

Material groups			Application	Cutting speed m/min
Steel, cast steel	Non-hardened, non-heat treated steels up to 1200 N/mm ² (< 38 HRC)	Construction steels, carbon steels, tool steels, non-alloyed steels, case-hardened steels, cast steels	Coarse machining with high stock removal	450–600
	Hardened, heat-treated steels exceeding 1200 N/mm ² (> 38 HRC)	Tool steels, tempering steels, alloyed steel, cast steels		250–350
Stainless steel (INOX)	Rust- and acid-resistant steels	Austenitic and ferritic stainless steels	Coarse machining with high stock removal	250–350
Non-ferrous metals	Hard-non-ferrous metals	Bronze, titanium/titanium alloys, hard alu-alloys (high Si content)	Coarse machining with high stock removal	250–350
	High-temperature resistant materials	Nickel based alloys, cobalt based alloys (aircraft engine and turbine construction)		300–450
Cast iron	Grey cast iron, white cast iron	Cast iron with flake graphite EN-GJL, with nodular graphite cast iron EN-GJS, white annealed cast iron EN-GJMW, black cast iron EN-GJMB	Coarse machining with high stock removal	450–600



Cutting speed (m/min)							
	250	300	350	400	450	500	600
Ø (mm)	Rotational speed (rpm)						
2	40,000	48,000	56,000	64,000	72,000	80,000	95,000
3	27,000	32,000	37,000	42,000	48,000	53,000	64,000
4	20,000	24,000	28,000	32,000	36,000	40,000	48,000
6	13,000	16,000	19,000	21,000	24,000	27,000	32,000
8	10,000	12,000	14,000	16,000	18,000	20,000	24,000
10	8,000	10,000	11,000	13,000	14,000	16,000	19,000
12	7,000	8,000	9,000	11,000	12,000	13,000	16,000
16	5,000	6,000	7,000	8,000	9,000	10,000	12,000
20	4,000	5,000	6,000	6,000	7,000	8,000	10,000
25	3,000	4,000	4,000	5,000	6,000	6,000	8,000

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