

COMBICLICK®
Innovative quick-change system for angle grinders



TRUST BLUE

- Reduced heat generation for cool grinding with high stock removal rate and tool life
- Fibre Discs, Surface Conditioning, Finishing, Unitized and Polishing Discs
- Smooth handling from rough grinding to mirror polishing

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

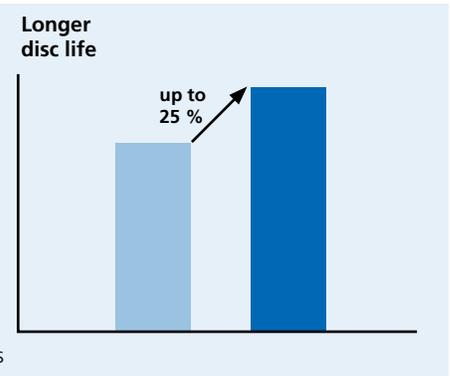
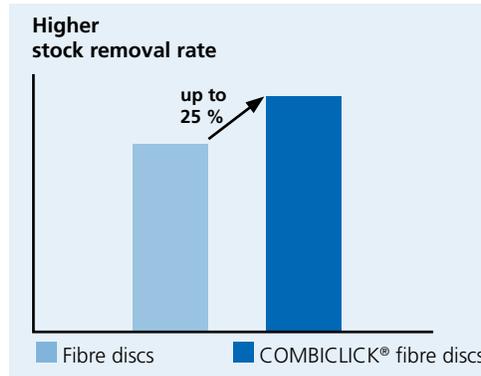
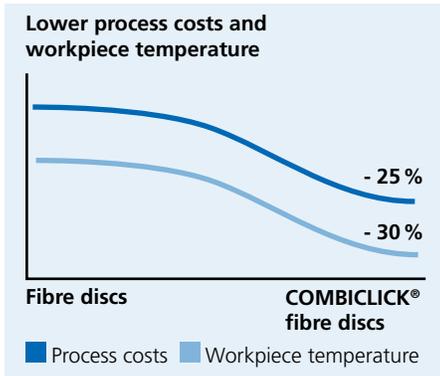
The COMBICLICK® system consists of a specially developed backing pad and a rugged mounting system at the back of the disc. The backing pad allows COMBICLICK® discs to be used on most available angle grinders.

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 disc and optimized cooling system help to provide

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



Advantages

System



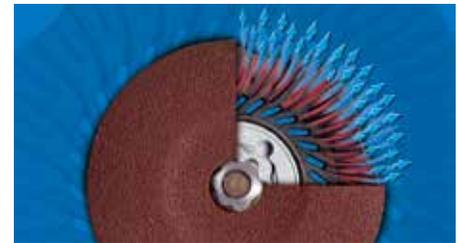
Very easy and comfortable to use.

Mounting principle



Extremely fast and easy disc change reduces process costs.

Cooling effect



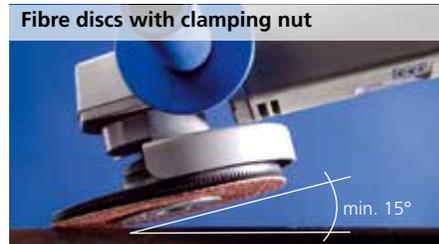
Very good cooling of disc and workpiece.

Flexible grinding



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

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.



PFERDERGONOMICS® recommends COMBICLICK® as an innovative solution to sustainably reduce vibration, noise and dust levels produced in the workplace, and to improve working comfort.



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



PFERDMEDIA

To see it in action, please visit pferdusa.com/vcombiclick

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

- grit sizes,
- abrasives and
- dimensions.

Advantages

- Long disc 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).

Recommendation for use

Use COMBICLICK® fibre discs in combination with the COMBICLICK® backing pad on most available angle grinders.

Safety notes

- The maximum permitted peripheral speed is 15,800 SFPM.
- 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!



= Read the Safety Data Sheets (SDS) before using any materials!



= 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.



Dust warning

Use of the products in this catalogue may create dust and other particles. To avoid any risk of adverse health effects, the operator must use appropriate protective measures, including a respirator, during and after operation. Refer to our Safety Data Sheet (SDS) for further information regarding the product to be used. Furthermore, additional health hazards may result from dust in the surrounding environment and from dust generated from the workpiece material. PROTECTIVE MEASURES FOR THE OPERATOR MUST ADDRESS DUST AND OTHER PARTICULATES ARISING FROM ALL SOURCES. Always use our products in a well-ventilated workspace.

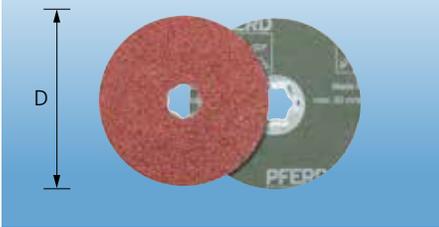
The fast way to the best disc

Workpiece material ▼		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	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 aluminum alloys	○	●		○		○	
		Brass, copper, zinc	●		○		○		
	Hard non-ferrous metals	Hard aluminum 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, with nodular graphite cast iron, white annealed cast iron, black cast iron	●		○		●		
Plastics, other materials		Fibre-reinforced plastics, thermoplastics, wood, chipboard, paint	●						●

● = highly recommended

○ = recommended

COMBICLICK® fibre discs Aluminum oxide A type



For general-purpose grinding, from coarse to fine, in diverse applications (industry, trades, DIY).

Abrasive: Aluminum oxide A

Workpiece materials

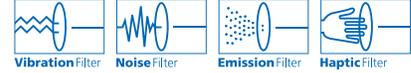
Steel, non-ferrous metals, cast iron and plastics

Ordering note

Please order COMBICLICK® backing pad separately on page 16.

PFERD specification number
CC-FS A

PFERDERGONOMICS®

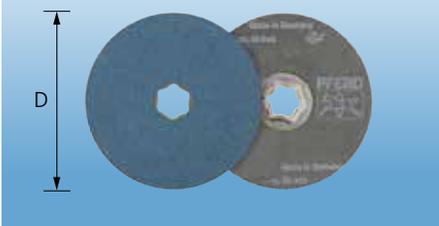


PFERDEFFICIENCY®



Diameter (D) [Inches]	Grit and EDP number						Max. RPM	
	24	36	50	60	80	120		
4	-	40085	40086	40087	40088	40089	15,300	25
4-1/2	40091	40092	40093	40094	40095	40097	13,300	25
5	40099	40100	40101	40102	40103	40105	12,200	25
7	40115	40116	40117	40118	40119	40121	8,500	25

COMBICLICK® fibre discs Zirconia alumina Z type



Designed for coarse grinding and high stock removal, with an extended service life.

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

Abrasive: Zirconia alumina Z

Workpiece material

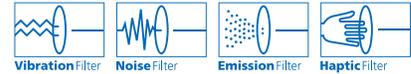
Hardened, heat-treated steels

Ordering note

Please order COMBICLICK® backing pad separately on page 16.

PFERD specification number
CC-FS Z

PFERDERGONOMICS®



PFERDEFFICIENCY®



Diameter (D) [Inches]	Grit and EDP number						Max. RPM	
	24	36	50	60	80	120		
4-1/2	-	40131	40132	40133	40134	40136	13,300	25
5	40137	40138	40139	40140	40141	40143	12,200	25
7	40151	40152	40153	40154	40155	40157	8,500	25

COMBICLICK® fibre discs Ceramic oxide CO



For aggressive grinding achieving maximum stock removal rates. Nevertheless, these fibre discs attain a very long service life.

Their ceramic grain is particularly well suited for working on hard materials and coatings. To be used preferably with high-powered angle grinders.

Abrasive: Ceramic oxide CO

Workpiece materials

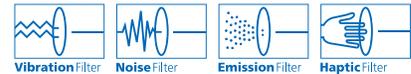
Steel and cast iron

Ordering note

Please order COMBICLICK® backing pad separately on page 16.

PFERD specification number
CC-FS CO

PFERDERGONOMICS®



PFERDEFFICIENCY®



Diameter (D) [Inches]	Grit and EDP number						Max. RPM	
	24	36	50	60	80	120		
4-1/2	40697	40698	40699	40700	40701	40703	13,300	25
5	40704	40705	40706	40707	40708	40710	12,200	25
7	40718	40719	40720	40721	40722	40724	8,500	25

Aluminum oxide A-COOL, zirconia alumina Z-COOL

For general-purpose grinding, from coarse to ultra-fine, on poor heat-conducting materials.

Active additives in the coating ensure substantially increased stock removal while preventing loading and heat build-up in the workpiece.

Abrasive: Aluminum oxide A-COOL (top-sized)

Workpiece materials
Steel and soft aluminum

Ordering note

Please order COMBICLICK® backing pad separately on page 16.

PFERD specification number

CC-FS A-COOL

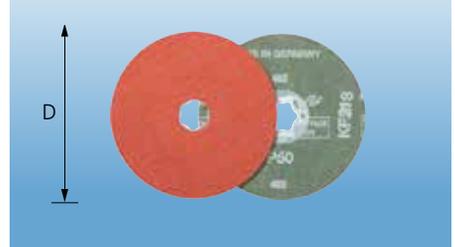
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PFERDEFFICIENCY®



COMBICLICK® fibre discs
Aluminum oxide A-COOL



Diameter (D) [Inches]	Grit and EDP number							Max. RPM	
	50	60	80	120	150	180	220		
4-1/2	-	40302	40303	40305	40306	-	40308	13,300	25
5	40310	40311	40312	40314	40315	40316	40317	12,200	25
7	40328	40329	40330	40332	40333	40334	40335	8,500	25

For coarse but cool grinding at high stock removal rates. Zirconia alumina is a high-performance abrasive which delivers best results on powerful angle grinders at increased contact pressure.

Active additives in the coating ensure substantially improved stock removal and a reduced thermal load on poor heat conducting materials.

Abrasive: Zirconia alumina Z-COOL (top-sized)

Workpiece materials
Stainless steel (INOX), bronze, titanium and nickel- and cobalt-based alloys

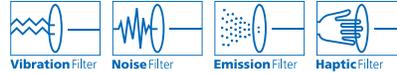
Ordering note

Please order COMBICLICK® backing pad separately on page 16.

PFERD specification number

CC-FS Z-COOL

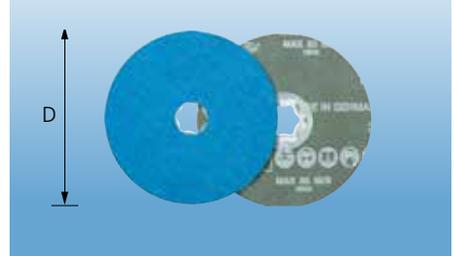
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PFERDEFFICIENCY®



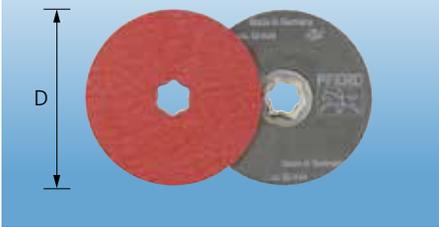
COMBICLICK® fibre discs
Zirconia alumina Z-COOL



Diameter (D) [Inches]	Grit and EDP number				Max. RPM	
	36	50	60	80		
5	40170	40171	40172	40173	12,200	25
7	40188	40189	40190	40191	8,500	25



COMBICLICK® fibre discs Ceramic oxide CO-COOL



For aggressive grinding achieving maximum stock removal on hard, poor heat conducting materials.

Active additives in the coating ensure a substantially improved abrasive performance while preventing loading and reducing heat build-up in the workpiece.

Abrasive: Ceramic oxide CO-COOL (top-sized)

Workpiece materials

Stainless steel (INOX), titanium and nickel- and cobalt-based alloys

Ordering note

Please order COMBICLICK® backing pad separately on page 16.

PFERD specification number

CC-FS CO-COOL

PFERDERGONOMICS®

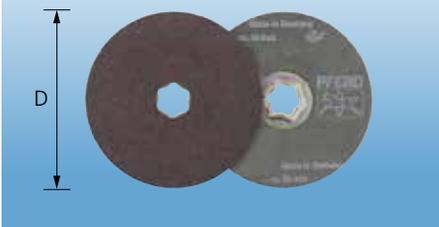


PFERDEFFICIENCY®



Diameter (D) [Inches]	Grit and EDP number						Max. RPM	
	24	36	50	60	80	120		
4	-	40691	40692	40693	40694	40696	15,300	25
4-1/2	40725	40726	40727	40728	40729	40731	13,300	25
5	40732	40733	40734	40735	40736	40738	12,200	25
7	40746	40747	40748	40749	40750	40752	8,500	25

COMBICLICK® fibre discs Silicon carbide SiC



The silicon carbide SiC type is for working on aluminum, copper, bronze, titanium, high-alloy steels and fibre reinforced plastics.

Particularly recommended for use on titanium alloys.

The disc of choice in the aircraft industry, specifically where SiC is the only approved abrasive product for use on engine components.

Abrasive: Silicon carbide SiC

Workpiece materials

Titanium and plastics

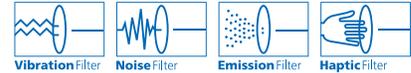
Ordering note

Please order COMBICLICK® backing pad separately on page 16.

PFERD specification number

CC-FS SiC

PFERDERGONOMICS®



PFERDEFFICIENCY®



Diameter (D) [Inches]	Grit and EDP number				Max. RPM	
	36	60	80	120		
4-1/2	40021	40022	40023	40024	13,300	25
5	40028	40029	40030	40031	12,200	25



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

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

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

Recommendation for use

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

Ordering note

Please order COMBICLICK® backing pad separately on page 16.

COMBICLICK® unitized discs achieve a very fine, uniform surface finish which, depending on requirements, is a sufficient preparation for high-gloss polishing. Recommended for work on large surfaces on components made of stainless steel (INOX).

**Abrasive: Aluminum oxide A
Silicon carbide SiC**

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

For more information about unitized products see page 73.

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!



Recommendation for use

COMBICLICK® unitized discs PNER type achieve their best performance at a recommended peripheral speed of 3,000 - 6,900 SFPM.

PFERD specification number

- CC-PNER W
- CC-PNER MW
- CC-PNER MH
- CC-PNER H

PFERDERGONOMICS®



PFERDEFFICIENCY®

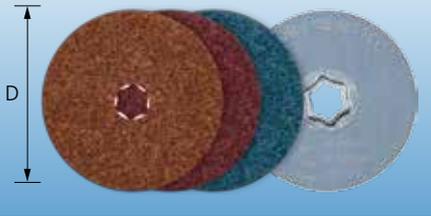


COMBICLICK® unitized discs PNER type



Diameter (D) [Inches]	Abrasive	Grit size	Density	Spec.	EDP number	Recom. speed RPM	Max. RPM	
4	Silicon carbide	fine	soft (W)	2SF	48140	5,700	9,550	5
4	Silicon carbide	fine	medium-soft (MW)	3SF	48142	5,700	9,550	5
4	Silicon carbide	fine	medium-hard (MH)	6SF	48144	5,700	9,550	5
4	Aluminum oxide	fine	hard (H)	8AM	48146	5,700	9,550	5
4-1/2	Silicon carbide	fine	soft (W)	2SF	48150	5,000	8,350	5
4-1/2	Silicon carbide	fine	medium-soft (MW)	3SF	48154	5,000	8,350	5
4-1/2	Silicon carbide	fine	medium-hard (MH)	6SF	48158	5,000	8,350	5
4-1/2	Aluminum oxide	fine	hard (H)	8AM	48162	5,000	8,350	5
5	Silicon carbide	fine	soft (W)	2SF	48166	4,500	7,650	5
5	Silicon carbide	fine	medium-soft (MW)	3SF	48170	4,500	7,650	5
5	Silicon carbide	fine	medium-hard (MH)	6SF	48174	4,500	7,650	5
5	Aluminum oxide	fine	hard (H)	8AM	48178	4,500	7,650	5

COMBICLICK® non-woven discs Hard type



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

Abrasive: Aluminum oxide A

Available grit sizes:

Coarse = yellow-brown

Medium = red-brown

Very fine = blue

Application examples

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

Recommendation for use

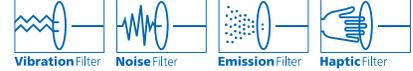
COMBICLICK® non-woven discs hard type achieve their best performance at a recommend-

ed peripheral speed of 3,000 - 4,000 SFPM. This provides an ideal compromise between stock removal rate, surface quality, thermal load on the workpiece and disc wear.

PFERD specification number

CC-VRH

PFERDERGONOMICS®

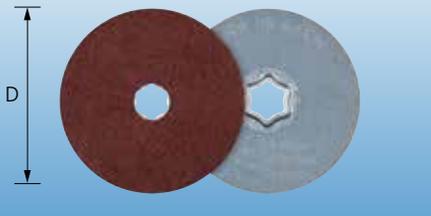


PFERDEFFICIENCY®



Diameter (D) [Inches]	Grit and EDP number			Recom. speed RPM	Max. RPM	
	coarse	medium	very fine			
4	48094	48095	48097	3,800	12,000	10
4-1/2	48100	48101	48103	3,300	10,500	10
5	48110	48111	48113	3,100	9,650	10

COMBICLICK® non-woven discs Soft type



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 disc.

Abrasive: Aluminum 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 aluminum.

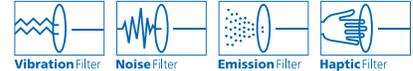
Recommendation for use

COMBICLICK® non-woven discs soft type achieve their best performance at a recommended peripheral speed of 3,000 - 4,000 SFPM. This provides an ideal compromise between stock removal rate, surface quality, thermal load on the workpiece and disc wear.

PFERD specification number

CC-VRW

PFERDERGONOMICS®



PFERDEFFICIENCY®



Diameter (D) [Inches]	Grit and EDP number			Recom. speed RPM	Max. RPM	
	medium	fine	very fine			
4	48127	48128	48129	3,800	12,000	10
4-1/2	48131	48132	48133	3,300	10,500	10
5	48135	48136	48137	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 variable speed 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 1,000 - 2,000 SFPM. This provides an ideal compromise between polishing performance, thermal load on the workpiece and disc wear.
- When changing the polishing paste, employ a new, unused felt disc.

PFERD specification number
CC-FR

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!



Ordering note

Please order COMBICLICK® backing pad separately on page 16.

For more information about polishing products see page 98.

PFERDERGONOMICS®


Vibration Filter


Noise Filter


Emission Filter


Haptic Filter

PFEREFFICIENCY®


Energy Saving


Waste Saving


Time Saving

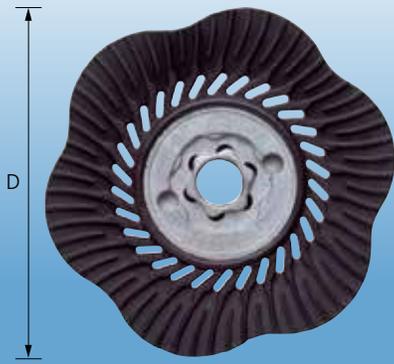

Resource Saving



Diameter (D) [Inches]	EDP number	Recom. speed RPM	Max. RPM	
4	48704	1,900	12,000	5
4-1/2	48705	1,650	10,500	5
5	48706	1,500	9,650	5



COMBICLICK® backing pads



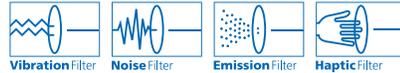
This backing pad permits the use of COMBICLICK® discs on all common angle grinders.

The cooling slot geometry ensures a high delivery of air through the backing pad, thus significantly reducing thermal loads on the abrasive material and workpiece.

The patented COMBICLICK® mounting system minimizes disc changing times.

PFERD specification number
CC-GT

PFERDERGONOMICS®



PFERDEFFICIENCY®



Disc diameter (D) [Inches]	Thread size	EDP number	Max. RPM	
4	3/8-24	69467	15,300	1
4	M10 x 1.50	69468	15,300	1
4-1/2 and 5	5/8-11	69470	13,300	1
4-1/2 and 5	M14 x 2.0	69471	13,300	1
7	5/8-11	69474	8,500	1
7	M14 x 2.0	69475	8,500	1

COMBICLICK® kits

COMBICLICK® kits



COMBICLICK® kits offer a convenient way to get started with the system. A wide variety of coated and non-woven materials are included to test performance and surface finish results to help determine the ideal product selections for your applications prior to bulk purchases.

The included discs provide solutions for rough grinding, fine grinding, surface conditioning, prepolish and polishing to a mirror finish.

Ordering note

This set ships with a sample quantity (100 grams) of a universal polishing paste. All polishing pastes can be used with the system. Please see page 104 for a complete selection of polishing pastes and grinding compounds.

PFERD specification number
CC-SET

Disc diameter [Inches]	Thread size	EDP number	Kit contents		
			Description of included components	Qty included	
4-1/2	5/8-11	48192	Backing pad Ceramic oxide CO-COOL – 36, 120 grits Aluminum oxide A-COOL – 220 grit	1 ea. 3 ea.	1
4-1/2	M14 x 2.0	48193	Surface conditioning – coarse (100 G), medium (180 M), very fine (240 F)	3 ea.	
5	5/8-11	48194	Finishing – medium (100), fine (180), very fine (280) Unitized disc – SiC, soft	1 ea. 1 ea.	1
5	M14 x 2.0	48195	Felt disc Polishing paste – white, general purpose	1 ea. 1 ea.	



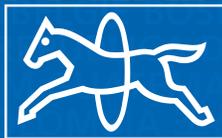
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www.pferd.com

PFERD INC.
9201 W. Heather Ave. • Milwaukee, WI 53224
Phone: (262) 255-3200 • Toll-Free: (800) 342-9015
Fax: (262) 255-2840
e-mail: sales@pferdusa.com

PFERD CANADA INC.
5570 McAdam Road • Mississauga, ONT L4Z1P1
Phone: (905) 501-1555 • Toll-Free: (866) 245-1555
Fax: (905) 501-1554
e-mail: sales@pferdcanada.ca

