



Cut-off wheels for stationary applications

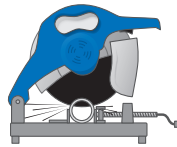
7



Cut-off wheels for stationary applications

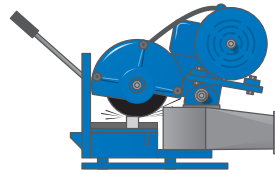
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The fast way to the best tool	8



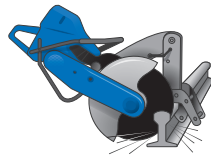
CHOPSAW
dia. 300–400 mm

10



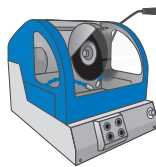
CHOPSAW HD
dia. 300–400 mm

12



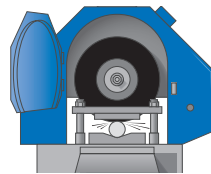
RAIL
dia. 300–400 mm

14



LABOR
dia. 150–400 mm

15



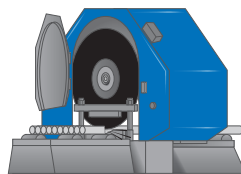
HEAVY DUTY
dia. 300–600 mm

16



Reducing rings

18



Products made to order
dia. 250–2000 mm

19

Quality

Stationary cut-off wheels from PFERD are developed, manufactured and tested in accordance with the strictest quality requirements.

Research and development, our own machine and plant construction, and the continuous testing and further development of the quality and safety standards in our own laboratories all guarantee the high PFERD quality.

PFERD quality management is certified according to ISO 9001.



Support and service

PFERD offers you individual targeted support to solve your application problems. The experienced field staff of PFERD will be pleased to assist you.

With their expertise, our technical advisers will also help you to solve complex problems related to applications and use.

Due to our many years of collaboration with manufacturers of cut-off grinding machines in Germany and abroad, we can also advise you on the design of appropriate machining equipment.

Please do not hesitate to contact us for further information.



Advantages of stationary cut-off grinding

- Universal cutting process for all steels and castings, non-ferrous metal alloys, special alloys such as nickel and titanium-based alloys, as well as materials on which sawing and flame cutting are difficult or impossible.
- Due to smooth cutting surfaces and blank cuts in cold cutting-off, no post-processing is required.
- Short cutting times regardless of the material quality.
- Significantly lower burr formation with hot cutting-off than with hot sawing.
- Lower noise levels than with hot sawing, for example:
 Hot cutting-off: 85 to 95 dBA
 Hot sawing: 105 to 110 dBA
- Consistent cutting quality over the entire life of the cut-off wheel due to its continuous self-sharpening qualities.
- Cutting of already cooled rolled or forged parts in hot cut lines is possible.

Applications

Cut-off grinding is one of the most powerful and cost-effective cutting processes and is used in the following areas:

- Rolling mills
- Foundries
- Machine engineering
- Steel construction
- Maintenance of rails
- Forging plants and their finishing processes
- Laboratories

Products made to order

If you cannot find the solution for your particular application in our catalogue range, we produce PFERD premium-quality stationary cut-off wheels up to a diameter of 2,000 mm, tailor-made to meet the requirements of your job. For more information please see page 19.



Cut-off wheels for stationary applications

General information

Differentiation of cut-off grinding

A differentiation is made between cold, warm and hot cutting-off, depending on the material temperature of the workpieces.

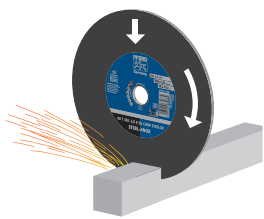
Operating conditions	Cold cut-off	Warm cut-off	Hot cut-off
Operating parameters			
Material temperature T	up to 100°C	100 to 600°C	600 to above 1,000°C
Peripheral speed V_s^*	80 to 100 m/s	80 to 100 m/s	80 to 100 m/s
Specific cutting performance Z	4 to 15 cm ² /s	8 to 20 cm ² /s	15 to 35 cm ² /s

* Please adhere to the maximum operating speed of the cut-off wheel.

Cut-off processes

According to the material and the application, cut-off processes differ depending on the positioning and relative motion of the cut-off wheel and workpiece.

Chop stroke cut



Application area:

- For cutting individual workpieces as well as small or slim material layers.
- Very common cut-off process.

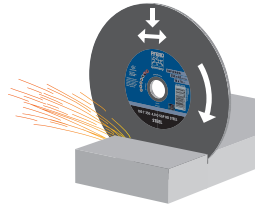
Cutting process:

- Cut-off wheel cuts the workpiece in a radial movement over a joint mid-point.

Advantages:

- Low vibration.
- Short cutting times.
- Less load on cut-off wheels for smaller material dimensions.

Oscillation cut



Application area:

- For cutting sprues and risers in foundries.
- Demanding tasks in wet cut-off grinding.

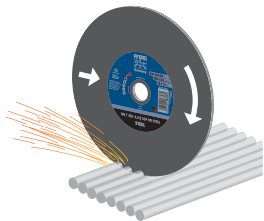
Cutting process:

- Cut-off wheel moves into the workpiece to be cut with additional forward and backward movements in the horizontal cut.

Advantages:

- Lower drive output required.
- Low workpiece temperature.
- Optimum removal of chips.

Horizontal cut



Application area:

- For cutting multiple adjacent workpieces, as well as slabs, plates and sheets.
- In particular on the approach side of the rolling mill after the cooling bed.

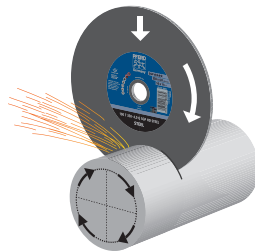
Cutting process:

- Cut-off wheel cuts the entire layer width of different cross sections in one cycle.

Advantages:

- Short cutting times.
- Very high throughput capacity.

Index cut



Application area:

- For cutting very large round solid material and blocks.
- In particular in steel works and foundries.

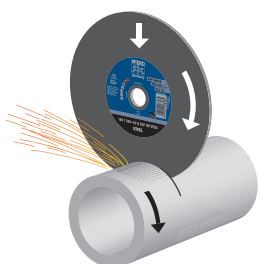
Cutting process:

- The workpiece is cut with several partial cuts. After each partial cut, the workpiece is rotated (2–4 partial cuts, 180–90° rotation, depending on the material dimensions).

Advantages:

- Working on very large material cross sections is possible with smaller wheel diameters.

Rotary cut



Application area:

- For cutting very large pipes as well as round solid materials.

Cutting process:

- The workpiece is continuously rotated during the cutting process.

Advantages:

- Use of small wheel diameters is possible.
- Lower drive output required.
- Low workpiece temperature.

PFERD is a founder member of oSa

Together with other renowned manufacturers, PFERD has voluntarily undertaken to produce quality tools conforming to the most exacting safety standards.

Member companies of oSa (the Organization for Safety of Abrasives) are committed to continuous product safety and quality monitoring. PFERD tools carry the oSa mark.



Safety standard

PFERD cut-off wheels conform to the highest safety requirements and are marked according to EN 12413 for grinding tools made of bonded abrasives.

Maximum operating speed

The maximum permissible operating speed [m/s] can be found on the product labels and in the product tables of this catalogue. The maximum permissible rotational speed specification applies to the nominal diameter of the unused wheels. For safety reasons, these must never be exceeded.



Safety notes



= Wear eye protection!



= Wear hearing protection!



= Wear a dust mask!



= Wear gloves!



= Please read the safety notes!



= Do not use if damaged!



= Not permitted for hand-held or manually guided grinding!

German Abrasives Association

Please observe the safety notes of the German Abrasives Association (VDS). Further information can be found at:

www.pferd.com



User information

Please observe the user information provided with all products on the safe use of stationary cut-off wheels as well as the user information for the grinding machine used.



FEPA

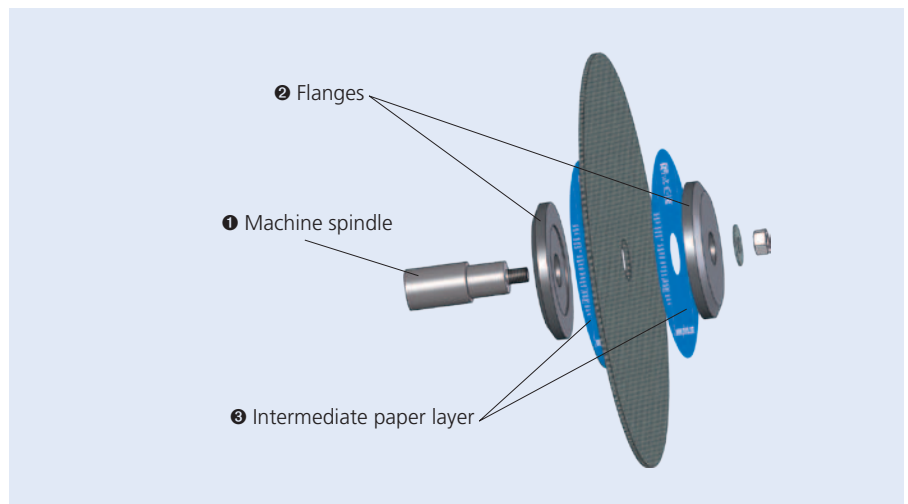
The FEPA safety recommendations can be downloaded at www.pferd.com.



Proper clamping of cut-off wheels

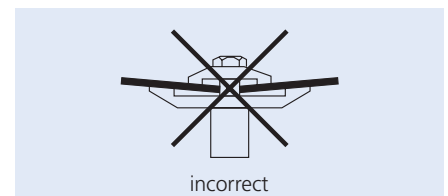
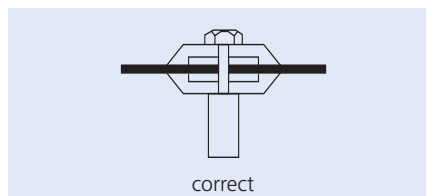
The correct clamping of the cut-off wheel is a prerequisite for optimum performance and is essential to ensure user safety. The adjacent illustration shows the right way to do it:

- 1 Machine spindle with high concentricity.
- 2 Equally sized flanges.
- 3 Intermediate paper layers, if required for secure clamping and safe use.
Our recommendations:
 - After every second wheel change, change the intermediate paper layers.
 - As from a wheel diameter > 400 mm, always use intermediate paper layers.



Safety notes:

The safe use of PFERD tools depends largely on proper clamping systems. Both flanges between which a grinding tool is mounted must have the same outer diameter and same support area (according to EN 13218, ANSI B7.1, AS 1788.1).

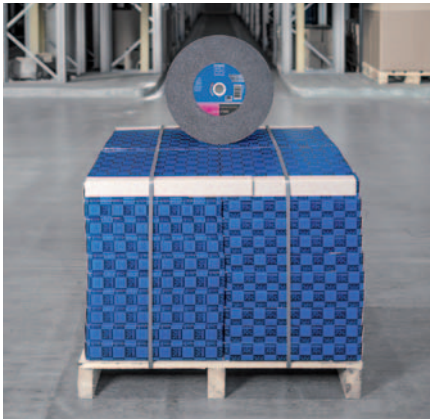


Cut-off wheels for stationary applications

Packaging

Packaging

The packaging of stationary cut-off wheels is tailored to the requirements of the industry. It provides the tools with optimum protection against dirt and damage. Three packaging types are available.



Box



Crate



Pallet

Packaging label

PFERD WERKZEUGE TOOLS OUTILS **PFERD** HORSEBRAND CHEVAL CABALLITO

Packaging unit: 10

Product line (colour coding system)

Tool drive

Packing date and lot number: Packed on: 03.2018 Lot-Nr. 12345678

Technical information: 350 mm / 14 inch diameter, 25,4 mm / 1 inch thickness, 3,0 mm / 1/8 inch bore, 41 / T1, SG ★★★★★

PFERD description: Stahl Steel Acier / STEELOX / INOX Stain-less / 80 T 350-3,0 L SG CHOP HD STEELOX 25,4

EAN (European Article Number): EDP 64536, Mat.-Nr. 66323582

Transport and storage

To avoid damage to the cut-off wheels through improper transport or adverse environmental influences during storage, e.g. UV radiation, temperature or humidity, please observe the following advice:

- As far as possible, transport and store cut-off wheels in their original packaging lying on a flat surface, e.g. on a shelf or vertically in racks.
- Avoid bending the tools.
- Ensure that the cut-off wheels are stored in dry, frost-free rooms with consistent temperatures.
- Use supplies in the order of their arrival.

Recommendation:

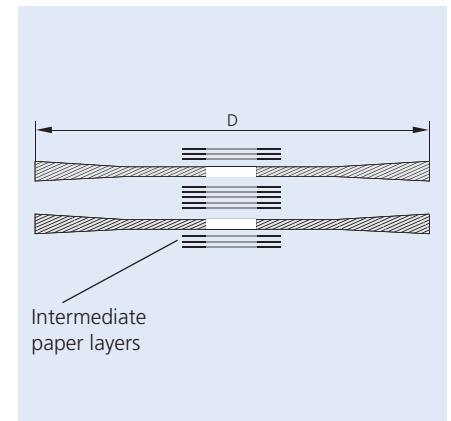
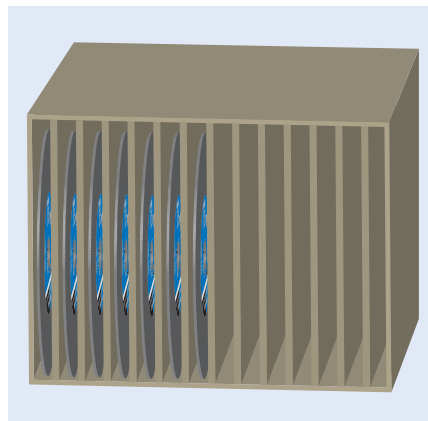
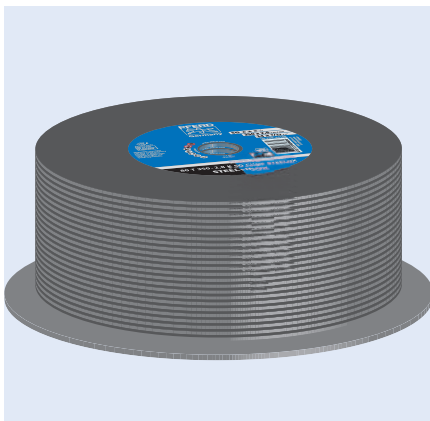
Room temperature: 18–22°C
 Relative humidity: 45–65%
 No direct sunlight



Advice on the storage of conical wheels (CT)

Conical cut-off wheels must be stacked with intermediate paper layers, so that the tapered area is supported and bending of the cut-off wheels is avoided.

PFERD supplies conical cut-off wheels with intermediate paper layers included.



Cut-off wheels for stationary applications

The fast way to the best tool

Product lines and colour coding

Universal Line PSF ★★☆☆☆



The entry-level range Universal Line PSF includes **robust tools** for processing the **most common materials**. Universal Line PSF tools achieve **good results** with **high economic efficiency**.

Performance Line SG ★★☆☆☆



The broad Performance Line SG range offers **a high-performance tool solution for every application and every material**. Performance Line SG tools achieve **optimum results** with **maximum economic efficiency**.

Special Line SGP ★★☆☆☆



Special Line SGP tools are specially developed for **specific tasks** and offer the user **key advantages over conventional products**. Furthermore, the Special Line SGP includes tools that, due to their particularly high performance during use, offer **ultimate economic efficiency**.

Product labels

oSa – Organization for the Safety of Abrasives

As a founder member of oSa, PFERD has voluntarily undertaken to produce quality tools conforming to the most exacting safety standards. Member companies of oSa are committed to continuous product safety and quality monitoring.

Safety information

Handling grinding tools is dangerous. Observe all safety rules and regulations.

Advice on tool drive

The pictogram shows on which drive the tool can be used.

Material information

The bottom section of every label indicates the material or materials for which the tool is suitable.

Information bar

Here you will find the product line and the dimensions.

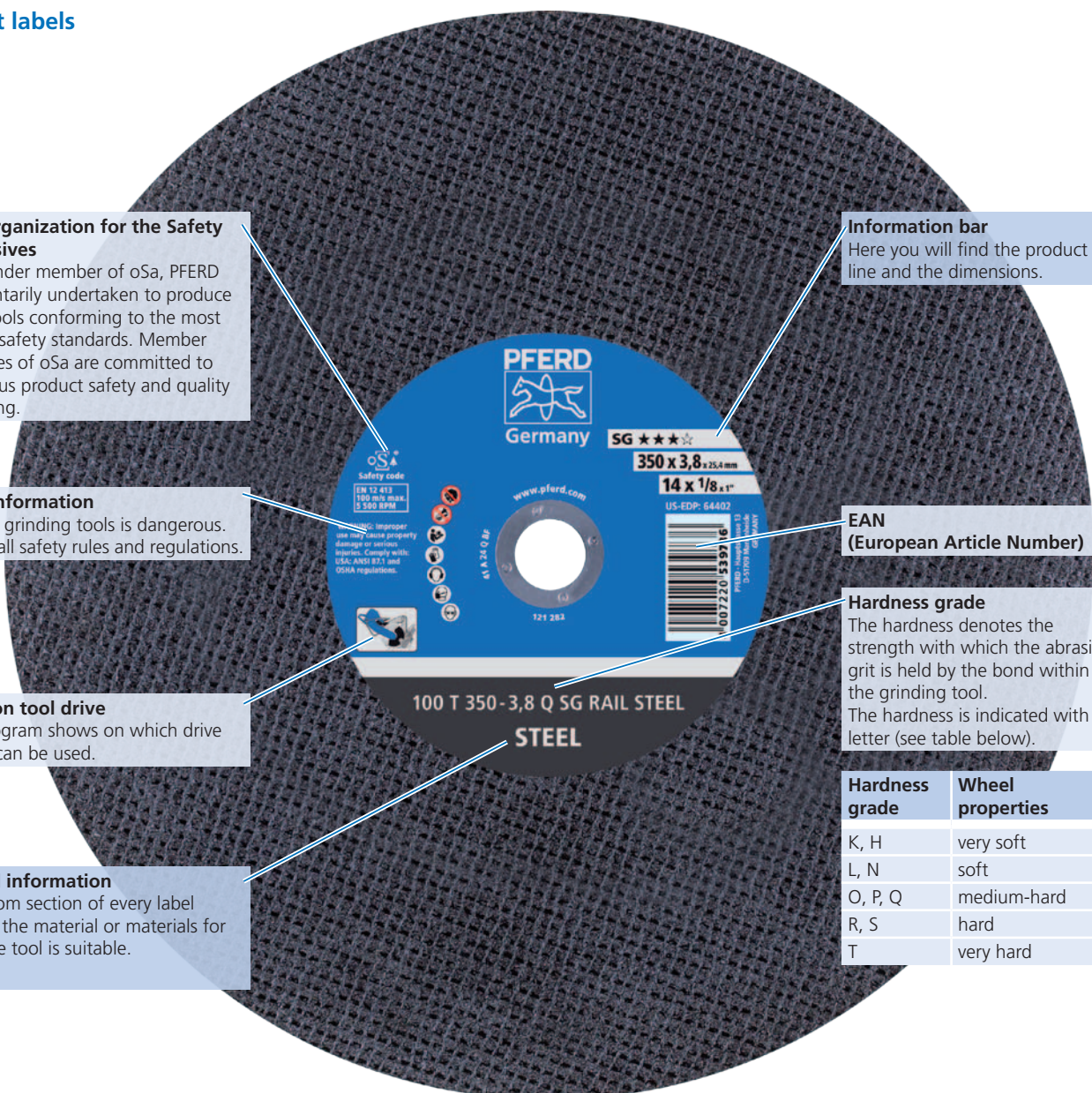
EAN (European Article Number)

Hardness grade

The hardness denotes the strength with which the abrasive grit is held by the bond within the grinding tool.

The hardness is indicated with a letter (see table below).

Hardness grade	Wheel properties
K, H	very soft
L, N	soft
O, P, Q	medium-hard
R, S	hard
T	very hard



Product group selection

Tool drive	Application	Product line	Steel (STEEL)	Stainless steel (INOX)	Cast material (CAST)	Stone (STONE)
CHOPSAW < 3 KW 	Cutting of solid material, profiles and pipes	Universal Line PSF ★★★☆☆	 PSF CHOP STEEL Hardness K Page 10	 PSF CHOP STEELOX Hardness K Page 10	 PSF CHOP STEELOX Hardness K Page 10	
		Performance Line SG ★★★★★	 SG CHOP STEEL Hardness K Page 11	 SG CHOP STEELOX Hardness K Page 11	 SG CHOP STEELOX Hardness K Page 11	
CHOPSAW HD 	Cutting of solid material, profiles and pipes	Performance Line SG ★★★★★	 SG CHOP HD STEEL Hardness L + O Page 12	 SG CHOP HD STEELOX Hardness L Page 12	 SG CHOP HD CAST + STONE Hardness L Page 13	 SG CHOP HD CAST + STONE Hardness L Page 13
RAIL 	Cutting of rails	Performance Line SG ★★★★★	 SG RAIL STEEL Hardness Q Page 14			
LABOR 	Producing precision cuts, cutting of laboratory samples	Performance Line SG ★★★★★	 SG LAB STEEL Hardness H Page 15	 SG LAB HD STEELOX Hardness H Page 15	 SG LAB HD STEELOX Hardness H Page 15	
HEAVY DUTY 	Cutting of solid material, profiles and pipes	Special Line SGP ★★★★★	 SGP HD STEEL Hardness L, N, Q + S Page 16	 ZIRKON SGP HD CAST + STEEL Hardness P, R + T Page 17	 ZIRKON SGP HD CAST + STEEL Hardness P, R + T Page 17	
Products made to order up to dia. 2,000 mm 	On request, we can produce stationary cut-off wheels in premium PFERD quality up to a diameter of 2,000 mm, tailor-made to meet the requirements of your special application. Please contact us for further information. Our experienced technical advisers will be pleased to assist you.					



With a middle fabric for aggressive cutting with minimised burr formation



With two outer fabrics for high lateral stability

Cut-off wheels for stationary applications

Universal Line PSF, CHOPSAW ★★☆☆



PSF CHOP STEEL ★★☆☆

Tool of hardness K, which cuts very easily, with a middle fabric. For aggressive cutting with minimized burr formation.

Advantages:

- High economic efficiency due to long tool life.
- Fast work progress thanks to high cutting performance.
- Cutting with minimized burr formation due to less lateral friction.
- For multi-purpose cutting work.

Materials that can be worked:

steel

Applications:

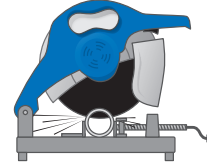
cutting of solid material, sections and pipes

Abrasive:

Aluminium oxide A


Matching tool drives:

CHOPSAW up to 3 KW



Safety notes:

- Use only on stationary machines with an output of up to 3 KW.

D [mm]	T [mm]	H [mm]	EAN 4007220	Max. RPM		Description
Maximum operating speed 80 m/s, flat type T (shape 41)						
300	2.8	25.4	832264	5,100	20	80 T 300-2,8 K PSF CHOP STEEL/25,4
350	2.8	25.4	817605	4,400	10	80 T 350-2,8 K PSF CHOP STEEL/25,4
400	3.8	25.4	832271	3,800	10	80 T 400-3,8 K PSF CHOP STEEL/25,4



PSF CHOP STEELOX ★★☆☆

Tool of hardness K, which cuts very easily, with a middle fabric for steel and stainless steel (INOX). For aggressive cutting with minimized burr formation.

Advantages:

- High economic efficiency due to long tool life.
- Fast work progress thanks to high cutting performance.
- Cutting with minimized burr formation due to less lateral friction.
- For multi-purpose cutting work.

Materials that can be worked:

steel, stainless steel (INOX)

Applications:

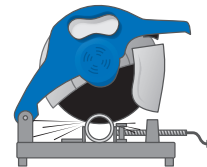
cutting of solid material, sections and pipes

Abrasive:

Aluminium oxide A


Matching tool drives:

CHOPSAW up to 3 KW



Safety notes:

- Use only on stationary machines with an output of up to 3 KW.

D [mm]	T [mm]	H [mm]	EAN 4007220	Max. RPM		Description
Maximum operating speed 80 m/s, flat type T (shape 41)						
300	2.8	25.4	950180	5,100	20	80 T 300-2,8 K PSF CHOP STEELOX/25,4
350	2.8	25.4	950197	4,400	10	80 T 350-2,8 K PSF CHOP STEELOX/25,4
400	3.8	25.4	950210	3,800	10	80 T 400-3,8 K PSF CHOP STEELOX/25,4



SG CHOP STEEL ★★☆☆

Tool of hardness K, which cuts very easily, with a middle fabric. For aggressive cutting with minimized burr formation.

Advantages:

- Maximum economic efficiency due to very long tool life.
- The fastest work progress thanks to very high cutting performance.
- Cutting with minimized burr formation due to less lateral friction.
- For demanding cutting work.

Materials that can be worked:

steel

Applications:

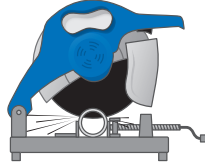
cutting of solid material, sections and pipes

Abrasive:

Aluminium oxide A

Matching tool drives:


CHOPSAW up to 3 KW



Safety notes:

- Use only on stationary machines with an output of up to 3 KW.



D [mm]	T [mm]	H [mm]	EAN 4007220	Max. RPM		Description
Maximum operating speed 80 m/s, flat type T (shape 41)						
300	2.8	25.4	629123	5,100	20	80 T 300-2,8 K SG CHOP STEEL/25,4
		32.0	639573	5,100	20	80 T 300-2,8 K SG CHOP STEEL/32,0
350	2.8	25.4	629154	4,400	10	80 T 350-2,8 K SG CHOP STEEL/25,4
		32.0	639597	4,400	10	80 T 350-2,8 K SG CHOP STEEL/32,0
400	3.8	25.4	638675	3,800	10	80 T 400-3,8 K SG CHOP STEEL/25,4
		32.0	639610	3,800	10	80 T 400-3,8 K SG CHOP STEEL/32,0

SG CHOP STEELOX ★★☆☆

Tool of hardness K, which cuts very easily, with a middle fabric for steel and stainless steel (INOX). For aggressive cutting with minimized burr formation.

Advantages:

- Maximum economic efficiency due to very long tool life.
- The fastest work progress thanks to very high cutting performance.
- Cutting with minimized burr formation due to less lateral friction.
- For demanding cutting work.

Materials that can be worked:

steel, stainless steel (INOX)

Applications:

cutting of solid material, sections and pipes

Abrasive:

Aluminium oxide A

Matching tool drives:


CHOPSAW up to 3 KW



Safety notes:

- Use only on stationary machines with an output of up to 3 KW.



D [mm]	T [mm]	H [mm]	EAN 4007220	Max. RPM		Description
Maximum operating speed 80 m/s, flat type T (shape 41)						
300	2.8	25.4	803219	5,100	20	80 T 300-2,8 K SG CHOP STEELOX/25,4
350	2.8	25.4	639634	4,400	10	80 T 350-2,8 K SG CHOP STEELOX/25,4
400	2.8	25.4	669303	3,800	10	80 T 400-2,8 K SG CHOP STEELOX/25,4



Cut-off wheels for stationary applications

Performance Line SG, CHOPSAW HD ★★★★★



SG CHOP HD STEEL ★★★★★

Tool of hardness L or O with two outer fabrics. For cutting work that requires high stability.

Advantages:

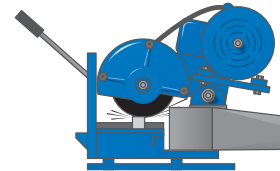
- High lateral stability thanks to reinforcing outer fabrics.
- Maximum economic efficiency due to very long tool life.
- For demanding cutting work.

Abrasive:

Aluminium oxide A

Matching tool drives:

CHOPSAW HD




Materials that can be worked:

steel

Applications:

cutting of solid material, sections and pipes

D [mm]	T [mm]	H [mm]	EAN 4007220	Max. RPM		Description
Maximum operating speed 80 m/s, flat type T (shape 41)						
300	3.0	25.4	629185	5,100	20	80 T 300-3,0 L SG CHOP HD STEEL/25,4
	3.0	32.0	639580	5,100	20	80 T 300-3,0 L SG CHOP HD STEEL/32,0
	3.4	25.4	540299	5,100	20	80 T 300-3,4 O SG CHOP HD STEEL/25,4
350	3.0	25.4	629130	4,400	10	80 T 350-3,0 L SG CHOP HD STEEL/25,4
	3.0	32.0	639603	4,400	10	80 T 350-3,0 L SG CHOP HD STEEL/32,0
	3.8	25.4	540329	4,400	10	80 T 350-3,8 O SG CHOP HD STEEL/25,4
400	4.0	25.4	638682	3,800	10	80 T 400-4,0 L SG CHOP HD STEEL/25,4
		32.0	639627	3,800	10	80 T 400-4,0 L SG CHOP HD STEEL/32,0
Maximum operating speed 100 m/s, flat type T (shape 41)						
350	4.2	25.4	540336	5,500	10	100 T 350-4,2 O SG CHOP HD STEEL/25,4



SG CHOP HD STEELOX ★★★★★

Tool of hardness L, which cuts very easily, with two outer fabrics for steel and stainless steel (INOX). For cutting work that requires high stability.

Advantages:

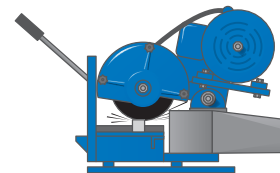
- High lateral stability thanks to reinforcing outer fabrics.
- Maximum economic efficiency due to very long tool life.
- For demanding cutting work.

Abrasive:

Aluminium oxide A

Matching tool drives:

CHOPSAW HD




Materials that can be worked:

steel, stainless steel (INOX)

Applications:

cutting of solid material, sections and pipes

D [mm]	T [mm]	H [mm]	EAN 4007220	Max. RPM		Description
Maximum operating speed 80 m/s, flat type T (shape 41)						
300	3.0	25.4	950227	5,100	20	80 T 300-3,0 L SG CHOP HD STEELOX/25,4
350	3.0	25.4	950234	4,400	10	80 T 350-3,0 L SG CHOP HD STEELOX/25,4
400	4.0	25.4	950272	3,800	10	80 T 400-4,0 L SG CHOP HD STEELOX/25,4



SG CHOP HD CAST + STONE ★★☆☆

Tool of hardness L, which cuts very easily, with two outer fabrics. For cutting work that requires high stability.

Advantages:

- High lateral stability thanks to reinforcing outer fabrics.
- Maximum economic efficiency due to very long tool life.
- For demanding cutting work.

Materials that can be worked:

cast iron, stone, plastics, aluminium, other non-ferrous metals

Applications:

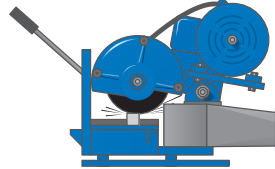
cutting of solid material, sections and pipes

Abrasive:

Silicon carbide C

Matching tool drives:

CHOPSAW HD



D [mm]	T [mm]	H [mm]	EAN 4007220	Max. RPM		Description
Maximum operating speed 80 m/s, flat type T (shape 41)						
350	3.4	25.4	540275	4,400	10	80 T 350-3,4 L SG CHOP HD CAST+STONE/25,4
400	4.0	25.4	540282	3,800	10	80 T 400-4,0 L SG CHOP HD CAST+STONE/25,4



Cut-off wheels for stationary applications

Performance Line SG, RAIL ★★☆☆



SG RAIL STEEL ★★☆☆

Tool of hardness Q for fast and economic cutting of rails.

Advantages:

- The fastest work progress due to aggressive abrasive.
- Safe cutting work thanks to the optimum cutting quality.
- High economic efficiency due to optimal tool life.

Materials that can be worked:

steel

Applications:

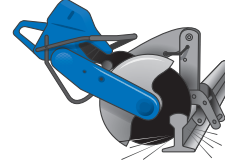
cutting of rails

Abrasive:

Aluminium oxide A

Matching tool drives:

RAIL cutting machine



D [mm]	T [mm]	H [mm]	EAN 4007220	Max. RPM		Description
Maximum operating speed 100 m/s, flat type T (shape 41)						
300	3.8	22.23	539705	6,400	20	100 T 300-3,8 Q SG RAIL STEEL/22,23
		25.4	539712	6,400	20	100 T 300-3,8 Q SG RAIL STEEL/25,4
350	3.8	22.23	539729	5,500	10	100 T 350-3,8 Q SG RAIL STEEL/22,23
		25.4	539736	5,500	10	100 T 350-3,8 Q SG RAIL STEEL/25,4
400	4.2	25.4	539743	4,800	10	100 T 400-4,2 Q SG RAIL STEEL/25,4



SG LAB STEEL ★★☆☆

Tool of hardness H, which cuts very easily, with a middle fabric for steel and stainless steel (INOX). For producing precision cuts and cutting laboratory samples quickly.

Advantages:

- Special tool for metallographic sampling thanks to aggressive abrasive.
- Safe cutting work thanks to the optimum cutting quality.
- High stability thanks to reinforcing middle fabric.

Materials that can be worked:

steel, stainless steel (INOX), cast iron

Applications:

Cutting of solid material, sections and pipes

Abrasive:

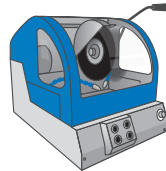
Aluminium oxide A


Recommendations for use:

- Also suitable for wet cutting applications.

Matching tool drives:

Labor cutting machine



D [mm]	T [mm]	H [mm]	EAN 4007220	Max. RPM		Description
Maximum operating speed 80 m/s, flat type T (shape 41)						
250	2.0	32.0	093924	6,100	20	80 T 250-2,0 H SG LAB STEEL/32,0
300	2.0	32.0	804926	5,100	20	80 T 300-2,0 H SG LAB STEEL/32,0
350	2.5	32.0	805596	4,400	10	80 T 350-2,5 H SG LAB STEEL/32,0
400	3.0	32.0	805657	3,800	10	80 T 400-3,0 H SG LAB STEEL/32,0

SG LAB HD STEELOX ★★☆☆

Tool of hardness H, which cuts very easily, with two outer fabrics for steel and stainless steel (INOX). For cutting work that requires high stability. For producing precision cuts and fast cutting of laboratory samples.

Advantages:

- Special tool for metallographic sampling thanks to aggressive abrasive.
- Safe cutting work thanks to the optimum cutting quality.
- Extremely sturdy thanks to reinforcing outer fabrics.

Materials that can be worked:

steel, stainless steel (INOX), cast iron

Applications:

cutting of solid material, sections and pipes

Abrasive:

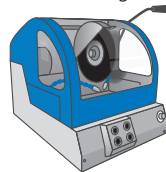
Aluminium oxide A


Recommendations for use:

- Also suitable for wet cutting applications.

Matching tool drives:

Labor cutting machine



D [mm]	T [mm]	H [mm]	EAN 4007220	Max. RPM		Description
Maximum operating speed 80 m/s, flat type T (shape 41)						
150	1.0	22.23	804124	10,200	25	80 T 150-1,0 H SG LAB HD STEELOX/22,23
230	1.5	22.23	804865	6,600	25	80 T 230-1,5 H SG LAB HD STEELOX/22,23
250	1.8	32.0	804919	6,100	20	80 T 250-1,8 H SG LAB HD STEELOX/32,0



Cut-off wheels for stationary applications

Special Line SGP, HEAVY DUTY ★★★★★



SGP HD STEEL ★★★★★

Tool for the highest cutting work demands. Particularly suitable for use in finishing work.

Advantages:

- High economic efficiency due to optimal tool life.
- Fast work progress thanks to excellent cutting characteristics.

Materials that can be worked:

steel

Applications:

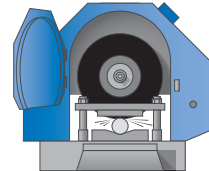
cutting of solid material, sections and pipes

Abrasive:

Aluminium oxide A

Matching tool drives:

HEAVY DUTY cutting machine



D [mm]	T [mm]	H [mm]	Hardness grade				Max. RPM		Description
			L (soft)	N (soft)	Q (medium-hard)	S (hard)			
EAN 4007220									

Maximum operating speed 80 m/s, flat type T (shape 41)

300	3.4	25.4	-	-	166185	-	5,100	20	80 T 300-3,4 Q SGP HD STEEL/25,4
350	3.8	25.4	-	-	166260	-	4,400	10	80 T 350-3,8 Q SGP HD STEEL/25,4
400	4.2	40.0	-	-	166307	-	3,800	10	80 T 400-4,2 Q SGP HD STEEL/40,0
500	5.5	40.0	-	-	166321	-	3,100	5	80 T 500-5,5 Q SGP HD STEEL/40,0

Maximum operating speed 100 m/s, flat type T (shape 41)

250	1.8	30.0	-	-	539873	-	7,600	20	100 T 250-1,8 Q SGP HD STEEL/30,0
		32.0	-	-	803257	-	7,600	20	100 T 250-1,8 Q SGP HD STEEL/32,0
300	3.0	40.0	-	539842	-	-	6,400	20	100 T 300-3,0 N SGP HD STEEL/40,0
	3.6	40.0	-	-	166253	-	6,400	20	100 T 300-3,6 Q SGP HD STEEL/40,0
350	3.8	40.0	-	539859	-	-	5,500	10	100 T 350-3,8 N SGP HD STEEL/40,0
	4.0	25.4	-	-	166284	-	5,500	10	100 T 350-4,0 Q SGP HD STEEL/25,4
400	4.3	40.0	-	539866	-	-	4,800	10	100 T 400-4,3 N SGP HD STEEL/40,0
	4.6	40.0	-	-	-	166314	4,800	10	100 T 400-4,6 S SGP HD STEEL/40,0
	4.8	40.0	-	-	539880	-	4,800	10	100 T 400-4,8 Q SGP HD STEEL/40,0
500	5.8	40.0	-	539897	166338	539958	3,800	5	100 T 500-5,8 ... SGP HD STEEL/40,0
	6.3	40.0	803417	-	-	-	3,800	5	100 T 500-6,3 L SGP HD STEEL/40,0
600	7.6	60.0	-	166482	-	093931	3,200	5	100 T 600-7,6 ... SGP HD STEEL/60,0



ZIRKON SGP HD CAST + STEEL ★★★★★

Tool for the highest cutting work demands. Particularly suitable for cutting risers and sprues. Specially developed for use in foundries.

Advantages:

- High economic efficiency due to optimal tool life.
- Fast work progress thanks to excellent cutting characteristics.

Materials that can be worked:

cast iron, steel

Applications:

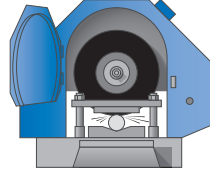
cutting of solid material, sections and pipes


Abrasive:

Zirconia alumina/aluminium oxide ZA

Matching tool drives:

HEAVY DUTY cutting machine



D [mm]	T [mm]	H [mm]	Hardness grade			Max. RPM		Description
			P (medi- um-hard)	R (hard)	T (very hard)			
EAN 4007220								
Maximum operating speed 100 m/s, flat type T (shape 41)								
400	4.8	40.0	-	-	539965	4,800	10	100 T 400-4,8 ZIRKON T SGP HD CAST+STEEL/40,0
500	5.6	40.0	-	-	803462	3,800	5	100 T 500-5,6 ZIRKON T SGP HD CAST+STEEL/40,0
600	7.8	60.0	803486	-	-	3,200	5	100 T 600-7,8 ZIRKON P SGP HD CAST+STEEL/60,0
	8.0	60.0	-	166437	-	3,200	5	100 T 600-8,0 ZIRKON R SGP HD CAST+STEEL/60,0



Cut-off wheels for stationary applications

Reducing rings



Reducing rings


Reducing rings enable secure adjustment of the standard centre hole to a reduced centre hole dimension.

Advantages:

- Flexible adjustment to the prerequisites of the drive system.
- With stop collar, to prevent the ring from pushing through the centre hole of the cut-off wheel.

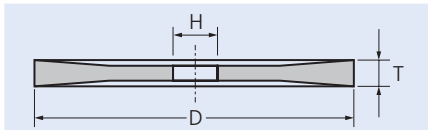
Safety notes:

- Ensure that the flanges on the drive system are backed off in order to mount the tool securely.

Outer dia. [mm]	Inside dia. [mm]	Width [mm]	EAN 4007220		Description
25.4	20	3.0	956205	5	RDR 25,4-20-3,0
	22.23	3.0	956212	5	RDR 25,4-22,2-3,0
40	25.4	3.0	956199	5	RDR 40-25,4-3,0
	25.4	4.5	176306	5	RDR 40-25,4-4,5
	30	3.0	956182	5	RDR 40-30-3,0
	30	4.5	176283	5	RDR 40-30-4,5
	32	3.0	956090	5	RDR 40-32-3,0
	32	4.5	176276	5	RDR 40-32-4,5
60	40	6.5	956229	5	RDR 60-40-6,5



Dimensions and designs to meet customer requirements



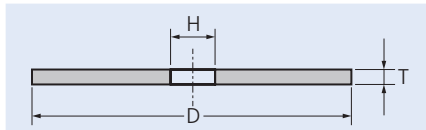
CT – Conical type

Application area:

- Particularly suitable for use in the steel industry.

Advantages:

- Less lateral friction.
- Particularly advantageous for deep cuts and traverse cutting.



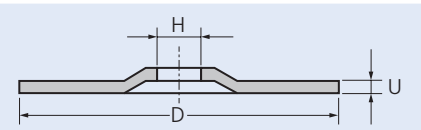
T – Flat type

Application area:

- Suitable for use in steel and plant construction, in the steel industry and in foundries.

Advantages:

- Suitable for universal use.



PT – Depressed-centre type

Application area:

- Particularly suitable for use in foundries.

Advantages:

- Clamping flange does not protrude beyond the cut-off wheel.
- Flush cutting of risers from castings is possible.
- In general, no post-processing required.

Outer dia. D [mm]	Centre hole dia. H [mm]
2000	80/100/127/152.4/200.3/203/230/250/280
1840	80/100/127/152.4/200.3/203/230/250/280
1600	80/100/127/152.4/200.3/203/230/250/280
1500	80/100/127/152.4/200.3/203/230/250/280
1380	80/100/127/152.4/200.3/203/230/250/280
1250	80/100/127/152.4/200.3/203/230/250/280
1000	80/100/127/152.4/200.3/203/230/250/280
800	80/100/127/152.4/200.3/203/230/250/280

Outer dia. D [mm]	Centre hole dia. H [mm]
800	80/100/127/152.4/200.3/203/230/250/280
700	80/100/127/152.4/200.3/203/230/250/280
660	40/60/76.2/80/100
600	25.4/40/60/76.2/80/100
500	25.4/40/60/76.2/80/100
450	25.4/32/40/60/80
400	25.4/32/40/60/80
350	25.4/32/40
300	25.4/32/40
250	25.4/30/32

Outer dia. D [mm]	Centre hole dia. H [mm]
800	80/100/127/152.4/200.3/203/230/250/280
700	80/100/127/152.4/200.3/203/230/250/280
600	25.4/40/60/76.2/80/100
500	25.4/40/60/76.2/80/100
400	25.4/32/40/60/80

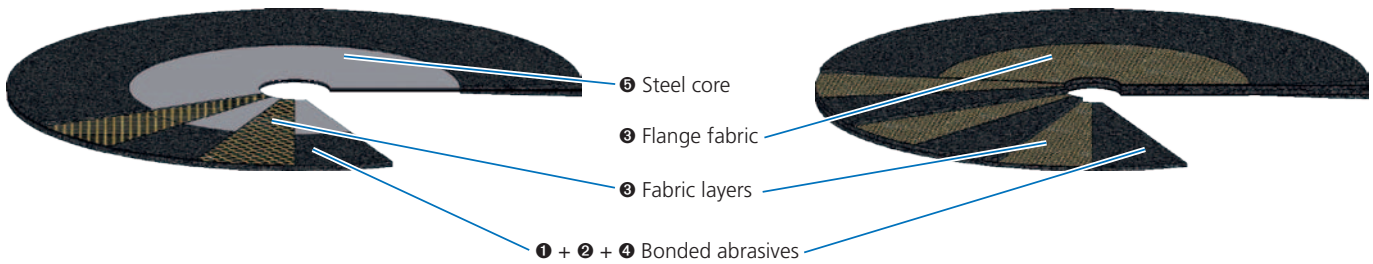
Other types and centre hole diameters are available on request. Please contact us for further information.

CUSTOMIZED
up to dia. 2 m



Cut-off wheels for stationary applications

METALCORE cut-off wheel



METALCORE type

The steel-core cut-off wheel, developed and **patented** by PFERD, is characterized, as compared to the conventional type, by its solid steel body ❶ constructed in layers which does not contain any abrasive.

The special tool structure has the following advantages:

1. Reduced cutting costs due to the use of smaller clamping flanges:

- Larger deployable grinding area.
- Cutting of larger material cross sections possible due to greater immersion depth of the cut-off wheel.
- Smaller wheel stub diameter.

2. Longer tool life due to:

- More stable cut with less vibration.

3. Reduced cut-off wheel width for chop stroke cut due to increased lateral stability:

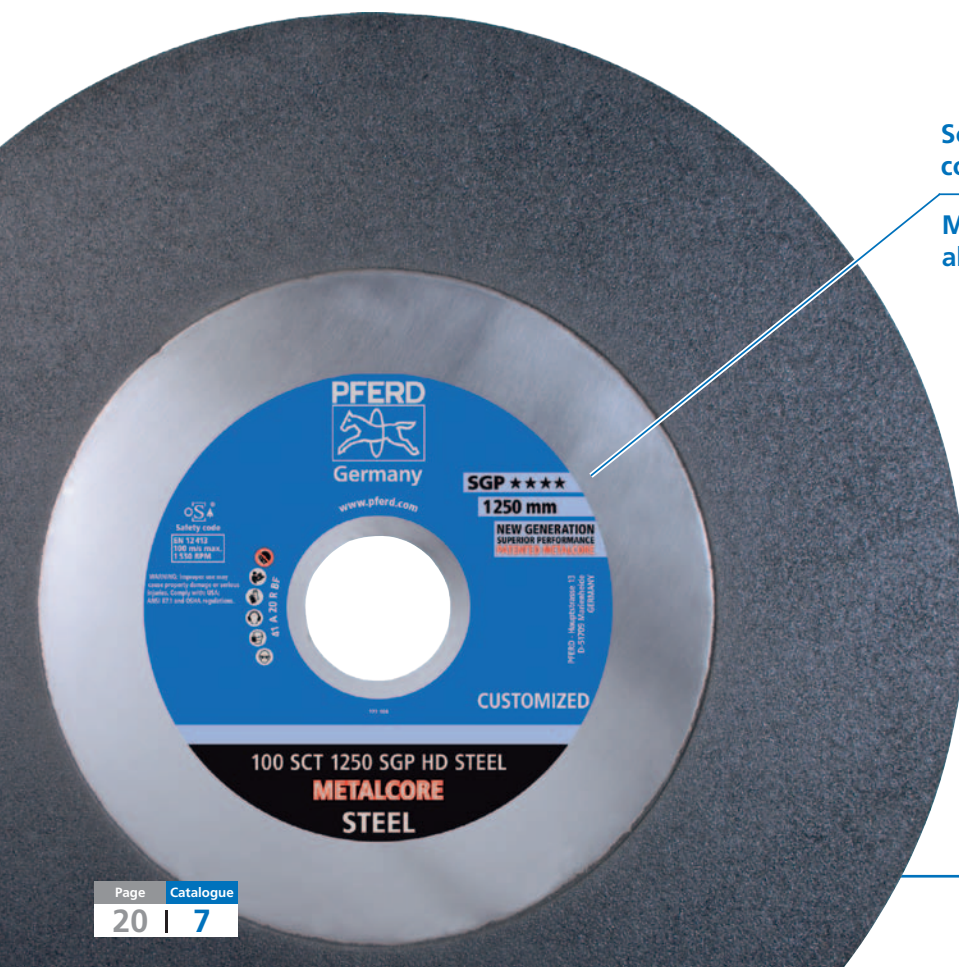
- Shorter cutting times and higher material throughput rate with low-power cutting machines.
- Less loss of cut material.
- Reduced chips or cinder waste.

4. No cost for the disposal of the old wheel

Conventional type

For stationary cut-off grinding, resinoid-bonded, fibre-reinforced cut-off wheels are used, which are essentially composed of four components:

- ❶ Abrasives
- ❷ Bond, which holds the abrasive grit in the cut-off wheel
- ❸ Fabric layers/flange fabric, which ensure that the cut-off wheel is secure and stable
- ❹ Active grinding fillers



Solid steel body
constructed in layers

Maximum utilisation of
abrasives