

Tungsten carbide burrs with ALU cut

High-capacity burrs for aluminium



TRUST BLUE

- Very broad and comprehensive range, including miniature burrs for delicate applications
- Extremely high stock removal performance, long tool life and smooth milling
- Also available with HICOAT® coating HC-NFE for an effective chip removal thanks to improved anti-adhesion characteristics

Tungsten carbide burrs with ALU cut for use on aluminium

ALU cut



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

In addition, PFERD offers a comprehensive range of **miniature burrs** with ALU cut. They are particularly suitable for work on delicate components and offer the same working comfort as well as a stock removal performance just as impressive as the standard design.

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

Advantages:

- The use of burrs with PFERD **HICOAT® coating HC-NFE** prevents chips adhering during work on soft aluminium alloys. Further information and the respective tools can be found on pages 6–8.
- Alternatively, grinding oil can be used. More detailed information and ordering data for grinding oil 412 ALU can be found in the Tool Manual 22, Catalogue 204.



Recommended rotational speed range

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

- ❶ Select the material group to be machined
- ❷ Determine the type of application
- ❸ Establish the cutting speed range

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

- ❹ Select the required burr diameter

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

❶ Material groups		❷ Application		Cut	❸ 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		600–1,100 m/min
			Fine stock removal		900–1,100 m/min
	Hard non-ferrous metals	Hard aluminium alloys (high Si content)	Coarse stock removal		600–1,100 m/min
			Fine stock removal		900–1,100 m/min
		Titanium and titanium alloys	Coarse stock removal		450–600 m/min
			Fine stock removal		600–900 m/min
		Bronze	Coarse stock removal		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,
ALU cut,
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

❹ Burr dia. [mm]	❺ 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

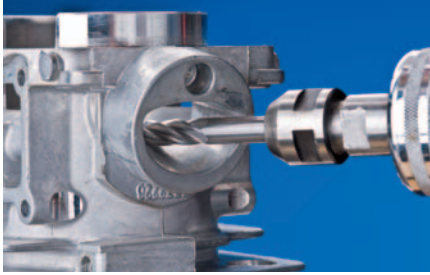


More PFERD tools and a large number of application tips on working with aluminium can be found in our PRAXIS brochure "PFERD tools for use on aluminium". Please contact us.



PFERDVIDEO

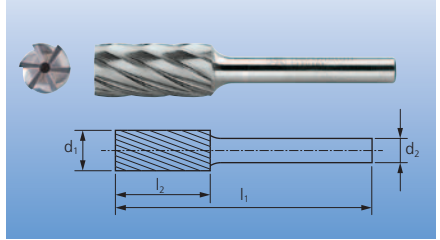
You will receive more information here or at www.pferd.com





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

Ordering example:
EAN 4007220**246986**
ZYAS 0616/6 ALU

Cylindrical shape ZYAS with end cut



Description	Cut	Shank dia. d_2 [mm]	Burr dia. x length $d_1 \times l_2$ [mm]	Overall length l_1 [mm]	
	ALU 				
	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 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 with end cut

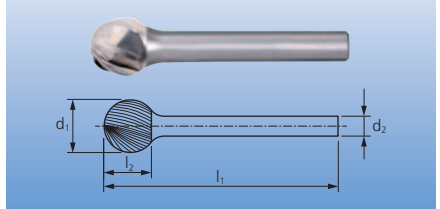
ZYAS 1225/8	246979	8	12 x 25	65	1
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Ball-shaped burr according to DIN 8032.

Ordering example:
EAN 4007220**533147**
KUD 1210/6 ALU

Ball shape KUD



Description	Cut	Shank dia. d_2 [mm]	Burr dia. x length $d_1 \times l_2$ [mm]	Overall length l_1 [mm]	
	ALU 				
	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

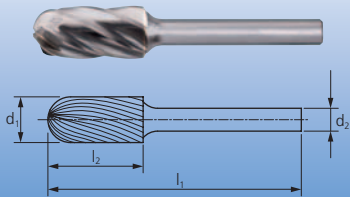
KUD 0605/6	869123	6	6 x 5	45	1
KUD 0807/6	869130	6	8 x 7	47	1
KUD 1009/6	952962	6	10 x 9	49	1
KUD 1210/6	533147	6	12 x 10	50	1
KUD 1614/6	803998	6	16 x 14	54	1

Tungsten carbide burrs with ALU cut

for use on aluminium



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



Description	Cut	Shank dia. d_2 [mm]	Burr dia. x length $d_1 \times l_2$ [mm]	Overall length l_1 [mm]	
	ALU				
	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

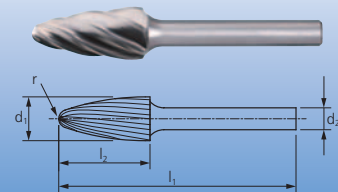
Shank dia. 6 mm

WRC 0616/6	247006	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	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
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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 $d_1 \times l_2$ [mm]	Overall length l_1 [mm]	Radius r [mm]	
	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

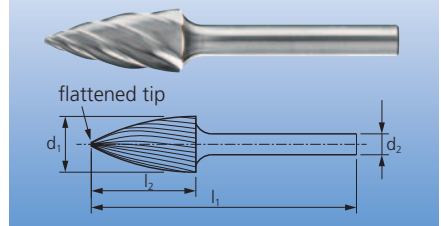
RBF 1225/8	247020	8	12 x 25	65	2.5	1
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Pointed tree-shaped burr according to DIN 8032, flattened tip.

Ordering example:
EAN 4007220**003503**
SPG 0618/6 ALU

Pointed tree shape SPG



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

Shank dia. 3 mm

SPG 0307/3	003350	3	3 x 7	37	1
SPG 0313/3	003435	3	3 x 13	43	1
SPG 0613/3	003442	3	6 x 13	43	1

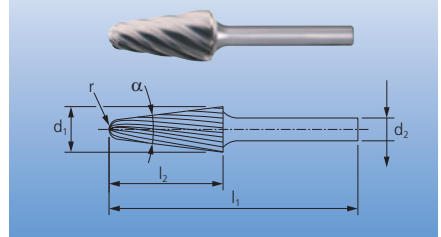
Shank dia. 6 mm



SPG 0618/6	003503	6	6 x 18	55	1
SPG 0820/6	003534	6	8 x 20	60	1
SPG 1020/6	003558	6	10 x 20	60	1
SPG 1225/6	003596	6	12 x 25	65	1

Conical burr with radius end according to DIN 8032.

Ordering example:
EAN 4007220**533109**
KEL 1230/6 ALU

Conical shape with radius end KEL



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]	
	ALU						
							
	EAN 4007220						

Shank dia. 6 mm

KEL 0820/6	953013	6	8 x 20	60	16°	1.25	1
KEL 1020/6	953020	6	10 x 20	60	14°	2.9	1
KEL 1230/6	533109	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
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High-capacity burrs from PFERD

Tungsten carbide burrs with ALU cut belong to the PFERD product range "Tungsten carbide burrs for high performance applications". The specific tool design for work on various materials or specific applications ensures outstanding stock removal characteristics and a long tool life.

Test the **high-capacity burrs from PFERD** now also with **STEEL, INOX, CAST and NON-FERROUS** cuts. The whole product range of material and application-specific tungsten carbide burrs for high-performance applications can be found in the PFERD Tool Manual, Catalogue 202.



Tungsten carbide burrs with ALU cut for use on aluminium

Set 1603 ALU




Set 1603 ALU contains ten tungsten carbide miniature burrs for work on aluminium in the most common shapes and dimensions. The sturdy plastic box protects the tools from dirt and damage.

Contents:

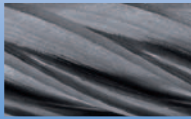
10 tungsten carbide burrs,
shank diameter 3 mm, ALU cut
1 piece each:

SPG 0313/3 ALU	SPG 0613/3 ALU
ZYAS 0313/3 ALU	ZYAS 0613/3 ALU
RBF 0313/3 ALU	RBF 0613/3 ALU
WRC 0313/3 ALU	WRC 0613/3 ALU
KUD 0302/3 ALU	KUD 0605/3 ALU

Description	Cut	
	ALU	
		
	EAN 4007220	
Shank dia. 3 mm		
1603 ALU	004401	1

HICOAT® coating HC-NFE

HICOAT® coating HC-NFE for aluminium and non-ferrous metals



HICOAT® coating HC-NFE is specifically designed for work on soft aluminium alloys. They offer optimal anti-adhesion characteristics, which improve the chip removal of the tools. This increases the tool life and improves the surface quality of the workpiece.

Advantages:

- Mainly used for long-chipping and lubricating non-ferrous metals
- Highest stock removal performance
- Effective chip removal through improved anti-adhesion characteristics
- Lower thermal loads
- Increased tool life

PFERDEFFICIENCY® recommends burrs with HICOAT® coating for long, fatigue-free and resource saving work, with perfect results in the shortest possible time.



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 Determine the type of application
- ③ Establish the cutting speed range

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

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

① Material group			② Application	Cut	Coating	③ Cutting speed
Non-ferrous metals	Soft non-ferrous metals	Aluminium alloys, brass, copper, zinc	Coarse stock removal	ALU	HC-NFE	600–1,100 m/min
			Fine stock removal			900–1,100 m/min
Plastics, other materials	Fibre-reinforced plastics (GRP/CRP), thermoplastics		Coarse stock removal	ALU	HC-NFE	450–1,100 m/min
			Fine stock removal			

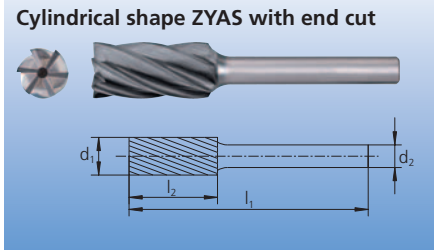
Example:

TC burr
ALU HC-NFE cut,
Burr dia. 12 mm.
Coarse stock removal on soft non-ferrous metals.
Cutting speed: 600–1,100 m/min
Rotational speed: 16,000–30,000 RPM

Burr dia. [mm]	④ Cutting speed [m/min]			
	450	600	900	1,100
	Rotational speed [RPM]			
12	12,000	16,000	24,000	30,000

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

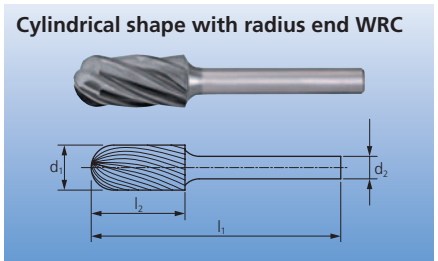
Ordering example:
 EAN 4007220**804117**
 ZYAS 1225/6 ALU HC-NFE



Description	Cut	Coating	Coating colour	Shank dia. d_2 [mm]	Burr dia. x length $d_1 \times l_2$ [mm]	Overall length l_1 [mm]	
	ALU EAN 4007220						
Shank dia. 6 mm							
ZYAS 1225/6	804117	HC-NFE	black-grey	6	12 x 25	65	1

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

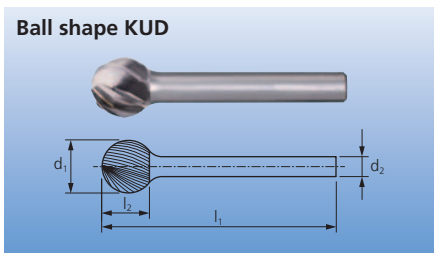
Ordering example:
 EAN 4007220**804131**
 WRC 1225/6 ALU HC-NFE



Description	Cut	Coating	Coating colour	Shank dia. d_2 [mm]	Burr dia. x length $d_1 \times l_2$ [mm]	Overall length l_1 [mm]	
	ALU EAN 4007220						
Shank dia. 6 mm							
WRC 1225/6	804131	HC-NFE	black-grey	6	12 x 25	65	1

Ball-shaped burr according to DIN 8032.

Ordering example:
 EAN 4007220**804155**
 KUD 1210/6 ALU HC-NFE

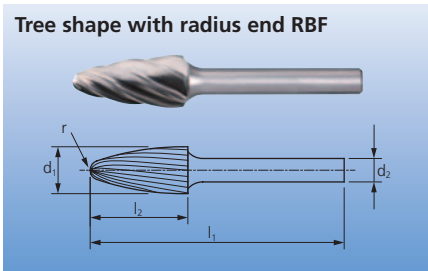


Description	Cut	Coating	Coating colour	Shank dia. d_2 [mm]	Burr dia. x length $d_1 \times l_2$ [mm]	Overall length l_1 [mm]	
	ALU EAN 4007220						
Shank dia. 6 mm							
KUD 1210/6	804155	HC-NFE	black-grey	6	12 x 10	50	1

Tungsten carbide burrs with ALU cut for use on aluminium



Tree shape with radius end RBF



Rundbogenförmiger Frässtift nach DIN 8032.

Ordering example:
EAN 4007220**533192**
RBF 1225/6 ALU HC-NFE

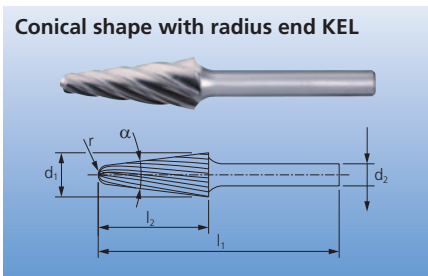


Description	Cut	Coating	Coating colour	Shank dia. d ₂ [mm]	Burr dia. x length d ₁ x l ₂ [mm]	Overall length l ₁ [mm]	Radius r [mm]	
	ALU							
	EAN 4007220							

Shank dia. 6 mm

RBF 1225/6	533192	HC-NFE	black-grey	6	12 x 25	65	2.5	1
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Conical shape with radius end KEL



Conical burr with radius end according to DIN 8032.

Ordering example:
EAN 4007220**533093**
KEL 1230/6 ALU HC-NFE

Description	Cut	Coating	Coating colour	Shank dia. d ₂ [mm]	Burr dia. x length d ₁ x l ₂ [mm]	Overall length l ₁ [mm]	Angle alpha	Radius r [mm]	
	ALU								
	EAN 4007220								

Shank dia. 6 mm

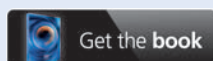
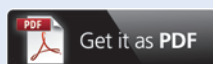
KEL 1230/6	533093	HC-NFE	black-grey	6	12 x 30	70	14°	2.5	1
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