

Tungsten Carbide Burs

Standard Shank Lengths, L2

Single Cut



Double Cut



Diamond Cut



Fine Cut



Recommended Rotational Speed Range

To determine the recommended cutting speed [SFPM], please proceed as follows:

- 1 Select the workpiece material.
- 2 Determine the type of application.
- 3 Select the cut.

- 4 Establish the cutting speed range.

To determine the recommended rotational speed [RPM], please proceed as follows:

- 5 Select the required bur diameter.

- 6 The cutting speed range and the bur diameter determine the recommended rotational speed range [RPM].

1 Workpiece Material/Colour Code		2 Application	3 Cut	4 Cutting Speed
Steel and steel castings	Non-hardened, non-heat treated steels up to 35 HRC (< 1200 N/mm ²)	Constructional steels, carbon steels, tool steels, non-alloyed steels, case-hardened steels, steel castings	Coarse machining = high stock removal	Single 1,950 - 3,000 SFPM
			Double 1,950 - 3,000 SFPM	
	Hardened, heat-treated steels exceeding 35 HRC (> 1200 N/mm ²)	Tool steels, tempering steels, alloyed steels, steel castings	Fine machining = low stock removal	Single 1,650 - 2,000 SFPM
			Coarse machining = high stock removal	Single 850 - 1,150 SFPM
Stainless steel (INOX)	Rust and acid-resistant steels	Austenitic and ferritic high-grade steels	Coarse machining = high stock removal	Double 850 - 1,150 SFPM
			Fine machining = low stock removal	Diamond 850 - 1,150 SFPM
			Fine / Single 1,150 - 1,500 SFPM	
Non-ferrous metals	Hard non-ferrous metals	Bronze, titanium/titanium alloys, very hard aluminum alloys (high Si content)	Coarse machining = high stock removal	Single 850 - 1,150 SFPM
			Double 850 - 1,150 SFPM	
	Heat resistant alloys	Nickel based alloys, NiCo alloys (aircraft engine and turbine construction)	Fine machining = low stock removal	Single 1,150 - 1,500 SFPM
			Coarse machining = high stock removal	Double 1,000 - 1,500 SFPM
Cast iron	Grey cast iron, white cast iron	Cast iron with flake graphite, with nodular graphite cast iron, white annealed cast iron, black cast iron	Fine machining = low stock removal	Diamond 1,000 - 1,500 SFPM
			Coarse machining = high stock removal	Fine 1,150 - 1,650 SFPM
			Double 1,500 - 2,000 SFPM	
			Fine machining = low stock removal	Single 1,650 - 2,000 SFPM

Example:

Tungsten Carbide Bur, Double Cut, Diameter: 1/2".

Coarse machining of non-hardened and non-heat-treated steels.

Cutting Speed: 1,500 - 2,000 SFPM

Rotational Speed: 12,000 - 16,000 RPM

5 Dia. [Inches]	6 Cutting Speed [SFPM]						
	850	1,000	1,150	1,300	1,500	1,650	2,000
	Rotational Speed [RPM]						
3/32	40,000	48,000	56,000	64,000	72,000	80,000	95,000
1/8	27,000	32,000	37,000	42,000	48,000	53,000	64,000
3/16	16,000	19,000	22,000	25,000	29,000	32,000	38,000
1/4	13,000	16,000	19,000	21,000	24,000	27,000	32,000
5/16	10,000	12,000	14,000	16,000	18,000	20,000	24,000
3/8	8,000	10,000	11,000	13,000	14,000	16,000	19,000
7/16	7,500	9,000	10,000	12,000	13,000	14,500	17,500
1/2	7,000	8,000	9,000	11,000	12,000	13,000	16,000
5/8	5,000	6,000	7,000	8,000	9,000	10,000	12,000
3/4	4,000	5,000	6,000	6,000	7,000	8,000	10,000
1	3,000	4,000	4,000	5,000	6,000	6,000	8,000