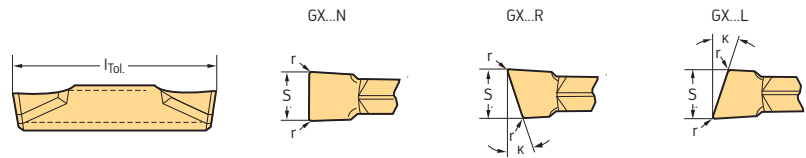



























































































































































































































# Grooving and parting off GX cutting inserts Tiger-tec® Silver



## Cutting inserts

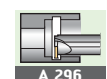
	Designation	s mm	r mm	κ	l mm	f mm	S <sub>Tol</sub> mm	l <sub>Tol</sub> mm	P				M		K	S					
									HC				HC		HC	HC	HC				
									WKP23S	WSM23S	WSM33S	WSM43S	WSM23S	WSM33S	WSM43S	WKP23S	WSM23S	WSM33S	WSM43S		
	GX16-0E150N01-CF6	1,5	0,15		16,6	0,03–0,10	±0,02	±0,05													
	GX16-0E150R/L10-CF6	1,5	0,15	10°	16,6	0,03–0,10	±0,05	±0,05													
	GX16-1E200N02-CF6	2	0,2		16,6	0,03–0,12	±0,05	±0,15													
	GX16-1E200R/L6-CF6	2	0,2	6°	16,6	0,03–0,10	±0,05	±0,15													
	GX16-1E200R/L7-CF6	2	0	7°	16,2	0,03–0,10	±0,05	±0,15													
	GX16-1E200R/L15-CF6	2	0	15°	16,2	0,03–0,10	±0,05	±0,15													
	GX16-1E250N02-CF6	2,5	0,2		16,6	0,03–0,15	±0,05	±0,15													
	GX16-1E250R/L6-CF6	2,5	0,2	6°	16,6	0,03–0,12	±0,05	±0,15													
	GX16-2E300N02-CF6	3	0,2		16,6	0,04–0,20	±0,05	±0,15													
	GX16-2E300R/L6-CF6	3	0,2	6°	16,6	0,04–0,16	±0,05	±0,15													
	GX16-2E300R/L7-CF6	3	0	7°	16,2	0,04–0,13	±0,05	±0,15													
	GX16-2E300R/L15-CF6	3	0	15°	16,2	0,04–0,13	±0,05	±0,15													
	GX24-1E200N02-CF6	2	0,2		24	0,03–0,12	±0,05	±0,15													
	GX24-2E300N02-CF6	3	0,2		24,6	0,04–0,20	±0,05	±0,15													
GX24-2E300R/L6-CF6	3	0,2	6°	24,6	0,04–0,16	±0,05	±0,15														
	GX24-2F300N02-CF6	3	0,2		24	0,04–0,20	±0,05	±0,15													
	GX16-1E200N00-CF5	2	0		16,6	0,03–0,10	±0,02	±0,05													
	GX16-1E200N02-CF5	2	0,2		16,6	0,04–0,12	±0,05	±0,15													
	GX16-1E200R/L6-CF5	2	0,2	6°	16,6	0,03–0,10	±0,05	±0,15													
	GX16-1E200R/L7-CF5	2	0	7°	16,4	0,03–0,10	±0,05	±0,15													
	GX16-1E200R/L15-CF5	2	0	15°	16,4	0,03–0,10	±0,05	±0,15													
	GX16-1E250N02-CF5	2,5	0,2		16,6	0,05–0,15	±0,05	±0,15													
	GX16-1E250R/L6-CF5	2,5	0,2	6°	16,6	0,03–0,12	±0,05	±0,15													
	GX16-2E300N02-CF5	3	0,2		16,6	0,08–0,20	±0,05	±0,15													
	GX16-2E300R/L6-CF5	3	0,2	6°	16,6	0,04–0,16	±0,05	±0,15													
	GX16-2E300R/L7-CF5	3	0	7°	16,6	0,04–0,13	±0,05	±0,15													
	GX16-2E300R/L15-CF5	3	0	15°	16,6	0,04–0,13	±0,05	±0,15													
	GX24-1E200N02-CF5	2	0,2		24	0,04–0,12	±0,05	±0,15													
	GX24-1E250N02-CF5	2,5	0,2		24	0,05–0,15	±0,05	±0,15													
	GX24-2E300N00-CF5	3	0		24,6	0,04–0,16	±0,02	±0,05													
	GX24-2E300N02-CF5	3	0,2		24	0,08–0,20	±0,05	±0,15													
	GX24-2E300R/L6-CF5	3	0,2	6°	24,6	0,04–0,16	±0,05	±0,15													
	GX24-3E400N02-CF5	4	0,2		24	0,10–0,22	±0,05	±0,15													
	GX24-3E400R/L6-CF5	4	0,2	6°	24,6	0,10–0,18	±0,05	±0,15													
	GX24-3E500N03-CF5	5	0,3		24	0,10–0,25	±0,05	±0,15													
		GX24-2F300N02-CF5	3	0,2		23,7	0,08–0,20	±0,05	±0,15												
GX24-3F400N02-CF5		4	0,2		23,7	0,10–0,22	±0,05	±0,15													
GX24-3F500N03-CF5		5	0,3		23,7	0,10–0,25	±0,05	±0,15													

l<sub>Tol</sub> = Repeat accuracy when changing indexable inserts

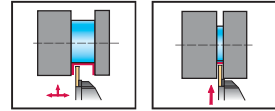
Radius tolerance r<sub>Tol</sub> = ±0,05 mm





Parting off with diameters up to 32 mm is possible with GX16 inserts (l = 16,6 mm)

HC = Coated carbide



# Cutting data for Walter Cut



Material group	Overview of the main material groups and code letters			Brinell hardness HB	Tensile strength R <sub>m</sub> N/mm <sup>2</sup>	Machining group <sup>1</sup>			Cutting material grades			
									Starting values for cutting speed v <sub>c</sub> [m/min]			
									HC			
												
P	Non-alloyed steel	C ≤ 0.25%	Annealed	125	430	P1	●●	●	200	190		
		C > 0.25 to ≤ 0.55%	Annealed	190	640	P2	●●	●	180	170		
		C > 0.25 to ≤ 0.55%	Heat-treated	210	710	P3	●●	●	170	160		
		C > 0.55%	Annealed	190	640	P4	●●	●	190	180		
		C > 0.55%	Heat-treated	300	1010	P5	●●	●	160	150		
		Free cutting steel (short-chipping)	Annealed	220	750	P6	●●	●	190	180		
	Low-alloyed steel	Annealed		175	590	P7	●●	●	190	180		
		Heat-treated		285	960	P8	●●	●	160	150		
		Heat-treated		380	1280	P9	●●	●	160	150		
		Heat-treated		430	1480	P10	●●	●				
	High-alloyed steel and high-alloyed tool steel	Annealed		200	680	P11	●●	●	140	130		
		Hardened and tempered		300	1010	P12	●●	●	120	110		
		Hardened and tempered		380	1280	P13	●●	●				
	Stainless steel	Ferritic/martensitic, annealed		200	680	P14	●●	●	190	180		
		Martensitic, heat-treated		330	1110	P15	●●	●	120	100		
M	Stainless steel	Austenitic, quench hardened		200	680	M1	●●	●	190	170		
		Austenitic, precipitation hardened (PH)		300	1010	M2	●●	●	120	100		
		Austenitic/ferritic, duplex		230	780	M3	●●	●	170	150		
K	Malleable cast iron	Ferritic		200	400	K1	●●	●	190	180		
		Pearlitic		260	700	K2	●●	●	170	160		
	Grey cast iron	Low tensile strength		180	200	K3	●●	●	220	210		
		High tensile strength/austenitic		245	350	K4	●●	●	180	170		
	Cast iron with spheroidal graphite	Ferritic		155	400	K5	●●	●	220	210		
		Pearlitic		265	700	K6	●●	●	180	170		
	GGV (CGI)			230	400	K7	●●	●				
N	Wrought aluminium alloys	Not hardenable		30	–	N1	●●	●				
		Hardenable, hardened		100	340	N2	●●	●				
	Cast aluminium alloys	≤ 12% Si, not hardenable		75	260	N3	●●	●				
		≤ 12% Si, hardenable, hardened		90	310	N4	●●	●				
		> 12% Si, not hardenable		130	450	N5						
	Magnesium-based alloys			70	250	N6						
		Copper and copper alloys (bronze/brass)	Non-alloyed, electrolytic copper		100	340	N7	●●	●			
			Brass, bronze, red brass		90	310	N8	●●	●			
Cu-alloys, short-chipping				110	380	N9	●●	●				
High-tensile, Ampco			300	1010	N10							
S	Heat-resistant alloys	Fe-based	Annealed	200	680	S1	●●	●	110	100		
			Hardened	280	940	S2	●●	●	60	50		
		Ni or Co base	Annealed	250	840	S3	●●	●	90	80		
			Hardened	350	1180	S4	●●	●	80	70		
			Cast	320	1080	S5	●●	●	80	70		
	Titanium alloys	Pure titanium		200	680	S6	●●	●	160	150		
		α and β alloys, hardened		375	1260	S7	●●	●	45	40		
		β alloys		410	1400	S8	●●	●	35	30		
Tungsten alloys			300	1010	S9							
Molybdenum alloys			300	1010	S10							
H	Hardened steel	Hardened and tempered		50 HRC	–	H1						
		Hardened and tempered		55 HRC	–	H2						
		Hardened and tempered		60 HRC	–	H3						
	Hardened cast iron	Hardened and tempered		55 HRC	–	H4						
O	Thermoplastics	Without abrasive fillers				O1						
	Thermosetting plastics	Without abrasive fillers				O2						
	Plastic, glass fibre reinforced	GFRP				O3						
	Plastic, carbon fibre reinforced	CFRP				O4						
	Plastic, aramid fibre reinforced	AFRP				O5						
	Graphite (technical)			80 Shore		O6						

- Recommended application (the specified cutting data is regarded as starting values for the recommended application)
- Possible application

## Note:

- The specified cutting data indicates standard values. For special applications, adjustment is recommended.
- If dry machining is possible, the tool life is reduced by 20-30% on average.

<sup>1</sup> The classification of the machining groups can be found from page A 468 onwards.

## A2

HC = Coated carbide  
HW = Uncoated carbide

Technical information – Grooving A 395