

Tungsten carbide burrs

TC burrs for aluminium/non-ferrous metals



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Cut ALU



PFERD has further developed the ALU cut especially for stock removal on aluminium. This cut is characterized by its high stock removal performance.

Advantages:

- Extremely high stock removal performance
- Large chips
- Reduced material adhesion
- Long tool life and smooth running
- Can be used with cutting speeds of up to 1,100 m/min

Cut NON-FERROUS



PFERD has developed the NON-FERROUS cut for universal use on non-ferrous metals and fibre-reinforced plastics. This cut is characterized by its high stock removal performance.

Advantages:

- Universally suitable for coarse stock removal on non-ferrous metals, brass, copper, plastics and fibre-reinforced plastics

Notes:

- The use of burrs with PFERD HICOAT® coating HC-NFE prevents chips adhering during work on soft aluminium alloys. This increases the tool life and improves the surface quality of the workpiece. **For coated tungsten carbide burrs with ALU cut, please refer to tungsten carbide burrs with HICOAT® coating HC-NFE on pages 54 and following.**
- Alternatively, grinding oil can be used. More detailed information and ordering data for grinding oil 412 ALU can be found in Catalogue 204.

Recommended rotational speed range

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

- Select the material group to be machined
- Determine the type of application

- Select the cut
- Establish the cutting speed range

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

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

1 Material groups		2 Application		3 Cut		4 Cutting speed		
Non-ferrous metals	Soft non-ferrous metals	Aluminium alloys	Coarse stock removal	ALU	600–1,100 m/min			
			Fine stock removal		900–1,100 m/min			
		Brass, copper, zinc	Coarse stock removal	NON-FERROUS	450–600 m/min			
			Fine stock removal		900–1,100 m/min			
	Hard non-ferrous metals	Hard aluminium alloys (high Si content)	Coarse stock removal	ALU	600–1,100 m/min			
			Fine stock removal		900–1,100 m/min			
		Titanium and titanium alloys	Coarse stock removal	ALU	450–600 m/min			
			Fine stock removal		600–900 m/min			
			Bronze		Coarse stock removal	NON-FERROUS	600–1,100 m/min	
					Fine stock removal		600–900 m/min	
Plastics, other materials	Fibre-reinforced plastics (GRP/CRP), thermoplastics	Coarse stock removal	ALU	600–900 m/min				
		Fine stock removal		600–1,100 m/min				

Example:

TC burr,
Cut ALU,
Burr dia. 12 mm.
Coarse stock removal on hard non-ferrous metals, e.g. bronze.
Cutting speed: 600–1,100 m/min
Rotational speed: 16,000–30,000 RPM

5 Burr dia. [mm]	6 Cutting speed [m/min]			
	450	600	900	1,100
	Rotational speed [RPM]			
3	48,000	64,000	95,000	117,000
6	24,000	32,000	48,000	59,000
8	18,000	24,000	36,000	44,000
10	14,000	19,000	29,000	35,000
12	12,000	16,000	24,000	30,000
16	9,000	12,000	18,000	22,000

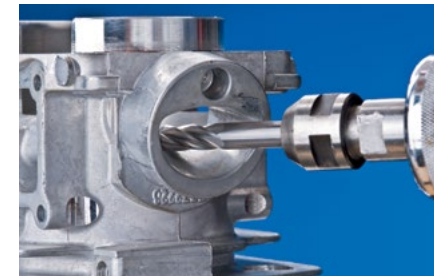


More PFERD tools and a large number of application tips on working with aluminium can be found in our PRAXIS brochure "PFERD tools for use on aluminium". Please contact us.



PFERDVIDEO

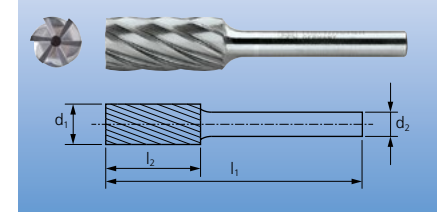
You will receive more information here or at www.pferd.com



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

Ordering example:
EAN 4007220246986
ZYAS 0616/6 ALU
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
	ALU	NON-FERROUS				
EAN 4007220						

Shank dia. 3 mm with end cut

ZYAS 0313/3	803653	-	3	3 x 13	43	1
ZYAS 0613/3	803660	-	3	6 x 13	43	1

Shank dia. 6 mm without end cut

ZYA 0616/6	-	221044	6	6 x 16	55	1
ZYA 1225/6	-	533314	6	12 x 25	65	1

Shank dia. 6 mm with end cut

ZYAS 0616/6	246986	-	6	6 x 16	55	1
ZYAS 0820/6	952955	-	6	8 x 20	60	1
ZYAS 1020/6	533321	-	6	10 x 20	60	1
ZYAS 1225/6	533345	-	6	12 x 25	65	1
ZYAS 1625/6	803974	-	6	16 x 25	65	1

Shank dia. 8 mm without end cut

ZYA 1225/8	-	221051	8	12 x 25	65	1
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Shank dia. 8 mm with end cut

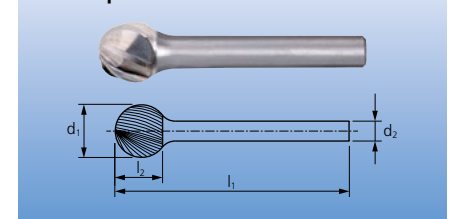
ZYAS 1225/8	246979	-	8	12 x 25	65	1
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Ball-shaped burr according to DIN 8032.

Ordering example:
EAN 4007220533147
KUD 1210/6 ALU
Please complete the description with the desired cut.

Ball shape KUD



Description	Cut		Shank dia. d ₂ [mm]	Burr dia. x length d ₁ x l ₂ [mm]	Overall length l ₁ [mm]	1
	ALU	NON-FERROUS				
EAN 4007220						

Shank dia. 3 mm

KUD 0302/3	803714	-	3	3 x 2	32	1
KUD 0605/3	803721	-	3	6 x 5	35	1

Shank dia. 6 mm

KUD 0605/6	869123	-	6	6 x 5	45	1
KUD 0807/6	869130	221082	6	8 x 7	47	1
KUD 1009/6	952962	-	6	10 x 9	49	1
KUD 1210/6	533147	533154	6	12 x 10	50	1
KUD 1614/6	803998	-	6	16 x 14	54	1



Tungsten carbide burrs

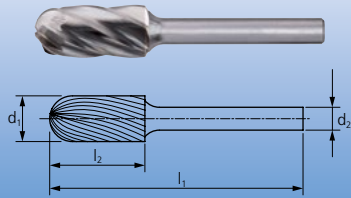
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Cylindrical shape with radius end WRC



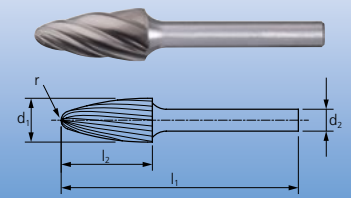
Cylindrical burr with radius end according to DIN 8032. Combination of cylindrical and ball-shaped geometries.

Ordering example:
EAN 4007220**247006**
WRC 0616/6 ALU
Please complete the description with the desired cut.



Description	Cut		Shank dia. d ₂ [mm]	Burr dia. x length d ₁ x l ₂ [mm]	Overall length l ₁ [mm]	Image
	ALU	NON-FERROUS				
EAN 4007220						
Shank dia. 3 mm						
WRC 0313/3	803691	-	3	3 x 13	43	1
WRC 0613/3	803707	-	3	6 x 13	43	1
Shank dia. 6 mm						
WRC 0616/6	247006	221068	6	6 x 16	55	1
WRC 0820/6	952979	-	6	8 x 20	60	1
WRC 1020/6	952986	-	6	10 x 20	60	1
WRC 1225/6	533260	533284	6	12 x 25	65	1
WRC 1625/6	803981	-	6	16 x 25	65	1
Shank dia. 8 mm						
WRC 1225/8	247013	-	8	12 x 25	65	1

Tree shape with radius end RBF



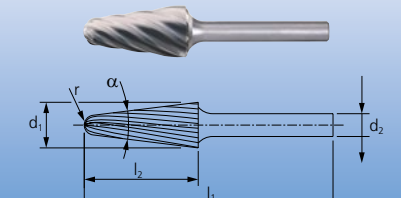
Tree-shaped burr with radius end according to DIN 8032.

Ordering example:
EAN 4007220**328071**
RBF 0618/6 ALU



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]	Image
	ALU					
EAN 4007220						
Shank dia. 3 mm						
RBF 0313/3	803677	3	3 x 13	43	0.75	1
RBF 0613/3	803684	3	6 x 13	43	1.5	1
Shank dia. 6 mm						
RBF 0618/6	328071	6	6 x 18	55	1.5	1
RBF 0820/6	952993	6	8 x 20	60	1.2	1
RBF 1020/6	953006	6	10 x 20	60	2.5	1
RBF 1225/6	533208	6	12 x 25	65	2.5	1
RBF 1630/6	804001	6	16 x 30	70	3.6	1
Shank dia. 8 mm						
RBF 1225/8	247020	8	12 x 25	65	2.5	1

Conical shape with radius end KEL



Conical burr with radius end according to DIN 8032.

Ordering example:
EAN 4007220**533109**
KEL 1230/6 ALU
Please complete the description with the desired cut.



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]	Image
	ALU	NON-FERROUS						
EAN 4007220								
Shank dia. 6 mm								
KEL 0820/6	953013	-	6	8 x 20	60	16°	1.25	1
KEL 1020/6	953020	221105	6	10 x 20	60	14°	2.9	1
KEL 1230/6	533109	533116	6	12 x 30	70	14°	2.6	1
KEL 1630/6	804018	-	6	16 x 30	70	14°	4.8	1
Shank dia. 8 mm								
KEL 1230/8	247037	-	8	12 x 30	70	14°	2.6	1
KEL 1630/8	-	221129	8	16 x 30	70	14°	4.8	1

