New in the PFERD product range

TRUST BLUE

New Products and additions to Tool Manual 23, 2019–2021

New in the PFERD product range
Table of contents

This brochure contains all the new PFERD products and additions to the range which are not included in the PFERD Tool Manual 23. They are marked by a N!-symbol and are shown in the respective product groups in catalog sections 1–9.

N! New in addition to the Tool Manual 23
N! New in 2021

Please contact a PFERD customer service representative for pricing information.

Additional information and valuable product and application knowledge can be found at www.pferd.com. Visit us online and experience your added value with PFERD on all channels. Current product and other informational brochures are available for download.

New in the PFERD product range
ALUMASTER® High Speed Disc

The innovative **ALU**MASTER® High Speed Disc is a unique product with an extremely high stock removal rate. It is ideal for processing aluminium as it does not generate hazardous or explosive dust. It consists of specially developed tungsten carbide cutting inserts, which are fixed to the High Speed Disc.

Advantages:

- Does not generate hazardous or explosive dust.
- An extraction system is not required.
- Cost-effective and eco-friendly alternative to grinding wheels and flap discs of comparable weight.
- Innovative and robust cut geometry:
  - The highest degree of safety
  - Extreme durability
  - Comfortable work
- Specially developed, turnable and replaceable tungsten carbide cutting inserts.
- Exceptionally high stock removal rate.

Materials that can be worked:

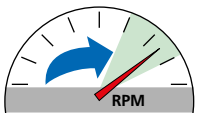
- Aluminium alloys
- Brass, copper, zinc
- Bronze
- Plastics
- Fibre-reinforced duroplastics (GRP, CRP)

Industries:

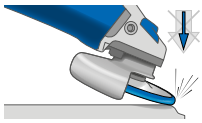
- Shipbuilding and yacht construction
- Trailer construction
- Silo and container construction
- Vehicle construction

Recommendations for use:

The disc has primarily been designed for use on aluminium, wrought aluminium alloys and cast aluminium. Non-ferrous metals with a relatively low strength and fibre-reinforced plastics can also be machined. This must be checked for the specific application on a case-by-case basis.



- An optimum rotational speed and power output for the power tool are required for cost-effective use of the **ALU**MASTER® High Speed Disc.
  - **HSD-R 4-1/2"/5"types:**
    Max. 13,300 RPM, optimal 12,200–13,300 RPM
    Pneumatic angle grinders: power output of 1,000 watts (1.4 HP) or more
    Electric angle grinders: rated output of 1,400 watts (12 Amp) or more
  - **HSD-R 2" type:**
    Max. and optimal 25,000 RPM
    Pneumatic angle grinders: power output of 350 watts (0.5 HP) or more
    Pneumatic straight grinder: power output of 350 watts (0.5 HP) or more
    Electric straight grinders: rated output of 500 watts (4.5 Amp) or more



- Do not push the disc deep into the workpiece. Avoid contact of workpiece to the raised part of the disc body (HSD-R 4-1/2"/5").
- Do not exert unnecessarily high forces on the angle grinder. The **ALU**MASTER® High Speed Disc already works with low forces.
- When machining workpiece edges, cut along the edge, never across the edge.
- Do not decelerate the disc on the workpiece. The cutting inserts may break.

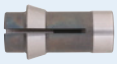
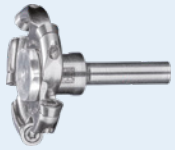
PFERDVALUE®:

PFERDERGONOMICS recommends **ALU**MASTER® High Speed Discs as an innovative product solution for processing aluminium as they do not generate hazardous or explosive dust.

PFERDEFFICIENCY® recommends **ALU**MASTER® High Speed Discs for long fatigue-free and resource-saving work with perfect results in a very short period of time.

New in the PFERD product range
ALUMASTER® High Speed Disc

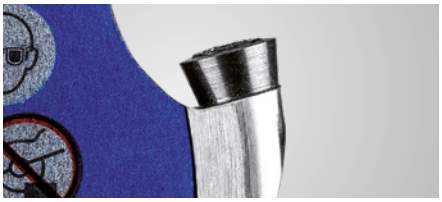
Quick product selection guide

Description	Applications	Matching power tools	Product	Page
 The **HSD-R 4-1/2"/5" type** is also suitable for applications such as peripheral milling and milling out root welds.	■ Milling out ■ Work on weld seams ■ Work on fillet welds ■ Work on edges/ chamfering ■ Surface work ■ Milling out root welds ■ Peripheral milling	**Pneumatic angle grinder and electric angle grinder**	**ALU**MASTER® High Speed Disc HSD-R 4-1/2"/5" 	6
 Due to its small size, the **HSD-R 2" type** is highly suitable for working on hard-to-reach areas and delicate components. Due to the specially developed arbor, the **ALU**MASTER® High Speed Disc HSD-R 2" cannot only be used on angle grinders (mounting dia. 3/8"), but also on straight grinders and flexible shaft drives.	■ Milling out ■ Work on weld seams ■ Work on fillet welds ■ Work on edges/ chamfering ■ Surface work ■ Milling out root welds ■ Peripheral milling	**Flexible shaft drive Mammoth Electronic MEW 18/240 240V** **Ordering data:** EDP 92013  **Straight handpiece HA 12 ZGA G28** **Ordering data:** EDP 94330  **Collet Group 12** For shank diameter 3/8" **Ordering data:** EDP 93215  **Pneumatic straight grinder and pneumatic angle grinder**	**ALU**MASTER® High Speed Disc HSD-R 2"  Arbor  **ALU**MASTER® HSD-R 2" in combination with arbor 	7

Detailed information and the power tools can be found in our Tool Manual 23, catalog section 9.

ALUMASTER® with HICOAT® coating

PFERD also offers the cutting inserts with a premium-quality HICOAT® coating for lubricating aluminium casting alloys with a silicon content of 5–10 %, abrasive aluminium casting alloys with a silicon content of over 15 % and for other abrasive materials or non-ferrous metals. This prevents disc clogging and abrasive wear, even in use on these particularly demanding materials.



Advantages:

- Extremely hard.
- Very low friction coefficient.
- Very low tendency towards adhesion.
- Improved surface quality.
- Reduced burr formation.

Materials that can be worked:

- Lubricating aluminium casting alloys with silicon contents of 5–10 %
- Sticky, greasy materials
- Abrasive aluminium casting alloys with silicon contents of over 15 %
- Abrasive materials such as fibre-reinforced plastics (FRP)
- Non-ferrous alloys of higher strength than aluminium (bronze, brass, etc.)

Selecting suitable cutting inserts:

To determine the most suitable cutting insert, please proceed as follows:

❶ Select the material group to be machined.
❷ Select the cutting inserts.

❶ Material group			❷ Cutting inserts	
			High-performance application	Universal application
Non-ferrous metals	Soft non-ferrous metals	Aluminium alloys	HICOAT®	uncoated
		Brass, copper, zinc	HICOAT®	uncoated
	Hard non-ferrous metals	Hard aluminium alloys (high Si content)	HICOAT®	-
		Bronze	HICOAT®	-
Plastics	Fibre-reinforced plastics (GRP/CRP), thermoplastics		HICOAT®	-

Safety notes:

- It is essential to tighten the flange nut using the appropriate tool, such as a face pin wrench. Clamping systems which are designed to be tightened without the use of an additional tool, i.e. which are tightened by hand, are not permissible. Suitable clamping nuts can be found in our Tool Manual 23, catalog section 9.
- Tighten the mounting bolts of the cutting inserts using the Torx key provided. If used properly, it is designed to provide a tightening torque of around 35.4 in-lbs. (4 Nm). Alternatively, use a torque spanner with a tightening torque of 35.4 in-lbs. (4 Nm).
- Loose cutting inserts may break during use. Therefore, **check regularly whether they are attached securely**.
- Do not use damaged cutting inserts! They may break!
- Only use original accessories from PFERD.

= Do not use if damaged!

= Do not push the disc deep into the workpiece! Avoid contact of workpiece to the raised part of the disc body (HSD-R 4-1/2"/5").

= Wear eye protection!

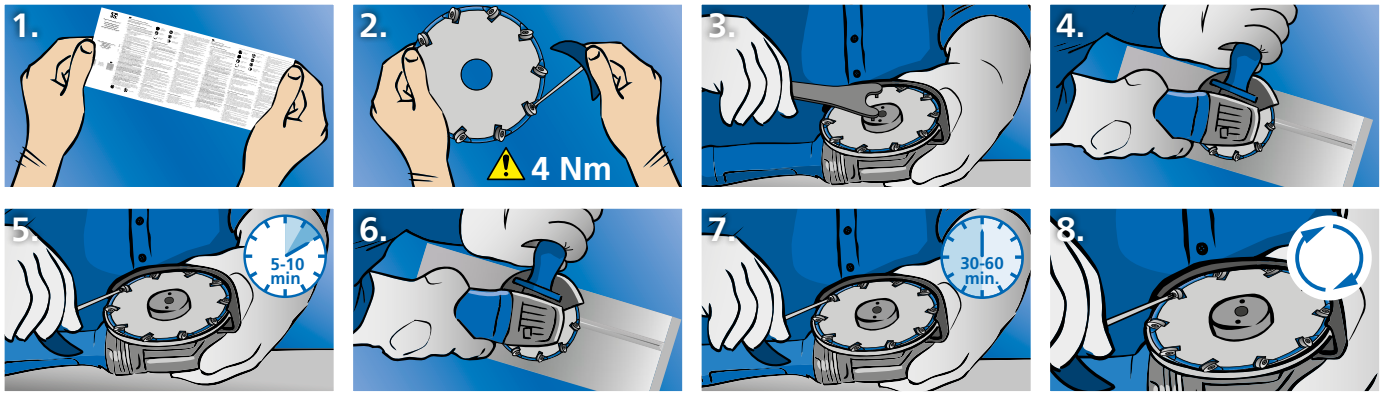
= Wear gloves!

= Wear hearing protection!

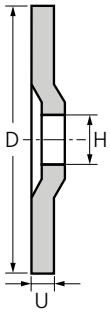
= Follow the safety instructions!

4 Nm **Tighten the bolts!**

= CE-marked



New in the PFERD product range
ALUMASTER® High Speed Disc

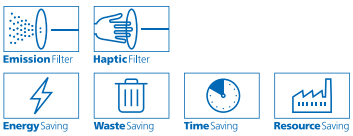


ALUMASTER® High Speed Disc HSD-R

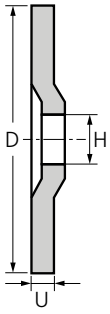
Special disc for processing aluminium alloys using an angle grinder. Also suitable for peripheral milling and milling out root welds.

Contents:
- **ALU**MASTER® High Speed Disc HSD-R 4-1/2"/5" incl. mounted tungsten carbide cutting inserts
- Torx key, plastic box

PFERDVALUE®:



D [Inches]	U [Inches]	H [Inches]	EDP number	Max. RPM	
4-1/2	5/16	7/8	N! 20100	13,300	1

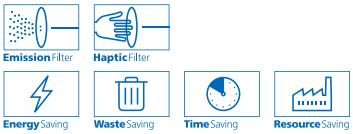


ALUMASTER® High Speed Disc HSD-R HICOAT®

Special disc for processing particularly challenging aluminium alloys using an angle grinder. The cutting inserts come with a HICOAT® coating. Also suitable for peripheral milling and milling out root welds.

Contents:
- **ALU**MASTER® High Speed Disc HSD-R 4-1/2"/5" HICOAT® incl. mounted tungsten carbide cutting inserts
- Torx key, plastic box

PFERDVALUE®:

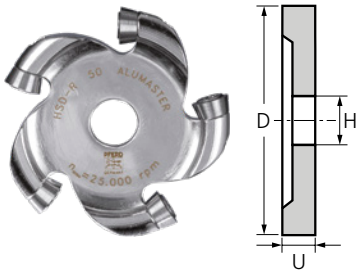


D [Inches]	U [Inches]	H [Inches]	EDP number	Max. RPM	
4-1/2	5/16	7/8	N! 20110	13,300	1

N! New in addition to the Tool Manual 23
N! New in 2021

ALUMASTER® High Speed Disc HSD-R 2“

Special disc for processing aluminium alloys. With the specially developed arbor, it cannot only be used on angle grinders (mounting dia. 3/8“), but also on straight grinders and flexible shaft drives. It is highly suitable for working on hard-to-reach areas and delicate components. Due to the disc diameter of 2“, guards are not necessary.



Contents:
- **ALU**MASTER® High Speed Disc HSD-R 2“ incl. mounted tungsten carbide cutting inserts
- Torx key, plastic box

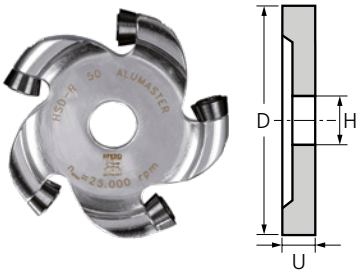
PFERDVALUE®:

Emission Filter, Haptic Filter, Energy Saving, Waste Saving, Time Saving, Resource Saving

D [Inches]	U [Inches]	H [Inches]	EDP number	Max. RPM	
2	3/8	5/16	N! 20120	25,000	1

ALUMASTER® High Speed Disc HSD-R 2“ HICOAT®

Special disc for processing particularly challenging aluminium alloys. With the specially developed arbor it cannot only be used on angle grinders (mounting dia. 3/8“), but also on straight grinders and flexible shaft drives. The cutting inserts come with a HICOAT® coating. It is highly suitable for working on hard-to-reach areas and delicate components. Due to the disc diameter of 2“, guards are not necessary.



Contents:
- **ALU**MASTER® High Speed Disc HSD-R 2“ HICOAT® incl. mounted tungsten carbide cutting inserts
- Torx key, plastic box

PFERDVALUE®:

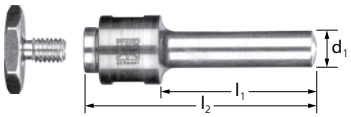
Emission Filter, Haptic Filter, Energy Saving, Waste Saving, Time Saving, Resource Saving

D [Inches]	U [Inches]	H [Inches]	EDP number	Max. RPM	
2	3/8	5/16	N! 20126	25,000	1

Arbor

Arbor for **ALU**MASTER® High Speed Disc HSD-R 2“

Suitable for use on flexible shaft drives and straight grinders.



d_1 [Inches]	l_1 [Inches]	l_2 [Inches]	Suitable for	EDP number	
3/8	1-5/16	2	HSD-R 2“	N! 20123	1

N! New in addition to the Tool Manual 23
N! New in 2021

New in the PFERD product range
ALUMASTER® High Speed Disc – accessories

Cutting insert sets, HICOAT® cutting insert sets

Cutting insert sets for **ALU**MASTER® High Speed Disc.

Ordering notes:
- The sets are available with or without HICOAT® coating.

D [Inches]	Contents [pcs.]	Suitable for	Type	EDP number	
3/8	5	**ALU**MASTER® HSD-R 2"	uncoated	N! 20121	1
			HICOAT®	N! 20127	1
	10	**ALU**MASTER® HSD-R 4-1/2"/5"	uncoated	N! 20101	1
			HICOAT®	N! 20111	1

Screw set for cutting inserts

Screw set for PFERD cutting inserts.

Suitable for cutting inserts	Contents [pcs.]	EDP number	
all types	5	N! 20137	1

ALUMASTER® service set, **ALU**MASTER® HICOAT® service set

For exchanging individual cutting inserts on the **ALU**MASTER® High Speed Disc.

Set contains:
- 2 cutting inserts
- 2 bolts
- 1 TORX key

Ordering notes:
- The sets are available with or without HICOAT® coating.

Suitable for	Type	EDP number	
ALUMASTER® HSD-R 2"	uncoated	N! 20122	1
	HICOAT®	N! 20128	1
ALUMASTER® HSD-R 4-1/2"/5"	uncoated	N! 20102	1
	HICOAT®	N! 20112	1

Torque spanner and spare blade

WIHA torque spanner with a tightening torque of 35.4 in-lbs. (4 Nm) for optimally and securely mounting cutting inserts on the **ALU**MASTER® High Speed Disc.

Suitable for	EDP number	
Torque spanner		
ALUMASTER®	N! 20135	1
Spare blade		
Torque spanner	N! 20136	1

N! New in addition to the Tool Manual 23
N! New in 2021

TRUST BLUE

PFERD has the largest range of fine grinding and polishing products on the market, and offers top-quality solutions – from rough machining of extremely various surfaces to polishing. In addition to saving process costs, we focus on optimizing working conditions for users when providing consultation. With PFERD products, you can achieve results quickly, conveniently and efficiently.

Advantages:

- Quick, convenient and efficient results
- From rough to fine surfaces – all your products from a single source
- Reduced process costs and optimized working conditions through individual consultation

Discover our highlights now at www.pferd.com!

PFERD

www.pferd.com

VICTOGRAIN® abrasive material is used to make some of the most effective grinding products in the world. PFERD's triangular, precision-formed grain achieves ultimate performance.

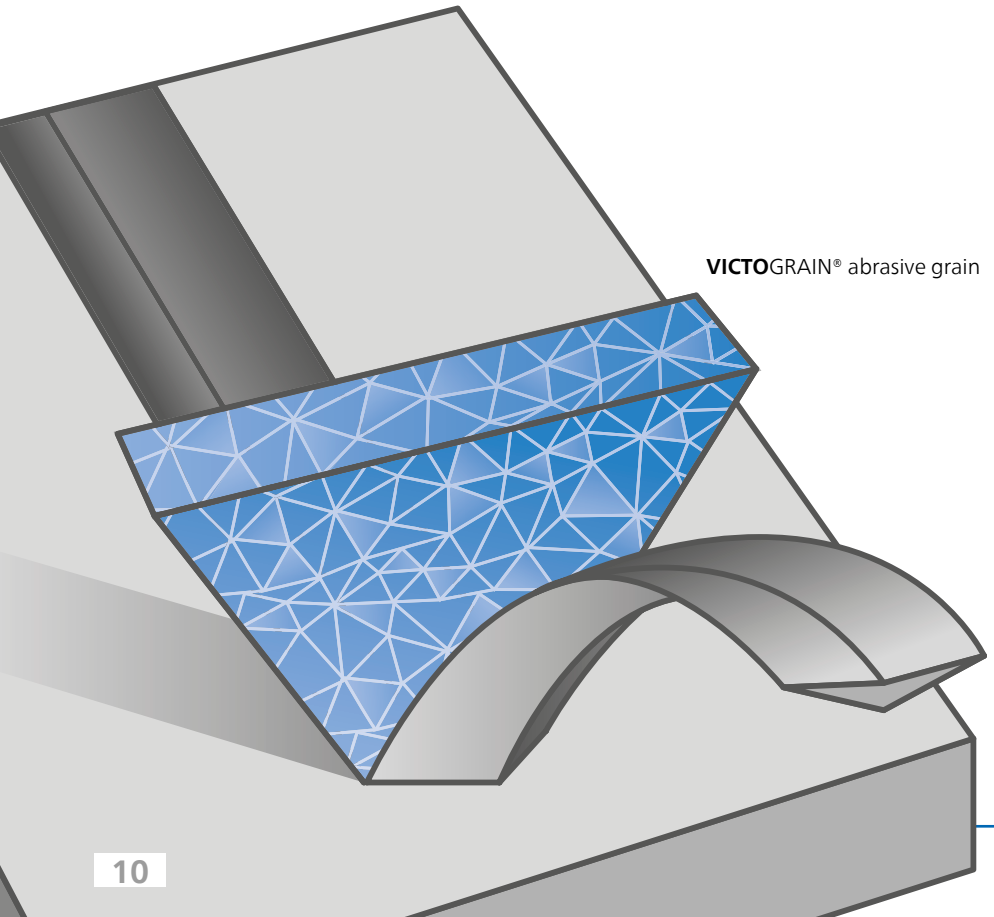
The **VICTO**GRAIN® abrasive grain triangles are identical in shape and size and their cutting edges are applied to the workpiece at the optimum angle, meaning the grain needs very little energy to penetrate the workpiece. As a result, the user experiences superior productivity due to:

- extremely high stock removal,
- a long service life,
- and reduced heat build-up in the workpiece.

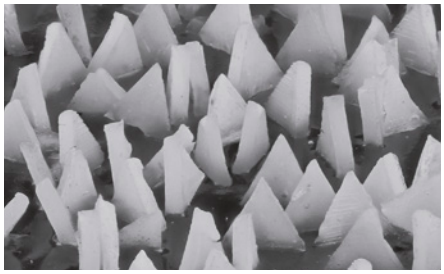
Each **VICTO**GRAIN® abrasive grain triangle is firmly fixed on one of its sides to the backing material. Due to the slim design, **VICTO**GRAIN® offers an extremely large chip space for maximum cutting efficiency.

The structure of the triangular **VICTO**GRAIN® is specially engineered to maximize results. The very fine crystalline structure ensures optimal wear characteristics as sharp cutting edges are always exposed, with the minimum amount of abrasive breaking off from the triangle.

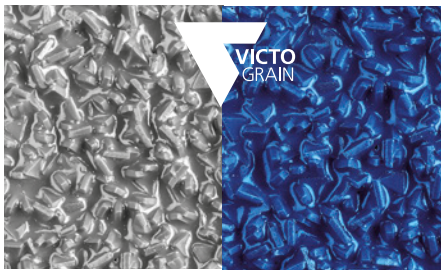
By combining all these properties together, users benefit from optimal, consistent performance, cool grinding and an extremely long service life with uniform workpiece surface roughness.



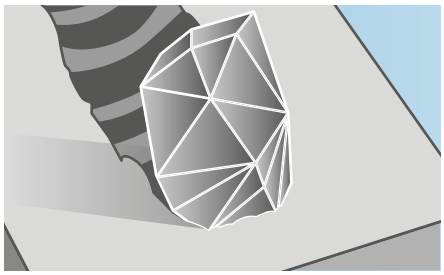
VICTOGRAIN® abrasive grain



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



VICTOGRAIN® coated abrasive material



Conventional abrasive grain

Applications:

- Levelling
- Deburring
- Surface work
- Work on edges
- Work on weld seams

Compatible power tools:

- Angle grinders
- Cordless angle grinders
- Flexible shaft drives

For more detailed information about the **VICTO**GRAIN® products range, please refer to our brochure "**VICTO**GRAIN® – No surface is safe" at www.pferd.com.

New in the PFERD product range
COMBICLICK® fibre discs

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

Advantages:

- Innovative quick-mounting system guarantees convenient handling and cool grinding.
- High productivity due to long service life and very high stock removal rate.
- Consistent surface finish resulting from high-quality abrasives.

Applications:

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

Recommendations for use:

- Use COMBICLICK® fibre discs with COMBICLICK® backing pads on commercially available angle grinders.

Compatible power tools:

- Angle grinders
- Cordless angle grinders

Ordering notes:

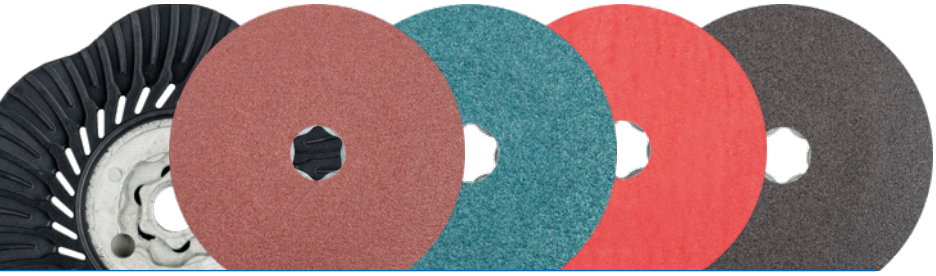
- Order COMBICLICK® backing pads separately. Detailed information and ordering data for backing pads can be found on page 14.

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.

Accessories:

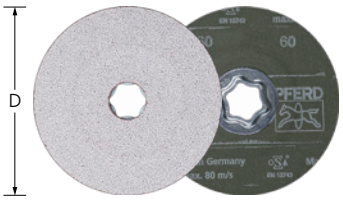
- COMBICLICK® backing pads



Quick product selection guide

Material group ▼		Abrasive ▶	Aluminum oxide A	Zirconia Alumina Z	Ceramic oxide CO	VICTO-GRAIN®	VICTO-GRAIN® COOL	Silicon carbide SiC	Aluminum oxide A-COOL	Ceramic oxide CO-COOL	Ceramic oxide grain CO-ALU
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-based 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, paintwork	●					●			

● = highly recommended ○ = recommended



Ceramic oxide grain CO-ALU

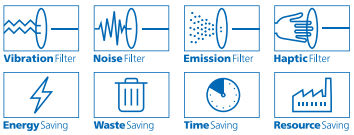
For aggressive grinding with an excellent stock removal rate for machining non-ferrous metals. Consistently high performance due to self-sharpening ceramic oxide grain.

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 order COMBICLICK® backing pad separately

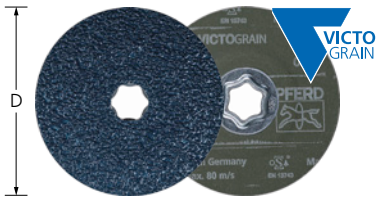
PFERDVALUE®:



D [Inches]	Grit and EDP number			Max. RPM	
	36	60	80		
4-1/2	N! 40756	N! 40757	N! 40758	13,300	25
5	N! 40759	N! 40760	N! 40761	12,200	25

N! New in addition to the Tool Manual 23
N! New in 2021

VICTOGRAIN®



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

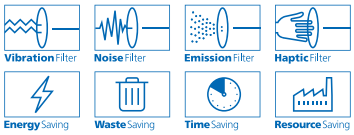
Outstanding, constant high performance due to the **VICTO**GRAIN® abrasive grain.

Abrasive:
VICTOGRAIN®

Recommendations for use:
- Use powerful angle grinders.

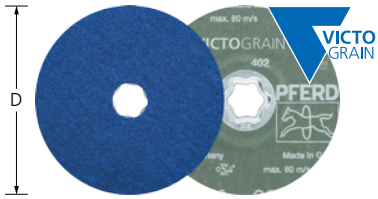
Ordering notes:
- Please order COMBICLICK® backing pad separately

PFERDVALUE®:



D [Inches]	Grit and EDP number 36	Max. RPM	
4-1/2	N! 40371	13,300	25
5	N! 40372	12,200	25
7	N! 40373	8,500	25

VICTOGRAIN®-COOL



For maximum removal rates with an extremely long service life on steel and materials which are hard or have poor heat-conducting properties.

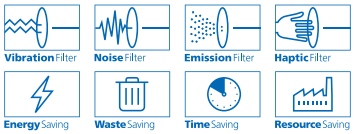
Outstanding, consistent high performance due to the **VICTO**GRAIN® abrasive grain.

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

Abrasive:
VICTOGRAIN®-COOL

Recommendations for use:
- Use with COMBICLICK® backing pads on commercially available angle grinders.

PFERDVALUE®:



D [Inches]	Grit and EDP number 24	Max. RPM	
4-1/2	N! 40380	13,300	25
5	N! 40381	12,200	25
7	N! 40382	8,500	25

N! New in addition to the Tool Manual 23
N! New in 2021

New in the PFERD product range
COMBICLICK® backing pads

Backing pads

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

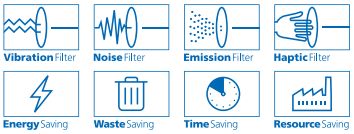
The different hardnesses are colour-coded:
CC-GT (medium) = black
CC-H-GT (hard) = blue

Advantages:
- The geometry of the cooling slots significantly reduces the thermal load.
- High productivity due to minimized disc change times.

Recommendations for use:
- CC-H-GT backing pads 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 approved peripheral speed is 15,800 SFPM.
- For backing pads with a 7 inch diameter, do not apply too high a contact pressure in order to prevent the backing pad from overstretching.

PFERDVALUE®**:**



Disc diameter [Inches]	Thread	Hardness	EDP number	Max. RPM	
4-1/2 and 5	5/8-11	medium	69470	13,300	1
		hard	69478	13,300	1
5	5/8-11	medium	N! 69472	12,200	1
		hard	N! 69473	12,200	1
7	5/8-11	medium	69474	8,500	1

The whole COMBICLICK® product range can be found in the brochure "COMBICLICK® – Perfect results due to a well-designed system" on www.pferd.com.

N! New in addition to the Tool Manual 23
N! New in 2021

New in the PFERD product range
Fibre discs

The extensive range of fibre discs provides the optimum product 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 A2, type F, and designated "vulcanized fibre discs".

Advantages:

- High productivity due to long service life and very high stock removal rate.
- Consistent surface finish resulting from high-quality abrasives.
- Optimum adaptation to contours due to high flexibility.

Applications:

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

Recommendations for use:

- Use fibre discs conforming to ISO 15636 with backing pads on commercially available angle grinders.

Compatible power tools:

- Angle grinders
- Cordless angle grinders

Safety notes:

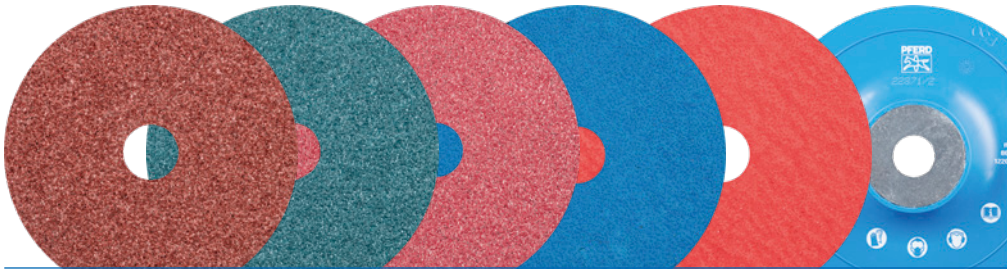
- The maximum approved peripheral speed is 15,800 SFPM.
- For safety reasons, it is imperative to remain within the stated maximum permitted rotational speed at all times.

Ordering notes:

- Please order backing pads separately. More detailed information and ordering data for backing pads can be found on our webside or in our Tool Manual 23, catalog section 4, on page 22.

Accessories:

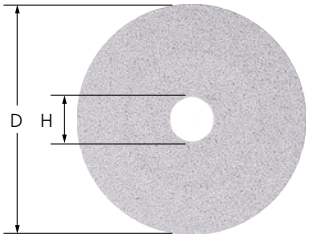
- Backing pads



Quick product selection guide

Material group ▼		Abrasive ▶	Aluminum oxide A	Zirconia alumina Z	Ceramic oxide CO	VICTO-GRAIN®	VICTO-GRAIN® COOL	Zirconia alumina Z-COOL	Ceramic oxide CO-COOL	Ceramic oxide grain CO-ALU
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-based 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, paintwork	●							

● = highly recommended ○ = recommended



Ceramic oxide grain CO-ALU

For aggressive grinding with 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 order backing pads separately. See Tool Manual 23, catalog section 4, on page 22.

D [Inches]	H [Inches]	Grit and EDP number			Max. RPM	
		36	60	80		
4-1/2	7/8	N! 40771	N! 40772	N! 40773	13,300	25
5	7/8	N! 40774	N! 40775	N! 40776	12,200	25
7	7/8	N! 40777	N! 40778	N! 40779	8,500	25

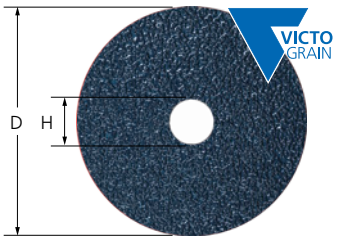
N! New in addition to the Tool Manual 23
N! New in 2021

VICTOGRAIN®

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

Outstanding, constant high performance due to the **VICTO**GRAIN® abrasive grain.

Abrasive:
VICTOGRAIN®



D [Inches]	H [mm]	Grit and EDP number 36	Max. RPM	
4-1/2	7/8	N! 40336	13,300	25
5	7/8	N! 40337	12,200	25
7	7/8	N! 40338	8,500	25

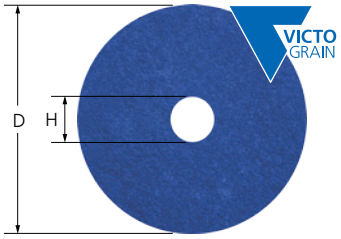
VICTOGRAIN®**-COOL**

For maximum removal rates with an extremely long service life on steel and materials which are hard or have poor heat-conducting properties.

Outstanding, consistent high performance due to the **VICTO**GRAIN® abrasive grain.

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

Abrasive:
VICTOGRAIN®-COOL



D [Inches]	Grit and EDP number 36	Max. RPM	
4-1/2	N! 40340	13,300	25
5	N! 40341	12,200	25
7	N! 40342	8,500	25

N! New in addition to the Tool Manual 23
N! New in 2021

New in the PFERD product range
COMBIDISC® – Abrasive discs

The COMBIDISC® product range contains a wide selection of grinding products for surface finishing. From coarse machining and surface texturing to face-down mirror polishing – the range provides the best product, even for complicated applications.

Advantages:

- Reduced down time due to quick disc changes.
- Great convenience due to simple handling and low-vibration working.
- No operational disruptions caused by sticking, slipping or disengaging.

Applications:

- Roughing
- Leveling
- Deburring
- Surface work
- Work on edges
- Polishing
- Cleaning
- Sharpening
- Work on weld seams
- Structuring surfaces
- Step-by-step fine grinding

Recommendations for use:

- Use COMBIDISC® grinding discs with arbors or abrasive disc holders on flexible shaft drives with angle handpieces, compressed-air or electric angle grinders.

Compatible power tools:

- Flexible shaft drives
- Straight grinders
- Angle grinders
- Cordless angle grinders

Ordering notes:

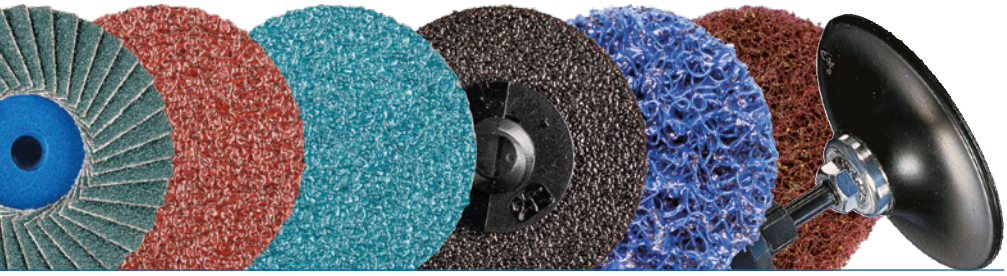
- Please order arbors or COMBIDISC® abrasive disc holders separately. More detailed information and ordering data can be found in our Tool Manual 23, catalog section 4, on page 37.

Safety notes:

- The maximum permitted peripheral speed is 9,800 SFPM.
- For safety reasons, it is imperative to remain within the stated maximum permitted rotational speed at all times.

Accessories:

- Arbors for COMBIDISC® Mini-POLIFAN
- COMBIDISC® abrasive disc holders



For more detailed information about the COMBIDISC® product range, please refer to our brochure "COMBIDISC® grinding products" at www.pferd.com.

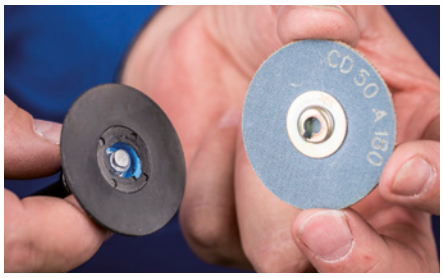
Quick product selection guide

Material group ▼		Abrasive ▶	Aluminum oxide A, A-PLUS, A-CONTOUR	Aluminum oxide A Compact grain	Zirconia alumina Z
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-based 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, paintwork	●		

● = highly recommended ○ = recommended

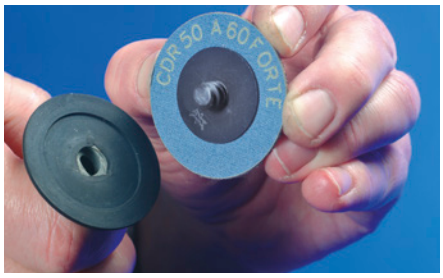
PFERD offers two alternative mounting systems:

CD system



Disc side: Threaded connection with female thread (metal/plastic)

CDR system



Disc side: Threaded connection with male thread (plastic)

PFERDVALUE®:

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

Vibration Filter | Noise Filter | Emission Filter | Haptic Filter

PFERDEFFICIENCY® recommends COMBIDISC® products to reduce disc change and setup times.

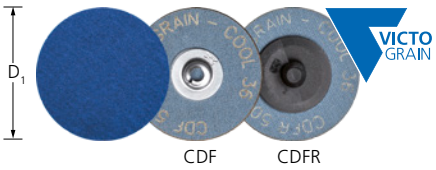
Time Saving

Recommended rotational speed range

Example:
EDP: 42292 2" CD CO-COOL
Application:
Grinding alloyed steel
Peripheral speed: 4,000–5,000 SFPM
Rotational speed: 7,600–9,600 RPM

D_1 [Inches]	Peripheral speed [SFPM]								
	1,000	2,000	3,000	4,000	5,000	6,000	7,000	8,000	10,000
	Rotational speeds [RPM]								
1	3,800	7,600	11,500	15,300	19,100	22,900	26,700	30,600	38,200
1-1/2	2,500	5,100	7,600	10,200	12,700	15,300	17,800	20,400	25,500
2	1,900	3,800	5,700	7,600	9,600	11,500	13,400	15,300	19,100
3	1,300	2,500	3,800	5,100	6,400	7,600	8,900	10,200	12,700

Silicon carbide SiC	Ceramic oxide CO-COOL	VICTOGRAIN®-COOL	Diamond abrasive discs	POLICLEAN discs	Non-woven discs Soft type, Hard type, Unitized
	●	●		●	●
	●	●		○	○
	●	●		●	●
	○			●	●
				●	●
○				●	●
●	●	●	●	○	●
	●	●	●	○	●
				●	●
●			●	●	●



VICTOGRAIN®-COOL mini fibre discs

Well-suited for surface and edge grinding. The fibre backing considerably strengthens the abrasive disc and improves stock removal.

For maximum removal rates with an extremely long service life on steels and materials which are hard or have poor heat-conducting properties.

Outstanding, consistent high performance due to the **VICTO**GRAIN® abrasive grain.

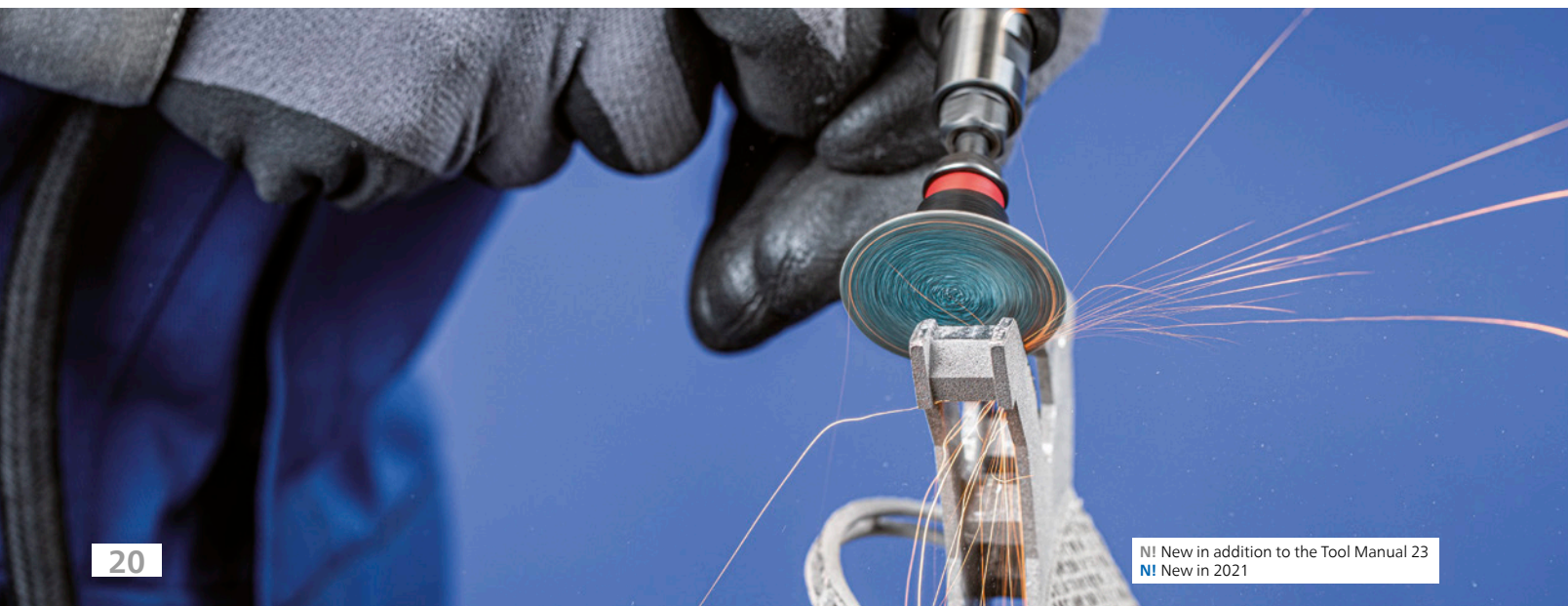
Active grinding additives in the coating substantially improve the stock removal rate, prevent loading and result in cooler grinding.

Abrasive:
VICTOGRAIN®-COOL

Recommendations for use:
- Use COMBIDISC® grinding products with arbors or abrasive disc holders on flexible shaft drives with angle handpieces, compressed-air or electric angle grinders.

PFERDVALUE®:
Vibration Filter · Noise Filter · Emission Filter · Haptic Filter · Time Saving

	D_1 [mm]	Grit and EDP number 36	Opt. RPM	
CD system				
	2	N! 42433	3,800–13,000	100
	3	N! 42434	2,500–9,000	50
CDR system				
	2	N! 42441	3,800–13,000	100
	3	N! 42442	2,500–9,000	50



N! New in addition to the Tool Manual 23
N! New in 2021

RS type

RS type COMBIDISC® abrasive discs are outstandingly well suited for weld dressing of backwards repair welds, e.g. in cases, slots and grooves on engines and for processing welded-on combustor plates. Unlike on conventional abrasive discs, the abrasive coating is on the underside of the product, which allows backwards working.

Advantages:

- Ideal for use in extremely difficult to reach locations.
- Convenient and safe backward working.

Recommendations for use:

- Move the product to the location to be worked. To grind, do not push it onto the surface, pull it towards yourself.
- To ensure optimum utilization of the grinding surface using the abrasive disc holder EDP 42454.
- Always use the RS abrasive discs at the specified optimum rotational speed and do not adhere to the maximum permitted rotational speeds of the holder EDP 42454.

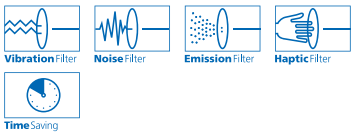
RS aluminium oxide A-PLUS

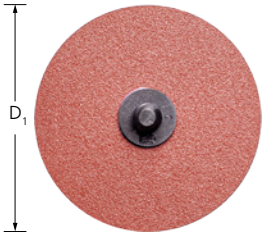
For universal applications from coarse to fine grinding, with a high stock removal rate and long service life.

Abrasive:
Aluminium oxide A-PLUS

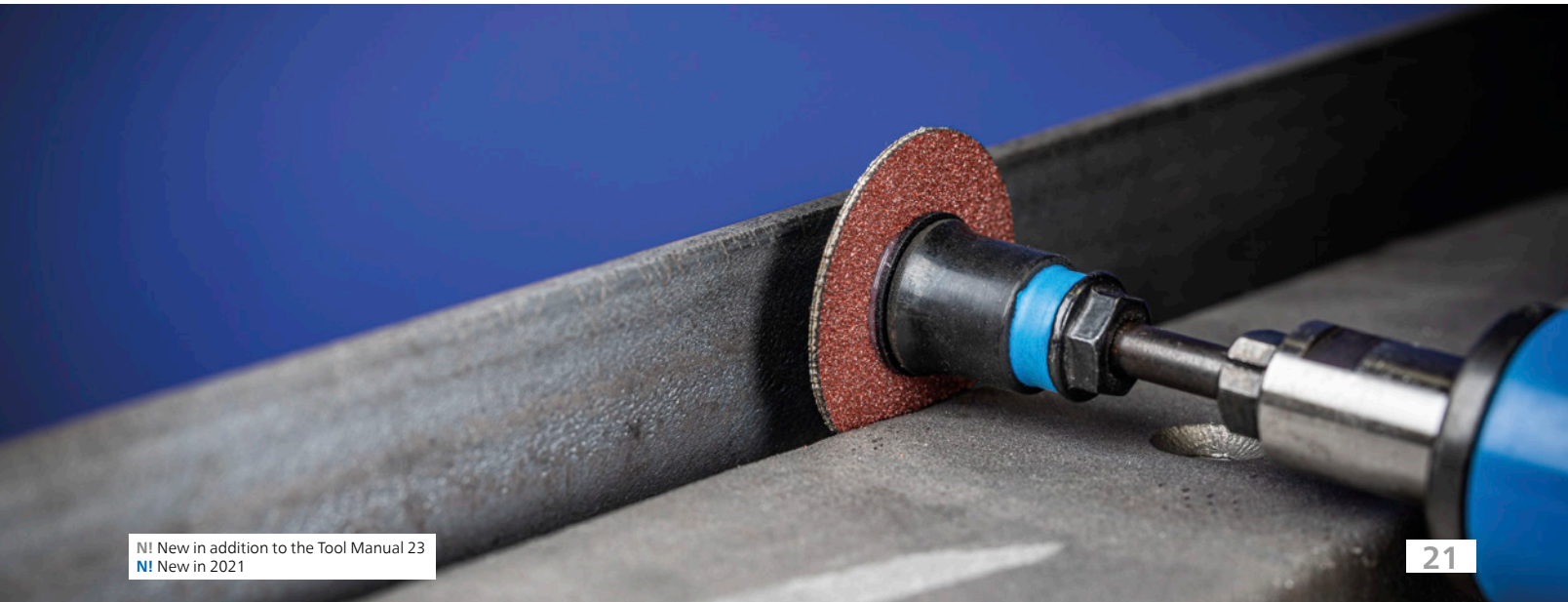
Ordering notes:
- Please order backing pad separately. See Tool Manual 23, catalog section 4, on page 37.

PFERDVALUE®:

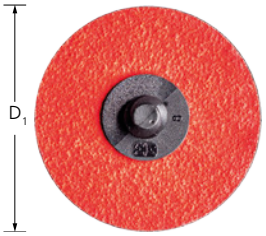




D_1 [Inches]	Grit and EDP number			Opt. RPM	
	60 PLUS	80 PLUS	120 PLUS		
CDR system					
1-1/2	**N!** 40600	**N!** 40601	**N!** 40602	10,000–16,000	100
2	**N!** 40603	**N!** 40604	**N!** 40605	8,000–13,000	100
3	**N!** 40606	**N!** 40607	**N!** 40608	5,000–9,000	50



N! New in addition to the Tool Manual 23
N! New in 2021



Midget fibre discs RS ceramic oxide grain CO-COOL

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.

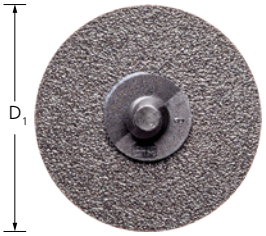
Active grinding additives in the coating substantially improve the stock removal rate, prevent clogging and result in cooler grinding.

Abrasive:
Ceramic oxide grain CO-COOL

Ordering notes:
- Please order backing pad separately. See Tool Manual 23, catalog section 4, on page 37.

PFERDVALUE®:
Vibration Filter · Noise Filter · Emission Filter · Haptic Filter · Time Saving

D_1 [Inches]	Grit and EDP number 50	80	120	Opt. RPM	
CDR system					
1-1/2	**N!** 40570	**N!** 40571	**N!** 40572	10,000–16,000	100
2	**N!** 40573	**N!** 40574	**N!** 40575	3,800–13,000	100
3	**N!** 40576	**N!** 40577	**N!** 40578	2,500–9,000	50



RS silicon carbide SiC

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 order backing pad separately. See Tool Manual 23, catalog section 4, on page 37.

PFERDVALUE®:
Vibration Filter · Noise Filter · Emission Filter · Haptic Filter · Time Saving

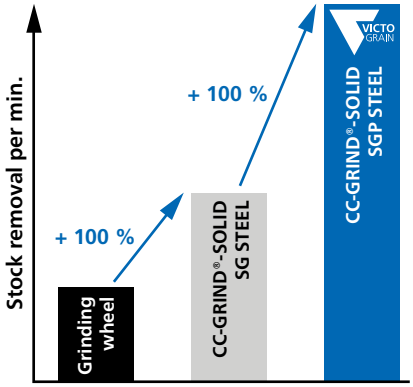
D_1 [Inches]	Grit and EDP number 60	80	120	Opt. RPM	
CDR system					
1-1/2	**N!** 40585	**N!** 40586	**N!** 40587	10,000–16,000	100
2	**N!** 40588	**N!** 40589	**N!** 40590	3,800–13,000	100
3	**N!** 40591	**N!** 40592	**N!** 40593	2,500–9,000	50

N! New in addition to the Tool Manual 23
N! New in 2021

CC-GRIND®-SOLID

The **VICTO**GRAIN® CC-GRIND®-SOLID is an innovative, state-of-the-art grinding disc.

Advantages:
- Providing the ultimate in aggressive performance for super-fast working.
- Although the **VICTO**GRAIN® products only come with a single coating of abrasive grit, they offer an outstanding service life which exceeds that of conventional grinding wheels and many flap discs
- Significantly more ergonomic than a conventional grinding wheel: noise and vibrations are reduced by 50 %, dust by 80 %.
- The layered structure of the fibreglass backing pad guarantees that it is just as durable and safe to use as a conventional grinding wheel.
- Clearly superior surface compared to conventional grinding wheels.



CC-GRIND®-SOLID SGP STEEL ★★★★

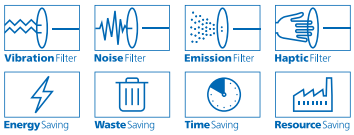
Workpiece materials:
steel

Applications:
surface grinding, weld dressing, chamfering, deburring

Recommendations for use:
- For optimum results, use with a flat contact angle and the SFS CC-GRIND® clamping flange set.
- Only use the face of the disc, not suitable for peripheral grinding (on edge).

Ordering notes:
- Please order clamping flange set SFS separately.

PFERDVALUE®:



D [Inches]	H [Inches]	EDP number	Compatible mounting flange set	Max. RPM	
SOLID – plain arbor hole					
4-1/2	7/8	N! 61167	EDP 69116 (5/8-11)	13,300	10
5	7/8	N! 61168	EDP 69116 (5/8-11)	12,200	10
6	7/8	N! 61169	EDP 69117 (5/8-11)	10,200	10
7	7/8	N! 61170	EDP 69117 (5/8-11)	8,500	10
SOLID – threaded arbor hole					
4-1/2	5/8-11	N! 61171	-	13,300	10
5	5/8-11	N! 61172	-	12,200	10
6	5/8-11	N! 61173	-	10,200	10
7	5/8-11	N! 61174	-	8,500	10

N! New in addition to the Tool Manual 23
N! New in 2021

New in the PFERD product range

CC-GRIND® grinding discs – Special Line SGP ★★★★

CC-GRIND®-SOLID SGP INOX ★★★★

Workpiece materials:
stainless steel (INOX)

Applications:
weld dressing, chamfering, deburring

Recommendations for use:
- For optimum results, use with a flat contact angle and the SFS CC-GRIND® clamping flange set.
- Only use the face of the disc, not suitable for peripheral grinding (on edge).

Ordering notes:
- Please order clamping flange set SFS separately.

PFERDVALUE®:

Vibration Filter · Noise Filter · Emission Filter · Haptic Filter
Energy Saving · Waste Saving · Time Saving · Resource Saving

D [Inches]	H [Inches]	EDP number	Compatible mounting flange set	Max. RPM	
SOLID – plain arbor hole					
4-1/2	7/8	N! 61240	EDP 69116 (5/8-11)	13,300	10
5	7/8	N! 61241	EDP 69116 (5/8-11)	12,200	10
7	7/8	N! 61242	EDP 69117 (5/8-11)	8,500	10
SOLID – threaded arbor hole					
4-1/2	5/8-11	N! 61243	-	13,300	10
5	5/8-11	N! 61244	-	12,200	10
7	5/8-11	N! 61245	-	8,500	10

The whole CC-GRIND® grinding discs product range can be found in the brochure "The CC-GRIND® system – SOLID, FLEX and STRONG – The pro for stock removal" on www.pferd.com.

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