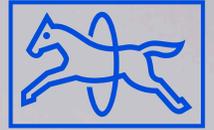


**PFERD**



**TOOLS**



5



# **Diamond and CBN tools**

# Diamond and CBN tools

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# Diamond and CBN tools

## Highlights from the PFERD TOOLS range



### DUODISC® DIAMOND

Excellent for machining grey cast iron and nodular cast iron. Ideal for roughing and deburring work in fettling shops. The coating geometry enables small feeders and risers to be separated. Scan the QR code to find out more about DUODISC® DIAMOND.



#### Advantages:

- Constant product diameter.
- Reduced product change times due to long service life.
- Minimal dust as the product does not wear away.

### Multi Power Carbide Wheel

The Multi Carbide Wheel is a general-purpose cut-off wheel and the perfect solution for demanding cutting tasks in the construction industry and in DIY applications. With sharp tungsten carbide grains, this cut-off wheel ensures excellent cutting quality and short cutting times on all kinds of materials such as wood with nails, plastics, non-ferrous metals, and drywall construction materials. Scan the QR code to find out more about the general-purpose cut-off wheel.



- Ideal choice for a variety of materials.
- Optimum cutting speed due to consistent diameter and high ease of cutting.
- Long service life due to unique high-quality bonding of the tungsten carbide grain to the steel body.

### Diamond tools for the construction industry

PFERD TOOLS diamond tools are the ideal solution for demanding projects which involve working on hard materials such as concrete, asphalt, granite or tiles. The broad product range offers the right tool for any application, ensuring the best results and improving the cost-effectiveness of your building projects. Scan the QR code to find out more about diamond tools for the construction industry.



#### Advantages:

- Optimum results.
- Maximum efficiency and safety.
- Comprehensive product range for a wide range of uses.

### Find additional in-depth information online

Scan the QR code to find out a wide range of tool and application knowledge relating to PFERD TOOLS' high-quality tools and their huge variety of materials.



# Diamond and CBN tools

## Customer-specific products made to order



PFERD TOOLS specializes in the consultation and production of customer-specific electroplated diamond and CBN tools. Almost all tool blank geometries can be coated with various grit sizes. The electroplated bond also enables economic production of small batch sizes. Because of the diverse possibilities, our production can respond to individual customer requirements with a high degree of flexibility. Our technical advisers will be happy to visit you on-site to develop individual and economical tool solutions for your applications. Get the best possible advice for super-hard solutions! Scan the QR code to find out more about customer-specific products made to order.



### Customer-specific product solutions for grey and nodular cast iron



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#### Tools for auxiliary spindles

PFERD TOOLS offers tools for auxiliary spindles in different shapes/geometries and dimensions as well as with different thread sizes.

#### Cut-off wheels and grinding discs

Diamond cut-off wheels and diamond grinding discs from PFERD TOOLS can be purchased in diameters of up to 24 inches. Shapes and dimensions (hole, radius, reference circle, etc.) can be produced according to customer requirements.

#### Grinding points and grinding drums

The range of PFERD TOOLS products that can be produced according to customer requirements includes diamond grinding drums and diamond grinding points. These can be customized with different shapes, dimensions and shanks.

### 1. Process analysis and product development

Contact us at [www.pferd.com](http://www.pferd.com) and arrange an appointment with our experienced sales representatives and technical advisers. If you already have precise ideas about the desired product, you can provide us with a technical drawing or a dimensioned sketch and information on the desired abrasives and grit sizes. Our employees will analyze your application with you on-site and develop the most economic individual tool solution for you. Three production variants are possible:

### 2. Production

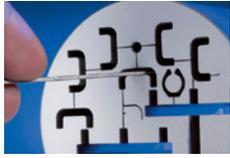
- **Complete production**  
From design and construction, through manufacture of the tool blank (steel, stainless steel or brass) and its coating with diamond or CBN grit, to the balancing of the finished tool, PFERD TOOLS offers you all the production steps from a single source. This guarantees you the highest level of quality, flexibility and on-time delivery.
- **Coating**  
Steel, stainless steel or brass blanks provided by the customer can also be coated with diamond or CBN grit. Close cooperation at an early stage is recommended.
- **Recoating**  
PFERD TOOLS offers recoating of blunt tools with steel or stainless steel blanks as an economical alternative to replacement production. Tools with brass blanks cannot be recoated.

### 3. Use

Our flexible production and global logistics network ensure that you receive your new tool on time. If desired, your personal sales representative and a technical adviser will set up all the process parameters together with you. **See the quality, performance and economic value of products from PFERD TOOLS for yourself!**

# Diamond and CBN tools

## Quick product selection guide

Use	Material	Application	Tools
<b>Filing</b> 	Hardened steels, tungsten carbide, ceramics, glass, ferrite, nickel-based and titanium-based alloys	Precision filing	Diamond files 
		Machining concave and convex surfaces	Flexible diamond files Diamond sheets 
	Fibre-reinforced plastics (GRP/CRP)	Deburring, chamfering and breaking of edges	Diamond machinist's files, grit size D 251 
<b>Grinding</b>   	Tungsten carbide, ceramics, glass, ferrite (magnetic material), nickel-based and titanium-based alloys	Grinding of bores, radii, contours, profiles and shoulders, as well as deburring and chamfering	Electroplated diamond grinding points Diamond grinding disc CC-GRIND® SOLID DIAMOND 
		Internal grinding of bores	Electroplated diamond grinding points, cylindrical shape W 
	Fibre-reinforced plastics (GRP/CRP)	Deburring, chamfering and general grinding work	Diamond grinding disc CC-GRIND® SOLID DIAMOND 
	Grey and nodular cast iron	Grinding burning-ins, sand inclusions and adhesions and separating short risers and feeders	DUODISC® DIAMOND 
<b>Cutting</b> 	Tungsten carbide, ceramics, glass, ferrite, nickel-based and titanium-based alloys Fibre-reinforced plastics (GRP/CRP)	Cutting	Diamond cut-off wheels, grit size D 64/D 151 
		Cut-off grinding, trimming, making cut-outs, and cutting straight contours to size	Diamond cut-off wheels, grit size D 357/D 427 

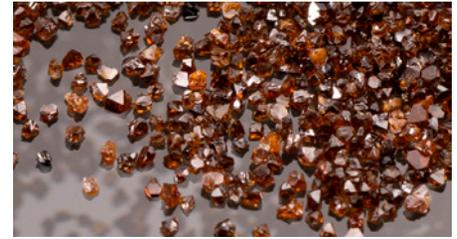
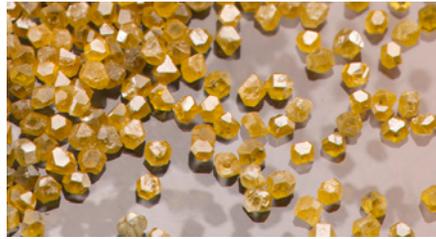


# Diamond and CBN tools

## Materials



Diamond and CBN abrasives are used when materials cannot be machined with conventional abrasives such as aluminum oxide or silicon carbide. They also provide a more economical solution for many applications. Due to high chemical wear, rotating diamond tools are not suitable for work on steel. CBN tools are used for these applications. The two abrasives complement each other ideally. In the adjacent overview, you will find various materials associated with the abrasives.



### Diamond

- Duroplastics, in particular with glass or carbon fiber reinforcement (GRP and CRP)
- Ferrite (magnetic material)
- Glass
- Graphite and synthetic carbon
- Grey and nodular cast iron
- Tungsten carbide
- Nickel or titanium-based superalloys
- Technical ceramics
- Wear-resistant coatings (powder metal alloys and hardfacing alloys)

### CBN

- Case-hardened steels
- Roller-bearing and ball-bearing steels
- Tool steels
- Other hardened steel materials with a hardness from approx. 54 HRC

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## Safety notes and recommended cutting speeds

### Safety notes

The operator is responsible for the grinding application, including correct tool drive use, correct handling and use of the grinding products.



Wear eye protection!



Wear hearing protection!



Wear gloves!



Wear a dust mask!



Follow the safety instructions!

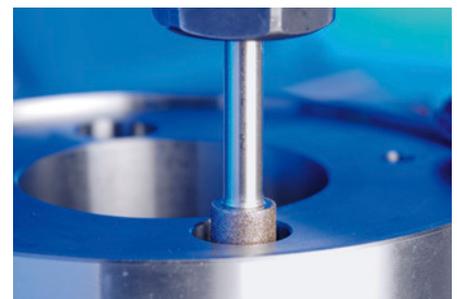


### Recommended peripheral speeds

The recommended cutting speed ranges depend on the application and must not exceed the maximum permissible peripheral speed. Because of the wide range of tasks and application fields of electroplated diamond and CBN tools, as well as the large influence of the employed tool drive, it is not possible to specify a generally valid cutting speed. The recommended cutting speed ranges serve as reference values.

#### Generally, the following applies:

- In dry grinding, do not use diamond tools at too high a cutting speed in order to avoid thermal damage to the abrasive.
- If possible, do not use CBN tools under the cutting speeds specified below. The optimum cutting speed has a direct effect on the economic efficiency of the tools in use.
- All parameters must always be coordinated with each other within the grinding process. If the cutting speed is changed, the feed, infeed and coolant supply, among others, must be adjusted accordingly.
- Electroplated diamond and CBN tools can be used in dedicated stationary applications up to a peripheral speed of 25,000 SFPM.



# Diamond and CBN tools

## Safety notes and recommended cutting speeds



Peripheral speed [SFPM] ▶		1,500	2,000	2,500	3,000	3,500	4,000	5,000	6,000	... 8,000	... 16,000		
Electroplated bond	Diamond	1,600–3,600 SFPM							6,000–16,000 SFPM for CRP/GRP as well as grey and nodular cast iron				
	Diamond	Wet grinding					3,000–5,000 SFPM						
Resinoid bond	Diamond	Wet grinding					3,000–4,000 SFPM						
	Diamond	Wet grinding					4,000–6,000 SFPM						
Metal bond	Diamond	Wet grinding					2,000–3,000 SFPM						
	Diamond	Wet grinding					3,000–6,000 SFPM						

## Recommended rotational speed range

Product dia. [Inches]	Peripheral speed [SFPM]													
	1,500	2,250	3,000	3,750	4,500	5,250	6,000	6,750	7,500	8,250	9,000	9,750	10,500	11,250
	Rounded rotational speed [RPM]													
1/16	91,000	-	-	-	-	-	-	-	-	-	-	-	-	-
5/64	72,800	-	-	-	-	-	-	-	-	-	-	-	-	-
1/8	48,500	72,800	97,000	-	-	-	-	-	-	-	-	-	-	-
5/32	36,400	54,600	72,800	91,000	-	-	-	-	-	-	-	-	-	-
3/16	29,100	43,700	58,200	72,800	87,300	-	-	-	-	-	-	-	-	-
1/4	24,300	36,400	48,500	60,600	72,800	84,900	97,000	-	-	-	-	-	-	-
5/16	18,200	27,300	36,400	45,500	54,600	63,700	72,800	81,900	91,000	-	-	-	-	-
3/8	14,600	21,800	29,100	36,400	43,700	50,900	58,200	65,500	72,800	80,000	87,300	94,600	-	-
5/8	9,700	14,600	19,400	24,300	29,100	34,000	38,800	43,700	48,500	53,400	58,200	63,100	67,900	72,800
7/8	6,600	9,900	13,200	16,500	19,800	23,200	26,500	29,800	33,100	36,400	39,700	43,000	46,300	49,600
1-5/8	3,600	5,500	7,300	9,100	10,900	12,700	14,600	16,400	18,200	20,000	21,800	23,700	25,500	27,300
2	2,900	4,400	5,800	7,300	8,700	10,200	11,600	13,100	14,600	16,000	17,500	18,900	20,400	21,800
3	1,900	2,900	3,900	4,900	5,800	6,800	7,800	8,700	9,700	10,700	11,600	12,600	13,600	14,600
4	1,500	2,200	2,900	3,600	4,400	5,100	5,800	6,500	7,300	8,000	8,700	9,500	10,200	10,900
4-1/2	1,300	1,900	2,500	3,200	3,800	4,400	5,100	5,700	6,300	7,000	7,600	8,200	8,900	9,500
5	1,200	1,700	2,300	2,900	3,500	4,100	4,700	5,200	5,800	6,400	7,000	7,600	8,200	8,700

Refer to the table for the recommended rotational speed based on the diameter and cutting speed of your tool.

### Example:

Diamond grinding point, diameter: 7/8"

Cutting speed: 4,500 SFPM

**Rotational speed rounded: 19,800 RPM**



# Diamond and CBN tools – electroplated bond

## Diamond needle files



### Diamond needle files, hand



Diamond needle files can be used in general tool making.

**Special features:**

- Ideal for work on hardened steel.
- No chemical wear due to the low working temperatures.
- Longer service life due to harder diamond grain.

Width with coating [Inch]	Height with coating [Inch]	Total length [Inch]	Coating length [Inch]	Grit size		Item no.	EDP no.
7/32	1/16	5-1/2	2-3/4	D 91	1	15101061	04027
				D 126	1	15101062	04014
				D 181	1	15101063	04001



### Diamond needle files, hand with rounded edges



Diamond needle files can be used universally in tool making.

**Special features:**

- Ideal for work on hardened steel.
- No chemical wear due to the low working temperatures.
- Longer service life due to harder diamond grain.

Width with coating [Inch]	Height with coating [Inch]	Total length [Inch]	Coating length [Inch]	Grit size		Item no.	EDP no.
7/32	1/16	5-1/2	2-3/4	D 91	1	15102061	04028
				D 126	1	15102062	04015



### Diamond needle files, flat



Diamond needle files can be used universally in tool making.

**Special features:**

- Ideal for work on hardened steel.
- No chemical wear due to the low working temperatures.
- Longer service life due to harder diamond grain.

Width with coating [Inch]	Height with coating [Inch]	Total length [Inch]	Coating length [Inch]	Grit size		Item no.	EDP no.
7/32	1/16	5-1/2	2-3/4	D 91	1	15103061	04029
				D 126	1	15103062	04016
				D 181	1	15103063	04003



### Diamond needle files, three square



Diamond needle files can be used in general tool making.

**Special features:**

- Ideal for work on hardened steel.
- No chemical wear due to the low working temperatures.
- Longer service life due to harder diamond grain.

Width with coating [Inch]	Total length [Inch]	Coating length [Inch]	Grit size		Item no.	EDP no.
9/64	5-1/2	2-3/4	D 91	1	15104061	04030
			D 126	1	15104062	04017
			D 181	1	15104063	04004





### Diamond needle files, square

Diamond needle files can be used in general tool making.

**Special features:**

- Ideal for work on hardened steel.
- No chemical wear due to the low working temperatures.
- Longer service life due to harder diamond grain.

Width with coating [Inch]	Total length [Inch]	Coating length [Inch]	Grit size		Item no.	EDP no.
7/64	5-1/2	2-3/4	D 91	1	15105061	04031
			D 126	1	15105062	04018
			D 181	1	15105063	04005



### Diamond needle files, half-round

Diamond needle files can be used universally in tool making.

**Special features:**

- Ideal for work on hardened steel.
- No chemical wear due to the low working temperatures.
- Longer service life due to harder diamond grain.

Width with coating [Inch]	Height with coating [Inch]	Total length [Inch]	Coating length [Inch]	Grit size		Item no.	EDP no.
7/32	1/16	5-1/2	2-3/4	D 91	1	15106061	04032
				D 126	1	15106062	04019
				D 181	1	15106063	04006



### Diamond needle files, round

Diamond needle files can be used in general tool making.

**Special features:**

- Ideal for work on hardened steel.
- No chemical wear due to the low working temperatures.
- Longer service life due to harder diamond grain.

Width with coating [Inch]	Total length [Inch]	Coating length [Inch]	Grit size		Item no.	EDP no.
1/8	5-1/2	2-3/4	D 91	1	15107061	04033
			D 126	1	15107062	04020
			D 181	1	15107063	04007



### Diamond needle files, knife

Diamond needle files can be used universally in tool making.

**Special features:**

- Ideal for work on hardened steel.
- No chemical wear due to the low working temperatures.
- Longer service life due to harder diamond grain.

Width with coating [Inch]	Height with coating [Inch]	Total length [Inch]	Coating length [Inch]	Grit size		Item no.	EDP no.
13/64	1/16	5-1/2	2-3/4	D 91	1	15108061	04034
				D 126	1	15108062	04021
				D 181	1	15108063	04008

# Diamond and CBN tools – electroplated bond

## Diamond needle files



### Diamond needle files, feather edge

Diamond needle files can be used universally in tool making.

**Special features:**

- Ideal for work on hardened steel.
- No chemical wear due to the low working temperatures.
- Longer service life due to harder diamond grain.

Width with coating [Inch]	Height with coating [Inch]	Total length [Inch]	Coating length [Inch]	Grit size		Item no.	EDP no.
13/64	7/64	5-1/2	2-3/4	D 91	1	15109061	04035
				D 126	1	15109062	04022



### Diamond needle files, crossing oval

Diamond needle files can be used universally in tool making.

**Special features:**

- Ideal for work on hardened steel.
- No chemical wear due to the low working temperatures.
- Longer service life due to harder diamond grain.

Width with coating [Inch]	Height with coating [Inch]	Total length [Inch]	Coating length [Inch]	Grit size		Item no.	EDP no.
13/64	3/32	5-1/2	2-3/4	D 91	1	15110061	04036
				D 126	1	15110062	04023



### Diamond needle files, barrette

Diamond needle files can be used universally in tool making.

**Special features:**

- Ideal for work on hardened steel.
- No chemical wear due to the low working temperatures.
- Longer service life due to harder diamond grain.

Width with coating [Inch]	Height with coating [Inch]	Total length [Inch]	Coating length [Inch]	Grit size		Item no.	EDP no.
13/64	5/64	5-1/2	2-3/4	D 91	1	15100061	04037
				D 126	1	15100062	04024



# Diamond and CBN tools – electroplated bond

## Diamond needle files



### Diamond needle file sets

Diamond needle file sets are supplied in a durable plastic box which protects the tools from damage. The box allows for storage in the toolbox or workbench.

**Contents:**

This diamond needle file set contains one each of the following needle files: hand, three square, square, half-round and round.

- Longer service life due to harder diamond grain.

**Special features:**

- Ideal for work on hardened steel.
- No chemical wear due to the low working temperatures.

Grit size		Item no.	EDP no.
D 91	1	15842051	04038
D 126	1	15842052	04025
D 181	1	15842053	04012

## Diamond riffler files



### Diamond riffler file set

The diamond riffler file set comes in a sturdy, practical plastic box which protects the tools from damage. This is ideal for keeping in the tool trolley or workbench.



**Contents:**

Contains one each of the following riffler files: crossing oval, hand, square, three square, and round.

**Special features:**

- Durable plastic box to prevent damage.

Grit size		Item no.	EDP no.
D 126	1	15816242	04080

## Diamond handy files



### Diamond handy files, hand

Diamond handy files have a forged shank which allows for use without an additional handle.

**Special features:**

- Ideal for work on hardened steel.
- No chemical wear due to the low working temperatures.

- Longer service life due to harder diamond grain.

Width with coating [Inch]	Height with coating [Inch]	Total length [Inch]	Coating length [Inch]	Grit size		Item no.	EDP no.
13/32	7/64	8-1/2	4	D 126	1	15430202	51101



### Diamond handy files, half-round

Diamond handy files have a forged shank which allows for use without an additional handle.

**Special features:**

- Ideal for work on hardened steel.
- No chemical wear due to the low working temperatures.
- Longer service life due to harder diamond grain.

Width with coating [Inch]	Height with coating [Inch]	Total length [Inch]	Coating length [Inch]	Grit size		Item no.	EDP no.
1/2	9/64	8-1/2	4	D 126	1	15431202	51102



### Diamond handy files, three square

Diamond handy files have a forged shank which allows for use without an additional handle.

**Special features:**

- Ideal for work on hardened steel.
- No chemical wear due to the low working temperatures.
- Longer service life due to harder diamond grain.

Width with coating [Inch]	Total length [Inch]	Coating length [Inch]	Grit size		Item no.	EDP no.
3/8	8-1/2	4	D 126	1	15432202	51104



### Diamond handy files, square

Diamond handy files have a forged shank which allows for use without an additional handle.

**Special features:**

- Ideal for work on hardened steel.
- No chemical wear due to the low working temperatures.
- Longer service life due to harder diamond grain.

Width with coating [Inch]	Height with coating [Inch]	Total length [Inch]	Coating length [Inch]	Grit size		Item no.	EDP no.
7/32	7/32	8-1/2	4	D 126	1	15433202	51105



### Diamond handy files, round

Diamond handy files have a forged shank which allows for use without an additional handle.

**Special features:**

- Ideal for work on hardened steel.
- No chemical wear due to the low working temperatures.
- Longer service life due to harder diamond grain.

Width with coating [Inch]	Total length [Inch]	Coating length [Inch]	Grit size		Item no.	EDP no.
17/64	8-1/2	4	D 126	1	15434202	51107

# Diamond and CBN tools – electroplated bond

## Diamond handy files



### Diamond handy file sets

Diamond handy file sets come in sturdy, practical plastic boxes that protect the files from damage. These are ideal for storing on a workbench.

**Contents:**

Contains one each of the following handy files: hand, half-round, three square, square and round.

- Longer service life due to harder diamond grain.

**Special features:**

- Ideal for work on hardened steel.
- No chemical wear due to the low working temperatures.

Grit size		Item no.	EDP no.
D 126	1	15826272	51108

## Diamond machinist files



### Diamond machinist's files, hand

Diamond machinist's files are used in many industries, such as the manufacturing of large tools. They come with ergonomic file handles.

**Special features:**

- Ideal for work on hardened steel.
- No chemical wear due to the low working temperatures.

- Longer service life due to harder diamond grain.

Width with coating [Inch]	Height with coating [Inch]	Total length [Inch]	Coating length [Inch]	Grit size		Item no.	EDP no.
7/8	7/32	8	7-1/8	D 151	1	15401204	04060
				D 251	1	15401205	04065



### Diamond machinist's files, three square

Diamond machinist's files are used in many industries, such as the manufacturing of large tools. They come with ergonomic file handles.

**Special features:**

- Ideal for work on hardened steel.
- No chemical wear due to the low working temperatures.

- Longer service life due to harder diamond grain.

Width with coating [Inch]	Total length [Inch]	Coating length [Inch]	Grit size		Item no.	EDP no.
9/16	8	7-1/8	D 151	1	15403204	04061

# Diamond and CBN tools – electroplated bond

## Diamond machinist files



### Diamond machinist's files, square

Diamond machinist's files are used in many industries, such as the manufacturing of large tools. They come with ergonomic file handles.

**Special features:**

- Ideal for work on hardened steel.
- No chemical wear due to the low working temperatures.
- Longer service life due to harder diamond grain.

Width with coating [Inch]	Height with coating [Inch]	Total length [Inch]	Coating length [Inch]	Grit size		Item no.	EDP no.
5/16	5/16	8	7-1/8	D 151	1	15404204	04062



### Diamond machinist's files, half-round pointed

Diamond machinist's files are used in many industries, such as the manufacturing of large tools. They come with ergonomic file handles.

**Special features:**

- Ideal for work on hardened steel.
- No chemical wear due to the low working temperatures.
- Longer service life due to harder diamond grain.

Width with coating [Inch]	Height with coating [Inch]	Total length [Inch]	Coating length [Inch]	Grit size		Item no.	EDP no.
7/8	1/4	8	7-1/8	D 151	1	15405204	04063
				D 251	1	15405205	04068



### Diamond machinist's files, round

Diamond machinist's files are used in many industries, such as the manufacturing of large tools. They come with ergonomic file handles.

**Special features:**

- Ideal for work on hardened steel.
- No chemical wear due to the low working temperatures.
- Longer service life due to harder diamond grain.

Width with coating [Inch]	Total length [Inch]	Coating length [Inch]	Grit size		Item no.	EDP no.
5/16	8	7-1/8	D 151	1	15406204	04064



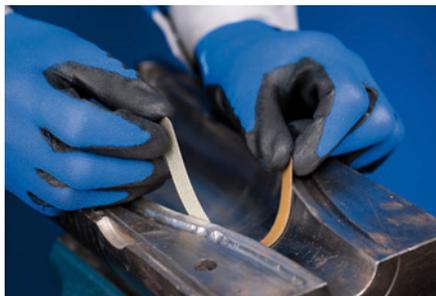
# Diamond and CBN tools – electroplated bond

Flexible diamond files



## Flexible diamond files

Flexible diamond files adapt perfectly to workpiece surfaces. Due to their flexibility, they can be used in convex and concave contours with small radii.



### Special features:

- Ideal for work on hardened steel.
- No chemical wear due to the low working temperatures.
- Longer service life due to harder diamond grain.

Width with coating [Inch]	Height with coating [Inch]	Total length [Inch]	Coating	Grit size		Item no.	EDP no.
1/64	9/16	6-1/2	one side	D 76	5	15600076	04090
				D 126	5	15600126	04091
				D 181	5	15600181	04092

## Diamond sheets



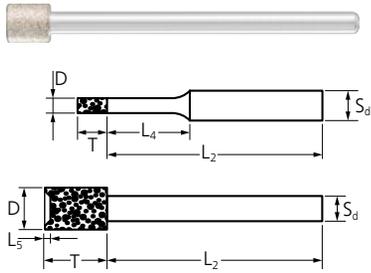
## Diamond sheets

These diamond sheets are ideal for larger surfaces. Convex and concave contours can be worked on with relatively little effort.

### Special features:

- Ideal for work on hardened steel.
- No chemical wear due to the low working temperatures.
- Longer service life due to harder diamond grain.

Width with coating [Inch]	Height with coating [Inch]	Total length [Inch]	Coating	Grit size		Item no.	EDP no.
1/32	1-3/16	6-5/8	complete	D 64	1	15600030	04100
				D 126	1	15630126	04102
3/64	1-3/8	14	complete	D 64	1	15635064	04103
				D 126	1	15600035	04101



### Cylindrical shape

The cylindrical shape is suitable for grinding bores, radii and contours in stationary or manual applications. Grinding points with a diameter of 5/16 inch or larger have a recess on the front surface.



#### Special features:

- Ideal for work on tungsten carbide.
- No chemical wear due to the low working temperatures.
- Longer service life due to harder diamond grain.

D [Inch]	T [Inch]	S <sub>d</sub> [Inch]	L <sub>2</sub> [Inch]	L <sub>4</sub> [Inch]	Grit size		Item no.	EDP no.
1/32	5/32	1/8	1-27/64	23/64	D 126	5	36061211	53000
3/64	5/32	1/8	1-27/64	23/64	D 126	5	36061212	53001
1/16	5/32	1/8	1-27/64	3/8	D 126	5	36061213	53002
3/32	5/32	1/8	1-27/64	3/8	D 126	5	36061214	02010
1/8	5/32	1/8	1-27/64	3/4	D 126	5	36061215	03010
5/32	13/64	1/8	1-3/4	-	D 126	5	36061219	53006
3/16	13/64	1/8	1-3/4	-	D 126	5	36061220	53007
1/4	1/4	1/4	2-1/8	3/4	D 126	1	36061216	53003
5/16	5/16	1/4	2	-	D 126	1	36061221	53008
3/8	5/16	1/4	2	-	D 126	1	36061217	53004
5/8	3/8	1/4	2	-	D 126	1	36061218	53005



# Diamond and CBN tools – electroplated bond

## Diamond cut-off wheels



### Shape D (continuous coating)

The continuous coating is particularly suitable for very fine separating cuts.



### Shape G (with protective segments)

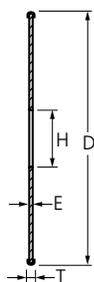
The continuous coating with protective segments facilitates optimum free-cutting.



### Shape S 2 (segmented)

The segmentation allows particularly good chip removal.

**Available on special request.**



### Diamond cut-off wheels

Electroplated diamond cut-off wheels are used with grit sizes from D 64 to D 427 for cutting hard materials such as tungsten carbide or ceramics and fibre-reinforced plastics (GRP/CRP).



#### Special features:

- Ideal for work on hardened steel.
- No chemical wear due to the low working temperatures.
- Longer service life due to harder diamond grain.

D [Inch]	T [Inch]	E [Inch]	H [Inch]	Shape	Protective seg. per side	Grit size		Item no.	EDP no.
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#### Hard materials, e.g. glass, ceramic or tungsten carbide

7/8	1/64	1/64	1/16	D	-	D 64	1	68402206	54001
1-9/16	1/32	1/4	3/8	D	-	D 151	1	68404015	54002

#### Fibre-reinforced plastics (GRP and CRP) as well as pre-sintered and green ceramic

2	5/64	3/64	3/8	G	3	D 357	1	68405163	54003
3	5/64	3/64	3/8	G	3	D 357	1	68407103	54004
4	5/64	3/64	7/8	G	3	D 427	1	68410238	54005
4-1/2	5/64	3/64	7/8	G	3	D 427	1	68411238	54006



# Diamond and CBN tools – electroplated bond

## Diamond grinding discs CC-GRIND® SOLID DIAMOND



### CC-GRIND® SOLID DIAMOND

The CC-GRIND® SOLID DIAMOND has been specially developed for applications on hard materials which cannot be machined with conventional products made of aluminum oxide or silicon carbide.



#### Special features:

- Fast, aggressive grinding with maximum stock removal rate.
- Easy and quick elimination of metal contamination due to diamond's super-hard abrasive qualities.
- Lower dust load due to the dimensional stability of the grinding tool (no tool wear).

D [Inch]	H [Inch]	Grit size	Max. RPM		Item no.	EDP no.
<b>Integrated clamping flange set SFS CC-GRIND® SOLID/FLEX 115/125 M14</b>						
4-1/2	7/8	D 852	13,300	1	36611585	61164

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## Diamond grinding discs DUODISC® DIAMOND



### DUODISC® DIAMOND

Excellent for machining grey cast iron and nodular cast iron (GG and GGG or GJL and GJS). Ideal for roughing and deburring work in fettling shops. The coating geometry enables small feeders and risers to be separated.

#### Special features:

- Constant product diameter.
- Reduced product change times due to long service life.
- Minimal dust as the product does not wear away.

D [Inch]	H [Inch]	Grit size	Max. RPM		Item no.	EDP no.
5	7/8	D 852	12,200	1	36803644	61165

# Diamond tools for the construction industry

## General information

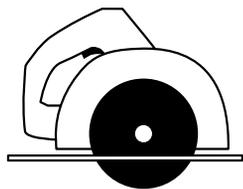


In the demanding world of the construction industry, precision, efficiency, and durability are crucial. When it comes to working on hard materials such as concrete, asphalt, granite or tiles, conventional tools will quickly reach their limits. This is where PFERD TOOLS diamond tools come in—the ideal solution for demanding projects. PFERD TOOLS diamond tools achieve clean, precise cuts and perfect surface results—even in the most difficult of applications.

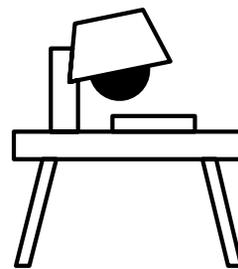
The extensive range of diamond tools for the construction industry includes cut-off wheels and available on special request—various dry drill bits grinding discs, tailored to the application and/or the material to be processed. You can rely on the tried-and-tested PFERD TOOLS quality to make your construction projects safer, more efficient, and more successful.



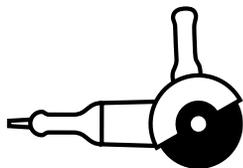
## Compatible tool drives



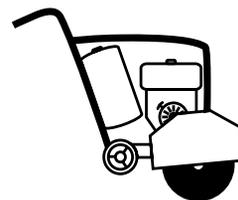
Manual circular saw



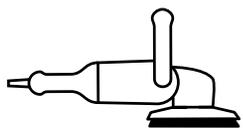
Circular bench saw



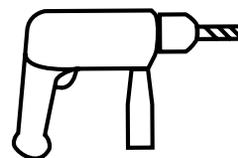
Angle grinder



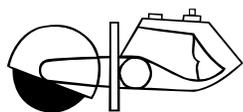
Joint cutter



Concrete grinder



Power drill



Gas saw



# Diamond tools for the construction industry

## General information



### Safety notes

- Observe any usage restrictions, warnings and safety notes:



Wear eye protection!



Wear hearing protection!



Wear dust respirators!



Wear gloves!



Follow the safety instructions!



Not permitted for face grinding!



Do not use if damaged!



### Organization for the Safety of Abrasives (oSa)

Together with other renowned manufacturers, PFERD TOOLS voluntarily produces quality products conforming to the most exacting safety standards. Member companies of oSa (the Organization for the Safety of Abrasives) are committed to continuous product safety and quality monitoring. PFERD TOOLS products carry the oSa mark. Scan the QR code for further information.



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### Safety standard:

- PFERD TOOLS diamond tools conform to the highest safety requirements in accordance with EN 13236 "Safety requirements for superabrasive products."

### Retail point-of-sale packaging

PFERD TOOLS offers diamond tools for the construction industry in retail packaging.

### Advantages:

- Product can easily be hung up on a sales wall.
- Packaging design allows product to be easily recognized.



## Diamond cut-off wheels for the construction industry

PFERD TOOLS diamond cut-off wheels are manufactured in compliance with the highest quality and safety standards. They guarantee optimum cutting results and allow efficient processing of different materials, e.g. concrete, exposed aggregate concrete, clinker brick, hard stone, granite and other abrasive building materials. The product range offers the best tool for any application.



### Quick product selection guide

Application	Material	Tools	
<b>Aggressive, fast cutting</b>	<ul style="list-style-type: none"> <li>■ Concrete (medium-hard, reinforced, hard)</li> <li>■ Aerated concrete</li> <li>■ Pumice</li> <li>■ Brick</li> <li>■ Soft clinker brick</li> <li>■ Sand-lime brick</li> </ul>	DS type cut-off wheels <ul style="list-style-type: none"> <li>■ START Line</li> <li>■ Universal Line PSF</li> </ul>	

### Shapes

PFERD TOOLS diamond cut-off wheels are designed to ensure the best results each time on numerous types of materials.



#### Shape DS

- Segmented type for fast cutting



#### Shape DS AS

- Segmented type for fast cutting of asphalt
- Available on special request.**



#### Shape DG

- Type with continuous rim for easy cutting (TURBO)
- Available on special request.**



#### Shape DG FL

- Type with continuous rim for very fine cutting, e.g. tiles and glazed tiles
- Available on special request.**



# Diamond tools for the construction industry

Segmented diamond cut-off wheels for fast cutting



## DS START type

General-purpose segmented-rim cut-off wheel for aggressive, fast cutting with high performance and a good service life.

### Special features:

- High quality diamond abrasive grain.
- Excellent cutting characteristics and short cutting times.
- Good operation and high cost-effectiveness.

D [Inch]	T [Inch]	H [Inch]	H <sub>r</sub> [Inch]	X [Inch]	Max. RPM		Item no.	EDP no.
4-1/2	0.065	7/8	-	9/32	13,300	1	68300044	55002
5	0.065	7/8	-	9/32	12,200	1	68300045	55003
7	0.079	7/8	-	9/32	8,600	1	68300038	55000
9	0.09	7/8	-	9/32	6,600	1	68300039	55001
12	0.11	1	20 mm	5/16	6,400	1	68300053	55004
14	0.125	1	-	5/16	5,400	1	68300047	55005
16	0.125	1	-	3/8	4,800	1	68300054	55006
18	0.125	1	-	3/8	4,200	1	68300055	55007

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## DS PSF type

General-purpose segmented-edge tool for aggressive, fast cutting with high cutting performance and an ideal tool life. With laser-welded segments.

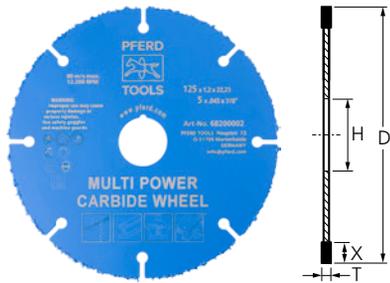
### Special features:

- High quality diamond abrasive grain.
- Excellent cutting characteristics and short cutting times.
- Very easy operation and high cost-effectiveness.

D [Inch]	T [Inch]	H [Inch]	X [Inch]	Max. RPM		Item no.	EDP no.
4-1/2	0.09	7/8	3/8	13,300	1	68011221	65111
5	0.09	7/8	3/8	12,200	1	68012221	65211
6	0.09	7/8	3/8	10,200	1	68300102	65311
7	0.095	7/8	3/8	8,600	1	68017221	65411
9	0.095	7/8	3/8	6,600	1	68023223	65611

# Diamond tools for the construction industry

Carbide cut-off wheel for general-purpose cutting



## DS Multi Power Carbide type

General-purpose cut-off wheel for effective cutting of many different materials, such as wood with embedded nails, plastics (e.g. pipes), non-ferrous metals and drywall construction materials. The cutting edge made of sharp tungsten carbide grains achieves clean, precise cuts.

### Special features:

- Ideal choice for a variety of materials.
- Optimum cutting speed due to consistent diameter and high ease of cutting.
- Long service life due to unique high-quality bonding of the tungsten carbide grain to the steel body.

D [Inch]	T [Inch]	H [Inch]	X [Inch]	Max. RPM		Item no.
5	0.045	7/8	0.075	12,200	1	68200002





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**New products**

Our new products have blue item numbers in the Tool Manual. Special order items are marked with an asterisk. You can find the complete overview of new products in the last section of the Tool Manual.



Stay up to date and discover our new products digitally online.