

ISO class DIN/ISO 513	Workpiece Material					Insert type	Carbide grade	D.O.C. a _p (mm)		Cutting speed v _c (m/min)	Feed f _z (mm/tooth)		Coolant
	Description	Material Group No.	Hardness HB	Typical materials				Recommended	Range		Recommended	Range	
				AISI/SAE/ASTM/AA	W.-Nr./DIN								
P	Non-alloy steel	1-5	130-180	1020	1.0402	T / RM-T	IC808 IC830 IC808 IC830 IC808 IC830 IC808 IC830 IC808 IC830	1.2	0.4-1.5	150-220	1.5	0.5-2.0	Dry
	Low alloy steel	6-8	260-300	4340	1.6582					140-200	1.6	0.5-2.0	Dry/Wet
		9	HRC 35-42*	3135	1.5710					140-200	1.5	0.5-2.0	Dry
	High alloy steel	10-11	200-220	H13	1.2344					120-180	1.6	0.5-2.0	Dry/Wet
										130-180	1.5	0.5-1.8	Dry
	Ferritic/martensitic stainless steel	12-13	200	420	1.4021					120-160	1.5	0.5-1.8	Dry/Wet
										120-170	1.3	0.5-1.8	Dry
										100-150	1.4	0.5-1.8	Dry/Wet
										110-160	1.3	0.5-1.8	Dry
	M	Austenitic stainless steel	14	200	304L					1.4306	HP/ RM-HP	IC830 IC808 IC5820 IC882	1.0
100-160						0.5-1.5							
100-160						0.5-1.6							
80-130						0.5-1.8							
K	Grey cast iron	15-16	250	Class 40	0.6025 (GG25)	T20 / T	IC810	1.5	0.4-1.5	150-220	1.5	0.5-2.0	Dry
	Nodular cast iron	17-18	200	Class 65-45-12	0.7050 (GGG50)					120-200		0.5-2.0	
N	Wrought and cast aluminum alloys	21-24	60-100	7075	3.4365	HP-P	IC28	1.2	0.4-1.5	250-450	1.0	0.5-2.0	Wet
	Hight temperature	25	130	A03930	G-AISI20MgNi					180-280		0.5-2.0	
S	High temperature alloys and titanium	33-35	340	Inconel 718	2.4668	HP/ RM-HP	IC830 IC808 IC5820 IC882 IC830 IC808 IC5820 IC882	1.0	0.4-1.5	25-30	0.5	0.5-1.0	Wet
										25-35		0.5-1.0	
										25-35		0.5-1.0	
										20-30		0.5-1.0	
		36-37	HRC 35-40	AMS R56400	3.7165 (Ti6Al4V ELI)					20-30	0.6	0.5-1.0	
										35-60		0.5-1.0	
										25-40		0.5-1.0	
										25-35		0.5-1.0	
H	Hardened steel	38	HRC 45-49	HARDOX 450 plate		SOMW	IC808	0.8	0.4-1.2	45-65	0.5	0.4-0.5	Dry
			HRC 58-62	D2	1.2379			0.4	0.4-1.2	40-60	0.45	0.4-0.5	

* Quenched and tempered

For machining in unstable conditions, the recommended cutting data should be reduced by 20-30%