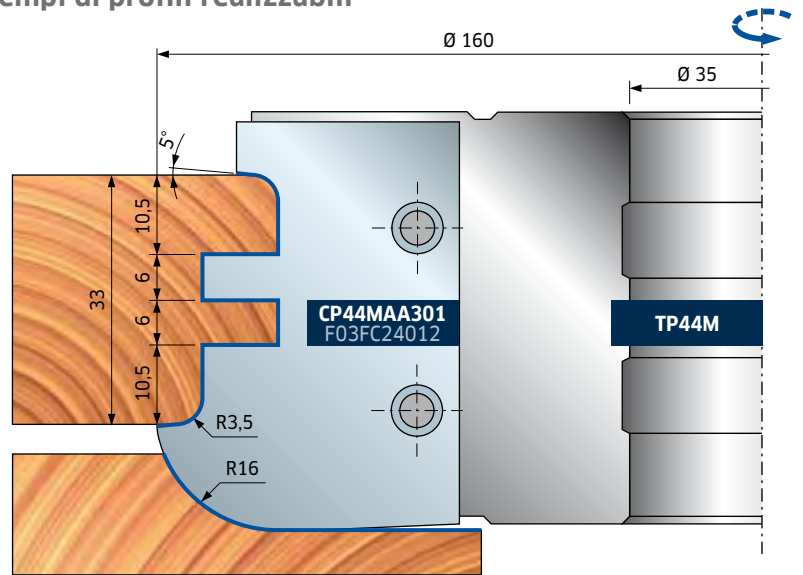
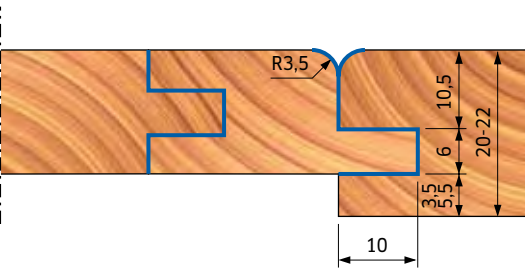
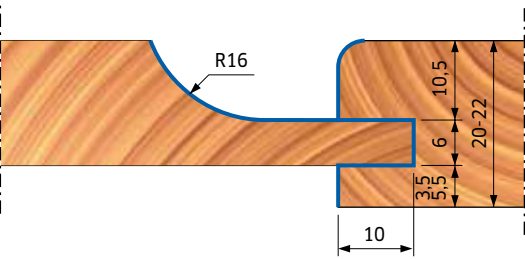
| Profile<br>Profilo | Spare knives<br>Coltelli di ricambio | Dimensions<br>Dimensioni<br>mm | Code<br>Codice | SAP<br>SAP |
|--------------------|--------------------------------------|--------------------------------|----------------|------------|
| 1                  | Knife / Coltello           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



# TP44M

## Example of profiles Esempi di profili realizzabili

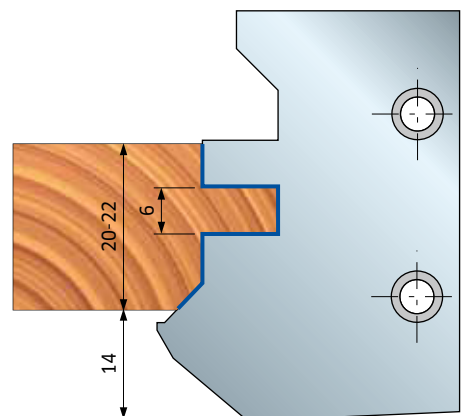
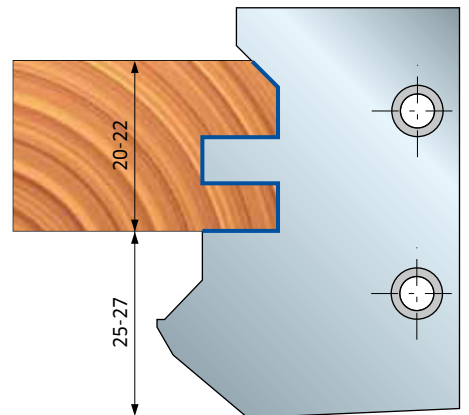
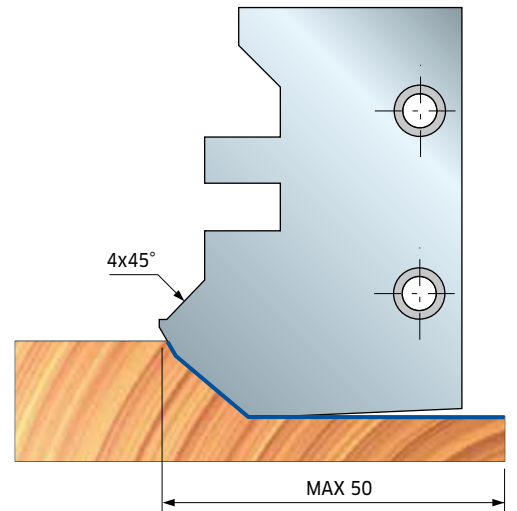
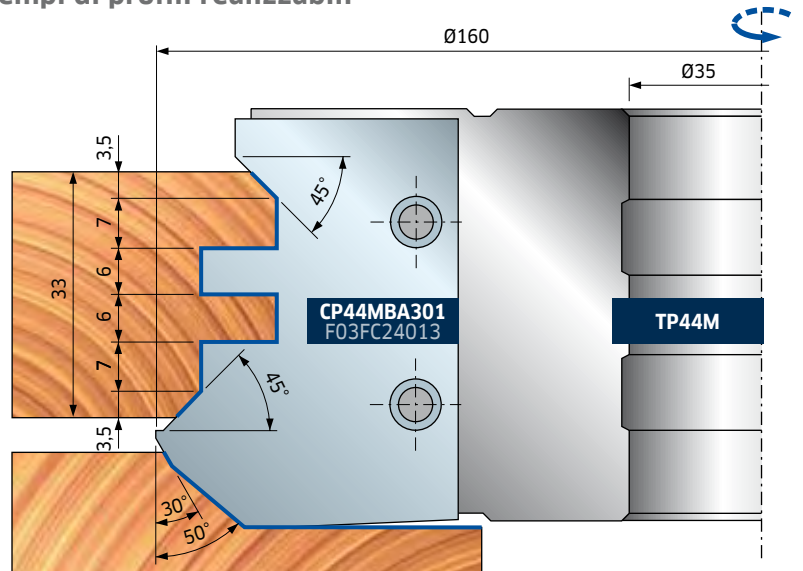
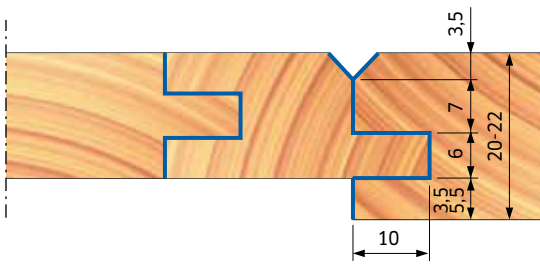
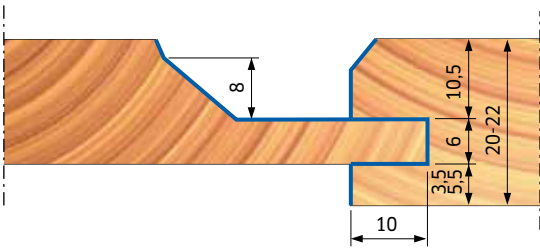
PROFILE / PROFILO 1



# TP44M

## Example of profiles Esempi di profili realizzabili

### PROFILE / PROFILO 2



# TP32M

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

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

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

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

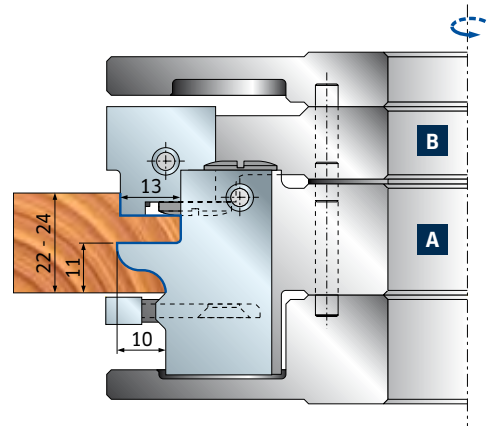
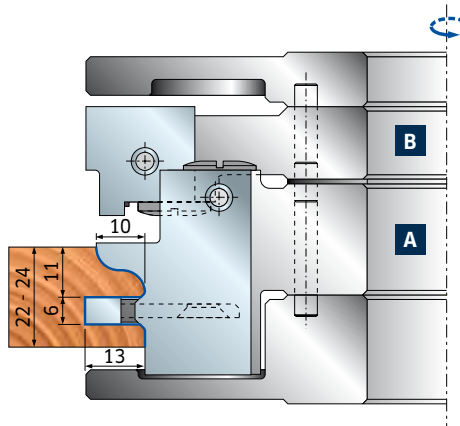
**Gruppo composto dagli utensili A e B e flange.** Sono compresi solo i coltelli per la testa B.



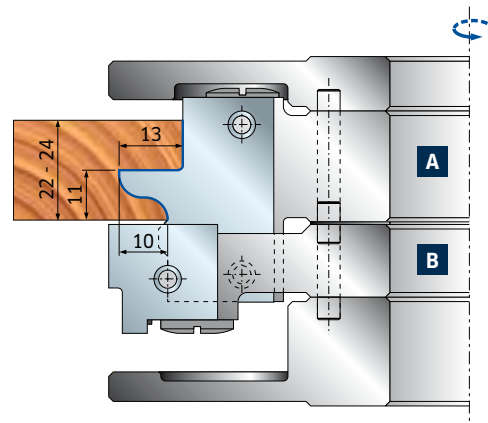
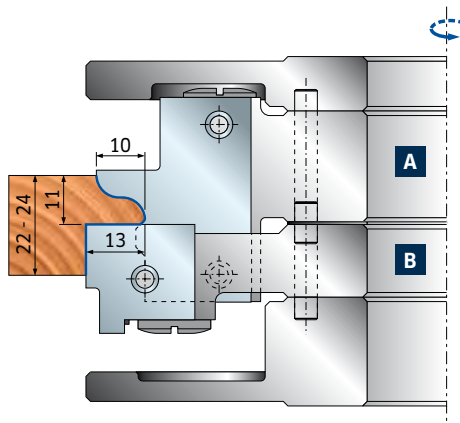
| D<br>mm | B<br>mm | d*<br>mm | Z   | R | Max RPM<br>1/min. | Code<br>Codice   | SAP<br>SAP |
|---------|---------|----------|-----|---|-------------------|------------------|------------|
| 159     |         | 30       | 2+2 | 2 | 8.500             | <b>TP32M AA3</b> | F03FC24452 |
| 159     |    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

|                | Spare parts<br>Parti di ricambio           | Dimensions<br>Dimensioni<br>mm | Code<br>Codice     | SAP<br>SAP |
|----------------|--|--------------------------------|--------------------|------------|
|                | Wedge / Cuneo                              | 43 x 19 x 8,5                  | <b>CN11M C410A</b> | F03FC23536 |
|                | Grooving insert / Insetto per incastro     | 34 x 6 x 16                    | <b>SR06MAB302</b>  | F03FC24191 |
|                | Screw / Vite                               | M10 x 18                       | <b>VT03M CC9</b>   | F03FA04438 |
|                | Screw / Vite                               | M5 x 8                         | <b>VT05M AA9</b>   | F03FA04444 |
|                | Screw / Vite                               | M6 x 13                        | <b>VT16M AE9</b>   | F03FC20658 |
|                | Positioning plate / Piastrina di riscontro | 22 x 1,7 x 19                  | <b>VT18M GB9</b>   | F03FA04489 |
|                | Wedge / Cuneo                              | 16 x 17 x 8                    | <b>CN11M B160A</b> | F03FC24539 |
|                | Chiave / Allen key                         | 5 x 110                        | <b>CB03M EA9</b>   | F03FA00169 |
|                | Torx key / Chiave Torx                     | T20                            | <b>CB03M CC9</b>   | F03FA00167 |
| <b>AB3 AA3</b> | Upper flange / Flangia superiore           | 159 x 12 x 30                  | <b>FX32M AA9</b>   | F03FC24578 |
|                | Lower flange / Flangia inferiore           | 159 x 24 x 30                  | <b>FX32M BA9</b>   | F03FC24579 |
|                | Upper flange / Flangia superiore           | 159 x 12 x 35                  | <b>FX32M AB9</b>   | F03FC15078 |
|                | Lower flange / Flangia inferiore           | 159 x 24 x 35                  | <b>FX32M BB9</b>   | F03FC15079 |

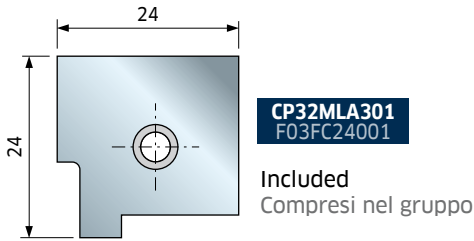
### Carrying out a groove - Esecuzione con incastro



### Carrying out a rebate - Esecuzione con battuta



### KNIFE FOR / COLTELLO PER TP32M - B

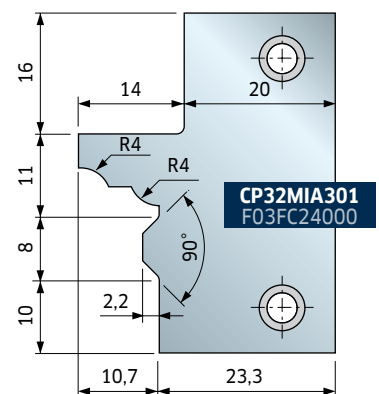
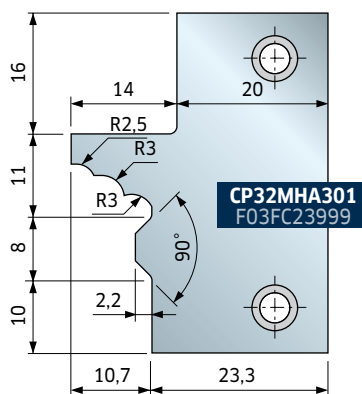
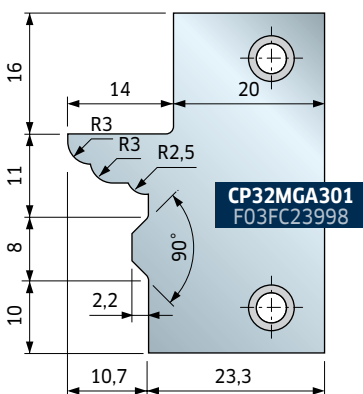
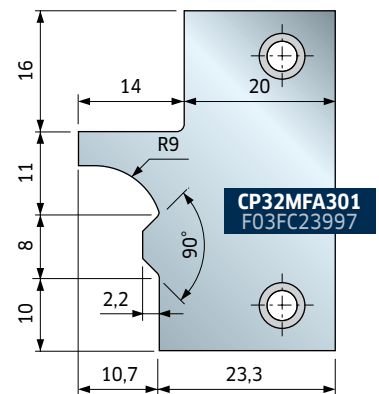
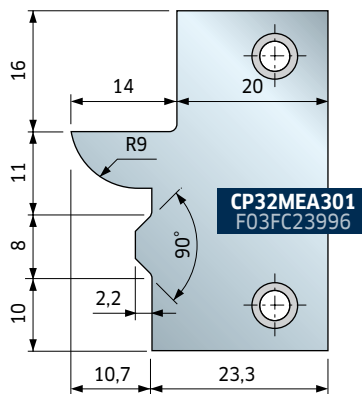
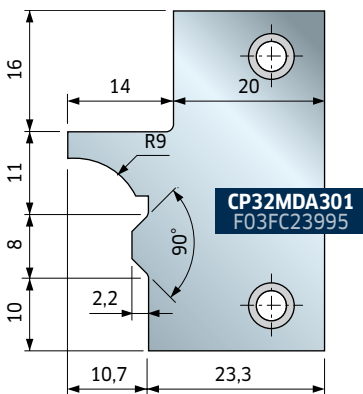
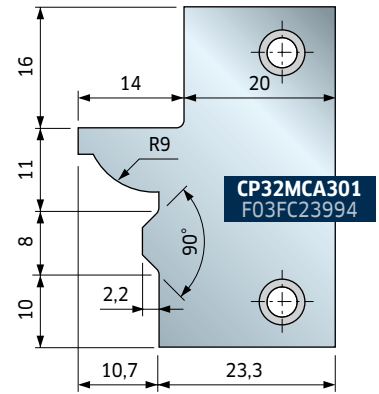
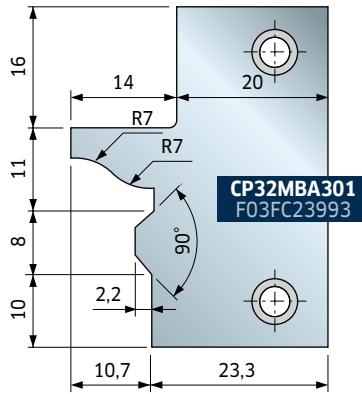
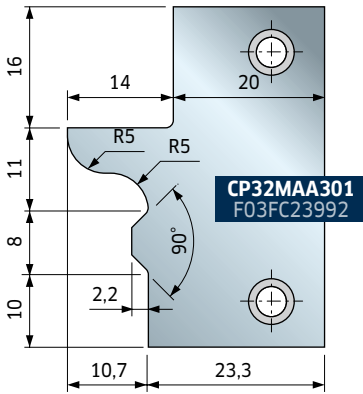


|  | Spare knives<br>Coltelli di ricambio | Dimensions<br>Dimensioni<br>mm | Code<br>Codice    | SAP<br>SAP |
|--|--------------------------------------|--------------------------------|-------------------|------------|
|  | Knife / Coltello                     | 45 x 34 x 3                    | <b>CP32MAA301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

### INSERT FOR / INSERTO PER TP32M - B



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





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

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

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

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

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

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

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

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

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

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

### Tools for TPSEM sets

#### Utensili per gruppi TPSEM

| D<br>mm | B<br>mm | d*<br>mm | Z | R | Code<br>Codice | SAP<br>SAP |
|---------|---------|----------|---|---|----------------|------------|
| 22GA3   | 135     | 30       | 2 |   | TPSEM DA3      | F03FC22726 |
|         | 152     | 30       | 2 | 4 | TPSEM CA3      | F03FC22725 |
|         | 160     | 30       | 2 | 4 | TPSEM AA3**    | F03FC22723 |
| 22GB3   | 138     | 35       | 2 |   | TPSEM DB3      | F03FC20475 |
|         | 152     | 35       | 2 | 4 | TPSEM CB3      | F03FC20474 |
|         | 160     | 35       | 2 | 4 | TPSEM AB3**    | F03FC20472 |
| 22GC3   | 138     | 32       | 2 |   | TPSEM DC3      | F03FC24431 |
|         | 152     | 32       | 2 | 4 | TPSEM CC3      | F03FC24430 |
|         | 160     | 32       | 2 | 4 | TPSEM AC3**    | F03FC24428 |
| 30GA3   | 135     | 30       | 2 |   | TPSEM DA3      | F03FC22726 |
|         | 152     | 30       | 2 | 4 | TPSEM CA3      | F03FC22725 |
|         | 160     | 30       | 2 | 4 | TPSEM BA3**    | F03FC22724 |
| 30GB3   | 138     | 35       | 2 |   | TPSEM DB3      | F03FC20475 |
|         | 152     | 35       | 2 | 4 | TPSEM CB3      | F03FC20474 |
|         | 160     | 35       | 2 | 4 | TPSEM BB3**    | F03FC20473 |
| 30GC3   | 138     | 32       | 2 |   | TPSEM DC3      | F03FC24431 |
|         | 152     | 32       | 2 | 4 | TPSEM CC3      | F03FC24430 |
|         | 160     | 32       | 2 | 4 | TPSEM BC3**    | F03FC24429 |

### Knives for TPSEM sets

#### Coltelli per gruppi TPSEM

| Profile<br>Profilo | Knives parts<br>Coltelli di ricambio | Dimensions<br>Dimensioni<br>mm | Code<br>Codice | SAP<br>SAP |
|--------------------|--------------------------------------|--------------------------------|----------------|------------|
|                    | Knife / Coltello                     | 35 x 34 x 3                    | CPSEMAB301     | F03FC23924 |
|                    | Knife / Coltello                     | 35 x 34 x 3                    | CPSEMAC301     | F03FC23925 |
|                    | Knife / Coltello                     | 35 x 34 x 3                    | CPSEMAD301     | F03FC23926 |
|                    | Knife / Coltello                     | 35 x 34 x 3                    | CPSEMAE301     | F03FC23927 |
|                    | Knife / Coltello                     | 35 x 34 x 3                    | CPSEMAF301     | F03FC23928 |
|                    | Knife / Coltello                     | 35 x 34 x 3                    | CPSEMAG301     | F03FC23929 |
|                    | Knife / Coltello                     | 35 x 34 x 3                    | CPSEMBB301     | F03FC23930 |
|                    | Knife / Coltello                     | 35 x 34 x 3                    | CPSEMBC301     | F03FC23931 |
|                    | Knife / Coltello                     | 35 x 34 x 3                    | CPSEMBD301     | F03FC23932 |
|                    | Knife / Coltello                     | 35 x 34 x 3                    | CPSEMBE301     | F03FC23933 |
|                    | Knife / Coltello                     | 35 x 34 x 3                    | CPSEMFB301     | F03FC23934 |
|                    | Knife / Coltello                     | 35 x 34 x 3                    | CPSEMBG301     | F03FC23935 |
|                    | Knife / Coltello                     | 20 x 24 x 3                    | CPSEMCA301     | F03FC23936 |
|                    | Knife / Coltello                     | 17 x 24 x 3                    | CPSEMDA301     | F03FC23937 |

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

### Spare parts for cutterheads TPSEM Parti di ricambio per teste TPSEM



|                | Spare parts<br>Parti di ricambio       | Dimensions<br>Dimensioni<br>mm | Code<br>Codice | SAP<br>SAP |
|----------------|--|--------------------------------|----------------|------------|
| AA3-AB3-AC3    | Deflector / Deflettore                 | 30,8 x 7 x 24,5                | ID04MSAA901    | F03FC24137 |
|                | Grooving insert / Insetto per incastri | 40 x 16 x 4                    | IG04MSAA305    | F03FH02994 |
|                | Positioning plate / Piastra riscontro  | 34 x 4 x 16                    | SR06MDAL302    | F03FC24196 |
|                | Screw / Vite                           | M10 x 18                       | VT03M CC9      | F03FA04438 |
|                | Screw / Vite                           | M5 x 8                         | VT05M AA9      | F03FA04444 |
|                | Screw for: / Vite per: ID04M           | M4 x 12                        | VT05M DA9      | F03FC20647 |
|                | Screw / Vite                           | M6 x 14,5                      | VT16M AA9      | F03FA04476 |
|                | Screw / Vite                           | M6 x 13                        | VT16M AE9      | F03FC20658 |
|                | Positioning plate / Piastra riscontro  | 20 x 11,6 x 2,2                | VT18M AS9      | F03FC20665 |
| BA3-BB3-BC3    | Deflector / Deflettore                 | 30,8 x 8 x 24,5                | ID04MSAD901    | F03FC24140 |
|                | Grooving insert / Insetto per incastri | 40 x 16 x 6                    | IG04MSAD305    | F03FH02997 |
|                | Spur insert / Insetto rasante          | 34 x 4 x 16                    | SR06MDAL302    | F03FC24196 |
|                | Screw / Vite                           | M10 x 18                       | VT03M CC9      | F03FA04438 |
|                | Screw / Vite                           | M5 x 8                         | VT05M AA9      | F03FA04444 |
|                | Screw for: / Vite per: ID04M           | M4 x 12                        | VT05M DA9      | F03FC20647 |
|                | Screw / Vite                           | M6 x 15,5                      | VT16M AD9      | F03FC20657 |
|                | Screw / Vite                           | M6 x 13                        | VT16M AE9      | F03FC20658 |
|                | Positioning plate / Piastra riscontro  | 20 x 11,6 x 2,2                | VT18M AS9      | F03FC20665 |
| CA3-CB3<br>CC3 | Wedge / Cuneo                          | 16 x 17 x 8                    | CN11M B160A    | F03FC24539 |
|                | Knife / Coltello                       | 20 x 24 x 3                    | CPSEMCA301     | F03FC23936 |
|                | Spur / Rasante                         | 22,86 x 2,5                    | RG02MAA305     | F03FH03041 |
|                | Screw / Vite                           | M10 x 18                       | VT03M CC9      | F03FA04438 |
| DA3-DB3<br>DC3 | Screw / Vite                           | M5 x 8                         | VT05M AA9      | F03FA04444 |
|                | Wedge / Cuneo                          | 16 x 17 x 8                    | CN11M B130A    | F03FC01348 |
|                | Knife / Coltello                       | 17 x 24 x 3                    | CPSEMDA301     | F03FC23937 |
|                | Screw / Vite                           | M10 x 18                       | VT03M CC9      | F03FA04438 |
|                | Screw / Vite                           | M5 x 8                         | VT05M AA9      | F03FA04444 |
|                | Positioning plate / Piastra riscontro  | 20 x 11,6 x 2,2                | VT18M AR9      | F03FC20664 |

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

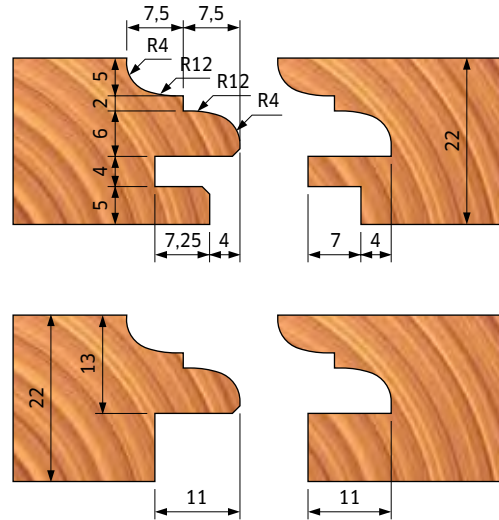
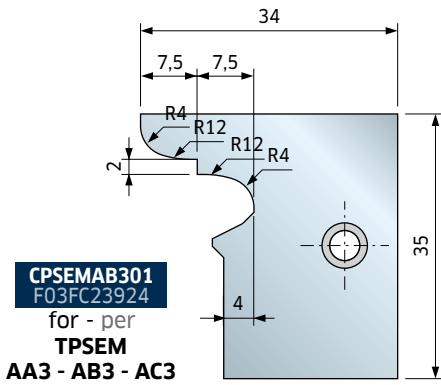


|       | Spare parts<br>Parti di ricambio | Dimensions<br>Dimensioni<br>mm | Code<br>Codice | SAP<br>SAP |
|-------|----------------------------------|--------------------------------|----------------|------------|
|       | Torx key / Chiave Torx           | T20                            | CB03M CC9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



# CPSEMAB301

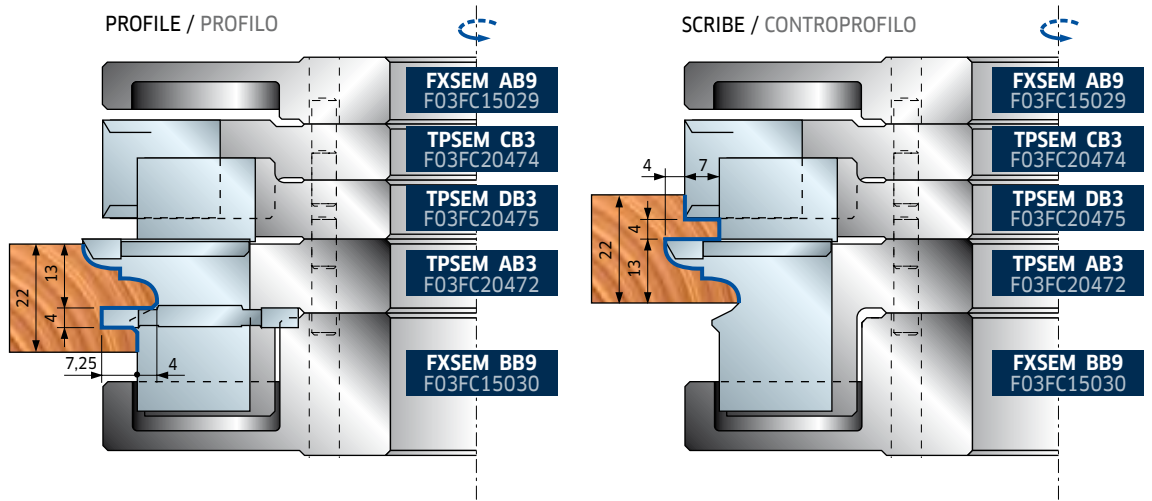
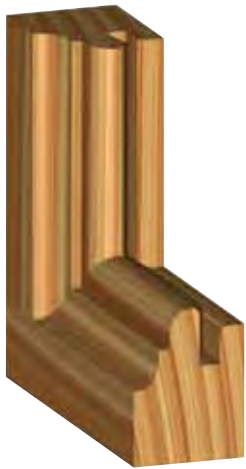
Knives for TPSEM AA3 - AB3 - AC3 (wood thickness: 22 mm)  
 Coltelli per TPSEM AA3 - AB3 - AC3 (spessore legno: 22 mm)



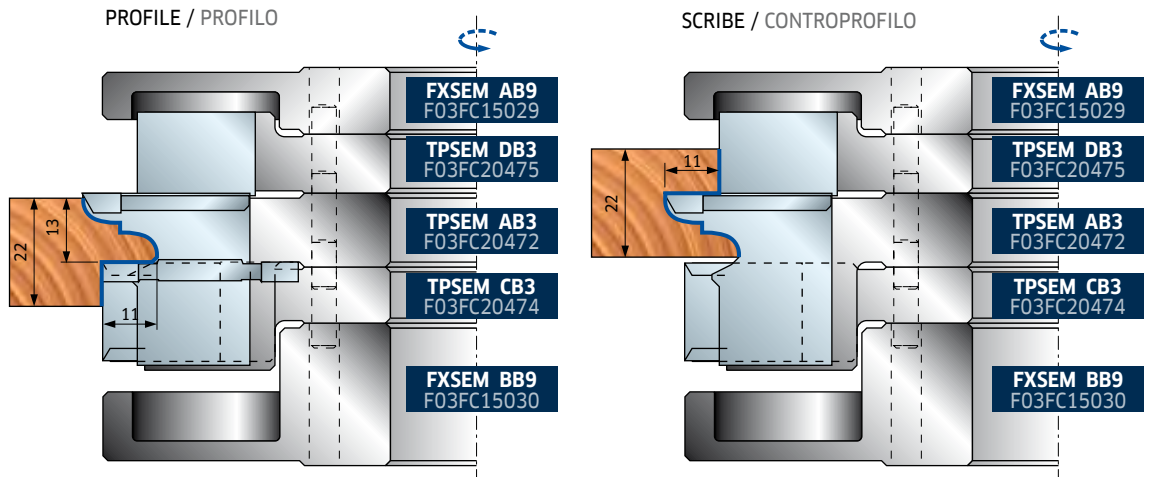
Order example for the profiles shown  
 Esempio di ordinazione per l'esecuzione dei profili indicati

| Pieces<br>Pezzi | Dimensions<br>Dimensioni<br>mm | Code<br>Codice    | SAP<br>SAP |
|-----------------|--------------------------------|-------------------|------------|
| 1               | 160 x 35                       | <b>TPSEM22GB3</b> | F03FC20476 |
| 2               | 35 x 34 x 3                    | <b>CPSEM AB3</b>  | F03FC01457 |

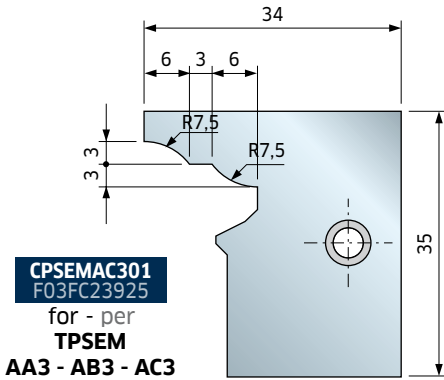
Carrying out a groove  
 Esecuzione con incastro



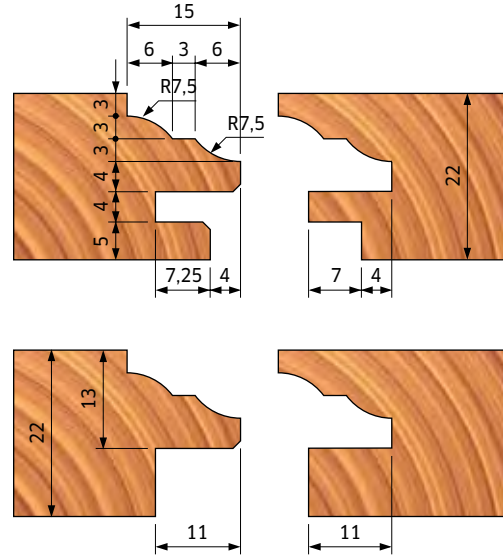
Carrying out a rebate  
 Esecuzione con battuta



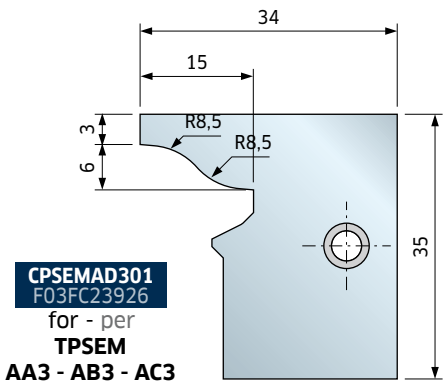
# CPSEMAC301



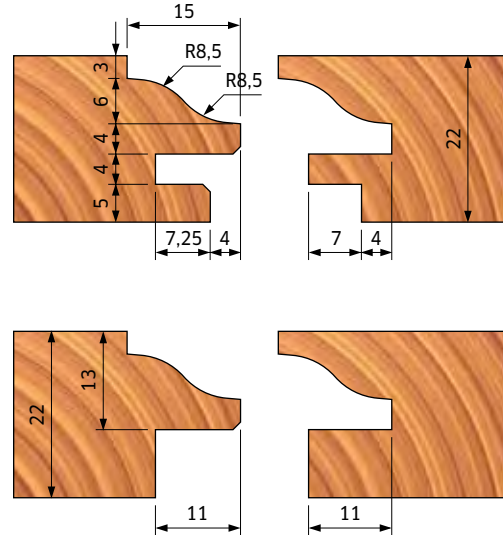
Knives for TPSEM AA3 - AB3 - AC3 (wood thickness: 22 mm)  
Coltelli per TPSEM AA3 - AB3 - AC3 (spessore legno: 22 mm)



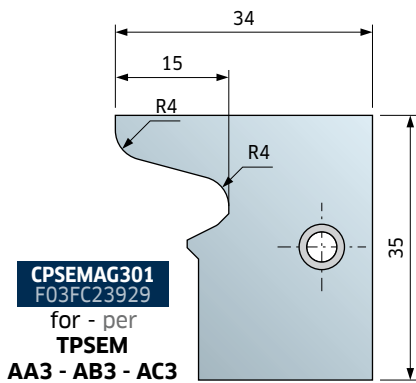
# CPSEMAD301



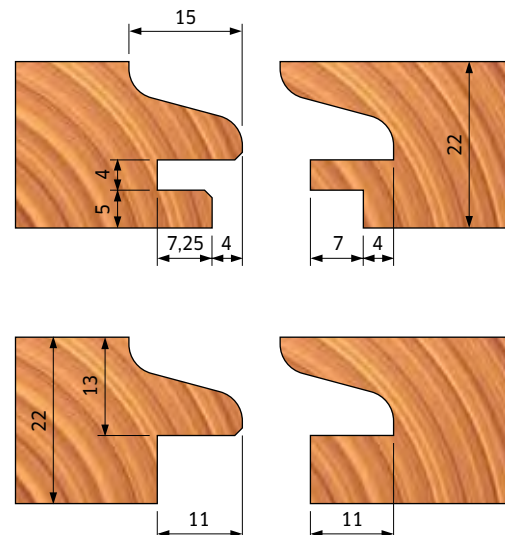
Knives for TPSEM AA3 - AB3 - AC3 (wood thickness: 22 mm)  
Coltelli per TPSEM AA3 - AB3 - AC3 (spessore legno: 22 mm)



# CPSEMAG301

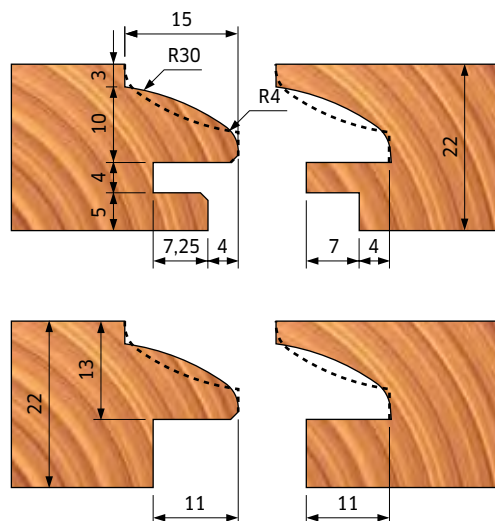
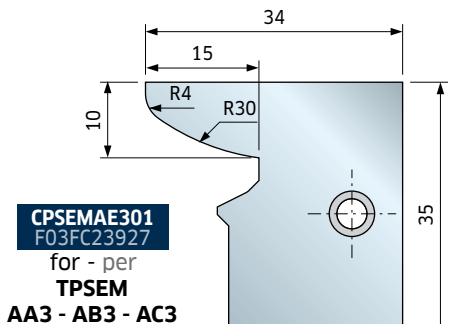
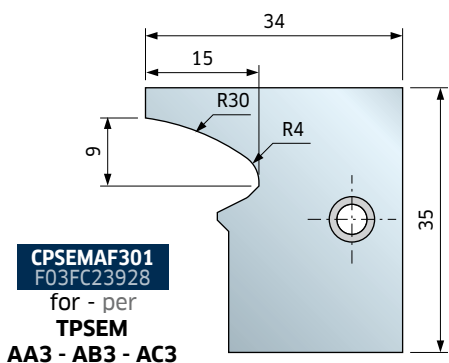


Knives for TPSEM AA3 - AB3 - AC3 (wood thickness: 22 mm)  
Coltelli per TPSEM AA3 - AB3 - AC3 (spessore legno: 22 mm)



# CPSEMAF301 - CPSEMAE301 CPSEMAE301 - CPSEMAF301

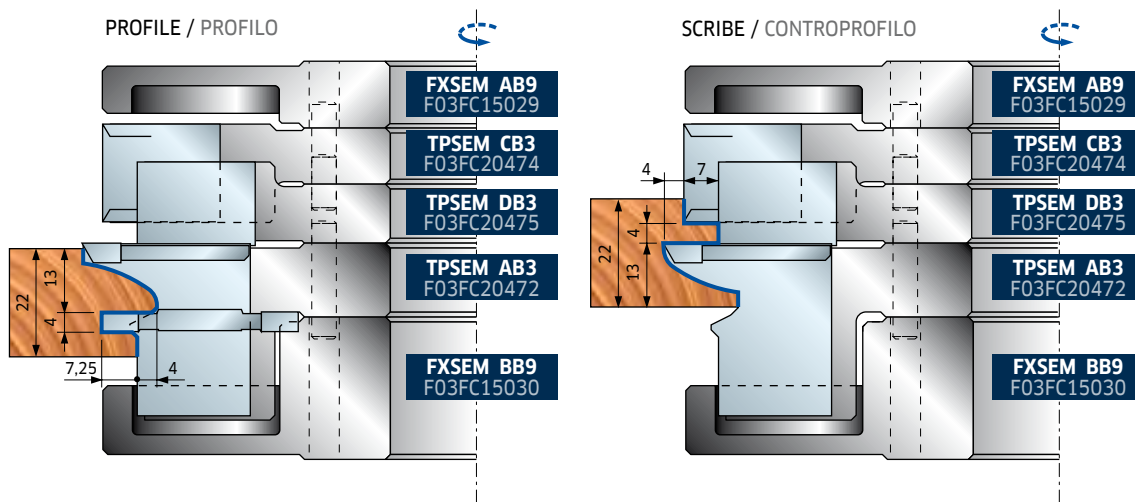
Knives for TPSEM AA3 - AB3 - AC3 (wood thickness: 22 mm)  
Coltelli per TPSEM AA3 - AB3 - AC3 (spessore legno: 22 mm)



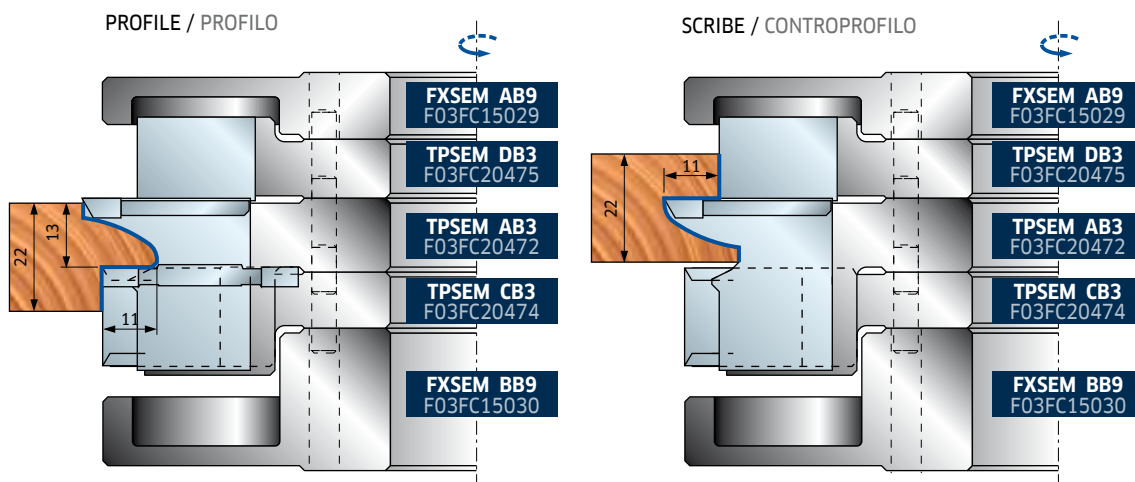
Order example for the profiles shown  
Esempio di ordinazione per l'esecuzione dei profili indicati

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

Carrying out a groove  
Esecuzione con incastro

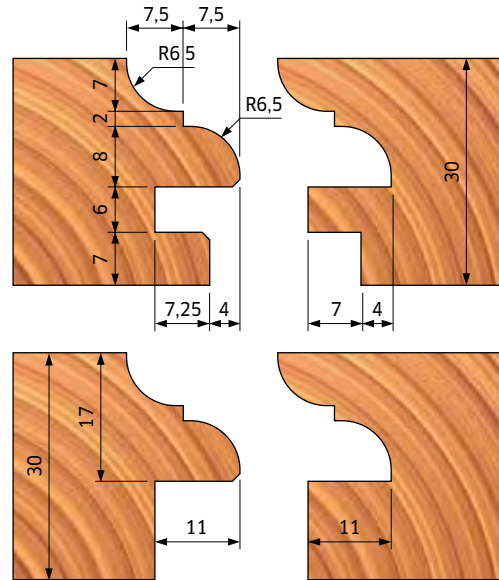
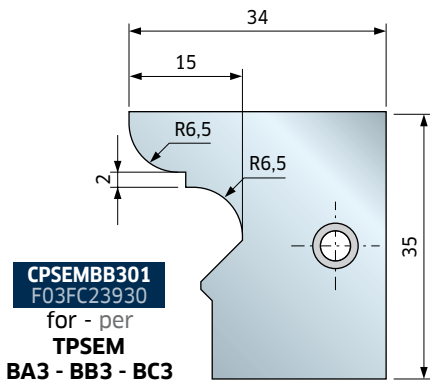


Carrying out a rebate  
Esecuzione con battuta



# CPSEMBB301

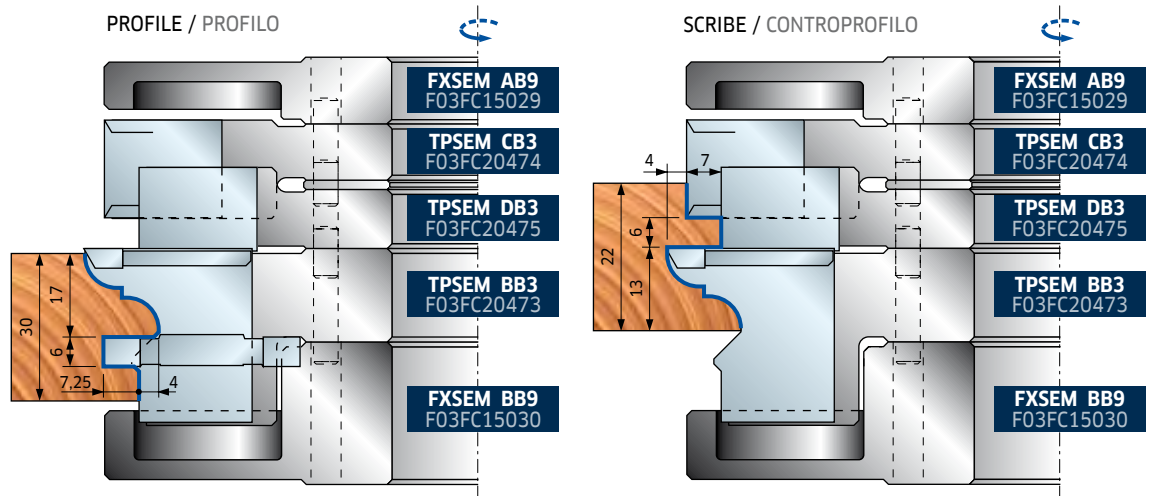
Knives for TPSEM BA3 - BB3 - BC3 (wood thickness: 30 mm)  
 Coltelli per TPSEM BA3 - BB3 - BC3 (spessore legno: 30 mm)



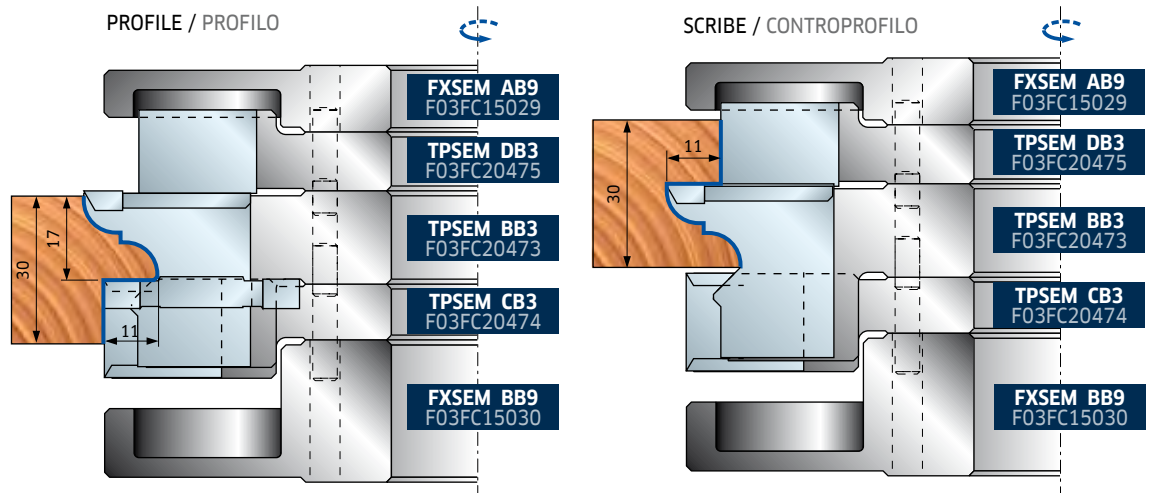
Order example for the profiles shown  
 Esempio di ordinazione per l'esecuzione dei profili indicati

| Pieces<br>Pezzi | Dimensions<br>Dimensioni<br>mm | Code<br>Codice    | SAP<br>SAP |
|-----------------|--------------------------------|-------------------|------------|
| 1               | 160 x 35                       | <b>TPSEM22GB3</b> | F03FC20476 |
| 2               | 35 x 34 x 3                    | <b>CPSEMAE301</b> | F03FC23927 |
| 2               | 35 x 34 x 3                    | <b>CPSEMAF301</b> | F03FC23928 |

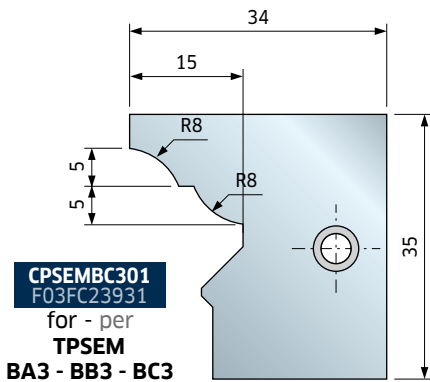
Carrying out a groove  
 Esecuzione con incastro



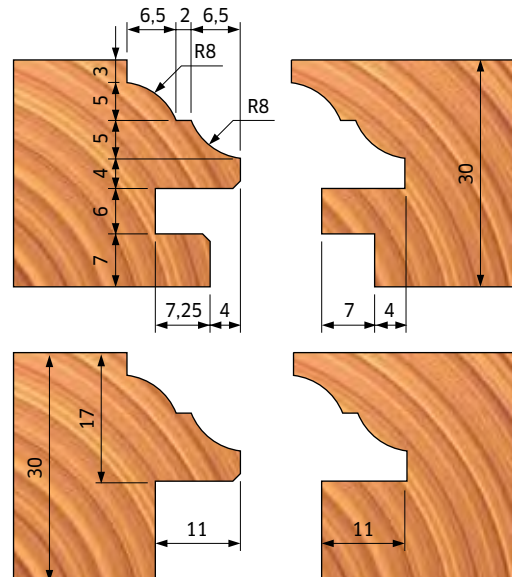
Carrying out a rebate  
 Esecuzione con battuta



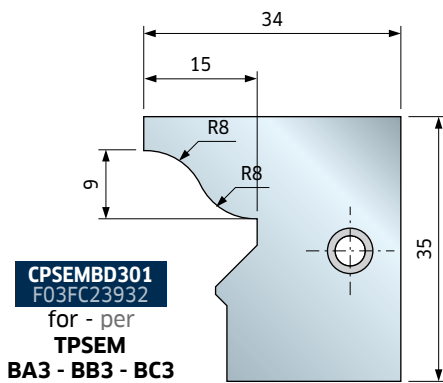
# CPSEMBC301



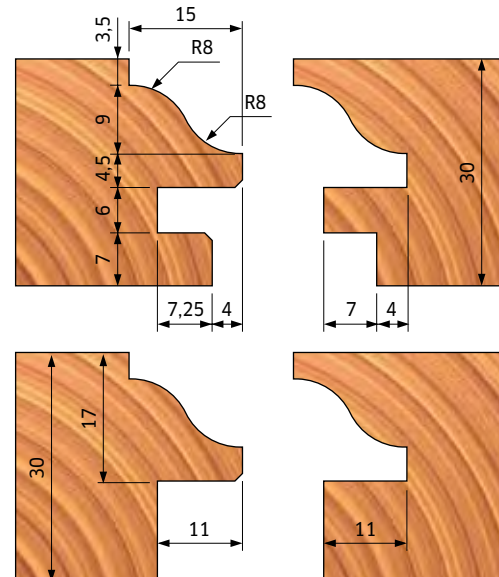
Knives for TPSEM BA3 - BB3 - BC3 (wood thickness: 30 mm)  
Coltelli per TPSEM BA3 - BB3 - BC3 (spessore legno: 30 mm)



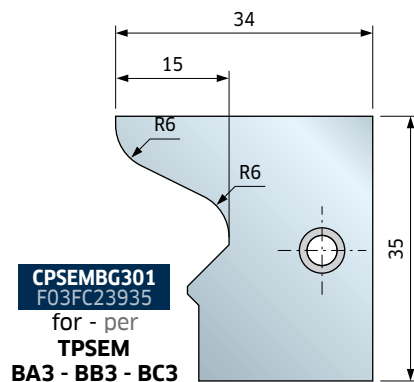
# CPSEMBD301



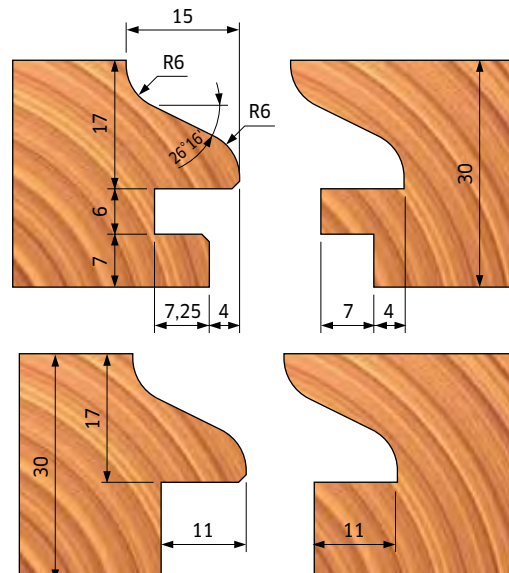
Knives for TPSEM BA3 - BB3 - BC3 (wood thickness: 30 mm)  
Coltelli per TPSEM BA3 - BB3 - BC3 (spessore legno: 30 mm)



# CPSEMBG301

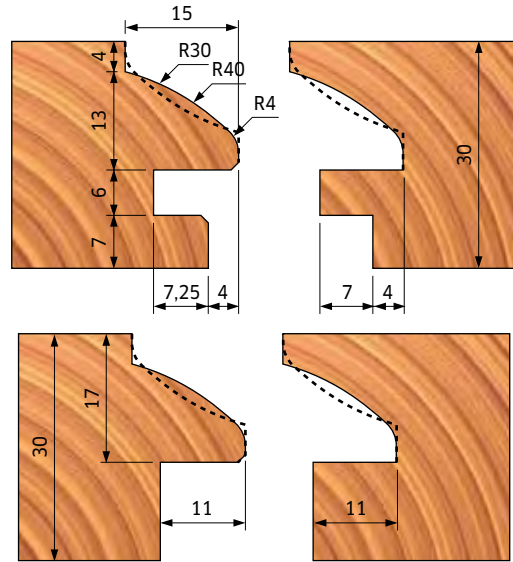
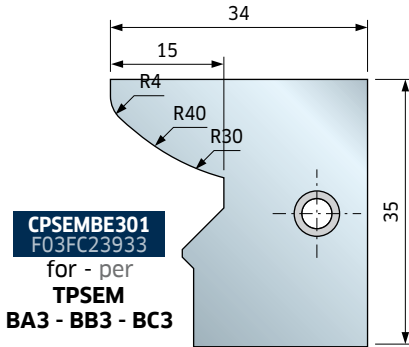
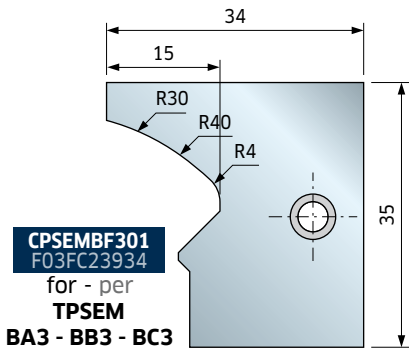


Knives for TPSEM BA3 - BB3 - BC3 (wood thickness: 30 mm)  
Coltelli per TPSEM BA3 - BB3 - BC3 (spessore legno: 30 mm)



**CPSEMBF301 - CPSEMBE301**  
**CPSEMBE301 - CPSEMBF301**

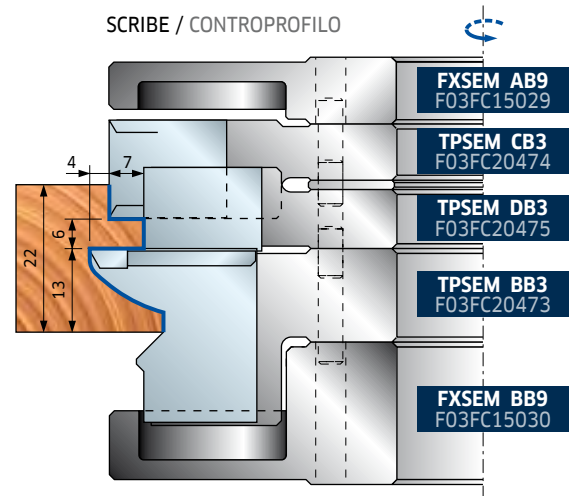
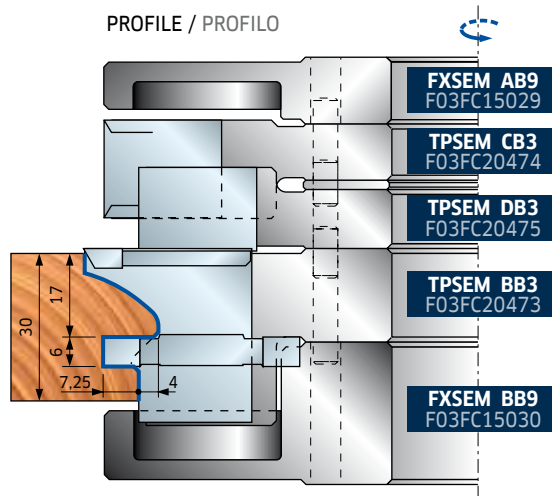
**Knives for TPSEM BA3 - BB3 - BC3 (wood thickness: 30 mm)**  
**Coltelli per TPSEM BA3 - BB3 - BC3 (spessore legno: 30 mm)**



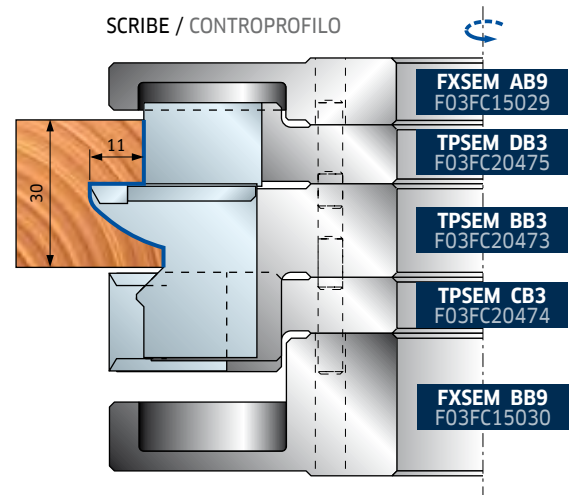
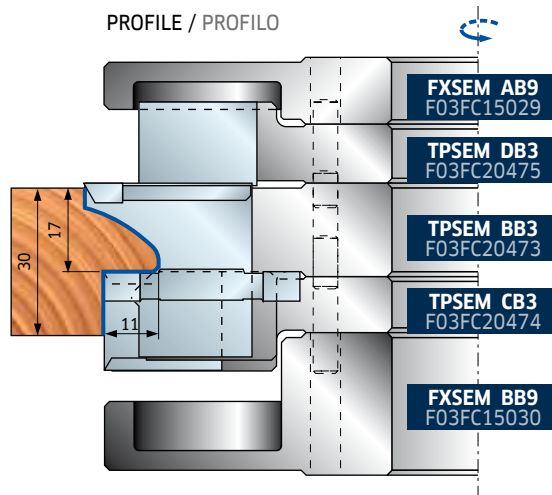
**Order example for the profiles shown**  
 Esempio di ordinazione per l'esecuzione dei profili indicati

| Pieces<br>Pezzi | Dimensions<br>Dimensioni<br>mm | Code<br>Codice    | SAP<br>SAP |
|-----------------|--------------------------------|-------------------|------------|
| 1               | 160 x 35                       | <b>TPSEM30GB3</b> | F03FC20477 |
| 2               | 35 x 34 x 3                    | <b>CPSEMBE301</b> | F03FC23933 |
| 2               | 35 x 34 x 3                    | <b>CPSEMBF301</b> | F03FC23934 |

**Carrying out a groove**  
 Esecuzione con incastro



**Carrying out a rebate**  
 Esecuzione con battuta



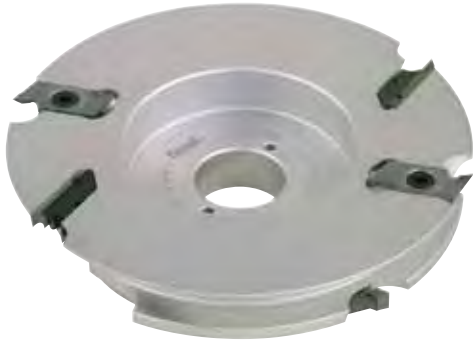
# TP42M

## Multiprofile cutterheads for doors Teste multiprofilo per porte

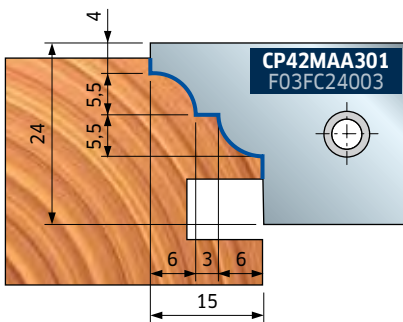
This tool is designed to be used on moulding. Mostly suitable for moulding and profiling on soft, hard and exotic wood, with a top quality finish. The tool's versatility allows you to produce 44 - 52 mm thick doors. This can be achieved with two passes and by capsiding the machined part for the second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

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

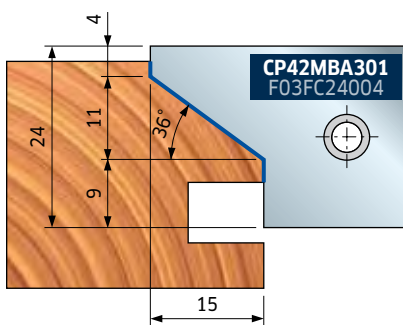
Corpo in lega leggera (Lega di alluminio). Per la pulizia non utilizzare prodotti contenenti soda caustica. **L'articolo viene fornito senza coltelli.**



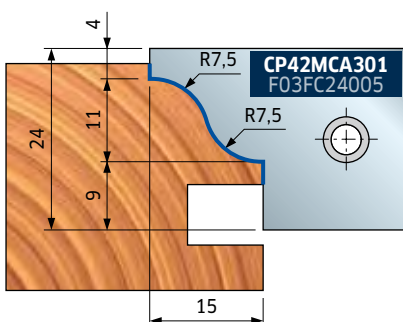
### PROFILE / PROFILO 1



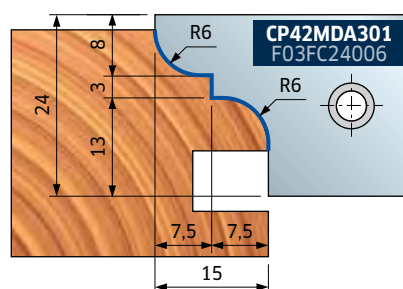
### PROFILE / PROFILO 2



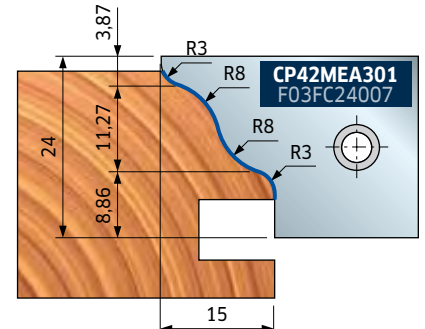
### PROFILE / PROFILO 3



### PROFILE / PROFILO 4



### PROFILE / PROFILO 5



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

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

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



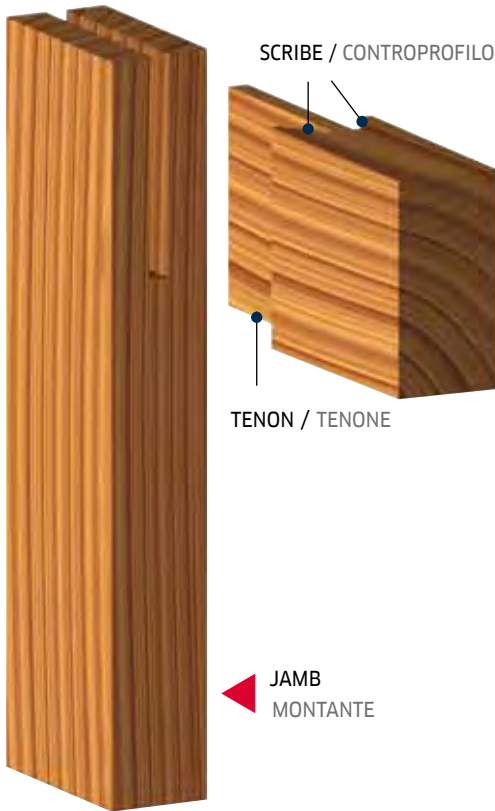
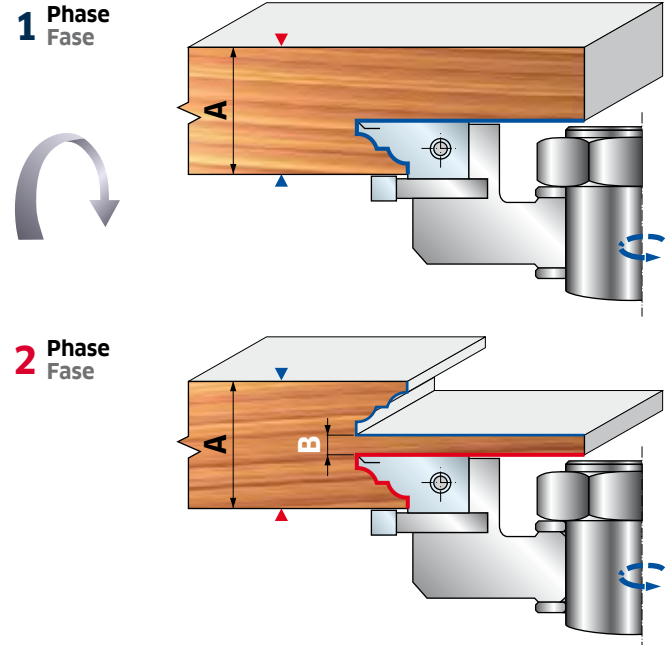
Profiles 4 and 5 are usable with automatic feed only.

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

# TP42M

## 1 Door tenoning Esecuzione del controprofilo con spina

| A | Door thickness<br>Spessore Porta<br>mm | B | Tenon thickness<br>Spessore Tenone<br>mm |
|---|--|---|--|
|   | 44                                     |   | 8  |
|   | 46                                     |   | 10                                       |
|   | 50                                     |   | 14                                       |
|   | 52                                     |   | 16                                       |

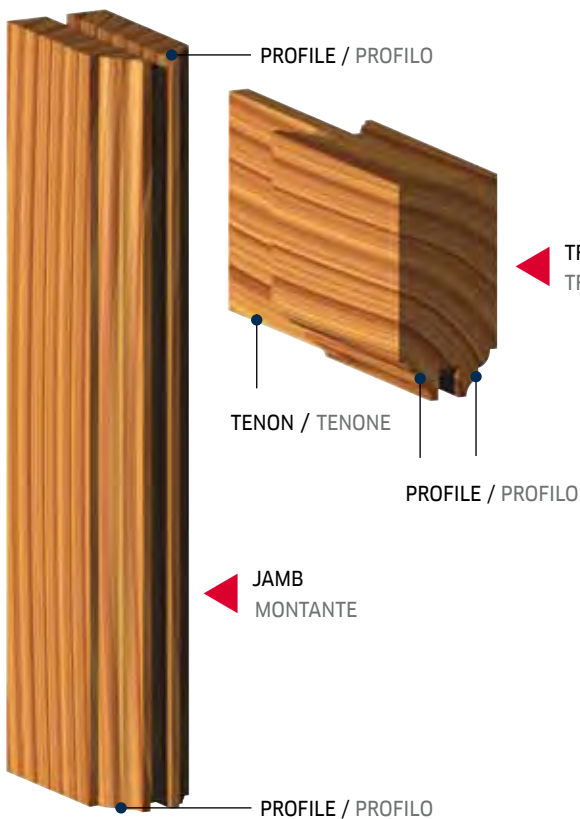
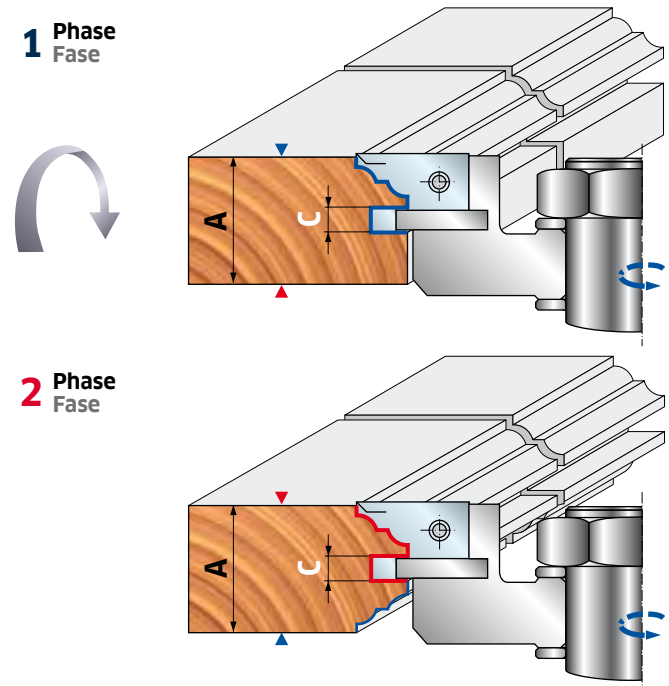


TRANSOM  
TRAVERSO

JAMB  
MONTANTE

## 2 Door frame profiling Profilatura dei montanti e dei traveri

| A | Door thickness<br>Spessore Porta<br>mm | C | Groove thickness<br>Spessore Incastro<br>mm |
|---|--|---|---|
|   | 44                                     |   | 8   |
|   | 46                                     |   | 10  |
|   | 50                                     |   | 14  |
|   | 52                                     |   | 16  |



TRANSOM  
TRAVERSO

JAMB  
MONTANTE

PROFILE / PROFILO



# TP46MAN

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

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

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



### TP46MAN sets for manual feed - Set TP46MAN per avanzamento manuale

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

### Flanges for TP46M sets Flange per gruppi TP46M

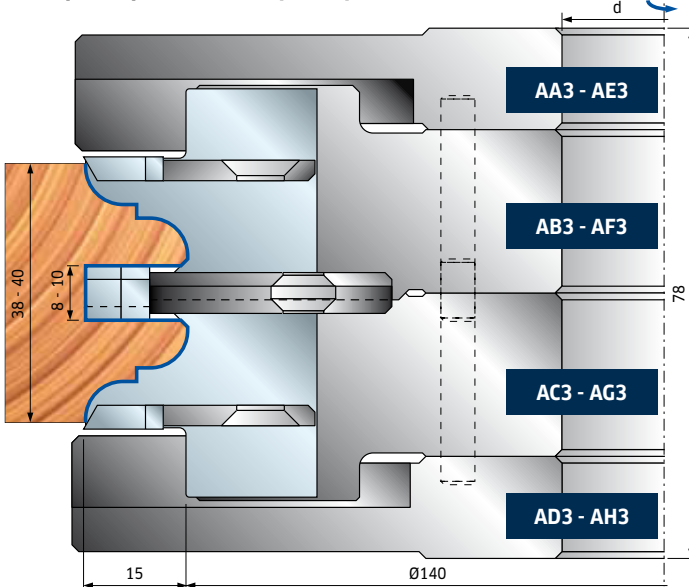
| D<br>mm | S<br>mm | d<br>mm | Code<br>Codice | SAP<br>SAP |
|---------|---------|---------|----------------|------------|
| 174     | 18      | 30      | TP46M AA3      | F03FC20506 |
| 174     | 18      | 30      | TP46M AD3      | F03FC20509 |
| 174     | 18      | 32      | TP46M AE3      | F03FC24454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

### Cutterheads for TP46M sets - Teste per gruppi TP46M

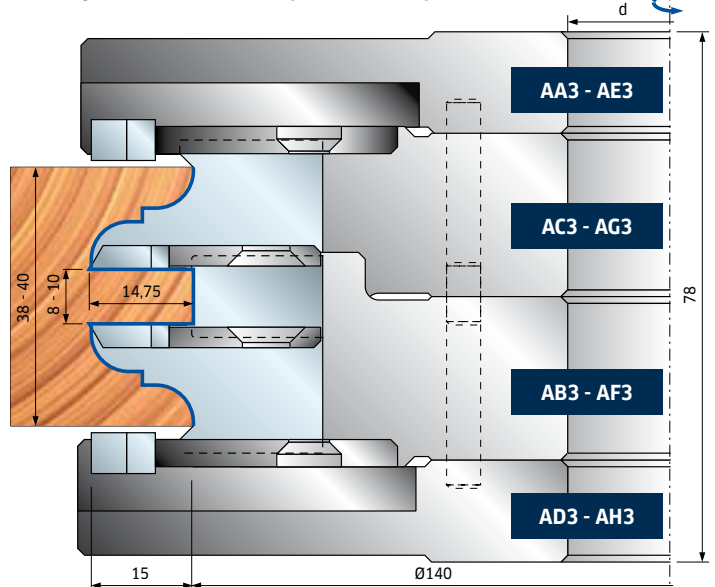
| D<br>mm | B<br>mm | d<br>mm | Z | R | Max RPM<br>1/min. | Code<br>Codice | SAP<br>SAP |
|---------|---------|---------|---|---|-------------------|----------------|------------|
| 170     | 31,5    | 30      | 2 | 4 | 8.300             | TP46M AB3      | F03FC20507 |
| 170     | 31,5    | 30      |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

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

### Example of profile - Esempio di profilo



### Example of scribe - Esempio di controprofilo



# TP46MEC

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

### TP46MEC sets for automatic feed

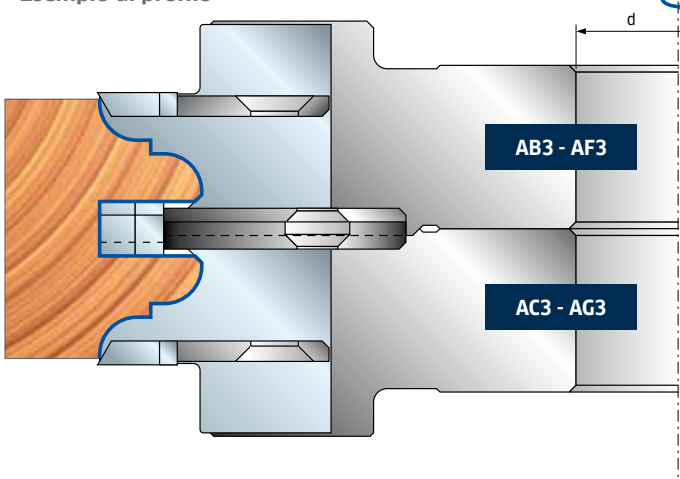
Set TP46MEC per avanzamento meccanico

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

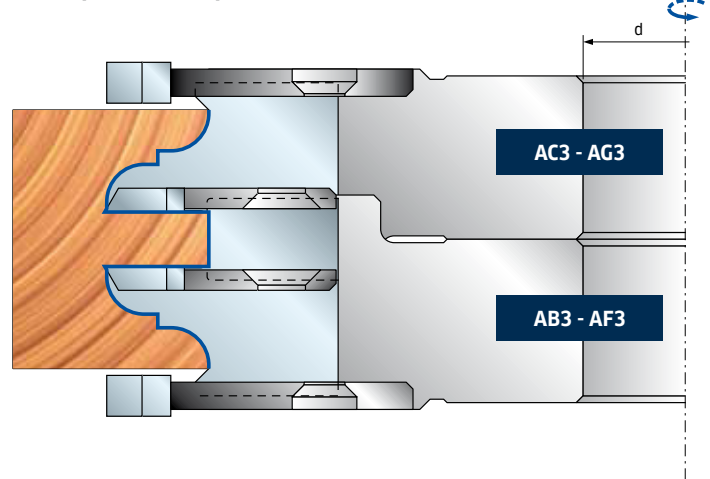


|           | Spare parts<br>Parti di ricambio           | Dimensions<br>Dimensioni<br>mm             | Code<br>Codice | SAP<br>SAP  |            |
|-----------|--|--|----------------|-------------|------------|
|           | Spacer / Anello                            | 50 x 2 x 30                  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

Example of profile  
Esempio di profilo

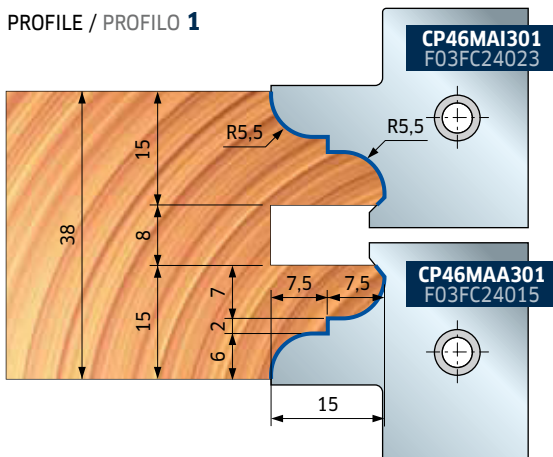


Example of scribe  
Esempio di controprofilo

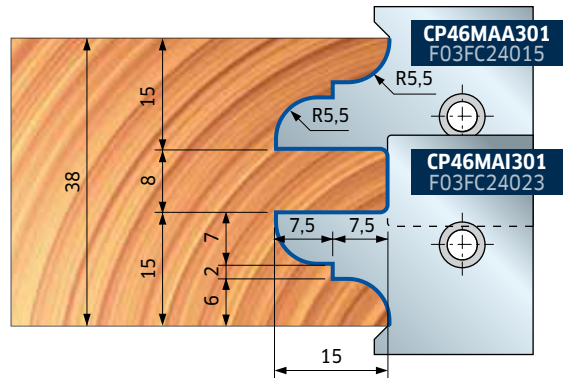


\* Size shown between brackets is the max. rebore possible • La quota tra parentesi è la massima allargatura foro possibile

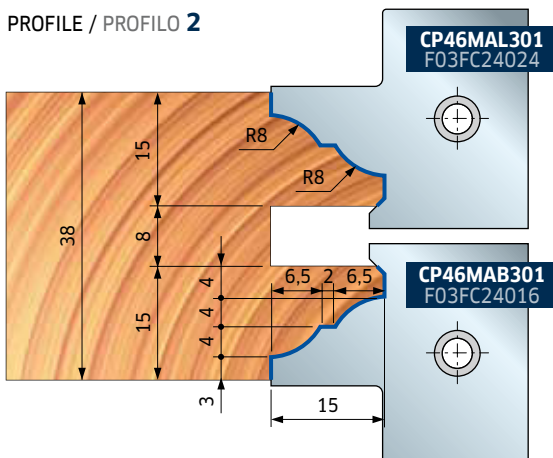
PROFILE / PROFILO 1



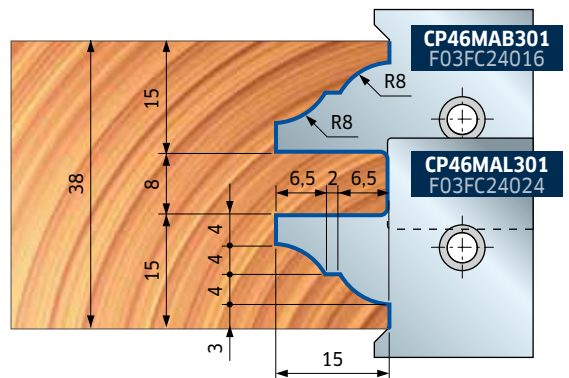
SCRIBE / CONTROPROFILO 1



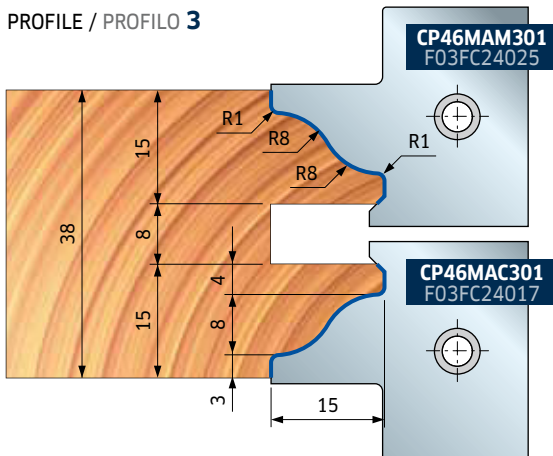
PROFILE / PROFILO 2



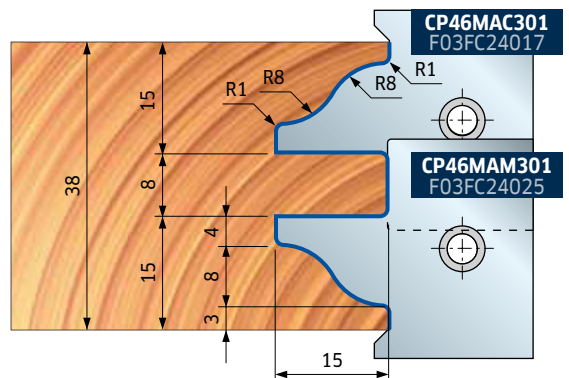
SCRIBE / CONTROPROFILO 2



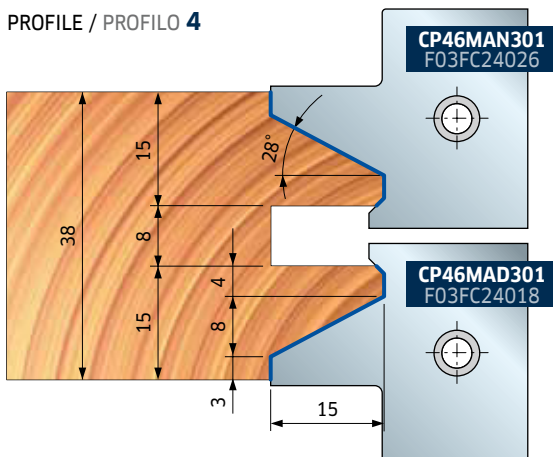
PROFILE / PROFILO 3



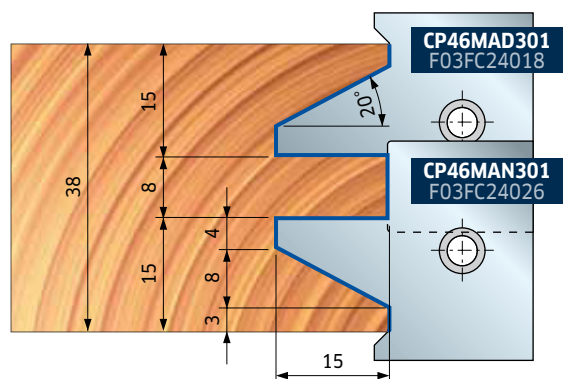
SCRIBE / CONTROPROFILO 3



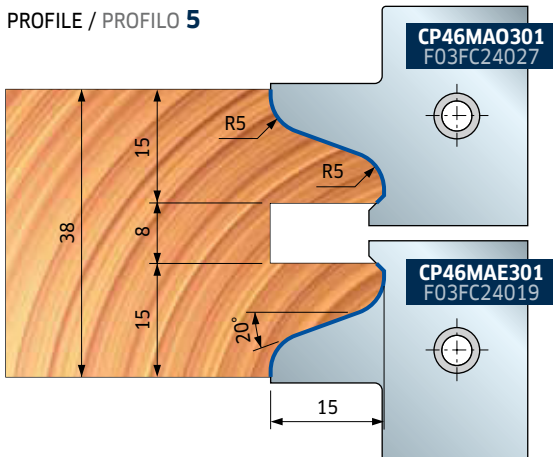
PROFILE / PROFILO 4



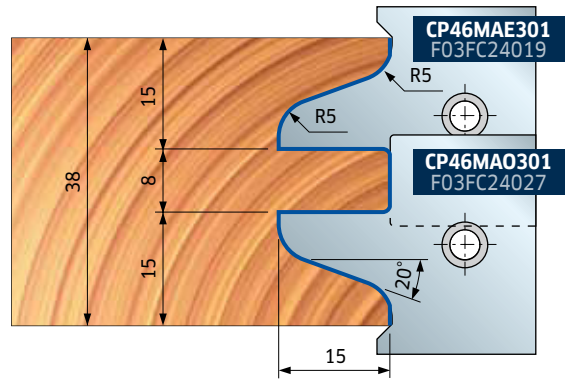
SCRIBE / CONTROPROFILO 4



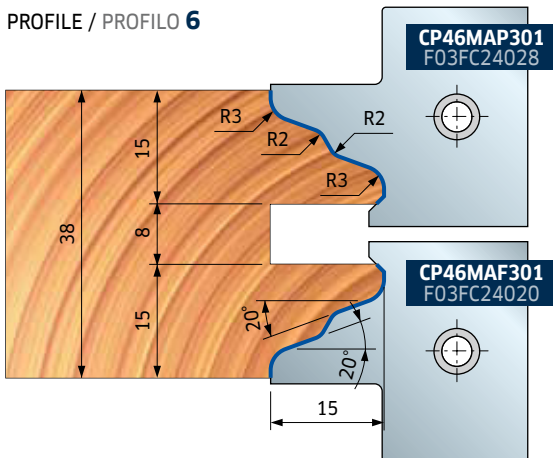
PROFILE / PROFILO 5



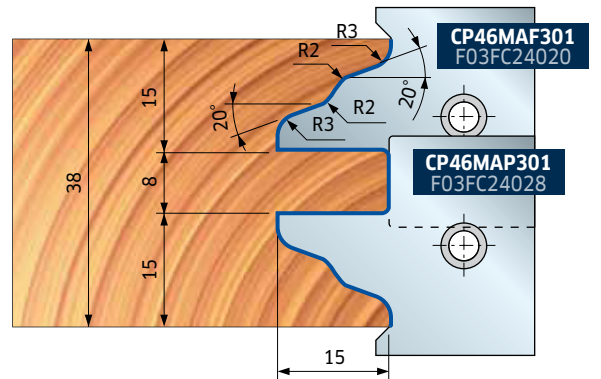
SCRIBE / CONTROPROFILO 5



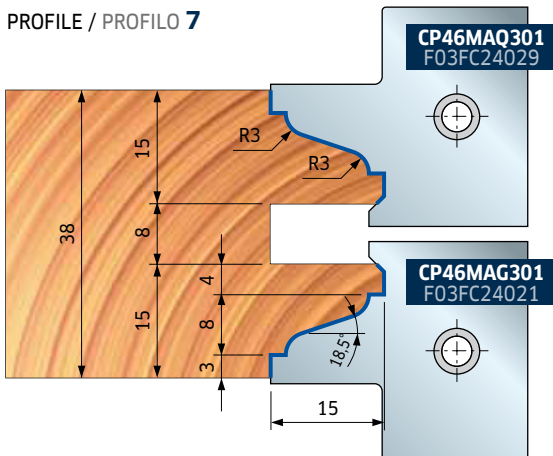
PROFILE / PROFILO 6



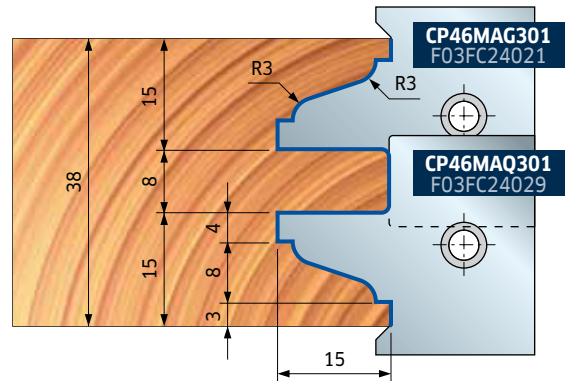
SCRIBE / CONTROPROFILO 6



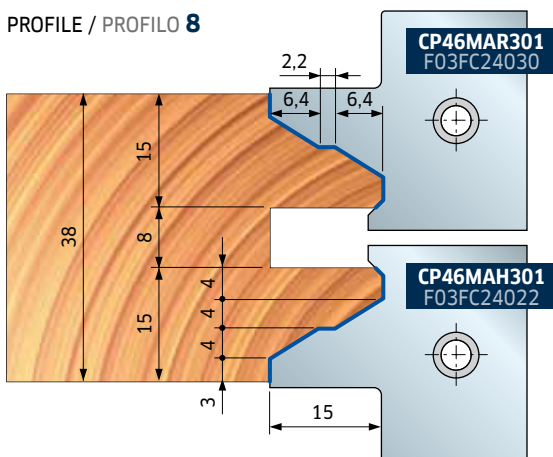
PROFILE / PROFILO 7



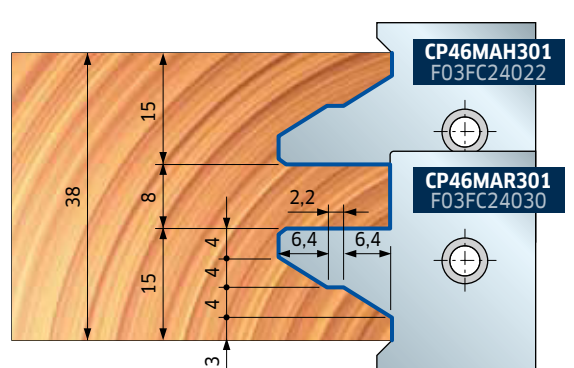
SCRIBE / CONTROPROFILO 7



PROFILE / PROFILO 8



SCRIBE / CONTROPROFILO 8






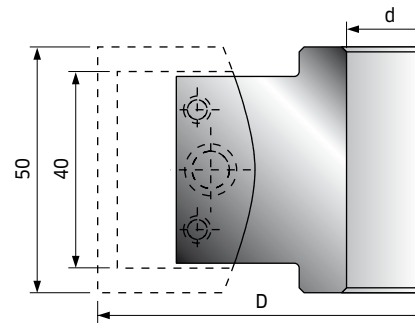
# CS28MA



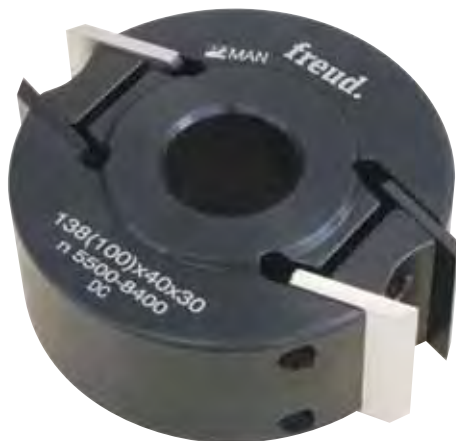
## Multiprofile cutterheads Teste multiprofilo

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

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






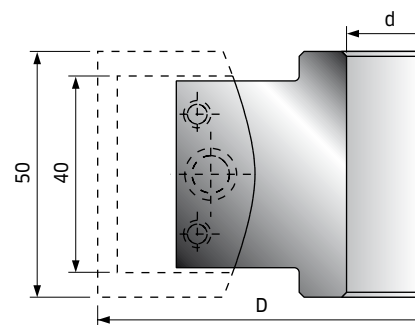
# CS28MB



## Multiprofile cutterheads with limiters Teste multiprofilo con limitatori

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

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



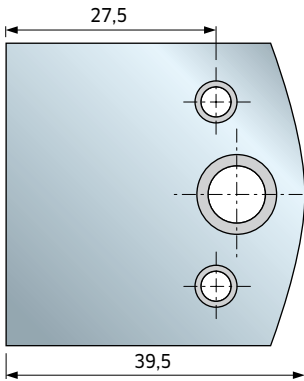
# CS27MC - CS27ML

Knife  
Coltello

Limiter  
Limitatore

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

Raw Knife - Coltello Grezzo



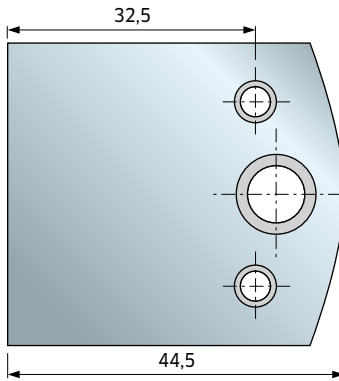
**CS27MC194**  
F03FA00926

**CS27ML194**  
F03FA01109

Knife - Coltello

Limiter - Limitatore

Raw Knife - Coltello Grezzo



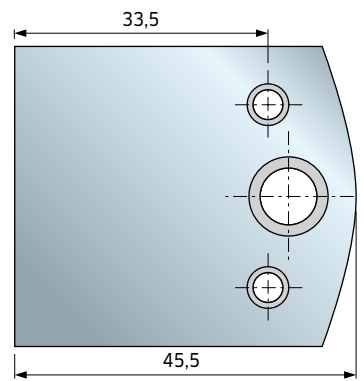
**CS27MC193**  
F03FA00925

**CS27ML193**  
F03FA01108

Knife - Coltello

Limiter - Limitatore

Raw Knife - Coltello Grezzo



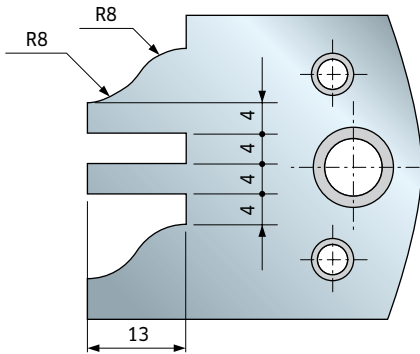
**CS27MC195**  
F03FA00927

**CS27ML195**  
F03FA01110

Knife - Coltello

Limiter - Limitatore

Example profiled knife - Esempio di coltello profilato



**CS27MC097**  
F03FA00841

**CS27ML097**  
F03FA01024

Knife - Coltello

Limiter - Limitatore

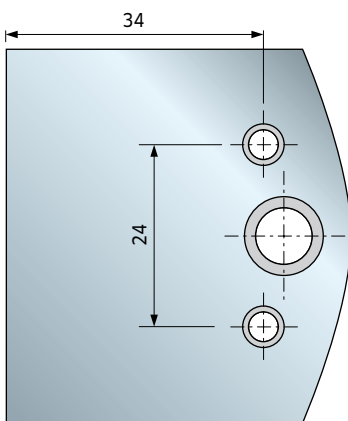
# CS28MC - CS28ML

Knife  
Coltello

Limiter  
Limitatore

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

Raw Knife - Coltello Grezzo



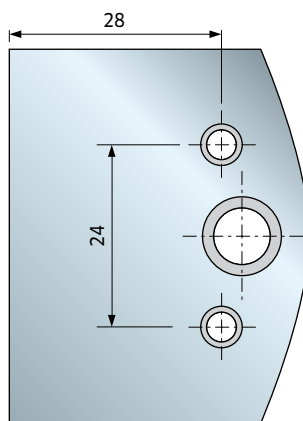
**CS28MC599**  
F03FA01203

**CS28ML599**  
F03FA01286

Knife - Coltello

Limiter - Limitatore

Raw Knife - Coltello Grezzo



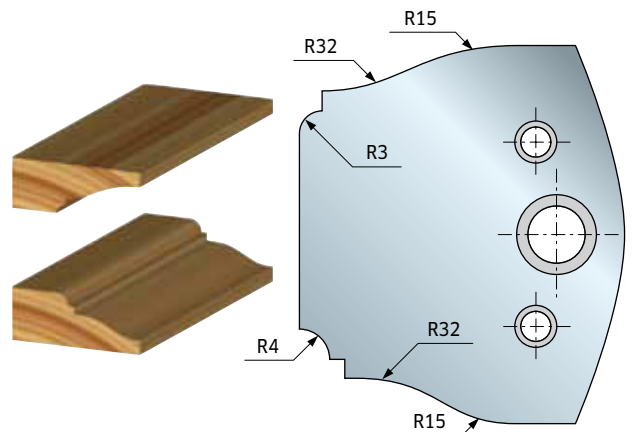
**CS28MC598**  
F03FA01202

**CS28ML598**  
F03FA01285

Knife - Coltello

Limiter - Limitatore

Example of profiled knife - Esempio di coltello profilato



**CS28MC568**  
F03FA01188

**CS28ML568**  
F03FA01272

Knife - Coltello

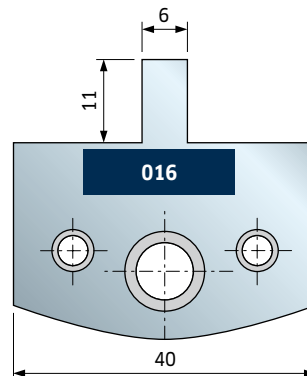
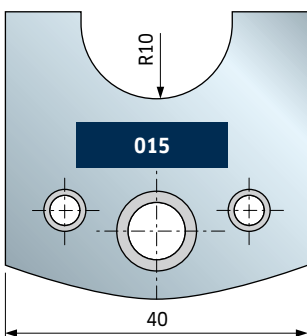
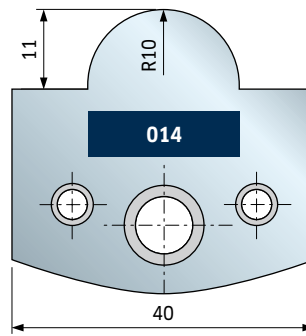
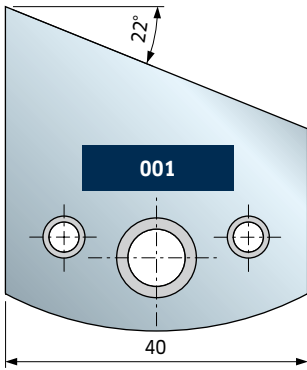
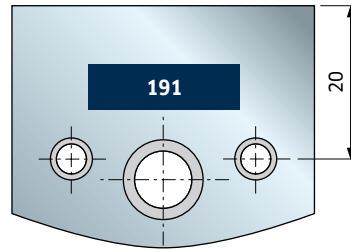
Limiter - Limitatore

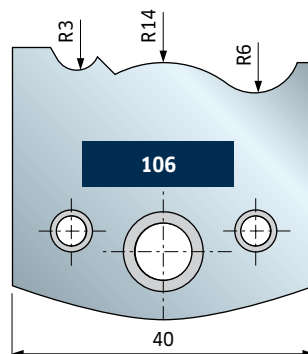
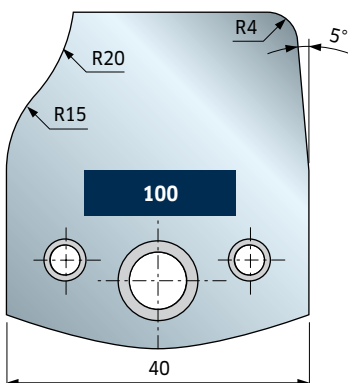
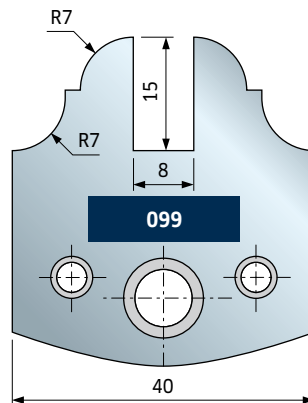
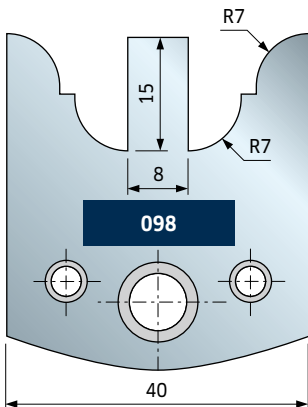
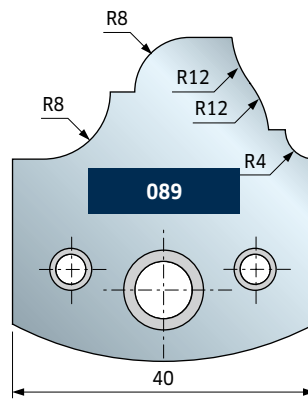
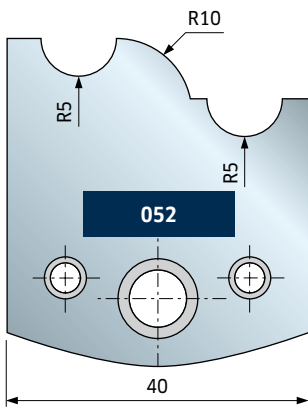
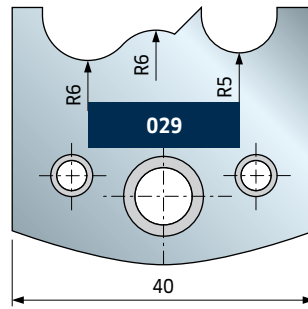
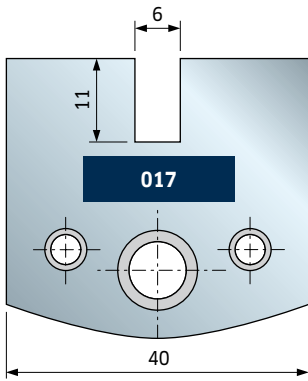
## Multiprofile cutterheads with knives sets Teste multiprofilo con set coltelli

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



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





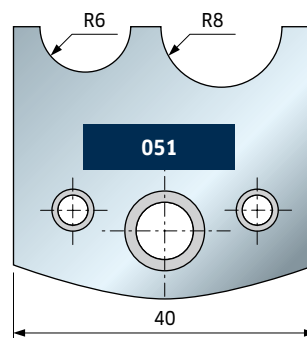
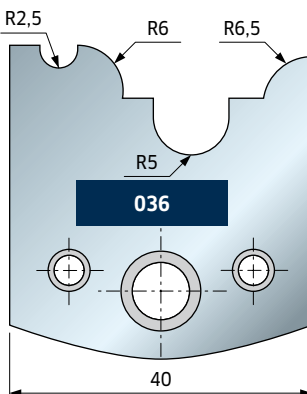
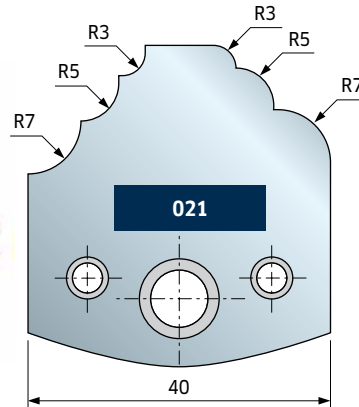
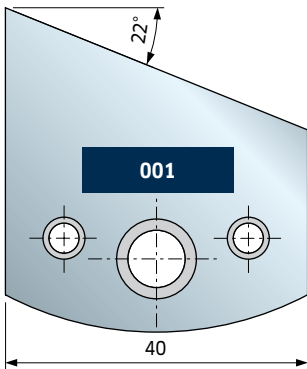
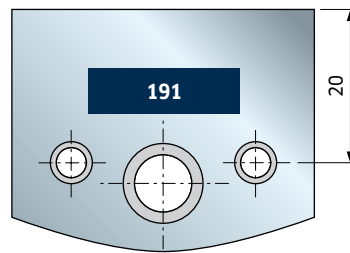
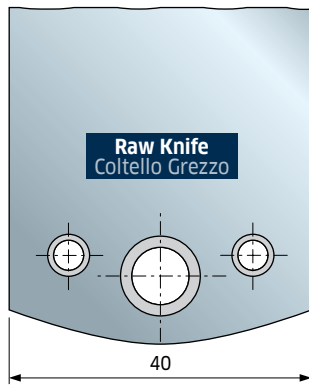


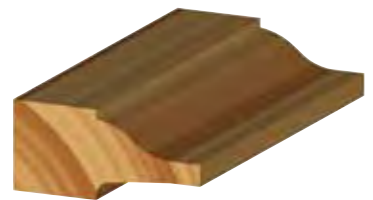
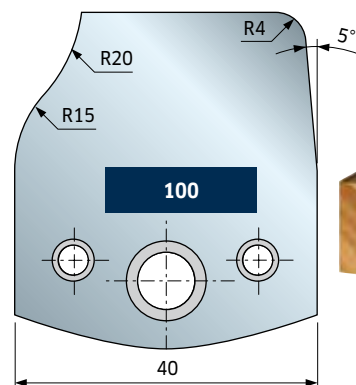
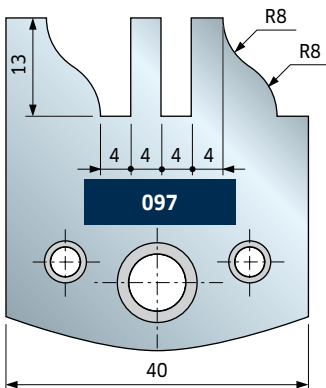
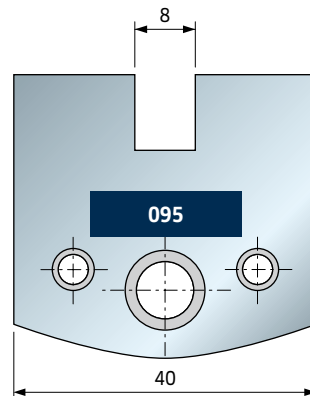
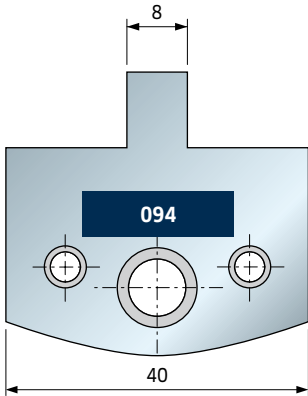
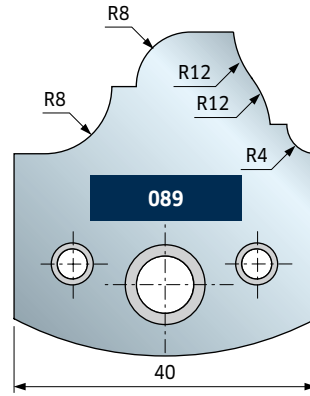
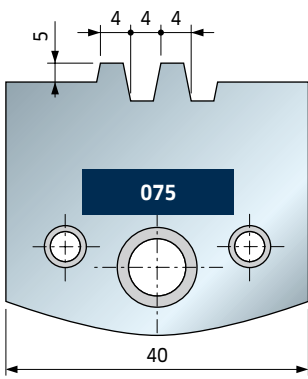
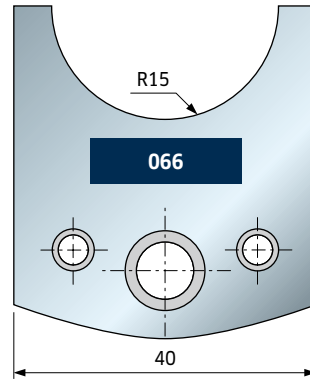
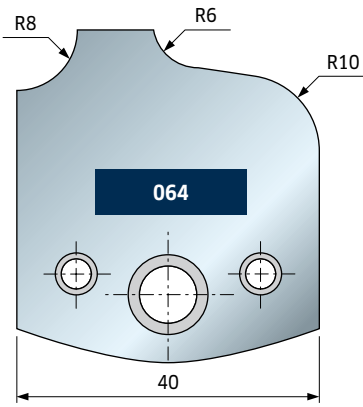
## Multiprofile cutterheads with knives sets Teste multiprofilo con set coltelli

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



| D<br>mm | B<br>mm | d<br>mm | Z | R | Max RPM<br>1/min. | Code<br>Codice     | SAP<br>SAP |
|---------|---------|---------|---|---|-------------------|--------------------|------------|
| 100     | 40      | 35      | 2 |   | 8.400             | <b>CS27MA133FE</b> | F03FA13654 |





# Higher efficiency Efficienza superiore

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



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

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

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

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

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

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

## freud Cascading System for CE marking of windows and doors.

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

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

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

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

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

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

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



Cascading

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

# Technical features Caratteristiche tecniche



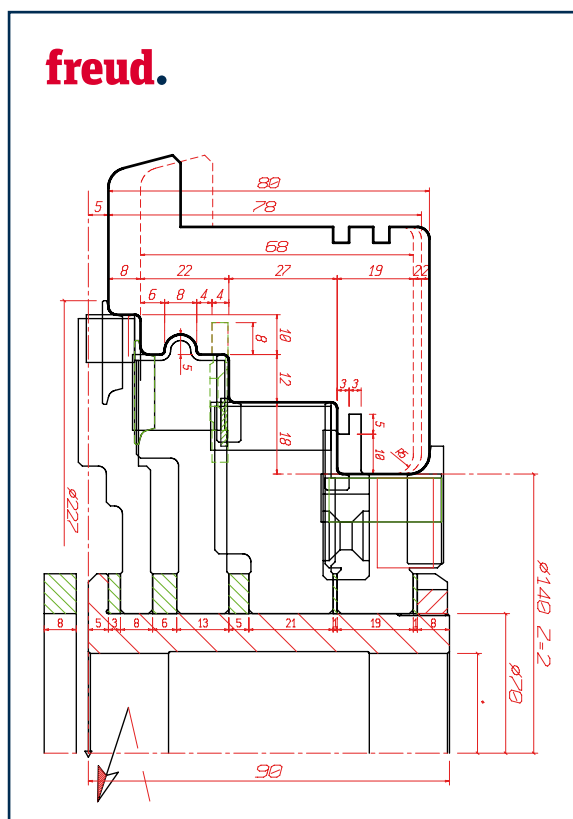
## freud standard tools and systems features for windows and doors:

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

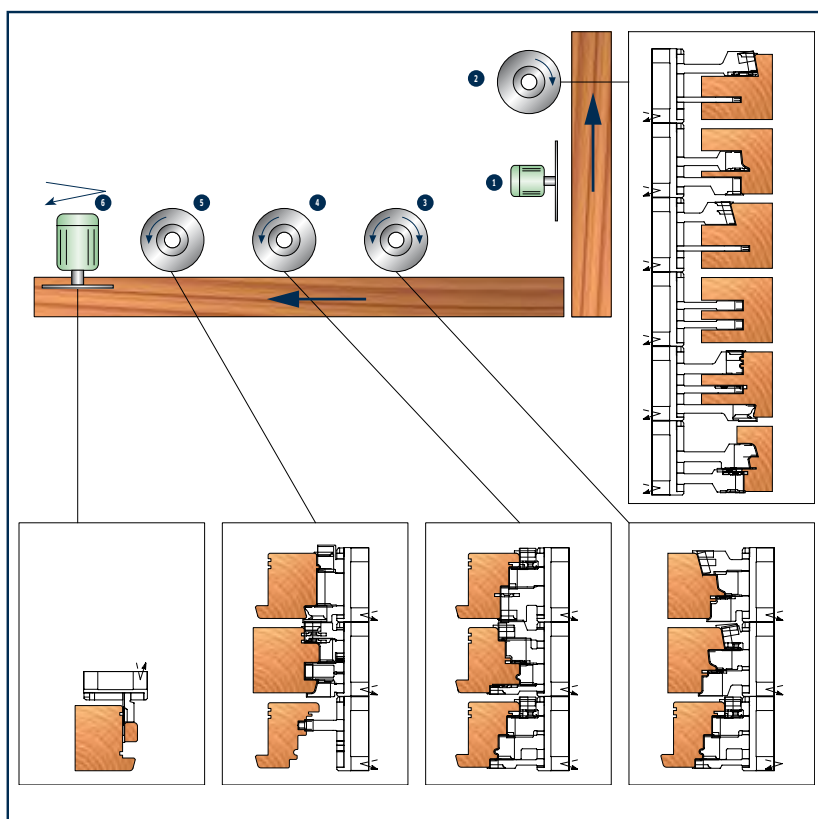
## Caratteristiche degli utensili e dei sistemi standard freud per serramenti:

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

ST12MG: range example.  
ST12MG: esempio di gamma.



Example of section view.  
Esempio utensile in sezione.



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

# ST12MG



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

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

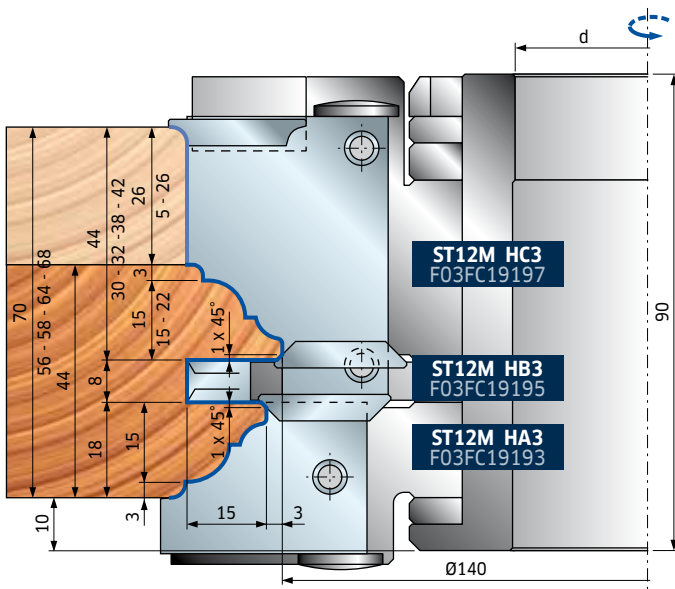
| Dimensions<br>Dimensioni<br>mm | Sleeve code<br>Codice bussola | SAP<br>SAP |
|--------------------------------|-------------------------------|------------|
| Ø70 x 90 x 30                  | <b>BF10MD EA9</b>             | F03FC24536 |
| Ø70 x 90 x 32                  | <b>BF10MD EL9</b>             | F03FC24537 |
| Ø70 x 90 x 35                  | <b>BF10MD EB9</b>             | F03FC00633 |
| Ø70 x 90 x 40                  | <b>BF10MD EC9</b>             | F03FC00634 |
| Ø70 x 90 x 50                  | <b>BF10MD ED9</b>             | F03FC00635 |

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

## Set / Gruppo ST12MG-800

No. 6+6 interchangeable profiles.

N. 6+6 profili intercambiabili.



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

Tool set zero diameter: 140 mm

Diametro di programmazione: 140 mm

| D<br>mm | B<br>mm | d<br>mm | Z | R | Max RPM<br>1/min. | Code<br>Codice    | SAP<br>SAP |
|---------|---------|---------|---|---|-------------------|-------------------|------------|
| 186     |         |         |   |   | 7.300             | <b>ST12MG 800</b> | F03FC19647 |
| 186     |         |         |   |   | 7.300             | <b>ST12MG 801</b> | F03FC19648 |

## Tools for ST12MG-800 and ST12MG-801 sets

Utensili per gruppi ST12MG-800 e ST12MG-801

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

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



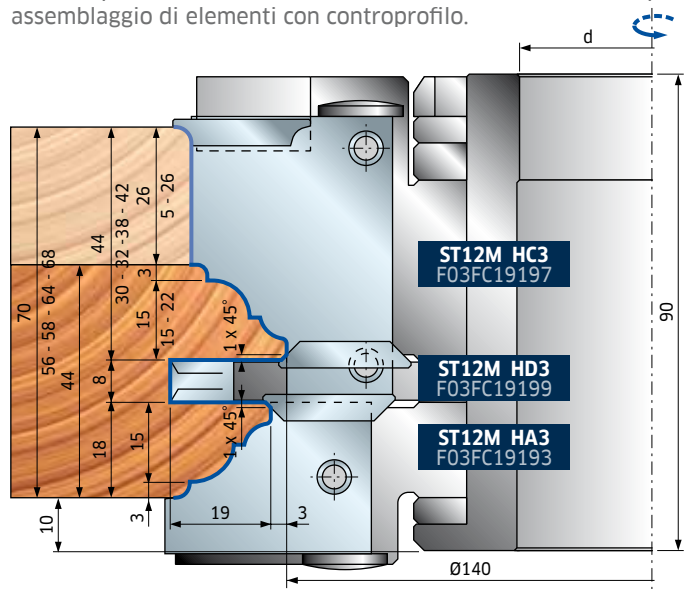
Jamb and transom with ST12MG-801 set: By cutting the tenon as shown, the counter profile with anti-torsion pin is obtained.

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

## Set / Gruppo ST12MG-801

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

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



# ST12MG

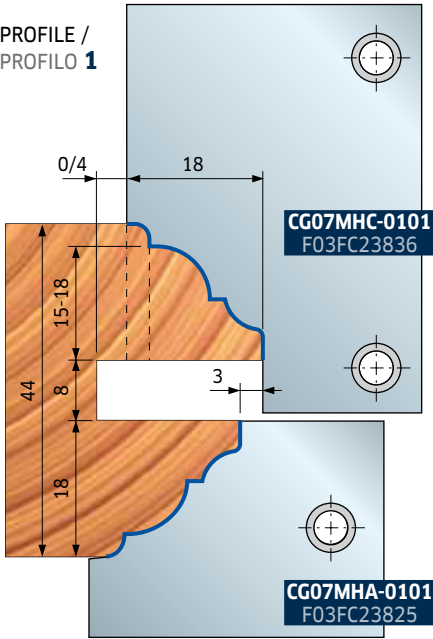
Profiles with 3 mm external rounding for cutterheads:

ST12M HC3 - ST12M HA3

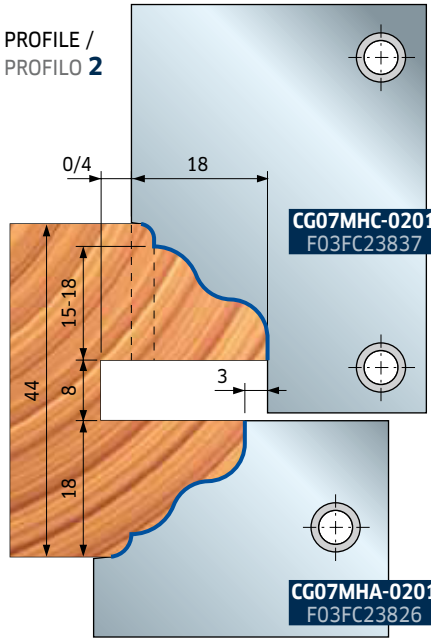
Profili con raggatura esterna da 3 mm per teste:

ST12M HC3 - ST12M HA3

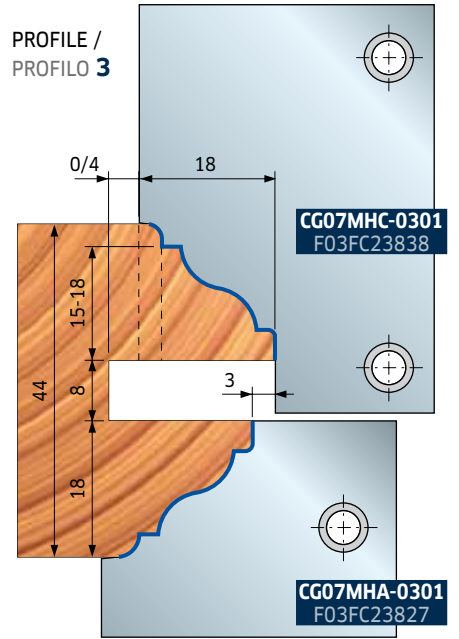
PROFILE /  
PROFILO 1



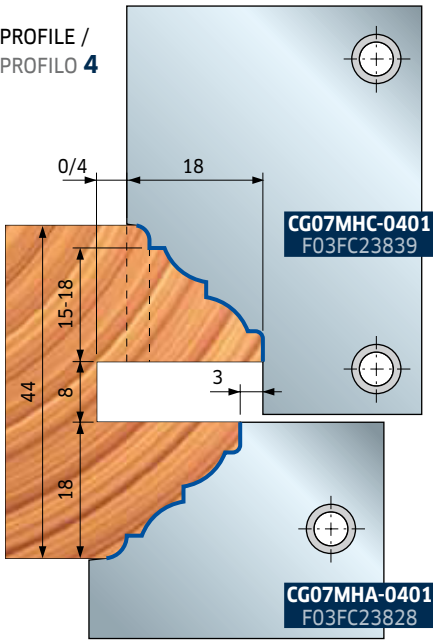
PROFILE /  
PROFILO 2



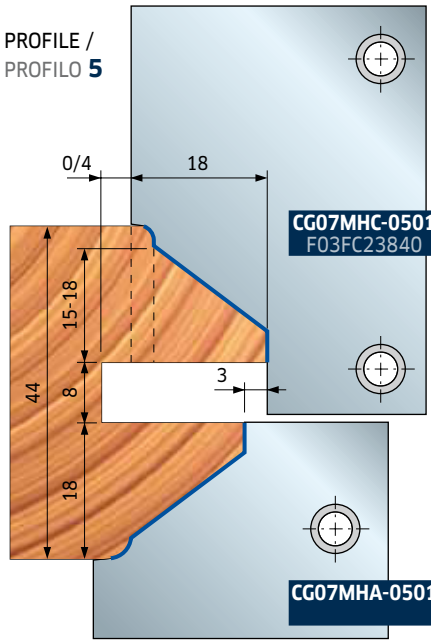
PROFILE /  
PROFILO 3



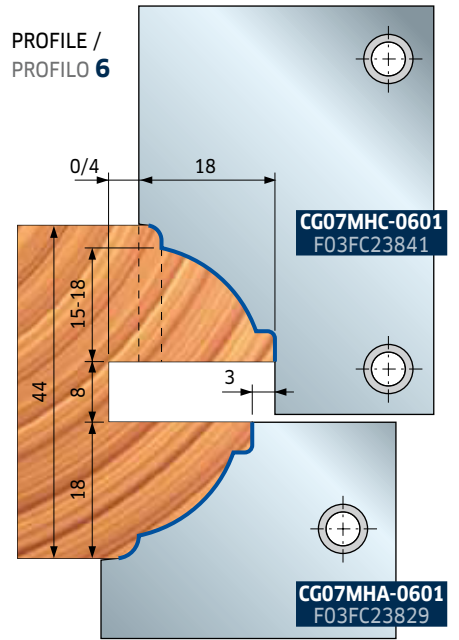
PROFILE /  
PROFILO 4



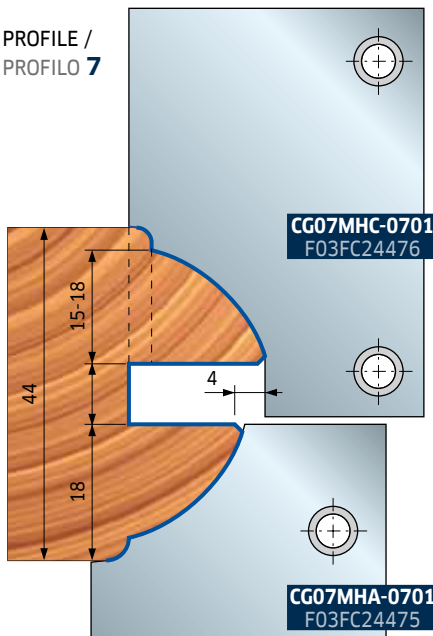
PROFILE /  
PROFILO 5



PROFILE /  
PROFILO 6



PROFILE /  
PROFILO 7



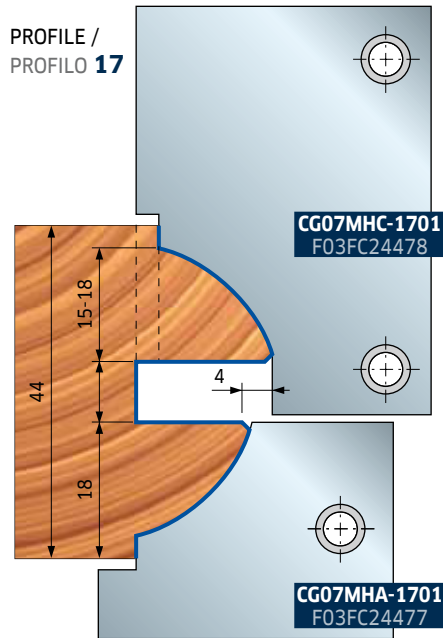
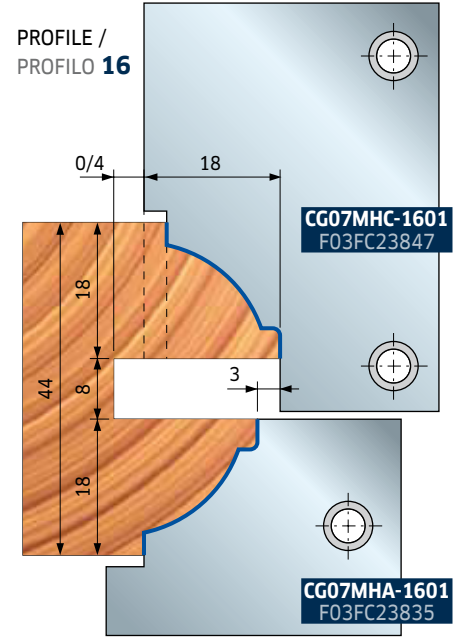
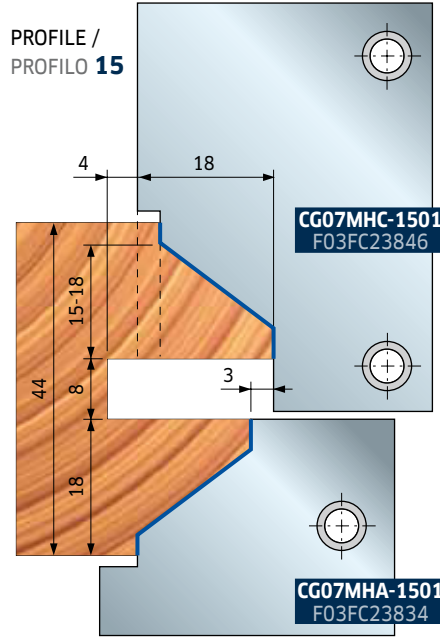
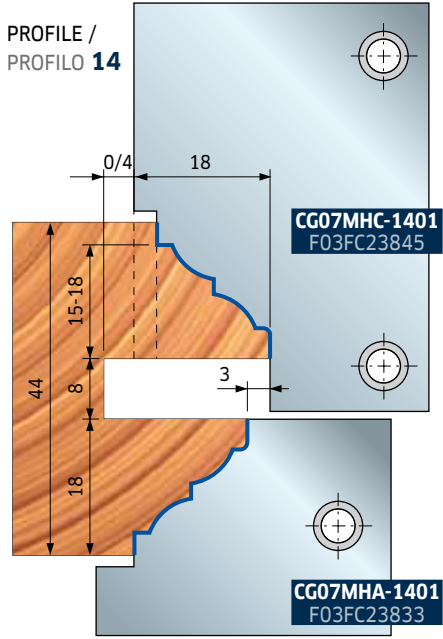
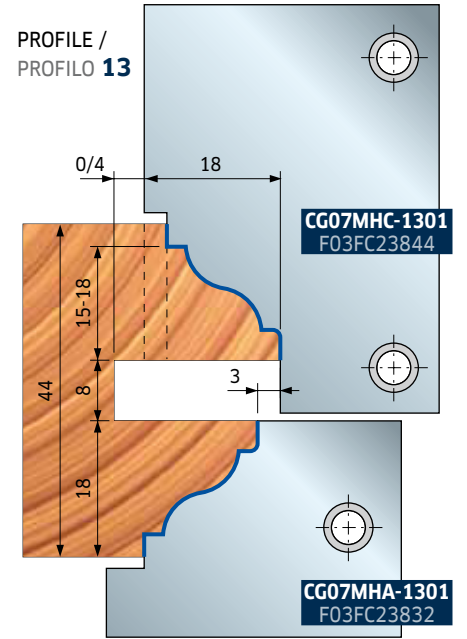
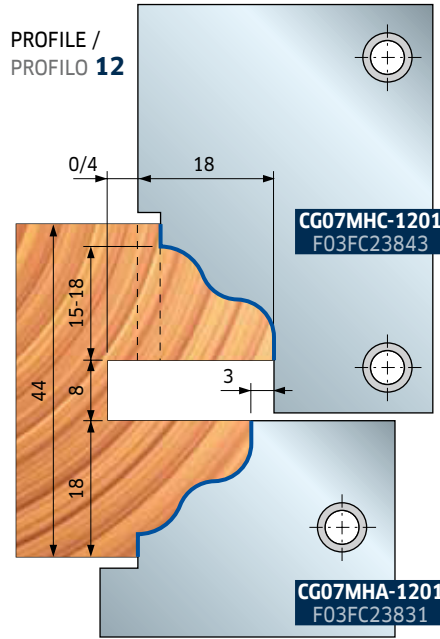
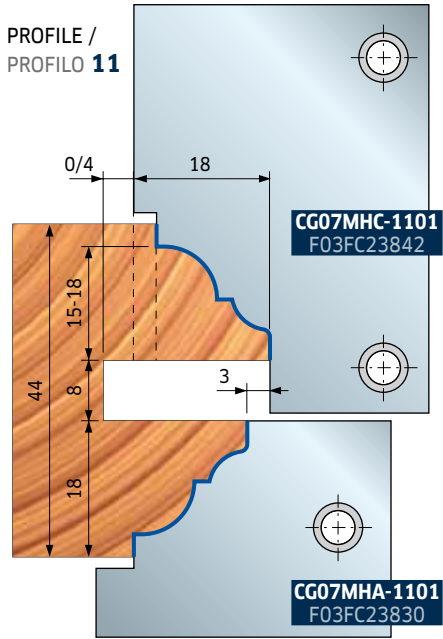
# ST12MG

Profiles without external rounding for cutterheads:

ST12M HC3 - ST12M HA3

Profili senza raggatura esterna per teste:

ST12M HC3 - ST12M HA3





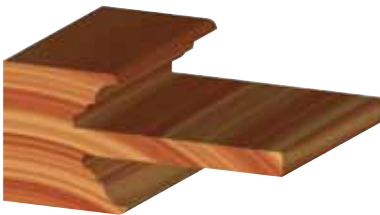
# ST12MG



## Set / Gruppo ST12MG-820

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

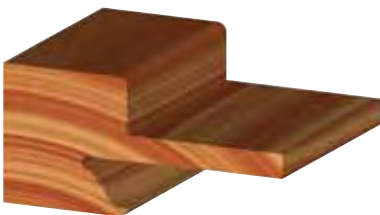
Esempio di controprofilo con spina semplice ottenibile con il gruppo ST12MG-820 (vedi pagina seguente).



## Set / Gruppo ST12MG-821

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

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



## Set / Gruppo ST12MG-822

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

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



## Tenoning cutterheads sets Gruppi di teste per tenoni

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

| D<br>mm | B<br>mm | d<br>mm | Z | R | Max RPM<br>1/min. | Code<br>Codice    | SAP<br>SAP |
|---------|---------|---------|---|---|-------------------|-------------------|------------|
| 294     |         |         |   |   | 5.000             | <b>ST12MG 820</b> | F03FC19649 |
| 294     |         |         |   |   | 5.000             | <b>ST12MG 821</b> | F03FC19650 |
| 294     |         |         |   |   | 5.000             | <b>ST12MG 822</b> | F03FC19651 |

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

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

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

| Dimensions<br>Dimensioni<br>mm | Sleeve code<br>Codice bussola | SAP<br>SAP |
|--------------------------------|-------------------------------|------------|
| Ø70 x 90 x 30                  | <b>BF10MD EA9</b>             | F03FC24536 |
| Ø70 x 90 x 32                  | <b>BF10MD EL9</b>             | F03FC24537 |
| Ø70 x 90 x 35                  | <b>BF10MD EB9</b>             | F03FC00633 |
| Ø70 x 90 x 40                  | <b>BF10MD EC9</b>             | F03FC00634 |
| Ø70 x 90 x 50                  | <b>BF10MD ED9</b>             | F03FC00635 |

BF10MD sleeves and knives for cutterheads HF3 and HG3 are not included.

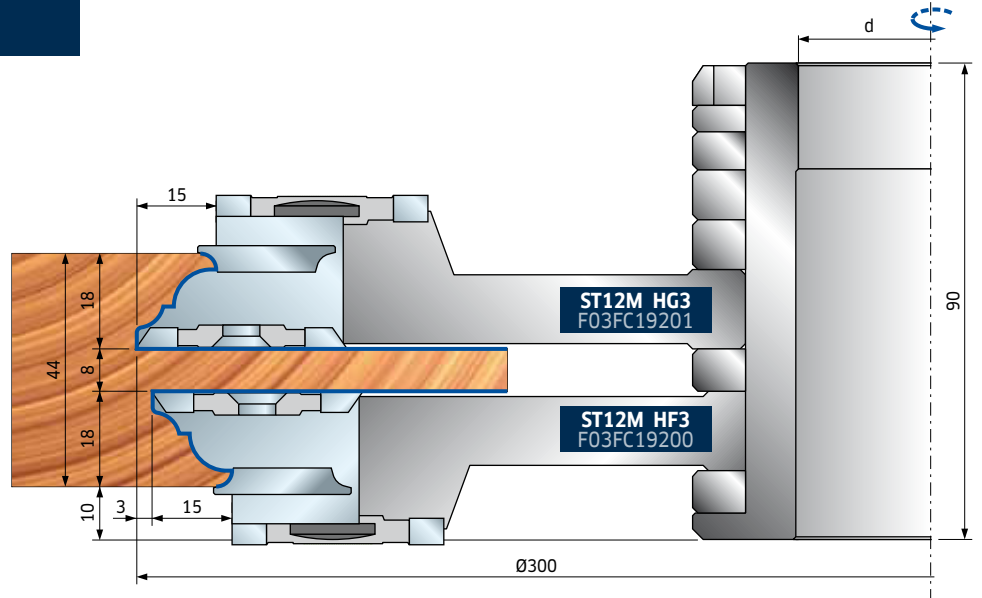
Le bussole BF10MD ed i coltelli per gli utensili HF3 e HG3 vanno ordinati a parte.

# ST12MG

## Tenoning cutterheads sets Gruppi di teste per tenoni

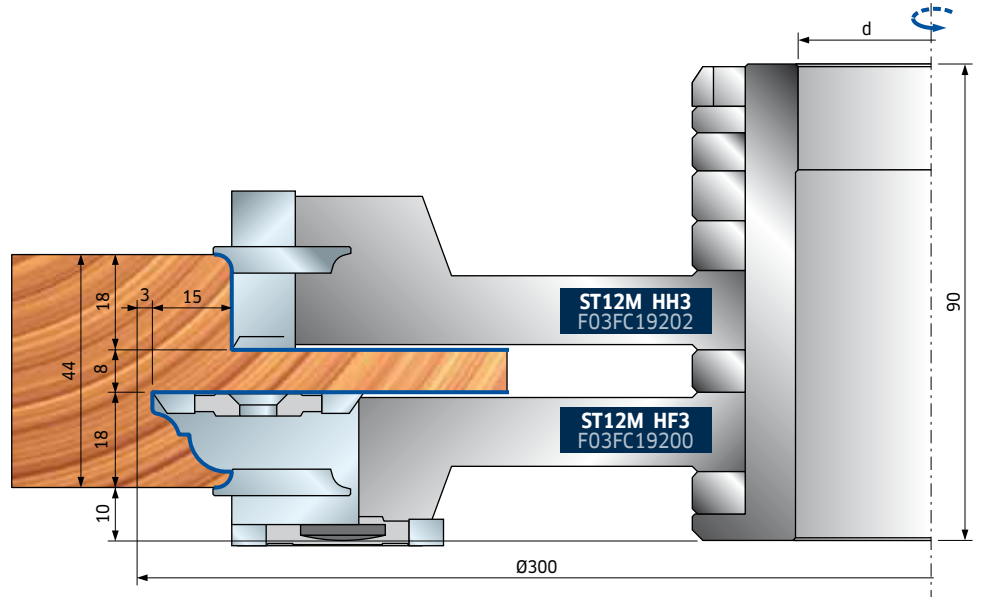
### Set / Gruppo ST12MG-820

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



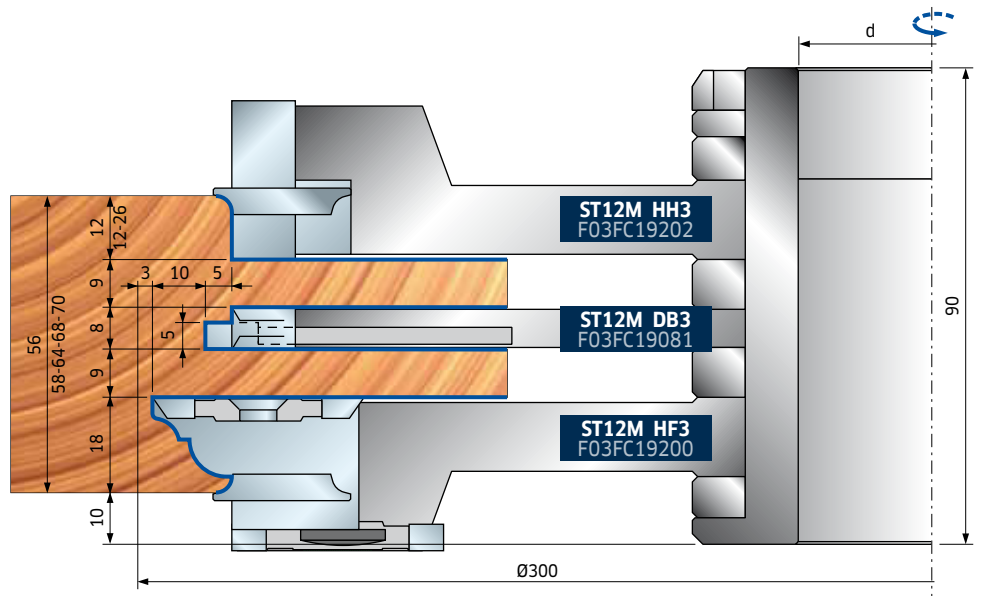
### Set / Gruppo ST12MG-821

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



### Set / Gruppo ST12MG-822

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



# ST12MG

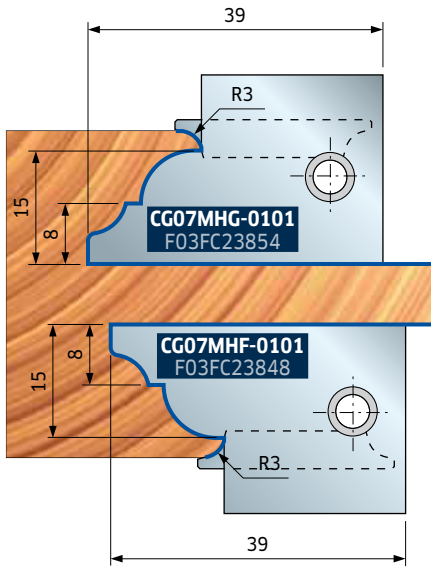
Scribes with 3 mm external rounding for cutterheads:

ST12M HG3 - ST12M HF3

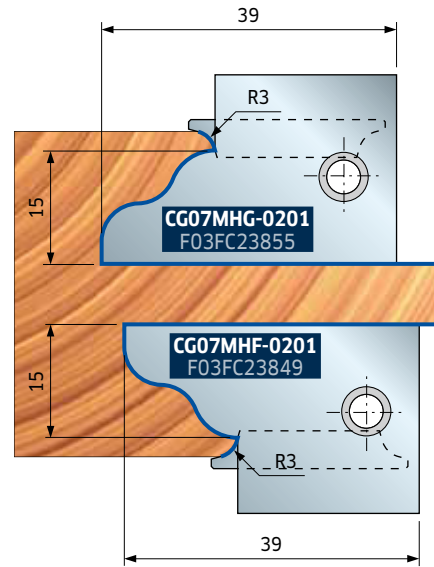
Controrofili con raggiatura esterna da 3 mm per teste:

ST12M HG3 - ST12M HF3

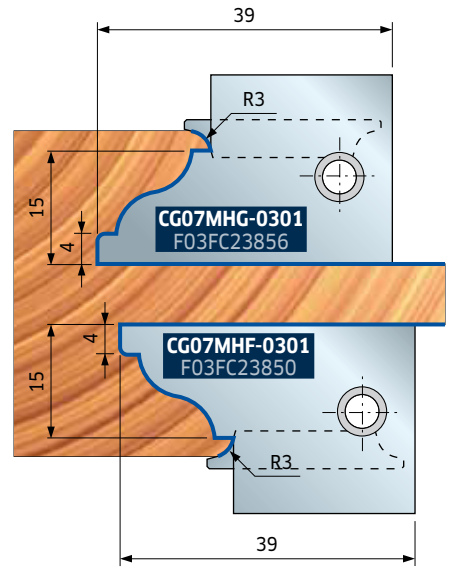
SCRIBE / CONTROPROFILO 1



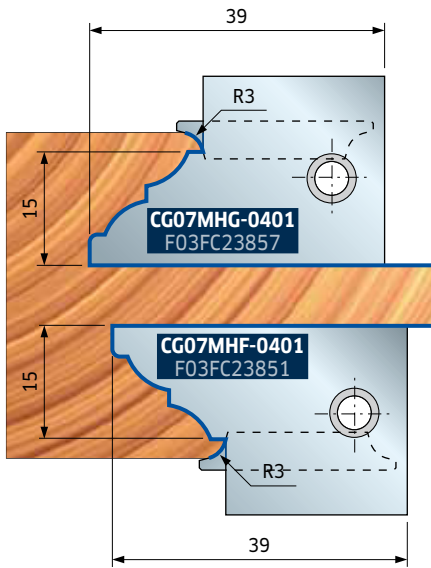
SCRIBE / CONTROPROFILO 2



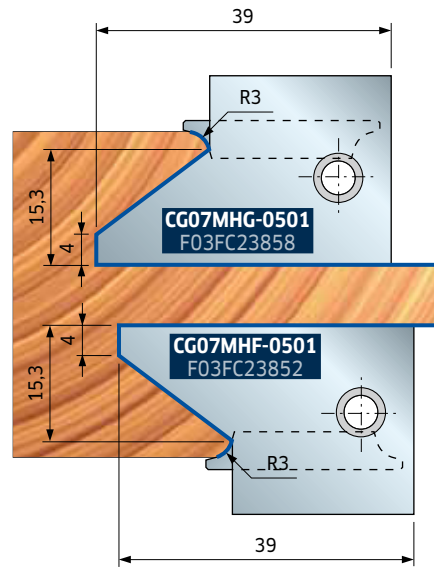
SCRIBE / CONTROPROFILO 3



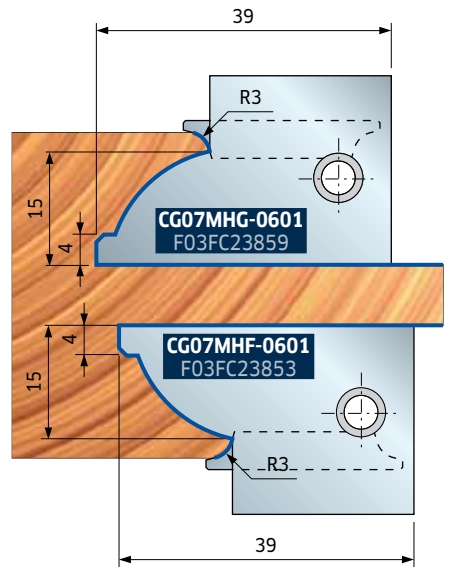
SCRIBE / CONTROPROFILO 4



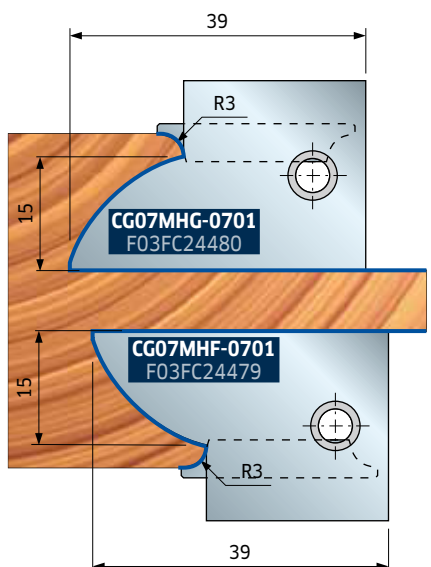
SCRIBE / CONTROPROFILO 5



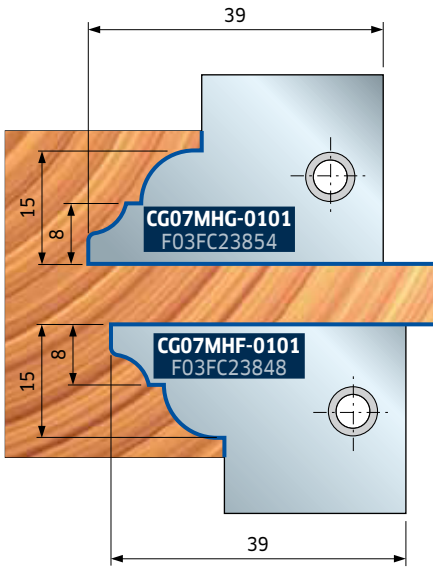
SCRIBE / CONTROPROFILO 6



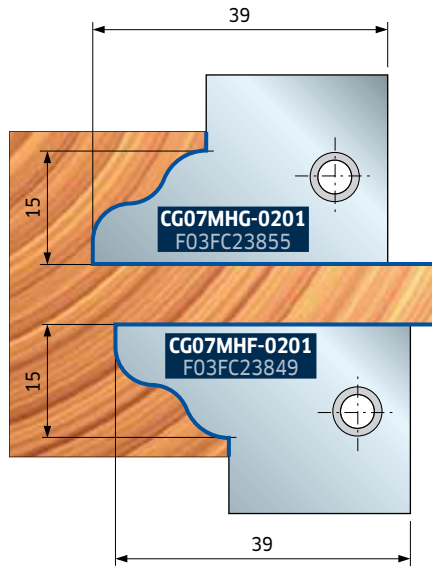
SCRIBE / CONTROPROFILO 7



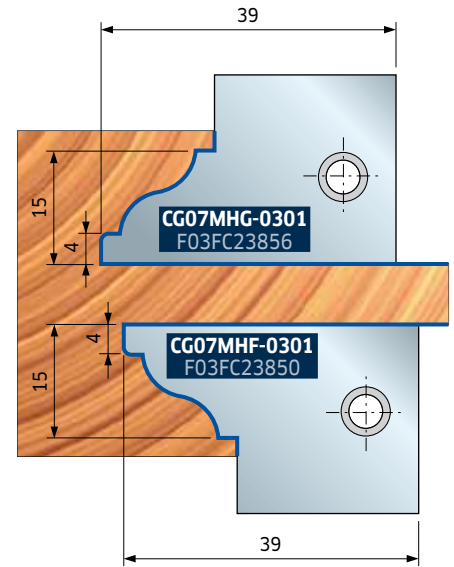
SCRIBE / CONTROPROFILO **11**



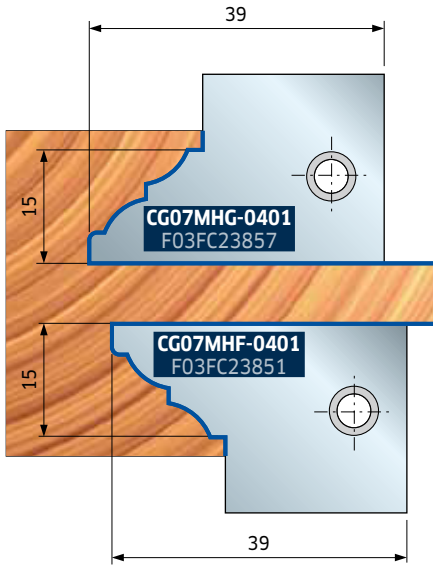
SCRIBE / CONTROPROFILO **12**



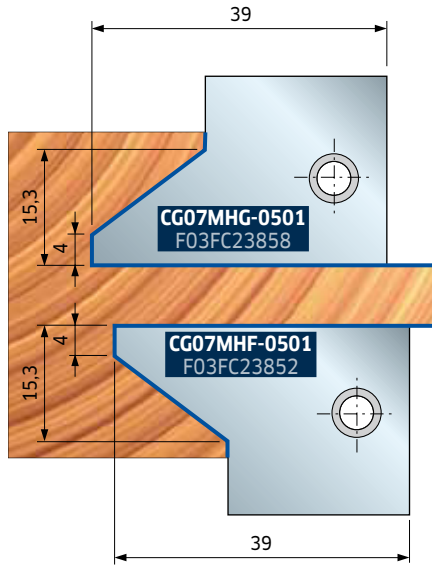
SCRIBE / CONTROPROFILO **13**



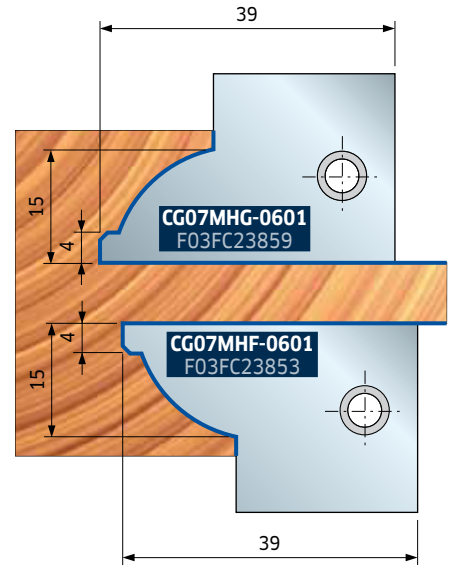
SCRIBE / CONTROPROFILO **14**



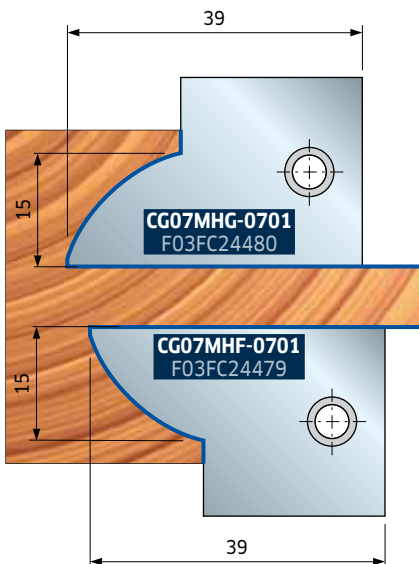
SCRIBE / CONTROPROFILO **15**



SCRIBE / CONTROPROFILO **16**



SCRIBE / CONTROPROFILO **17**



# ST12MG



BF10MD sleeves and knives for cutterheads HR3 are not included.

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

| Dimensions<br>Dimensioni<br>mm | Sleeve code<br>Codice bussola | SAP<br>SAP |
|--------------------------------|-------------------------------|------------|
| Ø70 x 90 x 30                  | <b>BF10MD EA9</b>             | F03FC24536 |
| Ø70 x 90 x 32                  | <b>BF10MD EL9</b>             | F03FC24537 |
| Ø70 x 90 x 35                  | <b>BF10MD EB9</b>             | F03FC00633 |
| Ø70 x 90 x 40                  | <b>BF10MD EC9</b>             | F03FC00634 |
| Ø70 x 90 x 50                  | <b>BF10MD ED9</b>             | F03FC00635 |



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

Tool set zero diameter: 140 mm

Diametro di programmazione: 140 mm

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

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

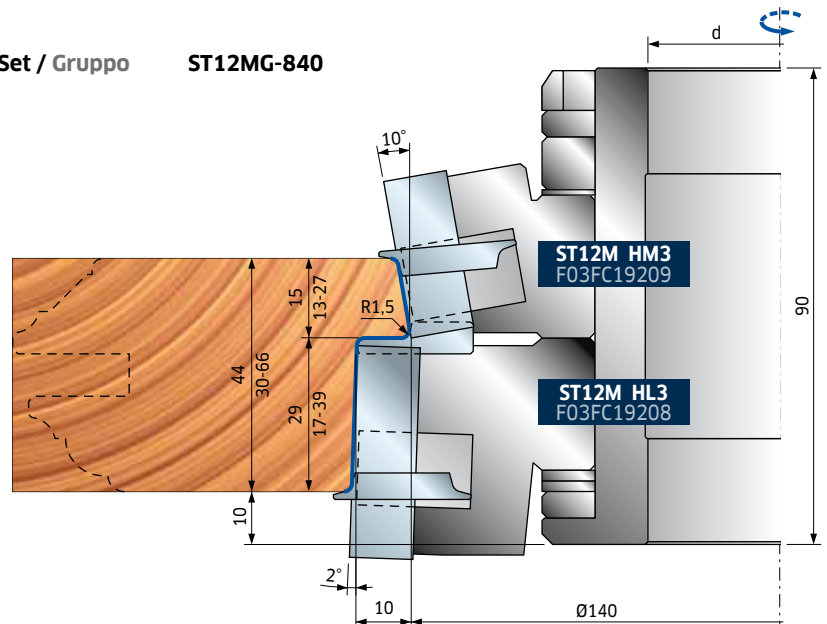
Utensili per gruppi: ST12MG-840, ST12MG-841, ST12MG-842

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

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

Set / Gruppo

ST12MG-840

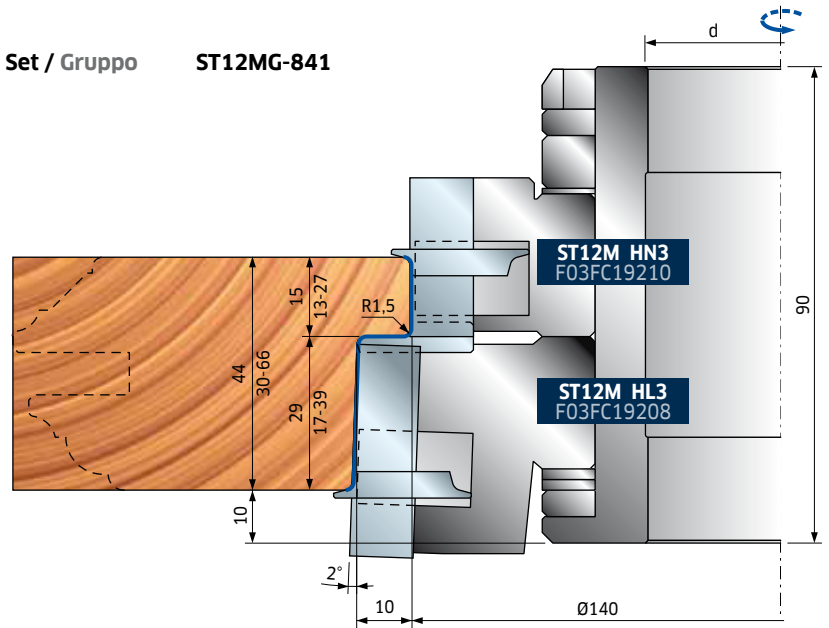


# ST12MG

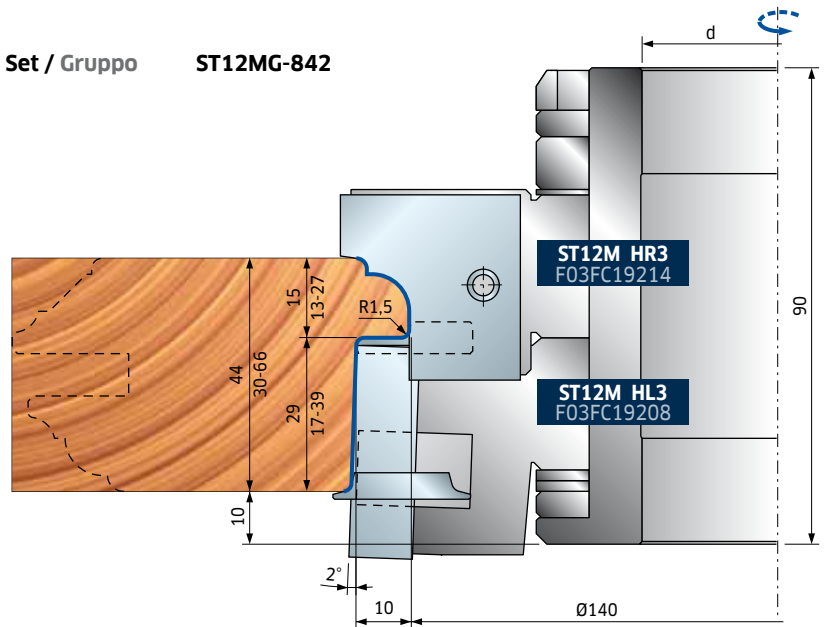
## Cutterheads sets for doors rebates Gruppi di teste per battute di porte



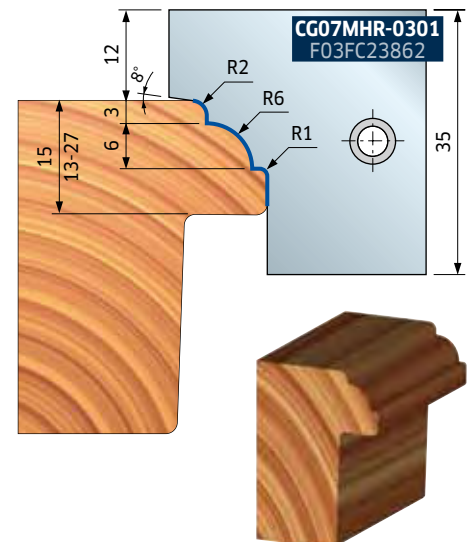
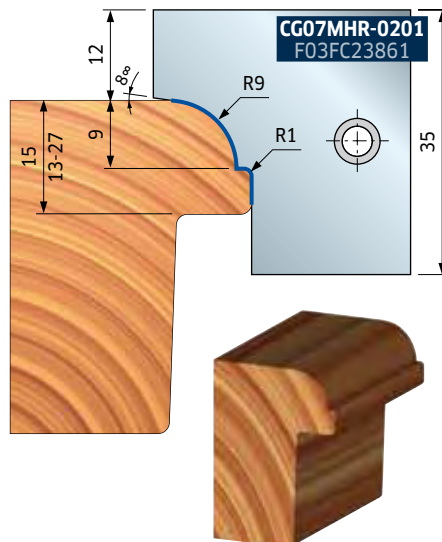
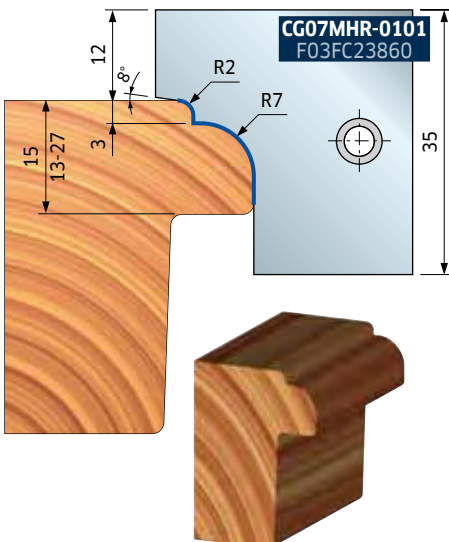
Set / Gruppo **ST12MG-841**



Set / Gruppo **ST12MG-842**



## Knives for cutterhead ST12M HR3 Coltelli per utensile ST12M HR3



# ST12MG

## Bead recovery cutterheads sets Gruppi di teste per recupero listello

Tool set zero diameter: 140 mm







Diametro di programmazione: 140 mm

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

### Tools for ST12MG-302

Utensili per gruppi ST12MG-302

| D<br>mm | B<br>mm | d<br>mm | Z | I | Max RPM<br>1/min. | Code<br>Codice | SAP<br>SAP |
|---------|---------|---------|---|---|-------------------|----------------|------------|
| 144     | 13,5    | 60      | 4 |   |                   | ST12M CG3      | F03FC19061 |

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



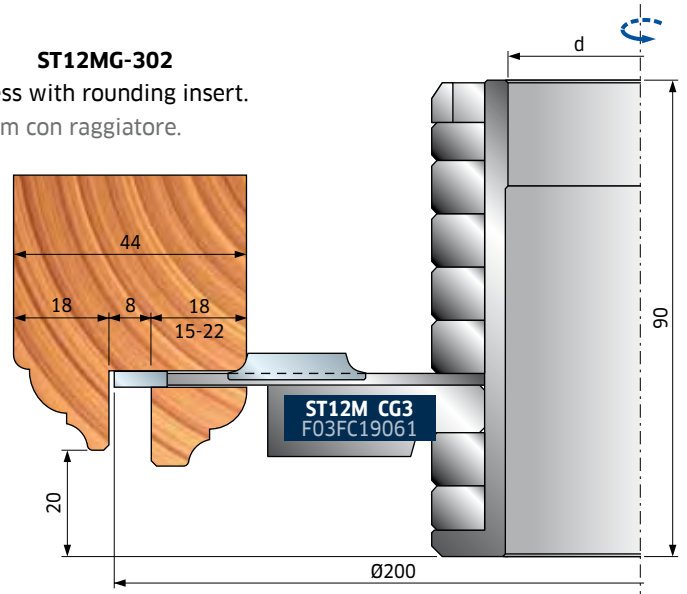
Sleeve BF10MD not included.

La bussola BF10MD non è inclusa.

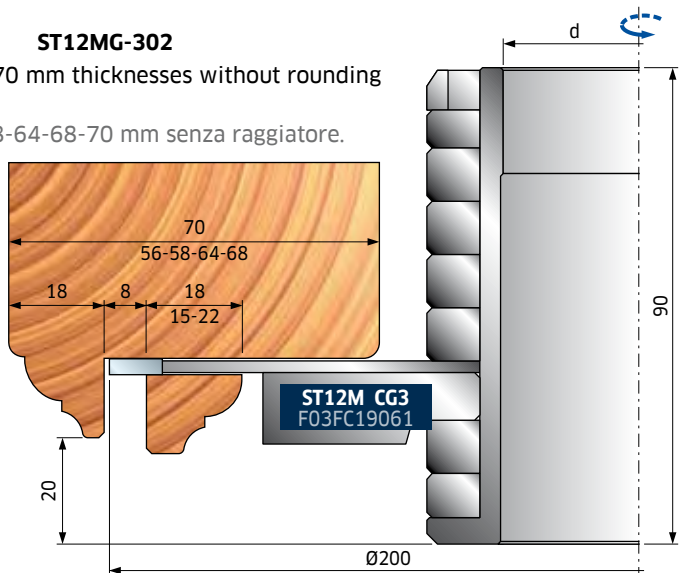
| Dimensions<br>Dimensioni<br>mm | Sleeve code<br>Codice bussola | SAP<br>SAP |
|--------------------------------|-------------------------------|------------|
| Ø60 x 90 x 30                  | BF10MD DA9                    | F03FC24534 |
| Ø60 x 90 x 32                  | BF10MD DL9               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



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



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



# TD60M



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

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

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

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

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

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

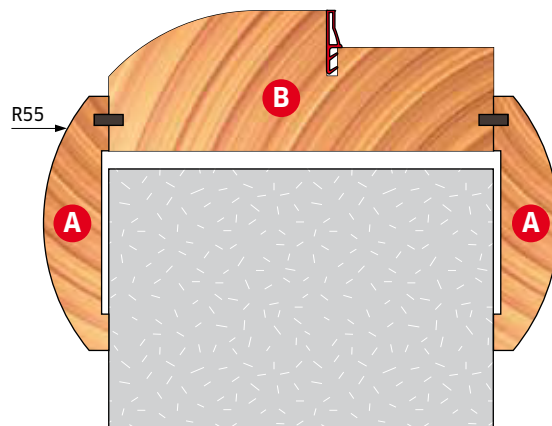
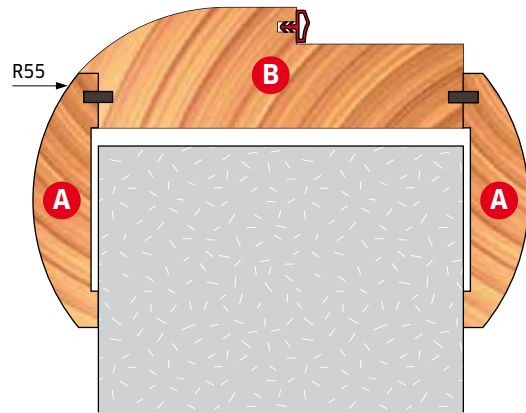
Corpo in lega leggera (Lega di alluminio). Per la pulizia non utilizzare prodotti contenenti soda caustica.

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

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

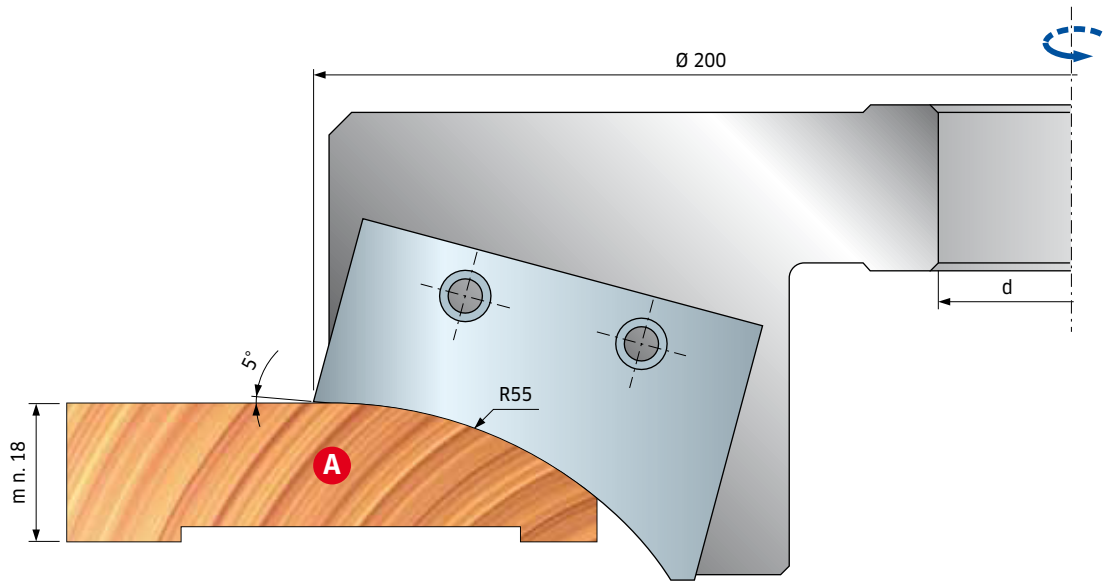
### Example of door frames

Esempi di telai realizzabili

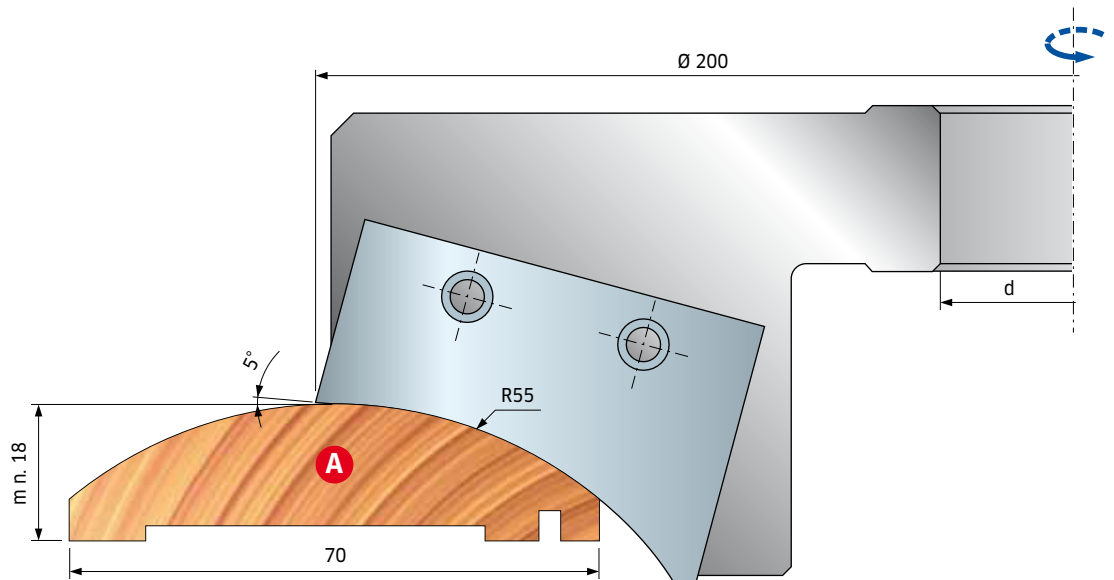




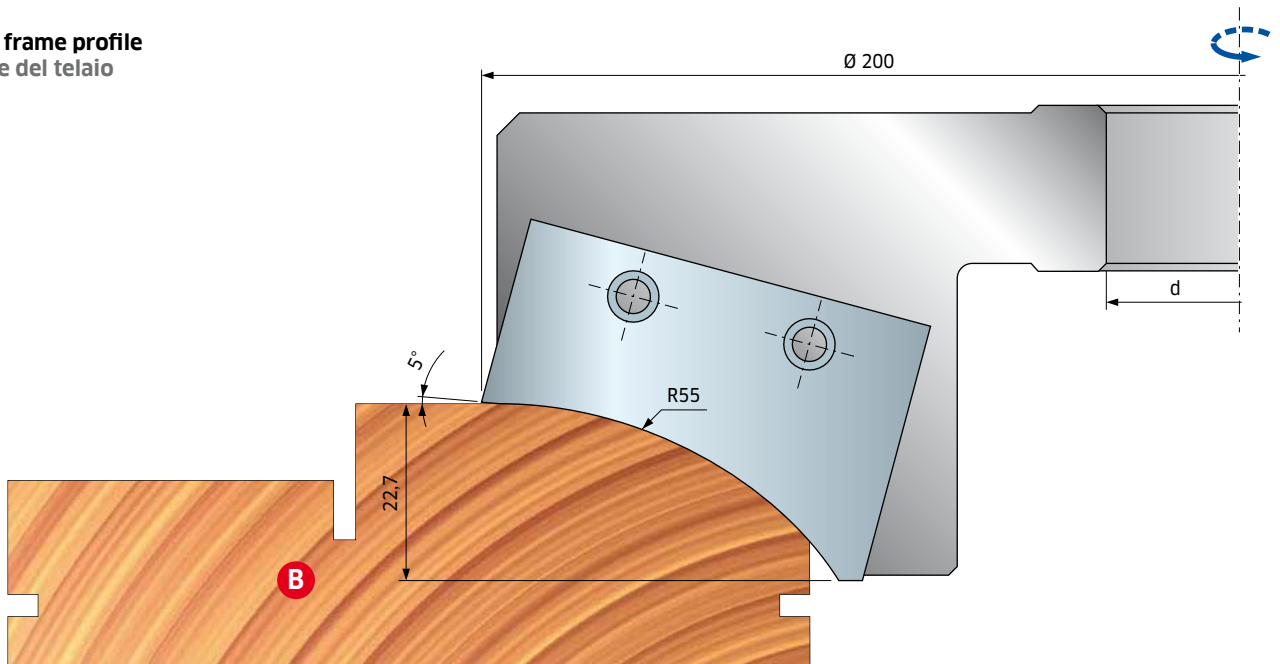
### STEP - LAVORAZIONE 1



### STEP - LAVORAZIONE 2



### Example of frame profile Lavorazione del telaio



# ST12MG

## Cutterheads sets for doors intrados Gruppi di teste per imbotti porte

Tool set zero diameter: 140 mm

Diametro di programmazione: 140 mm

| D<br>mm | B<br>mm | d<br>mm | Z | R | Max RPM<br>1/min. | Code<br>Codice    | SAP<br>SAP |
|---------|---------|---------|---|---|-------------------|-------------------|------------|
| 218     |         |         |   |   | 6.500             | <b>ST12MG 830</b> | F03FC19652 |



### Tools for ST12MG-830 set

Utensili per gruppo ST12MG-830

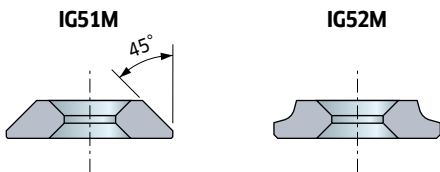
| D<br>mm | B<br>mm | d<br>mm | Z | R | Max RPM<br>1/min. | Code<br>Codice   | SAP<br>SAP |
|---------|---------|---------|---|---|-------------------|------------------|------------|
| 204     | 24      | 70      | 2 | 6 |                   | <b>ST12M HI3</b> | F03FC19204 |

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



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

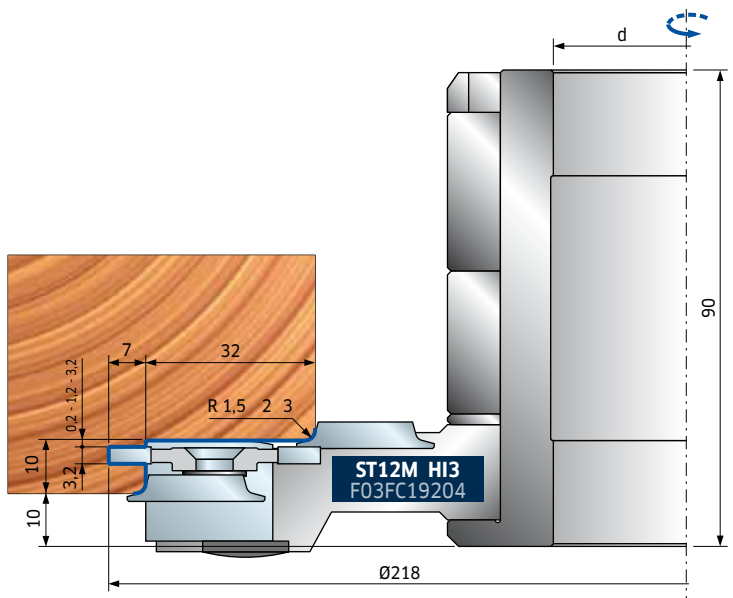
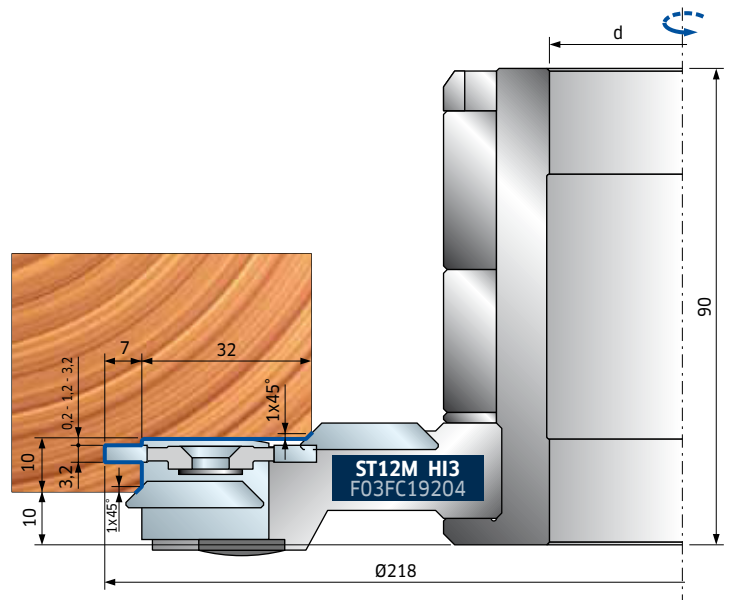
Con sedi per il montaggio di inserti IG51M (smussatori) e IG52M (R= 1,5 - 2 - 3 mm).



BF10MD sleeve is not included.

La bussola BF10MD va ordinata a parte.

| Dimensions<br>Dimensioni<br>mm | Sleeve code<br>Codice bussola | SAP<br>SAP |
|--------------------------------|-------------------------------|------------|
| Ø70 x 90 x 30                  | <b>BF10MD EA9</b>             | F03FC24536 |
| Ø70 x 90 x 32                  | <b>BF10MD EL9</b>             | F03FC24537 |
| Ø70 x 90 x 35                  | <b>BF10MD EB9</b>             | F03FC00633 |
| Ø70 x 90 x 40                  | <b>BF10MD EC9</b>             | F03FC00634 |
| Ø70 x 90 x 50                  | <b>BF10MD ED9</b>             | F03FC00635 |



# TP48M

## ISOprofil cutterheads for doors frames Teste ISOprofil per battute porte

Tool suitable for solid wood jamb board rebate machining.

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



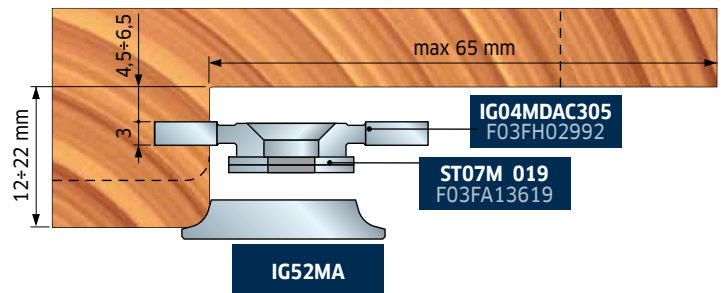
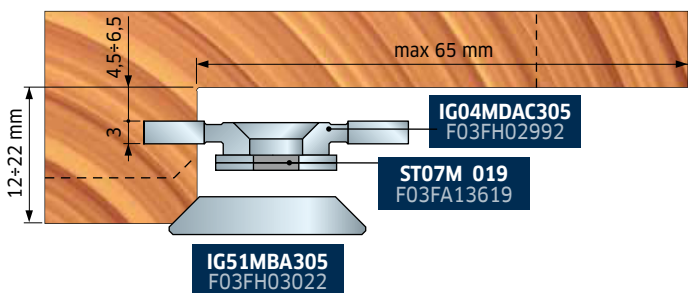
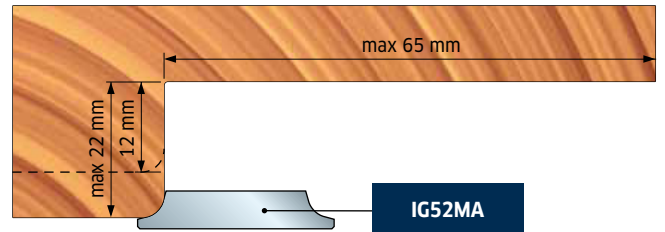
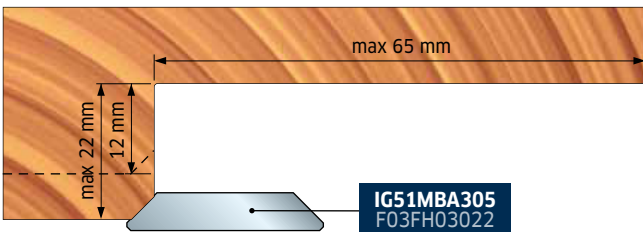
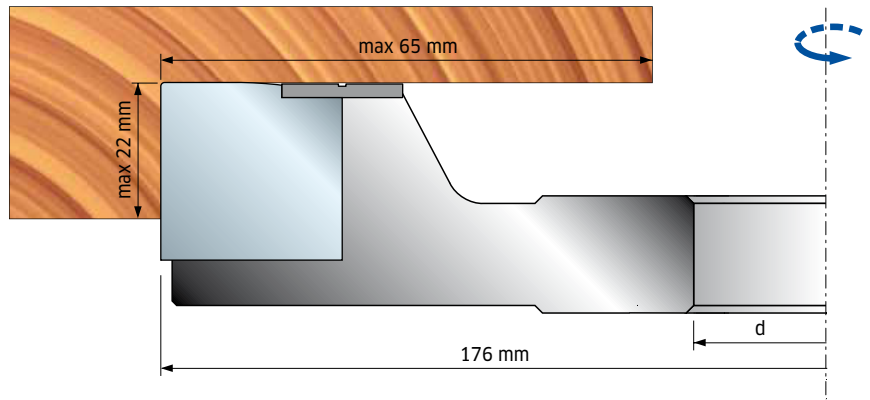
| D<br>mm | B<br>mm | d*<br>mm | Z | R | Max RPM<br>1/min. | Code<br>Codice   | SAP<br>SAP |
|---------|---------|----------|---|---|-------------------|------------------|------------|
| 176     | 23,5    | 35 (50)  | 2 |   | 8.000             | <b>TP48M AB3</b> | F03F664005 |

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

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

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

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



# TD61M

## Doors frames profiles cutterheads Teste per profili di telai di porte

**Cutterhead TD61M AA3 is supplied without knives.**

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

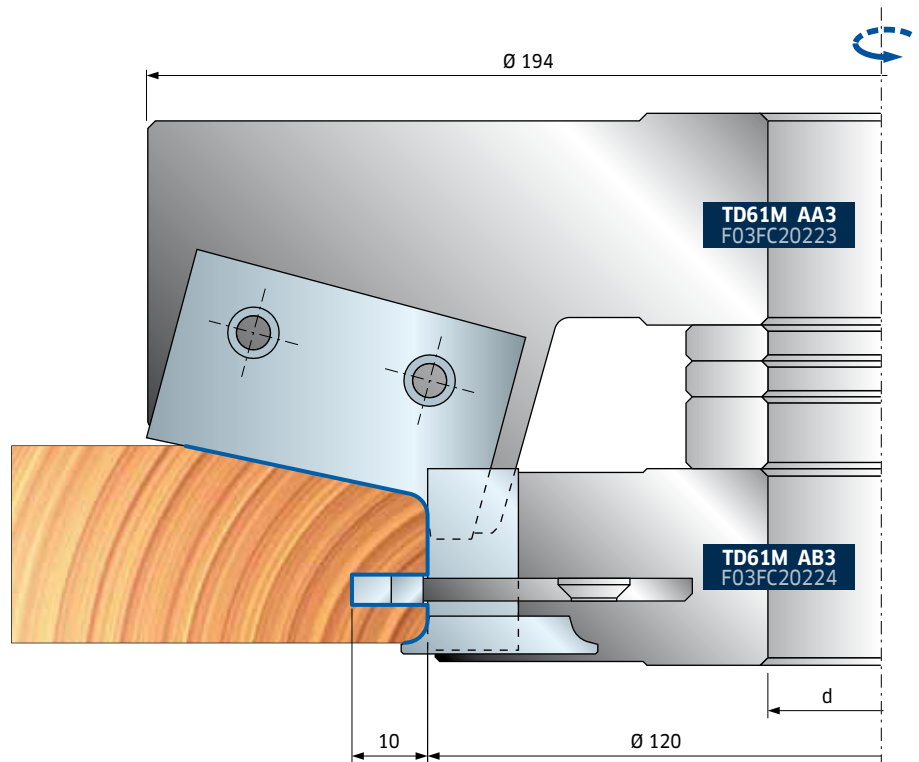
**L'articolo TD61M AA3 viene fornito senza coltelli.**

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

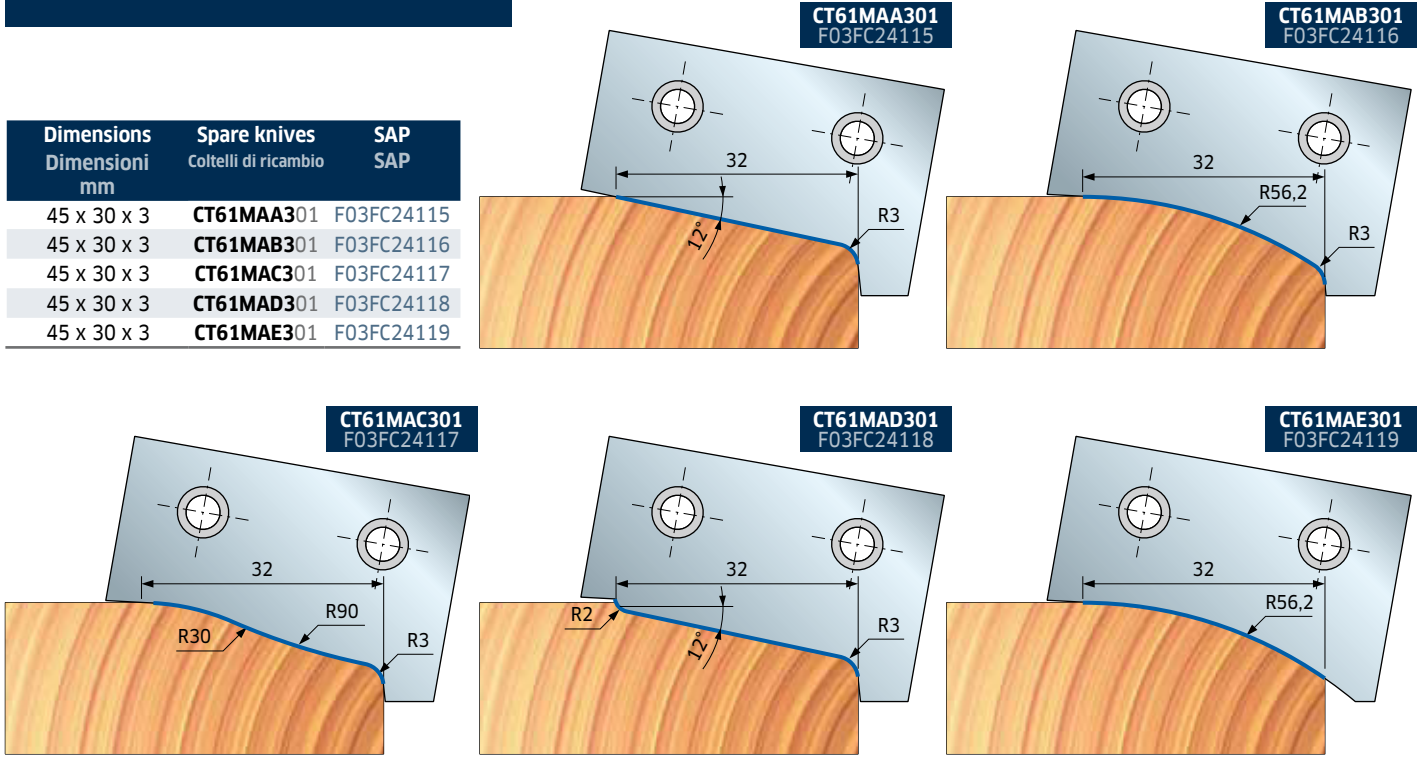


| D<br>mm | B<br>mm | d*<br>mm | Z | R | Max RPM<br>1/min. | Code<br>Codice   | SAP<br>SAP |
|---------|---------|----------|---|---|-------------------|------------------|------------|
| 194     | 59      | 30 (40)  | 2 |   | 7.000             | <b>TD61M AA3</b> | F03FC20223 |
| 140     | 25      |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

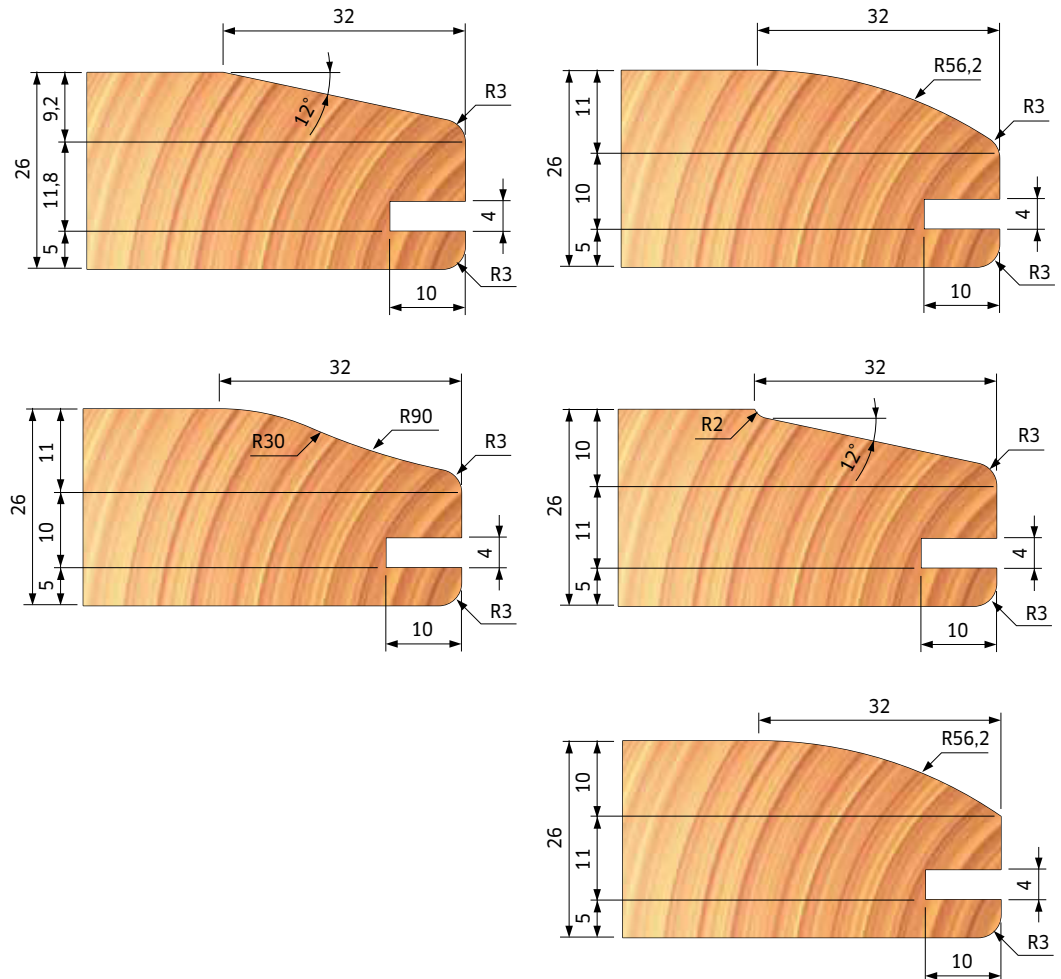
|     | Spare parts<br>Parti di ricambio     | Dimensions<br>Dimensioni<br>mm | Code<br>Codice     | SAP<br>SAP |
|-----|--------------------------------------|--------------------------------|--------------------|------------|
| AA3 | Screw / Vite                         | M10 x 18                 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



| Dimensions<br>Dimensioni<br>mm | Spare knives<br>Coltelli di ricambio | SAP<br>SAP |
|--------------------------------|--------------------------------------|------------|
| 45 x 30 x 3                    | <b>CT61MAA301</b>                    | F03FC24115 |
| 45 x 30 x 3                    | <b>CT61MAB301</b>                    | F03FC24116 |
| 45 x 30 x 3                    | <b>CT61MAC301</b>                    | F03FC24117 |
| 45 x 30 x 3                    | <b>CT61MAD301</b>                    | F03FC24118 |
| 45 x 30 x 3                    | <b>CT61MAE301</b>                    | F03FC24119 |



### Profiles obtainable using both the cutterheads TD61M AA3 and TD61M AB3 Profili realizzabili utilizzando gli utensili TD61M AA3 e TD61M AB3



# TP43M

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

Sleeves must be ordered separately.

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

Le bussole devono essere ordinate a parte.

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

**Tool set zero diameter: 125 mm**

**Diametro di programmazione: 125 mm**

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



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

### Right-hand sleeves

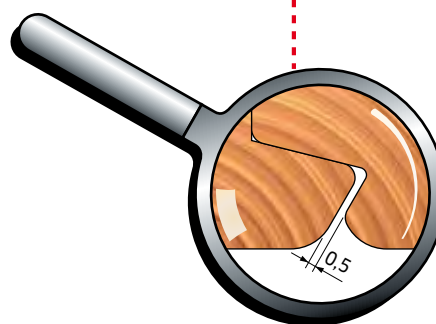
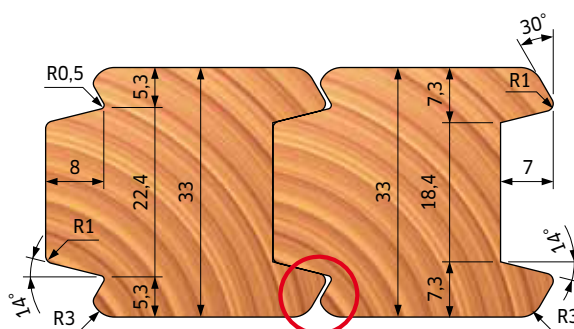
Bussole con rotazione destra

| Dimensions<br>Dimensioni<br>mm | Sleeve code<br>Codice bussola | SAP<br>SAP |
|--------------------------------|-------------------------------|------------|
| Ø50 x 110 x 30                 | <b>BF10MD AA9</b>             | F03FC00616 |
| Ø50 x 110 x 32                 | <b>BF10MD AL9</b>             | F03FC24533 |
| Ø50 x 110 x 35                 | <b>BF10MD AB9</b>             | F03FC00617 |
| Ø50 x 110 x 40                 | <b>BF10MD AC9</b>             | F03FC00618 |

### Left-hand sleeves

Bussole con rotazione sinistra

| Dimensions<br>Dimensioni<br>mm | Sleeve code<br>Codice bussola | SAP<br>SAP |
|--------------------------------|-------------------------------|------------|
| Ø50 x 110 x 30                 | <b>BF10MS AA9</b>             | F03FC00661 |
| Ø50 x 110 x 32                 | <b>BF10MS AL9</b>             | F03FC24538 |
| Ø50 x 110 x 35                 | <b>BF10MS AB9</b>             | F03FC00662 |
| Ø50 x 110 x 40                 | <b>BF10MS AC9</b>             | F03FC00663 |



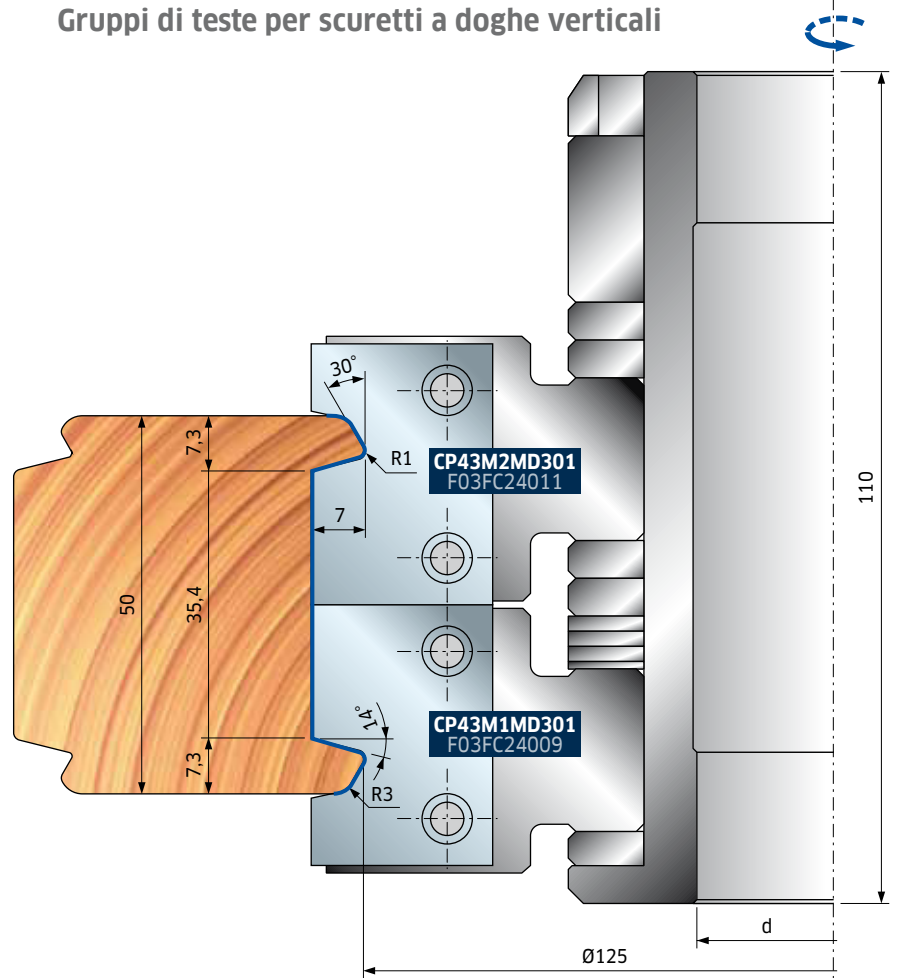
SCALE / SCALA  
2:1



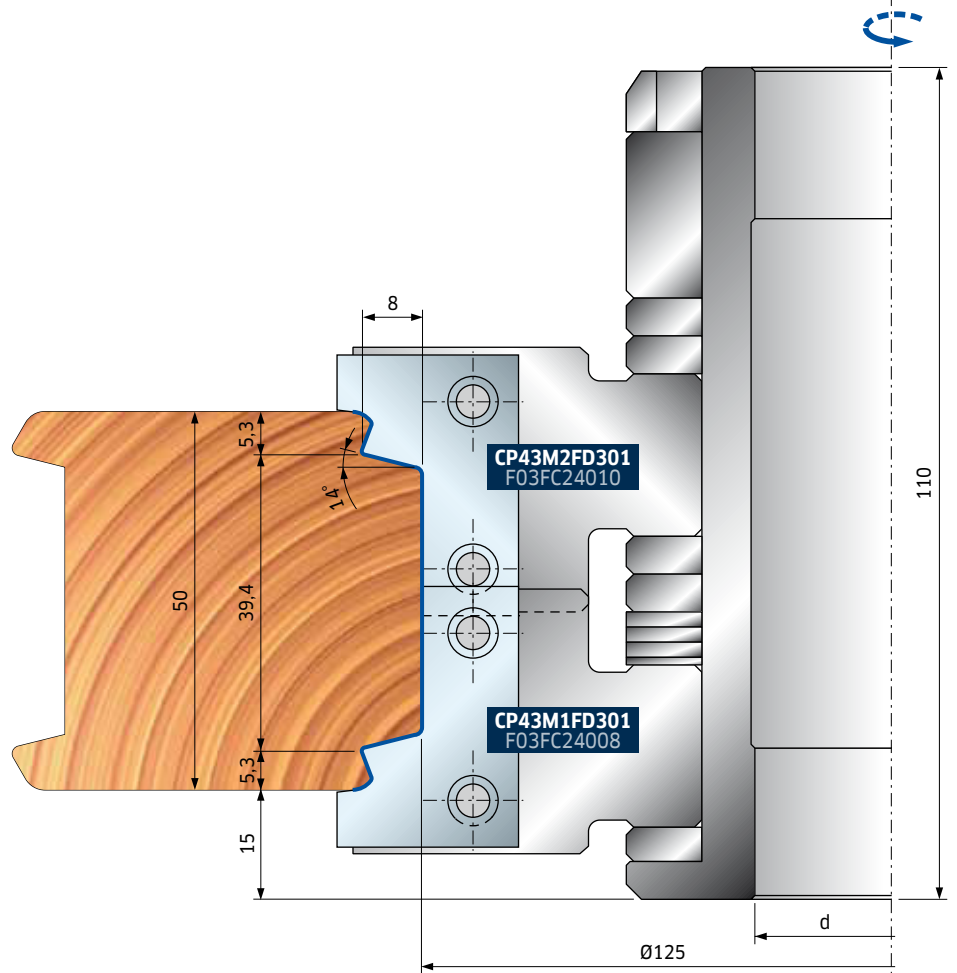
# TP43M

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

Set / Gruppo TP43M MD3



Set / Gruppo TP43M FD3



# TP45M

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

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

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



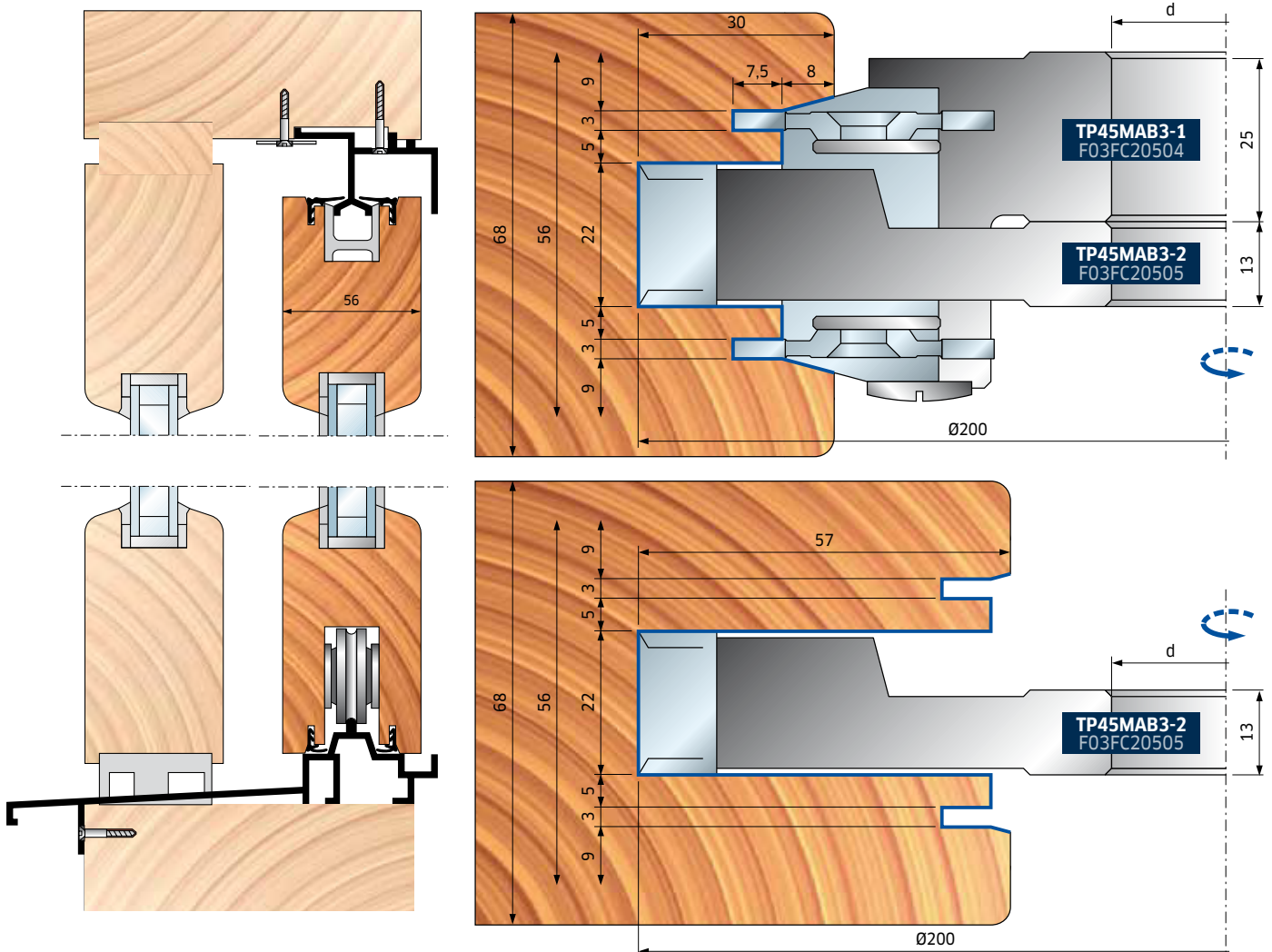
This item is supplied with 25 mm thick ring for base programming.

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

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

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

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



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



# TD21M

## Raised panel cutterheads Piattabande multiprofilo

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

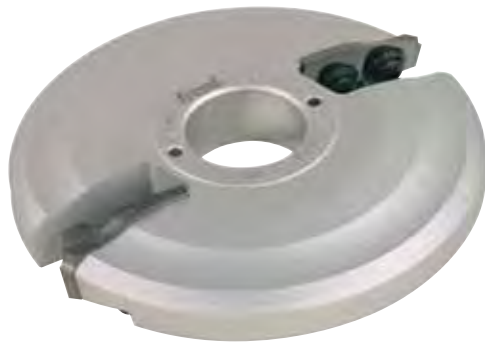
**This item is supplied without knives.**

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

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

**L'articolo viene fornito senza coltelli.**

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

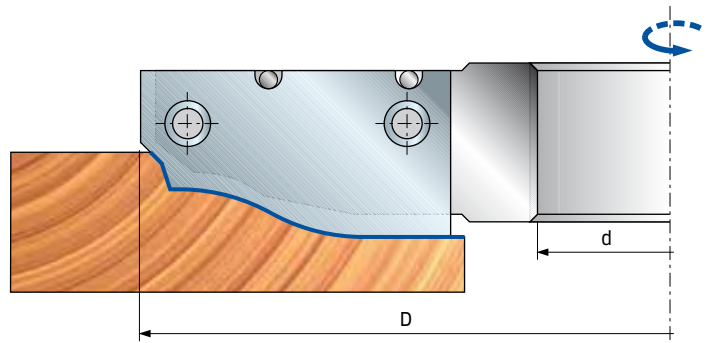


| D<br>mm | B<br>mm | d<br>mm | Z | R | Max RPM<br>1/min. | Code<br>Codice   | SAP<br>SAP |
|---------|---------|---------|---|---|-------------------|------------------|------------|
| 140     | 23      | 30      | 2 |   | 9.600             | <b>TD21M HA3</b> | F03FC24421 |
| 140     | 23      | 32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

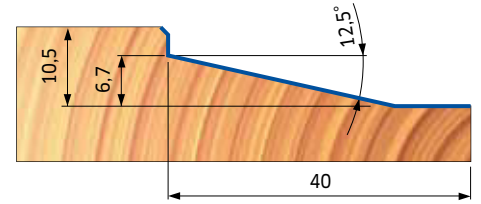
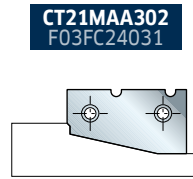
| Spare parts<br>Parti di ricambio |                                       | Dimensions<br>Dimensioni<br>mm | Code<br>Codice   | SAP<br>SAP |
|----------------------------------|---------------------------------------|--------------------------------|------------------|------------|
|               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

### Profiled knives Coltelli profilati

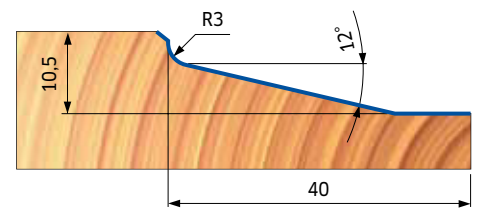
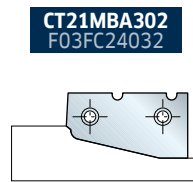
| Profile<br>Profilo | Spare knives<br>Coltelli di ricambio | Dimensions<br>Dimensioni<br>mm | Code<br>Codice    | SAP<br>SAP |
|--------------------|--------------------------------------|--------------------------------|-------------------|------------|
| <b>1</b>           | Knife / Coltello     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



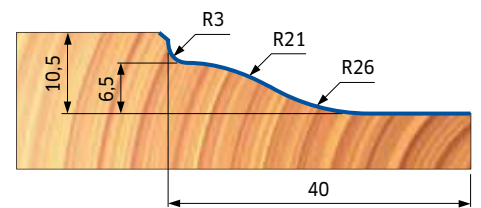
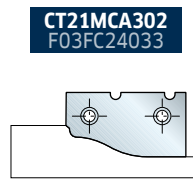
PROFILE / PROFILO 1



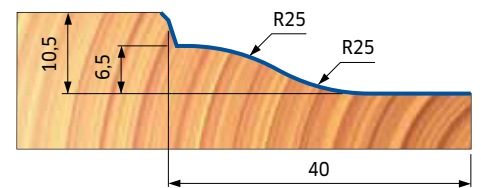
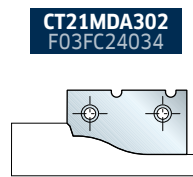
PROFILE / PROFILO 2



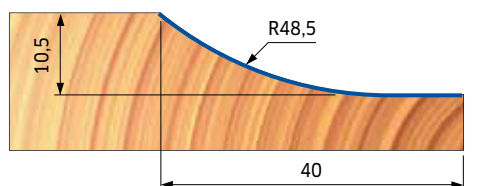
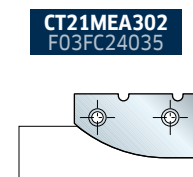
PROFILE / PROFILO 3



PROFILE / PROFILO 4



PROFILE / PROFILO 5



# TD51M

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

This tool is designed to perfectly cut softwood or hardwood with two knives, with both along the grain or end grain feeding. This result has been achieved by choosing different cutting angles according to the type of wood to be machined. Only two knives are to be fitted on the tool at one time, in opposite direction. The dimensions of the knives for cutting hardwood and softwood are different but the same profile is achieved.

**This item is supplied without knives.**

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

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

**L'articolo viene fornito senza coltelli.**

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



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

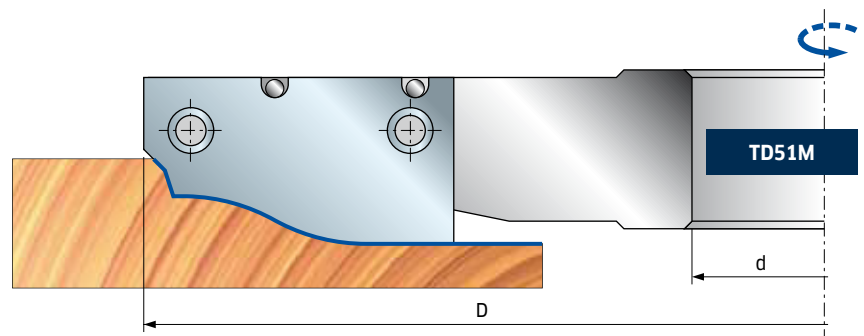
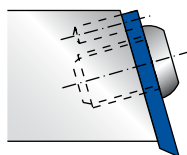
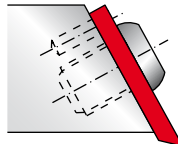
| Spare parts<br>Parti di ricambio |                    | Dimensions<br>Dimensioni<br>mm | Code<br>Codice   | SAP<br>SAP |
|----------------------------------|--------------------|--------------------------------|------------------|------------|
|                                  | Ring / Rondella  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

### 2 Knives for Softwood 2 Coltelli per Legno Tenero

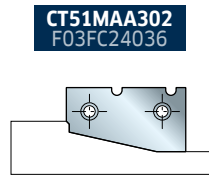
|  | Profile<br>Profilo | Dimensions<br>Dimensioni<br>mm | Code<br>Codice    | SAP<br>SAP |
|--|--------------------|--------------------------------|-------------------|------------|
|  | <b>1</b>           | 41 x 28 x 3,5                  | <b>CT51MAA302</b> | F03FC24036 |
|  | <b>2</b>           | 41 x 28 x 3,5                  | <b>CT51MBA302</b> | F03FC24037 |
|  | <b>3</b>           | 41 x 28 x 3,5                  | <b>CT51MCA302</b> | F03FC24038 |
|  | <b>4</b>           | 41 x 28 x 3,5                  | <b>CT51MDA302</b> | F03FC24039 |
|  | <b>5</b>           | 41 x 28 x 3,5                  | <b>CT51MEA302</b> | F03FC24040 |

### 2 Knives for Hardwood 2 Coltelli per Legno Duro

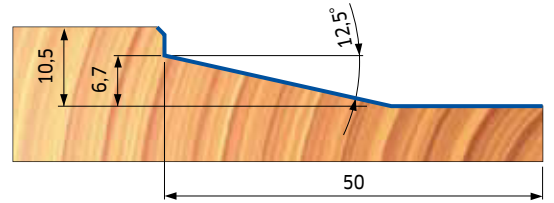
|  | Profile<br>Profilo | Dimensions<br>Dimensioni<br>mm | Code<br>Codice    | SAP<br>SAP |
|--|--------------------|--------------------------------|-------------------|------------|
|  | <b>1</b>           | 41 x 22 x 3,5                  | <b>CT21MAA302</b> | F03FC24031 |
|  | <b>2</b>           | 41 x 22 x 3,5                  | <b>CT21MBA302</b> | F03FC24032 |
|  | <b>3</b>           | 41 x 22 x 3,5                  | <b>CT21MCA302</b> | F03FC24033 |
|  | <b>4</b>           | 41 x 22 x 3,5                  | <b>CT21MDA302</b> | F03FC24034 |
|  | <b>5</b>           | 41 x 22 x 3,5                  | <b>CT21MEA302</b> | F03FC24035 |



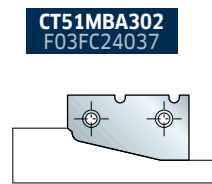
PROFILE / PROFILO 1



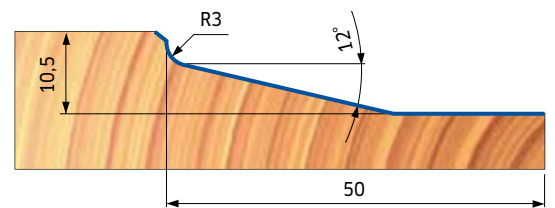
CT51MAA302  
F03FC24036



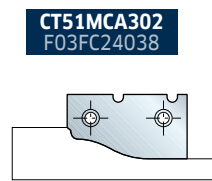
PROFILE / PROFILO 2



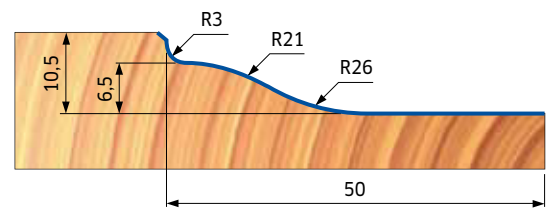
CT51MBA302  
F03FC24037



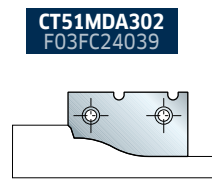
PROFILE / PROFILO 3



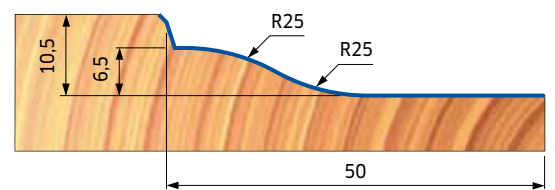
CT51MCA302  
F03FC24038



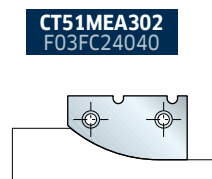
PROFILE / PROFILO 4



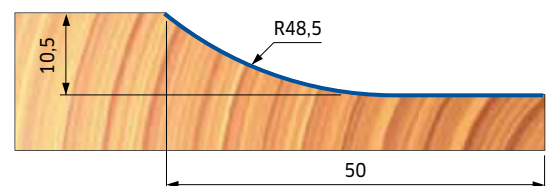
CT51MDA302  
F03FC24039



PROFILE / PROFILO 5



CT51MEA302  
F03FC24040

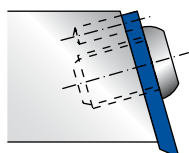
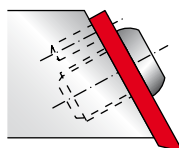
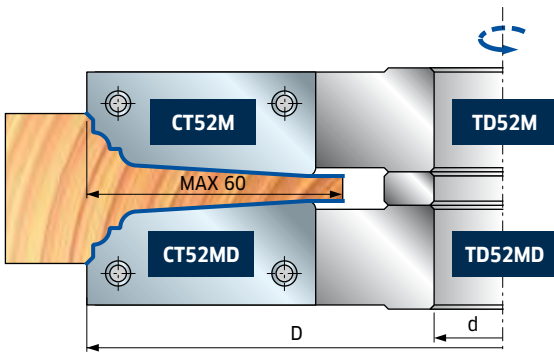


# TD52M - TD52MD



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

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



## 2 Knives for Hardwood - 2 Coltelli per Legno Duro

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

## 2 Knives for Softwood - 2 Coltelli per Legno Tenero

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

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

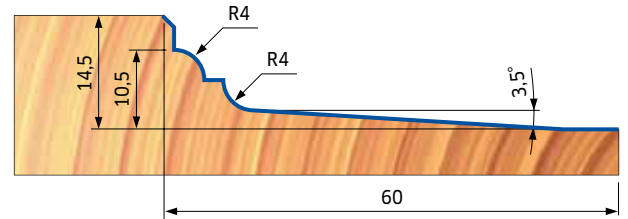
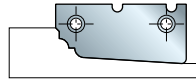
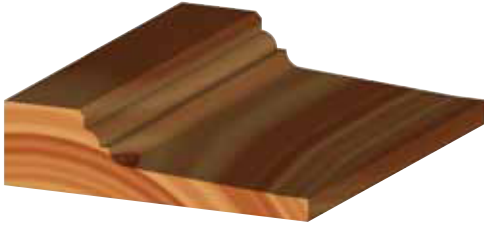
## Items are supplied without knives - Articoli forniti senza coltelli

| D<br>mm | B<br>mm | d*<br>mm | Z   | Max RPM<br>1/min. | Code<br>Codice | SAP<br>SAP |
|---------|---------|----------|-----|-------------------|----------------|------------|
| 200     | 25      | 30       | 2+2 | 7.000             | TD52M HA3      | F03F668623 |
| 200     | 25      | 30       | 2+2 | 7.000             | TD52MD HA3     | F03F668625 |
| 200     | 25      | 32       | 2+2 | 7.000             | TD52M HC3      | F03F668624 |
| 200     | 25      | 32       | 2+2 | 7.000             | TD52MD HC3     | F03F668626 |
| 200     | 25      | 35 (50)  | 2+2 | 7.000             | TD52M HB3      | F03FC20213 |
| 200     | 25      | 35 (50)  | 2+2 | 7.000             | TD52MD HB3     | F03FC20215 |

## Items are supplied with knives - Articoli forniti con coltelli

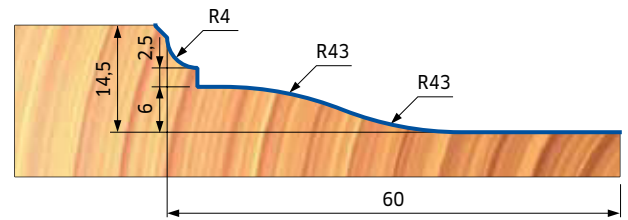
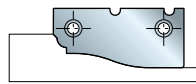
| D<br>mm | B<br>mm | d*<br>mm | Z   | Max RPM<br>1/min. | Code<br>Codice | SAP<br>SAP |
|---------|---------|----------|-----|-------------------|----------------|------------|
| 200     | 25      | 30       | 2+2 | 7.000             | TD52M CA3      | F03FC24424 |
| 200     | 25      | 30       | 2+2 | 7.000             | TD52MD CA3     | F03FC24426 |
| 200     | 25      | 32       | 2+2 | 7.000             | TD52M CC3      | F03FC24425 |
| 200     | 25      | 32       | 2+2 | 7.000             | TD52MD CC3     | F03FC24427 |
| 200     | 25      | 35 (50)  | 2+2 | 7.000             | TD52M CB3      | F03FC20212 |
| 200     | 25      | 35 (50)  | 2+2 | 7.000             | TD52MD CB3     | F03FC20214 |

PROFILE / PROFILO 1

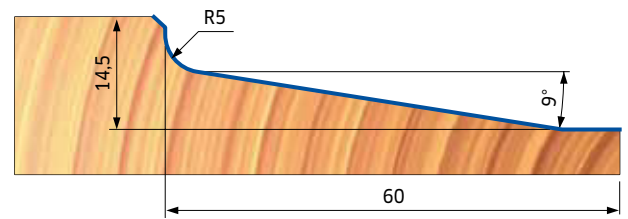
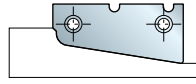
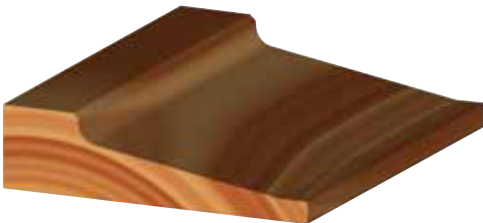


This profile is usable with automatic feed only.  
Questo profilo è utilizzabile solamente con avanzamento meccanico.

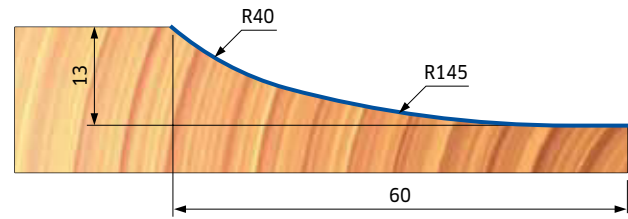
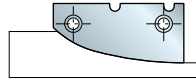
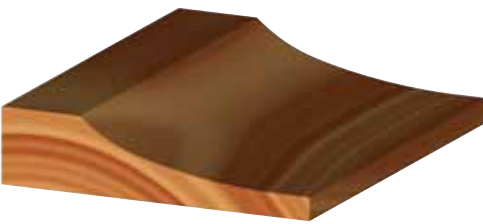
PROFILE / PROFILO 2



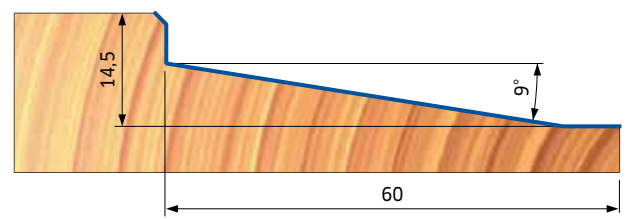
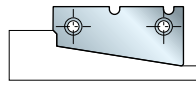
PROFILE / PROFILO 3



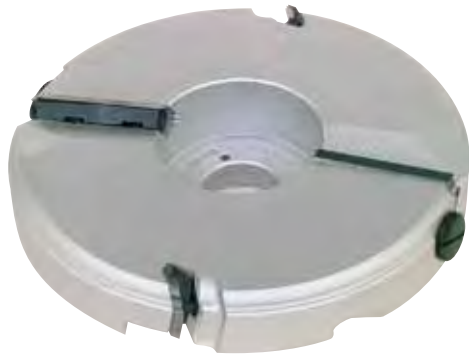
PROFILE / PROFILO 4



PROFILE / PROFILO 5



# TD55MD - TD55MS



It is possible to fit 5 types of standard knives for machining 5 different profiles (see drawings). Due to the particular tool geometry, this item is particularly indicated for cutting deep profiles.

**These items are supplied without knives.**

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

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

**Questi articoli vengono forniti senza coltelli.**

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

## Raised panel cutterheads Piattabande multiprofilo

| D<br>mm | B<br>mm | d*<br>mm | Z   | R | Max RPM<br>1/min. | Code<br>Codice    | SAP<br>SAP |
|---------|---------|----------|-----|---|-------------------|-------------------|------------|
| 210     |         | 30       | 2+2 |   | 6.500             | <b>TD55MD BA3</b> | F03F668627 |
| 210     |         | 32       | 2+2 |   | 6.500             | <b>TD55MD BC3</b> | F03F668628 |
| 210     |         | 35 (50)  | 2+2 |   | 6.500             | <b>TD55MD BB3</b> | F03FC20217 |
| 210     |         | 30       | 2+2 |   | 6.500             | <b>TD55MS BA3</b> | F03F668629 |
| 210     |         | 32       | 2+2 |   | 6.500             | <b>TD55MS BC3</b> | F03F668630 |
| 210     |         | 35 (50)  | 2+2 |   | 6.500             | <b>TD55MS BB3</b> | F03FC20219 |

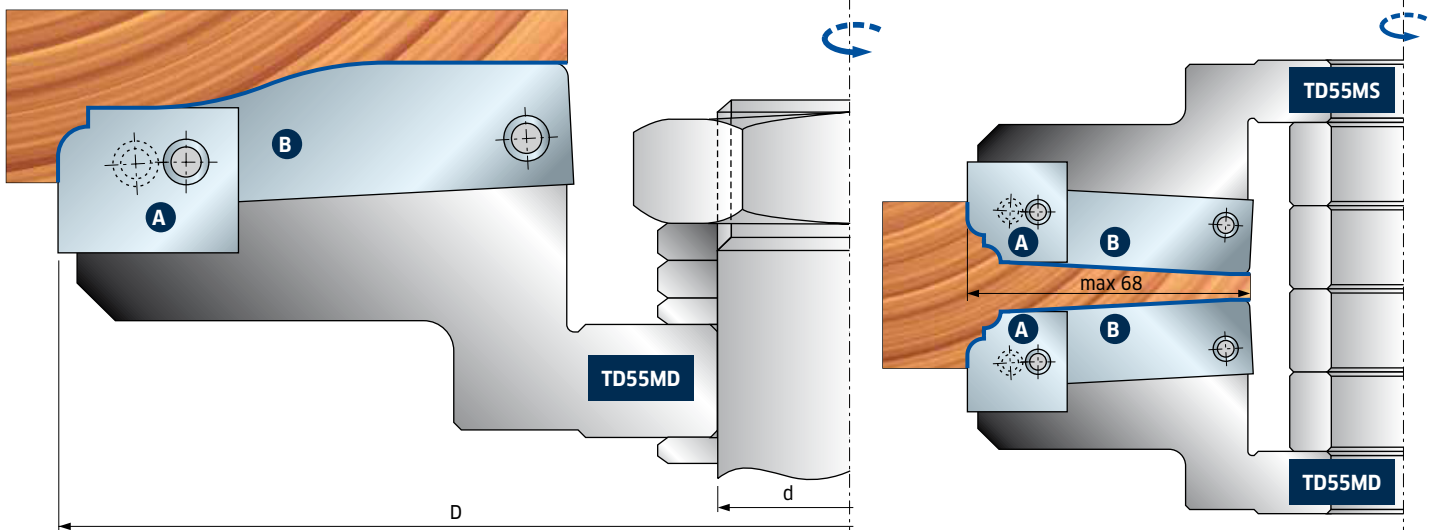
|        | Spare parts<br>Parti di ricambio | Dimensions<br>Dimensioni<br>mm | Code<br>Codice   | SAP<br>SAP         |            |
|--------|----------------------------------|--------------------------------|------------------|--------------------|------------|
|        | Screw / Vite             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

### Knives for TD55MD - Coltelli per TD55MD

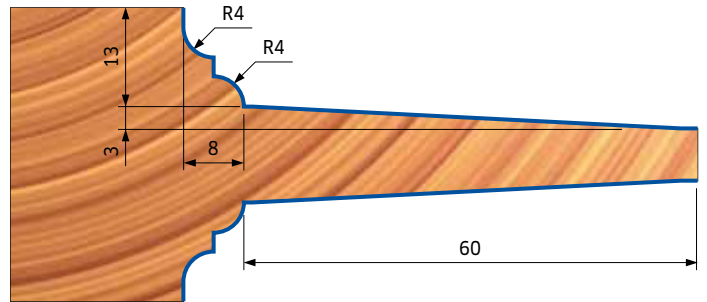
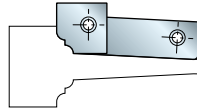
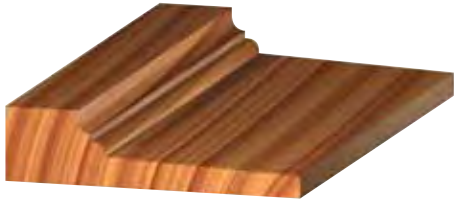
| Profile<br>Profilo | Spare knives<br>Coltelli di ricambio | Dimensions<br>Dimensioni<br>mm | Code<br>Codice     | SAP<br>SAP |
|--------------------|--------------------------------------|--------------------------------|--------------------|------------|
| <b>1</b>           | Knife / Coltello <b>A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

### Knives for TD55MS - Coltelli per TD55MS

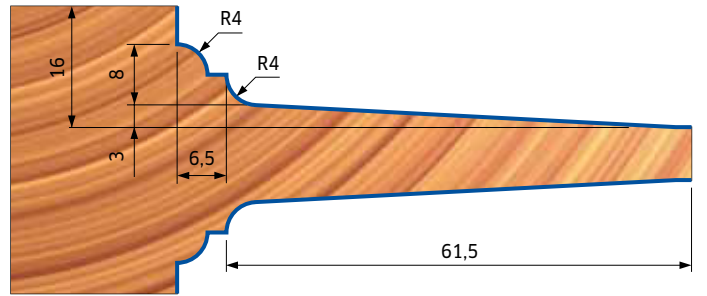
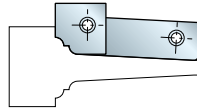
| Profile<br>Profilo | Spare knives<br>Coltelli di ricambio | Dimensions<br>Dimensioni<br>mm | Code<br>Codice     | SAP<br>SAP |
|--------------------|--------------------------------------|--------------------------------|--------------------|------------|
| <b>1</b>           | Knife / Coltello <b>A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



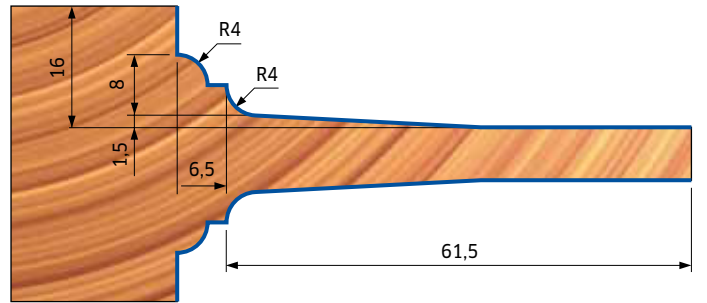
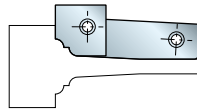
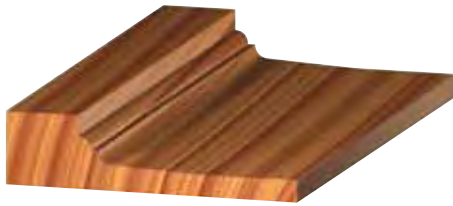
PROFILE / PROFILO 1



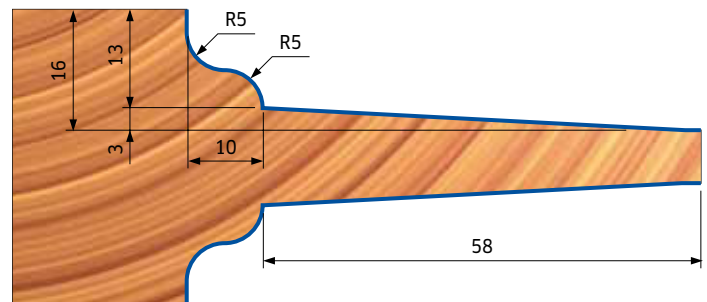
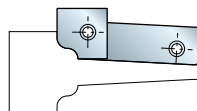
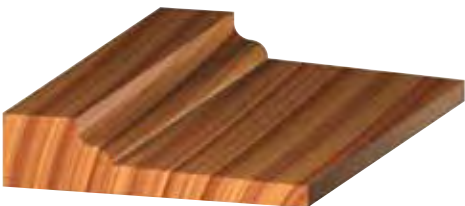
PROFILE / PROFILO 2



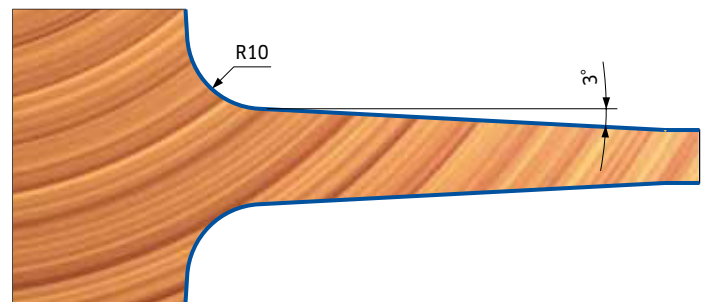
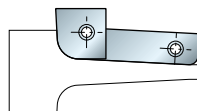
PROFILE / PROFILO 3



PROFILE / PROFILO 4



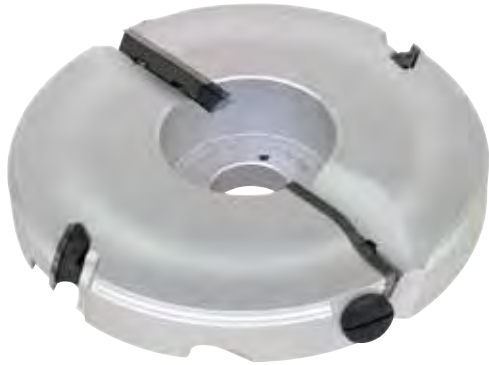
PROFILE / PROFILO 5



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



# TD55MD - TD55MS



Is possible to fit 4 types of standard knives for machining 4 different profiles (see drawings). Due to the particular tool geometry, this item is particularly indicated for cutting deep profiles.

**These items are supplied without knives.**

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

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

**Questi articoli vengono forniti senza coltelli.**

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

## Raised panel cutterheads Piattabande multiprofilo

| D<br>mm | B<br>mm | d*<br>mm | Z   | R | Max RPM<br>1/min. | Code<br>Codice    | SAP<br>SAP |
|---------|---------|----------|-----|---|-------------------|-------------------|------------|
| 210     |         | 30       | 2+2 |   | 6.500             | <b>TD55MD CA3</b> | F03F668934 |
| 210     |         | 32       | 2+2 |   | 6.500             | <b>TD55MD CC3</b> | F03F668935 |
| 210     | 35 (50) | 30       | 2+2 |   | 6.500             | <b>TD55MD CB3</b> | F03FC20218 |
| 210     |         | 30       | 2+2 |   | 6.500             | <b>TD55MS CA3</b> | F03F668936 |
| 210     |         | 32       | 2+2 |   | 6.500             | <b>TD55MS CC3</b> | F03F668937 |
| 210     | 35 (50) | 30       | 2+2 |   | 6.500             | <b>TD55MS CB3</b> | F03FC20220 |

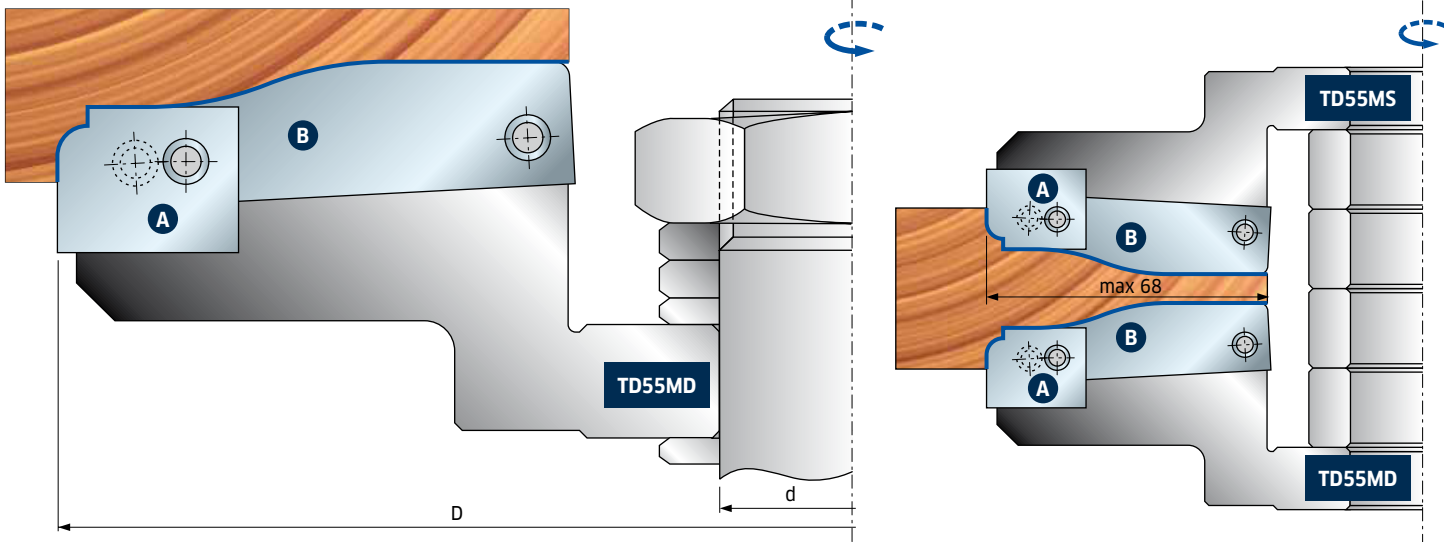
| Spare parts<br>Parti di ricambio |                        | Dimensions<br>Dimensioni<br>mm | Code<br>Codice     | SAP<br>SAP |
|----------------------------------|------------------------|--------------------------------|--------------------|------------|
|                                  | Vite /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

### Knives for TD55MD - Coltelli per TD55MD

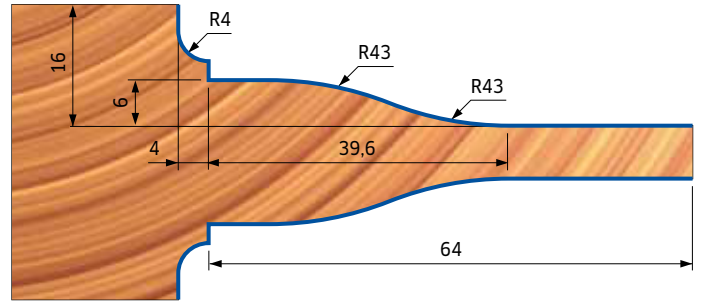
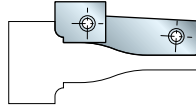
| Profile<br>Profilo | Spare knives<br>Coltelli di ricambio | Dimensions<br>Dimensioni<br>mm | Code<br>Codice     | SAP<br>SAP |
|--------------------|--------------------------------------|--------------------------------|--------------------|------------|
| <b>1</b>           | Knife / Coltello <b>A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

### Knives for TD55MS - Coltelli per TD55MS

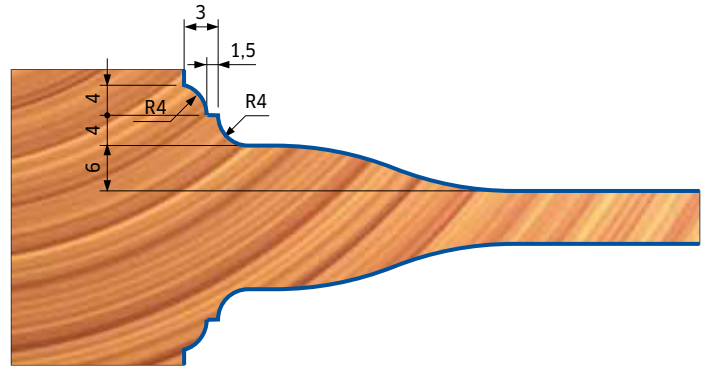
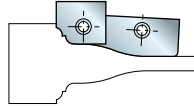
| Profile<br>Profilo | Spare knives<br>Coltelli di ricambio | Dimensions<br>Dimensioni<br>mm | Code<br>Codice     | SAP<br>SAP |
|--------------------|--------------------------------------|--------------------------------|--------------------|------------|
| <b>1</b>           | Knife / Coltello <b>A</b>            | 20 x 24 x 3                    | <b>CT55MSAD301</b> | F03FC24099 |
|                    | Knife / Coltello <b>B</b>            | 65 x 20 x 3                    | <b>CT55MSBD301</b> | F03FC24108 |
| <b>2</b>           | Knife / Coltello <b>A</b>            | 20 x 24 x 3                    | <b>CT55MSAG301</b> | F03FC24102 |
|                    | Knife / Coltello <b>B</b>            | 65 x 20 x 3                    | <b>CT55MSBG301</b> | F03FC24111 |
| <b>3</b>           | Knife / Coltello <b>A</b>            | 20 x 24 x 3                    | <b>CT55MSAH301</b> | F03FC24103 |
|                    | Knife / Coltello <b>B</b>            | 65 x 20 x 3                    | <b>CT55MSBH301</b> | F03FC24112 |
| <b>4</b>           | Knife / Coltello <b>A</b>            | 20 x 24 x 3                    | <b>CT55MSAI301</b> | F03FC24104 |
|                    | Knife / Coltello <b>B</b>            | 65 x 20 x 3                    | <b>CT55MSBI301</b> | F03FC24113 |



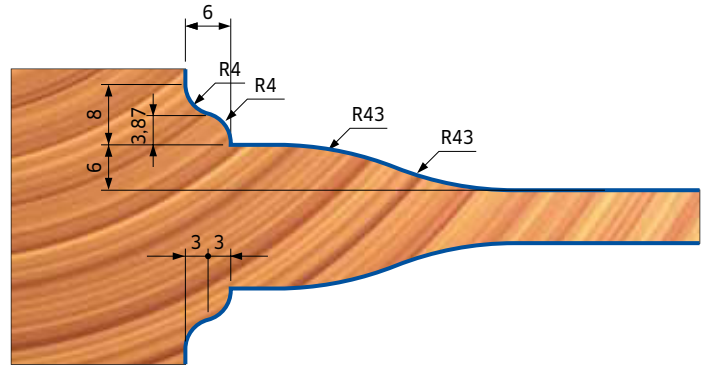
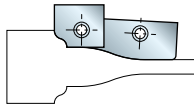
PROFILE / PROFILO 1



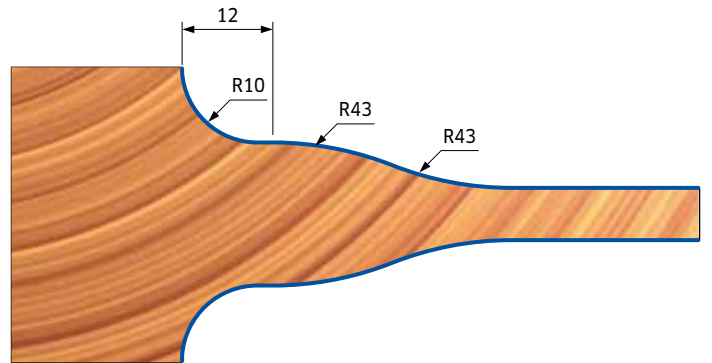
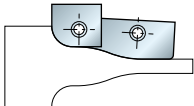
PROFILE / PROFILO 2



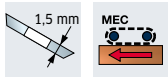
PROFILE / PROFILO 3



PROFILE / PROFILO 4



# TG79MG Z = 2



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

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

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

| Profile<br>Profilo | Tongue set<br>Gruppo per maschio | SAP<br>SAP | Groove set<br>Gruppo per femmina | SAP<br>SAP |
|--------------------|----------------------------------|------------|----------------------------------|------------|
| 1                  | TG79MG 002                       | F03FC20305 | TG79MG 001                       | F03FC20304 |
| 2                  | TG79MG 003                       | F03FC20306 | TG79MG 001                       | F03FC20304 |
| 3                  | TG79MG 006                       | F03FC20309 | TG79MG 004                       | F03FC20307 |
| 4                  | TG79MG 025                       | F03FC20320 | TG79MG 020                       | F03FC20315 |
| 5                  | TG79MG 007                       | F03FC20310 | TG79MG 005                       | F03FC20308 |
| 6                  | TG79MG 026                       | F03FC20321 | TG79MG 021                       | F03FC20316 |
| 7                  | TG79MG 027                       | F03FC20322 | TG79MG 022                       | F03FC20317 |
| 8                  | TG79MG 028                       | F03FC20323 | TG79MG 023                       | F03FC20318 |
| 9                  | TG79MG 029                       | F03FC20324 | TG79MG 024                       | F03FC20319 |
| 10                 | TG79MG 010                       | F03FC20313 | TG79MG 008                       | F03FC20311 |
| 11                 | TG79MG 035                       | F03FC20330 | TG79MG 030                       | F03FC20325 |
| 12                 | TG79MG 011                       | F03FC20314 | TG79MG 009                       | F03FC20312 |
| 13                 | TG79MG 036                       | F03FC20331 | TG79MG 031                       | F03FC20326 |
| 14                 | TG79MG 037                       | F03FC20332 | TG79MG 032                       | F03FC20327 |
| 15                 | TG79MG 038                       | F03FC20333 | TG79MG 033                       | F03FC20328 |
| 16                 | TG79MG 039                       | F03FC20334 | TG79MG 034                       | F03FC20329 |

### Tools for TG79MG sets - Utensili per gruppi TG79MG

| D<br>mm | B<br>mm | d<br>mm | Z | R | Max RPM<br>1/min. | Code<br>Codice | SAP<br>SAP |
|---------|---------|---------|---|---|-------------------|----------------|------------|
| 125     | 20      | 50      | 2 | 2 | 9.000             | TG79M AA3      | F03FC20286 |
| 125     | 20      | 50      | 2 | 2 | 9.000             | TG79M AB3      | F03FC20287 |
| 143     | 20      | 50      | 2 | 2 | 9.000             | TG79M AC3      | F03FC20288 |
| 128     | 8       | 50      | 2 |   | 9.000             | TG79M AD3      | F03FC20289 |
| 143     | 20      | 50      | 2 | 4 | 9.000             | TG79M AE3      | F03FC20290 |
| 144     | 20      | 50      | 2 | 4 | 9.000             | TG79M AF3      | F03FC20291 |
| 125     | 20      | 50      |   | 4 | 9.000             | TG79M AG3      | F03FC20292 |
| 125     | 20      | 50      |   | 4 | 9.000             | TG79M AI3      | F03FC20294 |
| 143     | 20      | 50      |   | 4 | 9.000             | TG79M AM3      | F03FC20296 |
| 143     | 20      | 50      |   | 4 | 9.000             | TG79M AO3      | F03FC20298 |

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

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

### Sleeves for fence side spindle Bussolle per albero destro

| Dimensions<br>Dimensioni<br>mm | Sleeve code<br>Codice bussola | SAP<br>SAP |
|--------------------------------|-------------------------------|------------|
| Ø50 x 110 x 30                 | BF10MD AA9                    | F03FC00616 |
| Ø50 x 110 x 32                 | BF10MD AL9                    | F03FC24533 |
| Ø50 x 110 x 35                 | BF10MD AB9                    | F03FC00617 |
| Ø50 x 110 x 40                 | BF10MD AC9                    | F03FC00618 |

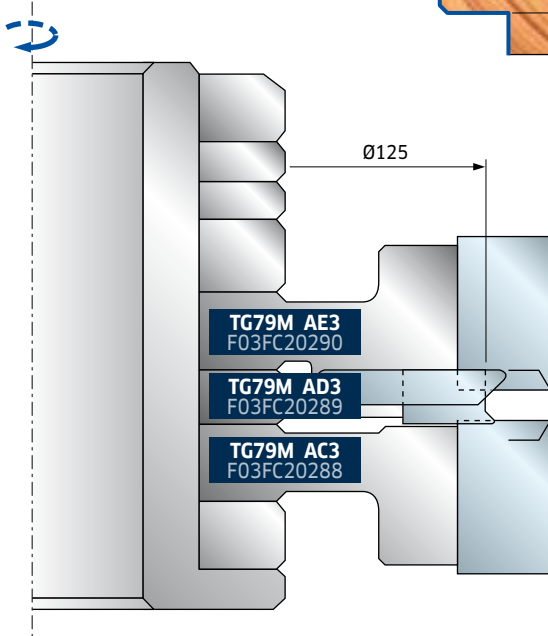
### Sleeves for off side spindle Bussolle per albero sinistro

| Dimensions<br>Dimensioni<br>mm | Sleeve code<br>Codice bussola | SAP<br>SAP |
|--------------------------------|-------------------------------|------------|
| Ø50 x 110 x 30                 | BF10MS AA9                    | F03FC00661 |
| Ø50 x 110 x 32                 | BF10MS AL9                    | F03FC24538 |
| Ø50 x 110 x 35                 | BF10MS AB9                    | F03FC00662 |
| Ø50 x 110 x 40                 | BF10MS AC9                    | F03FC00663 |

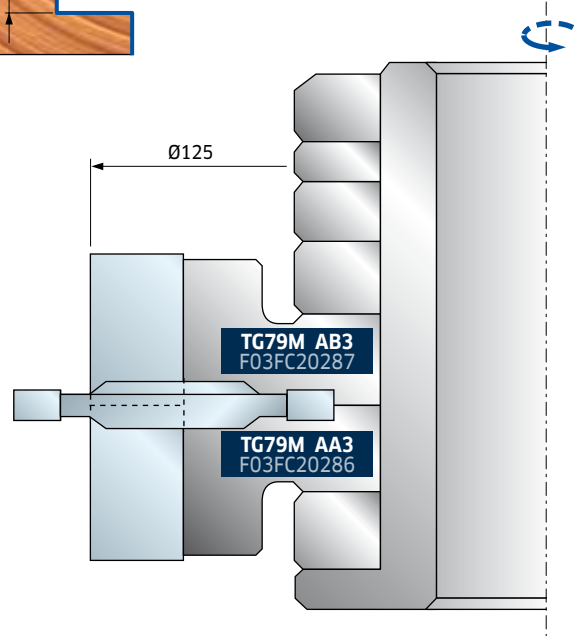
|                       | Dimensions<br>Dimensioni<br>mm | Code<br>Codice | SAP<br>SAP |
|-----------------------|--------------------------------|----------------|------------|
| AA3                   | 20 x 12 x 1,5                  | CG01MDA310     | F03FH02727 |
|                       | 16     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

### PROFILE / PROFILO 1

Cutterhead set / Gruppo  
TG79MG 002

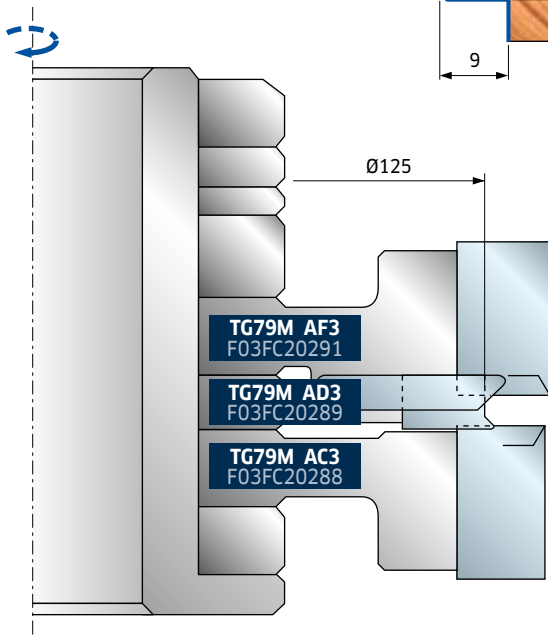


Cutterhead set / Gruppo  
TG79MG 001

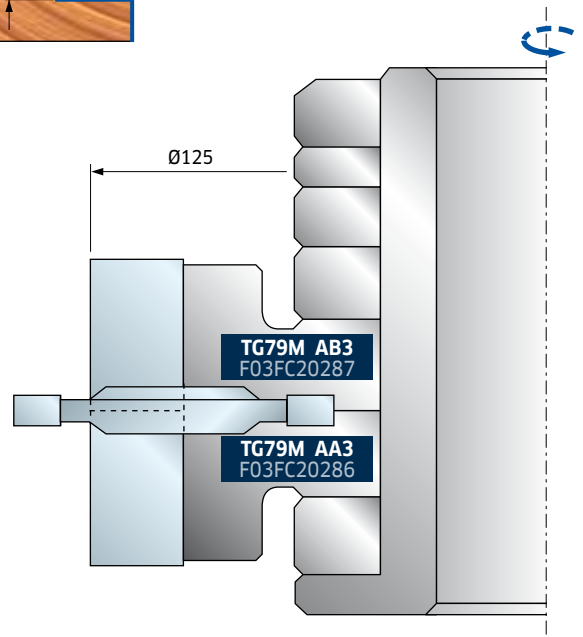


### PROFILE / PROFILO 2

Cutterhead set / Gruppo  
TG79MG 003

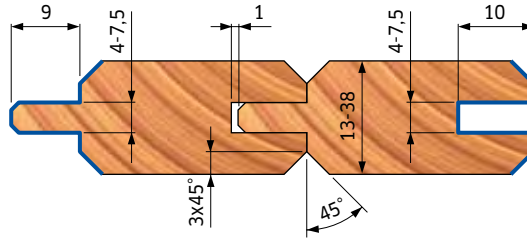


Cutterhead set / Gruppo  
TG79MG 001

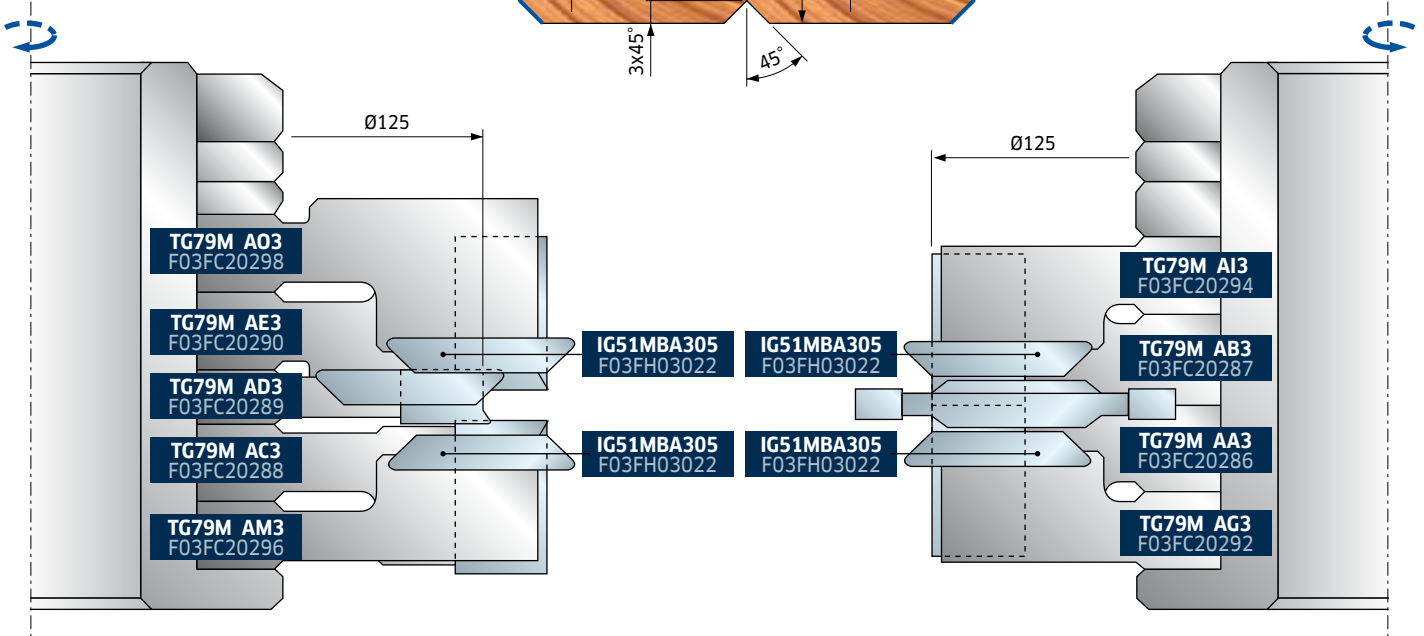


### PROFILE / PROFILO 3

#### Cutterhead set / Gruppo TG79MG 006

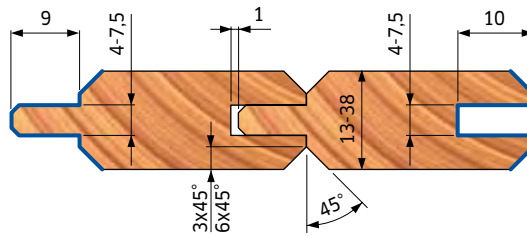


#### Cutterhead set / Gruppo TG79MG 004

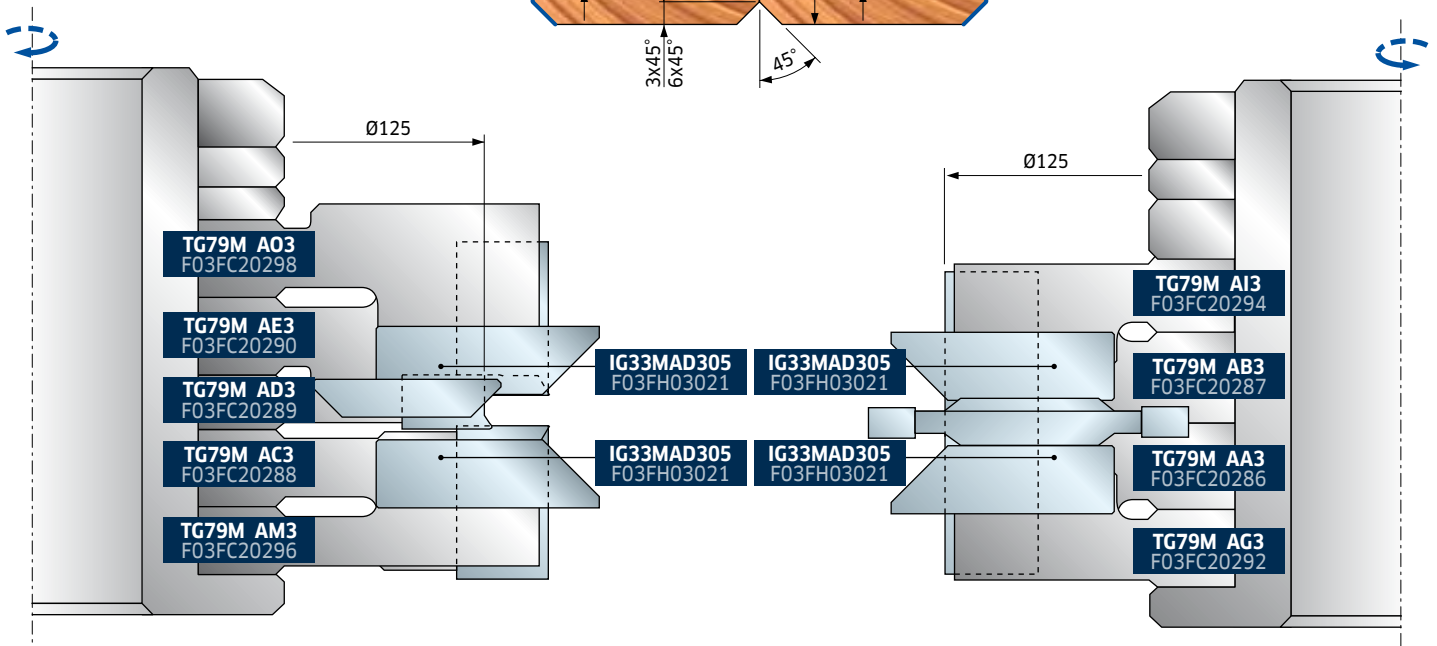


### PROFILE / PROFILO 4

#### Cutterhead set / Gruppo TG79MG 025

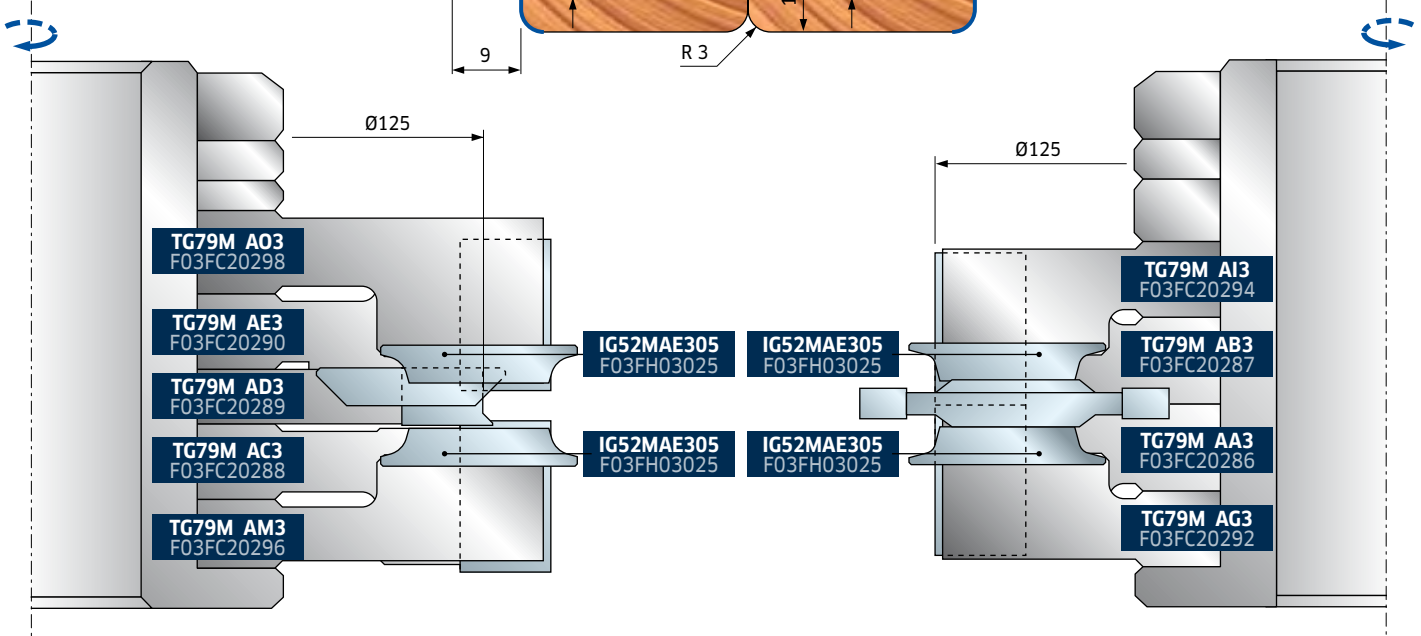


#### Cutterhead set / Gruppo TG79MG 020



### PROFILE / PROFILO 5

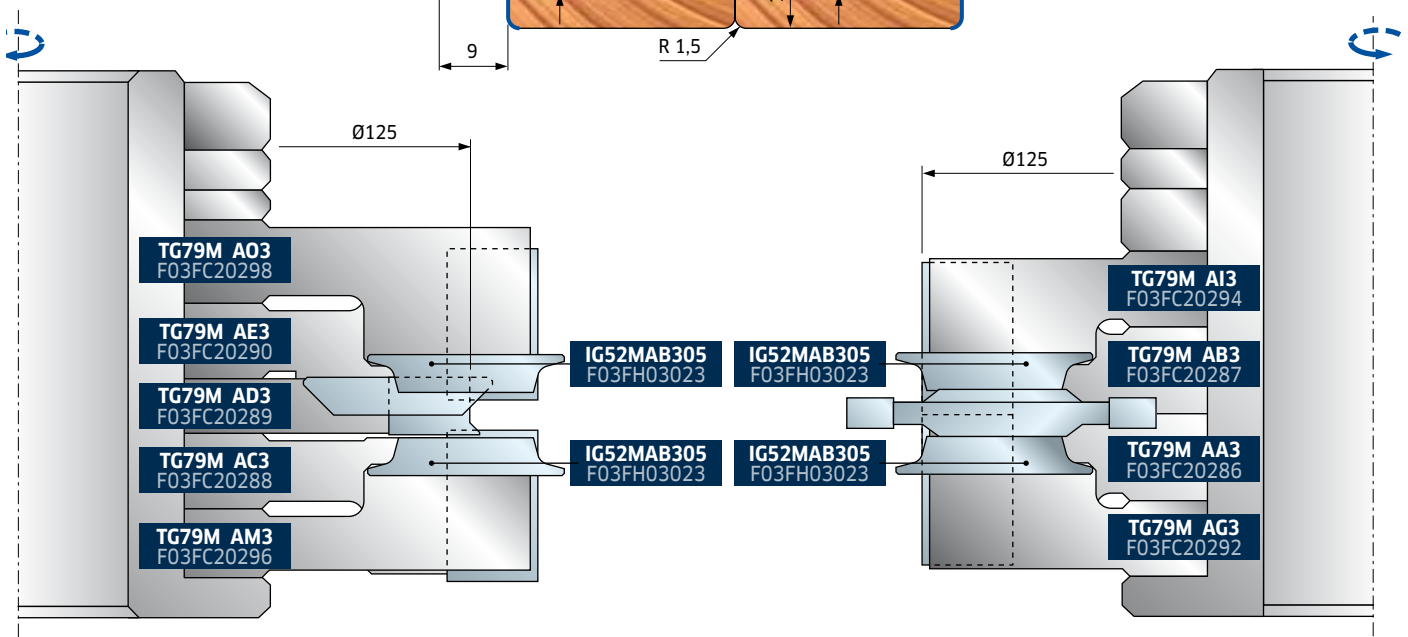
#### Cutterhead set / Gruppo TG79MG 007



#### Cutterhead set / Gruppo TG79MG 005

### PROFILE / PROFILO 6

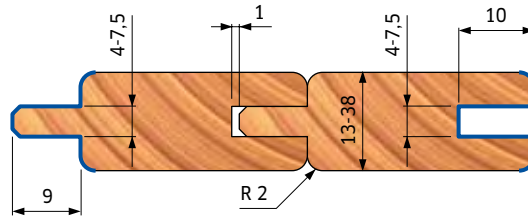
#### Cutterhead set / Gruppo TG79MG 026



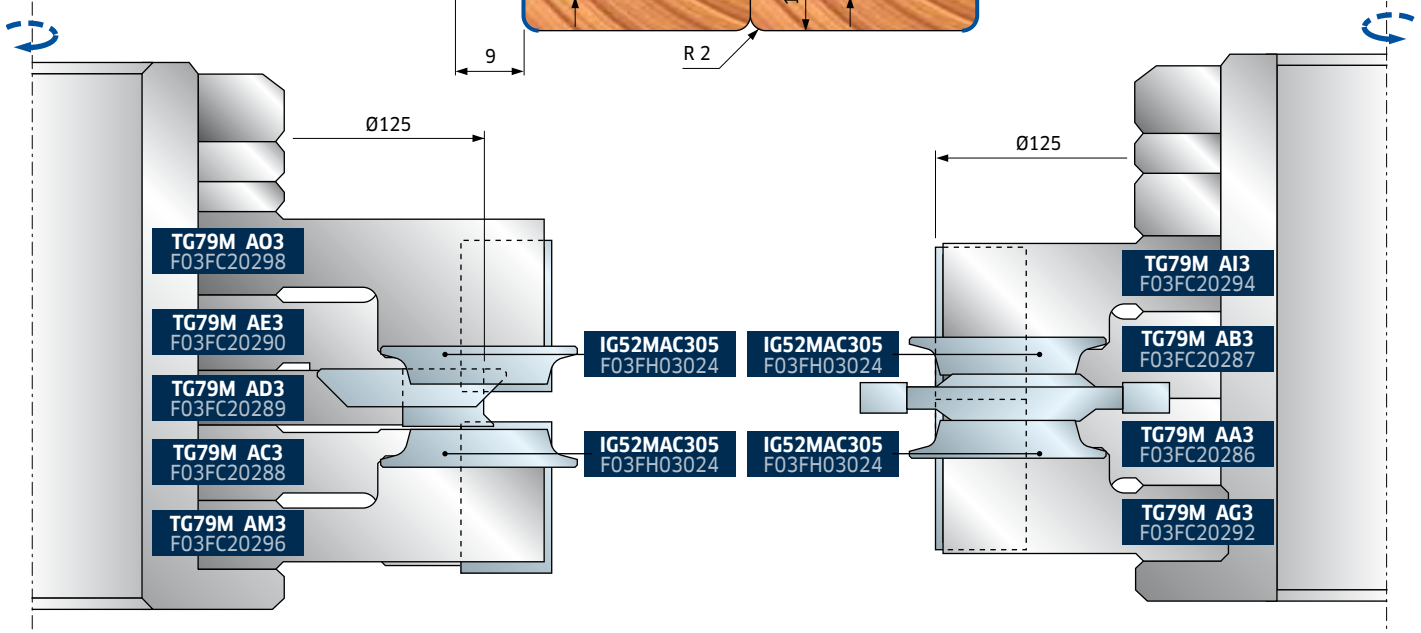
#### Cutterhead set / Gruppo TG79MG 021

### PROFILE / PROFILO 7

#### Cutterhead set / Gruppo TG79MG 027

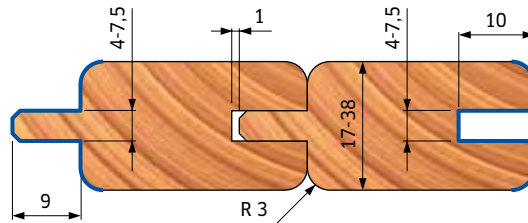


#### Cutterhead set / Gruppo TG79MG 022

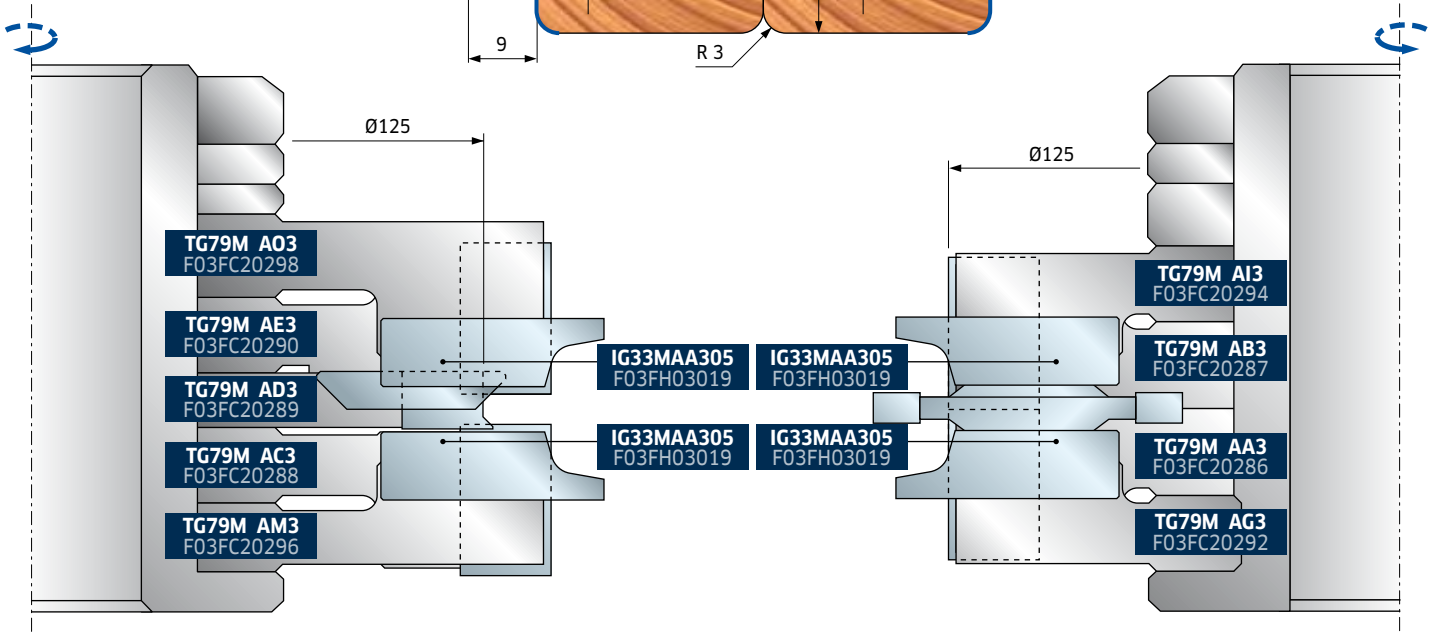


### PROFILE / PROFILO 8

#### Cutterhead set / Gruppo TG79MG 028

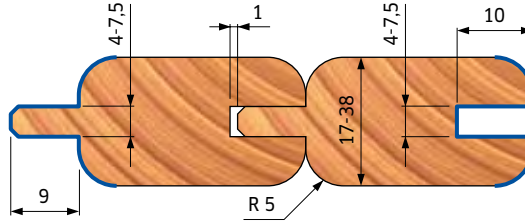


#### Cutterhead set / Gruppo TG79MG 023

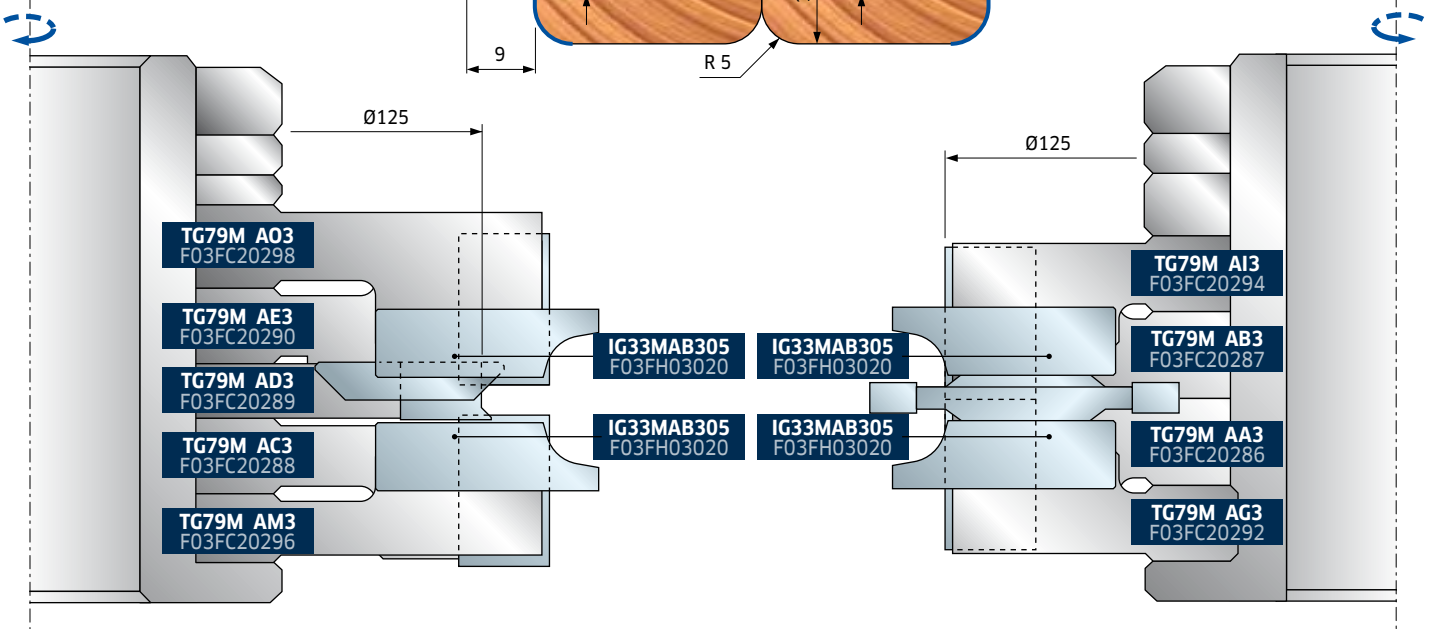


PROFILE / PROFILO 9

Cutterhead set / Gruppo  
TG79MG 029

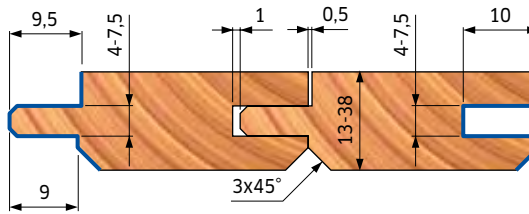


Cutterhead set / Gruppo  
TG79MG 024

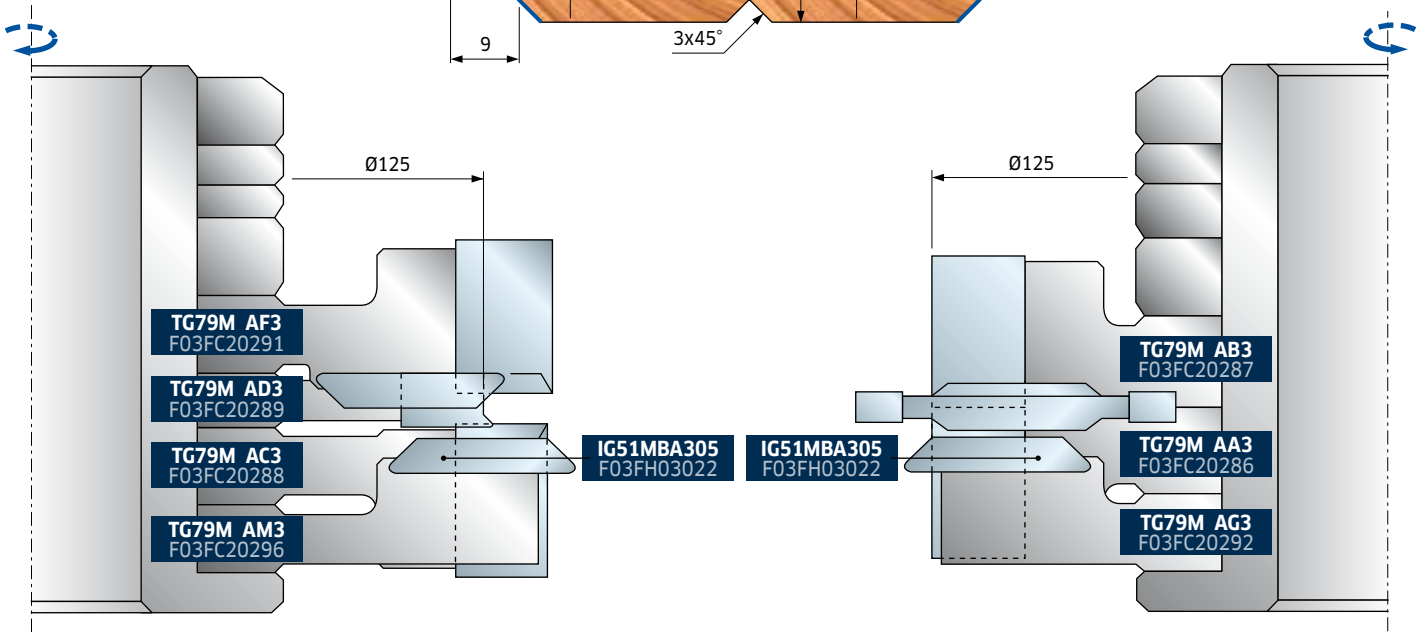


PROFILE / PROFILO 10

Cutterhead set / Gruppo  
TG79MG 010



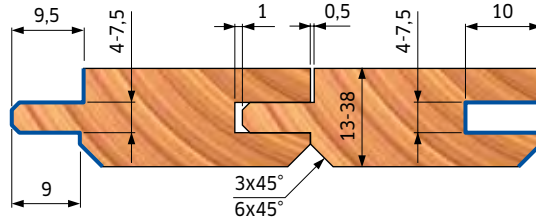
Cutterhead set / Gruppo  
TG79MG 008



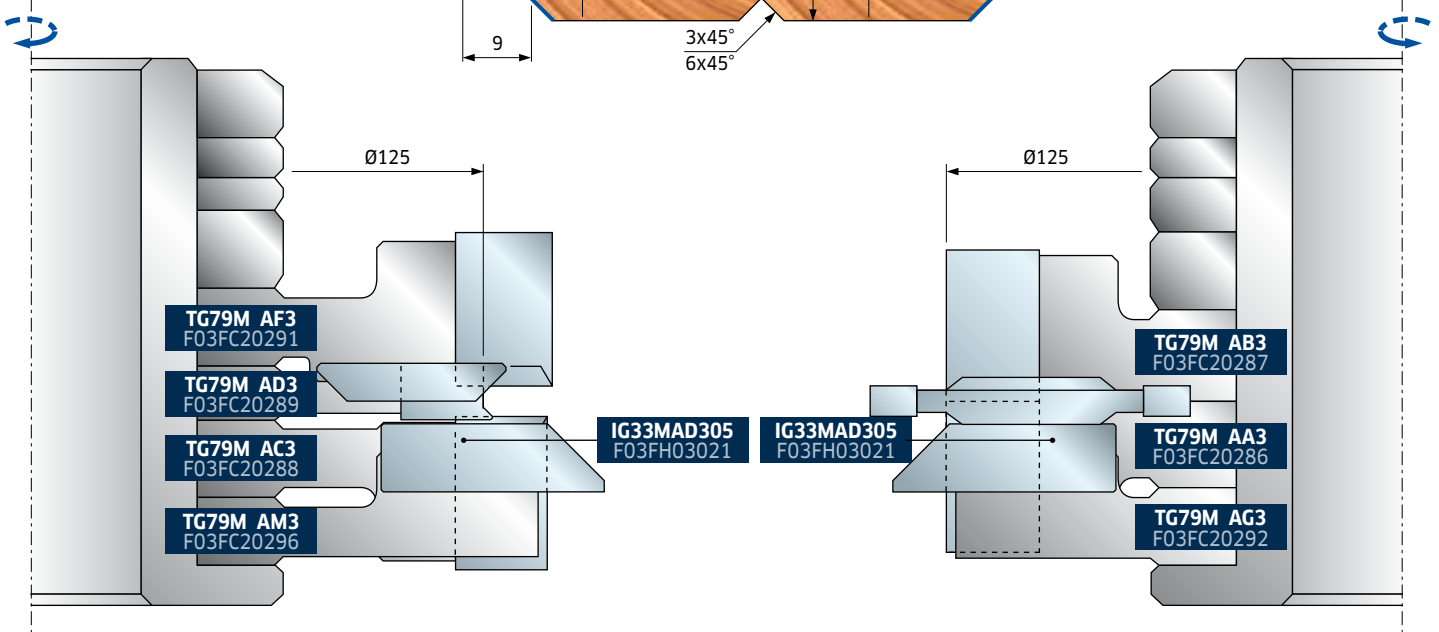


### PROFILE / PROFILO 11

Cutterhead set / Gruppo  
TG79MG 035

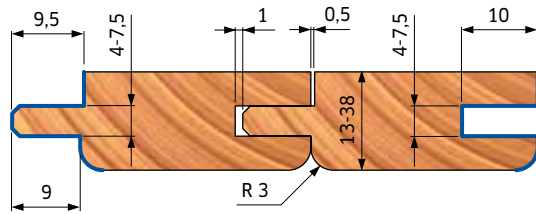


Cutterhead set / Gruppo  
TG79MG 030

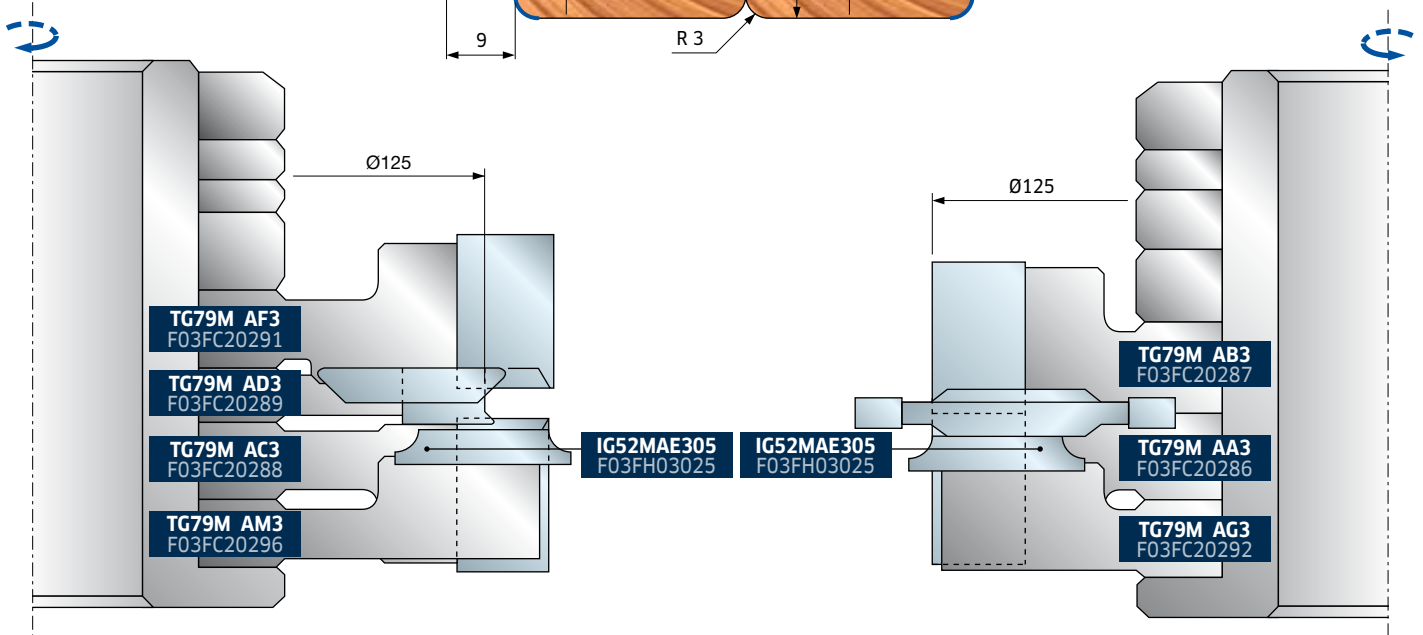


### PROFILE / PROFILO 12

Cutterhead set / Gruppo  
TG79MG 011

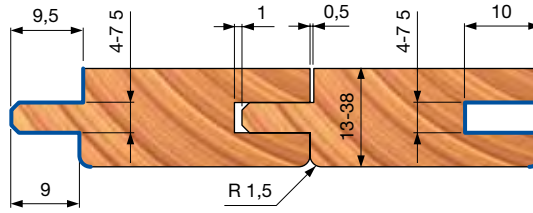
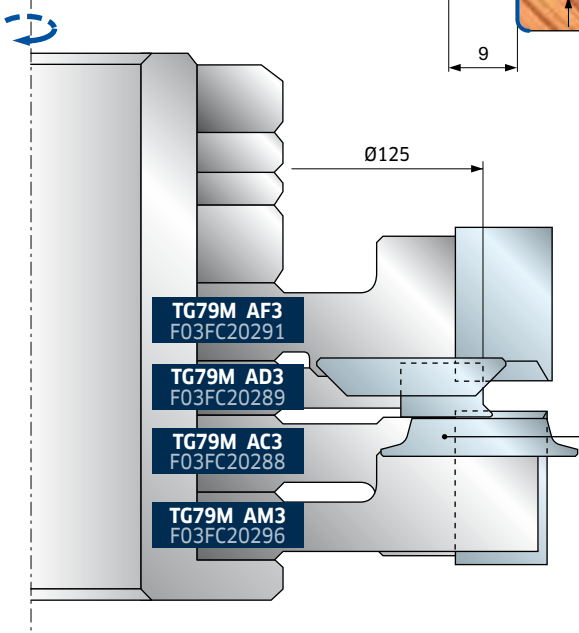


Cutterhead set / Gruppo  
TG79MG 009

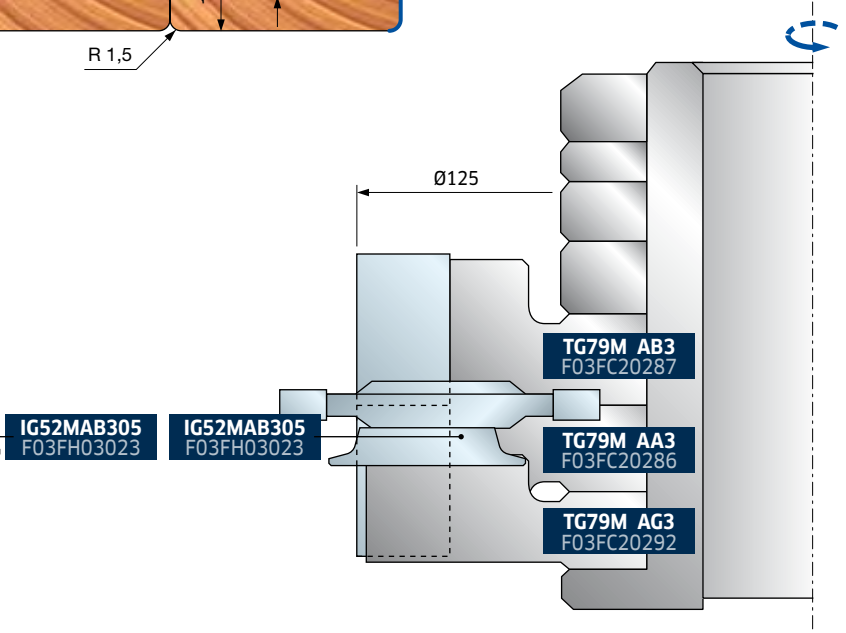


### PROFILE / PROFILO 13

#### Cutterhead set / Gruppo TG79MG 036

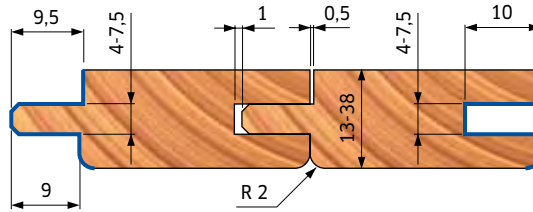
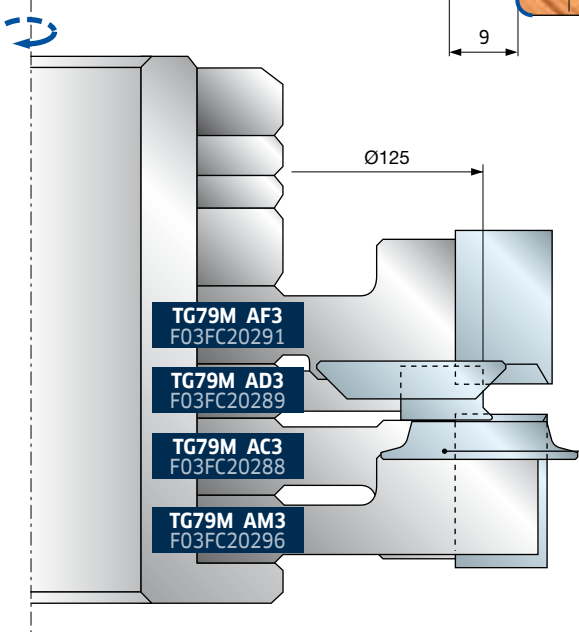


#### Cutterhead set / Gruppo TG79MG 031

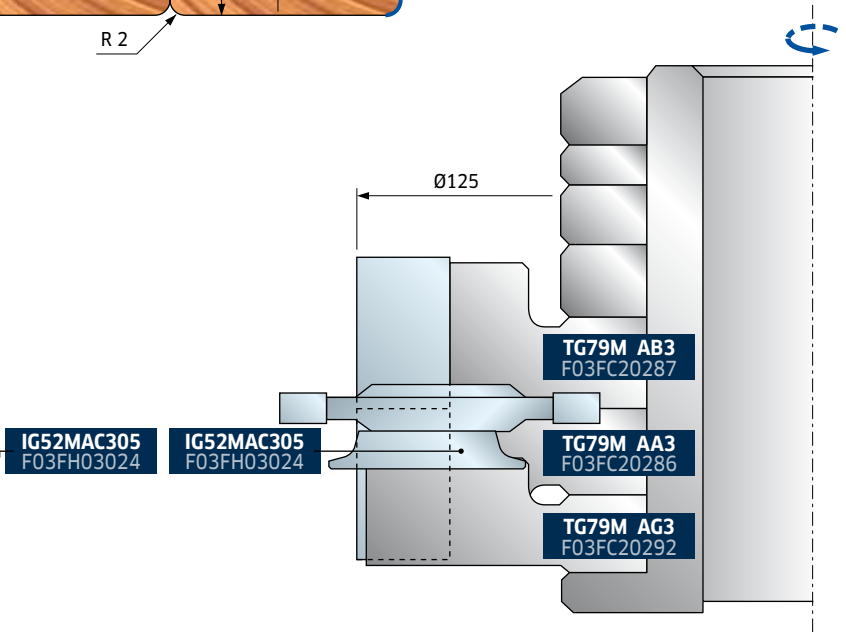


### PROFILE / PROFILO 14

#### Cutterhead set / Gruppo TG79MG 037

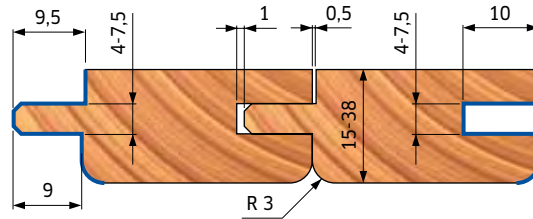


#### Cutterhead set / Gruppo TG79MG 032

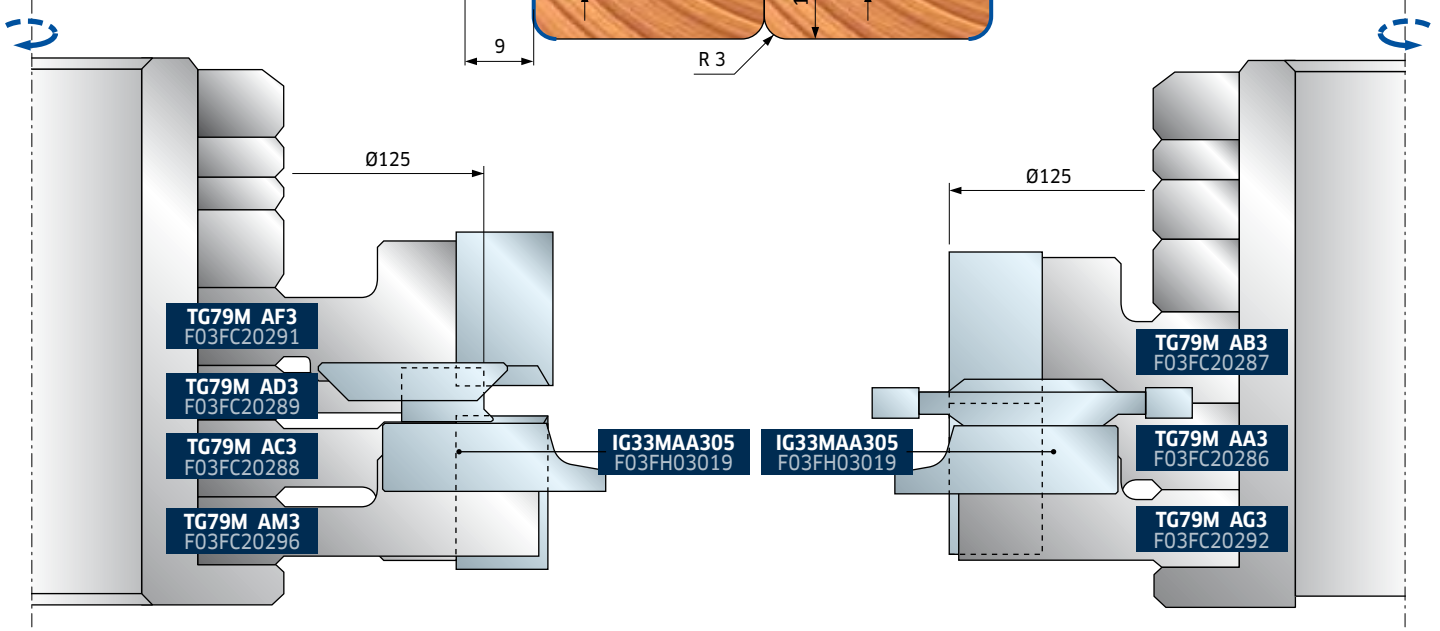


### PROFILE / PROFILO 15

Cutterhead set / Gruppo  
TG79MG 038

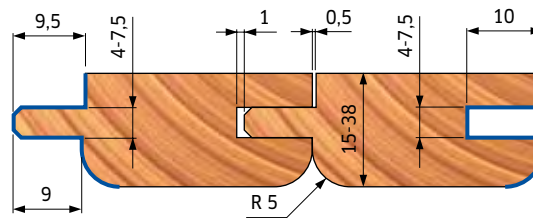


Cutterhead set / Gruppo  
TG79MG 033

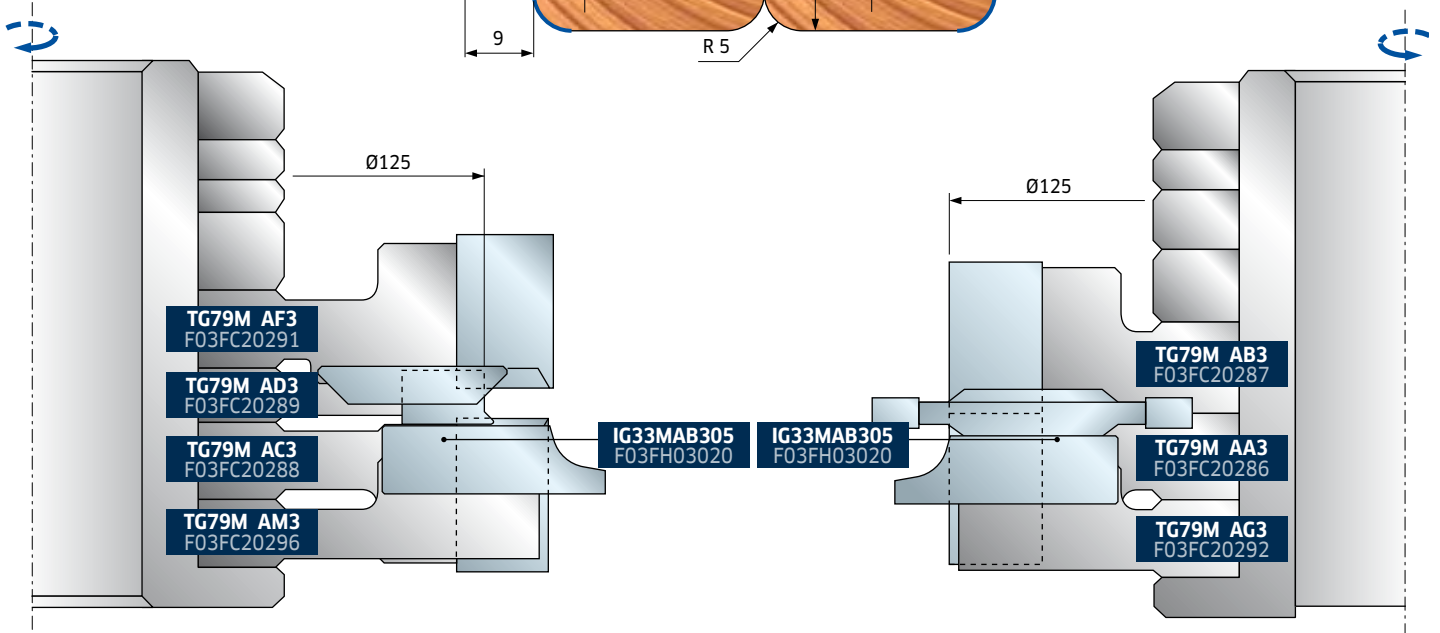


### PROFILE / PROFILO 16

Cutterhead set / Gruppo  
TG79MG 039



Cutterhead set / Gruppo  
TG79MG 034



# TG99MG

Z = 4

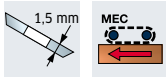


Chart for choosing spare parts  
Tabella per la scelta dei ricambi

| Code<br>Codice                              | SAP<br>SAP | For cutterheads TG99M<br>Per teste TG99M |
|---|------------|--|
| EA3 EB3 EC3 ED3 EE3 EF3 EG3 EH3 EI3 EK3 EL3 |            |  |
| CG26MBA310                                  | F03FH02937 | • • • • •                                |
| CG26MDA310                                  | F03FH02939 | • • • • •                                |
| CG26MEA310                                  | F03FH02940 | • • • • •                                |
| CN03M BA9                                   | F03FA00584 | • • • • •                                |
| CN03M BB9                                   | F03FA00585 | • • • • •                                |
| CN09M AA9                                   | F03FC01280 | • • • • •                                |
| CN09MD AD9                                  | F03FC01300 | • • • • •                                |
| CN09MD A09                                  | F03FC01306 | • • • • •                                |
| CN09MS AD9                                  | F03FC01326 | • • • • •                                |
| VT05M AA9                                   | F03FA04444 | • • • • •                                |
| VT16M AA9                                   | F03FA04476 | • • • • •                                |
| VT16M AD9                                   | F03FC20657 | • • • • •                                |
| VT16M AE9                                   | F03FC20658 | • • • • •                                |
| VT19M AB9                                   | F03FA04491 | • • • • •                                |
| VT19M BB9                                   | F03FA04493 | • • • • •                                |
| VT19M MA9                                   | F03FA04496 | • • • • •                                |
| VT20M AA9                                   | F03FA04497 | • • • • •                                |
| VT20M MA9                                   | F03FC20670 | • • • • •                                |
| VT20M NA9                                   | F03FC20671 | • • • • •                                |
| IG04MSAA305                                 | F03FH02994 | • • • • •                                |
| IG16MAA301                                  | F03FC24161 | • • • • •                                |
| IG17MDAA305                                 | F03FC24162 | • • • • •                                |
| IG51MBA305                                  | F03FH03022 | • • • • •                                |
| IG52MAB305                                  | F03FH03023 | • • • • •                                |
| RG02MAA305                                  | F03FH03041 | • • • • •                                |
| SR06MSBB301                                 | F03FC24201 | • • • • •                                |
| CB03M CA9                                   | F03FA00165 | • • • • •                                |
| CB03M AA9                                   | F03FA00162 | • • • • •                                |
| CB03M BA9                                   | F03FA00163 | • • • • •                                |

Sleeves for fence side spindle  
Bussole per albero destro

| Dimensions<br>Dimensioni<br>mm | Sleeve code<br>Codice bussola | SAP        |
|--------------------------------|-------------------------------|------------|
| Ø50 x 110 x 30                 | BF10MD AA9                    | F03FC00616 |
| Ø50 x 110 x 32                 | BF10MD AL9                    | F03FC24533 |
| Ø50 x 110 x 35                 | BF10MD AB9                    | F03FC00617 |
| Ø50 x 110 x 40                 | BF10MD AC9                    | F03FC00618 |

Sleeves for off side spindle  
Bussole per albero sinistro

| Dimensions<br>Dimensioni<br>mm | Sleeve code<br>Codice bussola | SAP        |
|--------------------------------|-------------------------------|------------|
| Ø50 x 110 x 30                 | BF10MS AA9                    | F03FC00661 |
| Ø50 x 110 x 32                 | BF10MS AL9                    | F03FC24538 |
| Ø50 x 110 x 35                 | BF10MS AB9                    | F03FC00662 |
| Ø50 x 110 x 40                 | BF10MS AC9                    | F03FC00663 |

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

| Profile<br>Profilo | Tongue set<br>Gruppo per maschio | SAP<br>SAP | Groove set<br>Gruppo per femmina | SAP<br>SAP |
|--------------------|----------------------------------|------------|----------------------------------|------------|
| A                  | TG99MG002                        | F03FC22132 | TG99MG001                        | F03FC22131 |
| B                  | TG99MG003                        | F03FC22133 | TG99MG001                        | F03FC22131 |
| C                  | TG99MG009                        | F03FC22140 | TG99MG008                        | F03FC22139 |
| D                  | TG99MG011                        | F03FC22142 | TG99MG010                        | F03FC22141 |
| E                  | TG99MG005                        | F03FC22135 | TG99MG004                        | F03FC22134 |
| F                  | TG99MG007                        | F03FC22137 | TG99MG006                        | F03FC22136 |
| G                  | TG99MG013                        | F03FC22145 | TG99MG012                        | F03FC22143 |
| H                  | TG99MG015                        | F03FC22146 | TG99MG014                        | F03FC22144 |

Tools for TG99MG sets - Utensili per gruppi TG99MG

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

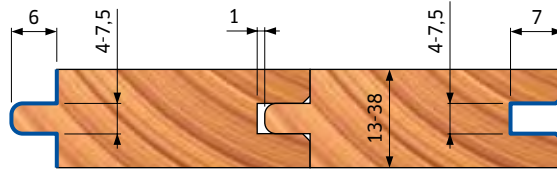
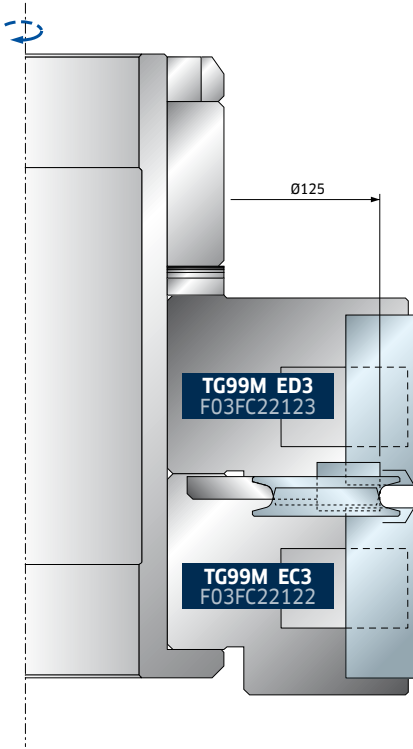
| Spare parts<br>Parti di ricambio            | Dimensions<br>Dimensioni<br>mm | Code<br>Codice | SAP<br>SAP |
|---|--------------------------------|----------------|------------|
| Knife / Coltello                            | 12x12x1,5                      | CG26MBA310     | F03FH02937 |
| Wedge /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

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

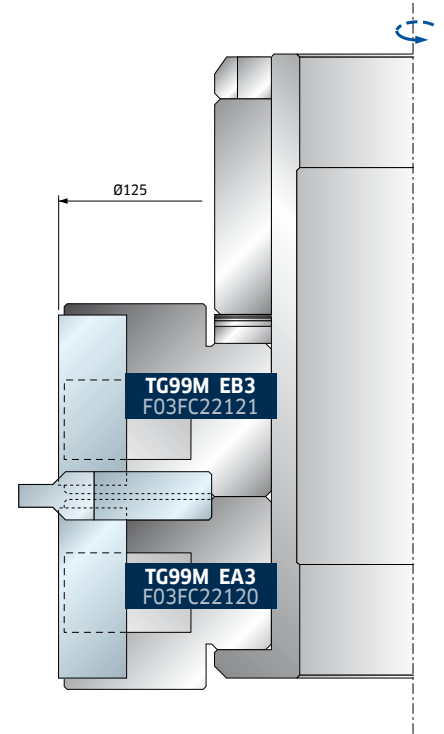
I codici delle tabelle relative ai gruppi sono da considerarsi esclusa la bussola, la quale andrà ordinata a parte.

### PROFILE / PROFILO A

Cutterhead set / Gruppo  
TG99MG002

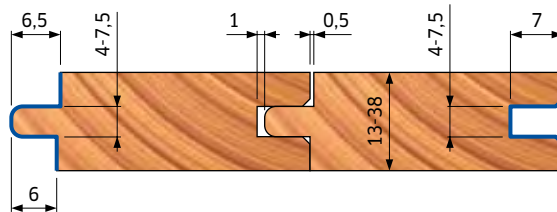
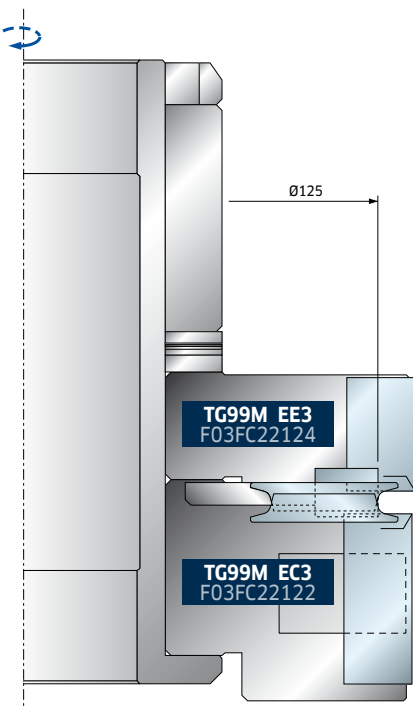


Cutterhead set / Gruppo  
TG99MG001

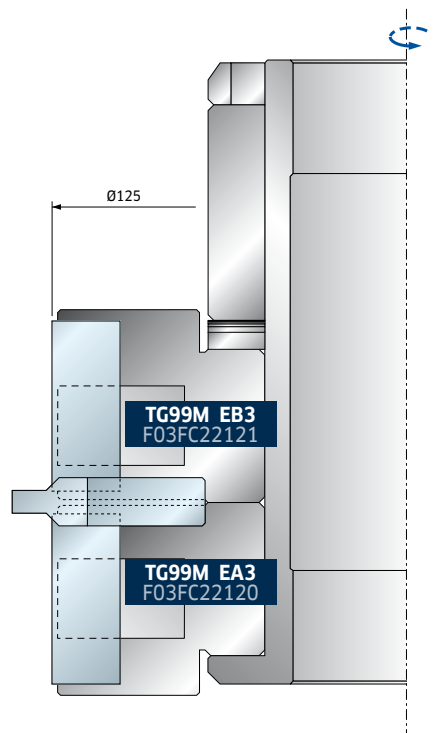


### PROFILE / PROFILO B

Cutterhead set / Gruppo  
TG99MG003

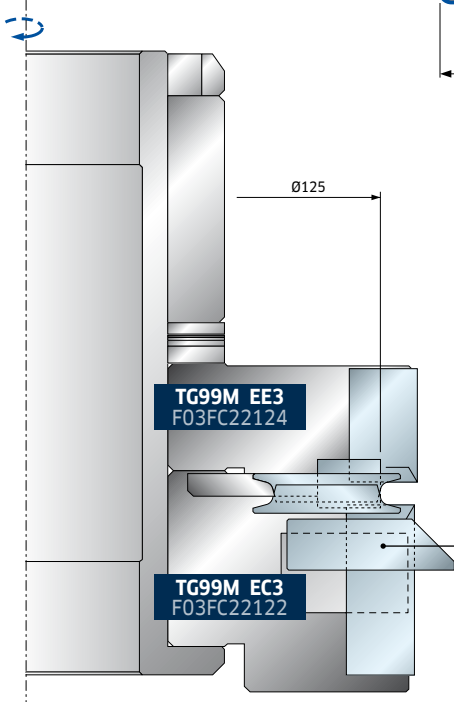
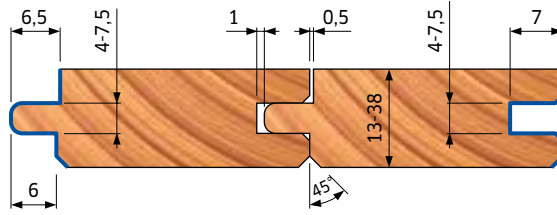


Cutterhead set / Gruppo  
TG99MG001

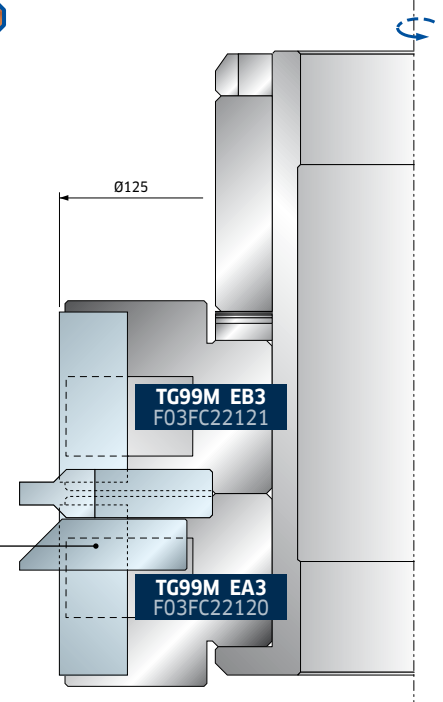


PROFILE / PROFILO **C**

Cutterhead set / Gruppo  
TG99MG009

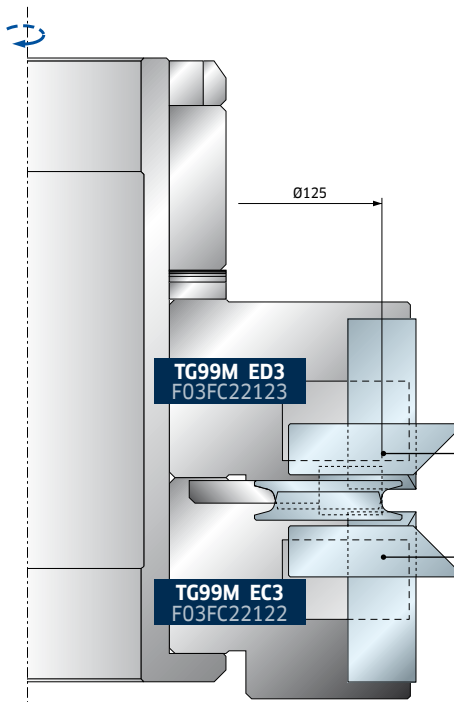
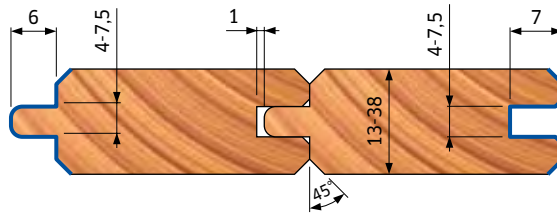


Cutterhead set / Gruppo  
TG99MG008

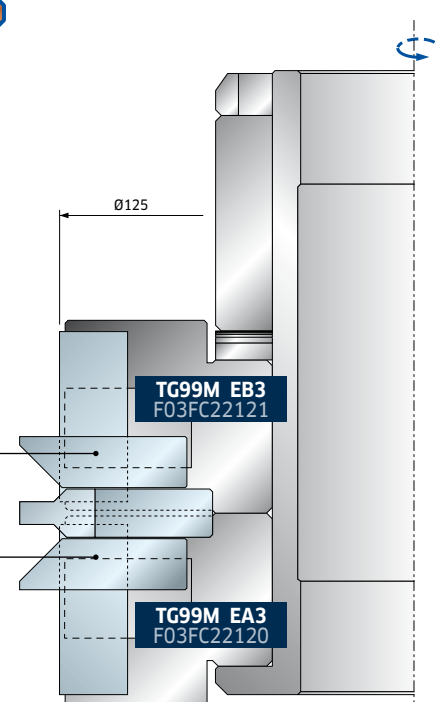


PROFILE / PROFILO **D**

Cutterhead set / Gruppo  
TG99MG011

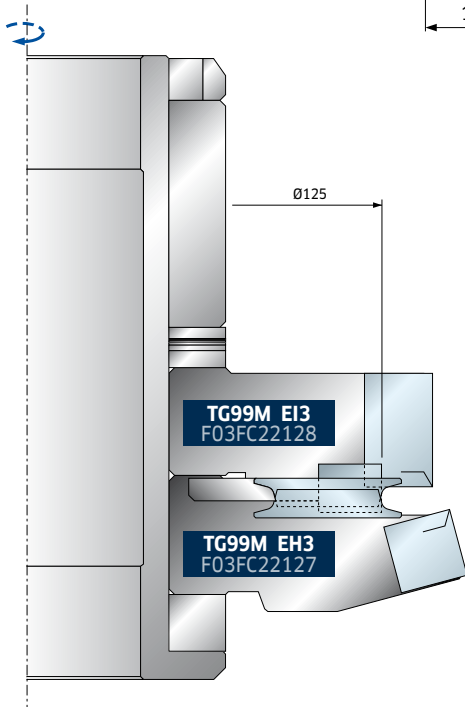
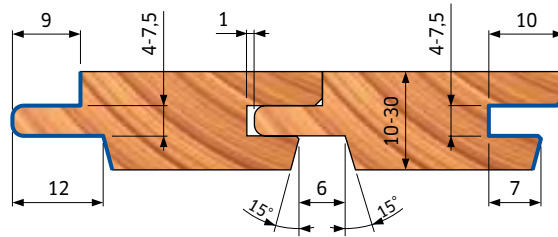


Cutterhead set / Gruppo  
TG99MG010

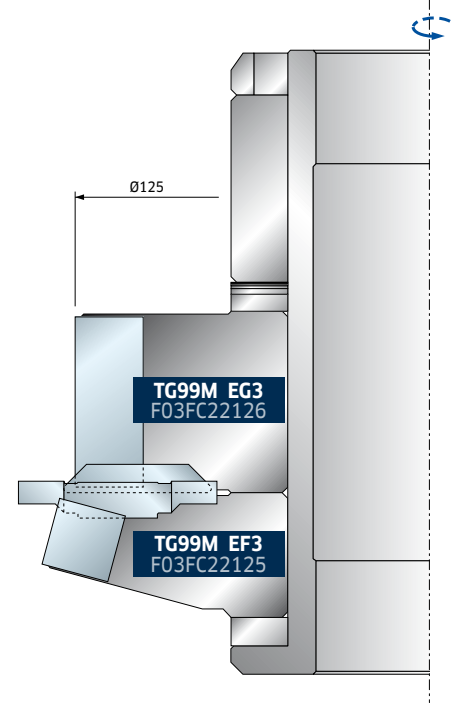


### PROFILE / PROFILO E

Cutterhead set / Gruppo  
TG99MG005

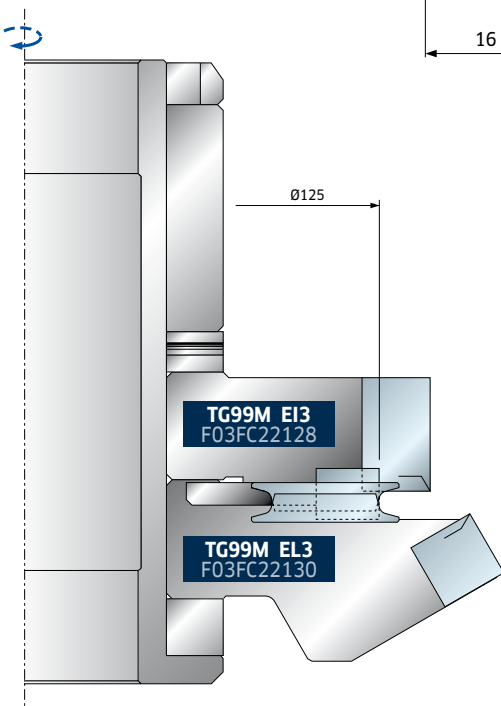
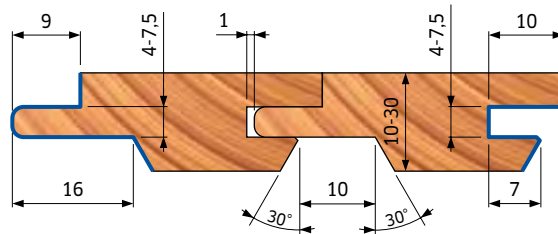


Cutterhead set / Gruppo  
TG99MG004

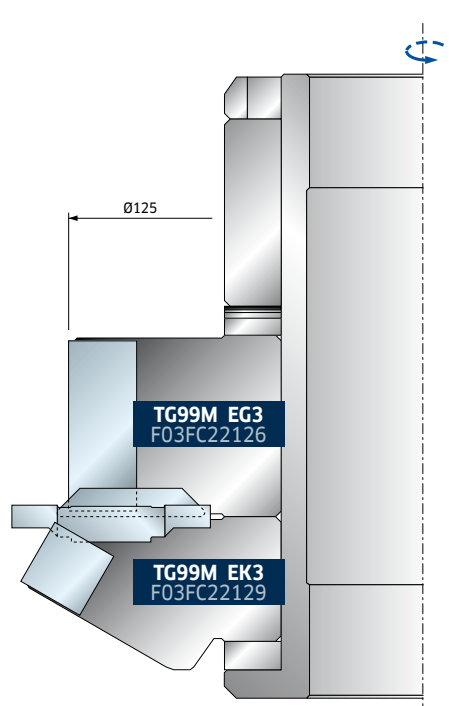


### PROFILE / PROFILO F

Cutterhead set / Gruppo  
TG99MG007

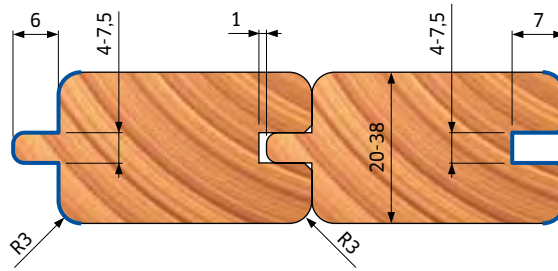


Cutterhead set / Gruppo  
TG99MG006

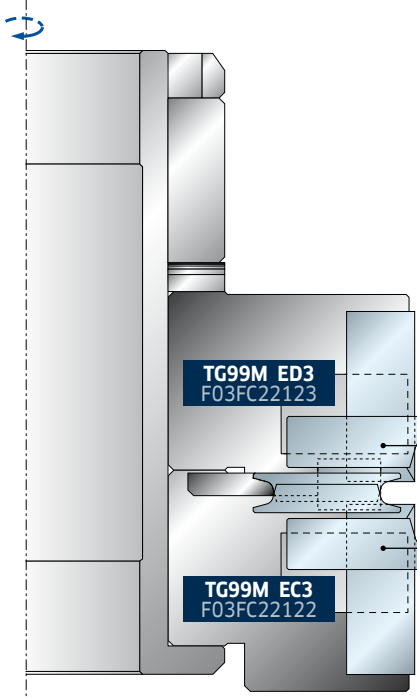


### PROFILE / PROFILO G

Cutterhead set / Gruppo  
TG99MG013



Cutterhead set / Gruppo  
TG99MG012

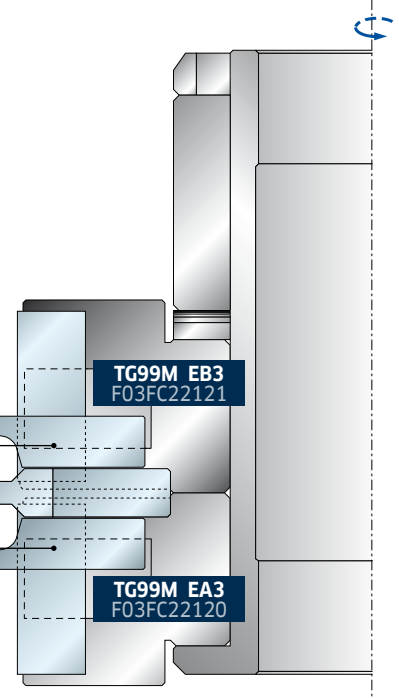


IG33MAA305  
F03FH03019

IG33MAA305  
F03FH03019

IG33MAA305  
F03FH03019

IG33MAA305  
F03FH03019

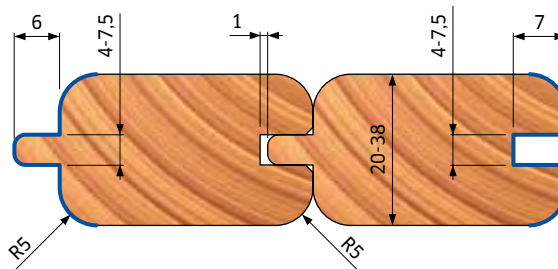


TG99M EB3  
F03FC22121

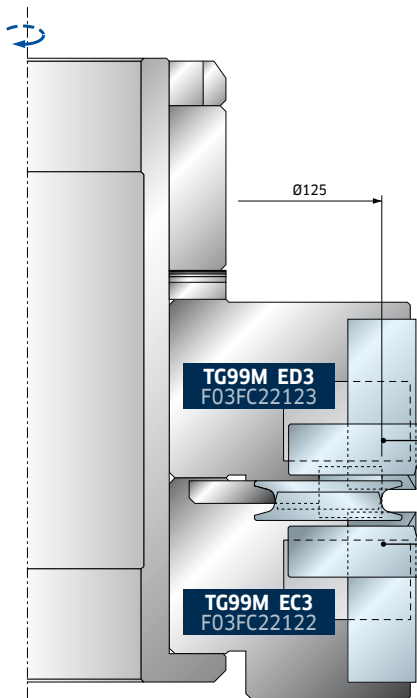
TG99M EA3  
F03FC22120

### PROFILE / PROFILO H

Cutterhead set / Gruppo  
TG99MG015



Cutterhead set / Gruppo  
TG99MG014

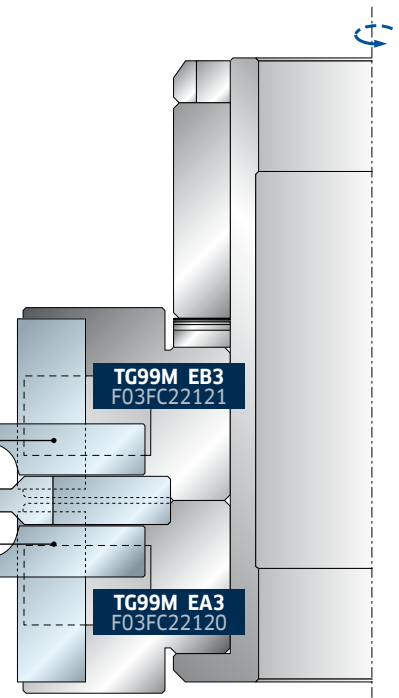


IG33MAB305  
F03FH03020

IG33MAB305  
F03FH03020

IG33MAB305  
F03FH03020

IG33MAB305  
F03FH03020



TG99M EB3  
F03FC22121

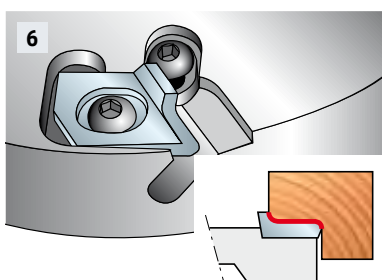
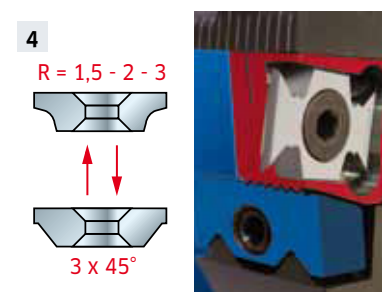
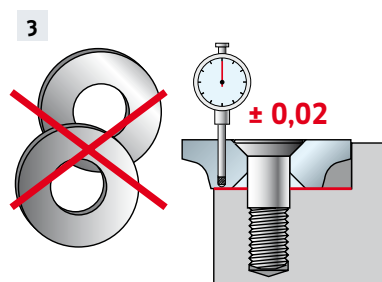
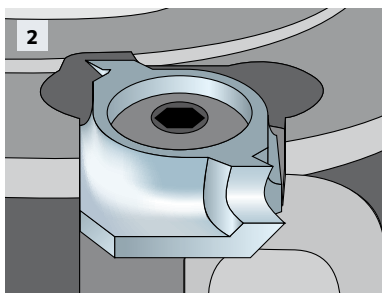
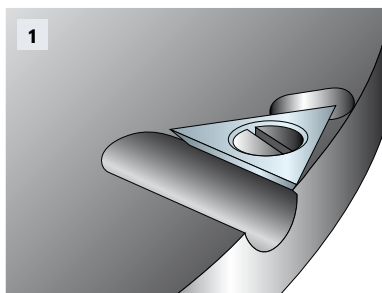
TG99M EA3  
F03FC22120





# **Tips for the correct use of the tools**

## **Consigli per un uso corretto degli utensili**



## INSERTS AND SPURS

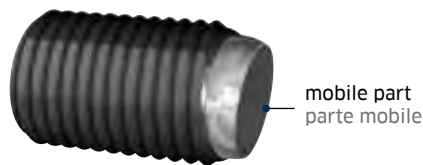
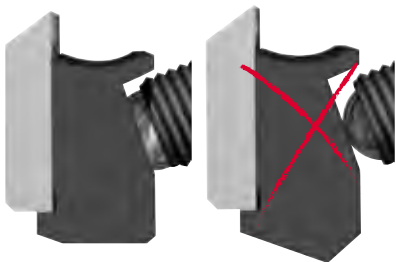
- The triangular spur (Fig. 1) is a component produced in HW to give the cutting edge a long life, used on cutterheads and on Performance tools to give a better finish on rebates. The width of the cutting surface (22 mm) and the position of the spur (positive hook angle) guarantees a perfect finish without leaving a trace (the length of the rebate is less than the length of the spur). Another important characteristic is the size of the chip discharge area in front of the spur: this allows excellent chip discharge and therefore the spur is more efficient (Fig. 2).
- The rounding and bevelling inserts are used to remove sharp angles from the work piece. These inserts give a better quality finish allowing various wood coatings to deposit more uniformly. Inserts with a shear angle allow a better finish when the wood is cut across the grain. Inserts and their seats are manufactured with extreme precision and this allows them to be replaced without the need of spacing rings (Fig. 3).
- The new NSR Adjustable Insert System is the only one that allows adjustments without the need of measuring instruments. This particular system allows the inserts to be adjusted with precision of a hundredth of a millimetre on the entire length of the tool. The indelible reference marks are etched with extreme precision by lasers and allow a rapid and simple repositioning of the insert (Fig. 4). Fig. 5 shows the components. The inserts have a positive hook angle and a shear angle that allows an excellent finish on any type of material. The same seat can be fitted with rounding inserts or bevelling inserts.
- The rounding spur combines the characteristics of a rounding insert and a spur. With a single operation, the rebate is internally and externally rounded and finished. These solid carbide inserts are manufactured with various rebate depths to satisfy clients needs. Extremely good finish is guaranteed by the inserts shear - hook angle combination. In the same seats, different inserts can be fitted so that the same tool can cut rebates of different depths (Fig. 6).

## INSERTI E RASANTI

- Il rasante triangolare (Fig. 1), costruito in HW integrale conferisce una maggiore durata al filo tagliente, è un componente utilizzato su teste con coltelli a gettare e su teste Performance per dare maggior finitura alle battute eseguite. L'ampiezza della superficie di lavoro (22 mm) ed il posizionamento del rasante sull'utensile (con angolo mordente positivo) garantiscono una finitura perfetta senza rigature (la lunghezza della battuta è minore della lunghezza del rasante). Caratteristica altrettanto importante è la dimensione dello scarico sul fronte: esso consente una miglior fuoriuscita del truciolo e quindi una miglior lavorabilità del rasante. (Fig. 2)
- Gli inserti smussatori e 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 per consentire una miglior finitura nella lavorazione del legno trasverso vena (si evita "l'estrazione" della parte tenera della venatura). Essi, come pure le sedi portainseriti, sono costruiti con la massima precisione per garantire una costante intercambiabilità ed evitare l'uso di anellini distanziali. (Fig. 3)
- Il sistema di regolazione, denominato Sistema NSR è l'unico del mercato, a consentire di regolare gli inserti senza l'uso di strumenti di misura. La particolare sede zigrinata consente di regolare l'altezza dell'inserto con incrementi di 1 millimetro su tutto lo spessore dell'utensile, non limitatamente a posizioni fisse e con una precisione al centesimo di millimetro. Le tacche di riferimento, marcate in modo indelebile e preciso con tecnologia laser, consentono il più rapido, preciso e facile posizionamento possibile (Fig. 4). La Fig. 5 mostra i componenti del sistema NSR. Gli angoli dell'inserto consentono la massima finitura su qualsiasi materiale lavorato. Sulla stessa sede si possono montare inserti raggiatori e smussatori.
- 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. 6) con la stessa testa portacoltelli.

# Maintenance of tools Manutenzione degli utensili

7



Screws with spherical insert, for ISOprofil System

Viti con inserto sferico per sistema ISOprofil

- On ISOprofil clamping system, proper locking is obtained when the flat surface of the spherical insert completely adheres to the wedge (Fig. 7).
- When mounting tools, insure that locking reacts against the body and the cutting edges are not in contact with each other (Fig. 8) or with any other locking elements (Fig. 9).
- Tools compiling a set, must be repaired by experienced and fully trained personnel, with the knowledge of the design requirements and security levels to be reached.
- After any type of maintenance work, a tool marked "MAN" must continue to respect the requirements imposed by the norm relative to tools with manual feed. The use of tools for manual feed without deflectors if originally provided is not allowed.
- Wearing gloves increases grip and reduces the risk of injury.
- To avoid injury, tools must be handled with care using special appliances so as to transport them without incurring injury to the user.

## INSTRUCTIONS FOR CLEANING

- Clamping surfaces must be free of dirt, grease, oil and water (Fig. 10). Resins must be removed from tools with light alloy bodies using cleaners that do not damage the Aluminum and compromise the materials mechanical features. Accurately clean the tool after every knife change.

**Washing:** Tools must be washed with water and an appropriate cleaning product (contact local dealer if more info needed) that doesn't affect the body materials (manganese phosphated steel or aluminum alloy) burnished steel components (screws, washers) and carbide inserts (titanium, cobalt carbide). Use of ultrasonic machines decrease washing time and improves cleaning in the inner parts of the tools.

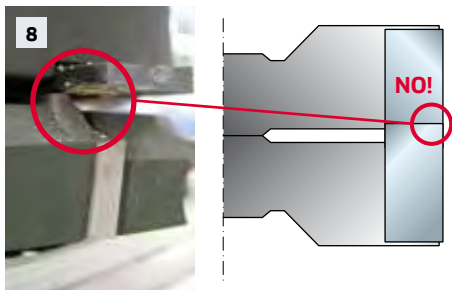
**Drying:** After the washing operations, tools must be dried by means of drainage and/or compressed air.

**Oiling:** If the tools are ready to be immediately used or stored for future use, always oil all the parts with a layer of an anti-rust protective fluid.

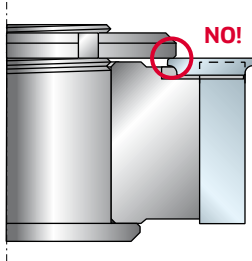
Before storing the tools always clean them from dirt and resin by washing, drying and oiling operations, store the tools in a dry place.

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

8



9



10



## ISTRUZIONI PER LA PULIZIA

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

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

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

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

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

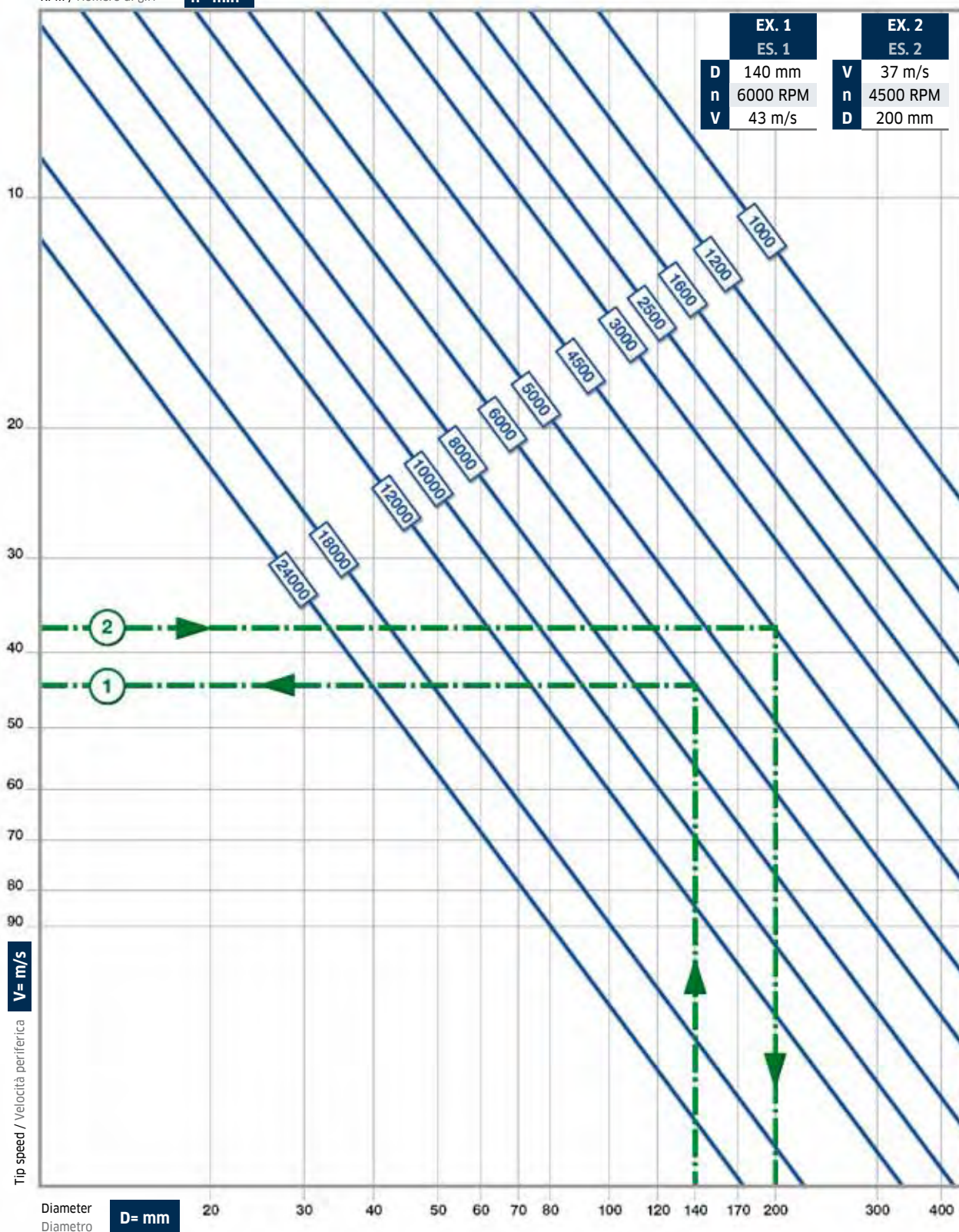
# Technical diagram to obtain tip speed, diameter and RPM of a cutting tool Tavola per il calcolo della velocità periferica, del diametro e del numero di giri di un utensile

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

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

RPM / Numero di giri

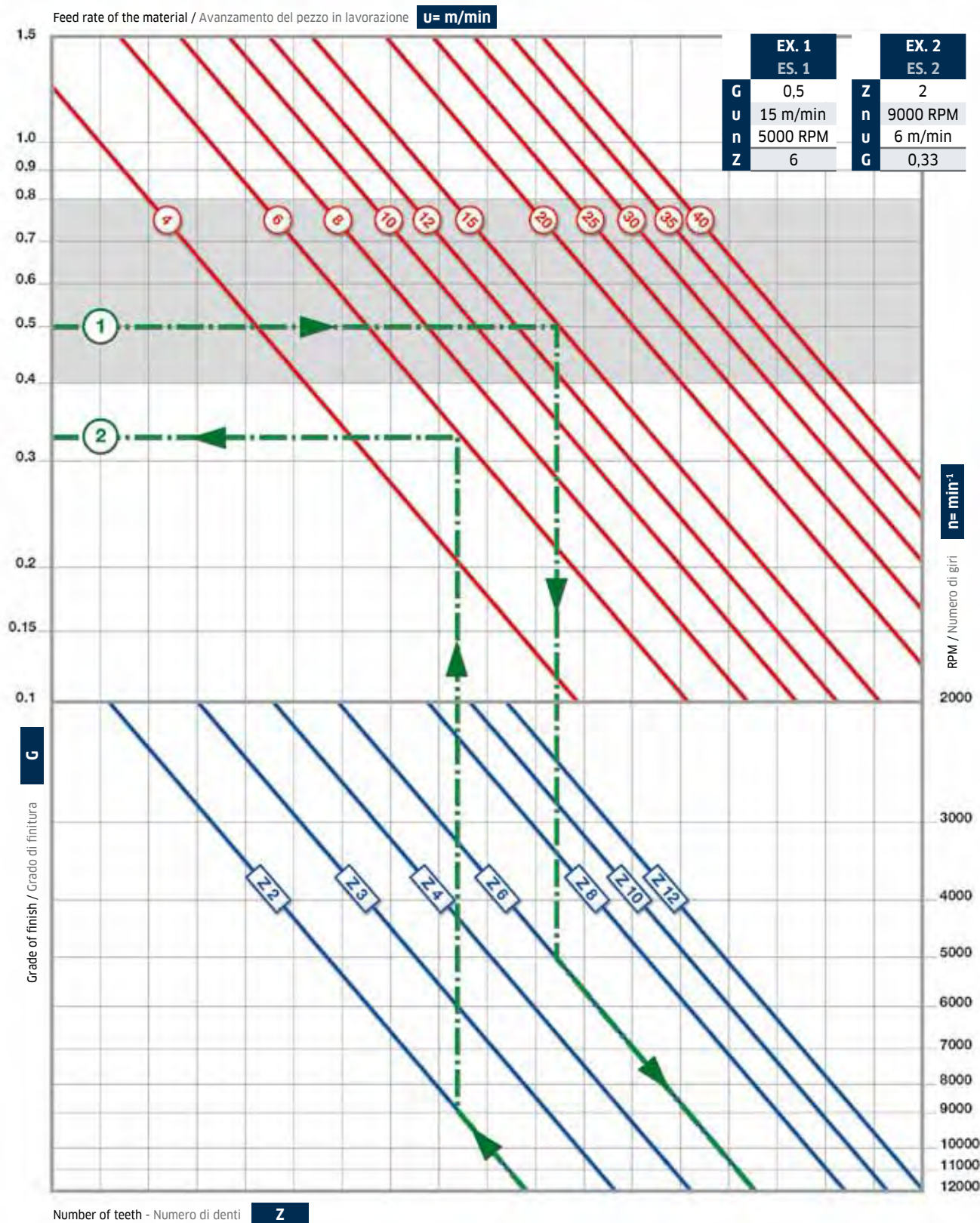
$n = \text{min}^{-1}$



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

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

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



### The tools have been designed and manufactured in accordance with the European Safety Standard EN-847

#### TOOLS

Tools shall be used only by persons of training and experience who have knowledge of how to use and handle tools.

The maximum rotational speed marked on the tool shall not be exceeded.

Circular saw blades, the bodies of which are cracked, shall be scrapped (repairing is not permitted).

One piece tools with visible cracks shall not be used.

Clamping surfaces shall be cleaned to remove dirt, grease, oil and water.

Resin shall only be removed from light alloys with solvents that do not affect the mechanical characteristics of these materials.

Tools and tool bodies shall be clamped in such a way, that they shall not loosen during operation.

Tools with cylindrical shank must be clamped in a way that the mark of the maximum free shank length shall be covered, at least partially, by the clamping device or by the locking collet.

Care shall be taken of mounting tools to ensure that the clamping is by the hub respectively by the clamping surface of the tool and that the cutting edges are not in contact with each other or with the clamping elements.

Fastening screws and nuts shall be tightened using the appropriate spanners etc. and to the torque value provided by the manufacturer.

Extension of the spanner or tightening using hammer blows shall not be permitted.

Clamping screws shall be tightened according to instructions provided by the manufacturer. Where instructions are not provided clamping screws shall be tightened in sequence from the center outwards.

Use of fixed rings, e. g. pressed or held by adhesive fixing, in flanged sleeves, shall be permitted if made to the manufacturers specifications.

Repair and regrinding of tools shall only be allowed according to the tool manufacturer's instructions.

After repair and regrinding of tools it shall be ensured that the tools observe balancing requirements.

The design of composite (tipped) tools shall not be changed in the process of repair.

Composite tools shall be repaired by a competent person, i.e. a person of training and experience, who has knowledge of the design requirements and understands the level of safety to be achieved.

Repair shall therefore include, e.g. use of spare parts which are in accordance with the specification of the original parts provided by the manufacturer.

Tolerances which ensure correct clamping shall be maintained.

For one piece tools care shall be taken that regrinding of the cutting edge will not cause weakening of the hub and the connection of the cutting edge to the hub.

To avoid injuries, tools shall be handled in accordance with the guidance provided by the manufacturer. Typically, safe handling involves the use of devices such as carrying hooks, proprietary handles, frames (e. g. for circular saw blades), boxes, trolleys etc. The wearing of protective gloves improves the grip on the tool and further reduces the risk of injury.

Maintenance and modification of milling tools and related components and circular saw blades should always be in accordance with the design requirements/the manufacturer's instructions. Maintenance and modification of milling tools and circular saw blades should only be carried out by a competent person, i. e. a person of training and experience, who has knowledge of the design requirements and understand levels of safety to be achieved. When regrinding milling tools and circular saw blades, the minimum requirements of cutting blade thickness and cutting blade projection should be observed.

Composite tools should be repaired by persons experienced in and with understanding of design and use of milling tools for processing wood and similar materials, e.g. an expert with a relevant education and knowledge of the brazing process, including in particular the influence of the brazing process on tension in tool body and cutting material. When brazing off worn tips and subsequently brazing on new tips it should be made sure that the tip is correctly mounted in the tool body and that the process does not result in critical tension in the tool body.

After any type of maintenance, milling tools marked with MAN should continue to observe the requirements of the standards related to tools for hand feed.

When modifying milling tools, e. g. modification of bore diameter, modification of shank, retipping of composite tools and similar, it should be ensured that the requirements of the standard relating to balancing are still observed.

After being modified and/or retipped, milling tools and circular saw blades should be marked according to the rules applying to new tools. However, the name/logo of the company making the modification/retipping should be added.

To avoid injuries, tools shall be handled in accordance with the guidance provided by the manufacturer.

Tools which weigh more than 15 kg may require the use of special handling devices or attachments, these will depend on the features that the manufacturer has designed into the tool to allow easy handling. The manufacturer can advise on the availability of necessary devices.

#### CLAMPING DEVICES

The speeds indicated on the clamping device and the tool to be clamped should be compared. For adjusting the speed on the machine the lower speed should be applied.

Screws and nuts should be tightened using the appropriate spanners;

Clamping surfaces should be cleaned to remove dirt, grease, oil and water;

Clamping devices and tools should be mounted or clamped according to given torques, pressures and wrenches to be used; extension of spanners or tightening or loosening by means of hammer blows should not be permitted;

Maximum tool diameters and tool lengths should not be exceeded;

Shank diameters must be in accordance with the clamping range of the clamping devices;

The minimum required clamping length must be kept;

Care should be taken that the data relevant to the safety of the clamped tool are always stored in the data medium.

Repairs should only be carried out by a competent person, i.e. a person with professional training and experience, who has knowledge of the design, construction and safety requirements; Repair should therefore include the use of spare parts which are in compliance with the specifications of the original parts.

# Safe working practice

## Informazioni di sicurezza

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

### UTENSILI

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

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

Gli utensili devono essere puliti regolarmente.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

### DISPOSITIVI DI BLOCCAGGIO

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

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

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

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

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

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

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

Devono essere mantenute le tolleranze che garantiscono un bloccaggio corretto.



# Explanation of symbols and abbreviations

## Legenda dei simboli e delle abbreviazioni

### SYMBOLS TO READ THE PRODUCT TABLES

### SPIEGAZIONE DEI SIMBOLI PER LA LETTURA DELLE TABELLE PRODOTTO

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

### OTHER SYMBOLS

### ALTRI SIMBOLI

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

**freud.**

---

**freud S.p.A.**  
**Società Unipersonale**  
Via Padova, 3  
33010 Tavagnacco (UD) IT  
Tél. +39 0432 551411  
Fax +39 0432 551440  
info@freud.it  
www.freud.it