



Speed v_c (m/min)								
7710VRD20 Series			Wear Resistance - ← → +					
Coolant Recommendation			Speed min. - max.					
Recommended ● Possible ○			CVD X Grade		PVD Standard			
ISO	Materials	Rm and Hardness	Water	Oil	X500	Water	SP6519	
P	Unalloyed Steel	<600 N/mm ² <180 HBN	○	●	130 - 270	○	●	130 - 295
		<950 N/mm ² <280 HBN	○	●	115 - 240	○	●	115 - 260
	Alloyed Steel	700-950 N/mm ² 200-280 HBN	○	●	100 - 210	○	●	100 - 230
		950-1200 N/mm ² 280-355 HBN	○	●	75 - 160	○	●	75 - 175
		1200-1400 N/mm ² 355-415 HBN		●	50 - 100		●	50 - 110
M	Stainless Steel	Austenitic + Ferritic 300 series	○	●	115 - 250	○	●	115 - 270
		Martensitic 400 series			100 - 220			105 - 235
	PH Stainless	Refractory P.H.	●		50 - 110	●		50 - 120
K	Cast Iron	Grey GG-Ft			120 - 280			140 - 295
		Spheroidal-Ductile GGG-FGS	○	●	105 - 205	○	●	110 - 240
		Malleable GTS - MN/MP			95 - 170			100 - 220
N	Aluminium & Alloys	Aluminium & Alloys <16% Si 116 HBN						
		Aluminium + Silicon >16% Si 92 HBN						
S	High Temperature Alloys	Iron Based			23 - 48			23 - 55
		Cobalt Based	●		21 - 44	●		22 - 48
		Nickel Based			24 - 51			25 - 55
		Titanium Based			35 - 73			36 - 79
H	Hard Materials	Hard Steel >1400 N/mm ² >415 HBN						
		Chilled Cast Iron >1400 N/mm ² >400 HBN						