

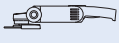
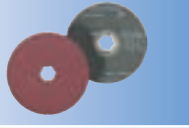


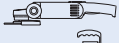





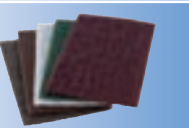

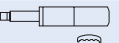



PFERD



# Coated and Non-Woven Abrasives

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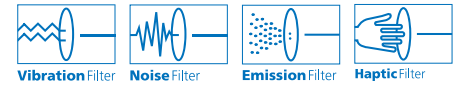
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### PFERDERGONOMICS

PFERD coated and non-woven abrasive tools 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.



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

Nearly all types of material surfaces can be worked on with coated abrasives. Coated abrasives, depending on the type, can be used for wet or dry grinding. Coated abrasives consist of the following components:

- 1 Backing material
- 2 Make coat
- 3 Size coat
- 4 Abrasive grain
- 5 Top size coat

Different workpiece geometries have different tool demands. The PFERD 204 catalogue offers a wide range of coated abrasive tools.

- COMBICLICK® fibre discs
- Fibre discs
- COMBIDISC® abrasive discs
- Abrasive spiral bands and abrasive belts
- Flap wheels
- Sheets and rolls
- POLIROLL cartridge rolls
- POLISTAR
- POLICAP™
- Overlap slotted discs

In catalogue 206:

- POLIFAN® flap discs
- Please refer to catalogue 206 for order data on POLIFAN® flap discs.

### Backing Material

The bond and the abrasive grain are fixed to the backing material. The selection of backing materials differ in terms of tensile strength, flexibility and wear. Selection of backing material fitting the demand of the grinding task in mind. The PFERD range is divided into three groups:

#### Paper:

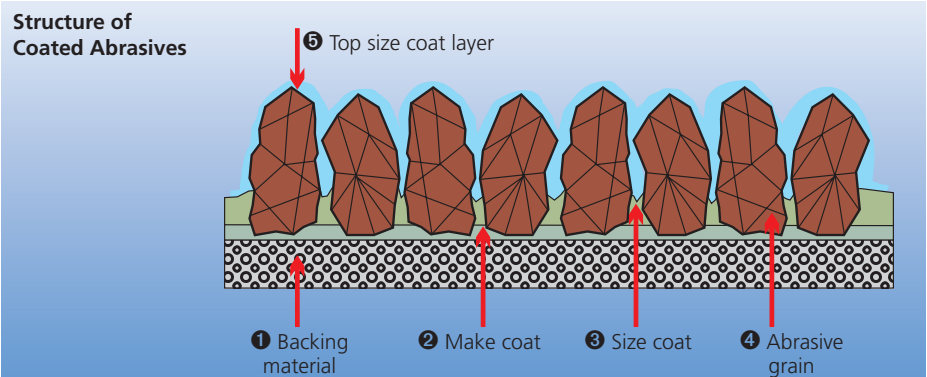
The main applications for paper-backed coated abrasives are in the wood-processing industry and trades (carpenters, painters etc.). These coated abrasives are not widely used in industrial metal processing.

Abrasives for manual grinding are generally made from paper with a mass per unit area of 2-3 oz./sq.yd. Heavier papers are used to manufacture narrow and wide cloth belts for stationary machine-applications.

#### Cloth:

Coated abrasives with cloth backing are mainly used in the metal processing industry.

## General Information about Coated Abrasives



### Vulcanized Fibre:

Vulcanized fibres in different strengths, adapted for each application, are mainly used for the production of fibre discs. Vulcanized fibres provide an extremely strong, robust backing and are extremely wear-resistant.

### Bond

Different resin bonds are used in the manufacture of coated abrasives for anchoring the abrasive grain to the backing. First, the backing material is coated with the basic bond. Then the abrasive grit is spread evenly across the surface and aligned using an electrostatic charging process. The abrasive grit is then anchored firmly with the make coat bond, which also protects the abrasive grit against forces and loads resulting from the grinding process.

### Abrasive Grain

Choosing the correct abrasive strongly influences the surface finish and the efficiency value of a process. We recommend tools marked "COOL" in particular when working with stainless steel.

The standard abrasive grains are:

#### Aluminum Oxide:

Many types of aluminum oxide are used for producing abrasives. They can be used in their fused or sintered forms. Their hardness and toughness grade can be influenced using special manufacturing methods or additives. Normal aluminum oxides with a "sharp-edged" grain shape are mainly used in the production of coated abrasives.

#### SiC (Silicon Carbide):

SiC is a synthetically produced abrasive grain, which is very sharp-edged but not particularly tough. However, it has an extremely high hardness. SiC is particularly suitable for work on titanium, aluminum, bronze, stone and plastic.

#### Zirconia Alumina:

Zirconia alumina is a fused mixture of aluminum oxide and zirconium oxide. In comparison to aluminum oxide, zirconia alumina is not as hard but it is tougher. The high proportion of zirconium oxide gives the zirconia alumina grain an exceptionally effective self-sharpening effect, giving excellent stock removal, cool grinding and longest tool life.

#### Ceramic Oxide:

Sintered aluminum oxides are divided into sintered bauxite aluminum oxides and sol-gel aluminum oxides. Sol-gel aluminum oxide is mainly used for coated abrasives. This highly modern abrasive has become increasingly popular through its toughness and its good self-sharpening property.

### Grit Sizes

The different grit sizes for coated abrasives are presented in the FEPA standards:

- **Coarse:**  
P 80 - 60 - 50 - 40 - 36 - 24 - 20 - 16 - 12
- **Medium:**  
P 280 - 240 - 220 - 180 - 150 - 120 - 100
- **Fine:**  
P 600 - 500 - 400 - 360 - 320
- **Super fine:**  
P 1500 - 1200 - 1000 - 800

# Coated and Non-Woven Abrasives

## Your Quick Product Selection Guide



Type of Operation	Face-Down Grinding Tools for Use with Backing Pad		Belt Grinding Tools for Belt Grinders	
				
Processing Step	Page		Page	
Modification of workpiece geometry 	 COMBIDISC® ■ Abrasive Discs 20-23 ■ Diamond Abrasive Discs 24	 COMBICLICK® Fibre Discs 8-9	 Abrasive Belts 32-39	
	 COMBIDISC® Mini Fibre Discs 23	 Fibre Discs 12-14		
	 COMBIDISC®- Mini-POLIFAN® 19	 PSA-Discs 16		
Multi-step fine grinding, reducing roughness 	 COMBIDISC® ■ Abrasive Discs 20-23 ■ Diamond Abrasive Discs 24	 COMBICLICK® Fibre Discs 8-9	 Abrasive Belts 32-39	
	 COMBIDISC® PNER Unitized Discs 26	 Fibre Discs 12-14		
	 PSA Discs 16	 POLIFLEX™ Discs 90		
Fine grinding Ultra fine grinding 	 COMBIDISC® Abrasive Discs 20-23	 COMBICLICK® Fibre Discs 8-9	 Abrasive Belts 32-39	
	 COMBIDISC® PNER Unitized Discs 26	 POLIVLIES™ Flap Discs 78	 Surface Conditioning Belts 39	
	 Fibre Discs 12-14	 POLIFLEX™ Discs 90		
Cleaning 	 COMBIDISC® Non-Woven Discs 25	 COMBIDISC® PNER Unitized Discs 26	 Surface Conditioning Belts 39	
	 COMBIDISC®- POLICLEAN™ Discs 27	 POLIVLIES™ Hook and Loop Discs 77		
	 COMBIDISC® Brushes 24	 POLICLEAN™ Discs 82		
Creation of visual surface effects 	 COMBIDISC® Non-Woven Discs 25	 POLIVLIES™ Hook and Loop Discs 77	 Surface Conditioning Belts 39	
	 COMBIDISC® PNER Unitized Discs 26	 POLIVLIES™ Flap Discs 78		
	 COMBIDISC® TX Discs 27	 Marbling Tools and Discs 78-79		
Polishing 	 COMBIDISC® Felt Discs 27	 POLINOX™ PNER Unitized Discs 74		
	 COMBIDISC® PNER Unitized Discs 26			



Peripheral Grinding Mounted/Unmounted Tools				Manual Grinding							
		Page			Page						
	Abrasive Spiral Bands	45		Overlap Slotted Discs	63						
	POLIROLL Cartridge Rolls	48									
	POLICAP™ Abrasive Caps and Cones	50-54									
	Abrasive Spiral Bands	45		Flap drums	61		POLIFLEX™ Blocks	90		Shop Rolls	42-43
	POLIROLL POLICAP™	48 50-54		POLISTAR	64		Abrasive Sheets	40		Screen Rolls	43
	Flap Wheels for Angle Grinders	56-61 61		Overlap Slotted Discs	63						
	POLIFLEX™ Fine Grinding Points	87-90				POLIFLEX™ Blocks	90		Shop rolls	42-43	
	POLINOX™ PNER Unitized Wheels	72-73				Abrasive Sheets	40		Screen Rolls	43	
	POLINOX™ PNK Convolute Wheels	75									
	POLINOX™ Non-Woven Mounted Flap Wheels	67-68		POLINOX™ grinding drums	76		Abrasive Sheets	40		Screen Rolls	43
	POLINOX™ Non-Woven Unmounted Flap Wheels	70-71		POLICLEAN™ Wheels	81		POLIVLIES™ Hand Pads	41			
	POLINOX™ Cross Buffs	69		POLICLEAN™ Mounted Tools	82		Shop Rolls	42-43			
	POLINOX™ Non-Woven Mounted Flap Wheels	67-68		POLIFLAP™ wheel	62		POLIVLIES™ Hand Pads	41		Screen Rolls	43
	POLINOX™ Non-Woven Unmounted Flap Wheels	70-71		POLINOX™ PNER Unitized Wheels	72-73		Shop Rolls	42-43			
	POLINOX™ Non-Woven Unmounted Flap Wheels	70-71		POLINOX™ PNK Convolute Wheels	75						
	POLINOX™ grinding drums	76		Flap drums	61		Masking Tape	79			
	Felt Points	92-93		Cloth Rings	94		Diamond Polishing Pastes	95		Grinding Compounds	96
	Felt Wheels	93		POLINOX™ PNER Unitized Wheels	72-73		Polishing Paste Bars	96			
				POLINOX™ PNK Convolute Wheels	75						

# NEW COMBICLICK® Fibre Discs

## General Information



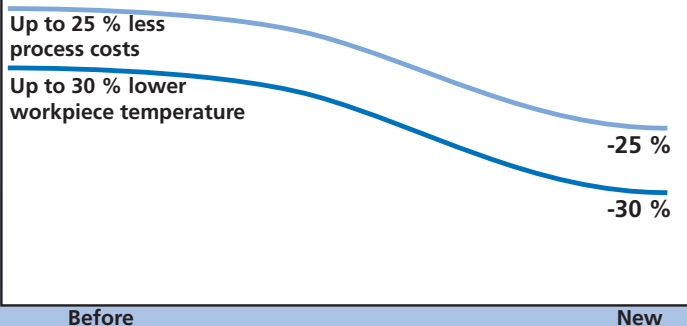
PFERD presents a newly developed, patented quick-mounting and cooling system for use with fibre discs.

Our COMBICLICK® system combines an innovative flexible backing pad with a quick, easy and rugged mounting system on the back of the disc. The new backing pad allows COMBICLICK® fibre discs to be used with standard angle grinders. The geometry of the cooling slots ensures a high throughput of air, thus significantly reducing thermal loads on the abrasive material and workpiece. The rugged mounting fixture, secure disc attachment to the backing pad plus optimized cooling help to provide

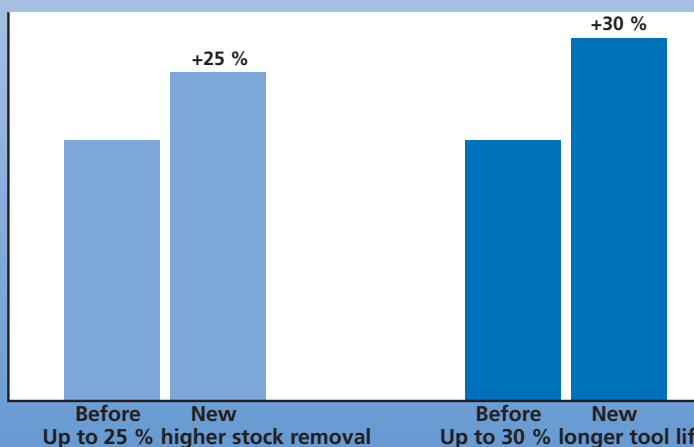
- up to 30 % lower workpiece temperature,
- up to 25 % increased stock removal,
- up to 30 % longer service life and improved utilization of abrasive product and
- up to 30 % less tool wear.



### Reduce process costs and workpiece temperature



### Improved stock removal and tool life



### User Benefits: System



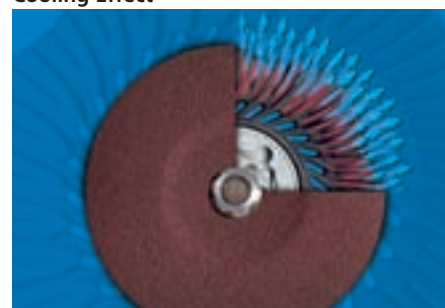
Exceptional ease of handling and convenience.

### Mounting Principle



Extremely easy and fast tool change reduces down time and process costs.

### Cooling Effect



Superior cooling of the tool and workpiece.

### Flexible Grinding



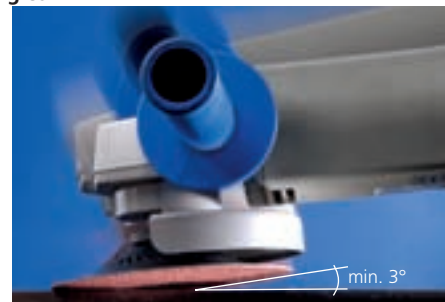
COMBICLICK® fibre discs give a particularly soft and flexible abrasive grinding performance.

### COMBICLICK® Supports Grinding at very flat Angles!



**Before**

The COMBICLICK® system eliminates surface scratching due to projecting metal parts and maximizes abrasive grit usage.



**Application with COMBICLICK®**





PFERD provides a wide range of COMBICLICK® fibre discs differing in:

- Grit sizes,
- abrasives and
- dimensions.

Our comprehensive product range provides the optimum tool from coarse to fine grinding.

### Advantages

- Long tool life.
- Uniform surface finish.
- Extremely high stock removal.
- High flexibility.
- Excellent grain retention.
- Application Examples
- Working on welds.
- Deburring of steel components.
- Rough grinding work.
- Fine grinding of stainless steel components (INOX).
- Removal of mill and casting skins.
- For work on narrow, hard-to-reach places (e.g. cooling ribs).

### Recommendations for Use

COMBICLICK® fibre discs are used in combination with the COMBICLICK® backing pad on standard commercial angle grinders. The use of the appropriate grinding oil on the different materials can substantially increase tool life and abrasive performance of the tools made from coated abrasives.

### Ordering Note

Please order COMBICLICK® backing pad as a separate item. For detailed information and order data regarding backing pads, refer to page 10.

### 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.

### Safety Recommendations



= Wear eye protection!



= Wear hearing protection!



= Wear a respirator!



= Wear gloves!



= Only permitted with a backing pad!



= Read the instructions!



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



= Not permitted for wet grinding!

### Application Recommendations for Use of COMBICLICK® Fibre Discs

Workpiece Material/Colour Code ▼		Abrasive ▶	Alum. Oxide A	Alum. Oxide A-COOL	Zirconia Alum. Z	Zirconia Alum. Z-COOL	Ceramic Oxide CO	Ceramic Oxide CO-COOL
Steel, cast steel	Non-hardened, non heat-treated steels	Construction steels, carbon steels, tool steels, non-alloyed steels, cast steels	●		○		○	
	Hardened, heat-treated steels	Tool steels, tempering steels, alloyed steels, cast steels	○		●		●	
Stainless steel (INOX)	Rust and acid-resistant steels	Austenitic and ferritic stainless steels		●	○	●		●
Non-ferrous metals	Soft non-ferrous metals	Soft aluminum-alloys	○	●		○		○
		Brass, copper, zinc	●		○		○	
	Hard non-ferrous metals	Hard aluminum-alloys	●		○		○	
		Bronze, titanium			○	●	○	●
	High-temperature resistant materials	Nickel based alloys, cobalt based alloys			○	●	○	●
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	●		○		●	
Plastics and other materials	Plastics, wood, paint	Fibre reinforced plastics, thermoplastics, wood, chipboard, paint	●					

● = recommended

○ = suitable

# NEW COMBICLICK® Fibre Discs

## Aluminum Oxide A, Zirconia Alumina, Ceramic Oxide CO

### COMBICLICK® Fibre Discs Aluminum Oxide A Type



For general-purpose grinding, from coarse to fine, in diverse applications (industry, trades, DIY).


**Abrasive: Aluminum Oxide A**

**Ordering Note**

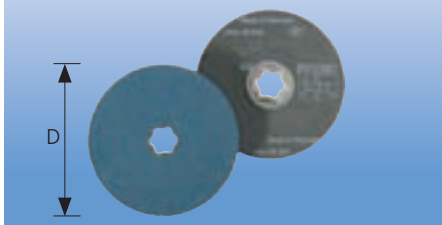
Please order COMBICLICK® backing pad separately.

**PFERD Specification Number**

CC-FS A

Diameter (D) [Inches]	Grit and EDP Number						Max. RPM	
	24	36	50	60	80	120		
4-1/2	40091	40092	40093	40094	40095	40097	13,300	25
5	40099	40100	40101	40102	40103	40105	12,200	25
7	40115	40116	40117	40118	40119	40121	8,500	25

### COMBICLICK® Fibre Discs Zirconia Alumina Z Type



Designed for coarse grinding and high stock removal, with an extended service life.


**Abrasive: Zirconia Alumina Z**

**Ordering Note**

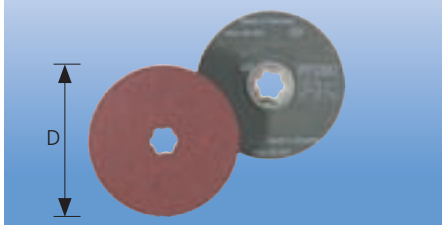
Please order COMBICLICK® backing pad separately.

**PFERD Specification Number**

CC-FS Z

Diameter (D) [Inches]	Grit and EDP Number						Max. RPM	
	24	36	50	60	80	120		
4-1/2	-	40131	40132	40133	40134	40136	13,300	25
5	40137	40138	40139	40140	40141	40143	12,200	25
7	40151	40152	40153	40154	40155	40157	8,500	25

### COMBICLICK® Fibre Discs Ceramic Oxide CO



For aggressive grinding achieving maximum stock removal rates. Nevertheless, these fibre discs attain a very long service life.


**Abrasive: Ceramic Oxide CO**

**Ordering Note**

Please order COMBICLICK® backing pad separately.

**PFERD Specification Number**

CC-FS CO

Diameter (D) [Inches]	Grit and EDP Number						Max. RPM	
	24	36	50	60	80	120		
4-1/2	40197	40198	40199	40200	40201	40203	13,300	25
5	40204	40205	40206	40207	40208	40210	12,200	25
7	40218	40219	40220	40221	40222	40224	8,500	25



For general-purpose grinding, from coarse to ultra-fine, on poor heat-conducting materials.

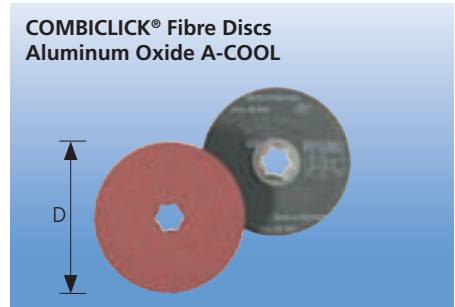
Active additives in the coating ensure substantially increased stock removal while preventing loading and heat build-up in the workpiece.


**Abrasive: Aluminum Oxide A-COOL (top-sized)**

**Ordering Note**

Please order COMBICLICK® backing pad separately.

**PFERD Specification Number**  
CC-FS A-COOL



Diameter (D) [Inches]	Grit and EDP Number							Max. RPM	
	50	60	80	120	150	180	220		
4-1/2	-	40302	40303	40305	40306	-	40308	13,300	25
5	40310	40311	40312	40314	40315	40316	40317	12,200	25
7	40328	40329	40330	40332	40333	40334	40335	8,500	25

For coarse but cool grinding at high stock removal rates. Zirconia alumina is a high-performance abrasive which delivers best results on powerful angle grinders at increased contact pressure.

Active additives in the coating ensure substantially improved stock removal and a reduced thermal load on poor heat conducting materials.


**Abrasive: Zirconia Alumina Z-COOL (top-sized)**

**Ordering Note**

Please order COMBICLICK® backing pad separately.

**PFERD Specification Number**  
CC-FS Z-COOL



Diameter (D) [Inches]	Grit and EDP Number				Max. RPM	
	36	50	60	80		
5	40170	40171	40172	40173	12,200	25
7	40188	40189	40190	40191	8,500	25

For aggressive grinding achieving maximum stock removal on hard, poor heat conducting materials.

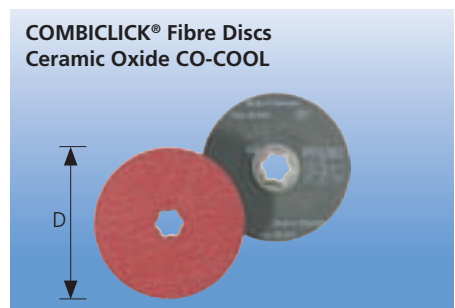
Active additives in the coating ensure a substantially improved abrasive performance while preventing loading and reducing heat build-up in the workpiece.


**Abrasive: Ceramic Oxide CO-COOL (top-sized)**

**Ordering Note**

Please order COMBICLICK® backing pad separately.

**PFERD Specification Number**  
CC-FS CO-COOL



Diameter (D) [Inches]	Grit and EDP Number						Max. RPM	
	24	36	50	60	80	120		
4-1/2	40225	40226	40227	40228	40229	40231	13,300	25
5	40232	40233	40234	40235	40236	40238	12,200	25
7	40246	40247	40248	40249	40250	40252	8,500	25

# NEW COMBICLICK® Fibre Discs

## Backing Pads



COMBICLICK® Backing Pads




This backing pad permits the use of COMBICLICK® fibre discs on all common angle grinders.

The cooling slot geometry ensures a high delivery of air through the backing pad, thus significantly reducing thermal loads on the abrasive material and workpiece.

The patented COMBICLICK® mounting system minimizes tool changing times.

**PFERD Specification Number**  
CC-GT



Disc Diameter (D) [Inches]	Thread Size	EDP Number	Max. RPM	
4-1/2 and 5	5/8-11	69470	13,300	1
4-1/2 and 5	M14 x 2.0	69471	13,300	1
7	5/8-11	69474	8,500	1
7	M14 x 2.0	69475	8,500	1







PFERD supplies an extensive line-up of fibre discs differing in:

- Grit sizes,
- abrasives and
- dimensions.

Our comprehensive product range provides the optimum tool from coarse to fine grinding.

### Safety Recommendations



= Wear eye protection!



= Wear gloves!



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



= Wear hearing protection!



= Only permitted with a backing pad!



= Not permitted for wet grinding!



= Wear a respirator!



= Read the instructions!

### Advantages

- Long tool life.
- Uniform surface finish.
- Extremely high stock removal.
- High flexibility.
- Excellent grain retention.

### Application Examples

- Work on welds.
- Deburring steel components.
- Coarse grinding work.
- Fine grinding of stainless steel components (INOX).
- Removal of mill and casting scale.

### Recommendations for Use

Fibre discs must be used with a backing pad on commercial angle grinders. The tool life and abrasive performance can be substantially increased for coated abrasive tools if grinding oil is used.

### Ordering Note

Please order the backing pad as a separate item. Please refer to page 14 for detailed information.

### 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.

### Application Recommendations for Use of COMBICLICK® Fibre Discs

Workpiece Material/Colour Code ▼		Abrasive ▶	Alum. Oxide A	Alum. Oxide A-COOL	Zirconia Alum. Z	Zirconia Alum. Z-COOL	Ceramic Oxide CO	Ceramic Oxide CO-COOL
Steel, cast steel	Non-hardened, non heat-treated steels	Construction steels, carbon steels, tool steels, non-alloyed steels, cast steels	●		○		○	
	Hardened, heat-treated steels	Tool steels, tempering steels, alloyed steels, cast steels	○		●		●	
Stainless steel (INOX)	Rust and acid-resistant steels	Austenitic and ferritic stainless steels		●	○	●		●
Non-ferrous metals	Soft non-ferrous metals	Soft aluminum-alloys	○	●		○		○
		Brass, copper, zinc	●		○		○	
	Hard non-ferrous metals	Hard aluminum-alloys	●		○		○	
		Bronze, titanium			○	●	○	●
	High-temperature resistant materials	Nickel based alloys, cobalt based alloys			○	●	○	●
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	●		○		●	
Plastics and other materials	Plastics, wood, paint	Fibre reinforced plastics, thermoplastics, wood, chipboard, paint	●					

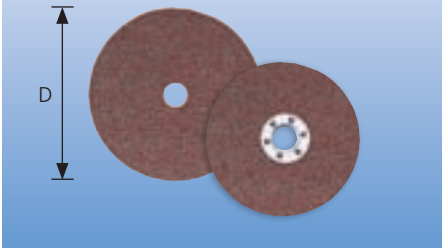
● = recommended

○ = suitable

# Fibre Discs

## Aluminum Oxide – Standard and Quick-Change

### Fibre Discs Aluminum Oxide A



For general-purpose grinding, from coarse to fine, in diverse applications (industry, trades, DIY).

Available with standard arbor hole or 5/8-11 quick-change hub.

**Abrasive: Aluminum Oxide A**


**Ordering Note**

Please order backing pad separately.

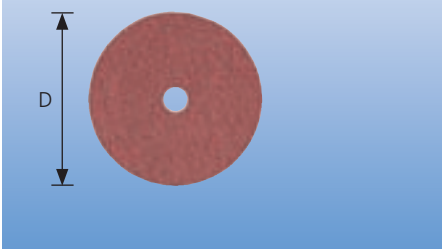
**PFERD Specification Number**

FS A (Standard)

QC FS A (Quick-Change)

Diameter (D) x A.H. / Thread Size [Inches]	Grit and EDP Number								Max. RPM	
	16	24	36	50	60	80	100	120		
<b>Standard (Plain arbor hole)</b>										
4 x 5/8	-	62402	62403	62404	62405	62406	-	-	15,900	25
4-1/2 x 7/8	62451	62452	62453	62454	62455	62456	62457	62458	13,300	25
5 x 7/8	62501	62502	62503	62504	62505	62506	62507	62508	12,200	25
7 x 7/8	62701	62702	62703	62704	62705	62706	62707	62708	8,500	25
9 x 7/8	-	62902	62903	62904	62905	62906	62907	-	6,500	25
<b>Quick-Change</b>										
4-1/2 x 5/8-11	-	62472	62473	-	62475	62476	-	-	13,300	25
5 x 5/8-11	-	62532	62533	-	62535	62536	-	-	12,200	25
7 x 5/8-11	-	62722	62723	-	62725	62726	-	-	8,500	25

### Fibre Discs Aluminum Oxide A-COOL



For general-purpose grinding, from coarse to ultra-fine, on poor heat-conducting materials.

Active additives in the coating ensure substantially increased stock removal while preventing loading and heat build-up in the workpiece.


**Abrasive: Aluminum Oxide A-COOL  
(top-sized)**

**Ordering Note**

Please order backing pad separately.

**PFERD Specification Number**

FS A-COOL

Diameter (D) x Arbor Hole [Inches]	Grit and EDP Number								Max. RPM	
	50	60	80	100	120	150	180	220		
<b>Standard (Plain arbor hole)</b>										
4-1/2 x 7/8	40048	40049	40050	40051	40052	40053	40054	40055	13,300	25
5 x 7/8	40057	40058	40059	40060	40061	40062	40063	40064	12,200	25
7 x 7/8	40075	40076	40077	40078	40079	40080	40081	40082	8,500	25

Designed for coarse grinding and high stock removal, with an extended service life. Zirconia alumina is a high-performance abrasive which delivers best results on high-powered angle grinders at increased contact pressure.

Available with standard arbor hole or 5/8-11 quick-change hub.

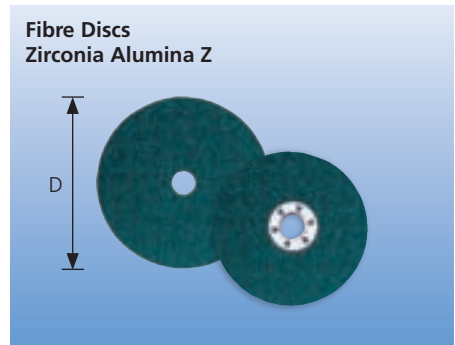
**Abrasive: Zirconia Alumina Z**


**Ordering Note**

Please order backing pad separately.

**PFERD Specification Number**

FS Z (Standard)  
QC FS Z (Quick-Change)



Diameter (D) x A.H. / Thread Size [Inches]	Grit and EDP Number					Max. RPM	
	24	36	50	60	80		
<b>Standard (Plain arbor hole)</b>							
4-1/2 x 7/8	62462	62463	62464	62465	62466	13,300	25
5 x 7/8	62522	62523	62524	62525	62526	12,200	25
7 x 7/8	62712	62713	62714	62715	62716	8,500	25
<b>Quick-Change</b>							
4-1/2 x 5/8-11	62482	62483	62484	-	-	13,300	25
5 x 5/8-11	62542	62543	62544	-	-	12,200	25
7 x 5/8-11	62732	62733	62734	-	-	8,500	25

For coarse but cool grinding at high stock removal rates. Zirconia alumina is a high-performance abrasive which delivers best results on powerful angle grinders at increased contact pressure.

Active additives in the coating ensure substantially improved stock removal and a reduced thermal load on poorly heat conducting materials.

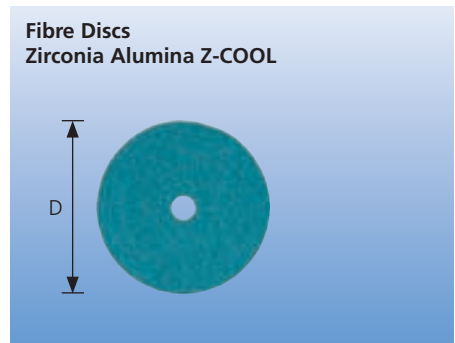
**Abrasive: Zirconia Alumina Z-COOL (top-sized)**


**Ordering Note**

Please order backing pad separately.

**PFERD Specification Number**

FS Z-COOL



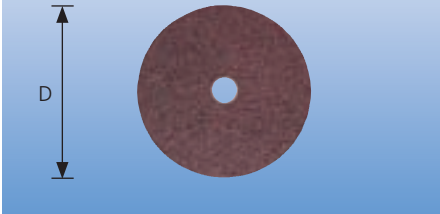
Diameter (D) x Arbor Hole [Inches]	Grit and EDP Number				Max. RPM	
	36	50	60	80		
<b>Standard (Plain arbor hole)</b>						
4-1/2 x 7/8	62468	62469	62470	62471	13,300	25
5 x 7/8	62528	62529	62530	62531	12,200	25
7 x 7/8	62718	62719	62720	62721	8,500	25



# Fibre Discs

## Ceramic Oxide – Standard

### Fibre Discs Ceramic Oxide CO



For aggressive grinding achieving maximum stock removal rates. While providing a very long service life. Their ceramic grain is particularly well suited for working on hard materials and coatings. For best results, use with high-powered angle grinders.


**Abrasive: Ceramic Oxide CO**

**Ordering Note**

Please order backing pad separately.

**PFERD Specification Number**

FS CO

Diameter (D) x Arbor Hole [Inches]	Grit and EDP Number						Max. RPM	
	24	36	50	60	80	120		
<b>Standard (Plain arbor hole)</b>								
4-1/2 x 7/8	62410	62411	62412	62413	62414	62415	13,300	25
5 x 7/8	62510	62511	62512	62513	62514	62515	12,200	25
7 x 7/8	62743	62744	62745	62746	62747	62748	8,500	25

### Fibre Discs Ceramic Oxide CO-COOL



For aggressive grinding achieving maximum stock removal on hard, poor heat conducting materials. Active additives in the coating ensure a substantially improved abrasive performance while preventing loading and reducing heat build-up in the workpiece.


**Abrasive: Ceramic Oxide CO-COOL (top-sized)**

**Ordering Note**

Please order backing pad separately.

**PFERD Specification Number**

FS CO-COOL

Diameter (D) x Arbor Hole [Inches]	Grit and EDP Number						Max. RPM	
	24	36	50	60	80	120		
<b>Standard (Plain arbor hole)</b>								
4-1/2 x 7/8	62416	62417	62418	62419	62420	62421	13,300	25
5 x 7/8	62516	62517	62518	62519	62520	62521	12,200	25
7 x 7/8	62749	62750	62751	62752	62753	62754	8,500	25

## Backing Pads

### Plastic Backing Pads for Fibre Discs




Backing pads for use with PFERD zirconia and ceramic discs. Plastic air cooled pads present the tough grain to the workpiece with force for maximized disc performance, but minimal pad flexibility. Rib design allows for better cooling, which improves disc life.

**Ordering Note**

Retaining nuts and spanner wrench sold separately.

**PFERD Specification Number**

GTP

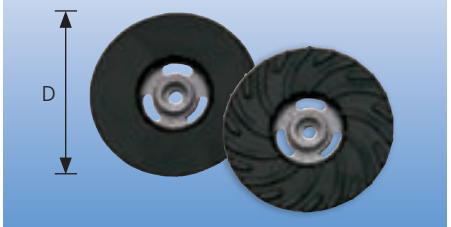
Diameter (D) x Thread Size [Inches]	EDP Number	Max. RPM	
4 x 5/8	69430	15,000	1
4-1/2 x 7/8	69465	13,000	1
5 x 7/8	69530	11,900	1
7 x 7/8	69715	8,600	1


Rubber backing pads for use with 7/8" arbor hole and quick-change fibre discs. Available with a smooth surface (recommended for quick-change discs) or ribbed surface. Rib design allows for better cooling, which improves disc life. These pads are available in three densities. For general purpose grinding, the regular density is recommended.

### PFERD Specification Number

GT (Ribbed Surface)  
GTS (Smooth Surface)

### Rubber Backing Pads for Fibre Discs Smooth and Ribbed Surface



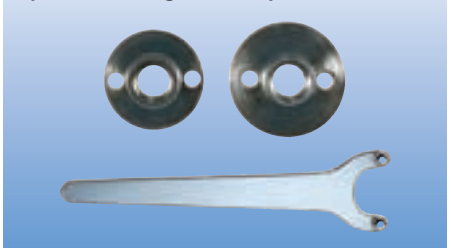
Diameter (D) x Thread Size [Inches]	Backing Density	EDP Number		Max. RPM	
		Ribbed Surface	Smooth Surface		
4 x 5/8-11	Regular (R)	69425	69040	12,000	1
4-1/2 x 5/8-11	Regular (R)	69455	69045	11,000	1
4-1/2 x M14 x 2.0	Regular (R)	69456	69046	11,000	1
4-1/2 x M10 x 1.25	Regular (R)	69457	69047	11,000	1
4-1/2 x M10 x 1.50	Regular (R)	69458	69048	11,000	1
4-1/2 x 1/2-13	Regular (R)	69459	69049	11,000	1
5 x 5/8-11	Regular (R)	69525	69050	10,000	1
7 x 5/8-11	Flexible (F)	69704	69074	7,000	1
7 x 5/8-11	Regular (R)	69705	69075	7,000	1
7 x 5/8-11	Hard (H)	69706	69076	7,000	1
9 x 5/8-11	Regular (R)	69905	69095	6,500	1


Replacement retaining nuts and spanner wrenches for fibre disc backing pads.

### PFERD Specification Number

FL-GT (Nut)

### Spare Retaining Nuts & Spanner Wrench



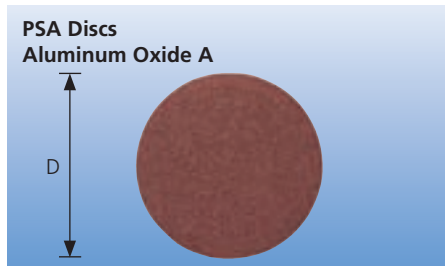
Description	Grinder Size	EDP Number	
5/8-11 Nut	(4-5)	69107	1
5/8-11 Nut	(7-9)	69108	1
M14 x 2.0 Nut	(4-1/2)	69109	1
M10 x 1.25 Nut	(4-1/2)	69110	1
M10 x 1.50 Nut	(4-1/2)	69111	1
1/2-13 Nut	(4-1/2)	69112	1
3/8-24 Nut	(4-1/2)	69113	1
Spanner Wrench	-	69115	1

# PSA Discs

## Aluminum Oxide, Zirconia Alumina, Holder

Heavy-duty "X" weight resin cloth with a special hot melt adhesive coating system produces a disc that will withstand even the most grueling applications.

They adhere securely to the holder without risk of slipping or flying off. When removed from the tool, they leave no residue.



For general-purpose grinding, from coarse to very fine, in diverse applications.


**Abrasive: Aluminum Oxide A**

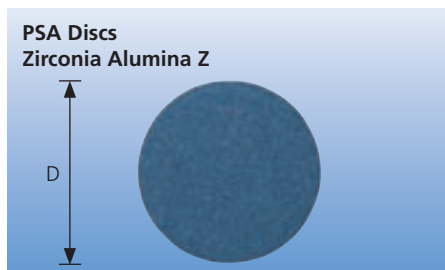
**Ordering Note**

Please order holder separately.

**PFERD Specification Number**

PSA-A/O

Diameter (D) [Inches]	Grit and EDP Number												
	36	40	50	60	80	100	120	150	180	220	240	320	
5	47361	47362	47363	47364	47365	47366	47367	47368	47369	47370	47371	47372	50
6	47374	47375	47376	47377	47378	47379	47380	47381	47382	47383	47384	47385	50



Designed for coarse grinding and high stock removal, these tools nevertheless attain a long service life.


**Abrasive: Zirconia Alumina Z**

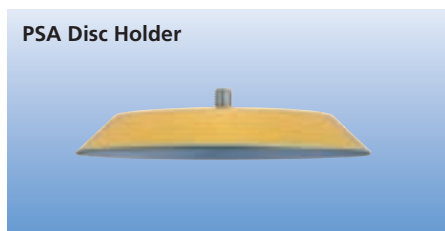
**Ordering Note**

Please order holder separately.

**PFERD Specification Number**

PSA-Z


Diameter (D) [Inches]	Grit and EDP Number							
	36	40	50	60	80	100	120	
5	47560	47561	47562	47563	47564	47565	47566	50
6	47570	47571	47572	47573	47574	47575	47576	50



Backing pad for use with PFERD PSA-discs. For threaded spindle (dual action machines).

**PFERD Specification Number**

SKH

Diameter (D) [Inches]	Thread	EDP Number	Max. RPM	
5	5/16-24	47266	10,000	1
6	5/16-24	47268	10,000	1





COMBIDISC® tools cover the full range of surface finishing applications. From coarse grinding through surface texturing to face-down mirror polishing, these products address the most demanding and sophisticated machining tasks.

PFERD offers two alternative mounting systems:

### CD System



Tool side:  
Screw connection with inner thread (metal)  
Also compatible with systems available in the market: PSG, Power Lock Type II "turn on", SocAtt, Turn-On.

### Advantages

- Easy to use.
- Rapid tool change.
- Firmly secured disc.
- Disc does not become detached under influence of heat.
- Vibration-free operation due to perfectly centered button placement.
- Tools from 1-3" dia. in various grit types and sizes.

### Application Examples

- Tool and mould making, modelling.
- Mechanical engineering, automotive applications.
- Aerospace industry.
- Jet engine construction and maintenance.
- Construction of tanks, pressure vessels and process equipment (e.g. for the food processing and chemical industry).

### CDR System



Tool side:  
Screw connection with outer thread (plastic)  
Also compatible with systems available in the market: Roloc™, Lockit, Speed Lok TR, Power Lock Type III, Fastlock-System B, Roll-On.

### Ordering Note

Using an appropriate grinding oil for the various materials can significantly increase the tool life and the grinding output of tools made of coated abrasives.

### 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.

### Safety Recommendations

- = Wear eye protection!
- = Wear hearing protection!
- = Wear a respirator!
- = Wear gloves!
- = Read the instructions!
- = Read the Material Safety Data Sheets (MSDS) before using any materials!

### Recommendations for Use

Application ▼	Recommended Peripheral Speed [SFPM]								Recommended Tools ▼
	1,000	2,000	3,000	4,000	5,000	6,000	6,900	7,800	
Grinding of steel, and cast steel				←→					Abrasive discs A, A-FLEX, A-PLUS, Z
Grinding of stainless steel (INOX)				←→					Abrasive discs A-COOL, CO-COOL, TX-discs, Non-woven PNER
Coarse grinding of steel, and cast steel					←→				Mini-POLIFAN®, abrasive discs Z
Grinding of high-temperature materials (NiCo alloys)		←→							Abrasive discs SiC, Z and CO-COOL
Grinding of hard non-ferr. metals, titanium, bronze, very hard alum. alloys			←→						Abrasive discs SiC, A-COOL, CO-COOL, TX-discs
Grinding of soft non-ferrous metals, brass, copper, aluminum alloys					←→				Abrasive discs A, A-FLEX, A-PLUS, A-COOL, TX-discs
Grinding of hard metal, hard substance coating, armouring, glass, GFK, CFK		←→							Diamond abrasive discs
Cleaning, texturing			←→						Non-woven and POLICLEAN™ discs, brushes, Non-woven PNER
Polishing	←→								Felt discs

# COMBIDISC® Grinding Tools

## Backing Pads



### Cutting Speeds COMBIDISC® Tools

The cutting speeds are represented using blue diagonal lines. The vertical line representing the tool dia. meets the given cutting speed (diagonals). From its point of intersection, proceed horizontally to the left margin where you will find the corresponding rotational speed [RPM] of the COMBIDISC® tools and machine.

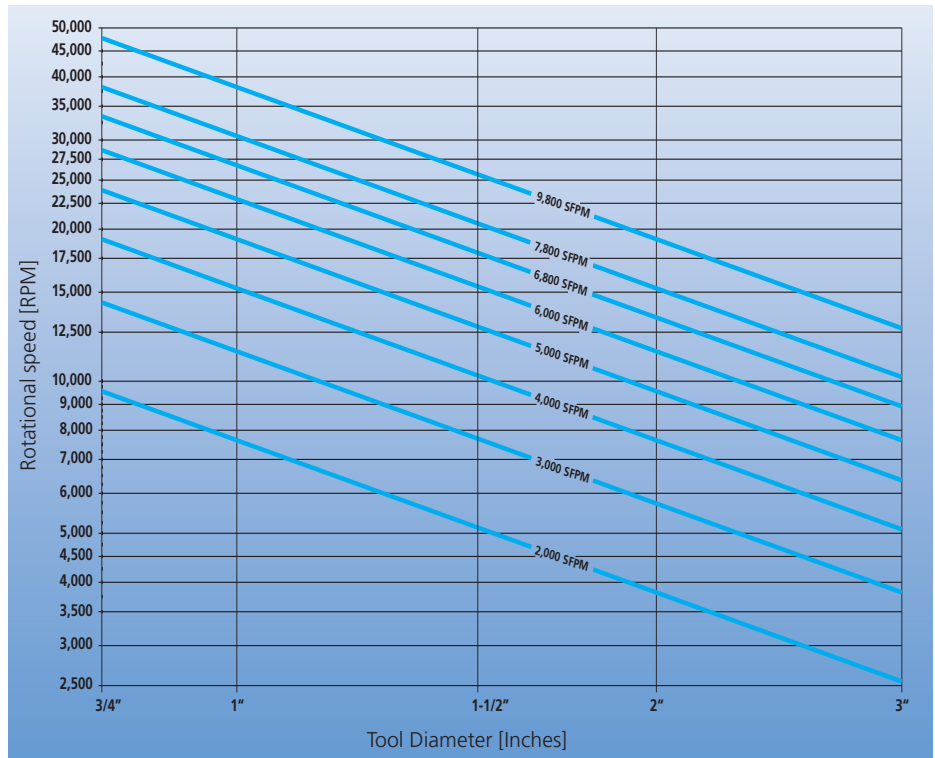
#### Example

CD 50 A 60 COOL, 2" Dia.  
EDP 42219

Operation: Grinding of stainless steel materials  
Peripheral Speed: 4,000 - 5,000 SFPM  
Rotational Speed: 7,600 - 9,600 RPM

### Safety Notes

- The maximum permissible peripheral speed is 9,800 SFPM.
- For safety reasons, the stated max. RPM level must not be exceeded.



### COMBIDISC® Backing Pads

Type CD/CDR - Soft




Type CD/CDR - Medium

Type CD/CDR - Hard



Backing pads are available in three grades for each COMBIDISC® type. The photographs to the left illustrate the approximate flexibility of the three grades.

**PFERD Specification Number**  
SBH/SBHR

Diameter [Inches]	Shank Diameter [Inches]	EDP Number		Max. RPM	
		Type CD 	Type CDR 		
<b>Soft</b>					
1-1/2	1/4	42108	42456	20,000	1
2	1/4	42111	42459	20,000	1
3	1/4	42114	42462	12,000	1
<b>Medium</b>					
1	1/4	42106	42454	40,000	1
1-1/2	1/4	42109	42457	25,000	1
2	1/4	42112	42460	25,000	1
3	1/4	42115	42463	20,000	1
<b>Hard</b>					
1-1/2	1/4	42110	42458	30,000	1
2	1/4	42113	42461	30,000	1
3	1/4	42116	42464	20,000	1

Mini flap discs with aluminum oxide A grain perform well in general-purpose coarse grinding applications. They deliver high stock removal rates on diverse materials. Ideal for weld dressing in hard-to-reach areas.

These tools excel in performance when compared to plain coated abrasive discs in terms of longevity and grinding performance.

**Abrasive: Aluminum Oxide A**

**Ordering Note**



Please order drive arbor or backing pad separately.

**PFERD Specification Number**

CD PFF A

**COMBIDISC® Mini-POLIFAN® Discs  
Aluminum Oxide A**



Diameter (D) [Inches]	Grit and EDP Number				Recom. Speed RPM	Max. RPM	
	40	60	80	120			
Type CD 							
2	42802	42803	42804	42805	12,000 - 14,000	19,100	10
3	42808	42809	42810	42811	8,000 - 10,000	12,700	10

Mini flap discs with zirconia alumina grain Z perform well in general-purpose grinding applications, providing ultra-high stock removal.

Particularly suitable for weld dressing in hard-to-reach areas.

These tools excel in performance when compared to plain coated abrasive discs in terms of service life and grinding performance.

**Abrasive: Zirconia Alumina Z**

**Ordering Note**



Please order drive arbor or backing pad separately.

**PFERD Specification Number**

CD PFF Z

**COMBIDISC® Mini-POLIFAN® Discs  
Zirconia Alumina Z**



Diameter (D) [Inches]	Grit and EDP Number				Recom. Speed RPM	Max. RPM	
	40	60	80	120			
Type CD 							
2	42814	42815	42816	42817	12,000 - 14,000	19,100	10
3	42820	42821	42822	42823	8,000 - 10,000	12,700	10



Matching arbor for with COMBIDISC® Mini-POLIFAN® discs with special thread.

**Safety Note**


Max. operating speed 9,800 SFPM.

**PFERD Specification Number**

BO PFF

**Drive Arbor  
for COMBIDISC® Mini-POLIFAN® Discs  
and COMBIDISC® Brush**



Shank Diameter [Inches]	Shank Length [Inches]	EDP Number	Suitable Diameters [Inches]	
1/4	1-1/2	42851	2	1
1/4	1-1/2	42852	3	1

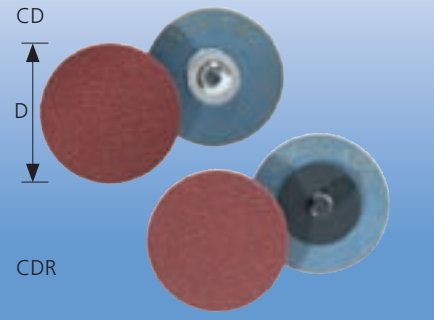


# COMBIDISC® Grinding Tools

## Abrasive Discs



### COMBIDISC® Abrasive Discs Aluminum Oxide A



COMBIDISC® abrasive discs with aluminum oxide A grain are suitable for use on metals and other materials.

For general-purpose grinding from coarse to very fine, in diverse applications (industry, trades, DIY).

**Abrasive: Aluminum Oxide A**

**Ordering Note**

Please order backing pad separately (listed on page 18).

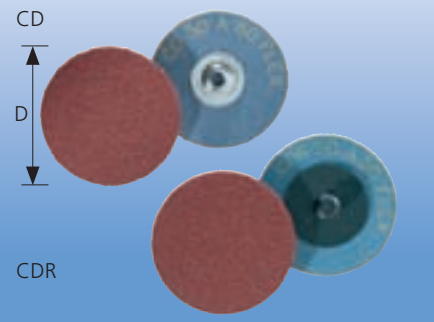
**PFERD Specification Number**

CD A  
CDR A



Diameter (D) [Inches]	Grit and EDP Number								Recom. Speed RPM	
	36	50	60	80	100	120	180	320		
<b>Type CD</b>										
1	-	-	42136	42137	-	42139	42141	42143	15,000 - 26,000	100
1-1/2	42145	-	42148	42149	-	42151	42153	42155	10,000 - 16,000	100
2	42157	42159	42160	42161	42162	42163	42165	42167	8,000 - 13,000	100
3	42169	42171	42172	42173	42174	42175	42177	42179	5,000 - 9,000	50
<b>Type CDR</b>										
1	-	-	42481	42482	-	42484	42486	42488	15,000 - 26,000	100
1-1/2	42490	-	42493	42494	-	42496	42498	42500	10,000 - 16,000	100
2	42502	42504	42505	42506	42507	42508	42510	42512	8,000 - 13,000	100
3	42514	42516	42517	42518	42519	42520	42522	42524	5,000 - 9,000	50

### COMBIDISC® Abrasive Discs Aluminum Oxide A-FLEX



Aluminum oxide A-FLEX discs are particularly flexible. These tools are particularly suitable for work on contours and concave or convex surfaces. A-FLEX discs create seamless transitions in the surface finish of metals. These tools are widely used in tool, die and mold-making applications.

**Recommendation for Use**

It is recommended to use these discs with a soft holder to benefit fully from their flexibility.

**Abrasive: Aluminum Oxide A-FLEX**

**Ordering Note**

Please order backing pad separately (listed on page 18).

**PFERD Specification Number**

CD A-FLEX  
CDR A-FLEX

Diameter (D) [Inches]	Grit and EDP Number			Recom. Speed RPM	
	60	80	120		
<b>Type CD</b>					
1-1/2	42180	42181	42182	10,000 - 16,000	100
2	42184	42185	42186	8,000 - 13,000	100
3	42189	42190	42191	5,000 - 9,000	50
<b>Type CDR</b>					
1-1/2	42525	42526	42527	10,000 - 16,000	100
2	42529	42530	42531	8,000 - 13,000	100
3	42534	42535	42536	5,000 - 9,000	50



The aluminum oxide A-PLUS version is universally suitable for all metals.

A stronger backing material ensures superior stock removal rates.

These discs are preferred for edge grinding, due to their outstanding tear resistance.

**Abrasive: Aluminum Oxide A-PLUS**




**Ordering Note**

Please order backing pad separately (listed on page 18).

**PFERD Specification Number**

CD A-PLUS  
CDR A-PLUS



Diameter (D) [Inches]	Grit and EDP Number				Recom. Speed RPM	
	36	60	80	120		
<b>Type CD</b> 						
2	42330	42331	42332	42333	8,000 - 13,000	100
3	42335	42336	42337	42338	5,000 - 9,000	50
<b>Type CDR</b> 						
2	42670	42671	42672	42673	8,000 - 13,000	100
3	42675	42676	42677	42678	5,000 - 9,000	50

The aluminum oxide A-COOL version is designed for hard-to-machine materials such as stainless steel, Hastelloy, Inconel, etc. Active additive fillers in the coating increase the stock removal rate substantially while preventing loading and heat build-up.

**Recommendation for Use**

Use with hard or medium disc holders only.

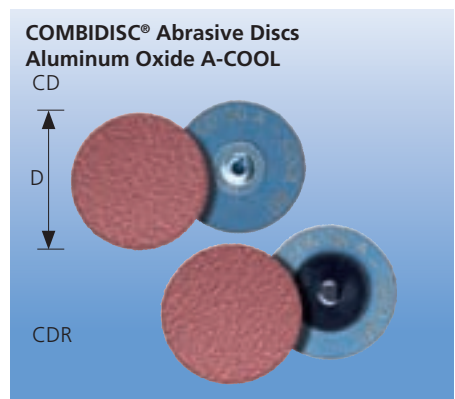
**Abrasive: Aluminum Oxide A-COOL (top-sized)**




**Ordering Note**

Please order backing pad separately (listed on page 18).

**PFERD Specification Number**

CD A-COOL  
CDR A-COOL



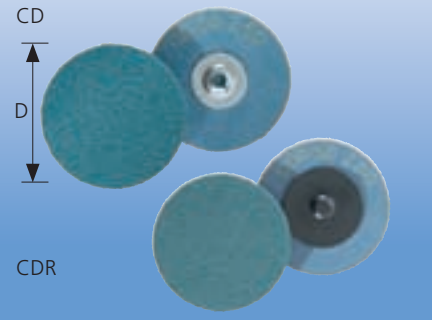
Diameter (D) [Inches]	Grit and EDP Number			Recom. Speed RPM	
	36	60	80		
<b>Type CD</b> 					
2	42216	42219	42220	8,000 - 13,000	100
3	42224	42227	42228	5,000 - 9,000	50
<b>Type CDR</b> 					
2	42558	42561	42562	8,000 - 13,000	100
3	42565	42568	42569	5,000 - 9,000	50

# COMBIDISC® Grinding Tools

## Abrasive Discs



### COMBIDISC® Abrasive Discs Zirconia Alumina Z



COMBIDISC® abrasive discs with zirconia alumina Z grain are suitable for use on all metals. These tools perform particularly well in coarse grinding applications.

**Recommendation for Use**

Use with hard or medium disc holders only.

**Abrasive: Zirconia Alumina Z**

**Ordering Note**

Please order backing pad separately (listed on page 18).

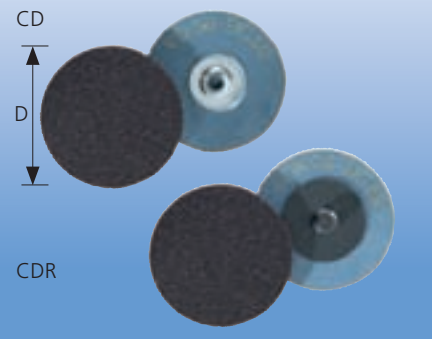
**PFERD Specification Number**

CD Z  
CDR Z



Diameter (D) [Inches]	Grit and EDP Number					Recom. Speed RPM	
	36	40	50	60	80		
<b>Type CD</b>							
2	42254	42255	42256	42257	42258	8,000 - 13,000	100
3	42261	42262	42263	42264	42265	5,000 - 9,000	50
<b>Type CDR</b>							
2	42593	42594	42595	42596	42597	8,000 - 13,000	100
3	42600	42601	42602	42603	42604	5,000 - 9,000	50

### COMBIDISC® Abrasive Discs Silicon Carbide SiC



Silicon carbide (SiC) COMBIDISC® discs are ideal for use on aluminum, copper, bronze, titanium, high-alloyed steels, fibreglass, carbon fibre, composites and plastics. They are the tool of choice for grinding titanium alloys, as their cool grinding properties help prevent thermal cracking.

Excellent for use in the aircraft industry, specifically where SiC is the only approved abrasive product for use on engine components.

**Abrasive: Silicon Carbide SiC**

**Ordering Note**

Please order backing pad separately (listed on page 18).

**PFERD Specification Number**

CD SiC  
CDR SiC

Diameter (D) [Inches]	Grit and EDP Number					Recom. Speed RPM	
	36	60	80	120	240		
<b>Type CD</b>							
2	42415	42416	42417	42418	42419	8,000 - 13,000	100
3	42420	42421	42422	42423	42424	5,000 - 9,000	50
<b>Type CDR</b>							
2	42750	42751	42752	42753	42754	8,000 - 13,000	100
3	42755	42756	42757	42758	42759	5,000 - 9,000	50



Ceramic oxide (CO) is suitable for use on alloyed and unalloyed steels, cast iron, and hard metal coatings.

Aggressive grinding action results in unsurpassed stock removal rates. Active additive fillers in the coating provide substantially improved abrasive performance while preventing loading and heat build-up.

**Abrasive: Ceramic Oxide CO-COOL (top-sized)**

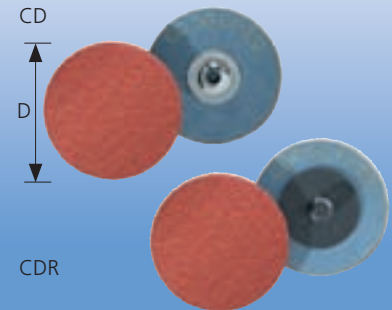
**Ordering Note**




Please order backing pad separately (listed on page 18).

**PFERD Specification Number**

CD CO-COOL  
CDR CO-COOL

**COMBIDISC® Abrasive Discs  
Ceramic Oxide CO-COOL**



Diameter (D) [Inches]	Grit and EDP Number					Recom. Speed RPM	
	24	36	60	80	120		
<b>Type CD</b> 							
2	42280	42289	42292	42293	42295	8,000 - 13,000	100
3	42281	42296	42299	42300	42302	5,000 - 9,000	50
<b>Type CDR</b> 							
2	42619	42628	42631	42632	42634	8,000 - 13,000	100
3	42620	42635	42638	42639	42641	5,000 - 9,000	50

COMBIDISC® mini fibre disc with ceramic oxide grain is designed for very hard-to-machine materials such as stainless steel, Hastelloy, Inconel, titanium etc. Active additive fillers in the coating increase the stock removal rate substantially while preventing loading and heat build-up.

The fibre backing reinforces the disc and improves abrasive performance. Ideally suited for grinding on edges and weld seams of hard materials.

**Recommendation for Use**

Use with hard or medium disc holders only.

**Abrasive: Ceramic Oxide CO-COOL**

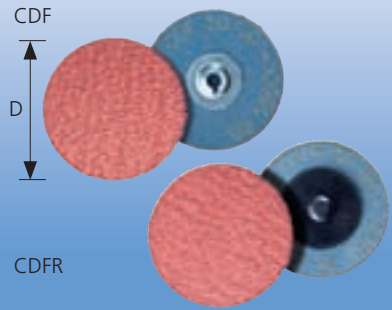
**Ordering Note**




Please order backing pad separately (listed on page 18).

**PFERD Specification Number**

CDF CO-COOL  
CDFR CO-COOL

**COMBIDISC® Mini Fibre Discs  
Ceramic Oxide CO-COOL**



Diameter (D) [Inches]	Grit and EDP Number				Recom. Speed RPM	
	36	50	80	120		
<b>Type CDF</b> 						
2	40492	40494	40496	40497	8,000 - 13,000	100
3	40499	40501	40503	40504	5,000 - 9,000	50
<b>Type CDFR</b> 						
2	40632	40634	40636	40637	8,000 - 13,000	100
3	40639	40641	40643	40644	5,000 - 9,000	50

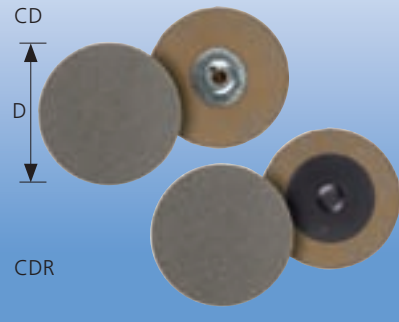


# COMBIDISC® Grinding Tools

## Abrasive Discs and Brush



### COMBIDISC® Diamond Abrasive Discs



COMBIDISC® diamond abrasive discs are perfect for working on wear-resistant platings and for hard facings made of tungsten carbide, chromium carbide, titanium carbide etc.

Particularly recommended for work on materials used for engine construction e.g. Hastelloy, Inconel, titanium and titanium alloys. Also suitable for work on extremely hard materials such as tungsten carbide, glass, ceramic, enamel, stone and GRP/CRP.

#### Abrasive: Diamond

D 251 = P 60, D 126 = P 120, D 76 = P 220  
P = Grit size according to FEPA

#### Recommendation for Use

Diamond abrasive discs perform best at the recommended peripheral speed of 2,000 - 4,000 SFPM.

#### Ordering Note

The grit sizes are given in µm. Please order backing pad separately (listed on page 18).

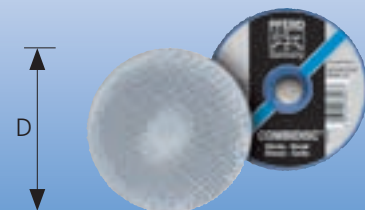
#### PFERD Specification Number

CD DIA  
CDR DIA

Diameter (D) [Inches]	Grit and EDP Number			Recom. Speed RPM	
	251	126	76		
<b>Type CD</b>					
1	40515	40516	40517	7,500 - 15,000	10
1-1/2	40518	40519	40520	5,000 - 10,000	10
2	40521	40522	40523	3,800 - 7,500	10
3	40524	40525	40526	2,500 - 5,000	10
<b>Type CDR</b>					
1	40655	40656	40657	7,500 - 15,000	10
1-1/2	40658	40659	40660	5,000 - 10,000	10
2	40661	40662	40663	3,800 - 7,500	10
3	40664	40665	40666	2,500 - 5,000	10

### COMBIDISC® Brush

**NEW**



Suitable for removal of soft materials such as adhesive, underbody coatings and for cleaning contours and edges.

#### Recommendation for Use

Use either the COMBIDISC® backing pad or the special drive arbor (EDP 42851). COMBIDISC® brushes perform best at the recommended peripheral speed of 2,000 - 3,000 SFPM.

#### Ordering Note

Please refer to catalogue 208 for detailed information on brushes. Please order backing pad (listed on page 18) or drive arbor (listed on page 19) separately.

#### PFERD Specification Number

CB-B



Diameter (D) [Inches]	EDP Number	Wire Material	Wire Dia. [Inches]	Recom. Speed RPM	Max. Speed RPM	Suitable Arbor	
<b>Type CD</b>							
2	44970	Steel	.014	5,000 - 6,000	19,100	EDP 42851	5



Universally suitable for surface conditioning of metals, e.g., removal of prefinishing marks or oxidation, or light deburring jobs. The flexibility of these discs in surface grinding is determined by the hardness of the holder.

**Recommendation for Use**

The quality of the surface finish, the cooler grind and tool life can be further improved by adding grinding oil or water.

**Abrasive: Aluminum Oxide A**

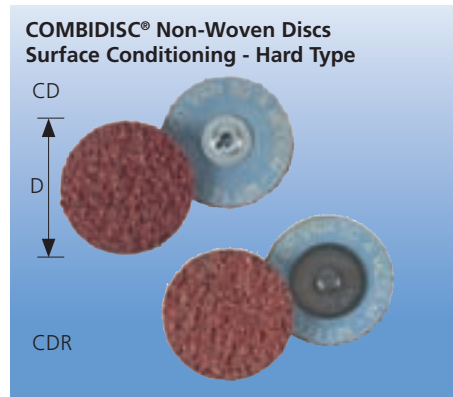
- C = Coarse (colour: yellowish brown)
- M = Medium (colour: reddish brown)
- VF = Very Fine (colour: blue)




**Ordering Note**

Please order backing pad separately (listed on page 18).

**PFERD Specification Number**

- CD VRH A
- CDR VRH A



Diameter (D) [Inches]	Grade and EDP Number			Recom. Speed RPM	
	Coarse	Medium	Very Fine		
<b>Type CD</b> 					
1-1/2	43176	43177	43179	7,000 - 10,000	50
2	43180	43181	43183	6,000 - 8,000	50
3	43184	43185	43187	4,000 - 5,000	25
<b>Type CDR</b> 					
1-1/2	43234	43235	43237	7,000 - 10,000	50
2	43238	43239	43241	6,000 - 8,000	50
3	43242	43243	43245	4,000 - 5,000	25

For ultra-fine surface and contour grinding and cleaning of metal or painted surfaces.

**Recommendation for Use**

The quality of the surface finish, the cooler grind and tool life can be further improved by adding grinding oil or water.

**Abrasive: Aluminum Oxide A**




**Ordering Note**

Please order backing pad separately (listed on page 18).

**PFERD Specification Number**

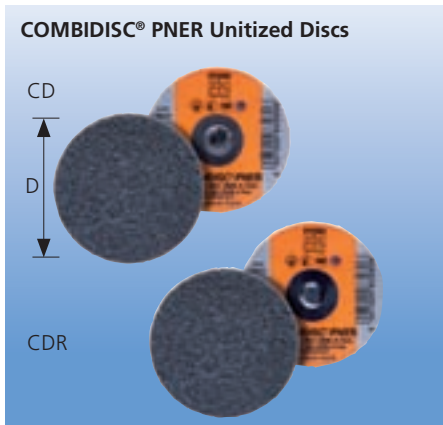
- CD VRW A
- CDR VRW A



Diameter (D) [Inches]	Grade and EDP Number			Recom. Speed RPM	
	Medium	Fine	Very Fine		
<b>Type CD</b> 					
2	43200	43201	43203	5,500 - 8,000	50
3	43204	43205	43207	3,800 - 5,000	25
<b>Type CDR</b> 					
2	43258	43259	43261	5,500 - 8,000	50
3	43262	43263	43265	3,800 - 5,000	25

# COMBIDISC® Grinding Tools

**NEW** PNER Unitized Discs



COMBIDISC® PNER unitized discs are used for fine grinding on angle die grinders. The CD or CDR fastening elements are bonded to the unitized fleece. They are particularly suitable for working smaller and medium-sized areas on stainless steel (INOX) components.

**Abrasive: Aluminum Oxide A  
Silicon Carbide SiC**

**Ordering Note**

The different fleece thicknesses/hardnesses are colour-coded:

- soft (W) = grey
- medium-hard (MH) = dark blue
- hard (H) = red

**Recommendation for Use**

COMBIDISC® Unitized discs PNER achieve their best performance on variable-speed angle grinders at a cutting speed of about 5,000 - 6,000 SFPM.

**Ordering Note**

Please order backing pad separately (listed on page 18).

**PFERD Specification Number**

- CD PNER
- CDR PNER



Diameter (D) x Thickness [Inches]	Abrasive	Grit Size	Grade	Density	Spec.	EDP Number	Recom. Speed RPM	Max. Speed RPM	
<b>Type CD</b>									
2 x 1/4	Silicon Carbide	fine	W	soft	2SF	48430	9,500	19,100	25
2 x 1/4	Aluminum Oxide	coarse	W	soft	2AM	48431	9,500	19,100	25
2 x 1/4	Silicon Carbide	fine	MH	medium-hard	6SF	48434	9,500	19,100	25
2 x 1/4	Aluminum Oxide	fine	MH	medium-hard	6AF	48435	9,500	19,100	25
2 x 1/4	Aluminum Oxide	fine	H	hard	8AM	48438	9,500	19,100	25
2 x 1/4	Aluminum Oxide	coarse	H	hard	8AC	48439	9,500	19,100	25
3 x 1/4	Silicon Carbide	fine	W	soft	2SF	48440	6,400	12,500	25
3 x 1/4	Aluminum Oxide	coarse	W	soft	2AM	48441	6,400	12,500	25
3 x 1/4	Silicon Carbide	fine	MH	medium-hard	6SF	48444	6,400	12,500	25
3 x 1/4	Aluminum Oxide	fine	MH	medium-hard	6AF	48445	6,400	12,500	25
3 x 1/4	Aluminum Oxide	fine	H	hard	8AM	48448	6,400	12,500	25
3 x 1/4	Aluminum Oxide	coarse	H	hard	8AC	48449	6,400	12,500	25
<b>Type CDR</b>									
2 x 1/4	Silicon Carbide	fine	W	soft	2SF	48450	9,500	19,100	25
2 x 1/4	Aluminum Oxide	coarse	W	soft	2AM	48451	9,500	19,100	25
2 x 1/4	Silicon Carbide	fine	MH	medium-hard	6SF	48454	9,500	19,100	25
2 x 1/4	Aluminum Oxide	fine	MH	medium-hard	6AF	48455	9,500	19,100	25
2 x 1/4	Aluminum Oxide	fine	H	hard	8AM	48458	9,500	19,100	25
2 x 1/4	Aluminum Oxide	coarse	H	hard	8AC	48459	9,500	19,100	25
3 x 1/4	Silicon Carbide	fine	W	soft	2SF	48460	6,400	12,500	25
3 x 1/4	Aluminum Oxide	coarse	W	soft	2AM	48461	6,400	12,500	25
3 x 1/4	Silicon Carbide	fine	MH	medium-hard	6SF	48464	6,400	12,500	25
3 x 1/4	Aluminum Oxide	fine	MH	medium-hard	6AF	48465	6,400	12,500	25
3 x 1/4	Aluminum Oxide	fine	H	hard	8AM	48468	6,400	12,500	25
3 x 1/4	Aluminum Oxide	coarse	H	hard	8AC	48469	6,400	12,500	25

COMBIDISC® TX Textile discs provide the removal of coated discs and the surface finish of non-woven discs in a single step. These cool-grinding, long service life discs are particularly well suited for stainless steel and aluminum.

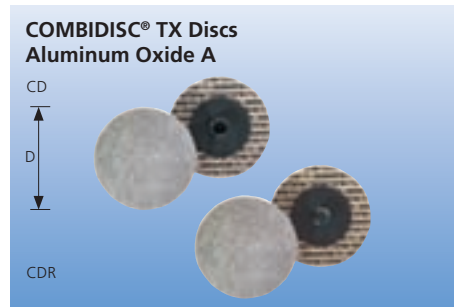
**Abrasive: Aluminum Oxide A**




**Ordering Note**

Please order backing pad separately (listed on page 18).

**PFERD Specification Number**

CD A TX  
CDR A TX



Diameter (D) [Inches]	Grit and EDP Number				Recom. Speed RPM	
	36	80	120	320		
<b>Type CD</b> 						
2	42366	42368	42369	42371	7,000 - 9,500	25
3	42373	42375	42376	42378	5,000 - 6,500	25
<b>Type CDR</b> 						
2	42704	42706	42707	42709	7,000 - 9,500	25
3	42711	42713	42714	42716	5,000 - 6,500	25



For polishing medium sized surfaces using polishing paste bars, grinding paste or diamond polishing paste.

**Ordering Note**

Please order backing pad and polishing paste separately (backing pads listed on page 18, polishing pastes listed on page 96-97).

**PFERD Specification Number**

CD FR



Diameter (D) [Inches]	EDP Number	Recom. Speed RPM	
<b>Type CD</b> 			
2	43215	2,000 - 4,000	10
3	43216	1,200 - 2,500	10

Ideal for coarse face grinding applications such as removal of paint, scale, discolourations, rust, or adhesive residue.

**Recommendation for Use**

For use with a hard or medium COMBIDISC® holder (backing pad).

**Abrasive: Silicon Carbide SiC**

**Ordering Note**

Please order backing pad separately (listed on page 18).

**PFERD Specification Number**

CD PCLR  
CDR PCLR



Diameter (D) [Inches]	EDP Number	Recom. Speed RPM	
<b>Type CD</b> 			
2	44850	5,500 - 8,000	10
3	44851	3,800 - 5,000	10
<b>Type CDR</b> 			
2	44853	5,500 - 8,000	10
3	44854	3,800 - 5,000	10




### COMBIDISC® Sets Type CD



Ideal for product introduction and testing.  
Choose from 2" or 3" diameter sets.

#### Contents of each COMBIDISC® Set

Disc Type	2" Dia. EDP	3" Dia. EDP	Qty. per Set
<b>Coated Abrasive Discs</b>			
Aluminum Oxide - A 36	42157	42169	3
Aluminum Oxide - A 60	42160	42172	3
Aluminum Oxide - A 120	42163	42175	3
Aluminum Oxide - A-COOL 60	42219	42227	3
Zirconia Alumina - Z 60	42257	42264	3
<b>Non-Woven Discs</b>			
Surface conditioning - VRH medium	43181	43185	3
Finishing - VRW medium	43200	43204	3
<b>Backing Pad</b>			
Type CD backing pad (medium)	42112	42115	1

Diameter [Inches]	Full Set EDP Number	
2	42771	1
3	42772	1

### COMBIDISC® Sets Type CDR



Ideal for product introduction and testing.  
Choose from 2" or 3" diameter sets.

#### Contents of each COMBIDISC® Set

Disc Type	2" Dia. EDP	3" Dia. EDP	Qty. per Set
<b>Coated Abrasive Discs</b>			
Aluminum Oxide - A 36	42502	42514	3
Aluminum Oxide - A 60	42505	42517	3
Aluminum Oxide - A 120	45508	42520	3
Aluminum Oxide - A-COOL 60	42561	42568	3
Zirconia Alumina - Z 60	42596	42603	3
<b>Non-Woven Discs</b>			
Surface conditioning - VRH medium	43239	43243	3
Finishing - VRW medium	43258	43262	3
<b>Backing Pad</b>			
Type CDR backing pad (medium)	42460	42463	1

Diameter [Inches]	Full Set EDP Number	
2	42787	1
3	42788	1



PFERD offers a comprehensive range of abrasive belts.

- They differ in:
- Dimensions,
  - grit sizes,
  - flexibility and
  - abrasives used.

The PFERD product range is aligned to the standard belt grinders available in the market.

### Advantages

- High abrasive performance.
- High tensile strength with appropriate flexibility.
- Excellent grain retention.
- Long tool life.

### Safety Note

For safety reasons, it is imperative to remain within the stated RPM limit at all times. The safety recommendations and pictograms must be observed when using flexible abrasives!

### Application Examples

- Fine-grinding of larger surfaces in multiple steps.
- Surface texturing.
- Creation of uniform visual effects on large surfaces.

### Recommendations for Use

Many factors influence material removal and surface finish in belt applications. For best results, please review the technical information following this page. The use of the appropriate grinding oil on the different materials can substantially increase tool life and the abrasive performance of tools made from coated abrasives.

### 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.

### Safety Recommendations



= Wear protective goggles!



= Wear a dust mask!



= Not permitted for wet grinding!



= Wear protective gloves!



= Observe safety recommendations!



= Use ear protection!



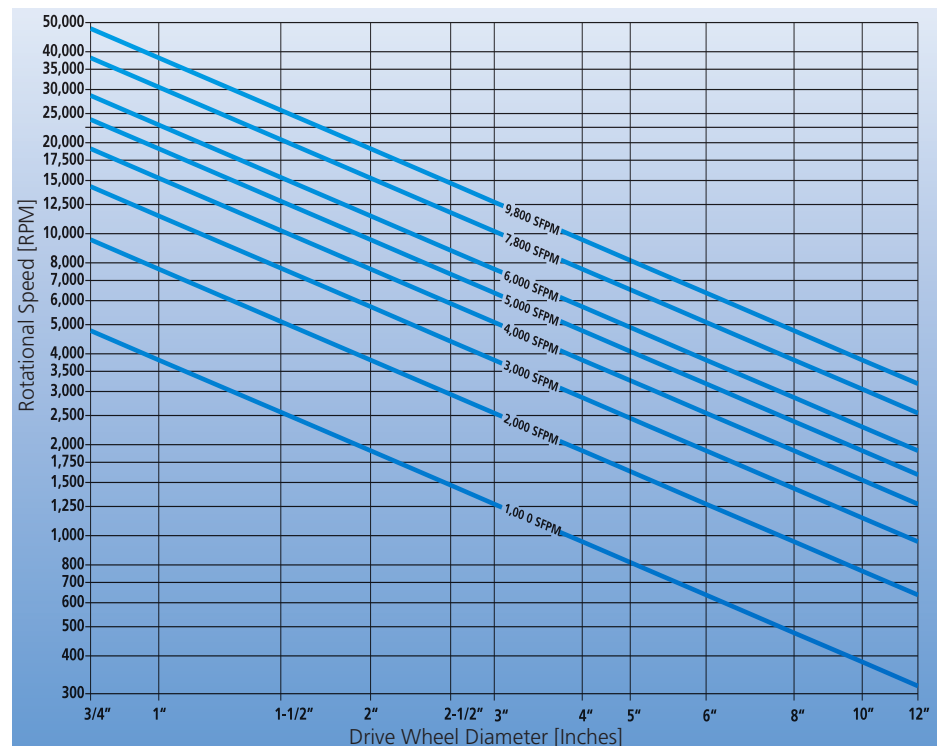
Read the Material Safety Data Sheets (MSDS) before using any materials!

### Peripheral Speed of Abrasive Belts

In the diagram, peripheral speeds are represented by blue diagonal lines. Each vertical line represents a drive roll 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 drive wheel.

#### Example

Drive Wheel Diameter: 5"  
Peripheral Speed: 4,000 - 6,000 SFPM  
Rotational Speed: 3,000 - 4,600 RPM



# Abrasive Belts

## General Information



### Variables Influencing Removal Performance

This chart illustrates the variables that affect grinding results on the workpiece surface.

Variable	More aggressive, Better cutting	Less aggressive, Lower cutting
Workpiece feed speed	← slower	→ faster
Belt speed (SFPM)	← slower	→ faster
Belt length	← longer	→ shorter
Grit size	← coarse	→ fine
Contact wheel: Type	← serrated	→ smooth
Diameter	← smaller	→ larger
Composition	← steel	→ rubber / canvas
Feed pressure	← high	→ low
Grinding aid	← straight oil	→ oil solubles / water / dry
Workpiece hardness	← softer	→ harder

### Troubleshooting – Symptoms and Solutions

This table is a partial listing of potential problems and possible solutions to grinding problems with abrasive belts. If you experience problems that cannot be solved using these recommendations, PFERD has trained technicians that will try to solve your problems via telephone or on-site at your location.



Belt Breakage	
Too much work pressure	<ul style="list-style-type: none"> <li>■ reduce pressure</li> <li>■ use coarser grit</li> <li>■ change belts</li> </ul>
Not enough belt tension under work load	<ul style="list-style-type: none"> <li>■ increase tension (do not over-tighten)</li> </ul>
Too much belt tension for grit use	<ul style="list-style-type: none"> <li>■ adjust tension (should not be more than required under load to prevent slippage)</li> </ul>
Foreign materials caught between belt's backer and drive or contact wheels	<ul style="list-style-type: none"> <li>■ use dust collection system clean work area</li> </ul>
Belts creased or damaged during handling	<ul style="list-style-type: none"> <li>■ handle carefully, see storage and handling information</li> </ul>

Belt Not Tracking Properly	
Tracking mechanism not properly adjusted	<ul style="list-style-type: none"> <li>■ follow machine manual to properly adjust tracking</li> </ul>
Damaged or fluttering edges of belt	<ul style="list-style-type: none"> <li>■ increase belt tension, replace belt if necessary</li> </ul>
Belt runs off due to slippage under load	<ul style="list-style-type: none"> <li>■ increase tension to prevent slippage (do not overtighten)</li> </ul>
Tapered contact roll or idler roll, idler roll and contact roll not parallel	<ul style="list-style-type: none"> <li>■ redress roll to remove taper, align to parallel</li> </ul>



Poor Grinding Results	
Burnishing of work surface – indication of over-used belt	<ul style="list-style-type: none"> <li>■ use belt only as long as efficient</li> <li>■ use proper feed speeds</li> </ul>
Streaks and/or ridges on workpiece	<ul style="list-style-type: none"> <li>■ clean or redress contact roll</li> <li>■ clean platen, replace felt or graphite</li> <li>■ check dust collection for blockages</li> </ul>
Too coarse finish	<ul style="list-style-type: none"> <li>■ use finer grit</li> <li>■ increase SFPM</li> <li>■ apply more feed pressure</li> </ul>
Too fine finish	<ul style="list-style-type: none"> <li>■ use coarser grit</li> <li>■ decrease SFPM</li> <li>■ apply less feed pressure</li> </ul>

### Application Recommendations for Use of Abrasive Belts

Workpiece Material			Application	Surface Roughness	Grit Size	Recom. Abrasive Grit	Recom. Peripheral Speed [SFPM]
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 grinding	coarse	coarse	Aluminum oxide A fleece	4,900 - 6,900
			fine grinding	↓	↓		
			very fine grinding	fine	fine		
	Hardened, heat-treated steels exceeding 38 HRC (>1200 N/mm <sup>2</sup> )	Tool steels, tempered steels, alloyed steels, cast steels	coarse grinding	coarse	coarse	Aluminum oxide A Z-Zirconia alumina fleece	3,900 - 5,900
			fine grinding	↓	↓		
			very fine grinding	fine	fine		
Stainless steel (INOX)	Rust and acid-resistant steels	Austenitic and ferritic stainless steels	coarse grinding	coarse	coarse	CO-COOL A-COOL fleece	2,900 - 4,900
			fine grinding	↓	↓		
			very fine grinding	fine	fine		
Non-ferrous metals	Soft non-ferrous metals	Aluminum-alloys, brass, copper, zinc	coarse grinding	coarse	coarse	Aluminum oxide A fleece	5,900 - 7,900
			fine grinding	↓	↓		
			very fine grinding	fine	fine		
	Hard non-ferrous metals	Bronze, titanium, titanium alloys, aluminum alloys (high Si content)	coarse grinding	coarse	coarse	CO-COOL Aluminum oxide A fleece	3,900 - 5,900
			fine grinding	↓	↓		
			very fine grinding	fine	fine		
	High-temperature resistant materials	Nickel based alloys, cobalt based alloys (aircraft engine and turbine construction)	coarse grinding	coarse	coarse	CO-COOL Aluminum oxide A fleece	1,000 - 2,900
			fine grinding	↓	↓		
			very fine grinding	fine	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 grinding	coarse	coarse	Aluminum oxide A	4,900 - 6,900
			fine grinding	↓	↓		
			very fine grinding	fine	fine		
Plastics and other materials	Plastics, wood, paint	Fibre-reinforced plastics, thermoplastics, woods, chipboard, paint, melamine	coarse grinding	coarse	coarse	Aluminum oxide A	1,900 - 4,900
			fine grinding	↓	↓		
			very fine grinding	fine	fine		



# Abrasive Belts

## File Belts



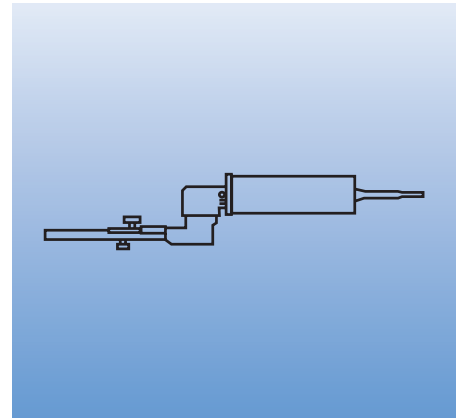
### Application Examples

#### File Belts

- Portable, light duty use.
- For grinding, deburring, finishing and polishing.
- Small area of surface contact.
- For use on hard-to-reach areas and contours, e.g., tubes, railings.

### Recommendations for Use

Recommendations for use of these tools under various operating conditions, as well as belt/grinder compatibility information, are given in the table "Application Recommendations for Use of Abrasive Belts" (page 31).



#### File Belts Aluminum Oxide A




For general-purpose grinding, from coarse to fine in diverse applications.

#### Abrasive: Aluminum Oxide A

**PFERD Specification Number**  
BA-A



Width x Length [Inches]	Grit and EDP Number							
	36	40	50	60	80	100	120	
1/8 x 12	-	-	-	48947	48948	-	48950	10
1/8 x 20-1/2	-	-	-	48955	48956	-	48958	10
1/4 x 12	-	-	-	48963	48964	-	48966	10
1/4 x 18	49000	49001	49002	49003	49004	-	49006	10
1/4 x 20-1/2	48968	48969	48970	48971	48972	-	48974	10
1/4 x 24	49008	49009	49010	49011	49012	-	49014	10
3/8 x 12	-	-	-	48979	48980	-	48982	10
3/8 x 13	49016	49017	49018	49019	49020	-	49022	10
1/2 x 12	49024	-	49026	49027	49028	-	49030	10
1/2 x 20-1/2	48984	48985	48986	48987	48988	-	48990	10
1/2 x 18	49032	49033	49034	49035	49036	49037	49038	10
1/2 x 24	49040	49041	49042	49043	49044	49045	49046	10
5/8 x 20-1/2	-	-	-	48995	48996	-	48998	10
3/4 x 18	49048	49049	49050	49051	49052	-	49054	10
3/4 x 20-1/2	-	49057	49058	49059	49060	-	49062	10
1 x 12	-	49065	49066	49067	49068	-	49070	10
1 x 30	-	-	-	49086	49087	-	49089	10

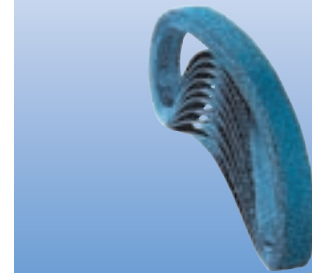



Designed for coarse grinding and high stock removal, these tools attain a long service life. Zirconia alumina is a high-performance abrasive which delivers best results at increased contact pressure.

**Abrasive: Zirconia Alumina Z**

**PFERD Specification Number**  
BA-Z

**File Belts**  
**Zirconia Alumina Z**



Width x Length [Inches]	Grit and EDP Number				
	36	40	60	80	
1/4 x 18	49691	49692	49694	49695	10
1/4 x 24	49696	49697	49699	49700	10
3/8 x 13	49701	49702	49704	49705	10
1/2 x 12	49712	49713	49715	49716	10
1/2 x 18	49717	49718	49720	49730	10
1/2 x 24	49734	49735	49738	49739	10
3/4 x 18	49740	49741	49743	49744	10
3/4 x 20-1/2	49746	49747	49749	49750	10

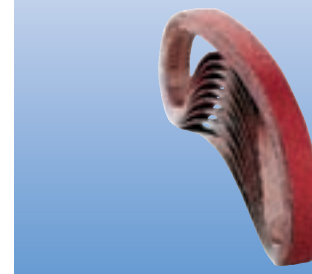



For aggressive grinding achieving maximum stock removal on hard, poor heat-conducting materials. Active additives in the coating ensure a substantially improved abrasive performance while preventing loading and reducing heat build-up in the workpiece.

**Abrasive: Ceramic Oxide CO-COOL (top-sized)**

**PFERD Specification Number**  
BA-CO-COOL

**File Belts**  
**Ceramic Grain CO-COOL**



Width x Length [Inches]	Grit and EDP Number				
	40	50	60	80	
1/4 x 18	49497	49498	49499	49500	10
1/4 x 24	49504	49505	49506	49507	10
3/8 x 13	49511	49512	49513	49514	10
1/2 x 12	49529	49530	49531	49532	10
1/2 x 18	49536	49537	49538	49539	10
1/2 x 24	49543	49544	49545	49546	10
3/4 x 18	49560	49561	49562	49563	10
3/4 x 20-1/2	49567	49568	49569	49570	10

# Abrasive Belts

## Portable Belts



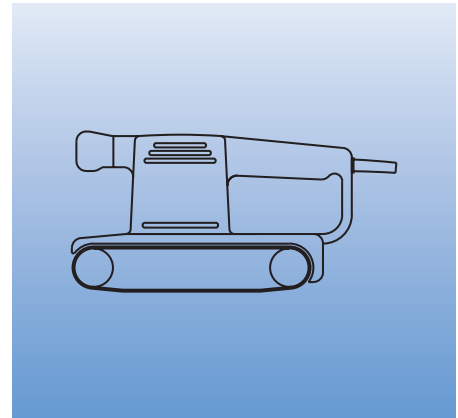
### Application Examples

#### Portable Belts

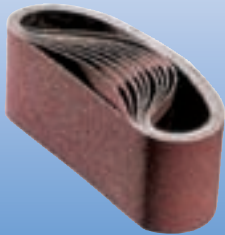
- Portable use for working large flat or near flat surfaces.
- For grinding, deburring, finishing and polishing.
- Removing rust and corrosion, surface conditioning.
- Tool designed for use on metals, wood, plastic, fibreglass and composites.

#### Recommendations for Use

Recommendations for use of these tools under various operating conditions, as well as belt/grinder compatibility information, are given in the table "Application Recommendations for Use of Abrasive Belts" (page 31).




#### Portable Belts Aluminum Oxide A

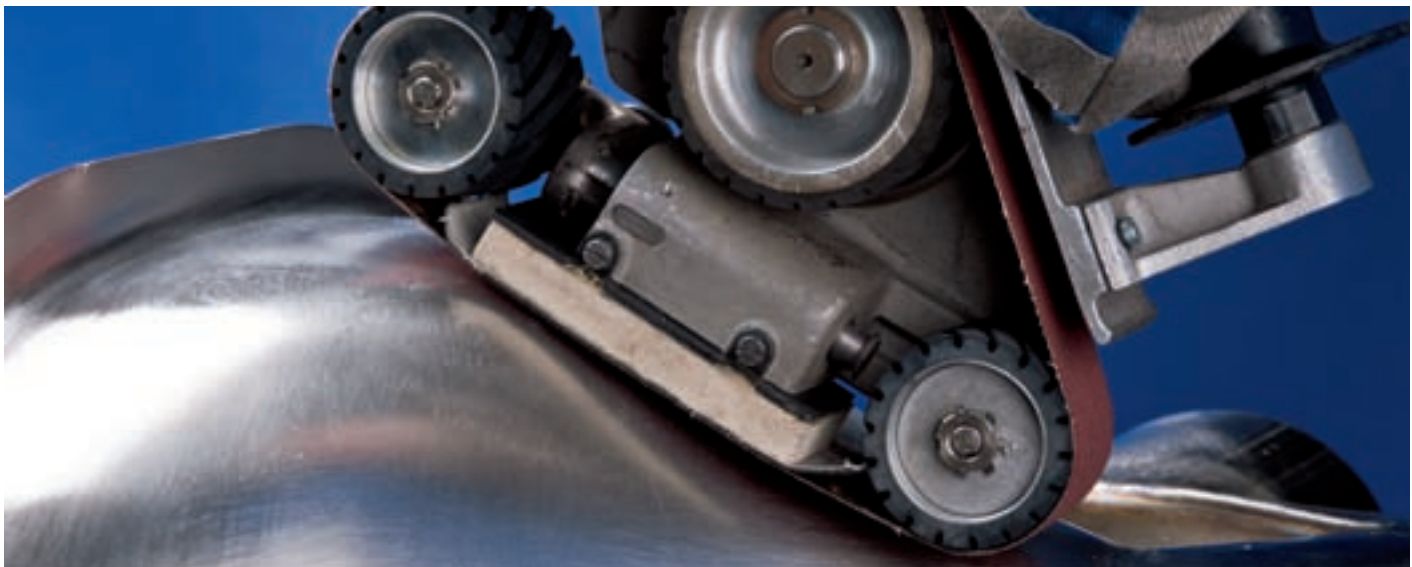


For general-purpose grinding, from coarse to fine in diverse applications.

#### Abrasive: Aluminum Oxide A

**PFERD Specification Number**  
BA-A

Width x Length [Inches]	Grit and EDP Number								
	24	36	40	50	60	80	100	120	
3 x 21	-	-	49211	49212	49213	49214	49215	49216	10
3 x 24	-	49249	49250	49251	49252	49253	49254	49255	10
3-1/2 x 15-1/2	-	-	49312	-	49314	49315	49316	49317	10
4 x 24	49358	49359	49360	49361	49362	49363	49364	49365	10




Designed for coarse grinding and high stock removal, these tools also attain a long service life. Zirconia alumina is a high-performance abrasive which delivers best results at increased contact pressure.

**Abrasive: Zirconia Alumina Z**  
**PFERD Specification Number**  
 BA-Z

**Portable Belts**  
**Zirconia Alumina Z**



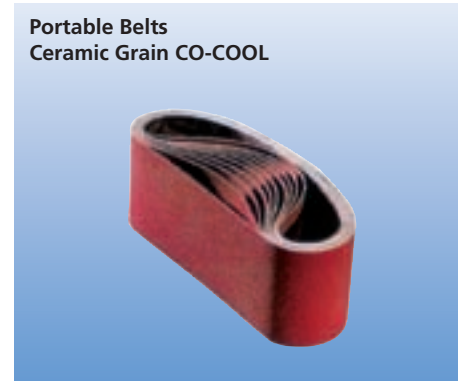
Width x Length [Inches]	Grit and EDP Number			
	40	60	80	
3 x 21	49842	49844	49845	10
3 x 24	49848	49850	49851	10
4 x 24	49874	49876	49877	10




For aggressive grinding achieving maximum stock removal on hard, poor heat-conducting materials. Active additives in the coating ensure a substantially improved abrasive performance while preventing loading and reducing heat build-up in the workpiece.

**Abrasive: Ceramic Oxide CO-COOL**  
**(top-sized)**  
**PFERD Specification Number**  
 BA-CO-COOL

**Portable Belts**  
**Ceramic Grain CO-COOL**



Width x Length [Inches]	Grit and EDP Number			
	40	60	80	
3 x 21	49630	49632	49633	10
3 x 24	49637	49639	49640	10
4 x 24	49651	49653	49654	10





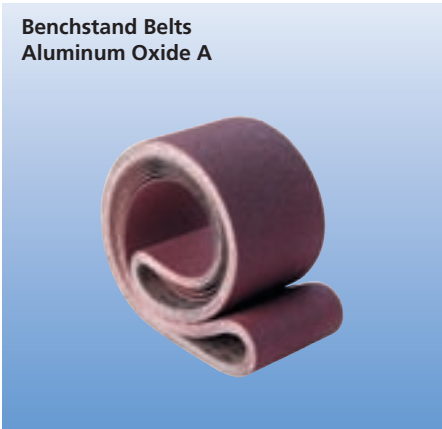
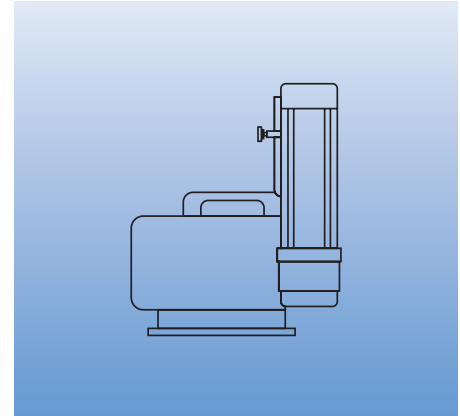
### Application Examples

#### Benchstand Belts

- Stationary machine for light to moderate duty use.
- Most machines are sanding attachments to bench grinders.
- Versatile, low powered machines for general purpose use.
- Grinding and finishing against platen or contact wheel.

#### Recommendations for Use


Recommendations for use of these tools under various operating conditions, as well as belt/grinder compatibility information, are given in the table "Application Recommendations for Use of Long/Short Abrasive Belts" (page 31).



For general-purpose grinding, from coarse to fine in diverse applications.

**Abrasive: Aluminum Oxide A**

**PFERD Specification Number**  
BA-A

Width x Length [Inches]	Grit and EDP Number									
	24	36	40	50	60	80	100	120	150	
1 x 42	-	-	49093	49094	49095	49096	49097	49098	49099	10
1-1/2 x 60	-	-	49106	-	49108	49109	-	-	-	10
2 x 48	-	49132	49133	49134	49135	49136	49137	49138	-	10
2 x 60	-	-	49142	-	49144	49145	-	-	-	10
2 x 72	-	-	49151	-	49153	49154	-	-	-	10
2-1/2 x 60	-	49179	49180	49181	49182	49183	-	49185	-	10
4 x 36	-	-	49373	-	49375	49376	-	49378	-	10
4 x 54	-	-	49393	-	49395	49396	-	-	-	10
6 x 48	49463	49464	49465	49466	49467	49468	49469	49470	-	10

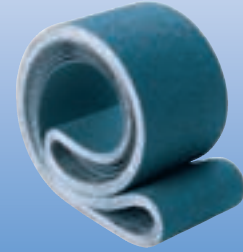



Designed for coarse grinding and high stock removal, these tools also attain a long service life. Zirconia alumina is a high-performance abrasive which delivers best results at increased contact pressure.

**Abrasive: Zirconia Alumina Z**

**PFERD Specification Number**  
BA-Z

### Benchstand Belts Zirconia Alumina Z



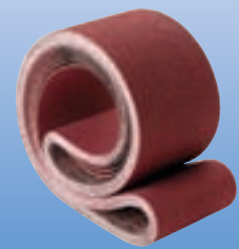
Width x Length [Inches]	Grit and EDP Number			
	36	60	80	
1 x 42	49774	49777	49778	10
1-1/2 x 60	49780	49783	49784	10
2 x 48	49786	49789	49790	10
2 x 60	49792	49795	49796	10
2 x 72	49798	49801	49802	10
2-1/2 x 60	49828	49831	49832	10
4 x 36	49879	49882	49883	10
6 x 48	49885	49888	49889	10


For aggressive grinding achieving maximum stock removal on hard, poor heat-conducting materials. Active additives in the coating ensure a substantially improved abrasive performance while preventing loading and reducing heat build-up in the workpiece.

**Abrasive: Ceramic Oxide CO-COOL  
(top-sized)**

**PFERD Specification Number**  
BA-CO-COOL

### Benchstand Belts Ceramic Grain CO-COOL



Width x Length [Inches]	Grit and EDP Number			
	40	60	80	
1 x 42	49574	49576	49577	10
1-1/2 x 60	49581	49583	49584	10
2 x 48	49588	49590	49591	10
2 x 60	49595	49597	49598	10
2 x 72	49602	49604	49605	10
2-1/2 x 60	49616	49618	49619	10
4 x 36	49658	49660	49661	10
6 x 48	49672	49674	49675	10



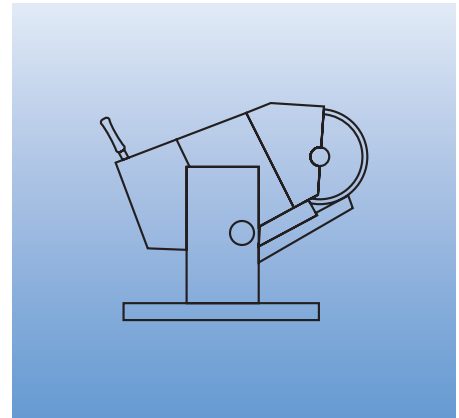
### Application Examples

#### Backstand Belts

- Stationary, heavy-duty machine.
- Deburring, blending and finishing.
- Work performed at contact wheel for most aggressive action.
- Grinding and finishing castings and forgings.

### Recommendations for Use

Recommendations for use of these tools under various operating conditions, as well as belt/grinder compatibility information, are given in the table "Application Recommendations for Use of Abrasive Belts" (page 31).




**Abrasive: Aluminum Oxide A**

**PFERD Specification Number**  
BA-A

Backstand Belts  
Aluminum Oxide A



For general-purpose grinding, from coarse to fine in diverse applications.

Width x Length [Inches]	Grit and EDP Number			
	36	60	80	
2 x 132	49159	49162	49163	10
3 x 132	49289	49292	49293	10
4 x 132	49446	49449	49450	10



These heavy-duty non-woven surface conditioning belts are manufactured with aluminum oxide impregnated fibre mesh on a tough web backing. The grain is evenly dispersed on the material, resulting in a smooth, uniform finish.

The open structure resists loading and can be used wet or dry. The synthetic material will not rust or corrode. Its life can be increased by washing after use.

POLIVLIES™ belts are designed for buffing, blending, cleaning, light deburring, finishing and polishing on all metals. Particularly well suited for use on stainless and aluminum.

### Abrasive: Aluminum Oxide A

- C = Coarse (colour: yellowish brown)
- M = Medium (colour: reddish brown)
- F = Fine (colour: blue)

### Recommendation for Use


Please observe indicated direction of rotation.

### PFERD Specification Number

VB

POLIVLIES™ Surface Conditioning Belts



Width x Length [Inches]	Grit Size and EDP Number			
	Coarse	Medium	Fine	
1/4 x 12	43634	43635	43636	10
1/4 x 18	43550	43551	43552	10
1/4 x 20-1/2	43637	43638	43639	10
1/4 x 24	43553	43554	43555	10
3/8 x 12	43640	43641	43642	10
1/2 x 12	43643	43644	43645	10
1/2 x 18	43556	43557	43558	10
1/2 x 20-1/2	43646	43647	43648	10
1/2 x 24	43559	43560	43561	10
5/8 x 20-1/2	43649	43650	43651	10
3/4 x 18	43562	43563	43564	10
3/4 x 20-1/2	43565	43566	43567	10
3 x 24	43607	43608	43609	10
3-1/2 x 15-1/2	43613	43614	43615	10





# Abrasive Sheets

## Cloth/Paper Backed

### Abrasive Sheets, Cloth-Backed Aluminum Oxide A (HP) Aluminum Oxide A (BG)

Cloth-Backed (HP)



Cloth-Backed (BG)

#### Cloth-Backed (HP)

For use on metals or wood. Designed for ultra heavy-duty applications, resists oil and petroleum.

#### Cloth-Backed (BG)

Suitable for use on metals or wood. A cost-efficient alternative for standard-duty applications.

#### Abrasive: Aluminum Oxide A


#### Ordering Note for Aluminium Oxide A (BG)

The grit sizes 100, 120, 150, 180, 220 and 240 are supplied in packaging units of 100 pieces.

#### PFERD Specification Number

BG HP  
BG



Width x Length [Inches]	Grit and EDP Number														
	40	60	80	100	120	150	180	220	240	280	320	400	444	999	
<b>Aluminum Oxide A (HP)</b>															
9 x 11	46912	46913	46914	46915	46916	46917	46918	46919	46920	46921	46922	46924	46925	46926	50
<b>Aluminum Oxide A (BG)</b>															
9 x 11	46900	46901	46902	46903	46904	46905	46906	46907	46908	-	-	-	-	-	50

### Abrasive Sheets, Paper-Backed Aluminum Oxide A Silicon Carbide SiC (Water Resistant)

Aluminum Oxide A



Silicon Carbide SiC (Water resistant)

#### Paper-Backed (Water Resistant) SiC

Can be used on paintwork and glass. Particularly suitable for wet grinding on conventional coating systems.

#### Abrasive: Silicon Carbide SiC

#### PFERD Specification Number

BP SiC

#### Paper-Backed A

For removing paint and coatings from metal or wood.

#### Abrasive: Aluminum Oxide A


#### Ordering Note for Aluminium Oxide A

The grit sizes 40, 60 and 80 are supplied in packaging units of 50 pieces.


#### PFERD Specification Number

BP A



Width x Length [Inches]	Grit and EDP Number										
	40	60	80	100	120	150	180	220	240	280	
<b>Silicon Carbide SiC (Water Resistant)</b>											
9 x 11	-	-	-	46927	46928	46929	46930	46931	46932	46933	50
<b>Aluminum Oxide A</b>											
9 x 11	46942	46943	46944	46945	46946	46947	46948	46949	46950	46951	100

Width x Length [Inches]	Grit and EDP Number								
	320	360	400	500	600	800	1000		1200
<b>Silicon Carbide SiC (Water Resistant)</b>									
9 x 11	46934	46935	46936	46937	46938	46939	46940	46941	50
<b>Aluminum Oxide A</b>									
9 x 11	-	-	46952	-	-	-	-	-	100

Designed for light manual grinding, deburring and cleaning work on metals, plastics, fibreglass, fibre-reinforced plastics, stainless steel, aluminum, paint, coatings and fillers.

Due to their flexibility, POLIVLIES™ hand pads provide outstanding results on contours and in hard-to-reach workpiece areas.

### Maroon (General Purpose)

Most widely used of all hand pads. Aluminum oxide grain, noted for its toughness and durability on tasks such as cleaning, deburring, rust removal, blending and finishing. May be used dry or with solvents.

### Green (Food Service)

General purpose grade pads made from aluminum oxide. Commonly used in the food service industry, these pads are recommended for light duty and finishing applications.

### Abrasive: Aluminum Oxide A Silicon Carbide SiC

#### Application

- Light deburring work.
- Corrosion removal.
- Cleaning jobs in tool and mold-making.
- Fine grinding / patterning of stainless steel.

#### Recommendation for Use

Suitable for dry or wet use.

#### PFERD Specification Number

PVSK

#### Tan

This heavy-duty pad consists of a dense aluminum oxide grain concentration on heavy backing material. Designed for the most severe applications, it is extremely durable and resists tearing and fraying. Excellent for removal of oxidation, weld cleaning, deburring, and finishing stainless and aluminum.

#### White


This hand pad contains no abrasive. It is used primarily for applying lubricants, detergents, polishes, etc. to almost any material. Commonly used for cleaning plastics, glass, ceramics, porcelain, chrome, copper and stainless steel.

POLIVLIES™ Hand Pads



#### Grey

Ultra fine silicon carbide pad provides a precise, fine cutting action. Well suited for light cleaning and fine finishing on a variety of materials including metal, plastic, glass and wood.

Width x Length [Inches]	EDP Number	Description	Abrasive	Colour	
6 x 9	44600	General purpose	Aluminum Oxide	Maroon	20
6 x 9	44606	Medium finish	Aluminum Oxide	Tan	20
6 x 9	44609	Ultra fine	Silicon Carbide	Grey	20
6 x 9	44613	Food service	Aluminum Oxide	Green	20
6 x 9	44618	Non-abrasive	None	White	20

Ergonomic pad holder designed for use with 6 x 9" hand pads.

#### PFERD Specification Number

PVPH

Pad Holder



Dimension [Inches]	EDP Number	
3-1/2 x 6	44620	1

# Abrasive Rolls

## Shop Rolls



Shop rolls are used in workshops, maintenance, tool-making, fabrication shops and production applications. The material can be torn by hand to any length for practicality and economy. Choose from a wide selection of type, sizes and grits.




**Abrasive: Aluminum Oxide A**

**PFERD Specification Number**  
SBRG

### Light, Flexible Shop Rolls



Provides good heat resistance and smooth finishes. Aluminum oxide cloth, for use on ferrous and non-ferrous metals grinding flat or irregular surfaces, cleaning and polishing of rough ground workpieces.

Width [In] x Length [Yds]	Grit and EDP Number														
	40	50	60	80	100	120	150	180	220	240	280	320	400	500	
1 x 50	47100	47101	47102	47103	47104	47105	47106	47107	47108	47109	47110	47111	47112	47113	1
1-1/2 x 50	47150	47151	47152	47153	47154	47155	47156	47157	47158	47159	47160	47161	47162	47163	1
2 x 50	47200	47201	47202	47203	47204	47205	47206	47207	47208	47209	47210	47211	47212	47213	1


### Heavy-Duty Shop Rolls



Aluminum oxide cloth with a combination resin-over-resin bond most resistant to heat and moisture, very strong bond for best durability. For use on ferrous and non-ferrous metals grinding flat or irregular surfaces, cleaning and polishing of rough ground workpieces.

**Abrasive: Aluminum Oxide A**


**PFERD Specification Number**  
SBRR

Width [In] x Length [Yds]	Grit and EDP Number													
	40	50	60	80	100	120	150	180	220	240	280	320	400	
1 x 50	47114	47115	47116	47117	47118	47119	47120	47121	47122	47123	47124	47125	47126	1
1-1/2 x 50	47164	47165	47166	47167	47168	47169	47170	47171	47172	47173	47174	47175	47176	1
2 x 50	47214	47215	47216	47217	47218	47219	47220	47221	47222	47223	47224	47225	47226	1

Silicon carbide screen cloth is highly resistant to loading. Offers long life on ferrous and non-ferrous metals, wood, plastics and other materials. Double sided.

**Abrasive: Silicon Carbide SiC**  
**PFERD Specification Number**  
 SBRS



Width [In] x Length [Yds]	Grit and EDP Number			
	80	120	180	
1-1/2 x 5	47230	47231	47232	1
1-1/2 x 10	47233	47234	47235	1

Two different holders are available for convenient storage of shop rolls - rip off any desired length:

**Single Roll Holder SRH 1 (empty)**

For 1", 1-1/2" or 2" roll width.

**Multi Roll Holder SRH 5 (empty)**


For 1", 1-1/2" or 2" roll width.

Permits various roll width combinations, e.g., 5 x 2" or 5 x 1-1/2".

Both holders are prepared for wall mounting.

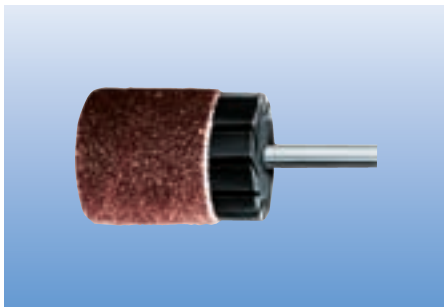
**PFERD Specification Number**  
 SRH



Type	No. of rolls	Suitable for Roll Widths [Inches]	Suitable for Roll Dia. [Inches]	EDP Number	
Single Roll	1	1, 1-1/2 or 2	15	47238	1
Multi Roll	up to 5	1, 1-1/2 or 2	10	47239	1

# Abrasive Spiral Bands, Drum Holders

## General Information



PFERD offers different types in terms of shapes, dimensions, abrasives, grit sizes and packaging units.

PFERD offers matching cylindrical and conical rubber drum holders. Rubber drum holders are re-usable holders for abrasive spiral bands.

A closely tolerated fit ensures that the sleeve will remain firmly secured to the drum holder during grinding.

### Advantages

- PFERD has an extensive range of abrasive spiral bands of various grit types and holders suitable for a wide range of applications.
- Drum holders are fully reusable.
- Slots allow the drum to expand during grinding, thereby tensioning the abrasive sleeve.
- A special manufacturing method ensures an outstanding tool life, even in heavy-duty use.
- Particularly high stock removal and very aggressive abrasive action.

### Application Examples

- Weld removal on steel fabrications.
- Fine grinding work in tank and process equipment construction.
- Rework in assembly and repair projects.
- Working on edges and contours in aircraft engine construction.

### Recommendations for Use

- The abrasive spiral bands can be mounted and removed by turning them slightly to the right and pulling at the same time.

- Abrasive spiral bands can be changed more easily if the rubber drum holder is clamped into the tool drive.
- The abrasive spiral bands can only be guaranteed to fit securely if minimum speed is maintained.
- Abrasive spiral bands perform best at a cutting speed of 3,000 - 6,000 SFPM.
- By using the appropriate grinding oil for the different materials, the tool life and the abrasive performance of the abrasive spiral bands can be substantially increased.

### Safety Notes

- The maximum permissible peripheral speed is 6,000 SFPM.
- For safety reasons, it is imperative to remain within the stated RPM limit.
- Do not let the abrasive spiral bands project over the rubber holder.

### 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.

### Safety Recommendations

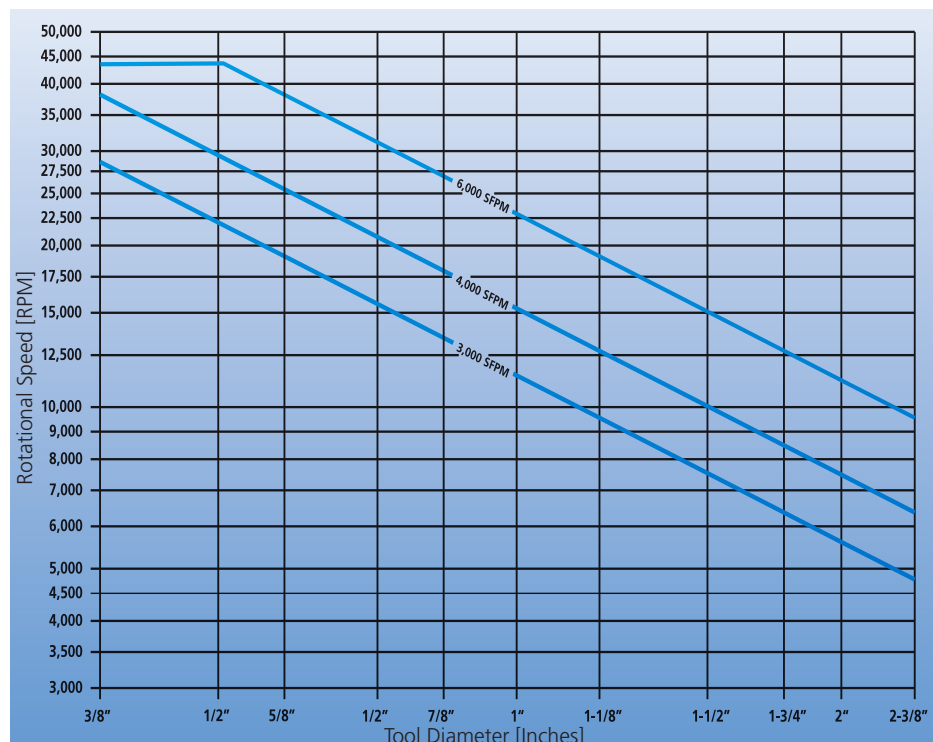
-  = Wear eye protection!
-  = Wear hearing protection!
-  = Wear a respirator!
-  = Wear gloves!
-  = Read the instructions!
-  = Read the Material Safety Data Sheets (MSDS) before using any materials!

### Peripheral Speed of Abrasive Spiral Bands

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 tool and machine spindle.

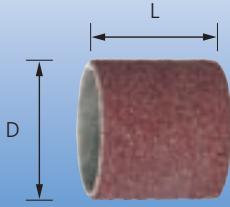
#### Example

1" x 1" A 60 (EDP 41982 + 41149)  
Peripheral Speed: 3,000 - 6,000 SFPM  
Rotational Speed: 15,000 - 22,500 RPM





### Abrasive Spiral Bands, Cylindrical Type Aluminum Oxide A

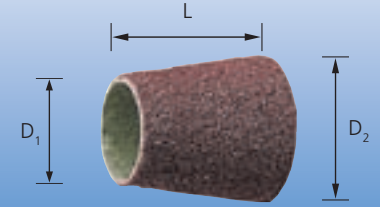



Abrasive spiral bands with aluminum oxide grain are universally suitable for many materials. Available in cylindrical shape or tapered drum shape.

**Abrasive: Aluminum Oxide A**

**PFERD Specification Number**  
GSB A

### Abrasive Spiral Bands, Tapered Type Aluminum Oxide A



Diameter (D) x Length (L) [Inches]	Grit and EDP Number						Suitable Holder	Recom. Speed RPM	
	40	50	60	80	150	240			
<b>Cylindrical Type</b>									
3/8 x 3/4	-	-	-	41022	41023	41024	EDP 41966	30,000 - 44,000	100
1/2 x 1	-	-	-	41046	41049	-	EDP 41970	30,000 - 44,000	100
5/8 x 1-1/8	-	41068	41069	41070	41072	41074	EDP 41973	26,000 - 36,000	100
3/4 x 1	-	-	41102	41103	41106	-	EDP 41976	20,000 - 30,000	100
7/8 x 3/4	-	41131	41132	41133	41135	41137	EDP 41979	18,000 - 26,000	100
1 x 1	-	-	41149	41150	41153	-	EDP 41982	16,000 - 22,900	100
1-1/8 x 1-1/8	41190	41191	41192	41193	41195	41197	EDP 41985	13,000 - 19,100	100
1-1/2 x 1	41200	-	41202	41203	41206	-	EDP 41988	10,000 - 15,900	100
1-3/4 x 1-1/8	41238	41239	41240	41241	41243	41245	EDP 41991	8,500 - 12,700	100
2 x 1	41248	-	41250	41251	41254	-	EDP 41994	7,500 - 11,200	100
2-3/8 x 1-1/8	41295	41296	41297	41298	41300	-	EDP 41997	6,500 - 9,500	100
<b>Tapered Type</b>									
3/4 to 1/2 x 2-1/2	41350	-	41351	41352	41353	-	EDP 42005	18,500 - 26,000	100
1-1/8 to 7/8 x 1-3/16	41355	-	41356	41357	41358	-	EDP 42007	10,000 - 15,900	100
1-1/2 to 7/8 x 2-3/8	41360	-	41361	41362	41363	-	EDP 42006	13,000 - 19,100	100

The Z-COOL version of these abrasive bands provides particularly cool grinding action, preventing tool loading. Ideal for use on stainless steel.

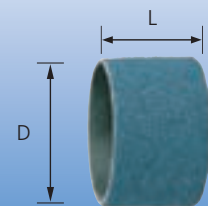
Zirconia grain provides high abrasive performance and long service life.


**Abrasive:**

Grit 36, 50, 80 = Zirconia Alumina Z (top-sized)  
Grit 150 = Aluminum Oxide A (top-sized)

**PFERD Specification Number**  
GSB Z-COOL

### Abrasive Spiral Bands, Cylindrical Type Z-COOL



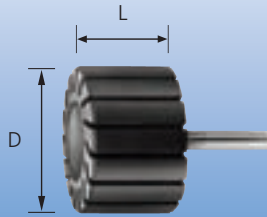
Diameter (D) x Length (L) [Inches]	Grit and EDP Number				Suitable Holder	Recom. Speed RPM	
	36	50	80	150			
5/8 x 1-1/8	-	41405	41406	41407	EDP 41973	26,000 - 36,000	100
7/8 x 3/4	-	41408	41409	41410	EDP 41979	18,000 - 26,000	100
1-1/8 x 1-1/8	41415	41416	41417	41418	EDP 41985	13,000 - 19,100	100
1-3/4 x 1-1/8	41419	41420	41421	41422	EDP 41991	8,500 - 12,700	100
2-3/8 x 1-1/8	41427	41428	41429	41430	EDP 41997	6,500 - 9,500	100

# Abrasive Spiral Bands, Drum Holders

## Rubber Drum Holders



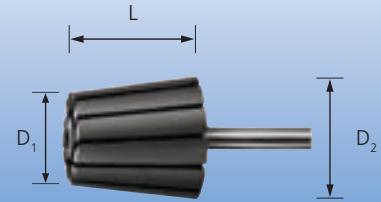
### Rubber Drum Holders, Cylindrical Type




Slotted rubber drum holders available in cylindrical shape or tapered drum shape.

**PFERD Specification Number**  
GK

### Rubber Drum Holders, Tapered Type



Diameter (D) x Length (L) [Inches]	Shank Dia. [Inches]	EDP Number	Min. RPM	Max. RPM	
<b>Cylindrical Type</b>					
3/8 x 3/4	1/4	41966	30,000	44,000	5
1/2 x 1	1/4	41970	30,000	44,000	5
5/8 x 1-1/8	1/4	41973	26,000	36,000	5
3/4 x 1	1/4	41976	20,000	30,000	5
7/8 x 3/4	1/4	41979	18,000	26,000	5
1 x 1	1/4	41982	16,000	22,900	5
1-1/8 x 1-1/8	1/4	41985	13,000	19,100	5
1-1/2 x 1	1/4	41988	10,000	15,900	5
1-3/4 x 1-1/8	1/4	41991	8,500	12,700	5
2 x 1	1/4	41994	7,500	11,200	5
2-3/8 x 1-1/8	1/4	41997	6,500	9,500	5
<b>Tapered Type</b>					
3/4 to 1/2 x 2-1/2	1/4	42005	19,000	26,000	5
1-1/2 to 7/8 x 2-3/8	1/4	42006	13,000	19,100	5
1-1/8 to 7/8 x 1-3/16	1/4	42007	10,000	15,900	5





POLIROLL cartridge rolls consist of a spiral-wound coated abrasive. The grit is embedded in a resinoid bond on the strong cloth backing material for maximum grinding effectiveness.

The tool is held securely in place during grinding by a grooved conical arbor.

PFERD offers cylindrical and conical abrasive cartridge rolls.

### Advantages

- POLIROLL cartridge rolls are ideal for grinding in confined areas.
- Fresh grain is exposed in successive layers as the outer coated abrasive wears off.
- Very good stock removal performance.
- Special arbor for easy tool replacement.

### Application Examples

- Deburring on bores and in hard-to-reach places.
- Fillet weld dressing on metal structures.
- Removal of flash on castings.

### Recommendations for Use

- Always grind using the tip and not the surface; otherwise the adhesive will be damaged through the produced heat.
- Always apply the cartridge rolls with the adhered side facing the arbor.
- The use of the appropriate grinding oil on the different materials can substantially increase the tool life and the abrasive performance of the POLIROLL abrasive cartridge rolls.

### Safety Notes

- The maximum permissible peripheral speed is 2,300 SFPM.
- For safety reasons, never exceed listed maximum RPM's.

### 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.

### Safety Recommendations



= Wear protective goggles!



= Wear a dust mask!



= Not permitted for wet grinding!



= Wear protective gloves!



= Observe safety recommendations!



= Use ear protection!



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



### Abrasive: Aluminum Oxide A

#### Ordering Note

Please order the arbors separately (see next page).

#### PFERD Specification Number

PRK

### POLIROLL Tapered Cartridge Rolls



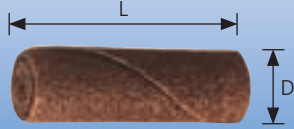
Diameter (D) x Length (L) [Inches]	Arbor Hole [Inches]	Grit and EDP Number				Suitable Arbors	Recom. Speed RPM	Max. RPM	
		60	80	120	180				
3/8 x 1	1/8	41800	41801	41803	41804	EDP 42060	16,000	24,000	50
3/8 x 1-1/2	1/8	41807	41808	41810	41811	EDP 42061	16,000	24,000	50
1/2 x 1	1/8	41817	41818	41820	41821	EDP 42060	12,000	18,000	50
1/2 x 1-1/2	1/8	41827	41828	41830	41831	EDP 42061	12,000	18,000	50
1/2 x 2	1/8	41837	41838	41840	41841	EDP 42062	12,000	18,000	50
3/4 x 1-1/2	3/16	41874	41875	41876	-	EDP 42063	8,000	12,000	50
3/4 x 2	3/16	41882	41883	41884	-	EDP 42064	8,000	12,000	50

# POLIROLL

## Cartridge Rolls



### POLIROLL Untapered Cartridge Rolls



**Abrasive: Aluminum Oxide A**

**Ordering Note**

Please order the arbors separately.

**PFERD Specification Number**

PR



Diameter (D) x Length (L) [Inches]	Arbor Hole [Inches]	Grit and EDP Number								Suitable Arbors	Recom. Speed RPM	Max. RPM	
		36	60	80	100	120	180	240	320				
1/4 x 1	1/8	-	41468	41469	41470	41471	41473	41474	41475	EDP 42060	20,000	25,000	50
1/4 x 1-1/2	1/8	-	41479	41480	41481	41482	41484	41485	41486	EDP 42061	20,000	25,000	50
5/16 x 1-1/2	1/8	-	41512	41513	41514	41515	-	-	-	EDP 42061	18,500	23,000	50
3/8 x 1	1/8	-	41523	41524	41525	41526	-	-	-	EDP 42060	16,000	24,000	50
3/8 x 1-1/2	1/8	-	41534	41535	41536	41537	41539	41540	41541	EDP 42061	16,000	24,000	50
3/8 x 2	1/8	-	41545	41546	41547	41548	-	-	-	EDP 42062	16,000	24,000	50
1/2 x 1	1/8	-	41567	41568	41569	41570	-	-	-	EDP 42060	12,000	18,000	50
1/2 x 1-1/2	1/8	41586	41589	41590	41591	41592	41594	41595	41596	EDP 42061	12,000	18,000	50
1/2 x 2	1/8	-	41600	41601	41602	41603	-	-	-	EDP 42062	12,000	18,000	50
5/8 x 1-1/2	1/8	-	41633	41634	41635	41636	-	-	-	EDP 42061	9,500	15,000	50
3/4 x 1	1/8	-	41666	41667	41668	41669	-	-	-	EDP 42060	8,000	12,000	50
3/4 x 1-1/2	3/16	41674	41677	41678	41679	41680	-	-	-	EDP 42063	8,000	12,000	50
3/4 x 2	3/16	-	41721	41722	41723	41724	-	-	-	EDP 42064	8,000	12,000	50
1 x 1-1/2	1/4	41740	41743	41744	41745	41746	-	-	-	EDP 42066	6,000	9,000	25
1 x 2	1/4	-	41776	41777	41778	41779	-	-	-	EDP 42067	6,000	9,000	25

### Arbors for POLIROLL Cartridge Rolls



These arbors are intended specially for untapered and tapered POLIROLL cartridge rolls.

**PFERD Specification Number**

PRBO

Shank Diameter [Inches]	Pilot Diameter [Inches]	Pilot Diameter [Inches]	EDP Number	Max. RPM	
1/4	1/8	1	42060	25,000	1
1/4	1/8	1-1/2	42061	25,000	1
1/4	1/8	2	42062	24,000	1
1/4	3/16	1-1/2	42063	12,000	1
1/4	3/16	2	42064	12,000	1
1/4	1/4	1-1/2	42066	9,000	1
1/4	1/4	2	42067	9,000	1





POLICAP™ abrasive caps and cones are mounted on reusable cap and cone holders. Due to their seamless design, POLICAP™ abrasive caps and cones grind effectively with their entire surface area. A closely toleranced fit keeps the abrasive cap or cone securely attached to its holder.

PFERD supplies POLICAP™ tools in diverse shapes, dimensions and grit sizes.

**Advantages**

- The PFERD range comprises an extensive selection of POLICAP™ abrasive caps and cones.
- Cap and cone holders are fully reusable.
- Slots in the holder facilitate its expansion, locking the tool firmly in place.
- The special manufacturing process guarantees good shapeholding and excellent fine grinding properties.
- Easy tool replacement.

**Application Examples**

- Fine grinding in tool, die and mold-making applications.
- Grinding in hard-to-reach areas and bores.

**Recommendations for Use**

- Abrasive caps and cones are mounted and removed with a slight clockwise twist.
- Abrasive caps and cones are easier to replace with the holder mounted on the power tool.
- Abrasive cones perform best at a recommended peripheral speed of 2,000 - 4,000 SFPM.

**Safety Notes**

- The maximum approved peripheral speed is 5,000 SFPM.
- For safety reasons, never exceed listed maximum RPM's.

**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.

**Safety Recommendations**



= Wear protective goggles!



= Wear a respirator!



= Observe safety recommendations!



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



= Use ear protection!



= Wear protective gloves!

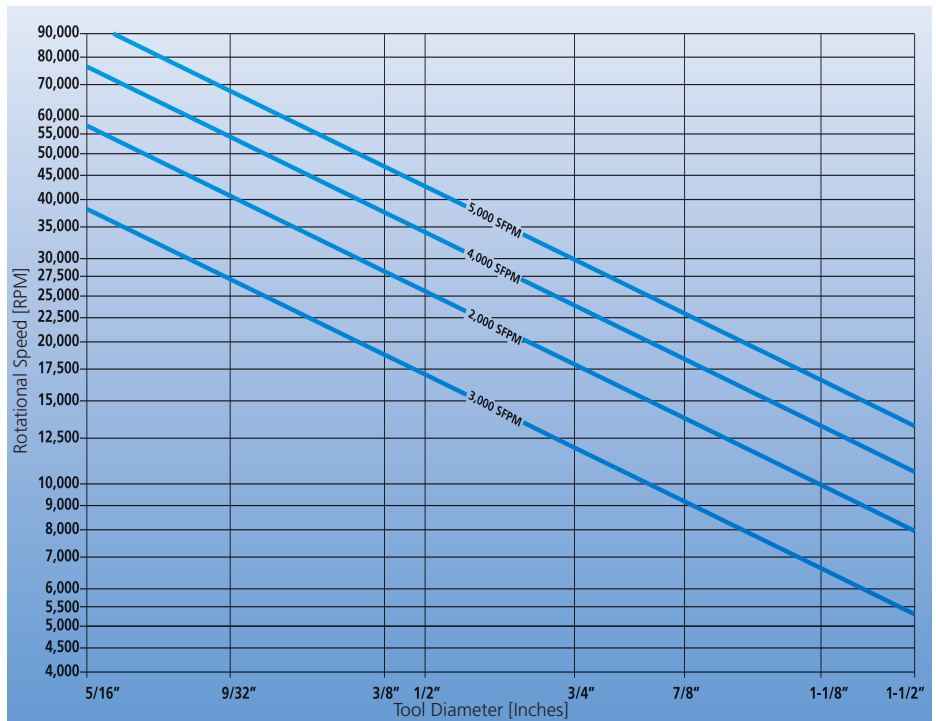
**Peripheral Speed of POLICAP™ Tools**

In the diagram, peripheral speeds are represented by blue diagonal lines. Each vertical

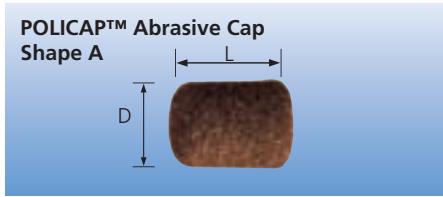
line represents a tool diameter. From its point of intersection with the diagonal line for a given peripheral speed, proceed horizontally to the left margin where you will find the corresponding rotational speed [RPM] of the POLICAP™ tool and machine spindle.

**Example:**

Shape A  
 Diameter 3/8"  
 EDP: 42010 (holder), 46036 (cap)  
 Peripheral Speed: 2,000 - 4,000 SFPM  
 Rotational Speed: 19,000 - 38,000 RPM








Cylindrical shape.

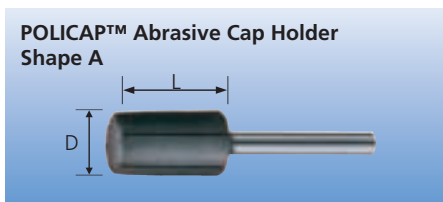
**Abrasive: Aluminum Oxide A**

**Grit Size Colour Code**

brown = 60 and 80 grit  
black = 150 grit  
reddish brown = 280 grit


**PFERD Specification Number**  
PC A A

Diameter (D) x Length (L) [Inches]	Grit and EDP Number				Recom. Speed RPM	Suitable Holder	
	60	80	150	280			
3/16 x 3/8	-	46029	46030	46031	40,000	EDP 42008	50
9/32 x 1/2	46032	-	46033	46034	30,000	EDP 42009	50
3/8 x 5/8	46035	-	46036	46037	20,000	EDP 42010	50
1/2 x 11/16	46065	-	46066	46067	16,000	EDP 42021	50
5/8 x 1	46068	-	46069	46070	12,000	EDP 42022	50



Cylindrical shape.

**PFERD Specification Number**  
PCT A

Diameter (D) x Length (L) [Inches]	Shank Dia. [Inches]	EDP Number	Recom. Speed RPM	Max. RPM	
3/16 x 3/8	1/8	42008	40,000	95,000	5
9/32 x 1/2	1/8	42009	30,000	65,000	5
3/8 x 5/8	1/8	42010	20,000	45,000	5
1/2 x 11/16	1/4	42021	16,000	35,000	5
5/8 x 1	1/4	42022	12,000	30,000	5



POLICAP™ shape A set contains 105 abrasive caps in various sizes and grits, and 5 rubber expanding heads, including all EDP numbers above. Cylindrical shape.

**Contents PCS 110 A:**

10 ea. POLICAP™ abrasive caps 3/16" - 9/32"  
5 ea. POLICAP™ abrasive caps 3/8" - 5/8"  
1 ea. POLICAP™ abrasive cap holders

**PFERD Specification Number**  
PCS 110 A

Case Dimensions [Inches]	EDP Number	
7 x 5-3/4 x 1-1/2	46093	1

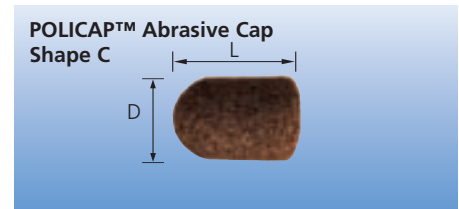
Cylindrical shape with radius end.


**Abrasive: Aluminum Oxide A**

**Grit Size Colour Code**

brown = 60 and 80 grit  
 black = 150 grit  
 reddish brown = 280 grit

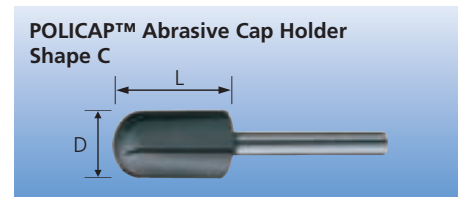
**PFERD Specification Number**  
 PC C A




Diameter (D) x Length (L) [Inches]	Grit and EDP Number				Recom. Speed RPM	Suitable Holder	
	60	80	150	280			
3/16 x 3/8	-	46038	46039	46040	40,000	EDP 42011	50
9/32 x 1/2	46041	-	46042	46043	30,000	EDP 42012	50
3/8 x 5/8	46044	-	46045	46046	20,000	EDP 42013	50
1/2 x 11/16	46071	-	46072	46073	16,000	EDP 42023	50
5/8 x 1	46074	-	46075	46076	12,000	EDP 42024	50

Cylindrical shape with radius end.

**PFERD Specification Number**  
 PCT C



Diameter (D) x Length (L) [Inches]	Shank Dia. [Inches]	EDP Number	Recom. Speed RPM	Max. RPM	
3/16 x 3/8	1/8	42011	40,000	95,000	5
9/32 x 1/2	1/8	42012	30,000	65,000	5
3/8 x 5/8	1/8	42013	20,000	45,000	5
1/2 x 11/16	1/4	42023	16,000	35,000	5
5/8 x 1	1/4	42024	12,000	30,000	5

POLICAP™ shape C set contains 105 abrasive caps in various sizes and grits, and 5 rubber expanding heads, including all EDP numbers above. Cylindrical shape with radius end.

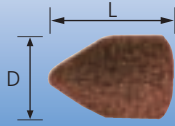
**Contents PCS 110 C:**  
 10 ea. POLICAP™ abrasive caps 3/16" - 9/32"  
 5 ea. POLICAP™ abrasive caps 3/8" - 5/8"  
 1 ea. POLICAP™ abrasive cap holders

**PFERD Specification Number**  
 PCS 110 C



Case Dimensions [Inches]	EDP Number	
7 x 5-3/4 x 1-1/2	46094	1

### POLICAP™ Abrasive Cap Shape G




Cylindrical shape with pointed cone end.

**Abrasive: Aluminum Oxide A**

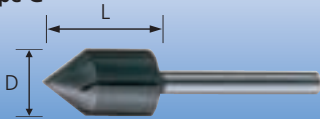
**Grit Size Colour Code**

brown = 60 and 80 grit  
black = 150 grit  
reddish brown = 280 grit

**PFERD Specification Number**  
PC G A


Diameter (D) x Length (L) [Inches]	Grit and EDP Number				Recom. Speed RPM	Suitable Holder	
	60	80	150	280			
3/16 x 3/8	-	46047	46048	46049	40,000	EDP 42014	50
9/32 x 1/2	46050	-	46051	46052	30,000	EDP 42015	50
3/8 x 5/8	46053	-	46054	46055	20,000	EDP 42016	50
1/2 x 11/16	46077	-	46078	46079	16,000	EDP 42025	50
5/8 x 1	46080	-	46081	46082	12,000	EDP 42026	50

### POLICAP™ Abrasive Cap Holder Shape G



Cylindrical shape with pointed cone end.

**PFERD Specification Number**  
PCT G

Diameter (D) x Length (L) [Inches]	Shank Dia. [Inches]	EDP Number	Recom. Speed RPM	Max. RPM	
3/16 x 3/8	1/8	42014	40,000	95,000	5
9/32 x 1/2	1/8	42015	30,000	65,000	5
3/8 x 5/8	1/8	42016	20,000	45,000	5
1/2 x 11/16	1/4	42025	16,000	35,000	5
5/8 x 1	1/4	42026	12,000	30,000	5

### POLICAP™ Tool Set Shape G



POLICAP™ shape G set contains 105 abrasive caps in various sizes and grits, and 5 rubber expanding heads, including all EDP numbers above. Cylindrical shape with pointed cone end.

**Contents PCS 110 G:**

10 ea. POLICAP™ abrasive caps 3/16" - 9/32"  
5 ea. POLICAP™ abrasive caps 3/8" - 5/8"  
1 ea. POLICAP™ abrasive cap holders

**PFERD Specification Number**  
PCS 110 G

Case Dimensions [Inches]	EDP Number	
7 x 5-3/4 x 1-1/2	46095	1

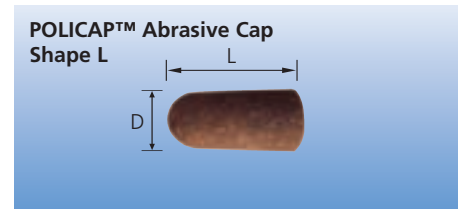
Tapered radius end shape.

**Abrasive: Aluminum Oxide A**

**Grit Size Colour Code**

brown = 60 and 80 grit  
 black = 150 grit  
 reddish brown = 280 grit

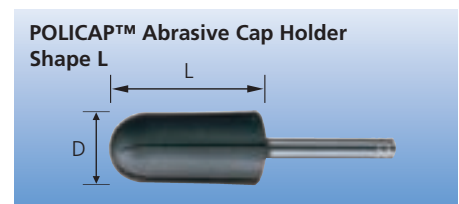
**PFERD Specification Number**  
 PC L A



Diameter (D) x Length (L) [Inches]	Grit and EDP Number				Recom. Speed RPM	Suitable Holder	
	60	80	150	280			
1/4 x 5/8	-	46083	46084	46085	40,000	EDP 42017	50
7/16 x 1	46056	-	46057	46058	20,000	EDP 42018	50
5/8 x 1-1/4	46059	-	46060	46061	12,000	EDP 42019	50
27/32 x 1-9/16	46062	-	46063	46064	9,000	EDP 42020	50

Tapered radius end shape.

**PFERD Specification Number**  
 PCT L



Diameter (D) x Length (L) [Inches]	Shank Dia. [Inches]	EDP Number	Recom. Speed RPM	Max. RPM	
1/4 x 5/8	1/4	42017	40,000	95,000	5
7/16 x 1	1/4	42018	20,000	40,000	5
5/8 x 1-1/4	1/4	42019	12,000	30,000	5
27/32 x 1-9/16	1/4	42020	9,000	20,000	5

POLICAP™ set 285 contains 270 abrasive caps in various sizes and grits, and 15 rubber expanding heads, shapes A, C, and G.

POLICAP™ set 650 contains 640 abrasive caps in various sizes and grits, and 10 rubber expanding heads, shapes A and G.

**PFERD Specification Number**

PCS 285  
 PCS 650

**Contents PCS 285:**

90 pcs. POLICAP™ abrasive caps, shape A  
 90 pcs. POLICAP™ abrasive caps, shape C  
 90 pcs. POLICAP™ abrasive caps, shape G in five dimensions and three grit sizes.  
 15 pcs. POLICAP™ abrasive cap holders

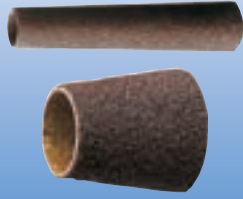
**Contents PCS 650:**

320 pcs. POLICAP™ abrasive caps, shape A  
 320 pcs. POLICAP™ abrasive caps, shape G in five dimensions and three grit sizes.  
 10 pcs. POLICAP™ abrasive cap holders



Case Dimensions [Inches]	EDP Number		
	PCS 285	PCS 650	
13 x 9-1/4 x 2	46090	46091	1

### POLICAP™ Abrasive Cone Seamless Type




Tapered cylindrical shape.

**Abrasive: Aluminum Oxide A**

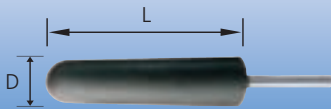
**Grit Size Colour Code**

brown = 60 grit  
black = 150 grit  
reddish brown = 280 grit

**PFERD Specification Number**  
PCH L A


Diameter (D) x Length (L) [Inches]	Grit and EDP Number			Recom. Speed RPM	Suitable Holder	
	60	150	280			
5/16 x 3-3/8	46008	46009	46010	12,000	EDP 42001	10
1/2 x 3-3/8	46011	46012	-	12,000	EDP 42002	10
3/4 x 3-3/8	46014	46015	-	12,000	EDP 42003	10
7/8 x 3-3/8	46017	46018	-	12,000	EDP 42004	10
3/4 to 1/2 x 2-1/2	46020	46021	46022	20,000	EDP 42005	10
1-1/2 to 7/8 x 2-3/8	46023	46024	-	14,000	EDP 42006	10

### POLICAP™ Rubber Abrasive Cylindrical Cone Holder

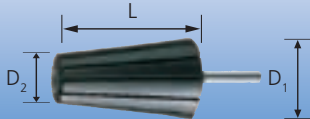


Tapered cylindrical shape.

**PFERD Specification Number**  
PCT L


Diameter (D) x Length (L) [Inches]	Shank Dia. [Inches]	EDP Number	Recom. Speed RPM	Max. RPM	
5/16 x 3-3/8	1/4	42001	12,000	20,000	5
1/2 x 3-3/8	1/4	42002	12,000	15,000	5
3/4 x 3-3/8	1/4	42003	12,000	13,000	5
7/8 x 3-3/8	1/4	42004	12,000	12,000	5

### POLICAP™ Rubber Abrasive Tapered Cone Holder



Tapered drum shape.

**PFERD Specification Number**  
GK

Diameter (D <sub>1</sub> ) > (D <sub>2</sub> ) x Length (L) [Inches]	Shank Dia. [Inches]	EDP Number	Min. RPM	Max. RPM	
3/4 to 1/2 x 2-1/2	1/4	42005	19,000	26,000	5
1-1/2 to 7/8 x 2-3/8	1/4	42006	13,000	19,100	5





PFERD flap wheels are constructed with coated abrasive elements arranged radially about the tool axis in a fan-type configuration. Due to their flexibility, they adapt ideally to the contours of the workpiece. The abrasive grain is embedded in a resinoid bond on the strong flexible backing cloth.

Flap wheels are also available with threaded shank for quick-change-ups.

### Safety Recommendations



= Wear eye protection!



= Wear hearing protection!



= Wear a respirator!



= Wear gloves!



= Read the instructions!



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

### Peripheral Speed of Mounted Flap Wheels

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 flap wheel and machine spindle.

#### Example:

2" x 1" A 80 (EDP 45239)  
Peripheral Speed: 3,000 - 4,000 SFPM  
Rotational Speed: 5,600 - 7,500 RPM

### Advantages

- High flexibility.
- High stock removal due to aggressive coated abrasive.
- Flaps wear off uniformly and without residue on the workpiece surface, exposing fresh, sharp abrasive grain at all times.
- Due to the special cast core construction, the face of the tool can be worked up very close to the edges and corners.

### Application Examples

- Fine-grinding of radii in tool, die and mould-making applications.
- Grinding small or hard-to-reach surfaces in tank and process equipment construction.
- Finishing work on valves and fittings made of non-ferrous metals or light alloys.
- Grinding of turbine blades in jet engine assembly and maintenance.

### Recommendations for Use

- Flap wheels perform best at the recommended peripheral speed of 3,000 - 4,000 SFPM, where the optimum balance between stock removal, surface finishing quality, workpiece temperature loads and tool wear is achieved.
- Suitable drive systems include flexible shafts and electric or pneumatic straight grinders.

### Factors Influencing the Grinding Result

- **Workpiece Temperature Load:**  
The heat load on the workpiece can be reduced substantially by working with reduced contact pressure and adding a cooling lubricant (grease/oil).
- **Tool Wear:**  
Tool wear can be greatly reduced by working

with a reduced contact pressure and adding a cooling lubricant (grease/ oil).

#### ■ Material Removal Rate:

To achieve higher stock removal it is recommended to use coarser grit rather than more contact pressure, which may result in premature tool wear and excessive heat input into the workpiece.

#### ■ Surface Roughness:

Use of a higher peripheral speed will yield a slightly finer surface finish. Increasing the contact pressure will result in a somewhat coarser surface. The surface roughness obtained increases with the softness of the material (for tools of the same grit size).

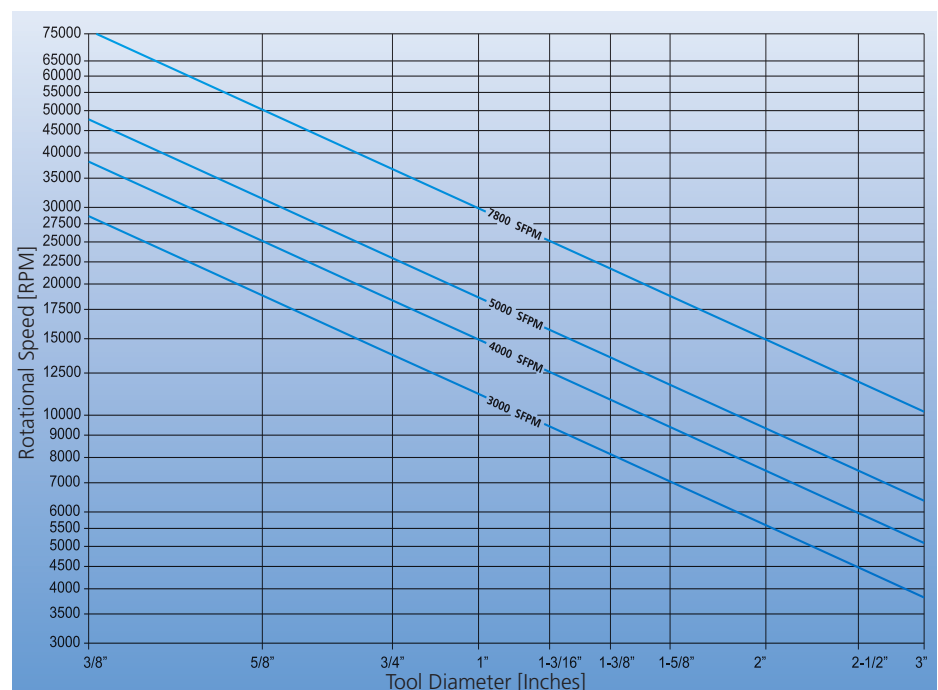
### Safety Notes

For safety reasons, it is imperative to remain within the stated RPM limit at all times. To maintain safe operating conditions, always ensure that:

- the shank clamping depth is at least 19/32"
- the maximum RPM limit is not exceeded with open shank lengths

### Dust Warning

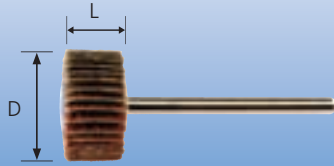
Use of the tools in this catalogue may create dust and other particles. To avoid any risk of adverse health effects, the operator must use appropriate protective measures, including a respirator, during and after tool operation. Refer to our Material Safety Data Sheet (MSDS) for further information regarding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



# Flap Wheels

## Mounted Flap Wheels, Mini and Standard

### Mini Mounted Flap Wheels Aluminum Oxide A




Flap wheels with 1/8" shank and aluminum oxide A grain are universally suitable for all materials.

**Abrasive: Aluminum Oxide A**

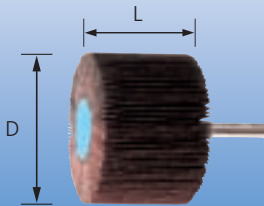
**PFERD Specification Number**  
F A 8

#### Application Examples

- Ideal for grinding in confined areas and hard-to-reach surfaces.
- Tools are used in mold-making industry.
- From coarse grinding to preparing polishing.

Diameter (D) x Length (L) [Inches]	Shank Dia. [Inches]	Grit and EDP Number						Recom. Speed RPM	Max. RPM	
		60	80	120	180	240	320			
3/8 x 3/8	1/8	45070	45071	45072	45074	45075	45076	38,000	75,000	10
3/8 x 5/8	1/8	45077	45078	45079	45081	45082	45083	38,000	75,000	10
5/8 x 1/4	1/8	45084	45085	45086	45088	45089	45090	25,000	50,000	10
5/8 x 3/8	1/8	45091	45092	45093	45095	45096	45097	25,000	50,000	10
5/8 x 5/8	1/8	45098	45099	45100	45102	45103	45104	25,000	50,000	10
3/4 x 3/8	1/8	45154	45155	45156	45157	45158	45159	15,000	25,000	10
1 x 5/8	1/8	45166	45167	45168	45169	45170	45171	15,000	25,000	10
1 x 1	1/8	45178	45179	45180	45181	45182	45183	15,000	25,000	10
1-3/16 x 3/8	1/8	45013	45014	45015	45016	45017	45018	12,000	25,000	10


### Mounted Flap Wheels Aluminum Oxide A



Flap wheels with 1/4" shank and aluminum oxide A grain are universally suitable for all materials.

**Abrasive: Aluminum Oxide A**

**PFERD Specification Number**  
F A 4

Diameter (D) x Length (L) [Inches]	Shank Dia. [Inches]	Grit and EDP Number							Recom. Speed RPM	Max. RPM	
		40	60	80	120	180	240	320			
3/4 x 3/8	1/4	-	45160	45161	45162	-	-	-	15,000	25,000	10
1 x 5/8	1/4	-	45172	45173	45174	45175	-	-	15,000	25,000	10
1 x 1	1/4	45463	45184	45185	45186	45187	45188	45189	15,000	25,000	10
1-3/16 x 1/4	1/4	-	45007	45008	45009	-	-	-	12,000	25,000	10
1-3/8 x 5/8	1/4	-	45226	45227	45228	45229	45230	45231	10,900	23,000	10
1-1/2 x 1/2	1/4	-	45245	45246	45247	-	-	-	9,600	23,000	10
1-1/2 x 1	1/4	-	45232	45233	45234	45235	45236	45237	9,600	23,000	10
2 x 1/2	1/4	-	45251	45252	45253	45254	45255	45256	7,000	23,000	10
2 x 3/4	1/4	-	45258	45259	45260	45261	-	-	7,000	23,000	10
2 x 1	1/4	45461	45238	45239	45240	45241	45242	45243	7,000	23,000	10
2 x 1-1/2	1/4	-	45190	45191	45192	-	-	-	7,000	15,000	10
2-1/2 x 1/2	1/4	-	45264	45265	45266	-	-	-	6,300	23,000	10
2-1/2 x 1	1/4	-	45270	45271	45272	45273	45274	45275	6,300	23,000	10
2-1/2 x 1-1/2	1/4	-	45276	45277	45278	-	-	-	6,300	13,000	10
3 x 1/2	1/4	-	45196	45197	45198	-	-	-	4,800	20,000	10
3 x 1	1/4	45462	45208	45209	45210	45211	45212	45213	4,800	20,000	10
3 x 2	1/4	-	45214	45215	45216	-	-	-	4,800	6,000	10

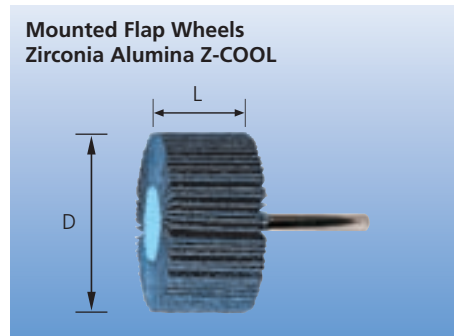



Flap wheels with Z-COOL abrasive are purpose-designed for use on stainless steel and high-temperature alloys.

These tools provide high stock removal rates and particularly cool grinding action (abrasive will not load up).

**Abrasive: Zirconia Alumina Z-COOL**

**PFERD Specification Number**  
F Z-COOL



Diameter (D) x Length (L) [Inches]	Shank Dia. [Inches]	Grit and EDP Number			Recom. Speed RPM	Max. RPM	
		60	80	120			
1 x 1	1/4	45465	45466	45467	15,000	25,000	10
1-1/2 x 1	1/4	45469	45470	45471	9,600	25,000	10
2 x 1	1/4	45473	45474	45475	7,000	23,000	10
2-1/2 x 1	1/4	45477	45478	45479	7,000	23,000	10
3 x 1	1/4	45481	45482	45483	4,800	20,000	10



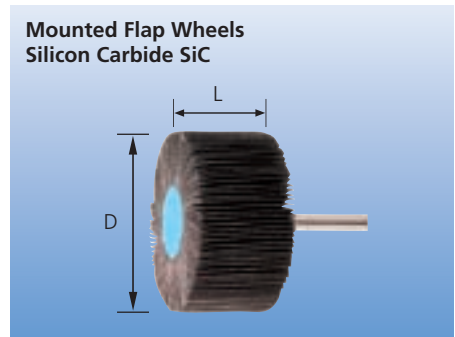
Flap wheels with silicon carbide (SiC) abrasive are suitable for use on hard and tough materials, like titanium and its alloys.


These tools have an excellent grinding effect on copper and bronze.

The SiC abrasive produces a particularly fine surface finish.

**Abrasive: Silicon Carbide SiC**

**PFERD Specification Number**  
F C



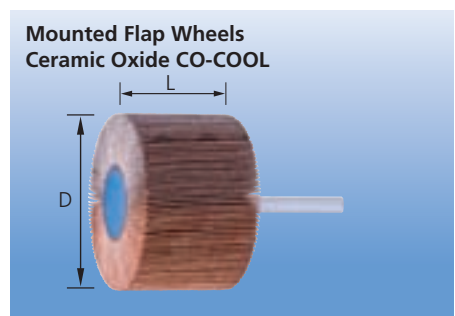
Diameter (D) x Length (L) [Inches]	Shank Dia. [Inches]	Grit and EDP Number			Recom. Speed RPM	Max. RPM	
		60	80	120			
1 x 1	1/4	45485	45486	45487	15,000	25,000	10
2 x 1	1/4	45491	45492	45493	7,000	23,000	10
3 x 1	1/4	45494	45495	45496	4,800	20,000	10


For aggressive grinding with maximum stock removal, especially on poor thermal conductive materials such as stainless steel and nickel-based alloys.

Grinding additives in the coating improve stock removal, prevent clogging and allow cooler grinding.

**Abrasive: Ceramic Oxide CO-COOL**

**PFERD Specification Number**  
F CO-COOL

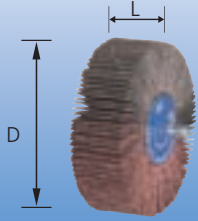


Diameter (D) x Length (L) [Inches]	Shank Dia. [Inches]	Grit and EDP Number				Recom. Speed RPM	Max. RPM	
		40	60	80	120			
1 x 1	1/4	45279	45280	45281	45282	15,000	25,000	10
1-1/2 x 1	1/4	45284	45285	45286	45287	9,600	25,000	10
2 x 1	1/4	45289	45290	45291	45292	7,000	23,000	10

# Flap Wheels

## Quick-Change Flap Wheels, Accessories


### Quick-Change Flap Wheels Aluminum Oxide A



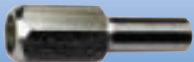
This flap wheel spins on and off without tools. Unique design prevents shaft from pulling out of core while maintaining perfect balance at operating speed. Each package contains 1 shank adapter with 1/4-20 thread.

**Abrasive: Aluminum Oxide A**

**PFERD Specification Number**  
F A 4-20

Diameter (D) x Length (L) [Inches]	Thread	Grit and EDP Number							Recom. Speed RPM	Max. RPM	
		40	60	80	120	180	240	320			
1 x 5/8	1/4-20	-	45300	45301	45302	-	-	-	15,000	25,000	10
1 x 1	1/4-20	-	45310	45311	45312	45313	45314	45315	15,000	25,000	10
1-1/2 x 1/2	1/4-20	-	45330	45331	45332	-	-	-	9,600	23,000	10
1-1/2 x 1	1/4-20	-	45340	45341	45342	-	-	-	9,600	23,000	10
2 x 1/2	1/4-20	-	45350	45351	45352	-	-	-	7,000	23,000	10
2 x 1	1/4-20	45369	45370	45371	45372	45373	45374	45375	7,000	23,000	10
2-1/2 x 1/2	1/4-20	-	45410	45411	45412	-	-	-	6,300	23,000	10
2-1/2 x 1	1/4-20	-	45420	45421	45422	45423	-	-	6,300	23,000	10
3 x 1/2	1/4-20	-	45430	45431	45432	-	-	-	4,800	20,000	10
3 x 1	1/4-20	45449	45450	45451	45452	45453	45454	45455	4,800	20,000	10

### Threaded Shank Adapter for Quick-Change Flap Wheels



1/4" shank with 1/4-20 female thread.

**PFERD Specification Number**  
QC-1/4-20

Shank Dia. [Inches]	Thread	EDP Number	
1/4	1/4-20	45299	10





Flap wheel coated abrasive elements are arranged radially about the tool axis in a fan-type configuration. Due to their flexibility, they adapt ideally to the contours of the workpiece. The abrasive grain is embedded in a resinoid bond on the strong flexible backing cloth.

### Advantages

- High flexibility.
- High stock removal due to aggressive coated abrasive product.
- Flaps wear off uniformly and without residue on the workpiece surface, ensuring adequate availability of sharp grit at all times.
- Due to the special mounting system, the face of the wheel can be worked up very close to the edges and corners.

### Safety Recommendations



= Wear eye protection!



= Wear hearing protection!



= Wear a respirator!



= Wear gloves!



= Read the instructions!



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

### Peripheral Speed of Unmounted Flap Wheels

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 flap wheel and machine spindle.

#### Example:

6" x 2" A 80 (EDP 45623)  
Peripheral Speed: 3,000 - 6,000 SFPM  
Rotational Speed: 1,800 - 3,800 RPM

### Application Examples

- Fine grinding on large radii, e.g., during assembly of tanks, kitchens and process equipment.
- Removal of major surface irregularities (e.g., weld dressing).
- Production of homogeneous surface patterns on large surfaces and contours with handheld power tools.
- Fine-grinding in preparation of high-gloss polishing.
- Also suitable for robotic and stationary usage.

### Recommendations for Use

- Flap wheels perform best at the recommended peripheral speed of 3,000 - 6,000 SFPM, where the optimum balance between stock removal, surface finishing quality, workpiece temperature loads and tool wear is achieved.
- Suitable drive systems include flexible shafts, straight grinders and bench grinders.
- The drive system must provide an output of 1,000 to 1,500 watts.

### Factors Influencing the Grinding Result

- **Workpiece Temperature Load:**  
The heat load on the workpiece can be reduced substantially by working with reduced contact pressure and adding a cooling lubricant (grease/oil).
- **Tool Wear:**  
To achieve higher stock removal rates it is recommended to use coarser grit rather than more contact pressure, which may result in premature tool wear and workpiece overheating.

### Material Removal Rate:

To achieve higher stock removal it is recommended to use coarser grit rather than more contact pressure, which may result in premature tool wear and workpiece overheating.

### Surface Roughness:

Use of a higher peripheral speed will produce a slightly finer surface finish. Increasing the contact pressure will produce a somewhat coarser surface.

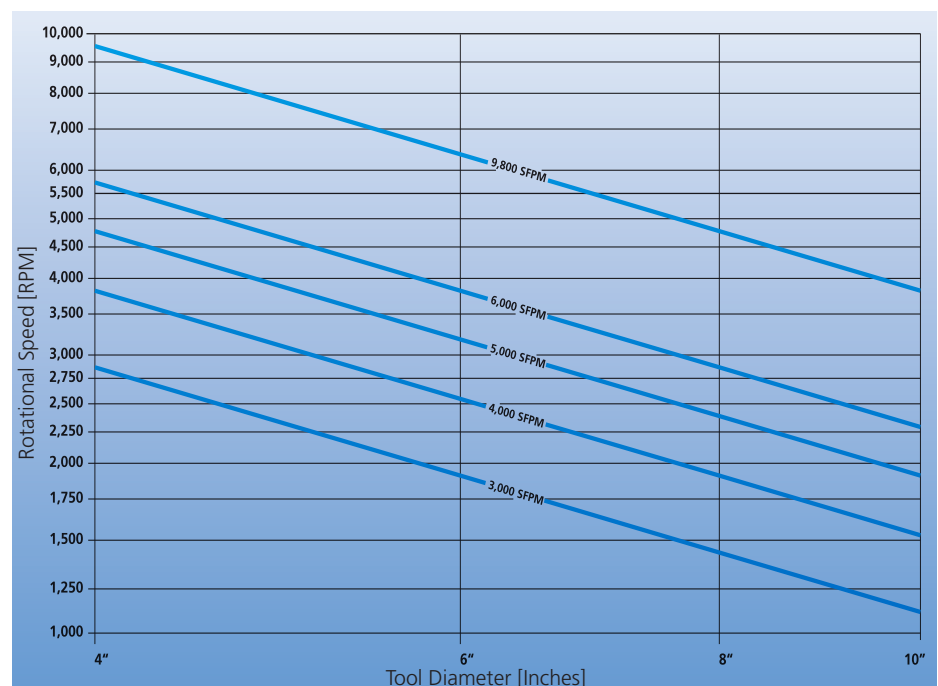
The surface roughness obtained increases with the softness of the material (for tools of identical grit size).

### Safety Notes

- Flap wheels must always be used with matching clamping flanges.
- The maximum approved peripheral speed is 9,800 SFPM.
- For safety reasons, it is imperative to remain within the stated RPM limit at all times.

### 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.





# Flap Wheels

## Unmounted Flap Wheels, Accessories


### Unmounted Flap Wheels Aluminum Oxide A



Flap wheels with aluminum oxide A grain are universally suitable for all materials.

**Abrasive: Aluminum Oxide A**

**PFERD Specification Number**  
FR A

Diameter x Width [Inches]	Bore	Grit and EDP Number							Recom. Speed RPM	Max. RPM	
		40	60	80	120	180	240	320			
4 x 1	1	45530	45532	45533	45535	45536	-	-	5,500	9,500	2
4 x 2	1	-	45552	45553	45555	-	-	-	5,500	9,500	2
6 x 1	1	45600	45602	45603	45605	45607	-	-	3,500	6,300	2
6 x 1-1/2	1	45610	45612	45613	-	-	-	-	3,500	6,300	2
6 x 2	1	45620	45622	45623	45625	45626	45627	-	3,500	6,300	2
8 x 1	1-3/4	-	45642	45643	45645	-	45647	-	2,600	4,700	2
8 x 2	1-3/4	-	45652	45653	45655	-	45657	-	2,600	4,700	2
10 x 2	1-3/4	-	45682	45683	45685	-	45687	45688	2,100	3,800	2

### Arbors for Flap Wheels

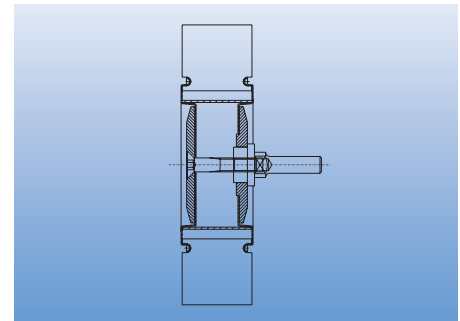



These arbor and flange combinations are intended specially for mounting PFERD flap wheels and POLINOX™ wheels. The clamping flanges are accommodated in the tool recess. This design provides optimum face-down grinding, even near edges and corners.

#### Contents

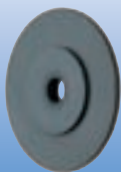
1 arbor 1/2" clamping dia.  
2 flanges  
suitable clamping screws (for various flap wheel widths)

**PFERD Specification Number**  
FR/VR



Shank Diameter [Inches]	Clamping Width [Inches]	Fits Flap Wheel I.D. [Inches]	For Wheel Diameter [Inches]	EDP Number	
1/2	1-2	1	4 - 6	45714	1
1/2	1-2	1-3/4	8 -10	45715	1

### Flap Wheel Reducer Flanges

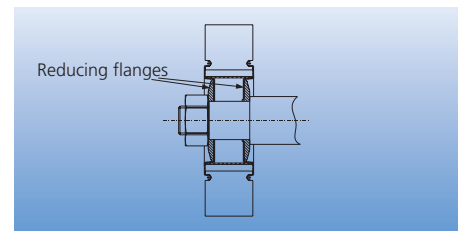



These reducing flanges can be used to mount PFERD flap wheels and POLINOX™ wheels on a stationary machine (Bench Grinder).

#### Ordering Note

1 pair per box

**PFERD Specification Number**  
RF/FR



Fits Flap Wheel I.D. [Inches]	Bore [Inches]	For Wheel Diameter [Inches]	EDP Number	
1	1/2	4-6	45720	1
1	5/8	4-6	45721	1
1	3/4	4-6	45722	1
1-3/4	1/2	8-10	45725	1
1-3/4	5/8	8-10	45726	1
1-3/4	3/4	8-10	45727	1
1-3/4	1	8-10	45728	1



The ideal tool for use on angle grinders in assembly shop operations.

**Abrasive: Aluminum Oxide A**

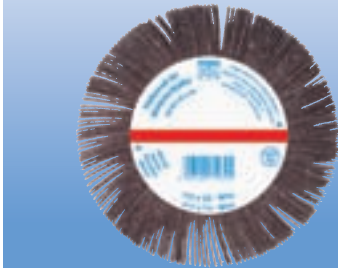
**Recommendation for Use**


Flap wheels for angle grinders perform best at the recommended cutting speed of 7,800 - 9,800 SFPM.

**PFERD Specification Number**

FR-WS

**Flap Wheels for Angle Grinders**



Diameter x Width [Inches]	Thread	Grit and EDP Number				Recom. Speed RPM	Max. Speed RPM	
		40	60	80	120			
4-1/2 x 3/4	5/8-11	45751	45753	45754	45755	7,500	13,300	2
4-1/2 x 3/4	M14 x2.0	45730	45731	45732	45733	7,500	13,300	2
5 x 3/4	5/8-11	45761	45763	45764	45765	6,850	12,200	2
5 x 3/4	M14 x2.0	45735	45736	45737	45738	6,850	12,200	2

Flap drums with aluminum oxide coated materials can be universally used on all materials.

**Examples of Use**

- Fine grinding work on large radii in container, kitchen and apparatus construction.
- Removal of rough unevenness e.g. weld dressing.
- Achieving homogeneous grinding patterns on large surfaces and contours with hand-guided applications (patterns).
- Finest grinding as a preliminary stage to polishing.

**Abrasive: Aluminum Oxide A**

**Recommendation for Use**

Flap drums produce the best results at the recommended peripheral speed of 3,000 - 6,000 SFPM.

**Ordering Note**

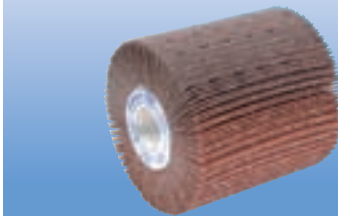
For non-woven drums, please refer to page 76 in this catalogue. Refer to catalogue 209 for detailed information and order data regarding power tools.


**PFERD Specification Number**

FR-W

**Flap Drums**

**NEW**



Diameter x Width [Inches]	Arbor Hole [Inches]	Grit and EDP Number						Recom. Speed RPM	Max. Speed RPM	
		40	60	80	120	150	180			
4 x 4	3/4	45780	45781	45782	45783	45784	45785	3,800	6,100	1



# POLIFLAP™ Wheels

## Wheel, Abrasive Flaps, Rubber Flaps

The POLIFLAP™ wheel consists of a shank-mounted (3/8") hub carrying an array of rubber flaps.

For use, appropriate abrasive flaps must be fitted between their rubber counterparts.

The combination arrangement of abrasive and rubber flaps results in a highly flexible tool.

### Application Examples

- Redressing and restoration of surface textures.
- Fine-grinding of radii, contours, curved areas or large surfaces.
- Removal of fine secondary burr.
- Removal of heat discolouration.
- Surface cleaning.

### Recommendation for Use

This product is used preferably on straight grinders and flexible shaft systems. On stainless steel, an optimum surface finish is obtained in the 1,400 - 1,700 RPM speed range.

### Ordering Note

POLIFLAP™ wheels are supplied with rubber flaps but without abrasive flaps. Please order abrasive flaps separately, specifying the desired grit size (refer to the table below).

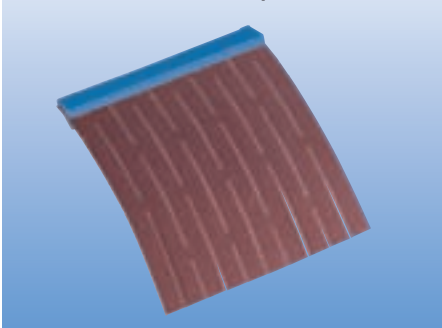
### PFERD Specification Number

PFL



Diameter x Width [Inches]	Shank Diameter [Inches]	EDP Number	Recom. Speed RPM	Max. RPM	
7 x 2-3/8	3/8	45950	1,500	3,500	1

### POLIFLAP™ Abrasive Flaps



Abrasive flaps are available in eight different grit sizes (refer to the table below) for different visual effects.


Worn abrasive flaps can be easily replaced on the POLIFLAP™ wheel. A full set contains 12 abrasive flaps (1 pack).

Please order a starter set and any additional sets of abrasive flaps separately.

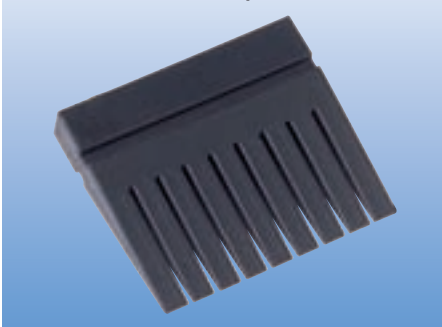
### PFERD Specification Number

PFL-SL A



Flap Width x Length [Inches]	Grit and EDP Number								
	60	80	100	120	150	180	220	320	
2-3/8 x 3	45960	45961	45962	45963	45964	45965	45966	45968	12

### POLIFLAP™ Rubber Flaps



The rubber flaps placed between any two abrasive flaps support the grinding action and flexibility of this tool.

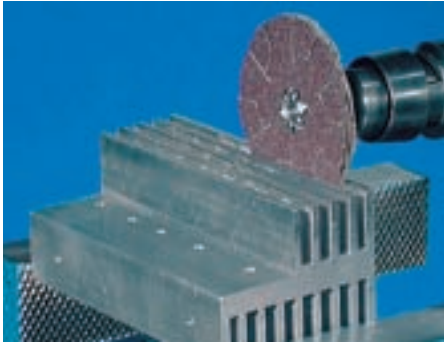
Worn rubber flaps can be easily replaced on the POLIFLAP™ wheel. A full set contains 12 rubber flaps (1 pack).

### PFERD Specification Number

PFL-GL



Width x Length [Inches]	EDP Number	
2 x 2	45951	12

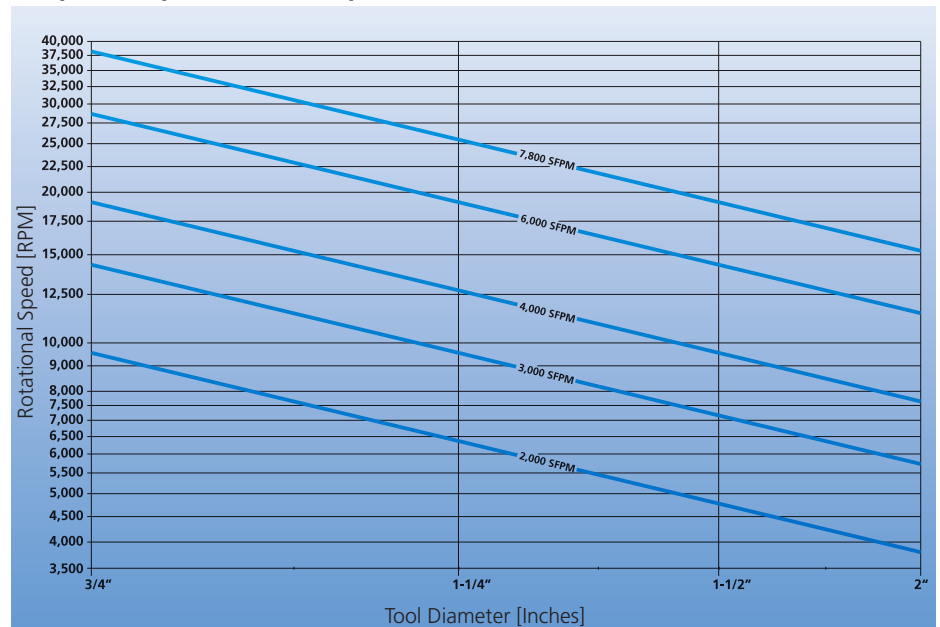


In the diagram, peripheral speeds are represented by blue diagonal lines. Each vertical line represents a tool diameter. From its point of intersection with the diagonal line for a given peripheral speed, proceed horizontally to the left margin where you will find the corresponding rotational speed of the overlap slotted disc and POLISTAR (machine spindle RPM).

### Example

Overlap slotted disc 1-1/4" (EDP 42865)  
 Peripheral Speed: 3,000 SFPM  
 Rotational Speed: 7,600 RPM

### Peripheral Speed of Overlap Discs and POLISTAR



### Safety Note

For safety reasons, it is imperative to remain within the stated RPM limit at all times.

Overlap slotted discs are special-purpose tools for lateral grinding work in grooves and slot areas. They are mounted via a central threaded hub.

### Advantages

- Tool provides abrasive action on both its front and rear side.
- The two-sided overlapping fan structure is flexible and ideal for deburring in grooves, slots and finned structures.

### Recommendation for Use

By holding the tool at an angle it is possible to machine opposing slot faces simultaneously.

### Ordering Note

Please order arbors separately.

### PFERD Specification Number

KS A

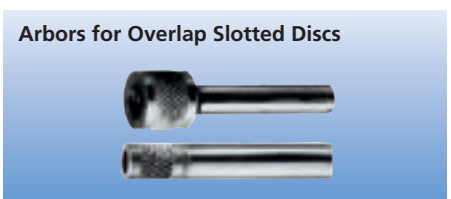


Diameter [Inches]	Thread Size [Inches]	Grit Size	No. of Layers	EDP Number	Suitable Arbor	Max. RPM	
1-1/4	1/8-BSW	80	4	42865	EDP 42856	12,000	20
2	1/4-28 UNF	80	4	42882	EDP 42855	8,000	20

Reduces setup times significantly. Discs can be changed without removing the arbor from the collet mounted in the machine.

### PFERD Specification Number

BO 6



Shank Dia. [Inches]	Shank Length [Inches]	Thread [Inches]	EDP Number	Suitable Tool	
1/4	1-1/4	1/8-BSW	42856	EDP 42865	1
1/4	1-1/4	1/4-28 UNF	42855	EDP 42882	1



# POLISTAR

## Coated Abrasive Stars



Flexible tools for work on the inner surfaces of bores and pipes.

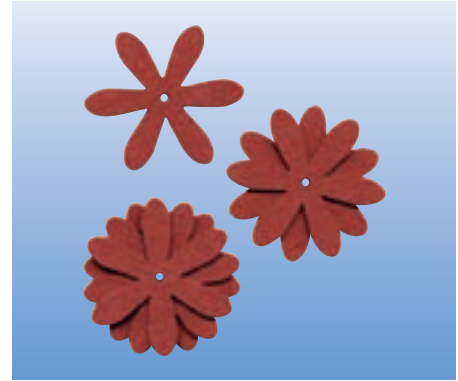
### Advantages

- High flexibility.
- Perfect for grinding internal surfaces of small-diameter bores or pipes.
- Their small sizes makes these tools particularly suitable for the 1/4" – 1-1/2" diameter range.

### Recommendations for Use

POLISTAR tools perform best at the recommended peripheral speed of 3,000 - 4,000 SFPM. POLISTAR pads can be stacked in several layers. To benefit from a maximum abrasive surface area, ensure that the lobes of the individual star pads are aligned offset.

3/4" Dia. POLISTAR for 1/4" to 9/16" ID  
 1-1/4" Dia. POLISTAR for 3/16" to 3/4" ID  
 1-1/2" Dia. POLISTAR for 9/16" to 1" ID  
 2" Dia. POLISTAR for 3/4" to 1-1/2" ID



### Safety Note

For safety reasons, it is imperative to remain within the specified RPM limit at all times.

### Abrasive: Aluminum Oxide A

### Ordering Note

Please order arbors separately. POLISTAR tools come in sheets. Each sheet contains the following quantities:  
 3/4" and 1-1/4" dia.: 25 pcs.  
 1-1/2" and 2" dia.: 10 pcs.


**PFERD Specification Number**  
 PST A

### POLISTAR



### Application Examples


- Cleaning, fine grinding and ultrafine finishing of bores
- Post-weld removal of metal discolourations in stainless steel pipes
- Inlet and outlet radiusing of bores/holes
- Light deburring work on bores (removal of secondary burrs) in preparation of coating
- Deburring in cross-bores

Diameter [Inches]	Bore [Inches]	Grit and EDP Number			Recom. Speed RPM	Max. RPM	Suitable Arbor	
		60	80	120				
3/4	1/16	44070	44071	44072	15,000	38,000	EDP 44061	100
1-1/4	1/16	44080	44081	44082	9,500	25,000	EDP 44061	100
1-1/2	1/8	44085	44086	44087	7,200	19,000	EDP 44060	100
2	1/8	44090	44091	44092	5,700	15,000	EDP 44060	100

### Arbors for POLISTAR



Reduce setup times significantly. Pads can be changed without removing the arbor from the collet mounted in the machine.

Shank Dia. [Inches]	Mounting Dia. [Inches]	Clamping Width (L) [Inches]	EDP Number	
1/4	1/8	1/32 - 1/4	44060	1
1/8	1/16	1/32 - 3/16	44061	1



Grinding tools for work on metal and non-metal workpieces are divided into three groups:

1. **Bonded Abrasives**  
(e.g. grinding wheels)
2. **Coated Abrasives**  
(e.g. belts, discs and foils)  
These tools are used for coarse, fine and finest grinding and for stock removal.
3. **Non-Woven Abrasives**  
This group is characterised through its ability to produce special high-quality finishes.

Non-woven abrasives consist of polyamide fibres, synthetic resins and abrasive grit. The non-woven fibre structure is impregnated with resin and permeated with abrasive grain. The extremely loose connections between the individual fibres to one another gives high flexibility and a spring type effect to the non-woven material. Its elastical properties allow it to conform to a given contour, thus producing a very special surface structure. This silk-matte grinding result is unique and cannot be produced with any other grinding materials. The even distribution of the abrasive grit within the non-woven mixture guarantees a supply of fresh and sharp abrasive grit during the entire grinding operation.

### Non-Woven Tools

Non-woven abrasives are suitable for the manufacture of a range of very various tools such as hand pads, grinding drums, discs, belts and wheels.

The grinding qualities of these various tools are designed for a wide range of uses. They provide solutions for metal processing and further processing needs.

### Finishing Products

These products are produced without fabric reinforcement, and generally offer a finer surface finish and a more compliant grinding action.

- Discs: COMBIDISC® non-woven discs VRW, POLIVLIES™ discs
- Manual applications: POLIVLIES™ hand pad
- POLINOX™ non-woven flap wheels, unitized wheels and discs, convolute wheels and grinding drums (PNL, PNZ, PNR, PNG, PNST, PNER and PNK).

Non-woven abrasives can also be produced with fabric reinforcement. This non-woven abrasive is far stronger and more abrasive.

Non-woven abrasives with fabric reinforcement are suitable for the production of discs and non-woven belts.

PFERD provides:

- Discs: COMBIDISC® non-woven discs VRH, Hook & Loop discs
- POLIVLIES™ flap discs
- Belts: non-woven type

Although non-woven abrasives are constructed in a complete different way to coated abrasives, the same highly-abrasive grit is used:

- Aluminum oxide ( $Al_2O_3$ ) is very durable, achieves maximum tool life and is highly abrasive on hardened steel. The surface produced is characterised by its enhanced gloss. When working on aluminum, discolouration is prevented.
- Silicon carbide (SiC) is even sharper, harder and cuts easier. Within a very short time, it can produce a finer, long-lasting and slightly matte grinding pattern on many material surfaces.

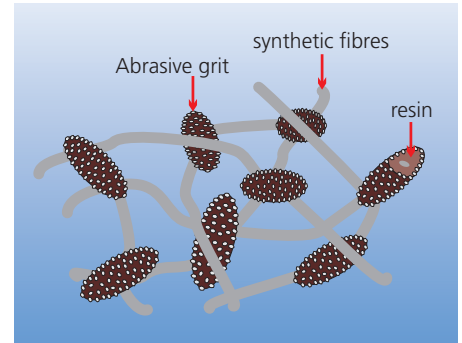
The choice of abrasive grit size for conventional bonded grit or non-woven bonded grit is dependent on the specific application. For non-woven abrasives, the designation is made according to the following system:

### Grade Designation Comparable to Coated Grit Size (Mesh)

Very coarse	50- 80
Coarse	80-100
Medium	120-180
Fine	220-280
Very fine	320-400

### Application

Non-woven abrasives are used when other tools reach their finishing limits or cannot achieve the required result.


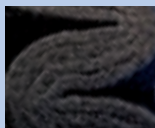
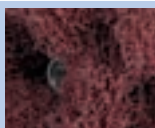



The low aggressive characteristics of the polyamide fibres and the positive effect of the abrasive non-woven materials create brilliant smooth finished surfaces.

Non-woven abrasives are waterproof, can be rinsed out and are very resistant. They do not clog up, leave no rust on surfaces and do not electricity conduct.

Non-woven abrasives can be used for deburring, cleaning and are excellent for surface work on many metals, including aluminum, brass, copper, nickel, stainless steel (INOX) and titanium.

Non-woven abrasives are also suitable for work on materials which are hard to grind such as ceramic, glass and plastic. Non-woven abrasives can be used for wet or dry grinding.

<b>PNL</b>		Made of multiple radially arranged layers of non-woven abrasive material. Dense packing of the layers ensures a long service life. These tools are used chiefly for surface conditioning.
<b>PNZ</b>		The non-woven abrasive material is in multiple, radially arranged layers. Between each layer variation is a coated abrasive flap. This layer variation allows increased stock removal and produces a coarser surface finish.
<b>PNR</b>		The non-woven abrasive material is arranged in multiple radiating layers. Since the individual layers are not interconnected, the layers adapt to the different workpiece contours (e.g. grinding profiles or pipes).
<b>PNG</b>		Made of several strips of corrugated non-woven material, wrapped around a common core. The wavy structure of the non-woven grinding fabric permits depolishing and matte finishing of surfaces without visible transitions.
<b>PNST</b>		Layers of non-woven material on top of one another forming a star-shape and connected in the middle. Excellent for use in confined spaces, e.g. inside bores and recesses, and in hard-to-reach areas.
<b>PNER</b>		Various combinations of compressed materials, fibres, grain and the appropriate bond offer a wide range of surface finishing options from relatively coarse grinding through to preparation for polishing.

# Non-Woven Abrasives

## General Information



POLINOX™ mounted and unmounted flap wheels are manufactured with abrasive impregnated nylon filament. The flexible open-cell structure of the non-woven material gives very elastic and cool-grinding properties. Due to the flexibility of the non-woven fleece, the tool will not alter the surface geometry of the workpiece. Different surface textures and roughness levels can be obtained by selecting from a range of grit sizes, abrasive grains, and tool designs.

### Advantages

- No heat buildup during grinding.
- Extensive and diverse range of dimensions, grit sizes, and tool types.

### Application Examples

- Matte and satin-finishing of metals.
- Non-ferrous metal depolishing.
- Cleaning of oxidized non-ferrous metals.
- Continuous matte finishing of stainless steel (without visible transitions).
- Surface roughening of plastics in preparation for adhesive bonding.

### Recommendations for Use

- POLINOX™ flap wheels perform best at the recommended peripheral speed of 2,000 - 4,000 SFPM, where the optimum balance

between stock removal, surface finishing quality, workpiece temperature loads and tool wear is achieved.

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

### Safety Notes

- The maximum approved peripheral speed is 6,300 SFPM
- For safety reasons, it is imperative to remain within the stated RPM limit.

### 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.

### Safety Recommendations



= Wear protective goggles!



= Wear a respirator!



= Use ear protection!



= Observe safety recommendations!



= Wear protective gloves!



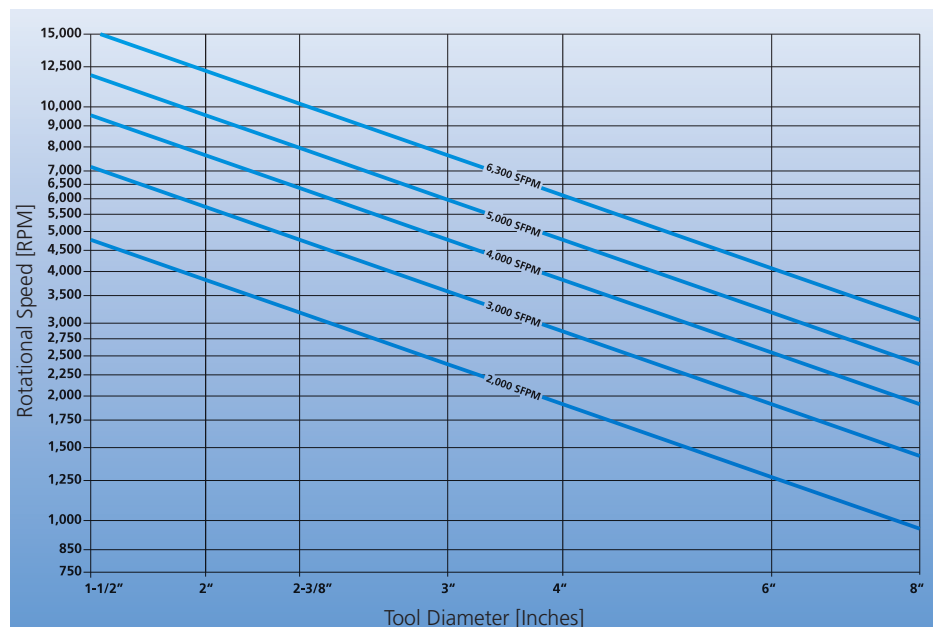
Read the Material Safety Data Sheets (MSDS) before using any materials!

### Peripheral Speed of POLINOX™ Flap Wheels

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 flap wheel and machine spindle.

#### Example

PNL, 2-3/8" Dia. A 100 (EDP 46207)  
Peripheral Speed: 3,000 SFPM  
Rotational Speed: 4,750 RPM





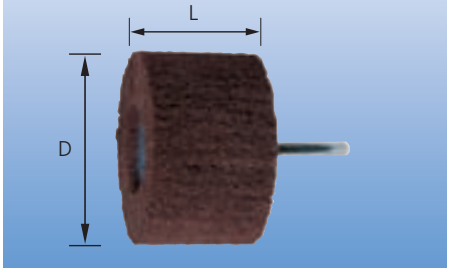
Made of multiple elements of non-woven abrasive material, arranged radially. Dense packing of the layers ensures a long service life.


These tools are used chiefly for surface conditioning.

**Abrasive: Aluminum Oxide A**

**PFERD Specification Number**  
PNL A

**POLINOX™ Mounted Flap Wheels PNL**  
**Aluminum Oxide A**



Diameter (D) x Length (L) [Inches]	Shank Dia. [Inches]	Grit and EDP Number			Recom. Speed RPM	Max. RPM	
		100	180	280			
1-1/2 x 3/4	1/4	46201	46202	46203	7,500	15,000	10
2 x 1	1/4	46204	46205	46206	6,000	12,000	10
2-3/8 x 2	1/4	46207	46208	46209	5,000	10,000	10
3 x 1	1/4	46251	46252	46253	4,000	7,500	10
3 x 2	1/4	46210	46211	46212	4,000	7,500	10

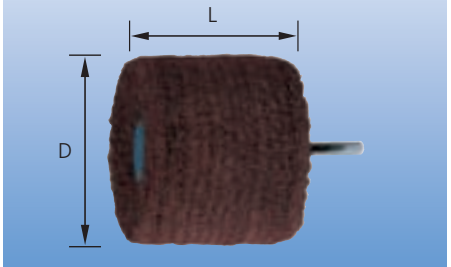
The non-woven abrasive is arranged in multiple axial layers.


Since the individual layers are not interconnected, the abrasive surface adapts easily to different workpiece contours (e.g. in grinding sections or pipes).

**Abrasive: Aluminum Oxide A**

**PFERD Specification Number**  
PNR A

**POLINOX™ Mounted Flap Wheels PNR**  
**Aluminum Oxide A**



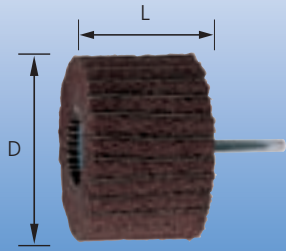
Diameter (D) x Length (L) [Inches]	Shank Dia. [Inches]	Grit and EDP Number			Recom. Speed RPM	Max. RPM	
		100	180	280			
2-3/8 x 2	1/4	46213	46214	46215	5,000	10,000	10
3 x 2	1/4	46216	46217	46218	4,000	7,500	10



# Non-Woven Abrasives

## POLINOX™ Mounted Flap Wheels

**POLINOX™ Mounted Flap Wheels PNZ  
Aluminum Oxide A**




The non-woven abrasive is arranged in a plurality of radial elements with abrasive cloth interlayers. This structure permits an improved stock removal and produces a coarser finish.

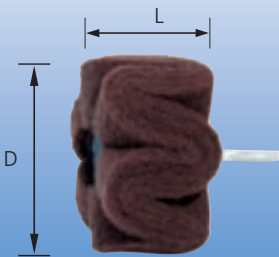
**Abrasive: Aluminum Oxide A**

**PFERD Specification Number**  
PNZ A



Diameter (D) x Length (L) [Inches]	Shank Dia. [Inches]	Grit and EDP Number		Recom. Speed RPM	Max. RPM	
		100	180			
1-1/2 x 3/4	1/4	46219	46225	7,500	15,000	10
2 x 1	1/4	46220	46226	6,000	12,000	10
2-3/8 x 2	1/4	46221	46227	5,000	10,000	10
3 x 1	1/4	46269	46270	4,000	7,500	10
3 x 2	1/4	46222	46228	4,000	7,500	10
4 x 2	1/4	46223	46229	3,000	6,000	10

**POLINOX™ Mounted Flap Wheels PNG  
Aluminum Oxide A**




Made of several strips of corrugated non-woven material, wrapped around a common core.

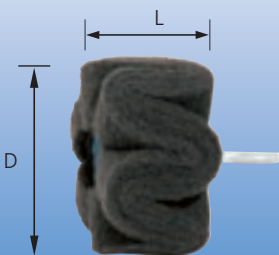
The wavy structure of the non-woven fabric permits depolishing and matt finishing of surfaces without visible transitions.

**Abrasive: Aluminum Oxide A**

**PFERD Specification Number**  
PNG A

Diameter (D) x Length (L) [Inches]	Shank Dia. [Inches]	Grit and EDP Number			Recom. Speed RPM	Max. RPM	
		100	180	280			
3 x 2	1/4	46236	46237	46238	4,000	7,500	10
4 x 2	1/4	46232	46230	46231	3,000	6,000	10

**POLINOX™ Mounted Flap Wheels PNG  
Silicon Carbide SiC**




Consists of several strips of corrugated non-woven material wrapped around a common core.

The wavy structure of the abrasive material permits depolishing and matt finishing of surfaces without visible transitions.

**Abrasive: Silicon Carbide (SiC)**

**PFERD Specification Number**  
PNG SiC



Diameter (D) x Length (L) [Inches]	Shank Dia. [Inches]	Grit and EDP Number			Recom. Speed RPM	Max. RPM	
		100	180	280			
3 x 2	1/4	46239	46240	46241	4,000	7,500	10
4 x 2	1/4	46233	46234	46235	3,000	6,000	5



Star pads are ideal for cleaning, finishing, and polishing interiors of pipe, tubing, and cylinders. At operating speed, the tips of the pads deliver consistent outward pressure to the walls of the workpiece, leaving a smooth and uniform finish.

### Application

Suitable for use on steel, aluminum, and plastic. Designed for use on die grinders, straight shaft grinders, and electric drills.

**Abrasive: Aluminum Oxide A**

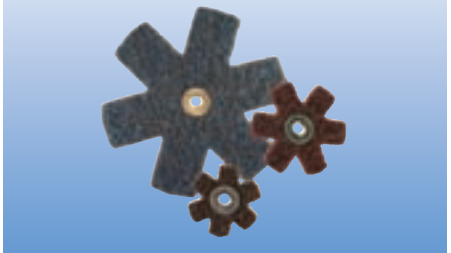
### Ordering Note


Please order arbor separately.

### PFERD Specification Number

STR

### POLIVLIES™ Star Pads



Diameter [Inches]	Thread	Grit Size and EDP Number			Max. RPM	Suitable Arbor	
		Coarse	Medium	Very Fine			
1-1/2	1/4-20 UNC	44100	44101	44102	23,000	EDP 44120	50
2	1/4-20 UNC	44103	44104	44105	23,000	EDP 44120	50
3	1/4-20 UNC	44106	44107	44108	20,000	EDP 44120	50

Suitable for cleaning, deburring and finishing of interior surfaces and contours.

Excellent for use in cramped spaces, e.g., inside bores and recesses, and in hard-to-reach areas.

Available in two dimensions and two grit sizes.

### Application Examples

- Deburring of bores in non-ferrous metals.
- Fine grinding on insides of stainless steel pipe.
- Thread cleaning.

**Abrasive: Aluminum Oxide A**

### Recommendation for Use

Recommended peripheral speed: 2,000 - 5,000 SFPM

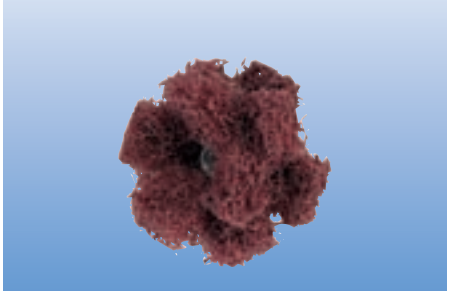
### Ordering Note


Please order arbor separately.

### PFERD Specification Number

PNST A

### POLINOX™ Cross Buffs



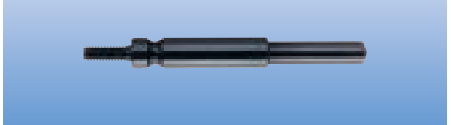
Diameter [Inches]	No. of Layers	Thread	Grit Size and EDP Number		Max. RPM	Suitable Arbor	
			Coarse	Medium			
1	2	8-32 UNC	44200	44201	24,000	EDP 44830	20
1-1/2	3	8-32 UNC	44208	44209	16,000	EDP 44830	20


Arbor for POLIVLIES™ star pads and POLINOX™ cross buffs.

### PFERD Specification Number

BO PNST

### Arbors for POLIVLIES™ Star Pads and POLINOX™ Cross Buffs



Shank Dia. [Inches]	Shank Length [Inches]	Thread	EDP Number	Suitable Tool	Max. RPM	
1/4	3	1/4-20 UNC	44120	POLIVLIES™ Star Pads	25,000	1
1/4	3	8-32 UNC	44830	POLINOX™ Cross Buffs	25,000	1



# Non-Woven Abrasives

## POLINOX™ Unmounted Flap Wheels

**POLINOX™ Unmounted Flap Wheels PNL  
Aluminum Oxide A**



Made of radially arranged elements of non-woven abrasive material. Used mainly for work on large surfaces.


**Abrasive: Aluminum Oxide A**

**Ordering Note**

Please order drive arbors separately.

**PFERD Specification Number**

PNL A

Diameter x Length [Inches]	Bore [Inches]	Grit and EDP Number			Recom. Speed RPM	Max. RPM	
		100	180	280			
6 x 2	1	43128	43129	43130	2,000	4,000	1
8 x 2	1-3/4	43137	43138	43139	1,500	3,000	1

**POLINOX™ Unmounted Flap Wheels PNZ  
Aluminum Oxide A**



The non-woven abrasive is arranged in multiple radial elements with abrasive cloth interlayers.

This structure permits an improved stock removal and produces a coarser finish.

**Abrasive: Aluminum Oxide A**


**Ordering Note**

Please order drive arbors separately.

**PFERD Specification Number**

PNZ A



Diameter x Length [Inches]	Bore [Inches]	Grit and EDP Number		Recom. Speed RPM	Max. RPM	
		100	180			
6 x 2	1	43045	43046	2,000	4,000	1
8 x 2	1-3/4	43048	43049	1,500	3,000	1

**POLINOX™ Unmounted Flap Wheels PNG  
Aluminum Oxide A**



Made of several strips of corrugated non-woven material, wrapped around a common core.

The wavy structure of the non-woven fabric permits depolishing and matt finishing of surfaces without visible transitions.


**Abrasive: Aluminum Oxide A**

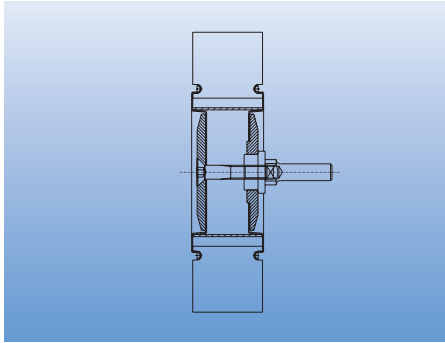
**Ordering Note**

Please order drive arbors separately.

**PFERD Specification Number**

PNG A

Diameter x Length [Inches]	Bore [Inches]	Grit and EDP Number			Recom. Speed RPM	Max. RPM	
		100	180	280			
6 x 2	1	43030	43031	43032	2,000	4,000	1
8 x 2	1-3/4	43036	43037	43038	1,500	3,000	1



These arbor and flange combinations are intended specially for mounting PFERD flap wheels and POLINOX™ wheels.


The clamping flanges are accommodated in the tool recess. This design provides optimum face-down grinding, even near edges and corners.

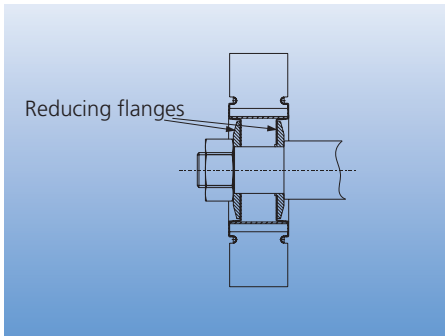
**Contents**

- 1 arbor 1/2" clamping dia.
- 2 flanges
- suitable clamping screws (for various flap wheel widths)

**PFERD Specification Number**  
FR/VR



Shank Diameter [Inches]	Clamping Width [Inches]	Fits Flap Wheel I.D. [Inches]	For Wheel Diameter [Inches]	EDP Number	
1/2	1-2	1	4 - 6	45714	1
1/2	1-2	1-3/4	8 - 10	45715	1

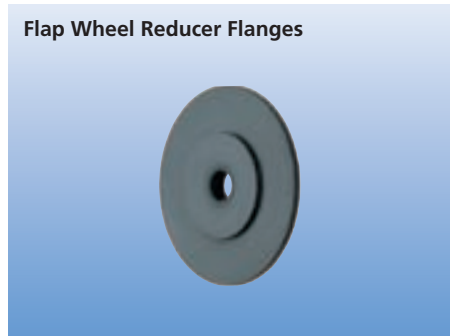



These reducing flanges can be used to mount PFERD flap wheels and POLINOX™ wheels on a stationary machine (Bench Grinder).

**Ordering Note**

1 pair per box.

**PFERD Specification Number**  
RF/FR



Fits Flap Wheel I.D. [Inches]	Bore [Inches]	For Wheel Diameter [Inches]	EDP Number	
1	1/2	4-6	45720	1
1	5/8	4-6	45721	1
1	3/4	4-6	45722	1
1-3/4	1/2	8-10	45725	1
1-3/4	5/8	8-10	45726	1
1-3/4	3/4	8-10	45727	1
1-3/4	1	8-10	45728	1

# Non-Woven Abrasives

## **NEW** POLINOX™ PNER Unitized Wheels

POLINOX™ PNER non-woven tools consist of multiple layer, strongly compressed non-woven material, bonded in a special grit resin system. This bonding system produces non-woven tools with excellent surface finishes, high stock removal and long tool life. Provide medium flexibility when working on soft metals, alloys, high-alloy steels and titanium alloys.

### Recommendations for Use

■ POLINOX™ PNER non-woven tools perform best at the recommended peripheral speed of 3,600 - 6,000 SFPM, where the optimum balance between stock removal, surface finishing quality, workpiece temperature loads and tool wear is achieved.

- We recommend the use of substantially reduced peripheral speeds on poor heat-conducting materials (titanium, stainless steels).
- Suitable drive systems include flexible shafts and electric or air-powered straight grinders.

### Safety Notes

For safety reasons, never exceed maximum RPM.

Available in four different grades and two abrasive types:

soft <b>W</b>	maximum flexibility	Very good for contour grinding
medium-soft <b>MW</b>	semi-flexible type	Especially suited for contour grinding
medium-hard <b>MH</b>	medium flexibility	Good stock removal and edgeholding
hard <b>H</b>	low flexibility	Very good stock removal, edgeholding

### POLINOX™ PNER Unitized Wheels



POLINOX™ PNER unitized wheels have been designed for variable-speed angle grinders. They are especially suitable for working fillet welds and slots that are difficult to access or indentations in stainless steel (INOX) components.

**Abrasive: Aluminum Oxide A  
Silicon Carbide SiC**

### Ordering Note

The different fleece thicknesses/hardnesses are colour-coded:


soft (W) = grey  
medium-soft (MW) = light blue  
medium-hard (MH) = dark blue  
hard (H) = red

### Recommendation for Use

POLINOX™ PNER unitized wheels achieve their best performance on variable-speed angle grinders at a cutting speed of about 6,000 SFPM.

### PFERD Specification Number

PNER

Diameter x Width [Inches]	Arbor Hole	Abrasive	Grit Size	Grade	Density	Spec.	EDP Number	Suitable Drive Arbor	Recom. Speed RPM	Max. Speed RPM	
2 x 1/8	1/4	Aluminum Oxide	fine	H	hard	8AM	48268	EDP 69029	9,500	15,300	10
3 x 1/8	1/4	Aluminum Oxide	fine	H	hard	8AM	48288	EDP 69029	6,400	10,200	10
3 x 1/4	1/4	Silicon Carbide	fine	W	soft	2SF	48290	EDP 69029	6,400	10,200	5
3 x 1/4	1/4	Aluminum Oxide	coarse	W	soft	2AM	48291	EDP 69029	6,400	10,200	5
3 x 1/4	1/4	Silicon Carbide	fine	MW	medium-soft	3SF	48292	EDP 69029	6,400	10,200	5
3 x 1/4	1/4	Aluminum Oxide	fine	MW	medium-soft	3AF	48293	EDP 69029	6,400	10,200	5
3 x 1/4	1/4	Aluminum Oxide	fine	MH	medium-hard	6AF	48295	EDP 69029	6,400	10,200	5
3 x 1/4	1/4	Aluminum Oxide	coarse	H	hard	8AC	48299	EDP 69029	6,400	10,200	5
3 x 1/2	1/4	Silicon Carbide	fine	W	soft	2SF	48310	EDP 69029	6,400	10,200	5
3 x 1/2	1/4	Aluminum Oxide	coarse	W	soft	2AM	48311	EDP 69029	6,400	10,200	5
3 x 1/2	1/4	Silicon Carbide	fine	MW	medium-soft	3SF	48312	EDP 69029	6,400	10,200	5
3 x 1/2	1/4	Aluminum Oxide	fine	MW	medium-soft	3AF	48313	EDP 69029	6,400	10,200	5
3 x 1/2	1/4	Aluminum Oxide	fine	MH	medium-hard	6AF	48315	EDP 69029	6,400	10,200	5
3 x 1/2	1/4	Aluminum Oxide	coarse	H	hard	8AC	48319	EDP 69029	6,400	10,200	5
6 x 1	1	Silicon Carbide	fine	W	soft	2SF	48420	EDP 45714	3,200	5,100	1
6 x 1	1	Silicon Carbide	fine	MW	medium-soft	3SF	48422	EDP 45714	3,200	5,100	1
6 x 1	1	Aluminum Oxide	fine	MW	medium-soft	3AF	48423	EDP 45714	3,200	5,100	1
6 x 1	1	Aluminum Oxide	fine	MH	medium-hard	6AF	48425	EDP 45714	3,200	5,100	1
6 x 1	1	Aluminum Oxide	coarse	H	hard	8AC	48429	EDP 45714	3,200	5,100	1

POLINOX™ PNER unitized wheels have been designed for variable-speed angle grinders. They are especially suitable for working fillet welds and slots that are difficult to access or indentations in stainless steel (INOX) components.

**Abrasive: Aluminum Oxide A  
Silicon Carbide SiC**

### Ordering Note


The different fleece thicknesses/hardnesses are colour-coded:  
 medium-soft (MW) = light blue  
 medium-hard (MH) = dark blue  
 hard (H) = red

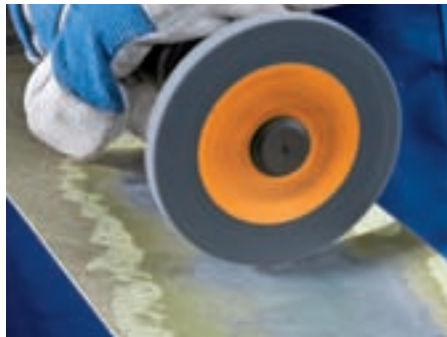
### Recommendation for Use

POLINOX™ PNER unitized wheels achieve their best performance on variable-speed angle grinders at a cutting speed of about 6,000 SFPM.

**PFERD Specification Number**  
PNER



Diameter x Width [Inches]	Bore	Abrasive	Grit Size	Grade	Density	Spec.	EDP Number	Recom. Speed RPM	Max. Speed RPM	
5 x 1/4	7/8	Silicon Carbide	fine	MW	medium-soft	3SF	48352	4,500	6,100	5
5 x 1/4	7/8	Aluminum Oxide	fine	MW	medium-soft	3AF	48353	4,500	6,100	5
5 x 1/4	7/8	Aluminum Oxide	fine	MH	medium-hard	6AF	48355	4,500	6,100	5
5 x 1/4	7/8	Aluminum Oxide	fine	H	hard	8AM	48358	4,500	6,100	5
5 x 1/4	7/8	Aluminum Oxide	coarse	H	hard	8AC	48359	4,500	6,100	5




Re-usable arbor for POLINOX™ PNER unitized wheels.

**PFERD Specification Number**  
BO



**Arbors for POLINOX™ PNER Unitized Wheels**

Shank Dia. [Inches]	Clamping Width [Inches]	Tool Bore [Inches]	EDP Number	
1/4	1/8 - 1/4	1/2	69029	1
1/2	1 - 2	1	45714	1



# Non-Woven Abrasives

## **NEW** POLINOX™ PNER Unitized Discs



POLINOX™ PNER unitized discs are used for end grinding on angle grinders. The unitized fleece is bonded to a glass woven base. The PNER discs are particularly suitable for working larger areas on stainless steel (INOX) components.

### Abrasive: Silicon Carbide SiC

### Recommendation for Use

POLINOX™ PNER unitized discs achieve their best performance on variable-speed angle grinders at a cutting speed of about 6,900 SFPM.


### Ordering Note

The different fleece thicknesses/hardnesses are colour-coded:

soft (W) = grey  
 medium-soft (MW) = light blue  
 medium-hard (MH) = dark blue

### PFERD Specification Number

DISC PNER

Diameter x Width [Inches]	Arbor Hole / Thread Size	Abrasive	Grit Size	Grade	Density	Spec.	EDP Number	Recom. Speed RPM	Max. Speed RPM	
<b>Plain Arbor Hole</b>										
4-1/2 x 1/2	7/8	Silicon Carbide	fine	W	soft	2SF	48470	6,000	10,000	5
4-1/2 x 1/2	7/8	Silicon Carbide	fine	MW	medium-soft	3SF	48472	6,000	10,000	5
4-1/2 x 1/2	7/8	Silicon Carbide	fine	MH	medium-hard	6SF	48474	6,000	10,000	5
5 x 1/2	7/8	Silicon Carbide	fine	W	soft	2SF	48480	5,400	10,000	5
5 x 1/2	7/8	Silicon Carbide	fine	MW	medium-soft	3SF	48482	5,400	10,000	5
5 x 1/2	7/8	Silicon Carbide	fine	MH	medium-hard	6SF	48484	5,400	10,000	5
<b>Threaded Hub</b>										
4-1/2 x 1/2	5/8-11	Silicon Carbide	fine	W	soft	2SF	48490	6,000	10,000	5
4-1/2 x 1/2	5/8-11	Silicon Carbide	fine	MW	medium-soft	3SF	48492	6,000	10,000	5
4-1/2 x 1/2	5/8-11	Silicon Carbide	fine	MH	medium-hard	6SF	48494	6,000	10,000	5
5 x 1/2	5/8-11	Silicon Carbide	fine	W	soft	2SF	48500	5,400	10,000	5
5 x 1/2	5/8-11	Silicon Carbide	fine	MW	medium-soft	3SF	48502	5,400	10,000	5
5 x 1/2	5/8-11	Silicon Carbide	fine	MH	medium-hard	6SF	48504	5,400	10,000	5





The non-woven abrasive material is wrapped around a core and enclosed in foam. The foam packing supports the non-woven fleece and controls its service life and grinding behaviour.

**Abrasive: Aluminum Oxide A  
Silicon Carbide SiC**

**Application**

Edge rounding, matte finishing of planar surfaces

**Ordering Note**

The different fleece grade are colour-coded:  
 medium-soft (MW) = light blue  
 medium-hard (MH) = dark blue  
 hard (H) = red


**Recommendation for use**

Due to the wrapped structure, foamed ring wheels must be used only in the indicated direction. Running in the wrong rotational direction will destroy the wheel and create an increased accident risk!

**PNK Specification Number**

PNK



Diameter x Width [Inches]	Arbor Hole [Inches]	Abrasive	Grit Size	Grade	Density	Spec.	EDP Number	Recom. Speed RPM	Max. Speed RPM	
6 x 1/2	1	Silicon Carbide	fine	MW	medium-soft	7SF	48200	2,500	5,100	1
6 x 1/2	1	Aluminum Oxide	coarse	MH	medium-hard	8AM	48201	2,500	5,100	1
6 x 1/2	1	Silicon Carbide	fine	MH	medium-hard	8SF	48202	2,500	5,100	1
6 x 1/2	1	Silicon Carbide	fine	H	hard	9SF	48203	2,500	5,100	1
6 x 1	1	Silicon Carbide	fine	MW	medium-soft	7SF	48204	2,500	5,100	1
6 x 1	1	Aluminum Oxide	coarse	MH	medium-hard	8AM	48205	2,500	5,100	1
6 x 1	1	Silicon Carbide	fine	MH	medium-hard	8SF	48206	2,500	5,100	1
6 x 1	1	Silicon Carbide	fine	H	hard	9SF	48207	2,500	5,100	1
8 x 1/2	3	Silicon Carbide	fine	MW	medium-soft	7SF	48208	1,900	3,850	1
8 x 1/2	3	Aluminum Oxide	coarse	MH	medium-hard	8AM	48209	1,900	3,850	1
8 x 1/2	3	Silicon Carbide	fine	MH	medium-hard	8SF	48210	1,900	3,850	1
8 x 1/2	3	Silicon Carbide	fine	H	hard	9SF	48211	1,900	3,850	1
8 x 1	3	Silicon Carbide	fine	MW	medium-soft	7SF	48212	1,900	3,850	1
8 x 1	3	Aluminum Oxide	coarse	MH	medium-hard	8AM	48213	1,900	3,850	1
8 x 1	3	Silicon Carbide	fine	MH	medium-hard	8SF	48214	1,900	3,850	1
8 x 1	3	Silicon Carbide	fine	H	hard	9SF	48215	1,900	3,850	1
8 x 2	3	Silicon Carbide	fine	MW	medium-soft	7SF	48216	1,900	3,850	1
8 x 2	3	Aluminum Oxide	coarse	MH	medium-hard	8AM	48217	1,900	3,850	1
8 x 2	3	Silicon Carbide	fine	MH	medium-hard	8SF	48218	1,900	3,850	1
8 x 2	3	Silicon Carbide	fine	H	hard	9SF	48219	1,900	3,850	1

# Non-Woven Abrasives

## POLINOX™ Grinding Drums

**POLINOX™ Grinding Drums PNL  
Aluminum Oxide A**



Made of radially arranged elements of non-woven abrasive material. Especially for work on large surfaces.


**Abrasive: Aluminum Oxide A**

**Ordering Note**

Centre hole with 4 keyways, suitable for all drive units.

**PFERD Specification Number**

PNL-W A

Diameter x Width [Inches]	Bore [Inches]	Grit and EDP Number			Recom. Speed RPM	Max. RPM	
		100	180	280			
4 x 4	3/4	43103	43104	43105	2,000 - 3,700	5,000	1

**POLINOX™ Grinding Drums PNZ -  
Interleaved  
Aluminum Oxide A**



The non-woven abrasive is arranged in multiple radial elements with abrasive cloth interlayers.

This structure permits an improved stock removal and produces a coarser finish.


**Abrasive: Aluminum Oxide A**

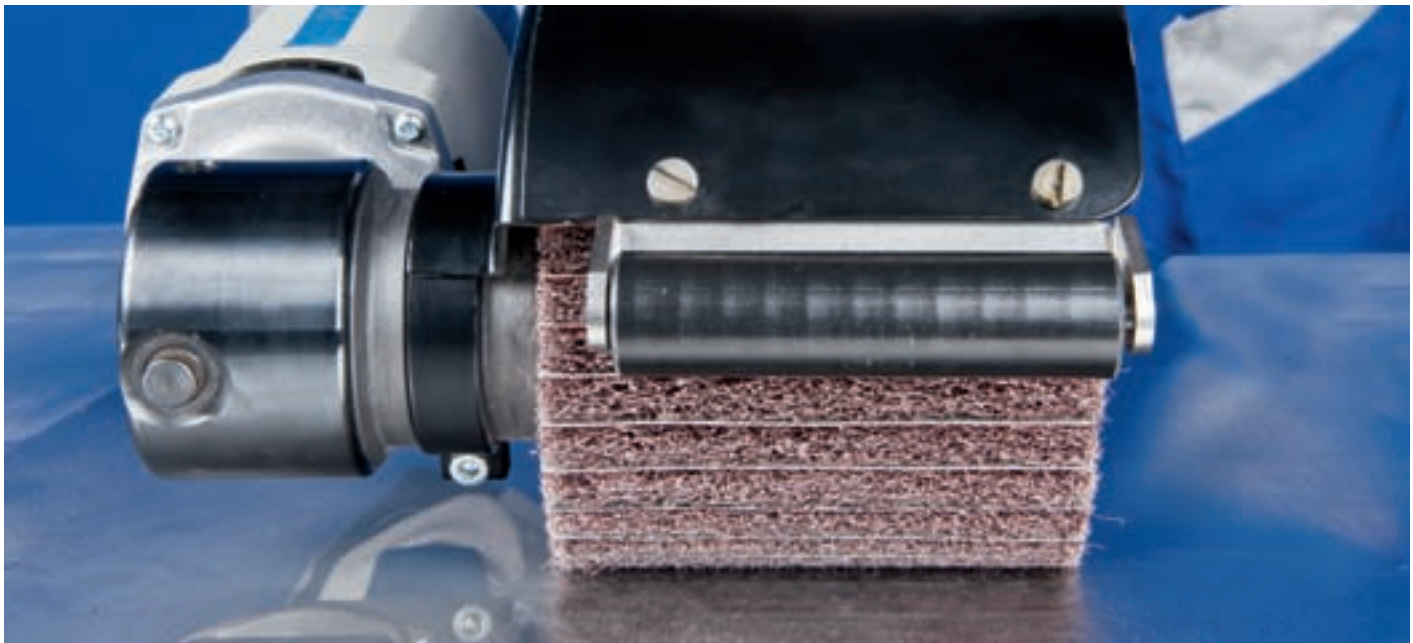
**Ordering Note**

Centre hole with 4 keyways, suitable for all drive units.

**PFERD Specification Number**

PNZ-W A

Diameter x Width [Inches]	Bore [Inches]	Grit and EDP Number			Recom. Speed RPM	Max. RPM	
		60	80	120			
4 x 4	3/4	43113	43114	43115	2,000 - 3,700	5,000	1



POLIVLIES™ Hook & Loop discs for surface conditioning attach to the holder by a series of hooks and loops that permits easy-on, easy-off disc changes. Strong non-woven material will make quick work of heavy oxidation removal, cleaning, and conditioning.

### Application Examples

- Removal of discoloration from stainless steel surfaces
- Fine grinding of large components in process equipment and tank construction

### Recommendation for Use

POLIVLIES™ Hook & Loop discs perform best at the recommended peripheral speed of 3,000 - 4,000 SFPM. An optimum balance of stock removal, surface quality, workpiece thermal load, and tool wear is achieved at this speed.

### Ordering Note


Please order disc holder separately.

### PFERD Specification Number

PVKR

POLIVLIES™ Hook & Loop Discs



Diameter [Inches]	Grit Size and EDP Number			Recom. Speed RPM	Max. RPM	
	Coarse	Medium	Very Fine			
2	43434	43435	43437	6,500	8,000	50
3	43438	43439	43441	4,500	5,500	25
4	43442	43443	43445	3,300	5,000	10
4-1/2	43446	43447	43449	3,000	5,000	10
5	43450	43451	43453	2,600	5,000	10
7	43458	43459	43461	1,800	3,000	10
8	43462	43463	43465	1,600	3,000	10

The elastic interlayer of the POLIVLIES™ Hook & Loop disc holder permits surface finishing without visible transitions, in addition to rapid tool changes.

Available in threaded and shank-mounted versions.

### Safety Note


For safety reasons, the stated max. RPM level must not be exceeded.

### PFERD Specification Number

PVKRH 4 (Shank Mounted)  
PVKRH 16 (Threaded)

POLIVLIES™ Hook & Loop Disc Holders



Diameter [Inches]	Shank Diameter/ Thread Size	EDP Number	Max. RPM	
<b>Shank Mounted</b>				
2	1/4	43402	22,000	1
3	1/4	43404	20,000	1
4	1/4	43406	16,000	1
<b>Threaded</b>				
4-1/2	5/8-11	43410	10,000	1
5	5/8-11	43412	10,000	1
7	5/8-11	43420	6,000	1
8	5/8-11	43422	4,000	1

# Non-Woven Abrasives

## POLIVLIES™ Flap Discs



Suitable for surface grinding on stainless steel components.

### Application Examples

- Fine-grinding of large surfaces.
- Removal of heat discoloration.
- Weld cleaning and light dressing work on stainless steel assemblies.
- Post-assembly finishing work in process equipment and tank fabrication.

**Abrasive: Aluminum Oxide A**

### Available Grit Sizes:


- Coarse = yellowish-brown
- Medium = red-brown
- Fine = blue

### Recommendation for Use

On variable-speed angle grinders, POLIVLIES™ flap discs produce the best results at the recommended peripheral speed of 6,000 - 6,900 SFPM.

### PFERD Specification Number

PVL A

Diameter x Thickness [Inches]	Arbor Hole/ Thread Size [Inches]	Grit Size and EDP Number			Recom. Speed RPM	Max. Speed RPM	
		coarse	medium	fine			
<b>Plain Arbor Hole</b>							
4-1/2 x 3/4	7/8	43273	43274	43275	5,000 - 5,800	13,300	5
5 x 3/4	7/8	43276	43277	43278	4,600 - 5,300	12,200	5
<b>Threaded Hub</b>							
4-1/2 x 3/4	5/8-11	43285	43286	43287	5,000 - 5,800	13,300	5
5 x 3/4	5/8-11	43288	43289	43290	4,600 - 5,300	12,200	5

## Non-Woven Marbling Tools



Marbling Discs

Marbling discs are used to apply a decorative pattern to a finished surface.

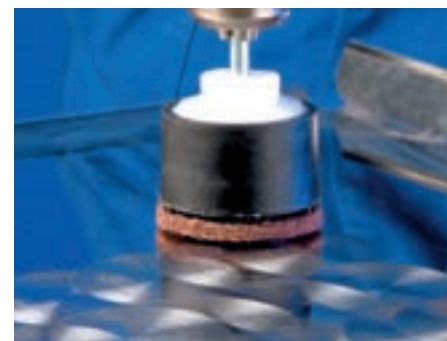
These aluminum oxide non-woven discs are available in a water and oil resistant quality in grit sizes 100, 180 and 280.


### Recommendation for Use

For use with the matching disc holder.

### PFERD Specification Number

MKRR A




Diameter x Thickness [Inches]	Grit Size and EDP Number			Recom. Speed RPM	
	Medium/100	Fine/180	Very Fine/280		
1-1/2 x 1/4	43340	43341	43342	600 - 1,400	100
2 x 1/4	43344	43345	43346	600 - 1,400	100
2-3/8 x 1/4	43348	43349	43350	600 - 1,400	100

Special-purpose tools for marbling of surfaces. The marbling tool is designed for mounting a matching non-woven marbling disc. A highly elastic intermediate layer carries the Hook & Loop fastening system. Marbling tools are available in three diameters with 1/4" dia. x 1-1/2" length shank.

**PFERD Specification Number**  
MK



Diameter [Inches]	Shank Diameter (D) [Inches]	EDP Number	Max. RPM	
1-1/2	1/4	43332	5,750	1
2	1/4	43333	4,600	1
2-3/8	1/4	43334	3,800	1

## High-Strength Masking Tape, ABRACLEAN Cleaning Stick



This self-adhesive masking tape is designed to preserve the clear separation between differently stroke-finished surfaces in transition areas, e.g., near mitred joints. Masking tape is applied to protect areas not to be machined.

**Advantages**

- High elasticity and tear strength.
- Pulls off cleanly.
- Exceptional edge stability.
- Leaves no undesirable oily stains on workpieces.

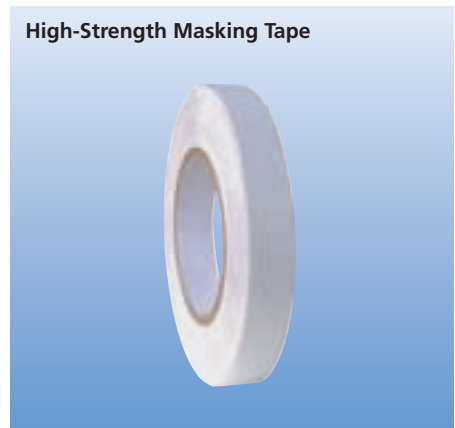
**Application Examples**

- Clear-cut separation of surface areas requiring different abrasive finish patterns
- Protection of previously finished surfaces

**Recommendation for Use**

- Use masking tape for surface protection only when finish machining with soft, flexible tools (e.g. non-woven tools).
- To avoid inadvertent removal, take care to apply load to masking tape only in the direction of tool rotation when grinding.

**PFERD Specification Number**  
ADB 20



Width [Inches]	Length [Feet]	EDP Number	
3/4	82	43000	1


Special-purpose accessory for cleaning loaded abrasive tools. ABRACLEAN provides powerful cleaning action on all coated abrasive products.

**Recommendation for Use**

The ABRACLEAN cleaning stick cleans loaded belts and virtually any coated product. Just apply the rotating abrasive to the cleaning stick. Always use protective goggles when using this product.

**PFERD Specification Number**  
RG 300 50



Length x Height x Width [Inches]	EDP Number	
12 x 2 x 2	62918	2





POLICLEAN™ is a coarse-structured non-woven abrasive material made of a special combination of synthetic fibre and abrasive grain. PFERD offers POLICLEAN™ tools in several types and versions:

- POLICLEAN™ wheels
- POLICLEAN™ mounted tools
- COMBIDISC®-POLICLEAN™ discs (refer to COMBIDISC® tools)
- POLICLEAN™ discs

### Advantages

- The flexible structure adapts ideally to the surface contours and shape of the workpiece.
- Open-cell material prevents loading and gives cool grinding properties.
- POLICLEAN™ tools leave no corrosive residue on the workpiece surface.

### Application Examples

- Removal of rust, corrosion stains, scale, dirt, stubborn paint or adhesive residue, old coatings or residue of seals or gaskets.
- Cleaning of weld seams, removal of slight drawing marks and heat discolourations, especially on stainless steel.
- Surface roughening in preparation of adhesive bonding or application of fillers.
- Cleaning of surfaces of diverse characteristics.

### Recommendations for Use

POLICLEAN™ tools perform best at a recommended peripheral speed of 3,000 - 4,000 SFPM, where the optimum balance between stock removal, surface finishing quality, workpiece temperature loads and tool wear is achieved.

### Safety Note

For safety reasons, it is imperative to remain within the stated RPM limit at all times.

### 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 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.

### Safety Recommendations



= Wear protective goggles!



= Wear gloves!



= Use ear protection!



= Observe safety recommendations!



= Wear a respirator!



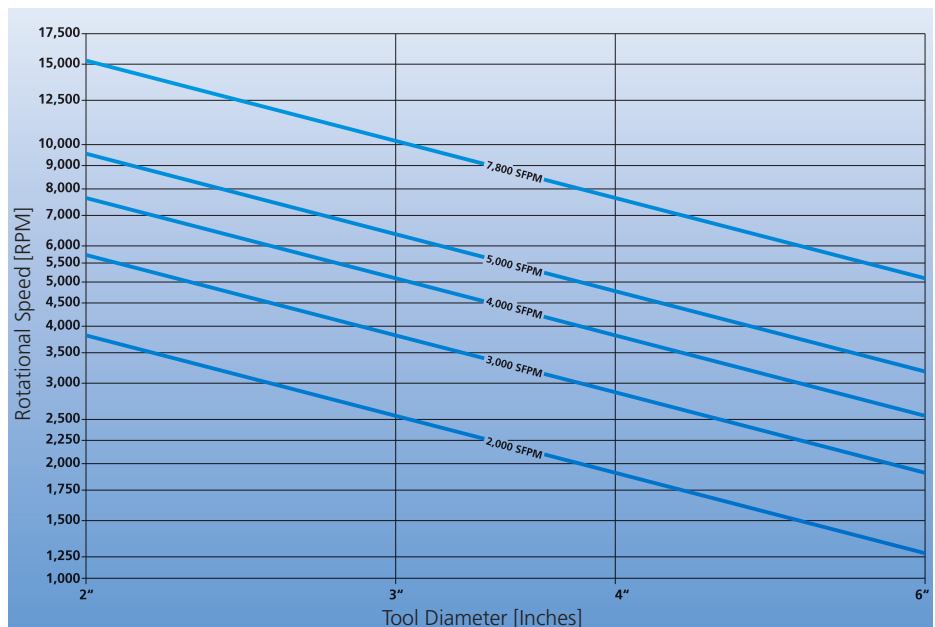
Read the Material Safety Data Sheets (MSDS) before using any materials!

### Peripheral Speed of POLICLEAN™ Tools

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 POLICLEAN™ tool and machine spindle.

#### Example

POLICLEAN™ Wheel  
3" x 1", 1/4" Shank  
EDP 44813  
Peripheral Speed: 3,000 - 4,000 SFPM  
Rotational Speed: 3,800 - 5,000 RPM





For general-purpose peripheral grinding applications.

**Recommendation for Use**

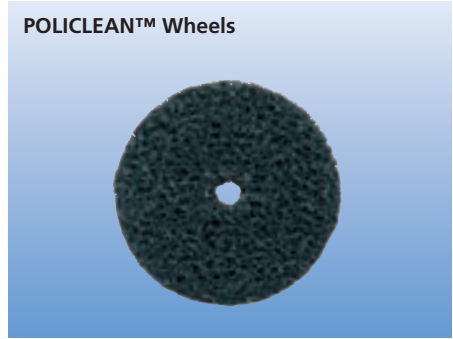
These tools can be used on flexible shaft drives or straight grinders (electrical or air-powered).


**Ordering Note**

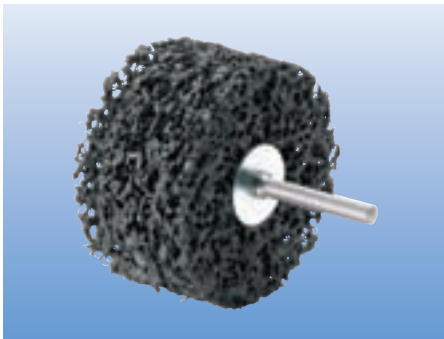
Please order arbors separately.

**PFERD Specification Number**

PCLS



Diameter x Length [Inches]	Bore [Inches]	EDP Number	Recom. Speed RPM	Max. RPM	
4 x 1/2	1/2	44804	3,000 - 3,800	6,000	4
6 x 1/2	1/2	44806	2,000 - 2,500	4,000	4



Mounting system for POLICLEAN™ wheels, with wheel stacking capability.


The use of this arbor reduces set-up times significantly. Discs can be changed without removing the shank from the machine collet.

PFERD offers arbors for clamping one or two wheels, respectively.

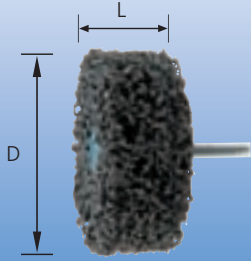
**PFERD Specification Number**

PCLB



Shank Dia. [Inches]	Wheel arbor hole [Inches]	No. of Discs	EDP Number	Suitable POLICLEAN™ Wheels	
1/4	1/2	1	44835	EDP 44804, EDP 44806	1
1/4	1/2	2	44836	EDP 44804, EDP 44806	1
3/8	1/2	1	44838	EDP 44804, EDP 44806	1
3/8	1/2	2	44839	EDP 44804, EDP 44806	1

### POLICLEAN™ Mounted Tools




For general-purpose peripheral grinding.

#### Recommendation for Use

These tools can be used on flexible shaft drives or straight grinders (electrical or air-powered).

**PFERD Specification Number**  
PCLZY

Diameter (D) x Length [L] [Inches]	Shank Dia. [Inches]	EDP Number	Recom. Speed RPM	Max. RPM	
2 x 1/2	1/4	44810	6,000 - 7,000	15,000	5
2 x 1	1/4	44811	6,000 - 7,000	15,000	5
3 x 1/2	1/4	44812	4,000 - 5,100	10,000	5
3 x 1	1/4	44813	4,000 - 5,100	10,000	5
4 x 1/2	1/4	44814	3,000 - 3,800	7,500	5

### POLICLEAN™ Discs



The non-woven cleaning fabric is supported by a backing pad. This design allows POLICLEAN™ discs to be used very effectively in face grinding.


#### Recommendation for Use

Preferably for use on slow-running angle grinders.

**Recommended Peripheral Speed**  
6,000 - 8,000 SFPM.

**PFERD Specification Number**  
PCLD



Diameter x Thickness [Inches]	Arbor Hole/ Thread Size [Inches]	EDP Number	Recom. Speed RPM	Max. RPM	
<b>Plain Arbor Hole</b>					
4-1/2 x 1/2	7/8	44862	5,000 - 7,000	10,000	5
5 x 1/2	7/8	44863	5,000 - 7,000	10,000	5
<b>Threaded Hub</b>					
4-1/2 x 1/2	5/8-11	44867	5,000 - 7,000	10,000	5
5 x 1/2	5/8-11	44868	5,000 - 7,000	10,000	5



PFERD offers a very comprehensive range of POLIFLEX™ mounted points and wheels for fine-grinding. These products are available in diverse abrasive materials, grit sizes, hardness grades and shapes to suit a host of specific applications. POLIFLEX™ fine-grinding tools are made on advanced production lines to high standards of dimensional accuracy, constant quality, and close tolerances. They perform exceptionally well in fine-grinding and are ideal for preparing surfaces for subsequent polishing steps.

**Advantages**

- POLIFLEX™ fine-grinding tools provide a high-quality surface finish.
- POLIFLEX™ mounted fine-grinding points can be easily profiled for a given application by means of a dressing stone (refer to catalogue 203 for dressing stones) at low RPM.
- Specially adapted bonds, grit sizes and hardness grades are available for every application.

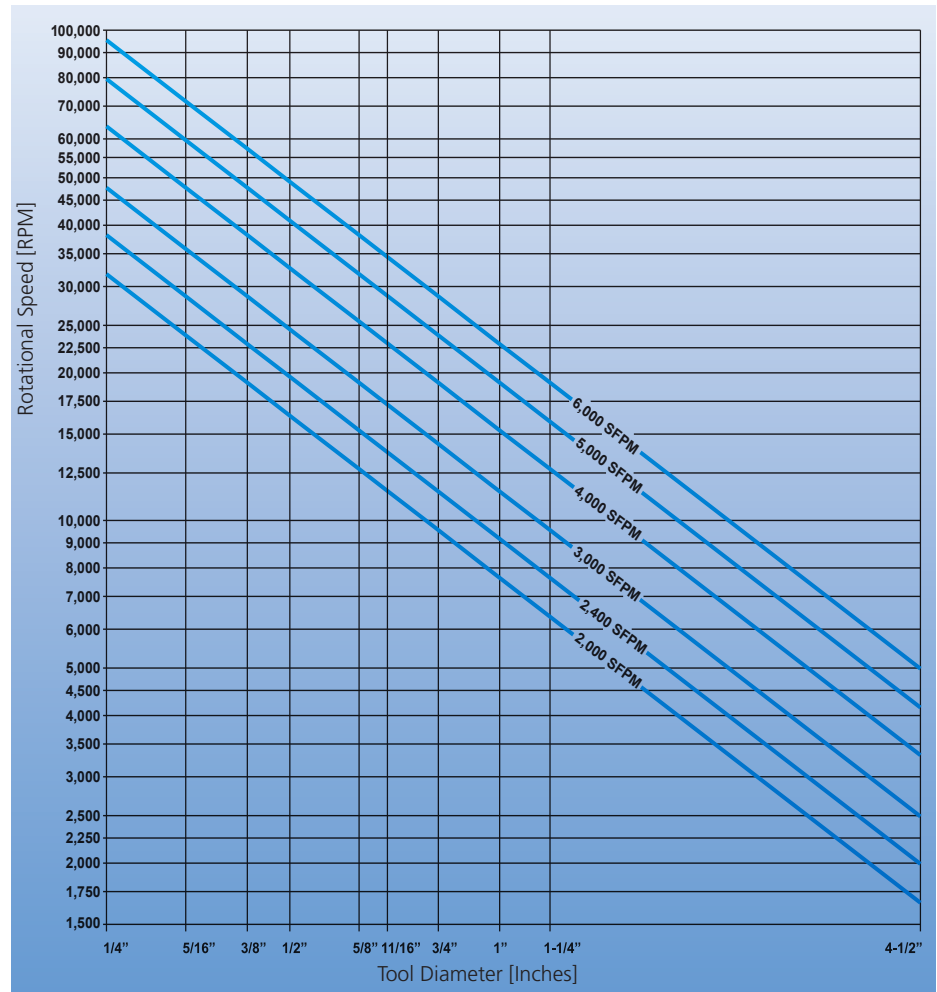
- The high concentricity of PFERD mounted points
  - protects the operator's safety and health,
  - reduces the load on the power tool,
  - minimizes operating vibrations,
  - prevents chatter marks,
  - reduces wear.

**Peripheral Speed of POLIFLEX™ Fine-Grinding Tools**

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 POLIFLEX™ tool and machine spindle.

**Example**

W220 GR 120 (EDP 36311)  
 Peripheral Speed: 1,900 - 2,900 SFPM  
 Rotational Speed: 7,500 - 17,200 RPM



To facilitate the selection of the optimum POLIFLEX™ fine grinding point, we have defined preselection into the workpiece material, main applications and special application requirements.

The overview shows which variations of abrasive and bond are recommended for the various materials taking into account the respective application.

### How Do I Find the Best POLIFLEX™ Fine Mounted Point?

#### 1 Material

Please observe the colour code for the workpiece workpiece material given in the table.

#### 2 Application

The application must then be selected based on the type of material.

The following differentiation is made here:

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

1 Workpiece Material			2 Application/ Processing Case	Bond	Abrasive (Mixed Grits)	4 Designation/Fine Grinding Point Bond	Recommended Cutting Speed	3 Surface Finish
Steel, cast steel	Non-hardened, non-heat treated steels up to 38 HRC (< 1,200 N/mm <sup>2</sup> )	Construction steels, carbon steels, tool steels, non-alloyed steels, case-hardened steels, cast steels	Use on Surfaces	Matt surface				
			Edge Application with high form stability	Shiny surface				
	Hardened, heat-treated steels exceeding 38 HRC (> 1,200 N/mm <sup>2</sup> )	Tool steels, tempering steels, alloyed steels, cast steels	Use on Surfaces	Matt surface				
			Edge Application with high form stability	Shiny surface				
Stainless steel (INOX)	Rust and acid-resistant steels	Austenitic and ferritic stainless steels	Use on Surfaces	Matt surface				
			Edge Application with high form stability	Shiny surface				
			General Use	Structured surface				
Non-ferrous metals	Soft non-ferrous metals	Aluminum-alloys, brass, copper, zinc	Use on Surfaces	Matt surface				
			Edge Application with high form stability	Shiny surface				
	Hard non-ferrous metals	Bronze, titanium, titanium alloys, hard aluminum alloys (high Si content)	Use on Surfaces	Matt surface				
			Edge Application with high form stability	Shiny surface				
	High-temperature resistant materials	Nickel based alloys, cobalt based alloys (aircraft engine and turbine construction)	Use on Surfaces	Matt surface				
			Edge Application with high form stability	Shiny surface				

● = recommended

○ = suitable

\* = upon request, bonds available for customized products

5 Catalogue Page



### 3 Desired Surface Finish

Then the desired work result needs to be selected.

The following differentiation is made here:

- Matte surface,
- shiny surface and
- structured surface.

It is necessary to differentiate the selection criteria into material, application and surface finish to find the optimum mounted point and correct bond. The mounted point bond and grain mix

have a direct effect on the grinding output, tool life and aggressiveness of the tools. They also determine the appearance of the surface that is to be worked on.



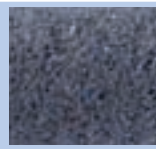





### 4 Fine Mounted Point Bond

After the application and the required surface have been determined, the suitable bond can be selected in the right-hand part of the overview.

The "recommended" bond is shown with a black dot (●).

### 5 Optimum POLIFLEX™ Fine mounted Point

For more information about the selected bond, the mounted point shapes / dimensions and grit sizes, please refer to the following pages of this catalogue. Please note the page references in line 5 of this table.

Polyurethane Bond			Elastomer Bond				Resinoid Bond
CN			AR	ANCN	AW	AWCN	AN
							
PUR			GR	GHR	LR	LHR	TX
Soft (W)	Medium Hard (MH)	STRUC	GR	GHR	LR	LHR	TX
2,000 - 2,400 SFPM	2,000 - 3,000 SFPM	1,000 - 2,000 SFPM	2,000 - 2,400 SFPM	4,000 - 5,000 SFPM	3,000 - 4,000 SFPM	6,000 - 7,800 SFPM	4,000 - 5,000 SFPM
○	●		○				
			●		○		
	○		○				●
				●		○	
○	●		○				
	○		○		●		
				○		●	●
●	○						
	○		●		○		
	○			●	○		●
○	○	●					
●	○						○
			○		●		●
			○	○			●
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	○		○	●			●
			○	○			●
			○	○		●	
	○						●
	○		●	○			●
	○			○			●
				○		●	
90	90	*	87	*	88	*	89

### Safety Recommendations

For safety reasons, it is imperative to remain within the stated RPM limit at all times.



= Wear eye protection!



= Wear a respirator!



= Use ear protection!



= Wear gloves!



= Read the instructions!



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

POLIFLEX™ fine grinding tools are designed for the following maximum peripheral speeds:

PUR = 3,000 SFPM	PUR-STRUC = 3,000 SFPM
GR = 3,000 SFPM	GHR = 6,000 SFPM
LR = 5,000 SFPM	LHR = 9,800 SFPM
TX = 6,000 SFPM	

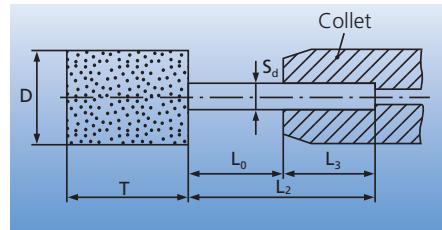
Maximum RPM levels for the various shank lengths and shank diameters must be strictly observed to prevent shank buckling during use.

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



The buckling speed depends on the following factors:

- Shape and dimensions of the mounted point,
- diameter of the steel shank and
- free shank length  $L_0$ .



- D = Outer dia. of the mounted point
- T = Mounted point width
- $S_d$  = Shank diameter
- $L_0$  = Open shank length
- $L_2$  = Shank length
- $L_3$  = Clamping length of the shank

Each pack of PFERD mounted points comes with RPM recommendations for a given unsupported shank length ( $L_0$ ) of that product. Check each tool for proper concentricity and correct clamping in the power unit before commencing work.

### Special Products Made to Order

If our extensive stock range does not present the ideal solution for your particular application, we can produce POLIFLEX™ tools 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.

### 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 POLIFLEX™ tool 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).

### 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.





POLIFLEX™ fine grinding tools in GR bond are made of pink aluminum oxide, a soft, elastomer based bond type. Soft elastic bond ensures a soft, fine grinding action. Available in a variety of standard shapes.

### PFERD Specification Number


- PF SP GR (Tapered Cone)
- PF KE GR (Tapered Cylinder, Pointed End)
- PF KU GR (Ball Shape)
- PF WR GR (Cylinder With Radius End)

### Safety Note

For safety reasons, the stated max. RPM level must not be exceeded.

### POLIFLEX™ Fine Grinding Points GR Bond, A and B Shapes



Shape	Diameter (D) x Length (L) [Inches]	Shank Dia. x Shank Length [Inches]	Grit	EDP Number	Recom. RPM 1/2" overhang	Max. RPM 1/2" overhang	Max. RPM 1" overhang	
A5	3/4 x 1-1/8	1/4 x 1-1/2	120	36461	12,000	38,550	31,270	10
A11	7/8 x 2	1/4 x 1-1/2	120	36471	10,000	25,420	20,100	10
A12	11/16 x 1-1/4	1/4 x 1-1/2	120	36481	13,000	38,050	30,790	10
A21	1 x 1	1/4 x 1-1/2	120	36491	9,000	35,510	28,840	10
A25	1 x 1	1/4 x 1-1/2	120	36451	9,000	35,510	28,840	10
A26	5/8 x 5/8	1/4 x 1-1/2	120	36431	14,000	48,980	40,410	10
A40	3/4 x 3/4	1/4 x 1-1/2	120	36441	12,000	50,930	50,930	10
B52	3/8 x 3/4	1/4 x 1-1/2	120	36501	24,000	78,340	54,390	10
B121	1/2 x 1/2	1/4 x 1-1/2	120	36421	18,000	69,310	45,850	10
B122	3/8 x 3/8	1/8 x 1-1/4	120	36361	24,000	68,740	37,790	10
B125	1/4 x 1/4	1/8 x 1-1/4	120	36401	36,000	75,330	50,640	10

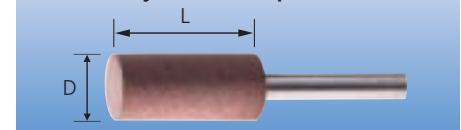
### Safety Note


For safety reasons, the stated max. RPM level must not be exceeded.

### PFERD Specification Number

PF ZY GR

### POLIFLEX™ Fine Grinding Points GR Bond, Cylindrical Shape W



Shape	Diameter (D) x Length (L) [Inches]	Shank Dia. x Shank Length [Inches]	Grit	EDP Number	Recom. RPM 1/2" overhang	Max. RPM 1/2" overhang	Max. RPM 1" overhang	
W162	1/4 x 3/8	1/8 x 1-1/4	120	36101	36,000	67,210	44,040	10
W168	5/16 x 5/16	1/8 x 1-1/4	120	36111	29,000	65,900	42,790	10
W170	5/16 x 1/2	1/8 x 1-1/4	120	36121	29,000	54,860	34,040	10
W174	3/8 x 1/4	1/8 x 1-1/4	120	36131	24,000	65,510	42,440	10
W175	3/8 x 3/8	1/8 x 1-1/4	120	36141	24,000	57,530	35,990	10
W176	3/8 x 5/8	1/8 x 1-1/4	120	36151	24,000	50,460	30,450	10
W178	3/8 x 1	1/4 x 1-1/2	120	36191	24,000	40,360	30,780	10
W185	1/2 x 1/2	1/8 x 1-1/4	120	36171	18,000	42,750	24,370	10
W193	5/8 x 3/8	1/4 x 1-1/2	120	36231	14,500	44,330	34,340	10
W196	5/8 x 1	1/4 x 1-1/2	120	36251	14,500	34,670	25,340	10
W204	3/4 x 3/4	1/4 x 1-1/2	120	36281	12,000	36,510	27,040	10
W220	1 x 1	1/4 x 1-1/2	120	36311	9,000	30,370	21,410	10
W230	1-1/4 x 1-1/4	1/4 x 1-1/2	120	36331	7,200	25,200	16,760	5



POLIFLEX™ fine grinding tools in LR (leather bond) are made of white aluminum oxide. LR is a harder bond providing enhanced durability. Smooth, cool, fine grinding with good edge-holding qualities. Provides long tool life and very fine pre-polish finish. Recommended for fine grinding of all metals. Available in a variety of standard shapes.

### Safety Note

For safety reasons, the stated max. RPM level must not be exceeded.

### PFERD Specification Number

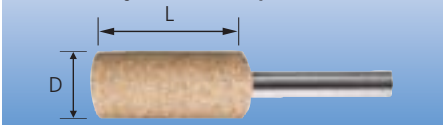
PF SP LR (Tapered Cone)  
 PF KE LR (Tapered Cylinder, Pointed End)  
 PF KU LR (Ball Shape)  
 PF WR LR (Cylinder With Radius End)

### POLIFLEX™ Fine Grinding Points LR Bond, A and B Shapes



Shape	Diameter (D) x Length (L) [Inches]	Shank Dia. x Shank Length [Inches]	Grit	EDP Number	Recom. RPM 1/2" overhang	Max. RPM 1/2" overhang	Max. RPM 1" overhang	
A5	3/4 x 1-1/8	1/4 x 1-1/2	120	36465	20,000	38,550	31,270	10
A11	7/8 x 2	1/4 x 1-1/2	120	36475	17,000	25,420	20,100	10
A12	11/16 x 1-1/4	1/4 x 1-1/2	120	36485	22,000	38,050	30,790	10
A21	1 x 1	1/4 x 1-1/2	120	36495	15,000	35,510	28,840	10
A25	1 x 1	1/4 x 1-1/2	120	36455	15,000	35,510	28,840	10
A26	5/8 x 5/8	1/4 x 1-1/2	120	36435	24,000	48,980	40,410	10
A40	3/4 x 3/4	1/4 x 1-1/2	120	36445	20,000	50,930	50,930	10
B52	3/8 x 3/4	1/4 x 1-1/2	120	36505	40,000	78,340	54,390	10
B121	1/2 x 1/2	1/4 x 1-1/2	120	36425	30,000	69,310	45,850	10
B122	3/8 x 3/8	1/8 x 1-1/4	120	36365	40,000	68,740	37,790	10
B125	5/16 x 5/16	1/8 x 1-1/4	120	36405	60,000	75,330	50,640	10

### POLIFLEX™ Fine Grinding Points LR Bond, Cylindrical Shape W




### Safety Note

For safety reasons, the stated max. RPM level must not be exceeded.

### PFERD Specification Number

PF ZY LR

Shape	Diameter (D) x Length (L) [Inches]	Shank Dia. x Shank Length [Inches]	Grit	EDP Number	Recom. RPM 1/2" overhang	Max. RPM 1/2" overhang	Max. RPM 1" overhang	
W162	1/4 x 3/8	1/8 x 1-1/4	120	36105	60,000	67,210	44,040	10
W168	5/16 x 5/16	1/8 x 1-1/4	120	36115	48,000	65,900	42,790	10
W170	5/16 x 1/2	1/8 x 1-1/4	120	36125	48,000	54,860	34,040	10
W174	3/8 x 1/4	1/8 x 1-1/4	120	36135	40,000	65,510	42,440	10
W175	3/8 x 3/8	1/8 x 1-1/4	120	36145	40,000	57,530	35,990	10
W176	3/8 x 5/8	1/8 x 1-1/4	120	36155	40,000	50,460	30,450	10
W178	3/8 x 1	1/4 x 1-1/2	120	36195	40,000	40,360	30,780	10
W185	1/2 x 1/2	1/8 x 1-1/4	120	36175	30,000	42,750	24,370	10
W186	1/2 x 3/4	1/8 x 1-1/4	120	36185	30,000	31,220	15,900	10
W193	5/8 x 3/8	1/4 x 1-1/2	120	36235	24,000	44,330	34,340	10
W196	5/8 x 1	1/4 x 1-1/2	120	36255	24,000	34,670	25,340	10
W204	3/4 x 3/4	1/4 x 1-1/2	120	36285	24,000	36,510	27,040	10
W206	3/4 x 1-1/4	1/4 x 1-1/2	120	36295	20,000	29,810	20,870	10
W220	1 x 1	1/4 x 1-1/2	120	36315	15,000	30,370	21,410	10
W230	1-1/4 x 1-1/4	1/4 x 1-1/2	120	36335	13,000	25,200	16,760	10



POLIFLEX™ fine grinding tools in TX bond are made of a mix of green silicon carbide (SiC) and regular aluminum oxide. The textile fabric makes TX-bonded tools very hard and durable. Available in a variety of standard shapes.

**PFERD Specification Number**


- PF SP ANCN TX (Tapered Cone)
- PF KE ANCN TX (Tapered Cylinder, Pointed End)
- PF KU ANCN TX (Ball Shape)
- PF WR ANCN TX (Cylinder With Radius End)

**Safety Note**

For safety reasons, the stated max. RPM level must not be exceeded.

**POLIFLEX™ Fine Grinding Points  
TX Bond, A and B Shapes**



Shape	Diameter (D) x Length (L) [Inches]	Shank Dia. x Shank Length [Inches]	Grit and EDP Number		Recom. RPM 1/2" overhang	Max. RPM 1/2" overhang	Max. RPM 1" overhang	
			80	120				
A1	3/4 x 2-1/2	1/4 x 1-1/2	37003	37004	21,000	20,960	16,100	10
A3	1 x 2-3/4	1/4 x 1-1/2	37008	37009	15,500	15,530	11,940	10
A5	3/4 x 1-1/8	1/4 x 1-1/2	37018	37019	25,000	38,550	31,270	10
A11	7/8 x 2	1/4 x 1-1/2	37023	37024	21,000	25,420	20,100	10
A12	11/16 x 1-1/4	1/4 x 1-1/2	37028	37029	27,000	38,050	30,790	10
A21	1 x 1	1/4 x 1-1/2	37048	37049	19,000	35,510	28,840	10
A25	1 x 1	1/4 x 1-1/2	37063	37064	19,000	35,510	28,840	10
B52	3/8 x 3/4	1/8 x 1-1/4	37118	37119	50,000	64,810	34,850	10

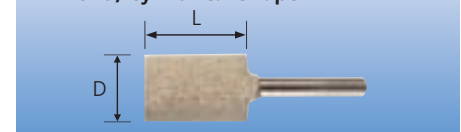
**Safety Note**


For safety reasons, the stated max. RPM level must not be exceeded.

**PFERD Specification Number**

PF ZY ANCN TX

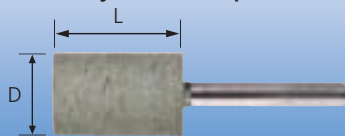
**POLIFLEX™ Fine Grinding Points  
TX Bond, Cylindrical Shape W**



Shape	Diameter (D) x Length (L) [Inches]	Shank Dia. x Shank Length [Inches]	Grit and EDP Number		Recom. RPM 1/2" overhang	Max. RPM 1/2" overhang	Max. RPM 1" overhang	
			80	120				
W187	1/2 x 1	1/4 x 1-1/2	37313	37314	37,000	36,950	27,490	10
W189	1/2 x 2	1/4 x 1-1/2	37318	37319	27,000	26,830	18,440	10
W196	5/8 x 1	1/4 x 1-1/2	37328	37329	30,000	34,670	25,340	10
W204	3/4 x 3/4	1/4 x 1-1/2	37368	37369	25,000	36,510	27,040	10
W220	1 x 1	1/4 x 1-1/2	37413	37414	19,000	30,370	21,410	10
W222	1 x 2	1/4 x 1-1/2	37423	37424	19,000	20,250	12,350	10



### POLIFLEX™ Fine Grinding Points PUR Bond, Cylindrical Shape W




POLIFLEX™ fine grinding tools are made of PUR-bonded green silicon carbide (SiC). The PUR-bond is a very soft bond type. Abrasive grain is homogeneously distributed through the polyurethane bond. The open-cell surface and elastic properties of the bond ensure a good adaptability to workpiece contours and soft, cool grinding action.

#### Safety Note

For safety reasons, the stated max. RPM level must not be exceeded. The maximum permissible tool speed (Max. RPM) applies to an overhang of 1/2" or less.

#### PFERD Specification Number

PF ZY PUR

Shape	Diameter (D) x Length (L) [Inches]	Shank Dia. x Shank Length [Inches]	Grit and EDP Number			Recom. RPM 1/2" overhang	Max. RPM 1/2" overhang	Max. RPM 1" overhang	
			30	80	150				
W196	5/8 x 1-1/4	1/4 x 1-1/2	36601	36602	36603	14,000	34,670	25,340	10
W206	3/4 x 1-1/4	1/4 x 1-1/2	36604	36605	36606	12,000	29,810	20,870	10
W220	1 x 1-1/4	1/4 x 1-1/2	36607	36608	36609	9,000	30,370	21,410	10

### POLIFLEX™ Discs, PUR Bond



- Suitable for face grinding applications on larger surfaces.
- Preferably used on slow-running angle grinders.


#### Safety Note

For safety reasons, the stated max. RPM level must not be exceeded.

#### PFERD Specification Number

PFD CN PUR



Diameter [Inches]	Bore [Inches]	Bond Hardness	Grit and EDP Number		Recom. Speed RPM	Max. RPM	
			60	150			
4-1/2	7/8	soft	48063	48065	2,400	5,300	5
4-1/2	7/8	medium	48067	48069	2,400	5,300	5

### POLIFLEX™ Blocks, PUR Bond




Due to their rhomboid shape, these pads permit convenient grinding in hard-to-reach areas such as fillets or corners. They can be reduced in size or cut into any desired shape with a cut-off wheel to meet specific application needs.

#### Application Examples

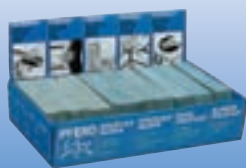
- Bedding-in of mould after repair of tool by die makers
- Remove flash rust from cutting tools

#### PFERD Specification Number

PFB CU PUR

Length [Inches]	Width (L) [Inches]	Thickness [Inches]	Grit and EDP Number			
			60	120	240	
4-1/2	2-3/8	1-3/16	48090	48091	48092	5

### POLIFLEX™ Block Set




POLIFLEX™ blocks in a sales promoting display carton.

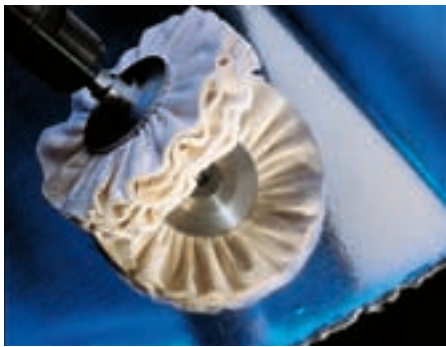
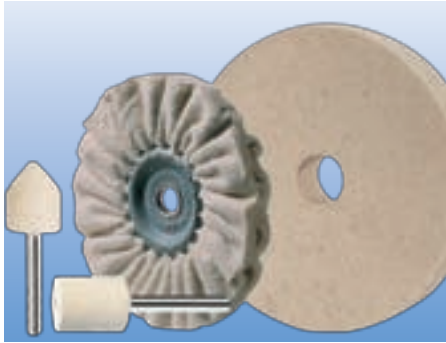
Box contains 9 POLIFLEX™ blocks, 3 each in:

- grit 60 (coarse)
- grit 120 (medium)
- grit 240 (fine)

#### PFERD Specification Number

PSO

Length [Inches]	Width (L) [Inches]	Thickness [Inches]	EDP Number	
11-1/4	6	2-3/8	48099	1



PFERD offers an extensive range of polishing tools in diverse shapes and diameters. Our range consists essentially of two types:

- Felt tools, used mainly for high-gloss polishing work.
- Felt tools with brass impregnated, provide higher stock removal rates and designed mainly for pre-polishing with diamond grinding pastes.

In addition, this range includes four different types of cloth rings.

### Advantages

- The broad range of shapes and diameters permits polishing of complex workpiece geometries.
- PFERD felt tools can be profiled as required.

### Application Examples

- Pre-polishing and high-gloss polishing of plastic components.
- High-gloss polishing of stainless steel.
- Pre-polishing of valves and fittings.
- Polishing of tungsten carbide cutting blades.

### Recommendations for Use

- Felt tools perform best at the recommended peripheral speed of 2,000 - 3,000 SFPM, where the optimum balance between stock removal, surface finishing quality, workpiece temperature loads and tool wear is achieved.
- Felt tools are used in conjunction with diamond polishing pastes or polishing paste bars.

### Safety Note

For safety reasons, it is imperative to remain within the stated RPM limit at all times.

### 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.

### Safety Recommendations



= Wear protective goggles!



= Wear gloves!



= Use ear protection!



= Observe safety recommendations!



= Wear a respirator!



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

### Recommended Peripheral Speed for Felt Tools and Cloth Rings

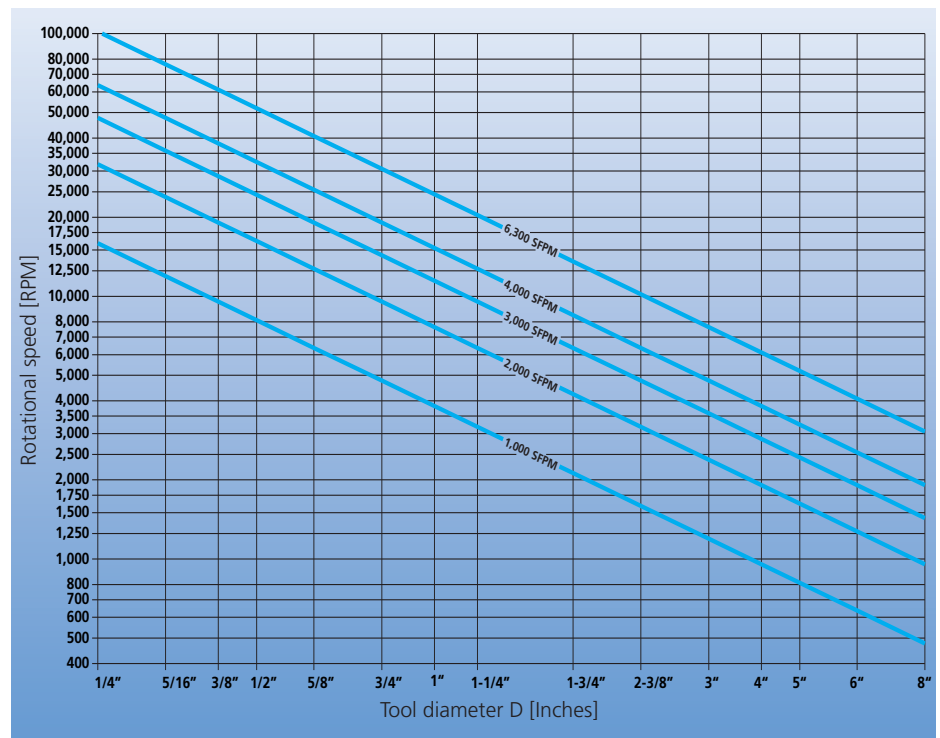
In the diagram, peripheral speeds are represented by blue diagonal lines. Each vertical line represents a tool diameter. From its point of intersection with the diagonal line for a given peripheral speed, proceed horizontally to the left margin where you will find the corresponding rotational speed of the felt tool or cloth ring, respectively (machine spindle RPM).

#### Example

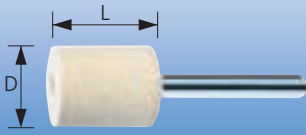
FK ZYA 1 x 1-1/4 (EDP 48526)  
Peripheral Speed: 1,000 - 2,000 SFPM  
Rotational Speed: 3,800 - 7,600 RPM

#### Example

TR 4 x 3/8 (EDP 48711)  
Peripheral Speed: 2,000 - 3,000 SFPM  
Rotational Speed: 1,900 - 2,850 RPM



### Felt Points, Shape ZYA



Cylindrical shape mounted felt points (ZYA) are mainly used peripherally. These also feature a centre hole, which is optimal for face-down polishing.

Brass impregnated felt points provide increased stock removal in pre-polishing with diamond polishing pastes.

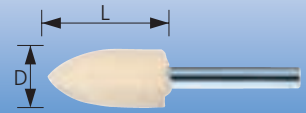
**PFERD Specification Number**  
FK ZYA  
FK ZYA MS (Brass Impregnated)

Diameter (D) x Length (L) [Inches]	Shank Dia. x Shank Length [Inches]	EDP Number	Recom. Speed RPM	Max. RPM	
<b>Cylindrical Felt Points</b>					
1/4 x 3/8	1/8 x 1-5/8	48520	16,000 - 32,000	100,000	10
5/16 x 3/8	1/8 x 1-5/8	48521	12,000 - 24,000	75,000	10
3/8 x 9/16	1/8 x 1-5/8	48222	10,000 - 20,000	61,000	10
3/8 x 9/16	1/4 x 1-5/8	48523	10,000 - 20,000	61,000	10
9/16 x 3/4	1/4 x 1-5/8	48524	6,000 - 12,000	40,000	10
3/4 x 1	1/4 x 1-5/8	48525	5,000 - 10,000	30,000	10
1 x 1-1/4	1/4 x 1-5/8	48526	4,000 - 8,000	25,000	10

### Cylindrical Felt Points – Brass Impregnated


3/8 x 9/16	1/8 x 1-5/8	48527	10,000 - 20,000	61,000	10
9/16 x 3/4	1/4 x 1-5/8	48528	6,000 - 12,000	40,000	10
3/4 x 1	1/4 x 1-5/8	48529	5,000 - 10,000	30,000	10
1 x 1-1/4	1/4 x 1-5/8	48530	4,000 - 8,000	25,000	10

### Felt Points, Shape SPK

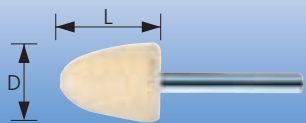


Conical pointed felt points (shape SPK) are designed for work on radii and contours.

**PFERD Specification Number**  
FK SPK


Diameter (D) x Length (L) [Inches]	Shank Dia. x Shank Length [Inches]	EDP Number	Recom. Speed RPM	Max. RPM	
5/16 x 1/2	1/8 x 1-5/8	48570	12,000 - 24,000	75,000	10
3/8 x 3/4	1/8 x 1-5/8	48571	10,000 - 20,000	61,000	10
3/8 x 3/4	1/4 x 1-5/8	48572	10,000 - 20,000	61,000	10
1/2 x 3/4	1/8 x 1-5/8	48573	8,000 - 16,000	50,000	10
9/16 x 3/4	1/4 x 1-5/8	48574	6,000 - 12,000	40,000	10
9/16 x 1-1/4	1/4 x 1-5/8	48575	6,000 - 12,000	40,000	10
3/4 x 1	1/4 x 1-5/8	48576	5,000 - 10,000	30,000	10

### Felt Points, Shape KEL



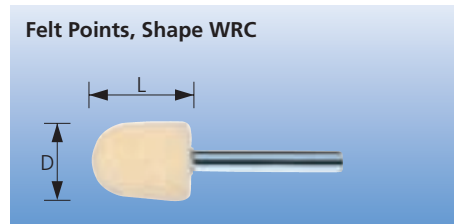
Conical shape felt points with radius end (shape KEL) are used primarily for work in radius areas.


**PFERD Specification Number**  
FK KEL

Diameter (D) x Length (L) [Inches]	Shank Dia. x Shank Length [Inches]	EDP Number	Recom. Speed RPM	Max. RPM	
9/16 x 3/4	1/4 x 1-5/8	48600	6,000 - 12,000	40,000	10
3/4 x 1	1/4 x 1-5/8	48601	5,000 - 10,000	30,000	10
1 x 1-1/4	1/4 x 1-5/8	48602	4,000 - 8,000	25,000	10
1-1/4 x 1-3/8	1/4 x 1-5/8	48603	3,000 - 6,000	20,000	10

Cylindrical felt points with radius end (shape WRC) are the tools of choice for minor concave and convex contours.

**PFERD Specification Number**  
FK WRC



Diameter (D) x Length (L) [Inches]	Shank Dia. x Shank Length [Inches]	EDP Number	Recom. Speed RPM	Max. RPM	
5/16 x 1/2	1/8 x 1-5/8	48630	12,000 - 24,000	75,000	10
3/8 x 9/16	1/8 x 1-5/8	48631	10,000 - 20,000	61,000	10
9/16 x 3/4	1/4 x 1-5/8	48632	6,000 - 12,000	40,000	10
3/4 x 1	1/4 x 1-5/8	48633	5,000 - 10,000	30,000	10
1 x 1-1/4	1/4 x 1-5/8	48634	4,000 - 8,000	25,000	10

Felt wheels are normally used for polishing with the peripheral surface.


Brass impregnated felt wheels provide increased stock removal in pre-polishing with diamond abrasive pastes.

**Ordering Note**

Please order arbor separately.

**PFERD Specification Number**  
FK SC  
FK SC MS (Brass Impregnated)



Diameter x Width [Inches]	Centre Hole Dia. [Inches]	EDP Number	Recom. Speed RPM	Max. RPM	Suitable Arbors	
<b>Felt Wheels</b>						
1-1/4 x 1/4	1/4	48690	3,000 - 6,000	20,000	EDP 69029	5
1-3/4 x 3/8	1/4	48691	2,000 - 4,000	13,500	EDP 68029	5
2-1/4 x 3/8	1/4	48692	1,500 - 3,000	10,000	EDP 69029	5
3 x 3/8	3/8	48693	1,000 - 2,000	8,100	EDP 69027	5
4 x 3/4	3/8	48695	900 - 1,800	6,100	EDP 69031	1
5 x 3/4	3/4	48697	750 - 1,500	4,800	EDP 69032	1
6 x 1	3/4	48699	600 - 1,200	4,000	EDP 69032	1
8 x 1-1/4	3/4	48700	500 - 1,000	3,000	EDP 69032	1
<b>Felt Wheels – Brass Impregnated</b>						
3 x 3/8	3/8	48694	1,000 - 2,000	8,100	EDP 69027	5
4 x 3/4	3/8	48696	900 - 1,800	6,100	EDP 69031	1
5 x 3/4	3/4	48698	750 - 1,500	4,800	EDP 69032	1

# Polishing Tools

## Cloth Rings and Arbors



These tools are available in four types:

- ST Sisal Fabric = pre-polishing
- TH Hard Cloth = pre-polishing
- TW Soft Cloth = high-gloss polishing
- FL Flannel = high-gloss polishing

Cloth rings used with polishing pastes for pre-polishing and high-gloss polishing tasks. For very smooth finishes it may be recommended to use several, or even all, types in succession.

### Recommended Peripheral Speeds

TW and FL 1,000-3,000 SFPM  
ST and TH 2,000-3,000 SFPM


### Recommendation for Use

- Pre-polishing of steel or stainless steel, cloth ring sisal fabric or hard cloth with green polishing paste (EDP 48760)







- Pre-polishing of aluminum or brass, cloth ring sisal fabric or hard cloth with grey polishing paste (EDP 48761).
- Pre-polishing of non-ferrous metals, cloth ring sisal fabric or hard cloth with brown polishing paste (EDP 48762).
- High-gloss polishing of all metals, cloth rings soft cloth or flannel with pink polishing paste (EDP 48763).
- High-gloss polishing of plastics, cloth rings soft cloth or flannel with beige polishing paste (EDP 48764).

### PFERD Specification Number

TR

Diameter [Inches]	Centre Hole Dia. [Inches]	Useful Width (L) [Inches]	Type and EDP Number				Recom. Speed RPM	Max. RPM	Suitable Arbors		
			ST Sisal Fabric	TH Hard Cloth	TW Soft Cloth	FL Flannel			Sisal	Hard, Soft and Flannel	
3	3/8	3/8	48710	48720	48730	48740	2,500	8,100	EDP 84656	EDP 69027	5
4	3/8	3/8	48711	48721	48731	48741	1,900	6,100	EDP 84656	EDP 69027	5
5	3/4	3/8	48712	48722	48732	48742	1,500	4,800	EDP 84656	EDP 84656	5
6	3/4	3/8	48713	48723	48733	48743	1,250	4,000	EDP 69032	EDP 84656	5
8	3/4	3/8	48714	48724	48734	48744	950	3,000	EDP 69032	EDP 84656	5

These arbors can be used to mount PFERD felt wheels and cloth rings.

Arbor	Shank Diameter (D) [Inches]	Clamping Width (L) [Inches]	Tool Bore [Inches]	EDP Number	
	1/4	1/4 - 1/2	1/4	69029	1
	1/4	0 - 1/2	3/8	69027	1
	1/4	1/2 - 1	3/8	69031	1
	1/4	1/8 - 3/8	3/4	84656	1
	3/8	1/4 - 1-1/4	3/4	69032	1





These pastes are designed for work on very hard materials, e.g. tungsten carbide and heat-treated steels. They are used with felt points or felt wheels.

The high concentration of abrasive grain guarantees fast and efficient results.

### Available Grit Sizes

- 30 = Coarse
- 15 = Medium
- 7 = Fine
- 3 = Very Fine

### Recommendation for Use

The selection of the appropriate grit size will essentially depend on the required surface finish. When working with diamond polishing paste, it is recommended to start with the coarsest grit. Where major surface improvements have to be achieved, use several grits of increasing fineness in successive steps and clean the workpiece thoroughly after each passed step. Always use a new, clean tool (e.g., felt point, felt wheel) before switching to finer grit.

### Ordering Note


Grit sizes are indicated in  $\mu\text{m}$ .

### PFERD Specification Number

DPP

### Diamond Polishing Pastes



Grit Size [ $\mu\text{m}$ ]	EDP Number	Content		Cap Colour	
		[oz]	[grams]		
30	48751	0.18	5	Brown	1
30	48750	0.70	20	Brown	1
15	48753	0.18	5	Blue	1
15	48752	0.70	20	Blue	1
7	48755	0.18	5	Red	1
7	48754	0.70	20	Red	1
3	48757	0.18	5	Green	1
3	48756	0.70	20	Green	1

Used to maintain a constant lubrication layer between the tool and the workpiece in polishing applications.

### Recommendation for Use


The diluting preparation should be used extremely sparingly. Excessive use will wash out diamond grain from the paste, thus diminishing polishing performance.

### PFERD Specification Number

PSP

### Special Diluting Preparation for Diamond Polishing Pastes



EDP Number	Content		
	[oz]	[ml]	
48758	4.41	125	1



# Grinding and Polishing Pastes

## Grinding and Polishing Pastes




### Polishing Paste Bars



The PFERD range comprises five different pastes, colour-coded by application purpose.

**PFERD Specification Number**  
PP

Type	EDP Number	Colour	Use for	Width x Depth x Height [Inches]	
1-pre-polish	48760	green	Steel + Stainless Steel	2-3/4 x 2 x 5-1/2	1
2-pre-polish	48761	grey	Aluminum + Brass	2-3/4 x 2 x 5-1/2	1
3-pre-polish	48762	brown	Non-Ferrous Metals	2-3/4 x 2 x 5-1/2	1
4-high-gloss polish	48763	pink	All Metals	2-3/4 x 2 x 5-1/2	1
5-high-gloss polish	48764	beige	Plastics	2-3/4 x 2 x 5-1/2	1


### Grinding Compounds



Oil-soluble grinding compounds with sharp-edged SiC grain are ideal for fine-polishing operations, e.g., regrinding of valves or shaft bearings, and in preparation of polishing steps with felt tools and cloth rings.

**PFERD Specification Number**  
SFP



Grit Size	EDP Number	Content		
		[oz]	[grams]	
90	48770	8.82	250	1
150	48771	8.82	250	1
280	48772	8.82	250	1
360	48773	8.82	250	1
600	48774	8.82	250	1
800	48775	8.82	250	1

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