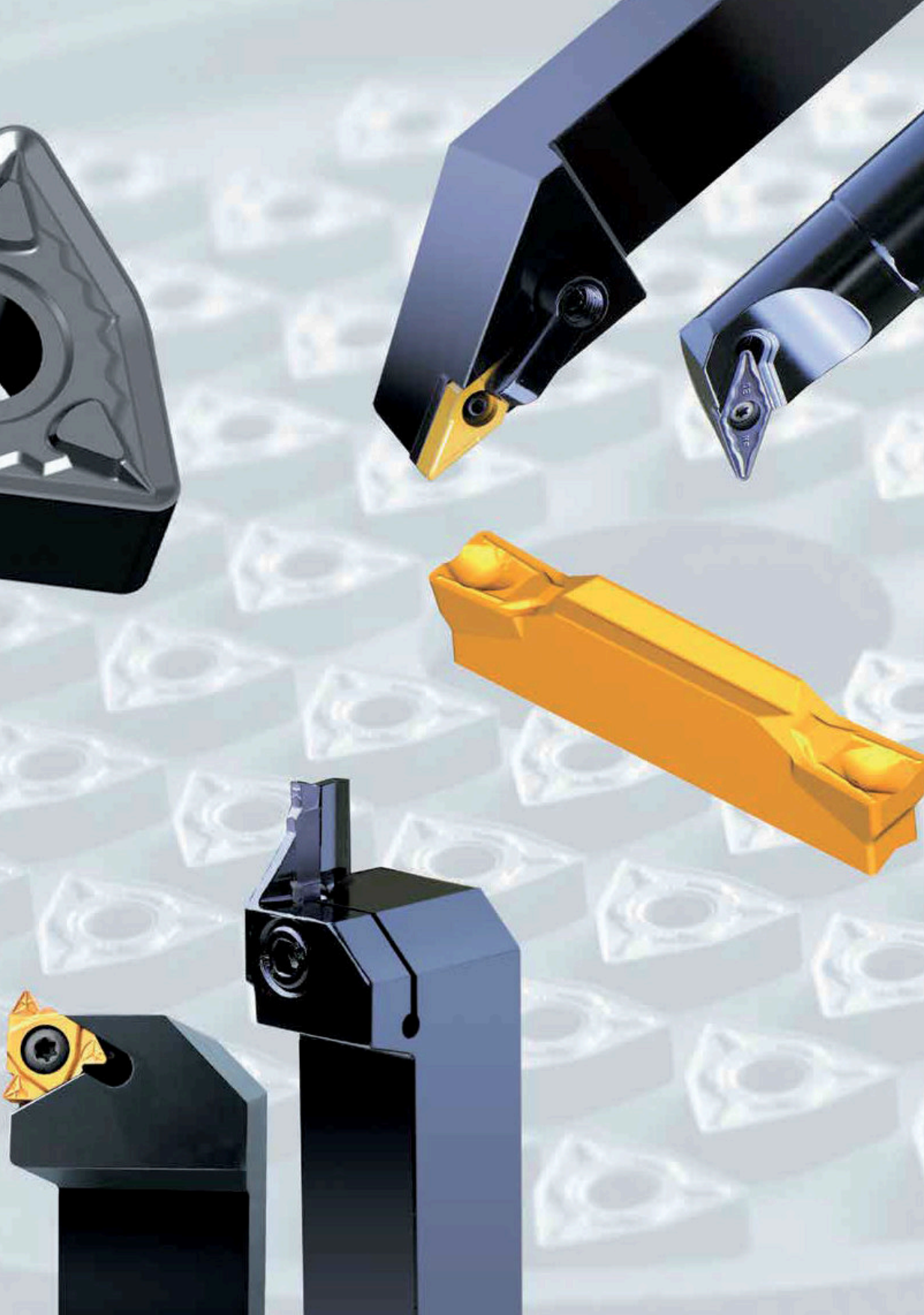
TORNITURA GENERALE

GENERAL TURNING



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General Turning
Tornitura generale

Double Side Negative Inserts
Inserti negativi bilaterali

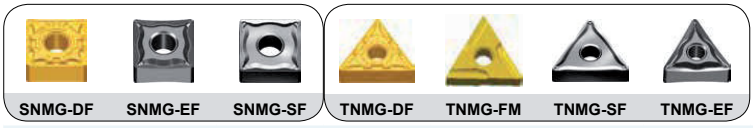
Carbide and Cermet Inserts - Inserti in carburo cementato e cermet

Finishing · Finitura



CNMG-DF	CNMG-SF	CNMG-EF	CNEG-NF	DNMG-DF	DNMG-FM	DNMG-SF	DNMG-EF	DNEG-NF
09,12	09,12	09,12	12	11,15	15	11,15	11,15	15

Edge length · Lunghezza del tagliente



SNMG-DF	SNMG-EF	SNMG-SF	TNMG-DF	TNMG-FM	TNMG-SF	TNMG-EF
09,12	09,12,15	09,12,15	16,22	16	11,16,22	11,16,22

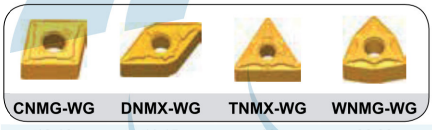
Edge length · Lunghezza del tagliente



VNMG-DF	VNMG-EF	VNEG-NF	VNMG-SF	WNMG-DF	WNMG-SF	WNMG-EF	WNEG-NF
16	16	16	16	06,08	06,08	06,08	08

Edge length · Lunghezza del tagliente

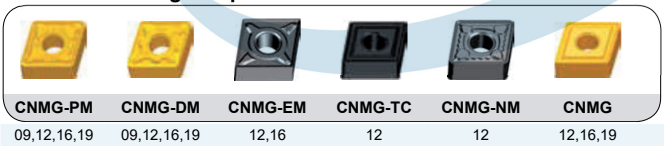
Wiper



CNMG-WG	DNMX-WG	TNMX-WG	WNMG-WG
12,16	11,15	16	06,08

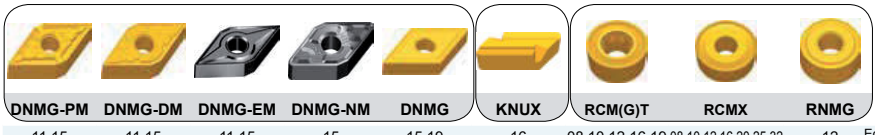
Edge length · Lunghezza del tagliente

Medium Cutting · Asportazione media



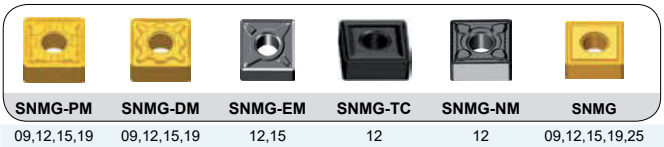
CNMG-PM	CNMG-DM	CNMG-EM	CNMG-TC	CNMG-NM	CNMG
09,12,16,19	09,12,16,19	12,16	12	12	12,16,19

Edge length · Lunghezza del tagliente



DNMG-PM	DNMG-DM	DNMG-EM	DNMG-NM	DNMG	KNUX	RCM(G)T	RCMX	RNMG
11,15	11,15	11,15	15	15,19	16	08,10,12,16,19	08,10,12,16,20,25,32	12

Edge length · Lunghezza del tagliente



SNMG-PM	SNMG-DM	SNMG-EM	SNMG-TC	SNMG-NM	SNMG
09,12,15,19	09,12,15,19	12,15	12	12	09,12,15,19,25

Edge length · Lunghezza del tagliente

Double Side Negative Inserts
Inserti negativi bilaterali

Medium Cutting · Asportazione media



TNMG-PM	TNMG-DM	TNMG-EM	TNMG-TC	TNMG
11,16,22	11,16,22	16,22	12	11,16,22,27,33

Edge length · Lunghezza del tagliente



VNMG-PM	VNMG-DM	VNMG-EM	VNMG-NM	VNMG
16	16	16	16	16

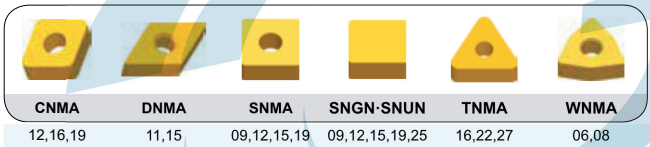
Edge length · Lunghezza del tagliente



WNMG-PM	WNMG-DM	WNMG-EM	WNMG-TC	WNMG-NM
06,08	06,08	06,08	08	08

Edge length · Lunghezza del tagliente

Medium to Rough Cutting · Asportazione media fino a sgrossatura



CNMA	DNMA	SNMA	SNGN·SNUN	TNMA	WNMA
12,16,19	11,15	09,12,15,19	09,12,15,19,25	16,22,27	06,08

Edge length · Lunghezza del tagliente

Roughing · Sgrossatura



CNMG-DR	CNMG-ER	DNMG-DR	DNMG-ER	SNMG-DR	SNMG-ER	TNMG-DR	TNMG-ER
12,16,19	12,16,19	15	15	12,15,19	12,15,19	16,22,27	16,22

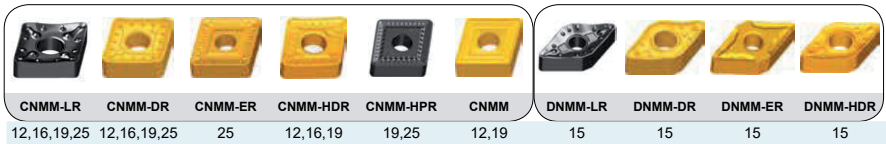


WNMG-DR
06,08

Edge length · Lunghezza del tagliente

Single
Side Negative Inserts
Monolaterale
Inserti negativi

Roughing · Sgrossatura

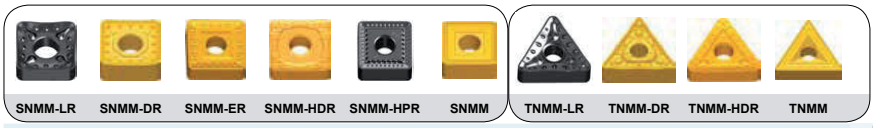


CNMM-LR	CNMM-DR	CNMM-ER	CNMM-HDR	CNMM-HPR	CNMM	DNMM-LR	DNMM-DR	DNMM-ER	DNMM-HDR
12,16,19,25	12,16,19,25	25	12,16,19	19,25	12,19	15	15	15	15

Edge length · Lunghezza del tagliente

Single Side Negative Inserts
Monolaterale Inserti negativi

Roughing · Sgrossatura



SNMM-LR	SNMM-DR	SNMM-ER	SNMM-HDR	SNMM-HPR	SNMM	TNMM-LR	TNMM-DR	TNMM-HDR	TNMM
12,15,19,25	12,15,19,25	25	12,15,19,25	09,12,19,25	09,12	16	16,22,27	16,22,27	16,22,27

Edge length · Lunghezza del tagliente

Special Inserts
Inserti speciali

Roughing · Sgrossatura



175.32-28	175.32-22·227	175.32-24	175.32-25	TNMX	YNMX·YNUX
19	19	19,30	19	11,15	18,25

Edge length · Lunghezza del tagliente

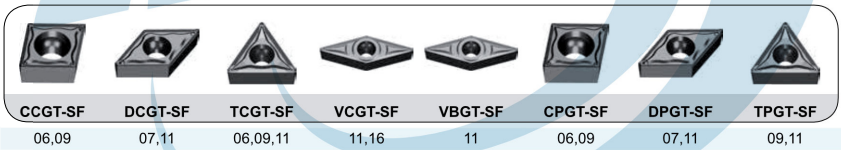
Positive Inserts
Inserti positivi

Fine Finishing · Finitura fine



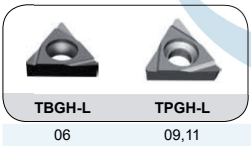
CCGT-USF	DCGT-USF	TCGT-USF	VCGT-USF	DPGT-USF	VPGT-USF
09	07,11	11	08,11	07,11	08,11

Edge length · Lunghezza del tagliente



CCGT-SF	DCGT-SF	TCGT-SF	VCGT-SF	VBGT-SF	CPGT-SF	DPGT-SF	TPGT-SF
06,09	07,11	06,09,11	11,16	11	06,09	07,11	09,11

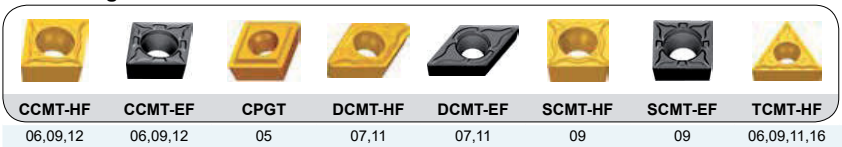
Edge length · Lunghezza del tagliente



TBGH-L	TPGH-L
06	09,11

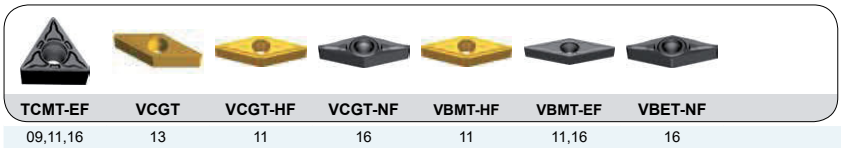
Edge length · Lunghezza del tagliente

Finishing Finitura



CCMT-HF	CCMT-EF	CPGT	DCMT-HF	DCMT-EF	SCMT-HF	SCMT-EF	TCMT-HF
06,09,12	06,09,12	05	07,11	07,11	09	09	06,09,11,16

Edge length · Lunghezza del tagliente



TCMT-EF	VCGT	VCGT-HF	VCGT-NF	VBMT-HF	VBMT-EF	VBET-NF
09,11,16	13	11	16	11	11,16	16

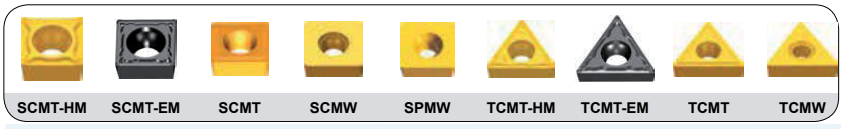
Edge length · Lunghezza del tagliente

Medium Cutting · Asportazione media



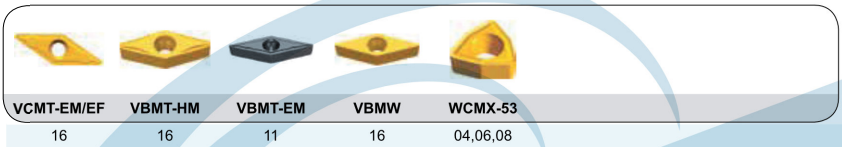
CCMT-HM	CCMT-EM	CCMW	CPGW	DCMT-HM	DCMT-EM	DCMW	DPMW
06,09,12	06,09,12	06,09,12	06	07,11	07, 11	07,11	11

Edge length · Lunghezza del tagliente



SCMT-HM	SCMT-EM	SCMT	SCMW	SPMW	TCMT-HM	TCMT-EM	TCMT	TCMW
09,12	09,12	09,12	06,09,12	09,12	09,11,16	09,11,16	22	11,16,22

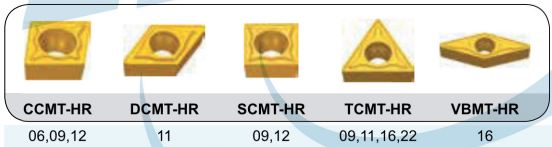
Edge length · Lunghezza del tagliente
Page ·



VCMT-EM/EF	VBMT-HM	VBMT-EM	VBMW	WCMX-53
16	16	11	16	04,06,08

Edge length · Lunghezza del tagliente

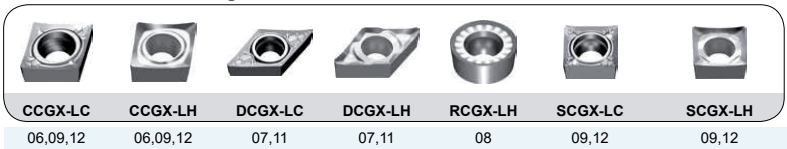
Roughing · Sgrossatura



CCMT-HR	DCMT-HR	SCMT-HR	TCMT-HR	VBMT-HR
06,09,12	11	09,12	09,11,16,22	16

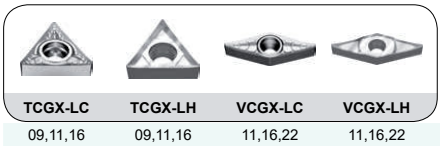
Edge length · Lunghezza del tagliente

Aluminium machining · Lavorazione alluminio



CCGX-LC	CCGX-LH	DCGX-LC	DCGX-LH	RCGX-LH	SCGX-LC	SCGX-LH
06,09,12	06,09,12	07,11	07,11	08	09,12	09,12

Edge length · Lunghezza del tagliente

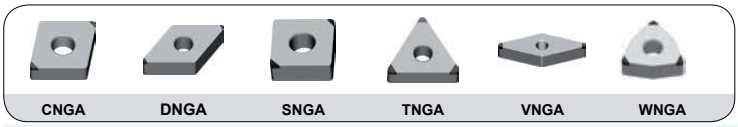


TCGX-LC	TCGX-LH	VCGX-LC	VCGX-LH
09,11,16	09,11,16	11,16,22	11,16,22

Edge length · Lunghezza del tagliente

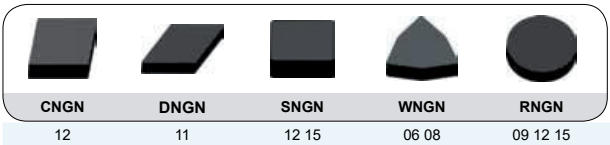
PCBN & PCD

Negative Inserts · Inserti negativi



CNGA	DNGA	SNGA	TNGA	VNGA	WNGA
12	15	12	16	16	08 16

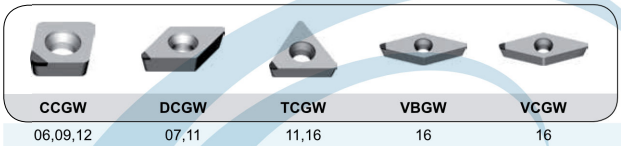
Edge length · Lunghezza del tagliente



CNGN	DNGN	SNGN	WNGN	RNGN
12	11	12 15	06 08	09 12 15

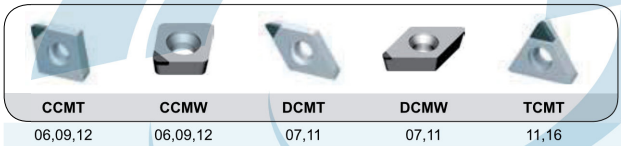
Edge length · Lunghezza del tagliente

Positive Inserts · Inserti positivi



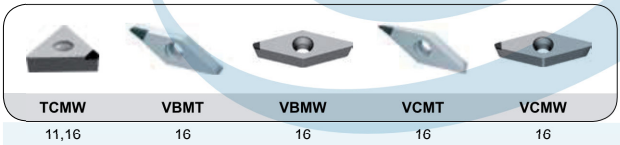
CCGW	DCGW	TCGW	VBGW	VCGW
06,09,12	07,11	11,16	16	16

Edge length · Lunghezza del tagliente



CCMT	CCMW	DCMT	DCMW	TCMT
06,09,12	06,09,12	07,11	07,11	11,16

Edge length · Lunghezza del tagliente

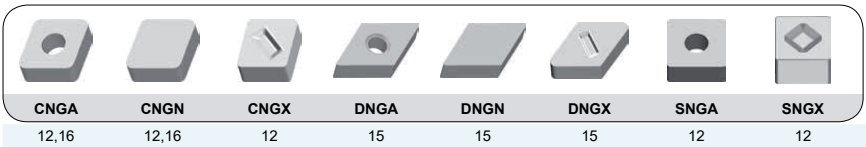


TCMW	VBMT	VBMW	VCMT	VCMW
11,16	16	16	16	16

Edge length · Lunghezza del tagliente

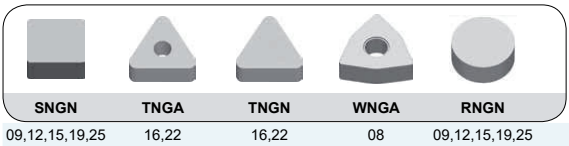
Ceramic Inserts · Inserti ceramici

Negative Inserts · Inserti negativi



CNGA	CNGN	CNGX	DNGA	DNGN	DNGX	SNGA	SNGX
12,16	12,16	12	15	15	15	12	12

Edge length · Lunghezza del tagliente



SNGN	TNGA	TNGN	WNGA	RNGN
09,12,15,19,25	16,22	16,22	08	09,12,15,19,25

Edge length · Lunghezza del tagliente

Parting and Grooving ·Scanalatura e gole




QC**R/L	QC**R/L***R	
0.5~4.8	2.0~4.0	Width · Larghezza









ZP*D-MG	ZP*D-MG-R/L	ZP*S-MG	ZT*D-MG	ZTBD-MG	ZT*S-MG	ZT*D-EG	
2.5,3,4,5,6	2.5,3	2.5,3,4,5,6	2.5,3,4,5,6	2	5,6	1-2.4	Width · Larghezza









ZT*D-EG	ZIMF-NM	ZR*D-MG	ZR*D-EG	ZIGQ-NM	ZR*D-LH	ZILD-LC	
2.4-6.5	3,4,5,6	2.5,3,4,5,6	3,4,5,6	3,4,5,6	6,8	8	Width · Larghezza

Threading Insert · Inserti per filettatura

ISO metric ISO metrico		Partcial-Profile 60°·55° Profilo parziale 60°·55°		Whitworth Filetto per tubi		
External thread Filettatura esterna	Internal thread Filettatura interna	External thread Filettatura esterna	Internal thread Filettatura interna	External thread Filettatura esterna	Internal thread Filettatura interna	
1~6	1~6	0.5~5	0.5~5	8~16	8~16	Pitch· Passo

UN Unified Conventional Thread Americano UN 60°		BSPT Britain Standard Taper Pipe Thread Filetto di tubi per vapore, gas e tubature d'acqua		NPT American Standard Americano filetto conico per tubi		
External Threads Filettatura esterna	Internal Threads Filettatura interna	External Threads Filettatura esterna	Internal Threads Filettatura interna	External Threads Filettatura esterna	Internal Threads Filettatura interna	
8~20	8~20	11~28	11~28	8~27	8~27	Pitch· Passo

NPTF60°		Round screw 30° Vite sferica 30°		MJ (Metric) MJ (Metrico)	UNJ (American) UNJ (Americano)	
External Threads Filettatura esterna	Internal Threads Filettatura interna	External Threads Filettatura esterna	Internal Threads Filettatura interna	External Threads Filettatura esterna	External Threads Filettatura esterna	
8~27	8~27	6~10	6~10	1.5~2.0	8~32	Pitch· Passo

Tr (ISO trapezoid thread 30°) Tr (filettatura trapezoidale 30° ISO)		ACME		STUB-ACME		
External Threads Filettatura esterna	Internal Threads Filettatura interna	External Threads Filettatura esterna	Internal Threads Filettatura interna	External Threads Filettatura esterna	Internal Threads Filettatura interna	
1.5~3.0	1.5~3.0	8~16	8~16	8~16	8~16	Pitch· Passo

API (60°)		API (round) API (circolare)		API (inclined trapezoid screw) API (vite trapezoidale inclinata)		
External Threads Filettatura esterna	Internal Threads Filettatura interna	External Threads Filettatura esterna	Internal Threads Filettatura interna	External Threads Filettatura esterna	Internal Threads Filettatura interna	
4~5	4~5	8~10	8~10	5	5	Pitch· Passo

Illustration shows the right hand type· La figura mostra la versione destra.

Threading Insert (thin type) · Inserti per filettatura (tipo sottile)

ISO metric (full profile) ISO metrico (profilo completo)		Partcial-Profile 60°·55° Profilo parziale 60°·55°		Whitworth Filetto per tubi		
						
External Threads Filettatura esterna	Internal Threads Filettatura interna	External Threads Filettatura esterna	Internal Threads Filettatura interna	External Threads Filettatura esterna	Internal Threads Filettatura interna	
0.5~3.0	0.5~3.0	0.5~5.0(5~48)	0.5~5.0(5~48)	0.5~5.0(5~48)	0.5~5.0(5~48)	Pitch· Passo

UN Unified Conventional Thread Americano UN 60°		BSPT Britain Standard Taper Pipe Thread Filetto di tubi per vapore, gas e tubature d'acqua		NPT American Standard Americano filetto conico per tubi		
						
External Threads Filettatura esterna	Internal Threads Filettatura interna	External Threads Filettatura esterna	Internal Threads Filettatura interna	External Threads Filettatura esterna	Internal Threads Filettatura interna	
8~20	8~20	11~28	11~28	8~27	8~27	Pitch· Passo

A

General Turning
Tornitura generale

External Turning Holder · Portautensili per lavorazione esterna

D-type Clamping (lever) · Portautensili tipo D (doppia staffa)

 DCLNR/L	 DDJNR/L	 DSBNR/L	 DTGNR/L	 DVVNN	 DVJNR/L	 DWLNR/L
Angle· Angolo 95°	93°	75°	91°	72°30'	93°	95°

P-type Clamping (lever) · Portautensili tipo P (perno di arresto)

 PCBNR/L	 PCLNR/L	 PDJNR/L	 PDNNR/L	 PSBNR/L	 PSDNN	 PSKNR/L
Angle· Angolo 75°	95°	93°	63°	75°	45°	75°

 PSSNR/L	 PTFNR/L	 PTTNR/L	 PTGNR/L	 PWLNR/L
Angle· Angolo 45°	90°	60°	90°	95°

M-type Clamping (clamping finger) · Portautensili tipo M (staffa)

 MCBNR/L	 MCLNR/L	 MDJNR/L	 MDPNN	 MSBNR/L	 MSRNR/L	 MSKNR/L
Angle· Angolo 75°	95°	93°	62°30'	75°	75°	75°

 MSDNN	 MTGNR/L	 MTJNR/L	 MTJNR/L-Z	 MTFNR/L	 MVVNN	 MVJNR/L
Angle· Angolo 45°	90°	93°	93°	90°	72°30'	93°

 MWLNR/L	 MRGNR/L	 MRDNN
Angle· Angolo 95°		

S-type Clamping (screw) · Portautensili tipo S (vite)

 SCACR/L	 SCLCR/L	 SDACR/L	 SDJCR/L	SDNCN	SVJBR/L	SVABR/L
Angle· Angolo 90°	95°	90°	93°	62°30'	93°	90°



S-type Clamping (screw) · Portautensili tipo S (vite)

SVVBN	SVVCN	SVJCR/L	SSBCR/L	SSDCN	SSKCR/L	SSSCR/L
Angle· Angolo 72°30'	72°30'	93°	75°	45°	75°	45°

STACR/L	STFCR/L	STGCR/L	STTCR/L	SWACR/L	SRDCN	SRGCR/L
Angle· Angolo 90°	91°	91°	60°	90°		

C-type Clamping (clamping finger) · Portautensili tipo C (staffa)

CKJNR/L	CKNNR/L
Angle· Angolo 93°	63°

Tool holder for ceramic inserts and solid CBN inserts · Portautensili per inserti ceramici e CBN completo

CCLNR/L	CTJNR/L	CTUNR/L	CDJNR/L	CSRNR/L	CSKNR/L	CSDNN
Angle· Angolo 95°	93°	93°	93°	75°	75°	45°

CRDNN	JCLNR/L	JDJNR/L	JSDNN
Angle· Angolo 45°	95°	93°	45°

A

General Turning
Tornitura generale

Tool holder for Interal Machining · Portautensili per lavorazione interna

P-type Clamping (lever) · Portautensili tipo P (perno di arresto)

	PCLNR/L	PDSNR/L	PDUNR/L	PSKNR/L	PTFNR/L	PWLNR/L
						
Angle· Angolo	95°	62°30'	93°	75°	90°	95°

S-type Clamping (screw) · Portautensili tipo S (vite)

	SCLCR/L	SDQCR/L	SDUCR/L	SDZCR/L	SSKCR/L	STFCR/L	SVQCR/L
							
Angle· Angolo	95°	107°30'	93°	85°	75°	90°	107°30

	SVUCR/L	SVQBR/L	SVUBR/L	SCLPR/L	SDQPR/L	SDUPR/L	STUPR/L
							
Angle· Angolo	93°	107°30'	93°	95°	107°30'	93°	93°

	SCFCR	SCLCR
		
Angle· Angolo	90°	95°

Carbide boring bars · Barre alesatrici in carburo cementato

	SCLPR/L	SDQPR/L	SDUPR/L	STUPR/L	STFCR/L STFPR/L	SVQCR/L	SVUCR/L
							
Angle· Angolo	95°	107°30'	93°	93°	95°	107°30'	93°

Tool Holder for Parting off & Grooving · Portautensili per scanalature e gole































Tool Holder for Threading · Portautensili per filettatura



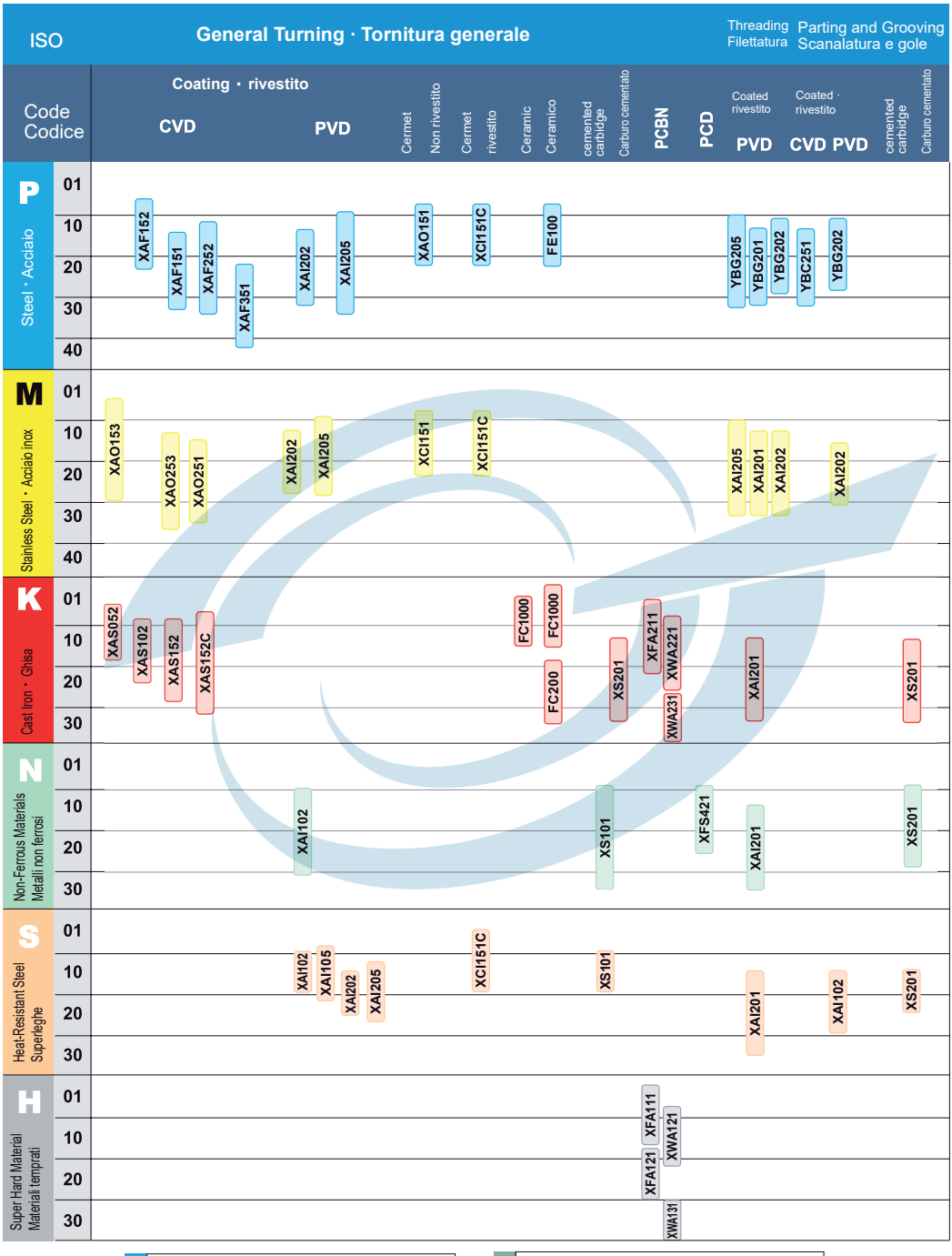






A

General Turning
Tornitura generale



P Steel Acciaio
M Stainless steel / Acciaio inox
K Cast iron / Ghisa
N Non ferrous materials · Metalli non ferrosi
S Heat-resistant steel · Acciaio resistente al calore
H Hardened material · Materiali temprati

Recommended Grade Overview (Inserts)Gradi consigliati Panoramica (Inserti)

NOTES / Note:

Chip Breaker Overview · Panoramica rompitrucioli

Finishing
Finitura

Negative Inserts
Inserti negativi

SF

P M K
ap·d.o.c. =0.05~1,5(mm)
f=0.05~0.35(mm/r)



Special chip breaker in combination with cermets grades. Sharp cutting edge with excellent chip control at small depth of cut and small feed rate. Enable high surface finishing.

Rompitruciolo speciale in combinazione con gradi Cermet. Tagliente affilato per un eccellente controllo del truciolo per profondità di taglio ridotte e basse velocità di avanzamento e ottima finitura superficiale.

DF

P M
ap·d.o.c. =0.3~2,5 (mm)
f=0.05~0.35(mm/r)

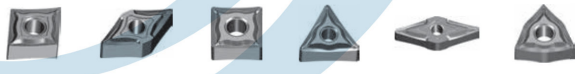


Chip breaker for finishing and semi-finishing of steel and stainless steel.

Rompitruciolo per la finitura e l'asportazione media di acciaio e acciaio inossidabile

EF

M S
ap·d.o.c. =0.05~2,5(mm)
f=0.05~0.3 (mm/r)

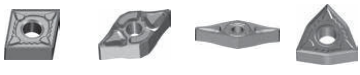


Sharp and positive cutting edge for finishing and semi-finishing of austenitic stainless steel, soft steel, low carbon steel and heat resistant super alloy. Suitable for continuous to light interrupted cut.

Tagliente molto affilato e positivo per la finitura e l'asportazione media di acciaio austenitico, acciaio inossidabile, acciaio dolce e acciaio a basso tenore di carbonio e superleghe resistenti al calore.

NF

S M
ap· d.o.c. =0.1~1,5(mm)
f=0.05~0.3(mm/r)



Ground inserts with sharp and positive cutting edge. NF with grade XAI102 is best combination for finishing of heat resistant super alloys (Ni-based, Fe-based and Co-based alloys) Vc=40-100m/min

Inserto rettificato con un tagliente positivo affilato. NF in combinazione con il grado XAI102 è la soluzione migliore per la finitura di superleghe resistenti al calore e materiali esotici (a base di Ni, Fe, Co) Vc = 40-100m/min

Chip Breaker Overview · Panoramica rompitrucioli

Wiper

P M K

ap· d.o.c. =0.3~2(mm)
f= 0.1~0.4(mm/r)



WG



Good surface finishing and high feed rate due to wiper technology. For finishing and semi-finishing of steel, stainless steel or cast iron.

Buona finitura superficiale ed elevate velocità di avanzamento mediante la tecnologia raschiante. Adatto per la finitura e la lavorazione media di acciaio, acciaio inossidabile e ghisa.

Medium Cutting
Asportazione media

P M

ap· d.o.c. =1.5~6(mm)
f= 0.15~0.5(mm/r)



DM



Main chip breaker for medium machining with continuous or interrupted cut of steel and stainless steel.

Rompitruciolo principale per la lavorazione media, con o senza taglio interrotto, di acciaio e acciaio inossidabile.

P K

ap· d.o.c. =1.5~5(mm)
f= 0.15~0.5(mm/r)



PM



Universal chip breaker with stable cutting edge. Suitable for medium machining also with interrupted cut especially for cast iron and steel.

Rompitruciolo di forma universale con tagliente stabile. Particolarmente indicato per l'asportazione media di acciaio e ghisa anche con taglio interrotto.

Chip breaker Overview · Panoramica rompitrucioli

Negative Inserts
Inserti negativi

Novità

K P
ap· d.o.c. = 1.5~6(mm)
f= 0.15~0.5(mm/r)



NEW

TC



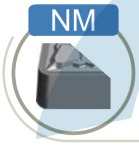
New TC chip breaker in combination with improved XAS152C grade. Stable cutting edge and middle field for High Performance cutting of cast iron and alloy steel. Optimised rake angle and T-Land reduce cutting force and strengthen the wear resistance.

Nuovo rompitruciolo TC in combinazione con il grado migliorato XAS152C.
Il tagliente periferico e una zona centrale stabile permettono una lavorazione ad alte prestazioni di ghisa e acciaio.

S M
ap· d.o.c. = 1.5~5(mm)
f= 0.15~0.5(mm/r)



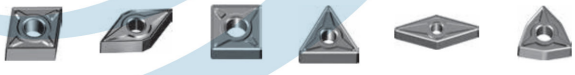
NM



Sharp cutting edge with positive multi-rakeangle. Special for the semifinishing of heat resistant super alloys.

Tagliente affilato con multi angolo di spoglia positivo Particolarmente adatto per la lavorazione di superleghe resistenti al calore.

M P S
ap· d.o.c. =1.0~5.0(mm)
f=0.1~0.5(mm/r)



EM



Sharp and stable cutting edge for semifinishing of sticky material and austenitic stainless steel. Suitable also for interrupted cut.

Rompitruciolo con tagliente affilato e stabile per lavorazione media di materiali adesivi e acciaio inossidabile austenitico. Adatto anche per eseguire interruzioni di tagli.

P K
ap· d.o.c. = 1.5~5(mm)
f= 0.2~0.5(mm/r)



Basic



Stable flat cutting egde with standard chip breaker for semifinishing of steel and cast iron.

Tagliente diritto stabile con rompitruciolo periferico per lavorazioni medie di acciaio e ghisa.

Chip breaker Overview · Panoramica rompitrucioli

Roughing
Sgrossatura

Negative Inserts
Inserti negativi

P K
double side ap· d.o.c. = 2.0~6.5(mm)
f= 0.2~0.5(mm/r)
single side ap· d.o.c. =3~15(mm)
f= 0.4~1.0 (mm/r)



DR



Double side type · Versione bilaterale

Positive chip breaker with strong cutting edge for light to medium rough machining of steel and cast iron.

Rompitruciolo positivo con tagliente stabile per sgrossatura da leggera a media di acciaio e ghisa

DR



Single side type · Versione monolaterale



Positive chip breaker with strong cutting edge for light to medium rough machining of steel and cast iron.

Rompitruciolo positivo con tagliente stabile per sgrossatura da leggera a media di acciaio e ghisa

Novità

P M K
ap· d.o.c. =3~15(mm)
f= 0.4~1.2(mm/r)



NEW

Chip breaker with optimized pumpy chip breaker geometry and waved cutting edge. Less friction and cutting pressure for less wear and excellent chip performance for light roughing operation in steel, stainless steel and cast iron.

LR



Rompitruciolo con geometria a bottone ottimizzata e tagliente curvo. Minore attrito e pressione di taglio per una migliore resistenza all'usura ed eccellente controllo del truciolo per la sgrossatura leggera di acciaio, acciaio inossidabile e ghisa.

M P
double side ap· d.o.c.=2.5~8(mm)
f=0.2~0.6(mm/r)
single side ap· d.o.c. =2.5~20(mm)
f= 0.4~1.2(mm/r)



ER

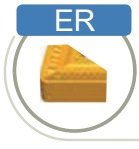


Double side type · Versione bilaterale

Chip breaker with positive geometry for low cutting force. Suitable for roughing operation of stainless steel and steel.

Rompitruciolo positivo per basse forze di taglio. Particolarmente adatto per la sgrossatura di acciaio inossidabile e acciaio.

ER



Single side type · Versione monolaterale

Chip breaker with positive geometry for low cutting force. Suitable for roughing operation of stainless steel and steel.

Rompitruciolo positivo per basse forze di taglio. Particolarmente adatto per la sgrossatura di acciaio inossidabile e acciaio.

A

Chip breaker Overview · Panoramica rompitrucioli

Roughing Sgrossatura

P M
ap· d.o.c.= 5~15(mm)
f= 1.0~1.2(mm/r)



HDR



Chip breaker with strong cutting edge and resistent to plastic deformation for single side inserts. Suitable for rough machining with high metal cutting rate for steel and stainless steel application.

Rompitruciolo con una tipologia di tagliente ad elevata resistenza alla deformazione per inserti monolaterali. Adatto per la sgrossatura di acciaio e acciaio inossidabile.

Novità

P K
ap· d.o.c. =3~17(mm)
f= 1.0~1.4(mm/r)



NEW

HPR



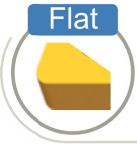
HPR chip breaker for bigger single size inserts. Wide chip pocket and stable edge design for heavy roughing operation in steel and cast iron.

Rompitruciolo per grandi inserti monolaterali. Grande tasca del rompitruciolo e tagliente stabile per sgrossatura pesante di acciaio e ghisa.

K
ap· d.o.c.= 0.3~12(mm)
f= 0.1~0.6(mm/r)



Flat



Flat insert without chip breaker. Stable insert with high edge strength for roughing operation in cast iron materials.

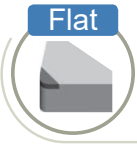
Inserto piatto, senza rompitruciolo. Con un tagliente stabile per la sgrossatura di materiali in ghisa.

CBN & PCD

PCBN H PKD N
ap· d.o.c.=0.05~0.5(mm)
f=0.05~0.3(mm/r)



Flat



For machining of hardened materials and cast iron (CBN).

Special grades: For machining of non-ferrous metals (e.g. Aluminium) and non-metal materials (PCD)

Gradi speciali: Per la lavorazione di acciai temprati, ghise (CBN). Per la lavorazione di metalli non ferrosi (es. alluminio) e materiali non metallici (PCD).

Ceramic Insert Inserti ceramici

K H P
ap· d.o.c.= 0.1~3(mm)
f= 0.05~0.4(mm/r)



Flat



Ceramic inserts for machining of hardened steel, cast iron and steel.

Inserti ceramici per la lavorazione di acciaio temprato, ghisa e acciaio.

Chip breaker Overview · Panoramica rompitrucioli

Fine-Finishing
Finitura fine

Positive Inserts
Inserti positivi

P **M**
ap· d.o.c. =0.02~1.5(mm)
f= 0.01~0.08(mm/r)



USF



For super finishing: Insert in G tolerance and sharp cutting edge. Suitable for super finishing of small components.

Per la rifinitura di precisione: Inserti di classe G e tagliente affilato. Adatti per la finitura di precisione di piccoli componenti.

P **M**
ap· d.o.c. =0.05~2.5(mm)
f= 0.03~0.25(mm/r)



R/L



Special grinded chip breaker groove for precision machining and high surface quality. This G-class inserts with a sharp cutting edge and small corner radius for fine finishing operation without vibration.

Rompitruciolo monolaterale perfettamente rettificato per lavorazioni di alta precisione con elevata qualità superficiale. Questi inserti di classe G sono dotati di taglienti affilati e ridotti raggi di punta. Per l'alta precisione e senza vibrazioni.

P **M** **K**
ap· d.o.c. =0.05~1(mm)
f=0.05 ~0.3(mm/r)



SF

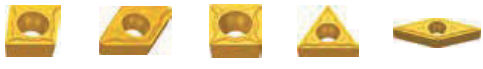


Special chip breaker in combination with cermets grades. Sharp cutting edge with excellent chip control. For high surface finishing and precision machining.

Rompitruciolo speciale in combinazione con gradi Cermet. Tagliente affilato per la lavorazione di precisione con un eccellente controllo del truciolo e ottima qualità superficiale.

Finishing
Finitura

P **M** **K**
ap· d.o.c. =0.1~2(mm)
f=0.05~0.3 (mm/r)



HF



Chip breaker for finishing and semi-finishing of steel and cast iron. Especially for internal machining.

Rompitruciolo per la finitura e l'asportazione media di acciaio e ghise. Particolarmente adatto anche per la lavorazione interna.

M **S**
ap· d.o.c. = 0.1~2(mm)
f= 0.05~0.3 (mm/r)



EF



Sharp, positive cutting edge for finishing and semi-finishing of austenitic stainless steel, soft steel and low carbon steel.

Tagliente molto affilato e positivo per la finitura e l'asportazione media di acciaio austenitico, acciaio inossidabile, acciaio dolce e acciaio a basso tenore di carbonio.

Chip breaker Overview · Panoramica rompitrucioli

Finishing
Finitura

S M

ap· d.o.c.= 0.05~1(mm)
f=0.05~0.2 (mm/r)



NF



Chip breaker with sharp and positive cutting edge. NF combined with Grade XAI102/XAI105 is best solution for finishing of heat resistance super alloys (Ni-based, Fe-based and Co based material).

Inserto rettificato con un tagliente positivo affilato. In combinazione con il grado XAI102/XAI105, questo rompitruciolo è particolarmente adatto per la finitura di materiali resistenti al calore(per esempio, a base di Ni, Fe e Co).

Medium Cutting
Asportazione media

P K

ap·d.o.c. =1~4(mm)
f=0.2~0.5(mm/r)



HM



Chip breaker for medium machining of steel or cast iron. Suitable for internal and external turning.

Tagliente per asportazioni medie di acciaio e ghisa. Può essere utilizzato per la lavorazione interna ed esterna.

M S

ap· d.o.c. = 1~4(mm)
f= 0.2~0.5(mm/r)



EM



Upgrade sharp and strong cutting edge for semifinishing of sticky steel and austentic stainless steel.

Tagliente affilato e stabile per l'asportazione media di acciai inossidabili e materiali adesivi austenitici.

Chip breaker Overview · Panoramica rompitrucioli

Medium Cutting
Asportazione media

Positive Insert
Inserti positivi

P K

ap· d.o.c.= 1~8(mm)
f= 0.2~0.6(mm/r)



Basic



Chip breaker for round inserts. Suitable for semi precision machining and profile modelling machining of steel and cast iron.

Rompitruciolo periferico per inserti tondi. Per l'asportazione media e contornatura di materiali in acciaio e ghisa.

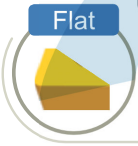
Roughing
Sgrossatura

K

ap· d.o.c.= 0.05~1(mm)
f =0.05~0.2 (mm/r)



Flat



Flat insert without chip breaker. Stable insert with high edge strength for roughing operation in cast iron materials.

Inserto piatto, senza rompitruciolo. Con un tagliente stabile per la sgrossatura di materiali in ghisa.

Roughing
Sgrossatura

P K

ap· d.o.c. =2~5(mm)
f=0.2~0.4(mm/r)



HR



Chip breaker with strong cutting edge for light to medium rough machining of steel stainless steel and cast iron. Suitable for internal and external machining.

Rompitruciolo con tagliente stabile per sgrossatura leggera e media di acciaio e ghisa. Può essere utilizzato per la lavorazione interna ed esterna.

P

ap· d.o.c. =3~10(mm)
f=0.3~1.2(mm/r)



Basic



Recommended chip breaker for rough machining steel materials. Single chip breaker with strong cutting edge. First choice for profile modelling machining.

Rompitruciolo speciale con un tagliente rinforzato per la sgrossatura. Particolarmente adatto per la contornatura per elevati gradi di sicurezza della produzione di materiali in acciaio in condizioni sfavorevoli.

Chip breaker Overview · Panoramica rompitrucioli

Aluminium machining
Lavorazione dell'alluminio

N

ap· d.o.c.=0.02~4.8(mm)
f=0.05~0.5(mm/r)



LC



Unique chip breaker design, with sharp cutting edge and positive rake angle. Special edge preparation and surface treatment for better chip control, less friction, less vibration and good surface quality. G-Tolerance inserts for better repeatability.

Rompitruciolo con design unico con tagliente affilato e angolo di spoglia positivo. Tagliente preparato in maniera speciale con superficie trattata per un migliore truciolo, meno attrito, meno vibrazioni e una migliore finitura superficiale. Inserti di classe G per una migliore ripetibilità.

N

ap· d.o.c.=0.1~5(mm)
f=0.05~0.4(mm/r)



LH



Chip breaker for aluminum alloy and non ferrous metal machining
G tolerance insert with large rake angle, surface polishing treatment, effectively preventing build up edge and getting high quality machining surface and long tool life.

Rompitruciolo per la lavorazione di alluminio, leghe di alluminio (metalli non ferrosi). Inserti di classe G con grande angolo di spoglio e superficie brunita per evitare la formazione di taglienti di riporto. Eccezionale deflusso del truciolo, ottima finitura superficiale e lunga durata.

CBN & PKD

PCBN H | PKD N

ap· d.o.c.=0.05~0.5(mm)
f=0.05~0.3(mm/r)



FLAT



Special inserts G tolerance with brazed CBN or PCD Tip. CBN suitable for finishing of hardened component and cast iron. PCD suitable for finishing of non ferrous metal and non-metal materials.

Inserto speciale di classe G con punta brasata in CBN e PCD. Il CBN è particolarmente adatto per la finitura di acciaio temprato o ghisa, il PCD per la finitura di metalli non ferrosi e materiali non metallici.

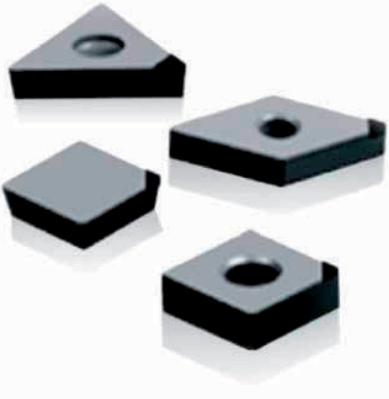
INSERTI DI TORNITURA

TURNING INSERTS

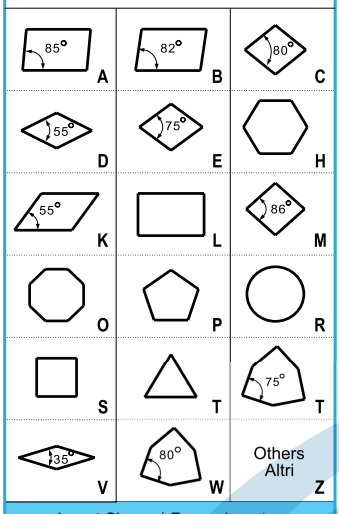








Insert Shape / *Forma inserto*



Insert Shape / *Forma inserto*

Insert Type / *Tip. inserto*

Metric / *Metrico*

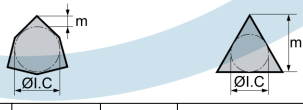
Code	Hole / *Foro*	Insert Section / *Rompitruciolo*	Insert Section / *Forma dell'inserto*	Code	Hole / *Foro*	Insert Section / *Rompitruciolo*	Insert Section / *Forma dell'inserto*
B	■	----	> 65°	N	----	----	
H	■	Single side / *monolaterale*	> 65°	R	----	Single side / *monolaterale*	
C	■	----	> 65°	F	----	Double side / *bilaterale*	
J	■	Double side / *bilaterale*	> 65°	A	■	----	
W	■	----	⩽65°	M	■	Single side / *monolaterale*	
T	■	Single side / *monolaterale*	⩽65°	G	■	Double side / *bilaterale*	
Q	■	----	⩽65°	X	----	----	Special
U	■	Double side / *bilaterale*	⩽65°			----	

T N M G

Clearance angle of main cutting edge
Angolo di spoglia del fianco

Code	angle / *Angolo*	Code	angle / *Angolo*
A	3°	B	5°
C	7°	D	15°
E	20°	F	25°
G	30°	N	0°
P	11°	O	Others

Tolerances / *Grado di tolleranza*



Code	Tolerance Tolleranza	ØI.C	S
A	±0.005	±0.025	±0.025
F	±0.005	±0.013	±0.025
C	±0.013	±0.025	±0.025
H	±0.013	±0.013	±0.025
E	±0.025	±0.025	±0.025
G	±0.025	±0.025	±0.13
J	±0.005	±0.05-±0.13	±0.025
K	±0.013	±0.05-±0.13	±0.025
L	±0.025	±0.05-±0.13	±0.025
M	±0.08-±0.18	±0.05-±0.13	±0.13
N	±0.08-±0.18	±0.05-±0.13	±0.025
U	±0.13-±0.38	±0.08-±0.25	±0.13

(Reference) M class precision (according to shape and size) (mm)
(Riferimento) Classe M (forma e dimensioni corrispondenti)

Incircle	regular triangle	square	80° rhomboid	55° rhomboid	35° rhomboid	round *tondo*
6.35	±0.08	±0.08	±0.08	±0.11	±0.16	---
9.525	±0.08	±0.08	±0.08	±0.11	±0.16	---
12.7	±0.13	±0.13	±0.13	±0.15	---	---
15.875	±0.15	±0.15	±0.15	±0.18	---	---
19.05	±0.15	±0.15	±0.15	±0.18	---	---
25.4	---	±0.18	---	---	---	---

ØI.C (mm) Incircle tolerance
Tolleranza cerchio inscritto

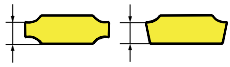
Incircle	regular triangle	square	80° rhomboid	55° rhomboid	35° rhomboid	round *tondo*
6.35	±0.05	±0.05	±0.05	±0.05	±0.05	---
9.525	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05
12.7	±0.08	±0.08	±0.08	±0.08	---	±0.08
15.875	±0.10	±0.10	±0.10	±0.10	---	±0.10
19.05	±0.10	±0.10	±0.10	±0.10	---	±0.10
25.4	---	±0.13	---	---	---	±0.13

Cutting edge length / *Lunghezza tagliente* (mm)

Ø of IC (mm)	Insert Shape / *Forma dell'inserto*							
	C	D	R	S	T	V	W	K
3.97					06			
5.0			05					
5.56					09			
6.0			06					
6.35	06	07			11	11		
8.0			08					
9.525	09	11	09	09	16	16	06	16
10.0			10					
12.0			12					
12.7	12	15	12	12	22	22	08	
15.875	16		15	15	27			
16.0		19	16					
19.05	19		19	19	33			
20.0			20					
25.0	25	25	25					
25.4			25	25				
31.75			31					
32			32					

Insert Thickness / *Spessore inserto* (mm)

Thichness / *Spessore*



Code	Plattendicke (mm)
00	0.79
T0	0.99
01	1.59
T1	1.98
02	2.38
T2	2.58
03	3.18
T3	3.97
04	4.76
T4	4.96
05	5.56
T5	5.95
06	6.35
T6	6.75
07	7.94
09	9.52
T9	9.72
11	11.11
12	12.70

22 04 08 - DM (ISO)

4 3 2 (inch)

Incircle *Cerchio inscritto*

Code	Diameter (mm)
2	6.35
3	9.525
4	12.7
5	15.875
6	19.05
8	25.4

Thickness *Spessore*

Code	Thichness (mm)
2	3.18
3	4.76
4	6.35
5	7.94
6	9.52

Nose radius *Raggio di punta*

Code	Nose radius (mm)
0	0.2
1	0.4
2	0.8
3	1.2
4	1.6
5	2.0
6	2.4

Nose radius *Raggio di punta*

Code	Radius (mm)
00	No Radius Spigolo vivo
02	0.2
04	0.4
08	0.8
12	1.2
16	1.6
20	2.0
24	2.4
32	3.2
X	Others
MO	Round Inserts *Altri Inserti tondi*

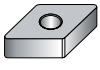
Code Chipbreakers *Rompitrucioli*

DF	DM	DR / HDR
HF	HM	HR
LR	HPR	FM
EF	EM	ER
NF	NM	SF
PM	TC	WG



Metric and Imperial system comparison list of general turning insert/
Tabella comparativa per inserti per tornitura generale (sistema metrico / imperiale)

C Type Negative angle/ WSP Angolo negativo	(ISO)	(Inch)	Chipbreaker/ Rompitruciolo
Forma dell'inserto Insert shape 	090304	321	-DF -WG -SF -EF -NF -PM -DM -EM **-TC** -NM -LR -DR -ER -HDR -HPR
	090308	322	
	120404	431	
	120408	432	
	120412	433	
	120416	434	
	160608	542	
	160612	543	
	160616	544	
	190608	642	
	190612	643	
	190616	644	
	190624	646	
	250724	856	
	250732	858	
	250924	866	
	250932	868	

D Type Negative angle/WSP Angolo negativo	(ISO)	(Inch)	Chipbreaker/ Rompitruciolo
Forma dell'inserto Insert shape 	110404	331	-DF -WG -SF -NF -FM -PM -DM -EM -NM -LR -DR -ER -HDR
	110408	332	
	110412	333	
	150404	431	
	150408	432	
	150412	433	
	150604	441	
	150608	442	
	150612	443	
	150616	444	
	190608	542	
	190612	543	

V Type Negative angle/WSP Angolo negativo	(ISO)	(Inch)	Chipbreaker/ Rompitruciolo
Insert shape Forma dell'inserto 	160404	331	-DF -EF -SF -NF -PM -DM -EM -NM
	160408	332	
	160412	333	

R Type Negative angle/WSP Angolo negativo	(ISO)	(Inch)	Chipbreaker/ Rompitruciolo
Insert shape Forma dell'inserto 	0903MO	32	
	1204MO	43	

W Type Negative angle/WSP Angolo negativo	(ISO)	(Inch)	Chipbreaker/ Rompitruciolo
Forma dell'inserto Insert shape 	06T304	3(2.5)1	-DF -WG -SF -EF -NF -PM -DM -EM **-TC** -NM -DR
	06T308	3(2.5)2	
	06T312	3(2.5)3	
	060404	331	
	060408	332	
	060412	333	
	080404	431	
	080408	432	
	080412	433	

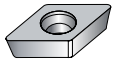
T Type Negative angle/WSP Angolo negativo	(ISO)	(Inch)	Chipbreaker/ Rompitruciolo
Forma dell'inserto Insert shape 	113304	221	-DF -WG -SF -EF -FM -PM -DM -EM **-TC** -LR -DR -ER -HDR
	110308	222	
	160404	331	
	160408	332	
	160412	333	
	220404	431	
	220408	432	
	220412	433	
	220416	434	
	270608	542	
	270612	543	
	270616	544	

S Type Negative angle/WSP Angolo negativo	(ISO)	(Inch)	Chipbreaker/ Rompitruciolo
Forma dell'inserto Insert shape 	090304	321	-DF -SF -EF -PM -DM -EM **-TC** -NM -LR -DR -ER -HDR -HPR
	090308	322	
	090312	323	
	120404	431	
	120408	432	
	120412	433	
	120416	434	
	150608	542	
	150612	543	
	150616	544	
	190412	633	
	190424	636	
	190612	643	
	190616	644	
	250724	856	
	250732	858	
	250924	866	
	250932	868	

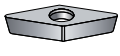
Metric and Imperial system comparison list of general turning insert/ Tabella comparativa per inserti per tornitura generale (sistema metrico / imperiale)

C Type Positive angle/WSP Angolo positivo	(ISO)	(Inch)	Chipbreaker Rompitruciolo
Forma dell'inserto Insert shape 	060202	2(1.5)0	-USF
	060204	2(1.5)1	-SF
	060208	2(1.5)2	-HF
	09T302	3(2.5)0	-EF
	09T304	3(2.5)1	-HM
	09T308	3(2.5)2	-EM
	120404	431	-HR
	120408	432	-LH
	120412	433	-LC

T Type Positive angle/WSP Angolo positivo	(ISO)	(Inch)	Chipbreaker Rompitruciolo
Forma dell'inserto Insert shape 	06T102	1.2(1.2)0	-USF -SF -HF -EF -HM -EM -HR -LH -LC
	06T104	1.2(1.2)1	
	06T108	1.2(1.2)2	
	090202	1.8(1.5)0	
	090204	1.8(1.5)1	
	090208	1.8(1.5)2	
	110202	2(1.5)0	
	110204	2(1.5)1	
	110208	2(1.5)2	
	110302	220	
	110304	221	
	110308	222	
	16T302	30	
	16T304	31	
	16T308	32	
	16T312	33	
	160400	330	
	220408	432	
	220412	433	
	220416	434	
	270408	532	
	270412	533	
	330612	643	
	330616	644	

D Type Positive angle/ WSP Angolo positivo	(ISO)	(Inch)	Chipbreaker Rompitruciolo
Forma dell'inserto Insert shape 	070202	2(1.5)0	-USF -SF -HF -EF -HM -EM -HR -LH -LC
	070204	2(1.5)1	
	070208	2(1.5)2	
	11T302	3(2.5)0	
	11T304	3(2.5)1	
	11T308	3(2.5)2	
	11T312	3(2.5)3	

S Type Positive angle/WSP Angolo positivo	(ISO)	(Inch)	Chipbreaker Rompitruciolo
Forma dell'inserto Insert shape 	060204	2(1.5)1	-USF -SF -HF -EF -HM -EM -HR -LH -LC
	09T302	3(2.5)0	
	09T304	3(2.5)1	
	09T308	3(2.5) 2	
	120404	431	
	120408	432	
	120412	433	
	150404	531	
	150408	532	
	150412	533	
	190408	632	
	190412	633	
	190416	634	

V Type Positive angle/WSP Angolo positivo	(ISO)	(Inch)	Chipbreaker Rompitruciolo
Forma dell'inserto Insert shape 	110202	2(1.5)0	-USF -SF -HF -EF -HM -EM -HR -LH -LC
	110204	2(1.5)1	
	110208	2(1.5)2	
	110302	220	
	110304	221	
	110308	222	
	160402	330	
	160404	331	
	160408	332	
	160412	333	

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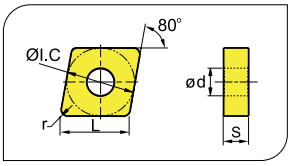
General Turning
Tornitura generale

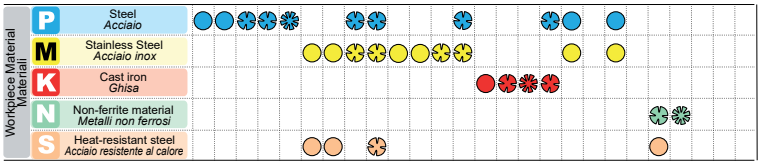
CN** Negative Insert · Inserto negativo

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli





Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Coated Carbide Carburo cementato rivestito																Cermet Non rivestito	Cermet Coated Cerm.rives.	Uncoated Carbide Non rivestito Carburo cementato	
		L	I.C	S	d	r	XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAO253	XAS052	XAS102	XAS152	XAS152C	XCI151	XCI151C	XS101	XS201
DF	**CNMG090304-DF**	9.7	9.525	3.18	3.81	0.4	○	●	○	●				○												
Finishing Finitura	**CNMG090308-DF**	9.7	9.525	3.18	3.81	0.8	○	●	○	●																
	CNMG120404-DF	12.9	12.7	4.76	5.16	0.4	○	●	●	●				○		○										
	CNMG120408-DF	12.9	12.7	4.76	5.16	0.8	○	●	●●																	
	CNMG120412-DF	12.9	12.7	4.76	5.16	1.2	○	●	●	●																
WG	**CNMG120404-WG**	12.9	12.7	4.76	5.16	0.4	●																			
Wiper	**CNMG120408-WG**	12.9	12.7	4.76	5.16	0.8	●	●	○	●						○				●		●				
	CNMG120412-WG	12.9	12.7	4.76	5.16	1.2	●	●	○																	
	CNMG160608-WG	16.1	15.875	6.35	6.35	0.8		○																		
	CNMG160612-WG	16.1	15.875	6.35	6.35	1.2		○																		
SF	**CNMG090304-SF**	9.7	9.525	3.18	3.81	0.4																		●		
Finishing Finitura	**CNMG090308-SF**	9.7	9.525	3.18	3.81	0.8																		●		
	CNMG120404-SF	12.9	12.7	4.76	5.16	0.4																		●		
	CNMG120408-SF	12.9	12.7	4.76	5.16	0.8																		●		
	CNMG120412-SF	12.9	12.7	4.76	5.16	1.2																				
EF	**CNMG090304-EF**	9.7	9.525	3.18	3.81	0.4									●		○									
Finishing Finitura	**CNMG090308-EF**	9.7	9.525	3.18	3.81	0.8								○	●		○									
	CNMG120404-EF	12.9	12.7	4.76	5.16	0.4			○		○			○	●	○	●	●								
	CNMG120408-EF	12.9	12.7	4.76	5.16	0.8			○		●			●	●	○	●	○								
	CNMG120412-EF	12.9	12.7	4.76	5.16	1.2								○	○			○								

Tool holder / Cartuccia


DCLNR/L
Kr:95°


PCBNR/L
Kr:75°


PCLNR/L
Kr:95°


MCBNR/L
Kr:75°


MCLNR/L
Kr:95°

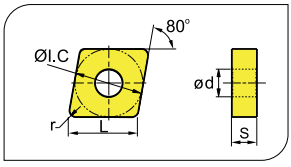

PCLNR/L
Kr:95°

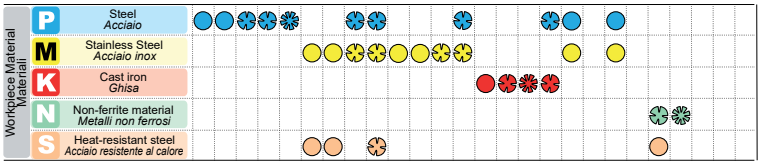
CN** Negative Insert·Inserto negativo

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli





Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Coated Carbide Carburo cementato rivestito														Cermet Non rivestito	Cermet Coated Cerm. rives.	Uncoated Carbide Non rivestito Carburo cementato	
		L	I.C	S	d	r	XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAO253	XAS052	XAS102	XAS152	XAS152C	XCI151	XCI151C	XS101	XS201
NF	**CNEG120404-NF**	12.9	12.7	4.76	5.16	0.4						○	●												○	
	**CNEG120408-NF**	12.9	12.7	4.76	5.16	0.8						○	●												○	
	CNEG120412-NF	12.9	12.7	4.76	5.16	1.2						○	○												○	
Finishing Finitura																										
PM	**CNMG090304-PM**	9.7	9.525	3.18	3.81	0.4			●	●																
	CNMG090308-PM	9.7	9.525	3.18	3.81	0.8			●	●																
	CNMG120404-PM	12.9	12.7	4.76	5.16	0.4	○	●	●	●										○	●	●				
	CNMG120408-PM	12.9	12.7	4.76	5.16	0.8	○	●	●	●	●									●	●	●				
	CNMG120412-PM	12.9	12.7	4.76	5.16	1.2	○	●	●	●	○									●	●	●				
	**CNMG120416-PM**	12.9	12.7	4.76	5.16	1.6		●	○	●										●	●	●				
	CNMG160608-PM	16.1	15.875	6.35	6.35	0.8		○	●	●	○									○	○	○				
	CNMG160612-PM	16.1	15.875	6.35	6.35	1.2		○	●	●	●									○	●	●				
Medium Cut/ Media Asport.	**CNMG160616-PM**	16.1	15.875	6.35	6.35	1.6			●	○											●	●				
	CNMG190608-PM	19.3	19.05	6.35	7.94	0.8			●	○	●															
	CNMG190612-PM	19.3	19.05	6.35	7.94	1.2			●	○	●										○	●				
	CNMG190616-PM	19.3	19.05	6.35	7.94	1.6			●	○	●										○	●				

Tool holder / Cartuccia













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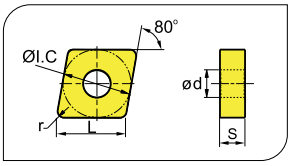
General Turning
Tornitura generale

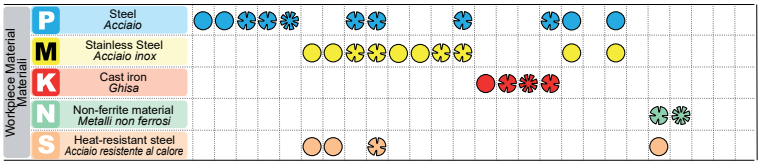
CN** Negative Insert·Inserto negativo

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli





Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Coated Carbide Carburo cementato rivestito															Cermet Non rivestito	Cermet Coated Cem.rives.	Uncoated Carbide Non rivestito Carburo cementato	
		L	I.C	S	d	r	XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAO253	XAS052	XAS102	XAS152	XAS152C	XCI151	XCI151C	XS101	XS201
DM Medium Cut/ Media Asport.	CNMG090304-DM	9.7	9.525	3.18	3.81	0.4	○	●	●	●								○								
	CNMG090308-DM	9.7	9.525	3.18	3.81	0.8		●	●	●								○								
	CNMG090312-DM	9.7	9.525	3.18	3.81	1.2				○																
	CNMG120404-DM	12.9	12.7	4.76	5.16	0.4	○	●	●	●	●					○		○								
	CNMG120408-DM	12.9	12.7	4.76	5.16	0.8	●	●	●	●	●					●		●								
	CNMG120412-DM	12.9	12.7	4.76	5.16	1.2	●	●	●	●	●					○	○	●								
	CNMG120416-DM	12.9	12.7	4.76	5.16	1.6		●	○	●								○								
	CNMG160608-DM	16.1	15.875	6.35	6.35	0.8	○	●	○	●	●							○								
	CNMG160612-DM	16.1	15.875	6.35	6.35	1.2	○	●	●	●	○							○								
	CNMG160616-DM	16.1	15.875	6.35	6.35	1.6	○	●	●	●	●															
	CNMG190608-DM	19.3	19.05	6.35	7.94	0.8		●	●	●								○								
	CNMG190612-DM	19.3	19.05	6.35	7.94	1.2		●	●	●	●							○								
	CNMG190616-DM	19.3	19.05	6.35	7.94	1.6		●	●	●	●							○								
EM Medium Cut/ Media Asport.	CNMG120404-EM	12.9	12.7	4.76	5.16	0.4								●	●		●	○	●								
	CNMG120408-EM	12.9	12.7	4.76	5.16	0.8								●	●	○	●	○	●								
	CNMG120412-EM	12.9	12.7	4.76	5.16	1.2								○	●		●	○	●								
	CNMG160608-EM	16.1	15.875	6.35	6.35	0.8									●		●		●								
	CNMG160612-EM	16.1	15.875	6.35	6.35	1.2								○	●		●	○	●								
	CNMG160616-EM	16.1	15.875	6.35	6.35	1.6									○												

Tool holder / Cartuccia


DCLNR/L
Kr:95°


PCBNR/L
Kr:75°


PCLNR/L
Kr:95°


MCBNR/L
Kr:75°


MCLNR/L
Kr:95°

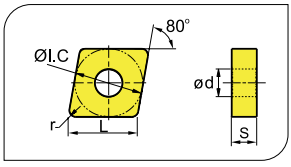

PCLNR/L
Kr:95°

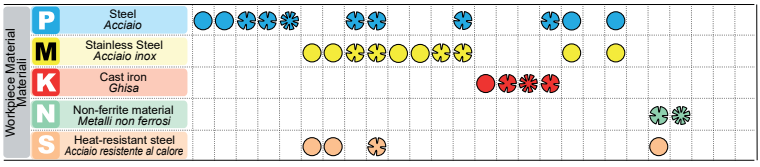
CN** Negative Insert·Inserto negativo

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli





Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Coated Carbide Carburo cementato rivestito														Cermet Non rivestito	Cermet Coated Cerm rives	Uncoated Carbide Non rivestito Carburo cementato	
		L	I.C	S	d	r	XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAO253	XAS052	XAS102	XAS152	XAS152C	XCI151	XCI151C	XS101	XS201
TC	CNMG120404-TC	12.9	12.7	4.76	5.16	0.4																●				
	CNMG120408-TC	12.9	12.7	4.76	5.16	0.8																●				
	CNMG120412-TC	12.9	12.7	4.76	5.16	1.2																●				
	CNMG120416-TC	12.9	12.7	4.76	5.16	1.6																●				
	CNMG160608-TC	16.1	15.875	6.35	6.35	0.8																●				
	CNMG160612-TC	16.1	15.875	6.35	6.35	1.2																●				
	CNMG160616-TC	16.1	15.875	6.35	6.35	1.6																●				
NM	CNMG120404-NM	12.9	12.7	4.76	5.16	0.4						○	●													
	CNMG120408-NM	12.9	12.7	4.76	5.16	0.8						○	●		○										○	
	CNMG120412-NM	12.9	12.7	4.76	5.16	1.2						○	●													
Media Asport. Medium Cut/																										
DR	CNMG120408-DR	12.9	12.7	4.76	5.16	0.8	○	●	●	●	●							○		●	●	●				
	CNMG120412-DR	12.9	12.7	4.76	5.16	1.2	○	●	●	○										●	●	●				
	CNMG120416-DR	12.9	12.7	4.76	5.16	1.6	○	●	●	●	●										●	●				
	CNMG160608-DR	16.1	15.875	6.35	6.35	0.8		●	●	●	○										●	●				
	CNMG160612-DR	16.1	15.875	6.35	6.35	1.2	○	●	●	●	○										●	●				
	CNMG160616-DR	16.1	15.875	6.35	6.35	1.6		●	●	●	●										○	●				
	CNMG190608-DR	19.3	15.875	6.35	7.94	0.8		○	●	●	○										●	●				
	CNMG190612-DR	19.3	19.05	6.35	7.94	1.2	○	●	●	●											○	●				
	CNMG190616-DR	19.3	19.05	6.35	7.94	1.6	○	●	●	●	●										○	●				
	CNMG190624-DR	19.3	19.05	6.35	7.94	2.4	○	○	●	●	●										○	○				
	CNMG250924-DR	25.79	25.4	9.525	9.12	2.4				○	○															
Sgrossatura Roughing /																										

Tool holder / Cartuccia













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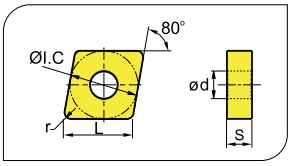
General Turning
Tornitura generale

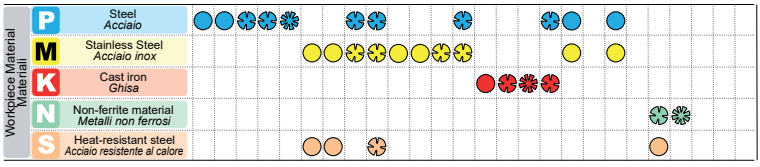
CN** Negative Insert · Inserto negativo

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli





Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Coated Carbide Carburo cementato rivestito															Cermet Non rivestito	Cermet Coated Cerm. rivès	Uncoated Carbide Non rivestito Carburo cementato	
		L	I.C	S	d	r	XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAO253	XAS052	XAS102	XAS152	XAS152C	XCI151	XCI151C	XS101	XS201
LR	CNMM120408-LR	12.9	12.7	4.76	5.16	0.8		●		●									●							
	CNMM120412-LR	12.9	12.7	4.76	5.16	1.2		●		●									●							
	CNMM120416-LR	12.9	12.7	4.76	5.16	1.6		●		●									○							
	CNMM160608-LR	16.1	15.875	6.35	6.35	0.8		●		●									●							
	CNMM160612-LR	16.1	15.875	6.35	6.35	1.2		●		●									●							
	CNMM160616-LR	16.1	15.875	6.35	6.35	1.6		●		●																
	CNMM160624-LR	16.1	15.875	6.35	6.35	2.4		○		○																
	CNMM190612-LR	19.3	19.05	6.35	7.94	1.2		●		●									●							
Roughing Sgrossatura	CNMM190616-LR	19.3	19.05	6.35	7.94	1.6		●		●									○							
	CNMM190624-LR	19.3	19.05	6.35	7.94	2.4		●		●																
	CNMM250924-LR	25.79	25.4	9.525	9.12	2.4		○		●																
DR	CNMM120412-DR	12.9	12.7	4.76	5.16	1.2		●	○	●																
	CNMM160612-DR	16.1	15.875	6.35	6.35	1.2		●	●	●								●								
	CNMM160616-DR	16.1	15.875	6.35	6.35	1.6	●	●		●	●															
	CNMM190612-DR	19.3	19.05	6.35	7.94	1.2	○	●	●	●									●							
	CNMM190616-DR	19.3	19.05	6.35	7.94	1.6	○	●	●	●																
Roughing / Sgrossatura	CNMM190624-DR	19.3	19.05	6.35	7.94	2.4	○	●	●	●	○															
	CNMM250924-DR	25.79	25.4	9.525	9.12	2.4	○	●	●	●																
ER	CNMG120408-ER	12.9	12.7	4.76	5.16	0.8										○			●							
	CNMG120412-ER	12.9	12.7	4.76	5.16	1.2										○			●							
	CNMG160612-ER	16.1	15.875	6.35	6.35	1.2										○			●							
	CNMG160616-ER	16.1	15.875	6.35	6.35	1.6										○			●							
	CNMG190612-ER	19.3	19.05	6.35	7.94	1.2				○					○	○			●							
Roughing / Sgrossatura	CNMG190616-ER	19.3	19.05	6.35	7.94	1.6				○					○	○			●							
ER	CNMM250724-ER	25.79	25.4	7.94	9.12	2.4				●						○			○							
	CNMM250732-ER	25.79	25.4	7.94	9.12	3.2				●						○			○							
	CNMM250924-ER	25.79	25.4	9.525	9.12	2.4				●						○			●							
Roughing Sgrossatura	CNMM250932-ER	25.79	25.4	9.525	9.12	3.2				●						○			○							

Tool holder / Cartuccia


DCLNR/L
Kr:95°


PCBNR/L
Kr:75°


PCLNR/L
Kr:95°


MCBNR/L
Kr:75°


MCLNR/L
Kr:95°

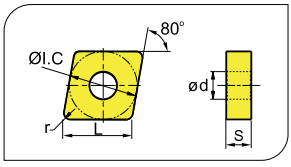

PCLNR/L
Kr:95°

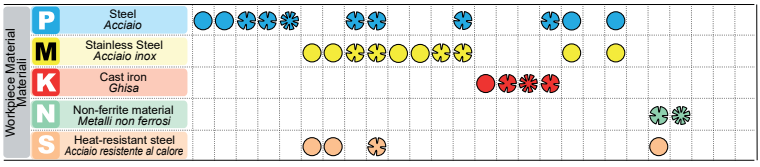
CN** Negative Insert· Inserto negativo

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli





Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Coated Carbide Carburo cementato rivestito														Cermet Non rivestito	Cermet Coated Cerm. rives	Uncoated Carbide Non rivestito Carburo cementato	
		L	I.C	S	d	r	XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAO253	XAS052	XAS102	XAS152	XAS152C	XCI151	XCI151C	XS101	XS201
HDR	**CNMM120408-HDR**	12.9	12.7	4.76	5.16	0.8	○	●	●	●	●							○								
	CNMM120412-HDR	12.9	12.7	4.76	5.16	1.2	○	●	●	●								○								
	CNMM120416-HDR	12.9	12.7	4.76	5.16	1.6		○	●	●	○															
	CNMM160612-HDR	16.1	15.875	6.35	6.35	1.2	○	●	●	●	○															
	CNMM160616-HDR	16.1	15.875	6.35	6.35	1.6	○	○	●	●	○															
	CNMM160624-HDR	16.1	15.875	6.35	6.35	2.4		○		●																
	CNMM190608-HDR	19.3	19.05	6.35	7.94	0.8			○	●																
Roughing Sgrossatura	**CNMM190612-HDR**	19.3	19.05	6.35	7.94	1.2			○	●	○															
	CNMM190616-HDR	19.3	19.05	6.35	7.94	1.6	○	●	●	●	●										○					
	CNMM190624-HDR	19.3	19.05	6.35	7.94	2.4	○	●	●	●																
	CNMM250924-HDR	25.79	25.4	9.525	9.12	2.4		●		●																
HPR	**CNMM190616-HPR**	19.3	19.05	6.35	7.94	1.6				●																
	CNMM190624-HPR	19.3	19.05	6.35	7.94	2.4		○		●																
Roughing Sgrossatura	**CNMM250924-HPR**	25.79	25.4	9.525	9.12	2.4				●																
	CNMM120404	12.9	12.7	4.76	5.16	0.4	○		○																	
	CNMM120408	12.9	12.7	4.76	5.16	0.8			○																	
	CNMM120412	12.9	12.7	4.76	5.16	1.2			○																	
	CNMM190608	19.3	19.05	6.35	7.94	0.8			○																	
Basic	**CNMM190612**	19.3	19.05	6.35	7.94	1.2			●		○															
	CNMM190616	19.3	19.05	6.35	7.94	1.6			○																	
	CNMM190624	19.3	19.05	6.35	7.94	2.4																				

Tool holder / Cartuccia


DCLNR/L
Kr:95°


PCBNR/L
Kr:75°


PCLNR/L
Kr:95°


MCBNR/L
Kr:75°


MCLNR/L
Kr:95°


PCLNR/L
Kr:95°

A

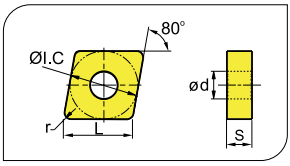
General Turning
Tornitura generale

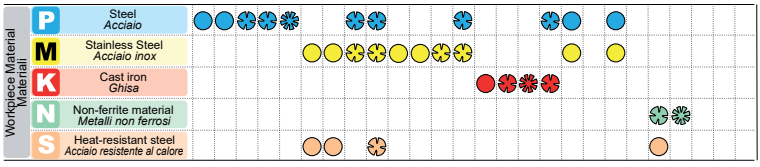
CN** Negative Insert· Inserto negativo

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli





Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Coated Carbide Carburo cementato rivestito														Cermet Non rivestito	Cermet Coated Cerm. rives.	Uncoated Carbide Non rivestito Carburo cementato	
		L	I.C	S	d	r	XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAO253	XAS052	XAS102	XAS152	XAS152C	XCI151	XCI151C	XS101	XS201
Flat Parte superiore piana	CNMA120404	12.9	12.7	4.76	5.16	0.4													●	●	○					○
	CNMA120408	12.9	12.7	4.76	5.16	0.8	○												●	●	●	○				○
	CNMA120412	12.9	12.7	4.76	5.16	1.2	○												●	●●	○					
	CNMA120416	12.9	12.7	4.76	5.16	1.6													●	●	●					
	CNMA160608	16.1	15.875	6.35	6.35	0.8														●	●					
	CNMA160612	16.1	15.875	6.35	6.35	1.2													○	●	●					
	CNMA160616	16.1	15.875	6.35	6.35	1.6													●	●	●					
	CNMA160620	16.1	15.875	6.35	6.35	2.0															○					
	CNMA160630	16.1	15.875	6.35	6.35	3.0															○					
	CNMA190612	19.3	19.05	6.35	7.94	1.2	○												●	●	●				○	
	CNMA190616	19.3	19.05	6.35	7.94	1.6													○	●	●					
Basic	CNMG120404	12.9	12.7	4.76	5.16	0.4			○																	
	CNMG120408	12.9	12.7	4.76	5.16	0.8		○	●	○										○	○					○
	CNMG120412	12.9	12.7	4.76	5.16	1.2		○	●	○										○	○					○
	CNMG160608	16.1	15.875	6.35	6.35	0.8			○																	
	CNMG160612	16.1	15.875	6.35	6.35	1.2			○																	
	CNMG160616	16.1	15.875	6.35	6.35	1.6																				
	CNMG190608	19.3	19.05	6.35	7.94	0.8			○																	
	CNMG190612	19.3	19.05	6.35	7.94	1.2			○		○															
	CNMG190616	19.3	19.05	6.35	7.94	1.6			○		○															

Tool holder / Cartuccia


DCLNR/L
Kr:95°


PCBNR/L
Kr:75°


PCLNR/L
Kr:95°


MCBNR/L
Kr:75°


MCLNR/L
Kr:95°

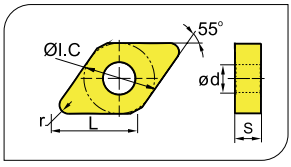

PCLNR/L
Kr:95°

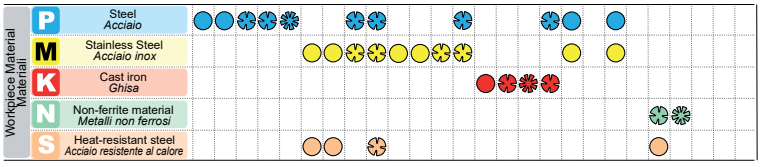
DN** Negative Insert·Inserto negativo

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli





Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Coated Carbide Carburo cementato rivestito														Cermet Non rivestito	Cermet Carburo cementato rivestito	Uncoated Carbide Non rivestito Carburo cementato	
		L	I.C	S	d	r	XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAO253	XAS052	XAS102	XAS152	XAS152C	XCI151	XCI151C	XS101	XS201
DF  Finishing Finitura	DNMG110404-DF	11.6	9.525	4.76	3.81	0.4	○	●	○	●																
	DNMG110408-DF	11.6	9.525	4.76	3.81	0.8	○	●	○	●																
	DNMG110412-DF	11.6	9.525	4.76	3.81	1.2		●	○	○																
	DNMG150404-DF	15.5	12.7	4.76	5.16	0.4	○	●	○	○																
	DNMG150408-DF	15.5	12.7	4.76	5.16	0.8	○	●	○	●																
	DNMG150412-DF	15.5	12.7	4.76	5.16	1.2		○	○	○																
	DNMG150604-DF	15.5	12.7	6.35	5.16	0.4	○	●	●	●																
	DNMG150608-DF	15.5	12.7	6.35	5.16	0.8	○	●	●	●																
	DNMG150612-DF	15.5	12.7	6.35	5.16	1.2		●	○	○																
WG  Wiper	DNMX110404-WG	11.6	9.525	4.76	3.81	0.4	●	○																		
	DNMX110408-WG	11.6	9.525	4.76	3.81	0.8	○	●	○	●																
	DNMX150408-WG	15.5	12.7	4.76	5.16	0.8	○	○																		
	DNMX150412-WG	15.5	12.7	4.76	5.16	1.2		○																		
	DNMX150608-WG	15.5	12.7	6.35	5.16	0.8	○	●	○	●																
	DNMX150612-WG	15.5	12.7	6.35	5.16	1.2	○	●																		
SF  Finishing Finitura	DNMG110404-SF	11.6	9.525	4.76	3.81	0.4																		●		
	DNMG150404-SF	15.5	12.7	4.76	5.16	0.4																		●		
	DNMG150408-SF	15.5	12.7	4.76	5.16	0.8																		●		
	DNMG150604-SF	15.5	12.7	6.35	5.16	0.4																		●		
	DNMG150608-SF	15.5	12.7	6.35	5.16	0.8																		●		

Tool holder / Cartuccia


DDJNR/L
Kr:93°


PDJNR/L
Kr:93°


PDNNR/L
Kr:63°


MDJNR/L
Kr:93°


MDPNN
Kr:62°30'


PDSNR/L
Kr:62°30'


PDUNR/L
Kr:93°

A

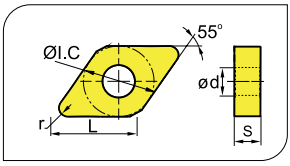
General Turning
Tornitura generale

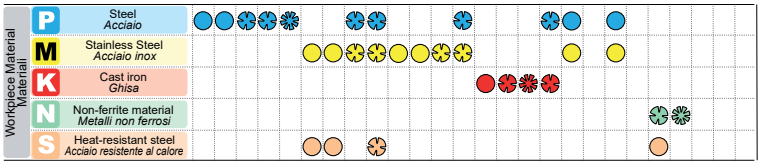
DN** Negative Insert·Inserto negativo

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli





Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Coated Carbide Carburo cementato rivestito														Cermet Non rivestito	Cermet Coated Cerm. rives	Uncoated Carbide Non rivestito Carburo cementato	
		L	I.C	S	d	r	XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAO253	XAS052	XAS102	XAS152	XAS152C	XCI151	XCI151C	XS101	XS201
EF Finishing Finitura	DNMG110404-EF	11.6	9.525	4.76	3.81	0.4								○	●	○	○									
	DNMG110408-EF	11.6	9.525	4.76	3.81	0.8								○	●	○	○									
	DNMG110412-EF	11.6	9.525	4.76	3.81	1.2									○											
	DNMG150404-EF	15.5	12.7	4.76	5.16	0.4									●											
	DNMG150408-EF	15.5	12.7	4.76	5.16	0.8									●											
	DNMG150412-EF	15.5	12.7	4.76	5.16	1.2									○											
	DNMG150604-EF	15.5	12.7	6.35	5.16	0.4			○					○	●	○	●									
	DNMG150608-EF	15.5	12.7	6.35	5.16	0.8			○					○	●	○	●	○								
	DNMG150612-EF	15.5	12.7	6.35	5.16	1.2								○	●											
NF finishing Finitura	DNEG150404-NF	15.5	12.7	4.76	5.16	0.4						○	○												○	
	DNEG150408-NF	15.5	12.7	4.76	5.16	0.8						○	●												○	
	DNEG150604-NF	15.5	12.7	6.35	5.16	0.4						○	●												○	
	DNEG150608-NF	15.5	12.7	6.35	5.16	0.8						●	●												○	
FM finishing Finitura	DNMG150604R-FM	15.5	12.7	6.35	5.16	0.4		●		●					●											
	DNMG150608R-FM	15.5	12.7	6.35	5.16	0.8		●		●					●											
	DNMG150604L-FM	15.5	12.7	6.35	5.16	0.4		○		●					●											
	DNMG150608L-FM	15.5	12.7	6.35	5.16	0.8		●		●					●											

Tool holder / Cartuccia


DDJNR/L
Kr:93°


PDJNR/L
Kr:93°


PDNNR/L
Kr:63°


MDJNR/L
Kr:93°


MDPNN
Kr:62°30'


PDSNR/L
Kr:62°30'

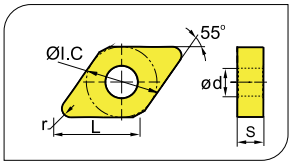

PDUNR/L
Kr:93°

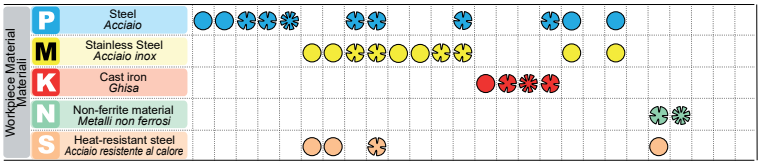
DN** Negative Insert·Inserto negativo

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli





Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Coated Carbide Carburo cementato rivestito														Cermet Non rivestito	Cermet Coated Cerm rivs.	Uncoated Carbide Non rivestito Carburo cementato	
		L	I.C	S	d	r	XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAO253	XAS052	XAS102	XAS152	XAS152C	XCI151	XCI151C	XS101	XS201
PM	DNMG110404-PM	11.6	9.525	4.76	3.81	0.4			●	○										○	○					
	DNMG110408-PM	11.6	9.525	4.76	3.81	0.8		●	●	○										●	○					
	DNMG110412-PM	11.6	9.525	4.76	3.81	1.2			○	○										○						
	DNMG150404-PM	15.5	12.7	4.76	5.16	0.4			●	○											○					
	DNMG150408-PM	15.5	12.7	4.76	5.16	0.8	○	●	●●											○	●	●				
	DNMG150412-PM	15.5	12.7	4.76	5.16	1.2			○	●											●	○				
	DNMG150416-PM	15.5	12.7	4.76	5.16	1.6			○	○																
	DNMG150604-PM	15.5	12.7	6.35	5.16	0.4	○	●	●	●	○									●	●	○				
	DNMG150608-PM	15.5	12.7	6.35	5.16	0.8	○	●	●	●	●									●	●	●				
	DNMG150612-PM	15.5	12.7	6.35	5.16	1.2	○	●	●●											○	●	●				
	DNMG150616-PM	15.5	12.7	6.35	5.16	1.6			●	○										○		○				
DM	DNMG110404-DM	11.6	9.525	4.76	3.81	0.4	○	●	●	●	○							○								
	DNMG110408-DM	11.6	9.525	4.76	3.81	0.8	○	●	●	●	○							○								
	DNMG110412-DM	11.6	9.525	4.76	3.81	1.2		●		●																
	DNMG150404-DM	15.5	12.7	4.76	5.16	0.4		●	●	●																
	DNMG150408-DM	15.5	12.7	4.76	5.16	0.8	○	●	○	●								○								
	DNMG150412-DM	15.5	12.7	4.76	5.16	1.2		●	○	●								○								
	DNMG150416-DM	15.5	12.7	4.76	5.16	1.6																				
	DNMG150604-DM	15.5	12.7	6.35	5.16	0.4	○	●	●●							○	○									
	DNMG150608-DM	15.5	12.7	6.35	5.16	0.8	○	●	●	●	●					○	○									
	DNMG150612-DM	15.5	12.7	6.35	5.16	1.2	○	●	●	●	●							○								
	DNMG150616-DM	15.5	12.7	6.35	5.16	1.6		●	●	●	○															

Medium Cut/
Media Asport.

Medium Cut/
Media Asport.

Tool holder / Cartuccia


DDJNR/L
Kr:93°


PDJNR/L
Kr:93°


PDNNR/L
Kr:63°


MDJNR/L
Kr:93°


MDPNN
Kr:62°30'


PDSNR/L
Kr:62°30'


PDUNR/L
Kr:93°

A

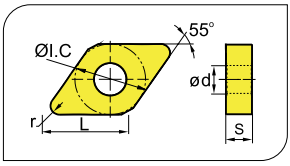
General Turning
Tornitura generale

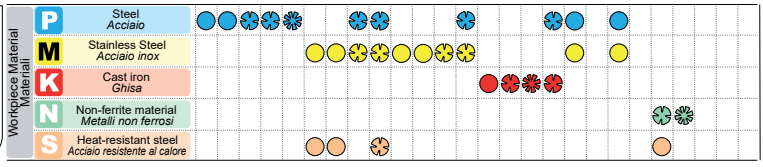
DN** Negative Insert· Inserto negativo

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli





Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Coated Carbide Carburo cementato rivestito														Cermet Non rivestito	Cermet Coated Cem. rivest.	Uncoated Carbide Non rivestito Carburo cementato	
		L	I.C	S	d	r	XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAO253	XAS052	XAS102	XAS152	XAS152C	XCI151	XCI151C	XS101	XS201
EM	**DNMG110404-EM**	11.6	9.525	4.76	3.81	0.4								○	●		●										
	DNMG110408-EM	11.6	9.525	4.76	3.81	0.8								○	●		●	○									
	DNMG110412-EM	11.6	9.525	4.76	3.81	1.2									○												
	DNMG150404-EM	15.5	12.7	4.76	5.16	0.4									●		●										
	DNMG150408-EM	15.5	12.7	4.76	5.16	0.8									●		●										
	DNMG150412-EM	15.5	12.7	4.76	5.16	1.2									○		○										
	DNMG150604-EM	15.5	12.7	6.35	5.16	0.4								○	●		●	○	●								
	DNMG150608-EM	15.5	12.7	6.35	5.16	0.8								○	●	○	●	○	●								
	DNMG150612-EM	15.5	12.7	6.35	5.16	1.2									●		●	○	●								
Medium Cut/ Media Asport.																											
NM	**DNMG150608-NM**	15.5	12.7	6.35	5.16	1.2							●														
	DNMG150612-NM	15.5	12.7	6.35	5.16	1.2						○	●													○	
Medium Cut/ Media Asport.																											
DR	**DNMG150608-DR**	15.5	12.7	6.35	5.16	0.8	○	●	●	●	○									○	●	●					
	DNMG150612-DR	15.5	12.7	6.35	5.16	1.2	○	●	●●												●	●					
	DNMG150616-DR	15.5	12.7	6.35	5.16	1.6		●	○	●	○										●	○					
Roughing/ Sgrossatura																											
ER	**DNMG150608-ER**	15.5	12.7	6.35	5.16	0.8										○			●								
	DNMG150612-ER	15.5	12.7	6.35	5.16	1.2										○			●								
Roughing Sgrossatura																											

Tool holder / Cartuccia


DDJNR/L
Kr:93°


PDJNR/L
Kr:93°


PDNNR/L
Kr:63°


MDJNR/L
Kr:93°


MDPNN
Kr:62°30'


PDSNR/L
Kr:62°30'

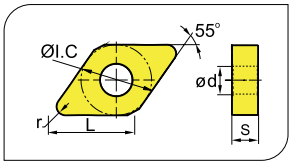

PDUNR/L
Kr:93°

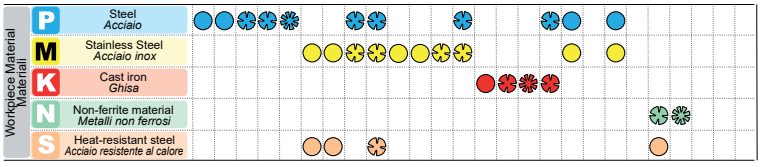
DN** Negative Insert·Inserto negativo

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli





Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Coated Carbide Carburo cementato rivestito													Cermet Non rivestito	Cermet Cermet Cem rives.	Uncoated Carbide Non rivestito Carburo cementato	
		L	I.C	S	d	r	XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAO253	XAS052	XAS102	XAS152	XAS152C	XCI151	XCI151C	XS101	XS201
Flat Parte superiore piana	**DNMA150404**	15.5	12.7	4.76	5.16	0.4															○					
	DNMA150408	15.5	12.7	4.76	5.16	0.8															○	○				
	DNMA150604	15.5	12.7	6.35	5.16	0.4														●	●	○				
	DNMA150608	15.5	12.7	6.35	5.16	0.8	○													●	●	●				
	DNMA150612	15.5	12.7	6.35	5.16	1.2														○	●	●				
	DNMA150616	15.5	12.7	6.35	5.16	1.6														●	○	○				



Tool holder / Cartuccia


DDJNR/L
Kr:93°


PDJNR/L
Kr:93°


PDNNR/L
Kr:63°


MDJNR/L
Kr:93°


MDPNN
Kr:62°30'


PDSNR/L
Kr:62°30'


PDUNR/L
Kr:93°

A

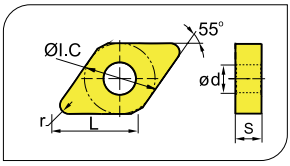
General Turning
Tornitura generale

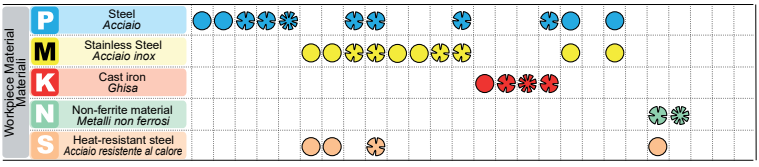
DN** Negative Insert·Inserto negativo

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli





Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Coated Carbide Carburo cementato rivestito													Cermet Non rivestito	Cermet Coated Cerm. rives.	Uncoated Carbide Non rivestito Carburo cementato	
		L	I.C	S	d	r	XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAO253	XAS052	XAS102	XAS152	XAS152C	XCI151	XCI151C	XS101	XS201
LR Roughing Sgrossatura	**DNMM150608-LR**	15.5	12.7	6.35	5.16	0.8		●		●									●							
	DNMM150612-LR	15.5	12.7	6.35	5.16	1.2		●		●									●							
	DNMM150616-LR	15.5	12.7	6.35	5.16	1.6		●		●									●							
DR Roughing Sgrossatura	**DNMM150608-DR**	15.5	12.7	6.35	5.16	0.8	○	●	○	●	○							○								
	DNMM150612-DR	15.5	12.7	6.35	5.16	1.2	○	●	○	●																
	DNMM150616-DR	15.5	12.7	6.35	5.16	1.6		●	○	●	○															
ER Roughing Sgrossatura	**DNMM150608-ER**	15.5	12.7	6.35	5.16	0.8										○			●							
	DNMM150612-ER	15.5	12.7	6.35	5.16	1.2										○			●							
HDR Roughing Sgrossatura	**DNMM150608-HDR**	15.5	12.7	6.35	5.16	0.8		●	○	○	○															
	DNMM150612-HDR	15.5	12.7	6.35	5.16	1.2		○	○		○															
	DNMM150616-HDR	15.5	12.7	6.35	5.16	1.6		●	○	●	○															
Basic	**DNMG150604**	15.5	12.7	6.35	5.16	0.4			○																	
	DNMG150608	15.5	12.7	6.35	5.16	0.8			○																	
	DNMG150612	15.5	12.7	6.35	5.16	1.2																				
	DNMG150616	15.5	12.7	6.35	5.16	1.6																				
	DNMG190608	19.3	15.875	6.35	7.94	0.8			○																	
	DNMG190612	19.3	15.875	6.35	7.94	1.2			○																	

Tool holder / Cartuccia


DDJNR/L
Kr:93°


PDJNR/L
Kr:93°


PDNNR/L
Kr:63°


MDJNR/L
Kr:93°


MDPNN
Kr:62°30'


PDSNR/L
Kr:62°30'

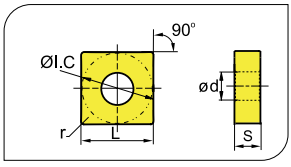

PDUNR/L
Kr:93°

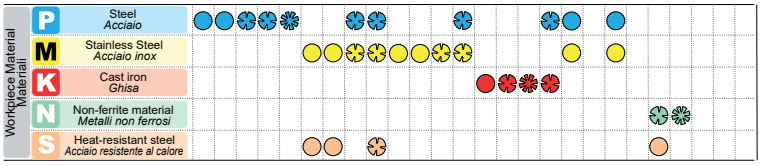
SN** Negative Insert · Inserto negativo

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli





Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Coated Carbide Carburo cementato rivestito														Cermet Non rivestito	Cermet Cermet Cerm rives	Uncoated Carbide Non rivestito Carburo cementato	
		L	I.C	S	d	r	XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAS052	XAS102	XAS152	XAS152C	XCI151	XCI151C	XS101	XS201
DF	**SNMG090304-DF**	9.525	9.525	3.18	3.81	0.4		○																		
	SNMG090308-DF	9.525	9.525	3.18	3.81	0.8		○																		
	SNMG120404-DF	12.7	12.7	4.76	5.16	0.4		○																		
	SNMG120408-DF	12.7	12.7	4.76	5.16	0.8	○	●	○	●																
Finishing Finitura	**SNMG120412-DF**	12.7	12.7	4.76	5.16	1.2	○	●	○	●																
EF	**SNMG090304-EF**	9.525	9.525	3.18	3.81	0.4								○	●		●									
	SNMG090308-EF	9.525	9.525	3.18	3.81	0.8								○	●		●									
	SNMG090312-EF	9.525	9.525	3.18	3.81	1.2									○		○									
	SNMG120404-EF	12.7	12.7	4.76	5.16	0.4								○	●		●									
	SNMG120408-EF	12.7	12.7	4.76	5.16	0.8								○	●	○	●									
Finishing Finitura	**SNMG120412-EF**	12.7	12.7	4.76	5.16	1.2								○	●		○									
	SNMG150608-EF	15.875	15.875	6.35	6.35	0.8								○	○		○									
	SNMG150612-EF	15.875	15.875	6.35	6.35	1.2									○		○									

Tool holder / Cartuccia


DSBNR/L Kr:75°


PSBNR/L Kr:75°


PSDNN Kr:45°


PSKNR/L Kr:75°


PSSNR/L Kr:45°


MSBNR/L Kr:75°


MSRNR/L Kr:75°


MSKNR/L Kr:75°


MSDNN Kr:45°


PSKNR/L Kr:75°

A

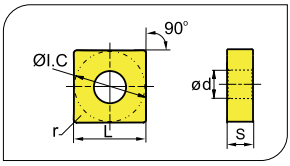
General Turning
Tornitura generale

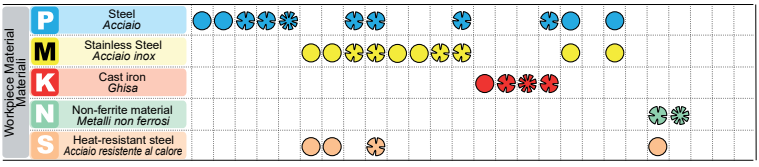
SN** Negative Insert·Inserto negativo

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli





Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Coated Carbide Carburo cementato rivestito													Cermet Non rivestito	Cermet Coated Cem. rivest.	Uncoated Carbide Non rivestito Carburo cementato	
		L	I.C	S	d	r	XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAO253	XAS052	XAS102	XAS152	XAS152C	XCI151	XCI151C	XS101	XS201
SF	**SNMG090304-SF**	9.525	9.525	3.18	3.81	0.4																	○	●		
	SNMG090308-SF	9.525	9.525	3.18	3.81	0.8																	○	●		
	SNMG120404-SF	12.7	12.7	4.76	5.16	0.4																	○	●		
	SNMG120408-SF	12.7	12.7	4.76	5.16	0.8																	○	●		
	SNMG120412-SF	12.7	12.7	4.76	5.16	1.2																	○	○		
	SNMG150608-SF	15.875	15.875	6.35	6.35	0.8																	○	○		
PM	**SNMG090304-PM**	9.525	9.525	3.18	3.81	0.4			●	○																
	SNMG090308-PM	9.525	9.525	3.18	3.81	0.8			●	○	○									○	●	●				
	SNMG090312-PM	9.525	9.525	3.18	3.81	1.2			○	○																
	SNMG120404-PM	12.7	12.7	4.76	5.16	0.4	○	●	●	○											●	●				
	SNMG120408-PM	12.7	12.7	4.76	5.16	0.8	○	●	●	●	●									●	●	●				
	SNMG120412-PM	12.7	12.7	4.76	5.16	1.2	○	●	●	●	●									○	●	●				
	SNMG120416-PM	12.7	12.7	4.76	5.16	1.6		○	○	○	○									●	○	●				
	SNMG150608-PM	15.875	15.875	6.35	6.35	0.8				○																
	SNMG150612-PM	15.875	15.875	6.35	6.35	1.2			●	●	○									○	●	●				
	SNMG190612-PM	19.05	19.05	6.35	7.94	1.2	○	●	●	●	●									○	●	●				
	SNMG190616-PM	19.05	19.05	6.35	7.94	1.6			○																	


Finishing
Finitura


Medium Cut/
Media Asport.

Tool holder / Cartuccia


DSBNR/L
Kr:75°


PSBNR/L
Kr:75°


PSDNN
Kr:45°


PSKNR/L
Kr:75°


PSSNR/L
Kr:45°


MSBNR/L
Kr:75°


MSRNR/L
Kr:75°


MSKNR/L
Kr:75°


MSDNN
Kr:45°

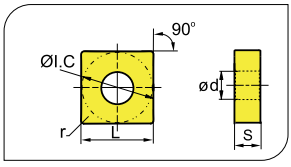

PSKNR/L
Kr:75°

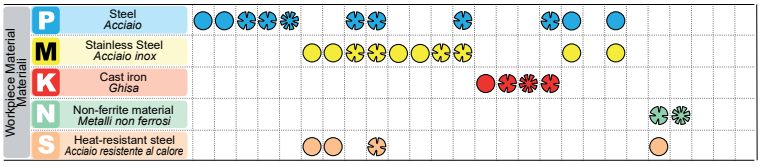
SN** Negative Insert·Inserto negativo

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli





Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Coated Carbide Carburo cementato rivestito														Cermet Non rivestito	Cermet Coated Cem rives.	Uncoated Carbide Non rivestito Carburo cementato	
		L	I.C	S	d	r	XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAO253	XAS052	XAS102	XAS152	XAS152C	XCI151	XCI151C	XS101	XS201
DM	**SNMG090304-DM**	9.525	9.525	3.18	3.81	0.4		●		●																
	SNMG090308-DM	9.525	9.525	3.18	3.81	0.8		●	●	●	○															
	SNMG120404-DM	12.7	12.7	4.76	5.16	0.4	○	●	●●									○								
	SNMG120408-DM	12.7	12.7	4.76	5.16	0.8	○	●	●	●	●					○		○	○							
	SNMG120412-DM	12.7	12.7	4.76	5.16	1.2	○	●	●	●	●					○		○	○							
	SNMG120416-DM	12.7	12.7	4.76	5.16	1.6		○	○	●	○															
	SNMG150608-DM	15.875	15.875	6.35	6.35	0.8		●	●	●																
	SNMG150612-DM	15.875	15.875	6.35	6.35	1.2		●	●	●																
	SNMG150616-DM	15.875	15.875	6.35	6.35	1.6			○																	
	SNMG190612-DM	19.05	19.05	6.35	7.94	1.2	○	●	●	●	○							○								
	SNMG190616-DM	19.05	19.05	6.35	7.94	1.6		●	●	●	●															
EM	**SNMG120404-EM**	12.7	12.7	4.76	5.16	0.4									●		●		○							
	SNMG120408-EM	12.7	12.7	4.76	5.16	0.8								○	●		●	○	●							
	SNMG120412-EM	12.7	12.7	4.76	5.16	1.2								○	●		●	○●								
	SNMG120416-EM	12.7	12.7	4.76	5.16	1.6									○				○							
	SNMG150612-EM	15.875	15.875	6.35	6.35	1.2									●		●		○							
	SNMG150616-EM	15.875	15.875	6.35	6.35	1.6									●				○							
TC	**SNMG120408-TC**	12.7	12.7	4.76	5.16	0.8																●				
	SNMG120412-TC	12.7	12.7	4.76	5.16	1.2																●				

Tool holder / Cartuccia


DSBNR/L
Kr:75°


PSBNR/L
Kr:75°


PSDNN
Kr:45°


PSKNR/L
Kr:75°


PSSNR/L
Kr:45°


MSBNR/L
Kr:75°


MSRNR/L
Kr:75°


MSKNR/L
Kr:75°


MSDNN
Kr:45°


PSKNR/L
Kr:75°

A

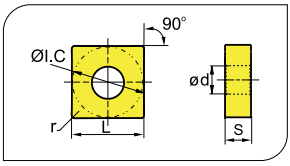
General Turning
Tornitura generale

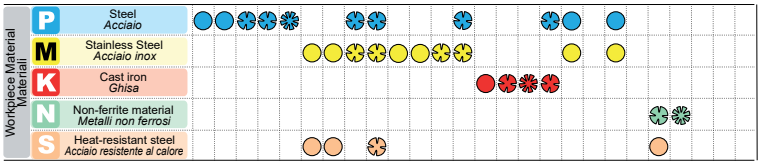
SN** Negative Insert·Inserto negativo

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli





Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Coated Carbide Carburo cementato rivestito														Cermet Non rivestito	Cermet Coated Cerm. rives.	Uncoated Carbide Non rivestito Carburo cementato	
		L	I.C	S	d	r	XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAO253	XAS052	XAS102	XAS152	XAS152C	XCI151	XCI151C	XS101	XS201
NM	**SNMG120408-NM**	12.7	12.7	4.76	5.16	0.8						●	●												○	
	**SNMG120412-NM**	12.7	12.7	4.76	5.16	1.2						○														
Medium Cut Media Asport.																										
DR	**SNMG120408-DR**	12.7	12.7	4.76	5.16	0.8	○	●	●	●	●										●	●				
	**SNMG120412-DR**	12.7	12.7	4.76	5.16	1.2	○	●	●	●	●										●	●				
	SNMG120416-DR	12.7	12.7	4.76	5.16	1.6	○	○	●	●	○										●	●				
	SNMG150608-DR	15.875	15.875	6.35	6.35	0.8				○																
	SNMG150612-DR	15.875	15.875	6.35	6.35	1.2	○	●	●	●	○										●	●				
	SNMG150616-DR	15.875	15.875	6.35	6.35	1.6		○	●	●											○	○				
	SNMG150624-DR	15.875	15.875	6.35	6.35	2.4				○																
Roughing Sgrossatura	**SNMG190612-DR**	19.05	19.05	6.35	7.94	1.2	○	●	●	●	●											●				
	SNMG190616-DR	19.05	19.05	6.35	7.94	1.6	○	●	●	●	●										○	●				
	SNMG190624-DR	19.05	19.05	6.35	7.94	2.4	○	○	●	○	●															
	SNMG250924-DR	25.4	25.4	9.525	9.12	2.4				●	○															
ER	**SNMG120408-ER**	12.7	12.7	4.76	5.16	0.8										○	○		○							
	**SNMG120412-ER**	12.7	12.7	4.76	5.16	1.2										○	○		○							
	SNMG150608-ER	15.875	15.875	6.35	6.35	0.8										○	○		○							
	SNMG150612-ER	15.875	15.875	6.35	6.35	1.2										○	○		○							
Roughing Sgrossatura	**SNMG190612-ER**	19.05	19.05	6.35	7.94	1.2										○	○		●							
	SNMG190616-ER	19.05	19.05	6.35	7.94	1.6										○	○		○							

Tool holder / Cartuccia


DSBNR/L
Kr:75°


PSBNR/L
Kr:75°


PSDNN
Kr:45°


PSKNR/L
Kr:75°


PSSNR/L
Kr:45°


MSBNR/L
Kr:75°


MSRNR/L
Kr:75°


MSKNR/L
Kr:75°


MSDNN
Kr:45°

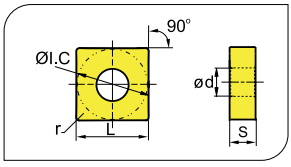

PSKNR/L
Kr:75°

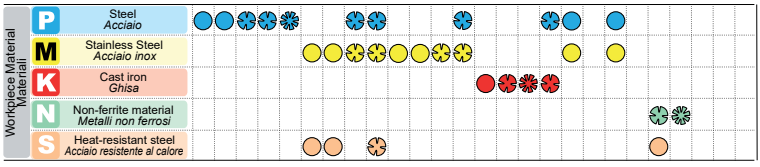
SN** Negative Insert · Inserto negativo

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli





Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Coated Carbide Carburo cementato rivestito																Cermet Non rivestito	Cermet Coated Cerm.rives.	Uncoated Carbide Non rivestito Carburo cementato	
		L	I.C	S	d	r	XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAO253	XAS052	XAS102	XAS152	XAS152C	XCI151	XCI151C	XS101	XS201
LR Roughing Sgrossatura	**SNMM120408-LR**	12.7	12.7	4.76	5.16	0.8		○		●									○							
	SNMM120412-LR	12.7	12.7	4.76	5.16	1.2		○		●									○							
	SNMM120416-LR	12.7	12.7	4.76	5.16	1.6		○		○																
	SNMM150612-LR	15.875	15.875	6.35	6.35	1.2		○		●																
	SNMM150616-LR	15.875	15.875	6.35	6.35	1.6		○		○																
	SNMM190612-LR	19.05	19.05	6.35	7.94	1.2		○		●									○							
	SNMM190616-LR	19.05	19.05	6.35	7.94	1.6		○		●																
	SNMM190624-LR	19.05	19.05	6.35	7.94	2.4		○		●																
	SNMM250924-LR	25.4	25.4	9.525	9.12	2.4		●		●																
DR Roughing Sgrossatura	**SNMM120408-DR**	12.7	12.7	4.76	5.16	0.8			○	○																
	SNMM120412-DR	12.7	12.7	4.76	5.16	1.2			○	○																
	SNMM120416-DR	12.7	12.7	4.76	5.16	1.6																				
	SNMM150608-DR	15.875	15.875	6.35	6.35	0.8			○	●																
	SNMM150612-DR	15.875	15.875	6.35	6.35	1.2			○	●																
	SNMM150616-DR	15.875	15.875	6.35	6.35	1.6			○	○																
	SNMM190608-DR	19.05	19.05	6.35	7.94	0.8				○																
	SNMM190612-DR	19.05	19.05	6.35	7.94	1.2		●	●	●	●															
	SNMM190616-DR	19.05	19.05	6.35	7.94	1.6		●	●	●	●															
	SNMM190624-DR	19.05	19.05	6.35	7.94	2.4	○	●	●	●	○															
	SNMM250716-DR	25.4	25.4	7.94	9.12	1.6				●																
	SNMM250724-DR	25.4	25.4	7.94	9.12	2.4		○	●	●	●															
	SNMM250924-DR	25.4	25.4	9.525	9.12	2.4			○	●	●															

Tool holder / Cartuccia


DSBNR/L Kr:75°


PSBNR/L Kr:75°


PSDNN Kr:45°


PSKNR/L Kr:75°


PSSNR/L Kr:45°


MSBNR/L Kr:75°


MSRNR/L Kr:75°


MSKNR/L Kr:75°


MSDNN Kr:45°


PSKNR/L Kr:75°

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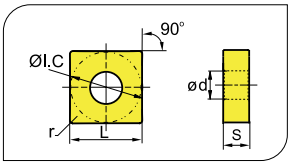
General Turning
Tornitura generale

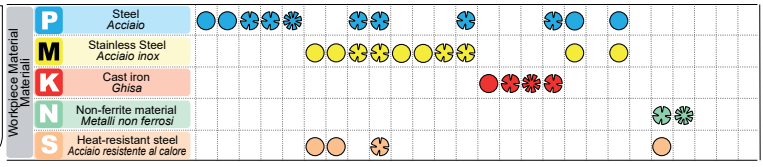
SN** Negative Insert·Inserto negativo

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli





Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Coated Carbide Carburo cementato rivestito													Cermet Non rivestito	Cermet Coated Cerm. rivest.	Uncoated Carbide Non rivestito Carburo cementato	
		L	I.C	S	d	r	XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAO253	XAS052	XAS102	XAS152	XAS152C	XCI151	XCI151C	XS101	XS201
ER	**SNMM250724-ER**	25.4	25.4	7.94	9.12	2.4				●						○			○								
	**SNMM250732-ER**	25.4	25.4	7.94	9.12	3.2				●									○								
	SNMM250924-ER	25.4	25.4	9.525	9.12	2.4				●						○			●								
Roughing Sgrossatura	**SNMM250932-ER**	25.4	25.4	9.525	9.12	3.2				●									○								
HDR	**SNMM120408-HDR**	12.7	12.7	4.76	5.16	0.8			●	○	○																
	SNMM120412-HDR	12.7	12.7	4.76	5.16	1.2			●	○	●																
	SNMM120416-HDR	12.7	12.7	4.76	5.16	1.6				○	○																
	SNMM150608-HDR	15.875	15.875	6.35	6.35	0.8			○	●	○																
	SNMM150612-HDR	15.875	15.875	6.35	6.35	1.2	○		●	●	●																
	SNMM150616-HDR	15.875	15.875	6.35	6.35	1.6			●	○	○																
	**SNMM150624-HDR**	15.875	15.875	6.35	6.35	2.4				○																	
	SNMM190608-HDR	19.05	19.05	6.35	7.94	0.8				○																	
	SNMM190612-HDR	19.05	19.05	6.35	7.94	1.2			●	○																	
Roughing Sgrossatura	**SNMM190616-HDR**	19.05	19.05	6.35	7.94	1.6	○	●	●	●									●								
	SNMM190624-HDR	19.05	19.05	6.35	7.94	2.4		●		●																	
	SNMM250724-HDR	25.4	25.4	7.94	9.12	2.4			○	●	●																
	SNMM250924-HDR	25.4	25.4	9.525	9.12	2.4		○		●																	
HPR	**SNMM190616-HPR**	19.05	19.05	6.35	7.94	1.6				●																	
	**SNMM190624-HPR**	19.05	19.05	6.35	7.94	2.4		○		●																	
	SNMM250924-HPR	25.4	25.4	9.525	9.12	2.4				●																	
Roughing Sgrossatura																											

Tool holder / Cartuccia


DSBNR/L
Kr:75°


PSBNR/L
Kr:75°


PSDNN
Kr:45°


PSKNR/L
Kr:75°


PSSNR/L
Kr:45°


MSBNR/L
Kr:75°


MSRNR/L
Kr:75°


MSKNR/L
Kr:75°


MSDNN
Kr:45°

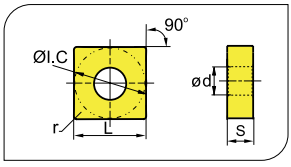

PSKNR/L
Kr:75°

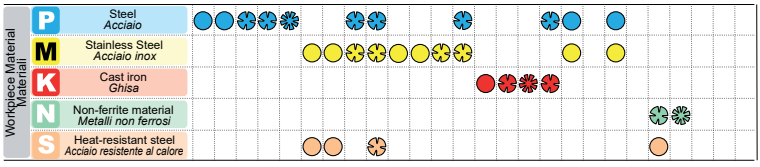
SN** Negative Insert·Inserto negativo

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli





Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Coated Carbide Carburo cementato rivestito														Cermet Non rivestito	Cermet Coated Cerm rives.	Uncoated Carbide Non rivestito Carburo cementato	
		L	I.C	S	d	r	XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAO253	XAS052	XAS102	XAS152	XAS152C	XCI151	XCI151C	XS101	XS201
Basic	SNMG090304	9.525	9.525	3.18	3.81	0.4	○		○																	
	SNMG090308	9.525	9.525	3.18	3.81	0.8			●																	
	SNMG120404	12.7	12.7	4.76	5.16	0.4																				
	SNMG120408	12.7	12.7	4.76	5.16	0.8			●																	
	SNMG120412	12.7	12.7	4.76	5.16	1.2			○		○															
	SNMG120416	12.7	12.7	4.76	5.16	1.6			○																	
	SNMG150608	15.875	15.875	6.35	6.35	0.8																				
	SNMG150612	15.875	15.875	6.35	6.35	1.2	○		○																	
	SNMG190612	19.05	19.05	6.35	7.94	1.2			○																	
	SNMG190616	19.05	19.05	6.35	7.94	1.6			○																	
	SNMG250724	25.4	25.4	7.94	9.12	2.4					●															
	SNMG250924	25.4	25.4	9.525	9.12	2.4					●															
Basic	SNMM090304	9.525	9.525	3.18	3.81	0.4																				
	SNMM090308	9.525	9.525	3.18	3.81	0.8																				
	SNMM120408	12.7	12.7	4.76	5.16	0.8			●																	
	SNMM120412	12.7	12.7	4.76	5.16	1.2			○																	
	SNMM120416	12.7	12.7	4.76	5.16	1.6																				

Tool holder / Cartuccia





















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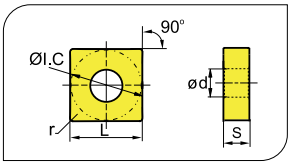
General Turning
Tornitura generale

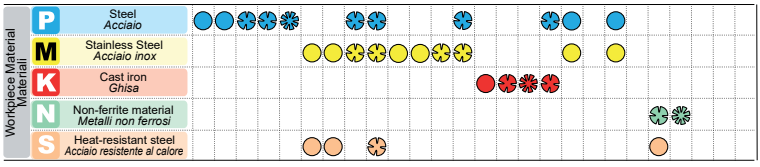
SN** Negative Insert·Inserto negativo

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli





Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Coated Carbide Carburo cementato rivestito														Cermet Non rivestito	Cermet Coated Cem. rives.	Uncoated Carbide Non rivestito Carburo cementato	
		L	I.C	S	d	r	XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAO253	XAS052	XAS102	XAS152	XAS152C	XCI151	XCI151C	XS101	XS201
Basic	**SNMM190608**	19.05	19.05	6.35	7.94	0.8			○																	
	SNMM190612	19.05	19.05	6.35	7.94	1.2			●	○																
	SNMM190616	19.05	19.05	6.35	7.94	1.6			●	○																
	SNMM250724-1	25.4	25.4	7.94	9.12	2.4			●	●																
	SNMM250924	25.4	25.4	9.525	9.12	2.4				○	●																
Flat **Parte superiore piana**	**SNMA120408**	12.7	12.7	4.76	5.16	0.8														●	●	●	○			○	
	SNMA120412	12.7	12.7	4.76	5.16	1.2	○													●	●	●	○				
	SNMA120416	12.7	12.7	4.76	5.16	1.6														●	●	●					
	SNMA150608	15.875	15.875	6.35	6.35	0.8																○					
	SNMA150612	15.875	15.875	6.35	6.35	1.2																●					
	SNMA190612	19.05	19.05	6.35	7.94	1.2														○	●	●					
	SNMA190616	19.05	19.05	6.35	7.94	1.6															○	●					

Tool holder / Cartuccia


DSBNR/L
Kr:75°


PSBNR/L
Kr:75°


PSDNN
Kr:45°


PSKNR/L
Kr:75°


PSSNR/L
Kr:45°


MSBNR/L
Kr:75°


MSRNR/L
Kr:75°


MSKNR/L
Kr:75°


MSDNN
Kr:45°

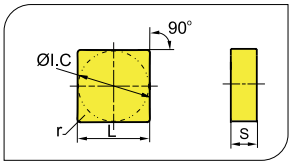

PSKNR/L
Kr:75°

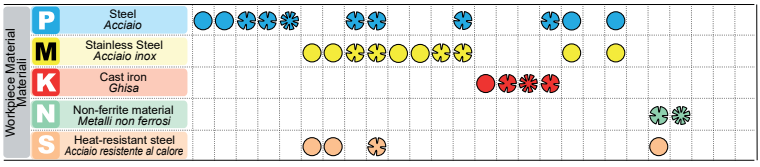
SN** Negative Insert·Inserto negativo

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli





Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Coated Carbide Carburo cementato rivestito														Cermet Non rivestito	Cermet Carburo Cem.rives.	Uncoated Carbide Non rivestito Carburo cementato	
		L	I.C	S	d	r	XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAO253	XAS052	XAS102	XAS152	XAS152C	XCI151	XCI151C	XS101	XS201
Flat **Parte superiore piana**	**SNUN090304**	9.525	9.525	3.18	-	0.4																				
	SNUN090308	9.525	9.525	3.18	-	0.8																			○	
	SNUN120408	12.7	12.7	4.76	-	0.8															●					
	SNUN120412	12.7	12.7	4.76	-	1.2	○		●		○										○	○				○	
	SNUN150408	15.875	15.875	4.76	-	0.8																				
	SNUN150412	15.875	15.875	4.76	-	1.2																				
	SNUN190408	19.05	19.05	4.76	-	0.8																				
	SNUN190412	19.05	19.05	4.76	-	1.2			○																	○	○
	SNUN190424	19.05	19.05	4.76	-	2.4																				
	SNUN250724	25.4	25.4	7.94	-	2.4					○															
	SNUN250924	25.4	25.4	9.525	-	2.4																				

A

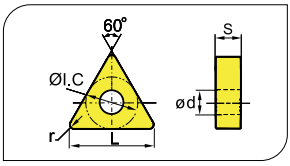
General Turning
Tornitura generale

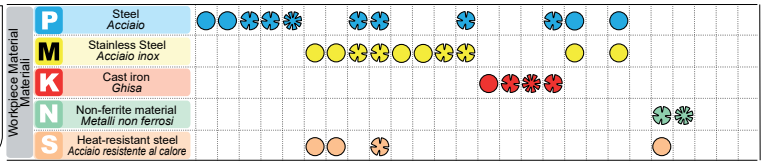
TN** Negative Insert·Inserto negativo

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli





Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Coated Carbide Carburo cementato rivestito														Cermet Non rivestito	Cermet Coated Cem. rives.	Uncoated Carbide Non rivestito Carburo cementato	
		L	I.C	S	d	r	XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAO253	XAS052	XAS102	XAS152	XAS152C	XCI151	XCI151C	XS101	XS201
DF Finishing Finitura	**TNMG160404-DF**	16.5	9.525	4.76	3.81	0.4	○	●	●																		
	TNMG160408-DF	16.5	9.525	4.76	3.81	0.8	○	●	●	●																	
	TNMG160412-DF	16.5	9.525	4.76	3.81	1.2	○	●	●	●																	
	TNMG220408-DF	22	12.7	4.76	5.16	0.8	○	●	○	●																	
	TNMG220412-DF	22	12.7	4.76	5.16	0.8	○	●	●	○																	
WG Wiper	**TNMX160404-WG**	16.5	9.525	4.76	3.81	0.4	○	○	○																		
	TNMX160408-WG	16.5	9.525	4.76	3.81	0.8		●																			
	TNMX160412-WG	16.5	9.525	4.76	3.81	1.2	○	○	○											○							
SF Finishing Finitura	**TNMG110304-SF**	11	6.35	3.18	2.26	0.4																	○	○			
	TNMG160404-SF	16.5	9.525	4.76	3.81	0.4																	○	●			
	TNMG160408-SF	16.5	9.525	4.76	3.81	0.8																	○	●			
	TNMG220408-SF	22	12.7	4.76	5.16	0.8																					
	TNMG220412-SF	22	12.7	4.76	5.16	1.2																					
EF Finishing Finitura	**TNMG110304-EF**	11	6.35	3.18	2.26	0.4									○												
	TNMG110308-EF	11	6.35	3.18	2.26	0.8									●												
	TNMG160404-EF	16.5	9.525	4.76	3.81	0.4								○	●	○	●										
	TNMG160408-EF	16.5	9.525	4.76	3.81	0.8								○	●	○	●										
	TNMG160412-EF	16.5	9.525	4.76	3.81	1.2								●	●		○										
	TNMG220404-EF	22	12.7	4.76	5.16	0.4								○	●		○										
	TNMG220408-EF	22	12.7	4.76	5.16	0.8								○	●		○										
	TNMG220412-EF	22	12.7	4.76	5.16	1.2								●	●												

Tool holder / Cartuccia

DTGNR/L
Kr:91°



PTFNR/L
Kr:90°



PTTNR/L
Kr:60°



PTGNR/L
Kr:90°



MTGNR/L
Kr:90°



MTJNR/L
Kr:93°



MTFNR/L
Kr:90°



PTFNR/L
Kr:90°

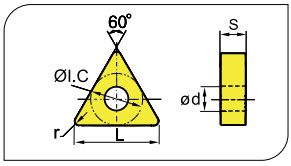


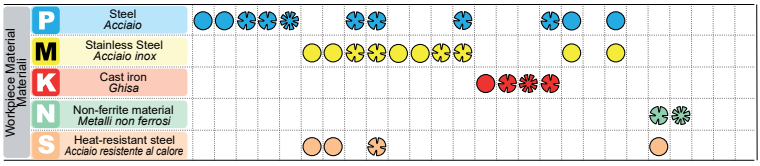
TN** Negative Insert·Inserto negativo

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli





Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Coated Carbide Carburo cementato rivestito														Cermet Non rivestito	Cermet Coated Cerm rivs.	Uncoated Carbide Non rivestito Carburo cementato	
		L	I.C	S	d	r	XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAO253	XAS052	XAS102	XAS152	XAS152C	XCI151	XCI151C	XS101	XS201
FM	**TNMG160404R-FM**	16.5	9.525	4.76	3.81	0.4		○		●					●											
	TNMG160408R-FM	16.5	9.525	4.76	3.81	0.8		○		●					●											
	TNMG160404L-FM	16.5	9.525	4.76	3.81	0.4		○		●					●											
Finishing Finitura	**TNMG160408L-FM**	16.5	9.525	4.76	3.81	0.8		○		●					●											
PM	**TNMG110304-PM**	11	6.35	3.18	2.26	0.4	○		●	●																
	TNMG110308-PM	11	6.35	3.18	2.26	0.8			●	●																
	TNMG160404-PM	16.5	9.525	4.76	3.81	0.4	○		●	●	●							○		●	●	●				
	TNMG160408-PM	16.5	9.525	4.76	3.81	0.8	○	●	●	●	●							○		●	●	●				
	TNMG160412-PM	16.5	9.525	4.76	3.81	1.2	○	●	●	○								○		○	●	●				
	TNMG220408-PM	22	12.7	4.76	5.16	0.8	○	●	●	●								○		○	●	●				
	TNMG220412-PM	22	12.7	4.76	5.16	1.2	○	○	●	●	●									○	●	●				
Medium Cut/ Media Asport.	**TNMG220416-PM**	22	12.7	4.76	5.16	1.6			●	○	○									○	○	●				
DM	**TNMG110308-DM**	11	6.35	3.18	2.26	0.8		●		●																
	TNMG160404-DM	16.5	9.525	4.76	3.81	0.4	○	●	●	●	○							○								
	TNMG160408-DM	16.5	9.525	4.76	3.81	0.8	○	●	●	●								○								
	TNMG160412-DM	16.5	9.525	4.76	3.81	1.2	○	●	●	●	●							○								
	TNMG220404-DM	22	12.7	4.76	5.16	0.4		●	●	●	○							○								
	TNMG220408-DM	22	12.7	4.76	5.16	0.8	○	●	●	●	●							○								
Medium Cut/ Media Asport	**TNMG220412-DM**	22	12.7	4.76	5.16	1.2	○	●	●	●	●							○								
	TNMG220416-DM	22	12.7	4.76	5.16	1.6		●	●	●	●							○								

Tool holder / Cartuccia

DTGNR/L
Kr:91°



PTFNR/L
Kr:90°



PTTNR/L
Kr:60°



PTGNR/L
Kr:90°



MTGNR/L
Kr:90°



MTJNR/L
Kr:93°



MTFNR/L
Kr:90°



PTFNR/L
Kr:90°



A

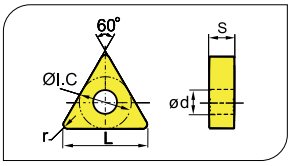
General Turning
Tornitura generale

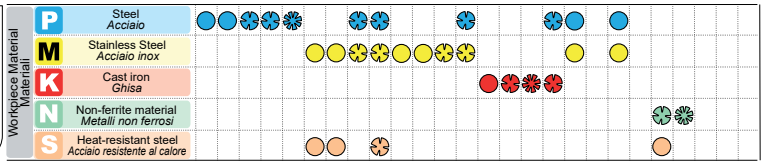
TN** Negative Insert·Inserto negativo

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli





Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Coated Carbide Carburo cementato rivestito														Cermet Non rivestito	Cermet Coated Cem. rivs.	Uncoated Carbide Non rivestito Carburo cementato	
		L	I.C	S	d	r	XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAO253	XAS052	XAS102	XAS152	XAS152C	XCI151	XCI151C	XS101	XS201
EM	**TNMG160404-EM**	16.5	9.525	4.76	3.81	0.4								○	●		●		○								
	TNMG160408-EM	16.5	9.525	4.76	3.81	0.8								○	●		●	○	●								
	TNMG160412-EM	16.5	9.525	4.76	3.81	1.2								●○		●		●									
	TNMG220408-EM	22	12.7	4.76	5.16	0.8								○	●		●	○	●								
	TNMG220412-EM	22	12.7	4.76	5.16	1.2								●●		○		●									
	TNMG220416-EM	22	12.7	4.76	5.16	1.6								○	●				●								
TC	**TNMG160404-TC**	16.5	9.525	4.76	3.81	0.4																●					
	TNMG160408-TC	16.5	9.525	4.76	3.81	0.8																●					
	TNMG160412-TC	16.5	9.525	4.76	3.81	1.2																●					
	TNMG220412-TC	22	12.7	4.76	5.16	1.2																●					
DR	**TNMG160408-DR**	16.5	9.525	4.76	3.81	0.8		●	●	●											●	●					
	TNMG160412-DR	16.5	9.525	4.76	3.81	1.2	○	●	●	●	●										○	●					
	TNMG220408-DR	22	12.7	4.76	5.16	0.8		●	●	●											○	○					
	TNMG220412-DR	22	12.7	4.76	5.16	1.2	○	●	●	●	●										○	●					
	TNMG220416-DR	22	12.7	4.76	5.16	1.6	○	●	●	●	●										○	●					
Roughing/ Sgrossatura	**TNMG270608-DR**	27.5	15.875	6.35	6.35	0.8					○																
	TNMG270612-DR	27.5	15.875	6.35	6.35	1.2					●																
	TNMG270616-DR	27.5	15.875	6.35	6.35	1.6					○																

Medium Cut/
Media Asport.







Roughing/
Sgrossatura

Tool holder / Cartuccia

DTGNR/L
Kr:91°



PTFNR/L
Kr:90°



PTTNR/L
Kr:60°



PTGNR/L
Kr:90°



MTGNR/L
Kr:90°



MTJNR/L
Kr:93°



MTFNR/L
Kr:90°



PTFNR/L
Kr:90°

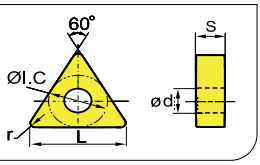


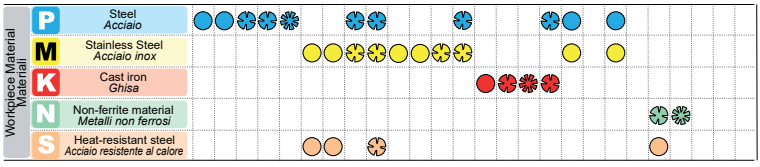
TN** Negative Insert·Inserto negativo

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli





Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Coated Carbide Carburo cementato rivestito														Cermet Non rivestito	Cermet Coated Cem. rives.	Uncoated Carbide Non rivestito Carburo cementato	
		L	I.C	S	d	r	XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAO253	XAS052	XAS102	XAS152	XAS152C	XCI151	XCI151C	XS101	XS201
LR	**TNMM160408-LR**	16.5	9.525	4.76	3.81	0.8		●		●									●							
	TNMM160412-LR	16.5	9.525	4.76	3.81	1.2		●		●									●							
	TNMM160416-LR	16.5	9.525	4.76	3.81	1.6		○		○									○							
Roughing Sgrossatura																										
DR	**TNMM160408-DR**	16.5	9.525	4.76	3.81	0.8	○	○	●	●	○															
	TNMM160412-DR	16.5	9.525	4.76	3.81	1.2		○	●	○																
	TNMM220408-DR	22	12.7	4.76	5.16	0.8		○	●	○	○															
	TNMM220412-DR	22	12.7	4.76	5.16	1.2			●	○	○															
	TNMM220416-DR	22	12.7	4.76	5.16	1.6			○	○	○															
Roughing Sgrossatura	**TNMM270612-DR**	27.5	15.875	4.76	5.16	1.2				○	○															
	TNMM270616-DR	27.5	15.875	4.76	5.16	1.6				○	○															
ER	**TNMG160408-ER**	16.5	9.525	4.76	3.81	0.8										○			○							
	TNMG160412-ER	16.5	9.525	4.76	3.81	1.2										○			○							
	TNMG220408-ER	22	12.7	4.76	5.16	0.8										○			○							
Roughing Sgrossatura	**TNMG220412-ER**	22	12.7	4.76	5.16	1.2										○			○							

Tool holder / Cartuccia


DTGNR/L
Kr:91°


PTFNR/L
Kr:90°


PTTNR/L
Kr:60°


PTGNR/L
Kr:90°


MTGNR/L
Kr:90°


MTJNR/L
Kr:93°


MTFNR/L
Kr:90°


PTFNR/L
Kr:90°

A

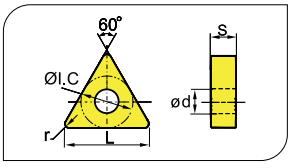
General Turning
Tornitura generale

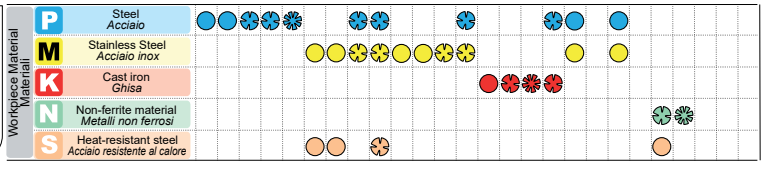
TN** Negative Insert·Inserto negativo

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli





Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Coated Carbide Carburo cementato rivestito																Cermet Non rivestito	Cermet Coated Cem. rives.	Uncoated Carbide Non rivestito Carburo cementato	
		L	I.C	S	d	r	XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAO253	XAS052	XAS102	XAS152	XAS152C	XCI151	XCI151C	XS101	XS201
HDR	**TNMM160408-HDR**	16.5	9.525	4.76	3.81	0.8																				
	TNMM160412-HDR	16.5	9.525	4.76	3.81	1.2																				
	TNMM220408-HDR	22	12.7	4.76	5.16	0.8																				
	TNMM220412-HDR	22	12.7	4.76	5.16	1.2																				
	TNMM220416-HDR	22	12.7	4.76	5.16	1.6				○																
	TNMM270612-HDR	27.5	15.875	6.35	6.35	1.2																				
	TNMM270616-HDR	27.5	15.875	6.35	6.35	1.6				●																
	TNMM270624-HDR	27.5	15.875	6.35	6.35	2.4				●																
Basic	**TNMG110308**	11	6.35	3.18	2.26	0.8	○																			
	TNMG160404	16.5	9.525	4.76	3.81	0.4			●	○																
	TNMG160408	16.5	9.525	4.76	3.81	0.8		●	●	●	○															
	TNMG160412	16.5	9.525	4.76	3.81	1.2		●	●	●																
	TNMG220404	22	12.7	4.76	5.16	0.4			○	○																
	TNMG220408	22	12.7	4.76	5.16	0.8			●	○																
	TNMG220412	22	12.7	4.76	5.16	1.2			○	○	○															
	TNMG220416	22	12.7	4.76	5.16	1.6			○	○																
	TNMG270612	27.5	15.875	6.35	6.35	1.2			○	○	●															
	TNMG270616	27.5	15.875	6.35	6.35	1.6			○	○	●															
	TNMG330916	33	19.05	9.525	7.94	1.6			○	○	○															
	TNMG330924	33	19.05	9.525	7.94	2.4			○	○	○															

Tool holder / Cartuccia

DTGNR/L
Kr:91°



PTFNR/L
Kr:90°



PTTNR/L
Kr:60°



PTGNR/L
Kr:90°



MTGNR/L
Kr:90°



MTJNR/L
Kr:93°



MTFNR/L
Kr:90°



PTFNR/L
Kr:90°

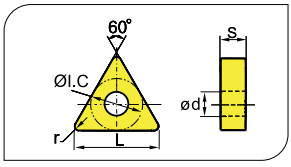


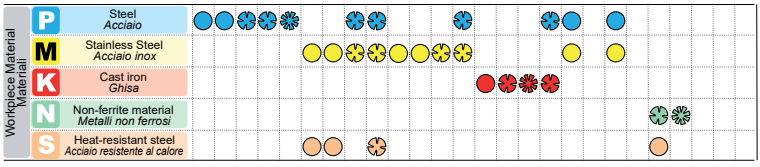
TN** Negative Insert·Inserto negativo

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli





Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Coated Carbide Carburo cementato rivestito														Cermet Non rivestito	Cermet Coated Cerm rives.	Uncoated Carbide Non rivestito Carburo cementato	
		L	I.C	S	d	r	XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAO253	XAS052	XAS102	XAS152	XAS152C	XCI151	XCI151C	XS101	XS201
Basic	**TNMM160404**	16.5	9.525	4.76	3.81	0.4	○		●	○																
	TNMM160408	16.5	9.525	4.76	3.81	0.8			○	○	○															
	TNMM160412	16.5	9.525	4.76	3.81	1.2				○																
	TNMM220408	22	12.7	4.76	5.16	0.8			●	○	○															
	TNMM220412	22	12.7	4.76	5.16	1.2			●	○	○															
	TNMM220416	22	12.7	4.76	5.16	1.6				○	○															
	TNMM270616	27.5	15.875	6.35	6.35	1.6			○	○	●															
Flat Parte superiore piana	**TNMA160404**	16.5	9.525	4.76	3.81	0.4														○	○	●				
	TNMA160408	16.5	9.525	4.76	3.81	0.8														●	●	●				
	TNMA160412	16.5	9.525	4.76	3.81	1.2														○	●	●				
	TNMA160416	16.5	9.525	4.76	3.81	1.6														●	●	○				
	TNMA220404	22	12.7	4.76	5.16	0.4														○	○	●				
	TNMA220408	22	12.7	4.76	5.16	0.8														○	●	●				
	TNMA220412	22	12.7	4.76	5.16	1.2														○	●	●	●			
	TNMA220416	22	12.7	4.76	5.16	1.6															○	○	○			
	TNMA270616	27.5	15.875	6.35	6.35	1.6															○	○				

Tool holder / Cartuccia


DTGNR/L
Kr:91°


PTFNR/L
Kr:90°


PTTNR/L
Kr:60°


PTGNR/L
Kr:90°


MTGNR/L
Kr:90°


MTJNR/L
Kr:93°


MTFNR/L
Kr:90°


PTFNR/L
Kr:90°

A

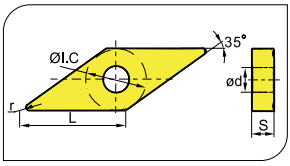
General Turning
Tornitura generale

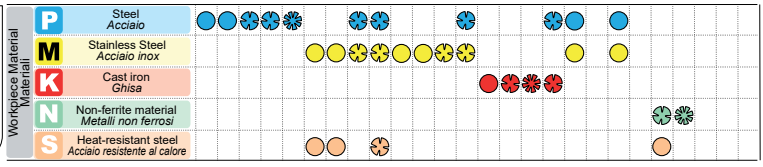
VN** Negative Insert·Inserto negativo

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli





Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Coated Carbide Carburo cementato rivestito															Cermet Non rivestito	Cermet Coated Cem. rivest.	Uncoated Carbide Non rivestito Carburo cementato	
		L	I.C	S	d	r	XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAO253	XAS052	XAS102	XAS152	XAS152C	XCI151	XCI151C	XS101	XS201
DF  Finishing Finitura	**VNMG160404-DF**	16.6	9.525	4.76	3.81	0.4	○	●	●●																	
	VNMG160408-DF	16.6	9.525	4.76	3.81	0.8	○	●	●●																	
EF  Finishing Finitura	**VNMG160404-EF**	16.6	9.525	4.76	3.81	0.4								○	●	○	○									
	VNMG160408-EF	16.6	9.525	4.76	3.81	0.8								○	●		○									
	VNMG160412-EF	16.6	9.525	4.76	3.81	1.2									○		○									
NF  Finishing Finitura	**VNEG160404-NF**	16.6	9.525	4.76	3.81	0.4						●	●												○	
	VNEG160408-NF	16.6	9.525	4.76	3.81	0.8						○	●												○	
	VNEG160408-NGF	16.6	9.525	4.76	3.81	0.8							●												○	
SF  Finishing Finitura	**VNMG160404-SF**	16.6	9.525	4.76	3.81	0.4																	○	●		
	VNMG160408-SF	16.6	9.525	4.76	3.81	0.8																	○	○		

Tool holder / Cartuccia







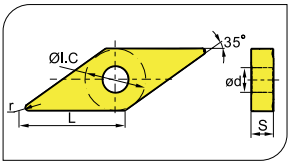


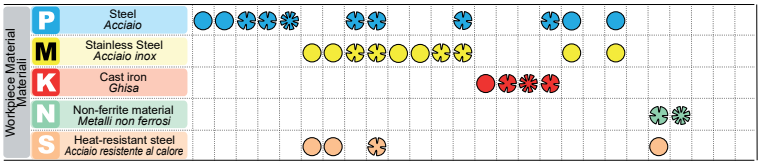
VN** Negative Insert·Inserto negativo

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli





Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Coated Carbide Carburo cementato rivestito														Cermet Non rivestito	Cermet Coated Cerm rives.	Uncoated Carbide Non rivestito Carburo cementato	
		L	I.C	S	d	r	XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAO253	XAS052	XAS102	XAS152	XAS152C	XCI151	XCI151C	XS101	XS201
PM	**VNMG160404-PM**	16.6	9.525	4.76	3.81	0.4	○	●	●											●	●					
	VNMG160408-PM	16.6	9.525	4.76	3.81	0.8	○	●	●	●										●	●	●				
Medium Cut/ Media Asport.	**VNMG160412-PM**	16.6	9.525	4.76	3.81	1.2		●	●	●										●	●		○			
DM	**VNMG160408-DM**	16.6	9.525	4.76	3.81	0.8	○	●	●																	
	VNMG160412-DM	16.6	9.525	4.76	3.81	1.2		●	●	●																
Medium Cut/ Media Asport.																										
EM	**VNMG160404-EM**	16.6	9.525	4.76	3.81	0.4								○	●		●									
	VNMG160408-EM	16.6	9.525	4.76	3.81	0.8								○	●		●									
Medium Cut/ Media Asport.																										
NM	**VNMG160412-NM**	16.6	9.525	4.76	3.81	1.2						○	●													
Medium Cut/ Media Asport.																										
Basic	**VNMG160404**	16.6	9.525	4.76	3.81	0.4	○	○	○																	
	VNMG160408	16.6	9.525	4.76	3.81	0.8	○	○	○																	

Tool holder / Cartuccia


DVVNN
Kr:72°30'


DVJNR/L
Kr:93°


MVVNN
Kr:72°30'


MVJNR/L
Kr:93°

A

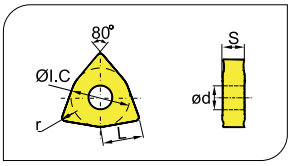
General Turning
Tornitura generale

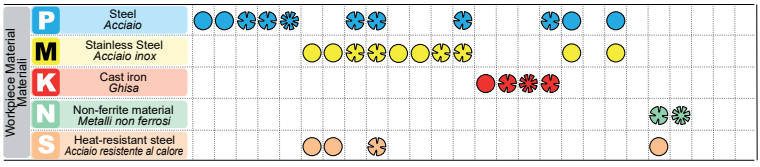
WN** Negative Insert · Inserto negativo

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli





Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Coated Carbide Carburo cementato rivestito														Cermet Non rivestito	Cermet Coated Cerm. rives.	Uncoated Carbide Non rivestito Carburo cementato	
		L	I.C	S	d	r	XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAO253	XAS052	XAS102	XAS152	XAS152C	XCI151	XCI151C	XS101	XS201
DF  Finishing Finitura	WNMG06T304-DF	6.5	9.525	3.97	3.81	0.4																				
	WNMG06T308-DF	6.5	9.525	3.97	3.81	0.8																				
	WNMG06T312-DF	6.5	9.525	3.97	3.81	1.2																				
	WNMG060404-DF	6.5	9.525	4.76	3.81	0.4	○	●	●	●																
	WNMG060408-DF	6.5	9.525	4.76	3.81	0.8	○	●	●	●																
	WNMG060412-DF	6.5	9.525	4.76	3.81	1.2	○	●	○	○																
	WNMG080404-DF	8.7	12.7	4.76	5.16	0.4	○	●	●	●																
	WNMG080408-DF	8.7	12.7	4.76t	5.16	0.8	○	●	●○																	
	WNMG080412-DF	8.7	12.7	4.76	5.16	1.2	○	●	●●																	
WG  Wiper	WNMG060404-WG	6.5	9.525	4.76	3.81	0.4																				
	WNMG060408-WG	6.5	9.525	4.76	3.81	0.8																				
	WNMG060412-WG	6.5	9.525	4.76	3.81	1.2																				
	WNMG080404-WG	8.7	12.7	4.76	5.16	0.4																				
	WNMG080408-WG	8.7	12.7	4.76	5.16	0.8	●	●	●	●			○			○										
	WNMG080412-WG	8.7	12.7	4.76	5.16	1.2	●	●	●●																	

Tool holder / Cartuccia







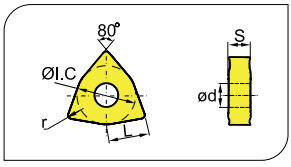


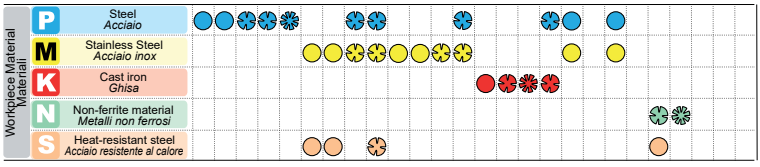
WN** Negative Insert· Inserto negativo

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli





Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Coated Carbide Carburo cementato rivestito														Cermet Non rivestito	Cermet Coated Cerm rives	Uncoated Carbide Non rivestito Carburo cementato	
		L	I.C	S	d	r	XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAO253	XAS052	XAS102	XAS152	XAS152C	XCI151	XCI151C	XS101	XS201
SF	**WNMG06T304-SF**	6.5	9.525	3.97	3.81	0.4																		●		
	WNMG06T308-SF	6.5	9.525	3.97	3.81	0.8																		●		
	WNMG06T312-SF	6.5	9.525	3.97	3.81	1.2																				
	WNMG060404-SF	6.5	9.525	4.76	3.81	0.4																		●		
	WNMG060408-SF	6.5	9.525	4.76	3.81	0.8																		●		
	WNMG080404-SF	8.7	12.7	4.76	5.16	0.4																		●		
	WNMG080408-SF	8.7	12.7	4.76	5.16	0.8																		●		
	WNMG080412-SF	8.7	12.7	4.76	5.16	1.2																				
EF	**WNMG06T304-EF**	6.5	9.525	3.97	3.81	0.4																				
	WNMG06T308-EF	6.5	9.525	3.97	3.81	0.8									●											
	WNMG06T312-EF	6.5	9.525	3.97	3.81	1.2																				
	WNMG060404-EF	6.5	9.525	4.76	3.81	0.4								○	●	○	○									
	WNMG060408-EF	6.5	9.525	4.76	3.81	0.8								○	●	○	○									
	WNMG080404-EF	8.7	12.7	4.76	5.16	0.4			○					○	●	○	○									
	WNMG080408-EF	8.7	12.7	4.76	5.16	0.8			○			○		○	●	○	○									
NF	**WNMG060408-NF**	6.5	12.7	4.76	5.16	0.8						○	○													
	WNEG080404-NF	8.7	12.7	4.76	5.16	0.4						●	●													
	WNEG080408-NF	8.7	12.7	4.76	5.16	0.8							○													

Finishing
Finitura

Tool holder / Cartuccia


DWLNR/L
Kr:95°


PWLNR/L
Kr:95°


MWLNR/L
Kr:95°


PWLNR/L
Kr:95°

A

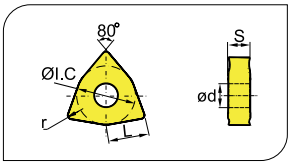
General Turning
Tornitura generale

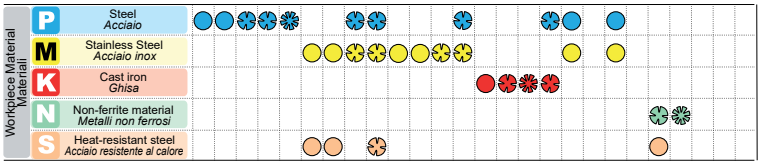
WN** Negative Insert · Inserto negativo

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli





Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Coated Carbide Carburo cementato rivestito													Cermet Non rivestito	Cermet Coated Cerm. rives.	Uncoated Carbide Non rivestito Carburo cementato	
		L	I.C	S	d	r	XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAO253	XAS052	XAS102	XAS152	XAS152C	XCI151	XCI151C	XS101	XS201
PM	**WNMG060408-PM**	6.5	9.525	4.76	3.81	0.8	○	●	●	○									○	●	●					
	WNMG060412-PM	6.5	9.525	4.76	3.81	1.2	○	●	●	●	○								○	●	●					
	WNMG080404-PM	8.7	12.7	4.76	5.16	0.4	○	●	●	●	○								○	●	●					
	WNMG080408-PM	8.7	12.7	4.76	5.16	0.8	○	●	●●										●	●	●					
	WNMG080412-PM	8.7	12.7	4.76	5.16	1.2	○	●	●●										○	●	●					
	WNMG080416-PM	8.7	12.7	4.76	5.16	1.6			○	○									○	●	●					
DM	**WNMG06T304-DM**	6.5	9.525	3.97	3.81	0.4																				
	WNMG06T308-DM	6.5	9.525	3.97	3.81	0.8			●	○																
	WNMG06T312-DM	6.5	9.525	3.97	3.81	1.2																				
	WNMG060408-DM	6.5	9.525	4.76	3.81	0.8	○	●	●●							○		○	○								
	WNMG060412-DM	6.5	9.525	4.76	3.81	1.2	○	●	●	●	○					○		○									
	WNMG080404-DM	8.7	12.7	4.76	5.16	0.4	○	●	●●									○									
	WNMG080408-DM	8.7	12.7	4.76	5.16	0.8	○	●	●●					○		○		○○									
	WNMG080412-DM	8.7	12.7	4.76	5.16	1.2	○	●	●●							○		○	○								
	WNMG080416-DM	8.7	12.7	4.76	5.16	1.6		●		●																	
EM	**WNMG06T304-EM**	6.5	9.525	3.97	3.81	0.4											●									
	WNMG06T308-EM	6.5	9.525	3.97	3.81	0.8											●									
	WNMG06T312-EM	6.5	9.525	3.97	3.81	1.2									○		●									
	WNMG060404-EM	6.5	9.525	4.76	3.81	0.4							●○		●		●									
	WNMG060408-EM	6.5	9.525	4.76	3.81	0.8							○●		●		●	○	●							
	WNMG080404-EM	8.7	12.7	4.76	5.16	0.4							○	●	○	●	○	●								
	WNMG080408-EM	8.7	12.7	4.76	5.16	0.8							○●	○	●	○	●									
	WNMG080412-EM	8.7	12.7	4.76	5.16	1.2							○	●		●		●								

Medium Cut/
Media Asport.

Medium Cut/
Media Asport.

Medium Cut/
Media Asport.

Tool holder / Cartuccia


DWLNR/L
Kr:95°


PWLNR/L
Kr:95°


MWLNR/L
Kr:95°

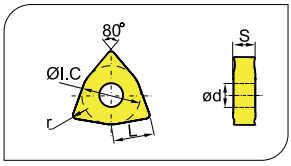

PWLNR/L
Kr:95°

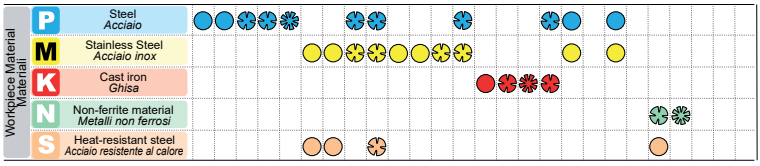
WN** Negative Insert·Inserto negativo

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli





Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Coated Carbide Carburo cementato rivestito														Cermet Non rivestito	Cermet Coated Cerm. rives.	Uncoated Carbide Non rivestito Carburo cementato	
		L	I.C	S	d	r	XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAO253	XAS052	XAS102	XAS152	XAS152C	XCI151	XCI151C	XS101	XS201
TC	**WNMG080404-TC**	8.7	12.7	4.76	5.16	0.4																○				
	WNMG080408-TC	8.7	12.7	4.76	5.16	0.8																●				
	WNMG080412-TC	8.7	12.7	4.76	5.16	1.2																●				
NM	**WNMG080404-NM**	8.7	12.7	4.76	5.16	0.4							●													
	WNMG080408-NM	8.7	12.7	4.76	5.16	0.8						○	●													
	WNMG080412-NM	8.7	12.7	4.76	5.16	1.2						○	●													
Medium Cut/ Media Asport.																										
DR	**WNMG060408-DR**	6.5	9.525	4.76	3.81	0.8	○	●	●	●	○										●	●				
	WNMG060412-DR	6.5	9.525	4.76	3.81	1.2	○	●	●●												●	●				
	WNMG080408-DR	8.7	12.7	4.76	5.16	0.8	○	●	●●												●	●				
	WNMG080412-DR	8.7	12.7	4.76	5.16	1.2	○	●	●●												●	●				
Roughing/ Sgrossatura	**WNMG080416-DR**	8.7	12.7	4.76	5.16	1.6	○	○	●	●											●	○				
Flat Parte superiore piana	**WNMA06T308**	6.5	9.525	3.97	3.81	0.8														○						
	WNMA060404	6.5	9.525	4.76	3.81	0.4																				
	WNMA060408	6.5	9.525	4.76	3.81	0.8														●	●	●				
	WNMA060412	6.5	9.525	4.76	3.81	1.2																●				
	WNMA080404	8.7	12.7	4.76	5.16	0.4														○	●	●	○				
	WNMA080408	8.7	12.7	4.76	5.16	0.8														●	●	●	○				
	WNMA080412	8.7	12.7	4.76	5.16	1.2														●	●	●	○				
	WNMA080416	8.7	12.7	4.76	5.16	1.6															○	○	○				

Tool holder / Cartuccia


DWLNR/L
Kr:95°


PWLNR/L
Kr:95°


MWLNR/L
Kr:95°


PWLNR/L
Kr:95°

A

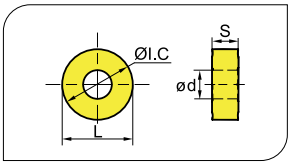
General Turning
Tornitura generale

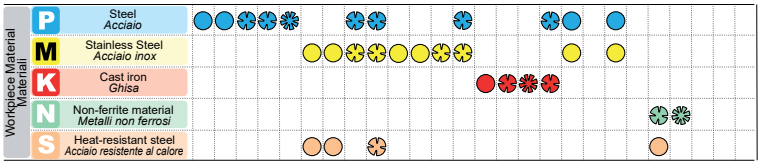
RN** Negative Insert·Inserto negativo

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli





Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Coated Carbide Carburo cementato rivestito														Cermet Non rivestito	Cermet Coated Cerm. rivest.	Uncoated Carbide Non rivestito Carburo cementato	
		L	I.C	S	d	r	XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAO253	XAS052	XAS102	XAS152	XAS152C	XCI151	XCI151C	XS101	XS201
Basic	**RNMG120400**	12.7	12.7	4.76	5.16				●												○	○				



Tool holder / Cartuccia

MRGNR/L



MRDNN

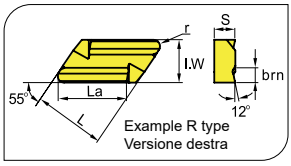


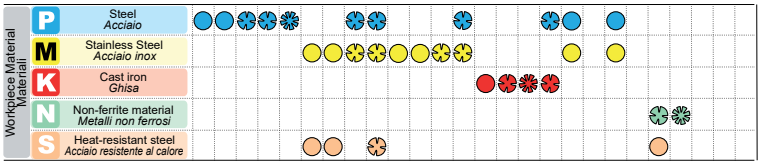
KN** Negative insert·Inserti negativi

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli





Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni						Coated Carbide Carburo cementato rivestito														Cermet Non rivestito	Cermet Coated Cerm.rivs.	Uncoated Carbide Non rivestito Carburo cementato	
		La	L	I.W	S	brn	r	XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAO253	XAS052	XAS102	XAS152	XAS152C	XCI151	XCI151C	XS101	XS201
KNUX	KNUX160405L11	16	16.15	9.525	4.76	2.2	0.5	○		●	●	●							●									
	KNUX160410L11	16	16.15	9.525	4.76	2.2	1.0	○		●									●									
	KNUX160405L12	16	16.15	9.525	4.76	2.2	0.5	○		●									○									
	KNUX160410L12	16	16.15	9.525	4.76	2.2	1.0	○	○	●									○									
	KNUX160405R11	16	16.15	9.525	4.76	2.2	0.5	○		●	●	○							●									
Finishing/ Finitura	KNUX160410R11	16	16.15	9.525	4.76	2.2	1.0	○		●									●									
	KNUX160405R12	16	16.15	9.525	4.76	2.2	0.5	○		●									●									
	KNUX160410R12	16	16.15	9.525	4.76	2.2	0.5	○	○	●									○									

Chipbreaker / Rompitruciolo

11	Finishing - Medium Finitura - Asportazione media
12	Medium - Roughing Asportazione media - Sgrossatura

Tool holder / Cartuccia





A

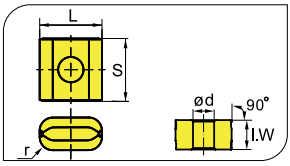
General Turning
Tornitura generale

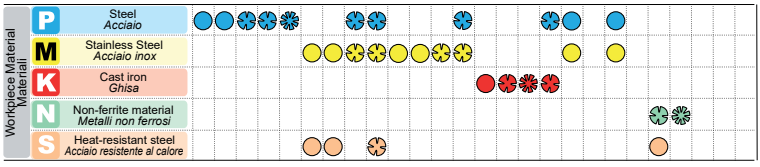
Railway Wheel Machining/ Lavorazione di ruote

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli

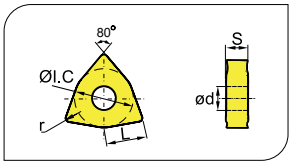


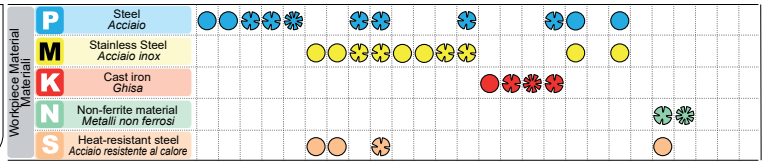


Insert Shape / Forma inserto	Type / Tipo	Dimension (mm) Dimensioni					Coated Carbide Carburo cementato rivestito																Cermet Non rivestito	Cermet Coated Cerm. rives.	Uncoated Carbide Non rivestito Carburo cementato	
		L	I.C	S	d	r	XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAO253	XAS052	XAS102	XAS152	XAS152C	XCI151	XCI151C	XS101	XS201
 Railway Wheel Machining/ Lavorazione ruote	**175.32-191940-22**	19.05	10	19.05	6.35	4.0	○		●																		
	175.32-191940-227	19.05	10	19.05	7.2	4.0			○																		
 Railway Wheel Machining/ Lavorazione ruote	**175.32-191940-24**	19.05	10	19.05	6.35	4.0	○		●																		
	175.32-301940-24	30	10	19.05	6.35	4.0	○	○	●	○																	
 Railway Wheel Machining/ Lavorazione ruote	**175.32-191940-25**	19.05	10	19.05	6.35	4.0			○																		
 Railway Wheel Machining/ Lavorazione ruote	**175.32-191940-28**	19.05	10	19.05	6.35	4.0	○	●	●	●																	
	175.32-30194031	30	10	19.05	6.35	4.0			○	○																	

TN** Negative Insert / Inserto negativo

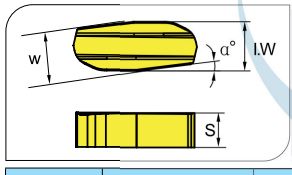
Ideal Machining Condition — Buone condizioni di lavorazione
Normal Machining Condition — Condizioni di lavorazione normali
Unfavorable Machining Condition — Condizioni di lavorazione sfavorevoli

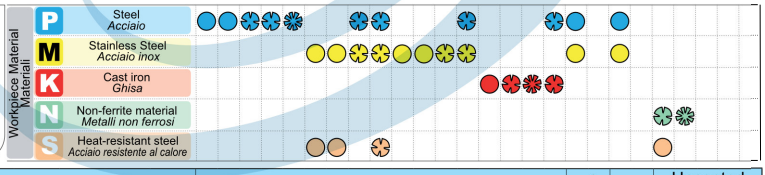




Insert Shape / Forma inserto	Type / Tipo	Dimension (mm) Dimensioni L	I.C	S	d	r	Coated Carbide Carburo cementato rivestito XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAO253	XAS052	XAS102	XAS152	XAS152C	Cermet Non rivestito XCI151	Cermet Coated Cerm. rivs. XCI151C	Uncoated Carbide Non rivestito Carburo cementato XS101	XS201
Basic	TNMX1106-2	11.3	15.875	6.35	6.35	1.6			○																		
	TNMX1509-2	15.9	22.225	9.52	7.94	1.6			○																		
	TNMX15T916-2	15.9	22.225	9.72	7.94	1.6			○																		

Ideal Machining Condition — Buone condizioni di lavorazione
Normal Machining Condition — Condizioni di lavorazione normali
Unfavorable Machining Condition — Condizioni di lavorazione sfavorevoli





Insert Shape / Forma inserto	Type / Tipo	Dimension (mm) Dimensioni L	I.C	S	d	r	Coated Carbide Carburo cementato rivestito XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAO253	XAS052	XAS102	XAS152	XAS152C	Cermet Non rivestito XCI151	Cermet Coated Cerm. rivs. XCI151C	Uncoated Carbide Non rivestito Carburo cementato XS101	XS201
	YNMX1812L	18	22	12	20°				○																		
	YNMX2518173L	25	25	18	7°				○																		
	YNUX1812150L	18	18	12	15°				○										○								

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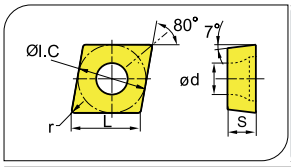
General Turning
Tornitura generale

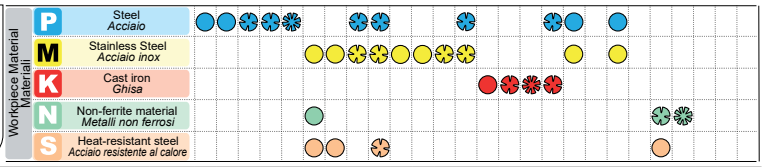
CC** Positive Insert/ Inserti positivi

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli





Insert Shape / Forma inserto	Type / Tipo	Dimension (mm) Dimensioni L	I.C	S	d	r	Coated Carbide Carburo cementato rivestito XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAO253	XAS052	XAS102	XAS152	XAS152C	Cermet Non rivestito XCI151	Cermet Coated Cerm. rivest. XCI151C	Uncoated Carbide Non rivestito Carburo cementato XS101	XS201
USF	CCGT09T301R-USF	9.7	9.525	3.97	4.4	0.1								○													
	CCGT09T302R-USF	9.7	9.525	3.97	4.4	0.2								●	○												
Finishing Finitura	CCGT09T304R-USF	9.7	9.525	3.97	4.4	0.4								○	○												
USF	CCGT09T301L-USF	9.7	9.525	3.97	4.4	0.1								○													
	CCGT09T302L-USF	9.7	9.525	3.97	4.4	0.2								○													
Finishing Finitura	CCGT09T304L-USF	9.7	9.525	3.97	4.4	0.4								○													
SF	CCGT060202-SF	6.4	6.35	2.38	2.8	0.2																	●	●			
	CCGT060204-SF	6.4	6.35	2.38	2.8	0.4																	●	●			
Finishing Finitura	CCGT09T304-SF	9.7	9.525	3.97	4.4	0.4																	●	●			
HF	CCMT060202-HF	6.4	6.35	2.38	2.8	0.2	○	●	●					○										○	○		
	CCMT060204-HF	6.4	6.35	2.38	2.8	0.4	○	●	●	●				●		○						○		○	○		
	CCMT060208-HF	6.4	6.35	2.38	2.8	0.8	○	●	●	○				○								○		○	○		
	CCMT09T302-HF	9.7	9.525	3.97	4.4	0.2		●	●	●				●										○	○		
	CCMT09T304-HF	9.7	9.525	3.97	4.4	0.4	○	●	●	●	●			●	○	○					●	●	○		○		
Finishing Finitura	CCMT09T308-HF	9.7	9.525	3.97	4.4	0.8	○	●	●	●	○			●	○	○						●	○	○			
	CCMT120404-HF	12.9	12.7	4.76	5.56	0.4	○	●	●							○								○			
	CCMT120408-HF	12.9	12.7	4.76	5.56	0.8		●	○	○																	
	CPGT050204	5.6	5.56	2.38	2.8	0.4	●		○																		

Tool holder / Cartuccia









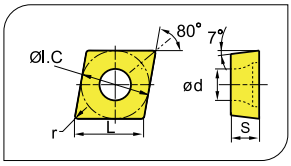


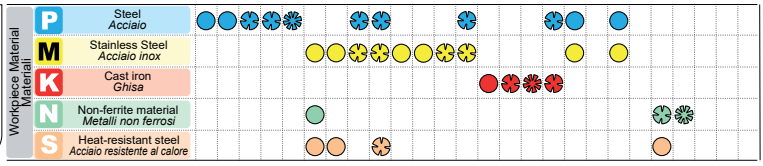
CC** Positive Insert/ Inserti positivi

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli





Insert Shape / Forma inserto	Type / Tipo	Dimension (mm) / Dimensioni					Coated Carbide / Carburo cementato rivestito														Cermet Non rivestito	Cermet Coated / Cerm. rives.	Uncoated Carbide Non rivestito / Carburo cementato	
		L	I.C	S	d	r	XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAS053	XAS102	XAS152	XAS152C	XCI151	XCI151C	XS101	XS201
EF	CCMT060202-EF	6.4	6.35	2.38	2.8	0.2								●	●		○									
	CCMT060204-EF	6.4	6.35	2.38	2.8	0.4								○	●		●									
	CCMT09T302-EF	9.7	9.525	3.97	4.4	0.2								●	●		○									
	CCMT09T304-EF	9.7	9.525	3.97	4.4	0.4							○	●	●		●									
	CCMT09T308-EF	9.7	9.525	3.97	4.4	0.8							○	○	●		●									
	CCMT120404-EF	12.9	12.7	4.76	5.56	0.4								○	●		●									
	CCMT120408-EF	12.9	12.7	4.76	5.56	0.8								○	●		●									
HM	CCMT060204-HM	6.4	6.35	2.38	2.8	0.4	○	●	●●					●	○	○		○			●	●				
	CCMT060208-HM	6.4	6.35	2.38	2.8	0.8	○	●	●	●	●			●		○		○			●	●				
	CCMT09T304-HM	9.7	9.525	3.97	4.4	0.4	○	●	●●	●				●○	○		●				●	●				
	CCMT09T308-HM	9.7	9.525	3.97	4.4	0.8	○	●	●●	●				●		○		●			●●					
	CCMT120404-HM	12.9	12.7	4.76	5.56	0.4	○	●	●	●	●			●		○		●			●	●				
	CCMT120408-HM	12.9	12.7	4.76	5.56	0.8	○	●	●	●	●			●		○		●			●	●				
	CCMT120412-HM	12.9	12.7	4.76	5.56	1.2		●	●	○	●									○						
EM	CCMT060204-EM	6.4	6.35	2.38	2.8	0.4								●○		●		●								
	CCMT060208-EM	6.4	6.35	2.38	2.8	0.8								●○		●		○								
	CCMT09T304-EM	9.7	9.525	3.97	4.4	0.4								○	●	○	●		●							
	CCMT09T308-EM	9.7	9.525	3.97	4.4	0.8								○	●		●	○	●							
	CCMT120404-EM	12.9	12.7	4.76	5.56	0.4								●○		●		●								
	CCMT120408-EM	12.9	12.7	4.76	5.56	0.8								○	●		●		●							
	CCMT120412-EM	12.9	12.7	4.76	5.56	1.2									○				○							

Finishing
Finitura

Medium Cut/
Media Asport.

Medium Cut/
Media Asport.

Tool holder / Cartuccia











A

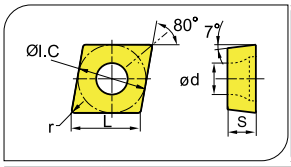
General Turning
Tornitura generale

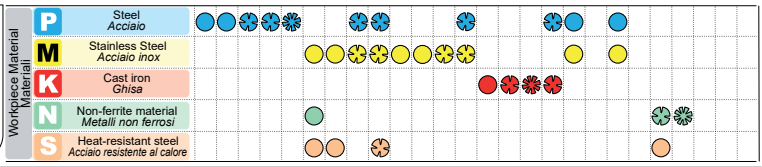
CC** Positive Insert/ Inserti positivi

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli





Insert Shape / Forma inserto	Type / Tipo	Dimension (mm) Dimensioni L	I.C	S	d	r	Coated Carbide Carburo cementato rivestito XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAO253	XAS052	XAS102	XAS152	XAS152C	Cermet Non rivestito XCI151	Cermet Coated Cerm. rivest. XCI151C	Uncoated Carbide Non rivestito Carburo cementato XS101	XS201
USF  Finishing Finitura	**CCGT09T301R-USF**	9.7	9.525	3.97	4.4	0.1								○													
	CCGT09T302R-USF	9.7	9.525	3.97	4.4	0.2								●	○												
	CCGT09T304R-USF	9.7	9.525	3.97	4.4	0.4								○	○												
USF  Finishing Finitura	**CCGT09T301L-USF**	9.7	9.525	3.97	4.4	0.1								○													
	CCGT09T302L-USF	9.7	9.525	3.97	4.4	0.2								○													
	CCGT09T304L-USF	9.7	9.525	3.97	4.4	0.4								○													
SF  Finishing Finitura	**CCGT060202-SF**	6.4	6.35	2.38	2.8	0.2																	●	●			
	CCGT060204-SF	6.4	6.35	2.38	2.8	0.4																	●	●			
	CCGT09T304-SF	9.7	9.525	3.97	4.4	0.4																	●	●			
HF  Finishing Finitura	**CCMT060202-HF**	6.4	6.35	2.38	2.8	0.2	○	●	●					○										○	○		
	CCMT060204-HF	6.4	6.35	2.38	2.8	0.4	○	●	●	●				●		○						○		○	○		
	CCMT060208-HF	6.4	6.35	2.38	2.8	0.8	○	●	●	○				○								○		○	○		
	CCMT09T302-HF	9.7	9.525	3.97	4.4	0.2		●	●	●				●										○	○		
	CCMT09T304-HF	9.7	9.525	3.97	4.4	0.4	○	●	●	●	●			●	○	○					●	●	○		○		
	CCMT09T308-HF	9.7	9.525	3.97	4.4	0.8	○	●	●	●	○			●	○	○					●	○		○			
	CCMT120404-HF	12.9	12.7	4.76	5.56	0.4	○	●	●							○								○			
	CCMT120408-HF	12.9	12.7	4.76	5.56	0.8		●	○	○																	
	**CPGT050204**	5.6	5.56	2.38	2.8	0.4	●		○																		

Tool holder / Cartuccia


SCACR/L
Kr:90°


SCLCR/L
Kr:95°


SCLCR/L
Kr:95°


SCFCR
Kr:90°

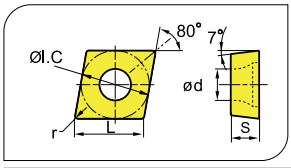

SCLCR
Kr:95°

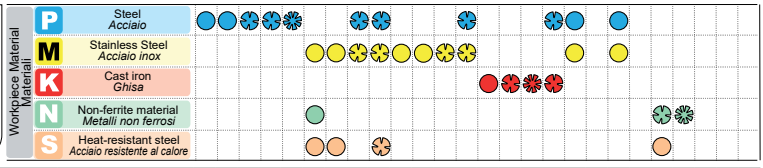
CC** Positive Insert/ Inserti positivi

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli





Insert Shape / Forma inserto	Type / Tipo	Dimension (mm) Dimensioni					Coated Carbide Carburo cementato rivestito															Cermet Non rivestito	Cermet Coated Cerm. rives.	Uncoated Carbide Non rivestito Carburo cementato	
		L	I.C	S	d	r	XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAO253	XAS052	XAS102	XAS152	XAS152C	XCI151	XCI151C	XS101	XS201
EF	CCMT060202-EF	6.4	6.35	2.38	2.8	0.2								●	●		○									
	CCMT060204-EF	6.4	6.35	2.38	2.8	0.4								○	●		●									
	CCMT09T302-EF	9.7	9.525	3.97	4.4	0.2								●	●		○									
	CCMT09T304-EF	9.7	9.525	3.97	4.4	0.4							○	●	●		●									
	CCMT09T308-EF	9.7	9.525	3.97	4.4	0.8							○	○	●		●									
	CCMT120404-EF	12.9	12.7	4.76	5.56	0.4								○	●		●									
	CCMT120408-EF	12.9	12.7	4.76	5.56	0.8								○	●		●									
HM	CCMT060204-HM	6.4	6.35	2.38	2.8	0.4	○	●	●●					●	○	○		○			●	●					
	CCMT060208-HM	6.4	6.35	2.38	2.8	0.8	○	●	●	●	●			●		○		○			●	●					
	CCMT09T304-HM	9.7	9.525	3.97	4.4	0.4	○	●	●●	●				●○	○		●				●	●					
	CCMT09T308-HM	9.7	9.525	3.97	4.4	0.8	○	●	●●	●				●		○		●			●●						
	CCMT120404-HM	12.9	12.7	4.76	5.56	0.4	○	●	●	●	●			●		○		●			●	●					
	CCMT120408-HM	12.9	12.7	4.76	5.56	0.8	○	●	●	●	●			●		○		●			●	●					
	CCMT120412-HM	12.9	12.7	4.76	5.56	1.2		●	●	○	●										○						
EM	CCMT060204-EM	6.4	6.35	2.38	2.8	0.4								●○		●		●									
	CCMT060208-EM	6.4	6.35	2.38	2.8	0.8								●○		●		○									
	CCMT09T304-EM	9.7	9.525	3.97	4.4	0.4								○	●	○	●		●								
	CCMT09T308-EM	9.7	9.525	3.97	4.4	0.8								○	●		●	○	●								
	CCMT120404-EM	12.9	12.7	4.76	5.56	0.4								●○		●		●									
	CCMT120408-EM	12.9	12.7	4.76	5.56	0.8								○	●		●		●								
	CCMT120412-EM	12.9	12.7	4.76	5.56	1.2									○				○								

Finishing
Finitura

Medium Cut/
Media Asport.

Medium Cut/
Media Asport.

Tool holder / Cartuccia


SCACR/L
Kr:90°


SCLCR/L
Kr:95°


SCLCR/L
Kr:95°


SCFCR
Kr:90°


SCLCR
Kr:95°

A

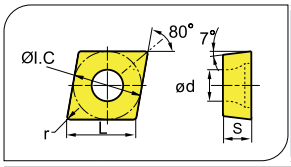
General Turning
Tornitura generale

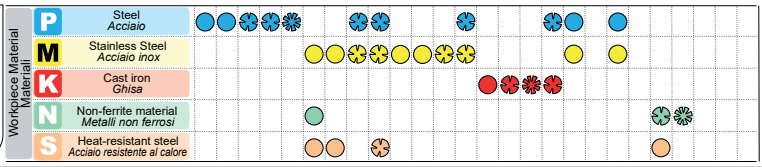
CC** Positive Insert/ Inserti positivi

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli





Insert Shape / Forma inserto	Type / Tipo	Dimension (mm) Dimensioni					Coated Carbide Carburo cementato rivestito														Cermet Non rivestito	Cermet Coated Cerm. rivest.	Uncoated Carbide Non rivestito Carburo cementato	
		L	I.C	S	d	r	XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAO253	XAS052	XAS102	XAS152	XAS152C	XCI151	XCI151C	XS101	XS201
HR	**CCMT060204-HR**	6.4	6.35	2.38	2.8	0.4	○	●	●●																	
	CCMT060208-HR	6.4	6.35	2.38	2.8	0.8	○	●	●	○	○										●					
	CCMT09T304-HR	9.7	9.525	3.97	4.4	0.4	○	●	●	●	●			○			○				○					
	CCMT09T308-HR	9.7	9.525	3.97	4.4	0.8	○	●	●	●	○						○		●	●	●					
	CCMT120408-HR	12.9	12.7	4.76	5.56	0.8	○	●	●	●	○					○	○		●	●	●					
Roughing/ Sgrossatura	**CCMT120412-HR**	12.9	12.7	4.76	5.56	1.2	○	●	●	●	○					○	○			●	○					
LC	**CCGX060202-LC**	6.4	6.35	2.38	2.8	0.2																			●	
	CCGX060204-LC	6.4	6.35	2.38	2.8	0.4																			●	
	CCGX09T302-LC	9.7	9.525	3.97	4.4	0.2																			●	
	CCGX09T304-LC	9.7	9.525	3.97	4.4	0.4																			●	
	CCGX09T308-LC	9.7	9.525	3.97	4.4	0.8																			●	
Aluminium Machining/ Lavorazione alluminio	**CCGX120404-LC**	12.9	12.7	4.76	5.5	0.4																			●	
	CCGX120408-LC	12.9	12.7	4.76	5.5	0.8																			●	
LH	**CCGX060202-LH**	6.4	6.35	2.38	2.8	0.2						●													●	
	CCGX060204-LH	6.4	6.35	2.38	2.8	0.4						●													●	
	CCGX060208-LH	6.4	6.35	2.38	2.8	0.8						○													●	
	CCGX09T302-LH	9.7	9.525	3.97	4.4	0.2						●													●	
	CCGX09T304-LH	9.7	9.525	3.97	4.4	0.4						●													●	
	CCGX09T308-LH	9.7	9.525	3.97	4.4	0.8						●													●	
Aluminium Machining/ Lavorazione alluminio	**CCGX120402-LH**	12.9	12.7	4.76	5.56	0.2						○													○	
	CCGX120404-LH	12.9	12.7	4.76	5.56	0.4						●													●	
	CCGX120408-LH	12.9	12.7	4.76	5.56	0.8						●		○											●	
	CCGX120412-LH	12.9	12.7	4.76	5.56	1.2						○													●	
Basic	**CCMW060204**	6.4	6.35	2.38	2.8	0.4																				○
	CCMW09T304	9.7	9.525	3.97	4.4	0.4																				○
	CCMW09T308	9.7	9.525	3.97	4.4	0.8																				○
	CCMW120404	12.9	12.7	4.76	5.56	0.4																				○
	CCMW120408	12.9	12.7	4.76	5.56	0.8																				○

Tool holder / Cartuccia


SCACR/L
Kr:90°


SCLCR/L
Kr:95°


SCLCR/L
Kr:95°


SCFCR
Kr:90°

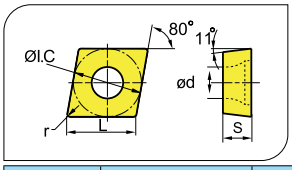

SCLCR
Kr:95°

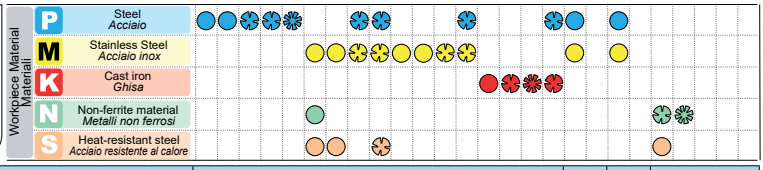
CP** Positive Insert/ Inserti positivi

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli





Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Coated Carbide Carburo cementato rivestito														Cermet Non rivestito	Cermet Coated Cerm. rives.	Uncoated Carbide Non rivestito Carburo cementato	
		L	I.C	S	d	r	XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAO253	XAS052	XAS102	XAS152	XAS152C	XCI151	XCI151C	XS101	XS201
SF Finishing Finitura	**CPGT060202-SF**	6.4	6.35	2.38	2.8	0.2																	●	●		
	CPGT060204-SF	6.4	6.35	2.38	2.8	0.4																	●	●		
	CPGT09T304-SF	9.7	9.525	3.97	4.4	0.4																	●	●		
Flat Parte superiore piana	**CPGW060204**	6.4	6.35	2.38	2.8	0.4																			●	
HF Finishing Finitura	**CPMT060204-HF**	6.4	6.35	2.38	2.8	0.4							○		●						○					
	CPMT060208-HF	6.4	6.35	2.38	2.8	0.8									●						○					
HM Medium Cut Media Asport.	**CPMT09T304-HM**	9.7	9.525	3.97	4.4	0.4							○		●						●					
	CPMT09T308-HM	9.7	9.525	3.97	4.4	0.8				○					●						●					

Tool holder / Cartuccia

SCLPR/L
Kr:95°



A

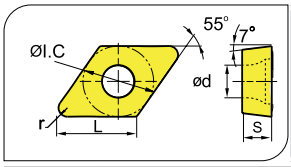
General Turning
Tornitura generale

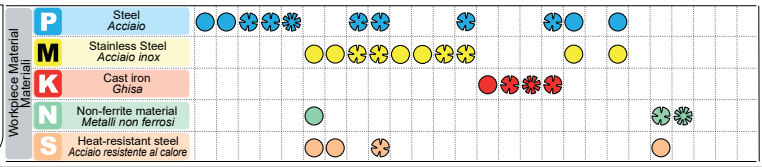
DC** Positive Insert/ Inserti positivi

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli





Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Coated Carbide Carburo cementato rivestito														Cermet Non rivestito	Cermet Coated Cem. rives.	Uncoated Carbide Non rivestito Carburo cementato	
		L	I.C	S	d	r	XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAO253	XAS052	XAS102	XAS152	XAS152C	XCI151	XCI151C	XS101	XS201
USF	**DCGT0702005R-USF**	7.8	6.35	2.38	2.8	0.05								●												
	DCGT070201R-USF	7.8	6.35	2.38	2.8	0.1								●	○											
	DCGT070202R-USF	7.8	6.35	2.38	2.8	0.2								●	○											
	DCGT11T301R-USF	11.6	9.525	3.97	4.4	0.1								○												
Finishing Finitura	**DCGT11T302R-USF**	11.6	9.525	3.97	4.4	0.2								●												
USF	**DCGT0702005L-USF**	7.8	6.35	2.38	2.8	0.05								○												
	DCGT070201L-USF	7.8	6.35	2.38	2.8	0.1								●												
	DCGT070202L-USF	7.8	6.35	2.38	2.8	0.2								●												
	DCGT11T301L-USF	11.6	9.525	3.97	4.4	0.1								○												
Finishing Finitura	**DCGT11T302L-USF**	11.6	9.525	3.97	4.4	0.2								●												
SF	**DCGT070202-SF**	7.8	6.35	2.38	2.8	0.2																	●	●		
	DCGT070204-SF	7.8	6.35	2.38	2.8	0.4																	○	●		
	DCGT070208-SF	7.8	6.35	2.38	2.8	0.8																	○	●		
	DCGT11T302-SF	11.6	9.525	3.97	4.4	0.2						○											●	●		
	DCGT11T304-SF	11.6	9.525	3.97	4.4	0.4																	●	●		
Finishing Finitura	**DCGT11T308-SF**	11.6	9.525	3.97	4.4	0.8																	●	●		
HF	**DCMT070202-HF**	7.8	6.35	2.38	2.8	0.2	○	●	●					●									○	○		
	DCMT070204-HF	7.8	6.35	2.38	2.8	0.4	○	●	●	○				●		○							●			
	DCMT070208-HF	7.8	6.35	2.38	2.8	0.8	○	●	●	○																
	DCMT11T302-HF	11.6	9.525	3.97	4.4	0.2			●	●				●	○								●	○		
Finishing Finitura	**DCMT11T304-HF**	11.6	9.525	3.97	4.4	0.4	○	●	●	●	○			●		○					○	●	●	●	●	
	DCMT11T308-HF	11.6	9.525	3.97	4.4	0.8	○	●	●	●				●		○					●		○	○		

Tool holder / Cartuccia


SDACR/L
Kr:90°


SDJCR/L
Kr:93°


SDNCN
Kr:45°


SDQCR/L
Kr:107°30'


SDUCR/L
Kr:93°

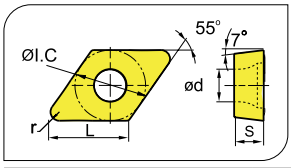

SDZCR/L
Kr:85°

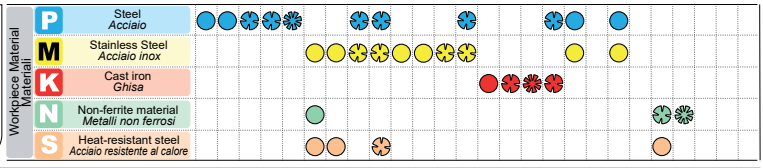
DC** Positive Insert/ Inserti positivi

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli





Insert Shape / Forma inserto	Type / Tipo	Dimension (mm) Dimensioni					Coated Carbide Carburo cementato rivestito														Cermet Non rivestito	Cermet Coated Cerm.rives.	Uncoated Carbide Non rivestito Carburo cementato	
		L	I.C	S	d	r	XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAO253	XAS052	XAS102	XAS152	XAS152C	XCI151	XCI151C	XS101	XS201
EF	**DCMT070202-EF**	7.8	6.35	2.38	2.8	0.2								●	○		○									
	DCMT070204-EF	7.8	6.35	2.38	2.8	0.4								●	●		●									
	DCMT11T302-EF	11.6	9.525	3.97	4.4	0.2								●	○		○									
	DCMT11T304-EF	11.6	9.525	3.97	4.4	0.4								●	●		●									
	DCMT11T308-EF	11.6	9.525	3.97	4.4	0.8								○	●		●									
HM	**DCMT070204-HM**	7.8	6.35	2.38	2.8	0.4	○	●	●	●				●	●	○		○			●	●					
	DCMT070208-HM	7.8	6.35	2.38	2.8	0.8	○	●	●	●	○			●				○			●	○					
	DCMT11T304-HM	11.6	9.525	3.97	4.4	0.4	○	●	●	●	●			●		○		○			●	●					
	DCMT11T308-HM	11.6	9.525	3.97	4.4	0.8	○	●	●	●	○			●		○	○			●	●		○				
	DCMT11T312-HM	11.6	9.525	3.97	4.4	1.2	○	○	●	○	○							○			○	○					
EM	**DCMT070204-EM**	7.8	6.35	2.38	2.8	0.4								○	●		●		●								
	DCMT070208-EM	7.8	6.35	2.38	2.8	0.8								○	●		●		○								
	DCMT11T304-EM	11.6	9.525	3.97	4.4	0.4								●	●	○	●	○	●								
	DCMT11T308-EM	11.6	9.525	3.97	4.4	0.8								○	●		●	○	●								

Finishing
Finitura

Medium Cut/
Media Asport.

Medium Cut/
Media Asport.

Tool holder / Cartuccia

SDACR/L
Kr:90°

SDJCR/L
Kr:93°

SDNCN
Kr:45°

SDQCR/L
Kr:107°30'

SDUCR/L
Kr:93°

SDZCR/L
Kr:85°

A

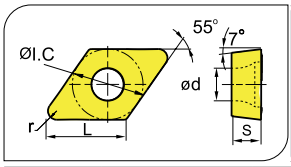
General Turning
Tornitura generale

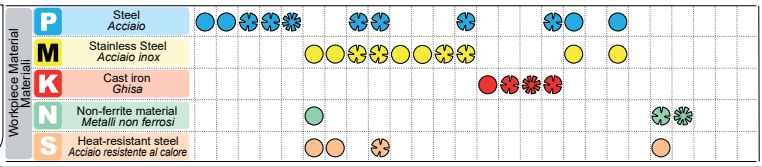
DC** Positive Insert/ Inserti positivi

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli





Insert Shape / Forma inserto	Type / Tipo	Dimension (mm) Dimensioni					Coated Carbide Carburo cementato rivestito													Cermet Non rivestito	Cermet Coated Cerm. rives.	Uncoated Carbide Non rivestito Carburo cementato	
		L	I.C	S	d	r	XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAO253	XAS052	XAS102	XAS152	XAS152C	XCI151	XCI151C	XS101	XS201
HR	**DCMT11T304-HR**	11.6	9.525	3.97	4.4	0.4	○	○	○	●	○							○			●	●				○
	DCMT11T308-HR	11.6	9.525	3.97	4.4	0.8	○	●	●	●	●					○		○		○	●	●				○
	DCMT11T312-HR	11.6	9.525	3.97	4.4	1.2		○	○	○								○		○	○					
Roughing/ Sgrossatura																										
LC	**DCGX070201-LC**	7.8	6.35	2.38	2.8	0.1																				●
	DCGX070202-LC	7.8	6.35	2.38	2.8	0.2																				●
	DCGX070204-LC	7.8	6.35	2.38	2.8	0.4																				●
	DCGX11T304-LC	11.6	9.525	3.97	4.4	0.4																				●
Aluminium Machining/ Lavorazione alluminio	**DCGX11T308-LC**	11.6	9.525	3.97	4.4	0.8																				●
LH	**DCGX070202-LH**	7.8	6.35	2.38	2.8	0.2						●		○												●
	DCGX070204-LH	7.8	6.35	2.38	2.8	0.4						●		○												●
	DCGX070208-LH	7.8	6.35	2.38	2.8	0.8						○														●
	DCGX11T302-LH	11.6	9.525	3.97	4.4	0.2						●		●												●
	DCGX11T304-LH	11.6	9.525	3.97	4.4	0.4						●		●												●
Aluminium Machining/ Lavorazione alluminio	**DCGX11T308-LH**	11.6	9.525	3.97	4.4	0.8						●		○												●
Flat Parte superiore piana	**DCMW070204**	7.8	6.35	2.38	2.8	0.4																				
	DCMW11T304	11.6	9.525	3.97	4.4	0.4															○					○
	DCMW11T308	11.6	9.525	3.97	4.4	0.8															○					○

Tool holder / Cartuccia


SDACR/L
Kr:90°


SDJCR/L
Kr:93°


SDNCN
Kr:45°


SDQCR/L
Kr:107°30'


SDUCR/L
Kr:93°

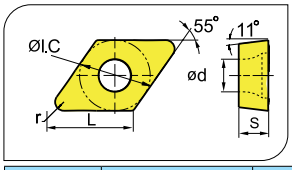

SDZCR/L
Kr:85°

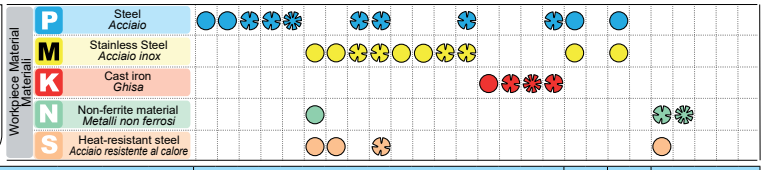
DP** Positive Insert/ Inserti positivi

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli





insert shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Coated Carbide Carburo cementato rivestito														Cermet Non rivestito	Cermet Carburo Cerm. rives.	carbide Carburo cementato	
		L	I.C	S	d	r	XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAO253	XAS052	XAS102	XAS152	XAS152C	XCI151	XCI151C	XS101	XS201
USF	**DPGT0702005R-USF**	7.8	6.35	2.38	2.8	0.05								○												
	DPGT070201R-USF	7.8	6.35	2.38	2.8	0.1								○												
	DPGT11T301R-USF	11.6	9.525	3.97	4.4	0.1								○												
Finishing Finitura																										
USF	**DPGT0702005L-USF**	7.8	6.35	2.38	2.8	0.05								○												
	DPGT070201L-USF	7.8	6.35	2.38	2.8	0.1								○												
	DPGT11T301L-USF	11.6	9.525	3.97	4.4	0.1								○												
Finishing Finitura																										
SF	**DPGT070202-SF**	7.8	6.35	2.38	2.8	0.2																	●	●		
	DPGT070204-SF	7.8	6.35	2.38	2.8	0.4																	●	●		
	DPGT070208-SF	7.8	6.35	2.38	2.8	0.8																	○	●		
	DPGT11T304-SF	11.6	9.525	3.97	4.4	0.4																	●	●		
Finishing Finitura	**DPGT11T308-SF**	11.6	9.525	3.97	4.4	0.8																	○	○		
Basic	**DPMW11T304**	11.6	9.525	3.97	4.4	0.4																				
	DPMW11T308	11.6	9.525	3.97	4.4	0.8																			○	

Tool holder / Cartuccia


SDQPR/L
Kr:107°30'


SDUPR/L
Kr:93°

A

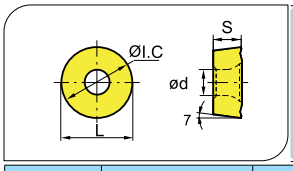
General Turning
Tornitura generale

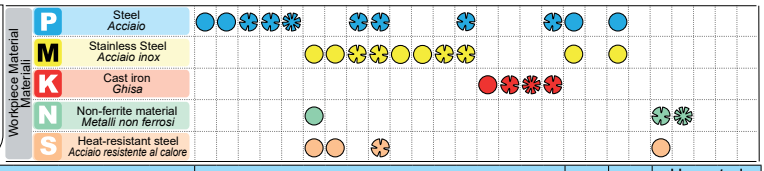
RC** Positive Insert/ Inserti positivi

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli





Insert Shape/ Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Coated Carbide Carburo cementato rivestito															Cermet Non rivestito	Cermet Coated Cerm. rives.	Uncoated Carbide Non rivestito Carburo cementato	
		L	I.C	S	d	r	XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAO253	XAS052	XAS102	XAS152	XAS152C	XCI151	XCI151C	XS101	XS201
Basic	**RCGT1204MO**	12	12	4.76	4.4	\			●																	
	RCGT190600	19.05	19.05	6.35	6.55	\				○																
	RCMT0803MO	8.0	8.0	3.18	3.36	\				●											●					
	RCMT10T3MO	10	10	3.97	3.6	\			●	○				○							○					
	RCMT1204MO	12	12	4.76	4.4	\	○	●	●●					○				○			●	●					
	RCMT1606MO	16	16	6.35	5.5	\	○	●	●	●	●									○	●						
	RCMT2006MO	20	20	6.35	6.5	\	○	●	●	●																	
	RCMT2507MO	25	25	7.94	7.7	\	○	●	●	○																	



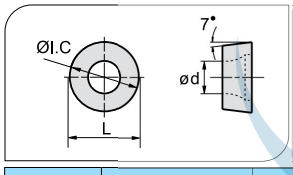
Medium cut.
Media Asport.

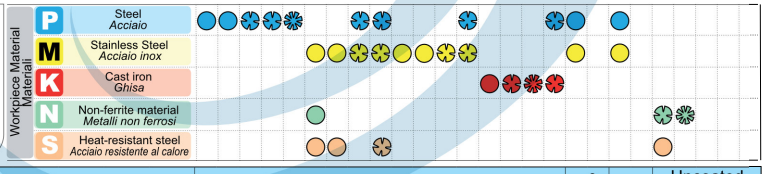
RC** positive insert

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli





Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Coated Carbide Carburo cementato rivestito															Cermet Non rivestito	Cermet Coated Cerm. rives.	Uncoated Carbide Non rivestito Carburo cementato	
		L	I.C	S	d	r	XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAO253	XAS052	XAS102	XAS152	XAS152C	XCI151	XCI151C	XS101	XS201
LH	**RCGX0803MO-LH**	8.0	8.0	3.18	3.36	\																			●	



Aluminium Machining/ Lavorazione alluminio

Tool holder / Cartuccia

SRDCN



SRGCR/L

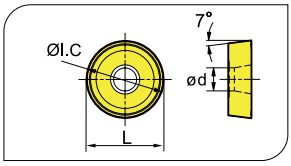


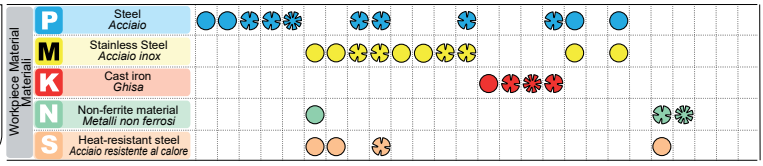
RC** Positive Insert/ Inserti positivi

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli





Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Coated Carbide Carburo cementato rivestito														Cermet Non rivestito	Cermet Coated Cerm. rives.	Uncoated Carbide Non rivestito Carburo cementato	
		L	I.C	S	d	r	XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAO253	XAS052	XAS102	XAS152	XAS152C	XCI151	XCI151C	XS101	XS201
Basic	**RCMX0803MO**	8.0	8.0	3.18	3.36	\			●	○	○															
	RCMX1003MO	10	10	3.18	3.6	\	○		●	○	●															
	RCMX1204MO	12	12	4.76	4.4	\	○	○	●	○	○										○					
	RCMX1606MO	16	16	6.35	5.5	\	○	○	●	●	●										○				○	○
	RCMX2006MO	20	20	6.35	6.5	\	○	●	●	●	●							○			●				○	○
	RCMX2507MO	25	25	7.94	7.2	\	○	●	○	●	●															
	RCMX2507MO-1	25	25	7.94	7.2	\		○	●																	
	RCMX3209MO	32	32	9.52	9.5	\	○	○	●	●	○															
	RCMX3209MO-PV	32	32	9.52	9.5	\	○	○	●	●																



Light roughing
Sgrossatura leggera

A

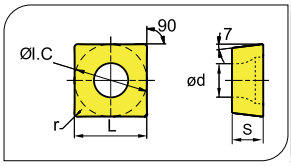
General Turning
Tornitura generale

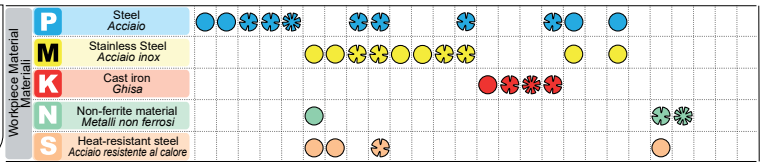
SC** Positive Insert/ Inserti positivi

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli





Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Coated Carbide Carburo cementato rivestito														Cermet Non rivestito	Cermet Coated Cerm. rivest.	Uncoated Carbide Non rivestito Carburo cementato	
		L	I.C	S	d	r	XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAO253	XAS052	XAS102	XAS152	XAS152C	XCI151	XCI151C	XS101	XS201
HF	**SCMT09T302-HF**	9.525	9.525	3.97	4.4	0.2		○	●	○				●												
	SCMT09T304-HF	9.525	9.525	3.97	4.4	0.4		●	●	●				●												
	SCMT09T308-HF	9.525	9.525	3.97	4.4	0.8		●	●	●				●												
Finishing Finitura																										
EF	**SCMT09T302-EF**	9.525	9.525	3.97	4.4	0.2								●	○		○									
	SCMT09T304-EF	9.525	9.525	3.97	4.4	0.4								○	●		●									
	SCMT09T308-EF	9.525	9.525	3.97	4.4	0.8								○	●		●									
Finishing Finitura																										
HM	**SCMT09T304-HM**	9.525	9.525	3.97	4.4	0.4	○	●	●	●	●										●	●				
	SCMT09T308-HM	9.525	9.525	3.97	4.4	0.8	○	●	●	●	●			●							●	●				○
	SCMT120404-HM	12.7	12.7	4.76	5.56	0.4	○	●	●												○					
	SCMT120408-HM	12.7	12.7	4.76	5.56	0.8	○	●	●	●	●			○							●	●				○
	SCMT120412-HM	12.7	12.7	4.76	5.56	1.2			●	●																
Medium Cut/ Media Asport.																										
EM	**SCMT09T304-EM**	9.525	9.525	3.97	4.4	0.4							●○		○		○									
	SCMT09T308-EM	9.525	9.525	3.97	4.4	0.8							●○		●		●									
	SCMT120404-EM	12.7	12.7	4.76	5.56	0.4							●○		○		○									
	SCMT120408-EM	12.7	12.7	4.76	5.56	0.8							●○		●		●									
Finishing Finitura	**SCMT120412-EM**	12.7	12.7	4.76	5.56	1.2									●				○							

Tool holder / Cartuccia


SSBCR/L
Kr:75°


SSDCN
Kr:45°


SSKCR/L
Kr:75°


SSSCR/L
Kr:45°

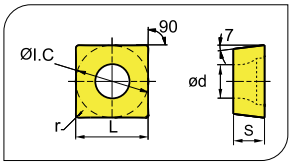

SSKCR/L
Kr:75°

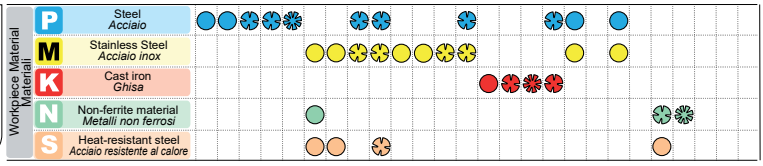
SC** Positive Insert/ Inserti positivi

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli





insert shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Coated Carbide Carburo cementato rivestito														Cermet Non rivestito	Cermet Cermet Cerm. rives.	carbide Carburo cementato	
		L	I.C	S	d	r	XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAO253	XAS052	XAS102	XAS152	XAS152C	XCI151	XCI151C	XS101	XS201
LC	**SCGX09T304-LC**	9.525	9.525	3.97	4.4	0.4																			●	
	SCGX09T308-LC	9.525	9.525	3.97	4.4	0.8																			●	
Aluminium Machining/ Lavorazione alluminio	**SCGX120408-LC**	12.7	12.7	4.76	5.5	0.8																			●	
LH	**SCGX09T302-LH**	9.525	9.525	3.97	4.4	0.2						○													●	
	SCGX09T304-LH	9.525	9.525	3.97	4.4	0.4						○													●	
	SCGX09T308-LH	9.525	9.525	3.97	4.4	0.8						○													●	
	SCGX120404-LH	12.7	12.7	4.76	5.56	0.4						○														
Aluminium Machining/ Lavorazione alluminio	**SCGX120408-LH**	12.7	12.7	4.76	5.56	0.8						○													●	
HR	**SCMT09T304-HR**	9.525	9.525	3.97	4.4	0.4		○	●	●				○								○				
	SCMT09T308-HR	9.525	9.525	3.97	4.4	0.8	○	●	●●	●											●	●				
	SCMT09T312-HR	9.525	9.525	3.97	4.4	1.2			○	○																
	SCMT120404-HR	12.7	12.7	4.76	5.56	0.4	○	○	●○																	
Roughing/ Sgrossatura	**SCMT120408-HR**	12.7	12.7	4.76	5.56	0.8	○	○	●●											○	●	●				
	SCMT120412-HR	12.7	12.7	4.76	5.56	1.2		●	●	●										○	●	○				
Basic	**SCMT09T304**	9.525	9.525	3.97	4.4	0.4			○																	
	SCMT120404	12.7	12.7	4.76	5.56	0.4			○		○															
	SCMT120408	12.7	12.7	4.76	5.56	0.8			○													○				
Flat Parte superiore piana	**SCMW060204**	6.35	6.35	2.38	2.8	0.4																			○	
	SCMW09T304	9.525	9.525	3.97	4.4	0.4																			○	
	SCMW09T308	9.525	9.525	3.97	4.4	0.8																			○	
	SCMW120408	12.7	12.7	4.76	5.56	0.8																			○	

Tool holder / Cartuccia


SSBCR/L
Kr:75°


SSDCN
Kr:45°


SSKCR/L
Kr:75°


SSSCR/L
Kr:45°


SSKCR/L
Kr:75°

A

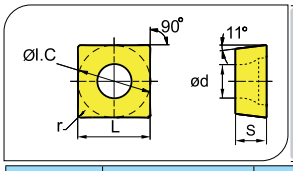
General Turning
Tornitura generale

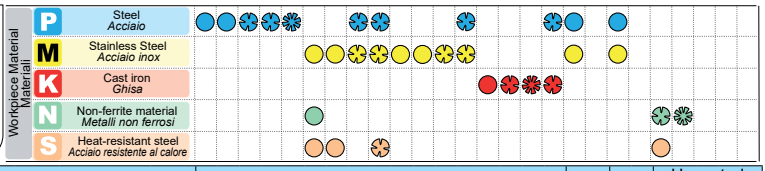
SP** Positive Insert/ Inserti positivi

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli





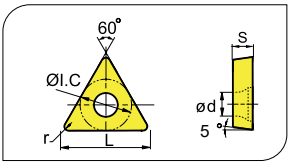
Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Coated Carbide Carburo cementato rivestito														Cermet Non rivestito	Cermet Carburo cem. rives.	Uncoated Carbide Non rivestito Carburo cementato	
		L	I.C	S	d	r	XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAO253	XAS052	XAS102	XAS152	XAS152C	XCI151	XCI151C	XS101	XS201
Flat **Parte superiore piana**	**SPMW09T304**	9.525	9.525	3.97	4.4	0.4			○												○					
	SPMW09T308	9.525	9.525	3.97	4.4	0.8			○												○					
	SPMW120408	12.7	12.7	4.76	5.56	0.8															○					

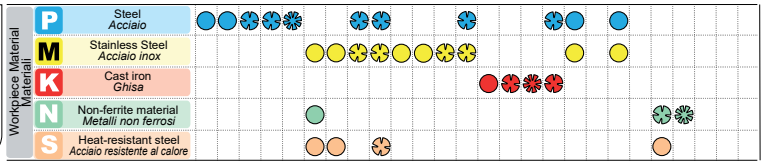
TB** Positive Insert/ Inserti positivi

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli





Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Coated Carbide Carburo cementato rivestito														Cermet Non rivestito	Cermet Coated Cerm. rives.	Uncoated Carbide Non rivestito Carburo cementato	
		L	I.C	S	d	r	XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAO253	XAS052	XAS102	XAS152	XAS152C	XCI151	XCI151C	XS101	XS201
	**TBGH060102L**	6.4	3.97	1.59	2.2	0.2						●											●		○	
	TBGH060104L	6.4	3.97	1.59	2.2	0.4						●											●		○	

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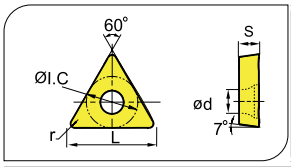
General Turning
Tornitura generale

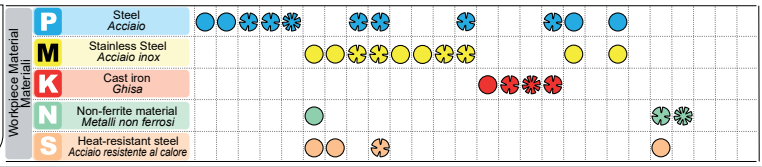
TC** Positive Insert/ Inserti positivi

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli





Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Coated Carbide Carburo cementato rivestito													Cermet Non rivestito	Cermet Coated Cem. rivest.	Uncoated Carbide Non rivestito Carburo cementato	
		L	I.C	S	d	r	XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAO253	XAS052	XAS102	XAS152	XAS152C	XCI151	XCI151C	XS101	XS201
USF	**TCGT110301R-USF**	11	6.35	3.18	2.8	0.1								●												
	**TCGT110302R-USF**	11	6.35	3.18	2.8	0.2								●												
Finishing Finitura																										
USF	**TCGT110301L-USF**	11	6.35	3.18	2.8	0.1								○												
	**TCGT110302L-USF**	11	6.35	3.18	2.8	0.2								●												
Finishing Finitura																										
SF	**TCGT06T102-SF**	6.4	3.97	1.98	2.2	0.2						○												○	●		
	TCGT06T104-SF	6.4	3.97	1.98	2.2	0.4						○													○		
	**TCGT090202-SF**	9.6	5.56	2.38	2.5	0.2						○												○	●		
	TCGT090204-SF	9.6	5.56	2.38	2.5	0.4						●													●		
	TCGT090208-SF	9.6	5.56	2.38	2.5	0.8						○												○	●		
Finishing Finitura	**TCGT110302-SF**	11	6.35	3.18	2.8	0.2						○												○	●		
	TCGT110304-SF	11	6.35	3.18	2.8	0.4						○												●	●		
	TCGT110308-SF	11	6.35	3.18	2.8	0.8						○												○	●		

Tool holder / Cartuccia









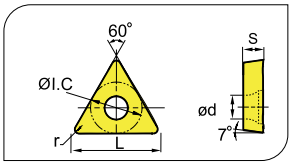


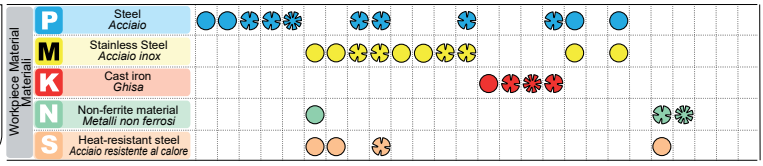
TC** Positive Insert/ Inserti positivi

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli





Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Coated Carbide Carburo cementato rivestito																Cermet Non rivestito	Cermet Coated Cerm rives.	Uncoated Carbide Non rivestito Carburo cementato	
		L	I.C	S	d	r	XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAO253	XAS052	XAS102	XAS152	XAS152C	XCI151	XCI151C	XS101	XS201
HF	TCMT06T104-HF	6.4	3.97	1.98	2.2	0.4																				
	TCMT06T108-HF	6.4	3.97	1.98	2.2	0.8																				
	TCMT090202-HF	9.6	5.56	2.38	2.5	0.2	○	○	●	●													●			
	TCMT090204-HF	9.6	5.56	2.38	2.5	0.4	○	○	○	●						○							○			
	TCMT090208-HF	9.6	5.56	2.38	2.5	0.8	○		●	○													○			
	TCMT110202-HF	11	6.35	2.38	2.8	0.2			●	○				●									○			
	TCMT110204-HF	11	6.35	2.38	2.8	0.4	○	●	●●	○												●	○	○		
	TCMT110208-HF	11	6.35	2.38	2.8	0.8	○	●	○	●	○			○							●		○			
	TCMT16T302-HF	16.5	9.525	3.97	4.4	0.2			○																	
	TCMT16T304-HF	16.5	9.525	3.97	4.4	0.4	○	●	●					○		○							○			
	TCMT16T308-HF	16.5	9.525	3.97	4.4	0.8	○	●	●														○			



Finishing
Finitura

Tool holder / Cartuccia











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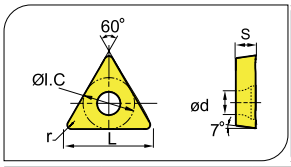
General Turning
Tornitura generale

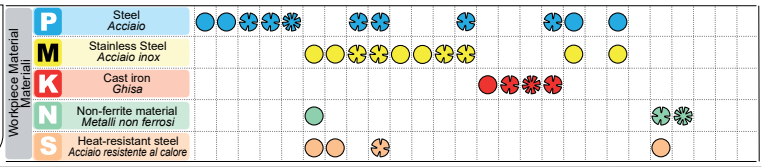
TC** Positive Insert/ Inserti positivi

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli





Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Coated Carbide Carburo cementato rivestito												Cermet Non rivestito	Cermet Coated Cem. rivs.	Uncoated Carbide Non rivestito Carburo cementato	
		L	I.C	S	d	r	XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAO253	XAS052	XAS102	XAS152	XAS152C	XCI151	XCI151C	XS101	XS201
EF	**TCMT090202-EF**	9.6	5.56	2.38	2.5	0.2								●												
	TCMT090204-EF	9.6	5.56	2.38	2.5	0.4								○	●											
	TCMT110202-EF	11	6.35	2.38	2.8	0.2								○	○											
	TCMT110204-EF	11	6.35	2.38	2.8	0.4								○	●											
	TCMT110208-EF	11	6.35	2.38	2.8	0.8								○	○											
Finishing Finitura	**TCMT16T304-EF**	16.5	9.525	3.97	4.4	0.4								○	●		●									
	TCMT16T308-EF	16.5	9.525	3.97	4.4	0.8								○	●		●									
EM	**TCMT090204-EM**	9.6	5.56	2.38	2.8	0.4								○	●		●									
	TCMT090208-EM	9.6	5.56	2.38	2.8	0.8								○	○		●									
	TCMT110204-EM	11	6.35	2.38	2.8	0.4								○	●		●									
	TCMT110208-EM	11	6.35	2.38	2.8	0.8								○	○		●									
	TCMT110212-EM	11	6.35	2.38	2.8	1.2								○												
Medium Cut/ Media Asport.	**TCMT16T304-EM**	16.5	9.525	3.97	4.4	0.4								○	●		●									
	TCMT16T308-EM	16.5	9.525	3.97	4.4	0.8								○	●		●		●							
	TCMT16T312-EM	16.5	9.525	3.97	4.4	1.2								○	○											

Tool holder / Cartuccia


STACR/L
Kr:90°


STFCR/L
Kr:90°

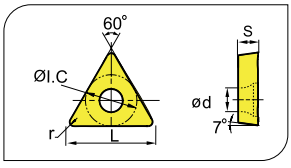

STGCR/L
Kr:90°

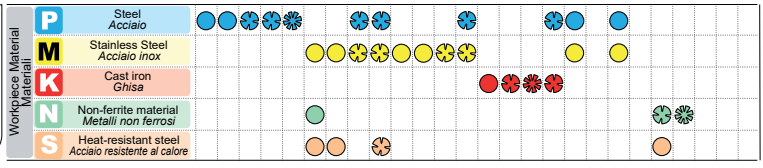

STTCR/L
Kr:60°


STFCR/L
Kr:90°

TC** Positive Insert/ Inserti positivi

Ideal Machining Condition / Buone condizioni di lavorazione
Normal Machining Condition / Condizioni di lavorazione normali
Unfavorable Machining Condition / Condizioni di lavorazione sfavorevoli





Insert Shape / Forma inserto	Type / Tipo	Dimension (mm) / Dimensioni					Coated Carbide / Carburo cementato rivestito														Cermet / Non rivestito	Cermet / Carburo cementato / Cerm rives.	Uncoated Carbide / Non rivestito / Carburo cementato	
		L	I.C	S	d	r	XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAO253	XAS052	XAS102	XAS152	XAS152C	XCI151	XCI151C	XS101	XS201
HM	TCMT090204-HM	9.6	5.56	2.38	2.5	0.4		●	●	●											●	●					
	TCMT090208-HM	9.6	5.56	2.38	2.5	0.8		○	●	○												●					
	TCMT110204-HM	11	6.35	2.38	2.8	0.4	○	●	●	●	○			●				○			●	●					
	TCMT110208-HM	11	6.35	2.38	2.8	0.8		●	●	○											○	●					
	TCMT16T304-HM	16.5	9.525	3.97	4.4	0.4	○	●	●	●	●			●				○			●	●					
Medium Cut/ Media Asport.	TCMT16T308-HM	16.5	9.525	3.97	4.4	0.8	○	●	●	●	●			●		○		○			●	●					
	TCMT16T312-HM	16.5	9.525	3.97	4.4	1.2		○	●	●	●																
HR	TCMT090204-HR	9.6	5.56	2.38	2.5	0.4			●	○																	
	TCMT090208-HR	9.6	5.56	2.38	2.5	0.8			○	○												●					
	TCMT110204-HR	11	6.35	2.38	2.8	0.4			●	○																	
	TCMT110208-HR	11	6.35	2.38	2.8	0.8			●	○																	
	TCMT16T304-HR	16.5	9.525	3.97	4.4	0.4	○	○	●	●											●	○					
Roughing/ Sgrossatura	TCMT16T308-HR	16.5	9.525	3.97	4.4	0.8	○	○	●	○	●										●	●					
	TCMT16T312-HR	16.5	9.525	3.97	4.4	1.2		○	●	○											○	●					
	TCMT220408-HR	22	12.7	4.76	5.5	0.8		●	●	●	●											●					
Basic	TCMT220408	22	12.7	4.76	5.5	0.8			●												○						
Flat Parte superiore piana	TCMW110204	11	6.35	2.38	2.8	0.4																					
	TCMW16T304	16.5	9.525	3.97	4.4	0.4																					
	TCMW16T308	16.5	9.525	3.97	4.4	0.8																○					
	TCMW16T312	16.5	9.525	3.97	4.4	1.2																					
	TCMW220408	22	12.7	4.76	5.5	0.8																○					

Tool holder / Cartuccia


STACR/L Kr:90°


STFCR/L Kr:90°


STGCR/L Kr:90°


STTCR/L Kr:60°


STFCR/L Kr:90°

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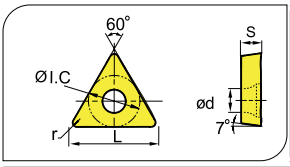
General Turning
Tornitura generale

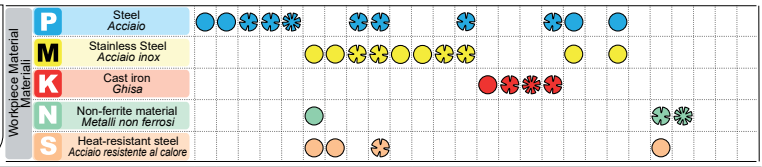
TC** Positive Insert/ Inserti positivi

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli





Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Coated Carbide Carburo cementato rivestito													Cermet Non rivestito	Cermet Coated Cerm. rives.	Uncoated Carbide Non rivestito Carburo cementato	
		L	I.C	S	d	r	XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAO253	XAS052	XAS102	XAS152	XAS152C	XCI151	XCI151C	XS101	XS201
LC	**TCGX090202-LC**	9.6	5.56	2.38	2.5	0.2																			●	
	TCGX090204-LC	9.6	5.56	2.38	2.5	0.4																			●	
	TCGX110202-LC	11	6.35	2.38	2.8	0.2																			●	
	TCGX110204-LC	11	6.35	2.38	2.8	0.4																			●	
	TCGX110208-LC	11	6.35	2.38	2.8	0.8																			●	
	TCGX16T304-LC	16.5	9.525	3.97	4.4	0.4																			●	
	TCGX16T308-LC	16.5	9.525	3.97	4.4	0.8																			●	
LH	**TCGX090202-LH**	9.6	5.56	2.38	2.5	0.2						○													●	
	TCGX090204-LH	9.6	5.56	2.38	2.5	0.4						○													●	
	TCGX110202-LH	11	6.35	2.38	2.8	0.2						●													●	
	TCGX110204-LH	11	6.35	2.38	2.8	0.4						●													●	
	TCGX110208-LH	11	6.35	2.38	2.8	0.8						○													○	
	TCGX16T302-LH	16.5	9.525	3.97	4.4	0.2						○													●	
	TCGX16T304-LH	16.5	9.525	3.97	4.4	0.4						○													●	
	TCGX16T308-LH	16.5	9.525	3.97	4.4	0.8						○													●	


Aluminium Machining/ Lavorazione alluminio


Aluminium Machining/ Lavorazione alluminio

Tool holder / Cartuccia


STACR/L Kr:90°


STFCR/L Kr:90°


STGCR/L Kr:90°


STTCR/L Kr:60°

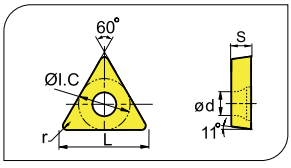

STFCR/L Kr:90°

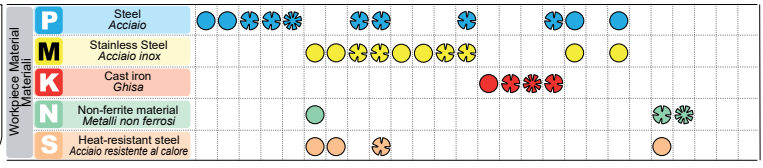
TP** Positive Insert/ Inserti positivi

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli





Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Coated Carbide Carburo cementato rivestito														Cermet Non rivestito	Cermet Cermet Cerm rives	Uncoated Carbide Non rivestito Carburo cementato	
		L	I.C	S	d	r	XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAO253	XAS052	XAS102	XAS152	XAS152C	XCI151	XCI151C	XS101	XS201
SF	**TPGT090202-SF**	9.6	5.56	2.38	2.5	0.2																	○	●		
	TPGT090204-SF	9.6	5.56	2.38	2.5	0.4						○											●	●		
	TPGT090208-SF	9.6	5.56	2.38	2.5	0.8																	○	●		
	TPGT110302-SF	11	6.35	3.18	2.8	0.2																	●	●		
Finishing Finitura	**TPGT110304-SF**	11	6.35	3.18	2.8	0.4																	○	●		
	TPGT110308-SF	11	6.35	3.18	2.8	0.8																	○	●		
	TPGH090202L	9.6	5.56	2.38	2.5	0.2						●											●			
	TPGH090204L	9.6	5.56	2.38	2.5	0.4						●											●			
	TPGH110302L	11	6.35	3.18	2.8	0.2						●											●			
Super Finishing Finitura di precisione	**TPGH110304L**	11	6.35	3.18	2.8	0.4						●											●			

Tool holder / Cartuccia

STUPR/L
Kr:93°



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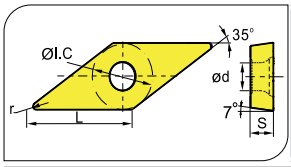
General Turning
Tornitura generale

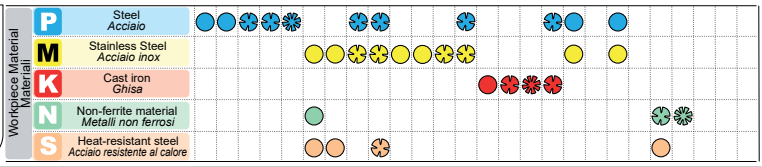
VC** Positive Insert/ Inserti positivi

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli





Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Coated Carbide Carburo cementato rivestito														Cermet Non rivestito	Cermet Coated Cem. rivest.	Uncoated Carbide Non rivestito Carburo cementato	
		L	I.C	S	d	r	XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAO253	XAS052	XAS102	XAS152	XAS152C	XCI151	XCI151C	XS101	XS201
USF Finishing Finitura	VCGT080201R-USF	8	4.76	2.38	2.3	0.1								○												
	VCGT080202R-USF	8	4.76	2.38	2.3	0.2								○												
	VCGT110301R-USF	11	6.35	3.18	2.8	0.1								●												
	VCGT110302R-USF	11	6.35	3.18	2.8	0.2								●												
USF Finishing Finitura	VCGT080201L-USF	8	4.76	2.38	2.3	0.1								○												
	VCGT080202L-USF	8	4.76	2.38	2.3	0.2								○												
	VCGT110301L-USF	11	6.35	3.18	2.8	0.1								●												
	VCGT110302L-USF	11	6.35	3.18	2.8	0.2								●												
SF Finishing Finitura	VCGT110302-SF	11	6.35	3.18	2.8	0.2																	●	●		
	VCGT110304-SF	11	6.35	3.18	2.8	0.4									○								●	●		
	VCGT160404-SF	16.5	9.525	4.8	4.4	0.4																		●		
HF Finishing Finitura	VCGT110304-HF	11	6.35	3.18	2.8	0.4			●						○											
	VCGT130304	13.8	7.94	3.3	3.4	0.4			●																	
NF Finishing Finitura	VCGT160408-NF	16.5	9.525	4.76	4.4	0.8							○	●												

Tool holder / Cartuccia







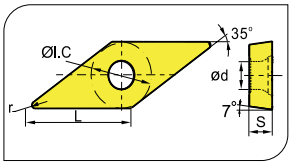


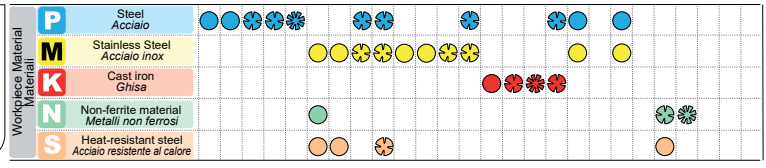
VC** Positive Insert/ Inserti positivi

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli





Insert Shape / Forma inserto	Type / Tipo	Dimension (mm) Dimensioni					Coated Carbide Carburo cementato rivestito													Cermet Non rivestito	Cermet Coated Cerm rives	Uncoated Carbide Non rivestito Carburo cementato	
		L	I.C	S	d	r	XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAO253	XAS052	XAS102	XAS152	XAS152C	XCI151	XCI151C	XS101	XS201
LC	VCGX110301-LC	11	6.35	3.18	2.8	0.1									●											●	
	VCGX110302-LC	11	6.35	3.18	2.8	0.2								○	○											●	
	VCGX110304-LC	11	6.35	3.18	2.8	0.4																				●	
	VCGX110308-LC	11	6.35	3.18	2.8	0.8																				●	
	VCGX160404-LC	16.6	9.525	4.76	4.4	0.4																				●	
	VCGX160408-LC	16.6	9.525	4.76	4.4	0.8																				●	
	VCGX160412-LC	16.6	9.525	4.76	4.4	1.2																				●	
	VCGX220530-LC	22	12.7	5.56	5.5	3.0																				○	●
LH	VCGX110202-LH	11	6.35	2.38	2.8	0.2																				○	
	VCGX110204-LH	11	6.35	2.38	2.8	0.4						●														●	
	VCGX110301-LH	11	6.35	3.18	2.8	0.1						○		○												●	●
	VCGX110302-LH	11	6.35	3.18	2.8	0.2						●		●												●	●
	VCGX110304-LH	11	6.35	3.18	2.8	0.4						●		○												●	●
	VCGX110308-LH	11	6.35	3.18	2.8	0.8						○														●	
	VCGX160402-LH	16.6	9.525	4.76	4.4	0.2						●		●												●	
	VCGX160404-LH	16.6	9.525	4.76	4.4	0.4						●		●												●	○
	VCGX160408-LH	16.6	9.525	4.76	4.4	0.8						●														●	○
	VCGX160412-LH	16.6	9.525	4.76	4.4	1.2						●														●	○
	VCGX220530-LH	22	12.7	5.56	5.5	3.0						○														●	○

Aluminium Machining/ Lavorazione alluminio

Aluminium Machining/ Lavorazione alluminio

Tool holder / Cartuccia


SVQCR/L
Kr:107°30'


SVUCR/L
Kr:93°


SVVCN
Kr:72°30'


SVJCR/L
Kr:93°

A

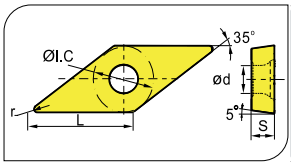
General Turning
Tornitura generale

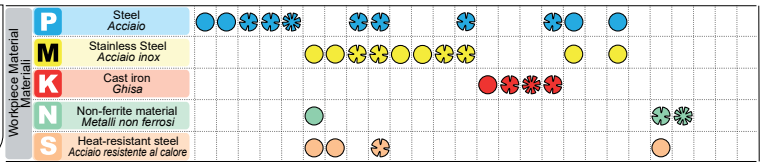
VB** Positive Insert/ Inserti positivi

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli





Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Coated Carbide Carburo cementato rivestito														Cermet Non rivestito	Cermet Coated Cerm. rivest.	Uncoated Carbide Non rivestito Carburo cementato	
		L	I.C	S	d	r	XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAS052	XAS102	XAS152	XAS152C	XCI151	XCI151C	XS101	XS201
SF	**VBGT110302-SF**	11	6.35	3.18	2.8	0.2																○	●		
	**VBGT110304-SF**	11	6.35	3.18	2.8	0.4																○	●		
Finishing Finitura																									
EF	**VBMT110302-EF**	11	6.35	3.18	2.8	0.2								●	●										
	**VBMT110304-EF**	11	6.35	3.18	2.8	0.4								○	●		●								
Finishing Finitura	**VBMT110308-EF**	11	6.35	3.18	2.8	0.8								●	○		●								
	VBMT160404-EF	16.5	9.525	4.76	4.4	0.4								○	●		●								
	VBMT160408-EF	16.5	9.525	4.76	4.4	0.8								○	●		●								
HF	**VBMT110202-HF**	11	6.35	2.38	2.8	0.2			●		○			●											
	**VBMT110204-HF**	11	6.35	2.38	2.8	0.4			●					●		●						●	●		
Finishing Finitura	**VBMT110208-HF**	11	6.35	2.38	2.8	0.8	●		●					●											
NF	**VBET160404-NF**	16.5	9.525	4.76	4.4	0.4						○	●												
	**VBET160408-NF**	16.5	9.525	4.76	4.4	0.8						○	●												
Finishing Finitura	**VBET160408-NGF**	16.5	9.525	4.76	4.4	0.8							○												
	VBET160412-NGF	16.5	9.525	4.76	4.4	1.2							○												

Tool holder / Cartuccia


SVJBR/L
Kr:93°


SVABR/L
Kr:90°


SVVBN
Kr:72°30'


SVQBR/L
Kr:107°30'

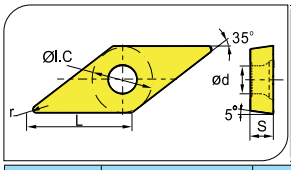

SVUBR/L
Kr:93°

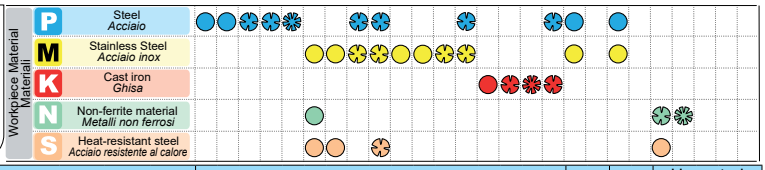
VB** Positive Insert/ Inserti positivi

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli





Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Coated Carbide Carburo cementato rivestito														Cermet Non rivestito	Cermet Coated Cerm. rives.	Uncoated Carbide Non rivestito Carburo cementato	
		L	I.C	S	d	r	XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAO253	XAS052	XAS102	XAS152	XAS152C	XCI151	XCI151C	XS101	XS201
EM Medium Cut/ Media Asport.	**VBMT110304-EM**	11	6.35	3.18	2.8	0.4								○	●		●										
	VBMT110308-EM	11	6.35	3.18	2.8	0.8								○	●		●										
	VBMT160404-EM	16.5	9.525	4.76	4.4	0.4									●		●										
	VBMT160408-EM	16.5	9.525	4.76	4.4	0.8									●		●										
HM Medium Cut/ Media Asport.	**VBMT160404-HM**	16.5	9.525	4.76	4.4	0.4	○	●	●	●	●			●		○		○			●						
	VBMT160408-HM	16.5	9.525	4.76	4.4	0.8	○	●	●	●	●			●		○		○			●	●				○	
	VBMT160412-HM	16.5	9.525	4.76	4.4	1.2		●	●	○	○											○				○	
HR Roughing / Sgrossatura	**VBMT160404-HR**	16.5	9.525	4.76	4.4	0.4		●	○	●																	
	VBMT160408-HR	16.5	9.525	4.76	4.4	0.8	○	●	●	●	○					○		○									
	VBMT160412-HR	16.5	9.525	4.76	4.4	1.2		●	○	●									○								
	VBGT160408-HR	16.5	9.525	4.76	4.4	0.8			○																		
Flat Parte superiore piana	**VBMW160404**	16.5	9.525	4.76	4.4	0.4	○																			○	
	VBMW160408	16.5	9.525	4.76	4.4	0.8																					

Tool holder / Cartuccia


SVJBR/L Kr:93°


SVABR/L Kr:90°


SVVBN Kr:72°30'


SVQBR/L Kr:107°30'

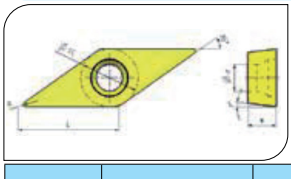

SVUBR/L Kr:93°

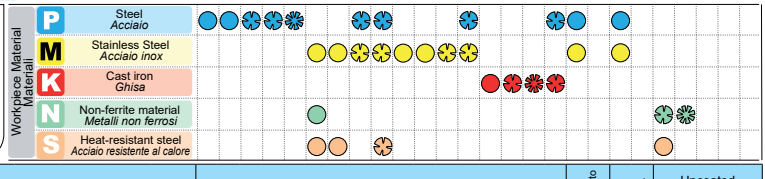
VC** Positive Insert/ Inserti positivi

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli





Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Coated Carbide Carburo cementato rivestito														Cermet Non rivestito	Cermet Coated Cerm. rives.	Uncoated Carbide Non rivestito Carburo cementato	
		L	I.C	S	d	r	XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAO253	XAS052	XAS102	XAS152	XAS152C	XCI151	XCI151C	XS101	XS201
EF	**VCMT160404-EF**	16	9.525	4.76	4.4	0.4									●												
EM	**VCMT160404-EM**	16	9.525	4.76	4.4	0.4									●	○	○										
	VCMT160408-EM	16	9.525	4.76	4.4	0.8									●		○										

A

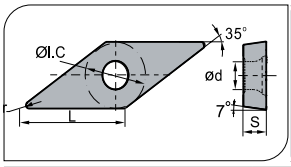
General Turning
Tornitura generale

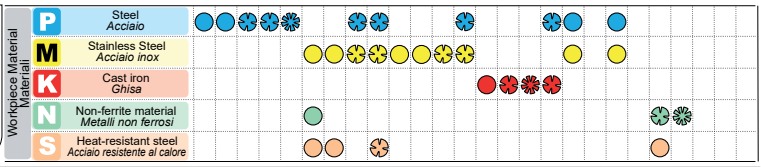
VC** Positive Insert/ Inserti positivi

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli





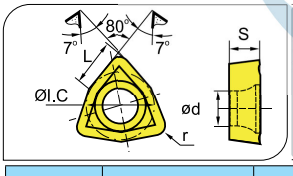
Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Coated Carbide Carburo cementato rivestito													Cermet Non rivestito	Cermet Coated Cerm. rives.	Uncoated Carbide Non rivestito Carburo cementato	
		L	I.C	S	d	r	XAF151	XAF152	XAF251	XAF252	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAO253	XAS052	XAS102	XAS152	XAS152C	XCI151	XCI151C	XS101	XS201
USF Finishing Finitura	**VPGT080201R-USF**	8	4.76	2.38	2.3	0.1								○												
	VPGT080202R-USF	8	4.76	2.38	2.3	0.2								○												
	VPGT110301R-USF	11	6.35	3.18	2.8	0.1								●												
	VPGT110301FR-USF	11	6.35	3.18	2.8	0.1								○												
USF Finishing Finitura	**VPGT080201L-USF**	8	4.76	2.43	2.3	0.1								●												
	VPGT080202L-USF	8	4.76	2.43	2.3	0.2								○												
	VPGT110301L-USF	11	6.35	3.18	2.8	0.1								○												

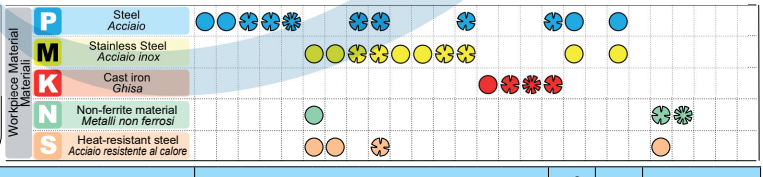
VC** Positive Insert/ Inserti positivi

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli





insert shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Coated Carbide Carburo cementato rivestito													Cermet Non rivestito	Cermet Coated Cerm. rives.	carbide Carburo cementato	
		L	I.C	S	d	r	XAF151	XAF251	XAF351	XAI102	XAI105	XAI202	XAI205	XAO151	XAO153	XAO251	XAO253	XAS052	XAS102	XAS152	XAS152C	XCI151	XCI151C	XS101	XS201
Basic	**WCMX040208R-53**	4.3	6.35	2.38	3.1	0.8						○												○
	WCMX06T308R-53	6.5	9.525	3.97	3.7	0.8						●												●
	WCMX080412R-53	8.7	12.7	4.76	4.3	1.2						○												●

INSERTI IN PCBN-CBN

INSERTS PCBN-CBN



Insert shape
Forma inserto

 A	 B	 C
 D	 E	 H
 K	 L	 M
 P	 S	 T
 V	 W	Others *Altri* Z

Tolerance
Grado di tolleranza





Code	Tolerance *Grado di tolleranza*	Tolerance *Grado di tolleranza* ØI.C	Thickness S *Spessore*	Code	Tolerance *Grado di tolleranza*	Tolerance *Grado di tolleranza* ØI.C	Thickness S *Spessore*
A	±0.005	±0.025	±0.025	J	±0.005	±0.05-±0.13	±0.025
F	±0.005	±0.013	±0.025	K	±0.013	±0.05-±0.13	±0.025
C	±0.013	±0.025	±0.025	L	±0.025	±0.05-±0.13	±0.025
H	±0.013	±0.013	±0.025	M	±0.08-±0.18	±0.05-±0.13	±0.13
E	±0.025	±0.025	±0.025	N	±0.08-±0.18	±0.05-±0.13	±0.025
G	±0.025	±0.025	±0.13	U	±0.13-±0.38	±0.08-±0.25	±0.13

C N G A

Clearance angle of main cutting edge
Angolo di spoglia del fianco

Code	Angle *Angolo*	Code	Angle *Angolo*
A	 3°	B	 5°
C	 7°	D	 15°
E	 20°	F	 25°
G	 30°	N	 0°
P	 11°	O	Others *Altri*

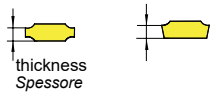
Insert type
Tip. inserto

Code	Hole *Foro*	Insert Section *WPGT Tipo*
N	----	
B	✔	
C	✔	
A	✔	
W	✔	
Q	✔	
X	----	Special *Speciale*

Cutting edge length
Lunghezza tagliente (mm)

Diameter of incircle *Inscritto Cerchio* (mm)	Insert Shape *Forma dell'inserto* C	D	S	T	V	W
3.97				06		
5.0						
5.56				09		
6.0						
6.35	06	07		11	11	
8.0						
9.525	09	11	09	16	16	06
10.0						
12.0						
12.7	12	15	12	22	22	08
15.875	16		15	27		
16.0		19				
19.05	19		19	33		
20.0						
25.0	25	25				
25.4			25			
31.75						
32						

Insert thickness
Spessore (mm)



Code	Insert Thickness *Spessore(mm)*	Code	Insert Thickness *Spessore(mm)*
02	2.38	06	6.35
T2	2.58	T6	6.75
03	3.18	07	7.94
T3	3.97	09	9.52
04	4.76	T9	9.72
T4	4.96	11	11.11
05	5.56	12	12.70
T5	5.95		

Nose radius
Raggio di punta (mm)

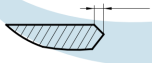
Code	Radius (mm)
00	–
02	0.2
04	0.4
08	0.8
12	1.2
16	1.6
20	2.0
24	2.4
32	3.2
X	Others *Altri*
Mo	Round Insert *Inserti tondi*

12 04 08 T 020 20 -2 W

Profile of cutting edges
Versione del tagliente

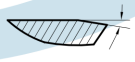
Code	Cutting Edge *Tagliente*	Shape Form *Forma dell'inserto*
F	Sharp edge *Spigolo vivo*	
E	Honing *Arrotondato*	
T	Chamfering *Smusso*	
S	Chamfering *Smusso* + Honing *Arrotondato*	

Width of chamfer
Larghezza smusso



010	0.10	040	0.40
015	0.15	045	0.45
020	0.20	050	0.50
025	0.25	100	1.00
030	0.30	200	2.00
035	0.35		

Angle of chamfer
Angolo dello smusso



05	5°
10	10°
15	15°
20	20°
25	25°
30	30°

Number of cutting edges
Numero dei taglienti

Code	Number of edges *Numero dei taglienti*	
1	1	
2	2	
3	3	
4	4	

Wiper edge
Bordo raschiante

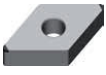
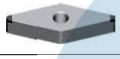
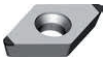
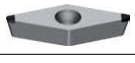
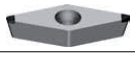
W

Standard edge preparation
Versione standard della fase

	CBN				Solid CBN CBN integrale			PCD PCD
Radius = 0.4	S01020	S01020	S01020	S01020	S01020	T02020	T02025	F
Radius ≥ 0.8	S02020	S02020	S02020	S02020	S01020	T02020	T02025	F

* other edge preparation on demand
altre versioni dello smusso su richiesta

PCBN

	Insert Shape *Forma inserto*	Type *Tipo*	Grade *Grado*			
			XFA111	XFA121	XFA131	XFA211
Negative Inserts Inserti		CNGA120404-2	○	○	○	○
		CNGA120408-2	○	○	○	○
		CNGA120412-2	○	○	○	○
		CNGA120408-2W	○	○		
		CNGA120412-2W	○	○		
		DNGA150604-2	○	○		○
		DNGA150608-2	○	○	○	○
		DNGA150612-2	○	○	○	○
		SNGA120408-2	○	○	○	○
		SNGA120412-2	○	○	○	○
		TNGA160404-3	○	○		
		TNGA160408-3	○	○	○	○
		TNGA160412-3	○	○	○	○
		VNGA160404-2	○	○		
		VNGA160408-2	○	○		
		WNGA080404-3	○	○	○	
		WNGA080408-3	○	○	○	○
		WNGA080412-3	○	○	○	○
Positive Inserts Inserti		CCGW060204-1	○	○		
		CCGW060208-1	○	○		
		CCGW09T304-2	○	○	○	○
		CCGW09T308-2	○	○	○	○
		CCGW120404-2	○	○	○	○
		CCGW120408-2	○	○	○	○
		DCGW070202-1	○	○		
		DCGW070204-1	○	○		
		DCGW070208-1	○	○		
		DCGW11T304-2	○	○	○	○
		DCGW11T308-2	○	○	○	○
		TCGW110204-1	○	○	○	
		TCGW110208-1	○	○	○	
		TCGW16T304-3	○	○	○	○
		TCGW16T308-3	○	○	○	○
		VBGW160404-2	○	○		○
		VBGW160408-2	○	○		○
		VCGW160404-2	○	○		○
		VCGW160408-2	○	○		○

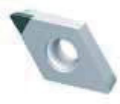
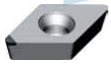
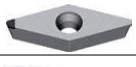
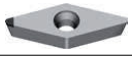
PCBN

	Insert Shape *Forma inserto*	Type *Tipo*	Grade *Grado*		
			XWA121	XWA221	XWA231
			S01020 *	T02020 *	T02025 *
Negative Inserts Inserti		CNGN090308	○	○	○
		CNGN090312	○	○	○
		CNGN120404	○	○	○
		CNGN120408	○	●	○
		CNGN120412	○	●	○
		CNGN120416	○	●	○
		CNGN12T608	○	○	○
		CNGN120712	○	○	○
		DNGN110404	○	○	○
		DNGN110408	○	○	○
		SNGN090308	○	○	○
		SNGN090312	○	○	○
		SNGN090316	○	○	○
		SNGN120404	○	○	○
		SNGN120408	○	●	○
		SNGN120412	○	●	○
		SNGN120416	○	●	○
		SNGN12T612	○	○	○
		SNGN150716	○	○	○
		SNGN150720	○	○	○
		WNGN060304	○	○	○
		WNGN080408	○	○	○
		WNGN080412	○	○	○
		RNGN090300	○	○	○
		RNGN020300	○	○	○
		RNGN120400	○	●	○
		RNGN120700	○	○	○
		RNGN150700	○	○	○

* Standard edge preparation
Versione standard della fase

* other edge preparation on demand
altre versioni dello smusso su richiesta

PCD/PKD

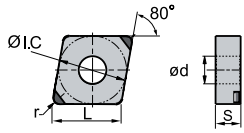
Insert Shape *Forma inserto*	Type *Tipo*	Grade *Grado*
		XFS421
	CCMT060202	○
	CCMT060204	○
	CCMT09T304	○
	CCMT09T308	○
	CCMT120404	○
	CCMT120408	○
	CCMW060202	○
	CCMW060204	○
	CCMW09T304	○
	CCMW09T308	○
	CCMW120404	○
	CCMW120408	○
	DCMT070202	○
	DCMT070204	○
	DCMT11T302	○
	DCMT11T304	○
	DCMT11T308	○
	DCMW070202	○
	DCMW070204	○
	DCMW070208	○
	DCMW11T302	○
	DCMW11T304	○
	DCMW11T308	○
	TCMT110204	○
	TCMT16T304	○
	TCMT16T308	○
	TCMW110208	○
	TCMW16T304	○
	TCMW16T308	○
	VBMT160404	○
	VBMT160408	○
	VBMW160404	○
	VBMW160408	○
	VCMT160404	○
	VCMT160408	○
	VCMW160404	○
	VCMW160408	○

CN**

Continuous cutting
Taglio continuo

Continuous and light interrupted cutting
Taglio continuo o leggermente interrotto

Interrupted cutting
Taglio fortemente interrotto



Workpiece Material *Materiali*			●	◔	✺			
	H	Hardened material *Materiale temprato*						
	K	Cast iron *Ghisa*				●		
	N	Non-ferrite material *Metalli non ferrosi*						

Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					CBN					
		L	I.C	S	d	r	XAF111	XAF121	XAF131	XAF211		
	**CNGA120404-2**	12.9	12.7	4.76	5.16	0.4	○	○	○	○		
	CNGA120408-2	12.9	12.7	4.76	5.16	0.8	○	○	○	○		
	CNGA120412-2	12.9	12.7	4.76	5.16	1.2	○	○	○	○		
	CNGA120408-2W	12.9	12.7	4.76	5.16	0.8	○	○				
	CNGA120412-2W	12.9	12.7	4.76	5.16	1.2	○	○				

Tool Holder · Cartuccia

DCLNR/L
Kr:95°



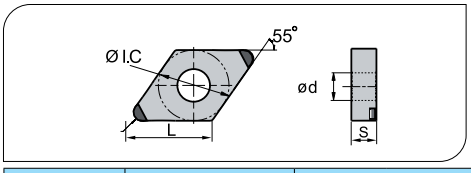
PCLNR/L
Kr:95°



PCLNR/L
Kr:95°



DN**



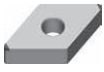
Continuous cutting
Taglio continuo

Continuous and light interrupted cutting
Taglio continuo o leggermente interrotto

Interrupted cutting
Taglio fortemente interrotto

Workpiece Material
Materiali

H	Hardened material *Materiale temprato*	●	●	●			
K	Cast iron *Ghisa*				●		
N	Non-ferrite material *Metalli non ferrosi*						

Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					CBN					
		L	I.C	S	d	r	XAF111	XAF121	XAF131	XAF211		
	**DNGA150604-2**	15.5	12.7	6.35	5.16	0.4	○	○	○	○		
	DNGA150608-2	15.5	12.7	6.35	5.16	0.8	○	○	○	○		
	DNGA150612-2	15.5	12.7	6.35	5.16	1.2	○	○	○	○		

Tool Holder · Cartuccia


DDJNR/L
Kr:93°

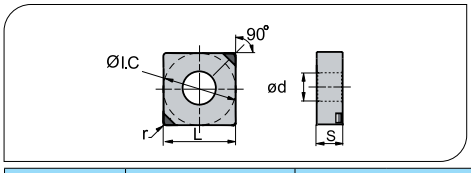

PDJNR/L
Kr:93°


PDNNR/L
Kr:63°


PDSNR/L
Kr:62°30'


PDUNR/L
Kr:93°

SN**



Continuous cutting
Taglio continuo

Continuous and light interrupted cutting
Taglio continuo o leggermente interrotto

Interrupted cutting
Taglio fortemente interrotto

Workpiece Material
Materiali

H	Hardened material *Materiale temprato*	●	◔	✱			
K	Cast iron *Ghisa*				●		
N	Non-ferrite material *Metalli non ferrosi*						

Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					CBN					
		L	I.C	S	d	r	XAF111	XAF121	XAF131	XAF211		
	**SNGA120408-2**	12.7	12.7	4.76	5.16	0.8	○	○	○	○		
	SNGA120412-2	12.7	12.7	4.76	5.16	1.2	○	○	○	○		

Tool Holder · Cartuccia

DSBNR/L
Kr:75°


PSBNR/L
Kr:75°

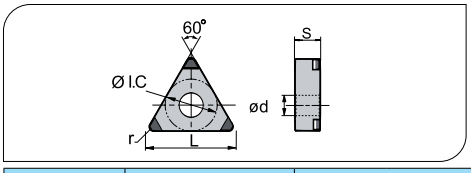

PSDNN
Kr:45°


PSKNR/L
Kr:75°


PSSNR/L
Kr:45°


PSKNR/L
Kr:75°


TN**



Continuous cutting
Taglio continuo

Continuous and light interrupted cutting
Taglio continuo o leggermente interrotto

Interrupted cutting
Taglio fortemente interrotto

Workpiece Material *Materiali*							
H	Hardened material *Materiale temprato*	●	◔	✺			
K	Cast iron *Ghisa*				●		
N	Non-ferrite material *Metalli non ferrosi*						

Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					CBN					
		L	I.C	S	d	r	XAF111	XAF121	XAF131	XAF211		
	**TNGA160404-3**	16.5	9.525	4.76	3.81	0.4	○	○				
	TNGA160408-3	16.5	9.525	4.76	3.81	0.8	○	○	○	○		
	TNGA160412-3	16.5	9.525	4.76	3.81	1.2	○	○	○	○		

Tool Holder · Cartuccia


DTGNR/L
Kr:91°

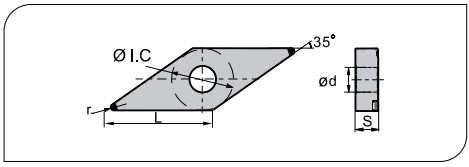

PTFNR/L
Kr:90°


PTTNR/L
Kr:60°


PTGNR/L
Kr:90°


PTFNR/L
Kr:90°

VN**



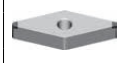
Continuous cutting
Taglio continuo

Continuous and light interrupted cutting
Taglio continuo o leggermente interrotto

Interrupted cutting
Taglio fortemente interrotto

Workpiece Material
Materiali

H	Hardened material *Materiale temprato*	●	◔	✱
K	Cast iron *Ghisa*			●
N	Non-ferrite material *Metalli non ferrosi*			

Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					CBN					
		L	I.C	S	d	r	XAF111	XAF121	XAF131	XAF211		
	**VNGA160404-2**	16.6	9.525	4.76	3.81	0.4	○	○				
	VNGA160408-2	16.6	9.525	4.76	3.81	0.8	○	○				

Tool Holder · Cartuccia

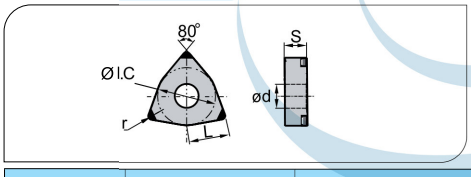

DVVNN
Kr:72°30'


DVJNR/L
Kr:93°


MVVNN
Kr:72°30'


MVJNR/L
Kr:93°

WN**



Continuous cutting
Taglio continuo

Continuous and light interrupted cutting
Taglio continuo o leggermente interrotto

Interrupted cutting
Taglio fortemente interrotto

Workpiece Material
Materiali

H	Hardened material *Materiale temprato*	●	◔	✱
K	Cast iron *Ghisa*			●
N	Non-ferrite material *Metalli non ferrosi*			

Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					CBN					
		L	I.C	S	d	r	XAF111	XAF121	XAF131	XAF211		
	**WNGA080408-3**	8.69	12.7	4.76	5.16	0.8		○				
	WNGA160404-3	8.69	12.7	4.76	5.16	04		○				
	WNGA160408-3	8.69	12.7	4.76	5.16	0.8						

Tool Holder · Cartuccia


DWLNR/L
Kr:95°

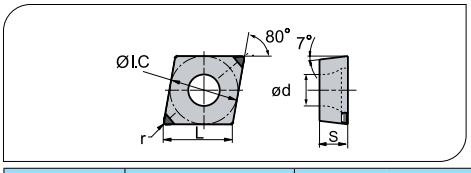

PWLNR/L
Kr:95°


PWLNR/L
Kr:95°

A

General Turning
Tornitura generale

CC**



Continuous cutting
Taglio continuo

Continuous and light interrupted cutting
Taglio continuo o leggermente interrotto

Interrupted cutting
Taglio fortemente interrotto

Workpiece Material *Materiali*							
H	Hardened material *Materiale temprato*	●	●	●			
K	Cast iron *Ghisa*				●		
N	Non-ferrite material *Metalli non ferrosi*						

Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					CBN					
		L	I.C	S	d	r	XAF111	XAF121	XAF131	XAF211		
	**CCGW060204-1**	6.4	6.35	2.38	2.8	0.4	○	○				
	CCGW060208-1	6.4	6.35	2.38	2.8	0.8	○	○				
	CCGW09T304-2	9.7	9.525	3.97	4.4	0.4	○	○	○	○		
	CCGW09T308-2	9.7	9.525	3.97	4.4	0.8	○	○	○	○		
	CCGW120404-2	12.9	12.7	4.76	5.5	0.4	○	○	○	○		
	CCGW120408-2	12.9	12.7	4.76	5.5	0.8	○	○	○	○		

Tool Holder · Cartuccia


SCACR/L
Kr:90°

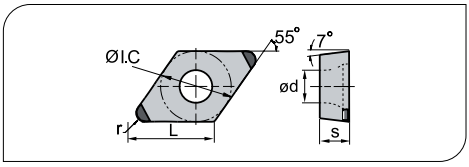

SCLCR/L
Kr:95°


SCLCR/L
Kr:95°


SCFCR
Kr:90°


SCLCR
Kr:95°

DC**



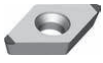
Continuous cutting
Taglio continuo

Continuous and light interrupted cutting
Taglio continuo o leggermente interrotto

Interrupted cutting
Taglio fortemente interrotto

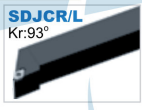
Workpiece Material
Materiali

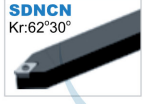
H	Hardened material *Materiale temprato*	●	◔	✳			
K	Cast iron *Ghisa*				●		
N	Non-ferrite material *Metalli non ferrosi*						

Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					CBN					
		L	I.C	S	d	r	XAF111	XAF121	XAF131	XAF211		
	**DCGW070204-1**	7.8	6.35	2.38	2.8	0.4	○	○				
	DCGW070208-1	7.8	6.35	2.38	2.8	0.8	○	○				
	DCGW11T304-2	11.6	9.525	3.97	4.4	0.4	○	○	○	○		
	DCGW11T308-2	11.6	9.525	3.97	4.4	0.8	○	○	○	○		

Tool Holder · Cartuccia

SDACR/L
Kr:90°


SDJCR/L
Kr:93°


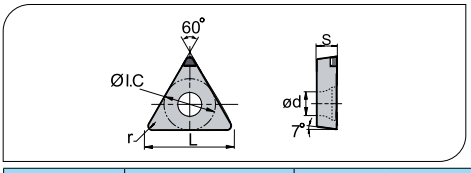
SDNCN
Kr:62°30°


SDQCR/L
Kr:107°30'


SDUCR/L
Kr:93°

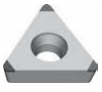

SDZCR/L
Kr:85°


TC**



- Continuous cutting — *Taglio continuo*
- Continuous and light interrupted cutting — *Taglio continuo o leggermente interrotto*
- Interrupted cutting — *Taglio fortemente interrotto*

Workpiece Material — Materiali		
H	Hardened material — *Materiale temprato*	● ◔ ✺
K	Cast iron — *Ghisa*	●
N	Non-ferrite material — *Metalli non ferrosi*	

Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					CBN					
		L	I.C	S	d	r	XAF111	XAF121	XAF131	XAF211		
	**TCGW110204-1**	9.6	5.56	2.38	2.5	0.4	○	○	○			
	TCGW110208-1	9.6	5.56	2.38	2.5	0.8	○	○	○			
	**TCGW16T304-3**	16.5	9.525	3.97	4.4	0.4	○	○	○	○		
	TCGW16T308-3	16.5	9.525	3.97	4.4	0.8	○	○	○	○		

Tool Holder · Cartuccia


STACR/L
Kr:90°


STFCR/L
Kr:91°


STGCR/L
Kr:91°


STTCR/L
Kr:60°

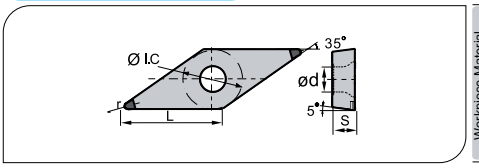

STFCR/L
Kr:90°

VB**

Continuous cutting
Taglio continuo

Continuous and light interrupted cutting
Taglio continuo o leggermente interrotto

Interrupted cutting
Taglio fortemente interrotto



Workpiece Material
Materiali

H	Hardened material *Materiale temprato*	● ◔ ✺
K	Cast iron *Ghisa*	●
N	Non-ferrite material *Metalli non ferrosi*	

Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					CBN				
		L	I.C	S	d	r	XAF111	XAF121	XAF131	XAF211	
	**VBGW160404-2**	16.6	9.525	4.76	4.4	0.4	○	○		○	
	VBGW160408-2	16.6	9.525	4.76	4.4	0.8	○	○		○	

Tool Holder · Cartuccia


SVJBR/L
Kr:93°


SVABR/L
Kr:90°


SVVBN
Kr:72°30'


SVQBR/L
Kr:107°30'

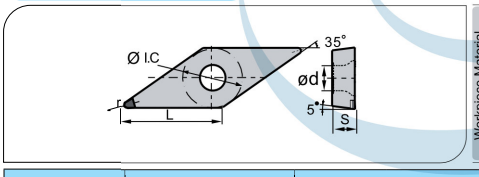

SVUBR/L
Kr:93°

VC**

Continuous cutting
Taglio continuo

Continuous and light interrupted cutting
Taglio continuo o leggermente interrotto

Interrupted cutting
Taglio fortemente interrotto



Workpiece Material
Materiali

H	Hardened material *Materiale temprato*	● ◔ ✺
K	Cast iron *Ghisa*	●
N	Non-ferrite material *Metalli non ferrosi*	

Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					CBN				
		L	I.C	S	d	r	XAF111	XAF121	XAF131	XAF211	
	**VCGW160404-2**	16.6	9.525	4.76	4.4	0.4	○	○		○	
	VCGW160408-2	16.6	9.525	4.76	4.4	0.8	○	○		○	

Tool Holder · Cartuccia

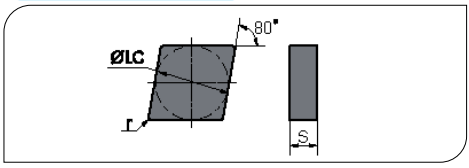

SVVCN
Kr:72°30'


SVJCR/L
Kr:93°


SVQCR/L
Kr:107°30'


SVUCR/L
Kr:93°

CN**



Continuous cutting
Taglio continuo

Continuous and light interrupted cutting
Taglio continuo o leggermente interrotto

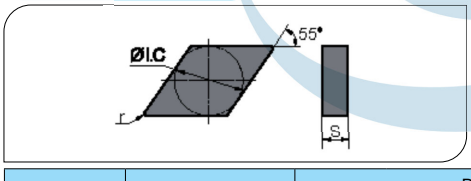
Interrupted cutting
Taglio fortemente interrotto

Workpiece Material
Materiali

H	Hardened material *Materiale temprato*	◔		
K	Cast iron *Ghisa*		◉	◉
N	Non-ferrite material *Metalli non ferrosi*			

Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					CBN		
		L	I.C	S	d	r	XWA121	XWA221	XWA231
	**CNGN090308**	9,7	9,525	3,18	-	0.8	○	○	○
	CNGN090312	9,7	9,525	3,18	-	1,2	○	○	○
	CNGN120404	12.9	12.7	4.76	-	0.4	○	○	○
	CNGN120408	12.9	12.7	4.76	-	0,8	○	●	○
	CNGN120412	12.9	12.7	4.76	-	1,2	○	●	○
	CNGN120416	12.9	12.7	4.76	-	1,6	○	●	○
	CNGN12T608	12.9	12.7	6.75	-	0.8	○	○	○
	CNGN120712	12.9	12.7	7.94	-	0.8	○	○	○

DN**



Continuous cutting
Taglio continuo

Continuous and light interrupted cutting
Taglio continuo o leggermente interrotto

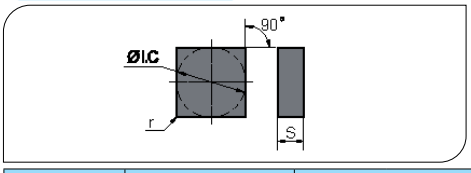
Interrupted cutting
Taglio fortemente interrotto

Workpiece Material
Materiali

H	Hardened material *Materiale temprato*	◔		
K	Cast iron *Ghisa*		◉	◉
N	Non-ferrite material *Metalli non ferrosi*			

Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					CBN		
		L	I.C	S	d	r	XWA121	XWA221	XWA231
	**DNGN110404**	15.5	9.525	4.76	-	0.4	○	○	○
	DNGN110408	15.5	9.525	4.76	-	0.8	○	○	○

SN**



Continuous cutting
Taglio continuo

Continuous and light interrupted cutting
Taglio continuo o leggermente interrotto

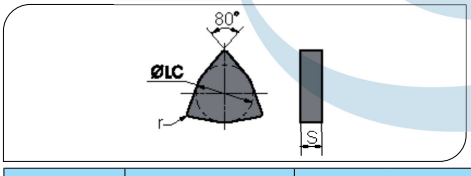
Interrupted cutting
Taglio fortemente interrotto

Workpiece Material
Materiali

H	Hardened material *Materiale temprato*	◔
K	Cast iron *Ghisa*	◕ ◕
N	Non-ferrite material *Metalli non ferrosi*	

Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					CBN		
		L	I.C	S	d	r	XWA121	XWA221	XWA231
	**SNGN090308**	9,525	9,525	3,18	-	0,8	○	○	○
	SNGN090312	9,525	9,525	3,18	-	1,2	○	○	○
	SNGN090316	9,525	9,525	3,18	-	1,6	○	○	○
	SNGN120404	12.7	12.7	4.76	-	0.4	○	○	○
	SNGN120408	12.7	12.7	4.76	-	0.8	○	●	○
	SNGN120412	12.7	12.7	4.76	-	1,2	○	●	○
	SNGN120416	12.7	12.7	4.76	-	1,6	○	●	○
	SNGN12T612	12.7	12.7	6.75	-	1.2	○	○	○
	SNGN150716	15.875	15.875	7.94	-	1.6	○	○	○
	SNGN150720	15.875	15.875	7.94	-	2.0	○	○	○

WN**



Continuous cutting
Taglio continuo

Continuous and light interrupted cutting
Taglio continuo o leggermente interrotto

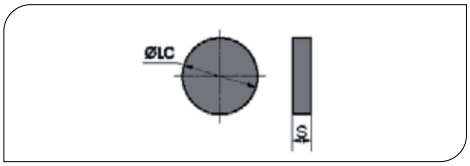
Interrupted cutting
Taglio fortemente interrotto

Workpiece Material
Materiali

H	Hardened material *Materiale temprato*	◔
K	Cast iron *Ghisa*	◕ ◕
N	Non-ferrite material *Metalli non ferrosi*	

Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					CBN		
		L	I.C	S	d	r	XWA121	XWA221	XWA231
	**WNGN060304**	6.5	9.525	3.18	-	0.4	○	○	○
	WNGN080408	8.69	12.7	4.76	-	0.8	○	○	○
	WNGN080412	8.69	12.7	4.76	-	1.2	○	○	○

RN**



Continuous cutting
Taglio continuo

Continuous and light interrupted cutting
Taglio continuo o leggermente interrotto

Interrupted cutting
Taglio fortemente interrotto

Workpiece Material
Materiali

H	Hardened material *Materiale temprato*	◔	
K	Cast iron *Ghisa*	◕	◕
N	Non-ferrite material *Metalli non ferrosi*		

XFS421

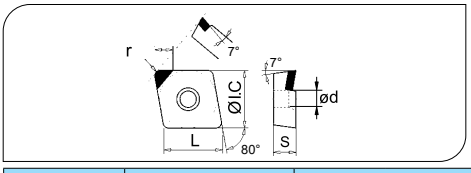
Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					CBN		
		L	I.C	S	d	r	XWA121	XWA221	XWA231
	**RNGN090300**	9.525	9.525	3.18	-	-	○	○	○
	RNGN120300	12.7	12.7	3.18	-	-	○	○	○
	RNGN120400	12.7	12.7	4.76	-	-	○	●	○
	RNGN120700	12.7	12.7	7.94	-	-	○	○	○
	RNGN150700	15.875	15.875	7.94	-	-	○	○	○

CC**

Continuous cutting
Taglio continuo

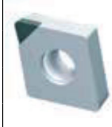
Continuous and light interrupted cutting
Taglio continuo o leggermente interrotto

Interrupted cutting
Taglio fortemente interrotto



Workpiece Material
Materiali

H	Hardened material *Materiale temprato*	
K	Cast iron *Ghisa*	
N	Non-ferrite material *Metalli non ferrosi*	●

Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					PCD
		L	I.C	S	d	r	XFS421
	**CCMT060202**	6.4	6.35	2.38	2.8	0.2	○
	CCMT060204	6.4	6.35	2.38	2.8	0.4	○
	CCMT09T304	9.7	9.525	3.97	4.4	0.4	○
	CCMT09T308	9.7	9.525	3.97	4.4	0.8	○
	CCMT120404	12.9	12.7	4.76	5.56	0.4	○
	CCMT120408	12.9	12.7	4.76	5.56	0.8	○

Tool Holder · Cartuccia


SCACR/L
Kr:90°

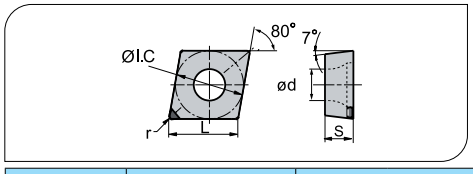

SCLCR/L
Kr:95°


SCLCR/L
Kr:95°


SCFCR
Kr:90°


SCLCR
Kr:95°

CC**



Continuous cutting
Taglio continuo

Continuous and light interrupted cutting
Taglio continuo o leggermente interrotto

Interrupted cutting
Taglio fortemente interrotto

Workpiece Material
Materiali

H	Hardened material *Materiale temprato*	
K	Cast iron *Ghisa*	
N	Non-ferrite material *Metalli non ferrosi*	●

Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					PCD
		L	I.C	S	d	r	XFS421
	**CCMW060202**	6.4	6.35	2.38	2.8	0.2	○
	CCMW060204	6.4	6.35	2.38	2.8	0.4	○
	CCMW09T304	9.7	9.525	3.97	4.4	0.4	○
	CCMW09T308	9.7	9.525	3.97	4.4	0.8	○
	CCMW120404	12.9	12.7	4.76	5.56	0.4	○
	CCMW120408	12.9	12.7	4.76	5.56	0.8	○

Tool Holder · Cartuccia


SCACR/L
Kr:90°

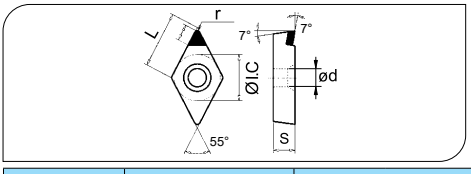

SCLCR/L
Kr:95°


SCLCR/L
Kr:95°


SCFCR
Kr:90°


SCLCR
Kr:95°

DC**



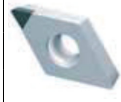
Continuous cutting
Taglio continuo

Continuous and light interrupted cutting
Taglio continuo o leggermente interrotto

Interrupted cutting
Taglio fortemente interrotto

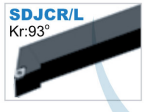
Workpiece Material
Materiali

H	Hardened material *Materiale temprato*
K	Cast iron *Ghisa*
N	Non-ferrite material *Metalli non ferrosi*

Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					PCD
		L	I.C	S	d	r	XFS421
	**DCMT070202**	7.8	6.35	2.38	2.8	0.2	○
	DCMT070204	7.8	6.35	2.38	2.8	0.4	○
	DCMT11T302	11.6	9.525	3.97	4.4	0.2	○
	DCMT11T304	11.6	9.525	3.97	4.4	0.4	○
	DCMT11T308	11.6	9.525	3.97	4.4	0.8	○

Tool Holder · Cartuccia


SDACR/L
Kr:90°


SDJCR/L
Kr:93°

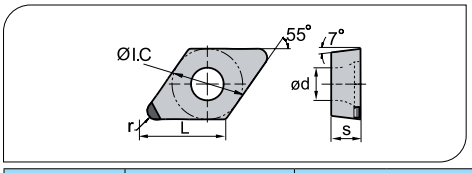

SDNCN
Kr:62°30'


SDQCR/L
Kr:107°30'


SDUCR/L
Kr:93°


SDZCR/L
Kr:85°

DC**

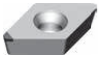


Continuous cutting
Taglio continuo

Continuous and light interrupted cutting
Taglio continuo o leggermente interrotto

Interrupted cutting
Taglio fortemente interrotto

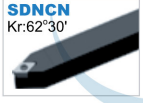
Workpiece Material *Materiali*							
H	Hardened material *Materiale temprato*						
K	Cast iron *Ghisa*						
N	Non-ferrite material *Metalli non ferrosi*	●					

Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					PCD
		L	I.C	S	d	r	XFS421
	**DCMW070202**	7.8	6.35	2.38	2.8	0.2	○
	DCMW070204	7.8	6.35	2.38	2.8	0.4	○
	DCMW070208	7.8	6.35	2.38	2.8	0.8	○
	DCMW11T302	11.6	9.525	3.97	4.4	0.2	○
	DCMW11T304	11.6	9.525	3.97	4.4	0.4	○
	DCMW11T308	11.6	9.525	3.97	4.4	0.8	○

Tool Holder · Cartuccia

SDACR/L
Kr:90°


SDJCR/L
Kr:93°

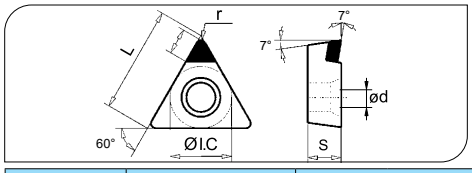

SDNCN
Kr:62°30'


SDQCR/L
Kr:107°30'


SDUCR/L
Kr:93°


SDZCR/L
Kr:85°


TC**



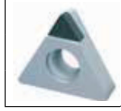
Continuous cutting
Taglio continuo

Continuous and light interrupted cutting
Taglio continuo o leggermente interrotto

Interrupted cutting
Taglio fortemente interrotto

Workpiece Material
Materiali

H	Hardened material *Materiale temprato*	
K	Cast iron *Ghisa*	
N	Non-ferrite material *Metalli non ferrosi*	●

Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					PCD
		L	I.C	S	d	r	XFS421
	**TCMT110204**	11	6.35	2.38	2.8	0.4	○
	TCMT16T304	16.5	9.525	3.97	4.4	0.4	○
	TCMT16T308	16.5	9.525	3.97	4.4	0.8	○

Tool Holder · Cartuccia

STACR/L
Kr:90°


STFCR/L
Kr:91°


STGCR/L
Kr:91°


STTCR/L
Kr:60°

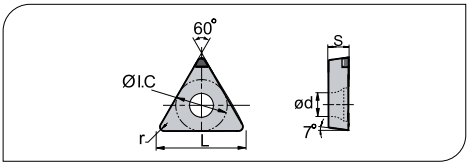

STFCR/L
Kr:90°


TC**

Continuous cutting
Taglio continuo

Continuous and light interrupted cutting
Taglio continuo o leggermente interrotto

Interrupted cutting
Taglio fortemente interrotto



Workpiece Material *Materiali*								
H	Hardened material *Materiale temprato*							
K	Cast iron *Ghisa*							
N	Non-ferrite material *Metalli non ferrosi*	●						

Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					PCD					
		L	I.C	S	d	r	XFS421					
	**TCMW110208**	11	6.35	2.38	2.8	0.8	○					
	TCMW16T304	16.5	9.525	3.97	4.4	0.4	○					
	TCMW16T308	16.5	9.525	3.97	4.4	0.8	○					

Tool Holder · Cartuccia


STACR/L
Kr:90°

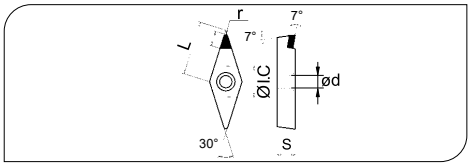

STFCR/L
Kr:91°


STGCR/L
Kr:91°


STTCR/L
Kr:60°


STFCR/L
Kr:90°

VB**



Continuous cutting
Taglio continuo

Continuous and light interrupted cutting
Taglio continuo o leggermente interrotto

Interrupted cutting
Taglio fortemente interrotto

Workpiece Material
Materiali

H	Hardened material *Materiale temprato*	
K	Cast iron *Ghisa*	
N	Non-ferrite material *Metalli non ferrosi*	●

Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					PCD
		L	I.C	S	d	r	XFS421
	**VBMT160404**	16.6	9.525	4.76	4.4	0.4	○
	VBMT160408	16.6	9.525	4.76	4.4	0.8	○

Tool Holder · Cartuccia


SVJBR/L
Kr:93°


SVABR/L
Kr:90°

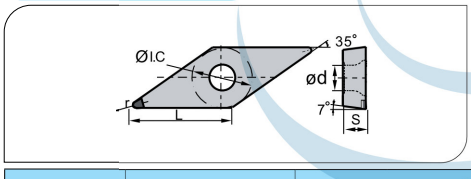

SVVBN
Kr:72°30'


SVQBR/L
Kr:107°30'


SVUBR/L
Kr:93°

Pag. A?? A?? A?? A?? A??

VB**



Continuous cutting
Taglio continuo

Continuous and light interrupted cutting
Taglio continuo o leggermente interrotto

Interrupted cutting
Taglio fortemente interrotto

Workpiece Material
Materiali

H	Hardened material *Materiale temprato*	
K	Cast iron *Ghisa*	
N	Non-ferrite material *Metalli non ferrosi*	●

Insert shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					PCD
		L	I.C	S	d	r	XFS421
	**VBMW160404**	16.6	9.525	4.76	4.4	0.4	○
	VBMW160408	16.6	9.525	4.76	4.4	0.8	○

Tool Holder · Cartuccia


SVJBR/L
Kr:93°


SVABR/L
Kr:90°


SVVBN
Kr:72°30'


SVQBR/L
Kr:107°30'


SVUBR/L
Kr:93°

A

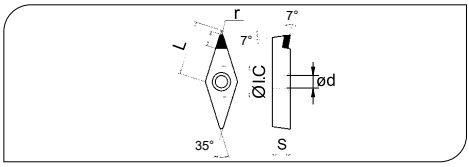
General Turning
Tornitura generale

VC**

Continuous cutting
Taglio continuo

Continuous and light interrupted cutting
Taglio continuo o leggermente interrotto

Interrupted cutting
Taglio fortemente interrotto



Workpiece Material
Materiali

H	Hardened material *Materiale temprato*	
K	Cast iron *Ghisa*	
N	Non-ferrite material *Metalli non ferrosi*	○

Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					PCD
		L	I.C	S	d	r	XFS421
	**VCMT160404**	16.6	9.525	4.76	4.4	0.4	○
	VCMT160408	16.6	9.525	4.76	4.4	0.8	○

Tool Holder · Cartuccia


SVJBR/L
Kr:93°


SVABR/L
Kr:90°


SVVBN
Kr:72°30'


SVQBR/L
Kr:107°30'

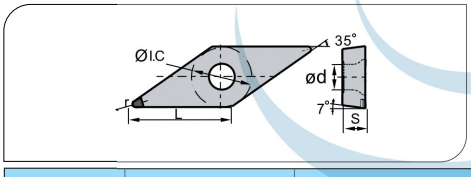

SVUBR/L
Kr:93°

VC**

Continuous cutting
Taglio continuo

Continuous and light interrupted cutting
Taglio continuo o leggermente interrotto

Interrupted cutting
Taglio fortemente interrotto



Workpiece Material
Materiali

H	Hardened material *Materiale temprato*	
K	Cast iron *Ghisa*	
N	Non-ferrite material *Metalli non ferrosi*	○

Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					PCD
		L	I.C	S	d	r	XFS421
	**VCMW160404**	16.6	9.525	4.76	4.4	0.4	○
	VCMW160408	16.6	9.525	4.76	4.4	0.8	○

Tool Holder · Cartuccia


SVJBR/L
Kr:93°


SVABR/L
Kr:90°


SVVBN
Kr:72°30'


SVQBR/L
Kr:107°30'


SVUBR/L
Kr:93°

Troubleshooting - PCBN Cutting Materials
Risoluzione dei problemi - Materiale da taglio PCBN

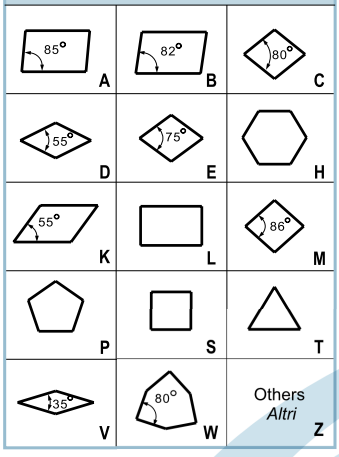
For investigation please send us used inserts. If breakage is problem please use inserts only 80-90% of expected tool life because broken inserts almost have no information.

Per un'analisi dettagliata, vi preghiamo di inviarci gli inserti usati. Se il problema è la rottura, si prega di utilizzare inserti solo per l'80-90% della durata dell'utensile prevista, poiché gli inserti rotti non contengono più alcuna informazione.

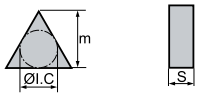
Wear phenomenon	Solution	
	Geometry	Cutting condition
Flank wear	Sharp cutting edge to reduce cutting force - smaller negative lend - change to positive inserts	Reduce cutting speed - increase feed rate to minimise contact time
Notch wear	Bigger nose radius	Use method of altering feed rate
Crater wear/ Breakage due to crater wear	Crater wear · due to crater wear	Reduce cutting spped - increase feed rate to minimise contact time and increase distance between cutting edge and crater
Chipping due to rough condition or vibration	Bigger negative lend; angle and ·or honing	Increase feed rate to reduce number of hits
Flaking	Sharp cutting edge to reduce cutting force - smaller negative lend - change to positive inserts	Increase feed rate to reduce cutting time
Thermal crack	Sharp cutting edge to reduce cutting force - smaller negative lend - change to positive inserts	Reduce cutting speed, feed rate and depth of cut. Use dry machining.
Chipping	Bigger negative lend	Increase cutting speed to reduce cutting force

Fenomeno di usura	Contromisura	
	Geometria	Condizioni di taglio
Usura sul fianco	Tagliente a spigolo vivo per una minore forza di taglio - fase negativa più piccola - utilizzare inserti positivi	diminuire la velocità di taglio - aumentare la velocità di avanzamento per ridurre la durata del taglio
Intagliatura	Raggio maggiore	Utilizzare il "metodo della velocità di avanzamento variabile"
Craterizzazione/ Rottura dovuta a craterizzazione		- diminuire la velocità di taglio - aumentare la velocità di avanzamento per ridurre la durata del contatto ed aumentare la distanza tra tagliente e cratere
Scheggiature dovute a impatti o vibrazioni	Fase negativa maggiore Angolo e/o onatura	- aumentare la velocità di avanzamento per diminuire il numero degli impatti
Sfaldamento	Tagliente più affilato per una forza di taglio minore - fase negativa più piccola - utilizzare inserti positivi	- aumentare la velocità di avanzamento per ridurre la durata del taglio
Incrinatura · Rottura	Tagliente più affilato per una forza di taglio minore - fase negativa più piccola - utilizzare inserti positivi	Diminuire velocità di taglio, velocità di avanzamento e profondità di taglio Taglio a secco
Scheggiature	Fase negativa maggiore	Aumentare la velocità di taglio per ridurre la forza di taglio

Insert Shape
Forma inserto



Tolerance
Grado di tolleranza



Code	Tolerance *Grado di tolleranza*	Tolerence *Grado di tolleranza* ØI.C	Thickness S *Spessore*	Code	Tolerence *Grado di tolleranza*	Tolerence *Grado di tolleranza* ØI.C	Thickness S *Spessore*
A	±0.005	±0.025	±0.025	J	±0.005	±0.05-±0.13	±0.025
F	±0.005	±0.013	±0.025	K	±0.013	±0.05-±0.13	±0.025
C	±0.013	±0.025	±0.025	L	±0.025	±0.05-±0.13	±0.025
H	±0.013	±0.013	±0.025	M	±0.08-±0.18	±0.05-±0.13	±0.13
E	±0.025	±0.025	±0.025	N	±0.08-±0.18	±0.05-±0.13	±0.025
G	±0.025	±0.025	±0.13	U	±0.13-±0.38	±0.08-±0.25	±0.13

T N G A

Clearance angle of main cutting edge
Angolo di spoglia del fianco

code	Angle *Angolo*	code	Angle *Angolo*
A	3°	B	5°
C	7°	D	15°
E	20°	F	25°
G	30°	N	0°
P	11°	O	Others *Altri*

Insert type
Tip. inserto

Code	Hole *Foro*	Insert Section *WPGT Tipo*
N	No	
B	Yes	> 65°
C	Yes	> 65°
A	Yes	
W	Yes	≤65°
Q	Yes	≤65°
X	----	Special *Speciale*

Cutting edge length
Lunghezza tagliente (mm)

Diameter of incircle *Inscritto Cerchio* (mm)	insert shape *Forma dell'inserto* C	D	S	T	V	W
3.97				06		
5.0						
5.56				09		
6.0						
6.35	06	07		11	11	
8.0						
9.525	09	11	09	16	16	06
10.0						
12.0						
12.7	12	15	12	22	22	08
15.875	16		15	27		
16.0		19				
19.05	19		19	33		
20.0						
25.0	25	25				
25.4			25			
31.75						
32						

Insert thickness
Spessore (mm)



code	Insert thickness *Spessore(mm)*	code	Insert thickness *Spessore(mm)*
02	2.38	**06**	6.35
T2	2.58	**T6**	6.75
03	3.18	**07**	7.94
T3	3.97	**09**	9.52
04	4.76	**T9**	9.72
T4	4.96	**11**	11.11
05	5.56	**12**	12.70
T5	5.95		

Nose radius
Raggio di punta

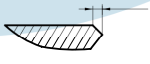
code6Radius (mm)	
00	no Radius
02	0.2
04	0.4
08	0.8
12	1.2
16	1.6
20	2.0
24	2.4
32	3.2
X	Others *Altri*
Insert diameter *Diametro inserto* Mo (metric)	Runde insert *Inserti tondi*

12 04 08 T 020 20

Profile of cutting edges
Versione del tagliente

code	Cutting Edge *Tagliente*	Shape Form *Forma dell'inserto*
E	Honing *Arrotondato*	
T	Chamfering *Smusso*	
S	Chamfering *Smusso* + Honing *Arrotondato*	
F	Sharp edges *Spigolo vivo*	

Width of chamfer
Larghezza smusso

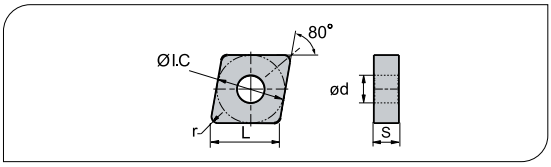


010	0.10	**040**	0.40
015	0.15	**045**	0.45
020	0.20	**050**	0.50
025	0.25	**100**	1.00
030	0.30	**200**	2.00
035	0.35		

Angle of chamfer
Angolo dello smusso



05	5°
10	10°
15	15°
20	20°
25	25°
30	30°



Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli

Workpiece Material *Materiali*				
P	Steel *legato*	●		
K	Cast iron *Ghisa*	●	● ✳	✳

Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Grade Grado		
		L	I.C	S	d	r	FB1000	FC1000	FC2000
	**CNGA120404T02020**	12.9	12.7	4.76	5.16	0.4		●	
	CNGA120408T02020	12.9	12.7	4.76	5.16	0.8	○	●	
	CNGA120412T02020	12.9	12.7	4.76	5.16	1.2		●	
	CNGA120412T03020	12.9	12.7	4.76	5.16	1.2		○	
	CNGA160608T02020	16.1	15.875	6.35	6.35	0.8		○	
	CNGA160612T02020	16.1	15.875	6.35	6.35	1.2		●	
	CNGA160616T02020	16.1	15.875	6.35	6.35	1.6		●	

Tool Holder · Cartuccia


DCLNR/L
Kr:95°


PCBNR/L
Kr:75°

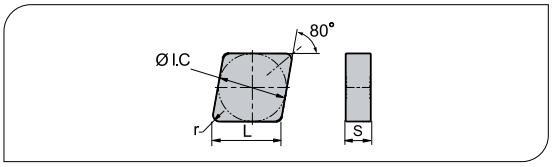

PCLNR/L
Kr:95°


PCLNR/L
Kr:95°

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli



Workpiece Material *Materiali*				
P	Steel *legato*	●		
K	Cast iron *Ghisa*	●	● ✱	✱

Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Grade Grado		
		L	I.C	S	d	r	FB1000	FC1000	FC2000
	**CNGN120404T02020**	12.9	12.7	4.76	-	0.4	○	○	○
	CNGN120408T02020	12.9	12.7	4.76	-	0.8	●	●	●
	CNGN120412T02020	12.9	12.7	4.76	-	1.2	●	○	●
	CNGN120708T02020	12.9	12.7	7.94	-	0.8	○	○	●
	CNGN120712T02020	12.9	12.7	7.94	-	1.2	●	●	○
	CNGN120716T02020	12.9	12.7	7.94	-	1.6	○	●	○
	CNGN160408T02020	16.1	15.875	4.76	-	0.8	○		
	CNGN160412T02020	16.1	15.875	4.76	-	1.2	○	○	○
	CNGN160416T02020	16.1	15.875	4.76	-	1.6	○	○	○
	CNGN160612T02020	16.1	15.875	6.35	-	1.2	○	○	
	CNGN160616T02020	16.1	15.875	6.35	-	1.6	○	○	○

Tool Holder · Cartuccia



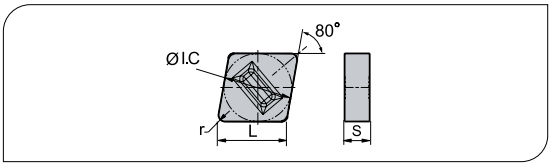
A

General Turning
Tornitura generale

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli



Workpiece Material *Materiali*				
P	Steel *legato*	●		
K	Cast iron *Ghisa*	●	● ✺	✺

Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Grade Grado		
		L	I.C	S	d	r	FB1000	FC1000	FC2000
	**CNGX120712T02020**	12.9	12.7	7.94	-	1.2		●	
	CNGX120716T02020	12.9	12.7	7.94	-	1.6		●	

Tool Holder · Cartuccia

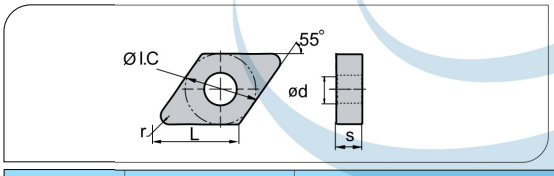
JCLNR/L
Kr:95°



Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli



Workpiece Material *Materiali*				
P	Steel *legato*	●		
K	Cast iron *Ghisa*	●	● ✺	✺

Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Grade Grado		
		L	I.C	S	d	r	FB1000	FC1000	FC2000
	**DNGA150604T02020**	15.5	12.7	6.35	5.16	0.4		●	
	DNGA150608T02020	15.5	12.7	6.35	5.16	0.8		●	
	DNGA150612T02020	15.5	12.7	6.35	5.16	1.2		○	
	DNGA150616T02020	15.5	12.7	6.35	5.16	1.6		○	

Tool Holder · Cartuccia

DDJNR/L
Kr:93°



PDJNR/L
Kr:93°



PDNNR/L
Kr:63°



PDSNR/L
Kr:62°30'



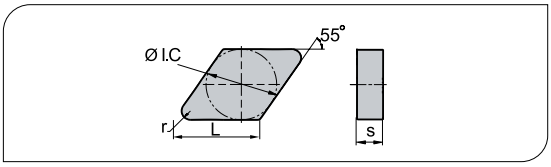
PDUNR/L
Kr:93°



Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli



Workpiece Material *Materiali*				
P	Steel *legato*	●		
K	Cast iron *Ghisa*	●	● ✺	✺

Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Grade Grado		
		L	I.C	S	d	r	FB1000	FC1000	FC2000
	**DNGN150408T02020**	15.5	12.7	4.76	-	0.8	○		
	DNGN150412T02020	15.5	12.7	4.76	-	1.2	○		
	DNGN150704T02020	15.5	12.7	7.94	-	0.4	○	○	○
	DNGN150708T02020	15.5	12.7	7.94	-	0.8	●	○	○
	DNGN150712T02020	15.5	12.7	7.94	-	1.2	○	○	○
	DNGN150716T02020	15.5	12.7	7.94	-	1.6	○		

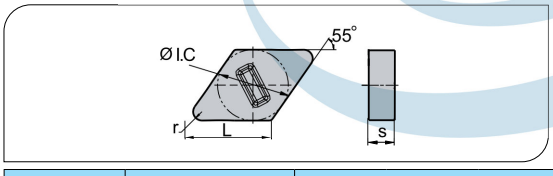
Tool Holder · Cartuccia



Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli



Workpiece Material *Materiali*				
P	Steel *legato*	●		
K	Cast iron *Ghisa*	●	● ✺	✺

Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Grade Grado		
		L	I.C	S	d	r	FB1000	FC1000	FC2000
	**DNGX150712T02020**	15.5	12.7	7.94	-	1.2		○	
	DNGX150716T02020	15.5	12.7	7.94	-	1.6		●	

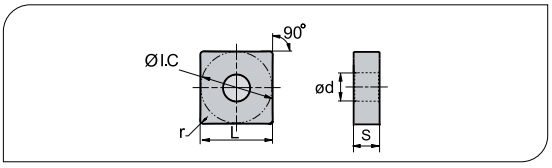
Tool Holder · Cartuccia



Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli



Workpiece Material *Materiali*				
P	Steel *legato*	●		
K	Cast iron *Ghisa*	●	● ✺	✺

Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Grade Grado		
		L	I.C	S	d	r	FB1000	FC1000	FC2000
	**SNGA120404T02020**	12.7	12.7	4.76	5.16	0.4		○	
	SNGA120408T02020	12.7	12.7	4.76	5.16	0.8		●	
	SNGA120412T02020	12.7	12.7	4.76	5.16	1.2		●	
	SNGA120412T03020	12.7	12.7	4.76	5.16	1.2		○	
	SNGA120416T02020	12.7	12.7	4.76	5.16	1.6		○	
	SNGA120416T03020	12.7	12.7	4.76	5.16	1.6		○	

Tool Holder · Cartuccia


DSBNR/L
Kr:75°


PSBNR/L
Kr:75°


PSDNN
Kr:45°


PSKNR/L
Kr:75°

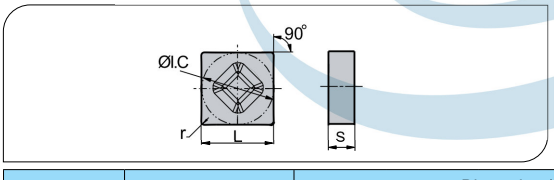

PSSNR/L
Kr:45°


PSKNR/L
Kr:75°

Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli

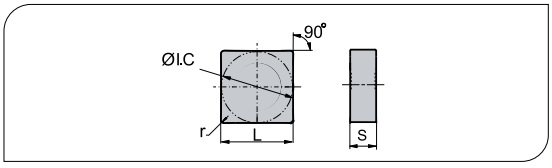


Workpiece Material *Materiali*				
P	Steel *legato*	●		
K	Cast iron *Ghisa*	●	● ✺	✺

Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Grade Grado		
		L	I.C	S	d	r	FB1000	FC1000	FC2000
	**SNGX120708T02020**	12.7	12.7	7.94	-	0.8		○	
	SNGX120712T02020	12.7	12.7	7.94	-	1.2		○	
	SNGX120716T02020	12.7	12.7	7.94	-	1.6		●	

Tool Holder · Cartuccia


JSDNN
Kr:45°



Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli

Workpiece Material / Materiali				
P	Steel *legato*	●		
K	Cast iron *Ghisa*	●	● ✱	✱

Insert Shape / Forma inserto	Type / Tipo	Dimension (mm) / Dimensioni					Grade / Grado		
		L	I.C	S	d	r	FB1000	FC1000	FC2000
	**SNGN090308T01020**	9.525	9.525	3.18	-	0.8	○		
	SNGN090312T01020	9.525	9.525	3.18	-	1.2	○		
	SNGN120404T02020	12.7	12.7	4.76	-	0.4	○		
	SNGN120408T02020	12.7	12.7	4.76	-	0.8	●	●	○
	SNGN120412T02020	12.7	12.7	4.76	-	1.2	●	●	●
	SNGN120412T03020	12.7	12.7	4.76	-	1.2		○	
	SNGN120416T02020	12.7	12.7	4.76	-	1.6	○	○	○
	SNGN120704T02020	12.7	12.7	7.94	-	0.4	●		
	SNGN120708T02020	12.7	12.7	7.94	-	0.8	○	○	●
	SNGN120712T02020	12.7	12.7	7.94	-	1.2	●	●	○
	SNGN120716T02020	12.7	12.7	7.94	-	1.6	●		●
	SNGN150708T02020	15.875	15.875	7.94	-	0.8	○		
	SNGN150712T02020	15.875	15.875	7.94	-	1.2	●	○	○
	SNGN150716T02020	15.875	15.875	7.94	-	1.6	●	○	○
	SNGN190708T03020	19.05	19.05	7.94	-	0.8	○		
	SNGN190712T03020	19.05	19.05	7.94	-	1.2	○		
	SNGN190716T03020	19.05	19.05	7.94	-	1.6	○		
	SNGN190724T03020	19.05	19.05	7.94	-	2.4	○		
	SNGN191024T04020	19.05	19.05	10.05	-	2.4	○		
	SNGN251024T10015	25.4	25.4	10.05	-	2.4	○		

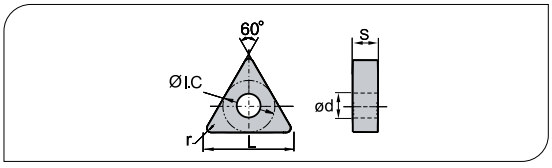
Tool Holder · Cartuccia



Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli



Workpiece Material
Materiali

P	Steel *legato*	●		
K	Cast iron *Ghisa*	●	● ✳	✳

Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Grade Grado		
		L	I.C	S	d	r	FB1000	FC1000	FC2000
	**TNGA160404T01020**	16.50	9.525	4.76	3.86	0.4		●	
	TNGA160408T02020	16.50	9.525	4.76	3.86	0.8		●	
	TNGA160412T02020	16.50	9.525	4.76	3.86	1.2		●	
	TNGA220408T02020	22.00	12.7	4.76	5.16	0.8		○	
	TNGA220412T02020	22.00	12.7	4.76	5.16	1.2		○	
	TNGA220416T02020	22.00	12.7	4.76	5.16	1.6		○	
	TNGA220416T03020	22.00	12.7	4.76	5.16	1.6		○	

Tool Holder · Cartuccia

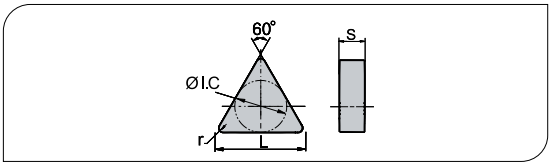

DTGNR/L
Kr:91°


PTFNR/L
Kr:90°


PTTNR/L
Kr:60°


PTGNR/L
Kr:90°


PTFNR/L
Kr:90°



Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli

Workpiece Material *Materiali*				
P	Steel *legato*	●		
K	Cast iron *Ghisa*	●	● ✱	✱

Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Grade Grado		
		L	I.C	S	d	r	FB1000	FC1000	FC2000
	**TNGN160404T02020**	16.50	9.525	4.76	-	0.4	●	○	○
	TNGN160408T02020	16.50	9.525	4.76	-	0.8	●	○	○
	TNGN160412T02020	16.50	9.525	4.76	-	1.2	●	○	●
	TNGN160708T02020	16.50	9.525	7.94	-	0.8	●	●	●
	TNGN160712T02020	16.50	9.525	7.94	-	1.2	○	○	○
	TNGN160716T02020	16.50	9.525	7.94	-	1.6	○		
	TNGN220408T02020	22.00	12.7	4.76	-	0.8	○	○	○
	TNGN220412T02020	22.00	12.7	4.76	-	1.2	○	○	○
	TNGN220416T02020	22.00	12.7	4.76	-	1.6	○	○	○
	TNGN220712T02020	22.00	12.7	7.94	-	1.2	○		
	TNGN220716T02020	22.00	12.7	7.94	-	1.6	○		

Tool Holder · Cartuccia

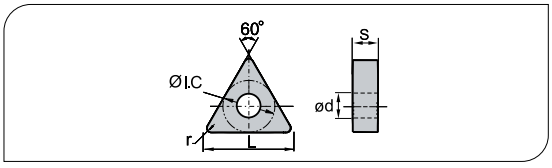
CTJNR/L
Kr:93°



Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli



Workpiece Material *Materiali*				
P	Steel *legato*	●		
K	Cast iron *Ghisa*	●	● ✱	✱

Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Grade Grado		
		L	I.C	S	d	r	FB1000	FC1000	FC2000
	**TNGA160404T01020**	16.50	9.525	4.76	3.86	0.4		●	
	TNGA160408T02020	16.50	9.525	4.76	3.86	0.8		●	
	TNGA160412T02020	16.50	9.525	4.76	3.86	1.2		●	
	TNGA220408T02020	22.00	12.7	4.76	5.16	0.8		○	
	TNGA220412T02020	22.00	12.7	4.76	5.16	1.2		○	
	TNGA220416T02020	22.00	12.7	4.76	5.16	1.6		○	
	TNGA220416T03020	22.00	12.7	4.76	5.16	1.6		○	

Tool Holder · Cartuccia

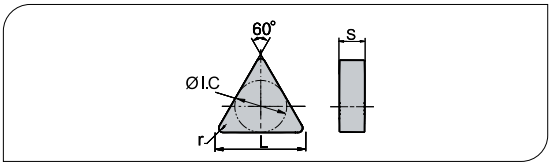

DTGNR/L
Kr:91°


PTFNR/L
Kr:90°


PTTNR/L
Kr:60°


PTGNR/L
Kr:90°


PTFNR/L
Kr:90°



Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli

Workpiece Material *Materiali*				
P	Steel *legato*	●		
K	Cast iron *Ghisa*	●	● ✱	✱

Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Grade Grado		
		L	I.C	S	d	r	FB1000	FC1000	FC2000
	**TNGN160404T02020**	16.50	9.525	4.76	-	0.4	●	○	○
	TNGN160408T02020	16.50	9.525	4.76	-	0.8	●	○	○
	TNGN160412T02020	16.50	9.525	4.76	-	1.2	●	○	●
	TNGN160708T02020	16.50	9.525	7.94	-	0.8	●	●	●
	TNGN160712T02020	16.50	9.525	7.94	-	1.2	○	○	○
	TNGN160716T02020	16.50	9.525	7.94	-	1.6	○		
	TNGN220408T02020	22.00	12.7	4.76	-	0.8	○	○	○
	TNGN220412T02020	22.00	12.7	4.76	-	1.2	○	○	○
	TNGN220416T02020	22.00	12.7	4.76	-	1.6	○	○	○
	TNGN220712T02020	22.00	12.7	7.94	-	1.2	○		
	TNGN220716T02020	22.00	12.7	7.94	-	1.6	○		

Tool Holder · Cartuccia

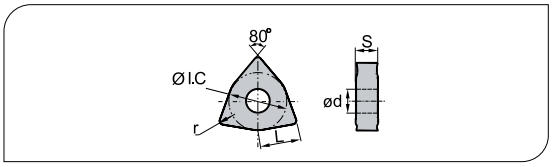
CTJNR/L
Kr:93°



Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli



Workpiece Material *Materiali*				
P	Steel *legato*	●		
K	Cast iron *Ghisa*	●	● ✺	✺

Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Grade Grado		
		L	I.C	S	d	r	FB1000	FC1000	FC2000
	**WNGA080408T02020**	8.69	12.7	4.76	5.16	0.8		●	
	WNGA080412T02020	8.69	12.7	4.76	5.16	1.2		●	
	WNGA080416T02020	8.69	12.7	4.76	5.16	1.6		●	

Tool Holder · Cartuccia

DWLNR/L
Kr:95°



PWLNR/L
Kr:95°



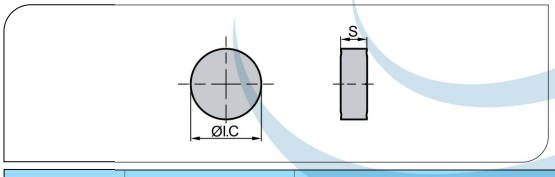
PWLNR/L
Kr:95°



Ideal Machining Condition
Buone condizioni di lavorazione

Normal Machining Condition
Condizioni di lavorazione normali

Unfavorable Machining Condition
Condizioni di lavorazione sfavorevoli



Workpiece Material *Materiali*				
P	Steel *legato*	●		
K	Cast iron *Ghisa*	●	● ✺	✺

Insert Shape Forma inserto	Type Tipo	Dimension (mm) Dimensioni					Grade Grado		
		L	I.C	S	d	r	FB1000	FC1000	FC2000
	**RNGN090400T02020**	---	9.53	4.76	---	---	○		
	RNGN120400T02020	---	12.7	4.76	---	---	○	○	●
	RNGN120700T02020	---	12.7	7.94	---	---	●	○	●
	RNGN150700T02020	---	15.875	7.94	---	---	●	○	
	RNGN190700T03020	---	19.05	7.94	---	---	○	○	●
	RNGN251000T05020	---	25.40	10.05	---	---	○	○	

Tool Holder · Cartuccia

CRDNN



PORTA UTENSILE
CLAMPING

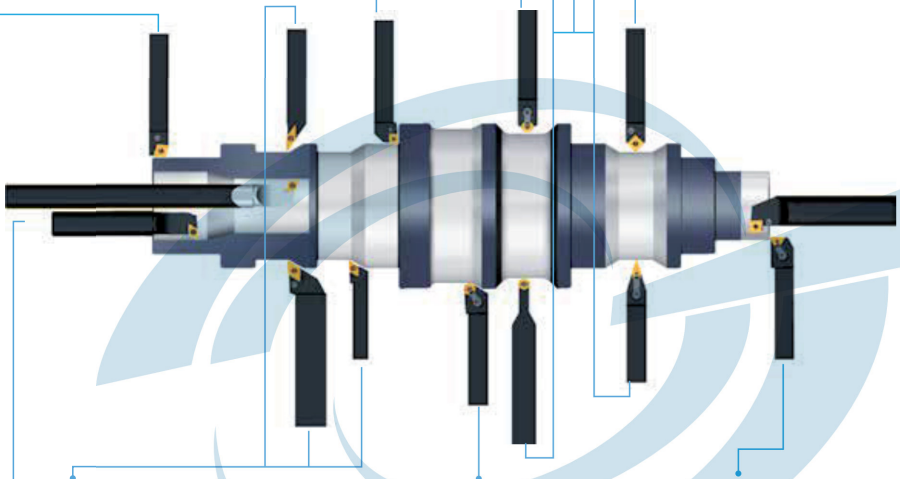


External and internal turning · Lavorazione interna ed esterna

External Turning ·Lavorazione esterna	Type · Tipo					
	PCBNR/ L**	PSBNR/ L**	PSSN *	PTGNR/ L**	PTTNR/ L**	MCBNR/ L**
	MSBNR/ L**	MSRNR/ L**	MTGNR/ L**	MTJNR/ L**	SCACR/ L**	SSBCR/ L**
	SSSCR/ L**	STACR/ L**	STGCR/ L**	STTCR/ L**	SWACR/ L**	DTJNR/L**
	DSBNR/L**					

External facing & turning · Lavorazione esterna e spianatura	Type · Tipo	
	PCLNR/ L**	PWLNR/ L**
	MCLNR/ L**	MWLNR/ L**
	SCLCR/ L**	DCLNR/ L**
	DWLNR/ L**	

Profiling · Profilatura	Type · Tipo			
	PDNNR/ L**	PSDNN**	MDPNN**	MSDNN**
	MVVNN**	MRDNN**	SDNCN**	SVVBN**
	SVVCN**	SSDCN**	SRDCN**	CKNNR/ L**
	DVVNN**			



Profiling · Contornatura	Type · Tipo		
	PDJNR/ L**	MDJNR/ L**	MVJNR/ L**
	SDACR/ L**	SDJCR/ L**	SVABR/ L**
	SVJBR/ L**	SVJCR/ L**	CKJNR/ L**
	DDJNR/ L**	DVJCR/ L**	

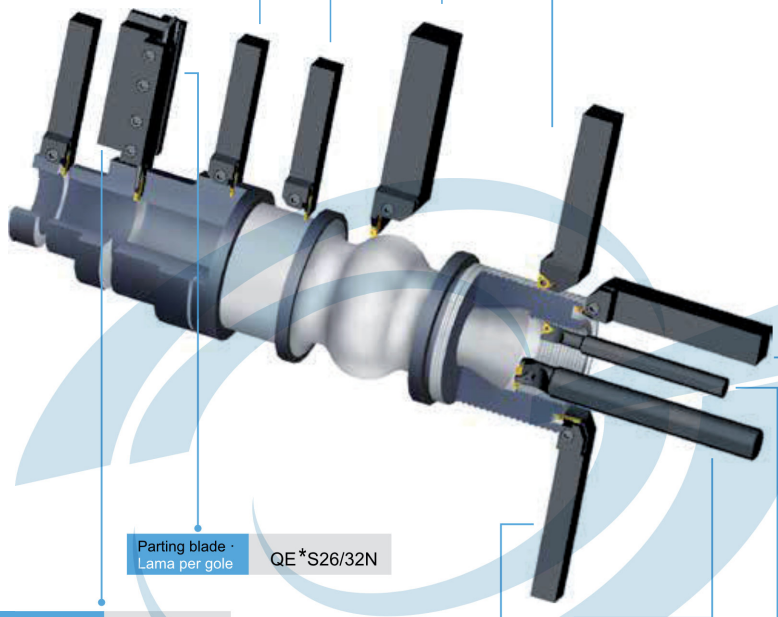
Profiling · Contornatura	Type · Tipo
	MRGNR/ L**
	SRGCR/ L**

Facing · Spianatura	Type · Tipo	
	PSKNR/ L**	PTFNR/ L**
	MSKNR/ L**	MTFNR/ L**
	SSKCR/ L**	STFCR/ L**

Toolholders for internal turning (Steel toolholder) Cartuccia per lavorazione interna (versione in acciaio)						
						
	S*-PSKNR/ L*	S*-PCLNR/ L*	S*-PDSNR/ L*	S*-PDUNR/ L*	S*-SDQCR/ L*	S*-SDZCR/ L*
	S*-PTFNR/ L*	S*-PWLNR/ L*		S*-SDUCR/ L*	S*-SDQPR/ L*	
	S*-SCFCR*	S*-SCLCR/ L*		S*-SDUNR/ L*	S*-SVQBR/ L*	
	S*-SSKCR/ L*	S*-SCLPR/ L*		S*-SDUPR/ L*	S*-SVQCR/ L*	
	S*-STFCR/ L*			S*-SVUBR/ L*		
	S*-STUPR/ L*			S*-SVUCR/ L*		

Toolholders for internal turning (Cemented carbide) Cartuccia per lavorazione interna (carburo cementato)				
				
	C*-STUPR/ L*	C*-SCLPR/ L*	C*-SDUPR/ L*	C*-SDQPR/ L*
			C*-SVUCR/ L*	C*-SVQCR/ L*

Parting, Grooving and Threading Tools · **Utensili per scanalature, gole e filettatura**



External threading tools · Utensili per filettatura (esterna)	SWR/ L*
Axial grooving tools · Utensili per scanalatura assiale	QF*D**R/ L*-*H
Parting blade · Lama per gole	QE*S26/32N
Parting blade holder · Portautensile per lame per gole	QZS *26/32
Internal threading tools · Utensili per filettatura (interna)	SNR/ L*
External parting, grooving, turning and profiling - Lavorazione esterna, scanalature, gole, contornatura	QE*D*R/L GQCR/L**
	QZQ*R/L
	ZQS*R/L
	QT*R
Presicion grooving and turning · Scanalatura e tornitura di precisione	QECD*R/L025
External profiling Contornatura (esterna)	QX*D*R/L* -45
Grooving (difficult material) Scanalatura (metalli difficili)	QE*S*R/L*-* N
Internal grooving tools · Utensili per scanalatura (interna)	C*Q*DR/ L*
	S****-QC**R/ L*
	C*-QZSR/ L*
Axial grooving tools · Utensili per scanalatura assiale	QF*D*R/ L*-*L

NOTES / NOTE :

TOOLS
TURNING
OUTDOOR

External turning tools Overview · Utensili per tornitura esterna Panoramica

Clamping system Sistema di bloccaggio	Tool Type Tipo utensile	Approach angle Angolo di inclinazione	Turning Application · Applicazione						Workpiece · Pezzo	
			External turning Lavorazione est.	Facing Spianatura	Ext., turning & facing · Lavorazione est. e spianatura	Profiling Contornatura	Profiling Contornatura	Profiling Contornatura	Stable Stabile	Unstable Instabile
D	DCLNR/L	95			✓				✓	
	DDJNR/L	93					✓		✓	
	DSBNR/L	75	✓						✓	
	DTGNR/L	91	✓						✓	
	DVVNN	72.5						✓	✓	
	DVJNR/L	93					✓		✓	
	DWLNR/L	95			✓				✓	
P	PCBNR/ L	75	✓						✓	
	PCLNR/ L	95			✓				✓	
	PDJNR/ L	93					✓		✓	✓
	PDNNR/ L	63						✓	✓	
	PSBNR/ L	75	✓						✓	
	PSDNN	45						✓	✓	
	PSKNR/ L	75		✓					✓	
	PSSNR/ L	45	✓						✓	

✓ Recommended · Raccomandato

External turning tools Overview · Utensili per tornitura esterna - Panoramica

Clamping system Sistema di bloccaggio	Tool Type Tipo utensile	Approach angle Angolo di inclinazione	Turning Application · Applicazione						Workpiece · Pezzo	
			External turning Lavorazione est.	Facing Spianatura	Ext., turning & facing · Lavorazione est. e spianatura	Profiling Contornatura	Profiling Contornatura	Profiling Contornatura	Stable Stabile	Unstable Instabile
P	PTFNR/ L	90		✓					✓	✓
	PTTNR/ L	60	✓						✓	
	PTGNR/ L	90	✓						✓	✓
	PWLNR/ L	95			✓				✓	
M	MCBNR/ L	75	✓						✓	
	MCLNR/ L	95			✓				✓	
	MDJNR/ L	93					✓		✓	✓
	MDPNN	62.5						✓	✓	
	MSBNR/ L	75	✓						✓	
	MSRNR/ L	75	✓						✓	
	MSKNR/ L	75		✓					✓	
	MSDNN	45						✓	✓	
	MTGNR/ L	90	✓						✓	✓
	MTJNR/ L	93	✓						✓	
	MTJNR/L-Z	93		✓			✓		✓	

✓ Recommended · Raccomandato

Clamping system Sistema di bloccaggio	Tool Type Tipo utensile	Approach angle Angolo di inclinazione	Turning Application · Applicazione						Workpiece · Pezzo	
			External turning Lavorazione est.	Facing Spianatura	Ext., turning & facing · Lavorazione est. e spianatura	Profiling Contornatura	Profiling Contornatura	Profiling Contornatura	Stable Stabile	Unstable Instabile
										
M	MTFNR/ L	90		✓					✓	
	MVVNN	72.5						✓	✓	
	MVJNR/ L	93					✓		✓	✓
	MWLNR/ L	95			✓				✓	
	MRGNR/ L	-				✓			✓	
	MRDNN	-						✓	✓	
S	SCACR/ L	90	✓						✓	✓
	SCLCR/ L	95			✓				✓	✓
	SDACR/ L	90					✓		✓	✓
	SDJCR/ L	93					✓		✓	✓
	SDNCN	62.5						✓	✓	✓
	SVJBR/ L	93					✓		✓	✓
	SVABR/ L	90					✓		✓	✓
	SVVBN	72.5						✓	✓	✓
	SVVCN	72.5						✓	✓	✓

✓ Recommended · Raccomandato

Clamping system Sistema di bloccaggio	Tool Type Tipo utensile	Approach angle Angolo di inclinazione	Turning Application · Applicazione						Workpiece · Pezzo	
			External turning Lavorazione est.	Facing Spianatura	Ext., turning & facing · Lavorazione est. e spianatura	Profiling Contornatura	Profiling Contornatura	Profiling Contornatura	Stable Stabile	Unstable Instabile
S	SVJCR/ L	93					✓		✓	✓
	SSBCR/ L	75	✓						✓	
	SSDCN	45						✓	✓	
	SSKCR/ L	75		✓					✓	
	SSSCR/ L	45	✓						✓	
	STACR/ L	90	✓						✓	✓
	STFCR/ L	91		✓					✓	
	STGCR/ L	91	✓						✓	✓
	STTCR/ L	60	✓						✓	
	SWACR/ L	90	✓						✓	✓
	SRDCN	-						✓	✓	
	SRGCR/ L	-				✓			✓	
C	CKJNR/ L	93					✓		✓	
	CKNNR/ L	63						✓	✓	

✓ Recommended · Raccomandato

Clamping system
Sistema di bloccaggio

P lever lock clamping *Bloccaggio a leva*

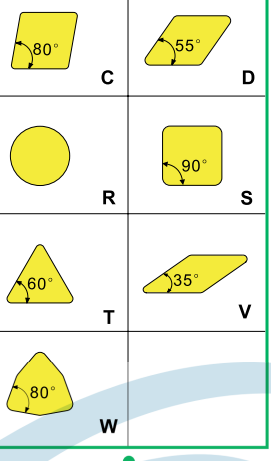
M Screw clamping *Bloccaggio a vite*

S Wedge lock clamping *Bloccaggio a cuneo*

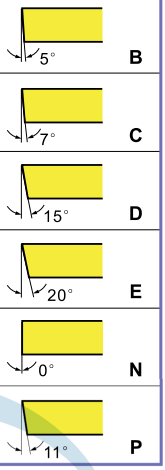
C Overhead clamping *Bloccaggio a staffa*

D Double clamping *Doppio bloccaggio*

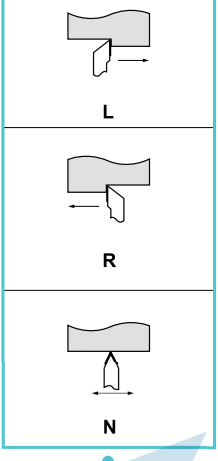
Insert shape
Forma dell'inserto



Clearance angle of major cutting edge
Angolo di spoglia del fianco

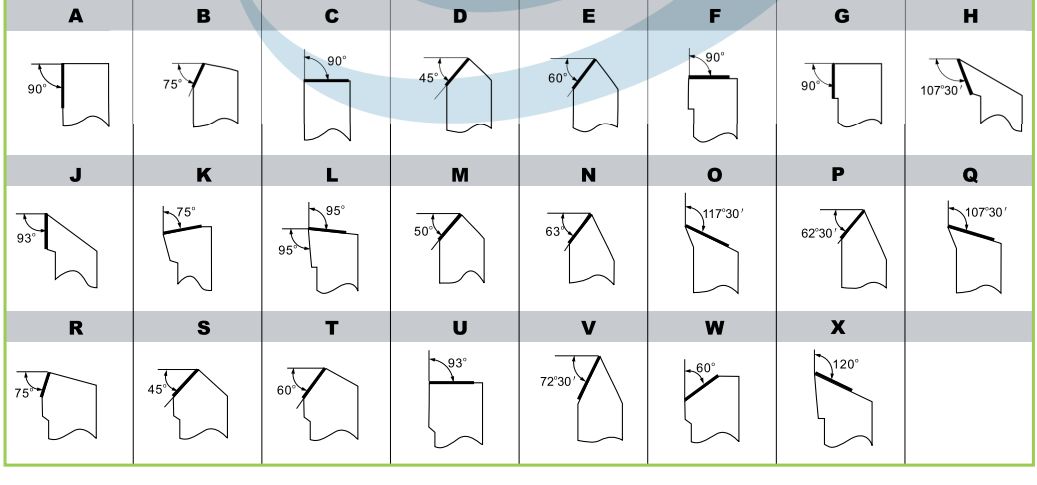


Holder execution
Versione portautensile

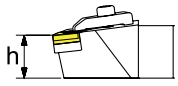


P C L N L

Holder style and lead angle
Forma portautensile e angolo di attacco

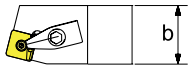


Height
Altezza stelo



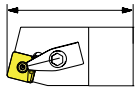
Code	Height *Altezza*
12	12
16	16
20	20
25	25
32	32
40	40
50	50

Schank width
Larghezza stelo



Code	Width *Larghezza*
12	12
16	16
20	20
25	25
32	32
40	40
50	50

Tool length
Lungh. portautensile



Code	Length *Lunghezza*
H	100
K	125
M	150
P	170
Q	180
R	200
S	250
T	300

25 25 M 12

Insert shape *Forma dell'inserto*	Cutting edge length *Lunghezza tagliente*						
	C	**D**	**R**	**S**	**T**	**V**	**W**
							
Diameter of incircle *Diametro (mm) CI*	Cutting edge length / *Lunghezza tagliente*						
5.556	---	---	---	---	09	---	---
6.350	06	07	---	---	11	---	---
9.525	09	11	09	09	16	16	06
12.700	12	15	12	12	22	22	08
15.875	16	19	15	15	27	---	---
19.050	19	---	19	19	33	---	---
25.400	25	---	25	25	44	---	---
32.000	---	---	32	---	---	---	---

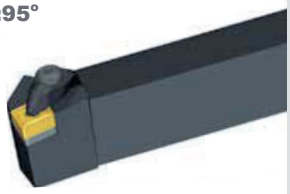
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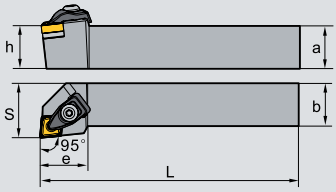
CN** Toolholder · Portautensile

D-Clamping · Portautensile tipo D

DCLNR/ L

Kr:95°







Type Tipo		Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni a	b	L	h	s	e	Screw Vite	Shim Spessore	Wrench Chiave	Clamp Staffa	Shim screw Vite per spessore	Spring Molla
DCLNR/ L	1616H09	●	○	16	16	100	16	20	24						
	2020K09	●	●	20	20	125	20	25	24	CM5x22C	C09BM	WH30L	C1RA	SM5 ×8.65XA1	SPR6
	2525M09	●	●	25	25	150	25	32	24						
	2020K12	●	●	20	20	125	20	25	28						
	2525M12	●	●	25	25	150	25	32	28	CM6x25C	C12BM	WH40L	C2RA	SM6 ×10XA1	SPR4
	3225P12	●	●	32	25	170	32	32	28						

Applicable insert
Inserti

Application Applicazione	Finishing Finitura	Semi-Finishing Asportazione media	Roughing Sgrossatura	Heavy Duty Asportazione pesante	Cast iron machining Lavor. ghisa grigia	PCBN · PCD PCBN · PCD
Insert shape Forma inserto	DF	PM	DR Double side bilaterale	HDR	Flat Parte superiore piana	Flat Parte superiore piana
	SF	DM	DR Single side monolaterale	HPR	TC	
	EF	EM	ER Double side bilaterale			
	NF	NM	ER Single side monolaterale			
			LR Single side monolaterale			

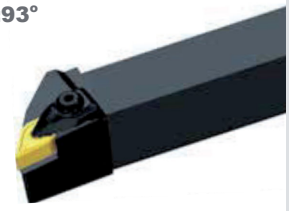
Type · Tipo							
	DCLNR/L**H/K/M09	CN**0903**	CN**0903**				
	DCLNR/L**K/M/P12	CN**1204**	CN**1204**	CN**1204**	CN**1204**	CN**1204**	CN**1204**

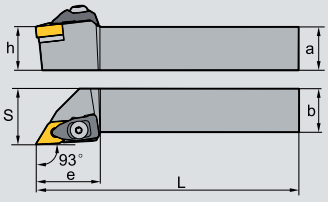
DN** Toolholder · Portautensile

D-Clamping · Portautensile tipo D

DDJNR/ L

Kr:93°







Type Tipo		Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni a	b	L	h	s	e	Screw Vite	Shim Spessore	Wrench Chiave	Clamp Staffa	Shim screw Vite per spessore	Spring Molla
DDJNR/L	**1616H11**	○	○	16	16	100	16	20	30	CM5x22C	D11BM	WH30L	C1RA	SM5 × 8.65XA1	SPR6
	2020K11	●	●	20	20	125	20	25	30						
	2525M11	●	●	25	25	150	25	32	30						
	3225P11	○	○	32	25	170	32	32	30						
	2020K15	●	●	20	20	125	20	25	35	CM6x25C	D15BM	WH40L	C2RA	SM6 × 10XA1	SPR4
	2525M15	●	●	25	25	150	25	32	35						
	3232P15	●	●	32	32	170	32	40	35						

Applicable insert
Inserti

Application Applicazione	Finishing Finitura	Semi-Finishing Asportazione media	Roughing Sgrossatura	Heavy Duty Asportazione pesante	Cast iron machining Lavor. ghisa grigia	PCBN · PCD PCBN · PCD
Insert shape Forma inserto	**DF**	**PM**	**DR** Double side bilaterale	**HDR**	Flat Parte superiore piana	Flat Parte superiore piana
	SF	**DM**	**DR** Single side monolaterale			
	EF	**EM**	**ER** Double side bilaterale			
	NF	**NM**	**ER** Single side monolaterale			
			LR Single side monolaterale			

Type · Tipo							
	DDJNR/LH/K/M/P11**	DN**1104**	DN**1104**			DN**1104**	
	DDJNR/LK/M/P15**	DN**1506**	DN**1506**	DN**1506**	DN**1506**	DN**1506**	DN**1506**

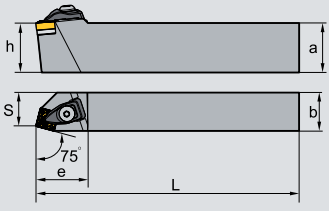
SN** Toolholder · Portautensile

D-Clamping · Portautensile tipo D

DSBNR/ L

Kr:75°







Type / Tipo		Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni a	b	L	h	s	e	Screw Vite	Shim Spessore	Wrench Chiave	Clamp Staffa	Shim screw Vite per spessore	Spring Molla
DSBNR/L	1616H09	●	○	16	16	100	16	13	26	CM5x22C	S09BM	WH30L	C1RA	SM5 × 8.65XA1	SPR6
	2020K12	●	●	20	20	125	20	17	34						
	2525M12	●	●	25	25	150	25	22	34	CM6x25C	S12BM	WH40L	C2RA	SM6 × 10XA1	SPR4
	3225P12	●	●	32	25	170	32	22	34						
	3232P15	●	●	32	32	170	32	27	41	CM6x25C	S15BM	WH40L	C3RA	SM6 × 10XA2	SPR4

Applicable insert
Inserti

Application / Applicazione	Finishing Finitura	Semi-Finishing Asportazione media	Roughing Sgrossatura	Heavy Duty Asportazione pesante	Cast iron machining Lavor. ghisa grigia	PCBN · PCD PCBN · PCD
Insert shape / Forma inserto	DF	PM	DR Double side bilaterale	HDR	Flat Parte superiore piana	Flat Parte superiore piana
	EF	DM	DR Single side monolaterale	HPR	TC	
	SF	EM	ER Double side bilaterale			
		NM	ER Single side monolaterale			
			LR Single side monolaterale			

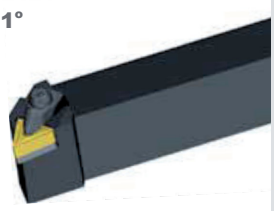
Type · Tipo							
	DSBNR/L**H09	SN**0903**	SN**0903**			SN**0903**	
	DSBNR/L**K/M/P12	SN**1204**	SN**1204**	SN**1204**	SN**1204**	SN**1204**	SN**1204**
	DSBNR/L**P15	SN**1506**	SN**1506**	SN**1506**	SN**1506**	SN**1506**	SN**1506**

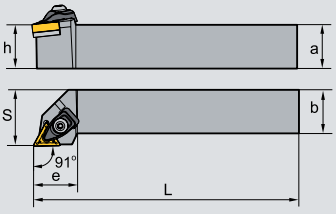
TN** Toolholder · Portautensile

D-Clamping · Portautensile tipo D

DTGNR/ L

Kr:91°







Type Tipo		Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni a	b	L	h	s	e	Screw Vite	Shim Spessore	Wrench Chiave	Clamp Staffa	Shim screw Vite per spessore	Spring Molla
DTGNR/L	1616H16	●	●	16	16	100	16	20	25	CM5x22C	T16BM	WH30L	C1RA	SM5 × 8.65XA1	SPR6
	2020K16	●	●	20	20	125	20	25	25						
	2525M16	●	●	25	25	150	25	32	25						

Applicable insert
Inserti

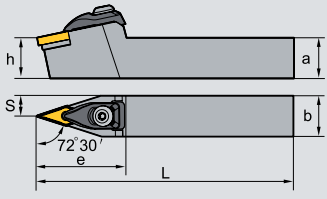
Application Applicazione	Finishing Finitura	Semi-Finishing Asportazione media	Roughing Sgrossatura	Heavy Duty Asportazione pesante	Cast iron machining Lavor. ghisa grigia	PCBN · PCD PCBN · PCD
Insert shape Forma inserto	DF	PM	DR Double side bilaterale	HDR	Flat Parte superiore piana	Flat Parte superiore piana
	SF	DM	DR Single side monolaterale		TC	
	EF	EM	ER Double side bilaterale			
			LR Single side monolaterale			
Type · Tipo DTGNR/L**H/K/M16	TN**1604**	TN**1604**	TN**1604**	TN**1604**	TN**1604**	TN**1604**

VN** Toolholder · Portautensile

D-Clamping · Portautensile tipo D

DVVNN
Kr:72°30'







Type Tipo		Stock Magazzino	Dimension (mm) Dimensioni						Screw Vite	Shim Spessore	Wrench Chiave	Clamp Staffa	Shim screw Viteper spessore	Spring Molla
		N	a	b	L	h	s	e						
DVVNN	**2020K16**	●	20	20	125	20	10	44	CM5×22C	V16BM	WH30L	C6RA	SM5 × 8.65XA1	SPR6
	2525M16	●	25	25	150	25	12.5	44						

Applicable insert
Inserti

Application Applicazione	Finishing Finitura	Semi-Finishing Asportazione media	PCBN · PCD PCBN · PCD
Insert shape Forma inserto	**DF**	**PM**	Flat Parte superiore piana
	EF	**DM**	
	SF	**EM**	
	NF	**NM**	
Type · Tipo **DVVNN**K/M16**	VN**1604**	VN**1604**	VN**1604**

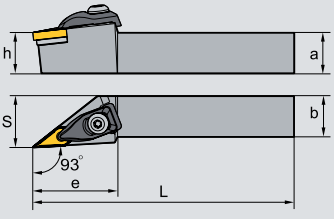
VN** Toolholder · Portautensile

D-Clamping · Portautensile tipo D

DVJNR/L

Kr:93°







Type Tipo		Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni a	b	L	h	s	e	Screw Vite	Shim Spessore	Wrench Chiave	Clamp Staffa	Shim screw Vite per spessore	Spring Molla
DVJNR/L	2020K16	●	●	20	20	125	20	25	41	CM5×22C	V16BM	WH30L	C6RA	SM5 × 8.65XA1	SPR6
	2525M16	●	●	25	25	150	25	32	41						

Applicable insert
Inserti

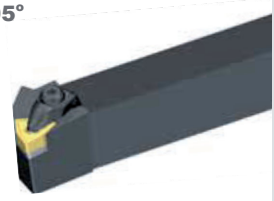
Application Applicazione	Finishing Finitura	Semi-Finishing Asportazione media	PCBN · PCD PCBN · PCD
Insert shape Forma inserto	DF	PM	Flat Parte superiore piana
	EF	DM	
	SF	EM	
	NF	NM	
Type · Tipo DVVNN**K/M16	VN**1604**	VN**1604**	VN**1604**

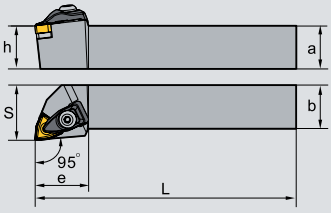
WN** Toolholder · Portautensile

D-Clamping · Portautensile tipo D

DWLNR/ L

Kr:95°







Type / Tipo		Stock / Magazzino R	Stock / Magazzino L	Dimension (mm) / Dimensioni a	b	L	h	s	e	Screw / Vite	Shim / Spessore	Wrench / Chiave	Clamp / Staffa	Shim screw / Vite per spessore	Spring / Molla
DWLNR/L	1616H06	●	●	16	16	100	16	20	24						
	2020K06	●	●	20	20	125	20	25	24	CM5×22C	W06BM	WH30L	C1RA	SM5 × 8 .65XA1	SPR6
	2525M06	●	●	25	25	150	25	32	24						
	2020K08	●	●	20	20	125	20	25	31						
	2525M08	●	●	25	25	150	25	32	31	CM6×25C	W08BM	WH40L	C2RA	SM6 × 10XA1	SPR4
	3225P08	●	●	32	25	170	32	32	31						

Applicable insert / Inserti

Application / Applicazione	Finishing / Finitura	Semi-Finishing / Asportazione media	Roughing / Sgrossatura	Cast iron machining / Lavor. Ghisa grigia
Insert shape / Forma inserto	DF	PM	DR Double side / bilaterale	Flat / Parte superiore piana
	SF	DM		TC
	EF	EM		
	NF	NM		

Type · Tipo					
	DWLNR/L**H/K/M06	WN**0604**	WN**0604**	WN**0604**	WN**0604**
	DWLNR/L**K/M/P08	WN**0804**	WN**0804**	WN**0804**	WN**0804**

A

General Turning
Tornitura generale

CN** Toolholder · Portautensile

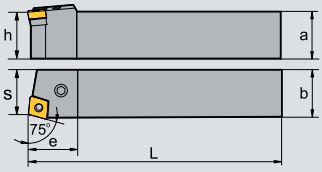
P-Clamping · Portautensile tipo P

PCBNR/ L

Kr:75°



R Type
Versione destra





Type Tipo		Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni a	b	L	h	s	e	Screw Vite	Shim Spessore	Wrench Chiave	Lever Leva di fissaggio	Shim pin Perno distanziatore
PCBNR/ L	2020K12	●	●	20	20	125	20	17	27	LEM8×21	C12AP	WH30L	L4	SP4
	2525M12	●	●	25	25	150	25	22	27					
	3232P12	●	●	32	32	170	32	27	27					
	2525M16	●	●	25	25	150	25	22	33	LEM8×25	C16AP	WH30L	L5	SP5
	3232P16	●	●	32	32	170	32	27	33					
	3232P19	●	●	32	32	170	32	27	38	LEM10×27	C19AP	WH40L	L6	SP6
	4040S19	●	●	40	40	250	40	35	38					
	4040S2507	●	●	40	40	250	40	35	50	LEM12×36A	C25AP-07	WH50L	L8	SP8
	4040S2509	●	●	40	40	250	40	35	50		C25AP			

Applicable inserts
Inserti

Application Applicazione	Finishing Finitura	Semi-Finishing Asportazione media	Rough machining Sgrossatura	Heavy Duty Asportazione pesante	Cast iron Lavor. ghisa grigia
Inserts Inserti	DF	PM	DR Double side bilaterale	HDR	Flat Parte superiore piana
	SF	DM	DR Single side monolaterale	HPR	TC
	EF	EM	ER Double side bilaterale		
	NF	NM	ER Single side monolaterale		
			LR Single side monolaterale		

Type · Tipo	Finishing Finitura	Semi-Finishing Asportazione media	Rough machining Sgrossatura	Heavy Duty Asportazione pesante	Cast iron Lavor. ghisa grigia
PCBNR/L**K / M / P12	CN**1204**	CN**1204**	CN**1204**	CN**1204**	CN**1204**
PCBNR/L**M / P16	CN**1606**	CN**1606**	CN**1606**	CN**1606**	CN**1606**
PCBNR/L**P / S19		CN**1906**	CN**1906**	CN**1906**	CN**1906**
PCBNR/L**S2507			CN**2507**		
PCBNR/L**S2509			CN**2509**	CN**2509**	

CN** Toolholder · Portautensile

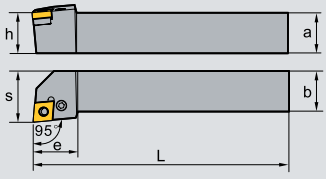
P-Clamping · Portautensile tipo P

PCLNR/L

Kr:95°



R Type
Versione destra





Type Tipo		Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni a	b	L	h	s	e	Screw Vite	Shim Spessore	Wrench Chiave	Lever Leva di fissaggio	Shim pin Perno distanziatore
PCLNR/ L	1616H09	●	●	16	16	100	16	20	20	LEM6×13.4A	C09AP	WH25L	L3	SP10
	2020K09	●	●	20	20	125	20	25	22					
	2525M09	○	●	25	25	150	25	32	22					
	2020K12	●	●	20	20	125	20	25	28	LEM8×21	C12AP	WH30L	L4	SP4
	2525M12	●	●	25	25	150	25	32	28					
	3232P12	●	●	32	32	170	32	40	28					
	2525M16	●	●	25	25	150	25	32	33	LEM8×25	C16AP	WH30L	L5	SP5
	3232P16	●	●	32	32	170	32	40	33					
	3232P19	●	●	32	32	170	32	40	38	LEM10×27	C19AP	WH40L	L6	SP6
	4040S19	●	●	40	40	250	40	50	38					
	4040S2507	●	●	40	40	250	40	50	49	LEM12×36A	C25AP-07	WH50L	L8	SP8
	4040S2509	●	●	40	40	250	40	50	49		C25AP			

Applicable insert
Inserti

Application Applicazione	Finishing Finitura	Semi-Finishing Asportazione media	Roughing Sgrossatura	Heavy Duty Asportazione pesante	Cast iron Lavor. ghisa grigia	PCBN · PCD PCBN · PCD
Insert shape Forma inserto	DF	PM	DR Double side bilaterale	HDR	Flat Parte superiore piana	Flat Parte superiore piana
	SF	DM	DR Single side monolaterale	HPR	TC	
	EF	EM	ER Double side bilaterale			
	NF	NM	ER Single side monolaterale			
			LR Single side monolaterale			

Type · Tipo	Finishing Finitura	Semi-Finishing Asportazione media	Roughing Sgrossatura	Heavy Duty Asportazione pesante	Cast iron Lavor. ghisa grigia	PCBN · PCD PCBN · PCD
PCLNR/L**H / K / M09	CN**0903**	CN**0903**				
PCLNR/L**K / M / P12	CN**1204**	CN**1204**	CN**1204**	CN**1204**	CN**1204**	CN**1204**
PCLNR/L**M / P16	CN**1606**	CN**1606**	CN**1606**	CN**1606**	CN**1606**	
PCLNR/L**P / S19		CN**1906**	CN**1906**	CN**1906**	CN**1906**	
PCLNR/L**S2507			CN**2507**			
PCLNR/L**S2509			CN**2509**	CN**2509**		

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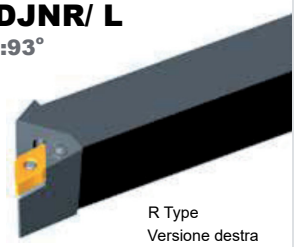
General Turning
Tornitura generale

DN** Toolholder · Portautensile

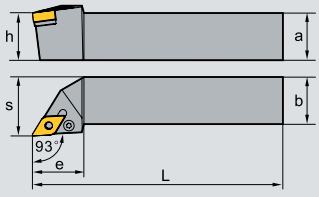
P-Clamping · Portautensile tipo P

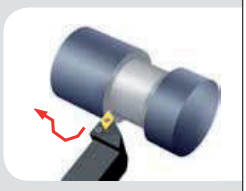
PDJNR/ L

Kr:93°



R Type
Versione destra





Type / Tipo		Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni a	b	L	h	s	e	Screw Vite	Shim Spessore	Wrench Chiave	Lever Leva di fissaggio	Shim pin Perno distanziatore
PDJNR/ L	1616H11	●	●	16	16	100	16	20	25					
	2020K11	●	●	20	20	125	20	25	25	LEM6×13.4A	D11AP	WH25L	L3	SP3
	2525M11	●	●	25	25	150	25	32	30					
	2020K15	●	●	20	20	125	20	25	35					
	2525M15	●	●	25	25	150	25	32	35	LEM8×21	D15AP	WH30L	L4B	SP4
	3232P15	●	●	32	32	170	32	40	35					
	2020K15-3	●	●	20	20	125	20	25	35					
	2525M15-3	●	●	25	25	150	25	32	35	LEM8×21	D15AP	WH30L	L4	SP4
	*3232P15-3	●	●	32	32	170	32	40	35					

* For DNMG1504 / *Per DNMG1504*

Applicable insert
Inserti

Application Applicazione	Finishing Finitura	Semi-Finishing Asportazione media	Roughing Sgrossatura	Heavy Duty Asportazione pesante	Cast iron machining Lavor. ghisa grigia	PCBN · PCD PCBN · PCD
Insert shape Forma inserto	DF	PM	DR Double side bilaterale	HDR	Flat Parte superiore piana	Flat Parte superiore piana
	SF	DM	DR Single side monolaterale			
	EF	EM	ER Double side bilaterale			
	NF	NM	ER Single side monolaterale			
			LR Single side monolaterale			

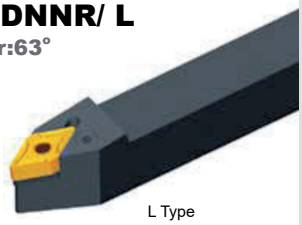
Type · Tipo	Finishing Finitura	Semi-Finishing Asportazione media	Roughing Sgrossatura	Heavy Duty Asportazione pesante	Cast iron machining Lavor. ghisa grigia	PCBN · PCD PCBN · PCD
PDJNR/L**H / K / M11	DN**1104**	DN**1104**			DN**1104**	
PDJNR/L**K / M / P15	DN**1506**	DN**1506**	DN**1506**	DN**1506**	DN**1506**	DN**1506**
PDJNR/L**K / M / P15-3	DN**1504**	DN**1504**			DN**1504**	DN**1504**

DN** Toolholder · Portautensile

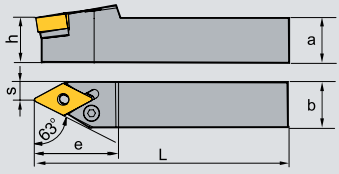
P-Clamping · Portautensile tipo P

PDNNR/ L

Kr:63°



L Type
Versione sinistra





Type / Tipo		Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni a	b	L	h	s	e	Screw Vite	Shim Spessore	Wrench Chiave	Lever Leva di fissaggio	Shim pin Perno distanziatore
PDNNR/ L	2020K15	●	●	20	20	125	20	8	37	LEM8×21	D15AP	WH30L	L4B	SP4
	2525M15	●	●	25	25	150	25	12.5	37					
	3232P15	●	●	32	32	170	32	16	37					
	2020K15-3	●	●	20	20	125	20	8	37	LEM8×21	D15AP	WH30L	L4	SP4
	2525M15-3	●	●	25	25	150	25	12.5	37					
	*3232P15-3	●	●	32	32	170	32	16	37					

* For DNMG1504 / *Per DNMG1504*

Applicable insert
Inserti

Application / Applicazione	Finishing Finitura	Semi-Finishing Asportazione media	Roughing Sgrossatura	Heavy Duty Asportazione pesante	Cast iron machining Lavor. ghisa grigia	PCBN · PCD PCBN · PCD
Insert shape / Forma inserto	DF	PM	DR Double side bilaterale	HDR	Flat Parte superiore piana	Flat Parte superiore piana
	SF	DM	DR Single side monolaterale			
	EF	EM	ER Double side bilaterale			
	NF	NM	ER Single side monolaterale			
			LR Single side monolaterale			

Type · Tipo	Finishing Finitura	Semi-Finishing Asportazione media	Roughing Sgrossatura	Heavy Duty Asportazione pesante	Cast iron machining Lavor. ghisa grigia	PCBN · PCD PCBN · PCD
PDNNR/L**K /M/ P15	DN**1506**	DN**1506**	DN**1506**	DN**1506**	DN**1506**	DN**1506**
PDNNR/L**K / M/ P15-3	DN**1504**	DN**1504**			DN**1504**	DN**1504**

A

General Turning
Tornitura generale

SN** Toolholder · Portautensile

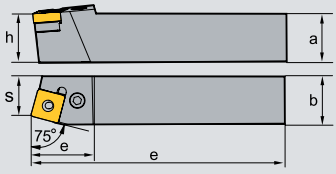
P-Clamping · Portautensile tipo P

PSBNR/ L

Kr:75°



R Type
Versione destra





Type / Tipo		Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni a	b	L	h	s	e	Screw Vite	Shim Spessore	Wrench Chiave	Lever Leva di fissaggio	Shim pin Perno distanziatore
PSBNR/ L	**1616H09**	●	●	16	16	100	16	13	21	LEM6×13.4A	S09AP	WH25L	L3	SP10
	2020K09	●	●	20	20	125	20	17	23					
	2020K12	●	●	20	20	125	20	17	28	LEM8×21	S12AP	WH30L	L4	SP4
	2525M12	●	●	25	25	125	25	22	28					
	3225P12	●	○	32	25	170	32	22	28					
	3232P12	●	●	32	32	170	32	27	28					
	2525M15	●	○	25	25	150	25	22	35	LEM8×25	S15AP	WH30L	L5	SP5
	3232P15	●	●	32	32	170	32	27	35					
	3232P19	●	●	32	32	170	32	27	40	LEM10×27	S19AP	WH40L	L6	SP6
	4040S19	●	●	40	40	250	40	35	40					
	4040S2507	○	○	40	40	250	40	35	48	LEM12×36A	S25AP	WH50L	L8	SP8
	4040S2509	○	○	40	40	250	40	35	48		S25AP-09			

Applicable insert
Inserti

Application Applicazione	Finishing Finitura	Semi-Finishing Asportazione media	Roughing Sgrossatura	Heavy Duty Asportazione pesante	Cast iron machining Lavor. ghisa grigia	PCBN · PCD PCBN · PCD
Insert shape / Forma inserto	**DF**	**PM**	**DR** Double side bilaterale	**HDR**	Flat Parte superiore piana	Flat Parte superiore piana
	EF	**DM**	**DR** Single side monolaterale	**HPR**	**TC**	
	SF	**EM**	**ER** Double side bilaterale			
		NM	**ER** Single side monolaterale			
			LR Single side monolaterale			

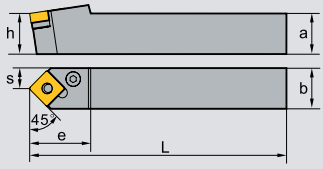
Type · Tipo	Finishing Finitura	Semi-Finishing Asportazione media	Roughing Sgrossatura	Heavy Duty Asportazione pesante	Cast iron machining Lavor. ghisa grigia	PCBN · PCD PCBN · PCD
PSBNR/LH / K09**	SN**0903**	SN**0903**			SN**0903**	
PSBNR/LK / M / P12**	SN**1204**	SN**1204**	SN**1204**	SN**1204**	SN**1204**	SN**1204**
PSBNR/LM / P15**	SN**1506**	SN**1506**	SN**1506**	SN**1506**	SN**1506**	
PSBNR/LP / S19**		SN**1906**	SN**1906**	SN**1906**	SN**1906**	
PSBNR/LS2507**			SN**2507**	SN**2507**		
PSBNR/LS2509**			SN**2509**	SN**2509**		

SN** Toolholder · Portautensile

P-Clamping · Portautensile tipo P

PSDNN
Kr:45°







Type Tipo		Stock Magazzino	Dimension (mm) Dimensioni a	b	L	h	s	e	Screw Vite	Shim Spessore	Wrench Chiave	Lever Leva di fissaggio	Shim pin Perno distanziatore
PSDNN	1212F09	○	12	12	80	12	6	21	LEM5×12B	—	WH20L	L3B	—
	1616H09	●	16	16	100	16	8	23	LEM6×13.4A	S09AP	WH25L	L3	SP10
	2020K12	●	20	20	125	20	10	30	LEM8×21	S12AP	WH30L	L4	SP4
	2525M12	●	20	20	150	20	12.5	30					
	3232P12	●	32	32	170	32	16	40					
	2525M15	●	25	25	150	25	12.5	40	LEM8×25	S15AP	WH30L	L5	SP5
	3232P15	●	32	32	170	32	16	40					
	3232P19	●	32	32	170	32	16	40	LEM10×27	S19AP	WH40L	L6	SP6
	4040S19	●	40	40	250	40	20	40					

Applicable insert
Inserti

Application Applicazione	Finishing Finitura	Semi-Finishing Asportazione media	Roughing Sgrossatura	Heavy Duty Asportazione pesante	Cast iron machining Lavor. ghisa grigia	PCBN · PCD PCBN · PCD
Insert shape Forma inserto	DF	PM	DR Double side bilaterale	HDR	Flat Parte superiore piana	Flat Parte superiore piana
	EF	DM	DR Single side monolaterale	HPR	TC	
	SF	EM	ER Double side bilaterale			
		NM	ER Single side monolaterale			
			LR Single side monolaterale			

Type · Tipo	Finishing Finitura	Semi-Finishing Asportazione media	Roughing Sgrossatura	Heavy Duty Asportazione pesante	Cast iron machining Lavor. ghisa grigia	PCBN · PCD PCBN · PCD
PSDNN**F / H09	SN**0903**	SN**0903**			SN**0903**	
PSDNN**K / M / P12	SN**1204**	SN**1204**	SN**1204**	SN**1204**	SN**1204**	SN**1204**
PSDNN**M / P15	SN**1506**	SN**1506**	SN**1506**	SN**1506**	SN**1506**	
PSDNN**P / S19		SN**1906**	SN**1906**	SN**1906**	SN**1906**	

A

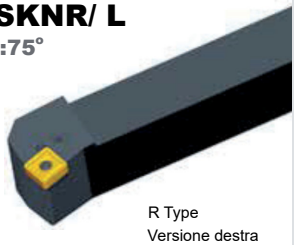
General Turning
Tornitura generale

SN** Toolholder · Portautensile

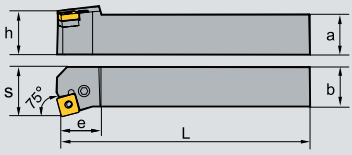
P-Clamping · Portautensile tipo P

PSKNR/ L

Kr:75°



R Type
Versione destra





Type / Tipo		Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni a	b	L	h	s	e	Screw Vite	Shim Spessore	Wrench Chiave	Lever Leva di fissaggio	Shim pin Perno distanziatore
PSKNR/ L	1616H09	○	●	16	16	100	16	20	17	LEM6×13.4A	S09AP	WH25L	L3	SP10
	2020K09	●	●	20	20	125	20	25	20					
	2020K12	●	●	20	20	125	20	25	26	LEM8×21	S12AP	WH30L	L4	SP4
	2525M12	●	●	25	25	150	25	32	26					
	3232P12	●	●	32	32	170	32	40	26					
	2525M15	●	○	25	25	150	25	32	32	LEM8×25	S15AP	WH30L	L5	SP5
	3232P15	●	●	32	32	170	32	40	32					
	3232P19	●	●	32	32	170	32	40	36	LEM10×27	S19AP	WH40L	L6	SP6
	4040S19	○	○	40	40	250	40	50	40					

Applicable insert
Inserti

Application Applicazione	Finishing Finitura	Semi-Finishing Asportazione media	Roughing Sgrossatura	Heavy Duty Asportazione pesante	Cast iron machining Lavor. ghisa grigia	PCBN · PCD PCBN · PCD
Insert shape / Forma inserto	DF	PM	DR Double side bilaterale	HDR	Flat Parte superiore piana	Flat Parte superiore piana
	EF	DM	DR Single side monolaterale	HPR	TC	
	SF	EM	ER Double side bilaterale			
		NM	ER Single side monolaterale			
			LR Single side monolaterale			

Type · Tipo	Finishing Finitura	Semi-Finishing Asportazione media	Roughing Sgrossatura	Heavy Duty Asportazione pesante	Cast iron machining Lavor. ghisa grigia	PCBN · PCD PCBN · PCD
PSKNR/ L**H / K09	SN**0903**	SN**0903**			SN**0903**	
PSKNR/ L**K / M / P12	SN**1204**	SN**1204**	SN**1204**	SN**1204**	SN**1204**	SN**1204**
PSKNR/ L**M / P15	SN**1506**	SN**1506**	SN**1506**	SN**1506**	SN**1506**	
PSKNR/ L**P / S19		SN**1906**	SN**1906**	SN**1906**	SN**1906**	

SN** Toolholder · Portautensile

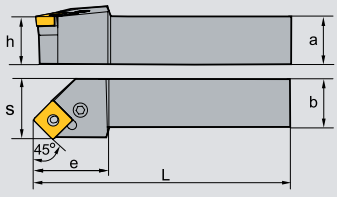
P-Clamping · Portautensile tipo P

PSSNR/ L

Kr:45°



R Type
Versione destra





Type Tipo		Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni a	b	L	h	s	e	Screw Vite	Shim Spessore	Wrench Chiave	Lever Leva di fissaggio	Shim pin Perno distanziatore
PSSNR/ L	1616H09	●	●	16	16	100	16	20	25	LEM6×13.4A	S09AP	WH25L	L3	SP10
	2020K12	●	●	20	20	125	20	25	30	LEM8×21	S12AP	WH30L	L4	SP4
	2525M12	●	●	25	25	150	25	32	30					
	3232P12	●	●	32	32	170	32	40	40					
	2525M15	●	●	25	25	150	25	32	30	LEM8×25	S15AP	WH30L	L5	SP5
	3232P15	●	●	32	32	170	32	40	40					
	3232P19	●	●	32	32	170	32	40	40	LEM10×27	S19AP	WH40L	L6	SP6
	4040S19	●	●	40	40	250	40	50	50					
	4040S2507	●	●	40	40	250	40	50	50	LEM12×36A	S25AP	WH50L	L8	SP8
	4040S2509	●	●	40	40	250	40	50	50		S25AP-09			

Applicable insert
Inserti

Application Applicazione	Finishing Finitura	Semi-Finishing Asportazione media	Roughing Sgrossatura	Heavy Duty Asportazione pesante	Cast iron machining Lavor. ghisa grigia	PCBN · PCD PCBN · PCD
Insert shape Forma inserto	DF	PM	DR Double side bilaterale	HDR	Flat Parte superiore piana	Flat Parte superiore piana
	EF	DM	DR Single side monolaterale	HPR	TC	
	SF	EM	ER Double side bilaterale			
		NM	ER Single side monolaterale			
			LR Single side monolaterale			

Type · Tipo							
	PSSNR/ L**H09	SN**0903**	SN**0903**	SN**0903**		SN**0903**	
	PSSNR/ L**K / M / P12	SN**1204**	SN**1204**	SN**1204**	SN**1204**	SN**1204**	SN**1204**
	PSSNR/ L**M / P15	SN**1506**	SN**1506**	SN**1506**	SN**1506**	SN**1506**	
	PSSNR/ L**P / S19		SN**1906**	SN**1906**	SN**1906**	SN**1906**	
	PSSNR/ L**S2507			SN**2507**	SN**2507**		
	PSSNR/ L**S2509			SN**2509**	SN**2509**		

A

General Turning
Tornitura generale

TN** Toolholder · Portautensile

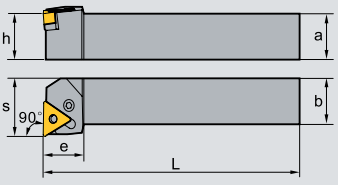
P-Clamping · Portautensile tipo P

PTFNR/ L

Kr:90°



R Type
Versione destra





Type / Tipo		Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni a	b	L	h	s	e	Screw Vite	Shim Spessore	Wrench Chiave	Lever Leva di fissaggio	Shim pin Perno distanziatore
PTFNR/ L	1616H16	●	●	16	16	100	16	20	20	LEM6×13.4A	T16AP	WH25L	L3	SP3
	2020K16	●	●	20	20	125	20	25	20					
	2525M16	●	●	25	25	150	25	32	20					
	2525M22	●	●	25	25	150	25	32	25	LEM8×21	T22AP	WH30L	L4	SP4
	3232P22	●	●	32	32	170	32	40	25					
	3232P27	●	○	32	32	170	32	40	34	LEM8×25	T27AP	WH30L	L5	SP5
	4040S27	○	○	40	40	250	40	50	34					

Applicable insert
Inserti

Application Applicazione	Finishing Finitura	Semi-Finishing Asportazione media	Roughing Sgrossatura	Heavy Duty Asportazione pesante	Cast iron machining Lavor. ghisa grigia	PCBN · PCD PCBN · PCD
Insert shape Forma inserto	DF	PM	DR Double side bilaterale	HDR	Flat Parte superiore piana	Flat Parte superiore piana
	SF	DM	DR Single side monolaterale		TC	
	EF	EM	ER Double side bilaterale			
			LR Single side monolaterale			

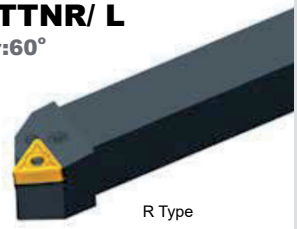
Type · Tipo	Finishing Finitura	Semi-Finishing Asportazione media	Roughing Sgrossatura	Heavy Duty Asportazione pesante	Cast iron machining Lavor. ghisa grigia	PCBN · PCD PCBN · PCD
PTFNR/ L**H / K / M16	TN**1604**	TN**1604**	TN**1604**	TN**1604**	TN**1604**	TN**1604**
PTFNR/ L**M / P22	TN**2204**	TN**2204**	TN**2204**	TN**2204**	TN**2204**	
PTFNR/ L**P / S27			TN**2706**	TN**2706**	TN**2706**	

TN** Toolholder · Portautensile

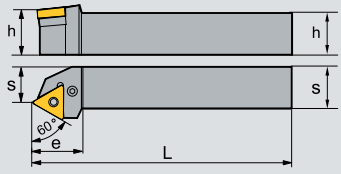
P-Clamping · Portautensile tipo P

PTTNR/ L

Kr:60°



R Type
Versione destra





Type Tipo		Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni a	b	L	h	s	e	Screw Vite	Shim Spessore	Wrench Chiave	Lever Leva di fissaggio	Shim pin Perno distanziatore
PTTNR/ L	1616H16	●	●	16	16	100	16	13	25	LEM6×13.4A	T16AP	WH25L	L3	SP3
	2020K16	●	●	20	20	125	20	17	25					
	2525M22	●	●	25	25	150	20	22	32	LEM8×21	T22AP	WH30L	L4	SP4

Applicable insert
Inserti

Application Applicazione	Finishing Finitura	Semi-Finishing Asportazione media	Roughing Sgrossatura	Heavy Duty Asportazione pesante	Cast iron machining Lavor. ghisa grigia	PCBN · PCD PCBN · PCD
Insert shape Forma inserto	DF	PM	DR Double side bilaterale	HDR	Flat Parte superiore piana	Flat Parte superiore piana
	SF	DM	DR Single side monolaterale		TC	
	EF	EM	ER Double side bilaterale			
			LR Single side monolaterale			

Type · Tipo						
Tipo	PTTNR / L**H / K16	TN**1604**	TN**1604**	TN**1604**	TN**1604**	TN**1604**	TN**1604**
	PTTNR / L**M22	TN**2204**	TN**2204**	TN**2204**	TN**2204**	TN**2204**	

A

General Turning
Tornitura generale

TN** Toolholder · Portautensile

P-Clamping · Portautensile tipo P

PTGNR/ L

Kr:90°



R Type
Versione destra





Type Tipo		Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni a	b	L	h	s	e	Screw Vite	Shim Spessore	Wrench Chiave	Lever Leva di fissaggio	Shim pin Perno distanziatore
PTGNR/ L	1010E11	○	○	10	10	70	10	14	16					
	1212F11	○	○	12	12	80	12	16	14					
	1616H11	●	●	16	16	100	16	20	18	LEM5×9B	—	WH20L	L2	—
	2020K11	●	●	20	20	125	20	25	19					
	2525M11	○	●	25	25	150	25	32	20					
	1616H16	●	●	16	16	100	16	20	20					
	2020K16	●	●	20	20	125	20	25	20					
	2525M16	●	●	25	25	150	25	32	20	LEM6×13.4A	T16AP	WH25L	L3	SP3
	3232P16	●	●	32	32	170	32	40	20					
	2525M22	●	●	25	25	150	25	32	28	LEM8×21	T22AP	WH30L	L4	SP4
	3232P22	●	●	32	32	170	32	40	28					
	3232P27	●	●	32	32	170	32	40	33	LEM8×25	T27AP	WH30L	L5	SP5
	4040S27	○	●	40	40	250	40	50	33					

Applicable insert
Inserti

Application Applicazione	Finishing Finitura	Semi-Finishing Asportazione media	Roughing Sgrossatura	Heavy Duty Asportazione pesante	Cast iron machining Lavor. ghisa grigia	PCBN · PCD PCBN · PCD
Insert shape Forma inserto	DF	PM	DR Double side bilaterale	HDR	Flat Parte superiore piana	Flat Parte superiore piana
	SF	DM	DR Single side monolaterale		TC	
	EF	EM	ER Double side bilaterale			
			LR Single side monolaterale			

Type · Tipo							
PTGNR/L**E / F / H / K / M11	TN**1103**	TN**1103**			TN**1103**	
PTGNR/L**H / K / M16	TN**1604**	TN**1604**	TN**1604**	TN**1604**	TN**1604**	TN**1604**
PTGNR /L**M / P22	TN**2204**	TN**2204**	TN**2204**	TN**2204**	TN**2204**	
PTGNR/L**P / S27			TN**2706**	TN**2706**	TN**2706**	

WN** Toolholder · Portautensile

P-Clamping · Portautensile tipo P

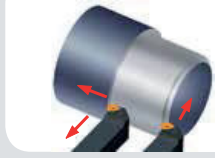
PWLNR/ L

Kr:95°



R Type
Versione destra





Type / Tipo		Stock / Magazzino R	Stock / Magazzino L	Dimension (mm) / Dimensioni a	b	L	h	s	e	Screw / Vite	Shim / Spessore	Wrench / Chiave	Lever / Leva di fissaggio	Shim pin / Perno distanziatore
PWLNR/ L	1616H06	●	●	16	16	100	16	20	20	LEM6×13.4A	W06AP	WH25L	L3	SP3
	2020K06	●	●	20	20	125	20	25	20					
	2525M06	●	●	25	25	150	25	32	20					
	2020K08	●	●	20	20	125	20	25	26	LEM8×21	W08AP	WH30L	L4	SP4
	2525M08	●	●	25	25	150	25	32	26					

Applicable insert / Inserto utilizzabile

Application / Applicazione	Finishing / Finitura	Semi-Finishing / Asportazione media	Roughing / Sgrossatura	Cast iron machining / Lavor. ghisa grigia
Insert shape / Forma inserto	DF	PM	DR (Double side / bilaterale)	Flat / Parte superiore piana
	SF	DM		TC
	EF	EM		
	NF	NM		

Type · Tipo					
	PWLNR/ L**H / K / M06	WN**0604**	WN**0604**	WN**0604**	WN**0604**
	PWLNR/ L**K / M08	WN**0804**	WN**0804**	WN**0804**	WN**0804**

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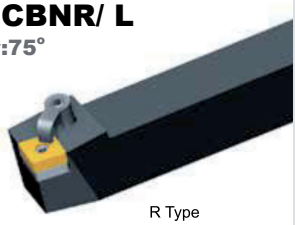
General Turning
Tornitura generale

CN** Toolholder · Portautensile

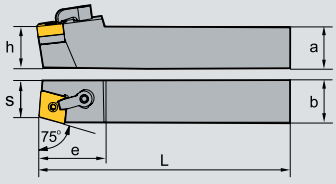
M-Clamping · Portautensile tipo M

MCBNR/ L

Kr:75°



R Type
Versione destra





Type Tipo		Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni a	b	L	h	s	e	Clamping screw Vite	Shim Spessore	Wrench Chiave	Clamp Staffa	Dowel pin Perno passante
MCBNR/ L	**2020K12**	●	○	20	20	125	20	17	32	DM6×25	C12BM	WH30L	C1RD	TM6×17
	2525M12	●	●	25	25	150	20	22	32	DM6×30				
	3225P12	●	●	32	25	170	32	22	32					
	2525M16	○	○	25	25	150	25	22	40	DM6×30	C16BM	WH30L	C2RD	TM8×21
	3232P16	●	●	32	32	170	32	27	40					
	3232P19	○	○	32	32	170	32	27	45	DM8×30X	C19BM	WH40L	C5RD	TM10×21
	4040R19	○	○	40	40	200	40	35	45					

Applicable insert
Inserti

Application Applicazione	Finishing Finitura	Semi-Finishing Asportazione media	Roughing Sgrossatura	Heavy Duty Asportazione pesante	Cast iron machining Lavor. ghisa grigia
Insert shape Forma inserto	**DF** 	**PM** 	**DR** Double side bilaterale 	**HDR** 	Flat Parte superiore piana 
	SF 	**DM** 	**DR** Single side monolaterale 	**HPR** 	**TC** 
	EF 	**EM** 	**ER** Double side bilaterale 		
	NF 	**NM** 	**ER** Single side monolaterale 		
			LR Single side monolaterale 		

Type · Tipo						
	MCBNR/ LK / M / P12**	CN**1204**	CN**1204**	CN**1204**	CN**1204**	CN**1204**
	MCBNR/ LM / P16**	CN**1606**	CN**1606**	CN**1606**	CN**1606**	CN**1606**
	MCBNR/ LP / R19**		CN**1906**	CN**1906**	CN**1906**	CN**1906**

CN** Toolholder · Portautensile

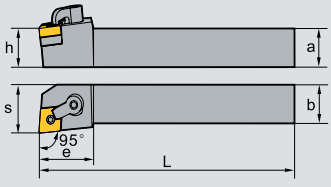
M-Clamping · Portautensile tipo M

MCLNR/ L

Kr:95°



R Type
Versione destra





Type / Tipo		Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni a	b	L	h	s	e	Clamping screw Vite	Shim Spessore	Wrench Chiave	Clamp Staffa	Dowel pin Perno passante
MCLNR/ L	2020K12	●	●	20	20	125	20	25	32	DM6×25	C12BM	WH30L	C1RD	TM6×17
	2525M12	●	●	25	25	150	25	32	32	DM6×30				
	3225P12	●	●	32	25	170	32	32	32					
	2525M16	●	●	25	25	150	25	32	38	DM6×30	C16BM	WH30L	C2RD	TM8×21
	3232P16	●	●	32	32	170	32	40	38					
	3232P19	●	●	32	32	170	32	40	45	DM8×30X	C19BM	WH40L	C5RD	TM10×21
	4040R19	●	○	40	40	200	40	50	45					

Applicable insert
Inserti

Application Applicazione	Finishing Finitura	Semi-Finishing Asportazione media	Roughing Sgrossatura	Heavy Duty Asportazione pesante	Cast iron machining Lavor. ghisa grigia	PCBN · PCD PCBN · PCD
Insert shape Forma inserto	DF	PM	DR Double side bilaterale	HDR	Flat Parte superiore piana	Flat Parte superiore piana
	SF	DM	DR Single side monolaterale	HPR	TC	
	EF	EM	ER Double side bilaterale			
	NF	NM	ER Single side monolaterale			
			LR Single side monolaterale			

Type · Tipo							
	MCLNR/ L**K / M / P12	CN**1204**	CN**1204**	CN**1204**	CN**1204**	CN**1204**	CN**1204**
	MCLNR/ L**M / P16	CN**1606**	CN**1606**	CN**1606**	CN**1606**	CN**1606**	
	MCLNR/ L**P / R19		CN**1906**	CN**1906**	CN**1906**	CN**1906**	

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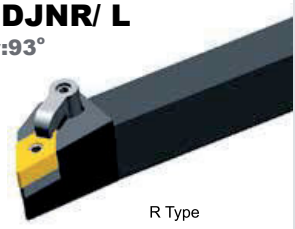
General Turning
Tornitura generale

DN** Toolholder · Portautensile

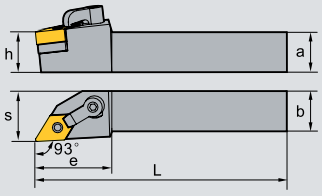
M-Clamping · Portautensile tipo M

MDJNR/ L

Kr:93°



R Type
Versione destra





Type Tipo		Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni a	b	L	h	s	e	Clamping screw Vite	Shim Spessore	Wrench Chiave	Clamp Staffa	Dowel pin Perno passante
MDJNR/ L	**2020K11**	●	●	20	20	125	20	25	32	DM6×25	D11BM	WH20L WH30L	C1RD	TM5×13
	2525M11	●	●	25	25	150	25	32	32	DM6×30				
	3225P11	●	○	32	25	170	32	32	32					
	2020K15	●	●	20	20	125	20	25	38	DM6×25	D15BM	WH30L	C2RD	TM6×19
	2525M15	●	●	25	25	150	25	32	38	DM6×30				
	3225P15	●	●	32	25	170	32	32	38					

Applicable insert
Inserti

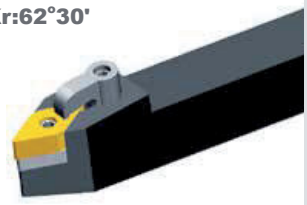
Application Applicazione	Finishing Finitura	Semi-Finishing Asportazione media	Roughing Sgrossatura	Heavy Duty Asportazione pesante	Cast iron machining Lavor. ghisa grigia	PCBN · PCD PCBN · PCD
Insert shape Forma inserto	**DF**	**PM**	**DR** Double side bilaterale	**HDR**	Flat Parte superiore piana	Flat Parte superiore piana
	SF	**DM**	**DR** Single side monolaterale			
	EF	**EM**	**ER** Double side bilaterale			
	NF	**NM**	**ER** Single side monolaterale			
			LR Single side monolaterale			

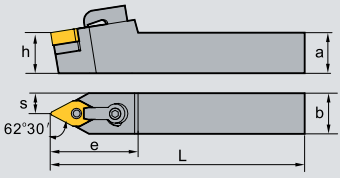
Type · Tipo							
	MDJNR / LK / M / P11**	DN**1104**	DN**1104**			DN**1104**	
	MDJNR/ LK / M / P15**	DN**1506**	DN**1506**	DN**1506**	DN**1506**	DN**1506**	DN**1506**

DN** Toolholder · Portautensile

M-Clamping · Portautensile tipo M

MDPNN
Kr:62°30'







Type Tipo		Stock Magazzino	Dimension (mm) Dimensioni a	b	L	h	s	e	Clamping screw Vite	Shim Spessore	Wrench Chiave	Clamp Staffa	Dowel pin Perno passante
MDPNN	2020K11	●	20	20	125	20	10	35	DM6×25	D11BM	WH20L WH30L	C1RD	TM5×13
	2525M11	●	25	25	150	25	12.5	35	DM6×30				
	3225P11	●	32	25	170	32	12.5	35					
	2020K15	●	20	20	125	20	10	40	DM6×25	D15BM	WH30L	C2RD	TM6×19
	2525M15	●	25	25	150	25	12.5	40	DM6×30				
	3225P15	●	32	25	170	32	12.5	40					

Applicable insert
Inserti

Application Applicazione	Finishing Finitura	Semi-Finishing Asportazione media	Roughing Sgrossatura	Heavy Duty Asportazione pesante	Cast iron machining Lavor. ghisa grigia	PCBN · PCD PCBN · PCD
Insert shape Forma inserto	DF	PM	DR Double side bilaterale	HDR	Flat Parte superiore piana	Flat Parte superiore piana
	SF	DM	DR Single side monolaterale			
	EF	EM	ER Double side bilaterale			
	NF	NM	ER Single side monolaterale			
			LR Single side monolaterale			

Type · Tipo	Finishing Finitura	Semi-Finishing Asportazione media	Roughing Sgrossatura	Heavy Duty Asportazione pesante	Cast iron machining Lavor. ghisa grigia	PCBN · PCD PCBN · PCD
MDPNN**K / M / P11	DN**1104**	DN**1104**			DN**1104**	
MDPNN**K / M / P15	DN**1506**	DN**1506**	DN**1506**	DN**1506**	DN**1506**	DN**1506**

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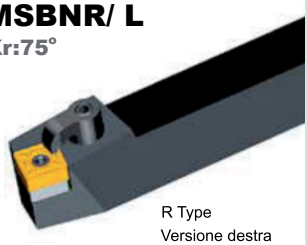
General Turning
Tornitura generale

SN** Toolholder · Portautensile

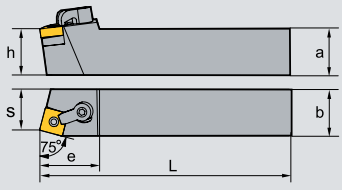
M-Clamping · Portautensile tipo M

MSBNR/ L

Kr:75°



R Type
Versione destra





Type Tipo		Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni a	b	L	h	s	e	Clamping screw Vite	Shim Spessore	Wrench Chiave	Clamp Staffa	Dowel pin Perno passante
MSBNR/ L	2020K12	●	●	20	20	125	20	17	32	DM6×25				
	2525M12	●	○	25	25	150	25	22	32	DM6×30	S12BM	WH30L	C1RD	TM6×17
	3225P12	●	○	32	25	170	32	22	32					
	2525M15	●	○	25	25	150	25	22	38					
	3232P15	●	○	32	32	170	32	29	38	DM6×30	S15BM	WH30L	C2RD	TM8×21
	4032R15	○	○	40	32	200	40	27	38					
	3232P19	○	○	32	32	170	32	27	45	DM8×30X	S19BM	WH40L	C5RD	TM10×21
	4040R19	○	●	40	40	200	40	35	45					
	4040R25	●	○	40	40	200	40	35	50	DM10×35X	S25BM	WH40L	C6RD	TM12×29
	4040S2509	○	○	40	40	250	40	35	50			WH40L WH50L		

Applicable insert
Inserti

Application Applicazione	Finishing Finitura	Semi-Finishing Asportazione media	Roughing Sgrossatura	Heavy Duty Asportazione pesante	Cast iron machining Lavor. ghisa grigia	PCBN · PCD PCBN · PCD
Insert shape Forma inserto	DF	PM	DR Double side bilaterale	HDR	Flat Parte superiore piana	Flat Parte superiore piana
	EF	DM	DR Single side monolaterale	HPR	TC	
	SF	EM	ER Double side bilaterale			
		NM	ER Single side monolaterale			
			LR Single side monolaterale			

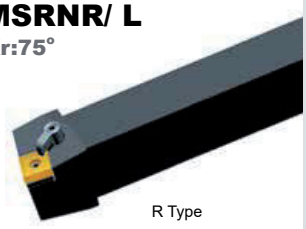
Type · Tipo							
	MSBNR / L**K / M / P12	SN**1204**	SN**1204**	SN**1204**	SN**1204**	SN**1204**	SN**1204**
	MSBNR / L**M / P / R15	SN**1506**	SN**1506**	SN**1506**	SN**1506**	SN**1506**	
	MSBNR / L**P / R19		SN**1906**	SN**1906**	SN**1906**	SN**1906**	
	MSBNR / L**R / S2509			SN**2509**	SN**2509**		

SN** Toolholder · Portautensile

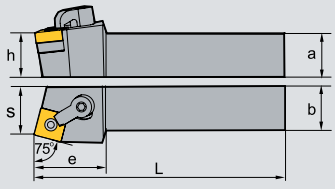
M-Clamping · Portautensile tipo M

MSRNR/ L

Kr:75°



R Type
Versione destra





Type Tipo		Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni a	b	L	h	s	e	Clamping screw Vite	Shim Spessore	Wrench Chiave	Clamp Staffa	Dowel pin Perno passante
MSRNR/ L	**2020K12**	●	●	20	20	125	20	22	36	DM6×25	S12BM	WH30L	C1RD	TM6×17
	2525M12	●	●	25	25	150	25	27	36	DM6×30				
	3225P12	●	○	32	25	170	32	27	36					
	2525M15	●	○	25	25	150	25	27	40	DM6×30	S15BM	WH30L	C2RD	TM8×21
	3232P15	●	○	32	32	170	32	35	40					
	4032R15	○	○	40	32	200	40	35	40					
	3232P19	○	○	32	32	170	32	35	45	DM8×30X	S19BM	WH40L	C5RD	TM10×21
	4040R19	○		40	40	200	40	43	45					
	4040R2509	○	○	40	40	200	40	43	50	DM10×35X	S25BM	WH40L WH50L	C6RD	TM12×29
	4040S2509	○	○	40	40	250	40	43	50					

Applicable insert Inserti

Application Applicazione	Finishing Finitura	Semi-Finishing Asportazione media	Roughing Sgrossatura	Heavy Duty Asportazione pesante	Cast iron machining Lavor. ghisa grigia	PCBN · PCD PCBN · PCD
Insert shape Forma inserto	**DF** 	**PM** 	**DR** Double side bilaterale 	**HDR** 	Flat Parte superiore piana 	Flat Parte superiore piana 
	EF 	**DM** 	**DR** Single side monolaterale 	**HPR** 	**TC** 	
	SF 	**EM** 	**ER** Double side bilaterale 			
		NM 	**ER** Single side monolaterale 			
			LR Single side monolaterale 			

Type · Tipo							
	MSRNR / LK / M / P12**	SN**1204**	SN**1204**	SN**1204**	SN**1204**	SN**1204**	SN**1204**
	MSRNR / LM / P / R15**	SN**1506**	SN**1506**	SN**1506**	SN**1506**	SN**1506**	
	MSRNR / LP / R19**		SN**1906**	SN**1906**	SN**1906**	SN**1906**	
	MSRNR / LR / S2509**			SN**2509**	SN**2509**		

SN** Toolholder · Portautensile

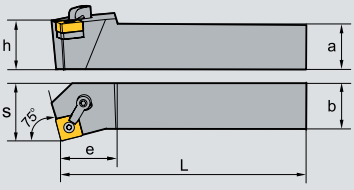
M-Clamping · Portautensile tipo M

MSKNR/ L

Kr:75°



R Type
Versione destra





Type / Tipo		Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni a	b	L	h	s	e	Clamping screw Vite	Shim Spessore	Wrench Chiave	Clamp Staffa	Dowel pin Perno passante
MSKNR/ L	**2020K12**	●	●	20	20	125	20	25	32	DM6×25				
	2525M12	●	●	25	25	150	25	32	32	DM6×30	S12BM	WH30L	C1RD	TM6×17
	3225P12	●	○	32	25	170	32	32	32					
	2525M15	●	○	25	25	150	25	32	28					
	3232P15	●	○	32	32	170	32	40	38	DM6×30	S15BM	WH30L	C2RD	TM8×21
	4032R15	○	○	40	32	200	40	40	38					
	3232P19	●	○	32	32	170	32	40	45	DM8×30X	S19BM	WH40L	C5RD	TM10×21
	4040R19	○	○	40	40	200	40	50	45					
	4040S2509	○	●	40	40	250	40	50	50	DM10×35X	S25BM	WH40L WH50L	C6RD	TM12×29

Applicable insert
Inserti

Application Applicazione	Finishing Finitura	Semi-Finishing Asportazione media	Roughing Sgrossatura	Heavy Duty Asportazione pesante	Cast iron machining Lavor. ghisa grigia	PCBN · PCD PCBN · PCD
Insert shape Forma inserto	**DF**	**PM**	**DR** Double side bilaterale	**HDR**	**TC** Flat Parte superiore piana	Flat Parte superiore piana
	EF	**DM**	**DR** Single side monolaterale	**HPR**		
	SF	**EM**	**ER** Double side bilaterale			
		NM	**ER** Single side monolaterale			
			LR Single side monolaterale			

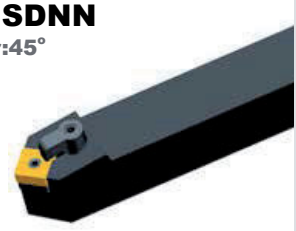
Type · Tipo							
	MSKNR / LK / M / P12**	SN**1204**	SN**1204**	SN**1204**	SN**1204**	SN**1204**	SN**1204**
	MSKNR / LM / P / R15**	SN**1506**	SN**1506**	SN**1506**	SN**1506**	SN**1506**	
	MSKNR / LP / R19**		SN**1906**	SN**1906**	SN**1906**	SN**1906**	
	MSKNR / LS2509**			SN**2509**	SN**2509**		

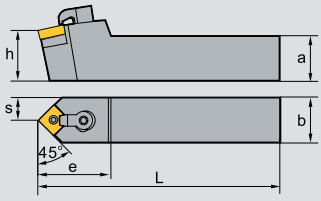
SN** Toolholder · Portautensile

M-Clamping · Portautensile tipo M

MSDNN

Kr:45°







Type Tipo		Stock Magaz-zino	Dimension (mm) Dimensioni a	b	L	h	s	e	Clamping screw Vite	Shim Spessore	Wrench Chiave	Clamp Staffa	Dowel pin Perno passante
MSDNN	**2020K12**	●	20	20	125	20	10	35	DM6×25	S12BM	WH30L	C1RD	TM6×17
	2525M12	●	25	25	150	25	12.5	35	DM6×30				
	3225P12	●	32	25	170	32	12.5	35					
	2525M15	●	25	25	150	25	12.5	42	DM6×30	S15BM	WH30L	C2RD	TM8×21
	3232P15	○	32	32	170	32	16	42					
	4032R15	○	40	32	200	40	16	42					

Applicable insert
Inserti

Application Applicazione	Finishing Finitura	Semi-Finishing Asportazione media	Roughing Sgrossatura	Heavy Duty Asportazione pesante	Cast iron machining Lavor. ghisa grigia	PCBN · PCD PCBN · PCD
Insert shape Forma inserto	**DF**	**PM**	**DR** Double side bilaterale	**HDR**	Flat Parte superiore piana	Flat Parte superiore piana A131
	EF	**DM**	**DR** Single side monolaterale	**HPR**	**TC**	
	SF	**EM**	**ER** Double side bilaterale			
		NM	**ER** Single side monolaterale			
			LR Single side monolaterale			
Type · Tipo **MSDNN**K · M · P12**	SN**1204**	SN**1204**	SN**1204**	SN**1204**	SN**1204**	SN**1204**
MSDNNM · P · R15**	SN**1506**	SN**1506**	SN**1506**	SN**1506**	SN**1506**	

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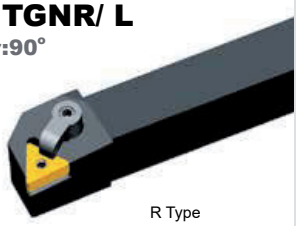
General Turning
Tornitura generale

TN** Toolholder · Portautensile

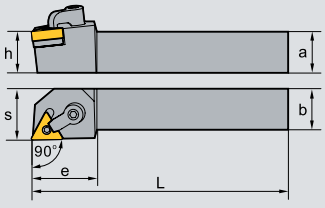
M-Clamping · Portautensile tipo M

MTGNR/ L

Kr:90°



R Type
Versione destra





Type Tipo		Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni a	b	L	h	s	e	Clamping screw Vite	Shim Spessore	Wrench Chiave	Clamp Staffa	Dowel pin Perno passante
MTGNR/ L	2020K16	●	○	20	20	125	20	25	33	DM6×25	T16BM	WH20L WH30L	C1RD	TM5×13
	2525M16	●	●	25	25	150	25	32	33	DM6×30				
	3225P16	●	○	32	25	170	32	32	33					
	2525M22	●	○	25	25	150	25	32	35	DM6×30	T22BM	WH30L	C2RD	TM6×17
	3225P22	○	○	32	25	170	32	32	35					

Applicable insert
Inserti

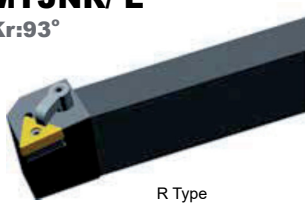
Application Applicazione	Finishing Finitura	Semi-Finishing Asportazione media	Roughing Sgrossatura	Heavy Duty Asportazione pesante	Cast iron machining Lavor. ghisa grigia	PCBN · PCD PCBN · PCD
Insert shape Forma inserto	DF	PM	DR Double side bilaterale	HDR	Flat Parte superiore piana	Flat Parte superiore piana
	SF	DM	DR Single side monolaterale		TC	
	EF	EM	ER Double side bilaterale			
			LR Single side monolaterale			
Type · Tipo MTGNR / L** K / M / P16	TN**1604**	TN**1604**	TN**1604**	TN**1604**	TN**1604**	TN**1604**
Type · Tipo MTGNR / L**M / P22	TN**2204**	TN**2204**	TN**2204**	TN**2204**	TN**2204**	

TN** Toolholder · Portautensile

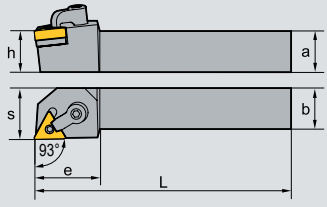
M-Clamping · Portautensile tipo M

MTJNR/ L

Kr:93°



R Type
Versione destra





Type Tipo		Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni a	b	L	h	s	e	Clamping screw Vite	Shim Spessore	Wrench Chiave	Clamp Staffa	Dowel pin Perno passante
MTJNR/ L	2020K16	●	○	20	20	125	20	25	32	DM6×25	T16BM	WH20L WH30L	C1RD	TM5×13
	2525M16	●	●	25	25	150	25	32	32	DM6×30				
	3225P16	●	●	32	25	170	32	32	32					
	2525M22	●	●	25	25	150	25	32	36	DM6×30	T22BM	WH30L	C2RD	TM6×17
	3225P22	○	●	32	25	170	32	32	36					

Applicable insert
Inserti

Application Applicazione	Finishing Finitura	Semi-Finishing Asportazione media	Roughing Sgrossatura	Heavy Duty Asportazione pesante	Cast iron machining Lavor. ghisa grigia	PCBN · PCD PCBN · PCD
Insert shape Forma inserto	DF	PM	DR Double side bilaterale	HDR	Flat Parte superiore piana	Flat Parte superiore piana
	SF	DM	DR Single side monolaterale		TC	
	EF	EM	ER Double side bilaterale			
			LR Double side bilaterale			

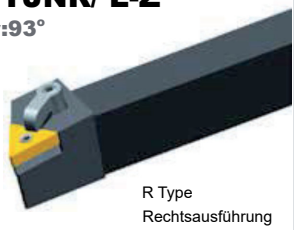
Type · Tipo						
	MTJNR / L** K / M / P16	TN**1604**	TN**1604**	TN**1604**	TN**1604**	TN**1604**	TN**1604**
	MTJNR / L**M / P22	TN**2204**	TN**2204**	TN**2204**	TN**2204**	TN**2204**	

TN** Toolholder · Portautensile

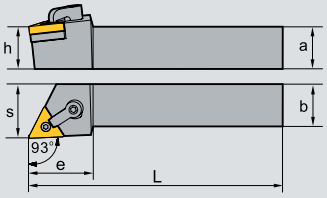
M-Clamping · Portautensile tipo M

MTJNR/ L-Z

Kr:93°



R Type
Rechtsausführung





Type / Tipo		Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni a	b	L	h	s	e	Clamping screw Vite	Shim Spessore	Wrench Chiave	Clamp Staffa	Dowel pin Perno passante
MTJNR/ L	**2020K16-Z**	●	●	20	20	125	20	25	32	DM6×25	T16BM	WH20L WH30L	C1RD	TM5×13
	2525M16-Z	●	●	25	25	150	25	32	32	DM6×30				
	3225P16-Z	●	●	32	25	170	32	32	32					
	2525M22-Z	●	●	25	25	150	25	32	36	DM6×30	T22BM	WH30L	C2RD	TM6×17
	3225P22-Z	○	○	32	25	170	32	32	36					

Applicable insert
Inserti

Application Applicazione	Finishing Finitura	Semi-Finishing Asportazione media	Roughing Sgrossatura	Heavy Duty Asportazione pesante	Cast iron machining Lavor. ghisa grigia	PCBN · PCD PCBN · PCD
Insert shape Forma inserto	**DF**	**PM**	**DR** Double side bilaterale	**HDR**	Flat Parte superiore piana	Flat Parte superiore piana
	SF	**DM**	**DR** Single side monolaterale		**TC**	
	EF	**EM**	**ER** Double side bilaterale			
			LR Single side monolaterale			

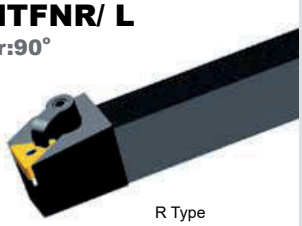
Type · Tipo	Finishing Finitura	Semi-Finishing Asportazione media	Roughing Sgrossatura	Heavy Duty Asportazione pesante	Cast iron machining Lavor. ghisa grigia	PCBN · PCD PCBN · PCD
MTJNR / L K / M / P16**	TN**1604**	TN**1604**	TN**1604**	TN**1604**	TN**1604**	TN**1604**
MTJNR / LM / P22**	TN**2204**	TN**2204**	TN**2204**	TN**2204**	TN**2204**	

TN** Toolholder · Portautensile

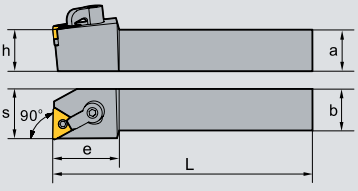
M-Clamping · Portautensile tipo M

MTFNR/ L

Kr:90°



R Type
Versione destra





Type Tipo		Stock Magazzino		Dimension (mm) Dimensioni						Clamping screw Vite	Shim Spessore	Wrench Chiave	Clamp Staffa	Dowel pin Perno passante
		R	L	a	b	L	h	s	e					
MTFNR/ L	**2020K16**	●	○	20	20	125	20	25	32	DM6×25	T16BM	WH20L WH30L	C1RD	TM5×13
	2525M16	●	○	25	25	150	25	32	32	DM6×30				
	3225P16	●	○	32	25	170	32	32	32					
	2525M22	●	○	25	25	150	25	32	36	DM6×30	T22BM	WH30L	C2RD	TM6×17
	3225P22	●	○	32	25	170	32	32	36					

Applicable insert
Inserti

Application Applicazione	Finishing Finitura	Semi-Finishing Asportazione media	Roughing Sgrossatura	Heavy Duty Asportazione pesante	Cast iron machining Lavor. ghisa grigia	PCBN · PCD PCBN · PCD
Insert shape Forma inserto	**DF**	**PM**	**DR** Double side bilaterale	**HDR**	Flat Parte superiore piana	Flat Parte superiore piana
	SF	**DM**	**DR** Single side monolaterale		**TC**	
	EF	**EM**	**ER** Double side bilaterale			
			LR Double side bilaterale			

Type · Tipo						
	MTFNR / L K / M / P16**	TN**1604**	TN**1604**	TN**1604**	TN**1604**	TN**1604**	TN**1604**
	MTFNR / LM / P22**	TN**2204**	TN**2204**	TN**2204**	TN**2204**	TN**2204**	

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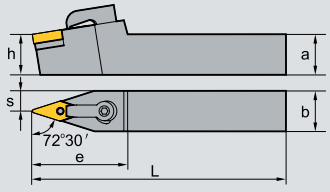
General Turning
Tornitura generale

VN** Toolholder · Portautensile

M-Clamping · Portautensile tipo M

MVVNN
Kr:72°30'







Type Tipo		Stock Magaz-zino	Dimension (mm) Dimensioni a	b	L	h	s	e	Clamping screw Vite	Shim Spessore	Wrench Chiave	Clamp Staffa	Dowel pin Perno passante
MVVNN	2020K16	●	20	20	125	20	10	45	DM6×25	V16BM	WH20L WH30L	C3RD	TM5×13
	2525M16	●	25	25	150	25	12.5	45	DM6×30				
	3225P16	○	32	25	170	32	12.5	45					
	3232P16	●	32	32	170	32	16	45					

Applicable insert
Inserti

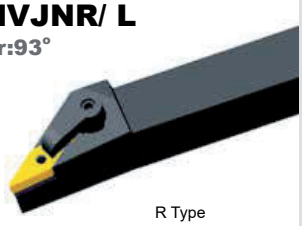
Application Applicazione	Finishing Finitura	Semi-Finishing Asportazione media	PCBN · PCD PCBN · PCD
Insert shape Forma inserto	DF	PM	Flat Parte superiore piana
	EF	DM	
	SF	EM	
	NF	NM	
Type · Tipo MVVNN** K / M / P16	VN**1604**	VN**1604**	VN**1604**

VN** Toolholder · Portautensile

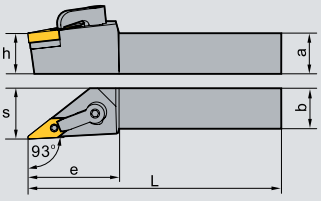
M-Clamping · Portautensile tipo M

MVJNR/ L

Kr:93°



R Type
Versione destra





Type / Tipo		Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni a	b	L	h	s	e	Clamping screw Vite	Shim Spessore	Wrench Chiave	Clamp Staffa	Dowel pin Perno passante
MVJNR/ L	2020K16	●	●	20	20	125	20	25	45	DM6×25	V16BM	WH20L WH30L	C3RD	TM5×13
	2525M16	●	●	25	25	150	25	32	45	DM6×30				
	3225P16	●	●	32	25	170	32	32	45					
	3232P16	●	●	32	32	170	32	40	45					

Applicable insert
Inserti

Application Applicazione	Finishing Finitura	Semi-Finishing Asportazione media	PCBN · PCD PCBN · PCD
Insert shape Forma inserto	DF	PM	Flat Parte superiore piana
	EF	DM	
	SF	EM	
	NF	NM	
Type · Tipo MVJNR / L** K / M / P16	VN**1604**	VN**1604**	VN**1604**

A

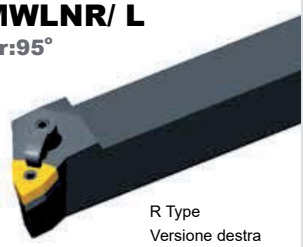
General Turning
Tornitura generale

WN** Toolholder · Portautensile

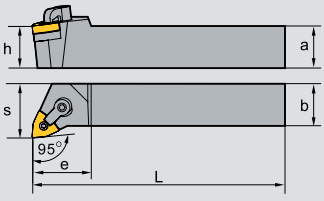
M-Clamping · Portautensile tipo M

MWLNR/ L

Kr:95°



R Type
Versione destra





Type / Tipo		Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni a	b	L	h	s	e	Clamping screw Vite	Shim Spessore	Wrench Chiave	Clamp Staffa	Dowel pin Perno passante
MWLNR/ L	**2020K06**	●	●	20	20	125	20	25	30	DM6×25	W06BM	WH20L WH30L	C1RD	TM5×13
	2525M06	●	●	25	25	150	25	32	30	DM6×30				
	2020K08	●	●	20	20	125	20	25	30	DM6×25	W08BM	WH30L	C1RD	TM6×17
	2525M08	●	●	25	25	150	25	32	35	DM6×30				
	3525P08	○	○	32	25	170	32	32	35					
	3232P08	●	●	32	32	170	32	40	35					

Applicable insert
Inserti

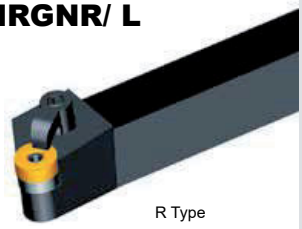
Application Applicazione	Finishing Finitura	Semi-Finishing Asportazione media	Roughing Sgrossatura	Cast iron machining Lavor. ghisa grigia
Insert shape Forma inserto	**DF**	**PM**	**DR** Double side bilaterale	Flat Parte superiore piana
	SF	**DM**		**TC**
	EF	**EM**		
	NF	**NM**		

Type · Tipo					
	MWLNR / LK / M06**	WN**0604**	WN**0604**	WN**0604**	WN**0604**
	MWLNR / LK / M / P08**	WN**0804**	WN**0804**	WN**0804**	WN**0804**

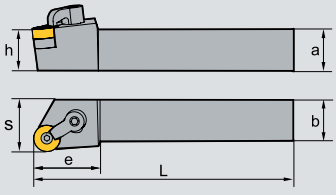
RN** Toolholder · Portautensile

M-Clamping · Portautensile tipo M

MRGNR/ L



R Type
Versione destra



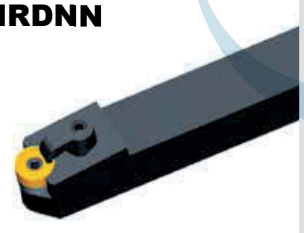


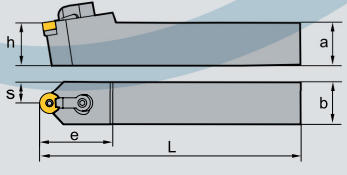
Type / Tipo		Stock / Magazzino		Dimension (mm) / Dimensioni						Application inserts / Inserti	Clamping Screw / Vite	Shim / Spessore	Wrench / Chiave	Clamp / Staffa	Dowel pin / Perno passante
		R	L	a	b	L	h	s	e						
MRGNR/ L	**2020K12**	○	○	20	20	125	20	25	32	RN**1204**	DM6×25	R12BM	WH30L	C1RD	TM6×17
	2525M12	○	●	25	25	150	25	32	32						
	3225P12	○	○	32	25	170	32	32	32		DM6×30				
	3232P12	○	○	32	32	170	32	40	32						

RN** Toolholder · Portautensile

M-Clamping · Portautensile tipo M

MRDNN







Type / Tipo		Stock / Magazzino	Dimension (mm) / Dimensioni						Application inserts / Inserti	Clamping screw / Vite	Shim / Spessore	Wrench / Chiave	Clamp / Staffa	Dowel pin / Perno passante
			a	b	L	h	s	e						
MRDNN	**2020K12**	○	20	20	125	20	10	35	RN**1204**	DM6×25	R12BM	WH30L	C1RD	TM6×17
	2525M 12	○	25	25	150	25	12.5	35						
	3225P12	○	32	25	170	32	12.5	35		DM6×30				
	3232P12	○	32	32	170	32	16	35						

CC** Toolholder · Portautensile

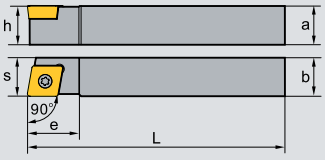
S-Clamping · Portautensile tipo S

SCACR/ L

Kr:90°



R Type
Versione destra





Type / Tipo		Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni a	b	L	h	s	e	Screw Vite	Wrench Chiave
SCACR/ L	1010E06	●	●	10	10	70	10	10.5	10	I60M2.5×6.5	WT07IP
	1212F09	●	●	12	12	80	12	12.7	16	I60M3.5×8	WT15IP

Applicable insert
Inserti

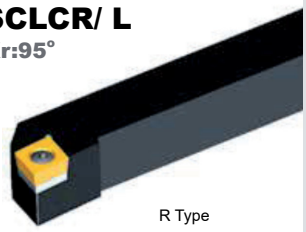
Application Applicazione	Extra Finishing Finitura	Finishing Finitura	Semi-finishing Asportazione media	Roughing Sgrossatura	Al machining Lavorazione alluminio	Cast iron machining Lavor. ghisa grigia	PCBN/PCD inserti
Insert shape Forma inserto	SF	HF	HM	HR	LH	Flat Parte superiore piana	Flat Parte superiore piana
		EF	EM		LC		
Type · Tipo SCACR/ L**E06	CC**0602**	CC**0602**	CC**0602**	CC**0602**	CCGX 0602**	CC** 0602**	CC** 0602**
SCACR/ L**F09	CC**09T3**	CC**09T3**	CC**09T3**	CC**09T3**	CCGX 09T3**	CC** 09T3**	CC** 09T3**

CC** Toolholder · Portautensile

S-Clamping · Portautensile tipo S

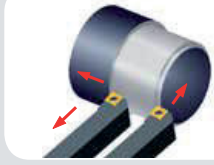
SCLCR/ L

Kr:95°



R Type
Versione destra





Type Tipo		Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni a	b	L	h	s	e	Screw Vite	Shim Spessore	Shim screw Vite per spessore	Wrench Chiave
SCLCR/ L	0808D06	●	●	08	08	60	08	10	10	I60M2.5×6.5	—	—	WT07IP
	1010E06	●	●	10	10	70	10	12	10				
	1212F09	●	●	12	12	80	12	16	16	I60M3.5×8	—	—	WT15IP
	1616H09	●	●	16	16	100	16	20	16				
	1616H12	●	○	16	16	100	16	20	18				
	2020K09	●	●	20	20	125	20	25	25	I60M4×11X	C12BS	SM6×10XA	WT15IP WH40L
	2020K12	●	●	20	20	125	20	25	25				
	2525M12	●	●	25	25	150	25	32	26				
	3225P12	●	●	32	25	170	32	32	26				
	3232P12	●	○	32	32	170	32	40	28				

Applicable insert
Inserti

Application Applicazione	Extra Finishing Finitura	Finishing Finitura	Semi-finishing Asportazione media	Roughing Sgrossatura	Al machining Lavorazione alluminio	Cast iron mach. Lavorazione - Ghisa grigia	PCBN · PCD PCBN · PCD
Insert shape Forma inserto	SF	HF	HM	HR	LH	Flat Parte superiore piana	Flat Parte superiore piana
		EF	EM		LC		
Type · Tipo SCLCR/ L**D / E06	CC** 0602**	CC** 0602**	CC** 0602**	CC** 0602**	CCGX 0602**	CC** 0602**	CC** 0602**
SCLCR / L*F / H09	CC** 09T3**	CC** 09T3**	CC** 09T3**	CC** 09T3**	CCGX 09T3**	CC** 09T3**	CC** 09T3**
SCLCR / L**K / M / P12		CC** 1204**	CC** 1204**	CC** 1204**	CCGX 1204**	CC** 1204**	CC** 1204**

A

General Turning
Tornitura generale

DC** Toolholder · Portautensile

S-Clamping · Portautensile tipo S

SDACR/ L

Kr:90°



R Type
Versione destra





Type / Tipo		Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni a	b	L	h	s	e	Screw Vite	Shim Spessore	Shim screw Vite per spessore	Wrench Chiave
SDACR/ L	1010E07	●	●	10	10	70	10	10.5	15	I60M2.5×6.5	—	—	WT07IP
	1212F11	●	●	12	12	80	12	12.5	15	I60M3.5×8	—	—	WT15IP
	1616H11	●	●	16	16	100	16	16.7	24	I60M3.5×12	D11BS	SM5×8.65XA	WT15IP WH35L

Applicable insert
Inserti

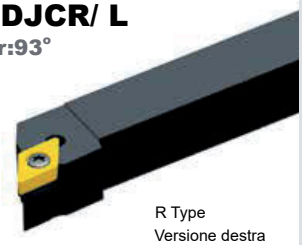
Application Applicazione	Extra Finishing Finitura	Finishing Finitura	Semi-finishing Asportazione media	Roughing Sgrossatura	Al machining Lavorazione alluminio	Cast iron mach. Lavorazione - Ghisa grigia	PCBN · PCD PCBN · PCD
Insert shape Forma inserto	SF 	HF 	HM 	HR 	LH 	Flat Parte superiore piana 	Flat Parte superiore piana 
		EF 	EM 		LC 		
Type · Tipo SDACR / L**E07	DC** 0702**	DC** 0702**	DC** 0702**		DCGX 0702**	DC**0702**	DC**0702**
SDACR / L**F / H11	DC** 11T3**	DC** 11T3**	DC** 11T3**	DC** 11T3**	DCGX 11T3**	DC** 11T3**	DC** 11T3**

DC** Toolholder · Portautensile

S-Clamping · Portautensile tipo S

SDJCR/ L

Kr:93°



R Type
Versione destra





Type / Tipo		Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni a	b	L	h	s	e	Screw Vite	Shim Spessore	Shim screw Vite per spessore	Wrench Chiave
SDJCR/ L	1010E07	●	●	10	10	70	10	12	15	I60M2.5×6.5	—	—	WT07IP
	1212F07	●	●	12	12	80	12	16	15				
	1616H07	●	●	16	16	100	16	20	18				
	1616H11	●	●	16	16	100	16	20	24	I60M3.5×12	D11BS	SM5×8.65XA	WT15IP WH35L
	2020K11	●	●	20	20	125	20	25	24				
	2525M11	●	●	25	25	150	25	32	29				
	3225P11	●	●	32	25	170	32	32	29				

Applicable insert
Inserti

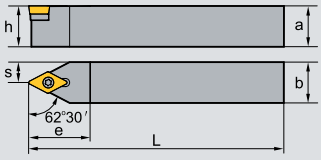
Application Applicazione	Extra Finishing Finitura	Finishing Finitura	Semi-finishing Asportazione media	Roughing Sgrossatura	Al machining Lavorazione alluminio	Cast iron mach. Lavorazione - Ghisa grigia	PCBN · PCD PCBN · PCD
Insert shape / Forma inserto	SF	HF	HM	HR	LH	Flat Parte superiore piana	Flat Parte superiore piana
		EF	EM		LC		
Type · Tipo SDJCR / L**E / F / H07	DC**0702**	DC** 0702**	DC**0702**		DCGX 0702**	DC** 0702**	DC** 0702**
Type · Tipo SDJCR / L**H / K / M / P11	DC** 11T3**	DC** 11T3**	DC**11T3**	DC**11T3**	DCGX 11T3**	DC** 11T3**	DC** 11T3**

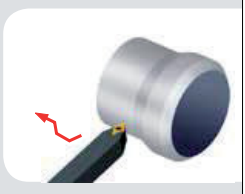
DC** Toolholder · Portautensile

S-Clamping · Portautensile tipo S

SDNCN
Kr:62°30'







Type Tipo		Stock Magaz-zino	Dimension (mm) Dimensioni a	b	L	h	s	e	Screw Vite	Shim Spessore	Shim screw Vite per spessore	Wrench Chiave
SDNCN	**1010E07**	●	10	10	70	10	5	20	I60M2.5×6.5	—	—	WT07IP
	1212F07	●	12	12	80	12	6	20				
	1212H11	●	12	12	100	12	6	30	I60M3.5×8	—	—	WT15IP
	1616H11	●	16	16	100	16	8	30	I60M3.5×12	D11BS	SM5×8.65XA	WT15IP WH35L
	2020K11	●	20	20	125	20	10	30				
	2525M11	●	25	25	150	25	12.5	30				

Applicable insert
Inserti

Application Applicazione	Extra Finishing Finitura	Finishing Finitura	Semi-finishing Asportazione media	Roughing Sgrossatura	Al machining Lavorazione alluminio	Cast iron mach. Lavorazione - Ghisa grigia	PCBN · PCD PCBN · PCD
Insert shape Forma inserto	**SF** 	**HF** 	**HM** 	**HR** 	**LH** 	Flat Parte superiore piana 	Flat Parte superiore piana 
		EF 	**EM** 		**LC** 		
Type · Tipo **SDNCN**E / F07**	DC**0702**	DC** 0702**	DC**0702**		DCGX 0702**	DC** 0702**	DC** 0702**
SDNCNH / K / M11**	DC** 11T3**	DC** 11T3**	DC**11T3**	DC**11T3**	DCGX 11T3**	DC** 11T3**	DC** 11T3**

VB** Toolholder · Portautensile

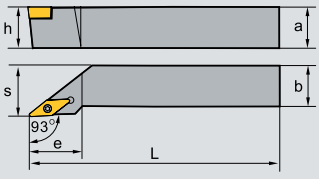
S-Clamping · Portautensile tipo S

SVJBR/ L

Kr:93°



R Type
Versione destra





Type / Tipo		Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni a	b	L	h	s	e	Screw Vite	Shim Spessore	Shim screw Vite per spessore	Wrench Chiave
SVJBR/ L	1212F11	●	●	12	12	80	12	16	27	I60M2.5×6.5	—	—	WT07IP
	1616H11	●	●	16	16	100	16	20	27				
	2020K11	●	●	20	20	125	20	25	27				
	2525M11	●	●	25	25	150	25	32	27				
	1616H16	●	●	16	16	100	16	20	36	I60M3.5×12	V16BS	SM5×8.65XA	WT15IP WH35L
	2020K16	●	●	20	20	125	20	25	41				
	2525M16	●	●	25	25	150	25	32	41				
	3225P16	●	●	32	25	170	32	32	41				

Applicable insert
Inserti

Application Applicazione	Extra Finishing Finitura	Finishing Finitura	Semi-finishing Asportazione media	Roughing Sgrossatura	Cast iron mach. Lavor.- ghisa grigia	PCBN · PCD PCBN · PCD
Insert shape Forma inserto	SF	EF	HM	HR	Flat Parte superiore piana	Flat Parte superiore piana
		HF	EM			
		NF				
Type · Tipo SVJBR / L**F / H / K / M11	VB**1102**	VB**1102**	VB**1102**			
SVJBR / L**H / K / M / P16		VB**1604**	VB**1604**	VB**1604**	VB**1604**	VB**1604**

A

General Turning
Tornitura generale

VB** Toolholder · Portautensile

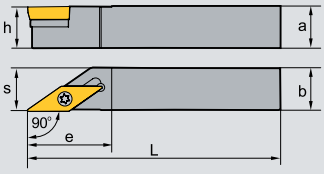
S-Clamping · Portautensile tipo S

SVABR/ L

Kr:90°



R Type
Versione destra





Type / Tipo		Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni a	b	L	h	s	e	Screw Vite	Shim Spessore	Shim screw Vite per spessore	Wrench Chiave
SVABR/ L	1010F11	●	●	10	10	80	10	-	-	I60M2.5×6.5	—	—	WT07IP
	1616H16	●	●	16	16	100	16	16.5	28	I60M3.5×12	V16BS	SM5×8.65XA	WT15IP WH35L
	2020K16	●	○	20	20	125	20	20.5	28				
	2525M16	●	●	25	25	150	25	25.5	28				

Applicable insert
Inserti

Application Applicazione	Extra Finishing Finitura	Finishing Finitura	Semi-finishing Asportazione media	Roughing Sgrossatura	Cast iron mach. Lavor.- ghisa grigia	PCBN · PCD PCBN · PCD
Insert shape Forma inserto	SF	EF	HM	HR	Flat Parte superiore piana	Flat Parte superiore piana
		HF	EM			
		NF				

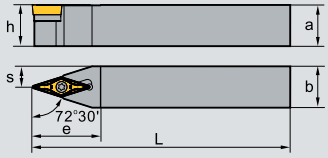
Type · Tipo							
	SVABR / L**F11	VB**1102**	VB**1102**	VB**1102**			
	SVABR / L**H / K / M16		VB**1604**	VB**1604**	VB**1604**	VB**1604**	VB**1604**

VB** Toolholder · Portautensile

S-Clamping · Portautensile tipo S

SVVBN
Kr:72°30'







Type Tipo		Stock Magazzino	Dimension (mm) Dimensioni a	b	L	h	s	e	Screw Vite	Shim Spessore	Shim screw Vite per spessore	Wrench Chiave
SVVBN	**1212F11**	●	12	12	80	12	6	27	I60M2.5×6.5	—	—	WT07IP
	1616H11	●	16	16	100	16	8	27				
	2020K11	●	20	20	125	20	10	30				
	1616H16	●	16	16	100	16	8	33	I60M3.5×12	V16BS	SM5×8.65XA	WT15IP WH35L
	2020K16	●	20	20	125	20	10	33				
	2525M16	●	25	25	150	25	12.5	38				

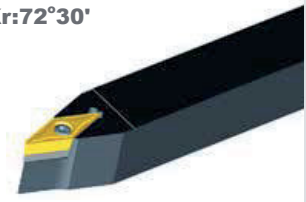
Applicable insert
Inserti

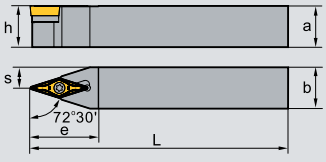
Application Applicazione	Extra Finishing Finitura	Finishing Finitura	Semi-finishing Asportazione media	Roughing Sgrossatura	Cast iron mach. Lavor.- ghisa grigia	PCBN · PCD PCBN · PCD
Insert shape Forma inserto	**SF**	**EF**	**HM**	**HR**	Flat Parte superiore piana	Flat Parte superiore piana
		HF	**EM**			
		NF				
Type · Tipo **SVVBN**F / H / K11**	VB**1102**	VB**1102**	VB**1102**			
Type · Tipo **SVVBN**H / K / M16**		VB**1604**	VB**1604**	VB**1604**	VB**1604**	VB**1604**

VC** Toolholder · Portautensile

S-Clamping · Portautensile tipo S

SVVCN
Kr:72°30'







Type Tipo		Stock Magazzino	Dimension (mm) Dimensioni a	b	L	h	s	e	Screw Vite	Shim Spessore	Shim screw Vite per spessore	Wrench Chiave
SVVCN	1212F11	●	12	12	80	12	6	27	I60M2.5×6.5	—	—	WT07IP
	1212M11	●	12	12	150	12	6	27				
	1616H11	●	16	16	100	16	8	27				
	2020K11	●	20	20	125	20	10	30				
	2525M11	●	25	25	150	25	12.5	38				
	1616H16	●	16	16	100	16	8	33	I60M3.5×12	V16BSC	SM5×8.65XA	WT15IP WH35L
	2020K16	●	20	20	125	20	10	33				
	2525M16	●	25	25	150	25	12.5	38				

Applicable insert
Inserti

Application Applicazione	Extra Finishing Finitura	Finishing Finitura	Al machining Lavorazione alluminio	PCBN · PCD PCBN · PCD
Insert shape Forma inserto	SF 	HF 	LH 	*Flat* Parte superiore piana 
		NF 	LC 	

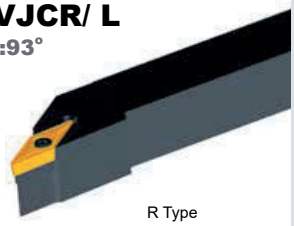
Type · Tipo				
	SVVCN**F / H / K / M11	VC**1103**	VC**1103**	VCGX1103**	
	SVVCN**H / K / M16		VC**1604**	VCGX1604**	VC**1604**

VC** Toolholder · Portautensile

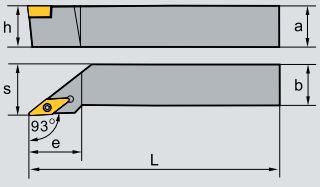
S-Clamping · Portautensile tipo S

SVJCR/ L

Kr:93°



R Type
Versione destra





Type / Tipo		Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni a	b	L	h	s	e	Screw Vite	Shim Spessore	Shim screw Vite per spessore	Wrench Chiave
SVJCR/ L	1010E11	●	○	10	10	70	10	12	22				
	1212F11	●	●	12	12	80	12	16	27				
	1616H11	●	●	16	16	100	16	20	27	I60M2.5×6.5	—	—	WT07IP
	2020K11	●	●	20	20	125	20	25	27				
	2525M11	●	●	25	25	150	25	32	27				
	1616H16	●	●	16	16	100	16	20	36				
	2020K16	●	●	20	20	125	20	25	41				
	2020M16	●	●	20	20	150	20	25	41	I60M3.5×12	V16BSC	SM5×8.65XA	WT15IP WH35L
	2525M16	●	●	25	25	150	20	32	41				
	3225P16	○	○	32	25	170	32	32	41				

Applicable insert
Inserti

Application Applicazione	Extra Finishing Finitura	Finishing Finitura	Al machining Lavorazione alluminio	PCBN · PCD PCBN · PCD
Insert shape Forma inserto	SF 	HF 	LH 	Flat Parte superiore piana 
		NF 	LC 	

Type · Tipo					
SVJCR / L**E / F / H / K / M11	VC**1103**	VC**1103**	VCGX1103**	
SVJCR / L**H / K / M / P16		VC**1604**	VCGX1604**	VC**1604**

A

General Turning
Tornitura generale

SC** Toolholder · Portautensile

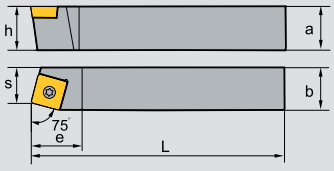
S-Clamping · Portautensile tipo S

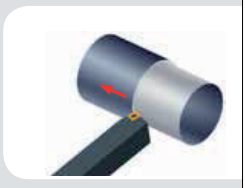
SSBCR/ L

Kr:75°



R Type
Versione destra





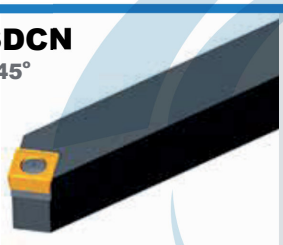
Type / Tipo		Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni a	b	L	h	s	e	Screw Vite	Shim Spessore	Shim screw Vite per spessore	Wrench Chiave
SSBCR/ L	**1212F09**	●	●	12	12	80	12	11	16	I60M3.5×8	—	—	WT15IP
	1616H09	●	●	16	16	100	16	13	16	I60M3.5×8	S09BS	SM5×8.65XA	WT15IP WH35L
	2020K12	●	●	20	20	125	20	17	25	I60M4×11X	S12BS	SM6×10XA	WT15IP WH40L

SC** Toolholder · Portautensile

S-Clamping · Portautensile tipo S

SSDCN

Kr:45°







Type / Tipo		Stock Magazzino	Dimension (mm) Dimensioni a	b	L	h	s	e	Screw Vite	Shim Spessore	Shim screw Vite per spessore	Wrench Chiave
SSDCN	**1212F09**	●	12	12	80	12	6	15.5	I60M3.5×8	—	—	WT15IP
	1616H09	●	16	16	100	16	8	15.5	I60M3.5×12	S09BS	SM5×8.65XA	WT15IP WH35L

Applicable insert
Inserti

Application Applicazione	Extra Finishing Finitura	Finishing Finitura	Semi-finishing Asportazione media	Al machining Lavorazione alluminio	Cast iron machining Lavor. ghisa grigia
Insert shape Forma inserto	**HF** 	**HM** 	**HR** 	**LH** 	Flat Parte superiore piana 
	EF 	**EM** 		**LC** 	

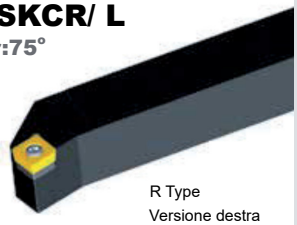
Type · Tipo						
	SSBCR / L****F / H09**	SC**09T3**	SC**09T3**	SC**09T3**	SCGX09T3**	SC**09T3**
	SSBCR / L****K12**		SC**1204**	SC**1204**	SCGX1204**	SC**1204**
	SSDCN****F / H09**	SC**09T3**	SC**09T3**	SC**09T3**	SCGX09T3**	SC**09T3**

SC** Toolholder · Portautensile

S-Clamping · Portautensile tipo S

SSKCR/ L

Kr:75°



R Type
Versione destra

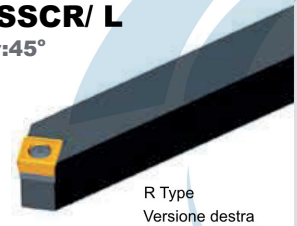




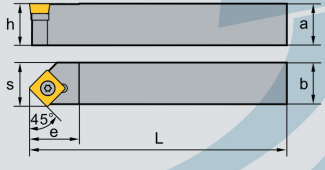
Type / Tipo		Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni a	b	L	h	s	e	Screw Vite	Shim Spessore	Shim screw Vite per spessore	Wrench Chiave
SSKCR/ L	**1616H09**	●	●	16	16	100	16	20	13	I60M3.5×12	S09BS	SM5×8.65XA	WT15IP WH35L

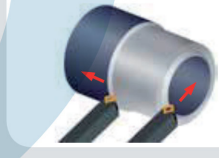
SSSCR/ L

Kr:45°



R Type
Versione destra





Type / Tipo		Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni a	b	L	h	s	e	Screw Vite	Shim Spessore	Shim screw Vite per spessore	Wrench Chiave
SSSCR/ L	**1616H09**	●	●	16	16	100	16	17	16	I60M3.5×12	—	—	WT15IP
	2020K12	●	●	20	20	125	20	21	24	I60M4×11X	S12BS	SM6×10XA	WT15IP WH40L

Applicable insert
Inserti

Application Applicazione	Extra Finishing Finitura	Finishing Finitura	Semi-finishing Asportazione media	Al machining Lavorazione alluminio	Cast iron machining Lavor. ghisa grigia
Insert shape Forma inserto	**HF** 	**HM** 	**HR** 	**LH** 	Flat Parte superiore piana 
	EF 	**EM** 		**LC** 	

Type · Tipo						
	SSKCR / L****H09**	SC**09T3**	SC**09T3**	SC**09T3**	SCGX09T3**	SC**09T3**
	SSSCR / L****H09**	SC**09T3**	SC**09T3**	SC**09T3**	SCGX09T3**	SC**09T3**
	SSSCR / L****K12**		SC**1204**	SC**1204**	SCGX1204**	SC**1204**

A

General Turning
Tornitura generale

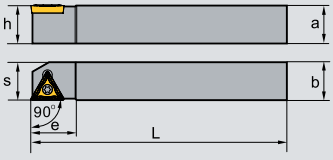
TC** Toolholder · Portautensile

S-Clamping · Portautensile tipo S

STACR/ L
Kr:90°



R Type
Versione destra



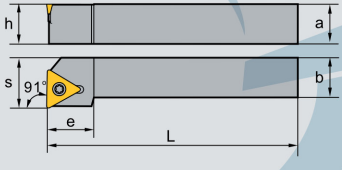


Type / Tipo		Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni a	b	L	h	s	e	Screw Vite	Wrench Chiave
STACR/ L	1212F11	●	●	12	12	80	12	12.5	14	I60M2.5×6.5	WT07IP

STFCR/ L
Kr:91°



R Type
Versione destra





Type / Tipo		Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni a	b	L	h	s	e	Screw Vite	Shim Spessore	Shim screw Vite per spessore	Wrench Chiave
STFCR/ L	1212F11	●	○	12	12	80	12	16	14	I60M2.5×6.5	—	—	WT07IP
	1616H11	●	○	16	16	100	16	20	14				
	1616H16	●	○	16	16	100	16	20	19	I60M3.5×12	T16BS	SM5×8.65XA	WT15IP WH35L
	2020K16	●	●	20	20	125	20	25	19				

Applicable insert
Inserti

Application Applicazione	Extra Finishing Finitura	Finishing Finitura	Semi-finishing Asportazione media	Roughing Sgrossatura	Al machining Lavorazione alluminio	Cast iron machining Lavor. Ghisa grigia	PCBN/PCD inserti
Insert shape Forma inserto	SF	HF	HM	HR	LH	Flat Parte superiore piana	Flat Parte superiore piana
		EF	EM		LC		
Type · Tipo STACR / L**F11	TC**1102**	TC**1102**	TC**1102**	TC**1102**	TCGX1102**	TC**1102**	TC**1102**
Type · Tipo STFCR / L**F / H11	TC**1102**	TC**1102**	TC**1102**	TC**1102**	TCGX1102**	TC**1102**	TC**1102**
Type · Tipo STFCR / L**H / K16		TC**16T3**	TC**16T3**	TC**16T3**	TCGX16T3**	TC**16T3**	TC**16T3**

TC** Toolholder · Portautensile

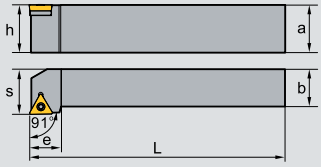
S-Clamping · Portautensile tipo S

STGCR/ L

Kr:91°



R Type
Versione destra





Type Tipo		Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni a	b	L	h	s	e	Screw Vite	Shim Spessore	Shim screw Vite per spessore	Wrench Chiave
STGCR/ L	0808D09	●	●	08	08	60	8	10	11	I60M2.2×5.5	—	—	WT06IP
	1010E09	●	●	10	10	70	10	12	11				
	1212F11	●	●	12	12	80	12	16	14	I60M2.5×6.5	—	—	WT07IP
	1616H11	●	●	16	16	100	16	20	16				
	2020K16	●	●	20	20	125	20	25	21	I60M3.5×12	T16BS	SM5×8.65XA	WT15IP WH35L
	2525M16	●	●	25	25	150	25	25	21				

Applicable insert
Inserti

Application Applicazione	Extra Finishing Finitura	Finishing Finitura	Semi-finishing Asportazione media	Roughing Sgrossatura	Al machining Lavorazione alluminio	Cast ironmachining Lavor. Ghisa grigia	PCBN/PCD inserti
Insert shape Forma inserto	SF	HF	HM	HR	LH	Flat Parte superiore piana	Flat Parte superiore piana
		EF	EM		LC		
Type · Tipo STGCR / L**D / E09	TC**0902**	TC**0902**	TC**0902**	TC**0902**	TCGX0902**	TC**0902**	TC**0902**
STGCR / L**F / H11	TC**1102**	TC**1102**	TC**1102**	TC**1102**	TCGX1102**	TC**1102**	TC**1102**
STGCR / L**K / M16		TC**16T3**	TC**16T3**	TC**16T3**	TCGX16T3**	TC**16T3**	TC**16T3**

A

General Turning
Tornitura generale

TC** Toolholder · Portautensile

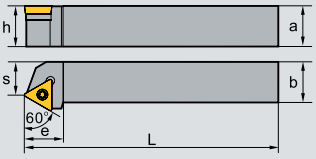
S-Clamping · Portautensile tipo S

STTCR/ L

Kr:60°



R Type
Versione destra





Type / Tipo		Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni a	b	L	h	s	e	Screw Vite	Shim Spessore	Shim screw Vite per spessore	Wrench Chiave
STTCR/ L	1616H11	●	○	16	16	100	16	13	14	I60M2.5×6.5	—	—	WT07IP
	1616H16	●	●	16	16	100	16	13	19	I60M3.5×12	T16BS	SM5×8.65XA	WT15IP
	2020K16	●	●	20	20	125	20	17	19				WH35L

Applicable insert
Inserti

Application Applicazione	Extra Finishing Finitura	Finishing Finitura	Semi-finishing Asportazione media	Roughing Sgrossatura	Al machining Lavorazione alluminio	Cast ironmachining Lavor. Ghisa grigia	PCBN/PCD inserti
Insert shape Forma inserto	SF 	HF 	HM 	HR 	LH 	Flat Parte superiore piana 	Flat Parte superiore piana 
		EF 	EM 		LC 		

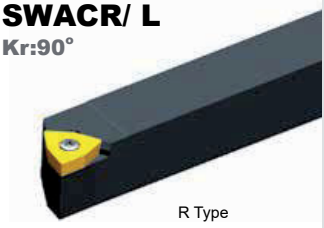
Type · Tipo							
STTCR / L**H11	TC**1102**	TC**1102**	TC**1102**	TC**1102**	TCGX1102**	TC**1102**	TC**1102**
STTCR / L**H / K16		TC**16T3**	TC**16T3**	TC**16T3**	TCGX16T3**	TC**16T3**	TC**16T3**

WC** Toolholder · Portautensile

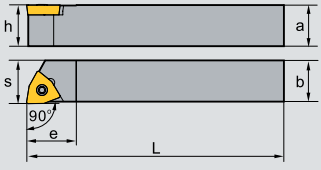
S-Clamping · Portautensile tipo S

SWACR/ L

Kr:90°



R Type
Versione destra





Type / Tipo		Stock / Magazzino R	Stock / Magazzino L	Dimension (mm) / Dimensioni a	b	L	h	s	e	Screw / Vite	Wrench / Chiave		
SWACR/ L	**1010E04**	●	●	10	10	70	10	10.5	10	I60M2.5×6.5	WT07IP		
	1212F04	●	●	12	12	80	12	12.○	14				
	1616H06	●	●	16	16	100	16	16.5	20	I60M3×7	WT10IP		
	2020K08	●	●	20	20	125	20	20.5	24	I60M3.5×12	WT15IP		

Applicable insert
Inserti

Application / Applicazione	Finishing / Finitura
Insert shape / Forma inserto	**53** 
SWACR / LE / F04**	WC*X0402**
SWACR / LH06**	WC*X06T3**
SWACR / LK08**	WC*X0804**

Type · Tipo

A

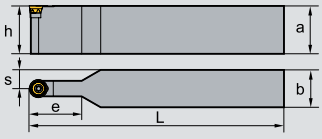
General Turning
Tornitura generale

RC** Toolholder · Portautensile

S-Clamping · Portautensile tipo S

SRDCN







Type Tipo		Stock Magazzino	Dimension (mm) Dimensioni a	b	L	h	s	e	Screw Vite	Shim Spessore	Shim screw Vite per spessore	Wrench Chiave
SRDCN	1616H08	○	16	16	100	16	8	16	I60M3×7	—	—	WT10IP
	2020K08	●	20	20	125	20	10	16	I60M3.5×10	—	—	WT15IP
	2020K10	●	20	20	125	20	10	25				
	2525M10	●	25	25	150	25	12.5	25				
	2020K12	●	20	20	125	20	10	35	I60M3.5×12	R12BS	SM5×8.65XA	WT15IP WH35L
	2525M12	●	25	25	150	25	12.5	35				
	3225P12	●	32	25	170	32	12.5	35				
	3225P16	●	32	25	170	32	12.5	35	I60M4×15X	R16BS	SM6×10XA	WT15IP WH40L
	3232P16	●	32	32	170	32	16	40				
	4040S16	●	40	40	250	40	20	50				
	4040S20	●	40	40	250	40	20	50	I43M6×16	—	—	WT25IT

Applicable insert
Inserti

Type · Tipo	Application Applicazione	Semi-Finishing Asportazione media	Al machining Lavorazione alluminio
	Insert shape Forma inserto		LH 
	SRDCN**H08	RCMT0803MO	RCGX0803MO-LH
	SRDCN**H / K / M10	RCMT10T3 MO	
	SRDCN**K / M / P12	RCMT1204 MO	
	SRDCN**P / S16	RCMT1606 MO	
	SRDCN**P / S20	RCMT2006 MO	

Holder not suitable for RCMX inserts
Portautensile non adatto per inserti RCMX

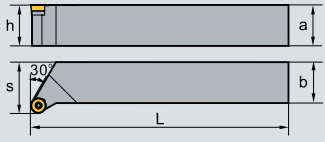
RC** Toolholder · Portautensile

S-Clamping · Portautensile tipo S

SRGCR/ L



R Type
Versione destra





Type Tipo		Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni a	b	L	h	s	Screw Vite	Shim Spessore	Shim screw Vite per spessore	Wrench Chiave
SRGCR/ L	1616H08	●	●	16	16	100	16	20	I60M3×7	—	—	WT10IP
	1616H10	○	○	16	16	100	16	20	I60M3.5×10	—	—	WT15IP
	2020K10	●	●	20	20	125	20	25				
	2525M10	●	○	25	25	100	25	32				
	2020K12	●	●	20	20	125	20	27	I60M3.5×12	R12BS	SM5×8.65XA	WT15IP WH35L
	2525M12	●	○	25	25	150	25	32				

Applicable insert
Inserti

Application Applicazione	Semi-Finishing Asportazione media	Al machining Lavorazione alluminio
Insert shape Forma inserto		LH 
Type · Tipo SRGCR / L**H08		RCGX0803MO-LH
SRGCR / L**H / K / M10	RCMT10T3 MO	
SRGCR / L**K / M12	RCMT1204 MO	

Holder not suitable for RCMX inserts
Portautensile non adatto per inserti RCMX

KNUX** Toolholder · Portautensile

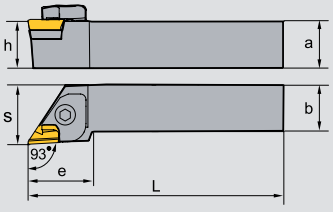
C-Clamping · Portautensile tipo C

CKJNR/ L

Kr:93°



R Type
Versione destra

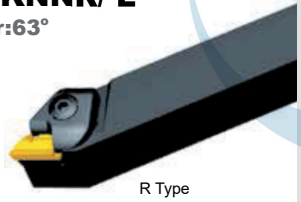




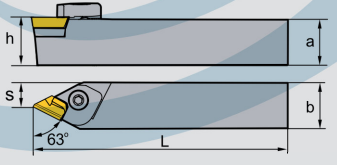
Type / Tipo		Stock / Magazzino	Dimension (mm) Dimensioni a	b	L	h	s	e	Application inserts / Inserti	Clamp / Staffa	Clamp screw / Vite di fissaggio	Spring / Molla	Dowel pin / Perno passante	Shim / Spessore	Shim screw / Vite per spessore	Wrench / Chiave
CKJNR	**2525M16**	●	25	25	150	25	32	32	KNUX1604**R A95	C6R1T	CM6×25A	SPR1 SPR2	P0515	K16CC	SM3×10B	WH20L WH40L
	3232P16	●	32	32	170	32	40	32								
	4040R16	●	40	40	200	40	50	32								
CKJNL	**2525M16**	●	25	25	150	25	32	32	KNUX1604**L A95	C6L1T				K16CCL		
	3232P16	●	32	32	170	32	40	32								
	4040R16	●	40	40	200	40	50	32								

CKNNR/ L

Kr:63°



R Type
Versione destra





Type / Tipo		Stock / Magazzino	Dimension (mm) Dimensioni a	b	L	h	s	Application inserts / Inserti	Clamp / Staffa	Clamp screw / Vite di fissaggio	Spring / Molla	Dowel pin / Perno passante	Shim / Spessore	Shim screw / Vite per spessore	Wrench / Chiave
CKNNR	**2525M16**	●	25	25	150	25	14.3	KNUX1604**R A95	C6R1T	CM6×25A	SPR1 SPR2	P0515	K16CC	SM3×10B	WH20L WH40L
	3232P16	○	32	32	170	32	16.8								
CKNNL	**2525M16**	●	25	25	150	25	14.3	KNUX1604**L A95	C6L1T	CM6×25A	SPR1 SPR2	P0515	K16CCL	SM3×10B	
	3232P16	○	32	32	170	32	16.8								

CN** Toolholder · Portautensile

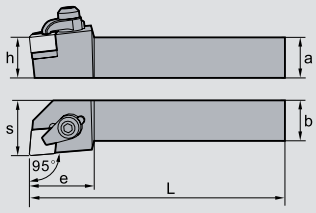
C-Clamping · Portautensile tipo C

CCLNR/ L

Kr:95°



R Type
Versione destra





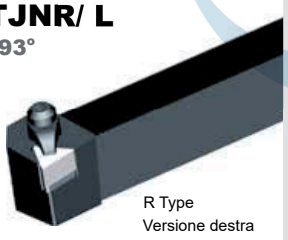
Type Tipo		Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni a	b	L	h	s	e	Application inserts Inserti	Clamp Staffa	Clamp screw Vite di fissaggio	Wrench Chiave	Shim Spessore	Shim screw Vite per spessore	Spring Molla
CCLNR/ L	2020K12	○	○	20	20	125	20	27	32	CNGN1207** (1204**) A153	C1RC	CM6×30B	WH20L WH40L	C12CC-07 (C12CC-04)	SM3×10B	SPR1
	2525M12	○	●	25	20	100	25	27	36							
	2525M16	○	○	25	25	150	25	32	36	CNGN1606** (1604**) A153	C2RC	CM8×30B	WH30L WH50L	C16CC-06 (16CC-04)	SM4×12B	SPR3
	3225P16	○	○	32	25	170	32	32	36							

TN** Toolholder · Portautensile

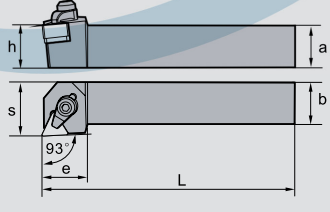
C-Clamping · Portautensile tipo C

CTJNR/ L

Kr:93°



R Type
Versione destra





Type Tipo		Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni a	b	L	h	s	e	Application inserts Inserti	Clamp Staffa	Clamp screw Vite di fissaggio	Wrench Chiave	Shim Spessore	Shim screw Vite per spessore	Spring Molla
CTJNR/ L	2020K16	○	○	20	20	125	20	25	30	TNGN1607** (1604**) A159	C1RC	CM6×30B	WH20L WH40L	T16CC-07 (T16CC-04)	SM3×10B	SPR1
	2525M16	○	○	25	25	150	25	32	30							

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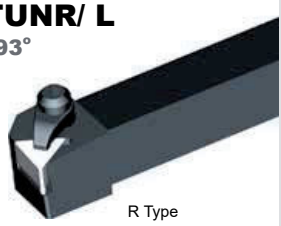
General Turning
Tornitura generale

TN** Toolholder · Portautensile

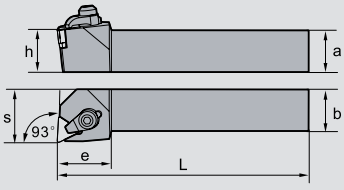
C-Clamping · Portautensile tipo C

CTUNR/ L

Kr:93°



R Type
Versione destra





Type / Tipo		Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni a	b	L	h	s	e	Application inserts Inserti	Clamp Staffa	Clamp screw Vite di fissaggio	Wrench Chiave	Shim Spessore	Shim screw Vite per spessore	Spring Molla
CTUNR/ L	2020K12	○	○	20	20	125	20	25	27	TNGN1607** (1604**) A159	C1RC	CM6×30B	WH20L WH40L	T16CC-07 (T16CC-04)	SM3×10B	SPR1
	2525M16	○	○	25	25	150	25	32	27							

DN** Toolholder · Portautensile

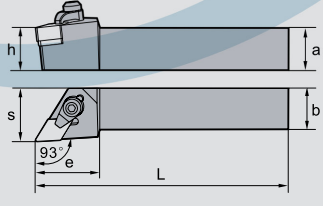
C-Clamping · Portautensile tipo C

CDJNR/ L

Kr:93°



R Type
Versione destra





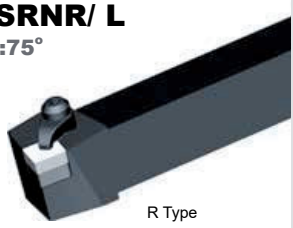
Type / Tipo		Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni a	b	L	h	s	e	Application inserts Inserti	Clamp Staffa	Clamp screw Vite di fissaggio	Wrench Chiave	Shim Spessore	Shim screw Vite per spessore	Spring Molla
CDJNR/ L	2525M15	●	●	25	25	150	25	32	32	DNGN1507** (1504**) A155	C1RC	CM6×30B	WH20L WH40L	D15CC-07 (D15CC-04)	SM3×10B	SPR1
	3225P15	○	○	32	25	170	32	32	32							

SN** Toolholder · Portautensile

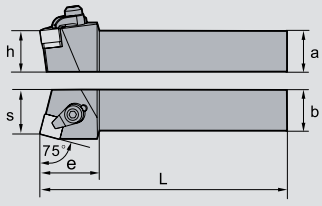
C-Clamping · Portautensile tipo C

CSRNR/ L

Kr:75°



R Type
Versione destra





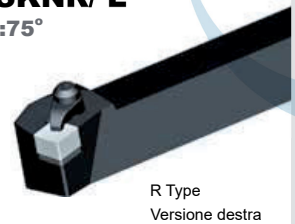
Type Tipo		Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni a	b	L	h	s	e	Application inserts Inserti	Clamp Staffa	Clamp screw Vite di fissaggio	Wrench Chiave	Shim Spessore	Shim screw Vite per spessore	Spring Molla
CSRNR/ L	**2020K12**	○	○	20	20	125	20	22	32	SNGN1207** (1204**) A157	C1RC	CM6×30B	WH20L WH40L	S12CC-07 (S12CC-04)	SM3×10B	SPR1
	2525M12	○	○	25	20	100	25	27	32							
	3225P12	○	○	32	25	170	32	27	32							
	3225P15	○	○	32	25	170	32	32	40	SNGN1507** A157	C2RC	CM8×30B	W○30L WH50L	S15CC-07	SM4×12B	SPR3
	4040R15	○	○	40	40	200	40	43	40							

SN** Toolholder · Portautensile

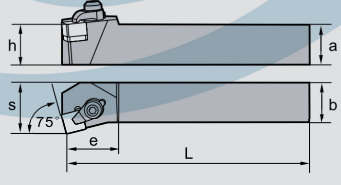
C-Clamping · Portautensile tipo C

CSKNR/ L

Kr:75°



R Type
Versione destra





Type Tipo		Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni a	b	L	h	s	e	Application inserts Inserti	Clamp Staffa	Clamp screw Vite di fissaggio	Wrench Chiave	Shim Spessore	Shim screw Vite per spessore	Spring Molla
CSKNR/ L	**2020K12**	○	○	20	20	125	20	25	25	SNGN1207** (1204**) A157	C1RC	CM6×30B	WH20L WH40L	S12CC-07 (S12CC-04)	SM3×10B	SPR1
	2525M12	○	○	25	25	170	25	32	25							
	3225P12	○	○	32	25	170	32	32	25							
	3225P15	○	○	32	25	170	32	32	30	SNGN1507** A157	C2RC	CM8×30B	WH30L WH50L	S15CC-07	SM4×12B	SPR3

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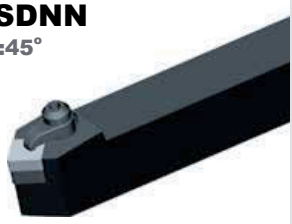
General Turning
Tornitura generale

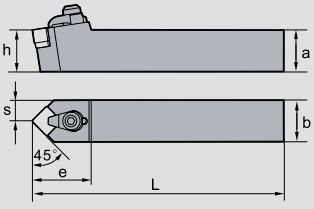
SN** Toolholder · Portautensile

C-Clamping · Portautensile tipo C

CSDNN

Kr:45°







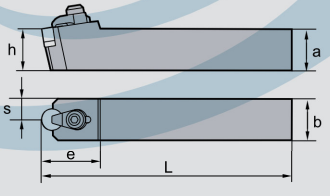
Type Tipo		Stock Magaz-zino	Dimension (mm) Dimensioni a	b	L	h	s	e	Application inserts Inserti	Clamp Staffa	Clamp screw Vite di fissaggio	Wrench Chiave	Shim Spessore	Shim screw Vite per spessore	Spring Molla
CSDNN	**2020K12**	○	20	20	125	20	10	35	SNGN1207** (1204**) A157	C1RC	CM6×30B	WH20L WH40L	S12CC-07 (S12CC-04)	SM3×10B	SPR1
	2525M12	●	25	25	150	25	12.5	3○							
	3225P12	○	32	25	170	32	12.5	35							

RN** Toolholder · Portautensile

C-Clamping · Portautensile tipo C

CRDNN







Type Tipo		Stock Magaz-zino	Dimension (mm) Dimensioni a	b	L	h	s	e	Application inserts Inserti	Clamp Staffa	Clamp screw Vite di fissaggio	Wrench Chiave	Shim Spessore	Shim screw Vite per spessore	Spring Molla
CRDNN	**2020K12**	○	20	20	125	20	10	32	RNGN1207** (1204**) A160	C1RC	CM6×30B	WH20L WH40L	R12CC-07 (R12CC-04)	SM3×10B	SPR1
	2525M12	○	25	25	150	25	12.5	32							
	3225P12	○	32	25	170	32	12.5	32							
	3232P15	○	32	32	170	32	17.5	40	RNGN1507** A160	C2RC	CM8×30B	WH20L WH50L	R15CC-07	SM3×10B	SPR3
	4040R15	○	40	40	200	40	20	40							

CN** Toolholder · Portautensile

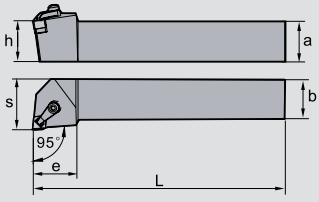
J-Clamping · Portautensile tipo J

JCLNR/ L

Kr:95°



R Type
Versione destra





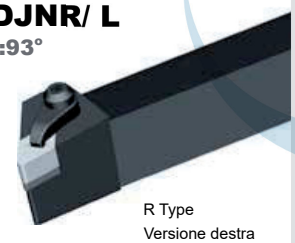
Type Tipo		Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni a	b	L	h	s	e	Application inserts Inserti	Clamp Staffa	Clamp screw Vite di fissaggio	Wrench Chiave	Shim Spessore	Shim screw Vite per spessore	Spring Molla
JCLNR/ L	2020K12	○	○	20	20	125	20	29	32	CNGX1207** A154	C1RJ	CM6×30B	WH20L WH40L	C12CC-07	SM3×10B	SPR1
	2525M12	○	○	25	25	150	25	32	32							

DN** Toolholder · Portautensile

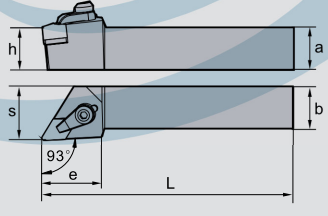
J-Clamping · Portautensile tipo J

JDJNR/ L

Kr:93°



R Type
Versione destra





Type Tipo		Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni a	b	L	h	s	e	Application inserts Inserti	Clamp Staffa	Clamp screw Vite di fissaggio	Wrench Chiave	Shim Spessore	Shim screw Vite per spessore	Spring Molla
JDJNR/ L	2525M15	●	○	25	25	150	25	32	38	DNGX1507** A155	C1RJ	CM6×30B	WH20L WH40L	D15CC-07	SM3×10B	SPR1
	3225P15	○	○	32	25	170	32	32	38							

A

General Turning
Tornitura generale

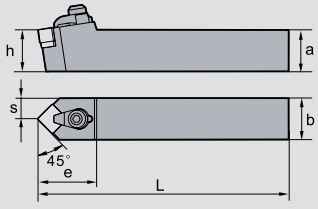
SN** Toolholder · Portautensile

J-Clamping · Portautensile tipo J

JSDNN

Kr:45°







Type Tipo		Stock Magazzino	Dimension (mm) Dimensioni a	b	L	h	s	e	Application inserts Inserti	Clamp Staffa	Clamp screw Vite di fissaggio	Wrench Chiave	Shim Spessore	Shim screw Vite per spessore	Spring Molla
JSDNN	2020K12	○	20	20	125	20	10	40	SNGX1207** A156	C1RJ	CM6×30B	WH20L WH40L	S12CC-07	SM3×10B	SPR1
	2525M12	○	25	25	150	25	12.5	40							
	3225P12	○	32	25	170	32	12.5	40							

Af.I.S.

TOOLS
TURNING
INTERNAL



Clamping system Sistema di bloccaggio	Feature Caratteristiche	62°30′	75°	85°	90°	91°	93°	93°	95°	107°30′
										
P	• min. Ø to be machined = 20mm • min. Ø di lavorazione = 20mm • neg. inserts with good stability and economy • Neg. Inserto con buona stabilità ed economicità	PDSN	PSKN		PTFN			PDUN	PCLN	
									PWLN	
S	• min. Ø to be machined = 8,5mm (Screw Clamping) • min. Ø di lavorazione = 8,5mm (blocc. a vite) • Inserts with 5°/7°/11° • Inserto pos. con 5°/7°/11°		SSKC	SDZC	SCFC	STFC	STUP	SDUC		SDQC
								SDUP	SCLC	SDQP
								SVUC	SCLC	SVQB
								SVUB	SCLP	SVQC
Antivibration Antivibrazione	• Antivibration toolholder (Cemented Carbide) • min. Ø to be machined = 8,5mm • Inserts with 5°/7°/11° • Portautensile antivibrazione (carburo cementato) • min. Ø di lavorazione = 8,5mm • Inserto con 5°/7°/11°						STUP	SDUP	SCLP	SDQP
								SVUC		SVQC

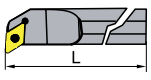
Type of Shank *Versione dello stelo*	
code	Type *Tipo*
A	Steel shank+ Coolant hole *Stelo di acciaio con foro per refrigerante*
C	Carbide shank *Stelo in carburo cementato*
E	Carbide shank+ Coolant hole *Stelo in carburo cementato con foro per refrigerante*
S	Steel shank *Stelo in acciaio*
X	Special insert application *Applicazione speciale*

Shank diameter
Diametro dello stelo



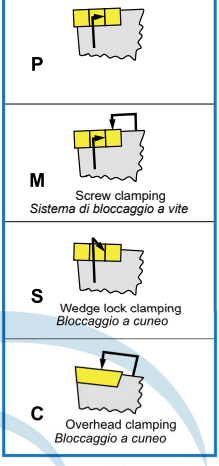
code	diameter *Diametro*
16	16
20	20
25	25
32	32
40	40
50	50

Tool length
Lungh. portautensile

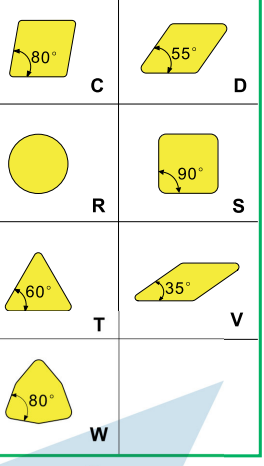


code	length *Lunghezza*
H	100
K	125
M	150
N	160
Q	180
R	200
S	250
T	300
U	350
V	400

Clamping System
Sistema di bloccaggio

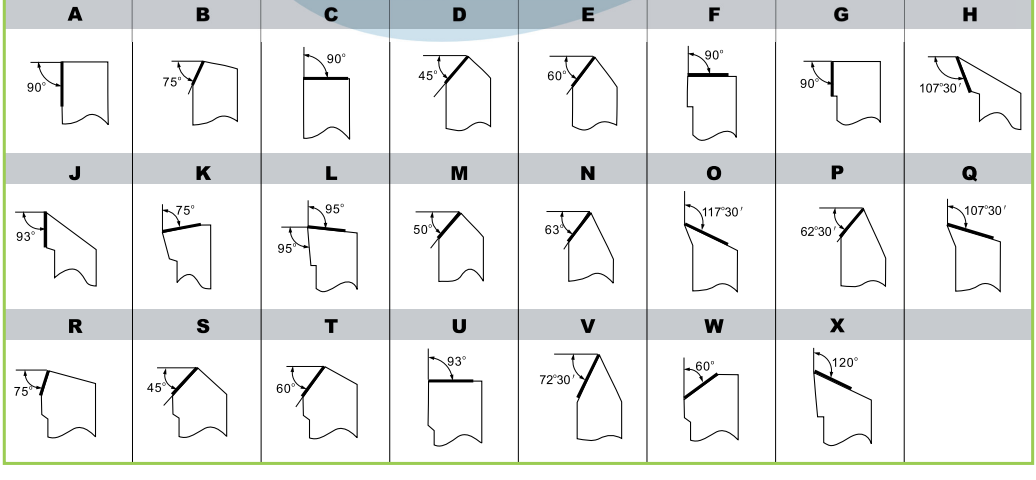


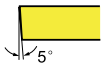
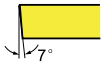
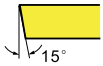
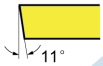
Insert shape
Forma dell'inserto

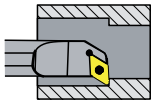
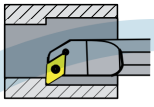


S 16 R - S D U

Holder style and lead angle
Forma portautensile e angolo di attacco



Clearance angle of major cutting edge *Angolo di spoglia del tagliente principale*	
	B
	C
	D
	E
	N
	P

Holder execution *Versione portautensile*	
	L
	R

Manufacture option *Opzioni di fabbricazione*	
D	Increase offset f size+1.0mm *Offset di F +1mm aumentare*
E	Increase offset f size+2.0mm *Offset di F +2mm aumentare*
R	Round shank *Stelo tondo*
W	Wedge clamping *Bloccaggio a staffa*
X	Back boring *Tornitura posteriore*



Insert shape Forma inserto	C	D	R	S	T	V	W
							
Diameter of incircle (mm) *Diametro cerchio interno*	Cutting edge length *Lunghezza tagliente*						
5.556	---	---	---	---	09	---	---
6.350	06	07	---	---	11	---	---
9.525	09	11	09	09	16	16	06
12.700	12	15	12	12	22	22	08
15.875	16	19	15	15	27	---	---
19.050	19	---	19	19	33	---	---
25.400	25	---	25	25	44	---	---

A

General Turning
Tornitura generale

CN** Toolholder · Portautensile

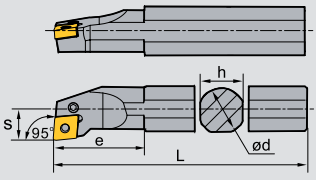
P-Clamping / Portautensile tipo P

PCLNR/L

Kr:95°



R type
Versione destra





Type Tipo	Stock Magazzino		Dimension (mm) Dimensioni							Screw Bullone di fissaggio	Wrench Chiave	Lever Leva di fissaggio	Shim Spessore	Shim pin Perno distanziatore
	R	L	Dmin	ød	h	L	S	θ	e					
S16M-PCLNR/L09	●	●	20	16	15	150	11	-12°	28	LEM5×9B	WH20L	L3C	——	——
S16R-PCLNR/L09	●	●	20	16	15	200	11	-12°	28					
S20Q-PCLNR/L09	●	●	25	20	18	180	13	-11°	31					
S20S-PCLNR/L09	●	●	25	20	18	250	13	-11°	31					
S25Q-PCLNR/L09	○	○	32	25	23	180	17	-10°	35					
S25T- PCLNR/L09	●	●	32	25	23	300	17	-10°	35					
S25Q-PCLNR/L12	○	○	32	25	23	180	17	-12°	40	LEM6×13.4A	WH25L	L4A	——	——
S25T- PCLNR/L12	●	●	32	25	23	300	17	-12°	40					
S32R-PCLNR/L12	●	●	44	32	30	200	22	-10°	50	LEM8×21	WH30L	L4	C12APB	SP4
S32U-PCLNR/L12	●	●	44	32	30	350	22	-10°	50					
S40S-PCLNR/L12	○	○	54	40	37	250	27	-10°	55					
S40V-PCLNR/L12	●	●	54	40	37	400	27	-10°	55					
S50S-PCLNR/L12	○	●	63	50	47	250	35	-10°	56					
S50W-PCLNR/L12	●	●	63	50	47	450	35	-10°	56					
S50S-PCLNR/L19	○	○	63	50	47	250	35	-10°	63	LEM10×27	WH40L	L6	C19AP	SP6
S50W-PCLNR/L19	●	●	63	50	47	450	35	-10°	63					
♦ A25R-PCLNR/L12	●	●	32	25	24	200	17	-12°	40	LEM6×13.4A	WH25L	L4A	——	——
♦ A32S-PCLNR/L12	●	●	44	32	31	250	22	-10°	50	LEM8×21	WH30L	L4	C12APB	SP4

Applicable insert
Inserti

Application Applicazione		Finishing Finitura	Semi-Finishing Asportazione media	Roughing Sgrossatura	Cast iron machining Asportazione ghisa grigia
Insert shape Forma inserto		**DF** 	**PM** 	**DR** Double side bilaterale 	Flat Parte superiore piana 
		SF 	**DM** 	**DR** Single side monolaterale 	**TC** 
		EF 	**EM** 	**ER** Double side bilaterale 	
		NF 	**NM** 	**ER** Single side monolaterale 	
				LR Single side monolaterale 	
Type Tipo	**-PCLNR/L09	CN**0903**	CN**0903**		CN**0903**
	**-PCLNR/L12	CN**1204**	CN**1204**	CN**1204**	CN**1204**
	**-PCLNR/L19			CN**1906**	CN**1906**

A

General Turning
Tornitura generale

DN** Toolholder · Portautensile

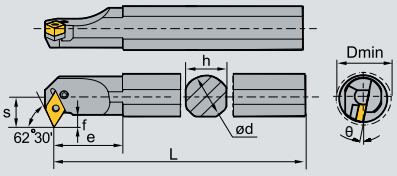
P-Clamping / Portautensile tipo P

PDSNR/L

Kr:62°30'



R type
Versione destra





Type Tipo	Stock Magazzino		Dimension (mm) Dimensioni								Screw Bullone di fissaggio	Wrench Chiave	Lever Leva di fissaggio	Shim Spessore	Shim pin Perno distanziatore
	R	L	Dmin	ød	h	L	S	θ	e	f					
S32R-PDSNR/L15	●	●	40	32	30	200	22	-11°	45	8.5	LEM8×21	WH30L	L4B	D15AP	SP4
S32U-PDSNR/L15	●	●	40	32	30	350	22	-11°	45	8.5					
***S32R-PDSNR/L15-3**	●	●	40	32	30	200	22	-11°	45	8.5	LEM8×21	WH30L	L4	D15AP	SP4
***S32U-PDSNR/L15-3**	●	●	40	32	30	350	22	-11°	45	8.5					
S40S-PDSNR/L15	●	●	50	40	37	250	27	-11°	43	9.4	LEM8×21	WH30L	L4B	D15AP	SP4
S40V-PDSNR/L15	●	●	50	40	37	400	27	-11°	43	9.4					
***S40S-PDSNR/L15-3**	●	●	50	40	37	250	27	-11°	43	9.4	LEM8×21	WH30L	L4	D15AP	SP4
***S40V-PDSNR/L15-3**	●	●	50	40	37	400	27	-11°	43	9.4					
♦ A32S- PDSNR/L15	●	●	40	32	31	250	22	-11°	45	8.5	LEM8×21	WH30L	L4B	D15AP	SP4
***♦ A32S- PDSNR/L15-3**	●	●	40	32	31	250	22	-11°	45	8.5	LEM8×21	WH30L	L4	D15AP	SP4

* For DNMG1504 / *Per DNMG1504*

Applicable insert
Inserti

Application Applicazione	Finishing Finitura	Semi-Finishing Asportazione media	Roughing Sgrossatura	Cast iron machining Asportazione ghisa grigia
Insert shape Forma inserto	**DF**	**PM**	**DR** Double side bilaterale	Flat Parte superiore piana
	SF	**DM**	**DR** Single side monolaterale	
	EF	**EM**	**ER** Double side bilaterale	
	NF	**NM**	**ER** Single side monolaterale	
			LR Single side monolaterale	

Type Tipo				
	****-PDSNR/L-15-3**	DN**1504**	DN**1504**	DN**1504**
	****-PDSNR/L-15**	DN**1506**	DN**1506**	DN**1506** DN**1506**

DN** Toolholder · Portautensile

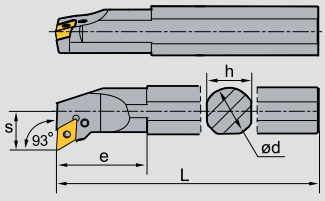
P-Clamping / Portautensile tipo P

PDUNR/L

Kr:93°



R type
Versione destra





Type Tipo	Stock Magazzino		Dimension (mm) Dimensioni							Screw Bullone di fissaggio	Wrench Chiave	Lever Leva di fissaggio	Shim Spessore	Shim pin Perno distanziatore
	R	L	Dmin	ød	h	L	S	θ	e					
S20Q-PDUNR/L11	●	○	25	20	18	180	13	-16°	30	LEM5×12B	WH20L	L3D	——	——
S20S-PDUNR/L11	●	●	25	20	18	250	13	-16°	30					
S25Q-PDUNR/L11	○	○	32	25	23	180	17	-13°	35					
S25T-PDUNR/L11	●	●	32	25	23	300	17	-13°	35					
S32R-PDUNR/L11	●	●	40	32	30	200	22	-16°	40	LEM6×17	WH25L	L3	D11AP	SP3
S32U-PDUNR/L11	●	●	40	32	30	350	22	-16°	40					
S32R-PDUNR/L15	●	●	40	32	30	200	22	-16°	50	LEM8×21	WH30L	L4B	D15AP	SP4
S32U-PDUNR/L15	●	●	40	32	30	350	22	-16°	50					
***S32R-PDUNR/L15-3**	●	●	40	32	30	200	22	-16°	50	LEM8×21	WH30L	L4	D15AP	SP4
***S32U-PDUNR/L15-3**	●	●	40	32	30	350	22	-16°	50					
S40S-PDUNR/L15	●	●	50	40	37	250	27	-11°	50	LEM8×21	WH30L	L4B	D15AP	SP4
S40V-PDUNR/L15	●	●	50	40	37	400	27	-11°	50					
***S40S-PDUNR/L15-3**	●	●	50	40	37	250	27	-11°	50	LEM8×21	WH30L	L4	D15AP	SP4
***S40V-PDUNR/L15-3**	●	●	50	40	37	400	27	-11°	50					
♦ A32S- PDUNR/L15	●	●	40	32	31	250	22	-16°	50	LEM8×21	WH30L	L4B	D15AP	SP4
***♦ A32S- PDUNR/L15-3**	●	●	40	32	31	250	22	-16°	50	LEM8×21	WH30L	L4	D15AP	SP4

* For DNMG1504 / *Per DNMG1504*

A

General Turning
Tornitura generale

Applicable insert
Inserti

Application Applicazione		Finishing Finitura	Semi-Finishing Asportazione media	Roughing Sgrossatura	Cast iron machining Asportazione ghisa grigia
Insert shape Forma inserto		**DF** 	**PM** 	**DR** Double side bilaterale 	Flat Parte superiore piana 
		SF 	**DM** 	**DR** Single side monolaterale 	
		EF 	**EM** 	**ER** Double side bilaterale 	
		NF 	**NM** 	**ER** Single side monolaterale 	
				LR Single side monolaterale 	
Type Tipo	**-PDUNR/L11	DN**1104**	DN**1104**		
	**-PDUNR/L15-3	DN**1504**	DN**1504**		DN**1504**
	**-PDUNR/L15	DN**1506**	DN**1506**	DN**1506**	DN**1506**

SN** Toolholder · Portautensile

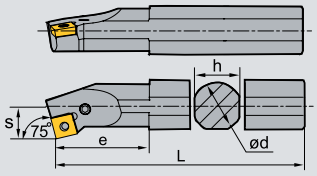
P-Clamping / Portautensile tipo P

PSKNR/L

Kr:75°



R type
Versione destra





Type Tipo	Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni Dmin	ød	h	L	S	θ	e	Screw Bullone di fissaggio	Wrench Chiave	Lever Leva di fissaggio	Shim Spessore	Shim pin Perno distanziatore
S25Q-PSKNR/L12	○	○	32	25	23	180	17	-12°	42	LEM6×13.4A	WH25L	L4A	——	——
S25T-PSKNR/L12	●	○	32	25	23	300	17	-12°	42					
S32R-PSKNR/L12	●	●	44	32	30	200	22	-10°	45	LEM8×21	WH30L	L4	S12APB	SP4
S32U-PSKNR/L12	●	●	44	32	30	350	22	-10°	45					
S40S-PSKNR/L12	●	●	54	40	37	250	27	-10°	50					
S40V-PSKNR/L12	●	○	54	40	37	400	27	-10°	50					
♦ A25R-PSKNR/L12	●	●	32	25	24	200	17	-12°	42	LEM6×13.4A	WH25L	L4A	——	——
♦ A32S-PSKNR/L12	●	●	44	32	31	250	22	-12°	50	LEM8×21	WH30L	L4	S12APB	SP4

Applicable insert
Inserti

Application Applicazione	Finishing Finitura	Semi-Finishing Asportazione media	Roughing Sgrossatura	Cast iron machining Lavor. Ghisa grigia
Insert shape Forma inserto	**DF**	**PM**	**DR** Double side bilaterale	Flat Parte superiore piana
	EF	**DM**	**DR** Single side monolaterale	**TC**
	SF	**EM**	**ER** Double side bilaterale	
		NM	**ER** Single side monolaterale	
			LR Single side monolaterale	
Type Tipo ****-PSKNR/L12**	SN**1204**	SN**1204**	SN**1204**	SN**1204**

A

General Turning
Tornitura generale

TN** Toolholder · Portautensile

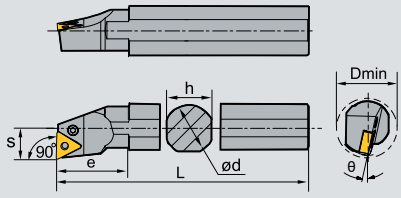
P-Clamping / Portautensile tipo P

PTFNR/L

Kr:90°



R type
Versione destra





Type Tipo	Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni Dmin	ød	h	L	S	θ	e	Screw Bullone di fissaggio	Wrench Chiave	Lever Leva di fissaggio	Shim Spessore	Shim pin Perno distanziatore
S16M-PTFNR/L11	●	●	20	16	15	150	11	-14°	28	LEM5×9B	WH20L	L2	—	—
S16R-PTFNR/L11	●	●	20	16	15	200	11	-14°	28					
S20Q-PTFNR/L11	○	○	25	20	18	180	13	-12°	31					
S20S-PTFNR/L11	●	●	25	20	18	250	13	-12°	31					
S25Q-PTFNR/L11	○	○	32	25	23	180	17	-10°	35					
S25T-PTFNR/L11	○	○	32	25	23	300	17	-10°	35					
S25Q-PTFNR/L16	○	○	32	25	23	180	17	-12°	42	LEM5×12B	WH20L	L3B	—	—
S25T-PTFNR/L16	●	●	32	25	23	300	17	-12°	42					
S32R-PTFNR/L16	○	○	44	32	30	200	22	-10°	50	LEM6×17	WH25L	L3	T16APB	SP3
S32U-PTFNR/L16	●	●	44	32	30	350	22	-10°	50					
S40S-PTFNR/L16	○	○	54	40	37	250	27	-10°	55					
S40V-PTFNR/L16	●	●	54	40	37	400	27	-10°	55					
♦ A25R-PTFNR/L16	●	○	32	25	24	200	17	-12°	40					
♦ A32S-PTFNR/L16	●	●	44	32	31	250	22	-10°	50					

Applicable insert
Inserti

Application Applicazione	Finishing Finitura	Semi-Finishing Asportazione media	Roughing Sgrossatura	Cast iron machining Asportazione ghisa grigia
Insert shape Forma inserto	**DF** 	**PM** 	**DR** Double side bilaterale 	Flat Parte superiore piana 
	SF 	**DM** 	**DR** Single side monolaterale 	**TC** 
	EF 	**EM** 	**ER** Double side bilaterale 	
			LR Single side monolaterale 	

Type Tipo				
	**PTFNR/L11	TN**1103**	TN**1103**	TN**1103**
	**PTFNR/L16	TN**1604**	TN**1604**	TN**1604**	TN**1604**

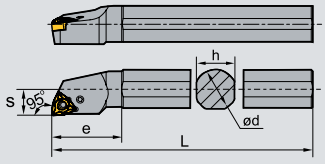
WN** Toolholder · Portautensile

P-Clamping / Portautensile tipo P

PWLNR/L
Kr:95°



R type
Versione destra





Type Tipo	Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni Dmin	ød	h	L	S	θ	e	Screw Bullone di fissaggio	Wrench Chiave	Lever Leva di fissaggio	Shim Spessore	Shim pin Perno distanziatore
S16M-PWLNR/L06	●	●	20	16	15	150	11	-13°	25	LEM5X12B	WH20L	L3B	—	—
S16R-PWLNR/L06	○	○	20	16	15	200	11	-13°	25					
S20Q-PWLNR/L06	●	●	25	20	18	180	13	-13°	35	LEM5X12B	WH20L	L3B	—	—
S20S-PWLNR/L06	○	○	25	20	18	250	13	-13°	35					
S25Q-PWLNR/L06	○	○	32	25	23	180	17	-13°	35					
S25T-PWLNR/L06	○	○	32	25	23	300	17	-13°	35					
S20Q-PWLNR/L08	●	●	25	20	18	180	13	-13°	32	LEM6X13.4A	WH25L	L4A	—	—
S20S-PWLNR/L08	○	○	25	20	18	250	13	-13°	32					
S25Q-PWLNR/L08	●	○	32	25	23	180	17	-13°	45					
S25T-PWLNR/L08	●	○	32	25	23	300	17	-13°	45					
S32R-PWLNR/L08	●	●	40	32	30	200	22	-15°	50	LEM8X21	WH30L	L4	W08AP	SP4
S32U-PWLNR/L08	●	●	40	32	30	350	22	-15°	50					

Applicable insert
Inserti

Application Applicazione	Finishing Finitura	Semi-Finishing Asportazione media	Roughing Sgrossatura	Cast iron machining Asportazione ghisa grigia
Insert shape Forma inserto	**DF**	**PM**	**DR** Double side bilaterale	Flat Parte superiore piana
	SF	**DM**		**TC**
	EF	**EM**		
	NF	**NM**		

Type Tipo	Finishing Finitura	Semi-Finishing Asportazione media	Roughing Sgrossatura	Cast iron machining Asportazione ghisa grigia
****-PWLNR/L06**	WN**0604**	WN**0604**	WN**0604**	WN**0604**
****-PWLNR/L08**	WN**0804**	WN**0804**	WN**0804**	WN**0804**

CC** Toolholder · Portautensile

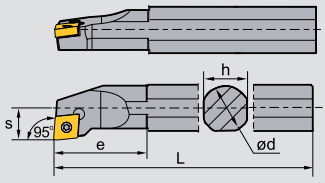
S-Clamping / Portautensile tipo S

SCLCR/L

Kr:95°



R type
Versione destra





Type Tipo	Stock Magazzino		Dimension (mm) Dimensioni							Screw Bullone di fissaggio	Wrench Chiave	Shim Spessore	Shim screw Vite per spessore
	R	L	Dmin	ød	h	L	S	θ	e				
S08K-SCLCR/L06	●	●	10	8	7	125	5	-15°	14	I60M2.5×5.5	WT07IP	——	——
S10K-SCLCR/L06	●	●	10	10	7	125	5	-15°	14				
S10M-SCLCR/L06	●	●	12	10	9	150	6	-13°	14				
S12M-SCLCR/L06	●	●	16	12	11	150	9	-10°	25				
S12M-SCLCR/L09	●	●	16	12	11	150	9	-10°	25				
S16M-SCLCR/L09	●	○	20	16	15	150	11	-12°	32.5				
S16R-SCLCR/L09	●	●	20	16	15	200	11	-12°	32.5	I60M3.5×8	WT15IP	——	——
S20Q-SCLCR/L09	●	●	25	20	18	180	13	-8°	38				
S20S-SCLCR/L09	●	●	25	20	18	250	13	-8°	38				
S25Q-SCLCR/L09	●	○	32	25	23	180	17	-6°	45	I60M3.5×10	WT15IP	——	——
S25T-SCLCR/L09	●	●	32	25	23	300	17	-6°	45				
S25Q-SCLCR/L12	●	○	32	25	23	180	17	-6°	45	I60M4×11X	WT15IP	——	——
S25T-SCLCR/L12	●	●	32	25	23	300	17	-6°	45	I60M4×11X	WT15IP	——	——
S32R-SCLCR/L12	●	●	40	32	30	200	22	-10°	50	I60M4×11X	WH40L WT15IP	C12BS	SM6×10XA
S32U-SCLCR/L12	●	●	40	32	30	350	22	-10°	50				
S40S-SCLCR/L12	○	○	50	40	37	250	27	-8°	60				
S40V-SCLCR/L12	●	●	50	40	37	400	27	-8°	60				
♦ A08F-SCLCR/L06	●	●	10	8	7.5	80	5	-15°	14	I60M2.5×5.5	WT07IP	——	——
♦ A10H-SCLCR/L06	●	●	12	10	9.5	100	6	-13°	14				
♦ A12K-SCLCR/L06	●	●	16	12	11.5	125	9	-10°	25				
♦ A12K-SCLCR/L09	●	●	16	12	11.5	125	9	-10°	25	I60M3.5×8	WT15IP	——	——
♦ A16M-SCLCR/L09	●	●	20	16	15.5	150	11	-12°	32.5				
♦ A20Q-SCLCR/L09	●	●	25	20	19	180	13	-8°	38				
♦ A25R-SCLCR/L09	●	●	32	25	24	200	17	-6°	45	I60M3.5×10			
♦ A25R-SCLCR/L12	●	●	32	25	24	200	17	-6°	45	I60M4×11X	WT15IP	——	——
♦ A32S-SCLCR/L12	●	●	40	32	31	250	22	-10°	50		WH40L,WT15IP	C12BS	SM6×10XA

Applicable insert
Inserti

Application Applicazione		Extra Finishing Finitura	Finishing Finitura	Semi-finishing Asportazione media	Roughing Sgrossatura	Al machining Asportazione alluminio	Cast iron machining Lavor. Ghisa grigia
Insert shape Forma inserto		SF 	HF 	HM 	HR 	LH 	Flat Parte supe-riore piana 
			EF 	EM 		LC 	
Type Tipo	**-SCLCR/L06	CC**0602**	CC**0602**	CC**0602**	CC**0602**	CCGX0602**	CC**0602**
	**-SCLCR/L09	CC**09T3**	CC**09T3**	CC**09T3**	CC**09T3**	CCGX09T3**	CC**09T3**
	**-SCLCR/L12	CC**1204**	CC**1204**	CC**1204**	CC**1204**	CCGX1204**	CC**1204**

A

General Turning
Tornitura generale

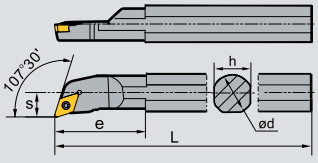
DC** Toolholder · Portautensile

S-Clamping / Portautensile tipo S

SDQCR/L
Kr:107°30'



R type
Versione destra





Type Tipo	Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni Dmin	ød	h	L	S	θ	e	Screw Bullone di fissaggio	Wrench Chiave
S10M-SDQCR/L07	●	●	13	10	9	150	7	-8°	20	I60M2.5×5.5	
S12M-SDQCR/L07	●	●	16	12	11	150	9	-8°	22		
S16M-SDQCR/L07	○	●	20	16	15	150	11	-6°	27	I60M2.5×6.5	WT07IP
S16Q-SDQCR/L07	●	●	20	16	15	150	11	-6°	27		
S16R-SDQCR/L07	●	●	20	16	15	200	11	-6°	27		
S20Q-SDQCR/L11	●	○	25	20	18	180	13	-6°	32	I60M3.5×8	
S20S-SDQCR/L11	●	●	25	20	18	250	13	-6°	32		WT15IP
S25Q-SDQCR/L11	●	○	32	25	23	180	17	-6°	32	I60M3.5×10	
S25T-SDQCR/L11	●	●	32	25	23	300	17	-6°	32		
♦ A10H-SDQCR/L07	●	●	13	10	9.5	100	7	-8°	20	I60M2.5×5.5	WT07IP
♦ A12K-SDQCR/L07	●	●	16	12	11.5	125	9	-8°	22	I60M2.5×6.5	
♦ A16M-SDQCR/L11	●	●	20	16	15.5	150	11	-6°	27	I60M3.5×8	
♦ A20Q-SDQCR/L11	●	●	25	20	19	180	13	-6°	32		WT15IP
♦ A25R-SDQCR/L11	●	●	32	25	24	200	17	-6°	32	I60M3.5×10	

Applicable insert
Inserti

Application Applicazione	Extra Finishing Finitura	Finishing Finitura	Semi-finishing Asportazione media	Roughing Sgrossatura	Al machining Asportazione alluminio	Cast iron machining Lavor. Ghisa grigia
Insert shape Forma inserto	SF 	HF 	HM 	HR 	LH 	Flat Parte superiore piana 
		EF 	EM 		LC 	

Type Tipo						
	****-SDQCR/L07**	DC**0702**	DC**0702**	DC**0702**		DCGX0702**	DC**0702**
	****-SDQCR/L11**	DC**11T3**	DC**11T3**	DC**11T3**	DC**11T3**	DCGX11T3**	DC**11T3**

DC** Toolholder · Portautensile

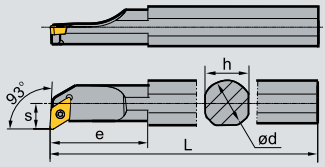
S-Clamping / Portautensile tipo S

SDUCR/L

Kr:93°



R type
Versione destra





Type Tipo	Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni Dmin	ød	h	L	S	θ	e	Screw Bullone di fissaggio	Wrench Chiave
S10M-SDUCR/L07	●	●	13	10	9	150	7	-8°	0	I60M2.5×5.5	WT07IP
S12M-SDUCR/L07	●	●	16	12	11	150	9	-8°	22	I60M2.5×6.5	
S16M-SDUCR/L07	●	●	20	16	15	150	11	-6°	27		
S16R-SDUCR/L07	●	●	20	16	15	200	11	-6°	27		
S20Q-SDUCR/L11	●	●	25	20	18	180	13	-6°	40	I60M3.5×8	WT15IP
S20S-SDUCR/L11	●	●	25	20	18	250	13	-6°	40		
S25Q-SDUCR/L11	●	○	32	25	23	180	17	-6°	46	I60M3.5×10	
S25T-SDUCR/L11	●	●	32	25	23	300	17	-6°	46		
♦ A10H-SDUCR/L07	●	●	13	10	9.5	100	7	-8°	0	I60M2.5×5.5	WT07IP
♦ A12K-SDUCR/L07	●	●	16	12	11.5	125	9	-8°	22	I60M2.5×6.5	
♦ A16M-SDUCR/L07	●	●	20	16	15.5	150	11	-6°	27		
♦ A20Q-SDUCR/L11	●	●	25	20	19	180	13	-6°	40	I60M3.5×8	WT15IP
♦ A25R-SDUCR/L11	●	●	32	25	24	200	17	-6°	46	I60M3.5×10	

Applicable insert
Inserti

Application Applicazione	Extra Finishing Finitura	Finishing Finitura	Semi-finishing Asportazione media	Roughing Sgrossatura	Al machining Asportazione alluminio	Cast iron machining Lavor. Ghisa grigia
Insert shape Forma inserto	SF 	HF 	HM 	HR 	LH 	Flat Parte superiore piana 
		EF 	EM 		LC 	

Type Tipo						
	**-SDUCR/L07	DC**0702**	DC**0702**	DC**0702**		DCGX0702**	DC**0702**
	**-SDUCR/L11	DC**11T3**	DC**11T3**	DC**11T3**	DC**11T3**	DCGX11T3**	DC**11T3**

A

General Turning
Tornitura generale

DC** Toolholder · Portautensile

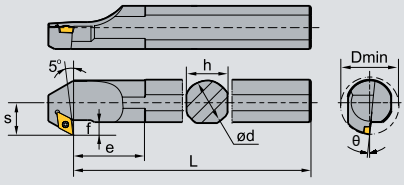
S-Clamping / Portautensile tipo S

SDZCR/L

Kr:85°



R type
Versione destra





Type Tipo	Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni Dmin	ød	h	L	S	θ	e	f	Screw Bullone di fissaggio	Wrench Chiave	Shim Spessore	Shim screw Vite per spessore
S25Q-SDZCR/L11	●	●	32	25	23	180	17	-6°	30	6.9	I60M3.5×10	WT15IP		
S25T-SDZCR/L11	●	●	32	25	23	300	17	-6°	30	6.9				
S32R-SDZCR/L11	○	●	40	32	30	200	22	-6°	39	8.4	I60M3.5×12	WT15IP WH35L	D11BS	SM5×8.65XA
S32U-SDZCR/L11	●	●	40	32	30	350	22	-6°	39	8.4				
S40S-SDZCR/L11	●	●	50	40	37	250	27	-4°	47	9.4				
S40V-SDZCR/L11	●	●	50	40	37	400	27	-4°	47	9.4				
♦ A25R-SDZCR/L11	●	●	32	25	24	200	17	-6°	30	4.5	I60M3.5×10	WT15IP		
♦ A32S-SDZCR/L11	●	●	40	32	31	250	22	-6°	39	6.0	I60M3.5×12	WT15IP WH35L	D11BS	SM5×8.65XA

Applicable insert
Inserti

Application Applicazione	Extra Finishing Finitura	Finishing Finitura	Semi-finishing Asportazione media	Roughing Sgrossatura	Al machining Asportazione alluminio	Cast iron machining Lavor. Ghisa grigia
Insert shape Forma inserto	**SF** 	**HF** 	**HM** 	**HR** 	**LH** 	Flat Parte superiore piana 
		EF 	**EM** 		**LC** 	
Type Tipo ****-SDZCR/L11**	DC**11T3**	DC**11T3**	DC**11T3**	DC**11T3**	DCGX11T3**	DC**11T3**

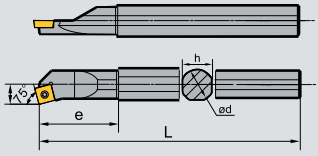
SC** Toolholder · Portautensile

S-Clamping / Portautensile tipo S

SSKCR/L
Kr:75°



R type
Versione destra





Type Tipo	Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni Dmin	ød	h	L	S	θ	e	Screw Bullone di fissaggio	Wrench Chiave	Shim Spessore	Shim screw Vite per spessore
S12M- SSKCR/L09	●	●	16	12	11	150	9	-10	26				
S16M- SSKCR/L09	●	●	20	16	15	150	11	-11	32.5				
S16R- SSKCR/L09	●	●	20	16	15	200	11	-11	32.5	I60M3.5×8	WT15IP		
S20Q- SSKCR/L09	●	●	25	20	18	180	13	-6	34.5				
S20S- SSKCR/L09	●		25	20	18	250	13	-6	34.5				
S25Q- SSKCR/L12	●	●	32	25	23	180	17	-8	36.3		WT15IP		
S25T- SSKCR/L12	●	●	32	25	23	300	17	-8	36.3	I60M4×11X			
S32R- SSKCR/L12	●	●	40	32	30	200	22	-10	43.5		WT15IP		
S32U- SSKCR/L12	●		40	32	30	350	22	-10	43.5		WH40L	S12BS	SM6×10XA
♦ A12K- SSKCR/L09	●		16	12	11	125	9	-10	26				
♦ A16M- SSKCR/L09	●		20	16	15	150	11	-11	32.5	I60M3.5×8	WT15IP		
♦ A20Q- SSKCR/L09	●		25	20	19	180	13	-6	34.5				
♦ A25R- SSKCR/L12	●	●	32	25	24	200	17	-8	41.3		WT15IP		
♦ A32S- SSKCR/L12	●		40	32	31	250	22	-10	42.8	I60M4×11X	WT15IP WH40L	S12BS	SM6×10XA

Applicable insert
Inserti

Application Applicazione	Finishing Finitura	Semi-finishing Asportazione media	Roughing Sgrossatura	Al machining Asportazione alluminio	Cast iron machining Lavor. Ghisa grigia
Insert shape Forma inserto	**HF** 	**HM** 	**HR** 	**LH** 	Flat Parte superiore piana 
	EF 	**EM** 		**LC** 	
Type Tipo ****-SSKCR/L09**	SC**09T3**	SC**09T3**	SC**09T3**	SCGX09T3**	SC**09T3**
Type Tipo ****-SSKCR/L12**		SC**1204**	SC**1204**	SCGX1204**	SC**1204**

A

General Turning
Tornitura generale

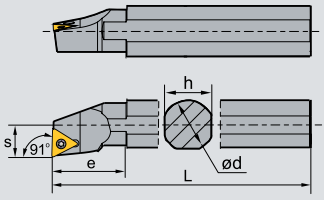
TC** Toolholder · Portautensile

S-Clamping / Portautensile tipo S

STFCR/L
Kr:91°



R type
Versione destra





Type Tipo	Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni Dmin	ød	h	L	S	θ	e	Screw Bullone di fissaggio	Wrench Chiave	Shim Spessore	Shim screw Vite per spessore
S12M-STFCR/L11	●	●	16	12	11	150	9	-10°	30				
S16M-STFCR/L11	○	○	20	16	15	150	11	-6°	35				
S16R-STFCR/L11	●	●	20	16	15	200	11	-6°	35	I60M2.5×6.5	WT07IP		
S20Q-STFCR/L11	○	○	25	20	18	180	13	-3°	36				
S20S-STFCR/L11	●	●	25	20	18	250	13	-3°	36				
S25Q-STFCR/L16	○	○	32	25	23	180	17	-6°	49	I60M3.5×10	WT15IP		
S25T-STFCR/L16	●	●	32	25	23	300	17	-6°	49				
S32R-STFCR/L16	○	○	40	32	30	200	22	-10°	50				
S32U-STFCR/L16	●	●	40	32	30	350	22	-10°	50	I60M3.5×12	WT15IP	T16BS	SM5×8.65XA
S40S-STFCR/L16	○	○	50	40	37	250	27	-8°	60		WH35L		
S40V-STFCR/L16	●	●	50	40	37	400	27	-8°	60				
♦ A12K-STFCR/L11	●	●	16	12	11.5	125	9	-10°	26				
♦ A16M-STFCR/L11	●	○	20	16	15.5	150	11	-6°	30	I60M2.5×6.5	WT07IP		
♦ A20Q-STFCR/L11	●	●	25	20	19	180	13	-3°	36				
♦ A25R-STFCR/L16	●	●	32	25	24	200	17	-6°	45	I60M3.5×10	WT15IP		
♦ A32S-STFCR/L16	●	○	40	32	31	250	22	-10°	49	I60M3.5×12	WT15IP	T16BS	SM5×8.65XA

Applicable insert
Inserti

Application Applicazione	Extra Finishing Finitura	Finishing Finitura	Semi-finishing Asportazione media	Roughing Sgrossatura	Al machining Asportazione alluminio	Cast iron machining Lavor. Ghisa grigia
Insert shape Forma inserto	**SF** 	**HF** 	**HM** 	**HR** 	**LH** 	Flat Parte superiore piana 
		EF 	**EM** 		**LC** 	
Type Tipo ****-STFCR/L11**	TC**1102**	TC**1102**	TC**1102**	TC**1102**	TCGX1102**	TC**1102**
Type Tipo ****-STFCR/L16**	TC**16T3**	TC**16T3**	TC**16T3**	TC**16T3**	TCGX16T3**	TC**16T3**

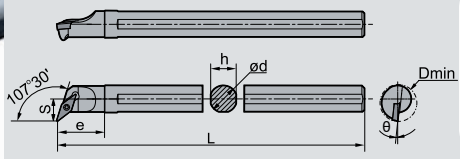
VC** Toolholder · Portautensile

S-Clamping / Portautensile tipo S

SVQCR/L
Kr:107°30'



R type
Versione destra





Type Tipo	Stock Magazzino		Dimension (mm) Dimensioni							Screw Bullone di fissaggio	Wrench Chiave		
	R	L	Dmin	ød	h	L	S	θ	e				
S16Q-SVQCR/L11	●	●	22	16	15	180	13	-6°	28	I60M2.5×6.5	WT07IP		
S20R-SVQCR/L11	●	○	26	20	18	200	15	-4°	32				

Applicable insert
Inserti

Application Applicazione	Extra Finishing Finitura	Finishing Finitura	Al machining Asportazione alluminio
Insert shape Forma inserto	**SF** 	**HF** 	**LH** 
Type Tipo ****-SVQCR/L11**	VC**1103**	VC**1103**	VCGX1103**

A

General Turning
Tornitura generale

VC** Toolholder · Portautensile

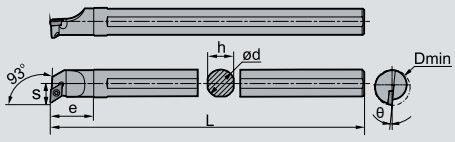
S-Clamping / Portautensile tipo S

SVUCR/L

Kr:93°



R type
Versione destra





Type Tipo	Stock Magazzino		Dimension (mm) Dimensioni							Screw Bullone di fissaggio	Wrench Chiave		
	R	L	Dmin	ød	h	L	S	θ	e				
S16Q-SVUCR/L11	●	●	24	16	15	180	15	-6°	25	I60M2.5×6.5	WT07IP		
S20R-SVUCR/L11	●	●	28	20	18	200	17	-4°	30				

Applicable insert
Inserti

Application Applicazione	Extra Finishing Finitura	Finishing Finitura	Al machining Asportazione alluminio
Insert shape Forma inserto	SF 	HF 	LH 
Type Tipo **-SVUCR/L11	VC**1103**	VC**1103**	VCGX1103**

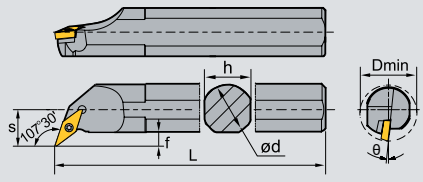
VB** Toolholder · Portautensile

S-Clamping / Portautensile tipo S

SVQBR/L
Kr:107°30'



R type
Versione destra





Type Tipo	Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni Dmin	ød	h	L	S	θ	e	f	Screw Bullone di fissaggio	Wrench Chiave	Shim Spessore	Shim screw Vite per spessore
S32R-SVQBR/L16	○	○	40	32	30	200	22	-8°	56	8.4				
S32U-SVQBR/L16	●	●	40	32	30	350	22	-8°	56	8.4				
S40S-SVQBR/L16	○	○	50	40	37	250	27	-8°	64	9.4	I60M3.5×12	WT15IP WH35L	V16BS	SM5×8.65XA
S40V-SVQBR/L16	●	●	50	40	37	400	27	-8°	64	9.4				
♦ A32S- SVQBR/L16	○	○	40	32	31	250	22	-8°	56	8.4				

Applicable insert
Inserti

Application Applicazione	Finishing Finitura	Semi-Finishing Asportazione media	Roughing Sgrossatura	Cast iron machining Asportazione ghisa grigia
Insert shape Forma inserto	**EF** 	**HM** 	**HR** 	Flat Parte superiore piana 
	HF 			
Type Tipo ****-SVQBR/L16**	VB**1604**	VB**1604**	VB**1604**	VB**1604**

A

General Turning
Tornitura generale

VB** Toolholder · Portautensile

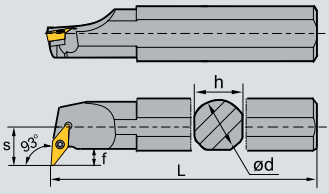
S-Clamping / Portautensile tipo S

SVUBR/L

Kr:93°



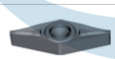
R type
Versione destra





Type Tipo	Stock Magazzino		Dimension (mm) Dimensioni								Screw Bullone di fissaggio	Wrench Chiave	Shim Spessore	Shim screw Vite per spessore
	R	L	Dmin	ød	h	L	S	θ	e	f				
S32R-SVUBR/L16	●	●	40	32	30	200	22	-8°	49	8.4				
S32U-SVUBR/L16	●	●	40	32	30	350	22	-8°	49	8.4				
S40S- SVUBR/L16	●	●	50	40	37	250	27	-8°	56.5	9.4	I60M3.5×12	WT15IP WH35L	V16BS	SM5×8.65XA
S40V- SVUBR/L16	●	●	50	40	37	400	27	-8°	56.5	9.4				
♦ A32S- SVUBR/L16	●	●	40	32	31	250	22	-8°	49	8.4				

Applicable insert
Inserti

Application Applicazione	Finishing Finitura	Semi-Finishing Asportazione media	Roughing Sgrossatura	Cast iron machining Asportazione ghisa grigia
Insert shape Forma inserto	**EF** 	**HM** 	**HR** 	Flat Parte superiore piana 
	HF 	**EM** 		
	NF 			
Type Tipo ****-SVUBR/L16**	VB**1604**	VB**1604**	VB**1604**	VB**1604**

CP** Toolholder · Portautensile

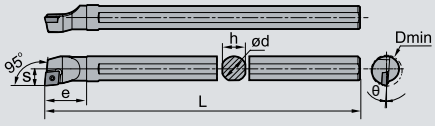
S-Clamping / Portautensile tipo S

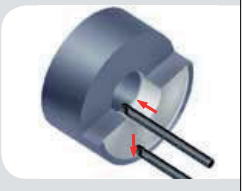
SCLPR/L

Kr:95°



R type
Versione destra





Type Tipo	Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni Dmin	ød	h	L	S	θ	e	Screw Bullone di fissaggio	Wrench Chiave
S10K-SCLPR/L06	●	●	12	10	9	125	6	-7°	17	I60M2.5×5.5	WT07IP
S12M-SCLPR/L06	●	●	16	12	11	150	8	-4°	20		
S16Q-SCLPR/L09	●	●	20	16	15	180	10	-4°	29	I60M3.5×8	WT15IP
S20R-SCLPR/L09	○	○	25	20	18	200	13	-4°	35		

Applicable insert
Inserti

Type Tipo	Application Applicazione	Extra Finishing Finitura
	Insert shape Forma inserto	SF 
Type Tipo	**-SCLPR/L06	CP**0602**
	**-SCLPR/L09	CP**09T3**

A

General Turning
Tornitura generale

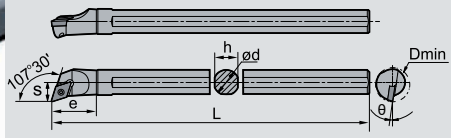
DP** Toolholder · Portautensile

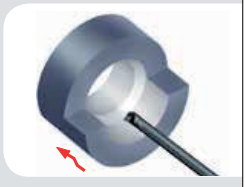
S-Clamping / Portautensile tipo S

SDQPR/L
Kr:107°30'



R type
Versione destra





Type Tipo	Stock Magazzino		Dimension (mm) Dimensioni							Screw Bullone di fissaggio	Wrench Chiave		
	R	L	Dmin	ød	h	L	S	θ	e				
S10K-SDQPR/L07	●	●	13	10	9	125	7	-8°	20	I60M2.5×5.5	WT07IP		
S12M-SDQPR/L07	●	●	16	12	11	150	9	-8°	22				
S16Q-SDQPR/L07	●	●	20	16	15	180	11	-6°	27	I60M2.5×6.5			
S16Q-SDQPR/L11	●	●	20	16	15	180	11	-6°	32	I60M3.5×8	WT15IP		
S20R-SDQPR/L11	●	●	25	20	18	200	13	-6°	33				

Applicable insert
Inserti

Application Applicazione	Extra Finishing Finitura
Insert shape Forma inserto	**SF** 
Type Tipo ****-SDQPR/L07**	DP**0702**
Type Tipo ****-SDQPR/L11**	DP**11T3**

DP** Toolholder · Portautensile

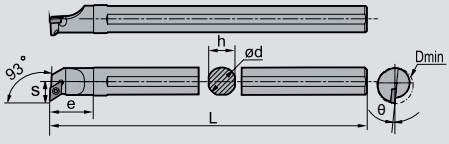
S-Clamping / Portautensile tipo S

SDUPR/L

Kr:93°



R type
Versione destra





Type Tipo	Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni Dmin	ød	h	L	S	θ	e	Screw Bullone di fissaggio	Wrench Chiave
S10K-SDUPR/L07	●	●	15	10	9	125	9	-8°	18	I60M2.5×5.5	WT07IP
S12M-SDUPR/L07	●	●	16	12	11	150	9	-8°	19		
S16Q-SDUPR/L07	●	●	20	16	15	180	11	-6°	25	I60M2.5×6.5	

Applicable insert
Inserti

Application Applicazione	Extra Finishing Finitura
Insert shape Forma inserto	SF 
Type Tipo **-SDUPR/L07	DP**0702**

A

General Turning
Tornitura generale

TP** Toolholder · Portautensile

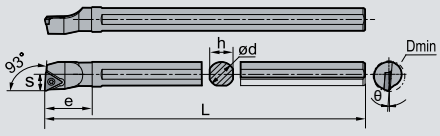
S-Clamping / Portautensile tipo S

STUPR/L

Kr:93°



R type
Versione destra





Type Tipo	Stock Magazzino		Dimension (mm) Dimensioni							Screw Bullone di fissaggio	Wrench Chiave		
	R	L	Dmin	ød	h	L	S	θ	e				
S10K-STUPR/L09	●	●	12	10	9	125	6	-6°	20	I60M2.2×5.5	WT07IP		
S12M-STUPR/L09	●	●	16	12	11	150	8	-4°	22				
S12M-STUPR/L11	●	●	16	12	11	150	8	-4°	25	I60M2.5×6.5	WT07IP		
S16Q-STUPR/L11	●	●	20	16	15	180	10	-3°	27				

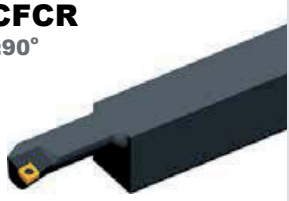
Applicable insert
Inserti

Application Applicazione	Extra Finishing Finitura
Insert shape Forma inserto	**SF** 
Type Tipo **-STUPR/L09	TP**0902**
Type Tipo **-STUPR/L11	TP**1103**

CC** Toolholder · Portautensile

S-Clamping / Portautensile tipo S

SCFCR
Kr:90°







Type Tipo	Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni Dmin	ød	L	s	a	b	e	Screw Bullone di fissaggio	Wrench Chiave
S10M-SCFCR/L06S25	●	●	13	10	150	7	27	25	30	I60M2.5×5.5	WT07IP
S12P-SCFCR/L06S25	●		16	12	170	9	27	25	35	I60M2.5×6.5	
S16Q-SCFCR/L09S25	●	●	20	16	180	11	27	25	40	I60M3.5×8	WT15IP
S20R-SCFCR/L09S25	●		25	20	200	13	27	25	45		
S25R-SCFCR/L12S25	●		32	25	200	17	27	25	50	I60M5×13	WT20IP

Applicable insert
Inserti

Application Applicazione	Extra Finishing Finitura	Finishing Finitura	Semi-finishing Asportazione media	Roughing Sgrossatura	Al machining Asportazione alluminio	Cast iron ma. Asport. Ghisa grigia
Insert shape Forma inserto	SF	HF	HM	HR	LH	Flat Parte superiore piana
		EF	EM		LC	
Type Tipo **-SCFCR06	CC**0602**	CC**0602**	CC**0602**	CC**0602**	CCGX0602**	CC**0602**
Type Tipo **-SCFCR09	CC**09T3**	CC**09T3**	CC**09T3**	CC**09T3**	CCGX09T3**	CC**09T3**
Type Tipo **-SCFCR12	CC**1204**	CC**1204**	CC**1204**	CC**1204**	CCGX1204**	CC**1204**

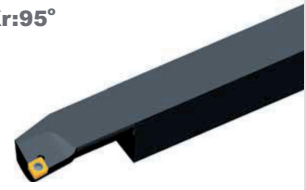
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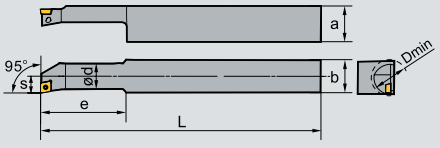
General Turning
Tornitura generale

CC** Toolholder · Portautensile

S-Clamping / Portautensile tipo S

SCLCR
Kr:95°







Type Tipo	Stock Magazzino		Dimension (mm) Dimensioni							Screw Bullone di fissaggio	Wrench Chiave		
	R	L	Dmin	ød	L	s	a	b	e				
S10M-SCLCR06S20	○		13	10	150	7	22	20	30	I60M2.5×5.5	WT07IP		
S12P-SCLCR06S20	●		16	12	170	9	22	20	35				
S16Q-SCLCR09S20	●		20	16	180	11	22	20	40	I60M3.5×8	WT15IP		
S20R-SCLCR09S20	●		25	20	200	13	22	20	60				

Applicable insert
Inserti

Application Applicazione	Extra Finishing Finitura	Finishing Finitura	Semi-finishing Asportazione media	Roughing Sgrossatura	Al machining Asportazione alluminio	Cast iron Asport. Ghisa grigia
Insert shape Forma inserto	**SF** 	**HF** 	**HM** 	**HR** 	**LH** 	Flat Parte superiore piana 
		EF 	**EM** 		**LC** 	
Type Tipo ****-SCLCR06S20**	CC**0602**	CC**0602**	CC**0602**	CC**0602**	CCGX0602**	CC**0602**
Type Tipo ****-SCLCR09S20**	CC**09T3**	CC**09T3**	CC**09T3**	CC**09T3**	CCGX09T3**	CC**09T3**



A

General Turning
Tornitura generale

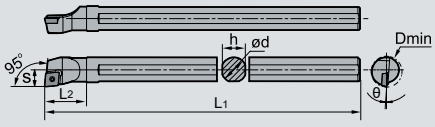
CP** / CC** Toolholder · Portautensile

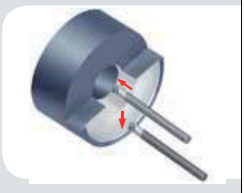
S-Clamping / Portautensile tipo S

SCLPR/L
SCLCR/L
Kr:95°



R type
Versione destra





Type Tipo	Stock Magazzino		Dimension (mm) Dimensioni							Screw Bullone di fissaggio	Wrench Chiave	Shim Spessore	Shim screw Vite per spessore
	R	L	Dmin	ød	s	L_1	L_2	h	θ				
C10M-SCLPR/L06	●	●	12	10	6	150	17	9	7°	I60M2.5×5.5	WT07IP		
C12Q-SCLPR/L06	●	●	16	12	8	180	20	11	4°				
C16R-SCLPR/L09	●	●	20	16	10	200	29	15	4°	I60M3.5×8	WT15IP		
C20S-SCLPR/L09	●	●	25	20	13	250	35	18	4°				
♦ E16R-SCLPR/L09	○	○	19	16	10	200	-	15.5	-2°	I60M3.5×10	WT15IP		
♦ E20S-SCLPR/L09	○	○	24	20	13	250	-	19.5	-2°				
♦ E08K-SCLCR/L06-9	●	○	9	8	5	125	-	7.5	-12°	I60M2.5×5.5	WT07IP		
♦ E08K-SCLCR/L06-10	●	○	10	8	6	125	-	7.5	-12°				
♦ E10M-SCLCR/L06	●	○	12	10	7	150	-	9.5	-10°				
♦ E12Q-SCLCR/L06	●	○	15	12	9	180	-	11.5	-10°				
♦ E12Q-SCLCR/L09	●	●	15	12	9	180	-	11.5	-9°	I60M3.5×8	WT15IP		
♦ E16R-SCLCR/L06	●	○	18	16	10	200	-	15.5	-8°	I60M2.5×5.5	WT07IP		
♦ E16R-SCLCR/L09	●	●	18	16	10	200	-	15.5	-10°				
♦ E20S-SCLCR/L09	●	●	24	20	13	250	-	19.5	-8°	I60M3.5×10	WT15IP		
♦ E25T-SCLCR/L09	●	●	31	25	17	300	-	24	-6°				

More diameter on demand
Altri diametri su richiesta

Applicable insert Inserti	Application Applicazione	Extra Finishing Finitura
	Insert shape Forma inserto	**SF** 
Type Tipo	**C*-SCLPR/L06**	CP**0602**
	C*--SCLPR/L09	CP**09T3**
	E*-SCLCR/L06	CC**0602**
	E*--SCLCR/L09	CC**09T3**

DP** / DC** Toolholder · Portautensile

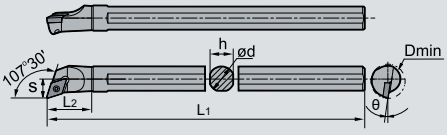
S-Clamping / Portautensile tipo S

SDQPR/L
SDQCR/L

Kr:107°30'



R type
Versione destra





Type Tipo	Stock Magazzino		Dimension (mm) Dimensioni							Screw Bullone di fissaggio	Wrench Chiave
	R	L	Dmin	ød	s	L_1	L_2	h	θ		
C10M-SDQPR/L07	●	●	13	10	7	150	20	9	8°	I60M2.5×5.5	WT07IP
C12Q-SDQPR/L07	●	●	16	12	9	180	22	11	8°		
C16R-SDQPR/L07	●	○	20	16	11	200	27	15	6°	I60M2.5×6.5	
C16R-SDQPR/L11	●	●	20	16	11	200	32	15	6°	I60M3.5×8	WT15IP
C20S-SDQPR/L11	●	○	25	20	13	250	33	18	6°		
♦ E08K-SDQCR/L07	●	○	11	8	6.5	140	-	7.5	-12°	I60M2.5×5.5	WT07IP
♦ E10M-SDQCR/L07	●	○	12	10	7	150	-	9.5	-10°		
♦ E12Q-SDQCR/L07	●	○	15	12	9	180	-	11.5	-10°		
♦ E16R-SDQCR/L07	●	○	18	16	10	200	-	15.5	-6°		
♦ E16R-SDQCR/L11	●	○	18	16	10	200	-	15.5	-8°	I60M3.5×10	WT15IP
♦ E20S-SDQCR/L07	●	○	24	20	13	250	-	19.5	-4°	I60M2.5×5.5	WT07IP
♦ E20S-SDQCR/L11	●	○	24	20	13	250	-	19.5	-8°		
♦ E25T-SDQCR/L11	●	○	31	25	17	300	-	24	-6°	I60M3.5×10	WT15IP

More diameter on demand
Altri diametri su richiesta

Applicable insert
Inserti

Type Tipo	Application Applicazione	Extra Finishing Finitura
	Insert shape Forma inserto	**SF** 
	C*-SDQPR/L07	DP**0702**
	C*-SDQPR/L11	DP**11T3**
	E*-SDQCR/L07	DC**0702**
	E*--SDQCR/L11	DC**11T3**

A

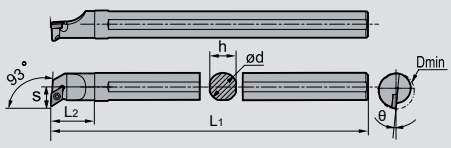
DP** / DC** Toolholder · Portautensile

S-Clamping / Portautensile tipo S

SDUPR/L
SDUCR/L
Kr:93°



R type
Versione destra





Type Tipo	Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni Dmin	ød	s	L1	L2	h	θ	Screw Bullone di fissaggio	Wrench Chiave
C10M-SDUPR/L07	●	●	15	10	9	150	18	9	8°	I60M2.5×5.5	
C12Q-SDUPR/L07	●	●	16	12	9	180	19	11	8°	I60M2.5×6.5	WT07IP
C16R-SDUPR/L07	○	○	20	16	11	200	25	15	6°		
♦ E10M-SDUCR/L 07	●	○	12	10	7	150	-	9.5	-10°		
♦ E12Q-SDUCR/L 07	●	●	15	12	9	180	-	11.5	-10°	I60M2.5×5.5	WT07IP
♦ E16R-SDUCR/L 07	●	○	18	16	10	200	-	15.5	-6°		
♦ E16R-SDUCR/L 11	●	○	18	16	10	200	-	15.5	-8°	I60M3.5×10	WT15IP
♦ E20S-SDUCR/L 07	○	○	24	20	13	250	-	19.5	-4°	I60M2.5×5.5	WT07IP
♦ E20S-SDUCR/L 11	○	○	24	20	13	250	-	19.5	-8°		
♦ E25T-SDUCR/L 11	○	○	31	25	17	300	-	24	-6°	I60M3.5×10	WT15IP

More diameter on demand
Altri diametri su richiesta

Applicable insert Inserti	Application Applicazione	Extra Finishing Finitura
	Insert shape Forma inserto	**SF** 
Type Tipo	**C*-SDUPR/L07**	DP**0702**
	E*-SDUCR/L07	DC**0702**
	E*-SDUCR/L11	DC**11T3**

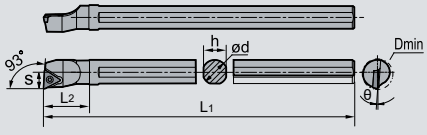
TP** Toolholder · Portautensile

S-Clamping / Portautensile tipo S

STUPR/L
Kr:93°



R type
Versione destra





Type Tipo	Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni Dmin	ød	s	L1	L2	h	θ	Screw Bullone di fissaggio	Wrench Chiave
C10M-STUPR/L09	○	●	12	10	6	150	20	9	6°	I60M2.2×5.5	WT07IP
C12Q-STUPR/L09	●	○	16	12	8	180	22	11	4°		
C12Q-STUPR/L11	●	○	16	12	8	180	25	11	4°	I60M2.5×6.5	WT07IP
C16R-STUPR/L11	○	○	20	16	10	200	27	15	3°		

Applicable insert
Inserti

Application Applicazione	Extra Finishing Finitura
Insert shape Forma inserto	SF 
Type Tipo C*-STUPR/L09	TP**0902**
Type Tipo C*-STUPR/L11	TP**1103**

TC** Toolholder · Portautensile

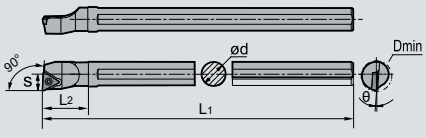
S-Clamping / Portautensile tipo S

STFCR/L
STFPR/L

Kr:90°



R type
Versione destra





Type Tipo	Stock Magazzino		Dimension (mm) Dimensioni							Screw Bullone di fissaggio	Wrench Chiave
	R	L	Dmin	ød	s	L_1	L_2	h	θ		
♦ **E08K-STFCR/L 09**	○	○	11	8	6	125	-	7.5	-12	I60M2.2×5.5	WT07IP
♦ **E10M-STFCR/L 09**	○	○	12	10	7	150	-	9.5	-10		
♦ **E12Q-STFCR/L 11**	○	○	15	12	9	180	-	11.5	-10		
♦ **E16R-STFCR/L 11**	○	○	18	16	10	200	-	15.5	-8	I60M2.5×5.5	WT07IP
♦ **E20S-STFCR/L 11**	○	○	24	20	13	250	-	19.5	-8		
♦ **E20S-STFCR/L 16**	○	○	24	20	13	250	-	19.5	-8	I60M3.5×10	WT15IP
♦ **E25T-STFCR/L 16**	○	○	31	25	17	300	-	24	-6		
♦ **E10M-STFPR/L 11**	○	○	12	10	6	150	-	9.5	-5		
♦ **E12Q-STFPR/L 11**	○	○	15	12	8	180	-	11.5	-4	I60M3.0×7.0	WT08IP
♦ **E16R-STFPR/L 11**	○	○	19	16	10	200	-	15.5	-2		
♦ **E20S-STFPR/L 11**	○	○	24	20	13	250	-	19	-2		

More diameter on demand
Altri diametri su richiesta

Applicable insert
Inserti

Type Tipo	Application Applicazione	Extra Finishing Finitura
	Insert shape Forma inserto	**SF** 
	E*-STFCR/L09	TC**0902**
	E*-STFCR/L11	TC**1103**
	E*-STFCR/L16	TC**16T3**
	E*-STFPR/L11	TP**1103**

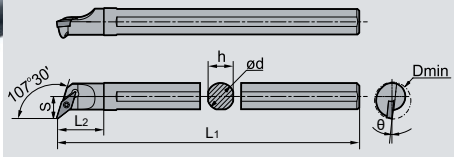
VC** Toolholder · Portautensile

S-Clamping / Portautensile tipo S

SVQCR/L
Kr:107°30'



R type
Versione destra





Type Tipo	Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni Dmin	ød	s	L1	L2	h	θ	Screw Bullone di fissaggio	Wrench Chiave
C16R-SVQCR/L11	●	●	22	16	13	200	28	15	-6°	I60M2.5×6.5	WT07IP
C20S-SVQCR/L11	●	●	26	20	15	250	32	18	-4°		

Applicable insert
Inserti

Application Applicazione	Extra Finishing Finitura	Finishing Finitura	Al machining Asportazione alluminio
Insert shape Forma inserto	SF 	HF 	LH 
Type Tipo C*-SVQCR/L11	VC**1103**	VC**1103**	VCGX1103**
Type Tipo C*-SVUCR/L11	VC**1103**	VC**1103**	VCGX1103**

A

General Turning
Tornitura generale

VC** Toolholder · Portautensile

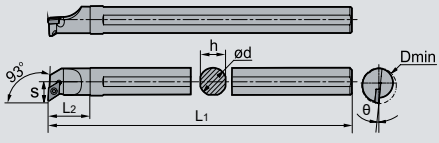
S-Clamping / Portautensile tipo S

SVUCR/L

Kr:93°



R type
Versione destra





Type Tipo	Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni Dmin	ød	s	L1	L2	h	θ	Screw Bullone di fissaggio	Wrench Chiave
C16R-SVUCR/L11	●	●	24	16	15	200	25	15	6°	I60M2.5×6.5	WT07IP
C20S-SVUCR/L11	●	●	28	20	17	250	30	18	4°		
♦ E16R-SVUCR/L 11	○	○	22	16	13	200	-	15	-6.5°	I60M2.5×6.5	WT07IP
♦ E20S-SVUCR/L 11	○	○	27	20	13	250	-	18	-6.5°		
♦ E25T-SVUCR/L 16	○	○	35	25	20.5	300	-	23	-6.5°	I60M3.5×10	WT15IP

More diameter on demand
Altri diametri su richiesta

Applicable insert
Inserti

Type Tipo	Application Applicazione	Extra Finishing Finitura	Finishing Finitura	Al machining Asportazione alluminio
	Insert shape Forma inserto	SF 	HF 	LH 
C*-SVUCR/L11		VC**1103**	VC**1103**	VCGX1103**
E*-SVUCR/L11		VC**1103**	VC**1103**	VCGX1103**

Recommended cutting data · Dati di taglio consigliati

ISO	Workpiece Materials Materiale pezzo		Hardness · Durezza HB	CVD Coating Strati di rivestimento					PVD Coating Strati di rivestimento			Cermet Cermet	Coated cermet Cermet rivestito			Ceramic Ceramico	
				XAF151	XAF251	XAF152	XAF252	XAF351	XAI102	XAI202		XCI151	XCI151C			FE1000	FC2000
				Feed rate Avanzamento (mm/giro)													
				0.1-0.6	0.1-0.8	0.1-0.6	0.1-0.8	0.2-1.0	0.2-0.4	0.1-0.6		0.05-0.2	0.05-0.2			0.1-1.5	0.1-1.5
				Cutting speed Velocità di taglio (m/min)													
P	Carbon steel Acciaio al carbonio	C=0.15%	125	430-200	430-190	500-270	480-240	380-165	460-220	380-180		550-350	580-350			800-300	
		C=0.35%	150	380-180	410-180	460-250	460-230	300-150	440-210	300-170		500-300	520-300			600-200	
		C=0.60%	200	330-150	350-150	400-220	400-200	260-130	380-180	260-150		460-260	480-260			400-150	
	Alloy steel Acciaio legato	low alloy, annealed temprato	180	350-170	350-150	400-180	400-200	200-100	380-180	200-120		410-240	430-240			150-180	400-150
		low alloy, tempered pre-temprato	275	230-100	210-100	280-150	260-140	140-70	240-120	140-90		300-180	320-180			350-120	300-100
		low alloy, tempered pre-temprato	300	210-100	190-70	260-150	240-120	125-60	220-100	125-80		250-170	270-170			300-100	250-80
		low alloy, tempered pre-temprato	350	180-80	170-70	230-120	220-120	110-55	200-100	110-75		230-150	250-150			300-80	
	High alloy steel Acciaio alto legato	high alloy, annealed temprato	200	320-150	260-120	360-190	310-170	175-80	290-150	175-100		350-200	370-200			400-150	350-120
		high alloy, tempered pre-temprato	325	140-90	100-50	190-130	150-100	85-40	130-80	85-60		170-110	190-110			300-100	280-80
	Cast steel Acciaio fuso	Non-Alloy non legato	180	240-120	200-100	280-160	250-140	135-75	230-125	135-95		260-170	280-170			600-220	
		Low alloy basso legato	200	230-70	170-60	280-110	220-110	120-80	200-90	120-100		260-170	280-170			400-150	
		High alloy alto legato	225	160-70	140-50	210-110	190-100	95-55	170-80	95-55		260-100	280-100			350-120	

ISO	Workpiece Materials Materiale pezzo		Hardness Durezza HB	CVD Coating Strati di rivestimento					PVD Coating Strati di rivestimento			Cermet Cermet	Coated cermet Cermet rivestito				
				XAO151	XAO153	XAO251	XAO253		XAI202	XAI205		XCI151	XCI151C				
				Feed rate Avanzamento (mm/giro)													
				0.2-0.6	0.2-0.6	0.2-0.6	0.2-0.6		0.1-0.3	0.1-0.3		0.05-0.2	0.05-0.2				
				Cutting speed Velocità di taglio (m/min)													
M	Stainless steel Acciaio inox	Ferrous Ferritico	200	250-180	280-180	230-140	250-140		240-170	250-170		330-220	350-210				
		Austenite Austenitico	260	220-150	250-150	180-110	200-110		180-110	200-100		250-150	270-140				
		Martensite Martensitico	330	110-60	130-60	90-50	110-50		120-80	130-80		270-170	290-160				

A

General Turning
Tornitura generale

Recommended table of cutting parameters for general turning
Parametri di taglio raccomandati per la tornitura

ISO	Workpiece Materials Materiale pezzo		Hardness · Durezza HB	CVD Coating Strati di rivestimento					Cermet Cermet	Coated cermet Cermet rivestito	Ceramic Ceramico				
				XAS052	XAS102	XAS152	XAS152C		XCI151	XCI151C	FE1000	FC1000	FC2000		
				Feed rate Avanzamento (mm/giro)											
				0.1-0.4	0.1-0.4	0.1-0.5	0.1-0.5		0.1-0.4	0.1-0.4	0.1-1.5	0.1-1.5	0.1-1.5		
				Cutting speed Velocità di taglio (m/min)											
K	Malleable cast iron Ghisa malleabile	Ferrous Ferritico	130	350-230	330-220	320-105	320-105		280-160	300-180	1200-200	800-600	800-600		
		Pearlite Perlitico	230	250-105	230-100	230-100	230-100		220-120	240-150	1000-200	700-500	700-500		
	Low cast iron Ghisa grigia		180	520-200	480-200	480-190	480-190		400-250	420-270	1200-200	800-600	700-500		
	High cast iron Ghisa grigia		260	230-120	220-115	210-100	210-100		360-240	380-260	1000-200	750-500	800-600		
	Nodular cast iron Ghisa sferoidale	Ferrous Ferritico	160	310-150	300-150	290-140	290-140		330-190	350-210	800-200	600-450	600-450		
		Pearlite Perlitico	250	230-110	220-105	210-100	210-100		310-200	330-220	700-200	500-350	500-350		

ISO	Workpiece Materials Materiale pezzo		Hardness Durezza HB	PVD Coating Strati di rivestimento		Cemented carbide Carburo cementato									
				XAI102	XAI105	XS101									
				Feed rate Avanzamento (mm/giro)											
				0.05-0.15		0.05-0.35									
				Cutting speed Velocità di taglio (m/min)											
N	Al alloy Lega di alluminio	No heat treatment no trattato termic.	60			1750-800									
		Heat treatment trattato termic.	100			510-250									
	Cast aluminum alloy Lega di Al.	No heat treatment no trattato termic.	75			460-175									
		Heat treatment trattato termic.	90			300-110									
	Copper alloy Lega di rame	Cu-alloy short chip Leg. Cu romp. corto	110			610-205									
		Messing, Bronze Ottone rosso	90			310-195									
		unalloy electrolytic Cupper non legato Rame elettrolitico	100			225-115									
S	Ni-base alloy Lega di Ni	Ni-base alloy Lega di Ni lega	40	90-30	100-30	70-20									
H	Other materials Altri materiali	Hard steel Acciaio duro	45 HRC												
		Super hard steel Acciaio super duro	50~60 HRC												
		Chilled cast iron Ghisa raffreddata	500												

Cutting parameters for internal turning
Parametri di taglio per tornitura interna

Internal turning tools by P type clamping · Utensile per tornitura (interna) - Bloccaggio tipo P

Workpiece material Materiale pezzo		Hardness HB Durezza	Machining category Applicazione	L/D≤3		L/D=3-4 (Diameter of shank ≥ Φ16mm) (Diametro dello stelo ≥ Φ16mm)	
				Feed rate Avanzamento (mm/rev)	Cutting depth Profondità di taglio (mm)	Feed rate Avanzamento (mm/rev)	Cutting depth Profondità di taglio (mm)
P	Carbon steel, Alloy steel Acciaio al carbonio, acciaio legato	HB180—280	Semi-finishing Asport. media	0.1-**0.25**-0.4	<5.0	0.1-**0.2**-0.3	<4.0
M	Stainless steel Acciaio inox	≤HB220	Semi-finishing Asport. media	0.1-**0.2**-0.3	<4.0	0.1-**0.15**-0.25	<3.0
K	Cast iron Ghisa	HB170—230	Semi-finishing Asport. media	0.1-**0.25**-0.4	<5.0	0.1-**0.2**-0.3	<4.0

Internal turning tools by S type clamping · Utensile per tornitura (interna) - Bloccaggio tipo S

Workpiece material Pezzo da lavorare		Hardness HB Durezza	Machining category Applicazione	L/D≤3		L/D=4		L/D=5		L/D=6	
				Feed rate Avanzamento (mm/rev)	Cutting depth Profondità di taglio (mm)	Feed rate Avanzamento (mm/rev)	Cutting depth Profondità di taglio (mm)	Feed rate Avanzamento (mm/rev)	Cutting depth Profondità di taglio (mm)	Feed rate Avanzamento (mm/rev)	Cutting depth Profondità di taglio (mm)
P	Carbon steel, Alloy steel Acciaio al carbono, acciaio legato	HB180-280	For finishing Finitura	0.05-**0.1**-0.15	<0.2	0.05-**0.1**-0.15	<0.2	-	-	-	-
			For semi-finishing Asport. media	0.15-**0.25**-0.35	<3.0	0.1-**0.15**-0.2	<1.5	-	-	-	-
M	Stainless steel Acciaio inox	≤HB220	For finishing Finitura	0.05-**0.1**-0.15	<0.2	0.05-**0.1**-0.15	<0.2	-	-	-	-
			For semi-finishing Asport. media	0.15-**0.2**-0.25	<2.0	0.1-**0.15**-0.2	<1.0	-	-	-	-
N	Al Alloy Lega Al	---	For finishing Finitura	0.05-**0.1**-0.15	<0.2	0.05-**0.1**-0.15	<0.2	0.05-**0.1**-0.15	-0.15	0.05-**0.1**-0.15	<0.1
			For semi-finishing Asport. media	0.05-**0.1**-0.15	<2.0	0.05-**0.1**-0.15	<1.5	0.05-**0.1**-0.15	-1.0	0.05-**0.1**-0.15	<1.0

Antivibration internal turning tools · Utensili antivibrazioni (interni)

Workpiece material Materiale pezzo		Machining conditions Applicazione	Chipbreaker Rompitruciolo	Grade Grado	Feed rate Avanzamento (mm/rev)	Cutting depth Profondità di taglio (mm)
P	Steel HB180—280 Acciaio	Finishing Finitura	SF	XCI151 XCI151C	0.05-**0.2**-0.35	0.05-**0.1**-**0.3**-0.5
M	Stainless steel ≤HB220 Acciaio inox				0.05-**0.2**-0.35	0.05-**0.1**-**0.3**-0.5
K	Cast iron HB170—230 Ghisa				0.05-**0.2**-0.35	0.05-**0.1**-**0.3**-0.5

The characters in blue color are recommended cutting parameters.
Le cifre di colore blu sono dati di taglio consigliati.

No.	Tool wear type	Situation	Reason	Countermeasures
1+2	Flank wear	Poor surface quality and inconsistent measurement. Increase in cutting force.	Grade is too soft Cutting speed is too high. Flank angle is too small. Feed rate is too low	Select grade with higher wear resistance Reduce cutting speed Increase flank angle. Increase feed rate
3	Crater wear	Bad surface and chip control	Grade is too soft. Cutting speed is too high. Feed rate is too high.	Select grade with higher wear resistance Reduce cutting speed Reduce feed rate
4	Chipping	Tool life not stable Sudden breakage of cutting edge	Grade is too hard. Feed rate is too high. Cutting edge strength not strong enough The rigidity of holder in insuffiecient (vibration)	Select grade with higher toughness Reduce feed rate Change honing of cutting edge Use holder with bigger shank size
5	Fracturing	Cutting force increasing Surface roughness and measure becomes bad	Grade is too hard. Feed rate is too high. Cutting edge strength not strong enough The rigidity of holder in insufficient	Select grade with higher toughness Reduce feed rate Change honing of cutting edge Use holder with bigger shank size
6	Plastic deformation	Inconsistent measure meet. Damage to the cutting edge	Grade is too soft. Cutting speed is too high. Depth of cut and feed rate too high Cutting temperature is high	Grade with high wear resistance. Reduce cutting speed Decrease depth of cut and feed rate. Grade with high thermal conductivity.
7	Welding	Poor surface quality and inconsistent measurement. Increase in cutting force.	Cutting speed is low. Cutting edge not sharp enough Grade not suitable	Increase cutting speed Increase rake angle. Select grade with lower affinity
8	Thermal Cracks	Break due to thermal variation effect often caused when cutting is interrupted.	Expansion or shrinkage due to cutting heat Grade is too hard.	Use dry cutting Select grade with higher toughness
9	Notch wear	Burr Increase of cutting force	Unstable cutting condition (uncut surface,chilled parts, machining hardened layer) Friction caused by jagged shape chips. Feed rate and cutting speed too high	Grade with high wear resistance. Increase rake angle to improve sharpness Decrease cutting speed
10	Flaking	Mostly happens during machining of high hard materials or vibration	Cutting edge welding and adhesion. Bad chip removing	Increase rake angle to improve sharpness Use chip breaker with wider chip pocket

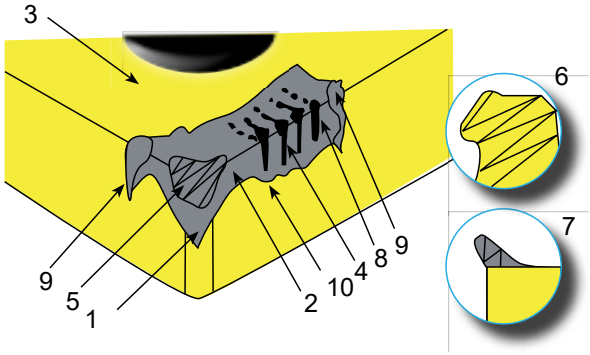
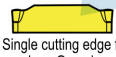
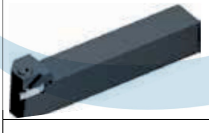
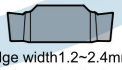
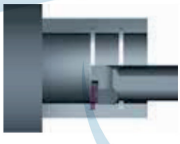


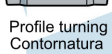
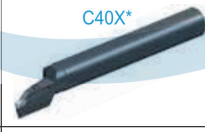
Immagine	Tipo di usura	Effetti	Causa	Contromisura
1+2	Usura sul fianco	Scarsa qualità superficiale e dimensioni inconsistenti Aumento della forza di taglio	Grado con resistenza all'usura insufficiente Velocità di taglio troppo elevata Angolo di spoglia troppo piccolo Velocità di avanzamento troppo bassa	Grado con maggiore resistenza all'usura Ridurre la velocità di taglio Aumentare l'angolo di spoglia Diminuire la velocità di avanzamento
3	Craterizzazione	Qualità superficiale e controllo del truciolo scarsi	Grado con resistenza all'usura insufficiente Velocità di taglio troppo elevata Velocità di avanzamento troppo alta	Grado con maggiore resistenza all'usura Diminuire la velocità di taglio Diminuire la velocità di avanzamento
4	Scheggiatura	Durata utensile non stabile Rottura improvvisa del tagliente	Grado troppo duro Velocità di avanzamento troppo alta Stabilità del tagliente insufficiente Stabilità del portautensile o bloccaggio insufficiente	Grado con maggiore tenacità Diminuire la velocità di avanzamento Cambiare l'arrotondamento del tagliente Utilizzare un portautensile con maggiore stabilità
5	Rottura	Aumento della forza di taglio Scarsa qualità superficiale e dimensioni inconsistenti	Grado troppo duro Velocità di avanzamento troppo alta Stabilità del tagliente insufficiente Stabilità del portautensile o bloccaggio insufficiente	Grado con maggiore tenacità Diminuire la velocità di avanzamento Cambiare l'arrotondamento del tagliente Utilizzare un portautensile con maggiore stabilità
6	Deformazione plastica	Dimensioni inconsistenti Danneggiamento del tagliente	Grado con resistenza all'usura insufficiente Velocità di taglio troppo elevata Profondità e/o velocità di taglio troppo alta Temperatura sul tagliente troppo alta	Grado con maggiore resistenza all'usura Diminuire la velocità di taglio Ridurre la profondità di taglio e la velocità di avanzamento Grado con maggiore resistenza al calore
7	Tagliente di riporto	Aumento della forza di taglio Pessima finitura superficiale	Velocità di taglio troppo bassa Tagliente non sufficientemente affilato Grado non adatto	Aumentare la velocità di taglio Aumentare l'angolo di spoglia Grado con bassa affinità
8	Incrinature da sollecitazione termica	Rottura per interazione termica Soprattutto in caso di taglio interrotto (fresatura)	A causa di variazioni di temperatura della lavorazione Grado troppo duro	Taglio a secco Grado con maggiore tenacità
9	Intagliatura	Bave Aumento della forza di taglio	Danneggiamento dovuto ai trucioli (rompitruciolo sfilacciato) Velocità di avanzamento e di taglio troppo alte	Grado con maggiore resistenza all'usura Aumentare l'angolo di spoglia per ottenere un tagliente più affilato Diminuire la velocità di taglio
10	Sfaldamento (rivestimento)	Soprattutto durante la lavorazione di materiali più duri o quando si verificano vibrazioni	Adesioni sul tagliente e scheggiature Scarso deflusso del truciolo	Aumentare l'angolo di spoglia per ottenere un tagliente più affilato Rompitruciolo con tasca più grande

Af.I.S.

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** 	• Assemble structure of parting blade and holder, good rigidity and parting range is adjustable. • The max. parting Ø = 120mm. • La sporgenza della lama di asportazione è impostabile per ottenere una stabilità più elevata • Ø max. della lama = 120mm
			QE**R/L 	ZP**D*  ZP*S* 	• Inserts have 3d chip breaker, small cutting force, good performance on chip breaking • maximum parting Ø = 60mm • Inserto con 3 diversi rompitrucioli per una bassa forza di taglio & buon controllo del truciolo. • Ø max. della lama = 120 mm
	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* 	• 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. • Diverse applicazioni possono essere eseguite con questo strumento universale mediante differenti inserti come scanalature, gole, profilatura e tornitura. • Max. profondità scanalatura = 30mm
	Precise grooving Scanalatura di precisione		QECD 	Precise grooving Scanalatura di precisione ZT*D**-EG  Edge width1.2~2.4mm Larghezza tagliente	• 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 • 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.- Larghezze da 1.2-2.4mm, e max. prof. taglio di 2.5mm; per S.- Larghezze da >2.4~6.5mm, la max prof. di taglio è 22mm
			QE*R/L 	Precise grooving Scanalatura di precisione ZT*D**-EG  Edge width1.2~2.4mm Larghezza tagliente	

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□□□□ 	• Finish grinding with high tolerance. • Sharp cutting edge with accarate machining. • Good economy with 3-lips grinding edge. • For the light grooving, slot width 0.5-4.8 mm. • Max cutting depth 5 mm. • di precisione con elevata tolleranza. • Tagliente per lavorazione di precisione. • Alta economicità grazie all'inserto con 3 taglienti. • Finitura di precisione con larghezza di scanalatura di 0.5-4.8 mm. • Massima profondità della scanalatura 5 mm.
Internal machining Lavorazione interna	Grooving and turning Scanalatura e		C*-Q*R/L* 	Grooving, Turning Scanalatura, tornitura ZT*D**  turning Contornatura ZR*D** 	• By installing different inserts for grooving & 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 • Un sistema per scanalatura e contornatura. Il numero di sistemi di taglio viene ridotto. • Max. profondità scanalatura = 13 mm • min. Ø = 27 mm
			QC Series S□□□-QC□□R/L□ 	QC11/16/22□□□□ 	• 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 • Inserto rettificato per elevata precisione •Larghezza scanalatura = 0,5-4,8 mm • min. Ø = 16 mm • Max. profondità scanalatura = 4 mm

	Machining Lavorazione		Toolholder Cartuccia	Inserts Inserti	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** 	• By installing different inserts as for grooving and profiling, one single tool realises 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** 	• 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 tuming Retro-tornitura e tornitura		*X*D* 	Grooving, Turning Scanalatura, tornitura ZT*D**  Profile turning Contornatura ZR*D** 	• 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.
Alu profiling Contornatura dell'alluminio	External mach. Lavorazione est.		QE**R/L 	ZR**-LH 	• 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
	Inner wall and surface Tornitura pareteinterna e superfice		C40X* 		
Tools for aviation and aerospace industries Utensili per l'industria aerospaziale	External machining Lavorazione esterna		QE*S*N 	ZIGQ**  ZIMF** 	• 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.
	Non-standard Tools Utensile speciale		Non-Standard tools Utensile speciale	Select and manufacture according to requirement. Scelta in base all'applicazione	• Instantly supply solutions for machining various parts to satisfy your machining requirement. • Soluzioni di utensili speciali per la lavorazione di pezzi diversi.



-MG Chip breaker
Rompitruciolo

■ 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 per scanalature, gole, contornatura, tornitura, buon controllo del truciolo.

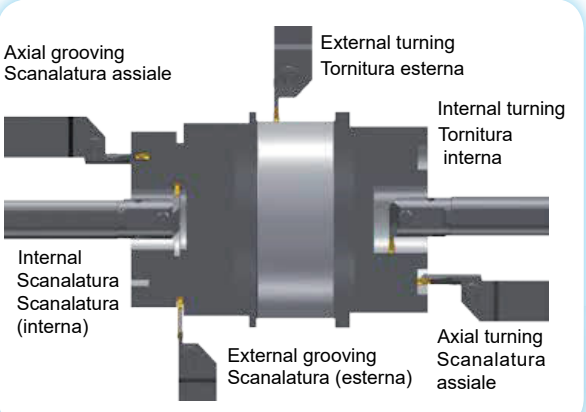
Buona qualità delle superficie e basse forze di taglio

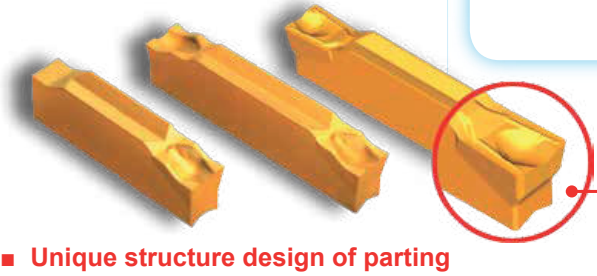
■ Reduction of tool cost by using one special design insert in various.

- One insert fits several tool holders
- One insert suitable for serveral 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





Special design reduce vibration and cutting force by 20%

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

■ 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.

-EG

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

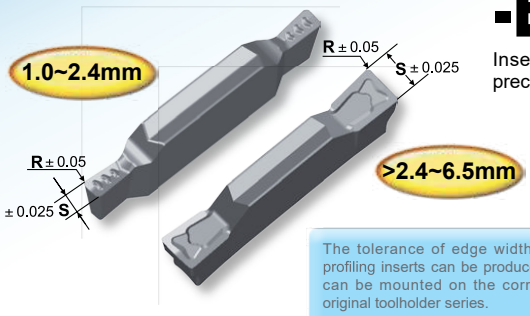
da 1.0-6.5 mm secondo richiesta.

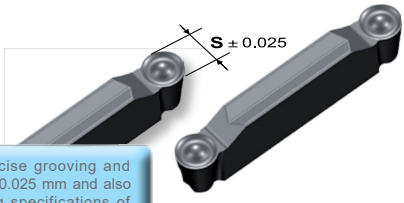
-EG Precision profiling and turning inserts

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 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.

-LH



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

Application of insert *Applicazione*

- **ZP** Parting *Troncatura*
- **ZT** Grooving and Turning *Scanalatura e tornitura*
- **ZR** Profile machning *Contornatura*

Code of insert seat size *Dimens. sede inserto*

Corresponding code of toolholder and width of cutting edge.
Codice corrispondente del portautensile e della larghezza del tagliente

Code	Height / *Altezza*
E	2.5
F	3.0
G	4.0
H	5.0
K	6.0

Number of cutting edge *Numero taglienti*

- **S** Single cutting edge *Un tagliente*
- **D** Double cutting edges *Due taglienti*

Tolerance class *Grado di tolleranza*

- **M** Tolerance class *Grado di tolleranza*
- **E** Tolerance class *Grado di tolleranza*

ZP G D 04 04 - M G

Width of cutting edge *Larghezza inserto*



025 = 2.5 mm
03 = 3.0 mm
04 = 4.0 mm
05 = 5.0 mm
06 = 6.0 mm

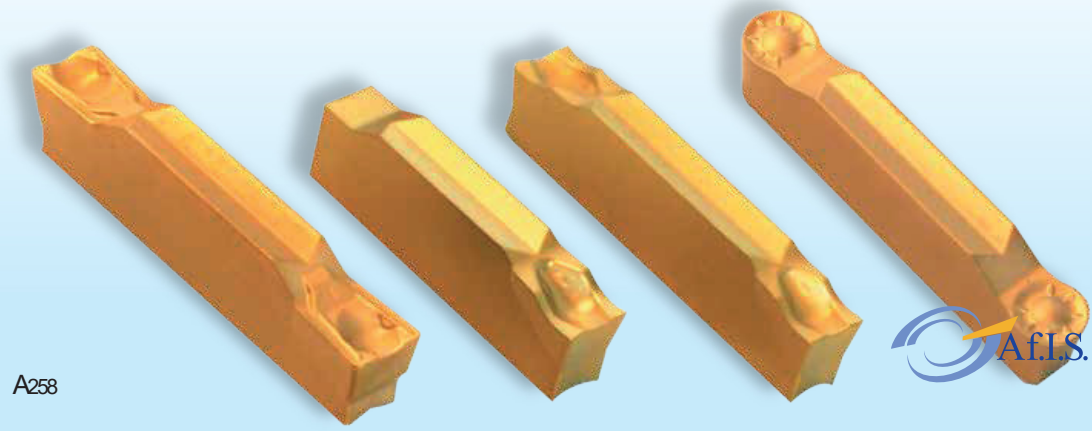
Corner radius *Raggio di punta*



02 = 0.20 mm
03 = 0.30 mm
04 = 0.40 mm
08 = 0.80 mm

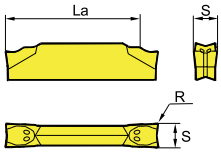
Chip breaker´s code *Rompitruciolo*

- **G** General chip breaker, suitable for all kinds of machined material. *Rompitruciolo universale, adatta per differenti materiali.*
- **F** Special chip breaker *Rompitruciolo speciale*

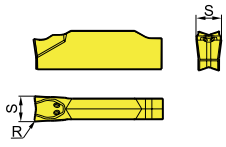


Parting inserts · Inserto per troncare


Double cutting edge
2 taglienti




Single cutting edge
1 tagliente

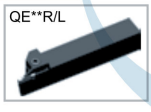


	Type Tipo	Dimension (mm) Dimensioni			Grade Grado							
					P			M		K	N	
		$S^{+0.1}_{0}$	R±0.1	La max	XAI202	XAI302	XAF251	XAI202	XAI302	XAI202	XS101	XS201
Double cutting edge 2 taglienti	ZPED02502-MG	2.5	0.2	17	●	●	●	●	●	●		
	ZPFD0302-MG	3.0	0.2	17	●	●	●	●	●	●		○
	ZPGD0402-MG	4.0	0.2	22	●	●	●	●	●	●		○
	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 blad
Inserti a tagliente unico esclusivamente per l'impiego su lame per gole

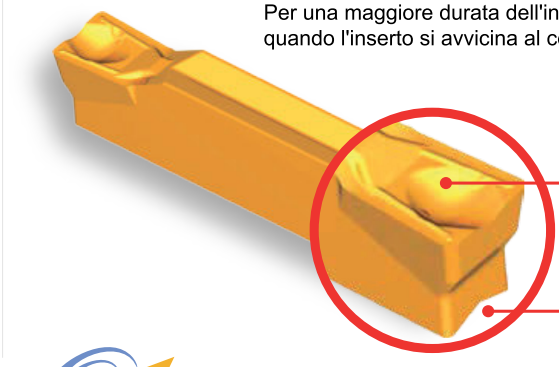
Tool holder / Utensile


QZ**+QE**


QE**R/L

Pag. A?? A?? A?? A?? A??

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.

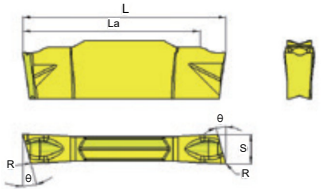


Optimal chip breaker design for good chip control.
Rompitruciolo ottimale per un buon controllo del truciolo.

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

ZP*D-MG Series





Type Tipo	Dimension (mm) Dimensioni					Grade Grado						
						P			M		K	N
	L	S	θ	R	La max	XAI202	XAI302		XAI202	XAI302	XAI302	XS101
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	●	●		●	●	○	○

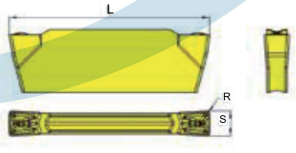
Tool holder / Cartuccia

QE**R/L



ZTBD-MG Series





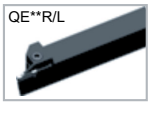
Type Tipo	Dimension (mm) Dimensioni					Grade Grado		
						P		
	L	S ±0.05	R	La max		XAI202	XAI205	XAI302
ZTBD02002-MG	16.3	2.0	0.2	13		○	●	○

Tool holder / Utensile

C*-Q*R/L*



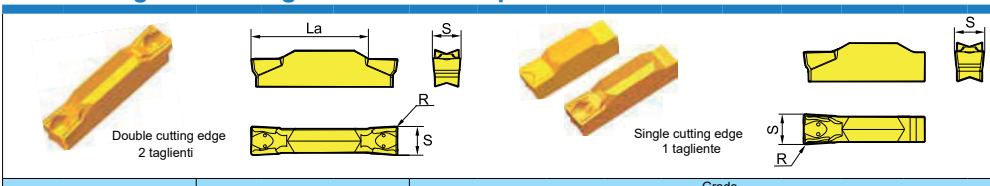
QE**R/L



QFGD

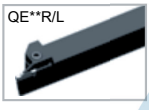


Grooving and turning inserts · Inserti per scanalatura e tornitura



Type / Tipo		Dimension (mm) Dimensioni			Grade Grado									
					P					M			K	N
		$S^{+0.1}_{0}$	R±0.10	La max	XAI202	XAI205	XAI302	XAF151	XAF251	XAI202	XAI205	XAI302	XAI302	XS101
Double cutting edge 2 taglienti	ZTED02503-MG	2.5	0.3	17	●	○	●			●	○	●	●	
	ZTFD0303-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	●	●	●	○		●	●	●	●	
Single cutting edge 1 tagliente	ZTHS0504-MG	5.0	0.4	-	●	○	●			○	○	●	●	
	ZTKS0608-MG	6.0	0.8	- -	●	○	●			○	○	●	●	

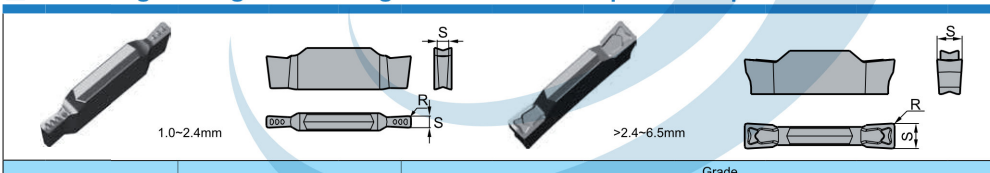
Tool holder / Cartuccia







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



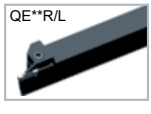
Type / Tipo		Dimension (mm) Dimensioni			Grade Grado						
					P			M		K	N
		S±0.025	R(2)±0.05	La max	XAI202	XAI302		XAI202	XAI302	XAI302	XS101
Double cutting edge 2 taglienti	ZTC****-EG	1.0~1.6 1.6~2.4	(2)	2.6 3.4		○			○		
	ZTE****-EG	2.4~3.0		17		○			○		
	ZTFD****-EG	3.0~3.8		17		○			○		
	ZTGD****-EG	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

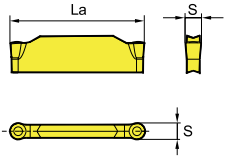
Tool holder / Cartuccia





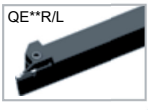
Profiling and turing inserts · Inserti per contornatura e tornitura

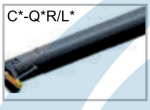


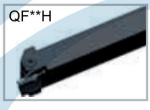


Type Tipo		Dimension (mm) Dimensioni		Grade Grado						
				P			M		K	N
		$S^{+0.1}_{0}$	La max	XAI202	XAI302	XAF151	XAI202	XAI302	XAI302	XS101
Double cutting edge 2 taglienti	ZRED025-MG	2.5	20	●	●	○	●	●	●	
	ZRFD03-MG	3.0	20	●	●	○	●	●	●	
	ZRGD04-MG	4.0	25	●	●		●	●	●	
	ZRHD05-MG	5.0	25	●	●		●	●	●	
	ZRKD06-MG	6.0	25	●	●		●	●	●	

Tool holder / Cartuccia



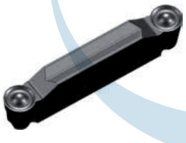


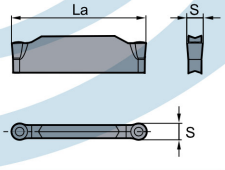






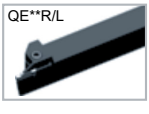
Precise profiling and turning inserts · Inserti di precisione per contornatura e tornitura





Type Tipo		Dimension (mm) Dimensioni		Grade Grado						
				P			M		K	N
		S±0.025	La max	XAI202	XAI302		XAI202	XAI302	XAI302	XS101
Double cutting edge 2 taglienti	ZRFD03-EG	3.0	20		○			○		
	ZRGD04-EG	4.0	25		○			○		
	ZRHD05-EG	5.0	25		○			○		
	ZRKD06-EG	6.0	25		○			○		

Tool holder / Cartuccia

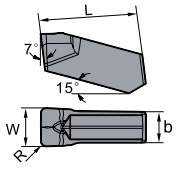






Single-cutting edge grooving and turning inserts for machining of heatresistance super alloy
Inserti per scanalatura e tornitura di superleghe resistenti al calore





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		●	●		

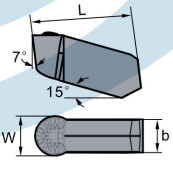
Tool holder / Cartuccia

QE*S*N



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		○	●		

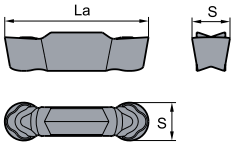
Tool holder / Cartuccia

QE*S*N



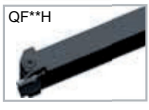
Profiling Inserts for Al · Inserti per contornatura di alluminio





Type Tipo	Dimension (mm) Dimensioni		Grade Grado
	S±0.025	La max	XS101
ZRKD06- LH	6.0	25	○
ZRLD08-LH	8.0	30	●

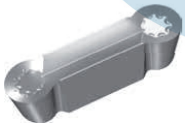
Tool holder / Cartuccia

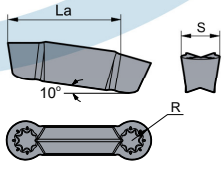






Profiling Inserts for Al · Inserti per contornatura di alluminio



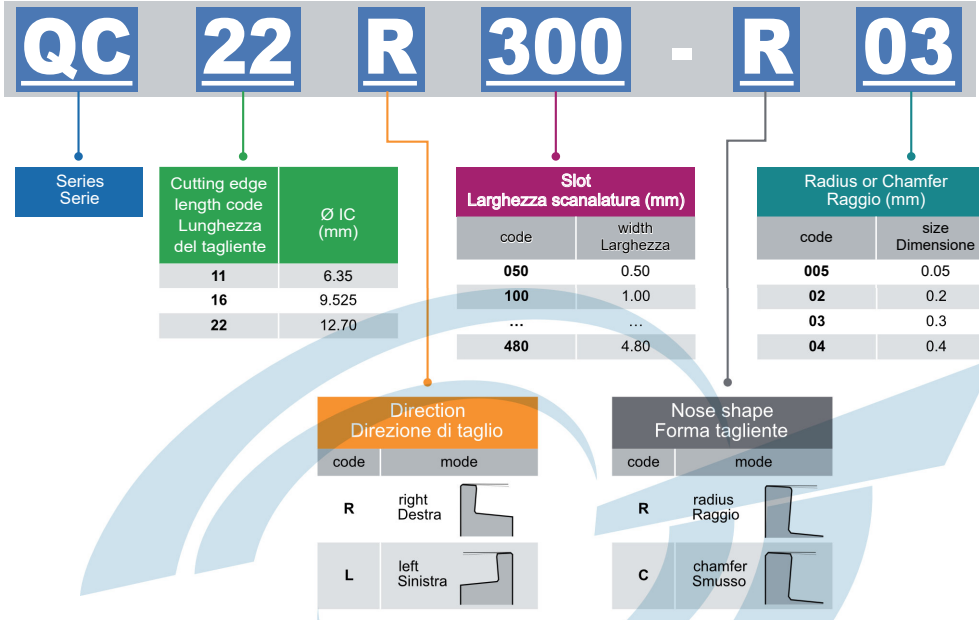


Type Tipo	Dimension (mm) Dimensioni		Grade Grado	
	S±0.025	La max	XS101	XS201
ZILD08-LC	8.0	22	●	○

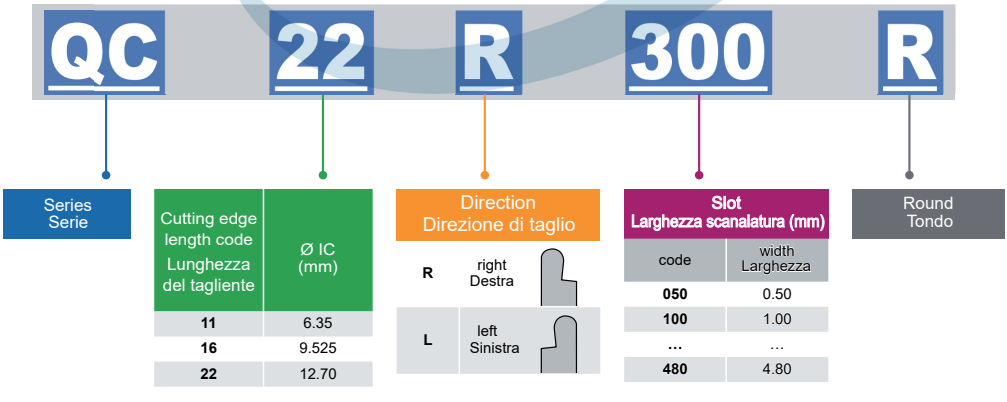
QC seriers grooving insert / Inserti serie QC

QC series grooving insert code key / Classificazione serie QC

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



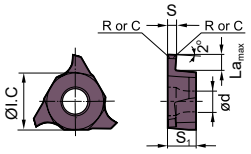
- Triangular round grooving insert / Inserti triangolari per scanalatura con tagliente tondo



QC seriers grooving insert / Inserti serie QC



right hand style
Versione destra



Type / Tipo		Dimension (mm) / Dimensioni						Grade / Grado					
								P		M		K	
		S±0.025	La_{max}	R/C	ØI.C	S_1	ød	XAI202	XAI205	XAI202	XAI205	XAI202	XAI205
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	○	●	○	●	○	●
	300-R02	3.00	3.00	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±0.025=1.60mm, ØI.C=12.70mm and cutting edge with R=0.3mm
Informazioni per l'ordinazione: es.QC22R160-R03 indica S±0.025=1.60mm, ØI.C=12.70mm e un raggio di punta R=0.3mm.

Tool holder / Cartuccia

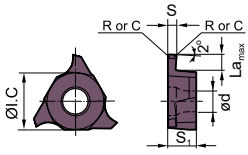
QC Serie
S***-QC**R/L*



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



right hand style
Versione destra

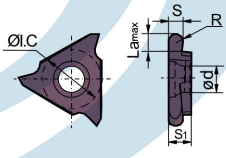


Type / Tipo		Dimension (mm) / Dimensioni						Grade / Grado					
								P		M		K	
		S±0.025	La max	R/C	ØI.C	S1	ød	XAI202	XAI205	XAI202	XAI205	XAI202	XAI205
QC22R/L	300-R03	3.00	4.00	R0.3	12.70	4.76	5.5	○	●	○	●	○	○
	320-R03	3.20	4.00	R0.3	12.70	4.76	5.5	○	●	○	●	○	○
	330-R03	3.30	4.00	R0.3	12.70	4.76	5.5	○	●	○	●	○	○
	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



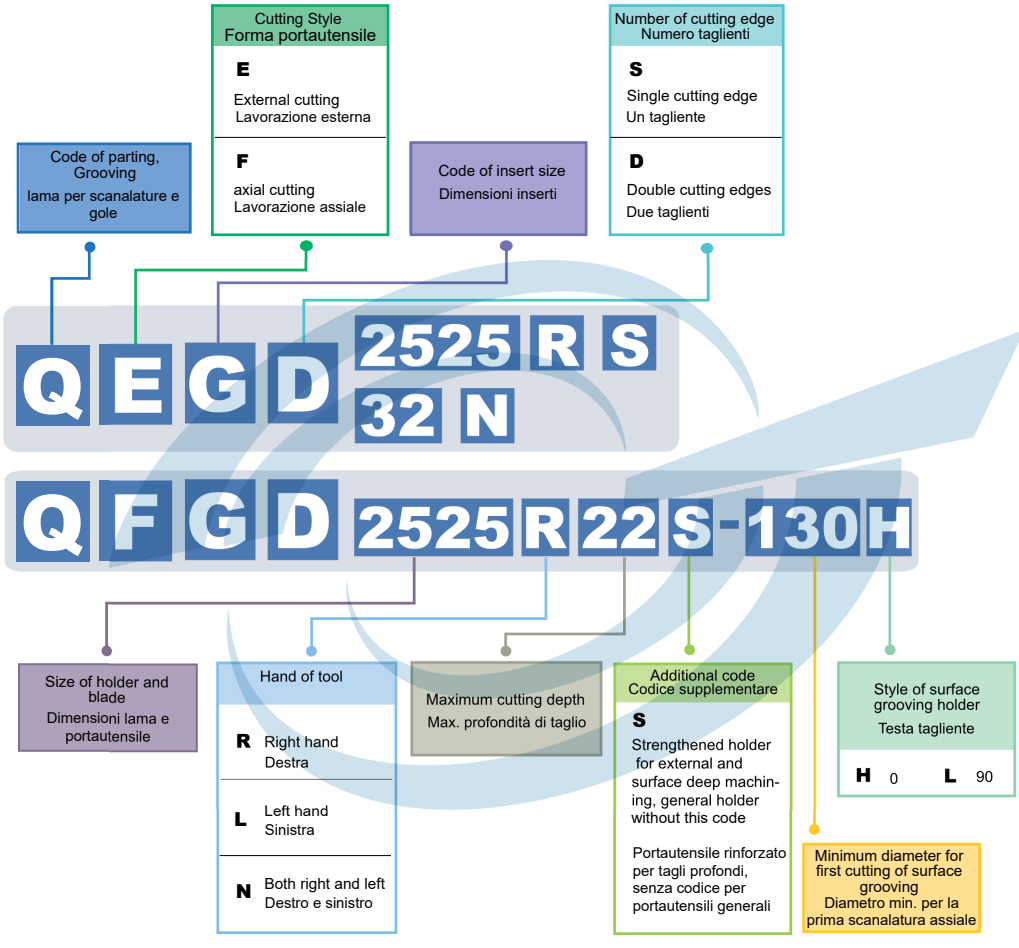
Type / Tipo		Dimension (mm) / Dimensioni						Grade / Grado					
								P		M		K	
		S±0.025	La max	R/C	ØI.C	S1	ød	XAI202	XAI205	XAI202	XAI205	XAI202	XAI205
QC16R/L	200R	2.00	2.50	1.00	12.70	3.18	4.4	○	○	○	○	○	○
	300R	3.00	2.50	1.50	12.70	3.18	4.4	○	○	○	○	○	○
QC22R/L	100R	1.00	2.00	0.50	12.70	4.76	5.5	○	○	○	○	○	○
	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	○	○	○	○	○	○

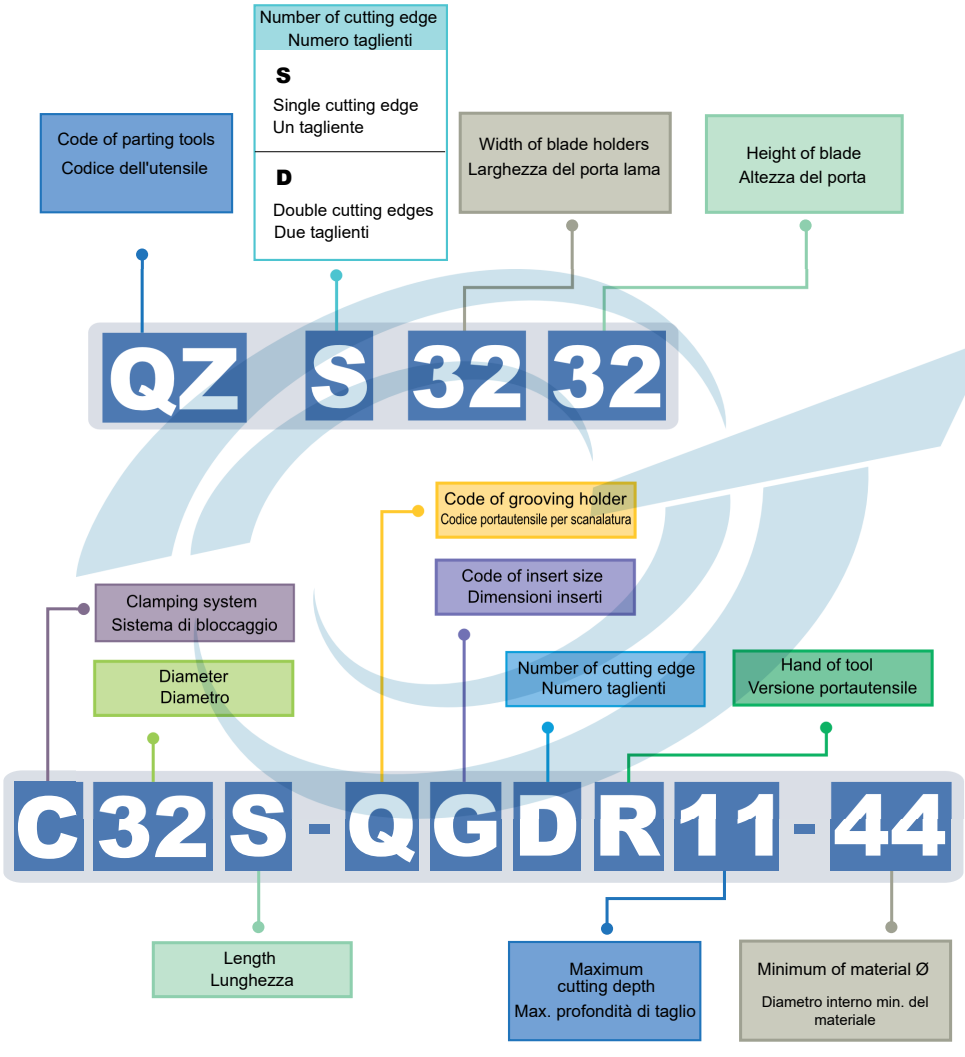
Tool holder / Cartuccia

QE Serie GQCR/L

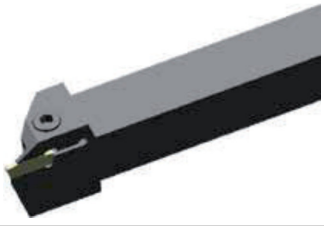


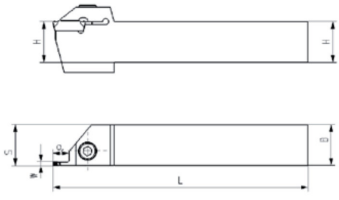
A


Code of parting, Grooving
lama per scanalature e gole
Cutting Style
Forma portautensile
E
External cutting
Lavorazione esterna
F
axial cutting
Lavorazione assiale
Code of insert size
Dimensioni inserti
Number of cutting edge
Numero taglienti
S
Single cutting edge
Un tagliente
D
Double cutting edges
Due taglienti
QEGD 2525 R S 32 N
QFGD 2525 R 22 S - 130 H
Size of holder and blade
Dimensioni lama e portautensile
Hand of tool
R Right hand
Destra
L Left hand
Sinistra
N Both right and left
Destro e sinistro
Maximum cutting depth
Max. profondità di taglio
Additional code
Codice supplementare
S
Strengthened holder for external and surface deep machining, general holder without this code
Portautensile rinforzato per tagli profondi, senza codice per portautensili generali
Minimum diameter for first cutting of surface grooving
Diametro min. per la prima scanalatura assiale
Style of surface grooving holder
Testa tagliente
H 0
L 90


Number of cutting edge
Numero taglienti
S
Single cutting edge
Un tagliente
D
Double cutting edges
Due taglienti
Code of parting tools
Codice dell'utensile
Width of blade holders
Larghezza del porta lama
Height of blade
Altezza del porta
QZ S 32 32
Code of grooving holder
Codice portautensile per scanalatura
Code of insert size
Dimensioni inserti
Clamping system
Sistema di bloccaggio
Diameter
Diametro
Number of cutting edge
Numero taglienti
Hand of tool
Versione portautensile
C 32 S - Q G D R 11 - 44
Length
Lunghezza
Maximum
cutting depth
Max. profondità di taglio
Minimum of material Ø
Diametro interno min. del
materiale

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





Type Tipo		Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni H×B	Dimension (mm) Dimensioni L	Dimension (mm) Dimensioni S	Dimension (mm) Dimensioni W	Dimension (mm) Dimensioni ar max	Inserts Inserto	Screw Bullone di fissaggio	Wrench Chiave
QEBD	1616R/L04	○	○	16×16	150	16.17	2	4	ZTBD02002	M5×16	WH40L
	2020R/L07	○	○	20×20	150	20.17	2	7	ZTBD02002		

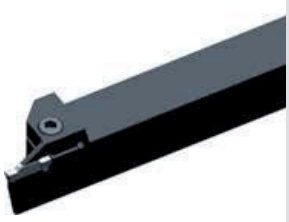
Internal parting, grooving and turning tools · Utensili per scanalatura e tornitura (interni)

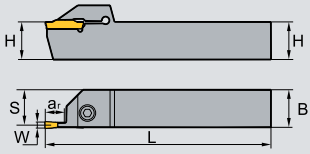




Type Tipo	Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni d	Dimension (mm) Dimensioni L	Dimension (mm) Dimensioni S	Dimension (mm) Dimensioni W	Dimension (mm) Dimensioni ar max	Inserts Inserto	Screw Bullone di fissaggio	Wrench Chiave
C16M-QBDR/L04-20	●	○	16	150	12	2	4	ZTBD02002-MG	M5×10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

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







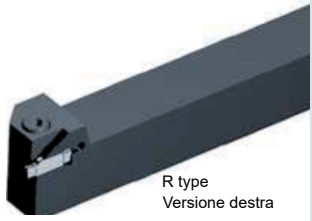
Type Tipo		Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni H×B	L	S	W	ar max	Inserts Inserto	Screw Bullone di fissaggio	Wrench Chiave
QEED	1616R/L10	●	●	16×16	125	15	2.5	10	Z*ED025**	GB70-85-M5×20	WH40L
	1616R/L17	●	●	16×16	125	15	2.5	17	Z*ED025**		
	2020R/L10	●	●	20×20	15	10	2.5	10	Z*ED025**	GB70-85-M6×20	WH50L
	2020R/L17	●	●	20×20	25	19	2.5	17	Z*ED025**		
	2525R/L10	●	●	25×25	150	19	2.5	10	Z*ED025**		
	2525R/L17	●	●	25×25	150	19	2.5	17	Z*ED025**		
QEFD	1616R/L10	●	●	16×16	125	14.8	3	10	Z*FD03**	GB70-85-M5×20	WH40L
	1616R/L17	●	●	16×16	125	14.8	3	17	Z*FD03**		
	2020R/L10	●	●	20×20	125	18.8	3	10	Z*FD03**	GB70-85-M6×20	WH50L
	2020R/L17	●	●	20×20	125	18.8	3	17	Z*FD03**		
	2525R/L10	●	●	25×25	150	23.8	3	10	Z*FD03**		
	2525R/L17	●	●	25×25	150	23.8	3	17	Z*FD03**		
QEGD	2020R/L13	●	●	20×20	140	18.5	4	13	Z*FD04**	GB70-85-M6×20	WH50L
	2020R/L22	●	●	20×20	140	18.5	4	22	Z*GD04**		
	2525R/L13	●	●	25×25	150	23.5	4	13	Z*GD04**		
	2525R/L22	●	●	25×25	150	23.5	4	22	Z*GD04**		
	3232R/L13	●	●	32×32	170	30.5	4	13	Z*GD04**		
	3232R/L22	●	●	32×32	170	30.5	4	22	Z*GD04**		
QEHD	2525R/L13	●	●	25×25	150	23	5	13	Z*HD05**	GB70-85-M6×20	WH50L
	2525R/L22	●	●	25×25	15	23	5	22	Z*HD05**		
QEHS	2525N30	●		25×25	150	12.5	5	30	Z*HS05**		
QEHD	3232R/L13	●	●	32×32	170	30	5	13	Z*HD05**		
	3232R/L22	●	●	32×32	170	30	5	22	Z*HD05**		
QEHS	3232N30	●		32×32	170	16	5	30	Z*HS05**		
QEKD	2525R/L13	●	●	25×25	150	22.6	6	13	Z*KD06**	GB70-85-M6×20	WH50L
	2525R/L22	●	●	25×25	150	22.6	6	22	Z*KD06**		
QEKS	2525N30	○		25×25	15	12.5	6	30	Z*KS06**		
QEKD	3232R/L13	●	●	32×32	170	29.6	6	13	Z*KD06**		
	3232R/L22	●	●	32×32	170	29.6	6	22	Z*KD06**		
QEKS	3232N30	○		32×32	170	16	6	30	Z*KS06**		

A

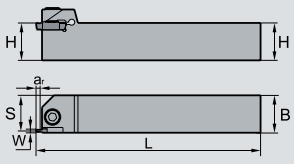
General Turning
Tornitura generale

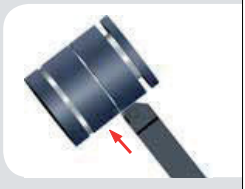
Parting & Grooving
Scanalatura e gole

Precise grooving and turning tools · Utensili di precisione per scanalatura e tornitura



R type
Versione destra



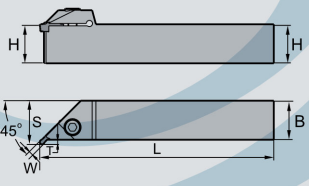


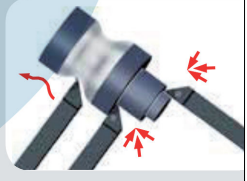
Type Tipo		Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni H×B	Dimension (mm) Dimensioni L	Dimension (mm) Dimensioni S	Dimension (mm) Dimensioni W	Dimension (mm) Dimensioni ar max	Inserts Inserti	Screw Bullone di fissaggio	Wrench Chiave
QECD	1616R/L025	○	○	16×16	125	14.75		2.5	ZT**D***-EG	GB70-85-M5×20	WH40L
	2020R/L025	○	○	20×20	125	18.75				GB70-85-M6×20	WH50L
	2525R/L025	○	○	25×25	150	23.75					

External recess and profiling turning tools · Utensili per retro-tornitura e contornatura (esterne)



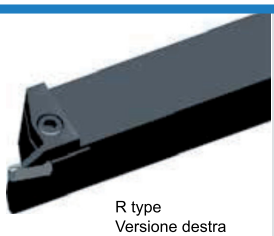
R type
Versione destra



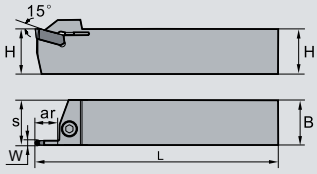


Type Tipo		Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni H×B	Dimension (mm) Dimensioni L	Dimension (mm) Dimensioni S	Dimension (mm) Dimensioni W	Dimension (mm) Dimensioni ar max	Inserts Inserti	Screw Bullone di fissaggio	Wrench Chiave
QXFD	2020R/L03-45	○	○	20×20	125	23	3.0	3.0	ZR(T)FD03-EG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

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



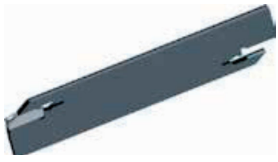
R type
Versione destra

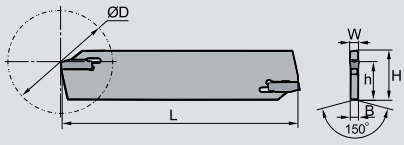




Type Tipo		Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni H×B	L	S	W	ar max	Inserts Inserti	Screw Bullone di fissaggio	Wrench Chiave
QEFS	2525R/L12-3N	○	○	25×25	150	25.3	3	12	ZIGQ3N-NM ZIMF304N-NM	GB70-85-M6×20	WH50L
	3232R/L22-3N	○	○	32×32	170	32.3	3	22			
QEGS	2525R/L12-4N	○	○	25×25	150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

Blade for external parting · Lame per lavorazione esterna



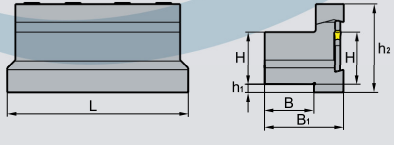


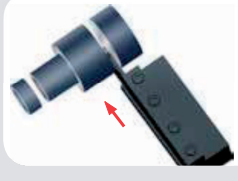


Type Tipo	Stock Magaz-zino	Dimension (mm) Dimensioni						Inserts Inserti	Wrench Chiave
		L	H	h	B	W	ØD max		
QEES26N	●	110	26	19	2	2.5	60	ZPES02502-MG	
QEFS26N	●	110	26	19	2.4	3	60	ZPFS0302-MG	
QEGS26N	●	110	26	19	3.2	4	70	ZPGS0402-MG	
QEHS26N	●	110	26	19	4	5	70	ZPHS0503-MG	
QEKS26N	●	110	26	19	5	6	70	ZPKS0604-MG	
QEES32N	●	150	32	24.6	2	2.5	100	ZPES02502-MG	W50RL
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	

Holder for external parting · Portautensile per tornitura esterna





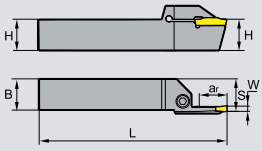


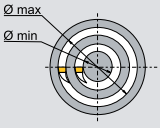
Type Tipo	Stock Magaz-zino	Dimension (mm) Dimensioni						Clamp Morsetto	Screw Bullone di fissaggio	Wrench Chiave
		L	H	h_1	h_2	B	B_1			
QZS2026	●	86	20	10	46.6	19	38	QZC26		
QZS2526	●	86	25	5	46.6	23	42	QZC26		
QZS3226	○	86	32	3	51.6	30	48	QZC26	GB70-85-M6×20	WH50L
QZS2032	●	110	20	13	50	19	38	QZC32		
QZS2532	●	110	25	8	50	23	42	QZC32		
QZS3232	●	110	32	5	54	30	48	QZC32		

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



L type
Versione sinistra



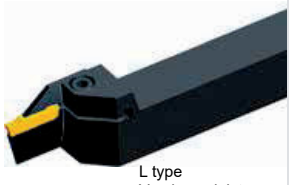


ØD= Range of entering
ØD= Area

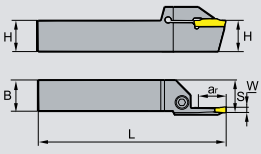


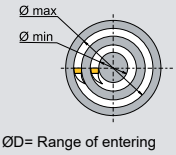
Type Tipo		Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni H×B	L	S	W	ar max	ØD (min-max)	Inserts Inserti	Screw Bullone di fissaggio	Wrench Chiave
QFFD	2020R/L7-48H	○	○	20×20	150	21	3	7	48-66	ZTFD0303-MG	GB70-85-M6×20	WH50L
	2020R/L10-48H	○	○	20×20	150	21	3	10	48-66			
	2525R/L10-48H	●	●	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			

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



L type
Versione sinistra





ØD= Range of entering
ØD= Area

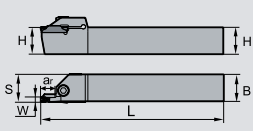


Type Tipo		Stock Magazzino		Dimension (mm) Dimensioni						Inserts Inserti	Screw Bullone di fissaggio	Wrench Chiave
		R	L	H×B	L	S	W	ar max	ØD (min-max)			
QFHD	2525R/L13-58H	●	●	25×25	150	26	5	13	58-96	ZTHD0504-MG	GB70-85-M6×20	WH50L
	2525R/L22-58H	●	●	25×25	150	26	5	22	58-96			
	2525R/L13-86H	●	●	25×25	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		
QFKD	2525R/L13-60H	●	●	25×25	150	26	6	13	60-100	ZTKD0608-MG ZRKD06-MG	GB70-85-M6×20	WH50L
	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		

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



R type
Versione destra



ØD= Range of entering
ØD= 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	ØD (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			
	2525RR10-100H	○	○	25×25	150	26	3	10	100-150			
	2525RR17-100H	○	○	25×25	150	26	3	17	100-150			
QFGD	2020RR10-52H	○	○	20×20	150	21	4	10	52-72	ZTGD0404-MG		
	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			

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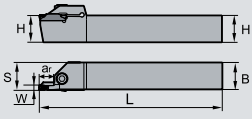
General Turning
Tornitura generale

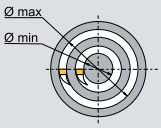
Parting & Grooving
Scanalatura e gole

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



R type
Versione destra



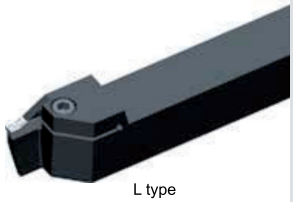


ØD= Range of entering
ØD= Area

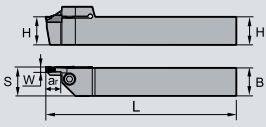


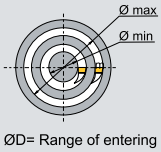
Type Tipo		Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni H×B	L	S	W	ar max	ØD (min-max)	Inserts Inserti	Screw Bullone di fissaggio	Wrench Chiave
QFHD	2525RR13-58H	○	○	25×25	150	26	5	13	58-96	ZTHD0504-MG	GB70-85-M6×20	WH50L
	2525RR22-58H	●	○	25×25	150	26	5	22	58-96			
	2525RR13-86H	○	○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

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



L type
Versione destra





ØD= Range of entering
ØD= Area



Type Tipo		Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni H×B	L	S	W	ar max	ØD (min-max)	Inserts Inserti	Screw Bullone di fissaggio	Wrench Chiave
QFFD	2020LL7-48H	○	○	20×20	150	21	3	7	48-66	ZTFD0303-MG	GB70-85-M6×20	WH50L
	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			
	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			
QFGD	2020LL10-52H	○	○	20×20	150	21	4	10	52-72	ZTGD0404-MG		
	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			
	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			

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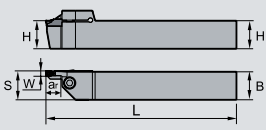
General Turning
Tornitura generale

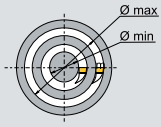
Parting & Grooving
Scanalatura e gole

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



L type
Versione sinistra



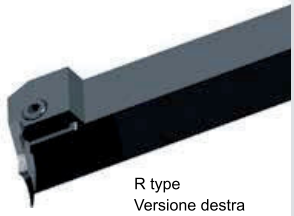


ØD= Range of entering
ØD= Area

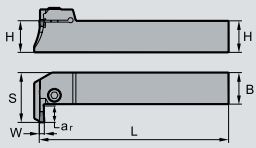


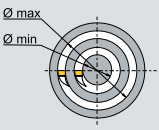
Type Tipo		Stock Magazzino		Dimension (mm) Dimensioni						Inserts Inserti	Screw Bullone di fissaggio	Wrench Chiave
		R	L	H×B	L	S	W	ar max	ØD (min-max)			
QFHD	2525LL13-58H	○	○	25×25	150	26	5	13	58-96	ZTHD0504-MG	GB70-85-M6×20	WH50L
	2525LL22-58H	○	○	25×25	150	26	5	22	58-96			
	2525LL13-86H	○	○	25×25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



R type
Versione destra



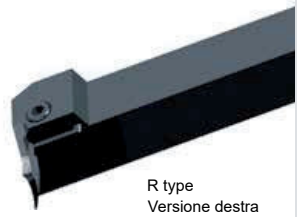


ØD= Range of entering
ØD= Area

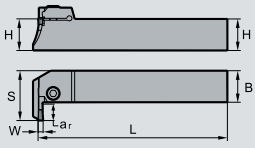


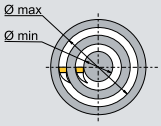
Type Tipo		Stock Magazzino		Dimension (mm) Dimensioni						Inserts Inserti	Screw Bullone di fissaggio	Wrench Chiave
		R	L	H×B	L	S	W	ar max	ØD (min-max)			
QFFD	2020R/L7-48L	○	○	20×20	150	28.5	3	7	48-66	ZTFD0303-MG	GB70-85-M6×20	WH50L
	2020R/L10-48L	○	○	20×20	150	31.5	3	10	48-66			
	2525R/L10-48L	○	●	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			

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



R type
Versione destra





ØD= Range of entering
ØD= Area

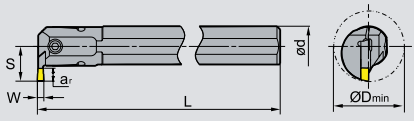


Type / Tipo		Stock / Magazzino R	Stock / Magazzino L	Dimension (mm) / Dimensioni H×B	L	S	W	ar max	ØD (min-max)	Inserts / Inserti	Screw / Bullone di fissaggio	Wrench / Chiave
QFHD	2525R/L13-58L	○	○	25×25	150	39.5	5	13	58-96	ZTHD0504-MG	GB70-85-M6×20	WH50L
	2525R/L22-58L	○	○	25×25	150	48.5	5	22	58-96			
	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			
	2525R/L22-185L	○	○	25×25	150	48.5	5	22	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			

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



R type
Versione destra



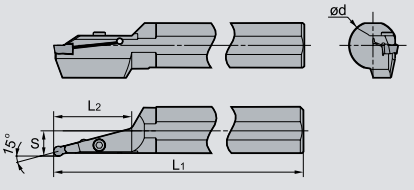


Type Tipo	Stock Magazzino		Dimension (mm) Dimensioni						Inserts Inserti	Screw Bullone di fissaggio	Wrench Chiave
	R	L	ød	L	S	W	ar max	ØDmin			
C20Q-QEDR/L05-27	●	●	20	180	15.2	2.5	5	27	ZTED02* ZRED025*	GB70-85-M4×12	WH30L
C25R-QEDR/L07-33	●	●	25	200	20.3	2.5	7	33		GB70-85-M5×16	WH40L
C32S-QEDR/L09-42	●	●	32	250	25.3	2.5	9	42		GB70-85-M5×20	
C20Q-QFDR/L05-27	●	●	20	0	15.2	3	5	27	ZTFD03* ZRFD03*	GB70-85-M4×12	WH30L
C25R-QFDR/L07-33	●	●	25	200	20.3	3	7	33		GB70-85-M5×16	WH40L
C32S-QFDR/L09-42	●	●	32	250	25.3	3	9	42		GB70-85-M5×20	
C25R-QGDR/L08-35	●	●	25	200	21.5	4	8	35	ZTGD04* ZRGD04*	GB70-85-M5×16	WH40L
C32S-QGDR/L11-44	●	●	32	250	27.5	4	11	44		GB70-85-M6×20	WH50L
C40T-QGDR/L13-54	●	●	40	300	33.5	4	13	5		GB70-85-M6×20	
C25R-QHDR/L08-35	●	○	25	200	21.5	5	8	35	ZTHD05* ZRHD05*	GB70-85-M5×16	WH40L
C32S-QHDR/L11-44	●	●	32	250	27.5	5	11	44		GB70-85-M6×20	WH50L
C40T-QHDR/L13-54	●	○	40	300	33.5	5	13	54		GB70-85-M6×20	
C25R-QKDR/L08-35	○	●	25	200	21.5	6	8	35	ZTKD06* ZRKD06*	GB70-85-M5×16	WH40L
C32S-QKDR/L11-44	●	●	32	250	27.5	6	11	44		GB70-85-M6×20	WH50L
C40T-QKDR/L13-54	●	●	40	300	33.5	6	13	54		GB70-85-M6×20	

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



R type
Versione destra





Type Tipo	Stock Magazzino		Dimension (mm) Dimensioni					Inserts Inserti	Screw Bullone di fissaggio	Wrench Chiave
	R	L	ØD ()	ød	S	L1	L2			
C40X-QLDR/L65-15A	○	○	160	40	21	320	65	ZRLD08-LH	GB70-85-M6×20	WH50L
C40X-QLDR/L80-15A	○	○	160	40	21	320	80	ZRLD08-LH		
C40X-QKDR/L60-15A	○	○	160	40	20	320	60	ZRKD06-LH		
C40X-QKDR/L75-15A	●	○	160	40	20	320	75	ZRKD06-LH		

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

- External grooving / Scanalature / Gole (esterna)

Direction Direzione di taglio	
R	right / Destra
L	left / Sinistra

Height Altezza (mm)	
code	height /Altezza
16	16
20	20
25	25

Width range of insert Area larghezza scanalatura	
15	0.5≤S<1.8(QC16***) 1.0≤S<2.3(QC22***)
25	1.8≤S<3.0(QC16***) 2.3≤S<3.3(QC22***)
35	3.3≤S≤4.8

GQC R 20 20 K 22 - 15

Series
Serie

Dimension Dimensioni (mm)	
H code	B
16	16
20	20
25	25

Length of tool holder Lunghezza del portautensile (mm)	
code	length / Lunghezza
K	125
M	150

Cutting edge length Lunghezza del tagliente	Ø IC (mm)
11	6.35
16	9.525
22	12.70

- Internal grooving / Scanalature e gole (interna)

Mode of toolholder Versione	
code	mode
S	steel Acciaio
C	cemented carbide toolholder / Portautensile carburo cementato
A	steel toolholder and internal coolant / Stelo in carburo cementato con refrigerante interno

Length of tool holder Lunghezza del portautensile (mm)	
code	length / Lunghezza
H	100
K	125
M	150

Cutting edge length Lunghezza del tagliente	Ø IC (mm)
11	6.35
16	9.525
22	12.70

Direction Direzione di taglio	
R	right / Destra
L	left / Sinistra

S 20 K - QC 16 15 R 25

Diameter of toolholder Diametro del portautensile	
code	Ø
16	16
20	20
25	25

Series
Serie

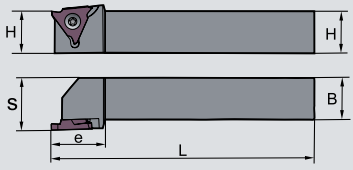
Width range of insert Area larghezza scanalatura		
15	0.5≤S<1.8	QC11*** QC16***
25	0.5≤S<1.8 2.3≤S<3.3 (QC22***)	QC11*** QC16***
35	3.3≤S≤4.8	

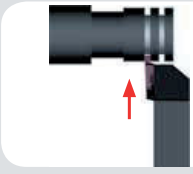
Minimum diameter for machining Lavorazione minimo Ø	
code	Ø
16	16
20	20
25	25
35	35

External grooving / Scanalature / Gole (esterna)



Right hand style
Versione destra



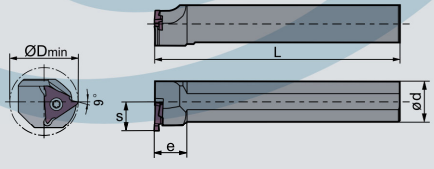


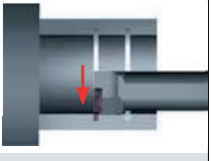
Type Tipo		Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni H	B	S	e	L	Width Larghezza (mm)	Inserts Inserto	Screw Bullone di fissaggio	Wrench Chiave
GQCR/L	**1616K16-15**	●	●	16	16	21	25.5	125	0.5-1.80	QC16R/L 050~180	I60M3.5×10	WT15IP
	2020K16-15	●	●	20	20	25		125				
	2525M16-15	●	●	25	25	30		150				
	1616K16-25	●	●	16	16	21		125	1.8-3.0	QC16R/L 180~300		
	2020K16-25	●	●	20	20	25		125				
	2525M16-25	●	●	25	25	30		150				
	2020K22-15	●	●	20	20	25		125	1.0-2.3	QC22R/L 100~230	I60M5×13	WT20IP
	2525M22-15	●	●	25	25	30		150				
	2020K22-25	●	●	20	20	25		125	2.3-3.3	QC22R/L 230~330		
	2525M22-25	●	●	25	25	30		150				
	2020K22-35	●	●	20	20	25		125	3.3-4.8	QC22R/L 330~480		
	2525M22-35	●	●	25	25	30		150				

Internal grooving / Scanalature e gole (interna)



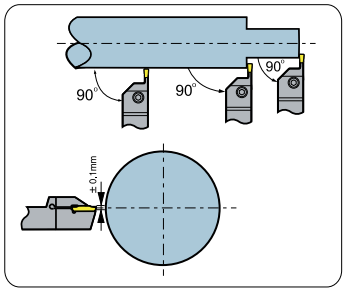
Right hand style
Versione destra





Type Tipo	Stock Magazzino R	Stock Magazzino L	Dimension (mm) Dimensioni ØDmin	ød	S	e	L	Width Larghezza (mm)	Inserts Inserto	Screw Bullone di fissaggio	Wrench Chiave
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	15	150	0.5-1.80	QC16R/L050~180	I60M3.5×10	WT15IP
S20M-QC1625R/L 25	●	●			12.5			1.8-3.0	QC16R/L180~300		
S25M-QC2215R/L 35	●	●	35	25	18.2			1.0-2.3	QC22R/L100~230	I60M5×13	WT20IP
S25M-QC2225R/L 35	●	●			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		

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 ± 0.1mm, 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 ± 0,1 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

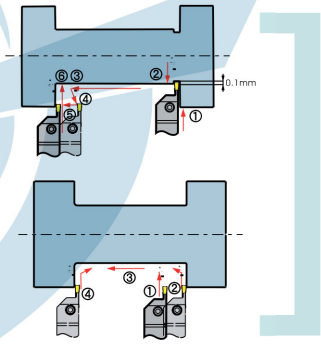
● A reduction of the feedrate by 30% is preferred when the inserts approach the centre of workpiece, prolonging the life-time of the inserts.

● 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



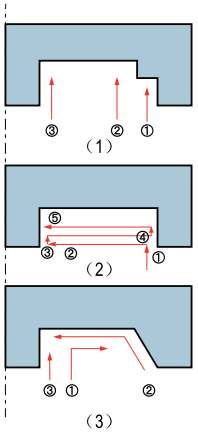
● Cutting sequences: As the cutting depth is bigger than 0.5mm, radial cutting (biggest cutting depth 0.75 x edge width of insert) radial backing 0.1mm axial feed oblique back axial cutting radial cutting to the depth require.

● Sequenza di lavorazione 0,5mm: Avanzamento radiale alla profondità richiesta di taglio (circa max. 0.75 x 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 x 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 x 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).

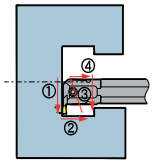
Finishing · Finitura

● Finish machining external Ø and bottom firstly, then machining the internal Ø to the size reqired 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

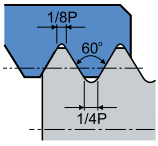
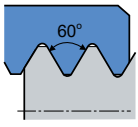
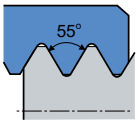
Inserts Size Dimensioni inserto	Recommended feed rate (mm/rev) Velocità di avanzamento consigliata (mm/U)			
Inserts width(mm) Larghezza inserto	Parting Troncatura	Grooving Scanalatura	Turning Tornitura	Profiling Contornatura
2.5	0.05—0.15	0.05—0.15	0.05—0.15	0.05—0.15
3	0.05—0.15	0.05—0.15	0.07—0.15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

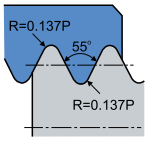
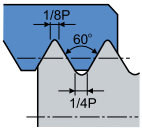
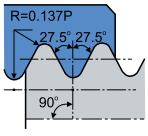
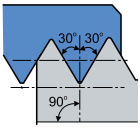
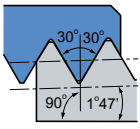
Workpiece Material Materiale pezzo		Hardness Durezza	YBG302	YBG202	YBC151	YBC251	YD101	YD201	YBG102	YC10	YC40
P	Carbon steel Acciaio al carbonio	125≤HB≤170	120-260	150-280	140-280	150-280				130-280	110-260
	Low alloy steel Acciaio basso legato	180≤HB≤275	80-175	110-200	100-240	110-200				90-200	70-175
	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		

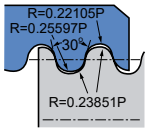
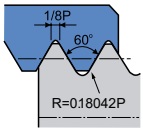
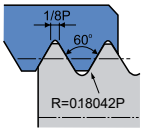
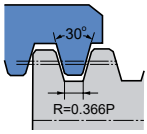
The cutting parameters recommended are suitable for wet machining.
I parametri di taglio indicati sono consigliati per la lavorazione con liquido refrigerante.
Advice: internal machining and Axial machining, The cutting speed should be reduced by 30%-40%.
Nota: Per scanalatura interna e assile, è necessario ridurre la velocità di taglio del 30%-40%.

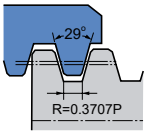
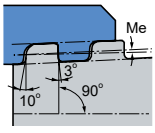
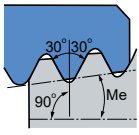
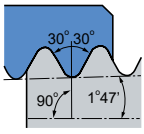
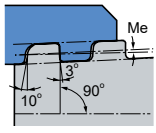
Af.I.S.

THREAD TURNING

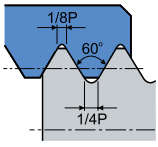
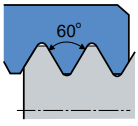
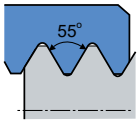
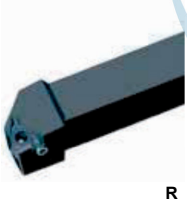
Applications Applicazioni			General information Informazioni generali		
Cutline Linea di taglio					
Thread name Nome filettatura			ISO metric thread Full profile Profilo completo	General pitch thread Partial profile Profilo parziale	General pitch thread Partial profile Profilo parziale
Profile Profilo			**GM**	**60°**	**55°**
Shape of insert Dimensioni inserto (length / Lunghezza : 11, 16, 22mm)			Illustration: external thread right hand. Figura: filettatura esterna destrorsa 	Illustration: external thread right hand. Figura: filettatura esterna destrorsa 	Illustration: external thread right hand. Figura: filettatura esterna destrorsa 
Toolholder Portautensile	Pitch Passo	Dimensions (mm) Dimensioni (mm) (H×W×L) (Ø×Length×Min.Ø) (Ø×Lunghezza×Min.Ø)	Pitch/mm Passo/mm (pitch/Inch)	Pitch/mm Passo/mm (pitch/Inch)	Pitch/mm Passo/mm (pitch/Inch)
External thread Filettatura esterna		16×16×100 20×20×125 25×25×150 32×25×170 32×32×170 40×40×250	0.5~6.0	0.5~5.0 (5~48)	0.5~5.0 (5~48)
Internal thread Filettatura interna		16×125×12 16×150×16 16×150×20 20×150×25 20×180×25 25×150×32 32×200×40 32×250×40 40×300×50 50×350×63	0.5~6.0	0.5~5.0 (5~48)	0.5~5.0 (5~48)

General information Informazioni generali	For aerospace and aviation industries **Industria aerospaziale**	Pipe thread for heater, gas and water **Filettatura tubi per: Vapore, gas e riscaldamento**	For connecting between pipe fitting and coupling of gas and water **Giunti e raccordi per gas e acqua**	For connecting between pipe fitting and coupling of gas and water **Giunti e raccordi per gas e acqua**
				
Whitworth thread Filettatura	Unified thread (American standard threads) UN 60°	British standard taper piper threads Filettatura per tubi BSPT	American standard taper pipe threads Filettatura americana per tubi	American pipe threads dry sealing Americano Filettatura per tubi tenuta a secco
W	**UN**	**BSPT**	**NPT**	**NPTF**
Illustration: external thread right hand. Figura: filettatura esterna destrorsa	Illustration: external thread right hand. Figura: filettatura esterna destrorsa	Illustration: external thread right hand. Figura: filettatura esterna destrorsa	Illustration: external thread right hand. Figura: filettatura esterna destrorsa	Illustration: external thread right hand. Figura: filettatura esterna destrorsa
				
Pitch/mm Passo/mm (pitch/Inch)	Pitch/mm Passo/mm (pitch/Inch)	Pitch/mm Passo/mm (pitch/Inch)	Pitch/mm Passo/mm (pitch/Inch)	Pitch/mm Passo/mm (pitch/Inch)
8~16	8~20	11~28	8~27	8~27
8~16	8~20	11~28	8~27	8~27

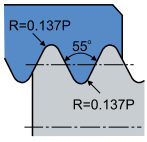
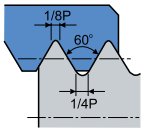
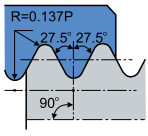
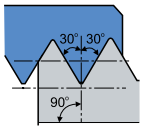
Applications Applicazioni	For food industry and fire apparatus **Per l'industria alimentare e antincendio**	For aerospace industry **Industria aerospaziale**	For aerospace industry **Industria aerospaziale**	Drive Screw **Trazione a vite**
Cutline Linea di taglio				
Thread name Nome filettatura	30° conical threads Conica Whitworth 30° Filetto per tubi	Metric thread for air space industry Filetto metrico per l'industria aerospaziale	American standard thread for air industry Americano Filetto metrico per l'industria aerospaziale	ISO trapezoidal 30° thread Filetto ISO trapezoidale 30°
Profile Profilo	**R**	**MJ**	**UNJ**	**Tr**
Shape of insert Forma dell'inserto Dimensioni inserto (length / Lunghezza: 11, 16, 22mm)	Illustration: external thread right hand. Figura: filettatura esterna destrorsa 	Illustration: external thread right hand. Figura: filettatura esterna destrorsa 	Illustration: external thread right hand. Figura: filettatura esterna destrorsa 	Illustration: external thread right hand. Figura: filettatura esterna destrorsa 
Dimensions (mm) Dimensioni (mm) (H×W×L) (Ø×Length×Min.Ø) (Ø×Lunghezza×Min.Ø)	Pitch/mm Passo/mm (pitch/Inch)	Pitch/mm Passo/mm	Pitch/mm Passo/mm (pitch/Inch)	Pitch/mm Passo/mm
External thread Filettatura esterna 16×16×100 20×20×125 25×25×150 32×25×170 32×32×170 40×40×250	6~10	1.5~2.0	8~32	1.5~3.0
Internal thread Filettatura interna 16×125×12 16×150×16 16×150×20 20×150×25 20×180×25 25×150×32 32×200×40 32×250×40 40×300×50 50×350×63	6~10	----	----	1.5~3.0

Drive Screw Trazione a vite		For connecting between pipe fitting and coupling of oil and gas Giunti e raccordi per gas e petrolio		
				
ACME American trapezoidal 29° thread Filettatura americana trapezoidale 29°	american ACME thread with short depth Filettatura americana ACME, appiattita, con profondità di filettatura ridotta	API 60° thread Filettatura API 60°	API round threads Filettatura tonda API	API Sawtooth threads Filettatura americana a dente di sega
AC	**STAC**	**AP**	**RD**	**BUT**
Illustration: external thread right hand. Figura: filettatura esterna destrorsa 	Illustration: external thread right hand. Figura: filettatura esterna destrorsa 	Illustration: external thread right hand. Figura: filettatura esterna destrorsa 	Illustration: external thread right hand. Figura: filettatura esterna destrorsa 	Illustration: external thread right hand. Figura: filettatura esterna destrorsa 
Pitch/mm Passo/mm (pitch/Inch)	Pitch/mm Passo/mm (pitch/Inch)	Pitch/mm Passo/mm (pitch/Inch)	Pitch/mm Passo/mm (pitch/Inch)	Pitch/mm Passo/mm (pitch/Inch)
8~16	8~16	4~5	8~10	5
8~16	8~16	4~5	8~10	5

Thin Type

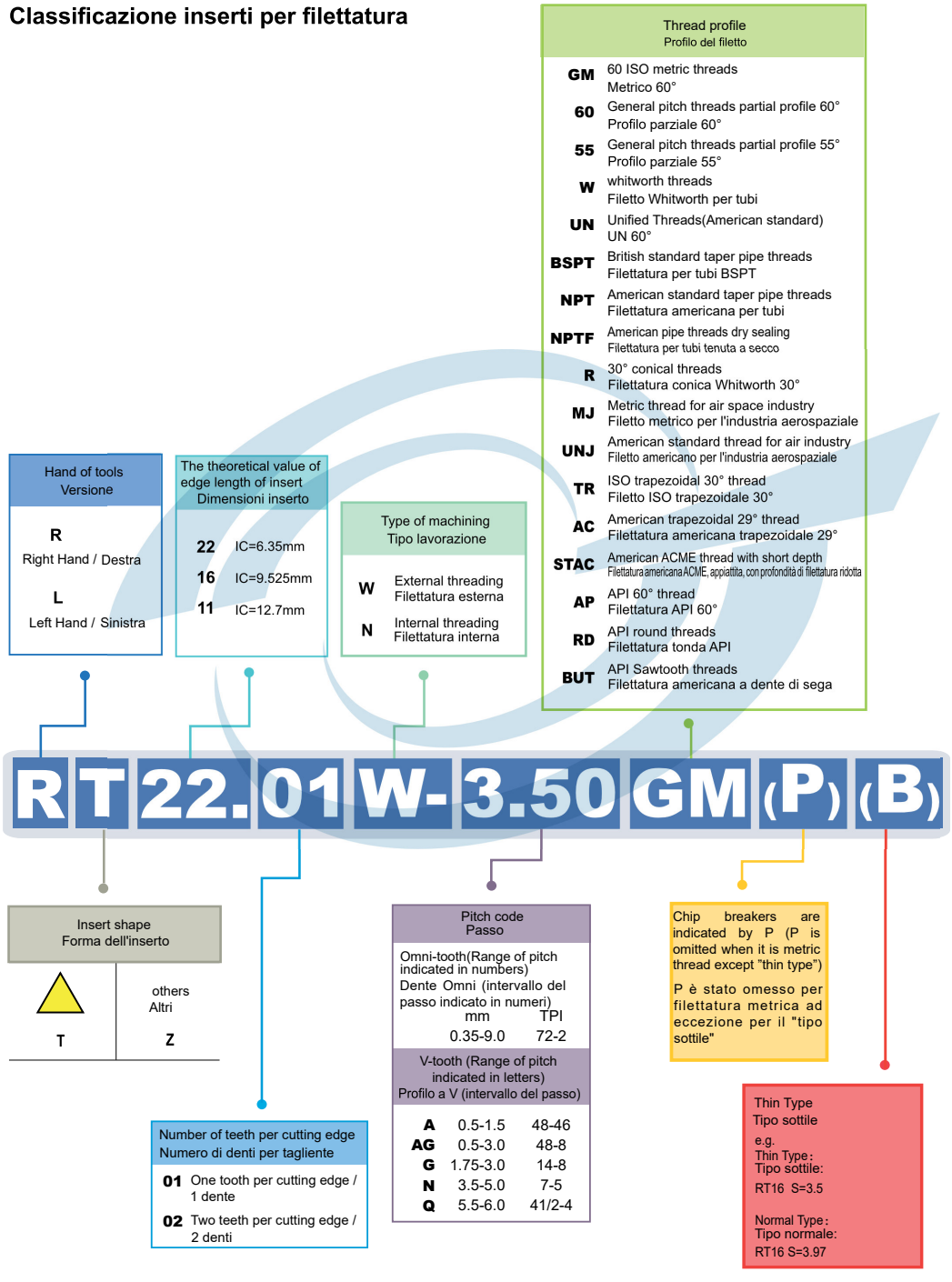
Applications Applicazioni			General information Informazioni generali	General information Informazioni generali	General information Informazioni generali
Cutline Linea di taglio					
Thread name Nome filettatura			ISO metric (full profile) ISO metrico (profilo-completo)	Partcial-Profile 60° Profilo parziale 60°	Partcial-Profile 55° Profilo parziale 55°
Profile / Profilo			**GM**	**60**	**55**
Shape of insert Dimensioni inserto (length/ Lunghezza: 16mm)			Illustration: external thread right hand. Figura: filettatura esterna destrorsa 	Illustration: external thread right hand. Figura: filettatura esterna destrorsa 	Illustration: external thread right hand. Figura: filettatura esterna destrorsa 
Toolholder Portautensile	Pitch Passo	Dimensions (mm) Dimensioni (mm) (H×W×L) (Ø×Length×Min.Ø) (Ø×Lunghezza×Min.Ø)	Pitch/mm Passo/mm (pitch/Inch)	Pitch/mm Passo/mm (pitch/Inch)	Pitch/mm Passo/mm (pitch/Inch)
External thread Filettatura esterna	 **R** A346	16×16×100 20×20×125 25×25×150 32×25×170 32×32×170	0.5~3.0	0.5~3.0(8~48)	0.5~3.0(8~48)
Internal thread Filettatura interna	 **R** A346	16×150×20 20×180×25 25×150×32 32×200×40 32×250×40	0.5~3.0	0.5~3.0(8~48)	0.5~3.0(8~48)

Thin Type

General information Informazioni generali	For aerospace and aviation industries **Industria aerospaziale**	Pipe thread for heater, gas and water **Filettatura tubi per: Vapore, gas e riscaldamento**	For connecting between pipe fitting and coupling of gas and water **Giunti e raccordi per gas e acqua**
			
Whitworth Filetto per tubi	UN Unified Conventional Thread Americano UN 60°	BSPT Britain Standard Taper Pipe Thread Filetto di tubi per vapore, gas e tubature d'acqua	NPT American Standard Americano filetto conico per tubi
W	**UN**	**BSPT**	**NPT**
Illustration: external thread right hand. Figura: filettatura esterna destrorsa 	Illustration: external thread right hand. Figura: filettatura esterna destrorsa 	Illustration: external thread right hand. Figura: filettatura esterna destrorsa 	Illustration: external thread right hand. Figura: filettatura esterna destrorsa 
Pitch/mm Passo/mm (pitch/Inch)	Pitch/mm Passo/mm (pitch/Inch)	Pitch/mm Passo/mm (pitch/Inch)	Pitch/mm Passo/mm (pitch/Inch)
8~16	8~20	11~28	8~27
8~16	8~24	11~28	8~27

NOTES / NOTE :

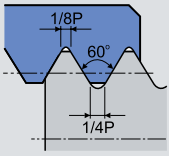
Threading inserts code key
Classificazione inserti per filettatura



ISO metric thread insert (full profile)
Uso generale (profilo completo)

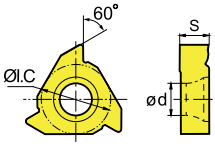
ISO 965-1980
GB·T 197-2003

DIN 13
Tolerances: 6g·6H
Tolleranza



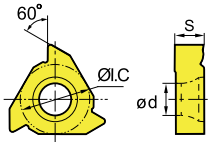


R



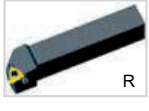


L



	Type Tipo		Dimension (mm) Dimensioni				Grade Grado			
	Right hand Versione destra	Left hand Versione sinistra	Pitch · Passo (T.P.i)	S	ØI.C	ød	XAI201		XAI205	
							R	L	R	L
External Esterna	**RT16.01W-1.00GM**	**LT16.01W-1.00GM**	1.00	3.97	9.525	4.4	●	●	●	●
	RT16.01W-1.25GM	**LT16.01W-1.25GM**	1.25	3.97	9.525	4.4	●	●	●	●
	RT16.01W-1.50GM	**LT16.01W-1.50GM**	1.50	3.97	9.525	4.4	●	●	●	●
	RT16.01W-1.75GM	**LT16.01W-1.75GM**	1.75	3.97	9.525	4.4	●	●	●	●
	RT16.01W-2.00GM	**LT16.01W-2.00GM**	2.00	3.97	9.525	4.4	●	●	●	●
	RT16.01W-2.50GM	**LT16.01W-2.50GM**	2.50	3.97	9.525	4.4	●	●	●	●
	RT16.01W-3.00GM	**LT16.01W-3.00GM**	3.00	3.97	9.525	4.4	●	●	●	●
	RT22.01W-3.50GM	**LT22.01W-3.50GM**	3.50	5.56	12.7	5.5	●	●	●	●
	RT22.01W-4.00GM	**LT22.01W-4.00GM**	4.00	5.56	12.7	5.5	●	●	●	●
	RT22.01W-4.50GM	**LT22.01W-4.50GM**	4.50	5.56	12.7	5.5	●	○	○	○
	RT22.01W-5.00GM	**LT22.01W-5.00GM**	5.00	5.56	12.7	5.5	●	●	●	●
	RT22.01W-5.50GM	**LT22.01W-5.50GM**	5.50	5.56	12.7	5.5	●	○	○	○
	RT22.01W-6.00GM	**LT22.01W-6.00GM**	6.00	5.56	12.7	5.5	●	●	●	●

Tool holder / Cartuccia



R



R

A

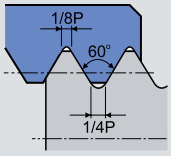
General Turning
Tornitura generale

Threading
Filettatura

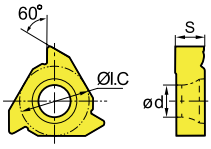
ISO metric thread insert (full profile)
Uso generale (profilo completo)

ISO 965-1980
GB·T 197-2003

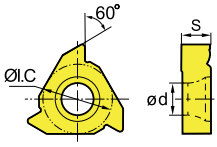
DIN 13
Tolerances: 6g·6H
Tolleranza




R

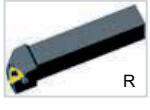



L



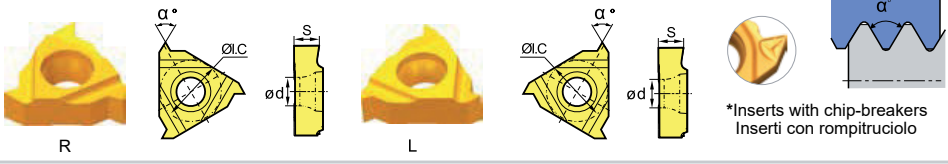
	Type Tipo		Dimension (mm) Dimensioni				Grade Grado			
	Right hand Versione destra	Left hand Versione sinistra	Pitch Passo (T.P.i)	S	ØI.C	ød	XAI201		XAI205	
							R	L	R	L
Internal Interna	**RT11.01N-0.50GM**	**LT11.01N-0.50GM**	0.50	3.18	6.35	2.8	○	○	●	●
	RT11.01N-0.75GM	**LT11.01N-0.75GM**	0.75	3.18	6.35	2.8	○	○	○	○
	RT11.01N-1.00GM	**LT11.01N-1.00GM**	1.00	3.18	6.35	2.8	●	●	●	●
	RT11.01N-1.25GM	**LT11.01N-1.25GM**	1.25	3.18	6.35	2.8	●	●	○	○
	RT11.01N-1.50GM	**LT11.01N-1.50GM**	1.50	3.18	6.35	2.8	●	●	●	●
	RT11.01N-1.75GM	**LT11.01N-1.75GM**	1.75	3.18	6.35	2.8	●	●	○	○
	RT11.01N-2.00GM	**LT11.01N-2.00GM**	2.00	3.18	6.35	2.8	●	●	●	●
	RT16.01N-0.50GM	**LT16.01N-0.50GM**	0.50	3.97	9.525	4.4	●	●	○	○
	RT16.01N-0.75GM	**LT16.01N-0.75GM**	0.75	3.97	9.525	4.4	●	●	○	○
	RT16.01N-1.00GM	**LT16.01N-1.00GM**	1.00	3.97	9.525	4.4	●	●	●	●
	RT16.01N-1.25GM	**LT16.01N-1.25GM**	1.25	3.97	9.525	4.4	●	●	○	○
	RT16.01N-1.50GM	**LT16.01N-1.50GM**	1.50	3.97	9.525	4.4	●	●	●	●
	RT16.01N-1.75GM	**LT16.01N-1.75GM**	1.75	3.97	9.525	4.4	●	●	○	○
	RT16.01N-2.00GM	**LT16.01N-2.00GM**	2.00	3.97	9.525	4.4	●	●	●	●
	RT16.01N-2.50GM	**LT16.01N-2.50GM**	2.5	3.97	9.525	4.4	●	●	○	○
	RT16.01N-3.00GM	**LT16.01N-3.00GM**	3.00	3.97	9.525	4.4	●	●	●	●
	RT22.01N-3.50GM	**LT22.01N-3.50GM**	3.50	5.56	12.7	5.5	●	●	○	○
	RT22.01N-4.00GM	**LT22.01N-4.00GM**	4.00	5.56	12.7	5.5	●	●	●	●
	RT22.01N-4.50GM	**LT22.01N-4.50GM**	4.50	5.56	12.7	5.5	●	●	○	○
	RT22.01N-5.00GM	**LT22.01N-5.00GM**	5.00	5.56	12.7	5.5	●	●	●	●
	RT22.01N-5.50GM	**LT22.01N-5.50GM**	5.50	5.56	12.7	5.5	●	○	○	○
	RT22.01N-6.00GM	**LT22.01N-6.00GM**	6.00	5.56	12.7	5.5	●	●	●	●

Tool holder / Cartuccia

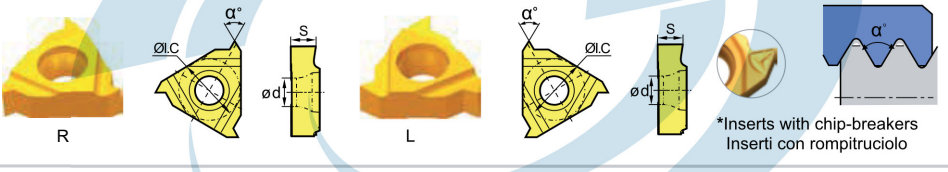

R


R

General pitch thread insert (partical profile)
Uso generale (profilo parziale)

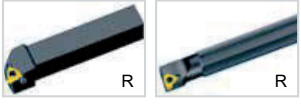


		Type / Tipo		Dimension (mm) / Dimensioni					Grade / Grado			
		Right hand / Versione destra	Left hand / Versione sinistra	Pitch / Passo (T.P.i)	S	ØI.C	ød	α°	XAI201		XAI205	
									R	L	R	L
External / Esterna	60°	**RT16.01W-A60**	**LT16.01W-A60**	0.5-1.5(48-16)	3.97	9.525	4.4	60°	●	●	○	○
		RT16.01W-G60	**LT16.01W-G60**	1.75-3.0(14-8)	3.97	9.525	4.4	60°	●	●	○	○
		RT16.01W-G60P*	**LT16.01W-G60P***	1.75-3.0(14-8)	3.97	9.525	4.4	60°	○	●	○	○
		RT16.01W-AG60	**LT16.01W-AG60**	0.5-3.0(48-8)	3.97	9.525	4.4	60°	●	●	○	○
		RT22.01W-N60	-	3.5-5.0(7-5)	5.56	12.7	5.5	60°	●	-	○	
		RT22.01W-N60P*	**LT22.01W-N60P***	3.5-5.0(7-5)	5.56	12.7	5.5	60°	●	○	○	○
	55°	**RT16.01W-A55**	**LT16.01W-A55**	0.5-1.5(48-16)	3.97	9.525	4.4	55°	○	●	○	○
		RT16.01W-G55	**LT16.01W-G55**	1.75-3.0(14-8)	3.97	9.525	4.4	55°	●	●	○	○
		RT16.01W-G55P*	**LT16.01W-G55P***	1.75-3.0(14-8)	3.97	9.525	4.4	55°	●	●	○	○
		RT16.01W-AG55	**LT16.01W-AG55**	0.5-3.0(48-8)	3.97	9.525	4.4	55°	●	○	○	○
		-	**LT22.01W-N55**	3.5-5.0(7-5)	5.56	12.7	5.5	55°	-	○	○	○
		RT22.01W-N55P*	-	3.5-5.0(7-5)	5.56	12.7	5.5	55°	●	-	○	



		Type / Tipo		Dimension (mm) / Dimensioni					Grade / Grado			
		Right hand / Versione destra	Left hand / Versione sinistra	Pitch / Passo (T.P.i)	S	ØI.C	ød	α°	XAI201		XAI205	
									R	L	R	L
Internal / Interna	60°	**RT16.01N-A60**	**LT16.01N-A60**	0.5-1.5 (48-16)	3.97	9.525	4.4	60°	●	●	○	○
		RT16.01N-G60	**LT16.01N-G60**	1.75-3.0	3.97	9.525	4.4	60°	●	○	○	○
		RT16.01N-G60P*	**LT16.01N-G60P***	1.75-3.0	3.97	9.525	4.4	60°	○	○	○	○
		RT16.01N-AG60	**LT16.01N-AG60**	0.5-3.0 (48-8)	3.97	9.525	4.4	60°	●	●	○	○
		RT22.01N-N60	**LT22.01N-N60**	3.5-5.0 (7-5)	5.56	12.7	5.5	60°	○	○	○	○
		RT22.01N-N60P*	-	3.5-5.0 (7-5)	5.56	12.7	5.5	60°	○	-	○	
	55°	**RT16.01N-A55**	**LT16.01N-A55**	0.5-1.5(48-16)	3.97	9.525	4.4	55°	○	○	○	○
		RT16.01N-G55	**LT16.01N-G55**	1.75-3.0(14-8)	3.97	9.525	4.4	55°	●	○	○	○
		RT16.01N-G55P*	**LT16.01N-G55P***	1.75-3.0(14-8)	3.97	9.525	4.4	55°	●	●	○	○
		RT16.01N-AG55	**LT16.01N-AG55**	0.5-3.0(48-8)	3.97	9.525	4.4	55°	●	●	○	○
		RT22.01N-N55	**LT22.01N-N55**	3.5-5.0(7-5)	5.56	12.7	5.5	55°	○	○	○	○
		RT22.01N-N55P*	-	3.5-5.0(7-5)	5.56	12.7	5.5	55°	○	-	○	

Tool holder / Cartuccia



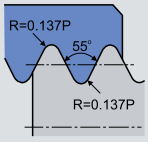
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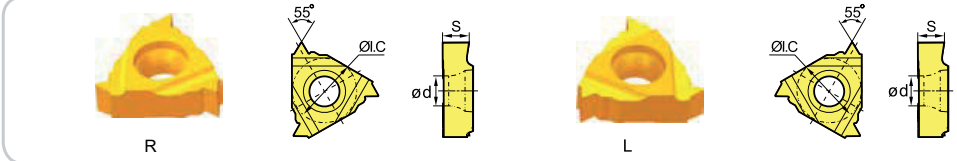
General Turning
Tornitura generale

Threading
Filettatura

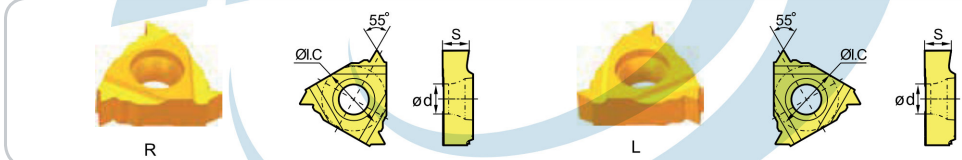
Whitworth thread insert
Filetto Whitworth per tubi

ISO 228·1:1982, DIN 259, B.S.84:1956
Tolerance: Medium class A
Tolleranza: Classe A media



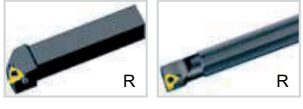


	Type Tipo		Dimension (mm) Dimensioni				Grade Grado			
	Right hand Versione destra	Left hand Versione sinistra	Pitch Passo (T.P.i)	S	ØI.C	ød	XAI201		XAI205	
							R	L	R	L
External Esterna	RT16.01W-8W	LT16.01W-8W	8	3.97	9.525	4.4	●	●	○	○
	RT16.01W-9W	LT16.01W-9W	9	3.97	9.525	4.4	●	●	○	○
	RT16.01W-10W	LT16.01W-10W	10	3.97	9.525	4.4	●	●	○	○
	RT16.01W-11W	LT16.01W-11W	11	3.97	9.525	4.4	●	●	●	○
	RT16.01W-12W	LT16.01W-12W	12	3.97	9.525	4.4	●	●	○	○
	RT16.01W-14W	LT16.01W-14W	14	3.97	9.525	4.4	●	●	●	○
	RT16.01W-16W	LT16.01W-16W	16	3.97	9.525	4.4	●	●	○	○



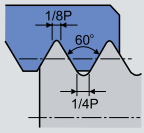
	Type Tipo		Dimension (mm) Dimensioni				Grade Grado			
	Right hand Versione destra	Left hand Versione sinistra	Pitch Passo (T.P.i)	S	ØI.C	ød	XAI201		XAI205	
							R	L	R	L
Internal Interna	RT16.01N-8W	LT16.01N-8W	8	3.97	9.525	4.4	●	●	○	○
	RT16.01N-9W	LT16.01N-9W	9	3.97	9.525	4.4	●	●	○	○
	RT16.01N-10W	LT16.01N-10W	10	3.97	9.525	4.4	●	●	○	○
	RT16.01N-11W	LT16.01N-11W	11	3.97	9.525	4.4	●	●	●	○
	RT16.01N-12W	LT16.01N-12W	12	3.97	9.525	4.4	●	●	○	○
	RT16.01N-14W	LT16.01N-14W	14	3.97	9.525	4.4	●	●	●	○
	RT16.01N-16W	LT16.01N-16W	16	3.97	9.525	4.4	●	●	○	○

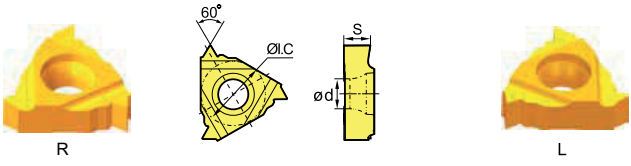
Tool holder / Utensile



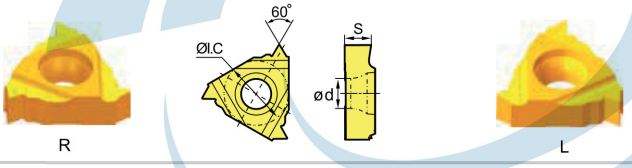
UN full profile
UN Vollprofil

ASME B1.1-1989
Tolerances: 2A·2B
Tolleranza



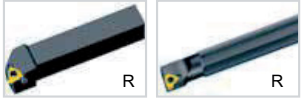


	Type Tipo		Dimension (mm) Dimensioni				Grade Grado			
	Right hand Versione destra	Left hand Versione sinistra	Pitch Passo (T.P.i)	S	ØI.C	ød	XAI201		XAI205	
							R	L	R	L
External Esterna	**RT16.01W-8UN**	**LT16.01W-8UN**	8	3.97	9.525	4.4	●	○	○	○
	RT16.01W-10UN	**LT16.01W-10UN**	10	3.97	9.525	4.4	●	●	○	○
	RT16.01W-12UN	**LT16.01W-12UN**	12	3.97	9.525	4.4	●	●	○	○
	RT16.01W-14UN	**LT16.01W-14UN**	14	3.97	9.525	4.4	●	●	○	○
	RT16.01W-16UN	**LT16.01W-16UN**	16	3.97	9.525	4.4	○	●	○	○
	RT16.01W-18UN	**LT16.01W-18UN**	18	3.97	9.525	4.4	●	●	○	○
	RT16.01W-20UN	**LT16.01W-20UN**	20	3.97	9.525	4.4	●	●	○	○



	Type Tipo		Dimension (mm) Dimensioni				Grade Grado			
	Right hand Versione destra	Left hand Versione sinistra	Pitch Passo (T.P.i)	S	ØI.C	ød	XAI201		XAI205	
							R	L	R	L
Internal Interna	**RT16.01N-8UN**	**LT16.01N-8UN**	8	3.97	9.525	4.4	●	○	○	○
	RT16.01N-10UN	**LT16.01N-10UN**	10	3.97	9.525	4.4	●	●	○	○
	RT16.01N-12UN	**LT16.01N-12UN**	12	3.97	9.525	4.4	●	●	○	○
	RT16.01N-14UN	**LT16.01N-14UN**	14	3.97	9.525	4.4	●	●	○	○
	RT16.01N-16UN	**LT16.01N-16UN**	16	3.97	9.525	4.4	●	●	○	○
	RT16.01N-18UN	**LT16.01N-18UN**	18	3.97	9.525	4.4	●	●	○	○
	RT16.01N-20UN	**LT16.01N-20UN**	20	3.97	9.525	4.4	●	●	○	○
	RT16.01N-24UN	**LT16.01N-24UN**	24	3.97	9.525	4.4	●	●	○	○

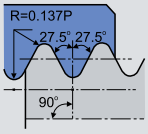
Tool holder / Utensile

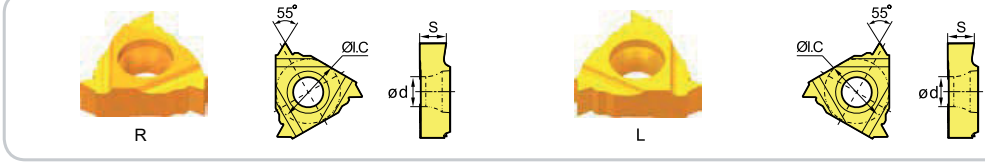


A

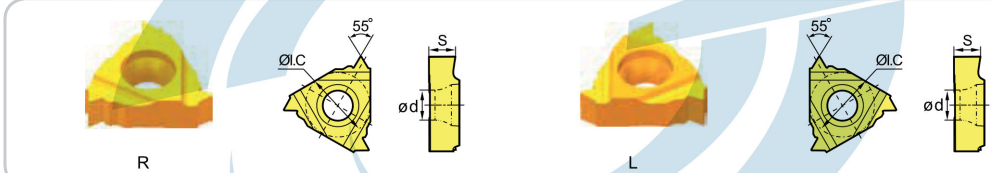
British standard taper pipe thread insert
Filetta di tubi per vapore, gas e acqua

ISO 7·1:1994 B.S.21:1985
Standard BSPT
BSPT standard



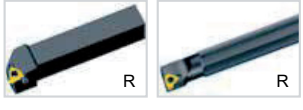


	Type Tipo		Dimension (mm) Dimensioni				Grade Grado			
	Right hand Versione destra	Left hand Versione sinistra	Pitch Passo (T.P.i)	S	ØI.C	ød	XAI201		XAI205	
							R	L	R	L
External Esterna	**RT16.01W-11 BSPT**	**LT16.01W-11 BSPT**	11	3.97	9.525	4.4	●	●	○	○
	RT16.01W-14 BSPT	**LT16.01W-14 BSPT**	14	3.97	9.525	4.4	●	●	○	○
	RT16.01W-19 BSPT	**LT16.01W-19 BSPT**	19	3.97	9.525	4.4	●	●	○	○
	RT16.01W-28 BSPT	**LT16.01W-28 BSPT**	28	3.97	9.525	4.4	●	●	○	○



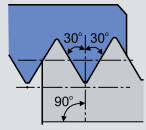
	Type Tipo		Dimension (mm) Dimensioni				Grade Grado			
	Right hand Versione destra	Left hand Versione sinistra	Pitch Passo (T.P.i)	S	ØI.C	ød	XAI201		XAI205	
							R	L	R	L
Internal Interna	**RT16.01N-11 BSPT**	**LT16.01N-11 BSPT**	11	3.97	9.525	4.4	○	●	○	○
	RT16.01N-14 BSPT	**LT16.01N-14 BSPT**	14	3.97	9.525	4.4	○	●	○	○
	RT16.01N-19 BSPT	**LT16.01N-19 BSPT**	19	3.97	9.525	4.4	○	●	○	○
	RT16.01N-28 BSPT	**LT16.01N-28 BSPT**	28	3.97	9.525	4.4	●	●	○	○

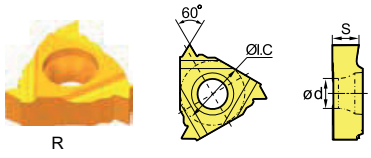
Tool holder / Cartuccia



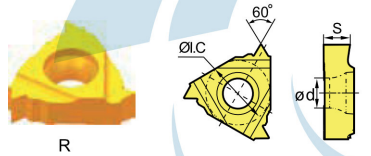
NPT American standard taper pipe with a shoulder
Filettatura americana conica per tubi

ASME B1.20.1-1983
Standard NPT
NPT standard



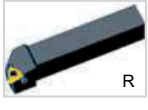


	Type / Tipo		Dimension (mm) / Dimensioni				Grade / Grado			
	Right hand / Versione destra	Left hand / Versione sinistra	Pitch / Passo (T.P.i)	S	ØI.C	ød	XAI201		XAI205	
							R	L	R	L
External / Esterna	**RT16.01W-8 NPT**	**LT16.01W-8NPT**	8	3.97	9.525	4.4	○	○	○	○
	RT16.01W-11.5 NPT	**LT16.01W-11.5NPT**	11.5	3.97	9.525	4.4	○	○	○	○
	RT16.01W-14 NPT	**LT16.01W-14NPT**	14	3.97	9.525	4.4	●	○	○	○
	RT16.01W-18 NPT	**LT16.01W-18NPT**	18	3.97	9.525	4.4	●	○	○	○
	RT16.01W-27 NPT	**LT16.01W-27NPT**	27	3.97	9.525	4.4	●	○	○	○



	Type / Tipo		Dimension (mm) / Dimensioni				Grade / Grado			
	Right hand / Versione destra	Left hand / Versione sinistra	Pitch / Passo (T.P.i)	S	ØI.C	ød	XAI201		XAI205	
							R	L	R	L
Internal / Interna	**RT16.01N-8 NPT**	**LT16.01N-8 NPT**	8	3.97	9.525	4.4	○	○	○	○
	RT16.01N-11.5 NPT	**LT16.01N-11.5 NPT**	11.5	3.97	9.525	4.4	○	○	○	○
	RT16.01N-14 NPT	**LT16.01N-14 NPT**	14	3.97	9.525	4.4	○	○	○	○
	RT16.01N-18 NPT	**LT16.01N-18 NPT**	18	3.97	9.525	4.4	○	○	○	○
	RT16.01N-27 NPT	**LT16.01N-27 NPT**	27	3.97	9.525	4.4	○	○	○	○

Tool holder / Cartuccia

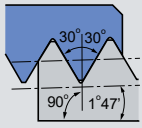




A

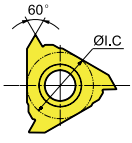
NPTF60°

ANSI B1.20.1-1983
Tolerance: 2
Tolleranza





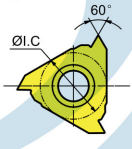
R



	Type Tipo	Dimension (mm) Dimensioni				Grade Grado	
	Right hand Versione destra	Pitch Passo (T.P.i)	S	ØI.C	ød	XAI201	XAI205
External Esterna	**RT16.01W-8NPTF**	8	3.97	9.525	4.4	○	○
	RT16.01W-11.5NPTF	11.5	3.97	9.525	4.4	○	○
	RT16.01W-14NPTF	14	3.97	9.525	4.4	○	○
	RT16.01W-18NPTF	18	3.97	9.525	4.4	○	○
	RT16.01W-27NPTF	27	3.97	9.525	4.4	○	○

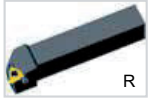


R



	Type Tipo	Dimension (mm) Dimensioni				Grade Grado	
	Right hand Versione destra	Pitch Passo (T.P.i)	S	ØI.C	ød	XAI201	XAI205
External Esterna	**RT16.01N-8NPTF**	8	3.97	9.525	4.4	○	○
	RT16.01N-11.5NPTF	11.5	3.97	9.525	4.4	○	○
	RT16.01N-14NPTF	14	3.97	9.525	4.4	○	○
	RT16.01N-18NPTF	18	3.97	9.525	4.4	○	○
	RT16.01N-27NPTF	27	3.97	9.525	4.4	○	○

Tool holder / Utensile



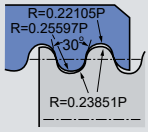
R



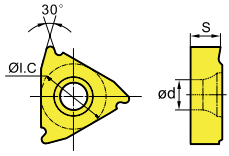
R

Round screw 30°
Vite tonda 30°

DIN 405
Tolerance: 7
Tolleranza

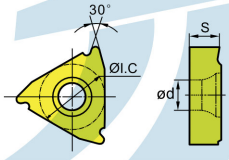



R



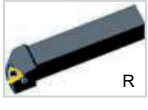
	Type Tipo	Dimension (mm) Dimensioni				Grade Grado	
	Right hand Versione destra	Pitch Passo (T.P.i)	S	ØI.C	ød	XAI201	XAI205
External Esterna	**RT16.01W-6R**	6	3.97	9.525	4.4	○	○
	RT16.01W-8R	8	3.97	9.525	4.4	○	○
	RT16.01W-10R	10	3.97	9.525	4.4	○	○


R



	Type Tipo	Dimension (mm) Dimensioni				Grade Grado	
	Right hand Versione destra	Pitch Passo (T.P.i)	S	ØI.C	ød	XAI201	XAI205
Internal Interna	**RT16.01N-6R**	6	3.97	9.525	4.4	○	○
	RT16.01N-8R	8	3.97	9.525	4.4	○	○
	RT16.01N-10R	10	3.97	9.525	4.4	○	○

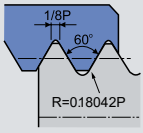
Tool holder / Utensile


R


R

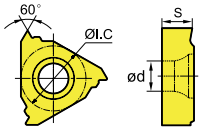
MJ (Metric)
MJ (Spitzgewinde)

ISO 5855-1999
Tolerance: 4
Tolleranza





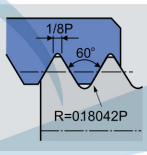
R



	Type Tipo	Dimension (mm) Dimensioni				Grade Grado	
	Right hand Versione destra	Pitch Passo (T.P.i)	S	ØI.C	ød	XAI201	XAI205
External Esterna	**RT16.01W-1.50MJ**	1.50	3.97	9.525	4.4	○	○
	RT16.01W-2.00MJ	2.00	3.97	9.525	4.4	○	○

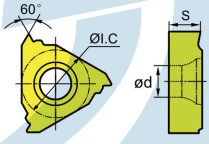
UNJ (American)
UNJ (American)

ISO 3161-1999
Tolerance: 3A
Tolleranza



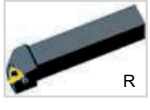


R



	Type Tipo	Dimension (mm) Dimensioni				Grade Grado	
	Right hand Versione destra	Pitch Passo (T.P.i)	S	ØI.C	ød	XAI201	XAI205
External Esterna	**RT16.01W-8UNJ**	8	3.97	9.525	4.4	○	○
	RT16.01W-10UNJ	10	3.97	9.525	4.4	○	○
	RT16.01W-12UNJ	12	3.97	9.525	4.4	○	○
	RT16.01W-14UNJ	14	3.97	9.525	4.4	○	○
	RT16.01W-16UNJ	16	3.97	9.525	4.4	○	○
	RT16.01W-18UNJ	18	3.97	9.525	4.4	○	○
	RT16.01W-20UNJ	20	3.97	9.525	4.4	○	○
	RT16.01W-24UNJ	24	3.97	9.525	4.4	○	○
	RT16.01W-28UNJ	28	3.97	9.525	4.4	○	○
	RT16.01W-32UNJ	32	3.97	9.525	4.4	○	○

Tool holder / Utensile



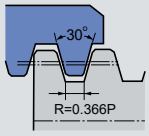
R



R

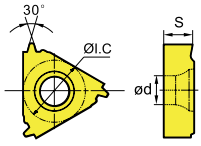
Tr (ISO trapezoid thread 30°)
Tr (Filetto ISO trapezoidale 30°)

ISO 2901-2904
Tolerance: 7
Tolleranza





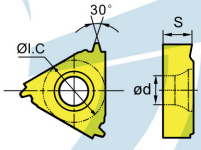
R



	Type Tipo	Dimension (mm) Dimensioni				Grade Grado	
	Right hand Versione destra	Pitch Passo (T.P.i)	S	ØI.C	ød	XAI201	XAI205
External Esterna	**RT16.01W-1.50TR**	1.50	3.97	9.525	4.4	○	●
	RT16.01W-2.00TR	2.00	3.97	9.525	4.4	○	●
	RT16.01W-3.00TR	3.00	3.97	9.525	4.4	○	●

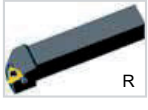


R



	Type Tipo	Dimension (mm) Dimensioni				Grade Grado	
	Right hand Versione destra	Pitch Passo (T.P.i)	S	ØI.C	ød	XAI201	XAI205
Internal Interna	**RT16.01N-1.50TR**	1.50	3.97	9.525	4.4	○	○
	RT16.01N-2.00TR	2.00	3.97	9.525	4.4	○	○
	RT16.01N-3.00TR	3.00	3.97	9.525	4.4	○	○

Tool holder / Utensile



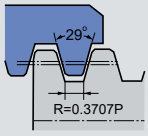
R



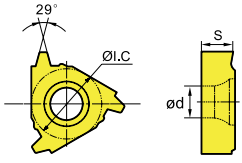
R

ACME American standard trapezoid 29°
Filettatura americana 29° trapezoidale ACME

ANSI B1.5-1988 ANSI B1.5-1988
Tolerance: 2G
Tolleranza

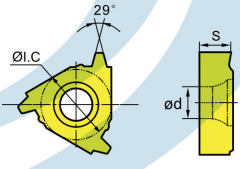



R



	Type Tipo	Dimension (mm) Dimensioni				Grade Grado	
	Right hand Versione destra	Pitch Passo (T.P.i)	S	ØI.C	ød	XAI201	XAI205
External Esterna	**RT16.01W-8AC**	8	3.97	9.525	4.4	○	○
	RT16.01W-10AC	10	3.97	9.525	4.4	○	○
	RT16.01W-12AC	12	3.97	9.525	4.4	○	○
	RT16.01W-14AC	14	3.97	9.525	4.4	○	○
	RT16.01W-16AC	16	3.97	9.525	4.4	○	○


R



	Type Tipo	Dimension (mm) Dimensioni				Grade Grado	
	Right hand Versione destra	Pitch Passo (T.P.i)	S	ØI.C	ød	XAI201	XAI205
Internal Interna	**RT16.01N-8AC**	8	3.97	9.525	4.4	○	○
	RT16.01N-10AC	10	3.97	9.525	4.4	○	○
	RT16.01N-12AC	12	3.97	9.525	4.4	○	○
	RT16.01N-14AC	14	3.97	9.525	4.4	○	○
	RT16.01N-16AC	16	3.97	9.525	4.4	○	○

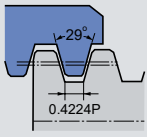
Tool holder / Utensile


R


R

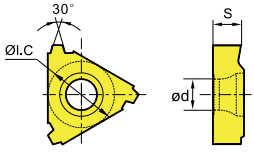
STUB - ACME Short teeth
STUB - ACME Profondità di filettatura ridotta

ANSI B1.8-1988
Tolerance: 2G
Tolleranza





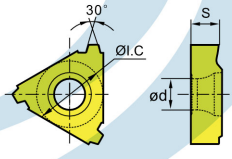
R



	Type Tipo	Dimension (mm) Dimensioni				Grade Grado	
	Right hand Versione destra	Pitch Passo (T.P.i)	S	ØI.C	ød	XAI201	XAI205
External Esterna	**RT16.01W-8STAC**	8	3.97	9.525	4.4	○	○
	RT16.01W-10STAC	10	3.97	9.525	4.4	○	○
	RT16.01W-12STAC	12	3.97	9.525	4.4	○	○
	RT16.01W-14STAC	14	3.97	9.525	4.4	○	○
	RT16.01W-16STAC	16	3.97	9.525	4.4	○	○



R



	Type Tipo	Dimension (mm) Dimensioni				Grade Grado	
	Right hand Versione destra	Pitch Passo (T.P.i)	S	ØI.C	ød	XAI201	XAI205
Internal Interna	**RT16.01N-8STAC**	8	3.97	9.525	4.4	○	○
	RT16.01N-10STAC	10	3.97	9.525	4.4	○	○
	RT16.01N-12STAC	12	3.97	9.525	4.4	○	○
	RT16.01N-14STAC	14	3.97	9.525	4.4	○	○
	RT16.01N-16STAC	16	3.97	9.525	4.4	○	○

Tool holder / Utensile



R

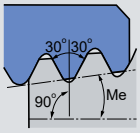


R

A

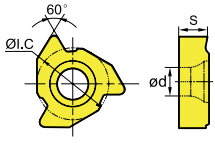
API 60°

Me=taper, 2i.p.f—4°46', 3i.p.f—7°01'
API SPEC7:1990, Tolerance: API standard
Tolleranza: Standard API





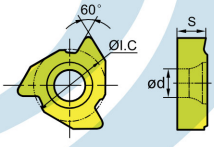
R



	Type Tipo	Dimension (mm) Dimensioni				Grade Grado	
	Right hand Versione destra	Pitch Passo (T.P.i)	S	ØI.C	ød	XAI201	XAI205
External Esterna	**RT22.01W-4AP382**	4	5.56	12.7	5.5	○	○
	RT22.01W-4AP383	4	5.56	12.7	5.5	○	○
	RT22.01W-5AP403	5	5.56	12.7	5.5	○	○
	RT22.01W-4AP502	4	5.56	12.7	5.5	○	○
	RT22.01W-4AP503	4	5.56	12.7	5.5	○	○

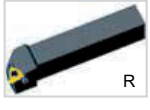


R



	Type Tipo	Dimension (mm) Dimensioni				Grade Grado	
	Right hand Versione destra	Pitch Passo (T.P.i)	S	ØI.C	ød	XAI201	XAI205
Internal Interna	**RT22.01N-4AP382**	4	5.56	12.7	5.5	○	○
	RT22.01N-4AP383	4	5.56	12.7	5.5	○	○
	RT22.01N-5AP403	5	5.56	12.7	5.5	○	○
	RT22.01N-4AP502	4	5.56	12.7	5.5	○	○
	RT22.01N-4AP503	4	5.56	12.7	5.5	○	○

Tool holder / Utensile



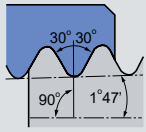
R



R

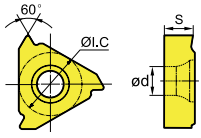
API (round)
API (tonda)

API spec.5B
Tolerance: API RD
Tolleranza





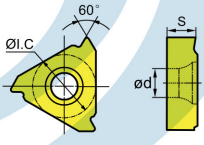
R



	Type Tipo	Dimension (mm) Dimensioni				Grade Grado	
	Right hand Versione destra	Pitch Passo (T.P.i)	S	ØI.C	ød	XAI201	XAI205
External Esterna	**RT16.01W-8RD**	8	3.97	9.525	4.4	○	○
	RT16.01W-10RD	10	3.97	9.525	4.4	○	○
	RT22.01W-8RD	8	5.56	12.7	5.5	○	○
	RT22.01W-10RD	10	5.56	12.7	5.5	○	○

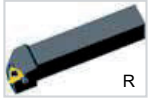


R



	Type Tipo	Dimension (mm) Dimensioni				Grade Grado	
	Right hand Versione destra	Pitch Passo (T.P.i)	S	ØI.C	ød	XAI201	XAI205
Internal Interna	**RT16.01N-8RD**	8	3.97	9.525	4.4	○	○
	RT16.01N-10RD	10	3.97	9.525	4.4	○	○
	RT22.01N-8RD	8	5.56	12.7	5.5	○	○
	RT22.01N-10RD	10	5.56	12.7	5.5	○	○

Tool holder / Utensile



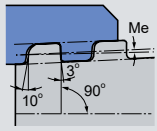
R



R

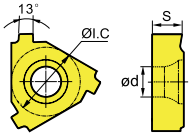
API (inclined trapezoid screw)
API (Filettatura americana a dente di sega)

Me=taper 3/4i.p.f–1°47'for Ø 4 1/2~13 3/8"
1i.p.f—2°23'for Ø 16"
SEPC.5B.1979
Tolerance: API standard
Tolleranza: Standard API





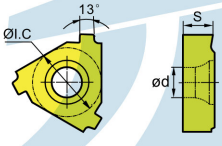
R



	Type Tipo	Dimension (mm) Dimensioni				Grade Grado	
	Right hand Versione destra	Pitch Passo (T.P.i)	S	ØI.C	ød	XAI201	XAI205
External Esterna	**RT22.01W-5BUT**	5	5.56	12.7	5.5	○	○
	RT22.01W-5BUT1	5	5.56	12.7	5.5	○	○

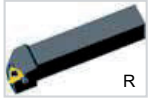


R



	Type Tipo	Dimension (mm) Dimensioni				Grade Grado	
	Right hand Versione destra	Pitch Passo (T.P.i)	S	ØI.C	ød	XAI201	XAI205
Internal Interna	**RT22.01N-5BUT**	5	5.56	12.7	5.5	○	○
	RT22.01N-5BUT1	5	5.56	12.7	5.5	○	○

Tool holder / Utensile



R

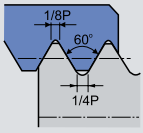


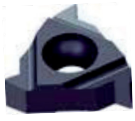
R

ISO metric thread insert (full profile)
Uso generale (profilo completo)

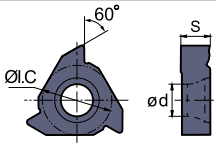
Thin Type

ISO 965-1980, DIN 13, GB/T 197-2003
Tolerances: 6g/6H
Tolleranza





R



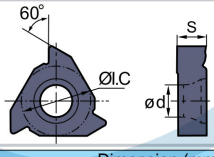


*Inserts with chip-breakers
Inserti con rompitruciolo

	Type Tipo	Dimension (mm) Dimensioni				Grade Grado	
	Right hand Versione destra	Pitch Passo (T.P.i)	S	ØI.C	ød	XAI201	XAI205
External Esterna	**RT16.01W-0.50GMB**	0.50	3.52	9.525	4.0	●	○
	RT16.01W-0.75GMB	0.75	3.52	9.525	4.0	●	○
	RT16.01W-1.00GMB	1.00	3.52	9.525	4.0	●	○
	RT16.01W-1.25GMB	1.25	3.52	9.525	4.0	●	○
	RT16.01W-1.50GMB	1.50	3.52	9.525	4.0	●	○
	RT16.01W-1.50GMPB*	1.50	3.52	9.525	4.0	○	●
	RT16.01W-1.75GMB	1.75	3.52	9.525	4.0	●	○
	RT16.01W-2.00GMB	2.00	3.52	9.525	4.0	●	○
	RT16.01W-2.50GMB	2.50	3.52	9.525	4.0	●	○
	RT16.01W-3.00GMB	3.00	3.52	9.525	4.0	●	○



R





*Inserts with chip-breakers
Inserti con rompitruciolo

	Type Tipo	Dimension (mm) Dimensioni				Grade Grado	
	Right hand Versione destra	Pitch Passo (T.P.i)	S	ØI.C	ød	XAI201	XAI205
Internal Interna	**RT16.01N-0.50GMB**	0.50	3.52	9.525	4.0	●	○
	RT16.01N-0.75GMB	0.75	3.52	9.525	4.0	●	○
	RT16.01N-1.00GMB	1.00	3.52	9.525	4.0	●	○
	RT16.01N-1.00GMPB*	1.00	3.52	9.525	4.0		●
	RT16.01N-1.25GMB	1.25	3.52	9.525	4.0	●	○
	RT16.01N-1.50GMB	1.50	3.52	9.525	4.0	●	○
	RT16.01N-1.75GMB	1.75	3.52	9.525	4.0	●	○
	RT16.01N-2.00GMB	2.00	3.52	9.525	4.0	●	○
	RT16.01N-2.00GMPB*	2.00	3.52	9.525	4.0	●	●
	RT16.01N-2.50GMB	2.50	3.52	9.525	4.0	●	○
	RT16.01N-3.00GMB	3.00	3.52	9.525	4.0	●	○
	RT16.01N-3.00GMPB*	3.00	3.52	9.525	4.0		●

Tool holder / Utensile



R

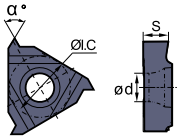


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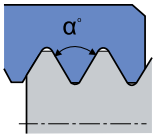
General pitch thread insert (partical profile)
Uso generale (profilo parziale)

Thin Type


R

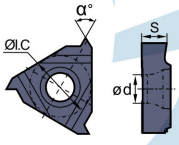


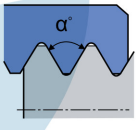

*Inserts with chip-breakers
Inserti con rompitruciolo



	Type Tipo		Dimension (mm) Dimensioni					Grade Grado	
		Right hand Versione destra	Pitch Passo (T.P.i)	S	ØI.C	ød	α°	XAI201	XAI205
Exterma Interna	60°	**RT16.01W-A60B**	0.5-1.5(48-16)	3.52	9.525	4.0	60°	●	○
		RT16.01W-G60B	1.75-3.0(14-8)	3.52	9.525	4.0	60°	○	○
		RT16.01W-AG60B	0.5-3.0(48-8)	3.52	9.525	4.0	60°	●	○
		RT16.01W-AG60PB*	0.5-3.0(48-8)	3.52	9.525	4.0	60°	○	●
	55°	**RT16.01W-A55B**	0.5-1.5(48-16)	3.52	9.525	4.0	55°	●	○
		RT16.01W-G55B	1.75-3.0(14-8)	3.52	9.525	4.0	55°	●	○
		RT16.01W-AG55PB*	0.5-3.0(48-8)	3.52	9.525	4.0	55°	●	●
		RT16.01W-AG55B	0.5-3.0(48-8)	3.52	9.525	4.0	55°	●	○


R





	Type Tipo		Dimension (mm) Dimensioni					Grade Grado	
		Right hand Versione destra	Pitch Passo (T.P.i)	S	ØI.C	ød	α°	XAI201	XAI205
Internal Interna	60°	**RT16.01N-A60B**	0.5-1.5(48-16)	3.52	9.525	4.0	60°	●	○
		RT16.01N-G60B	1.75-3.0(14-8)	3.52	9.525	4.0	60°	●	○
		RT16.01N-AG60B	0.5-3.0(48-8)	3.52	9.525	4.0	60°	●	○
	55°	**RT16.01N-A55B**	0.5-1.5(48-16)	3.52	9.525	4.0	55°	●	○
		RT16.01N-G55B	1.75-3.0(14-8)	3.52	9.525	4.0	55°	●	○
		RT16.01N-AG55B	0.5-3.0(48-8)	3.52	9.525	4.0	55°	●	○

Tool holder / Utensile

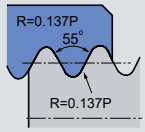

R


R

Whitworth thread insert
Filetto Whitworth per tubi

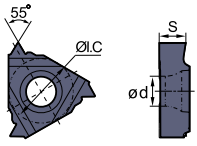
Thin Type

ISO 228/1:1982,DIN 259,B.S.84:1956
Tolerance: Medium class A
Tolleranza: Classe A media





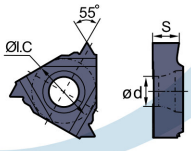
R



	Type Tipo	Dimension (mm) Dimensioni				Grade Grado	
	Right hand Versione destra	Pitch Passo (T.P.i)	S	ØI.C	ød	XAI202	XAI205
External Esterna	**RT16.01W-8WB**	8	3.52	9.525	4.0	●	○
	RT16.01W-9WB	9	3.52	9.525	4.0	●	○
	RT16.01W-10WB	10	3.52	9.525	4.0	●	○
	RT16.01W-11WB	11	3.52	9.525	4.0	●	○
	RT16.01W-12WB	12	3.52	9.525	4.0	●	○
	RT16.01W-14WB	14	3.52	9.525	4.0	●	○
	RT16.01W-16WB	16	3.52	9.525	4.0	●	○



R

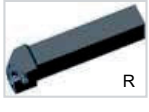




*Inserts with chip-breakers
Inserti con rompitruciolo

	Type Tipo	Dimension (mm) Dimensioni				Grade Grado	
	Right hand Versione destra	Pitch Passo (T.P.i)	S	ØI.C	ød	XAI202	XAI205
Internal Esterna	**RT16.01N-8WB**	8	3.52	9.525	4.0	●	○
	RT16.01N-9WB	9	3.52	9.525	4.0	●	○
	RT16.01N-10WB	10	3.52	9.525	4.0	●	○
	RT16.01N-11WB	11	3.52	9.525	4.0	●	○
	RT16.01N-11WPB*	11	3.52	9.525	4.0	○	●
	RT16.01N-12WB	12	3.52	9.525	4.0	●	○
	RT16.01N-14WB	14	3.52	9.525	4.0	●	○
	RT16.01N-14WPB*	14	3.52	9.525	4.0	○	●
	RT16.01N-16WB	16	3.52	9.525	4.0	●	○

Tool holder / Utensile



R



R

A

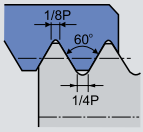
General Turning
Tornitura generale

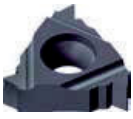
Threading
Filettatura

UN full profile
Profilo complete UN

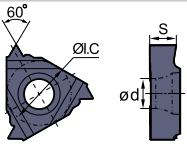
Thin Type

ASME B1.1-1989
Tolerances: 2A/2B
Tolleranza





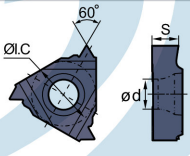
R



	Type Tipo	Dimension (mm) Dimensioni				Grade Grado	
	Right hand Versione destra	Pitch Passo (T.P.i)	S	ØI.C	ød	XAI202	XAI205
External Esterna	**RT16.01W-8UNB**	8	3.52	9.525	4.0	●	○
	RT16.01W-10UNB	10	3.52	9.525	4.0	●	○
	RT16.01W-12UNB	12	3.52	9.525	4.0	●	○
	RT16.01W-14UNB	14	3.52	9.525	4.0	●	○
	RT16.01W-16UNB	16	3.52	9.525	4.0	●	○
	RT16.01W-18UNB	18	3.52	9.525	4.0	●	○
	RT16.01W-20UNB	20	3.52	9.525	4.0	●	○



R



	Type Tipo	Dimension (mm) Dimensioni				Grade Grado	
	Right hand Versione destra	Pitch Passo (T.P.i)	S	ØI.C	ød	XAI202	XAI205
Internal Interna	**RT16.01N-8UNB**	8	3.52	9.525	4.0	●	○
	RT16.01N-10UNB	10	3.52	9.525	4.0	●	○
	RT16.01N-12UNB	12	3.52	9.525	4.0	●	○
	RT16.01N-14UNB	14	3.52	9.525	4.0	●	○
	RT16.01N-16UNB	16	3.52	9.525	4.0	●	○
	RT16.01N-18UNB	18	3.52	9.525	4.0	●	○
	RT16.01N-20UNB	20	3.52	9.525	4.0	●	○
	RT16.01N-24UNB	24	3.52	9.525	4.0	●	○

Tool holder / Utensile



R

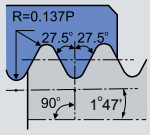


R

British standard taper pipe thread insert
Filetta di tubi per vapore, gas e acqua

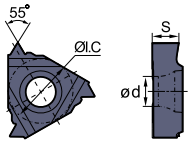
Thin Type

ISO 7/1:1994,B.S.21:1985
Standard BSPT
BSPT standard





R



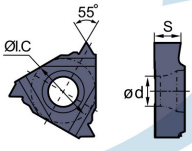


*Inserts with chip-breakers
Platten mit Spanbrecher

	Type Tipo	Dimension (mm) Dimensioni				Grade Grado	
	Right hand Versione destra	Pitch Passo (T.P.i)	S	ØI.C	ød	XAI202	XAI205
External Esterna	**RT16.01W-11BSPTB**	11	3.52	9.525	4.0	●	○
	RT16.01W-14BSPTB	14	3.52	9.525	4.0	●	○
	RT16.01W-14BSPTPB*	14	3.52	9.525	4.0	○	●
	RT16.01W-19BSPTB	19	3.52	9.525	4.0	●	○
	RT16.01W-28BSPTB	28	3.52	9.525	4.0	●	○



R





*Inserts with chip-breakers
Inserti con rompitruciolo

	Type Tipo	Dimension (mm) Dimensioni				Grade Grado	
	Right hand Versione destra	Pitch Passo (T.P.i)	S	ØI.C	ød	XAI202	XAI205
Internal Interna	**RT16.01N-11BSPTB**	11	3.52	9.525	4.0	●	○
	RT16.01N-14BSPTB	14	3.52	9.525	4.0	●	○
	RT16.01N-14BSPTPB*	14	3.52	9.525	4.0	○	●
	RT16.01N-19BSPTB	19	3.52	9.525	4.0	●	○
	RT16.01N-28BSPTB	28	3.52	9.525	4.0	●	○

Tool holder / Utensile



R



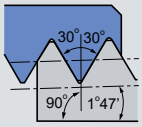
R

A

NPT American standard taper pipe with a shoulder
Filettatura americana conica per tubi

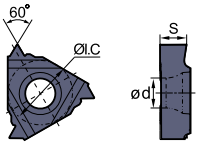
Thin Type

ASME B1.20.1-1983
Standard NPT
NPT standard





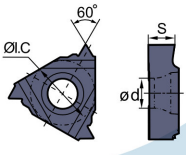
R



	Type Tipo	Dimension (mm) Dimensioni				Grade Grado	
	Right hand Versione destra	Pitch Passo (T.P.i)	S	ØI.C	ød	XAI202	XAI205
External Esterna	**RT16.01W-8NPTB**	8	3.52	9.525	4.0	●	○
	RT16.01W-11.5NPTB	11.5	3.52	9.525	4.0	●	○
	RT16.01W-14NPTB	14	3.52	9.525	4.0	●	○
	RT16.01W-18NPTB	18	3.52	9.525	4.0	●	○
	RT16.01W-27NPTB	27	3.52	9.525	4.0	●	○



R

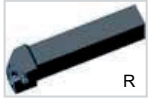




*Inserts with chip-breakers
Inserti con rompitruciolo

	Type Tipo	Dimension (mm) Dimensioni				Grade Grado	
	Right hand Versione destra	Pitch Passo (T.P.i)	S	ØI.C	ød	XAI202	XAI205
Internal Interna	**RT16.01N-8NPTB**	8	3.52	9.525	4.0	●	○
	RT16.01N-11.5NPTB	11.5	3.52	9.525	4.0	●	○
	RT16.01N-11.5NPTPB*	11.5	3.52	9.525	4.0	○	●
	RT16.01N-14NPTB	14	3.52	9.525	4.0	●	○
	RT16.01N-14NPTPB*	14	3.52	9.525	4.0	○	●
	RT16.01N-18NPTB	18	3.52	9.525	4.0	●	○
	RT16.01N-27NPTB	27	3.52	9.525	4.0	●	○

Tool holder / Cartuccia

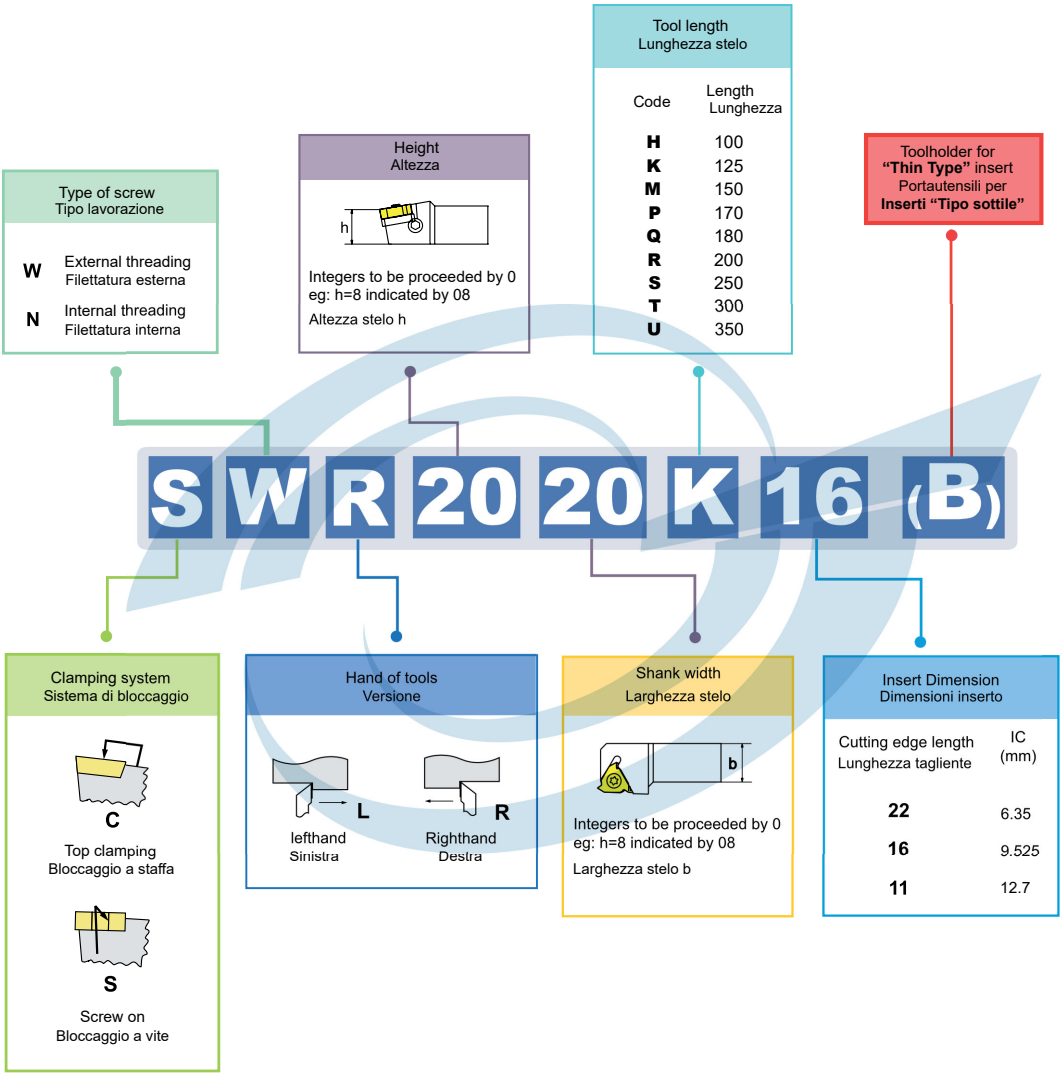


R



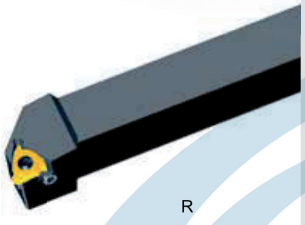
R

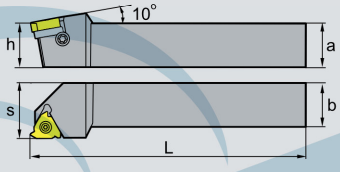
Threading toolholders code key
Classificazione ISO portautensili per filettatura





External threading tools · Portautensile filettatura esterna





Type Tipo		Stock Magazzino	Dimension (mm) Dimensioni a	h	b	L	s	Inserts Inserti	Screw Vite	Shim Sottoplacchetta	Shim screw Vite per spessore	Wrench Chiave
SWR	1616H16	●	16	16	16	100	20	RT16.01W-****	I60M3.5×12	MT16-**M	SM4×8C	WT15IP
	2020K16	●	20	20	20	125	25					
	2525M16	●	25	25	25	150	32					
	3225P16	●	32	32	25	170	32					
	3232P16	●	32	32	32	170	40					
	2525M22	●	25	25	25	150	32	RT22.01W-****	I60M5×17	MT22-**M	SM5×8.5C	WT15IP WT20IP
	3225P22	○	32	32	25	170	32					
	3232P22	●	32	32	32	170	40					
	4040S22	○	40	40	40	250	50					
SWL	1616H16	●	16	16	16	100	20	LT16.01W-****	I60M3.5×12	MT16-**M	SM4×8C	WT15IP
	2020K16	●	20	20	20	125	25					
	2525M16	●	25	25	25	150	32					
	3225P16	●	32	32	25	170	32					
	3232P16	○	32	32	32	170	40					
	2525M22	●	25	25	25	150	32	LT22.01W-****	I60M5×17	MT22-**M	SM5×8.5C	WT15IP WT20IP
	3225P22	○	32	32	25	170	32					
	3232P22	●	32	32	32	170	40					
	4040S22	○	40	40	40	250	50					

Table of recommended infeed for **NPTF 60° internal and external threading inserts**
Valori d'incremento consigliati per **inserti per filettatura interna ed esterna NPTF 60°**

External / Esterna

Pitch(mm) Passo	8	11.5	14	18	27
Total feed(a) Incremento totale	2.38	1.63	1.35	1.00	0.64
Cutting times(nap) Numero di tagli	15	12	10	8	6
Cutting order Ordine di taglio	Radial X Radiale X				
1	0.32	0.24	0.23	0.19	0.16
2	0.27	0.23	0.21	0.16	0.14
3	0.23	0.19	0.16	0.14	0.11
4	0.19	0.15	0.14	0.13	0.09
5	0.17	0.13	0.13	0.12	0.08
6	0.16	0.11	0.12	0.11	0.06
7	0.15	0.11	0.11	0.09	
8	0.14	0.11	0.10	0.06	
9	0.13	0.10	0.09		
10	0.12	0.10	0.06		
11	0.12	0.10			
12	0.11	0.06			
13	0.11				
14	0.10				
15	0.06				

Internal / Interna

Pitch(mm) Passo	8	11.5	14	18	27
Total feed(a) Incremento totale	2.38	1.63	1.35	1.00	0.64
Cutting times(nap) Numero di tagli	15	12	10	8	6
Cutting order Ordine di taglio	Radial X Radiale X				
1	0.35	0.27	0.25	0.2	0.15
2	0.29	0.22	0.20	0.17	0.13
3	0.26	0.20	0.18	0.15	0.12
4	0.20	0.16	0.14	0.12	0.09
5	0.17	0.13	0.12	0.1	0.08
6	0.15	0.12	0.11	0.09	0.06
7	0.14	0.10	0.10	0.09	
8	0.12	0.10	0.09	0.08	
9	0.12	0.09	0.08		
10	0.11	0.08	0.08		
11	0.10	0.08			
12	0.10	0.08			
13	0.09				
14	0.09				
15	0.09				

Table of recommended infeed for **30° round screw internal and external threading inserts**
Valori d'incremento consigliati per **inserti tondi 30°per filettatura interna ed esterna**

External / Esterna

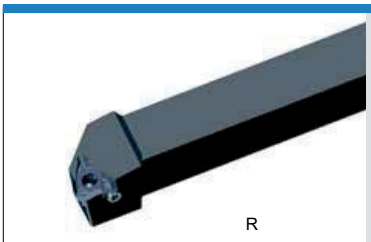
Pitch(mm) Passo	6	8	10
Total feed(a) Incremento totale	2.12	1.59	1.27
Cutting times(nap) Numero di tagli	12	10	8
Cutting order Ordine di taglio	Radial X Radiale X		
1	0.26	0.23	0.23
2	0.225	0.21	0.21
3	0.24	0.20	0.20
4	0.22	0.19	0.19
5	0.21	0.18	0.16
6	0.19	0.16	0.12
7	0.17	0.14	0.10
8	0.16	0.12	0.06
9	0.14	0.10	
10	0.12	0.06	
11	0.10		
12	0.06		

Internal / Interna

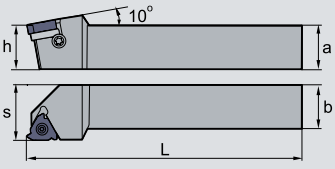
Pitch(mm) Passo	6	8	10
Total feed(a) Incremento totale	2.12	1.59	1.27
Cutting times(nap) Numero di tagli	12	10	8
Cutting order Ordine di taglio	Radial X Radiale X		
1	0.35	0.29	0.26
2	0.29	0.24	0.22
3	0.26	0.22	0.20
4	0.20	0.17	0.15
5	0.17	0.14	0.13
6	0.15	0.13	0.11
7	0.14	0.11	0.10
8	0.13	0.10	0.09
9	0.12	0.10	
10	0.11	0.09	
11	0.10		
12	0.10		

External threading tools
Portautensile filettatura esterna

Thin Type



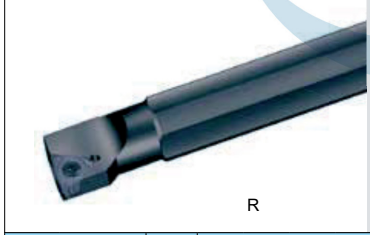
R



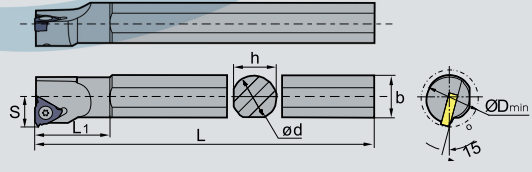
Type Tipo		Stock Magazzino	Dimension (mm) Dimensioni a	h	b	L	s	Inserts Inserti	Screw Vite	Shim Sottoplacchetta	Shim screw Vite per sottoplacchetta	Wrench Chiave
SWR	1616H16B	●	16	16	16	100	20	RT16.01W-****B	I60M3.5×12TT	MT16-**M	SM4×8C	WT15IP
	2020K16B	●	20	20	20	125	25					
	2525M16B	●	25	25	25	150	32					
	3225P16B	●	32	32	25	170	32					
	3232P16B	●	32	32	32	170	40					

Internal threading tools
Portautensile filettatura interna

Thin Type



R



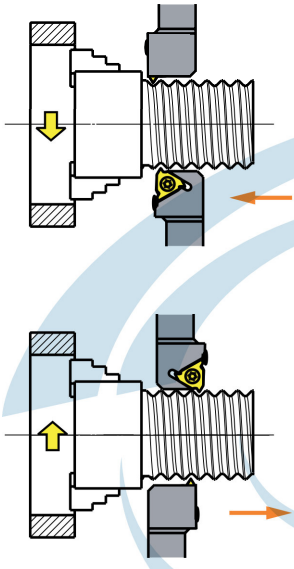
Type Tipo		Stock Magazzino	Dimension (mm) Dimensioni d	L	b	D_{min}	s	h	L_1	Inserts Inserti	Screw Vite	Shim Sottoplacchetta	Shim screw Vite per sottoplacchetta	Wrench Chiave
SNR	0016M16B	●	16	150	15.5	20	12	15	27	RT16.01N-□□□□B	I60M3.5×08TT	—	—	WT15IP
	0020Q16B	●	20	180	19	25	14	18	34					
	0025M16B	●	25	150	24	32	17	23	28.8		I60M3.5×12TT	MT16-**M	SM4×8C	
	0032R16B	●	32	200	31	40	22	30	30.9					
	0032S16B	●	32	250	31	40	22	30	30.9					

Steps to get the best threading result:
Sequenza di lavorazione per i migliori risultati di filettatura:

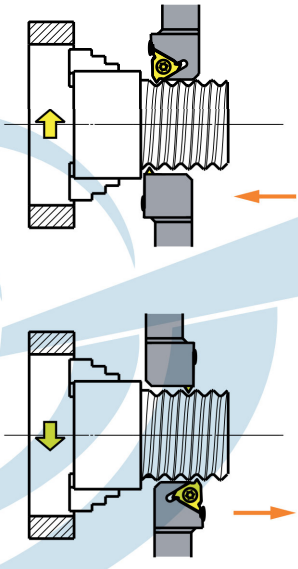
1. **Select thread machining method**
   Selezione del metodo di filettatura
2. **Decide helical angle, select shim**
   Scelta dell'angolo e dello spessore
3. **Choose insert and toolholder size**
   Scelta del portautensile e degli inserti
4. **By checking reference table of standard threading program, select feasible cutting parameters.**
   Scelta dei parametri di taglio
5. **Select feed way**
   Scelta della direzione di taglio

Thread machining method · Metodo di filettatura

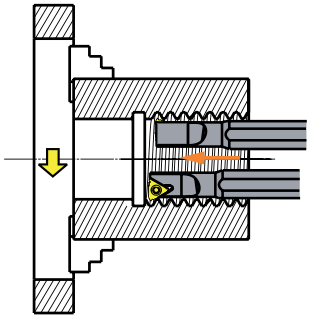
External threading machining (Right thread)
Lavorazione esterna (destrorsa)



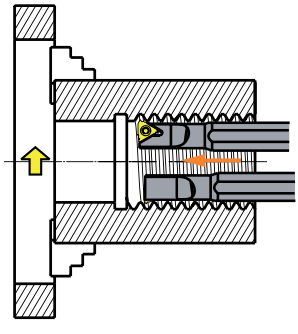
External threading machining (Left thread)
Lavorazione esterna (sinistrorsa)



Internal threading machining (Right thread)
Lavorazione interna (destrorsa)



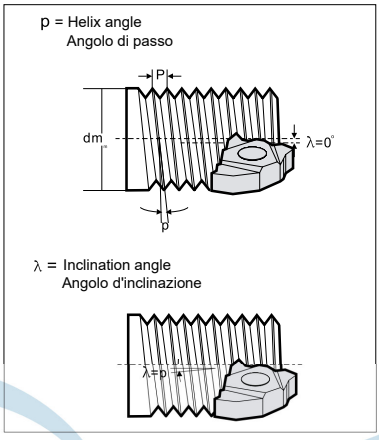
Internal threading machining (Left thread)
Lavorazione interna (sinistrorsa)



Decide helical angle, select shim · Scelta dell'angolo e dello spessore

The flank clearance angles of the thread profile is dependent on the helix angle of the thread. The helix angle of the thread must coincide with the insert's angle of inclination angle as far as possible to get the ideal profile, to avoid longer unfavourable wear on one of the flanks and thus to ensure tool life.

Gli angoli di spoglia del fianco del profilo della filettatura dipendono dall'angolo di passo della filettatura. L'angolo di passo della filettatura deve essere per quanto possibile coincidere con l'angolo di inclinazione dell'inserto, al fine di ottenere un profilo accurato, per evitare l'usura irregolare sul fianco dell'inserto e per garantire una maggiore durata.



$$\lambda = \arctan \frac{p}{d_2 \times \pi}$$

p = Pitch
Passo

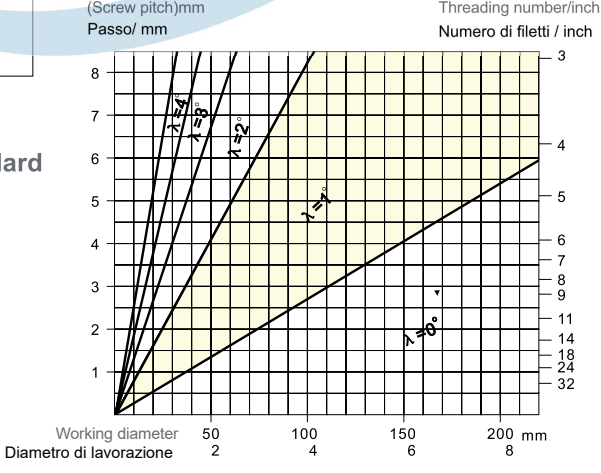
d_2= Effective diameter of thread
Diametro del fianco

λ = Inclination angle
Angolo d'inclinazione

Shim specification table are as following:
Selezione dello spessore

Screw pitch range Intervallo-passo	Insert dimensions Dimensioni	Inclined angle Angolo-inclinazione	Shim Spessore
0.5-3.0	16	0	MT16-00M
		1	MT16-01M
		2	MT16-02M
		3	MT16-03M
3.5-6.0	22	0	MT22-00M
		1	MT22-01M
		2	MT22-02M
		3	MT22-03M

Select shim:
Scelta del corretto spessore:



Shim for λ= 1° is as the standard shim with the toolholder.

Lo spessore per λ=1° viene consegnato insieme al portautensili.

Select proper inserts and size of toolholder (Please refer to detailed table of threading tools and inserts)
Selezionare inserti e dimensione del portautensili adeguati

Parameter table for threading machining program under different conditions
Tabella di parametri per il programma di filettatura in condizioni diverse

Table of recommended infeed for metric **ISO external threading with wiper edge**
Valori di incremento consigliati per **filettatura esterna metrica ISO con raschiante**

Pitch(mm) Passo	1.0	1.25	1.5	1.75	2.0	2.5	3.0	4.0	5.0
Total feed (a) Incremento totale	0.72	0.86	1.02	1.17	1.33	1.63	1.94	2.58	3.21
Cutting times(nap) Numero di tagli	5	6	7	8	9	11	13	15	17
Cutting order Ordine di taglio	Radial X · Axial Z Radiale X , Assiale Z								
	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z
1	0.20/-	0.20/-	0.21/-	0.22/-	0.24/-	0.25/-	0.26/-	0.35/-	0.40/-
2	0.18/0.10	0.18/0.10	0.18/0.10	0.20/0.12	0.22/0.13	0.24/0.14	0.24/0.14	0.30/0.17	0.35/0.20
3	0.16/0.09	0.14/0.09	0.18/0.10	0.18/0.10	0.20/0.12	0.21/0.12	0.20/0.12	0.25/0.14	0.30/0.17
4	0.10/0.06	0.10/0.08	0.15/0.09	0.15/0.09	0.15/0.09	0.18/0.10	0.20/0.12	0.20/0.12	0.28/0.16
5	0.08/-	0.08/0.06	0.12/0.07	0.13/0.08	0.12/0.07	0.15/0.09	0.18/0.10	0.18/0.10	0.25/0.14
6			0.10/0.06	0.11/0.06	0.12/0.07	0.12/0.07	0.15/0.09	0.18//0.10	0.20/0.12
7			0.08/-	0.10/0.06	0.10/0.06	0.12/0.07	0.13/0.08	0.16/0.09	0.18/0.10
8				0.08/-	0.10/0.06	0.10/0.06	0.12/0.07	0.15/0.09	0.16/0.09
9					0.08/-	0.10/0.06	0.10/0.06	0.15/0.09	0.15/0.09
10						0.08/0.05	0.10/0.06	0.13/0.08	0.15/0.09
11						0.08/-	0.08/0.06	0.12/0.07	0.13/0.08
12							0.08/0.05	0.12/0.07	0.13/0.08
13								0.11/0.06	0.12/0.07
14								0.10/0.06	0.12/0.07
15								0.08/-	0.11/0.06
16									0.10/0.06
17									0.08/-

Table of recommended infeed for metric **ISO internal threading with wiper edge**
Valori di incremento consigliati per **filettatura interna metrica ISO con raschiante**

Pitch(mm) Passo	1.00	1.25	1.5	1.75	2.0	2.5	3.0	4.0	5.0
Total feed (a) Incremento totale	0.62	0.77	0.92	1.06	1.21	0.15	1.79	2.36	2.95
Cutting times(nap) Numero di tagli	5	6	7	8	9	11	13	15	17
Cutting order Ordine di taglio	Radial X · Axial Z Radiale X · Assiale Z								
	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z
1	0.18/-	0.20/-	0.22/-	0.23/-	0.24/-	0.25/-	0.26/-	0.30/-	0.32/-
2	0.14/0.08	0.15/0.09	0.16/0.09	0.16/0.09	0.18/0.10	0.20/0.12	0.20/0.12	0.25/0.14	0.28/0.16
3	0.12/0.07	0.12/0.07	0.14/0.08	0.14/0.08	0.15/0.09	0.15/0.09	0.20/0.12	0.22/0.13	0.25/0.14
4	0.10/0.06	0.12/0.07	0.12/0.07	0.13/0.08	0.14/0.08	0.15/0.09	0.18/0.10	0.20/0.12	0.22/0.13
5	0.08/-	0.10/0.06	0.11/0.06	0.12/0.07	0.12/0.07	0.13/0.08	0.15/0.09	0.18/0.10	0.21/0.12
6			0.09/0.05	0.10/0.06	0.11/0.06	0.12/0.07	0.12/0.07	0.15/0.09	0.20/0.12
7			0.08/-	0.10/0.06	0.10/0.06	0.12/0.07	0.12/0.07	0.15/0.09	0.18/0.10
8				0.08/-	0.09/0.05	0.10/0.06	0.10/0.06	0.15/0.09	0.18/0.10
9					0.08/-	0.10/0.06	0.10/0.06	0.12/0.07	0.15/0.09
10						0.09/0.05	0.10/0.06	0.12/0.07	0.15/0.09
11						0.08/-	0.10/0.06	0.12/0.07	0.15/0.09
12							0.08/0.05	0.11/0.06	0.15/0.09
13								0.11/0.06	0.12/0.07
14								0.10/0.06	0.11/0.06
15								0.08/-	0.10/0.06
16									0.10/0.06
17									0.08/-



Table of recommended infeed for **American unified standard external threading inserts**
Valori d'incremento consigliati per **inserti per filettatura esterna American unified standard**

Pitch (mm) Passo	24	20	18	16	14	12	11	10	9	8	7	6	5
Total feed (a) Incremento totale	0.649	0.779	0.866	0.974	1.113	1.299	1.416	1.558	1.731	1.948	2.226	2.597	3.116
Cutting times(nap Numero di tagli	5	6	6	7	9	9	10	11	12	13	14	15	16
Cutting order Ordine di taglio	Radial X · Axial Z Radiale X · Assiale Z												
	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z
1	0.206 / –	0.210 / –	0.233 / –	0.226 / –	0.196 / –	0.229 / –	0.220 / –	0.214 / –	0.210 / –	0.211 / –	0.213 / –	0.218 / –	0.229 / –
2	0.148 / 0.086	0.163 / 0.094	0.181 / 0.104	0.188 / 0.109	0.189 / 0.110	0.222 / 0.128	0.228 / 0.132	0.240 / 0.139	0.256 / 0.148	0.276 / 0.160	0.304 / 0.176	0.343 / 0.198	0.399 / 0.230
3	0.114 / 0.066	0.125 / 0.072	0.139 / 0.080	0.145 / 0.083	0.146 / 0.084	0.170 / 0.098	0.176 / 0.102	0.184 / 0.106	0.196 / 0.113	0.212 / 0.122	0.234 / 0.135	0.263 / 0.152	0.306 / 0.177
4	0.096 / 0.055	0.105 / 0.061	0.117 / 0.068	0.122 / 0.070	0.123 / 0.071	0.143 / 0.083	0.148 / 0.086	0.155 / 0.090	0.165 / 0.095	0.179 / 0.103	0.197 / 0.114	0.222 / 0.128	0.258 / 0.149
5	0.085 / 0.049	0.093 / 0.054	0.103 / 0.059	0.107 / 0.062	0.108 / 0.062	0.126 / 0.073	0.131 / 0.075	0.137 / 0.079	0.146 / 0.084	0.158 / 0.091	0.173 / 0.100	0.195 / 0.113	0.227 / 0.131
6		0.084 / 0.048	0.093 / 0.054	0.097 / 0.056	0.098 / 0.056	0.114 / 0.066	0.118 / 0.068	0.124 / 0.072	0.132 / 0.076	0.142 / 0.082	0.157 / 0.091	0.177 / 0.102	0.205 / 0.119
7				0.089 / 0.052	0.090 / 0.052	0.105 / 0.061	0.109 / 0.063	0.114 / 0.066	0.121 / 0.070	0.131 / 0.076	0.144 / 0.083	0.163 / 0.094	0.189 / 0.109
8					0.084 / 0.048	0.098 / 0.056	0.101 / 0.058	0.106 / 0.061	0.113 / 0.065	0.122 / 0.070	0.134 / 0.078	0.151 / 0.087	0.176 / 0.101
9					0.079 / 0.045	0.092 / 0.053	0.095 / 0.055	0.100 / 0.057	0.106 / 0.061	0.114 / 0.066	0.126 / 0.073	0.142 / 0.082	0.165 / 0.095
10							0.090 / 0.052	0.094 / 0.054	0.100 / 0.058	0.108 / 0.063	0.119 / 0.069	0.134 / 0.078	0.156 / 0.090
11								0.090 / 0.052	0.095 / 0.055	0.103 / 0.059	0.113 / 0.065	0.128 / 0.074	0.149 / 0.086
12									0.091 / 0.053	0.098 / 0.057	0.108 / 0.063	0.122 / 0.071	0.142 / 0.082
13										0.094 / 0.054	0.104 / 0.060	0.117 / 0.068	0.136 / 0.079
14											0.100 / 0.058	0.113 / 0.065	0.131 / 0.076
15												0.109 / 0.063	0.126 / 0.073
16													0.122 / 0.071

Table of recommended infeed for **American unified standard internal threading inserts**
Valori d'incremento consigliati per **inserti per filettatura interna American unified standard**

Pitch (mm) Passo	24	20	18	16	14	12	11	10	9	8	7	6	5
Total feed (a) Incremento totale	0.573	0.687	0.764	0.860	0.982	1.146	1.250	1.375	1.528	1.719	1.964	2.291	2.750
Cutting times(nap) Numero di tagli	5	6	6	7	8	9	9	10	11	12	13	14	15
Cutting order Ordine di taglio	Radial X · Axial Z Radiale X · Assiale Z												
	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z
1	0.193 / —	0.200 / —	0.222 / —	0.219 / —	0.220 / —	0.228 / —	0.250 / —	0.247 / —	0.246 / —	0.252 / —	0.262 / —	0.278 / —	0.302 / —
2	0.127 / 0.073	0.239 / 0.081	0.155 / 0.089	0.161 / 0.093	0.173 / 0.100	0.190 / 0.110	0.207 / 0.120	0.216 / 0.125	0.229 / 0.132	0.247 / 0.142	0.271 / 0.156	0.304 / 0.176	0.353 / 0.204
3	0.098 / 0.056	0.107 / 0.062	0.119 / 0.069	0.124 / 0.072	0.132 / 0.076	0.146 / 0.084	0.159 / 0.092	0.166 / 0.096	0.176 / 0.101	0.189 / 0.109	0.208 / 0.120	0.234 / 0.135	0.271 / 0.156
4	0.082 / 0.048	0.090 / 0.052	0.100 / 0.058	0.104 / 0.060	0.112 / 0.064	0.123 / 0.071	0.134 / 0.077	0.140 / 0.081	0.148 / 0.086	0.160 / 0.092	0.175 / 0.101	0.197 / 0.114	0.228 / 0.132
5	0.073 / 0.042	0.079 / 0.046	0.088 / 0.051	0.092 / 0.053	0.098 / 0.057	0.108 / 0.062	0.118 / 0.068	0.123 / 0.071	0.130 / 0.075	0.141 / 0.081	0.1543 / 0.089	0.173 / 0.100	0.201 / 0.116
6		0.072 / 0.041	0.080 / 0.046	0.083 / 0.048	0.089 / 0.051	0.098 / 0.056	0.107 / 0.062	0.111 / 0.064	0.118 / 0.068	0.127 / 0.073	0.140 / 0.081	0.157 / 0.091	0.182 / 0.105
7				0.077 / 0.044	0.082 / 0.047	0.090 / 0.052	0.098 / 0.057	0.102 / 0.059	0.108 / 0.063	0.117 / 0.067	0.128 / 0.074	0.144 / 0.083	0.167 / 0.097
8					0.076 / 0.044	0.084 / 0.048	0.091 / 0.053	0.095 / 0.055	0.101 / 0.058	0.109 / 0.063	0.119 / 0.069	0.134 / 0.078	0.156 / 0.090
9						0.079 / 0.045	0.086 / 0.050	0.090 / 0.052	0.095 / 0.055	0.102 / 0.059	0.112 / 0.065	0.126 / 0.073	0.146 / 0.084
10								0.085 / 0.049	0.090 / 0.052	0.097 / 0.056	0.106 / 0.061	0.119 / 0.069	0.138 / 0.080
11									0.085 / 0.049	0.092 / 0.053	0.101 / 0.058	0.113 / 0.065	0.131 / 0.076
12										0.088 / 0.051	0.096 / 0.056	0.108 / 0.063	0.126 / 0.073
13											0.092 / 0.053	0.101 / 0.060	0.121 / 0.070
14												0.100 / 0.058	0.116 / 0.067
15													0.112 / 0.065

Table of recommended infeed for **British standard internal and external threading inserts**
Valori d'incremento consigliati per **inserti per filettatura interna ed esterna British standard**

Pitch(mm) Passo	28	20	19	16	14	12	11	10	9	8	7	6	5
Total feed (a) Incremento totale	0.581	0.813	0.856	1.017	1.162	1.355	1.479	1.626	1.807	2.033	2.324	2.711	3.253
Cutting times(nap) Numero di tagli	5	6	6	8	8	9	9	10	11	12	14	15	16
Cutting order Ordine di taglio	Radial X · Axial Z Radiale X · Assiale Z												
	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z
1	0.179 / —	0.211 / —	0.223 / —	0.196 / —	0.223 / —	0.226 / —	0.246 / —	0.236 / —	0.230 / —	0.255 / —	0.195 / —	0.197 / —	0.204 / —
2	0.134 / 0.070	0.172 / 0.089	0.181 / 0.094	0.186 / 0.097	0.213 / 0.111	0.234 / 0.122	0.255 / 0.133	0.226 / 0.139	0.282 / 0.147	0.304 / 0.158	0.322 / 0.167	0.361 / 0.189	0.421 / 0.219
3	0.104 / 0.054	0.132 / 0.069	0.139 / 0.072	0.143 / 0.074	0.163 / 0.085	0.180 / 0.093	0.197 / 0.102	0.206 / 0.106	0.216 / 0.113	0.233 / 0.121	0.247 / 0.128	0.278 / 0.145	0.323 / 0.168
4	0.087 / 0.045	0.111 / 0.058	0.117 / 0.061	0.120 / 0.063	0.138 / 0.072	0.151 / 0.079	0.165 / 0.086	0.172 / 0.090	0.182 / 0.095	0.197 / 0.102	0.208 / 0.108	0.234 / 0.122	0.272 / 0.142
5	0.077 / 0.040	0.098 / 0.051	0.103 / 0.054	0.106 / 0.055	0.121 / 0.063	0.133 / 0.069	0.145 / 0.076	0.152 / 0.079	0.161 / 0.084	0.1738 / 0.090	0.183 / 0.095	0.207 / 0.108	0.240 / 0.125
6		0.089 / 0.046	0.093 / 0.049	0.096 / 0.050	0.110 / 0.057	0.121 / 0.063	0.131 / 0.068	0.137 / 0.071	0.145 / 0.076	0.157 / 0.082	0.166 / 0.086	0.187 / 0.097	0.217 / 0.113
7				0.088 / 0.046	0.101 / 0.052	0.111 / 0.058	0.121 / 0.063	0.126 / 0.066	0.134 / 0.070	0.144 / 0.075	0.152 / 0.079	0.172 / 0.089	0.200 / 0.104
8				0.082 / 0.043	0.093 / 0.049	0.103 / 0.054	0.113 / 0.059	0.117 / 0.061	0.124 / 0.065	0.134 / 0.070	0.142 / 0.074	0.160 / 0.083	0.186 / 0.097
9						0.097 / 0.050	0.106 / 0.055	0.110 / 0.057	0.117 / 0.061	0.126 / 0.066	0.133 / 0.069	0.150 / 0.078	0.174 / 0.091
10								0.104 / 0.054	0.111 / 0.058	0.119 / 0.062	0.126 / 0.066	0.142 / 0.074	0.165 / 0.086
11									0.105 / 0.055	0.113 / 0.059	0.120 / 0.062	0.135 / 0.070	0.157 / 0.082
12										0.108 / 0.056	0.114 / 0.060	0.129 / 0.067	0.150 / 0.078
13											0.110 / 0.055	0.124 / 0.064	0.144 / 0.075
14												0.119 / 0.062	0.138 / 0.072
15												0.115 / 0.060	0.133 / 0.069

Table of recommended infeed for **NPT internal and external threading inserts**
Valori d'incremento consigliati per **inserti per filettatura interna ed esterna NPT**

Pitch (mm) Passo	27	18	14	11.5	8
Total feed (a) Incremento totale	0.75	1.129	1.451	1.767	2.54
Cutting times(nap) Numero di tagli	6	8	10	12	14
Cutting order Ordine di taglio	Radial X · Axial Z Radiale X · Assiale Z				
	X/Z	X/Z	X/Z	X/Z	X/Z
1	0.19/-	0.22/-	0.240/-	0.24/-	0.255/-
2	0.15/0.087	0.181/0.104	0.200/0.115	0.208/0.120	0.250/0.144
3	0.13/0.075	0.152/0.088	0.170/0.098	0.182/0.105	0.245/0.141
4	0.11/0.063	0.141/0.081	0.150/0.086	0.168/0.097	0.230/0.133
5	0.09/0.052	0.131/0.075	0.140/0.081	0.155/0.089	0.210/0.121
6	0.08/0.46	0.121/0.070	0.130/0.075	0.145/0.084	0.195/0.112
7		0.101/0.058	0.120/0.069	0.138/0.079	0.180/0.104
8		0.082/0.047	0.110/0.063	0.124/0.072	0.175/0.101
9			0.100/0.058	0.117/0.067	0.170/0.098
10			0.091/0.052	0.105/0.060	0.155/0.089
11				0.095/0.055	0.140/0.080
12				0.090/0.052	0.125/0.072
13					0.110/0.063
14					0.100/0.058

Table of recommended infeed for **BSPT internal and external threading inserts**
Valori d'incremento consigliati per **inserti per filettatura interna ed esterna BSPT**

Pitch (mm) Passo	28	19	14	11
Total feed (a) Incremento totale	0.581	0.856	1.162	1.479
Cutting times(nap) Numero di tagli	5	6	8	10
Cutting order Ordine di taglio	Radial X · Axial Z Radiale X · Assiale Z			
	X/Z	X/Z	X/Z	X/Z
1	0.179/-	0.223/-	0.222/-	0.214/-
2	0.134/0.070	0.181/0.094	0.213/0.111	0.242/0.126
3	0.103/0.054	0.139/0.072	0.163/0.085	0.186/0.097
4	0.087/0.045	0.117/0.061	0.138/0.072	0.157/0.082
5	0.078/0.040	0.103/0.054	0.121/0.063	0.138/0.072
6		0.093/0.049	0.110/0.057	0.125//0.065
7			0.101/0.052	0.115/0.060
8			0.094/0.049	0.107/0.056
9				0.100/0.052
10				0.095//0.049

Table of recommended infeed for **NPTF 60° internal and external threading inserts**
Valori d'incremento consigliati per **inserti per filettatura interna ed esterna NPTF 60°**

External / Esterna

Pitch(mm) Passo	8	11.5	14	18	27
Total feed(a) Incremento totale	2.38	1.63	1.35	1.00	0.64
Cutting times(nap) Numero di tagli	15	12	10	8	6
Cutting order Ordine di taglio	Radial X Radiale X				
1	0.32	0.24	0.23	0.19	0.16
2	0.27	0.23	0.21	0.16	0.14
3	0.23	0.19	0.16	0.14	0.11
4	0.19	0.15	0.14	0.13	0.09
5	0.17	0.13	0.13	0.12	0.08
6	0.16	0.11	0.12	0.11	0.06
7	0.15	0.11	0.11	0.09	
8	0.14	0.11	0.10	0.06	
9	0.13	0.10	0.09		
10	0.12	0.10	0.06		
11	0.12	0.10			
12	0.11	0.06			
13	0.11				
14	0.10				
15	0.06				

Internal / Interna

Pitch(mm) Passo	8	11.5	14	18	27
Total feed(a) Incremento totale	2.38	1.63	1.35	1.00	0.64
Cutting times(nap) Numero di tagli	15	12	10	8	6
Cutting order Ordine di taglio	Radial X Radiale X				
1	0.35	0.27	0.25	0.2	0.15
2	0.29	0.22	0.20	0.17	0.13
3	0.26	0.20	0.18	0.15	0.12
4	0.20	0.16	0.14	0.12	0.09
5	0.17	0.13	0.12	0.1	0.08
6	0.15	0.12	0.11	0.09	0.06
7	0.14	0.10	0.10	0.09	
8	0.12	0.10	0.09	0.08	
9	0.12	0.09	0.08		
10	0.11	0.08	0.08		
11	0.10	0.08			
12	0.10	0.08			
13	0.09				
14	0.09				
15	0.09				

Table of recommended infeed for **30° round screw internal and external threading inserts**
Valori d'incremento consigliati per **inserti tondi 30°per filettatura interna ed esterna**

External / Esterna

Pitch(mm) Passo	6	8	10
Total feed(a) Incremento totale	2.12	1.59	1.27
Cutting times(nap) Numero di tagli	12	10	8
Cutting order Ordine di taglio	Radial X Radiale X		
1	0.26	0.23	0.23
2	0.225	0.21	0.21
3	0.24	0.20	0.20
4	0.22	0.19	0.19
5	0.21	0.18	0.16
6	0.19	0.16	0.12
7	0.17	0.14	0.10
8	0.16	0.12	0.06
9	0.14	0.10	
10	0.12	0.06	
11	0.10		
12	0.06		

Internal / Interna

Pitch(mm) Passo	6	8	10
Total feed(a) Incremento totale	2.12	1.59	1.27
Cutting times(nap) Numero di tagli	12	10	8
Cutting order Ordine di taglio	Radial X Radiale X		
1	0.35	0.29	0.26
2	0.29	0.24	0.22
3	0.26	0.22	0.20
4	0.20	0.17	0.15
5	0.17	0.14	0.13
6	0.15	0.13	0.11
7	0.14	0.11	0.10
8	0.13	0.10	0.09
9	0.12	0.10	
10	0.11	0.09	
11	0.10		
12	0.10		

Table of recommended infeed for **MJ und UNJ external threading inserts**
Valori d'incremento consigliati per **inserti per filettatura esterna MJ e UNJ**

MJ

Pitch(mm) Passo	1.5	2.0
Total feed(a) Incremento totale	0.87	1.16
Cutting times(nap) Numero di tagli	6	8
Cutting order Ordine di taglio	Radial X Radiale X	
1	0.22	0.25
2	0.19	0.21
3	0.16	0.18
4	0.13	0.15
5	0.11	0.12
6	0.06	0.10
7		0.09
8		0.06

UNJ

Pitch(mm) Passo	8	10	12	14	16	18	20	24	28	32
Total feed(a) Incremento totale	1.83	1.47	1.22	1.05	0.92	0.81	0.73	0.61	0.52	0.46
Cutting times(nap) Numero di tagli	11	9	7	7	6	6	6	5	5	4
Cutting order Ordine di taglio	Radial X Radiale X									
1	0.31	0.30	0.28	0.26	0.26	0.23	0.19	0.17	0.16	0.16
2	0.30	0.29	0.27	0.23	0.21	0.18	0.16	0.14	0.12	0.14
3	0.23	0.21	0.20	0.17	0.14	0.14	0.13	0.14	0.09	0.10
4	0.18	0.15	0.17	0.12	0.12	0.10	0.10	0.10	0.09	0.06
5	0.15	0.13	0.13	0.11	0.10	0.010	0.09	0.06	0.06	
6	0.14	0.12	0.11	0.10	0.09	0.06	0.06			
7	0.13	0.11	0.06	0.06						
8	0.12	0.10								
9	0.11	0.06								
10	0.10									
11	0.06									

Table of recommended infeed for **Tr internal and external threading inserts**
Valori d'incremento consigliati per **inserti per filettatura interna ed esterna Tr**

External / Esterna

Pitch(mm) Passo	1.5	2	3
Total feed(a) Incremento totale	0.90	1.25	1.75
Cutting times(nap) Ghisa sferoidale	6	7	9
Cutting order Ordine di taglio	Radial X Radiale X		
1	0.23	0.29	0.32
2	0.21	0.26	0.31
3	0.16	0.21	0.24
4	0.13	0.17	0.19
5	0.11	0.14	0.18
6	0.06	0.12	0.17
7		0.06	0.15
8			0.13
9			0.06

Internal / Interna

Pitch(mm) Passo	1.5	2	3
Total feed(a) Incremento totale	0.90	1.25	1.75
Cutting times(nap) Numero di tagli	6	7	9
Cutting order Ordine di taglio	Radial X Radiale X		
1	0.22	0.28	0.34
2	0.18	0.23	0.28
3	0.17	0.21	0.26
4	0.13	0.16	0.20
5	0.11	0.14	0.17
6	0.10	0.12	0.15
7		0.11	0.13
8			0.12
9			0.10

For ACME internal and external threading inserts
Per inserti per filettatura interna ed esterna ACME

Pitch(mm) Passo	8	10	12	14	16
Total feed (a) Incremento totale	1.86	1.55	1.21	1.05	0.94
Cutting times(nap) Numero di tagli	12	10	8	7	6
Cutting order Ordine di taglio	Radial X Radiale X				
1	0.31	0.28	0.25	0.23	0.23
2	0.26	0.23	0.21	0.20	0.19
3	0.23	0.21	0.18	0.18	0.17
4	0.18	0.16	0.15	0.14	0.14
5	0.15	0.15	0.12	0.11	0.11
6	0.14	0.13	0.11	0.10	0.10
7	0.12	0.11	0.10	0.09	
8	0.11	0.10	0.09		
9	0.10	0.09			
10	0.09	0.09			
11	0.09				
12	0.08				

For STUB-ACME internal and external threading inserts
Per inserti per filettatura interna ed esterna STUB-ACME

Pitch(mm) Passo	8	10	12	14	16
Total feed (a) Incremento totale	1.28	1.08	0.81	0.73	0.66
Cutting times(nap) Numero di tagli	9	8	7	6	5
Cutting order Ordine di taglio	Radial X Radiale X				
1	0.22	0.20	0.17	0.17	0.17
2	0.20	0.18	0.14	0.14	0.15
3	0.18	0.15	0.12	0.12	0.14
4	0.15	0.13	0.1	0.11	0.11
5	0.12	0.12	0.1	0.1	0.09
6	0.11	0.11	0.09	0.09	
7	0.11	0.10	0.09		
8	0.10	0.09			
9	0.09				

Table of recommended infeed for **API 60° internal and external threading inserts**
Valori d'incremento consigliati per **inserti per filettatura interna ed esterna API 60°**

External / Esterna

Pitch(mm) Passo	4(382)	4(383)	5(403)	4(502)	4(503)
Total feed (a) Incremento totale	3.12	3.11	3.00	3.78	3.77
Cutting times(nap) Numero di tagli	12	12	12	15	15
Cutting order Ordine di taglio	Radial X Radiale X				
1	0.51	0.50	0.47	0.51	0.51
2	0.47	0.47	0.44	0.48	0.48
3	0.42	0.42	0.40	0.44	0.44
4	0.35	0.35	0.35	0.39	0.39
5	0.31	0.31	0.30	0.34	0.34
6	0.26	0.26	0.25	0.30	0.30
7	0.22	0.22	0.21	0.26	0.26
8	0.18	0.18	0.17	0.22	0.22
9	0.13	0.13	0.14	0.19	0.19
10	0.11	0.11	0.11	0.16	0.16
11	0.10	0.10	0.10	0.13	0.13
12	0.06	0.06	0.06	0.11	0.10
13				0.10	0.10
14				0.09	0.09
15				0.06	0.06

Internal / Interna

Pitch(mm) Passo	4(382)	4(383)	5(403)	4(502)	4(503)
Total feed (a) Incremento totale	3.12	3.11	3.00	3.78	3.77
Cutting times(nap) Numero di tagli	12	12	12	15	15
Cutting order Ordine di taglio	Radial X Radiale X				
1	0.52	0.52	0.51	0.55	0.54
2	0.43	0.43	0.42	0.46	0.46
3	0.39	0.39	0.38	0.42	0.42
4	0.30	0.30	0.29	0.32	0.32
5	0.25	0.25	0.24	0.27	0.27
6	0.22	0.22	0.21	0.24	0.24
7	0.20	0.20	0.19	0.22	0.22
8	0.18	0.18	0.17	0.20	0.20
9	0.17	0.17	0.16	0.18	0.18
10	0.16	0.16	0.15	0.17	0.17
11	0.15	0.15	0.14	0.16	0.16
12	0.15	0.14	0.14	0.16	0.16
13				0.15	0.15
14				0.14	0.14
15				0.14	0.14

Table of recommended infeed for **API round internal and external threading inserts**
Valori d'incremento consigliati per **inserti tondi per filettatura interna ed esterna API**

External / Esterna

Pitch(mm) Passo	8	10
Total feed (a) Incremento totale	1.81	1.41
Cutting times(nap) Numero di tagli	12	10
Cutting order Ordine di taglio	Radial X Radiale X	
1	0.25	0.25
2	0.24	0.23
3	0.19	0.16
4	0.16	0.14
5	0.14	0.12
6	0.14	0.12
7	0.13	0.12
8	0.13	0.11
9	0.13	0.1
10	0.13	0.06
11	0.11	
12	0.06	

Internal / Interna

Pitch(mm) Passo	8	10
Total feed (a) Incremento totale	1.81	1.41
Cutting times(nap) Numero di tagli	12	10
Cutting order Ordine di taglio	Radial X Radiale X	
1	0.30	0.26
2	0.25	0.21
3	0.22	0.19
4	0.17	0.15
5	0.15	0.13
6	0.13	0.11
7	0.12	0.10
8	0.11	0.09
9	0.10	0.09
10	0.09	0.08
11	0.09	
12	0.08	

Table of recommended infeed for **API inclined trapezoidal screw internal and external threading inserts**
Valori d'incremento consigliati per **inserti a vite trapezoidale inclinata americana per filettatura interna ed esterna**

External / Esterna

Pitch(mm) Passo	5
Total feed (a) Incremento totale	1.55
Cutting times(nap) Numero di tagli	11
Cutting order Ordine di taglio	Radial X Radiale X
1	0.25
2	0.23
3	0.17
4	0.15
5	0.13
6	0.12
7	0.12
8	0.11
9	0.11
10	0.1
11	0.06

Internal / Interna

Pitch(mm) Passo	5
Total feed (a) Incremento totale	1.55
Cutting times(nap) Numero di tagli	11
Cutting order Ordine di taglio	Radial X Radiale X
1	0.27
2	0.22
3	0.20
4	0.16
5	0.13
6	0.12
7	0.10
8	0.10
9	0.09
10	0.08
11	0.08

■ Recommended Cutting parameters · Parametri di taglio consigliati

ISO	Workpiece Material Materiale pezzo		Hardness HB Durezza HB	Grade Grado Cutting speed (m·min) Velocità di taglio (m·min)
P	Carbon steel Acciaio al carbonio	C=0.15% C=0.35% C=0.60%	125 150 200	150-175 140-155 130-145
	Alloy steel Acciaio legato	Anneal / Temprato Tempered / Pre-temprato Tempered / Pre-temprato Tempered / Pre-temprato	180 275 300 350	110-130 80-100 70-90 60-80
	High alloy steel Acciaio alto legato	Anneal / Temprato Hardened / Pre-temprato	200 325	90-115 70-90
	Cast steel Acciaio fuso	Non-alloy / Non legato Low alloy / Basso legato High alloy / Alto legato Martensite steel 12%Mn Acciaio martensite 12%Mn	180 200 225 250	180-210 90-115 90-115 40-50
M	Stainless steel Acciaio inox	Austenite Austenitico	180	110-130
		Martensite·Ferrite Martensitico·Ferritico	200	130-170
K	Malleable cast iron Ghisa malleabile	Ferrite / Ferritico Pearlite / Perlitico	130 230	110-140 85-105
	Grey cast iron Ghisa grigia	Martensite / Martensitico Ferrite / Ferritico	180 260	110-140 90-115
	Nodular cast iron Ghisa a grafite sferoidale	Ferrite / Ferritico Pearlite / Perlitico	160 250	110-130 80-100
N	Al alloy Lega di alluminio	Non-aging treatment Non trattato Aging treatment Pre-temprato	60 100	1300-1450 450-500
	Cast aluminum alloy Lega di alluminio fusa	Non-aging treatment Non trattato Aging treatment Pre-temprato	75 90	430-470 250-290
S	Heat resistant alloy Resistenza a shock termici Lega	Iron Base A base ferrosa — Anneal Temprato Aging Pre-temprato	200 280	35-50 25-35
		Ni- Or Co-Base Base — Anneal Temprato Aging Pre-temprato Casting Ghisa	250 350 320	15-25 10-20 10-15
H	Hardened steel Acciaio temprato	Hardened Temprato	HRC55	40-50



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