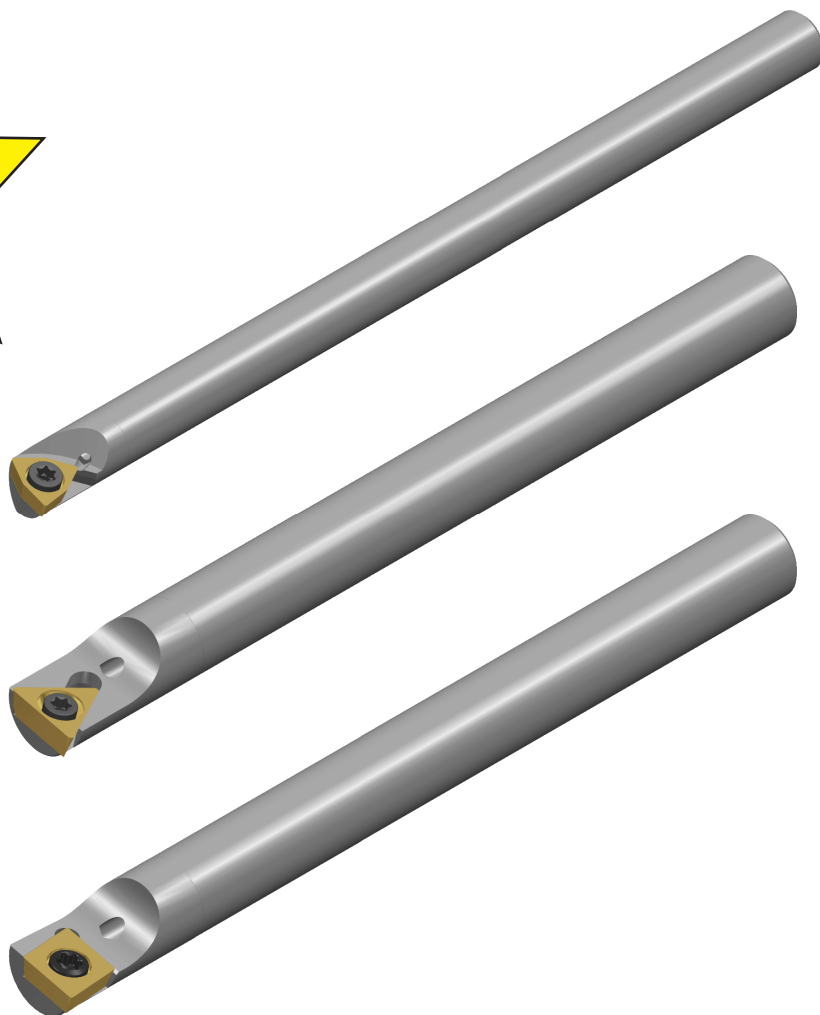


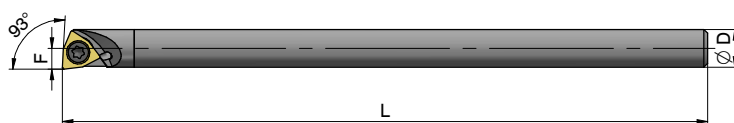


CARBIDE BARS FOR PRECISION BORING HEADS



THE ORIGINAL with high hardness precision insert pocket

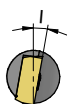
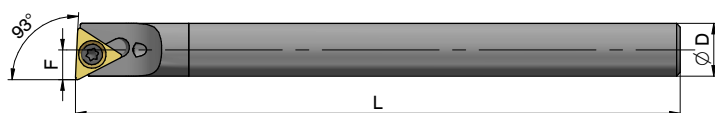
NEW
93°
SWUCR



Carbide shank with internal coolant

Article No.	[mm]											
	R	ØD	L	F	B _{min}	A	a	l	h			
E05F SWUCR-02-0001		5	85	2.9	5.8	--	--	17°	--	WC.. 0201..	T20.037	T6F
E06G SWUCR-02-0001		6	95	3.6	7.3	--	--	12°	--	WC.. 0201..	T20.037	T6F

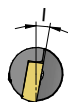
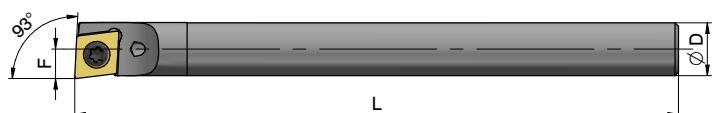
NEW
93°
STUPR



Carbide shank with internal coolant

Article No.	[mm]											
	R	ØD	L	F	B _{min}	A	a	l	h			
E07F STUPR-07-0002		7	80	4.0	7.8	--	--	10°	--	TP.. 0702..	T20.041	T6F
E07X STUPR-07-0001		7	115	4.0	7.8	--	--	10°	--	TP.. 0702..	T20.041	T6F
E09H STUPR-07-0002		9	100	5.0	9.8	--	--	8°	--	TP.. 0702..	T20.041	T6F
E09X STUPR-07-0001		9	135	5.0	9.8	--	--	8°	--	TP.. 0702..	T20.041	T6F

NEW
93°
SCUPR



Carbide shank with internal coolant

Article No.	[mm]											
	R	ØD	L	F	B _{min}	A	a	l	h			
E07F SCUPR-05-0006		7	80	4.0	7.8	--	--	10°	--	CP.. 05T1..	T22.041	T7F
E07X SCUPR-05-0007		7	115	4.0	7.8	--	--	10°	--	CP.. 05T1..	T22.041	T7F
E09H SCUPR-05-0004		9	100	5.0	9.8	--	--	8°	--	CP.. 05T1..	T22.041	T7F
E09X SCUPR-05-0003		9	135	5.0	9.8	--	--	8°	--	CP.. 05T1..	T22.041	T7F



CARBIDE INSERTS

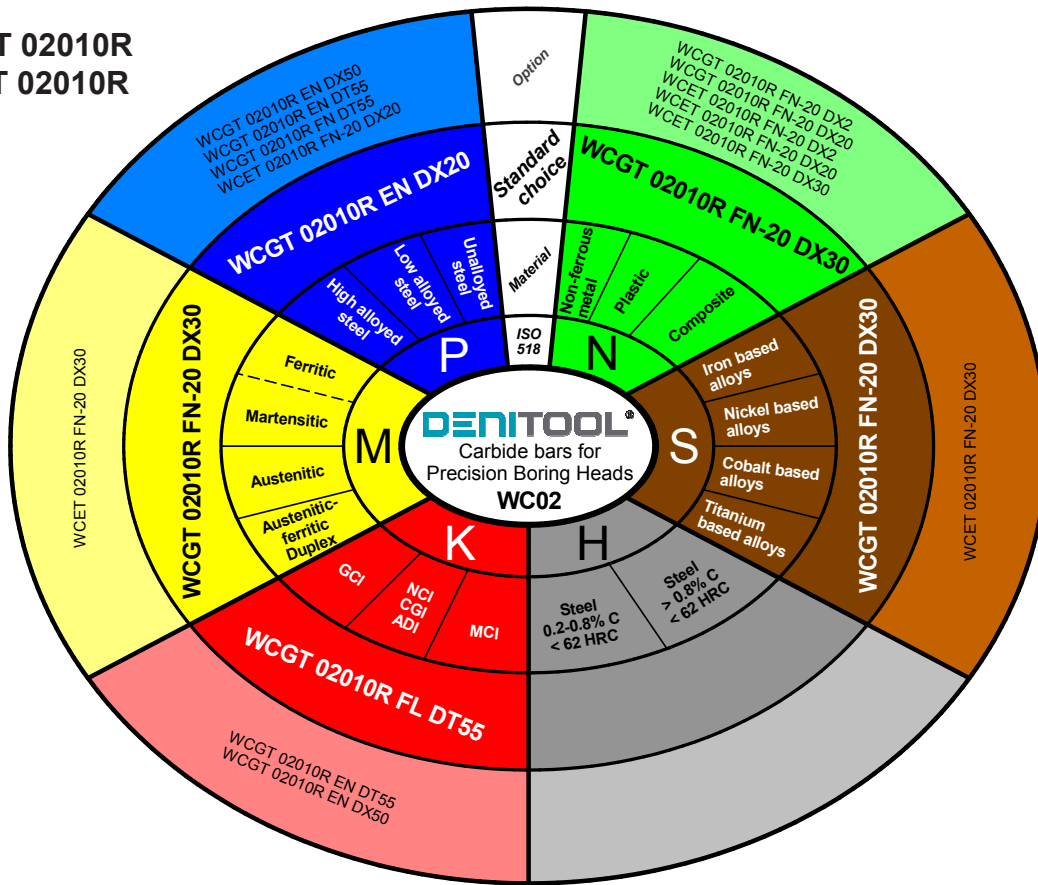
	Article No.	[mm]									DX 2	DX 20	DX 30	DX 50	DT 55	DT 255	DT 355
		l	d	+/-	s	+/-	m	+/-	r	d ₁							
	WCGT 020101 EN	2.3	3.97	0.025	1.59	0.13	1.048	0.025	0.1	2.3	■						
	WCGT 020102 EN						0.992		0.2		■	■	■		■	■	■
	WCGT 020104 EN						0.881		0.4		■	■	■		■	■	■
	WCGT 020101 FN-20	2.3	3.97	0.025	1.59	0.13	1.048	0.025	0.1	2.3	■	■					
	WCGT 020102 FN-20						0.992		0.2		■	■	■				
	WCGT 020104 FN-20						0.881		0.4		■	■	■				
	WCET 020101 FN-20	2.3	3.97	0.025	1.59	0.025	1.048	0.025	0.1	2.3	■	■					
	WCET 020102 FN-20						0.992		0.2		■	■	■				
	WCET 020104 FN-20						0.881		0.4		■	■	■				
	WCGT 020104 FN	2.3	3.97	0.025	1.59	0.13	0.881	0.025	0.4	2.3						■	
	WCGT 020102 FL	2.3	3.97	0.025	1.59	0.13	0.992	0.025	0.2	2.3	■	■	■		■	■	■
	WCGT 020104 FL						0.881		0.4		■	■	■		■	■	■

	Article No.	[mm]									DX 2	DX 20	DX 30	DX 50	DX 70	DT 55	DT 255	DT 355
		l	d	+/-	s	+/-	m	+/-	r	d ₁								
	CPGT 05T102 EN						1.432		0.2							■	■	■
	CPGT 05T104 EN						1.323		0.4							■	■	■
	CPGT 05T101 FN	5.6	5.56	0.025	1.97	0.13	1.489	0.025	0.1	2.5	■							
	CPGT 05T102 FN						1.432		0.2		■	■	■					
	CPGT 05T104 FN						1.323		0.4		■	■	■					
	CPGT 05T101 FN-20	5.6	5.56	0.025	1.97	0.13	1.489	0.025	0.1	2.5	■	■						
	CPGT 05T102 FN-20						1.432		0.2		■	■	■	■				
	CPGT 05T104 FN-20						1.323		0.4		■	■	■					
	CPET 05T101 FN-20	5.6	5.56	0.025	1.97	0.025	1.489	0.025	0.1	2.5	■	■						
	CPET 05T102 FN-20						1.432		0.2		■	■	■					
	CPET 05T104 FN-20						1.323		0.4		■	■	■					
	CPGT 05T102 FL	5.6	5.56	0.025	1.97	0.13	1.432	0.025	0.2	2.5						■	■	■
	CPGT 05T104 FL						1.323		0.4							■	■	■
	CPET 05T101 FL	5.6	5.56	0.025	1.97	0.025	1.489	0.025	0.1	2.5	■	■						
	CPET 05T102 FL						1.432		0.2		■	■	■	■				
	CPET 05T104 FL						1.323		0.4		■	■	■					

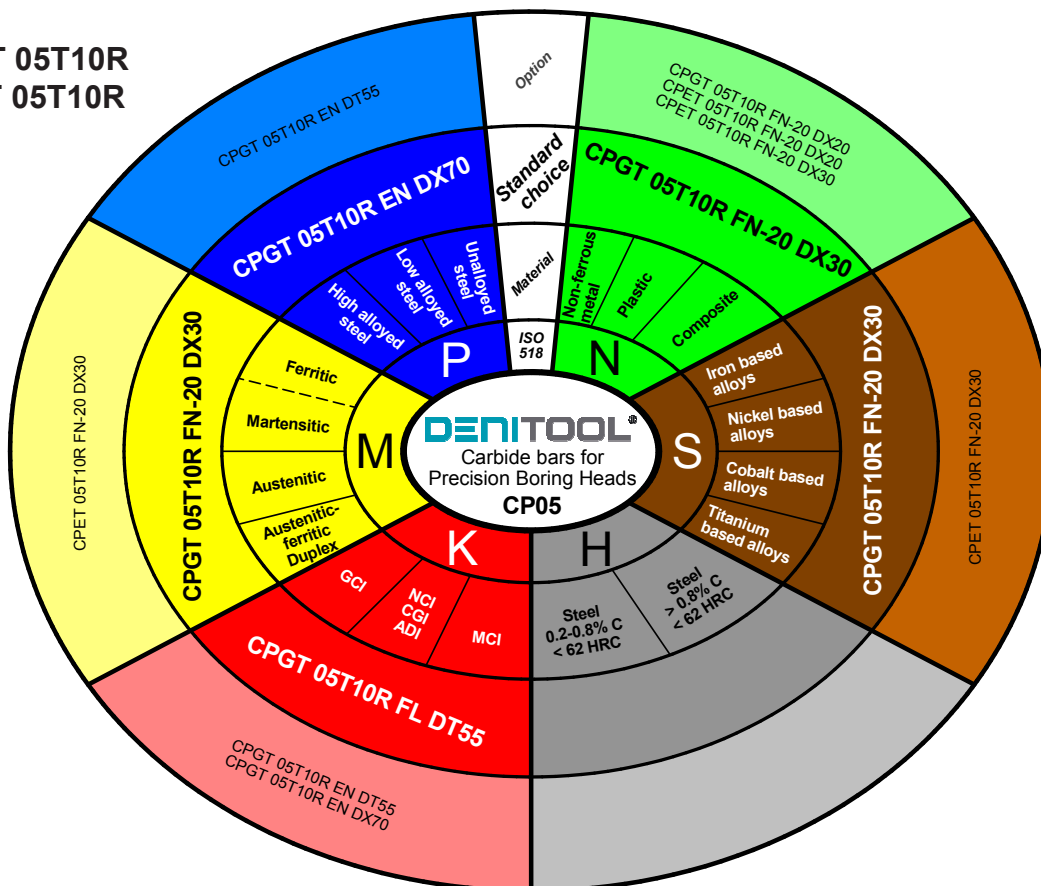
■ stock item



WCGT 02010R
WCET 02010R



CPGT 05T10R
CPET 05T10R





WCET 02010R / WCGT 02010R

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Achtung: Allgemeine Sicherheitsbestimmungen sowie Vorschriften der Maschinenhersteller unbedingt beachten!

Caution: General safety regulations and directions of machine manufacturers must be observed at any time!

Attention: Impératif de tenir compte des instructions générales de sécurité et des recommandations du fabricant de la machine!

Werkstoff-Bezeichnung Material description Designation matière	Nr.	DIN	Zugfestigkeit Tensile strength Rés. à la traction	Härte Hardness Dureté	HB	f (mm/U) *)					Vc (m/min)				Cermet	
						WCGT EN	WCGT FN-20	WCGT FN-20	WCGT FN	WCGT FL	unbeschichtet uncoated non revêtu	beschichtet coated revêtu	un - un - non -	beschichtet coated revêtu		
1 Unlegierter Kohlenstoffstahl Low Carbon Steel Acier carbone	1.0035 1.0038 1.0401 1.0050	St 33 RSt 37-2 C 15 St 50-2	- 500	- 160		0.05 0.15	0.03 0.10	0.03 0.10	0.03 0.10	0.03 0.10		340 380 290 320	460 370 470 470	580 580 470 470		
2 Vergütungsstahl - Einsatzstahl Alloy Steel Acier d'amélioration - de cémentation	1.0501 1.1141 1.5732 1.7225	Ck 35 V Ck 15 14 NiCr 14 42 CrMo 4 G	500 - 700	140 - 200		0.05 0.15	0.03 0.10	0.03 0.10	0.03 0.10	0.03 0.10		340 360 290 300	440 350 440 440	550 550 440 440		
3 Vergütungsstahl - Werkzeugstahl Tool Steel Acier d'amélioration - à outils	1.1221 1.3505 1.7225 1.5141	Ck 60 100 Cr 6 42 CrMo 4 53 MnSi 4	900 - 1100	170 - 275		0.05 0.15	0.03 0.10	0.03 0.10	0.03 0.10	0.03 0.10			410 340 420 420	510 510 420 420		
4 Hochlegierter Werkzeugstahl - Stahlguss Alloy Tool Steel Acier à outils fortament allié - Acier coulé	1.1191 1.7225 1.2080 1.7220	Ck 45 V 42 CrMo 4 X 210 Cr 12 GS-34 CrMo 4	700 - 900	250 - 325		0.05 0.15	0.03 0.10	0.03 0.10	0.03 0.10	0.03 0.10			220 200 240 240	270 270 240 240		
5 Hochlegierter Stahlguss Alloy Cast Steel Acier coulé fortament allié	1.6582 1.8159 1.2367 1.7361	34 CrNiMo 6 50 CrV 4 X 38 CrMoV 5 3 32 CrMo 12	1100 - 1500 800 - 1000	325 - 450 250 - 390		0.05 0.10	0.02 0.06	0.02 0.10	0.02 0.10	0.02 0.10			180 150 220 190	220 190 220 190		
6 Rostfreier Stahl Stainless Steel Acier inoxydable	1.4006 1.4057 1.4034 1.4005	X 10 Cr 13 X 22 CrNi 12 X 40 Cr 13 X 12 CrS 13	- 800	- 250			0.01 0.06	0.03 0.10				160 170 140 160				
7 Rostfreier Stahl, austenitisch, martensitisch Stainless Steel - Austenitic, Martensitic Acier inoxydable, austénitique, martensitique	1.4300 1.4301 1.4435 1.4573	X 12 CrNi 18 8 X 5 CrNi 18 9 X 2 CrNiMo 18 12 X 10 CrNiMoTi 18 12	500 - 1100	200 - 325			0.01 0.06	0.02 0.10				120 130 100 110				
8 Grauguss Grey Cast Iron Fonte grise	0.6010 0.6015 0.6020	GG-10 GG-15 GG-20	- 250	- 200		0.05 0.15		0.03 0.08	0.03 0.08	0.03 0.08	140 120	260 220 250	250 220 280 320	360 360 280 320		
9 Grauguss - Temperguss Cast Iron Malleable Fonte grise - Fonte trempée	0.6025 0.8135 0.8140 0.7050	GG-25 GTS-35 GTS-40 GGG-50	250 - 350	200 - 250		0.05 0.15		0.03 0.08	0.03 0.08	0.03 0.08		220 200 220	210 190 260 280	320 280 260 280		
10 Kupfer-Legierungen Copper Alloys Alliages cuivre	2.0331 2.0401 2.1030 2.0920	CuZn 36 Pb 1.5 CuZn 36 Pb 3 CuSn 8 CuAl 8	450 - 650	120 - 180			0.01 0.08	0.03 0.10			450 400	550 500 550				
11 Aluminium-Legierungen Aluminium Alloys Alliages d'aluminium	3.2582.05 3.3541.01 3.2315 3.0205	GD-AlSi 12 G-AlMg 3 AlMgSi 1 Al 99	250 - 350	200 - 300			0.01 0.10 0.20	0.02 0.15 0.20			>1'000	>1'900 >2'000				

*) abhängig von Werkzeug- & Werkstückstabilität / in function of stability of tool & workpiece / en fonction de la stabilité de l'outil et de la pièce

CPET 05T10R / CPGT 05T10R

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	Werkstoff-Bezeichnung Material description Designation matière	Nr.	DIN	Zugfestigkeit Tensile strength Rés. à la traction	HB	f (mm/U) *)					Vc (m/min)				Cernert	
						CPGT EN	CPGT FN	CPGT FN-20	CPGT FN-20	CPGT FL	unbeschichtet uncoated non revêtu	beschichtet coated revêtu	un - un - non -	beschichtet coated revêtu		
1	Unlegierter Kohlenstoffstahl Low Carbon Steel Acier carbone	1.0035 1.0038 1.0401 1.0050	St 33 RSt 37-2 C 15 St 50-2	- 500	- 160	0.05 0.15	0.03 0.10		0.03 0.07	0.03 0.07		340 290	380 320	460 370	580 470	
2	Vergütungsstahl - Einsatzstahl Alloy Steel Acier d'amelioration - de cémentation	1.0501 1.1141 1.5732 1.7225	Ck 35 V Ck 15 14 NiCr 14 42 CrMo 4 G	500 - 700	140 - 200	0.05 0.15	0.03 0.10		0.03 0.07	0.03 0.07		320 270	360 300	440 350	550 440	
3	Vergütungsstahl - Werkzeugstahl Tool Steel Acier d'amelioration - à outils	1.1221 1.3505 1.7225 1.5141	Ck 60 100 Cr 6 42 CrMo 4 53 MnSi 4	900 - 1'100	170 - 275	0.05 0.15	0.03 0.10		0.03 0.07	0.03 0.07		260 210	320 290	410 340	510 420	
4	Hochlegierter Werkzeugstahl - Stahlguss Alloy Tool Steel Acier à outils fortement allié - Acier coulé	1.1191 1.7225 1.2080 1.7220	Ck 45 V 42 CrMo 4 X 210 Cr 12 GS-34 CrMo 4	700 - 900	250 - 325	0.05 0.15	0.03 0.08		0.03 0.07	0.03 0.07				220 200	270 240	
5	Hochlegierter Stahlguss Alloy Cast Steel Acier coulé fortement allié	1.6582 1.8159 1.2367 1.7361	34 CrNiMo 6 50 CrV 4 X 38 CrMoV 5 3 32 CrMo 12	1'100 - 1'500 800 - 1'000	325 - 450 250 - 390	0.05 0.15	0.03 0.08		0.03 0.03	0.03 0.03				180 150	220 190	
6	Rostfreier Stahl Stainless Steel Acier inoxydable	1.4006 1.4057 1.4034 1.4005	X 10 Cr 13 X 22 CrNi 12 X 40 Cr 13 X 12 CrS 13	- 800	- 250		0.03 0.10	0.02 0.15	0.03 0.07			160 140	170 160			
7	Rostfreier Stahl, austenitisch, martensitisch Stainless Steel - Austenitic, Martensitic Acier inoxydable, austénitique, martensitique	1.4300 1.4301 1.4435 1.4573	X 12 CrNi 18 8 X 5 CrNi 18 9 X 2 CrNiMo 18 12 X 10 CrNiMoTi 18 12	500 - 1100	200 - 325		0.02 0.10	0.02 0.15	0.02 0.07			120 100	130 110			
8	Grauguss Grey Cast Iron Fonte grise	0.6010 0.6015 0.6020	GG-10 GG-15 GG-20	- 250	- 200	0.05 0.15	0.05 0.15		0.03 0.08	0.03 0.08			260 220	280 250	180 160	360 320
9	Grauguss - Temperguss Cast Iron Malleable Fonte grise - Fonte trempée	0.6025 0.8135 0.8140 0.7050	GG-25 GTS-35 GTS-40 GG-50	250 - 350	200 - 250	0.05 0.15	0.05 0.15		0.03 0.08	0.03 0.08			220 200	250 220	160 120	320 280
10	Kupfer-Legierungen Copper Alloys Alliages cuivre	2.0331 2.0401 2.1030 2.0920	CuZn 36 Pb 1.5 CuZn 36 Pb 3 CuSn 8 CuAl 8	450 - 650	120 - 180		0.02 0.15	0.02 0.10	0.02 0.15			550 500	600 550			
11	Aluminium-Legierungen Aluminium Alloys Alliages d'aluminium	3.2582.05 3.3541.01 3.2315 3.0205	GD-AlSi 12 G-AlMg 3 AlMgSi 1 Al 99	250 - 350	200 - 300		0.02 0.15	0.02 0.15	0.02 0.15			>1'900	>2'000			

*) abhängig von Werkzeug- & Werkstückstabilität / in function of stability of tool & workpiece / en fonction de la stabilité de l'outil et de la pièce





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Swiss Precision Cutting Tools

METRIC PROGRAM



EDITION 2012

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