

Tungsten carbide burrs

TC burrs for tough applications



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The TOUGH and TOUGH-S cuts have been specially designed for tough operating conditions in dockyards, foundries and steel constructions. They are also ideal for use in all manufacturing sectors where, due to the difficult production environment, tooth breakages or other damage to conventional burrs is a frequent occurrence.

Application examples:

- High-impact applications, due to use of shank extensions
- Heavy-duty applications, due to angled working
- Applications with a high angle of surface contact
- Milling of narrow contours
- Applications where high rotational speeds are not available

Advantages:

- Innovative, special cuts providing exceptional impact resistance
- Minimizing of tooth chipping/breakage, splintering and burr failures due to very robust, high-performance cuts
- Also useable in the low rotational speed range

Note:

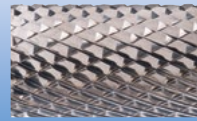
- Due to their extreme impact resistance, they can perfectly be used as long shank variants. Available as products made to order with any shank length. Please contact us.
- The TOUGH and TOUGH-S cuts can be used on materials up to 55 HRC. For harder materials, it is recommended to perform trials beforehand.

Cut TOUGH



Tungsten carbide burrs with TOUGH cut are particularly aggressive and are characterized by high stock removal.

Cut TOUGH-S



Tungsten carbide burrs with TOUGH-S cut are characterized by smooth milling and high stock removal.

Recommended rotational speed range

To determine the recommended cutting speed range [m/min], please proceed as follows:

- 1 Select the material group to be machined
- 2 Select the cut
- 3 Establish the cutting speed range

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

- 4 Select the required burr diameter
- 5 The cutting speed range and the burr diameter determine the recommended rotational speed range



1 Material group		Application	2 Cut	3 Cutting speed
Steel, cast steel	Non-hardened, non-heat-treated steels up to 1,200 N/mm ² (< 38 HRC)	Construction steels, carbon steels, tool steels, non-alloyed steels, case-hardened steels, cast steel	TOUGH	250–600 m/min
			TOUGH-S	
	Hardened, heat-treated steels over 1,200 N/mm ² (> 38 HRC)	Tool steels, tempering steels, alloyed steels, cast steel	TOUGH	250–350 m/min
			TOUGH-S	
Non-ferrous metals	High-temperature-resistant materials	Nickel-based and cobalt-based alloys (engine and turbine construction)	TOUGH	250–450 m/min
			TOUGH-S	
Cast iron	Grey cast iron, white cast iron	Cast iron with flake graphite EN-GJL (GG), with nodular graphite/nodular cast iron EN-GJS (GGG), white annealed cast iron EN-GJMW (GTW), black cast iron EN-GJMB (GTS)	TOUGH	250–600 m/min
			TOUGH-S	

Example:

TC burr,
Cut TOUGH
Burr dia. 12 mm.
Coarse stock removal with impact load on non-hardened, non-heat-treated steels.
Cutting speed: 250–600 m/min
Rotational speed: 7,000–16,000 RPM

4 Burr dia. [mm]	5 Cutting speed [m/min]			
	250	350	450	600
	Rotational speed [RPM]			
8	10,000	14,000	18,000	24,000
10	8,000	11,000	14,000	19,000
12	7,000	9,000	12,000	16,000
16	5,000	7,000	9,000	12,000

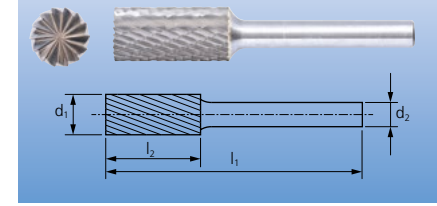
PFERDVIDEO
You will receive more information here or at www.pferd.com



Cylindrical burr according to DIN 8032. Shape ZYAS with circumferential and end cut.

Ordering example:
EAN 4007220769997
ZYAS 0820/6 TOUGH
Please complete the description with the desired cut.

Cylindrical shape ZYA Cylindrical shape ZYAS with end cut



Description	Cut		Shank dia. d ₂ [mm]	Burr dia. x length d ₁ x l ₂ [mm]	Overall length l ₁ [mm]	1
	TOUGH	TOUGH-S				
EAN 4007220						

Shank dia. 6 mm without end cut

ZYA 0820/6	895504	-	6	8 x 20	55	1
ZYA 1020/6	895658	-	6	10 x 20	60	1
ZYA 1225/6	895665	895672	6	12 x 25	65	1

Shank dia. 6 mm with end cut

ZYAS 0820/6	769997	-	6	8 x 20	60	1
ZYAS 1020/6	770023	-	6	10 x 20	60	1
ZYAS 1225/6	869109	-	6	12 x 25	65	1

Shank dia. 8 mm with end cut

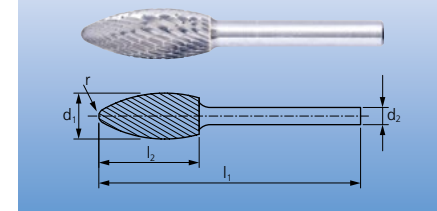
ZYAS 1225/8	770054	-	8	12 x 25	65	1
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Flame-shaped burr according to ISO 7755/8.

Ordering example:
EAN 4007220770061
B 0820/6 TOUGH

Flame shape B



Description	Cut		Shank dia. d ₂ [mm]	Burr dia. x length d ₁ x l ₂ [mm]	Overall length l ₁ [mm]	Radius r [mm]	1
	TOUGH	TOUGH-S					
EAN 4007220							

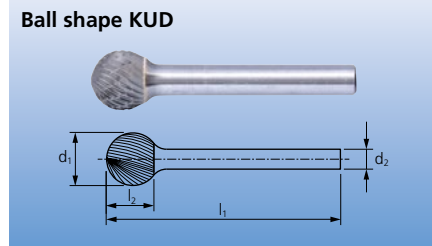
Shank dia. 6 mm

B 0820/6	770061	-	6	8 x 20	60	1.5	1
B 1230/6	770085	-	6	12 x 30	70	2.1	1

Shank dia. 8 mm

B 1230/8	770092	-	8	12 x 30	70	2.1	1
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Ball-shaped burr according to DIN 8032.

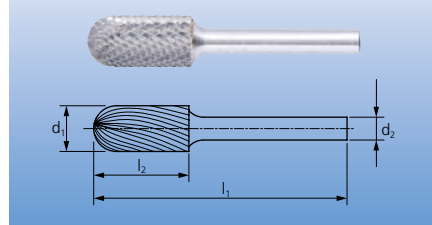
Ordering example:
EAN 4007220770160
KUD 1210/6 TOUGH

Description	Cut		Shank dia. d_2 [mm]	Burr dia. x length $d_1 \times l_2$ [mm]	Overall length l_1 [mm]	
	TOUGH	TOUGH-S				
EAN 4007220						

Shank dia. 6 mm

KUD 0807/6	95383	-	6	8 x 7	47	1
KUD 1009/6	953037	-	6	10 x 9	49	1
KUD 1210/6	770160	-	6	12 x 10	51	1

Cylindrical shape with radius end WRC



Cylindrical burr with radius end according to DIN 8032. Combination of cylindrical and ball-shaped geometries.

Ordering example:
EAN 4007220770108
WRC 0820/6 TOUGH
Please complete the description with the desired cut.



Description	Cut		Shank dia. d_2 [mm]	Burr dia. x length $d_1 \times l_2$ [mm]	Overall length l_1 [mm]	
	TOUGH	TOUGH-S				
EAN 4007220						

Shank dia. 6 mm

WRC 0820/6	770108	-	6	8 x 20	60	1
WRC 1020/6	770115	-	6	10 x 20	60	1
WRC 1225/6	770122	770139	6	12 x 25	65	1

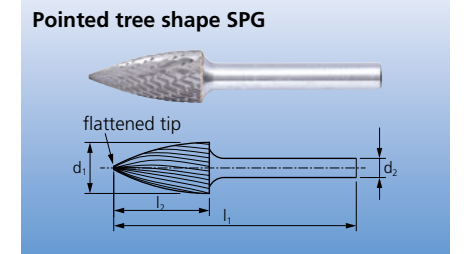
Shank dia. 8 mm

WRC 1225/8	769881	770153	8	12 x 25	65	1
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Pointed tree-shaped burr according to DIN 8032, flattened tip.

Ordering example:
EAN 4007220770252
SPG 1020/6 TOUGH
Please complete the description with the desired cut.



Description	Cut		Shank dia. d_2 [mm]	Burr dia. x length $d_1 \times l_2$ [mm]	Overall length l_1 [mm]	
	TOUGH	TOUGH-S				
EAN 4007220						

Shank dia. 6 mm

SPG 1020/6	770252	770269	6	10 x 20	60	1
SPG 1225/6	770276	-	6	12 x 25	65	1

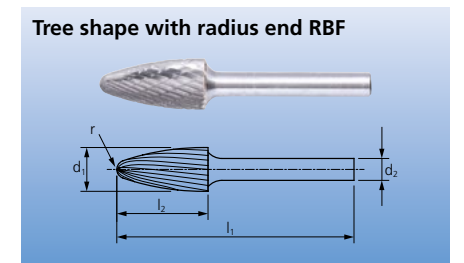
Shank dia. 8 mm

SPG 1225/8	770283	-	8	12 x 25	65	1
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Tree-shaped burr with radius end according to DIN 8032.

Ordering example:
EAN 4007220770191
RBF 0820/6 TOUGH
Please complete the description with the desired cut.



Description	Cut		Shank dia. d_2 [mm]	Burr dia. x length $d_1 \times l_2$ [mm]	Overall length l_1 [mm]	Radius r [mm]	
	TOUGH	TOUGH-S					
EAN 4007220							

Shank dia. 6 mm

RBF 0820/6	770191	-	6	8 x 20	60	1.2	1
RBF 1020/6	770207	-	6	10 x 20	60	2.5	1
RBF 1225/6	770214	770238	6	12 x 25	65	2.5	1
RBF 1625/6	869116	-	6	16 x 25	65	4.9	1

Shank dia. 8 mm

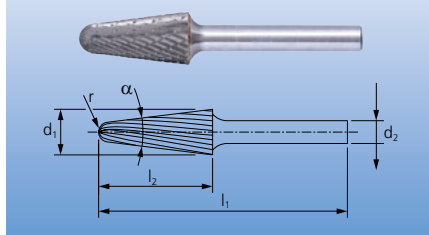
RBF 1225/8	770221	770245	8	12 x 25	65	2.5	1
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Tungsten carbide burrs

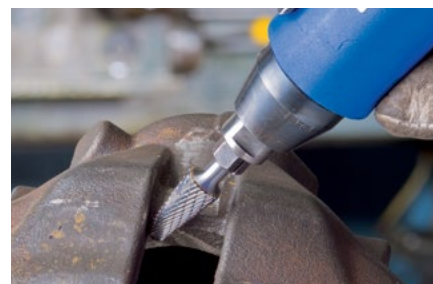
TC burrs for tough applications



Conical shape with radius end KEL



Conical burr with radius end according to DIN 8032.

Ordering example:
EAN 4007220**770320**
KEL 1225/6 TOUGH



Description	Cut	Shank dia. d ₂ [mm]	Burr dia. x length d ₁ x l ₂ [mm]	Overall length l ₁ [mm]	Angle α	Radius r [mm]	
	TOUGH						
							
	EAN 4007220						

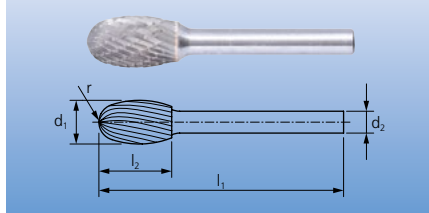
Shank dia. 6 mm

KEL 1225/6	770320	6	12 x 25	65	14°	3.3	1
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Shank dia. 8 mm

KEL 1225/8	770337	8	12 x 25	65	14°	3.3	1
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
Oval shape TRE



Oval burr according to DIN 8032.

Ordering example:
EAN 4007220**770344**
TRE 1016/6 TOUGH



Description	Cut	Shank dia. d ₂ [mm]	Burr dia. x length d ₁ x l ₂ [mm]	Overall length l ₁ [mm]	Radius r [mm]	
	TOUGH					
						
	EAN 4007220					

Shank dia. 6 mm

TRE 1016/6	770344	6	10 x 16	56	4.0	1
TRE 1220/6	770351	6	12 x 20	60	5.0	1

Shank dia. 8 mm

TRE 1220/8	770368	8	12 x 20	60	5.0	1
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Set 1712 HM



Set 1712 HM contains five tungsten carbide burrs in the most common shapes and dimensions. The sturdy plastic box protects the tools from dirt and damage. The burrs are secured at the shanks, facilitating the selection and withdrawal of the tools. Five further unused slots are available for other burrs.

Contents:

5 tungsten carbide burrs, shank diameter 6 mm, cut TOUGH
1 piece each:
WRC 1225/6 TOUGH
SPG 1225/6 TOUGH
RBF 1225/6 TOUGH
KEL 1225/6 TOUGH
TRE 1220/6 TOUGH

Description	Cut	
	TOUGH	
		
	EAN 4007220	

Shank dia. 6 mm

1712 HM	955635	1
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