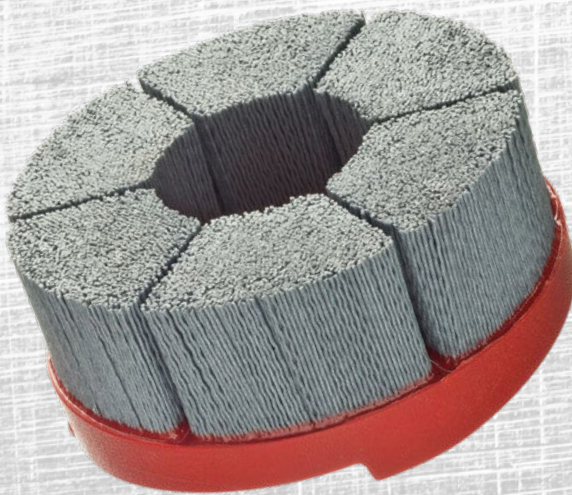


LESSMANN[®]
THE GERMAN BRUSH COMPANY

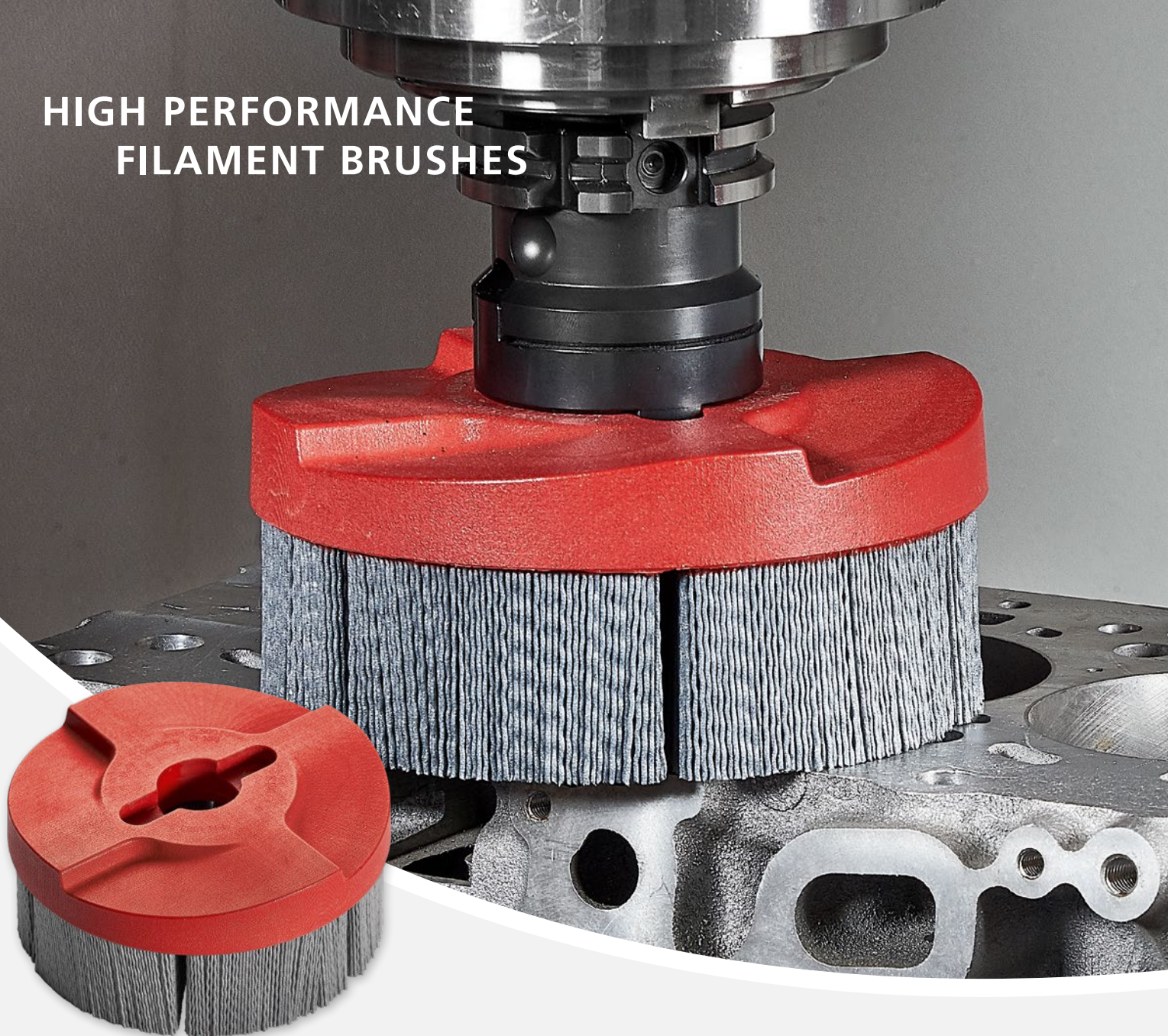


HFB

**HIGH PERFORMANCE
FILAMENT BRUSHES**

 **QUALITY MADE IN GERMANY**

HIGH PERFORMANCE FILAMENT BRUSHES



HFB DISC BRUSHES

LESSMANN high performance surface finishing tools achieve excellent deburrings and edge radiusing on exterior and interior areas of work pieces. Next to the applications in machining centers, especially in linear deburring and finishing lines with planetary brush systems HFB brushes obtain high efficiency.

HFB DISC BRUSHES ARE USED FOR E.G. FOR THE DEBURRING OF:

- blanked parts
- sintered parts
- hydraulic and pneumatic work pieces
- aluminium work pieces
- and many more

Also work pieces which are exposed to high pressures demand precise edge radiuses. LESSMANN HFB brushes are ideal tools which achieve these requirements outstandingly.

FILLING MATERIAL

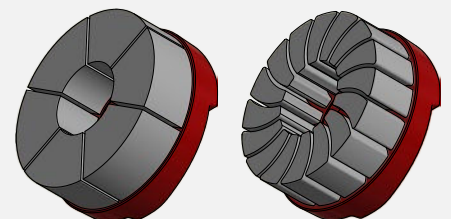
In a special production process LESSMANN HFB brushes are manufactured with a very high filling density. Available are high abrasive nylons with silicon carbide, ceramic or diamond grit. Standard in LESSMANN HFB Brushes high quality filling material is used (PA 6.12). It is very bending resistant and abrasion-resistant.

Due to the application orientated selection of the filling materials an excellent deburring and constant edge radiusing in a short working time is achieved.

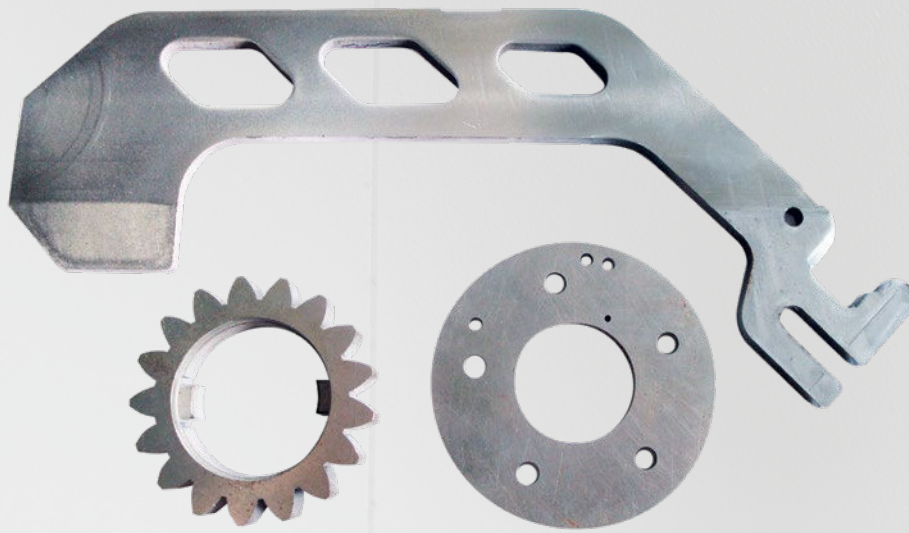
Depending on the HFB application the brushes can be used under dry condition or with addition of coolants.

ARRANGEMENT FILLING MATERIAL

Depending on the requirements, the brushes can be manufactured with individual filling fields. For example, full filament is possible, but also the division of the abrasive bristles into defined fields or deviation of the bristles. Depending on the direction of rotation, more effective processing is possible, for example due to the optimum removal of cooling water.



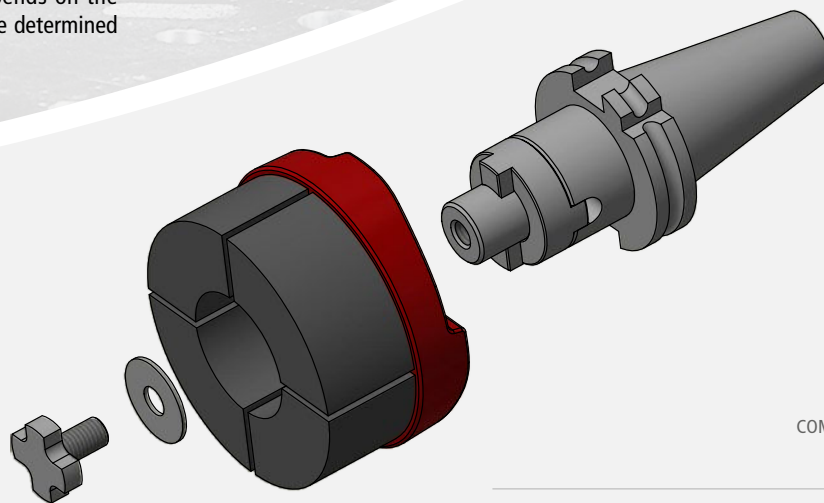
EXAMPLES ARRANGEMENT FILLING MATERIAL



TYPICAL WORK PIECES WHICH ARE TREATED WITH LESSMANN HFB BRUSHES.

USER TIPS

- When using the brush, make sure that all edges and surfaces to be machined are reached. In order to ensure uniform processing, it is important that the brush is not removed from the workpiece prematurely, especially during start-up and run-out.
- The optimum speed is usually clearly below the maximum speed. Please note our information on the brush body.
- The feed rate of the brush depends on the desired brush result and must be determined individually.



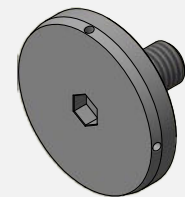
COMMON COMBI ARBOR HOLDER FOR HFB BRUSHES.

REVISED CLAMPING SYSTEM

LESSMANN manufactures brush types for all common brands of machines and drilling patterns according to customer specifications. Our basic versions, suitable for the common machines with cutter head holder (DIN 6357) or combi-milling arbor holder (DIN 6358), as well as special models are available short-term. LESSMANN HFB brushes are also suitable for accessories for working under wet conditions, e.g. clamping screws with coolant holes. On request we can deliver the brushes with bore according to your special requirements.

REVISED DESIGN

LESSMANN HFB brushes are constantly being further developed to meet the latest technical requirements. The latest adaptation is the revised design of the brush plate, which has been given a curved shape. Thus the brush can be used more flexible and the brush body is even more stable. The resulting dynamic rotation gives the brush optimum conditions for precise work. In addition, less chips and oil are trapped in the brush during machining, which leads to less abrasive wear.



CLAMPING SCREW WITH COOLANT HOLES

CONTACT US FOR FURTHER INFORMATION AND A NONBINDING CONSULTATION!



1



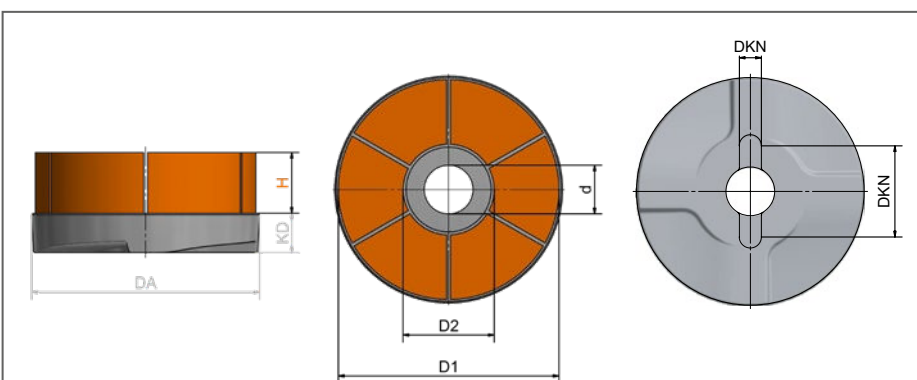
2

1 HFB Disc Brushes, full body, SIC

Body Ø DA	Body Thickness KD	Filling Length H	Bore d	Open Space D2 D1		RPM max.	Pack.	SIC K 80 Art.-Nr.	SIC K 120 Art.-Nr.	SIC K 180 Art.-Nr.
mm inch	mm inch	mm inch		mm inch	mm inch					
50 2	18 5/8	35 1 ^{3/8}	16 DKN	25 1	45 2	3,600	1	601.204.20	601.304.20	601.404.20
75 3	20 3/4	35 1 ^{3/8}	22 DKN	34 1 ^{1/4}	70 2 ^{3/4}	3,600	1	602.214.20	602.314.20	602.414.20
100 4	20 3/4	35 1 ^{3/8}	22 DKN	45 2	95 3 ^{1/2}	3,600	1	603.214.20	603.314.20	603.414.20
125 5	22 7/8	40 1 ^{5/8}	27 DKN	55 2 ^{1/4}	120 4 ^{3/4}	3,000	1	604.225.20	604.325.20	604.425.20
150 6	25 1	40 1 ^{5/8}	32 DKN	60 2 ^{3/8}	145 5 ^{7/100}	2,500	1	605.265.20	605.365.20	605.465.20

2 HFB Disc Brushes, full body, KK

Body Ø DA	Body Thickness KD	Filling Length H	Bore d	Open Space D2 D1		RPM max.	Pack.	KK K 80 Art.-Nr.	KK K 120 Art.-Nr.
mm inch	mm inch	mm inch		mm inch	mm inch				
50 2	18 5/8	35 1 ^{3/8}	16 DKN	25 1	45 2	3,600	1	601.204.30	601.304.30
75 3	20 3/4	35 1 ^{3/8}	22 DKN	34 1 ^{1/4}	70 2 ^{3/4}	3,600	1	602.214.30	602.314.30
100 4	20 3/4	35 1 ^{3/8}	22 DKN	45 2	95 3 ^{1/2}	3,600	1	603.214.30	603.314.30
125 5	22 7/8	40 1 ^{5/8}	27 DKN	55 2 ^{1/4}	120 4 ^{3/4}	3,000	1	604.225.30	604.325.30
150 6	25 1	40 1 ^{5/8}	32 DKN	60 2 ^{3/8}	145 5 ^{7/100}	2,500	1	605.265.30	605.365.30



SIC = silicon carbide bristles
KK = abrasive nylon

Enquiry for High Performance Filament Brushes

INDUSTRIAL BRUSHES

Drawing / description of application

Grid area for drawing or description of application.

Piece number _____

Brush Application dry wet

- deburring
- others _____

Material to be treated _____ °C Temperature

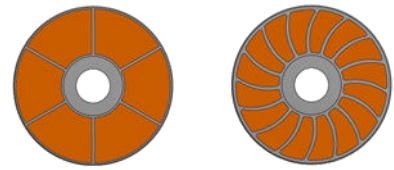
- steel
- aluminium
- stainless steel
- others _____

Filling material

- abrasive filament (SIC)
- abrasive filament (AO)
- abrasive nylon (KK)
- diamond grit (DIA)

Diameter of filling material _____

filling placement

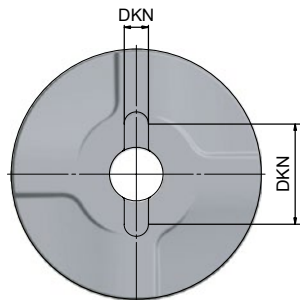
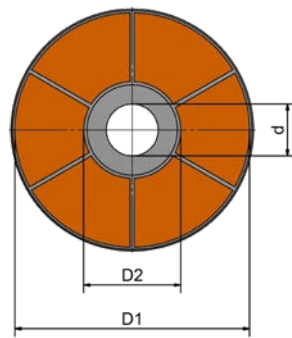
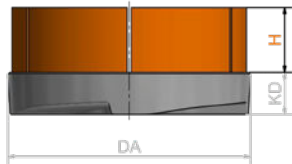


- full-body
- turbo

turbo right / left (standard right) _____

Please indicate the dimensions according to the technical drawing (mm):

- DA body diameter _____ mm
- D1 Dia filament outside _____ mm
- D2 Dia filament inside _____ mm
- H Filling height _____ mm
- Deviation of the bristles _____ °



sender: company, contact person

Area for sender information.

- Standard bore
(adapted to body diameter, see previous page)
- Special bore _____

Inquiries and Infos:

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Fax: +49 9082 707-76

info@lessmann.com
www.lessmann.com



LESSMANN®

THE GERMAN BRUSH COMPANY



MORE THAN 10.000 SOLUTIONS...


Due to our own engineering, tool and equipment design and our modern, also flexible, production facilities, we are able to produce special brushes in small and large batches.



CERTIFIED ACCORDING TO
DIN EN ISO 9001:2015

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