

Carbide burs with MICRO cut are specifically designed for finishing and are used in areas in which abrasive mounted points are usually used. They offer a higher stock removal rate and produce a high surface quality, particularly compared with conventionally milled surfaces. They also operate with low vibration and little noise. They maintain their geometry over their entire service life, and are well suited to manual and machine applications. Almost all materials up to a hardness of 940 HV (68 HRC) can be machined.

Advantages:

- High surface quality.
- Unlike with abrasive mounted points, there is no change in geometry due to wear and tear.
- Work on almost all materials up to 940 HV (68 HRC).

Applications:

- Finishing
- Very fine cleaning work
- Corrections in die and mold construction
- Sharpening cutting tools

Workpiece materials:

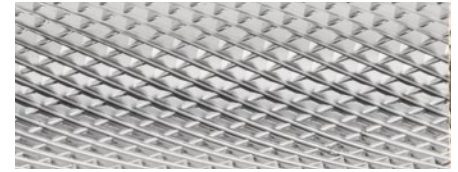
- Steel and cast steel
- Stainless steel (INOX)
- Non-ferrous metals
- Cast iron

Recommendations for use:

- If possible, use the tools on powerful drives with elastically mounted spindles to avoid vibration.
- For the cost-effective use of burs, work with higher rotational/peripheral speeds.
Power recommendation for power tools:
- Shank diameter of 1/8": 75 to 300 watts
- Shank diameter of 1/4": from 300 watts
- Please observe the rotational speed recommendations.

Compatible with:

- Flexible shaft drive
- Straight grinder
- Robot applications
- CNC machines



PFERDVALUE®:

PFERDERGONOMICS® recommends burs with MICRO cut as an innovative bur solution for comfortable working with significantly reduced vibration and less noise.



PFERDEFFICIENCY® recommends burs with MICRO cut for long fatigue-free and resource-saving work with perfect results in a very short period of time.



Recommended rotational speed range [RPM]

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

- 1 Select the material group to be machined.
- 2 Establish the peripheral speed range.

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

- 3 Select the required bur diameter.
- 4 The peripheral speed range and the bur diameter determine the recommended rotational speed range.

1 Material group			Application	Cut	2 Peripheral speed
Steel, cast steel	Steels up to 370 HV (38 HRC)	Construction steels, carbon steels, tool steels, non-alloyed steels, case-hardened steels, cast steel, alloyed steels	Fine stock removal	MICRO	2,000 - 2,500 SFPM
	Hardened, heat-treated steels over 370 HV (38 HRC)	Tool steels, tempering steels, alloyed steels, cast steel			1,500 - 2,000 SFPM
Stainless steel (INOX)	Rust and acid-resistant steels	Austenitic and ferritic stainless steels	Fine stock removal	MICRO	1,500 - 2,000 SFPM
Non-ferrous metals	Hard non-ferrous metals	Bronze, titanium/titanium alloys, hard aluminum alloys (high Si content)	Fine stock removal	MICRO	1,500 - 2,000 SFPM
	High-temperature-resistant materials	Nickel-based and cobalt-based alloys (engine and turbine construction)			
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 stock removal	MICRO	2,000 - 2,500 SFPM

Example

Micro bur, MICRO cut, bur diameter: 3/8".

Fine stock removal on steel and cast steel up to 370 HV (38 HRC), e.g. construction steels, carbon steels etc.

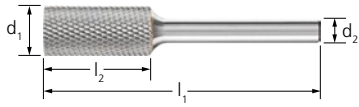
Peripheral speed: 2,000–2,500 SFPM

Rotational speed: 19,000–24,000 RPM

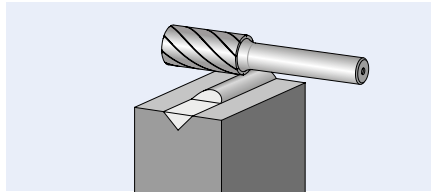
5 Bur dia. [Inches]	4 Peripheral speed [SFPM]		
	1,500	2,000	2,500
	Rotational speed [RPM]		
3/32	72,000	95,000	120,000
1/8	48,000	64,000	80,000
1/4	24,000	32,000	40,000
3/8	14,000	19,000	24,000

Carbide burs, high performance line

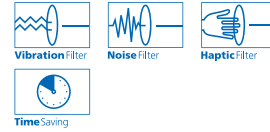
MICRO cut for finishing work





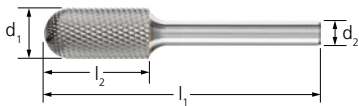
Cylindrical bur with plain end (uncut) – Shape A



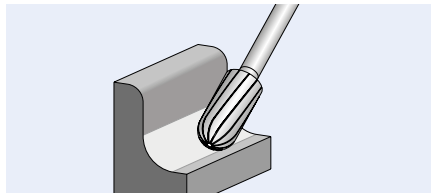
PFERDVALUE®:



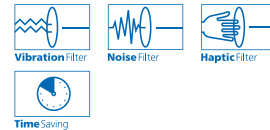
d ₁ [Inches]	l ₂ [Inches]	SCTI no.	l ₁ [Inches]	Cut type and EDP number	
				MICRO 	
Shank dia. 1/8" [d₂]					
1/8	1/2	SA-43	1-1/2	27500	1
Shank dia. 1/4" [d₂]					
1/4	5/8	SA-1	1-15/16	27512	1
3/8	3/4	SA-3	2-1/2	27516	1





Cylindrical bur with radius end – Shape C



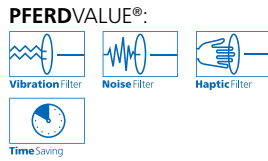
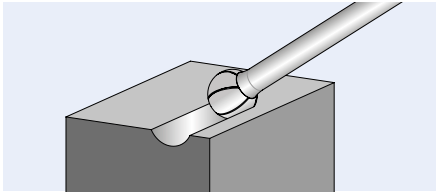
PFERDVALUE®:





d ₁ [Inches]	l ₂ [Inches]	SCTI no.	l ₁ [Inches]	Cut type and EDP number	
				MICRO 	
Shank dia. 1/8" [d₂]					
1/8	1/2	SC-42	1-1/2	27540	1
Shank dia. 1/4" [d₂]					
1/4	5/8	SC-1	1-15/16	27541	1
3/8	3/4	SC-3	2-1/2	27542	1

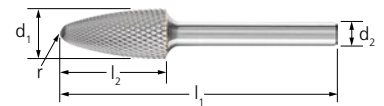
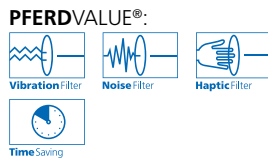
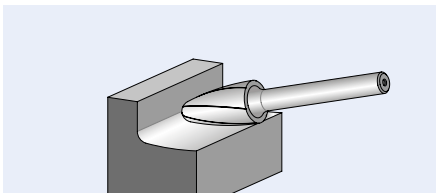




Ball bur – Shape D



d_1 [Inches]	l_2 [Inches]	SCTI no.	l_1 [Inches]	Cut type and EDP number		
				MICRO 		
Shank dia. 1/8" [d₂]						
3/32	3/32	SD-41	1-1/2	27519		1
1/8	3/32	SD-42	1-1/2	27520		1
Shank dia. 1/4" [d₂]						
1/4	3/16	SD-1	1-15/16	27521		1
3/8	5/16	SD-3	2-1/16	27522		1

Tree bur with radius end – Shape F

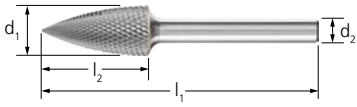


d_1 [Inches]	l_2 [Inches]	SCTI no.	l_1 [Inches]	r [Inches]	Cut type and EDP number		
					MICRO 		
Shank dia. 1/8" [d₂]							
1/8	1/2	SF-42	1-1/2	.029	27524		1
Shank dia. 1/4" [d₂]							
1/4	5/8	SF-1	1-15/16	.059	27528		1
3/8	3/4	SF-3	2-1/2	.141	27532		1

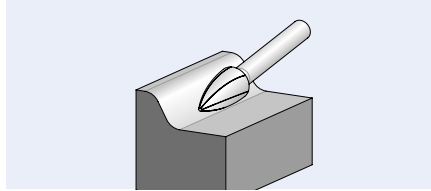


Carbide burs, high performance line

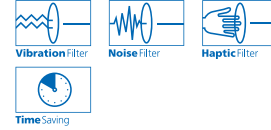
MICRO cut for finishing work





Tree bur with pointed end – Shape G



PFERDVALUE®:



d ₁ [Inches]	l ₂ [Inches]	SCTI no.	l ₁ [Inches]	Cut type and EDP number	
				MICRO 	
Shank dia. 1/8" [d₂]					
1/8	1/4	SG-41	1-1/2	27546	1
Shank dia. 1/4" [d₂]					
1/4	5/8	SG-1	1-15/16	27547	1
3/8	3/4	SG-3	2-1/2	27548	1

