

# ALUMASTER High Speed Disc

Mill a different way



**TRUST BLUE**

- Maximum safety as no hazardous or explosive dust is generated
  - Fast results due to the extremely high stock removal performance
  - Innovative and robust High Speed Disc
-



# ALUMASTER High Speed Disc

## Mill a different way

The innovative **ALUMASTER** 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)

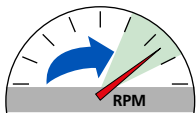
### Industries:

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

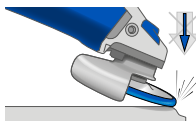


### Recommendations for use:

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 **ALUMASTER** 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 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 **ALUMASTER** 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 **ALUMASTER** High Speed Discs as an innovative product solution for processing aluminium as they do not generate hazardous or explosive dust.








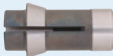


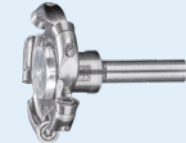
**PFERDEFFICIENCY** recommends **ALUMASTER** High Speed Discs for long fatigue-free and resource-saving work with perfect results in a very short period of time.



# ALUMASTER High Speed Disc

Mill a different way

## Quick product selection guide

Description	Applications	Matching power tools	Product	Page
 <p>The <b>HSD-R 4-1/2"/5"</b> type is also suitable for applications such as peripheral milling and milling out root welds.</p>	<ul style="list-style-type: none"> <li>■ Milling out</li> <li>■ Work on weld seams</li> <li>■ Work on fillet welds</li> <li>■ Work on edges/ chamfering</li> <li>■ Surface work</li> <li>■ Milling out root welds</li> <li>■ Peripheral milling</li> </ul>	<p><b>Pneumatic angle grinder and electric angle grinder</b></p>	<p><b>ALUMASTER High Speed Disc HSD-R 4-1/2"/5"</b></p> 	5
 <p>Due to its small size, the <b>HSD-R 2"</b> type is highly suitable for working on hard-to-reach areas and delicate components. Due to the specially developed arbor, the <b>ALUMASTER High Speed Disc HSD-R 2"</b> cannot only be used on angle grinders (mounting dia. 3/8"), but also on straight grinders and flexible shaft drives.</p>	<ul style="list-style-type: none"> <li>■ Milling out</li> <li>■ Work on weld seams</li> <li>■ Work on fillet welds</li> <li>■ Work on edges/ chamfering</li> <li>■ Surface work</li> <li>■ Milling out root welds</li> <li>■ Peripheral milling</li> </ul>	<p><b>Flexible shaft drive Mammoth Electronic MEW 18/240 240V</b></p> <p><b>Ordering data:</b> EDP 92013</p>  <p><b>Straight handpiece HA 12 ZGA G28</b></p> <p><b>Ordering data:</b> EDP 94330</p>  <p><b>Collet Group 12</b> For shank diameter 3/8"</p> <p><b>Ordering data:</b> EDP 93215</p>  <p><b>Pneumatic straight grinder and pneumatic angle grinder</b></p>	<p><b>ALUMASTER High Speed Disc HSD-R 2"</b></p>  <p>Arbor</p>  <p><b>ALUMASTER HSD-R 2"</b> in combination with arbor</p> 	6

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



# ALUMASTER High Speed Disc

## Mill a different way

### 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.

### Selecting suitable cutting inserts:

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

- Select the material group to be machined.
- Select the cutting inserts.

### 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.)

1 Material group		2 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, catalogue 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"/15").



= Wear eye protection!



= Wear gloves!



= Wear hearing protection!



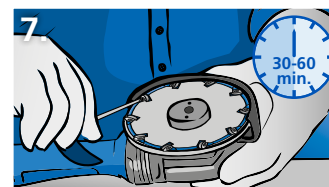
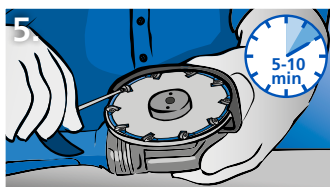
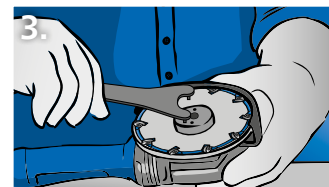
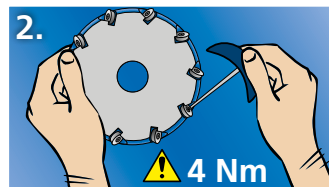
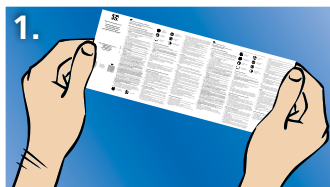
= Follow the safety instructions!



**Tighten the bolts!**



= CE-marked





# ALUMASTER High Speed Disc

## Mill a different way

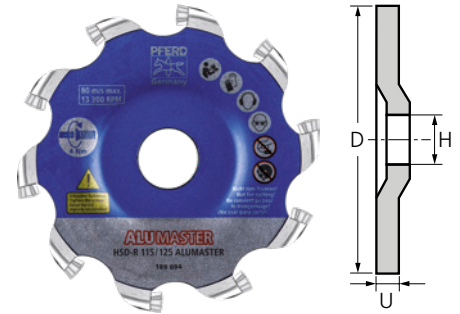
### ALUMASTER High Speed Disc HSD-R


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

**Contents:**

- ALUMASTER 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	20100	13,300	1

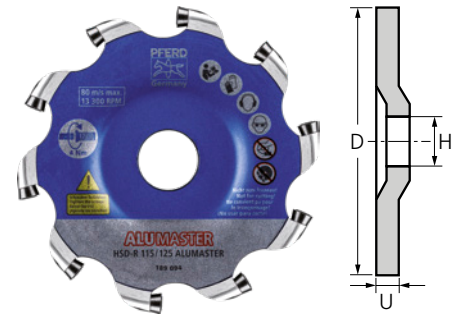
### ALUMASTER High Speed Disc HSD-R HICOAT


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:**

- ALUMASTER 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	20110	13,300	1



# ALUMASTER High Speed Disc

Mill a different way

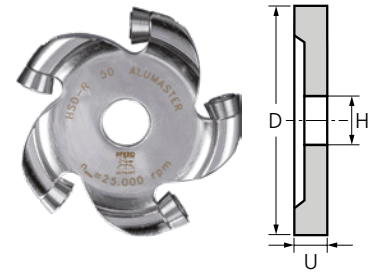
## ALUMASTER High Speed Disc HSD-R 2"


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:**

- ALUMASTER High Speed Disc HSD-R 2" incl. mounted tungsten carbide cutting inserts
- Torx key, plastic box

**PFERDVALUE:**



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

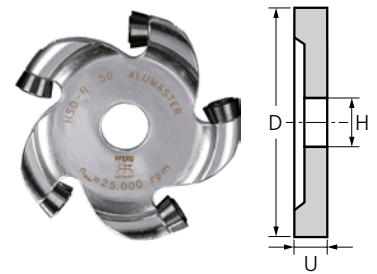
## ALUMASTER High Speed Disc HSD-R 2" HICOAT


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:**

- ALUMASTER High Speed Disc HSD-R 2" HICOAT incl. mounted tungsten carbide cutting inserts
- Torx key, plastic box

**PFERDVALUE:**

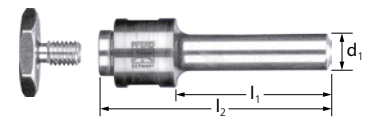



D [Inches]	U [Inches]	H [Inches]	EDP number	Max. RPM	
2	3/8	5/16	20126	25,000	1

## Arbor

### Arbor for ALUMASTER High Speed Disc HSD-R 2"

Suitable for use on flexible shaft drives and straight grinders.



d <sub>1</sub> [Inches]	l <sub>1</sub> [Inches]	l <sub>2</sub> [Inches]	Suitable for	EDP number	
3/8	1-5/16	2	HSD-R 2"	20123	1



# ALUMASTER High Speed Disc

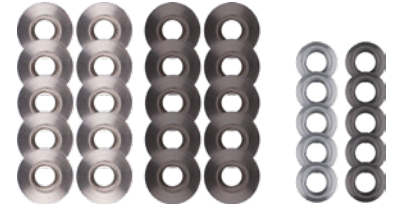
Mill a different way

## Cutting insert sets, HICOAT cutting insert sets

Cutting insert sets for **ALUMASTER** 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	ALUMASTER HSD-R 2"	uncoated	20121	1
			HICOAT	20127	1
	10	ALUMASTER HSD-R 4-1/2"/5"	uncoated	20101	1
			HICOAT	20111	1

## Screw set for cutting inserts

Screw set for PFERD cutting inserts.



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

## ALUMASTER service set, ALUMASTER HICOAT service set

For exchanging individual cutting inserts on the **ALUMASTER** 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	20122	1
	HICOAT	20128	1
ALUMASTER HSD-R 4-1/2"/5"	uncoated	20102	1
	HICOAT	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 **ALUMASTER** High Speed Disc.



Suitable for	EDP number	
<b>Torque spanner</b>		
ALUMASTER	20135	1
<b>Spare blade</b>		
Torque spanner	20136	1





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



[www.pferd.com](http://www.pferd.com)

PFERD CANADA INC.  
5570 McAdam Road • Mississauga, ONT L4Z 1P1  
Phone: (905) 501-1555 • Toll-Free: (866) 245-1555  
Fax: (905) 501-1554  
e-mail: sales@pferdcanada.ca

