

Standard cutting conditions

Work materials	Hardness (HB)	Priority	Grades	Cutting speed Vc (sfm)	Chip thickness t (inch)
Low carbon steels (1015, etc.)	~ 200	First choice	AH725	300 - 600	.005 - .010
		Priority for impact resistance	AH140		
High carbon steels (1045, etc.)	200 ~ 300	First choice	AH725	300 - 600	.005 - .010
		Priority for impact resistance	AH140		
Alloy steels (4140, etc.)	150 ~ 300	First choice	AH725	300 - 600	.005 - .010
		Priority for impact resistance	AH140		
Tool steels (D2, etc.)	~ 300	First choice	AH725	300 - 600	.005 - .010
		Priority for impact resistance	AH140		
Stainless steel (304, etc.)	-	-	AH140	300 - 660	.005 - .010
Gray cast irons (No250B, etc.)	150 ~ 250	-	AH120	400 - 760	.005 - .012
Ductile cast irons (65-45-12, etc.)		-	AH120	300 - 500	.005 - .008
Titanium alloys (Ti-6Al-4V, etc.)	-	-	AH725	100 - 130	.003 - .005
Nickel-based alloys (Inconel718 etc.)	-	-	AH725	70 - 120	.003 - .005