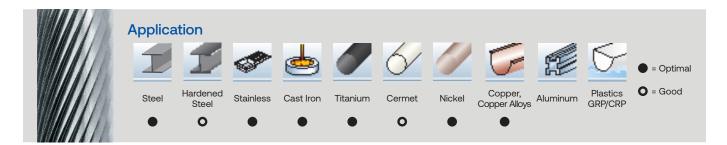
Single Cut - Technical Resources

Single cut for versatile grinding in many applications

- · High cutting action with a smooth operation.
- Generates short chips for controlled stock removal and cleaner work.
- For use on: all ferrous metals such as cast iron, steel < 60 HRC, stainless steel, nickel-based, and titanium alloys. Also suitable for copper, brass, and bronze.



Recommended Operating Speeds

The operating speeds listed below serve as a guide for using tungsten carbide burs, based on bur head diameter.

	Mate	Application	Cutting speed		
		1,	SFPM	m/min	
Steel, cast steel	Non-hardened, non-heat treated steels up to 1200 N/mm² (< 38 HRC)	Construction steels, carbon steels, tool steels, non-alloyed steels, case-hardened steels, cast steels	Coarse machining with	1476-1969	450-600
	Hardened, heat-treated steels exceeding 1200 N/mm² (> 38 HRC)	Tool steels, tempered steels, alloyed steel, cast steels	high stock removal	820-1148	250-350
Stainless steel	Rust and acid-resistant steels	Austenitic and ferritic stainless steels	Coarse machining with high stock removal	820-1148	250-350
Non-ferrous metals	Hard non-ferrous metals Bronze, titanium/titanium alloys, hard aluminum-alloys (high Si content)		Coarse machining with	820-1148	250-350
	High-temperature resistant materials	Nickel based alloys, cobalt based alloys (aircraft engine and turbine construction)	high stock removal	984-1476	300-450
Cast iron	Gray 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	1476-1969	450-600

Cutting speed												
SFM		820	984	1148	1312	1476	1640	1969	2953			
m/min		250	300	350	400	450	500	600	900			
Ø (in)	Ø (mm)	Rotational speed (rpm)										
5/64	2	40,000	48,000	56,000	64,000	72,000	80,000	95,000	100,000			
1/8	3	27,000	32,000	37,000	42,000	48,000	53,000	64,000	100,000			
5/32	4	20,000	24,000	28,000	32,000	36,000	40,000	48,000	70,000			
1/4	6	13,000	16,000	19,000	21,000	24,000	27,000	32,000	48,000			
5/16	8	10,000	12,000	14,000	16,000	18,000	20,000	24,000	36,000			
3/8	9.6	8,000	10,000	11,000	13,000	14,000	16,000	19,000	30,000			
1/2	12	7,000	8,000	9,000	11,000	12,000	13,000	16,000	24,000			
5/8	16	5,000	6,000	7,000	8,000	9,000	10,000	12,000	18,000			
3/4	20	4,000	5,000	6,000	6,000	7,000	8,000	10,000	15,000			
1	25	3,000	4,000	4,000	5,000	6,000	6,000	8,000	12,000			

Recommended speeds are based on standard shank length burs up to 1 $\frac{3}{4}$ ", with maximum overhang of 3/8". Max operating speed of 15,000 rpm for extended shanks (>1 $\frac{3}{4}$ ").

26 **QtQ sgspro** www.atatools.com