



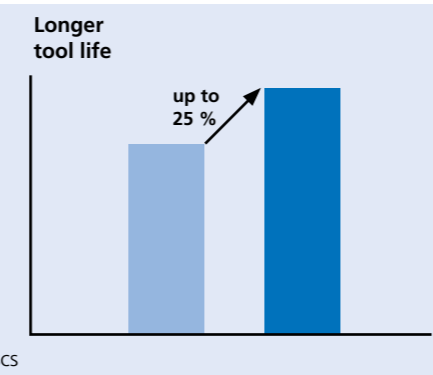
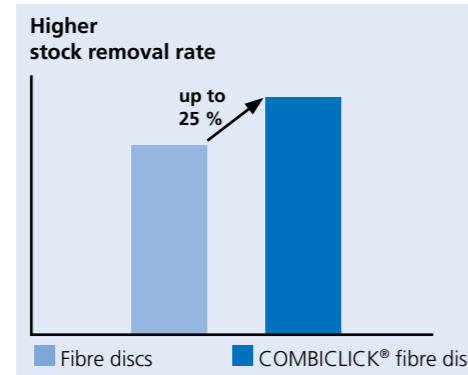
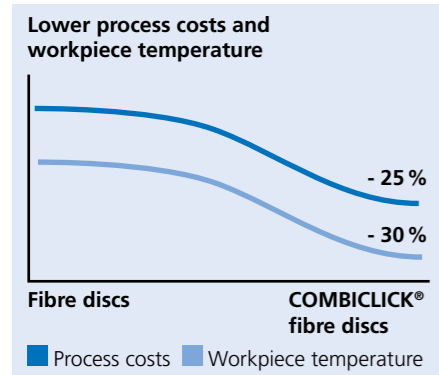
The patented cooling and quick-mounting system from PFERD is suitable for use with fibre, non-woven and felt discs.

The COMBICLICK® system consists of a specially developed backing pad and a rugged mounting system at the back of the tool. The backing pad allows COMBICLICK® tools to be used on commercially available angle grinders.

The special geometry of the cooling slots ensures a high throughput of air, thus significantly reducing the thermal load on the abrasive material and workpiece.

The quick-mounting system, rugged fixture, secure attachment of the tool and optimized cooling system help to provide

- up to 30 % lower workpiece temperature,
- up to 25 % increased stock removal,
- up to 30 % longer tool life and improved utilization of the abrasive.



Advantages:

System



Very easy and comfortable to use.

Flexible grinding



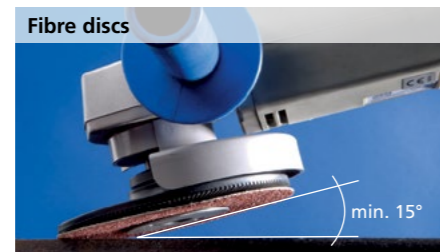
Soft and particularly flexible grinding performance in face-down grinding.

Mounting principle



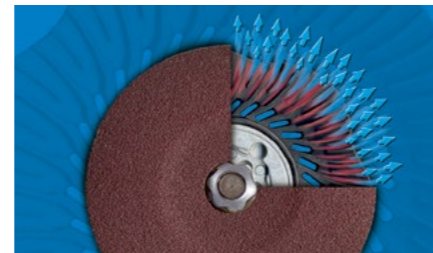
Extremely fast and easy tool change reduces process costs.

COMBICLICK® allows very flat use!



With COMBICLICK®, scratches caused by prominent clamping parts are prevented and very high utilization of the available abrasive is attained.

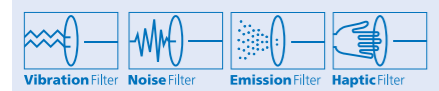
Cooling effect



Very good cooling of tool and workpiece.



PFERDERGONOMICS® recommends COMBICLICK® as an innovative tool solution to sustainably reduce vibration, noise and dust levels produced by tools, and to improve working comfort.



PFERDVIDEO



You will receive more information here or at www.pferd.com

The extensive range of COMBICLICK® fibre discs provides the optimum tool for any machining application from coarse to fine grinding. PFERD provides COMBICLICK® fibre discs with various

- grit sizes,
- abrasives and
- dimensions.

Advantages:

- Long tool life
- Uniform grinding pattern
- Very high stock removal
- High flexibility
- Very good grain adhesion

Application examples:

- Working on weld seams
- Deburring of steel components
- Rough grinding work
- Fine grinding of stainless steel (INOX) components
- Removal of mill and casting skins
- Working on narrow, hard-to-reach areas (e.g. cooling ribs)

Recommendations for use:

- Use COMBICLICK® fibre discs in combination with the COMBICLICK® backing pad on commercially available angle grinders
- Use grinding oil that is suitable for the tool in order to significantly increase the tool life and the abrasive performance of the tools. More detailed information and ordering data for grinding oils can be found on page 120.

Safety notes:

- The maximum permitted peripheral speed is 80 m/s
- For safety reasons, it is imperative to remain within the stated maximum permitted rotational speed at all times

= Wear eye protection!

= Wear a dust mask!

= Wear hearing protection!

= Only use with backing pad!

= Please read the safety instructions!

= Not permitted for wet grinding!

Ordering note:

Please order COMBICLICK® backing pad separately. More detailed information and ordering data for backing pads can be found on page 16.



Ordering instructions:

When ordering, please state the EAN or the complete description. Please complete the description with the desired grit size.

Ordering example:
EAN 4007220722411
CC-FS 180 A-COOL 60

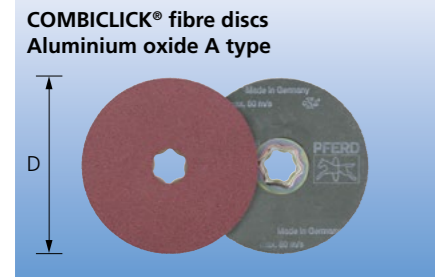
Ordering example explanation:
CC-FS = COMBICLICK® fibre discs
180 = Outer diameter D [mm]
A = Abrasive
COOL = Bond type
60 = Grit size

The fast way to the best tool

Material group	Abrasives	Alum. oxide A	Alum. oxide A-COOL	Zirconia alum. Z	Zirconia alum. Z-COOL	Ceramic oxide CO	Ceramic oxide CO-COOL	Silicon carbide SiC
Steel, cast steel	Non-hardened, non-heat-treated steels	●		○		●		
	Hardened, heat-treated steels	○		●		●		
Stainless steel (INOX)	Rust- and acid-resistant steels		●	○	●		●	
Non-ferrous metals	Soft non-ferrous metals, non-ferrous metals	○	●		○		○	
	Hard non-ferrous metals	Brass, copper, zinc	●		○		○	
		Hard aluminium alloys	●		○		○	
Cast iron	High-temperature-resistant materials	Bronze, titanium		○	●	○	●	●
		Nickel- and cobalt-based alloys		○	●	○	●	
Cast iron	Grey cast iron, white cast iron	Cast iron with flake graphite EN-GJL (GG), with nodular graphite/nodular cast iron EN-GJS (GGG), white annealed cast iron EN-GJMW (GTW), black cast iron EN-GJMB (GTS)	●		○		●	
		Fibre-reinforced plastics, thermoplastics, wood, chipboard, paint	●					●

● = highly suitable ○ = suitable

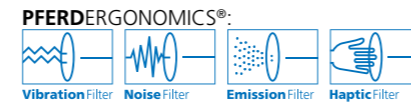




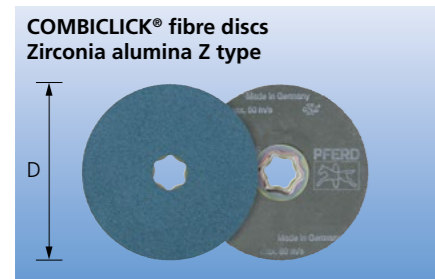
For general-purpose grinding work from coarse to fine grinding in industry and crafts.

Abrasive: Aluminium oxide A

Ordering example:
EAN 4007220722138
CC-FS 180 A 60
Please complete the description with the desired grit size.



Description	Grit size						D [mm]	Max. perm. speed [RPM]	📦
	24	36	50	60	80	120			
	EAN 4007220								
CC-FS 100 A	-	836095	836101	836118	836125	836132	100	15,300	25
CC-FS 115 A	763179	763186	763193	763209	763216	763223	115	13,300	25
CC-FS 125 A	721988	721995	722008	722039	722060	722077	125	12,200	25
CC-FS 180 A	722091	722107	722121	722138	722145	722152	180	8,500	25

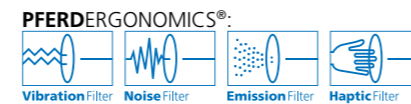


For coarse grinding with high stock removal and long tool life.

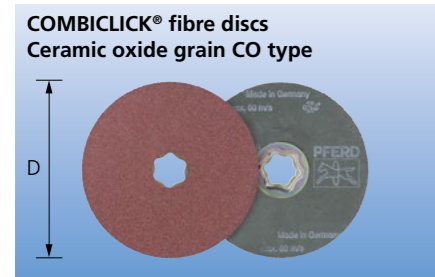
The high-performance abrasive zirconia alumina delivers best results on high-power angle grinders at increased contact pressure.

Abrasive: Zirconia alumina Z

Ordering example:
EAN 4007220722732
CC-FS 180 Z 60
Please complete the description with the desired grit size.



Description	Grit size						D [mm]	Max. perm. speed [RPM]	📦
	24	36	50	60	80	120			
	EAN 4007220								
CC-FS 115 Z	-	722572	722596	763230	722619	722633	115	13,300	25
CC-FS 125 Z	722640	722657	722664	722671	722688	722695	125	12,200	25
CC-FS 180 Z	722701	722718	722725	722732	722749	722756	180	8,500	25

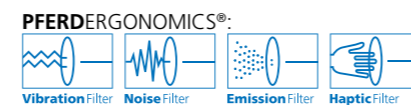


For aggressive grinding with maximum stock removal and very long tool life.

The ceramic oxide grain is especially designed for work on hard materials and layers, and delivers best results on high-power angle grinders.

Abrasive: Ceramic oxide grain CO

Ordering example:
EAN 4007220722350
CC-FS 180 CO 60
Please complete the description with the desired grit size.



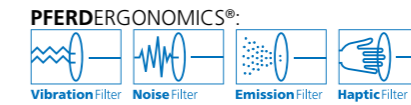
Description	Grit size						D [mm]	Max. perm. speed [RPM]	📦
	24	36	50	60	80	120			
	EAN 4007220								
CC-FS 115 CO	763247	763254	763261	763278	763285	763292	115	13,300	25
CC-FS 125 CO	722084	722169	722183	722206	722237	722268	125	12,200	25
CC-FS 180 CO	722282	722305	722336	722350	722374	722428	180	8,500	25

For general-purpose grinding work from fine to very fine grinding of materials which do not conduct heat well, e.g. stainless steel (INOX).

Active grinding additives in the coating significantly improve stock removal, prevent clogging and allow cooler grinding.

Abrasive: Aluminium oxide A-COOL

Ordering example:
EAN 4007220722411
CC-FS 180 A-COOL 60
Please complete the description with the desired grit size.



Description	Grit size							D [mm]	Max. perm. speed [RPM]	📦
	50	60	80	120	150	180	220			
	EAN 4007220									
CC-FS 115 A-COOL	-	722176	722190	722213	722220	-	722244	115	13,300	25
CC-FS 125 A-COOL	722251	722275	722299	722312	722329	722343	722367	125	12,200	25
CC-FS 180 A-COOL	722398	722411	722435	722459	722466	722527	722541	180	8,500	25

For coarse grinding work with high stock removal and cool grinding.

The high-performance abrasive zirconia alumina delivers best results on high-power angle grinders at increased contact pressure.

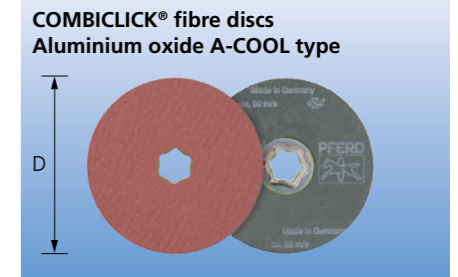
Active grinding additives in the coating significantly improve stock removal, prevent clogging and result in cooler grinding.

Abrasive: Zirconia alumina Z-COOL

Ordering example:
EAN 4007220722114
CC-FS 180 Z-COOL 60
Please complete the description with the desired grit size.

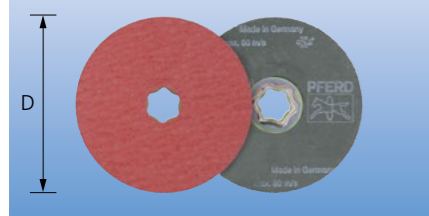


Description	Grit size				D [mm]	Max. perm. speed [RPM]	📦
	36	50	60	80			
	EAN 4007220						
CC-FS 125 Z-COOL	722763	722770	722787	722015	125	12,200	25
CC-FS 180 Z-COOL	722022	722046	722114	722053	180	8,500	25





COMBICLICK® fibre discs
Ceramic oxide grain CO-COOL type

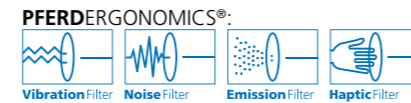


For aggressive grinding with maximum stock removal on hard materials which do not conduct heat well.

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

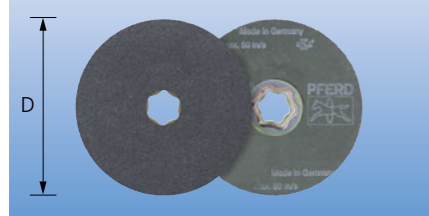
Abrasive: Ceramic oxide grain CO-COOL

Ordering example:
EAN 4007220722589
CC-FS 180 CO-COOL 60
Please complete the description with the desired grit size.



Description	Grit size						D [mm]	Max. perm. speed [RPM]	📦
	24	36	50	60	80	120			
	EAN 4007220								
CC-FS 100 CO-COOL	-	836149	836163	836187	836194	892442	100	15,300	25
CC-FS 115 CO-COOL	763308	763315	763322	763339	763346	763353	115	13,300	25
CC-FS 125 CO-COOL	722442	722473	722480	722497	722503	722510	125	12,200	25
CC-FS 180 CO-COOL	722534	722558	722565	722589	722602	722626	180	8,500	25

COMBICLICK® fibre discs
Silicon carbide SiC type



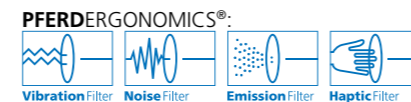
Suitable for work on aluminium, copper, bronze, titanium, high-alloy steels and fibre-reinforced plastics.

Particularly recommended for use on titanium alloys.

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

Abrasive: Silicon carbide (SiC)

Ordering example:
EAN 4007220898895
CC-FS 115 SiC 60
Please complete the description with the desired grit size.



Description	Grit size				D [mm]	Max. perm. speed [RPM]	📦
	36	60	80	120			
	EAN 4007220						
CC-FS 115 SiC	898888	898895	898901	898918	115	13,300	25
CC-FS 125 SiC	898925	898932	898949	898956	125	12,200	25

PFERD provides COMBICLICK® non-woven discs in the following types:

- PNER
- VRH (hard) and
- VRW (soft).

COMBICLICK® non-woven discs are used in face-down grinding on adjustable-speed angle grinders.

Recommendations for use:

- Use COMBICLICK® non-woven discs in combination with the COMBICLICK® backing pad on speed-adjustable angle grinders

Ordering note:

Please order COMBICLICK® backing pad separately. More detailed information and ordering data for backing pads can be found on page 16.

Ordering instructions:

When ordering, please state the EAN or the complete description. In the case of the VRH (hard) and VRW (soft) types, please complete the description with the desired grit size.

Ordering example:
EAN 4007220935873
CC-VRH 115 A 180 M

Achieves a very fine, uniform surface finish which, depending on requirements, is a sufficient preparation for high-gloss polishing. Especially suitable for work on large surfaces on components made of stainless steel (INOX).

Abrasive:
A = Aluminium oxide
SiC = Silicon carbide

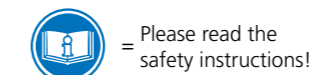
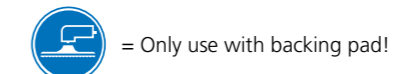
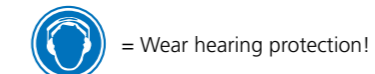
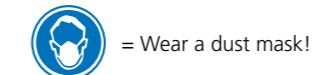
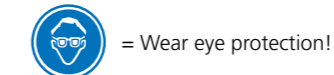
Ordering note:
The different thicknesses/hardnesses of the non-woven material are colour-coded:
(W) soft = grey
(MW) medium-soft = light blue
(MH) medium-hard = dark blue
(H) hard = red

Ordering example explanation:

- CC-VRH = COMBICLICK® non-woven discs, hard type
- 115 = Outer dia. D [mm]
- A = Abrasive
- 180 M = Grit size

Safety notes:

- For safety reasons, it is imperative to remain within the stated maximum permitted rotational speed at all times



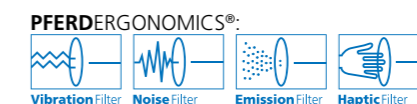
COMBICLICK® non-woven discs
PNER type



Recommendations for use:

- COMBICLICK® non-woven discs PNER achieve their best performance at a recommended cutting speed of 15–35 m/s

Ordering example:
EAN 4007220935989
CC-PNER W 115 SiC F



Description	EAN 4007220	Type	D [mm]	Grit size	Recom. speed [RPM]	Max. perm. speed [RPM]	📦
CC-PNER W 100 SiC F	948187	soft	100	fine	5,700	9,550	5
CC-PNER MW 100 SiC F	948194	medium-soft	100	fine	5,700	9,550	5
CC-PNER MH 100 SiC F	948200	medium-hard	100	fine	5,700	9,550	5
CC-PNER H 100 A F	948217	hard	100	fine	5,700	9,550	5
CC-PNER W 115 SiC F	935989	soft	115	fine	5,000	8,350	5
CC-PNER MW 115 SiC F	936009	medium-soft	115	fine	5,000	8,350	5
CC-PNER MH 115 SiC F	936016	medium-hard	115	fine	5,000	8,350	5
CC-PNER H 115 A F	936023	hard	115	fine	5,000	8,350	5
CC-PNER W 125 SiC F	935996	soft	125	fine	4,500	7,650	5
CC-PNER MW 125 SiC F	936030	medium-soft	125	fine	4,500	7,650	5
CC-PNER MH 125 SiC F	936047	medium-hard	125	fine	4,500	7,650	5
CC-PNER H 125 A F	936054	hard	125	fine	4,500	7,650	5





Suitable for general work on metal surfaces e.g. removal of rough grinding traces, removal of oxidation and for light deburring work.

Abrasive: Aluminium oxide A

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

Application examples:

- Removing heat discolouration on components made of stainless steel (INOX)
- Fine-grinding of large surfaces in equipment, tank and pressure vessel constructions

Recommendations for use:


■ COMBICLICK® non-woven discs VRH achieve their best performance at a recommended cutting speed of 15–20 m/s. This provides an ideal compromise between stock removal rate, surface quality, thermal load on the workpiece and tool wear.

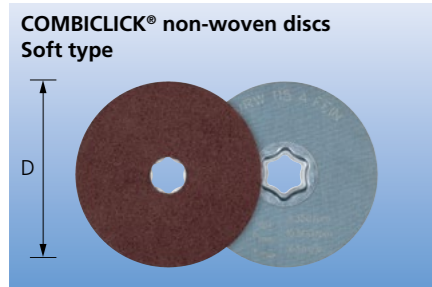
Ordering example:

EAN 4007220935873
 CC-VRH 115 A 180 M
 Please complete the description with the desired grit size.

PFERDERGONOMICS®:



Description	Grit size			D [mm]	Recom. speed [RPM]	Max. perm. speed [RPM]	
	100 G	180 M	240 F				
	EAN 4007220						
CC-VRH 100 A	948149	948132	948125	100	3,800	12,000	10
CC-VRH 115 A	935880	935873	935743	115	3,300	10,500	10
CC-VRH 125 A	935910	935903	935897	125	3,100	9,650	10



Suitable for very fine grinding of surfaces and contours, as well as cleaning work on metals and painted surfaces. The open structure and high flexibility of the non-woven material prevents clogging of the tool.

Abrasive: Aluminium oxide A

Available grit sizes:
 100 = medium
 180 = fine
 280 = very fine

Application examples:

- Matt finishing or structuring of components made of stainless steel (INOX)
- Very fine grinding of brass, copper, titanium and aluminium

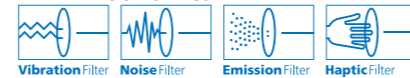
Recommendations for use:


■ COMBICLICK® non-woven discs VRW achieve their best performance at a recommended cutting speed of 15–20 m/s. This provides an ideal compromise between stock removal rate, surface quality, thermal load on the workpiece and tool wear.

Ordering example:

EAN 4007220935934
 CC-VRW 115 A 180
 Please complete the description with the desired grit size.

PFERDERGONOMICS®:



Description	Grit size			D [mm]	Recom. speed [RPM]	Max. perm. speed [RPM]	
	100	180	280				
	EAN 4007220						
CC-VRW 100 A	948170	948163	948156	100	3,800	12,000	10
CC-VRW 115 A	935941	935934	935927	115	3,300	10,500	10
CC-VRW 125 A	935972	935965	935958	125	3,100	9,650	10



For pre-polishing and high-gloss polishing of medium- to large-sized components, PFERD provides COMBICLICK® felt discs in a range of diameters.

COMBICLICK® felt discs are used with polishing pastes in face-down grinding on speed-adjustable angle grinders.

Application examples:

- High-gloss polishing of stainless steel (INOX) components in chemical plant construction
- Mirror polishing of large press or injection moulds

Recommendations for use:

- Felt discs achieve their best performance at a recommended cutting speed of 5–10 m/s. This provides an ideal compromise between polishing performance, thermal load on the workpiece and tool wear.
- When changing the polishing paste, employ a new, unused felt disc

Ordering example:

EAN 4007220936078
 CC-FR 125

Ordering example explanation:

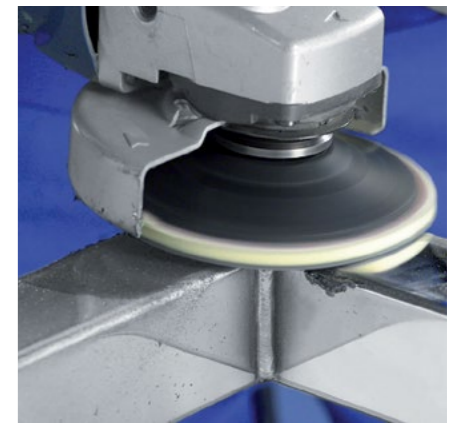
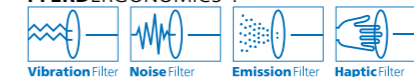
CC-FR = COMBICLICK® felt discs
 125 = Outer dia. D [mm]

Safety notes:

- For safety reasons, it is imperative to remain within the stated maximum permitted rotational speed at all times

-  = Wear eye protection!
-  = Wear a dust mask!
-  = Wear hearing protection!
-  = Only use with backing pad!
-  = Please read the safety instructions!
-  = Not permitted for wet grinding!


PFERDERGONOMICS®:



Ordering note:

Please order COMBICLICK® backing pad separately. More detailed information and ordering data for backing pads can be found on page 16.



Description	EAN 4007220	D [mm]	Recom. speed [RPM]	Max. perm. speed [RPM]	
CC-FR 100	948224	100	1,900	12,000	5
CC-FR 115	936061	115	1,650	10,500	5
CC-FR 125	936078	125	1,500	9,650	5





This backing pad permits the use of COMBICLICK® tools on all common angle grinders. The cooling slot geometry ensures a high throughput of air, thus significantly reducing thermal loads on the abrasive material and workpiece. The patented COMBICLICK® mounting system minimizes tool changing times.

Safety notes:

- The maximum permitted peripheral speed is 80 m/s
- For backing pads with a diameter of 180 mm, do not apply too high a contact pressure in order to prevent overstretching of the backing pad



Description	EAN 4007220	Thread	Suitable for	Suitable for machine types	Max. perm. speed [RPM]	
CC-GT 100 M10	836200	M10	CC dia. 100	Angle grinders 100, spindle M10	15,300	1
CC-GT 115-125 M14	725764	M14	CC dia. 115, CC dia. 125	Angle grinders 115 / 125, spindle M14	13,300	1
CC-GT 115-125 5/8"	725771	5/8	CC dia. 115, CC dia. 125	Angle grinders 115 / 125, spindle 5/8"	13,300	1
CC-GT 180 M14	725788	M14	CC dia. 180	Angle grinders 180, spindle M14	8,500	1
CC-GT 180 5/8"	725795	5/8	CC dia. 180	Angle grinders 180, spindle 5/8"	8,500	1

COMBICLICK® sets



Set for surface work, from coarse to mirror polished. To get to know and to test the extensive systems available.

COMBICLICK® CC-SET 115 M14

Contents:

- 3 pcs. each of COMBICLICK® fibre discs:
 - CC-FS 115 CO-COOL 36
 - CC-FS 115 CO-COOL 120
 - CC-FS 115 A-COOL 220
- 1 pc. each of COMBICLICK® non-woven discs:
 - CC-VRH 115 A 240 F
 - CC-VRH 115 A 180 M
 - CC-VRH 115 A 100 G
 - CC-VRW 115 A 280
 - CC-VRW 115 A 180
 - CC-VRW 115 A 100
 - CC-PNER W 115 SiC F
- 1 pc. each of:
 - Universal polishing paste
 - COMBICLICK® felt discs CC-FR 115
 - COMBICLICK® backing pad CC-GT 115-125 M14

COMBICLICK® CC-SET 125 M14

Contents:

- 3 pcs. each of COMBICLICK® fibre discs:
 - CC-FS 125 CO-COOL 36
 - CC-FS 125 CO-COOL 120
 - CC-FS 125 A-COOL 220
- 1 pc. each of COMBICLICK® non-woven discs:
 - CC-VRH 125 A 240 F
 - CC-VRH 125 A 180 M
 - CC-VRH 125 A 100 G
 - CC-VRW 125 A 280
 - CC-VRW 125 A 180
 - CC-VRW 125 A 100
 - CC-PNER W 125 SiC fine
- 1 pc. each of:
 - Universal polishing paste
 - COMBICLICK® felt discs CC-FR 125
 - COMBICLICK® backing pad CC-GT 115-125 M14

Description	EAN 4007220	
CC-SET 115 M14	955345	1
CC-SET 125 M14	955369	1

The extensive range of fibre discs provides the optimum tool for any machining application, from coarse to fine grinding. PFERD provides fibre discs with various

- grit sizes,
- abrasives and
- dimensions.

In accordance with ISO 16057, PFERD fibre discs are manufactured in shape A1, type F, and designated "Vulcanized Fibre Discs".

Advantages:

- Long tool life
- Uniform grinding pattern
- Very high stock removal
- High flexibility
- Very good grain adhesion

Application examples:

- Machining of weld seams
- Deburring of steel components
- Coarse grinding work
- Fine grinding of stainless steel (INOX) components
- Removal of mill and casting scale

Recommendations for use:

- Use fibre discs according to ISO 15636 with backing pads on commercially available angle grinders
- Use grinding oil that is suitable for the material in order to significantly increase the tool life and the abrasive performance of the tools. More detailed information and ordering data for grinding oils can be found on page 120.

Safety notes:

- The maximum approved peripheral speed is 80 m/s
- For safety reasons, it is imperative to remain within the stated maximum permitted rotational speed at all times



= Wear eye protection!



= Wear a dust mask!



= Wear hearing protection!



= Only use with backing pad!



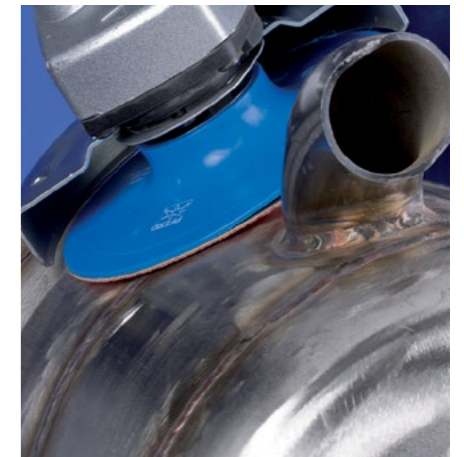
= Please read the safety instructions!



= Not permitted for wet grinding!

Ordering note:

Please order backing pad separately. More detailed information and ordering data for backing pads can be found on page 20.



Ordering instructions:

When ordering, please state the EAN or the complete description. Please complete the description with the desired grit size.

Ordering example:

EAN 4007220**696354**
FS 115-22 A-COOL **60**

Ordering example explanation:

- FS = Fibre disc
- 115 = Outer dia. D [mm]
- 22 = Centre hole dia. H [mm]
- A = Abrasive
- COOL = Bond type
- 60 = Grit size

The fast way to the best tool

Material group		Abrasives ▶	Alum. oxide A	Alum. oxide A-COOL	Zirconia alum. Z	Zirconia alum. Z-COOL	Ceramic oxide CO	Ceramic oxide CO-COOL
Steel, cast steel	Non-hardened, non-heat-treated steels	Construction steels, carbon steels, tool steels, non-alloyed steels, cast steel	●		○		●	
	Hardened, heat-treated steels	Tool steels, tempering steels, alloyed steels, cast steel	○		●		●	
Stainless steel (INOX)	Rust- and acid-resistant steels	Austenitic and ferritic stainless steels		●	○	●		●
Non-ferrous metals	Soft non-ferrous metals, non-ferrous metals	Soft aluminium alloys	○	●		○		○
		Brass, copper, zinc	●		○		○	
	Hard non-ferrous metals	Hard aluminium alloys Bronze, titanium	●		○	●	○	●
	High-temperature-resistant materials	Nickel- and cobalt-based alloys			○	●	○	●
Cast iron	Grey cast iron, white cast iron	Cast iron with flake graphite EN-GJL (GG), with nodular graphite/nodular cast iron EN-GJS (GGG), white annealed cast iron EN-GJMW (GTW), black cast iron EN-GJMB (GTS)	●		○		●	
	Plastics, other materials	Fibre-reinforced plastics, thermoplastics, wood, chipboard, paint	●					

● = highly suitable ○ = suitable



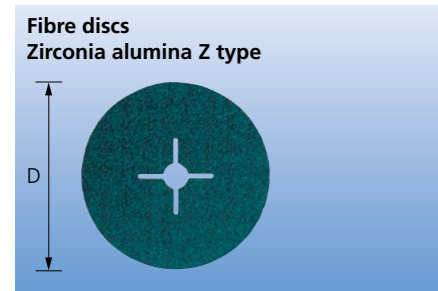


For general-purpose grinding work from coarse to fine grinding in industry and crafts.

Abrasive: Aluminium oxide A

Ordering example:
EAN 4007220**165089**
FS 180-22 A **60**
Please complete the description with the desired grit size.

Description	Grit size								D x H [mm]	Max. perm. speed [RPM]	
	16	24	36	50	60	80	100	120			
EAN 4007220											
FS 115-22 A	164914	164952	165003	500910	165058	165102	165157	500934	115 x 22	13,300	25
FS 125-22 A	164921	164969	165010	696286	165065	165119	165164	500941	125 x 22	12,200	25
FS 150-22 A	-	-	165027	-	165072	165126	-	-	150 x 22	10,200	25
FS 180-22 A	164945	164983	165034	696323	165089	165133	165188	165201	180 x 22	8,500	25



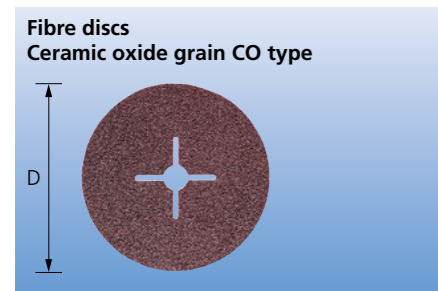
For coarse grinding work with high stock removal and long tool life.

The high-performance abrasive, zirconia alumina, delivers best results on high-power angle grinders at increased contact pressure.

Abrasive: Zirconia alumina Z

Ordering example:
EAN 4007220**216699**
FS 180-22 Z **60**
Please complete the description with the desired grit size.

Description	Grit size						D x H [mm]	Max. perm. speed [RPM]		
	24	36	50	60	80	100				120
EAN 4007220										
FS 115-22 Z	216569	216576	216583	216590	216606	696606	696613	115 x 22	13,300	25
FS 125-22 Z	216613	216620	216637	216644	216651	696620	696637	125 x 22	12,200	25
FS 180-22 Z	216668	216675	216682	216699	216705	696644	696651	180 x 22	8,500	25



For aggressive grinding with maximum stock removal and very long tool life.

The ceramic oxide grain is particularly well suited to work on hard materials and layers, and delivers best results on high-power angle grinders.

Abrasive: Ceramic oxide grain CO

Ordering example:
EAN 4007220**617533**
FS 180-22 CO **60**
Please complete the description with the desired grit size.

Description	Grit size						D x H [mm]	Max. perm. speed [RPM]	
	24	36	50	60	80	120			
EAN 4007220									
FS 115-22 CO	617434	617441	696781	617458	617465	696804	115 x 22	13,300	25
FS 125-22 CO	617472	617489	696811	617496	617502	696835	125 x 22	12,200	25
FS 180-22 CO	617519	617526	696842	617533	617540	696866	180 x 22	8,500	25

For general-purpose grinding work from fine to very fine grinding on materials which do not conduct heat well, e.g. stainless steel (INOX).

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

Abrasive: Aluminium oxide A-COOL

Ordering example:
EAN 4007220**696354**
FS 115-22 A-COOL **60**
Please complete the description with the desired grit size.

Description	Grit size								D x H [mm]	Max. perm. speed [RPM]	
	50	60	80	100	120	150	180	220			
EAN 4007220											
FS 115-22 A-COOL	696347	696354	696361	696378	696385	696392	696408	696415	115 x 22	13,300	25
FS 125-22 A-COOL	696422	696439	696446	696453	696460	696477	696484	696491	125 x 22	12,200	25
FS 180-22 A-COOL	696507	696514	696521	696538	696552	696583	696569	696590	180 x 22	8,500	25

For coarse grinding with high stock removal and cool grinding.

Zirconia alumina is a high-performance abrasive which delivers best results on high-power angle grinders at increased contact pressure.

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

Abrasive: Zirconia alumina Z-COOL

Ordering example:
EAN 4007220**696682**
FS 115-22 Z-COOL **60**
Please complete the description with the desired grit size.

Description	Grit size				D x H [mm]	Max. perm. speed [RPM]	
	36	50	60	80			
EAN 4007220							
FS 115-22 Z-COOL	696668	696675	696682	696699	115 x 22	13,300	25
FS 125-22 Z-COOL	696705	696712	696729	696736	125 x 22	12,200	25

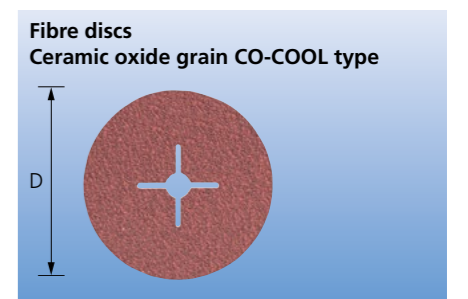
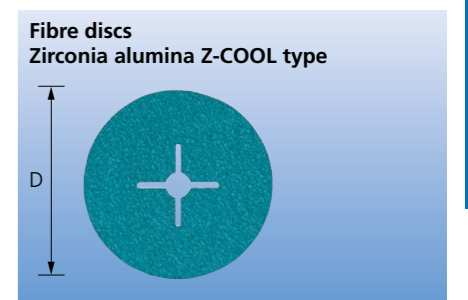
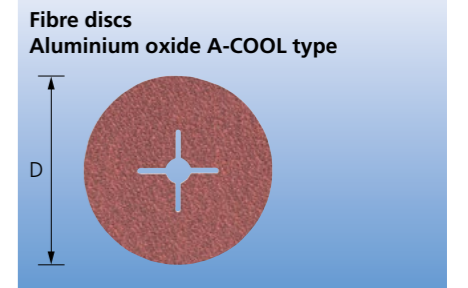
For aggressive grinding achieving maximum stock removal on hard materials which do not conduct heat well.

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

Abrasive: Ceramic oxide grain CO-COOL

Ordering example:
EAN 4007220**697054**
FS 180-22 CO-COOL **60**
Please complete the description with the desired grit size.

Description	Grit size						D x H [mm]	Max. perm. speed [RPM]		
	24	36	50	60	80	120				
EAN 4007220										
FS 115-22 CO-COOL	696880	696897	696903	696910	696927	696934	696941	115 x 22	13,300	25
FS 125-22 CO-COOL	696958	696965	696972	696989	696996	697009	697016	125 x 22	12,200	25
FS 180-22 CO-COOL	697023	697030	697047	697054	697061	697078	697085	180 x 22	8,500	25





Flexible backing pads for use with fibre discs on commercially available angle grinders.

According to ISO 15636.

Safety notes:

- The maximum permitted peripheral speed is 80 m/s

Ordering note:

The matching clamping nut is included.

Description	EAN 4007220	Thread	Suitable for tool dia. [mm]	Suitable for machine types	Max. perm. speed [RPM]	
GT 115 MF M10	668047	M10	115	Angle grinders 115, spindle M10	13,300	1
GT 115 MF M14	668054	M14	115	Angle grinders 115, spindle M14	13,300	1
GT 125 MF M14	668061	M14	125	Angle grinders 125, spindle M14	12,200	1
GT 150 MF M14	668078	M14	150	Angle grinders 150, spindle M14	10,200	1
GT 180 MF M14	668085	M14	180	Angle grinders 180, spindle M14	8,500	1



High-performance backing pad for use with fibre discs on commercially available angle grinders.

Advantages:

- The abrasion-resistant, glass fibre-reinforced plastic guarantees a long tool life
- Particularly suitable for cool grinding due to the radial cooling fins
- High stock removal by the fibre discs due to their strong, rigid design

Safety notes:

- The maximum permitted peripheral speed is 80 m/s

Ordering note:

The matching clamping nut is included.

Description	EAN 4007220	Thread	Suitable for tool dia. [mm]	Suitable for machine types	Max. perm. speed [RPM]	
H-GT 115 MF M14	668115	M14	115	Angle grinders 115, spindle M14	13,300	1
H-GT 125 MF M14	668122	M14	125	Angle grinders 125, spindle M14	12,200	1
H-GT 180 MF M14	668139	M14	180	Angle grinders 180, spindle M14	8,500	1



Accessory for backing pads GT type.

Advantages:

- Matching centre hole distances for standard commercial face pin spanners
- Cost-effective replacement of lost clamping nuts

Description	EAN 4007220	Thread	Suitable for machine types	
FL-GT 115 M10	668146	M10	Angle grinders 115, spindle M10	1
FL-GT 80-115 M14	668153	M14	Angle grinders 80-115, spindle M14	1
FL-GT 125 M14	668160	M14	Angle grinders 125, spindle M14	1
FL-GT 150-230 M14	668177	M14	Angle grinders 150-230, spindle M14	1

Self-adhesive discs are suitable for grinding larger surfaces.

The flexible system of self-adhesive discs and self-adhesive disc holders allows them to be used on contours.

Using the self-adhesive disc holder, self-adhesive discs can be used on standard commercial angle grinders with M14 spindle, which are speed-adjustable or run at slow speeds.

Advantages:

- Quick tool change due to the self-adhesive system
- Suitable for nearly all materials
- High flexibility, adapts well to contours

Recommendations for use:

- The best grinding results are achieved with speed-adjustable angle grinders

Ordering note:

Please order self-adhesive disc holder separately.

Abrasive: Aluminium oxide A

Ordering example:

EAN 4007220**294321**

KR 115 A **120**

Please complete the description with the desired grit size.

Safety notes:

- The maximum permitted peripheral speed is 32 m/s
- For safety reasons, it is imperative to remain within the stated maximum permitted rotational speed at all times
- Mount self-adhesive discs centrally on the holder



= Wear eye protection!



= Wear a dust mask!



= Wear hearing protection!



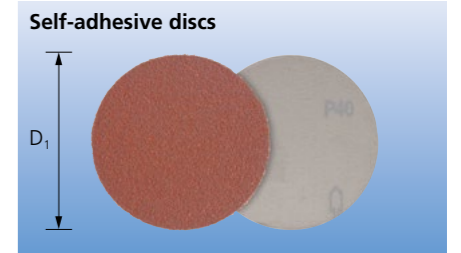
= Only use with backing pad!



= Please read the safety instructions!



= Not permitted for wet grinding!



Description	Grit size						D ₁ [mm]	Recom. speed [RPM]	Max. perm. speed [RPM]	
	40	60	80	120	150	180				
	EAN 4007220									
KR 115 A	294291	294307	294314	294321	294338	294345	115	5,000	5,300	50
KR 125 A	294352	294369	294376	294383	294390	294406	125	4,600	4,850	50

Ordering example:

EAN 4007220**294413**

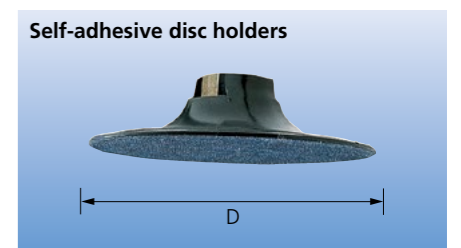
KRH 115 M14

Ordering example explanation:

KRH = Self-adhesive disc holders

115 = Dia. D [mm]

M14 = Thread



Description	EAN 4007220	D [mm]	Thread	Max. perm. speed [RPM]	
KRH 115 M14	294413	115	M14	5,300	1
KRH 125 M14	294420	125	M14	4,850	1





The COMBIDISC® range covers a large selection of grinding tools for surface finishing. From coarse machining and surface texturing to face-down mirror polishing – the range provides the optimal tool, even for complicated applications.

Advantages:

- Easy to use
- Rapid tool change
- No adhesion, no slipping
- No loosening under the influence of heat
- Vibration-free operation
- Tool is always fixed centrally

Application examples:

- Tool and mould construction, modelling
- Mechanical engineering, automotive construction
- Aeronautical and aerospace industry
- Aircraft engine construction and repair
- Equipment, tank and pressure vessel construction (e.g. for foodstuff and chemical industry)
- Fitting of small parts

Recommendations for use:

- Use grinding oil that is suitable for the material in order to significantly increase the tool life and the abrasive performance of the tools. More detailed information and ordering data for grinding oils can be found on page 120.



Ordering instructions:

When ordering, please state the EAN or the complete description. Please complete the description with the desired grit size.

Ordering example:

EAN 4007220266175
CD 38 A 180

Ordering example explanation:

CD = COMBIDISC® abrasive discs
38 = Outer dia. D₁ [mm]
A = Abrasive
180 = Grit size



Safety notes:

- The maximum permitted peripheral speed is 50 m/s
- For safety reasons, it is imperative to remain within the stated maximum permitted rotational speed at all times



= Wear eye protection!



= Wear hearing protection!



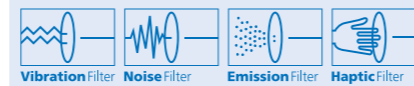
= Wear gloves!



= Please read the safety instructions!



PFERDERGONOMICS® recommends COMBIDISC® tools as a solution to sustainably reduce vibration, noise and dust levels produced by tools and to improve working comfort.



PFERDVIDEO

You will receive more information here or at www.pferd.com

Cutting speeds

In the diagram, the cutting speeds are represented by blue diagonal lines. The vertical line representing the tool diameter meets the given cutting speed (diagonals). From its point of intersection, proceed horizontally to the left margin, where you will find the corresponding rotational speed [RPM] for the COMBIDISC® tool and tool drive.

Example:

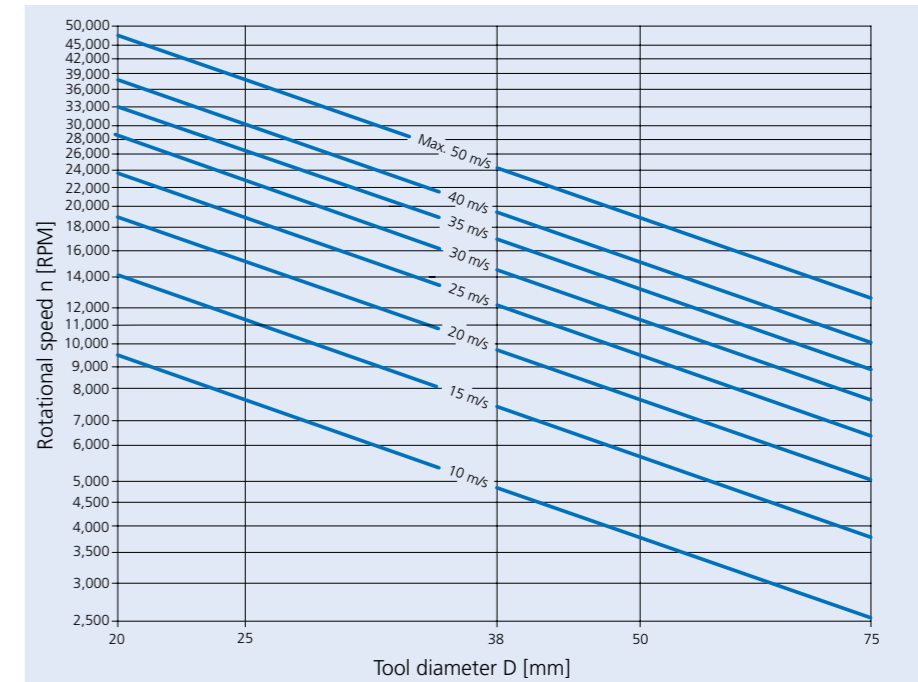
CD 50 A-COOL 60

Application:

Grinding of stainless steel (INOX)

Cutting speed: 20–25 m/s

Rotational speed: 7,600–9,600 RPM



The fast way to the best tool

Application	Recommended cutting speed [m/s]								Recommended tools	
	5	10	15	20	25	30	35	40		
Grinding of steel and cast steel					20–35 m/s					Abrasive discs A, A-FLEX, A-PLUS, A-FORTE, Z
Grinding of stainless steel (INOX)				20–25 m/s						Abrasive discs A-COOL, CO-COOL, TX discs
Coarse grinding of steel and cast steel					25–40 m/s					Mini-POLIFAN®, midget fibre discs, abrasive discs Z
Grinding of high-temperature-resistant materials (nickel- and cobalt-based alloys)			10–20 m/s							Abrasive discs SiC, Z and CO-COOL
Grinding of hard non-ferrous metals, titanium, bronze, hard aluminium alloys					15–35 m/s					Abrasive discs SiC, A-COOL, TX discs, CO-COOL
Grinding of soft non-ferrous metals, brass, copper, aluminium alloys					25–40 m/s					Abrasive discs A, A-FLEX, A-PLUS, A-FORTE, A-COOL, TX discs
Grinding of hard metal, hard material coatings, hard facings, glass, GRP, CRP				10–20 m/s						Diamond abrasive discs
Cleaning, texturing				10–20 m/s						Non-woven and POLICLEAN® discs, brushes
Polishing	5–10 m/s									Felt discs



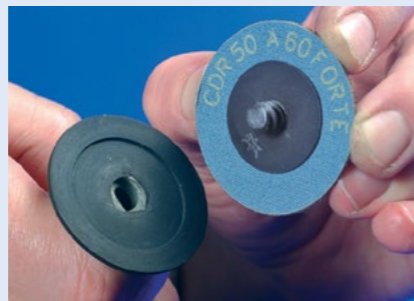
PFERD offers two alternative mounting systems:

CD System



Tool side: Screw connection with female thread (metal)
Also suitable for the following systems available on the market: PSG, Power Lock Type II "turn on", SocAtt, Turn-On

CDR System



Tool side: Screw connection with male thread (plastic)
Also suitable for the following systems available on the market: Roloc™, Lockit, Speed Lok TR, Power Lock Type III, Fastlock-System B, Roll-On

