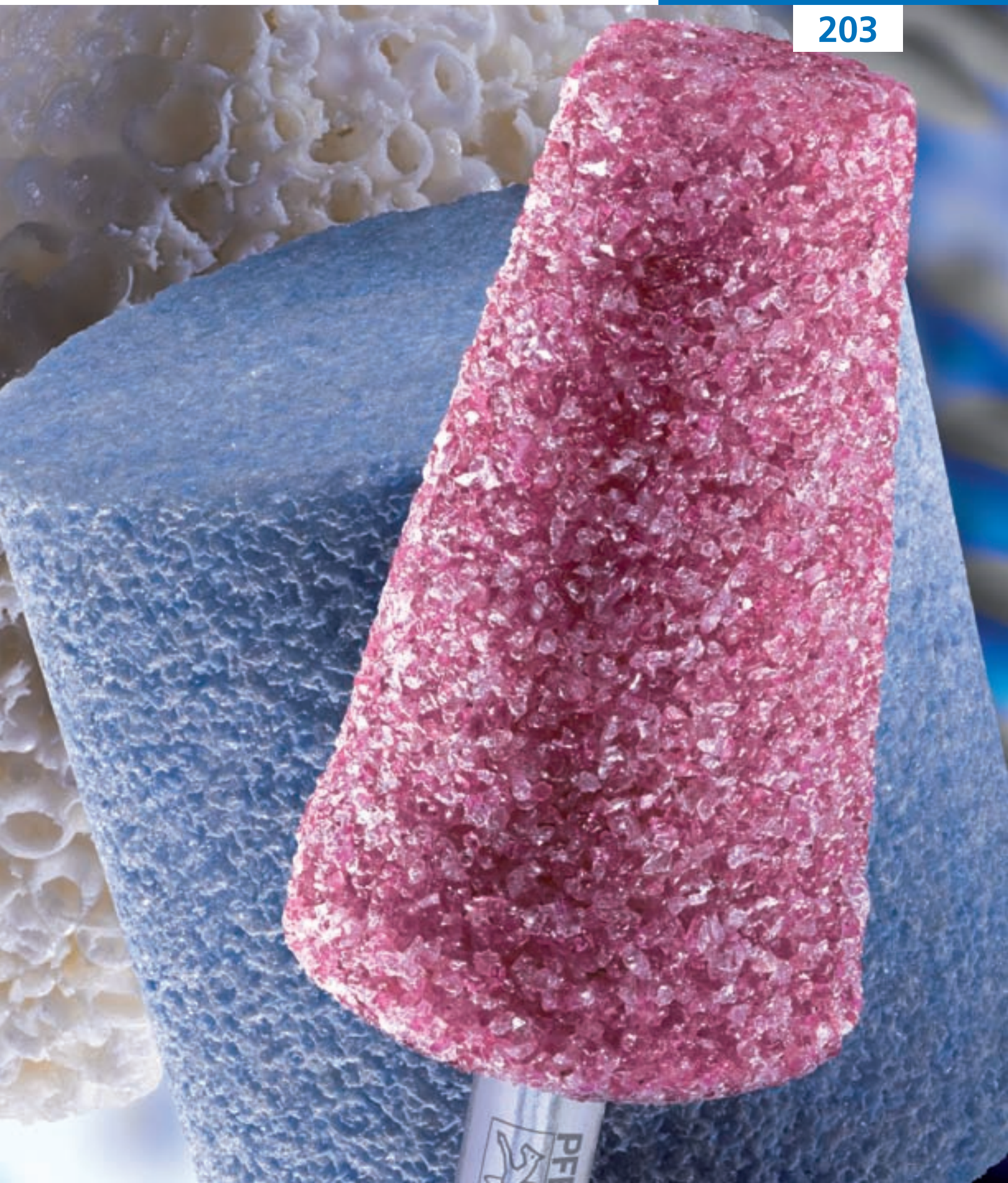


Mounted Points

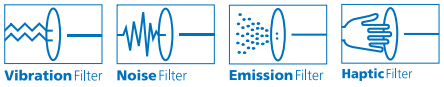
Table of Contents

PFERDERGONOMICS

PFERD mounted points help to reduce the hazardous vibrations and noise during the work process.

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

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



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

Standard Shapes

Series A and B (all shapes)
Series W (cylindrical points)

Abrasives

A = Aluminum Oxide (Al_2O_3)
C = Silicon Carbide (SiC)

The following classification is used:
AD = Aluminum Oxide, dark red
AW = Aluminum Oxide, white
AR = Aluminum Oxide, pink
AN = Aluminum Oxide, regular
AH = Bubble Grain
CN = Silicon Carbide, green
CU = Silicon Carbide, grey
CO = Ceramic Grain
ADW = Aluminum Oxide Mixture, AD + AW
AWN = Aluminum Oxide Mixture, AW + AN
ADR = Aluminum Oxide Mixture AD + AR
AWCO = Ceramic Aluminum Mixture AW + CO

Selection of Hardness Grade

For the determination and selection of the suitable hardness grade (see table on pages 4 and 5) PFERD offers a set of mounted points with 9 different hardness grades:

- Vitrified Bond: M, O, H, R, J, F-Alu, D
- Resin Bond: L, N

The test set contains one each mounted points shape W205 (3/4 x 1") with 6 mm shank diameter of the M, O, H, R, J, L, N in hardness grades, one W206 (3/4 x 1-1/4") in hardness F and one 1 x 1-1/4" in hardness D.

For additional information please see page 20.

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 tools with long shanks.

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

Products Made to Order

All mounted points listed in this catalogue are stock items.

In addition to our stock range of mounted points, PFERD offers, as the chart on pages 4-5 shows, other sizes, bonds, grades and grit sizes upon request. We offer customized products made to order for specific customer applications.

Contact PFERD for prompt technical assistance in determining the proper PFERD point for your application, whether a stock or custom solution.

We can produce mounted points adapted specifically to your application needs:

- Other dimensions and shapes.
- Different grit sizes and abrasive types.
- Custom grain mixtures.
- Special shank diameters and lengths.

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 mounted point applications. Please contact us.
Canada: (866) 245-1555
USA: (800) 342-9015
You will find our worldwide contact information at www.pferd.com.

Mounted Points

Your Quick Product Selection Guide

PFERD offers a very 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?

❶ 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.

❶ Workpiece Material			Bond ▶ ❸ Hardness Grade ▶ Abrasive Grit Type ▶ Recommended Cutting Speed ▶ ❷ Application ▼
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	**General use** on edge and surface **Surface grinding** with high stock removal **Edge grinding** with high form stability
	Hardened, heat-treated steels exceeding 38 HRC (>1200 N/mm²)	Tool steels, tempering steels, alloyed steels	**General use** on edge and surface **Surface grinding** with high stock removal **Edge grinding** with high form stability
	Cast steels	Non-alloyed cast steels, low-alloyed cast steels	**Surface grinding** with high stock removal **Edge grinding** with high form stability
Stainless steel (INOX)	Rust and acid-resistant steels	Austenitic and ferritic stainless steels	**Surface grinding** with high stock removal **Edge grinding** with high form stability
Non-ferrous metals	Soft non-ferrous metals	Alu-alloys, brass, copper, zinc	**General use** on edge and surface
	Hard non-ferrous metals	Bronze, titanium, titanium alloys, hard aluminum alloys	
	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 cast iron, white annealed cast iron, black cast iron	**Surface grinding** with high stock removal **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
			❹ Catalogue Page ▶

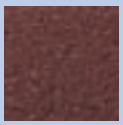
❷ Application
The application must then be selected according to the type of work on the material. We make the following differentiation:
- General use,
- surface grinding and
- edge grinding applications.

The mounted point bond and the grain mix have an impact on the grinding output, tool life and aggressiveness of the tools.

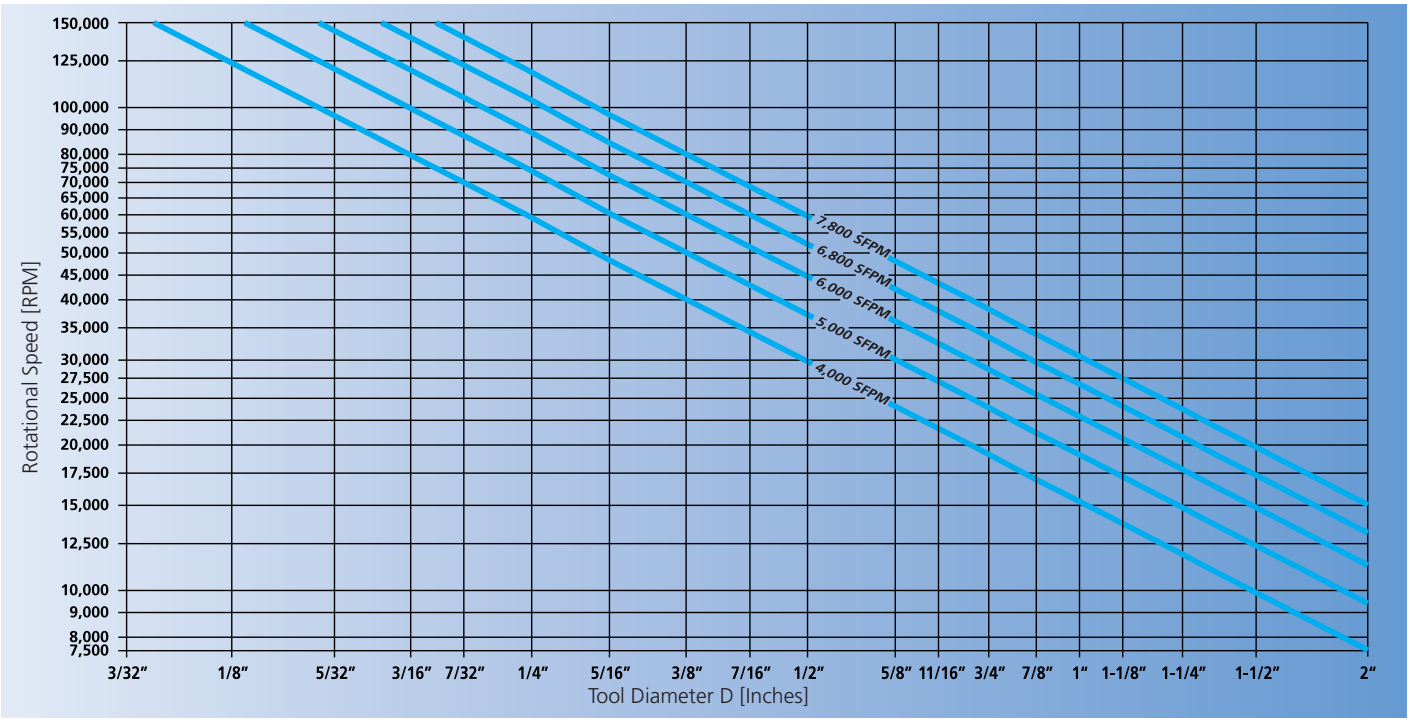
- For **general use**, the emphasis is on the balance between grinding output and tool life.
- In **surface grinding**, the mounted points are subject to lower loads. This is why the mounted point bond is comparatively soft and designed to give high stock removal.
- In **edge grinding**, the mounted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

❸ Mounted Point Hardness
After determining the application (see column ❷), 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".

❹ Refer to the Catalogue Page
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 H	Hardness J	Hardness M	Hardness O	Hardness R
ADW	AN	AH	CN	AWN	AWCO	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
						●		
❍				❍		●	❍	
	❍					❍	●	
						●		
				●	●	❍		
					❍		❍	
❍				❍		●	❍	
	❍					❍	●	
●	❍					❍		
❍	●						❍	
❍			●					
●			❍		●	❍		
❍					●			
❍	❍						❍	❍
❍	❍						❍	●
		●	❍					
15	16-17	*	*	*	13-14	7-8	9-12	18

● = recommended ❍ = suitable * = upon request, bonds available for customized products (see page 3)



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 tool 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 grinding tool 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 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.

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

For more information and ordering data on spindle extensions, please refer to catalogue 209, accessories for tool drives, extensions for drive spindles.

Safety Recommendations

= Wear eye protection!

= Wear hearing protection!

= Wear gloves!

= Read the instructions!

= Wear dust respirators!

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

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

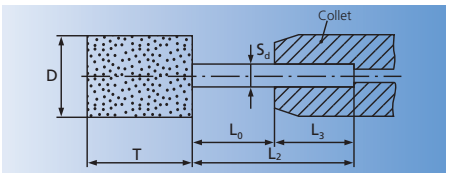
Maximum RPM levels for the various shank lengths and shank diameters are defined in EN 12413 and meet or exceed the ANSI standard B 7.1-2000. Strictly observe these limits to prevent hazards due to shank buckling.

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

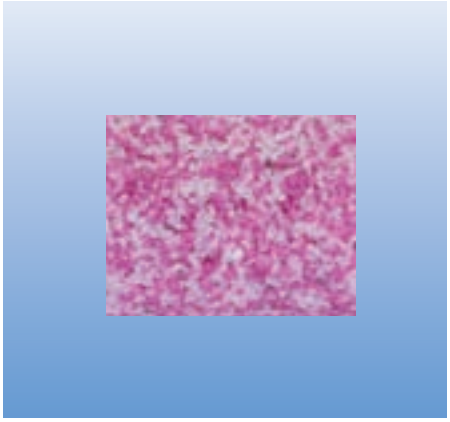
Each package of PFERD mounted points comes with RPM recommendations for a given overhang shank length (L_0) of that product. Check for proper concentricity and correct clamping in the power tool.

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 B 7.1-2000 is a function of the following factors:
- Shape and dimensions of the point
- Steel shank diameter
- Overhang (L_0)



D = Point Diameter
T = Point Length
S_d = Shank Diameter
L_0 = Overhang
L_2 = Shank Length
L_3 = Shank Clamping Depth



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 tools are ideal for **general use** on steel surfaces, providing high abrasive and stock removal rates.
- High stock removal rate reduces grinding time and labour costs.
- Cost reductions are achieved despite increased tool consumption, since the reduction in labour costs more than compensates tool costs.

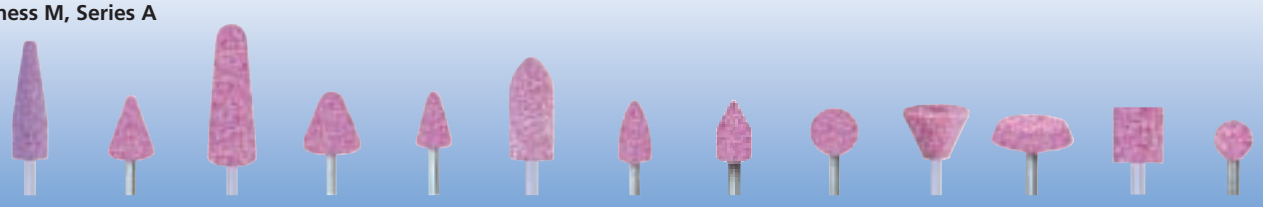
Application Examples

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

Recommendations for Use

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.

Hardness M, Series A

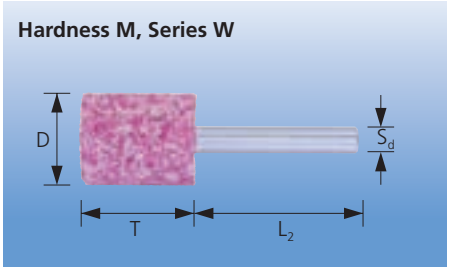


Shape	Grit	EDP Number	Point Dia. x Length (D x T) [Inches]	Shank Dia. x Length (S_d x L_2) [Inches]	Recom. RPM 1/2" Overhang	Max. RPM 1/2" Overhang	Max. RPM 1" Overhang	
A1	30	31000	3/4 x 2-1/2	1/4 x 1-1/2	20,960	20,960	16,100	10
A2	30	31010	1 x 1-1/4	1/4 x 1-1/2	32,420	32,420	26,190	10
A3	30	31020	1 x 2-3/4	1/4 x 1-1/2	15,530	15,530	11,940	10
A4	30	31030	1-1/4 x 1-1/4	1/4 x 1-1/2	24,000	28,550	23,150	5
A5	30	31040	3/4 x 1-1/8	1/4 x 1-1/2	38,550	38,550	31,270	10
A11	30	31060	7/8 x 2	1/4 x 1-1/2	25,420	25,420	20,100	10
A12	30	31070	11/16 x 1-1/4	1/4 x 1-1/2	38,050	38,050	30,790	10
A14	30	31090	11/16 x 1-1/4	1/4 x 1-1/2	43,440	43,440	35,510	10
A25	30	31150	1 x 1	1/4 x 1-1/2	35,510	35,510	28,840	10
A31	30	31170	1-3/8 x 1	1/4 x 1-1/2	27,000	27,780	23,970	10
A34	30	31200	1-1/2 x 3/8	1/4 x 1-1/2	25,460	25,460	25,460	10
A38	30	31240	1 x 1	1/4 x 1-1/2	35,510	35,510	28,840	10
A40	30	31260	3/4 x 3/4	1/4 x 1-1/2	50,000	50,930	50,930	10

Mounted Points

Vitrified Bond, Aluminum Oxide, Hardness Grade M

Hardness M, Series W



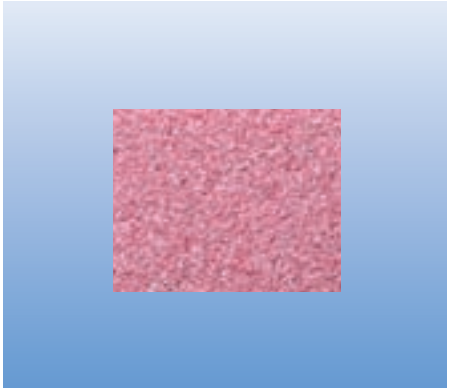
D = Point Diameter

T = Point Length

S_d = Shank Diameter

L_2 = Shank Length

Shape	Grit	EDP Number	Point Dia. x Length (D x T) [Inches]	Shank Dia. x Length (S_d x L_2) [Inches]	Recom. RPM 1/2" Overhang	Max. RPM 1/2" Overhang	Max. RPM 1" Overhang	
W187	46	33694	1/2 x 1	1/4 x 1-1/2	36,950	36,950	27,490	10
W189	46	33724	1/2 x 2	1/4 x 1-1/2	26,830	26,830	18,440	10
W204	30	33946	3/4 x 3/4	1/4 x 1-1/2	36,510	36,510	27,040	10
W205	30	33961	3/4 x 1	1/4 x 1-1/2	32,950	32,950	23,750	10
W208	30	34006	3/4 x 2	1/4 x 1-1/2	22,830	22,830	14,690	10
W220	30	34186	1 x 1	1/4 x 1-1/2	30,370	30,370	21,410	10
W222	30	34216	1 x 2	1/4 x 1-1/2	20,250	20,250	12,350	10
W236	30	34426	1-1/2 x 1/2	1/4 x 1-1/2	25,064	25,460	25,140	5
W239	30	34471	1-1/2 x 2	1/4 x 1-1/2	16,480	16,480	9,090	5
W242	46	34512	2 x 1	1/4 x 1-1/2	18,800	19,100	15,590	5



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 tools are ideally suited for **heavy-duty** edge grinding on steels. They are noted for their high edge-holding 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.

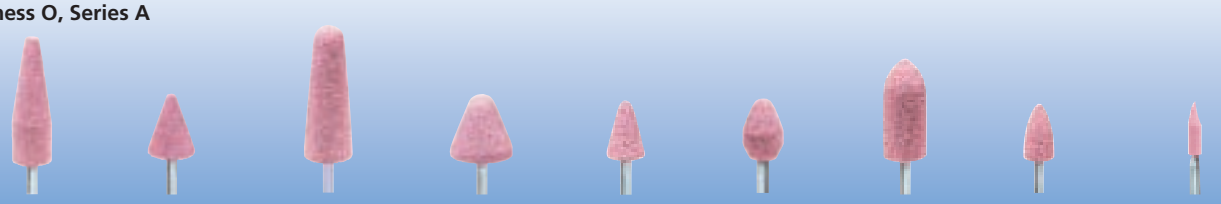
Application Examples

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

Recommendations for Use

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.

Hardness O, Series A



Shape	Grit	EDP Number	Point Dia. x Length (D x T) [Inches]	Shank Dia. x Length (S_d x L_2) [Inches]	Recom. RPM 1/2" Overhang	Max. RPM 1/2" Overhang	Max. RPM 1" Overhang	
A1	30	31001	3/4 x 2-1/2	1/4 x 1-1/2	20,960	20,960	16,100	10
A2	30	31011	1 x 1-1/4	1/4 x 1-1/2	30,000	32,420	26,190	10
A3	30	31021	1 x 2-3/4	1/4 x 1-1/2	15,530	15,530	11,940	10
A4	30	31031	1-1/4 x 1-1/4	1/4 x 1-1/2	24,000	28,550	23,150	5
A5	30	31041	3/4 x 1-1/8	1/4 x 1-1/2	38,550	38,550	31,270	10
A6	30	31051	3/4 x 1-1/8	1/4 x 1-1/2	38,550	38,550	31,270	10
A11	30	31061	7/8 x 2	1/4 x 1-1/2	25,420	25,420	20,100	10
A12	30	31071	11/16 x 1-1/4	1/4 x 1-1/2	38,050	38,050	30,790	10
A15	60	31104	1/4 x 1-1/16	1/4 x 1-1/2	50,510	50,510	41,470	10

Mounted Points

Vitrified Bond, Aluminum Oxide, Hardness Grade O

Hardness O, Series A

A21 A24 A25 A26 A36 A37 A38 A39

Shape	Grit	EDP Number	Point Dia. x Length (D x T) [Inches]	Shank Dia. x Length (S_d x L_2) [Inches]	Recom. RPM 1/2" Overhang	Max. RPM 1/2" Overhang	Max. RPM 1" Overhang	
A21	30	31111	1 x 1	1/4 x 1-1/2	30,000	35,510	28,840	10
A24	60	31144	1/4 x 3/4	1/4 x 1-1/2	56,000	56,000	46,400	10
A25	30	31151	1 x 1	1/4 x 1-1/2	30,000	35,510	28,840	10
A26	30	31161	5/8 x 5/8	1/4 x 1-1/2	48,000	48,980	40,410	10
A36	60	31224	1-5/8 x 3/8	1/4 x 1-1/2	18,500	23,510	23,510	5
A37	60	31234	1-1/4 x 1/4	1/4 x 1-1/2	24,000	30,560	30,560	5
A38	30	31241	1 x 1	1/4 x 1-1/2	30,000	35,510	28,840	10
A38	60	31244	1 x 1	1/4 x 1-1/2	30,000	35,510	28,840	10
A39	30	31251	3/4 x 3/4	1/4 x 1-1/2	40,000	44,030	36,090	10

Hardness O, Series B

B42 B43 B51 B52 B53 B54 B70 B81 B97

Shape	Grit	EDP Number	Point Dia. x Length (D x T) [Inches]	Shank Dia. x Length (S_d x L_2) [Inches]	Recom. RPM 1/2" Overhang	Max. RPM 1/2" Overhang	Max. RPM 1" Overhang	
B42	46	32310	1/2 x 3/4	1/8 x 1-1/4	60,000	61,320	31,360	10
B43	100	32328	1/4 x 5/16	1/8 x 1-1/4	76,160	76,160	46,200	10
B51	80	32375	7/16 x 3/4	1/8 x 1-1/4	62,820	62,820	32,860	10
B52	46	32380	3/8 x 3/4	1/8 x 1-1/4	64,810	64,810	34,850	10
B52	80	32385	3/8 x 3/4	1/8 x 1-1/4	64,810	64,810	34,850	10
B53	60	32392	5/16 x 5/8	1/8 x 1-1/4	67,070	67,070	37,120	10
B54	100	32408	1/4 x 1/2	1/8 x 1-1/4	71,340	71,340	41,390	10
B70	100	32498	3/4 x 1/4	1/8 x 1-1/4	40,000	50,930	44,360	10
B81	60	32542	3/4 x 3/16	1/8 x 1-1/4	40,000	50,930	41,240	10
B81	100	32548	3/4 x 3/16	1/8 x 1-1/4	40,000	50,930	41,240	10
B97	100	32658	1/8 x 3/8	1/8 x 1-1/4	81,550	81,550	51,590	10

Hardness O, Series B

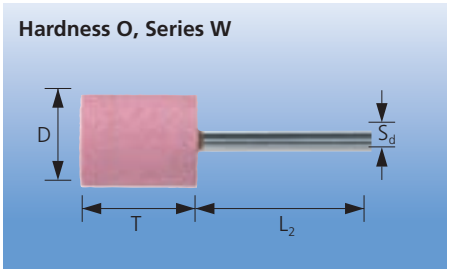
B121 B122 B123 B124 B125 B131 B132 B135

Shape	Grit	EDP Number	Point Dia. x Length (D x T) [Inches]	Shank Dia. x Length (S_d x L_2) [Inches]	Recom. RPM 1/2" Overhang	Max. RPM 1/2" Overhang	Max. RPM 1" Overhang	
B121	80	32785	1/2 x 1/2	1/8 x 1-1/4	60,000	62,420	32,460	10
B122	80	32795	3/8 x 3/8	1/8 x 1-1/4	68,740	68,740	38,790	10
B123	100	32808	3/16 x 3/16	1/8 x 1-1/4	84,720	84,720	54,760	10
B124	100	32818	1/8 x 1/8	1/8 x 1-1/4	91,770	91,770	61,820	10
B125	100	32827	1/4 x 1/4	1/8 x 1-1/4	75,330	75,330	50,640	10
B131	80	32835	1/2 x 1/2	1/8 x 1-1/4	60,000	62,420	32,460	10
B132	46	32840	3/8 x 1/2	1/8 x 1-1/4	65,910	65,910	35,960	10
B135	100	32878	1/4 x 1/2	1/8 x 1-1/4	71,340	71,340	41,390	10

Mounted Points

Vitrified Bond, Aluminum Oxide, Hardness Grade O

Hardness O, Series W



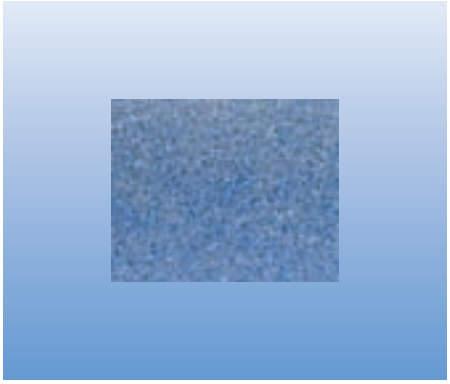
D = Point Diameter

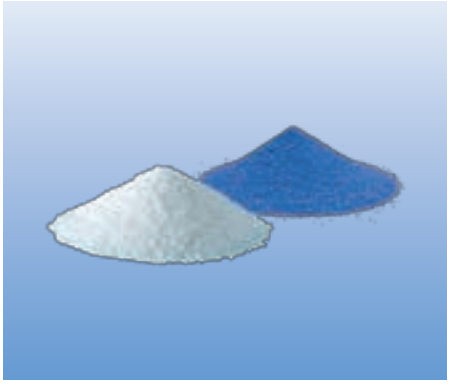
T = Point Length

S_d = Shank Diameter

L_2 = Shank Length

Shape	Grit	EDP Number	Point Dia. x Length (D x T) [Inches]	Shank Dia. x Length (S_d x L_2) [Inches]	Recom. RPM 1/2" Overhang	Max. RPM 1/2" Overhang	Max. RPM 1" Overhang	
W146	100	33089	1/8 x 1/2	1/8 x 1-1/4	76,820	76,820	53,550	10
W154	60	33203	3/16 x 1/2	1/8 x 1-1/4	66,580	66,580	44,130	10
W163	60	33338	1/4 x 1/2	1/8 x 1-1/4	59,990	59,990	38,350	10
W163	100	33344	1/4 x 1/2	1/8 x 1-1/4	59,990	59,990	38,350	10
W170	80	33446	5/16 x 1/2	1/8 x 1-1/4	54,860	54,860	34,040	10
W179	46	33575	3/8 x 1-1/4	1/4 x 1-1/2	37,210	37,210	27,900	10
W182	60	33623	1/2 x 1/8	1/8 x 1-1/4	51,190	51,190	40,810	10
W187	46	33695	1/2 x 1	1/4 x 1-1/2	36,950	36,950	27,490	10
W188	46	33710	1/2 x 1-1/2	1/4 x 1-1/2	31,070	31,070	22,140	10
W189	46	33725	1/2 x 2	1/4 x 1-1/2	26,830	26,830	18,440	10
W205	60	33968	3/4 x 1	1/4 x 1-1/2	32,950	32,950	23,750	10
W207	30	33992	3/4 x 1-1/2	1/4 x 1-1/2	27,070	27,070	18,400	10
W215	60	34118	1 x 1/8	1/4 x 1-1/2	30,000	38,200	34,730	10
W220	30	34187	1 x 1	1/4 x 1-1/2	30,000	30,370	21,410	10
W221	30	34202	1 x 1-1/2	1/4 x 1-1/2	24,490	24,490	16,060	10
W222	30	34217	1 x 2	1/4 x 1-1/2	20,250	20,250	12,350	10
W222	60	34223	1 x 2	1/4 x 1-1/2	20,250	20,250	12,350	10
W237	30	34442	1-1/2 x 1	1/4 x 1-1/2	20,000	25,460	18,150	5
W238	30	34457	1-1/2 x 1-1/2	1/4 x 1-1/2	20,000	20,720	12,800	5
W238	60	34463	1-1/2 x 1-1/2	1/4 x 1-1/2	20,000	20,720	12,800	5
W239	30	34472	1-1/2 x 2	1/4 x 1-1/2	16,480	16,480	9,090	5
W242	30	34517	2 x 1	1/4 x 1-1/2	15,000	19,100	15,590	5
W242	60	34523	2 x 1	1/4 x 1-1/2	15,000	19,100	15,590	5





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 tool 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 tool life.
- The self-sharpening qualities of the sintered aluminum oxide guarantee consistent stock removal.

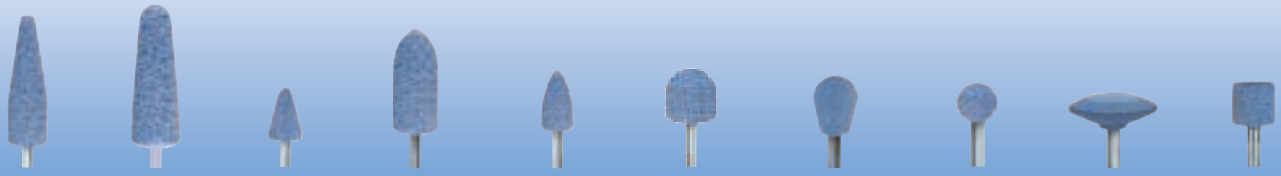
Application Examples

- 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 tool drives include flexible shafts and electric or air-powered straight grinders.

Hardness J, Series A



Shape	Grit	EDP Number	Point Dia. x Length (D x T) [Inches]	Shank Dia. x Length (S_d x L_2) [Inches]	Recom. RPM 1/2" Overhang	Max. RPM 1/2" Overhang	Max. RPM 1" Overhang	
A1	46	30000	3/4 x 2-1/2	1/4 x 1-1/2	20,960	20,960	16,100	10
A3	46	30003	1 x 2-3/4	1/4 x 1-1/2	15,530	15,530	11,940	10
A5	46	30006	3/4 x 1-1/8	1/4 x 1-1/2	38,550	38,550	31,270	10
A11	46	30010	7/8 x 2	1/4 x 1-1/2	25,420	25,420	20,100	10
A12	46	30012	11/16 x 1-1/4	1/4 x 1-1/2	38,050	38,050	30,790	10
A21	46	30017	1 x 1	1/4 x 1-1/2	35,310	35,310	28,840	10
A23	46	30020	3/4 x 1	1/4 x 1-1/2	40,300	40,300	32,800	10
A26	46	30024	5/8 x 5/8	1/4 x 1-1/2	48,980	48,980	40,410	10
A36	46	30031	1-5/8 x 3/8	1/4 x 1-1/2	23,300	23,510	23,510	10
A39	46	30035	3/4 x 3/4	1/4 x 1-1/2	44,030	44,030	36,090	10

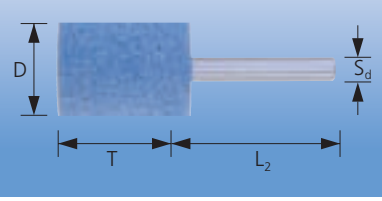
Mounted Points

NEW Vitrified Bond, Ceramic Oxide, Hardness Grade J

Hardness J, Series B

Shape	Grit	EDP Number	Point Dia. x Length (D x T) [Inches]	Shank Dia. x Length (S_d x L_2) [Inches]	Recom. RPM 1/2" Overhang	Max. RPM 1/2" Overhang	Max. RPM 1" Overhang	
B42	80	30054	1/2 x 3/4	1/8 x 1-1/4	61,320	61,320	31,360	10
B52	80	30065	3/8 x 3/4	1/8 x 1-1/4	64,810	64,810	34,850	10
B97	80	30083	1/8 x 3/8	1/8 x 1-1/4	81,550	81,550	51,590	10
B122	80	30091	3/8 x 3/8	1/8 x 1-1/4	68,740	68,740	38,790	10
B125	80	30095	1/4 x 1/4	1/8 x 1-1/4	75,330	75,330	50,640	10
B131	80	30097	1/2 x 1/2	1/8 x 1-1/4	62,420	62,420	32,460	10

Hardness J, Series W



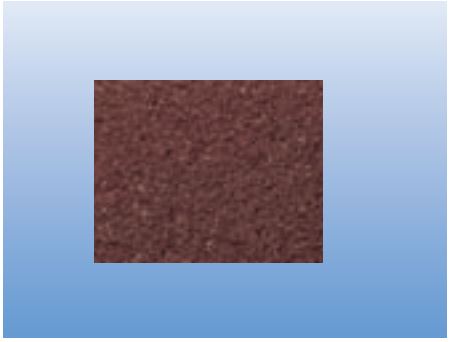
D = Point Diameter

T = Point Length

S_d = Shank Diameter

L_2 = Shank Length

Shape	Grit	EDP Number	Point Dia. x Length (D x T) [Inches]	Shank Dia. x Length (S_d x L_2) [Inches]	Recom. RPM 1/2" Overhang	Max. RPM 1/2" Overhang	Max. RPM 1" Overhang	
W154	80	30128	3/16 x 1/2	1/8 x 1-1/4	66,580	66,580	44,130	10
W163	80	30132	1/4 x 1/2	1/8 x 1-1/4	59,990	59,990	38,350	10
W164	80	30134	1/4 x 3/4	1/8 x 1-1/4	47,880	47,880	29,300	10
W170	80	30136	5/16 x 1/2	1/8 x 1-1/4	54,860	54,860	34,040	10
W185	80	30146	1/2 x 1/2	1/8 x 1-1/4	42,750	42,750	24,370	10
W215	80	30168	1 x 1/8	1/8 x 1-1/4	38,200	38,200	22,340	10
W189	46	30151	1/2 x 2	1/4 x 1-1/2	26,830	26,830	18,440	10
W220	46	30169	1 x 1	1/4 x 1-1/2	30,370	30,370	21,410	10
W222	46	30175	1 x 2	1/4 x 1-1/2	20,250	20,250	12,350	10
W239	46	30188	1-1/2 x 2	1/4 x 1-1/2	16,480	16,480	9,090	10
W242	46	30191	2 x 1	1/4 x 1-1/2	19,100	19,100	15,590	10



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 tools 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 tool consumption, since the reduction in labour costs more than compensates tool costs.
- Cool grinding properties reduce the thermal load on the workpiece.

Application Examples

- Grinding on high-temperature alloy components.
- Weld dressing 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.

Hardness L, Series A

A1

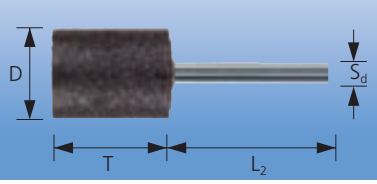
A3

A11

Shape	Grit	EDP Number	Point Dia. x Length (D x T) [Inches]	Shank Dia. x Length (S_d x L_2) [Inches]	Recom. RPM 1/2" Overhang	Max. RPM 1/2" Overhang	Max. RPM 1" Overhang	
A1	30	35100	3/4 x 2-1/2	1/4 x 1-1/4	20,960	20,960	16,100	10
A3	30	35104	1 x 2-3/4	1/4 x 1-1/4	15,530	15,530	11,940	10
A11	30	35112	7/8 x 2	1/4 x 1-1/4	25,420	25,420	20,100	10

D = Point Diameter
T = Point Length
S_d = Shank Diameter
L_2 = Shank Length

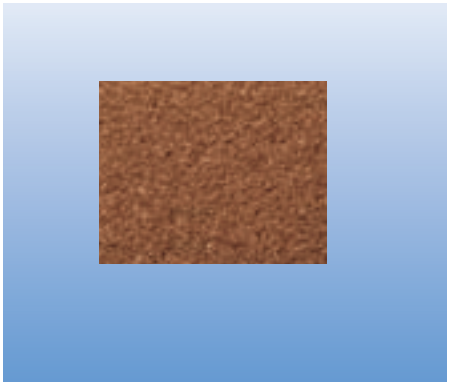
Hardness L, Series W

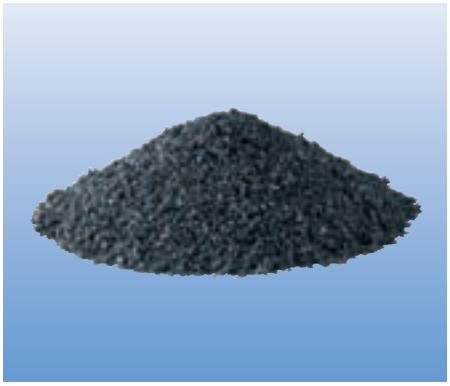


Shape	Grit	EDP Number	Point Dia. x Length (D x T) [Inches]	Shank Dia. x Length (S_d x L_2) [Inches]	Recom. RPM 1/2" Overhang	Max. RPM 1/2" Overhang	Max. RPM 1" Overhang	
W222	30	35382	1 x 2	1/4 x 1-1/4	20,250	20,250	12,350	10
W236	30	35409	1-1/2 x 1/2	1/4 x 1-1/4	25,064	25,460	25,140	5

Mounted Points

Resin Bond, Aluminum Oxide, Hardness Grade N





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

Advantages

- Hardness grade N tools are perfect for **heavy-duty** edge grinding on stainless steel. These products are distinguished by their high edgeholding capability, long service life and low wear.
- Due to their special edgeholding 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.

Recommendations for Use

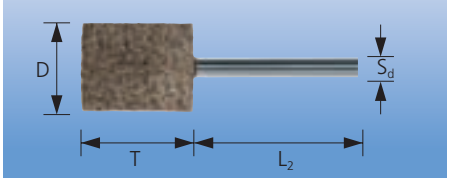
Hardness grade N mounted points perform best at a recommended peripheral speed of 6,000 - 9,800 SFPM when used for edge grinding. For surface grinding we recommend a peripheral speed of 4,000 - 6,000 SFPM.
Suitable drive systems include flexible shafts and electric or air-powered straight grinders.

Hardness N, Series A

Shape	Grit	EDP Number	Point Dia. x Length (D x T) [Inches]	Shank Dia. x Length (S_d x L_2) [Inches]	Recom. RPM 1/2" Overhang	Max. RPM 1/2" Overhang	Max. RPM 1" Overhang	
A1	30	35101	3/4 x 2-1/2	1/4 x 1-1/4	20,960	20,960	16,100	10
A3	46	35105	1 x 2-3/4	1/4 x 1-1/4	15,530	15,530	11,940	10
A4	30	35107	1-1/4 x 1-1/4	1/4 x 1-1/4	28,550	28,550	23,150	5
A5	30	35109	3/4 x 1-1/8	1/4 x 1-1/4	38,550	38,550	31,270	10
A11	30	35113	7/8 x 2	1/4 x 1-1/4	25,420	25,420	20,100	10
A12	30	35115	11/16 x 1-1/4	1/4 x 1-1/4	38,050	38,050	30,790	10
A21	30	35123	1 x 1	1/4 x 1-1/4	35,510	35,510	28,840	10
A38	46	35149	1 x 1	1/4 x 1-1/4	35,510	35,510	28,840	10

D = Point Diameter
T = Point Length
S_d = Shank Diameter
L_2 = Shank Length

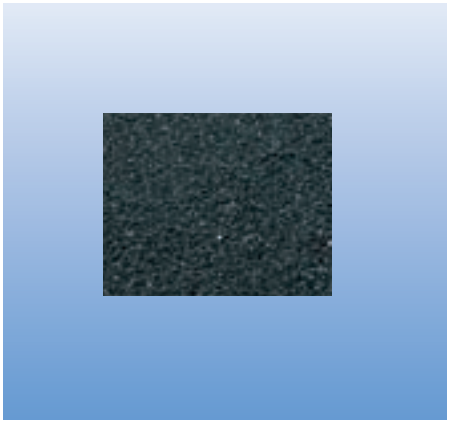
Hardness N, Series W

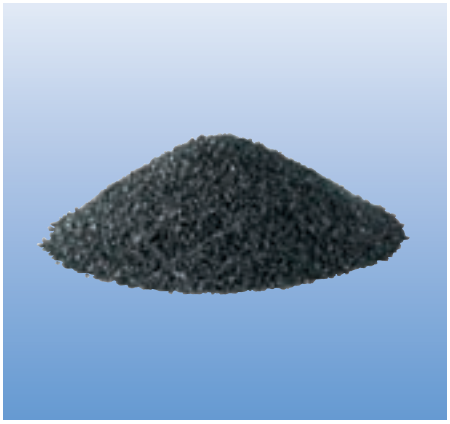


Shape	Grit	EDP Number	Point Dia. x Length (D x T) [Inches]	Shank Dia. x Length (S_d x L_2) [Inches]	Recom. RPM 1/2" Overhang	Max. RPM 1/2" Overhang	Max. RPM 1" Overhang	
W189	46	35337	1/2 x 2	1/4 x 1-1/4	26,830	26,830	18,440	10
W220	30	35379	1 x 1	1/4 x 1-1/4	30,370	30,370	21,410	5
W222	30	35383	1 x 2	1/4 x 1-1/4	20,250	20,250	12,350	10
W236	30	35410	1-1/2 x 1/2	1/4 x 1-1/4	25,064	25,460	25,140	5

Mounted Points

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 tools 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.

Recommendations for Use

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.

Hardness R, Series A


A1


A3


A11

Shape	Grit	EDP Number	Point Dia. x Length (D x T) [Inches]	Shank Dia. x Length (S_d x L_2) [Inches]	Recom. RPM 1/2" Overhang	Max. RPM 1/2" Overhang	Max. RPM 1" Overhang	
A1	30	31002	3/4 x 2-1/2	1/4 x 1-1/4	20,960	20,960	16,100	10
A3	30	31022	1 x 2-3/4	1/4 x 1-1/4	15,530	15,530	11,940	10
A11	30	31062	7/8 x 2	1/4 x 1-1/4	25,420	25,420	20,100	10

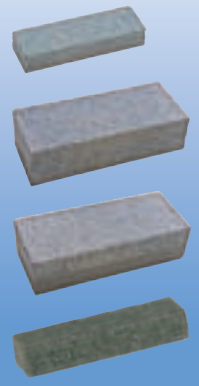
Small Dressing Stone - Fine
This small dressing stone in finer grit (grit 46) is suited for profiling and dressing smaller mounted points.

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.

Dressing Stones



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

Mounted Points

Sets

Mounted Point Sets

23 Piece Mounted Point Set
These hardness grade "O" tools with 1/4" shank dia. are noted for their outstanding versatility, dimensional stability and edge-holding 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

PFERD Specificaton Number
SB

Set	Shank Diameter [Inches]	Hardness Grade	Grit Size	EDP Number	
23 Piece	1/4	O	30	39000	1
50 Piece	1/4	O	30-60	39005	1

Test Set

PFERD offers a test set that include 9 different types of mounted points to assist you in determining the best solution for your application:
- Vitrified bond: M, O, H, R, F-Alu, D and new hardness grade J with AWCO.
- Resin bond: L, N

The test set W205 contains one each mounted points shape W205 (3/4 x 1") with 6 mm shank of the M, O, H, R, J, L, N hardness grade, one W206 (3/4 x 1-1/4") in hardness grade F and one 1 x 1-1/4" in hardness grade D.

For orders of hardness grades which are not in our standard range, please see page 3 for information on minimum order quantities and surcharges.

PFERD Specificaton Number
Set W205

Diameter x Length [Inches]	Shank Diameter [Inches]	EDP Number	Max. RPM	
3/4 x 1	1/4	39009	32,950	1

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