

# MILLING GRADE OVERVIEW IN CAST IRON OPERATION

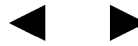


TECHNICAL GUIDE

ISO 513											
CAST IRON	Range	5	10	15	20	25	30	35	40	45	50
	Uncoated	HFK 121		HFK 201							
	CVD	HCK 152			HCP 202						
<b>Vc</b>	<b>m/min</b>		170 - 290	100 - 250							

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	DRY	WET	F	M	R	
HFK 121	TN	■	■	■	■	■	■	■	■		●	●			
	WR	■	■	■	■	■	■	■	■						
HWP 302	TN														
	WR														
HCK 152	TN	■	■	■	■	■	■	■	■	●	●	●	●		
	WR	■	■	■	■	■	■	■	■	●	●	●	●		
HCP 202	TN	■	■	■	■	■	■	■	■	●	○	○	●	○	
	WR	■	■	■	■	■	■	■	■	●	○	○	●	○	

Cutting conditions	Machining conditions	Recommendation
DRY = without COOLING	F Finishing	● Ideal
	M Medium machining	○ Stil recommended
WET = with COOLING	R Roughing	— Not recommended