

New in the PFERD product range



TRUST BLUE

New PFERD products and additions 2019–2022
to the range of the Tool Manual 23



New in the PFERD product range

Table of contents

This brochure contains only new PFERD products and additions to the product range which are not contained in PFERD Tool Manual 23. They are marked by a NI-symbol and are shown in the respective product groups in catalogue sections 1–9.

NI New in addition to the Tool Manual 23

N! New in 2022

You can find the gross prices for the new products in the 2022 price list; we would be happy to send it to you digitally.



www.pferd.com

View our brochure **New in the PFERD product range** together with our website to find out more and see all tools. Scan the QR codes or use the product finder to select the ideal tools in just a few clicks.

Content	Page
Catalogue section 1 – Files	
Adjustable holders for car body files	4
Ergonomic file handle	
■ Ergonomic file handle set, chain saw gauge	4
Depth gauge file	
■ Depth gauge file for CHAIN SHARP CS-X	4
■ Flat chain saw files for depth gauges	5
■ Chisel bit files	5
Catalogue section 2 – Milling tools	
TC burrs	
■ for universal applications	6
■ ALLROUND cut for versatile use	10
■ STEEL cut for steel and cast steel	18
■ INOX cut for stainless steel (INOX)	22
■ ALU cut for aluminium	26
■ MICRO cut for finishing work	28
TC copy burrs – For tool and mould construction	31
HSS rotary cutters – For fine and coarse stock removal	32
ALUMASTER High Speed Disc	
■ ALUMASTER High Speed Disc HSD-R	36
■ ALUMASTER High Speed Disc HSD-R 50	37
■ Arbor	37
■ Accessories	38
High Speed Torus Cutter	
■ High Speed Torus Cutter HSC-T 20	40
■ Accessories	40
HSS hole saws	
■ HSS hole saws	41
■ Hole saw arbors LSS	42
■ Quick-mounting system for hole saws, adapter sets	43
■ HSS pilot drill LSB	43
Drilling tools	
■ HSS spiral drills	44
■ HSS step drills	51
Countersink tools	
■ HSS conical countersinks	55
■ HSS flat countersinks	63
Catalogue section 3 – Mounted points	
Grinding points for saw chains	67
Grinding discs for saw chains	68
Dressing tools	
■ Grinding wheel dresser	69
■ Replacement roller	69
■ Replacement spindle	69
■ Grinding wheel dresser	69

Content	Page
Catalogue section 4 – Fine grinding and polishing tools	
COMBICLICK fibre discs	
■ Ceramic oxide grain CO-ALU type	70
■ Ceramic oxide grain CO-COOL-CONTOUR type	70
■ VICTOGRAIN type	71
■ Backing pads	71
Fibre discs	
■ Ceramic oxide grain CO-ALU type	72
■ VICTOGRAIN type	72
COMBIDISC	
■ Abrasive discs CDR	73
■ DUST REMOVER	75
Short belts	76
Long belts	76
Belts for pneumatic drums	77
Pneumatic drums	79
Velcro-backed abrasive disc holder	
■ Velcro-backed abrasive disc holder	80
■ Protective pad for velcro-backed abrasive disc holders	80
Flexible sanding sticks	81
POLINOX unitized wheels PNER	82
Catalogue section 5 – Diamond and CBN tools	
Diamond grinding points for foundries	
■ Diamond grinding points for grey and nodular cast iron	83
Catalogue section 6 – Cut-off wheels, flap discs and grinding wheels	
Cut-off wheels	
■ Universal Line PSF	84
NITOCUT cutting system	
■ Special Line SGP	86
■ NITOCUT pneumatic angle grinder	86
POLIFAN flap discs	
■ Universal Line PSF	88
■ Performance Line SG	87, 88
CC-GRIND grinding discs	
■ Performance Line SG	90
■ Special Line SGP	91
Catalogue section 8 – Industrial power brushes	
Cup brushes	
■ knotted	92
Wheel brushes	
■ knotted, stationary	92
■ crimped	93
Composite brushes	
■ Wheel brushes, crimped	94
Shank mounted wheel brushes	
■ crimped	96
Universal shank mounted cup brushes	
■ crimped	97
Universal shank mounted wheel brushes	
■ crimped	97

Content	Page
Catalogue section 9 – Tool drives*	
Air grinders	
■ Straight grinders	99
■ Angle grinders with collet	124, 129
■ NITOCUT angle grinder	128
■ Angle grinders with threaded spindle	130
■ Belt grinder	131
■ DIN 10 motors for rigid extensions	132
■ Filing machine	137
■ Marking pens	139
■ Robot spindles for stationary applications	140
Electric grinders	
■ Straight grinders	153
■ Angle grinder	155
■ Burnishing machine	156
■ Belt grinder	158
■ Pipe belt grinders	159
■ EL motors DIN 10 for rigid extensions	161
Multi-speed machines	
■ Electric motors for flexible shafts	163
Tool drive accessories	
■ Flexible shaft 10 and handpieces	165
■ Handpieces and angle drive	166
■ Collets	167

*Range optimized with several performance upgrades.

Content	Page
PFERD tools with X-LOCK – Just one Click	
POLIVLIES flap discs	
■ Flap discs PVL	172
Cut-off wheels	
■ Universal Line PSF	173
■ Performance Line SG	173
POLIFAN flap discs	
■ Universal Line PSF	174
■ Performance Line SG	174
■ Special Line SGP	175
Grinding wheels	
■ Universal Line PSF	176
Cup brushes	
■ crimped	177
■ knotted	178
Wheel brushes	
■ knotted	179
■ Pipeline	179

Customized, fast, functional

The complete PFERD tool range and valuable tool and application knowledge can be found on our website at www.pferd.com. Visit us online and experience your added value with PFERD on all channels.

Use the direct search on our website to find the product group you need, or use the PFERD product finder to display a selection of suitable tools, filtered by application, material and drive type.



New in the PFERD product range

Adjustable holders for car body files

1



Adjustable holders for car body files

This ergonomic and particularly lightweight holder permits individual tensioning of car body file blades to match the surface contour of the workpiece.

Advantages:

- The bending radius of the file can be steplessly adjusted via the tensioning system.
- Particularly lightweight plastic design without plasticizer.
- Can be used in a focused manner or over a wide area as the car body file can be used curved as well as straight.
- Enables work with low levels of fatigue thanks to vibration-damping rubber pad.

PFERDVALUE:



Vibration Filter



Haptic Filter



Time Saving

Suitable for file length [mm]	Suitable for file length [inch]	EAN 4007220		Description
300	12	N! 111499	1	KFH 300

Ergonomic file handle



Ergonomic file handle set, chain saw gauge

The set consists of an ergonomic file handle for chain saw files as well as two chain saw gauges: an angle of 25°/30° and an angle of 30°/35°. The chain saw gauge supports consistent sharpening results by providing the correct sharpening angle. It is attached to the stud of the ergonomic file handle FH 1 KSF.

Contents:

- 1 piece each:
- Ergonomic file handle FH 1 KSF
- Chain saw gauge KSSL 25/30
- Chain saw gauge KSSL 30/35

Ordering notes:

- The set is provided in sales-boosting individual packaging.

PFERDVALUE:



Haptic Filter

Suitable for chain saw file diameter [mm]	EAN 4007220		Description
4.0 / 4.5 / 4.8 / 5.16 / 5.5	N! 174906	1	SET FH1 KSSL 25/30-30/35

Depth gauge files



Depth gauge file for CHAIN SHARP CS-X

Rectangular file with cut on two sides. Suitable for the CHAIN SHARP CS-X chain saw sharpener.

Advantages:

- Stock removal rate is precisely tailored to the depth gauge.


Profile	Length [mm]	Length [inch]	Cut	EAN 4007220	Cross section [mm]	Suitable for		Description
4132	200	8	2	N! 174951	9.0 x 6.0	CS-X-3.2, CS-X-4.0, CS-X 4.8, CS-X 5.16, CS-X 5.5	1	4132 200 (1)

Flat chain saw files for depth gauges

Rectangular file, tanged with two round uncut edges and cut on two sides. Shape F according to DIN 7262. Flat chain saw files are used to file the depth gauges of saw chains.

Advantages:

- Stock removal rate is precisely tailored to the depth gauge.


Profile	Length [mm]	Length [inch]	Cut	EAN 4007220	Cross section [mm]	Matching handle		Description
1213 ruk	150	6	2	N! 174920	16.0 x 3.0	FH 3	1	1213 ruk 150 H2 (1)
	200	8	2	N! 174937	20.0 x 3.5	FH 4/1	1	1213 ruk 200 H2 (1)

Chisel bit files

For servicing and sharpening saw chains with a square tooth base. For edge grinding saw chains. Available as a three square or flat file.

Advantages:

- The three square type is particularly suited to sharpening 3/8" chains.
- The flat type fulfills two functions: it can be used to sharpen the blade and also to reduce the depth gauge. Particularly recommended for beginners.

Profile	Length [mm]	Length [inch]	Cut	EAN 4007220	Cross section [mm]	Matching handle		Description
three square	175	7	2	N! 174968	4.6	FH 3	1	1250 DKT 175 (1)
flat	175	7	2	N! 174975	3.3 x 12.4	FH 3	1	1215 FLST 175 (1)



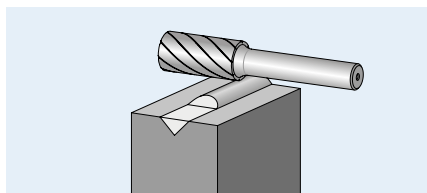
New in the PFERD product range

TC burrs for universal applications





Cylindrical shape ZYA without end cut

Cylindrical burr according to DIN 8032 with cut conforming to DIN 8033.



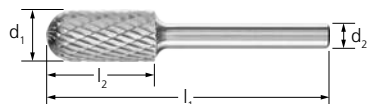
PFERDVALUE:



d_1 [mm]	l_2 [mm]	d_2 [mm]	l_1 [mm]	Cut 3 PLUS HC-FEP  EAN 4007220		Description
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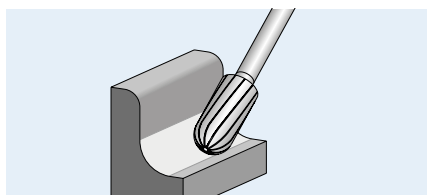
Shank dia. 6 mm

10	20	6	60	N! 222508	1	ZYA 1020/6 Z 3 PLUS HC-FEP
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Cylindrical shape with radius end WRC

Cylindrical burr with radius end according to DIN 8032 with cut conforming to DIN 8033. Combination of cylindrical and ball-shaped geometries.



PFERDVALUE:



d_1 [mm]	l_2 [mm]	d_2 [mm]	l_1 [mm]	Cut 3 PLUS HC-FEP  EAN 4007220		Description
---------------	---------------	---------------	---------------	--	---	-------------

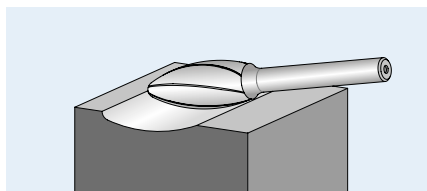
Shank dia. 6 mm

10	20	6	60	N! 222546	1	WRC 1020/6 Z 3 PLUS HC-FEP
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

Flame shape B

Flame-shaped burr according to ISO 7755/8 with cut conforming to DIN 8033.



PFERDVALUE:



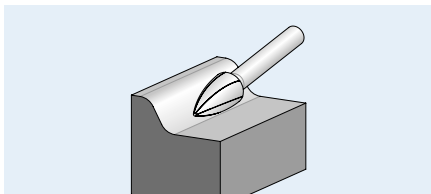
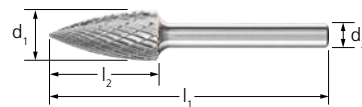
d_1 [mm]	l_2 [mm]	d_2 [mm]	l_1 [mm]	r [mm]	Cut 3 PLUS HC-FEP  EAN 4007220		Description
---------------	---------------	---------------	---------------	-------------	--	---	-------------

Shank dia. 6 mm

10	25	6	65	1.7	N! 222515	1	B 1025/6 Z 3 PLUS HC-FEP
12	30	6	70	2.1	N! 222522	1	B 1230/6 Z 3 PLUS HC-FEP



Pointed tree shape SPG

Pointed tree-shaped burr according to DIN 8032 with cut conforming to DIN 8033, flattened tip.



PFERDVALUE:



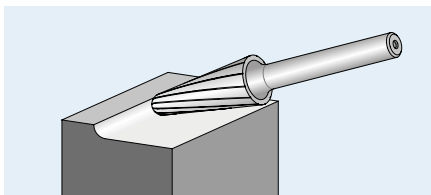
d_1 [mm]	l_2 [mm]	d_2 [mm]	l_1 [mm]	Cut 3 PLUS HC-FEP  EAN 4007220		Description
---------------	---------------	---------------	---------------	--	---	-------------

Shank dia. 6 mm

10	20	6	60	N! 222591	1	SPG 1020/6 Z 3 PLUS HC-FEP
----	----	---	----	-----------	---	----------------------------



Conical shape with radius end KEL

Conical burr with radius end according to DIN 8032 with cut conforming to DIN 8033.



PFERDVALUE:



d_1 [mm]	l_2 [mm]	d_2 [mm]	l_1 [mm]	α	r [mm]	Cut 3 PLUS HC-FEP  EAN 4007220		Description
---------------	---------------	---------------	---------------	----------	-------------	--	---	-------------

Shank dia. 6 mm

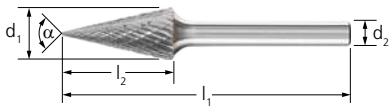
10	20	6	60	14°	2.9	N! 222607	1	KEL 1020/6 Z 3 PLUS HC-FEP
12	25	6	65	14°	3.3	N! 222614	1	KEL 1225/6 Z 3 PLUS HC-FEP
	30	6	70	14°	2.6	N! 222621	1	KEL 1230/6 Z 3 PLUS HC-FEP



Here you will find the entire range of TC burs for universal applications, incl. cuts 1, 3, 3-PLUS, 4, 5 and the HICOAT coating HC-FEP.

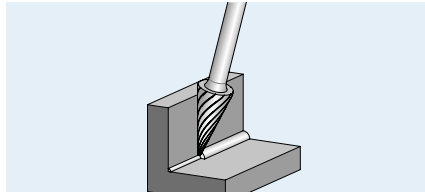
New in the PFERD product range

TC burrs for universal applications



Conical pointed shape SKM

Conical pointed burr according to DIN 8032 with cut conforming to DIN 8033, flattened tip.





PFERDVALUE:



Waste Saving

Time Saving

d ₁ [mm]	l ₂ [mm]	d ₂ [mm]	l ₁ [mm]	α	Cut 3 PLUS HC-FEP  EAN 4007220		Description
------------------------	------------------------	------------------------	------------------------	---	--	---	-------------

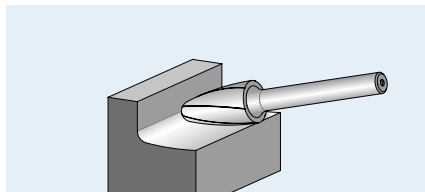
Shank dia. 6 mm

6	18	6	55	18°	NI 222553	1	SKM 0618/6 Z 3 PLUS HC-FEP
10	20	6	60	28°	NI 222560	1	SKM 1020/6 Z 3 PLUS HC-FEP
12	25	6	65	26°	NI 222577	1	SKM 1225/6 Z 3 PLUS HC-FEP



Tree shape with radius end RBF

Tree-shaped burr with radius end according to DIN 8032 with cut conforming to DIN 8033.





PFERDVALUE:



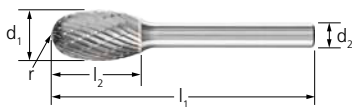
Waste Saving

Time Saving

d ₁ [mm]	l ₂ [mm]	d ₂ [mm]	l ₁ [mm]	r [mm]	Cut 3 PLUS HC-FEP  EAN 4007220		Description
------------------------	------------------------	------------------------	------------------------	-----------	--	---	-------------

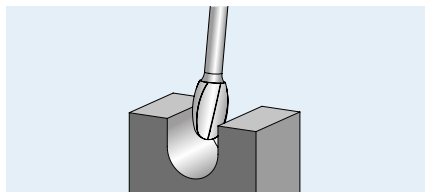
Shank dia. 6 mm

10	20	6	60	2.5	NI 222584	1	RBF 1020/6 Z 3 PLUS HC-FEP
----	----	---	----	-----	-----------	---	----------------------------



Oval shape TRE

Oval burr according to DIN 8032 with cut conforming to DIN 8033.





PFERDVALUE:



Waste Saving

Time Saving

d ₁ [mm]	l ₂ [mm]	d ₂ [mm]	l ₁ [mm]	r [mm]	Cut 3 PLUS HC-FEP  EAN 4007220		Description
------------------------	------------------------	------------------------	------------------------	-----------	--	---	-------------

Shank dia. 6 mm

6	10	6	50	2.8	NI 222638	1	TRE 0610/6 Z 3 PLUS HC-FEP
10	16	6	56	4.0	NI 222669	1	TRE 1016/6 Z 3 PLUS HC-FEP
12	20	6	60	5.0	NI 222676	1	TRE 1220/6 Z 3 PLUS HC-FEP

Set 1503 cut 3 PLUS

Set 1503 – 3 PLUS cut – contains 15 small tungsten carbide burrs in the most common shapes and dimensions for general applications. The sturdy plastic box protects the tools from dirt and damage.

Contents:

15 small tungsten carbide burrs,
shank dia. 3 mm,
3 PLUS cut



1 piece each:

- | | | |
|-----------------------|----------------------|----------------------|
| ■ ZYAS 0313/3 Z3 PLUS | ■ WRC 0313/3 Z3 PLUS | ■ SKM 0613/3 Z3 PLUS |
| ■ ZYAS 0613/3 Z3 PLUS | ■ WRC 0613/3 Z3 PLUS | ■ RBF 0307/3 Z3 PLUS |
| ■ KUD 0302/3 Z3 PLUS | ■ SPG 0313/3 Z3 PLUS | ■ RBF 0613/3 Z3 PLUS |
| ■ KUD 0403/3 Z3 PLUS | ■ SPG 0613/3 Z3 PLUS | ■ TRE 0307/3 Z3 PLUS |
| ■ KUD 0605/3 Z3 PLUS | ■ SKM 0311/3 Z3 PLUS | ■ TRE 0610/3 Z3 PLUS |



2



Cut		Description
3 PLUS		
		
EAN 4007220		
Shank dia. 3 mm		
NI 157527	1	1503 Z3 PLUS

Set 1504 cut 3 PLUS

Set 1504 – 3 PLUS cut – contains three small tungsten carbide burrs in the shapes and dimensions most commonly used in the workshop. The sturdy plastic box protects the tools from dirt and damage.



Contents:

3 small tungsten carbide burrs,
shank dia. 3 mm,
3 PLUS cut

1 piece each:

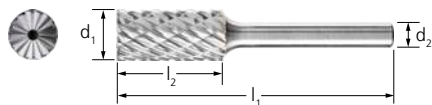
- ZYAS 0313/3 Z3 PLUS
- WRC 0313/3 Z3 PLUS
- RBF 0313/3 Z3 PLUS



Cut		Description
3 PLUS		
		
EAN 4007220		
Shank dia. 3 mm		
NI 225318	1	1504 Z3 PLUS

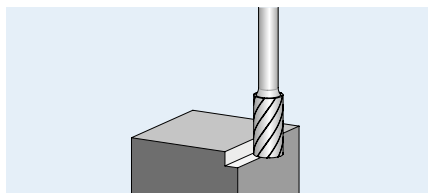
New in the PFERD product range

TC burrs – ALLROUND cut for versatile use



Cylindrical shape ZYAS with end cut

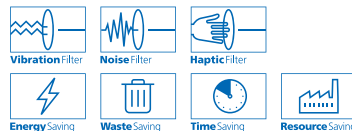
Cylindrical burr according to DIN 8032 with circumferential and end cut.






Ordering notes:

- Please complete the description with the desired cut.

PFERDVALUE:



d ₁ [mm]	l ₂ [mm]	d ₂ [mm]	l ₁ [mm]	Cut			Description
				ALLROUND 	ALLROUND HC-FEP 		
				EAN 4007220			

Shank dia. 3 mm

3	13	3	43	N! 391303	-	1	ZYAS 0313/3 ...
6	13	3	43	N! 391310	-	1	ZYAS 0613/3 ...

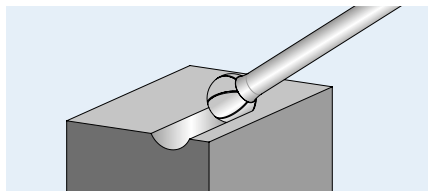
Shank dia. 6 mm

10	20	6	60	092903	N! 221815	1	ZYAS 1020/6 ...
12	25	6	65	092941	N! 221860	1	ZYAS 1225/6 ...



Ball shape KUD

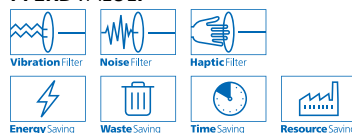
Ball-shaped burr according to DIN 8032.






Ordering notes:

- Please complete the description with the desired cut.

PFERDVALUE:



d ₁ [mm]	l ₂ [mm]	d ₂ [mm]	l ₁ [mm]	Cut			Description
				ALLROUND 	ALLROUND HC-FEP 		
				EAN 4007220			

Shank dia. 3 mm

3	2	3	33	N! 391327	-	1	KUD 0302/3 ...
4	3	3	34	N! 391341	-	1	KUD 0403/3 ...
6	5	3	35	N! 391358	-	1	KUD 0605/3 ...

Shank dia. 6 mm

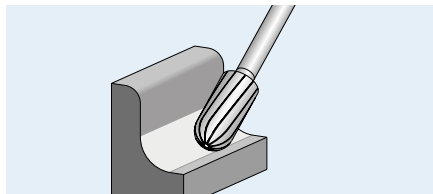
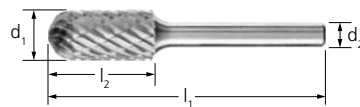
10	9	6	49	093108	N! 221877	1	KUD 1009/6 ...
12	10	6	51	093115	N! 221907	1	KUD 1210/6 ...



Here you will find the entire range of TC burrs with the ALLROUND cut.

Cylindrical shape with radius end WRC

Cylindrical burr with radius end according to DIN 8032. Combination of cylindrical and ball-shaped geometries.



Ordering notes:

- Please complete the description with the desired cut.

PFERDVALUE:



Vibration Filter



Noise Filter



Haptic Filter



Energy Saving






Waste Saving



Time Saving



Resource Saving

d ₁ [mm]	l ₂ [mm]	d ₂ [mm]	l ₁ [mm]	Cut			Description
				ALLROUND 	ALLROUND HC-FEP 		
				EAN 4007220			

Shank dia. 3 mm

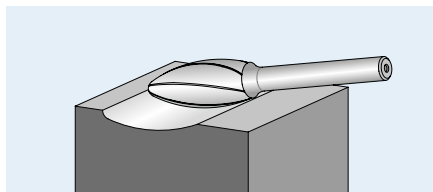
3	13	3	43	NI 391365	-	1	WRC 0313/3 ...
6	13	3	43	NI 391372	-	1	WRC 0613/3 ...

Shank dia. 6 mm

10	20	6	60	093191	NI 221938	1	WRC 1020/6 ...
12	25	6	65	093221	NI 221945	1	WRC 1225/6 ...

Flame shape B

Flame-shaped burr according to ISO 7755/8.



Ordering notes:

- Please complete the description with the desired cut.

PFERDVALUE:



Vibration Filter



Noise Filter



Haptic Filter



Energy Saving






Waste Saving



Time Saving



Resource Saving

d ₁ [mm]	l ₂ [mm]	d ₂ [mm]	l ₁ [mm]	r [mm]	Cut			Description
					ALLROUND 	ALLROUND HC-FEP 		
					EAN 4007220			

Shank dia. 3 mm

3	7	3	37	0.8	NI 391464	-	1	B 0307/3 ...
6	13	3	43	1.0	NI 391501	-	1	B 0613/3 ...

Shank dia. 6 mm

10	25	6	65	1.7	093276	NI 221952	1	B 1025/6 ...
12	30	6	70	2.1	093306	NI 221969	1	B 1230/6 ...

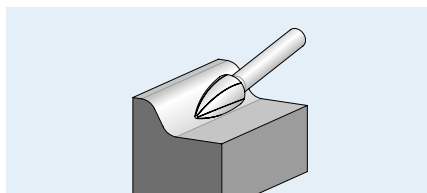
New in the PFERD product range

TC burrs – ALLROUND cut for versatile use



Pointed tree shape SPG

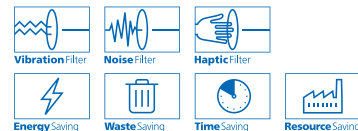
Pointed tree-shaped burr according to DIN 8032, flattened tip.






Ordering notes:

- Please complete the description with the desired cut.

PFERDVALUE:



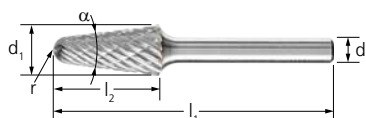
d ₁ [mm]	l ₂ [mm]	d ₂ [mm]	l ₁ [mm]	Cut			Description
				ALLROUND 	ALLROUND HC-FEP 		
				EAN 4007220			

Shank dia. 3 mm

3	7	3	37	N! 391716	-	1	SPG 0307/3 ...
	13	3	43	N! 391723	-	1	SPG 0313/3 ...
6	13	3	43	N! 391730	-	1	SPG 0613/3 ...

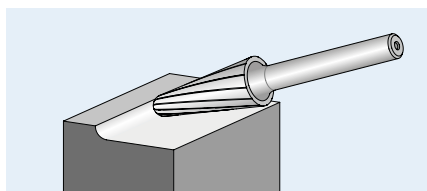
Shank dia. 6 mm

10	20	6	60	093382	N! 221983	1	SPG 1020/6 ...
12	25	6	65	093399	N! 222003	1	SPG 1225/6 ...





Conical shape with radius end KEL

Conical burr with radius end according to DIN 8032.



PFERDVALUE:



d ₁ [mm]	l ₂ [mm]	d ₂ [mm]	l ₁ [mm]	α	r [mm]	Cut		Description
						ALLROUND HC-FEP 		
						EAN 4007220		

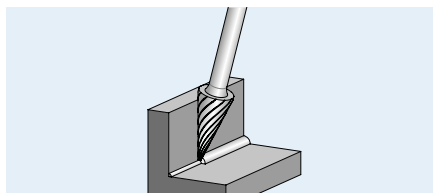
Shank dia. 6 mm

10	20	6	60	14°	2.9	N! 222010	1	KEL 1020/6 ALLROUND HC-FEP
12	25	6	65	14°	3.3	N! 222027	1	KEL 1225/6 ALLROUND HC-FEP



Conical pointed shape SKM

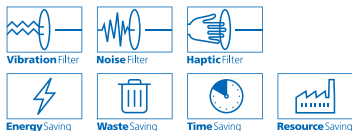
Conical pointed burr according to DIN 8032, flattened tip.






Ordering notes:

- Please complete the description with the desired cut.

PFERDVALUE:



d ₁ [mm]	l ₂ [mm]	d ₂ [mm]	l ₁ [mm]	α	Cut			Description
					ALLROUND 	ALLROUND HC-FEP 		
					EAN 4007220			

Shank dia. 3 mm

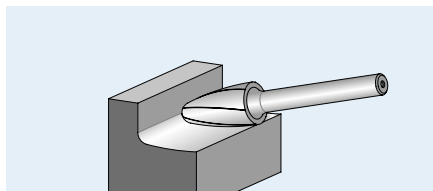
3	7	3	37	21°	N! 391747	-	1	SKM 0307/3 ...
	11	3	41	14°	N! 391754	-	1	SKM 0311/3 ...
6	13	3	43	25°	N! 391761	-	1	SKM 0613/3 ...

Shank dia. 6 mm

10	20	6	60	28°	093719	N! 222072	1	SKM 1020/6 ...
12	25	6	65	26°	093726	N! 222089	1	SKM 1225/6 ...

Tree shape with radius end RBF

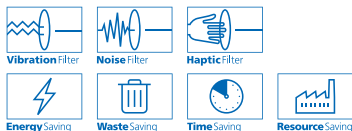
Tree-shaped burr with radius end according to DIN 8032.






Ordering notes:

- Please complete the description with the desired cut.

PFERDVALUE:



d ₁ [mm]	l ₂ [mm]	d ₂ [mm]	l ₁ [mm]	r [mm]	Cut			Description
					ALLROUND 	ALLROUND HC-FEP 		
					EAN 4007220			

Shank dia. 3 mm

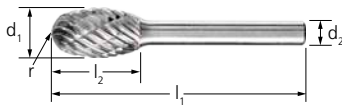
3	7	3	37	0.75	N! 391785	-	1	RBF 0307/3 ...
	13	3	43	0.75	N! 391891	-	1	RBF 0313/3 ...
6	13	3	43	1.5	N! 392010	-	1	RBF 0613/3 ...

Shank dia. 6 mm

10	20	6	60	2.5	093658	N! 222041	1	RBF 1020/6 ...
12	25	6	65	2.5	093672	N! 222065	1	RBF 1225/6 ...

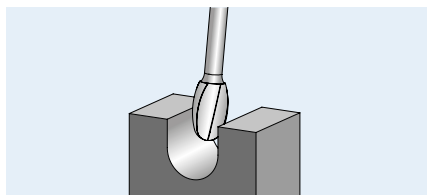
New in the PFERD product range

TC burrs – ALLROUND cut for versatile use



Oval shape TRE

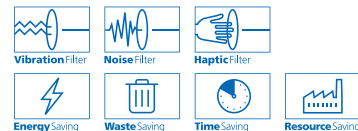
Oval burr according to DIN 8032.






Ordering notes:

- Please complete the description with the desired cut.

PFERDVALUE:



d ₁ [mm]	l ₂ [mm]	d ₂ [mm]	l ₁ [mm]	r [mm]	Cut			Description
					ALLROUND 	ALLROUND HC-FEP 		
					EAN 4007220			
Shank dia. 3 mm								
3	7	3	37	1.2	N! 392034	-	1	TRE 0307/3 ...
6	10	3	40	2.8	N! 392041	-	1	TRE 0610/3 ...
Shank dia. 6 mm								
10	16	6	56	4.0	093757	N! 222096	1	TRE 1016/6 ...
12	20	6	60	5.0	093764	N! 222133	1	TRE 1220/6 ...



Set 1412 ALLROUND

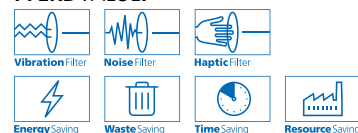
Set 1412 ALLROUND contains five tungsten carbide burrs for versatile use on key materials such as steel and cast steel, stainless steel (INOX), non-ferrous metals and cast iron in the most common shapes and dimensions. The sturdy plastic box protects the tools from dirt and damage.

The burrs are secured at the shanks, facilitating the selection and withdrawal of the tools. Five further slots are available for other burrs.

Contents:

- 5 tungsten carbide burrs, shank dia. of 6 mm, ALLROUND cut
- 1 piece each:
 - ZYAS 1225/6 ALLROUND
 - KUD 1210/6 ALLROUND
 - WRC 1225/6 ALLROUND
 - SPG 1225/6 ALLROUND
 - RBF 1225/6 ALLROUND

PFERDVALUE:



Cut		Description
ALLROUND 		
EAN 4007220		
Shank dia. 6 mm		
N! 133576	1	1412 ALLROUND

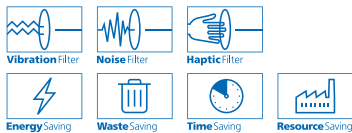
Set 1403 ALLROUND



The 1403 ALLROUND set contains three small tungsten carbide burrs for use on key materials such as steel and cast steel, stainless steel (INOX), non-ferrous metals and cast iron in the most common shapes and dimensions. The sturdy plastic box protects the tools from dirt and damage.

Contents:

- 3 small tungsten carbide burrs, shank dia. 3 mm, ALLROUND cut
- 1 piece each:
 - ZYAS 0313/3 ALLROUND
 - WRC 0313/3 ALLROUND
 - RBF 0313/3 ALLROUND

PFERDVALUE:



Cut		Description
ALLROUND		
		
EAN 4007220		
Shank dia. 3 mm		
NI 420423	1	1403 ALLROUND

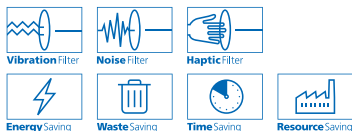
Set 1404 ALLROUND



The 1404 ALLROUND set contains three small tungsten carbide burrs for use on key materials such as steel and cast steel, stainless steel (INOX), non-ferrous metals and cast iron in the most common shapes and dimensions. The sturdy plastic box protects the tools from dirt and damage.

Contents:

- 3 small tungsten carbide burrs, shank dia. 3 mm, ALLROUND cut
- 1 piece each:
 - ZYAS 0613/3 ALLROUND
 - WRC 0613/3 ALLROUND
 - RBF 0613/3 ALLROUND

PFERDVALUE:



Cut		Description
ALLROUND		
		
EAN 4007220		
Shank dia. 3 mm		
NI 420430	1	1404 ALLROUND



New in the PFERD product range

TC burrs – ALLROUND cut for versatile use

2



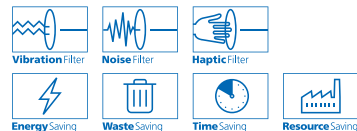

Set 1406 ALLROUND



The 1406 ALLROUND set contains three versatile tungsten carbide burrs for use on key materials such as steel and cast steel, stainless steel (INOX), non-ferrous metals and cast iron in the most common shapes and dimensions. The sturdy plastic box protects the tools from dirt and damage.

Contents:

- 3 tungsten carbide burrs, shank dia. 6 mm, ALLROUND cut
- 1 piece each:
 - ZYAS 0616/6 ALLROUND
 - WRC 0616/6 ALLROUND
 - RBF 0618/6 ALLROUND

PFERDVALUE:



Cut		Description
ALLROUND		
		
EAN 4007220		
Shank dia. 6 mm		
NI 226698	1	1406 ALLROUND



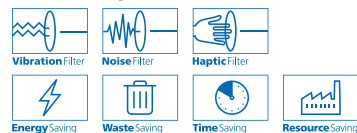
Set 1414 ALLROUND



The 1414 ALLROUND set contains three versatile tungsten carbide burrs for use on key materials such as steel and cast steel, stainless steel (INOX), non-ferrous metals and cast iron in the most common shapes and dimensions. The sturdy plastic box protects the tools from dirt and damage.

Contents:

- 3 tungsten carbide burrs, shank dia. 6 mm, ALLROUND cut
- 1 piece each:
 - ZYAS 1225/6 ALLROUND
 - WRC 1225/6 ALLROUND
 - RBF 1225/6 ALLROUND

PFERDVALUE:



Cut		Description
ALLROUND		
		
EAN 4007220		
Shank dia. 6 mm		
NI 226704	1	1414 ALLROUND

Set 1414 ALLROUND HC-FEP

The 1414 ALLROUND HC-FEP set contains three versatile tungsten carbide burrs with high-quality HICOAT coating for use on key materials such as steel and cast steel, stainless steel (INOX), non-ferrous metals and cast iron in the most common shapes and dimensions. The sturdy plastic box protects the tools from dirt and damage.

Contents:

3 tungsten carbide burrs,
shank dia. 6 mm,
ALLROUND cut HC-FEP

1 piece each:

- ZYAS 1225/6 ALLROUND HC-FEP
- WRC 1225/6 ALLROUND HC-FEP
- RBF 1225/6 ALLROUND HC-FEP

PFERDVALUE:



Vibration Filter



Noise Filter



Haptic Filter



Energy Saving



Waste Saving



Time Saving





Resource Saving



2

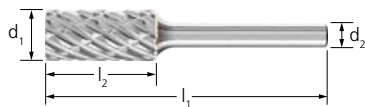


Cut		Description
ALLROUND HC-FEP		
		
EAN 4007220		
Shank dia. 6 mm		
N! 226711	1	1414 ALLROUND HC-FEP



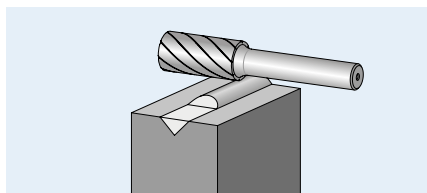
New in the PFERD product range

TC burrs – STEEL cut for steel and cast steel

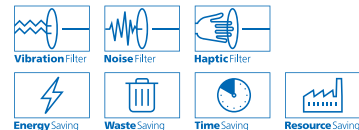


Cylindrical shape ZYA without end cut

Cylindrical burr according to DIN 8032.



PFERDVALUE:



d ₁ [mm]	l ₂ [mm]	d ₂ [mm]	l ₁ [mm]	Cut STEEL HC-FEP 	RPM		Description
				EAN 4007220			

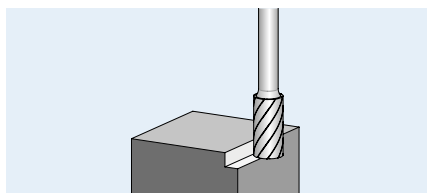
Shank dia. 6 mm

10	20	6	60	N! 221662	14,000–24,000	1	ZYA 1020/6 STEEL HC-FEP
12	25	6	65	N! 221655	12,000–20,000	1	ZYA 1225/6 STEEL HC-FEP





Cylindrical shape ZYAS with end cut

Cylindrical burr according to DIN 8032. Shape ZYAS with circumferential and end cut.



PFERDVALUE:



d ₁ [mm]	l ₂ [mm]	d ₂ [mm]	l ₁ [mm]	Cut STEEL HC-FEP 	RPM		Description
				EAN 4007220			

Shank dia. 6 mm

10	20	6	60	N! 221600	14,000–24,000	1	ZYAS 1020/6 STEEL HC-FEP
12	25	6	65	N! 221686	12,000–20,000	1	ZYAS 1225/6 STEEL HC-FEP

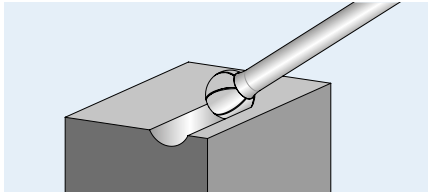


Here you will find the entire range of TC burrs with the STEEL cut.

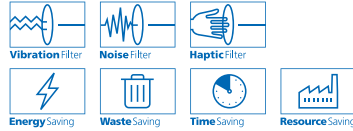


Ball shape KUD

Ball-shaped burr according to DIN 8032.



PFERDVALUE:



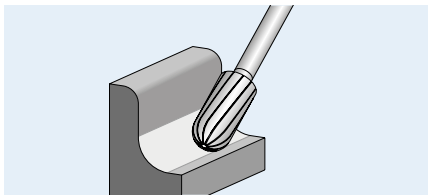
d ₁ [mm]	l ₂ [mm]	d ₂ [mm]	l ₁ [mm]	Cut STEEL HC-FEP 	RPM		Description
				EAN 4007220			

Shank dia. 6 mm

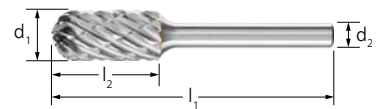
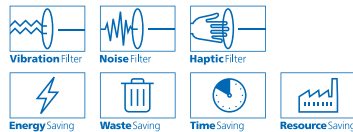
10	9	6	49	N! 221679	14,000–24,000	1	KUD 1009/6 STEEL HC-FEP
12	10	6	51	N! 221693	12,000–20,000	1	KUD 1210/6 STEEL HC-FEP

Cylindrical shape with radius end WRC

Cylindrical burr with radius end according to DIN 8032. Combination of cylindrical and ball-shaped geometries.



PFERDVALUE:



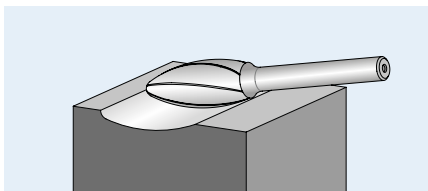
d ₁ [mm]	l ₂ [mm]	d ₂ [mm]	l ₁ [mm]	Cut STEEL HC-FEP 	RPM		Description
				EAN 4007220			

Shank dia. 6 mm

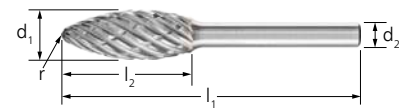
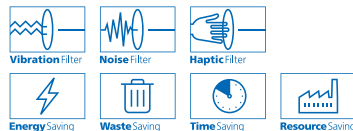
10	20	6	60	N! 222713	14,000–24,000	1	WRC 1020/6 STEEL HC-FEP
12	25	6	65	N! 221570	12,000–20,000	1	WRC 1225/6 STEEL HC-FEP

Flame shape B

Flame-shaped burr according to ISO 7755/8.



PFERDVALUE:



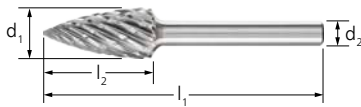
d ₁ [mm]	l ₂ [mm]	d ₂ [mm]	l ₁ [mm]	r [mm]	Cut STEEL HC-FEP 	RPM		Description
					EAN 4007220			

Shank dia. 6 mm

10	25	6	65	1.7	N! 221617	14,000–24,000	1	B 1025/6 STEEL HC-FEP
12	30	6	70	2.1	N! 221624	12,000–20,000	1	B 1230/6 STEEL HC-FEP

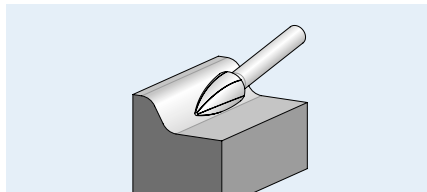
New in the PFERD product range

TC burrs – STEEL cut for steel and cast steel

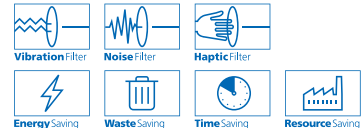


Pointed tree shape SPG

Pointed tree-shaped burr according to DIN 8032, flattened tip.



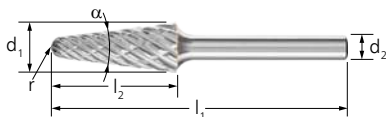
PFERDVALUE:



d ₁ [mm]	l ₂ [mm]	d ₂ [mm]	l ₁ [mm]	Cut STEEL HC-FEP EAN 4007220	RPM		Description
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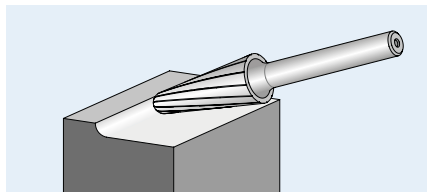
Shank dia. 6 mm

10	20	6	60	N! 221716	14,000–24,000	1	SPG 1020/6 STEEL HC-FEP
12	25	6	65	N! 221648	12,000–20,000	1	SPG 1225/6 STEEL HC-FEP

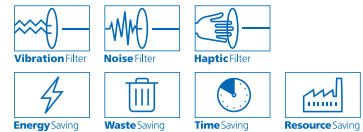


Conical shape with radius end KEL

Conical burr with radius end according to DIN 8032.



PFERDVALUE:



d ₁ [mm]	l ₂ [mm]	d ₂ [mm]	l ₁ [mm]	α	r [mm]	Cut STEEL HC-FEP EAN 4007220	RPM		Description
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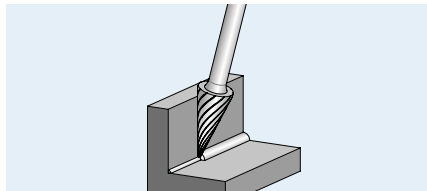
Shank dia. 6 mm

10	20	6	60	14°	2.9	N! 221587	14,000–24,000	1	KEL 1020/6 STEEL HC-FEP
12	30	6	70	14°	2.6	N! 222904	12,000–20,000	1	KEL 1230/6 STEEL HC-FEP

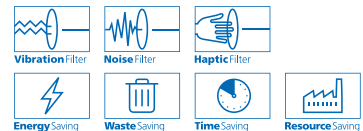


Conical pointed shape SKM

Conical pointed burr according to DIN 8032, flattened tip.



PFERDVALUE:



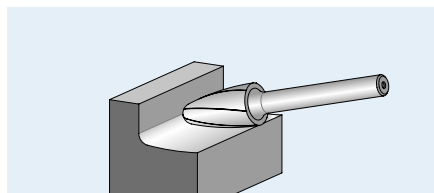
d ₁ [mm]	l ₂ [mm]	d ₂ [mm]	l ₁ [mm]	α	Cut STEEL HC-FEP EAN 4007220	RPM		Description
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Shank dia. 6 mm

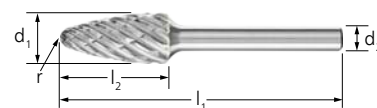
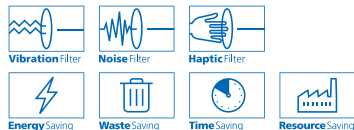
10	20	6	60	28°	N! 221747	14,000–24,000	1	SKM 1020/6 STEEL HC-FEP
12	25	6	65	26°	N! 221754	12,000–20,000	1	SKM 1225/6 STEEL HC-FEP

Tree shape with radius end RBF

Tree-shaped burr with radius end according to DIN 8032.



PFERDVALUE:



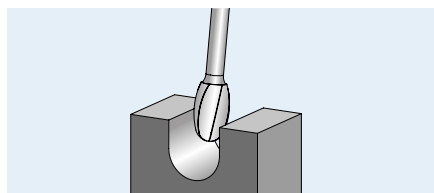
d ₁ [mm]	l ₂ [mm]	d ₂ [mm]	l ₁ [mm]	r [mm]	Cut	RPM		Description
					STEEL HC-FEP			
								
					EAN 4007220			

Shank dia. 6 mm

10	20	6	60	2.5	NI 221631	14,000–24,000	1	RBF 1020/6 STEEL HC-FEP
12	25	6	65	2.5	NI 221563	12,000–20,000	1	RBF 1225/6 STEEL HC-FEP

Oval shape TRE

Oval burr according to DIN 8032.



PFERDVALUE:



d ₁ [mm]	l ₂ [mm]	d ₂ [mm]	l ₁ [mm]	r [mm]	Cut	RPM		Description
					STEEL HC-FEP			
								
					EAN 4007220			

Shank dia. 6 mm

10	16	6	56	4.0	NI 221808	14,000–24,000	1	TRE 1016/6 STEEL HC-FEP
12	20	6	60	5.0	NI 221778	12,000–20,000	1	TRE 1220/6 STEEL HC-FEP

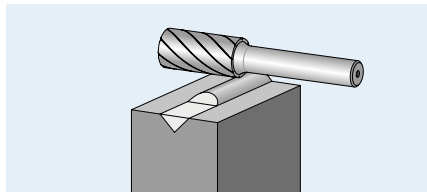
New in the PFERD product range

TC burrs – INOX cut for stainless steel (INOX)

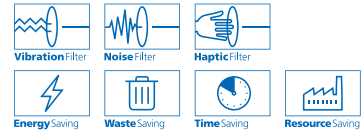


Cylindrical shape ZYA without end cut

Cylindrical burr according to DIN 8032.



PFERDVALUE:



d ₁ [mm]	l ₂ [mm]	d ₂ [mm]	l ₁ [mm]	Cut INOX HC-FEP 	RPM		Description
				EAN 4007220			

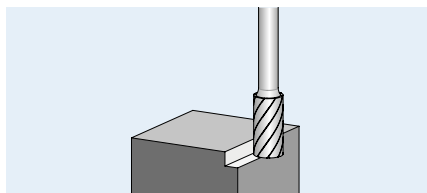
Shank dia. 6 mm

10	20	6	60	NI 222270	8,000–19,000	1	ZYA 1020/6 INOX HC-FEP
12	25	6	65	NI 222256	7,000–16,000	1	ZYA 1225/6 INOX HC-FEP

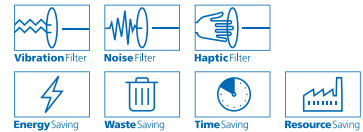


Cylindrical shape ZYAS with end cut

Cylindrical burr according to DIN 8032 with circumferential and end cut.



PFERDVALUE:



d ₁ [mm]	l ₂ [mm]	d ₂ [mm]	l ₁ [mm]	Cut INOX HC-FEP 	RPM		Description
				EAN 4007220			

Shank dia. 6 mm

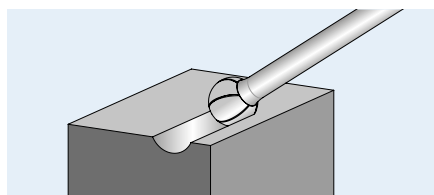
12	25	6	65	NI 222249	7,000–16,000	1	ZYAS 1225/6 INOX HC-FEP
----	----	---	----	-----------	--------------	---	-------------------------



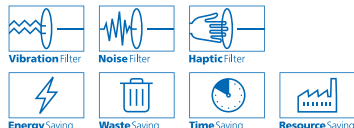
Here you will find the entire range of TC burrs with the INOX cut.



Ball shape KUD

Ball-shaped burr according to DIN 8032.



PFERDVALUE:



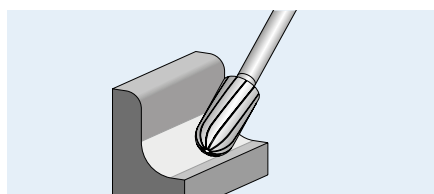
d ₁ [mm]	l ₂ [mm]	d ₂ [mm]	l ₁ [mm]	Cut INOX HC-FEP 	RPM		Description
				EAN 4007220			

Shank dia. 6 mm

10	9	6	49	N! 222348	8,000–19,000	1	KUD 1009/6 INOX HC-FEP
12	10	6	51	N! 222362	7,000–16,000	1	KUD 1210/6 INOX HC-FEP

Cylindrical shape with radius end WRC

Cylindrical burr with radius end according to DIN 8032. Combination of cylindrical and ball-shaped geometries.



PFERDVALUE:



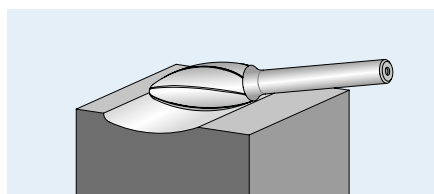
d ₁ [mm]	l ₂ [mm]	d ₂ [mm]	l ₁ [mm]	Cut INOX HC-FEP 	RPM		Description
				EAN 4007220			

Shank dia. 6 mm

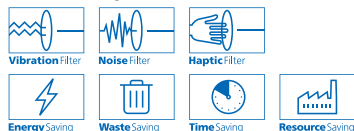
10	20	6	60	N! 222317	8,000–19,000	1	WRC 1020/6 INOX HC-FEP
12	25	6	65	N! 222331	7,000–16,000	1	WRC 1225/6 INOX HC-FEP



Flame shape B

Flame-shaped burr according to ISO 7755/8.



PFERDVALUE:



d ₁ [mm]	l ₂ [mm]	d ₂ [mm]	l ₁ [mm]	r [mm]	Cut INOX HC-FEP 	RPM		Description
					EAN 4007220			

Shank dia. 6 mm

10	25	6	65	1.7	N! 222287	8,000–19,000	1	B 1025/6 INOX HC-FEP
12	30	6	70	2.1	N! 222294	7,000–16,000	1	B 1230/6 INOX HC-FEP

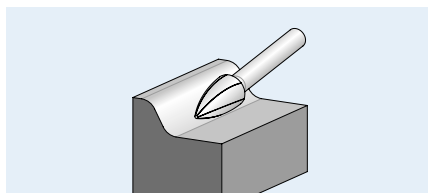
New in the PFERD product range

TC burrs – INOX cut for stainless steel (INOX)

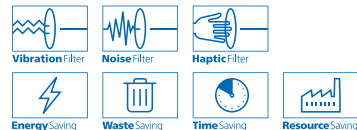




Pointed tree shape SPG

Pointed tree-shaped burr according to DIN 8032, flattened tip.



PFERDVALUE:



d ₁ [mm]	l ₂ [mm]	d ₂ [mm]	l ₁ [mm]	Cut INOX HC-FEP 	RPM		Description
				EAN 4007220			

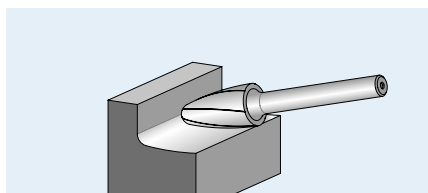
Shank dia. 6 mm

10	20	6	60	N! 222409	8,000–19,000	1	SPG 1020/6 INOX HC-FEP
12	25	6	65	N! 222430	7,000–16,000	1	SPG 1225/6 INOX HC-FEP

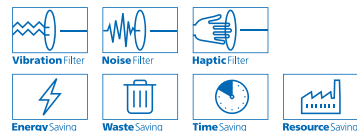


Tree shape with radius end RBF

Tree-shaped burr with radius end according to DIN 8032.



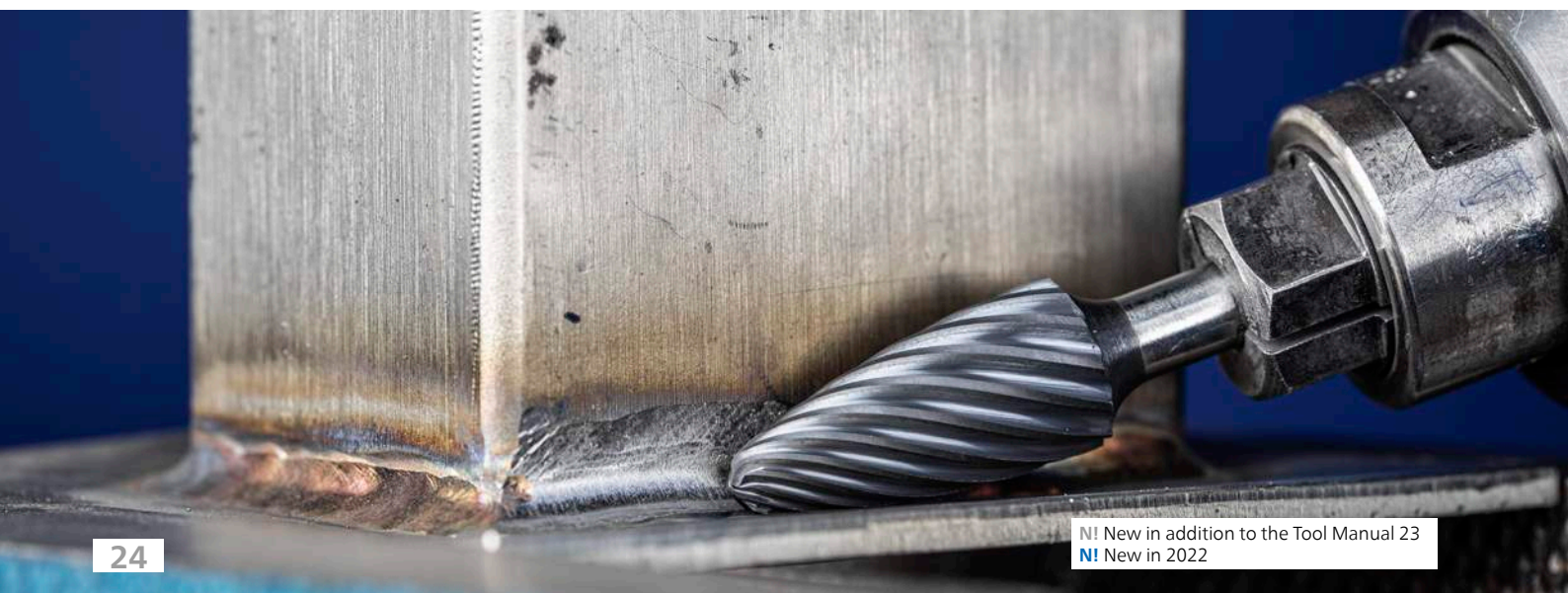
PFERDVALUE:



d ₁ [mm]	l ₂ [mm]	d ₂ [mm]	l ₁ [mm]	r [mm]	Cut INOX HC-FEP 	RPM		Description
					EAN 4007220			

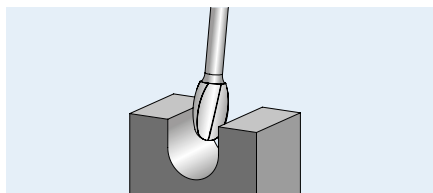
Shank dia. 6 mm

10	20	6	60	2.5	N! 222386	8,000–19,000	1	RBF 1020/6 INOX HC-FEP
12	25	6	65	2.5	N! 222393	7,000–16,000	1	RBF 1225/6 INOX HC-FEP

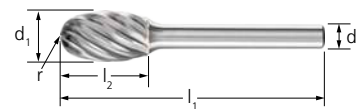
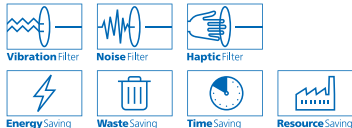




Oval shape TRE

Oval burr according to DIN 8032.



PFERDVALUE:



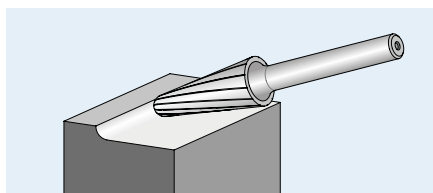
d ₁ [mm]	l ₂ [mm]	d ₂ [mm]	l ₁ [mm]	r [mm]	Cut INOX HC-FEP 	RPM		Description
					EAN 4007220			

Shank dia. 6 mm

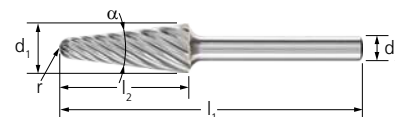
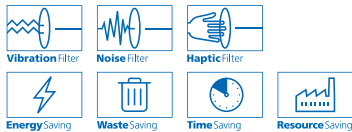
10	16	6	56	4.0	NI 222478	8,000–19,000	1	TRE 1016/6 INOX HC-FEP
12	20	6	60	5.0	NI 222492	7,000–16,000	1	TRE 1220/6 INOX HC-FEP



Conical shape with radius end KEL

Conical burr with radius end according to DIN 8032.



PFERDVALUE:



d ₁ [mm]	l ₂ [mm]	d ₂ [mm]	l ₁ [mm]	α	r [mm]	Cut INOX HC-FEP 	RPM		Description
						EAN 4007220			

Shank dia. 6 mm

10	20	6	60	14°	2.9	NI 222454	8,000–19,000	1	KEL 1020/6 INOX HC-FEP
12	30	6	70	14°	2.6	NI 222461	7,000–16,000	1	KEL 1230/6 INOX HC-FEP

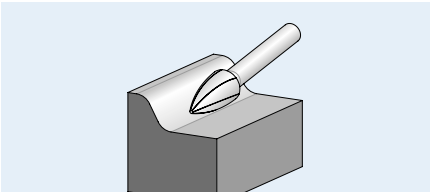
New in the PFERD product range

TC burrs – ALU cut for aluminium



Pointed tree shape SPG

Pointed tree-shaped burr according to DIN 8032, flattened tip.





PFERDVALUE:



Waste Saving

Time Saving

d ₁ [mm]	l ₂ [mm]	d ₂ [mm]	l ₁ [mm]	Cut		Description
				ALU HC-NFE  EAN 4007220		

Shank dia. 6 mm

12	25	6	65	N! 222706	1	SPG 1225/6 ALU HC-NFE
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Here you will find the entire range of TC burrs with the ALU cut.



Finishing experts



TRUST BLUE

MICRO cut for finishing work

Tungsten carbide burrs with the MICRO cut are specifically designed for finishing and are used in areas in which mounted grinding points are usually used.

- High surface quality
- Unlike with mounted grinding points, there is no change in geometry due to wear and tear
- Use on almost all materials

Ask your PFERD advisor about the powerful tungsten carbide burrs for high-performance applications today.

See our website for information on our innovative products and services.



www.pferd.com

New in the PFERD product range

TC burrs – MICRO cut for finishing work

2

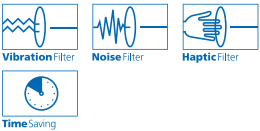





Set 1303 MICRO

The 1303 MICRO set contains three small tungsten carbide burrs for finishing in the most common shapes and dimensions. The sturdy plastic box protects the tools from dirt and damage.

- Contents:**
 3 small tungsten carbide burrs,
 shank dia. 3 mm, MICRO cut
 1 piece each:
- ZYA 0313/3 MICRO
 - WRC 0313/3 MICRO
 - RBF 0313/3 MICRO

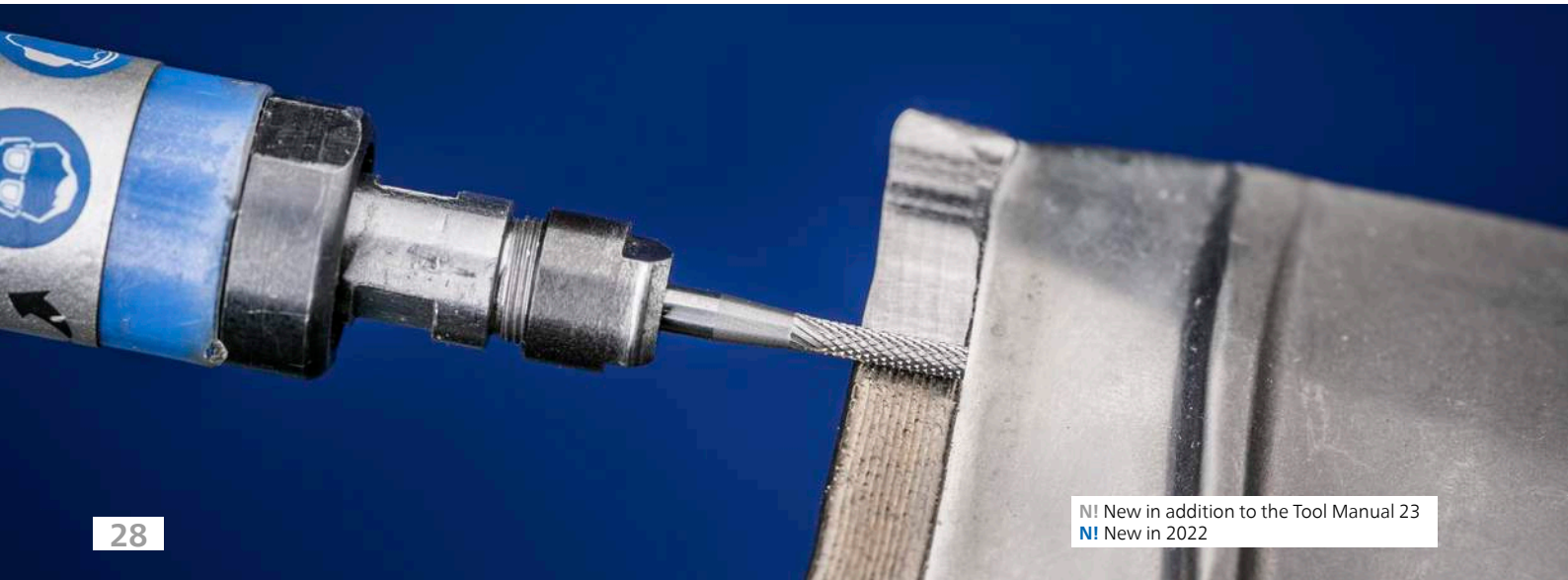
PFERDVALUE:



Cut MICRO		Description
		
EAN 4007220		
Shank dia. 3 mm		
N! 226667	1	1303 MICRO



Here you will find the entire range of TC burrs with the MICRO cut.



Set 1306 MICRO

The 1306 MICRO set contains three tungsten carbide burrs for finishing in the most common shapes and dimensions. The sturdy plastic box protects the tools from dirt and damage.

Contents:

3 tungsten carbide burrs,
shank dia. 6 mm, MICRO cut

1 piece each:

- ZYAS 0616/6 MICRO
- WRC 0616/6 MICRO
- RBF 0618/6 MICRO

PFERDVALUE:



Vibration Filter



Noise Filter



Haptic Filter





Time Saving



2



Cut		Description
MICRO		
		
EAN 4007220		
Shank dia. 6 mm		
N! 226674	1	1306 MICRO

Set 1312 MICRO

The 1312 MICRO set contains three tungsten carbide burrs for finishing in the most common shapes and dimensions. The sturdy plastic box protects the tools from dirt and damage.

Contents:

3 tungsten carbide burrs,
shank dia. 6 mm, MICRO cut

1 piece each:

- ZYAS 1225/6 MICRO
- WRC 1225/6 MICRO
- RBF 1225/6 MICRO

PFERDVALUE:



Vibration Filter



Noise Filter





Haptic Filter



Time Saving



Cut		Description
MICRO		
		
EAN 4007220		
Shank dia. 6 mm		
N! 226681	1	1312 MICRO



New in the PFERD product range

TC copy burrs – For tool and mould construction

TC copy burrs by PFERD are the perfect tools for levelling elevations, such as weld seams. Thanks to the uncut area, the weld seam can be adjusted to the level of the surrounding surface without this being damaged. Copy milling burrs are used in particular in the repair of cutting and punching blades in tool and mould construction.

Advantages:

- Long tool life and high surface quality.
- The uncut area provides optimum contour guidance and protects the workpiece against damage.
- Reduction in processing time.

Materials that can be worked:

- Steel and cast steel
- Tool steels, hardened, heat-treated steels over 1,200 N/mm²

Applications:

- Levelling
- Work on weld seams

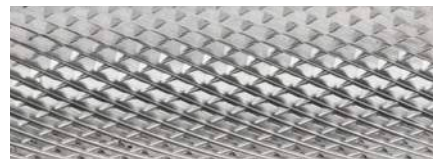
Recommendations for use:

- For accurate contour guidance, copy burrs can be used with guide aids.
- Please observe the rotational speed recommendations.

Matching tool drives:

- Straight grinders
- Flexible shaft drive

MICRO cut



TC copy burrs with MICRO cut were designed especially for fine stock removal and they produce an excellent surface quality. Almost all materials up to a hardness of 68 HRC can be machined.

Cut 4



TC copy burrs with cut 4 are designed for coarse stock removal.

Recommended rotational speed range [RPM]

To determine the recommended cutting speed range [m/min], please proceed as follows:

- 1 Select the material group to be machined.
- 2 Determine the type of application.
- 3 Select the cut.
- 4 Establish the cutting speed range.

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

- 5 Select the required burr diameter.
- 6 The cutting speed range and the burr diameter determine the recommended rotational speed range.



1 Material group			2 Application	3 Cut	4 Cutting speed
Steel, cast steel	Steels up to 1,200 N/mm ² (< 38 HRC)	Construction steels, carbon steels, tool steels, non-alloyed steels, case-hardened steels, cast steel, alloyed steels	Coarse stock removal	4	450–600 m/min
			Fine stock removal	MICRO	600–750 m/min
	Hardened, heat-treated steels over 1,200 N/mm ² (> 38 HRC)	Tool steels, tempering steels, alloyed steels, cast steel	Coarse stock removal	4	250–350 m/min
			Fine stock removal	MICRO	450–600 m/min

Example:

TC copy burr,
MICRO cut,
burr dia. 8 mm.
Fine stock removal on steels
up to 1,200 N/mm².
Cutting speed: 600–750 m/min
Rotational speed range:
24,000–30,000 RPM

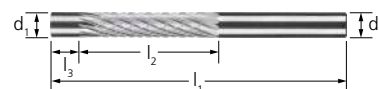
5 Burr dia. [mm]	6 Cutting speeds [m/min]				
	250	350	450	600	750
	Rotational speeds [RPM]				
3	27,000	37,000	48,000	64,000	80,000
6	13,000	19,000	24,000	32,000	40,000
8	10,000	14,000	18,000	24,000	30,000




Cylindrical shape ZYA without end cut

Cylindrical burr.

Ordering notes:

- Please complete the description with the desired cut.



d ₁ [mm]	l ₂ [mm]	l ₃ [mm]	d ₂ [mm]	l ₁ [mm]	Cut			Description
					MICRO 	4 		
					EAN 4007220			

Shank dia. 3 mm

3	25	7	3	65	N! 244838	N! 244845	1	ZYA 0325/3 ... 7MM KFS
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Shank dia. 6 mm

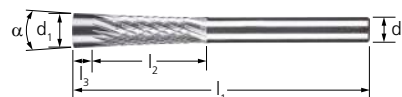
6	30	7	6	70	N! 244982	N! 244890	1	ZYA 0630/6 ... 7MM KFS
8	30	7	6	77	N! 244906	N! 244913	1	ZYA 0830/6 ... 7MM KFS




Inverted cones WKN without end cut

Inverted cone-shaped burr, tapered towards the shank. Inverted cones WKN are especially well-suited for processing punching tools that are used for processing aluminium.

Ordering notes:

- Please complete the description with the desired cut.



d ₁ [mm]	l ₂ [mm]	l ₃ [mm]	d ₂ [mm]	l ₁ [mm]	α	Cut			Description
						MICRO 	4 		
						EAN 4007220			

Shank dia. 6 mm

8	26	7	6	73	4°	N! 244937	N! 244920	1	WKN 0826/6 ... 7MM KFS
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Products made to order

As a tool manufacturer with over 200 years of experience, PFERD can call on comprehensive expertise in the manufacture of tool solutions. The findings from our internal research and development, as well as from day-to-day practice on site with our customers, contribute to the development of each individual PFERD tool. Our production plant in Marienheide, Germany, works with state-of-the-art technology and there are many ways in which we can respond to individual needs.

Further TC copy burr cuts and dimensions are available as made-to-order products. For the production of these types of burrs, the uncut and cut lengths must be defined. Please note: The transition area may be up to 8 mm long!

Please contact us for further information. Your PFERD sales representative will be happy to provide you with further assistance.

New in the PFERD product range

HSS rotary cutters – For fine and coarse stock removal

2






Set 85 Z3

The 85 Z3 set contains three HSS rotary cutters for fine and coarse stock removal in the most common shapes and dimensions. The sturdy plastic box protects the tools from dirt and damage.

Contents:

- 3 HSS rotary cutters,
shank dia. 6 mm,
3 cut
- 1 piece each:
- A 0616ST/6 Z3
- C 0616/6 Z3
- K 0618/6 Z3

Cut		Description
3		
		
EAN 4007220		
Shank dia. 6 mm		
N! 229637	1	85 Z3





Set 86 Z3

The 86 Z3 set contains three HSS rotary cutters for fine and coarse stock removal in the most common shapes and dimensions. The sturdy plastic box protects the tools from dirt and damage.

Contents:

- 3 HSS rotary cutters,
shank dia. 6 mm,
3 cut
- 1 piece each:
- A 1225ST/6 Z3
- C 1225/6 Z3
- K 1225/6 Z3

Cut		Description
3		
		
EAN 4007220		
Shank dia. 6 mm		
N! 229941	1	86 Z3



Here you will find the entire range of HSS rotary cutters for fine and coarse stock removal, incl. cuts 1, 2, 3 and ALU.

The innovative **ALUMASTER** High Speed Disc is a unique tool with an extremely high stock removal rate. It is ideal for processing aluminium as it does not generate hazardous or explosive dust. It consists of specially developed tungsten carbide cutting inserts, which are fixed to the High Speed Disc.

Advantages:

- Does not generate hazardous or explosive dust.
- An extraction system is not required.
- Cost-effective and eco-friendly alternative to grinding wheels and flap discs of comparable weight.
- Innovative and robust cut geometry:
 - The highest degree of safety
 - Extreme durability
 - Comfortable work
- Specially developed, turnable and replaceable tungsten carbide cutting inserts.
- Exceptionally high stock removal rate.

Materials that can be worked:

- Aluminium alloys
- Brass, copper, zinc
- Bronze
- Plastics
- Fibre-reinforced duroplastics (GRP, CRP)

Industries:

- Shipbuilding and yacht construction
- Wagon construction
- Silo and container construction
- Vehicle construction



2

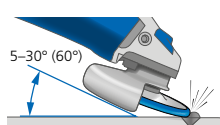


Recommendations for use:

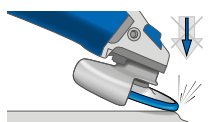
The tool has primarily been designed for use on aluminium, wrought aluminium alloys and cast aluminium. Non-ferrous metals with a relatively low strength and fibre-reinforced plastics can also be machined. This must be checked for the specific application on a case-by-case basis.



- An optimum rotational speed and power output for the tool drive are required for cost-effective use of the **ALUMASTER** High Speed Disc.
 - **HSD-F and HSD-R 115/125 types:**
Max. 13,300 RPM
Pneumatic angle grinders: power output of 1,000 watts or more
Electric angle grinders: rated output of 1,400 watts or more
 - **HSD-R 50 type:**
Max. 25,000 RPM
Pneumatic angle grinders: power output of 350 watts or more
Pneumatic straight grinder: power output of 350 watts or more
Electric straight grinders: rated output of 500 watts or more



- Use the **ALUMASTER** High Speed Disc HSD-F at an angle of 5–30°, or up to 60° in special cases.
- Do not push the tool deep into the workpiece. The milling disc is not a cutting tool.



- Do not exert unnecessarily high forces on the angle grinder. The **ALUMASTER** High Speed Disc already works with low forces.
- When machining workpiece edges, cut along the edge, never across the edge.
- Do not decelerate the tool on the workpiece. The cutting inserts may break.

PFERDVALUE:

PFERDERGONOMICS recommends **ALUMASTER** High Speed Discs as an innovative tool solution for processing aluminium as they do not generate hazardous or explosive dust.



PFERDEFFICIENCY recommends **ALUMASTER** High Speed Discs for long fatigue-free and resource-saving work with perfect results in a very short period of time.



New in the PFERD product range

ALUMASTER High Speed Disc



The fast way to the best tool

Description	Applications	Matching tool drives	Tool
 <p>The HSD-F 115/125 type was specially developed for use on angle grinders with a diameter of 115/125 mm and for flat use.</p>	<ul style="list-style-type: none"> ■ Milling out ■ Work on weld seams ■ Work on fillet welds ■ Work on edges/chamfering ■ Surface work 	<p>Pneumatic angle grinder PWT 26/120 HV M14</p> <p>Ordering data: EAN 4007220071205</p>  <p>Electric angle grinder UWER 18/110 SI</p> <p>Ordering data: EAN 4007220957127</p> 	<p>ALUMASTER High Speed Disc HSD-F 115/125</p>  <p>See Tool Manual 23, catalogue section 2, page 102.</p>
 <p>The HSD-R 115/125 type is a refinement of HSD-F and is also suitable for applications such as peripheral milling and milling out root welds.</p>	<ul style="list-style-type: none"> ■ Milling out ■ Work on weld seams ■ Work on fillet welds ■ Work on edges/chamfering ■ Surface work ■ Milling out root welds ■ Peripheral milling 	<p>Pneumatic angle grinder PWT 26/120 HV M14</p> <p>Ordering data: EAN 4007220071205</p>  <p>Electric angle grinder UWER 18/110 SI</p> <p>Ordering data: EAN 4007220957127</p> 	<p>ALUMASTER High Speed Disc HSD-R 115/125</p>  <p>See page 36.</p>
 <p>Due to its small size, the HSD-R 50 type is highly suitable for working on hard-to-reach areas and delicate components. Thanks to the specially developed holder, the ALUMASTER High Speed Disc HSD-R 50 cannot only be used on angle grinders (mounting dia. 10 mm), but also on straight grinders and flexible shaft drives.</p>	<ul style="list-style-type: none"> ■ Milling out ■ Work on weld seams ■ Work on fillet welds ■ Work on edges/chamfering ■ Surface work ■ Milling out root welds ■ Peripheral milling 	<p>Flexible shaft drive Mammoth Electronic ME 22/240</p> <p>Ordering data: EAN 4007220101681</p>  <p>Pneumatic straight grinder PGAS 7/250 E-HV</p> <p>Ordering data: EAN 4007220948880</p>  <p>Pneumatic angle grinder PWSA 5/210 HV</p> <p>Ordering data: EAN 4007220177075</p> 	<p>ALUMASTER High Speed Disc HSD-R 50</p>  <p>Arbor BO 8/10 HSD-R 50</p>  <p>ALUMASTER High Speed Disc HSD-R 50 in combination with BO 8/10 HSD-R 50 arbor</p>  <p>See page 37.</p>

Detailed information and the matching tool drives can be found in our Tool Manual 23, catalogue section 9.

ALUMASTER with HICOAT coating

PFERD also offers the cutting inserts with a premium-quality HICOAT coating for lubricating aluminium casting alloys with a silicon content of 5–10 %, abrasive aluminium casting alloys with a silicon content of over 15 % and for other abrasive materials or non-ferrous metals. This prevents tool clogging and abrasive wear, even in use on these particularly demanding materials.



Advantages:

- Extremely hard.
- Very low friction coefficient.
- Very low tendency towards adhesion.
- Improved surface quality.
- Reduced burr formation.

Materials that can be worked:

- Lubricating aluminium casting alloys with silicon contents of 5–10 %
- Sticky, greasy materials
- Abrasive aluminium casting alloys with silicon contents of > 15 %
- Abrasive materials such as fibre-reinforced plastics (FRP)
- Non-ferrous alloys of higher strength than aluminium (bronze, brass, etc.)

Selecting suitable cutting inserts:


To determine the most suitable cutting insert, please proceed as follows:


- 1 Select the material group to be machined.
- 2 Select the cutting inserts.


1 Material group			2 Cutting inserts	
			High-performance application	Universal application
Non-ferrous metals	Soft non-ferrous metals	Aluminium alloys	HICOAT	uncoated
		Brass, copper, zinc	HICOAT	uncoated
	Hard non-ferrous metals	Hard aluminium alloys (high Si content)	HICOAT	-
		Bronze	HICOAT	-
Plastics	Fibre-reinforced plastics (GRP/CRP), thermoplastics		HICOAT	-


Safety notes:


- It is essential to tighten the flange nut using the appropriate tool, such as a face pin wrench. Clamping systems which are designed to be tightened without the use of an additional tool, i.e. which are tightened by hand, are not permissible. Suitable clamping nuts can be found in our Tool Manual 23, catalogue section 9.
- Tighten the mounting bolts of the cutting inserts using the Torx key provided. If used properly, it is designed to provide a tightening torque of around 4 Nm. Alternatively, use a torque spanner with a tightening torque of 4 Nm.
- Loose cutting inserts may break during use. Therefore, **check regularly whether they are attached securely.**
- Do not use damaged cutting inserts! They may break!
- Only use original accessories from PFERD.


 = CE-marked


 = Do not use if damaged!


 = Do not use for cutting!

 = Wear eye protection!

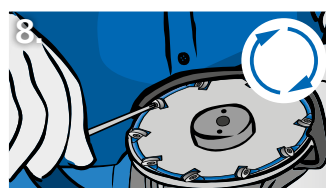
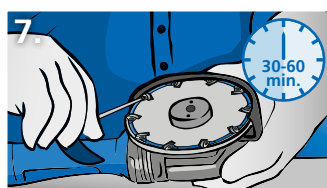
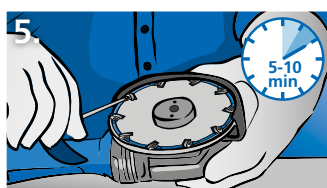
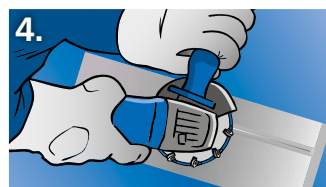
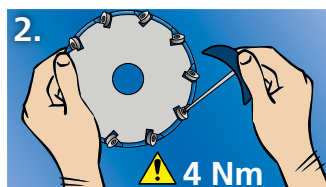
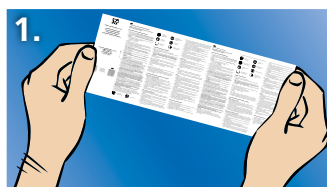
 = Wear gloves!

 = Wear hearing protection!

 = Follow the safety instructions!

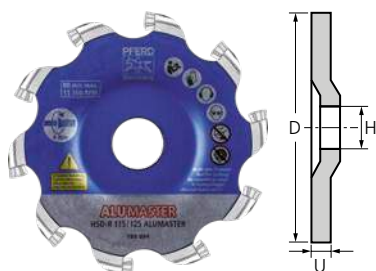
 = Observe the contact angle of 5–60° (**ALUMASTER HSD-F!**)

 4 Nm  **Tighten the bolts!**



New in the PFERD product range

ALUMASTER High Speed Disc



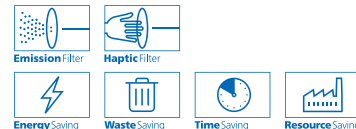
ALUMASTER High Speed Disc HSD-R

Special tool for processing aluminium alloys using an angle grinder. Also suitable for peripheral milling and milling out root welds.

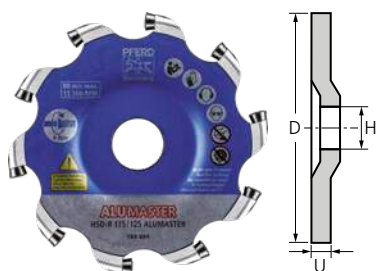
Contents:

- ALUMASTER High Speed Disc HSD-R 115/125 incl. mounted tungsten carbide cutting inserts
- Torx key, plastic box

PFERDVALUE:



D [mm]	H [mm]	U [mm]	Max. RPM	EAN 4007220	Description
115	22.23	8.0	13,300	N! 107461	1 HSD-R 115/125 ALUMASTER



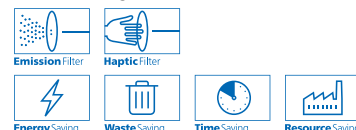
ALUMASTER High Speed Disc HSD-R HICOAT

Special tool for processing particularly challenging aluminium alloys using an angle grinder. The cutting inserts come with a HICOAT coating. Also suitable for peripheral milling and milling out root welds.

Contents:

- ALUMASTER High Speed Disc HSD-R 115/125 HICOAT incl. mounted tungsten carbide cutting inserts
- Torx key, plastic box

PFERDVALUE:



D [mm]	H [mm]	U [mm]	Max. RPM	EAN 4007220	Description
115	22.23	8.0	13,300	N! 107515	1 HSD-R 115/125 ALUMASTER HICOAT



ALUMASTER High Speed Disc HSD-R 50

Special tool for processing aluminium alloys. With the specially developed arbor, it cannot only be used on angle grinders (mounting dia. 10 mm), but also on straight grinders and flexible shaft drives. It is highly suitable for working on hard-to-reach areas and delicate components. Due to the tool diameter of 49 mm, guards are not obligatory.

Contents:

- ALUMASTER High Speed Disc HSD-R 50 incl. mounted tungsten carbide cutting inserts
- Torx key, plastic box

PFERDVALUE:



Emission Filter



Haptic Filter



Energy Saving



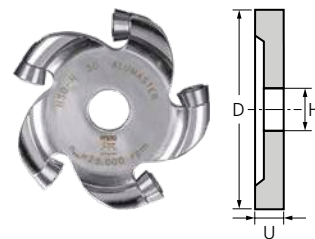
Waste Saving



Time Saving



Resource Saving



D [mm]	H [mm]	U [mm]	Max. RPM	EAN 4007220		Description
49	10	8.0	25,000	N! 156858	1	HSD-R 50 ALUMASTER

ALUMASTER High Speed Disc HSD-R 50 HICOAT

Special tool for processing particularly challenging aluminium alloys. With the specially developed arbor, it cannot only be used on angle grinders (mounting dia. 10 mm), but also on straight grinders and flexible shaft drives. The cutting inserts come with a HICOAT coating. It is highly suitable for working on hard-to-reach areas and delicate components. Due to the tool diameter of 49 mm, guards are not obligatory.

Contents:

- ALUMASTER High Speed Disc HSD-R 50 HICOAT incl. mounted tungsten carbide cutting inserts
- Torx key, plastic box

PFERDVALUE:



Emission Filter



Haptic Filter



Energy Saving



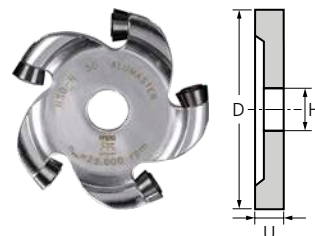
Waste Saving



Time Saving



Resource Saving



D [mm]	H [mm]	U [mm]	Max. RPM	EAN 4007220		Description
49	10	8.0	25,000	N! 156865	1	HSD-R 50 ALUMASTER HICOAT

Arbor

Arbor for ALUMASTER High Speed Disc HSD-R 50

Suitable for use on flexible shaft drives and straight grinders.



d ₁ [mm]	l ₁ [mm]	l ₂ [mm]	Suitable for	EAN 4007220		Description
8	33	50	HSD-R 50	N! 156919	1	BO 8/10 HSD-R 50

New in the PFERD product range

ALUMASTER High Speed Disc – Accessories




Cutting insert sets, HICOAT cutting insert sets

Cutting insert sets for **ALUMASTER** High Speed Disc.

Ordering notes:

- The sets are available with or without HICOAT coating.

D [mm]	Contents [pcs.]	Suitable for	EAN 4007220		Description
8	5	ALUMASTER HSD-R 50	N! 156872	1	WSP-A-8R 50 ALUMASTER
			N! 156889	1	WSP-A-8R 50 ALUMASTER HICOAT
	10	ALUMASTER HSD-R 115/125	N! 107492	1	WSP-A-8R 115/125 ALUMASTER
			N! 107522	1	WSP-A-8R 115/125 ALUMASTER HICOAT



ALUMASTER service set, ALUMASTER HICOAT service set


For exchanging individual cutting inserts on the **ALUMASTER** High Speed Disc.

Set contains:

- 2 cutting inserts
- 2 bolts
- 1 Torx key

Ordering notes:

- The sets are available with or without HICOAT coating.

Suitable for	EAN 4007220		Description
ALUMASTER HSD-R 50	N! 156896	1	ASS-R8 50 ALUMASTER
	N! 156902	1	ASS-R8 50 ALUMASTER HICOAT
ALUMASTER HSD-R 115/125	N! 107539	1	ASS-R8 115/125 ALUMASTER
	N! 107546	1	ASS-R8 115/125 ALUMASTER HICOAT

The High Speed Torus Cutter is an unparalleled tool for use on robots with an extremely high stock removal rate. Unlike grinding tools, the cutter does not generate hazardous or explosive dust, making it ideal for a variety of applications on aluminium materials. Thanks to its small design, the High Speed Torus Cutter is the ideal tool for work on hard-to-reach places such as grooves, pockets and narrow radii and contours.

The High Speed Torus Cutter is used with two tungsten carbide cutting inserts. The cutting inserts are not included in delivery. Detailed information and ordering data can be found on page 40.

Advantages:

- Specially developed design for use in hard-to-reach areas.
- Does not generate hazardous or explosive dust.
- An extraction system is not required.
- Exceptionally high stock removal rate.
- Reduced vibrations thanks to small contact surface.
- Turnable and replaceable tungsten carbide cutting inserts.
- Can be used face-down.

Applications:

- Milling out
- Deburring
- Work on weld seams
- Work on fillet welds
- Work on edges/chamfering
- Surface work
- Circumferential milling
- Face milling
- Cleaning aluminium casting

Materials that can be worked:

- Aluminium alloys
- Brass, copper, zinc
- Bronze
- Plastics
- Fibre-reinforced thermosetting plastics (GRP, CRP)

Matching tool drives:

- Robots with high-frequency spindle
- Robots with air-powered spindle

Industries:

- Shipbuilding and yacht construction
- Rail car construction
- Silo and container construction
- Vehicle construction
- Foundries



PFERDVALUE:

PFERDERGONOMICS recommends the High Speed Torus Cutter as an innovative tool solution for processing aluminium as it does not generate hazardous or explosive dust.



PFERDEFFICIENCY recommends the High Speed Torus Cutter for achieving perfect results as quickly as possible while conserving resources.

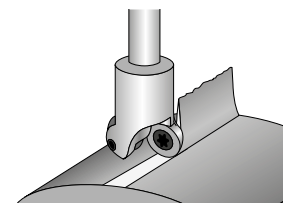


Recommendations for use:

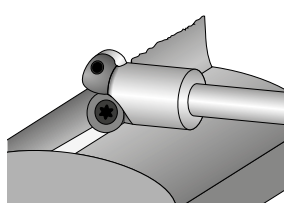
The tool has primarily been designed for use on aluminium, wrought aluminium alloys and cast aluminium. Non-ferrous metals with a relatively low strength and fibre-reinforced plastics can also be machined. This must be checked for the specific application on a case-by-case basis.



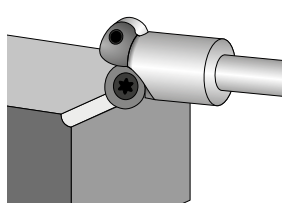
- The optimum rotational speed and power output for the tool drive are required for cost-effective use of the cutter. Recommended rotational speed range: 20,000–30,000 RPM



Face milling



Circumferential milling



Edge milling

- The High Speed Torus Cutter can be used on both the circumference and face.
- The cutter perfectly complements the **ALUMASTER** High Speed Disc in the HSD-R 50 version and burrs with the ALU cut.

Safety notes:

- Tighten the mounting bolts of the cutting inserts using a Torx wrench TX 15. The tightening torque should be approx. 4 Nm. Alternatively, use a torque spanner with a tightening torque of 4 Nm.
- Loose cutting inserts may break during use. **Therefore, check regularly whether they are attached securely.**
- Do not use damaged cutting inserts! They may break!
- Only use original accessories from PFERD.



= Do not use if damaged!



= Follow the safety instructions!



Tighten the bolts!

New in the PFERD product range

High Speed Torus Cutter



High Speed Torus Cutter HSC-T 20

High Speed Torus Cutter including two mounting bolts.

Ordering notes:

- The cutting inserts are not included in delivery. Please order them separately.

PFERDVALUE:



d ₁ [mm]	l ₁ [mm]	d ₂ [mm]	Suitable for cutting insert diameter [mm]	EAN 4007220	RPM		Description
Shank dia. 8 mm							
20	60	8	10	N! 414965	20,000–30,000	1	HSC-T 20 RS8

Accessories



Cutting insert set

Cutting insert set for High Speed Torus Cutter HSC-T 20.

D [mm]	Contents [pcs.]	Suitable for	EAN 4007220		Description
10	4	High Speed Torus Cutter HSC-T 20 RS8	N! 414972	1	WSP-T-10R ALU



Bolt set for the cutting inserts

Bolt set for the PFERD cutting inserts of the High Speed Torus Cutter HSC-T 20.

Suitable for cutting inserts	Contents [pcs.]	EAN 4007220		Description
WSP-T-10R ALU	4	N! 414989	1	WSP-S M4 HSC-T



High Speed Torus Cutter service set

For replacing individual cutting inserts on the High Speed Torus Cutter HSC-T 20.

Set contains:

- 1 cutting insert
- 1 bolt
- 1 Torx wrench TX 15

Suitable for	EAN 4007220		Description
High Speed Torus Cutter HSC-T 20 RS8	N! 414996	1	TSS-10R ALU

Air-powered spindles from PFERD

PFERD offers suitable air-powered spindles for using the High Speed Torus Cutter.

PGAS 4/280 RS:
EAN 4007220234068



PGAS 4/220 RS:
EAN 4007220228852



For detailed information please see pages 143 and 144.

HSS hole saws

Hole saws made from tough, shatter-proof, sturdy HSS bimetal for cutting out holes (dia. 152.0–210.0 aeration and ventilation pipes).

Thread:

5/8–18 UNF

Matching arbors:

LSS 2


Ordering notes:

- Please refer to the table below for the maximum cutting depth.
- Please order hole saw arbors separately. Detailed information and ordering data on hole saw arbors can be found on page 42.



2



d ₁ [mm]	d ₁ [inch]	EAN 4007220	Max. cutting depth [mm]	Max. cutting depth [inch]	Rec. RPM Steel	Rec. RPM Stainless steel (INOX)	Rec. RPM Non- ferrous metals	Rec. RPM Plastics		Description
160	6 5/16	NI 235645	31	1 1/4	52	23	67	85	1	LS 160
168	6 5/8	NI 235638	31	1 1/4	50	23	63	82	1	LS 168
177	7	NI 235652	31	1 1/4	47	22	60	77	1	LS 177
210	8 1/4	NI 235669	31	1 1/4	40	18	50	65	1	LS 210




Here you will find the entire range of HSS hole saws.



New in the PFERD product range

HSS hole saws – Accessories

LSS 1 

LSS 2 

LSS 4 

Hole saw arbors LSS


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

Purpose of the ejection spring

It prevents the sawn-out material from becoming jammed between the inner walls of the hole saw and the drill. The spring force ejects the material. Should this effect not be required for a particular application, e.g. pipes that are already installed, the spring can easily be removed manually without the help of tools.




Ordering notes:

- Available in three sizes.
- Select the appropriate arbor, taking into account the hole saw diameter and available tool drive.
- Hole saw arbors LSS 1 and LSS 2 are supplied with the HSS pilot drill LSB 6/60 and an ejection spring.
- Hole saw arbors LSS 4 are supplied with the HSS pilot drill LSB 6/90 and an ejection spring.

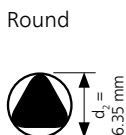
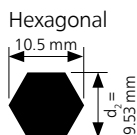
Suitable for hole saws	d ₂ [mm]	Width across flats (AF) [mm]	Shank type	EAN 4007220	Thread		Description
LS 14–30	10.5	9.53	hexagonal	062630	1/2–20 UNF	1	LSS 1
LS 32–210	10.5	9.53	hexagonal	062647	5/8–18 UNF	1	LSS 2
LS 14–30	6.35	-	round	062661	1/2–20 UNF	1	LSS 4



Shank shapes

The adjacent tables provide information on the arbor shapes and dimensions for the LSS hole saw arbors and LSB pilot drills. The matching hole saws and hole saw arbors are indicated.

PFERD hole saw arbor	d ₂ [mm]	Width across flats (AF) [mm]	Shank shape	For PFERD hole saws
LSS 1	10.5	9.53		LS 14 to LS 30
LSS 2	10.5	9.53		LS 32 to LS 210
LSS 4	6.35	-		LS 14 to LS 30

Shank dimensions [mm]

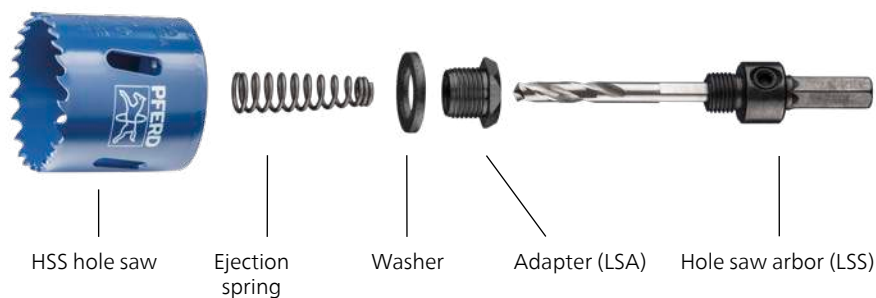


PFERD pilot drill	d ₂ [mm]	d ₂ [inch]	Shank shape	For PFERD hole saw arbor
LSB 6/60	6.35	1/4		LSS 1, LSS 2
LSB 6/90	6.35	1/4		LSS 4

Ejection spring

All hole saw arbors are delivered with an ejection spring for better ejection of the sawn material.

Before using the tool, this ejection spring can be installed/removed without additional tools if required. Screw the ejection spring onto the drill from the side with the smaller diameter up to its limit. It is also possible to use the ejection spring with the LSA adapter and washer.



Quick-mounting system for hole saws, adapter sets

PFERD offers a clamping system for easily and quickly using HSS hole saws. The quick-mounting system and the two three-part adapter sets, which have been tailored to the hole saw diameter, enable PFERD HSS hole saws to be used easily and conveniently on all conventional power drills.

Advantages:

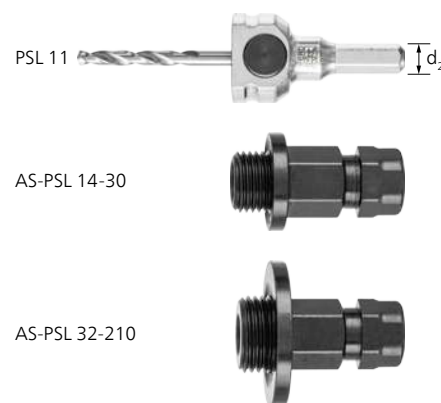
- Easily and quickly swap different hole saws.
- After the application is completed, the hole saw and quick-mounting system can be separated without the use of additional tools by simply pressing a button.
- Interchangeable HSS pilot drill.


Recommendations for use:

- Screw the adapters quickly and easily into the desired hole saw and clamp them in the quick-mounting system.

Ordering notes:

- Adapter set AS-PSL 14-30 is available for a hole saw diameter of 14–30 mm, and adapter set AS-PSL 32-210 is available for a hole saw diameter of 32–210 mm. Both adapter sets contain three adapters with the same dimensions.
- The quick-mounting system PSL 11 will be delivered with an HSS pilot drill.



Suitable for hole saws	Suitable for hole saws	EAN 4007220	d ₂ [mm]	Width across flats (AF) [mm]		Description
LS 14-210	hexagonal	900185	12.2	11	1	PSL 11
LS 14-30	-	900215	-	-	1	AS-PSL 14-30
LS 32-210	-	900192	-	-	1	AS-PSL 32-210

Example combination




HSS pilot drill LSB

HSS pilot drills for HSS hole saw arbors and quick-mounting systems for hole saws.

Ordering notes:

- Hole saw arbors LSS 1 and LSS 2 are supplied with the HSS pilot drill LSB 6/60.
- The HSS pilot drill LSB 6/90 can be used for the quick-mounting system PSL 11.



Suitable for hole saws	Suitable arbors	d ₂ [mm]	d ₂ [inch]	Suitable for hole saws	EAN 4007220		Description
LS 14-210	LSS 1, LSS 2	6.35	1/4	round	319284	1	LSB 6/60
	LSS 4	6.35	1/4	round	062708	1	LSB 6/90

New in the PFERD product range

Drilling tools – HSS spiral drills

Drilling tools with cross grinding for industrial uses. Fully ground, right-hand turning versions that produce precise drill holes thanks to their high concentricity and exact centring. PFERD offers spiral drills in the STEEL (118° point angle) and INOX (135° point angle) types.

Advantages:

- Very good chip removal.
- High concentricity.
- Exact centring and low feed force thanks to cross grinding.

Applications:

- Drilling

Recommendations for use:

- Observe the recommended rotational speed.
- When drilling metals, use a high-quality cutting oil or cooling lubricant, if possible. This facilitates smooth running and extends the drill tool life. Exception: when working on aluminium, use kerosene instead of cutting oil.
- In order to avoid corrosion, remove any particles which develop when working on stainless steel (INOX) from the workpiece. Clean the workpiece chemically or mechanically (etching/polishing, etc.).

Safety notes:



= Wear eye protection!



= Follow the safety instructions!

Matching tool drives:

- Power drills
- Column drills
- Machine tools
- Robot

HSSG (M2) STEEL 118° type



- Suitable for universal use on steel, cast steel, grey cast iron, annealed cast iron, bronze, brass, aluminium.
- Easy centring.
- Long tool life.
- Good chip removal.

HSSE Co5 (M35) INOX 135° type



- Particularly well suited for tough and hard materials, such as alloyed and high-strength steel, stainless steel (INOX).
- Robust tip profile.
- Very long tool life.
- Good chip removal.
- Very good temperature resistance due to Co content.

Example applications for STEEL/INOX HSS spiral drills

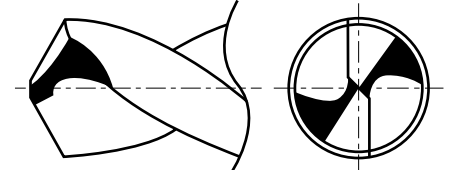
Dia. [mm]	Applications
1.6	Core hole for M2 thread
2.5	Core hole for M3 thread, drilled hole dia. for blind and special blind rivets dia. 2.4 mm
3.1	Drilled hole dia. for blind and special blind rivets dia. 3.0 mm
3.3	Core hole for M4 thread and drilled hole dia. for blind and special blind rivets dia. 3.2 mm
3.5	Core hole for metric fine thread MF 4 x 0.5 mm
4.0	Core hole for metric fine thread MF 4.5 x 0.5 mm
4.1	Drilled hole dia. for blind and special blind rivets dia. 4.0 mm
4.2	Core hole for M5 thread
4.5	Core hole for metric fine thread MF 5 x 0.5 mm
5.0	Core hole for M6 thread and metric fine thread MF 5.5 x 0.5 mm
5.1	Drilled hole dia. for blind and special blind rivets dia. 5.0 mm

Dia. [mm]	Applications
5.2	Drilled hole dia. for blind and special blind rivets dia. 5.1 mm
5.3	Drilled hole dia. for blind and special blind rivets dia. 5.2 mm
5.5	Core hole for metric fine thread MF 6 x 0.5 mm
6.0	Core hole for M7 thread
6.5	Core hole for metric fine thread MF 7 x 0.5 and drilled hole dia. for blind and special blind rivets dia. 6.4 mm
6.8	Core hole for M8 thread
7.0	Core hole for metric fine thread MF 8 x 1 mm
7.5	Core hole for metric fine thread MF 8 x 0.5 mm
8.0	Core hole for metric fine thread MF 9 x 1 mm
8.5	Core hole for M10 thread and metric fine thread MF 9 x 0.5 mm
9.0	Core hole for metric fine thread MF 10 x 1 mm

Dia. [mm]	Applications
9.5	Core hole for metric fine thread MF 10 x 0.5 mm
10.0	Core hole for metric fine thread MF 11 x 1 mm
10.2	Core hole for M12 thread
10.5	Core hole for metric fine thread MF 12 x 1.5 mm
11.0	Core hole for metric fine thread MF 12 x 1 mm
11.5	Core hole for metric fine thread MF 12 x 0.5 mm and metric fine thread MF 13 x 1.5 mm
12.0	Core hole for M14 thread and metric fine thread MF 13 x 1 mm
12.5	Core hole for metric fine thread MF 13 x 0.5 mm and metric fine thread MF 14 x 1.5 mm
13.0	Core hole for metric fine thread MF 14 x 1 mm

Fully ground spiral drill with cross grinding

PFERD drills are completely ground spiral drills: they are precision ground both in the chip flute and the guide chamfer as well as at the drill tip. They also have cross grinding. This drill is suitable for highly precise positioning on the workpiece and supports centring during drilling. This grinding finish even cuts at the centre of the drill tip and reduces the feed forces during use. Spiral drills with cross grinding are suitable for purposes including machining of difficult-to-machine materials like chromium-nickel steel.



2



Recommended rotational speed range [RPM]

To determine the recommended cutting speed range [m/min], please proceed as follows:

- ❶ Select the material group to be machined.
- ❷ Select the type.
- ❸ Establish the cutting speed range.

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

- ❹ Select the required diameter.
- ❺ The cutting speed range and the diameter determine the recommended rotational speed range.

❶ Material group			❷ Type	❸ Cutting speed
Steel, cast steel	Steels up to 700 N/mm ² (< 220 HB)	Construction steels, carbon steels, tool steels, alloyed and non-alloyed steels, case-hardened steels, cast steel	STEEL	25–35 m/min
	Steels over 700 N/mm ² (> 220 HB)		STEEL	20–25 m/min
			INOX	
Stainless steel (INOX)	Rust and acid-resistant steels	Austenitic and ferritic stainless steels	INOX	10–20 m/min
Non-ferrous metals	Soft non-ferrous metals	Aluminium alloys Brass, copper, zinc	STEEL	30–60 m/min
			INOX	
	Hard non-ferrous metals	Bronze, titaniumum/titanium alloys, hard aluminium alloys (high Si content)	STEEL	25–50 m/min
			INOX	
Cast iron	Grey cast iron, white cast iron	Cast iron with flake graphite EN-GJL (GG), with nodular graphite/nodular cast iron EN-GJS (GGG), white annealed cast iron EN-GJMW (GTW), black cast iron EN-GJMB (GTS)	STEEL	10–25 m/min
			INOX	
Plastics, other materials	Fibre-reinforced thermoplastics and duroplastics, hard rubber, wood		STEEL	15–40 m/min
			INOX	



New in the PFERD product range

Drilling tools – HSS spiral drills

Example:

Spiral drill,
SPB DIN 338 HSSG N 12,0 STEEL,
Tool dia. 12 mm.

Steels up to 700 N/mm².

Cutting speed: 25–35 m/min.

Rotational speed range: 650–950 RPM

④ Tool dia. [mm]	⑤ Cutting speeds [m/min]								
	10	15	20	25	30	35	40	50	60
	Rotational speeds [RPM]								
1.00	3,200	4,800	6,350	7,950	9,550	11,150	12,750	15,900	19,100
1.50	2,100	3,200	4,250	5,300	6,350	7,450	8,500	10,600	12,750
1.60	2,000	3,000	4,000	5,000	6,000	7,000	8,000	10,000	12,000
2.00	1,600	2,400	3,200	4,000	4,800	5,550	6,350	7,950	9,550
2.50	1,250	1,900	2,550	3,200	3,800	4,450	5,100	6,350	7,650
3.00	1,050	1,600	2,100	2,650	3,200	3,700	4,250	5,300	6,350
3.10	1,000	1,550	2,050	2,600	3,100	3,600	4,100	5,150	6,200
3.30	950	1,450	1,950	2,400	2,900	3,400	3,850	4,850	5,800
3.40	900	1,400	1,900	2,350	2,800	3,300	3,750	4,700	5,600
3.50	900	1,350	1,800	2,300	2,750	3,200	3,650	4,550	5,450
3.60	900	1,350	1,800	2,250	2,650	3,100	3,550	4,450	5,300
4.00	800	1,200	1,600	2,000	2,400	2,800	3,200	4,000	4,800
4.10	800	1,150	1,550	1,950	2,350	2,750	3,100	3,900	4,650
4.20	800	1,150	1,550	1,900	2,300	2,650	3,050	3,800	4,550
4.40	750	1,100	1,450	1,800	2,200	2,550	2,900	3,600	4,350
4.50	700	1,050	1,400	1,750	2,100	2,500	2,850	3,550	4,250
5.00	650	950	1,250	1,600	1,900	2,250	2,550	3,200	3,800
5.10	650	950	1,250	1,550	1,900	2,200	2,500	3,150	3,750
5.20	650	950	1,250	1,550	1,850	2,150	2,450	3,050	3,700
5.30	600	900	1,200	1,500	1,800	2,100	2,400	3,000	3,600
5.50	600	850	1,150	1,450	1,750	2,050	2,300	2,900	3,450
6.00	550	800	1,050	1,350	1,600	1,850	2,100	2,650	3,200
6.50	500	750	1,000	1,250	1,450	1,700	1,950	2,450	2,950
6.80	450	700	950	1,200	1,400	1,650	1,900	2,350	2,800
7.00	450	700	900	1,150	1,350	1,600	1,800	2,300	2,750
7.50	450	650	850	1,050	1,250	1,500	1,700	2,100	2,550
8.00	400	600	800	1,000	1,200	1,400	1,600	2,000	2,400
8.50	400	550	750	950	1,100	1,300	1,500	1,850	2,250
9.00	350	550	700	900	1,050	1,250	1,400	1,750	2,100
9.50	350	500	650	850	1,000	1,150	1,350	1,700	2,000
10.00	300	500	650	800	950	1,100	1,250	1,600	1,900
10.20	300	500	650	800	950	1,100	1,250	1,600	1,900
10.50	300	450	600	750	900	1,050	1,200	1,500	1,800
11.00	300	450	600	700	850	1,000	1,150	1,450	1,750
11.50	300	400	550	700	850	1,000	1,100	1,400	1,700
12.00	250	400	550	650	800	950	1,050	1,350	1,600
12.50	250	400	500	650	800	900	1,000	1,300	1,550
13.00	250	350	500	600	750	850	1,000	1,250	1,450

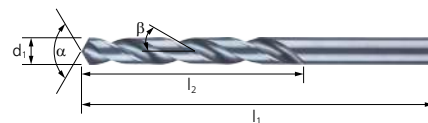



DIN 338 HSSG N STEEL spiral drills

High-performance drilling tools in the STEEL in HSSG (M2) type for industrial uses.
Fully ground, right-hand turning version with cross grinding.

Materials that can be worked:

steel, aluminium, brass, bronze, cast, plastics



d ₁ [mm]	l ₂ [mm]	l ₁ [mm]	α	Helix angles β	Type		Description
					STEEL		
					EAN 4007220		
1.00	12	34	118°	25–30°	N! 164570	10	SPB DIN 338 HSSG N 1,0 STEEL
1.50	18	40	118°	25–30°	N! 166345	10	SPB DIN 338 HSSG N 1,5 STEEL
1.60	20	43	118°	25–30°	N! 169315	10	SPB DIN 338 HSSG N 1,6 STEEL
2.00	24	49	118°	25–30°	N! 166383	10	SPB DIN 338 HSSG N 2,0 STEEL
2.50	30	57	118°	25–30°	N! 166413	10	SPB DIN 338 HSSG N 2,5 STEEL
3.00	33	61	118°	25–30°	N! 166536	10	SPB DIN 338 HSSG N 3,0 STEEL
3.10	36	65	118°	25–30°	N! 166550	10	SPB DIN 338 HSSG N 3,1 STEEL
3.30	36	65	118°	25–30°	N! 166581	10	SPB DIN 338 HSSG N 3,3 STEEL
3.40	39	70	118°	25–30°	N! 166888	10	SPB DIN 338 HSSG N 3,4 STEEL
3.50	39	70	118°	25–30°	N! 166895	10	SPB DIN 338 HSSG N 3,5 STEEL
3.60	39	70	118°	25–30°	N! 166901	10	SPB DIN 338 HSSG N 3,6 STEEL
4.00	43	75	118°	25–30°	N! 166949	10	SPB DIN 338 HSSG N 4,0 STEEL
4.10	43	75	118°	25–30°	N! 166956	10	SPB DIN 338 HSSG N 4,1 STEEL
4.20	43	75	118°	25–30°	N! 166994	10	SPB DIN 338 HSSG N 4,2 STEEL
4.40	47	80	118°	25–30°	N! 167007	10	SPB DIN 338 HSSG N 4,4 STEEL
4.50	47	80	118°	25–30°	N! 167014	10	SPB DIN 338 HSSG N 4,5 STEEL
5.00	52	86	118°	25–30°	N! 167021	10	SPB DIN 338 HSSG N 5,0 STEEL
5.10	52	86	118°	25–30°	N! 167038	10	SPB DIN 338 HSSG N 5,1 STEEL
5.20	52	86	118°	25–30°	N! 167045	10	SPB DIN 338 HSSG N 5,2 STEEL
5.30	52	86	118°	25–30°	N! 167052	10	SPB DIN 338 HSSG N 5,3 STEEL
5.50	57	93	118°	25–30°	N! 167069	10	SPB DIN 338 HSSG N 5,5 STEEL
6.00	57	93	118°	25–30°	N! 167076	10	SPB DIN 338 HSSG N 6,0 STEEL
6.50	63	101	118°	25–30°	N! 167083	10	SPB DIN 338 HSSG N 6,5 STEEL
6.80	69	109	118°	25–30°	N! 167090	10	SPB DIN 338 HSSG N 6,8 STEEL
7.00	69	109	118°	25–30°	N! 167106	10	SPB DIN 338 HSSG N 7,0 STEEL
7.50	69	109	118°	25–30°	N! 167113	10	SPB DIN 338 HSSG N 7,5 STEEL
8.00	75	117	118°	25–30°	N! 167120	10	SPB DIN 338 HSSG N 8,0 STEEL
8.50	75	117	118°	25–30°	N! 167137	10	SPB DIN 338 HSSG N 8,5 STEEL
9.00	75	125	118°	25–30°	N! 167151	10	SPB DIN 338 HSSG N 9,0 STEEL
9.50	81	125	118°	25–30°	N! 167168	10	SPB DIN 338 HSSG N 9,5 STEEL
10.00	87	133	118°	25–30°	N! 167175	10	SPB DIN 338 HSSG N 10,0 STEEL
10.20	87	133	118°	25–30°	N! 167182	5	SPB DIN 338 HSSG N 10,2 STEEL
10.50	87	133	118°	25–30°	N! 167199	5	SPB DIN 338 HSSG N 10,5 STEEL
11.00	94	142	118°	25–30°	N! 167205	5	SPB DIN 338 HSSG N 11,0 STEEL
11.50	94	142	118°	25–30°	N! 167212	5	SPB DIN 338 HSSG N 11,5 STEEL
12.00	101	151	118°	25–30°	N! 167229	5	SPB DIN 338 HSSG N 12,0 STEEL
12.50	101	151	118°	25–30°	N! 167236	5	SPB DIN 338 HSSG N 12,5 STEEL
13.00	101	151	118°	25–30°	N! 167243	5	SPB DIN 338 HSSG N 13,0 STEEL



New in the PFERD product range

Drilling tools – HSS spiral drills



DIN 338 HSSG N STEEL spiral drills, 19-piece set



The set contains 19 HSS spiral drills in the STEEL in HSSG (M2) type for industrial uses. The sturdy plastic box protects the tools from dirt and damage. The securing of the HSS spiral drills facilitates the selection and withdrawal of the tools.

Contents:

19 HSS spiral drills,
STEEL in HSSG (M2) type,
dia. 1.0 to 10.0 mm, graduations in 0.5 mm

Materials that can be worked:

steel, aluminium, brass, bronze, cast, plastics

Type		Description
STEEL		
		
EAN 4007220		
N! 168172	1	SET SPB DIN 338 HSSG N 1-10 STEEL 19TLG



DIN 338 HSSG N STEEL spiral drills, 25-piece set



The set contains 25 HSS spiral drills in the STEEL in HSSG (M2) type for industrial uses. The sturdy plastic box protects the tools from dirt and damage. The securing of the HSS spiral drills facilitates the selection and withdrawal of the tools.

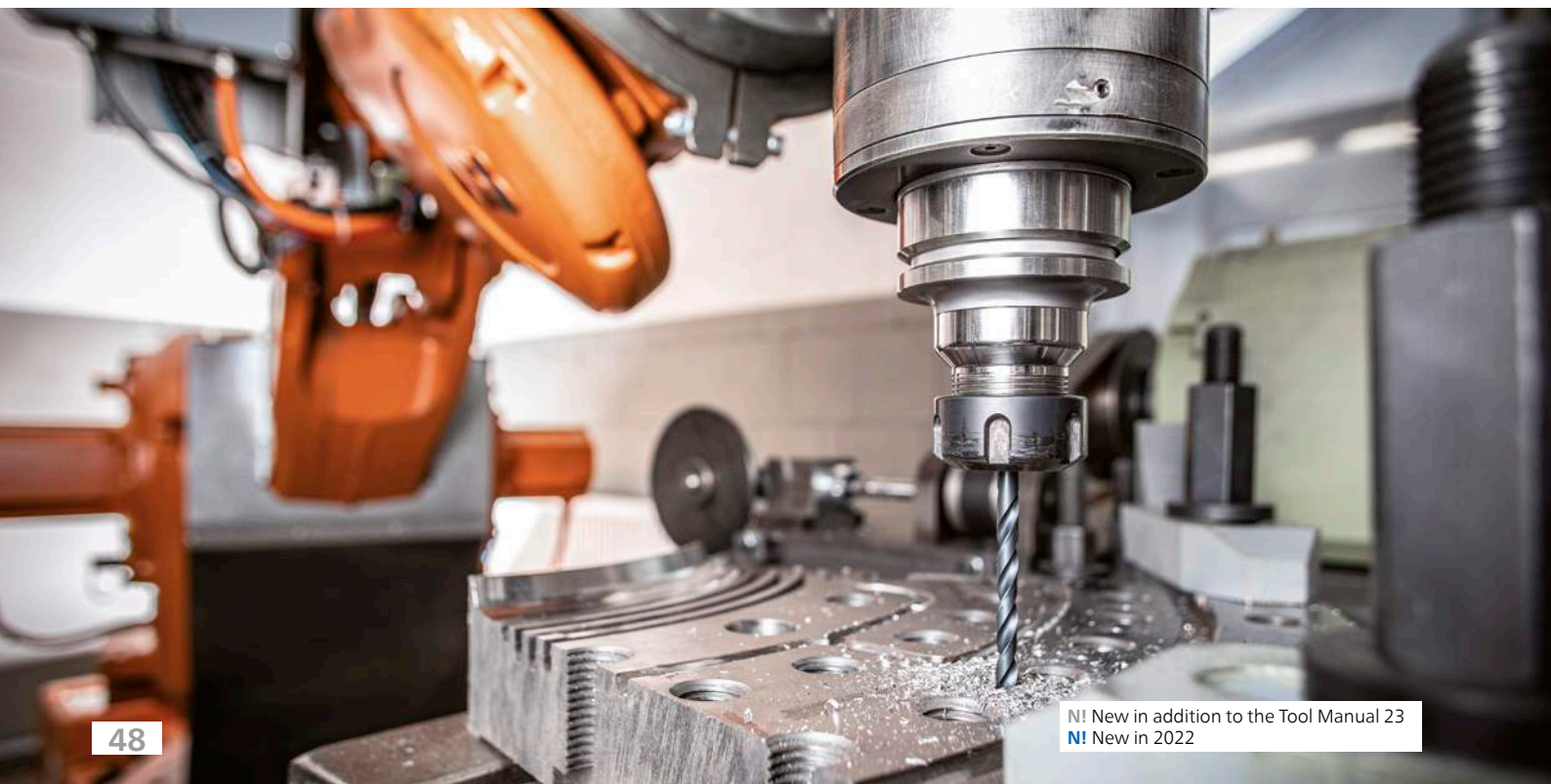
Contents:

25 HSS spiral drills,
STEEL in HSSG (M2) type
dia. 1.0 to 13.0 mm, graduations in 0.5 mm

Materials that can be worked:

steel, aluminium, brass, bronze, cast, plastics

Type		Description
STEEL		
		
EAN 4007220		
N! 168189	1	SET SPB DIN 338 HSSG N 1-13 STEEL 25TLG

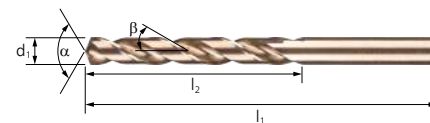









































DIN 338 HSSE N INOX spiral drills

High-performance drilling tools in the INOX in HSSE-Co5 (M35) type for industrial uses.
Fully ground, right-hand turning version with cross grinding.

Materials that can be worked:

steel, stainless steel (INOX), aluminium, brass,
bronze, cast, titanium, plastics



d ₁ [mm]	l ₂ [mm]	l ₁ [mm]	α	Helix angles β	Type		Description
					INOX		
					EAN 4007220		
1.00	12	34	135°	36°	 N! 167267	10	SPB DIN 338 HSSE N 1,0 INOX
1.50	18	40	135°	36°	 N! 167274	10	SPB DIN 338 HSSE N 1,5 INOX
1.60	20	43	135°	36°	 N! 167281	10	SPB DIN 338 HSSE N 1,6 INOX
2.00	24	49	135°	36°	 N! 167298	10	SPB DIN 338 HSSE N 2,0 INOX
2.50	30	57	135°	36°	 N! 167304	10	SPB DIN 338 HSSE N 2,5 INOX
3.00	33	61	135°	36°	 N! 167311	10	SPB DIN 338 HSSE N 3,0 INOX
3.10	36	65	135°	36°	 N! 167328	10	SPB DIN 338 HSSE N 3,1 INOX
3.30	36	65	135°	36°	 N! 167342	10	SPB DIN 338 HSSE N 3,3 INOX
3.40	39	70	135°	36°	 N! 167366	10	SPB DIN 338 HSSE N 3,4 INOX
3.50	39	70	135°	36°	 N! 167380	10	SPB DIN 338 HSSE N 3,5 INOX
3.60	39	70	135°	36°	 N! 167403	10	SPB DIN 338 HSSE N 3,6 INOX
4.00	43	75	135°	36°	 N! 167410	10	SPB DIN 338 HSSE N 4,0 INOX
4.10	43	75	135°	36°	 N! 167441	10	SPB DIN 338 HSSE N 4,1 INOX
4.20	43	75	135°	36°	 N! 167465	10	SPB DIN 338 HSSE N 4,2 INOX
4.40	47	80	135°	36°	 N! 167670	10	SPB DIN 338 HSSE N 4,4 INOX
4.50	47	80	135°	36°	 N! 167694	10	SPB DIN 338 HSSE N 4,5 INOX
5.00	52	86	135°	36°	 N! 167717	10	SPB DIN 338 HSSE N 5,0 INOX
5.10	52	86	135°	36°	 N! 167724	10	SPB DIN 338 HSSE N 5,1 INOX
5.20	52	86	135°	36°	 N! 167731	10	SPB DIN 338 HSSE N 5,2 INOX
5.30	52	86	135°	36°	 N! 167748	10	SPB DIN 338 HSSE N 5,3 INOX
5.50	57	93	135°	36°	 N! 167755	10	SPB DIN 338 HSSE N 5,5 INOX
6.00	57	93	135°	36°	 N! 167762	10	SPB DIN 338 HSSE N 6,0 INOX
6.50	63	101	135°	36°	 N! 167779	10	SPB DIN 338 HSSE N 6,5 INOX
6.80	69	109	135°	36°	 N! 167786	10	SPB DIN 338 HSSE N 6,8 INOX
7.00	69	109	135°	36°	 N! 167984	10	SPB DIN 338 HSSE N 7,0 INOX
7.50	69	109	135°	36°	 N! 167991	10	SPB DIN 338 HSSE N 7,5 INOX
8.00	75	117	135°	36°	 N! 168028	10	SPB DIN 338 HSSE N 8,0 INOX
8.50	75	117	135°	36°	 N! 169322	10	SPB DIN 338 HSSE N 8,5 INOX
9.00	75	125	135°	36°	 N! 168042	10	SPB DIN 338 HSSE N 9,0 INOX
9.50	81	125	135°	36°	 N! 168059	10	SPB DIN 338 HSSE N 9,5 INOX
10.00	87	133	135°	36°	 N! 168073	10	SPB DIN 338 HSSE N 10,0 INOX
10.20	87	133	135°	36°	 N! 168080	5	SPB DIN 338 HSSE N 10,2 INOX
10.50	87	133	135°	36°	 N! 168097	5	SPB DIN 338 HSSE N 10,5 INOX
11.00	94	142	135°	36°	 N! 168103	5	SPB DIN 338 HSSE N 11,0 INOX
11.50	94	142	135°	36°	 N! 168110	5	SPB DIN 338 HSSE N 11,5 INOX
12.00	101	151	135°	36°	 N! 168127	5	SPB DIN 338 HSSE N 12,0 INOX
12.50	101	151	135°	36°	 N! 168141	5	SPB DIN 338 HSSE N 12,5 INOX
13.00	101	151	135°	36°	 N! 168165	5	SPB DIN 338 HSSE N 13,0 INOX

New in the PFERD product range

Drilling tools – HSS spiral drills



DIN 338 HSSE N INOX spiral drills, 19-piece set



The set contains 19 HSS spiral drills in the INOX in HSSE-Co5 (M35) type for industrial uses. The sturdy plastic box protects the tools from dirt and damage. The securing of the HSS spiral drills facilitates the selection and withdrawal of the tools.

Contents:

19 HSS spiral drills,
INOX in HSSE-Co5 (M35) type,
dia. 1.0 to 10.0 mm, graduations in 0.5 mm

Materials that can be worked:

steel, stainless steel (INOX), aluminium,
brass, bronze, cast, titanium, plastics

Type		Description
INOX		
		
EAN 4007220		
N! 168196	1	SET SPB DIN 338 HSSE N 1-10 INOX 19TLG



DIN 338 HSSE N INOX spiral drills, 25-piece set



The set contains 25 HSS spiral drills in the INOX in HSSE-Co5 (M35) type for industrial uses. The sturdy plastic box protects the tools from dirt and damage. The securing of the HSS spiral drills facilitates the selection and withdrawal of the tools.

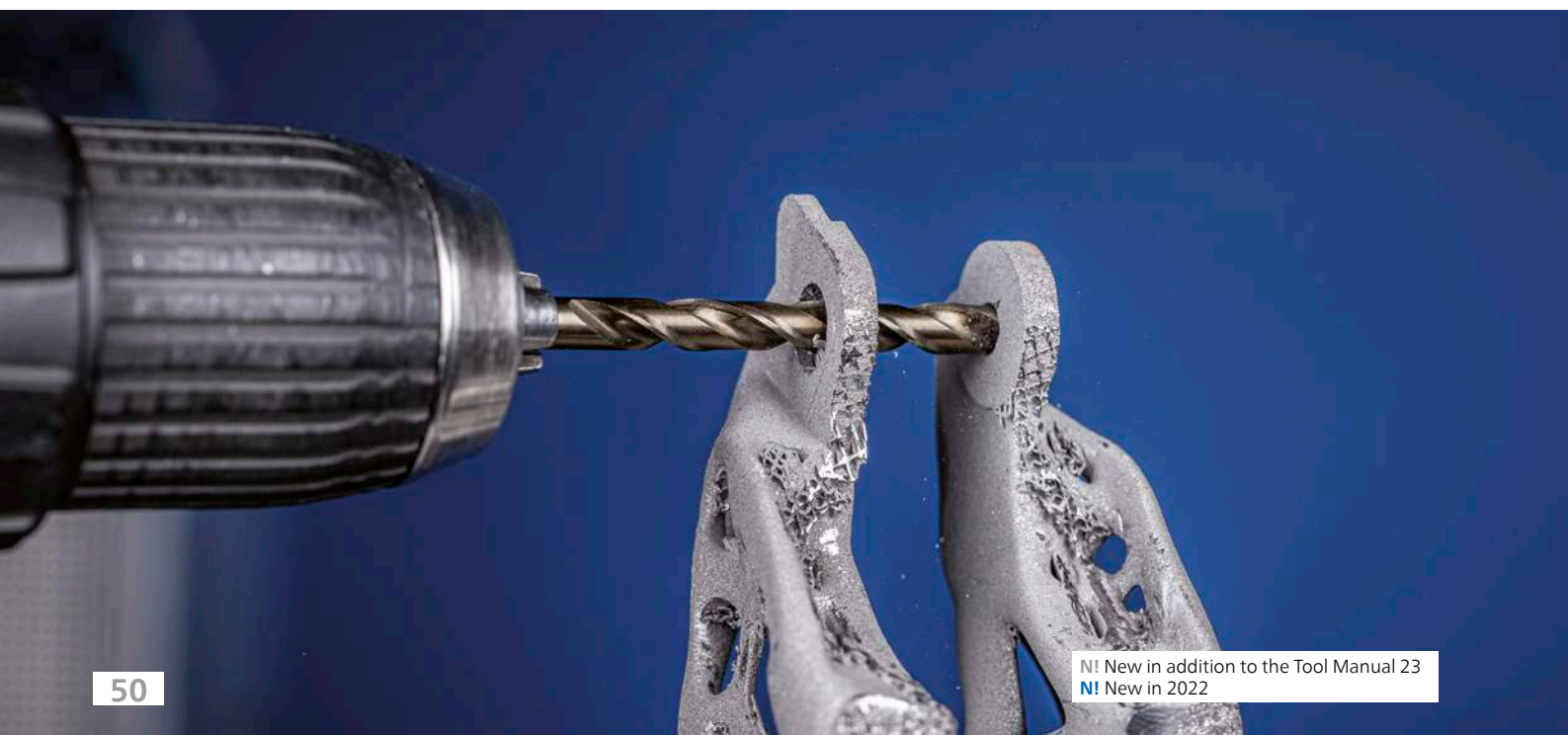
Contents:

25 HSS spiral drills,
INOX in HSSE-Co5 (M35) type
dia. 1.0 to 13.0 mm, graduations in 0.5 mm

Materials that can be worked:

steel, stainless steel (INOX), aluminium,
brass, bronze, cast, titanium, plastics

Type		Description
INOX		
		
EAN 4007220		
N! 168202	1	SET SPB DIN 338 HSSE N 1-13 INOX 25TLG



Sturdy high-performance tools for burr-free drilling and deburring of sheet metal, pipes and profiles. Materials up to 4 mm thick can be drilled and deburred easily in a single step. PFERD also offers step drills with a high-quality HICOAT coating. To ensure reliable torque transmission, all step drills have a three-surface shaft.

Advantages:

- Drilling and deburring in a single step.
- Completely smooth running and a high cutting performance.
- The high-quality drill tip ensures effortless centring and drilling.
- The tool taper makes it easier to pull back from drilled plates.
- Chips which do not break are neatly removed as with a spiral drill.
- Built-up edges and cold welding on the blades are prevented.

Materials that can be worked:

- Steel
- Cast steel
- Stainless steel (INOX)
- Non-ferrous metals
- Plastics
- Other materials

Applications:

- Drilling
- Deburring

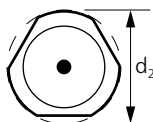
Recommendations for use:

- Use HSS step drills on sheets, pipes and profiles with a maximum thickness of 4 mm.
- Please refer to the table for the recommended rotational speeds.

Matching tool drives:

- Power drills
- Column drills

Safety note:



To ensure reliable torque transmission, step drills have a three-surface shaft.

HSS type



- Use cutting oil/compressed air as a coolant and lubricant in the case of step drills without a coating.

HSS HICOAT HC-FEP type



- Step drills with a HICOAT coating can also be used without the addition of coolants.
- Particularly suitable for work on stainless steel (INOX).

2



New in the PFERD product range

Drilling tools – HSS step drills

Recommended rotational speed range [RPM]

To determine the recommended cutting speed range [m/min], please proceed as follows:

- ❶ Select the material group to be machined.
- ❷ Select the type.
- ❸ Establish the cutting speed range.

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

- ❹ Select the required diameter.
- ❺ The cutting speed range and the diameter determine the recommended rotational speed range.

❶ Material group			❷ Type	❸ Cutting speed
Steel, cast steel	Steels up to 700 N/mm ²	Construction steels, carbon steels, tool steels, alloyed and non-alloyed steels, case-hardened steels, cast steel	HSS	20–30 m/min
			HICOAT HC-FEP	
	Steels over 700 N/mm ²		HICOAT HC-FEP	10–20 m/min
Stainless steel (INOX)	Rust and acid-resistant steels	Austenitic and ferritic stainless steels	HICOAT HC-FEP	10–20 m/min
Non-ferrous metals	Soft non-ferrous metals	Aluminium alloys Brass, copper, zinc	HSS	20–30 m/min
			HICOAT HC-FEP	
	Hard non-ferrous metals	Bronze, titanium/titanium alloys, hard aluminium alloys (high Si content)	HICOAT HC-FEP	
Plastics, other materials	Fibre-reinforced thermoplastics and duroplastics, hard rubber, wood		HSS	10–20 m/min
			HICOAT HC-FEP	

Example:

HSS step drills

STB HSS 04-30/10,

Step dia. 4–30 mm.

Steels up to 700 N/mm².

Cutting speed: 20–30 m/min



Rotational speed range: 2,400–200 RPM

❹ Step dia. [mm]	❺ Cutting speeds [m/min]		
	10	20	30
	Rotational speeds [RPM]		
4.00	800	1,600	2,400
5.00	640	1,280	1,920
6.00	530	1,060	1,600
7.00	460	920	1,400
8.00	400	800	1,200
9.00	350	700	1,060
10.00	320	640	960
11.00	290	580	880
12.00	270	540	820
14.00	230	460	700
15.00	210	420	640
16.00	200	400	600
18.00	180	360	540
20.00	160	320	480
21.00	150	300	460
22.00	140	280	420
24.00	130	260	400
26.00	120	240	360
27.00	120	240	360
28.00	110	220	340
30.00	100	200	300
33.00	90	180	280
34.00	90	180	280
36.00	90	180	280
37.00	90	180	280
39.00	80	160	240

HSS step drills

HSS step drills for drilling and deburring thin sheets, pipes and profiles made from various materials. To ensure reliable torque transmission, all step drills have a three-surface shaft.



Drill bit dia. range [mm]	No. of drill steps	d ₂ [mm]	l ₁ [mm]	Type		Description
				HSS		
				 EAN 4007220		
4–12	9	6	65	N! 165867	1	STB HSS 04-12/6
4–20	9	8	75	N! 165874	1	STB HSS 04-20/8
4–30	14	10	100	N! 165881	1	STB HSS 04-30/10
4–39	13	10	107	N! 165898	1	STB HSS 04-39/10
6–37	12	10	100	N! 165904	1	STB HSS 06-37/10

2





HSS step drills, 3-piece set

The set includes three HSS step drills in the versions 4–12 mm (9 steps), 4–20 mm (9 steps), 4–30 mm (14 steps) for industrial uses. To ensure reliable torque transmission, all step drills have a three-surface shaft.

The sturdy plastic box protects the tools from dirt and damage. The securing of the HSS step drills facilitates the selection and withdrawal of the tools.



Contents [pcs.]	Type		Description
	HSS		
	 EAN 4007220		
3	N! 166109	1	SET STB HSS 3TLG



New in the PFERD product range



Drilling tools – HSS step drills with HICOAT coating HC-FEP



HSS step drills with HICOAT coating HC-FEP

HSS step drills with premium HICOAT coating HC-FEP are wear resistant and versatile as they can be used to process steel, stainless steel (INOX), non-ferrous metals, thermoplastics and duroplastics. To ensure reliable torque transmission, all step drills have a three-surface shaft.

Step drills with a HICOAT coating HC-FEP provide good high-temperature hardness and resistance to oxidation. They can therefore also be used on hard materials without the addition of coolants.



Drill bit dia. range [mm]	No. of drill steps	d ₂ [mm]	l ₁ [mm]	Type		Description
				HC-FEP		
				 EAN 4007220		
4–12	9	6	65	N! 166031	1	STB HSS 04-12/6 HC-FEP
4–39	13	10	107	N! 166079	1	STB HSS 04-39/10 HC-FEP
6–37	12	10	100	N! 166086	1	STB HSS 06-37/10 HC-FEP

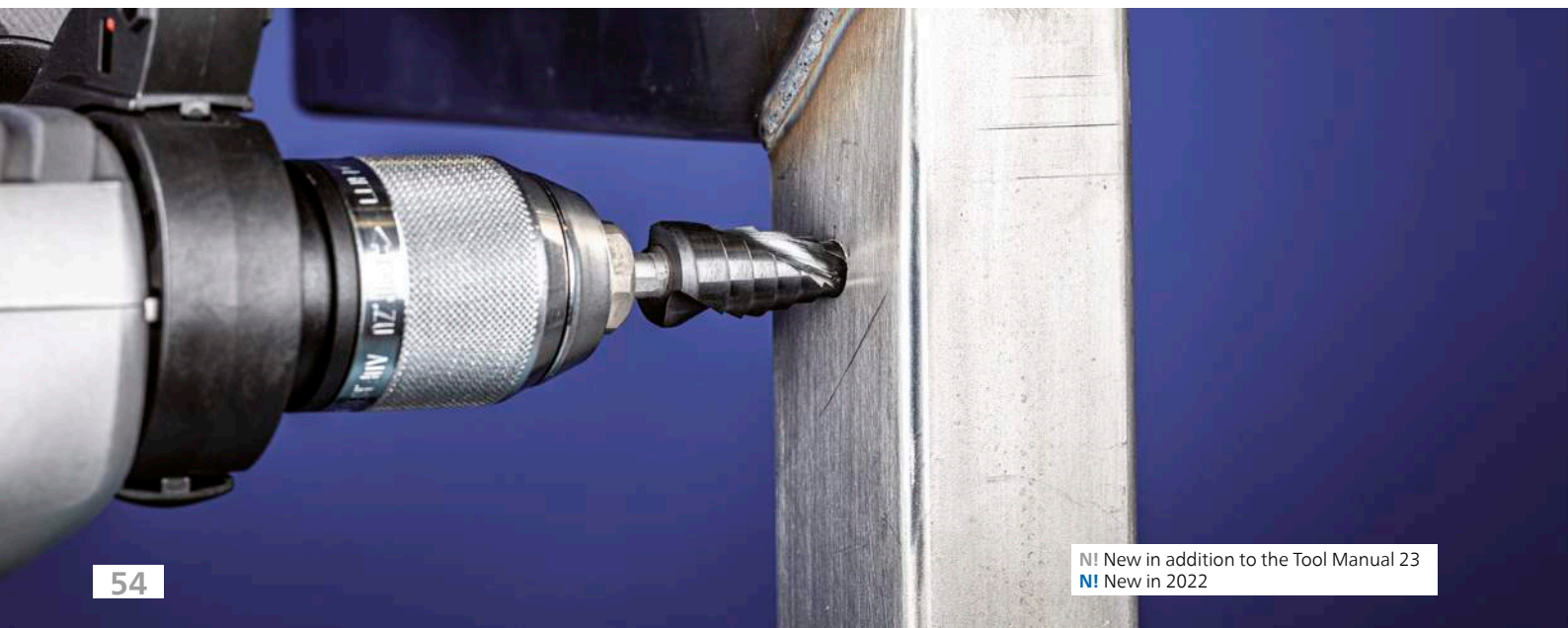


HSS step drills with HICOAT coating HC-FEP, 3-piece set

The set includes three HSS step drills in the versions 4–12 mm (9 steps), 4–20 mm (9 steps), 4–30 mm (14 steps) with a premium HICOAT coating HC-FEP for industrial uses. To ensure reliable torque transmission, all step drills have a three-surface shaft.

The sturdy plastic box protects the tools from dirt and damage. The securing of the HSS step drills facilitates the selection and withdrawal of the tools.

Contents [pcs.]	Type		Description
	HC-FEP		
	 EAN 4007220		
3	N! 166123	1	SET STB HSS HC-FEP 3TLG



Conical countersinks from PFERD are characterized by their particularly sharp blades that are able to achieve very good results, even at low cutting speeds. The various versions allow for countersinking and deburring when machining various types of materials, even in industrial environments. The UGT version denotes a conical countersink with unequal pitch. To ensure reliable torque transmission, conical countersinks have a three-surface shaft from a countersink diameter of 28 mm.

PFERD also offers conical countersinks with a premium HICOAT coating. Conical countersinks with a HICOAT coating provide good high-temperature hardness and resistance to oxidation. They can therefore also be used without the addition of coolants and on hard materials.

Advantages:

- High stock removal rate and optimum chip removal.
- Burr-free results, even with low cutting speeds.
- Long tool life.
- High surface quality of the workpiece.

Materials that can be worked:

- Steel
- Cast steel
- Stainless steel (INOX)
- Non-ferrous metals
- Cast iron
- Plastics
- Other materials

Applications:

- Chamfering
- Deburring
- Countersinking

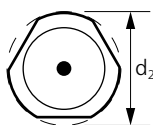
Recommendations for use:

- Select the appropriate type depending on the countersink angle required and the material to be machined.
- Use cutting oil or compressed air as a coolant/lubricant.
- Please refer to the table for the recommended rotational speeds.



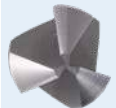
Matching tool drives:

- Power drills
- Column drills
- Machine tools
- Robot

Safety note:



To ensure reliable torque transmission, conical countersinks have a three-surface shaft from a countersink diameter of 28 mm.

Shape	Advantages
HSS counter-sinks 90° 	<ul style="list-style-type: none"> ■ Particularly well suited for producing countersinks for 90° screws.
HSS counter-sinks 90° UGT 	<ul style="list-style-type: none"> ■ Particularly well suited to producing exact countersinks. ■ Smooth running. ■ Low countersinking force and a good surface quality. ■ Specially developed geometry with wide flutes for optimal chip removal and heat dissipation. ■ Especially well suited for robot and stationary applications.
HSS counter-sinks 60° 	<ul style="list-style-type: none"> ■ Particularly well suited for countersinking and deburring.

HSS type



- HSS countersink that is suitable for universal use on almost all materials.

HSS E Co5 (M35) type

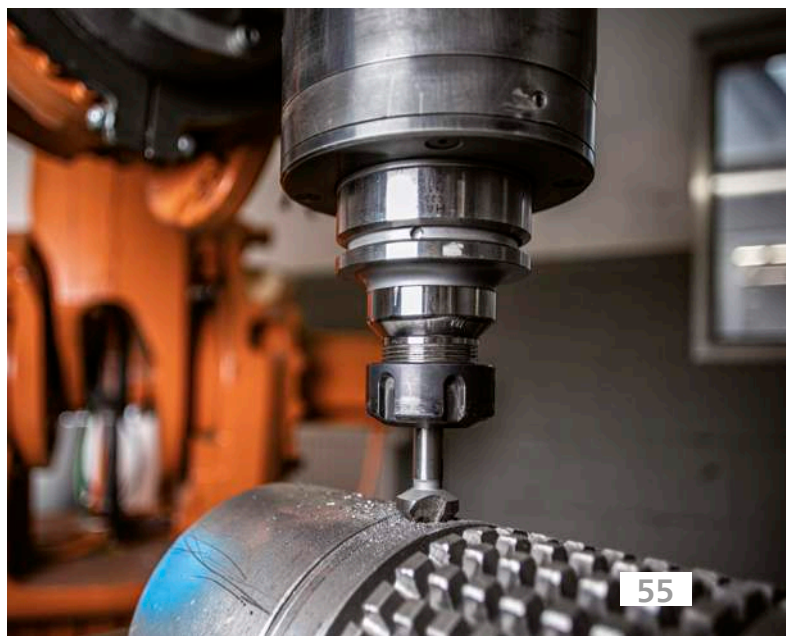


- HSS countersink that is suitable for universal use on almost all materials.
- Long tool life.
- Very good temperature resistance due to Co content.

HSS HICOAT HC-FEP type



- HSS countersink that is suitable for universal use on almost all materials.
- Very long tool life thanks to premium HICOAT coating.
- Can also be used without coolants and lubricants.



New in the PFERD product range

Countersink tools – HSS conical countersinks

Recommended rotational speed range [RPM]

To determine the recommended cutting speed range [m/min], please proceed as follows:

- ❶ Select the material group to be machined.
- ❷ Select the type.
- ❸ Establish the cutting speed range.

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

- ❹ Select the required diameter.
- ❺ The cutting speed range and the diameter determine the recommended rotational speed range.

❶ Material group			❷ Type	❸ Cutting speed
Steel, cast steel	Non-alloyed construction steels up to 700 N/mm ²	Construction steels, carbon steels, tool steels, non-alloyed steels, case-hardened steels, cast steel, alloyed steels	HSS	15–20 m/min
			HSSE Co5	
			HICOAT HC-FEP	
	Alloyed construction steels over 700 N/mm ²	Tool steels, tempering steels, alloyed steels, cast steel	HSSE Co5 HICOAT HC-FEP	10–15 m/min
Stainless steel (INOX)	Rust and acid-resistant steels	Austenitic and ferritic stainless steels	HSS	10–15 m/min
			HSSE Co5	
			HICOAT HC-FEP	
Non-ferrous metals	Soft non-ferrous metals	Aluminium alloys, brass, copper, zinc	HSS	15–20 m/min
			HSSE Co5	
			HICOAT HC-FEP	
	Hard non-ferrous metals	Bronze, titanium/titanium alloys, hard aluminium alloys (high Si content)	HSSE Co5 HICOAT HC-FEP	10–20 m/min
Cast iron	Grey cast iron, white cast iron	Cast iron with flake graphite EN-GJL (GG), with nodular graphite/nodular cast iron EN-GJS (GGG), white annealed cast iron EN-GJMW (GTW), black cast iron EN-GJMB (GTS)	HSS	10 m/min
			HSSE Co5	
			HICOAT HC-FEP	
Plastics, other materials	Fibre-reinforced thermoplastics and duroplastics, hard rubber, wood		HSS	10–15 m/min
			HSSE Co5	
			HICOAT HC-FEP	

Example:

Conical countersink
KES HSS DIN 335 90°,
countersink dia. 28.0 mm.
Steels up to 700 N/mm².
Cutting speed: 15–20 m/min

Rotational speed range: 170–220 RPM

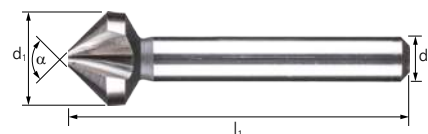
❹ Countersink dia. [mm]	❺ Cutting speeds [m/min]		
	10	15	20
	Rotational speeds [RPM]		
4.30	800	1,200	1,600
5.00	640	960	1,280
5.30	640	960	1,280
6.00	530	800	1,060
6.30	530	800	1,060
7.00	460	680	920
8.00	400	600	800
8.30	400	600	800
10.00	320	470	640
10.40	320	470	640
11.50	280	420	560
12.40	260	390	520
12.50	260	390	520
15.00	210	320	420
16.00	190	290	380
16.50	190	290	380
19.00	170	260	340
20.00	150	230	300
20.50	150	230	300
23.00	140	210	280
25.00	130	200	260
28.00	110	170	220
31.00	100	150	200
37.00	90	140	180
40.00	80	120	160



HSS DIN 335 C 90° conical countersinks

High-performance countersink tools with a countersink angle of 90° for countersinking 90° screws for all common materials such as steel, cast steel and non-ferrous metals. To ensure reliable torque transmission, conical countersinks have a three-surface shaft from a countersink diameter of 28 mm.

Materials that can be worked:

steel, cast steel, stainless steel (INOX),
non-ferrous metals, cast iron, plastics, other
materials



d ₁ [mm]	d ₂ [mm]	l ₁ [mm]	α	Type HSS		Description
						
				EAN 4007220		
4.30	4.00	40	90°	N! 164617	1	KES HSS DIN 335 C90° 4,3
5.00	4.00	40	90°	N! 166352	1	KES HSS DIN 335 C90° 5,0
5.30	4.00	40	90°	N! 166369	1	KES HSS DIN 335 C90° 5,3
6.00	5.00	45	90°	N! 166376	1	KES HSS DIN 335 C90° 6,0
6.30	5.00	45	90°	N! 166390	1	KES HSS DIN 335 C90° 6,3
7.00	6.00	50	90°	N! 166406	1	KES HSS DIN 335 C90° 7,0
8.00	6.00	50	90°	N! 166468	1	KES HSS DIN 335 C90° 8,0
8.30	6.00	50	90°	N! 166475	1	KES HSS DIN 335 C90° 8,3
10.00	6.00	50	90°	N! 166505	1	KES HSS DIN 335 C90° 10,0
10.40	6.00	50	90°	N! 166598	1	KES HSS DIN 335 C90° 10,4
11.50	8.00	56	90°	N! 166666	1	KES HSS DIN 335 C90° 11,5
12.40	8.00	56	90°	N! 166673	1	KES HSS DIN 335 C90° 12,4
15.00	10.00	60	90°	N! 166703	1	KES HSS DIN 335 C90° 15,0
16.50	10.00	60	90°	N! 166765	1	KES HSS DIN 335 C90° 16,5
19.00	10.00	63	90°	N! 166772	1	KES HSS DIN 335 C90° 19,0
20.50	10.00	63	90°	N! 166789	1	KES HSS DIN 335 C90° 20,5
23.00	10.00	67	90°	N! 166833	1	KES HSS DIN 335 C90° 23,0
25.00	10.00	67	90°	N! 166840	1	KES HSS DIN 335 C90° 25,0
28.00	12.00	71	90°	N! 166857	1	KES HSS DIN 335 C90° 28,0
31.00	12.00	71	90°	N! 166864	1	KES HSS DIN 335 C90° 31,0
37.00	12.00	90	90°	N! 166871	1	KES HSS DIN 335 C90° 37,0
40.00	15.00	80	90°	N! 166918	1	KES HSS DIN 335 C90° 40,0

HSS DIN 335 C 90° conical countersink sets

The sets include high-performance countersink tools with a countersink angle of 90° for countersinking 90° screws for all common materials such as steel, cast steel and non-ferrous metals. The sturdy plastic box protects the tools from dirt and damage.



Materials that can be worked:

steel, cast steel, stainless steel (INOX),
non-ferrous metals, cast iron, plastics, other
materials

Ordering notes:

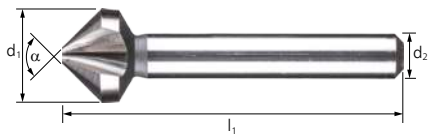
- Select the set depending on the number of types required.



Contents [pcs.]	Contents tool dia. [mm]	Type HSS		Description
				
		EAN 4007220		
3	6.3 / 10.4 / 16.5	N! 168523	1	SET KES HSS DIN 335 C90° 3TLG
5	6.3 / 10.4 / 16.5 / 20.5 / 25.0	N! 168585	1	SET KES HSS DIN 335 C90° 5TLG
6	6.3 / 8.3 / 10.4 / 12.4 / 16.5 / 20.5	N! 168691	1	SET KES HSS DIN 335 C90° 6TLG

New in the PFERD product range

Countersink tools – HSS conical countersinks





HSSE DIN 335 C 90° conical countersinks, Co5 type

High-performance countersink tools with a countersink angle of 90° for countersinking 90° screws for particularly tough and hard materials such as alloyed and high-strength steel and stainless steel (INOX). To ensure reliable torque transmission, conical countersinks have a three-surface shaft from a countersink diameter of 28 mm. Long tool life and temperature-resistant type due to Co content.

Materials that can be worked:

steel, cast steel, stainless steel (INOX),
non-ferrous metals, cast iron, plastics, other
materials

d ₁ [mm]	d ₂ [mm]	l ₁ [mm]	α	Type		Description
				HSSE		
				 EAN 4007220		
4.30	4.00	40	90°	N! 167250	1	KES HSSE DIN 335 C90° 4,3
5.00	4.00	40	90°	N! 167335	1	KES HSSE DIN 335 C90° 5,0
5.30	4.00	40	90°	N! 167359	1	KES HSSE DIN 335 C90° 5,3
6.00	5.00	45	90°	N! 167373	1	KES HSSE DIN 335 C90° 6,0
6.30	5.00	45	90°	N! 167397	1	KES HSSE DIN 335 C90° 6,3
8.00	6.00	50	90°	N! 167427	1	KES HSSE DIN 335 C90° 8,0
8.30	6.00	50	90°	N! 167434	1	KES HSSE DIN 335 C90° 8,3
10.00	6.00	50	90°	N! 167458	1	KES HSSE DIN 335 C90° 10,0
10.40	6.00	50	90°	N! 167472	1	KES HSSE DIN 335 C90° 10,4
11.50	8.00	56	90°	N! 167687	1	KES HSSE DIN 335 C90° 11,5
12.40	8.00	56	90°	N! 168004	1	KES HSSE DIN 335 C90° 12,4
15.00	10.00	60	90°	N! 168035	1	KES HSSE DIN 335 C90° 15,0
16.50	10.00	60	90°	N! 168134	1	KES HSSE DIN 335 C90° 16,5
19.00	10.00	63	90°	N! 168219	1	KES HSSE DIN 335 C90° 19,0
20.50	10.00	63	90°	N! 168226	1	KES HSSE DIN 335 C90° 20,5
23.00	10.00	67	90°	N! 168233	1	KES HSSE DIN 335 C90° 23,0
25.00	10.00	67	90°	N! 168240	1	KES HSSE DIN 335 C90° 25,0
28.00	12.00	71	90°	N! 168257	1	KES HSSE DIN 335 C90° 28,0
31.00	12.00	71	90°	N! 168264	1	KES HSSE DIN 335 C90° 31,0



HSSE DIN 335 C 90° conical countersink sets, Co5 type



The sets include high-performance countersink tools with a countersink angle of 90° for countersinking 90° screws for particularly tough and hard materials such as alloyed and high-strength steel and stainless steel (INOX). Long tool life and temperature-resistant type due to Co content. The sturdy plastic box protects the tools from dirt and damage.

Materials that can be worked:

steel, cast steel, stainless steel (INOX),
non-ferrous metals, cast iron, plastics, other
materials

Ordering notes:

- Select the set depending on the number of types required.

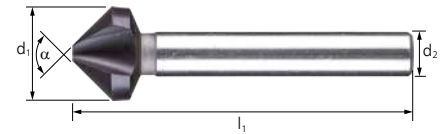
Contents [pcs.]		Contents tool dia. [mm]	Type		Description
			HSSE		
			 EAN 4007220		
3		6.3 / 10.4 / 16.5	N! 168714	1	SET KES HSSE DIN 335 C90° 3TLG
5		6.3 / 10.4 / 16.5 / 20.5 / 25.0	N! 168738	1	SET KES HSSE DIN 335 C90° 5TLG
6		6.3 / 8.3 / 10.4 / 12.4 / 16.5 / 20.5	N! 168745	1	SET KES HSSE DIN 335 C90° 6TLG

HSS DIN 335 C 90° conical countersinks with HICOAT coating HC-FEP

High-performance countersink tools with a countersink angle of 90° for countersinking 90° screws for particularly tough and hard materials such as alloyed and high-strength steel and stainless steel. To ensure reliable torque transmission, conical countersinks have a three-surface shaft from a countersink diameter of 28 mm. Thanks to the HICOAT coating HC-FEP, they have high hardness and wear resistance. They are very temperature resistant and have a particularly long tool life. They can also be used in a higher cutting speed range and without coolants and lubricants.



Materials that can be worked:

steel, cast steel, stainless steel (INOX),
non-ferrous metals, cast iron, plastics, other materials



2



d ₁ [mm]	d ₂ [mm]	l ₁ [mm]	α	Type		Description
				HC-FEP		
				 EAN 4007220		
6.30	5.00	45	90°	N! 073728	1	KES HSS DIN 335 C90° HC-FEP 6,3
8.30	6.00	50	90°	N! 168295	1	KES HSS DIN 335 C90° HC-FEP 8,3
10.40	6.00	50	90°	N! 168301	1	KES HSS DIN 335 C90° HC-FEP 10,4
12.40	8.00	56	90°	N! 168318	1	KES HSS DIN 335 C90° HC-FEP 12,4
15.00	10.00	60	90°	N! 168325	1	KES HSS DIN 335 C90° HC-FEP 15,0
16.50	10.00	60	90°	N! 168356	1	KES HSS DIN 335 C90° HC-FEP 16,5
19.00	10.00	63	90°	N! 168387	1	KES HSS DIN 335 C90° HC-FEP 19,0
20.50	10.00	63	90°	N! 168417	1	KES HSS DIN 335 C90° HC-FEP 20,5
23.00	10.00	67	90°	N! 168455	1	KES HSS DIN 335 C90° HC-FEP 23,0
25.00	10.00	67	90°	N! 168462	1	KES HSS DIN 335 C90° HC-FEP 25,0
31.00	12.00	71	90°	N! 168479	1	KES HSS DIN 335 C90° HC-FEP 31,0

HSS DIN 335 C 90° conical countersink sets with HICOAT coating HC-FEP

The sets include high-performance countersink tools with a countersink angle of 90° for countersinking 90° screws for particularly tough and hard materials such as alloyed and high-strength steel and stainless steel (INOX). Thanks to the HICOAT coating HC-FEP, they have high hardness and wear resistance. They are very temperature resistant and have a particularly long tool life. They can also be used in a higher cutting speed range and without coolants and lubricants. The sturdy plastic box protects the tools from dirt and damage.



Materials that can be worked:

steel, cast steel, stainless steel (INOX),
non-ferrous metals, cast iron, plastics, other materials

Ordering notes:

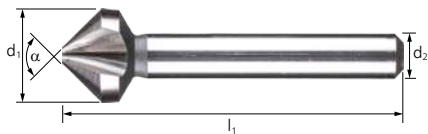
- Select the set depending on the number of types required.



Contents [pcs.]	Contents tool dia. [mm]	Type		Description
		HC-FEP		
		 EAN 4007220		
3	6.3 / 10.4 / 16.5	N! 168752	1	SET KES HSS DIN 335 C90° 3TLG HC-FEP
5	6.3 / 10.4 / 16.5 / 20.5 / 25.0	N! 168769	1	SET KES HSS DIN 335 C90° 5TLG HC-FEP
6	6.3 / 8.3 / 10.4 / 12.4 / 16.5 / 20.5	N! 168776	1	SET KES HSS DIN 335 C90° 6TLG HC-FEP

New in the PFERD product range

Countersink tools – HSS conical countersinks





UGT HSS DIN 335 C 90° conical countersinks with unequal pitch

High-performance countersink tools with a countersink angle of 90° for countersinking 90° screws for all common materials such as steel, cast steel and non-ferrous metals. Conical countersinks with unequal pitch (UGT) are characterized by a specially developed geometry with wide flutes, which enables optimal chip removal and heat dissipation, smooth running and optimum results. To ensure reliable torque transmission, conical countersinks have a three-surface shaft from a countersink diameter of 28 mm.

Materials that can be worked:

steel, cast steel, stainless steel (INOX),
non-ferrous metals, cast iron, plastics, other
materials

d ₁ [mm]	d ₂ [mm]	l ₁ [mm]	α	Type		Description
				HSS UGT		
				 EAN 4007220		
6.30	5.00	45	90°	N! 420447	1	UGT HSS DIN 335 C90° 6,3
8.30	6.00	50	90°	N! 420454	1	UGT HSS DIN 335 C90° 8,3
10.40	6.00	50	90°	N! 420461	1	UGT HSS DIN 335 C90° 10,4
12.40	8.00	56	90°	N! 420478	1	UGT HSS DIN 335 C90° 12,4
15.00	10.00	60	90°	N! 420485	1	UGT HSS DIN 335 C90° 15,0
16.50	10.00	60	90°	N! 420492	1	UGT HSS DIN 335 C90° 16,5
19.00	10.00	63	90°	N! 420508	1	UGT HSS DIN 335 C90° 19,0
20.50	10.00	63	90°	N! 420515	1	UGT HSS DIN 335 C90° 20,5
23.00	10.00	67	90°	N! 420522	1	UGT HSS DIN 335 C90° 23,0
25.00	10.00	67	90°	N! 420539	1	UGT HSS DIN 335 C90° 25,0
31.00	12.00	71	90°	N! 420546	1	UGT HSS DIN 335 C90° 31,0



UGT HSS DIN 335 C 90° conical countersink sets with unequal pitch



The sets include high-performance countersink tools with a countersink angle of 90° for countersinking 90° screws for all common materials such as steel, cast steel and non-ferrous metals. Conical countersinks with unequal pitch (UGT) are characterized by a specially developed geometry with wide flutes, which enables optimal chip removal and heat dissipation, smooth running and optimum results. The sturdy plastic box protects the tools from dirt and damage.

Materials that can be worked:

steel, cast steel, stainless steel (INOX),
non-ferrous metals, cast iron, plastics, other
materials

Ordering notes:

- Select the set depending on the number of types required.

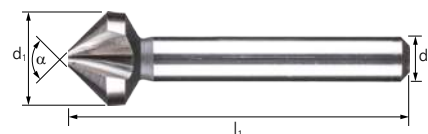
Contents [pcs.]	Contents tool dia. [mm]	Type		Description
		HSS UGT		
		 EAN 4007220		
3	6.3 / 10.4 / 16.5	N! 420669	1	SET UGT HSS DIN 335 C90° 3TLG
5	6.3 / 10.4 / 16.5 / 20.5 / 25.0	N! 420676	1	SET UGT HSS DIN 335 C90° 5TLG
6	6.3 / 8.3 / 10.4 / 12.4 / 16.5 / 20.5	N! 420683	1	SET UGT HSS DIN 335 C90° 6TLG

UGT HSSE DIN 335 C 90° conical countersinks with unequal pitch, Co5 type

High-performance countersink tools with a countersink angle of 90° for countersinking 90° screws for particularly tough and hard materials such as alloyed and high-strength steel and stainless steel (INOX). Conical countersinks with unequal pitch (UGT) are characterized by a specially developed geometry with wide flutes, which enables optimal chip removal and heat dissipation, smooth running and optimum results. To ensure reliable torque transmission, conical countersinks have a three-surface shaft from a countersink diameter of 28 mm. Long tool life and temperature-resistant type due to Co content.



Materials that can be worked:

steel, cast steel, stainless steel (INOX),
non-ferrous metals, cast iron, plastics, other materials



2



d ₁ [mm]	d ₂ [mm]	l ₁ [mm]	α	Type		Description
				HSSE UGT		
				 EAN 4007220		
6.30	5.00	45	90°	N! 420553	1	UGT HSSE DIN 335 C90° 6,3
8.30	6.00	50	90°	N! 420560	1	UGT HSSE DIN 335 C90° 8,3
10.40	6.00	50	90°	N! 420577	1	UGT HSSE DIN 335 C90° 10,4
12.40	8.00	56	90°	N! 420584	1	UGT HSSE DIN 335 C90° 12,4
15.00	10.00	60	90°	N! 420591	1	UGT HSSE DIN 335 C90° 15,0
16.50	10.00	60	90°	N! 420607	1	UGT HSSE DIN 335 C90° 16,5
19.00	10.00	63	90°	N! 420614	1	UGT HSSE DIN 335 C90° 19,0
20.50	10.00	63	90°	N! 420621	1	UGT HSSE DIN 335 C90° 20,5
23.00	10.00	67	90°	N! 420638	1	UGT HSSE DIN 335 C90° 23,0
25.00	10.00	67	90°	N! 420645	1	UGT HSSE DIN 335 C90° 25,0
31.00	12.00	71	90°	N! 420652	1	UGT HSSE DIN 335 C90° 31,0

UGT HSSE DIN 335 C 90° conical countersink sets with unequal pitch, Co5 type

The sets include high-performance countersink tools with a countersink angle of 90° for countersinking 90° screws for particularly tough and hard materials such as alloyed and high-strength steel and stainless steel (INOX). Long tool life and temperature-resistant type due to Co content. Conical countersinks with unequal pitch (UGT) are characterized by a specially developed geometry with wide flutes, which enables optimal chip removal and heat dissipation, smooth running and optimum results. The sturdy plastic box protects the tools from dirt and damage.



Materials that can be worked:

steel, cast steel, stainless steel (INOX),
non-ferrous metals, cast iron, plastics, other materials

Ordering notes:

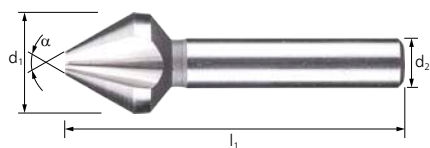
- Select the set depending on the number of types required.



Contents [pcs.]	Contents tool dia. [mm]	Type		Description
		HSSE UGT		
		 EAN 4007220		
3	6.3 / 10.4 / 16.5	N! 420690	1	SET UGT HSSE DIN 335 C90° 3TLG
5	6.3 / 10.4 / 16.5 / 20.5 / 25.0	N! 420706	1	SET UGT HSSE DIN 335 C90° 5TLG
6	6.3 / 8.3 / 10.4 / 12.4 / 16.5 / 20.5	N! 420713	1	SET UGT HSSE DIN 335 C90° 6TLG

New in the PFERD product range

Countersink tools – HSS conical countersinks





HSS DIN 334 C 60° conical countersinks

High-performance countersink tools with a countersink angle of 60° for deburring all common materials such as steel, cast steel and non-ferrous metals.

Materials that can be worked:

steel, cast steel, stainless steel (INOX),
non-ferrous metals, cast iron, plastics, other
materials

d ₁ [mm]	d ₂ [mm]	l ₁ [mm]	α	Type HSS		Description
						
				EAN 4007220		
6.30	5.00	45	60°	N! 168783	1	KES HSS DIN 334 C60° 6,3
8.00	6.00	50	60°	N! 168790	1	KES HSS DIN 334 C60° 8,0
10.00	6.00	50	60°	N! 168806	1	KES HSS DIN 334 C60° 10,0
12.50	8.00	56	60°	N! 168813	1	KES HSS DIN 334 C60° 12,5
16.00	10.00	63	60°	N! 168837	1	KES HSS DIN 334 C60° 16,0
20.00	10.00	67	60°	N! 168844	1	KES HSS DIN 334 C60° 20,0
25.00	10.00	71	60°	N! 168851	1	KES HSS DIN 334 C60° 25,0



High-performance flat countersinks made from HSS according to DIN 373 for countersinking cylinder head and hexagon screws as well as nuts. Flat countersinks have a cylindrical design. The cylindrical pin in the relevant quality grades of fine, medium or tapping hole ensures coaxial alignment of the countersink to the bore.

Advantages:

- Very high stock removal rate.
- Optimum chip removal.
- Burr-free results.
- Long tool life.
- Smooth operation.
- Good surface quality.

Materials that can be worked:

- Steel
- Cast steel
- Stainless steel (INOX)
- Non-ferrous metals
- Cast iron
- Plastics
- Other materials

Recommendations for use:

- Please observe the recommended rotational speed.

Matching tool drives:

- Power drills
- Column drills
- Machine tools
- Robot

Applications:

- Produce flat countersinks in the quality grades fine (F), medium (M) and tapping hole (GKL).

Quality grade fine (F)



- Flat countersinks with the quality grade of fine are suitable for producing flat countersinks at through holes or blind holes in the tolerance range of fine with high mounting accuracy.

Quality grade medium (M)



- Flat countersinks with the quality grade medium are suitable for producing flat countersinks at through holes or blind holes in the tolerance range of medium with extended mounting accuracy.

For tapping hole (GKL)



- Flat countersinks for the tapping hole are suitable for producing flat countersinks at core holes for female threads.



New in the PFERD product range

Countersink tools – HSS flat countersinks

Recommended rotational speed range [RPM]

To determine the recommended cutting speed range [m/min], please proceed as follows:

- ❶ Select the material group to be machined.
- ❷ Select the type.
- ❸ Establish the cutting speed range.

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

- ❹ Select the required diameter.
- ❺ The cutting speed range and the diameter determine the recommended rotational speed range.

❶ Material group			❷ Type	❸ Cutting speed
Steel, cast steel	Steels up to 700 N/mm ²	Construction steels, carbon steels, tool steels, alloyed and non-alloyed steels, case-hardened steels, cast steel	fine (F)	10–20 m/min
			medium (M)	
			tapping hole (GKL)	
	Steels over 700 N/mm ²		fine (F)	10–15 m/min
			medium (M)	
tapping hole (GKL)				
Stainless steel (INOX)	Rust and acid-resistant steels	Austenitic and ferritic stainless steels	fine (F)	10–15 m/min
			medium (M)	
			tapping hole (GKL)	
Non-ferrous metals	Soft non-ferrous metals	Aluminium alloys brass, copper, zinc	fine (F)	15–20 m/min
			medium (M)	
			tapping hole (GKL)	
	Hard non-ferrous metals	Bronze, titaniumum/titanium alloys, hard aluminium alloys (high Si content)	fine (F)	10–20 m/min
			medium (M)	
tapping hole (GKL)				
Cast iron	Grey cast iron, white cast iron	Cast iron with flake graphite EN-GJL (GG), with nodular graphite/nodular cast iron EN-GJS (GGG), white anne- aled cast iron EN-GJMW (GTW), black cast iron EN-GJMB (GTS)	fine (F)	10 m/min
			medium (M)	
			tapping hole (GKL)	
Plastics, other materials	Fibre-reinforced thermoplastics and duroplastics, hard rubber, wood		fine (F)	10–15 m/min
			medium (M)	
			tapping hole (GKL)	

Example:

Flat countersink
FLS HSS DIN 373 15,0 F,
Flat countersink dia. 15 mm.
Steels up to 700 N/mm².
Cutting speed: 10–20 m/min
Rotational speed range: 220–440 RPM

❹ Countersink dia. [mm]	❺ Cutting speeds [m/min]		
	10	15	20
	Rotational speeds [RPM]		
6.00	530	795	1,060
8.00	400	600	800
10.00	320	480	640
11.00	290	435	580
15.00	220	330	440
18.00	180	270	360
20.00	160	240	320



HSS DIN 373 flat countersink quality grade fine for through hole

High-performance countersink tools for through holes with the quality grade fine (F) according to ISO 273.

Materials that can be worked:

steel, cast steel, stainless steel (INOX),
non-ferrous metals, cast iron, plastics, other
materials



d ₁ [mm]	d ₂ [mm]	d ₃ [mm]	l ₁ [mm]	Type		Description
				F		
				 EAN 4007220		
6	5	3.2	71	N! 168868	1	FLS HSS DIN 373 6,0 F
8	5	4.3	71	N! 168912	1	FLS HSS DIN 373 8,0 F
10	8	5.3	80	N! 168929	1	FLS HSS DIN 373 10,0 F
11	8	6.4	80	N! 168936	1	FLS HSS DIN 373 11,0 F
15	12.5	8.4	100	N! 168943	1	FLS HSS DIN 373 15,0 F
18	12.5	10.5	100	N! 168950	1	FLS HSS DIN 373 18,0 F
20	12.5	13.0	100	N! 168981	1	FLS HSS DIN 373 20,0 F



HSS DIN 373 flat countersink quality grade medium for through hole

High-performance countersink tools for through holes with the quality grade medium (M) according to ISO 273.

Materials that can be worked:

steel, cast steel, stainless steel (INOX),
non-ferrous metals, cast iron, plastics, other
materials



d ₁ [mm]	d ₂ [mm]	d ₃ [mm]	l ₁ [mm]	Type		Description
				M		
				 EAN 4007220		
6	5	3.4	71	N! 169025	1	FLS HSS DIN 373 6,0 M
8	5	4.5	71	N! 169087	1	FLS HSS DIN 373 8,0 M
10	8	5.5	80	N! 169100	1	FLS HSS DIN 373 10,0 M
11	8	6.6	80	N! 169124	1	FLS HSS DIN 373 11,0 M
15	12.5	9.0	100	N! 169155	1	FLS HSS DIN 373 15,0 M
18	12.5	11.0	100	N! 169162	1	FLS HSS DIN 373 18,0 M
20	12.5	13.5	100	N! 169179	1	FLS HSS DIN 373 20,0 M

New in the PFERD product range

Countersink tools – HSS flat countersinks





HSS DIN 373 flat countersinks for tapping hole

High performance countersink tools with guide pins for the tapping hole (GKL).

Materials that can be worked:

steel, cast steel, stainless steel (INOX),
non-ferrous metals, cast iron, plastics, other
materials



d ₁ [mm]	d ₂ [mm]	d ₃ [mm]	l ₁ [mm]	Type GKL		Description
						
				EAN 4007220		
6	5.0	2.5	71	N! 169186	1	FLS HSS DIN 373 6,0 GKL
8	5.0	3.3	71	N! 169193	1	FLS HSS DIN 373 8,0 GKL
10	8.0	4.2	80	N! 169209	1	FLS HSS DIN 373 10,0 GKL
11	8.0	5.0	80	N! 169216	1	FLS HSS DIN 373 11,0 GKL
15	12.5	6.8	100	N! 169223	1	FLS HSS DIN 373 15,0 GKL
18	12.5	8.5	100	N! 169278	1	FLS HSS DIN 373 18,0 GKL
20	12.5	10.2	100	N! 169308	1	FLS HSS DIN 373 20,0 GKL



Grinding points for saw chains

The grinding points for saw chains are outstandingly well suited for mechanical sharpening of saw chains using the PFERD CHAIN SHARP HHG chain saw sharpener.

Advantages:

- Good grinding performance and stock removal rate.
- Cost and time savings due to shorter grinding times.
- Precise sharpening of saw chain teeth due to high dimensional stability.

Applications:

- Sharpening

Recommendations for use:

- Note the recommendations for use and safety information for your sharpener.
 - The following chains can be sharpened:
 - Grinding point dia. 3.8 mm for chain pitch 1/4"
 - Grinding point dia. 4.3 mm for chain pitch 1/4", 3/8" LP*
 - Grinding point dia. 5.0 mm for chain pitch .325"
 - Grinding point dia. 5.5 mm for chain pitch 3/8"
 - Grinding point dia. 5.7 mm for chain pitch 3/8", .404"
 - Grinding point dia. 6.9 mm for depth gauge
- *LP = Low Profile

Matching tool drives:

- Sharpeners

Ordering notes:

- Please select the appropriate grinding point diameter to match your chain.

Safety notes:

- The maximum permitted rotational speed relates to the unsupported shank length of 10 mm.
- For safety reasons, the specified maximum permitted rotational speed must never be exceeded.

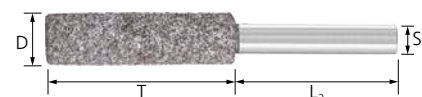


3



Cylindrical mounted point for saw chains

The cylindrical shape ZY is optimized for sharpening saw chains.



D x T [mm]	Grit size	Suitable for chain pitch [inch]	Opt. RPM	Max. RPM		Description
	80					
	EAN 4007220					
Shank dia. 3 x 25 mm [S _d x L ₂]						
3.8 x 16	N! 381922	1/4	25,000	62,800	3	CS-G ZY 3,816 3 AWN 80 M5V
4.3 x 16	N! 381946	1/4, 3/8 LP*	25,000	55,400	3	CS-G ZY 4,316 3 AWN 80 M5V
5.0 x 20	N! 381960	.325	25,000	56,100	3	CS-G ZY 5,020 3 AWN 80 M5V
5.5 x 20	N! 381984	3/8	25,000	50,900	3	CS-G ZY 5,520 3 AWN 80 M5V
5.7 x 20	N! 382004	3/8 , .404	25,000	49,100	3	CS-G ZY 5,720 3 AWN 80 M5V
6.9 x 20	N! 382028	for depth gauge	25,000	40,500	3	CS-G ZY 6,920 3 AWN 80 M5V

*LP = Low Profile

New in the PFERD product range

Grinding discs for saw chains

Grinding discs for saw chains

The grinding discs for saw chains are outstandingly well suited for mechanical sharpening of saw chains using chain sharpeners.

Advantages:

- Good grinding performance and stock removal rate.
- Long tool life.
- Careful grinding of the saw chain teeth.
- Precise sharpening of saw chain teeth due to high dimensional stability.

Applications:

- Sharpening

Recommendations for use:

- Note the recommendations for use and safety information for your sharpener.
 - The following chains can be sharpened:
 - Wheel thickness 3.2 mm for chain pitch 1/4", 3/8" LP*, .325"
 - Wheel thickness 4.7 mm for chain pitch 3/8", .404"
 - Wheel thickness 6.0 mm for depth gauge
- *LP = Low Profile

Matching tool drives:

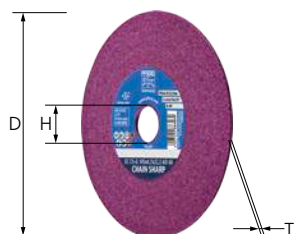
- Sharpeners

Ordering notes:

- Please select the appropriate wheel thickness to match your chain.


Safety notes:

- The maximum permitted peripheral speed is 35 m/s.
- For safety reasons, the specified maximum permitted rotational speed must never be exceeded.
- Before clamping, the grinding disc must be ring tested to make sure that it does not have any cracks (undamaged grinding discs give a clear tone).



Grinding discs for saw chains

The grinding discs are optimized for sharpening saw chains.

D x T [mm]	H [mm]	Grit size	Suitable for chain pitch [inch]	Max. RPM		Description
		60 EAN 4007220				

Dark-red aluminium oxide (AD)

145 x 3.2	22.2	NI 382882	1/4, 3/8 LP*, .325	4,600	1	SC CS-G 145x3,2x22,2 AD 60J7V
145 x 4.7	22.2	NI 383070	3/8, .404	4,600	1	SC CS-G 145x4,7x22,2 AD 60J7V
145 x 6.0	22.2	NI 383148	for depth gauge	4,600	1	SC CS-G 145x6,0x22,2 AD 60J7V


*LP = Low Profile

Grinding wheel dresser

Ideal accessory for PFERD bench grinding wheels if the wheel is clogged or its shape has changed.

The dressing roller consists of hardened steel discs with U-shaped teeth. Wave washers between the tooth discs make the tooth roller stable and robust. For high peripheral speeds, the dresser has a spindle with an integrated grease fitting to guarantee a long tool life.




Overall length [mm]	Roll width [mm]	Roll dia. [mm]	EAN 4007220	Max. wheel dia. [mm]	Max. wheel thickness [mm]		Description
435	39	55	N! 138700	500	63	1	AR 55x39x12

Replacement roller

The replaceable roller for the grinding wheel dresser AR 55x39x12 can be used until the teeth are worn.




Roll width [mm]	Roll dia. [mm]	EAN 4007220		Description
39	55	N! 138717	1	ER 55x39x12

Replacement spindle

The greaseable spindle for the grinding wheel dresser AR 55x39x12 is a spare part if the axle does become worn.




Roll width [mm]	Axis dia. [mm]	EAN 4007220		Description
39	12	N! 138724	1	EA 12x39

Grinding wheel dresser

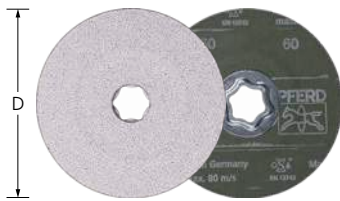
The SiC grinding wheel dresser is a low-cost alternative for dressing bench grinding wheels. A stainless steel tube protects the SiC rod from breaking, making the tool more robust.



Overall length [mm]	Dia. [mm]	EAN 4007220		Description
250	22	N! 138731	1	AR 22x250

New in the PFERD product range

COMBICLICK fibre discs CC-FS



Ceramic oxide grain CO-ALU type

For aggressive grinding with an excellent stock removal rate for machining non-ferrous metals. Consistently high performance due to self-sharpening ceramic oxide grain.

Adhesion-reducing additives in the coating significantly reduce the chip adhesion and therefore reduce clogging of the fibre discs.

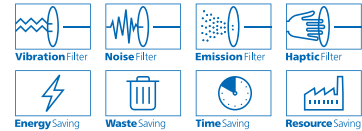
Abrasive:


Ceramic oxide grain CO-ALU

Ordering notes:

- Please complete the description with the desired grit size.

PFERDVALUE:



D [mm]	Grit size			Max. RPM		Description
	36	60	80			
	EAN 4007220					
115	N! 217931	N! 217955	N! 217962	13,300	25	CC-FS 115 CO-ALU ...
125	N! 217979	N! 217986	N! 217993	12,200	25	CC-FS 125 CO-ALU ...



Ceramic oxide grain CO-COOL-CONTOUR type

Very flexible and adaptable on account of the outer contour. Cutting into the workpiece is avoided.

Active grinding additives in the coating substantially improve the stock removal rate, prevent clogging and result in cooler grinding.

Recommendations for use:

- Use only the CC-GT 115-125 backing pad with M14 or 5/8" thread to maintain the flexibility at the edge of the fibre discs.

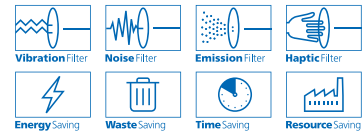
Abrasive:


Ceramic oxide grain CO-COOL-CONTOUR

Ordering notes:

- Please complete the description with the desired grit size.

PFERDVALUE:



D [mm]	Grit size			Max. RPM		Description
	60	80	120			
	EAN 4007220					
125	N! 416990	N! 417027	N! 417041	12.200	25	CC-FS 125 CO-COOL ... CONTOUR



Here you will find further details and useful information about the wide range of COMBICLICK tools.



VICTOGRAIN type

For extremely aggressive grinding with an extremely high tool life and an outstanding stock removal rate on steel and hard materials.

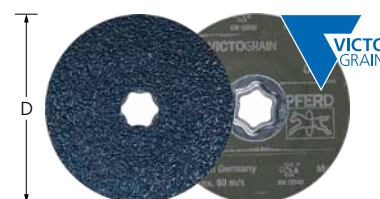
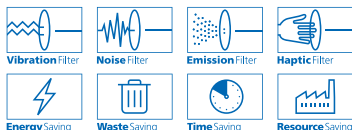
Outstanding, constant high performance thanks to the **VICTOGRAIN** abrasive grain.

Abrasive:
VICTOGRAIN

Recommendations for use:

- Use powerful angle grinders.

PFERDVALUE:



D [mm]	EAN 4007220	Max. RPM		Description
100	N! 176245	15,300	25	CC-FS 100 VICTOGRAIN 36
115	N! 176290	13,300	25	CC-FS 115 VICTOGRAIN 36
125	N! 176320	12,200	25	CC-FS 125 VICTOGRAIN 36
180	N! 176368	8,500	25	CC-FS 180 VICTOGRAIN 36

COMBICLICK backing pads

CC-GT, CC-H-GT types

With these backing pads, COMBICLICK tools can be used on commercially available angle grinders.

The different hardnesses are colour-coded:

CC-GT (medium) = black

CC-H-GT (hard) = blue

Advantages:

- The geometry of the cooling slots significantly reduces the thermal load.
- High economic efficiency due to minimized tool change times.

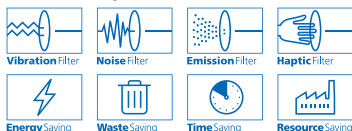
Recommendations for use:

- Type CC-H-GT is mainly used to work on stainless steel (INOX). It features very high edge strength, which enables a higher contact pressure.

Safety notes:

- The maximum peripheral speed is 80 m/s.

PFERDVALUE:

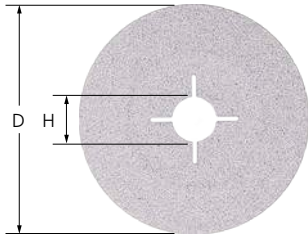


Suitable for CC dia. [mm]	Thread	Hardness	Suitable for machine types	EAN 4007220	Max. RPM		Description
125	M14	medium	Angle grinders 125, spindle M14	N! 223413	12,200	1	CC-GT 125 M14
	5/8	medium	Angle grinders 125, spindle 5/8"	N! 223468	12,200	1	CC-GT 125 5/8
	M14	hard	Angle grinders 125, spindle M14	N! 223451	12,200	1	CC-H-GT 125 M14
	5/8	hard	Angle grinders 125, spindle 5/8"	N! 223475	12,200	1	CC-H-GT 125 5/8



New in the PFERD product range

Fibre discs FS



Ceramic oxide grain CO-ALU type

For aggressive grinding with excellent stock removal rate for machining non-ferrous metals. Consistently high performance due to self-sharpening ceramic oxide grain.


Adhesion-reducing additives in the coating significantly reduce the chip adhesion and therefore reduce clogging of the fibre discs.

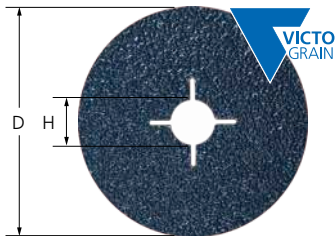
Abrasive:

Ceramic oxide grain CO-ALU

Ordering notes:

- Please complete the description with the desired grit size.

D [mm]	H [mm]	Grit size			Max. RPM		Description
		36	60	80			
		EAN 4007220					
100	16	N! 218839	N! 218846	N! 218853	15,300	25	FS 100-16 CO-ALU ...
115	22	N! 218860	N! 218884	N! 218891	13,300	25	FS 115-22 CO-ALU ...
125	22	N! 218907	N! 218945	N! 218983	12,200	25	FS 125-22 CO-ALU ...
180	22	N! 219003	N! 219058	N! 219065	8,500	25	FS 180-22 CO-ALU ...




VICTOGRAIN type

For extremely aggressive grinding with an extremely high tool life and an outstanding stock removal rate on steel and hard materials.

Outstanding, constant high performance thanks to the **VICTOGRAIN** abrasive grain.

Abrasive:

VICTOGRAIN

D [mm]	H [mm]	EAN 4007220	Max. RPM		Description
100	16	N! 176191	15,300	25	FS 100-16 VICTOGRAIN 36
115	22	N! 176207	13,300	25	FS 115-22 VICTOGRAIN 36
125	22	N! 176214	12,200	25	FS 125-22 VICTOGRAIN 36
180	22	N! 176238	8,500	25	FS 180-22 VICTOGRAIN 36



Here you will find the entire range of fibre discs.



N! New in addition to the Tool Manual 23
N! New in 2022

RS type

RS type COMBIDISC abrasive discs are outstandingly well suited for weld dressing of backwards repair welds, e.g. in cases, slots and grooves on engines and for processing welded-on combustor plates. Unlike on conventional abrasive discs, the abrasive coating is on the under-side of the tool, which allows backwards working.

Advantages:

- Ideal for use in extremely difficult to reach locations.
- Convenient and safe backward working.

Recommendations for use:

- Move the tool to the location to be worked. To grind, do not push it onto the surface, pull it towards yourself.
- To ensure optimum utilization of the grinding surface using the SBHR 20 or SBHR 25 abrasive disc holder.
- Always use the RS abrasive discs at the specified optimum rotational speed and do not adhere to the maximum permitted rotational speeds of the SBHR 20 or SBHR 25 holder.



RS aluminium oxide A-PLUS type

For universal applications from coarse to fine grinding, with a high stock removal rate and long tool life.

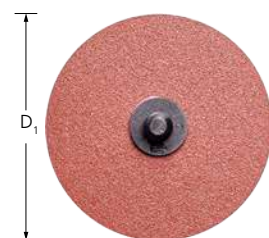
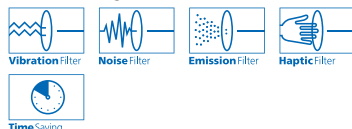
Abrasive:

Aluminium oxide A-PLUS

Ordering notes:

- Please complete the description with the desired grit size.

PFERDVALUE:



4

D ₁ [mm]	Grit size			Opt. RPM		Description
	60 PLUS	80 PLUS	120 PLUS			
	EAN 4007220					

CDR system



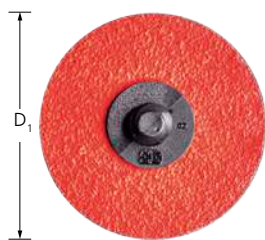
38	N! 241967	N! 241974	N! 241981	10,000–16,000	100	CDR 38 A ... RS
50	N! 242001	N! 242025	N! 242391	8,000–13,000	100	CDR 50 A ... RS
75	N! 242407	N! 242414	N! 242421	5,000–9,000	50	CDR 75 A ... RS



Here you will find further details and useful information about the wide range of COMBIDISC tools.

New in the PFERD product range

COMBIDISC – Abrasive discs CDR



Midget fibre discs RS ceramic oxide grain CO-COOL type

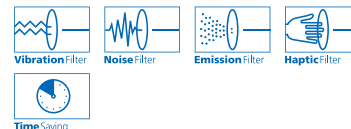
For aggressive grinding with maximum stock removal rate on hard materials which do not conduct heat well. Consistently high performance due to self-sharpening ceramic oxide grain.

Active grinding additives in the coating substantially improve the stock removal rate, prevent clogging and result in cooler grinding.

Abrasive:
Ceramic oxide grain CO-COOL

Ordering notes:
■ Please complete the description with the desired grit size.

PFERDVALUE:



D ₁ [mm]	Grit size			Opt. RPM		Description
	50	80	120			
	EAN 4007220					

CDR system



38	N! 074671	N! 222829	N! 222843	10,000–16,000	100	CDFR 38 CO-COOL ... RS
50	N! 241783	N! 241790	N! 241806	3,800–13,000	100	CDFR 50 CO-COOL ... RS
75	N! 241813	N! 241820	N! 241844	2,500–9,000	50	CDFR 75 CO-COOL ... RS

Silicon carbide SiC type

For universal grinding work on components made from aluminium, copper, bronze, titanium and fibre-reinforced plastics.

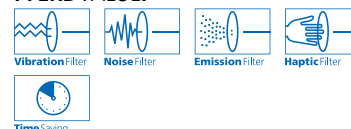
Particularly recommended for use on titanium alloys.

Ideally suited to use in the aeronautical industry, especially where SiC is the only approved abrasive, e.g. for use on engine components.

Abrasive:
Silicon carbide SiC

Ordering notes:
■ Please complete the description with the desired grit size.

PFERDVALUE:

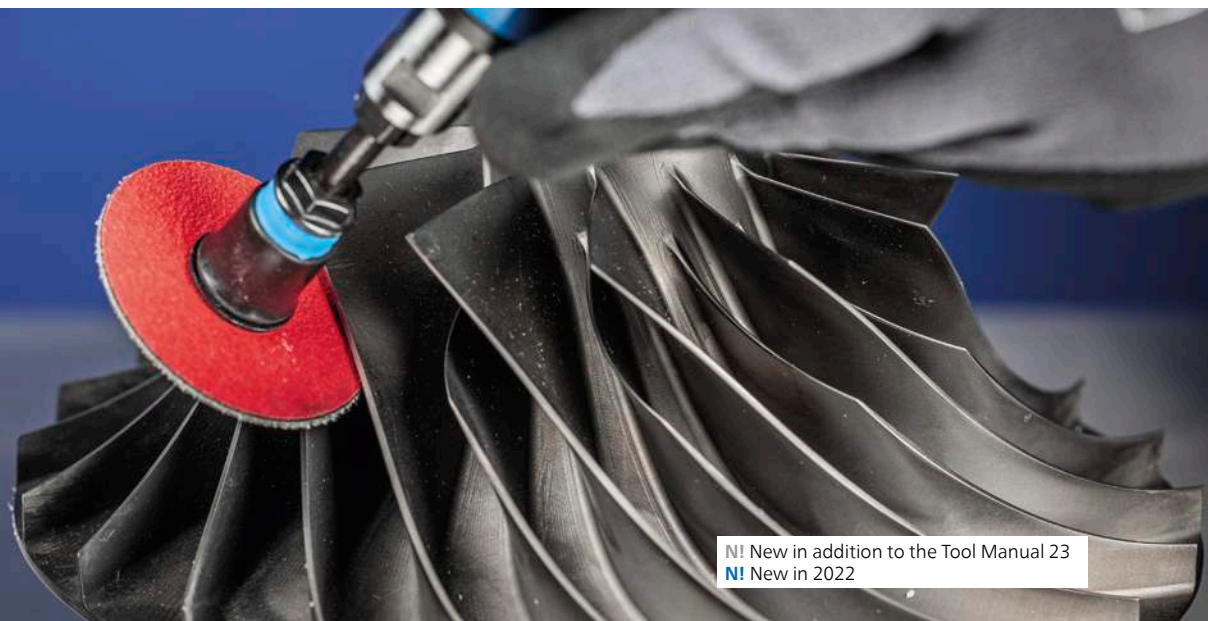


D ₁ [mm]	Grit size			Opt. RPM		Description
	60	80	120			
	EAN 4007220					

CDR system



38	N! 241851	N! 241868	N! 241875	10,000–16,000	100	CDR 38 SiC ... RS
50	N! 241882	N! 241899	N! 241912	3,800–13,000	100	CDR 50 SiC ... RS
75	N! 241929	N! 241936	N! 241943	2,500–9,000	50	CDR 75 SiC ... RS



DUST REMOVER

With the COMBIDISC DUST REMOVER, grinding dust can be extracted very effectively from places where something is ground. It can be universally used with all dust extraction systems (portable or stationary). The DUST REMOVER can be used with CD and CDR backing pads.

Advantages:

- Clean work environment with less dust.
- Compatible with all drive systems.
- Flexible tube for easy accessibility.

Recommendations for use:

- To guarantee effective extraction, the volumetric flow rate has to be at least 300 m³/h.
- Reducing the rotational speed increases the effectiveness of extraction.

Matching tool drives:

- Flexible shaft drives
- Straight grinders
- Angle grinders
- Cordless angle grinders

Ordering notes:

- Please order arbors or COMBIDISC abrasive disc holders separately. More detailed information and ordering data can be found in our Tool Manual 23, catalogue section 4, page 43.
- When ordering, please state the EAN or the full description.

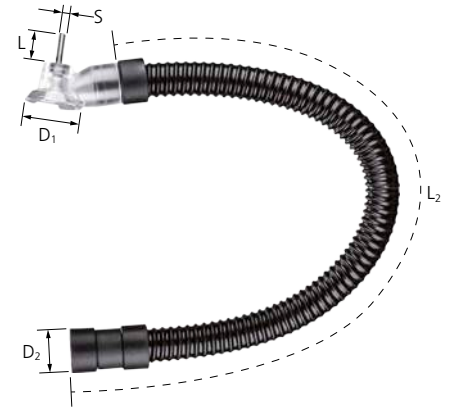
Safety notes:


- The maximum permitted peripheral speed is 50 m/s.
- For safety reasons, the specified maximum permitted rotational speed must never be exceeded.



Accessories:

- CD and CDR abrasive disc holders with a diameter of 50 mm or 75 mm.

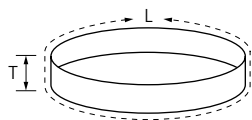
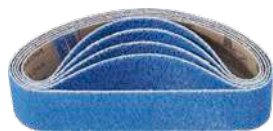


D ₁ [mm]	S [mm]	L [mm]	Thread	D ₂ [mm]	L ₂ [mm]	EAN 4007220	Matching arbor		Description
50	6	27	1/4-20 UNC	37	600	N! 158074	CD/CDR 50	1	CD DUST REMOVER CD-DR 50
75	6	27	1/4-20 UNC	37	600	N! 158081	CD/CDR 75	1	CD DUST REMOVER CD-DR 75



New in the PFERD product range

Short belts BA




VICTOGRAIN-COOL type

For extremely aggressive grinding with an extremely long tool life and an outstanding stock removal rate on steels and materials which are hard or have poor heat-conducting properties.

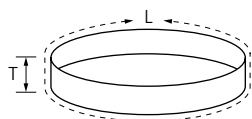
Outstanding, constant high performance thanks to the **VICTOGRAIN** abrasive grain.

Active grinding additives in the coating substantially improve the stock removal rate, prevent clogging and result in cooler grinding.

Abrasive:
VICTOGRAIN-COOL

L [mm]	T [mm]	Grit size	EAN 4007220		Description
450	50	36	N! 416259	10	BA 50/450 VICTOGRAIN COOL 36

Long belts BA




VICTOGRAIN-COOL type

For extremely aggressive grinding with an extremely long tool life and an outstanding stock removal rate on steels and materials which are hard or have poor heat-conducting properties.

Outstanding, constant high performance thanks to the **VICTOGRAIN** abrasive grain.

Active grinding additives in the coating substantially improve the stock removal rate, prevent clogging and result in cooler grinding.

Abrasive:
VICTOGRAIN-COOL

L [mm]	T [mm]	Grit size	EAN 4007220	Acc. to ISO standards		Description
2,000	50	36	N! 416280	2976	10	BA 50/2000 VICTOGRAIN COOL 36
	75	36	N! 416303	2976	10	BA 75/2000 VICTOGRAIN COOL 36
2,500	75	36	N! 416327	2976	10	BA 75/2500 VICTOGRAIN COOL 36



Here you will find the entire range of short and long abrasive belts.

The comprehensive range of pneumatic drum belts offers the best solutions for many applications, from aggressive grinding to fine grinding and also for polishing.

Advantages:

- Excellent economic efficiency due to high abrasive performance and long tool life.
- High tear strength with optimum flexibility.
- The rubber tube of the grinding drum yields flexibly under higher contact pressure, which reduces heat build-up and wear of the abrasive belts.

Applications:

- Structuring surfaces
- Polishing
- Step-by-step fine grinding

Recommendations for use:

- The air pressure of the pneumatic drum should be adjusted at the beginning of the grinding or polishing process.
 - The drum must be pumped up at least so far that the belts do not slip.
 - Use an air pump or compressed air gun for this purpose.
- To easily change the abrasive or polishing belts, discharge the air from the drum and refill after changing the belt.
- Short belts of the non-woven type perform best at a recommended cutting speed of 5–15 m/s.

Matching tool drives:

- Drum grinders

Ordering notes:

- Please complete the description with the desired grit size.

Safety notes:

- Observe the safety notes "Safety notes for the correct use of abrasive belts" provided by the German Abrasives Association (VDS). You can find this information at www.pferd.com.



Accessories:

- Pneumatic drum



Aluminium oxide A compact grain type

Outstandingly suited to fine and very fine grinding, and for step-by-step preparations for polishing.

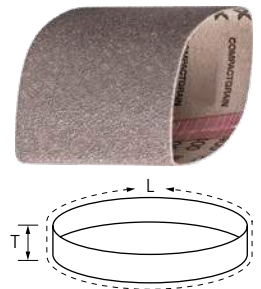
The self-sharpening compact grain facilitates a very long tool life and achieves consistent surface roughness throughout the entire tool life.


Abrasive:

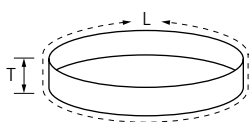
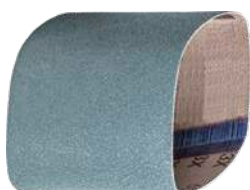
Aluminium oxide A compact grain

Ordering notes:

- Please complete the description with the desired grit size.



L [mm]	T [mm]	Grit size										Description
		120	180	240	320	400	600	800	1000	1200		
		EAN 4007220										
282	100	NI 149447	NI 149836	NI 149843	NI 149850	NI 149867	NI 149874	NI 149881	NI 149898	NI 149904	5	BA 100/282 A ... CK




Zirconia alumina Z type

For coarse grinding work with a high stock removal rate and a long tool life.

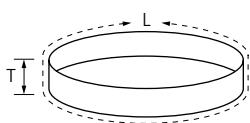
Abrasive:
Zirconia alumina Z

Ordering notes:

- Please complete the description with the desired grit size.

L [mm]	T [mm]	Grit size				Description
		40	60	80		
		EAN 4007220				
282	100	N! 149416	N! 149423	N! 149430	5	BA 100/282 Z ...

4



Ceramic oxide grain CO-COOL type


For aggressive grinding with the highest stock removal rates on hard materials which do not conduct heat well. Consistently high performance due to self-sharpening ceramic oxide grain.

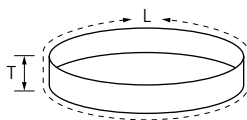
Active grinding additives in the coating substantially improve the stock removal rate, prevent clogging and result in cooler grinding.

Abrasive:
Ceramic oxide grain CO-COOL

Ordering notes:

- Please complete the description with the desired grit size.

L [mm]	T [mm]	Grit size					Description
		40	60	80	120		
		EAN 4007220					
282	100	N! 149300	N! 786307	N! 788295	N! 786314	5	BA 100/282 CO-COOL ...



Non-woven type

Suitable for universal work on surfaces such as metal constructions, e.g. removal of rough grinding traces, removal of oxidation and light deburring work. Achieve matt and satin-finished surfaces.


Abrasive:
Aluminium oxide A
Available POLIVLIES grit sizes:
100 G = coarse (yellow-brown)
180 M = medium (red-brown)
240 F = fine (blue)

Recommendations for use:

- For the best results, use at a recommended cutting speed of 5–15 m/s.

Ordering notes:

- Please complete the description with the desired grit size.

L [mm]	T [mm]	Grit size				Description
		100 G	180 M	240 F		
		EAN 4007220				
282	100	N! 146415	N! 146422	N! 146910	2	VB 100/282 A ...

Felt type

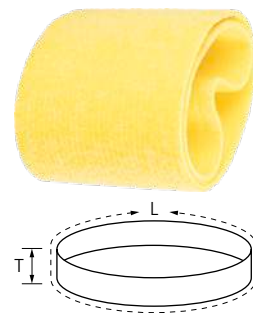
Suitable for polishing with polishing paste bars and grinding pastes on large surfaces.


Recommendations for use:

- For the polishing process, apply pre-polishing and high-gloss polishing successively.
- When changing the polishing paste, also replace the polishing belt in order not to introduce any contaminants from the previous work step.
- For the best results, use at a recommended cutting speed of 5–15 m/s.

Accessories:

- Grinding and polishing pastes



L [mm]	T [mm]	EAN 4007220		Description
282	100	N! 146408	2	P-BA 100/282

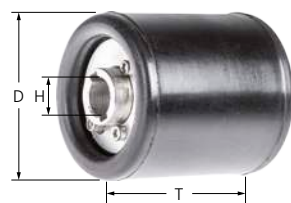
Pneumatic drums


Pneumatic drums

The pneumatic grinding drum is suitable for short belts with a width of 100 mm and a length of 282 mm. The rubber tube of the grinding drum yields under higher contact pressure, which is why the abrasive belt adapts very well to the surface to be machined and the contact area increases.

Recommendations for use:

- The air pressure of the pneumatic drum should be adjusted at the beginning of the grinding or polishing process.
 - The drum must be pumped up at least so far that the belts do not slip.
 - Use an air pump or compressed air gun for this purpose.
- To easily change the abrasive or polishing belts, discharge the air from the drum and refill after changing the belt.



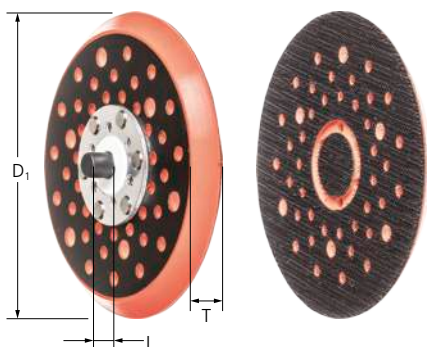
Suitable for short belts [mm]	D [mm]	T [mm]	H [mm]	EAN 4007220	Max. RPM		Description
100 x 282	90	100	19	N! 158142	3,800	1	PSW 90x100

4



New in the PFERD product range

Velcro-backed abrasive disc holder



Velcro-backed abrasive disc holder

Grinding dust can be extracted very effectively thanks to multiple holes in the velcro-backed abrasive disc holder. It can be used on many different eccentric orbital sanders with a 5/16" thread. This backing pad offers special advantages when used with velcro-backed abrasive discs of the NET type.

Advantages:

- Clean work environment with less dust.
- Versatile thanks to multiple holes.
- Compatible with many eccentric orbital sanders and velcro-backed abrasive discs.
- Extremely strong and durable hook-and-loop fastening system.

Recommendations for use:

- Using the protective pad for KSS-PP velcro-backed abrasive disc holders is recommended in order to increase the tool life of the backing pad.

Matching tool drives:

- Eccentric orbital sanders

Ordering notes:

- When ordering, please state the EAN or the full description.

Safety notes:

- Read the safety notes of the drive system.

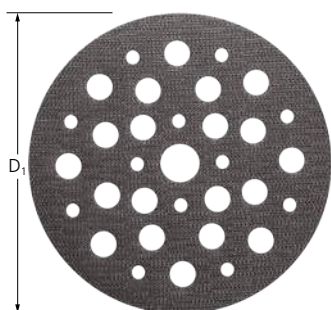


Accessories:

- Protective pad for KSS-PP velcro-backed abrasive disc holders

D ₁ [mm]	T [mm]	L [mm]	Thread	EAN 4007220	Suitable for velcro-backed abrasive discs dia. [mm]	Description
125	10	9	5/16 -24 UNF	N! 158098	125	1 KSS-H 125-5/16
150	10	9	5/16 -24 UNF	N! 158104	150	1 KSS-H 150-5/16

Protective pad for velcro-backed abrasive disc holders



Protective pad for velcro-backed abrasive disc holders

This protective pad protects backing pads against premature wear and can be universally used for all velcro-backed abrasive disc backing pads. Thanks to multiple holes in the protective pad for velcro-backed abrasive disc holders, grinding dust can be extracted very effectively.

Advantages:

- Protects backing pads against premature wear.
- Clean work environment with less dust.
- Versatile thanks to multiple holes.
- Compatible with many eccentric orbital sanders and velcro-backed abrasive discs.
- Extremely strong and durable hook-and-loop fastening system.

Recommendations for use:

- Replace this protective pad in good time to increase the tool life of the backing pad.

Matching tool drives:

- Eccentric orbital sanders

Ordering notes:

- When ordering, please state the EAN or the full description.

Safety notes:

- Read the safety notes of the drive system.



Accessories:

- Velcro-backed abrasive disc holder

D ₁ [mm]	EAN 4007220	Suitable for velcro-backed abrasive discs dia. [mm]	Description
125	N! 158111	125	5 KSS-PP 125
150	N! 158128	150	5 KSS-PP 150

Flexible sanding sticks are very well suited for machining components with lots of contours, hard-to-reach areas and narrow slots. They are excellently suited for use in engine construction and turbine construction as well as in tool and mould-making. The range consists of an extensive selection of grits from grit size 80 to 1,000, meaning that different surface qualities from rough to very fine can be successively achieved.

Advantages:

- Highly flexible, enabling optimum adjustment to the contour.

Materials that can be worked:

- Can be used on nearly all materials.

Applications:

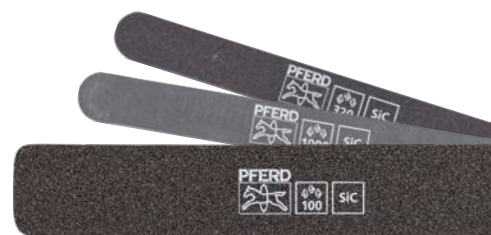
- Roughening
- Deburring
- Surface work
- Step-by-step fine grinding

Recommendations for use:

- Use the flexible sanding sticks with moderate pressure.
- They are optimally suited if only SiC is approved for machining, for example for drive parts in the aviation industry.

Ordering notes:

- When ordering, please state the EAN or the full description.
- **Ordering example:**
EAN 4007220172896
SF-R 180-19-5 SiC 80
- **Ordering example explanation:**
SF-R = Sanding stick with radius
180-19-5 = Dimensions
SiC = Abrasive
80 = Grit size



4

Flexible sanding sticks SF/SF-R

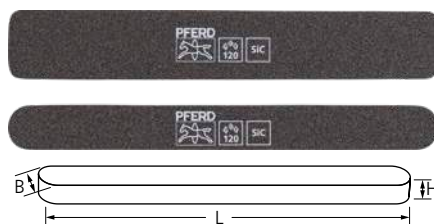
For machining components with lots of contours, hard-to-reach areas and narrow slots.


Abrasive:

Silicon carbide SiC

Ordering notes:

- Please complete the description with the desired grit size.



L x B x H [mm]	Grit size							Description
	80	100	120	180	240	320	1000	
EAN 4007220								
SF-R – with radius								
147 x 15 x 5	N! 172988	N! 173015	N! 173022	N! 173039	N! 173053	N! 173060	N! 173077	10 SF-R 147-15-5 SiC ...
180 x 19 x 5	N! 172896	N! 172902	N! 172926	N! 172933	N! 172957	N! 172964	N! 172971	10 SF-R 180-19-5 SiC ...
SF – without radius								
180 x 28 x 5	N! 173084	N! 173107	N! 173114	N! 173121	N! 173145	N! 173152	N! 173169	10 SF 180-28-5 SiC ...



New in the PFERD product range

POLINOX unitized wheels PNER



PNER type

Particularly suitable for work on smaller surfaces.

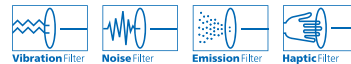
Abrasive:


Aluminium oxide A
Silicon carbide SiC

Ordering notes:

- Please complete the description with the desired hardness grade.

PFERDVALUE:



D [mm]	T [mm]	H [mm]	Grit size	Abrasives	Type				Opt. RPM	Max. RPM	Suitable arbors		Description
					W (soft)	MW (medium- soft)	MH (medium- hard)	H (hard)					
					EAN 4007220								

Type for straight grinders, flexible shafts and bench grinders

75	3	6	coarse	A	N! 136775	-	-	N! 136812	6,400	10,200	BO 6/6 3-10	10	PNER-... 7503-6 A G
			fine	A	-	-	N! 136805	505717	6,400	10,200	BO 6/6 3-10	10	PNER-... 7503-6 A F
				SiC	N! 136782	N! 136799	-	-	6,400	10,200	BO 6/6 3-10	10	PNER-... 7503-6 SiC F



Here you will find further details and useful information about the wide range of PNER and PNK non-woven tools.

Diamond grinding points for grey and nodular cast iron

Diamond grinding points with grit size D 852 are exceptionally well suited to machining grey cast iron and nodular cast iron (GG and GGG or GJL and GJS).

Advantages:

- Outstanding tool life.
- Fast, aggressive grinding with the highest possible stock removal rate.
- Easy and quick elimination of metal contamination thanks to diamond as a super-hard abrasive.
- Low dust load due to the dimensional stability of the grinding tool (no tool wear).

Materials that can be worked:

grey/nodular cast iron (GG/GJL, GGG/GJS)

Applications:

grinding out, weld dressing, deburring

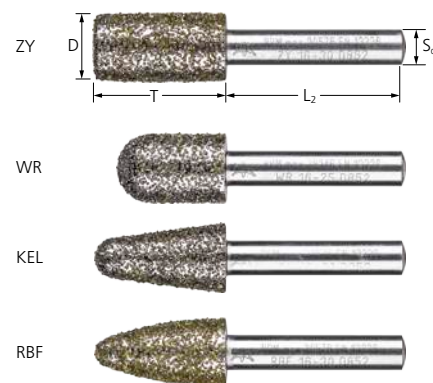
Recommendations for use:


- Dry grinding: 30–50 m/s

Matching tool drives:

flexible shaft drive, straight grinder, stationary machines

PFERDVALUE:



D x T [mm]	S _d [mm]	L ₂ [mm]	Grit size		Description
			D 852		
			EAN 4007220		
Cylindrical shape ZY					
24.0 x 30	8	40	N! 157435	1	DZY-N 24-30/8 D 852
Cylindrical shape with radius end WR					
20.0 x 30	8	40	N! 157503	1	DWR-N 20-30/8 D 852
24.0 x 30	8	40	N! 157510	1	DWR-N 24-30/8 D 852
Conical shape with radius end KEL					
12.0 x 25	6	40	N! 157541	1	DKEL-N 12-25/6 D 852
20.0 x 30	8	40	N! 157534	1	DKEL-N 20-30/8 D852
24.0 x 30	8	40	N! 157565	1	DKEL-N 24-30/8 D 852
Tree shape with radius end RBF					
20.0 x 30	8	40	N! 157572	1	DRBF-N 20-30/8 D 852

New in the PFERD product range

Cut-off wheels – Universal Line PSF ★★☆☆



PSF STEELOX ★★☆☆

Cut-off wheel for steel and stainless steel (INOX) with high cutting performance and long tool life.

Advantages:

- Universally suitable for steel and stainless steel (INOX).
- Fast work progress thanks to high cutting performance.
- High economic efficiency due to long tool life.
- Thin cut-off wheels are ideal for cordless angle grinders.
- **N!** Packaging unit of 10 pieces in a handy cardboard box.

Materials that can be worked:

steel, stainless steel (INOX)

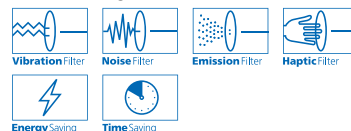
Applications:


cutting of sheet metal, profiles and solid material, cutting out holes

Abrasive:

Aluminium oxide A

PFERDVALUE:



D [mm]	T/U [mm]	EAN 4007220	H [mm]	Max. RPM		Description
Flat type EHT (shape 41)						
115	1.0	N! 152973	22.23	13,300	10	EHT 115-1,0 PSF STEELOX (10)
125	1.0	N! 153185	22.23	12,200	10	EHT 125-1,0 PSF STEELOX (10)



PSF HD STEELOX ★★☆☆

Cut-off wheel for steel and stainless steel (INOX) with high cutting performance and long tool life. HD version with fibreglass reinforcement for tough applications and improved cutting behaviour.

Advantages:

- Universally suitable for steel and stainless steel (INOX).
- Fast work progress thanks to high cutting performance.
- High economic efficiency due to long tool life.
- **N!** Thanks to the innovative fibreglass reinforcement, the HD version provides the highest degree of reliability and improved cutting behaviour.

Materials that can be worked:

steel, stainless steel (INOX)

Applications:

cutting of sheet metal, profiles and solid material, cutting out holes

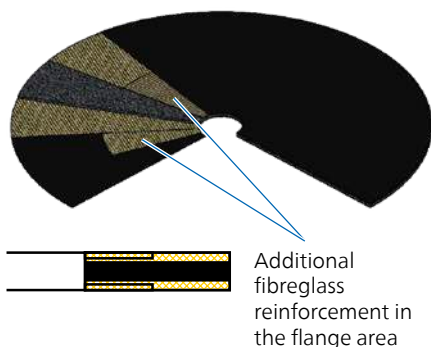
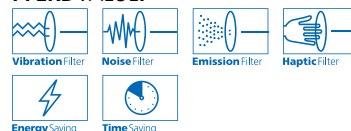
Abrasive:


Aluminium oxide A

Recommendations for use:

- Select the HD version for tough applications and improved cutting behaviour.

PFERDVALUE:



D [mm]	T/U [mm]	EAN 4007220	H [mm]	Max. RPM		Description
Flat type EHT (shape 41) HD						
230	1.9	N! 412503	22.23	6,600	25	EHT 230-1,9 PSF HD STEELOX



Here you can find all available versions, dimensions and packaging units for Universal Line PSF STEELOX cut-off wheels.

NITOCUT

NITOCUT is the first manual cutting system in the world for a peripheral speed of 100 m/s. The cut-off wheel developed by PFERD is characterized by its top cutting performance and outstanding tool life. The NITOCUT cutting system allows faster working and up to four times more cuts as well as a higher insertion depth than the cut-off wheels common on the market with the dimensions 125 x 1.0 mm. The unique cutting system meets the highest quality and safety standards.

Advantages:

- Ultimate cutting performance and tool life due to significantly increased cutting speed.
- High insertion depth.
- Unique, convenient cutting experience.
- Extremely high cut-off wheel reliability thanks to innovative fibreglass reinforcement.

Recommendations for use:

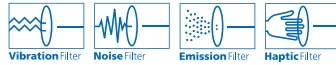
- The 100 m/s cutting system can be used like any conventional angle grinders.

Safety notes:

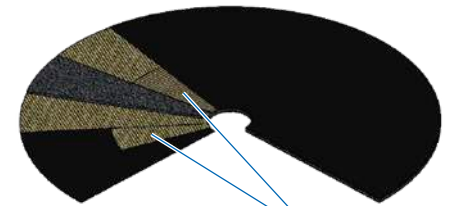
- Common cut-off wheels achieve a peripheral speed of a maximum of 80 m/s. They must not be used on the NITOCUT angle grinder.
- In order to prevent misuse, the specially produced angle grinder only allows the assembly of NITOCUT cut-off wheels.

PFERDVALUE:

PFERDERGONOMICS recommends the NITOCUT cutting system in order to sustainably reduce the vibration, noise and dust development that result during use and improve working comfort.



PFERDEFFICIENCY recommends the NITOCUT cutting system for working for long periods with low levels of fatigue, whilst saving resources and achieving perfect results as quickly as possible.



Additional fibreglass reinforcement in the flange area



INNOVATION

New in the PFERD product range

NITOCUT cut-off wheel – Special Line SGP ★★★★★



CERAMIC SGP NITOCUT STEELOX ★★★★★

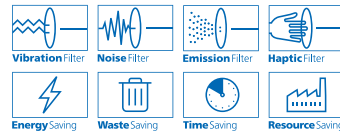
High-performance cut-off wheel for steel and stainless steel (INOX) with ultimate cutting performance and an excellent tool life.

Materials that can be worked:
steel, stainless steel (INOX)

Applications:
cutting of large cross sections, cutting of profiles and solid material, cutting of thin sheet metal, cutting out holes

Abrasive:
Ceramic oxide grain CO

PFERDVALUE:



D [mm]	T/U [mm]	EAN 4007220	H [mm]	Max. RPM		Description
Flat type EHT (shape 41)						
150	1.6	NI 219942	25.4	12,800	25	EHT 150-1,6 CERAMIC SGP NITOCUT STEELOX/25,4

NITOCUT pneumatic angle grinder

PWT 26/150 HV NITOCUT

12,000 RPM / 2,600 watts



Special features:

- Only suitable for 150 mm NITOCUT cut-off wheels.
- Very powerful turbine motor.
- Constant power delivery due to the centrifugal governor.
- Spindle lock pin for tool change with one key.

Included in delivery:

1/2" female connecting thread, 2 keys, 1 clamping nut, 1 clamping flange, guard, anti-vibration handle.

PFERDVALUE:



Description	EAN 4007220	Exhaust direction	Throttle type	Air consumption at idling speed [m³/min]	Air consumption under load [m³/min]	Spindle thread	Inner dia. of air supply hose [mm]	Tool mounting [mm]	Net weight [kg]
PWT 26/150 HV NITOCUT	NI 224038	bottom	lever	0.90	2.25	M14	16	25.4	2,200

You can find further information on the PWT 26/150 HV NITOCUT angle grinder on page 128.



Z SG POWER STEELOX ★★☆☆

The flap disc POLIFAN Z SG POWER stands out due to its aggressive stock removal rate and excellent tool life while achieving the highest level of efficiency. It is the best conventional flap disc for steel.

Advantages:

- Fast work progress and maximum economic efficiency thanks to the aggressive stock removal rate.
- Maximum aggressiveness over the entire tool life.
- Fewer tool changes due to the excellent tool life.
- **NI!** Grit size 50 offers an ideal combination of tool life and aggressiveness.

Materials that can be worked:

steel, stainless steel (INOX)

Applications:

weld dressing, chamfering, deburring

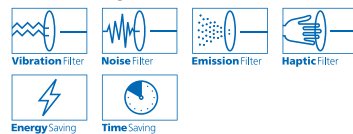
Abrasive:

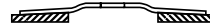
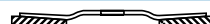
Zirconia alumina Z

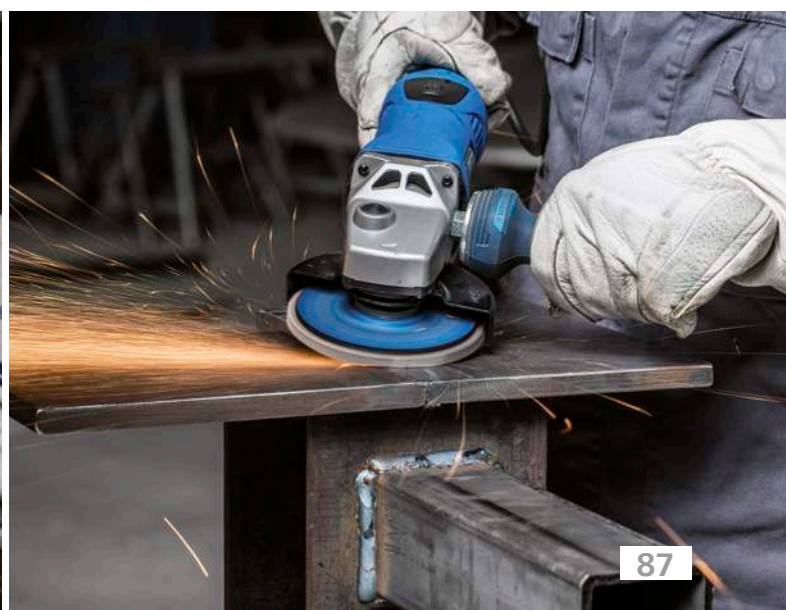
Recommendations for use:

- Also suitable for surface grinding on steel.

PFERDVALUE:



D [mm]	Grit size	H [mm]	Max. RPM		Description
	50				
	EAN 4007220				
Flat type PFF 					
115	NI 417652	22.23	13,300	10	PFF 115 Z ... SG POWER STEELOX
125	NI 417676	22.23	12,200	10	PFF 125 Z ... SG POWER STEELOX
180	NI 417690	22.23	8,500	10	PFF 180 Z ... SG POWER STEELOX
Conical type PFC 					
115	NI 416921	22.23	13,300	10	PFC 115 Z ... SG POWER STEELOX
125	NI 417614	22.23	12,200	10	PFC 125 Z ... SG POWER STEELOX
180	NI 417638	22.23	8,500	10	PFC 180 Z ... SG POWER STEELOX



New in the PFERD product range

POLIFAN flap discs – Universal Line PSF ★★☆☆

POLIFAN-TRIM

POLIFAN flap disc with plastic backer for trimming the tool.

Advantages:

- Trimming the tool enables the abrasive to be used optimally.

Recommendations for use:

- Trim the flap disc on sharp metal edges, files or with cutting inserts.
- Trimming should only be carried out from a contact angle of 45° (see drawing on p. 90).
- Press the tool carefully on to the workpiece and increase the pressure until a chip is formed. Keep the pressure until the tool has been brought to the desired dimension.
- The backing pad may be trimmed until the flaps protrude by 5 mm, but must not be trimmed further.



Z PSF TRIM STEELOX ★★☆☆

The flap disc stands out due to its aggressive stock removal rate and long tool life.

Advantages:

- Fast work progress and high economic efficiency thanks to the aggressive stock removal rate.
- Long tool life.
- Also suitable for low-power angle grinders.

Materials that can be worked:
steel, stainless steel (INOX)

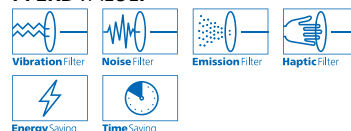
Applications:

surface grinding, weld dressing, chamfering, deburring

Abrasive:

Zirconia alumina Z

PFERDVALUE:



D [mm]	Grit size			H [mm]	Max. RPM		Description
	40	60	80				
	EAN 4007220						

Conical type PFC



115	N! 420256	N! 420270	N! 420294	22.23	13,300	10	PFC 115 Z ... PSF TRIM STEELOX
125	N! 420317	N! 420331	N! 420355	22.23	12,200	10	PFC 125 Z ... PSF TRIM STEELOX

POLIFAN flap discs – Performance Line SG ★★☆☆



Z SG POWER TRIM STEELOX ★★☆☆

The flap disc POLIFAN POWER stands out due to its aggressive stock removal rate and excellent tool life while achieving the highest level of efficiency. It is the best conventional flap disc for steel.

Advantages:

- Fast work progress and maximum economic efficiency thanks to the aggressive stock removal rate.
- Maximum aggressiveness over the entire tool life.
- Fewer tool changes due to the excellent tool life.

Materials that can be worked:
steel, stainless steel (INOX)

Applications:

weld dressing, chamfering, deburring

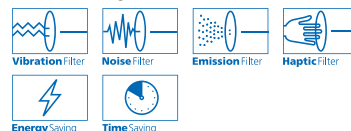
Abrasive:

Zirconia alumina Z

Recommendations for use:

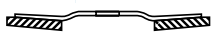
- Also suitable for surface grinding on steel.

PFERDVALUE:



D [mm]	Grit size			H [mm]	Max. RPM		Description
	40	60	80				
	EAN 4007220						

Conical type PFC



115	N! 420140	N! 420133	N! 420171	22.23	13,300	10	PFC 115 Z ... SG POWER TRIM STEELOX
125	N! 416167	N! 420195	N! 420218	22.23	12,200	10	PFC 125 Z ... SG POWER TRIM STEELOX

POLIFAN-DURABLE

The powerful POLIFAN Z SG DURABLE flap disc is especially well-suited to applications in which the flaps are subjected to higher mechanical loads and to applications involving coarser work, e.g. chamfering or working on burn burrs. The POLIFAN flap disc offers a combination of the ultimate tool life and maximum stock removal rate.

Advantages:

- Fast work progress and maximum economic efficiency thanks to the aggressive stock removal rate.
- Maximum aggressiveness over the entire tool life.
- Fewer tool changes due to the ultimate tool life.

POLIFAN Z SG DURABLE STEEL ★★☆☆

The POLIFAN DURABLE flap disc stands out due to its aggressive stock removal rate and ultimate tool life while achieving maximum economic efficiency.

Materials that can be worked:

steel

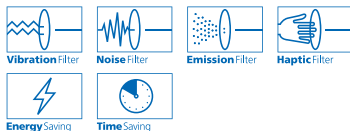
Applications:



work on weld seams, chamfering, deburring

Abrasive:

Zirconia alumina Z

PFERDVALUE:



D [mm]	Grit size		H [mm]	Max. RPM		Description
	40	60				
	EAN 4007220					
Conical type PFC 						
115	N! 419984	N! 420003	22.23	13,300	10	PFC 115 Z ... SG DURABLE STEEL
125	N! 420027	N! 420041	22.23	12,200	10	PFC 125 Z ... SG DURABLE STEEL



Here you can find further details and learn more about the wide range of POLIFAN flap discs.



New in the PFERD product range

CC-GRIND grinding discs – Performance Line SG ★★★★★

CC-GRIND-ROBUST

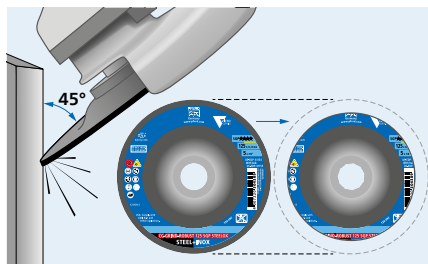
With the CC-GRIND-ROBUST, PFERD offers a modern, high-performance and ergonomic alternative to conventional grinding wheels, flap wheels and fibre discs.

Advantages:

- The fastest work progress due to highly aggressive abrasive.
- Glass fibre backing pad guarantees durable and safe use.
- Significantly more ergonomic than a conventional grinding wheel: noise, vibrations and dust are significantly reduced. In addition, a clearly superior surface is achieved.
- Compared to flap discs, flat surfaces can be achieved due to the dimensional stability.
- Unlike fibre discs, the CC-GRIND-ROBUST does not deform even under extreme climatic conditions and is significantly more robust in rough use.
- Thanks to the adapted geometry, the use of a special clamping flange set is not necessary.
- Resetting/trimming the tool is possible without any problems.

Recommendations for use:

- Trim the CC-GRIND-ROBUST on sharp metal edges, files or with cutting inserts.
- Trimming may only be carried out with a contact angle of 45°.
- Press the tool carefully on to the workpiece and increase the pressure until a chip is formed. Keep the pressure until the tool has been brought to the desired dimension.



CC-GRIND-ROBUST SG STEELOX ★★★★★

Grinding wheel for steel and stainless steel (INOX) with high grinding performance and long tool life.

Materials that can be worked:
steel, stainless steel (INOX)

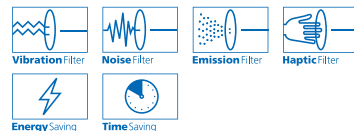
Applications:
surface grinding, weld dressing, chamfering, deburring

Recommendations for use:

- For optimum results, use with a flat contact angle.

- Only use the face of the disc, not suitable for peripheral grinding.
- Choose the CC-GRIND-ROBUST SG STEELOX for deburring.

PFERDVALUE:



D [mm]	EAN 4007220	H [mm]	Max. RPM		Description
ROBUST					
115	N! 304419	22.23	13,300	10	CC-GRIND-ROBUST 115 SG STEELOX
125	N! 304433	22.23	12,200	10	CC-GRIND-ROBUST 125 SG STEELOX



CC-GRIND-ROBUST with VICTOGRAIN abrasive grain

VICTOGRAIN products are some of the most effective grinding tools in the world. PFERD's triangular, precision-formed abrasive grain achieves uniquely high abrasive performance.

The **VICTOGRAIN** abrasive grain triangles are identical in shape and size and their cutting edges are applied to the workpiece at the optimum angle, meaning the grain needs very little energy to penetrate the workpiece. As such, the user benefits from an efficient machining process with

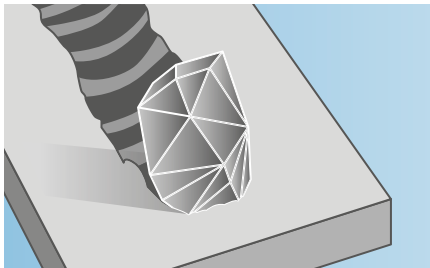
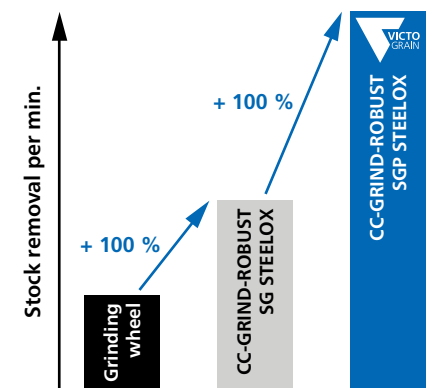
- fast working,
- a long tool life,
- less heat build-up in the workpiece, and
- a lower power output required for the tool drive.

The **VICTOGRAIN** abrasive grain triangles are fixed to the substrate on one of their sides. This means they are securely fixed in place and, together with their slim design, offer an extremely large chip space in order to further improve machining efficiency.

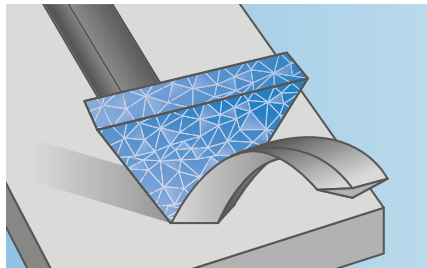
The structure of the triangular **VICTOGRAIN** has also been specially adapted to maximize results. The very small crystals inside the triangles ensure optimal wear characteristics as sharp cutting edges are always exposed, but only the minimum amount of abrasive grain/ the triangle breaks off. By combining all these properties together, users benefit from optimal, constant performance during cool grinding and an extremely long tool life together with consistent workpiece surface roughness.

The CC-GRIND-ROBUST SGP with **VICTOGRAIN** unites the best available abrasive with innovative, state-of-the-art PFERD tool designs. It has all the advantages of the CC-GRIND-ROBUST SG, but surpasses it in terms of aggressiveness:

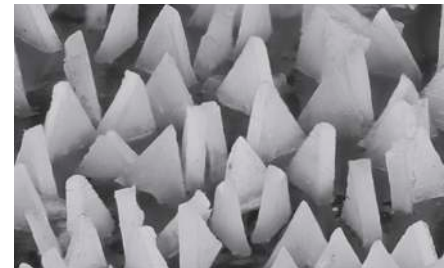
- Providing the ultimate in aggressive performance for super-fast working.
- Although the **VICTOGRAIN** tools only come with a single coating of abrasive grit, they offer an outstanding tool life which exceeds that of conventional grinding wheels and many flap discs.



Conventional abrasive grit



VICTOGRAIN abrasive grit



The **VICTOGRAIN** abrasive grit is optimally aligned

CC-GRIND-ROBUST SGP STEELOX ★★★★★

Grinding wheel with triangular, precision-formed **VICTOGRAIN** abrasive grain for steel and stainless steel (INOX) with extremely high grinding performance and outstanding tool life.

Materials that can be worked:
steel, stainless steel (INOX)

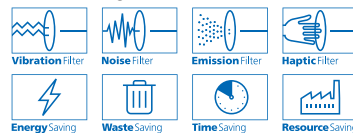
Applications:



surface grinding, weld dressing, chamfering, deburring

Recommendations for use:

- For optimum results, use with a flat contact angle.
- Only use the face of the disc, not suitable for peripheral grinding.
- Choose the CC-GRIND-ROBUST SGP STEELOX if you want results as fast as possible.

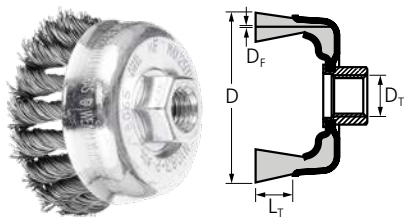
PFERDVALUE:



	D [mm]	EAN 4007220	H [mm]	Max. RPM		Description
ROBUST 						
	115	N! 304372	22.23	13,300	10	CC-GRIND-ROBUST 115 SGP STEELOX
	125	N! 304396	22.23	12,200	10	CC-GRIND-ROBUST 125 SGP STEELOX

New in the PFERD product range

Cup brushes, knotted



TBG

Aggressive brush. Excellent for heavy-duty brushing such as deburring, cleaning and derusting on large surfaces.

Advantages:

- Aggressive brushing effect due to the very stiff wire knots.

Recommendations for use:

- For optimum results, use on powerful angle grinders.

Ordering notes:

- DIA type brushes are supplied with 1 piece per PU.
- Grit size DIA 270 = D 64

D [mm]	L _T [mm]	D _T	D _F [mm]	Knots [pcs.]	Packaging	Rec. RPM	Max. RPM	Description
					EAN 4007220			

Stainless steel wire (INOX) diamond (DIA)

65	22	M14x2	0.50	18	N! 160121	1,500–3,700	12,500	TBG 65/M14 INOX 0,50 DIA 270
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Wheel brushes, knotted



RBG CT, COMBITWIST, stationary

Very aggressive and robust brush that is able to withstand high mechanical loads. Suitable for all heavy-duty stationary and automated brushing, e.g. deburring work.

Advantages:

- Aggressive brushing effect due to the very stiff wire knots.
- Can be used with all common stationary drive systems and bench grinders thanks to the variable arbor hole diameter.
- Maximum economic efficiency due to extremely high tool life as well as increased stock removal.
- High level of comfort thanks to smooth running with no brush recoiling.
- Suitable for work on corners and edges as the knots are less likely to unravel.

PFERDVALUE:



D [mm]	W _F [mm]	L _T [mm]	D _A [mm]	Knots [pcs.]	D _F [mm]	Keyway [mm]	Packaging	Rec. RPM	Max. RPM	Description
							EAN 4007220			

Steel wire (ST) – COMBITWIST type

350	20	56	50.8	80	0.50	6.3 x 12.7	N! 223758	700–3,000	3,600	RBG 35020/50,8 CT ST 0,50
380	20	67	50.8	80	0.50	6.3 x 12.7	N! 223765	700–3,000	3,600	RBG 38020/50,8 CT ST 0,50



Adapter pair AM 50,8/...:

Reduces the arbor hole diameters to the required dimensions. Suitable for wheel brushes with a brush diameter as from 150 mm in the wide and composite types.

For more information:

Detailed information on accessories can be found in our Tool Manual 23, catalogue section 8.

RBU, slim

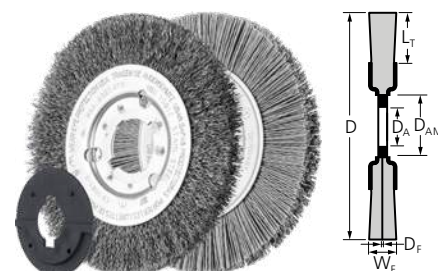
Excellent for medium-duty hand-held or automated brushing of workpieces with large surfaces.

Advantages:

- Can be used with all common stationary drive systems and bench grinders thanks to the variable arbor hole diameter.
- Can be packed as wide rollers without gaps because of their special design.
- Highly flexible, enabling optimal adjustment to the workpiece contour.

Ordering notes:

- Please order adapter set AK 32 separately.
- Wheel brushes with arbor hole diameter 31.8 mm can be used with adapter set AK 32.



D [mm]	W _F [mm]	L _T [mm]	D _A [mm]	D _{AM} [mm]	D _F [mm]	Packaging	Rec. RPM	Max. RPM	Description
									
						EAN 4007220			

Diamond (DIA) plastic filament

100	12	19	16	-	0.35	N! 159293	2,000–5,000	12,000	RBU 10012/16,0 DIA 600 0,35
150	12	29	31.8	-	0.35	N! 159859	1,000–3,500	6,000	RBU 15012/31,8 DIA 600 0,35
200	12	38	50.8	-	0.35	N! 159866	900–1,500	4,500	RBU 20012/50,8 DIA 600 0,35

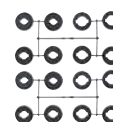


Arbor BO 8/12-14 100-125
(EAN 4007220**107843**): For crimped wheel brushes with a diameter of 100–125 mm and a D_A / D_{AM} of 12 mm and 14 mm.

BO 12/22,2 150-180
(EAN 4007220**107850**): For knotted and crimped wheel brushes with a diameter of 150–180 mm and a D_A of 22.2 mm.



BO 12/22,2 200
(EAN 4007220**107867**): For knotted and crimped wheel brushes with a diameter of 200 mm and a D_A of 22.2 mm.



Adapter set AK 32
(EAN 4007220**608593**): Arbor hole diameters contained in the set in mm (inch): 20 / 18 / 14 / 12 / 25.4 (1) / 22.2 (7/8) / 16 (5/8) / 12.7 (1/2).

For more information:
Detailed information on accessories can be found in our Tool Manual 23, catalogue section 8.

RBU, wide, universal use

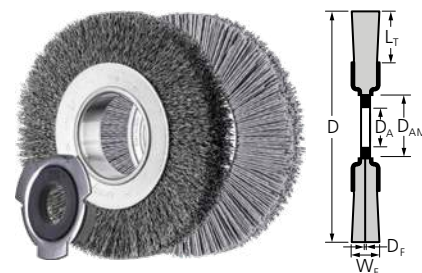
Excellent for medium-duty hand-held or automated brushing of workpieces with large surfaces. Developed for universal use in the workshop.


Advantages:

- Can be used with all common stationary drive systems and bench grinders thanks to the variable arbor hole diameter.

Ordering notes:

- Diameters of 250 mm are supplied together with adapter set AK 32-2.



D [mm]	W _F [mm]	L _T [mm]	D _A [mm]	D _{AM} [mm]	D _F [mm]	Packaging	Rec. RPM	Max. RPM	Description
									
						EAN 4007220			

Steel wire (ST)

250	30	46	AK 32-2	50.8	0.20	N! 224229	1,400–2,300	3,600	POS RBU 25030/AK32-2 ST 0,20
	30	46	AK 32-2	50.8	0.30	N! 224267	1,400–2,300	3,600	POS RBU 25030/AK32-2 ST 0,30

Stainless steel wire (INOX)

250	30	46	AK 32-2	50.8	0.20	N! 224298	1,400–2,300	3,600	POS RBU 25030/AK32-2 INOX 0,20
	30	46	AK 32-2	50.8	0.30	N! 224311	1,400–2,300	3,600	POS RBU 25030/AK32-2 INOX 0,30

Silicon carbide (SiC) plastic filament

250	30	46	AK 32-2	50.8	1.10	N! 224328	1,400–2,300	3,600	POS RBU 25030/AK32-2 SiC 120 1,10
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Suitable arbors can be found above.



Adapter set AK 32-2 (EAN 4007220**806890**): Arbor hole dia. contained in the set in mm (inch): 31.75 / 20 / 18 / 14 / 12 / 25.4 (1) / 22.2 (7/8) / 19.2 (.750) / 16 (5/8) / 12.7 (1/2).

Note: Adapter pairs AM 50,8 for brushes with a D_{AM} of 50.8 mm can be used in applications involving high levels of heat and forces.

New in the PFERD product range

Composite brushes

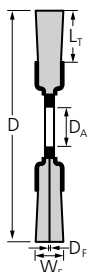
Composite brushes from PFERD have been specifically developed for industrial, automated use. They are suitable for a variety of applications and their variable clamping options mean that they can be used on many different drive systems. This offers the advantage that the workpiece can be produced and finished on the same machine. As a result, labour-intensive, manual work is reduced and reproducible results are achieved with short cycle times.

The standard type of composite brushes is suitable for tasks requiring aggressive brushing behaviour. The FLEX type is more flexible than the standard type due to its longer trim length on wheel brushes and the special arrangement of the filament on composite disc brushes, and it is particularly well suited to work on irregular surfaces.

For efficient use, numerous application parameters such as the processing time and feed rate must be coordinated with each other and the suitable brush must be selected. PFERD offers a wide range of products for the various applications. Our experienced sales representatives and technical advisers will be happy to help or visit you. Our worldwide sales addresses can be found at: www.pferd.com



Composite – Wheel brushes, crimped



RBUP

Particularly aggressive brush. Its plastic filament makes this product particularly suitable for deburring complicated components such as cylinder heads or gear toothing. Developed specially for industrial use.

Advantages:

- Long tool life and aggressive brushing effect due to a very high filament density.
- Extremely smooth operation due to even distribution of the filament material.

Recommendations for use:


- Use CO as the filament material for particularly aggressive work and a high workpiece surface quality.

Ordering notes:

- Please complete the description with the desired grit size and filament material diameter (D_f).
- Please order adapter pairs APM 50,8 separately.

PFERDVALUE:



D [mm]	W _F [mm]	L _T [mm]	D _A [mm]	Grit size / D _F [mm]		Rec. RPM	Max. RPM		Description
				80	120				
				1,10	1,10				
EAN 4007220									

Ceramic oxide grain (CO) plastic filament

150	13	32	50.8	N! 159873	N! 159880	900–1,500	3,600	1	RBUP 15013/50,8 CO ...
200	13	32	50.8	N! 159910	N! 159941	900–1,500	3,600	1	RBUP 20013/50,8 CO ...



Arbor BO 12/22,2 150-180
(EAN 4007220107850): For knotted and crimped wheel brushes with a diameter of 150–180 mm and a D_A of 22.2 mm.



BO 12/22,2 200
(EAN 4007220107867): For knotted and crimped wheel brushes with a diameter of 200 mm and a D_A of 22.2 mm.

Note: Adapter pair AM 50,8/22,2
(EAN 4007220806906) is required to use the product with arbors.



Adapter pair AM 50,8/ ...:
Reduces the arbor hole diameters to the required dimensions. Suitable for wheel brushes with a brush diameter as from 150 mm in the wide and composite types.

RBUP, FLEX

Particularly flexible brush. Its plastic filament makes this product particularly suitable for deburring complicated components such as cylinder heads or gear toothing. Developed specially for industrial use.

Advantages:

- Long tool life and aggressive brushing effect due to a very high filament density.
- Extremely smooth operation due to even distribution of the filament material.
- Highly flexible, enabling optimal adjustment to the workpiece contour and less heat build-up.

Recommendations for use:

- Use CO as the filament material for particularly aggressive work and a high workpiece surface quality.

Ordering notes:

- Please complete the description with the desired grit size and filament material diameter (D_f).
- Packaging unit: 1 piece

PFERDVALUE:



D [mm]	W _F [mm]	L _T [mm]	D _A [mm]	Keyway [mm]	Grit size / D _F [mm]				Rec. RPM	Max. RPM	Description
					80 1.10	120 0.55	120 1.10	320 0.55			
					EAN 4007220						

Silicon carbide (SiC) plastic filament – FLEX type

300	13	60	50.8	6.3 x 12.7	-	-	-	N! 160053	500–800	1,800	RBUP 30013/50,8 SiC ... FLEX
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Ceramic oxide grain (CO) plastic filament – FLEX type

200	13	57	50.8	-	N! 159897	-	N! 159903	-	900–1,500	3,600	RBUP 20013/50,8 CO ... FLEX
250	13	70	50.8	6.3 x 12.7	N! 159965	N! 159972	N! 159989	-	900–1,500	3,600	RBUP 25013/50,8 CO ... FLEX
300	13	60	50.8	6.3 x 12.7	N! 159996	-	N! 160022	-	500–800	1,800	RBUP 30013/50,8 CO ... FLEX
350	13	89	50.8	6.3 x 12.7	N! 160060	-	N! 160077	-	500–800	1,800	RBUP 35013/50,8 CO ... FLEX



BO 12/22,2 200

(EAN 4007220107867):

For knotted and crimped wheel brushes with a diameter of 200 mm and a D_A of 22.2 mm.

Note:

Adapter pair AM 50,8/22,2

(EAN 4007220806906) is required to use the product with arbors.



Adapter pair AM 50,8/...:

Reduces the arbor hole dimensions. Suitable for wheel brushes with a brush diameter as from 150 mm in the wide and composite versions.

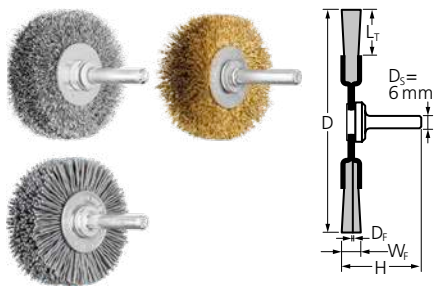
For more information:

Detailed information on accessories can be found in our Tool Manual 23, catalogue section 8.



New in the PFERD product range

Shank mounted wheel brushes, crimped



RBU

Universally suitable for cleaning, derusting, smoothing, cleaning of weld seams, light deburring, and removal of corrosion and paint.

Advantages:

- Highly flexible, enabling optimal adjustment to the workpiece contour.

Recommendations for use:

- For the best results, use a tool drive with a minimum output of 300 watts.

D [mm]	W _F [mm]	L _T [mm]	D _F [mm]	H [mm]	Packaging  EAN 4007220	Rec. RPM	Max. RPM	Description
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Steel wire (ST)

100	15	25	0.20	51	N! 384107	6,000–9,000	12,000	RBU 10015/6 ST 0,20
	15	25	0.30	51	N! 384046	6,000–9,000	12,000	RBU 10015/6 ST 0,30
	20	25	0.20	54	N! 384206	6,000–9,000	12,000	RBU 10020/6 ST 0,20
	20	25	0.30	54	N! 384152	6,000–9,000	12,000	RBU 10020/6 ST 0,30

Stainless steel wire (INOX)

100	15	25	0.20	51	N! 360590	4,800–7,800	12,000	RBU 10015/6 INOX 0,20
	15	25	0.30	51	N! 384220	4,800–7,800	12,000	RBU 10015/6 INOX 0,30
	20	25	0.20	54	N! 360750	4,800–7,800	12,000	RBU 10020/6 INOX 0,20
	20	25	0.30	54	N! 360736	4,800–7,800	12,000	RBU 10020/6 INOX 0,30



TBU, for power drills

Universally suitable for cleaning, derusting and smoothing, as well as removal of corrosion and paint. Particularly suitable for brushing on large, flat and easily accessible surfaces due to facedown use with the entire brush face applied to the workpiece. Specially developed for use with low rotational speeds on cordless drills and power drills.


Advantages:

- Highly flexible, enabling optimal adjustment to the workpiece contour.

Recommendations for use:

- For the best results, use a tool drive with a minimum output of 300 watts.



D [mm]	D _s [mm]	D _f [mm]	EAN 4007220	Max. RPM		Description
Steel wire (ST)						
50	6	0.30	N! 353615	4,500	1	POS TBU 50/6 ST 0,30 UNIVERSAL (1)
Stainless steel wire (INOX)						
50	6	0.30	N! 353622	4,500	1	POS TBU 50/6 INOX 0,30 UNIVERSAL (1)
Brass wire (MES)						
50	6	0.20	N! 353639	4,500	1	POS TBU 50/6 MES 0,20 UNIVERSAL (1)
Plastic filament, coarse (RED)						
50	6	1.27	N! 353646	4,500	1	POS TBU 50/6 RED 80 UNIVERSAL (1)
Plastic filament, fine (BLUE)						
50	6	1.10	N! 353653	4,500	1	POS TBU 50/6 BLUE 180 UNIVERSAL (1)

Universal shank mounted wheel brushes, crimped

RBU, for power drills

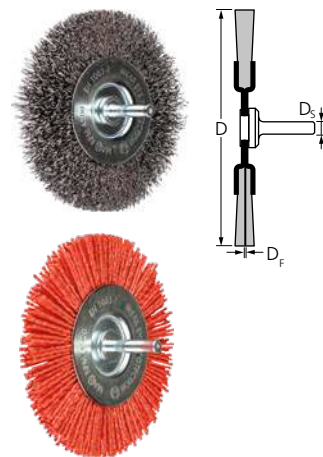
Universally suitable for cleaning, derusting, smoothing, cleaning of weld seams, light deburring, and removal of corrosion and paint. Specially developed for use with low rotational speeds on cordless drills and power drills.


Advantages:

- Highly flexible, enabling optimal adjustment to the workpiece contour.

Recommendations for use:




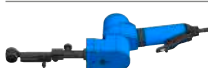







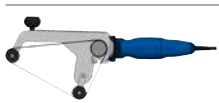



- For the best results, use a tool drive with a minimum output of 300 watts.



D [mm]	D _s [mm]	D _f [mm]	EAN 4007220	Max. RPM		Description
Steel wire (ST)						
100	6	0.30	N! 353660	4,500	1	POS RBU 10012/6 ST 0,30 UNIVERSAL (1)
Plastic filament, coarse (RED)						
100	6	1.27	N! 353677	4,500	1	POS RBU 10010/6 RED 80 UNIVERSAL (1)
Plastic filament, fine (BLUE)						
100	6	1.10	N! 353684	4,500	1	POS RBU 10010/6 BLUE 180 UNIVERSAL (1)

New in the PFERD product range

What the machine designations mean

Figure	Description				Performance group	Rotational speed	Designs, throttle types, tool mountings
Air grinders							
	P Pneumatic	G Straight grinder	A Rear exhaust	S Collet	2 x 100 watts	800 x 100 RPM	E Elastic bearing Z Two-handed M Medium length V Extended DV Ring throttle HV Lever throttle DS Instant start
	P Pneumatic	W Angle grinder	A Rear exhaust	S Collet	1 x 100 watts	800 x 100 RPM	DV Ring throttle HV Lever throttle
	P Pneumatic	M Motor	A Rear exhaust		10 x 100 watts	200 x 100 RPM	HV Lever throttle
	P Pneumatic	B Belt grinder	A Front exhaust		2 x 100 watts	200 x 100 RPM	HV Lever throttle
	P Pneumatic	F Filing machine			4 Stroke length in mm	84 x 100 strokes per minute	SV Push-pull throttle HV Lever throttle
	MST Marking pen				32 x 1000 strokes per minute		DV Ring throttle F Needle gauge: fine
	P Pneumatic	G Straight grinder	T Turbine motor	S Collet	1 x 100 watts	1000 x 100 RPM	RS Robot spindle
	P Pneumatic	G Straight grinder	A Rear exhaust	S Collet	3 x 100 watts	370 x 100 RPM	RS Robot spindle LL Anti-clockwise rotation
	P Pneumatic	W Angle grinder	A Rear exhaust	S Collet	4 x 100 watts	180 x 100 RPM	RS Robot spindle
Electric grinders							
	E Electric	G Straight grinder	ER Electronically regulated		8 x 100 watts	280 x 100 RPM	
	E Electric	B Belt grinder	ER Electronically regulated		8 x 100 watts	280 x 100 RPM	
	E Electric	B Belt grinder	ER Electronically regulated		12 x 100 watts	25 x 100 RPM	R Pipe belt grinder
	E Electric	W Angle grinder	ER Electronically regulated		17 x 100 watts	75 x 100 RPM	
	E Electric	S Burnishing machine	ER Electronically regulated		12 x 100 watts	25 x 100 RPM	
	E Electric	M Motor	ER Electronically regulated		8 x 100 watts	280 x 100 RPM	BW Flexible shaft



Special features:

- Light and easy to handle.
- Elastically mounted spindle.
- Low vibrations when working.
- Is held like a pen.
- Detachable spindle sleeve.

PGAS 2/800 E-HV

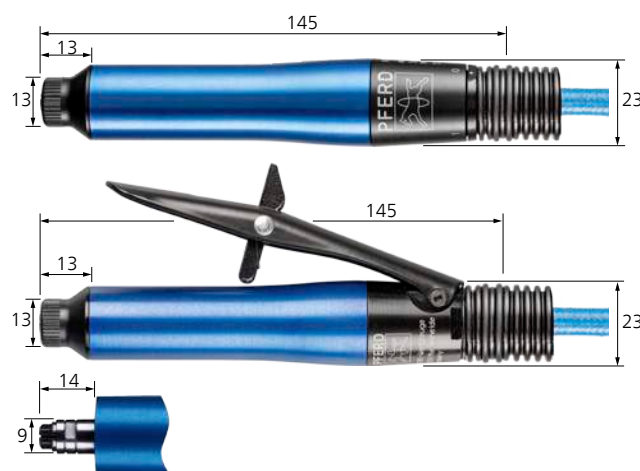
- Dead man's switch using safety lever valve.

Included in delivery:

0.75 m exhaust hose and 1.5 m air supply hose with 1/4" male threaded connection and threaded quick coupling (STGI), 3 mm collet, 2 keys.

PGAS 2/800 E-DV PGAS 2/800 E-HV

80,000 RPM / 110 watts



PFERDVALUE:



Description	EAN 4007220	Exhaust direction	Throttle type	Air consumption at idling speed [m³/min]	Air consumption under load [m³/min]	Collet group	Inner dia. of air supply hose [mm]	Net weight [kg]
PGAS 2/800 E-DV	N! 221372	rear	ring	0.27	0.26	15	4.8	0.136
PGAS 2/800 E-HV	N! 221396	rear	lever	0.27	0.26	15	4.8	0.170

Collets*



Group	For shank dia.		
	3 mm	3/32 inch	1/8 inch
	EAN 4007220		
15	851814	851838	851821

Keys



Description	EAN 4007220
DM SW 6/8 mm	851791

Maintenance unit**



Description	EAN 4007220
ONG-A 1/4	801741

In-line fine filter**



Description	EAN 4007220
SF 24 STG-IG 1/4	953259

* You can find the collet dimensions in Tool Manual 23, catalogue section 9, pages 116–118.

** You can find further information about maintenance units and in-line fine filters in Tool Manual 23, catalogue section 9, page 67.



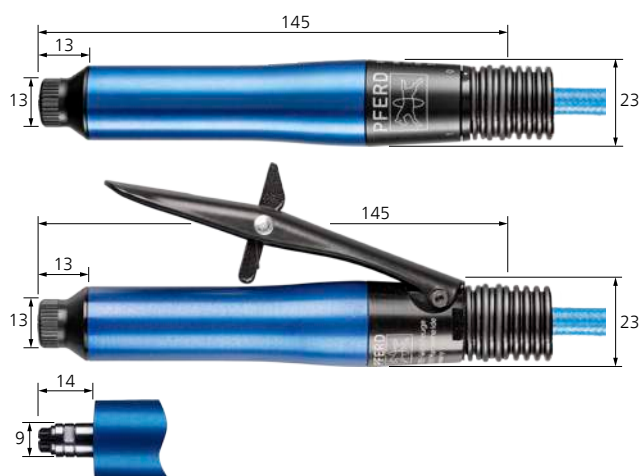
New in the PFERD product range

Air grinders – Straight grinders



PGAS 2/600 E-DV PGAS 2/600 E-HV

60,000 RPM / 100 watts



PFERDVALUE:



Special features:

- Light and easy to handle.
- Elastically mounted spindle.
- Low vibrations when working.
- Is held like a pen.
- Detachable spindle sleeve.

PGAS 2/600 E-HV

- Dead man's switch using safety lever valve.

Included in delivery:

0.75 m exhaust hose and 1.5 m air supply hose with 1/4" male threaded connection and threaded quick coupling (STGI), 3 mm collet, 2 keys.

Description	EAN 4007220	Exhaust direction	Throttle type	Air consumption at idling speed [m³/min]	Air consumption under load [m³/min]	Collet group	Inner dia. of air supply hose [mm]	Net weight [kg]
PGAS 2/600 E-DV	N! 221402	rear	ring	0.26	0.24	15	4.8	0.137
PGAS 2/600 E-HV	N! 221419	rear	lever	0.26	0.24	15	4.8	0.171

Collets*



Group	For shank dia.		
	3 mm	3/32 inch	1/8 inch
	EAN 4007220		
15	851814	851838	851821

Keys



Description	EAN 4007220
DM SW 6/8 mm	851791

Maintenance unit**



Description	EAN 4007220
ONG-A 1/4	801741

In-line fine filter**



Description	EAN 4007220
SF 24 STG-IG 1/4	953259

* You can find the collet dimensions in Tool Manual 23, catalogue section 9, pages 116–118.

** You can find further information about maintenance units and in-line fine filters in Tool Manual 23, catalogue section 9, page 67.



Special features:

- Elastically mounted spindle guarantees a longer tool life, especially when using TC burrs.
- Low vibrations when working.

PGAS 3/380 E-HV

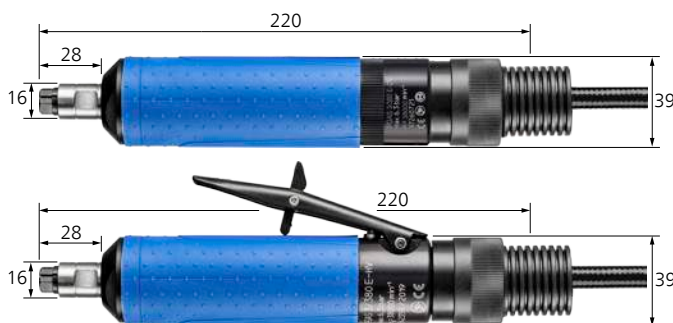
- Dead man's switch using safety lever valve.

Included in delivery:

1 m exhaust hose and 2.5 m air supply hose with 1/4" male threaded connection and threaded quick coupling (STGI), 6 mm collet, 2 keys.

PGAS 3/380 E-DV PGAS 3/380 E-HV

38,000 RPM / 290 watts



PFERDVALUE:



Description	EAN 4007220	Exhaust direction	Throttle type	Air consumption at idling speed [m³/min]	Air consumption under load [m³/min]	Collet group	Inner dia. of air supply hose [mm]	Net weight [kg]
PGAS 3/380 E-DV	N! 368312	rear	ring	0.70	0.60	6	8	0.472
PGAS 3/380 E-HV	N! 221433	rear	lever	0.70	0.60	6	8	0.512

Collets*



Group	For shank dia.					
	3 mm	6 mm	8 mm	3/32 inch	1/8 inch	1/4 inch
	EAN 4007220					
6	212875	212851	212936	234969	212882	212868

Keys



Description	EAN 4007220
EM SW 11 mm	206812
EM SW 14 mm	206836

Maintenance unit**



Description	EAN 4007220
ONG-A 1/2	801765

In-line fine filter**



Description	EAN 4007220
SF 24 STG-IG 1/4	953259

* You can find the collet dimensions in Tool Manual 23, catalogue section 9, pages 116–118.

** You can find further information about maintenance units and in-line fine filters in Tool Manual 23, catalogue section 9, page 67.



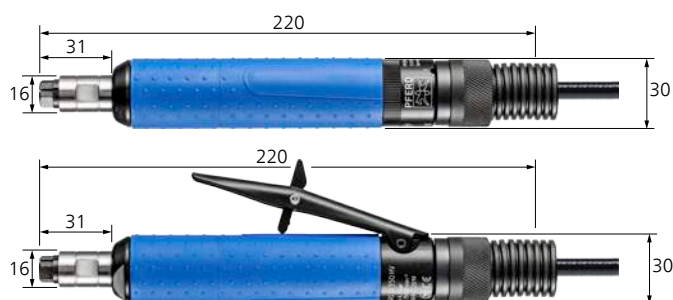
New in the PFERD product range

Air grinders – Straight grinders



PGAS 3/350 DV PGAS 3/350 HV

35,000 RPM / 290 watts



Special features:

- Very easy to handle and guide.
- High power output with compact design.

PGAS 3/350 HV

- Dead man's switch using safety lever valve.

Included in delivery:

1 m exhaust hose and 2.5 m air supply hose with 1/4" male threaded connection and threaded quick coupling (STGI), 6 mm collet, 2 keys.

Description	EAN 4007220	Exhaust direction	Throttle type	Air consumption at idling speed [m³/min]	Air consumption under load [m³/min]	Collet group	Inner dia. of air supply hose [mm]	Net weight [kg]
PGAS 3/350 DV	N! 221440	rear	ring	0.60	0.50	6	6	0.401
PGAS 3/350 HV	N! 221457	rear	lever	0.60	0.50	6	6	0.441

Collets*



Group	For shank dia.					
	3 mm	6 mm	8 mm	3/32 inch	1/8 inch	1/4 inch
	EAN 4007220					
6	212875	212851	212936	234969	212882	212868

Keys



Description	EAN 4007220
EM SW 11 mm	206812
EM SW 14 mm	206836

Maintenance unit**



Description	EAN 4007220
ONG-A 1/2	801765

In-line fine filter**



Description	EAN 4007220
SF 24 STG-IG 1/4	953259

* You can find the collet dimensions in Tool Manual 23, catalogue section 9, pages 116–118.

** You can find further information about maintenance units and in-line fine filters in Tool Manual 23, catalogue section 9, page 67.



Special features:

- Very easy to handle and guide.
- Extended design, ideal for working in hard-to-reach areas.
- High power output with compact design.

PGAS 3/350 V-HV

- Dead man's switch using safety lever valve.

Included in delivery:

1 m exhaust hose and 2.5 m air supply hose with 1/4" male threaded connection and threaded quick coupling (STGI), 6 mm collet, 2 keys.

PGAS 3/350 V-DV PGAS 3/350 V-HV

35,000 RPM / 290 watts



Description	EAN 4007220	Exhaust direction	Throttle type	Air consumption at idling speed [m³/min]	Air consumption under load [m³/min]	Collet group	Inner dia. of air supply hose [mm]	Net weight [kg]
PGAS 3/350 V-DV	NI 395189	rear	ring	0.60	0.50	6	6	0.740
PGAS 3/350 V-HV	NI 395172	rear	lever	0.60	0.50	6	6	0.780

Collets*



Group	For shank dia.					
	3 mm	6 mm	8 mm	3/32 inch	1/8 inch	1/4 inch
EAN 4007220						
6	212875	212851	212936	234969	212882	212868

Keys



Description	EAN 4007220
EM SW 11 mm	206812
EM SW 14 mm	206836

Maintenance unit**



Description	EAN 4007220
ONG-A 1/2	801765

In-line fine filter**



Description	EAN 4007220
SF 24 STG-IG 1/4	953259

* You can find the collet dimensions in Tool Manual 23, catalogue section 9, pages 116–118.

** You can find further information about maintenance units and in-line fine filters in Tool Manual 23, catalogue section 9, page 67.

New in the PFERD product range

Air grinders – Straight grinders

PGAS 4/300 HV

30,000 RPM / 440 watts



Special features:

- Very powerful with a compact design.
- Dead man's switch using safety lever valve.

Included in delivery:

1 m exhaust hose and 2.5 m air supply hose with 1/4" male threaded connection and threaded quick coupling (STGI), 6 mm collet, 2 keys.

Description	EAN 4007220	Exhaust direction	Throttle type	Air consumption at idling speed [m³/min]	Air consumption under load [m³/min]	Collet group	Inner dia. of air supply hose [mm]	Net weight [kg]
PGAS 4/300 HV	N! 221471	rear	lever	0.88	0.84	20	8	0.830

Collets*



Group	For shank dia.				
	3 mm	6 mm	8 mm	10 mm	1/4 inch
	EAN 4007220				
20	N! 233634	N! 312964	N! 233641	N! 233658	N! 233665

Keys



Description	EAN 4007220
EM SW 12 mm	N! 239162
EM SW 17 mm	204542

Maintenance unit**



Description	EAN 4007220
ONG-A 1/2	801765

In-line fine filter**



Description	EAN 4007220
SF 24 STG-IG 1/4	953259

* You can find the collet dimensions on page 167.

** You can find further information about maintenance units and in-line fine filters in Tool Manual 23, catalogue section 9, page 67.



Special features:

- Medium-length design for use when access is restricted.
- Dead man's switch using safety lever valve.

Included in delivery:

1 m exhaust hose and 2.5 m air supply hose with 1/4" male threaded connection and threaded quick coupling (STGI), 6 mm collet, 2 keys.

PGAS 4/300 M-HV

30,000 RPM / 440 watts



Description	EAN 4007220	Exhaust direction	Throttle type	Air consumption at idling speed [m³/min]	Air consumption under load [m³/min]	Collet group	Inner dia. of air supply hose [mm]	Net weight [kg]
PGAS 4/300 M-HV	N! 419717	rear	lever	0.88	0.84	6	8	1.198

Collets*



Group	For shank dia.					
	3 mm	6 mm	8 mm	3/32 inch	1/8 inch	1/4 inch
EAN 4007220						
6	212875	212851	212936	234969	212882	212868

Keys



Description	EAN 4007220
EM SW 11 mm	206812
EM SW 14 mm	206836

Maintenance unit**



Description	EAN 4007220
ONG-A 1/2	801765

In-line fine filter**



Description	EAN 4007220
SF 24 STG-IG 1/4	953259

* You can find the collet dimensions in Tool Manual 23, catalogue section 9, pages 116–118.

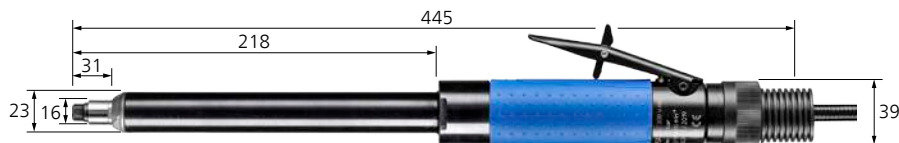
** You can find further information about maintenance units and in-line fine filters in Tool Manual 23, catalogue section 9, page 67.

New in the PFERD product range

Air grinders – Straight grinders

PGAS 4/300 V-HV

30,000 RPM / 440 watts



Special features:

- Extended design, ideal for working in hard-to-reach areas.
- Dead man's switch using safety lever valve.

Included in delivery:

1 m exhaust hose and 2.5 m air supply hose with 1/4" male threaded connection and threaded quick coupling (STGI), 6 mm collet, 2 keys.

Description	EAN 4007220	Exhaust direction	Throttle type	Air consumption at idling speed [m³/min]	Air consumption under load [m³/min]	Collet group	Inner dia. of air supply hose [mm]	Net weight [kg]
PGAS 4/300 V-HV	N! 382585	rear	lever	0.88	0.84	6	8	1.421

Collets*



Group	For shank dia.					
	3 mm	6 mm	8 mm	3/32 inch	1/8 inch	1/4 inch
	EAN 4007220					
6	212875	212851	212936	234969	212882	212868

Keys



Description	EAN 4007220
EM SW 11 mm	206812
EM SW 14 mm	206836

Maintenance unit**



Description	EAN 4007220
ONG-A 1/2	801765

In-line fine filter**



Description	EAN 4007220
SF 24 STG-IG 1/4	953259

* You can find the collet dimensions in Tool Manual 23, catalogue section 9, pages 116–118.

** You can find further information about maintenance units and in-line fine filters in Tool Manual 23, catalogue section 9, page 67.



Special features:

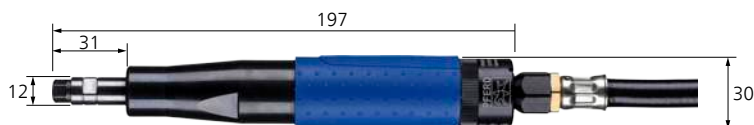
- Can be guided precisely thanks to comfortable two-handed operation and slim housing.

Included in delivery:

2.5 m air supply hose with 1/4" male threaded connection and threaded quick coupling (STGI), 6 mm collet, 2 keys.

PGS 3/300 Z-DV

30,000 RPM / 290 watts



Description	EAN 4007220	Exhaust direction	Throttle type	Air consumption at idling speed [m³/min]	Air consumption under load [m³/min]	Collet group	Inner dia. of air supply hose [mm]	Net weight [kg]
PGS 3/300 Z-DV	N! 395165	front	ring	0.60	0.50	10	8	0.433

Collets*



Group	For shank dia.				
	3 mm	5 mm	6 mm	1/8 inch	1/4 inch
	EAN 4007220				
10	331279	398647	331262	331286	738719

Keys



Description	EAN 4007220
EM SW 9 mm	330357
EM SW 10 mm	188514

Maintenance unit**



Description	EAN 4007220
ONG-A 1/2	801765

In-line fine filter**



Description	EAN 4007220
SF 24 STG-IG 1/4	953259

* You can find the collet dimensions in Tool Manual 23, catalogue section 9, pages 116–118.

** You can find further information about maintenance units and in-line fine filters in Tool Manual 23, catalogue section 9, page 67.



New in the PFERD product range

Air grinders – Straight grinders



PGAS 4/250 HV

25,000 RPM / 440 watts



Special features:

- This grinder can also be operated without oil; however, this will lead to a shorter service life and reduced rotational speed and power output.
- Very powerful with a compact design.
- Dead man's switch using safety lever valve.

Included in delivery:

1 m exhaust hose and 2.5 m air supply hose with 1/4" male threaded connection and threaded quick coupling (STGI), 6 mm collet, 2 keys.

Description	EAN 4007220	Exhaust direction	Throttle type	Air consumption at idling speed [m³/min]	Air consumption under load [m³/min]	Collet group	Inner dia. of air supply hose [mm]	Net weight [kg]
PGAS 4/250 HV	N! 382844	rear	lever	0.98	0.87	20	8	0.830

Collets*



Group	For shank dia.				
	3 mm	6 mm	8 mm	10 mm	1/4 inch
	EAN 4007220				
20	N! 233634	N! 312964	N! 233641	N! 233658	N! 233665

Keys



Description	EAN 4007220
EM SW 12 mm	N! 239162
EM SW 17 mm	204542

Maintenance unit**



Description	EAN 4007220
ONG-A 1/2	801765

In-line fine filter**



Description	EAN 4007220
SF 24 STG-IG 1/4	953259

* You can find the collet dimensions on page 167.

** You can find further information about maintenance units and in-line fine filters in Tool Manual 23, catalogue section 9, page 67.



Special features:

- This grinder can also be operated without oil; however, this will lead to a shorter service life and reduced rotational speed and power output.
- Medium-length design for use when access is restricted.
- Dead man's switch using safety lever valve.

Included in delivery:

1 m exhaust hose and 2.5 m air supply hose with 1/4" male threaded connection and threaded quick coupling (STGI), 6 mm collet, 2 keys.

PGAS 4/250 M-HV

25,000 RPM / 440 watts



Description	EAN 4007220	Exhaust direction	Throttle type	Air consumption at idling speed [m³/min]	Air consumption under load [m³/min]	Collet group	Inner dia. of air supply hose [mm]	Net weight [kg]
PGAS 4/250 M-HV	N! 419724	rear	lever	0.98	0.87	6	8	1.198

Collets*



Group	For shank dia.					
	3 mm	6 mm	8 mm	3/32 inch	1/8 inch	1/4 inch
	EAN 4007220					
6	212875	212851	212936	234969	212882	212868

Keys



Description	EAN 4007220
EM SW 11 mm	206812
EM SW 14 mm	206836

Maintenance unit**



Description	EAN 4007220
ONG-A 1/2	801765

In-line fine filter**



Description	EAN 4007220
SF 24 STG-IG 1/4	953259

* You can find the collet dimensions in Tool Manual 23, catalogue section 9, pages 116–118.

** You can find further information about maintenance units and in-line fine filters in Tool Manual 23, catalogue section 9, page 67.

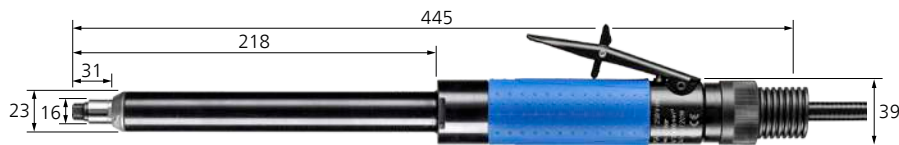


New in the PFERD product range

Air grinders – Straight grinders

PGAS 4/250 V-HV

25,000 RPM / 440 watts



Special features:

- This grinder can also be operated without oil; however, this will lead to a shorter service life and reduced rotational speed and power output.
- Extended design, ideal for working in hard-to-reach areas.
- Dead man's switch using safety lever valve.

Included in delivery:

1 m exhaust hose and 2.5 m air supply hose with 1/4" male threaded connection and threaded quick coupling (STGI), 6 mm collet, 2 keys.

Description	EAN 4007220	Exhaust direction	Throttle type	Air consumption at idling speed [m ³ /min]	Air consumption under load [m ³ /min]	Collet group	Inner dia. of air supply hose [mm]	Net weight [kg]
PGAS 4/250 V-HV	N! 388051	rear	lever	0.98	0.87	6	8	1.421

Collets*



Group	For shank dia.					
	3 mm	6 mm	8 mm	3/32 inch	1/8 inch	1/4 inch
	EAN 4007220					
6	212875	212851	212936	234969	212882	212868

Keys



Description	EAN 4007220
EM SW 11 mm	206812
EM SW 14 mm	206836

Maintenance unit**



Description	EAN 4007220
ONG-A 1/2	801765

In-line fine filter**



Description	EAN 4007220
SF 24 STG-IG 1/4	953259

* You can find the collet dimensions in Tool Manual 23, catalogue section 9, pages 116–118.

** You can find further information about maintenance units and in-line fine filters in Tool Manual 23, catalogue section 9, page 67.



Special features:

- This grinder can also be operated without oil; however, this will lead to a shorter service life and reduced rotational speed and power output.
- Very powerful with a compact design.
- Can be guided precisely thanks to comfortable two-handed operation.
- Dead man's switch using safety lever valve.

Included in delivery:

1 m exhaust hose and 2.5 m air supply hose with 1/4" male threaded connection and threaded quick coupling (STGI), 6 mm collet, 2 keys.

PGAS 4/220 Z-HV

22,000 RPM / 400 watts



Description	EAN 4007220	Exhaust direction	Throttle type	Air consumption at idling speed [m³/min]	Air consumption under load [m³/min]	Collet group	Inner dia. of air supply hose [mm]	Net weight [kg]
PGAS 4/220 Z-HV	N! 231005	rear	lever	0.98	0.87	20	8	1.221

Collets*



Group	For shank dia.				
	3 mm	6 mm	8 mm	10 mm	1/4 inch
	EAN 4007220				
20	N! 233634	N! 312964	N! 233641	N! 233658	N! 233665

Keys



Description	EAN 4007220
EM SW 12 mm	N! 239162
EM SW 17 mm	204542

Maintenance unit**



Description	EAN 4007220
ONG-A 1/2	801765

In-line fine filter**



Description	EAN 4007220
SF 24 STG-IG 1/4	953259

* You can find the collet dimensions on page 167.

** You can find further information about maintenance units and in-line fine filters in Tool Manual 23, catalogue section 9, page 67.

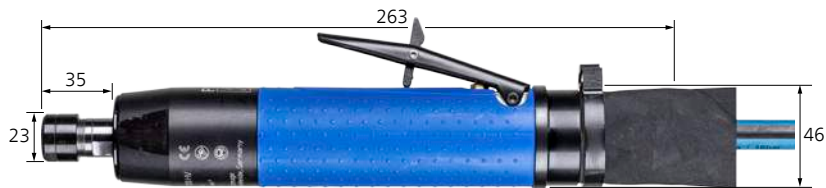


New in the PFERD product range

Air grinders – Straight grinders

PGAS 10/200 HV

20,000 RPM / 1,000 watts



Special features:

- Dead man's switch using safety lever valve.

Included in delivery:

1 m exhaust hose and 2.5 m air supply hose with 1/2" male threaded connection, 6 mm collet, 2 keys.

Description	EAN 4007220	Exhaust direction	Throttle type	Air consumption at idling speed [m³/min]	Air consumption under load [m³/min]	Collet group	Inner dia. of air supply hose [mm]	Net weight [kg]
PGAS 10/200 HV	N! 382257	rear	lever	1.38	1.10	16	13	1.234

Collets*



Group	For shank dia.					
	3 mm	6 mm	8 mm	10 mm	12 mm	1/4 inch
	EAN 4007220					
16	N! 416372	956984	957004	957028	N! 416389	957035

Keys



Description	EAN 4007220
EM SW 17 mm	204542
DM SW 20/22 mm	957059

Maintenance unit**



Description	EAN 4007220
ONG-A 1/2	801765

In-line fine filter



Description	EAN 4007220
SF 30 STG-IG 1/2	N! 244975

* You can find the collet dimensions on page 167.

** You can find further information about maintenance units in Tool Manual 23, catalogue section 9, page 67.



Special features:

- Very long design, particularly well suited to working in hard-to-reach areas.
- Dead man's switch using safety lever valve.

Included in delivery:

1 m exhaust hose and 2.5 m air supply hose with 1/2" male threaded connection, 6 mm collet, 2 keys.

PGAS 10/200 V-HV

20,000 RPM / 1,000 watts



Description	EAN 4007220	Exhaust direction	Throttle type	Air consumption at idling speed [m³/min]	Air consumption under load [m³/min]	Collet group	Inner dia. of air supply hose [mm]	Net weight [kg]
PGAS 10/200 V-HV	N! 245538	rear	lever	1.38	1.10	16	13	2.047

Collets*



Group	For shank dia.					
	3 mm	6 mm	8 mm	10 mm	12 mm	1/4 inch
	EAN 4007220					
16	N! 416372	956984	957004	957028	N! 416389	957035

Keys



Description	EAN 4007220
EM SW 17 mm	204542
DM SW 20/22 mm	957059

Maintenance unit**



Description	EAN 4007220
ONG-A 1/2	801765

In-line fine filter



Description	EAN 4007220
SF 30 STG-IG 1/2	N! 244975

* You can find the collet dimensions on page 167.

** You can find further information about maintenance units in Tool Manual 23, catalogue section 9, page 67.



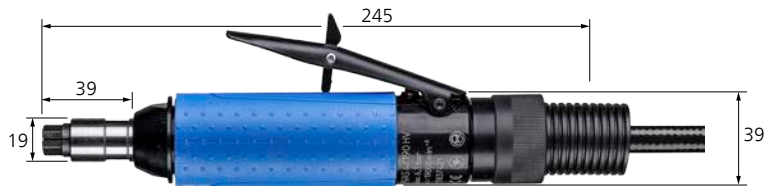
New in the PFERD product range

Air grinders – Straight grinders



PGAS 4/190 HV

19,000 RPM / 370 watts



Special features:

- This grinder can also be operated without oil; however, this will lead to a shorter service life and reduced rotational speed and power output.
- Very powerful with a compact design.
- Dead man's switch using safety lever valve.

Included in delivery:

1 m exhaust hose and 2.5 m air supply hose with 1/4" male threaded connection and threaded quick coupling (STGI), 6 mm collet, 2 keys.

Description	EAN 4007220	Exhaust direction	Throttle type	Air consumption at idling speed [m³/min]	Air consumption under load [m³/min]	Collet group	Inner dia. of air supply hose [mm]	Net weight [kg]
PGAS 4/190 HV	N! 388068	rear	lever	0.78	0.72	20	8	0.830

Collets*



Group	For shank dia.				
	3 mm	6 mm	8 mm	10 mm	1/4 inch
	EAN 4007220				
20	N! 233634	N! 312964	N! 233641	N! 233658	N! 233665

Keys



Description	EAN 4007220
EM SW 12 mm	N! 239162
EM SW 17 mm	204542

Maintenance unit**



Description	EAN 4007220
ONG-A 1/2	801765

In-line fine filter**



Description	EAN 4007220
SF 24 STG-IG 1/4	953259

* You can find the collet dimensions on page 167.

** You can find further information about maintenance units and in-line fine filters in Tool Manual 23, catalogue section 9, page 67.



Special features:

- This grinder can also be operated without oil; however, this will lead to a shorter service life and reduced rotational speed and power output.
- Medium-length design for use when access is restricted.
- Dead man's switch using safety lever valve.

Included in delivery:

1 m exhaust hose and 2.5 m air supply hose with 1/4" male threaded connection and threaded quick coupling (STGI), 6 mm collet, 2 keys.

PGAS 4/190 M-HV

19,000 RPM / 370 watts



Description	EAN 4007220	Exhaust direction	Throttle type	Air consump- tion at idling speed [m³/min]	Air consump- tion under load [m³/min]	Collet group	Inner dia. of air supply hose [mm]	Net weight [kg]
PGAS 4/190 M-HV	N! 419731	rear	lever	0.78	0.72	6	8	1.198

Collets*



Group	For shank dia.					
	3 mm	6 mm	8 mm	3/32 inch	1/8 inch	1/4 inch
EAN 4007220						
6	212875	212851	212936	234969	212882	212868

Keys



Description	EAN 4007220
EM SW 11 mm	206812
EM SW 14 mm	206836

Maintenance unit**



Description	EAN 4007220
ONG-A 1/2	801765

In-line fine filter**



Description	EAN 4007220
SF 24 STG-IG 1/4	953259

* You can find the collet dimensions in Tool Manual 23, catalogue section 9, pages 116–118.

** You can find further information about maintenance units and in-line fine filters in Tool Manual 23, catalogue section 9, page 67.

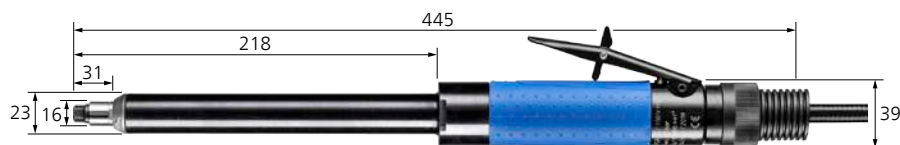


New in the PFERD product range

Air grinders – Straight grinders

PGAS 4/190 V-HV

19,000 RPM / 370 watts



Special features:

- This grinder can also be operated without oil; however, this will lead to a shorter service life and reduced rotational speed and power output.
- Extended design, ideal for working in hard-to-reach areas.
- Dead man's switch using safety lever valve.

Included in delivery:

1 m exhaust hose and 2.5 m air supply hose with 1/4" male threaded connection and threaded quick coupling (STGI), 6 mm collet, 2 keys.

Description	EAN 4007220	Exhaust direction	Throttle type	Air consumption at idling speed [m ³ /min]	Air consumption under load [m ³ /min]	Collet group	Inner dia. of air supply hose [mm]	Net weight [kg]
PGAS 4/190 V-HV	N! 395400	rear	lever	0.78	0.72	6	8	1.421

Collets*



Group	For shank dia.					
	3 mm	6 mm	8 mm	3/32 inch	1/8 inch	1/4 inch
	EAN 4007220					
6	212875	212851	212936	234969	212882	212868

Keys



Description	EAN 4007220
EM SW 11 mm	206812
EM SW 14 mm	206836

Maintenance unit**



Description	EAN 4007220
ONG-A 1/2	801765

In-line fine filter**



Description	EAN 4007220
SF 24 STG-IG 1/4	953259

* You can find the collet dimensions in Tool Manual 23, catalogue section 9, pages 116–118.

** You can find further information about maintenance units and in-line fine filters in Tool Manual 23, catalogue section 9, page 67.



Special features:

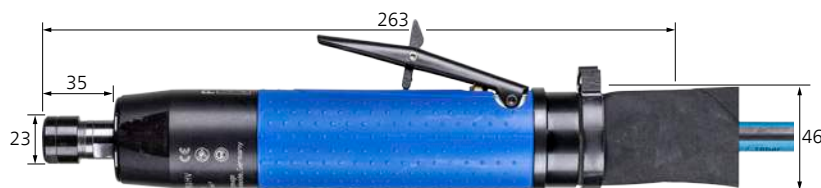
- Constant power delivery due to the centrifugal governor.
- Dead man's switch using safety lever valve.

Included in delivery:

1 m exhaust hose and 2.5 m air supply hose with 1/2" male threaded connection, 6 mm collet, 2 keys.

PGAS 10/160 HV

16,000 RPM / 1,000 watts



PFERDVALUE:



Description	EAN 4007220	Exhaust direction	Throttle type	Air consumption at idling speed [m³/min]	Air consumption under load [m³/min]	Collet group	Inner dia. of air supply hose [mm]	Net weight [kg]
PGAS 10/160 HV	NI 382233	rear	lever	0.70	0.90	16	13	1.234

Collets*



Group	For shank dia.					
	3 mm	6 mm	8 mm	10 mm	12 mm	1/4 inch
EAN 4007220						
16	NI 416372	956984	957004	957028	NI 416389	957035

Keys



Description	EAN 4007220
EM SW 17 mm	204542
DM SW 20/22 mm	957059

Maintenance unit**



Description	EAN 4007220
ONG-A 1/2	801765

In-line fine filter



Description	EAN 4007220
SF 30 STG-IG 1/2	NI 244975

* You can find the collet dimensions on page 167.

** You can find further information about maintenance units in Tool Manual 23, catalogue section 9, page 67.



New in the PFERD product range

Air grinders – Straight grinders

PGAS 10/160 V-HV

16,000 RPM / 1,000 watts



PFERDVALUE:



Special features:

- Very long design, particularly well suited to working in hard-to-reach areas.
- Constant power delivery due to the centrifugal governor.
- Dead man's switch using safety lever valve.

Included in delivery:

1 m exhaust hose and 2.5 m air supply hose with 1/2" male threaded connection, 6 mm collet, 2 keys.

Description	EAN 4007220	Exhaust direction	Throttle type	Air consumption at idling speed [m³/min]	Air consumption under load [m³/min]	Collet group	Inner dia. of air supply hose [mm]	Net weight [kg]
PGAS 10/160 V-HV	N! 231012	rear	lever	0.70	0.90	16	13	2.047

Collets*



Group	For shank dia.					
	3 mm	6 mm	8 mm	10 mm	12 mm	1/4 inch
	EAN 4007220					
16	N! 416372	956984	957004	957028	N! 416389	957035

Keys



Description	EAN 4007220
EM SW 17 mm	204542
DM SW 20/22 mm	957059

Maintenance unit**



Description	EAN 4007220
ONG-A 1/2	801765

In-line fine filter**



Description	EAN 4007220
SF 30 STG-IG 1/2	N! 244975

* You can find the collet dimensions on page 167.

** You can find further information about maintenance units in Tool Manual 23, catalogue section 9, page 67.



Special features:

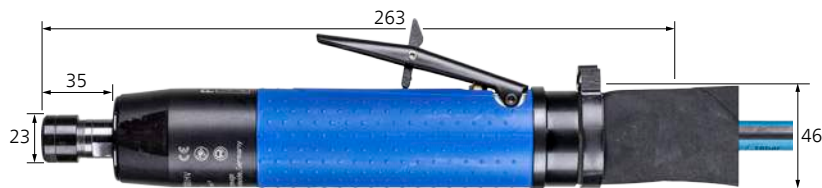
- Constant power delivery due to the centrifugal governor.
- Dead man's switch using safety lever valve.

Included in delivery:

1 m exhaust hose and 2.5 m air supply hose with 1/2" male threaded connection, 6 mm collet, 2 keys.

PGAS 10/120 HV

12,000 RPM / 950 watts



PFERDVALUE:



Description	EAN 4007220	Exhaust direction	Throttle type	Air consumption at idling speed [m³/min]	Air consumption under load [m³/min]	Collet group	Inner dia. of air supply hose [mm]	Net weight [kg]
PGAS 10/120 HV	N! 382219	rear	lever	0.50	0.90	16	13	1.234

Collets*



Group	For shank dia.					
	3 mm	6 mm	8 mm	10 mm	12 mm	1/4 inch
	EAN 4007220					
16	N! 416372	956984	957004	957028	N! 416389	957035

Keys



Description	EAN 4007220
EM SW 17 mm	204542
DM SW 20/22 mm	957059

Maintenance unit**



Description	EAN 4007220
ONG-A 1/2	801765

In-line fine filter



Description	EAN 4007220
SF 30 STG-IG 1/2	N! 244975

* You can find the collet dimensions on page 167.

** You can find further information about maintenance units in Tool Manual 23, catalogue section 9, page 67.



New in the PFERD product range

Air grinders – Straight grinders

PGAS 10/120 V-HV

12,000 RPM / 950 watts



PFERDVALUE:



Special features:

- Very long design, particularly well suited to working in hard-to-reach areas.
- Constant power delivery due to the centrifugal governor.
- Dead man's switch using safety lever valve.

Included in delivery:

1 m exhaust hose and 2.5 m air supply hose with 1/2" male threaded connection, 6 mm collet, 2 keys.

Description	EAN 4007220	Exhaust direction	Throttle type	Air consumption at idling speed [m³/min]	Air consumption under load [m³/min]	Collet group	Inner dia. of air supply hose [mm]	Net weight [kg]
PGAS 10/120 V-HV	N! 231029	rear	lever	0.50	0.90	16	13	2.047

Collets*



Group	For shank dia.					
	3 mm	6 mm	8 mm	10 mm	12 mm	1/4 inch
	EAN 4007220					
16	N! 416372	956984	957004	957028	N! 416389	957035

Keys



Description	EAN 4007220
EM SW 17 mm	204542
DM SW 20/22 mm	957059

Maintenance unit**



Description	EAN 4007220
ONG-A 1/2	801765

In-line fine filter



Description	EAN 4007220
SF 30 STG-IG 1/2	N! 244975

* You can find the collet dimensions on page 167.

** You can find further information about maintenance units in Tool Manual 23, catalogue section 9, page 67.



Special features:

- High torque due to planetary gear.
- Compact, easy-to-handle grinder.
- Dead man's switch using safety lever valve.

Included in delivery:

1 m exhaust hose and 2.5 m air supply hose with 1/4" male threaded connection and threaded quick coupling (STGI), 6 mm collet, 2 keys.

PGAS 3/70 HV

7,000 RPM / 320 watts



Description	EAN 4007220	Exhaust direction	Throttle type	Air consumption at idling speed [m³/min]	Air consumption under load [m³/min]	Collet group	Inner dia. of air supply hose [mm]	Net weight [kg]
PGAS 3/70 HV	N! 230992	rear	lever	0.60	0.50	6	8	0.850

Collets*



Group	For shank dia.					
	3 mm	6 mm	8 mm	3/32 inch	1/8 inch	1/4 inch
EAN 4007220						
6	212875	212851	212936	234969	212882	212868

Keys



Description	EAN 4007220
EM SW 11 mm	206812
EM SW 14 mm	206836

Maintenance unit**



Description	EAN 4007220
ONG-A 1/2	801765

In-line fine filter**



Description	EAN 4007220
SF 24 STG-IG 1/4	953259

* You can find the collet dimensions in Tool Manual 23, catalogue section 9, pages 116–118.

** You can find further information about maintenance units and in-line fine filters in Tool Manual 23, catalogue section 9, page 67.

New in the PFERD product range

Air grinders – Straight grinders

PGAS 3/35 HV

3,500 RPM / 320 watts



Special features:

- High torque due to planetary gear.
- Compact, easy-to-handle grinder.
- Dead man's switch using safety lever valve.

Included in delivery:

1 m exhaust hose and 2.5 m air supply hose with 1/4" male threaded connection and threaded quick coupling (STGI), 6 mm collet, 2 keys.

Description	EAN 4007220	Exhaust direction	Throttle type	Air consumption at idling speed [m³/min]	Air consumption under load [m³/min]	Collet group	Inner dia. of air supply hose [mm]	Net weight [kg]
PGAS 3/35 HV	N! 388075	rear	lever	0.60	0.50	6	8	0.850

Collets*



Group	For shank dia.					
	3 mm	6 mm	8 mm	3/32 inch	1/8 inch	1/4 inch
EAN 4007220						
6	212875	212851	212936	234969	212882	212868

Keys



Description	EAN 4007220
EM SW 11 mm	206812
EM SW 14 mm	206836

Maintenance unit**



Description	EAN 4007220
ONG-A 1/2	801765

In-line fine filter**



Description	EAN 4007220
SF 24 STG-IG 1/4	953259

* You can find the collet dimensions in Tool Manual 23, catalogue section 9, pages 116–118.

** You can find further information about maintenance units and in-line fine filters in Tool Manual 23, catalogue section 9, page 67.



Special features:

- Easy-to-handle grinder for use with countersinks.
- Instant start enables fast, reliable working.
- Rotational speed regulation for optimum results.

Included in delivery:

1 m exhaust hose and 2.5 m air supply hose with 1/4" male threaded connection and threaded quick coupling (STGI), 1 overhead trolley, 6 mm collet, 2 keys.

PGAS 2/5 DS

500 RPM / 160 watts



Description	EAN 4007220	Exhaust direction	Throttle type	Air consumption at idling speed [m³/min]	Air consumption under load [m³/min]	Collet group	Inner dia. of air supply hose [mm]	Net weight [kg]
PGAS 2/5 DS	N! 419748	rear	Instant start	0.40	0.30	20	6	0.564

Collets*



Group	For shank dia.				
	3 mm	6 mm	8 mm	10 mm	1/4 inch
	EAN 4007220				
20	N! 233634	N! 312964	N! 233641	N! 233658	N! 233665

Keys



Description	EAN 4007220
EM SW 12 mm	N! 239162
EM SW 17 mm	204542

Maintenance unit**



Description	EAN 4007220
ONG-A 1/2	801765

In-line fine filter**



Description	EAN 4007220
SF 24 STG-IG 1/4	953259

* You can find the collet dimensions on page 167.

** You can find further information about maintenance units and in-line fine filters in Tool Manual 23, catalogue section 9, page 67.

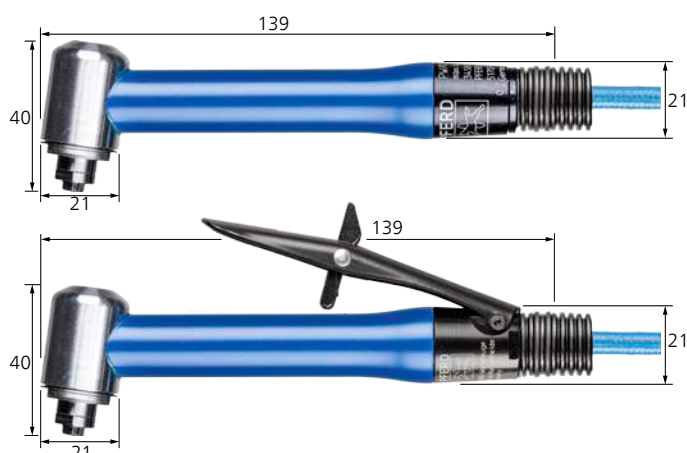


New in the PFERD product range

Air grinders – Angle grinders with collet

PWAS 1/800 DV PWAS 1/800 HV

80,000 RPM / 75 watts



Special features:

- Robust, without angular gear.
- Light and easy to handle.
- Smallest, high-revving angle grinder.
- Is held like a pen.

PWAS 1/800 HV

- Dead man's switch using safety lever valve.

Included in delivery:

0.75 m exhaust hose and 1.5 m air supply hose with 1/4" threaded connection and threaded quick coupling (STGI), 3 mm collet, 2 keys.

Description	EAN 4007220	Exhaust direction	Throttle type	Air consumption at idling speed [m³/min]	Air consumption under load [m³/min]	Collet group	Inner dia. of air supply hose [mm]	Net weight [kg]
PWAS 1/800 DV	N! 230985	rear	ring	0.15	0.14	2	4.8	0.094
PWAS 1/800 HV	N! 381168	rear	lever	0.15	0.14	2	4.8	0.134

Collets*



Group	For shank dia.			
	2.34 mm	3 mm	3/32 inch	1/8 inch
	EAN 4007220			
2	851999	207840	207864	207857

Keys



Description	EAN 4007220
DM SW 6/8 mm	851791

Maintenance unit**



Description	EAN 4007220
ONG-A 1/4	801741

In-line fine filter**



Description	EAN 4007220
SF 24 STG-IG 1/4	953259

* You can find the collet dimensions in Tool Manual 23, catalogue section 9, pages 116–118.

** You can find further information about maintenance units and in-line fine filters in Tool Manual 23, catalogue section 9, page 67.



Special features:

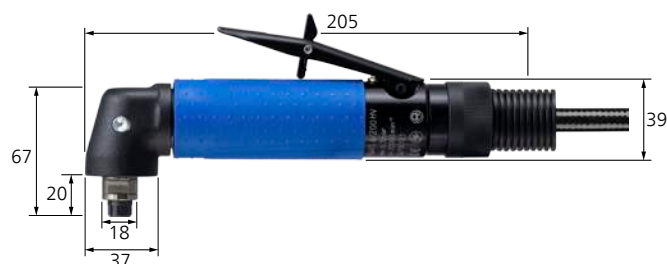
- Low angle head height.
- Ideal for work in hard-to-reach areas.
- Dead man's switch using safety lever valve.

Included in delivery:

1 m exhaust hose and 2.5 m air supply hose with 1/4" male threaded connection and threaded quick coupling (STGI), 6 mm collet, 2 keys.

PWAS 4/200 HV

20,000 RPM / 370 watts



Description	EAN 4007220	Exhaust direction	Throttle type	Air consumption at idling speed [m³/min]	Air consumption under load [m³/min]	Collet group	Inner dia. of air supply hose [mm]	Net weight [kg]
PWAS 4/200 HV	N! 417072	rear	lever	0.70	0.60	6	8	0.920

Collets*



Group	For shank dia.					
	3 mm	6 mm	8 mm	3/32 inch	1/8 inch	1/4 inch
EAN 4007220						
6	212875	212851	212936	234969	212882	212868

Keys



Description	EAN 4007220
EM SW 11 mm	206812
EM SW 14 mm	206836

Maintenance unit**



Description	EAN 4007220
ONG-A 1/2	801765

In-line fine filter**



Description	EAN 4007220
SF 24 STG-IG 1/4	953259

* You can find the collet dimensions in Tool Manual 23, catalogue section 9, pages 116–118.

** You can find further information about maintenance units and in-line fine filters in Tool Manual 23, catalogue section 9, page 67.

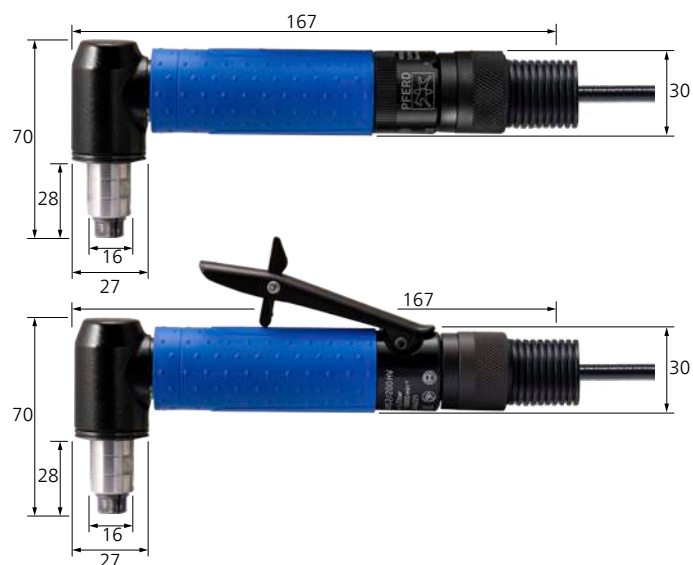


New in the PFERD product range

Air grinders – Angle grinders with collet

PWAS 2/200 DV PWAS 2/200 HV

20,000 RPM / 230 watts



Special features:

- Slim angle head for work in hard-to-reach areas.
- Easy to handle, compact shape.

PWAS 2/200 HV

- Dead man's switch using safety lever valve.

Included in delivery:

1 m exhaust hose and 2.5 m air supply hose with 1/4" male threaded connection and threaded quick coupling (STGI), 6 mm collet, 2 keys.

Description	EAN 4007220	Exhaust direction	Throttle type	Air consumption at idling speed [m³/min]	Air consumption under load [m³/min]	Collet group	Inner dia. of air supply hose [mm]	Net weight [kg]
PWAS 2/200 DV	N! 419755	rear	ring	0.55	0.45	6	6	0.420
PWAS 2/200 HV	N! 417089	rear	lever	0.55	0.45	6	6	0.460

Collets*



Group	For shank dia.					
	3 mm	6 mm	8 mm	3/32 inch	1/8 inch	1/4 inch
	EAN 4007220					
6	212875	212851	212936	234969	212882	212868

Keys



Description	EAN 4007220
EM SW 11 mm	206812
EM SW 14 mm	206836

Maintenance unit**



Description	EAN 4007220
ONG-A 1/2	801765

In-line fine filter**



Description	EAN 4007220
SF 24 STG-IG 1/4	953259

* You can find the collet dimensions in Tool Manual 23, catalogue section 9, pages 116–118.

** You can find further information about maintenance units and in-line fine filters in Tool Manual 23, catalogue section 9, page 67.



Special features:

- Low angle head height.
- Ideal for work in hard-to-reach areas.
- Constant power delivery due to the centrifugal governor.
- Dead man's switch using safety lever valve.

Included in delivery:

1 m exhaust hose and 2.5 m air supply hose with 1/4" male threaded connection and threaded quick coupling (STGI), 6 mm collet, 2 keys.

PWAS 4/160 HV

16,000 RPM / 370 watts



PFERDVALUE:



Description	EAN 4007220	Exhaust direction	Throttle type	Air consumption at idling speed [m³/min]	Air consumption under load [m³/min]	Collet group	Inner dia. of air supply hose [mm]	Net weight [kg]
PWAS 4/160 HV	N! 417096	rear	lever	0.55	0.60	6	8	1.004

Collets*



Group	For shank dia.					
	3 mm	6 mm	8 mm	3/32 inch	1/8 inch	1/4 inch
	EAN 4007220					
6	212875	212851	212936	234969	212882	212868

Keys



Description	EAN 4007220
EM SW 11 mm	206812
EM SW 14 mm	206836

Maintenance unit**



Description	EAN 4007220
ONG-A 1/2	801765

In-line fine filter**



Description	EAN 4007220
SF 24 STG-IG 1/4	953259

* You can find the collet dimensions in Tool Manual 23, catalogue section 9, pages 116–118.

** You can find further information about maintenance units and in-line fine filters in Tool Manual 23, catalogue section 9, page 67.



New in the PFERD product range

Air grinders – NITOCUT angle grinder

PWT 26/150 HV NITOCUT

12,000 RPM / 2,600 Watt



PFERDVALUE:



Special features:

- Only suitable for 150 mm NITOCUT cut-off wheels.
- Very powerful turbine motor.
- Constant power delivery due to the centrifugal governor.
- Spindle lock pin for tool change with one key.

Included in delivery:

1/2" female connecting thread, 2 keys, 1 clamping nut, 1 clamping flange, guard, anti-vibration handle.

Description	EAN 4007220	Exhaust direction	Throttle type	Air consumption at idling speed [m³/min]	Air consumption under load [m³/min]	Spindle thread	Inner dia. of air supply hose [mm]	Tool mounting [mm]	Net weight [kg]
PWT 26/150 HV NITOCUT	NI 224038	bottom	lever	0.90	2.25	M14	16	25.4	2.200

Keys



Description	EAN 4007220
STL SW 35 x 5 mm	193853
SKS SW 5 mm	204467

In-line fine filter**



Description	EAN 4007220
SF 35 IG 1/2-IG 1/2	072103

Revolving nozzle



See Tool Manual 23,
catalogue section 9, page 66.

Conversion set NITOCUT



Description	EAN 4007220
SH NITOCUT SET	NI 224007

Conversion set for PWT 26/120 HV incl.
NITOCUT protective cover and NITOCUT
clamping flange.



Special features:

- Low angle head height.
- Ideal for work in hard-to-reach areas.
- Constant power delivery due to the centrifugal governor.
- Dead man's switch using safety lever valve.

Included in delivery:

1 m exhaust hose and 2.5 m air supply hose with 1/4" male threaded connection and threaded quick coupling (STGI), 6 mm collet, 2 keys.

PWAS 4/120 HV

12,000 RPM / 370 watts



PFERDVALUE:



Description	EAN 4007220	Exhaust direction	Throttle type	Air consumption at idling speed [m³/min]	Air consumption under load [m³/min]	Collet group	Inner dia. of air supply hose [mm]	Net weight [kg]
PWAS 4/120 HV	N! 417102	rear	lever	0.50	0.60	6	8	1.004

Collets*



Group	For shank dia.					
	3 mm	6 mm	8 mm	3/32 inch	1/8 inch	1/4 inch
	EAN 4007220					
6	212875	212851	212936	234969	212882	212868

Keys



Description	EAN 4007220
EM SW 11 mm	206812
EM SW 14 mm	206836

Maintenance unit**



Description	EAN 4007220
ONG-A 1/2	801765

In-line fine filter**



Description	EAN 4007220
SF 24 STG-IG 1/4	953259

* You can find the collet dimensions in Tool Manual 23, catalogue section 9, pages 116–118.

** You can find further information about maintenance units and in-line fine filters in Tool Manual 23, catalogue section 9, page 67.

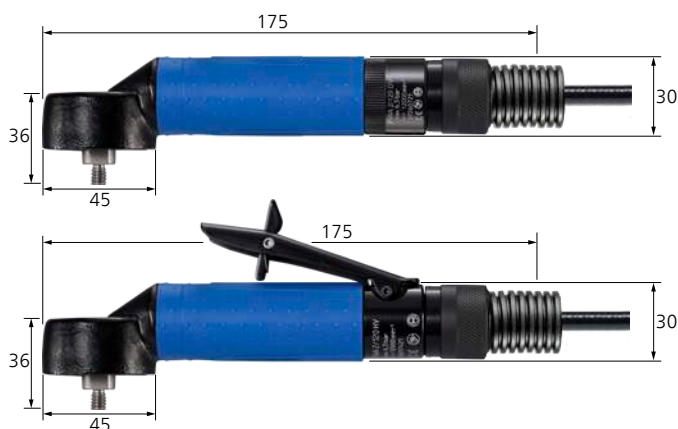


New in the PFERD product range

Air grinders – Angle grinders with threaded spindle

PWA 2/120 DV PWA 2/120 HV

12,000 RPM / 230 watts



Special features:

- Special spindle for holding all COMBIDISC tools (use a backing pad without shank).
- Flat angle head for work in hard-to-reach areas.

PWA 2/120 HV

- Dead man's switch using safety lever valve.

Included in delivery:

1 m exhaust hose and 2.5 m air supply hose with 1/4" male threaded connection and threaded quick coupling (STGI), 1 key.

Description	EAN 4007220	Exhaust direction	Throttle type	Air consumption at idling speed [m³/min]	Air consumption under load [m³/min]	Spindle thread	Inner dia. of air supply hose [mm]	Net weight [kg]
PWA 2/120 DV	N! 419762	rear	ring	0.55	0.45	1/4"-20 UNC	6	0.476
PWA 2/120 HV	N! 417119	rear	lever	0.55	0.45	1/4"-20 UNC	6	0.516

Keys



Description	EAN 4007220
EM SW 11 mm	206812

Maintenance unit**



Description	EAN 4007220
ONG-A 1/2	801765

In-line fine filter**



Description	EAN 4007220
SF 24 STG-IG 1/4	953259

** You can find further information about maintenance units and in-line fine filters in Tool Manual 23, catalogue section 9, page 67.



Special features:

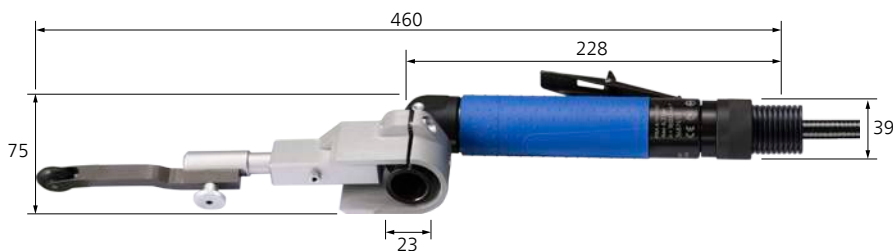
- ***Belt length 610 mm** x width 3–20 mm with **adapter BSAD 41/36 x 610**.
- The belt grinder attachment can be pivoted on the drive system.
- Incl. belt grinder attachment arm.

Included in delivery:

1 m exhaust hose and 2.5 m air supply hose with 1/4" male threaded connection and threaded quick coupling (STGI), protective cover, 2 keys.

PBA 4/160 HV

19.3 m/s / 370 watts
Belt length: 520 (610*) mm x belt width 3–20 mm



Description	EAN 4007220	Exhaust direction	Throttle type	Air consumption at idling speed [m³/min]	Air consumption under load [m³/min]	Inner dia. of air supply hose [mm]	Net weight [kg]
PBA 4/160 HV	N! 420775	rear	lever	0.55	0.60	8	1.379

Keys



Description	EAN 4007220
SKS SW 2,5 mm	N! 421291
SKS SW 4 mm	204450

Adapter



Description	EAN 4007220
BSAD 41/36 x 610	395967

Maintenance unit**



Description	EAN 4007220
ONG-A 1/2	801765

In-line fine filter**



Description	EAN 4007220
SF 24 STG-IG 1/4	953259



For detailed information and ordering data on abrasive and non-woven short belts, please refer to the Tool Manual 23, catalogue section 4.

** You can find further information about maintenance units and in-line fine filters in Tool Manual 23, catalogue section 9, page 67.



New in the PFERD product range

Air grinders – DIN 10 motors for rigid extensions

PMA 4/220 HV

22,000 RPM / 440 watts



Special features:

- Air-power motor for rigid extensions with DIN 10 motor connection.
- Very powerful with a compact design.
- This grinder can also be operated without oil; however, this will lead to a shorter service life and reduced rotational speed.
- Dead man's switch using safety lever valve.

Included in delivery:

1 m exhaust hose and 2.5 m air supply hose with 1/4" male threaded connection, 2 keys.

Description	EAN	Exhaust direction	Throttle type	Air consumption at idling speed [m³/min]	Air consumption under load [m³/min]	Connection coupling [DIN]	Inner dia. of air supply hose [mm]	Net weight [kg]
PMA 4/220 HV	N! 388082	rear	lever	0.98	0.87	10	8	0.913

Keys



Description	EAN
STS D 4 mm	205020

Maintenance unit**



Description	EAN
ONG-A 1/2	801765

In-line fine filter**



Description	EAN
SF 24 STG-IG 1/4	953259

Rigid extensions***

Max. 25,000 RPM (STV9 and STV13)

STV9
STV13



STV20



STV27
STV33



Special features:

- Rigid extensions for hard-to-reach areas.
- No risk of overloading the drive motor in conjunction with DL motors.
- Special lengths and options for workpiece adaptation available on request.
- The potential bending point and the bending radius depend on the STV type and the desired bend.
- Bent types available as from a minimum length of 500 mm (see 1st and 5th figure).

Included in delivery:

STV9

Collet 3 mm, 3 keys.

STV13

Collet 6 mm, 3 keys.

STV20 incl. HA 4 G16/G22 INOX

Collet 6 mm, 2 keys.

** You can find further information about maintenance units and in-line fine filters in Tool Manual 23, catalogue section 9, page 67.

*** You can find suitable extensions and handpieces in Tool Manual 23, catalogue section 9, page 62.



Special features:

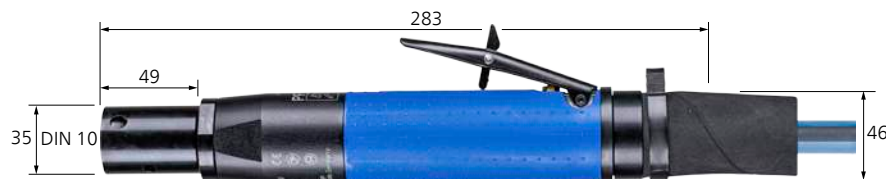
- Powerful air-power motor for rigid extensions with DIN 10 motor connection.
- Dead man's switch using safety lever valve.

Included in delivery:

1 m exhaust hose and 2.5 m air supply hose with 1/2" male threaded connection, 2 keys.

PMA 10/200 HV

20,000 RPM / 1,000 watts



Description	EAN 4007220	Exhaust direction	Throttle type	Air consumption at idling speed [m³/min]	Air consumption under load [m³/min]	Connection coupling [DIN]	Inner dia. of air supply hose [mm]	Net weight [kg]
PMA 10/200 HV	NI 384374	rear	lever	1.38	1.10	10	13	1.200

Keys



Description	EAN 4007220
STS D 4 mm	205020

Maintenance unit**



Description	EAN 4007220
ONG-A 1/2	801765

In-line fine filter



Description	EAN 4007220
SF 30 STG-IG 1/2	NI 244975

Special features:

- Rigid extensions for hard-to-reach areas.
- No risk of overloading the drive motor in conjunction with DL motors.
- Special lengths and options for workpiece adaptation available on request.
- The potential bending point and the bending radius depend on the STV type and the desired bend.
- Bent types available as from a minimum length of 500 mm (see 1st and 5th figure).

Included in delivery:

STV9

Collet 3 mm, 3 keys.

STV13

Collet 6 mm, 3 keys.

STV20 incl. HA 4 G16/G22 INOX

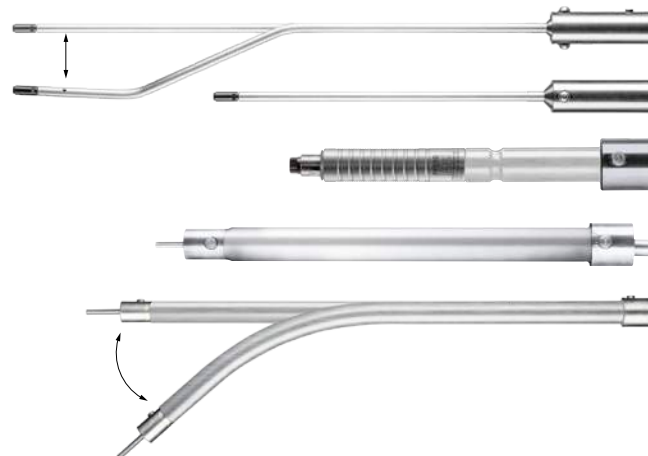
Collet 6 mm, 2 keys.

Rigid extensions***

STV9
STV13

STV20

STV27
STV33



** You can find further information about maintenance units in Tool Manual 23, catalogue section 9, page 67.

*** You can find suitable extensions and handpieces in Tool Manual 23, catalogue section 9, page 62.

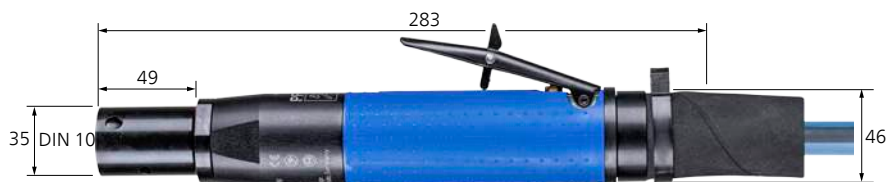


New in the PFERD product range

Air grinders – DIN 10 motors for rigid extensions

PMA 10/160 HV

16,000 RPM / 1,000 watts



PFERDVALUE:



Special features:

- Powerful air-power motor for rigid extensions with DIN 10 motor connection.
- Constant power delivery due to the centrifugal governor.
- Dead man's switch using safety lever valve.

Included in delivery:

1 m exhaust hose and 2.5 m air supply hose with 1/2" male threaded connection, 2 keys.

Description	EAN	Exhaust direction	Throttle type	Air consumption at idling speed [m³/min]	Air consumption under load [m³/min]	Connection coupling [DIN]	Inner dia. of air supply hose [mm]	Net weight [kg]
PMA 10/160 HV	N! 231036	rear	lever	0.70	0.90	10	13	1.200

Keys

Description	EAN
STS D 4 mm	205020

Maintenance unit**

Description	EAN
ONG-A 1/2	801765

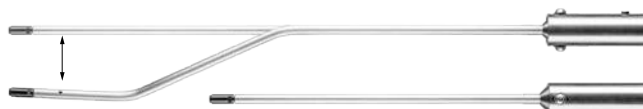
In-line fine filter

Description	EAN
SF 30 STG-IG 1/2	N! 244975

Rigid extensions***

Max. 25,000 RPM (STV9 and STV13)

STV9
STV13



STV20



STV27
STV33



Special features:

- Rigid extensions for hard-to-reach areas.
- No risk of overloading the drive motor in conjunction with DL motors.
- Special lengths and options for workpiece adaptation available on request.
- The potential bending point and the bending radius depend on the STV type and the desired bend.
- Bent types available as from a minimum length of 500 mm (see 1st and 5th figure).

Included in delivery:

STV9

Collet 3 mm, 3 keys.

STV13

Collet 6 mm, 3 keys.

STV20 incl. HA 4 G16/G22 INOX

Collet 6 mm, 2 keys.

** You can find further information about maintenance units in Tool Manual 23, catalogue section 9, page 67.

*** You can find suitable extensions and handpieces in Tool Manual 23, catalogue section 9, page 62.



Special features:

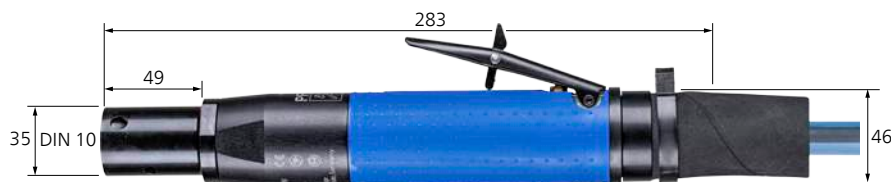
- Powerful air-power motor for rigid extensions with DIN 10 motor connection.
- Constant power delivery due to the centrifugal governor.
- Dead man's switch using safety lever valve.

Included in delivery:

1 m exhaust hose and 2.5 m air supply hose with 1/2" male threaded connection, 2 keys.

PMA 10/120 HV

12,000 RPM / 950 watts



PFERDVALUE:



Description	EAN 4007220	Exhaust direction	Throttle type	Air consumption at idling speed [m³/min]	Air consumption under load [m³/min]	Connection coupling [DIN]	Inner dia. of air supply hose [mm]	Net weight [kg]
PMA 10/120 HV	N! 231043	rear	lever	0.50	0.90	10	13	1.200

Keys



Description	EAN 4007220
STS D 4 mm	205020

Maintenance unit**



Description	EAN 4007220
ONG-A 1/2	801765

In-line fine filter



Description	EAN 4007220
SF 30 STG-IG 1/2	N! 244975

Special features:

- Rigid extensions for hard-to-reach areas.
- No risk of overloading the drive motor in conjunction with DL motors.
- Special lengths and options for workpiece adaptation available on request.
- The potential bending point and the bending radius depend on the STV type and the desired bend.
- Bent types available as from a minimum length of 500 mm (see 1st and 5th figure).

Included in delivery:

STV9

Collet 3 mm, 3 keys.

STV13

Collet 6 mm, 3 keys.

STV20 incl. HA 4 G16/G22 INOX

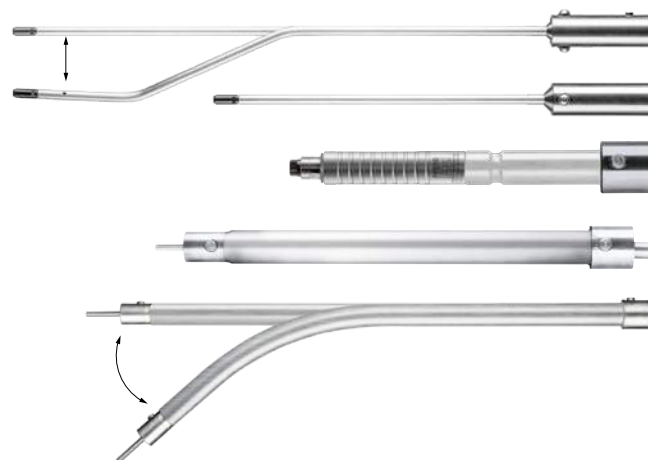
Collet 6 mm, 2 keys.

Rigid extensions***

STV9
STV13

STV20

STV27
STV33



Max. 25,000 RPM (STV9 and STV13)

** You can find further information about maintenance units in Tool Manual 23, catalogue section 9, page 67.

*** You can find suitable extensions and handpieces in Tool Manual 23, catalogue section 9, page 62.



New in the PFERD product range

Air grinders – DIN 10 motors for rigid extensions

PMA 4/120 HV

12,000 RPM / 370 watts



PFERDVALUE:



Special features:

- Powerful air-power motor for rigid extensions with DIN 10 motor connection.
- Constant power delivery due to the centrifugal governor.
- This grinder can also be operated without oil; however, this will lead to a shorter service life and reduced rotational speed.
- Dead man's switch using safety lever valve.

Included in delivery:

1 m exhaust hose and 2.5 m air supply hose with 1/4" male threaded connection, 2 keys.

Description	EAN 4007220	Exhaust direction	Throttle type	Air consumption at idling speed [m³/min]	Air consumption under load [m³/min]	Connection coupling [DIN]	Inner dia. of air supply hose [mm]	Net weight [kg]
PMA 4/120 HV	NI 395158	rear	lever	0.50	0.87	10	8	0.995

Keys



Description	EAN 4007220
STS D 4 mm	205020

Maintenance unit**



Description	EAN 4007220
ONG-A 1/2	801765

In-line fine filter**



Description	EAN 4007220
SF 24 STG-IG 1/4	953259

Rigid extensions***

Max. 25,000 RPM (STV9 and STV13)

STV9
STV13



STV20



STV27
STV33



Special features:

- Rigid extensions for hard-to-reach areas.
- No risk of overloading the drive motor in conjunction with DL motors.
- Special lengths and options for workpiece adaptation available on request.
- The potential bending point and the bending radius depend on the STV type and the desired bend.
- Bent types available as from a minimum length of 500 mm (see 1st and 5th figure).

Included in delivery:

STV9

Collet 3 mm, 3 keys.

STV13

Collet 6 mm, 3 keys.

STV20 incl. HA 4 G16/G22 INOX

Collet 6 mm, 2 keys.

** You can find further information about maintenance units and in-line fine filters in Tool Manual 23, catalogue section 9, page 67.

*** You can find suitable extensions and handpieces in Tool Manual 23, catalogue section 9, page 62.



Special features:

- Tool mounting dia. 4 to 6 mm.
- Suitable for files with a round shank.
- Smooth running and very precise.
- Very low vibrations.
- Dead man's switch using lever valve.

Included in delivery:

1.5 m air supply hose with 1/4" male threaded connection and threaded quick coupling (STGI), 1 key.

PF 8/90 HV

Frequency: 9,000 strokes/min



PFERDVALUE:



Description	EAN 4007220	Exhaust direction	Throttle type	Air consumption at idling speed [m³/min]	Air consumption under load [m³/min]	Stroke length [mm]	Inner dia. of air supply hose [mm]	Frequency [strokes/min]	Net weight [kg]
PF 8/90 HV	N! 388099	front	lever	0.078	0.078	8	4.8	9,000	1.038

Keys



Description	EAN 4007220
SKS SW 3 mm	584538

Maintenance unit**



Description	EAN 4007220
ONG-A 1/4	801741

In-line fine filter**



Description	EAN 4007220
SF 24 STG-IG 1/4	953259



Reducing collets

These reducing collets fit into an existing collet for 6 mm shank tools and are used as adapters for 3 mm or 4 mm shank tools.

Description	EAN 4007220	Reducing shank mounting	Net weight [kg]
RZH 63	355862	from 6 mm to 3 mm diameter	0,004
RZH 64	N! 796153	from 6 mm to 4 mm diameter	0,004

** You can find further information about maintenance units and in-line fine filters in Tool Manual 23, catalogue section 9, page 67.



New in the PFERD product range

Air grinders – Special drives, filing machine

PF 4/84 SV

Frequency: 8,400 strokes/min



PFERDVALUE:



Special features:

- Tool mounting dia. 3 to 4 mm.
- Suitable for files with a round shank.
- Smooth running and very precise.
- Push-pull throttle for convenient continuous use.
- Very low vibrations.

Included in delivery:

1.5 m air supply hose with 1/4" male threaded connection and threaded quick coupling (STGI), 1 key.

Description	EAN 4007220	Exhaust direction	Throttle type	Air consumption at idling speed [m³/min]	Air consumption under load [m³/min]	Stroke length [mm]	Inner dia. of air supply hose [mm]	Frequency [strokes/min]	Net weight [kg]
PF 4/84 SV	N! 388105	front	push-pull	0.03	0.03	4	3	8,400	0.300

Keys



Description	EAN 4007220
SKS SW 3 mm	584538

Maintenance unit**



Description	EAN 4007220
ONG-A 1/4	801741

In-line fine filter**



Description	EAN 4007220
SF 24 STG-IG 1/4	953259

Adapter



Description	EAN 4007220
AD PF 4.5/4.0	N! 415610
For 4.5 mm tool mounting.	

Arbor



Description	EAN 4007220
SPSH 3-13mm 3,1	107577
Only use in conjunction with AD PF 4.5/4.0.	

** You can find further information about maintenance units and in-line fine filters in Tool Manual 23, catalogue section 9, page 67.



Special features:

- Very high stroke frequency.
- For applying markings and labels on metal, glass and plastics.

MST 32 DV F

- With fine engraving needle.
- Also for applying markings and labels on hardened tool steel.

MST 32 DV M

- With medium engraving needle.

MST 32 DV G

- With coarse engraving needle.

Included in delivery:

2.5 m air supply hose with 1/4" male threaded connection and threaded quick coupling (STGI), tungsten carbide engraving needle.

MST 32 DV

Frequency: 32,000 strokes/min



Description	EAN 4007220	Needle width	Throttle type	Exhaust direction	Air consumption at idling speed [m³/min]	Air consumption under load [m³/min]	Inner dia. of air supply hose [mm]	Frequency [strokes/ min]	Net weight [kg]
MST 32 DV F	N! 231074	F (fine)	ring	front	0.03	0.02	4	32,000	0.152
MST 32 DV M	N! 231081	M (medium)	ring	front	0.03	0.02	4	32,000	0.152
MST 32 DV G	N! 231098	G (coarse)	ring	front	0.03	0.02	4	32,000	0.152

Replacement TC engraving needles for marking pens



Description	EAN 4007220	Needle tip	Net weight [kg]
HM-GN MST 32 F	N! 241837	F (fine)	0.003
HM-GN MST 32 M	N! 243695	M (medium)	0.003
HM-GN MST 32 G	N! 243701	G (coarse)	0.003

Maintenance unit**



Description	EAN 4007220
ONG-A 1/4	801741

In-line fine filter**



Description	EAN 4007220
SF 24 STG-IG 1/4	953259

** You can find further information about maintenance units and in-line fine filters in Tool Manual 23, catalogue section 9, page 67.

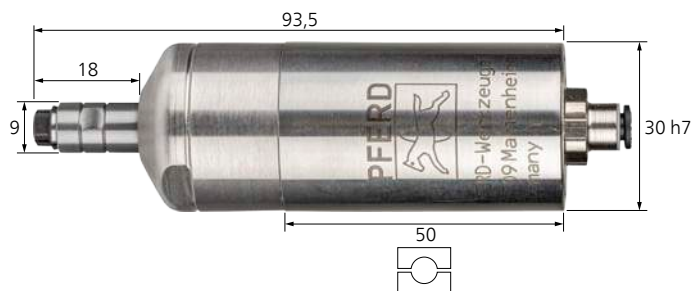


New in the PFERD product range

Air grinders – Robot spindles for stationary applications

PGTS 1/1000 RS

100,000 RPM / 100 watts



Special features:

- Ideal for stationary applications in robot stations, machine tools and for installation in transfer lines.
- Stainless steel collet mounting.
- Very high concentricity in continuous use.

Included in delivery:

Quick coupling, 3 mm collet, 2 keys.

Description	EAN 4007220	Rotation direction	Exhaust direction	Air consumption at idling speed [m³/min]	Air consumption under load [m³/min]	Collet group	Inner dia./outer dia. of air supply hose [mm]	Net weight [kg]
PGTS 1/1000 RS	N! 234044	clockwise	front	0.32	0.32	15	2.7/4	0.296

Collets*



Group	For shank dia.		
	3 mm	3/32 inch	1/8 inch
	EAN 4007220		
15	851814	851838	851821

Keys



Description	EAN 4007220
DM SW 6/8 mm	851791

Air supply hose



Description	EAN 4007220
PLS 4 RS	N! 361016

Quick coupling



Description	EAN 4007220
BK 4 mm 1/4"	N! 392218

In-line fine filter**



Description	EAN 4007220
SF 24 STG-IG 1/4	953259

* You can find the collet dimensions in Tool Manual 23, catalogue section 9, pages 116–118.

** You can find further information about in-line fine filters in Tool Manual 23, catalogue section 9, page 67.



Special features:

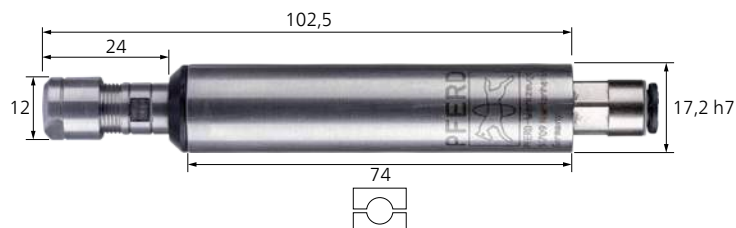
- Ideal for stationary applications in robot stations, machine tools and for installation in transfer lines.
- High rotational speeds in a compact design.
- Very high concentricity in continuous use.
- Double spindle bearing for a longer tool life.

Included in delivery:

Quick coupling, 3 mm collet, 2 keys.

PGAS 2/800 RS

80,000 RPM / 110 watts



Description	EAN 4007220	Rotation direction	Exhaust direction	Air consumption at idling speed [m³/min]	Air consumption under load [m³/min]	Collet group	Inner dia./outer dia. of air supply hose [mm]	Net weight [kg]
PGAS 2/800 RS	N! 231616	clockwise	rear	0.20	0.18	23	4/6	0.110

Collets*



Group	For shank dia.		
	3 mm	3/32 inch	1/8 inch
	EAN 4007220		
23	N! 421253	N! 421277	N! 421284

Keys



Description	EAN 4007220
EM SW 9 mm	330357
EM SW 10 mm	188514

Air supply hose



Description	EAN 4007220
PLS 6 RS	N! 368299

Quick coupling



Description	EAN 4007220
BK 6mm - 1/4"	N! 244326

Maintenance unit**



Description	EAN 4007220
ONG-A 1/4	801741

In-line fine filter**



Description	EAN 4007220
SF 24 STG-IG 1/4	953259

* You can find the collet dimensions on page 167.

** You can find further information about maintenance units and in-line fine filters in Tool Manual 23, catalogue section 9, page 67.

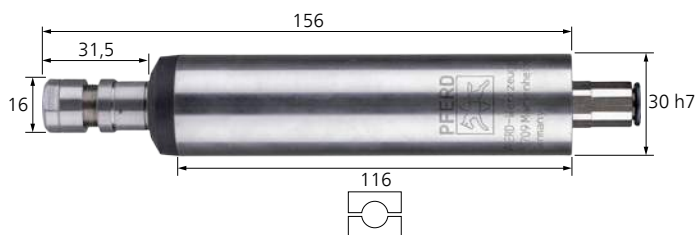


New in the PFERD product range

Air grinders – Robot spindles for stationary applications

PGAS 3/370 RS PGAS 3/370 RS LL

37,000 RPM / 320 watts



Special features:

- Ideal for stationary applications in robot stations, machine tools and for installation in transfer lines.
- Stainless steel collet mounting.
- Very high concentricity in continuous use.
- Double spindle bearing for a longer tool life.

PGAS 3/370 RS LL

- Anti-clockwise rotation.

Included in delivery:

Quick coupling, collet 6 mm, 2 keys.

Description	EAN 4007220	Rotation direction	Exhaust direction	Air consumption at idling speed [m³/min]	Air consumption under load [m³/min]	Collet group	Inner dia./outer dia. of air supply hose [mm]	Net weight [kg]
PGAS 3/370 RS	N! 234020	clockwise	rear	0.70	0.50	21	6/8	0.456
PGAS 3/370 RS LL	N! 234051	anti-clock- wise rotation	rear	0.80	0.60	21	6/8	0.456

Collets*



Group	For shank dia.			
	3 mm	6 mm	1/8 inch	1/4 inch
	EAN 4007220			
21	N! 235447	N! 235430	N! 411544	N! 411551

Keys



Description	EAN 4007220
EM SW 14 mm	206836

Bottom flange



Description	EAN 4007220
FF 30	N! 415634

Air supply hose



Description	EAN 4007220
PLS 8 RS	N! 382295

Quick coupling



Description	EAN 4007220
BK 8mm - 1/4"	N! 244333

Maintenance unit**



Description	EAN 4007220
ONG-A 1/2	801765

In-line fine filter**



Description	EAN 4007220
SF 24 STG-IG 1/4	953259

* You can find the collet dimensions on page 167.

** You can find further information about maintenance units and in-line fine filters in Tool Manual 23, catalogue section 9, page 67.



Special features:

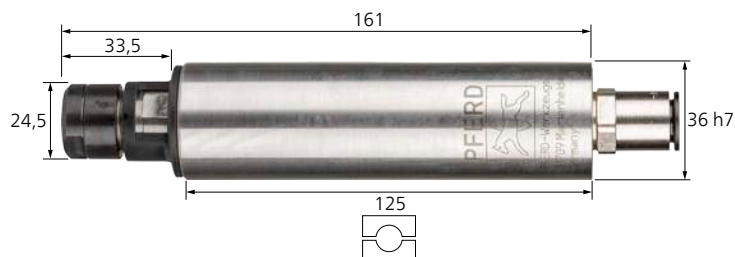
- Ideal for stationary applications in robot stations, machine tools and for installation in transfer lines.
- Stainless steel collet mounting.
- Very high concentricity in continuous use.
- Double spindle bearing for a longer tool life.

Included in delivery:

Quick coupling, collet 6 mm, 2 keys.

PGAS 4/280 RS

28,000 RPM / 380 watts



Description	EAN 4007220	Rotation direction	Exhaust direction	Air consumption at idling speed [m³/min]	Air consumption under load [m³/min]	Collet group	Inner dia./outer dia. of air supply hose [mm]	Net weight [kg]
PGAS 4/280 RS	N! 234068	clockwise	rear	0.89	0.69	16	10/12	0.750

Collets*



Group	For shank dia.					
	3 mm	6 mm	8 mm	10 mm	12 mm	1/4 inch
EAN 4007220						
16	N! 416372	956984	957004	957028	N! 416389	957035

Keys



Description	EAN 4007220
EM SW 17 mm	204542
DM SW 20/22 mm	957059

Bottom flange



Description	EAN 4007220
FF 36	N! 415641

Air supply hose



Description	EAN 4007220
PLS 12 RS	N! 382332

Quick coupling



Description	EAN 4007220
BK 12mm - 1/4"	N! 244340

Maintenance unit**



Description	EAN 4007220
ONG-A 1/2	801765

In-line fine filter**



Description	EAN 4007220
SF 24 STG-IG 1/4	953259

* You can find the collet dimensions on page 167.

** You can find further information about maintenance units and in-line fine filters in Tool Manual 23, catalogue section 9, page 67.



New in the PFERD product range

Air grinders – Robot spindles for stationary applications

PGAS 4/220 RS

22,000 RPM / 400 watts



Special features:

- Ideal for stationary applications in robot stations, machine tools and for installation in transfer lines.
- Stainless steel collet mounting.
- Very high concentricity in continuous use.
- Double spindle bearing for a longer tool life.

Included in delivery:

Quick coupling, collet 6 mm, 2 keys.

Description	EAN 4007220	Rotation direction	Exhaust direction	Air consumption at idling speed [m³/min]	Air consumption under load [m³/min]	Collet group	Inner dia./outer dia. of air supply hose [mm]	Net weight [kg]
PGAS 4/220 RS	N! 228852	clockwise	rear	0.71	0.51	16	10/12	1.661

Collets*



Group	For shank dia.					
	3 mm	6 mm	8 mm	10 mm	12 mm	1/4 inch
EAN 4007220						
16	N! 416372	956984	957004	957028	N! 416389	957035

Keys



Description	EAN 4007220
EM SW 17 mm	204542
DM SW 20/22 mm	957059

Bottom flange



Description	EAN 4007220
FF 42	N! 415665

Air supply hose



Description	EAN 4007220
PLS 12 RS	N! 382332

Quick coupling



Description	EAN 4007220
BK 12mm - 1/4"	N! 244340

Maintenance unit**



Description	EAN 4007220
ONG-A 1/2	801765

In-line fine filter**



Description	EAN 4007220
SF 24 STG-IG 1/4	953259

* You can find the collet dimensions on page 167.

** You can find further information about maintenance units and in-line fine filters in Tool Manual 23, catalogue section 9, page 67.



Special features:

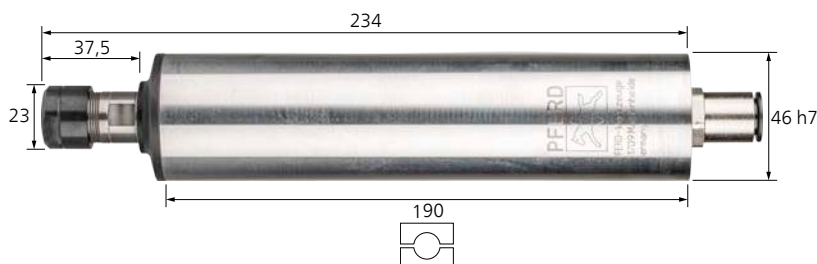
- Ideal for stationary applications in robot stations, machine tools and for installation in transfer lines.
- Stainless steel collet mounting.
- Very high concentricity in continuous use.
- Double spindle bearing for a longer tool life.

Included in delivery:

Quick coupling, collet 6 mm, 2 keys.

PGAS 8/170 RS

17,000 RPM / 800 watts



Description	EAN 4007220	Rotation direction	Exhaust direction	Air consumption at idling speed [m³/min]	Air consumption under load [m³/min]	Collet group	Inner dia./outer dia. of air supply hose [mm]	Net weight [kg]
PGAS 8/170 RS	N! 234075	clockwise	rear	1.15	0.95	16	10/12	1.661

Collets*



Group	For shank dia.					
	3 mm	6 mm	8 mm	10 mm	12 mm	1/4 inch
EAN 4007220						
16	N! 416372	956984	957004	957028	N! 416389	957035

Keys



Description	EAN 4007220
EM SW 17 mm	204542
DM SW 20/22 mm	957059

Bottom flange



Description	EAN 4007220
FF 46	N! 415672

Air supply hose



Description	EAN 4007220
PLS 12 RS	N! 382332

Quick coupling



Description	EAN 4007220
BK 12mm - 1/4"	N! 244340

Maintenance unit**



Description	EAN 4007220
ONG-A 1/2	801765

In-line fine filter**



Description	EAN 4007220
SF 24 STG-IG 1/4	953259

* You can find the collet dimensions on page 167.

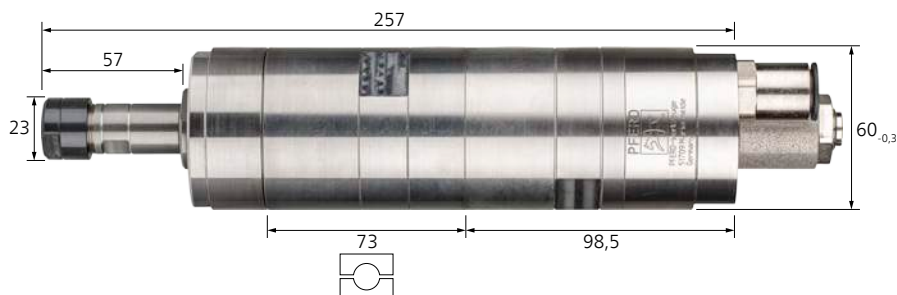
** You can find further information about maintenance units and in-line fine filters in Tool Manual 23, catalogue section 9, page 67.

New in the PFERD product range

Air grinders – Robot spindles for stationary applications

PGAS 11/58 RS

5,800 RPM / 1,100 watts



Special features:

- Ideal for stationary applications in robot stations, machine tools and for installation in transfer lines.
- High torque due to planetary gear.
- Stainless steel collet mounting.
- Very high concentricity in continuous use.
- Double spindle bearing for a longer tool life.

Included in delivery:

Quick coupling, speed throttle, 6 mm collet, 2 keys.

Description	EAN 4007220	Rotation direction	Exhaust direction	Air consumption at idling speed [m³/min]	Air consumption under load [m³/min]	Collet group	Inner dia./ outer dia. of air supply hose [mm]	Inner dia. of exhaust-hose [mm]	Net weight [kg]
PGAS 11/58 RS	N! 234082	clockwise	rear	1.58	1.38	16	11/14	16	3.355

Collets*



Group	For shank dia.					
	3 mm	6 mm	8 mm	10 mm	12 mm	1/4 inch
	EAN 4007220					
16	N! 416372	956984	957004	957028	N! 416389	957035

Keys



Description	EAN 4007220
EM SW 17 mm	204542
DM SW 20/22 mm	957059

Bottom flange



Description	EAN 4007220
FF 60	N! 415689

Air supply hose



Description	EAN 4007220
PLS 14 RS	N! 382356

Quick coupling



Description	EAN 4007220
BK 14mm - 1/2"	N! 395103

Maintenance unit**



Description	EAN 4007220
ONG-A 1/2	801765

In-line fine filter



Description	EAN 4007220
SF 30 STG-IG 1/2	N! 244975

* You can find the collet dimensions on page 167.

** You can find further information about maintenance units in Tool Manual 23, catalogue section 9, page 67.



Special features:

- Ideal for stationary applications in robot stations, machine tools and for installation in transfer lines.
- Stainless steel collet mounting.
- Very high concentricity in continuous use.
- Double spindle bearing for a longer tool life.

Included in delivery:

Quick coupling, speed throttle, 6 mm collet, 2 keys.

PGAS 4/52 RS

5,200 RPM / 380 watts



Description	EAN 4007220	Rotation direction	Exhaust direction	Air consumption at idling speed [m³/min]	Air consumption under load [m³/min]	Collet group	Inner dia./ outer dia. of air supply hose [mm]	Inner dia. of exhaust-hose [mm]	Net weight [kg]
PGAS 4/52 RS	N! 234099	clockwise	rear	0.71	0.51	16	8/10	12	1.140

Collets*



Group	For shank dia.					
	3 mm	6 mm	8 mm	10 mm	12 mm	1/4 inch
	EAN 4007220					
16	N! 416372	956984	957004	957028	N! 416389	957035

Keys



Description	EAN 4007220
EM SW 17 mm	204542
DM SW 20/22 mm	957059

Bottom flange



Description	EAN 4007220
FF 42	N! 415665

Air supply hose



Description	EAN 4007220
PLS 10 RS	N! 382318

Quick coupling



Description	EAN 4007220
BK 10mm - 1/4"	N! 392256

Maintenance unit**



Description	EAN 4007220
ONG-A 1/2	801765

In-line fine filter**



Description	EAN 4007220
SF 24 STG-IG 1/4	953259

* You can find the collet dimensions on page 167.

** You can find further information about maintenance units and in-line fine filters in Tool Manual 23, catalogue section 9, page 67.



New in the PFERD product range

Air grinders – Robot spindles for stationary applications

PGAS 4/24 RS

2,400 RPM / 380 watts



Special features:

- Ideal for stationary applications in robot stations, machine tools and for installation in transfer lines.
- Stainless steel collet mounting.
- Very high concentricity in continuous use.
- Double spindle bearing for a longer tool life.

Included in delivery:

Quick coupling, speed throttle, 6 mm collet, 2 keys.

Description	EAN 4007220	Rotation direction	Exhaust direction	Air consumption at idling speed [m³/min]	Air consumption under load [m³/min]	Collet group	Inner dia./ outer dia. of air supply hose [mm]	Inner dia. of exhaust- hose [mm]	Net weight [kg]
PGAS 4/24 RS	N! 234105	clockwise	rear	0.71	0.51	16	8/10	12	1.140

Collets*



Group	For shank dia.					
	3 mm	6 mm	8 mm	10 mm	12 mm	1/4 inch
	EAN 4007220					
16	N! 416372	956984	957004	957028	N! 416389	957035

Keys



Description	EAN 4007220
EM SW 17 mm	204542
DM SW 20/22 mm	957059

Bottom flange



Description	EAN 4007220
FF 42	N! 415665

Air supply hose



Description	EAN 4007220
PLS 10 RS	N! 382318

Quick coupling



Description	EAN 4007220
BK 10mm - 1/4"	N! 392256

Maintenance unit**



Description	EAN 4007220
ONG-A 1/2	801765

In-line fine filter**



Description	EAN 4007220
SF 24 STG-IG 1/4	953259

* You can find the collet dimensions on page 167.

** You can find further information about maintenance units and in-line fine filters in Tool Manual 23, catalogue section 9, page 67.



Special features:

- Ideal for stationary applications in robot stations, machine tools and for installation in transfer lines.
- Stainless steel collet mounting.
- Very high concentricity in continuous use.
- Double spindle bearing for a longer tool life.

Included in delivery:

Quick coupling, speed throttle, 6 mm collet, 2 keys.

PGAS 4/12 RS

1,200 RPM / 380 watts



Description	EAN 4007220	Rotation direction	Exhaust direction	Air consumption at idling speed [m³/min]	Air consumption under load [m³/min]	Collet group	Inner dia./ outer dia. of air supply hose [mm]	Inner dia. of exhaust-hose [mm]	Net weight [kg]
PGAS 4/12 RS	N! 234112	clockwise	rear	0.71	0.51	16	8/10	12	1.415

Collets*



Group	For shank dia.					
	3 mm	6 mm	8 mm	10 mm	12 mm	1/4 inch
	EAN 4007220					
16	N! 416372	956984	957004	957028	N! 416389	957035

Keys



Description	EAN 4007220
EM SW 17 mm	204542
DM SW 20/22 mm	957059

Bottom flange



Description	EAN 4007220
FF 42	N! 415665

Air supply hose



Description	EAN 4007220
PLS 10 RS	N! 382318

Quick coupling



Description	EAN 4007220
BK 10mm - 1/4"	N! 392256

Maintenance unit**



Description	EAN 4007220
ONG-A 1/2	801765

In-line fine filter**



Description	EAN 4007220
SF 24 STG-IG 1/4	953259

* You can find the collet dimensions on page 167.

** You can find further information about maintenance units and in-line fine filters in Tool Manual 23, catalogue section 9, page 67.

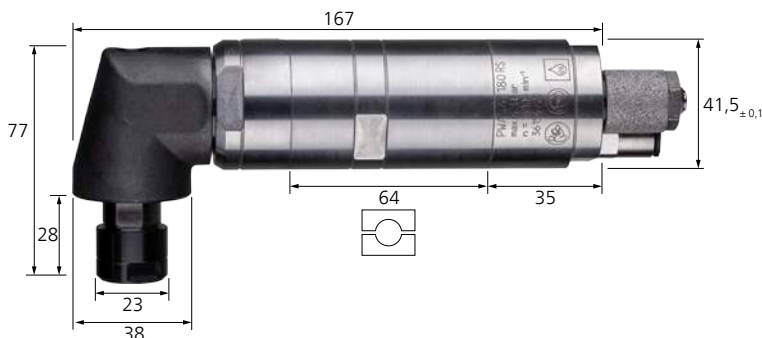


New in the PFERD product range

Air grinders – Robot spindles for stationary applications

PWAS 4/180 RS

18,000 RPM / 380 watts



Special features:

- Ideal for stationary applications in robot stations, machine tools and for installation in transfer lines.
- Very high concentricity in continuous use.

Included in delivery:

Quick coupling, speed throttle, 6 mm collet, 2 keys.

Description	EAN 4007220	Rotation direction	Exhaust direction	Air consumption at idling speed [m³/min]	Air consumption under load [m³/min]	Collet group	Inner dia./ outer dia. of air supply hose [mm]	Inner dia. of exhaust-hose [mm]	Net weight [kg]
PWAS 4/180 RS	N! 242445	clockwise	rear	0.71	0.51	16	8/10	12	1.410

Collets*



Group	For shank dia.					
	3 mm	6 mm	8 mm	10 mm	12 mm	1/4 inch
	EAN 4007220					
16	N! 416372	956984	957004	957028	N! 416389	957035

Keys



Description	EAN 4007220
EM SW 17 mm	204542
DM SW 20/22 mm	957059

Bottom flange



Description	EAN 4007220
FF 41,5	N! 415658

Air supply hose



Description	EAN 4007220
PLS 10 RS	N! 382318

Quick coupling



Description	EAN 4007220
BK 10mm - 1/4"	N! 392256

Maintenance unit**



Description	EAN 4007220
ONG-A 1/2	801765

In-line fine filter**



Description	EAN 4007220
SF 24 STG-IG 1/4	953259

* You can find the collet dimensions on page 167.

** You can find further information about maintenance units and in-line fine filters in Tool Manual 23, catalogue section 9, page 67.



Special features:

- **Max. tool dia. up to 125 mm.**
- Autobalancer an der Arbeitsspindel.
- Constant power delivery due to the centrifugal governor.
- Spindle lock pin for tool change with one key.

Included in delivery:

1 m exhaust hose and 2.5 m air supply hose with 1/2" male threaded connection, 1 clamping nut, 2 flange screws, 2 spacer sleeves, 2 keys, guard.

PWA 11/120 RS

12,000 RPM / 1,100 watts



Description	EAN 4007220	Rotation direction	Exhaust direction	Air consumption at idling speed [m³/min]	Air consumption under load [m³/min]	Spindle thread	Inner dia. of air supply hose [mm]	Tool mounting [mm]	Net weight [kg]
PWA 11/120 RS	N! 395134	clockwise	rear	0.50	1.0	M14	12	22.23	2.430

Clamping flanges



Item no.	Description	EAN 4007220
1	SPM14 98980036	902189
2	DHFL 98980039	902226
3	FLS 98980037	902202
4	DHTR 98980040	902233
5	FLS-CC 98980038	902219

Keys



Description	EAN 4007220
SKS SW 4 mm	204450
STL SW 35 x 5 mm	193853

Bottom flange



Description	EAN 4007220
FF 60	N! 415689

Maintenance unit**



Description	EAN 4007220
ONG-A 1/2	801765

In-line fine filter



Description	EAN 4007220
SF 30 STG-IG 1/2	N! 244975

** You can find further information about maintenance units in Tool Manual 23, catalogue section 9, page 67.

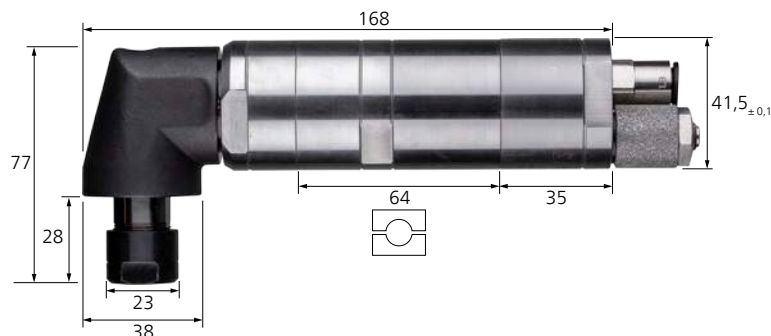


New in the PFERD product range

Air grinders – Robot spindles for stationary applications

PWAS 4/52 RS

5,200 RPM / 380 watts



Special features:

- Ideal for stationary applications in robot stations, machine tools and for installation in transfer lines.
- Very high concentricity in continuous use.

Included in delivery:

Quick coupling, speed throttle, 6 mm collet, 2 keys.

Description	EAN 4007220	Rotation direction	Exhaust direction	Air consumption at idling speed [m³/min]	Air consumption under load [m³/min]	Collet group	Inner dia./ outer dia. of air supply hose [mm]	Inner dia. of exhaust-hose [mm]	Net weight [kg]
PWAS 4/52 RS	N! 388112	clockwise	rear	0.71	0.51	16	8/10	12	1.410

Collets*



Group	For shank dia.					
	3 mm	6 mm	8 mm	10 mm	12 mm	1/4 inch
EAN 4007220						
16	N! 416372	956984	957004	957028	N! 416389	957035

Keys



Description	EAN 4007220
EM SW 17 mm	204542
DM SW 20/22 mm	957059

Bottom flange



Description	EAN 4007220
FF 41,5	N! 415658

Air supply hose



Description	EAN 4007220
PLS 10 RS	N! 382318

Quick coupling



Description	EAN 4007220
BK 10mm - 1/4"	N! 392256

Maintenance unit**



Description	EAN 4007220
ONG-A 1/2	801765

In-line fine filter**



Description	EAN 4007220
SF 24 STG-IG 1/4	953259

* You can find the collet dimensions on page 167.

** You can find further information about maintenance units and in-line fine filters in Tool Manual 23, catalogue section 9, page 67.

Special features:

- Stepless rotational speed control.
- Digital electronics for constant rotational speed.
- Overload protection.
- Smooth start-up to protect people, tools and the drive.

Included in delivery:

4 m power cable, 6 mm collet, 2 keys.

EGER 8/280

28,000 RPM / 750 watts



PFERDVALUE:



Description	EAN 4007220	Rotational speed [RPM]	Voltage [volts] 50–60 Hz	Power consumption [watts]	Power output [watts]	Collet group	Net weight [kg]
EGER 8/280	N! 232125	28,000–8,500	230	750	410	22	1.800

Collets*



Group	For shank dia.			
	3 mm	6 mm	8 mm	1/4 inch
	EAN 4007220			
22	N! 409848	N! 409855	N! 409862	N! 409831

Keys



Description	EAN 4007220
EM SW 13 mm	N! 410318
EM SW 17 mm	204542

* You can find the collet dimensions on page 167.

New in the PFERD product range

Electric grinders – Straight grinders

EGER 8/90

9,000 RPM / 710 watts



PFERDVALUE:



Special features:

- Stepless rotational speed control.
- Digital electronics for constant rotational speed.
- Overload protection.
- Smooth start-up to protect people, tools and the drive.

Included in delivery:

4 m power cable, 6 mm collet, 2 keys.

Description	EAN 4007220	Rotational speed [RPM]	Voltage [volts] 50–60Hz	Power consumption [watts]	Power output [watts]	Collet group	Net weight [kg]
EGER 8/90	N! 232040	9,000–2,500	230	710	410	22	1.800

Collets*



Group	For shank dia.			
	3 mm	6 mm	8 mm	1/4 inch
	EAN 4007220			
22	N! 409848	N! 409855	N! 409862	N! 409831

Keys



Description	EAN 4007220
EM SW 13 mm	N! 410318
EM SW 17 mm	204542

* You can find the collet dimensions on page 167.

Special features:

- **Max. tool dia. up to 125 mm.**
- Adjusted rotational speed range for tools with low rotational speeds.
- Stepless rotational speed control.
- Digital electronics for constant rotational speed.
- Overload protection.
- Smooth start-up to protect people, tools and the drive.
- Spindle lock pin.

Included in delivery:

4 m power cable, 1 clamping flange, 1 clamping nut, 1 face pin spanner, surface guard, anti-vibration handle.

EWER 17/75

7,500 RPM / 1,700 watts



PFERDVALUE:



Description	EAN 4007220	Rotational speed [RPM]	Voltage [volts] 50–60Hz	Power consumption [watts]	Power output [watts]	Drive spindle thread	Tool mounting hole dia. [mm]	Net weight [kg]
EWER 17/75	N! 395127	7,500–2,700	230	1,700	1,000	M14	22.23	2.810

Clamping flanges



Description	EAN 4007220
SPF 98960180	N! 420935
SPM 98960181	N! 420942

Keys



Description	EAN 4007220
STL SW 35 x 5,3 mm	N! 420959



New in the PFERD product range

Electric grinders – Burnishing machine

ESER 17/75

7,500 RPM / 1,700 watts



Special features:

- Stepless rotational speed control.
- Digital electronics for constant rotational speed.
- Overload protection.
- Smooth start-up to protect people, tools and the drive.
- Spindle lock pin.
- Two keyways for increased power transmission on drum tools.
- Drive spindle with CD-R mounting.
- M14 drive spindle for mounting drum tools with female thread.

Included in delivery:

4 m power cable, hand guard, anti-vibration handle, detachable drive spindle.

PFERDVALUE:



Description	EAN 4007220	Rotational speed [RPM]	Voltage [volts] 50–60Hz	Power consumption [watts]	Power output [watts]	Max. tool dia. [mm]	Tool mounting dia. x width [mm]	Net weight [kg]
ESER 17/75	N! 217771	7,500–2,700	230	1,700	1,000	125	19 x 100	3.065



Special features:

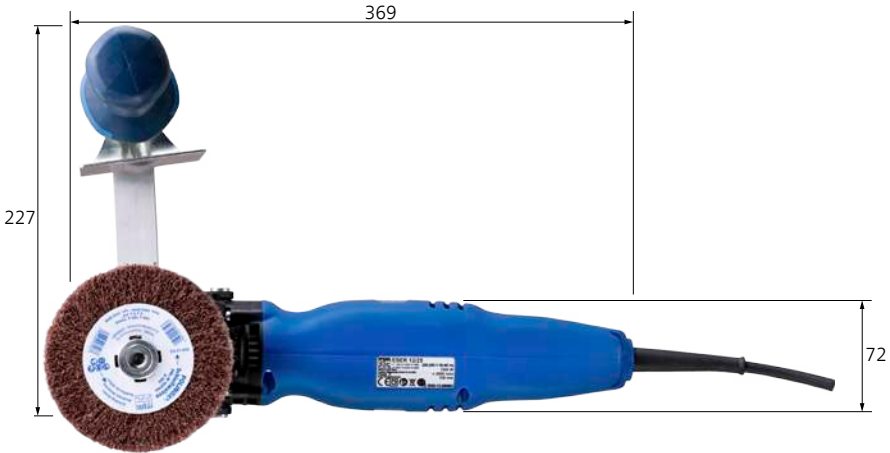
- Low-speed burnishing machine with high torque and stepless rotational speed control.
- Digital electronics for constant rotational speed.
- Overload protection.
- Smooth start-up to protect people, tools and the drive.
- Spindle lock pin.
- Two keyways for increased power transmission on drum tools.
- Drive spindle with CD-R mounting.
- M14 drive spindle for mounting drum tools with female thread.

Included in delivery:

4 m power cable, hand guard, anti-vibration handle, detachable drive spindle.

ESER 12/25

2,500 RPM / 1,200 watts



PFERDVALUE:



Description	EAN 4007220	Rotational speed [RPM]	Voltage [volts] 50–60Hz	Power consumption [watts]	Power output [watts]	Max. tool dia. [mm]	Tool mounting dia. x width [mm]	Net weight [kg]
ESER 12/25	N! 217788	2,500–900	230	1,200	750	125	19 x 100	3.340



New in the PFERD product range

Electric grinders – Belt grinders

EBER 8/280

32 m/s / 800 watts
Belt length: 520 (610*) mm x width 3–20 mm



PFERDVALUE:



Special features:

- Belt length 520 mm x width 3–20 mm
- ***Belt length 610 mm** possible with **EBSA 610 adapter**.
- Keyless belt arm change.
- Stepless rotational speed control.
- Digital electronics for constant rotational speed.
- Overload protection.
- Smooth start-up to protect people, tools and the drive.

Included in delivery:

4 m power cable, 1 belt arm BSVA 9/24x520, protective cover SDVH.

Description	EAN 4007220	Belt speed [m/s]	Voltage [volts] 50–60 Hz	Power consumption [watts]	Power output [watts]	Net weight [kg]
EBER 8/280	N! 232781	32–12	230	800	550	2.100

Protective cover



Description	EAN 4007220
SDVH	N! 407981

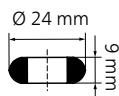
Electric belt grinder adapter



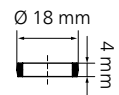
Description	EAN 4007220
EBSA 610	N! 417317

Belt grinder attachment arms

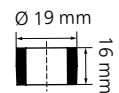
BSVA 9/24



BSVA 4/18



BSVA 16/19



Special features:

- Sturdy steel design.
- Use of the full roller width.
- Extremely slim fixing lugs on the facing roller.
- Asymmetrical arms for flush lateral grinding.

Description	EAN 4007220	Width x roll dia. [mm]	Suitable belt width [mm]	Suitable belt length [mm]	Net weight [kg]
BSVA 9/24 x 520	N! 247891	9 x 24	3, 6, 9, 12, 16	520, 610	0.073
BSVA 4/18 x 520	N! 247907	4 x 18	3, 6, 9	520, 610	0.060
BSVA 16/19 x 520	N! 247914	16 x 19	12, 16	520, 610	0.100

Special features:

- Stepless rotational speed control.
- Digital electronics for constant rotational speed.
- Overload protection.
- Smooth start-up to protect people, tools and the drive.
- Spindle lock pin.
- *Telescopic arm for using different belt lengths.
- Lockable guide roller for greater contact pressure or a large surface contact angle.
- Fixed side plates to protect the workpiece.

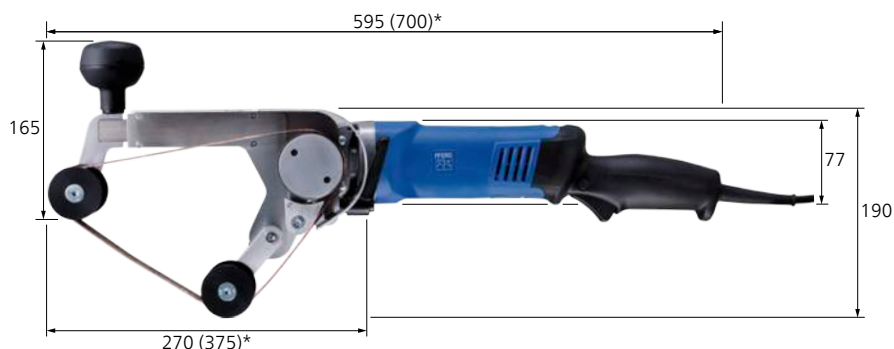
Included in delivery:

4 m power cable, 1 key, 2 rolls.

EBER 17/75 R

22.8 m/s / 1,700 watts

Belt length: 610–820 mm x width 12–40 mm



PFERDVALUE:



Description	EAN 4007220	Belt speed [m/s]	Suitable belt width [mm]	Suitable belt length [mm]	Voltage [volts] 50–60 Hz	Power consumption [watts]	Power output [watts]	Net weight [kg]
EBER 17/75 R	N! 217757	22.8–8.2	12–40	610, 650, 760, 780, 820	230	1,700	1,000	4.027

Keys



Description	EAN 4007220
SKHS SW 5 mm	N! 420881



For detailed information and ordering data on abrasive and non-woven short belts, please refer to the Tool Manual 23, catalogue section 4.



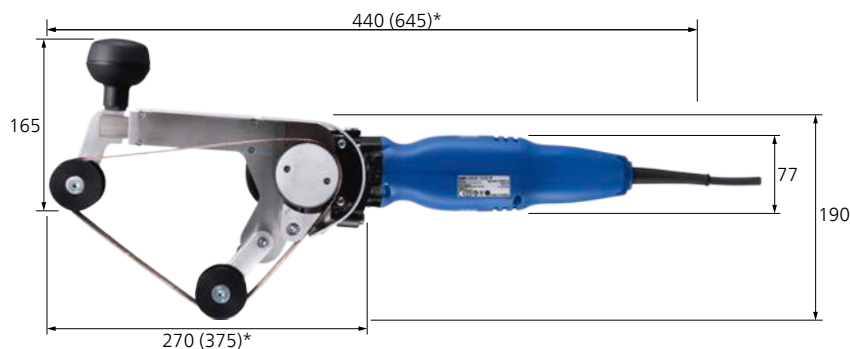
New in the PFERD product range

Electric grinders – Pipe belt grinders

EBER 12/25 R

7.6 m/s / 1,200 watts

Belt length: 610–820 mm x width 12–40 mm



PFERDVALUE:



Special features:

- Low-speed pipe belt grinder with stepless rotational speed control.
- Digital electronics for constant rotational speed.
- Overload protection.
- Smooth start-up to protect people, tools and the drive.
- Spindle lock pin.
- *Adjustable telescopic arm for using different belt lengths.
- Lockable guide roller for greater contact pressure or a large surface contact angle.
- Fixed side plates on the rolls to protect the workpiece.

Included in delivery:

4 m power cable, 1 key, 2 rolls.

Description	EAN 4007220	Belt speed [m/s]	Suitable belt width [mm]	Suitable belt length [mm]	Voltage [volts] 50–60 Hz	Power consumption [watts]	Power output [watts]	Net weight [kg]
EBER 12/25 R	N! 217764	7.6–2.7	12–40	610, 650, 760, 780, 820	230	1,200	750	4.212

Keys



Description	EAN 4007220
SKHS SW 5 mm	N! 420881



For detailed information and ordering data on abrasive and non-woven short belts, please refer to the Tool Manual 23, catalogue section 4.

Special features:

- Electric motor for rigid extensions with DIN 10 motor connection.
- Stepless rotational speed control.
- Digital electronics for constant rotational speed.
- Overload protection.
- Smooth start-up to protect people, tools and the drive.
- Restart protection in case of power failure (USP).

Included in delivery:

4 m power cable, 2 keys.

EMER 8/280

28,000 RPM / 750 watts



PFERDVALUE:



Description	EAN 4007220	Rotational speed [RPM]	Voltage [volts] 50–60Hz	Power consumption [watts]	Power output [watts]	Anschluss [DIN]	Net weight [kg]
EMER 8/280	N! 217795	28,000–8,500	230	750	410	10	2.058

Keys



Description	EAN 4007220
STS D 4 mm	205020

Special features:

- Rigid extensions for hard-to-reach areas.
- No risk of overloading the drive motor in conjunction with DL motors.
- Special lengths and options for workpiece adaptation available on request.
- The potential bending point and the bending radius depend on the STV type and the desired bend.
- Bent types available as from a minimum length of 500 mm (see 1st and 5th figure).

Included in delivery:

STV9

Collet 3 mm, 3 keys.

STV13

Collet 6 mm, 3 keys.

STV20 incl. HA 4 G16/G22 INOX

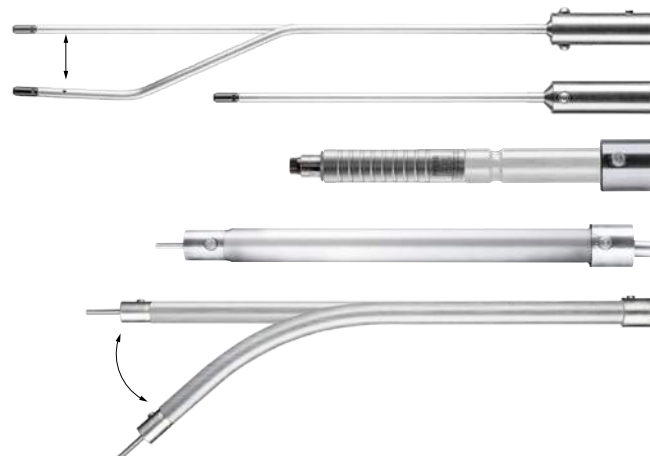
Collet 6 mm, 2 keys.

Rigid extensions***

STV9
STV13

STV20

STV27
STV33



Max. 25,000 RPM (STV9 and STV13)

*** You can find suitable extensions and handpieces in Tool Manual 23, catalogue section 9, page 62.

New in the PFERD product range

Electric grinders – EL motors DIN 10 for rigid extensions

EMER 8/90

9,000 RPM / 710 watts



PFERDVALUE:



Special features:

- Electric motor for rigid extensions with DIN 10 motor connection.
- Stepless rotational speed control.
- Digital electronics for constant rotational speed.
- Overload protection.
- Smooth start-up to protect people, tools and the drive.
- Restart protection in case of power failure (USP).

Included in delivery:

4 m power cable, 2 keys.

Description	EAN 4007220	Rotational speed [RPM]	Voltage [volts] 50–60Hz	Power consumption [watts]	Power output [watts]	Anschluss [DIN]	Net weight [kg]
EMER 8/90	N! 217818	9,000–2,500	230	710	410	10	2.028

Keys



Description	EAN 4007220
STS D 4 mm	205020

Rigid extensions***

Max. 25,000 RPM (STV9 and STV13)



Special features:

- Rigid extensions for hard-to-reach areas.
- No risk of overloading the drive motor in conjunction with DL motors.
- Special lengths and options for workpiece adaptation available on request.
- The potential bending point and the bending radius depend on the STV type and the desired bend.
- Bent types available as from a minimum length of 500 mm (see 1st and 5th figure).

Included in delivery:

STV9

Collet 3 mm, 3 keys.

STV13

Collet 6 mm, 3 keys.

STV20 incl. HA 4 G16/G22 INOX

Collet 6 mm, 2 keys.

*** You can find suitable extensions and handpieces in Tool Manual 23, catalogue section 9, page 62.

Special features:

- Flexible shaft drive with DIN 10 connection.
- Stepless rotational speed control.
- Digital electronics for constant rotational speed.
- Overload protection.
- Smooth start-up to protect people, tools and the drive.
- Restart protection in case of power failure (USP).
- Pipe stand protects the drive.

Included in delivery:

4 m power cable, 2 keys.

Ordering notes:

- The drive is supplied without flexible shaft, please order separately.

EMER 8/280 BW

28,000 RPM / 750 watts




PFERDVALUE:



Description	EAN 4007220	Rotational speed [RPM]	Voltage [volts] 50–60 Hz	Power consumption [watts]	Power output [watts]	Flexible shaft connection [DIN]	Dimensions L x W x H [mm]	Net weight [kg]
EMER 8/280 BW	N! 395318	28,000–8,500	230	750	410	10	455 x 120 x 120	2.500

Keys

	Description	EAN 4007220
	STS D 4 mm	205020



New in the PFERD product range

Multi-speed machines – Electric motor for flexible shafts

EMER 8/90 BW

9,000 RPM / 710 Watt



PFERDVALUE:



- Special features:**
- Flexible shaft drive with DIN 10 connection.
 - Stepless rotational speed control.
 - Digital electronics for constant rotational speed.
 - Overload protection.
 - Smooth start-up to protect people, tools and the drive.
 - Restart protection in case of power failure (USP).
 - Pipe stand protects the drive.

Included in delivery:
4 m power cable, 2 keys.

Ordering notes:

- The drive is supplied without flexible shaft, please order separately.

Description	EAN 4007220	Rotational speed [RPM]	Voltage [volts] 50–60 Hz	Power consumption [watts]	Power output [watts]	Flexible shaft connection [DIN]	Dimensions L x W x H [mm]	Net weight [kg]
EMER 8/90 BW	N! 217825	9,000–2,500	230	710	410	10	455 x 120 x 120	2.530

Keys

Description	EAN 4007220
STS D 4 mm	205020



Recommendations for use:

- Rotational speed and power range should not be undercut/exceeded.
- The radius of curvature should not be smaller than 170 mm.

Ordering notes:

- Special lengths available on request.
- Cores and hoses with double-sided sliding coupling available on request.

Flexible shaft 10 SE 11 DIN 10/G28

18,000–750 RPM



Description	EAN 4007220	Rotational speed range [RPM]	Drive-side coupling DIN / dia. [mm]	Handpiece-side coupling G / dia. [mm]	Dimensions dia. x length [mm]	Net weight [kg]
Flexible shaft (incl. handpiece HA 10 G28)						
BW 10 SE 11 DIN 10/G28	N! 415702	18,000–750	10 / 30	28 / 28	22 x 1,683	2.663
BW 10 SE 11 DIN 10/G28 2 m	N! 420904	18,000–750	10 / 30	28 / 28	22 x 2,173	3.113
Replacement core						
SE 11 DIN 10/G28	N! 169377	18,000–750	10 / M10	28 / 7.5/5.85	11 x 1,600	0.802
SE 11 DIN 10/G28 2 m	N! 142929	18,000–750	10 / M10	28 / 7.5/5.85	11 x 2,100	1.102
Replacement casing						
SCH 10 DIN 10/G28	N! 420911	-	10 / 30	28 / 28	22 x 1,553	1.430
SCH 10 DIN 10/G28 2 m	N! 420928	-	10 / 30	28 / 28	22 x 2,053	1.580



For maintenance set

P-Set 10/12 ZG to maintain flexible shafts, please see Tool Manual 23, catalogue section 9, page 122.

Handpieces



HA 10 G28



HA 12 G28

Much more ergonomic flexible shaft handpieces.

Handpiece HA 12 G28

- Handpiece with clamping nut for maximum clamping force.
- Collets up to 12 mm available.

Description	EAN 4007220	Incl. collet dia. [mm]	Max. perm. rotational speed [RPM]	Dimensions dia. x length [mm]	Transmission ratio	Collet group	Net weight [kg]
HA 10 G28	N! 388174	6	18,000	35 x 160	-	6	0.431
HA 12 G28	N! 395196	6	18,000	35 x 170	-	12	0.545

You can find all available collets in Tool Manual 23, catalogue section 9, pages 116–118.



New in the PFERD product range

Tool drive accessories – Handpieces and angle drive

Handpieces



HA 4 G16



HA 7 G22



HA 10 G28



HA 12 G28

Much more ergonomic flexible shaft handpieces.

Handpiece HA12 G28

- Handpiece with clamping nut for maximum clamping force.
- Collets up to 12 mm available.

Description	EAN 4007220	Incl. collet dia. [mm]	Max. perm. rotational speed [RPM]	Handpiece-side coupling G / dia. [mm]	Dimensions dia. x length [mm]	Transmission ratio	Collet group	Net weight [kg]
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Gerade Handpieces

HA 4 G16	N! 388150	6	40,000	16 / 16	24 x 120	-	6	0.180
HA 7 G22	N! 388167	6	25,000	22 / 22	30 x 130	-	6	0.286
HA 10 G28	N! 388174	6	18,000	28 / 28	35 x 160	-	6	0.431
HA 12 G28	N! 395196	6	18,000	28 / 28	35 x 170	-	12	0.545



Angle drive WT 10 G28

Can be connected to flexible shaft BW 10 SE 11 DIN 10/G28 (instead of handpiece). Connection to flexible shaft can be pivoted 360°. Enables flexible shaft drives to be used as angle grinders.

Included in delivery:

1 clamping nut, 2 flange screws, 2 spacer sleeves, 2 keys, anti-vibration handle, guard dia. 125 mm.

Description	EAN 4007220	Drive operating speed n max. [RPM]	Transmission ratio	Output speed at n max [RPM]	Spindle thread	Tool mounting [mm]	Net weight [kg]
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WT 10 G28	N! 419809	18,000	1.5:1	12,000	M14	22.23	1.400
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Clamping flanges



Item no.	Description	EAN 4007220
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1	SPM14 98980036	902189
2	DHFL 98980039	902226
3	FLS 98980037	902202
4	DHTR 98980040	902233
5	FLS-CC 98980038	902219

Keys



Description	EAN 4007220
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SKS SW 4 mm	204450
STL SW 35 x 5 mm	193853

The quick way to find the perfect collet

- ① To find the collet group for the selected tool drive, please refer to the overview below.
- ② Based on the collet group, determine the first part of the designation and EAN.
- ③ Using the required diameter, determine the second part of the designation and EAN.
- ④ By joining together the designation and EAN you will obtain the full details that you need for an order.

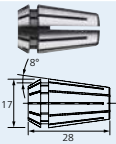
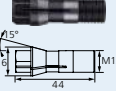
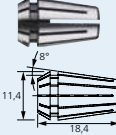
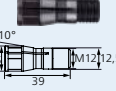
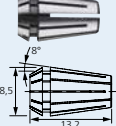
④ Ordering example:

Collet group 16
SPZ 98980 268 = Collet 3 mm
for air grinder PGAS 10/200 HV:

The full **designation** is **SPZ 98980 268** and the full **EAN** is **4007220416372**.

Overview of collet groups

Page	Machine type	Drives/handpieces	① Collet group
104	Air-powered straight grinder	PGAS 4/300 HV	20
108		PGAS 4/250 HV	20
111		PGAS 4/220 Z-HV	20
112		PGAS 10/200 HV	16
113		PGAS 10/200 V-HV	16
114		PGAS 4/190 HV	20
117		PGAS 10/160 HV	16
118		PGAS 10/160 V-HV	16
119		PGAS 10/120 HV	16
120		PGAS 10/120 V-HV	16
123		PGAS 2/5 DS	20
141	Air-powered robot spindles	PGAS 2/800 RS	23
142		PGAS 3/370 RS	21
142		PGAS 3/370 RS LL	21
143		PGAS 4/280 RS	16
144		PGAS 4/220 RS	16
145		PGAS 8/170 RS	16
146		PGAS 11/58 RS	16
147		PGAS 4/52 RS	16
148		PGAS 4/24 RS	16
149		PGAS 4/12 RS	16
150		PWAS 4/180 RS	16
152		PWAS 4/52 RS	16
153	Electric straight grinders	EGER 8/280	22
154		EGER 8/90	22

Collet group	② Description EAN	③ Description and EAN supplement								
		Dia. [mm]						Dia. [inch]		
		3	5	6	8	10	12	3/32	1/8	1/4
16 	SPZ 98980...	268		163	164	165	269			166
	4007220 N! 416372			956984	957004	957028	N! 416389			957035
20 	SPZ 98980...	262		261	263	264				265
	4007220 N! 233634			N! 312964	N! 233641	N! 233658				N! 233665
21 	SPZ 98980...	311		310					398	399
	4007220 N! 235447			N! 235430					N! 411544	N! 411551
22 	SPZ 98960...	171		172	173					170
	4007220 N! 409848			N! 409855	N! 409862					N! 409831
23 	SPZ 98980...	660						661	662	
	4007220 N! 421253							N! 421277	N! 421284	

New in the PFERD product range

Reference list – Tool drive upgrade

Discontinued product		Replacement article				
Previous description	EAN 4007220	>>	New description	EAN 4007200	Note	Page
Air grinders – Straight grinders						
PG 1/800	176658	>>	PGAS 1/700	948873	See Tool Manual 23, catalogue section 9, page 15.	-
PGAS 1/800	176689	>>	PGAS 1/700	948873	See Tool Manual 23, catalogue section 9, page 15.	-
PGAS 2/800 E	832479	>>	PGAS 2/800 E-DV	221372		99
PGAS 2/800 E-HV	101308	>>	PGAS 2/800 E-HV	221396		99
PGZA 3/440	176580	>>	PGAS 3/370 RS	234020		142
PGZA 3/440 E	176597	>>	PGAS 3/370 RS	234020		142
PGAS 3/440 DH	176603	>>	PGAS 3/350 HV	221457	Also available as PGAS 3/350 DV.	102
PG 3/380 DH	176627	>>	PGS 3/300 Z-DV	395165		107
PGAS 4/350 E	896693	>>	PGAS 3/380 E-DV	368312	Also available as PGAS 3/380 E-HV.	101
PGAS 5/280 HV	176733	>>	PGAS 4/300 HV	221471	Also available as PGAS 4/300 V-HV.	104
PGAS 5/230 HV	235294	>>	PGAS 4/250 HV	382844		108
PGAS 5/230 VE-HV	235300	>>	PGAS 4/250 V-HV	388051		110
PG 3/210 DH	606315	>>	PGS 3/300 Z-DV	395165		107
PGAS 10/200 V-HV	776889	>>	PGAS 10/200 V-HV	245538	Also available as PGAS 10/200 HV.	113
PGAS 5/180 HV	176719	>>	PGAS 4/190 HV	388068		114
PGAS 5/180 VE-HV	176726	>>	PGAS 4/190 V-HV	395400		116
PGAS 9/180 V-HV	319765	>>	PGAS 10/160 V-HV	231012	Also available as PGAS 10/160 HV.	118
PGAS 10/160 V-HV	777282	>>	PGAS 10/160 V-HV	231012	Also available as PGAS 10/160 HV.	118
PGAS 9/120 V-HV	319758	>>	PGAS 10/120 V-HV	231029		120
PGAS 5/40 V-HV	344361	>>	PGAS 3/35 HV	388075		122
PGAS 10/40 V-HV	802649	>>	PGAS 3/35 HV	388075		122
PGTA 3/700	373248	>>	-	-		-
Air grinders – Angle grinders						
PWS 1/800	176900	>>	PWAS 1/800 DV	230985	Also available as PWAS 1/800 HV.	124
PWSA 1/800	541142	>>	PWAS 1/800 DV	230985	Also available as PWAS 1/800 HV.	124
PWSA 5/210 HV	177075	>>	PWAS 4/200 HV	417072		125
PWSA 3/220 DH	566503	>>	PWAS 2/200 HV	417089	Also available as PWA 2/200 DV.	126
PWS 3/200 DH	282175	>>	PWAS 2/200 HV	417089	Also available as PWA 2/200 DV.	126
PWSA 5/160 HV	235287	>>	PWAS 4/160 HV	417096		127
PWSA 5/130 HV	271766	>>	PWAS 4/120 HV	417102		129
PW 3/120 DH	271780	>>	PWA 2/120 HV	417119	Also available as PWA 2/120 DV.	130
PWAS 9/120 HV	319772	>>	PWAS 13/120 AVH	896709	See Tool Manual 23, catalogue section 9, page 52.	-
PWSA 4/45 HV	948750	>>	-	-		-
PWAS 4/45 HV CD	948767	>>	-	-		-
Air grinders – Belt grinders						
PBSA 5/160 HV 925	801963	>>	PBA 4/160 HV	420775		131
PBSA 5/160 HV oVA	948804	>>	PBA 4/160 HV	420775		131
PBS 5/155 HV oVA	101841	>>	-	-		-
Air grinders – Special drives						
PFGA 10/120 HV	963395	>>	PF 8/90 HV	388099		137
PMAS 5/230 HV	263235	>>	PMA 4/220 HV	388082		132
PMAS 12/200 H	178058	>>	PMA 10/200 HV	384374		133
PMAS 12/120 HV	178034	>>	PMA 10/120 HV	231043		135
MST 31 F	450314	>>	MST 32 DV F	231074		139
MST 31 M	450079	>>	MST 32 DV M	231081		139
MST 31 G	450307	>>	MST 32 DV G	231098		139



Discontinued product		Replacement article				
Previous description	EAN 4007220		New description	EAN 4007200	Note	Page
Electric grinders – Straight grinders						
UGER 11/330 SI 230 VOLT	777367	>>	EGER 8/280	232125		153
UGER 5/250 SI 230 VOLT	265581	>>	EGER 8/280	232125		153
UGER 5/90 SI 230 VOLT	267332	>>	EGER 8/90	232040		154
UGER 11/90 SI 230 V	948842	>>	EGER 8/90	232040		154
UGER 15/30 SI 230 VOLT	775912	>>	-	-		-
UGER 15/60 SI 230 VOLT	777251	>>	-	-		-
UGER 15/150 SI 230 VOLT	801864	>>	-	-		-
Electric grinders – Burnishing machine						
UWER 15/40 A-SI D19 230V	896792	>>	ESER 17/75	217771	Alternatively ESER 12/25 for POLINOX.	156
Electric grinders – Angle grinders						
UWER 5/200 SI 230V	598436	>>	-	-		-
Electric grinders – Belt grinders						
UBS 5/100 SI 925 230V	333006	>>	EBER 8/280	232781		158
UBS 5/100 SI 925 TK 230V	957424	>>	EBER 8/280	232781		158
UBS 5/100 SI oVA 230V	948811	>>	EBER 8/280	232781		158
UBS 11/90 SI-R 230V	777275	>>	EBER 17/75 R	217757	Alternatively EBER 12/25 R for non-woven belts.	159
UBS 11/90 SI-R TK 230V	957448	>>	EBER 17/75 R	217757	Alternatively EBER 12/25 R for non-woven belts.	159
UBS 5/70 SI-R 230V	561263	>>	EBER 17/75 R	217757	Alternatively EBER 12/25 R for non-woven belts.	159
UBS 5/70 SI-R TK 230V	957431	>>	EBER 17/75 R	217757	Alternatively EBER 12/25 R for non-woven belts.	159
Electric grinders – Fillet weld grinders						
KNER 5/34 V-SI 230V	935217	>>	-	-		-
Electric grinders – Special drives						
EMER 5/250 SI 230V	948859	>>	EMER 8/280	217795		161
EMER 11/90 SI 230V	948866	>>	EMER 8/90	217818		162
EMER 15/150 SI 230V	101414	>>	-	-		-
EMER 15/60 SI 230V	101421	>>	-	-		-
EMER 15/30 SI 230V	101438	>>	-	-		-
Flexible shaft drives – Multi-speed machines						
RUER 5/250 SI 230V	267325	>>	EMER 8/280 BW	395318		163
RUER 10/250 SI 230V	348116	>>	EMER 8/280 BW	395318		163
MD10 400V 50HZ	181324	>>	ME 22/150 400V	758694	Alternatively ME 22/240; see Tool Manual 23, catalogue section 9, pages 102 and 100.	-
MD10 B1 400V 50HZ	181331	>>	ME 22/150 400V	758694	Alternatively ME 22/240; see Tool Manual 23, catalogue section 9, pages 102 and 100.	-
MD10-B2 400V 50HZ	181348	>>	ME 22/150 400V	758694	Alternatively ME 22/240; see Tool Manual 23, catalogue section 9, pages 102 and 100.	-
MD10-D 400V 50HZ	181355	>>	ME 22/150 400V	758694	Alternatively ME 22/240; see Tool Manual 23, catalogue section 9, pages 102 and 100.	-
SD25-40 400V 50HZ	181416	>>	ME 22/150 400V	758694	Alternatively ME 22/240; see Tool Manual 23, catalogue section 9, pages 102 and 100.	-
SD25-40-D 400V 50HZ	181447	>>	ME 22/150 400V	758694	Alternatively ME 22/240; see Tool Manual 23, catalogue section 9, pages 102 and 100.	-
RUER 15/150 SI 230V	101629	>>	-	-		-
RUER 15/60 SI 230V	101650	>>	-	-		-
RUG 19/120 SI 230V	348109	>>	-	-		-

New in the PFERD product range

PFERD tools with **XLOCK** – Just one Click



X-LOCK from Bosch is the world's first quick-changing system for angle grinders: position the tool in the X-LOCK holder, click it into place – and you're done. It's never been so easy to change accessories on angle grinders. X-LOCK creates a new standard, makes professionals' work easier and increases the productivity. Bosch Power Tools relies on strong partners like PFERD. PFERD has developed the principle for connecting the X-LOCK punched part with bonded abrasives, flap wheels and brushes and created the conditions to enable them to be produced industrially.



With the Bosch X-LOCK system for angle grinders, you can change tools quickly and comfortably. Instead of a round centre hole, the X-LOCK system features an X-shaped contour, which allows the tool to be fixed on the angle grinder in a form-fitting manner. This guarantees that different tools can be mounted securely and comfortably in the shortest possible time. The unique system meets the highest quality and safety standards and even withstands tough and challenging operating conditions.

Advantages:

- Quick and comfortable tool changes.
- Tools are fixed securely since they audibly click into place.
- Tools with X-LOCK can also be used on conventional angle grinders with an M14 and 5/8"-11 thread (exception: cup brushes).

Recommendations for use:

- Place the tool on the X-LOCK quick-change system of your angle grinder and secure it by lightly pressing it down. The tool will audibly click into place.

How it works:



Place the tool on the X-LOCK holder in a form-fitting manner.



Lightly press the tool down until it audibly clicks into place.



Release the tool by using the lever.



New in the PFERD product range

POLIVLIES flap discs with X-LOCK

PFERD supplies POLIVLIES flap discs in various grit sizes, diameters and types. These are particularly suited to work on large surfaces made from stainless steel (INOX).

Advantages:

- High profitability thanks to high abrasive performance and long tool life.
- Creates a consistently high surface quality throughout the entire tool life as new, sharp abrasive material is constantly freed up.
- Optimum adaptation to contours thanks to high flexibility.
- With X-LOCK quick-change system for comfortable and quick tool changes.

Materials that can be worked:

- Can be used on nearly all materials.

Matching tool drives:

- Angle grinders
- Cordless angle grinders

Ordering notes:

- When ordering, please state the EAN or the full description. Please complete the description with the desired grit size.

Ordering example:

EAN 4007220**119846**
PVL 115-X-LOCK A **180 M**

Ordering example explanation:

PVL = POLIVLIES flap discs
115 = Outer diameter D [mm]
X-LOCK = Quick-change system
A = Abrasive
180 M = Grit size

Safety notes:

- For safety reasons, the specified maximum permitted rotational speed must never be exceeded.



Flap discs PVL

For universal coarse to fine grinding applications in industry and professional trades.

Abrasive:

Aluminium oxide A

Available POLIVLIES grit sizes:

100 G = coarse (yellow-brown)
180 M = medium (red-brown)
240 F = fine (blue)

Ordering notes:


- Please complete the description with the desired grit size.

PFERDVALUE:



Recommendations for use:

- For the best results, use at a recommended cutting speed of 30–35 m/s.

D [mm]	T [mm]	H [mm]	Grit size			Opt. RPM	Max. RPM		Description
			100 G	180 M	240 F				
			EAN 4007220						
115	18	X-LOCK (22.23)	N! 119839	N! 119846	N! 119853	5,000–5,800	13,300	5	PVL 115-X-LOCK A ...
125	18	X-LOCK (22.23)	N! 119860	N! 119907	N! 119914	4,600–5,300	12,200	5	PVL 125-X-LOCK A ...

PSF STEELOX ★★☆☆

Cut-off wheel for steel and stainless steel (INOX) with high cutting performance and long tool life.

Advantages:

- Universally suitable for steel and stainless steel (INOX).
- Fast work progress thanks to high cutting performance.
- High economic efficiency due to long tool life.
- Thin cut-off wheels are ideal for cordless angle grinders.
- With X-LOCK quick-change system for comfortable and quick tool changes.

Materials that can be worked:

steel, stainless steel (INOX)

Applications:

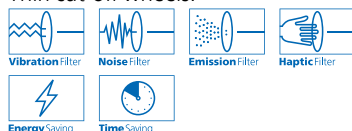
cutting of sheet metal, profiles and solid material, cutting out holes



Abrasive:

Aluminium oxide A

PFERDVALUE:

Thin cut-off wheels:



D [mm]	T/U [mm]	EAN 4007220	H [mm]	Max. RPM		Description
Flat type EHT (shape 41) 						
115	1.0	N! 113400	X-LOCK (22.23)	13,300	25	EHT 115-1,0 PSF STEELOX/X-LOCK
	1.6	N! 113417	X-LOCK (22.23)	13,300	25	EHT 115-1,6 PSF STEELOX/X-LOCK
125	1.0	N! 113431	X-LOCK (22.23)	12,200	25	EHT 125-1,0 PSF STEELOX/X-LOCK
	1.6	N! 113455	X-LOCK (22.23)	12,200	25	EHT 125-1,6 PSF STEELOX/X-LOCK
Depressed-centre type EH (shape 42) 						
125	2.4	N! 113448	X-LOCK (22.23)	12,200	25	EH 125-2,4 PSF STEELOX/X-LOCK

Cut-off wheels with X-LOCK – Performance Line SG ★★☆☆

SG STEELOX ★★☆☆

Cut-off wheel for steel and stainless steel (INOX) with high cutting performance and very long tool life.

Advantages:

- Universally suitable for steel and stainless steel (INOX).
- Fast work progress thanks to high cutting performance.
- Maximum economic efficiency due to very long tool life.
- With X-LOCK quick-change system for comfortable and quick tool changes.

Materials that can be worked:

steel, stainless steel (INOX)

Applications:

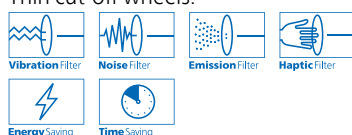
cutting of sheet metal, profiles and solid material, cutting out holes



Abrasive:

High-performance aluminium oxide A

PFERDVALUE:

Thin cut-off wheels:



D [mm]	T/U [mm]	EAN 4007220	H [mm]	Max. RPM		Description
Flat type EHT (shape 41) 						
125	1.0	N! 113585	X-LOCK (22.23)	12,200	25	EHT 125-1,0 SG STEELOX/X-LOCK
	1.6	N! 113592	X-LOCK (22.23)	12,200	25	EHT 125-1,6 SG STEELOX/X-LOCK
Depressed-centre type EH (shape 42) 						
125	2.4	N! 113493	X-LOCK (22.23)	12,200	25	EH 125-2,4 SG STEELOX/X-LOCK

New in the PFERD product range

POLIFAN flap discs with X-LOCK – Universal Line PSF ★★☆☆



Z PSF STEELOX ★★☆☆

POLIFAN flap disc with aggressive stock removal rate and long tool life.

Advantages:

- Fast work progress and high economic efficiency thanks to the aggressive stock removal rate.
- Long tool life.
- Also suitable for low-power angle grinders.
- With X-LOCK quick-change system for comfortable and quick tool changes.

Materials that can be worked:

steel, stainless steel (INOX)

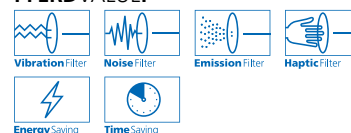
Applications:


surface grinding, weld dressing, chamfering, deburring

Abrasive:

Zirconia alumina Z

PFERDVALUE:



D [mm]	Grit size			H [mm]	Max. RPM		Description
	40	60	80				
	EAN 4007220						

Conical type PFC



115	N! 113608	N! 113615	N! 113622	X-LOCK (22.23)	13,300	10	PFC 115 Z ... PSF STEELOX/X-LOCK
125	N! 113639	N! 113646	N! 113653	X-LOCK (22.23)	12,200	10	PFC 125 Z ... PSF STEELOX/X-LOCK

POLIFAN flap discs with X-LOCK – Performance Line SG ★★☆☆



Z SG POWER STEELOX ★★☆☆

The POLIFAN Z SG POWER flap disc stands out due to its aggressive stock removal rate and excellent tool life while achieving the highest level of efficiency. It is the best conventional flap disc for steel.

Advantages:

- Fast work progress and maximum economic efficiency thanks to the aggressive stock removal rate.
- Maximum aggressiveness over the entire tool life.
- Fewer tool changes due to the excellent tool life.
- With X-LOCK quick-change system for comfortable and quick tool changes.

Materials that can be worked:

steel, stainless steel (INOX)

Applications:

weld dressing, chamfering, deburring

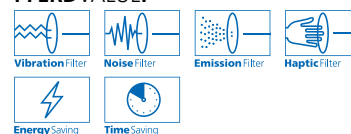
Abrasive:


Zirconia alumina Z

Recommendations for use:

- Also suitable for surface grinding on steel.

PFERDVALUE:



D [mm]	Grit size			H [mm]	Max. RPM		Description
	40	60	80				
	EAN 4007220						

Conical type PFC



125	N! 113707	N! 113714	N! 113721	X-LOCK (22.23)	12,200	10	PFC 125 Z ... SG POWER STEELOX/X-LOCK
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POLIFAN-CURVE

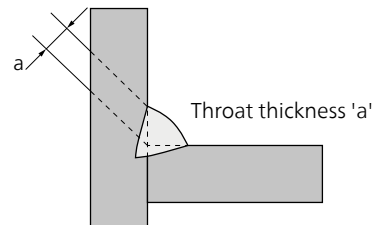
The patented POLIFAN-CURVE flap disc has been specially developed for work on fillet welds. It is the only flap disc in the world that has flaps on both the grinding side and on the rear side, as well as on the radius.

Advantages:

- High stock removal rate ensures fast work progress and therefore significant wage cost savings.
- Outstanding tool life when working on fillet welds.
- Precise and optimum grinding of the fillet weld geometry.
- With X-LOCK quick-change system for comfortable and quick tool changes.

Recommendations for use:

- Type M:
For fillet weld radii over 5 mm or throat thickness up to 6 mm with 90° joint, width at the radius: 11 mm.
- Type L:
For fillet weld radii over 8 mm or throat thickness over 6 mm with 90° joint, width at the radius: 14 mm.



Z SGP CURVE STEELOX ★★★★★

High-performance flap disc for maximum stock removal on steel and stainless steel (INOX).

Materials that can be worked:

steel, stainless steel (INOX)

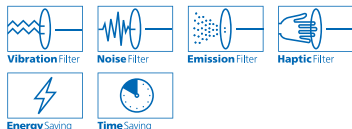
Applications:


work on fillet welds, weld dressing, chamfering, deburring

Abrasive:

Zirconia alumina Z

PFERDVALUE:



D [mm]	Fillet weld radius [mm]	Grit size	Width	H [mm]	Max. RPM		Description
		40					
		EAN 4007220					
Radial type PFR 							
125	> 5	N! 113790	M (11 mm)	X-LOCK (22.23)	12,200	10	PFR 125-M Z 40 SGP CURVE STEELOX/X-LOCK
	> 8	N! 113806	L (14 mm)	X-LOCK (22.23)	12,200	10	PFR 125-L Z 40 SGP CURVE STEELOX/X-LOCK

New in the PFERD product range

Grinding wheels with X-LOCK – Universal Line PSF ★★☆☆



PSF STEEL ★★☆☆

Grinding wheel for steel with high grinding performance and long tool life.

Advantages:

- Fast work progress and high economic efficiency thanks to the high grinding performance.
- Long tool life.
- Also suitable for low-power angle grinders. Soft grinding characteristics, achieves particularly high stock removal rates even at low contact pressure.
- With X-LOCK quick-change system for comfortable and quick tool changes.

Materials that can be worked:

steel, cast iron

Applications:

surface grinding, weld dressing, work on fillet welds, grouting, chamfering, deburring



Abrasive:

Aluminium oxide A

PFERDVALUE:



Time Saving

D [mm]	U [mm]	EAN 4007220	H [mm]	Max. RPM		Description
Depressed-centre type E (shape 27) 						
115	7.2	N! 113516	X-LOCK (22.23)	13,300	10	E 115-7 PSF STEEL/X-LOCK
125	7.2	N! 113523	X-LOCK (22.23)	12,200	10	E 125-7 PSF STEEL/X-LOCK



TBU

Excellent for medium-duty brushing such as deburring, cleaning and derusting on large surfaces.

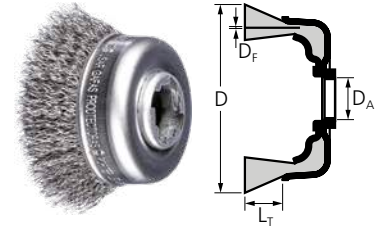
Advantages:


- Highly flexible, enabling optimal adjustment to the workpiece contour.
- Creates fine surfaces.
- With X-LOCK quick-change system for comfortable and quick tool changes.

Recommendations for use:

- For optimum results, use on speed-adjustable angle grinders.

PFERDVALUE:



D [mm]	L _f [mm]	D _A	D _f [mm]	Packaging	Rec. RPM	Max. RPM	Description
							
				EAN 4007220			

Steel wire (ST)

60	20	X-LOCK	0.30	N! 119150	6,300–9,400	12,500	POS TBU 60/X-LOCK ST 0,30
75	25	X-LOCK	0.30	N! 119327	6,300–9,400	12,500	POS TBU 75/X-LOCK ST 0,30

Stainless steel wire (INOX)

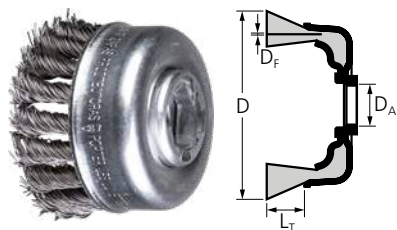
All INOX brushes are degreased.

60	20	X-LOCK	0.30	N! 119198	5,000–8,100	12,500	POS TBU 60/X-LOCK INOX 0,30
75	25	X-LOCK	0.30	N! 119440	5,000–8,100	12,500	POS TBU 75/X-LOCK INOX 0,30



New in the PFERD product range

Cup brushes with X-LOCK, knotted



TBG

Aggressive brush. Excellent for heavy-duty brushing such as deburring, cleaning and derusting on large surfaces.

Advantages:

- Aggressive brushing effect due to the very stiff wire knots.
- With X-LOCK quick-change system for comfortable and quick tool changes.

Recommendations for use:

- For optimum results, use on powerful angle grinders.

PFERDVALUE:



D [mm]	L _T [mm]	D _A	D _F [mm]	Knots [pcs.]	Packaging	Rec. RPM	Max. RPM	Description
								
					EAN 4007220			

Steel wire (ST)

65	22	X-LOCK	0.35	18	N! 119457	6,300–12,500	12,500	POS TBG 65/X-LOCK ST 0,35
			0.50	18	N! 119532	6,300–12,500	12,500	POS TBG 65/X-LOCK ST 0,50
80	20	X-LOCK	0.50	20	N! 119686	5,000–10,000	11,500	POS TBG 80/X-LOCK ST 0,50

Stainless steel wire (INOX)

All INOX brushes are degreased.

65	22	X-LOCK	0.35	18	N! 119624	5,000–12,500	12,500	POS TBG 65/X-LOCK INOX 0,35
			0.50	18	N! 119631	5,000–12,500	12,500	POS TBG 65/X-LOCK INOX 0,50
80	20	X-LOCK	0.50	20	N! 119730	4,000–10,000	11,500	POS TBG 80/X-LOCK INOX 0,50



RBG

Aggressive brush. Suitable for heavy-duty brushing in metalwork such as descaling, derusting, deburring, cleaning of weld seams and removal of adhesive residues.

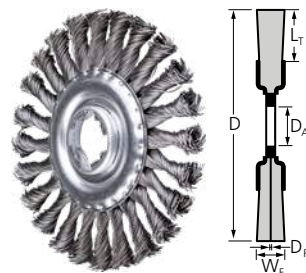
Advantages:

- Aggressive brushing effect due to the very stiff wire knots.
- With X-LOCK quick-change system for comfortable and quick tool changes.

Recommendations for use:

- For optimum results, use on powerful angle grinders.

PFERDVALUE:



D [mm]	W _F [mm]	L _T [mm]	D _A	D _F [mm]	Knots [pcs.]	Packaging	Rec. RPM	Max. RPM	Description
									
						EAN 4007220			

Steel wire (ST)

115	12	22	X-LOCK (22.23)	0.50	24	NI 118559	6,300–12,500	12,500	POS RBG 11512/X-LOCK ST 0,50
125	12	28	X-LOCK (22.23)	0.50	24	NI 118764	5,500–12,500	12,500	POS RBG 12512/X-LOCK ST 0,50

Stainless steel wire (INOX)

All INOX brushes are degreased.

115	12	22	X-LOCK (22.23)	0.50	24	NI 118757	5,000–12,500	12,500	POS RBG 11512/X-LOCK INOX 0,50
125	12	28	X-LOCK (22.23)	0.50	24	NI 118771	4,400–12,500	12,500	POS RBG 12512/X-LOCK INOX 0,50

Wheel brushes with X-LOCK, Pipeline

RBG PIPE, Pipeline

Aggressive and robust brush that is able to withstand high mechanical loads. Perfect for heavy-duty brushing in pipeline and container construction.

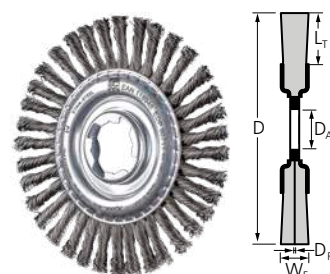
Advantages:

- Extra-slim design enables optimal access to hard-to-reach areas such as root weld seams.
- Aggressive brushing effect due to the very stiff wire knots.
- With X-LOCK quick-change system for comfortable and quick tool changes.

Recommendations for use:

- For optimum results, use on powerful angle grinders.

PFERDVALUE:



D [mm]	W _F [mm]	L _T [mm]	D _A	Knots [pcs.]	D _F [mm]	Packaging	Rec. RPM	Max. RPM	Description
									
						EAN 4007220			

Steel wire (ST)

115	6	21	X-LOCK (22.23)	36	0.50	NI 118948	6,300–12,500	12,500	POS RBG 11506/X-LOCK PIPE ST 0,50
125	6	18	X-LOCK (22.23)	48	0.50	NI 119136	6,300–12,500	12,500	POS RBG 12506/X-LOCK PIPE ST 0,50





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Subject to technical modifications.

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