



*troncatura e gole - shearing - tronçonnage - schneidwerkzeuge - troncadura*





# FASTCUT

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 Tronçonnage

 Schneidwerkzeuge

 Troncadura



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# Indice Fastcut

 **Troncatura e Gole**

 Shearnig

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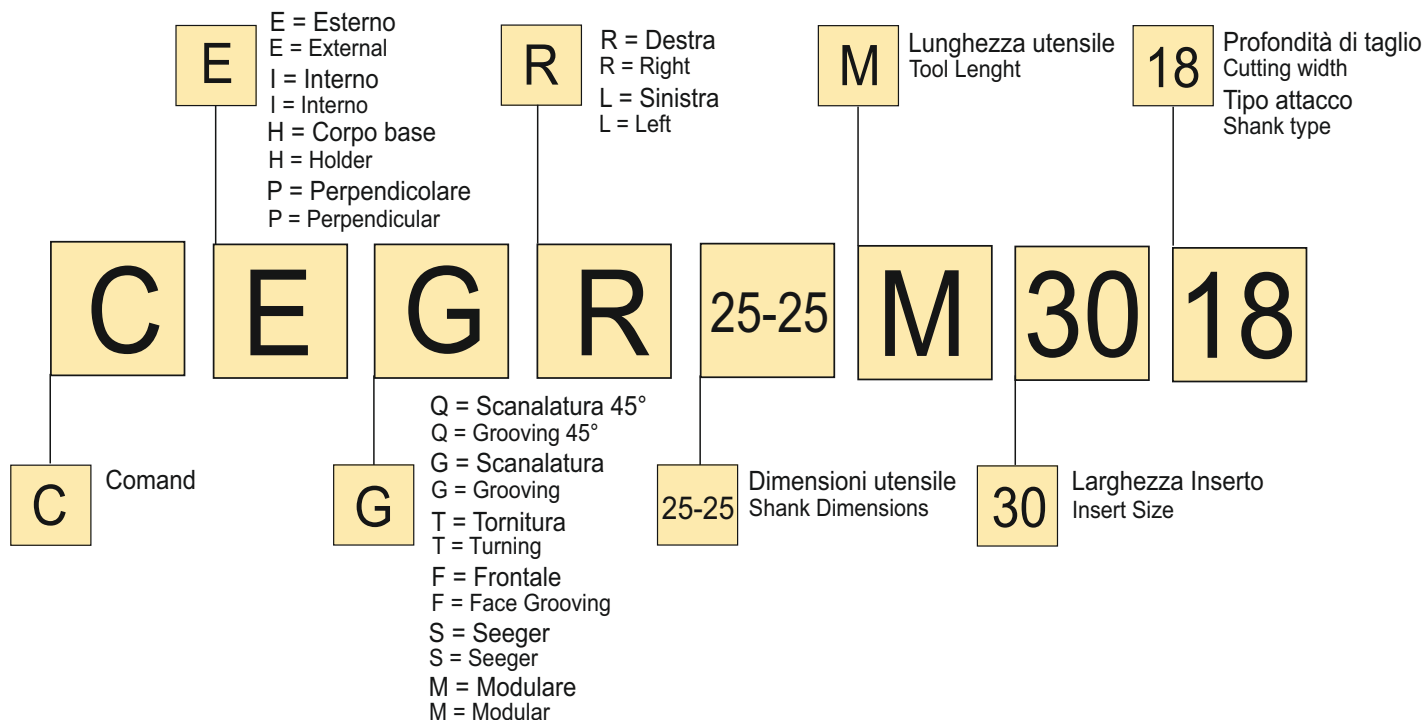
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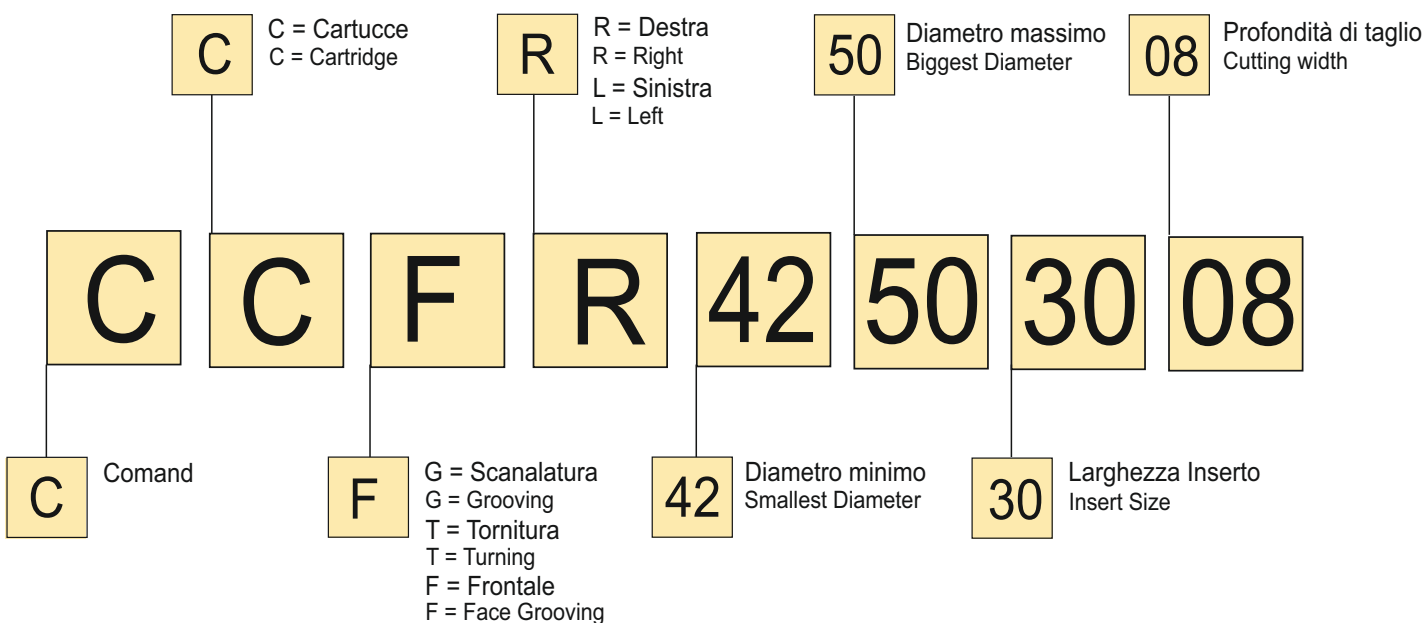
## Sistema di codifica Utensili Troncatura

Designation code for face grooving holders



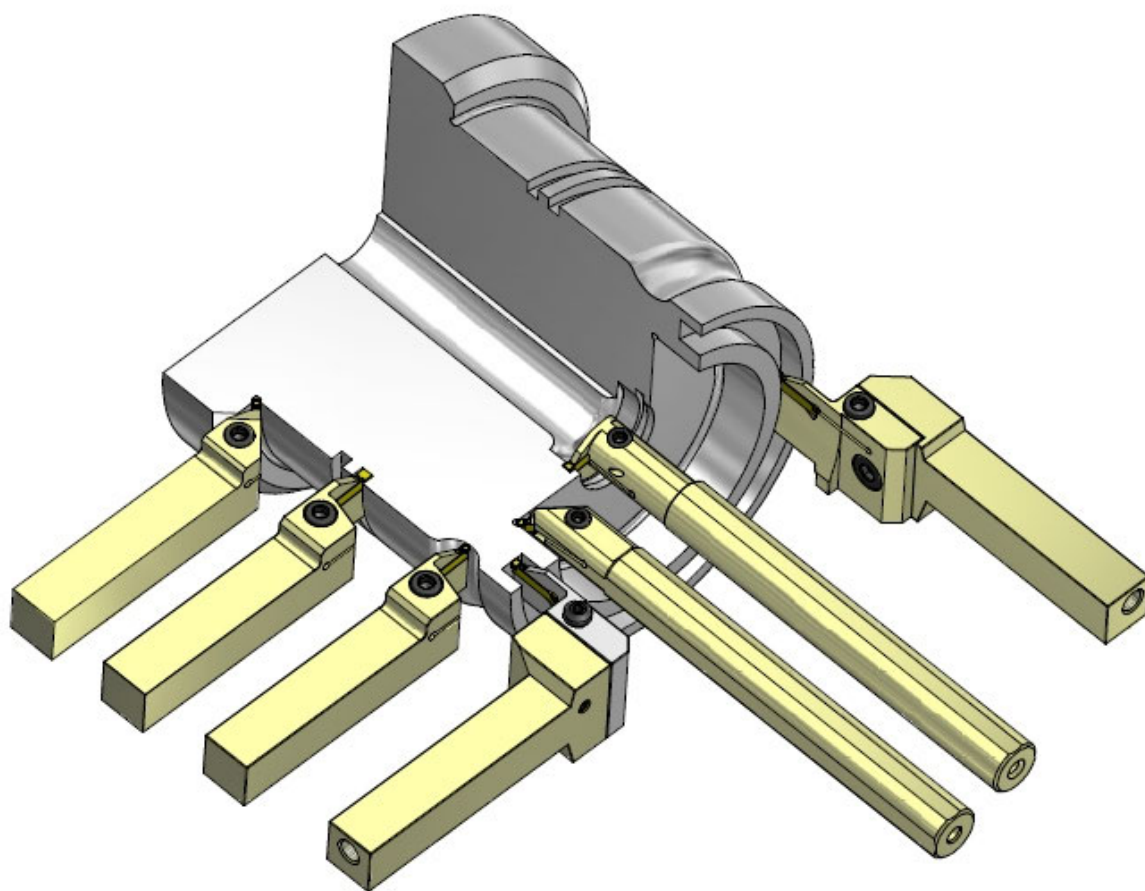
## Sistema di codifica Cartucce Troncatura

Designation code for face grooving cartridges



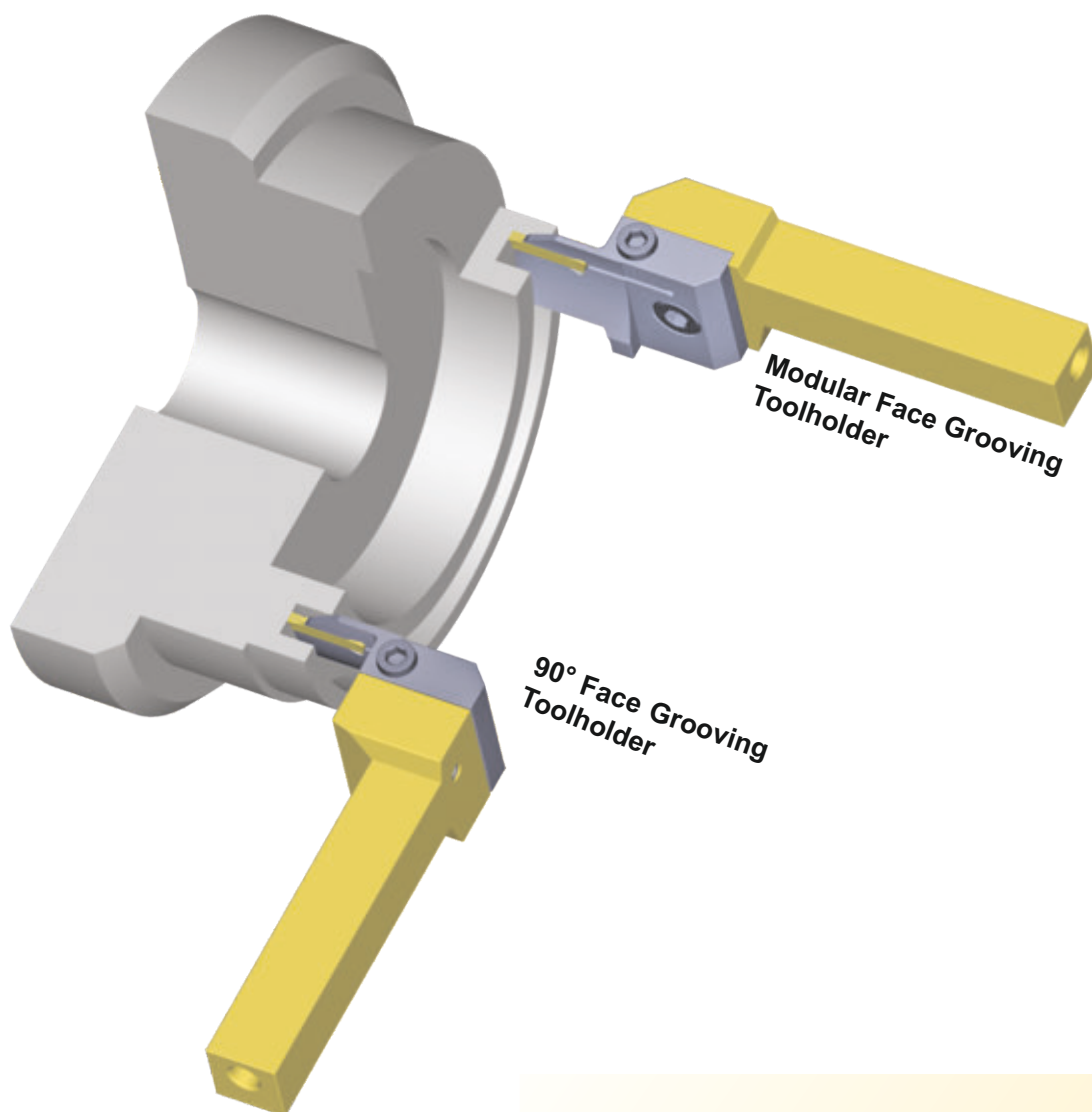


**Nuovo Sistema Tornitura,  
Scanalatura e Taglio**  
per CNC e Torni Manuali



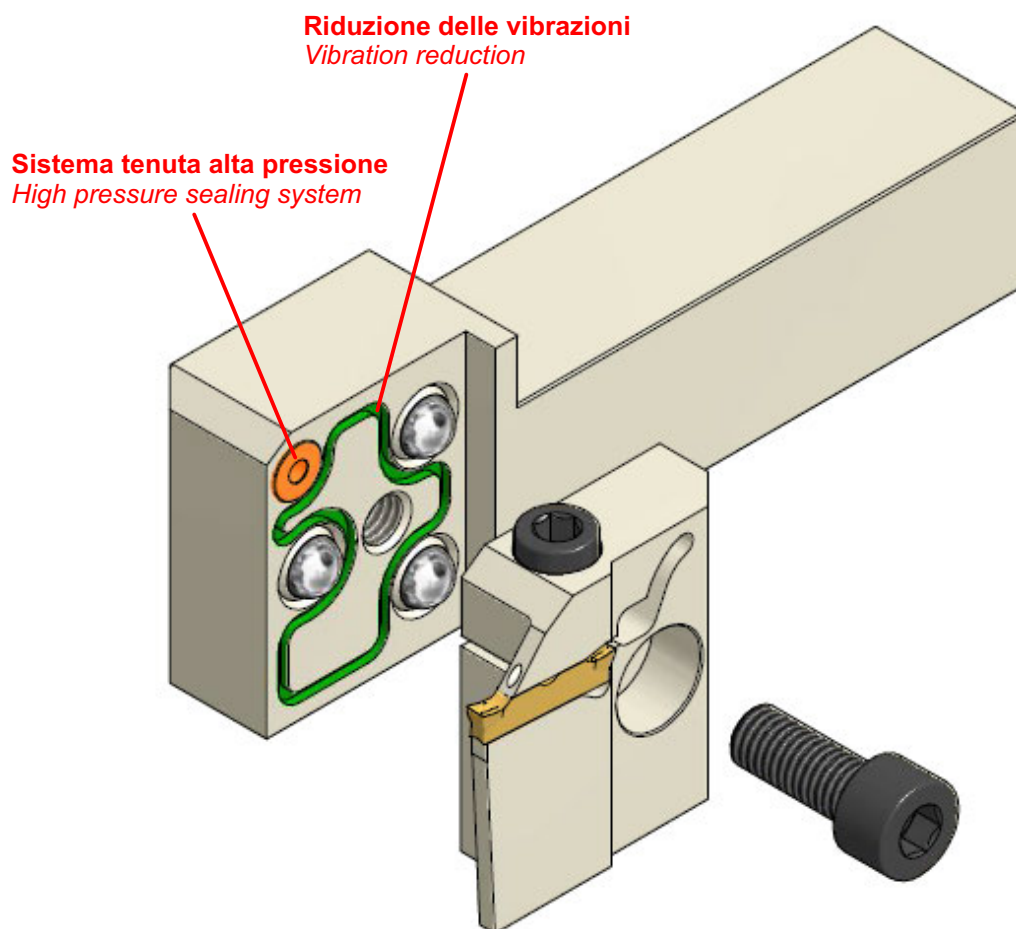
**New system Turning,  
Grooving and Parting-off**  
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Nuovo Sistema Modulare  
Scanalatura Frontale



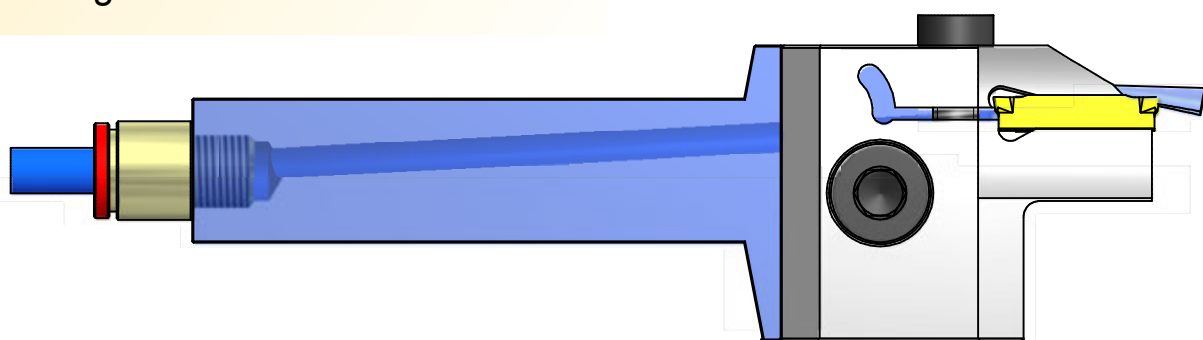
New Face Grooving  
Modular System

**Nuovo Sistema Modulare  
di Troncatura  
con Bloccaggio a Sfere**



**New Parting-off  
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with locking ball valve**

Nuovo Sistema Modulare  
di Scanalatura e Taglio  
con Refrigerazione Interna



New Modular System  
Grooving and Parting-off  
with Through Coolant

Sistema di bloccaggio  
a doppia «V»



Double «V»  
locking system



# Consigli per la Lavorazione di Tornitura Frontale

Modular Face Turning and Grooving, Machining Guide

## Pre-lavorazione / Pre-work

### 1 Scelta dell'utensile Tool Selection

- 1.1 Utilizzare l'inserto più ampio e l'utensile più largo possibile per ottenere un miglior rapporto tra il materiale rimosso e rigidità nella finitura.  
Use the widest Insert and the largest Toolholder permissible, (for a better rate of material removal, better rigidity and surface finish)
- 1.2 Utilizzare l'utensile con una sporgenza più corta (T Max) per ottenere un miglior rapporto tra il materiale rimosso e rigidità nella finitura.  
Use the shortest Grooving Tool overhang (T Max), (for a better rate of material removal, better rigidity and surface finish)
- 1.3 Utilizzare l'utensile più largo con il diametro massimo in relazione al primo taglio di scanalatura. Se il diametro dell'incudine è troppo largo interferirà col diametro esterno; se è troppo piccolo interferirà col diametro interno.  
Use the largest Grooving Tool with the maximum diameter in relation with the first grooving cut. If the Grooving Tool Anvil diameter is too large, will interferes with the outer Dia., if it is too small will interferes with the inner Dia.

### 2 Preparazione dell'utensile Tool Set-Up

- 2.1 Utilizzare l'inserto più ampio e l'utensile più largo possibile per ottenere un miglior rapporto tra il materiale rimosso e rigidità nella finitura.  
Use the widest Insert and the largest Toolholder permissible, (for a better rate of material removal, better rigidity and surface finish)

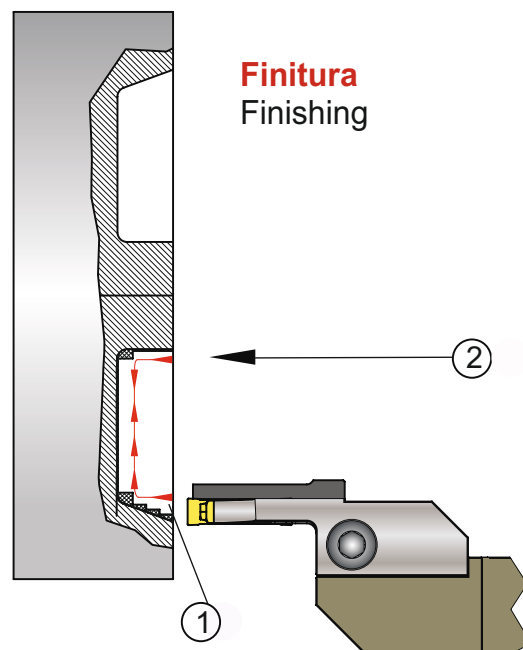
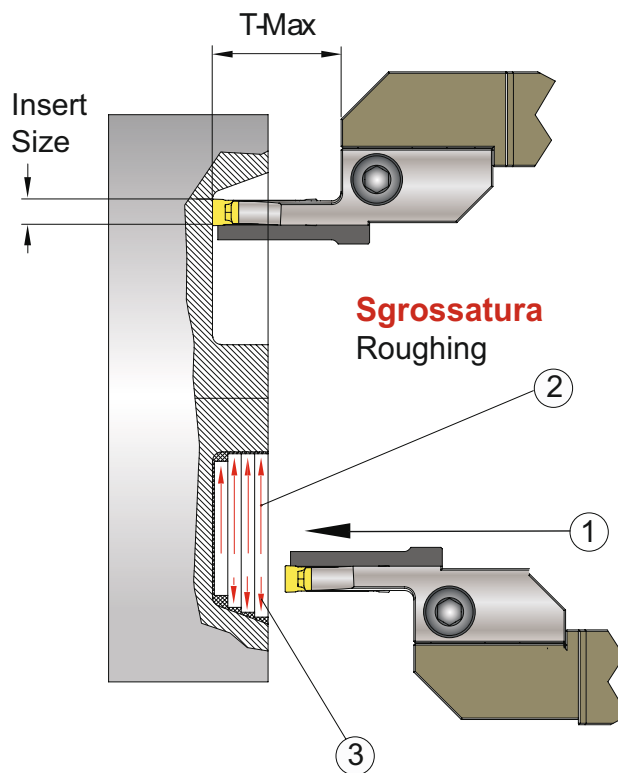
## Lavorazioni / Operations

### 3 Sgrossatura Roughing

- 3.1 Effettuare il primo taglio vicino al diametro esterno. La profondità del taglio deve essere la stessa nelle seguenti operazioni di tornitura.  
*Make the First Cut Diameter close to the outer Dia. the depth of cut to be the same of the following face turning operation*
- 3.2 Scanalatura della stessa profondità di taglio della successiva tornitura.  
Step groove the same depth of cut selected for the next face turning
- 3.3 Una volta raggiunta la profondità di scanalatura, tornire dal centro verso il diametro esterno.  
Once reached the depth of the groove, face turn away from center close to the outer Dia.
- 3.4 Riportare l'inserto alla posizione iniziale, e tornire verso il centro vicino al diametro interno.  
Bring the Insert to the initial position, and face turn toward the center close to the inner Dia.
- 3.5 Ripetere l'operazione finché la scanalatura approssimativa è completa e pronta per l'operazione di finitura.  
Repeat the operation till the groove is complete roughed and ready for the finishing operation

### 4 Finitura Finishing

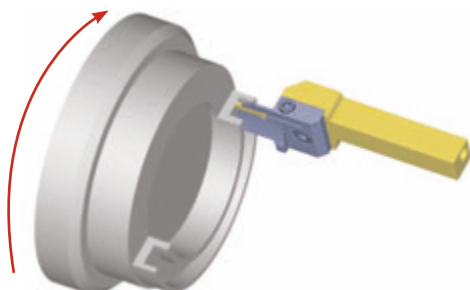
- 4.1 Posizionare l'utensile vicino al diametro esterno.  
Position the Grooving Tool close to the outer Dia.
- 4.2 Finire il diametro esterno alla profondità di scanalatura finale, continuare a tornire verso il centro senza toccare la parete.  
Finish boring the outer Diameter to the final groove depth, continue face turning to the center without touching the wall
- 4.3 Rapido movimento dell'utensile sull'angolo del diametro interno, finire il diametro interno fino alla profondità di scanalatura finale.  
Rapid move the Grooving Tool on the edge of the inner Diameter, Finish boring the inner Diameter to the final groove depth.



## Uso corretto dell'utensile di Tornitura/Scanalatura Frontale

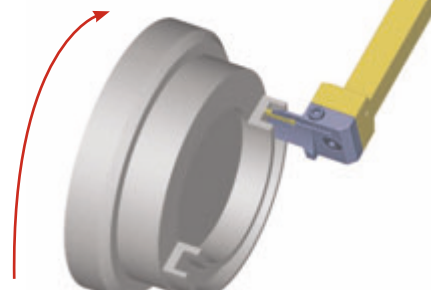
### Modular Face Turning and Grooving Working Rotation

Utensile Modulare Sinistro  
Left Hand Modular Toolholder

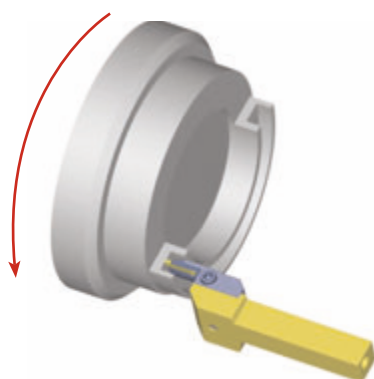


Rotazione Oraria  
Clock wise rotation

Utensile Modulare Perpendicolare Sinistro  
Left Hand Modular Perpendicular Toolholder

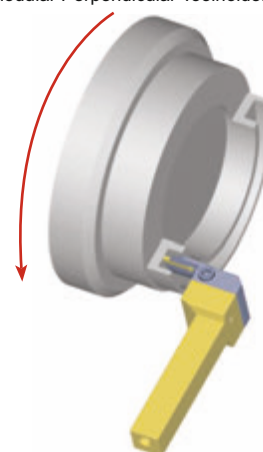


Utensile Modulare Destro  
Right Hand Modular Toolholder



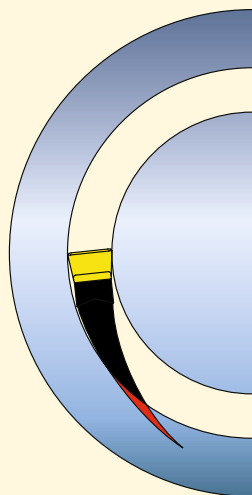
Rotazione Anti-Oraria  
Counter clock wise rotation

Utensile Modulare Perpendicolare Destro  
Right Hand Modular Perpendicular Toolholder

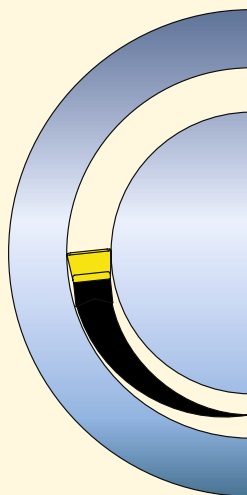


### Danno causato al Primo Taglio quando gli utensili sono scelti in maniera sbagliata Damage caused at the First Cut when tools are chosen incorrectly

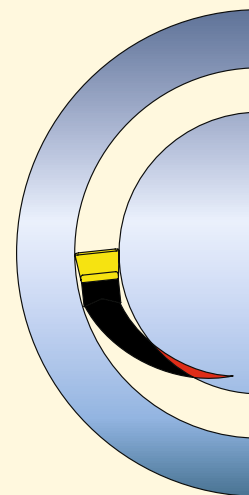
Utensile non corretto, Diametro troppo largo  
Uncorrect Toolholder, Large Dia. Anvil



Utensile corretto, Diametro esatto  
Correct Toolholder, Right Dia. Anvil

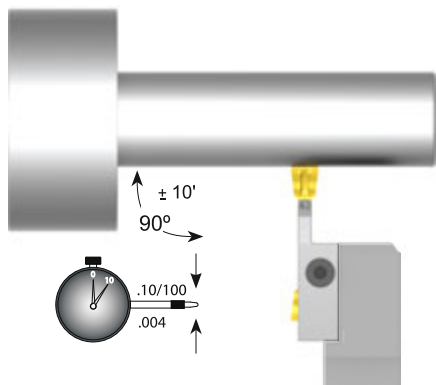


Utensile non corretto, Diametro troppo stretto  
Uncorrect Toolholder, Small Dia. Anvil



## Azzeramento utensile

Azzerare l'utensile in modo che sia perpendicolare al pezzo da lavorare. Per una migliore performance in tornitura e scanalatura, l'utensile deve essere posizionato a  $90^\circ \pm 10'$ .

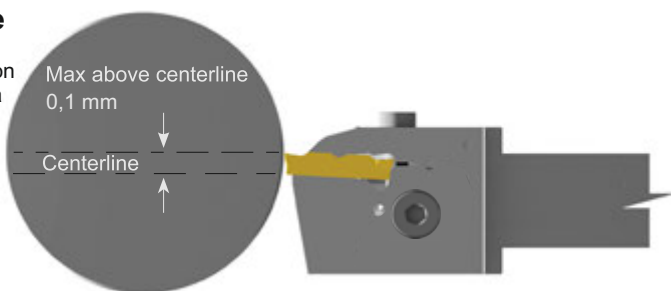


## Tool Set-Up

Set the toolholder to be set-up square and perpendicular to the workpiece. For best turning and grooving performance, surface finish and a straight and square face, the toolholder must be positioned at  $90^\circ$  within  $\pm 10'$

## Altezza tagliente

Il tagliente dell'inserto non deve mai essere sotto la mezzeria del pezzo. Per evitare vibrazioni o scheggiature del tagliente è consigliabile posizionarlo (0.1 mm) sopra la mezzeria.



## Tool Center Height

The cutting edge of the insert, should never be under the center line. The if the insert is under the center line, it will cause vibration and cutting edge chipping. For best results set the insert .004" (.1mm) above the center line.

## Scelta utensile

Per un miglior risultato in tornitura e scanalatura, scegliere l'utensile con lo stelo più grande possibile. Per garantire una miglior finitura, tolleranze più strette e riduzione delle vibrazioni, è indispensabile una buona rigidità.

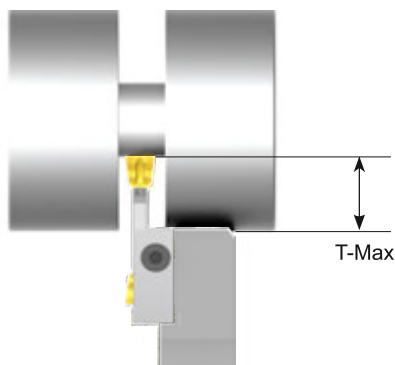


## Shank Size

For best turning and grooving performance, select a toolholder with the largest shank permissible. With high rigidity, vibration are eliminate, with a better surface finish and close working tolerance.

## Scelta delle profondità di taglio

In tornitura e scanalatura, la rigidità è fondamentale per ottenere le migliori prestazioni di taglio, buona finitura superficiale, strette tolleranze e allungare la durata dell'inserto. Nella scelta del portautensili, utilizzare sempre la "T" più corta possibile per evitare flessione durante la lavorazione.

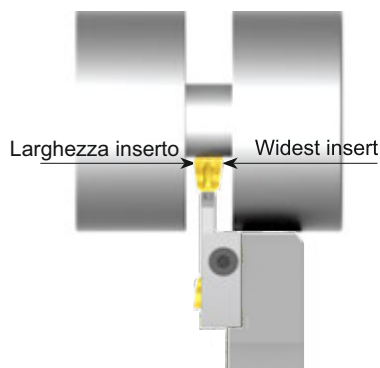


## Extended "T" Depth of Cut

In Turning and grooving, rigidity it is critical to achieve best cutting performance, surface finish, close tolerance and insert life. In choosing the toolholder, always use the shortest "T" overhang possible, to avoid deflection under the cutting pressure.

## Larghezza inserto

Per ottenere un miglior risultato, utilizzare l'inserto con maggior larghezza possibile, permettendo anche di ottenere una miglior finitura, maggior profondità di taglio e tolleranze più strette.

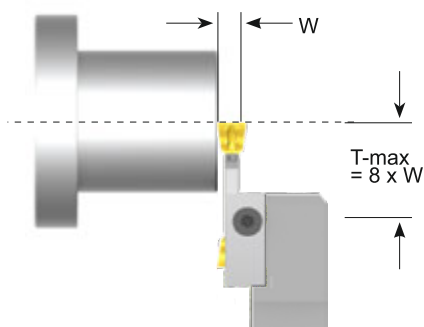


## Insert Width

In turning and grooving operation: for maximize the performance choose the widest insert permissible. A wide insert, will not deflect under cutting pressure, allowing larger depth of cut, better surface finish and close tolerances.

## Massima profondità di scanalatura - T-max

Nelle operazioni di scanalatura e troncatura, la profondità massima di scanalatura è direttamente correlata alla larghezza e la geometria l'inserto tagliente.  
 T = max. profondità di troncatura diritta  $8 \times W$  (larghezza inserto)  
 T = max. profondità di troncatura inclinata  $6 \times W$  (larghezza inserto).



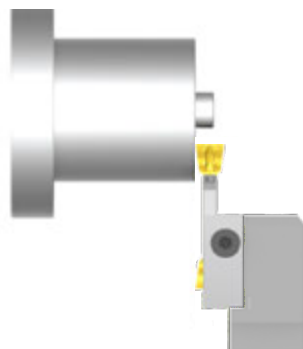
## Max.Grooving Depth T-max

In Grooving and Parting-Off operation, for optimum results, the maximum grooving depth is directly related to the width and the geometry of the insert cutting edge.

T= For Straight Insert Cutting Edge,  $8 \times W$  (insert width)  
 T= For Angled Insert Cutting Edge,  $6 \times W$  (insert width)

## Velocità di taglio - Vc

Per ottenere una buona finitura superficiale è necessario utilizzare una velocità di taglio costante ed aumentarla più ci si avvicina al centro del pezzo da troncatura.



## Cutting Speed Vc

For a good surface finish, straight face and long insert life, a constant Vc must be applied, meaning as the insert approaches the center of the work piece, RPM must increase.

## Profondità di taglio/passata

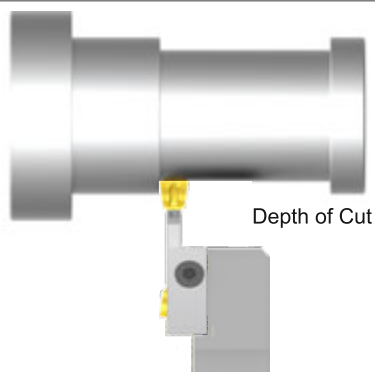
Per ottenere buoni risultati durante la tornitura, un buon controllo del truciolo e una migliore durata dell'inserto, utilizzare l'utensile con la T=max più corta possibile e non superare mai la metà della larghezza dell'inserto per le profondità di taglio e/o passata.

*Esempio:*

*5 mm larghezza inserto*

*Max profondità di passata 2,5 mm*

La rottura dell'inserto potrebbe essere causata dalle vibrazioni dovute alla eccessiva lunghezza o sporgenza dell'utensile.



## Depth of Cut

For best turning performance, chip control, and insert life under the best cutting condition with the shortest overhang, the depth of cut is not to exceed 50% of the width of the insert.

For Example:

5mm Insert

Max Depth of Cut 2.5mm

Reduce the depth of cut with extended overhang, vibration, insert chipping and toolholder breakage may result from an over extended overhang.

## Avanzamento - fn

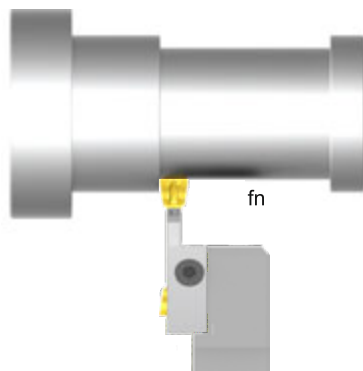
Per ottenere buoni risultati durante la tornitura, un buon controllo del truciolo e una migliore durata dell'inserto, utilizzare l'utensile con la T=max più corta possibile e la velocità dell'avanzamento non deve mai superare mai la metà della larghezza del raggio dell'inserto.

*Esempio:*

*Raggio inserto 0,5*

*Max. Avanzamento 0,25 mm*

La rottura dell'inserto potrebbe essere causata dalle vibrazioni dovute alla eccessiva velocità di avanzamento o dalla lunghezza o sporgenza dell'utensile.



## Feed Rate fn

For best turning performance, chip control, and insert life under the best cutting condition with the shortest overhang, the feed rate is not to exceed 1/2 of the insert radius.

For Example:

.5mm Insert Radius Max. Feed Rate of .25mm

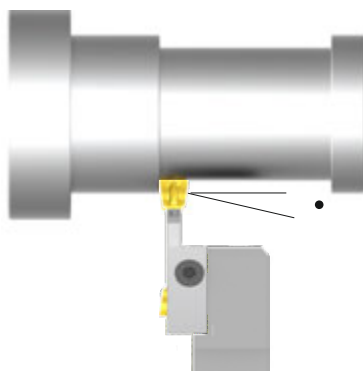
Reduce the feed rate, with extended overhang, vibration, insert chipping and toolholder breakage may result from an over extended overhang.

## Wiper/Raschiante

Durante lo sforzo di taglio, l'inserto viene spinto via nella direzione opposta creando un angolo aperto.

Questo angolo crea un'azione raschiante, con il risultato di ottenere una buona finitura superficiale.

L'angolo Wiper/raschiante può essere controllato con avanzamento e la profondità di taglio.



## Wiper

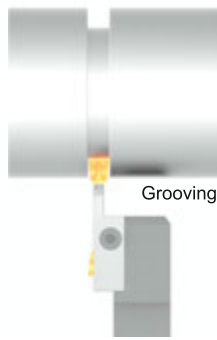


Under cutting pressure, the insert is pushed away from the cutting direction creating an open space in form of relieve angle on trailing side of the insert. This angle creates a Wiper action, resulting a good surface finish.

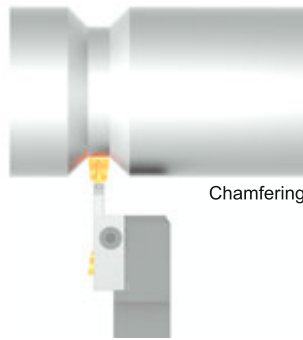
The Wiper angle can be controlled with feed rate and depth of cut.



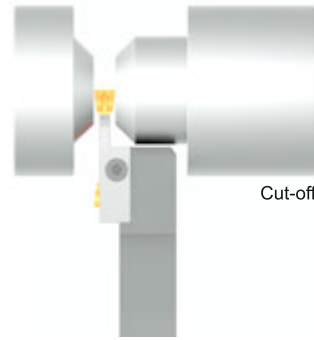
## Operazioni Multiple



Grooving



Chamfering

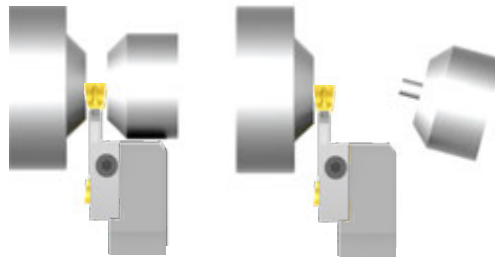


Cut-off

## Multiple Operation

### Troncatura dritta

In caso di troncatura dritta, utilizzare la miglior combinazione possibile tra inserto, velocità di taglio e di avanzamento. Tuttavia si rende necessaria una seconda operazione di finitura per rimuovere la parte centrale restante del pezzo troncato.



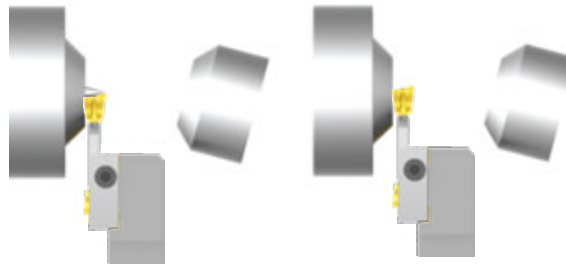
### Straight Cutting Edge Insert

Use Turning and Grooving insert, with Straight Cutting Edge for fast material removal, good surface finish, deep grooving, parting-off and facing.

However, a second operation is required to remove the center tip of the workpiece when cut-off.

### Troncatura inclinata

In caso di troncatura con inserto inclinato, questa permette di eliminare in un'unica operazione anche la parte centrale del pezzo troncato. Questo però è possibile riducendo del 20%-30% la  $V_c$  e  $F_n$ .



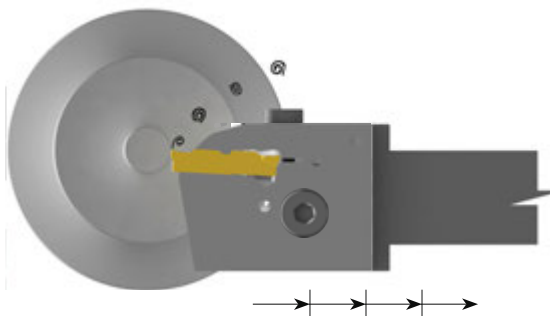
### Angled Cutting Edge Face

Use Turning and Grooving insert, with Angled Cutting Edge to reduce the formation of center tip of workpiece when part-off eliminating the a secondary operations to remove the center tip.

However to avoid tapered face and rough surface finish  $V_c$  and  $f_n$ , as to be reduced 20% to 30% compared to full face insert.

### Troncatura a tratti

Quando la troncatura supera 8 volte la larghezza dell'inserto è buona norma effettuare brevi soste, per permettere l'evacuazione del truciolo ed evitarne la rottura.

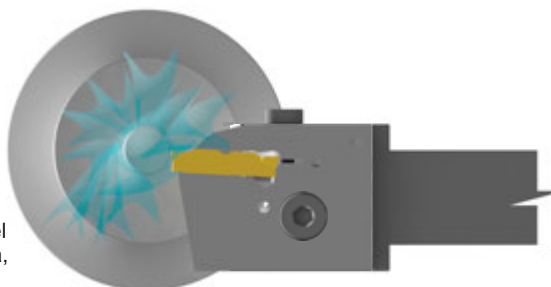


### Pecking

When machining deep groove or parting large diameter above 8 time the width of the insert, it is a good practice to use pecking to achieve a better swarf control and avoid clogging of the groove, the major cause of premature insert failure.

### Refrigerante

L'uso di refrigerante in tornitura e scanalatura è fondamentale per ottenere le migliori prestazioni di qualità, finitura superficiale e durata dell'inserto. Refrigerante ad alta pressione è consigliato, per raffreddare i trucioli e spingerli lontano dal tagliente, per evitare che eventuali trucioli rimangano all'interno del pezzo durante le operazioni di troncatura, evitando così la prematura rottura dell'inserto e una cattiva finitura superficiale.



### Coolant

The use of coolant in turning and grooving operations is critical to achieve best performance in quality, surface finish, and insert life. High pressure coolant is recommended, to cool the chips and force them to evacuate away from insert, to avoid any chip built-upon insert cutting edge, the cause of premature insert failure and rough surface finish.

## Fase 1. Prima scanalatura

Azzerare il portautensili vicino al punto di partenza della scanalatura. Effettuare il primo taglio alla profondità del diametro di finito.



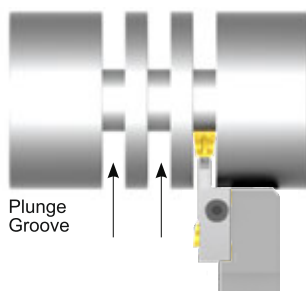
## Step 1. First Groove

Set the toolholder close to starting point of the groove. Cut the first groove above the diameter finish dimension.

## Fase 2. Scanalatura di sgrossatura

Ripetere l'operazione a distanze uguali, facendo in modo che lo spessore delle parti rimanenti sia del 20% in meno della larghezza dell'inserto usato per la lavorazione.

*Esempio:*  
inserto 5 mm spessore pareti 4,0 mm



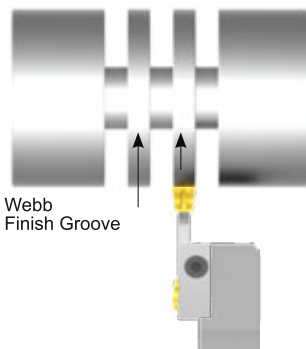
## Step 2. Groove Roughing

Repeat the operation in equal segments for the total length to be turned. The wall of the segment should be the width of the insert less 20%.

For Example:  
5 mm Insert Wall 4.0 mm width  
.200" Insert Wall .180" width

## Fase 3. Rimozione pareti

Eliminare le pareti rimanenti fino allo stesso diametro delle precedenti scanalature.

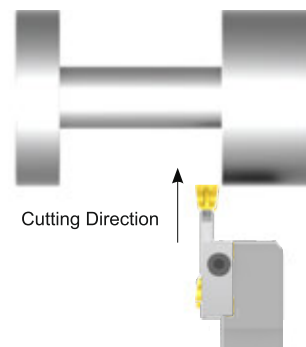


## Step 3. Web Roughing

Cut the webs with the same diameter of the grooves.

## Fase 4. Scanalatura di finitura

Effettuare la tornitura di finitura al diametro richiesto. Ritrarre l'utensile uscendo a 45° del lato della parete.

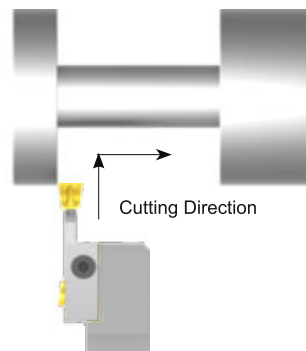


## Step 4. First Finishing Cut

Face-off at finish dimension one side of the groove to the finished the diameter, then retract the toolholder at 45° away from the wall.

## Fase 5. Finitura

Partire dal lato opposto alla precedente lavorazione. Iniziare asportando parte della parete fino al diametro finale ed uscire a 45° non intaccando il lato precedentemente lavorato.

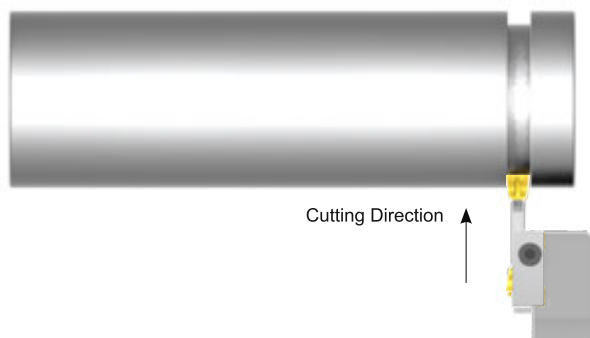


## Step 5. Final Finishing Cut

Move the toolholder on the other side of the wall of the groove face-off to the finished diameter and continue to cut the entire surface till the other wall is reached, then retract the toolholder at 45° away from the wall.

## Fase 1. Prima scanalatura

Azzerare il portautensili vicino al punto di partenza della scanalatura. Effettuare il primo taglio alla profondità del diametro finito.

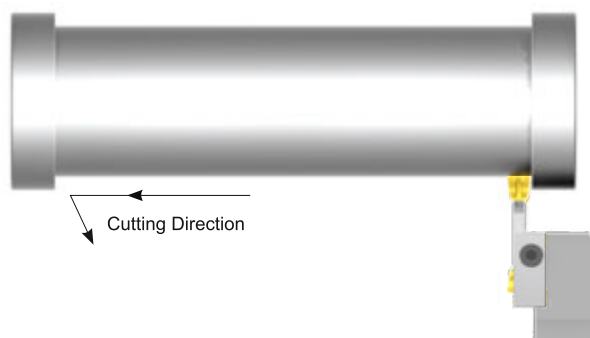


## Step 1. Starting Groove

Set the toolholder close to the starting point of the groove. Cut the first groove to depth of the first roughing cutting diameter.

## Fase 2. Prima tornitura di grossatura

Una volta fatta la prima profondità di scanalatura, effettuare la tornitura del pezzo fino alla lunghezza di tornitura richiesta. Ritrarre sempre l'utensile uscendo a 45° del pezzo da lavorare.

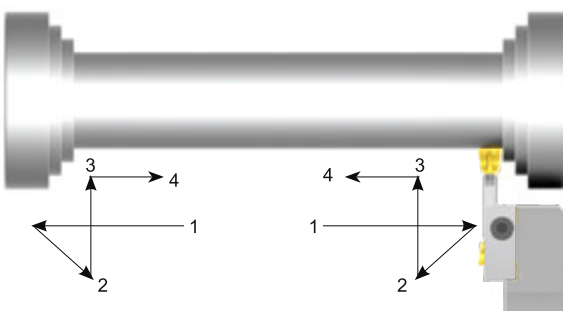


## Step 2. First Turning Roughing Cut

Once on the first groove is cut, feed the insert toward the other side of the workpiece. Cut till the end is reached then retract the toolholder at 45° away from the wall.

## Fase 3. Tornitura multipla di grossatura

Dopo il primo taglio di sgrossatura, ripetere l'operazione da un lato all'altro fino a quando la sgrossatura è completa.

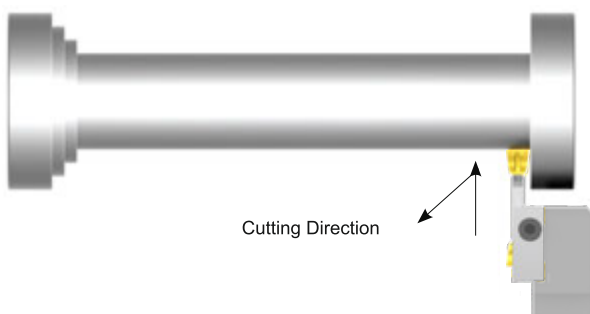


## Step 3. Multi Turning Roughing Cut

After the first roughing cut, repeat the operation from side to side until the roughing operation is complete.

## Fase 4. Scanalatura di finitura

Effettuare la tornitura di finitura al diametro richiesto. Ritrarre l'utensile uscendo a 45° del lato della parete.

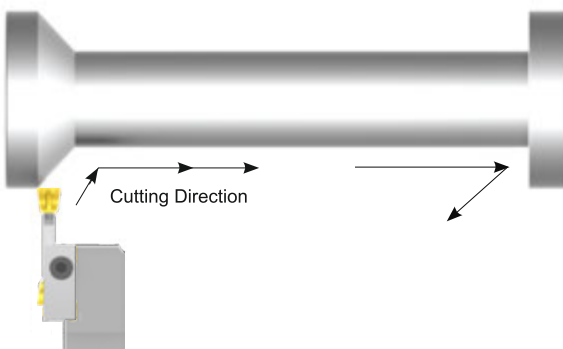


## Step 4. First Finishing Cut

Face-off at finish dimension one side of the groove to the finished diameter, then retract the toolholder at 45° away from the wall.

## Fase 4. Finitura

Partire dal lato opposto alla precedente lavorazione. Iniziare asportando parte della parete fino al diametro finale ed uscire a 45° non intaccando il lato precedentemente lavorato.



## Step 5. Final Finishing Cut

Move the toolholder on the other side of the wall of the groove face-off to the finished diameter and continue to cut the entire surface till the other wall is reached, then retract the toolholder at 45° away from the wall.

## Guida alla scelta delle cartucce

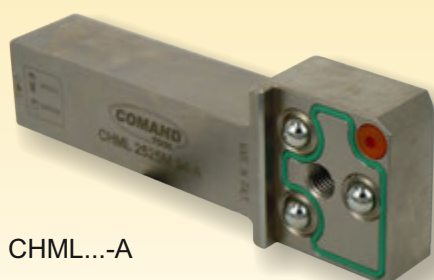
### Cartridge selection guide

#### Utensile Modulare Destro

Right Hand Modular Toolholder

Corpo base sinistro con cartucce destra

Left body with right hand cartridges



CHML...-A

Inserti = 3-4

Inserts = 3-4

CCGL...-A



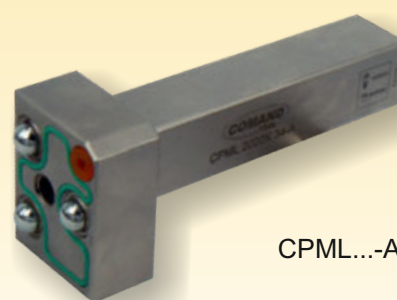
CCFR...-A

#### Utensile Modulare Perpendicolare Destro

Right Hand Modular Perpendicular Toolholder

Corpo base sinistro 90° con cartucce destra

Left body 90° with right hand cartridges



CPML...-A

#### Utensile Modulare Sinistro

Left Hand Modular Toolholder

Corpo base destro con cartuccia sinistra

Right body with left hand cartridge



CHMR...-B

Inserti = 3-4

Inserts = 3-4

CCFL...-B



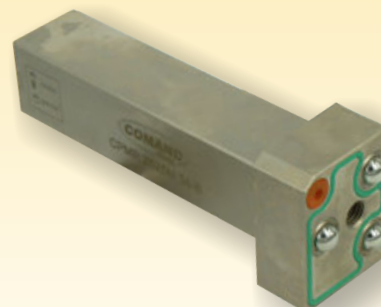
CCGR...-B

#### Utensile Modulare Perpendicolare Sinistro

Left Hand Modular Perpendicular Toolholder

Corpo base destro 90° con cartuccia sinistra

Right body 90° with left hand cartridge



CPMR...-B



# Guida alla scelta delle cartucce

## Cartridge selection guide

### Utensile Modulare Destro

Right Hand Modular Toolholder

Corpo base sinistro con cartuccia destra  
Left body with right hand cartridge

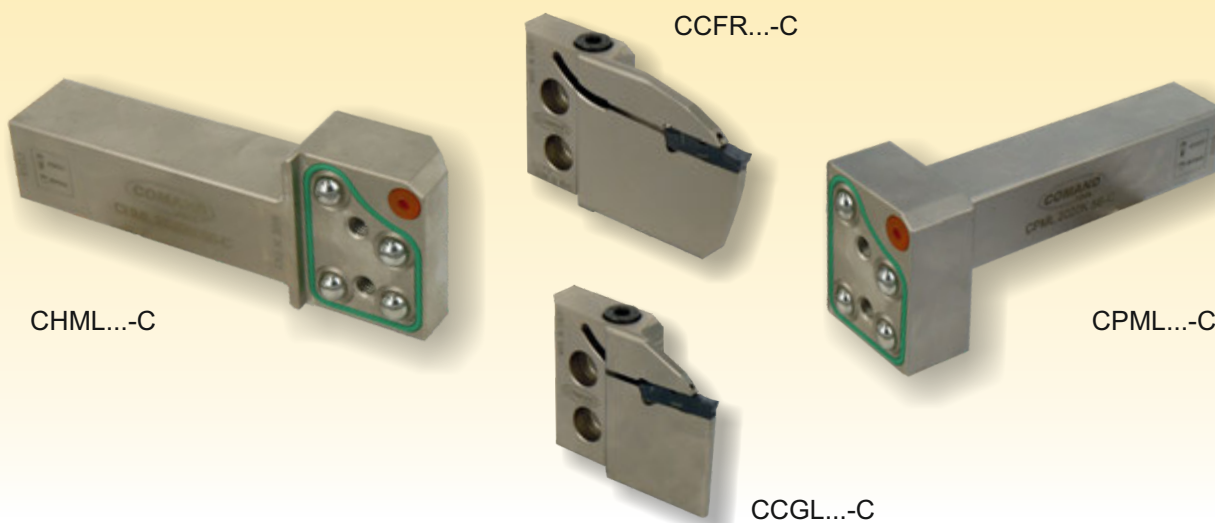
Inserti = 5-6

Inserts = 5-6

### Utensile Modulare Perpendicolare Destro

Right Hand Modular Perpendicular Toolholder

Corpo base sinistro 90° con cartuccia destra  
Left body 90° with right hand cartridge



### Utensile Modulare Sinistro

Left Hand Modular Toolholder

Corpo base destro con cartuccia sinistra  
Right body with left hand cartridge

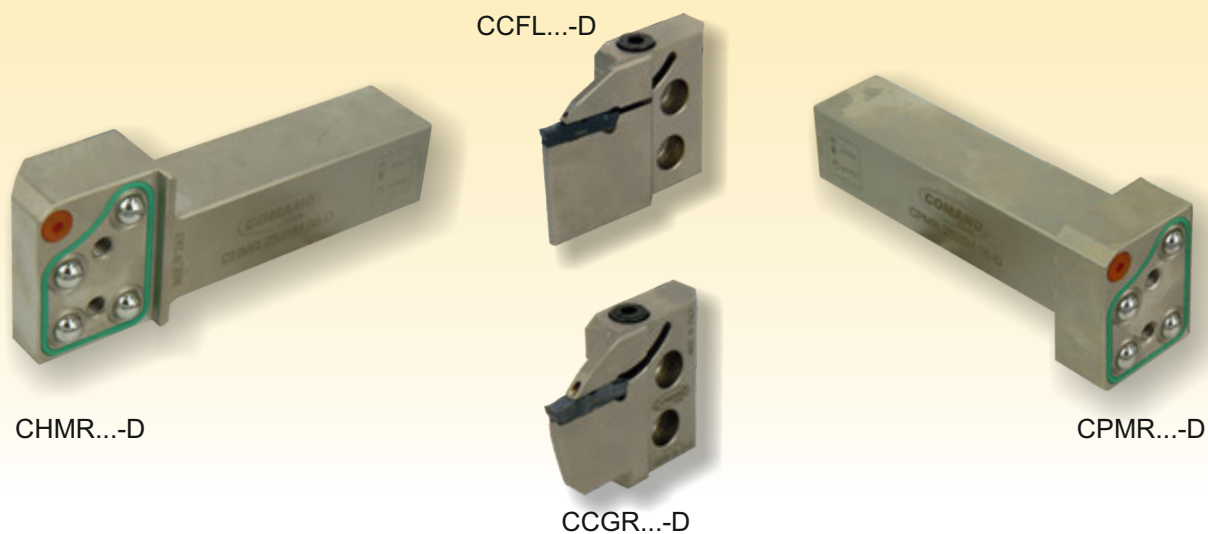
Inserti = 5-6

Inserts = 5-6

### Utensile Modulare Perpendicolare Sinistro

Left Hand Modular Perpendicular Toolholder

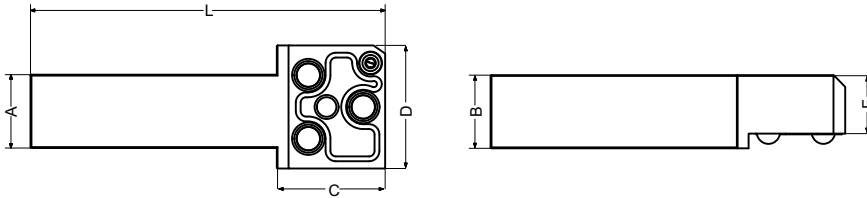
Corpo base destro 90° con cartuccia sinistra  
Right body 90° with left hand cartridge



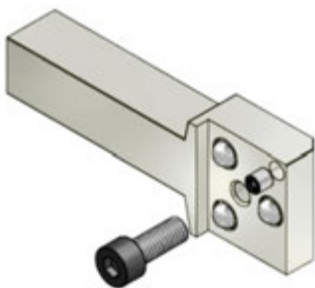
## CHML...34-A

*Holders with cartridges for face grooving  
 Outil avec cartouche pour rainurage frontal  
 Klemmhalter mit kassetten zum Planstechen  
 Utensilios con cartucha para ranura frontal*

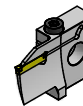
Utensili per cartucce per scanalatura frontale



Codice Code	Dimensioni / Dimensions							Cartuccia Cartridge	Parti di ricambio / Spare parts		
	A	B	C	D	F	L					
CHML 2020K 34-A	20	20	37	42	15	106	CCFR...30/40	VB0820	BHP606	CBR60	
CHML 2525M 34-A	25	25	37	42	20	121	CCFR...30/40	VB0820	BHP606	CBR60	
CHML 3225P 34-A	32	25	37	42	20	136	CCFR...30/40	VB0820	BHP606	CBR60	
							CCGL...20-A				
							CCGL...30-A				
							CCGL...40-A				



C20 - C21 - C22



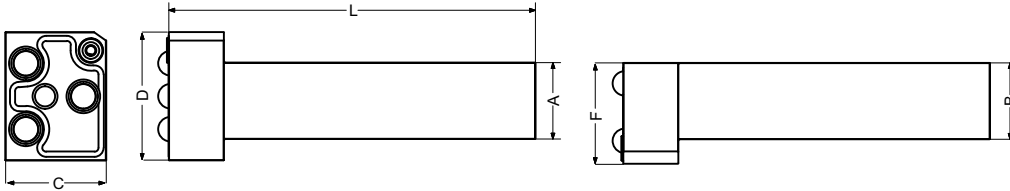
H 2 - H 7



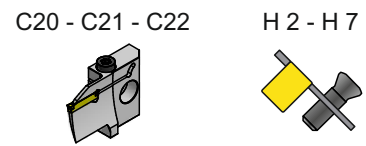
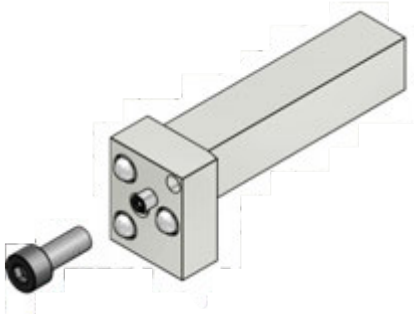
# CPML...34-A

Holders with cartridges for 90° face grooving  
 Outil avec cartouche pour rainurage frontal a 90°  
 Klemhalter mit kassetten zum 90° Planstechen  
 Utensilios con cartucha para ranura frontal a 90°

Utensili per cartucce per scanalatura frontale a 90°



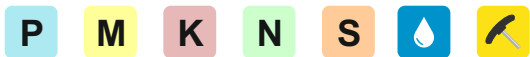
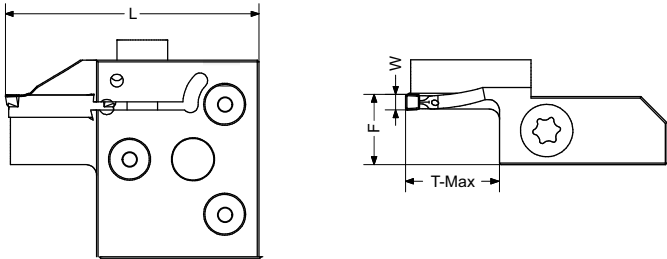
Codice Code	Dimensioni / Dimensions							Cartuccia Cartridge	Parti di ricambio / Spare parts		
	A	B	C	D	F	L					
CPML 2020K 34-A	20	20	33	42	33	111	CCFR...30/40	VB0820	BHP606	CBR60	
CPML 2525M 34-A	25	25	33	42	33	120	CCFR...30/40	VB0820	BHP606	CBR60	
CPML 3225P 34-A	32	25	33	42	33	130	CCFR...30/40	VB0820	BHP606	CBR60	
							CCGL...20-A				
							CCGL...30-A				
							CCGL...40-A				



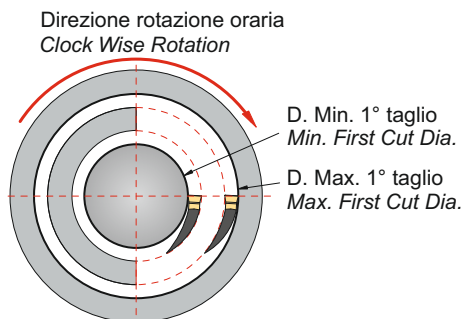
## CCFR...30-A

Cartridges for face grooving  
 Cartouche pour rainurage frontal  
 Kassetten zum planstechen  
 Cartuchas para ranura frontal

Cartucce per scanalatura frontale per inserto 3mm



Codice Code	Dimensioni / Dimensions						Inserto Insert	Parti di ricambio / Spare parts	
	D min.	D max.	T max	L	W	F			
<b>Prof. taglio 10 mm / Depth of Cut 10 mm</b>									
CCFR 2530 30 10-A	25	30	10	50	3.0	14	CTSN 22-30..	TX6025	CLTX30
CCFR 3038 30 10-A	30	38	10	50	3.0	14	CTSN 22-30..	TX6025	CLTX30
CCFR 3848 30 10-A	38	48	10	50	3.0	14	CTSN 22-30..	TX6025	CLTX30
CCFR 4860 30 10-A	48	60	10	50	3.0	14	CTSN 22-30..	TX6025	CLTX30
CCFR 6075 30 10-A	60	75	10	50	3.0	14	CTSN 22-30..	TX6025	CLTX30
CCFR 75100 30 10-A	75	100	10	50	3.0	14	CTSN 22-30..	TX6025	CLTX30
CCFR 100200 30 10-A	100	200	10	50	3.0	14	CTSN 22-30..	TX6025	CLTX30
CCFR 200-> 30 10-A	200	>200	10	50	3.0	14	CTSN 22-30..	TX6025	CLTX30
<b>Prof. taglio 20 mm / Depth of Cut 20 mm</b>									
CCFR 6075 30 20-A	60	75	20	60	3.0	14	CTSN 22-30..	TX6025	CLTX30
CCFR 75100 30 20-A	75	100	20	60	3.0	14	CTSN 22-30..	TX6025	CLTX30
CCFR 100200 30 20-A	100	200	20	60	3.0	14	CTSN 22-30..	TX6025	CLTX30
CCFR 200-> 30 20-A	200	>200	20	60	3.0	14	CTSN 22-30..	TX6025	CLTX30



C x 4

H 2 - H 7

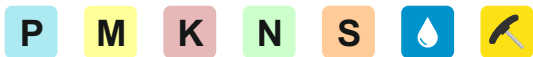
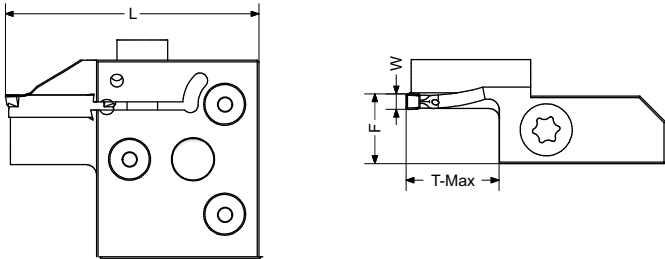




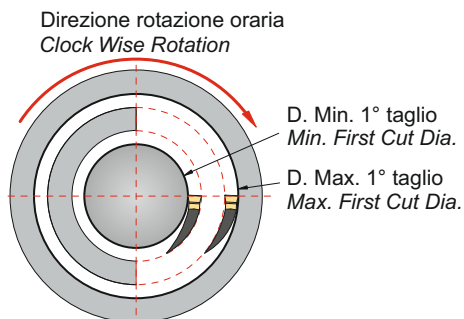
## CCFR...40-A

Cartridges for face grooving  
 Cartouche pour rainurage frontal  
 Kassetten zum planstechen  
 Cartuchas para ranura frontal

Cartucce per scanalatura frontale per inserto 4mm



Codice Code	Dimensioni / Dimensions						Inserto Insert	Parti di ricambio / Spare parts	
	D min.	D max.	T max	L	W	F			
<b>Prof. taglio 12 mm / Depth of Cut 12 mm</b>									
CCFR 3048 40 12-A	30	48	12	54	4.0	14	CTSN 25-40..	TX6025	CLTX30
CCFR 4860 40 12-A	48	60	12	54	4.0	14	CTSN 25-40..	TX6025	CLTX30
CCFR 6075 40 12-A	60	75	12	54	4.0	14	CTSN 25-40..	TX6025	CLTX30
CCFR 75100 40 12-A	75	100	12	54	4.0	14	CTSN 25-40..	TX6025	CLTX30
CCFR 100150 40 12-A	100	150	12	54	4.0	14	CTSN 25-40..	TX6025	CLTX30
CCFR 150-> 40 12-A	150	>150	12	54	4.0	14	CTSN 25-40..	TX6025	CLTX30
<b>Prof. taglio 24 mm / Depth of Cut 24 mm</b>									
CCFR 3048 40 24-A	30	48	24	60	4.0	14	CTSN 25-40..	TX6025	CLTX30
CCFR 4860 40 24-A	48	60	24	60	4.0	14	CTSN 25-40..	TX6025	CLTX30
CCFR 6075 40 24-A	60	75	24	60	4.0	14	CTSN 25-40..	TX6025	CLTX30
CCFR 75100 40 24-A	75	100	24	60	4.0	14	CTSN 25-40..	TX6025	CLTX30
CCFR 100150 40 24-A	100	150	24	60	4.0	14	CTSN 25-40..	TX6025	CLTX30
CCFR 150-> 40 24-A	150	>150	24	60	4.0	14	CTSN 25-40..	TX6025	CLTX30



C x 4



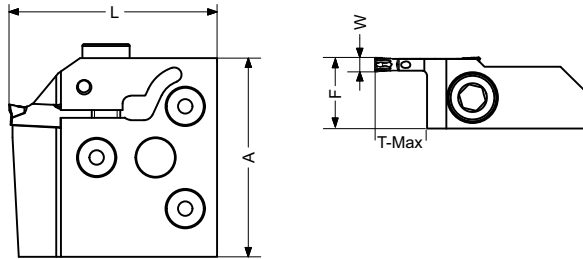
H 2 - H 7



## CCGL...20/30/40-A

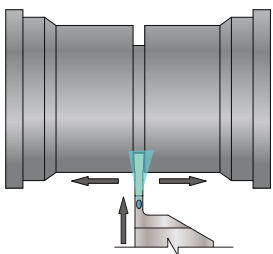
Cartridges for radial grooving  
 Cartouche pour rainurage radial  
 Kassetten zum radialschlitz  
 Cartuchas para ranura radial

Cartucce per scanalatura radiale per inserto 2/3/4mm



Codice Code	Dimensioni / Dimensions					Inserto Insert	Parti di ricambio / Spare parts	
	T max	L	A	F	W			
CCGL 20-09-A	09	43	42	14,5	2.0	CTSN 22-20	VB0624	CBR40
CCGL 20-18-A	18	52	42	14,5	2.0	CTSN 22-20	VB0624	CBR40
CCGL 30-10-A	10	44	42	14,5	3.0	CTSN 22-30..	VB0624	CBR40
CCGL 30-20-A	20	54	42	14,5	3.0	CTSN 22-30..	VB0624	CBR40
CCGL 40-12-A	12	46	42	14,5	4.0	CTSN 25-40..	VB0624	CBR40
CCGL 40-24-A	24	58	42	14,5	4.0	CTSN 25-40..	VB0624	CBR40

Tipo di lavorazione - Machining Types



C x 4



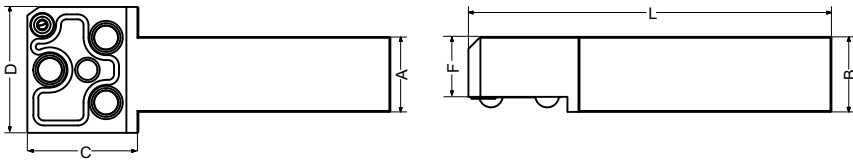
H 2 - H 7



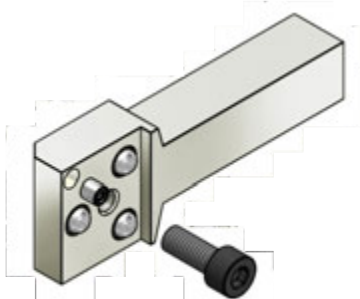
## CHMR...34-B

*Holders with cartridges for face grooving*  
*Outil avec cartouche pour rainurage frontal*  
*Klemmhalter mit kassetten zum Planstechen*  
*Utensilios con cartucha para ranura frontal*

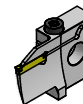
Utensili per cartucce per scanalatura frontale



Codice Code	Dimensioni / Dimensions							Cartuccia Cartridge	Parti di ricambio / Spare parts		
	A	B	C	D	F	L					
CHMR 2020K 34-B	20	20	37	42	15	106	CCFL...30/40	VB0820	BHP606	CBR60	
CHMR 2525M 34-B	25	25	37	42	20	121	CCFL...30/40	VB0820	BHP606	CBR60	
CHMR 3225P 34-B	32	25	37	42	20	136	CCFL...30/40	VB0820	BHP606	CBR60	
							CCGR...20-B				
							CCGR...30-B				
							CCGR...40-B				



C25 - C26 - C27



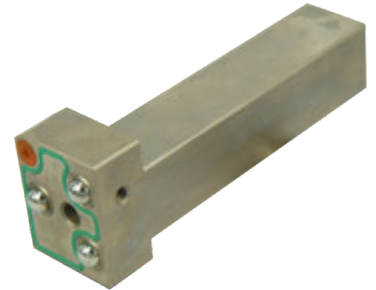
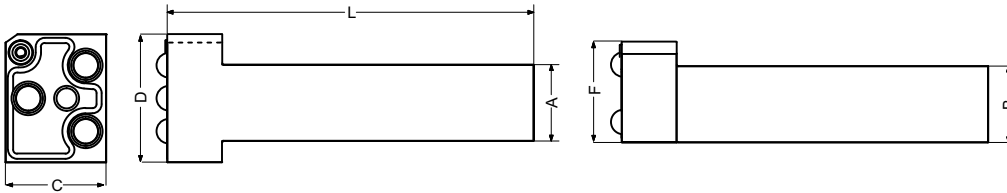
H 2 - H 7



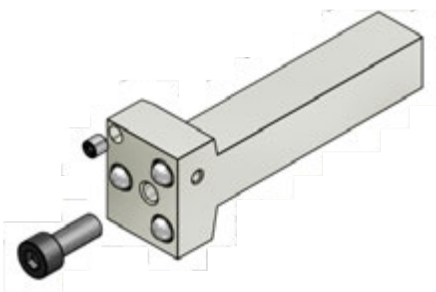
## CPMR...34-B

*Holders with cartridges for 90° face grooving  
 Outil avec cartouche pour rainurage frontal a 90°  
 Klemmhalter mit kassetten zum 90° Planstechen  
 Utensilios con cartucha para ranura frontal a 90°*

Utensili per cartucce per scanalatura frontale a 90°



Codice Code	Dimensioni / Dimensions							Cartuccia Cartridge	Parti di ricambio / Spare parts		
	A	B	C	D	F	L					
CPMR 2020K 34-B	20	20	33	42	33	111	CCFL...30/40	VB0820	BHP606	CBR60	
CPMR 2525M 34-B	25	25	33	42	33	120	CCFL...30/40	VB0820	BHP606	CBR60	
CPMR 3232P 34-B	32	32	33	42	33	130	CCFL...30/40	VB0820	BHP606	CBR60	
							CCGR...20-B				
							CCGR...30-B				
							CCGR...40-B				



C25 - C26 - C27



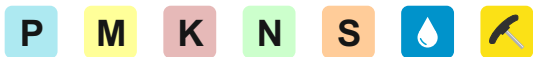
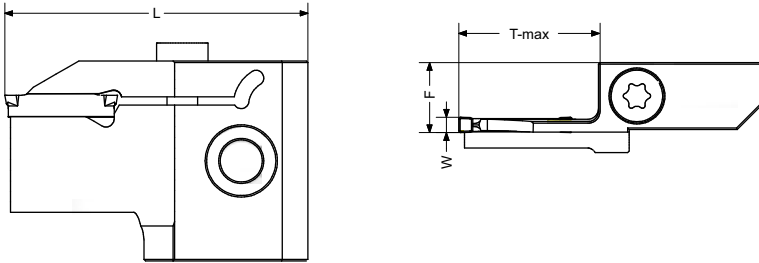
H 2 - H 7



## CCFL...30-B

Cartridges for face grooving  
 Cartouche pour rainurage frontal  
 Kassetten zum planstechen  
 Cartuchas para ranura frontal

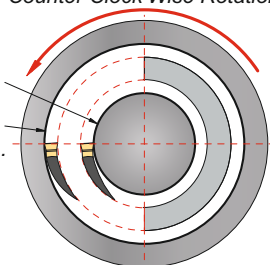
Cartucce per scanalatura frontale per inserto 3mm



Codice Code	Dimensioni / Dimensions						Inserto Insert	Parti di ricambio / Spare parts	
	D min.	D max.	T max	L	W	F			
<b>Prof. taglio 10 mm / Depth of Cut 10 mm</b>									
CCFL 2530 30 10-B	25	30	10	50	3.0	14	CTSN 22-30..	TX6025	CLTX30
CCFL 3038 30 10-B	30	38	10	50	3.0	14	CTSN 22-30..	TX6025	CLTX30
CCFL 3848 30 10-B	38	48	19	50	3.0	14	CTSN 22-30..	TX6025	CLTX30
CCFL 4860 30 10-B	48	60	10	50	3.0	14	CTSN 22-30..	TX6025	CLTX30
CCFL 6075 30 10-B	60	75	10	50	3.0	14	CTSN 22-30..	TX6025	CLTX30
CCFL 75100 30 10-B	75	100	10	50	3.0	14	CTSN 22-30..	TX6025	CLTX30
CCFL 100200 30 10-B	100	200	10	50	3.0	14	CTSN 22-30..	TX6025	CLTX30
CCFL 200-> 30 10-B	200	>200	10	50	3.0	14	CTSN 22-30..	TX6025	CLTX30
<b>Prof. taglio 20 mm / Depth of Cut 20 mm</b>									
CCFL 6075 30 20-B	60	75	20	60	3.0	14	CTSN 22-30..	TX6025	CLTX30
CCFL 75100 30 20-B	75	100	20	60	3.0	14	CTSN 22-30..	TX6025	CLTX30
CCFL 100200 30 20-B	100	200	20	60	3.0	14	CTSN 22-30..	TX6025	CLTX30
CCFL 200-> 30 20-B	200	>200	20	60	3.0	14	CTSN 22-30..	TX6025	CLTX30

Direzione di rotazione antioraria  
 Counter Clock Wise Rotation

D. Min. 1° taglio  
 Min. First Cut Dia.  
 D. Max. 1° taglio  
 Max. First Cut Dia.



C x 4



H 2 - H 7

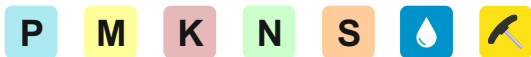
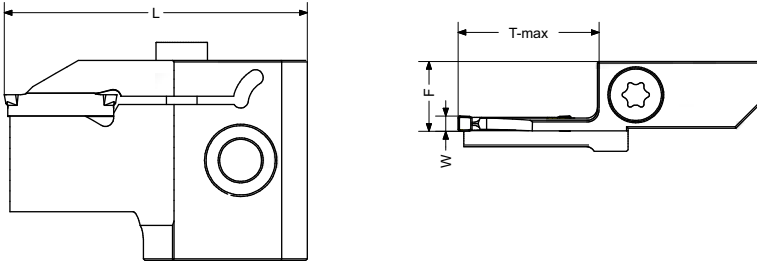




## CCFL...40-B

Cartridges for face grooving  
 Cartouche pour rainurage frontal  
 Kassetten zum planstechen  
 Cartuchas para ranura frontal

Cartucce per scanalatura frontale per inserto 4mm

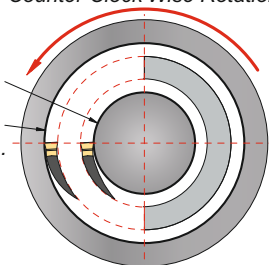


Codice Code	Dimensioni / Dimensions						Inserto Insert	Parti di ricambio / Spare parts	
	D min.	D max.	T max	L	W	F			
<b>Prof. taglio 12 mm / Depth of Cut 12 mm</b>									
CCFL 3048 40 12-B	30	48	12	54	4.0	14	CTSN 25-40..	TX6025	CLTX30
CCFL 4860 40 12-B	48	60	12	54	4.0	14	CTSN 25-40..	TX6025	CLTX30
CCFL 6075 40 12-B	60	75	12	54	4.0	14	CTSN 25-40..	TX6025	CLTX30
CCFL 75100 40 12-B	75	100	12	54	4.0	14	CTSN 25-40..	TX6025	CLTX30
CCFL 100150 40 12-B	100	150	12	54	4.0	14	CTSN 25-40..	TX6025	CLTX30
CCFL 150-> 40 12-B	150	>150	12	54	4.0	14	CTSN 25-40..	TX6025	CLTX30
<b>Prof. taglio 24 mm / Depth of Cut 24 mm</b>									
CCFL 3048 40 24-B	30	48	24	60	4.0	14	CTSN 25-40..	TX6025	CLTX30
CCFL 4860 40 24-B	48	60	24	60	4.0	14	CTSN 25-40..	TX6025	CLTX30
CCFL 6075 40 24-B	60	75	24	60	4.0	14	CTSN 25-40..	TX6025	CLTX30
CCFL 75100 40 24-B	75	100	24	60	4.0	14	CTSN 25-40..	TX6025	CLTX30
CCFL 100150 40 24-B	100	150	24	60	4.0	14	CTSN 25-40..	TX6025	CLTX30
CCFL 150-> 40 24-B	150	>150	24	60	4.0	14	CTSN 25-40..	TX6025	CLTX30

Direzione di rotazione antioraria  
 Counter Clock Wise Rotation

D. Min. 1° taglio  
 Min. First Cut Dia.

D. Max. 1° taglio  
 Max. First Cut Dia.



C x 4



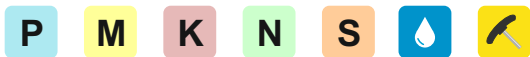
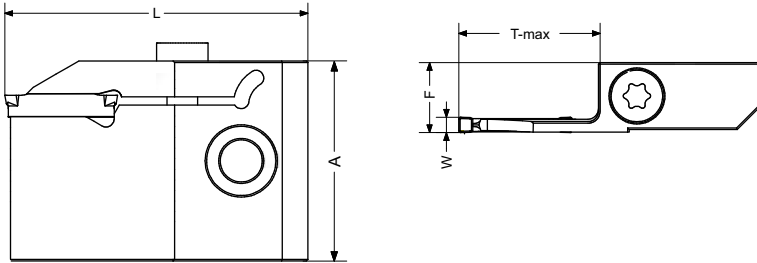
H 2 - H 7





Cartridges for radial grooving  
 Cartouche pour rainurage radial  
 Kassetten zum radialschlitz  
 Cartuchas para ranura radial

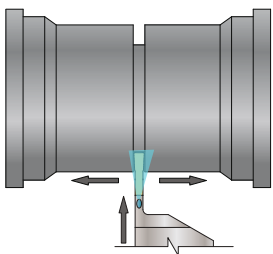
## CCGR...20/30/40-B

Cartucce per scanalatura radiale per inserto 2/3/4mm



Codice Code	Dimensioni / Dimensions					Inserto Insert	Parti di ricambio / Spare parts	
	T max	L	A	F	W			
CCGR 20-09-B	09	43	42	14,5	2.0	CTSN 22-20	VB0624	CBR40
CCGR 20-18-B	18	52	42	14,5	2.0	CTSN 22-20	VB0624	CBR40
CCGR 30-10-B	10	44	42	14,5	3.0	CTSN 22-30..	VB0624	CBR40
CCGR 30-20-B	20	54	42	14,5	3.0	CTSN 22-30..	VB0624	CBR40
CCGR 40-12-B	12	46	42	14,5	4.0	CTSN 25-40..	VB0624	CBR40
CCGR 40-24-B	24	58	42	14,5	4.0	CTSN 25-40..	VB0624	CBR40

Tipo di lavorazione - Machining Types



C x 4



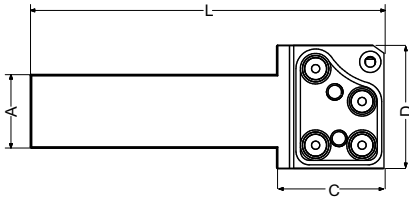
H 2 - H 7



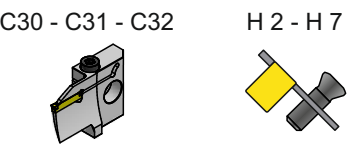
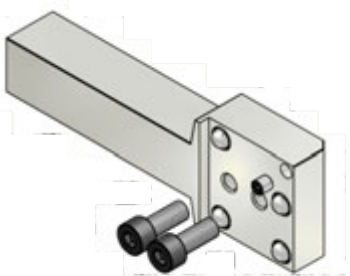
## CHML...56-C

Holders with cartridges for face grooving  
 Outil avec cartouche pour rainurage frontal  
 Klemmhalter mit kassetten zum Planstechen  
 Utensilios con cartucha para ranura frontal

Utensili per cartucce per scanalatura frontale



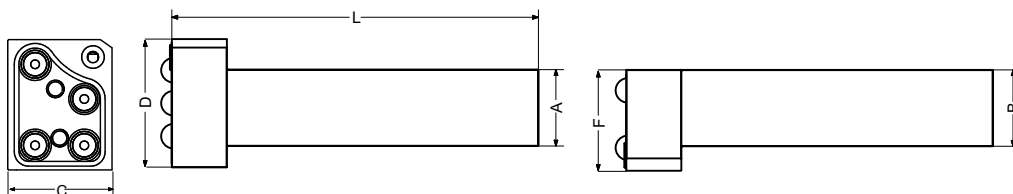
Codice Code	Dimensioni / Dimensions							Cartuccia Cartridge	Parti di ricambio / Spare parts		
	A	B	C	D	F	L					
CHML 2525M 56-C	25	25	36	45	21	120	CCFR...50/60	VB0820	BHP606	CBR60	
CHML 3225P 56-C	32	25	36	45	21	135	CCFR...50/60	VB0820	BHP606	CBR60	
							CCGL...50-C				
							CCGL...60-C				



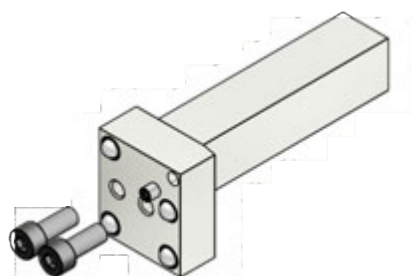
# CPML...56-C

Holders with cartridges for 90° face grooving  
 Outil avec cartouche pour rainurage frontal a 90°  
 Klemmhalter mit kassetten zum 90° Planstechen  
 Utensilios con cartucha para ranura frontal a 90°

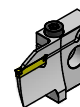
Utensili per cartucce per scanalatura frontale a 90°



Codice Code	Dimensioni / Dimensions							Cartuccia Cartridge	Parti di ricambio / Spare parts		
	A	B	C	D	F	L					
CPML 2525M 56-C	25	25	33	45	33	120	CCFR...50/60	VB0820	BHP606	CBR60	
CPML 3225P 56-C	32	25	33	45	33	130	CCFR...50/60	VB0820	BHP606	CBR60	
							CCGL...50-C				
							CCGL...60-C				



C30 - C31 - C32



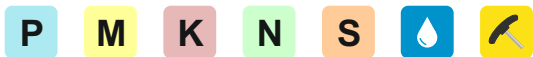
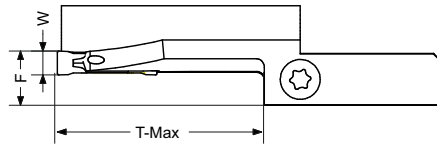
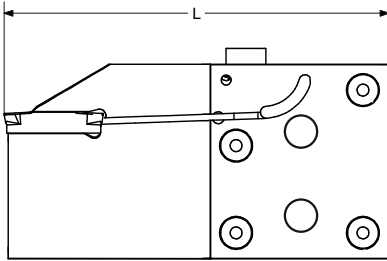
H 2 - H 7



## CCFR...50-C

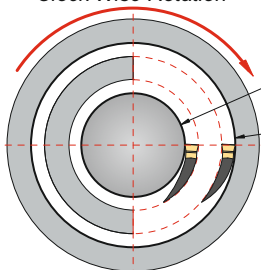
Cartridges for face grooving  
Cartouche pour rainurage frontal  
Kassetten zum planstechen  
Cartuchas para ranura frontal

Cartucce per scanalatura frontale per inserto 5mm



Codice Code	Dimensioni / Dimensions						Inserto Insert	Parti di ricambio / Spare parts			
	D min.	D max.	T max	L	W	F					
<b>Prof. taglio 22 mm / Depth of Cut 22 mm</b>											
CCFR 4255	50	22-C	42	45	22	60	5.0	16	CTSN 25-50..	TX6025	CLTX30
CCFR 5575	50	22-C	55	75	22	60	5.0	16	CTSN 25-50..	TX6025	CLTX30
CCFR 75130	50	22-C	75	130	22	60	5.0	16	CTSN 25-50..	TX6025	CLTX30
CCFR 130200	50	22-C	130	200	22	60	5.0	16	CTSN 25-50..	TX6025	CLTX30
CCFR 200->	50	22-C	200	>200	22	60	5.0	16	CTSN 25-50..	TX6025	CLTX30
<b>Prof. taglio 45 mm / Depth of Cut 45 mm</b>											
CCFR 130200	50	45-C	130	200	45	92	5.0	16	CTSN 25-50..	TX6025	CLTX30
CCFR 200400	50	45-C	200	400	45	92	5.0	16	CTSN 25-50..	TX6025	CLTX30
CCFR 450->	50	45-C	450	>450	45	92	5.0	16	CTSN 25-50..	TX6025	CLTX30

Direzione rotazione oraria  
Clock Wise Rotation



D. Min. 1° taglio  
Min. First Cut Dia.  
D. Max. 1° taglio  
Max. First Cut Dia.

C x 4



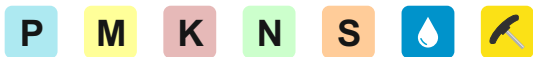
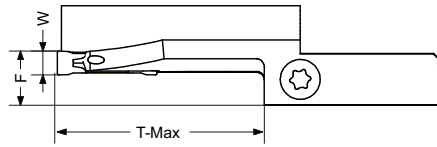
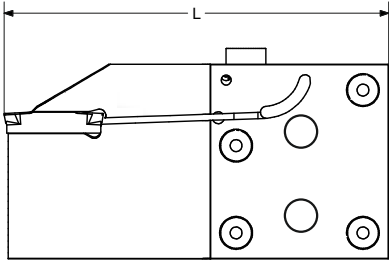
H 2 - H 7



## CCFR...60-C

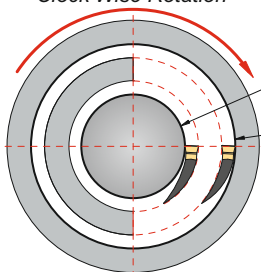
Cartridges for face grooving  
 Cartouche pour rainurage frontal  
 Kassetten zum planstechen  
 Cartuchas para ranura frontal

Cartucce per scanalatura frontale per inserto 6mm



Codice Code	Dimensioni / Dimensions						Inserto Insert	Parti di ricambio / Spare parts	
	D min.	D max.	T max	L	W	F			
<b>Prof. taglio 22 mm / Depth of Cut 22 mm</b>									
CCFR 4255 60 22-C	42	45	22	60	6.0	16	CTSN 25-60..	TX6025	CLTX30
CCFR 5575 60 22-C	55	75	22	60	6.0	16	CTSN 25-60..	TX6025	CLTX30
CCFR 75130 60 22-C	75	130	22	60	6.0	16	CTSN 25-60..	TX6025	CLTX30
CCFR 130200 60 22-C	130	200	22	60	6.0	16	CTSN 25-60..	TX6025	CLTX30
CCFR 200-> 60 22-C	200	>200	22	60	6.0	16	CTSN 25-60..	TX6025	CLTX30
<b>Prof. taglio 45 mm / Depth of Cut 45 mm</b>									
CCFR 130200 60 45-C	130	200	45	92	6.0	16	CTSN 25-60..	TX6025	CLTX30
CCFR 200400 60 45-C	200	400	45	92	6.0	16	CTSN 25-60..	TX6025	CLTX30
CCFR 450-> 60 45-C	450	>450	45	92	6.0	16	CTSN 25-60..	TX6025	CLTX30

Direzione rotazione oraria  
 Clock Wise Rotation



D. Min. 1° taglio  
 Min. First Cut Dia.

D. Max. 1° taglio  
 Max. First Cut Dia.

C x 4



H 2 - H 7

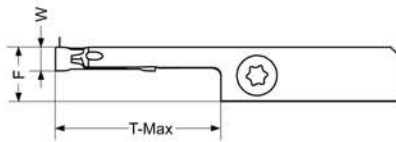
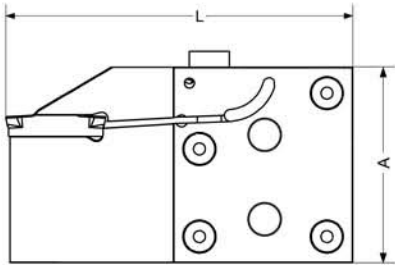






Cartridges for radial grooving  
 Cartouche pour rainurage radial  
 Kassetten zum radialschlitz  
 Cartuchas para ranura radial

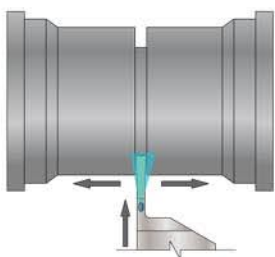
# CCGL...50/60-C

Cartucce per scanalatura radiale per inserto 5/6mm



Codice Code	Dimensioni / Dimensions					Inserto Insert	Parti di ricambio / Spare parts	
	T max	L	A	F	W			
CCGL 50-15-C	15	49	45	15,5	5.0	CTSN 22-50..	VB0624	CBR40
CCGL 50-30-C	30	64	45	14,5	5.0	CTSN 22-50..	VB0624	CBR40
CCGL 60-20-C	20	54	45	15,5	6.0	CTSN 22-60..	VB0624	CBR40
CCGL 60-40-C	40	74	45	15,5	6.0	CTSN 22-60..	VB0624	CBR40

Tipo di lavorazione - Machining Types



C x 4

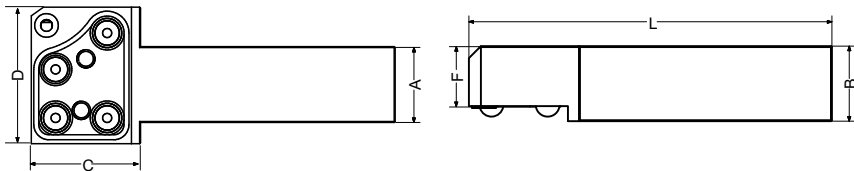
H 2 - H 7



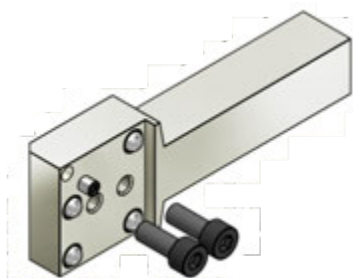
## CHMR...56-D

Holders with cartridges for face grooving  
 Outil avec cartouche pour rainurage frontal  
 Klemhalter mit kassetten zum Planstechen  
 Utensilios con cartucha para ranura frontal

Utensili per cartucce per scanalatura frontale



Codice Code	Dimensioni / Dimensions							Cartuccia Cartridge	Parti di ricambio / Spare parts		
	A	B	C	D	F	L					
CHMR 2525M 56-D	25	25	36	45	21	120	CCFL...50/60	VB0820	BHP606	CBR60	
CHMR 3225P 56-D	32	25	36	45	21	135	CCFL...50/60	VB0820	BHP606	CBR60	
							CCGR...50-D				
							CCGR...60-D				



C35 - C36 - C37



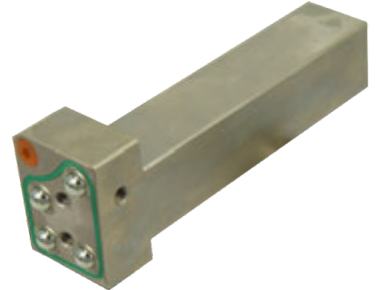
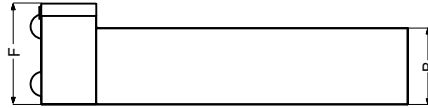
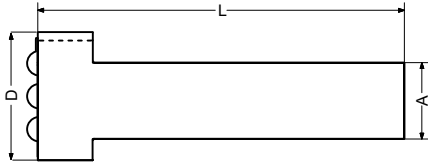
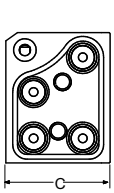
H 2 - H 7






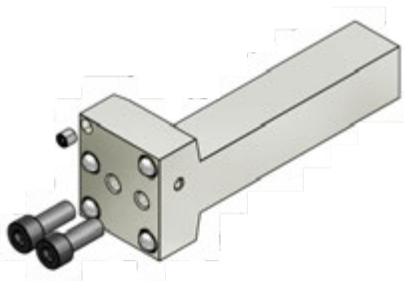
## CPMR...56-D

*Holders with cartridges for 90° face grooving  
 Outil avec cartouche pour rainurage frontal a 90°  
 Klemmhalter mit kassetten zum 90° Planstechen  
 Utensilios con cartucha para ranura frontal a 90°*

Utensili per cartucce per scanalatura frontale a 90°

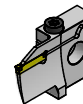


Codice Code	Dimensioni / Dimensions							Cartuccia Cartridge	Parti di ricambio / Spare parts		
	A	B	C	D	F	L					
CPMR 2525M 56-D	25	25	33	45	33	120	CCFL...50/60	VB0820	BHP606	CBR60	
CPMR 3232P 56-D	32	32	33	45	33	130	CCFL...50/60	VB0820	BHP606	CBR60	
							CCGR...50-D				
							CCGR...60-D				



C35 - C36 - C37

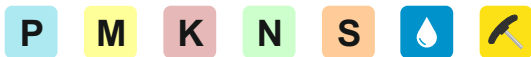
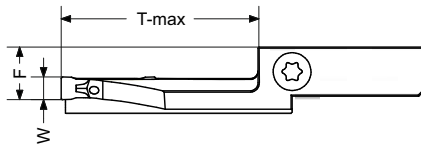
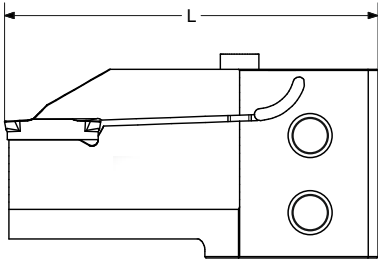
H 2 - H 7



## CCFL...50-D

Cartridges for face grooving  
 Cartouche pour rainurage frontal  
 Kassetten zum planstechen  
 Cartuchas para ranura frontal

Cartucce per scanalatura frontale per inserto 5mm

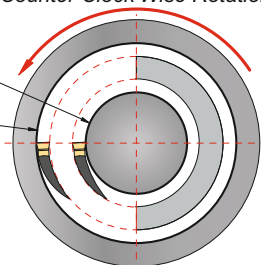


Codice Code	Dimensioni / Dimensions						Inserto Insert	Parti di ricambio / Spare parts			
	D min.	D max.	T max	L	W	F					
<b>Prof. taglio 22 mm / Depth of Cut 22 mm</b>											
CCFL 4255	50	22-D	42	45	22	60	5.0	16	CTSN 25-50..	TX6025	CLTX30
CCFL 5575	50	22-D	55	75	22	60	5.0	16	CTSN 25-50..	TX6025	CLTX30
CCFL 75130	50	22-D	75	130	22	60	5.0	16	CTSN 25-50..	TX6025	CLTX30
CCFL 130200	50	22-D	130	200	22	60	5.0	16	CTSN 25-50..	TX6025	CLTX30
CCFL 200->	50	22-D	200	>200	22	60	5.0	16	CTSN 25-50..	TX6025	CLTX30
<b>Prof. taglio 45 mm / Depth of Cut 45 mm</b>											
CCFL 130200	50	45-D	130	200	45	92	5.0	16	CTSN 25-50..	TX6025	CLTX30
CCFL 200400	50	45-D	200	400	45	92	5.0	16	CTSN 25-50..	TX6025	CLTX30
CCFL 450->	50	45-D	450	>450	45	92	5.0	16	CTSN 25-50..	TX6025	CLTX30

Direzione di rotazione antioraria  
 Counter Clock Wise Rotation

D. Min. 1° taglio  
 Min. First Cut Dia.

D. Max. 1° taglio  
 Max. First Cut Dia.



C x 4

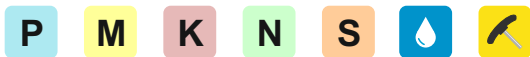
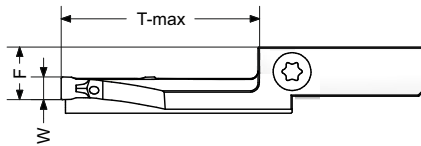
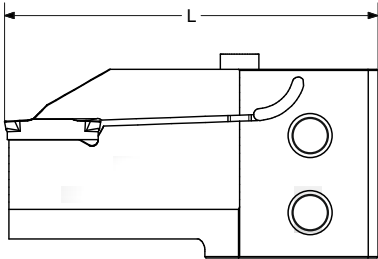
H 2 - H 7



## CCFL...60-D

Cartridges for face grooving  
 Cartouche pour rainurage frontal  
 Kassetten zum planstechen  
 Cartuchas para ranura frontal

Cartucce per scanalatura frontale per inserto 6mm

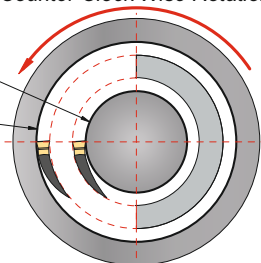


Codice Code	Dimensioni / Dimensions						Inserto Insert	Parti di ricambio / Spare parts	
	D min.	D max.	T max	L	W	F			
<b>Prof. taglio 22 mm / Depth of Cut 22 mm</b>									
CCFL 4255 60 22-D	42	45	22	60	6.0	16	CTSN 25-60..	TX6025	CLTX30
CCFL 5575 60 22-D	55	75	22	60	6.0	16	CTSN 25-60..	TX6025	CLTX30
CCFL 75130 60 22-D	75	130	22	60	6.0	16	CTSN 25-60..	TX6025	CLTX30
CCFL 130200 60 22-D	130	200	22	60	6.0	16	CTSN 25-60..	TX6025	CLTX30
CCFL 200-> 60 22-D	200	>200	22	60	6.0	16	CTSN 25-60..	TX6025	CLTX30
<b>Prof. taglio 45 mm / Depth of Cut 45 mm</b>									
CCFL 130200 60 45-D	130	200	45	92	6.0	16	CTSN 25-60..	TX6025	CLTX30
CCFL 200400 60 45-D	200	400	45	92	6.0	16	CTSN 25-60..	TX6025	CLTX30
CCFL 450-> 60 45-D	450	>450	45	92	6.0	16	CTSN 25-60..	TX6025	CLTX30

Direzione di rotazione antioraria  
 Counter Clock Wise Rotation

D. Min. 1° taglio  
 Min. First Cut Dia.

D. Max. 1° taglio  
 Max. First Cut Dia.



C x 4

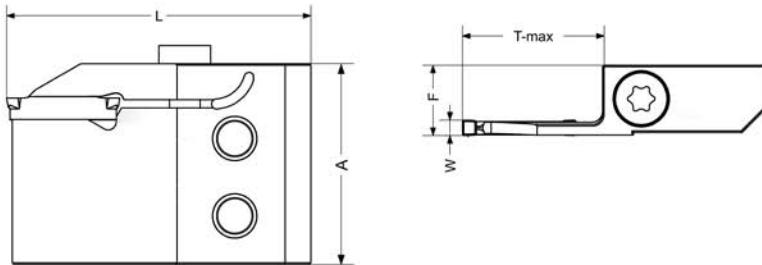




H 2 - H 7



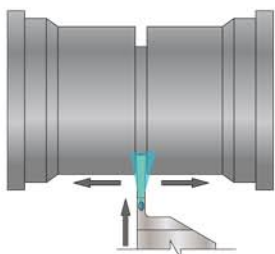
# CCGR...50/60-D

Cartucce per scanalatura radiale per inserto 5/6mm



Codice Code	Dimensioni / Dimensions					Inserto Insert	Parti di ricambio / Spare parts	
	T max	L	A	F	W			
CCGR 50-15-D	15	49	45	15,5	5.0	CTSN 22-50..	VB0624	CBR40
CCGR 50-30-D	30	64	45	14,5	5.0	CTSN 22-50..	VB0624	CBR40
CCGR 60-20-D	20	54	45	15,5	6.0	CTSN 22-60..	VB0624	CBR40
CCGR 60-40-D	40	74	45	15,5	6.0	CTSN 22-60..	VB0624	CBR40

Tipo di lavorazione - Machining Types



C x 4



H 2 - H 7



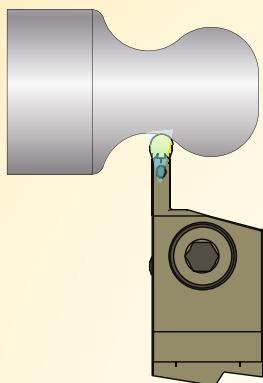


Nuovo Sistema Troncatura,  
Scanalatura e Taglio esterno

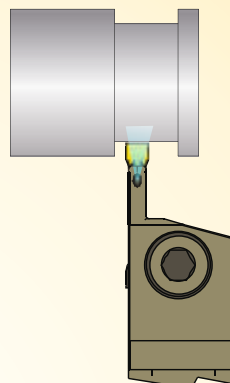


New system external Cutting,  
Grooving and Parting-off

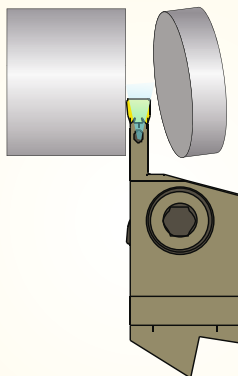
Profilatura  
Profiling



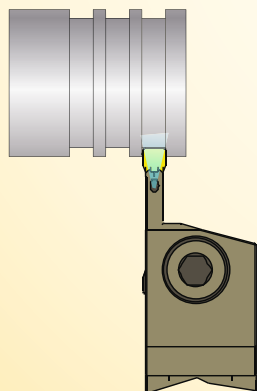
Tornitura e Scanalatura  
Turning & Grooving



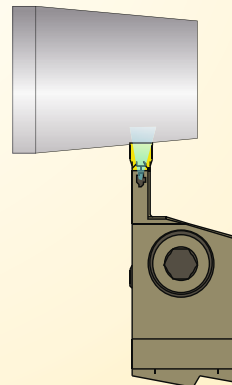
Taglio  
Part-off



Scanalatura  
Grooving



Tornitura  
Turning



# Troncatura Lama

Cutting blades

# LACG...

**NEW**

Lama di nuova concezione con INNOVATIVO sistema di bloccaggio inserti, veloce e pratico.  
*Blade with new design and innovative locking system inserts, fast and practical.*

Inserto con nuovo rompitruciolo ad altissima efficienza.  
*Insert with new chip-breaker high efficiency.*



## VANTAGGI / ADVANTAGES

**Sblocco rapido**  
*Quick release*



- ✓ maggiore produttività con inserti a **2 taglienti**  
*Increased productivity with inserts with 2 cutting*
- ✓ eccellente stabilità durante la lavorazione  
*excellent stability during machining*
- ✓ finitura di qualità superiore  
*higher quality finishing*
- ✓ nuovo sistema di bloccaggio facile e sicuro  
*new clamping system easy and secure*
- ✓ marcatura su lama per riferimento visivo lavorazioni  
*marking on the blade for visual reference work*

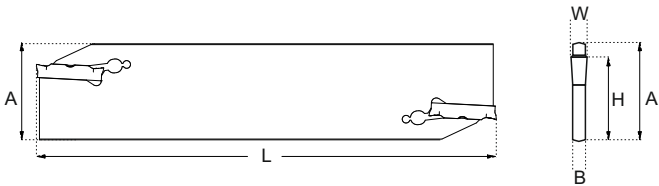
**Tipi di lavorazione**  
*Machining type*



## LACG...

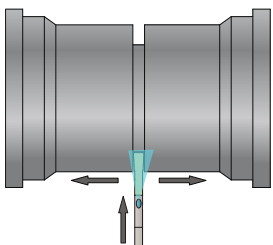
Cutting blades  
Lames a tronçonner  
Abstechträger  
Lamas para troncar

Lama per troncare



Codice Code	Dimensioni / Dimensions					Inserito Insert	Parti di ricambio / Spare parts
	A	W	H	B	L		
LACG 26-3	26	3	21.4	2.4	110	CTSN 2230-GT PG4540	CLG-475
LACG 26-4	26	4	21.4	3.2	110	CTSN 2540-GT PG4540	CLG-475
LACG 32-3	32	3	25	2.4	150	CTSN 2230-GT PG4540	CLG-475
LACG 32-4	32	4	25	3.2	150	CTSN 2540-GT PG4540	CLG-475

Tipo di lavorazione - Machining Types



C x 5

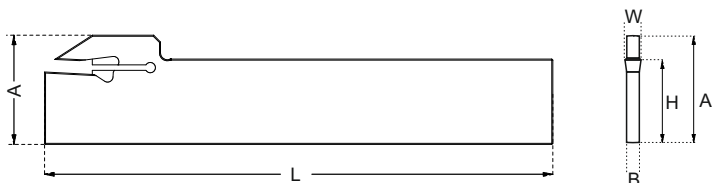
H 2 - H 7



## CEGR/L...

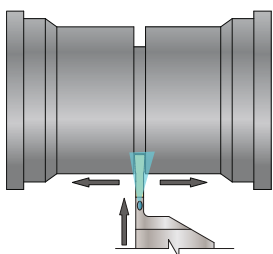
Holder for grooving and parting-off  
 Porte plaquettes a rainurer et a tronçonner  
 Klemmhalter zum Abstechen  
 Utensillos para ranura y troncatura exterior

Utensili per scanalatura/troncatura esterna



Codice Code	Dimensioni / Dimensions						Inserto Insert	Parti di ricambio / Spare parts	
	A	B	H	L	W	T max			
CEGR/L 1616K 20-10	16	16	16	125	2.0	10	CTSN 22-20..	VB0616	CBR50
CEGR/L 1616K 25-12	16	16	16	125	2.5	12	CTSN 22-25..	VB0616	CBR50
CEGR/L 1616K 30-14	16	16	16	125	3.0	14	CTSN 22-30..	VB0616	CBR50
CEGR/L 2020K 20-12	20	20	20	125	2.0	12	CTSN 22-20..	VB0616	CBR50
CEGR/L 2020K 25-14	20	20	20	125	2.5	14	CTSN 22-25..	VB0616	CBR50
CEGR/L 2020K 30-18	20	20	20	125	3.0	18	CTSN 22-30..	VB0616	CBR50
CEGR/L 2020K 40-20	20	20	20	125	4.0	20	CTSN 25-40..	VB0616	CBR50
CEGR/L 2020K 50-22	20	20	20	125	5.0	22	CTSN 25-50..	VB0616	CBR50
CEGR/L 2525M 20-12	25	25	25	150	2.0	12	CTSN 22-20..	VB0620	CBR50
CEGR/L 2525M 25-14	25	25	25	150	2.5	14	CTSN 22-25..	VB0620	CBR50
CEGR/L 2525M 30-18	25	25	25	150	3.0	18	CTSN 22-30..	VB0620	CBR50
CEGR/L 2525M 40-20	25	25	25	150	4.0	20	CTSN 25-40..	VB0620	CBR50
CEGR/L 2525M 50-22	25	25	25	150	5.0	22	CTSN 25-50..	VB0620	CBR50
CEGR/L 2525M 60-24	25	25	25	150	6.0	24	CTSN 25-60..	VB0620	CBR50
CEGR/L 3232P 30-18	32	32	32	170	3.0	18	CTSN 22-30..	VB0620	CBR50
CEGR/L 3232P 40-20	32	32	32	170	4.0	20	CTSN 25-40..	VB0620	CBR50
CEGR/L 3232P 50-22	32	32	32	170	5.0	22	CTSN 25-50..	VB0620	CBR50
CEGR/L 3232P 60-24	32	32	32	170	6.0	24	CTSN 25-60..	VB0620	CBR50

Tipo di lavorazione - Machining Types



C x 5



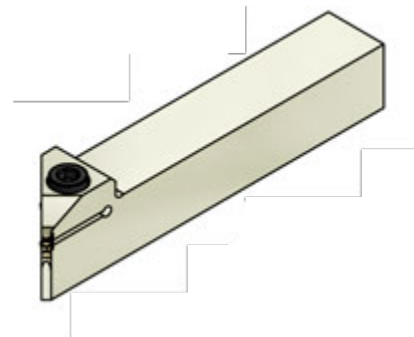
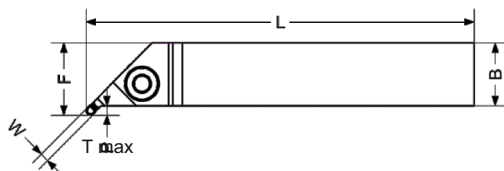
H 2 - H 7



## CEQR/L...

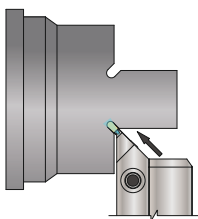
Holder for grooving and parting-off  
 Porte plaquettes a rainurer et a tronçonner  
 Klemmhalter zum Abstechen  
 Utensillos para ranura y troncatura exterior

Utensili per scanalatura/troncatura esterna 45°



Codice Code	Dimensioni / Dimensions						Inserto Insert	Parti di ricambio / Spare parts	
	F	A-B	H	L	W	T max			
CEQR/L 1616K 30	19	16	16	125	3.0	3.0	CTSN 22-30...	VB0616	CBR50
CEQR/L 2020K 30	23	20	20	125	3.0	3.0	CTSN 22-30...	VB0616	CBR50
CEQR/L 2525M 30	28	25	25	150	4.0	3.0	CTSN 22-30...	VB0616	CBR50
CEQR/L 1616K 40	20	16	16	125	4.0	4.0	CTSN 25-40...	VB0616	CBR50
CEQR/L 2020K 40	24	20	20	125	4.0	4.0	CTSN 25-40...	VB0616	CBR50
CEQR/L 2525M 40	29	25	25	150	4.0	4.0	CTSN 25-40...	VB0616	CBR50

Tipo di lavorazione - Machining Types



C x 5



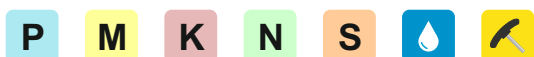
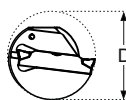
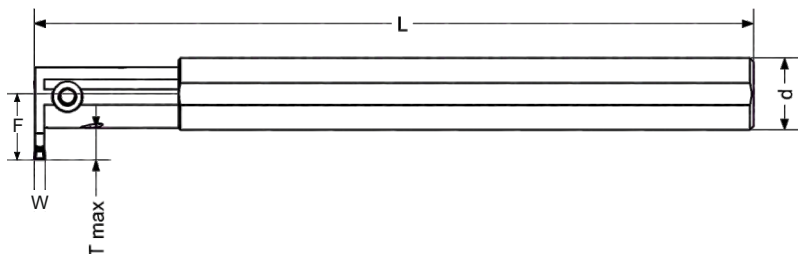
H 2 - H 7



## CIGR/L...

Holder for internal grooving  
 Porte plaquettes a rainurer interieur  
 Klemmhalter zum Abstechen  
 Utensilios para ranura interior

Utensili per scanalatura interna



Codice Code	Dimensioni / Dimensions						Inserto Insert	Parti di ricambio / Spare parts	
	D	d	F	L	W	T max			
CIGR/L 0016M 20	22	16	13	150	2.0	6	CTSN 10-20..	VB0616	CBR50
CIGR/L 0016M 30	22	16	13	150	3.0	6	CTSN 10-30..	VB0616	CBR50
CIGR/L 0020Q 20	25	20	14	180	2.0	7	CTSN 22-20..	VB0616	CBR50
CIGR/L 0020Q 30	25	20	14	180	3.0	7	CTSN 22-30..	VB0616	CBR50
CIGR/L 0020Q 40	28	20	17	180	4.0	9	CTSN 25-40..	VB0616	CBR50
CIGR/L 0025R 20	32	25	19	200	2.0	9	CTSN 22-30..	VB0620	CBR50
CIGR/L 0025R 30	32	25	19	200	3.0	9	CTSN 22-30..	VB0620	CBR50
CIGR/L 0025R 40	32	25	19	200	4.0	9	CTSN 25-40..	VB0620	CBR50
CIGR/L 0025R 50	32	25	19	200	5.0	9	CTSN 25-50..	VB0620	CBR50
CIGR/L 0025R 60	32	25	19	200	6.0	9	CTSN 25-60..	VB0620	CBR50
CIGR/L 0032S 30	38	32	22	250	3.0	11	CTSN 22-30..	VB0620	CBR50
CIGR/L 0032S 40	48	32	22	250	4.0	11	CTSN 25-40..	VB0620	CBR50
CIGR/L 0032S 50	48	32	22	250	5.0	11	CTSN 25-50..	VB0620	CBR50
CIGR/L 0032S 60	48	32	22	250	6.0	11	CTSN 25-60..	VB0620	CBR50

C x 5

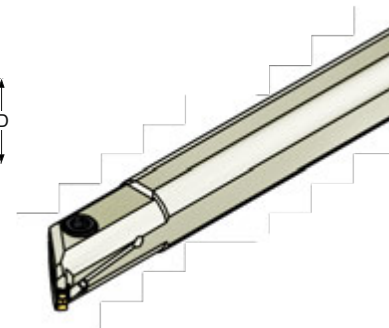
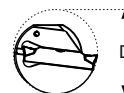
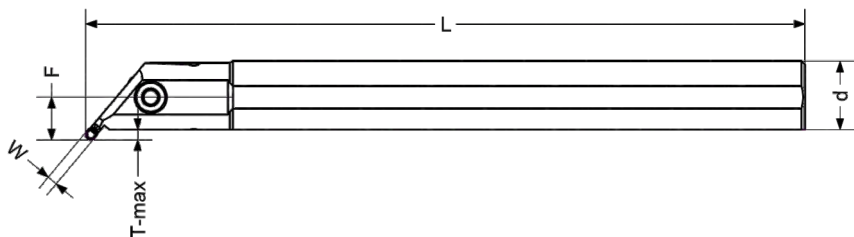
H 2 - H 7



## CIQR/L...

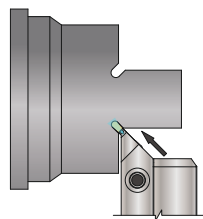
Holder for internal grooving  
Porte plaquettes a rainurer interieur  
Klemmhalter zum Abstechen  
Utensilios para ranura interior

Utensili per scanalatura interna 45°



Codice Code	Dimensioni / Dimensions						Inserto Insert	Parti di ricambio / Spare parts	
	D	d	F	L	W	T max			
CIQR/L 0016M 30	23	16	13.0	150	2.0	4.0	CTSN 22-30...	VB0616	CBR50
CIQR/L 0016M 40	22	16	13.0	150	3.0	4.0	CTSN 25-40...	VB0616	CBR50
CIQR/L 0020Q 30	25	20	13.0	180	2.0	4.0	CTSN 22-30...	VB0616	CBR50
CIQR/L 0020Q 40	25	20	13.0	180	3.0	4.0	CTSN 25-40...	VB0616	CBR50
CIQR/L 0025R 30	27	25	13.0	200	2.0	4.0	CTSN 22-30...	VB0616	CBR50
CIQR/L 0025R 40	27	25	13.0	200	3.0	4.0	CTSN 25-40...	VB0616	CBR50

Tipo di lavorazione - Machining Types



C x 5



H 2 - H 7

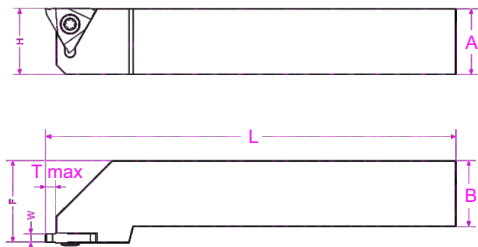




## CESR/L...

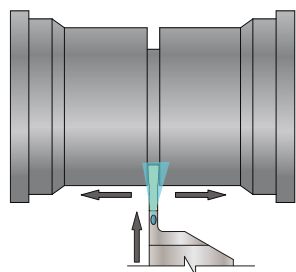
Holder for external grooving  
Porte plaquettes a rainurer extérior  
Klemmhalter zum Abstechen  
Utensilios para ranura exterior

### Utensili per scanalatura esterna



Codice Code	Dimensioni / Dimensions						Inserito Insert	Parti di ricambio / Spare parts	
	A-B	F	H	L	W	T max			
CESR/L 1616H 16	16	21	16	100	1.1-3.15	2.5	SG 16-..	TX3508	CTX10
CESR/L 2020K 16	20	25	20	125	1.1-3.15	2.5	SG 16-..	TX3508	CTX10
CESR/L 2525M 16	25	32	25	150	1.1-3.15	2.5	SG 16-..	TX3508	CTX10

### Tipo di lavorazione - Machining Types



C x 6

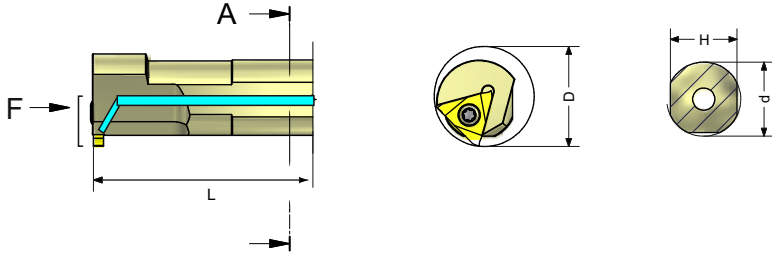
H 2 - H 7





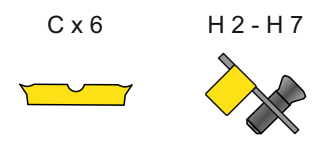
## CISR/L...

Holder for internal grooving  
 Porte plaquettes a rainurer interieur  
 Klemmhalter zum Abstechen  
 Utensilios para ranura interior

Utensili per scanalatura interna



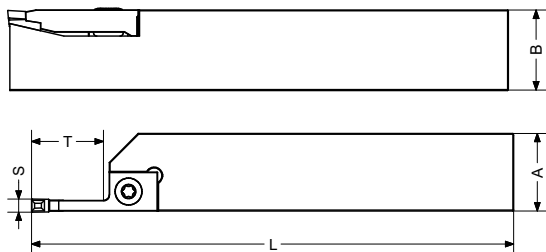
Codice Code	Dimensioni / Dimensions						Inserto Insert	Parti di ricambio / Spare parts	
	D	d	F	L	W	T max			
CISR/L 0016M 16	23	16	10,8	150	1.1-3.15	2.5	SG 16-..	TX3508	CTX10
CISR/L 0020Q 16	25	20	11,0	180	1.1-3.15	2.5	SG 16-..	TX3508	CTX10
CISR/L 0025R 16	30	25	14,5	200	1.1-3.15	2.5	SG 16-..	TX3508	CTX10






## FCGER/L...

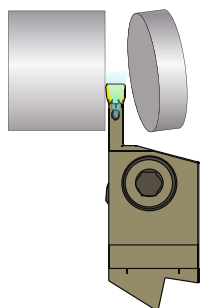
Holder for parting-off  
Porte plaquettes a tronçonner  
Klemmhalter zum Abstechen  
Utensilios para troncadura exterior

Utensili per troncatura esterna



Codice Code	Dimensioni / Dimensions						Inserto Insert	Parti di ricambio / Spare parts		
	A	B	H	L	W	T max				
FCGER/L 1616H 3	16	16	16	100	3	20	CGN3..	STFGER/L3-A	TX4016	BTX15
FCGER/L 2020K 3	20	20	20	125	3	20	CGN3..	STFGER/L3	TX4016	BTX15
FCGER/L 2525M 3	25	25	25	150	3	20	CGN3..	STFGER/L3	TX4016	BTX15
FCGER/L 2020K 4	20	20	20	125	4	25	CGN4..	STFGER/L4	TX4016	BTX15
FCGER/L 2525M 4	25	25	25	150	4	25	CGN4..	STFGER/L4	TX4016	BTX15
FCGER/L 2525M 5	25	25	25	150	5	25	CGN5..	STFGER/L5	TX4016	BTX15

Tipo di lavorazione - Machining type



C x 6

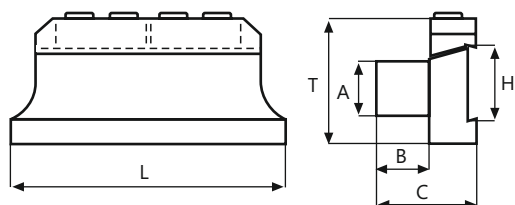


H 2 - H 7



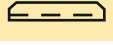


## PLC...

### Portalama



HP

HQ

Codice Code	Dimensioni / Dimensions						Parti di ricambio / Spare parts		
	H	A	B	C	L	T			
PLC 16-19	19	16	16	33	80	33	STL19	VB6020	CBR50
PLC 16-26	26	16	16	34	80	40	STL2616	VB6020	CBR50
PLC 20-26	26	20	19	38	90	42	STL26	VB6020	CBR50
PLC 20-32	32	20	19	38	120	48	STL32	VB6020	CBR50
PLC 25-26	26	25	23	42	90	43	STL26	VB6020	CBR50
PLC 25-32	32	25	23	42	120	48	STL32	VB6020	CBR50

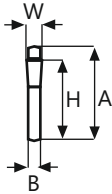
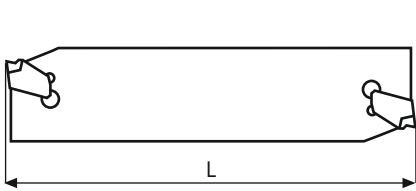
H 2 - H 7




## SGIH...

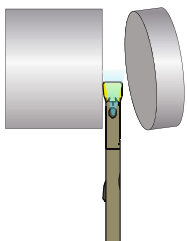
Cutting blades with stop  
Lames a tronçonner avec stop  
Abstechträger mit Anschlag  
Lamas para troncar con stop

Lama per troncare con stop



Codice Code	Dimensioni / Dimensions					Inserto Insert	Parti di ricambio / Spare parts
	A	W	H	B	L		
SGIH 19-2	19	2	16	1.6	85	GT..2	CLT5
SGIH 26-2	26	2	21.4	1.6	110	GT..2	CLT5
SGIH 26-3	26	3	21.4	2.4	110	GT..3	CLT5
SGIH 26-4	26	4	21.4	3.2	110	GT..4	CLT5
SGIH 26-5	26	5	21.4	4	110	GT..5	CLT5
SGIH 26-6	26	6	21.4	5.2	110	GT..6	CLT5
SGIH 32-2	32	2	25	1.6	150	GT..2	CLT5
SGIH 32-3	32	3	25	2.4	150	GT..3	CLT5
SGIH 32-4	32	4	25	3.2	150	GT..4	CLT5
SGIH 32-5	32	5	25	4	150	GT..5	CLT5
SGIH 32-6	32	6	25	5.2	150	GT..6	CLT5
SGIH 32-8	32	8	25	7.2	150	GT..8	CLT5
SGIH 32-9	32	9	25	8	150	GT..9	CLT5

Tipo di lavorazione - Machining type



C x 6



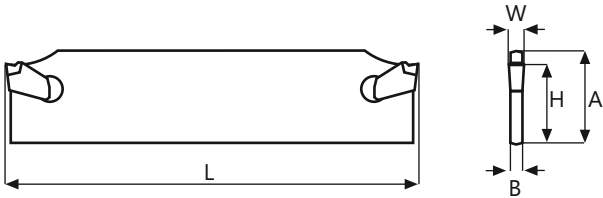
H 2 - H 7




# LA...

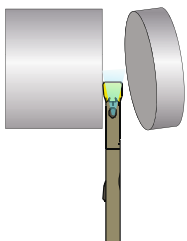
Cutting blades  
Lames a tronçonner  
Abstechträger  
Lamas para troncar

## Lama per troncare



Codice Code	Dimensioni / Dimensions					Inserto Insert	Parti di ricambio / Spare parts
	A	W	H	B	L		
LA 085192	19	2	16	1.6	85	GT..2	CLT5
LA 110262	26	2	21.4	1.6	110	GT..2	CLT5
LA 110263	26	3	21.4	2.4	110	GT..3	CLT5
LA 110264	26	4	21.4	3.2	110	GT..4	CLT5
LA 110265	26	5	21.4	4	110	GT..5	CLT5
LA 110266	26	6	21.4	5.2	110	GT..6	CLT5
LA 150322	32	2	25	1.6	150	GT..2	CLT5
LA 150323	32	3	25	2.4	150	GT..3	CLT5
LA 150324	32	4	25	3.2	150	GT..4	CLT5
LA 150325	32	5	25	4	150	GT..5	CLT5
LA 150326	32	6	25	5.2	150	GT..6	CLT5
LA 150328	32	8	25	7.2	150	GT..8	CLT5
LA 150329	32	9	25	8	150	GT..9	CLT5

Tipo di lavorazione - Machining type



C x 6



H 2 - H 7





**Inserti - Dati Tecnici**

*Inserts - Technical Data*

*Plaquettes - Données Techniques*

*Wendeschneidplatten - Technischen Daten*

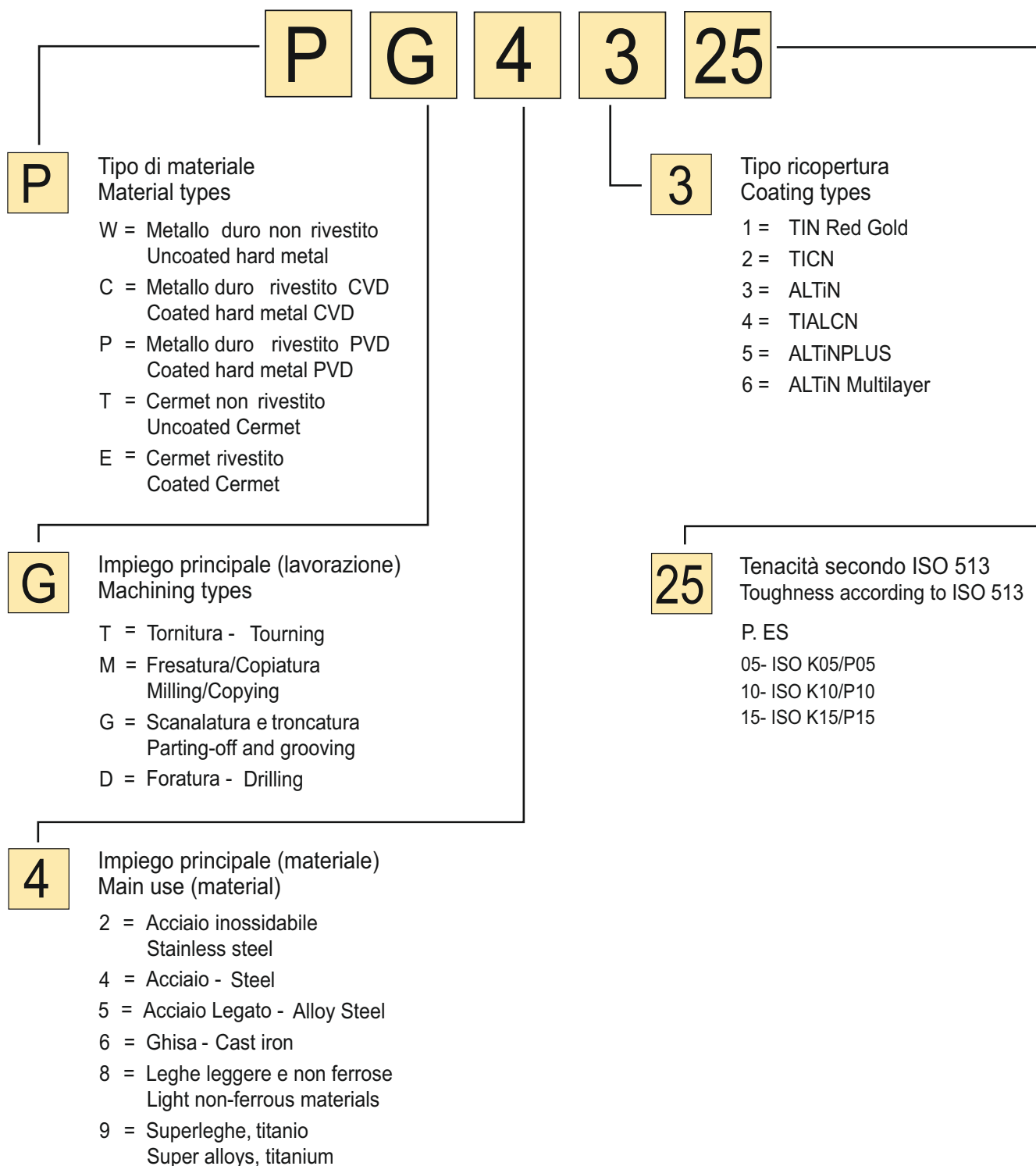
*Insertos - Datos Tecnicos*



# Informazioni tecniche *Technical hints*

Il nuovo sistema di designazione Comand delle qualità si basa su un codice semplice ed internazionale che permette di scegliere il materiale da taglio in base alle norme ISO.

*The new Comand designation system constitutes a simple, internationally comprehensible key. According to ISO standards, it describes the cutting material in application-oriented way.*







# Qualità - Qualities

CODE	DIN ISO 513		Materiale / Material					Indicazioni Uso	Indications Use	
			ACCIAI STEELS	ACCIAI INOX STAINLESS STEELS	GHISA CAST IRON	LEGHE IN ALLUMINIO ALUMINIUM	RESISTENTI AL CALORE HEAT RESISTANT			MATERIALI TEMPRATI HARDENED
			P	M	K	N	S			H
<b>CG 4125</b>	HC	P25 M25	●		○				Ottima resistenza. Indicato per medio alte velocità di taglio anche nella troncatura fino al centro.	Excellent resistance. Suitable for medium-high cutting speeds even when cutting to the center.
<b>PG 2120</b>	HC	K20 M20		●	●				Speciale rivestimento multilayer. Indicato per semifinitura e media sgrossatura su acciaio e acciaio inox.	Special multilayer coating. Suitable for semi-finishing and medium roughing on steel and inox.
<b>PG 4135</b>	HC	P35	●	○					Elevata tenacità. Indicato per basse velocità di taglio anche nella troncatura fino al centro e per lavorazioni a taglio interrotto.	High toughness. Suitable for low cutting speeds even when cutting to the center and even for discontinuous cuts machining.
<b>PG 4325</b>	HC	P25 M25	●	○	○		○	○	Ottima resistenza all'usura, all'ossidazione e buona tenacità. Indicato per medio-alte velocità di taglio in condizioni stabili.	Excellent resistance to wear, to oxidation and good toughness. Suitable for medium-high cutting speeds under stable conditions.
<b>PG 4330</b>	HC	P30 M30	●	●			○		Elevata tenacità. Indicato per basse velocità di taglio.	High toughness. Suitable for low cutting speeds.
<b>PG 4525</b>	HC	P25	●	●			○		Speciale rivestimento multilayer. Ottima resistenza all'usura. Indicato per medio-alte velocità di taglio.	Special multilayer coating. Excellent resistance to wear. Suitable for medium-high cutting speeds.
<b>PG 4535</b>	HC	P35	●	●			●		Qualità estremamente tenace con rivestimento superficiale a basso coefficiente di attrito. Per la fresatura di acciaio, acciaio inox e superleghe.	Extremely tough grade with surface coating with a low friction factor. For milling of steel, stainless steel and super alloys.




- Applicazione consigliata - Recommended application
- Applicazione possibile - Possible application

# Rompitrucioli - Chip Breakers

CODICE CODE	UTILIZZO USE			PARAMETRI PARAMETER					CARATTERISTICHE CHARACTERISTICS	DATI TECNICI TECHNICAL DATA
	Finitura Finishing	Media Medium	Sgrossatura Roughing	Velocità avanzamento / Feed speed fn(mm/rot)						
				Larghezza inserto / Insert width						
				2.0	3.0	4.0	5.0	6.0		
CTSN...-GM 		•	•	0,05 - 0,1	0,05 - 0,15	0,05 - 0,2	0,08 - 0,25	0,10 - 0,25	Ideale per le lavorazioni di troncatura e di tornitura. Formazione del truciolo controllata su un'ampia gamma di applicazioni.	Geometries for parting-off and grooving. Controlled chip forming over a wide range of applications.
CTSN-R...-GF NEW 	•	•		0,06 - 0,12	0,06 - 0,15	0,08 - 0,2	0,10 - 0,25	0,12 - 0,25	Ideale per le lavorazioni di troncatura e di finitura. Anche in condizioni di lavoro precarie.	Geometries for parting-off and finishing. Also under bad working conditions.
CTSN...-GMR 			•	0,05 - 0,1	0,05 - 0,15	0,05 - 0,2			Ideale per le lavorazioni di troncatura. Formazione del truciolo controllata su un'ampia gamma di applicazioni. Velocità di taglio media avanzamento e profondità di passata medio-alte.	Geometries for parting-off. Controlled chip forming over a wide range of applications. Medium cutting speeds at low to medium feeds and depths of cut.
CTSN...-GT NEW 	•	•	•	0,05 - 0,1	0,05 - 0,15	0,05 - 0,20	0,08 - 0,25	0,10 - 0,25	Ideale per le lavorazioni di troncatura e di tornitura. Formazione del truciolo controllata su un'ampia gamma di applicazioni. Velocità di taglio elevata avanzamento e profondità di passata medio-alte.	Geometries for parting-off and grooving. Controlled chip forming over a wide range of applications. High cutting speeds at low to medium feeds and depths of cut.

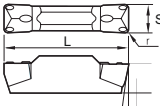




MATERIALI - MATERIALS	HB	fz (mm)	ap (mm)	Velocità di Taglio - Cutting Speed - Vc m/min						
				PG2120	CG4125		PG4330	PG4525	PG4535	PG4540
P ACCIAIO NON LEGATO - NOT ALLOY STEEL	120-300			80-150	90-160		80-140	110-190	80-150	80-140
P ACCIAIO LEGATO - ALLOY STEEL	180-350			70-120	90-180		80-120	110-180	70-120	60-150
P ACCIAIO ALTO LEGATO - HIGH ALLOY STEEL	300-330			60-100	100-180		60-90	80-170	60-100	80-160
M INOX AUSTENITICO - DUPLEX - STAINLESS STEEL	180-230			80-150			70-120	100-170	80-150	60-180
K GHISA GRIGIA - GREY CAST IRON	120-260			90-180			90-180	90-180		100-200
K GHISA SFEROIDALE - SPHEROIDAL CAST IRON	160-250			100-150			100-160	100-160		100-180
K GHISA MALLEABILE - MALLEABLE CAST IRON	130-230			100-180			100-200	100-200		110-230
N ALLUMINIO E SUE LEGHE - ALUMINIUM	60-130			200-300						
N RAME E SUE LEGHE - COPPER	90-110									
N NON METALLICI - PLASTICS										
S LEGHE RESIST. AL CALORE - HIGH TEMP. ALLOY	200-320							30-50		20-40
S TITANIO E SUE LEGHE - TITANIUM	400-1050									

# Rompitrucioli - Chip Breakers

CODICE CODE	UTILIZZO USE			PARAMETRI PARAMETER	CARATTERISTICHE CHARACTERISTICS	DATI TECNICI TECHNICAL DATA
	Finitura Finishing	Media Medium	Sgrossatura Roughing	Velocità avanzamento Feed speed fn (mm/rot)		
GTN...-GM GTR/L...-GM 		•	•	0,05 - 0,30	Ideale per le lavorazioni di troncatura. Formazione del truciolo controllata su un'ampia gamma di applicazioni. Velocità di taglio media avanzamento e profondità di passata medio-alte.	Geometries for parting-off. Controlled chip forming over a wide range of applications. Medium cutting speeds at low to medium feeds and depths of cut.
CGN...-GM 	•	•		0,05 - 0,30	Ideale per le lavorazioni di troncatura. Formazione del truciolo controllata su un'ampia gamma di applicazioni.	Geometries for parting-off. Controlled chip forming over a wide range of applications.
SG...-GF 	•			0,05 - 0,30	Ideale per le lavorazioni di troncatura e di finitura. Anche in condizioni di lavoro precarie.	Geometries for parting-off and finishing. Also under bad working conditions.

	MATERIALI - MATERIALS	HB	fz (mm)	ap (mm)	Velocità di Taglio - Cutting Speed - Vc m/min						
					CG4125	PG4135	PG4325				
P	ACCIAIO NON LEGATO - NOT ALLOY STEEL	120-300									
	ACCIAIO LEGATO - ALLOY STEEL	180-350			90-160	80-140	110-190				
	ACCIAIO ALTO LEGATO - HIGH ALLOY STEEL	300-330			90-140	60-120	110-180				
M	INOX AUSTENITICO - DUPLEX - STAINLESS STEEL	180-230					40-120	50-150			
	GHISA GRIGIA - GREY CAST IRON	120-260					90-180	90-180			
K	GHISA SFEROIDALE - SPHEROIDAL CAST IRON	160-250					100-160	100-160			
	GHISA MALLEABILE - MALLEABLE CAST IRON	130-230					100-200	100-200			
N	ALLUMINIO E SUE LEGHE - ALUMINIUM	60-130									
	RAME E SUE LEGHE - COPPER	90-110									
	NON METALLICI - PLASTICS										
S	LEGHE RESIST. AL CALORE - HIGH TEMP. ALLOY	200-320						30-50			
	TITANIO E SUE LEGHE - TITANIUM	400-1050									

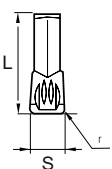




## Inserti - Inserts

TRONCATURA PARTING-OFF	Materiale Material	Acciaio - Steel	P	•				•	•	•	•					
		Acciaio inox - Stainless steel	M		•			•	•	•	•					
		Ghisa - Cast iron	K	•	•							•				
		Leghe leggere - Aluminium alloys	N													
		Resistenti al calore - Heat resistant	S						•	•	•	•				
		Materiali temprati - Hardened material	H													
	Codice di ordinazione Ordering code	Dimensioni - Size					HC ricoperti- coated						HW non ricoperti uncoated			
		L	d	S	F	r	CG 4125	PG 2120	PG 4325	PG 4330	PG 4525	PG 4535	PG 4540	WG 8015		
<b>CTSN...-GM</b> 	CTSN 22-25-GM	22		2.5		0.2								•		
	CTSN 22-30-GM	22		3.0		0.4								•		
	CTSN 25-60-GM	25		6.0		0.4								•		
<b>CTSN-R...-GF</b> <b>NEW</b> 	CTSN 22-30-GF R1.5	22		3.0		1.5					•					
	CTSN 25-40-GF R2.0	25		4.0		2.0					•					
	CTSN 25-50-GF R2.5	25		5.0		2.5					•					
	CTSN 25-60-GF R3.0	25		6.0		3.0					•					
<b>CTSN...-GMR</b> 	CTSN 22-20-GMR	22		2.0		0.4	•	•		•						
	CTSN 22-30-GMR	22		3.0		0.4	•	•		•						
	CTSN 25-40-GMR	25		4.0		0.4	•	•		•						
<b>CTSN...-GT</b> <b>NEW</b> 	CTSN 22-20-GT	22		2.0		0.2								•		
	CTSN 22-30-GT	22		3.0		0.4								•		
	CTSN 25-40-GT	25		4.0		0.4								•		
	CTSN 25-50-GT	25		5.0		0.4								•		
	CTSN 25-60-GT	25		6.0		0.4								•		

- Applicazione consigliata  
Recommended application - Empfohlener einsatz  
Application conseillée - Aplicación aconsejada

- Applicazione possibile  
Possible application - Mögliche anwendung  
Application possible - Aplicación posible

## Inserti - Inserts

TRONCATURA PARTING-OFF	Materiale Material	Acciaio - Steel	P	•		•	•									
		Acciaio inox - Stainless steel	M			•	•									
		Ghisa - Cast iron	K				•									
		Leghe leggere - Aluminium alloys	N													
		Resistenti al calore - Heat resistant	S						•							
		Materiali temprati - Hardened material	H							•						
	Codice di ordinazione Ordering code	Dimensioni - Size					HC ricoperti- coated						HW non ricoperti uncoated			
		L	d	S	F	r	CG 4125	PG 2120	PG 4135	PG 4325	PG 4330	PG 4525	PG 4535			
	GTN 2-GM	9.3	-	2.2	-	0.15	•			•						
	GTN 3-GM	11.3	-	3.1	-	0.20	•			•						
	GTN 4-GM	11.3	-	4.1	-	0.20	•			•						
	GTN 5-GM	11.4	-	5.1	-	0.30	•									
	GTN 6-GM	11.4	-	6.1	-	0.30	•									
	GTN 8-GM	13.5	-	8.1	-	0.50	•									
	GTN 9-GM	13.5	-	9.6	-	0.50	•									
	GTR 2-GM	9.3	-	2.2	-	0.15	•									
	GTR 3-GM	11.3	-	3.1	-	0.20	•									
	GTR 4-GM	11.3	-	4.1	-	0.20	•									
	GTL 2-GM	9.3	-	2.2	-	0.15	•									
	GTL 3-GM	11.3	-	3.1	-	0.20	•									
	GTL 4-GM	11.3	-	4.1	-	0.20	•									
	CGN 3-GM	8.6	-	3.4	-	0.25	•									
	CGN 4-GM	8.6	-	4.3	-	0.25	•									
	CGN 5-GM	8.8	-	5.1	-	0.25	•									
	SG16 110-GF	16	9.52	1.10	3.80				•							
	SG16 130-GF	16	9.52	1.30	3.80				•							
	SG16 160-GF	16	9.52	1.60	3.80				•							
	SG16 185-GF	16	9.52	1.85	3.80				•							
	SG16 215-GF	16	9.52	2.15	3.80				•							
	SG16 265-GF	16	9.52	2.65	3.80				•							
	SG16 300-GF	16	9.52	3.00	3.80				•							
	SG16 315-GF	16	9.52	3.15	3.80				•							

• Applicazione consigliata

Recommended application - Empfohlener einsatz

Application conseillée - Aplicación aconsejada

• Applicazione possibile

Possible application - Mögliche anwendung

Application possible - Aplicación posible

