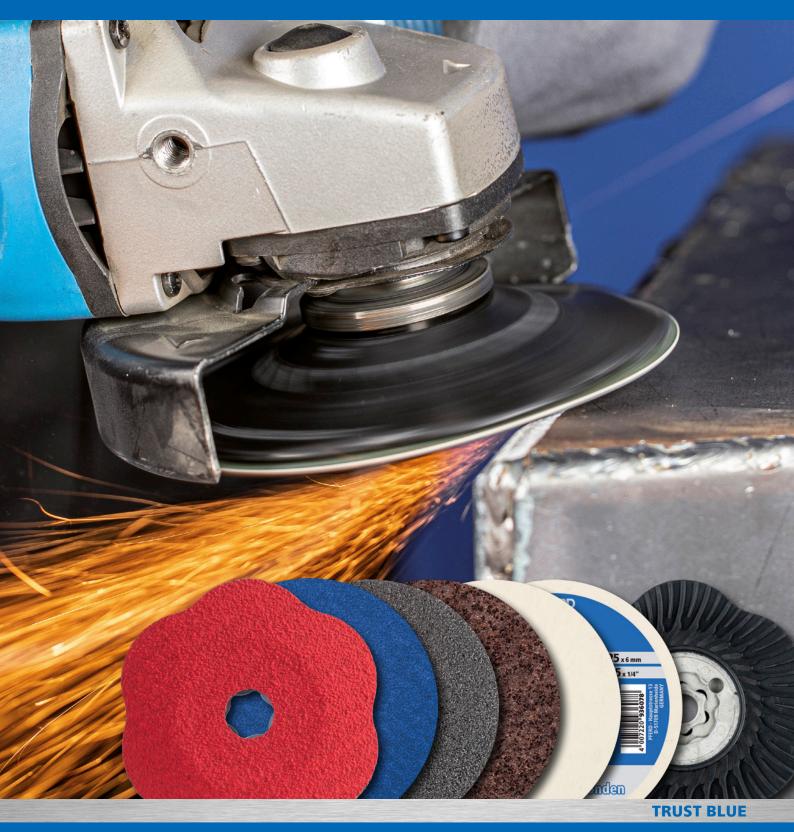
Perfect results thanks to a well-designed system





- Fibre discs, non-woven and felt tools with patented cooling and quick-mounting system
- For very high stock removal and very fine finishes
- Working systematically on many materials

General information



The patented quick-mounting and cooling 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. With the backing pad, COMBICLICK tools can be used on commercially available angle grinders.

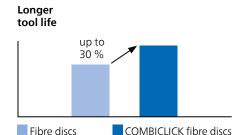
The special geometry of the cooling slots ensures high air throughput, which in turn considerably reduces the thermal load on the abrasive material and the workpiece.

Compared to conventional tools, the quick-mounting system, the robust holder, the safe fixing of the tool and the integrated cooling system together achieve a workpiece temperature that is 30 % lower, a stock removal rate that is 25 % higher, a tool life that is 30 % longer and better exploitation of the abrasive material.

Lower process costs and workpiece temperature



Higher stock removal rate up to 25 % Fibre discs COMBICLICK fibre discs







PFERDVIDEO:

Learn more about the advantages of using COMBICLICK tools.

Advantages:

System



Very easy and convenient handling.

Clamping



Extremely fast and simple tool changing reduces process costs.

Cooling effect



Very good cooling of the tool and workpiece.

Flexible grinding



Particularly soft and flexible grinding properties for face-down grinding with fibre discs of diameter 125 mm

A very low angle to the workpiece is possible with COMBICLICK!





Using COMBICLICK helps to avoid scratches caused by protruding clamping pieces, and exploits the abrasive material that is available.

PFERDVALUE:

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









PFERDEFFICIENCY recommends COMBICLICK for long, fatigue-free and resource-saving work, with perfect results in the shortest possible time. The patented quick-mounting system reduces tool change and setup times.











Fibre discs – General information



The wide range of COMBICLICK fibre discs offers the best tool for any grinding application, from coarse to fine.

Advantages:

- Innovative quick-mounting system guarantees convenient handling and cool grinding
- High profitability thanks to long tool life and very high stock removal rate.
- Consistent surface finish thanks to highquality abrasives.

Applications:

- Levelling
- Deburring
- Surface work
- Work on edges
- Work on weld seams
- Step-by-step fine grinding

Recommendations for use:

- Use COMBICLICK fibre discs with COMBI-CLICK backing pads on commercially available angle grinders.
- Use grinding oil which is suitable for the material in order to considerably increase the tool life and abrasive performance of the tools. More detailed information and ordering data for grinding oils can be found in our Tool Manual 23, catalogue section 4, page 155 or at www.pferd.com.
- For particularly flexible performance when face-down grinding, use fibre discs with a diameter of 125 mm.

Matching tool drives:

- Angle grinders
- Cordless angle grinders

Ordering notes:

- Please order COMBICLICK backing pads separately. More detailed information and ordering data for backing pads can be found on page 13.
- When ordering, please state the EAN or the full description.
- Ordering example: EAN 4007220**722275** CC-FS 125 A-COOL 60
- Ordering example explanation:

CC-FS = COMBICLICK fibre disc 125 = Outer diameter D [mm]

= Abrasive COOL = Bond type 60 = Grit size

Safety notes:

- The maximum permitted peripheral speed is 80 m/s.
- For safety reasons, the specified maximum permitted rotational speed must never be exceeded.









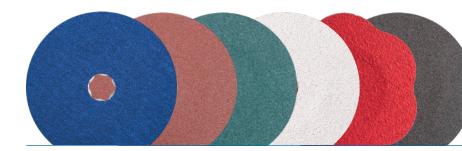






Accessories:

COMBICLICK backing pads



The fast way to the best tool

Material g ▼	roup	Abrasive >	Alu- minium oxide A	Zir- conia alu- mina Z	Ceramic oxide grain CO			Silicon carbide SiC	oxide	Ceramic oxide grain CO-COOL	oxide grain
Steel,	Non-hardened, non-heat-treated steels	Construction steels, carbon steels, tool steels, non-alloyed steels, cast steel	•	0	•	•	0				
cast steel	Hardened, heat- treated steels	Tool steels, tempering steels, alloyed steels, cast steel	0	•	•	•	0				
Stainless steel (INOX)	Rust and acid- resistant steels	Austenitic and ferritic stainless steels		0		0	•		•	•	
	Soft non-ferrous metals, non-ferrous metals	Soft aluminium alloys	0						•	0	•
		Brass, copper, zinc	0	0	0						•
Non- ferrous	Hard non-	Hard aluminium alloys	0	0	0			0			•
metals	ferrous metals	Bronze, titanium		0	0		•	•		•	
	High-temper- ature-resistant materials	Nickel-based and cobalt-based alloys		0	0		•			•	
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)	•	0	•	•					
Plastics, other mate	rials	Fibre-reinforced plastics, thermoplastics, wood, chipboard, paintwork	•					•			
- Highly	cuitable	O − Suitable									

● = Highly suitable

O = Suitable

Fibre discs CC-FS



Aluminium oxide A type

For universal grinding work from coarse to fine grinding in industry and professional trades.

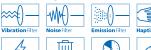
Abrasive:

Aluminium oxide A

Ordering notes:

Please complete the description with the desired grit size.

PFERDVALUE:







D			Grit	size		Max.	\Longrightarrow	Description	
[mm]	24	36	50	60	80	120	RPM		
			EAN 40						
100	-	836095	836101	836118	836125	836132	15,300	25	CC-FS 100 A
115	763179	763186	763193	763209	763216	763223	13,300	25	CC-FS 115 A
125	721988	721995	722008	722039	722060	722077	12,200	25	CC-FS 125 A

Zirconia alumina Z type

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

Abrasive:

Zirconia alumina Z

Recommendations for use:

Use powerful angle grinders in the case of a higher contact pressure.

PFERDVALUE:







Ordering notes:

Please complete the description with the desired grit size.

D			Grit	size	Max.	\blacksquare	Description			
[mm]	24 36 50 60 80 120						RPM			
			EAN 40							
115	-	722572	722596	763230	722619	722633	13,300	25	CC-FS 115 Z	
125	722640	722657	722664	722671	722688	722695	12,200	25	CC-FS 125 Z	

Ceramic oxide grain CO type

For aggressive grinding with a very high stock removal rate and very long tool life. The ceramic oxide grain is specifically designed for work on hard materials and layers.

Abrasive:

Ceramic oxide grain CO

Recommendations for use:

Use powerful angle grinders.

Ordering notes:

Please complete the description with the desired grit size.













D			Grit	size	Max. RPM	\blacksquare	Description		
[mm]	24 36 50 60 80 120							\Box	
			EAN 40						
115	763247	763254	763261	763278	763285	763292	13,300	25	CC-FS 115 CO
125	722084	722169	722183	722206	722237	722268	12,200	25	CC-FS 125 CO

Fibre discs CC-FS



Ceramic oxide grain CO-ALU type

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

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

Abrasive:

Ceramic oxide grain CO-ALU

Ordering notes:

Please complete the description with the desired grit size.

PFERDVALUE:











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

Silicon carbide SiC type

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

Particularly recommended for use on titanium alloys.

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

Abrasive:

Silicon carbide SiC

Ordering notes:

Please complete the description with the desired grit size.

PFERDVALUE:











D		Grit	size		Max.	\Longrightarrow	Description
[mm]	36	60 80		120	RPM		
		EAN 40	07220				
115	898888	898895	898901	898918	13,300	25	CC-FS 115 SiC
125	898925	898932	898949	898956	12,200	25	CC-FS 125 SiC



Fibre discs CC-FS



Aluminium oxide A-COOL type

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

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

Abrasive:

Aluminium oxide A-COOL

Ordering notes:

Please complete the description with the desired grit size.





D [mm]	50	Grit size 50 60 80 120 150 180 220								Description
			E	AN 400722						
115	-	722176	722190	722213	722220	-	722244	13,300	25	CC-FS 115 A-COOL
125	722251	722275	722299	722312	722329	722343	722367	12,200	25	CC-FS 125 A-COOL

Ceramic oxide grain CO-COOL type

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

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

Abrasive:

Ceramic oxide grain CO-COOL

Ordering notes:

Please complete the description with the desired grit size.













D			Grit	size		Max.	\Longrightarrow	Description	
[mm]	24	36	50	60	80	120	RPM		
			EAN 40	07220					
100	-	836149	836163	836187	836194	892442	15,300	25	CC-FS 100 CO-COOL
115	763308	763315	763322	763339	763346	763353	13,300	25	CC-FS 115 CO-COOL
125	722442	722473	722480	722497	722503	722510	12,200	25	CC-FS 125 CO-COOL
180	722534	722558	722565	722589	722602	-	8,500	25	CC-FS 180 CO-COOL



Fibre discs CC-FS



Ceramic oxide grain CO-COOL-CONTOUR type

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

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

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

Ceramic oxide grain CO-COOL-CONTOUR

Ordering notes:

Please complete the description with the desired grit size.

PFERDVALUE:











D		Grit size		Max.		Description	
[mm]	60	80	120	RPM			
		EAN 4007220					
125	416990	417027	417041	12,200	25	CC-FS 125 CO-COOL CON	ITOUR

The complete range of products with the CO-COOL abrasive grain can be found in our brochure "Ceramic oxide grain CO-COOL abrasive – For maximum stock removal" at www.pferd.com.





Fibre discs CC-FS



High-performance tools with VICTOGRAIN abrasive grain

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



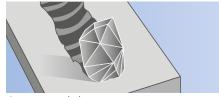
The **VICTO**GRAIN abrasive grain triangles are identical in shape and size and their cutting edges are applied to the workpiece at the optimum angle, meaning the grain needs very little energy to penetrate the workpiece. As such, the user benefits from an efficient machining process with

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

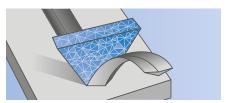
The **VICTO**GRAIN abrasive grain triangles are fixed to the substrate on one of their sides. This means they are securely fixed in place and, together with their slim design, offer an extremely large chip space in order to further improve machining efficiency.

The structure of the triangular **VICTO**GRAIN has also been specially adapted to maximize results. The very small crystals inside the triangles ensure optimal wear characteristics as sharp cutting edges are always exposed, but only the minimum amount of abrasive grain/the triangle breaks off.

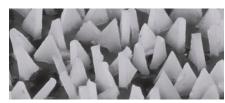
By combining all these properties together, users benefit from optimal, constant performance during cool grinding and an extremely long tool life together with consistent workpiece surface roughness.



Conventional abrasive grain



VICTOGRAIN abrasive grain



The **VICTO**GRAIN abrasive grain is optimally aligned



PFERDVIDEO:

Learn more about the advantages of using COMBICLICK tools with **VICTO**GRAIN abrasive grain.

VICTOGRAIN type

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

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

Abrasive: VICTOGRAIN

Recommendations for use:

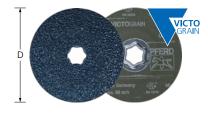
Use powerful angle grinders.











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



Fibre discs CC-FS



VICTOGRAIN-COOL type

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

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

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

Abrasive: VICTOGRAIN-COOL

Recommendations for use:

Use powerful angle grinders.





D [mm]	EAN 4007220	Max. RPM		Description
100	109267	15,300	25	CC-FS 100 VICTOGRAIN-COOL 36
115	109250	13,300	25	CC-FS 115 VICTOGRAIN-COOL 36
125	109274	12,200	25	CC-FS 125 VICTOGRAIN-COOL 36
180	109281	8,500	25	CC-FS 180 VICTOGRAIN-COOL 36

The complete range of **VICTO**GRAIN products can be found in our brochure "**VICTO**-GRAIN – Simply better" at www.pferd.com.





Non-woven discs – General information



COMBICLICK non-woven discs are used for face-down grinding. They are available in the following types: VRW (soft), VRH (hard) and PNER.

Advantages:

Innovative quick-mounting system guarantees convenient handling and cool grinding.

Materials that can be worked:

Can be used on nearly all materials.

Applications:

- Roughening
- Deburring
- Surface work
- Cleaning
- Work on weld seams
- Structuring surfaces
- Step-by-step fine grinding

Recommendations for use:

Use COMBICLICK non-woven discs with COMBICLICK backing pads on speedadjustable angle grinders.

Matching tool drives:

- Angle grinders
- Cordless angle grinders

Ordering notes:

- Please order COMBICLICK backing pads separately. More detailed information and ordering data for backing pads can be found on page 13.
- When ordering, please state the EAN or the full description.
- Ordering example: EAN 4007220935873 CC-VRH 115 A 180 M
- Ordering example explanation:

= COMBICLICK non-woven discs, hard type

115 = Outer diameter D [mm]

Α = Abrasive 180 M = Grit size

Safety notes:

For safety reasons, the specified maximum permitted rotational speed must never be exceeded.













Accessories:

COMBICLICK backing pads



Non-woven discs

Soft type CC-VRW

Suitable for very fine grinding on moderate and coarse surfaces and contours, and for cleaning metal and painted surfaces. Achieve matt and satin-finished surfaces. Highly open structure.

Advantages:

- Can be used for wet and dry working.
- The open structure and high flexibility of the non-woven material prevents tool clogging.

Abrasive:

Aluminium oxide A Available POLINOX grit sizes:

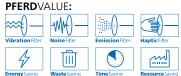
100 = medium 180 = fine 280 = very fine

Recommendations for use:

For the best results, use 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 notes:

Please complete the description with the desired grit size.





D [mm]	100	Grit size 180 EAN 4007220	Opt. RPM	Max. RPM		Description	
100	948170	948163	948156	3,800	12,000	10	CC-VRW 100 A
115	935941	935934	935927	3,300	10,500	10	CC-VRW 115 A
125	935972	935965	935958	3.100	9.650	10	CC-VRW 125 A

Non-woven discs



Hard type CC-VRH

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

Advantages:

- Little wear due to high tear strength.
- The open structure of the non-woven material prevents tool clogging.

Abrasive:

Aluminium oxide A Available POLIVLIES grit sizes:

= coarse (yellow-brown) 180 M = medium (red-brown)

240 F = fine (blue)

Recommendations for use:

For the best results, use at a recommended cutting speed of 15-20 m/s. This provides an ideal compromise between stock removal rate, surface quality, thermal load on the workpiece and tool wear.

■ The addition of oil or water during grinding results in a finer finish, cooler grinding and longer tool life.

Ordering notes:

Please complete the description with the desired grit size.

PFERDVALUE:









ise Filter	Emission Filter	HapticFilter

D Fine C	
COMBICUCK/Viesronds CC-VRH 115 A 189 M	

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

CC-PNER type

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

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

Advantages:

- High edge strength thanks to extreme durability.
- Can be profiled as desired, enabling optimal adjustment to the contour.

Abrasive:

Aluminium oxide A Silicon carbide SiC

Recommendations for use:

For the best results, use at a recommended cutting speed of 15-35 m/s. This provides an ideal compromise between stock removal rate, surface quality, thermal load on the workpiece and tool wear.

Ordering notes:

- Please complete the description with the desired type.
- Further information on PNER type non-woven products can be found in our brochure "Non-woven tools PNER and PNK".

PFERDVALUE:





For further information on non-woven products in the PNER type please refer to our brochure "Non-woven tools PNER and PNK – The professionals for high-grade surfaces" at www.pferd.com.

D	D Abrasive		rasive Type				Opt.	Max.	\Longrightarrow	Description
[mm]		W (soft)	MW (medium- soft)	MH (medium- hard)	H (hard)		RPM	RPM		
			EAN 40	07220						
100	SiC	948187	948194	948200	-	fine	5,700	9,550	5	CC-PNER 100 SiC F
	А	-	-	-	948217	fine	5,700	9,550	5	CC-PNER 100 A F
115	SiC	935989	936009	936016	-	fine	5,000	8,350	5	CC-PNER 115 SiC F
	А	-	-	-	936023	fine	5,000	8,350	5	CC-PNER 115 A F
125	SiC	935996	936030	936047	-	fine	4,500	7,650	5	CC-PNER 125 SiC F
	А	-	-	-	936054	fine	4,500	7,650	5	CC-PNER 125 A F



Felt discs – General information



COMBICLICK felt discs are used for face-down grinding on medium-sized and large surfaces. They are supplied in various diameters.

Advantages:

Innovative quick-mounting system guarantees convenient handling with fast tool changes.

Materials that can be worked:

Can be used on nearly all materials.

Applications:

Polishing

Recommendations for use:

- Use COMBICLICK felt discs with COMBICLICK backing pads on speedadjustable angle grinders.
- For best performance, use with 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, use a brand-new felt disc.

Matching tool drives:

- Angle grinders
- Cordless angle grinders

Ordering notes:

- Please order COMBICLICK backing pads separately. More detailed information and ordering data for backing pads can be found on page 13.
- Please order grinding and polishing pastes separately. Detailed information and ordering data for grinding and polishing pastes can be found in our Tool Manual 23, catalogue section 4, pages 153–155 or at www.pferd.com.

Safety notes:

 For safety reasons, the specified maximum permitted rotational speed must never be exceeded.













Accessories:

- COMBICLICK backing pads
- Grinding and polishing pastes



Felt discs CC-FR

CC-FR type

Suitable for polishing with polishing paste bars, grinding pastes or diamond polishing pastes in face-down grinding on medium-sized and large surfaces.

Advantages:

- High economic efficiency due to very long tool life.
- Focused working over the entire lifespan thanks to high dimensional stability.

PFERDVALUE:











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





Backing pad



CC-GT, CC-H-GT types

With this backing pad, COMBICLICK tools can be used on commercially available angle grinders.

The different hardnesses are colour-coded:

CC-GT (medium) = black CC-H-GT (hard) = blue

Advantages:

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

Recommendations for use:

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

Safety notes:

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

PFERDVALUE:













Suitable for CC diameter [mm]	Thread	Hard- ness	Suitable for machine types	EAN 4007220	Max. RPM		Description
100	M10	medium	Angle grinders 100, spindle M10	836200	15,300	1	CC-GT 100 M10
115, 125	M14	medium	Angle grinders 115 / 125, spindle M14	725764	13,300	1	CC-GT 115-125 M14
	5/8	medium	Angle grinders 115 / 125, spindle 5/8"	725771	13,300	1	CC-GT 115-125 5/8
	M14	hard	Angle grinders 115 / 125, spindle M14	835869	13,300	1	CC-H-GT 115-125 M14
	5/8	hard	Angle grinders 115 / 125, spindle 5/8"	841419	13,300	1	CC-H-GT 115-125 5/8
125	M14	medium	Angle grinders 125, spindle M14	223413	12,200	1	CC-GT 125 M14
	5/8	medium	Angle grinders 125, spindle 5/8"	223468	12,200	1	CC-GT 125 5/8
	M14	hard	Angle grinders 125, spindle M14	223451	12,200	1	CC-H-GT 125 M14
	5/8	hard	Angle grinders 125, spindle 5/8"	223475	12,200	1	CC-H-GT 125 5/8
180	M14	medium	Angle grinders 180, spindle M14	725788	8,500	1	CC-GT 180 M14
	5/8	medium	Angle grinders 180, spindle 5/8"	725795	8,500	1	CC-GT 180 5/8



Set



CC-SET

Set for surface work, from coarse to mirror-polished. The sets with a diameter of 125 mm are especially flexible around the edge.

Contents:

- 3 pcs. each of COMBICLICK fibre discs:
- CC-FS CO-COOL 36
- CC-FS CO-COOL 120
- CC-FS A-COOL 220
- 1 pc. each of COMBICLICK non-woven disc:
 - CC-VRH A 240 F
 - CC-VRH A 180 M
 - CC-VRH A 100 G
 - CC-VRW A 280
 - CC-VRW A 180
 - CC-VRW A 100
 - CC-PNER W SiC F
- 1 pc. each of:
- Universal polishing paste
- COMBICLICK felt disc CC-FR
- COMBICLICK backing pad CC-GT M14 or 5/8-11

Advantages:

- Getting to know and testing the comprehensive system.
- Coordinated selection of the most common versions.

Abrasive:

Aluminium oxide A Ceramic oxide grain CO-COOL Silicon carbide SiC

PFERDVALUE:













D [mm]	Thread	EAN 4007220		Description
115	M14 5/8-11	955345 955406	1 1	CC-SET 115 M14 CC-SET 115 5/8-11
125	M14	955369	1	CC-SET 125 M14
	5/8-11	955413	1	CC-SET 125 5/8-11



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

