

TURNING GRADE OVERVIEW IN NON-FERROUS OPERATION



TECHNICAL GUIDE

		ISO 513									
NON FERROUS	Range	5	10	15	20	25	30	35	40	45	50
		Uncoated	HWK 101			HWK 201			HFK 201		
Vc	m/min	200 - 600				150 - 400					

Finishing

Vc increasing
Vf small
ap small
Wear resistance increasing
Toughness decreasing



Roughing

Vc decreasing
Vf large
ap large
Wear resistance decreasing
Toughness increasing

HM - GRADE	SCALE 0-10=RANGE OF										APPLICATION				APPLICATION		
	TN Toughness / WR Wear resistance										Cutting condition				Machining condition		
	2	3	4	5	6	7	8	9	10					F	M	R	
HWK 101	TN																
	WR																
HWK 201	TN																
	WR																
HFK 201	TN																
	WR																

Cutting conditions	Machining conditions	Recommendation
Excellent; continuous cutting with continuous thickness of chips	F Finishing	● Ideal
Good; continuous cutting with different thickness of chips	M Medium machining	○ Still recommended
Fair; lighty interrupted cutting Difficult; heavy interrupted cutting	R Roughing	— Not recommended