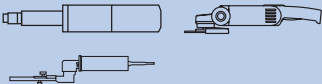




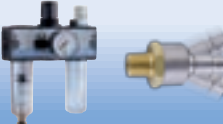
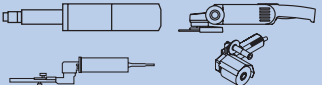








Contents	Page
■ The fast way to the best drive	3
■ Comparison of the drive systems	4
Air grinders	
	
Straight grinders	7-31
	
Angle grinders	32-44
	
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Special drives	48-50
■ Filing machine	
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Accessories for air grinders	51-52
	
Electric grinders	
	
Straight grinders	55-60
	
Angle grinders	61
	
Drum grinders	62
	
Belt grinders	63-64
	

The PFERD program includes air-powered, electrical and flexible shaft drives for hand-held applications such as grinding, milling, brushing, cutting and polishing.

The machines shown on the following pages are sorted according to power source,
 ■ machine type,
 ■ speed and
 ■ power output.

They are listed according to RPM as follows:

- Air-powered machines from 100.000 to 3.500 RPM
- Electric machines from 33.000 to 750 RPM
- Flexible shaft drives from 25.000 to 0 RPM (with overdrive unit 36.000 RPM).

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Flexible shaft drives and accessories	
	
Flexible shafts	80-91
	
Multi-speed machines with gears	68-79
	
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Special handpieces	87-92
■ Flexible special handpiece	
■ Belt grinder	
■ Drum grinder, straight type	
■ Drum grinder, angle type	
	
Tool drive accessories	93-97
	
Personal protective equipment (PPE)	
	
Safety glasses, protective gloves, ear protection, breathing protection	98-99

The most important prerequisite for cost effective working methods is the selection of the optimal tool. After this, the choice of a suitable tool drive can be made.

The following points have to be taken into consideration:

- Design, shape and size,
- speed,
- power output and
- tool adapter.

The selection is also influenced through

- accessibility of the place being worked on,
- mobility and
- availability of air power or electrical power supply.



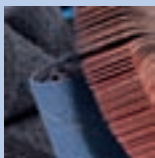



The following table provides you with an overview of suitable drives for the tools shown in the catalogues.

Your PFERD sales advisor as well as the technical customer service engineers can help you find an individual solution to any specific application problem.

Safety regulations

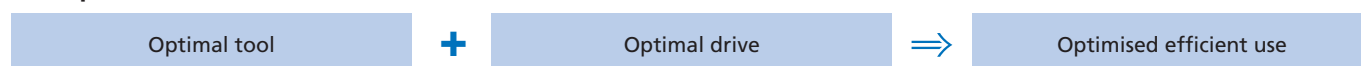


Read the instructions!
= (Please always observe the respective valid safety regulations!)

Tools			Catalogue 202	Catalogue 203	Catalogue 204	Catalogue 205	Catalogue 206	Catalogue 208
Drive								
Air-powered machines	Straight grinders	7-31	●	●	●	●	●	●
	Angle grinders	32-44	●	●	●	●	●	●
	Belt grinders	45-47	-	-	●	-	-	-
Electric machines	Straight grinders	55-60	●	●	●	●	●	●
	Angle grinders	61	-	-	●	●	●	●
	Drum grinders	62	-	-	●	-	-	-
	Belt grinders	63-64	-	-	●	-	-	●
Flexible shaft drives	Flexible shaft with	80-91						
	straight handpieces		●	●	●	●	●	●
	angle handpieces		●	●	●	●	●	●
	belt grinders		-	-	●	-	-	-
	drum grinders		-	-	●	-	-	●

Selection of the Optimal Drive

Principle:






PFERD catalogues 202 - 208 provide a multitude of possibilities, allowing you to choose the best tool for your application. In order to apply these tools with optimum efficiency, you need a tool drive perfectly matching the chosen product.

The tool drives are especially conceived for grinding, milling, brushing, cutting and polishing. They cover all relevant speed and power output performance ranges and accord with the latest requirements in ergonomics and safety. They are also reliable and have long service lives.

In order to find the most cost effective solution to your application problem, always choose the machine matching the most suitable tool.

The PFERD program contains three drive types:

Air grinders	Electric grinders	Flexible shaft drives
		
Applications and economic efficiency		
Single workplace, stationary use	Single workplace, stationary use or on assembly sites	Single workplace, stationary, with a variety of tool applications
High-power output, efficient use of air, rugged, durable slide vane and turbine motors	High-power output, low wear ensures maximum service life	Very sturdy and durable, low wear ensures maximum service life
Drive types		
Straight grinders	Straight grinders	Straight grinders
Angle grinders	Angle grinders	Angle grinders
Belt grinders	Belt grinders	Belt grinders
-	Drum grinders	Drum grinders
Special drives	-	Special drives
Machine characteristics		
No risk of overloading, resistant until motor cuts off	Overload protection, can briefly withstand up to four times the nominal output	Overload protection, can briefly withstand up to six times the nominal output
Optimal RPM/power ratio	Optimal fine tuning for use of tools possible	Optimal fine tuning for use of tools possible
Good construction size to power output ratio	Higher power output compared to air-powered machines of the same speed	High motor outputs, compact handpieces, efficient power transmission to the tool
Higher RPM's available	Very speed-stable, ideal for tools that require constant speeds	Coverage of large speed ranges
Ergonomics/handling		
Machine size and shape suitable for many applications	Ergonomic machine shapes, easy-handling	Light, easy-to-handle handpiece, for low-fatigue work
Speed range [RPM]		
3.500 - 100.000	750 - 33.000	0 - 40.000
Speed variation		
Single rotation speed	Stepless, electronic	Stepless, electronic, alternatively using gears
Energy		
Compressed air (6,3 bar)	1-phase AC	1-phase AC 3-phase AC
Power range [W]		
75 - 1.000	500 - 1.530	500 - 2.700
Safety		
Safe energy form, no sparking	Safeguard to prevent unintentional re-starting	42 volt version suitable for protected use
Maintenance		
Simple exchange of worn parts	Simple exchange of carbon brushes	Maintenance can be performed by qualified technicians

PFERD repair service

PFERD provides a quick maintenance service so that downtimes for defective machines are kept as short as possible. Please contact your local PFERD sales service. You will receive a detailed quotation to aid you in making your decision. If the maintenance costs exceed 70 % of the reinstatement value, you will also receive a quotation for a new machine.

Technical changes

Further technical developments and ergonomic improvements are consistently included in our design and manufacture. We therefore reserve the right to make technical changes to our products. If we change our constructional designs, we generally guarantee that spare parts will remain available for four years after the change.

Guarantee

Within the scope of the PFERD guarantee, we take liability for deficiencies in air-power,

electric and flexible shaft drives as well as for accessories by repairing or replacing those parts which are defective at our discretion free of charge. We guarantee this entitlement to replacement and repair for a maximum of 12 months unless the law states that the time limits should be longer.

We undertake no liability for damages occurring within this time due to unprofessional handling, use of other replacement parts or maintenance in other workshops.



Air grinders are the "top speed" machines amongst the drives. They achieve higher speeds in comparison to electric or flexible shaft drives. They have – when measured against their smaller size – a high power output. The robust and resistant sliding vane and turbine motors have a long service lifetime as well as being easy to service.

Areas of application

Air grinders are very versatile. They are used especially in medium and large sized companies that have a compressed air network at their disposal.

Criteria for selecting the optimum air grinder

The most important prerequisite for cost effective work is the selection of an optimal tool. After this, the choice of a suitable tool drive can be made. The following points have to be taken into consideration.

1. Design, shape and size

Every type of application places a specific demand on the shape and size of the tool drive. The various designs can be used for many different tasks: Depending on the dimensions, accessibility, type and frequency of the application, the ideal drive can be selected for the task in hand.

2. RPM

The drive should always be selected according to the RPM and cutting speed recommendations for the tool. Please refer to catalogues 202 - 208 for these recommendations.

They are used economically and reliably in series production and assembly lines.

PFERD product range

PFERD offers straight, angle and belt grinders as well as special drives. PFERD air grinders are technically up to date and contain the latest ergonomic findings and requirements. They have been developed especially for the economic application of abrasives and cutting tools with defined geometries and cover a wide range of speeds (3.500 - 100.000 RPM) and performances (75 - 1.000 watts).

3. Power output

The drive unit's power output is the deciding factor for maintaining the RPM under load. The load is determined from the material to be machined, cutting capability of the tool and the grinding pressure.

4. Tool adapter

Depending on the PFERD tool you have selected, different tool adapters are available e.g. collets or threaded spindles. Every machine is allocated with matching collets. Please refer to pages 94-95 for an overview of the collets and spindle extensions.





We have explained the most important criteria here. Should you have any further questions, your PFERD sales advisor will be happy to help.

Advantages

- Compact, ergonomic designed shape.
- Low weight.
- Technically up to date.
- High power to weight performance.
- Versatile in use.
- Single speed RPM.
- No danger from overloading, can be loaded up to machine standstill.
- Housing insulated against cold and vibration.
- Low-maintenance.
- Easy to service.
- Cost effective.

Operates with or without oil

Turbine and sliding vane motors are labelled as follows:

	Use only without oil.
 	Operates with or without oil.
	Use only with oil.

Advantages of oil-free compressed air

- User-friendly, protecting both people and the workshop environment.
- Reduces operation costs, because oil and fittings can be dispensed with.
- Avoids oily precipitation on the workpiece.

Recommendations and prerequisites for an economically efficient use of air grinders

1. Air pressure

The machine should be run at an air pressure of 6 - 6,3 bar. A sufficient flow rate must be continuously ensured. Over-pressure leads to premature and higher levels of wear.

2. Air consumption

All data in this catalogue refers to air consumption in m³ per minute [m³/min]. This is the volume of the air when expanded to atmospheric pressure. Unless otherwise indicated, the air consumption figures stated are always for a pressure of 6 bar and the maximum consumption of the machine in question. Non-regulated, pneumatic devices have the highest consumption at idling speed. Centrifugal-force controlled air-powered machines have the highest air consumption under full load.

3. Rotational speed (RPM)

All speeds are stated in revolutions per minute [RPM] and refer to the idling speed at a pressure of 6 bar. In the case of non-controlled machines, the speed under full load is approx. 50 % of the idling speed with centrifugal force-controlled machines the speed under full load is approx. 80 to 90 %.

4. Oil mist lubrication

An adequate oil mist lubrication is of crucial importance for proper machine operation should the machine require oil. For special lubricating oil, see page 97.

5. Machines running on oil-free compressed air

Machines marked oil-free can be used without oil mist lubrication. Units which can operate with or without oil have a minimal reduction in RPM/output performance when used without oil.

6. Maintenance unit

It is recommended to install a complete maintenance unit (dirt filter + pressure reducer + oiler) at a distance not exceeding 5 m from the machine.

The size of the filter pores should be 3 - 5 µm. If in humid environments, air-powered machines should not be operated without oil.

7. Microfilter

Small high-speed grinders (approx. 40.000 RPM and over) should be used with a microfilter instead of the regular dirt trap.

8. Air supply hose

The supply hose must have an inner diameter that at least corresponds to those stated for the drives.

9. Valves and fittings

Always use extra fittings such as hose nozzles, self-closing valve couplings etc. with the largest possible inner diameter. It is advisable to use not more than one valve coupling to prevent unnecessary pressure losses.

10. Noise level

Air tool operators must always wear hearing protection, as the process noise emission of the machines exceeds 85 dB(A) in many cases, even though the idling noise of the machine remains clearly below this value. For ear protectors, see page 99.



11. Vibrations

PFERD air tools meet the requirements of the EC machinery directive regarding vibrations from hand-held or hand-guided machines. This is achieved through:

- Precise concentricity,
 - vibration damping intermediate layers,
 - vibration-insulated housings.
- For protective gloves see page 99.

12. Maintenance and safety

- We recommend
- to service the drives at regular intervals and
- to wear personal protective equipment found on pages 98-99.



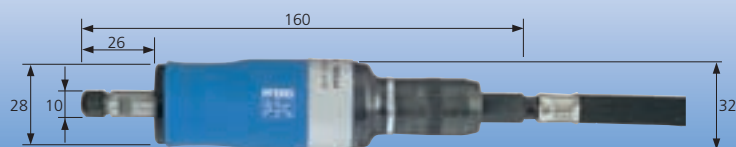
Use only without oil.


- For fine milling, grinding and engraving work.
- Turbine motor, use without oil only!
- Comes with air supply hose.
- Light, easy to handle.
- Spindle bearing ensures high concentricity.
- Holds like a pen.
- Front exhaust deflects chips.

If required, please order separately:


- Complete connecting set no. 1 (see page 52).
- In-line fine filter SFI 1/4-5 EAN 4007220809013.

PGT 1/1000




Order No.	EAN 4007220	Exhaust direction	Throttle type	Air consumption [m³/min]	Incl. collet dia. [mm]	Connect. set EAN 4007220	Air supply hose inner dia. [mm]	
PGT 1/1000	653449	front	ring	0,17	3	351109	5	0,240

Collets

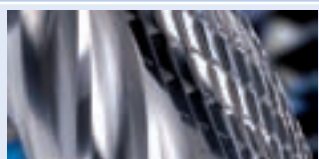
	Group 1	for shank dia.		
		2,34 mm	3 mm	1/8 inch
	EAN 4007220	196342	196359	196366

For dimensions see table page 94.

Keys

	Width across flats	Quan- tity	EAN 4007220
	7 mm	2	592885

Suitable PFERD tools

Catalogue 202	Catalogue 203*	Catalogue 205
		
TC burrs cut 3, 3 PLUS, 4, 5, ALU PLUS head ø up to 3 mm cut 1, ALU, FVK head ø 3 mm Please observe the different cutting speed recommendations in catalogue 202.	Mounted points head ø up to 5 mm width up to 10 mm shank ø 3 mm	Diamond grinding points head ø up to 3,5 mm shank ø 3 mm CBN grinding points head ø up to 4 mm shank ø 3 mm

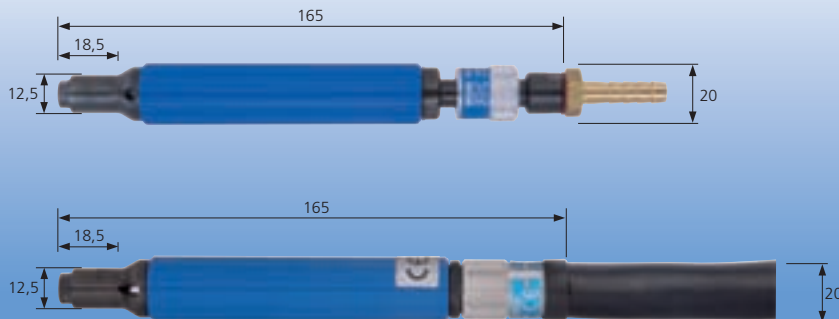
*Catalogue 203: The information given here refers to an open shank length of 10 mm and the max. specified mounted point dimensions.

Air Grinders

Straight Grinder, Speed: 80.000 RPM / Output: 75 Watts



PG 1/800
PGAS 1/800



Use only with oil.
1 drop per minute.

- For fine milling, grinding and engraving work.
- Light, easy to handle.
- Spindle bearing ensures high concentricity.
- Holds like a pen.

PG 1/800

- Front exhaust deflects chips away from working area.

PGAS 1/800


- Rear exhaust.
- Low-noise due to integrated silencer.
- Comes with air supply and exhaust hose.

If required, please order separately:

- Complete connecting set no. 1 (see page 52).
- In-line fine filter SFI 1/4-5 EAN 4007220809013.


Order No.	EAN 4007220	Exhaust direction	Throttle type	Air consumption [m³/min]	Incl. collet dia. [mm]	Connect. set EAN 4007220	Air supply hose inner dia. [mm]	kg
PG 1/800	176658	front	push-pull	0,17	3	351109	5	0,180
PGAS 1/800	176689	rear	ring	0,18	3	351109	5	0,180

Collets

	Group 1	for shank dia.		
		2,34 mm	3 mm	1/8 inch
	EAN 4007220	196342	196359	196366

For dimensions see table page 94.

Keys

	Width across flats	Quan- tity	EAN 4007220
	8 mm	1	206867
	ø 2,5 mm	1	205013

Suitable PFERD tools

Catalogue 202	Catalogue 203*	Catalogue 204*	Catalogue 205
			
TC burrs cut 3, 3 PLUS, 4, 5, ALU PLUS head ø up to 3 mm cut 1, ALU, FVK head ø 3 mm Please observe the recommenda- tions on different cutting speeds in catalogue 202.	Mounted points head ø up to 6 mm width up to 13 mm shank ø 3 mm	Poliflex® fine grinding points shank ø 3 mm bond: GHR head ø up to 4 mm LR and TX head ø up to 6 mm	Diamond grinding points head ø up to 4,5 mm shank ø 3 mm CBN grinding points head ø up to 5,5 mm shank ø 3 mm

*Catalogues 203/204: The information given here refers to an open shank length of 10 mm and the max. specified mounted point dimensions.



**Use only with oil.
1 drop per minute.**

- For fine milling, grinding and engraving work.
- Comes with air supply and exhaust hose.
- Light, easy to handle.
- Spindle bearing ensures high concentricity.
- Rear exhaust with silencer.
- Protective spindle cap can be removed for work in narrow geometries.


If required, please order separately:

- Complete connecting set no. 1 (see page 52).
- In-line fine filter SFI 1/4-5
EAN 4007220809013.


PGAS 1/750



without protective spindle cap


Order No.	EAN 4007220	Exhaust direction	Throttle type	Air consumption [m³/min]	Incl. collet dia. [mm]	Connect. set EAN 4007220	Air supply hose inner dia. [mm]	
PGAS 1/750	507803	rear	ring	0,20	3	351109	5	0,150

Collets

	Group 1	for shank dia.		
		2,34 mm	3 mm	1/8 inch
	EAN 4007220	196342	196359	196366

For dimensions see table page 94.

Keys

	Width across flats	Quan- tity	EAN 4007220
	7 mm	2	592885

Suitable PFERD tools

Catalogue 202	Catalogue 203*	Catalogue 204*	Catalogue 205
			
TC burrs cut 3, 3 PLUS, 4, 5, ALU PLUS head ø up to 3 mm cut 1, ALU, FVK head ø 3 mm Please observe the recommenda- tions on different cutting speeds in catalogue 202.	Mounted points head ø up to 6 mm width up to 13 mm shank ø 3 mm	Poliflex® fine grinding points shank ø 3 mm bond: GHR head ø up to 4 mm LR and TX head ø up to 6 mm	Diamond grinding points head ø up to 4,5 mm shank ø 3 mm CBN grinding points head ø up to 5,5 mm shank ø 3 mm

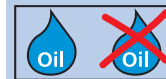
*Catalogues 203/204: The information given here refers to an open shank length of 10 mm and the max. specified mounted point dimensions.

Air Grinders

Straight Grinder, Speed: 70.000 RPM / Output: 220 Watts



PGT 3/700




Can be used with or without oil.
1-5 drops per minute.

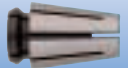
- Consistent power delivery due to centrifugal governor.
- Silencer.
- Comes with air supply and exhaust hose.
- High output turbine.
- Extremely easy to handle, excellent tool guidance.
- Robust spindle bearing for high tool loads.
- Tools with dia. 6 mm / 1/4" can also be used.
- No maintenance problems due to few wearing parts.

If required, please order separately:

- Complete connecting set no. 2 (see page 52).
- In-line fine filter SFI 3/8-8 EAN 4007220809020.


Order No.	EAN 4007220	Exhaust direction	Throttle type	Air consumption [m³/min]	Incl. collet dia. [mm]	Connect. set EAN 4007220	Air supply hose inner dia. [mm]	
PGT 3/700	373248	rear	push-pull	0,25 - 0,8	3	351116	8	0,390

Collets



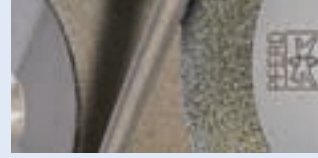
	Group 4	for shank dia.			
		3 mm	6 mm	1/8 inch	1/4 inch
EAN 4007220		349311	349298	349328	349304

For dimensions see table page 94.

Keys

	Width across flats	Quan- tity	EAN 4007220
	14 mm	2	206836

Suitable PFERD tools

Catalogue 202	Catalogue 203*	Catalogue 204*	Catalogue 205
			
TC burrs cut 3, 3 PLUS, 4, 5, ALU PLUS head ø up to 3 mm cut 1, ALU, FVK head ø 3 mm Please observe the recommendations on different cutting speeds in catalogue 202.	Mounted points head ø up to 6 mm width up to 13 mm shank ø 3 mm ZY 0804 ZY 1002 ZY 1005 ZY 1303 Mounted points head ø up to 13 mm width up to 25 mm	Poliflex® fine grinding points shank ø 3 + 6 mm bond: GR head ø up to 4 mm GHR, LR and TX head ø up to 8 mm width up to 12 mm LHR head ø up to 10 mm width up to 25 mm	Diamond grinding points head ø up to 4,5 mm shank ø 3 + 6 mm CBN grinding points head ø up to 7 mm shank ø 3 + 6 mm

Note: Where no shank diameter is indicated, the shank diameter specification is 6 mm.

***Catalogues 203/204:** The information given here refers to an open shank length of 10 mm and the max. specified mounted point dimensions.



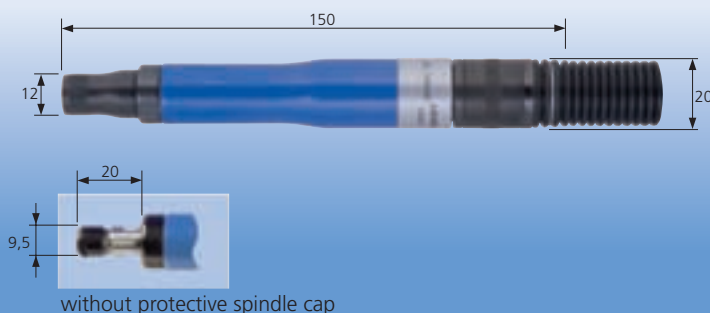
**Use only with oil.
1 drop per minute.**

- For fine milling, grinding and engraving work.
- Light, easy to handle.
- Comes with air supply and exhaust hose.
- Spindle bearing ensures high concentricity.
- Rear exhaust with silencer.
- Protective spindle cap can be removed for work in narrow geometries.


If required, please order separately:

- Complete connecting set no. 1 (see page 52).
- In-line fine filter SFI 1/4-5 EAN 4007220809013.


PGAS 1/600



without protective spindle cap


Order No.	EAN 4007220	Exhaust direction	Throttle type	Air consumption [m³/min]	Incl. collet dia. [mm]	Connect. set EAN 4007220	Air supply hose inner dia. [mm]	
PGAS 1/600	507780	rear	ring	0,20	3	351109	5	0,150

Collets

	Group 1	for shank dia.		
		2,34 mm	3 mm	1/8 inch
	EAN 4007220	196342	196359	196366

For dimensions see table page 94.

Keys

	Width across flats	Quan- tity	EAN 4007220
	7 mm	2	592885

Suitable PFERD tools

Catalogue 202	Catalogue 203*	Catalogue 204*	Catalogue 205
			
TC burrs cut 3, 3 PLUS, 4, 5, ALU PLUS head ø up to 3 mm cut 1, ALU, FVK head ø 3 mm HSS rotary cutters cut ALU, 1, 2, 3, 5 head ø up to 1,6 mm Please observe the recommenda- tions on different cutting speeds in catalogue 202.	Mounted points head ø up to 6 mm width up to 13 mm shank ø 3 mm	Poliflex® fine grinding points shank ø 3 mm bond: GR head ø up to 4 mm GHR, LR and TX head ø up to 6 mm LHR head ø up to 8 mm	Diamond grinding points head ø up to 5,5 mm shank ø 3 mm CBN grinding points head ø up to 5,5 mm shank ø 3 mm

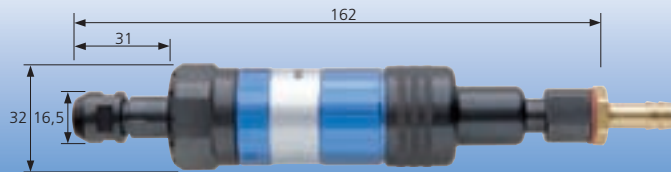
*Catalogues 203/204: The information given here refers to an open shank length of 10 mm and the max. specified mounted point dimensions.

Air Grinders

Straight Grinder, Speed: 50.000 RPM / Output: 200 Watts



PG 3/500 S



Use only with oil.
3 drops per minute.

- High speed one-hand straight grinder.
- For light milling and grinding work.
- Light, easy to handle straight grinder.
- Tool adapter shank dia. 3 or 6 mm.

If required, please order separately:

- Complete connecting set no. 2 (see page 52).
- In-line fine filter SFI 3/8-8 EAN 4007220809020.

Order No.	EAN 4007220	Exhaust direction	Throttle type	Air consumption [m³/min]	Incl. collet dia. [mm]	Connect. set EAN 4007220	Air supply hose inner dia. [mm]	
PG 3/500 S	286326	front	push-pull	0,45	6	351116	8	0,370

Collets

	Group 5	for shank dia.			
		3 mm	6 mm	1/8 inch	1/4 inch
EAN 4007220		299944	299951	299944	606032

For dimensions see table page 94.

Keys

	Width across flats	Quan- tity	EAN 4007220
	7/16"	1	300480
	9/16"	1	186831

Suitable PFERD tools

Catalogue 202	Catalogue 203*	Catalogue 204*	Catalogue 205
<p>TC burrs cut 3, 3 PLUS, 4, 5, ALU PLUS head ø up to 3 mm shank ø 3 + 6 mm</p> <p>cut 1, ALU, FVK head ø 3 mm shank ø 3 + 6 mm</p> <p>HSS rotary cutters cut ALU, 1, 2, 3, 5 head ø up to 1,6 mm shank ø 3 mm</p> <p>Please observe the different cutting speeds recommendations in catalogue 202.</p>	<p>Mounted points head ø up to 8 mm width up to 16 mm shank ø 3 mm</p> <p>Mounted points head ø up to 16 mm width up to 32 mm</p>	<p>Poliflex® fine grinding points shank ø 3 + 6 mm bond: GR head ø up to 4 mm GHR, LR and TX head ø up to 8 mm LHR head ø up to 15 mm</p> <p>Abrasive spiral bands head ø up to 8 mm</p>	<p>Diamond grinding points head ø up to 7 mm shank ø 3 + 6 mm</p> <p>CBN grinding points head ø up to 10 mm shank ø 3 + 6 mm</p>

Note: Where no shank diameter is indicated, the shank diameter specification is 6 mm.

***Catalogues 203/204:** The information given here refers to an open shank length of 10 mm and the max. specified mounted point dimensions.



Use only with oil.
2 drops per minute.

PG 3/440 DH

- Comes with air supply and exhaust hose with silencer.
- Smallest and lightest straight grinder in this performance class.
- Ergonomic grip for optimum control, particularly in axial direction.
- Safety ring lever throttle (DH).

PGZ 3/440 SU with support

PGZ 3/440 without support

- With reinforced motor housing for attachment to lathes and grinding machines e.g. for internal grinding.

Machine with rubber bearing for robot applications available on request.

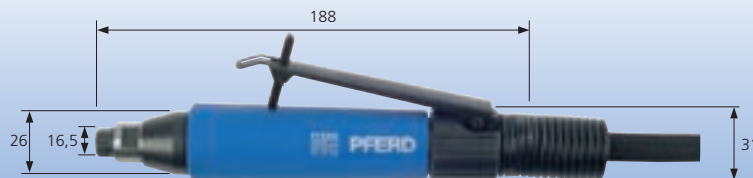
If required, please order separately:

- Complete connecting set no. 2 (see page 52).
- In-line fine filter SFI 3/8-8 EAN 4007220809020.

PG 3/440 DH


PGZ 3/440 SU

PGZ 3/440




Order No.	EAN 4007220	Exhaust direction	Throttle type	Air consumption [m³/min]	Incl. collet dia. [mm]	Connect. set EAN 4007220	Air supply hose inner dia. [mm]	kg
PG 3/440 DH	176603	rear	ring/lever	0,35	6	351116	8	0,340
PGZ 3/440 SU	348437	rear	ring	0,35	6	351116	8	1,420
PGZ 3/440	176580	rear	ring	0,35	6	351116	8	0,450

Collets

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

For dimensions see table page 94.

Keys

	Width across flats	Quantity	EAN 4007220
	14 mm	1	206836
	11 mm	1	206812

Suitable PFERD tools

Catalogue 202	Catalogue 203*	Catalogue 204*	Catalogue 205	Catalogue 206
				
TC burrs cut 3, 3 PLUS, 4, 5, ALU PLUS head ø up to 4 mm HSS rotary cutters cut ALU, 1, 2, 3, 5 head ø up to 2,3 mm Please observe the different cutting speed recommendations in catalogue 202.	Mounted points head ø up to 13 mm width up to 13 mm shank ø 3 mm Mounted points head ø up to 16 mm width up to 32 mm	Poliflex® fine grinding points shank ø 3 + 6 mm bond: GR head ø up to 4 mm GHR, LR and TX head ø up to 8 mm LHR head ø up to 15 mm Abrasive spiral bands head ø up to 13 mm	Diamond grinding points head ø up to 8 mm shank ø 3 + 6 mm CBN grinding points head ø up to 10 mm shank ø 3 + 6 mm	Cut-off wheels EHT ø 30 mm matching arbor BO 6/6 0-4

Note: Where no shank diameter is indicated, the shank diameter specification is 6 mm.

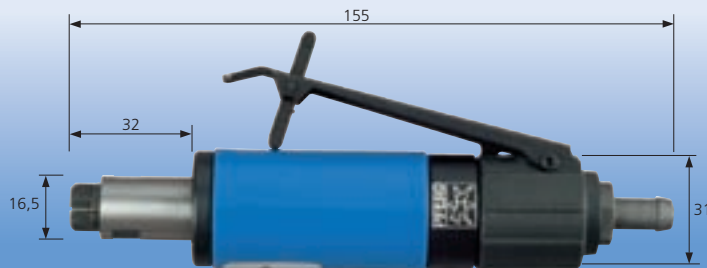
***Catalogues 203/204:** The information given here refers to an open shank length of 10 mm and the max. specified mounted point dimensions.

Air Grinders

Straight Grinder, Speed: 38.000 RPM / Output: 220 Watts



PG 3/380 DH




Use only with oil.
2 drops per minute.


- Compact design, convenient in use.
- Handles lightly, like a pen.
- Low vibration, protecting people, tools and machine.
- Safety ring lever throttle (DH) protects against inadvertent start-up.

If required, please order separately:

- Complete connecting set no. 2 (see page 52).
- In-line fine filter SFI 3/8-8 EAN 4007220809020.


Order No.	EAN 4007220	Exhaust direction	Throttle type	Air consumption [m³/min]	Incl. collet dia. [mm]	Connect. set EAN 4007220	Air supply hose inner dia. [mm]	
PG 3/380 DH	176627	front	ring/lever	0,35	6	351116	8	0,310

Collets

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

For dimensions see table page 94.

Keys

	Width across flats	Quan- tity	EAN 4007220
	14 mm	1	206836
	11 mm	1	206812

Suitable PFERD tools

Catalogue 202	Catalogue 203*	Catalogue 204*	Catalogue 205	Catalogue 206
				
TC burrs cut 3, 3 PLUS, 4, 5, ALU PLUS head ø up to 6 mm HSS rotary cutters cut ALU, 1, 2, 3, 5 head ø up to 2,3 mm Please observe the differ- ent cutting speed recom- mendations in catalogue 202.	Mounted points head ø up to 13 mm width up to 13 mm shank ø 3 mm Mounted points head ø up to 20 mm width up to 32 mm	Poliflex® fine grinding points shank ø 3 + 6 mm bond: GR head ø up to 6 mm GHR and TX head ø up to 12 mm LHR head ø up to 20 mm Abrasive spiral bands head ø up to 15 mm	Diamond grinding points head ø up to 9 mm shank ø 3 + 6 mm CBN grinding points head ø up to 13 mm shank ø 3 + 6 mm	Cut-off wheels EHT ø 40 mm matching arbor BO 6/6 0-4

Note: Where no shank diameter is indicated, the shank diameter specification is 6 mm.

***Catalogues 203/204:** The information given here refers to an open shank length of 10 mm and the max. specified mounted point dimensions.



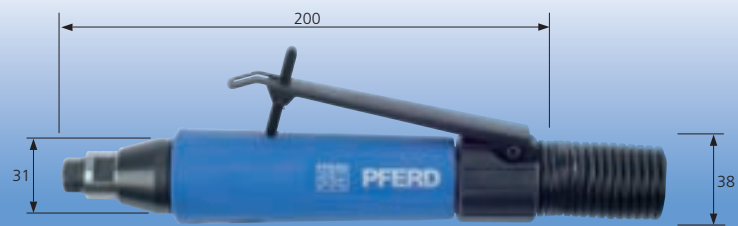
Use only with oil.
3-4 drops per minute.

- Silencer.
- Comes with air supply and exhaust hose.
- Safety lever throttle.
- High power output.
- Compact design.

If required, please order separately:

- Complete connecting set no. 2 (see page 52).
- In-line fine filter SFI 3/8-8 EAN 4007220809020.

PG 5/280 HV



Order No.	EAN 4007220	Exhaust direction	Throttle type	Air consumption [m³/min]	Incl. collet dia. [mm]	Connect. set EAN 4007220	Air supply hose inner dia. [mm]	
PG 5/280 HV	176733	rear	lever	0,6	6	351116	8	0,620

Collets

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

For dimensions see table page 94.

Keys

	Width across flats	Quan- tity	EAN 4007220
	14 mm	1	206836
	11 mm	1	206812

Suitable PFERD tools

Catalogue 202	Catalogue 203*	Catalogue 204*	Catalogue 205	Catalogue 206
TC burrs cut 3, 3 PLUS, 4, 5, ALU PLUS head ø 4 up to 8 mm cut 1, ALU, FVK head ø 6 up to 12 mm HSS rotary cutters cut ALU, 1, 2, 3, 5 head ø up to 3,2 mm Please observe the differ- ent cutting speed recom- mendations in catalogue 202.	Mounted points head ø up to 16 mm width up to 16 mm shank ø 3 mm Mounted points head ø up to 25 mm width up to 32 mm	Poliflex® fine grinding points bond: GR and PUR head ø up to 10 mm GHR, LR and TX head ø up to 15 mm LHR head ø up to 20 mm Abrasive spiral bands head ø up to 19 mm POLICAP® head ø up to 7 mm shank ø 3 + 6 mm Fan grinders head ø up to 20 mm shank ø 3 + 6 mm POLINOX® ring wheels PNER ø 25 mm	Diamond grinding points head ø up to 13 mm CBN grinding points head ø up to 16 mm	Cut-off wheels EHT ø 50 mm matching arbor BO 6/6 0-4 Ring Wheels ER ø 30 mm matching arbor BO 6/6 3-10

Note: Where no shank diameter is indicated, the shank diameter specification is 6 mm.

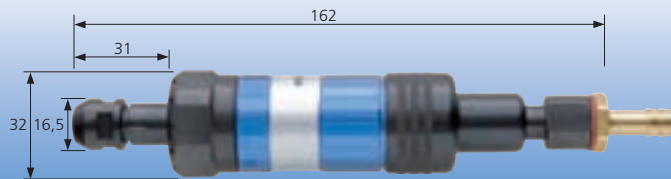
***Catalogues 203/204:** The information given here refers to an open shank length of 10 mm and the max. specified mounted point dimensions.

Air Grinders

Straight Grinder, Speed: 25.000 RPM / Output: 225 Watts



PG 3/250 S




Use only with oil.
1-3 drops per minute.


- One-hand straight grinder for light milling and grinding work.
- Consistent power due to centrifugal governor.
- Compact design, easy to handle.

If required, please order separately:

- Complete connecting set no. 2 (see page 52).
- In-line fine filter SFI 3/8-8 EAN 4007220809020.

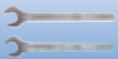
Order No.	EAN 4007220	Exhaust direction	Throttle type	Air consumption [m³/min]	Incl. collet dia. [mm]	Connect. set EAN 4007220	Air supply hose inner dia. [mm]	
PG 3/250 S	286340	front	push-pull	0,21 - 0,49	6	351116	8	0,370

Collets

	Group 5	for shank dia.			
		3 mm	6 mm	1/8 inch	1/4 inch
	EAN 4007220	299944	299951	299944	606032

For dimensions see table page 94.

Keys

	Width across flats	Quan- tity	EAN 4007220
	7/16"	1	300480
	9/16"	1	186831

Suitable PFERD tools

Catalogue 202	Catalogue 203*	Catalogue 204*	Catalogue 205
			
TC burrs cut 3, 3 PLUS, 4, 5, ALU PLUS head ø 4 up to 8 mm HSS rotary cutters cut ALU, 1, 2, 3, 5 head ø up to 4 mm Please observe the different cut- ting speed recommendations in catalogue 202.	Mounted points head ø up to 20 mm width up to 13 mm shank ø 3 mm Mounted points head ø up to 25 mm width up to 32 mm	Poliflex® fine grinding points bond: GR and PUR head ø up to 10 mm GHR, LR and TX head ø up to 20 mm LHR head ø up to 25 mm Abrasive spiral bands head ø up to 22 mm Fan grinders head ø up to 15 mm shank ø 3 + 6 mm POLICAP® head ø up to 10 mm POLINOX® ring wheels PNER ø 25 mm Felt points head ø up to 6 mm	Diamond grinding points head ø up to 13 mm CBN grinding points head ø up to 18 mm

Note: Where no shank diameter is indicated, the shank diameter specification is 6 mm.

***Catalogues 203/204:** The information given here refers to an open shank length of 10 mm and the max. specified mounted point dimensions.



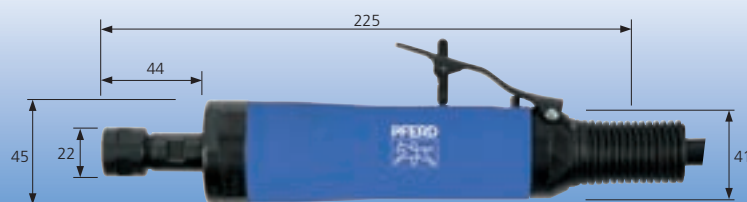
Use only with oil.
4-5 drops per minute.


- Silencer.
- Comes with air supply and exhaust hose.
- Rubber bearing, especially suitable for use with TC burs, reduces tooth breakage.
- Low vibration protecting people, tools and machine.
- Extremely high stock removal.

If required, please order separately:


- Complete connecting set no. 3 (see page 52).
- In-line fine filter SFI 3/8-9 EAN 4007220809044.

PGAS 8/250 E-HV




Order No.	EAN 4007220	Exhaust direction	Throttle type	Air consumption [m³/min]	Incl. collet dia. [mm]	Connect. set EAN 4007220	Air supply hose inner dia. [mm]	
PGAS 8/250 E-HV	600146	rear	lever	0,85	6	351123	9	0,860

Collets




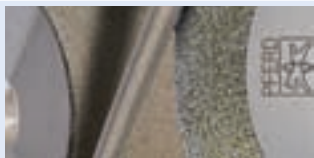
	Group 7	for shank dia.				
		3 mm	6 mm	8 mm	1/8 inch	1/4 inch
EAN 4007220		187074	186855	187050	187074	187067

For dimensions see table page 94.

Keys

	Width across flats	Quan- tity	EAN 4007220
	9/16"	1	186831
	3/4"	1	186848

Suitable PFERD tools

Catalogue 202	Catalogue 203*	Catalogue 204*	Catalogue 205
 TC burs cut 3, 3 PLUS, 4, 5, ALU PLUS head ø 6 up to 8 mm cut 1, ALU, FVK head ø 8 up to 12 mm HSS rotary cutters cut ALU, 1, 2, 3, 5 head ø up to 4 mm Please observe the different cutting speed recommendations in catalogue 202.	 Mounted points head ø up to 20 mm width up to 13 mm shank ø 3 mm Mounted points head ø up to 25 mm width up to 32 mm	 Poliflex® fine grinding points bond: GR and PUR head ø up to 10 mm GHR, LR and TX head ø up to 20 mm Abrasive spiral bands head ø up to 22 mm Fan grinders head ø up to 15 mm shank ø 3 + 6 mm POLICAP® head ø up to 10 mm POLINOX® ring wheels PNER ø 25 mm Felt points head ø up to 6 mm	 Diamond grinding points head ø up to 13 mm CBN grinding points head ø up to 18 mm

Note: Where no shank diameter is indicated, the shank diameter specification is 6 mm.

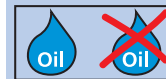
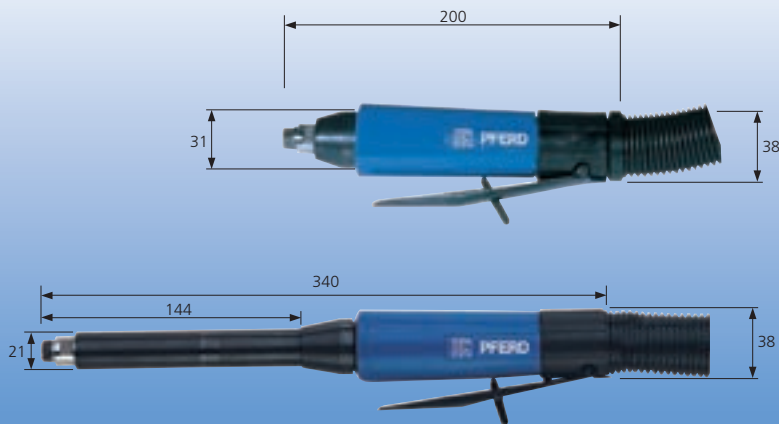
***Catalogues 203/204:** The information given here refers to an open shank length of 10 mm and the max. specified mounted point dimensions.

Air Grinders

Straight Grinder, Speed: 23.000 RPM / Output 370 Watts



PG 5/230 HV PG 5/230 V-HV



Can be used with or without oil.
3-4 drops per minute.

PG 5/230 HV

- With oil:
Speed 23.000 RPM,
power output 370 watts
- Without oil:
Speed 18.000 RPM,
power output 340 watts
- Comes with air supply and exhaust hose with silencer.
- Safety lever throttle.
- Operation without oil mist lubrication
 - Workplace-friendly
 - No oil precipitation onto the tool
 - No negative effects on oil-sensitive materials e.g. ceramic, wood, plastic.

PG 5/230 V-HV

- Very slim machine extension.
- Highly robust working spindle due to rubber bearing and robust construction.

If required, please order separately:

- Complete connecting set no. 2 (see page 52).
- In-line fine filter SFI 3/8-8 EAN 4007220809020.

Order No.	EAN 4007220	Exhaust direction	Throttle type	Air consumption [m³/min]	Incl. collet dia. [mm]	Connect. set EAN 4007220	Air supply hose inner dia. [mm]	kg
PG 5/230 HV	235294	rear	lever	0,63	6	351116	8	0,620
PG 5/230 V-HV	235300	rear	lever	0,63	6	351116	8	0,840

Collets

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

For dimensions see table page 94.

Keys

	Width across flats	Quantity	EAN 4007220
	14 mm	1	206836
	11 mm	1	206812

Suitable PFERD tools

Catalogue 202	Catalogue 203*	Catalogue 204*	Catalogue 205	Catalogue 206
TC burrs cut 3, 3 PLUS, 4, 5, ALU PLUS head ø 6 up to 8 mm cut 1, ALU, FVK head ø 8 up to 12 mm HSS rotary cutters cut ALU, 1, 2, 3, 5 head ø up to 4 mm Please observe the different cutting speed recommendations in catalogue 202.	Mounted points head ø up to 32 mm width up to 32 mm	Poliflex® fine grinding points bond: GR and PUR head ø up to 12 mm GHR, LR and TX head ø up to 20 mm LHR head ø up to 30 mm Poliflex® wheels bond TX ø 25 mm Abrasive spiral bands head ø up to 22 mm	POLICAP® head ø up to 10 mm POLIROLL® head ø up to 6 mm Fan grinders head ø up to 20 mm POLINOX® ring wheels PNER ø 25 mm Felt points head ø up to 8 mm	Diamond grinding points head ø up to 13 mm CBN grinding points head ø up to 18 mm Cut-off wheels EHT ø 50 mm matching arbor BO 6/6 0-4 or BO 6/10 0-4 Ring wheels ER ø 40 mm matching arbor BO 6/6 3-10

Note: Where no shank diameter is indicated, the shank diameter specification is 6 mm.

***Catalogues 203/204:** The information given here refers to an open shank length of 10 mm and the max. specified mounted point dimensions.



Use only with oil.
3-4 drops per minute.

PG 8/220 HV, PGAS 8/220 HV

- Light, easy to handle design.
- Compact shape.
- Rear exhaust machines (type PGAS) comes with air supply and exhaust hose.

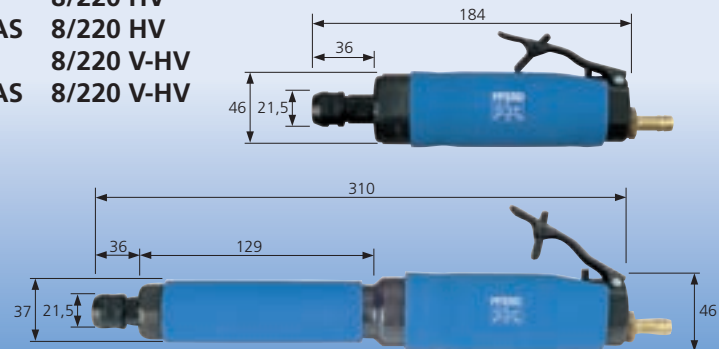
PG 8/220 V-HV, PGAS 8/220 V-HV

- Slim machine extension.
- Easy to handle, machine can be guided with both hands.
- Machine also available with counterclockwise rotation.
- Supported version available on request.

If required, please order separately:

- Complete connecting set no. 3 (see page 52).
- In-line fine filter SFI 3/8-9 EAN 4007220809044.

PG 8/220 HV
PGAS 8/220 HV
PG 8/220 V-HV
PGAS 8/220 V-HV




PGAS type
with rear exhaust



Order No.	EAN 4007220	Exhaust direction	Throttle type	Air consumption [m³/min]	Incl. collet dia. [mm]	Connect. set EAN 4007220	Air supply hose inner dia. [mm]	kg
PG 8/220 HV	450840	front	lever	0,85	6	351123	9	0,950
PGAS 8/220 HV	286401	rear	lever	0,85	6	351123	9	1,000
PG 8/220 V-HV	177167	front	lever	0,85	6	351123	9	1,400
PGAS 8/220 V-HV	286296	rear	lever	0,85	6	351123	9	1,400

Collets

	Group 7	for shank dia.				
		3 mm	6 mm	8 mm	1/8 inch	1/4 inch
EAN 4007220		187074	186855	187050	187074	187067

For dimensions see table page 94.

Keys

	Width across flats	Quan- tity	EAN 4007220
	9/16"	1	186831
	3/4"	1	186848

Suitable PFERD tools

Catalogue 202	Catalogue 203*	Catalogue 204*	Catalogue 205	Catalogue 206
TC burs cut 3, 3 PLUS, 4, 5, ALU PLUS head ø up to 10 mm cut 1, ALU, FVK head ø up to 16 mm HSS rotary cutters cut ALU, 1, 2, 3, 5 head ø up to 5 mm Please observe the recommendations on different cutting speeds in catalogue 202.	Mounted points head ø up to 32 mm width up to 32 mm	Poliflex® fine grinding points bond: GR and PUR head ø up to 12 mm GHR, LR and TX head ø up to 20 mm LHR head ø up to 30 mm Poliflex® wheels bond TX ø 25 mm	Abrasive spiral bands head ø up to 22 mm POLICAP® head ø up to 11 mm Fan grinders head ø up to 20 mm POLINOX® ring wheels PNER ø 25 mm Felt points head ø up to 8 mm	Diamond grinding points head ø up to 13 mm CBN grinding points head ø up to 18 mm Cut-off wheels EHT ø 65 mm matching arbor BO 6/6 0-4 or BO 6/10 0-4 or BO 8/10 0-4 Ring wheels ER ø 40 mm matching arbor BO 6/6 3-10

Note: Where no shank diameter is indicated, the shank diameter specification is 6 mm.

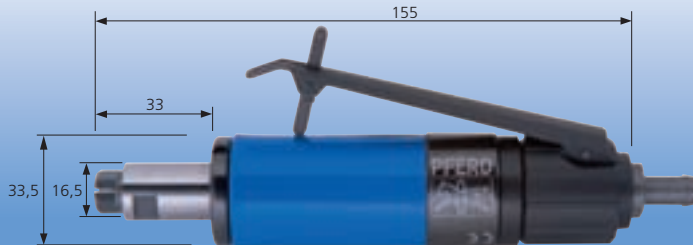
***Catalogues 203/204:** The information given here refers to an open shank length of 10 mm and the max. specified mounted point dimensions.

Air Grinders

Straight Grinder, Speed: 21.000 RPM / Output: 220 Watts



PG 3/210 DH



Use only with oil.
2-3 drops per minute.

- For fine milling and grinding work with good performance.
- Easy to handle and light to guide.
- Low vibration protecting people, tools and machine.
- Precise one-handed guidance is possible.
- High speed stability and power output.

If required, please order separately:

- Complete connecting set no. 2 (see page 52).
- In-line fine filter SFI 3/8-8 EAN 4007220809020.

Order No.	EAN 4007220	Exhaust direction	Throttle type	Air consumption [m³/min]	Incl. collet dia. [mm]	Connect. set EAN 4007220	Air supply hose inner dia. [mm]	kg
PG 3/210 DH	606315	front	ring/lever	0,48	6	351116	8	0,430

Collets

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

For dimensions see table page 94.

Keys

	Width across flats	Quan- tity	EAN 4007220
	14 mm	1	206836
	11 mm	1	206812

Suitable PFERD tools

Catalogue 202	Catalogue 203*	Catalogue 204*	Catalogue 205	Catalogue 206
 TC burs cut 3, 3 PLUS, 4, 5, ALU PLUS head ø up to 10 mm HSS rotary cutters cut ALU, 1, 2, 3, 5 head ø up to 5 mm Please observe the different cutting speed recommendations in catalogue 202.	 Mounted points head ø up to 32 mm width up to 32 mm	 Poliflex® fine grinding points bond: GR and PUR head ø up to 15 mm GHR, LR and TX head ø up to 20 mm LHR head ø up to 30 mm POLIROLL® head ø up to 6 mm Poliflex® wheels bond TX ø 25 mm Abrasive spiral bands head ø up to 25 mm POLICAP® head ø up to 10 mm Fan grinders head ø up to 20 mm Felt points head ø up to 8 mm	 Diamond grinding points head ø up to 13 mm CBN grinding points head ø up to 18 mm	 Cut-off wheels EHT ø 50 mm matching arbor BO 6/6 0-4 or BO 6/10 0-4 or BO 8/10 0-4 Ring wheels ER ø 40 mm matching arbor BO 6/6 3-10

Note: Where no shank diameter is indicated, the shank diameter specification is 6 mm.

***Catalogues 203/204:** The information given here refers to an open shank length of 10 mm and the max. specified mounted point dimensions.



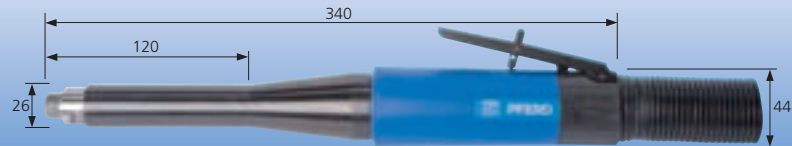
Use only with oil.
6-7 drops per minute.

- Comes with air supply and exhaust hose.
- Safety lever throttle.
- Robust, slim, medium-heavy machine.
- Stable torque.

If required, please order separately:


- Complete connecting set no. 3 (see page 52).
- In-line fine filter SFI 3/8-9 EAN 4007220809044.

PG 10/200 V-HV




Order No.	EAN 4007220	Exhaust direction	Throttle type	Air consumption [m³/min]	Incl. collet dia. [mm]	Connect. set EAN 4007220	Air supply hose inner dia. [mm]	kg
PG 10/200 V-HV	776889	rear	lever	1,2	6	351123	9	1,600

Collets

	Group 8	for shank dia.				
		6 mm	8 mm	10 mm	1/4 inch	3/8 inch
EAN 4007220		213674	213704	213711	213681	213728

For dimensions see table page 94.

Keys

	Width across flats	Quan- tity	EAN 4007220
	14 mm	1	206836
	17 mm	1	204542

Suitable PFERD tools

Catalogue 202	Catalogue 203*	Catalogue 204*	Catalogue 205	Catalogue 206	Catalogue 208
					
TC burrs cut 3, 3 PLUS, 4, 5, ALU PLUS head ø 6 up to 10 mm cut 1, ALU, FVK head ø 10 up to 16 mm HSS rotary cutters cut ALU, 1, 2, 3, 5 head ø up to 5 mm Please observe the recommendations on different cutting speeds in catalogue 202.	Mounted points head ø up to 40 mm width up to 50 mm	Poliflex® fine grinding points bond: PUR head ø up to 10 mm GR head ø up to 12 mm TX head ø up to 20 mm GHR, LR head ø up to 25 mm Abrasive spiral bands head ø up to 30 mm POLIROLL® head ø up to 6 mm Fan grinders head ø up to 20 mm POLINOX® ring wheels PNER ø 25 mm Felt points head ø up to 8 mm	Electroplated bond diamond cut-off wheels ø up to 22 mm Diamond grinding points head ø up to 18 mm CBN grinding points head ø up to 20 mm	Cut-off wheels EHT ø 50 mm matching arbor BO 6/6 0-4 or BO 6/10 0-4 or BO 8/10 0-4 Ring wheels ER ø 40 mm matching arbor BO 6/6 3-10	Wheel brushes knotted type RBG ø 70 mm

Note: Where no shank diameter is indicated, the shank diameter specification is 6 mm.

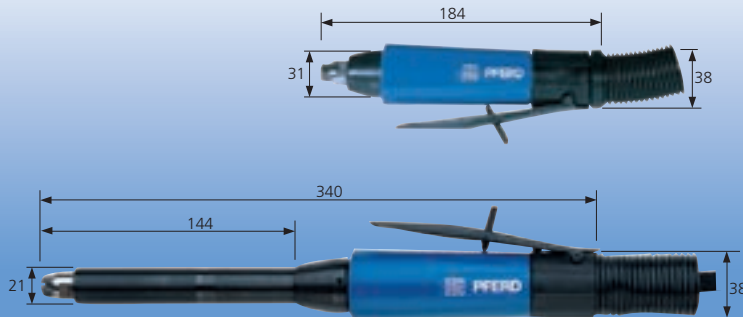
***Catalogues 203/204:** The information given here refers to an open shank length of 10 mm and the max. specified mounted point dimensions.

Air Grinders

Straight Grinder, Speed: 18.000 RPM / Output: 370 Watts



PG 5/180 HV PG 5/180 V-HV



Use only with oil.
2-4 drops per minute.

PG 5/180 HV


- Consistent power due to centrifugal governor.
- Silencer.
- Comes with air supply and exhaust hose.
- Safety lever throttle.

PG 5/180 V-HV


- Very slim machine extension.
- Highly robust working spindle due to rubber bearing and robust construction.

If required, please order separately:

- Complete connecting set no. 2 (see page 52).
- In-line fine filter SFI 3/8-8 EAN 4007220809020.

Order No.	EAN 4007220	Exhaust direction	Throttle type	Air consumption [m³/min]	Incl. collet dia. [mm]	Connect. set EAN 4007220	Air supply hose inner dia. [mm]	
PG 5/180 HV	176719	rear	lever	0,3 - 0,6	6	351116	8	0,620
PG 5/180 V-HV	176726	rear	lever	0,3 - 0,6	6	351116	8	0,840

Collets




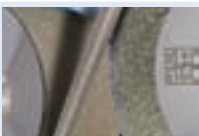

	Group 6	for shank dia.					
		3 mm	6 mm	8 mm	3/32 inch	1/8 inch	1/4 inch
EAN 4007220		212875	212851	212936	234969	212882	212868

For dimensions see table page 94.

Keys

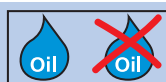
	Width across flats	Quan- tity	EAN 4007220
	14 mm	1	206836
	11 mm	1	206812

Suitable PFERD tools

Catalogue 202	Catalogue 203*	Catalogue 204*	Catalogue 205	Catalogue 206
				
TC burrs cut 3, 3 PLUS, 4, 5, ALU PLUS head ø 8 up to 12 mm HSS rotary cutters cut ALU, 1, 2, 3, 5 head ø 2,3 up to 6 mm Please observe the different cutting speed recommendations in catalogue 202.	Mounted points head ø up to 32 mm width up to 32 mm	Poliflex® fine grinding points bond: GR and PUR head ø up to 15 mm GHR, LR and TX head ø up to 25 mm LHR head ø up to 30 mm Poliflex® wheels bond TX ø 25 mm Abrasive spiral bands head ø up to 30 mm	Diamond grinding points head ø up to 15 mm CBN grinding points head ø up to 20 mm	Cut-off wheels EHT ø 50 mm matching arbor BO 6/6 0-4 or BO 6/10 0-4 or BO 8/10 0-4 Ring wheels ER ø 50 mm matching arbor BO 6/6 3-10 BO 8/10 6-20

Note: Where no shank diameter is indicated, the shank diameter specification is 6 mm.

*Catalogues 203/204: The information given here refers to an open shank length of 10 mm and the max. specified mounted point dimensions.



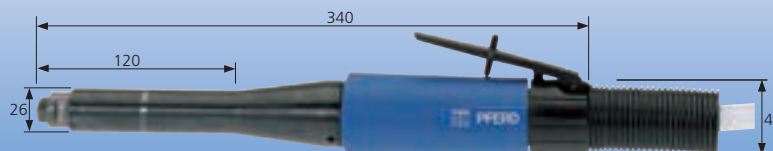
Can be used with or without oil.
4-5 drops per minute.

- With oil:
18.000 RPM, power output 600 watts
- Without oil:
15.000 RPM, power output 550 watts
- Comes with air supply and exhaust hose.
- Safety lever throttle.
- Slim machine extension.
- Robust design for tough applications.
- Stable torque.
- Application without oil mist lubrication
 - Workplace-friendly
 - No oil precipitation onto the tool
 - No negative effects on oil-sensitive materials e.g. ceramic, wood, plastic.

If required, please order separately:

- Complete connecting set no. 3 (see page 52).
- In-line fine filter SFI 3/8-9 EAN 4007220809044.

PG 9/180 V-HV



Order No.	EAN	Exhaust direction	Throttle type	Air consumption [m³/min]	Incl. collet dia. [mm]	Connect. set EAN	Air supply hose inner dia. [mm]	kg
PG 9/180 V-HV	319765	rear	lever	0,9	6	351123	9	1,600

Collets

Group 8	for shank dia.				
	6 mm	8 mm	10 mm	1/4 inch	3/8 inch
EAN 4007220	213674	213704	213711	213681	213728

For dimensions see table page 94.

Keys

	Width across flats	Quantity	EAN 4007220
	14 mm	1	206836
	17 mm	1	204542

Arbors

Order No.	EAN	Tool mounting [mm]	kg
SDD 1016	348444	ø 10 x 16	0,140

The arbor replaces the collet and is used for direct adaptation of tools with a bore dia. of 10 mm.

Suitable PFERD tools

Catalogue 202	Catalogue 203*	Catalogue 204*	Catalogue 205	Catalogue 206	Catalogue 208
TC burrs cut 3, 3 PLUS, 4, 5, ALU PLUS head ø 8 up to 12 mm cut 1, ALU, FVK head ø 16 mm HSS rotary cutters cut ALU, 1, 2, 3, 5 head ø 2,3 up to 6 mm Please observe the different cutting speed recommendations in catalogue 202.	Mounted points head ø up to 32 mm width up to 32 mm	Poliflex® fine grinding points bond: GR and PUR head ø up to 15 mm GHR, LR and TX head ø up to 25 mm LHR head ø up to 30 mm Abrasive spiral bands head ø up to 30 mm Fan grinders head ø up to 25 mm POLISTAR head ø up to 20 mm Felt points head ø up to 10 mm	Diamond grinding points head ø up to 15 mm CBN grinding points head ø up to 20 mm	Cut-off wheels EHT ø 50 mm matching arbor BO 6/6 0-4 or BO 6/10 0-4 or BO 8/10 0-4 Ring wheels ER ø 50 mm matching arbor BO 6/6 3-10 BO 8/10 6-20	Pencil brushes individual filament type PBU ø 10 up to 12 mm knotted type PBG ø 19 mm Wheel brushes individual filament type RBU ø 20 up to 30 mm

Note: Where no shank diameter is indicated, the shank diameter specification is 6 mm.

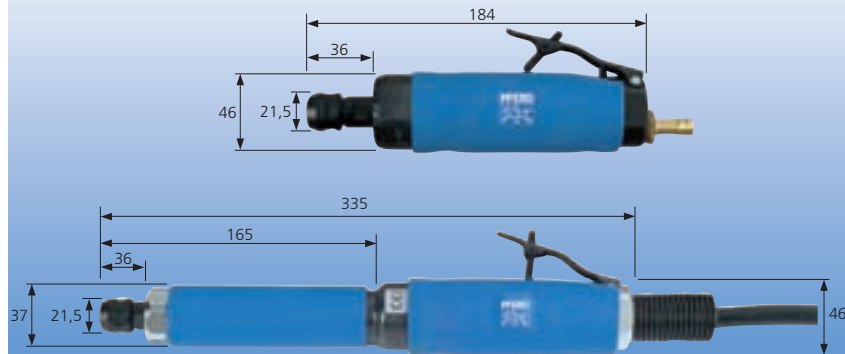
***Catalogues 203/204:** The information given here refers to an open shank length of 10 mm and the max. specified mounted point dimensions.

Air Grinders

Straight Grinder, Speed: 16.000 RPM / Output: 600 Watts



PG 8/160 HV
PGAS 8/160 V-HV



Use only with oil.
2-5 drops per minute.

PG 8/160 HV


- Consistent power due to centrifugal governor.
- Short, easy to handle machine shape.
- High power output.
- Light constructional design.
- Safety lever throttle (HV) protects against inadvertent start-up.

PGAS 8/160 V-HV


- Comes with air supply and exhaust hose.
- Machine extension provides secure grip, suitable for two-handed control.
- Supported version and counterclockwise motor rotation version available on request.

If required, please order separately:

- Complete connecting set no. 3 (see page 52).
- In-line fine filter SFI 3/8-9 EAN 4007220809044.

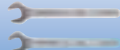
Order No.	EAN 4007220	Exhaust direction	Throttle type	Air consumption [m³/min]	Incl. collet dia. [mm]	Connect. set EAN 4007220	Air supply hose inner dia. [mm]	
PG 8/160 HV	536339	front	lever	0,34 - 0,85	6	351123	9	0,950
PGAS 8/160 V-HV	286432	rear	lever	0,34 - 0,85	6	351123	9	1,400

Collets

	Group 7	for shank dia.				
		3 mm	6 mm	8 mm	1/8 inch	1/4 inch
EAN 4007220		187074	186855	187050	187074	187067

For dimensions see table page 94.

Keys

	Width across flats	Quan- tity	EAN 4007220
	9/16"	1	186831
	3/4"	1	186848

Suitable PFERD tools

Catalogue 202	Catalogue 203*/204*	Catalogue 205	Catalogue 206	Catalogue 208
TC burrs cut 3, 3 PLUS, 4, 5, ALU PLUS head ø 8 up to 16 mm cut 1, ALU, FVK head ø 16 mm HSS rotary cutters cut ALU, 1, 2, 3, 5 head ø 2,3 up to 6 mm Please observe the different cutting speed recommendations in catalogue 202.	Catalogue 203 Mounted points head ø up to 50 mm width up to 50 mm Catalogue 204 Poliflex® fine grinding points bond: GR and PUR head ø up to 15 mm GHR and TX head ø up to 25 mm Poliflex® wheels bond TX ø 25 mm Abrasive spiral bands head ø up to 30 mm	POLICAP® head ø up to 29 mm Fan grinders head ø up to 25 mm POLIROLL® head ø up to 16 mm POLINOX® cross buffs head ø 25 mm POLISTAR ø up to 20 mm Felt points head ø up to 10 mm	Electroplated bond diamond cut-off wheels ø up to 50 mm Diamond grinding points head ø up to 20 mm CBN grinding points head ø up to 20 mm	Cut-off wheels EHT ø 50 mm matching arbor BO 6/6 0-4 or BO 6/10 0-4 or BO 8/10 0-4 Ring wheels ER ø 50 mm matching arbor BO 6/6 3-10 or BO 8/10 6-20
				Wheel brushes knotted type RBG ø 70 mm

Note: Where no shank diameter is indicated, the shank diameter specification is 6 mm.

***Catalogues 203/204:** The information given here refers to an open shank length of 10 mm and the max. specified mounted point dimensions.



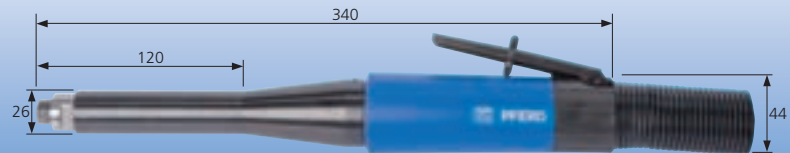
Use only with oil.
6-7 drops per minute.

- Consistent power due to centrifugal governor.
- Comes with air supply and exhaust hose.
- Safety lever throttle.
- Robust, slim, medium-heavy machine.
- Stable torque.
- Suitable for tungsten carbide burrs, head dia. 8 - 16 mm and mounted points, head dia. 20 - 50 mm.

If required, please order separately:


- Complete connecting set no. 3 (see page 52).
- In-line fine filter SFI 3/8-9 EAN 4007220809044.

PG 10/160 V-HV




Order No.	EAN 4007220	Exhaust direction	Throttle type	Air consumption [m³/min]	Incl. collet dia. [mm]	Connect. set EAN 4007220	Air supply hose inner dia. [mm]	kg
PG 10/160 V-HV	777282	rear	lever	1,2	6	351123	9	1,600

Collets


	Group 8	for shank dia.				
		6 mm	8 mm	10 mm	1/4 inch	3/8 inch
EAN 4007220		213674	213704	213711	213681	213728

For dimensions see table page 94.

Keys

	Width across flats	Quan- tity	EAN 4007220
	14 mm	1	206836
	17 mm	1	204542

Arbors

	Order No.	EAN 4007220	Tool mounting [mm]	kg
	SDD 1016	348444	ø 10 x 16	0,140

The arbor replaces the collet and is used for direct adaptation of tools with a bore dia. of 10 mm.

Suitable PFERD tools

Catalogue 202	Catalogue 203*	Catalogue 204*	Catalogue 205	Catalogue 206	Catalogue 208
TC burrs cut 3, 3 PLUS, 4, 5, ALU PLUS head ø 8 up to 16 mm cut 1, ALU, FVK head ø 16 mm HSS rotary cutters cut ALU, 1, 2, 3, 5 head ø 2,3 up to 6 mm Please observe the different cutting speed recommendations in catalogue 202.	Mounted points head ø up to 50 mm width up to 50 mm	Poliflex® fine grinding points bond: GR and PUR head ø up to 15 mm TX and GHR head ø up to 25 mm Abrasive spiral bands head ø up to 30 mm POLICAP® head ø up to 29 mm Fan grinders head ø up to 25 mm POLISTAR ø up to 20 mm Felt points head ø up to 10 mm	Electroplated bond diamond cut-off wheels ø up to 50 mm Diamond grinding points head ø up to 20 mm CBN grinding points head ø up to 20 mm	Cut-off wheels EHT ø 50 mm matching arbor BO 6/6 0-4 or BO 6/10 0-4 or BO 8/10 0-4 Ring wheels ER ø 50 mm matching arbor BO 6/6 3-10 or BO 8/10 6-20	Wheel brushes knotted type RBG ø 70 mm

Note: Where no shank diameter is indicated, the shank diameter specification is 6 mm.

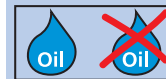
***Catalogues 203/204:** The information given here refers to an open shank length of 10 mm and the max. specified mounted point dimensions.

Air Grinders

Straight Grinder, Speed: 12.000 RPM / Output: 600 Watts



PG 9/120 V-HV



Can be used with or without oil.
2-3 drops per minute.

- With oil:
12.000 RPM, power output 600 watts
- Without oil:
12.000 RPM, power output 550 watts
- Consistent power due to centrifugal governor.
- Silencer.
- Comes with air supply and exhaust hose.
- Safety lever throttle (HV) protects against inadvertent start-up.
- Slim machine extension.
- Robust design for rough applications.
- Operation without oil mist lubrication, no oil precipitation, no negative effects on oil-sensitive materials.

If required, please order separately:

- Complete connecting set no. 3 (see page 52).
- In-line fine filter SFI 3/8-9 EAN 4007220809044.

Order No.	EAN 4007220	Exhaust direction	Throttle type	Air consumption [m³/min]	Incl. collet dia. [mm]	Connect. set EAN 4007220	Air supply hose inner dia. [mm]	
PG 9/120 V-HV	319758	rear	lever	0,4 - 0,9	6	351123	9	1,600

Collets

	Group 8	for shank dia.				
		6 mm	8 mm	10 mm	1/4 inch	3/8 inch
EAN 4007220		213674	213704	213711	213681	213728

For dimensions see table page 94.

Keys

	Width across flats	Quan- tity	EAN 4007220
	14 mm	1	206836
	17 mm	1	204542

Arbors

	Order No.	EAN 4007220	Tool mounting [mm]	
	SDD 1016	348444	ø 10 x 16	0,140

The arbor replaces the collet and is used for direct adaptation of tools with a bore dia. of 10 mm.

Suitable PFERD tools

Catalogue 202/203*	Catalogue 204* /205	Catalogue 206	Catalogue 208
<div>Catalogue 202</div> <div>TC burrs cut 3, 3 PLUS, 4, 5, ALU PLUS head ø 10 up to 20 mm cut 1, ALU, FVK head ø 16 mm HSS rotary cutters cut ALU, 1, 2, 3, 5 head ø 3,2 up to 8 mm</div>	<div>Catalogue 204</div> <div>Poliflex® fine grinding points bond: GR and PUR head ø up to 25 mm GHR, LR, TX, LHR head ø up to 40 mm Abrasive spiral bands head ø up to 45 mm Fan grinders head ø up to 40 mm POLINOX® ring wheels PNER head ø 50 mm</div>	<div>Catalogue 206</div> <div>Cut-off wheels EHT ø 50 mm matching arbor BO 6/6 0-4 or BO 6/10 0-4 or BO 8/10 0-4 Ring wheels ER ø 50 mm matching arbor BO 8/10 4-8 or BO 8/10 6-20</div>	<div>Catalogue 208</div> <div>Pencil brushes individual filament type PBU ø 10 up to 20 mm knotted type PBG ø 19 mm Wheel brushes individual filament type RBU ø 20 up to 40 mm knotted type RBG ø 70 mm</div>
<div>Catalogue 203</div> <div>Mounted points head ø up to 50 mm width up to 50 mm</div>	<div>Catalogue 205</div> <div>Electroplated bond diamond cut-off wheels ø up to 50 mm Diamond grinding points head ø up to 20 mm CBN grinding points head ø up to 20 mm</div>		

Note: Where no shank diameter is indicated, the shank diameter specification is 6 mm.

***Catalogues 203/204:** The information given here refers to an open shank length of 10 mm and the max. specified mounted point dimensions.



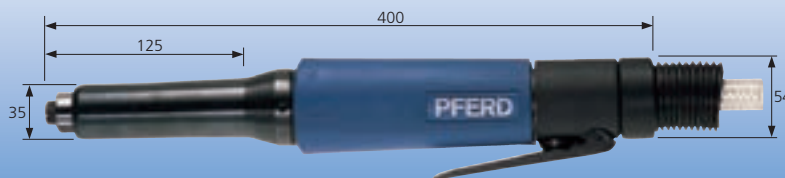
Use only with oil.
6-7 drops per minute.

- Consistent power due to centrifugal governor.
- Silencer.
- Comes with air supply und exhaust hose.
- Robust, medium-heavy machine.
- Tool adapters for collets, threaded mandrels and arbors.
- Separate bearing for the extended spindle.
- Safety lever throttle (HV) protects against inadvertent start-up.

If required, please order separately:

- Complete connecting set no. 4 (see page 52).
- In-line fine filter SFI 1/2-12 EAN 4007220809051.

PG 12/120 V-HV



Order No.	EAN 4007220	Exhaust direction	Throttle type	Air consumption [m³/min]	Incl. collet dia. [mm]	Connect. set EAN 4007220	Air supply hose inner dia. [mm]	
PG 12/120 V-HV	177396	rear	lever	1,3	6	351130	12	2,400

Collets

	Group 8	for shank dia.				
		6 mm	8 mm	10 mm	1/4 inch	3/8 inch
EAN 4007220		213674	213704	213711	213681	213728

For dimensions see table page 94.

Keys

	Width across flats	Quan- tity	EAN 4007220
	22 mm	1	206850
	14 mm	1	206836

Arbors

	Order No.	EAN 4007220	Tool mounting [mm]	
	SDM 14 x 20 MF	179291	ø 14/22,23 x 20	0,184

Guard

	Order No.	EAN 4007220	Supported dia. [mm]	
	H 35-125S	179307	125	0,360

Suitable PFERD tools

Catalogue 202	Catalogue 203*	Catalogue 204*	Catalogue 205	Catalogue 206	Catalogue 208
TC burs cut 3, 3 PLUS, 4, 5, ALU PLUS head ø 10 up to 20 mm cut 1, ALU, FVK head ø 16 mm HSS rotary cutters cut ALU, 1, 2, 3, 5 head ø 3,2 up to 8 mm Please observe the different cutting speed recommenda- tions in catalogue 202.	Mounted points All mounted points from the standard range head ø up to 50 mm	Abrasive spiral bands head ø up to 45 mm Fan grinders head up to 40 mm POLINOX® ring wheels PNER ø 50 mm POLIROLL® head ø up to 12 mm	Electroplated bond diamond cut-off wheels ø up to 50 mm Diamond grinding points head ø up to 20 mm CBN grinding points head ø up to 20 mm	Cut-off wheels EHT ø 76 mm, without guard ø 50 mm matching arbor BO 6/6 0-4 or BO 6/10 0-4 or BO 8/10 0-4 Ring wheels ER ø 70 mm, without guard ø 50 mm matching arbor BO 6/6 3-10 or BO 8/10 6-20 or BO 8/10 4-8	Pencil brushes individual filament type PBU ø 10 up to 20 mm knotted type PBG ø 19 mm Wheel brushes individual filament type RBU ø 20 up to 40 mm knotted type RBG ø 70 mm

Note: Where no shank diameter is indicated, the shank diameter specification is 6 mm.

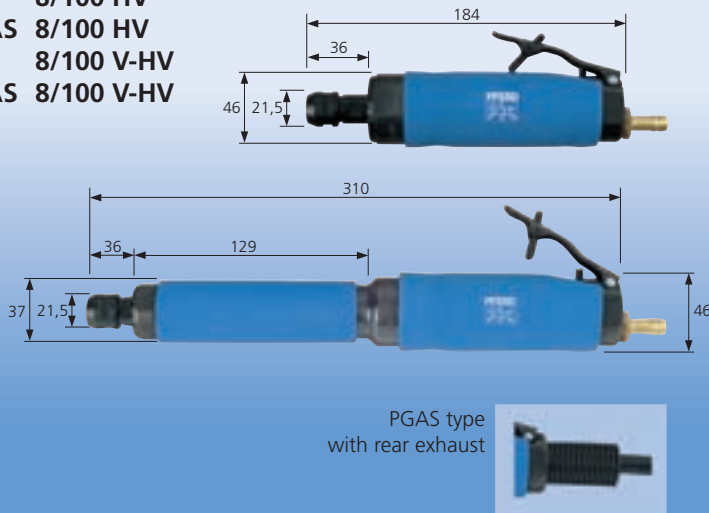
***Catalogues 203/204:** The information given here refers to an open shank length of 10 mm and the max. specified mounted point dimensions.

Air Grinders

Straight Grinder, Speed: 10.000 RPM / Output: 600 Watts



PG 8/100 HV
PGAS 8/100 HV
PG 8/100 V-HV
PGAS 8/100 V-HV



Use only with oil.
1-5 drops per minute.

PG 8/100 HV, PGAS 8/100 HV

- Consistent power due to centrifugal governor.
- Safety lever throttle (HV).
- Rear exhaust machines (type PGAS) come with air supply and exhaust hose.
- Short, easy to handle machine shape, light constructional design.

PG 8/100 V-HV, PGAS 8/100 V-HV

- Machine extension provides secure grip, suitable for two-handed control.
- Machine also available with counterclockwise rotation.
- Supported version available on request.

If required, please order separately:

- Complete connecting set no. 3 (see page 52).
- In-line fine filter SFI 3/8-9 EAN 4007220809044.

Order No.	EAN 4007220	Exhaust direction	Throttle type	Air consumption [m³/min]	Incl. collet dia. [mm]	Connect. set EAN 4007220	Air supply hose inner dia. [mm]	kg
PG 8/100 HV	536438	front	lever	0,17 - 0,85	6	351123	9	0,950
PGAS 8/100 HV	286272	rear	lever	0,17 - 0,85	6	351123	9	1,000
PG 8/100 V-HV	176825	front	lever	0,17 - 0,85	6	351123	9	1,400
PGAS 8/100 V-HV	286289	rear	lever	0,17 - 0,85	6	351123	9	1,400

Collets

Group 7	for shank dia.				
	3 mm	6 mm	8 mm	1/8 inch	1/4 inch
EAN 4007220	187074	186855	187050	187074	187067

Keys

Width across flats	Quantity	EAN 4007220
9/16"	1	186831
3/4"	1	186848

For dimensions see table page 94.

Suitable PFERD tools

Catalogue 202	Catalogue 203*	Catalogue 204*	Catalogue 206	Catalogue 208
TC burs cut 3, 3 PLUS, 4, 5, ALU PLUS head ø 10 up to 20 mm HSS rotary cutters cut ALU, 1, 2, 3, 5 head ø 3,2 up to 10 mm Please observe the different cutting speed recommendations in catalogue 202.	Mounted points head ø up to 50 mm width up to 40 mm	Poliflex® fine grinding points bond: GR and PUR head ø up to 25 mm GHR, LR and TX head ø up to 40 mm LHR head ø up to 40 mm Poliflex® wheels bond TX ø 40 mm Abrasive spiral bands head ø up to 60 mm POLICAP® head ø up to 21 mm	Cut-off wheels EHT ø 50 mm matching arbor BO 6/6 0-4 or BO 6/10 0-4 or BO 8/10 0-4 Ring wheels ER ø 50 mm matching arbor BO 6/6 3-10 or BO 8/10 4-8 or BO 8/10 6-20	Pencil brushes individual filament type PBU ø 12 up to 30 mm encapsulated PBV ø 22 up to 30 mm knotted type PBG ø 25 mm Wheel brushes individual filament type RBU ø 50 up to 70 mm

Note: Where no shank diameter is indicated, the shank diameter specification is 6 mm.

***Catalogues 203/204:** The information given here refers to an open shank length of 10 mm and the max. specified mounted point dimensions.



Use only with oil.
6-8 drops per minute.

- Consistent power due to centrifugal governor.
- Comes with air supply and exhaust hose with silencer.
- High power output straight grinder.
- Machine extension provides reliable two-handed grip for optimum tool control.
- Universal tool adapter for collets, threaded mandrels and arbors.
- Safety lever throttle (HV) protects against inadvertent start-up.

If required, please order separately:

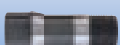
- Complete connecting set no. 4 (see page 52).
- In-line fine filter SFI 1/2-12 EAN 4007220809051.

PG 12/70 V-HV




Order No.	EAN 4007220	Exhaust direction	Throttle type	Air consumption [m³/min]	Incl. collet dia. [mm]	Connect. set EAN 4007220	Air supply hose inner dia. [mm]	kg
PG 12/70 V-HV	177419	rear	lever	1,3	6	351130	12	2,400

Collets


	Group 8	for shank dia.				
		6 mm	8 mm	10 mm	1/4 inch	3/8 inch
EAN 4007220		213674	213704	213711	213681	213728

For dimensions see table page 94.


Keys

	Width across flats	Quantity	EAN 4007220
	22 mm	1	206850
	14 mm	1	206836

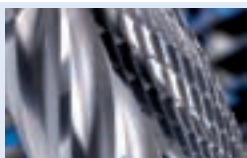

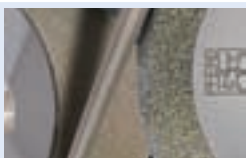

Arbors

	Order No.	EAN 4007220	Tool mounting [mm]	kg
	SDM 14 x 20 MF	179291	ø 14/22,23 x 20	0,184

Guard

	Order No.	EAN 4007220	Supported dia. [mm]	kg
	H 35-125S	179307	125	0,360

Suitable PFERD tools

Catalogue 202	Catalogue 204*	Catalogue 205	Catalogue 208
			
TC burrs cut 3, 3 PLUS, 4, 5, ALU PLUS head ø 20 mm HSS rotary cutters cut ALU, 1, 2, 3, 5 head ø 4,0 up to 12 mm Please observe the different cutting speed recommendations in catalogue 202.	Abrasive spiral bands head ø up to 75 mm Fan grinders head ø up to 60 mm without guard ø up to 50 mm POLINOX® mounted points head ø up to 60 mm POLINOX® ring wheels PNER ø 75 mm	POLICLEAN® wheels/mounted points ø 50 mm POLIROLL® head ø up to 18 mm POLINOX® cross buffs head ø up to 38 mm Felt points head ø up to 25 mm	Electroplated bond diamond cut-off wheels without guard ø up to 50 mm with guard ø up to 75 mm Pencil brushes knotted type PBG ø 10 up to 12 mm Wheel brushes encapsulated RBV ø 63 mm

Note: Where no shank diameter is indicated, the shank diameter specification is 6 mm.

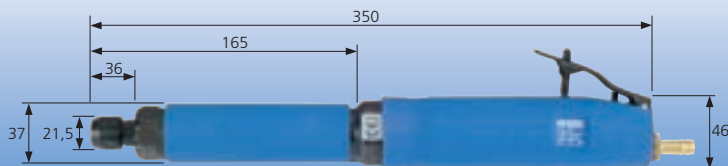
***Catalogue 204:** The information given here refers to an open shank length of 10 mm and the max. specified mounted point dimensions.

Air Grinders

Straight Grinder, Speed: 5.000 RPM / Output: 600 Watts



PG 8/50 V-HV




Use only with oil.
2-4 drops per minute.


- High-power output straight grinders geared to lower speed.
- Spindle extension of 165 mm.
- Safety lever throttle (HV) protects against inadvertent start-up.
- Supported version available on request.

If required, please order separately:

- Complete connecting set no. 3 (see page 52).
- In-line fine filter SFI 3/8-9 EAN 4007220809044.


Order No.	EAN 4007220	Exhaust direction	Throttle type	Air consumption [m³/min]	Incl. collet dia. [mm]	Connect. set EAN 4007220	Air supply hose inner dia. [mm]	
PG 8/50 V-HV	176788	front	lever	0,42 - 0,85	6	351123	9	1,600

Collets

	Group 7	for shank dia.				
		3 mm	6 mm	8 mm	1/8 inch	1/4 inch
EAN 4007220		187074	186855	187050	187074	187067

For dimensions see table page 94.

Keys

	Width across flats	Quan- tity	EAN 4007220
	9/16"	1	186831
	3/4"	1	186848

Suitable PFERD tools

Catalogue 202	Catalogue 204*	Catalogue 205
		
HSS rotary cutters cut ALU, 1, 2, 3, 5 head ø 5,0 up to 16 mm HSS aluminium cutters 119 120 Arbor with thread BO 6/10 and BO 8/10 for HSS rotary cutters Please observe the recommendations on dif- ferent cutting speeds in catalogue 202.	All Poliflex® fine grinding points and Poliflex® fine grinding wheels ø up to 50 mm Abrasive spiral bands head ø up to 50 mm Fan grinders head ø up to 50 mm POLINOX® mounted points head ø up to 50 mm POLINOX® cross buffs head ø 38 mm POLICLEAN® wheels/mounted points ø 50 mm Felt points and felt wheels ø up to 45 mm matching arbor BO 6/6 3-10	Electroplated bond diamond cut-off wheels ø up to 50 mm matching arbor BO 6/6 0-4 or BO 6/10 0-4

Note: Where no shank diameter is indicated, the shank diameter specification is 6 mm.

***Catalogue 204:** The information given here refers to an open shank length of 10 mm and the max. specified mounted point dimensions.



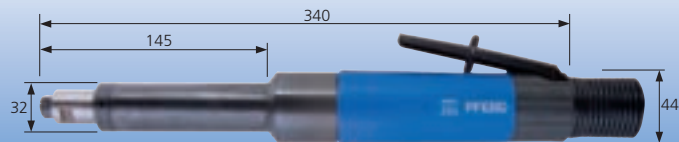
Use only with oil.
6-7 drops per minute.

- Ideal for fine grinding and polishing tools.
- Rear exhaust with silencer.
- High power output straight grinder geared to lower speed.
- Safety lever throttle (HV) protects against inadvertent start-up.

If required, please order separately:

- Complete connecting set no. 3 (see page 52).
- In-line fine filter SFI 3/8-9 EAN 4007220809044.

PG 10/40 V-HV



Order No.	EAN 4007220	Exhaust direction	Throttle type	Air consumption [m³/min]	Incl. collet dia. [mm]	Connect. set EAN 4007220	Air supply hose inner dia. [mm]	
PG 10/40 V-HV	802649	rear	lever	1,2	6	351123	9	1,700

Collets

	Group 8 for shank dia.					
	6 mm	8 mm	10 mm	1/4 inch	3/8 inch	
EAN 4007220	213674	213704	213711	213681	213728	

For dimensions see table page 94.

Keys

	Width across flats	Quan- tity	EAN 4007220
	14 mm	1	206836
	17 mm	1	204542

Arbors

	Order No.	EAN 4007220	Tool mounting [mm]	
	SDD 1016	348444	ø 10 x 16	0,140

The arbor replaces the collet and is used for direct adaptation of tools with a bore dia. of 10 mm.

Suitable PFERD tools

Catalogue 202	Catalogue 204*	Catalogue 205
HSS rotary cutters cut ALU, 1, 2, 3, 5 head ø 6,0 up to 16 mm HSS aluminium cutters 119 120 Arbor with thread BO 6/10 and BO 8/10 for HSS rotary cutters Please observe the recommendations on dif- ferent cutting speeds in catalogue 202.	All Poliflex® fine grinding points and Poliflex® fine grinding wheels ø up to 50 mm Abrasive spiral bands head ø up to 50 mm Fan grinders head ø up to 50 mm POLINOX® mounted points head ø up to 50 mm POLICLEAN® wheels ø 50 and 75 mm Felt points and felt wheels ø up to 45 mm matching arbor BO 6/6 3-10	Electroplated bond diamond cut-off wheels ø 50 mm matching arbor BO 6/6 0-4 or BO 6/10 0-4

Note: Where no shank diameter is indicated, the shank diameter specification is 6 mm.

***Catalogue 204:** The information given here refers to an open shank length of 10 mm and the max. specified mounted point dimensions.

Air Grinders

Angle Grinder, Speed: 80.000 RPM / Output: 75 Watts



PWS 1/800




Use only with oil.
1 drop per minute.


- Adjustable side exhaust.
- Silencer.
- Smallest, high speed angle grinder in this performance class for industrial applications.
- Robust, without angular gear.

If required, please order separately:

- Complete connecting set no. 1 (see page 52).
- In-line fine filter SFI 1/4-5 EAN 4007220809013.

Order No.	EAN 4007220	Exhaust direction	Throttle type	Air consumption [m³/min]	Incl. collet dia. [mm]	Connect. set EAN 4007220	Air supply hose inner dia. [mm]	
PWS 1/800	176900	rear	push-pull	0,18	3	351109	5	0,115

Collets

	Group 2	for shank dia.			
		2,34 mm	3 mm	3/32 inch	1/8 inch
EAN 4007220		207864	207840	207864	207857

For dimensions see table page 94.

Keys

	Width across flats	Quan- tity	EAN 4007220
	6 mm	1	204504
	8 mm	1	206867

Suitable PFERD tools

Catalogue 202	Catalogue 203*	Catalogue 204	Catalogue 205
			
TC burrs cut 3, 3 PLUS, 4, 5, ALU PLUS head ø up to 3 mm cut 1, ALU, FVK head ø up to 3 mm Please observe the different cutting speed recommendations in catalogue 202.	Mounted points head ø up to 6 mm width up to 13 mm shank ø 3 mm	Poliflex® fine grinding points shank ø 3 mm bond: GHR head ø up to 4 mm LR and TX head ø up to 6 mm	Diamond grinding points head ø up to 4,5 mm shank ø 3 mm CBN grinding points head ø up to 5,5 mm shank ø 3 mm

***Catalogue 203:** The information given here refers to an open shank length of 10 mm and the max. specified mounted point dimensions.



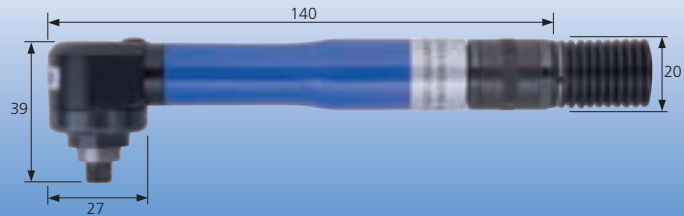
Use only with oil.
1-2 drops per minute.

- Comes with air supply and exhaust hose.
- Minimum head height for an angle grinder.
- Light and easy to handle.
- Suitable for work on narrow recesses and openings.
- Wear-resistant angle head.

If required, please order separately:

- Complete connecting set no. 1 (see page 52).
- In-line fine filter SFI 1/4-5 EAN 4007220809013.

PWSA 1/250



Order No.	EAN 4007220	Exhaust direction	Throttle type	Air consumption [m³/min]	Incl. collet dia. [mm]	Connect. set EAN 4007220	Air supply hose inner dia. [mm]	
PWSA 1/250	802588	rear	ring	0,2	3	351109	5	0,225

Collets

	Group 3	for shank dia.		
		3 mm	3/32 inch	1/8 inch
EAN 4007220		188262	188378	188354

For dimensions see table page 94.

Keys

	Width across flats	Quan- tity	EAN 4007220
	10 mm	1	188514
	3/16"	1	188279

Arbors

	Order No.	EAN 4007220	Use for	
	ASD 20 AD	178805	ATADISC® tools, SP 20, ST 25, ST 35, AD 2005, AD 3505-2	0,005
	ASD 20 CD 1/4-20 G	308417	COMBIDISC® tools, SBH 20, SBH 25, SBH 38, CD 20, CD 38	0,005

The arbor replaces the collet. It is used for direct mounting from ATADISC® or COMBIDISC® tools.

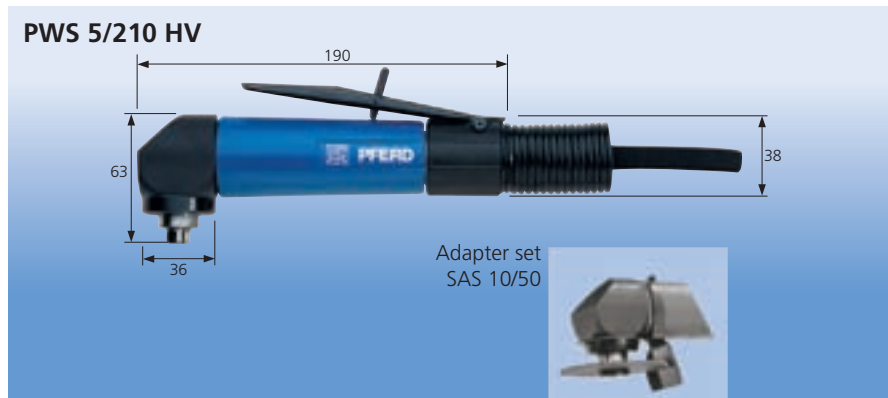
Suitable PFERD tools

Catalogue 202	Catalogue 203*	Catalogue 204*
<p>TC burrs cut 3, 3 PLUS, 4, 5, ALU PLUS head ø 3 mm</p> <p>HSS rotary cutters cut ALU, 1, 2, 3, 5 head ø up to 4 mm</p> <p>Please observe the different cutting speed recommendations in catalogue 202.</p>	<p>Mounted points head ø up to 13 mm width up to 13 mm shank ø 3 mm</p>	<p>Poliflex® fine grinding points shank ø 3 mm bond: LHR head ø up to 10 mm GR, LR and LHR head ø up to 12 mm</p> <p>ATADISC® abrasive discs AD 2005, AD 2505 with arbor ASD 20 AD hub SP 20 backing pad ST 25</p> <p>COMBIDISC® abrasive discs ø up to 25 mm with arbor ASD 20 CD 1/4-20G</p>

*Catalogues 203/204: The information given here refers to an open shank length of 10 mm and the max. specified mounted point dimensions.

Air Grinders

Angle Grinder, Speed: 21.000 RPM / Output: 370 Watts



Use only with oil.
3-4 drops per minute.

- Silencer.
- Comes with air supply and exhaust hose.
- Safety lever throttle.
- Low angle head height.

If required, please order separately:

- Complete connecting set no. 2 (see page 52).
- In-line fine filter SF 3/8-8 EAN 4007220809020.

Order No.	EAN 4007220	Exhaust direction	Throttle type	Air consumption [m³/min]	Incl. collet dia. [mm]	Connect. set EAN 4007220	Air supply hose inner dia. [mm]	
PWS 5/210 HV	177075	rear	lever	0,60	6	351116	8	0,710

Collets

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

For dimensions see table page 94.

Keys

	Width across flats	Quan- tity	EAN 4007220
	11 mm	1	206812
	17 mm	1	204542



Grinding wheel adapter set

Using this conversion set, cut-off and rein-
forced ring wheels can be used up to dia.
50 mm and at strengths of 1 - 9 mm. Simple
handling: Remove the collet, connect the hand
protection, place the washer onto the spindle

and tighten the grinding wheel with the
clamping screw (washer is not needed for disc
widths from 6 mm).

Order No.	EAN 4007220	Tool mounting dia. [mm]	
SAS 10/50	238462	ø 10 x 1-9	0,055

Suitable PFERD tools

Catalogue 202	Catalogue 203*	Catalogue 204*	Catalogue 205	Catalogue 206
TC burrs cut 3, 3 PLUS, 4, 5, ALU PLUS head ø 6 up to 12 mm cut 1, ALU, FVK head ø 10 up to 16 mm HSS rotary cutters cut ALU, 1, 2, 3, 5 head ø up to 5 mm Please observe the different cutting speed recommendations in catalogue 202.	Mounted points head ø up to 32 mm width up to 32 mm	Poliflex® fine grinding points bond: GR and PUR head ø up to 12 mm GHR, LR and TX head ø up to 20 mm LHR ø up to 30 mm Abrasive spiral bands head ø up to 22 mm POLICAP® head ø up to 11 mm	Fan grinders head ø up to 20 mm POLINOX® ring wheels PNER ø 25 mm ATADISC® abrasive disc holder SHT 3550 with abrasive disc AD 5005 COMBIDISC® abrasive discs ø 20 up to 38 mm	Diamond grinding points head ø up to 12 mm CBN grinding points head ø up to 18 mm Cut-off wheels EHT ø 50 mm matching arbor BO 6/6 0-4 or BO 6/10 0-4 or BO 8/10 0-4 Ring wheels ER ø 50 mm matching arbor BO 6/6 3-10 or BO 8/10 6-20

Note: Where no shank diameter is indicated, the shank diameter specification is 6 mm.

***Catalogues 203/204:** The information given here refers to an open shank length of 10 mm and the max. specified mounted point dimensions.



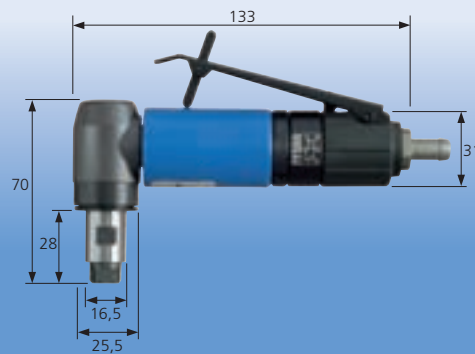
Use only with oil.
1-2 drops per minute.


- Slim angle head for work in confined places.
- Easy to handle, compact shape.
- Long-life angle transmission.
- High spindle concentricity.
- Safety ring lever throttle (DH) protects against inadvertent start-up.

If required, please order separately:


- Complete connecting set no. 2 (see page 52).
- In-line fine filter SFI 3/8-8 EAN 4007220809020.

PWS 3/200 DH



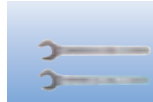
Order No.	EAN 4007220	Exhaust direction	Throttle type	Air consumption [m³/min]	Incl. collet dia. [mm]	Connect. set EAN 4007220	Air supply hose inner dia. [mm]	
PWS 3/200 DH	282175	front	ring/lever	0,35	6	351116	8	0,370

Collets



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

For dimensions see table page 94.

Keys

	Width across flats	Quan- tity	EAN 4007220
	11 mm	1	206812
	14 mm	1	206836

Suitable PFERD tools

Catalogue 202	Catalogue 203*	Catalogue 204*	Catalogue 206	
				
<p>TC burrs cut 3, 3 PLUS, 4, 5, ALU PLUS head ø 6 up to 10 mm</p> <p>HSS rotary cutters cut ALU, 1, 2, 3, 5 head ø up to 5 mm</p> <p>Please observe the different cutting speed recommendations in catalogue 202.</p>	<p>Mounted points head ø up to 32 mm width up to 32 mm</p>	<p>Poliflex® fine grinding points bond: GR and PUR head ø up to 12 mm GHR, LR and TX head ø up to 20 mm LHR head ø up to 30 mm</p> <p>Abrasive spiral bands head ø up to 22 mm</p> <p>POLICAP® head ø up to 11 mm</p> <p>Fan grinders head ø up to 20 mm</p>	<p>POLINOX® ring wheels PNER ø 25 mm</p> <p>ATADISC® abrasive disc holders SHT 3550 with abrasive disc AD 5005</p> <p>COMBIDISC® abrasive discs ø 20 up to 38 mm</p> <p>COMBIDISC® POLIVLIES® discs hard type VRH 20</p>	<p>Cut-off wheels EHT ø up to 50 mm</p> <p>matching arbor BO 6/6 0-4 or BO 6/10 0-4 or BO 8/10 0-4</p> <p>Grinding wheels ER ø up to 40 mm</p> <p>matching arbor BO 6/6 3-10</p>

Note: Where no shank diameter is indicated, the shank diameter specification is 6 mm.

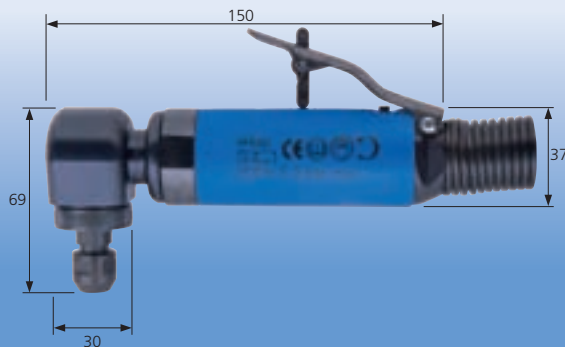
***Catalogues 203/204:** The information given here refers to an open shank length of 10 mm and the max. specified mounted point dimensions.

Air Grinders

Angle Grinder, Speed: 20.000 RPM / Output: 300 Watts



PWSA 4/200 HV



Use only with oil.
3-4 drops per minute.

- Slim angle head for work in confined places.
- High speed stability power output.
- Easy to handle, compact shape.
- Angular gear with long service lifetime.
- High spindle concentricity.
- Safety lever throttle protects against inadvertent start-up.
- Comes with air supply und exhaust hose.

If required, please order separately:

- Complete connecting set no. 2 (see page 52).
- In-line fine filter SFI 3/8-8 EAN 4007220809020.

Order No.	EAN 4007220	Exhaust direction	Throttle type	Air consumption [m³/min]	Incl. collet dia. [mm]	Air supply hose inner dia. [mm]	Connect. set EAN 4007220	
PWSA 4/200 HV	598184	rear	lever	0,57	6	8	351116	0,520

Collets

	Group 5	for shank dia.			
		3 mm	6 mm	1/8 inch	1/4 inch
EAN 4007220		299944	299951	299944	606032

For dimensions see table page 94.

Keys

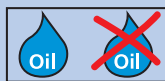
	Width across flats	Quantity	EAN 4007220
	7/16"	1	300480
	9/16"	1	186831

Suitable PFERD tools

Catalogue 202	Catalogue 203*	Catalogue 204*	Catalogue 206	
				
<p>TC burrs cut 3, 3 PLUS, 4, 5, ALU PLUS head ø 6 up to 10 mm</p> <p>HSS rotary cutters cut ALU, 1, 2, 3, 5 head ø up to 5 mm</p> <p>Please observe the different cutting speed recommendations in catalogue 202.</p>	<p>Mounted points head ø up to 32 mm width up to 32 mm</p>	<p>Poliflex® fine grinding points bond: GR and PUR head ø up to 12 mm GHR, LR and TX head ø up to 20 mm LHR head ø up to 30 mm</p> <p>Abrasive spiral bands head ø up to 22 mm</p> <p>POLICAP® head ø up to 11 mm</p> <p>Fan grinders ø up to 20 mm</p>	<p>POLINOX® ring wheels PNER ø 25 mm</p> <p>ATADISC® abrasive disc holder SHT 3550 with abrasive disc AD 5005</p> <p>COMBIDISC® abrasive discs ø 20 up to 38 mm</p> <p>COMBIDISC® POLIVLIES® discs hard type VRH 20</p>	<p>Cut-off wheels EHT ø up to 50 mm</p> <p>matching arbor BO 6/6 0-4 or BO 6/10 0-4</p> <p>Grinding wheels ER ø up to 40 mm</p> <p>matching arbor BO 6/6 3-10</p>

Note: Where no shank diameter is indicated, the shank diameter specification is 6 mm.

***Catalogues 203/204:** The information given here refers to an open shank length of 10 mm and the max. specified mounted point dimensions.



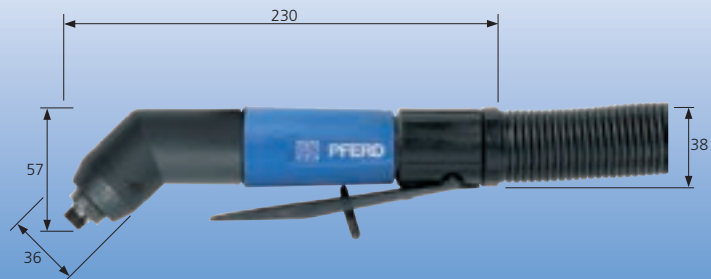
Can be used with or without oil.
3-4 drops per minute.

- With oil:
17.000 RPM, power output 370 watts
- Without oil:
Speed 14.000 RPM, power output 340 watts
- Angle head with 45° inclination. Facilitates work in corners and confined places.
- Silencer.
- Comes with air supply and exhaust hose.
- Safety lever throttle.
- Operation without oil mist lubrication, workplace-friendly, no oil precipitation onto the tool, no negative effects on oil-sensitive materials e.g. ceramic, wood, plastic.

If required, please order separately:

- Complete connecting set no. 2 (see page 52).
- In-line fine filter SFI 3/8-8 EAN 4007220809020.

PWS 5/170-45 HV



Order No.	EAN 4007220	Exhaust direction	Throttle type	Air consumption [m³/min]	Incl. collet dia. [mm]	Air supply hose inner dia. [mm]	Connect. set EAN 4007220	
PWS 5/170-45 HV	484999	rear	lever	0,63	6	8	351116	0,880

Collets

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

For dimensions see table page 94.

Keys

	Width across flats	Quan- tity	EAN 4007220
	11 mm	1	206812
	17 mm	1	204542

Suitable PFERD tools

Catalogue 202	Catalogue 203*	Catalogue 204*	Catalogue 206	Catalogue 208
TC burrs cut 3, 3 PLUS, 4, 5, ALU PLUS head ø 8 up to 12 mm HSS rotary cutters cut ALU, 1, 2, 3, 5 head ø up to 6 mm Please observe the different cutting speed recommendations in catalogue 202.	Mounted points head ø up to 32 mm width up to 32 mm	Poliflex® fine grinding points bond: GR and PUR head ø up to 12 mm GHR, LR and TX head ø up to 20 mm LHR head ø up to 30 mm Poliflex® wheels bond TX ø 25 mm Abrasive spiral bands head ø up to 30 mm POLICAP® head ø up to 13 mm Fan grinders head ø up to 25 mm Felt points head ø up to 10 mm	Cut-off wheels EHT ø 50 mm matching arbor BO 6/6 0-4 or BO 6/10 0-4 or BO 8/10 0-4 Grinding wheels ER ø 50 mm matching arbor BO 6/6 3-10 or BO 8/10 6-20	Pencil brushes individual filament type PBU ø 10 up to 12 mm knotted type PBG ø 19 mm Wheel brushes individual filament type RBU ø 20 up to 30 mm

Note: Where no shank diameter is indicated, the shank diameter specification is 6 mm.

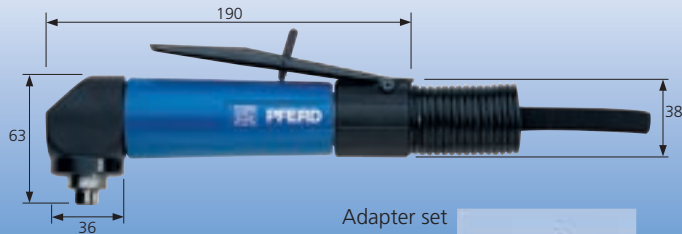
***Catalogues 203/204:** The information given here refers to an open shank length of 10 mm and the max. specified mounted point dimensions.

Air Grinders

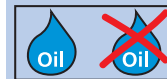
Angle Grinder, Speed: 16.000 RPM / Output: 370 Watts



PWS 5/160 HV



Adapter set
SAS 10/50




Can be used with or
without oil.
3-4 drops per minute.


- With oil:
16.000 RPM, power output 370 watts
- Without oil:
13.000 RPM, power output 340 watts
- With silencer.
- Comes with air supply and exhaust hose.
- Safety lever throttle.
- Operation without oil mist lubrication
 - Workplace-friendly
 - No oil precipitation onto the tool
 - No negative effects on oil-sensitive materials e.g. ceramic, wood, plastic.

If required, please order separately:

- Complete connecting set no. 2
(see page 52).
- In-line fine filter SFI 3/8-8
EAN 4007220809020.

Order No.	EAN 4007220	Exhaust direction	Throttle type	Air consumption [m³/min]	Incl. collet dia. [mm]	Air supply hose inner dia. [mm]	Connect. set EAN 4007220	
PWS 5/160 HV	235287	rear	lever	0,63	6	8	351116	0,710

Collets

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

For dimensions see table page 94.

Keys


	Width across flats	Quan- tity	EAN 4007220
	11 mm	1	206812
	17 mm	1	204542

Grinding wheel adapter set



Using this conversion set, cut-off and reinforced ring wheels can be used up to dia. 50 mm and at strengths of 1 - 9 mm. Simple handling: Remove the collet, connect the hand protection, place the washer onto the

spindle and tighten the grinding disc with the clamping screw (washer is not needed for disc widths from 6 mm).

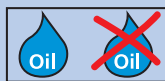
Order No.	EAN 4007220	Tool mounting dia. [mm]	
SAS 10/50	238462	ø 10 x 1-9	0,055

Suitable PFERD tools

Catalogue 202/203*		Catalogue 204*		Catalogue 206	Catalogue 208
Catalogue 202	Please observe the recommendations on different cutting speeds in catalogue 202.	Poliflex® fine grinding points bond: GR and PUR head ø up to 15 mm GHR, LR and TX head ø up to 25 mm LHR head ø up to 30 mm POLICAP® head ø up to 13 mm	COMBIDISC® abrasive discs ø 20 up to 50 mm TX discs ø 50 mm ATADISC® disc holder SHT 3575 with abrasive disc AD 7505 SHT 2025	Cut-off wheels EHT ø 50 mm matching arbor BO 6/6 0-4 or BO 6/10 0-4 or BO 8/10 0-4 Ring wheels ER ø 50 mm matching arbor BO 6/6 3-10 or BO 8/10 6-20	Pencil brushes individual filament type PBU ø 10 up to 20 mm knotted type PBG ø 19 mm Wheel brushes individual filament type RBU ø 20 up to 40 mm
TC burrs cut 3, 3 PLUS, 4, 5, ALU PLUS head ø 8 up to 12 mm HSS rotary cutters cut ALU, 1, 2, 3, 5 head ø 2,3 up to 6 mm		Catalogue 203 Mounted points head ø up to 32 mm width up to 32 mm			

Note: Where no shank diameter is indicated, the shank diameter specification is 6 mm.

***Catalogue 203/204:** The information given here refers to an open shank length of 10 mm and the max. specified mounted point dimensions.



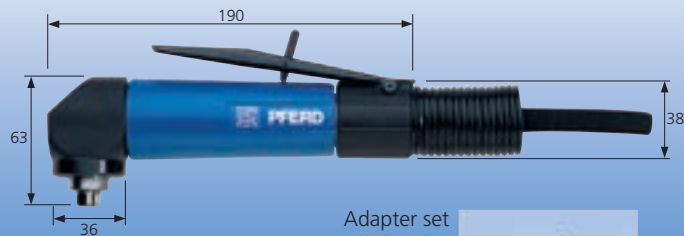
Can be used with or without oil.
1-4 drops per minute.

- With or without oil – no difference in RPM and same power output.
- Consistent power due to centrifugal governor.
- Comes with air supply and exhaust hose with silencer.
- Safety lever throttle.
- Operation without oil mist lubrication
 - Workplace-friendly
 - No oil precipitation onto the tool
 - No negative effects on oil-sensitive materials e.g. ceramic, wood, plastic.

If required, please order separately:

- Complete connecting set no. 2 (see page 52).
- In-line fine filter SFI 3/8-8 EAN 4007220809020.

PWS 5/130 HV



Adapter set
SAS 10/50



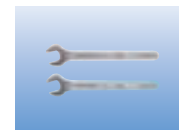
Order No.	EAN 4007220	Exhaust direction	Throttle type	Air consumption [m³/min]	Incl. collet dia. [mm]	Air supply hose inner dia. [mm]	Connect. set EAN 4007220	kg
PWS 5/130 HV	271766	rear	lever	0,3 - 0,6	6	8	351116	0,710

Collets

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

For dimensions see table page 94.

Keys



Width across flats	Quan- tity	EAN 4007220
11 mm	1	206812
17 mm	1	204542

Using this conversion set, cut-off and reinforced ring wheels can be used up to dia. 50 mm and at strengths of 1 - 9 mm. Simple handling: Remove the collet, connect the hand protection, place the washer onto the

spindle and tighten the grinding disc with the clamping screw (washer is not needed for disc widths from 6 mm).

Grinding wheel adapter set



Order No.	EAN 4007220	Tool mounting dia. [mm]	kg
SAS 10/50	238462	ø 10 x 1-9	0,055

Suitable PFERD tools

Catalogue 202/203*		Catalogue 204*		Catalogue 206	Catalogue 208
Catalogue 202	Please observe the recommendations on different cutting speeds in catalogue 202.	Poiflex® fine grinding points bond: GR and PUR head ø up to 12 mm GHR, LR and TX head ø up to 20 mm LHR head ø up to 30 mm Poiflex® wheels bond TX ø 25-40 mm POLICAP® head ø up to 13 mm	POLINOX® ring wheels PNER ø 50 mm ATADISC® disc holder SHT 3575 with abrasive disc AD 7505 COMBIDISC® abrasive discs ø up to 50 mm TX discs ø 50 and 75 mm	Cut-off wheels EHT ø 50 mm matching arbor BO 6/6 0-4 or BO 6/10 0-4 or BO 8/10 0-4 Grinding wheels ER ø 50 mm matching arbor BO 8/10 4-8 or BO 8/10 6-20	Pencil brushes individual filament type PBU ø 10 up to 20 mm knotted type PBG ø 19 mm Wheel brushes individual filament type RBU ø 20 up to 40 mm
TC burrs cut 3, 3 PLUS, 4, 5, ALU PLUS head ø 10 up to 16 mm HSS rotary cutters cut ALU, 1, 2, 3, 5 head ø 2,3 up to 7 mm		Catalogue 203*	Mounted points head ø up to 32 mm width up to 32 mm		

Note: Where no shank diameter is indicated, the shank diameter specification is 6 mm.

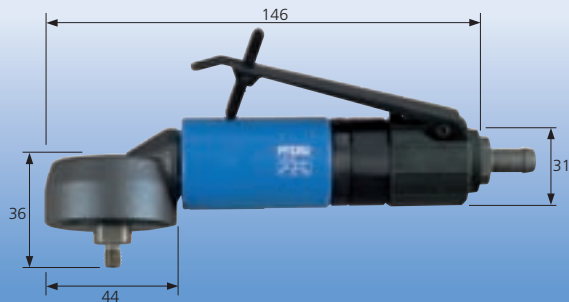
***Catalogues 203/204:** The information given here refers to an open shank length of 10 mm and the max. specified mounted point dimensions.

Air Grinders

Angle Grinder, Speed: 12.000 RPM / Output: 220 Watts



PW 3/120 DH




**Use only with oil.
2 drops per minute.**


- For grinding and finishing work in connection with all COMBIDISC® tools (use a backing pad without shank).
- Easy to handle, compact shape.
- Flat angle head for work in confined places.
- High torque.
- Safety ring lever throttle (DH) protects against inadvertent start-up.

If required, please order separately:


- Complete connecting set no. 2 (see page 52).
- In-line fine filter SFI 3/8-8 EAN 4007220809020.

Order No.	EAN 4007220	Exhaust direction	Throttle type	Air consumption [m³/min]	Drive spindle thread	Air supply hose inner dia. [mm]	Connect. set EAN 4007220	
PW 3/120 DH	271780	front	ring/lever	0,35	1/4" - 20 UNC	8	351116	0,390


Spindle extension (20 mm)

	Order No.	EAN 4007220	Tool mounting [mm]
	SPV 20 CD 1/4-20 UNC	333167	COMBIDISC® holder without threaded shank

Arbors

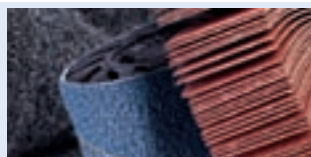
	Order No.	EAN 4007220	Tool mounting [mm]
	AF 1/4 - AD SP 35	285947	ATADISC® hub SP 35

Keys

	Width across flats	Quan- tity	EAN 4007220
	11 mm	1	206812

Suitable PFERD tools

Catalogue 204



COMBIDISC® holder
SBH 20, 25, 38, 50, 75
without threaded shank

COMBIDISC® abrasive discs
ø 20 up to 75 mm

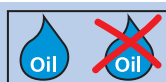
COMBIDISC® TX discs
ø 50 and 75 mm

COMBIDISC®-POLIVLIES® discs
ø 20 up to 75 mm

COMBIDISC®-POLICLEAN® discs
ø 50 mm

ATADISC® abrasive discs
AD 5005, AD 7505

with clamping device
AF 1/4 AD SP 35 for ATADISC®
hub SP 35 and
backing pad ST 50 or ST 75



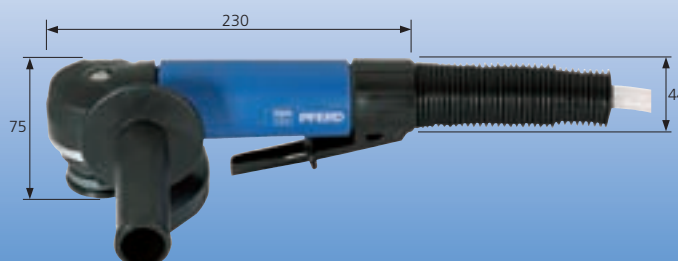
Can be used with or without oil.
4-5 drops per minute.


- Max. tool dia. up to 115 mm.
- For light grinding and cutting work.
- Silencer.
- With spindle lock pin.
- Comes with air supply and exhaust hose.
- Safety lever throttle.
- Low angle head height.
- Operation without oil mist lubrication
 - Workplace-friendly
 - No oil precipitation onto the tool
 - No negative effects on oil-sensitive materials e.g. ceramic, wood, plastic.
- Consistent RPM /power output during operation with or without oil mist lubrication.

If required, please order separately:

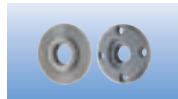
- Complete connecting set no. 3 (see page 52).
- In-line fine filter SFI 3/8-9 EAN 4007220809044

PW 9/120 HV



Order No.	EAN 4007220	Exhaust direction	Throttle type	Air consumption [m³/min]	Air supply hose inner dia. [mm]	Connect. set EAN 4007220	Drive spindle thread	Tool mounting [mm]	
PW 9/120 HV	319772	rear	lever	0,9	9	351123	M14	22,23	1,750

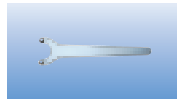
Wheel flange



Order No.	EAN 4007220
Spannflansch*	426036
Spannmutter**	316238

- * Spannflansch = Wheel flange
** Spannmutter = Clamping nut

Keys



Width across flats	Quan- tity	EAN 4007220
35 mm	1	193853

Suitable PFERD tools

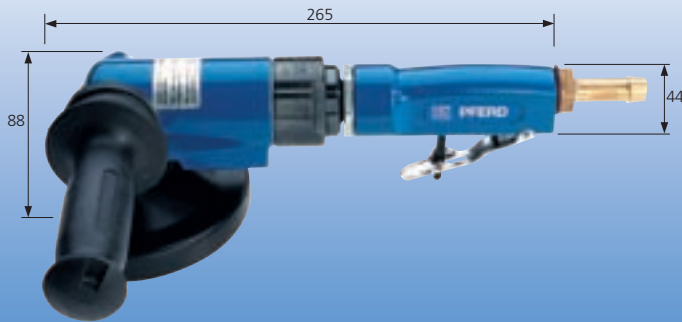
Catalogue 204	Catalogue 205	Catalogue 206	Catalogue 208
			
COMBICLICK® fibre disc and fibre disc ø up to 115 mm Backing pad for COMBICLICK® fibre disc and fibre disc ø up to 115 mm CC - GT 115/125 GT 115	Electroplated bond diamond cut-off wheels ø up to 115 mm	Cut-off and grinding wheels POLIFAN® flap discs Diamond cut-off wheels ø up to 115 mm	Cup brushes individual filament type TBU ø 60 up to 75 mm M14 Flaring cup brushes individual filament type KBÜ ø 100 up to 115 mm M14

Air Grinders

Angle Grinder, Speed: 12.000 RPM / Output: 900 Watts



PW 11/120 HV
PW 11/120 AVH



Use only with oil.
6-7 drops per minute.

PW 11/120 HV

- Max. tool diameter up to 125 mm.
- Consistent power due to centrifugal governor.
- Silencer.
- Stable torque.
- Safety lever throttle (HV) protects against inadvertent start-up.
- Air-angle grinder in robust constructional design.

PW 11/120 AVH


- With anti-vibration handle and autobalancer for adjusting imbalance.
- Tool adapter: Special flange, only suitable for cut-off and grinding wheels!

If required, please order separately:

- Complete connecting set no. 4 (see page 52).
- In-line fine filter SFI 1/2-12 EAN 4007220809051.

Order No.	EAN 4007220	Exhaust direction	Throttle type	Air consumption [m³/min]	Air supply hose inner dia. [mm]	Connect. set EAN 4007220	Drive spindle thread	Tool mounting [mm]	kg
PW 11/120 HV	447970	front bottom	lever	1,13	12	351130	M14	22,23	1,900
PW 11/120 AVH	447963	front bottom	lever	1,13	12	351130	special	22,23	2,000

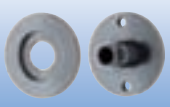
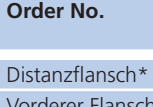

Wheel flange PW 11/120 HV

	Order No.	EAN 4007220
	Spannflansch*	789889
	Spannmutter**	789896

* Spannflansch = Wheel flange

** Spannmutter = Clamping nut

Wheel flange PW 11/120 AVH




	Order No.	EAN 4007220
	Distanzflansch*	625088
	Vorderer Flansch**	625071
	Flanschschraube***	625095

* Distanzflansch = Distance flange



** Vorderer Flansch = Front flange

*** Flanschschraube = Flange screw


Keys for PW 11/120 HV

	Width across flats	Quantity	EAN 4007220
	3/4"	1	186848
	30 mm (Face hole)	1	187432
	4 mm (Allen key)	1	204450

Keys for PW 11/120 AVH

	Width across flats	Quantity	EAN 4007220
	30 mm (Face hole)	1	187432
	5 mm (Allen key)	1	204467
	4 mm (Allen key)	1	204450

Suitable PFERD tools

Catalogue 204	Catalogue 205	Catalogue 206	Catalogue 208
			
Only for type PW 11/120 HV Fibre discs ø up to 125 mm Backing pad for fibre discs available on request	Electroplated bond diamond cut-off wheels ø up to 125 mm	Cut-off and grinding wheels POLIFAN® flap discs Diamond cut-off wheels ø up to 125 mm	Only for PW 11/120 HV Wheel brushes knotted type RBG ø 115 mm bore ø 22,2 mm



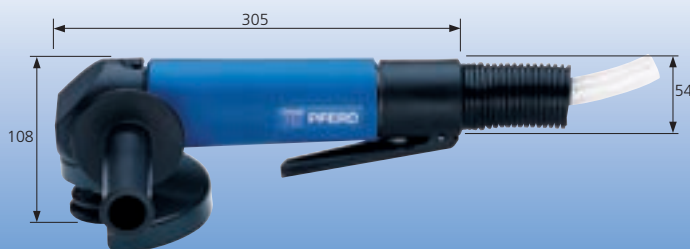
Use only with oil.
6-8 drops per minute.

- Max. tool dia. up to 125 mm.
- Silencer.
- Comes with air supply and exhaust hose.
- Robust constructional design for hard applications.
- Stable torque.
- Bevelled angle head.
- Safety lever throttle (HV) protects against inadvertent start-up.
- With spindle lock pin.

If required, please order separately:

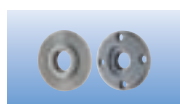
- Complete connecting set no. 4 (see page 52).
- In-line fine filter SFI 1/2-12 EAN 4007220809051.

PW 12/120 HV



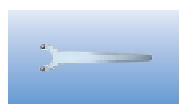
Order No.	EAN 4007220	Exhaust direction	Throttle type	Air consumption [m³/min]	Air supply hose inner dia. [mm]	Connect. set EAN 4007220	Drive spindle thread	Tool mounting [mm]	kg
PW 12/120 HV	177334	rear	lever	1,3	12	351130	M14	22,23	2,500

Wheel flange



Order No.	EAN 4007220
Spannflansch*	214046
Spannmutter**	198865

Keys



Width across flats	Quantity	EAN 4007220
35 mm	1	193853

* Spannflansch = Wheel flange

** Spannmutter = Clamping nut

Suitable PFERD tools

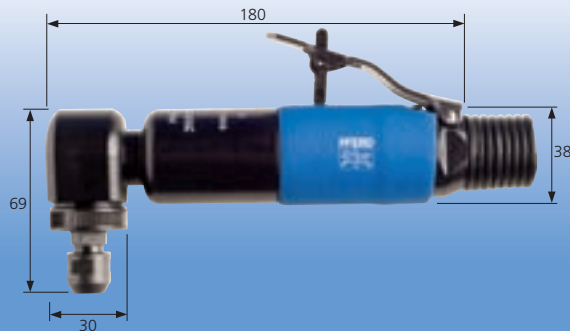
Catalogue 204	Catalogue 205	Catalogue 206	Catalogue 208
 <p>COMBICLICK® fibre discs and fibre discs ø up to 125 mm</p> <p>Backing pad for COMBICLICK® fibre discs and fibre discs ø up to 125 mm CC - GT 115/125 GT 125</p>	 <p>Electroplated bond diamond cut-off wheels ø up to 125 mm</p>	 <p>Cut-off and grinding wheels</p> <p>POLIFAN® flap discs</p> <p>Diamond cut-off wheels ø up to 125 mm</p>	 <p>Wheel brushes knotted type RBG ø 115 mm bore types ø 22,2 mm and M14</p> <p>individual filament type RBU ø 115 mm M14</p> <p>Cup brushes individual filament type TBU ø 60 up to 75 mm M14</p> <p>knotted type TBG ø 65 mm M14</p> <p>Flaring cup brushes individual filament type KBU ø 100 up to 115 mm M14</p> <p>knotted type KBG ø 115 mm M14</p>

Air Grinders

Angle Grinder, Speed: 3.500 RPM / Output: 300 Watts



PWS 4/40 HV




Use only with oil.
2-3 drops per minute.


- Slim angle head for work in confined places.
- Easy to handle, compact shape.
- Angular gear with long service life.
- Comes with air supply and exhaust hose.
- For grinding and finishing work with all COMBIDISC® tools.
- Safety lever throttle (HV) protects against inadvertent start-up.

If required, please order separately:

- Complete connecting set no. 2 (see page 52).
- In-line fine filter SFI 3/8-8 EAN 4007220809020.

Order No.	EAN 4007220	Exhaust direction	Throttle type	Air consumption [m³/min]	Incl. collet dia. [mm]	Connect. set EAN 4007220	Air supply hose inner dia. [mm]	
PWS 4/40 HV	626221	rear	lever	0,57	6	351116	8	0,700

Collets

	Group 5	for shank dia.			
		3 mm	6 mm	1/8 inch	1/4 inch
EAN 4007220		299944	299951	299944	606032

For dimensions see table page 94.

Keys

	Width across flats	Quan- tity	EAN 4007220
	7/16"	1	300480
	9/16"	1	186831

Suitable PFERD tools

Catalogue 204



All Poliflex® fine grinding points and Poliflex® fine grinding wheels
ø up to 80 mm

Poliflex® marbling tool PFZY 5040

Felt points and felt wheels
ø up to 45 mm

COMBIDISC® SBH 75

COMBIDISC® diamond abrasive discs
systems CD and CDR
ø up to 75 mm

COMBIDISC® non-woven discs
ø up to 75 mm

COMBIDISC® felt discs
ø up to 75 mm

COMBIDISC® POLICLEAN® discs
ø up to 75 mm

COMBIDISC® brush
ø 50 mm

Note: Where no shank diameter is indicated, the shank diameter specification is 6 mm.



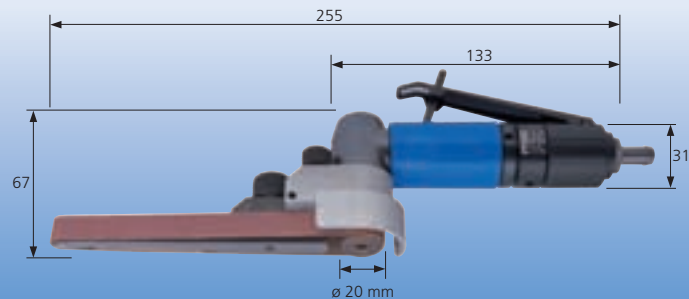
Use only with oil.
1-2 drops per minute.

- Incl. belt grinder attachment arm BSVAK 9/9 x 305
- Long-life angle transmission.
- Easy to handle, compact shape.
- Thin attachment arms allow work in cut outs, recesses and fillet welds, even on particularly small workpieces.
- Light, ergonomically-shaped one-hand belt grinder.
- Safety ring lever throttle (DH) protects against inadvertent start-up.

If required, please order separately:


- Complete connecting set no. 2 (see page 52).
- In-line fine filter SFI 3/8-8 EAN 4007220809020.

PBS 3/200 DH 99

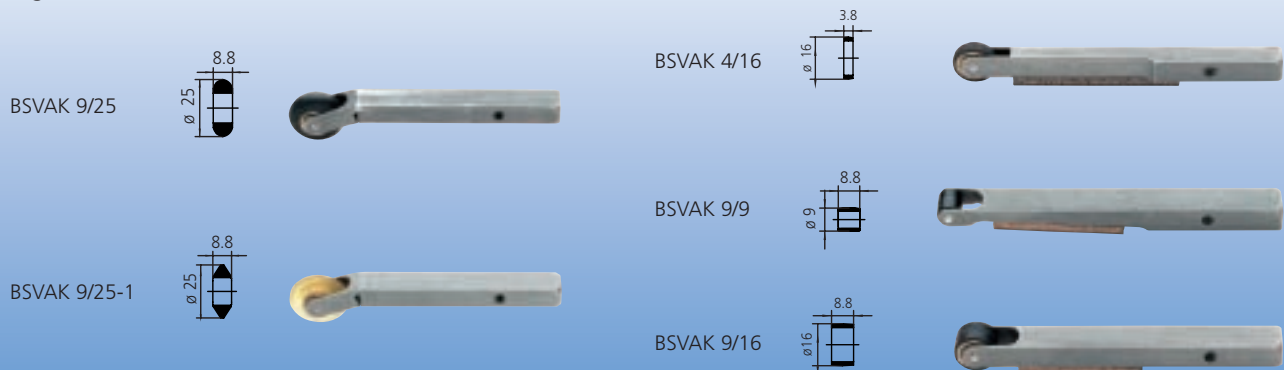


with protective cover



Order No.	EAN 4007220	Exhaust direction	Throttle type	Air consumption [m³/min]	Belt speed [m/s]	Power output [watts]	Air supply hose inner dia. [mm]	Connect. set EAN 4007220	
PBS 3/200 DH 99	801857	front	ring/lever	0,35	21	220	8	351116	0,575


Belt grinder attachment arms



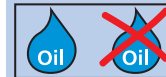
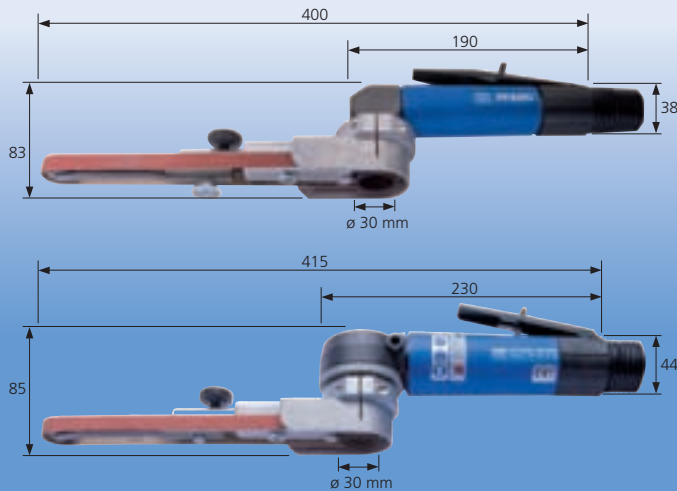
- Robust steel design.
- Use of the full roller width possible.
- Extremely slim fixing lugs on the facing roller.
- Asymmetrical arms for flush grinding.
- Belt arm guide can be fixed.
- BSVAK 9/25-1 with conical guide roller (range 1 mm).
- Belt length 305 mm.

Ordering note:

Please refer to catalogue 204 for detailed information and ordering data regarding abrasive and non-woven belts.

Order No.	EAN 4007220	Width x roll dia. [mm]	Suitable belt width [mm]	Use for	
BSVAK 9/25 x 305	544914	9 x 25	3, 6, 9, 12	Finishing jobs, deburring, matting, fine grinding and seamless blending of inner radii/channels, especially on smaller areas of pipe couplings too	0,083
BSVAK 9/25-1 x 305	544921	9 x 25	3, 6, 9, 12	Finishing jobs in narrow/small inner radii/channels, especially on pipe coupling areas made of stainless steel (INOX) with very small welded seams (tungsten-inert gas welding)	0,082
BSVAK 4/16 x 305	544884	4 x 16	3, 6, 9	Leveling, deburring, matting, fine grinding, cleaning and seamless blending of stainless steel in narrow, small areas	0,052
BSVAK 9/9 x 305	544891	9 x 9	9, 12	Leveling, chamfering, matting, fine grinding, cleaning and seamless blending on small areas	0,075
BSVAK 9/16 x 305	544907	9 x 16	9, 12	Leveling, chamfering, matting, fine grinding, cleaning and seamless blending on small areas	0,088

PBSA 5/130 HV 925, PBSA 5/160 HV 925 PBSA 5/210 HV 925, PBSA 9/120 HV 925



Can be used with or without oil.
3-4 drops per minute.

- Including belt grinder attachment arm BSVA 9/25 x 520.
- Silencer.
- Comes with air supply and exhaust hose.
- Safety lever throttle.
- The belt grinder attachment can be pivoted on the respective drive and therefore allows flexible adaptation to individual working situations.
- Easy, quick belt replacement due to spring clamping.

If required, please order separately:

- Complete connecting set no. 2 or no. 3 (see page 52).
- In-line fine filter SFI 3/8-8
EAN 4007220809020 or
SFI 3/8-9, EAN 4007220809044

Order No.	EAN 4007220	Exhaust direction	Throttle type	Air consumption [m³/min]	Belt speed [m/s]	Power out- put [watts]	Air supply hose inner dia. [mm]	Connect. set EAN 4007220	kg
PBSA 5/130 HV 925	801970	rear	lever	0,3-0,6	20	370	8	351116	1,250
PBSA 5/160 HV 925	801963	rear	lever	0,63	20-25	370	8	351116	1,250
PBSA 5/210 HV 925	801956	rear	lever	0,60	31	370	8	351116	1,250
PBSA 9/120 HV 925	802632	rear	lever	0,90	16	600	9	351123	1,870

Belt grinder attachment arms

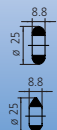
BSAD 41/36 x 610



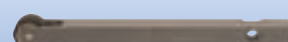
BSVA 4/16



BSVA 9/25



BSVA 9/16



BSVA 9/25-1



BSVA 12/19



BSVA 18/23



- Robust steel design.
- Use of the full roller width possible.
- Extremely slim fixing lugs on the facing roller.
- Asymmetrical arms for flush grinding.
- Belt arm guide can be fixed.
- BSVA 9/25-1 with conical guide roller (range 1 mm).
- Belt length 520 mm or with adapter 610 mm.

Ordering note:

Please refer to catalogue 204 for detailed information and ordering data regarding abrasive and non-woven belts.

Order No.	EAN 4007220	Width x roll dia. [mm]	Suitable belt width [mm]	Use for	kg
BSAD 41/36 x 610	395967	-	-	Adapter to extend the belt length from 520mm to 610 mm	0,080
BSVA 9/25 x 520	323007	9 x 25	3, 6, 9, 12, 16	Finishing jobs, deburring, matting, fine grinding, and seamless blending of inner radii/channels, especially on pipe coupling areas	0,095
BSVA 9/25-1 x 520	494288	9 x 25	3, 6, 9, 12	Finishing jobs in narrow/small inner radii/channels, especially on pipe coupling areas made of stainless steel (INOX) with very small welded seams (tungsten-inert gas welding)	0,095
BSVA 4/16 x 520	322987	4 x 16	6	Leveling, deburring, matting, fine grinding, cleaning and seamless blending of stainless steel in narrow areas	0,060
BSVA 9/16 x 520	322994	9 x 16	12	Leveling, chamfering, matting, fine grinding, cleaning and seamless blending on wide areas	0,096
BSVA 12/19 x 520	323014	12 x 19	12, 16	Leveling, chamfering, matting, fine grinding, cleaning and seamless blending on wide areas	0,107
BSVA 18/23 x 520	349267	18 x 23	20	Leveling, chamfering, matting, fine grinding, cleaning and seamless blending on wide areas on outer radii (convex forms i.e. pipes)	0,150



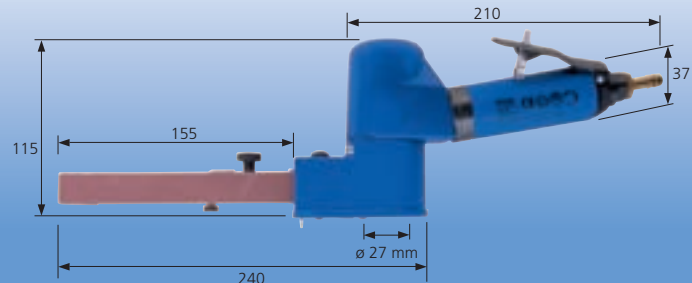
Use only with oil.
3-4 drops per minute.

- Robust, strong belt grinder for heavy applications.
- Quick and easy belt replacement.
- Easy to handle design.
- The belt grinder attachment can be pivoted on the drive and therefore allows flexible adaptation to individual working situations.
- Exact belt guidance through adjustable belt clamping force and lockable belt arms.

If required, please order separately:

- Complete connecting set no. 2 (see page 52).
- In-line fine filter SFI 3/8-8 EAN 4007220809020.

PBS 5/155 HV



Order No.	Incl. belt arm	EAN 4007220	Exhaust direction	Throttle type	Air consumption [m³/min]	Belt speed [m/s]	Power output [watts]	Air supply hose inner dia. [mm]	Connect. set EAN 4007220	kg
PBS 5/155 HV 824	1	792674	side	lever	0,6	21	370	8	351116	1,390
PBS 5/155 HV 1924	2	792681	side	lever	0,6	21	370	8	351116	1,390
PBS 5/155 HV 2324	3	792698	side	lever	0,6	21	370	8	351116	1,390

Belt grinder attachment arms



- Robust steel design.
- Use of the full roller width possible.
- Slim fixing lugs on the facing roller.
- Asymmetrical arms for flush grinding.
- Belt arm guide can be fixed.
- Belt length 480 mm or 610 mm.

Ordering note:

Please refer to catalogue 204 for detailed information and ordering data regarding abrasive and non-woven belts.

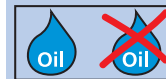
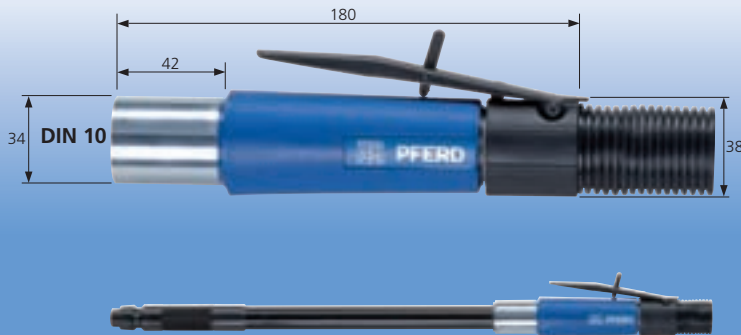
Order No.	Belt arm	EAN 4007220	Abrasive belt length [mm]	Width x roll dia. [mm]	Suitable belt width [mm]	Use for	kg
BSVA 5/155-8/24x480	1	794098	480	8 x 24	6, 10, 12	Finishing jobs, deburring, matting, fine grinding and seamless blending of inner radii/channels, especially in pipe coupling areas	0,070
BSVA 5/155-19/24x480	2	794081	480	19 x 24	16, 20	Leveling, chamfering, matting, fine grinding, cleaning and seamless blending on wide areas	0,086
BSVA 5/155-23/24x480	3	794104	480	23 x 24	25	Leveling, chamfering, matting, fine grinding, cleaning and seamless blending in large areas	0,088
BSVA 5/155-4/16x610	-	808054	610	4 x 16	6	Leveling, deburring, matting, fine grinding, cleaning and seamless blending of stainless steel (INOX) in narrow areas	0,070
BSVA 5/155-9/16x610	-	801871	610	9 x 16	6, 10, 12	Leveling, chamfering, matting, fine grinding, cleaning and seamless blending in wide areas	0,132

Air Grinders

Air Motors for Rigid Extensions, Handpieces



PM 5/230 HV



Can be used with or without oil.
3-4 drops per minute.

- With oil:
23.000 RPM, power output 370 watts
- Without oil:
18.000 RPM, power output 340 watts
- Rear exhaust with silencer.
- Comes with air supply and exhaust hose.
- Safety lever throttle.
- Operation without oil mist lubrication.
- No oil precipitation onto the tool.

If required, please order separately:

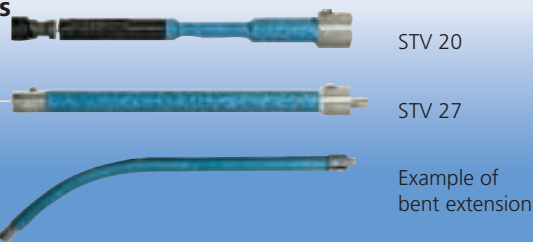
- In-line fine filter SFI 3/8-8
EAN 4007220809020.

Order No.	EAN 4007220	RPM	Power output [watts]	Air consumption [m³/min]	Connection coupling [DIN]	Air supply hose inner dia. [mm]	Suitable extension	
PM 5/230 HV	263235	23.000	370	0,63	10	8	STV 20, STV 27	0,650

Keys

	Width across flats	Quantity	EAN 4007220
	ø 4 mm	2	205020

Rigid extensions for air-power motors



Rigid extensions for air motors

Combined with air motors, the ideal solution for tough applications e.g. during cleaning or milling work on large hard-to-reach workpieces in foundries.

In series production, rigid extensions are frequently used. They are adapted exactly to the workpiece geometries. Other lengths and bend radii are available on request.

Order No.	EAN 4007220	Connection coupling [DIN]	Handpiece coupling [G]	Dia. x length [mm]	Bending radius [mm]	Suitable matching arbors	
STV 20 L 200	272770	10	16/22	20 x 200	150	incl. 4 ZGA STV 20	0,400
STV 20 L 400	179604	10	16/22	20 x 400	150	incl. 4 ZGA STV 20	0,630
STV 20 L 600	179703	10	16/22	20 x 600	150	incl. 4 ZGA STV 20	0,890
STV 27 L 250	282137	10	22	27 x 250	250	7 ZGA, WZ 7 B STV, WZ 7-45° STV	0,550
STV 27 L 500	179499	10	22	27 x 500	250	7 ZGA, WZ 7 B STV, WZ 7-45° STV	0,930

Handpieces



Order No.	EAN 4007220	Handpiece coupling [G]	Max. speed [RPM]	Dia. x length [mm]	Transmission ratio	Collet group	Incl. collet dia. [mm]	
4 ZGA STV 20	247952	16/22	25.000	20 x 110	-	11	6	0,165
7 ZGA	181928	22	25.000	27 x 130	-	11	6	0,320
WZ 7 B STV	334645	22	17.100	55 x 157	1,3 : 1	6	6	0,710
WZ 7-45° STV	334614	22	17.100	57 x 175	1,3 : 1	6	6	0,750



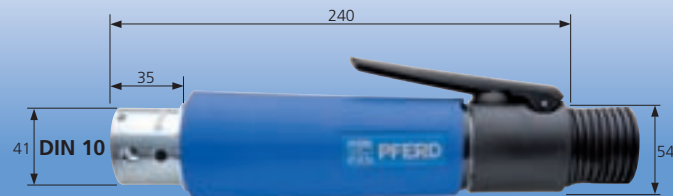
Use only with oil.
6-7 drops per minute.


- Consistent power due to centrifugal governor.
- Rear exhaust with silencer.
- Comes with air supply and exhaust hose.
- Robust, medium-heavy motor.
- Safety lever throttle (HV) protects against inadvertent start-up.

If required, please order separately:


- In-line fine filter SFI 1/2-12
EAN 4007220809051.

PM 12/200 HV
PM 12/120 HV
PM 12/70 HV



Order No.	EAN 4007220	RPM	Power output [watts]	Air consumption [m³/min]	Connection coupling [DIN]	Air supply hose inner dia. [mm]	Suitable extension	
PM 12/200 HV	178058	20.000	1.000	1,3	10	12	STV 33	2,160
PM 12/120 HV	178034	12.000	1.000	1,3	10	12	STV 33	2,160
PM 12/70 HV	358122	7.000	1.000	1,3	10	12	STV 33	2,320

Keys

	Width across flats	Quan- tity	EAN 4007220
	ø 4 mm	2	205020


Rigid extensions for air motors

Combined with air motors, the ideal solution for tough applications e.g. during cleaning or milling work on large hard-to-reach workpieces in foundries.

In series production, rigid extensions are frequently used. They are adapted exactly to the workpiece geometries. Other lengths and bend radii are available on request.

Rigid extensions for air-power motors



Order No.	EAN 4007220	Connection coupling [DIN]	Handpiece coupling [G]	Dia. x length [mm]	Bending radius [mm]	Suitable matching arbors	
STV 33 L 250	179420	10	28	33 x 250	300	10 ZGE, WZ 10 B STV, WZ 10 45° STV, 12 ZGA	1,025
STV 33 L 500	179468	10	28	33 x 500	300	10 ZGE, WZ 10 B STV, WZ 10 45° STV, 12 ZGA	2,100
STV 33 L 1000	179758	10	28	33 x 1000	300	10 ZGE, WZ 10 B STV, WZ 10 45° STV, 12 ZGA	3,250

Handpieces



10 ZGE




12 ZGA



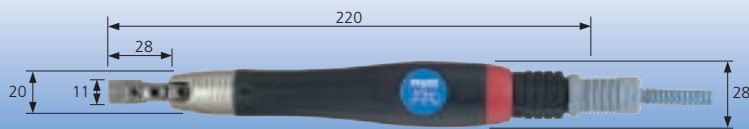
WZ 10 B STV



WZ 10-45° STV

Order No.	EAN 4007220	Handpiece coupling [G]	Max. speed [RPM]	Dia. x length [mm]	Transmis- sion ratio	Collet group	Incl. collet dia. [mm]	
10 ZGE	181966	28	18.000	33 x 170	-	11	6	0,510
12 ZGA	181959	28	18.000	33 x 162	-	12	12	0,510
WZ 10 B STV	334638	28	17.100	55 x 156	1,3 : 1	6	6	0,805
WZ 10-45° STV	334621	28	17.100	57 x 184	1,3 : 1	6	6	0,845

Air-powered filing machine PFG 07/220




Use only without oil.


- Comes with air supply and exhaust hose.
- For machining deep slots.
- Keys are included in delivery.

If required, please order separately:

- Filter and pressure regulator.
- In-line fine filter SFI 1/4-5
EAN 4007220809013.

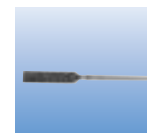
Order No.	EAN 4007220	Throttle type	Exhaust direction	Air consumption [m³/min]	Air supply hose inner dia. [mm]	Frequency [strokes/min] (linear)	Stroke length [mm]	Hose length [mm]	
PFG 07/220	657638	ring	rear	0,046	4	22.000	0,7	1.500	0,180

Keys

	Width across flats	Quan- tity	EAN 4007220
	2,5 mm	1	785980

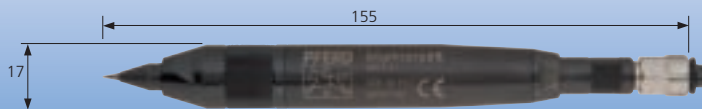


For detailed information and ordering data regarding ceramic fibre files please refer to catalogue 204.



For detailed information and ordering data regarding diamond files for handheld filing machines please refer to cat. 205.

Marking pen MST 31




**Use only with a little oil.
1 drop every 5 minutes.**

- This air-power marking pen is patented and works with approximately 3 times the frequency in comparison to other air-power operated marking pens.
- Incl. tungsten carbide engraving needle.
- Low vibration in hand operation.
- Used to make markings and labels on metal, glass, plastics and also on hardened tool steel (needle gauge fine).
- Keys and air supply hose are included in delivery.

If required, please order separately:


- Complete connecting set no. 1 (see page 52).
- In-line fine filter SFI 1/4-5
EAN 4007220809013.

Order No.	EAN 4007220	Needle gauge	Throttle type	Exhaust direction	Air consump- tion [m³/min]	Air supply hose inner dia. [mm]	Frequency [strokes/min]	Hose length [mm]	Opera- tion pressure [bar]	
MST 31 F	450314	fine	ring	front	0,030	4	30.000 - 36.000	2.000	6 - 7	0,150
MST 31 M	450079	medium	ring	front	0,030	4	30.000 - 36.000	2.000	6 - 7	0,150
MST 31 G	450307	coarse	ring	front	0,030	4	30.000 - 36.000	2.000	6 - 7	0,150

TC engraving needles for marking pens



Replacement tungsten carbide engraving needles please order separately.

Order No.	EAN 4007220	Needle gauge	
HM-GN MST 31 F	455722	fine	0,003
HM-GN MST 31 M	455753	medium	0,003
HM-GN MST 31 G	455760	coarse	0,003

How to choose the correct connection fittings for your air-power machine

In general, PFERD air grinders with "rear exhaust" are supplied with air supply and exhaust hose. Air grinders with "front exhaust" are generally supplied with fixed screw-on nozzles, matching the required inner dia. compressed air hose.

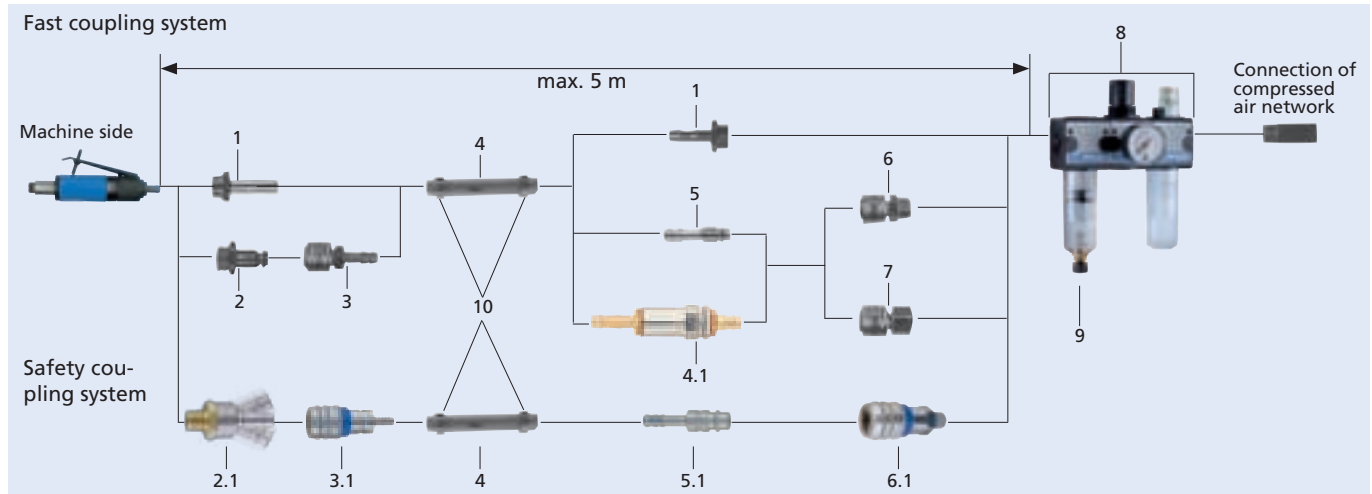
Many accessory parts fit to several machines, they have been sorted into the groups 1-5. Please refer to the tables for the order number of the matching accessory parts.

Connection sets

The complete connection set nos. 1-4 for the individual air grinders are allocated in the table below. Please refer to the table on page 52 to find out the connection set contents.

Catalogue page	Tool drive	Application		Air consumption [m³/min]	Exhaust air		Inside hose dia. [mm]	Comes with air supply and exhaust hose	Coupling set	Machine group page 52
		with oil	without oil		front	rear				
7	PGT 1/1000		•	0,17	•		5	Air supply hose	1	1
8	PG 1/800	•		0,17	•		5	-	1	1
8	PGAS 1/800	•		0,18		•	5	Air supply and exhaust hose	1	1
9	PGAS 1/750	•		0,2		•	5	Air supply and exhaust hose	1	1
10	PGT 3/700	•	•	0,25 - 0,8		•	8	Air supply and exhaust hose	2	5
11	PGAS 1/600	•		0,2		•	5	Air supply and exhaust hose	1	1
12	PG 3/500 S	•		0,45	•		8	-	2	5
13	PG 3/440 DH	•		0,35		•	8	Air supply and exhaust hose	2	5
13	PGZ 3/440 SU	•		0,35		•	8	Air supply and exhaust hose	2	5
13	PGZ 3/440	•		0,35		•	8	Air supply and exhaust hose	2	5
14	PG 3/380 DH	•		0,35	•		8	-	2	5
15	PG 5/280 HV	•		0,6		•	8	Air supply and exhaust hose	2	5
16	PG 3/250 S	•		0,21 - 0,49	•		8	-	2	5
17	PGAS 8/250 E-HV	•		0,85		•	9	Air supply and exhaust hose	2	2
18	PG 5/230 HV	•	•	0,63		•	8	Air supply and exhaust hose	2	5
18	PG 5/230 V-HV	•	•	0,63		•	8	Air supply and exhaust hose	2	5
19	PG 8/220 HV	•		0,85	•		9	-	3	2
19	PGAS 8/220 HV	•		0,85		•	9	-	3	2
19	PG 8/220 V-HV	•		0,85	•		9	-	3	2
19	PGAS 8/220 V-HV	•		0,85		•	9	-	3	2
20	PG 3/210 DH	•		0,48	•		8	-	2	5
21	PG 10/200 V-HV	•		1,2		•	9	Air supply and exhaust hose	3	2
22	PG 5/180 HV	•		0,3 - 0,6		•	8	Air supply and exhaust hose	2	5
22	PG 5/180 V-HV	•		0,3 - 0,6		•	8	Air supply and exhaust hose	2	5
23	PG 9/180 V-HV	•	•	0,9		•	9	Air supply and exhaust hose	3	2
24	PG 8/160 HV	•		0,85	•		9	-	3	2
24	PGAS 8/160 V-HV	•		0,85		•	9	Air supply and exhaust hose	3	2
25	PG 10/160 V-HV	•		1,2		•	9	Air supply and exhaust hose	3	2
26	PG 9/120 V-HV	•	•	0,3 - 0,6		•	9	Air supply and exhaust hose	3	2
27	PG 12/120 V-HV	•		1,3		•	12	Air supply and exhaust hose	4	4
28	PG 8/100 HV	•		0,17 - 0,85	•		9	-	3	2
28	PGAS 8/100 HV	•		0,17 - 0,85		•	9	Air supply and exhaust hose	3	2
28	PG 8/100 V-HV	•		0,17 - 0,85	•		9	-	3	2
28	PGAS 8/100 V-HV	•		0,17 - 0,85		•	9	Air supply and exhaust hose	3	2
29	PG 12/70 V-HV	•		1,3		•	12	Air supply and exhaust hose	4	4
30	PG 8/50 V-HV	•		0,42 - 0,71	•		9	-	3	2
31	PG 10/40 V-HV	•		1,2		•	9	Air supply and exhaust hose	3	2
32	PWS 1/800	•		0,18		•	5	-	1	1
33	PWSA 1/250	•		0,27		•	5	Air supply and exhaust hose	1	3
34	PWS 5/210 HV	•		0,6		•	8	Air supply and exhaust hose	2	5
35	PWS 3/200 DH	•		0,35	•		8	-	2	5
36	PWSA 4/200 HV	•		0,57		•	9	Air supply and exhaust hose	3	5
37	PWS 5/170-45 HV	•	•	0,63		•	8	Air supply and exhaust hose	2	5
38	PWS 5/160 HV	•		0,63		•	8	Air supply and exhaust hose	2	5
39	PWS 5/130 HV	•	•	0,3 - 0,6		•	8	Air supply and exhaust hose	2	5
40	PW 3/120 DH	•		0,35	•		8	-	2	5
41	PW 9/120 HV	•	•	0,9		•	9	Air supply and exhaust hose	3	2
42	PW 11/120 HV, PW 11/120 AVH	•		1,13	•		12	-	4	4
43	PW 12/120 HV	•		1,3		•	12	Air supply and exhaust hose	4	4
44	PWS 4/40 HV	•		0,57		•	9	Air supply and exhaust hose	3	5
46	PBSA 5/210 HV 925	•		0,6		•	9	Air supply and exhaust hose	2	5
45	PBS 3/200 DH 99	•		0,35	•		8	-	2	5
46	PBSA 5/160 HV 925	•	•	0,63		•	8	Air supply and exhaust hose	2	5
47	PBS 5/155 HV 924	•		0,6	•		8	-	2	5
47	PBS 5/155 HV 1924	•		0,6	•		8	-	2	5
47	PBS 5/155 HV 2424	•		0,6	•		8	-	2	5
46	PBSA 5/130 HV 925	•		0,3 - 0,6		•	8	Air supply and exhaust hose	2	5
46	PBSA 9/120 HV	•		1,3		•	12	Air supply and exhaust hose	4	4
50	MST 31	•		0,025 - 0,03	•		4	Air supply hose	1	3
50	PFG 07/220		•	0,046		•	4	Air supply hose	1	1
48	Air motor PM 5/230 HV		•	0,63		•	8	Air supply and exhaust hose	2	5
49	Air motor PM 12/200 HV	•		1,3 - 1,6		•	12	Air supply and exhaust hose	4	4
49	Air motor PM 12/120 HV	•		0,6 - 1,3		•	12	Air supply and exhaust hose	4	4
49	Air motor PM 12/70 HV	•		0,6 - 1,3		•	12	Air supply and exhaust hose	4	4

The **fittings** required to connect your air-powered machine are shown in the table below.



Machine group					Fast coupling system Order no. and dimensions		EAN 4007220	Connecting set no.				Safety coupling system Order no.		EAN 4007220
1	2	3	4	5				1	2	3	4			
●				●	Pos. 1 Hose nozzle (is supplied with the machine)									
	●				TG 6 1/8 ø 6 / R 1/8"		178362							
		●			TG 8 1/4 ø 8 / R 1/4"		178379							
			●		TG 9 1/4 ø 9 / R 1/4"		178409							
●				●	Pos. 2: Threaded quick coupling							Pos. 2		
	●				STG 1/8 R 1/8" male		178300					STG 1/4 ST		801888
		●			STG 1/4 R 1/4" male		178324					Pos. 2.1		
			●									DSTG 1/4 ST (Ball joint)		801895
●				●	Pos. 3: Quick-coupling (self-closing) with nipple							Pos. 3.1		
				●	VKT 6 ø 6		178195					SVKT 6		801925
				●	VKT 8 ø 8		178201					SVKT 8		801932
				●	VKT 9 ø 9		178218					SVKT 9		801949
●				●	Pos. 4: Air hoses									
●					PLS 5 ø 5 / sold by metre		178461							
●					PLS 6 ø 6 / sold by metre		178478	3m						
			●		PLS 8 ø 8 / sold by metre		178485		3m					
				●	PLS 9 ø 9 / sold by metre		178492			3m				
				●	PLS 12 ø 12 / sold by metre		178508				3m			
					Air hose for particularly-heavy duty service: please enquire.									
●		●			Pos. 4.1 In-line fine filter (pore size: 5 µm)									
				●	SFI 1/4 - 5 for PLS 5		809013							
				●	SFI 3/8 - 8 for PLS 8		809020							
				●	SFI 3/8 - 9 for PLS 9		809044							
				●	SFI 1/2 - 12 for PLS 12		809051							
				●	Pos. 5: Nipples for quick coupling							Pos. 5.1		
				●	T 4 for MST 31		179208							
				●	T 5 PWS 1/250		179390							
●					T 6 ø 6		178331	1*				T6 ST		801796
				●	T 8 ø 8		178522		1*			T8 ST		801840
				●	T 9 ø 9		178386			1*		T9 ST		801819
				●	T 12 NW 12 ø 12		178423				1*			
●	●	●			Pos. 6: Quick-couplings (self-closing) with male thread							Pos. 6.1		
●	●	●		●	VKA 1/4 R 1/4" male		178232	1*				SVKA 1/4		801901
●	●	●		●	VKA 1/2 R 1/2" male		178256		1*	1*		SVKA 1/2		801918
			●		VKA 1/2 NW 12 R 1/2" male also for ONG A 1/2		178249				1*			
●	●	●		●	Pos. 7: Quick-couplings (self-closing) with female thread									
●	●	●		●	VKI 1/4 R 1/4" female		178270							
●	●	●		●	VKI 1/2 R 1/2" female		178287							
●				●	Pos. 8: Complete maintenance units									
				●	ONG-A 1/4 R 1/4" female		801741	1*						
				●	ONG-A 1/2 R 1/2" female		801765		1*	1*	1*			
●	●			●	Special lubricating oil, 1 litre see page 97		179338	1*	1*	1*	1*			
●	●			●	Special lubricating oil, 5 litres see page 97		179321							
●				●	Pos. 9: Lubricators, loose									
				●	OE-A 1/4 R 1/4" female		801772							
				●	OE-A 1/2 R 1/2" female		801789							
●					Pos. 10: Hose clamps									
●				●	K 9 for PLS 5		178539							
●				●	K 13 for PLS 6 + 8		178546	2*	2*					
				●	K 16 for PLS 9		178553			2*				
				●	K 20 for PLS 12		204801				2*			

● = Matching accessories, ø = The information refers to the inside dia. of the air hose in [mm]

* units per set



Electric tool drives are universal “all-rounders”. In relation to their size and weight they offer a high performance. They are particularly suitable for use with grinding tools that require a constant RPM.

Application

Electric grinders can be used for nearly every application. They are successfully used in many industries for different processes. The stepless electronic speed adjustment allows the use of various types of tools on one single machine.

Electric grinders are not suitable

- for boiler construction
- or in very dusty conditions.

The PFERD product range

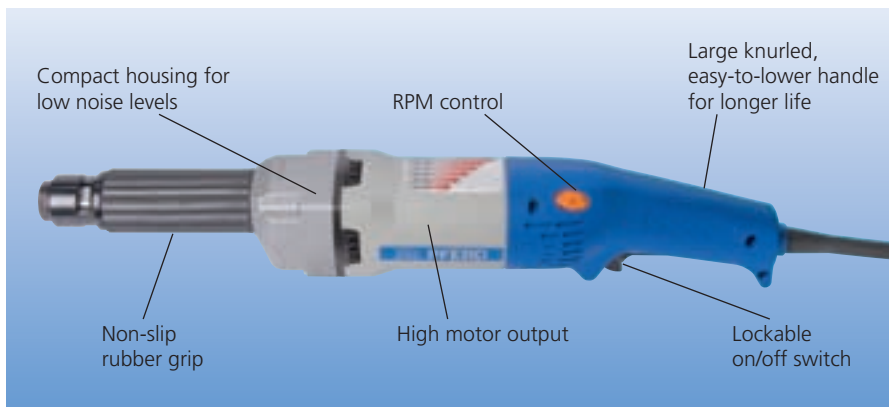
PFERD provides a wide range of electric straight, angle, belt and drum grinders. PFERD electric grinders are of the highest technological standard and accord with the latest ergonomic knowledge and requirements. They were specially developed for economic use of grinding, milling, brushing, cut-off and polishing tools, and cover a broad range of speeds (750 - 33.000 RPM) and power outputs (500 - 1.500 watts). PFERD electric grinders have an electronic speed control for constant RPM values.

Equipment/Special features

- **Smooth start up:**
The electronically-regulated Smooth start up ensures a jolt-free start-up preventing machine wear.
- **Under voltage protection/restart protection:**
Should the power supply fail, PFERD electric grinders do not start up again inadvertently. Only after they have been switched off and on again will the machine restart.
- **Current limiting/blocking protection:**
On double nominal current input, the grinders switch off for approx. 0,2 seconds. By removing the load, the grinder is able to take up the initial RPM again.
- **Temperature overload protection:**
When a critical temperature is reached, the safety electronic system switches into cooling mode. The machine must not be placed under loads when in cooling mode. The machine will only start at the set working RPM after it has been switched on and off.

Advantages

- Compact, ergonomic design and shape.
- Low weight.
- Technologically up to date.
- High power output.
- Versatile use.
- Simple power supply.
- Low-maintenance.
- Easy to service.
- Cost effective.



Standards, safety, general information

PFERD electric machines bear

- the CE symbol,
- are totally insulated and comply with protective class II.



PFERD electric machines comply with

- the EC Machinery Directive,
- EC Low-Voltage Directive and
- Electromagnetic Compatibility.

National regulations must be observed.

Criteria for selecting the optimal electric grinder

The most important prerequisite for cost effective work is the selection of an optimal tool. Then a suitable drive can be chosen. Please take the following into consideration:



1. Design, shape and size

Every type of application places specific demands on the shape and size of the tool drive. The different designs can be used for various applications: The ideal drive should be selected for the task in hand depending on the dimensions, accessibility, type and frequency of the application.

2. RPM

The tool drive should always be selected according to the RPM and cutting speed recommendations for the tool.

Please refer to catalogues 202 - 208 for these recommendations.


3. Power output

The tool drive's power output is the deciding factor for maintaining the RPM under load. The load is determined from the material to be machined, cutting capability of the tool and the grinding pressure.

4. Tool adapter


Depending on the PFERD tool you have selected, different tool adapters are available e.g. collets or threaded spindles. Every machine is allocated with matching tool mounts. Please refer to pages 94-95 for an overview of the collets and spindle extensions.

Special Features


- Particularly suitable for milling and grinding work with tungsten carbide burrs and mounted points.
- Totally insulated. 
- High power output straight grinder with stepless speed adjustment.
- Smooth start up for the protection of people, tools and machine.
- Digital electronic speed control.
- Electronic overload switch-off, restart protection on power failure.
- Robust, comfortable ergonomic design.
- Optimum machine guidance due to long spindle housing.

UGER 11/330 SI




Order No.	EAN 4007220	RPM	Voltage 50-60 Hz	Power input [watts]	Power output [watts]	Incl. collet dia. [mm]	
UGER 11/330 SI	777367	15.000 - 33.000	230	1.050	650	6	2,250

Collets







	Group 8	for shank dia.				
		6 mm	8 mm	10 mm	1/4 inch	3/8 inch
	EAN 4007220	213674	213704	213711	213681	213728

For dimensions see table page 94.

Keys

	Width across flats	Quan- tity	EAN 4007220
	14 mm	1	206836
	18 mm	1	206843

Suitable PFERD tools

Catalogue 202	Catalogue 203*	Catalogue 204*	Catalogue 205	Catalogue 206	Catalogue 208
					
TC burrs cut 3, 3 PLUS, 4, 5, ALU PLUS head ø 4 up to 16 mm cut 1, ALU, FVK head ø 6 up to 16 mm HSS rotary cutters cut ALU, 1, 2, 3, 5 head ø up to 3,2 mm Please observe the different cutting speed recommendations in catalogue 202.	Mounted points head ø 10 up to 50 mm width up to 70 mm	Poliflex® fine grinding points head ø 8 up to 40 mm Abrasive spiral bands head ø 4 up to 38 mm POLICAP® head ø 7 up to 13 mm POLIROLL®/ POLICO® head ø 6 up to 12 mm Fan grinders head ø 15 up to 25 mm POLISTAR ø up to 20 mm Felt points head ø 6 up to 12 mm	Electroplated bond diamond cut-off wheels ø 22 up to 40 mm without protective cover Diamond grinding points head ø 9 up to 25 mm CBN grinding points head ø 12 up to 20 mm	Cut-off wheels EHT ø 50 up to 55 mm without protective cover Ring wheels ER ø 50 up to 55 mm without protective cover matching arbor BO 6/6 0-4 or BO 6/10 0-4 or BO 8/10 0-4 Only set the max. permissible speed per tool dia.	Pencil brushes individual filament type PBU ø 10 up to 12 mm knotted type PBG ø 19 mm Wheel brushes individual filament type RBU ø 20 up to 30 mm knotted type RBG ø 70 mm

Note: Where no shank diameter is indicated, the shank diameter specification is 6 mm.

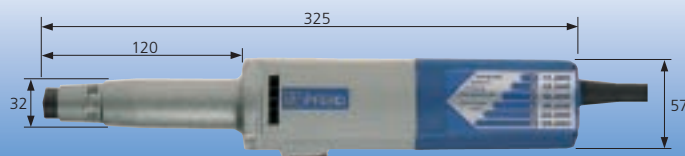
***Catalogues 203/204:** The information given here refers to an open shank length of 10 mm and the max. specified mounted point dimensions.

Electric Grinders and Accessories

Electric Straight Grinder, Speed: 25.000 RPM / Output: 500 Watts



UGER 5/250 SI



Special Features

- Totally insulated.
- Stepless RPM adjustment.
- Easy-operation due to side switch.
- High power output, extremely easy to handle machine.
- Digital electronic ensures a consistent RPM, even under load.
- Smooth start up for the protection of people, tools and machine.
- Electronic switch-off on extreme overload, restart protection on power failure.
- Robust, easy to service construction.

Order No.	EAN 4007220	RPM	Voltage 50-60 Hz	Power input [watts]	Power output [watts]	Incl. collet dia. [mm]	kg
UGER 5/250 SI	265581	11.000 - 25.000	230	500	300	6	1,350

Collets

	Group 11	for shank dia.				
		3 mm	6 mm	8 mm	1/8 inch	1/4 inch
EAN 4007220		196236	196281	196304	196335	196328

For dimensions see table page 94.

Keys

	Width across flats	Quan- tity	EAN 4007220
	14 mm	1	206836
	18 mm	1	206843


Suitable PFERD tools

Catalogue 202	Catalogue 203*	Catalogue 204*	Catalogue 205	Catalogue 206	Catalogue 208
TC burrs cut 3, 3 PLUS, 4, 5, ALU PLUS head ø 6 up to 20 mm cut 1, ALU, FVK head ø 6 up to 16 mm HSS rotary cutters cut ALU, 1, 2, 3, 5 head ø up to 4 mm Please observe the different cutting speed recommendations in catalogue 202.	Mounted points head ø up to 50 mm width up to 70 mm	Abrasive spiral bands head ø up to 50 mm POLICAP® head ø up to 16 mm POLIROLL® head ø up to 15 mm Fan grinders head ø up to 30 mm POLISTAR ø up to 20 mm Poliflex® head ø 8 up to 15 mm POLINOX® cross buffs head ø up to 38 mm Felt points head ø up to 15 mm	Electroplated bond diamond cut-off wheels ø up to 50 mm without protective cover matching arbor BO 6/6 0-4 Diamond grinding points head ø 6 up to 25 mm CBN grinding points head ø from 12 mm	Cut-off wheels ø 50 up to 55 mm without protective cover matching arbor BO 6/6 0-4 Ring wheels ER ø 50 up to 55 mm without protective cover matching arbor BO 6/6 3-10 Only set the max. permissible speed per tool dia.	Wheel brushes individual filament type RBU ø 20 up to 30 mm knotted type RBG ø 70 mm

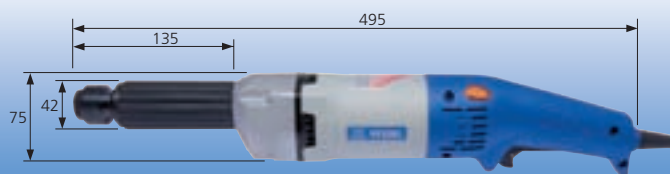
Note: Where no shank diameter is indicated, the shank diameter specification is 6 mm.


***Catalogues 203/204:** The information given here refers to an open shank length of 10 mm and the max. specified mounted point dimensions.

Special Features


- Ideal for heavy milling and grinding work.
- Totally insulated. 
- High power output straight grinder with stepless RPM adjustment.
- Smooth start up for the protection of people, tools and machine.
- Digital electronic for constant RPM.
- Electronic switch-off on overload, restart protection on power failure.
- High torque ensures excellent speed stability.

UGER 15/150 SI




Order No.	EAN 4007220	RPM	Voltage 50-60 Hz	Power input [watts]	Power output [watts]	Incl. collet dia. [mm]	
UGER 15/150 SI	801864	6.800 - 15.000	230	1.530	1.050	6	3,050

Collets

	Group 12	for shank dia.				
		6 mm	8 mm	10 mm	12 mm	1/4 inch
EAN 4007220		195994	196014	196038	196045	196052

For dimensions see table page 94.

Keys

	Width across flats	Quantity	EAN 4007220
	22 mm	2	206850

Suitable PFERD tools

Catalogue 202	Catalogue 203*	Catalogue 204*	Catalogue 205	Catalogue 206	Catalogue 208
					
TC burrs cut 3, 3 PLUS, 4, 5, ALU PLUS head ø 12 up to 20 mm HSS rotary cutters cut ALU, 1, 2, 3, 5 head ø 5 up to 7 mm Please observe the different cutting speed recommendations in catalogue 202.	Mounted points head ø 50 mm width up to 70 mm	Abrasive spiral bands head ø 30 up to 75 mm Fan grinders head ø 25 up to 50 mm POLINOX®-mounted points head ø up to 40 mm POLICLEAN® tools ø up to 50 mm POLIROLL® head ø up to 18 mm	Diamond grinding points head ø from 10 mm CBN grinding points head ø from 20 mm	Cut-off wheels EHT ø 50 up to 55 mm without guard matching arbor BO 6/6 0-4 or BO 6/10 0-4 or BO 8/10 0-4 Ring wheels ER ø 50 up to 55 mm without guard matching arbor BO 6/6 3-10 or BO 8/10 6-20 Only set the max. permissible speed per tool dia.	Pencil brushes individual filament type PBU ø 10 up to 30 mm knotted type PBG ø 19 up to 25 mm Wheel brushes individual filament type RBU ø 20 up to 70 mm knotted type RBG ø 70 up to 100 mm encapsulated RBV ø 63 mm

Note: Where no shank diameter is indicated, the shank diameter specification is 6 mm.

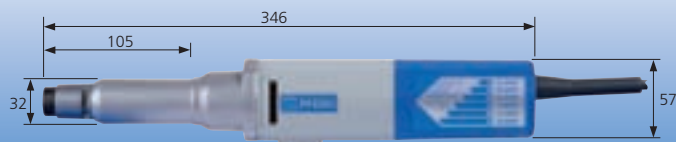
***Catalogues 203/204:** The information given here refers to an open shank length of 10 mm and the max. specified mounted point dimensions.

Electric Grinders and Accessories

Electric Straight Grinder, Speed: 9.000 RPM / Output: 500 Watts



UGER 5/90 SI



Special Features

- Totally insulated.
- Stepless RPM adjustment.
- Easy-operation due to side switch.
- High power output, extremely easy to handle machine.
- Digital electronic ensures a constant RPM even under load.
- Smooth start up for the protection of people, tools and machine.
- Electronic switch-off on extreme overload, restart protection on power failure.
- Robust, easy to service construction.
- Especially suitable for POLINOX®/POLIVLIES® tools.

Order No.	EAN 4007220	RPM	Voltage 50-60 Hz	Power input [watts]	Power output [watts]	Incl. collet dia. [mm]	kg
UGER 5/90 SI	267332	4.000 - 9.000	230	500	300	6	1,440

Collets

	Group 11	for shank dia.				
		3 mm	6 mm	8 mm	1/8 inch	1/4 inch
EAN 4007220		196236	196281	196304	196335	196328

For dimensions see table page 94.

Keys

	Width across flats	Quan- tity	EAN 4007220
	14 mm	1	206836
	18 mm	1	206843

POLINOX® set



POLINOX® set PNL/Z/R 6050 UGER 5/90 230 V

Contents:

1 electric straight grinder UGER 5/90 SI with electronic RPM adjustment (range 4.000 - 9.000 RPM), power 500 watts.

2 fan grinders and 10 POLINOX® mounted points in various designs and grit sizes.

Please refer to catalogue 204 for detailed information and ordering data regarding the POLINOX® set.


Suitable PFERD tools

Catalogue 202	Catalogue 203*	Catalogue 204*	Catalogue 205	
				
<p>TC burrs cut 3, 3 PLUS, 4, 5, ALU PLUS head ø 16 up to 20 mm</p> <p>HSS rotary cutters cut ALU, 1, 2, 3, 5 head ø 7 up to 10 mm</p> <p>Please observe the different cutting speed recommendations in catalogue 202.</p>	<p>Mounted points head ø 50 mm width up to 70 mm</p>	<p>Poliflex® fine grinding points bond PUR head ø up to 32 mm</p> <p>POLIROLL® cartridge rolls head ø 18 mm</p> <p>POLISTAR ø 30 up to 50 mm</p> <p>POLINOX® mounted points head ø up to 80 mm</p> <p>Overlap slotted discs ø 30 up to 50 mm</p>	<p>POLINOX® cross buffs head ø up to 38 mm</p> <p>POLICLEAN® mounted points head ø up to 75 mm</p> <p>Felt points head ø 15 up to 25 mm</p> <p>Felt wheels ø up to 45 mm</p> <p>Fan grinders head ø 40 up to 80 mm</p>	<p>Electroplated bond diamond cut-off wheels ø 50 up to 55 mm without guard</p> <p>matching arbor BO 6/6 0-4</p>

Note: Where no shank diameter is indicated, the shank diameter specification is 6 mm.


***Catalogues 203/204:** The information given here refers to an open shank length of 10 mm and the max. specified mounted point dimensions.

Special Features


- For heavy milling and grinding work.
- Totally insulated. 
- Stepless RPM adjustment.
- Digital electronic for a constant RPM.
- High torque.
- Electronic switch-off on overload, restart protection on power failure.
- Smooth start up for the protection of people, tools and machine.

UGER 15/60 SI




Order No.	EAN 4007220	RPM	Voltage 50-60 Hz	Power input [watts]	Power output [watts]	Incl. collet dia. [mm]	
UGER 15/60 SI	777251	2.800 - 5.900	230	1.530	1.050	12	3,050

Collets

	Group 12	for shank dia.				
		6 mm	8 mm	10 mm	12 mm	1/4 inch
EAN 4007220		195994	196014	196038	196045	196052

For dimensions see table page 94.

Keys

	Width across flats	Quan- tity	EAN 4007220
	22 mm	2	206850

Flap wheel set

FR 15030 UGER 15/60 230 V

Contents:


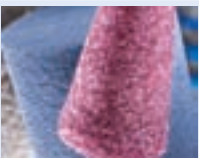

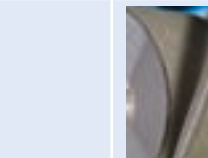


1 electric straight grinder UGER 15/60 SI,
230 V
with collet dia. 12 mm,
power 1.000 watts.
1 collet each dia. 6 and 8 mm.
Various fine grinding tools
dia. 150 mm and width 30 mm.

Please refer to catalogue 204 for detailed
information and ordering data regarding the
flap wheel set.

Flap wheel set



Suitable PFERD tools

Catalogue 202	Catalogue 203*	Catalogue 204*		Catalogue 205	Catalogue 208
					
HSS rotary cutters cut ALU, 1, 2, 3, 5 head ø 10 up to 16 mm Please observe the different cutting speed recommenda- tions in catalogue 202.	Mounted points Head ø 50 mm Width up to 40 mm	Abrasive spiral bands head ø 75 up to 100 mm Fan grinders head ø 60 up to 80 mm Flap wheels ø 100 ø 150 up to 200 mm width 30 mm Poliflex® PU-STRUC head ø 20 up to 75 mm	POLINOX® mounted points head ø 50 up to 100 mm POLINOX® ring wheels PNR ø 75 up to 100 mm POLICLEAN® mounted points head ø up to 100 mm POLICLEAN® wheels ø up to 100 mm	Electroplated bond diamond cut-off wheels ø 40 up to 55 mm without guard	Wheel brushes individual filament type RBU ø 80 up to 100 mm RBU ø 100 up to 125 mm bore ø 14 mm RBU ø 150 mm bore ø 22,2 mm RBU ø 100 mm bore ø 12 mm RBU ø 150 mm AK 32-2 matching arbor BO 8/12-22,2 5-18

Note: Where no shank diameter is indicated,
the shank diameter specification is 6 mm.

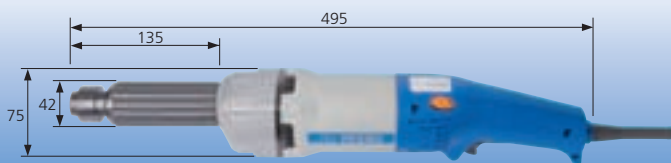
***Catalogues 203/204:** The information given here refers to an open shank length of 10 mm and
the max. specified mounted point dimensions.

Electric Grinders and Accessories

Electric Straight Grinder, Speed: 3.000 RPM / Output: 1.530 Watts



UGER 15/30 SI



Special Features

- Totally insulated.
- Stepless RPM adjustment.
- Digital electronic for a constant RPM.
- Electronic switch-off on overload, restart protection on power failure.
- High torque ensures excellent speed stability.
- Ideal for finishing work on surfaces with larger grinding tools.
- Smooth start up for the protection of people, tools and machine.

Order No.	EAN 4007220	RPM	Voltage 50-60 Hz	Power input [watts]	Power output [watts]	Incl. collet dia. [mm]	kg
UGER 15/30 SI	775912	750 - 3.000	230	1.530	1.050	12	3,050

Collets

	Group 12	for shank dia.				
		6 mm	8 mm	10 mm	12 mm	1/4 inch
EAN 4007220		195994	196014	196038	196045	196052

For dimensions see table page 94.

Keys

	Width across flats	Quan- tity	EAN 4007220
	22 mm	2	206850

POLIFLAP® set



POLIFLAP® set PFL 17060 UGER 15/30 230 V

Contents:

1 electric straight grinder UGER 15/30 SI with electronic RPM adjustment and collet dia. 12 mm, range 750 - 3.000 RPM, power 1.530 watts.
1 collet each dia. 6 and 8 mm, POLIFLAP® grinding wheel and various fine grinding tools with dia. 100 mm.

Please refer to catalogue 204 for detailed information and ordering data regarding POLIFLAP® set.

Suitable PFERD tools

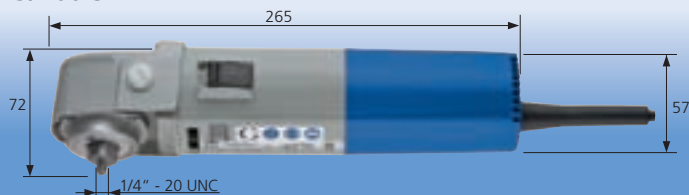
Catalogue 202	Catalogue 204	Catalogue 205	Catalogue 208
HSS rotary cutters cut ALU, 1, 2, 3, 5 head ø 16 mm Please observe the different cutting speed recommendations in catalogue 202.	Flap wheels ø 150 up to 165 mm POLINOX® mounted points head ø 100 mm POLINOX® ring wheels ø 150 mm	POLICLEAN® discs ø 100 up to 150 mm Cloth rings ø 125 up to 150 mm POLIFLAP® ø 170 mm	Electroplated bond diamond cut-off wheels ø 50 up to 55 mm without guard Cup brushes individual filament type TBU ø 60 mm Wheel brushes individual filament type RBU ø 100 mm RBU ø 150 mm bore ø 22,2 mm RBU ø 150 mm bore ø 12 mm matching arbor BO 8/12-22,2 5-18

Note: Where no shank diameter is indicated, the shank diameter specification is 6 mm.

Special Features

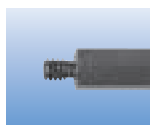
- Tool mount 1/4" - 20 UNC thread, max. tool dia. up to 55 mm.
- Totally insulated.
- Stepless RPM adjustment.
- Especially for COMBIDISC® tools (with backing pad without threaded shank).
- Digital electronic for constant RPM.
- High torque, easy handling.

UWER 5/200 SI



Order No.	EAN 4007220	RPM	Voltage 50-60 Hz	Power input [watts]	Power output [watts]	Drive spindle thread	
UWER 5/200 SI	598436	9.000 - 20.000	230	500	300	1/4" - 20 UNC	1,350

Spindle extension (20 mm)



Order No.	EAN 4007220
SPV 20 CD 1/4-20 UNC	333167

Suitable PFERD tools

Catalogue 204

COMBIDISC® holder and
COMBIDISC® tools
ø 20 to 55 mm

COMBIDISC® set

CD 50 UWER 5/200 230V

Electric angle grinder with electronic RPM control.

This easy-to-use "genuine" one-hand angle grinder covers the entire range of operating speeds required for 50 mm dia. COMBIDISC® tools.

For detailed information and ordering data regarding the COMBIDISC® set please refer to catalogue 204.

COMBIDISC® set

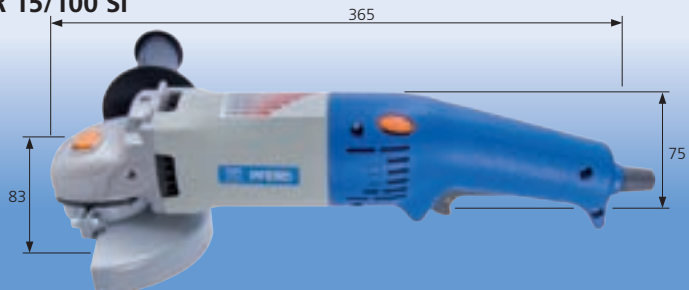


Electric Angle Grinder, Speed: 10.000 RPM / Output: 1.530 Watts

Special Features

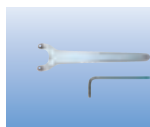
- Max. tool dia. up to 125 mm.
- Totally insulated.
- Stepless RPM adjustment.
- Digital electronic for constant RPM, ideal for work on metals which do not conduct heat well.
- Electronic switch-off on overload, restart protection on power failure.
- High torque ensures excellent RPM stability.

UWER 15/100 SI



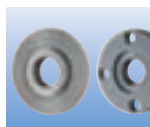
Order No.	EAN 4007220	RPM	Voltage 50-60 Hz	Power input [watts]	Power output [watts]	Drive spindle thread	Tool mounting dia. [mm]	
UWER 15/100 SI	787007	4.200 - 10.000	230	1.530	1.050	M14	22,23	2,600

Keys



Width across flats	Quantity	EAN 4007220
35 mm	1	193853
4 mm (Allen)	1	204450

Wheel flange



Order No.	EAN 4007220
Spannflansch*	426036
Spannmutter**	316238

* Spannflansch = Wheel flange

** Spannmutter = Clamping nut

Suitable PFERD tools

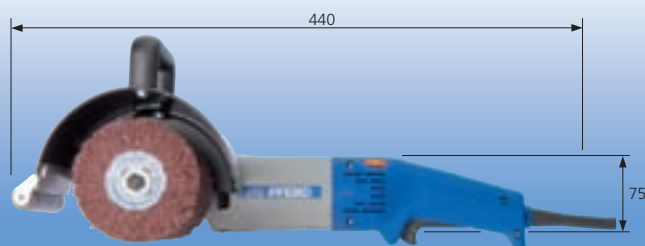
Catalogue 204	Catalogue 206	Catalogue 208
Velcro-backed abrasive discs	Grinding wheels	Wheel brushes
Fibre discs	POLIFAN®-flap discs	individual filament type RBU ø 115 mm M14
COMBICLICK®	Cut-off wheels	knotted RBG ø 115 mm bore dia. 22,2 mm and M14 type
POLICLEAN® discs	Diamond cut-off wheels	knotted TBG ø 65 mm M14
Self-adhesive discs	ø 115-125 mm	Flaring cup brushes
Flap wheels for angle grinders		individual filament type KBU ø 100 mm M14
ø 115-125 mm		

Electric Grinders and Accessories

Drum Grinder, Speed: 3.500 RPM / Output: 1.530 Watts



UWER 15/40 SI D19



Special features

- Totally insulated. ☐
- Low speed angle grinder/burnisher with stepless RPM adjustment.
- Digital electronic for constant RPM even under load.
- Electronic switch-off on overload, restart protection on power failure.
- Smooth start up for the protection of people, tools and machine.
- Spindle lock for easy tool change.
- Drive spindle with two keyways for increased force transmission.

Order No.	EAN	RPM	Voltage	Power input	Power output	Max. tool dia.	Drive Spindle	
	4007220		50-60 Hz	[watts]	[watts]	[mm]		kg
UWER 15/40 SI D19	777268	900 - 3.500	230	1.530	1.050	125	19 x 100	4,300

Keys

	Width across flats	Quantity	EAN
	13 mm	1	206829

Drum set



Drum set

FR-W 100100 UWER 15/40 230 V

Machine and abrasive drums in a practical case, arranged neatly and suitable for mobile operations.

Contents:

Electric grinding drum drive unit
UWER 15/40 SI D19 with electronic RPM adjustment,
1 flap drum FR-W 100100 A 80,
1 POLINOX® grinding drum
PNL-W 100100 A 180.


Three additional compartments provide space for your individual choice of abrasive drums from the PFERD product range.

Please refer to catalogue 204 for detailed information and ordering data regarding the drum set.

Suitable PFERD tools

Catalogue 204	Catalogue 208
Flap drums Texturing rollers POLINOX grinding drums ø 100 x 100 mm	Roller brushes individual filament type WBU ø 100 BO 19,1

Special features


- Incl. belt grinder attachment arm BSA 9/25.
- Totally insulated. 
- Stepless RPM adjustment.
- High power output, easy to handle shape.
- Digital electronic for constant RPM even under load.
- Electronic switch-off on overload, restart protection on power failure.
- Robust, easy to service construction.
- The medium-sized belt grinder attachment is pivotable on the machine and allows flexible adaptation to individual working situations.
- Easy, quick belt change due to spring clamp.

UBS 5/100 SI 925



pivotable
belt grinder attachment
BSVH 41 (see p. 96)
with BSA 9/25 x 520



Order No.	EAN 4007220	RPM	Belt speed [m/s]	Voltage 50-60 Hz	Power input [watts]	Power output [watts]	
UBS 5/100 SI 925	333006	4.000 - 10.000	6,5 - 16	230	500	300	1,900

Belt grinding set

BA 6-12/520 UBS 5/100 230 V

Machine and accessories in an attractive case.

Contents:

- 1 electric belt grinder UBS 5/100 SI 925 with stepless RPM adjustment
- 1 belt assortment with grinding and non-woven belts for coarse and fine grinding.

Please refer to catalogue 204 for detailed information and ordering data regarding the belt grinding set.

Belt grinding set



Belt grinder attachment arms

BSAD 41/36 x 610



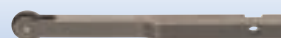
BSVA 9/25



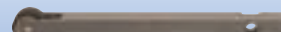
BSVA 9/25-1



BSVA 4/16



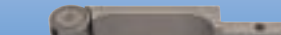
BSVA 9/16



BSVA 12/19



BSVA 18/23




- Robust steel arms.
- Use of the full roller width possible.
- Extremely slim fixing lugs on the facing roller.
- Asymmetrical arms for flush sideways grinding.

- Belt arm guide can be fixed.
- BSA 9/25-1 with conical guide roller (width 1 mm).
- Belt length 520 mm or with adapter 610 mm.

Ordering note:

Please refer to catalogue 204 for detailed information and ordering data regarding abrasive and non-woven belts.

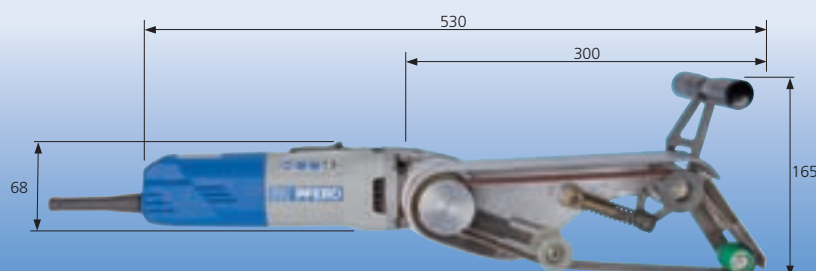
Order No.	EAN 4007220	Width x roll dia. [mm]	Suitable belt width [mm]	Use for	
BSAD 41/36 x 610	395967	-	-	Adapter to extend the belt length from 520mm to 610 mm	0,080
BSVA 9/25 x 520	323007	9 x 25	3, 6, 9, 12, 16	Finishing jobs, deburring, matting, fine grinding, and seamless blending of inner radii/channels, especially on pipe coupling areas	0,095
BSVA 9/25-1 x 520	494288	9 x 25	3, 6, 9, 12	Finishing jobs in narrow/small inner radii/channels, especially on pipe coupling areas made of stainless steel (INOX) with very small welded seams (tungsten-inert gas welding)	0,095
BSVA 4/16 x 520	322987	4 x 16	6	Leveling, deburring, matting, fine grinding, cleaning and seamless blending of stainless steel in narrow areas	0,060
BSVA 9/16 x 520	322994	9 x 16	12	Leveling, chamfering, matting, fine grinding, cleaning and seamless blending on wide areas	0,096
BSVA 12/19 x 520	323014	12 x 19	12, 16	Leveling, chamfering, matting, fine grinding, cleaning and seamless blending on wide areas	0,107
BSVA 18/23 x 520	349267	18 x 23	20	Leveling, chamfering, matting, fine grinding, cleaning and seamless blending on wide areas on outer radii (convex forms i.e. pipes)	0,150

Electric Grinders and Accessories

Electric Pipe Belt Grinder, Output: 1.050 Watts, Belt Length: 610 mm



UBS 11/90 SI-R



Special features

- Totally insulated.
- Stepless RPM adjustment.
- Digital electronic for constant RPM even under load.
- Electronic switch-off on overload, restart protection on power failure.
- Start up is current-limited for smooth start up.
- Robust, easy to service construction.
- Easy to handle grinding on variable (pipe) radii due to single-lever system.
- Adjustable belt guide roller for adaptation to pipe diameters up to 70 mm.
- Wrap angle on workpiece possible up to maximum 220 degrees.
- Please refer to catalogue 204 for detailed information and ordering data regarding abrasive non-woven short belts.

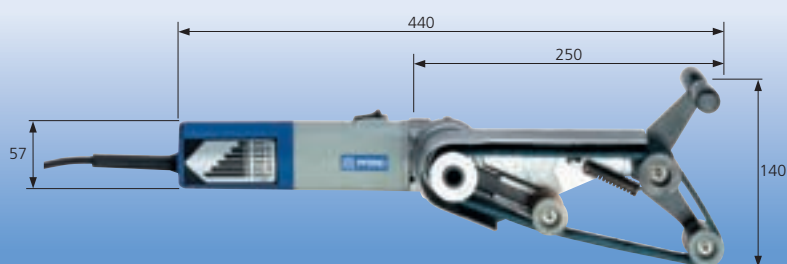
Order No.	EAN 4007220	RPM	Belt speed [m/s]	Voltage 50-60 Hz	Power input [watts]	Power output [watts]	
UBS 11/90 SI-R	777275	4.000 - 9.000	7-15,5	230	1.050	650	3,000

Keys

	Width across flats	Quan- tity	EAN 4007220
	4 mm (Allen)	1	204450

Electric Pipe Belt Grinder, Output: 500 Watts, Belt Length: 533 mm

UBS 5/70 SI-R



Special features

- Totally insulated.
- Stepless RPM adjustment.
- Digital electronic for constant RPM even under load.
- Electronic switch-off on overload, restart protection on power failure.
- Start up current limiting for smooth start up.
- Easy to handle grinding on variable (pipe) radii due to single-lever system.
- Adjustable belt guide roller for adaptation to pipe diameters up to 55 mm.
- Wrap angle on workpiece up to maximum 180 degrees.
- Please refer to catalogue 204 for detailed information and ordering data regarding abrasive and non-woven short belts.

Order No.	EAN 4007220	RPM	Belt speed [m/s]	Voltage 50-60 Hz	Power input [watts]	Power output [watts]	
UBS 5/70 SI-R	561263	3.000 - 7.000	5-11	230	500	300	2,350

Keys

	Width across flats	Quan- tity	EAN 4007220
	4 mm (Allen)	1	204450



Flexible shaft drives are multiple speed machines. They cover a wide RPM range and can be adjusted steplessly electronically or over gears to match individual tool requirements. Flexible shaft drives have an extremely high power output. They can also be used with the compact handpieces or extensions for work in hard-to-reach places.

Applications

Flexible shaft drives can be used for almost all jobs. They are used successfully in many industrial sectors for different processes. The RPM adjustment allows the use of various tools on one single machine.

Standards, safety, general guidelines

Electrical safety


PFERD flexible shaft drives comply with the standard "Safety for Hand-guided Motor-driven Electric tools".

1. Electric motor units with protective earthing (class I)

This constructional design accords with the PFERD flexible shaft drives:

- Mini-Mammoth Electronic (page 71)
- Quint (page 73)
- Mammoth Electronic (page 75)
- Mammoth (page 77)
- Master Grinder (page 79)

2. Totally insulated electric motor units (class II)

This design feature is indicated by the insulation sign  and the supplement "SI":

- RUER 5/250 SI (page 69)
- RUER 10/250 SI (page 69)
- RUG 19/120 SI (page 69)
- RUER 8/180 SI (page 71)

The PFERD product range

PFERD offers various types of flexible shaft drives as well as a comprehensive range of matching flexible shafts, handpieces, angle drives, drum and special drives.

PFERD flexible shaft drives and their accessories are extremely robust, technically up to date and are built according to the latest ergonomic knowledge and specifications. This programme was developed especially for the economic use of grinding, milling, brushing, cut-off and polishing tools and cover a wide range of speeds (0 - 40.000 RPM) and outputs (500 - 2.700 watts).

3. Safety extra-low voltage/protective separation

- When using AC voltage, in boilers, tanks, pipelines and similar narrow spaces made of electrically conductive materials, a safety extra-low voltage of 42 volts or protective separation must be used.

3.1 Electric motor units for safety extra-low voltage (class III)

These machines are operated with maximum 42 volts. The following are available in 42-volt models:

- Quint (page 73)
- Mammoth (page 77)
- Master Grinder (page 79)

3.2 Electrically protective separation

For flexible shaft tool drives, one alternative to an extra-low voltage system is to isolate the drive motor from the mains voltage using a transformer of the same voltage rating.

Advantages

- Extremely compact and ergonomic handpieces.
- Extremely low-weight handpieces.
- Extremely robust drives designed for permanent operation.
- Technically up to date.
- Extremely high power output.
- Extremely versatile.
- Simple power supply.
- Low-maintenance.
- Easy to service.
- Cost effective.

PFERD electric grinders comply with the

- EC Machinery Directive
- Low Voltage Directive
- Electromagnetic Compatibility

PFERD electric grinders bear the CE marking.



Please observe any special or country-specific regulations (e.g. on the use of safety extra-low voltage).

Criteria for selecting the optimum flexible shaft drive

The most important prerequisite for cost effective work is the selection of an optimal tool. Then a suitable tool drive can be chosen. Please take the following into consideration:

1. Design, shape and size

Every type of application places specific demands on the shape and size of the tool drive. The different designs can be used for various applications: The ideal drive should be selected for the task in hand depending on the dimensions, accessibility, type and frequency of the application.

2. RPM

The tool drive should always be selected according to the RPM and cutting speed recommendations for the tool. Please refer to catalogues 202 - 208 for these recommendations.

3. Power output

The tool drive's power output is the deciding factor for maintaining the RPM under load. The load is determined from the material to be machined, cutting capability of the tool and the grinding pressure.

4. Tool adapter

Depending on the PFERD tool you have selected, different tool adapters are available e.g. collets or threaded spindles. Every machine is allocated with matching collets. Please refer to pages 94-95 for an overview of the collets and spindle extensions.



Flexible shafts consist of three components which are combined with each other:

- a flexible core,
- a flexible casing and
- a handpiece.

Flexible core

Consists of 4 up to 10 layers of wire acc. to DIN 2076, especially designed for high speed clockwise rotation. The coupling is securely press fitted to the core. After approx. 100 operating hours, the flexible core must be re-lubricated. The core and casing must be degreased and new, special shaft grease must be applied.

Flexible casing

The flexible casing consists of oil-resistant rubber; the interior being a flat steel spiral and the outside being solid rubber. The connection couplings are pressed on firmly and encased in a rubber sheath as reinforcement.

Handpiece

The handpieces are light and easy to handle in relation to their power output transmission, and cover a wide speed range. Low-noise, easy-handling continuous operation is possible. Replaceable collets or the special shank adapter for morse cones allow various tools to be mounted. The sliding connection allows quick handpiece changes.

Maintenance

It is not possible to repair cores and flexible casings. We recommend replacement with pre-assembled new parts.

Radius of curvature

When using flexible shafts, please ensure that the shafts are not bent outside the radius of curvature. The smallest possible radius of curvature is given for each flexible shaft.

How to find the matching flexible shaft to your drive

On the following pages you will find flexible shafts and handpieces selection tables for the individual machines, each on the opposite page (left), see example below.

Flexible shafts and handpieces/attachments must always be selected according to the requirements resulting from the combination of optimum tool and drive unit with reference to RPM and power output.

① Flexible drive

Selected drive unit.

② Flexible shaft

The flexible shafts suitable for this machine.

③ Catalogue page

Reference to the catalogue page on which the appropriate flexible shaft and handpieces are shown.

④ Speed [RPM]/power output [watts]

RPM and power output ranges for which the flexible shaft is suitable.

⑤ Connection

Motor and handpiece side connections.





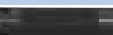
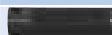






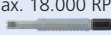
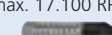
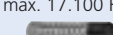
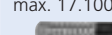

⑥ Suitable flexible shaft

- Ideally suitable
- Suitable
- Not suitable

⑦ Handpieces/attachments

Please select the shape and design according to your needs.


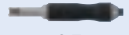







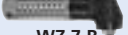

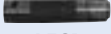



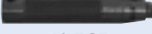


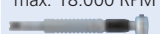


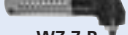







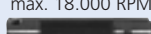










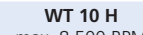
Example

		Flexible shaft						
Rotational speed:		high						low
Flexible shaft dia.:		very flexible (for work in tight spaces)						rigid
Power transmission:		low						high
②	Flexible shaft	4 ZG	6 Z	6 ZG	7 ZG / 7 ZGU	10 ZG	12 ZGA	12 KG
③	Catalogue page	81	83	81	85	87	89	91
④	RPM output [watts]	24.000 - 40.000 300 - 500	10.000 - 25.000 700 - 1.400	10.000 - 25.000 750 - 1.500	12.000 - 25.000 880 - 1.760	750 - 18.000 140 - 2.450	850 - 12.000 525 - 6.280	850 - 10.000 525 - 6.280
⑤	Connection on - motor side - handpiece side	DIN 10 G 16	DIN 10 DPF/SRF	DIN 10 G 16	DIN 10 G 22	DIN 10 G 28	DIN 10 G 28	DIN 10 G 35
⑥	Suitability	○	●	●	●	○	○	—
① Drive motor Mammoth Electronic ME/MEW + ST 103 Speed 12.000 - 24.000 RPM Power output 2.200/1.500 watts	⑦ Straight handpieces	 4 ZGB max. 40.000 RPM	 6 Z max. 24.000 RPM	 4 ZGB max. 40.000 RPM	 7 ZGA max. 25.000 RPM	 10 ZGE max. 18.000 RPM	 12 ZGA max. 18.000 RPM	
		 WZ 4 A max. 20.000 RPM	 WZ 6 max. 18.000 RPM	 WZ 4 A max. 20.000 RPM	 WZ 7 45° max. 17.100 RPM	 WZ 10 45° max. 17.100 RPM	 WZ 10 45° max. 17.100 RPM	
	Angle handpieces	 WZT 6 90°/45° max. 18.000 RPM			 WZ 7 B max. 17.100 RPM	 WZ 10 B max. 17.100 RPM	 WZ 10 B max. 17.100 RPM	
		Other attachments				 WT 7 E M 14 max. 25.000 RPM		
		● Ideally suitable ○ Suitable — not suitable						

Flexible Shaft Drives and Accessories

Flexible Shafts and Handpieces



Flexible shaft		4 ZG	6 Z	6 ZG	7 ZG / 7 ZGU	10 ZG	12 ZGA	12 KG
Catalogue page		81	83	81	85	87	89	91
RPM output [watts]		24.000 - 40.000 300 - 500	10.000 - 25.000 700 - 1.400	10.000 - 25.000 750 - 1.500	12.000 - 25.000 880 - 1.760	750 - 18.000 140 - 2.450	850 - 12.000 525 - 6.280	850 - 10.000 525 - 6.280
Connection on - motor side - handpiece side		DIN 10 G 16	DIN 10 DPF / SRF	DIN 10 G 16	DIN 10 G 22	DIN 10 G 28	DIN 10 G 28	DIN 10 G 35
Suitability		●	●	●	○	—	—	—
Drive motor RUER 5/250 SI Speed 11.000 - 25.000 RPM Power output 300 watts	Straight handpieces	 4 ZGB max. 40.000 RPM	 6 Z max. 24.000 RPM	 4 ZGB max. 40.000 RPM	 7 ZGA max. 25.000 RPM			
	Angle handpieces	 WZ 4 A max. 20.000 RPM	 WZ 6 max. 18.000 RPM  WZT 6 90°/45° max. 18.000 RPM	 WZ 4 A max. 20.000 RPM	 WZ 7 45° max. 17.100 RPM  WZ 7 B max. 17.100 RPM			
	Other attachments				 WT 7 E M 14 max. 25.000 RPM			
Suitability		○	○	○	●	○	—	—
Drive motor RUER 10/250 SI Speed 11.000 - 25.000 RPM Power output 600 watts	Straight handpieces	 4 ZGB max. 40.000 RPM	 6 Z max. 24.000 RPM	 4 ZGB max. 40.000 RPM	 7 ZGA max. 25.000 RPM	 10 ZGE max. 18.000 RPM		
	Angle handpieces	 WZ 4 A max. 20.000 RPM	 WZ 6 max. 18.000 RPM  WZT 6 90°/45° max. 18.000 RPM	 WZ 4 A max. 20.000 RPM	 WZ 7 45° max. 17.100 RPM  WZ 7 B max. 17.100 RPM	 WZ 10 45° max. 17.100 RPM  WZ 10 B max. 17.100 RPM		
	Other attachments				 WT 7 E M 14 max. 25.000 RPM			
Suitability		—	—	—	○	●	●	○
Drive motor RUER 19/120 SI Speed 3.000 / 6.000 / 12.000 RPM Power output 1.200 watts	Straight handpieces				 7 ZGA max. 25.000 RPM	 10 ZGE max. 18.000 RPM  12 ZGA max. 18.000 RPM	 10 ZGE max. 18.000 RPM  12 ZGA max. 18.000 RPM	 12/15 KG MK I max. 10.000 RPM  12 ZG max. 10.000 RPM
	Angle handpieces				 WZ 7 45° max. 17.100 RPM  WZ 7 B max. 17.100 RPM	 WZ 10 45° max. 17.100 RPM  WZ 10 B max. 17.100 RPM	 WZ 10 45° max. 17.100 RPM  WZ 10 B max. 17.100 RPM	
	Other attachments				 WT 7 E M 14 max. 25.000 RPM	 WT 10 H max. 8.500 RPM BSG 10/35 + 10/50 max. 7.000 RPM BSG 3/10/40 max. 5.000 RPM	 WT 10 H max. 8.500 RPM BSG 10/35 + 10/50 max. 7.000 RPM BSG 3/10/40 max. 5.000 RPM	


For detailed information and ordering data on flexible shafts and handpieces please refer to the stated catalogue pages.

● Ideally suitable

○ Suitable

— Not suitable

Record-universal motor RUER 5/250 SI

- Totally insulated. 
- Stepless RPM adjustment.
- Digital electronic ensures constant RPM, even under load.
- Versatile use, as it can be connected to any 230 volt AC current line or to 230 volt, 50/60 Hz generator.
- High power output for fine milling, grinding and polishing work.
- Due to the light and slim handpieces, easy handling is possible.
- Start up current limiting for smooth start up.

- Pipe stand protects the machine in any position.
- Electronic switch-off on overload, restart protection on power failure.


Dimensions L x W x H:
285 x 57 x 102 mm

Ordering note:


The machine is delivered without a flexible shaft. Please order separately.
Machine with foot switch available on request.

RUER 5/250 SI



Order No.	EAN 4007220	RPM	Voltage 50-60 Hz	Power input [watts]	Power output [watts]	Motor connection [DIN]	
RUER 5/250 SI	267325	11.000 - 25.000	230	500	300	10	2,140

Record universal motor RUER 10/250 SI

- Totally insulated. 
- Stepless RPM adjustment.
- Digital electronic ensures constant RPM even under load.
- Versatile use, as it can be connected to any 230 volt AC current line or to 230 volt, 50/60 Hz generator.
- High performance for milling, grinding and polishing work.
- The drive motor can be used in tool and mould construction, in precision engineering and in the DIY and hobby sectors.

- Start up current limiting for smooth start up.
- Pipe stand protects the machine in any position.
- Electronic switch-off on overload, restart protection on power failure.


Dimensions L x W x H:
300 x 75 x 140 mm

Ordering note:


The machine is delivered without a flexible shaft. Please order separately.

RUER 10/250 SI



Order No.	EAN 4007220	RPM	Voltage 50-60 Hz	Power input [watts]	Power output [watts]	Motor connection [DIN]	
RUER 10/250 SI	348116	11.000 - 25.000	230	1.050	660	10	3,110

Record universal motor RUG 19/120 SI

- Totally insulated. 
- Adjustable RPM using an eccentric gear.
- Powerful work in hard-to-reach places, too.
- Pipe stand protects the machine.
- For work on medium to heavy tasks e.g. on construction sites, in repair workshops, car garages, locksmith's, in tool and mould construction, in foundries, in art workshops, in goldsmith's, in stonemason's workshops and in schools.

Dimensions L x W x H:
530 x 95 x 175 mm

Recommendation for use:


For daily, continuous operation in single or two-shift operation, we recommend our 3-phase AC current flexible shaft drives (see pages 73 and 77).

Ordering note:

The machine is delivered without a flexible shaft. Please order separately.

RUG 19/120 SI





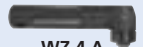
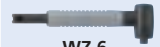
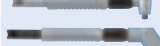
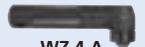







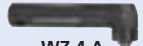
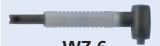

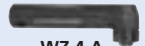






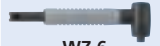

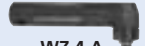
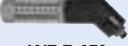




Order No.	EAN 4007220	RPM	Voltage 50-60 Hz	Power input [watts]	Power output [watts]	Motor connection [DIN]	
RUG 19/120 SI	348109	3.000, 6.000, 12.000	230	1.700	1.250	10	9,200

Flexible Shaft Drives and Accessories

Flexible Shafts and Handpieces



Flexible shaft		4 ZG	6 Z	6 ZG	7 ZG / 7 ZGU	10 ZG	12 ZGA	12 KG
Catalogue page		81	83	81	85	87	89	91
RPM output [watts]		24.000 - 40.000 300 - 500	10.000 - 25.000 700 - 1.400	10.000 - 25.000 750 - 1.500	12.000 - 25.000 880 - 1.760	750 - 18.000 140 - 2.450	850 - 12.000 525 - 6.280	850 - 10.000 525 - 6.280
Connection on - motor side - handpiece side		DIN 10 G 16	DIN 10 DPF / SRF	DIN 10 G 16	DIN 10 G 22	DIN 10 G 28	DIN 10 G 28	DIN 10 G 35
Suitability		●	●	●	●	–	–	–
Drive motor RUER 8/180 SI Speed 12.000 - 18.000 RPM Power output 600 watts	Straight handpieces	 4 ZGB max. 40.000 RPM	 6 Z max. 24.000 RPM	 4 ZGB max. 40.000 RPM	 7 ZGA max. 25.000 RPM			
	Angle handpieces	 WZ 4 A max. 20.000 RPM	 WZ 6 max. 18.000 RPM  WZT 6 90°/45° max. 18.000 RPM	 WZ 4 A max. 20.000 RPM	 WZ 7 45° max. 17.100 RPM  WZ 7 B max. 17.100 RPM			
	Other attach- ments				 WT 7 E M 14 max. 25.000 RPM			
Suitability		○	●	●	○	–	–	–
Drive motor RUER 8/180 SI, MMEW 11/120 Speed 6.000 - 12.000 RPM Power output 600/800 watts	Straight handpieces	 4 ZGB max. 40.000 RPM	 6 Z max. 24.000 RPM	 4 ZGB max. 40.000 RPM	 7 ZGA max. 25.000 RPM			
	Angle handpieces	 WZ 4 A max. 20.000 RPM	 WZ 6 max. 18.000 RPM  WZT 6 90°/45° max. 18.000 RPM	 WZ 4 A max. 20.000 RPM	 WZ 7 45° max. 17.100 RPM  WZ 7 B max. 17.100 RPM			
	Other attach- ments				 WT 7 E M 14 max. 25.000 RPM			
Suitability		–	○	○	○	–	–	–
Drive motor RUER 8/180 SI, MMEW 11/120 Speed 500 - 6.000 RPM power output 600/800 watts	Straight handpieces		 6 Z max. 24.000 RPM	 4 ZGB max. 40.000 RPM	 7 ZGA max. 25.000 RPM			
	Angle handpieces		 WZ 6 max. 18.000 RPM  WZT 6 90°/45° max. 18.000 RPM	 WZ 4 A max. 20.000 RPM	 WZ 7 45° max. 17.100 RPM  WZ 7 B max. 17.100 RPM			
	Other attach- ments				 WT 7 E M 14 max. 25.000 RPM			


For detailed information and ordering data on flexible shafts and handpieces please refer to the stated catalogue pages.

● Ideally suitable

○ Suitable

– Not suitable

Record universal motor RUER 8/180 SI Incl. combi-speed control KDR 8/180 SI

- For general use in milling, grinding and polishing work.
- Totally insulated. 
- Stepless RPM adjustment.
- RPM adjustment possible on running motor.
- Extremely low noise development.
- Good RPM/power output ratio.
- Particularly suitable for use in tool and mould construction.


- The combi-speed control KDR 8/180 SI can be used as a table-top or foot control. In table-top operation, the RPM can be controlled individually using the potentiometer. For foot-controlled operation, the maximum speed can be preset using the potentiometer. Control then takes place using the foot pedal.
- Only use with Motor RUER 8/180 SI.

Ordering note:

The machine is delivered without a flexible shaft. Please order separately.

RUER 8/180 SI



Order No.	EAN 4007220	RPM	Voltage 50-60 Hz	Power input [watts]	Power output [watts]	Motor connection [DIN]	Dimensions L x W x H [mm]	
RUER 8/180 SI	807408	0 - 18.000	230	1.020	600	10	222 x 98 x 98	1,650

The **table stand TS L 1400** with screw clamp can be attached to bench tops of up to 65 mm in thickness.

The telescopic system allows individual height adjustment up to maximum 140 cm.
Max. 10 kg carrying capacity.

Handpiece support TSA L 1400

This support matches the table stand and allows you to optimally place various handpieces ready for use.

Ordering note:

Please order support separately.

Accessories for tool drives RUER



Order No.	EAN 4007220	Description	
Tischstativ TS L 1400	657683	Table stand	2,170
Ablage TSA L 1400	657690	Handpiece support	0,450

Multi-Speed Machine Mini-Mammoth Electronic MMEW

The Mini-Mammoth Electronic can be used for diverse milling, grinding and polishing work.

Technical data

- Voltage 230 V, 1-phase AC current.
- Protective earthing.
- Frequency 50 - 60 Hz.
- Power input 1.100 watts.
- Power output 800 watts.
- Stepless RPM adjustment.

Special features

- Smooth start up.
- Quick and easy RPM adjustment possible on running motor.

- Good RPM/power output ratio.
- Extremely low noise development.
- Ideal for use in tool and mould construction.
- Automatic motor stop on overload.
- Mains switch with undervoltage actuator.
- Grinding and polishing tools dia. ≥ 60 mm are not suitable for continuous use with the Mini-Mammoth Electronic.


Ordering note:

The machine is delivered without a flexible shaft. Please order separately.

Hanging brackets and foot switches available on request.

MMEW 11/120





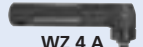
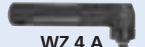

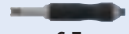




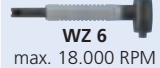
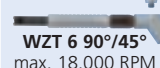
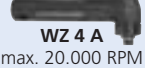





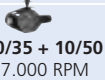




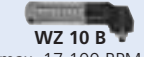
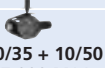



Order No.	EAN 4007220	RPM	Voltage 50-60 Hz	Power input [watts]	Power output [watts]	Motor connection [DIN]	Dimensions L x W x H [mm]	
MMEW 11/120	657478	850 - 12.000	230	1.100	800	10	270 x 160 x 180	7,900

Flexible Shaft Drives and Accessories

Flexible Shafts and Handpieces



Flexible shaft	4 ZG	6 Z	6 ZG	7 ZG / 7 ZGU	10 ZG	12 ZGA	12 KG
Catalogue page	81	83	81	85	87	89	91
RPM output [watts]	24.000 - 40.000 300 - 500	10.000 - 25.000 700 - 1.400	10.000 - 25.000 750 - 1.500	12.000 - 25.000 880 - 1.760	750 - 18.000 140 - 2.450	850 - 12.000 525 - 6.280	850 - 10.000 525 - 6.280
Connection on - motor side - handpiece side	DIN 10 G 16	DIN 10 DPF / SRF	DIN 10 G 16	DIN 10 G 22	DIN 10 G 28	DIN 10 G 28	DIN 10 G 35
Suitability	●	●	●	●	—	—	—
Drive motor Quint QD 05 + ST 103 RPM 18.900 / 33.000 RPM Power output 368 watts	Straight handpieces  4 ZGB max. 40.000 RPM	 6 Z max. 24.000 RPM	 4 ZGB max. 40.000 RPM	 7 ZGA max. 25.000 RPM			
	Angle handpieces  WZ 4 A max. 20.000 RPM		 WZ 4 A max. 20.000 RPM				
	Other attachments			 WT 7 E M 14 max. 25.000 RPM			
Suitability	—	○	○	○	●	—	—
Drive motor Quint QD 05 RPM 4.200 / 6.300 / 9.000 / 11.000 RPM Power output 368 watts	Straight handpieces	 6 Z max. 24.000 RPM	 4 ZGB max. 40.000 RPM	 7 ZGA max. 25.000 RPM	 10 ZGE max. 18.000 RPM  12 ZGA max. 18.000 RPM		
	Angle handpieces	 WZ 6 max. 18.000 RPM  WZT 6 90°/45° max. 18.000 RPM	 WZ 4 A max. 20.000 RPM	 WZ 7 45° max. 17.100 RPM  WZ 7 B max. 17.100 RPM	 WZ 10 45° max. 17.100 RPM  WZ 10 B max. 17.100 RPM		
	Other attachments			 WT 7 E M 14 max. 25.000 RPM	 BSG 10/35 + 10/50 max. 7.000 RPM  BSG 3/10/40 max. 5.000 RPM		
Suitability	—	—	—	—	●	—	—
Drive motor Quint QD 05 RPM 750 / 1.400 / 2.250 / 3.000 RPM Power output 368 watts	Straight handpieces				 10 ZGE max. 18.000 RPM  12 ZGA max. 18.000 RPM		
	Angle handpieces				 WZ 10 45° max. 17.100 RPM  WZ 10 B max. 17.100 RPM		
	Other attachments				 BSG 10/35 + 10/50 max. 7.000 RPM  BSG 3/10/40 max. 5.000 RPM		

For detailed information and ordering data on flexible shafts and handpieces please refer to the stated catalogue pages.

● Ideally suitable

○ Suitable

— Not suitable

QD 05 B1



The high power output Quint is suitable for general use milling, grinding and polishing work.

- Ideal for continuous use.
- Restart protection on power failure
- Drive speeds:
750, 1.400, 3.000, 6.300, 11.000 RPM.
- Dimensions L x W x H:
385 x 150/240 x 365 mm

Ordering note:

If the required voltage is not specified, we supply 3-phase AC current motors switched to 400 volt. Other voltages 42 up to 440 volt and 60 Hz are available on request, subject to an extra charge.


The drive motors are delivered without plug and flexible shaft.

Recommended use:

Grinding and polishing tools dia. ≥ 80 mm are not suitable for use with the Quint. Do not use with angle drive WT 10 H.

QD 05



Order No.	Type	EAN 4007220	Voltage 50 Hz	Power input [watts]	Power output [watts]	Motor connection [DIN]	
QD 05	with foot	181270	400	500	368	10	11,000
QD 05 B1	B 1 hanging	181287	400	500	368	10	11,500

Mobile trolley, design D (without machine).

Trolley D



Order No.	EAN 4007220	
Wagen* D	182666	26,000

* Wagen = Base trolley

The overdrive ST 103 transmits the drive speed in a ratio of 1:3.
Drive core included in delivery.

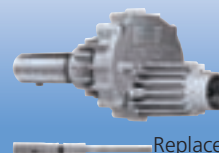
Please refer to page 93 for detailed information regarding the ST 103.

Drive speeds with Quint QD 05


2.250 RPM
4.200 RPM
9.000 RPM
18.900 RPM
33.000 RPM

Drive speed n max. = 12.000 RPM

Overdrive ST 103 DIN 10



Replacement core










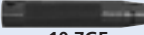
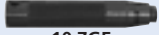
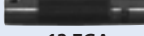
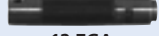
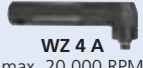
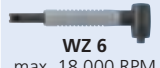
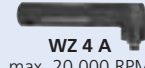
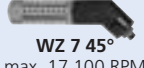

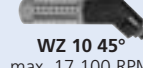
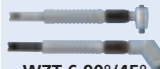


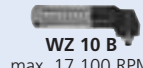

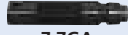
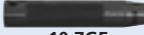
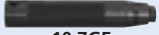
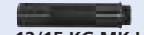
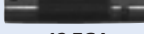
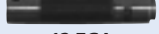

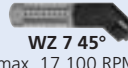
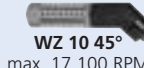


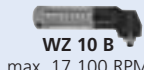
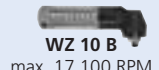

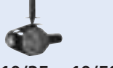



Order No.	EAN 4007220	
ST 103 DIN 10	182673	1,600
Ersatzseele* ST 103 DIN 10	190524	0,070

* Ersatzseele = Replacement core

Flexible Shaft Drives and Accessories

Flexible Shafts and Handpieces



Flexible shaft	4 ZG	6 Z	6 ZG	7 ZG / 7 ZGU	10 ZG	12 ZGA	12 KG
Catalogue page	81	83	81	85	87	89	91
RPM output [watts]	24.000 - 40.000 300 - 500	10.000 - 25.000 700 - 1.400	10.000 - 25.000 750 - 1.500	12.000 - 25.000 880 - 1.760	750 - 18.000 140 - 2.450	850 - 12.000 525 - 6.280	850 - 10.000 525 - 6.280
Connection on - motor side - handpiece side	DIN 10 G 16	DIN 10 DPF / SRF	DIN 10 G 16	DIN 10 G 22	DIN 10 G 28	DIN 10 G 28	DIN 10 G 35
Suitability	●	○	○	○	—	—	—
Drive motor Mammoth Electronic ME/MEW + ST 103 Speed 24.000 - 36.000 RPM Power output 2.200/1.500 watts	 4 ZGB max. 40.000 RPM	 6 Z max. 24.000 RPM	 4 ZGB max. 40.000 RPM	 7 ZGA max. 25.000 RPM			
				 WT 7 E M 14 max. 25.000 RPM			
Suitability	○	●	●	●	○	○	—
Drive motor Mammoth Electronic ME/MEW + ST 103 Speed 12.000 - 24.000 RPM Power output 2.200/1.500 watts	 4 ZGB max. 40.000 RPM	 6 Z max. 24.000 RPM	 4 ZGB max. 40.000 RPM	 7 ZGA max. 25.000 RPM	 10 ZGE max. 18.000 RPM	 10 ZGE max. 18.000 RPM	
					 12 ZGA max. 18.000 RPM	 12 ZGA max. 18.000 RPM	
	 WZ 4 A max. 20.000 RPM	 WZ 6 max. 18.000 RPM	 WZ 4 A max. 20.000 RPM	 WZ 7 45° max. 17.100 RPM	 WZ 10 45° max. 17.100 RPM	 WZ 10 45° max. 17.100 RPM	
		 WZT 6 90°/45° max. 18.000 RPM		 WZ 7 B max. 17.100 RPM	 WZ 10 B max. 17.100 RPM	 WZ 10 B max. 17.100 RPM	
				 WT 7 E M 14 max. 25.000 RPM			
Suitability	—	—	—	○	●	●	○
Drive motor Mammoth Electronic ME/MEW Speed 500 - 12.000 RPM Power output 2.200/1.500 watts				 7 ZGA max. 25.000 RPM	 10 ZGE max. 18.000 RPM	 10 ZGE max. 18.000 RPM	 12/15 KG MK I max. 10.000 RPM
					 12 ZGA max. 18.000 RPM	 12 ZGA max. 18.000 RPM	 12 ZG max. 10.000 RPM
				 WZ 7 45° max. 17.100 RPM	 WZ 10 45° max. 17.100 RPM	 WZ 10 45° max. 17.100 RPM	
				 WZ 7 B max. 17.100 RPM	 WZ 10 B max. 17.100 RPM	 WZ 10 B max. 17.100 RPM	
				 WT 7 E M 14 max. 25.000 RPM	 BSG 10/35 + 10/50 max. 7.000 RPM	 BSG 10/35 + 10/50 max. 7.000 RPM	
					 BSG 3/10/40 max. 5.000 RPM	 BSG 3/10/40 max. 5.000 RPM	

For detailed information and ordering data on flexible shafts and handpieces please refer to the stated catalogue pages.

● Ideally suitable

○ Suitable

— Not suitable

The Mammoth Electronic can be used for diverse milling, grinding and polishing work.

Special features

- Stepless speed adjustment (with overdrive ST 103 up to max. 36.000 RPM).
- Removable operating console with possibility for extension, e.g. hanging design, work in boilers.
- Smooth start up.
- Quick and easy RPM adjustment possible on running motor.
- High torque, even in the lower RPM range.
- Extremely low noise development due to vibration damper.
- Automatic motor stop on overload.

- Restart protection on power failure.
- Easy to service, housing with 4 easy to remove modules.


Ordering note:

ME 22/150 = 3-phase AC current
MEW 18/150 = 1-phase AC current

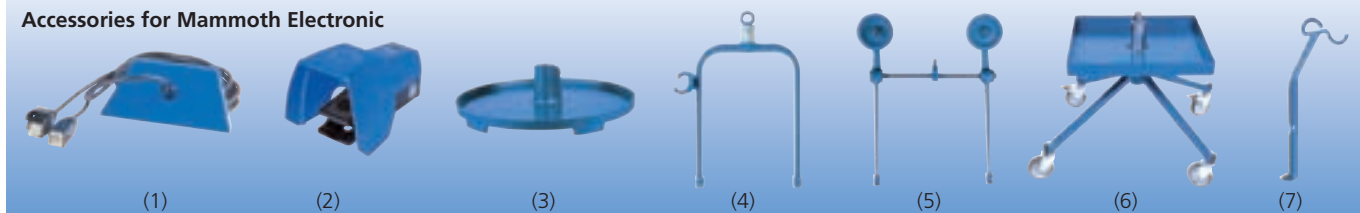
The drive motors are supplied without plugs and flexible shafts.

**ME 22/150
MEW 18/150**



Order No.	EAN 4007220	RPM	Voltage 50-60 Hz	Power input [watts]	Power output [watts]	Motor connection [DIN]	Dimensions L x W x H [mm]	
ME 22/150 400 V	758694	0 - 15.000	380-480	2.700	2.200	10	445 x 200 x 320	24,500
MEW 18/150 230 V	788738	0 - 15.000	200-240	2.000	1.500	10	445 x 200 x 320	24,500

Accessories for Mammoth Electronic



(1) Remote control cable FSTK 22

For extension of the removable operating console with cover plate for protection of the motor (cable length 4 m).

(2) Foot switch FSE 22

For easy machine switch-on/switch-off (cable length 4 m) with protective cover.

(3) Base FME

Stable base with pivot device.

(4) Motor hanger B1 ME

Machine can be used in hanging position, shaft support option.

(5) Overhead trolley B2 ME


Machine can be used hanging in mobile operation.

(6) Base trolley D ME

Mobile trolley with tool tray and two lockable wheels.

(7) Shaft hanger WAL 4-12

Support for flexible shaft, can be mounted onto the side of the machine.

Order No.	Description	EAN 4007220	
FSTK 22	(1) Remote control cable	772812	0,635
FSE 22	(2) Foot switch	772799	1,000
FME	(3) Base	617977	2,000
B1 ME	(4) Motor hanger	617984	1,200
B2 ME	(5) Overhead trolley	617991	1,800
D ME	(6) Base trolley	618028	14,200
WAL 4-12	(7) Shaft hanger	618004	0,460

The overdrive ST 103 transmits the drive speed in a ratio of 1:3.
Drive core included in delivery.

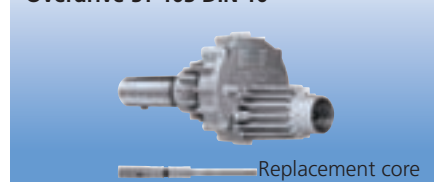
Please refer to page 93 for detailed information regarding the ST 103.


Drive speeds with Mammoth Electronic

15.000 - 36.000 RPM

Drive speed n max. = 12.000 RPM

Overdrive ST 103 DIN 10









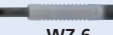
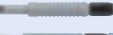









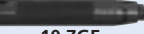

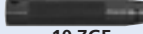

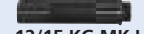

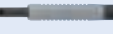
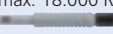




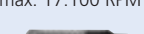

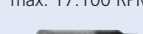


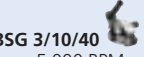

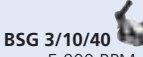
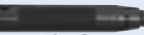
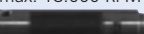
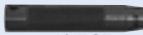
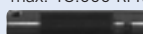

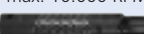



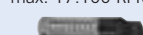

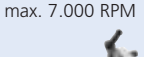

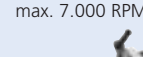
Order No.	EAN 4007220	
ST 103 DIN 10	182673	1,600
Ersatzseele* ST 103 DIN 10	190524	0,070

* Ersatzseele = Replacement core

Flexible Shaft Drives and Accessories

Flexible Shafts and Handpieces



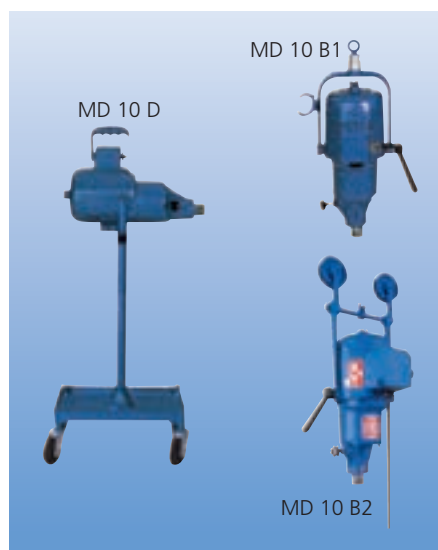
Flexible shaft	4 ZG	6 Z	6 ZG	7 ZG / 7 ZGU	10 ZG	12 ZGA	12 KG
Catalogue page	81	83	81	85	87	89	91
RPM output [watts]	24.000 - 40.000 300 - 500	10.000 - 25.000 700 - 1.400	10.000 - 25.000 750 - 1.500	12.000 - 25.000 880 - 1.760	750 - 18.000 140 - 2.450	850 - 12.000 525 - 6.280	850 - 10.000 525 - 6.280
Connection on - motor side - handpiece side	DIN 10 G 16	DIN 10 DPF / SRF	DIN 10 G 16	DIN 10 G 22	DIN 10 G 28	DIN 10 G 28	DIN 10 G 35
Suitability	●	●	●	●	○	—	—
Drive motor Mammoth Electronic MD 10 + ST 103 RPM 12.000 / 17.100 / 24.000 / 36.000 RPM Power output 736 watts	 4 ZGB max. 40.000 RPM	 6 Z max. 24.000 RPM	 4 ZGB max. 40.000 RPM	 7 ZGA max. 25.000 RPM	 10 ZGE max. 18.000 RPM		
	 WZ 4 A max. 20.000 RPM	 WZ 6 max. 18.000 RPM  WZT 6 90°/45° max. 18.000 RPM	 WZ 4 A max. 20.000 RPM	 WZ 7 45° max. 17.100 RPM  WZ 7 B max. 17.100 RPM	 WZ 10 45° max. 17.100 RPM  WZ 10 B max. 17.100 RPM		
				 WT 7 E M 14 max. 25.000 RPM			
Suitability	—	○	○	○	●	●	●
Drive motor Mammoth MD 10 Speed 4.800 / 5.700 / 6.300 / 8.000 / 9.600 RPM Power output 736 watts		 6 Z max. 24.000 RPM	 4 ZGB max. 40.000 RPM	 7 ZGA max. 25.000 RPM	 10 ZGE max. 18.000 RPM  12 ZGA max. 18.000 RPM	 10 ZGE max. 18.000 RPM  12 ZGA max. 18.000 RPM	 12/15 KG MK I max. 10.000 RPM  12 ZG max. 10.000 RPM
		 WZ 6 max. 18.000 RPM  WZT 6 90°/45° max. 18.000 RPM	 WZ 4 A max. 20.000 RPM	 WZ 7 45° max. 17.100 RPM  WZ 7 B max. 17.100 RPM	 WZ 10 45° max. 17.100 RPM  WZ 10 B max. 17.100 RPM	 WZ 10 45° max. 17.100 RPM  WZ 10 B max. 17.100 RPM	
				 WT 7 E M 14 max. 25.000 RPM	 BSG 10/35 + 10/50 max. 7.000 RPM  BSG 3/10/40 max. 5.000 RPM	 BSG 10/35 + 10/50 max. 7.000 RPM  BSG 3/10/40 max. 5.000 RPM	
Suitability	—	—	—	—	●	●	○
Drive motor Mammoth MD 10 RPM 850 / 1.600 / 2.100 / 2.550 / 3.200 RPM Power output 736 watts					 10 ZGE max. 18.000 RPM  12 ZGA max. 18.000 RPM	 10 ZGE max. 18.000 RPM  12 ZGA max. 18.000 RPM	 12/15 KG MK I max. 10.000 RPM  12 ZG max. 10.000 RPM
					 WZ 10 45° max. 17.100 RPM  WZ 10 B max. 17.100 RPM	 WZ 10 45° max. 17.100 RPM  WZ 10 B max. 17.100 RPM	
					 BSG 10/35 + 10/50 max. 7.000 RPM  BSG 3/10/40 max. 5.000 RPM	 BSG 10/35 + 10/50 max. 7.000 RPM  BSG 3/10/40 max. 5.000 RPM	

For detailed information and ordering data on flexible shafts and handpieces please refer to the stated catalogue pages.

● Ideally suitable

○ Suitable

— Not suitable



The high power output Mammoth is suitable for general use milling, grinding and polishing work.

- Restart protection on power failure.
- Drive speeds:
850, 1.600, 2.100, 3.200, 5.700, 8.000, 12.000 RPM.
- Dimensions L x W x H:
460 x 160/240 x 400 mm


Ordering note:

If the required voltage is not stipulated, we supply the 3-phase AC current motor switched to 400 volt. Other voltages 42 up to 440 volt and 60 Hz are available on request, subject to an extra charge.
The drive motors are supplied without plug and flexible shaft.

Recommended use:

Grinding and polishing tools dia. ≥ 100 mm are not suitable for use with the Mammoth.



Order No.	Type	EAN 4007220	Voltage 50 Hz	Power input [watts]	Power output [watts]	Motor connection [DIN]	
MD 10	with foot	181324	400	1.000	736	10	16,500
MD 10 B1	B 1 hanging	181331	400	1.000	736	10	16,000
MD 10 B2	B 2 in overhead trolley	181348	400	1.000	736	10	17,000
MD 10 D	D on base trolley	181355	400	1.000	736	10	44,500

Mobile trolley, design D (without machine).



Order No.	EAN 4007220	
Wagen* D	182666	26,000

The overdrive ST 103 transmits the drive speed in a ratio of 1:3.
Drive core included in delivery.


Please refer to page 93 for detailed information regarding the ST 103.

Drive speeds with Mammoth
2.550 RPM

4.800 RPM
6.300 RPM
9.600 RPM
17.100 RPM
24.000 RPM
36.000 RPM

Drive speed n max. = 12.000 RPM




Order No.	EAN 4007220	
ST 103 DIN 10	182673	1,600
Ersatzseele** ST 103 DIN 10	190524	0,070

For direct (rigid) connection of handpieces with the sliding connection G 28 to flexible shaft drive motors with connection DIN 10.

Ordering note:

Pre-assembled replacement core DA 33 DIN 10/G28 for direct connection. If required, please order separately.



Order No.	EAN 4007220	Motor connection [DIN]	Handpiece coupling [G]	
DA 33 DIN 10/G 28	179475	10	28	0,305
Ersatzseele** DA 33 DIN 10/G28	284179	10	28	0,107

* Wagen = Base trolley, **Ersatzseele = Replacement core

Flexible Shaft Drives and Accessories

Flexible Shafts and Handpieces



Flexible shaft		10 ZG		12 ZGA		12 KG		15 KG	
Catalogue page		87		89		91		91	
RPM		750 - 18.000		850 - 12.000		850 - 10.000		1.000 - 7.300	
output [watts]		140 - 2.450		525 - 6.280		525 - 6.280		735 - 8.560	
Connection on		DIN 15		DIN 15		DIN 15		DIN 15	
- motor side		G 28		G 28		G 35		G 35	
Suitability		●		●		-		-	
Drive motor SD 25 speed 13.500 RPM power output 1.840 watts	Straight handpieces	 10 ZGE max. 18.000 RPM		 12 ZGA max. 18.000 RPM					
	Angle handpieces	 WZ 10 45° max. 17.100 RPM		 WZ 10 B max. 17.100 RPM					
	Other attachments								
Suitability		○		●		●		●	
Drive motor SD 25 Speed 13.500 RPM power output 1.840 watts	Straight handpieces	 10 ZGE max. 18.000 RPM		 12 ZGA max. 18.000 RPM		 12/15 KG MK I max. 10.000 RPM		 12 ZG max. 10.000 RPM	
	Angle handpieces	 WZ 10 45° max. 17.100 RPM		 WZ 10 B max. 17.100 RPM					
	Other attachments	 BSG 3/10/40 max. 5.000 RPM		 BSG 10/35 max. 7.000 RPM					
Suitability		○		●		●		●	
Drive motor SD 25 Speed 13.500 RPM power output 1.840 watts	Straight handpieces	 10 ZGE max. 18.000 RPM		 12 ZGA max. 18.000 RPM		 12/15 KG MK I max. 10.000 RPM		 12 ZG max. 10.000 RPM	
	Angle handpieces	 WZ 10 45° max. 17.100 RPM		 WZ 10 B max. 17.100 RPM					
	Other attachments	 BSG 3/10/40 max. 5.000 RPM		 BSG 10/35 max. 7.000 RPM					

For detailed information and ordering data on flexible shafts and handpieces please refer to the stated catalogue pages.

● Ideally suitable

○ Suitable

- Not suitable

SD 25-40 D



The Master Grinder is used for heavy grinding work with grinding wheels with ceramic or fibre reinforced bonds, flap wheels and industrial power brushes dia. ≥ 100 mm.

Drive speeds:

1.000, 1.700, 2.700, 5.100, 7.300, 13.500 RPM.

Dimensions L x W x H:
480 x 185/340 x 430

Ordering note:

If the required voltage is not specified, we supply the 3-phase AC current motor switched to 400 volt. Master Grinder in design 3-phase AC current 230 volt available on request. Other voltage from 42 up to 440 volt and 60 Hz are available on request, subject to an extra charge.


The drive motors are supplied without plug and flexible shaft.

Special designs available on request

B 1 Hanging
B 2 Mobile, hanging

SD 25-40



Order No.	EAN 4007220	Voltage 50 Hz	Power input [watts]	Power output [watts]	Motor connection [DIN]	
SD 25-40	181416	400	2.400	1.840	15	30,000
SD 25-40 D	181447	400	2.400	1.840	15	57,000

Mobile trolley, design D
(without machine).

Trolley D



Order No.	EAN 4007220	
Wagen* D	182666	26,000

* Wagen = Base trolley

Flexible Shaft Drives and Accessories

Flexible Shafts



	Catalogue 202	Catalogue 203*	Catalogue 204*		Catalogue 205	Catalogue 206/208
RPM outputs						
36.000 RPM Mammoth + ST 103 Record grinder RUG 19/120 SI + ST 103	<p>TC burrs cut 3, 3 PLUS, 4, 5, ALU PLUS head ø 3 to 5 mm</p> <p>cut 1, ALU, FVK head ø 5 to 10 mm</p> <p>HSS rotary cutters cut ALU, 1, 2, 3, 5 head ø up to 3,2 mm</p> <p>Please observe the recommendations relating to the various cutting speeds on catalogue page 202.</p>	<p>Mounted points head ø up to 13 mm width up to 13 mm shank ø 3 mm</p> <p>Mounted points head ø up to 16 mm width up to 32 mm</p>	<p>Poliflex® fine grinding points shank ø 3 + 6 mm bond: GR and PUR head ø up to 6 mm GHR, LR and TX head ø up to 10 mm LHR head ø up to 20 mm</p>	<p>POLICAP® head ø up to 5 mm</p> <p>Abrasive spiral bands head ø up to 15 mm</p> <p>Fan grinders head ø 10 mm</p>	<p>Diamond grinding points head ø up to 8 mm shank ø 3 + 6 mm</p> <p>CBN grinding points head ø up to 10 mm shank ø 3 + 6 mm</p>	<p>Catalogue 206</p> <p>Cut-off wheels EHT ø 40 mm matching arbor BO 6/6 0-4 see catalogue 206</p>
33.000 RPM Quint + ST 103	<p>TC burrs cut 3, 3 PLUS, 4, 5, ALU PLUS head ø 4 to 6 mm</p> <p>cut 1, ALU, FVK head ø 6 to 12 mm</p> <p>HSS rotary cutters cut ALU, 1, 2, 3, 5 head ø up to 3,2 mm</p>	<p>Mounted points head ø up to 13 mm width up to 13 mm shank ø 3 mm</p> <p>Mounted points head ø 16 mm width up to 32 mm</p>	<p>Poliflex® fine grinding points shank ø 3 + 6 mm bond: GR and PUR head ø up to 10 mm GHR, LR and TX head ø up to 15 mm LHR head ø up to 20 mm</p>	<p>Abrasive spiral bands head ø up to 15 mm</p> <p>POLICAP® head ø 7 mm</p> <p>Fan grinders head ø 10 mm</p>	<p>Diamond grinding points head ø up to 8 mm shank ø 3 + 6 mm</p> <p>CBN grinding points head ø up to 10 mm shank ø 3 + 6 mm</p>	<p>Cut-off wheels EHT ø 50 mm matching arbor BO 6/6 0-4 see catalogue 206</p>
24.000 RPM Mammoth + ST 103 RUER 5/250 SI / RUER 10/250 SI	<p>TC burrs cut 3, 3 PLUS, 4, 5, ALU PLUS head ø 5 to 8 mm</p> <p>cut 1, ALU, FVK head ø 8 to 12 mm</p> <p>HSS rotary cutters cut ALU, 1, 2, 3, 5 head ø up to 4 mm</p>	<p>Mounted points head ø up to 20 mm width up to 13 mm shank ø 3 + 6 mm</p> <p>Mounted points head ø 20 mm width up to 40 mm</p>	<p>Poliflex® fine mounted points shank ø 3 + 6 mm bond: GR and PUR head ø up to 10 mm GHR, LR and TX head ø up to 15 mm LHR head ø up to 25 mm</p> <p>Abrasive spiral bands head ø up to 22 mm</p>	<p>POLIROLL® head ø up to 6 mm</p> <p>POLINOX® ring wheels PNER ø 25 mm</p> <p>POLICAP® head ø 10 mm</p> <p>Fan grinders head ø 15 mm</p>	<p>Diamond grinding points head ø up to 12 mm</p> <p>CBN grinding points head ø up to 15 mm</p>	<p>Cut-off wheels EHT ø 50 mm matching arbor BO 6/6 0-4 see catalogue 206</p> <p>Ring wheels ER ø 30 mm matching arbor BO 6/6 3-10 see catalogue 206</p>
18.000 RPM Record grinder RUER 5/250 SI, RUER 10/250 SI, RUER 8/180 SI	<p>TC burrs cut 3, 3 PLUS, 4, 5, ALU PLUS head ø 7 to 10 mm</p> <p>cut 1, ALU, FVK head ø 10 to 16 mm</p> <p>HSS rotary cutters cut ALU, 1, 2, 3, 5 head ø 1,6 up to 6 mm</p>	<p>Mounted points head ø up to 20 mm width up to 40 mm shank ø 3 + 6 mm</p>	<p>Poliflex® fine grinding points bond: GR and PUR head ø up to 12 mm GHR, LR and TX head ø up to 20 mm LHR head ø up to 30 mm</p> <p>Poliflex® wheels bond TX ø 25 mm</p> <p>POLINOX® ring wheels PNER ø 25 mm</p> <p>POLICAP® head ø up to 13 mm</p> <p>Fan grinders head ø up to 20 mm</p>	<p>ATADISC® holder SHT 2025 with abrasive disc AD 2505 AD 3505-2</p> <p>COMBIDISC® abrasive discs ø 20 to 38 mm</p> <p>COMBIDISC® POLIVLIES® discs hard type VRH 20</p> <p>BSVH 24 short belts BA/VA 3-12/305</p>		<p>Catalogue 208</p> <p>Wheel brushes knotted type RBG ø 70 mm</p>


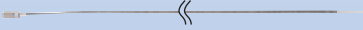

Note: Where no shank diameter is indicated, the shank diameter specification is 6 mm.


***Catalogue 203/204:** This data applies to a free shank length of 10 mm and the stated max. mounted point dimensions.

Order No.	EAN 4007220
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Technical data


Special features

DIN 10	G 16
	
Flexible shaft 4 ZG DIN 10** (incl. handpiece 4 ZGB)	181751
	
Core 4 ZG DIN 10 / G 16**	182079
	
Hose 4 ZG DIN 10 / G 16**	182291

Dimen- sions dia. x length [mm]	Motor coupling dia. [mm]	Handpiece coupling dia. [mm]	
13 x 1.390	30	16	0,600
4 x 1.329	M 10	3,5/2,45	0,120
13 x 1.300	30	16	0,330


<ul style="list-style-type: none"> ■ RPM range: n = 24.000 - 40.000 RPM. ■ Output range: 300 - 500 watts. ■ The speed and output ranges should not be undercut or exceeded. ■ If less power is needed 300 watts, the speed range can be undercut. ■ The radius of curvature should not be smaller than 100 mm. ■ Special lengths available on request. ■ Maintenance set for flexible shafts: see page 97. ■ Replacement core, ready for installation.
<ul style="list-style-type: none"> ■ Replacement casing, ready for installation.

	
Flexible shaft 6 ZG DIN 10 (incl. handpiece 4 ZGB)	658420
	
Core 6 ZG DIN 10 / G 16**	657829
	
Hose 6 ZG DIN 10 / G 16**	658390

Dimen- sions dia. x length [mm]	Motor coupling dia. [mm]	Handpiece coupling dia. [mm]	
16 x 1.643	30	16	1,150
6 x 1.583	M10	3,5/2,45	0,270
16 x 1.553	30	16	0,740

<ul style="list-style-type: none"> ■ RPM range: n = 11.000 - 25.000 RPM. ■ Output range: 660 - 1.460 watts. ■ The speed and output ranges should not be undercut or exceeded. ■ If less power is needed 660 watts, the speed range can be undercut. ■ The radius of curvature should not be smaller than 140 mm. ■ Maintenance set for flexible shafts: see page 97. ■ Replacement core, ready for installation.
<ul style="list-style-type: none"> ■ Replacement casing, ready for installation.

G 16		313374
Handpiece 4 ZGB		
G 16		323267
Angle handpiece WZ 4 A		
Type with BSVH 24		
		

Dimen- sions dia. x length [mm]	Transmis- sion ratio	Collet group	
19,5 x 110	—	9*	0,140
43 x 111	1 : 1	10*	0,270

<ul style="list-style-type: none"> ■ Max. speed: 40.000 RPM. ■ Incl. collet 6 mm.
<ul style="list-style-type: none"> ■ Max. speed: 20.000 RPM. ■ Incl. collet 3 mm. ■ Max. speed: 15.000 RPM when used with a 6 mm collet. ■ Belt grinding attachment: see page 96.

** Please enquire about cores and hoses with sliding-type coupling at both ends.

* See page 94 for full collet range.

Flexible Shaft Drives and Accessories

Flexible Shafts



	Catalogue 202	Catalogue 203*	Catalogue 204*		Catalogue 206	Catalogue 208
RPM outputs						
18.000 RPM Mammoth + ST 103 RUER 8/180 SI / RUER 10/250 SI	<p>TC burrs cut 3, 3 PLUS, 4, 5, ALU PLUS head ø 3 to 5 mm</p> <p>cut 1, ALU, FVK head ø 5 to 10 mm</p> <p>HSS rotary rutters cut ALU, 1, 2, 3, 5 head ø up to 3,2 mm</p> <p>Please observe the recommendations relating to the various cutting speeds on catalogue page 202.</p>	<p>Mounted points head ø up to 32 mm width up to 32 mm</p>	<p>Poliflex® fine grinding points bond: GR and PUR head ø up to 12 mm GHR, LR and TX head ø up to 20 mm LHR head ø up to 30 mm</p> <p>Poliflex® wheels bond TX ø 25 mm</p> <p>Abrasive spiral bands head ø up to 30 mm</p> <p>POLICAP® head ø up to 13 mm</p>	<p>Fan grinders head ø up to 40 mm</p> <p>ATADISC® abrasive disc holder SHT 3575 with abrasive disc AD 7505</p> <p>COMBIDISC® abrasive discs CD 50 with holder SBH 50</p> <p>Felt points head ø up to 10 mm</p>	<p>Cut-off wheels EHT ø up to 55 mm matching arbor BO 6/10 0-4 or BO 8/10 0-4 see catalogue 206</p> <p>Ring wheels ER ø 50 mm matching arbor BO 8/10 6-20 see catalogue 206</p>	<p>Wheel brushes knotted type RBG ø 70 mm</p>
12.000 RPM Mammoth/Quint/RUER 8/180 SI RUG 19/120 SI / RUER 10/250 SI	<p>TC burrs cut 3, 3 PLUS, 4, 5, ALU PLUS head ø 10 to 16 mm</p> <p>cut 1, ALU, FVK head ø 16 mm</p> <p>HSS rotary cutters cut ALU, 1, 2, 3, 5 head ø 3,2 mm</p>		<p>ATADISC® abrasive discs AD 5005, AD 7505 with arbor AF 14/35 hub SP 35 backing pad ST 50 or ST 75</p> <p>COMBIDISC® holders SBH 20 up to 50</p> <p>COMBIDISC® abrasive discs ø 20 to 50 mm</p>	<p>COMBIDISC® TX discs ø 50 and 75 mm</p> <p>COMBIDISC® POLIVLIES discs ø 20 to 38 mm</p>		<p>Pencil brushes individual filament type PBU ø 10 to 20 mm</p> <p>knotted type PBG ø 19 mm</p> <p>Wheel Brushes individual filament type RBU ø 20 to 40 mm</p>
5.000 RPM Mammoth Electronic RUER 8/180 SI	<p>TC burrs cut 3, 3 PLUS, 4, 5, ALU PLUS head ø 25 mm</p> <p>HSS rotary cutters cut ALU, 1, 2, 3, 5 head ø 6 up to 14 mm</p>		<p>All Poliflex® fine grinding points and Poliflex® fine grinding discs ø up to 75 mm</p> <p>Fan grinders head ø up to 80 mm</p> <p>POLINOX® mounted points head ø up to 60 mm</p>	<p>POLINOX® cross buffs head ø 38 mm</p> <p>POLICLEAN® wheels ø 50 mm</p> <p>Felt points and felt wheels ø to 45 mm</p>		<p>Pencil brushes individual filament type PBU ø 10 to 25 mm</p> <p>knotted type PBG ø 10 to 12 mm</p> <p>Wheel brushes individual filament type RBU ø 70 to 80 mm</p>
3.500 RPM Mammoth Electronic RUER 8/180 SI	<p>TC burrs cut 3, 3 PLUS, 4, 5, ALU PLUS head ø 25 mm</p> <p>HSS rotary cutters cut ALU, 1, 2, 3, 5 head ø 6 up to 14 mm</p>		<p>All Poliflex® fine grinding points and Poliflex® fine grinding discs ø up to 80 mm</p> <p>Fan grinders head ø up to 80 mm</p> <p>POLINOX® mounted points head ø up to 100 mm</p>	<p>POLICLEAN® wheels ø 50 and 75 mm</p> <p>Poliflex® marbling tools PF ZY 5040</p> <p>Felt points and felt wheels ø to 45 mm</p> <p>Cloth rings ø 50 mm</p>		<p>Pencil brushes individual filament type PBU ø 10 mm</p>

Note: Where no shank diameter is indicated, the shank diameter specification is 6 mm.


***Catalogue 203/204:** This data applies to a free shank length of 10 mm and the stated max. mounted point dimensions.

Order No.	EAN 4007220
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Technical data

Special features


DIN 10 DPF/SRF




Flexible shaft 6 Z DIN 10/DPF without handpiece with duplex spring coupling **657720**




Flexible shaft 6 Z DIN 10/SRF without handpiece with expansion ring coupling **657737**



DPF coupling



SRF coupling 360° rotation

Dimensions dia. x length [mm]	Motor coupling dia. [mm]	Handpiece coupling dia. [mm]	
12 x 1.250	30	10	0,800
12 x 1.250	30	10	0,800

- RPM range:
n = 11.000 - 24.000 RPM.
- Output range: 660 - 1.460 watts.
- The speed and output ranges should not be undercut or exceeded.
- At a reduced output of < 660 watt, the speed range can be undercut.
- The radius of curvature should not be smaller than 140 mm.
- Special lengths available on request.
- Maintenance set for flexible shafts, see page 97.



Handpiece 6 Z **657751**



Handpiece 6 Z SP 3.0 **657768**



Angle handpiece WZ 6 **657775**



Telescopic angled handpiece WZT 6 3.0 **657782**




Telescopic handpiece set to max. length



Telescopic angled handpiece WZT 6 45° 6.0 **657799**



Telescopic handpiece set to max. length

Dimensions dia. x length [mm]	Transmission ratio	Collet group	
24 x 140	–	13*	0,131
22 x 139	–	**	0,270
50 x 170	1,25 : 1	13*	0,225
35 x 170	1,38 : 1	14*	0,170
35 x 255			
45 x 200	1,53 : 1	13*	0,210
45 x 260			

- Max. speed: 24.000 RPM.
- Incl. collet 6 mm.
- Max. speed: 24.000 RPM.
- Incl. collet 3 mm.
- Max. speed: 18.000 RPM.
- Incl. collet 6 mm.
- Max. speed: 18.000 RPM.
- Incl. collet 3 mm.
- Max. speed: 18.000 RPM.
- Incl. collet 6 mm.

**Handpiece with 2,34 mm collet: please enquire.

* See page 94 for full collet range.

Flexible Shaft Drives and Accessories



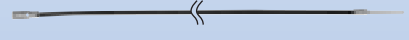









Flexible Shafts



	Catalogue 202	Catalogue 203*	Catalogue 204*	Catalogue 205	Catalogue 206	Catalogue 208
RPM outputs						
24,000 RPM Mammoth + ST 103 RUER 5/250 SI / RUER 10/250 SI	<p>TC burrs cut 3, 3 PLUS, 4, 5, ALU PLUS head ø 5 to 8 mm</p> <p>cut 1, ALU, FVK head ø 8 to 12 mm</p> <p>HSS rotary cutters cut ALU, 1, 2, 3, 5 head ø up to 4 mm</p> <p>Please observe the recommendations relating to the various cutting speeds on catalogue page 202.</p>	<p>Mounted points head ø up to 20 mm width up to 13 mm shank ø 3 mm</p> <p>Mounted points head ø up to 25 mm width up to 32 mm</p>	<p>Poliflex® fine grinding points shank ø 3 + 6 mm bond: GR and PUR head ø up to 12 mm GHR, LR and TX head ø up to 20 mm LHR head ø up to 25 mm</p> <p>Poliflex® wheels bond TX ø 25 mm</p> <p>Abrasive spiral bands ø up to 22 mm</p>	<p>Diamond grinding points head ø up to 12 mm</p> <p>CBN grinding points head ø up to 15 mm</p> <p>POLICAP® head ø up to 11 mm</p> <p>POLIROLL® head ø up to 9 mm</p> <p>Fan grinders head ø up to 25 mm</p> <p>POLINOX® ring wheels PNER ø 25 mm</p>	<p>Cut-off wheels EHT ø up to 55 mm matching arbor BO 6/6 0-4 see catalogue 206</p> <p>Ring wheels ER ø 30 mm matching arbor BO 6/6 3-10 see catalogue 206</p>	
20,000 RPM Record grinder RUER 5/250 SI RUER 10/250 SI	<p>TC burrs cut 3, 3 PLUS, 4, 5, ALU PLUS head ø 6 up to 10 mm</p> <p>HSS rotary cutters cut ALU, 1, 2, 3, 5 head ø 1,6 up to 5 mm</p>	<p>Mounted points head ø up to 40 mm width up to 20 mm</p> <p>Catalogue 204</p> <p>Poliflex® fine grinding points bond: GR and PUR head ø up to 15 mm GHR, LR and TX head ø up to 25 mm LHR head ø up to 30 mm</p> <p>Poliflex® wheels bond TX ø 25 mm</p>	<p>POLICAP® head ø up to 11 mm</p> <p>Fan grinders head ø 25 mm</p> <p>Abrasive spiral bands head ø up to 25 mm</p> <p>POLIROLL® + POLICO® head ø to 10 mm</p> <p>POLINOX® ring wheels PNER ø 25 mm</p>	<p>Diamond grinding points head ø up to 12 mm</p> <p>ATADISC® abrasive disc holder SHT 3550 with abrasive disc AD 7505</p> <p>COMBIDISC® abrasive discs ø 20 to 50 mm</p> <p>COMBIDISC® POLIVLIES® discs hard type VRH 20, 25, 38</p>	<p>Cut-off wheels EHT ø up to 55 mm matching arbor BO 6/10 0-4 or BO 8/10 0-4 see catalogue 206</p> <p>Ring wheels ER ø 40 mm matching arbor BO 6/6 3-10 see catalogue 206</p>	
17,100 RPM Mammoth + ST 103 RUER 8/180 SI Record grinder RUER 10/250 SI	<p>TC burrs cut 3, 3 PLUS, 4, 5, ALU PLUS head ø 7 to 10 mm</p> <p>cut 1, ALU, FVK head ø 10 to 16 mm</p> <p>HSS rotary cutters cut ALU, 1, 2, 3, 5 head ø 2,3 up to 6 mm</p>	<p>Mounted points head ø up to 32 mm width up to 32 mm</p> <p>Catalogue 204</p> <p>Poliflex® fine grinding points bond: GR and PUR head ø up to 12 mm GHR, LR and TX head ø up to 20 mm LHR head ø up to 30 mm</p>	<p>Poliflex® wheels bond TX ø 25 mm</p> <p>Abrasive spiral bands head ø up to 30 mm</p> <p>POLICAP® head ø up to 13 mm</p> <p>Fan grinders head ø up to 40 mm</p>	<p>ATADISC® abrasive disc holder SHT 3575 with abrasive disc AD 7505</p> <p>COMBIDISC® abrasive discs CD 75 with holder SBH 75</p> <p>Felt points head ø up to 10 mm</p>	<p>Cut-off wheels EHT ø to 55 mm matching arbor BO 6/10 0-4 or BO 8/10 0-4 see catalogue 206</p> <p>Ring wheels ER ø 50 mm matching arbor BO 8/10 6-20 or BO 6/6 3-10 see catalogue 206</p>	<p>Wheel brushes knotted type RBG ø 70 mm</p>
12,000 RPM Mammoth/Quint/RUER 8/180 SI RUG 19/120 SI / RUER 10/250 SI	<p>TC burrs cut 3, 3 PLUS, 4, 5, ALU PLUS head ø 10 to 16 mm</p> <p>HSS rotary cutters cut ALU, 1, 2, 3, 5 head ø 3,2 to 7 mm</p>	<p>Tools for WT 7 E M14 at a drive speed of 25.000 RPM</p>	<p>ATADISC® abrasive discs AD 5005, AD 7505 with arbor AF 14/35 hub SP 35 backing pad ST 50 or ST 75</p> <p>COMBIDISC® holder SBH 20 up to 75</p> <p>COMBIDISC® abrasive discs ø 20 to 75 mm</p> <p>COMBIDISC® TX discs ø 50 and 75 mm</p>	<p>COMBIDISC® POLIVLIES discs ø 20 to 75 mm</p> <p>COMBIDISC® POLICLEAN® discs ø 50 mm</p> <p>Fibre discs and backing pads ø up to 115 mm</p> <p>For BSVH short belts BA/VB 3-20/520</p>	<p>Cut-off wheels and grinding wheels</p> <p>POLIFAN® flap discs</p> <p>Diamond cut-off wheels ø up to 115 mm</p>	<p>Pencil brushes individual filament type PBU ø 10 to 20 mm</p> <p>knotted type PBG ø 19 mm</p> <p>Wheel brushes individual filament type RBU ø 20 to 40 mm</p> <p>knotted type RBG ø 70 to 100 mm with WT 7 E M14</p> <p>knotted type RBG ø 115 Bo. ø 22,2</p>

Note: Where no shank diameter is indicated, the shank diameter specification is 6 mm.

***Catalogue 203/204:** This data applies to a free shank length of 10 mm and the stated max. mounted point dimensions.

Order No.		EAN 4007220		Technical data				Special features	
DIN 10		G 22		Dimen- sions dia. x length [mm]	Motor coupling dia. [mm]	Handpiece coupling dia. [mm]		<ul style="list-style-type: none"> ■ RPM range: n = 11.000 - 25.000 RPM ■ Output range: 800 - 1.760 watts. ■ The RPM and output ranges should not be undercut or exceeded. ■ If less power is needed < 880 watts, the RPM range can be undercut. ■ The radius of curvature should not be smaller than 140 mm. ■ Special lengths available on request. ■ Maintenance set for flexible shafts: see page 97. ■ Replacement core, ready for installation. ■ Replacement casing, ready for installation. 	
 Flexible shaft (incl. handpiece 7 ZGA) 7 ZG DIN 10** 7 ZGU DIN 10 2 m		181768 181775		18 x 1.654 18 x 2.154	30 30	22 22	1,510 2,000		
 Core 7 ZG DIN 10/G 22** 7 ZGU DIN 10/G 22 2 m		182086 182093		7 x 1.589 7 x 2.089	M10 M10	5/3,85 5/3,85	0,400 0,600		
 Hose 7 ZG DIN 10/G 22** 7 ZGU DIN 10/G 22 2 m		182307 182314		18 x 1.553 18 x 2.053	30 30	22 22	0,850 1,100		
 Flexible shaft 7 ZG DIN 10 with rigid extension				Dim. acc. customer's require- ments	30	22		<ul style="list-style-type: none"> ■ Handpieces and types see page 48. ■ Please enquire about possible bending radii. 	
				Dimen- sions dia. x length [mm]	Transmis- sion ratio	Collet group			
 G22 Handpiece 7 ZGA		181928		27 x 130	–	11*	0,320	<ul style="list-style-type: none"> ■ Max. speed: 25.000 RPM. ■ Incl. collet 6 mm. ■ Max. speed: 17.100 RPM. ■ Incl. collet 6 mm. ■ Max. speed: 17.100 RPM. ■ Incl. collet 6 mm. 	
 G22 Angle handpiece WZ 7 45°		303900		57 x 175	1,3 : 1	6*	0,665		
 G22 Angle handpiece WZ 7 B		323250		55 x 157	1,3 : 1	6*	0,600		
 G22 Angle drive WT 7 E M14		301708		Dimen- sions dia. x length [mm]	Transmis- sion ratio	Drive spindle		<ul style="list-style-type: none"> ■ Max. speed: 25.000 RPM. ■ The angle drive reduces the drive speed 25.000 to 9.300 RPM. ■ Tool mount: 22,23 mm bore hole. ■ For grinding and cut-off wheels up to dia. 115 mm (80 m/s). ■ Further information on page 93. ■ Belt grinding attachment: see page 96. 	
 Type with BSVH 41				67 x 178	2,7 : 1	M14	0,660		

**For cores and hoses with sliding-type coupling at both ends, please enquire.

* See page 94 for full collet range.

Flexible Shaft Drives and Accessories

Flexible Shafts


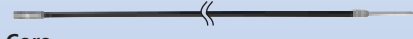




	Catalogue 202	Catalogue 203*	Catalogue 204*		Catalogue 206	Catalogue 208
RPM outputs						
17,100 RPM Mammoth + ST 103	<p>TC burrs cut 3, 3 PLUS, 4, 5, ALU PLUS head ø 7 to 10 mm</p> <p>cut 1, ALU, FVK head ø 10 to 16 mm</p> <p>HSS rotary cutters cut ALU, 1, 2, 3, 5 head ø up to 2,3 to 6 mm</p> <p>Please observe the recommendations relating to the various cutting speeds on catalogue page 202.</p>	<p>Mounted points head ø up to 32 mm width up to 32 mm</p>	<p>Poliflex® fine grinding points bond: GR and PUR head ø up to 12 mm GHR, LR and TX head ø up to 20 mm LHR head ø up to 30 mm</p> <p>Poliflex® wheels bond TX ø 25 mm</p> <p>Abrasive spiral bands ø 30 mm</p>	<p>POLICAP® head ø up to 13 mm</p> <p>Fan grinders head ø up to 40 mm</p> <p>COMBIDISC® abrasive discs up to CD 75 with holder SBH 75</p> <p>ATADISC® abrasive disc holder SHT 3575 with abrasive disc AD 7505</p> <p>Felt points head ø up to 10 mm</p>	<p>Cut-off wheels EHT ø up to 55 mm matching arbor BO 6/10 0-4 or BO 8/10 0-4 see catalogue 206</p> <p>Ring wheels ER ø 50 mm matching arbor BO 8/10 6-20 see catalogue 206</p>	<p>Wheel brushes knotted type RBG ø 70 mm</p>
12,000 RPM Mammoth / Record Grinder RUG 19/120 SI Quint / Master Grinder	<p>TC burrs cut 3, 3 PLUS, 4, 5, ALU PLUS head ø 10 to 16 mm</p> <p>cut 1, ALU, FVK head ø 16 mm</p> <p>HSS rotary cutters cut ALU, 1, 2, 3, 5 head ø 3,2 up to 7 mm</p>	<p>Mounted points head ø up to 50 mm width up to 13 mm</p>	<p>Poliflex® fine grinding points bond: GR, PUR and TX head ø to 25 mm GHR, LR and LHR head ø to 40 mm</p> <p>Abrasive spiral bands head ø to 45 mm</p> <p>POLICAP® head ø to 23 mm</p> <p>POLIROLL® head ø to 18 mm</p>	<p>Fan grinders head ø to 60 mm</p> <p>POLINOX® ring wheels PNER ø 50 mm</p> <p>COMBIDISC® tools ø to 75 mm</p>	<p>Cut-off wheels EHT ø up to 55 mm matching arbor BO 6/10 0-4 or BO 8/10 0-4 see catalogue 206</p> <p>Ring wheels ER ø 50 mm matching arbor BO 8/10 6-20 see catalogue 206</p>	<p>Wheel brushes knotted type RBG ø 115 Bo. ø 22,2</p> <p>Pencil brushes individual filament type PBU ø 10 to 20 mm knotted type PBG ø 19 mm</p> <p>Wheel brushes individual filament type RBU ø 20 to 40 mm knotted type RBG ø 70 to 100 mm</p>
9,600 RPM Mammoth + ST 103	<p>TC burrs cut 3, 3 PLUS, 4, 5, ALU PLUS head ø 12 to 20 mm</p> <p>HSS rotary cutters cut ALU, 1, 2, 3, 5 head ø 3,2 to 10 mm</p>	<p>Mounted points hardness D head ø to 40 mm</p> <p>Mounted points head ø to 50 mm width to 13 mm</p>	<p>Poliflex® fine grinding points bond: GR and PUR head ø up to 25 mm GHR, LR and TX head ø up to 40 mm LHR head ø up to 40 mm</p> <p>Poliflex® wheels bond TX ø up to 40 mm</p> <p>Abrasive spiral bands ø up to 60 mm</p> <p>POLICAP® head ø up to 21 mm</p> <p>Fan grinders head ø up to 60 mm</p>	<p>POLIROLL® head ø up to 18 mm</p> <p>POLINOX® mounted points head ø up to 50 mm</p> <p>POLINOX® ring wheels PNER ø up to 50 mm</p> <p>POLINOX® cross buffs head ø 25 mm</p> <p>Felt points head ø up to 20 mm</p>		<p>Pencil brushes individual filament type PBU ø 10 to 30 mm knotted type PBG ø 10 to 25 mm encapsulated PBU ø 22 to 30 mm</p> <p>Wheel brushes individual filament type RBU ø 20 to 70 mm knotted type RBG ø 100 mm encapsulated RBV ø 63 mm</p>
	Tools for the RPM range 1.600 - 9.600 RPM are on page 88.					


Note: Where no shank diameter is indicated, the shank diameter specification is 6 mm.

***Catalogue 203/204:** This data applies to a free shank length of 10 mm and the stated max. mounted point dimensions.

Order No.	EAN 4007220
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DIN 10/15	G 28
	
Flexible shaft (incl. handpiece 10 ZGE)	
10 ZG DIN 10**	181782
10 ZG DIN 10 2 m**	181850
10 ZG DIN 15	181874
	
Core	
10 ZG DIN 10/G 28**	182109
10 ZG DIN 10/G 28 2 m**	182116
10 ZG DIN 15/G 28	182406
	
Hose	
10 ZG DIN 10/G 28**	182321
10 ZG DIN 10/G 28 2 m**	182338
10 ZG DIN 15/G 28	182444
	
Flexible shaft 10 ZG DIN 10 or 10 ZG DIN 15 with rigid extension	


Technical data			
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Dimen- sions dia. x length [mm]	Motor coupling dia. [mm]	Handpiece coupling dia. [mm]	
22 x 1.683	30	28	2,500
22 x 2.183	30	28	2,950
22 x 1.700	40	28	2,550
10 x 1.600	M10	7,5/5,85	0,650
10 x 2.100	M10	7,5/5,85	0,950
10 x 1.611	M14	7,5/5,85	0,700
22 x 1.553	30	28	1,400
22 x 2.053	30	28	1,550
22 x 1.570	40	28	1,400
Dim. acc. customer's require- ments	30 40	28 28	

Special features


<ul style="list-style-type: none"> ■ RPM range: n = 750 - 18.000 RPM. ■ Output range: 140 - 2.450 watts. ■ The speed and output ranges should not be undercut or exceeded. ■ The radius of curvature should not be smaller than 170 mm. ■ Special lengths available on request. ■ Maintenance set for flexible shafts: see page 97. ■ Replacement core, ready for installation. ■ Replacement casing, ready for installation. ■ Arbors and types see page 49. ■ Please enquire about possible bending radii.
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G28		
Handpiece 10 ZGE		181966
G28		
Handpiece 12 ZGA		181959
G28		
Angle handpiece WZ 10 45°		303917
G28		
Angle handpiece WZ 10 B		323243
G28		
Flexible special handpiece		182062



Dimen- sions dia. x length [mm]	Transmis- sion ratio	Collet group	
33 x 170	–	11*	0,510
33 x 162	–	12*	0,510
57 x 184	1,3 : 1	6*	0,630
55 x 166	1,3 : 1	6*	0,575
24 x 525	–	11*	1,000


<ul style="list-style-type: none"> ■ Max. speed: 18.000 RPM. ■ Incl. collet 6 mm. ■ Rubber spindle bearing. ■ Max. speed: 18.000 RPM. ■ Incl. collet 12 mm. ■ Max. speed: 17.100 RPM. ■ Incl. collet 6 mm. ■ Max. speed: 17.100 RPM. ■ Incl. collet 6 mm. ■ Max. speed: 12.000 RPM. ■ Incl. collet 6 mm. ■ Handpiece can be bent to a radius of 200 mm (per customer specification). ■ Special lengths available on request.

G28		
Angle drive WT 10 H		349250

Dimen- sions dia. x length [mm]	Transmis- sion ratio	Drive spindle	
108 x 178	1,2 : 1	M14	1,000

<ul style="list-style-type: none"> ■ Max. speed: 8.500 RPM. ■ Tool mount: 22,23 mm bore hole. ■ Further information on page 93.
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G28		
Belt sander BSG 10/35 E		183212
G28		
Belt sander BSG 10/50 E		183199
G28		
Belt sander BSG 3/10/40		183014

Dimensions dia. x length [mm]	Belt- dimensions L x W [mm]	
180 x 180	450 x 35	1,500
180 x 195	450 x 50	1,580
131 x 132	505 x 40	2,220

<ul style="list-style-type: none"> ■ Max. speed: 7.000 RPM. ■ Rubber spindle bearing. ■ For short belts see catalogue 204. ■ Max. speed: 5.000 RPM. ■ For short belts see catalogue 204.

** Please enquire about cores and hoses with sliding-type coupling at both ends.

* See page 94 for full collet range.

Flexible Shaft Drives and Accessories

Flexible Shafts



	Catalogue 202	Catalogue 203*	Catalogue 204*		Catalogue 206	Catalogue 208
RPM outputs						
12.000 RPM Mammoth / Master Grinder ME 22/150	TC burrs cut 3, 3 PLUS, 4, 5, ALU PLUS head ø 10 to 16 mm cut 1, ALU, FVK head ø 16 mm HSS rotary cutters cut ALU, 1, 2, 3, 5 head ø 3,2 to 7 mm Please observe the recommendations relating to the various cutting speeds on cat. 202.	Mounted points head ø up to 50 mm width up to 40 mm	Poliflex® fine grinding points bond: GR, PUR and TX head ø up to 25 mm GHR, LR and LHR head ø up to 40 mm Abrasive spiral bands head ø up to 45 mm	Fan grinders head ø up to 60 mm Felt points head ø up to 20 mm POLINOX® grinding wheels PNER ø 50 mm COMBIDISC® tools ø up to 75 mm	Cut-off wheels EHT ø up to 55 mm matching arbor BO 6/6 0-4 or BO 8/10 0-4 see catalogue 206 Ring wheels ER ø 70 mm matching arbor BO 8/10 6-20 see catalogue 206	Wheel brushes knotted type RBG ø 115 Bo. ø 22,2 Pencil brushes individual filament type PBU ø 10 to 20 mm knotted type PBG ø 19 mm Wheel brushes individual filament type RBU ø 20 to 40 mm knotted type RBG ø 70 to 100 mm
9.600 RPM Mammoth + ST 103 ME 22/150	TC burrs cut 3, 3 PLUS, 4, 5, ALU PLUS head ø 12 to 20 mm HSS rotary cutters cut ALU, 1, 2, 3, 5 head ø 3,2 to 10 mm	Mounted points hardness D head ø up to 40 mm Mounted points head ø up to 50 mm width up to 13 mm	Poliflex® fine grinding points bond: GR and PUR head ø up to 25 mm GHR, LR, TX and LHR head ø up to 40 mm Poliflex® wheels bond TX ø 40 mm Abrasive spiral bands head ø up to 60 mm Fan grinders head ø up to 60 mm	POLINOX® ring wheels PNER ø 50 and 75 mm POLINOX® cross buffs head ø 25 and 38 mm POLINOX® mounted points head ø up to 50 mm Felt points head ø up to 15 mm		Pencil brushes individual filament type PBU ø 10 to 30 mm knotted type PBG ø 10 to 25 mm encapsulated PBV ø 22 to 30 mm Wheel brushes individual filament type RBU ø 20 to 70 mm knotted type RBG ø 100 mm
8.000 RPM Mammoth ME 22/150	TC burrs cut 3, 3 PLUS, 4, 5, ALU PLUS head ø 15 to 25 mm HSS rotary cutters cut ALU, 1, 2, 3, 5 head ø 4 to 12 mm		Poliflex® fine grinding points bond: GR, PUR and TX head ø up to 30 mm GHR, LR and LHR head ø up to 40 mm POLINOX® mounted points head ø up to 50 mm POLINOX® ring wheels PNER ø 75 mm	Abrasive spiral bands head ø up to 75 mm Fan grinders head ø up to 60 mm Felt points head ø up to 30 mm Fibre discs with plastic backing pad ø up to 178 mm	Cut-off and grinding wheels POLIFAN® flap discs Diamond cut-off wheels ø up to 178 mm	Pencil brushes knotted type PBG ø 19 to 25 mm Wheel brushes individual filament type RBU ø 20 to 80 mm knotted type RBG ø 100 mm encapsulated RBV ø 63 mm
7.300 RPM Master Grinder ME 22/150	TC burrs cut 3, 3 PLUS, 4, 5, ALU PLUS head ø 15 to 25 mm HSS rotary cutters cut ALU, 1, 2, 3, 5 head ø 4 to 12 mm		Poliflex® fine grinding points head ø up to 40 mm POLINOX® mounted points head ø up to 60 mm POLINOX® ring wheels PNER ø 75 mm	Abrasive spiral bands head ø up to 75 mm Fan grinders head ø up to 80 mm	Flap wheels FR 10050 matching arbor BO 12-1/18	Wheel brushes knotted type RBG ø 115 to 178 mm Bo. ø 22,2 individual filament type RBU ø 50 to 80 Cup brushes individual filament type TBU ø 60 to 75 mm
5.100 RPM Master Grinder ME 22/150	HSS rotary cutters cut ALU, 1, 2, 3, 5 head ø 6 to 14 mm		Poliflex® fine grinding points head ø up to 75 mm POLINOX® mounted points head ø up to 80 mm POLINOX® cross buffs head ø 38 mm	POLICLEAN® wheels ø 50 mm Abrasive spiral bands head ø up to 100 mm Fan grinders head ø 80 mm	Flap wheels FR 10050, FR 16530 + 16550 matching arbor BO 12-2/18	Wheel brushes individual filament type RBU ø 100 to 125 mm Bo. ø 22,2 individual filament type RBU ø 70 to 80 Cup brushes individual filament type TBU ø 50 to 100 mm M14
3.000 RPM Mammoth/ Master Grinder ME 22/150	HSS rotary cutters cut ALU, 1, 2, 3, 5 head ø 16 mm		Poliflex® wheels bond: GR and PUR ø up to 80 mm Abrasive spiral bands head ø to 100 mm	POLINOX® ring wheels ø up to 150 mm matching arbor 12/20 14-50 POLICLEAN® wheels ø 100 mm	Fan grinders head ø to 80 mm Flap wheels FR 25050 matching arbor BO 12-3/18	Wheel brushes individual filament type RBU ø 150 mm Bo. ø 22,2 Cup Brushes individual filament type TBU ø 60 to 100 M14
1.600 RPM Mammoth/ Master Grinder ME 22/150			Poliflex® wheels bond: GR and PUR ø up to 125 mm Felt wheels head ø to 125 mm	POLINOX® ring wheels ø up to 200 mm POLICLEAN® wheels ø 150 mm POLIVLIES® wheels ø 150 mm	Marbling tools ø up to 50 mm matching arbor BO 6/8 Cloth rings TR 12510	




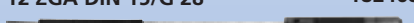
Note: Where no shank diameter is indicated, the shank diameter specification is 6 mm.


***Catalogue 203/204:** This data applies to a free shank length of 10 mm and the stated max. mounted point dimensions.

Order No.	EAN 4007220
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Technical data


Special features

DIN 10/15	G 28
	
Flexible shaft (incl. handpiece 12 ZGA)	
12 ZGA DIN 10**	181799
12 ZGA DIN 15	181881
	
Core	
12 ZGA DIN 10/G 28**	182130
12 ZGA DIN 15/G 28	182420
	
Hose	
12 ZGA DIN 10/G 28**	182352
12 ZGA DIN 15/G 28	182468
	
Flexible shaft 12 ZGA DIN 10 or 12 ZGA DIN 15 with rigid extension	

Dimen- sions dia. x length [mm]	Motor coupling dia. [mm]	Handpiece coupling dia. [mm]	
25 x 2.173	30	28	4,250
25 x 2.187	40	28	4,300
12 x 2.102	M10	7,5/5,85	1,300
12 x 2.112	M14	7,5/5,85	1,300
25 x 2.045	30	28	2,450
25 x 2.059	40	28	2,500
Dim. acc. customer's require- ments	30 40	28 28	


<ul style="list-style-type: none"> Speed range: n = 850 - 12.000 RPM. Output range: 525 - 6.280 watts. The speed and output range should not be undercut or exceeded. The radius of curvature should not be smaller than 240 mm. Special lengths available on request. Maintenance set for flexible shafts: see page 97.
<ul style="list-style-type: none"> Replacement core, ready for installation.
<ul style="list-style-type: none"> Replacement casing, ready for installation.
<ul style="list-style-type: none"> Arbors and types see page 49. Please enquire about possible bending radii.

G28		
Handpiece 12 ZGA		181959
G28		
Handpiece 10 ZGE		181966
G28		
Angle handpiece WZ 10 45°		303917
G28		
Angle handpiece WZ 10 B		323243
G28		
Flexible special handpiece		182062

Dimen- sions dia. x length [mm]	Transmis- sion ratio	Collet group	
33 x 162	–	12*	0,510
33 x 170	–	11*	0,510
57 x 184	1,3 : 1	6*	0,630
55 x 166	1,3 : 1	6*	0,575
24 x 525	–	11*	1,000


<ul style="list-style-type: none"> Max. speed: 18.000 RPM. Incl. collet 12 mm.
<ul style="list-style-type: none"> Max. speed: 18.000 RPM. Incl. collet 6 mm.
<ul style="list-style-type: none"> Max. speed: 17.100 RPM. Incl. collet 6 mm.
<ul style="list-style-type: none"> Max. speed: 17.100 RPM. Incl. collet 6 mm.
<ul style="list-style-type: none"> Max. speed: 12.000 RPM. Incl. collet 6 mm. Handpiece can be bent to a radius of 200 mm (per customer specification). Special lengths available on request.

G28		
Angle drive WT 10 H		349250

Dimen- sions dia. x length [mm]	Transmis- sion ratio	Drive spindle	
108 x 178	1,2 : 1	M14	1,000

<ul style="list-style-type: none"> Max. speed: 8.500 RPM. Tool mount: 22,23 mm bore hole. Further information on page 93.
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G28		
Belt sander BSG 10/35 E		183212
G28		
Belt sander BSG 10/50 E		183199
G28		
Belt sander BSG 3/10/40		183014

Dimensions dia. x length [mm]	Belt-dimensions L x W [mm]	
180 x 180	450 x 35	1,500
180 x 195	450 x 50	1,580
131 x 132	505 x 40	2,220

<ul style="list-style-type: none"> Max. speed: 7.000 RPM. Rubber spindle bearing. For short belts see catalogue 204.
<ul style="list-style-type: none"> Max. speed: 5.000 RPM. For short belts see catalogue 204.





** Please enquire about cores and hoses with sliding-type coupling at both ends.

* See page 94 for full collet range.

Flexible Shaft Drives and Accessories

Flexible Shafts



	Catalogue 202	Catalogue 204*	Catalogue 206	Catalogue 208
RPM outputs				
9.600 RPM Mammoth + ST 103 ME 22/150	<p>TC burrs cut 3, 3 PLUS, 4, 5, ALU PLUS head ø 12 to 20 mm</p> <p>HSS rotary cutters cut ALU, 1, 2, 3, 5 head ø 3,2 up to 10 mm</p> <p>Please observe the recommendations relating to the various cutting speeds on catalogue page 202.</p>	<p>Poliflex® fine grinding points bond: GR and PUR head ø up to 25 mm GHR, LR and TX head ø up to 40 mm LHR head ø up to 40 mm</p> <p>Poliflex® wheels bond TX ø 40 mm</p> <p>Fan grinders head ø up to 60 mm</p>	<p>POLINOX® mounted points head ø up to 50 mm</p> <p>Felt points head ø up to 15 mm</p> <p>Abrasive spiral bands head ø up to 60 mm</p> <p>POLINOX® ring wheels PNER ø 50 and 75 mm</p> <p>POLINOX® cross buffs head ø 25 and 38 mm</p>	<p>Pencil brushes individual filament type PBU ø 10 to 30 mm</p> <p>knotted type PBG ø 10 to 25 mm</p> <p>encapsulated PBV ø 22 to 30 mm</p> <p>Wheel brushes individual filament type RBU ø 20 to 70 mm</p> <p>knotted type RBG ø 100 mm</p> <p>encapsulated RBV ø 63 mm</p>
6.500 RPM Mammoth / Master Grinder ME 22/150	<p>HSS rotary cutters cut ALU, 1, 2, 3, 5 head ø 5 to 14 mm</p>	<p>Flap wheels FR 10050</p> <p>matching arbor MK 1-1/18 or FR/VR 12/25,4 100-165</p> <p>Fibre discs with backing pads up to ø 230 mm</p>	<p>Cut-off and grinding wheels</p> <p>POLIFAN® flap discs</p> <p>Diamond cut-off wheels ø up to 230 mm</p> <p>Flaring cup wheels ETT ø up to 125 mm</p>	<p>Wheel brushes knotted type RBG ø 115 to 178 mm Bo. ø 22,2</p> <p>individual filament type RBU ø 115 to 125 mm M 14</p> <p>Pencil brushes individual filament type PBU ø 10 to 30 mm</p> <p>knotted type PBG ø 10 to 25 mm</p> <p>Wheel brushes individual filament type RBU ø 50 to 80 mm</p> <p>Cup brushes individual filament type TBU ø 50 to 100 mm</p> <p>knotted type TBG ø 65 to 100 mm</p> <p>Flaring cup brushes individual filament type KBU ø 100 to 115 M14</p> <p>knotted type KBG ø 115 to 125 M 14</p>
5.100 RPM Master Grinder ME 22/150	<p>HSS rotary cutters cut ALU, 1, 2, 3, 5 head ø 6 to 14 mm</p>	<p>Flap wheels FR 15050, FR 16530 FR 16550</p> <p>matching arbor MK 1-2/18 or FR/VR 12/25,4 100-165</p> <p>POLINOX® mounted points head ø up to 80 mm</p>	<p>POLICLEAN® wheels ø 50 mm</p> <p>Abrasive spiral bands head ø up to 100 mm</p> <p>Fan grinders head ø up to 80 mm</p>	<p>Wheel brushes individual filament type RBU ø 100 to 125 mm Bo. ø 22,2</p> <p>Pencil brushes individual filament type PBU ø 10 to 25 mm</p> <p>knotted type PBG ø 10 to 12 mm</p> <p>Wheel brushes individual filament type RBU ø 70 to 80 mm</p> <p>Cup brushes individual filament type TBU ø 50 to 100 mm M14</p>
3.000 RPM Master Grinder ME 22/150		<p>POLINOX® ring wheels ø 150 mm</p> <p>matching arbor MK 1-20 14-50</p>	<p>Flap wheels FR 25050</p> <p>matching arbor MK 1-3/18 or FR/VR 12/44,0 200-250</p> <p>POLICLEAN® wheels ø 100 mm</p>	<p>Wheel brushes individual filament type RBU ø 150 mm Bo. ø 22,2</p> <p>Cup brushes individual filament type RBU ø 60 to 100 mm M14</p>
1.700 RPM Master Grinder ME 22/150		<p>Poliflex® wheels bond: GR and PUR ø up to 125 mm</p> <p>Felt wheels ø up to 125 mm</p>	<p>POLINOX® ring wheels ø up to 200 mm matching arbor MK 1/20 14-50</p> <p>Cloth rings TR 12510</p>	<p>POLICLEAN® wheels ø 150 mm</p> <p>POLIVLIES® wheels ø 150 mm</p>
1.000 RPM Master Grinder ME 22/150		<p>Poliflex® wheels bond: GR and PUR ø up to 200 mm</p> <p>Felt wheels ø up to 125 mm</p>	<p>POLINOX® ring wheels ø up to 200 mm matching arbor MK 1/20 14-50</p> <p>Cloth rings TR 20010</p>	<p>POLICLEAN® wheels ø 150 mm</p> <p>POLIVLIES® wheels ø 150 mm</p>




Note: Where no shank diameter is indicated, the shank diameter specification is 6 mm.


***Catalogue 204:** Specifications apply to a free shank length of 10 mm and the stated max. mounted point dimensions.

Order No.	EAN 4007220
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Technical data

Special features

DIN 10/15	G 35
	
Flexible shaft	
(incl. handpiece 12/15 KG)	
12 KG DIN 10	181812
12 KG DIN 15	181904
	
Core	
12 ZG/KG DIN 10/G 35	182123
12 ZG/KG DIN 15/G 35	182413
	
Hose	
12 ZG/KG DIN 10/G 35	182345
12 ZG/KG DIN 15/G 35	182451

Dimen- sions dia. x length [mm]	Motor coupling dia. [mm]	Handpiece coupling dia. [mm]	
25 x 2.205	30	35	5,150
25 x 2.205	40	35	5,200
12 x 2.102	M10	11/8,85	1,300
12 x 2.108	M14	11/8,85	1,350
25 x 2.060	30	35	2,450
25 x 2.060	40	35	2,500


<ul style="list-style-type: none"> Speed range: n = 850 - 10.000 RPM Output range: 525 - 6.280 watts. The speed and output ranges should not be undercut or exceeded. The radius of curvature should not be smaller than 240 mm. Special lengths available on request. Maintenance set for flexible shafts: see page 97.
<ul style="list-style-type: none"> Replacement core, ready for installation.
<ul style="list-style-type: none"> Replacement casing, ready for installation.

	
Flexible shaft	181829
15 ZG DIN 15	
(incl. handpiece 12/15 KG)	
	
Core	
15 ZG DIN 15 / G 35	182147
	
Hose	
15 ZG DIN 15 / G 35	182369

30 x 2.205	40	35	6,500
15 x 2.108	M14	11/8,85	2,000
30 x 2.060	40	35	3,750

<ul style="list-style-type: none"> Speed range: n = 1.000 - 7.300 RPM Output range: 735 - 5.860 watts. The speed and output ranges should not be undercut or exceeded. The radius of curvature should not be smaller than 300 mm. Special lengths available on request.
<ul style="list-style-type: none"> Replacement core, ready for installation.
<ul style="list-style-type: none"> Replacement casing, ready for installation.



G 35		
Handpiece		181973
12/15 KG MK 1		
G 35		
Handpiece		181942
12 ZG		


Dimen- sions dia. x length [mm]	Transmis- sion ratio	Collet group	
42 x 143	—	—	1,100
42 x 215	—	12*	1,280

<ul style="list-style-type: none"> Max. speed: 10.000 RPM. Tool mount: MK 1. Safety thread: M16 x 1r.
<ul style="list-style-type: none"> Max. speed: 10.000 RPM. Incl. collet 12 mm.

Stronger flexible shafts available on request.

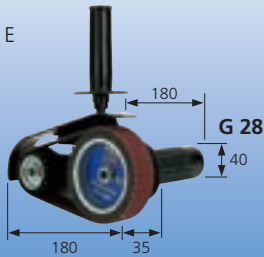
* See page 94 for full collet range.

Arbor	
218 K	
12/1430	

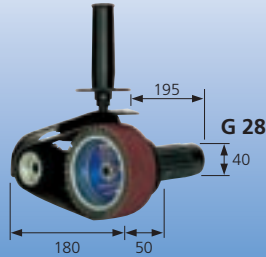
Order No.	EAN 4007220	Machine mounting	Tool mounting [mm]	Suitable for machine types	
218 K	182734	MK 1	ø 18 x 35	handpiece 12/15 KG	0,800
12/1430	182819	ø 12 mm	ø 14 x 30	mounting shank ø 12 mm	0,200

Belt sanders

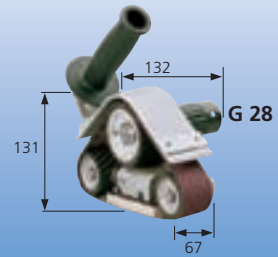
BSG 10/35 E



BSG 10/50 E



BSG 3/10/40




Types "E" with rubber spindle bearing. Can be connected to flexible shafts without hand-piece.

Ordering note:

Please refer to catalogue 204 for detailed information and ordering data regarding abra-

sive and non-woven belts.

Order No.	EAN 4007220	Max. speed [RPM]	Suitable for flexible shaft	Suitable belts	 kg
BSG 10/35 E	183212	7.000	10 ZG, 12 ZGA	BA 35/450, VB 35/450	1,500
BSG 10/50 E	183199	7.000	10 ZG, 12 ZGA	BA 50/450, VB 50/450	1,580
BSG 3/10/40	183014	5.000	10 ZG, 12 ZGA	BA 40/505	2,220


Replacement rollers for belt sanders



For seamless fine grinding on stainless steel (INOX), we recommend the drive roller in soft type (approx. 25 Shore).

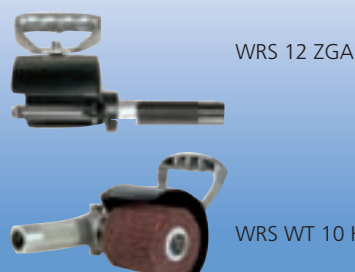
Ordering note:

Guide roller ULR BSG 3/10/40 - 2 rollers are required.

Order No.	EAN 4007220	Description	D x T [mm]	Fits belt sander	 kg
ULR BSG 10/35 E	183229	Guide roller	50 x 30	BSG 10/35 E	0,125
ATR BSG 10/35 E	183236	Drive roller	100 x 30	BSG 10/35 E	0,250
ATR-W BSG 10/35 E	801826	Drive roller soft	100 x 30	BSG 10/35 E	0,250
ULR BSG 10/50 E	183205	Guide roller	50 x 40	BSG 10/50 E	0,145
ATR BSG 10/50 E	183090	Drive roller	100 x 40	BSG 10/50 E	0,300
ATR-W BSG 10/50 E	746424	Drive roller soft	100 x 40	BSG 10/50 E	0,300
ATR BSG 3/10/40	183021	Drive roller	70 x 40	BSG 3/10/40	0,180
ULR BSG 3/10/40	183038	Guide roller	50 x 40	BSG 3/10/40	0,088

Drum Grinders for Flexible Shafts

Drum equipment sets for handpieces



Drum equipment set WRS 12 ZGA


For using grinding drums/rollers with the flexible shaft 12 ZGA. Using this set, the straight flexible shaft handpiece 12 ZGA can be adapted for use with grinding drums/rollers.

Drum equipment set WRS WT 10 H

For using grinding drums/rollers with the angle drive WT 10 H. Using this set, the angle drive WT 10 H can be adapted for use with grinding drums/rollers.

Recommended use:

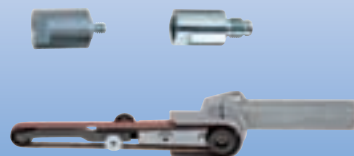
Please refer to catalogues 204 and 208 for information regarding grinding drums and brush roller speeds.

Order No.	EAN 4007220	Spindle dia. [mm]	Max. tool dia. [mm]	Contents [pcs.]	 kg
WRS 12 ZGA	485859	19	125 x 100	Mounting adapter, guard with handle, spindle extension	1,285
WRS WT 10 H	649602	19	125 x 100	Guard with handle, spindle extension	1,150

Accessories WT 7 E M14 G22

AF 14-1/4

AF 14-35



Belt grinding attachment

Angle drive WT 7 E M14 G22

Can be connected to the flexible shafts 7 ZG / 7 ZGU G 22 (without handpiece). Connection to flexible shaft can be pivoted 360°.

Ordering note:

Including flange and guard dia. 115 mm. Please order matching accessories separately.

Matching accessories

arbor

AF 14-1/4 for COMBIDISC®

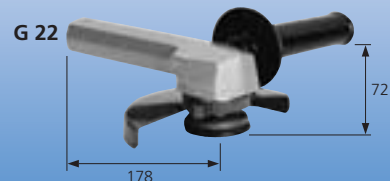
AF 14/35 for ATADISC®


backing pad

GT 115 MF M14, H-GT 115 MF M14, CC-GT 115-125 M 14 (see catalogue 204).

Belt grinder attachment holder with belt grinder attachment arms see page 96.

Angle drive WT 7 E M14 G22



Order No.	EAN 4007220	Input speed n max. RPM	Transmis- sion ratio	Output speed at n max. RPM	Drive spindle thread	Tool mounting [mm]	Suitable for flexible shaft	
WT 7 E M14 G22	301708	25.000	2,7 : 1	9.300	M14	22,23	7 ZG, 7 ZGU	0,660

Can be connected to flexible shaft 10 ZG / 12 ZGA (without handpiece). Connection to flexible shaft can be pivoted 360°.

Ordering note:

Including flange and protective guard dia. 178 mm. Please order matching accessories separately.

Matching accessories

backing pad

GT 178 MF M14,

CC-GT 180 M14,

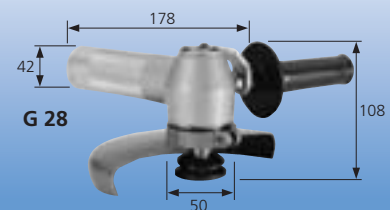
H-GT 178 MF M14 (see catalogue 204).


Suitable tools:

POLIVLIES® ring wheels,
POLIVLIES® velcro-backed discs,
Fibre discs,
Grinding wheels,
Cup wheels,
POLIFAN® flap discs,
Wheel brushes,
Cup brushes.

Please refer to catalogues 204, 206 and 208 for detailed information and ordering data.

Angle drive WT 10 H G28



Order No.	EAN 4007220	Input speed n max. RPM	Transmis- sion ratio	Output speed at n max. RPM	Drive spindle thread	Tool mounting [mm]	Suitable for flexible shaft	
WT 10 H G28	349250	8.500	1,2 : 1	7.100	M14	22,23	10 ZG, 12 ZGA	1,000

The overdrive ST 103 transmits the drive speed in the ratio 1 : 3. The speed is dependent on the machine speed and the diameter of the flexible shaft. Please note that the torque to be transmitted increases as the RPM increases. The power output is limited according to the flexible shaft core diameter.

Safety note:

The drive RPM must not exceed 12.000 RPM.

Maximum RPM

36.000 RPM on flexible shaft 4 ZG
25.000 RPM on flexible shaft 7 ZG / ZGU
18.000 RPM on flexible shaft 10 ZG

Ordering note:

Drive core included in delivery.


Overdrive core

Pre-assembled replacement core on request, please separately.

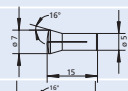


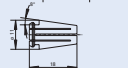
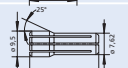
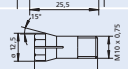
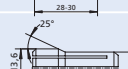

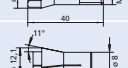


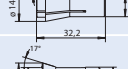
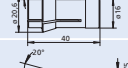
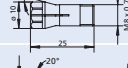
DIN 15 type for Grinding Master available on request.

Overdrive for flexible shaft drives



Order No.	EAN 4007220	Motor coupling	Flexible shaft coupling	Fits machine type	
ST 103 DIN 10	182673	DIN 10, ø 30 mm	DIN 10, ø 30 mm	Mammoth, Mammoth Electronic, Quint, RUG 19/120 SI	1,600
Ersatzseele* ST 103 DIN 10	190524	DIN 10	G 28	Overdrive ST 103	0,070

* Ersatzseele = Replacement core

Collet groups	Order No.*	Dia. [mm]							Dia. [inch]			
		2,34	3	5	6	8	10	12	3/32	1/8	1/4	3/8
1 	914913..	01	02							03		
2 	947016..	03	01						03			
3 	900002..		73						85	82		
4 	957717..		03		01							
5 	900003..		39		40					39		
6 	950325..		03	06	01	17			16	04	02	
7 	900001..		45		23	43				45	44	00
8 	952034..				02	05	07					09
9 	914900..	09	11	16	18				09	19		
10 	957663..		01	04	03					02		
11 	914909..	09	12	17	19	23			09	27	26	
12 	914902..			03	04	06	08	09			10	11
13 	901018..	23	30	50	60				23			
14 	901104..	23	30						23			

* Please extend the order no. by the two-digit number from the table acc. to dia. [mm/inches]. Collets with special bores are available on request.

Order example no. 950325 03 = Collet 3 mm for air-powered grinder PG 5/180 HV:
Acc. to the table (below), the **collet group 6** has been defined for this machine.


Acc. to the table (above), the **order no.** for collet group 6 = **950325 ..**
For ø 3 mm, please add **03**.
The complete **order no.** is **950325 03**.

Cat. page	Machines/handpieces	Collet group	Cat. page	Machines/handpieces	Collet group	Cat. page	Machines/handpieces	Collet group
7	PGT 1/1000	1	25	PG 10/160 V-HV	8	81	Handpiece 4 ZGB	9
8	PG 1/800, PGAS 1/800	1	26, 27	PG 9/120 V-HV, PG 12/120 V-HV	8	81	Angle handpiece WZ 4 A	10
9, 11	PGAS 1/750, PGAS 1/600	1	28	PG 8/100 HV, PGAS 8/100 HV	7	83	Handpiece 6 Z	13
10	PGT 3/700	4	28	PG 8/100 V-HV, PGAS 8/100 V-HV	7	83	Angle handpiece WZ 6	13
12	PG 3/500 S	5	29, 31	PG 12/70 V-HV, PG 10/40 V-HV	8	83	Angle handpiece WZT 6 3.0	14
13	PG 3/440 DH, PGZ 3/440	6	30	PG 8/50 V-HV	7	83	Angle handpiece WZT 6 45° 6.0	13
13	PGZ 3/440 SU	6	32	PWS 1/800	2	85	Handpiece 7 ZGA	11
14, 15	PG 3/380 DH, PG 5/280 HV	6	33	PWSA 1/250	3	85	Angle handpiece WZ 7 45°	6
16	PG 3/250 S	5	34, 35	PWS 5/210 HV, PWS 3/200 DH	6	85	Angle handpiece WZ 7 B	6
17	PGAS 8/250 E-HV	7	36	PWSA 4/200 HV	5	87	Handpiece 10 ZGE	11
18	PG 5/230 HV, PG 5/230 V-HV	6	37, 38	PWS 5/170-45 HV, PWS 5/160 HV	6	87	Angle handpiece WZ 10 45°	6
19	PG 8/220 HV, PGAS 8/220 HV	7	39	PWS 5/130 HV	6	87	Angle handpiece WZ 10 B	6
19	PG 8/220 V-HV, PGAS 8/220 V-HV	7	44	PWS 4/40 HV	5	87	Flexible special handpiece G 28	11
20	PG 3/210 DH	6	55	UGER 11/330 SI	8	89	Handpiece 12 ZGA	12
21	PG 10/200 V-HV	8	56	UGER 5/250 SI	11	91	Handpiece 12 ZG G 35	12
22	PG 5/180 HV, PG 5/180 V-HV	6	57	UGER 15/150 SI	12	95	Spindle extension, SPV 50-3 S8	2
23	PG 9/180 V-HV	8	58	UGER 5/90 SI	11	95	Spindle extension, SPV 75-6 S8	10
24	PG 8/160 HV, PGAS 8/160 V-HV	7	59, 60	UGER 15/60 SI, UGER 15/30 SI	12	95	Spindle extension, SPV 100-6 S8	10

These reducing collets fit into an already existing 6 mm collet and serve as adapters for 3 mm or 2,34 mm shank tools.

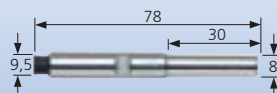
Reducing collets



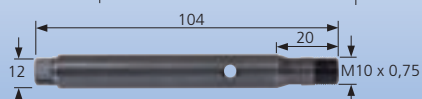
Order No.	EAN 4007220	Reducing shank mounting	
RZH 63	355862	from 6 mm to 3 mm dia.	0,004
RZH 6234	184486	from 6 mm to 2,34 mm dia.	0,004

Extensions for drive spindles

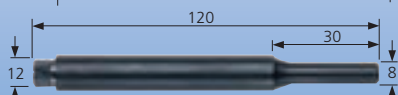
SPV 50-3 S8



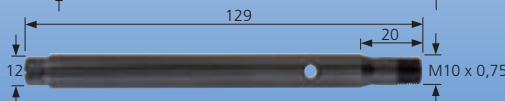
SPV 75-6 SPG 6



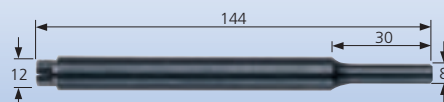
SPV 75-6 S8



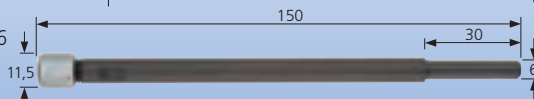
SPV 100-6 SPG 6



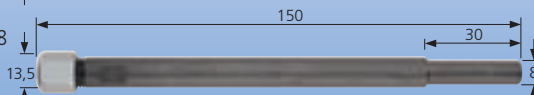
SPV 100-6 S8



SPV 150-3 S6



SPV 150-6 S8



With spindle extensions shafts of grinding and milling tools can be extended. They allow access to difficult to reach areas. The extensions are rounded into collet (or instead of collets) of machines (air or electric powered) or in a flexible shaft handpiece.

Spindle extensions are an cost effective alternative to special types of made to order burrs and mounted points with long shanks.

Safety note:


Caution! When using spindle extensions, please observe the valid safety regulations and the accident prevention regulations.

When working with long shank lengths, it is vital that the tool is inserted into the workpiece (e.g. cores, pipes, ducts or keyways) before the tool drive is switched on. The extension must not run free with the tool outside the workpiece (e.g. cores, pipes, ducts or keyways).

If this rule is not observed, there is an increased risk **of accidents**. If the given conditions are unfavourable, the extension with the tool clamped in it may buckle. **The extensions are only intended for manual use** in connection with suitable air-power, electric grinders or flexible shaft handpieces for tools

with standard shafts. The extension and a tool permitted for use at the appropriate RPM are clamped into an impact-free chuck. Not clamping on the shoulder radius.

Clamping of a second extension or of tools with excessive length shanks is not permitted.

Order No.	EAN 4007220	Max. speed [RPM]	Dia. mounting pin (motor/hand- piece) [mm]	Tool mounting [mm]	Overall length [mm]	Length mounting pin [mm]	Outer tool holder dia. [mm]	Incl. collet dia. [mm]	Collet group	
SPV 50-3 S8	185254	44.000	8	3	78	30	9,5	3	2*	0,035
SPV 75-6 SPG 6	333143	20.000	SPG 6	6	104	Special	12,0	6	10*	0,073
SPV 75-6 S8	185278	20.000	8	6	120	30	12,0	6	10*	0,076
SPV 100-6 SPG 6	656051	20.000	SPG 6	6	129	Special	12,0	6	10*	0,096
SPV 100-6 S8	185261	20.000	8	6	144	30	12,0	6	10*	0,098
SPV 150-3 S6	185308	10.000	6	3	150	30	11,5	-	-	0,055
SPV 150-6 S8	185315	10.000	8	6	150	30	13,5	-	-	0,082

* All available collets are shown on the adjacent page.

Belt grinder attachment holder



BSV 25,5/24



Protective cover



BSVH 36/41

Medium-sized belt grinding attachments BSVH 36 and BSVH 41 for belt lengths 520 and 610 mm. Small belt grinding attachments BSVH 25,5 and BSVH 24 for belt length 305 mm.

■ The belt grinder attachment can be pivoted on the respective tool drive or the handpiece and therefore allows flexible adaptation to each work situation.

■ Highly-accurate belt guidance due to adjustable belt clamping force and fixable belt arms.
■ Easy, quick belt replacement due to spring clamping.

Order No.	EAN 4007220	Mounting dia. [mm]	Drive roll [mm]	Suitable for machine types	kg
BSVH 36	322970	36	30	WZ 7 B, WZ 10 B, PWS 5/130 HV, PWS 5/160 HV, PWS 5/210 HV	0,420
BSVH 41	322963	41	30	WT 7 E M14 G22, PW 9/120 HV, PBSA 9/120 HV 925, UBS 5/100 SI 925	0,315
BSVH 25,5	544860	25,5	20,0	PWS 3/200 DH, PBS 3/200 DH 99	0,175
BSVH 24	544877	24,0	20,0	WZ 4 A	0,155
Schutzdeckel*	544938	-	-	BSVH 25,5, BSVH 24	0,027

* Schutzdeckel = Protective cover

Belt grinder attachment arms

BSVAK 9/25



BSVAK 9/25-1



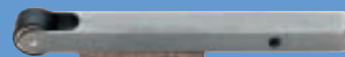
BSVAK 4/16



BSVAK 9/9



BSVAK 9/16



BSAD 41/36 x 610



BSVA 9/25



BSVA 9/25-1



BSVA 4/16



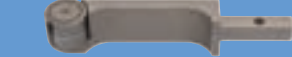
BSVA 9/16




BSVA 12/19



BSVA 18/23



Order No.	EAN 4007220	Width x roller dia. [mm]	Applicable belt width [mm]	Purpose	Applications	
BSAD 41/36 x 610	395967	-	-	BSVH 36/41	Adapter for belt length 610 mm with belt grinder attachment arms BSVA below	0,080
BSVAK 9/25 x 305	544914	9 x 25	3, 6, 9, 12, 16	BSVH 25,5/24	Finishing jobs, deburring, matting, fine grinding, and seamless blending of inner radii/channels, especially on pipe coupling areas	0,083
BSVA 9/25 x 520	323007			BSVH 36/41		0,095
BSVAK 9/25-1 x 305	544921	9 x 25	3, 6, 9, 12	BSVH 25,5/24	Finishing jobs in narrow/small inner radii/channels, especially on pipe coupling areas made of stainless steel (INOX) with very small welded seams (tungsten-inert gas welding)	0,082
BSVA 9/25-1 x 520	494288			BSVH 36/41		0,095
BSVAK 4/16 x 305	544884	4 x 16	3, 6, 9	BSVH 25,5/24	Leveling, deburring, matting, fine grinding, cleaning and seamless blending of stainless steel in narrow areas	0,052
BSVA 4/16 x 520	322987			BSVH 36/41		0,060
BSVAK 9/9 x 305	544891	9 x 9	9, 12	BSVH 25,5/24	Leveling, chamfering, matting, fine grinding, cleaning and seamless blending on wide areas	0,075
BSVAK 9/16 x 305	544907	9 x 16				0,088
BSVA 9/16 x 520	322994	BSVH 36/41		0,096		
BSVA 12/19 x 520	323014	12 x 19	12, 16	BSVH 36/41	Leveling, chamfering, matting, fine grinding, cleaning and seamless blending on wide areas	0,107
BSVA 18/23 x 520	349267	18 x 23	20	BSVH 36/41	Leveling, chamfering, matting, fine grinding, cleaning and seamless blending on wide areas on outer radii (convex forms i.e. pipes)	0,150

Lubricating oil for air power machines for oil mist lubrication

Protects against icing up; good spray qualities.

Special properties:

- Good lubrication qualities
- Low viscosity
- Corrosion protection
- Highly water-resistant

Ball bearing grease FT 5

For all ball bearings. Light moistening of grease slingers to protect them against dust.

Gear grease FT 3

For flexible shaft machine gears, angle drives and angle handpiece gears.

Lubricants



Order No.	Description	EAN 4007220	Content	Use for	 kg
5 Liter ONG OEL	Special lubr. oil	179321	5 L	Maintenance unit	4,900
1 Liter ONG OEL	Special lubr. oil	179338	1 L	Maintenance unit	0,990
FT 5	Ball bearing grease	181249	0,100 kg	Ball bearing	0,100
FT 3	Gear grease	182956	0,450 kg	Gears	0,450

Special grease with special lubrication and adhesive properties for flexible shafts 4 ZG – 15 KG.

After approx. 100 operating hours, the core of a flexible shaft must be re-lubricated. The core and hose must be de-greased and the new special flexible shaft grease must be applied to the core.

Flexible shaft grease



Order No.	Description	EAN 4007220	Content	 kg
FT 4 (500 g)	Flexible shaft grease	182963	0,500 kg	0,500

After approx. 100 operating hours, the core of a flexible shaft has to be re-lubricated. The core and hose must be de-greased and new special shaft grease must be applied to the core.

Maintenance set consists of:

1 Hose brush

For removing the old grease from the flexible casing.

2 non-linting cleaning cloths (400 x 330 mm)


The core is freed of the old grease using a de-greasing agent and a cleaning cloth (do not use cotton waste)! Apply new grease on to the second cloth and pull the core through it.

1 can of shaft grease FT 4 (approx. 0,500 kg)

Special grease with special lubrication and adhesive properties.

Maintenance sets



Order No.	EAN 4007220	Suitable for flexible shaft	Contents [pcs.]	 kg
Pflegeset* 4 ZG	182970	4 ZG, 6 Z, 6 ZG	2 cleaning cloths, can of shaft grease FT 4, casing brush 4 ZG (EAN 4007220184080)	0,770
Pflegeset* 7 ZG	182994	7 ZG	2 cleaning cloths, can of shaft grease FT 4, casing brush 7 ZG (EAN 4007220184516)	0,770
Pflegeset* 10/12 ZG	182987	10 ZG, 12 ZG	2 cleaning cloths, can of shaft grease FT 4, casing brush 10/12 ZG (EAN 4007220184097)	0,770

* Pflegeset = Maintenance set

Personal Protection Equipment (PPE)

Safety Glasses



Safety glasses SB-5



Transparent, extremely light safety glasses which allow a clear view in all directions.

Highly impact-proof plastic lenses (polycarbonate). Due to the ultradura coating, the lens is scratch-resistant.

Advantages:

- Lies tightly against the face.
- Good protection against mechanical hazards.
- Distortion-free and low-fatigue visual quality.
- 100% UV protection.

Order No.	EAN 4007220	Lens coating		
SB-5	808665	Ultradura	5	0,335

Safety glasses SB V-5



Transparent, light and extremely comfortable safety glasses which allow a clear view in all directions. Arm and lens inclination can be fitted precisely to the individual field of vision.

Highly impact-proof plastic lenses (polycarbonate). Due to the supravision coating HC-AF, the outside of the lens is extremely scratch-resistant, and the inside is permanently fog-free.

Advantages:

- Soft contact surfaces protect the nose, forehead and ears.
- Four comfort pads for pressure-free and comfortable-fit of the frame.
- Good protection against mechanical hazards.
- Chemical resistant.
- Distortion-free and low-fatigue visual quality.
- Fog-free and anti-static coated.
- 100% UV protection.

Order No.	EAN 4007220	Lens coating		
SB V-5	808672	Supravision HC-AF	5	0,365

Safety glasses SB BT-5



Innovative, transparent, extremely light and comfortable safety glasses, which allow a clear view in all directions. Perfectly suited in particular to people already wearing glasses.

Highly impact-proof and extremely scratch-resistant plastic lenses (polycarbonate). The optidur NC coating provides high resistance against chemicals. Due to the anti-static coating, water and oil-based contamination can easily be removed.

Advantages:

- No contact between frame and existing glasses.
- Quick and easy frame adaptation.
- Particularly soft and flexible arms.
- Good protection against mechanical hazards.
- Chemical resistant.
- Distortion-free and low-fatigue visual quality.
- Fog-free and anti-static coated.
- 100% UV protection.

Order No.	EAN 4007220	Lens coating		
SB BT-5	808689	Optidur NC	5	0,385

Safety glasses SB M-2



Comfortable, transparent full-view safety glasses with panorama vision. Also perfectly suitable for people already wearing glasses. Pressure-free wear with comprehensive side protection.

Highly impact-proof plastic lenses (polycarbonate). Due to the supravision NC coating, the lens is extremely scratch-resistant both inside and outside as well as fog-free inside.

Advantages:

- Soft, flexible seal adapts to the individual field of vision perfectly.
- Excellent ventilation.
- Good protection against mechanical hazards.
- Chemical resistant.
- Distortion-free and low-fatigue visual quality.
- Fog-free and anti-static coated.
- 100% UV protection.

Order No.	EAN 4007220	Lens coating		
SB M-2	808696	Supravision NC	2	0,346

Protective gloves SensoGrip HFS and HS

SensoGrip-protective gloves provide optimum protection with maximum comfort and best finger flexibility. Viscoelastic pads on the contact surfaces damp vibrations by 30% and allow longer working times (according to DIN EN ISO 5349 parts 1 and 2).

The protective gloves SensoGrip HFS and HS are made of robust special nappa leather. They have heat-resistant, spark-resistant aramide seams. SensoGrip HFS and SensoGrip HS provide protection from mechanical injuries caused by stabs, splitters or abrasion. The elasticated wrist closes the glove firmly. Suitable for those allergic to chrome, free of hexavalent chrome.

The protective gloves packing unit are individual pairs.

Advantages:

SensoGrip HFS

- Optimum hand/finger protection.
- Ideal for grinding, cut-off and welding work.
- Available in 3 sizes: M, L and XL.

SensoGrip HS

- Optimum hand protection.
- Ideal for light grinding and polishing work, e.g. when using air powered filing machines and smaller straight grinders.
- Available in 3 sizes: M, L and XL.

Ordering example:

EAN 4007220**809273**


HFS 9 (M)

Please state the required glove size.

SensoGrip protective gloves

HFS

HS

Order No.	Glove size				
	9 (M)	10 (L)	11 (XL)		
	EAN 4007220				
HFS ...	809273	809280	809297	1	0,250
HS ...	809303	809310	809327	1	0,150

Fold away ear protection. Extremely low weight and comfortable fit due to oval shaped, soft foam plugs. A hygienic product, as the ear protection or ear need not be touched as it is being put in.

Advantages:

- Can be used for a continuous noise level of up to 95 dB(A) or up to 100 dB(A) impulse noise.
- Reduces the noise level by 23 dB(A) to normal conversation levels.
- Multiple- use.

BGS ear protection

Order No.	EAN 4007220	Noise reduction value SNR [dB(A)]		
BGS	808702	23	1	0,016

Secure and comfortable respiratory masks of different protection classes (protection classes 2 and 3). Can be used for welding, in particular for aluminium, casting, soldering and when working on very dusty materials and asbestos.

They provide optimum protection against dust. The respiratory air valve minimises congestion of respiratory heat and moisture.

Advantages:

ASM FFP 2-10

- Comfortable fit due to broad headband strap.
- Protects against dust **up to 10 times** the MAC and TRK limit values.



ASM FFP 3-5

- Comfortable fit via 4-point headband.
- Safe fit due to circumferential comfort sealing lip.
- The integrated nosepiece is flexible, thus ensuring that the mask fits securely, even across the nose.
- Protects against dust **up to 30 times** the MAC and TRK limit values.

MAC = Maximum allowable concentration

TRK = Technical reference concentration, workplace exposure limit for carcinogenic substances

ASM FFP breathing protection

Order No.	Protection class			
	2	3		
	EAN 4007220			
ASM FFP 2-10	808719	-	10	0,290
ASM FFP 3-5	-	808726	5	0,265



Catalogue 201

Files



Catalogue 202

Burrs



Catalogue 203

Mounted Points



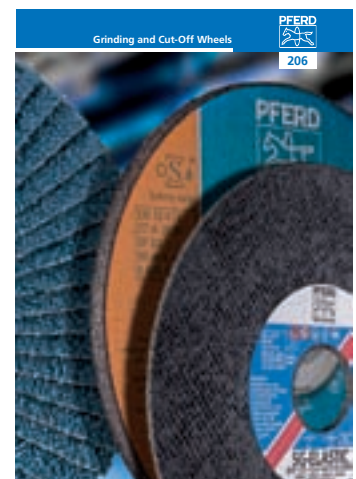
Catalogue 204

Fine Grinding and Polishing Tools



Catalogue 205

Diamond and CBN Tools



Catalogue 206

Grinding and Cut-Off Wheels



Catalogue 207

Stationary Cut-Off Wheels



Catalogue 208

Industrial Power Brushes



Catalogue 209

Tool Drives