Steel Cut - Technical Resources

Aggressive cutting form for increased stock removal on steels and cast iron

- Results in significantly increased machining output, as compared to conventional cross-cut.
- Generates large chips with superior chip removal.
- Prevents discoloration or surface softening due to low heat development.
- For use on: construction steels, carbon steels, tool steels, and case-hardened steels.

Application

Steel	Hardened Steel	Stainless	Cast Iron	Titanium	Cermet	Nickel	Copper, Copper Alloys	Aluminum	Plastics GRP/CRP
●	●		○						

● = Optimal
○ = Good

Recommended Operating Speeds

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

Material groups			Application	Cutting speed	
				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 = high stock removal with impact load	1476-2953	450 - 900
	Hardened, heat treated steels exceeding 1200 N/mm² (> 38 HRC)	Tool steels, tempered steels, alloyed steels, cast steels			

Cutting speed				
SFM		1476	2461	2953
m/min		450	750	900
Ø (in)	Ø (mm)	Rotational speed (rpm)		
1/4	6	24,000	40,000	48,000
5/16	8	18,000	30,000	36,000
3/8	9.6	14,000	24,000	30,000
1/2	12	12,000	20,000	24,000
5/8	16	9,000	17,000	18,000

Recommended speeds are based on standard shank length burs up to 1 ¾", with maximum overhang of 3/8".
Max operating speed of 15,000 rpm for extended shanks (>1 ¾").