

# Series 556-557-559

Material group	Hardness	SFM	Feed Rate - IPR										
			1/16 in. 1.590 mm	1/8 in. 3.170 mm	1/4 in. 6.350 mm	3/8 in. 9.520 mm	1/2 in. 12.700mm	5/8 in. 15.870mm	3/4 in. 19.050mm	1 in. 25.400mm	1 1/4 in. 31.75mm	1 1/2 in. 38.10mm	
Common structural steels	≤ 20 HRC	100		0.0039	0.0063	0.0098	0.0098	0.0124	0.0157	0.0197			
	≤ 32 HRC	80		0.0031	0.0049	0.0079	0.0079	0.0098	0.0124	0.0157			
Free-cutting steels	≤ 25 HRC	105		0.0039	0.0063	0.0098	0.0098	0.0124	0.0157	0.0197			
	≤ 32 HRC	100		0.0031	0.0049	0.0079	0.0079	0.0098	0.0124	0.0157			
Unalloyed heat-treatable steels	≤ 20 HRC	80		0.0031	0.0049	0.0079	0.0079	0.0098	0.0124	0.0157			
	≤ 25 HRC	80		0.0031	0.0049	0.0079	0.0079	0.0098	0.0124	0.0157			
	≤ 32 HRC	65		0.0025	0.0039	0.0063	0.0063	0.0079	0.0098	0.0124			
Alloyed heat-treatable steels	≤ 32 HRC	50		0.0025	0.0039	0.0063	0.0063	0.0079	0.0098	0.0124			
	≤ 43 HRC	40		0.0020	0.0031	0.0049	0.0049	0.0063	0.0079	0.0098			
Unalloyed case hardened steels	≤ 25 HRC	100		0.0039	0.0063	0.0098	0.0098	0.0124	0.0157	0.0197			
Alloyed case hardened steels	≤ 32 HRC	50		0.0025	0.0039	0.0063	0.0063	0.0079	0.0098	0.0124			
	≤ 43 HRC	25		0.0020	0.0031	0.0049	0.0049	0.0063	0.0079	0.0098			
Nitriding steels	≤ 32 HRC												
	≤ 43 HRC												
Tool steels	≤ 25 HRC	50		0.0025	0.0039	0.0063	0.0063	0.0079	0.0098	0.0124			
	≤ 43 HRC												
High speed steels	≤ 43 HRC												
Spring steels	≤ 38 HRC												
Stainless steels	sulphured austenitic martensitic	≤ 28 HRC	35		0.0020	0.0031	0.0049	0.0049	0.0063	0.0079	0.0098		
		≤ 36 HRC	20		0.0020	0.0031	0.0049	0.0049	0.0063	0.0079	0.0098		
		≤ 46 HRC	25		0.0020	0.0031	0.0049	0.0049	0.0063	0.0079	0.0098		
Hardened steels	≤ 48 HRC												
	≤ 66 HRC												
Special alloys	≤ 54 HRC												
Cast iron	≤ 23 HRC	100		0.0039	0.0063	0.0098	0.0098	0.0124	0.0157	0.0197			
	≤ 38 HRC	100		0.0039	0.0063	0.0098	0.0098	0.0124	0.0157	0.0197			
Spheroidal graphite iron and malleable cast iron	≤ 23 HRC	80		0.0039	0.0063	0.0098	0.0098	0.0124	0.0157	0.0197			
	≤ 38 HRC	65		0.0039	0.0063	0.0098	0.0098	0.0124	0.0157	0.0197			
Chilled cast iron	≤ 38 HRC												
Ti and Ti-alloys	≤ 25 HRC												
	≤ 43 HRC												
Aluminum and Al-alloys	≤120HB	230		0.0049	0.0079	0.0124	0.0124	0.0157	0.0197	0.0248			
Al wrought alloys	≤200HB	230		0.0049	0.0079	0.0124	0.0124	0.0157	0.0197	0.0248			
Al cast alloys	≤ 10% Si	≤180HB	165		0.0049	0.0079	0.0124	0.0124	0.0157	0.0197	0.0248		
	≤ 24% Si	≤180HB	165		0.0039	0.0063	0.0098	0.0098	0.0124	0.0157	0.0197		
Magnesium alloys	≤120HB	230		0.0039	0.0063	0.0098	0.0098	0.0124	0.0157	0.0197			
Copper	low-alloyed	≤ 80 HB	195		0.0031	0.0049	0.0079	0.0079	0.0098	0.0124	0.0157		
	short-chipping	≤180HB	195		0.0031	0.0049	0.0079	0.0079	0.0098	0.0124	0.0157		
Brass	long-chipping	≤180HB	130		0.0031	0.0049	0.0079	0.0079	0.0098	0.0124	0.0157		
	short-chipping	≤180HB	100		0.0025	0.0039	0.0063	0.0063	0.0079	0.0098	0.0124		
Bronze	short-chipping	≤ 25 HRC	80		0.0025	0.0039	0.0063	0.0063	0.0079	0.0098	0.0124		
	long-chipping	≤ 25 HRC	50		0.0025	0.0039	0.0063	0.0063	0.0079	0.0098	0.0124		
Bronze	long-chipping	≤ 32 HRC	40		0.0025	0.0039	0.0063	0.0063	0.0079	0.0098	0.0124		
	long-chipping	≤ 32 HRC	40		0.0025	0.0039	0.0063	0.0063	0.0079	0.0098	0.0124		
Duroplastics	-	60		0.0025	0.0039	0.0063	0.0063	0.0079	0.0098	0.0124			
Thermoplastics	-	90		0.0031	0.0049	0.0079	0.0079	0.0098	0.0124	0.0157			