

Stationary cut-off wheels

The fast way to the best tool




Stationary cut-off wheels

Description, label, colour coding

Product lines

For the many different cutting tasks in industry and crafts, PFERD offers stationary cut-off wheels in two product lines with diverse special features.

Universal Line PS-FORTE (PSF)



For general use in industry and crafts


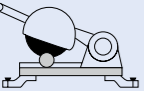
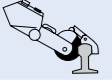
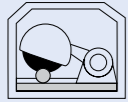
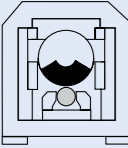
Performance Line SG-ELASTIC (SG)



Widest range of tools for professional use in industry and crafts

① Drive system + ② Material + ③ Application ⇒ Best tool

Based on the performance of the existing drive system ①, the material to be cut ② and the application ③, the overview shows the various types of tools in the product range and helps you to find the best tool.

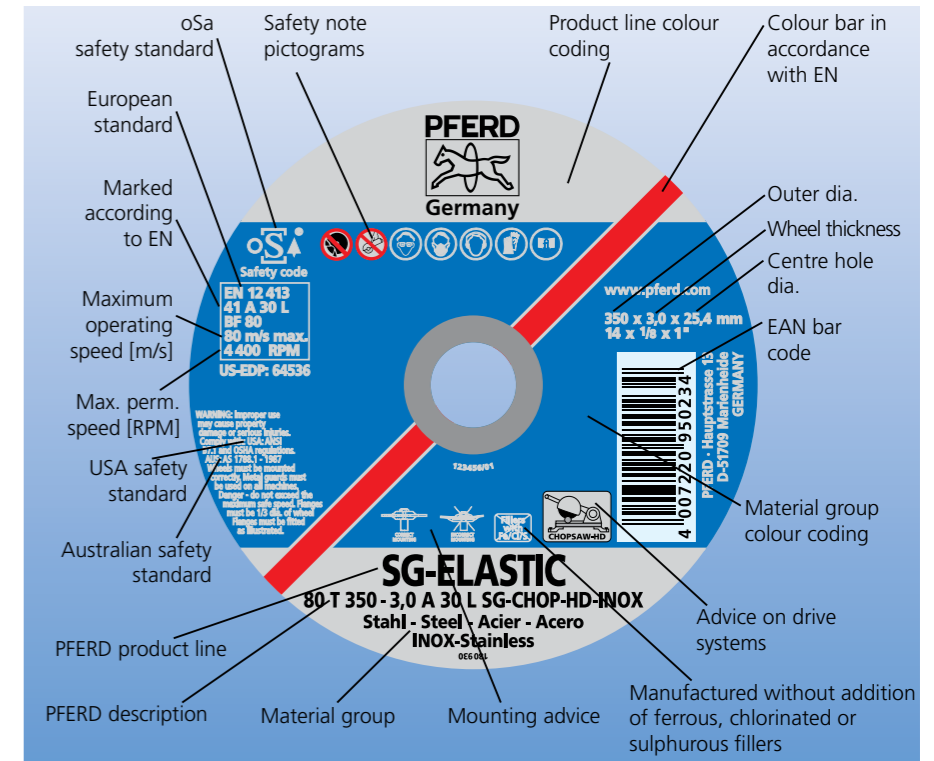
① Drive system	② Material	③ Application	Type	Page
CHOPSAW  < 3 kW	Steel	Cutting of solid material, profiles and pipes	PS-FORTE Hardness K	6
	Stainless steel (INOX)	Cutting of solid material, profiles and pipes	SG-ELASTIC Hardness K	7
CHOPSAW-HD 	Steel	Cutting of solid material, profiles and pipes	PS-FORTE Hardness K	6
	Stainless steel (INOX)	Cutting of solid material, profiles and pipes	SG-ELASTIC Hardness K	7
	Cast iron	Cutting of solid material, profiles and pipes	SG-ELASTIC Hardness L	8
RAIL 	Steel	Cutting of rails	SG-ELASTIC Hardness Q	9
	Stone	Cutting of solid material, profiles and pipes	SG-ELASTIC Hardness L	9
LABOR 	Steel	Producing precision cuts, cutting of laboratory samples	SG-ELASTIC Hardness H	10
	Stainless steel (INOX)	Producing precision cuts, cutting of laboratory samples	SG-ELASTIC Hardness H	10
HEAVY DUTY 	Steel	Cutting of solid material, profiles and pipes	SG-ELASTIC Hardness T	10
			SG-ELASTIC Hardness P	10
			SG-ELASTIC Hardness R	10
			SG-ELASTIC Hardness L	11
			SG-ELASTIC Hardness N	11
Products made to order up to dia. 1,250 mm	Cast iron	Cutting of solid material, profiles and pipes	SG-ELASTIC Hardness Q	11
			SG-ELASTIC Hardness S	11
			SG-ELASTIC Hardness T	10
			SG-ELASTIC Hardness P	10
			SG-ELASTIC Hardness R	10

 With a middle fabric for aggressive cutting with minimized burr formation
  With two outer fabrics for high lateral stability

PFERD description
 80 T 350-3,0 A 30 L SG-CHOP-HD-INOX/25,4
 1 2 3 4 5 6 7 8 9 10 11

- 1 Maximum operating speed in [m/s]**
- 2 Description and shape of the tool**
 T = flat type
 PT = depressed-centre type
 CT = conical type
- 3 Outer diameter**
 Outer dia. D in [mm]
- 4 Wheel thickness**
 Width T in [mm]
- 5 Abrasive**
 A = Aluminium oxide
 C = Silicon carbide
 ZA = Zirconia alumina/aluminium oxide
- 6 Grit size**
 Grit size according to ISO 8486
- 7 Hardness grade (wheel properties)**

Hardness grade	Wheel properties	Material group
Universal Line PS-FORTE (PSF)		
K	very soft	Steel, stainless steel (INOX)
Performance Line SG-ELASTIC (SG)		
H	very soft	Steel, stainless steel (INOX), cast iron
K	very soft	Steel, stainless steel (INOX)
L	soft	Steel, stainless steel (INOX), cast iron, stone, plastics, non-ferrous metals
N	soft	Steel
O	medium-hard	Steel
P	medium-hard	Steel, cast iron
Q	medium-hard	Steel
R	hard	Steel, cast iron
S	hard	Steel
T	very hard	Steel, cast iron
- 8 PFERD product line**
 Universal Line PS-FORTE (PSF)
 Performance Line SG-ELASTIC (SG)
- 9 Product groups**
 CHOPSAW = for aggressive cutting with minimized burr formation
 CHOPSAW-HD = for high lateral stability
 RAIL = for rails
 LABOR = for laboratory samples
 HEAVY DUTY = for high-performance machines
- 10 Material group**
 See also point 7
- 11 Centre hole diameter**
 Centre hole dia. H in [mm]



Designation according to EN 12413
 41 A 30 L BF 80
 1 2 3 4 5 6

- 1 Type and shape of the wheel**
 41 = flat cut-off wheel
 42 = depressed-centre cut-off wheel
- 2 Grit designation**
 A = Aluminium oxide
 C = Silicon carbide
 ZA = Zirconia alumina/aluminium oxide
- 3 Grit size**
 Grit size according to ISO 8486
- 4 Hardness grade (wheel properties)**
 Abrasive hardness grades are classified using letters in increasing alphabetical order from the softest to hardest (A to Z).
- 5 Bond**
 BF = fibre-reinforced resinoid bond with fabric
- 6 Maximum operating speed in [m/s]**

Colour coding for the two product lines

Universal Line PS-FORTE (PSF)	Performance Line SG-ELASTIC (SG)

Colour coding of the materials to be worked

Universal Line PS-FORTE (PSF)		
Material = Colour		Page
	Steel = black	6
	Stainless steel (INOX) = blue	6

Performance Line SG-ELASTIC (SG)		
Material = Colour		Page
	Steel = black	7
	Steel/cast iron = black/red	8
	Stainless steel (INOX) = blue	9
	Stone/cast iron = green/red	10
	Stone/cast iron = green/red	11
	Stone/cast iron = green/red	10
	Stone/cast iron = green/red	9



Stationary cut-off wheels

Universal Line PS-FORTE, CHOPSAW



Stationary cut-off wheels

Performance Line SG-ELASTIC, CHOPSAW



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

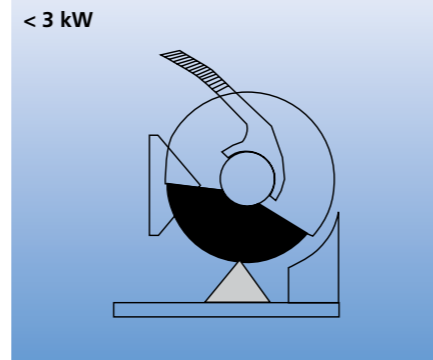
- Advantages:**
- Long tool life
 - Fast cutting
 - Low side friction
 - For multipurpose cutting work

Abrasive: Aluminium oxide A

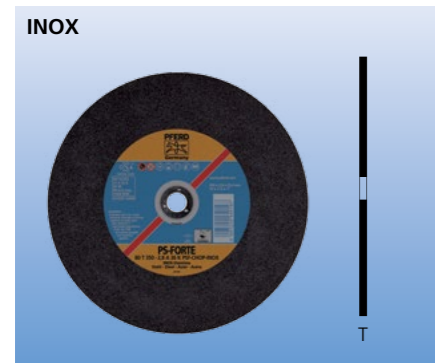
Materials to be worked:
Steel

Applications:
Cutting of solid material, sections and pipes

- Recommendations for use:**
- Provides exceptional cutting results on drive systems with up to 3 kW output



Description	EAN 4007220	EN designation	D x T x H [mm (inch)]	Max. perm. speed [RPM]	
Maximum operating speed 80 m/s, flat type T (shape 41)					
80 T 300-2,8 A 36 K PSF-CHOP/25,4	832264	41 A 36 K BF 80	300 x 2.8 x 25.4 (1)	5,100	20
80 T 350-2,8 A 36 K PSF-CHOP/25,4	817605	41 A 36 K BF 80	350 x 2.8 x 25.4 (1)	4,400	10
80 T 400-3,8 A 36 K PSF-CHOP/25,4	832271	41 A 36 K BF 80	400 x 3.8 x 25.4 (1)	3,800	10



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

- Advantages:**
- Long tool life
 - Fast cutting
 - Low side friction
 - For multipurpose cutting work

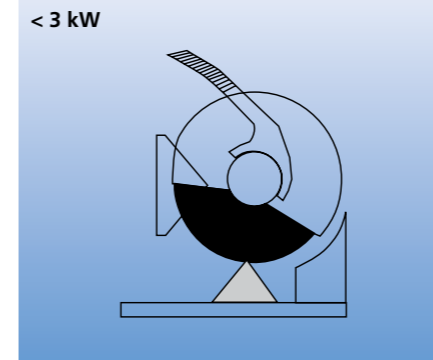
Abrasive: Aluminium oxide A
Manufactured without addition of ferrous, chlorinated or sulphurous fillers.

Materials to be worked:
Stainless steel (INOX)

Applications:
Cutting of solid material, sections and pipes

- Recommendations for use:**
- Provides exceptional cutting results on drive systems with up to 3 kW output

Description	EAN 4007220	EN designation	D x T x H [mm (inch)]	Max. perm. speed [RPM]	
Maximum operating speed 80 m/s, flat type T (shape 41)					
80 T 300-2,8 A 36 K PSF-CHOP-INOX/25,4	950180	41 A 36 K BF 80	300 x 2.8 x 25.4 (1)	5,100	20
80 T 350-2,8 A 36 K PSF-CHOP-INOX/25,4	950197	41 A 36 K BF 80	350 x 2.8 x 25.4 (1)	4,400	10
80 T 400-3,8 A 36 K PSF-CHOP-INOX/25,4	950210	41 A 36 K BF 80	400 x 3.8 x 25.4 (1)	3,800	10



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

- Advantages:**
- Very long tool life
 - Fast cutting
 - Low side friction
 - For demanding cutting work

Abrasive: Aluminium oxide A

Materials to be worked:
Steel

Applications:
Cutting of solid material, sections and pipes

- Recommendations for use:**
- Provides exceptional cutting results on drive systems with up to 3 kW output



Description	EAN 4007220	EN designation	D x T x H [mm (inch)]	Max. perm. speed [RPM]	
Maximum operating speed 80 m/s, flat type T (shape 41)					
80 T 300-2,8 A 36 K SG-CHOP/25,4	629123	41 A 36 K BF 80	300 x 2.8 x 25.4 (1)	5,100	20
80 T 300-2,8 A 36 K SG-CHOP/32,0	639573	41 A 36 K BF 80	300 x 2.8 x 32.0 (1 1/4)	5,100	20
80 T 350-2,8 A 36 K SG-CHOP/25,4	629154	41 A 36 K BF 80	350 x 2.8 x 25.4 (1)	4,400	10
80 T 350-2,8 A 36 K SG-CHOP/32,0	639597	41 A 36 K BF 80	350 x 2.8 x 32.0 (1 1/4)	4,400	10
80 T 400-3,8 A 36 K SG-CHOP/25,4	638675	41 A 36 K BF 80	400 x 3.8 x 25.4 (1)	3,800	10
80 T 400-3,8 A 36 K SG-CHOP/32,0	639610	41 A 36 K BF 80	400 x 3.8 x 32.0 (1 1/4)	3,800	10

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

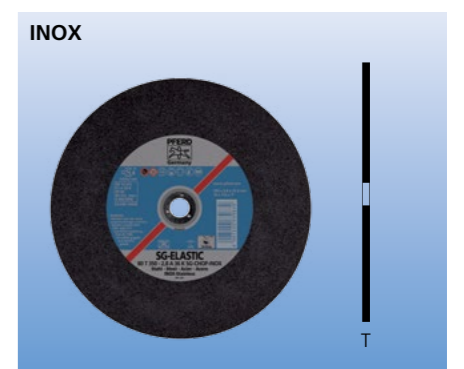
- Advantages:**
- Very long tool life
 - Fast cutting
 - Low side friction
 - For demanding cutting work

Abrasive: Aluminium oxide A
Manufactured without addition of ferrous, chlorinated or sulphurous fillers.

Materials to be worked:
Stainless steel (INOX)

Applications:
Cutting of solid material, sections and pipes

- Recommendations for use:**
- Provides exceptional cutting results on drive systems with up to 3 kW output



Description	EAN 4007220	EN designation	D x T x H [mm (inch)]	Max. perm. speed [RPM]	
Maximum operating speed 80 m/s, flat type T (shape 41)					
80 T 300-2,8 A 36 K SG-CHOP-INOX/25,4	803219	41 A 36 K BF 80	300 x 2.8 x 25.4 (1)	5,100	20
80 T 350-2,8 A 36 K SG-CHOP-INOX/25,4	639634	41 A 36 K BF 80	350 x 2.8 x 25.4 (1)	4,400	10
80 T 400-2,8 A 36 K SG-CHOP-INOX/25,4	669303	41 A 36 K BF 80	400 x 2.8 x 25.4 (1)	3,800	10



Stationary cut-off wheels

Performance Line SG-ELASTIC, CHOPSAW-HD



Stationary cut-off wheels

Performance Line SG-ELASTIC, CHOPSAW-HD



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

Advantages:

- High lateral stability
- Very long tool life
- For demanding cutting work

Abrasive: Aluminium oxide A

Materials to be worked:

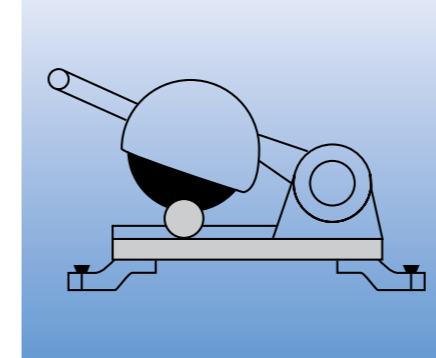
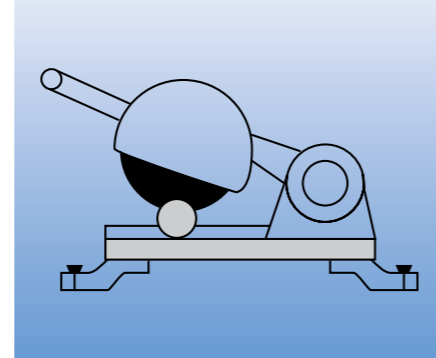
Steel

Applications:

Cutting of solid material, sections and pipes

Recommendations for use:

- Optimum cutting results are achieved with powerful drive systems



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

Advantages:

- High lateral stability
- Very long tool life
- For demanding cutting work

Abrasive: Silicon carbide C

Materials to be worked:

Cast iron, stone, plastic, non-ferrous metals

Applications:

Cutting of solid material, sections and pipes

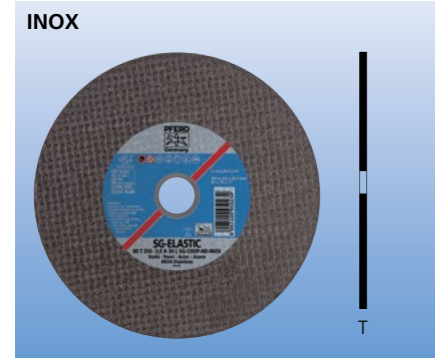
Recommendations for use:

- Optimum cutting results are achieved with powerful drive systems



Description	EAN 4007220	EN designation	D x T x H [mm (inch)]	Max. perm. speed [RPM]	
Maximum operating speed 80 m/s, flat type T (shape 41)					
80 T 300-3,0 A 30 L SG-CHOP-HD/25,4	629185	41 A 30 L BF 80	300 x 3.0 x 25.4 (1)	5,100	20
80 T 300-3,0 A 30 L SG-CHOP-HD/32,0	639580	41 A 30 L BF 80	300 x 3.0 x 32.0 (1 1/4)	5,100	20
80 T 300-3,4 A 30 O SG-CHOP-HD/25,4	540299	41 A 30 O BF 80	300 x 3.4 x 25.4 (1)	5,100	20
80 T 350-3,0 A 30 L SG-CHOP-HD/25,4	629130	41 A 30 L BF 80	350 x 3.0 x 25.4 (1)	4,400	10
80 T 350-3,0 A 30 L SG-CHOP-HD/32,0	639603	41 A 30 L BF 80	350 x 3.0 x 32.0 (1 1/4)	4,400	10
80 T 350-3,8 A 30 O SG-CHOP-HD/25,4	540329	41 A 30 O BF 80	350 x 3.8 x 25.4 (1)	4,400	10
80 T 400-4,0 A 30 L SG-CHOP-HD/25,4	638682	41 A 30 L BF 80	400 x 4.0 x 25.4 (1)	3,800	10
80 T 400-4,0 A 30 L SG-CHOP-HD/32,0	639627	41 A 30 L BF 80	400 x 4.0 x 32.0 (1 1/4)	3,800	10
Maximum operating speed 100 m/s, flat type T (shape 41)					
100 T 350-4,2 A 30 O SG-CHOP-HD/25,4	540336	41 A 30 O BF 100	350 x 4.2 x 25.4 (1)	5,500	10

Description	EAN 4007220	EN designation	D x T x H [mm (inch)]	Max. perm. speed [RPM]	
Maximum operating speed 80 m/s, flat type T (shape 41)					
80 T 300-3,0 C 36 L SG-CHOP-HD/25,4	540268	41 C 36 L BF 80	300 x 3.0 x 25.4 (1)	5,100	20
80 T 350-3,4 C 36 L SG-CHOP-HD/25,4	540275	41 C 36 L BF 80	350 x 3.4 x 25.4 (1)	4,400	10
80 T 400-4,0 C 36 L SG-CHOP-HD/25,4	540282	41 C 36 L BF 80	400 x 4.0 x 25.4 (1)	3,800	10



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

Advantages:

- High lateral stability
- Very long tool life
- For demanding cutting work

Abrasive: Aluminium oxide A

Manufactured without addition of ferrous, chlorinated or sulphurous fillers.

Materials to be worked:

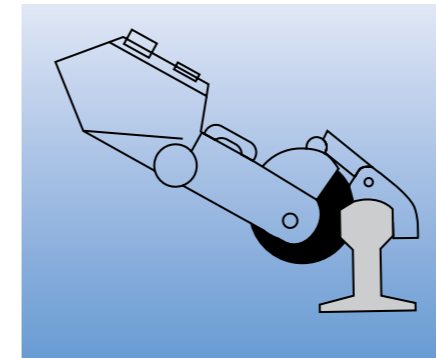
Stainless steel (INOX)

Applications:

Cutting of solid material, sections and pipes

Recommendations for use:

- Optimum cutting results are achieved with powerful drive systems



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

Advantages:

- Aggressive cutting
- Highest cut quality
- Optimum tool life

Abrasive: Aluminium oxide A

Materials to be worked:

Steel

Applications:

Cutting of rails

Recommendations for use:

- Optimum cutting results are achieved with powerful drive systems



Description	EAN 4007220	EN designation	D x T x H [mm (inch)]	Max. perm. speed [RPM]	
Maximum operating speed 80 m/s, flat type T (shape 41)					
80 T 300-3,0 A 30 L SG-CHOP-HD-INOX/25,4	950227	41 A 30 L BF 80	300 x 3.0 x 25.4 (1)	5,100	20
80 T 350-3,0 A 30 L SG-CHOP-HD-INOX/25,4	950234	41 A 30 L BF 80	350 x 3.0 x 25.4 (1)	4,400	10
80 T 400-4,0 A 30 L SG-CHOP-HD-INOX/25,4	950272	41 A 30 L BF 80	400 x 4.0 x 25.4 (1)	3,800	10

Description	EAN 4007220	EN designation	D x T x H [mm (inch)]	Max. perm. speed [RPM]	
Maximum operating speed 100 m/s, flat type T (shape 41)					
100 T 300-3,8 A 24 Q SG-RAIL/22,23	539705	41 A 24 Q BF 100	300 x 3.8 x 22.23 (7/8)	6,400	20
100 T 300-3,8 A 24 Q SG-RAIL/25,4	539712	41 A 24 Q BF 100	300 x 3.8 x 25.4 (1)	6,400	20
100 T 350-3,8 A 24 Q SG-RAIL/22,23	539729	41 A 24 Q BF 100	350 x 3.8 x 22.23 (7/8)	5,500	10
100 T 350-3,8 A 24 Q SG-RAIL/25,4	539736	41 A 24 Q BF 100	350 x 3.8 x 25.4 (1)	5,500	10
100 T 400-4,2 A 24 Q SG-RAIL/25,4	539743	41 A 24 Q BF 100	400 x 4.2 x 25.4 (1)	4,800	10



Stationary cut-off wheels

Performance Line SG-ELASTIC, LABOR



Stationary cut-off wheels

Performance Line SG-ELASTIC, HEAVY DUTY



Tool of hardness H, which cuts very easily, for producing precision cuts and fast cutting of laboratory samples.

Advantages:

- Special tool for metallographic sampling
- Highest cut quality
- Reinforced type for high stability

Abrasive: Aluminium oxide A

Manufactured without addition of ferrous, chlorinated or sulphurous fillers.

Materials to be worked:

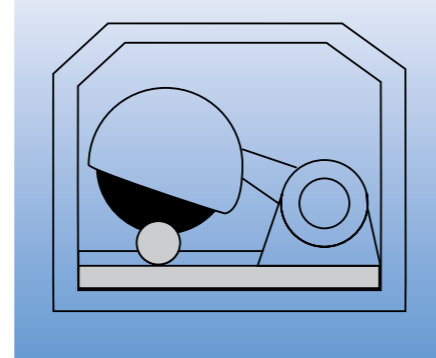
Stainless steel (INOX), steel, cast iron

Applications:

Cutting of solid material, sections and pipes

Recommendations for use:

- Due to their construction, these tools are only intended for use on stationary precision cutting machines
- Also suitable for wet cutting applications



Description	EAN 4007220	EN designation	D x T x H [mm (inch)]	Max. perm. speed [RPM]	
Maximum operating speed 80 m/s, flat type T (shape 41)					
SG-LAB-INOX					
80 T 150-1,0 A 60 H SG-LAB-INOX/22,23	804124	41 A 60 H BF 80	150 x 1.0 x 22.23 (7/8)	10,200	25
80 T 230-1,5 A 60 H SG-LAB-INOX/22,23	804865	41 A 60 H BF 80	230 x 1.5 x 22.23 (7/8)	6,600	25
80 T 250-1,8 A 46 H SG-LAB-INOX/32,0	804919	41 A 46 H BF 80	250 x 1.8 x 32.0 (1 1/4)	6,100	20
SG-LAB					
80 T 300-2,0 A 46 H SG-LAB/32,0	804926	41 A 46 H BF 80	300 x 2.0 x 32.0 (1 1/4)	5,100	20
80 T 350-2,5 A 46 H SG-LAB/32,0	805596	41 A 46 H BF 80	350 x 2.5 x 32.0 (1 1/4)	4,400	10
80 T 400-3,0 A 46 H SG-LAB/32,0	805657	41 A 46 H BF 80	400 x 3.0 x 32.0 (1 1/4)	3,800	10

Performance Line SG-ELASTIC, HEAVY DUTY



Tool with broad spectrum of hardness grades for the highest requirements of cutting work.

Advantages:

- Optimum tool life
- Optimum cutting results

Abrasive: Zirconia alumina/aluminium oxide ZA

Materials to be worked:

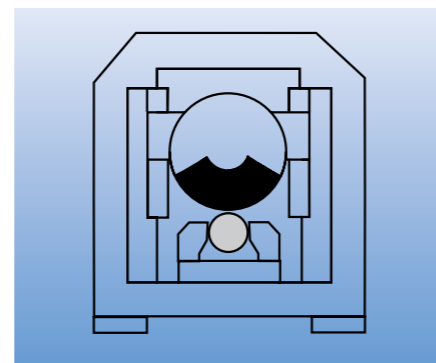
Cast iron, steel

Applications:

Cutting of solid material, sections and pipes

Recommendations for use:

- Optimum cutting results are achieved on stationary high-performance machines



Description	EAN 4007220	EN designation	D x T x H [mm (inch)]	Max. perm. speed [RPM]	
Maximum operating speed 100 m/s, flat type T (shape 41)					
100 T 400-4,8 ZA 24 T SG-HD/40,0	539965	41 ZA 24 T BF 100	400 x 4.8 x 40.0 (1 1/2)	4,800	10
100 T 500-5,6 ZA 24 T SG-HD/40,0	803462	41 ZA 24 T BF 100	500 x 5.6 x 40.0 (1 1/2)	3,800	5
100 T 600-7,8 ZA 24 P SG-HD/60,0	803486	41 ZA 24 P BF 100	600 x 7.8 x 60.0 (2 3/8)	3,200	5
100 T 600-8,0 ZA 24 R SG-HD/60,0	166437	41 ZA 24 R BF 100	600 x 8.0 x 60.0 (2 3/8)	3,200	5

Tool with broad spectrum of hardness grades for the highest requirements of cutting work.

Advantages:

- Optimum tool life
- Optimum cutting results

Abrasive: Aluminium oxide A

Materials to be worked:

Steel

Applications:

Cutting of solid material, sections and pipes

Recommendations for use:

- Optimum cutting results are achieved on stationary high-performance machines



Description	EAN 4007220	EN designation	D x T x H [mm (inch)]	Max. perm. speed [RPM]	
Maximum operating speed 80 m/s, flat type T (shape 41)					
80 T 300-3,4 A 24 Q SG-HD/25,4	166185	41 A 24 Q BF 80	300 x 3.4 x 25.4 (1)	5,100	20
80 T 350-3,8 A 24 Q SG-HD/25,4	166260	41 A 24 Q BF 80	350 x 3.8 x 25.4 (1)	4,400	10
80 T 400-4,2 A 24 Q SG-HD/40,0	166307	41 A 24 Q BF 80	400 x 4.2 x 40.0 (1 1/2)	3,800	10
80 T 500-5,5 A 24 Q SG-HD/40,0	166321	41 A 24 Q BF 80	500 x 5.5 x 40.0 (1 1/2)	3,100	5
Maximum operating speed 100 m/s, flat type T (shape 41)					
100 T 250-1,8 A 24 Q SG-HD/30,0	539873	41 A 24 Q BF 100	250 x 1.8 x 30.0 (19/16)	7,600	20
100 T 250-1,8 A 24 Q SG-HD/32,0	803257	41 A 24 Q BF 100	250 x 1.8 x 32.0 (1 1/4)	7,600	20
100 T 300-3,0 A 24 N SG-HD/40,0	539842	41 A 24 N BF 100	300 x 3.0 x 40.0 (1 1/2)	6,400	20
100 T 300-3,6 A 24 Q SG-HD/40,0	166253	41 A 24 Q BF 100	300 x 3.6 x 40.0 (1 1/2)	6,400	20
100 T 350-3,8 A 24 N SG-HD/40,0	539859	41 A 24 N BF 100	350 x 3.8 x 40.0 (1 1/2)	5,500	10
100 T 350-4,0 A 24 Q SG-HD/25,4	166284	41 A 24 Q BF 100	350 x 4.0 x 25.4 (1)	5,500	10
100 T 400-4,3 A 24 N SG-HD/40,0	539866	41 A 24 N BF 100	400 x 4.3 x 40.0 (1 1/2)	4,800	10
100 T 400-4,6 A 24 S SG-HD/40,0	166314	41 A 24 S BF 100	400 x 4.6 x 40.0 (1 1/2)	4,800	10
100 T 400-4,8 A 24 Q SG-HD/40,0	539880	41 A 24 Q BF 100	400 x 4.8 x 40.0 (1 1/2)	4,800	10
100 T 500-6,3 A 24 L SG-HD/40,0	803417	41 A 24 L BF 100	500 x 6.3 x 40.0 (1 1/2)	3,800	5
100 T 500-5,8 A 24 N SG-HD/40,0	166338	41 A 24 N BF 100	500 x 5.8 x 40.0 (1 1/2)	3,800	5
100 T 500-5,8 A 24 Q SG-HD/40,0	539897	41 A 24 Q BF 100	500 x 5.8 x 40.0 (1 1/2)	3,800	5
100 T 500-5,8 A 24 S SG-HD/40,0	539958	41 A 24 S BF 100	500 x 5.8 x 40.0 (1 1/2)	3,800	5
100 T 600-7,6 A 24 N SG-HD/60,0	166482	41 A 24 N BF 100	600 x 7.6 x 60.0 (2 3/8)	3,200	5

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

Advantages:

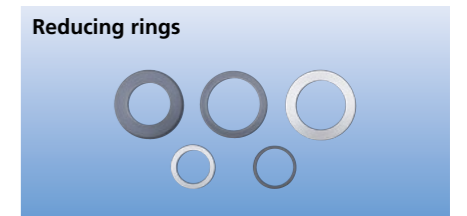
- Flexible adjustment to the prerequisites of the drive system

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

Reducing rings



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





Dimensions and designs to meet customer requirements

If you cannot find the solution for your particular application in our product range, we can produce stationary cut-off wheels in premium PFERD quality on request, tailor-made to meet the requirements of your job.

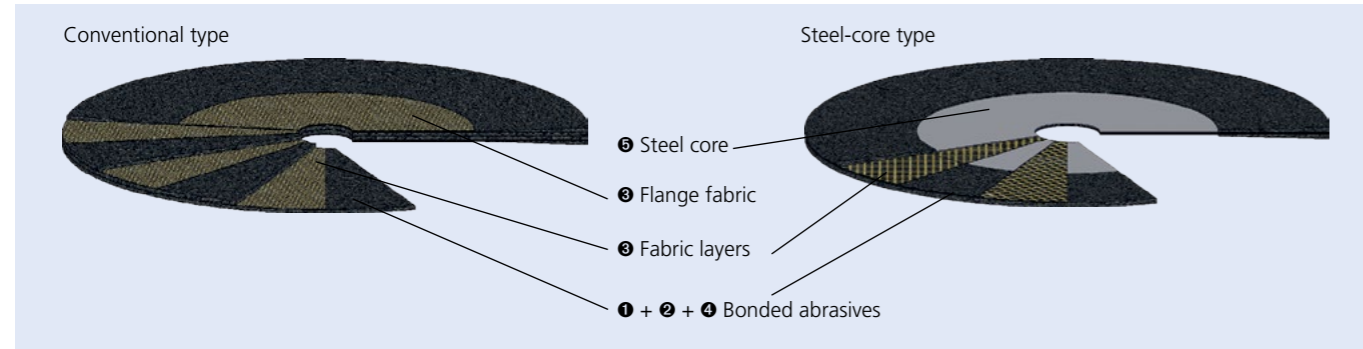


CT Conical type		T Flat type		PT Depressed-centre type	
Outer dia. D [mm]	Centre hole dia. H [mm]	Outer dia. D [mm]	Centre hole dia. H [mm]	Outer dia. D [mm]	Centre hole dia. H [mm]
1,250	127/152.4/230	-	-	-	-
1,000	100/127/152.4	-	-	-	-
800	80/100/152.4	800	80/100/152.4	800	80/100/152.4
-	-	700	60/80/100	700	60/80/100
-	-	660	40/60/80	-	-
-	-	600	40/60/76.2	600	40/60/76.2
-	-	500	40/60/76.2	500	40/60/76.2
-	-	450	25.4/32/40	-	-
-	-	400	25.4/32/40	400	25.4/32/40
-	-	350	25.4/32/40	-	-
-	-	300	25.4/32/40	-	-
-	-	250	25.4/30/32	-	-

Other designs and centre hole diameters are available on request. Please contact us!



An example of the construction of a cut-off wheel



Conventional type

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

- ① Abrasives
- ② Bond, which holds the abrasive grit in the cut-off wheel
- ③ Fabric layers/flange fabric, which ensure that the cut-off wheel is secure and stable
- ④ Active additives

Steel-core type

The steel-core cut-off wheel, developed and patented by PFERD, is characterized by its solid steel body ① constructed in layers which does not contain any abrasive.

The special tool structure has the following advantages:

1. Use of smaller clamping flanges possible

- Advantages:
- Larger deployable grinding area
 - Cutting of large material cross sections
 - Reduced cutting costs

2. Increased lateral stability of the cut-off wheel

- Advantages:
- Stabler cut with less vibration
 - Less noise
 - Longer tool life
 - Higher material throughput rate
 - Shorter cutting times

3. Reduced cut-off wheel width

- Advantages:
- Lower drive power output required
 - Less loss of cut material
 - Reduced chips or cinder waste

4. No cost for the disposal of the old wheel

Possible applications 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
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 efficiency 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 wheels.



Cut-off processes

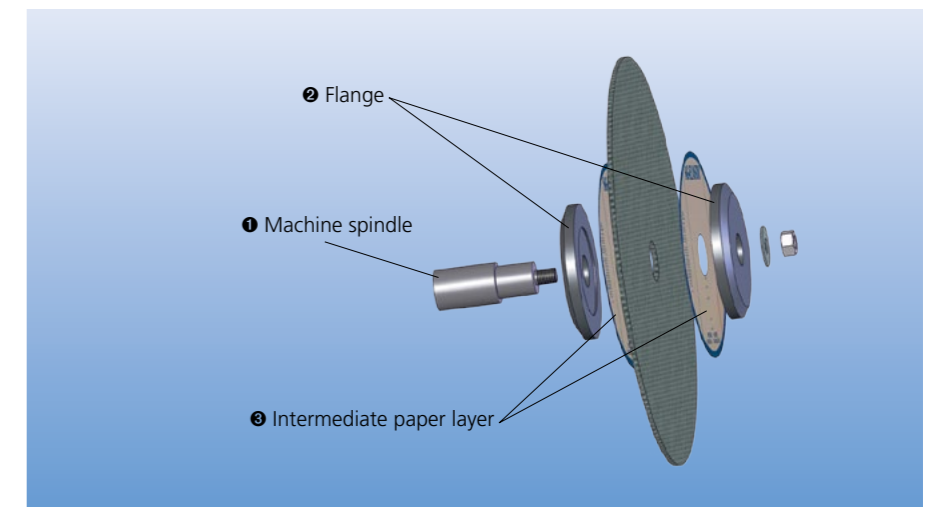
According to the material and the application, cut-off processes differ depending on the positioning and relative motion of the cut-off wheel and workpiece.

Chop stroke cut	Horizontal cut	Rotary cut	Index cut	Oscillation cut
<p>Application area:</p> <ul style="list-style-type: none"> ■ For cutting individual workpieces as well as small or slim material layers ■ Very common cut-off process <p>Cutting process:</p> <ul style="list-style-type: none"> ■ Cut-off wheel cuts the workpiece in a radial movement over a joint mid-point <p>Advantages:</p> <ul style="list-style-type: none"> ■ Low vibration ■ Short cutting times ■ Less load on cut-off wheels for smaller material dimensions 	<p>Application area:</p> <ul style="list-style-type: none"> ■ 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 <p>Cutting process:</p> <ul style="list-style-type: none"> ■ Cut-off wheel cuts the entire layer width of different cross sections in one cycle <p>Advantages:</p> <ul style="list-style-type: none"> ■ Short cutting times ■ Very high throughput capacity 	<p>Application area:</p> <ul style="list-style-type: none"> ■ For cutting very large pipes as well as round solid material <p>Cutting process:</p> <ul style="list-style-type: none"> ■ The workpiece is continuously rotated during the cutting process <p>Advantages:</p> <ul style="list-style-type: none"> ■ Use of small wheel diameters is possible ■ Lower drive power output required ■ Low workpiece temperature 	<p>Application area:</p> <ul style="list-style-type: none"> ■ For cutting very large round solid material and blocks ■ In particular in steel works and foundries <p>Cutting process:</p> <ul style="list-style-type: none"> ■ 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). <p>Advantages:</p> <ul style="list-style-type: none"> ■ Working on very large material cross sections is possible with smaller wheel diameters 	<p>Application area:</p> <ul style="list-style-type: none"> ■ For cutting sprues and risers in foundries ■ Demanding tasks in wet cut-off grinding <p>Cutting process:</p> <ul style="list-style-type: none"> ■ Cut-off wheel moves into the material to be cut with additional for- and backward movements in the horizontal cut <p>Advantages:</p> <ul style="list-style-type: none"> ■ Lower drive power output required ■ Low workpiece temperature ■ Optimum removal of chips

Proper clamping of cut-off wheels

The correct clamping of the cut-off wheel is a prerequisite for optimum performance and is essential for the safety of the user. 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
 - For a wheel diameter > 400 mm, always use intermediate paper layers



Safety notes:

The safe use of PFERD tools depends on proper mounting 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).

