TURNING GRADE OVERVIEW IN STAINLESS STEEL OPERATION

TECHNICAL GUIDE

ISO 513

	Range	5	10	15	20	25	30	35	40	45	50
STAINLESS STEEL	Cermet	HTP 101									
	PVD			HPM 151							
				HPM 201							
	CVD					HCM 301					
							HCM 351				
Vc	m/min	100 - 220			80 - 180		60 - 140				

Finishing

Vc increasing

Vf small

ap small

Wear resistance increasing

Toughness decreasing

◀ ▶

Roughing

Vc decreasing

Vf large

ap large

Wear resistance decreasing

Toughness increasing

		SCALE 0-10=RANGE OF TN Toughness / WR Wear resistance									APPLICATION Cutting condition				APPLICATION Machining condition		
HM - GRADE		2	3	4	5	6	7	8	9	10	O	o	¤	◇	F	M	R
HTP 101	TN	■	■	■							●	○			●	○	
	WR	■	■	■	■	■	■	■	■								
HPM 151	TN	■	■	■	■	■	■				○	●	○		●	●	
	WR	■	■	■	■												
HPM 201	TN	■	■	■	■	■	■				●	○	○		●	○	
	WR	■	■	■	■												
HCM 301	TN	■	■	■	■	■	■	■	■		○	○	●	●	○	○	●
	WR	■	■	■	■	■	■										
HCM 351	TN	■	■	■	■	■	■	■	■		○	○	●	●	○	○	●
	WR	■	■	■	■	■	■										

Cutting conditions		Machining conditions		Recommendation	
O	Excellent; continious cutting with continious thicknes of chips	F	Finishing	●	Ideal
o	Good; continious cutting with different thickness of chips	M	Medium machining	○	Stil recommended
¤	Fair; lichty interrupted cutting	R	Roughing	—	Not recommended
◇	Difficult; heavy interrupted cutting				