



Speed $v_c$ (m/min)														
7713VR Series			Wear Resistance											
			- ← → +											
			Speed min. - max.											
Coolant Recommendation														
Recommended ● Possible ○														
ISO	Materials	Rm and Hardness	CVD X Grade		PVD X Grade		PVD Standard		PVD Standard		CVD Standard		Uncoated Micrograin	
			●	○	●	○	●	○	●	○	●	○	●	○
P	Unalloyed Steel	<600 N/mm <sup>2</sup> <180 HBN	○	●			○	●				●		
		<950 N/mm <sup>2</sup> <280 HBN												
	Alloyed Steel	700-950 N/mm <sup>2</sup> 200-280 HBN	○	●			○	●				●		
		950-1200 N/mm <sup>2</sup> 280-355 HBN												
M	Stainless Steel	1200-1400 N/mm <sup>2</sup> 355-415 HBN		●			●					●		
		Austenitic + Ferritic 300 series	○	●	○	●	○	●						
	PH Stainless	Martensitic 400 series												
K	Cast Iron	Refractory P.H.	●		●		●							
		Grey GG-Ft												
		Spheroidal-Ductile GGG-FGS					○	●				●		
		Malleable GTS - MN/MP												
N	Aluminium & Alloys	Aluminium & Alloys < 16% Si 116 HBN							●				●	
		Aluminium + Silicon > 16% Si 92 HBN												
S	High Temperature Alloys	Iron Based												
		Cobalt Based												
		Nickel Based	●		●		●		●					
		Titanium Based												
H	Hard Materials	Hard Steel >1400 N/mm <sup>2</sup> >415 HBN												
		Chilled Cast Iron >1400 N/mm <sup>2</sup> > 400 HBN									●			