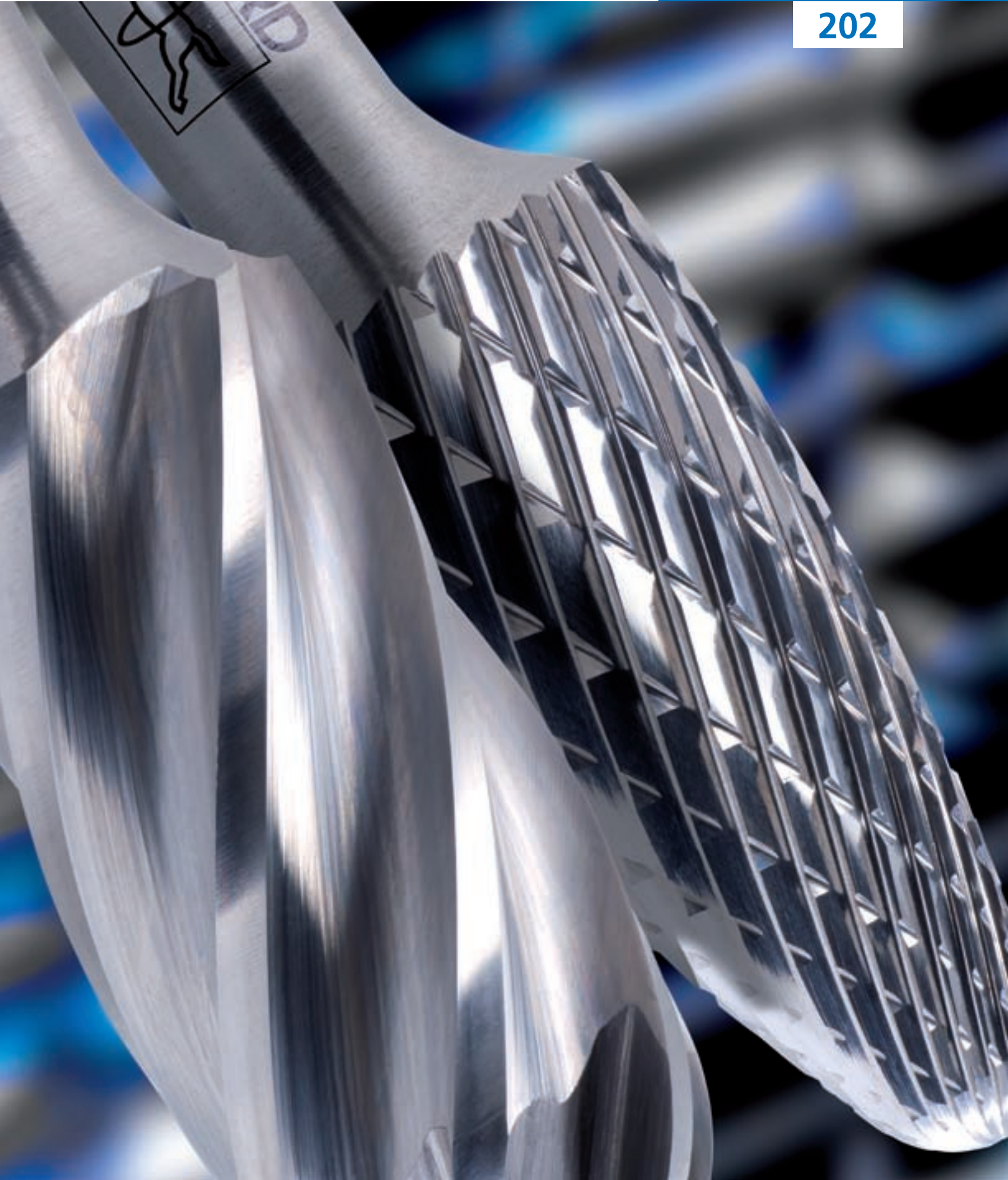


# Tungsten Carbide Burs and Bi-Metal Hole Saws



202



# Tungsten Carbide Burs and Bi-Metal Hole Saws

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PFERD produces an extensive range of top quality tungsten carbide burs and bi-metal hole saws. High quality and wide product ranges yield the right tool for each application, ensuring that every task can be carried out optimally and efficiently.

PFERD burs deliver very high stock removal performance over their entire service life. They provide outstanding results in minimal time.

### Technical Customer Support

Our sales consultants, customer service and technical support agents will be glad to assist you by phone or on-site to optimize your bur applications. Please contact us:

**Canada: (866) 245-1555**

**USA: (800) 342-9015**

You will find our worldwide contact information at [www.pferd.com](http://www.pferd.com).

### Special Products Made to Order

If our extensive stock range does not present the ideal solution for your particular application, we can produce burs specifically to meet your requirements.

We will take into account your machining tasks and requirements, drawings relating to cuts, shank diameters, special lengths, special shapes and coatings. Please contact us as listed above.



### Use of Burs on Automatic Equipment

Tungsten carbide burs from PFERD can be used on automated equipment such as robotics and CNC machine centres. Our technical sales force can assist you in selecting the best bur for your application. We will work with you to optimize the parameters of your machining equipment to achieve desired surface finish, product performance and cost efficiency.



### Safety Recommendations



= Wear eye protection!



= Use ear protection!



Read the instructions!  
(Please observe the recommended RPM, in particular for burs with long shanks!)



= Wear a respirator!



Read the Material Safety Data  
= Sheets (MSDS) before using any materials!

### Dust Warning

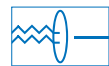
Use of the tools in this catalogue may create dust and other particles. To avoid any risk of adverse health effects, the operator must use appropriate protective measures, including a respirator, during and after tool operation. Refer to our Material Safety Data Sheet (MSDS) for further information regarding the product to be used. Furthermore, additional health hazards may result from dust in the surrounding environment and from dust generated from the work-piece material. PROTECTIVE MEASURES FOR THE OPERATOR MUST ADDRESS DUST AND OTHER PARTICULATES ARISING FROM ALL SOURCES. Always use our products in a well-ventilated workspace.

### PFERDERGONOMICS

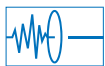
PFERD tungsten carbide burs and bi-metal hole saws help to reduce the hazardous vibrations and noise during the work process.

To be able to fulfill these increased requirements, **PFERDERGONOMICS** supplies solutions for

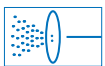
- Lower vibration
- Reduced noise
- Less dust exposure
- Optimized haptics at work.



Vibration Filter



Noise Filter



Emission Filter



Haptic Filter

We will be happy to send you more information about the topic of health and safety upon request.

### PFERD Product Presentation

All PFERD burs are easily identified by laser-imprinted SCTI, EDP and cut information on the shank. Each bur is packed individually in a sturdy reliable plastic box that protects the quality of the cutting edges. The packaging unit contains technical information, the EDP number and the production lot number. Enhanced labeling technology ensures that the imprinted label information will remain readable permanently.

#### Advantages

- Easy identification of bur.
- Bur cutting edges are protected.
- Package protects against impact.
- Keeps bur protected from contaminants.
- Package and label are abrasion, oil and dirt resistant.



### Merchandising Solutions for Distributors

All burs can be attractively presented using the PFERD TOOL-CENTER merchandising system and other selling aids. Also, PFERD offers a lockable display as an attractive and secure sales promotion unit (see page 23).

If you would like to present a special product family to a particular target group, or are planning a sales promotion, then our sales consultants will be happy to help you draw up a promotional concept with the best selection of burs.



# Tungsten Carbide Burs and Bi-Metal Hole Saws

## Your Quick Product Selection Guide



Working from

- ① Application
- ② Workpiece material

- ③ Application variants
  - professional applications
  - high-performance applications
  - speciality solutions
 gives you an overview of suitable burs and bi-metal hole saws from the PFERD-program and facilitates the selection of the right product.













① Applications	Application Examples	② Workpiece Material
Deburring, milling out in preparation for build-up welding, machining of welded joints, machining of contours, chamfering, sinking, cleaning cast material		Steel, cast steel, stainless steel (INOX), cast iron
		Non-ferrous metals, brass, copper, bronze, titanium
		High-temperature resistant materials, nickel based alloys, cobalt based alloys
		Aluminum of the machinability classifications SOFT, TOUGH, HARD. For more information, please request a copy of the PRAXIS "PFERD Tools for Use on Aluminum".
Trimming, contour milling, cutting out		Fibre-reinforced plastics (GRP/CRP)
Finishing, very fine plaster work, corrections in tool and mould construction		Steel, cast steel, stainless steel (INOX), cast iron
Cutting out round openings		Steel, cast steel, stainless steel (INOX), cast iron, non-ferrous metals, aluminum of the machinability classifications SOFT, TOUGH, HARD, fibre-reinforced plastics (GRP/CRP)

<b>③ Professional Applications</b>  Page	<b>③ High Performance Applications</b>  Page	<b>③ Speciality Solutions</b> <b>Hard to Access Areas</b>  Page	<b>③ Speciality Solutions</b> <b>Tooth Chipping / Failure</b>  Page
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 Tungsten Carbide Micro Burs for Precision Applications 40-41		 Combination Burs with Spindle Extensions 42	
 Bi-Metal Hole Saws 43-48		 Combination Bi-Metal Hole Saws with arbor Extensions 47	 For applications with high impact loads and tooth chipping problems, our sales consultants, customer service and technical support agents will be glad to assist you by phone or on-site. Please contact us. <b>Canada: (866) 245-1555</b> <b>USA: (800) 342-9015</b>

# Tungsten Carbide Burs

## PFERD-Cuts and Applications



Tungsten Carbide Burs	
<b>Coarse Cut*</b> 	Recommended for coarse machining of light metals, plastics, non-ferrous metals, steel and cast iron.
<b>Single Cut</b> 	Recommended for high coarse stock removal and good surface finish on cast iron, steel < 60 HRC, stainless steel (INOX), nickel-based alloys and titanium alloys.
<b>Double Cut</b> 	Similar to single cut, but with cross cut. Recommended for high coarse stock removal on cast iron, steel < 60 HRC, stainless steel (INOX), nickel-based alloys and titanium alloys.
<b>Diamond Cut</b> 	Recommended for machining when a high stock removal is required. Creates short chips and good surface quality on stainless steel (INOX), steel < 60 HRC, high heat-resistant materials such as nickel-based alloys, cobalt-based alloys.
<b>Fine Cut</b> 	Recommended for fine deburring of stainless steel (INOX), high heat-resistant materials such as nickel based, cobalt based alloys.
<b>ALU Cut</b> 	Recommended for coarse machining with high stock removal of aluminum and aluminum alloys, light metals, non-ferrous metals and plastics.
<b>ALU PLUS Cut</b> 	Recommended for coarse machining of hard aluminum alloys with an Si-content of > 12% and non-ferrous metals. High machining performance is a result of specially developed tooth geometry.
TC Burs for Tough Applications	
<b>3R Cut</b> 	With extreme impact resistance, these burs also allow more than 30 % of surface engagement with the workpiece. Recommended for machining with high stock removal on cast iron, steel < 55 HRC, stainless steel (INOX), nickel-based alloys and titanium alloys.
<b>3RS Cut</b> 	Similar to 3R cut, but with smooth milling behaviour, creates shorter chips. Due to the extreme impact resistance also allow more than 30 % of surface engagement with the workpiece. Recommended for coarse machining with high stock removal on cast iron, steel < 55 HRC, stainless steel (INOX), nickel-based alloys and titanium alloys.
Micro TC Burs for Precision Applications	
<b>MC Cut</b> 	Recommended for fine smooth milling of bore holes up to dia. 1/2" and for very fine machining with high surface quality of material hardnesses < 60 HRC.
TC Routers	
<b>FVK Cut*</b> 	Recommended for trimming and contour milling of fibre-reinforced plastics GRP and CRP, hard rubber and thermoplastics. A high level of concentric accuracy makes these routers highly suitable for use in stationary machines as well as manual applications. Drill point version allows both drilling and cutting tasks to be performed.
<b>FVKS Cut*</b> 	Similar to FVK cut. Due to the special tooth design, suitable for smooth milling on machines and robots with high feed rates. These routers with a drill point allow both drilling and cutting tasks to be performed.

\*Note: Non-catalogue item. Please contact us for additional information and ordering requirements.

PFERD tungsten carbide burs are designed for machining materials of virtually any strength. The perfect combination of tungsten carbide, shape and cut geometry and, if required, coatings, makes this possible.

PFERD burs are internationally known for highest possible levels of concentricity and consistency. The resulting balance and performance provides many user advantages.

### Advantages

- Allows the operator to work more safely.
- Reduces wear on power tool.
- Provides smooth operating action.
- Prevents chatter marks.
- Increases bur service life and stock removal.

### Application Examples

- Deburring.
- Contouring.
- Milling in preparation for build-up welding.
- Weld dressing.
- Milling of acute-angled surfaces.
- Inner contour work, i.e. peripheral and face milling.

### Recommendations for Use

Optimum power output and RPM of the power source (air-powered or electric machine, flexible shaft system) are necessary conditions for cost-effective use of tungsten carbide burs.

We therefore recommend that you:

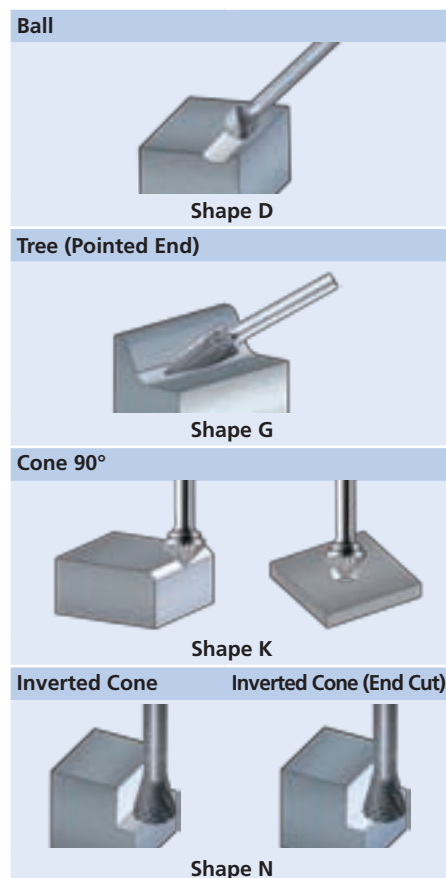
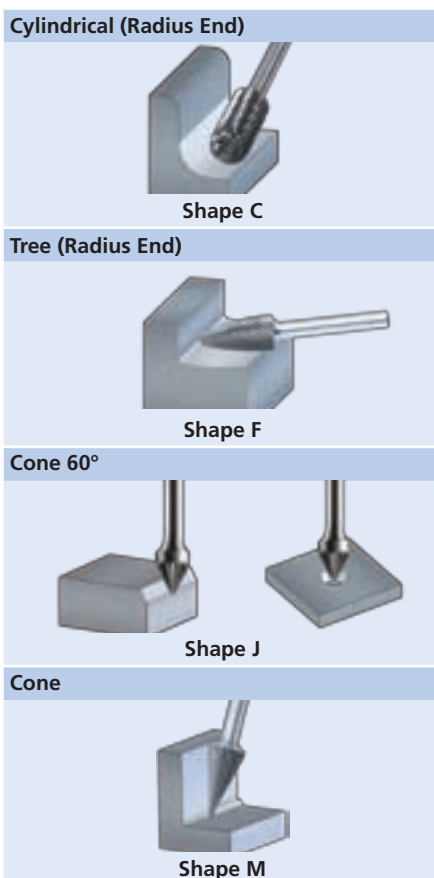
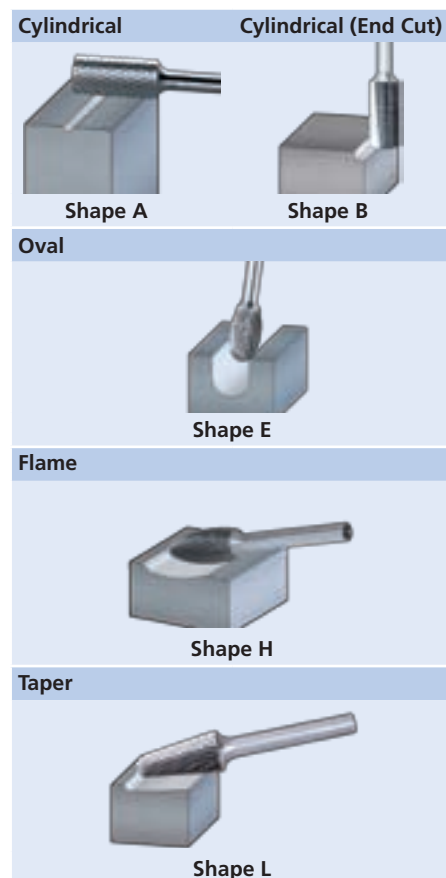
- Use highest permitted speeds. Please observe our recommendations for operating/cutting speed.
- For stationary use or when countersinking with 360° use of the bur, work in these instances at 3,000 RPM or less.
- Only use rigid clamping systems/drives as impacts and chattering on the bur lead to premature wear.
- Always observe proper clamping depth. In general the minimum clamping depth is 2/3 of the shaft length.
- For the cost-effective use of burs with a diameter > 1/4" a power output of 300 - 500 watts is required when used at higher cutting speeds. When using burs with coarse cuts (e.g. ALU cut), even higher power outputs of 500 - 1,500 watts are advantageous.
- The speed can be substantially increased with low stock removal (deburring, chamfering, light surface work). We recommend substantially lowering the speed to avoid damage to materials which do not conduct heat well, such as stainless steel (INOX), titanium alloys, etc. Avoid making the shank and bur turn



blue. If subjected to excessive temperatures, the soldering connection between the bur head and the shank may fail.

- The bur contact surface to the workpiece should not total more than a third of the circumference. An excessively large wrap angle > 1/3 prevents smooth milling behaviour. This results in cut breakage. If an engagement angle > 1/3 cannot be avoided, we recommend using PFERD tough burs.
- When machining soft materials liable to cause loading problems, the use of a suitable lubricant such as cutting oil, grease, kerosene, chalk or similar is recommended, to prevent the bur from loading.

### Overview Applications and Shapes

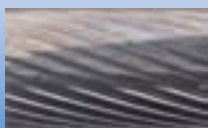


# Tungsten Carbide Burs

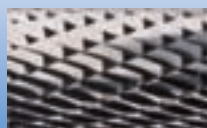
## Standard Shank Lengths, L2



Single Cut



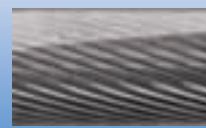
Double Cut



Diamond Cut



Fine Cut



### Recommended Rotational Speed Range

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

- ① Select the workpiece material.
- ② Determine the type of application.
- ③ Select the cut.

- ④ Establish the cutting speed range.

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

- ⑤ Select the required bur diameter.

- ⑥ The cutting speed range and the bur diameter determine the recommended rotational speed range [RPM].

① Workpiece Material/Colour Code			② Application	③ Cut	④ Cutting Speed
Steel and steel castings	Non-hardened, non-heat treated steels up to 35 HRC (< 1200 N/mm²)	Constructional steels, carbon steels, tool steels, non-alloyed steels, case-hardened steels, steel castings	Coarse machining = high stock removal	Single	1,950 - 3,000 SFPM
			Fine machining = low stock removal	Double	1,950 - 3,000 SFPM
	Hardened, heat-treated steels exceeding 35 HRC (> 1200 N/mm²)	Tool steels, tempering steels, alloyed steels, steel castings	Coarse machining = high stock removal	Single	1,650 - 2,000 SFPM
				Double	850 - 1,150 SFPM
			Fine machining = low stock removal	Diamond	850 - 1,150 SFPM
				Fine	1,150 - 1,500 SFPM
Stainless steel (INOX)	Rust and acid-resistant steels	Austenitic and ferritic high-grade steels	Coarse machining = high stock removal	Double	850 - 1,150 SFPM
			Fine machining = low stock removal	Diamond	850 - 1,150 SFPM
Non-ferrous metals	Hard non-ferrous metals	Bronze, titanium/titanium alloys, very hard aluminum alloys (high Si content)	Coarse machining = high stock removal	Fine / Single	1,150 - 1,500 SFPM
			Fine machining = low stock removal	Single	850 - 1,150 SFPM
	Heat resistant alloys	Nickel based alloys, NiCo alloys (aircraft engine and turbine construction)	Coarse machining = high stock removal	Diamond	850 - 1,150 SFPM
			Fine machining = low stock removal	Single	1,150 - 1,500 SFPM
			Coarse machining = high stock removal	Double	1,000 - 1,500 SFPM
				Diamond	1,000 - 1,500 SFPM
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	Coarse machining = high stock removal	Fine	1,150 - 1,650 SFPM
			Fine machining = low stock removal	Single	1,500 - 2,000 SFPM
			Coarse machining = high stock removal	Double	1,500 - 2,000 SFPM

### Example:

Tungsten Carbide Bur, Double Cut,  
Diameter: 1/2".

Coarse machining of non-hardened and non-heat-treated steels.

Cutting Speed: 1,500 - 2,000 SFPM

Rotational Speed: 12,000 - 16,000 RPM

⑥ Cutting Speed [SFPM]							
⑤ Dia. [Inches]	850	1,000	1,150	1,300	1,500	1,650	2,000
	Rotational Speed [RPM]						
3/32	40,000	48,000	56,000	64,000	72,000	80,000	95,000
1/8	27,000	32,000	37,000	42,000	48,000	53,000	64,000
3/16	16,000	19,000	22,000	25,000	29,000	32,000	38,000
1/4	13,000	16,000	19,000	21,000	24,000	27,000	32,000
5/16	10,000	12,000	14,000	16,000	18,000	20,000	24,000
3/8	8,000	10,000	11,000	13,000	14,000	16,000	19,000
7/16	7,500	9,000	10,000	12,000	13,000	14,500	17,500
1/2	7,000	8,000	9,000	11,000	12,000	13,000	16,000
5/8	5,000	6,000	7,000	8,000	9,000	10,000	12,000
3/4	4,000	5,000	6,000	6,000	7,000	8,000	10,000
1	3,000	4,000	4,000	5,000	6,000	6,000	8,000



### Tungsten Carbide Burs with Long Shank (L3 and L6)

Small tungsten carbide burs with long shanks **L3** (3") are perfect for work on small hard-to-reach components.

Tungsten carbide burs with long shanks **L6** (6") are ideal for cost-effective work in deep, hard-to-reach places.

#### Safety Note

Not suitable for robotic and stationary usage.

**Risk of bending.** Only use rigid clamping systems/drives.

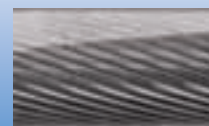


Read the instructions!  
= (Please observe the recommended RPM!)

#### Double Cut



#### Fine Cut



### Safety Information Recommended RPM

**When working with long shank burs, the bur must be in contact with the workpiece (or inserted in the bore or slot to be machined) before the machine is turned on. As a rule, the tool must remain in contact with the workpiece for as long as the machine is running.** Failure to observe this procedure may result in shank failure and hence, an increased accident risk.

If the continuous contact between the tool and the workpiece is not guaranteed, the **⑥ idling speeds** stated in the table should **not be exceeded**.

For safety reasons, drive speeds **⑤ with contact to workpiece** require a reduction in the recommended standard length bur speed from the speeds stated in the table below.

Proceed as follows:

- ① Determine the workpiece material to be machined.
- ② Select application.
- ③ Select the cut.
- ④ Select the bur diameter.
- ⑤ For the recommended reduced speed [RPM] with workpiece contact, please refer to the right-hand side of the table.

① Workpiece Material/Colour Code			② Application	③ Cut
Steel, cast steel	Non-hardened, non-heat treated steels up to 38 HRC (< 1200 N/mm²)	Construction steels, carbon steels, tool steels, non-alloyed steels, case-hardened steels, cast steels	Coarse machining = high stock removal	Double / Single
			Fine machining = low stock removal	Fine
	Hardened, heat-treated steels exceeding 38 HRC (> 1200 N/mm²)	Tool steels, tempering steels, alloyed steels, cast steels	Coarse machining = high stock removal	Double / Single
			Fine machining = low stock removal	Fine
Stainless steel (INOX)	Rust and acid-resistant steels	Austenitic and ferritic stainless steel	Coarse machining = high stock removal	Double / Single
			Fine machining = low stock removal	Fine
Non-ferrous metals	High-temperature resistant materials	Nickel based alloys, cobalt based alloys (aircraft engine and turbine construction)	Coarse machining = high stock removal	Double / Single
			Fine machining = low stock removal	Fine
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	Coarse machining = high stock removal	Double / Single
			Fine machining = low stock removal	Fine

#### Example

Tungsten Carbide Bur, L6, Double Cut, Diameter: 1/2".  
Coarse machining of non-hardened and non-heat-treated steels.

**Recommended Reduced Speed with Workpiece Contact: 7,000 RPM**

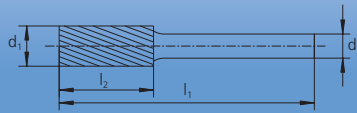
④ Dia. [Inches]	⑥ Maximum Rotational Free Speed [RPM] (No contact to the workpiece)		⑤ Recommended Reduced Rotational Application Speed [RPM] (With contact to the workpiece)	
	Shank Length [Inches]			
	L3 (3")	L6 (6")	L3 (3")	L6 (6")
1/8	10,000	-	31,000	-
1/4	6,000	-	15,000	-
5/16	-	6,000	-	11,000
1/2	-	3,000	-	7,000

# Tungsten Carbide Burs

1/8" - 1/4" Shank

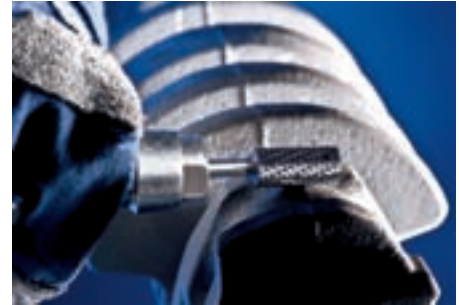







## Cylindrical (Plain End) Shape A



Cylindrical bur with plain end (uncut).

**PFERD Specification Number**  
ZYA



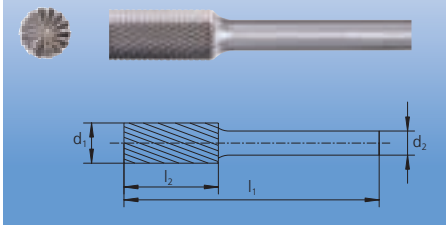
Head Dia. x Length d <sub>1</sub> x l <sub>2</sub> [Inches]	SCTI No.	Shank Dia. d <sub>2</sub> [Inches]	Overall Length l <sub>1</sub> [Inches]	Cut Type and EDP Number				
				Single 	Double 	Diamond 	Fine 	
Shank Dia. 1/8"								
3/32 x 1/2	SA-42	1/8	1-1/2	23111	23112	-	-	1
1/8 x 1/2	SA-43	1/8	1-1/2	23121	23122	-	23124	1
1/4 x 1/2	SA-51	1/8	1-11/16	23131	23132	-	-	1
Shank Dia. 1/4"								
1/8 x 1/2	SA-11	1/4	1-15/16	24001	24002	-	-	1
3/16 x 5/8	SA-14	1/4	1-15/16	24021	24022	24023	-	1
1/4 x 5/8	SA-1	1/4	1-15/16	24031	24032	24033	24034	1
5/16 x 3/4	SA-2	1/4	2-1/2	24051	24052	24053	-	1
3/8 x 3/4	SA-3	1/4	2-1/2	24061	24062	24063	-	1
7/16 x 1	SA-4	1/4	2-3/4	24091	24092	-	-	1
1/2 x 1	SA-5	1/4	2-3/4	24101	24102	24103	-	1
5/8 x 1	SA-6	1/4	2-3/4	24111	24112	24113	-	1
3/4 x 1/2	SA-15	1/4	2-1/4	24131	24132	-	-	1
3/4 x 3/4	SA-16	1/4	2-1/2	24141	24142	-	-	1
3/4 x 1	SA-7	1/4	2-3/4	24121	24122	24123	-	1
1 x 1	SA-9	1/4	2-3/4	24161	24162	-	-	1
<b>NEW</b> Extended Shank L2 (2")								
3/32 x 1/2	SA-42L2	1/8	2	23616	23617	-	-	1
1/8 x 1/2	SA-43L2	1/8	2	23620	23621	-	-	1
<b>NEW</b> Extended Shank L3 (3")								
3/32 x 1/2	SA-42L3	1/8	3	23791	23792	-	-	1
1/8 x 1/2	SA-43L3	1/8	3	23795	23796	-	-	1
Extended Shank L6 (6")								
1/4 x 5/8	SA-11L6	1/4	6-9/16	25801	25802	-	-	1
3/8 x 3/4	SA-3L6	1/4	6-5/8	25811	25812	-	-	1
1/2 x 1	SA-5L6	1/4	6-7/8	25821	25822	-	-	1





Cylindrical bur with end cut.

**PFERD Specification Number**  
ZYAS

**Cylindrical (End Cut)  
Shape B**



Head Dia. x Length d <sub>1</sub> x l <sub>2</sub> [Inches]	SCTI No.	Shank Dia. d <sub>2</sub> [Inches]	Overall Length l <sub>1</sub> [Inches]	Cut Type and EDP Number			
				Single 	Double 	Diamond 	
Shank Dia. 1/8"							
1/4 x 1/2	SB-51	1/8	1-11/16	23171	-	-	1
Shank Dia. 1/4"							
1/8 x 1/2	SB-11	1/4	1-15/16	24171	-	-	1
3/16 x 5/8	SB-14	1/4	1-15/16	24201	24202	24203	1
1/4 x 5/8	SB-1	1/4	1-15/16	24211	24212	24213	1
5/16 x 3/4	SB-2	1/4	2-1/2	24231	24232	24233	1
3/8 x 3/4	SB-3	1/4	2-1/2	24241	24242	24243	1
7/16 x 1	SB-4	1/4	2-3/4	24271	24272	24273	1
1/2 x 1	SB-5	1/4	2-3/4	24281	24282	24283	1
5/8 x 1	SB-6	1/4	2-3/4	24291	24292	24293	1
3/4 x 1/2	SB-15	1/4	2-1/4	24311	24312	24313	1
3/4 x 3/4	SB-16	1/4	2-1/2	24321	24322	24323	1
3/4 x 1	SB-7	1/4	2-3/4	24301	24302	24303	1
1 x 1	SB-9	1/4	2-3/4	24341	24342	24343	1
Extended Shank L6 (6")							
3/8 x 3/4	SB-3L6	1/4	6-5/8	25841	25842	-	1
1/2 x 1	SB-5L6	1/4	6-7/8	25851	25852	-	1

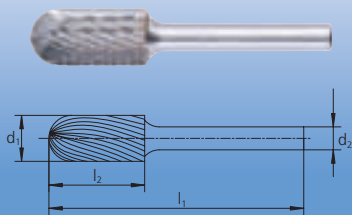


# Tungsten Carbide Burs

1/8" - 1/4" Shank








**Cylindrical (Radius End)  
Shape C**



Cylindrical bur with radius end.

**PFERD Specification Number**  
WRC



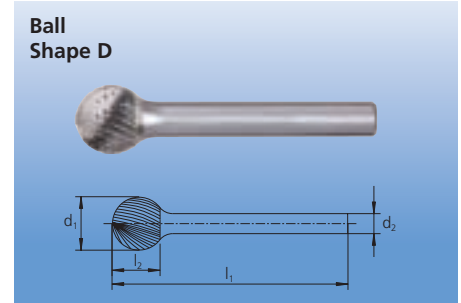
Head Dia. x Length d <sub>1</sub> x l <sub>2</sub> [Inches]	SCTI No.	Shank Dia. d <sub>2</sub> [Inches]	Overall Length l <sub>1</sub> [Inches]	Cut Type and EDP Number				
				Single 	Double 	Diamond 	Fine 	
Shank Dia. 1/8"								
3/32 x 1/2	SC-41	1/8	1-1/3	23181	23182	-	-	1
1/8 x 1/2	SC-42	1/8	1-1/2	23191	23192	-	23194	1
1/4 x 1/2	SC-51	1/8	1-11/16	23201	23202	-	-	1
Shank Dia. 1/4"								
1/8 x 1/2	SC-11	1/4	1-15/16	24351	24352	-	-	1
1/8 x 5/8	SC-12	1/4	1-15/16	-	24362	-	-	1
3/16 x 5/8	SC-14	1/4	1-15/16	24381	24382	-	-	1
1/4 x 5/8	SC-1	1/4	1-15/16	24391	24392	24393	24394	1
5/16 x 3/4	SC-2	1/4	2-1/2	24411	24412	24413	-	1
3/8 x 3/4	SC-3	1/4	2-1/2	24421	24422	24423	-	1
7/16 x 1	SC-4	1/4	2-3/4	24451	24452	-	-	1
1/2 x 1	SC-5	1/4	2-3/4	24461	24462	24463	-	1
5/8 x 1	SC-6	1/4	2-3/4	24471	24472	24473	-	1
3/4 x 1	SC-7	1/4	2-3/4	24481	24482	24483	-	1
1 x 1	SC-9	1/4	2-3/4	-	24512	24513	-	1
<b>NEW</b> Extended Shank L2 (2")								
1/8 x 1/2	SC-42L2	1/8	2	23648	23649	-	-	1
<b>NEW</b> Extended Shank L3 (3")								
1/8 x 1/2	SC-42L3	1/8	3	23823	23824	-	-	1
Extended Shank L6 (6")								
1/4 x 5/8	SC-1L6	1/4	6-9/16	25861	25862	-	-	1
3/8 x 3/4	SC-3L6	1/4	6-5/8	25871	25872	-	-	1
1/2 x 1	SC-5L6	1/4	6-7/8	25881	25882	-	-	1










Ball-shaped bur.

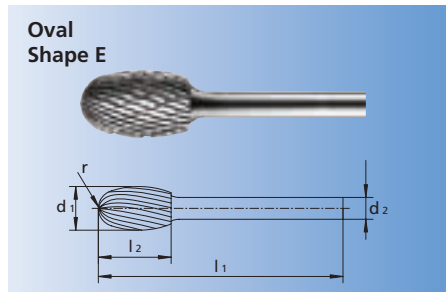
**PFERD Specification Number**  
KUD



Head Dia. x Length d <sub>1</sub> x l <sub>2</sub> [Inches]	SCTI No.	Shank Dia. d <sub>2</sub> [Inches]	Overall Length l <sub>1</sub> [Inches]	Cut Type and EDP Number				
				Single 	Double 	Diamond 	Fine 	
Shank Dia. 1/8"								
3/32 x 1/8	SD-41	1/8	1-1/2	23231	23232	-	-	1
1/8 x 3/32	SD-42	1/8	1-1/2	23241	23242	-	23244	1
3/16 x 1/8	SD-53	1/8	1-3/8	23261	23262	-	23264	1
1/4 x 3/16	SD-51	1/8	1-3/8	23251	23252	-	23254	1
Shank Dia. 1/4"								
1/8 x 3/32	SD-11	1/4	1-15/16	-	24522	-	-	1
3/16 x 1/8	SD-14	1/4	1-15/16	24531	24532	24533	-	1
1/4 x 3/16	SD-1	1/4	1-15/16	24541	24542	24543	-	1
5/16 x 1/4	SD-2	1/4	2-1/16	24551	24552	24553	-	1
3/8 x 5/16	SD-3	1/4	2-1/16	24561	24562	24563	-	1
7/16 x 3/8	SD-4	1/4	2-1/8	-	24572	-	-	1
1/2 x 7/16	SD-5	1/4	2-3/16	24581	24582	24583	-	1
5/8 x 9/16	SD-6	1/4	2-5/16	-	24592	24593	-	1
3/4 x 11/16	SD-7	1/4	2-13/16	24601	24602	24603	-	1
1 x 15/16	SD-9	1/4	2-1/16	24611	24612	-	-	1
<b>NEW</b> Extended Shank L2 (2")								
1/8 x 3/32	SD-42L2	1/8	2	23660	23661	-	-	1
1/4 x 3/16	SD-51L2	1/8	2	23664	23665	-	-	1
<b>NEW</b> Extended Shank L3 (3")								
1/8 x 3/32	SD-42L3	1/8	3	23835	23836	-	-	1
1/4 x 3/16	SD-51L3	1/8	3-3/16	23839	23840	-	-	1
Extended Shank L6 (6")								
1/4 x 3/16	SD-1L6	1/4	6-1/8	-	25922	-	-	1
3/8 x 5/16	SD-3L6	1/4	6-1/4	-	25932	-	-	1
1/2 x 7/16	SD-5L6	1/4	6-5/16	25941	25942	-	-	1

# Tungsten Carbide Burs

1/8" - 1/4" Shank



Oval-shaped bur.

**PFERD Specification Number**  
TRE

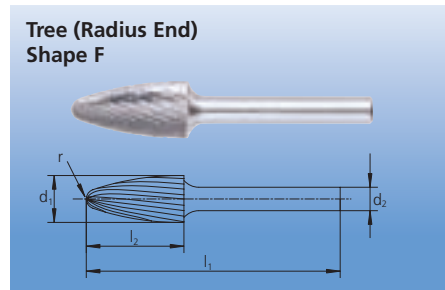




Head Dia. x Length d <sub>1</sub> x l <sub>2</sub> [Inches]	SCTI No.	Shank Dia. d <sub>2</sub> [Inches]	Overall Length l <sub>1</sub> [Inches]	Cut Type and EDP Number				
				Single 	Double 	Diamond 	Fine 	
Shank Dia. 1/8"								
1/8 x 7/32	SE-41	1/8	1-1/2	23271	23272	-	23274	1
1/4 x 3/8	SE-51	1/8	1-9/16	23281	23282	-	-	1
Shank Dia. 1/4"								
1/4 x 3/8	SE-1	1/4	1-15/16	24631	24632	24633	24634	1
3/8 x 5/8	SE-3	1/4	2-3/8	24641	24642	24643	-	1
1/2 x 7/8	SE-5	1/4	2-5/8	24651	24652	24653	-	1
5/8 x 1	SE-6	1/4	2-3/4	24661	24662	-	-	1
<b>NEW</b> Extended Shank L2 (2")								
1/8 x 7/32	SE-41L2	1/8	2	23672	23673	-	-	1
1/4 x 3/8	SE-51L2	1/8	2	23676	23677	-	-	1
<b>NEW</b> Extended Shank L3 (3")								
1/8 x 7/32	SE-41L3	1/8	3	23847	23848	-	-	1
1/4 x 3/8	SE-51L3	1/8	3-3/8	23851	23852	-	-	1
Extended Shank L6 (6")								
1/4 x 3/8	SE-1L6	1/4	6-3/8	-	25982	-	-	1
3/8 x 5/8	SE-3L6	1/4	6-1/2	25991	25992	-	-	1
1/2 x 7/8	SE-5L6	1/4	6-3/4	26001	26002	-	-	1



Tree-shaped bur with radius end.

**PFERD Specification Number**  
RBF



Head Dia. x Length d <sub>1</sub> x l <sub>2</sub> [Inches]	SCTI No.	Shank Dia. d <sub>2</sub> [Inches]	Overall Length l <sub>1</sub> [Inches]	Cut Type and EDP Number				
				Single 	Double 	Diamond 	Fine 	
Shank Dia. 1/8"								
1/8 x 1/4	SF-41	1/8	1-1/2	23301	23302	-	-	1
1/8 x 1/2	SF-42	1/8	1-1/2	23311	23312	-	-	1
1/4 x 1/2	SF-51	1/8	1-11/16	23321	23322	-	-	1
Shank Dia. 1/4"								
1/4 x 5/8	SF-1	1/4	1-15/16	24691	24692	24693	24694	1
3/8 x 3/4	SF-3	1/4	2-1/2	24701	24702	24703	-	1
7/16 x 1	SF-4	1/4	2-3/4	24711	24712	24713	-	1
1/2 x 3/4	SF-13	1/4	2-1/2	24731	24732	24733	-	1
1/2 x 1	SF-5	1/4	2-3/4	24721	24722	24723	-	1
5/8 x 1	SF-6	1/4	2-3/4	24741	24742	24743	-	1
3/4 x 1	SF-7	1/4	2-3/4	-	24752	24753	-	1
3/4 x 1-1/4	SF-14	1/4	3	24761	24762	24763	-	1
3/4 x 1-1/2	SF-15	1/4	3-1/4	-	24772	-	-	1
<b>NEW</b> Extended Shank L2 (2")								
1/8 x 1/2	SF-42L2	1/8	2	23684	23685	-	-	1
<b>NEW</b> Extended Shank L3 (3")								
1/8 x 1/2	SF-42L3	1/8	3	23859	23860	-	-	1
Extended Shank L6 (6")								
1/4 x 5/8	SF-1L6	1/4	6-9/16	-	26042	-	-	1
3/8 x 3/4	SF-3L6	1/4	6-3/4	-	26052	-	-	1
1/2 x 1	SF-5L6	1/4	6-7/8	26061	26062	-	-	1

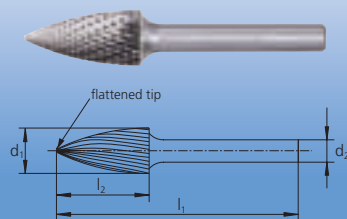


# Tungsten Carbide Burs

1/8" - 1/4" Shank








**Tree (Pointed End)  
Shape G**



Tree-shaped bur with pointed end.

**PFERD Specification Number**  
SPG



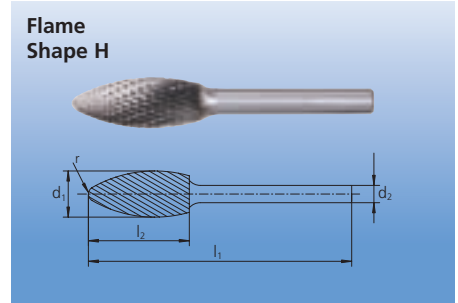
Head Dia. x Length d <sub>1</sub> x l <sub>2</sub> [Inches]	SCTI No.	Shank Dia. d <sub>2</sub> [Inches]	Overall Length l <sub>1</sub> [Inches]	Cut Type and EDP Number				
				Single 	Double 	Diamond 	Fine 	
Shank Dia. 1/8"								
1/8 x 1/4	SG-41	1/8	1-1/2	23341	23342	-	23344	1
1/8 x 3/8	SG-43	1/8	1-1/2	23361	23362	-	23364	1
3/16 x 1/2	SG-53	1/8	1-11/16	-	23392	-	-	1
1/4 x 1/2	SG-51	1/8	1-11/16	23381	23382	-	23384	1
Shank Dia. 1/4"								
1/4 x 5/8	SG-1	1/4	1-15/16	24781	24782	24783	24784	1
5/16 x 3/4	SG-2	1/4	2-1/2	24791	24792	24793	-	1
3/8 x 3/4	SG-3	1/4	2-1/2	24801	24802	24803	-	1
1/2 x 3/4	SG-13	1/4	2-1/2	24821	24822	24823	-	1
1/2 x 1	SG-5	1/4	2-3/4	24811	24812	24813	-	1
5/8 x 1	SG-6	1/4	2-3/4	24831	24832	24833	-	1
<b>NEW</b> Extended Shank L2 (2")								
1/8 x 1/4	SG-41L2	1/8	2	23692	23693	-	-	1
<b>NEW</b> Extended Shank L3 (3")								
1/8 x 1/4	SG-41L3	1/8	3	23867	23868	-	-	1
Extended Shank L6 (6")								
1/4 x 5/8	SG-1L6	1/4	6-9/16	26101	26102	-	-	1
3/8 x 3/4	SG-3L6	1/4	6-3/4	-	26112	-	-	1
1/2 x 1	SG-5L6	1/4	6-7/8	26121	26122	-	-	1









Flame-shaped bur.

**PFERD Specification Number**  
HM B



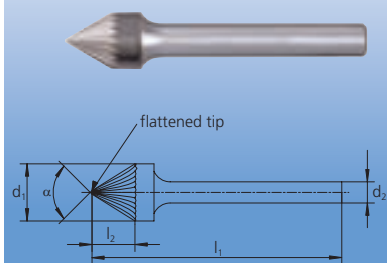
Head Dia. x Length d <sub>1</sub> x l <sub>2</sub> [Inches]	SCTI No.	Shank Dia. d <sub>2</sub> [Inches]	Overall Length l <sub>1</sub> [Inches]	Cut Type and EDP Number			
				Single 	Double 	Diamond 	
Shank Dia. 1/8"							
1/8 x 1/4	SH-41	1/8	1-1/2	23401	23402	23404	1
Shank Dia. 1/4"							
1/4 x 5/8	SH-1	1/4	1-15/16	24861	24862	24863	1
5/16 x 3/4	SH-2	1/4	2-1/2	24871	24872	-	1
1/2 x 1-1/4	SH-5	1/4	3	24881	24882	24883	1
5/8 x 1-7/16	SH-6	1/4	3-3/16	24891	24892	-	1
3/4 x 1	SH-7	1/4	3-3/8	-	25002	25003	1
<b>NEW</b> Extended Shank L2 (2")							
1/8 x 1/4	SH-41L2	1/8	2	23712	23713	-	1
<b>NEW</b> Extended Shank L3 (3")							
1/8 x 1/4	SH-41L3	1/8	3	23887	23888	-	1
Extended Shank L6 (6")							
5/16 x 3/4	SH-2L6	1/4	6-5/8	26161	26162	-	1
1/2 x 1-1/4	SH-5L6	1/4	7-1/4	26171	26172	-	1

# Tungsten Carbide Burs

1/8" - 1/4" Shank



## Cone – 60° Shapes J



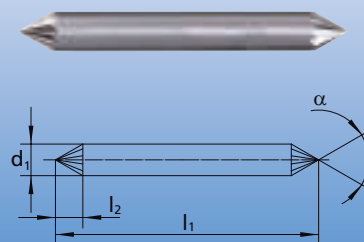
These burs are flatter and less acute-angled, 60° cone shape.

Suitable for counterboring and chamfering with defined chamfer angles.

EDP 23421 shape J SJ-42 1/8" shank (double ended) design is cut and usable on both sides: see picture at right.

**PFERD Specification Number**  
KSJ 60°

## Conical Counterbore Shape J (Double Ended)



Head Dia. x Length $d_1 \times l_2$ [Inches]	SCTI No.	Shank Dia. $d_2$ [Inches]	Angle $\alpha$	Overall Length $l_1$ [Inches]	Cut Type and EDP Number		
					Single	Diamond	

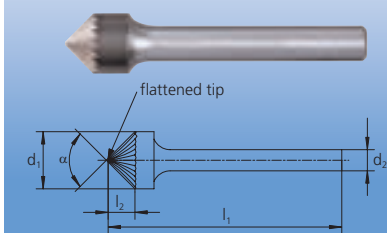
Shank Dia. 1/8" (Double Ended)

1/8 x 3/32	SJ-42	1/8	60°	1-1/2	23421	-	1
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Shank Dia. 1/4"

1/4 x 1/16	SJ-1	1/4	60°	1-31/32	25011	-	1
3/8 x 5/16	SJ-3	1/4	60°	2-13/64	25021	-	1
1/2 x 7/16	SJ-5	1/4	60°	2-5/16	25031	25033	1
5/8 x 9/16	SJ-6	1/4	60°	2-15/32	25041	-	1

## Cone – 90° Shapes K



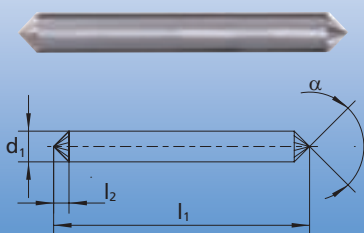
These burs are flatter and less acute-angled, 90° cone shape.

Suitable for counterboring and chamfering with defined chamfer angles.

EDP 23431 shape K SK-42 1/8" shank (double ended) design is cut and usable on both sides: see picture at right.

**PFERD Specification Number**  
KSK 90°

## Conical Counterbore Shape K (Double Ended)



Head Dia. x Length $d_1 \times l_2$ [Inches]	SCTI No.	Shank Dia. $d_2$ [Inches]	Angle $\alpha$	Overall Length $l_1$ [Inches]	Cut Type and EDP Number			
					Single	Double	Diamond	

Shank Dia. 1/8" (Double Ended)

1/8 x 1/16	SK-42	1/8	90°	1-1/2	23431	-	-	1
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Shank Dia. 1/4"

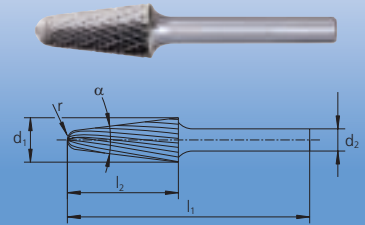
1/4 x 5/16	SK-1	1/4	90°	1-31/32	25071	-	-	1
3/8 x 3/16	SK-3	1/4	90°	2-5/64	25081	25082	-	1
1/2 x 1/4	SK-5	1/4	90°	2-9/64	25091	25092	25093	1
5/8 x 5/16	SK-6	1/4	90°	2-1/4	25101	-	-	1
1 x 1/2	SK-9	1/4	90°	2-13/32	25121	25122	-	1



Taper bur with radius end.

**PFERD Specification Number**  
KEL

**14° Taper (Radius End)  
Shape L**



Head Dia. x Length $d_1 \times l_2$ [Inches]	SCTI No.	Shank Dia. $d_2$ [Inches]	Angle $\alpha$	Overall Length $l_1$ [Inches]	Cut Type and EDP Number			
					Single 	Double 	Diamond 	
Shank Dia. 1/8"								
1/8 x 1/2	SL-42	1/8	14°	1-1/2	23451	23452	-	1
Shank Dia. 1/4"								
1/4 x 5/8	SL-1	1/4	14°	1-15/16	25131	25132	25133	1
5/16 x 1	SL-2	1/4	14°	2-13/16	25141	25142	25143	1
3/8 x 1-1/8	SL-3	1/4	14°	3	25151	25152	25153	1
1/2 x 1-1/8	SL-4	1/4	14°	3-1/16	25161	25162	25163	1
5/8 x 1-5/16	SL-6	1/4	14°	3-1/4	25181	25182	25183	1
3/4 x 1-1/2	SL-7	1/4	14°	3-7/16	-	25192	-	1
<b>NEW</b> Extended Shank L2 (2")								
1/8 x 1/2	SL-42L2	1/8	14°	2	23724	23725	-	1
<b>NEW</b> Extended Shank L3 (3")								
1/8 x 1/2	SL-42L3	1/8	14°	3	23899	23900	-	1
Extended Shank L6 (6")								
1/4 x 5/8	SL-1L6	1/4	14°	6-9/16	-	26212	-	1
3/8 x 1-1/16	SL-3L6	1/4	14°	7-1/8	-	26222	-	1
1/2 x 1-1/8	SL-4L6	1/4	14°	7-3/16	-	26232	-	1

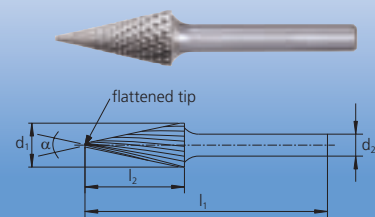


# Tungsten Carbide Burs

1/8" - 1/4" Shank



**Cone  
Shape M**



Conical bur with flattened tip.

**PFERD Specification Number**  
SKM



Head Dia. x Length $d_1 \times l_2$ [Inches]	SCTI No.	Shank Dia. $d_2$ [Inches]	Angle $\alpha$	Overall Length $l_1$ [Inches]	Cut Type and EDP Number				
					Single 	Double 	Diamond 	Fine 	
Shank Dia. 1/8"									
1/8 x 3/8	SM-41	1/8	14°	1-1/2	23471	23472	-	-	1
1/8 x 1/2	SM-42	1/8	12°	1-1/2	23481	23482	-	23484	1
1/8 x 5/8	SM-43	1/8	9°	1-1/2	23491	23492	-	-	1
1/4 x 1/2	SM-51	1/8	22°	1-13/16	23501	23502	-	23504	1
Shank Dia. 1/4"									
1/4 x 1/2	SM-1	1/4	22°	1-15/16	25201	25202	25203	-	1
1/4 x 3/4	SM-2	1/4	14°	1-15/16	25211	25212	25213	25214	1
1/4 x 1	SM-3	1/4	10°	1-15/16	25221	25222	25223	-	1
3/8 x 3/4	SM-4	1/4	28°	2-1/2	25231	25232	25233	-	1
1/2 x 1	SM-5	1/4	28°	2-3/4	25241	25242	25243	-	1
5/8 x 1-1/8	SM-6	1/4	31°	2-15/16	25251	25252	25253	-	1
<b>NEW</b> Extended Shank L2 (2")									
1/8 x 1/2	SM-42L2	1/8	12°	2	23732	23733	-	-	1
1/8 x 5/8	SM-43L2	1/8	9°	2	23736	23737	-	-	1
<b>NEW</b> Extended Shank L3 (3")									
1/8 x 1/2	SM-42L3	1/8	12°	3	23907	23908	-	-	1
1/8 x 5/8	SM-43L3	1/8	9°	3	23911	23912	-	-	1



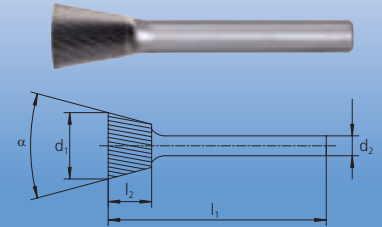






Inverted cone bur, tapering off towards the shank.

Suitable for working on hard-to-reach, rear-side edges.

**PFERD Specification Number**  
WKN

**Inverted Cone  
Shape N**



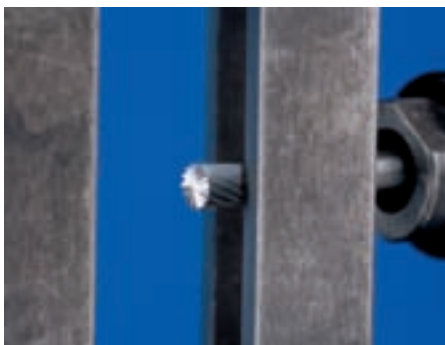
Head Dia. x Length $d_1 \times l_2$ [Inches]	SCTI No.	Shank Dia. $d_2$ [Inches]	Angle $\alpha$	Overall Length $l_1$ [Inches]	Cut Type and EDP Number			
					Single 	Double 	Diamond 	

Shank Dia. 1/8"

3/32 x 1/8	SN-41	1/8	10°	1-1/2	23521	23522	-	1
1/8 x 1/8	SN-42	1/8	14°	1-1/2	23531	23532	-	1
1/4 x 1/4	SN-51	1/8	10°	1-7/16	23541	23542	-	1

Shank Dia. 1/4"

1/4 x 1/4	SN-1	1/4	10°	1-31/32	25261	25262	-	1
1/2 x 1/2	SN-4	1/4	28°	2-17/64	25281	25282	25283	1
3/4 x 5/8	SN-7	1/4	30°	2-13/32	-	-	25303	1

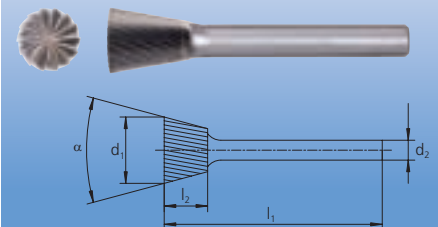



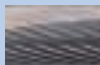

Inverted cone bur, tapering off towards the shank, with end cut.

Suitable for working on hard-to-reach, rear-side edges.

**PFERD Specification Number**  
WKN-S

**Inverted Cone (End Cut)  
Shape N**



Head Dia. x Length $d_1 \times l_2$ [Inches]	SCTI No.	Shank Dia. $d_2$ [Inches]	Angle $\alpha$	Overall Length $l_1$ [Inches]	Cut Type and EDP Number		
					Single 	Double 	

Shank Dia. 1/8"

1/8 x 1/8	SN-42E	1/8	14°	1-1/2	23561	23562	1
1/4 x 1/4	SN-51E	1/8	10°	1-7/16	23571	23572	1

Shank Dia. 1/4"

1/2 x 1/2	SN-4E	1/4	28°	2-17/64	25321	25322	1
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# Tungsten Carbide Burs

## Sets



### 12 Piece Bur Sets Single Cut, Double Cut

**NEW**






### EDP 26525 12 Piece Bur Set 1/8" Shank (Plastic Case)

Contains 12 pcs. burs with 1/8" shank dia. and single cut.

### EDP 26526 12 Piece Bur Set 1/8" Shank (Plastic Case)

Contains 12 pcs. burs with 1/8" shank dia. and double cut.

Set Contents Shape	Head Dia. x Length d <sub>1</sub> x l <sub>2</sub> [Inches]	SCTI No.	Cut Type and Set EDP Number		Cut Type and Set EDP Number		
			Single 	Individual Bur EDP's in Set	Double 	Individual Bur EDP's in Set	
Cylindrical (Plain End)	3/32 x 1/2	SA-42	26525	23111	26526	23112	1
Cylindrical (Plain End)	1/8 x 1/2	SA-43		23121		23122	1
Cylindrical (Radius End)	3/32 x 1/2	SC-41		23181		23182	1
Cylindrical (Radius End)	1/8 x 1/2	SC-42		23191		23192	1
Ball	1/8 x 3/32	SD-42		23241		23242	1
Oval	1/8 x 7/32	SE-41		23271		23272	1
Tree	1/8 x 1/2	SF-42		23311		23312	1
Tree (Pointed)	1/8 x 3/8	SG-43		23361		23362	1
Flame Shape	1/8 x 1/4	SH-41		23401		23402	1
14° Taper	1/8 x 1/2	SL-42		23451		23452	1
Cone (Pointed)	1/8 x 1/2	SM-42		23481		23482	1
Inverted Cone	1/8 x 1/8	SN-42		23531		23532	1

### 8 Piece Bur Sets Single Cut, Double Cut

**NEW**






### EDP 26546 8 Piece Bur Set 1/4" Shank (Plastic Case)

Contains 8 pcs. burs with 1/4" shank dia. and single cut.

### EDP 26547 8 Piece Bur Set 1/4" Shank (Plastic Case)

Contains 8 pcs. burs with 1/4" shank dia. and double cut.

Set Contents Shape	Head Dia. x Length d <sub>1</sub> x l <sub>2</sub> [Inches]	SCTI No.	Cut Type and Set EDP Number		Cut Type and Set EDP Number		
			Single 	Individual Bur EDP's in set	Double 	Individual Bur EDP's in Set	
Cylindrical (Plain End)	3/8 x 3/4	SA-3	26546	24061	26547	24062	1
Cylindrical (Plain End)	1/2 x 1	SA-5		24101		24102	1
Cylindrical (Radius End)	3/8 x 3/4	SC-3		24421		24422	1
Cylindrical (Radius End)	1/2 x 1	SC-5		24461		24462	1
Ball	3/8 x 5/16	SD-3		24561		24562	1
Tree	3/8 x 3/4	SF-3		24701		24702	1
Tree	1/2 x 1	SF-5		24721		24722	1
Tree (Pointed)	3/8 x 3/4	SG-3		24801		24802	1



### 5 Piece Bur Set 1/4" Shank Stainless Steel (INOX) (Plastic Case)

Contains 5 pcs. burs with 1/4" shank dia. and diamond cut.

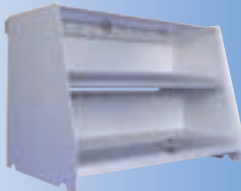
### 5 Piece Bur Set Stainless Steel (INOX)

**NEW**



Set Contents Shape	Head Dia. x Length d <sub>1</sub> x l <sub>2</sub> [Inches]	SCTI No.	Cut Type and Set EDP Number		
			Diamond 	Individual Bur EDP's in Set	
Cylindrical (Plain End)	1/2 x 1	SA-5	26552	24103	1
Cylindrical (Radius End)	1/2 x 1	SC-5		24463	1
Oval	1/2 x 7/8	SE-5		24653	1
Tree	1/2 x 1	SF-5		24723	1
14° Taper	1/2 x 1-1/8	SL-4		25163	1

### Showcase for Tungsten Carbide Burs Empty



EDP 26501

### 20 Bur Showcase

Showcase for tungsten carbide burs with lockable plexiglass cover. Features two levels, each with 12 positions for display tools and enough space above to hang up to 5 packaged burs from an integrated hang post. Depending on shank diameter (1/8" or 1/4"), suitable shank holders can be inserted at each tool position.

This showcase is free-standing and may also be used as a component in PFERD TOOL-CENTER merchandising system for distributor showrooms.

### Showcase for Tungsten Carbide Burs



EDP 26511

Set Contents Shape	Head Dia. x Length d <sub>1</sub> x l <sub>2</sub> [Inches]	SCTI No.	Cut Type	EDP Number	Individual Bur EDP's in Showcase	
Cylindrical (Plain End)	3/8 x 3/4	SA-3	Single	26511	24061	1
Cylindrical (Plain End)	3/8 x 3/4	SA-3	Double		24062	1
Cylindrical (Plain End)	1/2 x 1	SA-5	Double		24102	1
Cylindrical (End Cut)	1/4 x 5/8	SB-1	Double		24212	1
Cylindrical (End Cut)	3/8 x 3/4	SB-3	Double		24242	1
Cylindrical (Radius End)	1/4 x 5/8	SC-1	Double		24392	1
Cylindrical (Radius End)	3/8 x 3/4	SC-3	Double		24422	1
Cylindrical (Radius End)	1/2 x 1	SC-5	Double		24462	1
Ball Shape	7/16 x 3/8	SD-4	Double		24572	1
Tree Shape	1/4 x 5/8	SF-1	Double		24692	1
Tree Shape	3/8 x 3/4	SF-3	Double		24702	1
Tree Shape	1/2 x 1	SF-5	Double		24722	1
Tree Shape	1/2 x 1	SF-5	Diamond		24723	1
Tree Shape	1/2 x 1	SF-5	Aluminum		24725	1
Tree Shape (Pointed)	3/8 x 3/4	SG-3	Double		24802	1
Tree Shape (Pointed)	1/2 x 1	SG-5	Double		24812	1
14° Taper	3/8 x 1-1/16	SL-3	Double		25152	1
14° Taper	1/2 x 1-1/8	SL-4	Double		25162	1
14° Taper	1/2 x 1-1/8	SL-4	Diamond		25163	1
Cone (Pointed)	1/4 x 1	SM-3	Double		25222	1

Showcase for Tungsten Carbide Burs Empty	26501	-	1
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# Tungsten Carbide Burs

## for Aluminum and Non-Ferrous Metals



PFERD has optimized the ALU cut especially for stock removal of aluminum. This cut is characterized by its high stock removal performance on all grades of aluminum.

### Note

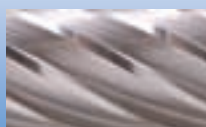
You can find the coated tungsten carbide ALU cut under tungsten carbide burs HICOAT™, coating HC-NFE, on pages 33-34.

Please request a copy of the PRAXIS "PFERD Tools for Use on Aluminum" for instructions and further information on working with aluminum.

### Application Examples

- Contouring.
- Bore deburring.
- Milling in preparation of build-up welding.
- Suitable for milling work (deburring, weld dressing, contouring etc.) Also suitable for work on small and miniature components in mould, machine and model construction.

#### ALU Cut



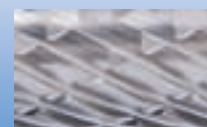
### Advantages of ALU Cut

- Reduces loading.
- Long tool life.
- Large chip volume and high stock removal performance.
- Can be used with cutting rates of up to 3,600 SFPM.
- Smooth running.

### Recommendations for Use

The use of grinding oil prevents chips adhering during work on soft aluminum alloys. This increases the tool life and improves the finish of the workpiece.

#### ALU PLUS Cut



### Advantages of ALU PLUS Cut

- Designed for maximum stock removal of non-ferrous metals, brass, copper, hard aluminum alloys, plastics, fibre-reinforced plastics and rubber.

### Recommended Rotational Speed Range

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

- ① Select the workpiece material that is to be processed.
- ② Determine the type of application.

- ③ Select the cut.
- ④ Establish the cutting speed range.

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

- ⑤ Select the required bur diameter.
- ⑥ The cutting speed range and the bur diameter determine the recommended rotational speed range [RPM].

① Workpiece Material/Colour Code			② Application	③ Cut	④ Cutting Speed
Non-ferrous metals	Soft non-ferrous metals	Aluminum alloys, brass, copper, zinc	Coarse machining = high stock removal	ALU	2,000 - 3,600 SFPM
			Fine machining = low stock removal	ALU PLUS	1,300 - 1,650 SFPM
	Hard non-ferrous metals	Bronze, titanium, hard aluminum alloys (high Si content)	Coarse machining = high stock removal	ALU	2,650 - 3,600 SFPM
			Fine machining = low stock removal	ALU PLUS	2,000 - 3,600 SFPM
Plastics and other materials	Fibre-reinforced plastics (GRP/CRP), thermoplastics, hard rubber		Coarse machining = high stock removal	ALU	1,300 - 1,650 SFPM
			Fine machining = low stock removal	ALU PLUS	2,950 - 3,600 SFPM
				ALU	1,650 - 3,600 SFPM

### Example

Tungsten Carbide Bur, ALU Cut, Diameter: 1/2".

Coarse machining of hardened non-ferrous metals, e.g. bronze.

Cutting Speed: 2,000 - 3,600 SFPM

**Rotational Speed: 16,000 - 30,000 RPM**

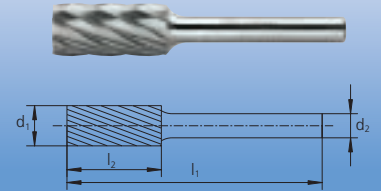
⑥ Cutting Speed [SFPM]					
⑤ Dia. [Inches]	1,300	1,650	2,000	2,950	3,600
	Rotational Speed [RPM]				
1/8	42,000	53,000	64,000	95,000	117,000
1/4	21,000	27,000	32,000	48,000	59,000
3/8	13,000	16,000	19,000	29,000	35,000
1/2	11,000	13,000	16,000	24,000	30,000
5/8	8,000	10,000	12,000	18,000	22,000






Cylindrical bur with plain end (uncut).

**PFERD Specification Number**  
ZYA

**Cylindrical (Plain End)**  
**Shape A**

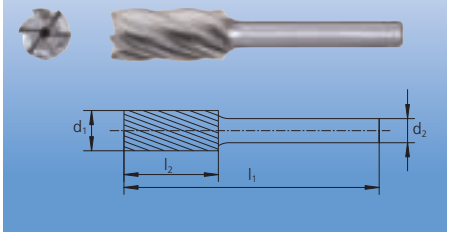





Head Dia. x Length $d_1 \times l_2$ [Inches]	SCTI No.	Shank Dia. $d_2$ [Inches]	Overall Length $l_1$ [Inches]	Cut Type and EDP Number		
				ALU PLUS	ALU	
						
Shank Dia. 1/4"						
1/4 x 5/8	SA-1	1/4	1-15/16	-	24035	1
3/8 x 3/4	SA-3	1/4	2-1/2	24066	24065	1
1/2 x 1	SA-5	1/4	2-3/4	24106	24105	1
5/8 x 1	SA-6	1/4	2-3/4	-	24115	1

Cylindrical bur with end cut.

**PFERD Specification Number**  
ZYAS

**Cylindrical (End Cut)**  
**Shape B**



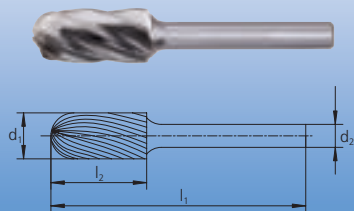
Head Dia. x Length d <sub>1</sub> x l <sub>2</sub> [Inches]	SCTI No.	Shank Dia. d <sub>2</sub> [Inches]	Overall Length l <sub>1</sub> [Inches]	Cut Type and EDP Number		
				ALU PLUS 	ALU 	
<b>NEW</b> Shank Dia. 1/8"						
1/8 x 9/16	SB-43	1/8	1-1/2	-	23165	1
1/4 x 1/2	SB-51	1/8	1-11/16	-	23175	1
Shank Dia. 1/4"						
1/4 x 5/8	SB-1	1/4	1-15/16	-	24215	1
3/8 x 3/4	SB-3	1/4	2-1/2	24246	24245	1
1/2 x 1	SB-5	1/4	2-3/4	24286	24285	1
5/8 x 1	SB-6	1/4	2-3/4	-	24295	1

# Tungsten Carbide Burs

## for Aluminum and Non-Ferrous Metals






**Cylindrical (Radius End)  
Shape C**



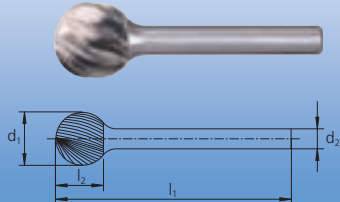
Cylindrical bur with radius end.

**PFERD Specification Number**  
WRC



Head Dia. x Length d <sub>1</sub> x l <sub>2</sub> [Inches]	SCTI No.	Shank Dia. d <sub>2</sub> [Inches]	Overall Length l <sub>1</sub> [Inches]	Cut Type and EDP Number		
				ALU PLUS 	ALU 	
<b>NEW</b> Shank Dia. 1/8"						
1/8 x 1/2	SC-42	1/8	1-1/2	-	23195	1
1/4 x 1/2	SC-51	1/8	1-11/16	-	23205	1
Shank Dia. 1/4"						
1/4 x 5/8	SC-1	1/4	1-15/16	-	24395	1
3/8 x 3/4	SC-3	1/4	2-1/2	24426	24425	1
1/2 x 1	SC-5	1/4	2-3/4	24466	24465	1
5/8 x 1	SC-6	1/4	2-3/4	-	24475	1




**Ball  
Shape D**



Ball-shaped bur.

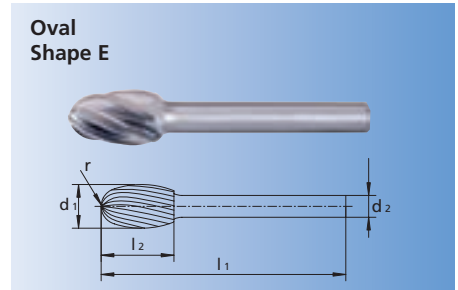
**PFERD Specification Number**  
KUD



Head Dia. x Length $d_1 \times l_2$ [Inches]	SCTI No.	Shank Dia. $d_2$ [Inches]	Overall Length $l_1$ [Inches]	Cut Type and EDP Number		
				ALU PLUS	ALU	
						
<b>NEW</b> Shank Dia. 1/8"						
1/8 x 3/32	SD-42	1/8	1-1/2	-	23245	1
1/4 x 3/16	SD-51	1/8	1-3/8	-	23255	1
Shank Dia. 1/4"						
1/4 x 3/16	SD-1	1/4	1-15/16	-	24545	1
3/8 x 5/16	SD-3	1/4	2-1/16	24566	24565	1
1/2 x 7/16	SD-5	1/4	2-3/16	24586	24585	1
5/8 x 9/16	SD-6	1/4	2-5/16	-	24595	1

Oval-shaped bur.

**PFERD Specification Number**  
TRE

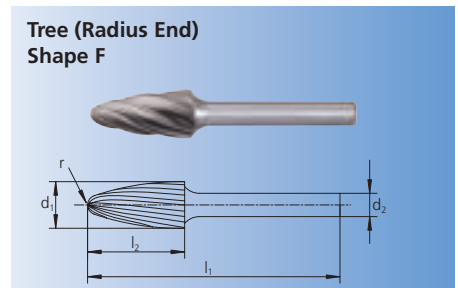





Head Dia. x Length $d_1 \times l_2$ [Inches]	SCTI No.	Shank Dia. $d_2$ [Inches]	Overall Length $l_1$ [Inches]	Cut Type and EDP Number <b>ALU</b>	
Shank Dia. 1/4"					
3/8 x 5/8	SE-3	1/4	2-3/8	24645	1
1/2 x 7/8	SE-5	1/4	2-5/8	24655	1
5/8 x 1	SE-6	1/4	2-3/4	24665	1



Tree-shaped bur with radius end.

**PFERD Specification Number**  
RBF



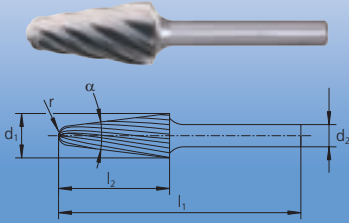
Head Dia. x Length $d_1 \times l_2$ [Inches]	SCTI No.	Shank Dia. $d_2$ [Inches]	Overall Length $l_1$ [Inches]	Cut Type and EDP Number		
				ALU PLUS	ALU	
						
<b>NEW</b> Shank Dia. 1/8"						
1/8 x 1/2	SF-42	1/8	1-1/2	-	23315	1
1/4 x 1/2	SF-51	1/8	1-11/16	-	23325	1
Shank Dia. 1/4"						
1/4 x 5/8	SF-1	1/4	1-15/16	-	24695	1
3/8 x 3/4	SF-3	1/4	2-1/2	24706	24705	1
1/2 x 1	SF-5	1/4	2-3/4	24726	24725	1
5/8 x 1	SF-6	1/4	2-3/4	-	24745	1

# Tungsten Carbide Burs

## for Aluminum and Non-Ferrous Metals






### 14° Taper (Radius End) Shape L



Tapered bur with radius end.

**PFERD Specification Number**  
KEL



Head Dia. x Length $d_1 \times l_2$ [Inches]	SCTI No.	Shank Dia. $d_2$ [Inches]	Angle $\alpha$	Overall Length $l_1$ [Inches]	Cut Type and EDP Number		
					ALU PLUS 	ALU 	
Shank Dia. 1/4"							
3/8 x 1-1/16	SL-3	1/4	14°	3	25156	25155	1
1/2 x 1-1/8	SL-4	1/4	14°	3-1/16	25166	25165	1
5/8 x 1-5/16	SL-6	1/4	14°	3-1/4	-	25185	1


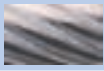
### 5 Piece Bur Set ALU Cut

**NEW**



### 5 Piece Bur Set 1/4" Shank ALU Cut (Plastic Case)

Contains 5 pcs. burs with 1/4" shank dia. and ALU cut.

Set Contents Shape	Head Dia. x Length $d_1 \times l_2$ [Inches]	SCTI No.	Cut Type and Set EDP Number		
			ALU 	Individual Bur EDP's in Set	
Cylindrical (Plain End)	1/2 x 1	SA-5	26550	24105	1
Cylindrical (Radius End)	1/2 x 1	SC-5		24465	1
Oval	1/2 x 7/8	SE-5		24655	1
Tree	1/2 x 1	SF-5		24725	1
14° Taper	1/2 x 1-1/8	SL-4		25165	1

## Coating HC-FEP for Iron and Steel Materials

**NEW**



## Coating HC-HT for High-Temperature Resistant Materials



## Coating HC-NFE for Non-Ferrous Metals



## Advantages of Coatings

- Effective chip discharge due to improved anti-adhesion characteristics.
- Low thermal loads.
- More effective production by working at higher speeds.
- Longer tool life.

## Coating Types

### Coating HC-FEP for Iron and Steel Materials

- Extremely versatile coating for steel and cast iron.
- Extremely hard and wear-resistant.
- Effective chip flow and improved gliding properties.
- Increase in productivity due to higher speed range.
- Extremely tough coating.
- Extremely temperature-resistant.

### Coating HC-HT for High Temperature Resistant Materials

- Mainly used for high temperature resistant non-ferrous metals.
  - Low friction values, low heat build-up.
  - Good combination of wear and oxidation resistance.
- Result: reduced chemical wear.

### Coating HC-NFE for Aluminum and Non-Ferrous Metals

- Mainly used for long-chipping and cloying non-ferrous metals.
- Highest standard of stock removal and tool life.
- Improved anti-friction and anti-adhesion characteristics.

## Note:

- All tungsten burs are available with coatings.
- Please ask about alternative sizes, shapes and coatings.

## Recommended Rotational Speed Range

To determine the recommended cutting speed [SFPm], please proceed as follows:

- 1 Select the workpiece material that is to be machined.
- 2 Determine the type of application.

- 3 Select the cut.
- 4 Establish the cutting speed range.

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

- 5 Select the required bur diameter.
- 6 The cutting speed range and the bur diameter determine the recommended rotational speed range [RPM].

1 Workpiece Material/Colour Code			2 Application	3 Cut	Coating	4 Cutting Speed
Steel, cast steel	Non-hardened, non-heat treated steels up to 38 HRC (< 1200 N/mm <sup>2</sup> )	Construction steels, carbon steels, tool steels, non-alloyed steels, case-hardened steels, cast steels	Coarse machining = high stock removal	Double	HC-FEP	1,500 - 2,000 SFPm
	Hardened, heat-treated steels exceeding 38 HRC (> 1200 N/mm <sup>2</sup> )	Tool steels, tempering steels, alloyed steels, cast steels	Coarse machining = high stock removal	Double	HC-FEP	850 - 1,150 SFPm
Non-ferrous metals	Soft non-ferrous metals, Hard non-ferrous metals	Aluminum alloys, brass, copper, zinc, bronze, titanium, hard aluminum alloys (high Si content)	Coarse machining = high stock removal	ALU	HC-NFE	2,000 - 2,950 SFPm
			Fine machining e.g., deburring	ALU		2,000 - 2,950 SFPm
Stainless steel (INOX)	Rust and acid-resistant steels	Austenitic and ferritic high-grade steels	Coarse machining = high stock removal	Diamond	HC-HT	1,000 - 1,500 SFPm
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	Coarse machining = high stock removal	Double	HC-FEP	1,500 - 2,000 SFPm

## Example

Tungsten Carbide Bur, Double Cut, Diameter: 1/2".

Coarse machining of non-hardened, non-heat-treated steels.

Cutting Speed: 1,500 - 2,000 SFPm

**Rotational Speed: 12,000 - 16,000 RPM**

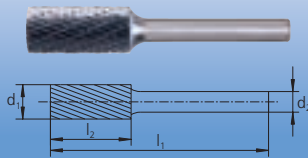
5 Dia. [Inches]	6 Cutting Speed [SFPm]					
	800	1,000	1,150	1,500	2,000	2,950
	Rotational Speed [RPM]					
1/4	13,000	16,000	19,000	24,000	32,000	48,000
3/8	8,000	10,000	12,000	14,000	19,000	29,000
1/2	7,000	8,000	9,000	12,000	16,000	24,000

# Tungsten Carbide Burs

**NEW** HICOAT™ – Coating HC-FEP





**Cylindrical (Plain End)  
Shape A**



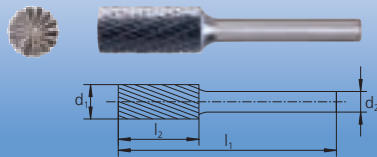
Cylindrical bur with plain end (uncut).

**PFERD Specification Number**  
ZYA





Head Dia. x Length $d_1 \times l_2$ [Inches]	SCTI No.	Shank Dia. $d_2$ [Inches]	Overall Length $l_1$ [Inches]	Coating	Coating Colour	Cut Type and EDP Number Double 	
1/4 x 5/8	SA-1	1/4	1-15/16	HC-FEP	violet-grey	27040	1
3/8 x 3/4	SA-3	1/4	2-1/2	HC-FEP	violet-grey	27042	1
1/2 x 1	SA-5	1/4	2-3/4	HC-FEP	violet-grey	27052	1

**Cylindrical (End Cut)  
Shape B**

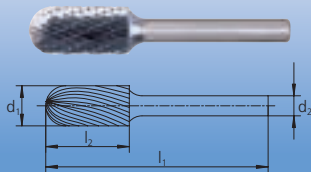


Cylindrical bur with end cut.

**PFERD Specification Number**  
ZYAS

Head Dia. x Length $d_1 \times l_2$ [Inches]	SCTI No.	Shank Dia. $d_2$ [Inches]	Overall Length $l_1$ [Inches]	Coating	Coating Colour	Cut Type and EDP Number Double 	
3/8 x 3/4	SB-3	1/4	2-1/2	HC-FEP	violet-grey	27082	1



**Cylindrical (Radius End)  
Shape C**



Cylindrical bur with radius end.

**PFERD Specification Number**  
WRC

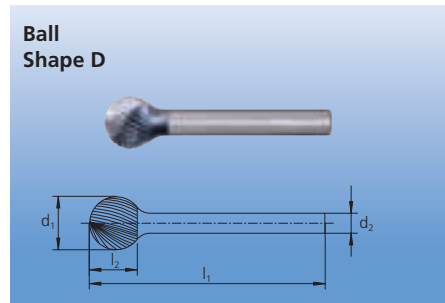




Head Dia. x Length $d_1 \times l_2$ [Inches]	SCTI No.	Shank Dia. $d_2$ [Inches]	Overall Length $l_1$ [Inches]	Coating	Coating Colour	Cut Type and EDP Number Double 	
3/8 x 3/4	SC-3	1/4	2-1/2	HC-FEP	violet-grey	27167	1
1/2 x 1	SC-5	1/4	2-3/4	HC-FEP	violet-grey	27177	1



Ball-shaped bur.

**PFERD Specification Number**  
KUD

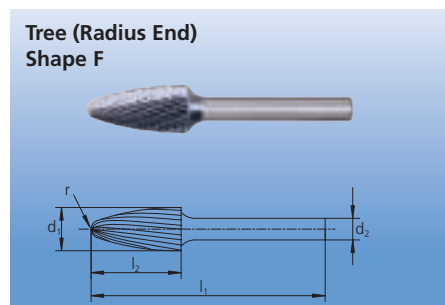




Head Dia. x Length $d_1 \times l_2$ [Inches]	SCTI No.	Shank Dia. $d_2$ [Inches]	Overall Length $l_1$ [Inches]	Coating	Coating Colour	Cut Type and EDP Number Double 	
3/8 x 5/16	SD-3	1/4	2-1/16	HC-FEP	violet-grey	27217	1
1/2 x 7/16	SD-5	1/4	2-3/16	HC-FEP	violet-grey	27227	1



Tree-shaped bur with radius end.

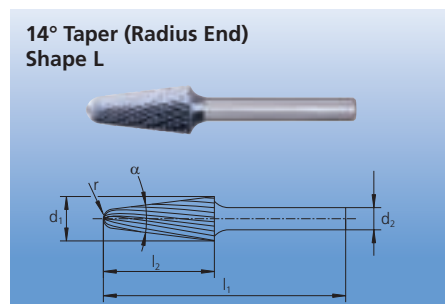
**PFERD Specification Number**  
RBF





Head Dia. x Length $d_1 \times l_2$ [Inches]	SCTI No.	Shank Dia. $d_2$ [Inches]	Overall Length $l_1$ [Inches]	Coating	Coating Colour	Cut Type and EDP Number Double 	
3/8 x 3/4	SF-3	1/4	2-1/2	HC-FEP	violet-grey	27282	1
1/2 x 1	SF-5	1/4	2-3/4	HC-FEP	violet-grey	27292	1

Taper bur with radius end.

**PFERD Specification Number**  
KEL



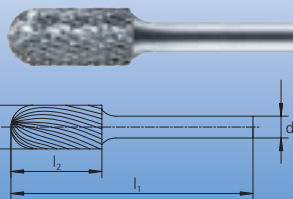
Head Dia. x Length $d_1 \times l_2$ [Inches]	SCTI No.	Shank Dia. $d_2$ [Inches]	Angle $\alpha$	Overall Length $l_1$ [Inches]	Coating	Coating Colour	Cut Type and EDP Number Double 	
3/8 x 1-1/16	SL-3	1/4	14°	2-13/16	HC-FEP	violet-grey	27457	1
1/2 x 1-1/8	SL-4	1/4	14°	2-7/8	HC-FEP	violet-grey	27462	1

# Tungsten Carbide Burs

HICOAT™ – Coating HC-HT





## Cylindrical (Radius End) Shape C

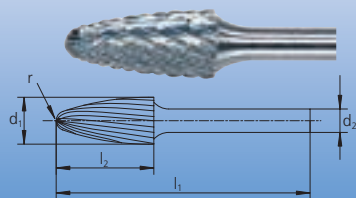


Cylindrical bur with radius end.

**PFERD Specification Number**  
WRC

Head Dia. x Length $d_1 \times l_2$ [Inches]	SCTI No.	Shank Dia. $d_2$ [Inches]	Overall Length $l_1$ [Inches]	Coating	Coating Colour	Cut Type and EDP Number Diamond 	
1/2 x 1	SC-5	1/4	2-3/4	HC-HT	Silver-Grey	27163	1



## Tree (Radius End) Shape F



Tree-shaped bur with radius end.

**PFERD Specification Number**  
RBF



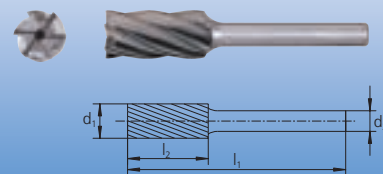
Head Dia. x Length $d_1 \times l_2$ [Inches]	SCTI No.	Shank Dia. $d_2$ [Inches]	Radius $r$ [Inches]	Overall Length $l_1$ [Inches]	Coating	Coating Colour	Cut Type and EDP Number Diamond 	
1/2 x 1	SF-5	1/4		2-3/4	HC-HT	Silver-Grey	27278	1

Cylindrical bur with end cut.

**PFERD Specification Number**  
ZYAS

**Cylindrical (End Cut)**  
**Shape B**

**NEW**



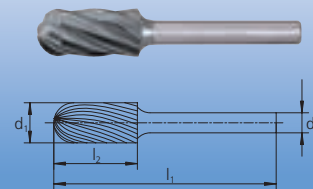
Head Dia. x Length $d_1 \times l_2$ [Inches]	SCTI No.	Shank Dia. $d_2$ [Inches]	Overall Length $l_1$ [Inches]	Coating	Coating Colour	Cut Type and EDP Number Alu	
1/2 x 1	SB-5	1/4	2-3/4	HC-NFE	Black-Grey	27105	1



Cylindrical bur with radius end.

**PFERD Specification Number**  
WRC

**Cylindrical (Radius End)**  
**Shape C**



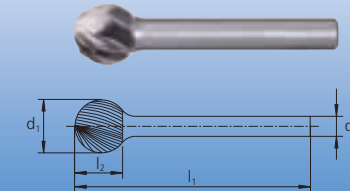
Head Dia. x Length $d_1 \times l_2$ [Inches]	SCTI No.	Shank Dia. $d_2$ [Inches]	Overall Length $l_1$ [Inches]	Coating	Coating Colour	Cut Type and EDP Number Alu	
1/2 x 1	SC-5	1/4	2-3/4	HC-NFE	Black-Grey	27165	1

Ball-shaped bur.

**PFERD Specification Number**  
KUD

**Ball**  
**Shape D**

**NEW**



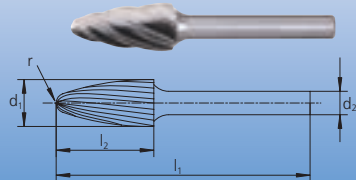
Head Dia. x Length $d_1 \times l_2$ [Inches]	SCTI No.	Shank Dia. $d_2$ [Inches]	Overall Length $l_1$ [Inches]	Coating	Coating Colour	Cut Type and EDP Number Alu	
1/2 x 7/16	SD-5	1/4	2-3/16	HC-NFE	Black-Grey	27235	1

# Tungsten Carbide Burs

HICOAT™ – Coating HC-NFE





**Tree (Radius End)  
Shape F**



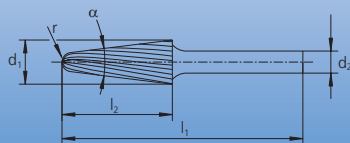
Tree-shaped bur with radius end.

**PFERD Specification Number**  
RBF





Head Dia. x Length $d_1 \times l_2$ [Inches]	SCTI No.	Shank Dia. $d_2$ [Inches]	Overall Length $l_1$ [Inches]	Coating	Coating Colour	Cut Type and EDP Number Alu 	
1/2 x 1	SF-5	1/4	2-3/4	HC-NFE	Black-Grey	27280	1

**14° Taper (Radius End)  
Shape L**



Taper bur with radius end.

**PFERD Specification Number**  
KEL

Head Dia. x Length $d_1 \times l_2$ [Inches]	SCTI No.	Shank Dia. $d_2$ [Inches]	Angle $\alpha$	Overall Length $l_1$ [Inches]	Coating	Coating Colour	Cut Type and EDP Number Alu 	
1/2 x 1-1/8	SL-4	1/4	14°	2-7/8	HC-NFE	Black-Grey	27450	1



TOUGH-Burs represent a PFERD product line developed for users whose required applications result in tooth breakage and bur failure, rather than normal wear. Designed especially for hand-held applications in tough operating conditions common to shipyards, foundries and on steel fabrication.

### Advantages

- Innovative, special cuts providing exceptional impact resistance.
- These extremely durable, high-performance cut patterns minimize tooth chipping/breakage, splintering and bur head failures.
- The 3R and 3RS cuts can be used on materials up to 55 HRC.
- These products can also be used at low speeds.

- Their extremely high impact resistance means that they are perfectly suited for use as long shank variants. Available in special shaft lengths.
- Developed specifically for applications involving high impact loads, the new 3R and 3RS cuts are the latest addition to the existing PFERD range.

### Application Examples

- High-impact applications due to long shank design.
- Heavy-duty applications, due to angled working.
- High angle of surface contact.
- Milling of narrow contours.

#### 3R Cut

- Coarse, aggressive machining, with high stock removal.



#### 3RS Cut

- Coarse machining, with smooth milling performance.



### Recommended Rotational Speed Range

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

- ① Select the workpiece material that is to be machined.
- ② Determine the type of application.

- ③ Select the cut.
- ④ Establish the cutting speed range.

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

- ⑤ Select the required bur diameter.
- ⑥ The cutting speed range and the bur diameter determine the recommended rotational speed range [RPM].

① Workpiece Material/Colour Code			② Application	③ Cut	④ Cutting Speed	
Steel, cast steel	Non-hardened, non-heat treated steels up to 38 HRC (< 1200 N/mm²)	Construction steels, carbon steels, tool steels, non-alloyed steels, case-hardened steels, cast steels	Coarse machining = high stock removal with impact loading	Double (3R)	850 - 2,000 SFPM	
				Diamond (3RS)		
	Hardened, heat-treated steels exceeding 38 HRC (> 1200 N/mm²)	Tool steels, tempering steels, alloyed steels, cast steels		Double (3R)	850 - 1,150 SFPM	
				Diamond (3RS)		
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	Coarse machining = high stock removal with impact loading	Double (3R)	850 - 2,000 SFPM	
				Diamond (3RS)		

#### Example:

Tungsten Carbide Bur, 3R Cut,  
1/2" Head Diameter.  
Coarse machining of non-hardened and non heat-treated steels.  
Cutting Rate: 850 - 2,000 SFPM  
**Rotational Speed: 7,000 - 16,000 RPM**

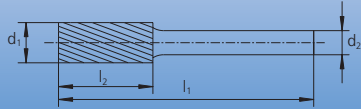
⑥ Cutting Speed [SFPM]							
⑤ Dia. [Inches]	850	1,000	1,150	1,300	1,500	1,650	2,000
	Rotational Speed (RPM)						
3/8	8,000	10,000	11,000	13,000	14,000	16,000	19,000
1/2	7,000	8,000	9,000	11,000	12,000	13,000	16,000
5/8	5,000	6,000	7,000	8,000	9,000	10,000	12,000

# Tungsten Carbide Burs

**NEW** for Tough Applications






## Cylindrical (Plain End) Shape A



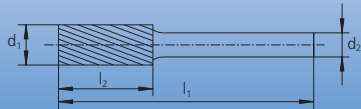
Cylindrical bur with plain end (uncut).

**PFERD Specification Number**  
ZYA



Head Dia. x Length $d_1 \times l_2$ [Inches]	SCTI No.	Shank Dia. $d_2$ [Inches]	Overall Length $l_1$ [Inches]	Cut Type and EDP Number		
				Double (3R) 	Diamond (3RS) 	
				Shank Dia. 1/4"		
3/8 x 3/4	SA-3	1/4	2-1/2	22152	22153	1
1/2 x 1	SA-5	1/4	2-3/4	22156	22157	1


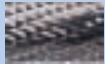

## Cylindrical (End Cut) Shape B



Cylindrical bur with end cut.

**PFERD Specification Number**  
ZYAS



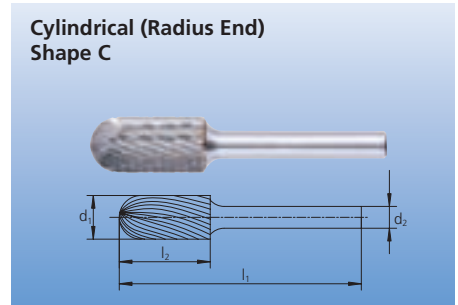
Head Dia. x Length $d_1 \times l_2$ [Inches]	SCTI No.	Shank Dia. $d_2$ [Inches]	Overall Length $l_1$ [Inches]	Cut Type and EDP Number		
				Double (3R) 	Diamond (3RS) 	
				Shank Dia. 1/4"		
3/8 x 3/4	SB-3	1/4	2-1/2	22182	—	1
1/2 x 1	SB-5	1/4	2-3/4	22186	22187	1








Cylindrical bur with radius end.

**PFERD Specification Number**  
WRC

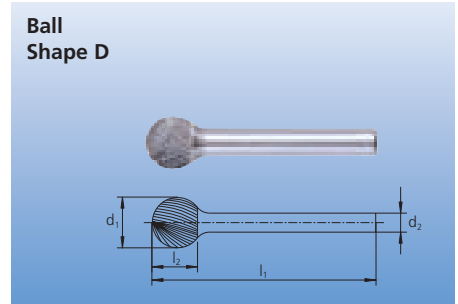



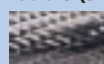

Head Dia. x Length d <sub>1</sub> x l <sub>2</sub> [Inches]	SCTI No.	Shank Dia. d <sub>2</sub> [Inches]	Overall Length l <sub>1</sub> [Inches]	Cut Type and EDP Number		
				Double (3R) 	Diamond (3RS) 	
Shank Dia. 1/8"						
3/8 x 3/4	SC-3	1/4	2-1/2	22212	—	1
1/2 x 1	SC-5	1/4	2-3/4	22216	22217	1
Shank Dia. 3/8"						
3/8 x 3/4	SC-3	3/8	2-1/2	22873	22874	1
1/2 x 1	SC-5	3/8	2-3/4	22875	22876	1
Extended Shank						
3/8 x 3/4	SC-3L6	1/4	6-5/8	22734	—	1



Ball-shaped bur.

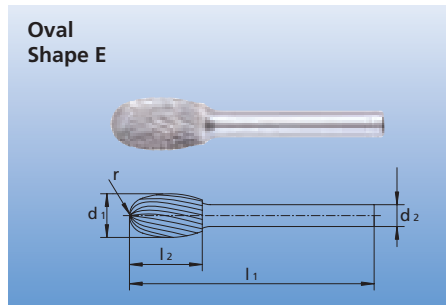
**PFERD Specification Number**  
KUD



Head Dia. x Length $d_1 \times l_2$ [Inches]	SCTI No.	Shank Dia. $d_2$ [Inches]	Overall Length $l_1$ [Inches]	Cut Type and EDP Number		
				Double (3R) 	Diamond (3RS) 	
				Shank Dia. 1/4"		
1/2 x 7/16	SD-5	1/4	2-3/16	22244	22245	1
5/8 x 9/16	SD-6	1/4	2-3/16	22246	-	1

# Tungsten Carbide Burs

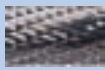

**NEW** for Tough Applications

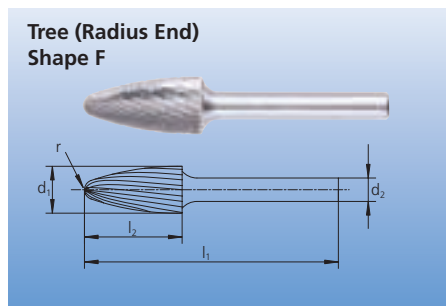


Oval-shaped bur.

**PFERD Specification Number**  
TRE






Head Dia. x Length $d_1 \times l_2$ [Inches]	SCTI No.	Shank Dia. $d_2$ [Inches]	Overall Length $l_1$ [Inches]	Cut Type and EDP Number Double (3R)	
					
Shank Dia. 1/4"					
3/8 x 5/8	SE-3	1/4	2-3/4	22260	1



Tree-shaped bur with radius end.

**PFERD Specification Number**  
RBF

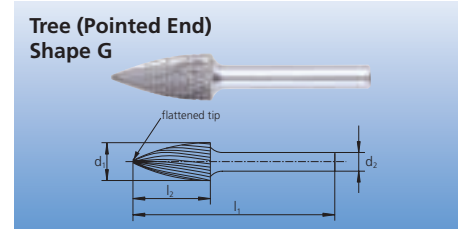





Head Dia. x Length $d_1 \times l_2$ [Inches]	SCTI No.	Shank Dia. $d_2$ [Inches]	Overall Length $l_1$ [Inches]	Cut Type and EDP Number Double (3R)	Diamond (3RS)	
						
Shank Dia. 1/4"						
1/2 x 1	SF-5	1/4	2-3/4	22276	22277	1
5/8 x 1	SF-6	1/4	2-3/4	22278	-	1
Shank Dia. 3/8"						
1/2 x 1	SF-5	3/8	2-3/4	22897	22898	1
Extended Shank						
1/2 x 1	SF-5L6	1/4	6-7/8	22754	-	1





Tree-shaped bur with pointed end.  
**PFERD Specification Number**  
SPG



Head Dia. x Length $d_1 \times l_2$ [Inches]	SCTI No.	Shank Dia. $d_2$ [Inches]	Overall Length $l_1$ [Inches]	Cut Type and EDP Number		
				Double (3R) 	Diamond (3RS) 	

Shank Dia. 1/4"

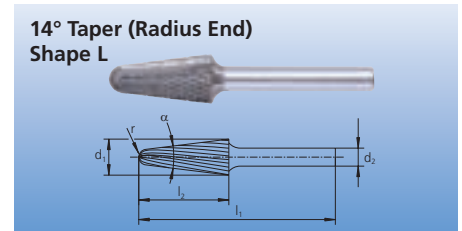
3/8 x 3/4	SG-3	1/4	2-1/2	22294	—	1
1/2 x 1	SG-5	1/4	2-3/4	22296	22297	1
5/8 x 1	SG-6	1/4	2-3/4	22298	—	1



Extended Shank

1/2 x 1	SG-5L6	1/4	6-7/8	22760	—	1
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Tapered bur with radius end.  
**PFERD Specification Number**  
KEL



Head Dia. x Length $d_1 \times l_2$ [Inches]	SCTI No.	Shank Dia. $d_2$ [Inches]	Angle $\alpha$	Overall Length $l_1$ [Inches]	Cut Type and EDP Number		
					Double (3R) 	Diamond (3RS) 	

Shank Dia. 1/4"


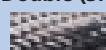
1/2 x 1-1/8	SL-4	1/4	14°	3-1/16	22346	22347	1
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Extended Shank

1/2 x 1-1/8	SL-4L6	1/4	14°	7-3/16	22774	—	1
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**5 Piece Tough Bur Set 1/4" Shank  
(Plastic Case)**  
Contains 5 pcs. burs with 1/4" shank dia. and  
double cut (3R).



Set Contents Shape	Head Dia. x Length $d_1 \times l_2$ [Inches]	SCTI No.	Cut Type and Set EDP Number		
			Double (3R) 	Individual Bur EDP's in Set	
Cylindrical (Plain End)	1/2 x 1	SA-5	26551	22156	1
Cylindrical (Radius End)	1/2 x 1	SC-5		22216	1
Ball	1/2 x 7/16	SD-5		22244	1
Tree (Radius End)	1/2 x 1	SF-5		22276	1
Tree (Pointed)	1/2 x 1	SG-5		22296	1

# Tungsten Carbide Burs

**NEW** Micro Burs for Precision Applications



PFERD Micro burs are ideal for both hand-held and automated machining tasks. They are a unique solution, combining good stock removal and high-quality finish. Almost all materials up to a hardness of 60 HRC can be machined. If higher stock removal is required, micro burs can be used as support in areas where mounted points are usually used.

They run smoothly, with highly controlled removal rates and with very little vibration.

## Application Examples

- Finishing.
- Very fine plaster work.
- Corrections in tooling and moulding construction.
- Very fine cleaning work.
- Sharpening of cutting tools.

## Recommended Rotational Speed Range

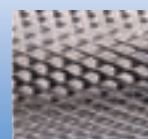
To determine the recommended cutting speed [SFPM], please proceed as follows:

- ① Select the workpiece material that is to be processed.
- ② Determine the type of application.
- ③ Select the cut.
- ④ Establish the cutting speed range.

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

- ⑤ Select the required bur diameter.
- ⑥ The cutting speed range and bur diameter determine the rotational speed [RPM].

## Micro Cut



① Workpiece Material/Colour Code		② Application	③ Cut	④ Cutting Speed
Steel, cast steel	Non-hardened, non-heat-treated steels up to 38 HRC (< 1200 N/mm <sup>2</sup> )	Construction steels, carbon steels, tool steels, non-alloyed steels, case-hardened steels, cast steels	Micro	2,150 - 2,450 SFPM
	Hardened, heat-treated steels exceeding 38 HRC (> 1200 N/mm <sup>2</sup> )	Tool steels, tempering steels, alloyed steels, cast steels		1,500 - 2,000 SFPM
Stainless steel (INOX)	Rust and acid-resistant steels	Austenitic and ferritic stainless steel	Micro	1,500 - 2,000 SFPM
Non-ferrous metals	Hard non-ferrous metals	Bronze, titanium, titanium alloys, hard aluminum alloys (high Si content)	Micro	1,500 - 2,000 SFPM
	High-temperature resistant materials	Nickel based alloys, cobalt based alloys (aircraft engine and turbine construction)		
Cast iron	Grey cast iron, white cast iron	Cast iron with flake graphite, with nodular graphite/ductile graphite iron, white annealed cast iron, black cast iron	Micro	2,150 - 2,450 SFPM

## Example

Micro Bur,  
Diameter: 3/8".

Fine finish milling of non-hardened, non-tempered steels.

Cutting Speed: 2,150 - 2,450 SFPM

**Rotational Speed: 21,000 - 24,000 RPM**

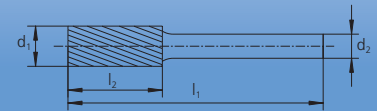
⑥ Cutting Speed [SFPM]				
⑤ Dia. [Inches]	1,500	2,000	2,150	2,450
	Rotational Speed [RPM]			
1/8	48,000	64,000	68,000	80,000
1/4	24,000	32,000	34,000	40,000
3/8	14,000	19,000	21,000	24,000



Cylindrical bur with plain end (uncut),  
Micro cut.

**PFERD Specification Number**  
ZYA MC

**Cylindrical (Plain End)**  
**Shape A**



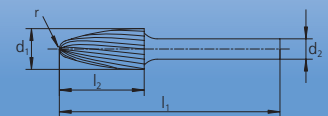
Head Dia. x Length $d_1 \times l_2$ [Inches]	SCTI No.	Shank Dia. $d_2$ [Inches]	Overall Length $l_1$ [Inches]	Cut Type and EDP Number Micro	
Shank Dia. 1/8"					
1/8 x 1/2	SA-43	1/8	1-1/2	27500	1
Shank Dia. 1/4"					
1/4 x 5/8	SA-1	1/4	1-15/16	27512	1
3/8 x 3/4	SA-3	1/4	2-1/2	27516	1



Tree-shaped bur with radius end, Micro cut.

**PFERD Specification Number**  
RBF MC

**Tree (Radius End)**  
**Shape F**



Head Dia. x Length $d_1 \times l_2$ [Inches]	SCTI No.	Shank Dia. $d_2$ [Inches]	Overall Length $l_1$ [Inches]	Cut Type and EDP Number Micro	
Shank Dia. 1/8"					
1/8 x 1/2	SF-42	1/8	1-1/2	27524	1
Shank Dia. 1/4"					
1/4 x 5/8	SF-1	1/4	1-15/16	27528	1
3/8 x 3/4	SF-3	1/4	2-1/2	27532	1

# Tungsten Carbide Bur Accessories

## Spindle Extensions



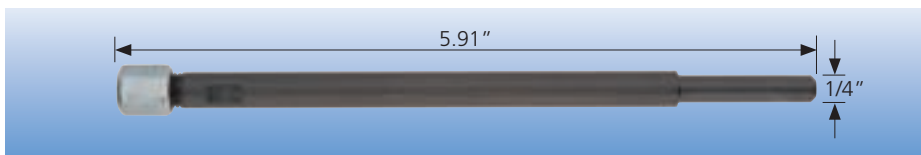
Burs (shank dia. 1/8" and 1/4") can be extended with spindle extensions, allowing access to hard-to-reach areas. The extension is mounted in the collet chuck of the machine (air-powered or electric), or in the handpiece of the flexible shaft. In some applications spindle extensions are efficient alternatives to customized burs with long shanks.

### Safety Note

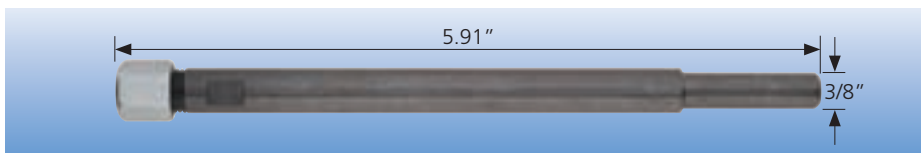
**For safety reasons, it is not possible to use spindle extensions in combination with long shank burs.**  
For more safety information, please refer to catalogue 209.



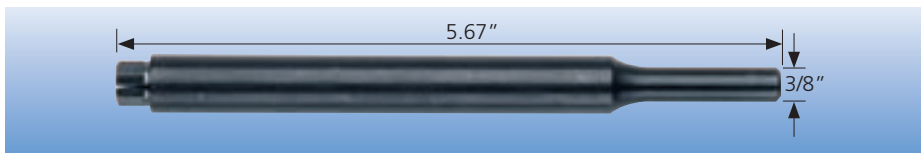
= Read the instructions!



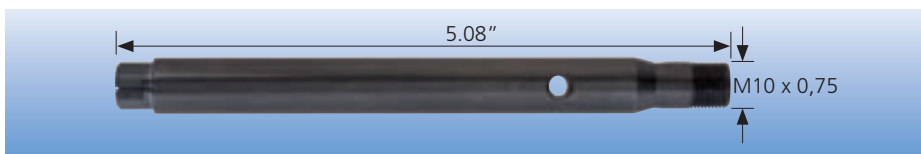
**Extension SPV 150-1/8 S1/4**  
for 1/8" shanks



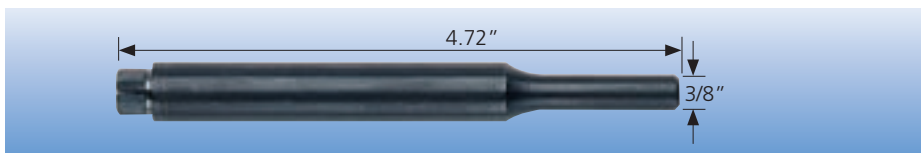
**Extension SPV 150-1/4 S3/8**  
for 1/4" shanks



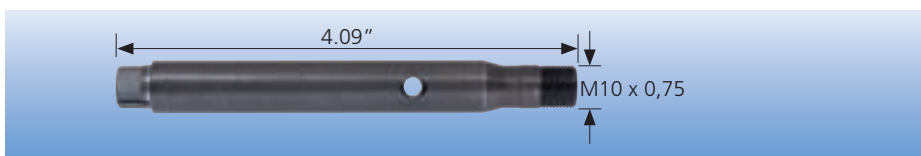
**Extension SPV 100-1/4 S3/8**  
for 1/4" shanks



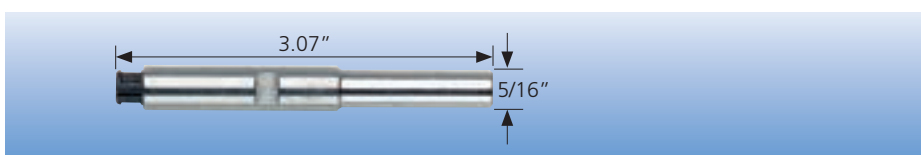
**Extension SPV 100-1/4 SPG 6**  
for 1/4" shanks



**Extension SPV 75-1/4 S3/8**  
for 1/4" shanks



**Extension SPV 75-1/4 SPG 6**  
for 1/4" shanks



**Extension SPV 50-1/8 S1/4**  
for 1/8" shanks

For detailed information and ordering data on drive spindle extensions please refer to catalogue 209.





Bi-metal hole saws are used on drill presses and hand-held drills. Bi-metal construction ensures a long service life and high impact resistance for tough working conditions.

### Advantages

- Cost-effective cutting of holes.
- Can be used on diverse materials such as alloy and non-alloy steels, stainless steel (INOX) (please observe recommended use) cast iron, aluminum, copper, bronze, brass, wood, plastics etc.
- An alternating tooth pitch prevents chattering during cutting process.
- PFERD offers a range of the most common bi-metal hole saws in sets for tradesmen, fitters, electricians and mechanics.
- Bi-metal hole saws are centred and guided via the HSS pilot drill (supplied with compression spring for improved ejection of the cut material).

### Safety Recommendations

When using shank extensions, the recommended hole saw speed ranges must not be exceeded. Risk of accidents!



= Wear eye protection!



Read the instructions!  
= (Please observe the recommended RPM!)



= Wear a respirator!

### Dust Warning

Use of the tools in this catalogue may create dust and other particles. To avoid any risk of adverse health effects, the operator must use appropriate protective measures, including a respirator, during and after tool operation. Refer to our Material Safety Data Sheet (MSDS) for further information regarding the product to be used. Furthermore, additional health hazards

### Recommendations for Use

- The pilot drill is clamped in the hole saw shank and should project at least 1/8" beyond the hole saw teeth.
- When cutting metal, use a high-quality cutting oil. The cutting oil facilitates smooth running and lengthens service life.  
**Exceptions:** Do not use cutting oil when working on cast iron. When working on aluminum add kerosene instead of cutting oil.
- Bi-metal hole saws are suitable for work on stainless steel (INOX).
- To avoid corrosion, particles resulting during work must be removed. We recommend either mechanical or chemical cleaning (etching/polishing etc.)
- All teeth should be applied evenly. Avoid swinging movements during sawing to avoid tooth breakage.
- Avoid overheating the hole saw.

may result from dust in the surrounding environment and from dust generated from the work piece material. PROTECTIVE MEASURES FOR THE OPERATOR MUST ADDRESS DUST AND OTHER PARTICULATES ARISING FROM ALL SOURCES. Always use our products in a well-ventilated workspace.



# Bi-Metal Hole Saws and Accessories

## Bi-Metal Hole Saws

### Bi-Metal Hole Saws



PFERD bi-metal hole saws are manufactured with welded high-speed cutting edge teeth for long service life, high concentricity and high cutting speed. The bi-metal construction prevents breakage of the bi-metal hole saw at high loads. Highly-finished weld seams result in clean and precise holes, and easy handling. The knock-out slots allow rapid and easy removal of the cores.

Bi-metal hole saws are used in drill presses, lathes and milling cutters as well as on hand-held power drills.

Their high concentricity ensures reliable tool control. PFERD bi-metal hole saws cut perfectly round holes quickly and easily, whether in unalloyed or alloyed stainless steel (INOX), castings, aluminum, copper, bronze, brass, wood, plastics or similar materials.

**Maximum Cutting Depth for all Sizes:**  
**1-3/8".**

Thread:  
9/16 to 1-3/16" = 1/2"-20 UNF  
1-1/4 to 6" = 5/8"-18 UNF

These bi-metal hole saws come with an alternating 4/6" tooth pitch (i.e., alternately 4 and 6 teeth per inch, counted on the circumference) which helps prevent chatter.

Bi-metal hole saws range in height from 1-3/8" to 2-1/4", depending on type.

#### Industry / Target Group

- Mechanical engineering.
- Tank and pressure vessel construction.
- Plumbing, electrical, aircraft construction and maintenance.
- Metal cutting industries and automotive trades.

#### Safety Note


Always wear protective glasses when working with bi-metal hole saws!

#### Ordering Note

Please order arbors separately.

#### PFERD Specification Number

LS

Dia. [Inches]	Dia. [mm]	Recommended Rotational Speed [RPM]					EDP Number	Suitable Arbors	
		Non-Alloyed Steels	Tool Steel and Stainless Steel (INOX)	Aluminum	Cast Iron	Brass			
9/16	14	620	310	940	400	800	29100	EDP 29033, EDP 29034	1
5/8	16	550	275	825	365	730	29101	EDP 29033, EDP 29034	1
11/16	17	520	260	775	340	680	29102	EDP 29033, EDP 29034	1
3/4	19	460	230	690	300	600	29103	EDP 29033, EDP 29034	1
13/16	21	410	205	610	270	540	29104	EDP 29033, EDP 29034	1
7/8	22	390	195	585	260	520	29105	EDP 29033, EDP 29034	1
15/16	24	360	180	530	235	470	29106	EDP 29033, EDP 29034	1
1	25	350	175	525	235	470	29107	EDP 29033, EDP 29034	1
1-1/16	27	325	160	480	215	435	29108	EDP 29033, EDP 29034	1
1-1/8	29	300	150	450	200	400	29109	EDP 29033, EDP 29034	1
1-3/16	30	285	145	425	190	380	29110	EDP 29033, EDP 29034	1
1-1/4	32	275	140	410	180	360	29111	EDP 29036	1
1-5/16	33	260	135	390	175	345	29112	EDP 29036	1
1-3/8	35	250	125	375	165	330	29113	EDP 29036	1
1-7/16	37	235	115	350	155	310	29114	EDP 29036	1
1-1/2	38	230	115	345	150	300	29115	EDP 29036	1
1-9/16	40	215	110	315	140	280	29116	EDP 29036	1
1-5/8	41	210	105	315	140	280	29117	EDP 29036	1
1-11/16	43	200	100	290	130	260	29118	EDP 29036	1
1-3/4	44	195	95	295	130	260	29119	EDP 29036	1
1-13/16	46	185	90	280	125	250	29120	EDP 29036	1
1-7/8	48	180	90	270	120	240	29121	EDP 29036	1
2	51	170	85	255	115	230	29122	EDP 29036	1
2-1/16	52	165	80	250	110	220	29123	EDP 29036	1
2-1/8	54	160	80	240	105	210	29124	EDP 29036	1
2-1/4	57	150	75	225	100	200	29125	EDP 29036	1
2-5/16	59	145	70	215	95	190	29126	EDP 29036	1
2-3/8	60	140	70	220	95	190	29127	EDP 29036	1

Dia. [Inches]	Dia. [mm]	Recommended Rotational Speed [RPM]					EDP Number	Suitable Arbors	
		Non-Alloyed Steels	Tool Steel and Stainless Steel (INOX)	Aluminum	Cast Iron	Brass			
2-1/2	64	135	65	205	90	180	29128	EDP 29036	1
2-9/16	65	135	60	205	90	180	29129	EDP 29036	1
2-5/8	67	130	65	195	85	170	29130	EDP 29036	1
2-3/4	70	125	60	185	80	160	29131	EDP 29036	1
2-7/8	73	120	60	180	80	160	29132	EDP 29036	1
3	76	115	55	170	75	150	29133	EDP 29036	1
3-1/8	79	110	55	165	70	140	29134	EDP 29036	1
3-1/4	83	105	50	155	70	140	29135	EDP 29036	1
3-3/8	86	100	50	145	65	130	29136	EDP 29036	1
3-1/2	89	95	45	145	65	130	29137	EDP 29036	1
3-5/8	92	95	45	140	60	120	29138	EDP 29036	1
3-3/4	95	90	45	135	60	120	29139	EDP 29036	1
3-7/8	98	90	45	135	60	120	29140	EDP 29036	1
4	102	85	40	130	55	110	29141	EDP 29036	1
4-1/8	105	80	40	120	55	110	29142	EDP 29036	1
4-3/8	111	75	35	110	50	100	29144	EDP 29036	1
4-1/2	114	75	35	105	50	100	29145	EDP 29036	1
4-3/4	121	70	35	100	45	90	29146	EDP 29036	1
5	127	65	30	90	40	80	29147	EDP 29036	1
5-1/2	140	60	30	85	40	75	29148	EDP 29036	1
6	152	55	25	80	35	70	29149	EDP 29036	1

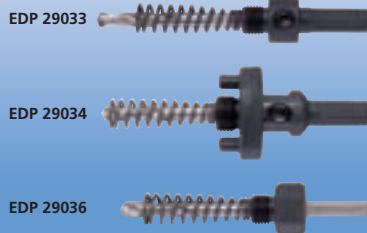


# Bi-Metal Hole Saws and Accessories

## Hole Saw Arbors



### Hole Saw Arbors LSS



Hole saw arbors are designed for mounting the hole saw and the pilot drill.

The PFERD range includes three different sizes. Select the appropriate arbor, taking into account the hole saw diameter and available tool drive spindle.

#### Purpose of the Compression Spring

This prevents "jamming" of the cut-out material between the inner walls of the hole saw and the drill. The spring force ejects the material. Should this effect not be required for a particular appli-


cation, e.g. ready-installed pipes, the spring can easily be removed without tools.

#### Ordering Note

Hole saw arbors EDP 29033 and EDP 29034 are delivered with the HSS pilot drill EDP 29040 and one ejection spring.






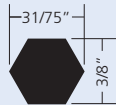

Hole saw arbor EDP 29036 is delivered with the HSS pilot drill EDP 29039 and one ejection spring.

**PFERD Specification Number**  
LSS

Shank Dia. [Inches]	Shank Dia. [mm]	Thread	Shank Type	Suitable for Hole Saw Diameters [Inches]	EDP Number	
3/8	9.53	1/2"-20 UNF	Hexagonal	9/16 to 1-3/16	29033	1
3/8	9.53	5/8"-18 UNF	Hexagonal	1-1/4 to 6	29034	1
1/4	6.35	1/2"-20 UNF	Round	9/16 to 1-3/16	29036	1

### Arbor Shapes

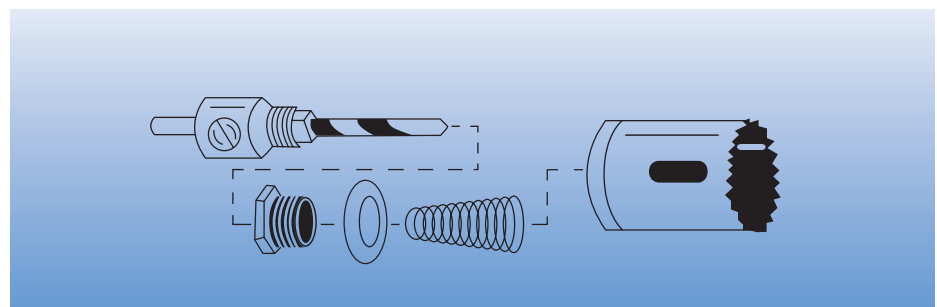
The adjacent table shows information on shank forms, LSS dimensions and LSB pilot drills. The appropriate PFERD hole saws have been shown.

PFERD-Hole Saw Arbors EDP	Shank Dia. [Inches]	Shank Dia. [mm]	Shank Shape	for PFERD Hole Saw Dia. [Inches]
29033 29034 29036	3/8 3/8 1/4	9.53 9.53 6.35	  	9/16 to 1-3/16 1-1/4 to 6 9/16 to 1-3/16
Pilot Drill 29040 29039	1/4 1/4	6.35 6.35	 	for hole saw arbors EDP 29033, 29034, 29036
Shank Dimensions [Inches]	 			

### Compression Spring

All hole saw arbors are delivered with a compression spring for better ejection of the waste material.

Before application, this compression spring can be installed/deinstalled if required. Screw on the compression spring from the side with the smaller diameter up to its limit. It is also possible to use the compression spring with the LSA adapter (see diagram).



The bi-metal hole saw arbors EDP 29033 and 29034 can be extended using the 12" arbor extension.

### Advantages

- Suitable for work on hard-to-reach components.
- Particularly suitable for work on hollow walls. Deep holes can be cut with ease.

- Achieves the required distance between the power source and the work area.
- Avoids damage to workpiece and machine.
- Dust is not drawn into the power source during cutting process.


### PFERD Specification Number

SVL-300

### Hole Saw Arbor Extension 12"

**NEW**



Hexagonal Socket (sw) [Inches]	Hexagonal Socket (sw) [mm]	Overall Length [Inches]	Overall Length [mm]	Shank Type	Width Across Flats [Inches]	Width Across Flats [mm]	Suitable for Arbors	EDP Number	
3/8	9.53	12	300	hexagonal	7/16	11	EDP 29033, 29034	29071	1

With the repair set for hole saw arbors the most common parts can be replaced in case of loss or damage.

### Contents

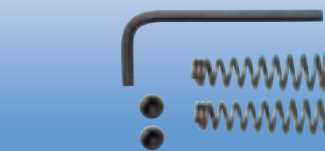
- 2 compression springs
- 2 hexagon socket head screws
- 1 hexagon socket wrench sw


### PFERD Specification Number

RSL-5

### Hole Saw Arbor Repair Kit RSL-5

**NEW**



EDP Number	
29072	1

This thread adapter and washer allows the use of 1-1/4" to 1-1/2" hole saws with an 1/4" shank arbor.

### PFERD Specification Number

LSA

### Adapter LSA



Suitable for Hole Saw Diameters [Inches]	Suitable for Arbors	EDP Number	
1-1/4 – 1-1/2	EDP 29033, EDP 29036	29070	1

## HSS Pilot Drill for Bi-Metal Hole Saws

Replacement pilot drills are available for use with PFERD drive arbors.

### PFERD Specification Number


LSB

### HSS Pilot Drill LSB

EDP 29040

EDP 29039



Shank Dia. [Inches]	Shank Dia. [mm]	Shank Type	Suitable for Hole Saw Diameters [Inches]	Suitable for Arbors	EDP Number	
1/4	6.35	Round	9/16 to 6	EDP 29033, EDP 29034	29040	1
1/4	6.35	Round	9/16 to 6	EDP 29036	29039	1

# Bi-Metal Hole Saws and Accessories

## Hole Saw Sets



### 7 Piece Bi-Metal Hole Saw Set



The hole saws are supplied neatly arranged in a strong plastic box, with instructions for use included.

#### EDP 29179

#### 7 Piece Bi-Metal Hole Saw Set

The set contains hole saws in the most common diameters used to install air conditioner hoses, door locks, antennas, etc.

#### EDP 29183

#### 9 Piece Bi-Metal Hole Saw Set for Plumbers/Fitters


The set contains hole saws in the most common diameters for use in the plumber's and pipe fitter's trade.

#### PFERD Specification Number

LS-SO 7 H, LS-SO 9 I

### 9 Piece Bi-Metal Hole Saw Set for Plumbers/Fitters



Number of Pieces	Dimension [Inches]	Contents	Industry / Target Group	EDP Number	
7	6-1/2 x 4-1/2 x 2-1/4	5 bi-metal hole saws: 7/8", 1", 1-1/8", 1-1/4", 1-1/2" 1 hole saw arbor EDP 29036 1 thread adapter EDP 29070 1 allen wrench 1/16"	Professional trades and DIY	29179	1
9	8-1/2 x 6 x 2-1/4	6 bi-metal hole saws: 3/4", 7/8", 1-1/8", 1-1/2", 1-3/4", 2-1/4" 2 hole saw arbors 1/4 and 3/8" shank 1 thread adapter EDP 29070 1 allen wrench 1/16"	Plumber and fitter trades	29183	1

### 9 Piece Bi-Metal Hole Saw Set for Electricians



The hole saws are supplied neatly arranged in a strong plastic box, with instructions for use included.

#### EDP 29184

#### 9 Piece Bi-Metal Hole Saw Set for Electricians

The set contains hole saws in the most common diameters for electricians.

#### EDP 29180

#### 13 Piece Bi-Metal Hole Saw Set for Assembly Mechanics


The set contains hole saws in the most common diameters for mechanics and equipment fitters.

#### PFERD Specification Number

LS-SO 9 E-1, LS-SO 13 M

### 13 Piece Bi-Metal Hole Saw Set for Assembly Mechanics



Number of Pieces	Dimension [Inches]	Contents	Industry / Target Group	EDP Number	
9	8-1/2 x 6 x 2-1/4	6 bi-metal hole saws: 7/8", 1-1/8", 1-3/8", 1-3/4", 2", 2-1/2" 2 hole saw arbors 1/4" and 3/8" shank 1 thread adapter EDP 29070 1 allen wrench 1/16"	Electrician's trade	29184	1
13	8-1/2 x 7 x 2-1/2	9 bi-metal hole saws: 3/4", 7/8", 1-1/8", 1-3/8", 1-1/2", 1-3/4", 2", 2-1/4", 2-1/2" 2 hole saw arbors 1/4", 3/8" shank 1 pilot drill EDP 29039 1 thread adapter EDP 29070 1 allen wrench 1/16"	Process equipment construction, tank and pressure vessel construction, pipeline construction	29180	1

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Phone: (978) 840-6420 · Toll-Free: (800) 342-9015  
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