# Mounted points, cones and plugs, bench grinding wheels





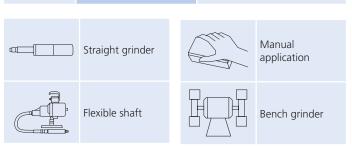
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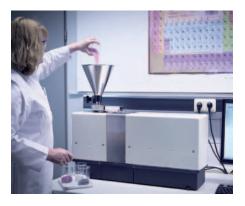
## **PFERD**MEDIA

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TOOL-CENTER





# **PFERD TOOL-CENTER**

On the PFERD TOOL-CENTER of your local retailer, you will find all the important information required for selecting the most appropriate product. The PFERD information and symbol cards contain important tips about products and applications.

If you have any questions, your local retailer or PFERD sales representative will be happy to assist you.

# **PFERD** quality

PFERD mounted points, cones and plugs and bench grinding wheels are developed, manufactured and tested according to the highest quality standards.

Research and development, our own machine and plant construction, as well as the continuous testing and further development of the quality and safety standards in our own laboratories guarantee the high PFERD quality.

PFERD quality management is certified according to ISO 9001.

# **Technical customer support**

If you have any questions about the optimization of your grinding task or about solving specific application problems, our sales representatives and technical advisors will be happy to help you. Please contact us!

Canada Phone: (905) 501-1555 (866) 245-1555 Toll-Free: **USA Phone:** (262) 255-3200 Toll-Free: (800) 342-9015

You can find our worldwide sales offices at: www.pferd.com

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PFERD PRAXIS brochures contain valuable information on material properties, and technical tips on the use of PFERD products. Visit pferdusa.com/info to request a free copy or to download a pdf version.

- Steel
- Stainless steel (INOX)
- Aluminum
- Plastics & composites



# **General information**





### **Abrasives**

= Aluminum oxide  $(Al_2O_3)$ C = Silicon carbide (SiC)

The following classification is used:

= Aluminum oxide, dark red ΑD ΑW = Aluminum oxide, white

AR= Aluminum oxide, pink

= Aluminum oxide, regular ΑN = Aluminum oxide, bubble grain ΑН

CN= Silicon carbide, green CU = Silicon carbide, grey

CO = Ceramic oxide

ADW = Aluminum oxide mixture, AD + AW AWN = Aluminum oxide mixture, AW + AN

= Aluminum oxide mixture, AD + AR AWCO = Ceramic/aluminum oxide mixture,

AW + CO



## **PFERD** packaging

PFERD sells mounted points in modern PE bags. Through the transparent window, customers can see the mounted points in the store already. Moreover, these bags can be hung up at the PFERD TOOL-CENTER thanks to the European standard hole pattern.

For bag quantities, please refer to the product tables. Important information, such as article number, description, EDP code and technical information can be found on the packaging



## Spindle extensions

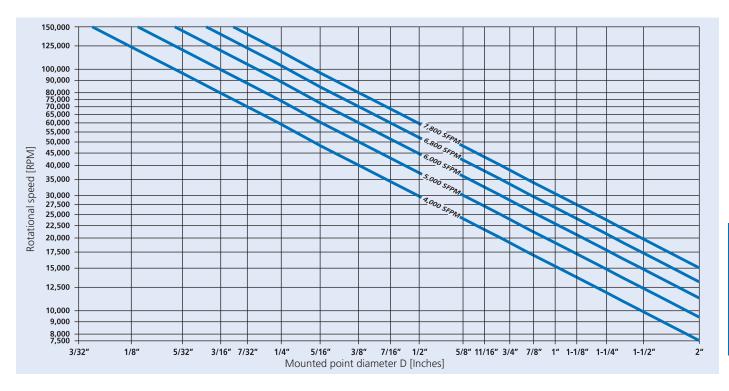
Using spindle extensions it is possible to increase the shank length of mounted points, making it easier to work in hard-to-reach areas, e.g. inside pipes and ducts. The extension is simply fitted into the collet of the machine (air or electric grinder) or inserted into a flexible shaft handpiece. With these spindle extensions you can replace expensive mounted points with long shanks.

For detailed information and ordering data on spindle extensions please refer to our "Power tools" catalogue (section 209).









# Peripheral speeds of mounted points

The diagram above allows you to determine the rotational speed [RPM] from a given peripheral speed. Recommended peripheral speeds are stated in the introductory descriptions for the various hardness grades on the following pages.

In the diagram, peripheral speeds are represented by blue diagonal lines. Each vertical line represents a mounted point diameter. From its point of intersection with the diagonal line for a given peripheral speed, proceed horizontally to the left margin where you will find the corresponding rotational speed [RPM] of the mounted point and spindle.

### **Example**

Mounted point diameter: 1" (W220)

Hardness grade: O

Application: Surface grinding

Peripheral speed: 5,000 - 6,000 SFPM Rotational speed: 18,000 - 22,000 RPM

#### **Dust warning**

Use of the mounted points 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 operation. Refer to our Safety Data Sheet (SDS) 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 workpiece 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.

### Important!

Observe applicable safety codes and accident prevention regulations when working with spindle extensions.

### Safety recommendations



= Wear eye protection!



= Wear hearing protection!



= Wear gloves!



= Read the instructions!



= Wear dust respirators!



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

All PFERD mounted points are approved for a maximum peripheral speed of 9,800 SFPM.

Maximum RPM levels for the various shank lengths and shank diameters are defined in EN 12413 and meet or exceed the ANSI standard B7.1. Strictly observe these limits to prevent hazards due to shank buckling.

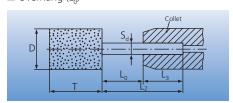
Regardless of the shank length, the clamping depth  $(L_3)$  in the machine collet must be at least 1/2".

Each package of PFERD mounted points comes with RPM recommendations for a given overhang shank length  $(L_0)$  of that product. Check for proper concentricity and correct clamping in the power tool.

Charts showing maximum permitted RPM for the entire PFERD range of mounted points are available upon request.

The buckling speed [RPM] calculated in accordance with ANSI B7.1 is a function of the following factors:

- Shape and dimensions of the point
- Steel shank diameter
- Overhang (L<sub>0</sub>)



**D** = point diameter

 $\mathbf{L}_{0}$  = overhang

T = point length

L = shank length

 $S_d = \text{shank diameter} \quad L_s$ 

L, = shank clamping depth

# Your quick product selection guide



PFERD offers an extensive line of vitrified and resin bonded mounted points.

Designed to meet individual application needs, these products come in a broad range of grain types, grit sizes, hardness levels and shapes. The mounted points are manufactured on advanced production lines to high standards of dimensional accuracy and stability, consistent quality, and close tolerances.

To enable you to select the correct mounted point for your needs, the workpiece material, main fields of application and specific operating requirements have to be taken into consideration. This overview shows which different types (abrasives, bonds and hardness grades) are recommended for the various workpiece materials and the tasks at hand.

#### How do I find the best mounted point?

#### Workpiece material

First, determine the material to be machined. The various workpiece material groups are colour-coded and shown on the left-hand side of the chart below.

	Workpiece mate	erial	Bond
			<b>⊗</b> Hardness grade
			Abrasive grit type ▶
			Recommended cutting speed
			<b>⊘</b> Application ▼
	Non-hardened,	Construction steels, carbon steels,	General use on edge and surface
	non-heat-treated steels up to 38 HRC (<1,200 N/mm <sup>2</sup> )	tool steels, non-alloyed steels,	Surface grinding with high stock removal
	30 Fine (<1,200 Willin)	case-hardened steels	Edge grinding with high form stability
Steel,	Hardened,	Tool steels,	General use on edge and surface
cast steel	heat-treated steels exceeding 38 HRC (>1,200 N/mm <sup>2</sup> )	tempering steels, alloyed steels	Surface grinding with high stock removal
	36 FINC (>1,200 WIIIIII-)	alloyed steels	Edge grinding with high form stability
	Cast steels	Non-alloyed cast steels,	Surface grinding with high stock removal
	CdSt Steets	low-alloyed cast steels	Edge grinding with high form stability
Ctainless steel (INOV)	Rust and	Austenitic and ferritic stainless steels	Surface grinding with high stock removal
Stainless steel (INOX)	acid-resistant steels	Austernate and Terrate Starnless Steels	Edge grinding with high form stability
	Soft non-ferrous metals	Aluminum alloys, brass, copper, zinc	
Non-ferrous metals	Hard non-ferrous metals	Bronze, titanium, titanium alloys, hard aluminum alloys	General use on edge and surface
	High-temperature resistant materials	Nickel-based alloys, cobalt-based alloys (aircraft engine and turbine construction)	
	Grey cast iron,	Cast iron with flake graphite, with nodular	Surface grinding with high stock removal
Cast iron	white cast iron	graphite cast iron, white annealed cast iron, black cast iron	Edge grinding and grinding of burning-in with high form stability
Plastics and other materials		Fibre-reinforced plastics, thermoplastics, rubber, wood	General use on edge and surface
			<b>②</b> Catalogue page ▶







#### 2 Application

The application must then be selected according to the type of work on the material. Choose from the following applications:

- General use,
- surface grinding and
- edge grinding.

The mounted point bond and the grain mix have an impact on the grinding output, service life and aggressiveness of the mounted points:

- For **general use**, the emphasis is on the balance between grinding output and service life.
- In **surface grinding**, the mounted points are subject to lower loads. This is why the mounted point bond is comparatively soft and designed to give high stock removal.
- In edge grinding, the mounted points must be dimensionally stable. This is why the mounted point bond is comparitively hard and designed for a long service life.

#### Mounted point hardness

After determining the application (see column ②), the hardness can be selected in the horizontal row. The recommended bond is shown with a black dot (•). The hardness grades within the bonds are arranged from "soft" to "hard".

### Refer to the catalogue pages

For more information about the hardnesses, mounted point shapes, dimensions and grit sizes, the corresponding catalogue pages are stated at the bottom of the table below.

Resin	bond				Vitrified bond			
Hardness L	Hardness N	Hardness D	Hardness F-ALU	Hardness J	Hardness K	Hardness M	Hardness O	Hardness R
ADW	AN	AH	CN	AWCO	ARN	ADW	AR	CU
6,900 - 9,800 SFPM	6,900 - 9,800 SFPM	1,000 - 4,000 SFPM	4,000 - 7,800 SFPM	6,000 - 9,800 SFPM	6,000 - 9,800 SFPM	6,000 - 9,800 SFPM	5,000 - 7,800 SFPM	6,900 - 9,800 SFPM
						•		
О						•	0	
	0					0	•	
						•		
				•	•	0		
				0	0		0	
О						•	0	
	О					О	•	
•	О					0		
O	•						0	
O			•					
•			0	•	•	0		
O				•	•			
O	0						0	0
0	0						0	•
		•	0					
19	20-21	9	9	16-18	8	10-11	12-15	22-23

= recommended

O = suitable

# Products made to order



If you cannot find the ideal solution in our extensive product range, PFERD can produce mounted points by special request.

Our products will be tailor-made to meet the specific requirements of your job, and can include variations such as special bond, hardness, grit size, shape, dimension, shank, and packaging. Please contact your PFERD sales representative for more information!

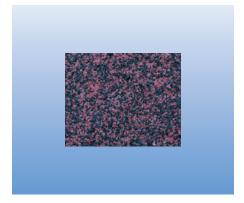
# Important information for your order

Diameter of mounted point	Minimum order quantity
Smaller than 1 1/4"	1,000
Larger than 1 1/4"	600

Special order mounted points may take between 8 and 10 weeks for delivery to North America.



# To experience other grain mixtures for special applications, we have three types of mounted points (shape W222) available for testing.



Mounted points in **hardness K** are manufactured from a grain mix of pink aluminum oxide and regular aluminum oxide in a vitrified bond.

In a medium-hard bond, this abrasive grain combination leads to a good stock removal rate and a long service life. The hardness K is particularly suitable for general use on cast iron parts when used with high peripheral speeds.



### **Advantages**

- Suitable for use on surfaces and edges.
- High abrasiveness and long service life.
- High stock removal rate due to coarse grit sizes.

# **Application examples**

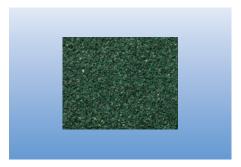
- Cleaning of workpieces made from grey and nodular cast iron.
- Grinding out of shrinkage holes in grey and nodular cast iron components.



- Mounted points of hardness K achieve their best performance at a peripheral speed of 6,000 - 9,800 SFPM.
- Flexible shafts, electric grinders and airpowered straight grinders are suitable tool drives.

Shape	Grit	EDP number	Point dia. x length (D x T) [Inches]	Shank dia. (S <sub>d</sub> ) [Inches]	Shank length (L <sub>2</sub> ) [Inches]	Recom. RPM 1/2" overhang	Max. RPM 1/2" overhang	Max. RPM 1" overhang	
Shank dia.	1/4"								
W 222	30	34215	1 x 2	1/4	1 1/2	15,900	15,900	12,370	10





Mounted points in **hardness F-ALU** are manufactured from green silicon carbide in a vitrified bond. The extremely open microstructure and a special impregnation allow extremely high stock removal rates when working on soft, greasy materials. The hardness F-ALU is produced especially for general use on aluminum and non-ferrous metals and is characterized by its high abrasive qualities and stock removal.



### **Advantages**

- Due to the special impregnation, there is no loading when working on soft, greasy or tough materials.
- High abrasion and stock removal rate.

### **Application examples**

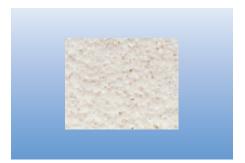
- Removal of burrs on cast aluminum components.
- Grinding of brass, zinc and copper.
- Chamfering and weld preparation on aluminum profiles.



### **Recommendations for use**

- Mounted points of hardness F-ALU achieve their best performance at a peripheral speed of 4,000 - 7,800 SFPM.
- Flexible shafts, electric grinders and airpowered straight grinders are suitable tool drives.

Shape	Grit	EDP number	Point dia. x length (D x T) [Inches]	Shank dia. (S <sub>d</sub> ) [Inches]	Shank length (L <sub>2</sub> ) [Inches]	Recom. RPM 1/2" overhang	Max. RPM 1/2" overhang	Max. RPM 1" overhang	
Shank dia.	1/4"								
W 222	80	34214	1 x 2	1/4	1 1/2	15,900	15,900	12,370	10



Mounted points in **hardness D** are manufactured from a special vitrified bond and bubble grain aluminum oxide (HKK). The low bond volume in combination with the easy-to-break-down bubble grain produces the softest mounted points in the PFERD product range. Hardness D is particularly suitable for work on soft materials such as plastic, rubber and wood, and is characterized by its high abrasiveness.



### **Advantages**

- Open structure and large chip spaces through bubble grain aluminum oxide.
- Machining of temperature-sensitive materials without addition of cooling lubricant due to large chip spaces.

### **Application examples**

- Removal of burrs on plastic injection components.
- Trimming of rubber moulded parts and moulded parts made of polyurethane (PUR).



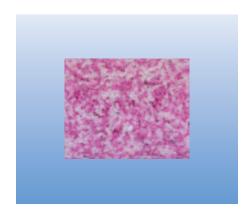
Grinding of wooden cores and wooden shapes in model construction workshops.

- Mounted points of hardness D achieve their best performance at a peripheral speed of 1,000 - 4,000 SFPM.
- Flexible shafts, electric grinders and airpowered straight grinders are suitable tool drives.

Shape	Grit	EDP number	Point dia. x length (D x T) [Inches]	Shank dia. (S <sub>d</sub> ) [Inches]	Shank length (L <sub>2</sub> ) [Inches]	Recom. RPM 1/2" overhang	Max. RPM 1/2" overhang	Max. RPM 1" overhang	
Shank dia.	1/4"								
W 222	1	34213	1 x 2	1/4	1 1/2	8,000	15,900	12,370	10

# Vitrified bond, aluminum oxide, hardness grade M





Hardness grade M mounted points are made of a mix of dark red and white aluminum oxide grit in a vitrified bond.

M is one of the most aggressive abrasive grades.



# **Advantages**

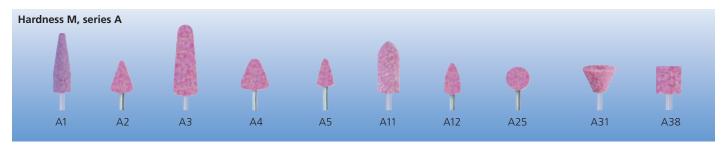
- Hardness grade M mounted points are ideal for general use on steel surfaces, providing high abrasive and stock removal rates.
- High stock removal rate increases productivity.



## **Application examples**

- Grinding of high-speed steel (H.S.S.) components.
- Weld dressing on steel structures.

- Hardness grade M mounted points perform best at a recommended peripheral speed of 6,000 - 9,800 SFPM in surface grinding applications.
- Suitable drive systems include flexible shafts and electric or air-powered straight grinders.



Shape	Grit	EDP number	Point dia. x length (D x T) [Inches]	Shank dia. (S <sub>d</sub> ) [Inches]	Shank length (L <sub>2</sub> ) [Inches]	Recom. RPM 1/2" overhang	Max. RPM 1/2" overhang	Max. RPM 1" overhang	
Shank dia.	1/4"								
A1	30	31000	3/4 x 2-1/2	1/4	1-1/2	19,800	19,800	16,500	10
A2	30	31010	1 x 1-1/4	1/4	1-1/2	34,400	38,200	32,620	10
А3	30	31020	1 x 2-3/4	1/4	1-1/2	16,100	16,100	13,080	10
A4	30	31030	1-1/4 x 1-1/4	1/4	1-1/2	26,900	30,560	24,750	5
A5	30	31040	3/4 x 1-1/8	1/4	1-1/2	45,000	45,000	33,750	10
A11	30	31060	7/8 x 2	1/4	1-1/2	19,860	19,860	15,100	10
A12	30	31070	11/16 x 1-1/4	1/4	1-1/2	48,000	48,000	35,250	10
A25	30	31150	1 x 1	1/4	1-1/2	34,400	35,620	27,370	10
A31	30	31170	1-3/8 x 1	1/4	1-1/2	24,600	27,780	26,250	10
A38	30	31240	1 x 1	1/4	1-1/2	34,400	34,500	26,250	10



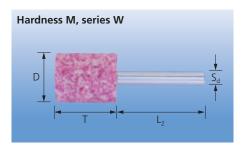


**D** = Point diameter

**T** = Point length

**S**<sub>d</sub> = Shank diameter

**L<sub>2</sub>** = Shank length

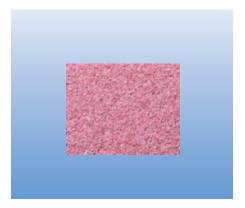


Shape	Grit	EDP number	Point dia. x length (D x T) [Inches]	Shank dia. (S <sub>d</sub> ) [Inches]	Shank length (L <sub>2</sub> ) [Inches]	Recom. RPM 1/2" overhang	Max. RPM 1/2" overhang	Max. RPM 1" overhang	
Shank dia.	1/4"								
W187	46	33694	1/2 x 1	1/4	1-1/2	40,500	40,500	30,000	10
W189	46	33724	1/2 x 2	1/4	1-1/2	24,000	24,000	18,750	10
W208	30	34006	3/4 x 2	1/4	1-1/2	18,750	18,750	15,370	10
W220	30	34186	1 x 1	1/4	1-1/2	25,500	25,500	19,120	10
W222	30	34216	1 x 2	1/4	1-1/2	15,900	15,900	12,370	10
W236	30	34426	1-1/2 x 1/2	1/4	1-1/2	22,600	25,470	25,470	5
W239	30	34471	1-1/2 x 2	1/4	1-1/2	12,750	12,750	9,900	5
W242	46	34512	2 x 1	1/4	1-1/2	17,200	19,100	15,950	5



# Vitrified bond, aluminum oxide, hardness grade O





**Hardness grade O** mounted points consist of pink aluminum oxide in a vitrified bond. Good edge holding and long service life characterize hardness grade O, making it predominant in its field of application.



### **Advantages**

- Hardness grade O mounted points are ideally suited for **heavy-duty** edge grinding on steels. They are noted for their high edgeholding and dimensional stability, long service life and low wear.
- Due to their special edge-holding properties, hardness grade O mounted points can also be used economically with low RPM power tools.



## **Application examples**

- Deburring of steel castings.
- Chamfering in preparation of welding operations.
- Contour and edge refining on forgings.

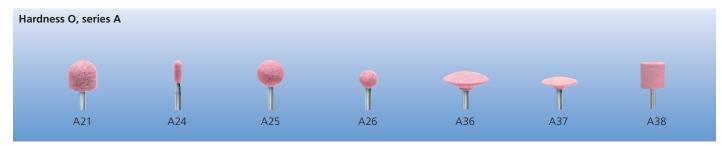
- In edge grinding operations, hardness grade O mounted points perform best at a recommended peripheral speed of 5,000 7,800 SFPM.
- For surface grinding we recommend a peripheral speed of 3,000 5,000 SFPM.
- Suitable drive systems include flexible shafts and electric or air-powered straight grinders.



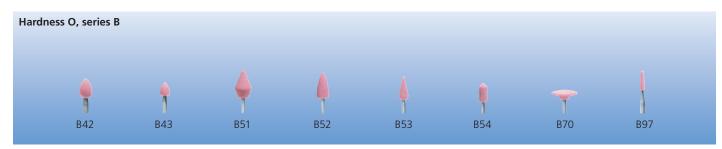
Shape	Grit	EDP number	Point dia. x length (D x T) [Inches]	Shank dia. (S <sub>d</sub> ) [Inches]	Shank length (L <sub>2</sub> ) [Inches]	Recom. RPM 1/2" overhang	Max. RPM 1/2" overhang	Max. RPM 1" overhang	
Shank dia.	1/4"								
A1	30	31001	3/4 x 2-1/2	1/4	1-1/2	19,800	19,800	16,500	10
A2	30	31011	1 x 1-1/4	1/4	1-1/2	26,000	38,200	32,620	10
A3	30	31021	1 x 2-3/4	1/4	1-1/2	16,100	16,100	13,080	10
A4	30	31031	1-1/4 x 1-1/4	1/4	1-1/2	21,000	30,560	24,750	5
A5	30	31041	3/4 x 1-1/8	1/4	1-1/2	35,200	45,000	33,750	10
A6	30	31051	3/4 x 1-1/8	1/4	1-1/2	35,200	39,000	29,700	10
A11	30	31061	7/8 x 2	1/4	1-1/2	19,860	19,860	15,100	10
A12	30	31071	11/16 x 1-1/4	1/4	1-1/2	40,000	48,000	35,250	10
A15	60	31104	1/4 x 1-1/16	1/4	1-1/2	72,750	72,750	47,620	10







Shape	Grit	EDP number	Point dia. x length (D x T) [Inches]	Shank dia. (S <sub>d</sub> ) [Inches]	Shank length (L <sub>2</sub> ) [Inches]	Recom. RPM 1/2" overhang	Max. RPM 1/2" overhang	Max. RPM 1" overhang	
Shank dia.	1/4"								
A21	30	31111	1 x 1	1/4	1-1/2	26,000	34,500	26,250	10
A24	60	31144	1/4 x 3/4	1/4	1-1/2	76,500	76,500	49,500	10
A25	30	31151	1 x 1	1/4	1-1/2	26,000	35,620	27,370	10
A26	30	31161	5/8 x 5/8	1/4	1-1/2	41,800	61,120	46,500	10
A36	60	31224	1-5/8 x 3/8	1/4	1-1/2	16,000	23,520	23,520	5
A37	60	31234	1-1/4 x 1/4	1/4	1-1/2	21,000	30,560	30,560	5
A38	30	31241	1 x 1	1/4	1-1/2	26,700	34,500	26,250	10
A38	60	31244	1 x 1	1/4	1-1/2	26,700	34,500	26,250	10



Shape	Grit	EDP number	Point dia. x length (D x T) [Inches]	Shank dia. (S <sub>d</sub> ) [Inches]	Shank length (L <sub>2</sub> ) [Inches]	Recom. RPM 1/2" overhang	Max. RPM 1/2" overhang	Max. RPM 1" overhang	
Shank dia.	1/8"								
B42	46	32310	1/2 x 3/4	1/8	1-1/4	33,750	33,750	23,250	10
B43	100	32328	1/4 x 5/16	1/8	1-1/4	81,370	81,370	51,000	10
B51	80	32375	7/16 x 3/4	1/8	1-1/4	45,370	45,370	28,500	10
B52	46	32380	3/8 x 3/4	1/8	1-1/4	45,370	45,370	28,500	10
B52	80	32385	3/8 x 3/4	1/8	1-1/4	45,370	45,370	28,500	10
B53	60	32392	5/16 x 5/8	1/8	1-1/4	60,000	60,000	38,020	10
B54	100	32408	1/4 x 1/2	1/8	1-1/4	60,000	60,000	38,020	10
B70	100	32498	3/4 x 1/8	1/8	1-1/4	35,200	50,930	41,250	10
B97	100	32658	1/8 x 3/8	1/8	1-1/4	105,000	105,000	64,500	10







Shape	Grit	EDP number	Point dia. x length (D x T) [Inches]	Shank dia. (S <sub>d</sub> ) [Inches]	Shank length (L <sub>2</sub> ) [Inches]	Recom. RPM 1/2" overhang	Max. RPM 1/2" overhang	Max. RPM 1" overhang	
Shank dia.	1/8"								
B121	80	32785	1/2 x 1/2	1/8	1-1/4	45,370	45,370	28,500	10
B122	80	32795	3/8 x 3/8	1/8	1-1/4	61,650	61,650	37,720	10
B123	100	32808	3/16 x 3/16	1/8	1-1/4	104,250	104,250	61,820	10
B124	100	32818	1/8 x 1/8	1/8	1-1/4	105,000	105,000	64,500	10
B125	100	32827	1/4 x 1/4	1/8	1-1/4	81,370	81,370	51,000	10
B131	80	32835	1/2 x 1/2	1/8	1-1/4	34,500	34,500	22,500	10
B132	46	32840	3/8 x 1/2	1/8	1-1/4	45,370	45,370	28,500	10
B135	100	32878	1/4 x 1/2	1/8	1-1/4	60,000	60,000	38,020	10





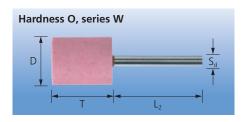
# Vitrified bond, aluminum oxide, hardness grade O

**D** = Point diameter

T = Point length

**S**<sub>d</sub> = Shank diameter

**L<sub>2</sub>** = Shank length



Shape	Grit	EDP number	Point dia. x length (D x T) [Inches]	Shank dia. (S <sub>d</sub> ) [Inches]	Shank length (L <sub>2</sub> ) [Inches]	Recom. RPM 1/2" overhang	Max. RPM 1/2" overhang	Max. RPM 1" overhang	
Shank dia.	1/8"								
W154	60	33203	3/16 x 1/2	1/8	1-1/4	70,500	70,500	45,600	10
W163	60	33338	1/4 x 1/2	1/8	1-1/4	60,000	60,000	38,020	10
W163	100	33344	1/4 x 1/2	1/8	1-1/4	60,000	60,000	38,020	10
W170	80	33446	5/16 x 1/2	1/8	1-1/4	52,500	52,500	33,000	10
Shank dia.	1/4"								
W179	46	33575	3/8 x 1-1/4	1/4	1-1/2	45,750	45,750	33,750	10
W187	46	33695	1/2 x 1	1/4	1-1/2	40,500	40,500	30,000	10
W189	46	33725	1/2 x 2	1/4	1-1/2	24,000	24,000	18,750	10
W205	60	33968	3/4 x 1	1/4	1-1/2	34,500	34,500	25,870	10
W207	30	33992	3/4 x 1-1/2	1/4	1-1/2	24,000	24,000	18,520	10
W215	60	34118	1 x 1/8	1/4	1-1/2	26,700	38,200	38,200	10
W220	30	34187	1 x 1	1/4	1-1/2	25,500	25,500	19,120	10
W221	30	34202	1 x 1-1/2	1/4	1-1/2	19,120	19,120	14,620	10
W222	30	34217	1 x 2	1/4	1-1/2	15,900	15,900	12,370	10
W222	60	34223	1 x 2	1/4	1-1/2	15,900	15,900	12,370	10
W237	30	34442	1-1/2 x 1	1/4	1-1/2	16,700	22,500	17,620	5
W238	30	34457	1-1/2 x 1-1/2	1/4	1-1/2	15,600	15,600	12,000	5
W238	60	34463	1-1/2 x 1-1/2	1/4	1-1/2	15,600	15,600	12,000	5
W239	30	34472	1-1/2 x 2	1/4	1-1/2	12,750	12,750	9,900	5
W242	30	34517	2 x 1	1/4	1-1/2	13,400	19,100	15,950	5
W242	60	34523	2 x 1	1/4	1-1/2	13,400	19,100	15,950	5

### 23 piece mounted point set

These hardness grade O mounted points with 1/4" shank dia. are noted for their outstanding versatility, dimensional stability and edgeholding properties.

The set contains 23 mounted points of various shapes and sizes.

### Contents

5 each A1, A3, A11, W222 3 each W242

### 50 piece mounted point set

This set comprises small mounted points, hardness grade O, universally suitable for many fine-grinding tasks. It includes the most common shapes and sizes.

Contains 50 mounted points in various shapes and dimensions.

### Contents

5 each A1, A4, A12, A15, A21, A24, A37, W189, W215, W220.

#### **Recommendation for use**

Recommended peripheral speed: 3,000 - 8,000 SFPM

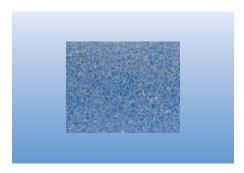


Set	Shank diameter [Inches]	Grit size	EDP number	
23 piece	1/4	30	39000	1
50 piece	1/4	30-60	39005	1

Sets

# Vitrified bond, ceramic oxide, hardness grade J





Ceramic mounted points in **hardness grade J** are manufactured from a mix of white aluminum oxide and blue ceramic sintered aluminum oxide in a vitrified bond. The soft bond in combination with the easy to break down, sharp-edged white aluminum oxide and the self-sharpening effect of the microcrystalline sintered aluminum oxide allows extremely high stock removal rates with excellent service life.

The hardness grade J is perfectly suited for surface work on titanium materials, nickel and cobalt-based alloys, steel components and build-up weld deposits.



### **Advantages**

- Cool grinding due to the easy to break down grit mix.
- High stock removal and excellent service life.
- The self-sharpening qualities of the sintered aluminum oxide guarantee consistent stock removal.

## **Application examples**

- Re-finishing of airplane turbine blades.
- Follow-up repair welding in tool and mould construction.
- Grinding of repair welds and turbine blades.

### **Recommendations for use**

■ Mounted points in hardness grade J perform best at a cutting speed of 6,000 - 9,800 SFPM.



Suitable drive systems include flexible shafts and electric or air-powered straight grinders.

**PFERD**EFFICIENCY® recommends mounted points in hardness grade J for long, fatigue-free and resource saving work, with perfect results in the shortest possible time.







#### **PFERD**VIDEO

To see it in action, please visit pferdusa.com/jpoints



Shape	Grit	EDP number	Point dia. x length (D x T) [Inches]	Shank dia. (S <sub>d</sub> ) [Inches]	Shank length (L <sub>2</sub> ) [Inches]	Recom. RPM 1/2" overhang	Max. RPM 1/2" overhang	Max. RPM 1" overhang	
Shank dia	. 1/4"								
A1	46	30000	3/4 x 2-1/2	1/4	1-1/2	19,800	19,800	16,500	10
A3	46	30003	1 x 2-3/4	1/4	1-1/2	16,100	16,100	13,080	10
A5	46	30006	3/4 x 1-1/8	1/4	1-1/2	45,000	45,000	33,750	10
A11	46	30010	7/8 x 2	1/4	1-1/2	19,860	19,860	15,100	10
A12	46	30012	11/16 x 1-1/4	1/4	1-1/2	48,000	48,000	35,250	10
A21	46	30017	1 x 1	1/4	1-1/2	34,400	34,500	26,250	10
A23	46	30020	3/4 x 1	1/4	1-1/2	39,370	39,370	30,370	10
A25	80	30023	1 x 1	1/4	1-1/2	34,000	35,620	27,370	10
A26	46	30024	5/8 x 5/8	1/4	1-1/2	53,700	61,120	46,500	10
A36	46	30031	1-5/8 x 3/8	1/4	1-1/2	21,000	23,520	23,520	10
A36	80	30032	1-5/8 x 3/8	1/4	1-1/2	21,000	23,520	23,520	10
A38	80	30034	1 x 1	1/4	1-1/2	34,500	34,500	26,250	10
A39	46	30035	3/4 x 3/4	1/4	1-1/2	45,200	47,250	35,250	10





Hardness J, series I	В						
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	B42	B52	B97	B122	B125	B131	

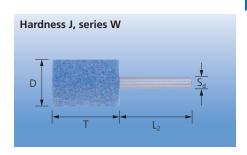
Shape	Grit	EDP number	Point dia. x length (D x T) [Inches]	Shank dia. (S <sub>d</sub> ) [Inches]	Shank length (L <sub>2</sub> ) [Inches]	Recom. RPM 1/2" overhang	Max. RPM 1/2" overhang	Max. RPM 1" overhang	
Shank dia.	1/8"								
B42	80	30054	1/2 x 3/4	1/8	1-1/4	33,750	33,750	23,250	10
B52	80	30065	3/8 x 3/4	1/8	1-1/4	45,370	45,370	28,500	10
B97	80	30083	1/8 x 3/8	1/8	1-1/4	105,000	105,000	64,500	10
B122	80	30091	3/8 x 3/8	1/8	1-1/4	61,650	61,650	37,720	10
B125	80	30095	1/4 x 1/4	1/8	1-1/4	81,370	81,370	51,000	10
B131	80	30097	1/2 x 1/2	1/8	1-1/4	34,500	34,500	22,500	10

**D** = Point diameter

**T** = Point length

**S**<sub>d</sub> = Shank diameter

**L<sub>2</sub>** = Shank length



Shape	Grit	EDP number	Point dia. x length (D x T) [Inches]	Shank dia. (S <sub>d</sub> ) [Inches]	Shank length (L <sub>2</sub> ) [Inches]	Recom. RPM 1/2" overhang	Max. RPM 1/2" overhang	Max. RPM 1" overhang	
Shank dia.	1/8″								
W154	80	30128	3/16 x 1/2	1/8	1-1/4	70,500	70,500	45,600	10
W163	80	30132	1/4 x 1/2	1/8	1-1/4	60,000	60,000	38,020	10
W164	80	30134	1/4 x 3/4	1/8	1-1/4	45,900	45,900	30,000	10
W170	80	30136	5/16 x 1/2	1/8	1-1/4	52,500	52,500	33,000	10
W185	80	30146	1/2 x 1/2	1/8	1-1/4	34,500	34,500	22,500	10
W215	80	30168	1 x 1/8	1/8	1-1/4	34,400	38,200	24,900	10
Shank dia.	1/4"								
W179	46	30141	3/8 x 1-1/4	1/4	1-1/2	45,750	45,750	33,750	10
W189	46	30151	1/2 x 2	1/4	1-1/2	24,000	24,000	18,750	10
W189	80	30153	1/2 x 2	1/4	1-1/2	24,000	24,000	18,750	10
W218	46	30167	1 x 1/2	1/4	1-1/2	35,000	38,200	32,770	10
W220	46	30169	1 x 1	1/4	1-1/2	25,500	25,500	19,120	10
W222	46	30175	1 x 2	1/4	1-1/2	15,900	15,900	12,370	10
W236	80	30183	1-1/2 x 1/2	1/4	1-1/2	22,000	25,470	25,470	10
W239	46	30188	1-1/2 x 2	1/4	1-1/2	12,750	12,750	9,900	10
W242	46	30191	2 x 1	1/4	1-1/2	17,200	19,100	15,950	10

# Vitrified bond, ceramic oxide, hardness grade J





#### 10 piece mounted point set

These hardness grade J mounted points with 1/8" shank dia. contain the most common shapes and dimensions for fine grinding.

### Contents

1 piece each B52, B97, B122, B125, B131, W154, W163, W134, W170, W215

#### Recommendation for use

Recommended periphal speed: 6,000 - 9,800 SFPM

Set	Shank diameter [Inches]	Hardness grade	Grit size	EDP number	
10 piece	1/8	J	80	39002	1



### 10 piece mounted point set

These hardness grade J mounted points with 1/4" shank dia. contain the most common shapes and dimensions for rough grinding.

#### Contents

1 piece each A1, A3, A5, A11, A36, A38, A39, W189, W222, W242

#### Recommendation for use

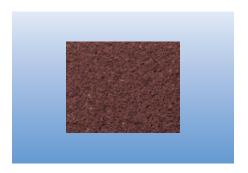
Recommended periphal speed: 6,000 - 9,800 SFPM

Set	Shank diameter [Inches]	Hardness grade	Grit size	EDP number	
10 piece	1/4	J	46	39003	1





# Resin bond, aluminum oxide, hardness grade L



Grade L mounted points consist of a mix of white and dark red aluminum oxide in a high-quality resin bond. **Hardness grade L** is considered a fairly soft bond achieving very good removal rates.



### **Advantages**

- Hardness grade L mounted points are ideal for general use on stainless steel surfaces. This hardness grade ensures high abrasive rates and a high stock removal capability.
- Naturally a high stock removal rate reduces grinding time and labour costs.
- Cost reductions are achieved despite increased product consumption, since the reduction in labour costs more than compensates product costs.
- Cool grinding properties reduce the thermal load on the workpiece.



## **Application examples**

- Grinding on high-temperature alloy components.
- Weld removal on stainless steel structures.
- Coarse grinding of stainless steel.
- Grinding of high-grade steel castings.
- Dressing of titanium and titanium alloy products.

### **Recommendations for use**

- Hardness grade L mounted points perform best at a recommended peripheral speed of 6,900 -9,800 SFPM in surface grinding applications.
- Suitable drive systems include flexible shafts and electric or air-powered straight grinders.



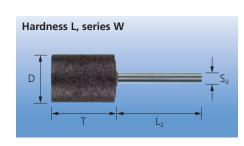
Shape	Grit	EDP number	Point dia. x length (D x T) [Inches]	Shank dia. (S <sub>d</sub> ) [Inches]	Shank length (L <sub>2</sub> ) [Inches]	Recom. RPM 1/2" overhang	Max. RPM 1/2" overhang	Max. RPM 1" overhang	
Shank dia.	1/4"								
A1	30	35100	3/4 x 2-1/2	1/4	1-1/2	19,800	19,800	16,500	10
А3	30	35104	1 x 2-3/4	1/4	1-1/2	16,100	16,100	13,080	10
A11	30	35112	7/8 x 2	1/4	1-1/2	19,860	19,860	15,100	10

**D** = Point diameter

T = Point length

**S**<sub>d</sub> = Shank diameter

**L<sub>2</sub>** = Shank length



Shape	Grit	EDP number	Point dia. x length (D x T) [Inches]	Shank dia. (S <sub>d</sub> ) [Inches]	Shank length (L <sub>2</sub> ) [Inches]	Recom. RPM 1/2" overhang	Max. RPM 1/2" overhang	Max. RPM 1" overhang	
Shank dia.	1/4"								
W222	30	35382	1 x 2	1/4	1-1/2	15,900	15,900	12,370	10
W236	30	35409	1-1/2 x 1/2	1/4	1-1/2	22,900	25,470	25,470	5

# Resin bond, aluminum oxide, hardness grade N





**Hardness grade N** mounted points are made of regular aluminum oxide in a high-quality resin bond. Mounted points of hardness grade N are noted for their elevated hardness and durability.



### **Advantages**

- Hardness grade N mounted points are perfect for **heavy-duty** edge grinding on stainless steel. These products are distinguished by their high edge-holding capability, long service life and low wear.
- Due to their special edge-holding properties, hardness grade N mounted points can also be used economically with low RPM power tools.
- Cool grinding properties reduce the thermal load on the workpiece.



# **Application examples**

- Deburring of high-grade steel castings.
- Chamfering of stainless steel shapes in preparation of welding.
- Dressing of fillet welds on high-grade steel components.
- Deburring of high-temperature alloy parts.

- Hardness grade N mounted points perform best at a recommended peripheral speed of 6,900 -9,800 SFPM when used for edge grinding.
- For surface grinding we recommend a peripheral speed of 4,000 6,000 SFPM.
- Suitable drive systems include flexible shafts and electric or air-powered straight grinders.



Shape	Grit	EDP number	Point dia. x length (D x T) [Inches]	Shank dia. (S <sub>d</sub> ) [Inches]	Shank length (L <sub>2</sub> ) [Inches]	Recom. RPM 1/2" overhang	Max. RPM 1/2" overhang	Max. RPM 1" overhang	
Shank dia.	1/4"								
A1	30	35101	3/4 x 2-1/2	1/4	1-1/2	19,800	19,800	16,500	10
А3	46	35105	1 x 2-3/4	1/4	1-1/2	16,100	16,100	13,080	10
A4	30	35107	1-1/4 x 1-1/4	1/4	1-1/2	28,600	30,560	24,750	5
A5	30	35109	3/4 x 1-1/8	1/4	1-1/2	45,000	45,000	33,750	10
A11	30	35113	7/8 x 2	1/4	1-1/2	19,860	19,860	15,100	10
A12	30	35115	11/16 x 1-1/4	1/4	1-1/2	48,000	48,000	35,250	10
A21	30	35123	1 x 1	1/4	1-1/2	34,500	34,500	26,250	10
A38	46	35149	1 x 1	1/4	1-1/2	34,500	34,500	26,250	10





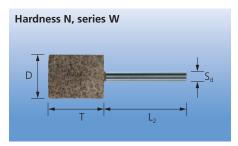


**D** = Point diameter

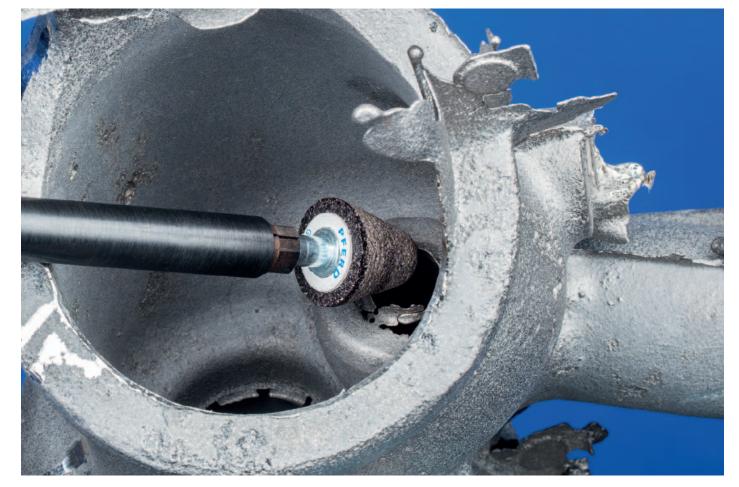
**T** = Point length

**S**<sub>d</sub> = Shank diameter

**L<sub>2</sub>** = Shank length

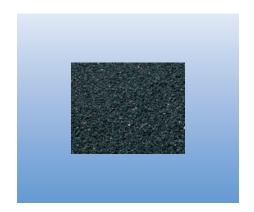


Shape	Grit	EDP number	Point dia. x length (D x T) [Inches]	Shank dia. (S <sub>d</sub> ) [Inches]	Shank length (L <sub>2</sub> ) [Inches]	Recom. RPM 1/2" overhang	Max. RPM 1/2" overhang	Max. RPM 1" overhang	
Shank dia.	1/4"								
W189	46	35337	1/2 x 2	1/4	1-1/2	24,000	24,000	18,750	10
W220	30	35379	1 x 1	1/4	1-1/2	25,500	25,500	19,120	5
W222	30	35383	1 x 2	1/4	1-1/2	15,900	15,900	12,370	10
W236	30	35410	1-1/2 x 1/2	1/4	1-1/2	22,900	25,470	25,470	5



# Vitrified bond, silicon carbide, hardness grade R





**Hardness grade R** mounted points are made of grey silicon carbide in a vitrified bond. These products are noted for their hardness and durability.



# **Advantages**

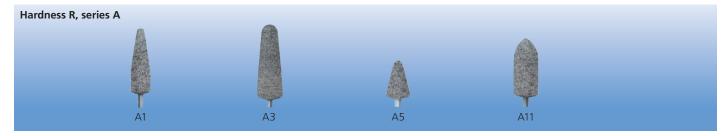
- Hardness grade R mounted points are ideally suited for **heavy-duty** edge grinding on castings. They are distinguished by their high edge-holding capability, long service life and low wear.
- Due to their special edge-holding properties, hardness grade R mounted points can also be used economically with low RPM power tools.



## **Application examples**

- Removal of sharp burrs on castings (grey and nodular cast iron).
- Removal of sand inclusions and scale from castings.

- In edge grinding operations, hardness grade R mounted points perform best at a recommended peripheral speed of 6,000 - 9,800 SFPM.
- For surface grinding we recommend a peripheral speed of 4,000 6,000 SFPM.
- Suitable drive systems include flexible shafts and electric or air-powered straight grinders.



Shape	Grit	EDP number	Point dia. x length (D x T) [Inches]	Shank dia. (S <sub>d</sub> ) [Inches]	Shank length (L <sub>2</sub> ) [Inches]	Recom. RPM 1/2" overhang	Max. RPM 1/2" overhang	Max. RPM 1" overhang	
Shank dia.	1/4"								
A1	30	31002	3/4 x 2-1/2	1/4	1-1/2	19,800	19,800	16,500	10
А3	30	31022	1 x 2-3/4	1/4	1-1/2	16,100	16,100	13,080	10
A5	30	31042	3/4 x 1-1/8	1/4	1-1/2	38,000	45,000	33,750	10
A11	30	31062	7/8 x 2	1/4	1-1/2	19,860	19,860	15,100	10





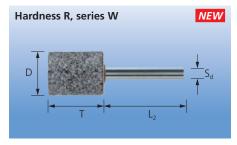
# Vitrified bond, silicon carbide, hardness grade R

**D** = Point diameter

**T** = Point length

**S**<sub>d</sub> = Shank diameter

**L<sub>2</sub>** = Shank length



Shape	Grit	EDP number	Point dia. x length (D x T) [Inches]	Shank dia. (S <sub>d</sub> ) [Inches]	Shank length (L <sub>2</sub> ) [Inches]	Recom. RPM 1/2" overhang	Max. RPM 1/2" overhang	Max. RPM 1" overhang	
Shank dia.	1/4"								
W189	30	33726	1/2 x 2	1/4	1-1/2	24,000	24,000	18,750	10
W208	30	34008	3/4 x 2	1/4	1-1/2	18,750	18,750	15,370	10
W222	30	34218	1 x 2	1/4	1-1/2	15,900	15,900	12,370	10



# **Bench grinding wheels**

# Vitrified bond, aluminum oxide



# Safety recommendations

- The maximum speed is calculated in accordance with ANSI B7.1.
- Never exceed the maximum RPM listed on wheel labels.
- **CAUTION:** Smaller spindles frequently run at higher RPMs.
- Prior to mounting, all wheels shall be visually inspected for damage and cracks.
- Perform the ring test before mounting. An undamaged wheel will give a clear tone.

Steel/ferrous metals

Aluminum oxide



= Wear eye protection!



= Wear hearing protection!



= Wear gloves!

PFERD bench grinding wheels are made of regular aluminum oxide in a vitrified bond. These products are particularly suited for high-speed steel (HSS), steel, cast steel and cast iron.

### Advantage

High performance on a multitude of materials.

### **Application examples**

- Deburring at semi-finished steel and cast products.
- Regrinding and sharpening of HSS tools like drills and turning tools.
- Various maintenance applications.



= Read the instructions!



= Wear dust respirators!

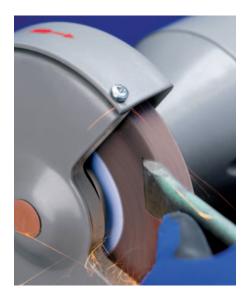


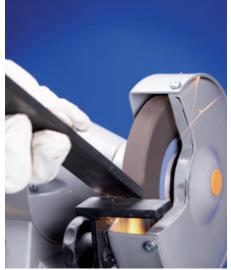
= Read the Safety Data Sheets (SDS) before using any materials!

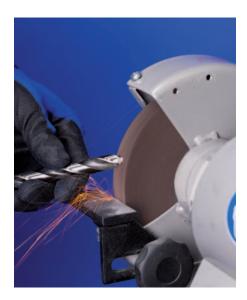
- All bench wheels are packed with telescoping bushings to accommodate popular machine spindle sizes.
- If a bench grinding wheel starts to show signs of loading, use dressing stones on page 28.
- Suitable tool drives are bench and pedestal grinders.

	A CONTRACTOR OF THE PARTY OF TH		
Diameter	Thicknoss	Poro (U)	1.

Diameter (D)	Thickness nominal (T)	Bore (H) [Inches]	Included bushings	Grit size and EDP number					Max. RPM	$\Rightarrow$
[Inches]	[Inches]	[inches]	businings	24	36	46	60	80	IXF IVI	
Flat (type 1)										
6	1/2	1	3/4, 5/8, 1/2	-	-	-	61736	-	4,140	1
6	3/4	1	3/4, 5/8, 1/2	61738	61739	61740	61741	61742	4,140	1
6	1	1	3/4, 5/8, 1/2	61743	61744	61745	61746	61747	4,140	1
7	1	1	3/4, 5/8, 1/2	61753	61754	61755	61756	61757	3,600	1
8	1	1-1/4	1	61763	61764	61765	61766	61767	3,600	1
10	1	1-1/4	1	61768	61769	61770	61771	61772	2,400	1
10	1-1/2	1-1/4	1	61773	61774	-	61776	-	2,400	1
12	2	1-1/2	1-1/4	61778	61779	61780	61781	-	2,070	1
14	2	1-1/2	1-1/4	61782	61783	-	61784	-	1,800	1









PFERD bench grinding wheels are made of green silicon carbide in a vitrified bond.

These products are particularly suited for carbide and non-ferrous metals like titanium.

### **Advantages**

- Very good self-sharpening performance.
- Long service life because of hard silicon carbide.
- High stock removal rate.

### **Application example**

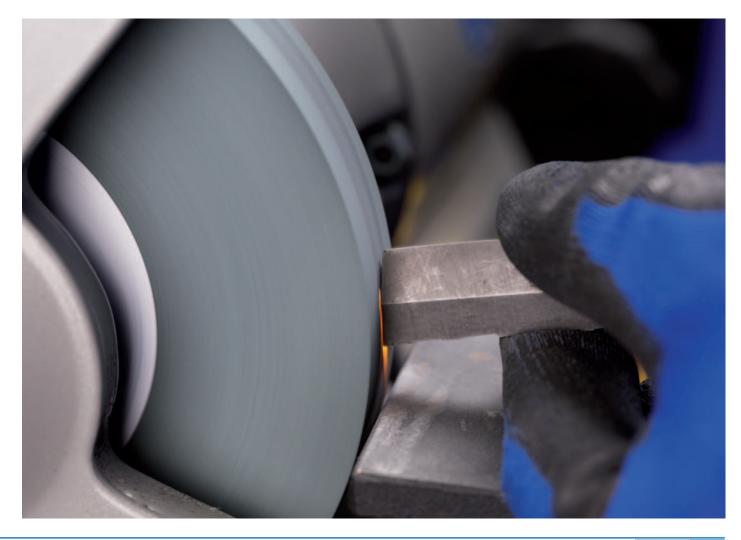
Removing of burrs

- Sharpening of carbide tools like drills, mills or disposable tips.
- Various maintenance applications.
- Dressing diamond tools for tool-grinding machines.

- All bench wheels are packed with telescoping bushings to accommodate popular machine spindle sizes.
- If a bench grinding wheel starts to show signs of loading, use dressing stones on page 28.
- Suitable tool drives are bench and pedestal grinders.



Diameter (D) [Inches]	Thickness nominal (T)	Bore (H) [Inches]	Included bushings	Grit s	size and EDP nu	Max. RPM		
	[Inches]			60	80	120		
Flat (type 1)								
6	3/4	1	3/4, 5/8, 1/2	61785	61786	61787	4,140	1
6	1	1	3/4, 5/8, 1/2	61788	61789	61790	4,140	1
7	1	1	3/4, 5/8, 1/2	61791	61792	61793	3,600	1
8	1	1-1/4	1	61794	61795	61796	3,600	1
10	1	1-1/4	1	61797	61798	61799	2,400	1



# **Cones and plugs**

# Resin bond, aluminum oxide



PFERD cones and plugs are made of regular aluminum oxide in a high-quality resinoid bond. Because of their hardness, these products are noted for their good stock removal rates and high durability.

Cones and plugs are used for steel, cast steel and cast iron.

### **Advantages**

- High stock removal rate.
- High edge-holding and dimensional stability.
- Cool grinding properties reduce the thermal load on the workpiece.

### **Application examples**

- Weld dressing on steel removing excess weld metals.
- Chamfering in preparation of welding operations.
- Grinding in hard-to-reach workpiece areas.

- Removing parting lines and imperfections at casting parts.
- Smoothing rough castings.

### **Recommendations for use**

- Cones and plugs perform best at the recommended peripheral speed of 6,900 -9.800 SFPM.
- Suitable drive systems include flexible shafts, electric or air-powered straight grinders and angle grinders.

# **Safety recommendations:**

- The maximum speed is calculated in accordance with ANSI B7.1.
- Never exceed the maximum RPM listed on the label.



= Wear eye protection!



= Wear hearing protection!



= Wear gloves!



= Read the instructions!



= Wear dust respirators!



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

#### Cones and plugs







Type 17



Type 18



Type 18R

Diameter (D) w length	Thread	Grit size	EDP number	Dagam	Max.	_
Diameter (D) x length [Inches]	Trireau	Grit Size	EDP number	Recom. RPM	RPM	
Curved (type 16)						
1-1/2 x 2-1/2	3/8-24	16	61816	24,000	24,100	10
1-1/2 x 3	5/8-11	16	61820	24,000	24,100	10
1-3/4 x 3	5/8-11	16	61826	20,600	20,700	10
2 x 3	5/8-11	16	61829	18,100	18,100	10
2-3/4 x 3-1/2	5/8-11	16	61837	13,100	13,200	10
Tapered (type 17)						
1-1/2 x 3/8 x 2-1/2	3/8-24	16	61850	24,000	24,100	10
1-1/2 x 3/8 x 2-1/2	5/8-11	16	61851	24,000	24,100	10
1-1/2 x 1/2 x 3	3/8-24	16	61854	24,000	24,100	10
1-1/2 x 1/2 x 3	5/8-11	16	61855	24,000	24,100	10
2 x 1/2 x 3	5/8-11	16	61859	14,500	18,100	10
Straight (type 18)						
1 x 2	3/8-24	16	61883	36,100	36,200	10
1-1/2 x 2-1/2	3/8-24	16	61884	24,000	24,100	10
1-1/2 x 2-1/2	5/8-11	16	61885	24,000	24,100	10
1-1/2 x 3	3/8-24	16	61888	24,000	24,100	10
1-1/2 x 3	5/8-11	16	61889	24,000	24,100	10
2 x 3	5/8-11	16	61893	18,100	18,100	10
Straight (type 18R)						
1-1/2 x 2-1/2	3/8-24	16	61927	24,000	24,100	10
1-1/2 x 2-1/2	5/8-11	16	61928	24,000	24,100	10
1-1/2 x 3	3/8-24	16	61931	24,000	24,100	10
1-1/2 x 3	5/8-11	16	61932	24,000	24,100	10
2 x 3	5/8-11	16	61936	18,100	18,100	10

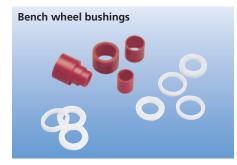




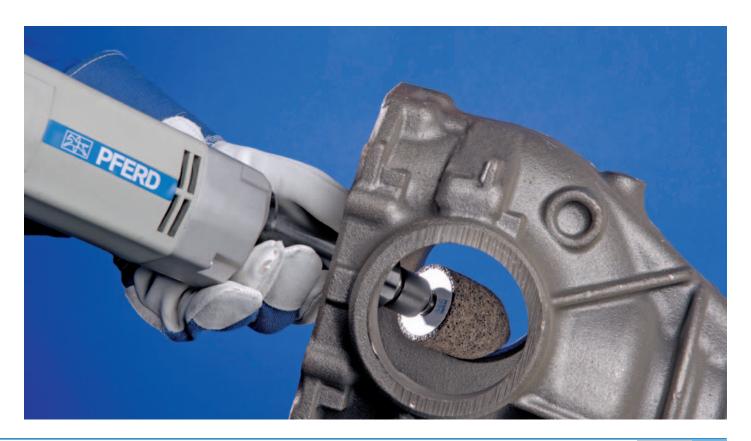
PFERD bench grinder bushings provide a safe method of reducing the wheel arbor to accommodate various spindle sizes. The bushing should be flush on both sides of the wheel, and should not interfere with the flanges.

**Recommendation for use CAUTION:** Smaller spindles frequently run at higher RPMs.

**PFERD** specification number



Fits arbor hole (H) [Inches]	Fits thickness (T) [Inches]	Bushing I.D. [Inches]	EDP number	
Telescoping				
1	1/2	3/4, 5/8, 1/2	69018	1
1	3/4	3/4, 5/8, 1/2	69019	1
1	1	3/4, 5/8, 1/2	69011	1
1 1/2	1	1 1/4	69024	1
1 1/4	1	1	69025	1
Standard				
1 1/4	1/4	1	69012	1
1 1/4	1/4	7/8	69014	1
1 1/4	1/4	3/4	69015	1
1 1/4	1/4	5/8	69016	1
1 1/4	1/4	1/2	69017	1



# **Accessories**

# **Dressing stones**





#### Small dressing stone - fine

This small dressing stone in finer grit (grit 46) is suited for profiling and dressing smaller mounted points.

### Medium dressing stones - coarse

This medium large dressing stone in coarser grit (grit 30) is ideal for coarse dressing work.

Their anti-slip rubber backing provides a firm grip and protects the support surfaces.

#### Medium dressing stones - 2-sided

Dressing stone with two different grit sizes.

- Upper side (coarse): Profiling and sharpening of large mounted points with coarse bonds and grit sizes.
- Underside (fine): Profiling and dressing of mounted points with fine bonds and grit sizes.

### Large dressing stones - coarse

This large dressing stone in coarser grit (grit 30) is suited for profiling and dressing larger and coarser mounted points.

Description	Dressing stones dimension [Inches]	Grit	EDP number	
Small dressing stones – fine	2-3/4 x 7/8 x 1/2	46	39012	5
Medium dressing stones – coarse	4-3/4 x 2 x 1-1/4	30	39010	5
Medium dressing stones – 2-sided	4-3/4 x 2 x 1-1/4	Upper side: coarse, 30 grit Lower side: fine, 60 grit	39011	5
Large dressing stones – coarse	6 x 1 x 1	30	39015	5