



UTENSILI E INSERTI
PER SCANALATURE
E GOLE

PARTING &
GROOVING



Machining application	Machining Lavorazione	Toolholder Cartuccia	Inserts Inserti	Tool's feature and parameters Caratteristiche dell'utensile e parametri
External machining Lavorazione esterna	Parting Asportazione	QZ**+QE**	ZP*S**	<ul style="list-style-type: none"> Assemble structure of parting blade and holder, good rigidity and parting range is adjustable. The max. parting Ø = 120mm.
		QE**R/L	ZP**D* ZP*S*	<ul style="list-style-type: none"> La sporgenza della lama di asportazione è impostabile per ottenere una stabilità più elevata Ø max. della lama = 120mm
Grooving and turning Asportazione e tornitura		QE*R/L	Double Bilaterale ZT*D** Profile turning Contornatura ZR*D* Single cutting edge for deep Grooving Monolaterale ZT*S*	<ul style="list-style-type: none"> Various applications can be realised by one single tool, installed with different inserts for grooving, profiling and parting. It reduces the tool category. Installed with grooving inserts, the tool realises grooving and transverse cutting. This tool is multifunctional. The max. slot depth = 30mm.
Precise grooving Scanalatura di precisione		QECD	Precise grooving Scanalatura di precisione ZT*D**-EG Edge width 1.2~2.4mm Larghezza tagliente	<ul style="list-style-type: none"> Grinded insert, used for precise grooving. Edge width can be any size between 1.0~6.5mm according to customers requirement. ZT*D*- EG inserts: When edge width is between 1.2~2.4mm, the maximum cutting depth is 2.5mm; When edge width is >2.4~6.5mm, the maximum cutting depth is 22mm
		QE*R/L	Precise grooving Scanalatura di precisione ZT*D**-EG Edge width 1.2~2.4mm Larghezza tagliente	<ul style="list-style-type: none"> inserti rettificato per la scanalatura di precisione La larghezza del taglio può essere compresa tra 1.0-6.5mm su richiesta. ZT*D*-EG Inserto: per S.- Larghezza da 1.2~2.4mm, e max. prof. taglio di 2.5mm; per S.- Larghezza da >2.4~6.5mm, la max prof. di taglio è 22mm

A

General Turning
Tornitura generale

Parting & Grooving
Scanalatura e gole

Turning · Tornitura

Parting & Grooving Overview ▪ Panoramica scanalature e gole

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General Turning
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Machining application	Machining Lavorazione	Toolholder Cartuccia	Inserts Inserti	Tool's feature and parameters Caratteristiche dell'utensile e parametri
External Machining Lavorazione esterna	Grooving Scanalatura	QC Series GQCR/L	QC16/22□□□□	<ul style="list-style-type: none"> Finish grinding with high tolerance. Sharp cutting edge with accurate machining. Good economy with 3-lips grinding edge. For the light grooving, slot width 0.5-4.8 mm. Max cutting depth 5 mm. High precision with high tolerance. Tool for precision machining. High economicity due to the insert with 3 cutting edges. Surface finish with a slot width of 0.5-4.8 mm. Max depth of the groove 5 mm.
Internal machining Lavorazione interna	Grooving and turning Scanalatura e tornitura	C*-Q*R/L*	Grooving, Turning Scanalatura, tornitura ZT*D** turning Contornatura ZR*D**	<ul style="list-style-type: none"> By installing different inserts for grooving & turning one single tool realizes various applications, it reduce the tool category. The max. slot depth can be machined = 13mm The min Ø can be machined = 27 mm A system for grooving and contouring. The number of cutting systems is reduced. Max. depth of the groove = 13 mm min. Ø = 27 mm
		QC Series S□□□-QC□□R/L□	QC11/16/22□□□□	<ul style="list-style-type: none"> Fine grinded inserts, high precision Slot width can be machined is 0.5-4.8mm The min. Ø can be machined = 16mm The max. slot depth can be machined = 4 mm Grindable insert for high precision Slot width = 0.5-4.8 mm min. Ø = 16 mm Max. depth of the groove = 4 mm

	Machining Lavorazione	Toolholder Cartuccia	Inserts Insetti	Tool's feature and parameters Caratteristiche dell'utensile e parametri
Axial Grooving Scanalatura assiale	Grooving and turning Asportazione e tornitura	QF**H	Grooving, Turning Scanalatura, tornitura ZT*D**  Profile turning Contornatura ZR*D** 	<ul style="list-style-type: none"> By installing different inserts as for grooving and profiling, one single tool realizes various applications, it reduces the tool category. Grooving · Ø scanalatura = 48-400mm Grooving depth · Profondità scanalatura 10-30mm Un sistema per scanalatura e contornatura. Il numero di sistemi di taglio viene ridotto.
		QF**L	Grooving, Turning Scanalatura, tornitura ZT*D**  Profile turning Contornatura ZR*D** 	<ul style="list-style-type: none"> 90° toolholder, top clamping By installing different inserts as for grooving and profiling, one single tool realizes various applications, it reduce the tool category. Grooving · Ø scanalatura = 48-400mm Grooving depth · Profondità scanalatura 10-30mm Un sistema per scanalatura e contornatura. Il numero di sistemi di taglio viene ridotto. Cartuccia a 90°, bloccaggio a staffa
Recess Machining Retro-tornitura	Recess and turning Retro-tornitura e tornitura	*X*D*	Grooving, Turning Scanalatura, tornitura ZT*D**  Profile turning Contornatura ZR*D** 	<ul style="list-style-type: none"> The unique tool for recess machining Variing recess machining can be realized, inserts programm is complete Un sistema per la retro-tornitura E' possibile eseguire differenti lavorazioni di retro-operazioni. La gamma degli inserti è completa.
		QE**R/L	ZR**-LH	<ul style="list-style-type: none"> The unique chip breaker for profiling Al material Cutting edge is designed as combination of sharpness and stability, and it's suitable for continuous to intermittent cut. Used for for external, surface and inner wall machining of Al wheelboss. Rompitrucioli speciali per la lavorazione dell'alluminio Il tagliente affilato e stabile si adatta al taglio continuo e interrotto. Contornatura di cerchioni in Alluminio
Alu profiling Contornatura dell'alluminio	External mach. Lavorazione est.	QE**R/L	ZIGQ** 	<ul style="list-style-type: none"> V type locating, top clamping, precisely locating, safely clamping Inserts are suitable for difficult to machine materials like: Ni-base, Ti alloy, Stainless steel and Exotic material. Sede a forma di V, bloccaggio superiore per impieghi di precisione, fissaggio e bloccaggio sicuro Inserto per materiali di difficili lavorazione come: Materiale a base di Ni, leghe di Ti, acciaio inox e materiale esotico.
		C40X*	ZIMF** 	<ul style="list-style-type: none"> Instantly supply solutions for machining various parts to satisfy your machining requirement. Soluzioni di utensili speciali per la lavorazione di pezzi diversi.
Tools for aviation and aerospace industries Utensili per l'industria aerospaziale	External machining Lavorazione esterna	QE*S*N	Select and manufacture according to requirement. Scelta in base all'applicazione	
Non-standard Tools Utensile speciale	Non-Standard tools Utensile speciale			

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General Turning
Tornitura generale

Parting & Grooving
Scanalatura e gole



-MG

Chip breaker Rompitruciolo

■ Reduction of tool cost by using one special design insert in various.

- One insert fits several tool holders
- One insert suitable for several applications
- Reduction of tool cost and warehouse charges

■ Riduzione dei costi utensile attraverso l'uso di solo una geometria dell'inserto per molte applicazioni.

- L'inserto si adatta a differenti portautensili
- L'inserto adatta per differenti lavorazioni
- Riduzione dei costi utensile e di magazzino

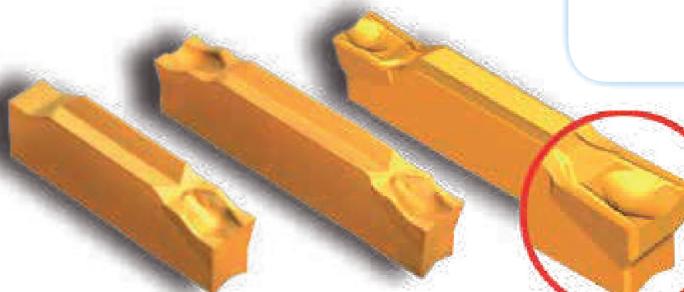
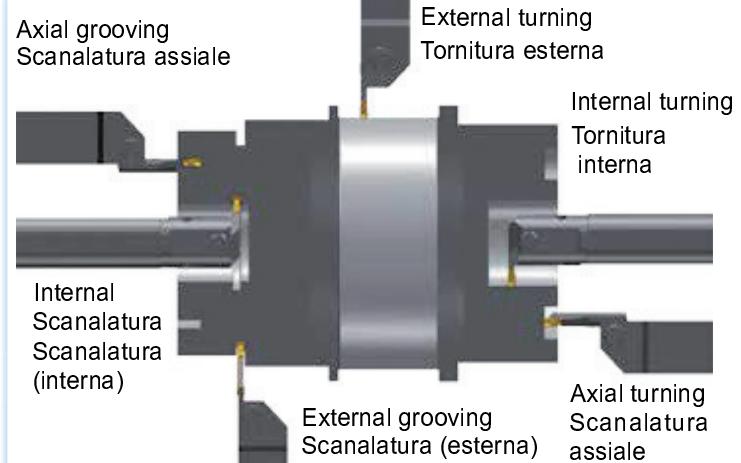
■ Universal -MG chip breaker series

Suitable for parting, grooving, profiling and turning etc; good chip control, surface quality and low cutting force

■ Serie universale -MG rompitruciolo

Impiegabile canalature, gole, contornatura, tornitura, buon controllo del truciolo.

Buona qualità delle superficie e basse forze di taglio



■ Unique structure design of parting inserts

- A special flank structure is designed to reduce cutting force by 20% and diminish vibration, which improve the surface quality
- A special edge design requires less rigidity of machine, it can be used on machine with low power

■ Tagliente con design unico per inserti per scanalature e gole

- La struttura speciale del fianco riduce le forze di taglio del 20%, per evitare vibrazioni e per migliorare la qualità delle superfici
- Un progetto del tagliente di nuova concezione ne permette l'utilizzo anche su macchine meno potenti.

Special design reduce vibration and cutting force by 20%

Rompitruciolo appositamente progettato che riduce le vibrazioni e le forze di taglio del 20%





Precise grooving, profiling & turning inserts

Special chip breaker design, suitable for precision machining of low-carbon steel, stainless steel, sticky materials and nonferrous metal.

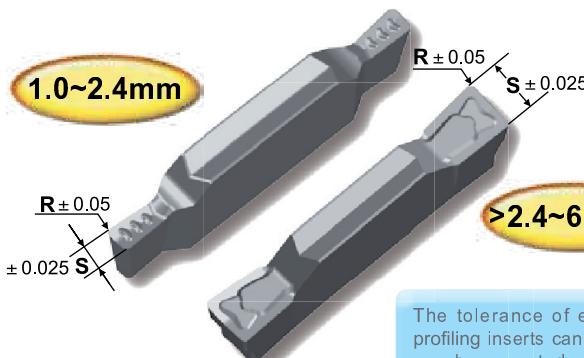
Inserti di precisione per lavorazioni di scanalatura, contornatura e tornitura

Rompitruciolo appositamente progettato per lavorazioni di precisione di acciaio basso-legato, acciaio inossidabile, materiali abrasivi e metalli non ferrosi

The edge width between

1.0-6.5mm according to your requirement.

Larghezza scanalatura da 1.0-6.5 mm secondo richiesta.

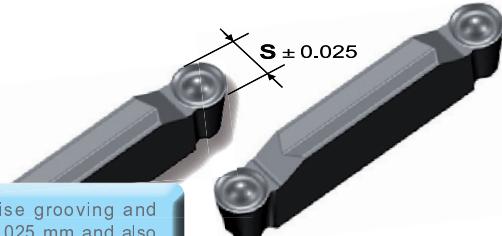


-EG Precision profiling and turning inserts

Round inserts for precision, turning and grooving

-EG Inserti di precisione per contornatura e tornitura

Inserti con profilo tondo per contornatura e tornitura di precisione



The tolerance of edge width S of precise grooving and profiling inserts can be produced up to ± 0.025 mm and also can be mounted on the corresponding specifications of original toolholder series.

La larghezza S della scanalatura può essere realizzata con una tolleranza fino a ± 0.025 mm e l'inserto impiegato con il portautensile della serie standard.

Profiling turning inserts for AL Inserti per scanalatura di alluminio

The unique chip breaker for aluminum profiling machining. Cutting edge is designed by combining sharpness and intensity. The special chip breaker structure which effectively reduces the frictional coefficient between chips and rake face, enable the inserts suitable for continuous and intermittent profiling Al alloy machining.

Il design unico del rompitruciolo per la contornatura dell'alluminio garantisce un tagliente affilato e allo stesso tempo stabilità. La forma speciale impedisce la formazione di saldature ed è impiegabile per la lavorazione con taglio continuo e leggermente interrotto.



Turning · Tornitura

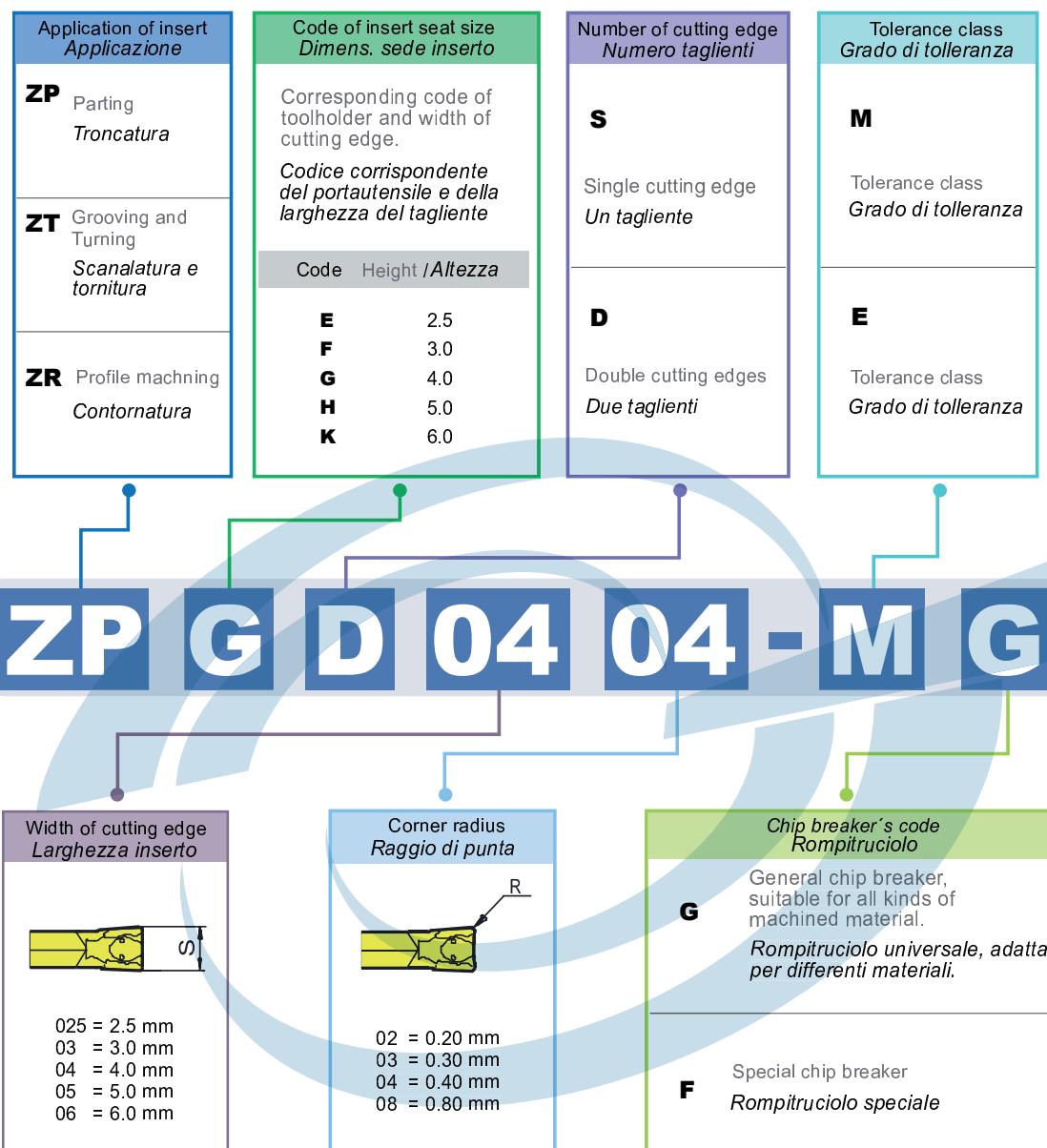
Parting & Grooving Code Key · Classificazione ISO di utensili per scanalature e gole

Parting, Grooving, Profiling and Turning Code Key
Classificazione per scanalature, gole, contornatura e tornitura

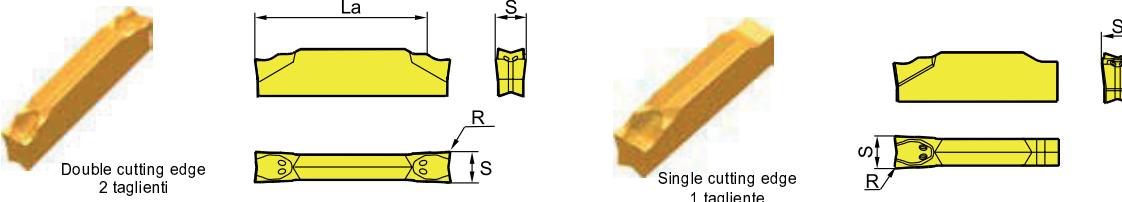
A

General Turning
Tornitura generale

Parting & Grooving
Scanalatura e gole



Parting inserts · Inserto per troncare



Type Tipo		Dimension (mm) Dimensioni			Grade Grado					
					P	M	K	N		
S ^{+0.1} ₀	R ^{±0.1}	La _{max}	XAI202	XAI302	XAF251	XAI202	XAI302	XAI202	XS101	XS201
Double cutting edge 2 taglienti	ZPED02502-MG	2.5	0.2	17	●	●	●	●	●	
	ZPFD0302-MG	3.0	0.2	17	●	●	●	●	●	○ ○
	ZPGD0402-MG	4.0	0.2	22	●	●	●	●	●	○
	ZPHD0503-MG	5.0	0.3	22	●	●	○	●	●	
	ZPKD0604-MG	6.0	0.4	22	●	●	○	●	●	
Single cutting edge 1 tagliente	ZPES02502-MG	2.5	0.2	-	●	●	●	●	●	
	ZPFS0302-MG	3.0	0.2	-	●	●	●	●	●	
	ZPGS0402-MG	4.0	0.2	-	○	●	○	○	●	○
	ZPHS0503-MG	5.0	0.3	-	○	●	○	○	●	
	ZPKS0604-MG	6.0	0.4	-	●	●	●	●	●	

Insert with single cutting edge only be used to parting blade
Inserti a tagliente unico esclusivamente per l'impiego su lame per gole



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Please reduce the feed rate by 30% when the insert is approaching the centre of workpiece.

Per una maggiore durata dell'inserto, ridurre la velocità di avanzamento del 30% quando l'inserto si avvicina al centro.

Optimal chip breaker design for good chip control.
Rompitrucciolo ottimale per un buon controllo del truciolo.

Cutting force is reduced by 20% less vibration.
Riduce del 20% le vibrazioni e la forza di taglio

Turning · Tornitura

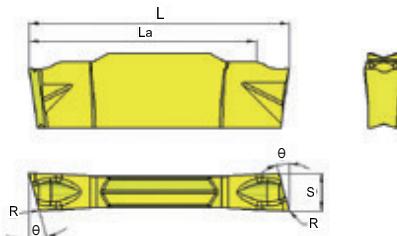
Parting & Grooving · Troncatura e gole

General Turning
Tornitura generale

Parting & Grooving
Scanalatura e gole

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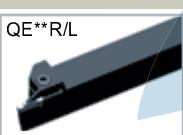
ZP*D-MG Series



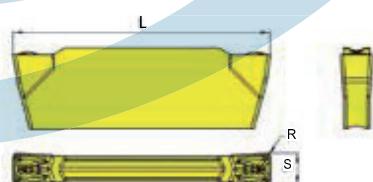
Type Tipo	Dimension (mm) Dimensioni					Grade Grado							
	L	S	θ	R	La _{max}	P	M	K	N	XAI202	XAI302		
ZPED02502-MG-6L	20	2.35	6	0.2	17	○	●			○	●	●	○
ZPED02502-MG-6R	20	2.35	6	0.2	17	○	●			○	●	●	○
ZPED02502-MG-15L	20	2.35	15	0.2	17	●	○			●	○	○	○
ZPED02502-MG-15R	20	2.35	15	0.2	17	●	○			●	○	○	○
ZPFD0302-MG-6L	20	2.85	6	0.2	17	●	●			●	●	●	○
ZPFD0302-MG-6R	20	2.85	6	0.2	17	●	●			●	●	○	○
ZPFD0302-MG-15L	20	2.85	15	0.2	17	○	●			○	●	○	○
ZPFD0302-MG-15R	20	2.85	15	0.3	17	●	●			●	●	○	○

Tool holder / Cartuccia

QE**R/L



ZTBD-MG Series

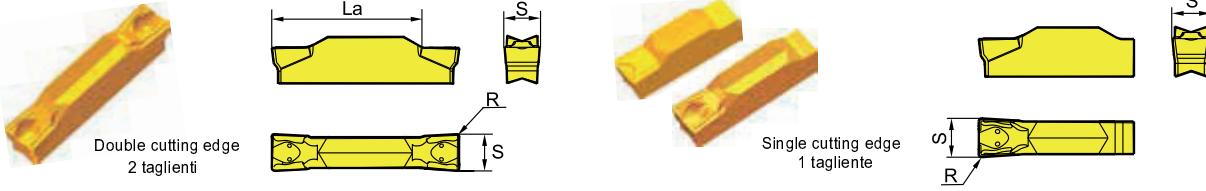


Type Tipo	Dimension (mm) Dimensioni					Grade Grado			
	L	S ± 0.05	R	La _{max}		P	XAI202	XAI205	XAI302
ZTBD02002-MG	16.3	2.0	0.2	13		○	●		○

Tool holder / Utensile



Grooving and turning inserts · Inserti per scanalatura e tornitura

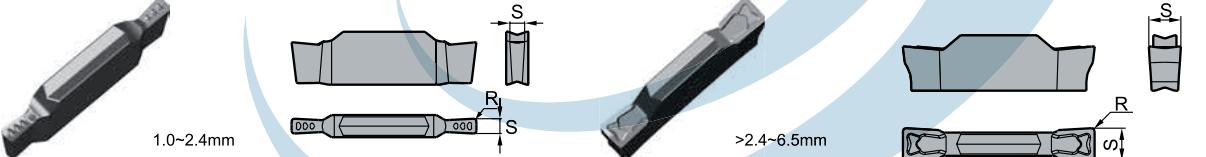


Type Tipo		Dimension (mm) Dimensioni			Grade Grado							
					P	M	K	N				
Double cutting edge 2 taglienti	ZTED02503-MG	2.5	0.3	17	●	○	●		●	○	●	●
	ZTFD03503-MG	3.0	0.3	17	●	●	●		●	●	●	●
	ZTGD0404-MG	4.0	0.4	22	●	●	●	○	●	●	●	●
	ZTHD0504-MG	5.0	0.4	22	●	●	●	○	●	●	●	●
	ZTKD0608-MG	6.0	0.8	22	●	●	●	○	●	●	●	●
	ZTHS0504-MG	5.0	0.4	-	●	○	●		○	○	●	●
Single cutting edge 1 tagliente	ZTKS0608-MG	6.0	0.8	-	●	○	●		○	○	●	●

Tool holder / Cartuccia



Precise grooving and turning inserts · Inserti di precisione per scanalatura e tornitura



Type Tipo		Dimension (mm) Dimensioni			Grade Grado							
					P	M	K	N				
Double cutting edge 2 taglienti	ZTC***-EG	1.0~1.6	(2)	2.6					○			
		1.6~2.4		3.4						○		
	ZTE***-EG	2.4~3.0		17					○			
	ZTFD***-EG	3.0~3.8		17					○			
	ZTGD***-EG	3.8~4.8		22					○			
	ZTHD***-EG	4.8~5.8		22					○			
	ZTKD***-EG	5.8~6.5		22					○			

Note: (1) The code indicated with * is to be designated based on the edge width and edge radius. The code will be ZTFD03503-EG if the ordered insert is with an edge width of 3.5mm and an edge radius of 3.0mm.

(2) Edge radius R is based on customers' requirements

Informazioni per l'ordinazione:

(1) es. ZTFD03503-EG indica una larghezza del tagliente di 3.5mm e un raggio di punta di 0.3mm.

(2) Raggio di punta in base alla richiesta del cliente

Tool holder / Cartuccia



Turning · Tornitura

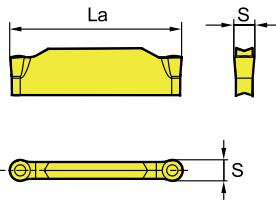
Parting & Grooving · Scanalatura e gole

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General Turning
Tornitura generale

Parting & Grooving
Scanalatura e gole

Profiling and turing inserts · Inserti per contornatura e tornitura

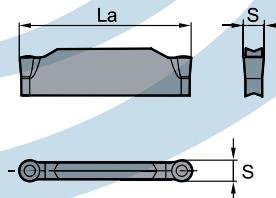


Type Tipo	Dimension (mm) Dimensioni		Grade Grado				
	S ^{+0.1} ₀	La _{max}	P	M	K	N	
ZRED025-MG	2.5	20	●	●	○	●	●
ZRFD03-MG	3.0	20	●	●	○	●	●
ZRGD04-MG	4.0	25	●	●	●	●	●
ZRHD05-MG	5.0	25	●	●	●	●	●
ZRKD06-MG	6.0	25	●	●	●	●	●

Tool holder / Cartuccia



Precise profiling and turning inserts · Inserti di precisione per contornatura e tornitura

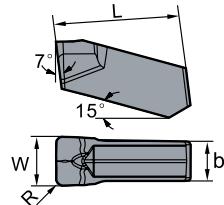


Type Tipo	Dimension (mm) Dimensioni		Grade Grado				
	S±0.025	La _{max}	P	M	K	N	
ZRFD03-EG	3.0	20	○			○	
ZRGD04-EG	4.0	25	○			○	
ZRHD05-EG	5.0	25	○			○	
ZRKD06-EG	6.0	25	○			○	

Tool holder / Cartuccia



**Single-cutting edge grooving and turning inserts for machining of heatresistance super alloy
Inserti per scanalatura e tornitura di superleghe resistenti al calore**



Type Tipo	Dimension (mm) Dimensioni				Grade Grado				
					S				M
	W ± 0.05	R ± 0.1	b	L	XS101	XAI102	XAI105	XAI202	XAI202
ZIMF304N-NM	3	0.4	2.4	15.3		○	●		
ZIMF406N-NM	4	0.6	3.2	15.3		●	●		
ZIMF506N-NM	5	0.6	4	15.3		●	●		
ZIMF608N-NM	6	0.8	4	15.3		●	●		

Tool holder / Cartuccia

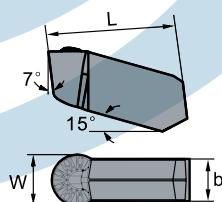


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General Turning
Tornitura generale

Parting & Grooving
Scanalatura e gole

**Single-cutting edge grooving and turning inserts for machining of heatresistance super alloy
Inserti per scanalatura e tornitura di superleghe resistenti al calore**



Type Tipo	Dimension (mm) Dimensioni			Grade Grado					
				S				M	
	W ± 0.025	b	L	XS101	XAI102	XAI105	XAI202	XAI202	
ZIGQ3N-NM	3	2.4	15.3		○	●			
ZIGQ4N-NM	4	3.2	15.3		○	●			
ZIGQ5N-NM	5	4	15.3		○	●			
ZIGQ6N-NM	6	5	15.3		○	●			

Tool holder / Cartuccia



Turning · Tornitura

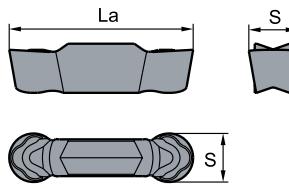
Parting & Grooving · Scanalatura e gole

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General Turning
Tornitura generale

Parting & Grooving
Scanalatura e gole

Profiling Inserts for Al · Inserti per contornatura di alluminio

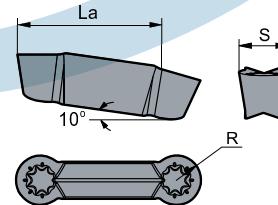
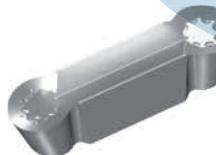


Type Tipo	Dimension (mm) Dimensioni		Grade Grado
	S \pm 0.025	La _{max}	
ZRKD06-LH	6.0	25	○
ZRLD08-LH	8.0	30	●

Tool holder / Cartuccia



Profiling Inserts for Al · Inserti per contornatura di alluminio

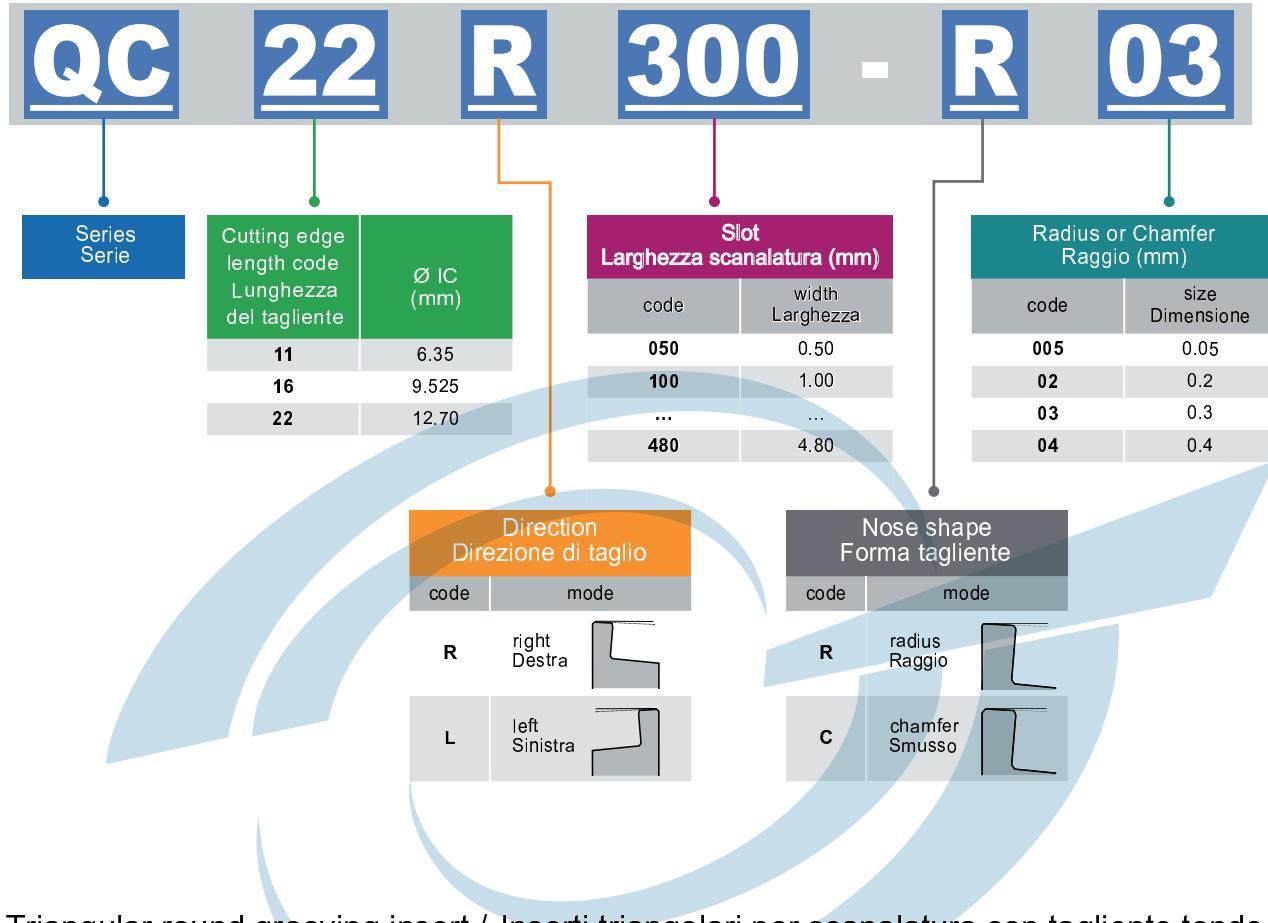


Type Tipo	Dimension (mm) Dimensioni		Grade Grado	
	S \pm 0.025	La _{max}	XS101	XS201
ZILD08-LC	8.0	22	●	○

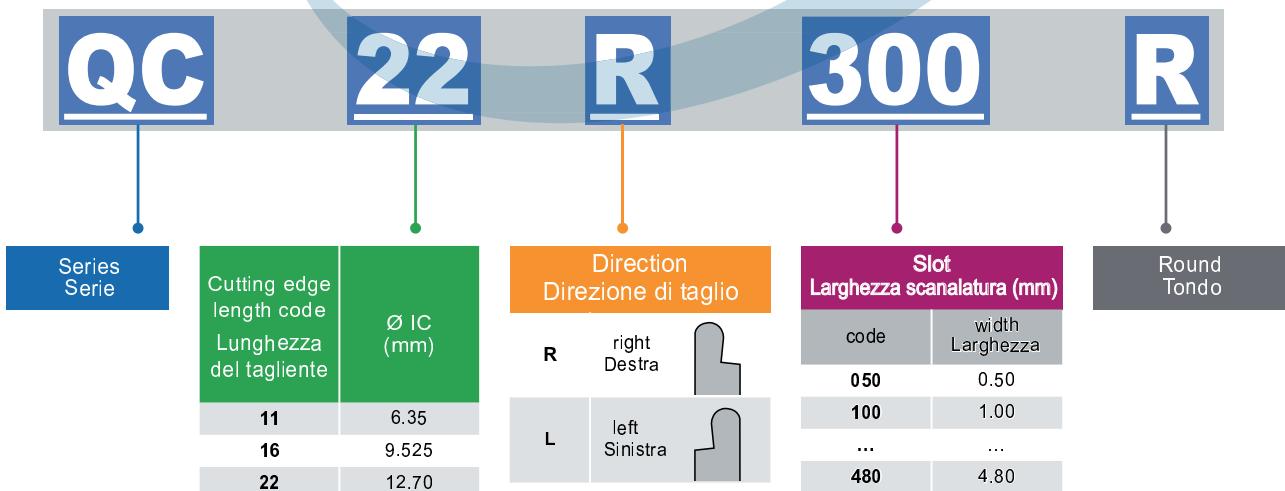
QC series grooving insert / Inserti serie QC

QC series grooving insert code key / Classificazione serie QC

- Triangular straight grooving insert / Inserti triangolari per scanalatura con tagliente diritto



- Triangular round grooving insert / Inserti triangolari per scanalatura con tagliente tondo



Turning · Tornitura

Parting & Grooving · Scanalatura e gole

General Turning
Tornitura generale

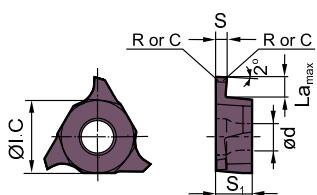
Parting & Grooving
Scanalatura e gole

QC series grooving insert / Inserti serie QC

A



right hand style
Versione destra



Type Tipo		Dimension (mm) Dimensioni						Grade Grado				
		S ± 0.025	L _a _{max}	R/C	ØI.C	S ₁	Ød	XAI202	XAI205	XAI202	XAI205	XAI202
QC11R/L	120-R02	1.20	1.50	R0.2	6.35	3.18	2.8	○	●	○	●	○
	125-R02	1.25	1.50	R0.2	6.35	3.18	2.8	○	●	○	●	○
	145-R02	1.45	1.50	R0.2	6.35	3.18	2.8	○	●	○	●	○
	150-R02	1.50	1.50	R0.2	6.35	3.18	2.8	○	●	○	●	○
	200-R02	2.00	2.00	R0.2	6.35	3.18	2.8	○	●	○	●	○
	225-R02	2.25	2.00	R0.2	6.35	3.18	2.8	○	○	○	○	○
QC16R/L	110-R01	1.10	2.00	R0.1	9.525	3.18	4.4	○	●	○	●	○
	125-R02	1.25	2.00	R0.2	9.525	3.18	4.4	○	●	○	●	○
	130-R02	1.30	2.00	R0.2	9.525	3.18	4.4		●		●	
	145-R02	1.45	2.00	R0.2	9.525	3.18	4.4	○	●	○	●	○
	150-R02	1.50	2.00	R0.2	9.525	3.18	4.4	○	●	○	●	○
	160-R02	1.60	2.00	R0.2	9.525	3.18	4.4		●		●	
	175-R02	1.75	2.00	R0.2	9.525	3.18	4.4	○	●	○	●	○
	185-R02	1.85	2.50	R0.2	9.525	3.18	4.4	○	●	○	●	○
	200-R02	2.00	2.50	R0.2	9.525	3.18	4.4	○	●	○	●	○
	250-R02	2.50	2.50	R0.2	9.525	3.18	4.4	○	●	○	●	○
QC22R/L	125-R02	1.25	2.00	R0.2	12.70	4.76	5.5	○	●	○	●	○
	145-R02	1.45	2.00	R0.2	12.70	4.76	5.5	○	●	○	●	○
	150-R02	1.50	3.50	R0.2	12.70	4.76	5.5	○	●	○	●	○
	175-R02	1.75	3.50	R0.2	12.70	4.76	5.5	○	●	○	●	○
	185-R02	1.85	3.50	R0.2	12.70	4.76	5.5	○	●	○	●	○
	200-R02	2.00	3.50	R0.2	12.70	4.76	5.5	○	●	○	●	○
	230-R02	2.30	3.50	R0.2	12.70	4.76	5.5	○	●	○	●	○
	250-R03	2.50	4.00	R0.3	12.70	4.76	5.5	○	●	○	●	○
	265-R03	2.65	4.00	R0.3	12.70	4.76	5.5	○	●	○	●	○
	280-R03	2.80	4.00	R0.3	12.70	4.76	5.5	○	●	○	●	●

The code of other size for your order, for example: QC22R160-R03 if S $\pm 0.025=1.60$ mm, ØI.C=12.70mm and cutting edge with R=0.3mm
Informazioni per l'ordinazione: es.QC22R160-R03 indica S $\pm 0.025=1.60$ mm, ØI.C=12.70mm e un raggio di punta R=0.3mm.

Tool holder / Cartuccia

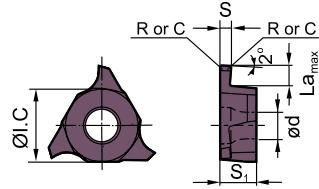
QC Serie
S***-QC**R/L*



■ Triangular straight grooving insert / Inserti triangolari per scanalatura con tagliente diritto



right hand style
Versione destra

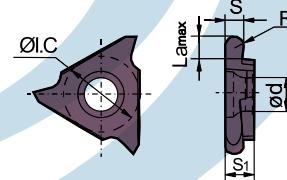


Type Tipo	Dimension (mm) Dimensioni						Grade Grado					
	S \pm 0.025	La _{max}	R/C	ØI.C	S ₁	ød	XAI202	XAI205	XAI202	XAI205	XAI202	XAI205
QC22R/L	300-R03	3.00	4.00	R0.3	12.70	4.76	5.5	○	●	○	●	○
	320-R03	3.20	4.00	R0.3	12.70	4.76	5.5	○	●	○	●	○
	330-R03	3.30	4.00	R0.3	12.70	4.76	5.5	○	●	○	●	○
	350-R03	3.50	5.00	R0.3	12.70	4.76	5.5	○	●	○	●	○
	400-R04	4.00	5.00	R0.4	12.70	4.76	5.5	○	●	○	●	○
	430-R04	4.30	5.00	R0.4	12.70	4.76	5.5	○	○	○	○	○
	450-R04	4.50	5.00	R0.4	12.70	4.76	5.5	○	○	○	○	○
	480-R04	4.80	5.00	R0.4	12.70	5.06	5.5	○	○	○	○	○

■ Triangular round grooving insert / Inserti triangolari per scanalatura con tagliente tondo



right hand style
Versione destra



Type Tipo	Dimension (mm) Dimensioni						Grade Grado					
	S \pm 0.025	La _{max}	R/C	ØI.C	S ₁	ød	XAI202	XAI205	XAI202	XAI205	XAI202	XAI205
QC16R/L	200R	2.00	2.50	1.00	12.70	3.18	4.4	○	○	○	○	○
	300R	3.00	2.50	1.50	12.70	3.18	4.4	○	○	○	○	○
QC22R/L	100R	1.00	2.00	0.50	12.70	4.76	5.5	○	○	○	○	○
	150R	1.50	3.50	0.75	12.70	4.76	5.5	○	○	○	○	○
	200R	2.00	3.50	1.00	12.70	4.76	5.5	○	○	○	○	○
	250R	2.50	4.00	1.25	12.70	4.76	5.5	○	○	○	○	○
	300R	3.00	4.00	1.50	12.70	4.76	5.5	○	○	○	○	○
	400R	4.00	5.00	2.00	12.70	4.76	5.5	○	○	○	○	○

Tool holder / Cartuccia

QE Serie GQCR/L



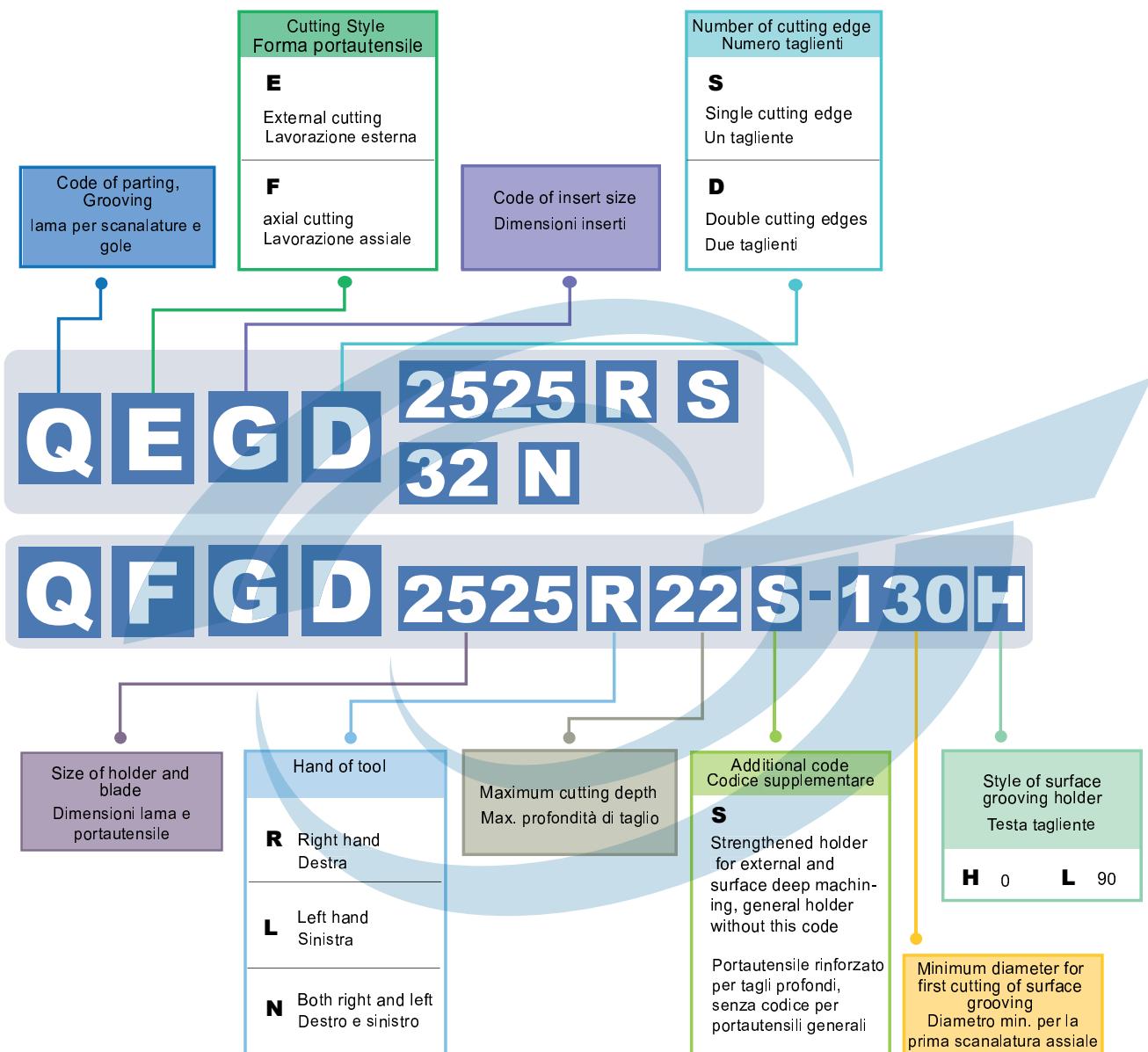
Turning · Tornitura

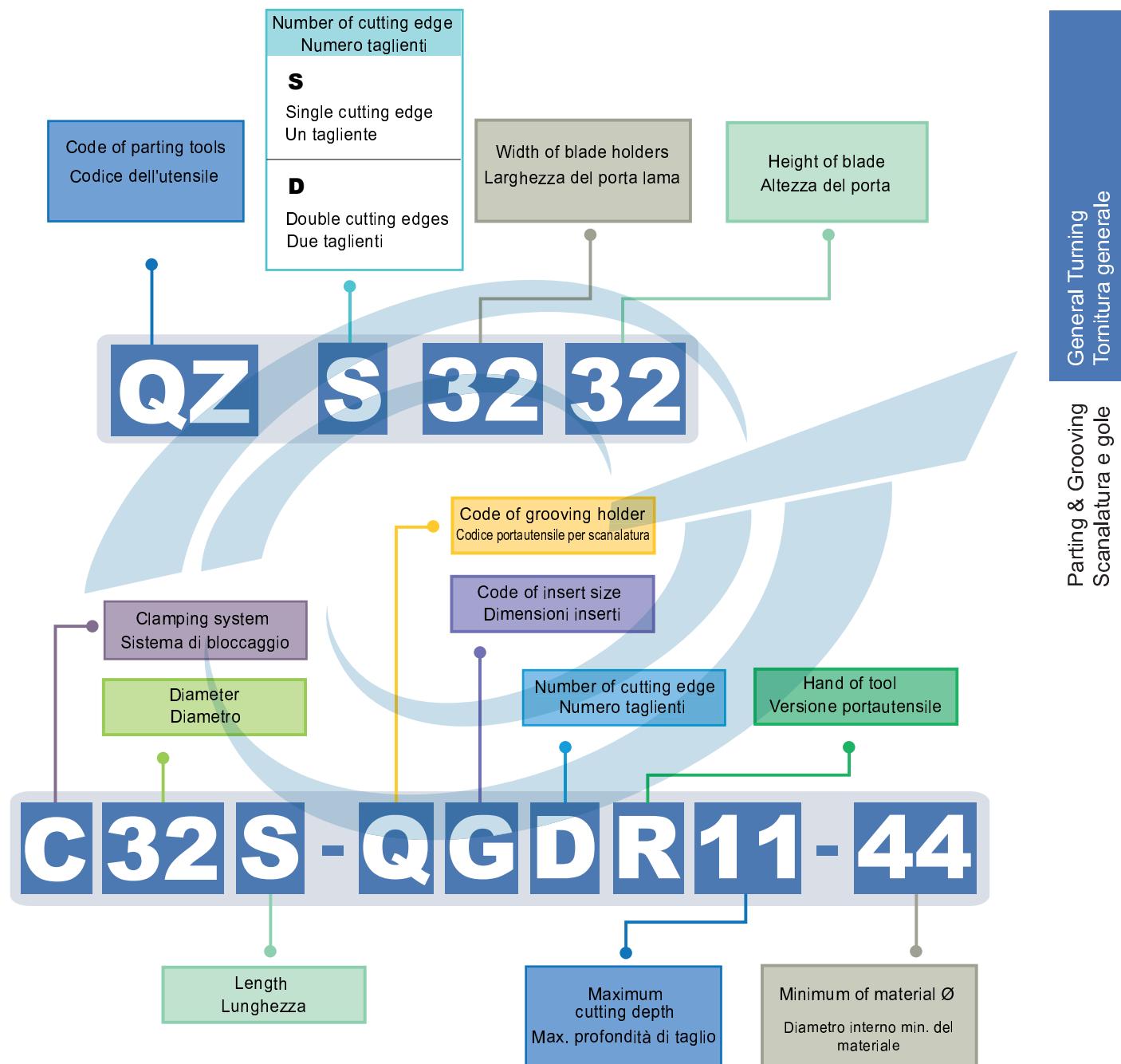
Parting & Grooving Tools Key Code · Classificazione ISO utensili per scanalature e gole

A

General Turning
Tornitura generale

Parting & Grooving
Scanalatura e gole





Turning · Tornitura

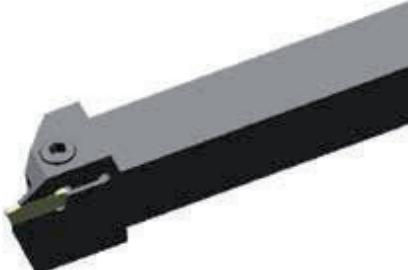
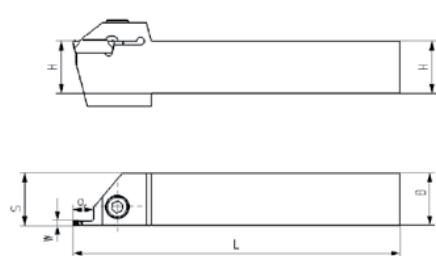
Parting & Grooving · Scanalatura e gole

A

General Turning
Tornitura generale

Parting & Grooving
Scanalatura e gole

External parting, grooving and turning tools · Utensili per scanalatura e tornitura (esterni)

Type Tipo	Stock Magazzino		Dimension (mm) Dimensioni					Inserts Inserto	Screw Bullone di fissaggio	Wrench Chiave
	R	L	H×B	L	S	W	ar max			
QEBD	○	○	16×16	150	16.17	2	4	ZTBD02002	M5×16	WH40L
	○	○	20×20	150	20.17	2	7	ZTBD02002		

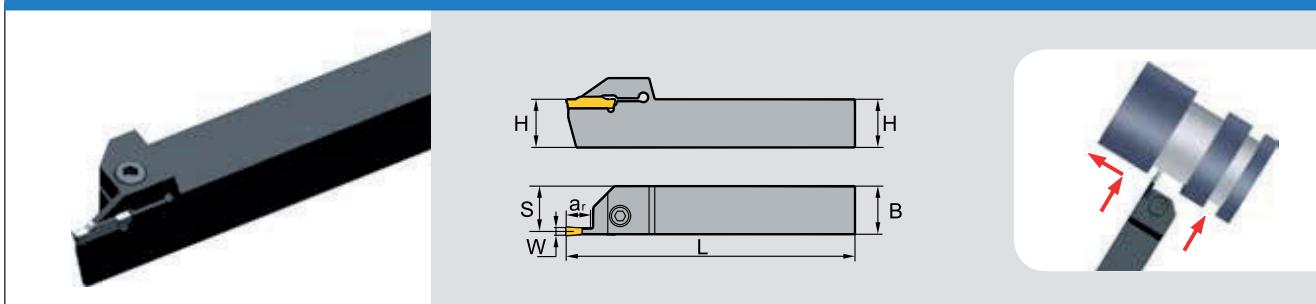
Internal parting, grooving and turning tools · Utensili per scanalatura e tornitura (interni)





Type Tipo	Stock Magazzino		Dimension (mm) Dimensioni					Inserts Inserto	Screw Bullone di fissaggio	Wrench Chiave
	R	L	d	L	S	W	ar max			
C16M-QBDR/L04-20	●	○	16	150	12	2	4	ZTBD02002-MG	M5×10	WH40L

External parting, grooving and turning tools · Utensili per scanalatura e tornitura (esterni)



A

Type Tipo		Stock Magazzino	Dimension (mm) Dimensioni						Inserts Inserto	Screw Bullone di fissaggio	Wrench Chiave
			R	L	H×B	L	S	W	a _{max}		
QEED	1616R/L10	● ●	16x16	125	15	2.5	10	Z*ED025**	GB70-85-M5x20	WH40L	
	1616R/L17	● ●	16x16	125	15	2.5	17	Z*ED025**			
	2020R/L10	● ●	20x20	15	10	2.5	10	Z*ED025**			
	2020R/L17	● ●	20x20	25	19	2.5	17	Z*ED025**			
	2525R/L10	● ●	25x25	150	19	2.5	10	Z*ED025**			
	2525R/L17	● ●	25x25	150	19	2.5	17	Z*ED025**			
QEFD	1616R/L10	● ●	16x16	125	14.8	3	10	Z*FD03**	GB70-85-M5x20	WH40L	
	1616R/L17	● ●	16x16	125	14.8	3	17	Z*FD03**			
	2020R/L10	● ●	20x20	125	18.8	3	10	Z*FD03**			
	2020R/L17	● ●	20x20	125	18.8	3	17	Z*FD03**			
	2525R/L10	● ●	25x25	150	23.8	3	10	Z*FD03**			
	2525R/L17	● ●	25x25	150	23.8	3	17	Z*FD03**			
QEGD	2020R/L13	● ●	20x20	140	18.5	4	13	Z*FD04**	GB70-85-M6x20	WH50L	
	2020R/L22	● ●	20x20	140	18.5	4	22	Z*GD04**			
	2525R/L13	● ●	25x25	150	23.5	4	13	Z*GD04**			
	2525R/L22	● ●	25x25	150	23.5	4	22	Z*GD04**			
	3232R/L13	● ●	32x32	170	30.5	4	13	Z*GD04**			
	3232R/L22	● ●	32x32	170	30.5	4	22	Z*GD04**			
QEHD	2525R/L13	● ●	25x25	150	23	5	13	Z*HD05**	GB70-85-M6x20	WH50L	
	2525R/L22	● ●	25x25	15	23	5	22	Z*HD05**			
QEHS	2525N30	●	25x25	150	12.5	5	30	Z*HS05**			
QEHD	3232R/L13	● ●	32x32	170	30	5	13	Z*HD05**			
	3232R/L22	● ●	32x32	170	30	5	22	Z*HD05**			
QEHS	3232N30	●	32x32	170	16	5	30	Z*HS05**			
QEKD	2525R/L13	● ●	25x25	150	22.6	6	13	Z*KD06**	GB70-85-M6x20	WH50L	
	2525R/L22	● ●	25x25	150	22.6	6	22	Z*KD06**			
QEKS	2525N30	○	25x25	15	12.5	6	30	Z*KS06**			
QEKD	3232R/L13	● ●	32x32	170	29.6	6	13	Z*KD06**			
	3232R/L22	● ●	32x32	170	29.6	6	22	Z*KD06**			
QEKS	3232N30	○	32x32	170	16	6	30	Z*KS06**			

General Turning
Tornitura generale

Parting & Grooving
Scanalatura e gole

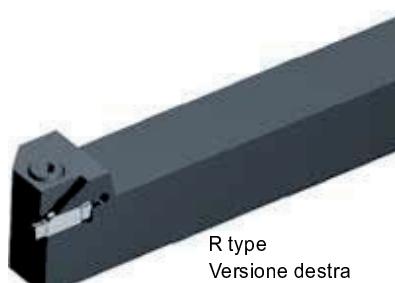
Turning · Tornitura

Parting & Grooving · Scanalatura e gole

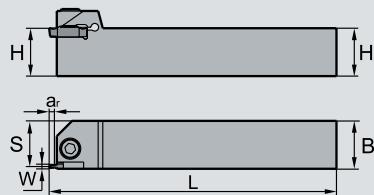
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General Turning
Tornitura generale

Parting & Grooving
Scanalatura e gole



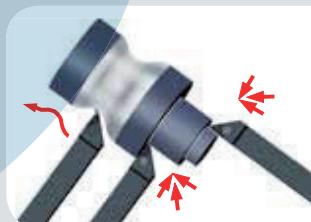
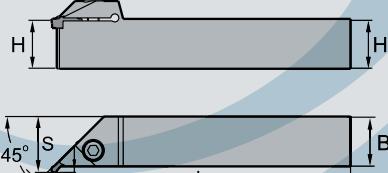
R type
Versione destra



Type Tipo	Stock Magazzino		Dimension (mm) Dimensioni					Inserts Inserti	Screw Bullone di fissaggio	Wrench Chiave
	R	L	H×B	L	S	W	armax			
QECD	1616R/L025	○	○	16×16	125	14.75		ZT**D***-EG	GB70-85-M5×20	WH40L
	2020R/L025	○	○	20×20	125	18.75			GB70-85-M6×20	
	2525R/L025	○	○	25×25	150	23.75	2.5			

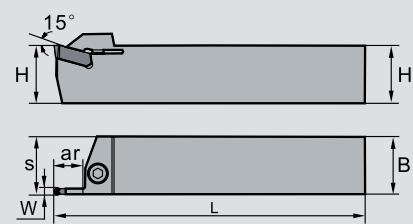


R type
Versione destra



Type Tipo	Stock Magazzino		Dimension (mm) Dimensioni					Inserts Inserti	Screw Bullone di fissaggio	Wrench Chiave		
	R	L	H×B	L	S	W	armax					
QXFD	2020R/L03-45	○	○	20×20	125	23		ZR(T)FD03-EG ZR(T)FD03-MG	GB70-85-M6×20	WH50L		
	2525R/L03-45	●	●	25×25	150	28						
	3232R/L03-45	○	○	32×32	170	35	3.0					
QXGD	2020R/L03-45	○	○	20×20	125	23		ZR(T)GD04-EG ZR(T)GD04-MG				
	2525R/L03-45	○	○	25×25	150	28	4.0					
	3232R/L03-45	○	○	32×32	170	35	3.0					
QXHD	2020R/L04-45	○	○	20×20	125	24		ZR(T)HD05-EG ZR(T)HD05-MG				
	2525R/L04-45	○	○	25×25	150	29	5.0					
	3232R/L04-45	○	○	32×32	170	36	4.0					
QXKD	2020R/L04-45			20×20	125	24		ZR(T)KD06-EG ZR(T)KD06-MG				
	2525R/L04-45	○	○	25×25	150	29	6.0					
	3232R/L04-45	○	○	32×32	170	36	4.0					

**External grooving tools for difficult machining
Utensili per scanalature per lavorazioni difficili (esterne)**



Type Tipo		Stock Magazzino		Dimension (mm) Dimensioni					Inserts Inserti	Screw Bullone di fissaggio	Wrench Chiave
		R	L	H×B	L	S	W	ar max			
QEFS	2525R/L12-3N	○	○	25×25	150	25.3	3	12	ZIGQ3N-NM	GB70-85-M6×20	WH50L
	3232R/L22-3N	○	○	32×32	170	32.3	3	22	ZIMF304N-NM		
QEGS	2525R/L12-4N	○	○	25×25	150	25.3	4	12	ZIGQ4N-NM		
	3232R/L22-4N	○	○	32×32	170	32.3	4	22	ZIMF406N-NM		
QEHS	2525R/L12-5N	○	○	25×25	150	25.4	5	12	ZIGQ5N-NM		
	3232R/L22-5N	○	○	32×32	170	32.4	5	22	ZIMF506N-NM		
QEKS	2525R/L12-6N	○	○	25×25	150	25.4	6	12	ZIGQ6N-NM		
	3232R/L22-6N	○	○	32×32	170	32.4	6	22	ZIMF608N-NM		

A

General Turning
Tornitura generale

Parting & Grooving
Scanalatura e gole

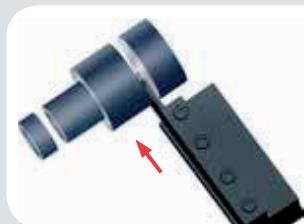
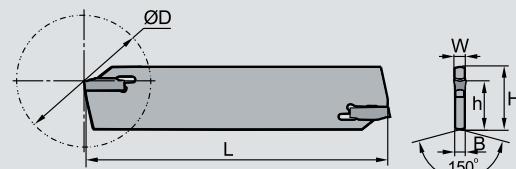
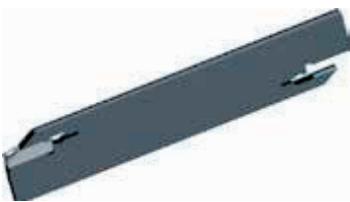
Turning · Tornitura

Parting & Grooving · Scanalatura e gole

General Turning
Tornitura generale

Parting & Grooving
Scanalatura e gole

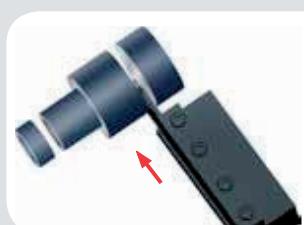
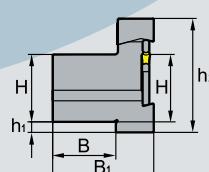
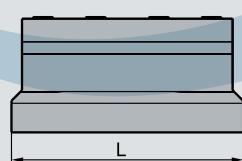
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Type Tipo	Stock Magazzino	Dimension (mm) Dimensioni						Inserts Inserti	Wrench Chiave
		L	H	h	B	W	ØD max		
QEES26N	●	110	26	19	2	2.5	60	ZPES02502-MG	
QEFS26N	●	110	26	19	2.4	3	60	ZPFS0302-MG	
QEGS26N	●	110	26	19	3.2	4	70	ZPGS0402-MG	
QEHS26N	●	110	26	19	4	5	70	ZPHS0503-MG	
QEKS26N	●	110	26	19	5	6	70	ZPKS0604-MG	
QEES32N	●	150	32	24.6	2	2.5	100	ZPES02502-MG	
QEFS32N	●	150	32	24.6	2.4	3	100	ZPFS0302-MG	
QEGS32N	●	150	32	24.6	3.2	4	120	ZPGS0402-MG	
QEHS32N	●	150	32	24.6	4	5	120	ZPHS0503-MG	
QEKS32N	●	150	32	24.6	5	6	120	ZPKS0604-MG	

W50RL

Holder for external parting · Portautensile per tornitura esterna

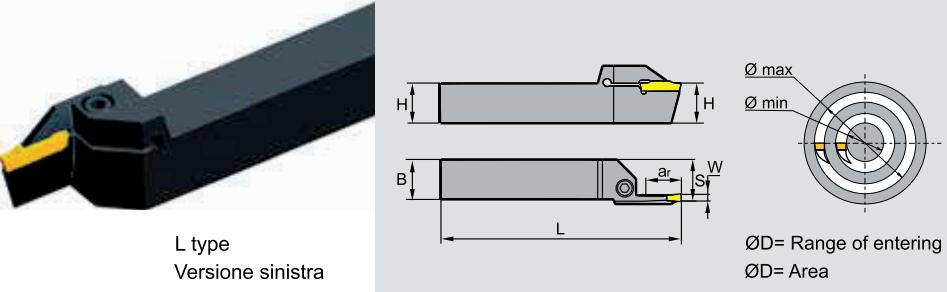


Type Tipo	Stock Magazzino	Dimension (mm) Dimensioni						Clamp Morsetto	Screw Bullone di fissaggio	Wrench Chiave
		L	H	h1	h2	B	B1			
QZS2026	●	86	20	10	46.6	19	38	QZC26		
QZS2526	●	86	25	5	46.6	23	42	QZC26		
QZS3226	○	86	32	3	51.6	30	48	QZC26		
QZS2032	●	110	20	13	50	19	38	QZC32		
QZS2532	●	110	25	8	50	23	42	QZC32		
QZS3232	●	110	32	5	54	30	48	QZC32		

GB70-85-M6×20

WH50L

A Axial grooving and turning tools · Utensile per scanalatura assiale e tornitura



Type Tipo		Stock Magazzino		Dimension (mm) Dimensioni						Inserts Inserti	Screw Bullone di fissaggio	Wrench Chiave
		R	L	H×B	L	S	W	ar _{max}	ØD (min-max)			
QFFD	2020R/L7-48H	○	○	20×20	150	21	3	7	48-66	ZTFD0303-MG	GB70-85-M6×20	WH50L
	2020R/L10-48H	○	○	20×20	150	21	3	10	48-66			
	2525R/L10-48H	●	●	25×25	150	26	3	10	48-66			
	2525R/L17-48H	●	●	25×25	150	26	3	17	48-66			
	2020R/L7-60H	○	○	20×20	150	21	3	7	60-80			
	2020R/L10-60H	○	○	20×20	150	21	3	10	60-80			
	2525R/L10-60H	●	●	25×25	150	26	3	10	60-80			
	2525R/L17-60H	●	●	25×25	150	26	3	17	60-80			
	2020R/L7-74H	○	○	20×20	150	21	3	7	74-110			
	2020R/L10-74H	○	○	20×20	150	21	3	10	74-110			
	2525R/L10-74H	●	●	25×25	150	26	3	10	74-110			
	2525R/L17-74H	●	●	25×25	150	26	3	17	74-110			
	2020R/L7-100H	○	○	20×20	150	21	3	7	100-150			
	2020R/L10-100H	○	○	20×20	150	21	3	10	100-150			
	2525R/L10-100H	●	●	25×25	150	26	3	10	100-150			
2525R/L17-100H	●	●	25×25	150	26	3	17	100-150				
QFGD	2020R/L10-52H	○	○	20×20	150	21	4	10	52-72	ZTGD0404-MG		
	2525R/L13-52H	●	●	25×25	150	26	4	13	52-72			
	2020R/L15-52H	○	○	20×20	150	21	4	15	52-72			
	2525R/L22-52H	●	●	25×25	150	26	4	22	52-72			
	2020R/L10-64H	○	○	20×20	150	21	4	10	64-100			
	2525R/L13-64H	●	●	25×25	150	26	4	13	64-100			
	2020R/L15-64H	○	○	20×20	150	21	4	15	64-100			
	2525R/L22-64H	●	●	25×25	150	26	4	22	64-100			
	2020R/L10-90H	○	○	20×20	150	21	4	10	90-140			
	2525R/L13-90H	●	●	25×25	150	26	4	13	90-140			
	2020R/L15-90H	○	○	20×20	150	21	4	15	90-140			
	2525R/L22-90H	●	●	25×25	150	26	4	22	90-140			
	2020R/L10-130H	○	○	20×20	150	21	4	10	130-230			
	2525R/L13-130H	●	●	25×25	150	26	4	13	130-230			
	2020R/L15-130H	○	○	20×20	150	21	4	15	130-230			
2525R/L22-130H	●	●	25×25	150	26	4	22	130-230				

A

General Turning
Tornitura generaleParting & Grooving
Scanalatura e gole

Turning · Tornitura

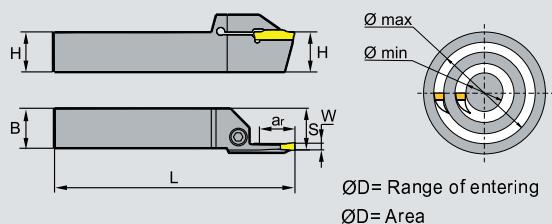
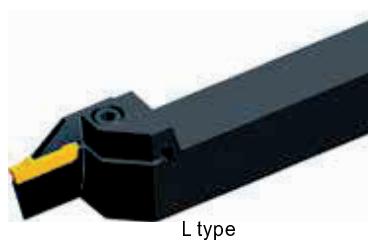
Parting & Grooving · Scanalatura e gole

General Turning
Tornitura generale

Parting & Grooving
Scanalatura e gole

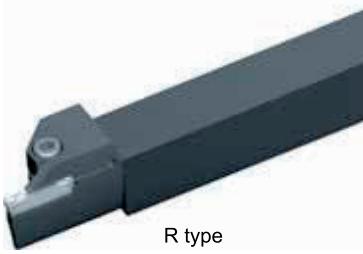
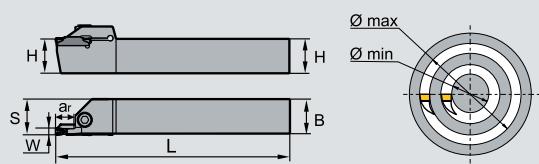
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Axial grooving and turning tools · Utensile per scanalatura assiale e tornitura



Type Tipo		Stock Magazzino		Dimension (mm) Dimensioni						Inserts Inserti	Screw Bullone di fissaggio	Wrench Chiave		
		R	L	H×B	L	S	W	ar _{max}	ØD (min-max)					
QFHD	2525R/L13-58H	●	●	25×25	150	26	5	13	58-96	ZTHD0504-MG	GB70-85-M6×20	WH50L		
	2525R/L22-58H	●	●	25×25	150	26	5	22	58-96					
	2525R/L13-86H	●	●	25×25	150	26	5	13	86-140					
	2525R/L22-86H	●	●	25×25	150	26	5	22	86-140					
	2525R/L13-130H	●	●	25×25	150	26	5	13	130-200					
	2525R/L22-130H	●	●	25×25	150	26	5	22	130-200					
	2525R/L13-185H	●	●	25×25	150	26	5	13	185-400					
	2525R/L22-185H	●	●	25×25	150	26	5	22	185-400					
QFHS	2525R/L30-185H	●	●	25×25	150	26	5	30	185-400	ZTHS0504-MG	GB70-85-M6×20	WH50L		
QFKD	2525R/L13-60H	●	●	25×25	150	26	6	13	60-100	ZTKD0608-MG ZRKD06-MG				
	2525R/L22-60H	●	●	25×25	150	26	6	22	60-100					
	2525R/L13-88H	○	●	25×25	150	26	6	13	88-180					
	2525R/L22-88H	●	●	25×25	150	26	6	22	88-180					
	2525R/L13-160H	●	●	25×25	150	26	6	13	160-400					
	2525R/L22-160H	●	●	25×25	150	26	6	22	160-400					
QFKS	2525R/L30-160H	●	●	25×25	150	26	6	30	160-400	ZTKS0608-MG	GB70-85-M6×20	WH50L		

A Axial grooving and turning tools · Utensile per scanalatura assiale e tornitura

R type
Versione destra

\varnothing max = Range of entering
 \varnothing D = Area



Type Tipo	Stock Magazzino		Dimension (mm) Dimensioni						Inserts Inserti	Screw Bullone di fissaggio	Wrench Chiave	
	R	L	H×B	L	S	W	ar max	\varnothing D (min-max)				
QFFD	2020RR7-48H	○	○	20×20	150	21	3	7	48-66	ZTFD0303-MG	GB70-85-M6×20	WH50L
	2020RR10-48H	○	○	20×20	150	21	3	10	48-66			
	2525RR10-48H	○	○	25×25	150	26	3	10	48-66			
	2525RR17-48H	○	○	25×25	150	26	3	17	48-66			
	2020RR7-60H	○	○	20×20	150	21	3	7	60-80			
	2020RR10-60H	○	○	20×20	150	21	3	10	60-80			
	2525RR10-60H	○	○	25×25	150	26	3	10	60-80			
	2525RR17-60H	○	○	25×25	150	26	3	17	60-80			
	2020RR7-74H	○	○	20×20	150	21	3	7	74-110			
	2020RR10-74H	○	○	20×20	150	21	3	10	74-110			
	2525RR10-74H	○	○	25×25	150	26	3	10	74-110			
	2525RR17-74H	○	○	25×25	150	26	3	17	74-110			
	2020RR7-100H	○	○	20×20	150	21	3	7	100-150			
	2020RR10-100H	○	○	20×20	150	21	3	10	100-150			
QFGD	2525RR10-100H	○	○	25×25	150	26	3	10	100-150			
	2525RR17-100H	○	○	25×25	150	26	3	17	100-150			
	2020RR10-52H	○	○	20×20	150	21	4	10	52-72	ZTGD0404-MG	WH50L	WH50L
	2020RR15-52H	○	○	20×20	150	26	4	15	52-72			
	2525RR13-52H	●	○	25×25	150	21	4	13	52-72			
	2525RR22-52H	○	○	25×25	150	26	4	22	52-72			
	2020RR10-64H	○	○	20×20	150	21	4	10	64-100			
	2020RR15-64H	○	○	20×20	150	26	4	15	64-100			
	2525RR13-64H	○	○	25×25	150	21	4	13	64-100			
	2525RR22-64H	○	○	25×25	150	26	4	22	64-100			
	2020RR10-90H	○	○	20×20	150	21	4	10	90-140			
	2020RR15-90H	○	○	20×20	150	26	4	15	90-140			
	2525RR13-90H	○	○	25×25	150	21	4	13	90-140			
	2525RR22-90H	○	○	25×25	150	26	4	22	90-140			
	2020RR10-130H	○	○	20×20	150	21	4	10	130-230			
	2020RR15-130H	○	○	20×20	150	26	4	15	130-230			
	2525RR13-130H	○	○	25×25	150	21	4	13	130-230			
	2525RR22-130H	○	○	25×25	150	26	4	22	130-230			

A

General Turning
Tornitura generale

Parting & Grooving
Scanalatura e gole

Turning · Tornitura

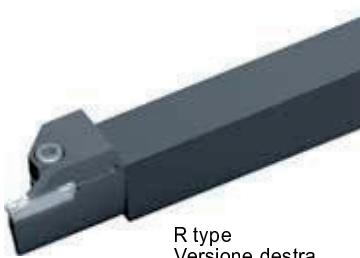
Parting & Grooving · Scanalatura e gole

General Turning
Tornitura generale

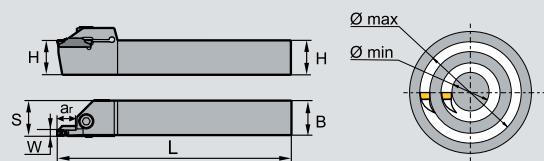
Parting & Grooving
Scanalatura e gole

A

A Axial grooving and turning tools · Utensile per scanalatura assiale e tornitura



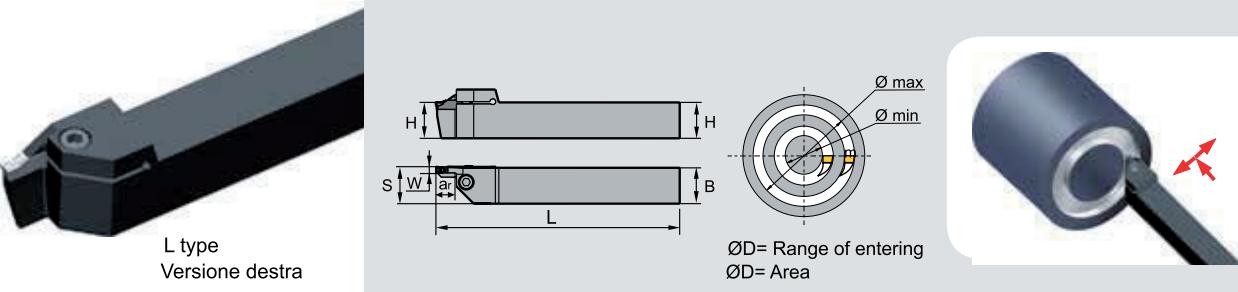
R type
Versione destra



$\varnothing D$ = Range of entering
 $\varnothing D$ = Area

Type Tipo		Stock Magazzino		Dimension (mm) Dimensioni						Inserts Inserti	Screw Bullone di fissaggio	Wrench Chiave		
		R	L	H×B	L	S	W	ar max	$\varnothing D$ (min-max)					
QFHD	2525RR13-58H	○	○	25×25	150	26	5	13	58-96	ZTHD0504-MG	GB70-85-M6×20	WH50L		
	2525RR22-58H	●	○	25×25	150	26	5	22	58-96					
	2525RR13-86H	○	○	25×25	150	26	5	13	86-140					
	2525RR22-86H	○	○	25×25	150	26	5	22	86-140					
	2525RR13-130H	○	○	25×25	150	26	5	13	130-200					
	2525RR22-130H	●	○	25×25	150	26	5	22	130-200					
	2525RR13-185H	○	○	25×25	150	26	5	13	185-400					
QFHS	2525RR30-185H	○	○	25×25	150	26	5	22	185-400	ZTHS0504-MG	GB70-85-M6×20	WH50L		
QFKD	2525RR13-60H	○	○	25×25	150	26	6	13	60-100	ZTKD0608-MG ZRKD06-MG				
	2525RR22-60H	○	○	25×25	150	26	6	22	60-100					
	2525RR13-88H	○	○	25×25	150	26	6	13	88-180					
	2525RR22-88H	○	○	25×25	150	26	6	22	88-180					
	2525RR13-160H	○	○	25×25	150	26	6	13	160-400					
	2525RR22-160H	○	○	25×25	150	26	6	22	160-400					
QFKS	2525RR30-160H	○	○	25×25	150	26	6	30	160-400	ZTKS0608-MG	GB70-85-M6×20	WH50L		

A Axial grooving and turning tools · Utensile per scanalatura assiale e tornitura



Type Tipo	Stock Magazzino	Dimension (mm) Dimensioni							Inserts Inserti	Screw Bullone di fissaggio	Wrench Chiave
	R	L	H×B	L	S	W	ar max	ØD (min-max)			
QFFD	2020LL7-48H	○	○	20×20	150	21	3	7	48-66		
	2020LL10-48H	○	○	20×20	150	21	3	10	48-66		
	2525LL10-48H	○	○	25×25	150	26	3	10	48-66		
	2525LL17-48H	○	○	25×25	150	26	3	17	48-66		
	2020LL7-60H	○	○	20×20	150	21	3	7	60-80		
	2020LL10-60H	○	○	20×20	150	21	3	10	60-80		
	2525LL10-60H	○	○	25×25	150	26	3	10	60-80		
	2525LL17-60H	○	○	25×25	150	26	3	17	60-80	ZTFD0303-MG	
	2020LL7-74H	○	○	20×20	150	21	3	7	74-110		
	2020LL10-74H	○	○	20×20	150	21	3	10	74-110		
	2525LL10-74H	○	○	25×25	150	26	3	10	74-110		
	2525LL17-74H	○	○	25×25	150	26	3	17	74-110		
	2020LL7-100H	○	○	20×20	150	21	3	7	100-150		
	2020LL10-100H	○	○	20×20	150	21	3	10	100-150		
	2525LL10-100H	○	○	25×25	150	26	3	10	100-150		
	2525LL17-100H	○	○	25×25	150	26	3	17	100-150		WH50L
QFGD	2020LL10-52H	○	○	20×20	150	21	4	10	52-72		
	2020LL15-52H	○	○	20×20	150	26	4	15	52-72		
	2525LL13-52H	○	○	25×25	150	21	4	13	52-72		
	2525LL22-52H	○	○	25×25	150	26	4	22	52-72		
	2020LL10-64H	○	○	20×20	150	21	4	10	64-100		
	2020LL15-64H	○	○	20×20	150	26	4	15	64-100		
	2525LL13-64H	○	○	25×25	150	21	4	13	64-100	ZTGD0404-MG	
	2525LL22-64H	○	○	25×25	150	26	4	22	64-100		
	2020LL10-90H	○	○	20×20	150	21	4	10	90-140		
	2020LL15-90H	○	○	20×20	150	26	4	15	90-140		
	2525LL13-90H	○	○	25×25	150	21	4	13	90-140		
	2525LL22-90H	○	○	25×25	150	26	4	22	90-140		
	2020LL10-130H	○	○	20×20	150	21	4	10	130-230		
	2020LL15-130H	○	○	20×20	150	26	4	15	130-230		
	2525LL13-130H	○	○	25×25	150	21	4	13	130-230		
	2525LL22-130H	○	○	25×25	150	26	4	22	130-230		

A

General Turning
Tornitura generaleParting & Grooving
Scanalatura e gole

Turning · Tornitura

Parting & Grooving · Scanalatura e gole

A

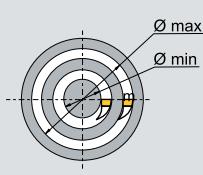
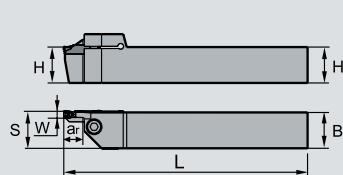
General Turning
Tornitura generale

Parting & Grooving
Scanalatura e gole

Axial grooving and turning tools · Utensile per scanalatura assiale e tornitura



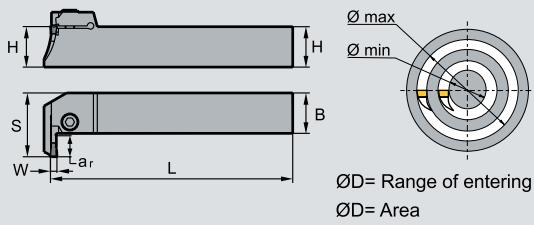
L type
Versione sinistra



$\varnothing D$ = Range of entering
 $\varnothing D$ = Area

Type Tipo		Stock Magazzino		Dimension (mm) Dimensioni						Inserts Inseriti	Screw Bullone di fissaggio	Wrench Chiave		
		R	L	H×B	L	S	W	ar max	$\varnothing D$ (min-max)					
QFHD	2525LL13-58H	○	○	25×25	150	26	5	13	58-96	ZTHD0504-MG	GB70-85-M6×20	WH50L		
	2525LL22-58H	○	○	25×25	150	26	5	22	58-96					
	2525LL13-86H	○	○	25×25	150	26	5	13	86-140					
	2525LL22-86H	○	○	25×25	150	26	5	22	86-140					
	2525LL13-130H	○	○	25×25	150	26	5	13	130-200					
	2525LL22-130H	○	○	25×25	150	26	5	22	130-200					
	2525LL13-185H	○	○	25×25	150	26	5	13	185-400					
QFHS	2525LL30-185H	○	○	25×25	150	26	5	22	185-400	ZTHS0504-MG	GB70-85-M6×20	WH50L		
QFKD	2525LL13-60H	○	○	25×25	150	26	6	13	60-100	ZTKD0608-MG ZRKD06-MG				
	2525LL22-60H	○	○	25×25	150	26	6	22	60-100					
	2525LL13-88H	○	○	25×25	150	26	6	13	88-180					
	2525LL22-88H	○	○	25×25	150	26	6	22	88-180					
	2525LL13-160H	○	○	25×25	150	26	6	13	160-400					
	2525LL22-160H	○	○	25×25	150	26	6	22	160-400					
QFKS	2525LL30-160H	○	○	25×25	150	26	6	30	160-400	ZTKS0608-MG				

L type tools for Axial grooving and turning · Utensile tipo L per scanalatura assiale e tornitura



Type Tipo		Stock Magazzino		Dimension (mm) Dimensioni						Inserts Inserti	Screw Bullone di fissaggio	Wrench Chiave
		R	L	H×B	L	S	W	ar_max	ØD (min-max)			
QFFD	2020R/L7-48L	○	○	20×20	150	28.5	3	7	48-66	ZTFD0303-MG	GB70-85-M6×20	WH50L
	2020R/L10-48L	○	○	20×20	150	31.5	3	10	48-66			
	2525R/L10-48L	○	●	25×25	150	36.5	3	10	48-66			
	2525R/L17-48L	○	○	25×25	150	43.5	3	17	48-66			
	2020R/L7-60L	○	○	20×20	150	28.5	3	7	60-80			
	2020R/L10-60L	●	○	20×20	150	31.5	3	10	60-80			
	2525R/L10-60L	●	○	25×25	150	36.5	3	10	60-80			
	2525R/L17-60L	○	○	25×25	150	43.5	3	17	60-80			
	2020R/L7-74L	○	○	20×20	150	28.5	3	7	74-110			
	2020R/L10-74L	●	○	20×20	150	31.5	3	10	74-110			
	2525R/L10-74L	○	○	25×25	150	36.5	3	10	74-110			
	2525R/L17-74L	○	○	25×25	150	43.5	3	17	74-110			
	2020R/L7-100L	○	○	20×20	150	28.5	3	7	100-150			
	2020R/L10-100L	○	○	20×20	150	31.5	3	10	100-150			
	2525R/L10-100L	○	○	25×25	150	36.5	3	10	100-150			
2525R/L17-100L	●	○	25×25	150	43.5	3	17	100-150				
QFGD	2020R/L10-52L	○	○	20×20	150	31.5	4	10	52-72	ZTGD0404-MG		
	2525R/L13-52L	○	○	25×25	150	39.5	4	13	52-72			
	2020R/L15-52L	○	○	20×20	150	36.5	4	15	52-72			
	2525R/L22-52L	○	○	25×25	150	48.5	4	22	52-72			
	2020R/L10-64L	○	○	20×20	150	31.5	4	10	64-100			
	2525R/L13-64L	○	○	25×25	150	39.5	4	13	64-100			
	2020R/L15-64L	○	○	20×20	150	36.5	4	15	64-100			
	2525R/L22-64L	○	○	25×25	150	48.5	4	22	64-100			
	2020R/L10-90L	●	○	20×20	150	31.5	4	10	90-140			
	2525R/L13-90L	○	○	25×25	150	39.5	4	13	90-140			
	2020R/L15-90L	○	○	20×20	150	36.5	4	15	90-140			
	2525R/L22-90L	○	○	25×25	150	48.5	4	22	90-140			
	2020R/L10-130L	●	○	20×20	150	31.5	4	10	130-230			
	2525R/L13-130L	○	○	25×25	150	39.5	4	13	130-230			
	2020R/L15-130L	○	○	20×20	150	36.5	4	15	130-230			
2525R/L22-130L	●	○	25×25	150	48.5	4	22	130-230				

A

General Turning
Tornitura generale

Parting & Grooving
Scanalatura e gole

Turning · Tornitura

Parting & Grooving · Scanalatura e gole

General Turning
Tornitura generale

Parting & Grooving
Scanalatura e gole

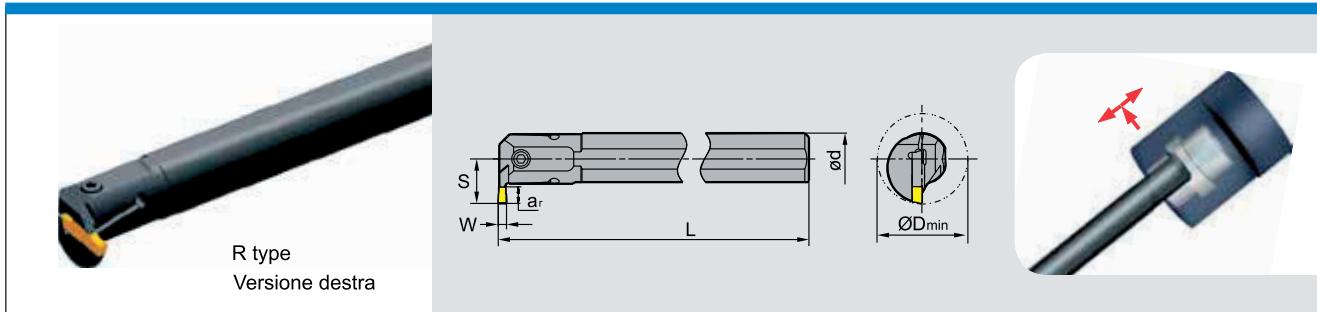
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■ L type tools for Axial grooving and turning · Utensile tipo L per scanalatura assiale e tornitura

Type Tipo		Stock Magazzino		Dimension (mm) Dimensioni						Inserts Inseriti	Screw Bullone di fissaggio	Wrench Chiave
		R	L	H×B	L	S	W	ar max	ØD (min-max)			
QFHD	2525R/L13-58L	○	○	25×25	150	39.5	5	13	58-96	ZTHD0504-MG	GB70-85-M6×20	WH50L
	2525R/L22-58L	○	○	25×25	150	48.5	5	22	58-96			
	2525R/L13-86L	●	○	25×25	150	39.5	5	13	86-140			
	2525R/L22-86L	○	○	25×25	150	48.5	5	22	86-140			
	2525R/L13-130L	○	○	25×25	150	39.5	5	13	130-200			
	2525R/L22-130L	○	○	25×25	150	48.5	5	22	130-200			
	2525R/L13-185L	○	○	25×25	150	39.5	5	13	185-400			
QFHS	2525R/L30-185L	○	○	25×25	150	56.5	5	30	185-400	ZTHS0504-MG		
QFKD	2525R/L13-60L	○	○	25×25	150	39.5	6	13	60-100	ZTKD0608-MG	GB70-85-M6×20	WH50L
	2525R/L22-60L	○	●	25×25	150	48.5	6	22	60-100			
	2525R/L13-88L	○	○	25×25	150	39.5	6	13	88-180			
	2525R/L22-88L	○	○	25×25	150	48.5	6	22	88-180			

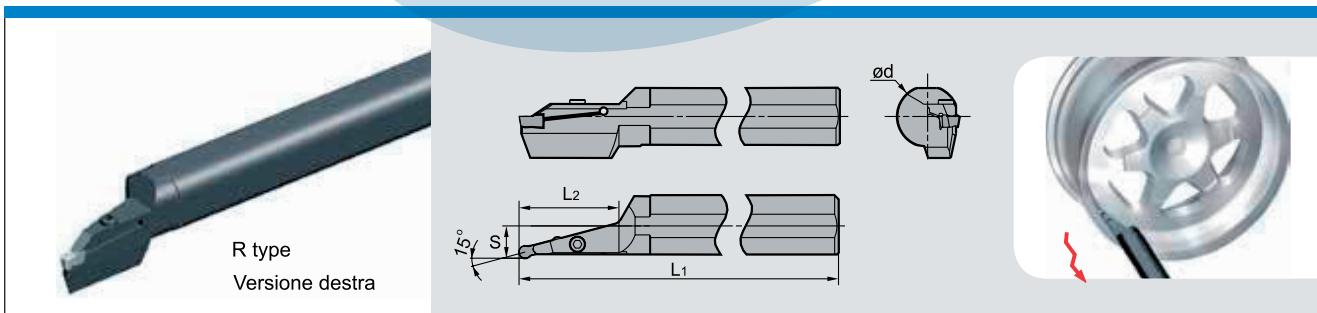
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Internal grooving and turning tools · Utensili per scanalatura e tornitura (interni)



Type Tipo	Stock Magazzino		Dimension (mm) Dimensioni						Inserts Inserti	Screw Bullone di fissaggio	Wrench Chiave
	R	L	Ød	L	S	W	ar max	ØDmin			
C20Q-QEDR/L05-27	●	●	20	180	15.2	2.5	5	27	ZTED02*	GB70-85-M4x12	WH30L
C25R-QEDR/L07-33	●	●	25	200	20.3	2.5	7	33	ZRED025*	GB70-85-M5x16	WH40L
C32S-QEDR/L09-42	●	●	32	250	25.3	2.5	9	42		GB70-85-M5x20	
C20Q-QFDR/L05-27	●	●	20	0	15.2	3	5	27	ZTFD03*	GB70-85-M4x12	WH30L
C25R-QFDR/L07-33	●	●	25	200	20.3	3	7	33	ZRFD03*	GB70-85-M5x16	WH40L
C32S-QFDR/L09-42	●	●	32	250	25.3	3	9	42		GB70-85-M5x20	
C25R-QGDR/L08-35	●	●	25	200	21.5	4	8	35	ZTGD04*	GB70-85-M5x16	WH40L
C32S-QGDR/L11-44	●	●	32	250	27.5	4	11	44	ZRGD04*	GB70-85-M6x20	WH50L
C40T-QGDR/L13-54	●	●	40	300	33.5	4	13	5		GB70-85-M6x20	
C25R-QHDR/L08-35	●	○	25	200	21.5	5	8	35	ZTHD05*	GB70-85-M5x16	WH40L
C32S-QHDR/L11-44	●	●	32	250	27.5	5	11	44	ZRHD05*	GB70-85-M6x20	WH50L
C40T-QHDR/L13-54	●	○	40	300	33.5	5	13	54		GB70-85-M6x20	
C25R-QKDR/L08-35	○	●	25	200	21.5	6	8	35	ZTKD06*	GB70-85-M5x16	WH40L
C32S-QKDR/L11-44	●	●	32	250	27.5	6	11	44	ZRKD06*	GB70-85-M6x20	WH50L
C40T-QKDR/L13-54	●	●	40	300	33.5	6	13	54		GB70-85-M6x20	

Profiling and turning tools for Al · Utensili per contornatura e scanalatura di Al. (interna)



Type Tipo	Stock Magazzino		Dimension (mm) Dimensioni					Inserts Inserti	Screw Bullone di fissaggio	Wrench Chiave
	R	L	ØD (\varnothing)	Ød	S	L1	L2			
C40X-QLDR/L65-15A	○	○	160	40	21	320	65	ZRLD08-LH		
C40X-QLDR/L80-15A	○	○	160	40	21	320	80	ZRLD08-LH		
C40X-QKDR/L60-15A	○	○	160	40	20	320	60	ZRKD06-LH	GB70-85-M6x20	WH50L
C40X-QKDR/L75-15A	●	○	160	40	20	320	75	ZRKD06-LH		

General Turning
Tornitura generale

Parting & Grooving
Scanalatura e gole

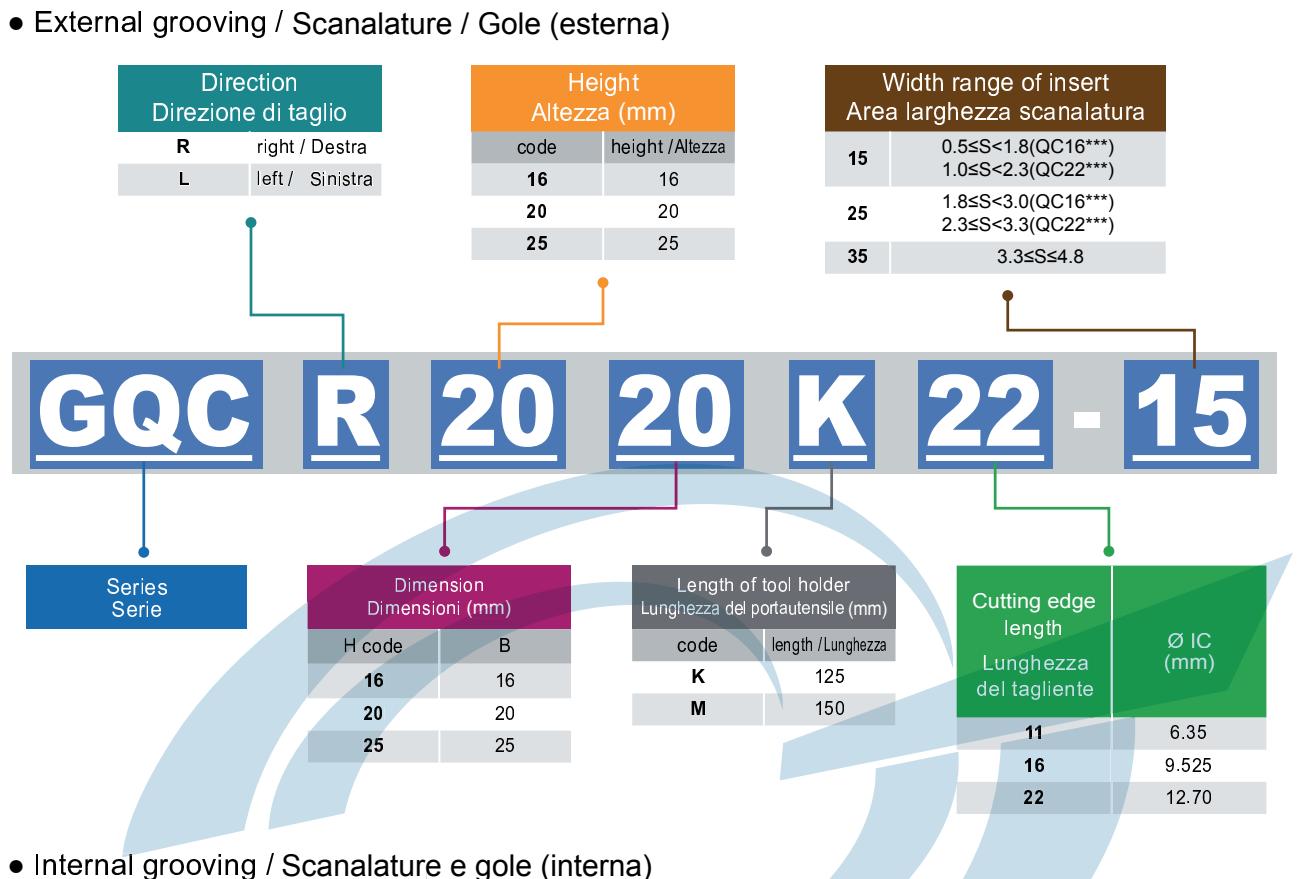
QC series tools holder code key / Serie QC Classificazione per portautensile

- External grooving / Scanalature / Gole (esterna)

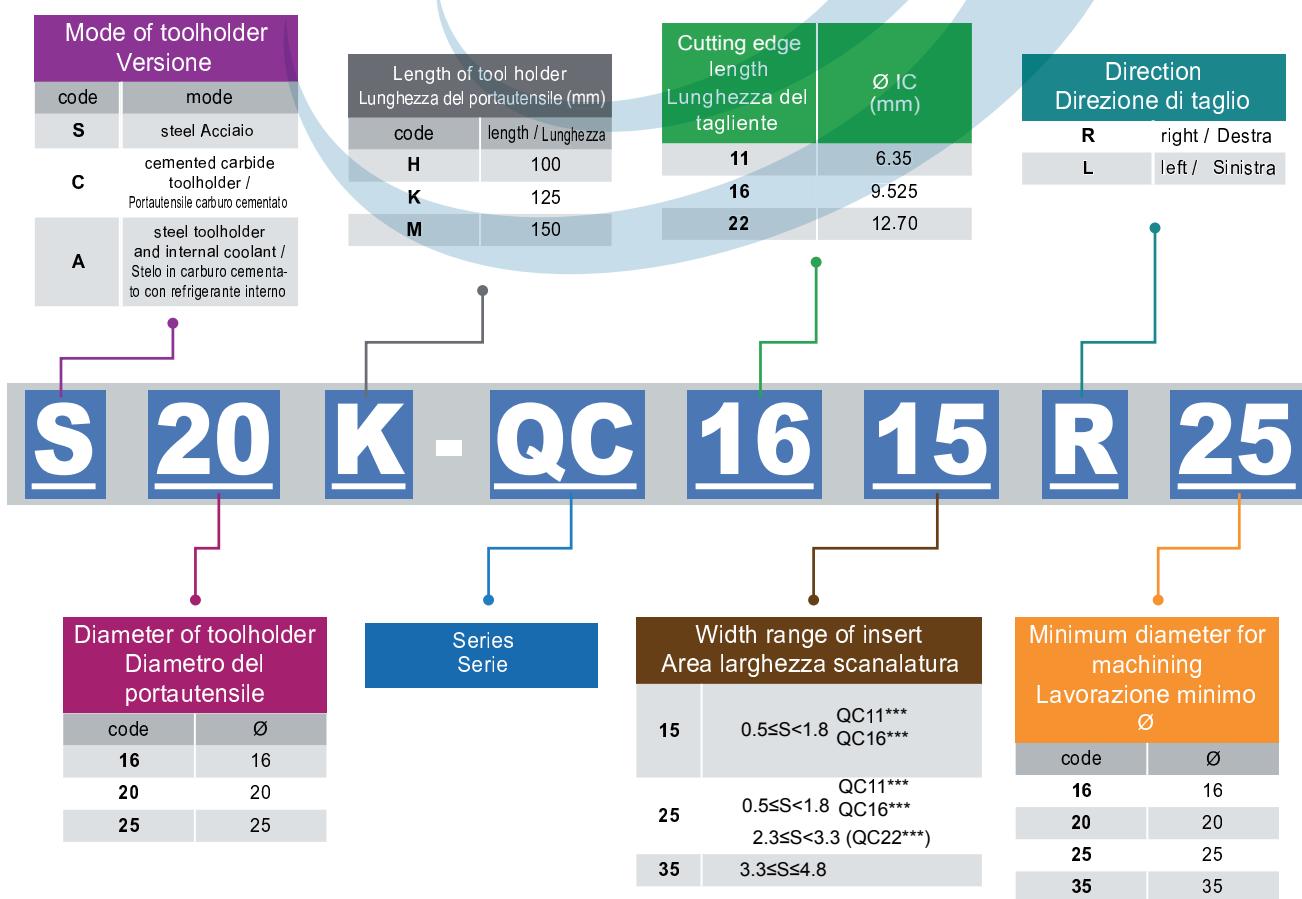
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General Turning
Tornitura generale

Parting & Grooving
Scanalatura e gole



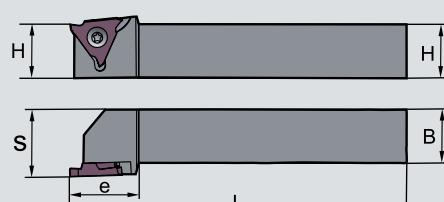
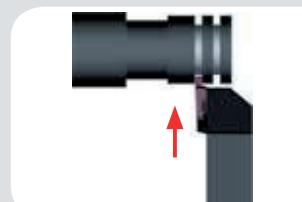
- Internal grooving / Scanalature e gole (interna)



■ External grooving / Scanalature / Gole (esterna)



Right hand style
Versione destra

Type Tipo	Stock Magazzino		Dimension (mm) Dimensioni					Width Larghezza (mm)	Inserts Inserto	Screw Bullone di fissaggio	Wrench Chiave			
	R	L	H	B	S	e	L							
GQCR/L	1616K16-15	●	●	16	16	21		125	0.5-1.80	QC16R/L 050~180	I60M3.5×10	WT15IP		
	2020K16-15	●	●	20	20	25		125						
	2525M16-15	●	●	25	25	30		150						
	1616K16-25	●	●	16	16	21		125						
	2020K16-25	●	●	20	20	25		125	1.8-3.0	QC16R/L 180~300				
	2525M16-25	●	●	25	25	30		150						
	2020K22-15	●	●	20	20	25	25.5	125	1.0-2.3	QC22R/L 100~230				
	2525M22-15	●	●	25	25	30		150						
	2020K22-25	●	●	20	20	25		125						
	2525M22-25	●	●	25	25	30		150	2.3-3.3	QC22R/L 230~330				
	2020K22-35	●	●	20	20	25		125						
	2525M22-35	●	●	25	25	30		150	3.3-4.8	QC22R/L 330~480				

A

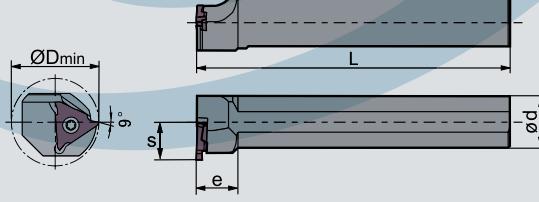
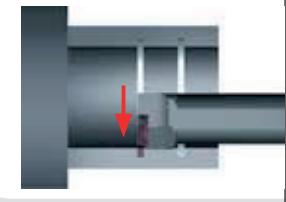
General Turning
Tornitura generale

Parting & Grooving
Scanalatura e gole

■ Internal grooving / Scanalature e gole (interna)



Right hand style
Versione destra

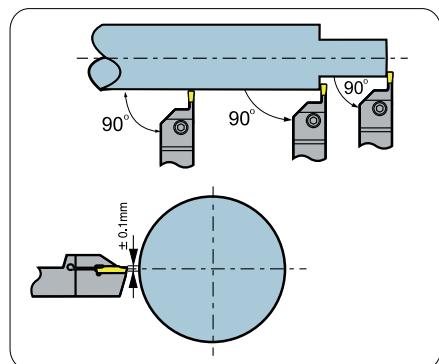
Type Tipo	Stock Magazzino		Dimension (mm) Dimensioni					Width Larghezza (mm)	Inserts Inserto	Screw Bullone di fissaggio	Wrench Chiave
	R	L	ØDmin	ød	S	e	L				
S20K-QC1115R/L 16	●	●	16	20	11.1	40	125	0.5-1.80	QC11R/L 050~180	I60M2.5×6.5	WT07IP
S20K-QC1125R/L 16	○	○	16	20	11.1	40	125	1.8-3.0	QC11R/L180~300		
S16H-QC1115R/L 20	●	●	21	16	11.5	12	100	0.5-1.80	QC11R/L 050~180		
S16H-QC1125R/L 20	●	●	21	16	11.5	12	100	1.8-3.0	QC11R/L180~300		
S20M-QC1615R/L 25	○	●	26	20	12.5			0.5-1.80	QC16R/L050~180		
S20M-QC1625R/L 25	●	●			12.5	15		1.8-3.0	QC16R/L180~300		
S25M-QC2215R/L 35	●	●			18.2			1.0-2.3	QC22R/L100~230		
S25M-QC2225R/L 35	●	●	35	25	18.2	20		2.3-3.3	QC22R/L230~330		
S25M-QC2235R/L 35	○	○			18.2	20		3.3-4.8	QC22R/L 330~480		

Turning · Tornitura

Application Information · Informazioni di utilizzo

Center height controlling of parting and grooving tools Impostazione dell'altezza del tagliente per scanalature e gole

- No matter what kind of parting and grooving cutting tools you choose, you should keep 90° between the insert and the center line of the work-piece material to get perfect machined surface, and to reduce liberation during machining.
- Montare il portautensile in maniera tale che si trovi a 90° rispetto all'asse centrale del pezzo. In questo modo si ottiene una migliore qualità della superficie e si riduce il rischio di oscillazioni.
- Height tolerance between the cutting edge of an insert and the center of work piece should be kept $\pm 0.1\text{mm}$, especially for the parting of rods and grooving of materials with a small diameter. You achieve a longer tool lifetime and reduce cutting resistance and burrs.
- Si prega di montare il portautensile in modo tale che durante la realizzazione di scanalature e gole l'area di tolleranza sia nell'intervallo di $\pm 0.1\text{ mm}$ rispetto all'asse centrale, in particolare per pezzi con diametri piccoli. In questo modo si ottiene una maggiore durata, si riducono le forze di taglio e la formazione di bave.

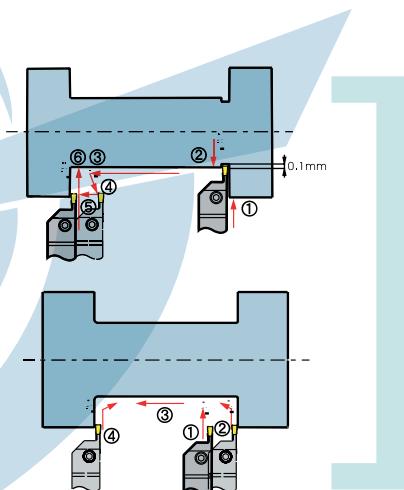


Parting · Asportazione

- A reduction of the feedrate by 30% is preferred when the inserts approach the centre of workpiece, prolonging the life-time of the inserts.
- Una riduzione della velocità di avanzamento del 30% in avvicinamento alla lama all'asse centrale del pezzo prolunga la durata dell'inserto.
- A tool holder overhang with as little as possible to insure good stability.
- Selezionare il portautensile con la sporgenza più piccola possibile per evitare vibrazioni e la deformazione dell'utensile.

External grooving, turning and profile turning Tornitura longitudinale, contornatura

- Cutting sequences: As the cutting depth is bigger than 0.5mm, radial cutting (biggest cutting depth $0.75 \times$ edge width of insert) radial backing 0.1mm axial feed oblique back axial cutting radial cutting to the depth require.
- Sequenza di lavorazione 0,5mm: Avanzamento radiale alla profondità richiesta di taglio (circa max. $0.75 \times$ larghezza inserto), tornare indietro radialmente di 0.1 mm, tornitura longitudinale sulla spalla opposta, tornare indietro diagonalmente di 0.5mm verso l'esterno fino al punto di partenza, avanzamento radiale alla profondità richiesta di taglio, ecc.
- When cutting bottom border or chamfering, do what the sketch show, reducing liberation by the friction of cutting tools with chippings.
- Durante la tornitura del fondo della scanalatura o dello smusso, seguire i passaggi adiacenti. Questo riduce la flessione dell'utensile ed impedisce la scheggiatura del tagliente.



Surface grooving and turning · Scanalatura assiale

Roughing · Sgrossatura

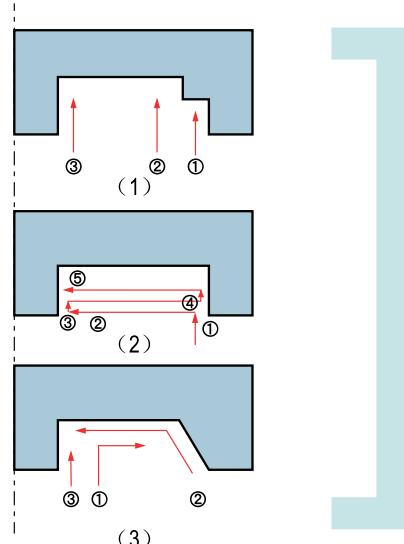
- Infeed from largest Ø inwards insert offset slightly from inner side of groove when retracting as shown in sketch (1).
- Lavorazione dal Ø più grande verso l'asse. Durante il ritorno dell'utensile si raccomanda di piegarlo leggermente.

Flute turning · Scanalature interne

- Depth of axial turning less than $0.75 \times S$ (Width of insert)
width > depth of breaker, suggest to do as shown in sketch (2)
depth > width of breaker, suggest to cut with a lot breaker.
- Profondità di taglio per avanzamento assiale inferiore a $0.75 \times S$ (larghezza dell'inserto). Quando la larghezza della camera è maggiore della profondità, seguire i passaggi indicati. Quando la profondità della camera è maggiore della larghezza, si consiglia in ogni passaggio l'asportazione del Ø richiesto (2).

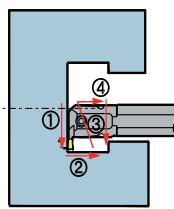
Finishing · Finitura

- Finish machining external Ø and bottom firstly, then machining the internal Ø to the size required as shown in sketch (3).
- Per la finitura, realizzare prima il Ø esterno e il fondo. Infine realizzare il Ø interno fino alla dimensione richiesta, disegno (3).



Internal grooving · Lavorazione interna

- Follow the machining sequence as shown in the picture.
Good for chip flow, always feed along the direction of moving from the deepest in the hole to outside.
- Sequenza di lavorazione come da figura. Per lavorazione di fori ciechi, è necessario lavorare dell'interno verso l'esterno per garantire un migliore deflusso del truciolo.



■ Recommended cutting parameters · Parametri di taglio consigliati

Inserts Size Dimensioni inserto	Recommended feed rate (mm/rev) Velocità di avanzamento consigliata (mm/U)			
	Parting Troncatura	Grooving Scanalatura	Turning Tornitura	Profiling Contornatura
Inserts width(mm) Larghezza inserto				
2.5	0.05—0.15	0.05—0.15	0.05—0.15	0.05—0.15
3	0.05—0.15	0.05—0.15	0.07—0.15	0.1—0.2
4	0.05—0.2	0.05—0.2	0.07—0.25	0.1—0.2
5	0.07—0.2	0.07—0.22	0.1—0.25	0.15—0.3
6	0.1—0.3	0.07—0.25	0.1—0.3	0.15—0.3

Workpiece Material Materiale pezzo	Hardness Durezza	YBG302	YBG202	YBC151	YBC251	YD101	YD201	YBG102	YC10	YC40
P	Carbon steel Acciaio al carbonio	125≤HB≤170	120-260	150-280	140-280	150-280			130-280	110-260
	Low alloy steel Acciaio basso legato	180≤HB≤275	80-175	110-200	100-240	110-200			90-200	70-175
	High alloy steel Acciaio alto legato	180≤HB≤325	80-160	110-190	100-220	110-190			90-190	70-160
	Cast steel Acciaio fuso	180≤HB≤250	75-140	100-170	80-160	100-170			80-170	60-140
M	Ferrite Martensite	200≤HB≤300	70-170	100-200		100-200			80-200	60-170
	Austenitic Austenite	180≤HB≤300	80-200	110-220		110-220			90-220	70-200
K	Malleable cast iron Ghisa malleabile	130≤HB≤230	100-200	130-220				90-160		
	Grey cast iron Ghisa grigia	180≤HB≤220	90-170	120-200				80-140		
	Nodular cast iron Ghisa sferoidale	160≤HB≤250	80-150	110-180				60-140		
N	Al alloy Lega di alluminio	--				200-400				
S	Heat resistant alloy Leghe resistenti al calore	≤400				20-50		30-60		

The cutting parameters recommended are suitable for wet machining.

I parametri di taglio indicati sono consigliati per la lavorazione con liquido refrigerante.

Advice: internal machining and Axial machining, The cutting speed should be reduced by 30%-40%.

Nota: Per scanalatura interna e assile, è necessario ridurre la velocità di taglio del 30%-40%.