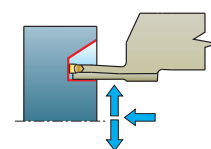
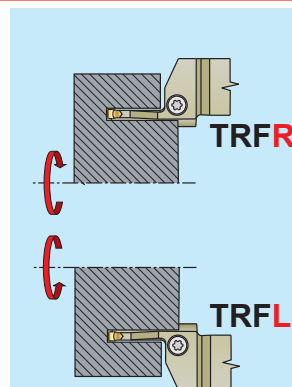
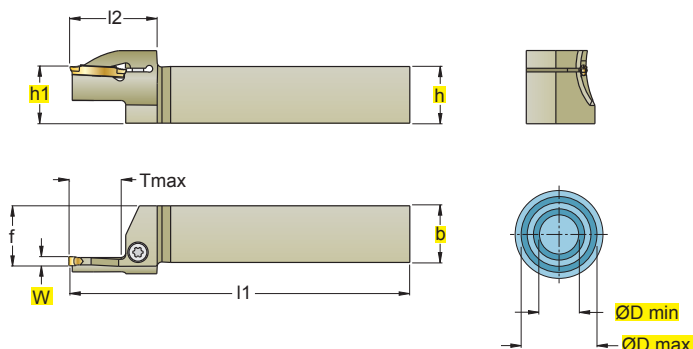


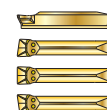
TRFR/L

Ø 25x25

UTENSILE PER SCANALATURA FRONTALE
TOOLHOLDER FOR FACE GROOVING
AXIALEINSTECHWERKZEUG
OUTIL POUR GORGES FRONTALES



GM..
25..

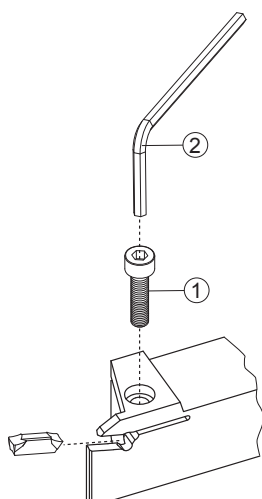


GS.N
25..



In figura utensile destro - Right-hand shown

NEW		NEW		NEW		NEW		NEW														 INSERTI - INSERTS PAG. 226	
..L.. .X52		..N.. .X52		..R.. .X52		.X42		.X47		.X47		.X52		.X54		.X55							
ART. (mm)																							
		W		h=h1		b		ØDmin		ØDmax		f		Tmax		l1		l2		Nm			
TRFR/L	2525 25-3 35-50	3		25		25		35		50		26,5		13		150		39		5,0+6,0		GS..25..3	
TRFR/L	2525 25-3 50-75	3		25		25		50		75		26,5		22		150		39		5,0+6,0		GS..25..3	
TRFR/L	2525 25-3 75-100	3		25		25		75		100		26,5		22		150		39		5,0+6,0		GS..25..3	
TRFR/L	2525 25-3 100-150	3		25		25		100		150		26,5		22		150		39		5,0+6,0		GS..25..3	
TRFR/L	2525 25-4 35-50	4		25		25		35		50		27,0		13		150		39		5,0+6,0		GS..25..4	
TRFR/L	2525 25-4 50-75	4		25		25		50		75		27,0		22		150		39		5,0+6,0		GS..25..4	
TRFR/L	2525 25-4 75-100	4		25		25		75		100		27,0		22		150		39		5,0+6,0		GS..25..4	
TRFR/L	2525 25-4 100-150	4		25		25		100		150		27,0		22		150		39		5,0+6,0		GS..25..4	
TRFR/L	2525 25-5 35-50	5		25		25		35		50		27,5		13		150		39		5,0+6,0		GS..25..5	
TRFR/L	2525 25-5 50-75	5		25		25		50		75		27,5		22		150		39		5,0+6,0		GS..25..5	
TRFR/L	2525 25-5 75-100	5		25		25		75		100		27,5		22		150		39		5,0+6,0		GS..25..5	
TRFR/L	2525 25-5 100-150	5		25		25		100		150		27,5		22		150		39		5,0+6,0		GS..25..5	
TRFR/L	2525 25-6 35-50	6		25		25		35		50		28,0		13		150		39		5,0+6,0		GS..25..6	
TRFR/L	2525 25-6 50-75	6		25		25		50		75		28,0		22		150		39		5,0+6,0		GS..25..6	
TRFR/L	2525 25-6 75-100	6		25		25		75		100		28,0		22		150		39		5,0+6,0		GS..25..6	
TRFR/L	2525 25-6 100-150	6		25		25		100		150		28,0		22		150		39		5,0+6,0		GS..25..6	

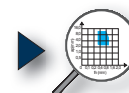


CAMPI D'IMPIEGO DEGLI INSERTI PER TAGLIO-SCANALATURA
FIELDS OF APPLICATION FOR PARTING AND GROOVING INSERTS
EINSATZBEREICH FÜR ABSTECH- UND NUTENDREHWEINDEPLATTEN
CHAMPS D'USINAGE DES PLAQUETTES POUR TRONÇONNAGE-GORGES

VELOCITÀ DI TAGLIO Vc
Vc. CUTTING SPEED
Vc. SCHNITTGESCHWINDIGKEIT
Vc. VITESSE DE COUPE

DETTAGLIO RICAMBI
SPARE PARTS DETAILS
DETAILS ZU DEN ERSATZTEILEN
DÉTAIL DE PIÈCES DE RECHANGE

DATI TECNICI E CONSIGLI
TECHNICAL DATA AND SUGGESTIONS
TECHNISCHE DATEN UND EMPFEHLUNGEN
DONNÉES TECHNIQUES ET CONSEILS



PAG. 220



PAG. 218



PAG. 1025



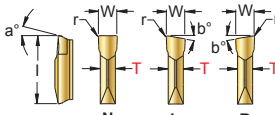
PAG. 1051

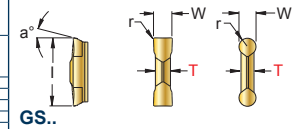
SCELTA VELOCE - QUICK PICK

Tenacità +
Toughness -

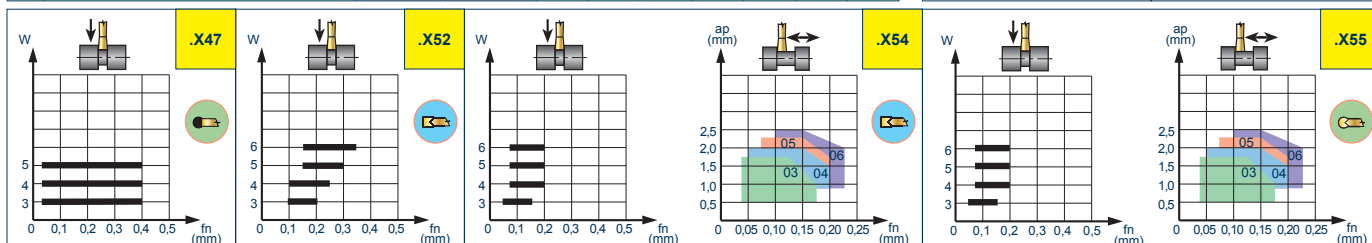
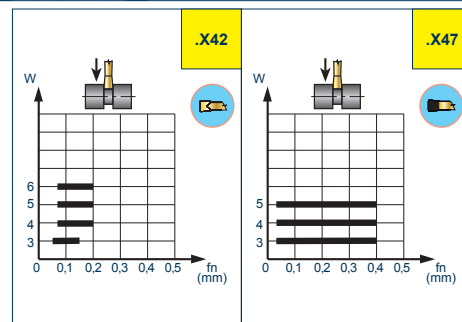


Pag. 210

HT	HW	HC										DP	GM..																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
CERMET	NON RIV. CEMENTED CARBIDE GRADES	RIVESTITI COATED GRADES BESCHICHTET RECOUVERTS										PCD																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
					F4530	T5735	F4645					D3007	≤ 112	W	r	l	T	a°	b°																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			</



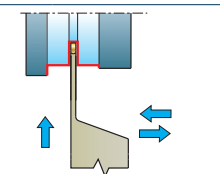
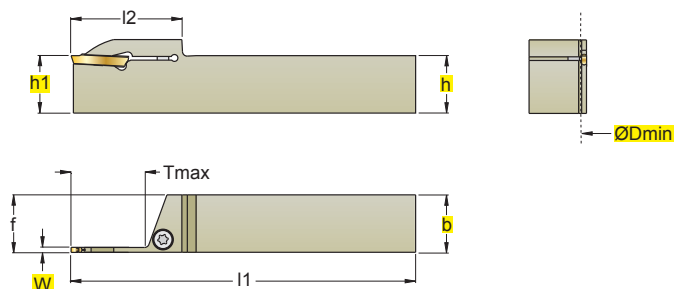
MATERIALI - MATERIALS Pag. 1119		VDI 3323 GR.	HB Rm ¹⁾ HRC ²⁾	Vc m/min Pag. 218			
P	ACCIAIO NON LEGATO - NOT ALLOY STEEL	1-5	125-300	D3007	F4530	T5735	F4645
	ACCIAIO POCO LEGATO - LOW ALLOY STEEL	6-9	180-350		130	140	120
	ACCIAIO ALTO LEGATO - ALLOY STEEL	10-11	200-325		100	115	90
	INOX MARTENS. - STAINLESS STEEL MART	12-13	200-240		150	160	90
M	INOX AUST. DUPLEX - STAINLESS STEEL AUST	14.1-14.2	180-230		100	120	100
K	GHISA GRIGIA - GREY CAST IRON	15-16	180-260		160	140	
	GHISA SFEROIDALE - SPHEROIDAL GRAPHITE	17-18	160-250		140	130	
	GHISA MALLEABILE - MALLEABLE CAST IRON	19-20	130-230		140	115	
N	ALLUMINIO E SUE LEGHE - ALUMINIUM	21-25	60-130	700			
	RAME E SUE LEGHE - COPPER	26-28	90-110	600			
	NON METALLICI - PLASTICS	29-30	/	800			



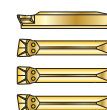
TRCXR/L

∅ 20x20 - 25x25

NEW



GM..
25..



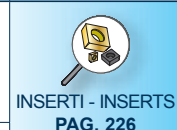
NEW

NEW

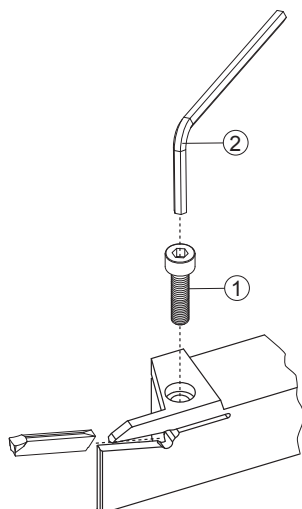
NEW



..L.. X52 ..N.. X52 ..R.. X52



ART.		(mm)										1		2	
R	L	W	h=h1	b	ØDmin	f	Tmax	l1	l2	Nm					
TRCXR/L	2020 25-3	3	20	20	1100	20,0	32,5	125	50,0	5,0+6,0	GM..25..-3	VTZ 0516	5425		
TRCXR/L	2525 25-3	3	25	25	1600	25,0	32,5	150	48,5	5,0+6,0	GM..25..-3	VTZ 0516	5425		



CAMPI D'IMPIEGO DEGLI INSERTI PER TAGLIO-SCANALATURA
 FIELDS OF APPLICATION FOR PARTING AND GROOVING INSERTS
 EINSATZBEREICH FÜR ABSTECH- UND NUTENDREHWEINDEPLATTEN
 CHAMPS D'USINAGE DES PLAQUETTES POUR TRONÇONNAGE-GORGES



PAG. 220

VELOCITÀ DI TAGLIO Vc
 Vc. CUTTING SPEED
 Vc. SCHNITTGESCHWINDIGKEIT
 Vc. VITESSE DE COUPE



PAG. 218

DETTAGLIO RICAMBI
 SPARE PARTS DETAILS
 DETAILS ZU DEN ERSATZTEILEN
 DÉTAIL DE PIÈCES DE RECHANGE



PAG. 1025

DATI TECNICI E CONSIGLI
 TECHNICAL DATA AND SUGGESTIONS
 TECHNISCHE DATEN UND EMPFEHLUNGEN
 DONNÉES TECHNIQUES ET CONSEILS

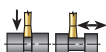
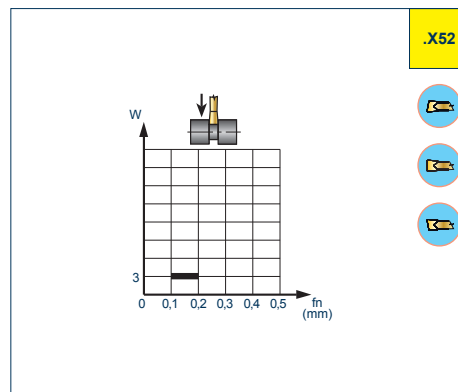


PAG. 1051

Tenacità + ↑
Toughness - ↓

Pag. 210

MATERIALI - MATERIALS		VDI 3323 GR.	HB Rm ¹⁾ HRC ²⁾	Vc m/min Pag. 218				
Pag. 1119				F4530				
P	ACCIAIO NON LEGATO - NOT ALLOY STEEL	1-5	125-300	140				
	ACCIAIO POCO LEGATO - LOW ALLOY STEEL	6-9	180-350	130				
	ACCIAIO ALTO LEGATO - ALLOY STEEL	10-11	200-325	100				
	INOX MARTENS. - STAINLESS STEEL MART	12-13	200-240	150				
M	INOX AUST. DUPLEX - STAINLESS STEEL AUST	14.1-14.2	180-230	100				
K	GHISA GRIGIA - GREY CAST IRON	15-16	180-260	160				
	GHISA SFEROIDALE - SPHEROIDAL GRAPHITE	17-18	160-250	140				
	GHISA MALLEABILE - MALLEABLE CAST IRON	19-20	130-230	140				
N	ALLUMINIO E SUE LEGHE - ALUMINIUM	21-25	60-130					
	RAME E SUE LEGHE - COPPER	26-28	90-110					
	NON METALLICI - PLASTICS	29-30	/					
S	LEGHE RESIST. CALORE - HIG. TEMP. ALLOY	31-35	200-320					
	TITANIO E SUE LEGHE - TITANIUM	36-37	400-1050 ¹⁾					
H	ACCIAIO TEMPRATO - HARDENED STEEL	38-41	45-60 ²⁾					



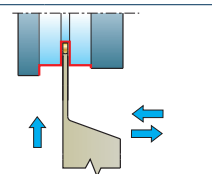
= SCANALATURA - GROOVING

Vc = m/min VELOCITÀ DI TAGLIO - CUTTING SPEED
n = giri/min (min⁻¹) NUMERO DI GIRI - NUMBER OF REVOLUTIONS
f = mm AVANZAMENTO AL GIRO - FEED / REVOLUTION
Vf = mm/min VELOCITÀ DI AVANZAMENTO - FEED SPEED
w = mm LARGHEZZA TAGLIANTE - CUTTING EDGE WIDTH
ap = mm PROFONDITÀ DI TAGLIO - CUTTING DEPTH

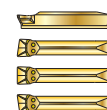
$$n = \frac{V_c \cdot 1000}{\varnothing D \cdot 3,14} = \text{giri/min (min}^{-1}\text{)}$$

$$V_f = f_n \cdot n = \text{mm/min}$$

Ø 20x20 - 25x25



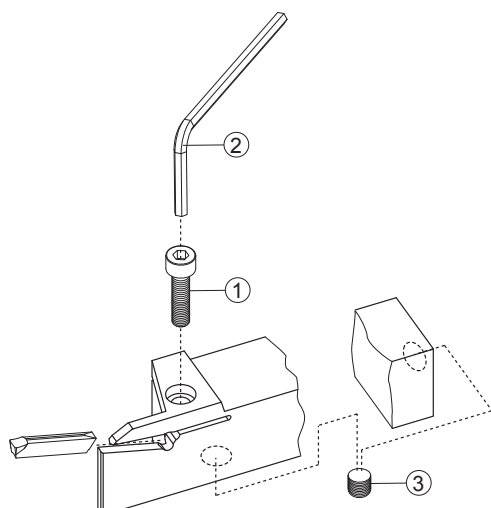
GM.
25..



INSERTI - INSERTS
PAG. 226

[illegible]

 • Tubo dritto raccordato <i>Fitted hose, straight</i> PAG. 1022	 • Tubo dritto raccordato <i>Fitted hose, straight</i> PAG. 1022	 • Tubo dritto raccordato <i>Fitted hose, straight</i> PAG. 1022	 • Ogiva lubrorefrigerante <i>Cooling lubricant hose</i> PAG. 1023
 • Raccordo dritto <i>Straight fitting</i> PAG. 1022	 • Riduzione <i>Adapter</i> PAG. 1022	 • Raccordo 90° <i>90° Fitting</i> PAG. 1023	 • B-SEAL M10 PAG. 1023



 CAMPI D'IMPIEGO DEGLI INSERTI PER TAGLIO-SCANALATURA
 FIELDS OF APPLICATION FOR PARTING AND GROOVING INSERTS
 EINSATZBEREICH FÜR ABSTECH- UND NUTDREHWEHNDEPLATTEN
 CHAMPS D'USINAGE DES PLAQUETTES POUR TRONÇONNAGE-GORGES

PAG. 220

 VELOCITÀ DI TAGLIO Vc
 Vc. CUTTING SPEED
 Vc. SCHNITTGESCHWINDIGKEIT
 Vc. VITESSE DE COUPE

PAG. 218

 DETTAGLIO RICAMBI
 SPARE PARTS DETAILS
 DETAILS ZU DEN ERSATZTEILEN
 DÉTAIL DE PIÈCES DE RECHANGE

PAG. 1025

 **DATI TECNICI E CONSIGLI**
 **TECHNICAL DATA AND SUGGESTIONS**
 **TECHNISCHE DATEN UND EMPFEHLUNGEN**
 **DONNÉES TECHNIQUES ET CONSEILS**

PAG. 1051

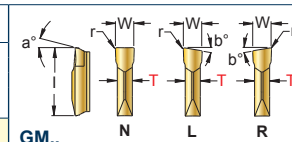
SCELTA VELOCE - QUICK PICK

Tenacità +
Toughness -

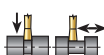
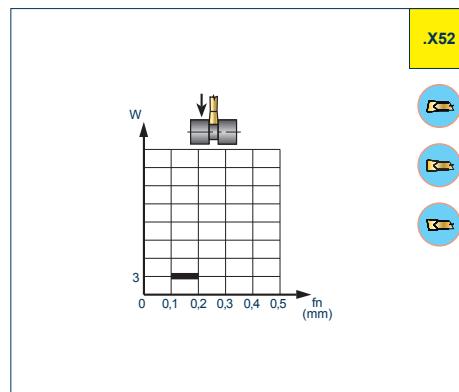


Pag. 210

HT	HW			HC									
CERMET	NON RIV. CEMENTED CARBIDE GRADES			RIVESTITI COATED GRADES BESCHICHTET RECOUVERTS			GM..						
				F4530				W	r	l	T	a°	b°
				■				3,0	0,2	25	2,2	10°	6
				■				3,0	0,2	25	2,2	10°	—
				■				3,0	0,2	25	2,2	10°	6



MATERIALI - MATERIALS Pag. 1119		VDI 3323 GR.	HB Rm ¹⁾ HRC ²⁾	Vc m/min Pag. 218							
P	ACCIAIO NON LEGATO - NOT ALLOY STEEL	1-5	125-300	140							
	ACCIAIO POCO LEGATO - LOW ALLOY STEEL	6-9	180-350	130							
	ACCIAIO ALTO LEGATO - ALLOY STEEL	10-11	200-325	100							
	INOX MARTENS. - STAINLESS STEEL MART	12-13	200-240	150							
M	INOX AUST. DUPLEX - STAINLESS STEEL AUST	14.1-14.2	180-230	100							
K	GHISA GRIGIA - GREY CAST IRON	15-16	180-260	160							
	GHISA SFEROIDALE - SPHEROIDAL GRAPHITE	17-18	160-250	140							
	GHISA MALLEABILE - MALLEABLE CAST IRON	19-20	130-230	140							
N	ALLUMINIO E SUE LEGHE - ALUMINIUM	21-25	60-130								
	RAME E SUE LEGHE - COPPER	26-28	90-110								
	NON METALLICI - PLASTICS	29-30	/								
S	LEGHE RESIST. CALORE - HIG. TEMP. ALLOY	31-35	200-320								
	TITANIO E SUE LEGHE - TITANIUM	36-37	400-1050 ¹⁾								
H	ACCIAIO TEMPRATO - HARDENED STEEL	38-41	45-60 ²⁾								



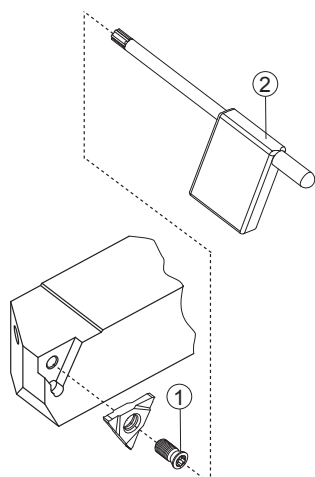
= SCANALATURA - GROOVING

Vc = m/min VELOCITÀ DI TAGLIO - CUTTING SPEED
n = giri/min (min⁻¹) NUMERO DI GIRI - NUMBER OF REVOLUTIONS
fn = mm AVANZAMENTO AL GIRO - FEED / REVOLUTION
Vf = mm/min VELOCITÀ DI AVANZAMENTO - FEED SPEED
W = mm LARGHEZZA TAGLIANTE - CUTTING EDGE WIDTH
ap = mm PROFONDITÀ DI TAGLIO - CUTTING DEPTH

$$n = \frac{Vc \cdot 1000}{\varnothing D \cdot 3,14} = \text{giri/min (min}^{-1}\text{)}$$

$$Vf = fn \cdot n = \text{mm/min}$$

STGR/L														A..STIR/L														Ø16 - Ø32													
154 156														154 156														154 156													
In figura utensile destro - Right-hand shown														In figura utensile destro - Right-hand shown																											
.C54 .C57														INSERTI - INSERTS PAG. 225																											
ART. (mm)																																									
														h=h1 b Ød ØDmin f H Tmax(*) a l1 l2 Nm														w													
STGR/L 2020 K 16-3														20 20 - - 20 - - - 125 20 3,5+4,0														1,1+4,15													
STGR/L 2525 M 16-3														25 25 - - 25 - - - 150 20 3,5+4,0														FS244P 5515P FS244P 5515P													
A16M STIR/L 16-3														- - 16 20 11 15,25 - 2 150 35 3,5+4,0														FS244P 5515P													
A20Q STIR/L 16-3														- - 20 25 13 19,00 - 2 180 40 3,5+4,0														FS244P 5515P													
A25R STIR/L 16-3														- - 25 32 17 24,00 - 3 200 50 3,5+4,0														FS244P 5515P													
A32S STIR/L 16-3														- - 32 40 22 31,00 - 3 250 55 3,5+4,0														FS244P 5515P													



CAMPI D'IMPIEGO DEGLI INSERTI PER TAGLIO-SCANALATURA
 FIELDS OF APPLICATION FOR PARTING AND GROOVING INSERTS
 EINSATZBEREICH FÜR ABSTECH- UND NUTENDREHWEINDEPLATTEN
 CHAMPS D'USINAGE DES PLAQUETTES POUR TRONÇONNAGE-GORGES

VELOCITÀ DI TAGLIO Vc
 Vc. CUTTING SPEED
 Vc. SCHNITTGESCHWINDIGKEIT
 Vc. VITESSE DE COUPE

DETTAGLIO RICAMBI
 SPARE PARTS DETAILS
 DETAILS ZU DEN ERSATZTEILEN
 DÉTAIL DE PIÈCES DE RECHANGE

DATI TECNICI E CONSIGLI
 TECHNICAL DATA AND SUGGESTIONS
 TECHNISCHE DATEN UND EMPFEHLUNGEN
 DONNÉES TECHNIQUES ET CONSEILS



PAG. 220



PAG. 218



PAG. 1025



PAG. 1051

Tenacità + ↑
Toughness - ↓

Pag. 210

[illegible]

CON ADDUZIONE LUBROREFRIGERANTE - WITH COOLANT SUPPLY

SENZA ADDUZIONE LUBROREFRIGERANTE - WITHOUT COOLANT SUPPLY

 SI POSSONO UTILIZZARE GLI INSERTI DI PRECISIONE **156...** VEDI PAG 225

 PRECISION INSERTS **156...** (SEE PAGE 225) CAN BE USED

 DIE PRÄZISIONSWENDESCHNEIDPLATTEN **156...** (s.SEITE 225) KÖNNEN EINGESETZT WERDEN.

 ON PEUT UTILISER LES PLAQUETTES DE PRECISION **156**... VOIR PAGE 225

[illegible] = SCANALATURA - GROOVING

Vc = m/min VELOCITÀ DI TAGLIO - CUTTING SPEED

n = giri/min (min^{-1}) NUMERO DI GIRI - NUMBER OF REVOLUTIONS

fn = mm AVANZAMENTO AL GIRO - FEED / REVOLUTION

Vf = mm/min VELOCITÀ DI AVANZAMENTO - FEED SPEED

W = mm LARGHEZZA TAGLIANTE - CUTTING EDGE WIDTH

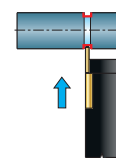
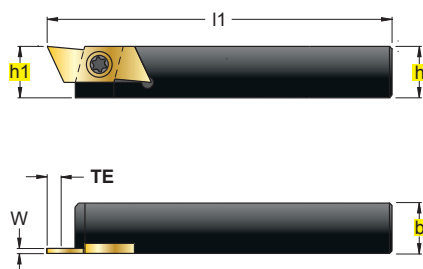
$$n = \frac{V_c \cdot 1000}{\varnothing D \cdot 3,14} = \text{giri/min (min}^{-1}\text{)}$$

$$V_f = f_n \cdot n = \text{mm/min}$$

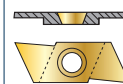
■ DISPONIBILI - IN STOCK - LIEFERBAR - DISPONIBLES / ■ NEW
●● APPLICAZIONE CONSIGLIATA-RECOMMENDED APPLICATION
EMPFOHLENER EINSATZ - APPLICATION CONSEILLÉE

☐ A RICHIESTA - ON REQUEST - AUF ANFRAGE - SUR DEMANDE / ☐ NEW
☐ APPLICATION POSSIBILE - POSSIBLE APPLICATION
 MÖGLICHE ANWENDUNG - APPLICATION POSSIBLE

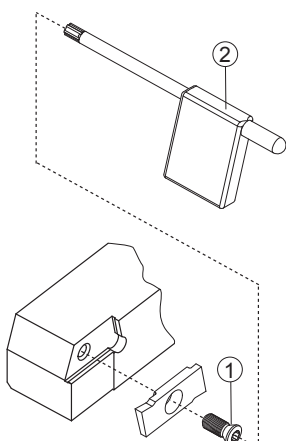
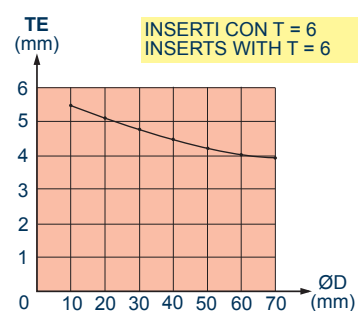
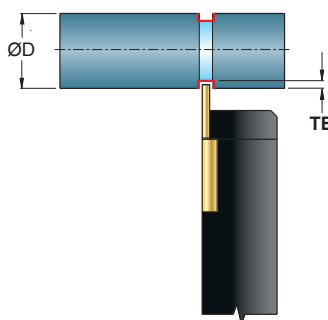
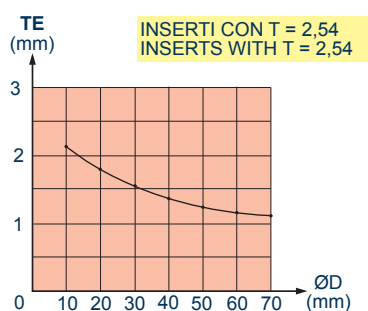
8x8 - 25x25



GIE-7-..



																	 INSERTI - INSERTS PAG. 228
GP/-ST	-SG	-GR	-GW														
ART. (mm)																	
		h=h1		b	l1								Nm	w			
THE - 7 - 0808 R / L		08	08	100									1,2÷1,5	0,5-3,0	123008P	5508P	
THE - 7 - 1010 R / L		10	10	120									1,2÷1,5				
THE - 7 - 1212 R / L		12	12	120									1,2÷1,5				
THE - 7 - 1616 R / L		16	16	125									1,2÷1,5				
THE - 7 - 2020 R / L		20	20	125									1,2÷1,5				
THE - 7 - 2525 R / L		25	25	125									1,2÷1,5				
		UTENSILI PER MACCHINE A FANTINA MOBILE - TOOLS FOR SLIDING HEADSTOCK											MACHINES				
THS - 7 - 0808 R / L		08	08	140									1,2÷1,5	0,5-3,0	123008P	5508P	
THS - 7 - 1010 R / L		10	10	150									1,2÷1,5				



PAG. 220

► **Vc**

PAG. 218



PAG. 1025



PAG. 1051

SCELTA VELOCE - QUICK PICK							HT	HW	HC	Pag. 210						
							CERMET	NON RIV. CEMENTED CARBIDE GRADES	RIVESTITI COATED GRADES BESCHICHTET RECOUVERTS							
COD.	P	M	K	N	S	H										
GIE - 7 - GP - 1.0 R - N	●	●														
GIE - 7 - GP - 1.0 L - N	●	●														
GIE - 7 - GP - 1.5 R - N	●	●														
GIE - 7 - GP - 1.5 R - R	●	●														
GIE - 7 - GP - 1.5 L - N	●	●														
GIE - 7 - GP - 1.5 L - R	●	●														
GIE - 7 - GP - 1.5 L - L	●	●														
GIE - 7 - GP - 2.0 R - N	●	●														
GIE - 7 - GP - 2.0 R - R	●	●														
GIE - 7 - GP - 2.0 L - N	●	●														
GIE - 7 - ST - 3.0 R	●	●														
GIE - 7 - ST - 3.0 L	●	●														
GIE - 7 - SG - 0.5 R	●	●														
GIE - 7 - SG - 0.5 L	●	●														
GIE - 7 - SG - 0.7 R	●	●														
GIE - 7 - SG - 0.7 L	●	●														
GIE - 7 - SG - 0.8 R	●	●														
GIE - 7 - SG - 0.8 L	●	●														
GIE - 7 - SG - 0.9 R	●	●														
GIE - 7 - SG - 0.9 L	●	●														
GIE - 7 - SG - 1.1 R	●	●														
GIE - 7 - SG - 1.1 L	●	●														
GIE - 7 - SG - 1.3 R	●	●														
GIE - 7 - SG - 1.3 L	●	●														
GIE - 7 - SG - 1.6 R	●	●														
GIE - 7 - SG - 1.6 L	●	●														
GIE - 7 - SG - 1.85 R	●	●														
GIE - 7 - SG - 1.85 L	●	●														
GIE - 7 - GR - 1.0 R	●	●														
GIE - 7 - GR - 1.0 L	●	●														
GIE - 7 - GR - 1.5 R	●	●														
GIE - 7 - GR - 1.5 L	●	●														
GIE - 7 - GR - 2.0 R	●	●														
GIE - 7 - GR - 2.0 L	●	●														
GIE - 7 - GW - 60 R	●	●														
GIE - 7 - GW - 60 L	●	●														
GIE - 7 - GW - 55 R	●	●														
GIE - 7 - GW - 55 L	●	●														
CON ADDUZIONE LUBROREFRIGERANTE - WITH COOLANT SUPPLY																
SENZA ADDUZIONE LUBROREFRIGERANTE - WITHOUT COOLANT SUPPLY																

MATERIALI - MATERIALS Pag. 1119			VDI 3323 GR.	HB Rm ⁽¹⁾ HRC ⁽²⁾	fn mm			Vc m/min Pag. 218									
					F	M	R	C5PV									
P	ACCIAIO NON LEGATO - NOT ALLOY STEEL	1-5	125-300	0,03	0,05	0,10	140										
	ACCIAIO POCO LEGATO - LOW ALLOY STEEL	6-9	180-350	0,03	0,05	0,10	105										
	ACCIAIO ALTO LEGATO - ALLOY STEEL	10-11	200-325	0,03	0,05	0,10	105										
	INOX MARTENS. - STAINLESS STEEL MART	12-13	200-240	0,03	0,05	0,10	120										
M	INOX AUST. DUPLEX - STAINLESS STEEL AUST	14.1-14.2	180-230	0,03	0,05	0,10	105										
K	GHISA GRIGIA - GREY CAST IRON	15-16	180-260														
	GHISA SFEROIDALE - SPHEROIDAL GRAPHITE	17-18	160-250														
	GHISA MALLEABILE - MALLEABLE CAST IRON	19-20	130-230														
N	ALLUMINIO E SUE LEGHE - ALUMINIUM	21-25	60-130														
	RAME E SUE LEGHE - COPPER	26-28	90-110														
	NON METALLICI - PLASTICS	29-30	/														
S	LEGHE RESIST. CALORE - HIG. TEMP. ALLOY	31-35	200-320														
	TITANIO E SUE LEGHE - TITANIUM	36-37	400-1050 ⁽¹⁾														
H	ACCIAIO TEMPRATO - HARDENED STEEL	38-41	45-60 ⁽²⁾														

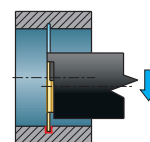
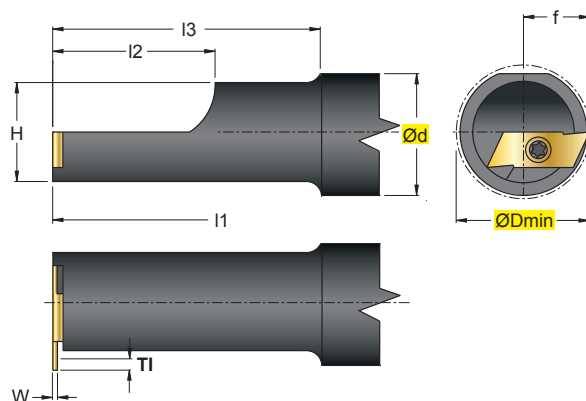
 = SCANALATURA - GROOVING

Vc = m/min VELOCITÀ DI TAGLIO - CUTTING SPEED
n = giri/min (min⁻¹) NUMERO DI GIRI - NUMBER OF REVOLUTIONS
fn = mm AVANZAMENTO AL GIRO - FEED / REVOLUTION
Vf = mm/min VELOCITÀ DI AVANZAMENTO - FEED SPEED
W = mm LARGHEZZA TAGLIANTE - CUTTING EDGE WIDTH

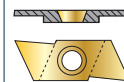
$$n = \frac{Vc \cdot 1000}{\phi D \cdot 3,14} = \text{giri/min (min}^{-1}\text{)}$$

$$Vf = fn \cdot n = \text{mm/min}$$

Ø20 - Ø32

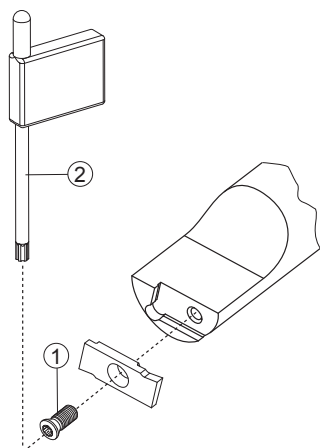
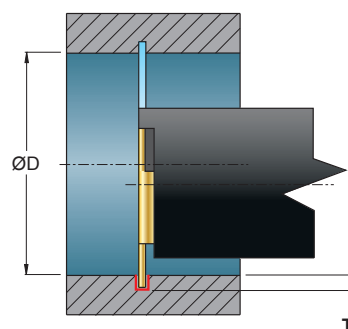
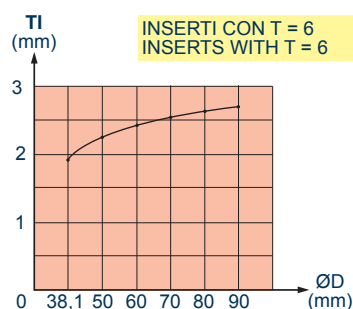


GIE-7-...



														 INSERTI - INSERTS PAG. 228
ART.														
(mm)									Nm	w				
R	L		ØDmin	Ød	f	H	I1	I2	I3					
			38,10	20	13,34	19,05	140	25	50	1,2+1,5	0,5-3,0	123008P	5508P	
			38,10	25	13,34	19,05	150	32	63	1,2+1,5				
			38,10	32	13,34	19,05	150	32	63	1,2+1,5				

PER UTENSILI DESTRI (R) INSERTO SINISTRO (L) - PER UTENSILI SINISTRI (L) INSERTO DESTRO (R)
 FOR RIGHT TOOLS (R) LEFT INSERT (L) - FOR LEFT TOOLS (L) RIGHT INSERT (R)
 FÜR RECHTE WERKZEUGE (R) LINKE PLATTEN (L) - FÜR LINKE WERKZEUGE (L) RECHTE PLATTEN (R)
 POUR OUTILS DROITS (R) PLAQUETTE GAUCHE (L) - POUR OUTILS GAUCHES (L) PLAQUETTE DROITE (R)



PAG. 220



PAG. 218

PAG. 1025



PAG. 1051

SCELTA VELOCE - QUICK PICK							HT	HW	HC	Pag. 210						
							CERMET	NON RIV. CEMENTED CARBIDE GRADES	RIVESTITI COATED GRADES BESCHICHTET RECOUVERTS							
COD.	P	M	K	N	S	H										
GIE - 7 - GP - 1.0 R - N	●	●														
GIE - 7 - GP - 1.0 L - N	●	●														
GIE - 7 - GP - 1.5 R - N	●	●														
GIE - 7 - GP - 1.5 R - R	●	●														
GIE - 7 - GP - 1.5 L - N	●	●														
GIE - 7 - GP - 1.5 L - R	●	●														
GIE - 7 - GP - 1.5 L - L	●	●														
GIE - 7 - GP - 2.0 R - N	●	●														
GIE - 7 - GP - 2.0 R - R	●	●														
GIE - 7 - GP - 2.0 L - N	●	●														
GIE - 7 - ST - 3.0 R	●	●														
GIE - 7 - ST - 3.0 L	●	●														
GIE - 7 - SG - 0.5 R	●	●														
GIE - 7 - SG - 0.5 L	●	●														
GIE - 7 - SG - 0.7 R	●	●														
GIE - 7 - SG - 0.7 L	●	●														
GIE - 7 - SG - 0.8 R	●	●														
GIE - 7 - SG - 0.8 L	●	●														
GIE - 7 - SG - 0.9 R	●	●														
GIE - 7 - SG - 0.9 L	●	●														
GIE - 7 - SG - 1.1 R	●	●														
GIE - 7 - SG - 1.1 L	●	●														
GIE - 7 - SG - 1.3 R	●	●														
GIE - 7 - SG - 1.3 L	●	●														
GIE - 7 - SG - 1.6 R	●	●														
GIE - 7 - SG - 1.6 L	●	●														
GIE - 7 - SG - 1.85 R	●	●														
GIE - 7 - SG - 1.85 L	●	●														
GIE - 7 - GR - 1.0 R	●	●														
GIE - 7 - GR - 1.0 L	●	●														
GIE - 7 - GR - 1.5 R	●	●														
GIE - 7 - GR - 1.5 L	●	●														
GIE - 7 - GR - 2.0 R	●	●														
GIE - 7 - GR - 2.0 L	●	●														
GIE - 7 - GW - 60 R	●	●														
GIE - 7 - GW - 60 L	●	●														
GIE - 7 - GW - 55 R	●	●														
GIE - 7 - GW - 55 L	●	●														
CON ADDUZIONE LUBROREFRIGERANTE - WITH COOLANT SUPPLY																
SENZA ADDUZIONE LUBROREFRIGERANTE - WITHOUT COOLANT SUPPLY																

MATERIALI - MATERIALS Pag. 1119			VDI 3323 GR.	HB Rm ⁽¹⁾ HRC ⁽²⁾	fn mm			Vc m/min Pag. 218									
					F	M	R	C5PV									
P	ACCIAIO NON LEGATO - NOT ALLOY STEEL	1-5	125-300	0,03	0,05	0,10	140										
	ACCIAIO POCO LEGATO - LOW ALLOY STEEL	6-9	180-350	0,03	0,05	0,10	105										
	ACCIAIO ALTO LEGATO - ALLOY STEEL	10-11	200-325	0,03	0,05	0,10	105										
	INOX MARTENS. - STAINLESS STEEL MART	12-13	200-240	0,03	0,05	0,10	120										
M	INOX AUST. DUPLEX - STAINLESS STEEL AUST	14.1-14.2	180-230	0,03	0,05	0,10	105										
K	GHISA GRIGIA - GREY CAST IRON	15-16	180-260														
	GHISA SFEROIDALE - SPHEROIDAL GRAPHITE	17-18	160-250														
	GHISA MALLEABILE - MALLEABLE CAST IRON	19-20	130-230														
N	ALLUMINIO E SUE LEGHE - ALUMINIUM	21-25	60-130														
	RAME E SUE LEGHE - COPPER	26-28	90-110														
	NON METALLICI - PLASTICS	29-30	/														
S	LEGHE RESIST. CALORE - HIG. TEMP. ALLOY	31-35	200-320														
	TITANIO E SUE LEGHE - TITANIUM	36-37	400-1050 ⁽¹⁾														
H	ACCIAIO TEMPRATO - HARDENED STEEL	38-41	45-60 ⁽²⁾														

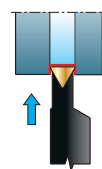
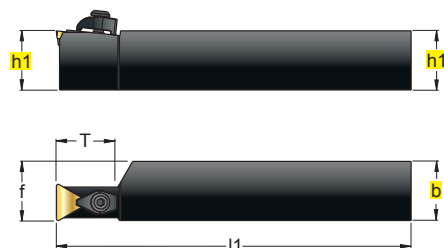
 = SCANALATURA - GROOVING

Vc = m/min VELOCITÀ DI TAGLIO - CUTTING SPEED
n = giri/min (min⁻¹) NUMERO DI GIRI - NUMBER OF REVOLUTIONS
fn = mm AVANZAMENTO AL GIRO - FEED / REVOLUTION
Vf = mm/min VELOCITÀ DI AVANZAMENTO - FEED SPEED
W = mm LARGHEZZA TAGLIANTE - CUTTING EDGE WIDTH

$$n = \frac{Vc \cdot 1000}{\phi D \cdot 3,14} = \text{giri/min (min}^{-1}\text{)}$$

$$Vf = fn \cdot n = \text{mm/min}$$

25x25



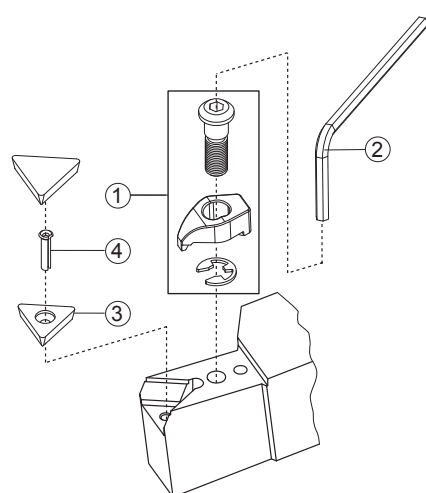
TPMR



C



																	 INSERTI - INSERTS PAG. 206
.S44																	
ART.	(mm)										①	②	③	④			
				h1	b	f	l1	T									
SCTFPR/L 2525 M 11				25	25	25	150	22	1103	2304C	5025	—	—				
SCTFPR/L 2525 M 16				25	25	25	150	25	1603	2305C	5003	3116	4002				



 CAMPI D'IMPIEGO DEGLI INSERTI PER TAGLIO-SCANALATURA
 FIELDS OF APPLICATION FOR PARTING AND GROOVING INSERTS
 EINSATZBEREICH FÜR ABSTECH- UND NUTENDREHWEDELN
 CHAMPS D'USAGE DES PLAQUETTES POUR TRONÇONNAGE-GORGES

PAG. 220

 VELOCITÀ DI TAGLIO Vc
 Vc. CUTTING SPEED
 Vc. SCHNITTGESCHWINDIGKEIT
 Vc. VITESSE DE COUPE

PAG. 218

 DETTAGLIO RICAMBI
 SPARE PARTS DETAILS
 DETAILS ZU DEN ERSATZTEILEN
 DÉTAIL DE PIÈCES DE RECHANGE

PAG. 1025

 DATI TECNICI E CONSIGLI
 **TECHNICAL DATA AND SUGGESTIONS**
 **TECHNISCHE DATEN UND EMPFEHLUNGEN**
 DONNÉES TECHNIQUES ET CONSEILS

PAG. 1051

Tenacità +
Toughness -

Paq. 210

Pag. 210

MATERIALI - MATERIALS Pag. 1119		VDI 3323 GR.	HB Rm ¹⁾ HRC ²⁾	Vc m/min Pag. 218				
				T520T	T1625			
P	ACCIAIO NON LEGATO - NOT ALLOY STEEL	1---5	125-300	300	380			
	ACCIAIO POCO LEGATO - LOW ALLOY STEEL	6-9	180-350	230	300			
	ACCIAIO ALTO LEGATO - ALLOY STEEL	10-11	200-325	180	220			
	INOX MARTENS. - STAINLESS STEEL MART	12-13	200-240	200	200			
M	INOX AUST. DUPLEX - STAINLESS STEEL AUST	14.1-14.2	180-230	195	200			
K	GHISA GRIGIA - GREY CAST IRON	15-16	180-260	160	180			
	GHISA SFEROIDALE - SPHEROIDAL GRAPHITE	17-18	160-250	130	130			
	GHISA MALLEABILE - MALLEABLE CAST IRON	19-20	130-230	150	150			
N	ALLUMINIO E SUE LEGHE - ALUMINIUM	21---25	60-130					
	RAME E SUE LEGHE - COPPER	26-28	90-110					
	NON METALLICI - PLASTICS	29-30	/					
S	LEGHE RESIST. CALORE - HIG. TEMP. ALLOY	31---35	200-320					
	TITANIO E SUE LEGHE - TITANIUM	36-37	400-1050 ¹⁾					
H	ACCIAIO TEMPRATO - HARDENED STEEL	38-41	45-60 ²⁾					

 = SCANALATURA - GROOVING

Vc = m/min VELOCITÀ DI TAGLIO - CUTTING SPEED

n = giri/min (min^{-1}) NUMERO DI GIRI - NUMBER OF REVOLUTIONS

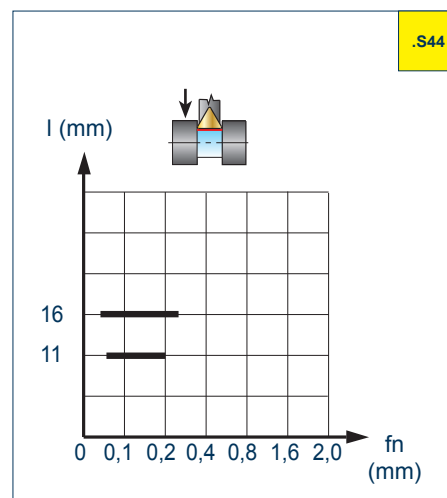
fn = mm AVANZAMENTO AL GIRO - FEED / REVOLUTION

Vf = mm/min VELOCITÀ DI AVANZAMENTO - FEED SPEED

I = mm LARGHEZZA TAGLIANTE - CUTTING EDGE WIDTH

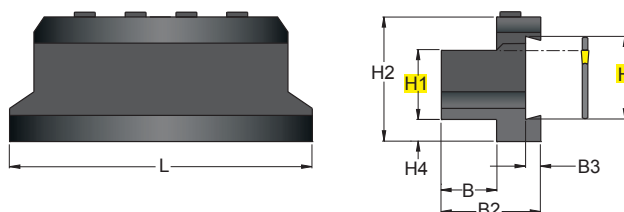
$$V_f = f_n \cdot n = \text{mm/min}$$

$$n = \frac{V_c \cdot 1000}{\varnothing D \cdot 3,14} = \text{giri/min (min}^{-1}\text{)}$$

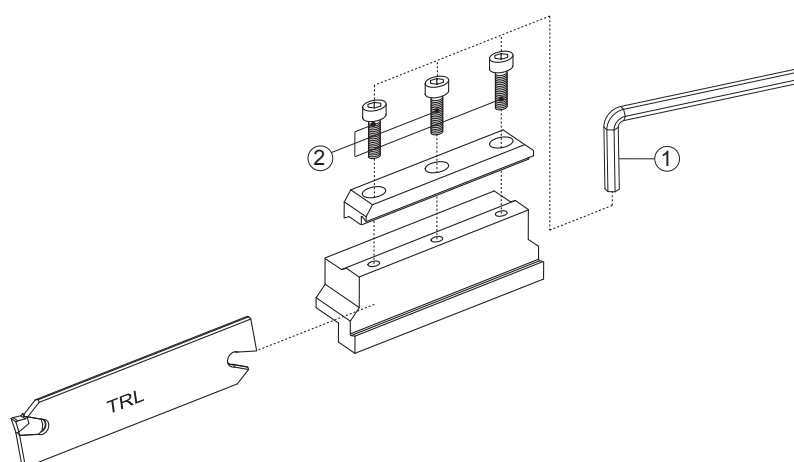


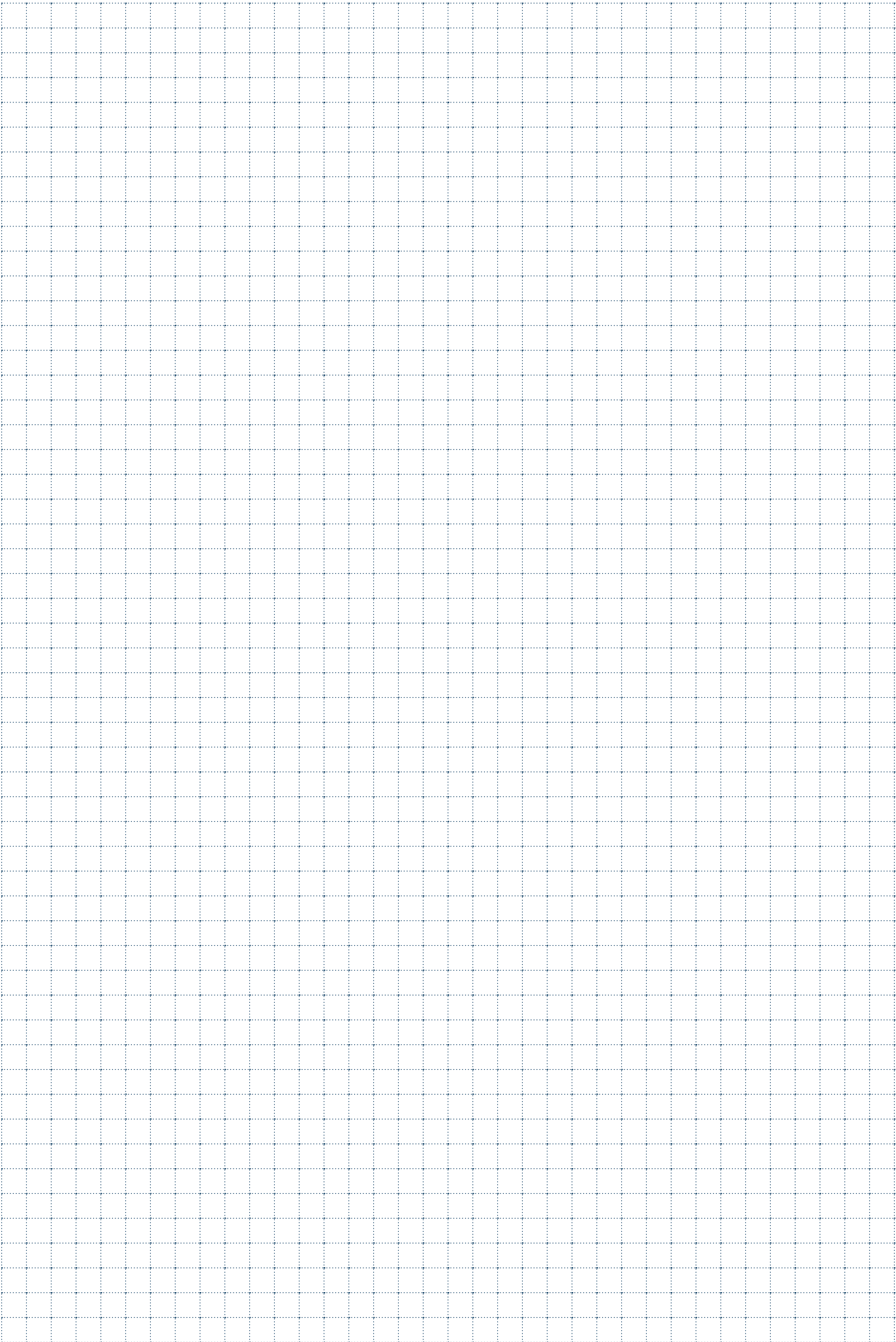
☐ A RICHIESTA - ON REQUEST - AUF ANFRAGE - SUR DEMANDE / ☐ NEW
☐ APPLICATION POSSIBILE - POSSIBLE APPLICATION
 MÖGLICHE ANWENDUNG - APPLICATION POSSIBLE

SGTBU



ART.	(mm)											
	H1	H	L	B	B2	B3	H2	H4				
SGTBU 20-5	20	26	86	21	38	4	43	9	TRL 26 - ...	5005	VBL06	
SGTBU 25-5	25	26	110	23	42	4	45	5				
SGTBU 20-6	20	32	100	19	38	5,3	50	13	TRL 32 - ...	5005	VBL06	
SGTBU 25-6	25	32	110	23	42	5,3	50	8				
SGTBU 32-6	32	32	110	28	44	5,3	50	2,5				







UTENSILI ISO 26623-1 PER TORNITURA ESTERNA



ISO 26623-1 EXTERNAL TURNING TOOLS



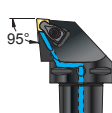
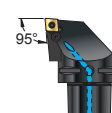
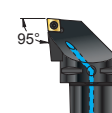
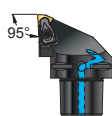
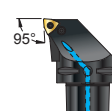
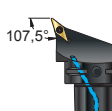
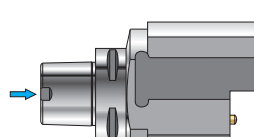
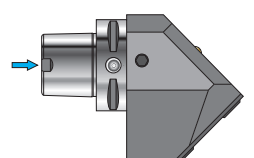
ISO 26623-1 AUSSENDREHWERKZEUGE



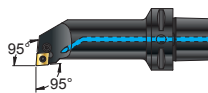
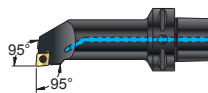
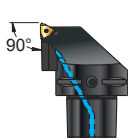
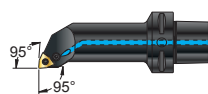
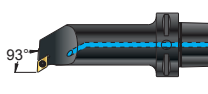
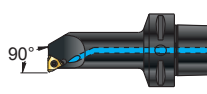
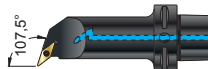
OUTILS ISO 26623-1 POUR TOURNAGE EXTERNE



HERRAMIENTAS ISO 26623-1 PARA TORNEADO EXTERIOR

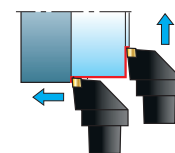
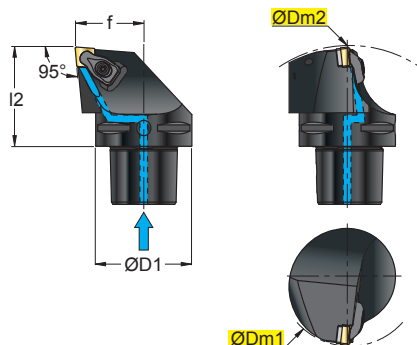
D 		D 		P 		S 		S 	
SC.. DCLNR/L Pag.156		SC63 DCMNN Pag.158		SC.. PCLNR/L Pag.160		SC.. SCLCR/L Pag.163		SC63 SCMCN Pag.167	
 CNM. 1204.. <i>PSC50 - PSC63</i>		 CNM. 1204.. <i>PSC63</i>		 CNM. 1204.. <i>PSC40 - PSC50 - PSC63</i>		 CC.. 1204.. <i>PSC40 - PSC50 - PSC63</i>		 CC.. 1204.. <i>PSC63</i>	
SC.. DWLNR/L Pag.157		SC63 DDMNL Pag.159		SC.. PDJNR/L Pag.161		SC.. SDJCR/L Pag.164		SC63 SVMBL Pag.168	
 WNM. 0804.. <i>PSC50 - PSC63</i>		 DNM. 1506.. <i>PSC63</i>		 DNM. 1506.. <i>PSC50 - PSC63</i>		 DC.. 11T3.. <i>PSC40 - PSC50 - PSC63</i>		 VB.. 1604.. <i>PSC63</i>	
				SC.. PWLNR/L Pag.162		SC.. SVHBR/L Pag.165			
				 WNM. 0804.. <i>PSC40 - PSC50 - PSC63</i>		 VB.. 1604.. <i>PSC40 - PSC50 - PSC63</i>			
						SC.. SVJBR/L Pag.166			
						 VB.. 1604.. <i>PSC40 - PSC50 - PSC63</i>			
								PSC.C63.1PAR/L Pag.971	
									
								PSC.C63.U45 Pag.971	
									



P 		S 						S 	
SC.. PCLNR/L Pag.169		SC.. SCLCR/L Pag.171						SC.. SER/L Pag.780	
									
PSC40 - PSC50 - PSC63		PSC40 - PSC50 - PSC63						PSC40 - PSC50 - PSC63	
	CNM. 1204..		CC.. 1204..					16ER/EL	
SC.. PWLNR/L Pag.170		SC.. SDUCR/L Pag.172						SC.. ANR/L Pag.781	
									
PSC40 - PSC50 - PSC63		PSC40 - PSC50 - PSC63						PSC40 - PSC50 - PSC63	
	WNM. 0804..		DC.. 11T3..						16IR/IL
		SC.. SVQBR/L Pag.173							
									
		PSC50 - PSC63							
			VB.. 1604..						

SC.. DCLNR/L

95°



CNMA



CNMG



CNMM

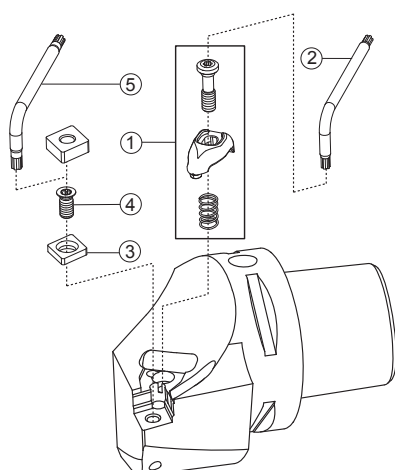


D



In figura utensile destro - Right-hand shown

		NEW 													NEW 	 INSERTI - INSERTS PAG. 197
.G23	.G61	.X47	.G39	.G42	.G52	.G53	.G55	.G56	.K57P	.G62	.G63	.G68	.G72	.G82	.G34W	
ART.			(mm)								①	②	③	④	⑤	
			ØDm1	ØDm2	ØD1	f	l2	Nm								
SC50 DCLNR/L 35060-12	PSC50		80	165	50	35	60	3,9	1204		100-21	5415	3612	125011	5420	
SC63 DCLNR/L 45065-12	PSC63		100	190	63	45	65	3,9								
SC63 DCLNR/L 45065-16	PSC63		125	190	63	45	65	6,4	1604		100-31	5420	3616	126011	5420	

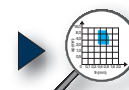


CAMPI D'IMPIEGO DEGLI INSERTI PER TORNITURA
 FIELDS OF APPLICATION FOR TURNING INSERTS
 EINSATZGEBIETE FÜR DREHPLATTEN
 CHAMPS D'USINAGE DES PLAQUETTES POUR TOURNAGE

VELOCITÀ DI TAGLIO Vc
 Vc. CUTTING SPEED
 Vc. SCHNITTGESCHWINDIGKEIT
 Vc. VITESSE DE COUPE

DETTAGLIO RICAMBI
 SPARE PARTS DETAILS
 DETAILS ZU DEN ERSATZTEILEN
 DÉTAIL DE PIÈCES DE RECHANGE

DATI TECNICI E CONSIGLI
 TECHNICAL DATA AND SUGGESTIONS
 TECHNISCHE DATEN UND EMPFEHLUNGEN
 DONNÉES TECHNIQUES ET CONSEILS



PAG. 190



PAG. 186

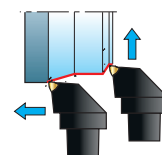
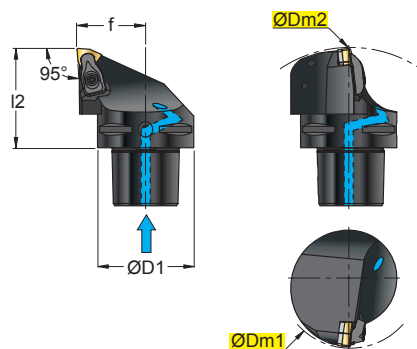


PAG. 1025

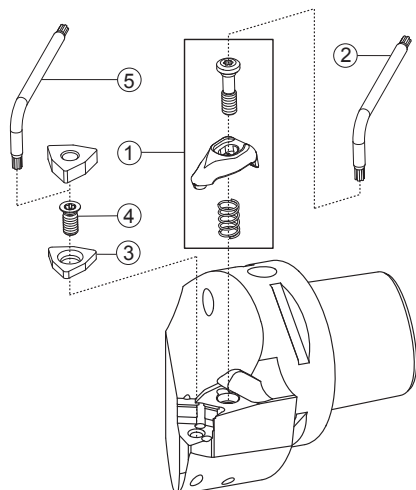


PAG. 1048

93°



D

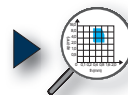
[illegible]

 CAMPI D'IMPIEGO DEGLI INSERTI PER TORNITURA
 FIELDS OF APPLICATION FOR TURNING INSERTS
 EINSATZGEBIETE FÜR DREHPLATTEN
 CHAMPS D'USINAGE DES PLAQUETTES POUR TOURNAGE

 VELOCITÀ DI TAGLIO Vc
 Vc. CUTTING SPEED
 Vc. SCHNITTGESCHWINDIGKEIT
 Vc. VITESSE DE COUPE

 DETTAGLIO RICAMBI
 SPARE PARTS DETAILS
 DETAILS ZU DEN ERSATZTEILEN
 DÉTAIL DE PIÈCES DE RECHANGE

 DATI TECNICI E CONSIGLI
 TECHNICAL DATA AND SUGGESTIONS
 TECHNISCHE DATEN UND EMPFEHLUNGEN
 DONNÉES TECHNIQUES ET CONSEILS



PAG. 190



PAG. 186



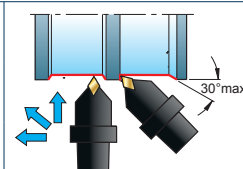
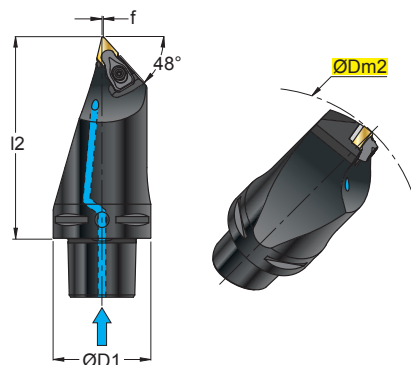
PAG. 1025



PAG. 1048

SC63 DDMNL

48° 93°



DNMA



DNMG



DNMM

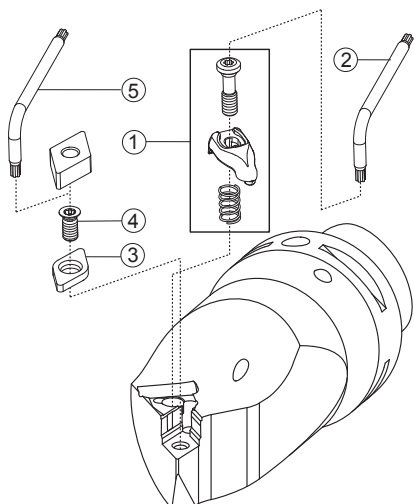


D



In figura utensile sinistro - Left-hand shown

												NEW			 INSERTI - INSERTS PAG. 199		
.G23	.G39	.G42	.G52	.G53	.G55	.G56	.G62	.G63	.G68	.G72	.G34W						
ART.				(mm)								①	②	③	④	⑤	
				ØDm2	ØD1	f	l2	Nm									
SC63 DDMNL 00130-15		PSC63		190	63	0	130	3,9		1506		100-21	5415	3715	125011	5420	



CAMPI D'IMPIEGO DEGLI INSERTI PER TORNITURA
 FIELDS OF APPLICATION FOR TURNING INSERTS
 EINSATZGEBIETE FÜR DREHPLATTEN
 CHAMPS D'USINAGE DES PLAQUETTES POUR TOURNAGE

VELOCITÀ DI TAGLIO Vc
 Vc. CUTTING SPEED
 Vc. SCHNITTGESCHWINDIGKEIT
 Vc. VITESSE DE COUPE

DETTAGLIO RICAMBI
 SPARE PARTS DETAILS
 DETAILS ZU DEN ERSATZTEILEN
 DÉTAIL DE PIÈCES DE RECHANGE

DATI TECNICI E CONSIGLI
 TECHNICAL DATA AND SUGGESTIONS
 TECHNISCHE DATEN UND EMPFEHLUNGEN
 DONNÉES TECHNIQUES ET CONSEILS



PAG. 190



PAG. 186

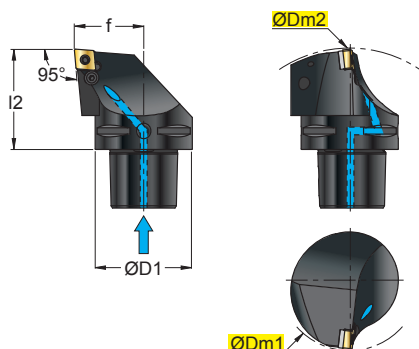


PAG. 1025

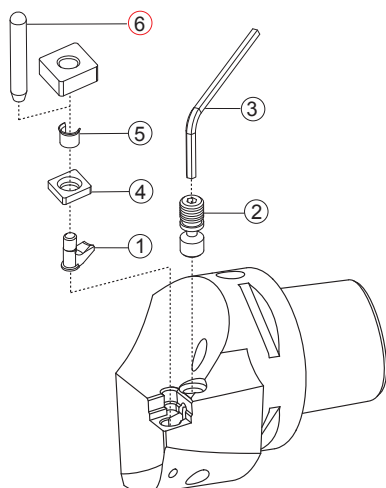
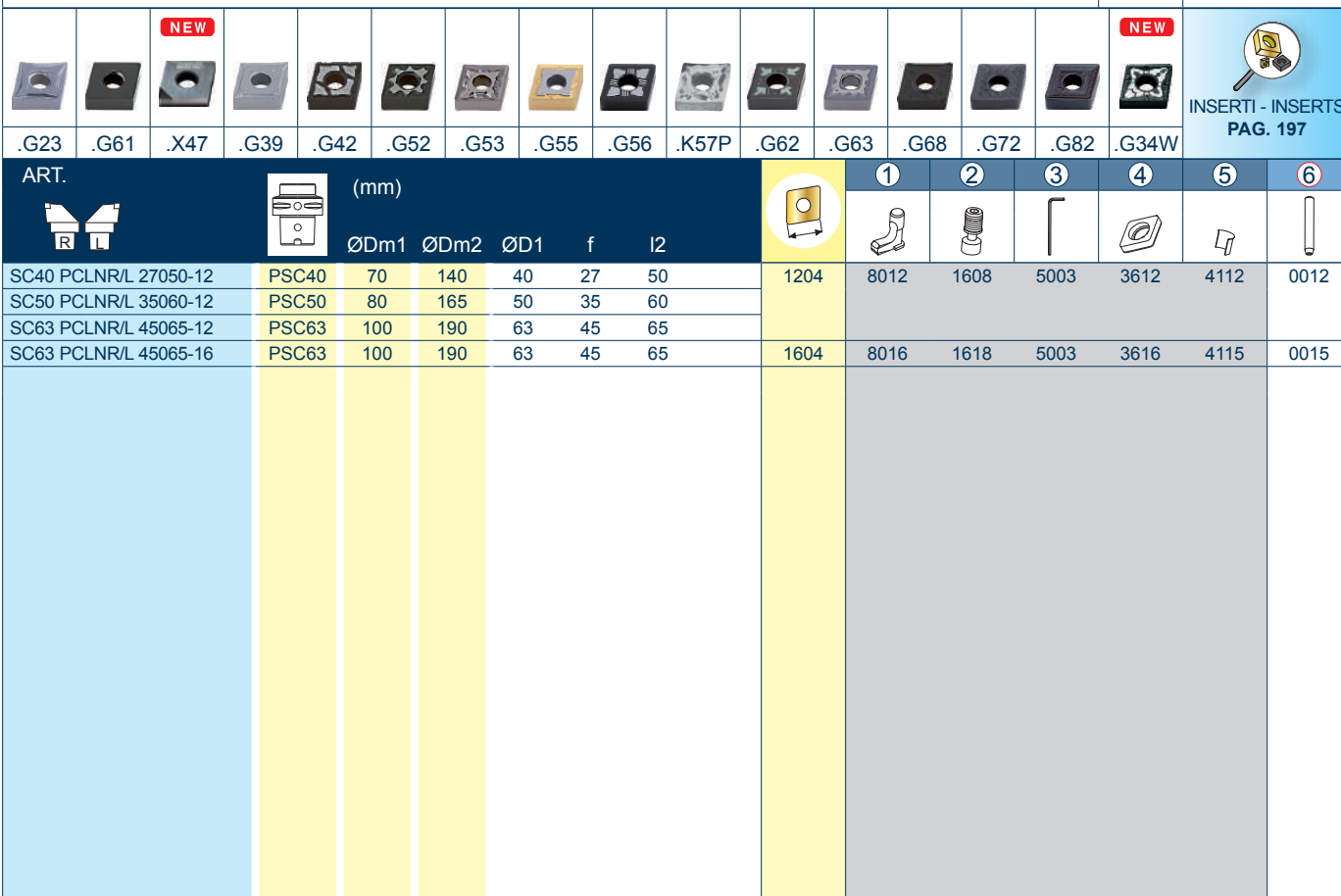


PAG. 1048

95°



P

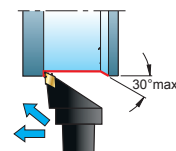
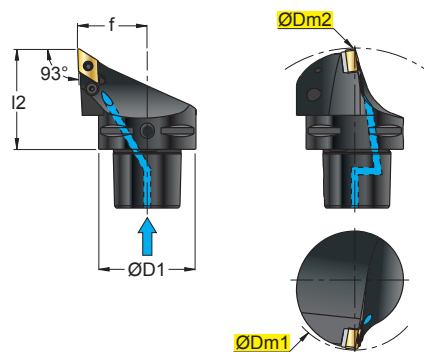


► **Vc**



SC.. PDJNR/L

93°



DNMA



DNMG



DNMM

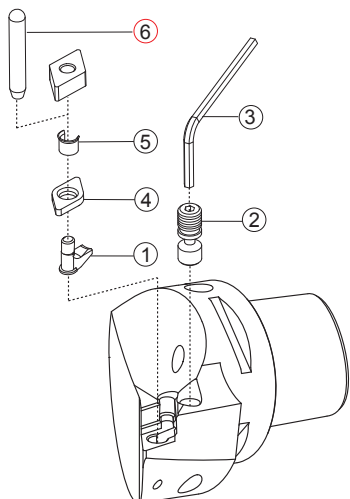


P



In figura utensile destro - Right-hand shown

												NEW			 INSERTI - INSERTS PAG. 199	
.G23	.G39	.G42	.G52	.G53	.G55	.G56	.G62	.G63	.G68	.G72	.G34W					
ART.					(mm)						①	②	③	④	⑤	⑥
					ØDm1	ØDm2	ØD1	f	l2							
SC50 PDJNR/L 35060-15		PSC50		80	165	50	35	60	1506		8415	1638	5003	3715	4112	0012
SC63 PDJNR/L 45065-15		PSC63		100	190	63	45	65								



CAMPI D'IMPIEGO DEGLI INSERTI PER TORNITURA
 FIELDS OF APPLICATION FOR TURNING INSERTS
 EINSATZGEBIETE FÜR DREHPLATTEN
 CHAMPS D'USINAGE DES PLAQUETTES POUR TOURNAGE



PAG. 190

VELOCITÀ DI TAGLIO Vc
 Vc. CUTTING SPEED
 Vc. SCHNITTGESCHWINDIGKEIT
 Vc. VITESSE DE COUPE



PAG. 186

DETTAGLIO RICAMBI
 SPARE PARTS DETAILS
 DETAILS ZU DEN ERSATZTEILEN
 DÉTAIL DE PIÈCES DE RECHANGE



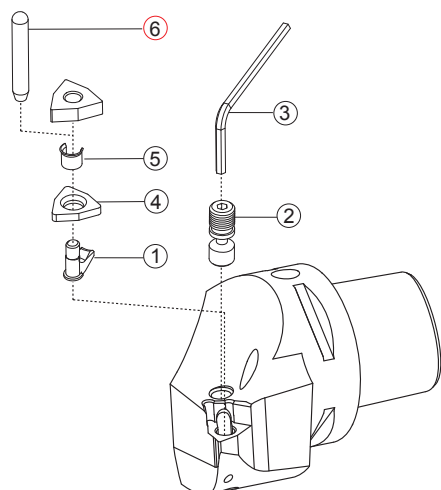
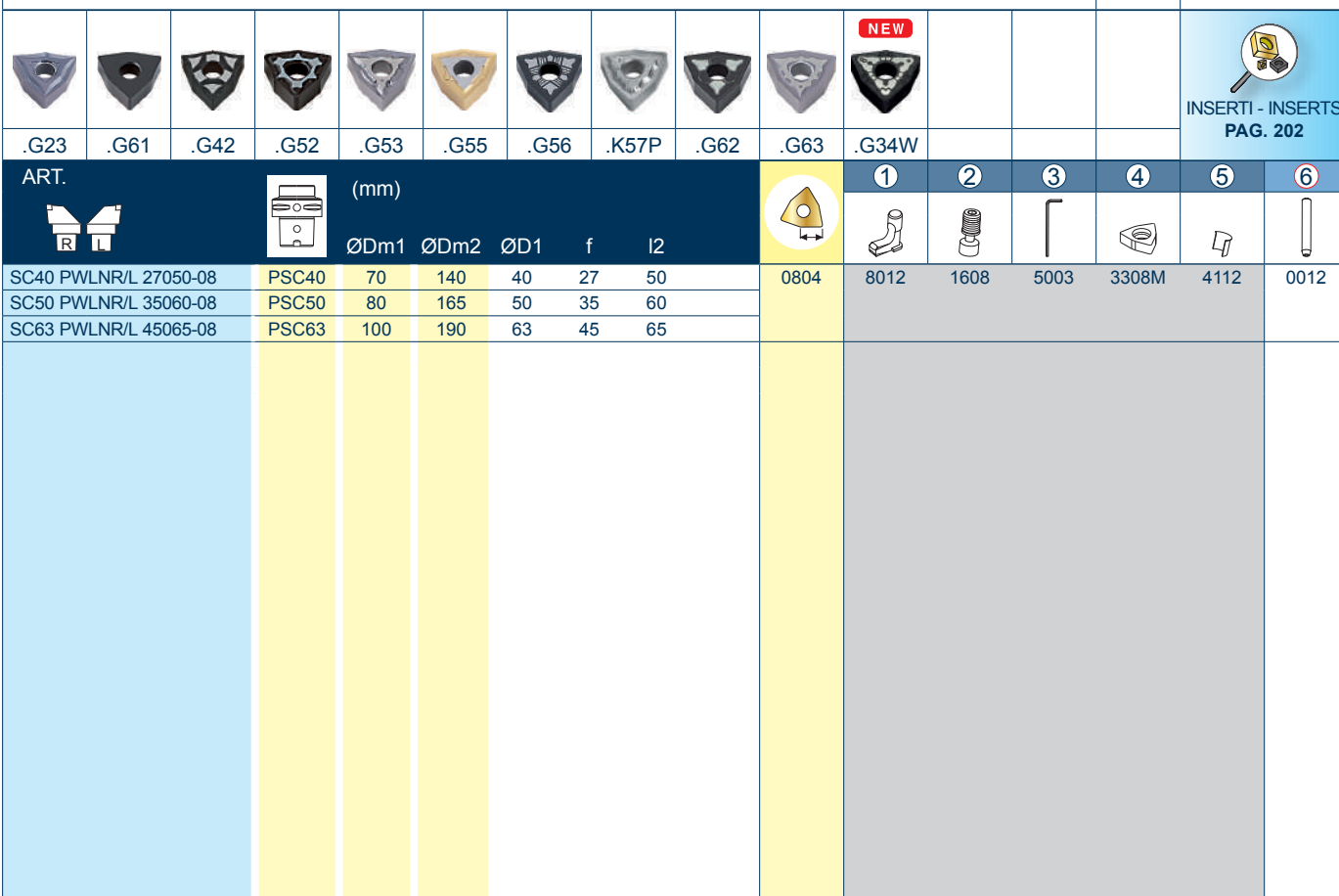
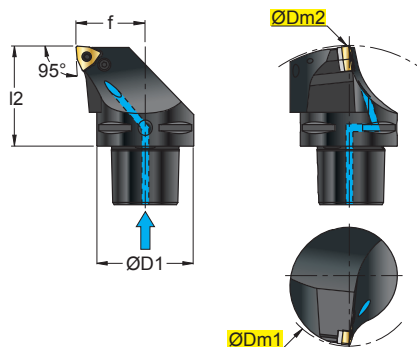
PAG. 1025

DATI TECNICI E CONSIGLI
 TECHNICAL DATA AND SUGGESTIONS
 TECHNISCHE DATEN UND EMPFEHLUNGEN
 DONNÉES TECHNIQUES ET CONSEILS



PAG. 1048

95°



PAG. 190



PAG. 186

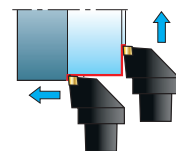
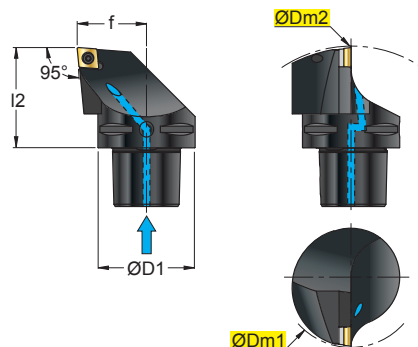


PAG. 1025



PAG. 1048

95°



A cross-sectional diagram of a dovetail joint. It shows a yellow rectangular pin being inserted into a grey rectangular hole. The hole has a dovetail shape with a 7-degree angle, indicated by a curved arrow and the text "7°".

A cross-sectional diagram of a tapered roller bearing. It shows a central shaft with a tapered roller inside a housing. The roller has a conical shape. The angle of the taper is indicated by a dimension line and labeled as 7° .

S



															
.B22	.G13	.G57P	.X47	.G39	.G42	.G52	.G32W								

ART.



(mm)



1

2

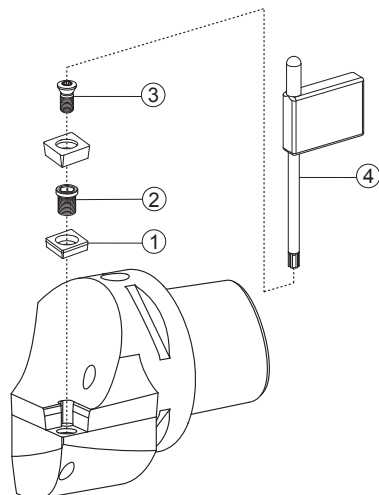
3

4

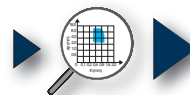


SC40 SCLCR/L 27050-12	PSC40	90	140	40	27	50	4,0+5,0
SC50 SCLCR/L 35060-12	PSC50	100	165	50	35	60	4,0+5,0
SC63 SCLCR/L 45065-12	PSC63	110	190	63	45	65	4,0+5,0

SC40 SCLCR/L 27050-12	PSC40	90	140	40	27	50	4,0÷5,0	1204	3611	BCL15	124513P	5520P
SC50 SCLCR/L 35060-12	PSC50	100	165	50	35	60	4,0÷5,0					
SC63 SCLCR/L 45065-12	PSC63	110	190	63	45	65	4,0÷5,0					



 CAMPI D'IMPIEGO DEGLI INSERTI PER TORNITURA
 FIELDS OF APPLICATION FOR TURNING INSERTS
 EINSATZGEBIETE FÜR DREHPLATTEN
 CHAMPS D'USINAGE DES PLAQUETTES POUR TOURNAGE



PAG. 190

 VELOCITÀ DI TAGLIO Vc
 Vc. CUTTING SPEED
 Vc. SCHNITTGESCHWINDIGKEIT
 Vc. VITESSE DE COUPE



PAG. 186

 DETTAGLIO RICAMBI
 SPARE PARTS DETAILS
 DETAILS ZU DEN ERSATZTEILEN
 DÉTAIL DE PIÈCES DE RECHANGE



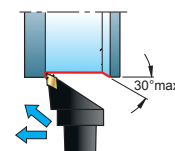
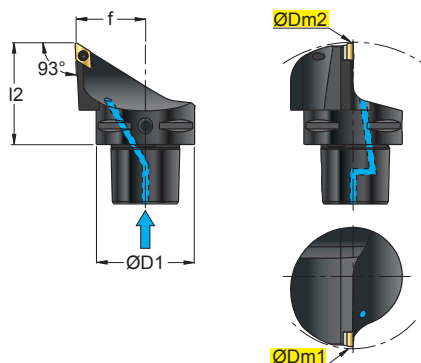
PAG. 1025

 DATI TECNICI E CONSIGLI
 **TECHNICAL DATA AND SUGGESTIONS**
 **TECHNISCHE DATEN UND EMPFEHLUNGEN**
 **DONNÉES TECHNIQUES ET CONSEILS**



PAG. 1048

93°

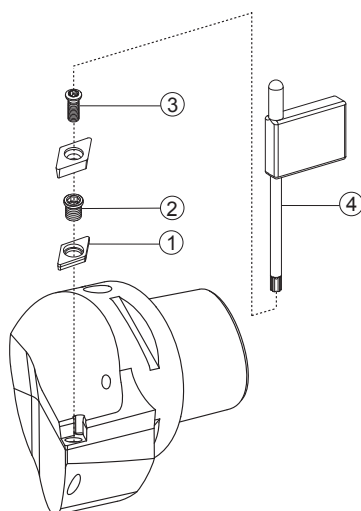


A cross-sectional diagram of a dovetail joint. It shows a central yellow rectangular piece (the pin) fitted into a wider, grey-hatched rectangular piece (the tail). The top surface of the joint is beveled, and the angle of this bevel is indicated by a dimension line and labeled as 7° .

A cross-sectional diagram of a dovetail joint. It shows a yellow rectangular pin being inserted into a gray rectangular slot. The slot has a dovetail shape with a 7-degree angle, indicated by a curved arrow and the text "7°".



INSERTI - INSERTS
PAG. 204

[illegible]

PAG. 190

► **Vc**

PAG. 186



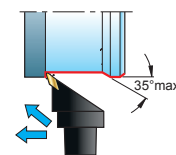
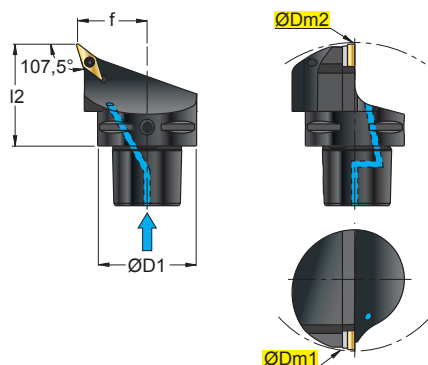
PAG. 1025



PAG. 1048

SC.. SVHBR/L

107,5°



VB.T



VB.W

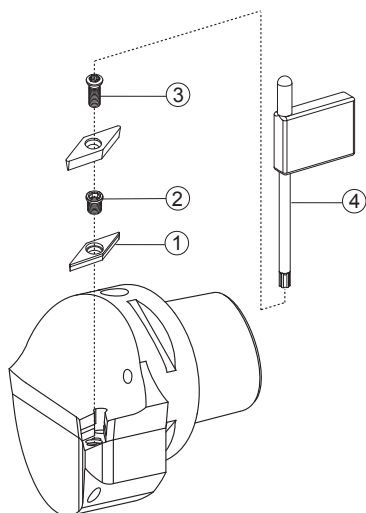


S

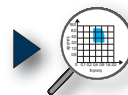


In figura utensile destro - Right-hand shown

NEW														INSERTI - INSERTS PAG. 207			
ART.				(mm)										1	2	3	4
				ØDm1	ØDm2	ØD1	f	l2	Nm								
SC40 SVHBR/L 27050-16				PSC40	120	140	40	27	50	3,0÷3,5	1604			3716	BCL7	123511P	5515P
SC50 SVHBR/L 35060-16				PSC50	120	165	50	35	60	3,0÷3,5							
SC63 SVHBR/L 45065-16				PSC63	120	190	63	45	65	3,0÷3,5							



CAMPI D'IMPIEGO DEGLI INSERTI PER TORNITURA
 FIELDS OF APPLICATION FOR TURNING INSERTS
 EINSATZGEBIETE FÜR DREHPLATTEN
 CHAMPS D'USINAGE DES PLAQUETTES POUR TOURNAGE



PAG. 190

VELOCITÀ DI TAGLIO Vc
 Vc. CUTTING SPEED
 Vc. SCHNITTGESCHWINDIGKEIT
 Vc. VITESSE DE COUPE



PAG. 186

DETTAGLIO RICAMBI
 SPARE PARTS DETAILS
 DETAILS ZU DEN ERSATZTEILEN
 DÉTAIL DE PIÈCES DE RECHANGE



PAG. 1025

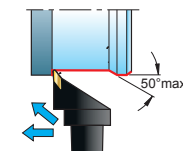
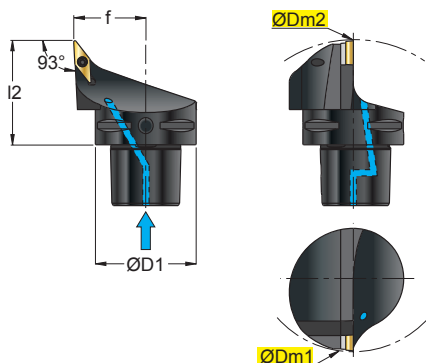
DATI TECNICI E CONSIGLI
 TECHNICAL DATA AND SUGGESTIONS
 TECHNISCHE DATEN UND EMPFEHLUNGEN
 DONNÉES TECHNIQUES ET CONSEILS



PAG. 1048

SC.. SVJBR/L

93°



VB.T



VB.W



S



In figura utensile destro - Right-hand shown

NEW



.X47

.G42

.G52

.G58

ART.



(mm)

ØDm1

ØDm2

ØD1

f

l2

Nm



1

2

3

4

5

SC40 SVJBR/L 27050-16

PSC40

120

140

40

27

50

3,0+3,5

1604

3716

BCL7

123511P

5515P

SC50 SVJBR/L 35060-16

PSC50

120

165

50

35

60

3,0+3,5

SC63 SVJBR/L 45065-16

PSC63

120

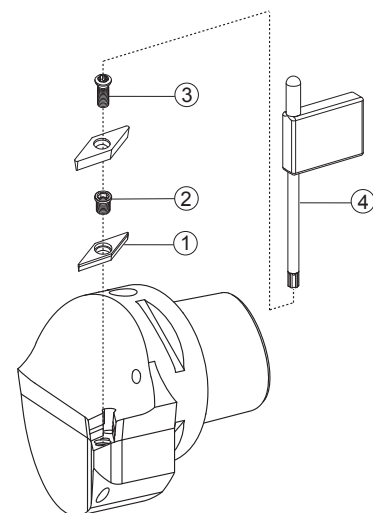
190

63

45

65

3,0+3,5



CAMPI D'IMPIEGO DEGLI INSERTI PER TORNITURA
 FIELDS OF APPLICATION FOR TURNING INSERTS
 EINSATZGEBIETE FÜR DREHPLATTEN
 CHAMPS D'USINAGE DES PLAQUETTES POUR TOURNAGE

VELOCITÀ DI TAGLIO Vc
 Vc. CUTTING SPEED
 Vc. SCHNITTGESCHWINDIGKEIT
 Vc. VITESSE DE COUPE

DETTAGLIO RICAMBI
 SPARE PARTS DETAILS
 DETAILS ZU DEN ERSATZTEILEN
 DÉTAIL DE PIÈCES DE RECHANGE

DATI TECNICI E CONSIGLI
 TECHNICAL DATA AND SUGGESTIONS
 TECHNISCHE DATEN UND EMPFEHLUNGEN
 DONNÉES TECHNIQUES ET CONSEILS



PAG. 190



PAG. 186



PAG. 1025

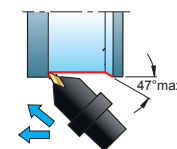
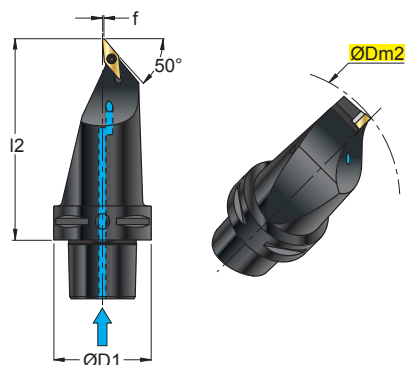


PAG. 1048

SC63 SVMBL

50°

95°



VB.T



VB.W



S



In figura utensile sinistro - Left-hand shown

NEW



.X47

.G42

.G52

.G58

ART.



(mm)

ØDm2

ØD1

f

l2

Nm



1

2

3

4

SC63 SVMBL 00130-16

PSC63

190

63

0

130

3,0+3,5

1604

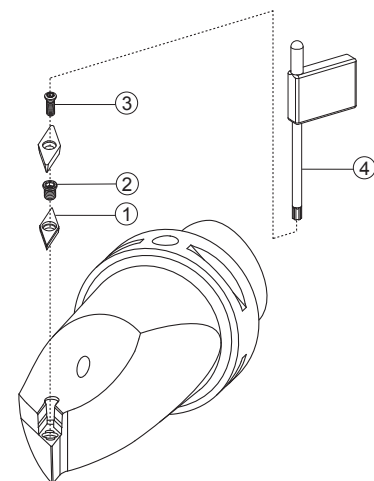
3716

BCL7

123511P

5515P

INSERTI - INSERTS
PAG. 207



CAMPI D'IMPIEGO DEGLI INSERTI PER TORNITURA
FIELDS OF APPLICATION FOR TURNING INSERTS
EINSATZGEBIETE FÜR DREHPLATTEN
CHAMPS D'USINAGE DES PLAQUETTES POUR TOURNAGE

VELOCITÀ DI TAGLIO Vc
Vc. CUTTING SPEED
Vc. SCHNITTGESCHWINDIGKEIT
Vc. VITESSE DE COUPE

DETTAGLIO RICAMBI
SPARE PARTS DETAILS
DETAILS ZU DEN ERSATZTEILEN
DÉTAIL DE PIÈCES DE RECHANGE

DATI TECNICI E CONSIGLI
TECHNICAL DATA AND SUGGESTIONS
TECHNISCHE DATEN UND EMPFEHLUNGEN
DONNÉES TECHNIQUES ET CONSEILS



PAG. 190



PAG. 186



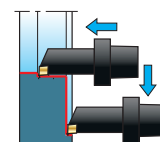
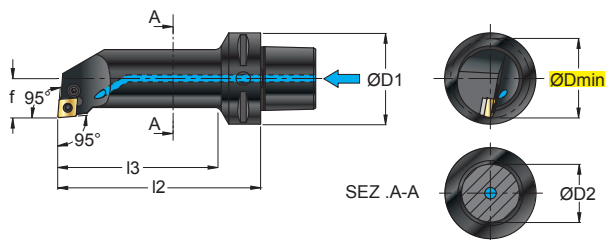
PAG. 1025



PAG. 1048

SC.. PCLNR/L

95°



CNMA



CNMG



CNMM

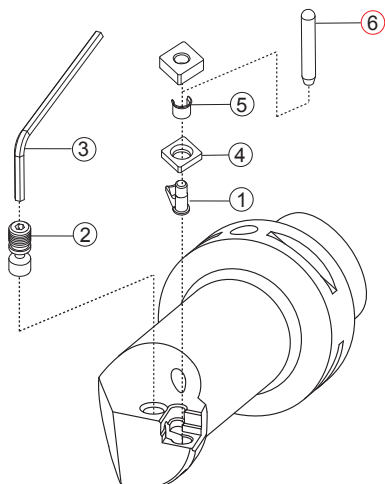


P



in figura utensile destro - right-hand shown

																																	
NEW																INSERTI - INSERTS PAG. 197																	
ART.										(mm)																							
																																	
SC40 PCLNR/L 22110-12				PSC40		39	40	32	22	110	87	1204		8012		1608		5003		3612		4112		0012									
SC50 PCLNR/L 22110-12				PSC50		39	50	32	22	110	87																						
SC63 PCLNR/L 27140-12				PSC63		48	63	40	27	140	111																						



CAMPI D'IMPIEGO DEGLI INSERTI PER TORNITURA
 FIELDS OF APPLICATION FOR TURNING INSERTS
 EINSATZGEBIETE FÜR DREHPLATTEN
 CHAMPS D'USINAGE DES PLAQUETTES POUR TOURNAGE

VELOCITÀ DI TAGLIO Vc
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 Vc. SCHNITTGESCHWINDIGKEIT
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 DONNÉES TECHNIQUES ET CONSEILS



PAG. 190



PAG. 186



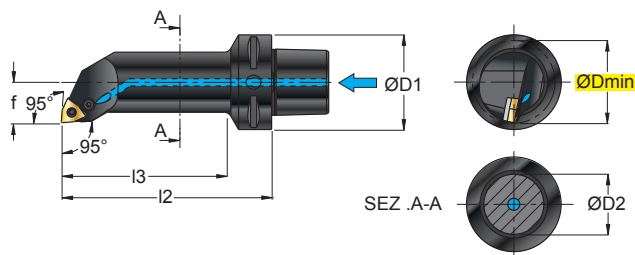
PAG. 1025



PAG. 1048

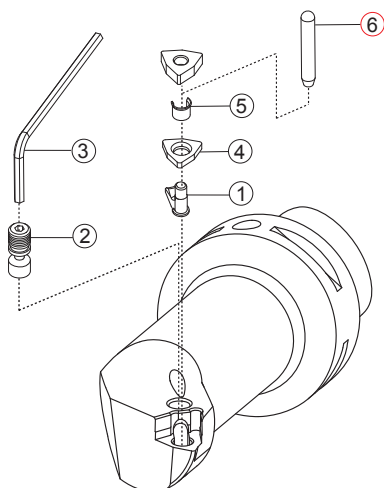
SC.. PWLNR/L

95°



In figura utensile destro - Right-hand shown

																		INSERTI - INSERTS PAG. 202
.G23	.G61	.G42	.G52	.G53	.G55	.G56	.K57P	.G62	.G63	.G34W								
ART.						(mm)						1	2	3	4	5	6	
												8012	1608	5003	3308M	4112	0012	
SC40 PWLNR/L 22110-08		PSC40		39		40		32		22		110		87				
SC50 PWLNR/L 22110-08		PSC50		39		50		32		22		110		87				
SC63 PWLNR/L 27140-08		PSC63		48		63		40		27		140		111				



CAMPI D'IMPIEGO DEGLI INSERTI PER TORNITURA
FIELDS OF APPLICATION FOR TURNING INSERTS
EINSATZGEBIETE FÜR DREHPLATTEN
CHAMPS D'USINAGE DES PLAQUETTES POUR TOURNAGE

VELOCITÀ DI TAGLIO Vc
Vc. CUTTING SPEED
Vc. SCHNITTGESCHWINDIGKEIT
Vc. VITESSE DE COUPE

DETTAGLIO RICAMBI
SPARE PARTS DETAILS
DETAILS ZU DEN ERSATZTEILEN
DÉTAIL DE PIÈCES DE RECHANGE

DATI TECNICI E CONSIGLI
TECHNICAL DATA AND SUGGESTIONS
TECHNISCHE DATEN UND EMPFEHLUNGEN
DONNÉES TECHNIQUES ET CONSEILS



PAG. 190



PAG. 186



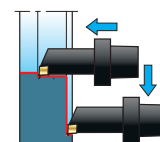
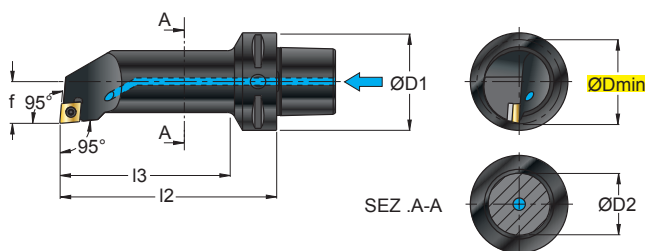
PAG. 1025



PAG. 1048

SC.. SCLCR/L

95°



CC.T



CC.W

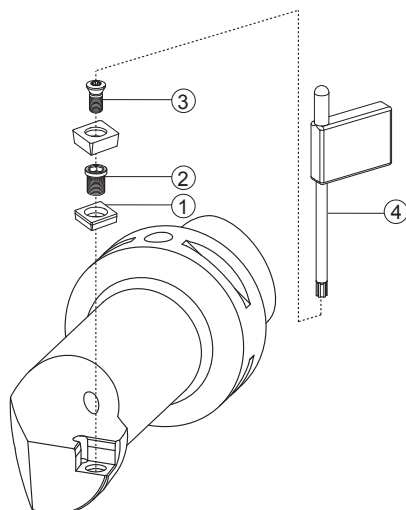


S

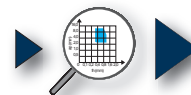


In figura utensile destro - Right-hand shown

																 INSERTI - INSERTS PAG. 203
.B22	.G13	.G57P	NEW .X47	.G39	.G42	.G52	NEW .G32W									
ART.				(mm)								1	2	3	4	 INSERTI - INSERTS PAG. 203
SC40 SCLCR/L 11070-09	PSC40	20	40	16	11	70	47	3,8+5,0	09T3	—	—	12409P	5515P			
SC40 SCLCR/L 13080-09	PSC40	25	40	20	13	80	58	3,8+5,0		—	—	124510P	5520P			
SC40 SCLCR/L 17090-12	PSC40	30	40	25	17	90	68	4,0+5,0	1204	3611	BCL15	124513P	5520P			
SC40 SCLCR/L 22110-12	PSC40	39	40	32	22	110	87	4,0+5,0	1204	3611	BCL15	124513P	5520P			
SC50 SCLCR/L 17090-12	PSC50	30	50	25	17	90	68	4,0+5,0	1204	—	—	124510P	5520P			
SC50 SCLCR/L 22110-12	PSC50	39	50	32	22	110	87	4,0+5,0	1204	3611	BCL15	124513P	5520P			
SC63 SCLCR/L 22125-12	PSC63	39	63	32	22	125	102	4,0+5,0								
SC63 SCLCR/L 22160-12	PSC63	39	63	32	22	160	132	4,0+5,0								
SC63 SCLCR/L 27140-12	PSC63	48	63	40	27	140	111	4,0+5,0								
SC63 SCLCR/L 27180-12	PSC63	48	63	40	27	180	151	4,0+5,0								



CAMPI D'IMPIEGO DEGLI INSERTI PER TORNITURA
 FIELDS OF APPLICATION FOR TURNING INSERTS
 EINSATZGEBIETE FÜR DREHPLATTEN
 CHAMPS D'USINAGE DES PLAQUETTES POUR TOURNAGE



PAG. 190

VELOCITÀ DI TAGLIO Vc
 Vc. CUTTING SPEED
 Vc. SCHNITTGESCHWINDIGKEIT
 Vc. VITESSE DE COUPE



PAG. 186

DETTAGLIO RICAMBI
 SPARE PARTS DETAILS
 DETAILS ZU DEN ERSATZTEILEN
 DÉTAIL DE PIÈCES DE RECHANGE



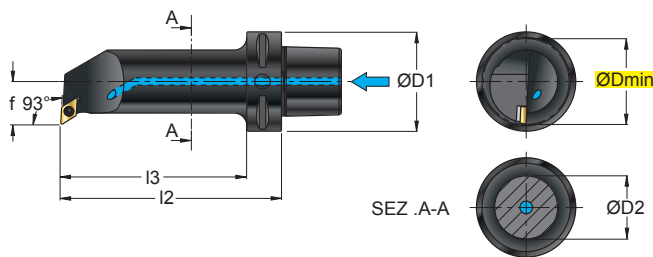
PAG. 1025

DATI TECNICI E CONSIGLI
 TECHNICAL DATA AND SUGGESTIONS
 TECHNISCHE DATEN UND EMPFEHLUNGEN
 DONNÉES TECHNIQUES ET CONSEILS



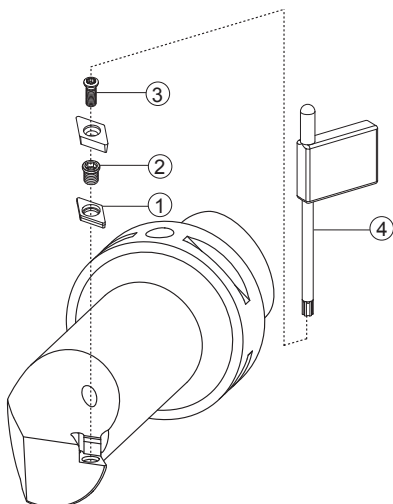
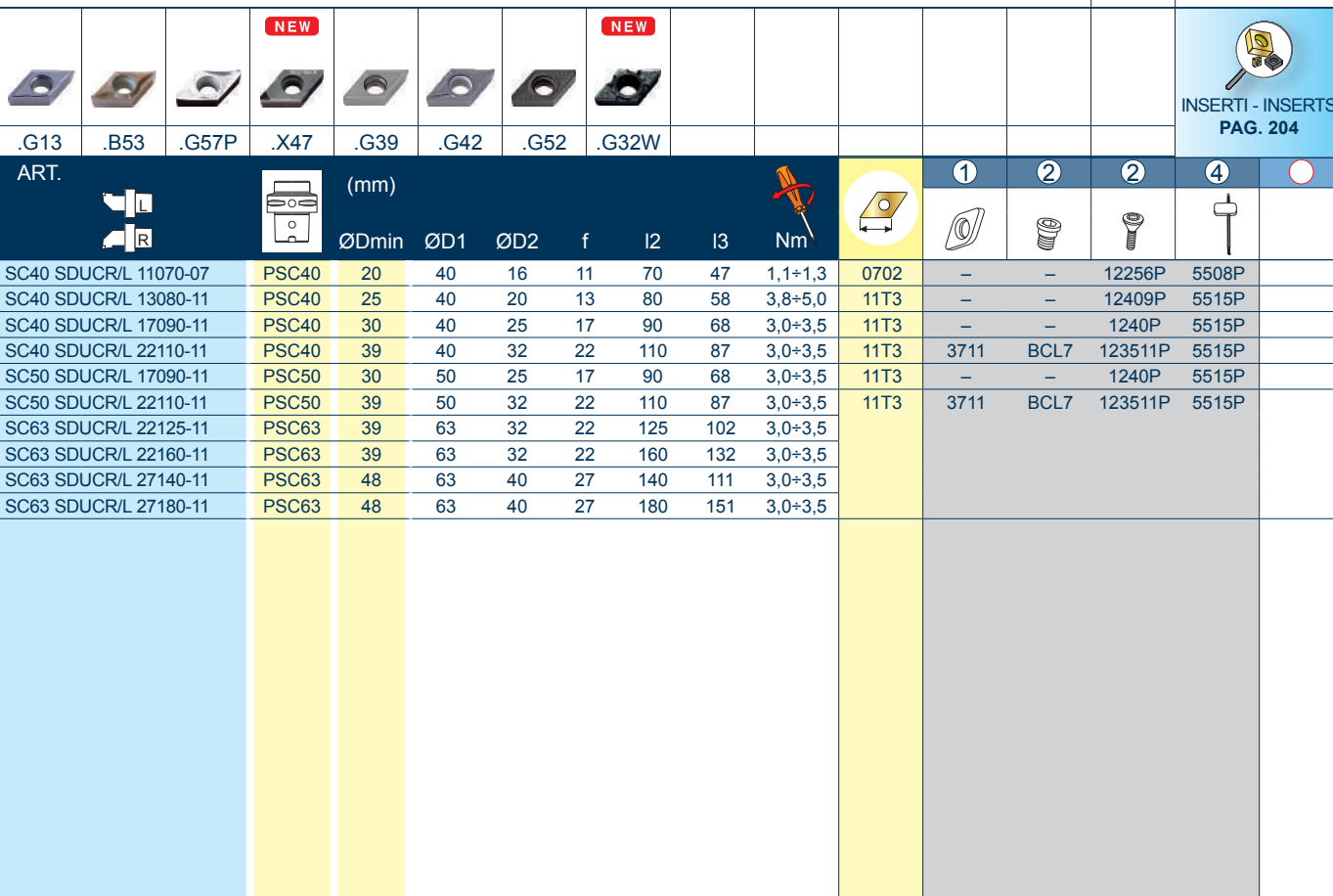
PAG. 1048

93°



A diagram showing a horizontal pipe submerged in a fluid. A manometer is connected to the pipe, with one end at the pipe's center and the other end at a 30-degree angle. The manometer fluid is shown in red, and the surrounding fluid is in blue. A label indicates a 30° manometer connection.

A cross-sectional diagram of a dovetail joint. It shows a wooden workpiece with a dovetail-shaped hole. A yellow-colored dovetail pin is inserted into the hole. The angle of the dovetail's tail is indicated as 7°.



PAG. 190



PAG. 186

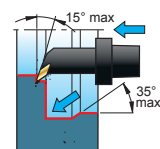
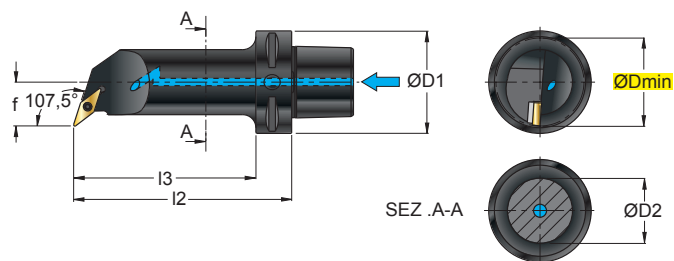
PAG. 1025



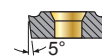
PAG. 1048

SC.. SVQBR/L

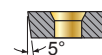
107,5°



VB.T



VB.W

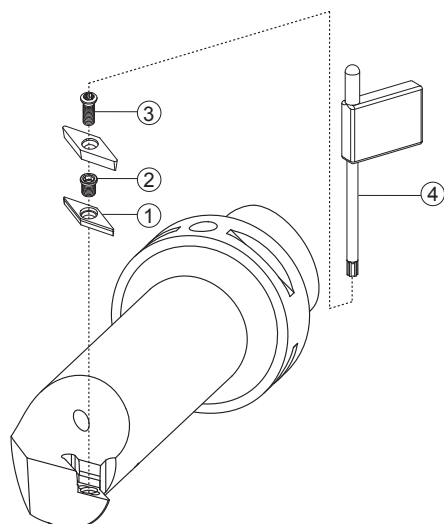


S



In figura utensile destro - Right-hand shown

NEW											INSERTI - INSERTS PAG. 207				



CAMPI D'IMPIEGO DEGLI INSERTI PER TORNITURA
 FIELDS OF APPLICATION FOR TURNING INSERTS
 EINSATZGEBIETE FÜR DREHPLATTEN
 CHAMPS D'USINAGE DES PLAQUETTES POUR TOURNAGE

VELOCITÀ DI TAGLIO Vc
 Vc. CUTTING SPEED
 Vc. SCHNITTGESCHWINDIGKEIT
 Vc. VITESSE DE COUPE

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DATI TECNICI E CONSIGLI
 TECHNICAL DATA AND SUGGESTIONS
 TECHNISCHE DATEN UND EMPFEHLUNGEN
 DONNÉES TECHNIQUES ET CONSEILS



PAG. 190



PAG. 186



PAG. 1025



PAG. 1048

SCELTA VELOCE QUICK PICK



- METODO PER LA SCELTA VELOCE DEL GRADO DI METALLO DURO PIÙ IDONEO. CONTARE IL NUMERO DI RETTANGOLI COLORATI
- METHOD FOR A QUICK CHOICE OF THE MOST SUITABLE SOLID CARBIDE GRADE. COUNT THE NUMBER OF COLORED RECTANGLES
- METHODE ZUR RASCHEN AUSWAHL DER GEEIGNETSTEN HARTMETALLSORTE. DIE ANZAHL DER BUNTEN RECHTECKE ZÄHLEN
- METHODE POUR CHOISIR RAPIDEMENT LE DEGRÉ LE PLUS APPROPRIÉ DU METAL DUR. COMPTER LES RECTANGLES EN COULEURS
- METODO PARA LA ELECCION RAPIDA DE EL GRADO MAS ADECUADO DE METAL DURO. CONTAR LOS NUMEROS DE RECTANGULOS COLORADOS

- GRADO MOLTO RESISTENTE ALL'USURA, SOLO PER FINITURA, LAVORAZIONI AD ALTE VELOCITÀ DI TAGLIO E CONDIZIONI MOLTO RIGIDE E STABILI
- GRADE WITH HIGH RESISTANCE TO WEAR; ONLY FOR FINISHING, MACHINING AT HIGH CUTTING SPEEDS, AND VERY RIGID AND STABLE CONDITIONS
- GRADO CON ALTA RESISTENZA ALL'USURA, DISCRETA TENACITÀ PER LAVORAZIONI A VELOCITÀ MEDIO ALTE ED AVANZAMENTI MEDI, IN CONDIZIONI NORMALI
- GRADE WITH HIGH RESISTANCE TO WEAR, GOOD TOUGHNESS, FOR MEDIUM-HIGH MACHINING AND MEDIUM FEED UNDER NORMAL CONDITIONS
- GRADO CON BUONA RESISTENZA ALL'USURA UNITA A BUONA TENACITÀ, PER LAVORAZIONI GENERICHE IN CONDIZIONI NORMALI
- GRADE WITH GOOD RESISTANCE TO WEAR; COMBINED WITH A GOOD DEGREE OF TOUGHNESS, FOR GENERAL MACHINING UNDER NORMAL CONDITIONS
- GRADO CON OTTIMA TENACITÀ PER LAVORAZIONI MEDIO PESANTI O IN CONDIZIONI POCO STABILI
- GRADE WITH EXCELLENTE TOUGHNESS, FOR MEDIUM HEAVY MACHINING OR MACHINING UNDER CONDITIONS OF LOW STABILITY
- GRADO CON ECCEZIONALE TENACITÀ PER LAVORAZIONI PESANTI CON BASSE VELOCITÀ DI TAGLIO, ALTI AVANZAMENTI O IN CONDIZIONI SFAVOREVOLI
- GRADE WITH EXCELLENTE TOUGHNESS, FOR HEAVY MACHINING WITH LOW CUTTING SPEEDS, HIGH FEED, OR UNDER UNFAVORABLE CONDITIONS

GUIDA FACILE EASY GUIDE

**CNMG 120408 .G63
F2425**

F	M	R
		● P Vc = 130-200 m/min
		○ M Vc = 100-250 m/min
		K
		N
		S
		H

fn = 0,25-0,50 mm

SAU
QUALITY TOOLS ENGINEERING

CNMG 120408 .G53 - F2425

P30-P40/M15-35

- GUIDA ALL'USO DELL'INSERTO. PRESENTE ANCHE SU OGNI ETICHETTA
- GUIDE FOR THE USE OF THE INSERT. ALSO LISTED ON EACH LABEL
- LEITFADEN ZUR VERWENDUNG DER WENDEPLATTE, AUCH AUF JEDEM AUFKLEBER VORHANDEN
- INSTRUCTIONS POUR L'UTILISATION DE LA PLAQUETTE. SE TROUVANT EGALEMENT SUR CHAQUE ETIQUETTE
- GUIA POR EL UTILIZO DE LA PLAQUITA, PRESENTE TAMBIEN EN CADA ETIQUETA

GR. VDI 3323 MATERIALI MATERIALS Pag. 1119	6	P	= ACCIAIO BASSO LEGATO HB 180	- LOW STEEL ALLOY
	14.1	M	= ACCIAIO INOSSIDABILE AUSTENITICO HB 180	- AUSTENITIC STAINLESS STEEL HB 180
	16	K	= GHISA GRIGIA HB 260	- GRAY CAST IRON HB 260
	21	N	= LEGHE DI ALLUMINIO HB 60	- ALUMINUM ALLOYS HB 60
	33	S	= LEGHE RESISTENTI AL CALORE (INCONEL) HB 250	- HEAT RESISTANT ALLOYS (INCONEL) HB 250
	38	H	= ACCIAIO TEMPRATO HRC 55	- TEMPERED STEEL HRC 55
	F		= FINITURA, LAVORAZIONI LEGGERE	- FINISHING, LIGHT MACHINING
	M		= LAVORAZIONI MEDIE, IMPIEGO GENERICO	- MEDIUM MACHINING, GENERAL USE
	R		= SGROSSATURA, LAVORAZIONI PESANTI	- ROUGHING, HEAVY MACHINING
	fn (mm)		= AVANZAMENTO PER TORNITURA	- FEED FOR TURNING
	fz (mm/z)		= AVANZAMENTO PER FRESATURA	- FEED FOR MILLING
	Vc (m/min)		= VELOCITÀ DI TAGLIO	- CUTTING SPEED
	●		= APPLICAZIONE CONSIGLIATA	- RECOMMENDED APPLICATION
	○		= APPLICAZIONE POSSIBILE	- POSSIBLE APPLICATION



INSERTI PER TORNITURA

TURNING INSERTS / WENDEPLATTEN ZUM DREHEN / PLAQUÉTTES DE TOURNAGE
PLAQUITAS DE TORNEADO



	COME SCEGLIERE I PARAMETRI DI LAVORO	Pag. 177
	PANORAMICA QUALITÀ DI TORNITURA	Pag. 179
	IMPIEGO DELLE QUALITÀ DI TORNITURA	Pag. 180
	VELOCITÀ DI TAGLIO DELLE QUALITÀ DI TORNITURA	Pag. 186
	CAMPI DI IMPIEGO DEI ROMPIRUCIOLI PER TORNITURA	Pag. 190
	DENOMINAZIONI DEGLI INSERTI PER TORNITURA	Pag. 196
	CATALOGO DISPONIBILITÀ INSERTI	Pag. 197

	HOW TO CHOOSE CUTTING DATA	Pag. 177
	GENERAL VIEW OF THE TURNING GRADE	Pag. 179
	APPLICATION OF THE TURNING GRADE	Pag. 180
	CUTTING SPEED OF TURNING GRADES	Pag. 186
	FIELDS OF APPLICATION FOR CHIP BREAKERS	Pag. 190
	INSERTS DESIGNATION FOR TURNING	Pag. 196
	INSERTS STOCK CATALOGUE	Pag. 197

	EINSTELLUNG DER SCHNITTDATEN	Pag. 177
	DREHEN-ÜBERSICHT	Pag. 179
	EINSATZ DER DREHEN	Pag. 180
	SCHNITTGESCHWINDIGKEIT DREHSORTEN (VC)	Pag. 186
	EINSATZGEBIETE DER SPANBRECHER	Pag. 190
	BEZEICHNUNG DER WENDEPLATTEN ZUM DREHEN	Pag. 196
	WENDEPLATTENBESTAND-KATALOG	Pag. 197

	COMMENT CHOISIR LES PARAMETRES DE SERVICE	Pag. 177
	VUE D'ENSEMBLE QUALITÉ DE TOURNAGE	Pag. 179
	UTILISATION DE LES QUALITÉS DE TOURNAGE	Pag. 180
	VITESSE DE COUPE DE LA QUALITÉ DE PLAQUETTES DE TOURNAGE	Pag. 186
	CHAMPS D'USINAGE DE LE BRISE-COPEAUX	Pag. 190
	DÉNOMINATION DES LES PLAQUETTES POUR LE TOURNAGE	Pag. 196
	CATALOGUE DE DISPONIBILITÉ PLAQUETTES	Pag. 197

COME SCEGLIERE I PARAMETRI DI LAVORO
HOW TO CHOOSE CUTTING DATA
EINSTELLUNG DER SCHNITTDATEN
COMMENT CHOISIR LES PARAMETRES DE SERVICE

FASE 1 - PHASE 1

SCELTA GR. VDI IN FUNZIONE DEL MATERIALE
 CHOICE OF VDI GR. DEPENDING ON MATERIAL
 WAHL VDI-SORTE JE NACH WERKSTOFF
 CHOIX GR. VDI EN FONCTION DU MATERIEL

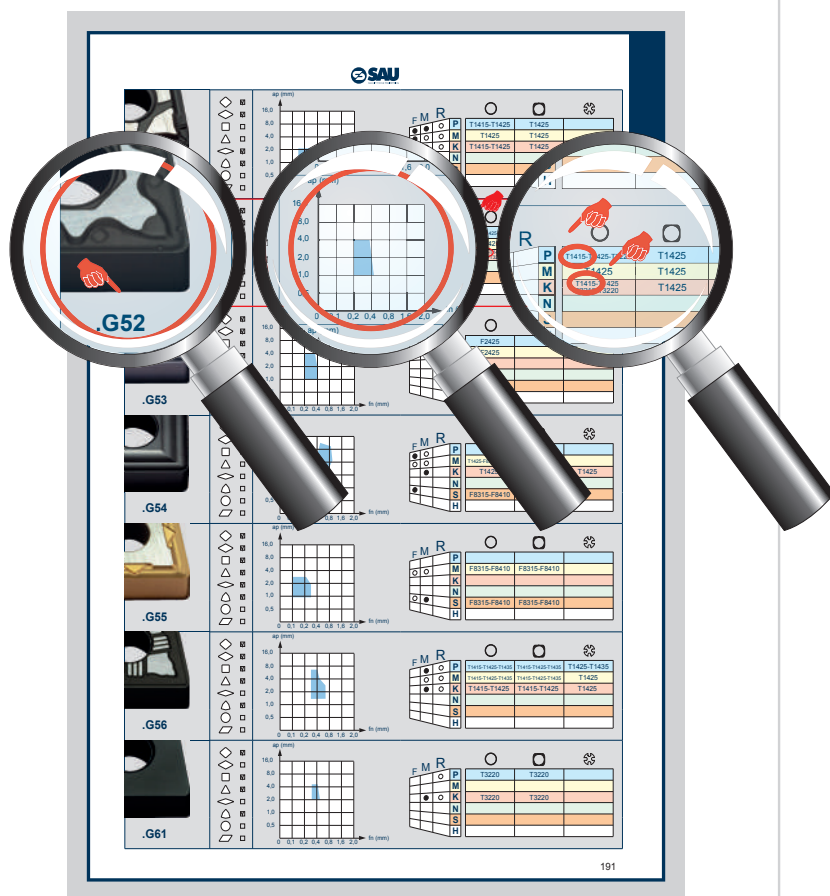
Tabella comparativa dei materiali - Materials comparison table
Materialvergleichstabelle - Tableau comparatif des matériaux

SAU
QUALITY TOOL ENGINEERING

UNI	WISTOFF	DIN	SAE	BS	AFNOR	JIS	kct.1	mc	VDI 3323 GR.
ACCIAIO NON LEGATO RICOTTO ANNEALED NOT-ALLOY STEEL									
C < 0,15% 125 HB									
CF 10 SPB 20	1.0722	10 SPB 20	11 L 08	-	10 PBF 2	-	SUM22	1350	0,22
CF 9 SMO 28	1.0715	9 SMO 28	12 L 13	230 M 07	9 SMO 28	-	SUM22	1350	0,22
CF 9 SMO 36	1.0736	9 SMO 36	12 L 14	240 M 07	9 SMO 36	-	SUM22L	1450	0,22
CF 9 SMO 45	1.0718	9 SMO 45	12 L 15	-	9 SMO 45	-	SUM22L	1450	0,22
CF 9 SMO 55	1.0737	9 SMO 55	12 L 16	-	9 SMO 55	-	SUM22L	1450	0,22
C15 C16	1.0401	C 15	1015	1015	AF 7 C 12, XC 18	-	S15C	1600	0,22
C20 C21	1.0402	C 20	1020	1020	AF 42 C 20	-	S20C	1600	0,22
C 25	1.1141	Ck 15	1015	1015	XC 15, XC 18	-	S25C	1600	0,22
ACCIAIO NON LEGATO RICOTTO ANNEALED NOT-ALLOY STEEL									
C 0,15-0,55% 180 HB									
C 35	1.0563	C 35	1330	150 M 28	20 M 5	-	S35C	1450	0,22
C 45	1.0563	C 45	1140	212 M 36	35 MF 4	-	S45C	1450	0,22
C 50	1.0563	C 50	1039	150 M 36	35 M 5	-	S50C	1450	0,22
C 55	1.0563	C 55	1039	150 M 36	35 M 5	-	S55C	1450	0,22
C 60	1.1274	Ck 55	1045	080 A 35	AF 55 C 35	-	S60C	1600	0,22
C 65	1.1274	Ck 60	1045	080 A 35	AF 55 C 35	-	S65C	1600	0,22
C 70	1.1274	Ck 65	1045	080 A 35	AF 55 C 35	-	S70C	1600	0,22
C 80	1.1274	Ck 70	1045	080 A 35	AF 55 C 35	-	S80C	1600	0,22
C 90	1.1274	Ck 80	1045	080 A 35	AF 55 C 35	-	S90C	1600	0,22
ACCIAIO NON LEGATO RICOTTO ANNEALED NOT-ALLOY STEEL									
C 0,15-0,55% 250 HB									
C 105	1.1545	C 105 W1	1110	150 M 28	20 M 5	-	S105C	1600	0,22
C 110	1.1545	C 110 W1	1110	150 M 28	20 M 5	-	S110C	1600	0,22
C 115	1.1545	C 115 W1	1110	150 M 28	20 M 5	-	S115C	1600	0,22
C 120	1.1545	C 120 W1	1110	150 M 28	20 M 5	-	S120C	1600	0,22
C 125	1.1545	C 125 W1	1110	150 M 28	20 M 5	-	S125C	1600	0,22
C 130	1.1545	C 130 W1	1110	150 M 28	20 M 5	-	S130C	1600	0,22
C 135	1.1545	C 135 W1	1110	150 M 28	20 M 5	-	S135C	1600	0,22
C 140	1.1545	C 140 W1	1110	150 M 28	20 M 5	-	S140C	1600	0,22
C 145	1.1545	C 145 W1	1110	150 M 28	20 M 5	-	S145C	1600	0,22
C 150	1.1545	C 150 W1	1110	150 M 28	20 M 5	-	S150C	1600	0,22
ACCIAIO NON LEGATO RICOTTO ANNEALED NOT-ALLOY STEEL									
C > 0,55% 300 HB									
C 160	1.1545	C 160 W1	1110	150 M 28	20 M 5	-	S160C	1600	0,24
C 165	1.1545	C 165 W1	1110	150 M 28	20 M 5	-	S165C	1600	0,24
C 170	1.1545	C 170 W1	1110	150 M 28	20 M 5	-	S170C	1600	0,24
C 175	1.1545	C 175 W1	1110	150 M 28	20 M 5	-	S175C	1600	0,24
C 180	1.1545	C 180 W1	1110	150 M 28	20 M 5	-	S180C	1600	0,24
C 185	1.1545	C 185 W1	1110	150 M 28	20 M 5	-	S185C	1600	0,24
C 190	1.1545	C 190 W1	1110	150 M 28	20 M 5	-	S190C	1600	0,24
C 195	1.1545	C 195 W1	1110	150 M 28	20 M 5	-	S195C	1600	0,24
C 200	1.1545	C 200 W1	1110	150 M 28	20 M 5	-	S200C	1600	0,24
C 205	1.1545	C 205 W1	1110	150 M 28	20 M 5	-	S205C	1600	0,24
C 210	1.1545	C 210 W1	1110	150 M 28	20 M 5	-	S210C	1600	0,24
C 215	1.1545	C 215 W1	1110	150 M 28	20 M 5	-	S215C	1600	0,24
C 220	1.1545	C 220 W1	1110	150 M 28	20 M 5	-	S220C	1600	0,24
C 225	1.1545	C 225 W1	1110	150 M 28	20 M 5	-	S225C	1600	0,24
C 230	1.1545	C 230 W1	1110	150 M 28	20 M 5	-	S230C	1600	0,24
C 235	1.1545	C 235 W1	1110	150 M 28	20 M 5	-	S235C	1600	0,24
C 240	1.1545	C 240 W1	1110	150 M 28	20 M 5	-	S240C	1600	0,24
C 245	1.1545	C 245 W1	1110	150 M 28	20 M 5	-	S245C	1600	0,24
C 250	1.1545	C 250 W1	1110	150 M 28	20 M 5	-	S250C	1600	0,24
C 255	1.1545	C 255 W1	1110	150 M 28	20 M 5	-	S255C	1600	0,24
C 260	1.1545	C 260 W1	1110	150 M 28	20 M 5	-	S260C	1600	0,24
C 265	1.1545	C 265 W1	1110	150 M 28	20 M 5	-	S265C	1600	0,24
C 270	1.1545	C 270 W1	1110	150 M 28	20 M 5	-	S270C	1600	0,24
C 275	1.1545	C 275 W1	1110	150 M 28	20 M 5	-	S275C	1600	0,24
C 280	1.1545	C 280 W1	1110	150 M 28	20 M 5	-	S280C	1600	0,24
C 285	1.1545	C 285 W1	1110	150 M 28	20 M 5	-	S285C	1600	0,24
C 290	1.1545	C 290 W1	1110	150 M 28	20 M 5	-	S290C	1600	0,24
C 295	1.1545	C 295 W1	1110	150 M 28	20 M 5	-	S295C	1600	0,24
C 300	1.1545	C 300 W1	1110	150 M 28	20 M 5	-	S300C	1600	0,24
C 305	1.1545	C 305 W1	1110	150 M 28	20 M 5	-	S305C	1600	0,24
C 310	1.1545	C 310 W1	1110	150 M 28	20 M 5	-	S310C	1600	0,24
C 315	1.1545	C 315 W1	1110	150 M 28	20 M 5	-	S315C	1600	0,24
C 320	1.1545	C 320 W1	1110	150 M 28	20 M 5	-	S320C	1600	0,24
C 325	1.1545	C 325 W1	1110	150 M 28	20 M 5	-	S325C	1600	0,24
C 330	1.1545	C 330 W1	1110	150 M 28	20 M 5	-	S330C	1600	0,24
C 335	1.1545	C 335 W1	1110	150 M 28	20 M 5	-	S335C	1600	0,24
C 340	1.1545	C 340 W1	1110	150 M 28	20 M 5	-	S340C	1600	0,24
C 345	1.1545	C 345 W1	1110	150 M 28	20 M 5	-	S345C	1600	0,24
C 350	1.1545	C 350 W1	1110	150 M 28	20 M 5	-	S350C	1600	0,24
C 355	1.1545	C 355 W1	1110	150 M 28	20 M 5	-	S355C	1600	0,24
C 360	1.1545	C 360 W1	1110	150 M 28	20 M 5	-	S360C	1600	0,24
C 365	1.1545	C 365 W1	1110	150 M 28	20 M 5	-	S365C	1600	0,24
C 370	1.1545	C 370 W1	1110	150 M 28	20 M 5	-	S370C	1600	0,24
C 375	1.1545	C 375 W1	1110	150 M 28	20 M 5	-	S375C	1600	0,24
C 380	1.1545	C 380 W1	1110	150 M 28	20 M 5	-	S380C	1600	0,24
C 385	1.1545	C 385 W1	1110	150 M 28	20 M 5	-	S385C	1600	0,24
C 390	1.1545	C 390 W1	1110	150 M 28	20 M 5	-	S390C	1600	0,24
C 395	1.1545	C 395 W1	1110	150 M 28	20 M 5	-	S395C	1600	0,24
C 400	1.1545	C 400 W1	1110	150 M 28	20 M 5	-	S400C	1600	0,24
C 405	1.1545	C 405 W1	1110	150 M 28	20 M 5	-	S405C	1600	0,24
C 410	1.1545	C 410 W1	1110	150 M 28	20 M 5	-	S410C	1600	0,24
C 415	1.1545	C 415 W1	1110	150 M 28	20 M 5	-	S415C	1600	0,24
C 420	1.1545	C 420 W1	1110	150 M 28	20 M 5	-	S420C	1600	0,24
C 425	1.1545	C 425 W1	1110	150 M 28	20 M 5	-	S425C	1600	0,24
C 430	1.1545	C 430 W1	1110	150 M 28	20 M 5	-	S430C	1600	0,24
C 435	1.1545	C 435 W1	1110	150 M 28	20 M 5	-	S435C	1600	0,24
C 440	1.1545	C 440 W1	1110	150 M 28	20 M 5	-	S440C	1600	0,24
C 445	1.1545	C 445 W1	1110	150 M 28	20 M 5	-	S445C	1600	0,24
C 450	1.1545	C 450 W1	1110	150 M 28	20 M 5	-	S450C	1600	0,24
C 455	1.1545	C 455 W1	1110	150 M 28	20 M 5	-	S455C	1600	0,24
C 460	1.1545	C 460 W1	1110	150 M 28	20 M 5	-	S460C	1600	0,24
C 465	1.1545	C 465 W1	1110	150 M 28	20 M 5	-	S465C	1600	0,24
C 470	1.1545	C 470 W1	1110	150 M 28	20 M 5	-	S470C	1600	0,24
C 475	1.1545	C 475 W1	1110	150 M 28	20 M 5	-	S475C	1600	0,24
C 480	1.1545	C 480 W1	1110	150 M 28	20 M 5	-	S480C	1600	0,24
C 485	1.1545	C 485 W1	1110	150 M 28	20 M 5	-	S485C	1600	0,24
C 490	1.1545	C 490 W1	1110	150 M 28	20 M 5	-	S490C	1600	0,24
C 495	1.1545	C 495 W1	1110	150 M 28	20 M 5	-	S495C	1600	0,24
C 500	1.1545	C 500 W1	1110	150 M 28	20 M 5	-	S500C	1600	0,24
C 505	1.1545	C 505 W1	1110	150 M 28	20 M 5	-	S505C	1600	0,24
C 510	1.1545	C 510 W1	1110	150 M 28	20 M 5	-	S510C	1600	0,24
C 515	1.1545	C 515 W1	1110	150 M 28	20 M 5	-	S515C	1600	0,24
C 520	1.1545	C 520 W1	1110	150 M 28	20 M 5	-	S520C	1600	0,24
C 525	1.1545	C 525 W1	1110	150 M 28	20 M 5	-	S525C	1600	0,24
C 530	1.1545	C 530 W1	1110	150 M 28	20 M 5	-	S530C	1600	0,24
C 535	1.1545	C 535 W1	1110	150 M 28	20 M 5	-	S535C	1600	0,24
C 540	1.1545	C 540 W1	1110	150 M 28	20 M 5	-	S540C	1600	0,24
C 545	1.1545	C 545 W1	1110	150 M 28	20 M 5	-	S545C	1600	0,24
C 550	1.1545	C 550 W1	1110	150 M 28	20 M 5	-	S550C	1600	0,24
C 555	1.1545	C 555 W1	1110	150 M 28	20 M 5	-	S555C	1600	0,24
C 560	1.1545	C 560 W1	1110	150 M 28	20 M 5				

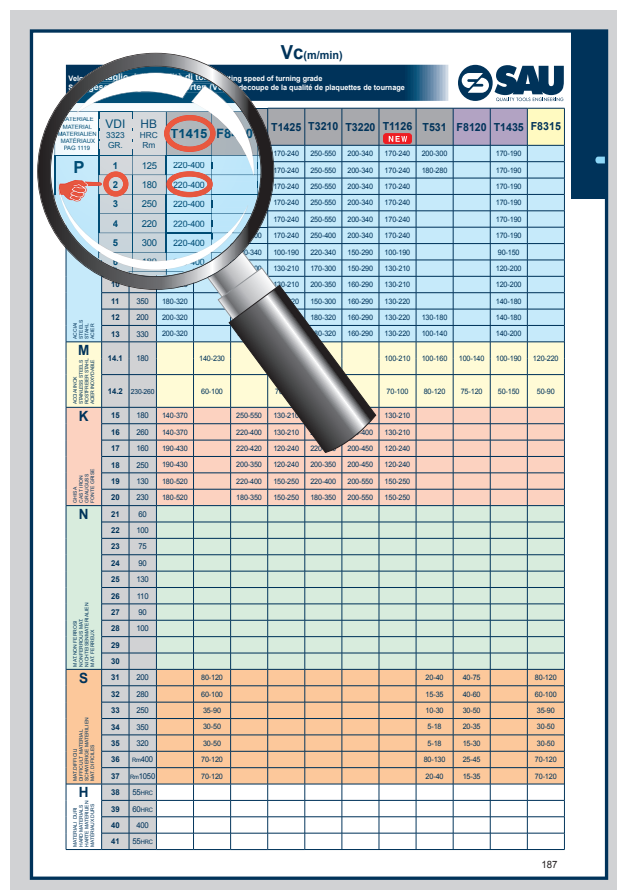
FASE 3 - PHASE 3

SCelta DELL'AVANZAMENTO
CHOICE OF FEED
EINSTELLUNG DES VORSCHUBS
CHOIX DE L'AVANCEMENT



FASE 4 - PHASE 4

SCelta DI VC IN FUNZIONE DEL GR. VDI
CHOICE OF VC DEPENDING ON VDI GR.
WAHL VC JE NACH WERKSTOFF
CHOIX DE VC EN FONCTION DU GR. VDI



DIN ISO 513	P ACCIAI STEELS STAHL ACIERS					M ACCIAI INOSSIDABILI STAINLESS STEELS ROSTFREIER STAHL ACIER INOXYDABLE				K GHISE CAST IRON GRAUGUSS FONTE GRISE					N NON FERROSI NONFERROUS NICHT-EISENMA PAS FERREUX				S MAT.DIFFICILI DIFFICULT MATERIAL SCHWIERIGE MATERIEN MAT.DIFICILES					H MATERIALI DURI HARD MATERIALS HARTE MATERIALIEN MATÉRIAUX DURS				
	01	10	20	30	40	50	10	20	30	40	01	10	20	30	40	01	10	20	30	01	10	20	30	40	01	10	20	30
HT																												
HW																												
HC																												
	DP																											
	TENACITÀ - TOUGHNESS - ZÄHIGKEIT - TÉNACITÉ																											
	RESISTENZA ALL'USURA - RESISTANCE TO WEAR - VERSCHLEISSFESTIGKEIT - RÉSISTANCE À L'USURE																											
	AVANZAMENTO - FEED - VORSCHUB - AVANCE																											
	VELOCITÀ - SPEED - GESCHWINDIGKEIT - VITESSE																											
HT	CERMET					HW					HC					DP												

HT

CERMET

HW

METALLO DURO NON RICOPERTO
UNCOATED CARBIDE
UNBESCHICHTETES HARTMETALL
MÉTAL DUR PAS RECOUVERT

HC

METALLO DURO RICOPERTO
COATED CARBIDE
BESCHICHTETES HARTMETALL
MÉTAL DUR RECOUVERT

DP

DIAMANTE POLICRISTALLINO (PCD)
POLYCRYSTALLINE DIAMOND (PCD)
POLYKRISTALLINER DIAMANT (PCD)
DIAMANT POLYCRISTALLIN (PCD)

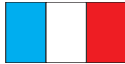
SAU	DIN ISO 513		MATERIALE - MATERIAL MATÉRIEL - MATÉRIEL							QUICK PICK		 INDICAZIONI - USO	
			PAG. 1119							PAG. 174			
			P	M	K	N	S	H	Tenacità Toughness				
			ACCIAI STEELS STAHL ACIER	ACCIAI INOX STAINLESS STEELS ROSTFREIER STAHL ACIER INOXYDABLE	GHISA CAST IRON GRAUGUSS FONTE GRISE	MAT NON FERROSI NON FERROUS MAT. NICHT-EISENMATERIALIEN	MAT. FERREUX	MAT DIFFICILI DIFFICULT MATERIAL SCHWERGE MATERIALIEN	MAT. DIFICILES	MATERIALI DURI HARD MATERIALS HARTE MATERIALIEN	MATERIALIA DURS		
C4010	HT	P10-20 M05-15 K05-15	○	●	○						○	●	- QUALITÀ UNIVERSALE - ALTA RESISTENZA AL CALORE E ALL'USURA, BUONA TENACITÀ - INDICATO PER LE ALTE VELOCITÀ DI TAGLIO
DT61T	HT	P05-30 M05-30 K05-30	●	●	○	○						●	- ALTA RESISTENZA ALL' USURA E BUONA TENACITÀ - INDICATO PER ALTE VELOCITÀ DI TAGLIO IN SEMIFINITURA E FINITURA
DT63	HT	P05-25 M05-25 K05-25	●	●	●						○	●	- QUALITÀ MICROGRANO MOLTO RESISTENTE ALLA ROTTURA ED ALL'USURA - INDICATO PER MEDIO-ALTE VELOCITÀ DI TAGLIO IN FINITURA.
T110	HW	K05-15			○	●	○				○	●	- ALTA RESISTENZA ALL' USURA , ELEVATA STABILITÀ DEL FILO TAGLIANTE, BASSA TENDENZA ALL'INCOLLAMENTO - INDICATO PER MEDIE VELOCITÀ DI TAGLIO SU GHISA GRIGIA E ALTE PER MATERIALI NON FERROSI PER ASPORTAZIONI MEDIE IN SGROSSATURA
T115	HW	K10-20 N10-20 S10-20			○	●	○				○	●	- QUALITÀ MICROGRANO CON BUONA RESISTENZA ALL' USURA ELEVATA STABILITÀ DEL FILO TAGLIANTE, BASSA TENDENZA ALL'INCOLLAMENTO - INDICATO PER MEDIO-BASSE VELOCITÀ DI TAGLIO SU GHISA GRIGIA E ALTE PER MATERIALI NON FERROSI
T120	HW	M10-20 K10-25		○	●	●					○	●	- QUALITÀ MICROGRANO CON BUONA TENACITÀ - INDICATO PER MEDIO-BASSE VELOCITÀ DI TAGLIO E ALTI AVANZAMENTI. PER ASPORTAZIONI MEDIE IN SGROSSATURA
F2120	HC PVD	M15-25 K15-25		●	○	○	○				●	○	- QUALITÀ SPECIFICA PER LA LAVORAZIONE DEGLI ACCIAI INOX, PARTICOLARMENTE ADATTO ALLE LAVORAZIONI DI SUPER FINITURA - PUÒ ESSERE IMPIEGATO NELLE LAVORAZIONI DI GHISA, ALLUMINIO E LEGHE RESISTENTI AL CALORE
T2120 NEW	HC CVD	P30-40 M15-35	○	●							●	○	- SUBSTRATO DI CARBURO APPPOSITAMENTE SVILUPPATO E RIVESTITO IN CVD INNOVATIVO - QUALITÀ CON UN'ECCELLENTE ROBUSTEZZA SENZA PREGIUDICARE LA DUREZZA A CALDO E LA RESISTENZA ALL'USURA.
T1625	HC CVD	P10-40 M05-25 K10-40	●	○	○							●	- QUALITÀ PER UNA VASTA GAMMA DI MATERIALI - ADATTO PER LE LAVORAZIONI DI SGROSSATURA E FINITURA
F2425	HC PVD	P30-40 M15-35	○	●							○	●	- SUBSTRATO DI CARBURO APPPOSITAMENTE SVILUPPATO, RIVESTIMENTO IN PVD INNOVATIVO. - QUALITÀ CON UN'ECCELLENTE ROBUSTEZZA SENZA PREGIUDICARE LA DUREZZA A CALDO E LA RESISTENZA ALL'USURA SIA A BASSE CHE AD ALTE VELOCITÀ DI TAGLIO

● APPLICAZIONE CONSIGLIATA
RECOMMENDED APPLICATION
EMPFOHLENER EINSATZ
APPLICATION CONSEILLÉE

○ APPLICAZIONE POSSIBILE
POSSIBLE APPLICATION
MÖGLICHE ANWENDUNG
APPLICATION POSSIBLE

● APPLICAZIONE CONSIGLIATA
RECOMMENDED APPLICATION
EMPFOHLENER EINSATZ
APPLICATION CONSEILLÉE

○ APPLICAZIONE POSSIBILE
POSSIBLE APPLICATION
MÖGLICHE ANWENDUNG
APPLICATION POSSIBLE

 INDICATIONS - USE	 GEBRAUCHSANWEISUNGEN	 INDICATION - USAGE
- UNIVERSAL GRADE - HIGH HEAT AND WEAR RESISTANCE, GOOD TOUGHNESS - SUITABLE FOR HIGH CUTTING SPEEDS	- UNIVERSALSORTE - HOHE HITZE- UND VERSCHLEISSBESTÄNDIGKEIT, GUTE ZÄHIGKEIT - FÜR HOHE SCHNITTGESCHWINDIGKEITEN GEEIGNET	- QUALITE UNIVERSELLE - HAUTE RESISTANCE A LA CHALEUR ET A L'USURE, BONNE TENACITE - INDIQUE POUR LES HAUTES VITESSES DE COUPE
-HIGH RESISTANCE TO WEAR AND GOOD TOUGHNESS -SUITABLE FOR HIGH CUTTING SPEEDS FOR SEMI-FINISHING AND FINISHING	-HÖHE VERSCHLEISSFESTIGKEIT UND GUTE ZÄHIGKEIT -FÜR HOHE SCHNITTGESCHWINDIGKEITEN BEIM HALBSCHLICHTEN UND SCHLICHTEN	-HAUTE RÉSISTANCE À L'USURE ET BONNE TENACITÉ -INDIQUÉ POUR HAUTE VITESSE DE COUPE EN SEMIFINISSAGE ET FINISSAGE
-MICROGRAIN GRADE WITH VERY HIGH ULTIMATE STRENGTH AND RESISTANCE TO WEAR -SUITABLE FOR MEDIUM-HIGH CUTTING SPEEDS FOR FINISHING	-MIKROKORNSORTE MIT SEHR HOHER BRUCH- UND VERSCHLEISSFESTIGKEIT -FÜR HOHE SCHNITTGESCHWINDIGKEITEN BEIM SCHLICHTEN GEEIGNET	-QUALITÉ DE MICROGRAIN TRÈS RÉSIDANT À LA RUPTURE ET À L'USURE -INDIQUÉ POUR HAUTE VITESSE DE COUPE EN FINISSAGE
-HIGH RESISTANCE TO WEAR, HIGH STABILITY OF THE CUTTING EDGE, LOW TENDENCY TO STICKING -SUITABLE FOR MEDIUM CUTTING SPEEDS ON GRAY IRON AND HIGH CUTTING SPEEDS AND NONFERROUS MATERIALS.FOR ROUGHING WITH MEDIUM REMOVAL OF MATERIAL	-HOHE VERSCHLEISSFESTIGKEIT, HOHE STABILITÄT DER SCHNEIDE, NIEDRIGE NEIGUNG ZUR VERLEBUNG -FÜR MITTEL-NIEDRIGE SCHNITTGESCHWINDIGKEITEN BEI GRAUGUSS UND NE MATERIALIEN FÜR MITTLERE ZERSPANNUNG BEIM SCHRUPPEN GEEIGNET	-HAUTE RÉSISTANCE A' L'USURE, STABILITÉ ÉLEVÉE DU TRANCHANT, BASSE TENDANCE AU ENCOLLAGE -INDIQUÉE POUR MOYENNE-FAIBLE VITESSE DE COUPE SUR FONTE GRISE ET MATERIAL NON FERROUX, POUR MOYEN EMPORTATION EN ÉBAUCHAGE
- MICROGRAIN GRADE WITH GOOD WEAR RESISTANCE, HIGH CUTTING EDGE STABILITY, LOW TENDENCY TO STICKING - SUITABLE FOR LOW-MEDIUM CUTTING SPEEDS ON GREY CAST IRON AND OTHER NON-FERROUS MATERIALS	- FEINKORNSORTE MIT GUTER VERSCHLEISSBESTÄNDIGKEIT, HOHE ECKENSTABILITÄT, GERINGERÉ NEIGUNG ZUM KLEBEN - FÜR MITTLERE BIS NIEDRIGE SCHNITTGESCHWINDIGKEITEN FÜR GUSS UND ANDERE NICHT-EISENMATERIALIEN GEEIGNET	- QUALITE MICROGRAIN AVEC BONNE RESISTANCE A L'USURE ELEVEE, STABILITE DU FIL TRANCHANT, FAIBLE TENDANCE A L'ADHERENCE - INDIQUE POUR DES VITESSES HAUTES-MOYENNES DE COUPE SUR FONTE GRISE ET VITESSES HAUTES POUR DES MATERIAUX NON FERREUX
- MICROGRAIN GRADE WITH GOOD TOUGHNESS -SUITABLE FOR MEDIUM CUTTING SPEEDS AND HIGH FEED FOR ROUGHING WITH MEDIUM REMOVAL OF MATERIAL	-MIKROKORN SORTA MIT GUTER ZÄHIGKEIT -FÜR MITTEL-NIEDRIGE SCHNITTGESCHWINDIGKEITEN GROSSE VORSCHÜBE FÜR MITTLERE ZERSPANNUNG BEIM SCHRUPPEN GEEIGNET	-QUALITÉ DE MICROGRAIN AVEC BONNE TENACITÉ -INDIQUÉE POUR MOYENNE-FAIBLE VITESSE DE COUPE ET HAUTE DÉPLACEMENT POUR MOYEN EMPORTATION EN ÉBAUCHAGE
- SPECIFIC GRADE FOR INOX STEEL, PARTICULARLY SUITABLE FOR SUPER-FINISHING - IT CAN BE USED FOR CAST IRON, ALUMINIUM AND HEAT-RESISTANT ALLOYS	- SPEZIALSORTE FÜR INOX-STAHL, BESONDERS ZUM FEIN-SCHLICHTEN GEEIGNET -EINSETZBAR FÜR GUSS, ALUMINIUM UND HITZEBESTÄNDIGE LEGIERUNGEN	- QUALITE SPECIFIQUE POUR L'USINAGE DES ACIERS INOX, SPECIALEMENT PREVUE POUR LES USINAGES DE SUPER FINITION - PEUT ETRE EMPLOYEE DANS LES USINAGES DE FONTE, ALUMINIUM ET ALLIAGES RESISTANTS A LA CHALEUR
- SPECIALLY DEVELOPED CARBIDE SUBSTRATE, INNOVATIVE CVD COATING - GRADE WITH EXCELLENT TOUGHNESS WHICH DOES NOT AFFECT RED HARDNESS AND WEAR RESISTANCE	- SPEZIELL ENTWICKELTES KARBIDSUBSTRAT, INNOVATIVE CVD-BESCHICHTUNG. - SORTA MIT HERVORRAGENDER ROBUSTHEIT BEI UNVERÄNDERTER WARMHÄRTE UND VERSCHLEISSBESTÄNDIGKEIT	- SUBSTRAT DE CARBURE SPÉCIALEMENT DÉVELOPPÉ, REVÊTEMENT EN CVD INNOVANT. - QUALITÉ AVEC UNE ROBUSTESSE EXCELLENTE SANS PORTER PRÉJUDICE À LA DURETÉ À CHAUD ET À LA RÉSISTANCE À L'USURE
- GRADE FOR A WIDE RANGE OF MATERIALS - SUITABLE FOR ROUGHING AND FINISHING	- SORTA FÜR EINE VIELZAHL VON MATERIALIEN - FÜR SCHRUPPEN UND SCHLICHTEN GEEIGNET	- QUALITE POUR UNE VASTE GAMME DE MATERIAUX - PREVU POUR LES USINAGES DE DEGROSSISSAGE ET DE FINITION
- SPECIALLY DEVELOPED CARBIDE SUBSTRATE, INNOVATIVE PVD COATING - GRADE WITH EXCELLENT TOUGHNESS WHICH DOES NOT AFFECT RED HARDNESS AND WEAR RESISTANCE, AT BOTH LOW AND HIGH CUTTING SPEEDS	- SPEZIELL ENTWICKELTES KARBIDSUBSTRAT, INNOVATIVE PVD-BESCHICHTUNG. - SORTA MIT HERVORRAGENDER ROBUSTHEIT BEI UNVERÄNDERTER WARMHÄRTE UND VERSCHLEISSBESTÄNDIGKEIT SOWOHL MIT NIEDRIGEN ALS AUCH MIT HOHEN SCHNITTGESCHWINDIGKEITEN	- SUBSTRAT DE CARBURE SPÉCIALEMENT DÉVELOPPÉ, REVÊTEMENT EN PVD INNOVANT. - QUALITÉ AVEC UNE ROBUSTESSE EXCELLENTE SANS PORTER PRÉJUDICE À LA DURETÉ À CHAUD ET À LA RÉSISTANCE À L'USURE À BASSES VITESSES COMME À HAUTES VITESSES DE COUPE

HT CERMET

HW

METALLO DURO NON RICOPERTO
UNCOATED CARBIDE
UNBESCHICHTETES HARTMETALL
MÉTAL DUR PAS RECOUVERT

HC

METALLO DURO RICOPERTO
COATED CARBIDE
BESCHICHTETES HARTMETALL
MÉTAL DUR RECOUVERT

DP

DIAMANTE POLICRISTALLINO (PCD)
POLYCRYSTALLINE DIAMOND (PCD)
POLYKRISTALLINER DIAMANT (PCD)
DIAMANT POLYCRISTALLIN (PCD)

SAU	DIN ISO 513		MATERIALE - MATERIAL MATERIALIEN - MATÉRIAUX PAG. 1119						QUICK PICK PAG. 174	Tenacità + Toughness -			INDICAZIONI - USO
			P	M	K	N	S	H					
			ACCIAI STEELS STAHL ACIER	ACCIAI INOX STAINLESS STEELS ROSTFREIER STAHL ACIER INOXYDABLE	GHISA CAST IRON GRAUGUSS FONTE GRISE	MAT. NON FERROSI NON-FERROUS MAT. NICHT-EISENMATERIALIEN	MAT. DIFFICILI DIFFICULT MATERIAL SCHWERE MATERIALIEN	MAT. DURI HARD MATERIALS HARTE MATERIALIEN					
F2435	HC	P35-45	○	●									- SUBSTRATO DI CARBURO APPOSITAMENTE SVILUPPATO - RIVESTIMENTO IN PVD INNOVATIVO, FORNISCE UN'ECCELLENTI ROBUSTEZZA E OTTIMA TENACITÀ SENZA PREGIUDICARE LA DUREZZA A CALDO SIA A BASSE CHE AD ALTE VELOCITÀ DI TAGLIO
	PVD	M25-45											
F8410	HC	M05-20		○				●					- ECCELLENTE RESISTENZA AL CALORE E ALL'USURA - IDEALE PER LAVORAZIONI DELLE SUPERLEGHE
	PVD	S05-20											
T3111 NEW	HC	P01-20	○		●								- GRADO DI TORNITURA SPECIFICO PER LA LAVORAZIONE DELLA GHISA - OTTIMA RESISTENZA ALL'USURA
	CVD	K05-20											
T1415	HC	P05-25	●		○								- GRADO INSERTO IDEALE PER LA PRODUZIONE AD ALTO VOLUME - BUONA RESISTENZA AL CALORE CHE LO RENDE PERFETTAMENTE ADATTO PER LA LAVORAZIONE A SECCO ANCHE AD ALTE VELOCITÀ DI TAGLIO
	CVD	K10-35											
T1425	HC	P15-35	●	○	○								- VASTA GAMMA DI IMPIEGHI, IDEALE PER TUTTE LE LEGHE DI ACCIAIO E GHISA, BUONE PRESTAZIONI ANCHE SU INOX
	CVD	M10-25 K25-35											
T3210	HC	P01-10	○		●								- GRADO DA TORNITURA PER LA LAVORAZIONE DELLA GHIA GRIGIA E SFEROIDALE CON ELEVATA RESISTENZA ALL'USURA AD ELEVATE VELOCITÀ DI TAGLIO CON TAGLIO CONTINUO
	CVD	K5-15											
T3220	HC	P01-20	○		●								- GRADO DA TORNITURA PER LA LAVORAZIONE DELLA GHISA GRIGIA E SFEROIDALE
	CVD	K10-30											
T1126 NEW	HC	P15-35	●	●	●								- SUBSTRATO MIGLIORATO CON BUONA RESISTENZA ALL'USURA E ALL'ABRASIONE - ADATTO PER LAVORAZIONI SENZA L'AUSILIO DEL LUBROREFRIGERANTE.
	CVD	M10-25 K25-35											
T531	HC	P15-30	○	●				●					- QUALITÀ MICROGRANO TENACE CON BUONA RESISTENZA AGLI URTI ED AGLI SHOCK TERMICI - INDICATO PER MEDIE E MEDIO-BASSE VELOCITÀ DI TAGLIO
	CVD	M20-40											
F8120	HC			○				●					- QUALITÀ RESISTENTE ALL'USURA, IDEALE PER LAVORAZIONI A TAGLIO INTERROTTO - INDICATO PER MATERIALI RESISTENTI AL CALORE E INOX
	PVD	M15-35 S10-30											

● APPLICAZIONE CONSIGLIATA
RECOMMENDED APPLICATION
EMPFOHLENER EINSATZ
APPLICATION CONSEILLÉE

○ APPLICAZIONE POSSIBILE
POSSIBLE APPLICATION
MÖGLICHE ANWENDUNG
APPLICATION POSSIBLE

● APPLICAZIONE CONSIGLIATA
RECOMMENDED APPLICATION
EMPFOHLENER EINSATZ
APPLICATION CONSEILLÉE

○ APPLICAZIONE POSSIBILE
POSSIBLE APPLICATION
MÖGLICHE ANWENDUNG
APPLICATION POSSIBLE

 INDICATIONS - USE	 GEBRAUCHSANWEISUNGEN	 INDICATION - USAGE
- SPECIALLY DEVELOPED CARBIDE SUBSTRATE - INNOVATIVE PVD COATING PROVIDING EXCELLENT STRENGTH AND VERY GOOD TOUGHNESS WITHOUT AFFECTING RED HARDNESS AT BOTH LOW AND HIGH CUTTING SPEED	- SPEZIELL ENTWICKELTES KARBID-SUBSTRAT - INNOVATIVE PVD-BESCHICHTUNG FÜR EXCELLENTE ROBUSTHEIT UND OPTIMALE ZÄHIGKEIT OHNE BEEINTRÄCHTIGUNG DER WARMHÄRTE BEI SOWOHL HOHEN ALS AUCH NIEDRIGEN SCHNITTGESCHWINDIGKEITEN	- SUBSTRAT DE CARBURE SPECIALEMENT DEVELOPPE - REVETEMENT EN PVD INNOVANT, FOURNIT UNE ROBUSTESSE ET TENACITE EXCELLENTE, SANS POUR AUTANT PORTER PREJUDICE A LA DURETE A CHAUD A DE BASSES COMME A DE HAUTES VITESSES DE COUPE.
- EXCELLENT HEAT AND WEAR RESISTANCE - IDEAL FOR SUPER-ALLOYS	- EXCELLENTE HITZE- UND VERSCHLEISSBESTÄNDIGKEIT - IDEAL FÜR SUPER-LEGIERUNGEN	- RESISTANCE EXCELLENTE A LA CHALEUR ET A L'USURE - IDEAL POUR LES USINAGES DES SUPER-ALLIAGES
- TURNING GRADE SPECIALLY DESIGNED FOR CAST IRON - EXCELLENT RESISTANCE TO WEAR	- DREHSORTE, SPEZIELL FÜR GUSS ENTWICKELT - HERVORRAGENDE VERSCHLEISSBESTÄNDIGKEIT	- DEGRÉ DE TOURNAGE SPÉCIFIQUE POUR L'USINAGE DE LA FONTE - RÉSISTANCE À L'USURE EXCELLENTE
- IDEAL GRADE FOR HIGH VOLUME MACHINING - GOOD HEAT RESISTANCE AND THEREFORE PERFECTLY SUITABLE FOR DRY MACHINING, EVEN AT HIGH CUTTING SPEEDS	- IDEALE SORTE FÜR HOCHVOLUMENFERTIGUNG - GUTE HITZEBESTÄNDIGKEIT UND DAHER PERFEKT FÜR DIE TROCKENBEARBEITUNG, AUCH MIT HOHEN SCHNITTGESCHWINDIGKEITEN	- DEGRÉ PLAQUETTE IDÉAL POUR LA PRODUCTION À HAUT VOLUME - BONNE RÉSISTANCE À LA CHALEUR, QUI LE REND PARFAITEMENT INDICÉ POUR L'USINAGE À SEC MEME A DE HAUTES VITESSES DE COUPE
- WIDE RANGE OF APPLICATIONS, IDEAL FOR ALL STEEL AND CAST IRON ALLOYS, GOOD PERFORMANCE ALSO ON INOX	- HOHE VIELSEITIGKEIT, IDEAL FÜR ALLE STAHL- UND GUSSLEGIERUNGEN, GUTE LEISTUNG AUCH MIT INOXSTAHL	- VASTE GAMME D'EMPLOIS, IDÉAL POUR TOUS LES ALLIAGES EN ACIER ET FONTE, BONNES PERFORMANCES MÊME SUR INOX
- TURNING GRADE FOR THE MACHINING OF GREY AND NODULAR CAST IRON WITH HIGH WEAR RESISTANCE AT HIGH CUTTING SPEEDS WITH CONTINUOUS CUT	- DREHSORTE ZUR BEARBEITUNG VON GRAU- UND GRAPHITGUSS MIT HOHEM VERSCHLEISSWIDERSTAND BEI HOHEN SCHNITTGESCHWINDIGKEITEN MIT KONTINUIERLICHEM SCHNITT	- DEGRE DE TOURNAGE POUR LE TRAITEMENT DE LA FONTE GRISE ET SPHEROIDALE AVEC UNE RESISTANCE ELEVEE A L'USURE A DE HAUTES VITESSES DE COUPE AVEC COUPE CONTINUE
- TURNING GRADE FOR GREY CAST IRON AND NODULAR CAST IRON	- DREHSORTE FÜR DIE BEARBEITUNG VON GUSS UND SPHÄROGUSS	- DEGRE DE TOURNAGE POUR L'USINAGE DE LA FONTE GRISE ET SPHEROIDALE
- IMPROVED SUBSTRATE WITH GOOD RESISTANCE TO WEAR AND ABRASION - SUITABLE FOR MACHINING WITHOUT COOLING LUBRICANT	- VERBESSERTES SUBSTRAT MIT GUTER VERSCHLEISSBESTÄNDIGKEIT UND ABRIEBFESTIGKEIT - ZUR BEARBEITUNG OHNE KÜHLSCHMIERSTOFF GEEIGNET	- SUBSTRAT AMÉLIORÉ AVEC BONNE RÉSISTANCE À L'USURE ET À L'ABRASION - SPÉCIALEMENT PRÉVU POUR LES USINAGES SANS LUBRIFIANT-RÉFRIGÉRANT.
- TOUGH MICROGRAIN GRADE WITH HIGH RESISTANCE TO SHOCK AND THERMAL SHOCK. - SUITABLE FOR MEDIUM AND MEDIUM-LOW CUTTING SPEEDS	- MIKROKORNSORTE MIT HOHER STOSSFESTIGKEIT UND TEMPERATURWECHSELBESTÄNDIGKEIT - FÜR MITTLERE UND MITTEL-NIEDRIGE SCHNITTGESCHWINDIGKEITEN GEEIGNET	- QUALITÉ DE MICROGRAIN TENACE AVEC BONNE RÉSISTANCE AU COUPS ET AU SHOCKS THERMIQUES. - INDICÉE POUR MOYENNE ET MOYENNE-FAIBLE VITESSE DE COUPE
- WEAR-RESISTANT GRADE, IDEAL FOR INTERRUPTED CUTTING - SUITABLE FOR HEAT-RESISTANT MATERIALS AND STAINLESS STEEL	- VERSCHLEISSFESTE SORTE, IDEAL FÜR UNTERBROCHENEN SCHNITT - FÜR HITZEBESTÄNDIGE MATERIALIEN UND INOX-STAHL GEEIGNET	- QUALITÉ RESISTANTE À L'USURE, IDEAL POUR USINAGE À COUPE INTERROMPU - INDICÉE POUR MATERIAUX RESISTANTES À LA CHALEUR ET INOX

HT CERMET

HW

METALLO DURO NON RICOPERTO
UNCOATED CARBIDE
UNBESCHICHTETES HARTMETALL
MÉTAL DUR PAS RECOUVERT

HC

METALLO DURO RICOPERTO
COATED CARBIDE
BESCHICHTETES HARTMETALL
MÉTAL DUR RECOUVERT

DP

DIAMANTE POLICRISTALLINO (PCD)
POLYCRYSTALLINE DIAMOND (PCD)
POLYKRISTALLINER DIAMANT (PCD)
DIAMANT POLYCRISTALLIN (PCD)

SAU	DIN ISO 513		MATERIALE - MATERIAL MATERIALIEN - MATÉRIAUX						PAG. 1119	QUICK PICK			INDICAZIONI - USO
			P	M	K	N	S	H	PAG. 174	Tenacità + Toughness -	 		
			ACCIAI STEELS STAHL ACIER	ACCIAI INOX STAINLESS STEELS ROSTFREIER STAHL ACIER INOXYDABLE	GHISA CAST IRON GRAUGUSS FONTE GRISE	MAT. NON FERROSI NON-FERROUS MAT. NICHT-EISENMATERIALIEN	MAT. DIFFICILI DIFFICULT MATERIAL SCHWERE MATERIALIEN	MATERIALI DURI HARD MATERIALS HARTE MATERIALIEN					
T1435	HC	P25-45	●	○						●	●	- GRADO INSERTO TENACE PER LAVORAZIONI DIFFICILI CON CONDIZIONI INSTABILI E A TAGLIO INTERROTTO	
	CVD	M20-30											
F8315	HC	M05-25		○				●		●	●	- QUALITÀ MICROGRANO IN PVD - ADATTO PER LA LAVORAZIONE DELLE SUPERLEGHE	
	PVD	S05-25											
T520T	HC	P15-35	●	●	●	●		○			●	- OTTIMA RESISTENZA ALL' USURA E BUONA TENACITÀ. - INDICATO PER MEDIO-BASSE VELOCITÀ DI TAGLIO E MEDIO-ALTI AVANZAMENTI	
	CVD	M10-30 K15-35											
T2335	HC	M25-45		●							●	- BUONA TENACITÀ E RESISTENZA ALL'USURA. - QUALITÀ IDEALE PER LA TORNITURA DI ACCIAI AUSTENITICI INOSSIDABILI.	
	CVD												
T540	HC	P25-45	●	●		○	○			●	●	- ALTA TENACITÀ, BUONA RESISTENZA ALL'USURA E ALLO SHOCK TERMICO - INDICATO PER BASSE VELOCITÀ DI TAGLIO E ALTI AVANZAMENTI IN SGROSSATURA PESANTE ANCHE IN CONDIZIONI PRECARE.	
	CVD	M25-40											
D3010 NEW	DP	N01-10				●				●		- GRADO INDICATO PER LA TORNITURA DI MATE- RIALI NON FERROSI, ES. LEGHE DI ALLUMINIO, MEGLIO SE AD ALTO TENORE DI SILICIO, RAME, BRONZO TERMOPLASTICI RINFORZATI E COMPOSITI. - OTTIMA FINITURA E VITA UTENSILE.	

● APPLICAZIONE CONSIGLIATA
RECOMMENDED APPLICATION
EMPFOHLENER EINSATZ
APPLICATION CONSEILLÉE

○ APPLICAZIONE POSSIBILE
POSSIBLE APPLICATION
MÖGLICHE ANWENDUNG
APPLICATION POSSIBLE

● APPLICAZIONE CONSIGLIATA
RECOMMENDED APPLICATION
EMPFOHLENER EINSATZ
APPLICATION CONSEILLÉE

○ APPLICAZIONE POSSIBILE
POSSIBLE APPLICATION
MÖGLICHE ANWENDUNG
APPLICATION POSSIBLE

 INDICATIONS - USE	 GEBRAUCHSANWEISUNGEN	 INDICATION - USAGE
- TOUGH DEGREE FOR DIFFICULT MACHINING UNDER UNSTABLE CONDITIONS AND WITH INTERRUPTED CUT	- ZÄHE SORTE FÜR SCHWERE BEARBEITUNGEN UNTER UNSTABILEN BEDINGUNGEN UND MIT UNTERBROCHENEM SCHNITT	- DEGRÉ PLAQUETTE TENACE POUR USINAGES DIFFICILES DANS DES CONDITIONS INSTABLES ET À COUPE INTERROMPUE
- MICROGRAIN GRADE, PVD-COATED - SUITABLE FOR SUPER-ALLOYS	- MIKROKORNSORTE, PVD-BESCHICHTET - ZUR BEARBEITUNG VON SUPER-LEGIERUNGEN GEEIGNET	- QUALITE MICROGRAIN EN PVD - PREVUE POUR L'USINAGE DES SUPER-ALLIAGES
- EXCELLENT RESISTANCE TO WEAR AND GOOD TOUGHNESS - SUITABLE FOR MEDIUM-LOW CUTTING SPEEDS AND MEDIUM-HIGH FEED	- OPTIMAL VERSCHLEISSFESTIGKEIT UND GUTE ZÄHIGKEIT - FÜR MITTEL-NIEDRIGE SCHNITTGESCHWINDIGKEITEN MITTEL-GROSSE VORSCHÜBE	- OPTIMAL RÉSISTANCE À L'USURE ET BONNE TENACITÉ - INDIQUÉE POUR MOYENNE-FAIBLE VITESSE DE COUPE ET MOYENNE-HAUTE DÉPLACEMENT
- GOOD TOUGHNESS AND WEAR RESISTANCE - IDEAL GRADE FOR AUSTENITIC STAINLESS STEEL.	- GUTE ZÄHIGLEIT UND VERSCHLEISSFESTIGKEIT - IDEALE SORTE ZUM DREHEN VON AUSTENITISCHEM ROSTFREIEM STAHL	- BONNE TENACITÉ ET RESISTANCE À L'USURE - QUALITÉ IDEALE POUR LE TOURNAGE DES ACIERS AUSTENITICI INOXIDABLES
- HIGH TOUGHNESS, RESISTANCE TO WEAR AND TO THERMAL SHOCK - SUITABLE FOR LOW CUTTING SPEEDS AND HIGH FEED FOR ROUGHING AND HEAVY ROUGHING, EVEN UNDER UNSTABLE CONDITIONS	- FÜR MITTEL-HOHE SCHNITTGESCHWINDIGKEITEN UND BEI MITTLEREN VORSCHÜBEN UNTER NORMALEN BEDINGUNGEN GEEIGNET - FÜR NIEDRIGE SCHNITTGESCHWINDIGKEITEN UND GROSSVORSCHÜBE BEIM SCHRUPPEN UND STARKEN SCHRUPPEN, AUCH UNTER UNSTABILEN BEDINGUNGEN, GEEIGNET.	- HAUTE TENACITÉ, RÉSISTANCE À L'USURE ET AU SHOCK THERMIQUE - INDIQUÉE POUR FAIBLE VITESSE DE COUPE ET HAUT DÉPLACEMENT POUR ÉBAUCHAGE ET ÉBAUCHAGE LOURD, MÊME AVEC CONDITIONS INSTABLES.
- TURNING GRADE FOR NON-FERROUS MATERIALS, SUCH AS ALUMINUM ALLOYS, PREFERABLY WITH HIGH SILICON, COPPER, BRONZE CONTENT, REINFORCED THERMOPLASTIC MATERIALS AND COMPOUNDS - EXCELLENT FINISHING AND TOOL LIFE	- SORTE ZUM DREHEN FÜR NICHT-EISENMATERIALIEN, Z.B. ALUMINIUM-LEGIERUNGEN, VORZUGSWEISE MIT HOHEM SILIZIUM-, KUPFER- UND BRONZEGEHALT, VERSTÄRKTE THERMOPLASTE UND VERBUNDMATERIALIEN. - HERVORRAGENDE OBERFLÄCHENGÜTE UND WERKZEUGSTANDZEIT	- DEGRÉ INDIQUÉ POUR LE TOURNAGE DE MATÉRIAUX NON FERREUX, TELS QUE ALLIAGES D'ALUMINIUM, AUTANT QUE POSSIBLE À TENEUR ÉLEVÉE DE SILICIUM, CUIVRE, BRONZE, THERMOPLASTIQUES RENFORCÉS ET COMPOSITES. - FINITION ET VIE DE L'OUTIL EXCELLENTE.

HT CERMET

HW

METALLO DURO NON RICOPERTO
UNCOATED CARBIDE
UNBESCHICHTETES HARTMETALL
MÉTAL DUR PAS RECOUVERT

HC

METALLO DURO RICOPERTO
COATED CARBIDE
BESCHICHTETES HARTMETALL
MÉTAL DUR RECOUVERT

DP

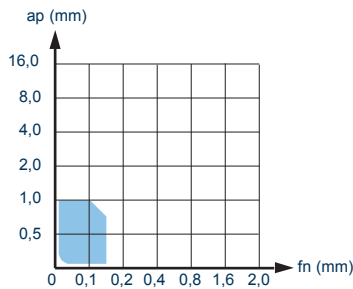
DIAMANTE POLICRISTALLINO (PCD)
POLYCRYSTALLINE DIAMOND (PCD)
POLYKRISTALLINER DIAMANT (PCD)
DIAMANT POLYCRISTALLIN (PCD)

MATERIALE MATERIAL MATERIALIEN MATÉRIEL PAG 1119	VDI 3323 GR.	HB HRC Rm	C4010	DT61T	DT63	T110	T115	T120	F2120	T2120 NEW	T1625	F2425	F2435
P ACCIAI STEELS STAHL ACIER	1	125	230-270	320-600	310-400					130-250	450-680	130-250	170-190
	2	180	230-270	300-560	260-350					130-250	450-680	130-250	170-190
	3	250	230-270	270-430	220-300					130-250	450-680	130-250	170-190
	4	220	230-270	300-450	220-330					130-250	300-500	130-250	170-190
	5	300	230-270	220-340	180-280					130-250	300-500	130-250	170-190
	6	180	230-270	250-420	250-350					130-250	200-450	130-250	90-150
	7-8	250-300	180-230	160-300	200-300					60-180	200-450	60-180	90-150
	9	350	180-230	130-200	150-220					60-180	200-450	60-180	90-150
	10	200	160-200	150-310	200-350					80-200	200-400	80-200	120-200
	11	350	160-200	130-200	150-220					80-200	200-400	80-200	120-200
	12	200	230-270	260-320	180-300			80-150		120-250	200-400	120-250	140-180
	13	330	170-240	160-240	150-250			40-70		120-250	200-400	120-250	140-180
M ACCIAI INOX STAINLESS STEELS ROSTFREIER STAHL ACIER INOXYDABLE	14.1	180	170-240	180-280	180-280			50-100	120-200	100-250	160-260	100-250	110-200
	14.2	230-260	130-160	130-230	100-150			50-90	60-160	40-160	160-260	40-160	55-150
K GHISA CAST IRON GRAUGUSS FONTE GRISSE	15	180	200-300	220-260	200-300	120-160	120-160	100-150	120-160		110-180		
	16	260	200-300	130-170	150-260	90-140	120-160	70-120	120-160		110-180		
	17	160	220-300	200-240	180-300	130-170	130-170	100-140	120-160		110-180		
	18	250	220-300	150-200	150-240	90-130	130-170	80-120	120-160		110-180		
	19	130	250-350	230-300	170-280	140-200	140-200	120-180	140-220		110-180		
	20	230	250-350	130-170	150-220	120-160	140-200	70-120	120-160		110-180		
N MAT. NON FERROSI NON-FERROUS MAT. NICH-EIFESEN-MATERIALIEN MAT. FERREUX	21	60		500-900		300-950	100-950	300-800	100-400				
	22	100		500-900		300-950	100-950	300-800	100-400				
	23	75		500-900		400-950	100-950	300-800	100-400				
	24	90		500-900		400-950	100-950	300-800	100-400				
	25	130		500-900		200-800	100-800	300-800	100-400				
	26	110		500-900		250-600	100-800	400-550	100-400				
	27	90				200-600	100-300	400-550	100-400				
	28	100				150-400	100-300	200-400	100-400				
	29					80-180	100-950		100-600				
	30					100-250	100-950		100-600				
S MAT. DIFFICILI DIFFICULT MATERIAL SCHWIERIGE MATERIALIEN MAT. D'ÉCILES	31	200					30-45		20-50				
	32	280					20-35		20-50				
	33	250					20-35		15-40				
	34	350					18-30		20-35				
	35	320					18-30		20-35				
	36	Rm400				60-120	60-120		80-140				
	37	Rm1050				30-60	60-120		80-140				
H MATERIALI DURI HARD MATERIALS HARTE MATERIALIEN MATÉRIEL DURS	38	55HRC											
	39	60HRC											
	40	400											
	41	55HRC											

MATERIALE MATERIAL MATERIALIEN MATÉRIAUX PAG 1119	VDI 3323 GR.	HB HRC Rm	F8410	T3111 NEW	T1415	T1425	T3210	T3220	T1126 NEW	T531	F8120	T1435	F8315
P ACCIAI STEELS STAHL ACIER	1	125		250-550	220-400	170-240	250-550	200-340	170-240	200-300		170-190	
	2	180		250-550	220-400	170-240	250-550	200-340	170-240	180-280		170-190	
	3	250		250-550	220-400	170-240	250-550	200-340	170-240			170-190	
	4	220		250-550	220-400	170-240	250-550	200-340	170-240			170-190	
	5	300		250-550	220-400	170-240	250-550	200-340	170-240			170-190	
	6	180		250-400	220-400	170-240	250-400	200-340	170-240			170-190	
	7-8	250-300		220-340	200-320	100-190	220-340	150-290	100-190			90-150	
	9	350		170-300	200-320	130-210	170-300	150-290	130-210			120-200	
	10	200		200-350	180-320	130-210	200-350	160-290	130-210			120-200	
	11	350		150-300	180-320	130-220	150-300	160-290	130-220			140-180	
	12	200		180-320	200-320	130-220	180-320	160-290	130-220	130-180		140-180	
	13	330		180-320	200-320	130-220	180-320	160-290	130-220	100-140		140-200	
M ACCIAI INOX STAINLESS STEELS ROSTFREIER STAHL ACIER INOXYDABLE	14.1	180	140-230			100-210			100-210	100-160	100-140	100-190	120-220
	14.2	230-260	60-100			70-100			70-100	80-120	75-120	50-150	50-90
K GHISA CAST IRON GRAUGUSS FONTE GRISE	15	180		250-550	140-370	130-210	250-550	150-400	130-210				
	16	260		220-400	140-370	130-210	220-400	150-400	130-210				
	17	160		220-420	190-430	120-240	220-420	200-450	120-240				
	18	250		200-350	190-430	120-240	200-350	200-450	120-240				
	19	130		220-400	180-520	150-250	220-400	200-550	150-250				
	20	230		180-350	180-520	150-250	180-350	200-550	150-250				
N MATTON FERROSI NONFERROUS MAT. NICHT-EISENMATERIALIEN MAT. FERREUX	21	60											
	22	100											
	23	75											
	24	90											
	25	130											
	26	110											
	27	90											
	28	100											
	29												
	30												
S MAT DIFFICILI DIFFICULT MATERIAL SCHWIERIGE MATERIALIEN MAT. DIFICILES	31	200	80-120							20-40	40-75		80-120
	32	280	60-100							15-35	40-60		60-100
	33	250	35-90							10-30	30-50		35-90
	34	350	30-50							5-18	20-35		30-50
	35	320	30-50							5-18	15-30		30-50
	36	Rm400	70-120							80-130	25-45		70-120
	37	Rm1050	70-120							20-40	15-35		70-120
H MATERIALI DURI HARD MATERIALS HARTE MATERIALIEN MATÉRIAUX DURS	38	55HRC											
	39	60HRC											
	40	400											
	41	55HRC											

MATERIALE MATERIAL MATERIALIEN MATÉRIAUX PAG 1119	VDI 3323 GR.	HB HRC Rm	T520T	T2335	T540	D3010 NEW							
P ACCIAI STEELS STAHL ACIER	1	125	280-450		170-250								
	2	180	240-380		140-200								
	3	250	200-330		120-150								
	4	220	200-330		110-150								
	5	300	170-270		100-120								
	6	180	200-330		140-200								
	7-8	250-300	140-270		100-140								
	9	350	130-210		70-100								
	10	200	140-230		90-130								
	11	350	130-210		60-100								
	12	200	170-270		120-170								
	13	330	130-210		80-130								
M ACCIAI INOX STAINLESS STEELS ROSTFREIER STAHL ACIER INOXYDABLE	14.1	180	160-260	80-120	70-180								
	14.2	230-260	130-210	70-100	60-130								
K GHISA CAST IRON GRAUGUSS FONTE GRISE	15	180	130-210										
	16	260	110-180										
	17	160	110-180										
	18	250	80-130										
	19	130	130-210										
	20	230	90-150										
N MATIRON FERROSI NONFERROUS MAT. NICHTEISENMATERIALIEN MAT. FERREUX	21	60	500-950		300-950	300-950							
	22	100	500-950		300-700	300-950							
	23	75	300-800		300-700	200-950							
	24	90	300-800		300-500	200-950							
	25	130	200-500		250-350	180-500							
	26	110	200-500		400-500	180-350							
	27	90	250-350		250-350	180-350							
	28	100	200-300			200-950							
	29		80-150			300-950							
	30		100-200			300-950							
S MAT DIFFICILI DIFFICULT MATERIAL SCHWIERIGE MATERIALIEN MAT. DIFFICILES	31	200			35-100								
	32	280			35-70								
	33	250											
	34	350			20-60								
	35	320			40-60								
	36	Rm400			40-60								
	37	Rm1050											
H MATERIALI DURI HARD MATERIALS HARTE MATERIALIEN MATÉRIAUX DURS	38	55HRC	55-90										
	39	60HRC											
	40	400											
	41	55HRC											

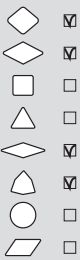
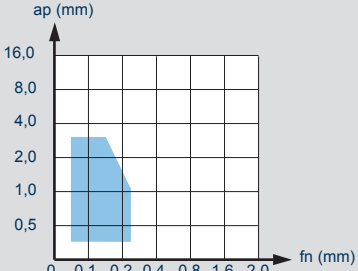
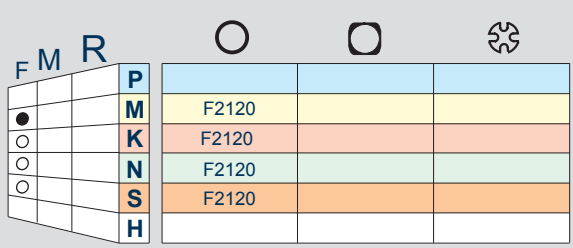
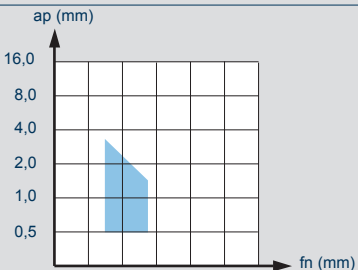
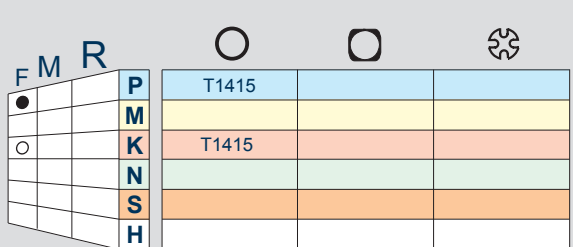
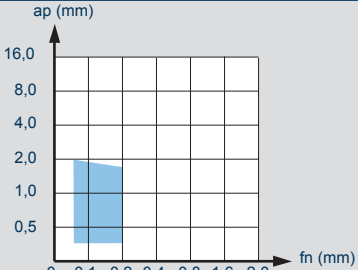
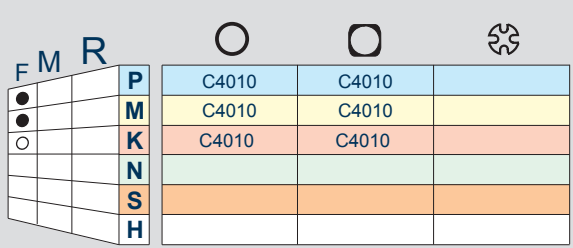
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	2	180											
	3	250											
	4	220											
	5	300											
	6	180											
	7-8	250-300											
	9	350											
	10	200											
	11	350											
	12	200											
	13	330											
M ACCIAI INOX STAINLESS STEELS ROSTFREIER STAHL ACIER INOXYDABLE	14.1	180											
	14.2	230-260											
K GHISA CAST IRON GRAUGUSS FONTE GRISE	15	180											
	16	260											
	17	160											
	18	250											
	19	130											
	20	230											
N MATIRON FERROSI NONFERROUS MAT. NICHT-EISENMATERIALIEN MAT. FERREUX	21	60											
	22	100											
	23	75											
	24	90											
	25	130											
	26	110											
	27	90											
	28	100											
	29												
	30												
S MATDIFFICILI DIFFICULT MATERIAL SCHWIERIGE MATERIALIEN MAT. DIFFICILES	31	200											
	32	280											
	33	250											
	34	350											
	35	320											
	36	Rm400											
	37	Rm1050											
H MATERIALI DURI HARD MATERIALS HARTE MATERIALIEN MATÉRIAUX DURS	38	55HRC											
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	41	55HRC											



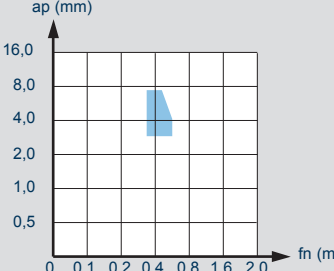
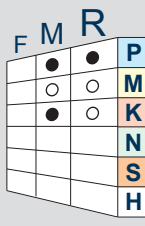
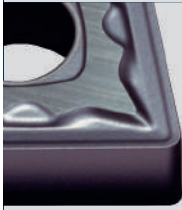
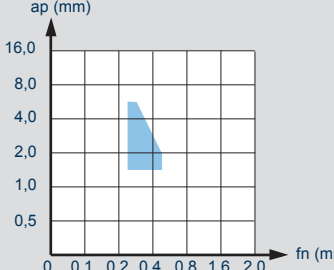
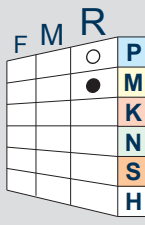
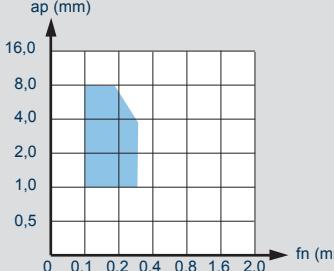
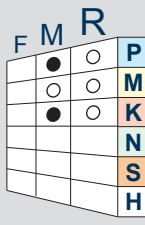
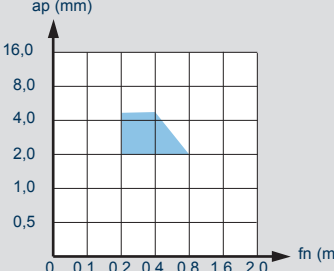
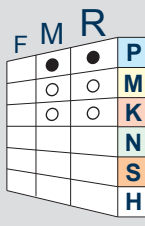
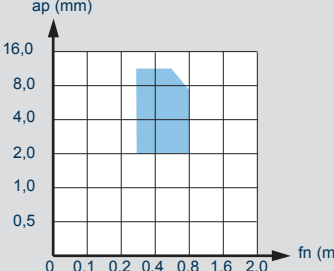
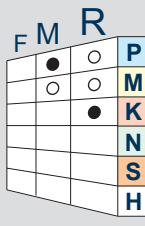
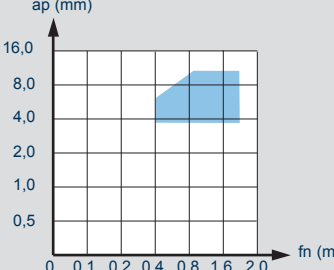
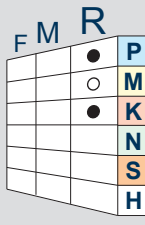
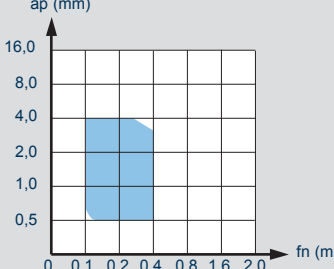
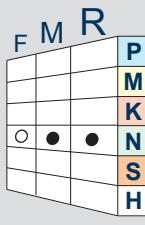
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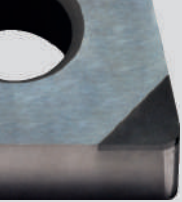
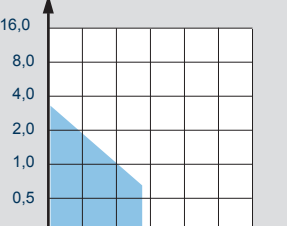
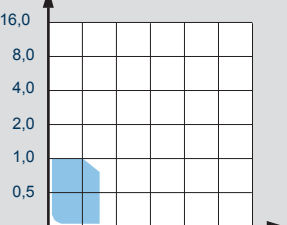
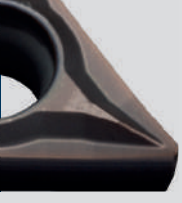
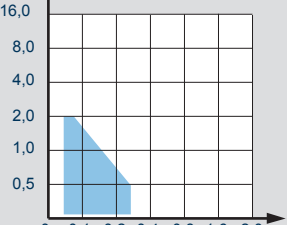
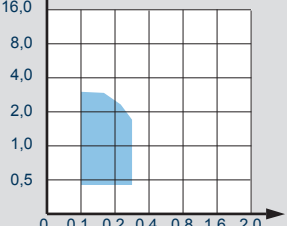
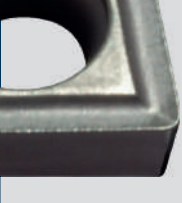
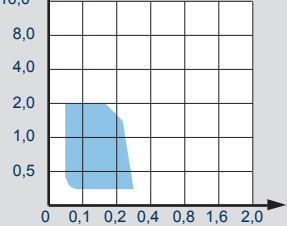
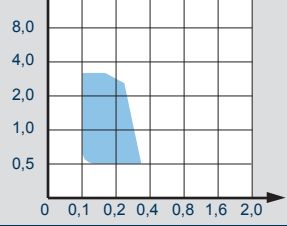
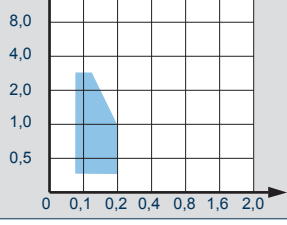
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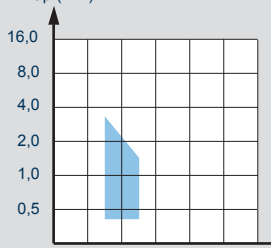
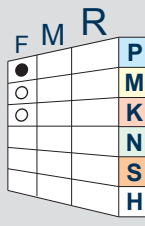
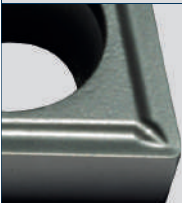
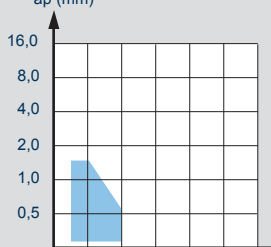
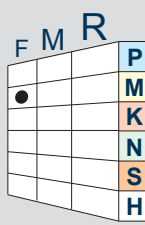
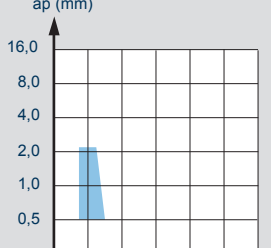
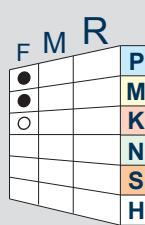
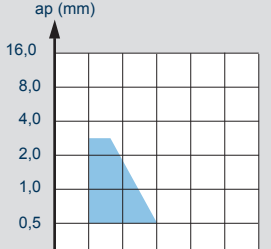
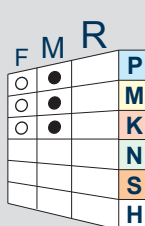
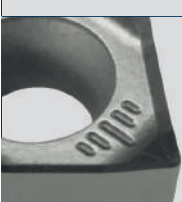
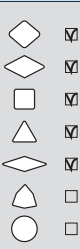
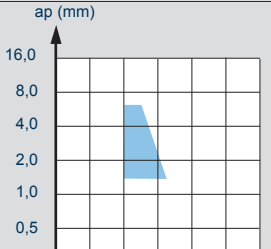
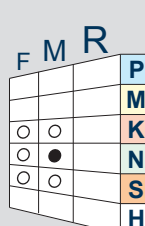
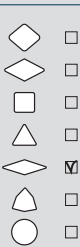
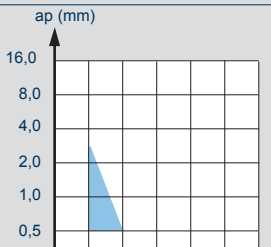
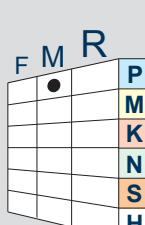
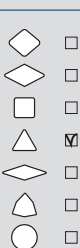
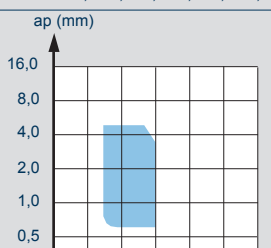
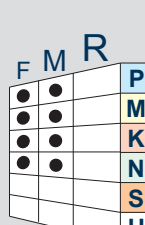
				
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M =	GENERIC, LAV. MEDIE	GENERIC MEDIUM MACHINING	ALLGEMEIN, MITTELSCHWERE BEARBEITUNG	GENERAL USINAGES MOYENS
R =	SGROSSATURA, LAV. PESANTI	ROUGHING, HEAVY MACHINING	SCHRUPPEN, SCHWERE BEARBEITUNG	DEGROSSISAGES, USINAGES LOURDS
P, M, K, N, S, H =	MATERIALI ISO PAG 1119	ISO MATERIALS PAGE 1119	ISO-MATERIEALIEN, SEITE 1119	MATERIAUX ISO PAG 1119
	TAGLIO CONTINUO	CONTINUOUS CUT	KONTINUIERLICHER SCHNITT	TRONÇONNAGE CONTINU
	TAGLIO DISCONTINUO	DISCONTINUOUS CUT	DISKONTINUIERLICHER SCHNITT	TRONÇONNAGE DISCONTINU
	TAGLIO INTERROTTO	INTERRUPTED CUT	UNTERBROCHENER SCHNITT	TRONÇONNAGE INTERROMPU
● =	APPLICAZIONE CONSIGLIATA	RECOMMENDED APPLICATION	EMPFOHLENER EINSATZ	APPLICATION CONSEILLÉE
○ =	APPLICAZIONE POSSIBILE	POSSIBLE APPLICATION	MOGLICHE ANWENDUNG	APPLICATION POSSIBLE
ap (mm) =	PROFONDITÀ DI PASSATA	DEPTH OF CUT	GANGTIEFE	PROFONDEUR DE PASSE
fn (mm) =	AVANZAMENTO AL GIRO	FEED/REVOLUTION	VORSCHUB PRO UMDREHUNG	DÉPLACEMENT AU TOUR

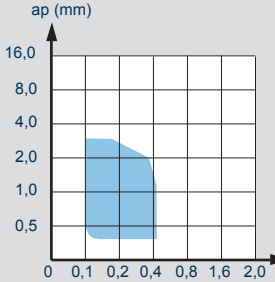
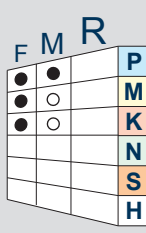
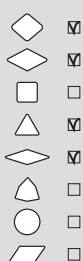
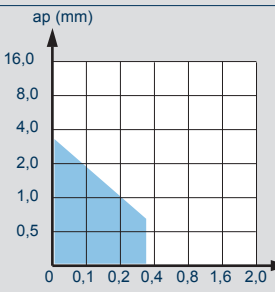
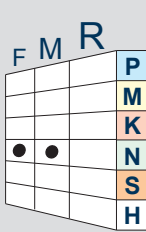
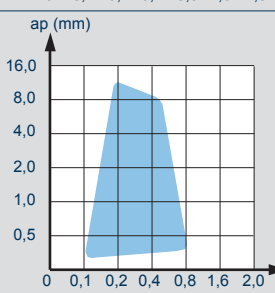
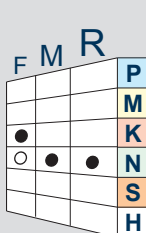
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 .G34W NEW			
 .G39			

 .G42	
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C	N	M	G
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12	04	08
5	6	7

-	-
8	9

W	5	2	P
10	11	12	13

1 FORMA INSERTO
SHAPE OF INSERT

A	B
C	D
E	H
K	L
M	R
S	T
V	W

2 SPOGLIA INFER.
RELIEF ANGLE

A	3°
B	5°
C	7°
D	15°
E	20°
F	25°
G	30°
N	0°
P	11°

3 TOLLERANZA+/--(mm)
TOLERANCE+/--(mm)

	m	s	d
A	+/-0,005	+/-0,025	+/-0,025
C	+/-0,013	+/-0,025	+/-0,025
E	+/-0,025	+/-0,025	+/-0,025
F	+/-0,005	+/-0,025	+/-0,013
G	+/-0,025	+/-0,05 +/-0,13	+/-0,025
H	+/-0,013	+/-0,025	+/-0,013
J	+/-0,005	+/-0,025	+/-0,05 +/-0,13
K	+/-0,013	+/-0,025	+/-0,05 +/-0,13
L	+/-0,05	+/-0,013	+/-0,025
M	+/-0,08 +/-0,18	+/-0,13	+/-0,05 +/-0,18
N	+/-0,08 +/-0,18	+/-0,025	+/-0,05 +/-0,13
U	+/-0,13 +/-0,38	+/-0,05 +/-0,13	+/-0,08 +/-0,32

4 TIPO INSERTO
TYPE OF INSERT

A	N
B	Q
C	R
F	T
G,P	U
H	W
J	X SPECIALE SPECIAL
M	

5 LUNGHEZZA TAGLIANTE
CUTTING EDGE LENGTH

Ød CERCHIO INSCRITTO INSCRIBED CIRCLE	A	C	D	E	K	L	M	R	S	T	V	W
3,97												02
4,76										08		02-03
5,56		05								09		
6,00												03
6,35		06	07	06			06		06	11	11	04
6,70	10											
7,94									07			
8,00				08				08				05
9,45	16											
9,52	15-16	09	11	09	16	15	09		09	16	16	06
10,00								10				06
11,00									11			
11,50						12						
12,00								12				07
12,62						18						
12,70		12	15	12	15-20			12	22		08	
15,87		16						15				
19,05		19						19				
25,40		25						25				

6 SPESSORE
THICKNESS

S	mm
01	1,59
T1	1,97
02	2,38
T2	2,78
03	3,18
T3	3,97
04	4,76
05	5,56
06	6,35
07	7,94
09	9,52

7 RAGGIO
RADIUS

R	00 (")	MO (mm)
		r (mm)
00		r≤0,05
01		r=0,1
02		r=0,2
04		r=0,4
05		r=0,5
06		r=0,6
08		r=0,8
10		r=1,0
12		r=1,2
16		r=1,6
24		r=2,4
32		r=3,2

8

F
E
T
S

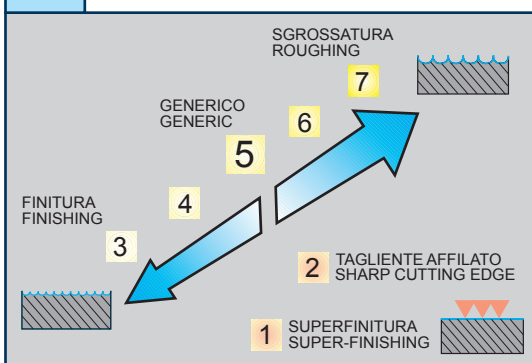
9

R
L
N

10 LETTERA DI IDENTIF.
IDENTIFICATION LETTER

A	N
C	P
D	R
E	S
H	T
I	U
J	W
K	X
L	Y
M	Z

11 CAMPO DI LAVORAZIONE
MACHINING TYPES

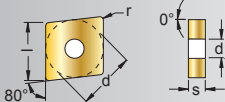


12 PREPARAZIONE TAGLIANTE
CUTTING EDGE PREPARATION

1 =	SPECIFICO PER GHISA SPECIFIC FOR CAST IRON
3 =	SPECIFICO PER ACCIAIO INOX SPECIFIC FOR STAINLESS STEEL
7 =	SPECIFICO PER LEGHE DI ALLUMINIO SPECIFIC FOR ALUMINIUM ALLOYS
9 =	SPECIFICO PER ACCIAIO SPECIFIC FOR STEEL
2 =	
4 =	
5 =	INTERMEDI DI USO GENERICO INTERMEDIATE FOR GENERAL USE
6 =	
8 =	

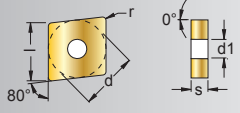
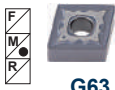
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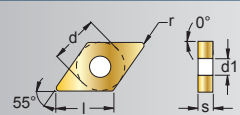
P =	LUCIDATO POLISH
W =	GEOMETRIA CON WIPER GEOMETRY WITH WIPER

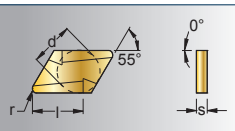
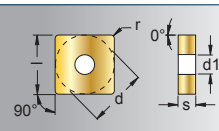
CNGP CNMA CNMG							HT		HW		HC										DP																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
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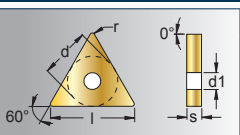
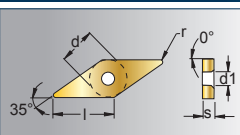
■ DISPONIBILI - IN STOCK - LIEFERBAR - DISPONIBLES / ■ **NEW**
 ● APPLICAZIONE CONSIGLIATA-RECOMMENDED APPLICATION-
 EMPFOHLENER EINSATZ - APPLICATION CONSEILLÉE

□ A RICHIESTA - ON REQUEST - AUF ANFRAGE - SUR DEMANDE / □ **NEW**
 ○ APPLICAZIONE POSSIBILE - POSSIBLE APPLICATION -
 MÖGLICHE ANWENDUNG - APPLICATION POSSIBLE

CNMG CNMM CNMX							HT	HW	HC										DP				
							CERMET	NON RIVESTITI CEMENTED CARBIDE GRADES	RIVESTITI COATED GRADES BESCHICHTET RECOUVERTS										PCD				
INSERTI NEGATIVI - NEGATIVE INSERTS - NEGATIVE WENDEPLATTEN - PLAQUÉTTES NEGATIVES																							
ART.	COD.	l	d	s	d1	r		T110				T2120 ΣmZ	F2425	T1415	T1425	T3111 ΣmZ	T3210	T3220	T1435				
 .K57P	CNMG 120404 .K57P	12,9	12,7	4,76	5,16	0,4		■															
	CNMG 120408 .K57P	12,9	12,7	4,76	5,16	0,8		■															
 .G62	CNMG 120408 .G62	12,9	12,7	4,76	5,16	0,8								■	■	■	■	■					
	CNMG 120412 .G62	12,9	12,7	4,76	5,16	1,2								■		■	■	■					
	CNMG 120416 .G62	12,9	12,7	4,76	5,16	1,6											■						
	CNMG 160608 .G62	16,1	15,87	6,35	6,35	0,8												■	■				
	CNMG 160612 .G62	16,1	15,87	6,35	6,35	1,2								■	■		■	■	■				
	CNMG 160616 .G62	16,1	15,87	6,35	6,35	1,6									■		■						
	CNMG 190612 .G62	19,3	19,05	6,35	7,94	1,2									■		■	■	■				
	CNMG 190616 .G62	19,3	19,05	6,35	7,94	1,6									■		■		■				
 .G63	CNMG 120408 .G63	12,9	12,7	4,76	5,16	0,8					■	■											
	CNMG 120412 .G63	12,9	12,7	4,76	5,16	1,2						■											
 .G68	CNMM 120408 .G68	12,9	12,7	4,76	5,16	0,8								■	■				■				
 .G72	CNMM 120412 .G72	12,9	12,7	4,76	5,16	1,2								■	■				■				
	CNMM 120416 .G72	12,9	12,7	4,76	5,16	1,6									■				■				
	CNMM 160612 .G72	16,1	15,87	6,35	6,35	1,2								■	■				■				
	CNMM 190612 .G72	19,3	19,05	6,35	7,94	1,2								■	■								
	CNMM 190616 .G72	19,3	19,05	6,35	7,94	1,6									■								
	CNMM 250724 .G72	25,80	25,40	7,94	9,12	2,4										□							
	CNMM 250924 .G72	25,80	25,40	9,52	9,12	2,4										□							
 .G82	CNMM 190616 .G82	19,3	19,05	6,35	7,94	1,6									■								
	CNMM 190624 .G82	19,3	19,05	6,35	7,94	2,4									■								
	CNMM 250924 .G82	25,80	25,40	9,52	9,12	2,4										□							
	CNMM 250932 .G82	25,80	25,40	9,52	9,12	3,2										□							
 .G34W	CNMX 120408 .G34W	12,9	12,7	4,76	5,16	0,8									■								
	NEW																						
MATERIALE - MATERIAL - MATERIALIEN - MATÉRIAUX								T110				T2120 ΣmZ	F2425	T1415	T1425	T3111 ΣmZ	T3210	T3220	T1435				
P	ACCIAIO - STEEL - STAHL - ACIER											○	○	●	●	○	○	○	○	●			
M	ACCIAIO INOX - STAINLESS STEEL - ROSTFREIER STAHL - ACIER INOXYDABLE											●	●		○					○			
K	GHISA - CAST IRON - GRAUGUSS - FONTE GRISE														○	○	●	●	●				
N	LEGHE DI ALLUMINIO - ALUMINIUM ALLOYS - ALUMINIUM-LEGIERUNGEN - ALLIAGES D'ALUMINIUM								●														
S	LEGHE RESISTENTI AL CALORE - HEAT RESISTANT ALLOYS - WÄRMEBESTÄNDIGE LEGIERUNGEN - ALLIAGES RÉISTANTES À LA CHALEUR																						
H	MATERIALI DURI E TEMPRATI - HARD AND HARDENED MATERIAL - HARTE UND GEHÄRTETE MATERIALIEN - MATERIAUX DURS ET TREMPÉS																						

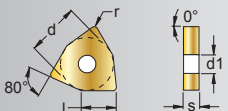
DNGP DNMG DNMM DNMX							HT		HW		HC											DP			
							CERMET	NON RIVESTITI CEMENTED CARBIDE GRADES	RIVESTITI COATED GRADES BESCHICHTET RECOUVERTS											PCD					
INSERTI NEGATIVI - NEGATIVE INSERTS - NEGATIVE WENDEPLATTEN - PLAQUÉTTES NEGATIVES							C4010																		
ART.	COD.	l	d	s	d1	r																			
 .G23	DNGP 110404 .G23	11,6	9,52	4,76	3,81	0,4																			
	DNGP 150602 .G23	15,5	12,7	6,35	5,16	0,2																			
	DNGP 150604 .G23	15,5	12,7	6,35	5,16	0,4																			
	DNGP 150608 .G23	15,5	12,7	6,35	5,16	0,8																			
 .G39	DNMG 150604 .G39	15,5	12,7	6,35	5,16	0,4	□																		
 .G42	DNMG 110404 .G42	11,6	9,52	4,76	3,81	0,4													■	■					
	DNMG 150604 .G42	15,5	12,7	6,35	5,16	0,4														■					
 .G52	DNMG 110404 .G52	11,6	9,52	4,76	3,81	0,4																			
	DNMG 110408 .G52	11,6	9,52	4,76	3,81	0,8														■	■				
	DNMG 150604 .G52	15,5	12,7	6,35	5,16	0,4														■	■				
	DNMG 150608 .G52	15,5	12,7	6,35	5,16	0,8														■	■	■	■		
	DNMG 150612 .G52	15,5	12,7	6,35	5,16	1,2														■	■	■			
 .G53	DNMG 110404 .G53	11,6	9,52	4,76	3,81	0,4																			
	DNMG 110408 .G53	11,6	9,52	4,76	3,81	0,8																			
	DNMG 150604 .G53	15,5	12,7	6,35	5,16	0,4														■	■				
	DNMG 150608 .G53	15,5	12,7	6,35	5,16	0,8														■	■				
 .G55	DNMG 150608 .G55	15,5	12,7	6,35	5,16	0,8																			
 .G56	DNMG 150608 .G56	15,5	12,7	6,35	5,16	0,8														■	■				
	DNMG 150612 .G56	15,5	12,7	6,35	5,16	1,2														■	■				
 .G62	DNMG 150608 .G62	15,5	12,7	6,35	5,16	0,8															■				
 .G63	DNMG 150608 .G63	15,5	12,7	6,35	5,16	0,8																			
	DNMG 150612 .G63	15,5	12,7	6,35	5,16	1,2															■				
 .G68	DNMM 150608 .G68	15,5	12,7	6,35	5,16	0,8																			
 .G72	DNMM 150612 .G72	15,5	12,7	6,35	5,16	1,2																			
 .G34W	DNMX 150608 .G34W	15,5	12,7	6,35	5,16	0,8																			
	NEW																								
MATERIALE - MATERIAL - MATERIALIEN - MATÉRIAUX							C4010																		
P	ACCIAIO - STEEL - STAHL - ACIER						○																		
M	ACCIAIO INOX - STAINLESS STEEL - ROSTFREIER STAHL - ACIER INOXYDABLE						●																		
K	GHISA - CAST IRON - GRAUGUSS - FONTE GRISE						○																		
N	LEGHE DI ALLUMINIO - ALUMINIUM ALLOYS - ALUMINIUM-LEGIERUNGEN - ALLIAGES D'ALUMINIUM																								
S	LEGHE RESISTENTI AL CALORE - HEAT RESISTANT ALLOYS - WÄRMEBESTÄNDIGE LEGIERUNGEN - ALLIAGES RÉISTANTES À LA CHALEUR																								
H	MATERIALI DURI E TEMPRATI - HARD AND HARDENED MATERIAL - HARTE UND GEHÄRTETE MATERIALIEN - MATÉRIAUX DURS ET TREMPÉS																								

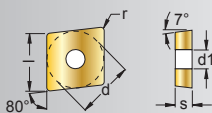
KNUX		SNMA SNMG SNMM		HT	HW	HC												DP							
				CERMET	NON RIVESTITI CEMENTED CARBIDE GRADES	RIVESTITI COATED GRADES BESCHICHTET RECOUVERTS												PCD							
				INSERTI NEGATIVI - NEGATIVE INSERTS - NEGATIVE WENDEPLATTEN - PLAQUÉTTES NEGATIVES																					
ART.	COD.	l	d	s	d1	r					F2425			F8410	T1415	T1425	T3111 	T3210	T3220	T1126 	T1435	F8315			
 .G69	KNUX 160405EL .G69	16,0	9,52	4,76	—	0,5											■								
	KNUX 160405ER .G69	16,0	9,52	4,76	—	0,5											■								
	KNUX 160410EL .G69	16,0	9,52	4,76	—	1,0											■								
	KNUX 160410ER .G69	16,0	9,52	4,76	—	1,0											■								
 .G61	SNMA 120408 .G61	12,7	12,7	4,76	5,16	0,8													■						
 .G52	SNMG 120408 .G52	12,7	12,7	4,76	5,16	0,8									■	■									
	SNMG 120412 .G52	12,7	12,7	4,76	5,16	1,2									■	■		■				■	■		
 .G53	SNMG 120408 .G53	12,7	12,7	4,76	5,16	0,8					■														
 .G55	SNMG 120408 .G55	12,7	12,7	4,76	5,16	0,8								■									■		
 .G56	SNMG 120408 .G56	12,7	12,7	4,76	5,16	0,8										■									
	SNMG 120412 .G56	12,7	12,7	4,76	5,16	1,2										■									
 .G62	SNMG 120408 .G62	12,7	12,7	4,76	5,16	0,8													■						
	SNMG 120412 .G62 New	12,7	12,7	4,76	5,16	1,2												■							
	SNMG 150612 .G62	15,87	15,87	6,35	6,35	1,2											■					■			
	SNMG 190612 .G62	19,05	19,05	6,35	7,94	1,2											■					■			
 .G54	SNMM 190616 .G54	19,05	19,05	6,35	7,94	1,6										■									
	SNMM 250924 .G54	25,40	25,40	9,52	9,12	2,4										■									
 .G72	SNMM 190612 .G72	19,05	19,05	6,35	7,94	1,2										■									
	SNMM 190616 .G72	19,05	19,05	6,35	7,94	1,6										■									
	SNMM 250724 .G72	25,40	25,40	7,94	9,12	2,4											■								
	SNMM 250924 .G72	25,40	25,40	9,52	9,12	2,4											■								
 .G82	SNMM 190616 .G82	19,05	19,05	6,35	7,94	1,6										■									
	SNMM 190624 .G82	19,05	19,05	6,35	7,94	2,4										■									
	SNMM 250924 .G82	25,40	25,40	9,52	9,12	2,4											■								
	SNMM 250932 .G82	25,40	25,40	9,52	9,12	3,2											■								
MATERIALE - MATERIAL - MATERIALIEN - MATÉRIAUX											F2425			F8410	T1415	T1425	T3111 	T3210	T3220	T1126 	T1435	F8315			
P	ACCIAIO - STEEL - STAHL - ACIER											○			●	●	○	○	○	●	●				
M	ACCIAIO INOX - STAINLESS STEEL - ROSTFREIER STAHL - ACIER INOXYDABLE											●			○	○					●	○	○		
K	GHISA - CAST IRON - GRAUGUSS - FONTE GRISE														○	○	●	●	●	●					
N	LEGHE DI ALLUMINIO - ALUMINIUM ALLOYS - ALUMINIUM-LEGIERUNGEN - ALLIAGES D'ALUMINIUM																								
S	LEGHE RESISTENTI AL CALORE - HEAT RESISTANT ALLOYS - WÄRMEBESTÄNDIGE LEGIERUNGEN - ALLIAGES RÉISTANTES À LA CHALEUR														●								●		
H	MATERIALI DURI E TEMPRATI - HARD AND HARDENED MATERIAL - HARTE UND GEHÄRTETE MATERIALIEN - MATERIAUX DURS ET TREMPÉS																								

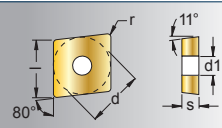
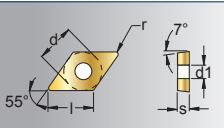
TNMA TNMG		VNGP VNMG		HT		HW		HC										DP																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
				CERMET		NON RIVESTITI CEMENTED CARBIDE GRADES		RIVESTITI COATED GRADES BESCHICHTET RECOUVERTS										PCD																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
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 EMPFOHLENER EINSATZ - APPLICATION CONSEILLÉE

□ A RICHIESTA - ON REQUEST - AUF ANFRAGE - SUR DEMANDE / □ NEW
 ○ APPLICAZIONE POSSIBILE - POSSIBLE APPLICATION -
 MÖGLICHE ANWENDUNG - APPLICATION POSSIBLE

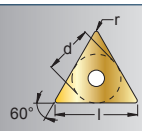
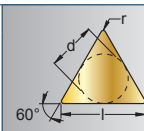
WNGP WNMA WNMG							HT	HW	HC											DP													
							CERMET	NON RIVESTITI CEMENTED CARBIDE GRADES	RIVESTITI COATED GRADES BESCHICHTET RECOUVERTS											PCD													
INSERTI NEGATIVI - NEGATIVE INSERTS - NEGATIVE WENDEPLATTEN - PLAQUÉTTES NEGATIVES																																	
ART.	COD.	l	d	s	d1	r			T110		F2120	T2120	F2425	F8410	T1415	T1425	T3111	T3210	T3220	T1126	T1435	F8315											
 .G23	WNGP 080404 .G23	8,7	12,7	4,76	5,16	0,4					☐																						
	WNGP 080408 .G23	8,7	12,7	4,76	5,16	0,8					☐																						
 .G61	WNMA 080408 .G61	8,7	12,7	4,76	5,16	0,8																											
	WNMG 080412 .G61 New	8,7	12,7	4,76	5,16	1,2											☒																
 .G42	WNMG 060404 .G42	6,5	9,52	4,76	3,81	0,4										☒																	
	WNMG 080404 .G42	8,7	12,7	4,76	5,16	0,4										☒																	
 .G52	WNMG 060404 .G52	6,5	9,52	4,76	3,81	0,4										☒	☒																
	WNMG 060408 .G52	6,5	9,52	4,76	3,81	0,8										☒	☒																
	WNMG 080404 .G52	8,7	12,7	4,76	5,16	0,4										☒	☒																
	WNMG 080408 .G52	8,7	12,7	4,76	5,16	0,8										☒	☒																
	WNMG 080412 .G52	8,7	12,7	4,76	5,16	1,2										☒	☒																
 .G53	WNMG 060404 .G53	6,5	9,52	4,76	3,81	0,4								☒																			
	WNMG 060408 .G53	6,5	9,52	4,76	3,81	0,8								☒																			
	WNMG 080404 .G53	8,7	12,7	4,76	5,16	0,4						☒	☒																				
	WNMG 080408 .G53	8,7	12,7	4,76	5,16	0,8						☒	☒																				
 .G55	WNMG 080408 .G55	8,7	12,7	4,76	5,16	0,8									☒								☒										
 .G56	WNMG 080408 .G56	8,7	12,7	4,76	5,16	0,8										☒	☒																
	WNMG 080412 .G56	8,7	12,7	4,76	5,16	1,2										☒	☒																
 .K57P	WNMG 080404 .K57P	8,7	12,7	4,76	5,16	0,4			☒																								
	WNMG 080408 .K57P	8,7	12,7	4,76	5,16	0,8			☒																								
 .G62	WNMG 080408 .G62	8,7	12,7	4,76	5,16	0,8										☒	☒	☒	☒														
	WNMG 080412 .G62	8,7	12,7	4,76	5,16	1,2										☒	☒	☒	☒														
 .G63	WNMG 080408 .G63	8,7	12,7	4,76	5,16	0,8								☒																			
	WNMG 080412 .G63	8,7	12,7	4,76	5,16	1,2								☒																			
 .G34W	WNMX 080408 .G34W	8,7	12,7	4,76	5,16	0,8										☒																	
	NEW																																
MATERIALE - MATERIAL - MATERIALIEN - MATÉRIAUX																																	
P	ACCIAIO - STEEL - STAHL - ACIER								T110		F2120	T2120	F2425	F8410	T1415	T1425	T3111	T3210	T3220	T1126	T1435	F8315											
M	ACCIAIO INOX - STAINLESS STEEL - ROSTFREIER STAHL - ACIER INOXYDABLE										☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒									
K	GHISA - CAST IRON - GRAUGUSS - FONTE GRISE								☒		☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒								
N	LEGHE DI ALLUMINIO - ALUMINIUM ALLOYS - ALUMINIUM-LEGIERUNGEN - ALLIAGES D'ALUMINIUM								☒		☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒								
S	LEGHE RESISTENTI AL CALORE - HEAT RESISTANT ALLOYS - WÄRMEBESTÄNDIGE LEGIERUNGEN - ALLIAGES RÉISTANTES À LA CHALEUR								☒		☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒								
H	MATERIALI DURI E TEMPRATI - HARD AND HARDENED MATERIAL - HARTE UND GEHÄRTETE MATERIALIEN - MATERIAUX DURS ET TREMPÉS																																

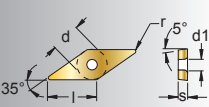
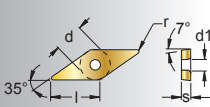
CCET CCGT CCGW CCMT CCMX							HT		HW		HC										DP					
							CERMET		NON RIVESTITI CEMENTED CARBIDE GRADES		RIVESTITI COATED GRADES BESCHICHTET RECOUVERTS										PCD					
	INSERTI POSITIVI - POSITIVE INSERTS - POSITIVE WENDEPLATTEN - PLAQUÉTTES POSITIVES						C4010	DT63	T115				F2120	F2425	F2435	T1415	T1425	T3111 	T3220	T1126 	T531	T1435			D3010 	
ART.	COD.	l	d	s	d1	r																				
	 .B22	CCET 060202 L .B22	6,5	6,35	2,38	2,8	0,2		■													■				
	 .B22	CCET 060204 L .B22	6,5	6,35	2,38	2,8	0,4		■													■				
	 .B22	CCET 09T304 L .B22	9,7	9,52	3,97	4,4	0,4		■													■				
	 .G13	CCGT 060200 .G13	6,5	6,35	2,38	2,8	0,0						■													
	 .G13	CCGT 060201 .G13	6,5	6,35	2,38	2,8	0,1						■													
	 .G13	CCGT 09T300 .G13	9,7	9,52	3,97	4,4	0,0						■													
	 .G13	CCGT 09T301 .G13	9,7	9,52	3,97	4,4	0,1						■													
	 .G57P	CCGT 060201 .G57P	6,5	6,35	2,38	2,8	0,1			■																
	 .G57P	CCGT 060202 .G57P	6,5	6,35	2,38	2,8	0,2			■																
	 .G57P	CCGT 060204 .G57P	6,5	6,35	2,38	2,8	0,4			■																
	 .G57P	CCGT 09T302 .G57P	9,7	9,52	3,97	4,4	0,2			■																
	 .G57P	CCGT 09T304 .G57P	9,7	9,52	3,97	4,4	0,4			■																
	 .G57P	CCGT 09T308 .G57P	9,7	9,52	3,97	4,4	0,8			■																
	 .G57P	CCGT 120404 .G57P	12,9	12,7	4,76	5,5	0,4			■																
	 .G57P	CCGT 120408 .G57P	12,9	12,7	4,76	5,5	0,8			■																
	 .X47	CCGW 060202 .X47	6,5	6,35	2,38	2,8	0,2																			■
	 .X47	CCGW 060204 .X47	6,5	6,35	2,38	2,8	0,4																			■
	 .X47	CCGW 09T302 .X47	9,7	9,52	3,97	4,4	0,2																			■
	 .X47	CCGW 09T304 .X47	9,7	9,52	3,97	4,4	0,4																			■
	 .X47	CCGW 09T308 .X47	9,7	9,52	3,97	4,4	0,8																			■
	 .X47	CCGW 120404 .X47	12,9	12,7	4,76	5,5	0,4																			■
	 .X47	CCGW 120408 .X47	12,9	12,7	4,76	5,5	0,8																			■
	 .G39	CCMT 060204 .G39	6,5	6,35	2,38	2,8	0,4	■																		
	 .G39	CCMT 09T304 .G39	9,7	9,52	3,97	4,4	0,4	■																		
	 .G42	CCMT 060202 .G42	6,5	6,35	2,38	2,8	0,2						■				■									
	 .G42	CCMT 060204 .G42	6,5	6,35	2,38	2,8	0,4						■				■									
	 .G42	CCMT 09T302 .G42	9,7	9,52	3,97	4,4	0,2						■				■									
	 .G42	CCMT 09T304 .G42	9,7	9,52	3,97	4,4	0,4						■				■									
	 .G42	CCMT 09T308 .G42	9,7	9,52	3,97	4,4	0,8						■				■									
	 .G42	CCMT 120404 .G42	12,9	12,7	4,76	5,5	0,4									■										
	 .G52	CCMT 060204 .G52	6,5	6,35	2,38	2,8	0,4						■				■					■				
	 .G52	CCMT 060208 .G52	6,5	6,35	2,38	2,8	0,8						■				■					■				
	 .G52	CCMT 09T304 .G52	9,7	9,52	3,97	4,4	0,4						■	■			■					■				
	 .G52	CCMT 09T308 .G52	9,7	9,52	3,97	4,4	0,8						■	■			■					■				
	 .G52	CCMT 120404 .G52	12,9	12,7	4,76	5,5	0,4						■				■					■				
	 .G52	CCMT 120408 .G52	12,9	12,7	4,76	5,5	0,8						■				■	■				■				
	 .G52	CCMT 120412 .G52	12,9	12,7	4,76	5,5	1,2						■				■					■				
	 .G32W	CCMX 09T304 .G32W	9,7	9,52	3,97	4,4	0,4										■									
	 .G32W	NEW																								■
MATERIALE - MATERIAL - MATERIALIEN - MATÉRIAUX							C4010	DT63	T115				F2120	F2425	F2435	T1415	T1425	T3111 	T3220	T1126 	T531	T1435			D3010 	
P	ACCIAIO - STEEL - STAHL - ACIER						○	●						○	○	●	●	○	○	●	○	●				
M	ACCIAIO INOX - STAINLESS STEEL - ROSTFREIER STAHL - ACIER INOXYDABLE						●	●					●	●	●		○			●	●	○				
K	GHISA - CAST IRON - GRAUGUSS - FONTE GRISE						○	●	○				○			○	○	●	●	●						
N	LEGHE DI ALLUMINIO - ALUMINIUM ALLOYS - ALUMINIUM-LEGIERUNGEN - ALLIAGES D'ALUMINIUM								●				○													●
S	LEGHE RESISTENTI AL CALORE - HEAT RESISTANT ALLOYS - WÄRMEBESTÄNDIGE LEGIERUNGEN - ALLIAGES RÉISTANTES À LA CHALEUR								○				○													
H	MATERIALI DURI E TEMPRATI - HARD AND HARDENED MATERIAL - HARTE UND GEHÄRTETE MATERIALIEN - MATERIAUX DURS ET TREMPÉS																									

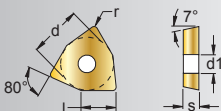
CPGT CPMT		DCGT DCGW DCMT		HT		HW	HC								DP					
				CERMET		NON RIVESTITI CEMENTED CARBIDE GRADES	RIVESTITI COATED GRADES BESCHICHTET RECOUVERTS								PCD					
INSERTI POSITIVI - POSITIVE INSERTS - POSITIVE WENDEPLATTEN - PLAQUÉTTES POSITIVES																				
ART.	COD.	l	d	s	d1	r	C4010	DT61T	T115	T120		F2120	F2425	T1415	T1425		F8120		D3010 ≤ 12	
	CPGT 05T102 EN .D34	5,6	5,56	1,97	2,5	0,2		■												
	CPGT 05T104 EN .D34	5,6	5,56	1,97	2,5	0,4		■												
	.D34																			
	CPGT 05T102 FN .D42	5,6	5,56	1,97	2,5	0,2				■										
	CPGT 05T104 FN .D42	5,6	5,56	1,97	2,5	0,4				■										
	.D42																			
	CPMT 05T102 EN .G42	5,6	5,56	1,97	2,5	0,2									■					
	CPMT 05T104 EN .G42	5,6	5,56	1,97	2,5	0,4									■					
	.G42																			
	DCGT 070200 .G13	7,8	6,35	2,38	2,8	0,0						■								
	DCGT 070201 .G13	7,8	6,35	2,38	2,8	0,1						■								
	DCGT 11T300 .G13	11,6	9,52	3,97	4,4	0,0						■								
	DCGT 11T301 .G13	11,6	9,52	3,97	4,4	0,1						■								
	.G13																			
	DCGT 070202 .B53	7,8	6,35	2,38	2,8	0,2												■		
	DCGT 070204 .B53	7,8	6,35	2,38	2,8	0,4												■		
	DCGT 11T302 .B53	11,6	9,52	3,97	4,4	0,2												■		
	DCGT 11T304 .B53	11,6	9,52	3,97	4,4	0,4												■		
	.B53																			
	DCGT 070201 .G57P	7,8	6,35	2,38	2,8	0,1				■										
	DCGT 070202 .G57P	7,8	6,35	2,38	2,8	0,2				■										
	DCGT 070204 .G57P	7,8	6,35	2,38	2,8	0,4				■										
	DCGT 070208 .G57P	7,8	6,35	2,38	2,8	0,8				■										
	DCGT 11T302 .G57P	11,6	9,52	3,97	4,4	0,2				■										
	DCGT 11T304 .G57P	11,6	9,52	3,97	4,4	0,4				■										
	DCGT 11T308 .G57P	11,6	9,52	3,97	4,4	0,8				■										
	DCGW 070202 .X47	7,8	6,35	2,38	2,8	0,2													■	
	DCGW 070204 .X47	7,8	6,35	2,38	2,8	0,4													■	
	DCGW 11T302 .X47	11,6	9,52	3,97	4,4	0,2													■	
	DCGW 11T304 .X47	11,6	9,52	3,97	4,4	0,4													■	
	NEW																			
	DCMT 070204 .G39	7,8	6,35	2,38	2,8	0,4	■													
	DCMT 11T304 .G39	11,6	9,52	3,97	4,4	0,4	■													
	.G39																			
	DCMT 070202 .G42	7,8	6,35	2,38	2,8	0,2						■			■					
	DCMT 070204 .G42	7,8	6,35	2,38	2,8	0,4						■		■	■					
	DCMT 11T302 .G42	11,6	9,52	3,97	4,4	0,2						■			■					
	DCMT 11T304 .G42	11,6	9,52	3,97	4,4	0,4						■			■					
	DCMT 11T308 .G42	11,6	9,52	3,97	4,4	0,8						■			■					
MATERIALE - MATERIAL - MATERIALIEN - MATÉRIAUX							C4010	DT61T	T115	T120		F2120	F2425	T1415	T1425		F8120		D3010 ≤ 12	
P	ACCIAIO - STEEL - STAHL - ACIER						○	●					○		●	●				
M	ACCIAIO INOX - STAINLESS STEEL - ROSTFREIER STAHL - ACIER INOXYDABLE						●	●		○	○		●	●		○			○	
K	GHISA - CAST IRON - GRAUGUSS - FONTE GRISE						○	○		○	●		○		○	○				
N	LEGHE DI ALLUMINIO - ALUMINIUM ALLOYS - ALUMINIUM-LEGIERUNGEN - ALLIAGES D'ALUMINIUM							○		●	○		○							●
S	LEGHE RESISTENTI AL CALORE - HEAT RESISTANT ALLOYS - WÄRMEBESTÄNDIGE LEGIERUNGEN - ALLIAGES RÉISTANTES À LA CHALEUR												○					●		
H	MATERIALI DURI E TEMPRATI - HARD AND HARDENED MATERIAL - HARTE UND GEHÄRTETE MATERIALIEN - MATERIAUX DURS ET TREMPÉS																			

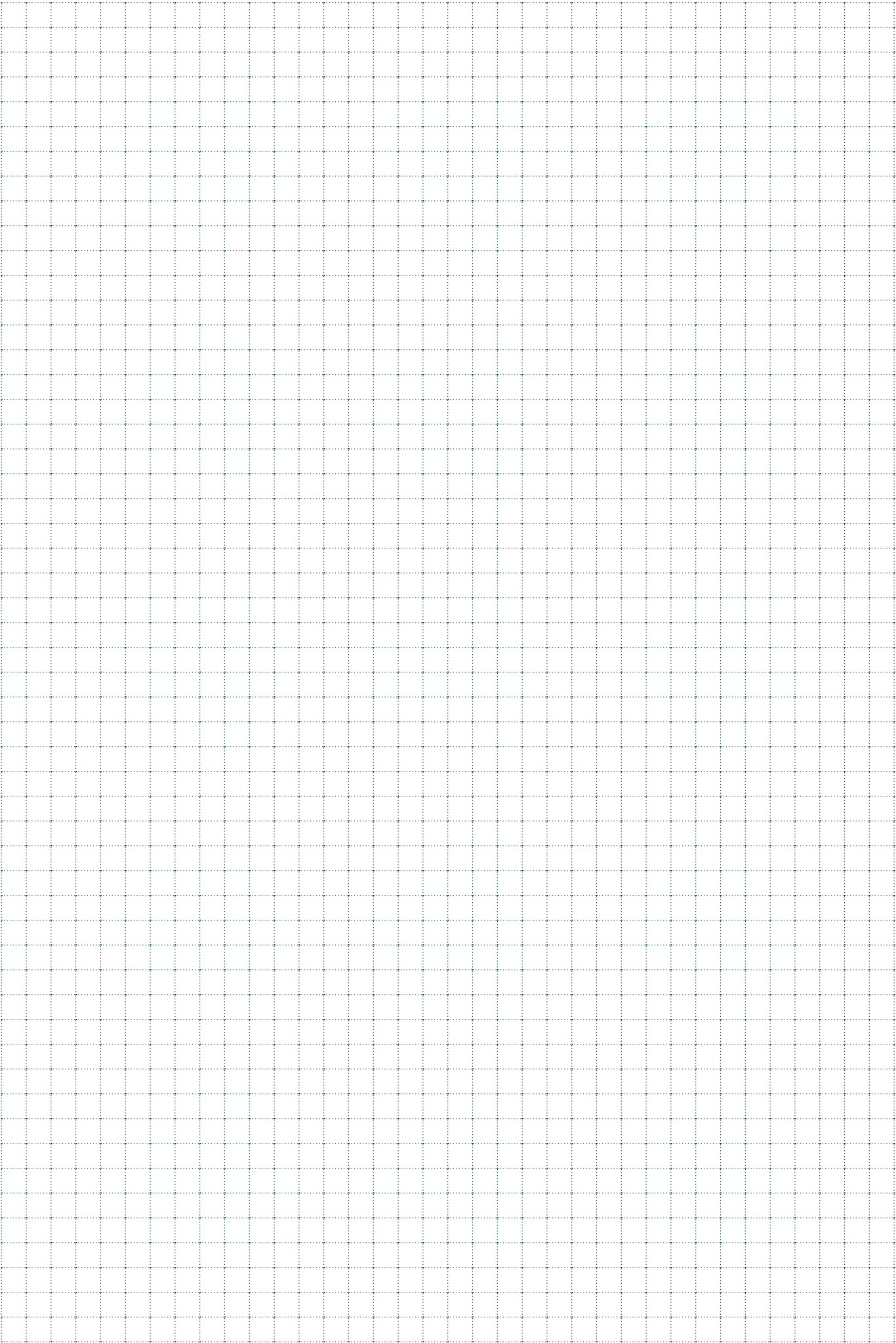
■ DISPONIBILI - IN STOCK - LIEFERBAR - DISPONIBLES / ■ NEW
● APPLICAZIONE CONSIGLIATA - RECOMMENDED APPLICATION -
EMPFOHLENER EINSATZ - APPLICATION CONSEILLÉE

□ A RICHIESTA - ON REQUEST - AUF ANFRAGE - SUR DEMANDE / □ NEW
○ APPLICAZIONE POSSIBILE - POSSIBLE APPLICATION -
MÖGLICHE ANWENDUNG - APPLICATION POSSIBLE

TCGT TCGW TCMT		TPMR		HT		HW		HC										DP					
				CERMET		NON RIVESTITI CEMENTED CARBIDE GRADES		RIVESTITI COATED GRADES BESCHICHTET RECOUVERTS										PCD					
				INSERTI POSITIVI - POSITIVE INSERTS - POSITIVE WENDEPLATTEN - PLAQUÉTTES POSITIVES																			
ART.	COD.	l	d	s	d1	r	C4010		T115	T120		T1625	F2425	F2435	T1415	T1425	T3220		T1435	T520T	T540	D3010 $\leq m/z$	
	TCGT 110202 .G39	11,0	6,35	2,38	2,8	0,2	■																
	.G39																						
	TCGT 090202 .G57P	9,6	5,56	2,38	2,5	0,2			■														
	TCGT 090204 .G57P	9,6	5,56	2,38	2,5	0,4			■														
	TCGT 110204 .G57P	11,0	6,35	2,38	2,8	0,4			■														
	TCGT 16T304 .G57P	16,5	9,52	3,97	4,4	0,4			■														
	TCGT 16T308 .G57P	16,5	9,52	3,97	4,4	0,8			■														
	TCGW 090202 .X47	9,6	5,56	2,38	2,5	0,2																	
	TCGW 090204 .X47	9,6	5,56	2,38	2,5	0,4																	
	TCGW 110202 .X47	11,0	6,35	2,38	2,8	0,2																	
	TCGW 110204 .X47	11,0	6,35	2,38	2,8	0,4																	
	TCGW 16T304 .X47	16,5	9,52	3,97	4,4	0,4																	
	NEW																						
	TCMT 110204 .G39	11,0	6,35	2,38	2,8	0,4	■																
	.G39																						
	TCMT 110202 .S42	11,0	6,35	2,38	2,8	0,2																■	
	TCMT 110204 .S42	11,0	6,35	2,38	2,8	0,4				■												■	
	TCMT 16T304 .S42	16,5	9,52	3,97	4,4	0,4				■													
	TCMT 16T308 .S42	16,5	9,52	3,97	4,4	0,8				■												■	
	TCMT 220404 .S42	22,0	12,7	4,76	5,6	0,4				■													
	TCMT 090204 .G52	9,6	5,56	2,38	2,5	0,4							■			■	■						
	TCMT 110204 .G52	11,0	6,35	2,38	2,8	0,4							■	■	■	■	■			■			
	TCMT 110208 .G52	11,0	6,35	2,38	2,8	0,8							■	■		■	■			■			
	TCMT 16T304 .G52	16,5	9,52	3,97	4,4	0,4							■			■	■			■			
	TCMT 16T308 .G52	16,5	9,52	3,97	4,4	0,8							■			■	■			■			
	TCMT 16T312 .G52	16,5	9,52	3,97	4,4	1,2							■			■				■			
	TPMR 110304 .S44	11,0	6,35	3,18	–	0,4							■										
	TPMR 110308 .S44	11,0	6,35	3,18	–	0,8							■										
	TPMR 160304 .S44	16,5	9,52	3,18	–	0,4															■		
	TPMR 160308 .S44	16,5	9,52	3,18	–	0,8															■		
MATERIALE - MATERIAL - MATERIALIEN - MATÉRIAUX							C4010		T115	T120		T1625	F2425	F2435	T1415	T1425	T3220		T1435	T520T	T540	D3010 $\leq m/z$	
P	ACCIAIO - STEEL - STAHL - ACIER						○					●	○	○	●	●	○		●	●	●		
M	ACCIAIO INOX - STAINLESS STEEL - ROSTFREIER STAHL - ACIER INOXYDABLE						●			○		○	●	●		○				○	○	●	
K	GHISA - CAST IRON - GRAUGUSS - FONTE GRISE						○		○	●		○			○	○	●				●		
N	LEGHE DI ALLUMINIO - ALUMINIUM ALLOYS - ALUMINIUM-LEGIERUNGEN - ALLIAGES D'ALUMINIUM								●	○												○	●
S	LEGHE RESISTENTI AL CALORE - HEAT RESISTANT ALLOYS - WÄRMEBESTÄNDIGE LEGIERUNGEN - ALLIAGES RÉISTANTES À LA CHALEUR								○	○												○	
H	MATERIALI DURI E TEMPRATI - HARD AND HARDENED MATERIAL - HARTE UND GEHÄRTETE MATERIALIEN - MATERIAUX DURS ET TREMPÉS																						

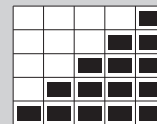
VBGW VBMT		VCGT VCGW VCMT		HT		HW		HC								DP					
				CERMET		NON RIVESTITI CEMENTED CARBIDE GRADES		RIVESTITI COATED GRADES BESCHICHTET RECOUVERTS								PCD					
				INSERTI POSITIVI - POSITIVE INSERTS - POSITIVE WENDEPLATTEN - PLAQUÉTTES POSITIVES																	
ART.	COD.	l	d	s	d1	r		T115			F2120	F2425	F2435	T1415	T1425			T1435			D3010
 .X47	VBGW 160402 .X47	16,5	9,52	4,76	4,4	0,2															
	VBGW 160404 .X47	16,5	9,52	4,76	4,4	0,4															
	NEW																				
 .G42	VBMT 160404 .G42	16,5	9,52	4,76	4,4	0,4						■		■	■			■			
	VBMT 160408 .G42	16,5	9,52	4,76	4,4	0,8						■		■	■			■			
 .G52	VBMT 160404 .G52	16,5	9,52	4,76	4,4	0,4						■		■	■			■			
	VBMT 160408 .G52	16,5	9,52	4,76	4,4	0,8						■		■	■			■			
 .G58	VBMT 160404 .G58	16,5	9,52	4,76	4,4	0,4							■		■						
	VBMT 160408 .G58	16,5	9,52	4,76	4,4	0,8							■		■						
 .G13	VCGT 110300 .G13	11,1	6,35	3,18	2,9	0,0					■										
	VCGT 110301 .G13	11,1	6,35	3,18	2,9	0,1					■										
	VCGT 160400 .G13	16,5	9,52	4,76	4,4	0,0					■										
	VCGT 160401 .G13	16,5	9,52	4,76	4,4	0,1					■										
 .G57P	VCGT 110302 .G57P	11,1	6,35	3,18	2,9	0,2		■													
	VCGT 110304 .G57P	11,1	6,35	3,18	2,9	0,4		■													
	VCGT 160404 .G57P	16,5	9,52	4,76	4,4	0,4		■													
	VCGT 160408 .G57P	16,5	9,52	4,76	4,4	0,8		■													
	VCGT 160412 .G57P	16,5	9,52	4,76	4,4	1,2		■													
 .X47	VCGW 160404 .X47	16,5	9,52	4,76	4,4	0,4															
	NEW																				
 .G42	VCMT 110302 .G42	11,1	6,35	3,18	2,9	0,2						■			■						
	VCMT 110304 .G42	11,1	6,35	3,18	2,9	0,4						■			■						
	VCMT 160404 .G42	16,5	9,52	4,76	4,4	0,4						■			■						
 .G52	VCMT 110304 .G52	11,1	6,35	3,18	2,9	0,4						■	■	■	■			■			
	VCMT 110308 .G52	11,1	6,35	3,18	2,9	0,8						■	■	■	■			■			
	VCMT 160404 .G52	16,5	9,52	4,76	4,4	0,4						■		■	■			■			
	VCMT 160408 .G52	16,5	9,52	4,76	4,4	0,8						■		■	■			■			
MATERIALE - MATERIAL - MATERIALIEN - MATÉRIAUX								T115			F2120	F2425	F2435	T1415	T1425			T1435			D3010
P	ACCIAIO - STEEL - STAHL - ACIER											○	○	●	●			●			
M	ACCIAIO INOX - STAINLESS STEEL - ROSTFREIER STAHL - ACIER INOXYDABLE										●	●	●		○			○			
K	GHISA - CAST IRON - GRAUGUSS - FONTE GRISE							○			○			○	○						
N	LEGHE DI ALLUMINIO - ALUMINIUM ALLOYS - ALUMINIUM-LEGIERUNGEN - ALLIAGES D'ALUMINIUM								●		○										●
S	LEGHE RESISTENTI AL CALORE - HEAT RESISTANT ALLOYS - WÄRMEBESTÄNDIGE LEGIERUNGEN - ALLIAGES RÉSISTANTES À LA CHALEUR							○			○										
H	MATERIALI DURI E TEMPRATI - HARD AND HARDENED MATERIAL - HARTE UND GEHÄRTETE MATERIALIEN - MATERIAUX DURS ET TREMPÉS																				

WCGT WCMT							HT		HW		HC										DP																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
							CERMET		NON RIVESTITI CEMENTED CARBIDE GRADES		RIVESTITI COATED GRADES BESCHICHTET RECOUVERTS										PCD																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
INSERTI POSITIVI - POSITIVE INSERTS - POSITIVE WENDEPLATTEN - PLAQUÉTTES POSITIVES																			C4010	DT63																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										



SCELTA VELOCE QUICK PICK

Tenacità
Toughness



- METODO PER LA SCELTA VELOCE DEL GRADO DI METALLO DURO PIÙ IDONEO. CONTARE IL NUMERO DI RETTANGOLI COLORATI
- METHOD FOR A QUICK CHOICE OF THE MOST SUITABLE SOLID CARBIDE GRADE. COUNT THE NUMBER OF COLORED RECTANGLES
- METHODE ZUR RASCHEN AUSWAHL DER GEEIGNETSTEN HARTMETALLSORTE. DIE ANZAHL DER BUNTEN RECH TECKEZAHLN
- METHODE POUR CHOISIR RAPIDEMENT LE DEGRÉ LE PLUS APPROPRIÉ DU METAL DUR. COMPTER LES RECTANGLES EN COULEURS
- METODO PARA LA ELECCION RAPIDA DE EL GRADO MAS ADECUADO DE METAL DURO. CONTAR LOS NUMEROS DE RECTANGULOS COLORADOS



- GRADO MOLTO RESISTENTE ALL'USURA, SOLO PER FINITURA, LAVORAZIONI AD ALTE VELOCITÀ DI TAGLIO E CONDIZIONI MOLTO RIGIDE E STABILI
- GRADE WITH HIGH RESISTANCE TO WEAR; ONLY FOR FINISHING, MACHINING AT HIGH CUTTING SPEEDS, AND VERY RIGID AND STABLE CONDITIONS



- GRADO CON ALTA RESISTENZA ALL'USURA, DISCRETA TENACITÀ PER LAVORAZIONI A VELOCITÀ MEDIO ALTE ED AVANZAMENTI MEDI, IN CONDIZIONI NORMALI
- GRADE WITH HIGH RESISTANCE TO WEAR, GOOD TOUGHNESS, FOR MEDIUM-HIGH MACHINING AND MEDIUM FEED UNDER NORMAL CONDITIONS



- GRADO CON BUONA RESISTENZA ALL'USURA UNITA A BUONA TENACITÀ, PER LAVORAZIONI GENERICHE IN CONDIZIONI NORMALI
- GRADE WITH GOOD RESISTANCE TO WEAR; COMBINED WITH A GOOD DEGREE OF TOUGHNESS, FOR GENERAL MACHINING UNDER NORMAL CONDITIONS



- GRADO CON OTTIMA TENACITÀ PER LAVORAZIONI MEDIO PESANTI O IN CONDIZIONI POCO STABILI
- GRADE WITH EXCELLENTE TOUGHNESS, FOR MEDIUM HEAVY MACHINING OR MACHINING UNDER CONDITIONS OF LOW STABILITY



- GRADO CON ECCEZIONALE TENACITÀ PER LAVORAZIONI PESANTI CON BASSE VELOCITÀ DI TAGLIO, ALTI AVANZAMENTI O IN CONDIZIONI SFAVOREVOLI
- GRADE WITH EXCELLENTE TOUGHNESS, FOR HEAVY MACHINING WITH LOW CUTTING SPEEDS, HIGH FEED, OR UNDER UNFAVORABLE CONDITIONS

GUIDA FACILE EASY GUIDE

fn = 0,05-0,15 mm

GSTN 25-0.2-3 .X54 F4530

F	M	R
○	●	○
○	●	○
○	●	○

P Vc = 80-180 m/min
M Vc = 50-180 m/min
K Vc = 90-160 m/min
N
S
H

SAU QUALITY TOOLS ENGINEERING

GSTN 25-0.2-3 .X54 - F4530

P25-45 / M25-40 / K25-45

F4530

- GUIDA ALL'USO DELL'INSERTO. PRESENTE ANCHE SU OGNI ETICHETTA
- GUIDE FOR THE USE OF THE INSERT. ALSO LISTED ON EACH LABEL
- LEITFADEN ZUR VERWENDUNG DER WENDEPLATTE, AUCH AUF JEDEM AUFKLEBER VORHANDEN
- INSTRUCTIONS POUR L'UTILISATION DE LA PLAQUETTE. SE TROUVANT EGALEMENT SUR CHAQUE ETIQUETTE
- GUIA POR EL UTILIZO DE LA PLAQUITA, PRESENTE TAMBIEN EN CADA ETIQUETA

GR. VDI 3323 MATERIALI MATERIALS Pag. 1119	6	P	= ACCIAIO BASSO LEGATO HB 180	- LOW STEEL ALLOY
	14.1	M	= ACCIAIO INOSSIDABILE AUSTENITICO HB 180	- AUSTENITIC STAINLESS STEEL HB 180
	16	K	= GHISA GRIGIA HB 260	- GRAY CAST IRON HB 260
	21	N	= LEGHE DI ALLUMINIO HB 60	- ALUMINUM ALLOYS HB 60
	33	S	= LEGHE RESISTENTI AL CALORE (INCONEL) HB 250	- HEAT RESISTANT ALLOYS (INCONEL) HB 250
	38	H	= ACCIAIO TEMPRATO HRC 55	- TEMPERED STEEL HRC 55

F	= FINITURA, LAVORAZIONI LEGGERE	- FINISHING, LIGHT MACHINING
M	= LAVORAZIONI MEDIE, IMPIEGO GENERICO	- MEDIUM MACHINING, GENERAL USE
R	= SGROSSATURA, LAVORAZIONI PESANTI	- ROUGHING, HEAVY MACHINING

fn (mm)	= AVANZAMENTO PER TORNITURA	- FEED FOR TURNING
fz (mm/z)	= AVANZAMENTO PER FRESATURA	- FEED FOR MILLING
Vc (m/min)	= VELOCITÀ DI TAGLIO	- CUTTING SPEED
●	= APPLICAZIONE CONSIGLIATA	- RECOMMENDED APPLICATION
○	= APPLICAZIONE POSSIBILE	- POSSIBLE APPLICATION

INSERTI PER TAGLIO SCANALATURA

PARTING-GROOVING INSERTS / WENDEPLATTEN ZUM A BSTECHEN-NUTENDREHEN
PLAQUÉTTES DE TRONÇONNAGE-GORGES / PLAQUITAS DE CORTE-RANURAS



	COME SCEGLIERE I PARAMETRI DI LAVORO	Pag. 213
	PANORAMICA QUALITÀ TAGLIO-SCANALATURA	Pag. 215
	IMPIEGO DELLE QUALITÀ TAGLIO-SCANALATURA	Pag. 216
	VELOCITÀ DI TAGLIO DELLE QUALITÀ TAGLIO-SCAN.	Pag. 218
	CAMPI DI IMPIEGO DEI ROMPITRUCIOLI TAGLIO-SCAN.	Pag. 220
	DENOMINAZIONI DEGLI INSERTI TAGLIO-SCAN.-FILETTATURA	Pag. 224
	CATALOGO DISPONIBILITÀ INSERTI TAGLIO-SCAN.	Pag. 225

	HOW TO CHOOSE CUTTING DATA	Pag. 213
	GENERAL VIEW OF THE PARTING-GROOVING GRADE	Pag. 215
	APPLICATION OF THE PARTING-GROOVING GRADE	Pag. 216
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	PARTING-GROOVING INSERTS STOCK CATALOGUE	Pag. 225

	EINSTELLUNG DER SCHNITTDATEN	Pag. 213
	ABSTECHEN-NUTENDREHEN-ÜBERSICHT	Pag. 215
	EINSATZ DER ABSTECHEN-NUTENDREHEN	Pag. 216
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	SCHNITTGESCHWINDIGKEIT ABSTECHEN-NUTENDREHEN	Pag. 220
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	VITESSE DE COUPE DE LA QUALITÉ DE PLAQUETTES DE TRONÇONNAGE-GORGES	Pag. 218
	CHAMPS D'USINAGE DE LE BRISE-COPEAUX TRONÇONNAGE-GORGES	Pag. 220
	DÉNOMINATION DE LES PLAQUETTES POUR LE TRONÇONNAGE-GORGES-FILETAGE	Pag. 224
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COME SCEGLIERE I PARAMETRI DI LAVORO
HOW TO CHOOSE CUTTING DATA
EINSTELLUNG DER SCHNITTDATEN
COMMENT CHOISIR LES PARAMETRES DE SERVICE

FASE 1 - PHASE 1

SCELTA GR. VDI IN FUNZIONE DEL MATERIALE
 CHOICE OF VDI GR. DEPENDING ON MATERIAL
 WAHL VDI-SORTE JE NACH WERKSTOFF
 CHOIX GR. VDI EN FONCTION DU MATERIEL

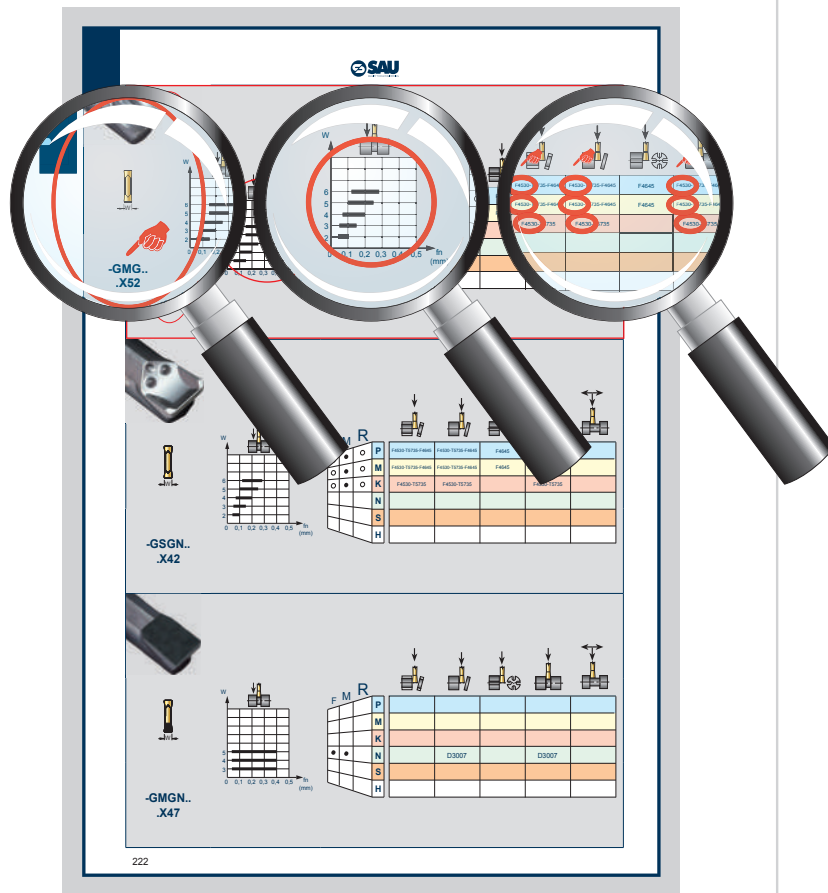
Tabella comparativa dei materiali - Materials comparison table
Materialvergleichstabelle - Tableau comparatif des matériaux

SAU
QUALITY TOOLS TECHNOLOGY

UNI	WISTOFF	DIN	SAE	BS	AFNOR	JIS	kct.1	mc	VDI 3323 GR.
ACCIAIO NON LEGATO RICOTTO ANNEALED NOT-ALLOY STEEL									
C < 0,15% 125 HB									
CF 10 SPB 20	1.0722	10 SPB 20	11 L 08	-	10 PUF 2	-	-	-	0,22
CF 9 SMO 28	1.0715	9 SMO 28	1213	230 M 07	S 200	-	-	-	0,22
CF 9 SMO 36	1.0726	9 SMO 36	1215	240 M 07	S 200	-	-	-	0,22
CF 9 SMO 28	1.0718	9 SMO 28	12 L 13	-	S 200 PB	-	-	-	0,22
CF 9 SMO 36	1.0727	9 SMO 36	12 L 14	-	S 200 PB	-	-	-	0,22
C15 C16	1.0401	C 15	1015	080 M 15	AF 37 C 12, XC 18	-	-	-	0,22
C20 C21	1.0402	C 20	1020	080 A 20	AF 42 C 20	-	-	-	0,22
C 16	1.1141	Ck 15	1015	080 M 15	XC 15, XC 18	-	-	-	0,22
ACCIAIO NON LEGATO RICOTTO ANNEALED NOT-ALLOY STEEL									
C 0,15-0,55% 180 HB									
-	-	28 Mn 6	1330	150 M 28	20 M 5	-	-	-	0,22
-	-	35 S 20	1140	212 M 36	35 MF 4	-	-	-	0,22
-	-	38 Mn 5	1039	150 M 36	35 M 5	-	-	-	0,22
-	-	40 Mn 4	1039	150 M 36	35 M 5	-	-	-	0,22
-	-	C 35	1035	080 A 35	AF 55 C 35	-	-	-	0,22
-	-	C 45	1045	080 M 45	XC 42	-	-	-	0,22
-	-	C 53	1045	080 M 45	XC 42	-	-	-	0,22
-	-	C 735	-	-	-	-	-	-	0,22
-	-	C 733	-	-	-	-	-	-	0,22
ACCIAIO NON LEGATO RICOTTO ANNEALED NOT-ALLOY STEEL									
C 0,15-0,55% 250 HB									
-	-	28 Mn 6	1330	150 M 28	20 M 5	-	-	-	0,22
-	-	35 S 20	1140	212 M 36	35 MF 4	-	-	-	0,22
-	-	38 Mn 5	1039	150 M 36	35 M 5	-	-	-	0,22
-	-	40 Mn 4	1039	150 M 36	35 M 5	-	-	-	0,22
-	-	C 35	1035	080 A 35	AF 55 C 35	-	-	-	0,22
-	-	C 45	1045	080 M 45	XC 42	-	-	-	0,22
-	-	C 53	1045	080 M 45	XC 42	-	-	-	0,22
-	-	C 735	-	-	-	-	-	-	0,22
-	-	C 733	-	-	-	-	-	-	0,22
ACCIAIO NON LEGATO RICOTTO ANNEALED NOT-ALLOY STEEL									
C > 0,55% 300 HB									
-	-	28 Mn 6	1330	150 M 28	20 M 5	-	-	-	0,24
-	-	35 S 20	1140	212 M 36	35 MF 4	-	-	-	0,24
-	-	38 Mn 5	1039	150 M 36	35 M 5	-	-	-	0,24
-	-	40 Mn 4	1039	150 M 36	35 M 5	-	-	-	0,24
-	-	C 35	1035	080 A 35	AF 55 C 35	-	-	-	0,24
-	-	C 45	1045	080 M 45	XC 42	-	-	-	0,24
-	-	C 53	1045	080 M 45	XC 42	-	-	-	0,24
-	-	C 735	-	-	-	-	-	-	0,24
-	-	C 733	-	-	-	-	-	-	0,24
ACCIAIO NON LEGATO RICOTTO ANNEALED NOT-ALLOY STEEL									
C > 0,55% 300 HB									
-	-	28 Mn 6	1330	150 M 28	20 M 5	-	-	-	0,24
-	-	35 S 20	1140	212 M 36	35 MF 4	-	-	-	0,24
-	-	38 Mn 5	1039	150 M 36	35 M 5	-	-	-	0,24
-	-	40 Mn 4	1039	150 M 36	35 M 5	-	-	-	0,24
-	-	C 35	1035	080 A 35	AF 55 C 35	-	-	-	0,24
-	-	C 45	1045	080 M 45	XC 42	-	-	-	0,24
-	-	C 53	1045	080 M 45	XC 42	-	-	-	0,24
-	-	C 735	-	-	-	-	-	-	0,24
-	-	C 733	-	-	-	-	-	-	0,24
ACCIAIO NON LEGATO RICOTTO ANNEALED NOT-ALLOY STEEL									
C > 0,55% 300 HB									
-	-	28 Mn 6	1330	150 M 28	20 M 5	-	-	-	0,24
-	-	35 S 20	1140	212 M 36	35 MF 4	-	-	-	0,24
-	-	38 Mn 5	1039	150 M 36	35 M 5	-	-	-	0,24
-	-	40 Mn 4	1039	150 M 36	35 M 5	-	-	-	0,24
-	-	C 35	1035	080 A 35	AF 55 C 35	-	-	-	0,24
-	-	C 45	1045	080 M 45	XC 42	-	-	-	0,24
-	-	C 53	1045	080 M 45	XC 42	-	-	-	0,24
-	-	C 735	-	-	-	-	-	-	0,24
-	-	C 733	-	-	-	-	-	-	0,24
ACCIAIO NON LEGATO RICOTTO ANNEALED NOT-ALLOY STEEL									
C > 0,55% 300 HB									
-	-	28 Mn 6	1330	150 M 28	20 M 5	-	-	-	0,24
-	-	35 S 20	1140	212 M 36	35 MF 4	-	-	-	0,24
-	-	38 Mn 5	1039	150 M 36	35 M 5	-	-	-	0,24
-	-	40 Mn 4	1039	150 M 36	35 M 5	-	-	-	0,24
-	-	C 35	1035	080 A 35	AF 55 C 35	-	-	-	0,24
-	-	C 45	1045	080 M 45	XC 42	-	-	-	0,24
-	-	C 53	1045	080 M 45	XC 42	-	-	-	0,24
-	-	C 735	-	-	-	-	-	-	0,24
-	-	C 733	-	-	-	-	-	-	0,24
ACCIAIO NON LEGATO RICOTTO ANNEALED NOT-ALLOY STEEL									
C > 0,55% 300 HB									
-	-	28 Mn 6	1330	150 M 28	20 M 5	-	-	-	0,24
-	-	35 S 20	1140	212 M 36	35 MF 4	-	-	-	0,24
-	-	38 Mn 5	1039	150 M 36	35 M 5	-	-	-	0,24
-	-	40 Mn 4	1039	150 M 36	35 M 5	-	-	-	0,24
-	-	C 35	1035	080 A 35	AF 55 C 35	-	-	-	0,24
-	-	C 45	1045	080 M 45	XC 42	-	-	-	0,24
-	-	C 53	1045	080 M 45	XC 42	-	-	-	0,24
-	-	C 735	-	-	-	-	-	-	0,24
-	-	C 733	-	-	-	-	-	-	0,24
ACCIAIO NON LEGATO RICOTTO ANNEALED NOT-ALLOY STEEL									
C > 0,55% 300 HB									
-	-	28 Mn 6	1330	150 M 28	20 M 5	-	-	-	0,24
-	-	35 S 20	1140	212 M 36	35 MF 4	-	-	-	0,24
-	-	38 Mn 5	1039	150 M 36	35 M 5	-	-	-	0,24
-	-	40 Mn 4	1039	150 M 36	35 M 5	-	-	-	0,24
-	-	C 35	1035	080 A 35	AF 55 C 35	-	-	-	0,24
-	-	C 45	1045	080 M 45	XC 42	-	-	-	0,24
-	-	C 53	1045	080 M 45	XC 42	-	-	-	0,24
-	-	C 735	-	-	-	-	-	-	0,24
-	-	C 733	-	-	-	-	-	-	0,24
ACCIAIO NON LEGATO RICOTTO ANNEALED NOT-ALLOY STEEL									
C > 0,55% 300 HB									
-	-	28 Mn 6	1330	150 M 28	20 M 5	-	-	-	0,24
-	-	35 S 20	1140	212 M 36	35 MF 4	-	-	-	0,24
-	-	38 Mn 5	1039	150 M 36	35 M 5	-	-	-	0,24
-	-	40 Mn 4	1039	150 M 36	35 M 5	-	-	-	0,24
-	-	C 35	1035	080 A 35	AF 55 C 35	-	-	-	0,24
-	-	C 45	1045	080 M 45	XC 42	-	-	-	0,24
-	-	C 53	1045	080 M 45	XC 42	-	-	-	0,24
-	-	C 735	-	-	-	-	-	-	0,24
-	-	C 733	-	-	-	-	-	-	0,24
ACCIAIO NON LEGATO RICOTTO ANNEALED NOT-ALLOY STEEL									
C > 0,55% 300 HB									
-	-	28 Mn 6	1330	150 M 28	20 M 5	-	-	-	0,24
-	-	35 S 20	1140	212 M 36	35 MF 4	-	-	-	0,24
-	-	38 Mn 5	1039	150 M 36	35 M 5	-	-	-	0,24
-	-	40 Mn 4	1039	150 M 36	35 M 5	-	-	-	0,24
-	-	C 35	1035	080 A 35	AF 55 C 35	-	-	-	0,24
-	-	C 45	1045	080 M 45	XC 42	-	-	-	0,24
-	-	C 53	1045	080 M 45	XC 42	-	-	-	0,24
-	-	C 735	-	-	-	-	-	-	0,24
-	-	C 733	-	-	-	-	-	-	0,24
ACCIAIO NON LEGATO RICOTTO ANNEALED NOT-ALLOY STEEL									
C > 0,55% 300 HB									
-	-	28 Mn 6	1330	150 M 28	20 M 5	-	-	-	0,24
-	-	35 S 20	1140	212 M 36	35 MF 4	-	-	-	0,24
-	-	38 Mn 5	1039	150 M 36	35 M 5	-	-	-	0,24
-	-	40 Mn 4	1039	150 M 36	35 M 5	-	-	-	0,24
-	-	C 35	1035	080 A 35	AF 55 C 35	-	-	-	0,24
-	-	C 45	1045	080 M 45	XC 42	-	-	-	0,24
-	-	C 53	1045	080 M 45	XC 42	-	-	-	0,24
-	-	C 735	-	-	-	-	-	-	0,24
-	-	C 733	-	-	-	-	-	-	0,24
ACCIAIO NON LEGATO RICOTTO ANNEALED NOT-ALLOY STEEL									
C > 0,55% 300 HB									
-	-	28 Mn 6	1330	150 M 28	20 M 5	-	-	-	0,24
-	-	35 S 20	1140	212 M 36	35 MF 4	-	-		

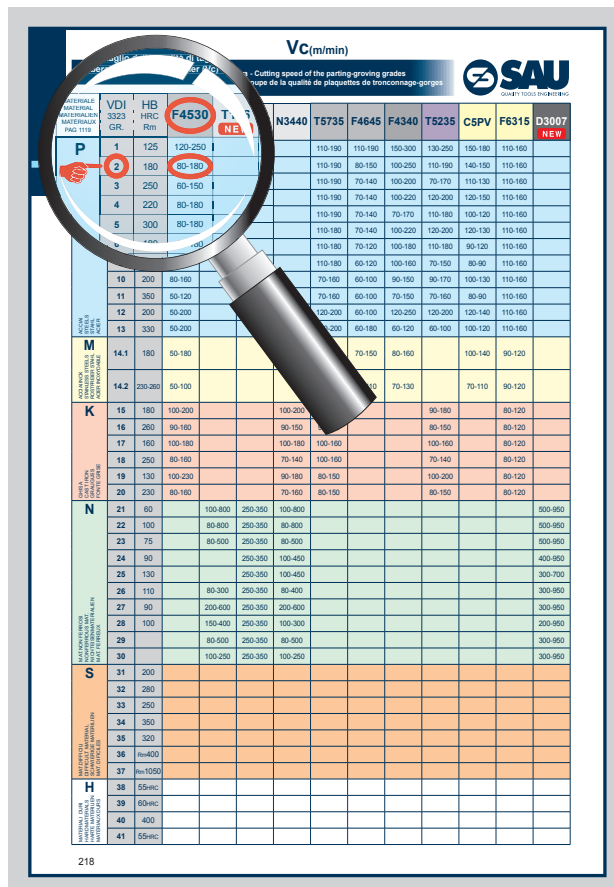
FASE 3 - PHASE 3

SCELTA DELL'AVANZAMENTO
CHOICE OF FEED
EINSTELLUNG DES VORSCHUBS
CHOIX DE L'AVANCEMENT



FASE 4 - PHASE 4

SCELTA DI VC IN FUNZIONE DEL GR. VDI
CHOICE OF VC DEPENDING ON VDI GR.
WAHL VC JE NACH WERKSTOFF
CHOIX DE VC EN FONCTION DU GR. VDI



DIN ISO 513	P ACCIAI STEELS STAHL ACIERS						M ACCIAI INOSSIDABILI STAINLESS STEELS ROSTFREIER STAHL ACIER INOXYDABLE				K GHISE CAST IRON GRAUGUSS FONTE GRISE					N NON FERROSI NONFERROUS NICHT-EISENMA PAS FERREUX				S MAT.DIFFICILI DIFFICULT MATERIAL SCHWIERIGE MATERIILIEN MAT.DIFICILES					H MATERIALI DURI HARD MATERIALS HARTE MATERIALIEN MATERIAUX DURS			
	01	10	20	30	40	50	10	20	30	40	01	10	20	30	40	01	10	20	30	01	10	20	30	40	01	10	20	30
HW																												
HC																												
DP																												
	TENACITÀ - TOUGHNESS - ZÄHIGKEIT - TÉNACITÉ																											
	RESISTENZA ALL'USURA - RESISTANCE TO WEAR - VERSCHLEISSFESTIGKEIT - RÉSISTANCE À L'USURE																											
	AVANZAMENTO - FEED - VORSCHUB - AVANCE																											
VELOCITÀ - SPEED - GESCHWINDIGKEIT - VITESSE																												
HT	CERMET						HW				HC					DP												

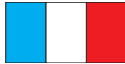
SAU	DIN ISO 513		MATERIALE - MATERIAL MATÉRIEL - MATÉRIAUX							PAG. 1119	QUICK PICK PAG. 210				INDICAZIONI - USO
			P	M	K	N	S	H							
			ACCIAI STEELS STAHL ACIER	ACCIAI INOX STAINLESS STEELS ROSTFREIER STAHL ACIER INOXYDABLE	GHISA CAST IRON GRAUGUSS FONTE GRISE	MAT NON FERROSI NON FERROUS MAT. NICHT-EISENMATERIALIEN	MAT FERREUX	MAT DIFFICILI DIFFICULT MATERIAL SCHWERGE MATERIALIEN MAT. DIFCILES	MATERIALI DURI HARD MATERIALS HARTE MATERIALIEN MATÉRIEL DURS						
T116 NEW	HW	N10-25				●					○	●	- STRUTTURA OMOGENEA A GRANO FINE - GRANDE STABILITÀ DEL TAGLIANTE - GRANDE RESISTENZA ALL'USURA E ALLA ESCURSIONE TERMICA		
N6315	HW	N05-25				●					○	●	- QUALITÀ PER LAVORAZIONE DI MATERIALI NON FERROSI		
N3440	HW	K20-40 N20-30			●	●						●	- QUALITÀ UNIVERSALE PER GHISA E MATERIALI NON FERROSI - OTTIME PRESTAZIONI A UMIDO		
F4530	HC PVD	P25-45 M25-40 K25-40	●	●	●							●	- QUALITÀ UNIVERSALE PER VARIE TIPOLOGIE DI MATERIALI - OTTIMO IMPIEGO IN CONDIZIONI DI TAGLIO INTERROTTO O DI LAVORAZIONI IN CONDIZIONI DIFFICILI. - INDICATO PER LAVORAZIONI A BASSE VELOCITÀ DI TAGLIO		
T5735	HC CVD	P20-45 M20-40 K20-40	●	○	●							●	- RIVESTIMENTO MOLTO RESISTENTE ALL'USURA, EVITA LA FORMAZIONE DI TRUCIOLI DI RIPOERTO.		
F4645	HC PVD	P20-45 M20-40	●	●								●	- ELEVATA TENACITÀ, PARTICOLARMENTE INDICATO PER LA LAVORAZIONE DI ACCIAIO INOX. - BUON CONTROLLO DELL'USURA E OTTIMO NELL'IMPIEGO DI LAVORAZIONI IN CONDIZIONI DIFFICILI.		
F4340	HC PVD	P20-40 M20-30	●	●								●	- PER LA LAVORAZIONE DI ACCIAI E ACCIAI INOSSIDABILI A BASSE VELOCITÀ DI TAGLIO, CON AMPIO CAMPO APPLICATIVO - OTTIME PRESTAZIONI A UMIDO		
T5235	HC CVD	P20-45 K20-40	●		●							●	- ALTA RESISTENZA ALL'USURA, ALL'OSSIDAZIONE E BUONA TENACITÀ. - PERFORMANTE ANCHE AD ALTE VELOCITÀ DI TAGLIO		
C5PV	HC PVD	P30-45 M30-40	●	●								●	- ELEVATA TENACITÀ - INDICATO PER BASSE VELOCITÀ DI TAGLIO ANCHE NELLA TRONCATURA FINO AL CENTRO E PER LAVORAZIONI A TAGLIO INTERROTTO		
F6315	HC PVD	P10-30 M05-25 K05-25	●	●	●								- OTTIMA RESISTENZA ALL'USURA - QUALITÀ UNIVERSALE PER VARI TIPI DI MATERIALE - INDICATO PER MEDIE-ALTE VELOCITÀ DI TAGLIO		
D3007 NEW	DP	N01-10				●						●	- GRADO INDICATO PER SCANALATURA SU LAVORAZIONI DI MATERIALI NON FERROSI, ES. LEGHE DI ALLUMINIO, MEGLIO SE AD ALTO TENORE DI SILICIO, RAME, BRONZO TERMOPLASTICI RINFORZATI E COMPOSITI. - OTTIMA FINITURA E VITA UTENSILE.		

● APPLICAZIONE CONSIGLIATA
RECOMMENDED APPLICATION
EMPFOHLENER EINSATZ
APPLICATION CONSEILLÉE

○ APPLICAZIONE POSSIBILE
POSSIBLE APPLICATION
MÖGLICHE ANWENDUNG
APPLICATION POSSIBLE

● APPLICAZIONE CONSIGLIATA
RECOMMENDED APPLICATION
EMPFOHLENER EINSATZ
APPLICATION CONSEILLÉE

○ APPLICAZIONE POSSIBILE
POSSIBLE APPLICATION
MÖGLICHE ANWENDUNG
APPLICATION POSSIBLE

 INDICATIONS - USE	 GEBRAUCHSANWEISUNGEN	 INDICATION - USAGE
- HOMOGENEOUS FINE-GRAIN STRUCTURE - HIGH CUTTING-EDGE STABILITY - HIGH WEAR AND THERMAL SHOCK RESISTANCE	- HOMOGENE FEINKORNSTRUKTUR - HOHE STABILITÄT DER SCHNEIDE - HOHER WIDERSTAND GEGEN VERSCHLEISS UND TEMPERATURSCHWANKUNGEN	- STRUCTURE HOMOGENE A GRAIN FIN - GRANDE STABILITE DU TRANCHANT - HAUTE RESISTANCE A L'USURE ET A L'AMPLITUDE THERMIQUE
- DEGREE FOR NON-FERROUS MATERIALS	- SORTE FÜR NICHT-EISENMATERIALIEN	- QUALITE POUR L'USINAGE DE MATERIAUX NON FERREUX
- ALL-PURPOSE QUALITY FOR CAST IRON AND NON-FERROUS MATERIALS - EXCELLENT WET PERFORMANCE	- UNIVERSALE QUALITÄT FÜR GUSS UND NICHT-EISENMATERIALIEN - AUSGEZEICHNETE NASSLEISTUNGEN	- QUALITÉ UNIVERSELLE POUR FONTE ET MATÉRIAUX NON FERREUX - PERFORMANCES EXCEPTIONNELLES À L'EAU
- UNIVERSAL GRADE FOR VARIOUS TYPES OF MATERIALS - EXCELLENT PERFORMANCE UNDER INTERRUPTED OR DIFFICULT CUTTING CONDITIONS - SUITABLE FOR MACHINING WITH LOW CUTTING SPEED	- UNIVERSALE SORTE FÜR VERSCHIEDENE MATERIALIEN - SEHR GUTE LEISTUNGSFÄHIGKEIT MIT UNTERBROCHENEM SCHNITT ODER BEARBEITUNG UNTER SCHWIERIGEN BEDINGUNGEN - FÜR BEARBEITUNGEN MIT NIEDRIGEN SCHNITTGESCHWINDIGKEITEN GEEIGNET.	- QUALITÉ UNIVERSELLE POUR DIFFÉRENTES TYPOLOGIES DE MATÉRIAUX - EMPLOI PARFAIT DANS DES CONDITIONS DE COUPE INTERROMPUE OU D'USINAGES DANS DES CONDITIONS DIFFICILES. - INDICÉ POUR LES USINAGES À DE FAIBLES VITESSES DE COUPE.
- COATING WITH HIGH RESISTANCE TO WEAR, PREVENTS CHIP BUILD-UP	- BESCHICHTUNG MIT HOHER VERSCHLEISSBESTÄNDIGKEIT, VERMEIDET SPANAUFBAU	- REVETEMENT TRÈS RESISTANT A L'USURE, EVITE LA FORMATION DE COPEAUX DE REPORT.
- CONSIDERABLE TOUGHNESS, PARTICULARLY SUITABLE FOR STAINLESS STEEL - GOOD WEAR CONTROL AND EXCELLENT PERFORMANCE UNDER DIFFICULT MACHINING CONDITIONS	- HOHE ZÄHIGKEIT, BESONDERS FÜR DIE BEARBEITUNG VON EDELSTAHL GEEIGNET. - GUTE VERSCHLEISSKONTROLLE UND BESTENS GEEIGNET ZUR BEARBEITUNG UNTER SCHWIERIGEN BEDINGUNGEN	- TÉNACITÉ ÉLEVÉE, PARTICULIÈREMENT INDICÉ POUR L'USINAGE D'ACIER INOX. - BON CONTRÔLE DE L'USURE ET PARFAIT DANS L'EMPLOI D'USINAGES DANS DES CONDITIONS DIFFICILES.
- FOR MACHINING STEELS AND STAINLESS STEELS AT SLOW CUTTING SPEEDS FOR A VAST RANGE OF APPLICATIONS - EXCELLENT WET PERFORMANCE	- FÜR DIE BEARBEITUNG VON STAHL UND EDELSTAHL MIT NIEDRIGER SCHNITTGESCHWINDIGKEIT, GROSSER ANWENDBEREICH - AUSGEZEICHNETE NASSLEISTUNGEN	- POUR L'USINAGE D'ACIERS ET ACIERS INOXYDABLES À DE FAIBLES VITESSES DE COUPE, AVEC AMPLE PLAGE D'APPLICATION - PERFORMANCES EXCEPTIONNELLES À L'EAU
- HIGH RESISTANCE TO WEAR, OXIDATION AND GOOD TOUGHNESS - EXCELLENT PERFORMANCE ALSO WITH HIGH CUTTING SPEED	- HOHE VERSCHLEISS- UND OXIDATIONSFESTIGKEIT UND GUTE ZÄHIGKEIT - HOHE LEISTUNGSFÄHIGKEIT AUCH BEI HOHEN SCHNITTGESCHWINDIGKEITEN	- HAUTE RÉSISTANCE À L'USURE, À L'OXYDATION ET BONNE TÉNACITÉ. - PERFORMANT MÊME À DE HAUTES VITESSES DE COUPE.
- HIGH TOUGHNESS - SUITABLE FOR LOW CUTTING SPEEDS EVEN WHEN CUTTING TO THE CENTER AND EVEN FOR DISCONTINUOUS CUTS MACHINING	- HOHE ZÄHIGKEIT - FÜR NIEDRIGE SCHNITTGESCHWINDIGKEITEN, AUCH BEIM TRENNEN BIS ZUM ZENTRUM, GEEIGNET UND GROSSE VORSCHÜBE	- HAUTE TENACITÉ - INDICÉE POUR FAIBLE VITESSE DE COUPE, MÊME POUR TRONÇONNAGE JUSQU'AU CENTRE ET POUR COUPE INTERROMPU
- EXCELLENT RESISTANCE TO WEAR - UNIVERSAL DEGREE FOR DIFFERENT TYPES OF MATERIALS - SUITABLE FOR MEDIUM TO HIGH CUTTING SPEEDS	- SEHR HOHE VERSCHLEISSFESTIGKEIT - UNIVERSALSORTE FÜR VERSCHIEDENE MATERIALIEN - FÜR MITTLERE BIS HOHE SCHNITTGESCHWINDIGKEITEN GEEIGNET	- RESISTANCE EXCELLENTE A L'USURE - QUALITE UNIVERSELLE POUR DIFFERENTS TYPES DE MATERIAU - INDIQUE EN CAS DE VITESSES DE COUPE HAUTES-MOYENNES
- GROOVING GRADE FOR NON-FERROUS MATERIALS, SUCH AS ALUMINUM ALLOYS, PREFERABLY WITH HIGH SILICON, COPPER, BRONZE CONTENT, REINFORCED THERMOPLASTIC MATERIALS AND COMPOUNDS - EXCELLENT FINISHING AND TOOL LIFE	- SORTE ZUM NUTENDREHEN FÜR NICHT-EISENMATERIALIEN, Z.B. ALUMINIUM-LEGIERUNGEN, VORZUGSWEISE MIT HOHEM SILIZIUM-, KUPFER- UND BRONZEGEHALT, VERSTÄRKTE THERMOPLASTE UND VERBUNDMATERIALIEN - HERVORRAGENDE OBERFLÄCHENGÜTE UND WERKZEUGSTANDZEIT	- DEGRÉ INDICÉ POUR RAINURE SUR USINAGES DE MATÉRIAUX NON FERREUX, TELS QUE ALLIAGES D'ALUMINIUM, AUTANT QUE POSSIBLE A TENEUR ÉLEVÉE DE SILICIUM, CUIVRE, BRONZE, THERMOPLASTIQUES RENFORCÉS ET COMPOSITES. - FINITION ET VIE DE L'OUTIL EXCELLENTE

HT CERMET

HW

METALLO DURO NON RICOPERTO
UNCOATED CARBIDE
UNBESCHICHTETES HARTMETALL
MÉTAL DUR PAS RECOUVERT

HC

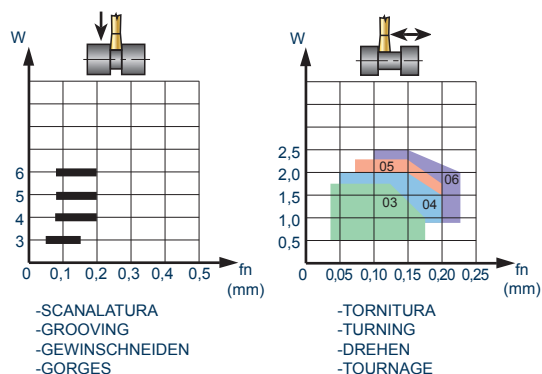
METALLO DURO RICOPERTO
COATED CARBIDE
BESCHICHTETES HARTMETALL
MÉTAL DUR RECOUVERT

DP

DIAMANTE POLICRISTALLINO (PCD)
POLYCRYSTALLINE DIAMOND (PCD)
POLYKRISTALLINER DIAMANT (PCD)
DIAMANT POLYCRISTALLIN (PCD)

MATERIALE MATERIAL MATERIALIEN MATERIAUX PAG 1119	VDI 3323 GR.	HB HRC Rm	T116 NEW	N6315	N3440	F4530	T5735	F4645	F4340	T5235	C5PV	F6315	D3007 NEW
P ACCIAI STEELS STAHL ACIER	1	125				120-250	110-190	110-190	150-300	130-250	150-180	110-160	
	2	180				80-180	110-190	80-150	100-250	110-190	140-150	110-160	
	3	250				60-150	110-190	70-140	100-200	70-170	110-130	110-160	
	4	220				80-180	110-190	70-140	100-220	120-200	120-150	110-160	
	5	300				80-180	110-190	70-140	70-170	110-180	100-120	110-160	
	6	180				80-180	110-180	70-140	100-220	120-200	120-130	110-160	
	7-8	250-300				60-150	110-180	70-120	100-180	110-180	90-120	110-160	
	9	350				60-120	110-180	60-120	100-160	70-150	80-90	110-160	
	10	200				80-160	70-160	60-100	90-150	90-170	100-130	110-160	
	11	350				50-120	70-160	60-100	70-150	70-160	80-90	110-160	
	12	200				50-200	120-200	60-100	120-250	120-200	120-140	110-160	
	13	330				50-200	120-200	60-180	60-120	60-100	100-120	110-160	
M ACCIAI INOX STAINLESS STEELS ROSTFREIER STAHL ACIER INOXYDABLE	14.1	180				50-180	100-200	70-150	80-160		100-140	90-120	
	14.2	230-260				50-100	60-110	60-110	70-130		70-110	90-120	
K GHISA CAST IRON GRAUGUSS FONTE GRISE	15	180			100-200	100-200	90-180			90-180		80-120	
	16	260			90-150	90-160	90-180			80-150		80-120	
	17	160			100-180	100-180	100-160			100-160		80-120	
	18	250			70-140	80-160	100-160			70-140		80-120	
	19	130			90-180	100-230	80-150			100-200		80-120	
	20	230			70-160	80-160	80-150			80-150		80-120	
N MAT. NON FERROSI NON FERROUS MAT. NICHT-EISEN MATERIALIEN MAT. FERREUX	21	60	100-800	250-350	100-800								500-950
	22	100	80-800	250-350	80-800								500-950
	23	75	80-500	250-350	80-500								500-950
	24	90		250-350	100-450								400-950
	25	130		250-350	100-450								300-700
	26	110	80-300	250-350	80-400								300-950
	27	90	200-600	250-350	200-600								300-950
	28	100	150-400	250-350	100-300								200-950
	29		80-500	250-350	80-500								300-950
	30		100-250	250-350	100-250								300-950
S MAT. DIFFICILI DIFFICULT MATERIAL SCHWIERIGE MATERIALIEN MAT. DIFFICILES	31	200											
	32	280											
	33	250											
	34	350											
	35	320											
	36	Rm400											
	37	Rm1050											
H MATERIALI DURI HARD MATERIALS HARTE MATERIALIEN MATÉRIAUX DURS	38	55HRC											
	39	60HRC											
	40	400											
	41	55HRC											

MATERIALE MATERIAL MATERIALIEN MATÉRIAUX PAG 1119	VDI 3323 GR.	HB HRC Rm											
P ACCIAI STEELS STAHL ACIER	1	125											
	2	180											
	3	250											
	4	220											
	5	300											
	6	180											
	7-8	250-300											
	9	350											
	10	200											
	11	350											
	12	200											
	13	330											
M ACCIAI INOX STAINLESS STEELS ROSTFREIER STAHL ACIER INOXYDABLE	14.1	180											
	14.2	230-260											
K GHISA CAST IRON GRAUGUSS FONTE GRISE	15	180											
	16	260											
	17	160											
	18	250											
	19	130											
	20	230											
N MATRON FERROSI NONFERROUS MAT. NICHT-EISENMATERIALIEN MAT. FERREUX	21	60											
	22	100											
	23	75											
	24	90											
	25	130											
	26	110											
	27	90											
	28	100											
	29												
	30												
S MAT.DIFFICILI DIFFICULT MATERIAL SCHWIERIGE MATERIALIEN MAT. DIFCILES	31	200											
	32	280											
	33	250											
	34	350											
	35	320											
	36	Rm400											
	37	Rm1050											
H MATERIALI DURI HARD MATERIALS HARTE MATERIALIEN MATÉRIAUX DURS	38	55HRC											
	39	60HRC											
	40	400											
	41	55HRC											

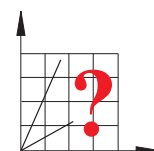


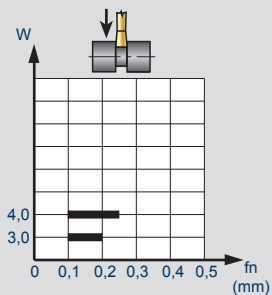
F	M	R
○	●	○
○	●	○
○	●	○

P	F4530-T5735-F4645	F4645	F4530-T5735-F4645
M	F4530-T5735-F4645	F4645	F4530-T5735-F4645
K	F4530-T5735		F4530-T5735
N			
S			
H			

GRADI CONSIGLIATI - RECOMMENDED GRADES - EMPFOHLENE SORTEN - DEGRÉS CONSEILLÉS

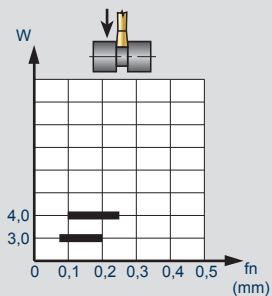
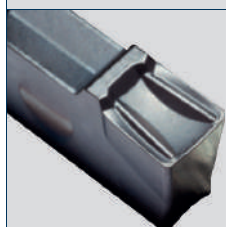
				
F =	FINITURA, LAV. LEGGERE	FINISHING,LIGHT MACHING	SCHLICHTEN,LEICHTE BEARBEITUNG	FINISSAGE,USINAGES LÉGÈRES
M =	GENERICO, LAV. MEDIE	GENERIC MEDIUM MACHINING	ALLGEMEIN,MITTELSCHWERE BEARBEITUNG	GENERAL,USINAGES MOYENS
R =	SGROSSATURA, LAV. PESANTI	ROUGHING, HEAVY MACHINING	SCHRUPPEN,SCHWERE BEARBEITUNG	DEGROSSISAGES,USINAGES LOURDS
P,M,K,N,S,H =	MATERIALI ISO PAG 1119	ISO MATERIALS PAGE 1119	ISO-MATEREIALIEN, SEITE 1119	MATERIAUX ISO PAG 1119
	TRONCATURA TUBI	PARTING OF PIPES	ROHRABSTECHEN	TRONÇONNAGE TUYAUX
	TRONCATURA BARRE	PARTING OF BARS	STANGENABSTECHEN	TRONÇONNAGE BARRES
	TRONCATURE DIFFICILI	DIFFICULT PARTING OPERATION	SCHWIERIGES ABSTECHEN	TRONÇONNAGE DIFFICILES
	SCANALATURA	GROOVING	NUTENDREHEN	RAINURER
	SCANALATURA-TORNITURA	GROOVING-TURNING	NUTENDREH-DREHWERKZEUGE	RAINURER-TOURNAGE
● =	APPLICAZIONE CONSIGLIATA	RECOMMENDED APPLICATION	EMPFOHLENER EINSATZ	APPLICATION CONSEILLÉE
○ =	APPLICAZIONE POSSIBILE	POSSIBLE APPLICATION	MOGLICHE ANWENDUNG	APPLICATION POSSIBLE
fn (mm) =	AVANZAMENTO AL GIRO	FEED/REVOLUTION	VORSCHUB PRO UMDREHUNG	DÉPLACEMENT AU TOUR
W (mm) =	LARGHEZZA TAGLIENTE	CUTTING EDGE WIDTH	SCHNITTBREITE	LARGEUR DU TRANCHANT





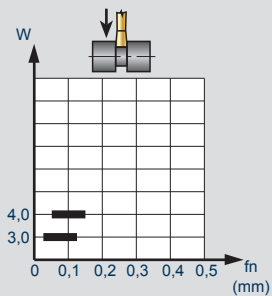
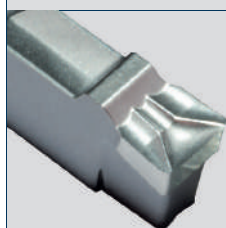
**-TRLN..
.G52**

F	M	R						
○	●	●	P					
			M					
○	●	●	K	T5235	T5235	T5235	T5235	
			N					
			S					
			H					



**-TRLN..
.G56**

								
F	M	R	P	T5235-F4645	T5235-F4645	T5235-F4645	T5235-F4645	T5235-F4645
○	●	●	M					
			K	T5235	T5235	T5235	T5235	T5235
○	●	●	N					
			S					
			H					



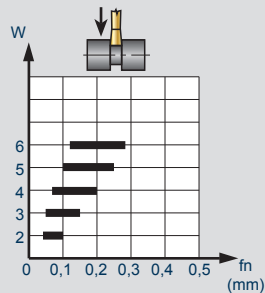
**-TRLN..
.G57P**

F	M	R						
			P					
			M					
			K					
●	●	○	N	T116	T116	T116	T116	
			S					
			H					

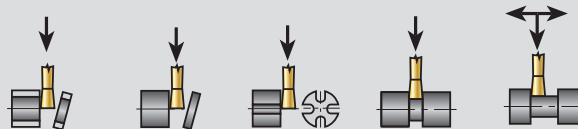




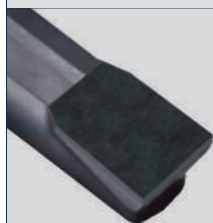
**-GSGN..
.X42**
NEW



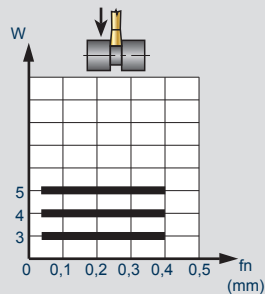
F	M	R	
•	○	○	P
•	○	○	M
•	○	○	K
			N
			S
			H



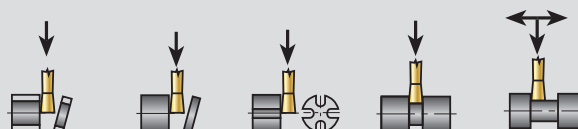
F4530-T5735-F4645	F4530-T5735-F4645	F4645	F4530-T5735-F4645	
F4530-T5735-F4645	F4530-T5735-F4645	F4645	F4530-T5735-F4645	
F4530-T5735	F4530-T5735		F4530-T5735	



**-GMGN..
.X47**
NEW



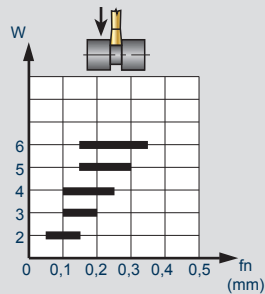
F	M	R	
			P
			M
			K
•	•		N
			S
			H



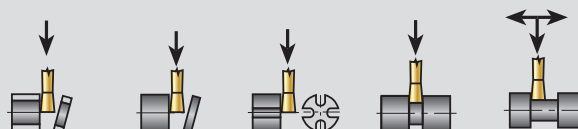
	D3007		D3007	



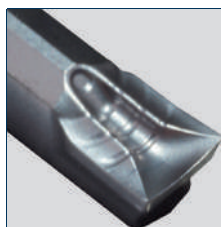
**-GMG..
.X52**



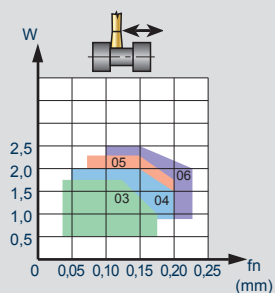
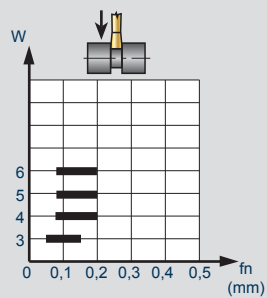
F	M	R	
•	○	○	P
•	○	○	M
•	○	○	K
			N
			S
			H



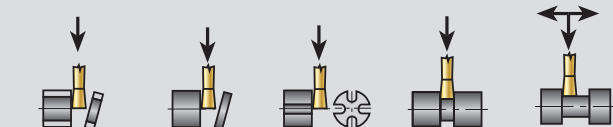
F4530-T5735-F4645	F4530-T5735-F4645	F4645	F4530-T5735-F4645	
F4530-T5735-F4645	F4530-T5735-F4645	F4645	F4530-T5735-F4645	
F4530-T5735	F4530-T5735		F4530-T5735	



**-GSTN..
.X54**



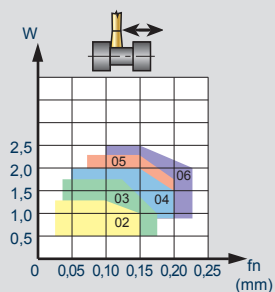
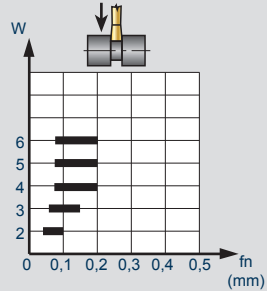
F	M	R
○	●	○
○	●	○
○	●	○



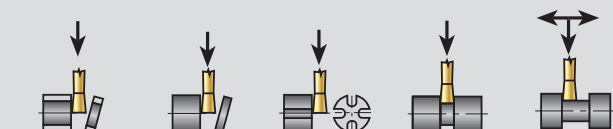
F4530-T5735-F4645		F4645		F4530-T5735-F4645
F4530-T5735-F4645		F4645		F4530-T5735-F4645
F4530-T5735				F4530-T5735



**-GSTN..
.X55**



F	M	R
○	●	○
○	●	○
○	●	○



			F4530-T5735-F4645	F4530-T5735-F4645
			F4530-T5735-F4645	F4530-T5735-F4645
			F4530-T5735	F4530-T5735

G	S	G	N
1	2		

14.5	-	0.2	-	3
3		4		5

-	-	-	P
6	7	8	9

1
 CODIFICA SAU
 SAU CODIFICATION

2 DIREZIONE DI TAGLIO
 CUTTING DIRECTION

3 LUNGHEZZA INSERTO
 INSERT LENGTH

4 RAGGIO SPIGOLO
 RADIUS EDGE

5 SPESSORE DI TAGLIO
 CUTTING THICKNESS

6 LETTERA DI IDENTIF.
 IDENTIFICATION LETTER

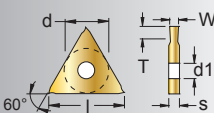
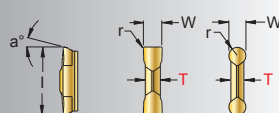
A	N
C	P
D	R
E	S
H	T
I	U
J	W
K	X
L	Y
M	Z

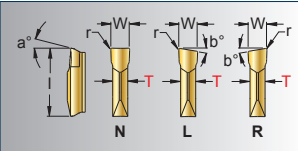
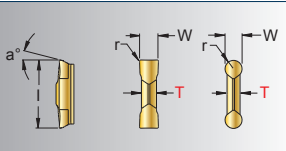
7 CAMPO DI LAVORAZIONE
 MACHINING TYPES

8 PREPARAZIONE TAGLIANTE
 CUTTING EDGE PREPARATION

1 =	SPECIFICO PER GHISA SPECIFIC FOR CAST IRON
3 =	SPECIFICO PER ACCIAIO INOX SPECIFIC FOR STAINLESS STEEL
7 =	SPECIFICO PER LEGHE DI ALLUMINIO SPECIFIC FOR ALUMINIUM ALLOYS
9 =	SPECIFICO PER ACCIAIO SPECIFIC FOR STEEL
2 =	
4 =	INTERMEDI DI USO GENERICO INTERMEDIATE FOR GENERAL USE
5 =	
6 =	
8 =	

9
 LUCIDATO
 POLISH

154.15.. 156.15..		G..GN 14,5.. G..TN 14,5..		HW		HC		DP									
				NON RIVESTITI CEMENTED CARBIDE GRADES		RIVESTITI COATED GRADES BESCHICHTET RECOUVERTS		PCD									
ART.	COD.	W	r/s	l	d	M/T	a°/d1	N6315	N3440	F4530	T5735	F4645	F4340	F6315	D3007		
 	TOLLERANZA W - W TOLERANCE		+0,05 -0,05														
	154.15-16110	1,25	2,5	16,0	9,52	1,2	4,5		■				■				
	154.15-16130	1,45	2,5	16,0	9,52	1,5	4,5		■				■				
	154.15-16160	1,80	2,5	16,0	9,52	1,8	4,5		■				■				
	154.15-16185	2,00	2,5	16,0	9,52	3	4,5		■				■				
	154.15-16215	2,30	2,8	16,0	9,52	3	4,5		■				■				
	154.15-16265	2,80	3,3	16,0	9,52	3	4,5		■				■				
	154.15-16315	3,35	3,8	16,0	9,52	3	4,5		■				■				
	TOLLERANZA W - W TOLERANCE		+0,05 +0,01														
	156.15-16110	.C54	1,10	3	16,0	9,52	3,0	4,5							■		
	156.15-16130	.C54	1,30	3	16,0	9,52	3,0	4,5							■		
	156.15-16160	.C54	1,60	3	16,0	9,52	3,0	4,5							■		
	156.15-16185	.C54	1,85	3	16,0	9,52	3,0	4,5							■		
	  C54	156.15-16215	.C54	2,15	3	16,0	9,52	3,0	4,5						■		
156.15-16265		.C54	2,65	3	16,0	9,52	3,0	4,5						■			
156.15-16315		.C54	3,15	3,5	16,0	9,52	3,3	4,5						■			
156.15-16415		.C54	4,15	4,5	16,0	9,52	3,3	4,5						■			
156.15-16110		.C57	1,10	3	16,0	9,52	3,0	4,5	■								
156.15-16130		.C57	1,30	3	16,0	9,52	3,0	4,5	■								
156.15-16160		.C57	1,60	3	16,0	9,52	3,0	4,5	■								
156.15-16185		.C57	1,85	3	16,0	9,52	3,0	4,5	■								
156.15-16215		.C57	2,15	3	16,0	9,52	3,0	4,5	■								
156.15-16265		.C57	2,65	3	16,0	9,52	3,0	4,5	■								
156.15-16315		.C57	3,15	3,5	16,0	9,52	3,3	4,5	■								
156.15-16415		.C57	4,15	4,5	16,0	9,52	3,3	4,5	■								
  C57		GMGN 14.5-0.2-2 .X47	2,0	0,2	14,5	—	1,5	8°								■	
		GMGN 14.5-0.2-3 .X47	3,0	0,2	14,5	—	2,2	8°								■	
	GMGN 14.5-0.4-4 .X47	4,0	0,4	14,5	—	3,2	8°								■		
	NEW																
	GMGN 14.5R1.0-2 .X47	2,0	1,0	14,5	—	1,5	8°								■		
	GMGN 14.5R1.5-3 .X47	3,0	1,5	14,5	—	2,2	8°								■		
	GMGN 14.5R2.0-4 .X47	4,0	2,0	14,5	—	3,2	8°								■		
	NEW																
	GSGN 14.5-0.2-2 .X42	2,0	0,2	14,5	—	1,5	10°			■	■	■					
	GSGN 14.5-0.2-3 .X42	3,0	0,2	14,5	—	2,2	10°			■	■	■					
	GSGN 14.5-0.4-4 .X42	4,0	0,4	14,5	—	3,2	10°			■	■	■					
	NEW																
	GSGN 14.5-0.2-2 .X52	2,0	0,2	14,5	—	1,5	10°			■	■	■					
	GSGN 14.5-0.2-3 .X52	3,0	0,2	14,5	—	2,2	10°			■	■	■					
	GSGN 14.5-0.4-4 .X52 New	4,0	0,4	14,5	—	3,2	10°			■	■	■					
  .X42 ±0,04 	GSGN 14.5-0.2-2 .X54	2,0	0,2	14,5	—	1,5	10°			■	■	■					
	GSGN 14.5-0.2-3 .X54	3,0	0,2	14,5	—	2,2	11°			■	■	■					
	GSGN 14.5-0.3-4 .X54	4,0	0,3	14,5	—	3,2	11°			■	■	■					
	NEW																
	GSTN 14.5-0.2-2 .X54	2,0	0,2	14,5	—	1,5	10°			■	■	■					
	GSTN 14.5-0.2-3 .X54	3,0	0,2	14,5	—	2,2	11°			■	■	■					
	GSTN 14.5-0.3-4 .X54	4,0	0,3	14,5	—	3,2	11°			■	■	■					
	NEW																
	GSTN 14.5R1.0-2 .X55	2,0	1,0	14,5	—	1,5	8°			■	■	■					
	GSTN 14.5R1.5-3 .X55	3,0	1,5	14,5	—	2,2	8°			■	■	■					
	GSTN 14.5R2.0-4 .X55	4,0	2,0	14,5	—	3,2	8°			■	■	■					
	NEW																
	MATERIALE - MATERIAL - MATERIALIEN - MATÉRIAUX								N6315	N3440	F4530	T5735	F4645	F4340	F6315	D3007	
	P	ACCIAIO - STEEL - STAHL - ACIER										●	●	●	●	●	
	M	ACCIAIO INOX - STAINLESS STEEL - ROSTFREIER STAHL - ACIER INOXYDABLE										●	○	●	●	●	
K	GHISA - CAST IRON - GRAUGUSS - FONTE GRISE								●		●	●			●		
N	LEGHE DI ALLUMINIO - ALUMINIUM ALLOYS - ALUMINIUM-LEGIERUNGEN - ALLIAGES D'ALUMINIUM							●	●							●	
S	LEGHE RESISTENTI AL CALORE - HEAT RESISTANT ALLOYS - WÄRMEBESTÄNDIGE LEGIERUNGEN - ALLIAGES RÉISTANTES À LA CHALEUR																
H	MATERIALI DURI E TEMPRATI - HARD AND HARDENED MATERIAL - HARTE UND GEHÄRTETE MATERIALIEN - MATERIAUX DURS ET TREMPÉS																

GMG.. 25..				G..GN 25.. G..TN 25..				HW				HC				DP							
									NON RIVESTITI CEMENTED CARBIDE GRADES				RIVESTITI COATED GRADES BESCHICHTET RECOUVERTS				PCD						
ART.		COD.		W	r	l	T	a°	b°				F4530	T5735	F4645					D3007 ≤ 12			
				GMGN 25-0.2-3 .X47	3,0	0,2	25	2,2	8°	—													
				GMGN 25-0.4-4 .X47	4,0	0,4	25	3,2	8°	—													
				GMGN 25-0.4-5 .X47	5,0	0,4	25	4,1	8°	—													
				NEW																			
				GMGN 25R1.5-3 .X47	3,0	1,5	25	2,2	8°	—													
				GMGN 25R2.0-4 .X47	4,0	2,0	25	3,2	8°	—													
				GMGN 25R2.5-5 .X47	5,0	2,5	25	4,1	8°	—													
				NEW																			
				GMGL 25-0.2-3 .X52	3,0	0,2	25	2,2	10°	6													
				NEW																			
				GMGN 25-0.2-3 .X52	3,0	0,2	25	2,2	10°	—													
				NEW																			
				GMGR 25-0.2-3 .X52	3,0	0,2	25	2,2	10°	6													
				NEW																			
				GSGN 25-0.2-3 .X42	3,0	0,2	25	2,2	11°	—													
				GSGN 25-0.4-4 .X42	4,0	0,4	25	3,2	11°	—													
				GSGN 25-0.4-5 .X42	5,0	0,4	25	4,1	10°	—													
				GSGN 25-0.4-6 .X42	6,0	0,4	25	5,0	10°	—													
				GSGN 25-0.2-3 .X52	3,0	0,2	25	2,2	11°	—													
				GSGN 25-0.4-4 .X52 New	4,0	0,4	25	3,2	11°	—													
				GSGN 25-0.4-5 .X52 New	5,0	0,4	25	4,1	10°	—													
				GSGN 25-0.4-6 .X52 New	6,0	0,4	25	5,0	10°	—													
				GSTN 25-0.2-3 .X54	3,0	0,2	25	2,2	11°	—													
				GSTN 25-0.3-4 .X54	4,0	0,3	25	3,2	11°	—													
				GSTN 25-0.3-5 .X54	5,0	0,3	25	4,1	10°	—													
				GSTN 25-0.3-6 .X54	6,0	0,3	25	5,0	10°	—													
				GSTN 25R1.5-3 .X55	3,0	1,5	25	2,2	8°	—													
				GSTN 25R2.0-4 .X55	4,0	2,0	25	3,2	8°	—													
				GSTN 25R2.5-5 .X55	5,0	2,5	25	4,1	8°	—													
				GSTN 25R3.0-6 .X55	6,0	3,0	25	5,0	8°	—													
MATERIALE - MATERIAL - MATERIALIEN - MATÉRIAUX																							
P	ACCIAIO - STEEL - STAHL - ACIER																						
M	ACCIAIO INOX - STAINLESS STEEL - ROSTFREIER STAHL - ACIER INOXYDABLE																						
K	GHISA - CAST IRON - GRAUGUSS - FONTE GRISE																						
N	LEGHE DI ALLUMINIO - ALUMINIUM ALLOYS - ALUMINIUM-LEGIERUNGEN - ALLIAGES D'ALUMINIUM																						
S	LEGHE RESISTENTI AL CALORE - HEAT RESISTANT ALLOYS - WÄRMEBESTÄNDIGE LEGIERUNGEN - ALLIAGES RÉISTANTES À LA CHALEUR																						
H	MATERIALI DURI E TEMPRATI - HARD AND HARDENED MATERIAL - HARTE UND GEHÄRTETE MATERIALIEN - MATERIAUX DURS ET TREMPÉS																						

TRLN..									HW				HC																					
									NON RIVESTITI CEMENTED CARBIDE GRADES				RIVESTITI COATED GRADES BESCHICHTET RECOUVERTS																					
ART.		COD.	W	r	l	T	a°	b°	T116					F4645														T5235						
		.G52																																
		TRLN 3.00-0.20N .G52	3,0*	0,2	—	—	0°	—																										
		.G56																																
		TRLN 3.00-0.30N .G56	3,0*	0,3	—	—	0°	—																										
		.G57P																																
		TRLN 3.00-0.30N .G57P	3,0*	0,3	—	—	0°	—																										

