

75

YEARS

LESSMANN

THE GERMAN BRUSH COMPANY

2023

en

CATALOGUE



QUALITY MADE IN GERMANY

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Dear customers,

2022 was a particularly challenging year for all of us. Never before have we had to deal with so many different hurdles at the same time, and rarely have forecasts been so difficult. We often felt overwhelmed by the changes and quick solutions were required, but not at hand.

The Lessmann company values are **quality, fairness, reliability, sustainability and independence**. These values have been our guide in uncertain times and led us successfully through previous difficulties. We continue to uphold them, and they will guide our actions in the future. For the benefit of our employees, customers, suppliers and society.

In 2023 we proudly look back on the **75 years** in which we have always been guided by these beliefs. In 1948 Johann Lessmann and his children Edgar and Traudel founded a small brush factory in Oettingen. Today as a third-generation family run business, we are facing new customer demands and market stature. As a result Lessmann is looking to the future by adding new products and extending current ranges. This year we have added cup, bevel and wheel brushes with the Bosch X-LOCK mounting system on pages 66 and 67 to our extensive catalog range. On page 19 you will find our **joint cleaning brushes with STM filament** now also available with 20-millimeter bore. Our **knotted shank brushes with 0.15 mm steel wire** have also been added to the standard range in diameters of 19 and 29 millimeters on page 85.

Enjoy reading the catalogue,



J. Lessmann
Jürgen Lessmann



D. Lessmann
Dieter Lessmann

75
YEARS



1955



1981

LESSMANN
DRAHTBÜRSTEN

1993

LESSMANN®
THE GERMAN BRUSH COMPANY

2017

1948

1974

1990

2009

2023

J. Lessmann & Sohn
DRAHTBÜRSTENFABRIK - OETTINGEN - BAYERN
US-ZONE - ALLEMAGNE



LESSMANN

LESSMANN
DRAHTBÜRSTEN - WIRE BRUSHES





Five Good reasons to choose Lessmann



QUALITY
FAIRNESS
RELIABILITY
SUSTAINABILITY
INDEPENDENCE



We focus on products of the highest quality and place great emphasis on our service and consulting to make it easier for you to work.



We see our customers and suppliers as true partners. This fairness is the great strength of our family-run company.



You can rely on us for consistent quality and adherence to delivery dates. For us, reliability also means producing both mass-produced items and custom-made products at competitive prices.



Sustainable entrepreneurial action with responsibility for society, the environment and future generations is an important principle for us.



We strive for independence on the procurement and sales side. Together with the distribution of know-how across all levels, this gives you the security of having a strong partner with us long term.

In addition to our focus on these values, another factor is absolutely essential to our success:

One of the most important strengths are our **250 qualified and motivated employees**, who are willing to get into new challenges, react flexible and to bring in their knowledge and competence. That's how we work together to have a mutual success.

We would like to take this opportunity to express our sincere thanks to all our employees who have accompanied and supported us, laughed with us and argued with us during the 75 years of our company's existence. You are all the basis of our company.

Thank you!



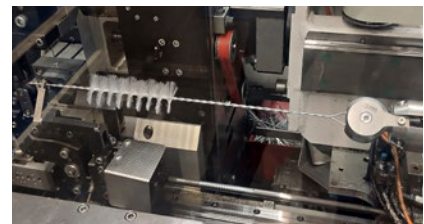
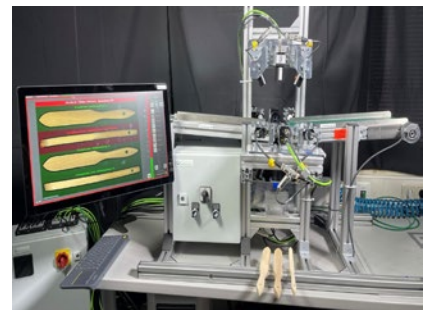
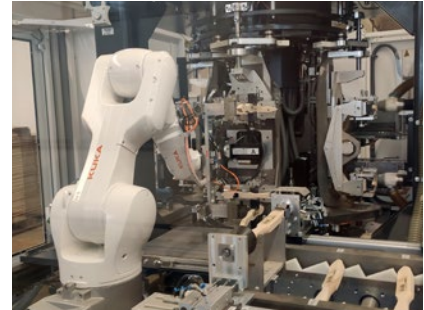
YEARS



Future-oriented investment

After the enlargement of our production hall by 4,200 sqm in 2014 and of our high rack storage area by 1,300 sqm in 2016, we have completed construction of the new administration building in 2021, providing our employees with modern offices equipped to a high technical standard – with more space, more light and a better indoor climate. In addition, we constantly modernized and enhanced our production lines with new machines.

These steps are a visible sign of our stable growth. Besides the new building shows our intention to assure our position as leading technological and qualitative company and to strengthen it by opening new markets! Furthermore we have more space and capacities for producing more industrial special solutions – of course in our usual best quality and accuracy!





Made in Germany

Quality made in Germany. For LESSMANN that does not only mean, that all our products are manufactured in Bavaria, but also the huge part of all raw materials as filament, wood, metal or plastics are purchased from renowned suppliers in Germany.

We manufacture almost all products in a broad standard program on our own. That's why already the quality of the raw materials has a significant role. Intensive test of the materials and inspections during production, build up two important values of the reliable LESSMANN-quality.

The headquarters in Germany requesting us to be the pioneer when using modern technology and automation. Thus our customers can receive the best quality at competitive prices.



As an Authorised Economic Operator (AEO) with the combined authorization „customs simplification (AEOC) & security and safety (AEOS)“ we can offer you much faster and easier customs clearance for export.

Fit for the Globe

First-class quality products, expertise and a high flexibility – our innovative technical brushes are "Fit for the Globe".

Depending on the country we work with our own employees, regional importers or authorised retailers. Our export department has the accurate know-how, to consult and satisfy the demand of our customers globally.

In 2016 we launched a foreign branch in the USA. The „Lessmann Inc.“ guarantees optimal service and logistics and our approved first-class products on the American market.



Perfect Presentation

The brand LESSMANN signifies quality and gives clearly structured information.

Please have a look at our home page in the internet!

On www.lessmann.com you will find our latest catalogue as well as leaflets to download.

Further technical advice as well as operating instructions are available.

Self-service Tool Bar Displays

Take advantage of our experience and use this idea that will lead to successful and increased sales.



Systematic Sustainability

Ecological responsibility means operational environmental protection as well as a contribution to climate protection for Lessmann. Therefore, our goal was to have the company certified according to ISO 14001:2015 (environmental management) to clearly define and track reduction targets for emissions and raw material consumption. Lessmann has been certified according to this standard since May 2022 and thus records consumption to make future reduction targets measurable.

Since 2003, we have been using several photovoltaic systems to generate electricity on all our company's roof surfaces. Through constant extensions, we have now reached a total output of 588 kWp. With an annual consumption of approx. 1,200 kWh, we now generate almost 50 % of our electricity ourselves. We are even better with the heating: This is fueled to 100 % from leftovers of the production of our wooden handles.

PEFC Certification System

PEFC is a transparent and independent certification system to ensure sustainable forest management. An inspection is carried out by independent experts and ensures compliance with the standards.

Lessmann uses PEFC certified wood that comes from a regional forest and is managed sustainable or complies with PEFC standards, e.g. in hand brushes.



Individual Solutions for special applications

Often technical brushes for very special applications are requested. Devarnishing surfaces or rounding burrs. Each application is different and a standard tool could not be used in each case.

Every day we develop new brushes for industrial demands. In the majority of the cases, the aim of the operator is to increase productivity. Our experienced consultants will help you to make the right choice and to find the appropriate design of the brushes for your individual needs.



"Simply the Best" by testing



Quality is our feature!

Accredited with
DIN EN ISO 9001:2015



Our own production of nearly all components of our standard programme and our own development of special articles enables us to have an excellent knowledge in both manufacturing quality and safety testing.

Creating Innovation, Exceeding Safety Standards, Keeping Top Quality

With this motivation we make complex development and product tests as an essential part of our work.

Material Tests

These are the first steps of our quality management: All deliveries of raw material are tested according to and above specification details. All wires are tested for their tensile strength and for their reverse bending strength by a fatigue measuring process. Beside the quality of the material it is important that its attributes are as suitable as possible for their intended use.

Imbalance Test

An imbalance of machine driven brushes is not pleasant and is dangerous for the health of persons working at the machine. Although it is not necessary under the DIN or the EN Norms, we produce our brushes according to our own standards for minimum imbalance. By doing so our customers take advantage of smooth running fatigue reducing brushes. Our employees in production ensure that these high quality aspects are maintained.

Safety Tests

According to European safety norms all brushes have to with-stand 1.5 times of the mentioned maximum RPM. Naturally when developing a brush, we test every brush type for this safety aspect. Only if all tests are satisfactory, can the article be produced. During production many samples are taken of the brushes in order to check the required safety speed. Should a model or a raw material be changed we begin the tests again. For this very reason every customer can rely on a high quality and safe tool.

Lifetime and Power

For the measurement of the lifetime and power of technical brushes there are neither norms nor standard procedures. After long developing processes and many tests we have found testing methods that simulate testing in real working conditions. On self built machines we are able to test the abrasion and thus the lifetime and power of machine driven brushes.

Beside the quality aspect these tests are helpful in optimising materials used, as well as component parts and the construction of brushes. Even if in comparison tests with competitor brushes such testing has shown and proved the high quality of our products:

We keep on testing to guarantee customer satisfaction.



Recommendations for safe brush use

LESSMANN Quality is Safe

We guarantee the best quality and long life-time for our products.

Our brushes are manufactured according to the existing standard EN 1083-2 and ANSI 165.1. All the relevant machine driven brushes are checked for occupational safety using a centrifugal force test.

Safety Information

All machine driven brushes require as with other rotary tools, that the required safety precautions are kept:

Safety for Your Body

All operators and other personnel in areas where rotary brushes are being used must wear safety goggles or face shields and protective clothing.

For your own safety:

Wear personal protective equipment



Brush Check

The brushes should be checked for damage before using.

A correct mounting is imperative.

Peripheral Speed

The max. RPM indicated in the catalogue are safety figures by which the brushes can be used without danger. Please do not exceed these figures under any circumstances! In most cases a lower RPM is sufficient to gain an optimal result.

Correct Pressure

The schedule shows the necessary motor drive power for different brush diameters. The brushes need only a light pressure while brushing because only the wire points are effective (please look at the schedule). A higher pressure does not improve the brushing effect. In fact the brush lifetime is reduced and greater power is needed.

Working with Shank Brushes

When working with shank brushes please note that the shank has to be inserted fully into the tool.

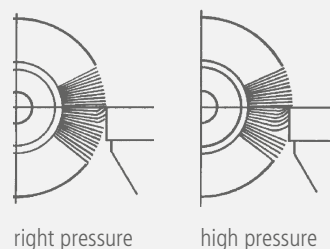
This is especially necessary when working with high RPM, for example on straight grinders and pneumatic tools.

Mechanical Application of interior brushes

Only use the brush with the indicated maximal peripheral speed (RPM max.). The max. RPM only is allowed when the brush is clamped min. for 10 mm into the tool. When the brush is inserted into the suitable work piece, higher RPMs are possible. **Only use the brush right rotating.**

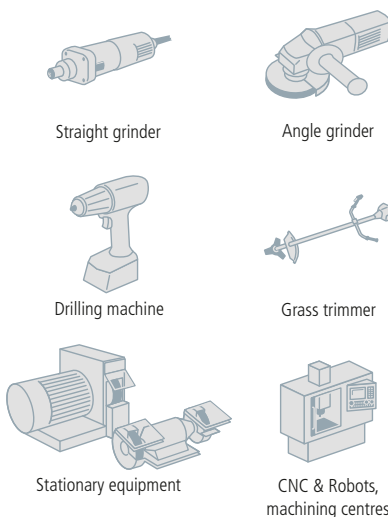


Correct pressure

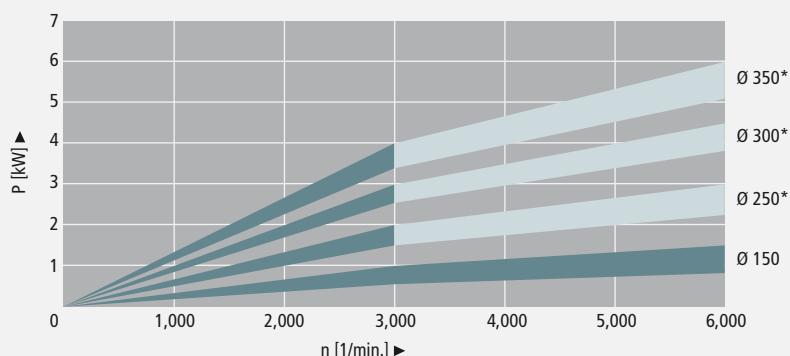


Machine usage:

These symbols in the chapters show on which machines the brushes usually are used.



Power requirements for Wheel Brushes



The performance figures mentioned above are only guidelines. *Power requirements for a brush width of 30 mm

minimum bore size for wheel brushes according to DIN EN 1083

Diameter of the brush in mm	Minimum diameter of bore in mm
50	4.6
75	6.5
100	10
150	13
200	16
250	20
300	20
350	32

Recommended use of brushes on angle grinders – the right combination

Common idle speed of angle grinders (WS)	Brush diameter	60	65	75	80	90	100	115	125	150	178	200
Ø 115 11,000 RPM = WS 1	Knot Wheel Brush						WS 1	WS 1	WS 2	WS 3	WS 4	WS 5
Ø 125 11,000 RPM = WS 2	Cup Brush, Crimped Wire	WS 2		WS 2	WS 3		WS 3		WS 5	WS 5		
Ø 150 9,000 RPM = WS 3	Knot Cup Brush without Bridle		WS 1	WS 2	WS 2	WS 2	WS 3/4		WS 5			
Ø 180 8,500 RPM = WS 4	Knot Cup Brush with Bridle				WS 3/4		WS 3/4		WS 5			
Ø 230 6,500 RPM = WS 5	Knot Bevel Brush						WS 1					
	Knot Bevel Brush						WS 1	WS 1				

Warning: Before each operation please compare the idle speed of the angle grinder with the max. peripheral speed of the brush!

Producing Quality – brushing the correct way

Optimise Brush Results

The brush diameter and filling length are most important for the perfect brushing result. It is therefore very easy to eliminate almost all bad brushing results:

Brushing effect too powerful:

- Reduce the peripheral speed by reducing the brush diameter or the operating speed.
- Use a brush with longer trim length.
- Use a brush with smaller wire diameter.

Brushing effect too weak:

- Increase the peripheral speed by increasing the brush diameter or the operating speed, but never exceed the maximum RPM rating.
- Use a brush with shorter trim length.
- Use a brush with larger wire diameter.

Brush transfers burr:

- Use a brush with shorter trim length.
- Examine brush and work piece position.
- Use a brush with wider face.
- Use a brush with thicker wire diameter.



Information for brushing on stainless steel materials you find at www.lessmann.com/downloads

Note: you are welcome to contact our technical contact persons.

Recommended Peripheral Speed for Brushing Application

Application	Peripheral Speed in m/s							
	15	20	25	30	35	40	45	50
With Filaments								
Removing Burrs			25–35					
Cleaning Welds					35–45			
Removing Scale					35–45			
Polishing				30–40				
Working on Plastic	15–20							
With Abrasive Filaments								
Dry conditions	16–18							
Wet conditions			25–30					

Conversion mm in Inches and I.S.W.G.

Brush diameter	
Millimeter	Inches
25	1"
50	2"
75	3"
100	4"
125	5"
150	6"
180	7"
200	8"
250	10"
300	12"
350	14"

Peripheral Speed v in m/sec. (please follow the max. rotary speed of the brush!)

n [1/min.] (RPM)	Brush diameter d in mm/inches							
	50 2"	80 3"	100 4"	125 5"	150 6"	200 8"	250 10"	300 12"
1,000		4.2	5.2	6.5	7.9	10.5	13.1	15.7
1,500	3.9	6.3	7.9	9.8	11.8	15.7	19.6	23.6
2,000	5.2	8.4	10.5	13.1	15.7	20.9	26.2	31.4
2,500	6.5	10.5	13.1	16.4	19.6	26.2	32.7	39.3
3,000	7.9	12.6	15.7	19.6	23.6	31.4	39.3	47.1
3,500	9.2	14.7	18.3	22.9	27.5	36.7	45.8	55.0
4,000	10.5	16.8	20.9	26.2	31.4	41.9	52.4	62.8
5,000	13.1	20.9	26.2	32.7	39.3	52.4	65.4	78.5
6,000	15.7	25.1	31.4	39.3	47.1	62.8	78.5	
8,000	20.9	33.5	41.9	52.4	62.8	83.8		
10,000	26.2	41.9	52.4	65.4	78.5			
12,500	32.7	52.4	65.4	81.8				
15,000	39.3	62.8	78.5					
20,000	52.4	83.8						
25,000	65.4							
Peripheral Speed v = $\frac{\text{Brush diameter (d)} \times \pi \times \text{Peripheral Speed (n)}}{1,000 \times 60}$								

Wire diameter		
Millimeter	Inches	I.S.W.G
0.08	0.0031	44
0.10	0.0039	42
0.12	0.0047	40
0.15	0.0059	38
0.20	0.0079	36
0.25	0.0098	33
0.30	0.0118	31
0.35	0.0138	29
0.40	0.0157	27
0.50	0.0197	25
0.80	0.0315	21

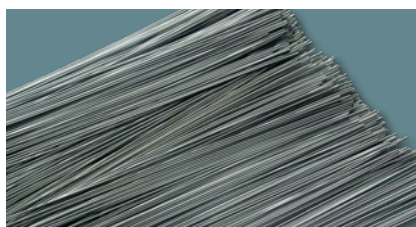
For working in wet condition we recommend PA 6.12 as base. Please state on your order! Since the upcoming heat on wet applications is conducted, the peripheral speed can be set much higher than on dry applications.

Brush filling materials and their characteristics



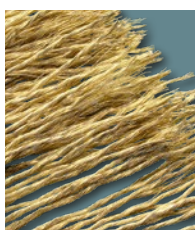
STA Steel Wire straight / crimped

is developed in co-operation with wire producers, so that it meets our special requirements. This wire is alloyed with manganese in order to increase its toughness. Result is higher tensile strength and longer lifetime of LESSMANN-Brushes.



STH Steel Wire High Tensile straight / crimped

is most often used in Knotted Brushes, Deburring Brushes and Pipeline Brushes. Furthermore we offer this high tensile wire in our complete assortment. Above all it features through its tensile strength and high fatigue rates, what results in lifetime even for extreme brushing applications.



STM Brass Coated Steel Wire

For long lifetime plus high tensile strength and cutting performance. Best results in brushing and deburring applications.

STL Cord Wire

Brass coated steel wire corded. Longest lifetime for heavy duty brush applications e. g. deburring.



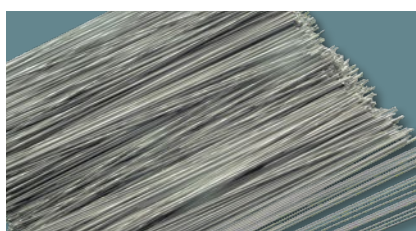
ROF / RO4 / ROL / R08 Stainless Steel Wire

ROF must be used when working on stainless steel. Material number (WNr.) **1.4301 (AISI 304)**. This wire is resistant against corrosion and certain acids and bleaches.

RO4 Premium-quality stainless steel wire. WNr. **1.4401 (AISI 316)**

R08 High heat resistant stainless steel wire. WNr. **1.4860**.

ROL Stainless Steel Wire with cord construction WNr. **1.4301/1.4310**



ROH Stainless Steel Wire High Tensile

This wire is characterized by a high tensile strength (2100–2500 N/mm) and a long lifetime even in extreme applications. WNr. **1.4310 (AISI 301)**

Further information on brushing on stainless steel materials you find at www.lessmann.com



MES Brass Wire (CuZn)

is softer than steel wire. Among other applications brass wire is suitable for working with mild bleaches. It's mainly used for processing of nonferrous metals.



Straight / Crimped / Knotted:

Metal wires for brushes can be processed in brushes straight, crimped or knotted. Wire knots are always made with straight wires. Compared to a straight wire with the same diameter the wire knots are much stronger than the single wire. Crimped wires brace each other and therefore achieve a better stability in the brushes.

Brush filling materials and the characteristics



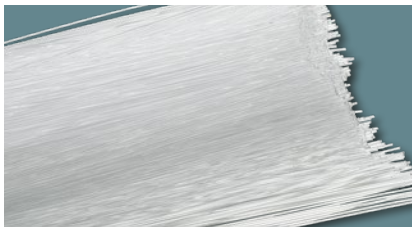
BRO Bronze Wire (CuSn)

is used for surface processing of wood and metal. It's also used when low-sparking brushes are needed.



NSI Nickel Silver (CuNiZn)

is used for polishing work pieces e.g. parts of nickel silver or brass, as it is softer than steel wire.



PP, PA, PE, PBT Synthetic Filaments

are resistant to abrasion and flexible. Despite minor resistance against heat these filaments are perfect for cleaning, grinding or surface processing of metal, plastic or wood.

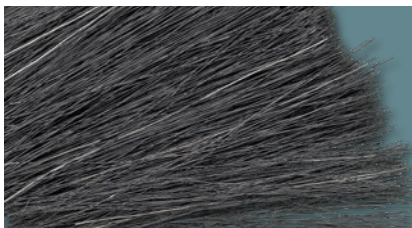
Available are:

- Polypropylen (PP, white by default)
- Polyamid (PA, transparent by default) – PA 6, PA 6.6, PA 6.12
- Polyethylen (PE)
- Polyester (PBT); only for cleaning



FIB Fibre

consists of heat resistant plant fibre, is slightly abrasive and therefore can be used for smooth grinding, above all for working on wooden surfaces. Moreover fibre is used for general cleaning and polishing work.



ROS Horse Hair

is an animal hair, which above all is deployed in terms of light cleaning and dusting work. Horse hair is resistant against diluted acids and bleaches. It's not chargeable for static electricity.



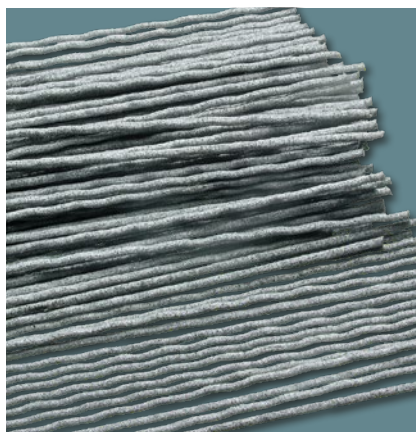
Encapsulated Brushes

Encapsulated brushes are ideal for an aggressive work on working pieces and for a very exact working in edges and angles.

By embedding steel wire, stainless steel wire, brass coated wire or brass wire in tough plastic, the filling width always remains the same and early break of the wires can be prevented. It's the perfect tool for long lasting and safe working. The advantages when working with encapsulated brushes are longer lifetime and harder brush effect.

Furthermore the risk of injury declines when using encapsulated brushes.

However, it might be possible that the brush will leave marks on the work piece.



Abrasive Filaments

consist of polyamide bristles containing abrasive grits. This modern material is ideal for deburring work, fine surface finishing of plastic and metal parts as well as grinding, cleaning, polishing, and structuring of surfaces. With their flexible surface, brushes with abrasive filament align to the different shape of working pieces. Abrasive bristles also have grinding effects on the side, which makes them even more flexible to application possibilities. You can choose between grit (from K60 to K1000) composed of aluminium oxide (AO) and silicon carbide (SIC). Also diamond filament is available.

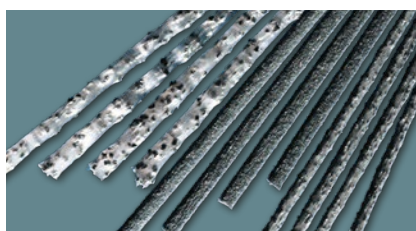
Normally 2 polyamide-types are used:

Polyamide PA 6:

- good bend recovery
- good abrasion resistance
- absorption of water to max. 10%

Polyamide PA 6.12 (ideal when working in wet surrounding):

- flexible and excellent bend recovery
- high abrasion resistance
- absorption of water to max. 3%



3 grits in silicon carbide

You can differ the bristles between round or flat bristles. Usually round bristles are used, because they are more flexible than flat bristles and very good for processing work pieces with strong shapes. Round bristles with a smaller diameter, less than 150 mm, are very efficient if you are not able to use flat material.

However, flat bristles possess a high abrasive grit, represent a long durability and a high removal rate by a larger contact surface.

Grits to choose from:

Abrasive filaments SIC (filament K60 to K1000):

- intensive results when deburring
- for surficial improvement/-processing
- mainly for process stainless steel and aluminium limited
- microhardness: 25.000 N/mm²

Common measurements: K 80/1,1, K 80/1,2, K 80/1,4, K 120/0,6, K 120/1,1, K 180/0,9, K 180/1,0, K 320/0,60, K 500/0,5

Abrasive filaments AO (filament K60 to K1000):

- less sharp-edged compared to SIC
- to the finish of soft metal
- to polishing and smoothing
- to process aluminium when smoothing or polishing
- microhardness: 21.000 N/mm²

Common measurements: K 80/1,2, K 120/1,1, K 180/0,9, K 180/1,0, K 240/0,75, K 240/0,90, K 320/0,60, K 500/0,25, K 500/0,50, K 600/0,3 – others on request.

Diamonds filaments(filament K60 to K1000):

- for aggressive applications
- used for materials with high material strength
- self-renewing through independent sharpening
- microhardness: 42.000 N/mm²

Ceramic grit:

- very good grinding and polishing properties
- maximum lifetime and aggressiveness
- working with hard metal tools
- microhardness: 42.000 N/mm²



All information on **chemical properties** can be found at www.lessmann.com/index.php/en/content/view/full/282 in the area of Brush Know-How.

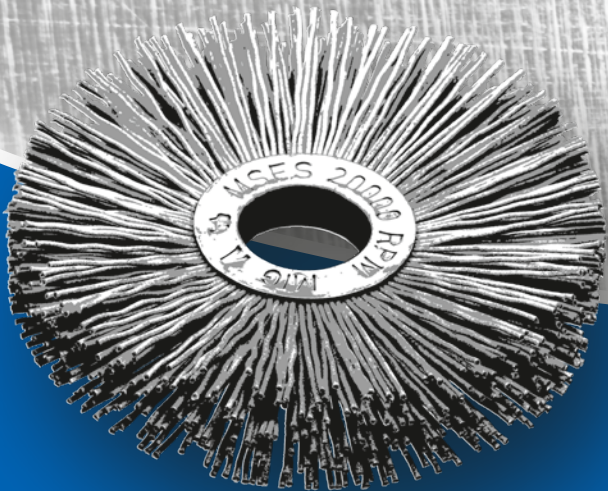
Physical Characteristics

	STA	STH	ROF	ROH	RO4	RO8	STM / STL	MES
WNR.			1.4301	1.4310	1.4401	1.4860		CuZn36 / CuZn37
AISI			304	301	316			
Tensile Strength in N/mm ² *	1,800–2,100	2,300–2,500	1,800–2,100	2,100–2,500	1,600–1,800	1,600–1,800	2,300–2,600	900–1,200
Specific Gravity in g/cm ³	7.85	7.85	7.85	7.85	7.85	7.90	7.85	8.50
Temperature Consistency in °C	+ 300 °C	+ 300 °C	+ 450 °C	+ 450 °C	+ 500 °C	+ 600 °C	+ 300 °C	+ 180 °C

*The specified Tensile Strength is applicable for a wire strength 0.3–0.4 mm

LESSMANN®

THE GERMAN BRUSH COMPANY



WHEEL BRUSHES 01



Knot Wheel Brushes



Knot Wheel Brushes

Knot wheel brushes for grinders, angle grinders and stationary machines used in the preparation and reworking of bolt fillet and butt welds. They remove scale, rust, paint, slag, rubber residue and can be used for deburring.

Knot Wheel Brushes with multiple Rows

Ready mounted brushes with multiple rows have a dense filling compared to single segment brushes, which are assembled together. In your order please state the width of the brush, bore size and type and thickness of wire.

The listed knot wheel brushes are for the use in stationary machines.

Stainless Steel Brushes

LESSMANN-brushes with stainless steel have green side plates. We use wire with material number 1.4310. Material number 1.4401 can be used on request. Information on working on stainless steel you find at www.lessmann.com

All knots on our standard twisted wire wheel brushes are left hand twisted in order to minimize the undoing of the knots should the brush be used incorrectly. On request we can supply right hand twist brushes.

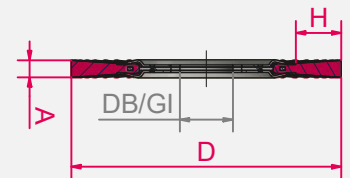
In addition to brushes with left or right knotted, we also offer left-right knotted brushes.

Left-right knotted wheel brushes usually are more aggressive, hence they are often used for heavy brushing operations. Besides the knots open less, therefore there are ideal for the treatment of edges.

User Tip:

We recommend to turn the brush during use in order to maintain sharpened wire ends.

On request other bores and wire diameter are available.



ZF = Knot type
Z = number of knots, R = number of rows

Item Nos. in bold are available ex stock. Consider our minimum order value for *italic printed* article numbers (see page 178).

STM = brass coated steel, straight

STH = steel wire, high tensile, straight

ROH = stainless steel wire, high tensile, straight



X-Lock Mount

Our wheel brushes with X-Lock-mount can be found on page 66.



You can find our **tutorials** here:
www.lessmann.com/index.php/en/content/view/full/711



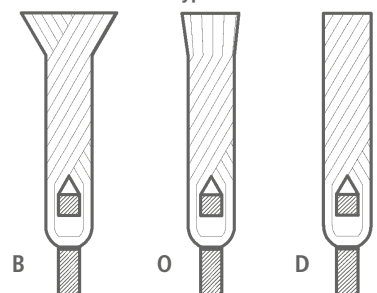
You can find our **Enquiry Forms** in the respective category under:
www.lessmann.com/index.php/en/content/view/full/61 or in the catalog from page 173



Chunky packaging
Many articles you receive as standard in handy covering boxes with 10 pcs.



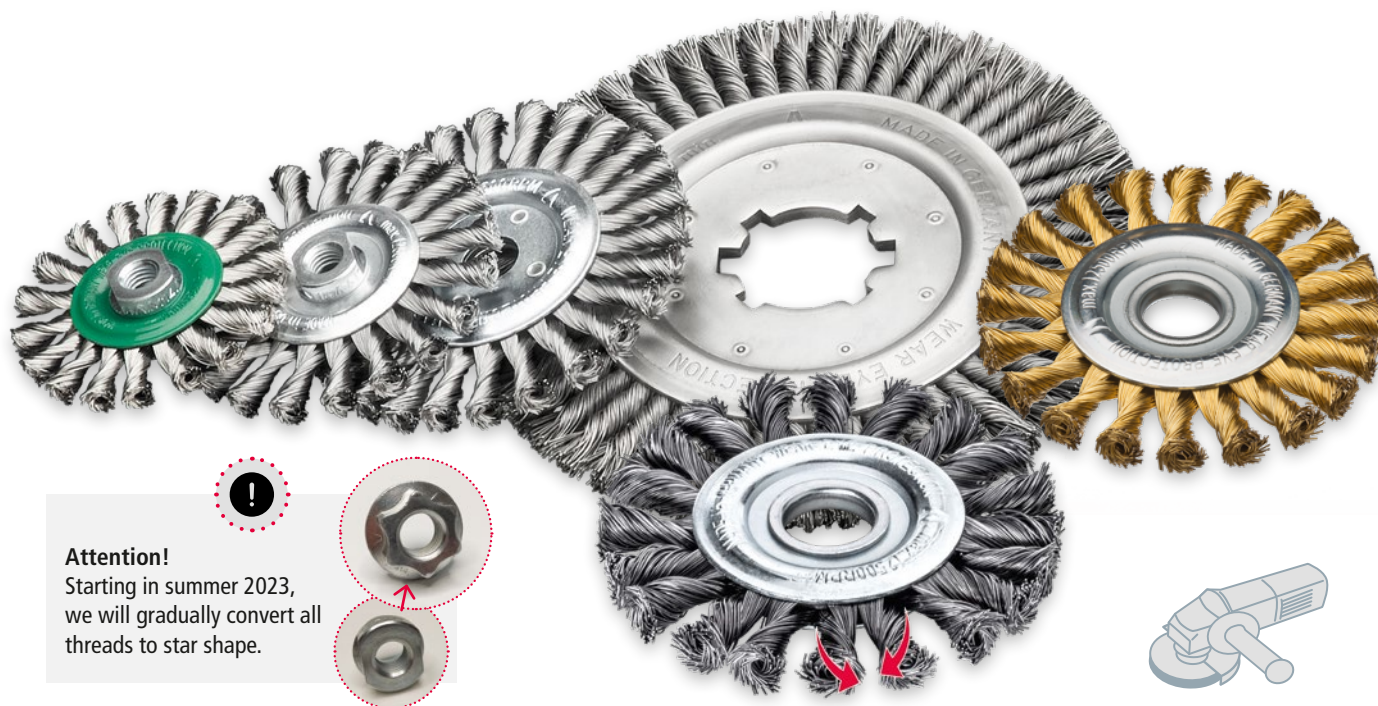
Knot types ZF



B: Rose Bud

O: Open Knot (wire ends are cut)

D: Fully knotted (wire ends are cut completely)



Attention!
Starting in summer 2023,
we will gradually convert all
threads to star shape.

IIIIII
EAN

Knot Wheel Brushes, Steel Wire, Brass Wire

D	A	DB/GI	H	Z	ZF	R	RPM	Pack.	STH 0.35 0.014"	STH 0.50 0.020"	STH 0.80 0.031"	STM 0.50 0.020"	left-right knotted STH 0.50 0.020"
mm inch	mm inch	mm inch					max.		Art.-No.	Art.-No.	Art.-No.	Art.-No.	Art.-No.
75 3	10 3/8	13 1/2	15	18	B	1	25,000	1	470.111*	470.211*			
100 4	12 1/2	M 14 x 2,0	22	18	B	1	12,500	1	471.117*	471.217*			
115 4 1/2	14 1/2	22.2 7/8	24	20	B	1	12,500	1	472.111*	472.211*		472.211.SM*	472.211.WZ*
115 4 1/2	14 1/2	M 14 x 2,0	24	20	B	1	12,500	1	472.117*	472.217*			
125 5	14 1/2	22.2 7/8	29	20	B	1	12,500	1	473.111*	473.211*		473.211.SM*	473.211.WZ*
125 5	14 1/2	M 14 x 2,0	29	20	B	1	12,500	1	473.117*	473.217*			473.217.WZ*
125 5	14 1/2	22.2 7/8	29	24	B	1	12,500	1		473.211.24			
150 6	14 1/2	22.2 7/8	32	26	B	1	12,500	1	474.111*	474.211*	474.311		
150 6	14 1/2	M 14 x 2,0	32	26	B	1	12,500	1	474.117*	474.217*	474.317		
178 7	14 1/2	22.2 7/8	38	32	B	1	12,500	1	475.111*	475.211*	475.311		
178 7	14 1/2	M 14 x 2,0	38	32	B	1	12,500	1	475.117*	475.217*	475.317		
200 8	14 1/2	22.2 7/8	41	36	B	1	9,000	1	476.111	476.211	476.311		
200 8	14 1/2	50.8 2	41	36	B	1	9,000	1		476.210.51	available on demand		
230 9 1/16	14 1/2	22.2 7/8	56	40	B	1	9,000	1		475.211			
250 10	15 5/8	50.8 2**	42	52	O	1	5,000	1		477.210.75	477.310.75		
300 12	15 5/8	50.8 2**	56	58	O	1	5,000	1		478.210.75	478.310.75		

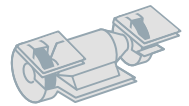
IIIIII
EAN

Knot Wheel Brushes, Stainless Steel Wire

D	A	d	H	Z	ZF	R	RPM	Pack.	ROH 0.35 0.014"	ROH 0.50 0.020"	left-right knotted ROH 0.50 0.020"
mm inch	mm inch	mm inch					max.		Art.-No.	Art.-No.	Art.-No.
100 4	12 1/2	M 14 x 2,0	22	18	B	1	12,500	1		471.817*	
115 4 1/2	14 1/2	22.2 7/8	24	20	B	1	12,500	1	472.711*	472.811*	472.811.WZ*
115 4 1/2	14 1/2	M 14 x 2,0	24	20	B	1	12,500	1	472.717*	472.817*	
125 5	14 1/2	22.2 7/8	29	20	B	1	12,500	1	473.711*	473.811*	473.811.WZ*
125 5	14 1/2	M 14 x 2,0	29	20	B	1	12,500	1		473.817*	
150 6	14 1/2	22.2 7/8	32	26	B	1	12,500	1		474.811*	
150 6	14 1/2	M 14 x 2,0	32	26	B	1	12,500	1		474.817	
178 7	14 1/2	22.2 7/8	38	32	B	1	12,500	1		475.811*	
178 7	14 1/2	M 14 x 2,0	38	32	B	1	12,500	1		475.817	

Thread 5/8" – 11 UNC on request | * packed 10 pieces per carton | ** with turtle bore

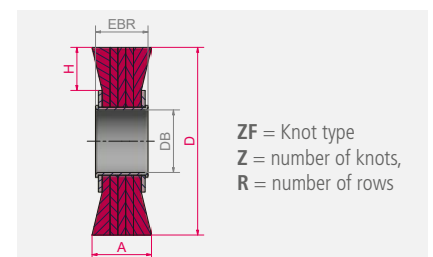
Knot Wheel Brushes, multiple rows



|||||
EAN

Knot Wheel Brushes, multiple rows

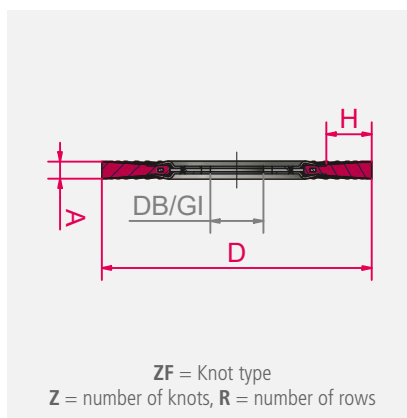
D	A	EBR	DB _{Stand.}	DB _{min}	H	ZF	Z x R	RPM	Pack.	STH 0.35	STH 0.50	ROH 0.35	ROH 0.50
mm inch			mm inch					max.		0.014"	0.020"	0.014"	0.020"
100 4	22-24	12	20 3/4	10	21	B	20 x 2	12,500	1	471.12K	471.22K	471.72K	471.82K
100 4	30-32	18	20 3/4	10	21	B	20 x 3	12,500	1	471.13K	471.23K	471.73K	471.83K
100 4	34-36	25	20 3/4	10	21	B	20 x 4	12,500	1	471.14K	471.24K	471.74K	471.84K
115 4 1/2	22-24	18	30 1 1/4	10	23.5	B	22 x 2	12,500	1	472.12K	472.22K	472.72K	472.82K
115 4 1/2	30-32	25	30 1 1/4	10	23.5	B	22 x 3	12,500	1	472.13K	472.23K	472.73K	472.83K
115 4 1/2	34-36	30	30 1 1/4	10	23.5	B	22 x 4	12,500	1	472.14K	472.24K	472.74K	472.84K
125 5	22-24	18	30 1 1/4	13	28.5	B	24 x 2	12,500	1	473.12K	473.22K	473.72K	473.82K
125 5	30-32	25	30 1 1/4	13	28.5	B	24 x 3	12,500	1	473.13K	473.23K	473.73K	473.83K
125 5	34-36	30	30 1 1/4	13	28.5	B	24 x 4	12,500	1	473.14K	473.24K	473.74K	473.84K
150 6	22-24	18	30 1 1/4	13	31.5	O	28 x 2	12,500	1	474.12K	474.22K	474.72K	474.82K
150 6	30-32	25	30 1 1/4	13	31.5	O	28 x 3	12,500	1	474.13K	474.23K	474.73K	474.83K
150 6	36-38	30	30 1 1/4	13	31.5	O	28 x 4	12,500	1	474.14K	474.24K	474.74K	474.84K
178 7	22-24	18	50 2	16	37.5	O	34 x 2	12,500	1	475.12K	475.22K	475.72K	475.82K
178 7	30-32	25	50 2	16	37.5	O	34 x 3	12,500	1	475.13K	475.23K	475.73K	475.83K
178 7	36-38	30	50 2	16	37.5	O	34 x 4	12,500	1	475.14K	475.24K	475.74K	475.84K
200 8	22-24	18	50 2	16	41	O	38 x 2	9,000	1	476.12K	476.22K	476.72K	476.82K
200 8	30-32	25	50 2	16	41	O	38 x 3	9,000	1	476.13K	476.23K	476.73K	476.83K
200 8	36-38	30	50 2	16	41	O	38 x 4	9,000	1	476.14K	476.24K	476.74K	476.84K
250 10	26-30	18	100 4	20	42	O	52 x 2	5,000	1	477.12K	477.22K	477.72K	477.82K
250 10	38-40	26	100 4	20	42	O	52 x 3	5,000	1	477.13K	477.23K	477.73K	477.83K
250 10	50-54	34	100 4	20	42	O	52 x 4	5,000	1	477.14K	477.24K	477.74K	477.84K
300 12	26-30	18	100 4	30	56	O	58 x 2	5,000	1	478.12K	478.22K	478.72K	478.82K
300 12	38-40	26	100 4	30	56	O	58 x 3	5,000	1	478.13K	478.23K	478.73K	478.83K
300 12	50-54	34	100 4	30	56	O	58 x 4	5,000	1	478.14K	478.24K	478.74K	478.84K



Joint Cleaning Brushes



Joint Cleaning Brushes											
D	A	DB/GI	H	Z	ZF	R	RPM	Pack.	STA 0.50 0.020"	STA 0.80 0.031"	STM 0.50 0.020"
mm inch	mm inch	mm inch					max.		Art.-No.	Art.-No.	Art.-No.
300 12	6 1/4	20 3/4	67	64	D	1	5,000	5	478.200.06	478.300.06	478.500.06
300 12	8 5/16	20 3/4	67	64	D	1	5,000	5	478.200.08	478.300.08	478.500.08
300 12	10 3/8	20 3/4	67	64	D	1	5,000	5	478.200.10	478.300.10	478.500.10
300 12	6 1/4	25.4 1	67	64	D	1	5,000	5	478.225.06	478.325.06	478.520.06
300 12	8 5/16	25.4 1	67	64	D	1	5,000	5	478.225.08	478.325.08	478.520.08
300 12	10 3/8	25.4 1	67	64	D	1	5,000	5	478.225.10	478.325.10	



Joint Cleaning Brushes

Joint cleaning brushes are used for the production of expansion joints in the construction of new linings as well as in restoration and reparation. The application of this knot wheel brush is usually alike with all pavements.

Brushes with brass coated steel wire STM are very stable, hence they are often used for cleaning concrete joints.

Item Nos. in **bold** are available ex stock. Consider our minimum order value for *italic printed* article numbers (see page 178).

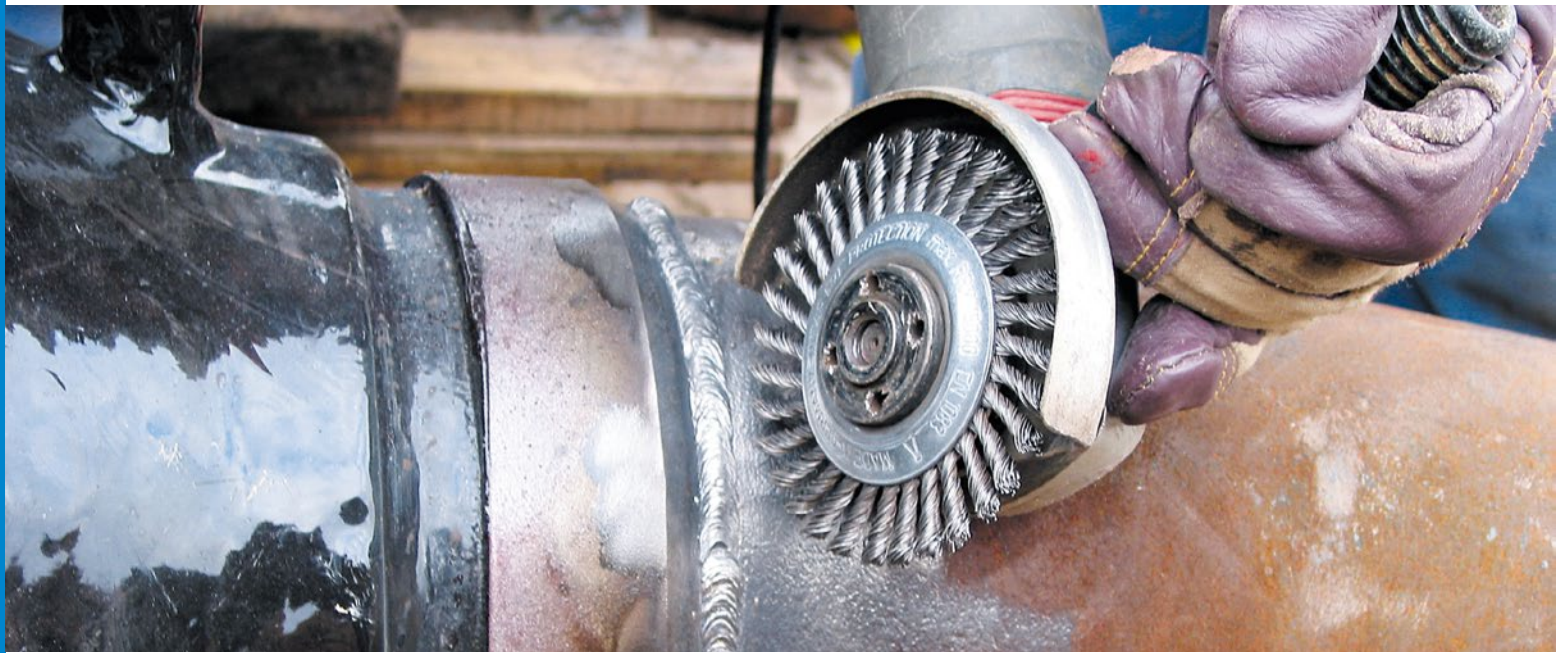
STA = steel wire, straight

STH = steel wire, high tensile, straight

STM = brass coated steel, straight

ROH = stainless steel wire, high tensile, straight

Pipeline Brushes / Stringer Bead Brushes

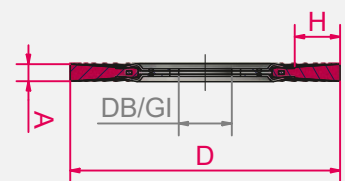


Pipeline-Brushes / Stringer Bead Brushes
LESSMANN-Pipelinebrushes are specially developed for professional use on U- and V-welds in the pipeline industry.

The remarkable features of the high quality LESSMANN Pipeline Brushes are the long lifetime and the quietness of running. They are especially narrow and therefore they are the perfect tool for cleaning all welds at tube connections.

Pipeline Brushes / Stringer Bead Brushes, left-right knotted

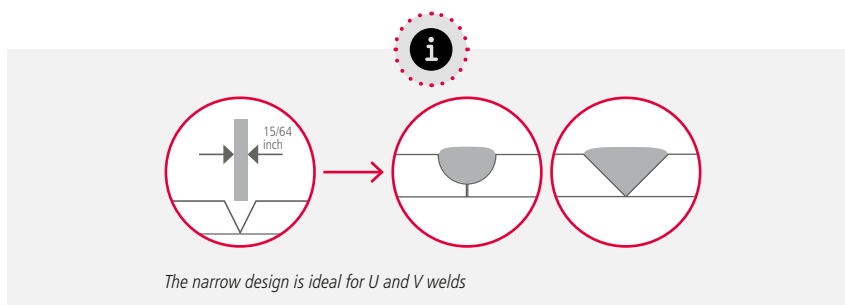
Left-right knotted pipeline brushes usually are more aggressive, hence they are often used for heavy brushing operations. Besides the knots open less, therefore there are ideal for the treatment of edges.



ZF = Knot type
Z = number of knots

Item Nos. in bold are available ex stock.
Consider our minimum order value for *italic printed* article numbers (see page 178).

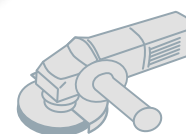
STH = steel wire, high tensile, straight



X-Lock Mount
Our wheel brushes with X-Lock-mount can be found on page 66.

XLOCK
Technology by **BOSCH**
Invented for life

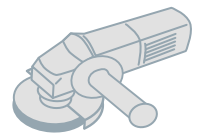




Pipeline-Brushes / Stringer Bead Brushes, Steel Wire							Bo. 22.2 7/8"	M 14 x 2.0	5/8" - 11 UNC
D	A	H	Z	ZF	RPM	Pack. *	STH 0.50 0.020"	STH 0.50 0.020"	STH 0.50 0.020"
mm inch	mm inch				max.		Art.-No.	Art.-No.	Art.-No.
100 4	6 1/4	19	28	D	20,000	10	available on demand	471.207.28	471.208.28
115 4 1/2	6 1/4	22	32	D	15,000	1	472.201.EZ		
115 4 1/2	6 1/4	22	32	D	15,000	5/10	472.201.32	472.207.32	472.208.32
115 4 1/2	6 1/4	22	39	D	15,000	10	472.201.39	available on demand	available on demand
125 5	6 1/4	26	40	D	15,000	1	473.201.EZ		
125 5	6 1/4	26	40	D	15,000	5/10	473.201.40	473.207.40	473.208.40
150 6	6 1/4	30	48	D	12,500	5/10	474.201.48	474.207.48	474.208.48
178 7	6 1/4	36	48	D	12,500	1	475.201.EZ		
178 7	6 1/4	36	48	D	12,500	5/10	475.201.48	475.207.48	475.208.48
178 7	6 1/4	30	56	D	12,500	5/10	475.201.56	475.207.56	475.208.56
178 7	6 1/4	30	76	D	12,500	5/10	475.201.76	475.207.76	475.208.76
230 9 1/16	6 1/4	56	76	D	12,500	1	475.201.76		

* Brushes with thread = packed 5 pieces per carton, brushes with bore = packed 10 pieces per carton

Pipeline Brushes / Stringer Bead Brushes



Pipeline-Brushes / Stringer Bead Brushes, Stainless Steel							Bo. 22.2 7/8"	M 14 x 2.0	5/8" - 11 UNC
D	A	H	Z	ZF	RPM	Pack.*	ROH 0.50 0.020"	ROH 0.50 0.020"	ROH 0.50 0.020"
mm inch	mm inch				max.		Art.-No.	Art.-No.	Art.-No.
100 4	6 1/4	19	28	D	20,000	10	available on demand	471.807.28	471.808.28
115 4 1/2	6 1/4	22	32	D	15,000	1	472.801.EZ		
115 4 1/2	6 1/4	22	32	D	15,000	5/10*	472.801.32	472.807.32	472.808.32
115 4 1/2	6 1/4	22	39	D	15,000	10	472.801.39	available on demand	available on demand
125 5	6 1/4	26	40	D	15,000	1	473.801.EZ		
125 5	6 1/4	26	40	D	15,000	5/10*	473.801.40	473.807.40	473.808.40
150 6	6 1/4	30	48	D	12,500	5/10*	474.801.48	474.807.48	474.808.48
178 7	6 1/4	36	48	D	12,500	5/10*	475.801.48	475.807.48	475.808.48
178 7	6 1/4	30	56	D	12,500	5/10*	475.801.56	475.807.56	475.808.56
178 7	6 1/4	30	76	D	12,500	5/10*	475.801.76	475.807.76	475.808.76

* Brushes with thread = packed 5 pieces per carton, brushes with bore = packed 10 pieces per carton

Stainless Steel Brushes

LESSMANN Pipeline Brushes with stainless steel wire have green side plates. We use wire with material number 1.4310. Material number 1.4401 can be used on request. Information on working on stainless steel you find at www.lessmann.com



X-Lock Mount
Our wheel brushes with X-Lock-mount can be found on page 66.

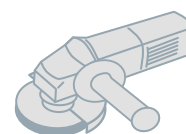




1

2

3



1 Pipeline-Brushes / Stringer Bead Brushes, rose bud

D	A	DB	H	Z	ZF	RPM	Pack.	STH 0.50 0.020"
mm inch	mm inch	mm inch				max.		Art.-No.
178 7	6 1/4	22.2 7/8	28	76	B	12,500	10	475.2B1.76

2 Pipeline-Brushes / Stringer Bead Brushes, left-right knotted

D	A	DB	H	Z	ZF	RPM	Pack.	STH 0.50 0.020"
mm inch	mm inch	mm inch				max.		Art.-No.
178 7	6 1/4	22.2 7/8	28	76	D	12,500	10	475.2W1.76

3 Pipeline-Brushes / Stringer Bead Brushes, encapsulated

D	A	DB	H	RPM	Pack.	STM 0.35 0.014"
mm inch	mm inch	mm inch		max.		Art.-No.
150 6	6 1/4	22.2 7/8	29	9,000	1	300.771.KG
178 7	6 1/4	22.2 7/8	43	9,000	1	351.771.KG

Pipeline Brushes / Stringer Bead Brushes with rose bud

Knotted brushes with rose bud have a longer life time. They are used for a professional treatment of weld seams in the tube and pipeline construction.

Pipeline Brushes / Stringer Bead Brushes, left-right knotted

Left-right knotted pipeline brushes usually are more aggressive, hence they are often used for heavy brushing operations. Besides the knots open less, therefore they are ideal for the treatment of edges.

Pipeline Brushes / Stringer Bead Brushes, encapsulated

With encapsulated pipeline brushes a very exact and precise working is possible. By embed-

ding in tough plastic the filling width always remains the same and early break of the wires can be prevented. A working width of 6 mm still allows to reach U- and V- weld seams.

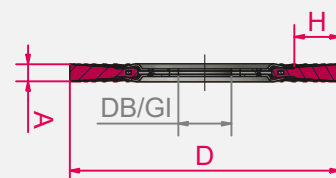
Hardness Grading

From now on, the encapsulated brushes from Lessmann can be delivered in three different Shore hardness scale measurements:

- Black – Hard
- Red – Standard
- White – Soft

Please note:

The more aggressive the application, the harder the plastic material should be. Another advantage of the harder plastic material is the dimensional stability.



ZF = Knot type
Z = number of knots

Item Nos. in **bold** are available ex stock.
Consider our minimum order value for *italic printed* article numbers (see page 178).

STH = steel wire, high tensile, straight

STM = brass coated steel, crimped

ROH = stainless steel wire, high tensile, straight

Cutback Brushes



Cutback Brushes
for the removal of pipe coatings.

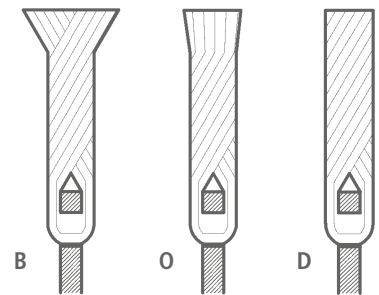
The removal of pipe-ends with brushes is a common process in the pipe industry.

To prevent corrosion, steel pipes are usually covered in epoxy resin and several layers of polyethylene (PE) or polypropylene (PP). To ensure a strong and safe welded joint during the installation of the pipes, the coating has to be removed completely on the ends of the pipes. For this process, usually several rings of knotted wire brushes are mounted together to get one large block of wheel brushes.

The LESSMANN Cutback Brushes are proven to have a long lifetime and are used by many international companies producing pipe for the oil and gas industry.



Knot types ZF



B: Rose Bud

O: Open Knot (wire ends are cut)

D: Fully knotted (wire ends are cut completely)

LESSMANN Cutback rings are **supplied already mounted to one another**. This ensures a perfect balancing, an even surface and a tighter fitting.

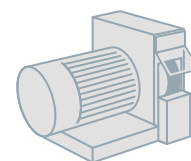
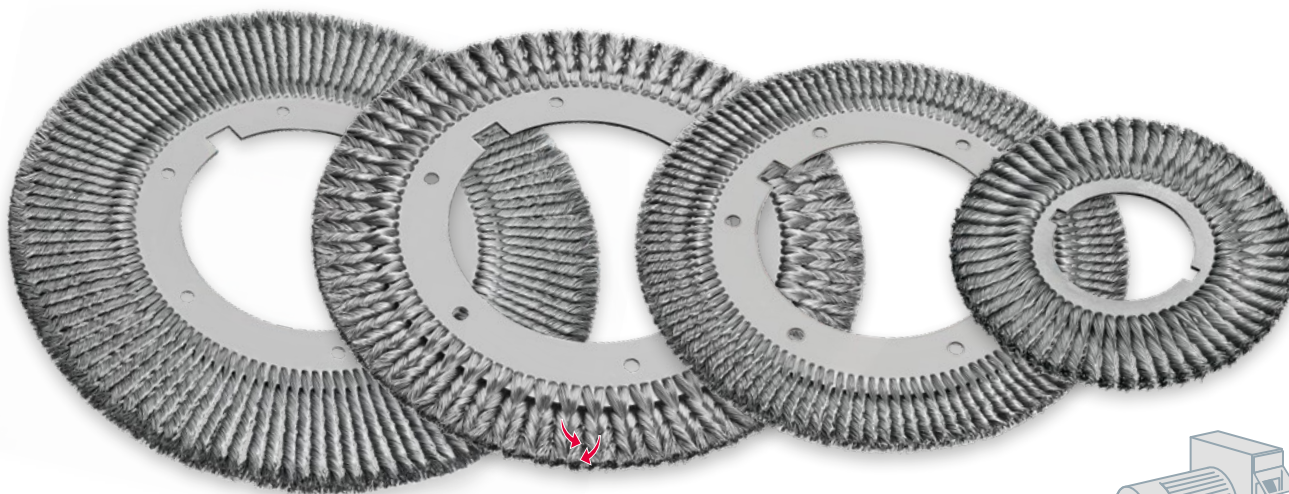
All Cutback Brushes can be purchased with left-right knotting (WZ), too.



Cutback Brushes, left-right knotted

Left-right knotted cutback brushes usually are more aggressive, hence they are often used for heavy brushing operations.

The knots of this type of brush open less, therefore there are ideal for the treatment of edges.



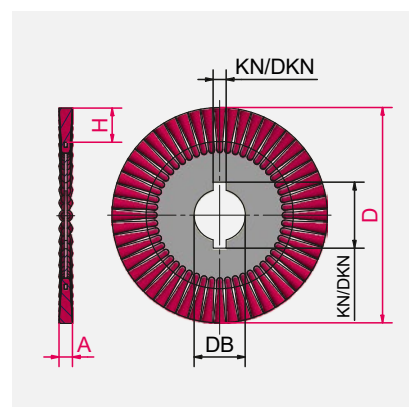
Cutback Brushes

D	A	H	DB	KN/DKN	Z	ZF	STH	ROH
mm inch	mm inch	mm inch	mm inch					
250 10	13 33/64	45 1 49/64	102 4 1/64	115.8 x 13	56	0	0.63	0.50 / 0.80
300 12	13 33/64	60 12 23/64	102 4 1/64	115.8 x 13	64	0	0.80	0.50 / 0.80
390 15 23/64	13 33/64	45 1 49/64	200.6 7 57/64	233 x 24	114	0 right-left knotted (WZ)	0.63 / 0.80	0.80
465 18 5/16	13 33/64	82.5 3 1/4	200.6 7 57/64	233 x 24	114	0	0.58 / 0.80	0.80

The table above gives you an insight into the range of brushes LESSMANN can produce. Due to modern technologies in production we can respond to individual requests and wishes of our customers (diameter, working width, bore).



If requested, scribe markings are possible.



Item Nos. in bold are available ex stock. Consider our minimum order value for *italic printed* article numbers (see page 178).

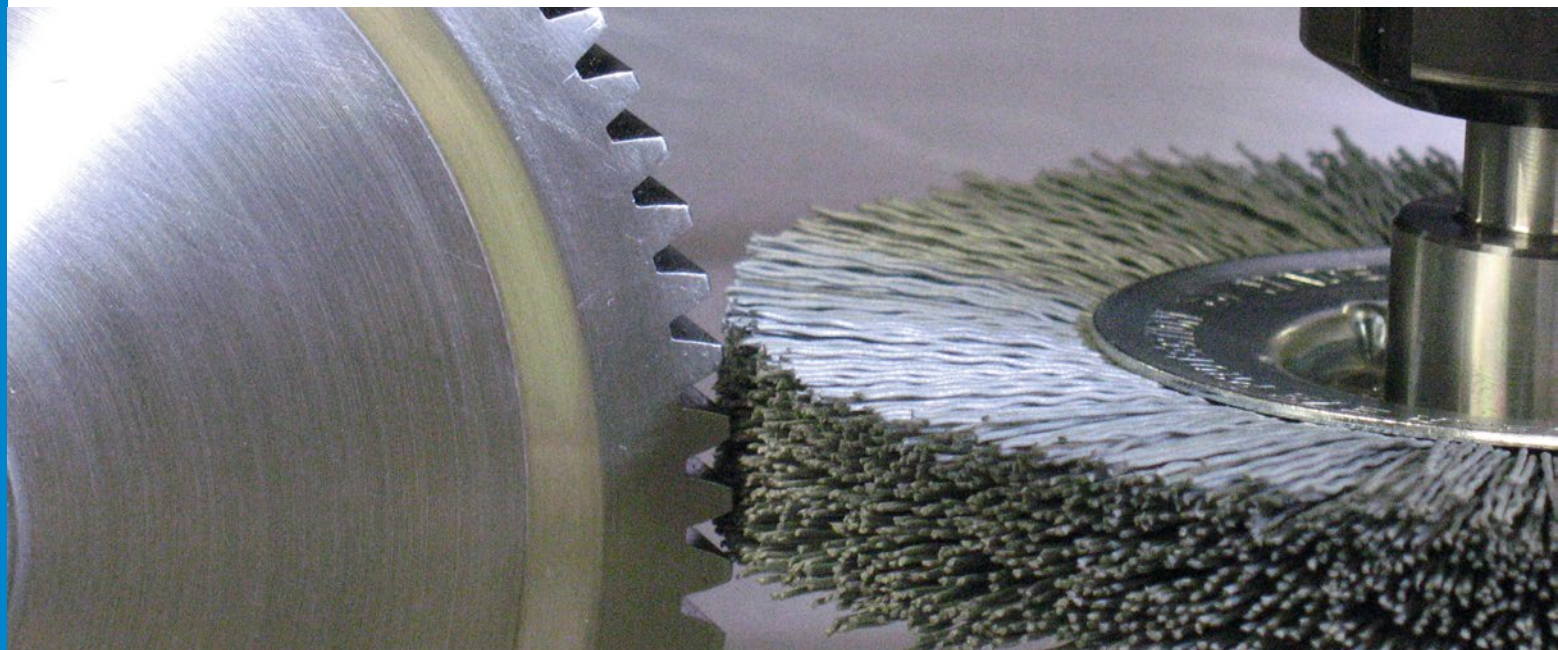
STH = steel wire, high tensile, straight

ROH = stainless steel wire, high tensile, straight



You can find our **Enquiry Forms** in the respective category under:
www.lessmann.com/index.php/en/content/view/full/61
 or in the catalog from page 173

Single Segment Brushes



Single Segment Brushes

These brushes are mainly used for deburring purposes in stationary machines or processing centres.

The construction of these brushes allows it to assemble them to roller brushes of any desired width. Many different filling materials like steel, stainless steel or abrasive nylon with various grit are at your disposal.

Outstanding Processing

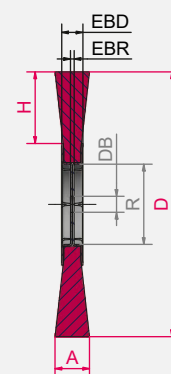
The flexible bristles align to the different shapes of working pieces.

An important advantage of the single segment brushes compared to other grinding tools, such as pads or grinding discs, is their gentle treatment.

Furthermore the brushes do not become encrusted. They are suitable for deburring work and fine polishing of stainless steel, light metal or plastic material. Besides the executions listed on this page other diameters and grit sizes are available.



Laser imprint of brushes



A can be up to 4 mm larger than EBD

EBR = 3.0 mm if $R > 60$

EBR = 2.4 mm if $R \leq 60$

For further information on abrasive filaments please see pages 11 et seq.

Item Nos. in bold are available ex stock.

Consider our minimum order value for *italic printed* article numbers (see page 178).

SIC = silicon carbide bristles

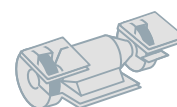
KK = ceramic grit



1

2

3



1 Single Segment Wheel Brushes, Silicon Carbide Bristles

D	R	EBD	H	DB _{stand.}	DB _{min./max.}	RPM	Pack.	SIC 80/1.2	SIC 120/1.1	SIC 120/0.6	SIC 180/1.0	SIC 320/0.6
mm inch				mm inch		max.		Art.-No.	Art.-No.	Art.-No.	Art.-No.	Art.-No.
80 3 1/4	26	12	17	12 1/2	12–16	12,000	5		310.831	310.841	310.851	310.871
100 2	30	12	21	12 1/2	12–20	8,000	5	320.821	320.831	320.841	320.851	320.871
125 5	30	12	33	12 1/2	12–20	8,000	5	330.821		330.841	330.851	330.871
150 6	50	14	32	12 1/2	12–30	6,000	5	340.821	340.831	340.841	340.851	340.871
178 7	50	14	46	12 1/2	12–30	6,000	5	350.821	350.831	350.841	350.851	350.871
178 7	60	16	41	12 1/2	12–40	6,000	5			351.841	351.851	351.871
200 8	60	16	52	12 1/2	12–40	6,000	5	361.821	361.831	361.841	361.851	361.871
200 8	80	16	43	16 5/8	16–60	6,000	5		362.831	362.841	362.851	362.871
200 8	100	16	32	16 5/8	16–80	6,000	5		360.831	360.841	360.851	360.871
250 10	100	16	57	16 5/8	16–80	6,000	5		370.831	370.841	370.851	370.871
250 10	120	16	45	20 3/4	20–100	3,600	5			371.841	371.851	371.871
250 10	150	19	30	25.4 1	25.4–130	3,600	5		372.831	372.841	372.851	372.871
300 12	120	16	70	20 3/4	20–100	3,600	5			380.841	380.851	380.871
300 12	150	19	35	25.4 1	25.4–130	3,600	5		381.831	381.841	381.851	381.871
300 12	200	19	30	25.4 1	25.4–170	2,600	5			387.841	387.851	

2 Single Segment Wheel Brushes, Silicon Carbide Bristles, 2 rows

D	R	EBD	H	DB _{stand.}	DB _{min./max.}	RPM	Pack.	SIC 120/0.6	SIC 180/1.0	SIC 320/0.6
mm inch				mm inch		max.		Art.-No.	Art.-No.	Art.-No.
200 8	80	27	43	16 5/8	16–60	6,000	5	available on demand	362.852	available on demand
250 10	100	27	58	16 5/8	16–80	6,000	5	available on demand	370.852	available on demand

3 Single Segment Wheel Brushes, Ceramic Grit

D	R	EBD	H	DB _{stand.}	DB _{min./max.}	RPM	Pack.	KK 120/1,1	KK 180/1,0
mm inch				mm inch		max.		Art.-Nr.	Art.-Nr.
100 2	30	12	21	12 1/2	12–20	8,000	5	320.C31	320.C51
150 6	50	14	32	12 1/2	12–20	6,000	5	340.C31	340.C51
200 8	100	16	32	16 5/8	16–80	6,000	5	360.C31	360.C51
250 10	100	16	57	16 5/8	16–80	8,000	5	370.C31	370.C51

Bore must be indicated in the order. Standard bore delivery ex stock, short termed. Other bores are available with extra charge: 1–10 pcs. EUR 6 / 11–25 pcs. EUR 4

Single Segment Brushes



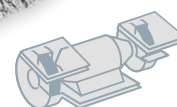
Single Segment Wheel Brushes, Steel Wire, Cord Wire

D mm inch	R	EBD	H	DB _{Stand.} mm inch	DB _{min./max.}	RPM max.	Pack.	1		2
								STA 0.20 0.008"	STA 0.30 0.012"	STL 0.35 0.014"
								Art.-No.	Art.-No.	Art.-No.
80 3 1/4	26	12	17	12 1/2	12–16	12,000	5	310.141	310.161	available on demand
100 4	30	12	21	12 1/2	12–20	8,000	5	320.141	320.161	320.707
125 5	30	12	33	12 1/2	12–20	8,000	5	330.141	330.161	available on demand
125 5	40	12	29	12 1/2	12–25	8,000	5	available on demand	331.161	available on demand
150 6	50	14	32	12 1/2	12–30	6,000	5	340.141	340.161	340.707
178 7	50	14	46	12 1/2	12–30	6,000	5	350.141	350.161	available on demand
178 7	60	16	41	12 1/2	12–40	6,000	5	351.141	351.161	351.707
200 8	60	16	52	12 1/2	12–40	6,000	5	361.141	361.161	available on demand
200 8	80	16	43	16 5/8	16–60	6,000	5	362.141	362.161	362.707
200 8	100	16	32	16 5/8	16–80	6,000	5	360.141	360.161	360.707
250 10	100	16	57	16 5/8	16–80	6,000	5	370.141	370.161	available on demand
250 10	120	16	45	20 3/4	20–100	3,600	5	371.141	371.161	available on demand
300 12	120	16	70	20 3/4	20–100	3,600	5	380.141	380.161	available on demand
300 12	150	19	55	25.4 1	25.4–130	3,600	5		381.161	

Single Segment Wheel Brushes, Steel Wire, 2 rows

D mm inch	R	EBD	H	DB _{Stand.} mm inch	DB _{min./max.}	RPM max.	Pack.	STH 0.35 0.014"
								Art.-No.
200 8	80	20	43	16 5/8	16–60	4,500	5	362.272
250 10	100	20	58	16 5/8	16–80	6,000	5	370.272

Bore must be indicated in the order. Standard bore delivery ex stock, short termed. Other bores are available with extra charge: 1–10 pcs. EUR 6 / 11–25 pcs. EUR 4



Single Segment Wheel Brushes, Stainless Steel Wire

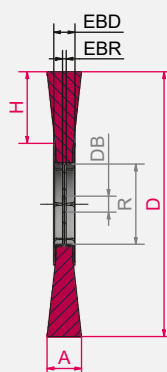
D mm inch	R	EBD	H	DB _{stand.} mm inch	DB _{min./max.}	RPM max.	Pack.	ROF 0.20 0.008"		ROF 0.30 0.012"	
								Art.-No.		Art.-No.	
80 3 1/4	26	12	17	12 1/2	12–16	12,000	5	310.341		310.361	
100 2	30	12	21	12 1/2	12–20	8,000	5	320.341		320.361	
125 5	30	12	33	12 1/2	12–20	8,000	5	330.341		330.361	
125 5	40	12	29	12 1/2	12–25	8,000	5	331.341		331.361	
150 6	50	14	32	12 1/2	12–30	6,000	5	340.341		340.361	
178 7	50	14	46	12 1/2	12–30	6,000	5	350.341		350.361	
178 7	60	16	41	12 1/2	12–40	6,000	5	351.341		351.361	
200 8	60	16	52	12 1/2	12–40	6,000	5	361.341		361.361	
200 8	80	16	43	16 5/8	16–60	6,000	5	362.341		362.361	
200 8	100	16	32	16 5/8	16–80	6,000	5	360.341		360.361	
250 10	100	16	57	16 5/8	16–80	6,000	5	370.341		370.361	
250 10	120	16	45	20 3/4	20–100	6,000	5	371.341		371.361	
300 12	120	16	70	20 3/4	20–100	3,600	5	380.341		380.361	
300 12	150	19	55	25.4 1	25.4–130	3,600	5			381.361	

Bore must be indicated in the order. Standard bore delivery ex stock, short termed. Other bores are available with extra charge: 1–10 pcs. EUR 6 / 11–25 pcs. EUR 4

Stainless Steel Brushes

LESSMANN-brushes with stainless steel wire have a laser imprint.

Information on working on stainless steel you find at www.lessmann.com



A can be up to 4 mm larger than EBD

EBR = 3.0 mm if R > 60

EBR = 2.4 mm if R ≤ 60

For further information on abrasive filaments please see page 11 et seq.

Item Nos. in bold are available ex stock.

Consider our minimum order value for *italic printed* article numbers (see page 178).

STA = steel wire, crimped

STH = steel wire, high tensile, crimped

STL = cord wire, crimped

ROF = stainless steel wire, crimped

Wheel Brushes



Wheel Brushes

Wheel brushes filled with crimped wire are used for the purpose of obtaining different surface finishing:

- the removal of rust, paint and dirt
- for roughening, deburring, stripping or polishing.

Big or Small?

A decisive factor for choosing the most suitable brush is the wire and tube diameter. Brushes with a larger tube diameter (measure R) are filled with more wire, are more aggressive and have a longer life.

In our catalogue are the usual tube diameters – other diameters can also be supplied.

More technical instruction such as peripheral speed etc. see pages 8 et seq.

The bore must be indicated in the order. Without any instruction delivery will be with standard bore "d Stand".

Other filling materials, filling diameters and special executions

Take advantage of the LESSMANN range of products, of the experience in developing and producing brushes! We are able to produce special executions on demand.

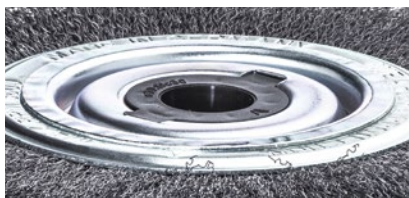
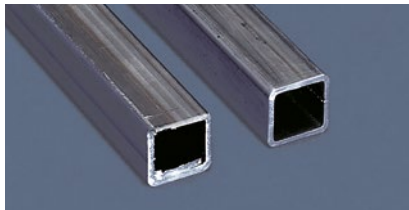
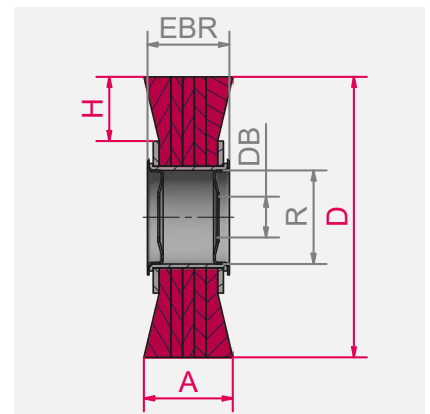


Plate with tube 80 and 100 (Set 4 / 5)



Adapter Set

All brushes are supplied with adapter sets for easy mounting on all popular grinding machines. The adapters have the following dimensions:

Set 1 / tube 30:

30 / 1" / 22.2 / 20 / 16 / 1/2" / 12

Set 2 / tube 40:

40 / 32 / 1" / 22.2 / 20 / 16 / 1/2"

Set 3 / tube 50:

50 / 32 / 1" / 22.2 / 20 / 16 / 1/2"

Set 4 / tube 80 + 100:

brushes with metal discs, bore 50.8 and double keyway 7x13; plus adapter to bore 30.

Set 5 / tube 80 + 100:

brushes with metal discs, bore 50.8 and double keyway 7x13; plus adapter to bore 32.

By usage without adapter set the actual size might be up to 0.2 mm below nominal size.



You can find our **tutorials** here:
www.lessmann.com/index.php/en/content/view/full/711

Item Nos. in bold are available ex stock. Consider our minimum order value for *italic printed* article numbers (see page 178).

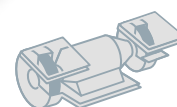
STA = steel wire, crimped

STM = brass coated steel, crimped



1

2

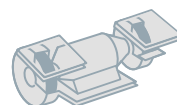

II IIII
EAN

Wheel Brushes, Steel Wire, Brass Coated Steel Wire

									1			2
D	A	EBR	R	H	DB _{Stand.}	DB _{min./max.}	RPM	Pack.	STA 0.15 0.006"	STA 0.20 0.008"	STA 0.30 *0.35 0.012" / 0.014"	STM 0.30 0.012"
mm inch					mm inch		max.		Art.-No.	Art.-No.		Art.-No.
80 3 1/4	18-20	18	20	20	10 3/8	10-20	10,000	1	available on demand	312.142	312.162	
80 3 1/4	25-27	24	20	20	10 3/8	10-20	10,000	1	available on demand	312.143	312.163	
100 4	20-22	19	30	23	Set 1	10-30	8,000	1	323.132	323.142	323.162	
100 4	28-30	25	30	23	Set 1	10-30	8,000	1	323.133	323.143	323.163	
125 5	21-23	20	40	27	Set 2	13-40	6,000	1	334.132	334.142	334.162	
125 5	29-31	26	40	27	Set 2	13-40	6,000	1	available on demand	334.143	334.163	
150 6	22-24	20	40	33	Set 2	13-40	6,000	1	344.132	344.142	344.172*	
150 6	30-34	26	40	33	Set 2	13-40	6,000	1	344.133	344.143	344.173*	
150 6	23-25	22	50	33	Set 3	13-50	6,000	1	345.132	345.142	345.162	345.762
150 6	30-34	30	50	33	Set 3	13-50	6,000	1	345.133	345.143	345.163	
178 7	23-26	22	50	37	Set 3	16-50	6,000	1	available on demand	355.142	355.162	355.762
178 7	32-35	30	50	37	Set 3	16-50	6,000	1	355.133	355.143	355.163	
200 8	24-27	22	50	48	Set 3	16-50	6,000	1	365.132	365.142	365.172*	365.762
200 8	35-38	30	50	48	Set 3	16-50	6,000	1	365.133	365.143	365.173*	365.763
200 8	28-32	29	80	38	Set 4+1	16-80	4,500	1	available on demand	366.142	366.162	366.762
200 8	40-45	39	80	38	Set 4+1	16-80	4,500	1	available on demand	366.143	366.163	
250 10	30-35	29	80	50	Set 4+1	20-80	3,600	1	available on demand	376.142	376.162	
250 10	42-45	39	80	50	Set 4+1	20-80	3,600	1	available on demand	available on demand	376.163	
250 10	32-37	30	100	50	Set 4+1	20-100	3,600	1	available on demand	377.142	377.162	377.762
250 10	43-48	39	100	50	Set 4+1	20-100	3,600	1	available on demand	377.143	377.163	
250 10	55-60	49	100	50	Set 4+1	20-100	3,600	1	available on demand	377.144	377.164	
300 12	35-40	30	100	60	Set 4	30-100	3,000	1	available on demand	387.142	387.162	
300 12	47-52	39	100	60	Set 4	30-100	3,000	1	available on demand	387.143	387.163	
300 12	30-35	34	120	50	Set 4	32-100	3,000	1			388.172*	
300 12	42-47	46	120	50	Set 4	32-100	3,000	1			388.173*	
350 14	35-40	30	100	85	Set 5	32-100	2,400	1	available on demand	397.142	397.172*	
350 14	55-60	39	100	85	Set 5	32-100	2,400	1	available on demand	397.143	397.173*	

Bore must be indicated in the order. Standard bore delivery ex stock, short termed. Other bores are available with extra charge: 1 – 10 pcs. EUR 6 / 11 – 25 pcs. EUR 4

Wheel Brushes



IIII
EAN

Wheel Brushes, Stainless Steel, Silicon Carbide Bristles

D	A	EBR	R	H	DB _{Stand.}	DB _{min./max.}	RPM	Pack.	ROF 0.20 0.008"	ROF 0.30 0.012"	RO4 0.30 0.012"	SIC 80/1.2	SIC 180/1.0
mm inch					mm inch		max.		Art.-No.	Art.-No.	Art.-No.	Art.-No.	Art.-No.
80 3 1/4	18-20	18	20	20	10 3/8	10-20	10,000	1	312.342	312.362			
80 3 1/4	25-27	24	20	20	10 3/8	10-20	10,000	1	available on demand	312.363			
100 4	20-22	19	30	23	Set 1	10-30	8,000	1	323.342	323.362			
100 4	28-30	25	30	23	Set 1	10-30	8,000	1	323.343	323.363			
125 5	21-23	20	40	27	Set 2	13-40	6,000	1	334.342	334.362			
125 5	29-31	26	40	27	Set 2	13-40	6,000	1	334.343	334.363			
150 6	22-24	20	40	33	Set 2	13-40	6,000	1	344.342	344.362			
150 6	30-34	26	40	33	Set 2	13-40	6,000	1	344.343	344.363			
150 6	18-20	20	50	33	Set 3	13-50	6,000	1				345.822	345.852
150 6	23-25	22	50	33	Set 3	13-50	6,000	1	345.342	345.362	345.462.V4		
150 6	30-34	30	50	33	Set 3	13-50	6,000	1	345.343	345.363		345.823	345.853
178 7	23-26	22	50	37	Set 3	16-50	6,000	1	355.342	355.362			
178 7	30-32	29	50	37	Set 3	16-50	6,000	1				355.823	355.853
178 7	32-35	30	50	37	Set 3	16-50	6,000	1	available on demand	355.363			
200 8	24-27	22	50	33	Set 3	16-50	6,000	1			365.462.V4		
200 8	24-27	22	50	48	Set 3	16-50	6,000	1	365.342	365.362			
200 8	28-30	29	50	38	Set 3	16-50	3,600	1				365.823	365.853
200 8	35-38	30	50	48	Set 3	16-50	6,000	1	365.343	365.363			
200 8	28-32	29	80	38	Set 4+1	16-80	4,500	1	366.342	366.362			
200 8	40-45	39	80	38	Set 4+1	16-80	4,500	1	366.343	366.363			
250 10	30-35	29	80	50	Set 4+1	20-80	3,600	1	376.342	376.362			
250 10	42-45	39	80	50	Set 4+1	20-80	3,600	1	376.343	376.363			
250 10	32-37	30	100	50	Set 4+1	20-100	3,600	1	377.342	377.362			
250 10	43-48	39	100	50	Set 4+1	20-100	3,600	1	377.343	377.363			
300 12	35-40	30	100	60	Set 4	30-100	3,000	1	387.342	387.362			
300 12	47-52	39	100	60	Set 4	30-100	3,000	1	387.343	387.363			
350 14	35-40	30	100	85	Set 5	32-100	2,400	1	available on demand	397.362			

Bore must be indicated in the order. Standard bore delivery ex stock, short termed. Other bores are available with extra charge: 1–10 pcs. EUR 6 / 11–25 pcs. EUR 4

Stainless Steel Brushes

Information on working on stainless steel you find at www.lessmann.com

Plate with tube 80 and 100
(Set 4 / 5)




II IIII
EAN

Wheel Brushes, Brass Wire, Bronze Wire

D	A	EBR	R	H	DB _{Stand.}	DB _{min./max.}	RPM	Pack.	MES 0.20 0.008"	MES 0.30 0.012"	BRO 0.30
mm inch					mm inch		max.		Art.-No.	Art.-No.	Art.-No.
80 3 1/4	18-20	18	20	20	10 3/8	10-20	10,000	1	312.542	312.562	
80 3 1/4	25-27	24	20	20	10 3/8	10-20	10,000	1	312.543	312.563	
100 4	20-22	19	30	23	Set 1	10-30	8,000	1	323.542	323.562	
100 4	28-30	25	30	23	Set 1	10-30	8,000	1	323.543	323.563	
125 5	21-23	20	40	27	Set 2	13-40	6,000	1	334.542	334.562	
125 5	29-31	26	40	27	Set 2	13-40	6,000	1	334.543	available on demand	
150 6	22-24	20	40	33	Set 2	13-40	6,000	1	344.542	344.562	344.662
150 6	30-32	26	40	33	Set 2	13-40	6,000	1	344.543	344.563	
150 6	23-25	22	50	33	Set 3	13-50	6,000	1	345.542	345.562	345.662.MS*
150 6	30-34	30	50	33	Set 3	13-50	6,000	1	345.543	345.563	
178 7	23-26	22	50	37	Set 3	16-50	6,000	1	355.542	355.562	
178 7	32-35	30	50	37	Set 3	16-50	6,000	1	355.543	355.563	
200 8	24-27	22	50	48	Set 3	16-50	6,000	1	365.542	365.562	
200 8	35-38	30	50	48	Set 3	16-50	6,000	1	365.543	365.563	
200 8	28-32	29	80	38	Set 4+1	16-80	4,500	1	366.542	366.562	
200 8	40-45	39	80	38	Set 4+1	16-80	4,500	1	366.543	366.563	
250 10	30-35	29	80	50	Set 4+1	20-80	3,600	1	376.542	376.562	
250 10	42-45	39	80	50	Set 4+1	20-80	3,600	1	376.543	available on demand	
250 10	32-37	30	100	50	Set 4+1	20-100	3,600	1	available on demand	377.562	
250 10	43-48	39	100	50	Set 4+1	20-100	3,600	1	available on demand	available on demand	
300 12	35-40	30	100	60	Set 4	30-100	3,000	1	available on demand	387.562	
300 12	47-52	39	100	60	Set 4	30-100	3,000	1	available on demand	available on demand	
350 14	35-40	30	100	85	Set 5	32-100	2,400	1	available on demand	397.562	

* Bronze Wire, fittings brass (low-sparkling)

Bore must be indicated in the order.
Standard bore delivery ex stock, short termed.
Other bores are available with extra charge:
1 – 10 pcs. EUR 6 / 11 – 25 pcs. EUR 4

Item Nos. in **bold** are available ex stock.
Consider our minimum order value for *italic printed*
article numbers (see page 178).

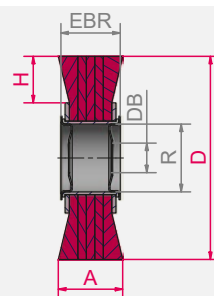
ROF = stainless steel wire, crimped

RO4 = premium-quality stainless steel

MES = brass wire, crimped

BRO = bronze wire, crimped

SIC = silicon carbide bristles



Brushes for the wood machining industry



Satinising Brushes

Satinising brushes are the perfect tool for satinising, polishing, abrading/smoothing, matting and structuring.

Staple Set Wheel and Disc Brushes

Wheel and Disc Brushes with abrasive nylon filament are used for the wood machining industry. Used on angle grinders, the disc brushes are ideal for maintaining, cleaning, structuring or polishing wood.

Besides the brushes are used for giving wood a rustic effect or for roughening it before treating with colour or lacquer. The brushes are very effective when working on large surfaces.

Structuring Brushes with Shank

These brushes are special brushes which can be used for wood grain surfaces.

Item Nos. in **bold** are available ex stock.

Consider our minimum order value for *italic printed* article numbers (see page 178).

STM = brass coated steel, crimped

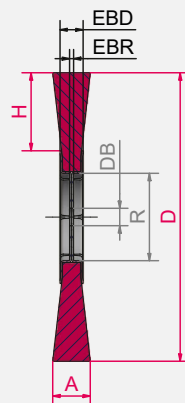
STL = cord wire, crimped

ROF = stainless steel wire, crimped

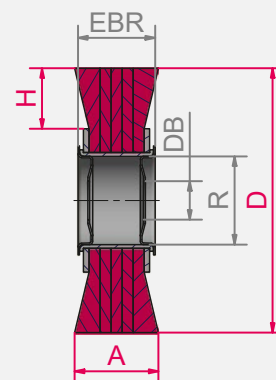
SIC = silicon carbide bristles

FIB = fibre

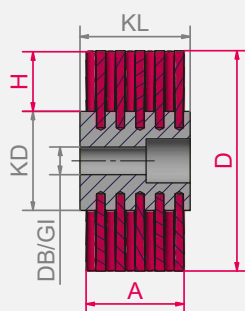
PA = polyamide, crimped



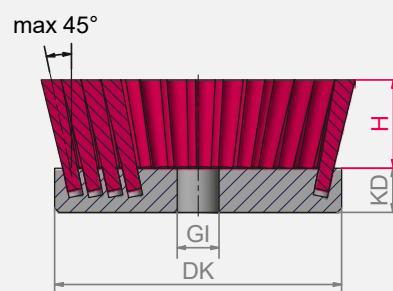
1 Satinising Brushes



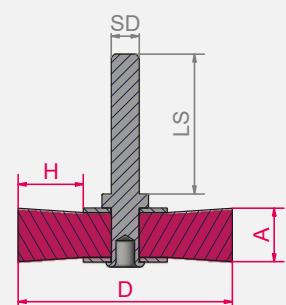
2 Satinising Brushes



3 Wheel Brushes



4 Disc Brushes



5 Structuring Brushes



II III EAN

Satinising Brushes

	D	A	EBR	R	H	DB	RPM	Pack.	ROF 0.20 0.008"	SIC 80/1.2	STL 0.25 0.010"	FIB/PA 0.4 0.016"
	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	max.		Art.-No.	Art.-No.	Art.-No.	Art.-No.
1	100 4	12 1/2	12 1/2	30 1 1/4	21	19.2 3/4	8,000	5	320.341.19	320.821.19	320.703.19	
2	100 4	70 2 3/4	70 2 3/4	30 1 1/4	23	19.2 3/4	8,000	1	323.348.19	323.828.19	323.704.19	
	100 4	100 4	102 4	30 1 1/4	23	19.2 3/4	8,000	1	323.305.19	323.805.19	323.705.19	323.900.10
	D	A	EBR	R	H	DB	RPM	Pack.		STM 0.35 0.014"	SIC 80/1.2	SIC 120/1.1
	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	max.			Art.-No.	Art.-No.	Art.-No.
2	100 4	120 4 3/4	122 4 3/4	30 1 1/4	23	12.7 1/2	8,000	1		323.770.13	323.820.13	323.830.13

Bore must be indicated in the order. Standard bore with double keyway 5,2 x 23 mm delivery ex stock, short termed.
Other bores are available with extra charge: 1–10 pcs. EUR 6 / 11–25 pcs. EUR 4

3 Staple Set Wheel Brushes

D	KL	A	GI	KD	RPM	Pack.	SIC 46/1.6	SIC 60/1.5	SIC 80/1.2	SIC 120/1.10	STM 0.30
mm inch	mm inch	mm inch			max.		Art.-No.	Art.-No.	Art.-No.	Art.-No.	Art.-No.
140 5 1/2	58 2 9/32	40 1 5/8	M 14	80	2,500	1	402.881	402.882	402.880	402.883	402.780
140 5 1/2	90 3 1/23	75 3	M 14	80	2,500	1	402.891	402.892	402.890	402.893	

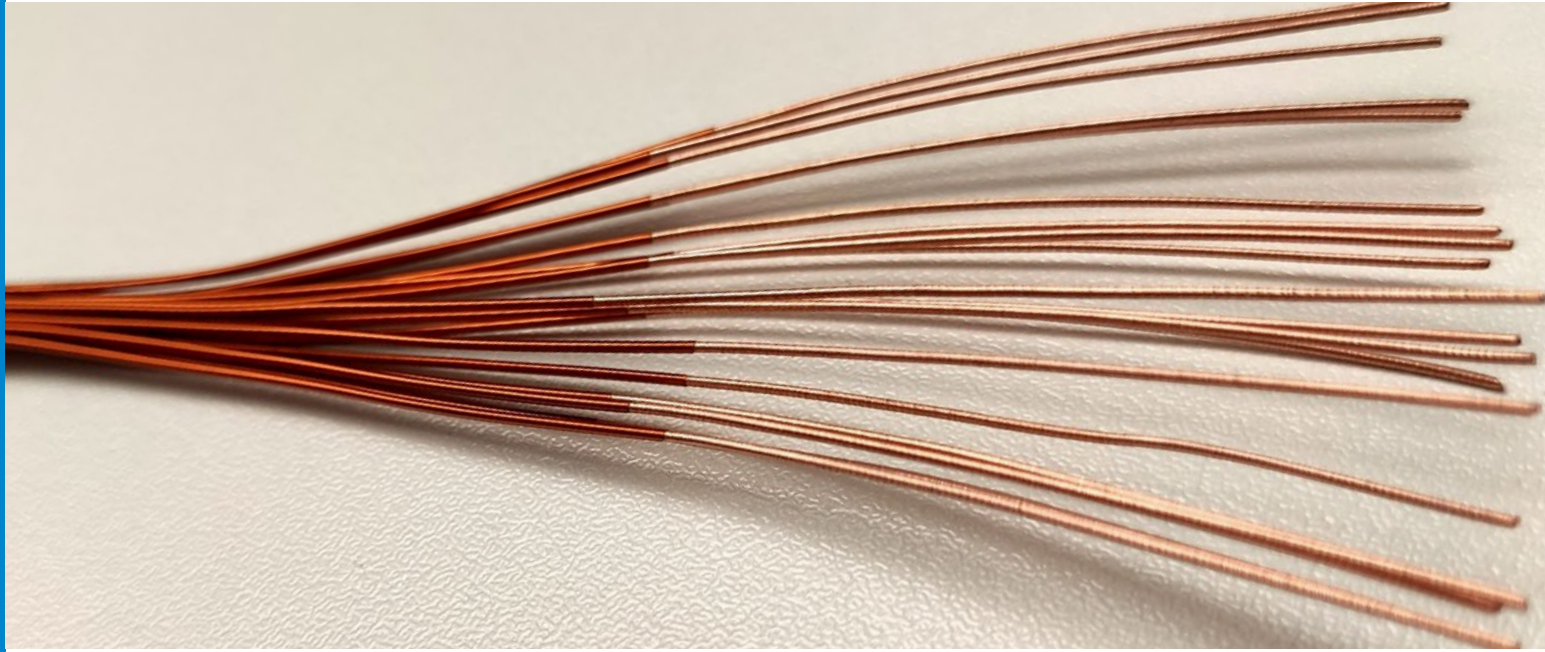
4 Staple Set Disc Brushes

	DK	KD	H	GI	RPM	Pack.	Art.-No.
Filling	mm inch	mm inch	mm inch		max.		
SIC 46/1.6	130 5 1/8	20 3/4	50 2	M 14 x 2.0	2,500	1	405.843
SIC 60/1.5	130 5 1/8	20 3/4	50 2	M 14 x 2.0	2,500	1	405.844
SIC 80/1.2	130 5 1/8	20 3/4	50 2	M 14 x 2.0	2,500	1	405.845

Structuring Brushes with Shank Ø 8 mm

D	A	H	RPM	Pack.	5	
mm inch			max.		STM 0.25 0.010"	SIC 80/1.2
					Art.-No.	Art.-No.
80 3 1/4	35 1 3/8	25 31/32	4,000	1	418.704	
80 3 1/4	35 1 3/8	24 15/16	15,000	1		418.826

Stripping brushes

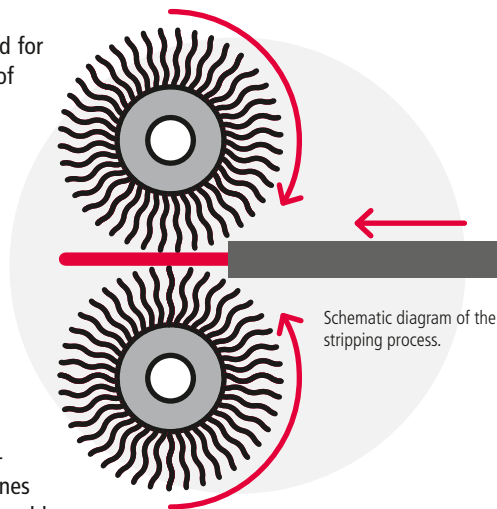


For fast wiring

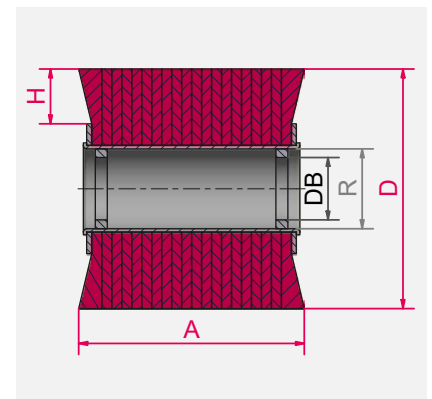
These brushes are specifically designed for a single application: To remove layers of paint and other insulating materials from cables and electrical conductors. They are installed in hand-held or stationary machines. The ground surface of the wires as well as the precise concentricity allow a gentle removal of lacquer from cables without overloading them.

Functionality of the devices

In all devices the cable is stripped between two rotating brushes. The running direction of the brushes determines whether a tensile force is acting on the cable. If the brushes rotate in opposite directions, the cable is pulled into the device, whereas if the brushes rotate in the same direction, no pulling force is generated. With different types of brushes the stripping quality can be adapted and optimized to the cable diameter and insulation material. In addition, they can be continuously adjusted to cables of different thickness by means of a locking screw.



Schematic diagram of the stripping process.



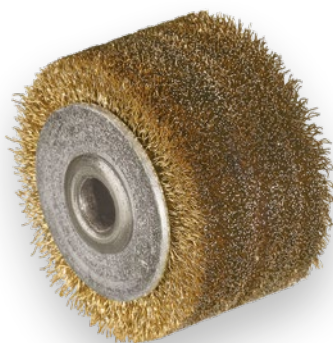
Item Nos. in bold are available ex stock.
Consider our minimum order value for *italic printed* article numbers (see page 178).

STA = steel wire, crimped

STM = brass coated steel, crimped



1



2



3

1 Stripping brushes, steel wire

D mm inch	A mm inch	R mm inch	DB mm	RPM max.	Pack.	STA 0.10 0.004" Art.-Nr.	STA 0.15 0.006" Art.-Nr.	STA 0.20 0.008" Art.-Nr.	STA 0.25 0.010" Art.-Nr.	STA 0.30 0.012" Art.-Nr.
30 1 1/8	20 3/4	8 3/8	6	20.000	10	301.213.10	301.213.15	301.213.20	301.213.25	301.213.30
35 1 3/8	20 3/4	8 3/8	6	18.000	10	301.214.10	301.214.15	301.214.20	301.214.25	301.214.30
40 1 5/8	25 1	12 1/2	10	18.000	10	301.225.10	301.225.15	301.225.20	301.225.25	301.225.30
80 3 1/8	30 1 1/8	30 1 1/8	16	8.000	10			301.236.20	301.236.25	301.236.30

2 Stripping brushes, brass coated steel wire

D mm inch	A mm inch	R mm inch	DB mm	RPM max.	Pack.		STM 0.15 0.006" Art.-Nr.	STM 0.20 0.008" Art.-Nr.	STM 0.25 0.010" Art.-Nr.	STM 0.30 0.012" Art.-Nr.
30 1 1/8	20 3/4	8 3/8	6	20.000	10		301.713.15	301.713.20	301.713.25	
35 1 3/8	20 3/4	8 3/8	6	18.000	10		301.714.15	301.714.20	301.714.25	301.724.30
40 1 5/8	25 1	12 1/2	10	18.000	10			301.725.20	301.725.25	301.725.30
80 3 1/8	30 1 1/8	30 1 1/8	16	8.000	10			301.736.20		301.736.30

3 Stripping brushes, encapsulated steel wire

D mm inch	A mm inch	R mm inch	DB mm	RPM max.	Pack.			STA 0.20 0.008" Art.-Nr.		
35 1 3/8	20 3/4	8 3/8	6	12.000	10			3KG.214.20		
40 1 5/8	25 1	12 1/2	10	18.000	10			3KG.215.20		

Band Saw Brushes



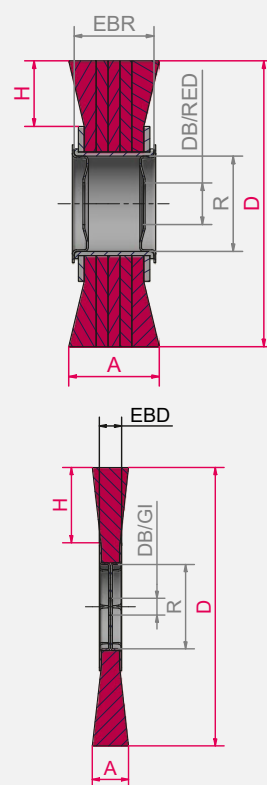
Band Saw Brushes

Wheel Brushes in circular saws or band saws are used for cleaning the chipping space. A wheel brush with diameter 80–100 mm is pressed against the saw blade (circular or band saw). By moving the saw blade or band the brush is rolling and it taking the chipping out of the shipping space. Hence a built-up edge is prevented and the durability of the saw blade extended. The used wheel brushes usually are with steel wire, corded wire or nylon filament.



Notice:

The brushes are suitable for all common machines.



A can be up to 4 mm larger than EBR

EBD = 3.0 mm if $R > 60$

EBD = 2.4 mm if $R \leq 60$

Item Nos. in **bold** are available ex stock.

Consider our minimum order value for *italic printed* article numbers (see page 178).

STA = steel wire, crimped

STM = brass coated steel, crimped

STL = cord wire, crimped

PA = polyamide, crimped

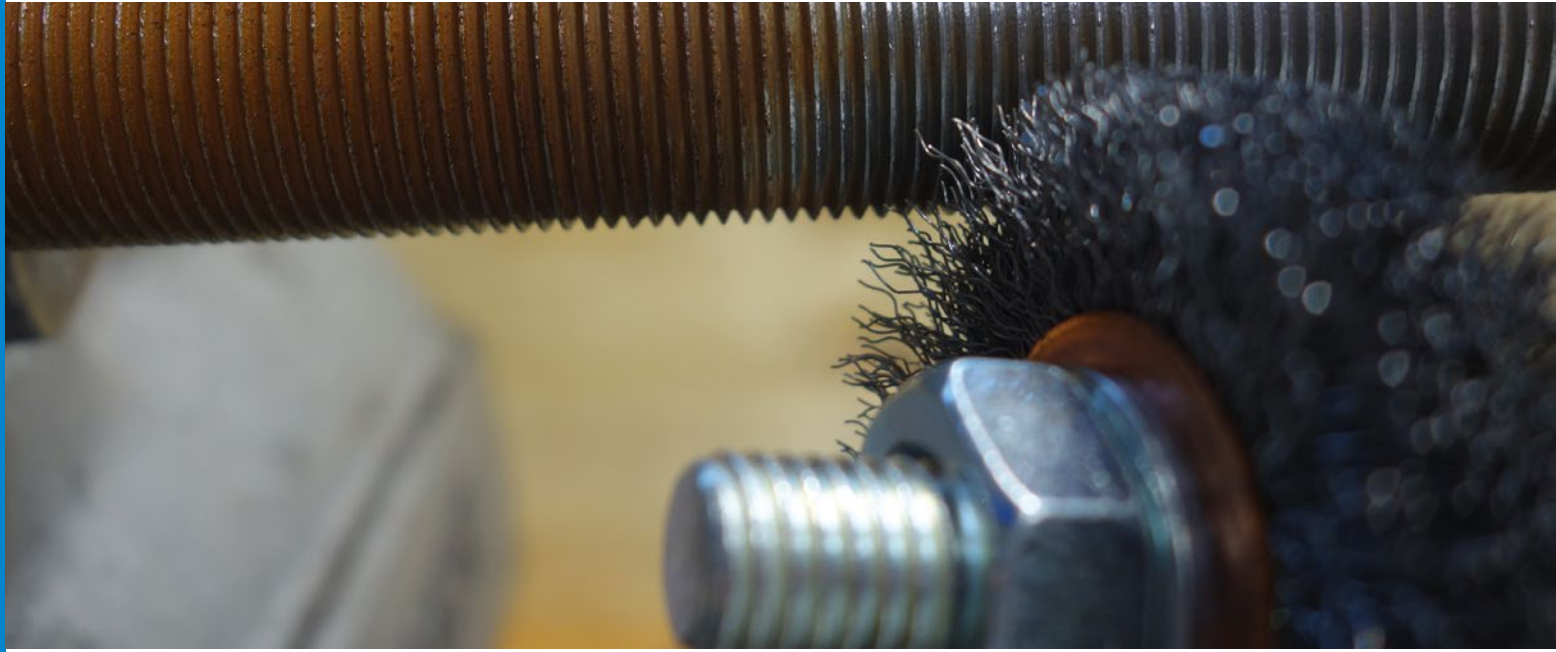


Band Saw Brushes, polyamide										
	D mm inch	A mm inch	R mm inch	H mm inch	DB mm	RPM max.	Pack.	PA 0.50 0.020" Art.-Nr.	PA 0.80 0.031" Art.-No.	PA 1.00 0.039" Art.-No.
1	85 3 11/32	10 25/64	30 1 3/16	14 35/64	12	8,000	10	300.091		
	100 3 15/16	13 33/64	30 1 3/16	21 53/64	12	8,000	10	320.001	320.003	320.009
	100 3 15/16	13 33/64	30 1 3/16	21 53/64	13	8,000	10	320.004		
	125 4 59/64	13 33/64	30 1 3/16	33 1 19/64	13	8,000	5			330.001
2	100 3 15/16	13 33/64	30 1 3/16	21 53/64	SW 17	8,000	10	320.00K.17	320.01K.17	
3	100 3 15/16	20-22 25/32-55/64	30 1 3/16	23 29/32	12	8,000	10		323.002	
4	100 3 15/16	20 25/32	30 1 3/16	23 29/32	12	8,000	5		323.003*	

* bore with plastic sleeve

Band Saw Brushes, steel wire, brass coated steel wire, cord wire																
	D		A		R		H		DB	RPM	Pack.	STA 0.20	STA 0.30	STM 0.20	STM 0.30	STL 4 x 0.25
	mm	inch	mm	inch	mm	inch	mm	inch	mm	max.		Art.-No.	Art.-No.	Art.-No.	Art.-No.	Art.-No.
5	100	3 15/16	13	33/64	30	1 3/16	21	53/64	12	8,000	10		320.161			
	100	3 15/16	13	33/64	30	1 3/16	21	53/64	13	8,000	10		320.161.13			
6	100	3 15/16	12	15/32	30	1 3/16	21	53/64	SW 17	8,000	10		320.16K.17			
7	80	3 5/32	12	15/32	20	25/32	20	25/32	10	15,000	10	312.141				
8	60	2 23/64	10-12 25/64-5/32		8	5/16	19	3/4	6	15,000	10			300.742		
	80	3 5/32	15	19/32	10	25/64	27	1 1/6	6.8	15,000	10			311.742.01		
	80	3 5/32	15	19/32	10	25/64	27	1 1/6	8	15,000	10				311.762	
	80	3 5/32	18-20	45/64-25/32	10	25/64	27	1 1/6	6	15,000	10					310.702.06

Special Models

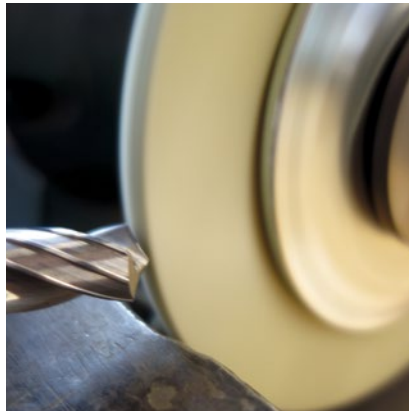


Small diameter crimped wheels SDW

LESSMANN small diameter crimped wheels have a manifold use, e.g. for deburring, cleaning, derusting or paint stripping on various work pieces and surfaces. A typical application e.g. is the cleaning of interior and exterior threads or the treatment of areas which are hard to reach.

The brushes are inserted directly into the machine or are mounted into a drilling machine or fast-moving item with a suitable drive arbor. Depending on the application and requirements several brushes can be mounted in a row. Suitable adapters are available on request.

The typical filling material LESSMANN offers is steel wire, stainless steel wire or abrasive nylon. On request other wire diameters and filling materials are available. All brushes are manufactured with a copper shell.



Wheel Brushes for the treatment of hard metal

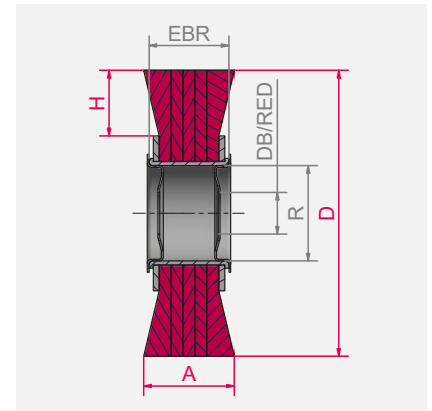
Wheel brushes with diamond filling are often used for the rounding of edges of carbide or diamond tools.

Cutting edges on carbide tools extend the lifetime and allow a higher cutting speed. The treatment on major cutting edges of drills are mainly operated manually. LESSMANN wheel brushes with diamond support to decrease abrasion and to improve the surface quality of the work piece. Due to the consistent and narrow filling a clean and steady dipping of the edges is possible.

Surfaces of chip flutes of carbide drills are finished with brushes with aluminum oxide filling material. Finished chip flutes have a better process stability when drilling.

Stainless Steel Brushes

Information on working on stainless steel you find at www.lessmann.com



Item Nos. in **bold** are available ex stock.

Consider our minimum order value for *italic printed* article numbers (see page 178).

STA = steel wire, crimped

ROF = stainless steel wire, crimped

SIC = silicon carbide bristles

AO = aluminium oxide bristles



Small Diameter crimped Wheels SDW

1								STA 0.15 0.006"	STA 0.20 0.008"	STA 0.35 0.014"	ROF 0.15 0.006"
D	A	EBR	DB	H	RPM	Pack.		Art.-No.	Art.-No.	Art.-No.	Art.-No.
mm inch	mm inch	mm inch	mm inch	mm inch	max.						
50 2	10 3/8	7 9/32	13 1/2	13 1/2	20,000	10		35E.136	35E.146		35E.336
63 2 1/2	10 3/8	7 9/32	13 1/2	20 3/4	20,000	10			36E.146	36E.176	
75 3	12 1/2	7 9/32	13 1/2	20 3/4	20,000	10			37E.146		37E.336
75 3	12 1/2	8 5/16	16 5/8	22 7/8	20,000	10		37E.137	37E.147		

2								SIC 120/0.6	SIC 180/0.9	SIC 320/0.6
D	A	EBR	DB	H	RPM max.	Pack.		Art.-No.	Art.-No.	Art.-No.
mm inch	mm inch	mm inch	mm inch	mm inch						
50 2	10 3/8	8 5/16	13 1/2	12 1/2	20,000	10		35E.846	35E.856	35E.876
50 2	10 3/8	9 23/64	16 5/8	12 1/2	20,000	10		35E.847	35E.857	35E.877
63 2 1/2	10 3/8	8 5/16	13 1/2	18 5/8	20,000	10		36E.846	36E.856	36E.876
63 2 1/2	10 3/8	9 23/64	16 5/8	18 5/8	20,000	10		36E.847		36E.877

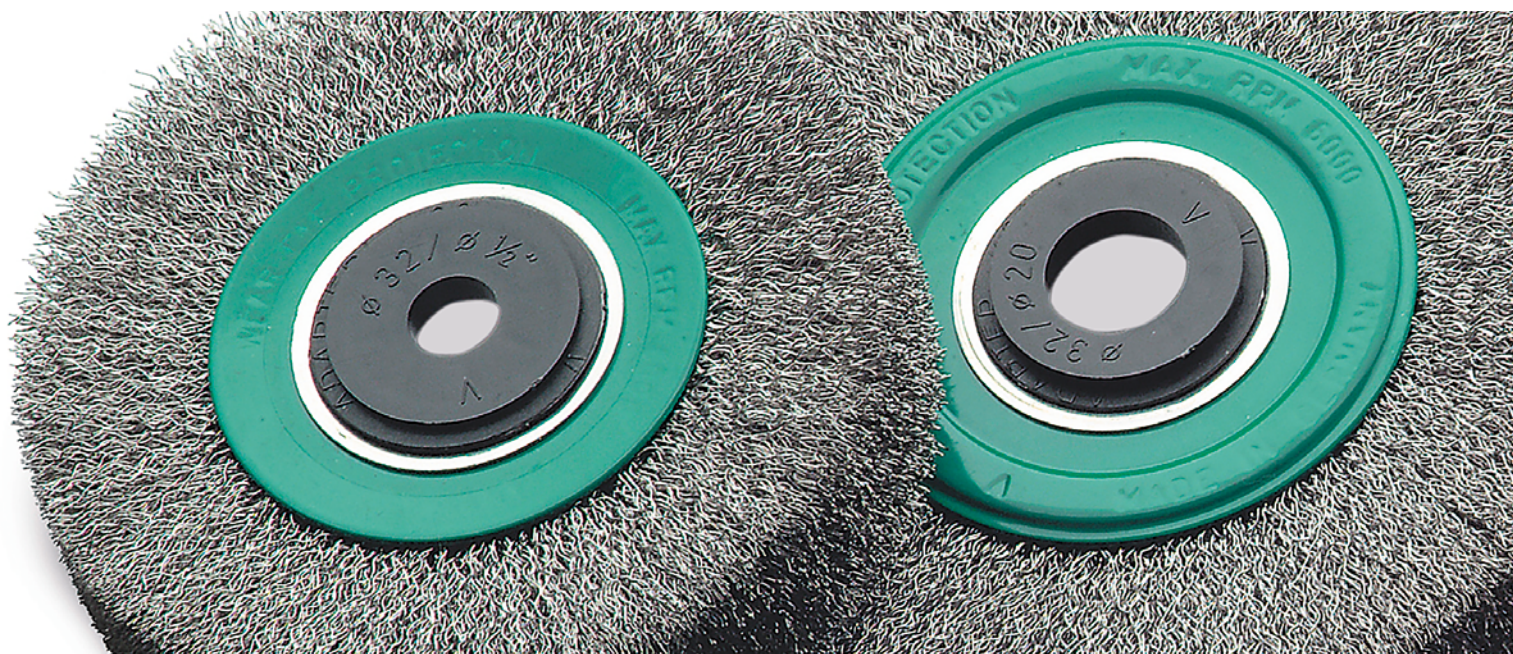
Wheel Brushes for the treatment of hard metal

3								Diamond K400	Diamond K600
D	A	EBR	DB	H	RPM max.	Pack.		Art.-No.	Art.-No.
mm inch	mm inch	mm inch	mm inch	mm inch					
150 6	5 13/64	11 7/16	20 3/4	23 59/64	3,000	1		408.819.DB	408.812.DB
150 6	10 3/8	16.5 21/32	20 3/4	23 59/64	3,000	1		408.829.DB	408.822.DB
150 6	15 5/8	22 7/8	20 3/4	23 59/64	3,000	1		408.839.DB	

4								AO 600
D	A	EBR	DB	H	RPM max.	Pack.		Art.-No.
mm inch	mm inch	mm inch	mm inch	mm inch				
100 4	15 5/8	12 1/2	16 5/8	27 1	3,000	1		320.061*
150 6	15 5/8	15 5/8	20 3/4	23 59/64	3,000	1		345.051*

* Filling with angular cut

Accessories



Adapters

With these adapters the bore can be reduced to the required size.

The wheel brushes are supplied with adapter sets which makes it possible to mount the brushes on all popular grinding machines.

The adapters have the following dimensions:



Set 1 / tube 30

30 / 1" / 22,2 / 20 / 16 / 1/2" / 12

Set 2 / tube 40:

40 / 32 / 1" / 22,2 / 20 / 16 / 1/2"

Set 3 / tube 50:

50 / 32 / 1" / 22,2 / 20 / 16 / 1/2"

Set 4 / tube 80 + 100:

brushes with metal discs, bore 50.8 and double keyway 7x13; plus adapter to bore 30. Further reduction possible with set 1.

Set 5 / tube 80 + 100:

brushes with metal discs, bore 50.8 and double keyway 7x13; plus adapter to bore 32. Further reduction possible with set 1.

A technical advice and safety information leaflet is included.

The practical adapter sets can also be ordered separately.

Single plastic reducing rings in many different dimensions can be supplied ex stock.

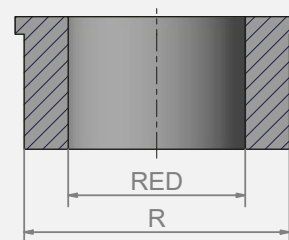
Drive Arbors

For use on drilling machines.

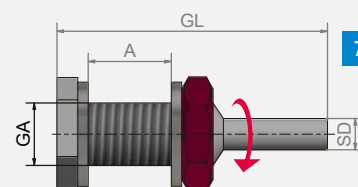
Metal Discs

Brushes with tube diameter 80 and 100 mm are supplied with our standard metal plates made of steel. Occasionally these metal plates are also required for brushes with smaller tubes. The metal plates on this page are therefore also suitable for the brushes on pages 30–33. Please indicate the required bore size on your order and note that normally two metal plates are required for one brush.

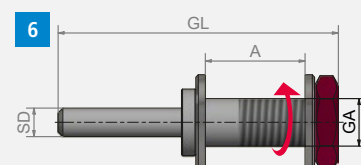
Adapter



Drive Arbor Thread left



Drive Arbor Thread right



Item Nos. in bold are available ex stock.
Consider our minimum order value for *italic printed* article numbers (see page 178).



Adapter Sets

			R	RED	Pack.	Art.-No.
1	Set 1	Tube 30	30	1" - 22.2 - 20 - 16 - 1/2" - 12	2	000.886.63
2	Set 2	Tube 40	40	32 - 1" - 22.2 - 20 - 16 - 1/2"	2	000.886.64
3	Set 3	Tube 50	50	32 - 1" - 22.2 - 20 - 16 - 1/2"	2	000.886.65
4	Set 4	Tube 80/100	50.8	30 (further adapters with Set 1)	2	000.886.68
	Set 5	Tube 80/100	50.8	32	2	000.888.32
5	Single plastic reducing rings in many different dimensions can be supplied ex stock.					

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Drive Arbors

6	D mm inch	GL mm inch	GA	A	RPM max.	Pack.	Art.-No.
	6 1/4	60 2 3/8	M 10 x 1,5	max. 18 mm	4,500	1	000.041
	10 3/8	60 2 3/8	M 10 x 1,5	max. 18 mm	4,500	1	000.042
	10 3/8	75 3	M 14 x 2,0	max. 29 mm	4,500	1	000.043
7	D mm inch	GL mm inch	GA	A	RPM max.	Pack.	Art.-No.
	6 1/4	40 1 3/8	M 10 left	max. 15 mm	4,500	1	000.044
	6 1/4	50 2	M 12 left	max. 20 mm	4,500	1	000.045

Metal Discs as Spare Part

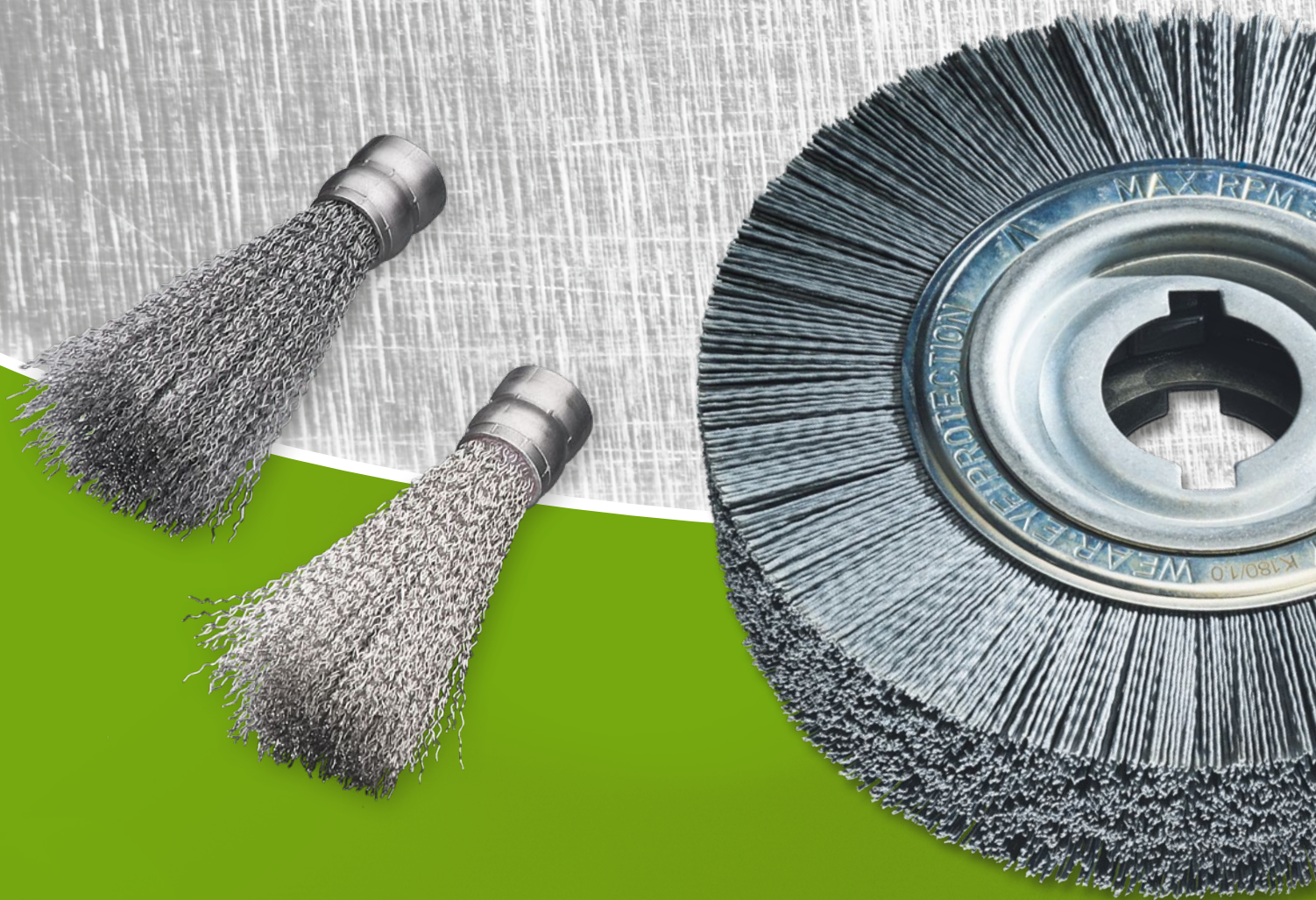
	Pack.	Art.-No.
R 30	2	000.631
R 40	2	000.641
R 50	2	000.651
R 80	2	000.661
R100*	2	000.671

Bore must be indicated!

* On request with double keyset 12 x 7 (50.8 / 52.9 / 54.5)

LESSMANN®

THE GERMAN BRUSH COMPANY



DEBURRING BRUSHES



Deburring Brushes



Part before brushing



Part after brushing



Deburring Brushes

Specially developed wheel brushes for deburring. These are suitable for all common deburring machines. Although they are heavier than other brushes because of their dense filling, we exclude any imbalance by evenly arranged filling material and the testing of every brush. Filled with high-quality wire, these brushes have a longer service life.

All brushes are with double keyway. Please indicate the required bore.

On the following pages you will find the standard measurements. Special measurements are available on request.

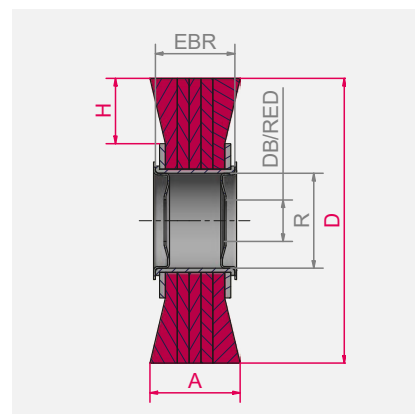
Deburring Brushes with Cord Wire STL / ROL

Deburring Brushes with cord wire are usually used for working on very hard materials. This wire construction gives the wires additional hold, hence the output of the brush is increased.

Encapsulated Deburring Brushes

Are ideal for an aggressive and very exact working. An early break of the wires can be prevented. Therefore the brush has a longer life time and a better durability.

For more information about deburring please ask for our leaflet "Deburring with brushes".



Item Nos. in **bold** are available ex stock. Consider our minimum order value for *italic printed* article numbers (see page 178).

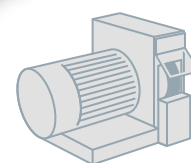
STH = steel wire, high tensile, crimped

STM = brass coated steel, crimped

STL = cord wire, crimped



You can find our **Enquiry Forms** in the respective category under:
www.lessmann.com/index.php/en/content/view/full/61
or in the catalog from page 173



IIIIII
EAN

1 Deburring Brushes, Steel Wire

D	A	EBR	R	H	DB	RPM	Pack.	STH 0.20 0.008"	STH 0.35 0.014"	STH 0.50 0.020"
mm inch	mm inch		mm inch	mm inch	Stand.	max.		Art.-No.	Art.-No.	Art.-No.
250 10	60 2 3/8	58	100 4	50 2	50.8	3,600	1	377.051	377.053	377.054
250 10	60 2 3/8	58	100 4	50 2	52.9	3,600	1	377.051.26	377.053.26	377.054.26
250 10	60 2 3/8	58	100 4	50 2	54.5	3,600	1	377.051.27	377.053.27	377.054.27
250 10	60 2 3/8	55	100 4	50 2	100	3,600	1	377.051.00	377.053.00	377.054.00
250 10	60 2 3/8	53	100 4	50 2	50.8	3,600	1	377.051.T1	377.053.T1	377.054.T1
250 10	60 2 3/8	50	100 4	50 2	100	3,600	1	377.051.TA	377.053.TA	377.054.TA
250 10	80 3 1/4	79	100 4	50 2	50.8	3,600	1	377.052	377.095	377.077
250 10	100 4	99	100 4	50 2	50.8	3,600	1	377.059	377.066	377.096
300 12	60 2 3/8	49	100 4	60 2 3/8	50.8	3,000	1	387.051	387.053	387.054
300 12	100 4	93	100 4	60 2 3/8	50.8	3,000	1	available on demand	387.055	available on demand

IIIIII
EAN

2 Deburring Brushes, Cord Wire, Brass Coated Steel Wire

D	A	EBR	R	H	DB	RPM	Pack.	STL 0.38 0.015"	STM 0.38 0.015"
mm inch	mm inch		mm inch	mm inch	Stand.	max.		Art.-No.	Art.-No.
250 10	60 2 3/8	58	100 4	50 2	50.8	3,600	1	377.043	377.063
250 10	60 2 3/8	55	100 4	50 2	100	3,600	1	377.043.00	377.063.00
250 10	60 2 3/8	53	100 4	50 2	50.8	3,600	1	377.043.T1	377.063.T1
250 10	60 2 3/8	50	100 4	50 2	100	3,600	1	377.043.TA	377.063.TA
250 10	80 3 1/4	79	100 4	50 2	50.8	3,600	1	377.045	available on demand
250 10	100 4	99	100 4	50 2	50.8	3,600	1	377.048	available on demand
250 10	100 4	96	100 4	50 2	100	3,600	1	377.048.00	

All brushes with metal disc and bore 50.8 mm and double keyway 13 x 7 mm!

Further standard bores: 52.9 / 54.5 mm; d min/max: 30 mm ≤ d ≤ R; Deburring Brushes also available with tube 120.

Deburring Brushes



|||||
EAN

Deburring Brushes, Stainless Steel Wire, Cord Wire

										1		2	
D	A	EBR	R	H	DB	RPM	Pack.			ROH 0.20 0.008"	ROH 0.35 0.014"	ROH 0.50 0.020"	ROL 0.35 0.014"
mm inch	mm inch				Stand.	max.				Art.-No.	Art.-No.	Art.-No.	Art.-No.
250 10	60 2 3/8	58	100	50	50.8	3,600	1			377.044	377.089	377.094	377.707
250 10	60 2 3/8	58	100	50	52.9	3,600	1			377.044.26	377.089.26	377.094.26	377.707.26
250 10	60 2 3/8	58	100	50	54.5	3,600	1			377.044.27	377.089.27	377.094.27	377.707.27
250 10	60 2 3/8	55	100	50	100	3,600	1			377.044.00	377.089.00	377.094.00	377.707.00
250 10	60 2 3/8	53	100	50	50.8	3,600	1			377.044.T1	377.089.T1	377.094.T1	377.707.T1
250 10	60 2 3/8	50	100	50	100	3,600	1			377.044.TA	377.089.TA	377.094.TA	377.707.TA
250 10	80 3 1/4	79	100	50	50.8	3,600	1			377.047	377.090	377.097	available on demand
250 10	100 4	99	100	50	50.8	3,600	1			377.049	377.093	377.099	available on demand
300 12	100 4	95	100	60	50.8	3,000	1			available on demand	available on demand	available on demand	available on demand

All brushes with metal disc and bore 50.8 mm and double keyway 13 x 7 mm!

Further standard bores: 52.9 / 54.5 mm; d min/max: 30 mm ≤ d ≤ R; Deburring Brushes also available with tube 120.

|||||
EAN

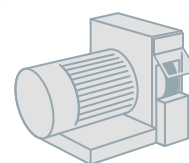
Deburring Brushes, encapsulated

							3		4	
D	A	R	H	DB	Pack.		STH 0.20 0.008"	STH 0.35 0.014"	ROH 0.20 0.008"	ROH 0.35 0.014"
mm inch	mm inch			Stand.			Art.-No.	Art.-No.	Art.-No.	Art.-No.
250 10	13 1/2	100	58	33	1		370.241.KG	370.271.KG	370.441.KG	370.471.KG
250 10	20 3/4	100	57	33	1		370.242.KG	370.272.KG	370.442.KG	370.472.KG

Stainless Steel Brushes

LESSMANN brushes with stainless steel wire have green site plates.

More information for brush applications on stainless materials you will find at www.lessmann.com



2

1

II III
EAN

1 Deburring Brushes, Silicon Carbide Bristles

D	A	EBR	R	H	DB	RPM	Pack.	SIC 80/1.2	SIC 120/1.1	SIC 180/1.0	SIC 320/0.6
mm inch	mm inch		mm inch	mm inch	Stand.	max.		Art.-No.	Art.-No.	Art.-No.	Art.-No.
250 10	60 2 3/8	58	100 4	50 2	50.8	3,600	1	377.824	377.835	377.854	377.875
250 10	60 2 3/8	55	100 4	50 2	100	3,600	1	377.824.00	377.835.00	377.854.00	377.875.00
250 10	50 2	53	100 4	50 2	50.8	3,600	1	377.824.T1	377.835.T1	377.854.T1	377.875.T1
250 10	50 2	50	100 4	50 2	100	3,600	1	377.824.TA	377.835.TA	377.854.TA	377.875.TA
250 10	80 3 1/4	79	100 4	50 2	50.8	3,600	1	available on demand	377.837	available on demand	available on demand
250 10	100 4	99	100 4	50 2	50.8	3,600	1	available on demand	377.839	available on demand	available on demand
300 12	60 2 3/8	55	100 4	60 2 3/8	50.8	3,000	1	387.824	available on demand	available on demand	available on demand
300 12	100 4	95	100 4	60 2 3/8	50.8	3,000	1	available on demand	available on demand	available on demand	available on demand

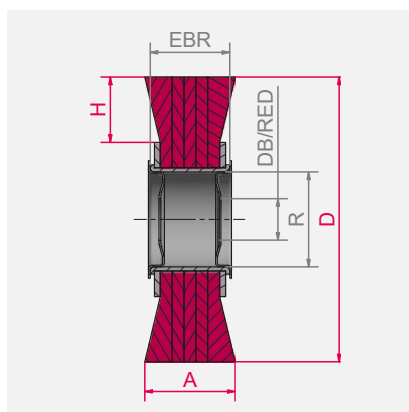
II III
EAN

2 Deburring Brushes, mixed filament

D	A	EBR	R	H	DB	RPM	Pack.	ROF 0.20 - SIC 120			
mm inch	mm inch		mm inch	mm inch	Stand.	max.		Mixed filament with mixing proportion 1:1			
								Art.-No.			
250 10	60 2 3/8	58	100 4	50 2	50.8	3,600	1	377.091			
250 10	60 2 3/8	55	100 4	50 2	100	3,600	1	377.091.00			

All brushes with metal disc and bore 50.8 mm and double keyway 13 x 7 mm!

Further standard bores: 52.9 / 54.5 mm; d min/max: 30 mm ≤ d ≤ R; Deburring Brushes also available with tube 120.



Item Nos. in **bold** are available ex stock.
Consider our minimum order value for *italic printed* article numbers (see page 178).

STH = steel wire, high tensile, crimped

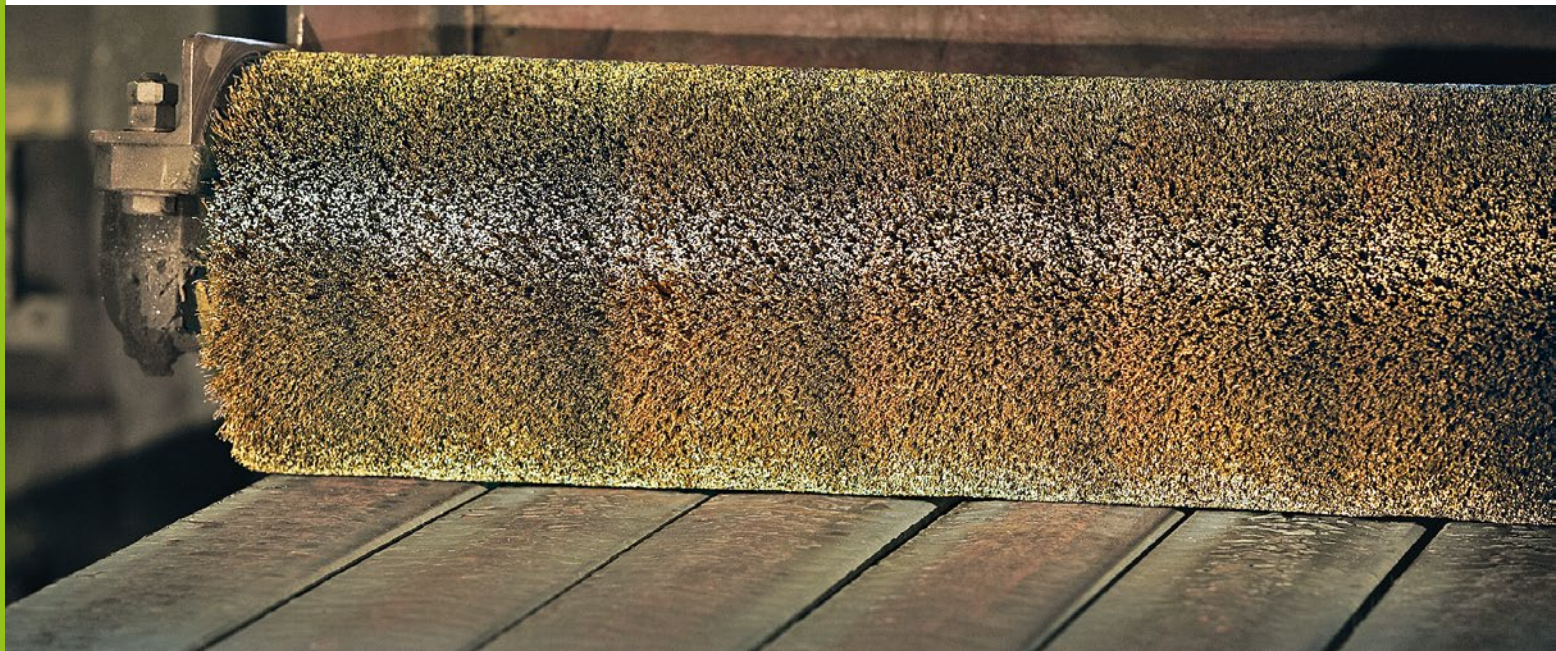
ROL = stainless steel, cord wire

ROH = stainless steel wire, high tensile, crimped

ROF = stainless steel wire, crimped

SIC = silicon carbide bristles

Roller Brushes



Roller Brushes

Roller Brushes for the use in deburring machines. For Deburring e.g. cutting edges of tubes.

As filling material you can choose from steel and stainless steel wire, brass coated steel wire or cord wire. These brushes feature with their dense filling.

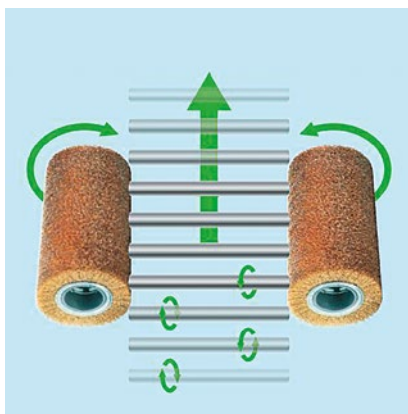
Roller Brushes

Deburring brushes are available with
D = 250–400 mm and
A = 55–700 mm

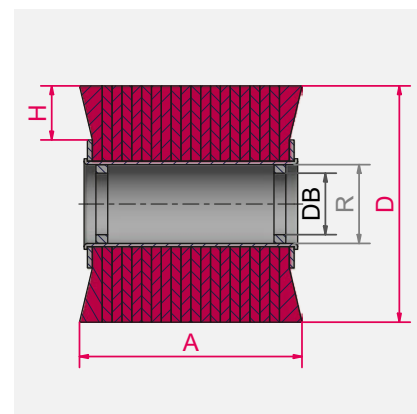
In your inquiry please indicate measure D, A and the bore e.g. 50.8 mm, 52.9 mm or 54.5 mm with double keyway 13 x 7 mm. Other bores up to 120 mm are available on demand.

Moreover we offer with our welded metal plate special collets for the roller brushes. Bores and keyways will be produced customized.

Note: Due to our advanced manufacturing technology it is possible to produce balanced roller brushes without balancing weights. Hence the brush has a steady run throughout its whole lifetime.



Function chart of a deburring machine with roller brushes



Item Nos. in **bold** are available ex stock.
Consider our minimum order value for *italic printed* article numbers (see page 178).

STH = steel wire, high tensile, straight

STL = cord wire, crimped

ROH = stainless steel wire, high tensile, crimped

SIC = silicon carbide bristles



Strip brushes for deburring machines you find on pages 158 et seq.



Roller Brushes, Steel Wire, Cord Wire

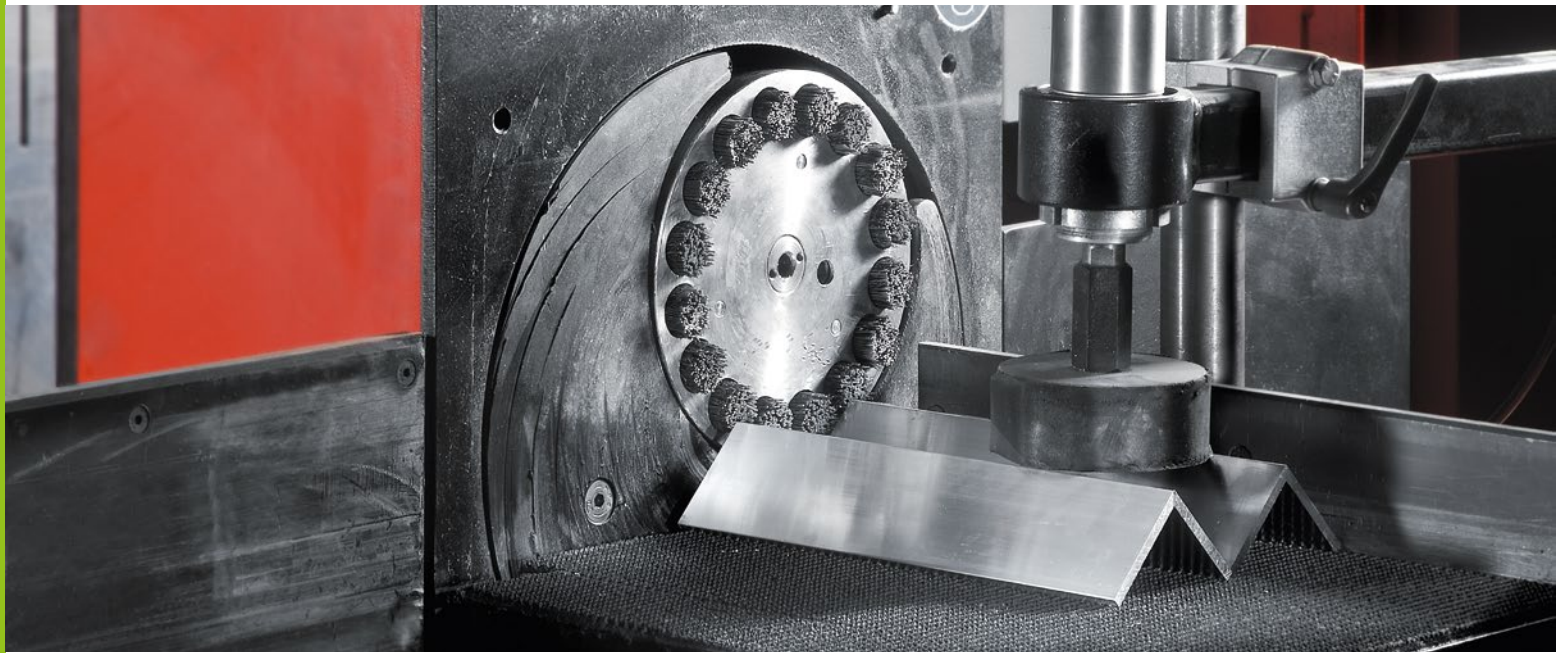
D	A	R	H	DB	RPM	Pack.	STH 0.20 0.008"	STH 0.35 0.014"	STH 0.50 0.020"	STL 0.38 0.015"
mm inch	mm inch	mm inch	mm inch	Stand.	max.		Art.-No.	Art.-No.	Art.-No.	Art.-No.
250 10	300 12	100 4	50 2	100	3,600	1	377.240.30	377.270.30	377.290.30	377.780.30
250 10	460 18	100 4	50 2	100	3,600	1	377.240.46	377.270.46	377.290.46	377.780.46
250 10	600 24	100 4	50 2	100	3,600	1	377.240.60	377.270.60	377.290.60	377.780.60
300 12	460 18	100 4	60 2 3/8	100	3,000	1	387.240.46	387.270.46	387.290.46	387.780.46
300 12	450 17 7/8	120 4 3/4	50 2	120	3,000	1		388.270.45		
300 12	460 18	120 4 3/4	50 2	120	3,000	1	388.240.46	388.270.46	388.290.46	388.780.46
300 12	600 24	120 4 3/4	50 2	120	3,000	1	388.240.60	388.270.60	388.290.60	388.780.60

Roller Brushes, Stainless Steel, Abrasive Bristles

D	A	R	H	DB	RPM	Pack.	ROH 0.20 0.008"	ROH 0.35 0.014"	ROH 0.50 0.020"	SIC 120 / 1.1
mm inch	mm inch	mm inch	mm inch	Stand.	max.		Art.-No.	Art.-No.	Art.-No.	Art.-No.
250 10	300 12	100 4	50 2	100	3,600	1	377.440.30	377.470.30	377.490.30	377.830.30
250 10	460 18	100 4	50 2	100	3,600	1	377.440.46	377.470.46	377.490.46	377.830.46
250 10	600 24	100 4	50 2	100	3,600	1	377.440.60	377.470.60	377.490.60	377.830.60
300 12	460 18	100 4	60 2 3/8	100	3,000	1	387.440.46	387.470.46	387.490.46	387.830.46
300 12	460 18	120 4 3/4	50 2	120	3,000	1	388.440.46	388.470.46	388.490.46	388.830.46
300 12	600 24	120 4 3/4	50 2	120	3,000	1	388.440.60	388.470.60	388.490.60	388.830.60

Other measurements and filling materials as well as collets in special measurements are available on request.

Deburring End Brushes



Deburring End Brushes

These brushes are perfect for deburring tubes, profiles or even plane surfaces. Deburring end brushes are used in a set of 8, 16 or 24 single end brushes integrated in one deburring device.

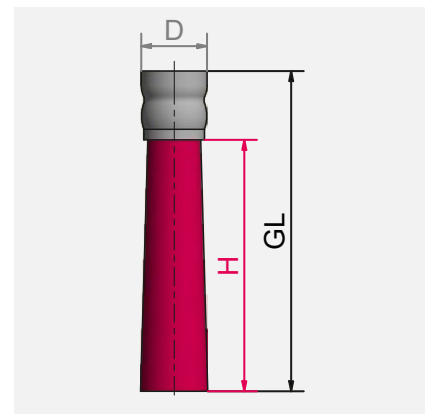
The metal bush fits all standard collets.

Stainless Steel

Information on working on stainless steel material you find at: www.lessmann.com



Schematic diagram of a deburring device for deburring end brushes



Item Nos. in bold are available ex stock.
Consider our minimum order value for *italic printed* article numbers (see page 178).

STH = steel wire, high tensile, straight

STL = cord wire, crimped

ROH = stainless steel wire, high tensile, crimped

SIC = silicon carbide bristles



1 Deburring End Brushes, Steel Wire

D	GL	H	Pack.	STH 0.20 0.008"	STH 0.35 0.014"	STH 0.50 0.020"
mm inch	mm inch	mm inch		Art.-No.	Art.-No.	Art.-No.
25 1	120 4 ^{3/4}	95 3 ^{1/2}	16	048.241	048.271	048.291

2 Deburring End Brushes, CordWire

D	GL	H	Pack.	STL 0.35 0.014"
mm inch	mm inch	mm inch		Art.-No.
25 1	120 4 ^{3/4}	95 3 ^{1/2}	16	048.701

3 Deburring End Brushes, Stainless Steel Wire

D	GL	H	Pack.	ROH 0.20 0.008"	ROH 0.35 0.014"	ROH 0.50 0.020"
mm inch	mm inch	mm inch		Art.-No.	Art.-No.	Art.-No.
25 1	120 4 ^{3/4}	95 3 ^{1/2}	16	048.441	048.471	048.491

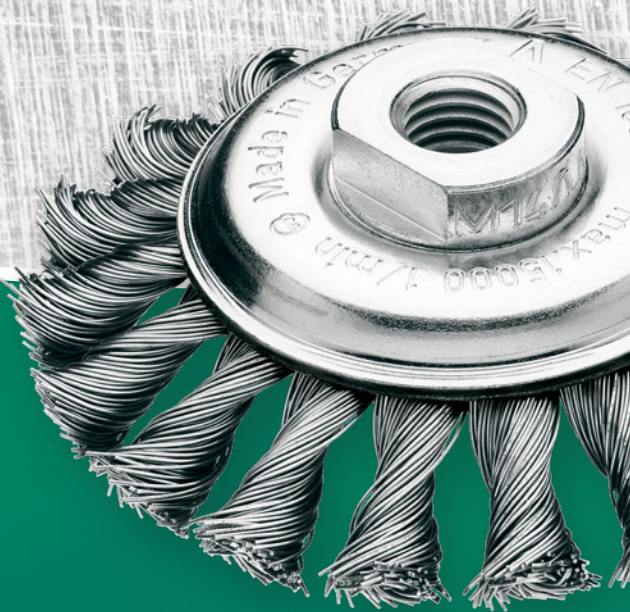
Deburring End Brushes, Silicon Carbide Bristles, mixed wire

				4			5
D	GL	H	Pack.	SIC 80 / 1.2	SIC 120 / 1.1	SIC 180 / 1.0	SIC 120 / 1.1 - ROH 0.20
mm inch	mm inch	mm inch		Art.-No.	Art.-No.	Art.-No.	Art.-No.
25 1	120 4 ^{3/4}	95 3 ^{1/2}	16	048.821	048.841	048.851	048.901*
25 1	120 4 ^{3/4}	95 3 ^{1/2}	16				048.941**

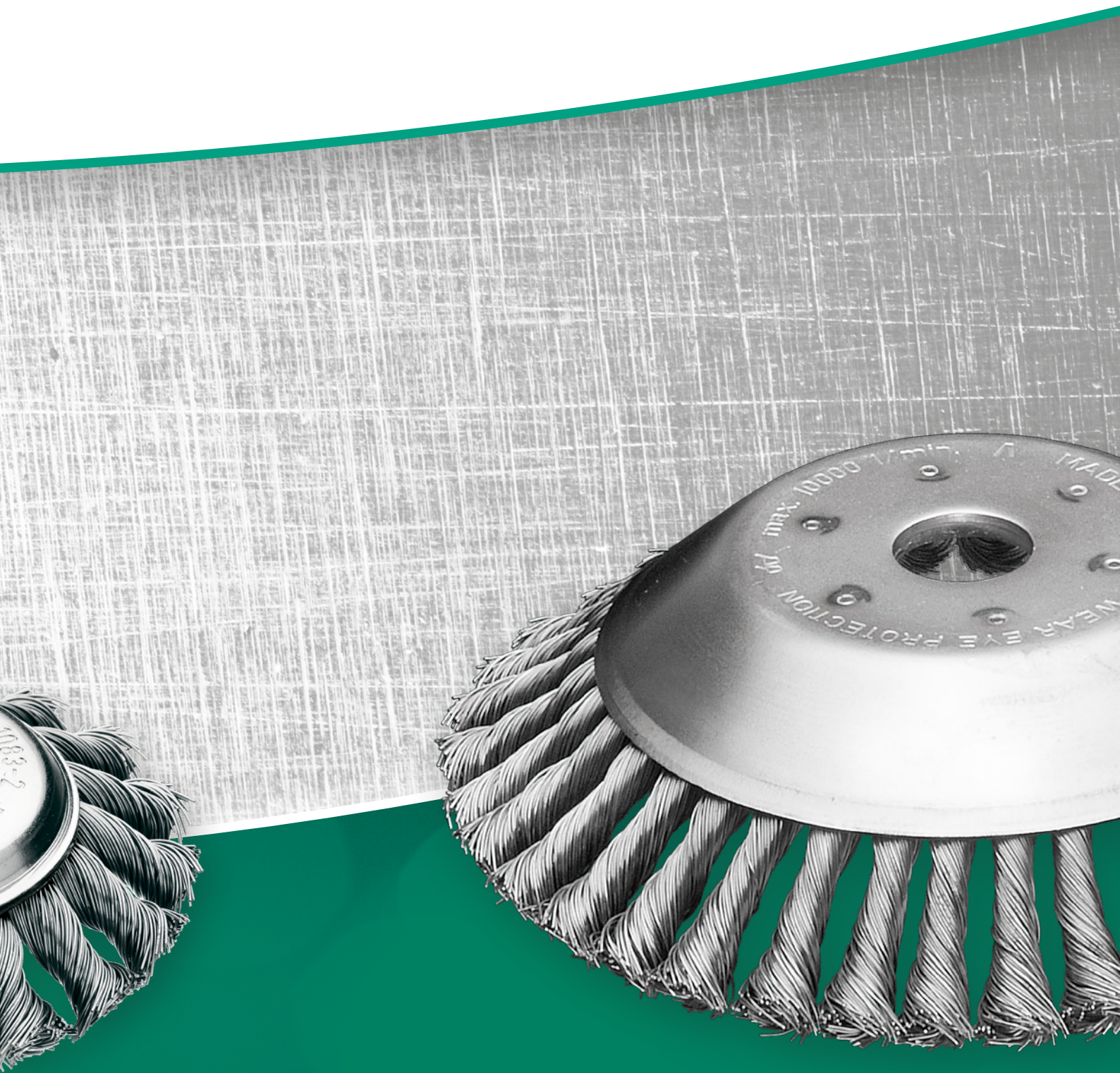
* Mixing proportion 1:1 | ** Mixing proportion 2:1

LESSMANN®

THE GERMAN BRUSH COMPANY



CUP AND BEVEL BRUSHES



Cup Brushes



Cup Brushes

Knot cup brushes are for heavy duty use: for the preparing of metal surfaces before painting, the removal of slag, rust, scale or concrete waste.

The brushes diameter 80/100/125 mm (Art. No. 484/486/487) have a **bridle** fitted for stability. The bridle can be removed after wear of the wire exposing a further 20 mm of useable wire!

User tip: We recommend the use of our brush with diameter 90 mm for small angle grinders. Compared to the common brush with diameter 65 mm this model has 50 % more wire and it is really something special in the brush market!

Cup brushes with narrow knots

Our new range of cup brushes with narrower six millimetre knots is optimized for usage on flat surfaces, weld seams and firmly attached dirt:

- Improved removal rate, therefore more efficient working
- Less imbalance, therefore quieter working
- Long lifetime
- Attractive price-performance ratio

Knot Cup Brushes with extra long filling

For the use on large areas and for a flexible cleaning and derusting of e.g. shipyards. For a use in angle grinders. Easy working also in areas which are hard to reach.

Cup Brushes, left-right knotted

Left-right knotted cup brushes usually are more aggressive, hence they are often used for heavy brushing operations. Besides the knots open less, therefore they are ideal for the treatment of edges.

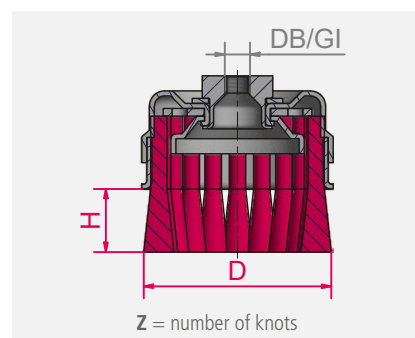
Cup Brushes

Cup brushes with crimped wire are ideal for working on large surfaces with angle grinders. They can also be used for the removal of rust, paint, dirt or scale and for polishing.

Special Designs

The cup brushes can be delivered with different filling materials according to your requirements e.g. brushes with brass cups and brass wire for non-sparkling applications.

For promoting sales all standard wheel brushes are packed individually for self display. They are also available in bulk.



You can find our **tutorials** here:
www.lessmann.com/index.php/en/content/view/full/711



You can find our **Enquiry Forms** in the respective category under:
www.lessmann.com/index.php/en/content/view/full/61 or in the catalog from page 173



Chunky packaging

Many articles you receive as standard in handy covering boxes with 10 pcs.



Item Nos. in bold are available ex stock. Consider our minimum order value for *italic printed* article numbers (see page 178).

STH = steel wire, high tensile, straight

STM = brass coated steel, straight

MES = brass wire

BRO = bronze wire

ROH = stainless steel wire, high tensile, straight



Attention!
Starting in summer 2023, we will gradually convert all threads to star shape.



CUP AND BEVEL BRUSHES

IIIIII
EAN

Knot Cup Brushes without Bridle, 1 Row, Steel Wire, Brass coated Steel Wire

	D mm inch	GI	H mm inch	Z	RPM max.	Pack.	5				
							STH 0.35 0.014"	STH 0.50 0.020"	STH 0.80 0.031"	STM 0.35 0.014"	STM 0.50 0.020"
							Art.-No.	Art.-No.	Art.-No.	Art.-No.	Art.-No.
1	65 2 1/2	M 10 x 1.5	20 3/4	18	12,500	1	482.114*	482.214*	available on demand		
	65 2 1/2	M 14 x 2.0	20 3/4	18	12,500	1	482.117*	482.217*	482.317*	482.117.SM*	482.217.SM*
	75 3	M 14 x 2.0	20 3/4	20	12,500	1	483.117*	483.217*	483.317		
2	90 3 1/2	M 14 x 2.0	22 7/8	20	11,500	1	485.137*	485.237*	485.337		485.237.SM*
3	100 4	M 14 x 2.0	25 1	26	9,000	1	available on demand	486.237*	available on demand		
	125 5	M 14 x 2.0	25 1	32	7,000	1	available on demand	487.237	available on demand		
	150 6	M 14 x 2.0	30 1 1/4	36	6,600	1	available on demand	488.237	available on demand		
	150 6	5/8" - 11 UNC	30 1 1/4	36	6,600	1	available on demand	488.238	available on demand		
4	65 2 1/2	M 14 x 2.0	20 3/4	18	12,500	1	available on demand	482.217.WZ*			

IIIIII
EAN

6 Cup brushes with narrow knots

D mm inch	GI	H mm inch	Z	RPM max.	Pack.	STH 0,50 0.020"
						Art.-No.
65 2 1/2	M14 x 2,0	20 3/4	30	12,500	1	482.207
65 2 1/2	5/8" - 11 UNC	20 3/4	30	12,500	1	482.208
65 2 1/2	M10 x 1,5	20 3/4	30	12,500	1	482.204

IIIIII
EAN

7 Knot Cup Brushes, without Bridle, 1 Row, Steel Wire, with extra long filling

D mm inch	GI	H mm inch	Z	RPM max.	Pack.	STH 0.35 0.014"	STH 0.50 0.020"
						Art.-No.	Art.-No.
80 3 1/4	M 14 x 2.0	33 1 1/4	18	12,500	25	480.117	480.217

IIIIII
EAN

8 Knot Cup Brushes without Bridle, 2 Rows, Steel Wire

D mm inch	GI	H mm inch	Z	RPM max.	Pack.	STH 0.35 0.014"	STH 0.50 0.020"	STH 0.80 0.031"
						Art.-No.	Art.-No.	Art.-No.
100 4	5/8" - 11 UNC	25 1	26+20	9,000	1	486.148	486.248	486.348
125 5	5/8" - 11 UNC	25 1	32+26	7,000	1	available on demand	487.248	available on demand
150 6	5/8" - 11 UNC	25 1	36+32	6,600	1	available on demand	488.248	available on demand

* Packed 10 pieces per carton

Cup Brushes



|||||
EAN

Knot Cup Brushes with Bridle, 1 Row, Steel Wire

1									
D	DB/GI	H	H ₁	Z	RPM	Pack.	STH 0.35 0.014"	STH 0.50 0.020"	STH 0.80 0.031"
mm inch	mm inch	mm inch	mm inch		max.		Art.-No.	Art.-No.	Art.-No.
80 3 1/4	22.2 7/8	25 1	15 5/8	20	9,000	1			484.311*
80 3 1/4	M 14 x 2.0	25 1	15 5/8	20	9,000	1	484.117*	484.217*	484.317*
80 3 1/4	5/8" - 11 UNC	25 1	15 5/8	20	9,000	1	484.118	484.218	484.318
100 4	22.2 7/8	23 7/8	12 1/2	26	9,000	1	486.111	486.211*	486.311*
100 4	M 14 x 2.0	23 7/8	12 1/2	26	9,000	1	486.117*	486.217*	486.317*
100 4	5/8" - 11 UNC	23 7/8	12 1/2	26	9,000	1	486.118	486.218*	486.318*
125 5	22.2 7/8	23 7/8	15 5/8	32	6,600	1			487.311**
125 5	M 14 x 2.0	23 7/8	15 5/8	32	6,600	1	487.117	487.217	487.317
125 5	5/8" - 11 UNC	23 7/8	15 5/8	32	6,600	1	487.118	487.218	487.318

|||||
EAN

Knot Cup Brushes with Bridle, 1 Row, bronze wire, fittings brass

								2	
D	DB/GI	H	H ₁	Z	RPM	Pack.		BRO 0.50 0.020"	
mm inch	mm inch	mm inch	mm inch		max.			Art.-No.	
125 5	16 5/8	23 7/8	15 5/8	32	4,000	1		487.011.MS**	

After removing the bridle there is the following further trimming length (see measure H1).

* Packed 10 pieces per carton.

** This brush doesn't work with angle grinders.

Attention!
Starting in summer 2023,
we will gradually convert
all threads to star shape.



Six wrench flats instead
of only two give you
more flexibility when
working.

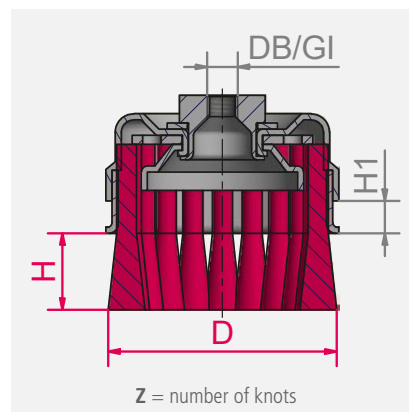
Item Nos. in **bold** are available ex stock.
Consider our minimum order value for *italic printed*
article numbers (see page 178).

STH = steel wire, high tensile, straight

ROH = stainless steel wire, high tensile,
straight

ROH = premium quality stainless steel wire

BRO = bronze wire





IIIIII
EAN

Knot Cup Brushes without Bridle, 1 Row, Stainless Steel Wire

	D mm inch	GI	H mm inch	Z	RPM max.	Pack.	ROH 0.35 0.014" Art.-No.	ROH 0.50 0.020" Art.-No.	RO4 0.50 0.020" Art.-No.
1	65 2 1/2	M 10 x 1.5	20 3/4	18	12,500	1	482.714	482.814*	
	65 2 1/2	M 14 x 2.0	20 3/4	18	12,500	1	482.717*	482.817*	482.517*
	75 3	M 14 x 2.0	20 3/4	20	12,500	1	available on demand	483.817*	
	80 3 1/4	M 14 x 2.0	33 1 1/4	18	15,500	25	480.717	available on demand	
2	65 2 1/2	M 14 x 2.0	20 3/4	18	12,500	1	available on demand	482.817.WZ*	

IIIIII
EAN

3 Knot Cup Brushes with Bridle, 1 Row, Stainless Steel Wire

	D mm inch	GI mm inch	H mm inch	H ₁ mm inch	Z	RPM max.	Pack.	ROH 0.35 0.014" Art.-No.	ROH 0.50 0.020" Art.-No.
	80 3 1/4	M 14 x 2.0	25 1	15 5/8	20	9,000	1	484.717	484.817*
	80 3 1/4	5/8" - 11 UNC	25 1	15 5/8	20	9,000	1	484.718	484.818
	100 4	M 14 x 2.0	23 7/8	12 1/2	26	9,000	1	486.717*	486.817*
	100 4	5/8" - 11 UNC	23 7/8	12 1/2	26	9,000	1	486.718	486.818
	125 5	M 14 x 2.0	23 7/8	15 5/8	32	6,600	1	available on demand	487.817

* Packed 10 pieces per carton

IIIIII
EAN

4 Cup brushes with narrow knots, Stainless Steel Wire

	D mm inch	GI	H mm inch	Z	RPM max.	Pack.	ROH 0.50 0.020" Art.-No.
	65 2 1/2	M14 x 2,0	20 3/4	30	12,500	1	482.807
	65 2 1/2	5/8" - 11 UNC	20 3/4	30	12,500	1	482.808

IIIIII
EAN

Knot Cup Brushes without Bridle, 1 Row, brass wire, bronze wire

	D mm inch	GI	H mm inch	Z	RPM max.	Pack.	MES 0.35 0.014" Art.-No.	MES 0.50 0.020" Art.-No.	BRO 0.50 0.020" Art.-No.
	65 2 9/16	M 14 x 2.0	20 51/64	18	12,500	1	482.017	482.027	482.057

Stainless Steel Brushes

LESSMANN brushes with stainless steel wire have green cups. More information for brush

applications on stainless materials you will find at www.lessmann.com

Cup Brushes



|||||
EAN

Cup Brushes with Crimped Wire

						1			2		3
D	DB/GI	H	RPM	Pack.		STA 0.20 0.008"	STA 0.35 0.014"	STA 0.50 0.020"	ROF 0.35 0.012"	RO4 0.30 0.012"	MES 0.30 0.012"
mm inch	mm inch		max.			Art.-No.	Art.-No.	Art.-No.	Art.-No.	Art.-No.	Art.-No.
65 2 3/8	M 10 x 1,5	20	12,000	1			421.164 ¹		421.364		421.564
65 2 3/8	M 14 x 2.0	20	12,000	1		421.147	421.167 ¹	421.197	421.367 ¹	421.467 ¹	421.567 ¹
75 3	M 14 x 2.0	22	12,500	1			423.167 ¹	on demand	423.367 ^{1/2}		on demand
75 3	5/8" - 11 UNC	22	12,500	1			423.168 ¹	on demand	423.368 ²		on demand
80 3 1/4	22.2 7/8	25	8,500	1			424.171 ¹	on demand	424.361		on demand
80 3 1/4	M 14 x 2.0	25	8,500	1		424.147	424.177 ¹	424.197	424.367 ¹		424.567
80 3 1/4	5/8" - 11 UNC	25	8,500	1			424.178	424.198	424.368		on demand
100 4	22.2 7/8	30	9,000	1			426.171 ¹		426.361		
100 4	M 14 x 2.0	30	9,000	1		426.147 ¹	426.177 ¹	426.197 ¹	426.367 ¹		426.567
100 4	5/8" - 11 UNC	30	9,000	1			426.178 ¹	426.198	426.368		426.568
125 5	22.2 7/8	30	8,000	1			427.171 ³	on demand	on demand		on demand
125 5	M 14 x 2.0	30	8,000	1		427.147	427.177	427.297	427.367 ¹		427.567 ¹
125 5	5/8" - 11 UNC	30	8,000	1			427.178	427.298			
150 6	22.2 7/8	40	6,500	1			429.171				
150 6	M 14 x 2.0	40	6,500	1			429.177	429.197	429.367		
150 6	5/8" - 11 UNC	40	6,500	1			429.178	429.198			

|||||
EAN

Cup Brushes, Cord Wire, Brass Coated Steel Wire, Silicon Carbide Bristles

						4			
D	DB/GI	H	RPM	Pack.		STL 0.35 0.014"	STM 0.30 0.012"	SIC 80/1.2	SIC 180/0.9
mm inch			max.			Art.-No.	Art.-No.	Art.-No.	Art.-No.
65 2 3/8	M 14 x 2.0	20	12,000	1			421.767	421.827	421.857
100 4	22.2 7/8	30	9,000	1		426.701			
100 4	M 14 x 2.0	30	9,000	1			426.767		

¹ Packed 10 pieces per carton.

² Version with filament ROF 0.35!

³ This brush doesn't work with angle grinders.



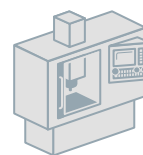
1



2



3

II IIII
EAN

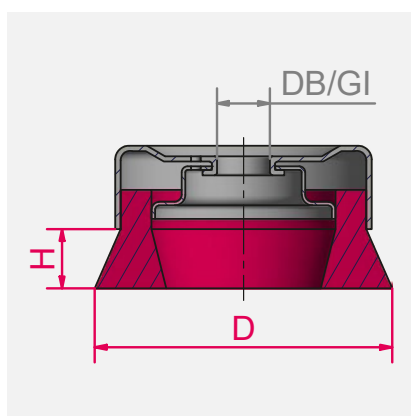
Cup Brushes, Straight Filament

	D	DB/GI	H	RPM	Pack.	STH 0.35 0.014"	STM 0.35 0.014"	STL 0.35	SIC 80/1.2	SIC 180/1.0
	mm inch	mm inch		max.		Art.-No.	Art.-No.	Art.-No.	Art.-No.	Art.-No.
1	90 3 ^{1/2}	M 14	25	9,000	1				446.827*	446.857*
	90 3 ^{1/2}	22.2 7/8	25	9,000	1				available on demand	446.851**
3	100 4	M 14	30	9,000	1	446.277*	446.777*			
	100 4	22.2 7/8	30	9,000	1	446.271*	446.771*	446.701*		
2	110 4 ^{1/2}	M 14	30	7,000	1				447.827*	447.857*
3	125 5	M 14	30	5,000	1	447.277*	available on demand	447.707		

1 with bridle | * Packed 10 pieces per carton
 ** This brush doesn't work with angle grinders.

Cup Brushes with Straight Wire

They are used for deburring surfaces, mostly in machining centers. The brushes are available with steel wire, stainless steel wire, abrasive nylon or any other filament. Due to the straight cup the filament of the brush is less flaring out and more cone points of the bristles work on the surface. Please contact us for more information!



Item Nos. in **bold** are available ex stock.
 Consider our minimum order value for *italic printed* article numbers (see page 178).

STA = steel wire, crimped

STH = steel wire, high tensile, straight

STM = brass coated steel, crimped

STL = cord wire, crimped

ROH = stainless steel wire, high tensile, crimped

RO4 = premium quality stainless steel wire

MES = brass wire, crimped

SIC = silicon carbide bristles

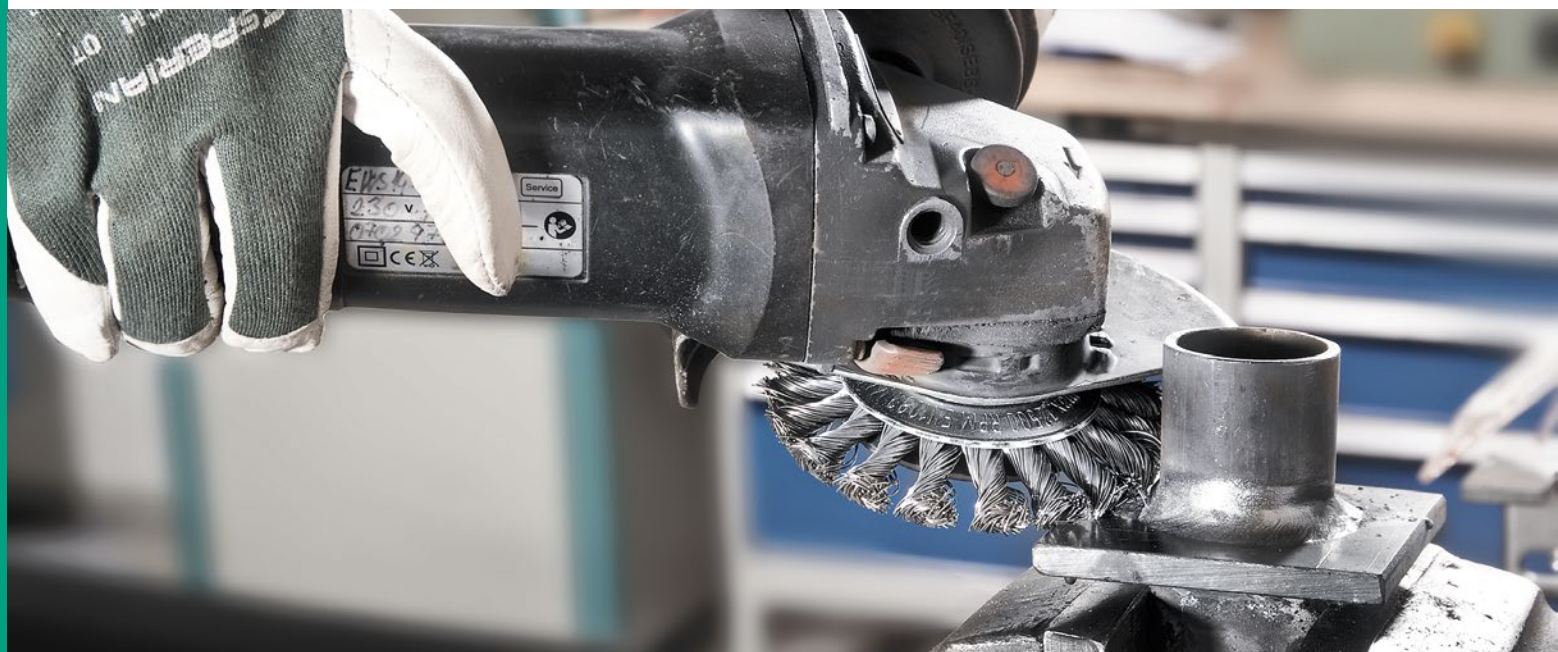
Attention!
 Starting in summer 2023,
 we will gradually convert all
 threads to star shape.



Six wrench flats
 instead of only
 two give you
 more flexibility
 when working.



Bevel Brushes

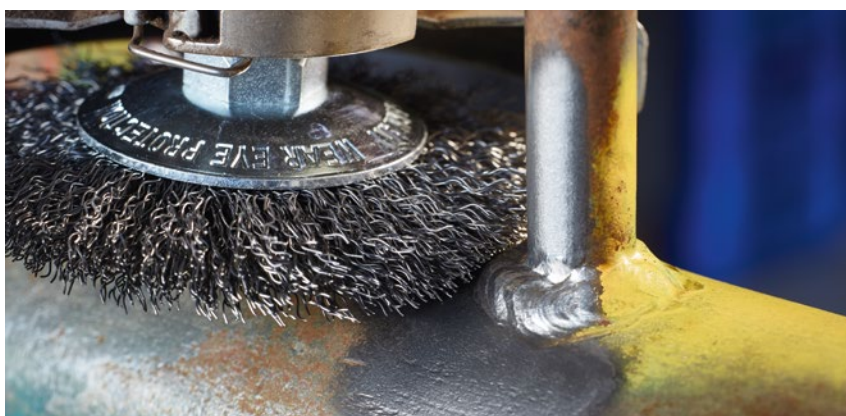


Bevel Brushes

The special shape of these brushes enables the user to work in hard to reach places. The knots are left hand twisted to increase stability. For promoting sales all standard knot bevel brushes are packed individually for self display. These brushes are also available bulk packed.

Wheel Brushes with thread

Like bevel brushes, wheel brushes with a thread are ideal for working in areas which are hard to reach. Usually the brushes are used on angle grinders.



Other measurements and filling materials are available on request.

Stainless Steel Brushes

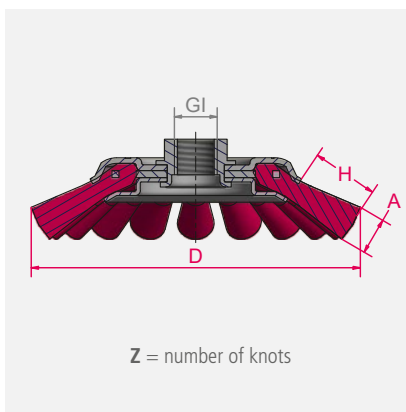
LESSMANN brushes with stainless steel wire have green cups. We use wire with material number 1.4310. Material number 1.4401 can be used on request.

More information for brush applications on stainless materials you will find at www.lessmann.com

Bevel Brushes, left-right knotted

Left-right knotted bevel brushes usually are more aggressive, hence they are often used for heavy brushing operations.

Besides the knots open less, therefore there are ideal for the treatment of edges.



Item Nos. in bold are available ex stock. Consider our minimum order value for *italic printed* article numbers (see page 178).

STA = steel wire, crimped

STM = brass coated steel wire

STH = steel wire, high tensile, straight

ROF = stainless steel wire, crimped

ROH = stainless steel wire, high tensile, straight



Attention!

Starting in summer 2023, we will gradually convert all threads to star shape.

Six wrench flats instead of only two give you more flexibility when working.



IIIIII
EAN**Knot Bevel Brushes, Steel Wire, Stainless Steel Wire**

D mm inch	A mm inch	GI mm inch	H	Z	RPM max.	Pack.	1		2	
							STH 0.35 0.014"	STH 0.50 0.020"	ROH 0.35 0.014"	ROH 0.50 0.020"
							Art.-No.	Art.-No.	Art.-No.	Art.-No.
100 4	12 1/2	M 10 x 1.5	20	18	15,000	1		471.254		
100 4	12 1/2	M 14 x 2.0	20	18	15,000	1	471.157*	471.257	471.757*	471.857*
115 4 1/2	12 1/2	M 14 x 2.0	24	20	15,000	1	472.157*	472.257	472.757*	472.857*
115 4 1/2	12 1/2	M 14 x 2.0	24	24	15,000	1		472.257.V4*		
125 5	12 1/2	M 14 x 2.0	29	20	15,000	1		473.257*		473.857
3 115 4 1/2	12 1/2	M 14 x 2.0	24	20	15,000	1		472.257.WZ*		472.857.WZ*

IIIIII
EAN**4 Knot Bevel Brushes, Steel Wire, Brass coated steel wire**

D mm inch	A mm inch	GI mm inch	H	Z	RPM max.	Pack.	STM 0.35 0.014"	STM 0.50 0.020"
							Art.-No.	Art.-No.
100 4	12 1/2	M 14 x 2.0	20	18	15,000	1		471.157.SM*
115 4 1/2	12 1/2	M 14 x 2.0	24	20	15,000	1		472.257.SM*

IIIIII
EAN**Bevel Brushes, Crimped Wire**

D mm inch	A mm inch	GI mm inch	H	RPM max.	Pack.	5	6
						STA 0.35 0.014"	ROF 0.30 0.012"
						Art.-No.	Art.-No.
100 4	10 3/8	M 14 x 2.0	20	15,000	1	422.177*	422.367*
							422.767

IIIIII
EAN**7 Wheel Brushes, crimped wire, with thread**

D mm inch	A mm inch	GI	H	RPM max.	Pack.	STA 0.30 0.012"	ROF 0.30 0.012"	STM 0.30 0.012"
						Art.-No.	Art.-No.	Art.-No.
115 4 1/2	12 1/2	M 14	24	12,500	1	304.161.14	304.361.14	304.761.14
125 5	13 1/2	M 14	19.5	12,500	1	335.161.14	335.361.14	335.761.14

* Packed 10 pieces per carton

Brushes for grass trimmers

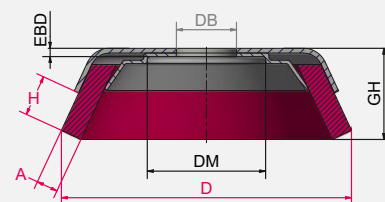


BEFORE



AFTERWARDS

Bevel Brushes



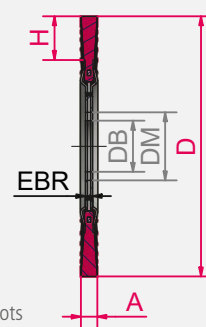
Brushes for grass trimmers

Knotted brushes or Bevel Brushes with PBT on grass trimmers are ideal for removing weeds on grass pavers, curbstones, cobbled areas or other spots which are hard to reach. Those brushes clean larger areas like courtyards, terraces or longer alleys effortlessly and sustainably.

Besides, brushes are ecologically friendly and they remove weeds fast and effectively.

In sensitive areas such as agriculture synthetic filaments are a decisive criterion. Synthetic bristles are soft and therefore ideally suited for sensitive surfaces, as they do not scratch. The brush with synthetic bristles is ideal for grass trimmers with battery due to its lighter weight and scores with a longer service life and even wear.

Wheel Brushes



ZF = Knot type
Z = number of knots
R = number of rows

Item Nos. in bold are available ex stock. Consider our minimum order value for *italic printed* article numbers (see page 178).

STM = brass coated steel, straight

STH = steel wire, high tensile, straight

PBT = Polyester PBT

PP = Polypropylen



Attention:

When working with brushes on grass trimmers, please be aware of stringent safety rules. Please take note of the data sheet we attach the brushes or have a look at www.lessmann.com.



You can find our **tutorials** here:
www.lessmann.com/index.php/en/content/view/full/711



|||||
EAN

Knotted Bevel Brushes, for grass trimmers

	D	A	EBD	DM	H	GH	Z	DB	ZF	RPM	Pack.	STH 0.50 0.020"	STM 0.50 0.020"
	mm inch	mm inch			mm inch			mm inch		max.		Art.-No.	Art.-No.
1	155 6 1/8	12 1/2	3.5	50	35 1 3/8	54	30	20 3/4	B	10,000	1	475.2M0.01	475.5M0.01
	155 6 1/8	12 1/2	3.5	50	35 1 3/8	54	30	25.4 1	B	10,000	1	475.2M1.01	475.5M1.01
2	180 7	14 9/16	3.5	64	35 1 3/8	58	36	20 3/4	B	8,000	1	476.2M0.01	476.5M0.01
	180 7	14 9/16	3.5	64	35 1 3/8	58	36	25.4 1	B	8,000	1	476.2M1.01	476.5M1.01

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EAN

Bevel Brushes, for grass trimmers, PBT

	D	A	EBD	DM	H	GH	DB	RPM	Pack.	PBT 2.50	PP 1.60
	mm inch	mm inch			mm inch	mm inch	mm inch	max.		Art.-Nr.	Art.-Nr.
3	180 7	10 3/8	3.5	60	55 2 3/16	70	20 3/4	10,000	1	425.000.01	425.010.01
	180 7	10 3/8	3.5	60	55 2 3/16	70	25.4 1	10,000	1	425.001.01	425.011.01
	200 8	10 3/8	3.5	80	60 2 3/8	82	20 3/4	8,000	1	426.000.01	426.010.01
	200 8	10 3/8	3.5	80	60 2 3/8	82	25.4 1	8,000	1	426.001.01	426.011.01

|||||
EAN

Bevel Brushes, for grass trimmers, crimped

	D	A	EBD	DM	H	GH	DB	RPM	Pack.	STA 0.50
	mm inch	mm inch			mm inch	mm inch	mm inch	max.		Art.-Nr.
4	180 7	18 23/32	3.5	60	50 1 31/32	70	20 3/4	6,000	1	425.290
	180 7	18 23/32	3.5	60	50 1 31/32	70	25.4 1	6,000	1	425.291
	210 8 1/4	25 1	3.5	80	60 2 3/8	82	20 3/4	6,000	1	426.290
	210 8 1/4	25 1	3.5	80	60 2 3/8	82	25.4 1	6,000	1	426.291

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EAN

Knotted Wheel Brushes, for grass trimmers

	D	A	EBR	DM	H	Z	ZF	RPM	Pack.	d = 20 mm	d = 25.4 mm
	mm inch	mm inch			mm inch			max.		STH 0.50 0.020"	STH 0.50 0.020"
										Art.-No.	Art.-No.
5	175 6 7/8	6 1/4	8	68	34 1 1/4	40	B	12,500	1	475.260.01	475.261.01
	200 8	6 1/4	8	68	46 1 49/64	40	B	12,500	1	476.260.01	476.261.01
6	250 10	6 1/4	3	90	42 1 5/8	56	B	10,000	1	477.260.01	477.261.01
	300 12	6 1/4	3	90	67 2 5/8	56	B	10,000	1	478.260.01	478.261.01

X-LOCK brush assortment

LESSMANN®
THE GERMAN BRUSH COMPANY



XLOCK

Technology by **BOSCH**
Invented for life



Quick. Simple. Safe.

The new X-LOCK quick-change system for angle grinders from Bosch noticeably simplifies tool changing. The user saves time and productivity is increased – ideal for professional applications.

Lessmann is also a major partner of Bosch and offers a comprehensive range of brushes suitable for the X-LOCK. All brushes meet the LESSMANN usual high quality standards – developed and produced „Made in Germany“.

Advantages of X-LOCK

- Tool change in just one step: The brush is mounted quickly and easily on the angle grinder
- No accessories or additional tools required for assembly or tool change
- Safe: The brush audibly locks and is thereby securely fixed
- Highest quality and safety standards are met



TOOL CHANGE MADE EASY



Mounting the tool

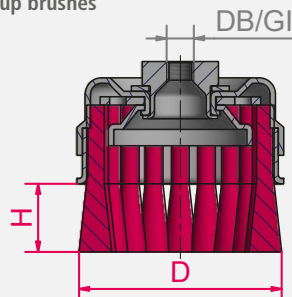
Place the brush on the X-LOCK holder of the angle grinder and press lightly. An audible click confirms that the tool has locked. Done.



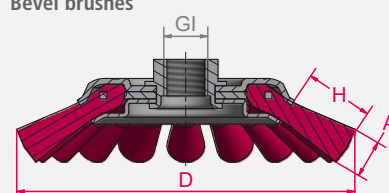
Disassembly of the tool

Operate the lever on the angle grinder. The brush can be easily removed from the X-LOCK holder.

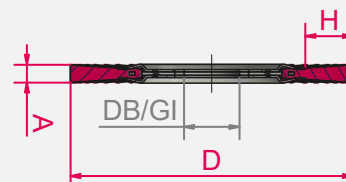
Cup brushes



Bevel brushes



Wheel brushes



ZF = Knot type
Z = Number of knots
R = Number of rows

Item Nos. in **bold** are available ex stock.
Consider our minimum order value for *italic printed* article numbers (see page 178).

STM = brass coated steel, straight

STH = steel wire, high tensile, straight

PBT = Polyester PBT

PP = Polypropylen



IIIIII
EAN

X-Lock cup brushes								knotted		crimped	
	D	B	H	Z	ZF	RPM	Pack.	STH 0,50	ROF 0,50	STA 0,35	ROF 0,35
	mm inch	mm inch	mm inch			max.		Art.-No.	Art.-No.	Art.-No.	Art.-No.
1	85 3 3/8	12 1/2	20 13/16	20	B	11.500	1	483.21X	483.81X		
2	85 3 3/8	16 5/8	22 7/8	—	—	12.500	1			423.16X	423.36X

IIIIII
EAN

X-Lock bevel brushes								knotted		crimped	
	D	B	H	Z	ZF	RPM	Pack.	STH 0,50	ROF 0,50	STA 0,35	ROF 0,35
	mm inch	mm inch	mm inch			max.		Art.-No.	Art.-No.	Art.-No.	Art.-No.
3	115 4 1/2	12 1/2	24 15/16	20	B	15.000	1	472.25X	472.85X		
4	115 4 1/2	16 5/8	20 13/16	—	—	15.000	1			423.17X	423.37X

IIIIII
EAN

X-Lock wheel brushes knotted										STH 0,50	ROH 0,50
	D	B	H	Z	ZF	RPM	Pack.			Art.-No.	Art.-No.
	mm inch	mm inch	mm inch			max.					
5	115 4 1/2	14 9/16	23,5 15/16	20	B	12.500	1			472.21X	472.81X
	125 4 15/16	14 9/16	28,5 1 1/8	20	B	15.000	1			473.21X	473.81X

IIIIII
EAN

X-Lock pipeline brushes knotted										STH 0,50	ROH 0,50
	D	B	H	Z	ZF	RPM	Pack.			Art.-No.	Art.-No.
	mm inch	mm inch	mm inch			max.					
6	115 4 1/2	6 1/4	21,5 7/8	32	D	15.000	1			472.20X.32	472.80X.32
	125 4 15/16	6 1/4	26,5 1 1/16	40	D	15.000	1			473.20X.40	473.80X.40

Low sparking brushes



Low sparking brushes

are recommended for the working in areas where flammable steams, liquids or dusts are a part of the working conditions. Also, they are used in all other situations where sparks could lead to a potential fire or explosion hazard.

In explosion-proof areas, low sparking brushes are recommended. In comparison to the wooden handles of the hand brushes, the bodies of machine driven brushes are made of brass. The filling material is bronze CuSn6. These materials generate a low amount of sparks, which ensures a working environment with the minimum of sparks.

Another benefit of bronze is, its corrosion resistant properties

Typical application areas

Low sparking brushes are used in all industries and companies which have explosion risks or fire hazard due to flying sparks. e.g.:

- Oil and gas industry
- Pipeline industry
- Chemical industry
- Nuclear power plants
- Plastics industry
- Food industry, e.g.: bakeries
- And many others

For example cleaning tanks or working in an explosive environment.

Work instructions

- Low sparking brushes (with bronze filling) are a lot softer than other regularly used fill materials e.g. Steel and Stainless Steel
- Therefore these brushes have a higher abrasion rate, this means these brushes have to be used with more carefully so as not to damage the workpiece.

Item Nos. in **bold** are available ex stock.

Consider our minimum order value for *italic printed* article numbers (see page 178).

BRO = bronze wire



- Overuse is to be avoided.
- The use of low-sparking tools has to be not your only protection measure against fire or explosions.
- To ensure a comprehensive protection of staff and building please respect the given provisions of the different institutions, e.g.: provisions of trade associations, employers or legislators.

1 Handbrushes standard; KL 290

Rows	H	Pack.	BRO 0.20/BRO 0.40*
	mm inch		Art.-No.
3	25 1	12	108.331
4	25 1	12	108.341
5	25 1	12	108.351
4	25 1	12	108.041*

2 Handbrushes export model; KL 350

Rows	H	Pack.	BRO 0.30
	mm inch		Art.-No.
3	30 1 3/16	6	122.771
4	30 1 3/16	6	122.821
5	30 1 3/16	6	122.871

3 Dusters; KL320

Rows	H	Pack.	BRO 0.30
	mm inch		Art.-No.
4	40 1 5/8	12	124.181

4 Spark Plug Brushes; KL 200

Rows	H	Pack.	BRO 0.15
	mm inch		Art.-No.
3	15 19/32	12	132.801

5 Brooms and scrubs

Rows	KL	KB	H	Pack.	BRO 0.40
	mm inch	mm inch	mm inch		Art.-No.
6	300 12	70 2 3/4	55 2 11/64	12	146.270
6	220 8 5/8	60 2 3/8	40 1 5/8	12	148.170



Special models

	Rows	KL	KB	A	H	Pack.	BRO 0.15 crimped	BRO 0.08 crimped
		mm inch	mm inch	mm inch	mm inch		Art.-No.	Art.-No.
6	7	150 6	50 2	140 5 ^{533/64}	20 51/64	12	144.011	
	6	180 7 ^{3/32}	60 2 ^{3/8}	170 6 ^{11/16}	20 51/64	12	144.111	
	6	150 6	50 2	130 15 ^{1/8}	15 19/32	12	144.311	
7	6	180 7 ^{3/32}	60 2 ^{3/8}	160 6 ^{19/64}	20 51/64	12	144.411	
8	11	120 4 ^{23/32}	70 2 ^{3/4}	110 4 ^{21/64}	14 9/16	4		152.811

Cup Brushes

										BRO 0.50 knotted			
D			d		H		H1		Z	RPM	Cup	Pack.	Art.-No.
mm inch			mm inch		mm inch		mm inch			max.			
9	125	5	16	5/8	23	29/32	15	19/32	32	4,000	brass	1	487.011.MS*

* This brush doesn't work with angle grinders.

Wheel Brushes

										BRO 0.30 crimped					
	D		A		EB		R		H		d.	d.	RPM	Pack.	
	mm inch		mm inch		mm inch		mm inch		mm inch		Stand	min./max.			Art.-No.
10	150	6	23-25	7/8-1	22	7/8	50	2	33	1 19/64	Set 3	13-50	6,000	1	345.662.MS

Cylinder Brushes; GL330

D	A	GL	drilling wire	Pack.	BRO 0.20
mm inch	mm inch	mm			Art.-No.
11	10 25/64	100 4	330 MES 2.5	10	542.034
	20 51/64	100 4	330 MES 2.5	10	543.006
	35 1 3/8	100 4	330 MES 3.0	10	543.926

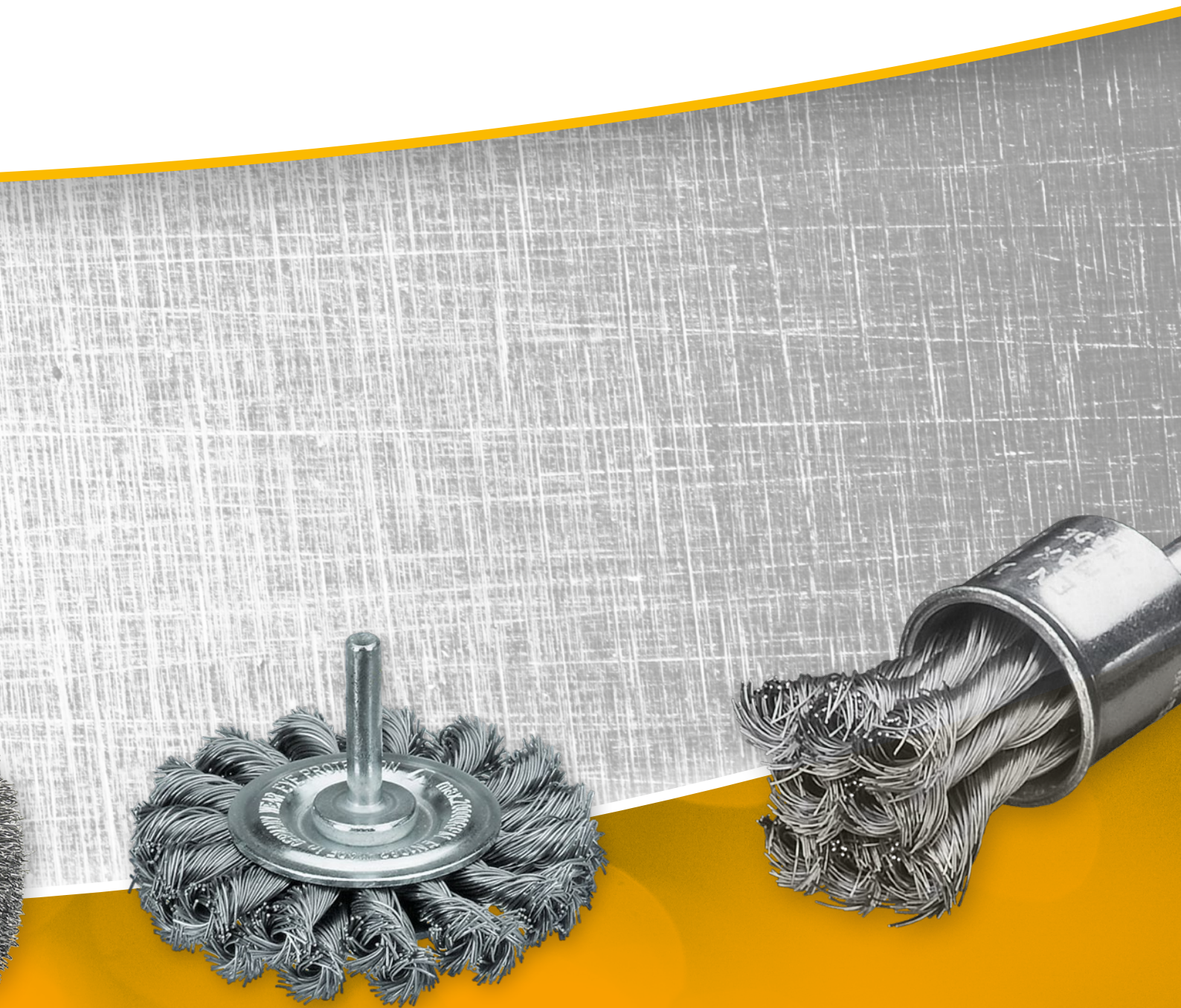
GL = total length
KL = body length

LESSMANN®

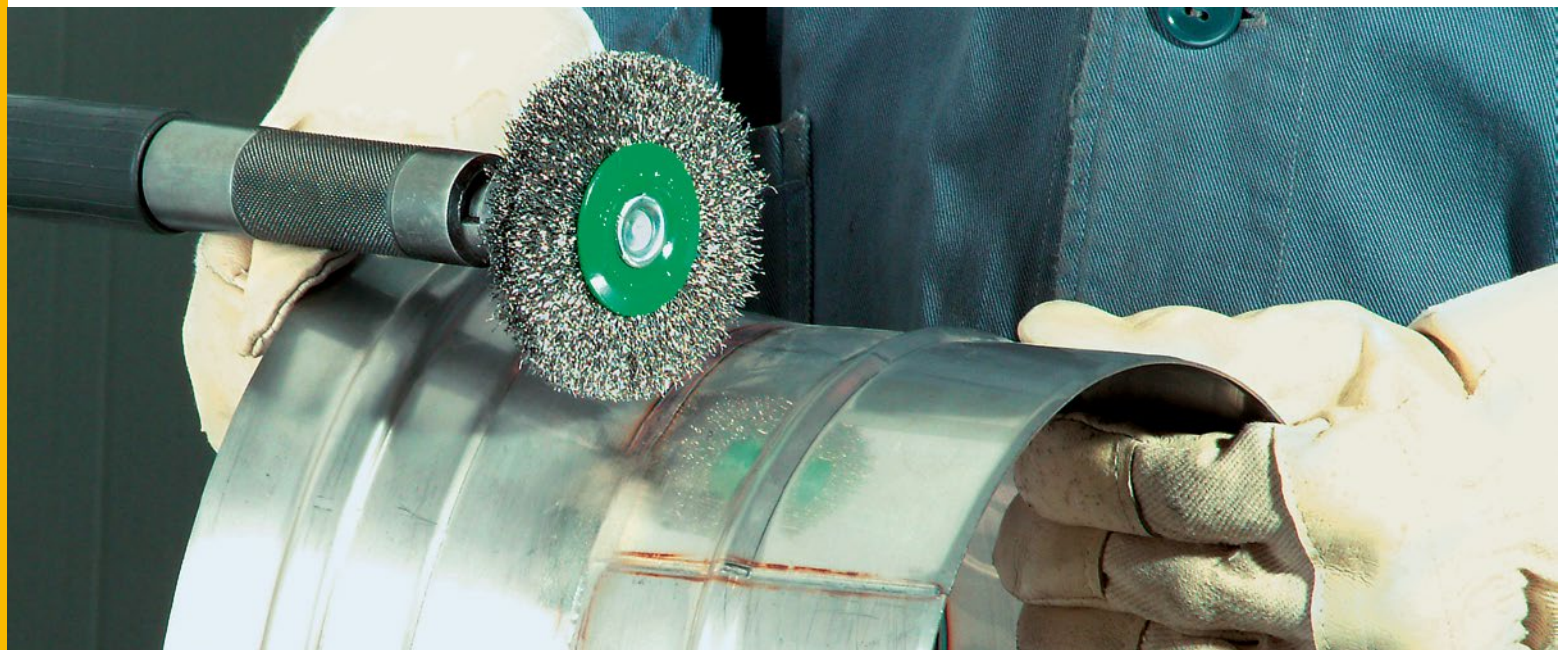
THE GERMAN BRUSH COMPANY



BRUSHES WITH SHANK



Wheel Brushes with Shank



Wheel Brushes with Shank

The wheel brushes shown on these pages are manufactured with a mounted shank for professional use. Tight filling wire and balanced running make these brushes excellent tools.

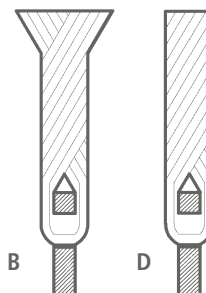
Stainless Steel Brushes

LESSMANN brushes with stainless steel wire have green site plates. We use wire with material number 1.4310. Material number 1.4401. can be used on request.

More information for brush applications on stainless materials you will find at www.lessmann.com

Knotted Wheel Brushes with Shank

It does not matter if the brush has one or two rows, the brush is the perfect tool for removing underseal, rust deburring, roughening etc. For working in narrow places we recommend our brush 417.198.11, which is an especially narrow Brush.



Knot types ZF

B: Rose Bud

D: Fully knotted (wire ends are cut completely)



You can find our **tutorials** here:
www.lessmann.com/index.php/en/content/view/full/711



You can find our **Enquiry Forms** in the respective category under:
www.lessmann.com/index.php/en/content/view/full/61
or in the catalog from page 173



The brushes have a 6 mm shank. On demand the brushes can also be supplied with 1/4" shanks (USA execution).

Brushes with other diameters, filling widths and filling material are available on request.



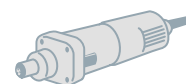
1



2



3



Knot Wheel Brushes with Shank Ø 6 mm

	D mm inch	A mm inch	H mm inch	Z	ZF	R	RPM max.	Pack.	STH 0.35 0.014" Art.-No.	STH 0.50 0.020" Art.-No.	ROH 0.50 0.020" Art.-No.
1	75 3	9 3/8	15 5/8	18	D	1	25,000	10	417.178.11	417.198.11	
	75 3	12 1/2	15 5/8	18	B	1	25,000	10	417.168	417.198	417.398
2	75 3	16 5/8	15 5/8	18	B	2	25,000	10		417.199	417.399

Wheel Brushes with Shank Ø 6 mm, Encapsulated

	D mm inch	A mm inch	H mm inch	RPM max.	Pack.	STA 0.30 0.012" Art.-No.
3	50 2	8 5/16	13 1/2	15,000	10	415.160
	60 2 3/8	8 5/16	18 3/4	15,000	10	416.160
	76 3	8 5/16	23 7/8	15,000	10	417.160

Encapsulated Brushes

By embedding in tough plastic the filling width always remains the same and early break of the wires can be prevented. It's the perfect tool for long lasting and safe working. The colour on the picture can differ from the colour on the brush.

Well marked

In future you will be able to recognize our encapsulated brushes even better by the new embossing or laser marking. This guarantees that you are holding a quality product "Made in Germany" in your hands. All important safety information can also be easily read on the product.

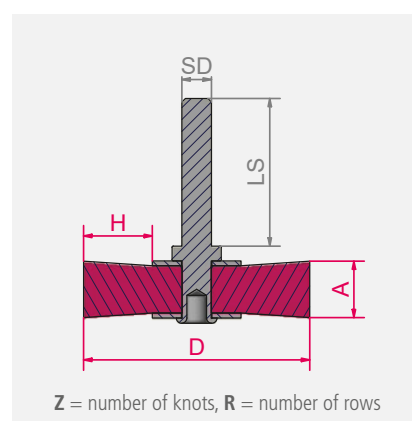
Hardness Grading

From now on, the encapsulated brushes from Lessmann can be delivered in three different Shore hardness scale measurements:

- Black – Hard
- Red – Standard
- White – Soft

Please note:

The more aggressive the application, the harder the plastic material should be. Another advantage of the harder plastic material is the dimensional stability.



Item Nos. in **bold** are available ex stock.
Consider our minimum order value for *italic printed* article numbers (see page 178).

STA = steel wire, crimped

STH = steel wire, high tensile, straight

ROH = stainless steel wire, high tensile

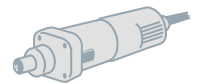
Wheel Brushes with Shank



1



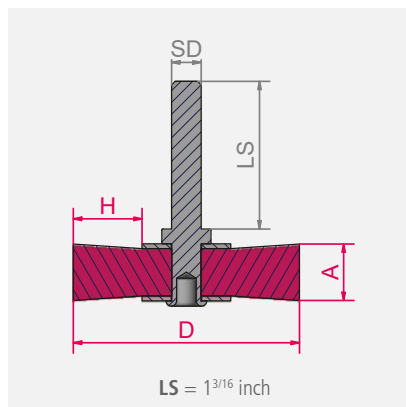
2



Wheel Brushes with Shank Ø 6 mm, Steel Wire

						1 2			
D	A	H	RPM	Pack.		STA 0.15 0.006"	STA 0.20 0.008"	STA 0.30 0.012"	STA 0.50 0.020"
mm inch	mm inch	mm inch	max.			Art.-No.	Art.-No.	Art.-No.	Art.-No.
20 51/64	6 15/64	3 1/8	20,000	10		411.132	411.142		
30 1 3/16	6 15/64	6 15/64	20,000	10		413.132	413.142	413.162	
30 1 3/16	9 23/64	6 15/64	20,000	10		413.133	413.143	413.163	
40 1 3/8	9 23/64	9 23/64	18,000	10		414.132	414.142	414.162	414.192
40 1 3/8	12 15/32	9 23/64	18,000	10		414.133	414.143	414.163	414.193
50 2	11 7/16	12 15/32	15,000	10		415.132	415.142	415.162	415.192
50 2	15 19/32	12 15/32	15,000	10		415.133	415.143	415.163	415.193
60 2 3/8	13 33/64	17 43/64	15,000	10		416.132	416.142	416.162	available on demand
60 2 3/8	18 45/64	17 43/64	15,000	10		416.133	416.143	416.163	416.193
70 2 3/4	9 23/64	19 3/4	15,000	10		417.132	417.142	417.162	
70 2 3/4	13 33/64	19 3/4	15,000	10		417.133	417.143	417.163	417.193
80 3 1/4	9 23/64	20 51/64	15,000	10		available on demand	418.142		
80 3 1/4	13 33/64	20 51/64	15,000	10		available on demand	418.143	418.162	418.192
80 3 1/4	19 3/4	20 51/64	15,000	10				418.163*	
100 4	14 9/16	25 1	12,000	10			412.143*	412.163*	
100 4	19 3/4	25 1	12,000	10			412.144*	412.164*	

* Shank length for these articles is 20 mm instead of 30 mm.

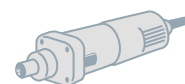


Item Nos. in **bold** are available ex stock.
Consider our minimum order value for *italic printed* article numbers (see page 178).

STA = steel wire, crimped

ROF = stainless steel wire, crimped

RO4 = stainless steel wire, straight, 1.4401



Wheel Brushes with Shank Ø 6 mm, Stainless Steel

					1				
D	A	H	RPM	Pack.	ROF 0.10 0.004"	ROF 0.20 0.008"	ROF 0.30 0.012"	RO4 0.20 0.008"	RO4 0.30 0.012"
mm inch	mm inch	mm inch	max.		Art.-No.	Art.-No.	Art.-No.	Art.-No.	Art.-No.
20 51/64	6 15/64	3 1/8	20,000	10		411.342			
30 1 3/16	6 15/64	6 15/64	20,000	10		413.342	413.362		
30 1 3/16	9 23/64	6 15/64	20,000	10		413.343	413.363		
40 1 3/8	9 23/64	9 23/64	18,000	10		414.342	414.362		414.462
40 1 3/8	12 15/32	9 23/64	18,000	10		414.343	available on demand		
50 2	11 7/16	12 15/32	15,000	10	415.312	415.342	415.362	415.442	415.462
50 2	15 19/32	12 15/32	15,000	10		415.343	415.363		
60 2 3/8	13 33/64	17 43/64	15,000	10	416.312	416.342	416.362		416.462
60 2 3/8	18 45/64	17 43/64	15,000	10		416.343	416.363		
70 2 3/4	9 23/64	19 3/4	15,000	10		417.342	417.362		417.462
70 2 3/4	13 33/64	19 3/4	15,000	10	417.312	417.343	417.363		
80 3 1/4	9 23/64	20 51/64	15,000	10		418.342			418.462
80 3 1/4	13 33/64	20 51/64	15,000	10	418.312	418.343	418.362		
80 3 1/4	19 3/4	20 51/64	15,000	10			418.363*		
100 4	14 9/16	25 1	12,000	10		41Z.343*	41Z.363*		
100 4	19 3/4	25 1	12,000	10		41Z.344*	41Z.364*		

* Shank length for these articles is 20 mm instead of 30 mm.

2 Wheel Brushes with Shank Ø 6 mm, Completely Stainless

D	A	H	RPM	Pack.	ROF 0.20 0.008"	ROF 0.30 0.012"
mm inch	mm inch	mm inch	max.		Art.-No.	Art.-No.
50 2	15 19/32	12 15/32	15,000	10	415.301	415.302
60 2 3/8	17 43/64	17 43/64	15,000	10	416.303	416.302
70 2 3/4	18 45/64	19 3/4	15,000	10	417.306	417.309

Wheel brushes with shank, completely stainless

All the inner and outer parts of these brushes (shanks, side plates, rings, etc.) are made of stainless steel, making these brushes the perfect tool for working in damp and difficult places.



Attention:
These brushes do not have green side plates.

Wheel Brushes with Shank



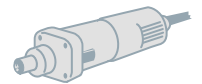
1



2



3



1 Wheel Brushes with Shank Ø 6 mm, brass coated steel wire

D mm inch	A mm inch	H mm inch	RPM max.	Pack.	STM 0.25 0.010" Art.-No.
40 1 3/8	9 23/64	9 23/64	18,000	10	414.752
50 2	11 7/16	12 15/32	15,000	10	415.752
50 2	15 19/32	12 15/32	15,000	10	415.753
60 2 3/8	13 33/64	17 43/64	15,000	10	416.752
70 2 3/4	9 23/64	19 3/4	15,000	10	417.752
70 2 3/4	13 33/64	19 3/4	15,000	10	417.753
80 3 1/4	9 23/64	20 51/64	15,000	10	418.752

2 Body Brushes with Shank Ø 6 mm

D mm inch	A	H	RPM max.	Pack.	STM 0.15 0.006" Art.-No.	STM 0.20 0.008" Art.-No.
26 1	3 1/8	4 5/32	20.000	10	412.731	
50 2	3 1/8	10 25/64	15.000	10		415.741

Structuring Brushes with Shank Ø 8 mm

D mm inch	A	H	RPM max.	Pack.	3 STM 0.25 0.010" Art.-No.	SIC 80/1.2 Art.-No.
80 3 1/4	35 1 3/8	25 31/32	4,000	1	418.704	
80 3 1/4	35 1 3/8	24 15/16	15,000	1		418.826

Structuring Brushes with Shank

These brushes are special brushes which can be used for wood grain surfaces.

Body brushes with shank

The brushes allow access to hard-to-reach areas in the car body, such as folds and grooves for solder joints or interior angles. The brushes can be used to easily remove rust, sealant, paint or scale.

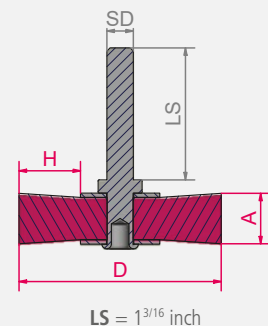
The brushes are also used for cleaning or activation on the surface before tinning.

Item Nos. in **bold** are available ex stock. Consider our minimum order value for *italic printed* article numbers (see page 178).

STM = brass coated steel, crimped

MES = brass wire, crimped

SIC = silicon carbide bristles





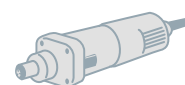
1



2



3



1 Wheel Brushes with Shank Ø 6 mm, Brass Wire

D	A	H	RPM	Pack.	MES 0.20 0.008"	MES 0.30 0.012"
mm inch	mm inch	mm inch	max.		Art.-No.	Art.-No.
20 51/64	5 13/64	3 1/8	20,000	10	411.542	
30 1 3/16	5 13/64	6 1/4	20,000	10	413.542	
30 1 3/16	8 5/16	6 1/4	20,000	10	413.543	
40 1 3/8	7 9/32	9 3/8	18,000	10	414.542	
40 1 3/8	10 25/64	9 3/8	18,000	10	414.543	
50 2	10 25/64	12 15/32	15,000	10	415.542	
50 2	14 9/16	12 15/32	15,000	10	415.543	
60 2 3/8	12 15/32	17 43/64	15,000	10	416.542	415.562
60 2 3/8	16 5/8	17 43/64	15,000	10	416.543	
70 2 3/4	8 5/16	19 3/4	15,000	10	417.542	417.562
70 2 3/4	12 15/32	19 3/4	15,000	10	417.543	417.563
80 3 1/4	8 5/16	20 51/64	15,000	10	418.542	
80 3 1/4	12 15/32	20 51/64	15,000	10	418.543	

2 Wheel Brushes with Shank Ø 6 mm, Silicon Carbide Bristles

D	A	H	RPM	Pack.	SIC 120/0.6	SIC 120/1.1	SIC 180/1.0	SIC 320/0.6
mm inch	mm inch	mm inch	max.		Art.-No.	Art.-No.	Art.-No.	Art.-No.
30 1 3/16	6 15/64	6 15/64	20,000	10	413.841			413.871
40 1 3/8	15 19/32	12 15/32	18,000	10		414.842		414.872
50 2	10 25/64	12 15/32	15,000	10		415.842	415.852	415.872
60 2 3/8	10 25/64	14 9/16	15,000	10		416.842	416.852	416.872
70 2 3/4	10 25/64	20 51/64	15,000	10		417.842	417.852	417.872
80 3 1/4	12 15/32	20 51/64	15,000	10		418.842	418.852	418.872

3 Wheel Brushes with Shank Ø 6 mm, Cermaic Grit

D	A	H	RPM	Pack.	KK 120/1,1	KK 320/0,6
mm inch	mm inch	mm inch	max.		Art.-Nr.	Art.-Nr.
50 2	10 25/64	12 15/32	15,000	10	415.C42	415.C72
70 2 3/4	10 25/64	12 15/32	15,000	10	417.C42	417.C72

Shank Brushes with Silicon Carbide Bristles

The high quality bristles with silicon carbide can be used for deburring, polishing and

structuring of stainless steel, aluminium and plastic surfaces. Besides the articles men-

tioned on this page we can also supply other grits, diameters and widths.

Cup Shank Brushes



Cup Brushes with Shank

Ideal for working on medium and large areas.

Cup Shank Brushes with Plastic Cup

Cup Shank Brushes with Plastic Cup and stainless steel wire especially are used for applications on stainless steel materials. The plastic cup prevents contact with the working piece, therefore it protects from corrosion or other foreign particles.

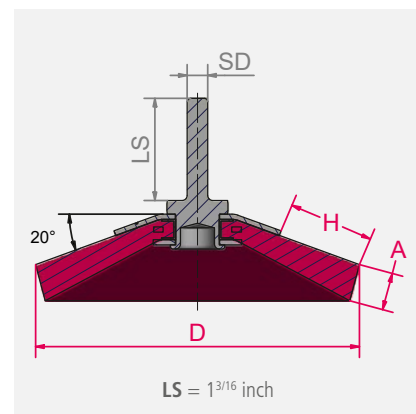
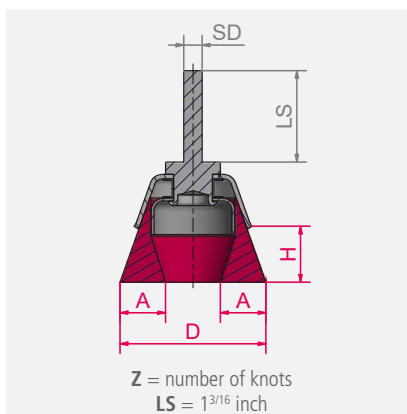
Bevel Brushes with Shank

Due to the conical form these universal tools are ideal for notches, corners, grooves, inside edges and irregular surfaces. These professional brushes are suitable for drills and cordless screwdrivers as well for high-speed straight grinders and compressed-air drives.

High speed – low wear

Brushes with steel and stainless steel wire can be used at higher RPM and can therefore be used on electrical and air driven grinding machines. These models are known for their high density of filling material and therefore they have a very long lifetime.

The brushes with silicon carbide bristles can be used for deburring, polishing or structuring of stainless steel, aluminium and plastic surfaces.



Item Nos. in bold are available ex stock.

Consider our minimum order value for *italic printed* article numbers (see page 178).

STA = steel wire, crimped

STH = steel wire, high tensile, straight

ROF = stainless steel wire, crimped

MES = brass wire, crimped

SIC = silicon carbide bristles



Cup Brushes with Shank Ø 6 mm

D mm inch	A mm inch	H mm inch	RPM max.	Pack.	1				2	
					STA 0.20 0.008"	STA 0.30 0.012"	ROF 0.20 0.008"	ROF 0.30 0.012"	MES 0.20 0.008"	MES 0.30 0.012"
					Art.-No.	Art.-No.	Art.-No.	Art.-No.	Art.-No.	Art.-No.
40 1 3/8	15 5/8	20 3/4	10,500	10	434.142	434.162	434.342	434.362	434.542	
50 2	16 5/8	20 3/4	10,500	10	435.142	435.162	435.342	435.362	435.542	435.562
60 2 3/8	18 3/4	25 1	8,000	10	available on demand	436.162	available on demand	436.362	available on demand	
70 2 3/4	20 3/4	25 1	6,000	10	437.142	437.162	437.342	437.362	437.542	

3 Cup Brushes with Shank Ø 6 mm and plastic cup

D mm inch	A mm inch	H mm inch	RPM max.	Pack.	ROF 0.20 0.008"	ROF 0.25 0.010"	ROF 0.30 0.012"
					Art.-No.	Art.-No.	Art.-No.
40 1 3/8	20 3/4	30 1 1/4	15,000	10	434.345	434.355	434.365
50 2	25 1	28 1 1/8	10,500	10	435.345	435.355	435.365

4 Cup Brushes with Shank Ø 6 mm, Silicon Carbide Bristles

D mm inch	A mm inch	H mm inch	RPM max.	Pack.	SIC 80/1.2	SIC 320/0.6
					Art.-No.	Art.-No.
50 2	10 3/8	20 3/4	4,500	10	430.128	430.129
75 3	15 5/8	22 7/8	4,500	10	430.138	430.139

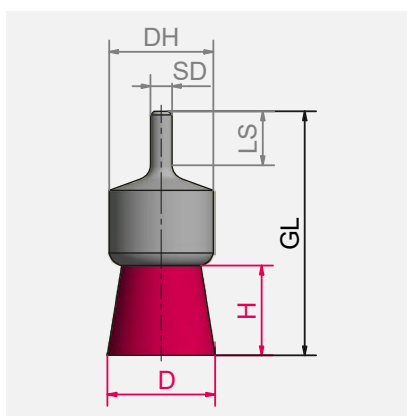
5 Knot Cup Brushes with Shank Ø 6 mm, Steel Wire

D mm inch	H mm inch	Z mm inch	RPM max.	Pack.	STH 0.50 0.020"
					Art.-No.
75 3	20 3/4	18 3/4	8,500	10	483.230

6 Bevel Brushes with Shank Ø 6 mm

D mm inch	A mm inch	H mm inch	RPM max.	Pack.	STA 0.30	ROF 0.30
					Art.-No.	Art.-No.
70 2 3/4	10 3/8	15 5/8	15,000	10	4K7.161	4K7.361
90 3 3/4	12 1/2	25 1	12,000	10	4K9.161	4K9.361

End Brushes



Item Nos. in **bold** are available ex stock.
Consider our minimum order value for *italic printed* article numbers (see page 178).

STA = steel wire, crimped

STH = steel wire, high tensile, straight

ROF = stainless steel wire, crimped

SIC = silicon carbide bristles



End Brushes with Shank

For cleaning and deburring in hard to reach areas, removal of paint, rubber excess, cleaning of moulds and castings. Also for working on edges and curves, and in the inside of the bores, etc. End brushes are also available in other shapes, spreaded or pointed.

These brushes are perfect for fast moving tools. On demand also with 1/4" shank available.

Special End Brushes, crimping

The special end brushes with narrow crimped wire are characterized by its dense filling. These brushes show a harder brushing effect than brushes with normal crimped wire. These brushes are also available with extra long shanks or different diameters.

Square End Brushes

This special tool enables e. g. cleaning of blind holes and processing of bottom and side surfaces in one step.

It's perfect for cleaning and easy deburring applications, e.g. square bores. Other diameters available on demand.

Encapsulated Brushes

By embedding in tough plastic the filling width always remains the same and early break of the wires can be prevented. It's the perfect tool for long lasting and safe working. The colour on the picture can differ from the colour on the brush.

Well marked

In future you will be able to recognize our encapsulated brushes even better by the new embossing or laser marking. This guarantees that you are holding a quality product "Made in Germany" in your hands. All important safety information can also be easily read on the product.

Hardness

Grading

From now on, the encapsulated brushes from Lessmann can be delivered in three different Shore hardness scale measurements:

- Black – Hard
- Red – Standard
- White – Soft

Please note:

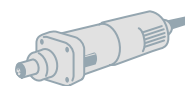
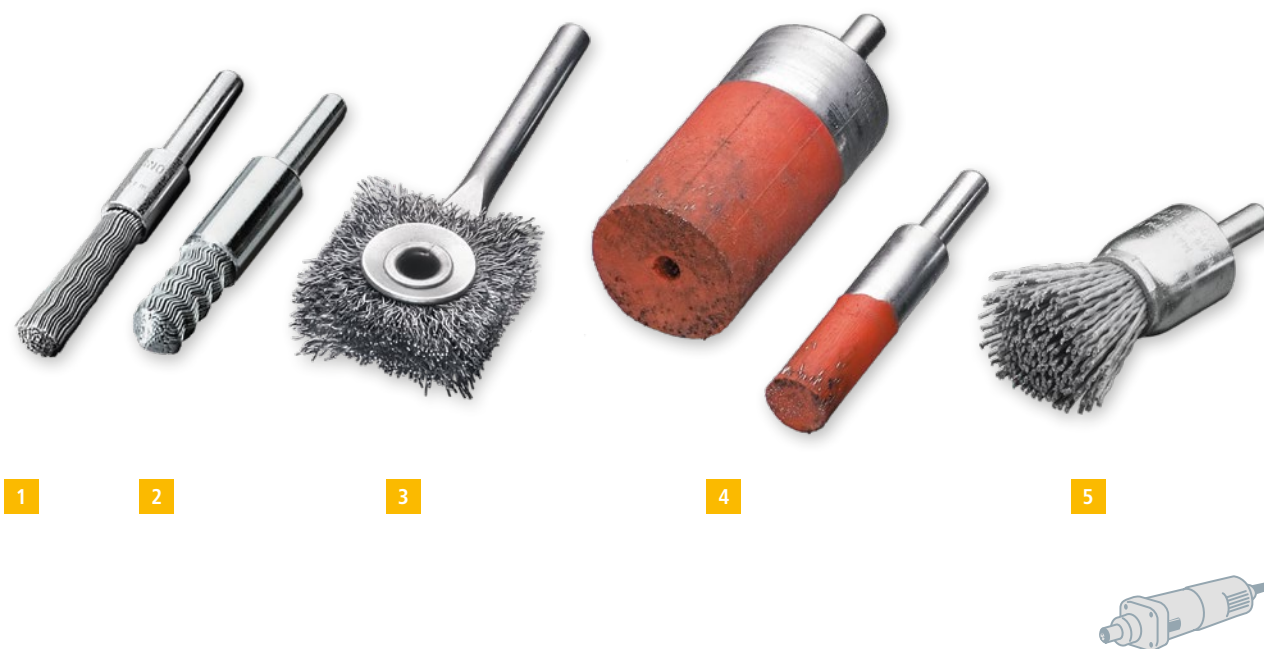
The more aggressive the application, the harder the plastic material should be. Another advantage of the harder plastic material is the dimensional stability.

Stainless Steel Brushes

Further information for brushing on stainless steel you will find on www.lessmann.com

Special Design

For your order please state your requirements regarding the measures and wires.



Special End Brushes with Shank Ø 6 mm, narrow crimping

	D mm inch	DH mm inch	H mm inch	GL mm inch	RPM max.	Pack.	STH 0.35 0.014" Art.-No.	STH 0.50 0.020" Art.-No.
1	11 7/16	12 1/2	25 1	71 2 3/4	12,000	10	466.171	available on demand
2	11 7/16	12 1/2	25 1	71 2 3/4	12,000	10	466.172*	available on demand*
1	19 3/4	22 7/8	29 1 1/8	72 2 3/4	12,000	10	460.121	available on demand
2	19 3/4	22 7/8	29 1 1/8	72 2 3/4	12,000	10	460.122*	available on demand*

3 Square End Brushes with Shank Ø 6 mm

	D mm inch	A mm inch	GL mm inch	RPM max.	Pack.	STA 0.15 0.006" Art.-No.	STA 0.25 0.010" Art.-No.	ROF 0.30 0.012" Art.-No.
	25.4 1	8 5/16	84 3 1/4	4,500	10	469.131	469.151	469.362
	31.8 1 1/4	8 5/16	87 3 3/8	4,500	10	469.133	469.153	available on demand

4 End Brushes with Shank Ø 6 mm, Encapsulated

	D mm inch	DH mm inch	H mm inch	GL mm inch	RPM max.	Pack.	STA 0.30 0.012" Art.-No.
	10 3/8	10 3/8	20 3/4	65 2 1/2	15,000	10	451.160
	16 5/8	16 5/8	25 1	72 2 7/8	15,000	10	452.160
	22 7/8	22 7/8	25 1	72 2 7/8	15,000	10	453.160
	28 1 1/8	28 1 7/64	30 1 1/4	75 3	10,000	10	456.160

5 End Brushes with Shank Ø 6 mm, Silicon Carbide Bristles

	D mm inch	DH mm inch	H mm inch	GL mm inch	RPM max.	Pack.	SIC 120/1.1 Art.-No.	SIC 180/1.0 Art.-No.	SIC 320/0.6 Art.-No.
	12 1/2	10 3/8	20 3/4	60 2 3/8	20,000	10	451.831	451.851	451.871
	17 5/8	16 5/8	22 7/8	68 2 3/4	20,000	10	452.831	452.851	available on demand
	23 7/8	22 7/8	25 1	70 2 3/4	10,000	10	454.831	454.851	454.871
	30 1 1/4	28 1	30 1 1/4	75 3	10,000	10	456.831	456.851	456.871

* pointed




End Brushes



End Brushes with Shank Ø 6 mm, Steel Wire

	D	DH	H	GL	RPM	Pack.	Shape	STA 0.15 0.006"	STA 0.20 0.008"	STA 0.30 0.012"	STA 0.50 0.020"
	mm inch	mm inch	mm inch	mm inch	max.			Art.-No.	Art.-No.	Art.-No.	Art.-No.
1	12 1/2	10 3/8	20 3/4	60 2 3/8	20,000	10		451.131	451.141	451.161	451.191
2	12 1/2	10 3/8	20 3/4	60 2 3/8	20,000	10				451.162*	451.192*
3	12 1/2	10 3/8	20 3/4	120 4 3/4	15,000	10		458.131	458.141	458.161	458.191
4	17 5/8	16 5/8	22 7/8	65 2 1/2	20,000	10		452.131	452.141	452.161	452.191
5	23 7/8	22 7/8	25 1	68 2 3/4	18,000	10		453.131	453.141	453.161	453.191
	30 1 1/4	29 1 1/8	25 1	68 2 3/4	18,000	10		456.131	456.141	456.161	456.191
	50 2	22 7/8	18 3/4	68 2 3/4	18,000	10				453.163**	
6	70 2 3/4	29 1 1/8	25 1	68 2 3/4	18,000	10				456.163**	

End Brushes with Shank Ø 6 mm, Brassed Steel Wire, Cord Wire

								7	8	
D	DH	H	GL	RPM	Pack.	Shape	STM 0.25 0.010"	STL 0.175 0.007"	STL 0.22 0.009"	
mm inch	mm inch	mm inch	mm inch	max.			Art.-No.	Art.-No.	Art.-No.	
17 5/8	16 5/8	22 7/8	65 2 1/2	20,000	10		452.751	452.703	452.705	
23 7/8	22 7/8	25 1	68 2 3/4	18,000	10		453.751	453.703	453.705	
30 1 1/4	29 1 1/8	25 1	68 2 3/4	18,000	10		456.751	456.703	456.705	

9 End Brushes with Shank Ø 6 mm, Steel Wire high tensile, dense version, longer lifetime

	D	DH	H	GL	RPM	Pack.	Shape	STH 0.30 0.012"
	mm inch	mm inch	mm inch	mm inch	max.			Art.-No.
	12 1/2	12 1/2	20 3/4	66 2 1/2	20,000	10		451.261.BD
	17 5/8	16 5/8	22 7/8	65 2 1/2	20,000	10		452.261.BD
	23 7/8	22 7/8	25 1	68 2 3/4	18,000	10		453.261.BD
	30 1 1/4	29 1 1/8	25 1	68 2 3/4	18,000	10		456.261.BD



End Brushes with Shank Ø 6 mm, Stainless Steel and Brass Wire

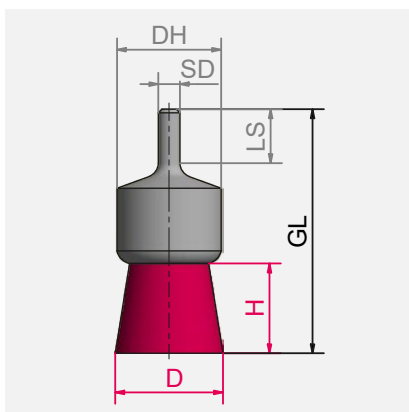
	D	DH	H	GL	RPM	Pack.	Shape	7				
								ROF 0.20 0.008"	ROF 0.30 0.012"	RO4 0.30 0.012"	MES 0.20 0.008"	MES 0.30 0.012"
	mm inch	mm inch	mm inch	mm inch	max.			Art.-No.	Art.-No.	Art.-No.	Art.-No.	Art.-No.
1	12 1/2	10 3/8	20 3/4	60 2 3/8	20,000	10		451.341	451.361	451.461	451.541	451.561
2	12 1/2	10 3/8	20 3/4	60 2 3/8	20,000	10			451.362		451.542	451.562
3	12 1/2	10 3/8	20 3/4	120 4 3/4	15,000	10		458.341	458.361		458.541	458.561
4	17 5/8	16 5/8	22 7/8	65 2 1/2	20,000	10		452.341	452.361		452.541	452.561
	23 7/8	22 7/8	25 1	68 2 3/4	18,000	10		453.341	453.361		453.541	453.561
5	30 1 1/4	29 1 1/8	25 1	68 2 3/4	18,000	10		456.341	456.361		456.541	456.561
6	50 2	22 7/8	18 3/4	68 2 3/4	18,000	10			453.363			

End Brushes with Shank Ø 6 mm, complete Stainless Steel

D	DH	H	GL	RPM	Pack.	Shape	ROF 0.30 0.012"
mm inch	mm inch	mm inch	mm inch	max.			Art.-No.
12 1/2	10 3/8	20 3/4	60 2 3/8	20,000	10		451.305
17 5/8	16 5/8	22 7/8	65 2 1/2	20,000	10		452.304
23 7/8	22 7/8	25 1	68 2 3/4	18,000	10		453.301



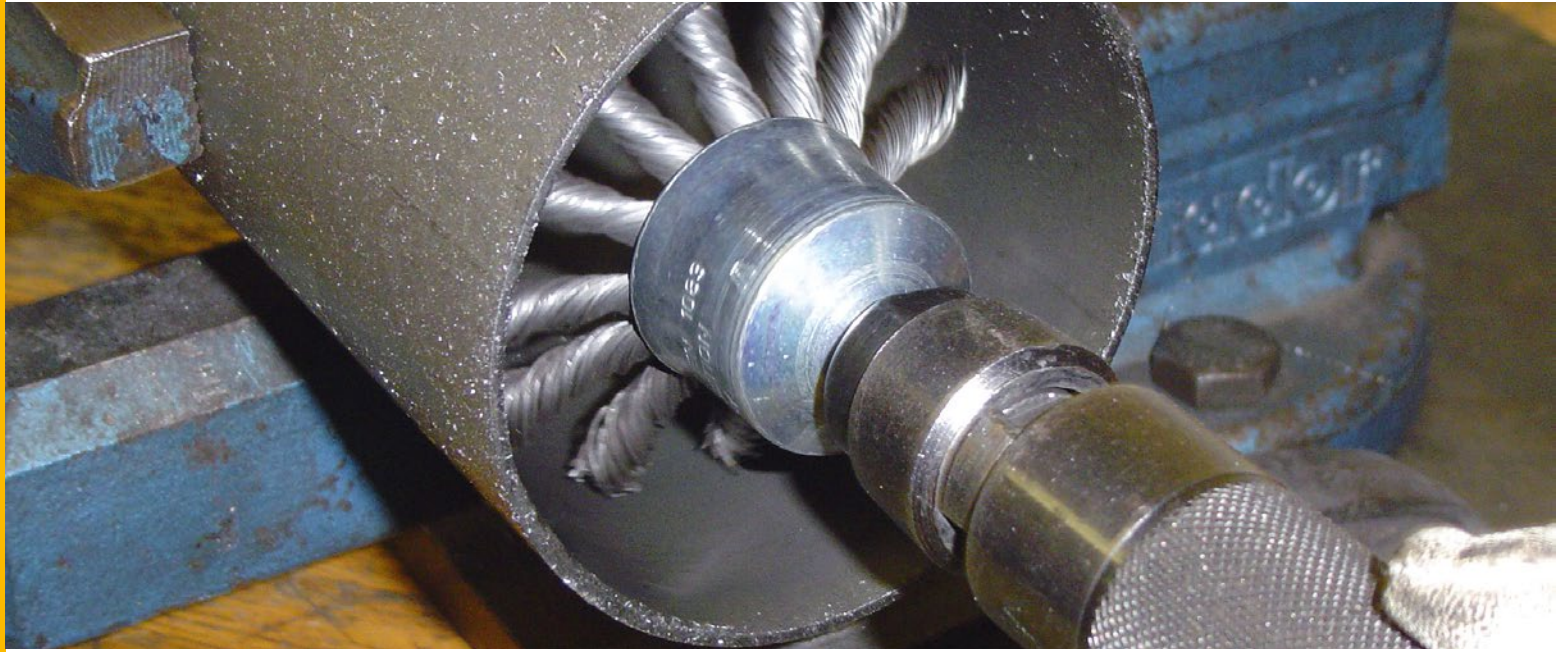
Brushes also available with shrink tubing.



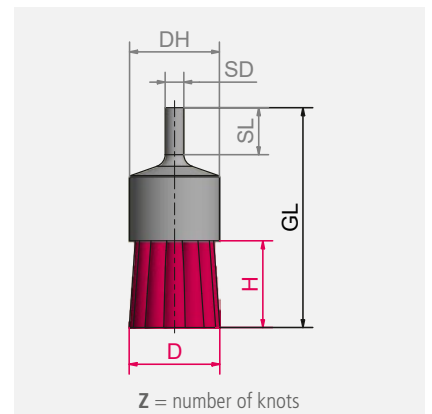
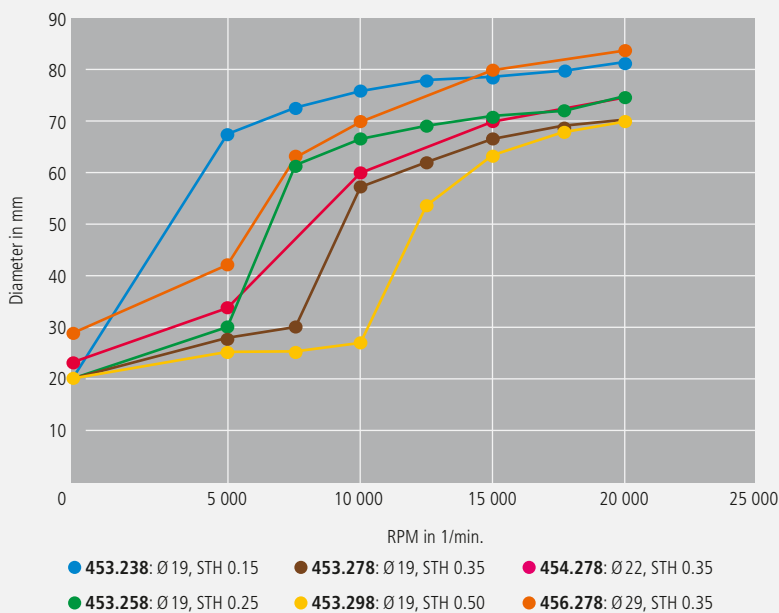
Item Nos. in **bold** are available ex stock.
Consider our minimum order value for *italic printed* article numbers (see page 178).

STA = steel wire, crimped
 STH = steel wire, high tensile, crimped
 STM = brass coated steel, crimped
 STL = cord wire, crimped
 ROF = stainless steel wire, crimped
 MES = brass wire, crimped

Knot End Brushes



Opening of the end brushes depending on the RPM



Knotted End Brushes with Shank

According to the RPM the brush will vary in dimension and enable the user to work in hard to reach areas such as drilled holes and recesses of all kinds.

The cups of the knot end brushes with stainless steel wire are **coated with plastic** to protect the stainless surface. Knotted end brushes with stainless steel wire are green characterized.

Further information on working on stainless steel you find at www.lessmann.com

Special End Brushes with Shank Ø 6mm, one Knot

One-knotted End Brushes to render precise working possible.

End Brushes, filled with epoxy resin

End Brushes filled with epoxy resin are able to treat small, defined areas. The brushes are more aggressive and allow a precise handling, hence they are used e.g. for electrical cabinets or for treating mounting surfaces.

Item Nos. in bold are available ex stock. Consider our minimum order value for *italic printed* article numbers (see page 178).

STH = steel wire, high tensile, straight

STM = brass coated steel, crimped

RO4 = stainless steel wire, straight, 1.4401



You can find our **tutorials** here:
www.lessmann.com/index.php/en/content/view/full/711



Knot End Brushes with Shank Ø 6 mm, Steel Wire

	D/DH mm inch	GL mm inch	H mm inch	Z	ZF	RPM max.	Pack.	STH 0.15 0.006" Art.-No.	STH 0.25 0.010" Art.-No.	STH 0.35 0.014" Art.-No.	STH 0.50 0.020" Art.-No.
1	6/10 1/4/3/8	65 2 1/2	25 1	1	D	4,500	10	available on demand	451.258	451.278	available on demand
2	19 3/4	72 2 7/8	28 1	6	B	20,000	10	453.238	453.258	453.278	453.298
3	22 7/8	72 2 7/8	28 1	8	B	20,000	10	454.238	454.258	454.278	454.298
4	29 1 1/8	72 2 7/8	28 1	12	B	20,000	10	456.238	456.258	456.278	456.298
5	19 3/4	72 2 7/8	28 1	4	B	20,000	50	available on demand	available on demand	452.278.GH*	available on demand

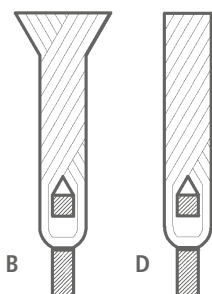
6 Knot End Brushes with Shank Ø 6 mm, Brass coated steel wire

	D/DH mm inch	GL mm inch	H mm inch	Z	ZF	RPM max.	Pack.	STM 0.25 0.010" Art.-No.	STM 0.35 0.014" Art.-No.
	19 3/4	72 2 7/8	28 1	6	D	20,000	10	453.758	453.778
	22 7/8	72 2 7/8	28 1	8	D	20,000	10	454.758	454.778
	29 1 1/8	72 2 7/8	28 1	12	D	20,000	10	456.758	456.778

7 Knot End Brushes with Shank Ø 6 mm, Stainless Steel Wire

	D/DH mm inch	GL mm inch	H mm inch	Z	ZF	RPM max.	Pack.	RO4 0.15 0.006" Art.-No.	RO4 0.25 0.010" Art.-No.	RO4 0.35 0.014" Art.-No.	RO4 0.50 0.020" Art.-No.
	6/10 1/4/3/8	65 2 1/2	25 1	1	D	4,500	10	available on demand	451.458	451.478	available on demand
	19 3/4	72 2 7/8	28 1	6	B	20,000	10	453.338	453.358	453.378	453.398
	22 7/8	72 2 7/8	28 1	8	B	20,000	10	454.338	454.358	454.378	454.398
	29 1 1/8	72 2 7/8	28 1	12	B	20,000	10	456.338	456.358	456.378	456.398

* filled with epoxy resin

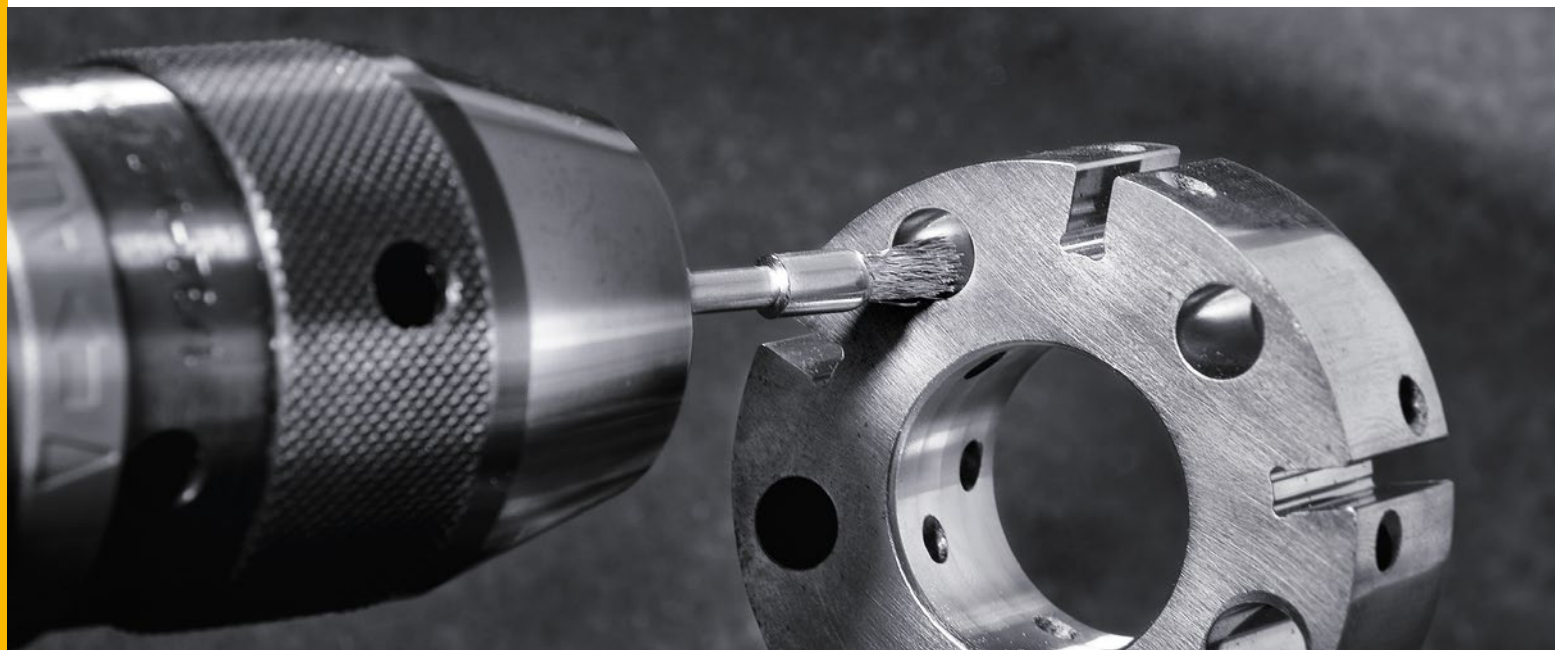


Knot types ZF

B: Rose Bud

D: Fully knotted (wire ends are cut completely)

Miniature Brushes



Miniature Brushes

Miniature Brushes are used for polishing, cleaning, or deburring of small-area surfaces or small working pieces. Miniature brushes remove waste and scale from weld seams or soldering points. The brushes are used on metal surfaces, steel, aluminum, cast iron, plastics, stone or wood.

Typical fields of applications:

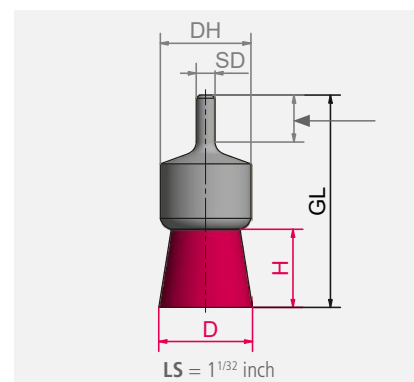
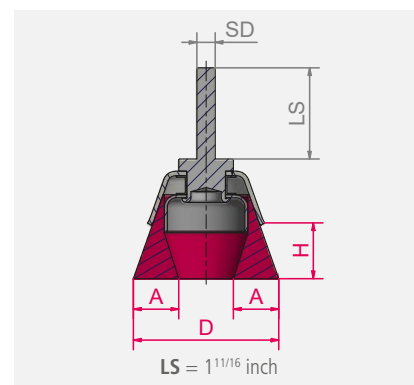
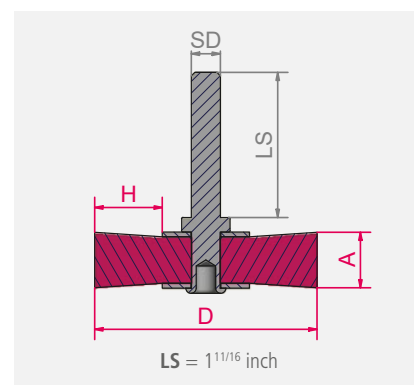
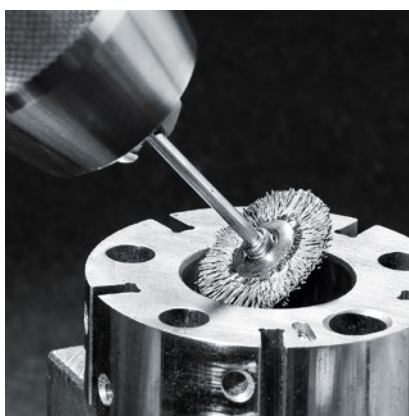
- Precision tools
- Fine mechanics
- Pneumatic and hydraulics
- Electronics parts, e.g. plates

Miniature Brushes are available in different types as wheel, cup and end brushes. The typical filling materials are steel wire, stainless steel wire, brass wire or abrasive bristles.

Stainless Steel Brushes

Information on working on stainless steel you find at www.lessmann.com

Please Note: Brushes with bristles or goat hair achieve an ideal brushing result by using polish.



Item Nos. in bold are available ex stock. Consider our minimum order value for *italic printed* article numbers (see page 178).

STH = steel wire, high tensile, straight

ROF = stainless steel wire, crimped

MES = brass wire, crimped

PA = polyamide

SIC = silicon carbide bristles

AO = aluminium oxide bristles



All Brushes also available with shank Ø 2.34 and 3.17 mm.



1 Miniature Wheel Brushes with shank Ø 3 mm

D mm inch	A	H	RPM max.	Pack.	STH 0.10 Art.-No.	ROF 0.10 Art.-No.	MES 0.10 Art.-No.	SIC 320/0.55 Art.-No.	SIC 500/0.46 Art.-No.	SIC 800/0.25 Art.-No.	AO 320/0.50 Art.-No.
16 5/8	2	3	15,000	10	410.221	410.321	410.521	410.871	410.881	410.891	410.871.A0
19 3/4	2	5	12,000	10	410.222	410.322	410.522	410.872	410.882	410.892	410.872.A0
22 7/8	2	6	10,000	10	410.223	410.323	410.523	410.873	410.883	410.893	410.873.A0

D mm inch	A	H	RPM max.	Pack.	AO 500/0.46 Art.-No.	AO 600/0.30 Art.-No.	Diamond K400 Art.-No.	PA 0.15 Art.-No.	Bristle white Art.-No.	Bristle schwarz Art.-No.	Goat hair Art.-No.
16 5/8	2	3	15,000	10	410.801	410.891.A0	410.811.DB	410.031	410.001.WB	410.001.SB	410.001.ZH
19 3/4	2	5	12,000	10	410.802	410.892.A0	410.812.DB	410.032	410.002.WB	410.002.SB	410.002.ZH
22 7/8	2	6	10,000	10	410.803	410.893.A0	410.813.DB	410.033	410.003.WB	410.003.SB	410.003.ZH

2 Miniature Cup Brushes with shank Ø 3 mm

D mm inch	A	H	RPM max.	Pack.	STH 0.10 Art.-No.	ROF 0.10 Art.-No.	MES 0.10 Art.-No.	SIC 320/0.55 Art.-No.	SIC 500/0.46 Art.-No.	SIC 800/0.25 Art.-No.	AO 320/0.50 Art.-No.
15 5/8	2	5	15,000	10	430.222	430.322	430.522	430.872	430.882	430.892	430.872.A0
18 3/4	2	6	15,000	10	430.223	430.323	430.523	430.873	430.883	430.893	430.873.A0

D mm inch	A	H	RPM max.	Pack.	AO 500/0.46 Art.-No.	AO 600/0.30 Art.-No.	Diamond K400 Art.-No.	PA 0.15 Art.-No.	Bristle white Art.-No.	Bristle schwarz Art.-No.	Goat hair Art.-No.
15 5/8	2	5	15,000	10	430.802	430.892.A0	430.812.DB	430.031	430.001.WB	430.001.SB	430.001.ZH
18 3/4	2	6	15,000	10	430.803	430.893.A0	430.813.DB	430.032	430.002.WB	430.002.SB	430.002.ZH

3 Miniature End Brushes with shank Ø 3 mm

D mm inch	H	RPM max.	Pack.	STH 0.10 Art.-No.	ROF 0.10 Art.-No.	MES 0.10 Art.-No.	SIC 320/0.55 Art.-No.	SIC 500/0.46 Art.-No.	SIC 800/0.25 Art.-No.	AO 320/0.50 Art.-No.
5 13/64	8	15,000	10	450.221	450.311	450.521	450.871	450.881	450.891	450.871.A0

D mm inch	H	RPM max.	Pack.	AO 500/0.46 Art.-No.	AO 600/0.30 Art.-No.	Diamond K400 Art.-No.	PA 0.15 Art.-No.	Bristle white Art.-No.	Bristle schwarz Art.-No.	Goat hair Art.-No.
5 13/64	8	15,000	10	450.801	450.891.A0	450.821.DB	450.031	450.001.WB	450.001.SB	450.001.ZH

All Brushes also available with shank Ø 2.34 and 3.17 mm.

LESSMANN®

THE GERMAN BRUSH COMPANY



HAND BRUSHES AND BROOMS

05



Hand Brushes



Hand Brushes

Hand Brushes are used everywhere, in the metal industry, construction work, in the workshop. They are found in every tool box. The complete range contains all types of filling materials, from coarse steel to the finest brass wire.

Perfect balance

LESSMANN Handbrushes are of superb quality and yet are affordable due to a fully automated and efficient production facility. Using modern marking systems individual printing of brands and EAN Bar Codes can be made. This is done by burning stamps or tampon printing at low cost.

Brake Caliper Brushes ROKI®

This brush has been manufactured in co-operation with the automobile industry. This brush is used for cleaning off clogged lining deposits when changing brake pad linings. Thus the brush is very slim with a heavy straight wire filling. Made in this way it prevents damage to sensitive brake areas during use. The brush 182.431 has to the top a sloping filling and is therefore extra hard. New is the two-components-handle with the latest ergonomical aspects. Because of the design and the ergonomic handle this brush is remarkably versatile to use.

Hand Brushes with Two-Components Handles

apply to other requirements of modern high quality tools with best ergonomics.



Rivet Brushes

The V shaped filling material enables the removal of slag and scale from normally hard to reach welds and fillet welds

Hand Brushes with Scraper

For painters and bricklayers in the construction industry. These brushes are ideal for scraping off dirt or cement splashes.

Hand Brushes, Heavy Duty

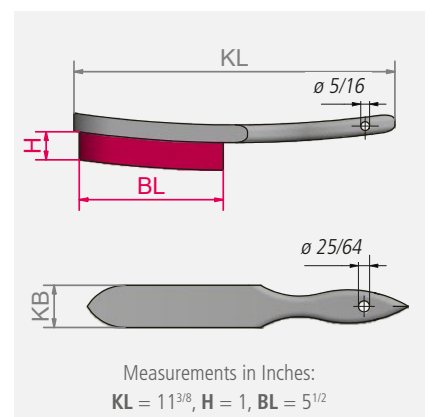
These models have a larger wooden handle and a longer and dense wire filling than our standard models.

Universal Wire Brushes

For many uses, especially in the Do It Yourself section.

Stainless Steel Brushes

Information on brushing on stainless materials you will find at www.lessmann.com

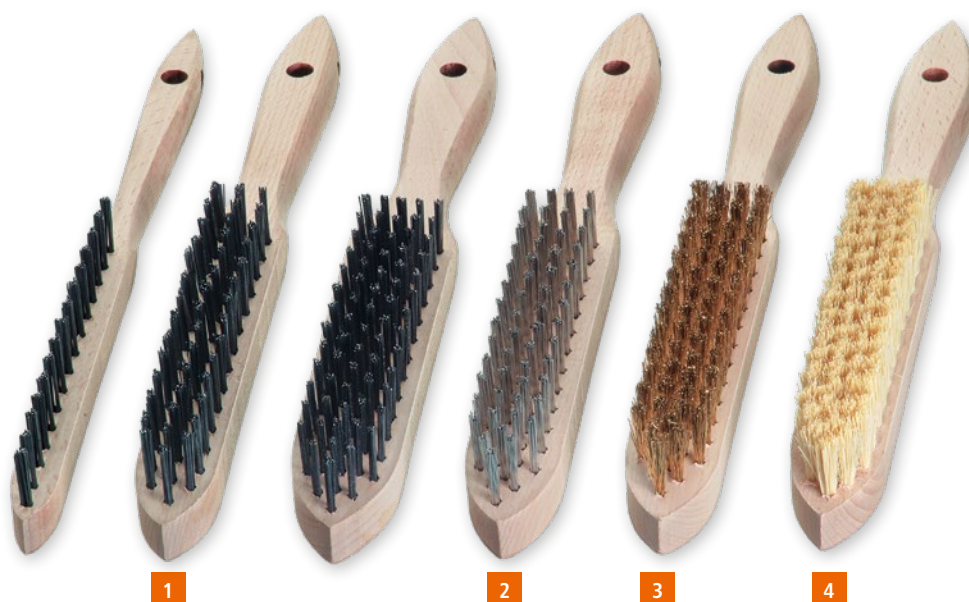


All standard hand brushes have a bar code stamp and LESSMANN-imprint.



The handles of all standard brushes are made of beech wood with two hanging holes.

Hand Brushes Standard



II IIII
EAN

Hand Brushes

		Rows >	1	2	3	4	5	6
	Filling	Pack.	Art.-No.	Art.-No.	Art.-No.	Art.-No.	Art.-No.	Art.-No.
1	STA straight 0.35 0.014"	12	100.011	100.021	100.031	100.041	100.051	100.061
	STA straight 0.35 0.014"	100		100.020	100.030	100.040	100.050	
	STM crimped 0.30 0.012"	12		105.421	105.431	105.441	105.451	<i>105.461</i>
	STA crimped 0.20 0.008"	12			102.431	102.441		
	STA crimped 0.30 0.012"	12	102.611	102.621	102.631	102.641	102.651	102.661
2	ROF crimped 0.15 0.006"	12		104.321	104.331	104.341		
	ROF crimped 0.20 0.008"	12		104.421	104.431	104.441	104.451	
	ROF crimped 0.35 0.014"	12	104.611	104.621	104.631	104.641	104.651	104.661
	ROF straight 0.35 0.014"	12	103.711	103.721	103.731	103.741	103.751	103.761
	RO8 straight 0.30 0.012"	12			105.731	105.741		
3	MES crimped 0.15 0.006"	12		107.321	107.331	107.341	107.351	
	MES crimped 0.25 0.010"	12	<i>107.411</i>	107.421	107.431	107.441	107.451	<i>107.461</i>
	MES crimped 0.35 0.014"	12	<i>107.611</i>	107.621	107.631	107.641	107.651	107.661
	MES straight 0.35 0.014"	12		106.621	106.631	106.641	106.651	
4	BRO crimped 0.20 0.008"	12			<i>108.331</i>	108.341	<i>108.351</i>	
	BRO crimped 0.40 0.016"	12				<i>108.041</i>		
	PA straight 0.40 0.016"	12			109.431	109.441	109.451	
4	FIB	12				109.741		

Other filling materials and trim length on request.

Item Nos. in **bold** are available ex stock.

Consider our minimum order value for *italic printed* article numbers (see page 178).

STA = steel wire

STM = brass coated steel

ROF = stainless steel wire

RO8 = stainless steel wire, extremely heat resistant

MES = brass wire

BRO = bronze wire

PA = polyamide

FIB = fibre



Promoting sustainable
forest management
www.pefc.de



Special Hand Brushes



Special Hand Brushes


	Filling	Rows	KL	KB	BL	H	Pack.	Art.-No.
	ROKI® Brake Caliper Brushes with Two-Components		mm inch	mm inch	mm inch	mm inch		
1	STA straight 0.35 0.014"	2 x 12/13	225 9	12 1/2	90 3 1/2	22 7/8	10	182.401
	STA crimped 0.30 0.012"	2 x 12/13	225 9	12 1/2	90 3 1/2	22 7/8	10	182.411
2	STA straight 0.35 0.014"	2 x 12/13	225 9	12 1/2	90 3 1/2	14/22 1/2/7/8	10	182.431*
3	ROF straight 0.35 0.014"	2 x 12/13	225 9	12 1/2	90 3 1/2	22 7/8	10	182.421
	RO4 straight 0.35 0.014"	2 x 12/13	225 9	12/18 1/2/3/4	85 3 3/8	22 7/8	10	182.441
4	MES crimped 0.25 0.010"	2 x 12/13	225 9	12 1/2	90 3 1/2	22 7/8	10	182.451

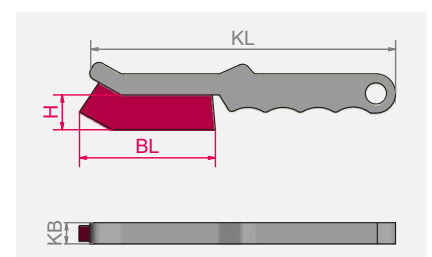
Hand Brushes with Plastic Handles

5	STA straight 0.35 0.014"	2	285 11 1/4	20 3/4	130 5 1/8	25 1	10	185.121
	STA straight 0.35 0.014"	3	285 11 1/4	26 1	130 5 1/8	25 1	10	185.131
	STA straight 0.35 0.014"	4	285 11 1/4	31 1 1/4	130 5 1/8	25 1	10	185.141
	STA straight 0.35 0.014"	5	285 11 1/4	31 1 1/4	130 5 1/8	25 1	10	185.151
	ROF crimped 0.35 0.014" 	2	285 11 1/4	20 3/4	130 5 1/8	25 1	10	185.421
	ROF crimped 0.35 0.014" 	3	285 11 1/4	26 1	130 5 1/8	25 1	10	185.431
	ROF crimped 0.35 0.014" 	4	285 11 1/4	31 1 1/4	130 5 1/8	25 1	10	185.441
	ROF crimped 0.35 0.014" 	5	285 11 1/4	31 1 1/4	136 5 1/8	25 1	10	185.451
	MES straight 0.35 0.014"	2	285 11 1/4	20 3/4	130 5 1/8	25 1	10	185.621
	MES straight 0.35 0.014"	3	285 11 1/4	26 1	130 5 1/8	25 1	10	185.631
	MES straight 0.35 0.014"	4	285 11 1/4	31 1 1/4	130 5 1/8	25 1	10	185.641
	MES straight 0.35 0.014"	5	285 11 1/4	31 1 1/4	130 5 1/8	25 1	10	185.651

Hand Brushes with Two-Components Handles

6	ROF straight 0.35 0.014"	3	285 11 1/4	26 1	130 5 1/8	25 1	10	186.431
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* The brush has to the top a sloping filling and is therefore extra hard
 For the food industry

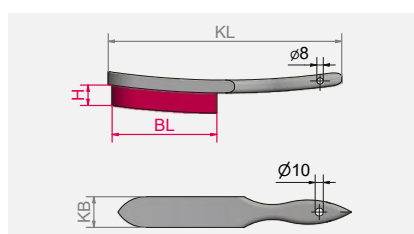


Special Hand Brushes



Special Hand Brushes

	Filling	Rows	KL	KB	BI	H	Pack.	Art.-No.
IIIIII EAN			mm inch	mm inch	mm inch	mm inch		
1	Rivet Brushes							
	STA straight 0.35 0.014"	3 x 15	290 11 3/8	35 1 1/2	135 5 3/8	35 1 1/2	12	120.801
	ROF straight 0.35 0.014"	3 x 15	290 11 3/8	35 1 1/2	135 5 3/8	35 1 1/2	12	120.811
	RO8 straight 0.30 0.012"	3 x 15	290 11 3/8	35 1 1/2	135 5 3/8	35 1 1/2	12	120.831
	ROF straight 0.35 0.014" with Plastic Handles	3 x 15	290 11 3/8	31 1 1/4	135 5 3/8	35 1 1/2	12	185.811
2	Hand Brushes with Scraper							
IIIIII EAN	STA straight 0.35 0.014"	4 x 15	290 11 3/8	33 1 1/4	130 5 1/8	25 1	12	120.401
	STA straight 0.35 0.014"	6 x 15	290 11 3/8	38 1 1/2	130 5 1/8	25 1	12	<i>120.601</i>
	ROF straight 0.35 0.014"	4 x 15	290 11 3/8	33 1 1/4	130 5 1/8	25 1	12	<i>120.412</i>
3	Hand Brushes Heavy Duty							
	STA straight 0.35 0.014"	2 x 16	290 11 3/8	30 1 1/4	150 6	32 1 1/4	12	136.101
	STA straight 0.35 0.014"	3 x 16	290 11 3/8	35 1 1/2	150 6	32 1 1/4	12	136.102
	STA straight 0.35 0.014"	4 x 16	290 11 3/8	40 1 3/8	150 6	32 1 1/4	12	136.103
	Hand Brushes Export Model							
4	STA straight 0.35 0.014"	4 x 17	300 12	30 1 1/4	130 5 1/8	25 1	12	122.401
5	STA straight 0.35 0.014"	4 x 19	350 14	30 1 1/4	160 6 3/8	30 1 1/4	6	122.801
6	BRO straight 0.30 0.012"	3 x 19	350 14	25 1	153 6 1/32	30 1 1/4	6	122.771
	BRO straight 0.30 0.012"	4 x 19	350 14	30 1 1/4	150 6	30 1 1/4	6	122.821
	BRO straight 0.30 0.012"	5 x 19	350 14	30 1 1/4	153 6 1/32	30 1 1/4	6	<i>122.871</i>
7	Universal Wire Brushes							
	STM crimped 0.30 0.012"	1	260 10 1/4	10 3/8	135 5 3/8	28 1	24	056.001
	STA crimped 0.35 0.014"	1	260 10 1/4	10 3/8	135 5 3/8	28 1	24	056.301
	ROF crimped 0.30 0.012"	1	260 10 1/4	10 3/8	135 5 3/8	28 1	24	056.501
	MES crimped 0.30 0.012"	1	260 10 1/4	10 3/8	135 5 3/8	28 1	24	056.701



Item Nos. in **bold** are available ex stock.
Consider our minimum order value for *italic printed*
article numbers (see page 178).

STA	= steel wire
STM	= brass coated steel
ROF	= stainless steel wire
RO4	= stainless steel wire, premium-quality
RO8	= stainless steel wire, extremely heat resistant
MES	= brass wire
BRO	= bronze wire

Spark Plug Brushes



Spark Plug Brushes

	Filling	Rows	KL mm inch	KB mm inch	BL mm inch	H mm inch	Pack.	Art.-No.
1	MES crimped 0.15 0.006"	2 x 5	100 4	15 5/8	25 1	15 5/8	12	125.111
2	MES crimped 0.15 0.006"	3 x 5/6	150 6	15 5/8	40 1 3/8	15 5/8	12	125.211
3	STA crimped 0.15 0.006"	3 x 5/6	150 6	15 5/8	40 1 3/8	15 5/8	12	125.201
	ROF crimped 0.15 0.006"	3 x 5/6	150 6	15 5/8	40 1 3/8	15 5/8	12	125.231
	MES crimped 0.15 0.006" / PP	3 x 5/6	150 6	15 5/8	40 1 3/8	15 5/8	12	125.221
	MES crimped 0.15 0.006"	3 x 5/6	150 6	15 5/8	40 1 3/8	15 5/8	12	125.311*
	ROF crimped 0.20 0.008"	3 x 5/6	150 6	15 5/8	40 1 3/8	15 5/8	12	125.241
	PA straight 0.30 0.012"	3 x 5/6	150 6	15 5/8	40 1 3/8	15 5/8	12	125.251
3	BRO crimped 0.15 0.006"	3 x 5/6	200 8	15 5/8	40 1 3/8	15 5/8	12	132.801
	MES crimped 0.15 0.006"	5 x 8/10	190 1 1/2	25 1	55 2 1/4	18 3/4	12	125.511
4	MES crimped 0.15 0.006" / PP	5 x 8/10	190 1 1/2	25 1	55 2 1/4	12 1/2	12	125.521
5	MES crimped 0.15 0.006"	4 x 6	155 6	22 7/8	40 1 3/8	18 3/4	12	182.331**

Soldering tip brush, extra dense filament, wooden handle orange

6	ROF crimped 0.10 0.004"	3 x 7/8	150 6	15 5/8	39 1 3/8	9	12	125.234
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* Wooden body varnished | ** Plastic body

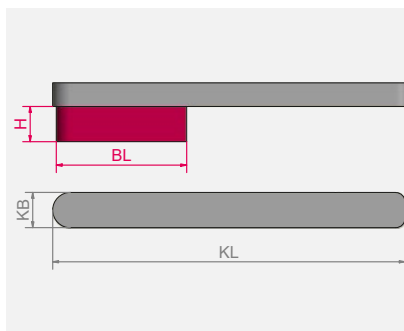
Spark Plug Brushes

These small brushes are for all fine brushwork requiring thin wire.

They are available in different sizes and filling materials.

Soldering tip brushes

Soldering tip brushes have an extra dense and fine trimming. They are ideal for processing soldering tips and cleaning circuit boards after the soldering process as well as for many other fine jobs.



Item Nos. in **bold** are available ex stock. Consider our minimum order value for *italic printed* article numbers (see page 178).

STA = steel wire

ROF = stainless steel wire

MES = brass wire

BRO = bronze wire

PA = polyamide

PP = polypropylene

ROS = horse hair





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Fine Scratch Brushes



Fine Scratch Brushes

	Filling	Rows	KL mm inch	KB mm inch	BL mm inch	H mm inch	Pack.	Art.-No.
1	MES crimped 0.15 0.006"	3	225 9	16 5/8	110 4 3/8	20 3/4	12	126.311
	MES crimped 0.15 0.006"	4	225 9	20 3/4	110 4 3/8	20 3/4	12	126.411
	MES crimped 0.15 0.006"	5	225 9	24 1	110 4 3/8	20 3/4	12	126.511
	MES crimped 0.15 0.006"	6	225 9	28 1	110 4 3/8	20 3/4	12	126.611
	MES crimped 0.15 0.006"	8	225 9	36 1 1/2	110 4 3/8	20 3/4	12	126.811
	MES crimped 0.08 0.003"	4	220 8 5/8	18 11/16	100 4	20 3/4	12	126.441
	MES crimped 0.10 0.004"	4	225 9	20 3/4	110 4 3/8	20 3/4	12	126.431
	ROF crimped 0.15 0.006"	4	225 9	20 3/4	110 4 3/8	20 3/4	12	126.481
2	STA crimped 0.15 0.006"	4	225 9	20 3/4	110 4 3/8	20 3/4	12	126.401
	RO4 crimped 0.15 0.006"	4	225 9	20 3/4	100 4	20 3/4	12	126.491
3	PA straight 0.30 0.012"	4	225 9	20 3/4	110 4 3/8	20 3/4	12	126.451
4	ROS	4	225 9	20 3/4	110 4 3/8	20 3/4	12	126.472
5	ROF crimped 0.15 0.006" 	4	225 9	20 3/4	100 4	20 3/4	12	182.152**
	MES crimped 0.15 0.006"	4	225 9	20 3/4	100 4	20 3/4	12	182.162**
	PP straight 0.30 0.012" 	4	225 9	20 3/4	100 4 3/8	20 3/4	12	182.172**
	ROS	4	225 9	20 3/4	100 4	20 3/4	12	182.472**

Special Brushes

6	MES crimped 0.35 0.014"	4 x 11/12	350 14	22 7/8	77 3	10 3/8	12	182.807**
	MES crimped 0.35 0.014"	4 x 11/12	400 15 3/4	20 3/4	77 3	10 3/8	12	183.704**
	MES crimped 0.35 0.014"	4 x 11/12	450 17 3/4	22 7/8	77 3	10 3/8	12	182.811**
	MES crimped 0.30 0.012"	5 x 9/8	700 27 1/2	25 1	54 2 1/4	6 1/4	12	183.706**
7	MES crimped 0.35 0.014"	4 x 11/12	350 14	22 7/8	80 3	10 3/8	12	137.701
8	MES crimped 0.30 0.012"	5 x 9	700 27 1/2	25 1	54 2 1/4	6 1/4	12	138.704
	MES crimped 0.30 0.012"	4 x 11/12	450 17 3/4	22 7/8	80 3	8 5/16	12	138.705
9	MES crimped 0.25 0.010"	2 x 10	200 8	15 5/8	80 3	19 3/4	12	132.701

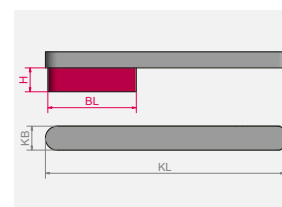
** Plastic body |  For the food industry

Fine Scratch Brushes

Also called watchmaker and goldsmith brushes. The brushes have a very high density of filling wires and are available in different widths. These brushes are used among other things to apply solvents and other cleansing agents.

Special Brushes

The brushes were manufactured according to our customers' specification and show variations, which are possible through our flexible manufacturing procedures.



Barbecue grill brushes



Barbecue grill brushes

For regular cleaning of grill grates, Barbecue grill brushes are ideal to remove even stubborn and burned dirt. With the right brush, your grate shines like new again.

Barbecue grill brushes Standard, with scraper

The all-rounder for every barbecue, the standard Barbecue grill brushes with a stainless steel scraper.

Barbecue grill brushes curved Duty, dense filament

The curved handle makes handling these Barbecue grill brushes even easier. Dense filling with soft bristles and a scraper made of stainless steel, burned dirt has no chance.



All Barbecue grill brushes have a bar code stamp and LESSMANN-imprint.

Barbecue grill brushes straight Duty, with scraper

Due to the hard and dense filling, heavy design particularly well suited for cleaning stubborn dirt. With the scraper made of stainless steel an effortless removal of burned dirt is possible.

Barbecue grill brushes „curved Duty“

The allrounder modified with bent trimming and high-quality Two-Components handles for different grill gates, this brush is a highlight for every grill owner.



All Barbecue grill brushes with practical hanging hole and in a CutCase packaging.



Scraper flat



Scraper round



1

2

3

4

5

6



Barbecue grill brushes, crimped wire

Standard, with scraper

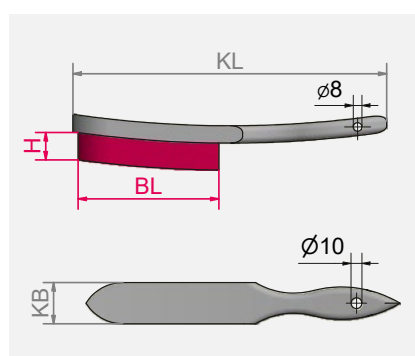
	KL mm inch	KB mm inch	H mm inch	Rows	BL mm inch	Scraper	Pack.	ROF 0.35 Art.-Nr.
1	290 11 3/8	33 1 1/4	25 1	4	130 5 1/8	flat	8	120.413
2	290 11 3/8	33 1 1/4	25 1	4	130 5 1/8	round	8	120.423

curved Duty, dense filament, with scraper

	KL mm inch	KB mm inch	H mm inch	Rows	BL mm inch	Scraper	Pack.	ROF 0.20 Art.-Nr.
3	250 10	25 1	23 7/8	3	90 3 1/2	round	8	120.433
4	250 10	38 1 1/2	23 7/8	4	90 3 1/2	round	8	120.443

straight Duty, with scraper

	KL mm inch	KB mm inch	H mm inch	Rows	BL mm inch	Scraper	Pack.	ROF 0.30 Art.-Nr.
5	290 11 3/8	33 1 1/4	20 3/4	5	90 3 1/2	round	12	135.455
6	500 20	50 2	20 3/4	9	90 3 1/2	round	9	138.469



Item Nos. in **bold** are available ex stock.
Consider our minimum order value for *italic printed*
article numbers (see page 178).

ROF = stainless steel wire



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Special Models



Hand Brushes Rectangular and Violin

There are many filling wires in these stable universal brushes.

Hand Brushes with Bracket

The wooden body is pointed to the front end, the plastic bracket is nailed on. The model 140.901 has an adjustable stock board which enables an adjustment to brush firmness.

These special models are mainly ordered by our export customers.

Brushes for removing wet storage stain

Zinc coated surfaces are needed for corrosion protection. Often after the zinc coating of work parts, under wet conditions chemical reactions occur which cause wet storage stain. The special bronze wire allows the effective removal of white rust without smashing the zinc coating which has to be treated.

Radiator Brushes

This narrow, long shaped brush is ideal for hard to reach areas on heaters and radiators. The model 121.211 has a straight body, the other models have a curved body.

Staining Brushes

The treated wood is prepared with these staining brushes. By using fibre and bronze wire the brushes are insensitive against all normal chemical based solutions. The model 144.211 has an adjustable stock board which enables an adjustment to brush firmness. With the staining brush 144.701 the surface after the staining process is polished by the leather insert strips. Any standing wood fibre is also smoothed.

File Cleaners

The brushes for cleaning wood and metal files are available in different sizes and with different file card. The file card is glued on to the wooden body.

File Card in Rolls

Various roughing-up tools can be manufactured with this material, which is also available in different sizes and filling materials. Available in meters or if required in single pieces.

Bricklayer's Brushes

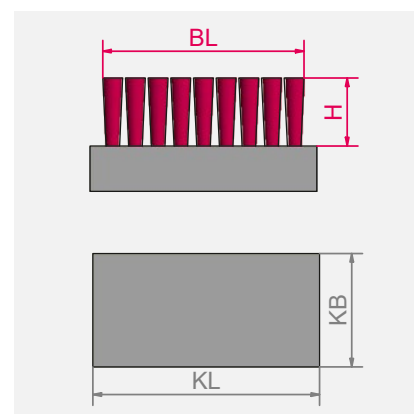
For pre and retreatment of brickwork for painters and bricklayers. All models have a jute or plastic strap.

Plasterer's Brushes

These are for roughening and structuring of plaster. Body is made of beech wood, the steel pins are hardened.

Spiked Rollers

For use before the removal of wallpaper. The spiked roller perforates the paper allowing absorption of stripping solvent. The roller is of plastic with the steel pins obliquely arranged to ensure maximum efficiency in use. The handle can be made longer with customised telescopic handles. For safety the roller is supplied with a protective cover.



Item Nos. in bold are available ex stock. Consider our minimum order value for *italic printed* article numbers (see page 178).

STA = steel wire

STM = brass coated steel

BRO = bronze wire



Special Hand Brushes

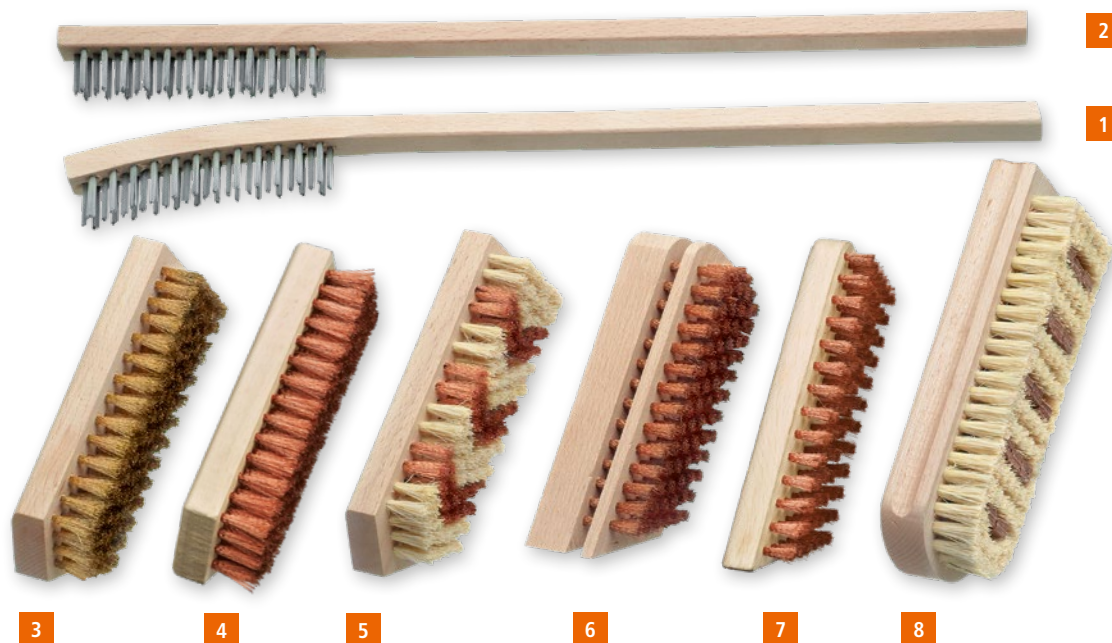
	Filling	Rows	KL mm inch	KB mm inch	BL mm inch	H mm inch	Pack.	Art.-No.
Hand Brushes Rectangular and Violin								
1	STA straight 0.35 0.014"	6 x 19	185 7 1/4	57 2 1/4	175 7	30 1 1/4	12	140.201
2	STA straight 0.35 0.014"	5	200 8	60 2 3/8	190 7 1/2	35 1 1/2	16	141.231
3	STM straight 0.35 0.014"	5	200 8	55 2 1/4	170 6 5/8	40 1 3/8	36	140.641
Hand Brushes with Bracket								
4	STA straight ca. 0.35 0.014"	5	225 9	55 2 1/4	200 8	38 1 1/2	16	140.901*
5	STM crimped 0.35 0.014"	5	225 9	55 2 1/4	200 8	38 1 1/2	16	140.811
Hand Brushes with Strap								
6	STA straight 0.50 0.020"	7	200 8	70 2 3/4	185 7 1/4	35 1 1/2	12	141.421
Hand Brushes for removing wet storage stain								
7	BRO crimped 0.08 0.003"	11 x 18	120 4 3/4	70 2 3/4	110 4 3/8	14 4/7	4	152.811

* with adjustable board



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Special Models



Radiator Brushes

	Filling	Rows	KL mm inch	KB mm inch	BL mm inch	H mm inch	Pack.	Art.-No.
1	STA straight 0.25 0.010"	3 x 13	420 16 1/2	20 3/4	115 4 1/2	20 3/4	12	121.111*
2	STA straight 0.25 0.010"	3 x 13	420 16 1/2	20 3/4	115 4 1/2	20 3/4	12	121.211**

Staining Brushes

	Filling	Rows	KL mm inch	KB mm inch	BL mm inch	H mm inch	Pack.	Art.-No.
3	MES crimped 0.15 0.006"	7	150 6	50 2	140 5 1/2	20 3/4	12	144.001
4	BRO crimped 0.15 0.006"	7	150 6	50 2	140 5 1/2	20 3/4	12	144.011
5	BRO 0.15 0.006" / FIB	7	150 6	50 2	140 5 1/2	20 3/4	12	144.021
	BRO crimped 0.15 0.006"	7	180 7	60 2 3/8	170 6 5/8	20 3/4	12	144.111
	BRO 0.15 0.006" / FIB	7	180 7	60 2 3/8	170 6 5/8	20 3/4	12	144.121
6	BRO crimped 0.15 0.006"	6	150 6	50 2	130 5 1/8	20 3/4	12	144.211***
	BRO crimped 0.15 0.006"	6	150 6	50 2	130 5 1/8	15 5/8	12	144.311
7	BRO crimped 0.15 0.006"	6	180 7	60 2 3/8	160 6 3/8	15 5/8	12	144.411

Wax Polishing Brush

	Filling	Rows	KL mm inch	KB mm inch	BL mm inch	H mm inch	Pack.	Art.-No.
8	Leather + FIB	3/7	175 6 7/8	60 2 3/8	160 6 3/8	20 3/4	12	144.701

* Wooden body curved | ** Wooden body straight | *** with adjustable board



Item Nos. in **bold** are available ex stock.
Consider our minimum order value for *italic printed* article numbers (see page 178).

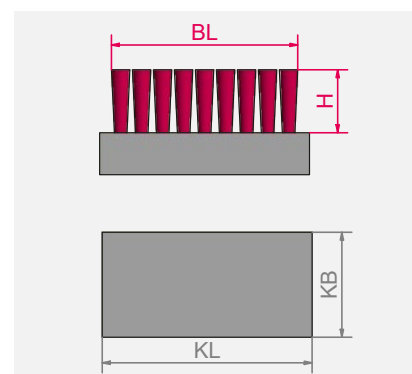
STA = steel wire

ROF = stainless steel wire

MES = brass wire

BRO = bronze wire

FIB = fibre





File Cleaners / Roughening Brushes

	File Cards	KL mm <i>inch</i>	KB mm <i>inch</i>	BL mm <i>inch</i>	Pack.	Art.-No.
1	STA 0.30 0.012"	210 8 1/4	25 1	100 4	12	037.101
	STA 0.30 0.012"	250 10	40 1 3/8	115 4 1/2	12	037.201
	STA 0.30 0.012"	250 10	40 1 3/8	115 4 1/2	100	037.200
	ROF 0.30 0.012"	250 10	40 1 3/8	115 4 1/2	12	037.221
2	ROF 0.60	170 6 3/4	30 1 1/4	24 1	20	037.710

3 File Cards

Filling, without interval	STA 0.30 width 25 Art.-No.	STA 0.30 width 38 Art.-No.	STA 0.30 width 51 Art.-No.	ROF 0.30 width 38 Art.-No.
	000.311*	000.321*	000.331*	000.323*

Bricklayer's Brushes with Strap

Filling	Rows	KL mm <i>inch</i>	KB mm <i>inch</i>	BL mm <i>inch</i>	H mm <i>inch</i>	Pack.	Art.-No.
4 STA straight 0.25 0.010"	9	210 8 1/4	100 4	200 8	35 1 1/2	12	142.101
5 MES crimped 0.20 0.008" / PVC	9	210 8 1/4	95 3 3/4	200 8	20 3/4	12	142.211**

Plasterer's Brushes

Filling	KL mm <i>inch</i>	KB mm <i>inch</i>	BL mm <i>inch</i>	H mm <i>inch</i>	Pack.	Art.-No.
6 86 steel Pins hardend	190 7 1/2	97 3 3/4	165 6 1/2	16 5/8	12	061.101

7 Spiked Rollers

Filling	Rows	KL mm <i>inch</i>	KB mm <i>inch</i>	BL mm <i>inch</i>	H mm <i>inch</i>	Pack.	Art.-No.
steel Pins on plastic roller, with Protective Cover	12	290 11 3/8	25 1	148 5 7/8	7 1/4	10	064.050

* Please indicate length. | ** Wooden body varnished

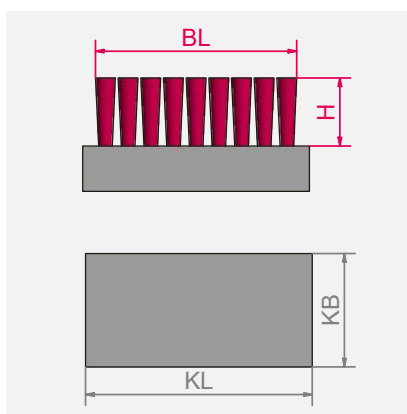
Brooms and Scrubs



Brooms and Scrubs

Brooms and Scrubs for the use in all industrial companies and craftsman's establishments.

The shown brooms and scrubs are the best selling models.



Item Nos. in bold are available ex stock.

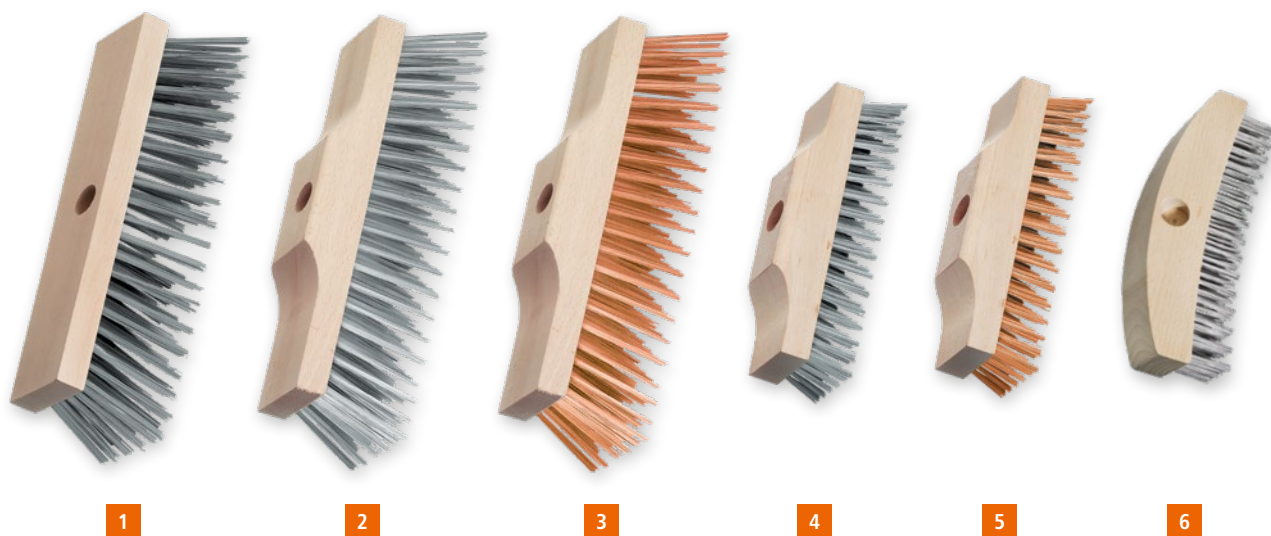
Consider our minimum order value for *italic printed* article numbers (see page 178).

STA = steel wire

ROF = stainless steel wire

MES = brass wire

BRO = bronze wire



1 Brooms Flat Wooden Stock, with Handle Hole Ø 23 mm

Filling	Rows	KL mm inch	KB mm inch	BL mm inch	H mm inch	Pack.	Art.-No.
STA straight 0.50 0.020"	5 x 16/17	250 10	60 2 3/8	270 10 5/8	70 2 3/4	12	147.101
STA straight 0.50 0.020"	6 x 20/21	300 12	70 2 3/4	330 13	70 2 3/4	12	147.201
STA straight 0.50 0.020"	6 x 20/21	300 12	70 2 3/4	330 13	70 2 3/4	42	147.200
ROF straight 0.50 0.020"	6 x 20	300 12	70 2 3/4	330 13	70 2 3/4	12	147.261
STA straight 0.50 0.020"	6 x 23	350 14	70 2 3/4	390 15 3/8	70 2 3/4	12	147.301

Brooms Raised Wooden Stock, with Handle Hole Ø 23 mm

Filling	Rows	KL mm inch	KB mm inch	BL mm inch	H mm inch	Pack.	Art.-No.
2 STA straight 0.50 0.020"	5 x 16/17	250 8 1/4	60 2 3/8	270 10 5/8	70 2 3/4	12	146.101
STA straight 0.50 0.020"	6 x 20/21	300 12	70 2 3/4	330 13	70 2 3/4	12	146.201
3 BRO straight 0.40 0.016"	6 x 20/21	300 12	70 2 3/4	320 12 51/64	55 2 1/8	12	146.270
2 STA straight 0.50 0.020"	6 x 23/24	350 14	70 2 3/4	390 15 3/8	70 2 3/4	12	146.301

Scrubs, with Handle Hole Ø 23 mm

Filling	Rows	KL mm inch	KB mm inch	BL mm inch	H mm inch	Pack.	Art.-No.
4 STA straight 0.35 0.014"	6 x 16/17	220 8 5/8	60 2 3/8	225 9	35 1 1/2	12	148.101
ROF straight 0.35 0.014"	6 x 16/17	220 8 5/8	60 2 3/8	225 9	35 1 1/2	12	148.161
MES crimped 0.25 0.010"	6 x 16/17	220 8 5/8	60 2 3/8	225 9	25 1	12	148.141
5 BRO straight 0.40 0.016"	6 x 16/17	220 8 5/8	60 2 3/8	225 9	40 1	12	148.170
6 STA straight 0.40 0.016"	7 x 15/16	230 9	65 2 1/2	220 8 5/8	35 1 1/2	12	148.601*

* Wooden body curved

Dusters



Dusters

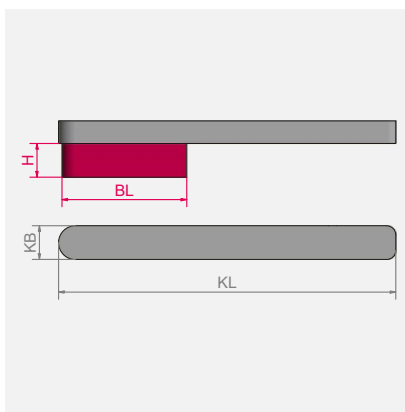
Depending on the surrounding and application area, dusters are available in various models and with various filling materials. For coarse and light adherent dirt, dusters with wire filament are ideal.

The duster with polypropylene filament (straight plastic fibre) can be cleaned easily and therefore other surfaces do not get dirty. Since the water absorption of polypropylene is very low, the duster can be used also under wet conditions.

Further models in special execution with different filling materials and trim length available.

Dusters custom-made

Beside the mentioned models we provide special models with filling material and trim length according to your requirements.



Item Nos. in bold are available ex stock.

Consider our minimum order value for *italic printed* article numbers (see page 178).

STA = steel wire

MES = brass wire

PP = polypropylene

ROS = horse hair

BRO = bronze wire



Dusters									
	Filling	Rows	KL mm inch	KB mm inch	BL mm inch	H mm inch	Pack.	Art.-No.	
1	Artificial COCO Long Duty	4	430 17	40 1 3/8	165 6 1/2	70 2 3/4	20	124.402	
2	MES crimped 0.25 0.010"	4	320 12 1/2	35 1 1/2	180 7	40 1 3/8	12	124.121	
3	BRO crimped 0.30 0.012"	4	320 12 1/2	35 1 1/2	170 6 3/4	40 1 3/8	12	124.181	
4	STA straight 0.25 0.010"	4	320 12 1/2	35 1 1/2	180 7	60 2 3/8	12	124.101	
5	ROS	6	300 12	43 1 3/4	165 6 1/2	50 2	20	124.301*	
6	PP	4	320 12 1/2	35 1 1/2	175 6 7/8	70 2 3/4	12	124.801	
7	PP Long Duty	4	450 17 3/4	33 1 1/4	165 6 1/2	70 2 3/4	12	124.841	

* Wooden body varnished

|||||
EAN

Weed Brushes and Weed Brooms

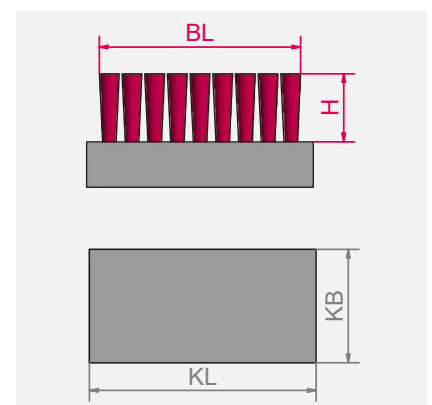


Weed Brush

This brush with V shaped filling material is ideal for the removal of moss and weeds in joints and edges on pavements, courtyards or cobbled areas.

Due to the long handle an ergonomic and effective working is possible. Without stooping, your back is preserved, though it is possible to remove weeds aggressively and precisely.

The brush with set filling material allows a cleaning of edges and joints which are hard to reach.



All standard hand brushes have a bar code stamp and LESSMANN-imprint.

Weed Broom

As well as the weed brush, the weed broom is a brush for outdoors.

Ideally moss and weeds can be removed from terrace boards or cobblestones. An easy and clean working without stooping makes the brush to an effective broom with depth effects. High quality, with brass coated steel wires guarantee a long lifetime of the brush in the well known LESSMANN quality „Made in Germany“.

Item Nos. in bold are available ex stock.

Consider our minimum order value for *italic printed* article numbers (see page 178).

STA = steel wire

STM = brass coated steel



|||||
EAN

Weed Brushes, with Handle Hole Ø 23 mm

	Filling	KL	KB	H	Rows	Pack.	Art.-No.
		mm inch	mm inch	mm inch			
without handle							
1	STA 0.35 0.014"	100 4	35 1 1/2	36 1 1/2	3	25	151.108
2	STM 0.35 0.014" Filling set in working direction	100 4	35 1 1/2	36 1 1/2	3	25	151.511
3	STA 0.35 0.014" with scraper	100 4	35 1 1/2	42 1 5/8	3	25	151.109
with handle, 1400 mm long, Ø 28 mm							
	STA 0.35 0.014"	100 4	35 1 1/2	36 1 1/2	3	30	151.991.07*
4	STA 0.35 0.014" with scraper	100 4	35 1 1/2	36 1 1/2	3	24	151.992.07*
	STM 0.35 0.014" Filling set in working direction	100 4	35 1 1/2	36 1 1/2	3	30	151.995.07*

|||||
EAN

Weed Broom, with Handle Hole Ø 23 mm

	Filling	KL	KB	H	Rows	Pack.	Art.-No.
		mm inch	mm inch	mm inch			
without handle							
5	STM 0.50 0.020"	140 5 1/2	60 2 3/8	70/60 2 3/4 2 3/8	10/9	16	152.510
with handle, 1400 mm long, Ø 28 mm							
	STM 0.50 0.020"	140 5 1/2	60 2 3/8	70/60 2 3/4 2 3/8	10/9	12	152.995.07*

* Delivery only in full packaging units.

LESSMANN®

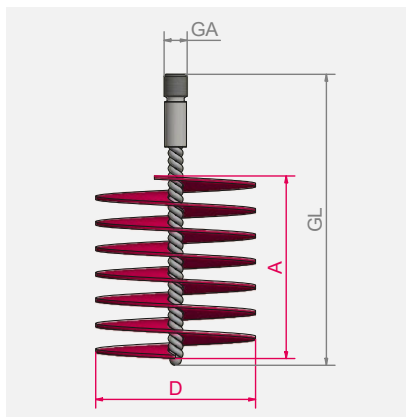
THE GERMAN BRUSH COMPANY



INTERIOR BRUSHES



Micro Interior Brushes



Item Nos. in **bold** are available ex stock.
Consider our minimum order value for *italic printed* article numbers (see page 178).

AO = aluminium oxide bristles

KK = ceramic grit

Interior brushes with zinc coated twisted wire and single spiral

Due to the filling of aluminium oxide or silicon carbide their usage is more flexible than with conventional interior brushes.

Interior brushes with abrasive filaments are usually used for deburring bores, cross bores, o-ring recesses and for polishing and cleaning small bores.

Due to the flexible surface of the bristles the interior brushes suit to the contour of the bore and areas which are hard to reach can be treated. Abrasive bristles also have grinding effects on the side. That allows a rounding of the edges also on cross bores.

Also brushes with **diamond** filling are available, that causes an even more aggressive surface of the brush.

Micro Interior Brushes, Steel Wire

Micro interior brushes with steel wire are used as thread brushes for descaling, deburring or cleaning:

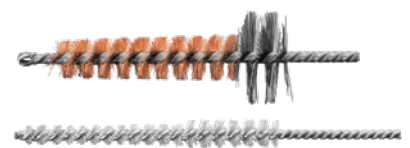
- Cross corners
- Crossovers
- Tap holes
- Slots

The brushes can be used either manually or mechanically.

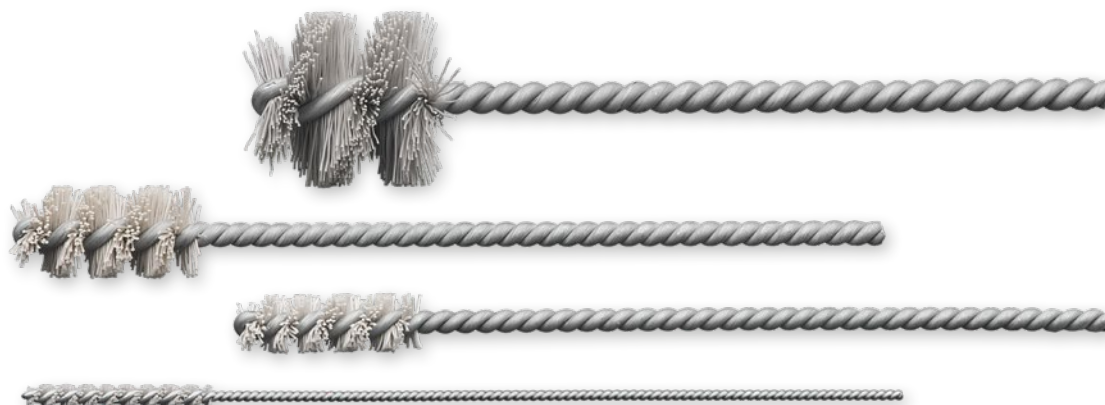
Please do not hesitate to contact us, we will also find for special applications a compatible solution. Due to a fully automated production, LESSMANN offers high quality to reasonable prices.

Mechanical Application

Only use the brush with the indicated maximal peripheral speed (RPM max.). The max. RPM only is allowed when the brush is clamped min. for 10 mm into the tool. When the brush is inserted into the suitable work piece, higher RPMs are possible. **Only use the brush right rotating.**



Mikro Interior Brushes are also available with special contours, e.g. **layered cut**.



Microabrasive Interior Brushes IBE, Aluminum Oxide Bristles

D	GL	A	GA	RPM	Pack.	AO 600/0.30	AO 1000/0.25
mm inch	mm inch	mm inch	mm inch	max.		Art.-No.	Art.-No.
3.2 1/8	125 5	25 1	1.5 1/16	800	10	541.084	540.067
4.2 11/64	125 5	25 1	2.2 3/32	1,000	10	541.045	540.068
4.8 3/16	125 5	25 1	2.2 3/32	1,000	10	541.083	540.069
5.5 7/32	125 5	25 1	2.2 3/32	1,000	10	541.079	540.070
6.6 17/64	125 5	25 1	2.5 3/32	1,000	10	541.037	540.071
8.2 21/64	125 5	25 1	3.2 1/8	2,000	10	541.076	540.072
9.8 25/64	125 5	25 1	3.2 1/8	2,000	10	541.077	540.073
11.5 29/64	125 5	25 1	3.7 5/32	2,000	10	541.085	540.074
13 33/64	125 5	25 1	3.7 5/32	2,000	10	541.087	540.075
17.5 11/16	125 5	25 1	4.7 3/16	2,000	10	541.039	
16 5/8	125 5	25 1	3.7 5/32	2,000	10	541.089	540.076
20 51/64	125 5	25 1	4.7 3/16	2,000	10	541.093	540.077
25 1	125 5	25 1	4.7 3/16	2,000	10	541.095	540.078

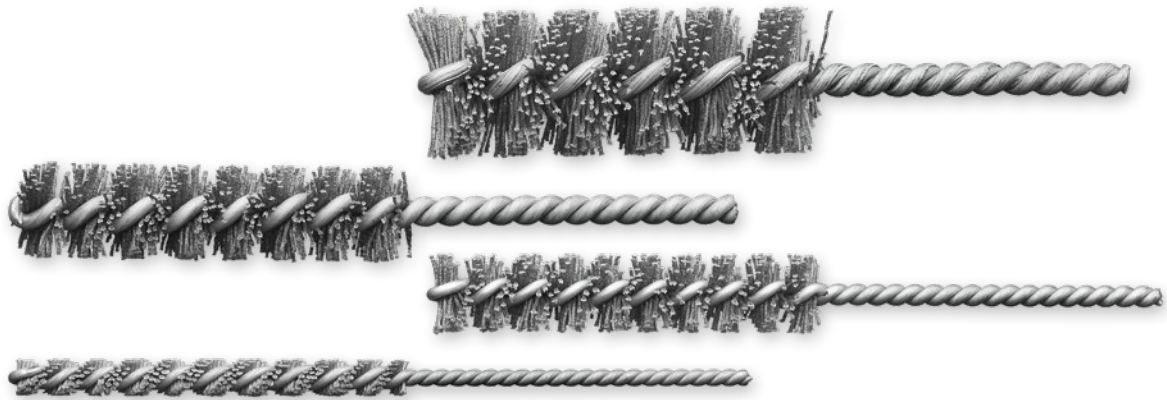
Microabrasive Interior Brushes IBE, Ceramic Grit

D	GL	A	GA	RPM	Pack.	KK 120/0,60	KK 320/0,60
mm inch	mm inch	mm inch	mm inch	max.		Art.-Nr.	Art.-Nr.
10 13/32	125 5	65 2 9/16	3.7 5/32	2,000	10	541.2C1.00	543.2C1.00
13 1/2	125 5	65 2 9/16	3.7 5/32	2,000	10	541.2C1.30	543.2C1.30
16 5/8	125 5	65 2 9/16	5.2 13/64	2,000	10	541.2C1.60	543.2C1.60
20 25/32	125 5	65 2 9/16	5.7 7/32	2,000	10	541.2C2.00	543.2C2.00
25 1	125 5	65 2 9/16	5.7 7/32	2,000	10	541.2C2.50	543.2C2.50



You can find our **Enquiry Forms** in the respective category under:
www.lessmann.com/index.php/en/content/view/full/61 or in the catalog on page 173

Interior Brushes



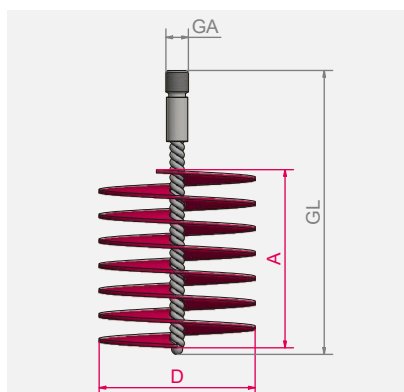
Microabrasive Interior Brushes IBE, Silicon Carbide Bristles

D	GL	A	GA	RPM	Pack.	SIC 120/0.6	SIC 320/0.6/**0.3	SIC 1000/0.25
mm inch	mm inch	mm inch	mm inch	max.		Art.-No.	Art.-No.	Art.-No.
1.2 3/64	100 4	12 15/32	0.7 1/32	500	10			545.200.12*
1.9 5/64	100 4	18 45/64	0.7 1/32	500	10			545.200.19
2.2 3/32	100 4	18 45/64	0.9 1/32	1,000	10		543.200.22**	545.200.22
2.6 7/64	100 4	25 1	1.0 3/64	1,000	10		543.200.26**	545.200.26
3.2 1/8	100 4	25 1	1.7 1/16	1,000	10		543.200.32**	545.200.32
4.2 11/64	125 5	25 1	2.2 3/32	1,000	10	541.200.42	543.200.42**	545.200.42
5.5 7/32	125 5	25 1	2.2 3/32	1,000	10	541.200.55	543.200.55**	545.200.55
6 15/64	125 5	65 2 9/16	3.0 1/8	1,500	10	541.200.60	543.200.60	545.200.60
8 5/16	125 5	65 2 9/16	3.0 1/8	1,500	10	541.200.80	543.200.80	545.200.80
10 25/64	125 5	65 2 9/16	3.7 9/64	2,000	10	541.201.00	543.201.00	545.201.00
13 33/64	125 5	65 2 9/16	3.7 9/64	2,000	10	541.201.30	543.201.30	545.201.30
16 5/8	125 5	65 2 9/16	5.2 13/64	2,000	10	541.201.60	543.201.60	545.201.60
19 3/4	125 5	65 2 9/16	5.2 13/64	2,000	10	541.201.90	543.201.90	545.201.90
20 51/64	125 5	65 2 9/16	5.7 7/32	2,000	10	541.202.00	543.202.00	
22 7/8	125 5	65 2 9/16	5.7 7/32	2,000	10	541.202.20	543.202.20	545.202.20
25 1	125 5	65 2 9/16	5.7 7/32	2,000	10	541.202.50	543.202.50	545.202.50
28 1 7/64	125 5	65 2 9/16	5.7 7/32	2,000	10	541.202.80	543.202.80	545.202.80
30 1 3/16	125 5	65 2 9/16	5.7 7/32	2,000	10	541.203.00	543.203.00	545.203.00
32 1 17/64	125 5	65 2 9/16	5.7 7/32	2,000	10	541.203.20	543.203.20	545.203.20
38 1 1/2	125 5	65 2 9/16	5.7 7/32	2,000	10	541.203.80		

* Type IB: with straight / clipped off point

Mechanical Application

Only use the brush with the indicated maximal peripheral speed (RPM max.). The max. RPM only is allowed when the brush is clamped min. for 10 mm into the tool. When the brush is inserted into the suitable work piece, higher RPMs are possible. **Only use the brush right rotating.**



Item Nos. in **bold** are available ex stock.
Consider our minimum order value for *italic printed* article numbers (see page 178).

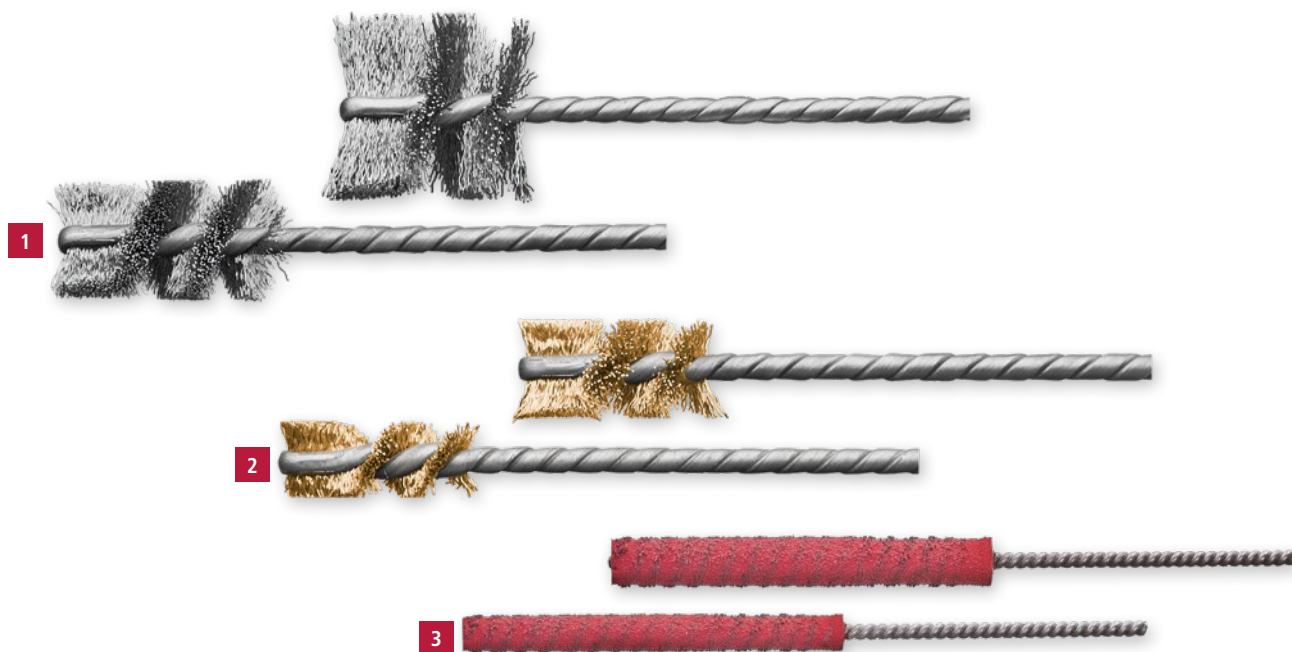
STH = steel wire, high tensile, straight

ROH = stainless steel wire, high tensile

MES = brass wire

PA = polyamide

SIC = silicon carbide bristles



1 Micro Interior Brushes IBH, Steel Wire, Stainless Steel Wire

D	GL	A	GA	RPM	Pack.	STH 0.12 0.005"	STH 0.20 0.008"	ROH 0.12 0.005"	ROH 0.20 0.008"
mm inch	mm inch	mm inch	mm inch	max.		Art.-No.	Art.-No.	Art.-No.	Art.-No.
6 15/64	90 3 1/2	25 1	3.0 1/8	3,500	10	564.220.60			
8 5/16	90 3 1/2	25 1	3.3 1/8	3,500	10	564.220.80			
10 25/64	90 3 1/2	25 1	3.8 5/32	3,500	10	565.321.00	565.341.00	565.521.00	
13 33/64	90 3 1/2	25 1	3.8 5/32	3,500	10	565.321.30	565.341.30	565.521.30	
16 5/8	90 3 1/2	25 1	3.8 5/32	3,000	10	565.321.60	565.341.60	565.521.60	565.541.60
19 3/4	90 3 1/2	25 1	3.8 5/32	3,000	10	565.321.90	565.341.90	565.521.90	565.541.90
20 51/64	90 3 1/2	25 1	3.8 5/32	3,000	10		565.342.00		565.542.00
21 53/64	90 3 1/2	25 1	3.8 5/32	3,000	10	565.322.10	565.342.10		
24 15/16	90 3 1/2	25 1	3.8 5/32	3,000	10	565.322.40			
25 1	90 3 1/2	25 1	3.8 5/32	3,000	10	565.322.50	565.342.50	565.522.50	565.542.50
29 1 9/64	90 3 1/2	25 1	3.8 5/32	3,000	10	565.322.90	565.342.90		565.542.90
32 1 17/64	90 3 1/2	25 1	3.8 5/32	3,000	10	565.323.20	565.343.20		565.543.20

2 Micro Interior Brushes IBH, Brass Wire and Polyamide

D	GL	A	GA	RPM	Pack.	MES 0.15 0.006"	MES 0.20 0.008"	PA 0.30 0.012"
mm inch	mm inch	mm inch	mm inch	max.		Art.-No.	Art.-No.	Art.-No.
8 5/16	90 3 1/2	25 1	3.2 1/8	3,500	10	565.730.80		
10 25/64	90 3 1/2	25 1	3.8 5/32	3,500	10	565.731.00		565.061.00
13 33/64	90 3 1/2	25 1	3.8 5/32	3,500	10	565.731.30		565.061.30
16 5/8	90 3 1/2	25 1	3.8 5/32	3,000	10	565.731.60		565.061.60
20 51/64	90 3 1/2	25 1	3.8 5/32	3,000	10		565.742.00	565.062.00
25 1	90 3 1/2	25 1	3.8 5/32	3,000	10		565.742.50	565.062.50

3 Interior Brushes IBE, Encapsulated

D	GL	A	GA	RPM max.	Pack.	STA 0,15 0.006"
mm inch	mm inch	mm inch	mm	min ⁻¹		Art.-Nr.
7 1/4	125 5	65 2 1/2	2,8	1.000	10	548.304.KG
9 3/8	125 5	65 2 1/2	2,8	900	10	548.305.KG
13 33/64	125 5	65 2 1/2	2,8	900	10	available on demand
15 19/32	125 5	65 2 1/2	2,8	900	10	available on demand

Stainless Steel Brushes

Information on working on stainless steel you find at www.lessmann.com

Cylinder Brushes

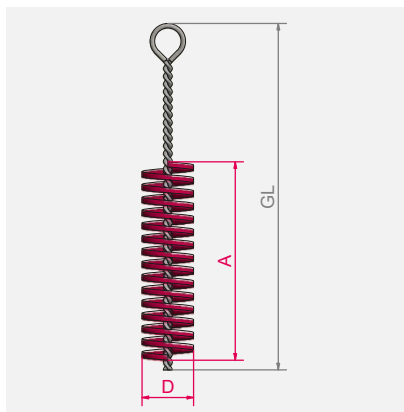


Cylinder Brushes

For manual cleaning and deburring of tubes, bores etc. Cylinder brushes are also available in other dimensions and materials. When ordering special sizes please mention full specification: total length, filling length, filling material, diameter and quantity.

Cylinder brushes, flat filament

These flat brushes with fine, crimped steel wire are ideal for cleaning areas which are hard to reach. A typical application is removing isolation rests in channels of stators or electric motors.



Item Nos. in **bold** are available ex stock.

Consider our minimum order value for *italic printed* article numbers (see page 178).

STA = steel wire

ROF = stainless steel wire

MES = brass wire

PA = polyamide

Stainless Steel Brushes

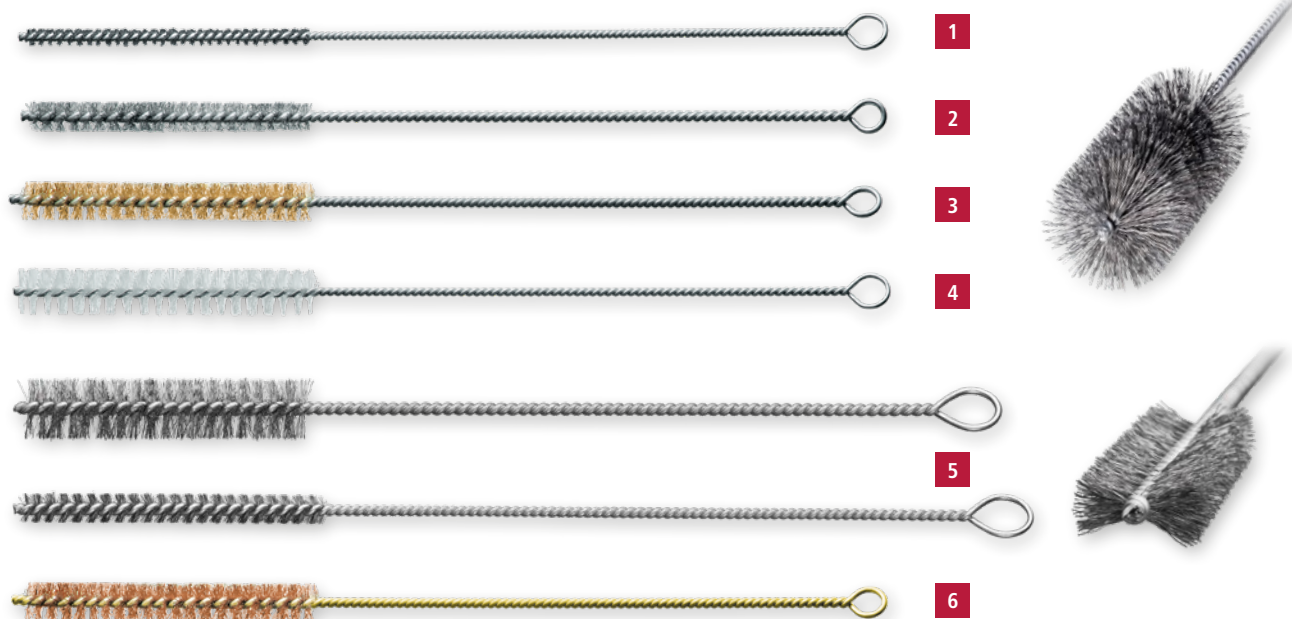
Information on working on stainless steel you find at www.lessmann.com

5 Cylinder brushes, flat filament with Loop IBZ

D mm inch	GL mm inch	A mm inch	Pack.	STA 0,15 Art.-No.	STA 0,20 Art.-No.
4 x 10 5/32 x 25/64	350 14	100 4	10	559.810	
7 x 10 9/32 x 25/64	350 14	100 4	10	559.806	
8 x 12 5/16 x 15/32	350 14	100 4	10		559.802
8 x 15 5/16 x 19/32	350 14	100 4	10		559.803
10 x 18 25/64 x 45/64	350 14	100 4	10		559.804
10 x 22 25/64 x 7/8	350 14	100 4	10		559.805
12 x 26 15/32 x 1 1/32	350 14	100 4	10		559.807

6 Cylinder brushes, with Loop IBZ, Bronze Wire, fittings brass (low-sparkling)

D mm inch	GL mm inch	A mm inch	Pack.	BRO 0,20 Art.-No.
10 25/64	330 13 ^{3/16}	100 4	10	542.034
20 51/64	330 13 ^{3/16}	100 4	10	543.006
35 1 ^{3/8}	330 13 ^{3/16}	100 4	10	543.926



Cylinder Brushes with Loop IBZ

				1	2	3	4
D	GL	A	Pack.	STA	ROF	MES	PA
mm inch	mm inch	mm inch		Art.-No.	Art.-No.	Art.-No.	Art.-No.
3 1/8	300 12	100 4	10	542.381	542.541	542.741	542.881
4 5/32	300 12	100 4	10	542.351	542.508	542.740	542.823
5 13/64	300 12	100 4	10	542.347	542.538	542.739	542.822
6 15/64	300 12	100 4	10	542.301	542.501	542.701	542.801
8 5/16	300 12	100 4	10	542.302	542.502	542.702	542.802
10 25/64	300 12	100 4	10	542.303	542.503	542.703	542.803
12 15/32	300 12	100 4	10	542.304	542.504	542.704	542.804
13 33/64	300 12	100 4	10	542.305	542.505	542.705	available on demand
14 9/16	300 12	100 4	10	542.306	542.506	542.706	542.812
15 19/32	300 12	100 4	10	542.307	542.507	542.707	542.807
16 5/8	300 12	100 4	10	542.308	542.547	542.708	542.808
18 45/64	300 12	100 4	10	542.309	542.542	542.709	542.818
20 51/64	300 12	100 4	10	542.311	542.511	542.711	542.811
25 1	300 12	100 4	10	542.313	542.513	542.713	542.813
30 1 3/16	300 12	100 4	10	542.315	542.515	542.715	542.815
35 1 3/8	300 12	100 4	10	542.317	available on demand	542.717	available on demand
40 1 5/8	300 12	100 4	10	542.319	542.519	542.719	542.819
50 2	300 12	100 4	10	542.320	542.520	542.720	542.820

Cylinder brushes (long version) with Loop IBZ

D	GL	A	Pack.	STA	ROF	MES	PA
mm inch	mm inch	mm inch		Art.-No.	Art.-No.	Art.-No.	Art.-No.
10 25/64	500 20	100 4	10	547.303	available on demand	547.703	547.803
15 19/32	500 20	100 4	10	547.307	available on demand	547.707	547.807
20 51/64	500 20	100 4	10	547.311	available on demand	547.711	547.811
25 1	500 20	100 4	10	547.313	available on demand	547.713	547.813
30 1 3/16	500 20	100 4	10	547.315	available on demand	547.715	547.815

Hole Cleaning Brushes



Hole cleaning Brushes with Wooden Handle IBM

	D	GL	A	Filling Dia.	Pack.	1	2	3
	mm inch	mm inch	mm inch			STA Art.-No.	ROF Art.-No.	MES Art.-No.
	10 25/64	300 12	100 4	0.15	10	560.310	560.510	560.710
	15 19/32	300 12	100 4	0.20	10	560.315	560.515	560.715
	20 51/64	300 12	100 4	0.20	10	560.320	560.520	560.720
	25 1	300 12	100 4	0.25	10	560.325	560.525	560.725
	30 1 3/16	300 12	100 4	0.25	10	560.330	560.530	560.730
4	10/18 25/64 / 45/64	200 8	70 2 3/4	0.15	10	561.304*		

* conical filling

5 Cylinder Brushes with Shank 8 mm Ø IBG

D	GL	A	Filling Dia.	RPM	Pack.	STA
mm inch	mm inch	mm inch		max.		Art.-No.
13 33/64	200 8	55 2 11/64	0.15	1.000	10	503.311
20 51/64	200 8	55 2 11/64	0.20	1.000	10	503.313
26 1 1/32	200 8	55 2 11/64	0.25	800	10	503.314
32 1 17/64	200 8	55 2 11/64	0.25	800	10	503.316
38 1 1/2	200 8	55 2 11/64	0.30	800	10	503.318

Hole Cleaning Brushes

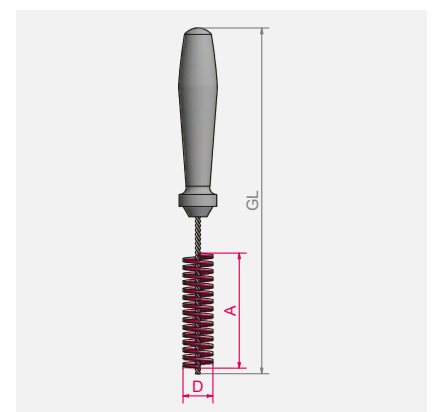
Those hole cleaning brushes have a wooden handle. Hence the brushes allow a very comfortable working in various application fields.

Typically the brushes are used in construction industry or handcraft business for cleaning bore holes or slots.

Besides, Hole Cleaning Brushes are ideal for cleaning threads or deburring cross holes.

Mechanical Application

Only use the brush with the indicated maximal peripheral speed (RPM max.). The max. RPM only is allowed when the brush is clamped min. for 10 mm into the tool. When the brush is inserted into the suitable work piece, higher RPMs are possible. **Only use the brush right rotating.**



Bore Hole Cleaning Brushes

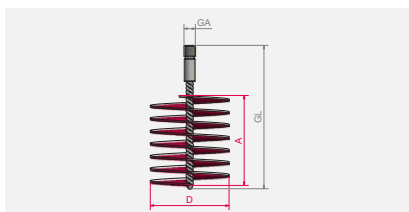


Interior Brushes for bore hole cleaning IBE, Steel, without Thread									
D	GL	A	Suitable for bore hole	RPM	Pack.	STA 0.10 0.004"	STA 0.15 0.006"	STA 0.20 0.008"	
mm inch	mm inch	mm inch	mm inch	max.		Art.-No.	Art.-No.	Art.-No.	
12 15/32	130 5 1/8	80 3	10 25/64	1,500	10	504.301			
14 9/16	140 5 1/2	80 3	12 15/32	1,500	10	504.302			
16 5/8	180 7	80 3	14 9/16	800	10		504.333		
20 51/64	200 8	100 4	18 45/64	800	10		504.334		
24 15/16	220 8 5/8	100 4	22 7/8	800	10		504.335		
26 1 1/32	250 10	100 4	24 15/16	500	10			504.346	
28 1 7/64	290 11 3/8	100 4	26 1 1/32	500	10			504.347	

Bore Hole Cleaning Brushes IBG, Stainless Steel, with Thread									
D	GL	A	Suitable for bore hole	GA	Pack.	ROF 0.12 0.004"	ROF 0.15 0.006"	ROF 0.20 0.008"	
mm inch	mm inch	mm inch	mm inch			Art.-No.	Art.-No.	Art.-No.	
12 15/32	130 5 1/8	80 3	10 25/64	M 6	10	504.501.06			
14 9/16	140 5 1/2	80 3	12 15/32	M 6	10	504.502.06			
16 5/8	180 7	80 3	14 9/16	M 6	10	504.533.06			
18 45/64	200 8	100 4	16 5/8	M 6	10		504.532.06		
20 51/64	200 8	100 4	18 45/64	M 6	10		504.534.06		
22 7/8	220 8 5/8	100 4	20 51/64	M 6	10		504.536.06		
24 15/16	220 8 5/8	100 4	22 7/8	M 6	10		504.535.06		
26 1 1/32	250 10	100 4	24 15/16	M 6	10			504.546.06	
28 1 7/64	290 11 3/8	100 4	26 1 1/32	M 6	10			504.547.06	
31 1 1/4	260 10 3/8	100 4	29 1 9/64	M 6	10			504.548.06	
33 1 1/4	350 14	100 4	31 1 1/4	M 6	10			504.549.06	
35 1 3/8	350 14	100 4	33 1 1/4	M 6	10			504.550.06	
38 1 1/2	350 14	100 4	36 1 1/2	M 6	10			504.551.06	
43 2	350 14	100 4	41 1 39/64	M 6	10			504.552.06	

Bore Hole Cleaning Brushes

These interior brushes are used in the mounting techniques. The brushes are ideal for cleaning bore holes in most different materials. Afterwards screws and anchors can be inserted easily in the bore hole.



Item Nos. in **bold** are available ex stock.
Consider our minimum order value for *italic printed* article numbers (see page 178).

STA = steel wire

ROF = stainless steel wire

MES = brass wire

Tube and Sleeve Brushes



Interior Brushes

These brushes are varied for many different uses: not only for cleaning of tubes, gratings, sleeves and cylinders. Interior brushes regulate current velocity in tubing systems. They are similar to the double spiral tube brushes for deburring cross drillings etc. On these pages are shown standard brushes, single spiral having two drilling wires and the double spiral having four.

Sleeve Brushes

Sleeve brushes have a double spiral and are particularly stable types of tube brushes whose trimming is cut to a conical point. Used in machines they are beneficial for cleaning the sleeves (internal threads) of containers, e.g. after galvanisation.

Mechanical Application

Only use the brush with the indicated maximal peripheral speed (RPM max.). The max. RPM only is allowed when the brush is clamped min. for 10 mm into the tool. When the brush is inserted into the suitable work piece, higher RPMs are possible. **Only use the brush right rotating.**

Brushes with doublespiral

Brushes with a double spiral are mainly used for the treatment of larger diameters or for the treatment of hard materials. A double spiral is more stable and has a higher resistance against untwisting. Hence the brushes can be exposed to higher loads.

Stainless Steel Brushes

Information on working on stainless steel you find at www.lessmann.com



Special diameters

Minimum order € 125.00
Extra charge: Gross per piece
10–49 pcs + 50 %
50–99 pcs + 25 %
100 pcs and more + 10 %

Special threads under reserve

Extra charge: Gross per piece
10–19 pcs + € 5.00
20–49 pcs + € 4.00
50–99 pcs + € 3.00
100 pcs and more + € 2.00

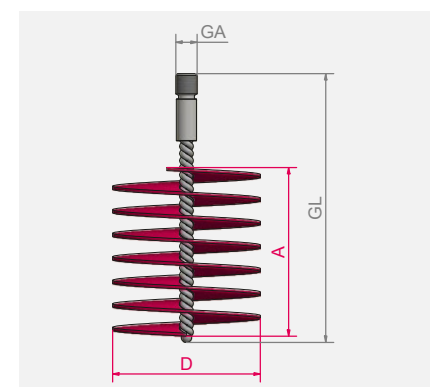
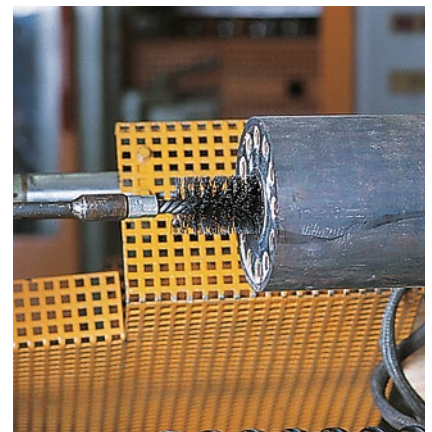
Suitable thread adapter

see on page 127

Handles and Extension Pieces

see on page 127

On request tube brushes are also available with other measurements, other filling materials or other threads.



Item Nos. in bold are available ex stock.
Consider our minimum order value for *italic printed* article numbers (see page 178).

STA = steel wire

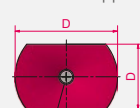
ROF = stainless steel wire

MES = brass wire

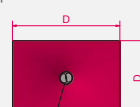
PA = polyamide

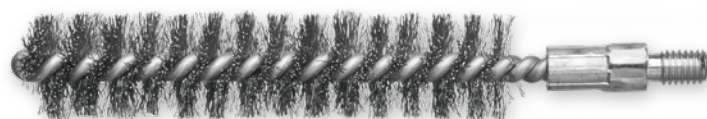
SIC = silicon carbide bristles

2-sided cropped

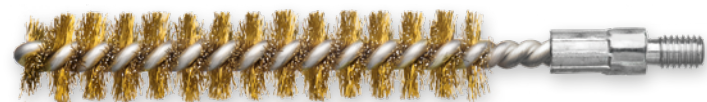


on request also 4-sided cropped





1



2



3



4



Matching handles can be found on page 127

Tube Brushes with external Thread IBG

							1	2	3
D	GL	A	GA	RPM	Pack.	STA crimped Art.-No.	ROF crimped Art.-No.	MES crimped Art.-No.	PA straight Art.-No.
Single Spirale									
mm inch	mm inch	mm inch							
6 15/64	115 4 1/2	80 3	M 4	2,000	10	501.301	501.501	501.701	501.801
8 5/16	115 4 1/2	80 3	M 6	3,000	10	500.308	500.508	500.708	500.808
10 25/64	115 4 1/2	80 3	M 6	3,000	10	500.310	500.510	500.710	500.810
12 15/32	115 4 1/2	80 3	M 6	3,000	10	500.312	500.512	500.712	500.812
13 33/64	115 4 1/2	80 3	M 6	3,000	10	500.313	500.513	500.713	500.813
14 9/16	115 4 1/2	80 3	M 6	3,000	10	500.314	500.514	500.714	500.814
15 19/32	115 4 1/2	80 3	M 6	3,000	10	500.315	500.515	500.715	500.815
16 5/8	115 4 1/2	80 3	M 6	3,000	10	500.316	500.516	500.716	500.816
18 45/64	115 4 1/2	80 3	M 6	3,000	10	500.318	500.518	500.718	500.818
19 3/4	115 4 1/2	80 3	M 6	3,000	10	500.319	500.519	500.719	500.819
20 51/64	115 4 1/2	80 3	M 6	3,000	10	500.320	500.520	500.720	500.820

4 Interior Brushes with external thread IBG, Silicon Carbide Bristles

D	GL	A	GA	RPM	Pack.	SIC 180/1.0 Art.-No.
Single Spirale						
mm inch	mm inch	mm inch				
10 25/64	115 4 1/2	80 3	M 6	4,000	10	500.010
16 5/8	115 4 1/2	80 3	M 6	4,000	10	500.016
20 51/64	150 6	100 4	W 1/2"	3,500	10	502.050.24
22 7/8	150 6	100 4	W 1/2"	3,500	10	502.052.24
25 1	150 6	100 4	W 1/2"	3,500	10	502.055.24
28 1 1/64	150 6	100 4	W 1/2"	3,500	10	502.058.24



For all brushes with thread M 6, M 10 and W 1/2" a practical hanger assembly is available for presenting the brushes individually. More information you find on page 137.

Tube/Sleeve brushes



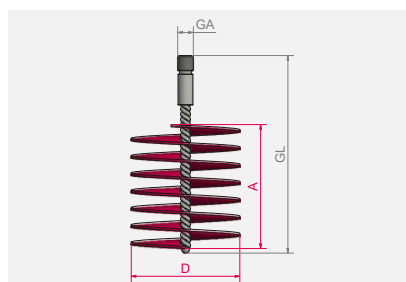
Matching handles can be found on page 127

Tube Brushes with external Thread W 1/2"

					1	2	3	4		5	
				Single Spirale IBG					Double Spirale IBGD		
D	GL	A	Pack.	RPM	STA straight	ROF straight	MES crimped	PA straight	RPM	STA straight	
mm	mm	mm	mm	max.	Art.-No.	Art.-No.	Art.-No.	Art.-No.	max.	Art.-No.	
20	150	100	10	2,500	502.120.24	502.420.24	502.720.24	502.820.24	2,000	522.120.24	
22	150	100	10	2,500	502.122.24	502.422.24	502.722.24	502.822.24	2,000	522.122.24	
25	150	100	10	2,500	502.125.24	502.425.24	502.725.24	502.825.24	2,000	522.125.24	
28	150	100	10	2,500	502.128.24	502.428.24	502.728.24	502.828.24	2,000	522.128.24	
30	160	100	10	1,000	506.130	506.430	506.730	506.830	1,500	526.130	
32	160	100	10	1,000	506.132	506.432	506.732	506.832	1,500	526.132	
35	160	100	10	1,000	506.135	506.435	506.735	506.835	1,500	526.135	
38	160	100	10	1,000	506.138	506.438	506.738	506.838	1,500	526.138	
40	160	100	10	1,000	506.140	506.440	506.740	506.840	1,500	526.140	
44	160	100	5	1,000	506.144	506.444	506.744	506.844	1,500	526.144	
50	160	100	5	1,000	506.150	506.450	506.750	506.850	1,500	526.150	
57	160	100	5	1,000	506.157	506.457	506.757	506.857	1,500	526.157	
63	160	100	5	1,000	506.163	506.463	506.763	506.863	1,500	526.163	
69	160	100	5	1,000	506.169	506.469	506.769	506.869	1,500	526.169	
75	160	100	5	1,000	506.175	506.475	506.775	506.875	1,500	526.175	
82	160	100	5	1,000	506.182	506.482	506.782	506.882	1,500	526.182	
88	160	100	5	1,000	506.188	506.488	506.788	506.888	1,500	526.188	
94	160	100	5	1,000	506.194	506.494	506.794	506.894	1,500	526.194	
101	160	100	5	1,000	506.101	506.401	506.701	506.801	1,500	526.101	
125	160	100	5	1,000	506.106	506.406	506.706	506.806	1,500	526.106	
150	160	100	5	1,000	506.211	506.411	506.711	506.811	1,000	526.111	
200	160	100	5	1,000	506.220	available on demand	506.720	506.820	1,000	available on demand	

Mechanical Application

Only use the brush with the indicated maximal peripheral speed (RPM max.). The max. RPM only is allowed when the brush is clamped min. for 10 mm into the tool. When the brush is inserted into the suitable work piece, higher RPMs are possible. **Only use the brush right rotating.**



Item Nos. in **bold** are available ex stock.
Consider our minimum order value for *italic printed* article numbers (see page 178).

STA = steel wire

ROF = stainless steel wire

MES = brass wire

PA = polyamide



1

3

2

Tube Brushes with internal Thread / Boiler Brushes IBG

	D mm inch	Format	GL mm inch	A mm inch	GA	RPM max.	Pack.	STA straight Art.-No.	PA straight Art.-No.
Single Spirale									
1	30 1 3/16	⊙	160 6 1/4	100 4	M 10i	1,000	10	506.130.60	
	40 1 5/8	⊙	160 6 1/4	100 4	M 10i	1,000	10	506.140.60	
	50 2	⊙	160 6 1/4	100 4	M 10i	1,000	10	506.150.60	
	60 2 3/8	⊙	160 6 1/4	100 4	M 10i	1,000	10	506.160.60	
	80 3	⊙	160 6 1/4	100 4	M 10i	1,000	10	506.180.60	
	90 3 1/2	⊙	160 6 1/4	100 4	M 10i	1,000	10	507.190	
	101 4	⊙	160 6 1/4	100 4	M 10i	1,000	10	506.101.60	
	120 4 3/4	⊙	160 6 1/4	100 4	M 10i	1,000	10	507.105	506.805.60
2	20 x 30 51/64 x 1 3/16	⊙	140 5 1/2	80 3	M 10i		10	533.405	
	15 x 30 19/32 x 1 3/16	⊙	160 6 1/4	100 4	M 10i		10	533.408	
	30 x 50 1 3/16 x 2	⊙	160 6 1/4	100 4	M 10i		10	532.218.60	
	40 x 90 1 5/8 x 3 1/2	⊙	160 6 1/4	100 4	M 10i		10	532.214.60	
	50 x 100 2 x 4	⊙	160 6 1/4	100 4	M 10i		10	532.303.60	

Suitable back board brushes you find at page 125.

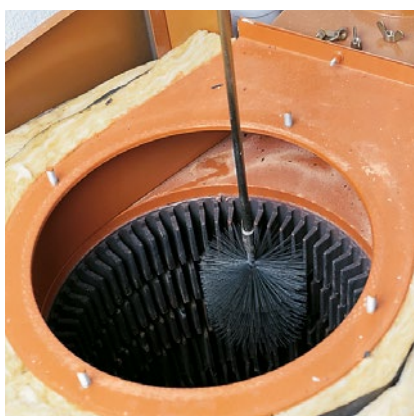
⊙ round | ⊖ 2-sided cropped | on request also 4-sided cropped

Sleeves Brushes Conical, without Thread

	D mm inch	GL mm inch	A mm inch	RPM max.	Pack.	Single Spirale IBE STA crimped Art.-No.	Double Spirale IBD STA straight Art.-No.
3	10-20 25/64 - 51/64	170 6 3/4	100 4	1,000	10	541.372	549.101
	15-25 19/32 - 1	170 6 3/4	100 4	1,000	10	540.321	549.102
	20-30 51/64 - 1 3/16	170 6 3/4	100 4	1,000	10	541.373	549.103
	25-35 1 - 1 3/8	170 6 3/4	100 4	1,000	10	540.323	549.104
	32-42 1 17/64 - 1 5/8	170 6 3/4	100 4	1,000	5	540.324	549.105
	40-50 1 5/8 - 2	170 6 3/4	100 4	1,000	5	540.325	549.106
	38-70 1 1/2 - 2 3/4	170 6 3/4	100 4	1,000	5	540.225	549.107
	60-95 2 3/8 - 3 3/4	170 6 3/4	100 4	1,000	5	540.327	549.108

On request also tube and sleeve brushes with crimped wire are available.

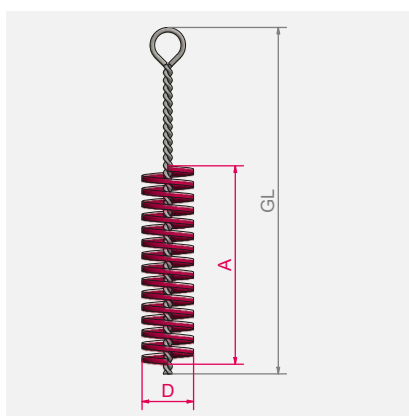
Boiler Brushes / Stove Pipe Brushes



Boiler Brushes

The systematic care of boilers and regular cleaning by brushing increases the boiler efficiency and reduces toxic emissions.

LESSMANN boiler brushes are of outstanding quality made using the best materials and precise manufacturing procedures. Our current programme includes brushes in standard dimensions and special executions. As OEM supplier to important boiler manufacturers we are able to produce large quantities in an efficient way. What is even more important is our know how in meeting the critical tolerances demanded by our customers.



Stove Pipe Brushes

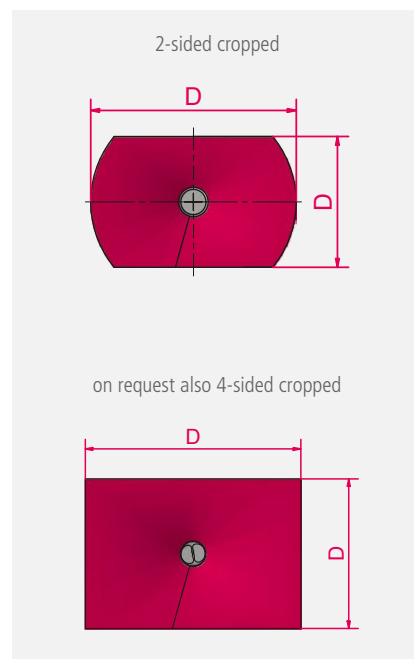
The stove pipe brushes are available in two different executions: with twisted handle (brush and handle one part) or with external thread, for screwing and lengthing by using a separate handle.

Handles and Extension Pieces

For tube brushes, boiler brushes and stove pipe brushes, see pages 118 et seq. The twisted handles have an internal thread and a grip loop, the extension pieces have both an internal thread and an external thread.

Suitable Thread Adapters

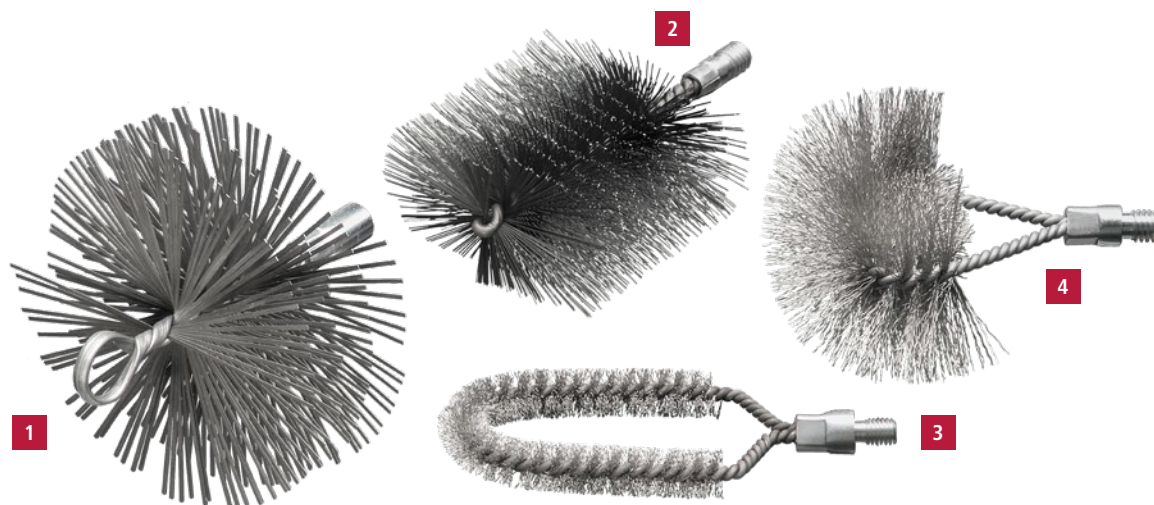
see page 127



Item Nos. in bold are available ex stock. Consider our minimum order value for *italic printed* article numbers (see page 178).

STA = steel wire

PA = polyamide



II IIII
EAN

1 Chimney Brushes with Eye and internal Thread IBZG, Flat Wire 2.0 x 0.40

Filling	D	GL	A	Internal Thread	Pack	Art.-No.	Filling	D	GL	A	Internal Thread	Pack	Art.-No.
STA flat	125	160	55	M 12 i	1	507.007	STA flat	250	160	55	M 12 i	1	507.004
STA flat	150	160	55	M 12 i	1	507.001	STA flat	300	160	55	M 12 i	1	507.005
STA flat	175	160	55	M 12 i	1	507.002	STA flat	350	160	55	M 12 i	1	507.006
STA flat	200	160	55	M 12 i	1	507.003							

Boiler Brushes with external Thread IBG, Steel Wire, rectangular/curved

	Filling	D mm inch	Format	GL mm inch	A mm inch	GA/GI	Pack.	Art.-No.
2	PA straight	30 x 50 1 3/16 x 2	⊖	160 6 3/8	100 4	W 1/2"	5	533.008.24
	PA straight	50 x 100 2 x 4	⊖	160 6 3/8	100 4	W 1/2"	5	533.010.24
	STA straight	30 x 50 1 3/16 x 2	⊖	160 6 3/8	100 4	W 1/2"	5	532.218
	STA straight	30 x 80 1 3/16 x 3	⊖	160 6 3/8	100 4	W 1/2"	5	532.211
	STA straight	40 x 80 1 5/8 x 3	⊖	160 6 3/8	100 4	W 1/2"	5	532.202
	STA straight	50 x 100 2 x 4	⊖	160 6 3/8	100 4	W 1/2"	5	532.203
	STA straight	50 x 120 2 x 4 3/4	⊖	160 6 3/8	100 4	W 1/2"	5	532.205
3	STA crimped	18 x 70 45/64 x 2 3/4	curved	160 6 3/8	100 4	W 1/2"	5	529.301.24
	STA crimped	30 x 80 1 3/16 x 3	curved	175 6 7/8	120 4 3/4	W 1/2"	5	529.302
4	STA crimped	80 x 150 3 x 6	curved	150 6	120 4 3/4	W 1/2"	5	529.311
	PA straight	80 x 150 3 x 6	curved	150 6	120 4 3/4	W 1/2"	5	529.811
	STA crimped	80 x 150 3 x 6	curved	150 6	120 4 3/4	M 10i	5	529.311.60



2-sided cropped

on request also 4-sided cropped

Boiler Brushes



Boiler Brushes with Handle IBZ							
	Filling	D mm inch	Format	GL mm inch	A mm inch	Pack.	Art.-No.
1	PA straight	20 51/64	⊙	600 23 5/8	100 4	10	544.804
	STA crimped	50 2	⊙	700 27 1/2	100 4	10	544.301
	STA crimped	90 3 1/2	⊙	600 23 5/8	100 4	10	544.302
	STA crimped	10 25/64	⊙	850 33 1/2	100 4	10	545.320
	STA crimped	15 19/32	⊙	850 33 1/2	100 4	10	545.321
2	STA crimped	20 51/64	⊙	850 33 1/2	100 4	10	545.322
	STA crimped	25 1	⊙	850 33 1/2	100 4	10	545.307
	STA crimped	35 1 3/8	⊙	850 33 1/2	100 4	10	545.311
	STA crimped	50 2	⊙	850 33 1/2	100 4	10	545.312
	STA crimped	60 2 3/8	⊙	850 33 1/2	100 4	10	545.338
3	PA straight	12 x 14 15/32 x 9/16	⊙	600 23 5/8	150 6	10	554.903
	STA straight	17 x 50 43/64 x 2	⊙	960 38	60 2 3/8	10	564.101**
	STA crimped	30 x 50 1 3/16 x 2	⊙	800 31 1/2	100 4	10	551.801
	STA crimped	40 x 50 1 5/8 x 2	⊙	1,000 39 3/8	80 3	10	553.711
	STA straight	40 x 80 1 5/8 x 3	⊙	1,000 39 3/8	100 4	10	552.404
	STA crimped	40 x 90 1 5/8 x 3 1/2	⊙	1,000 39 3/8	80 3	10	564.301*
	STA straight	50 x 100 2 x 4	⊙	1,000 39 3/8	100 4	10	552.403

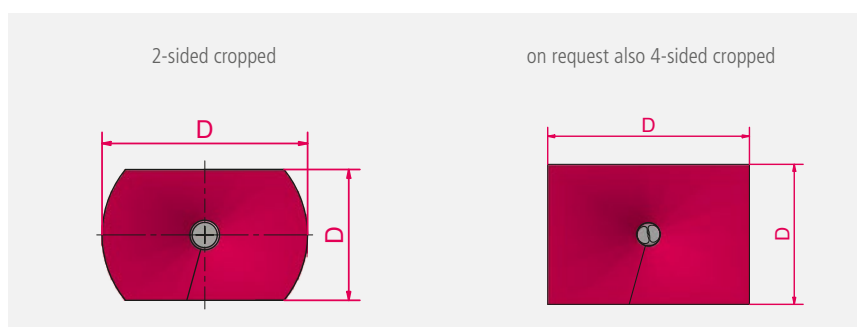
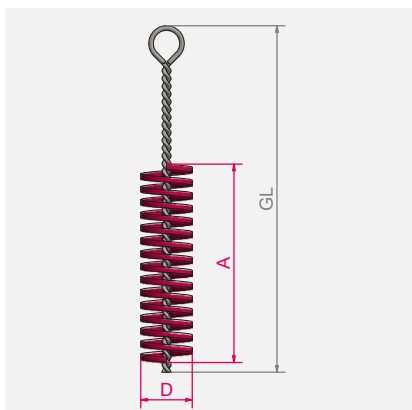
* Rod made from spring steel Ø 5 mm | ** with scooped scratcher in the handle

- ⊙ 2-sided cropped | on request also 4-sided cropped
- ⊙ round

Item Nos. in **bold** are available ex stock.
Consider our minimum order value for *italic printed* article numbers (see page 178).

STA = steel wire

PA = polyamide



Boiler Brushes-Sets



1 Brush Set, 5 pieces

			Set with handle, big edition, steel wire			Set with handle, small edition, steel wire			
Content: 1 piece each	A	Format	Art.-No.	D	GL	Art.-No. Set	Art.-No.	D	GL
Cylinder Brush	100	⊙	545.303	38	1.000	599.921	544.307	15	600
Cylinder Brush	100	⊙	545.331	100	1.000		544.361	25	800
Boiler Brush	100	⊖	552.811	30 x 70	1.000		559.831	31 x 20	600
Boiler Brush	100	⊖	552.816	50 x 100	1.000		551.811	30 x 20	500
Boiler Brush	100	flat filament	559.713	75 x 30	1.000		551.812	50 x 40	700

2 Brush Set, Steel Wire, external Thread W 1/2", crimped, 9 pieces

Content: 1 piece each		D mm inch	GL mm inch	A mm inch	Format	Art.-No. Set
506.330	Interior Brushes	30 1 3/16	160 6 1/4	100 4	⊙	599.962
506.340	Interior Brushes	40 1 5/8	160 6 1/4	100 4	⊙	
506.363	Interior Brushes	63 2 1/2	160 6 1/4	100 4	⊙	
532.718	Boiler Brush	30 x 50 1 3/16 x 2	160 6 1/4	100 4	⊖	
532.716	Boiler Brush	30 x 90 1 3/16 x 3 1/2	160 6 1/4	100 4	⊖	
532.703	Boiler Brush	50 x 100 2 x 4	160 6 1/4	100 4	⊖	
529.311	Back board brush	80 x 150 3 x 6	150 6			
567.671	Handle with Eye		500 20			
567.771	Extension		500 20			

Brush Set, Polyamide Bristles, external Thread W 1/2", crimped, 9 pieces

Content: 1 piece each		D mm inch	GL mm inch	A mm inch	Format	Art.-No. Set
506.838	Interior Brushes	38 1 1/2	160 6 1/4	100 4	⊙	599.991
506.855	Interior Brushes	55 2 1/4	160 6 1/4	100 4	⊙	
506.860	Interior Brushes	60 2 3/8	160 6 1/4	100 4	⊙	
533.008.24	Boiler Brush	30 x 50 1 3/16 x 2	160 6 1/4	100 4	⊖	
533.009.24	Boiler Brush	30 x 90 1 3/16 x 3 1/2	160 6 1/4	100 4	⊖	
533.010.24	Boiler Brush	50 x 100 2 x 4	160 6 1/4	100 4	⊖	
529.811	Back board brush	80 x 150 3 x 6	150 6			
567.671	Handle with Eye		500 20			
567.771	Extension		500 20			

Stove Pipe Brushes



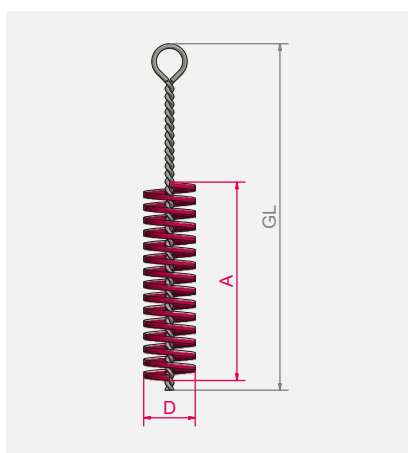
Stove Pipe Brushes with Twisted Handle IBZ

	Filling	D mm <i>inch</i>	GL mm <i>inch</i>	A mm <i>inch</i>	Pack.	Art.-No.
1	STM	130 5 1/8	2,000 78 3/4	200 8	10	546.302
	STM	150 6	2,000 78 3/4	200 8	10	546.306
	STM	180 7	2,000 78 3/4	200 8	10	546.314
	STM	200 8	2,000 78 3/4	200 8	10	546.318
2	BAS	150 6	2,000 78 3/4	200 8	10	546.906

Delivery only in noted packaging unit. If you need smaller quantities, please order stove pipe brushes with separate handle.

3 Stove Pipe Brushes with external thread, separate Handle IBZG

	Filling	D mm <i>inch</i>	GL mm <i>inch</i>	A mm <i>inch</i>	GA	Pack.	Art.-No.
	STM	80 3	275 10 7/8	200 8	M 10	5	507.307
	STM	100 4	275 10 7/8	200 8	M 10	5	507.308
	STM	130 5 1/8	275 10 7/8	200 8	M 10	5	507.301
	STM	150 6	275 10 7/8	200 8	M 10	5	507.302
	STM	160 6 3/8	275 10 7/8	200 8	M 10	5	507.303
	STM	180 7	275 10 7/8	200 8	M 10	5	507.304
	STM	200 8	275 10 7/8	200 8	M 10	5	507.305
	BAS	150 6	275 10 7/8	200 8	M 10	5	507.959



Item Nos. in **bold** are available ex stock.
Consider our minimum order value for *italic printed* article numbers (see page 178).

STM = brass coated steel

BAS = bassine black

Accessories



Handle with Eye

	GL mm inch	GI/GA	Format	Pack.	Art.-No.
1	400 16	External M 10	round steel, straight	1	568.805
	800 31 1/2	External M 10	round steel, straight	1	568.802
	1,000 40	External M 10	round steel, straight	1	568.806
2	1,000 40	Internal M 4	twisted wire	1	566.603
	1,000 40	Internal M 6	twisted wire	1	566.601
	1,000 40	Internal M 10	twisted wire	1	566.602
	1,000 40	External M 12	twisted wire	1	567.201
	500 20	Internal W 1/2"	twisted wire	1	567.671
	1,000 40	Internal W 1/2"	twisted wire	1	567.601

3 Extension

	GL mm inch	GI/GA	Format	Pack.	Art.-No.
3	1,000 40	Internal / External M 4	twisted wire	1	566.703
	200 8	Internal / External M 6	twisted wire	1	566.707.01
	1,000 40	Internal / External M 6	twisted wire	1	566.701
	1,000 40	Internal / External M 10	twisted wire	1	566.702
	1,000 40	Internal / External M 12	twisted wire	1	567.731
	500 20	Internal / External W 1/2"	twisted wire	1	567.771
	1,000 40	Internal / External W 1/2"	twisted wire	1	567.701

Adapter Threads

			GL mm inch	Pack.	Art.-No.
4	Internal W 1/2"	Internal M 12	40 1 3/8	1	001.211
	Internal W 1/2"	Internal M 10	40 1 3/8	1	001.212
	Internal W 3/8"	Internal M 10	40 1 3/8	1	001.215
	External M 10	Internal W 1/2"	40 1 3/8	1	001.222
	External M 10	Internal W 3/8"	40 1 3/8	1	001.225
5	Internal W 1/2"	Shank Ø 6 mm	50 2	1	000.071
	Internal M 6	Shank Ø 6 mm	50 2	1	000.072
6	Internal W 1/2"		155 6	1	599.002
	Internal M 6		130 5 1/8	1	599.001

Fitting Brushes



|||||
EAN

Interior Fitting Brushes IBM

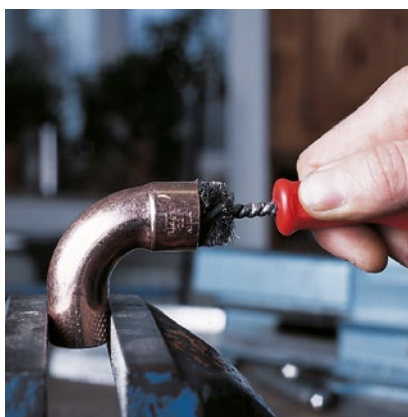
D mm inch	GL	A	Filling Material	Pack.	Art.-No.
8 5/16	185	12	ROF 0.10 0.004"	10	562.508
10 25/64	185	12	ROF 0.10 0.004"	10	562.510
12 15/32	185	15	ROF 0.10 0.004"	10	562.512
15 19/32	185	20	ROF 0.15 0.006"	10	562.515
18 45/64	185	20	ROF 0.15 0.006"	10	562.518
22 7/8	185	25	ROF 0.20 0.008"	10	562.522
28 1 7/64	185	25	ROF 0.20 0.008"	10	562.528
35 1 3/8	185	25	ROF 0.20 0.008"	10	562.535

Fitting Brushes

With designed two-components handle

For the inner cleaning in tubes in gas, water and climatic conditions. We use only stainless steel wire as the filling material for these brushes. This prevents long-term damage by material deposit in tubes.

Recommendation for users: When using interior fitting brushes, please only use brushes with stainless steel wire. This will avoid pitting by the use of rusting wire parts.



Item Nos. in **bold** are available ex stock.
Consider our minimum order value for *italic printed* article numbers (see page 178).

STA = steel wire

ROF = stainless steel wire

PP = polypropylene

Brushes and Scratcher



1 Battery Terminal Brushes

Filling Material	D mm inch	GL mm inch	A mm inch	Pack.	Art.-No.
STA	17+24 43/64+15/16	120/180 4 3/4 / 7	50 2	12	563.301*

2 Soluble Oil Brushes

Filling Material	Ø Bundle mm inch	GL mm inch	H mm inch	Pack.	Art.-No.
mixed hair	7 9/32	150 6	40 1 5/8	100	570.907
mixed hair	10 25/64	240 9 1/2	55 2 1/4	100	570.910

3 Soldering Fluid Brushes

Filling Material	D mm inch	GL mm inch	H mm inch	Pack.	Art.-No.
bristles	10 25/64	123 4 7/8	20 51/64	100	045.910
bristles	15 19/32	140 5 1/2	25 1	100	045.915
STA	20 51/64	205 8 5/64	30 1 1/4	100	045.301

4 Rust Scratcher

Filling Material	D mm inch	GL mm inch	H mm inch	Pack.	Art.-No.
STA straight 0.23	5/8 13/64 / 5/16	100 4	6 15/64	180	184.101
STA Straight 0.23 0.009" + PP 0.15 0.006"	5/8 13/64 / 5/16	100 4	6 + 15 15/64 + 19/32	180	184.104

* conical filling

5 End Brush mutual filled

	D mm inch	GL mm inch	H mm inch	Pack.	Art.-No.
ROF straight 0.30 + spring steel strip 6.4 x 0.8	15 19/32	180 7	22/25 7/8/1	100	184.412

Battery Terminal Brushes

For cleaning of battery terminals. The twisted brush is conical filled for cleaning connection terminals of the battery cable. To clean the battery terminals use the ringshaped filed cards stuck in the handle.

Soluble Oil Brushes

With twisted wire handle for workshop use.

Soldering Fluid Brushes

The handle is made of tinned metal.

End brush with double-sided filling

End brushes with double-sided filling can be used for the manual removal of zinc ash without harming the zinc surface. Zinc ash is the result of oxidation on the surface of zinc baths. This happens usually on the edges of

steelgirders with head and base plates. The spring steel strip on the one end of the end brush is used to remove more solid parts of dirt, whereas the with stainless steel wire filled other side of the brush can be used to remove the remaining dirt.

LESSMANN®

THE GERMAN BRUSH COMPANY



D.I.Y. BRUSHES AND SALES PROMOTION



Do It Yourself Brushes



D.I.Y Brushes with Shank

Do It Yourself brushes are an excellent alternative to the professional tools previously shown in this catalogue. Available are cup brushes from diameter 50–75 mm, wheel brushes diameter 50–100 mm, end brushes and cylinder brushes.

Stainless Steel Brushes

Information on working on stainless steel you find at www.lessmann.com

Attractive assortment

Coarse and fine steel wire, brass wire and abrasive filaments are available as filling materials.

The brushes are packed in small display cartons, 10 pieces per carton.

We offer different packaging to present these and other common brushes with shanks in specialist shops.

Item Nos. in **bold** are available ex stock.

Consider our minimum order value for *italic printed* article numbers (see page 178).

STA = steel wire, crimped

ROF = stainless steel wire

MES = brass wire, crimped

SIC = silicon carbide bristles

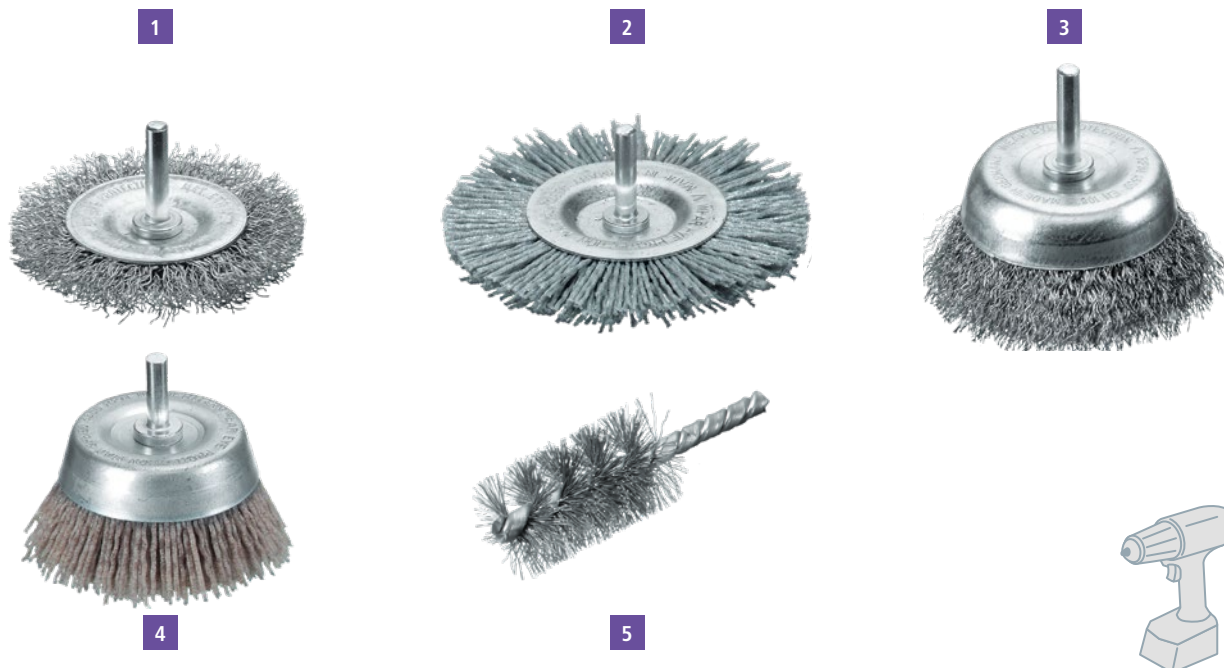
1 Wheel Brushes with Shank Ø 6 mm

D mm inch	A mm inch	RPM max.	Pack.	STA 0.25 0.010"	STA 0.35 0.014"	ROF 0.20 0.008" Art.-No.	ROF 0.30 0.012" Art.-No.
50 2	7 1/4	4,500	10	410.122*	410.123**		
75 3	8 3/8	4,500	10	410.132	410.133	410.134	410.135
75 3	12 1/2	4,500	10		410.173		
100 4	10 3/8	4,500	10	410.152	410.153	410.154	410.155
100 4	15 5/8	4,500	10		410.183		410.185

D mm inch	A mm inch	RPM max.	Pack.	MES 0.20 0.008" Art.-No.	MES 0.25 0.010" Art.-No.	SIC 80/1.2 Art.-No.	SIC 180/0.9 Art.-No.
75 3	8 3/8	4,500	10		410.136	410.138	
100 4	10 3/8	4,500	10	410.156		410.158	<i>410.159</i>

* filament for this article with diameter 0.20 mm / 0.008"

** filament for this article with diameter 0.30 mm / 0.012"



3 Cup Brushes with Shank Ø 6 mm

D mm inch	RPM max.	Pack.	STA 0.20 0.008" Art.-No.	STA 0.30 0.012" Art.-No.	ROF 0.20 0.008" Art.-No.	ROF 0.30 0.012" Art.-No.
50 2	4,500	10	430.122	430.123	430.124	430.125
75 3	4,500	10	430.132	430.133	430.134	430.135

D mm inch	RPM max.	Pack.	MES 0.30 0.012" Art.-No.	SIC 80/1.2 Art.-No.	SIC 320/0.6 Art.-No.
50 2	4,500	10	430.126	430.128	430.129
75 3	4,500	10	430.136	430.138	430.139

5 Cylinder Brushes with Shank Ø 6 mm

D mm inch	RPM max.	Pack.	STA 0.30 0.012" Art.-No.
28 1	1,500	10	541.301

Presentation „Cut Case“ Carton



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EAN

Brushes in Cut Cases

Description	Filling material		Pack.	Carton size	Art.-No.
File Cleaner	STA straight 0.30	250 x 40	10	1	037.201.CC
Hand Brush	STA straight 0.35	2 Rows	10	1	100.021.CC
Hand Brush	STA straight 0.35	3 Rows	10	1	100.031.CC
Hand Brush	STA straight 0.35	4 Rows	10	1	100.041.CC
Hand Brush	STA straight 0.35	5 Rows	8	1	100.051.CC
Hand Brush	STA straight 0.35	6 Rows	8	1	100.061.CC
Hand Brush	ROF crimped 0.35	3 Rows	10	1	104.631.CC
Hand Brush	ROF crimped 0.35	4 Rows	10	1	104.641.CC
Hand Brush	MES crimped 0.35	3 Rows	10	1	107.631.CC
Hand Brush	MES crimped 0.35	4 Rows	10	1	107.641.CC
Hand Brush	STA straight 0.35	4 Rows with Scraper	8	1	120.401.CC
Rivet Brush	STA straight 0.35	3 Rows V-shaped	8	1	120.801.CC
Rivet Brush	ROF straight 0.35	3 Rows V-shaped	8	1	120.811.CC
Duster	PP straight 0.40	4 Rows	6	2	124.801.CC
Spark Plug Brush	MES crimped 0.15	3 Rows	25	1	125.211.CC
Fine Scratch Brush	MES crimped 0.15	4 Rows	15	1	126.411.CC
Fine Scratch Brush	PA straight 0.30	4 Rows	15	1	126.451.CC
Staining Brush	MES crimped 0.15	7 Rows	6	1	144.001.CC
Staining Brush	Leather/Fibre	3/7 Rows	4	1	144.701.CC
Professional Hand Brush	STA straight 0.35	2 Rows 2 Components Handle	10	1	182.401.CC
Professional Hand Brush	ROF straight 0.35	2 Rows 2 Components Handle	10	1	182.421.CC
Professional Hand Brush	MES crimped 0.25	2 Rows 2 Components Handle	10	1	182.451.CC

Measurement in mm: Carton Size 1: 300 x 100 x 130 | Carton Size 2: 300 x 200 x 130

Cut Cases for presenting the products

Cut Cases are a simple alternative for presenting brushes in large quantities. The Products can be inserted in the self-service wall modularly.



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EAN

Brushes in Cut Cases

Description	Filling material			Pack.	Carton size	Art.-No.
Wheel Brush with Plastic Body	SIC 80 / 1.2	7 Rows	Thread M 14	2	1	402.880.CC
Disc Brush with Plastic Body	SIC 80 / 1.2	4 Rows	Thread M 14	2	1	405.845.CC
Wheel Brush with Shank	STA gewellt 0,25	DRM 75	Shank 6 mm	25	1	410.132.CC
Wheel Brush with Shank	STA gewellt 0,35	DRM 100	Shank 6 mm	15	1	410.153.CC
Cup Brush	STA crimped 0.35	DIA 65	Thread M 14	15	1	<i>421.167.CC</i>
Cup Brush	ROF crimped 0.35	DIA 65	Thread M 14	15	1	<i>421.367.CC</i>
Cup Brush with Shank	STA gewellt 0,30	DRM 50	Shank 6 mm	15	1	430.123.CC
Cup Brush with Shank	STA gewellt 0,30	DRM 75	Shank 6 mm	15	1	430.133.CC
Knot Conical Brush	STH straight 0.50	DIA 100	Thread M 14	5	1	<i>471.257.CC</i>
Knot Wheel Brush	STH straight 0.50	DIA 115	Bore 22.2	6	1	<i>472.211.CC</i>
Knot Cup Brush	STH straight 0.50	DIA 65	Thread M 14	12	1	<i>482.217.CC</i>
Knot Cup Brush	STH straight 0.50	DIA 90	Thread M 14	8	1	<i>485.237.CC</i>
Cylinder Brush	STA gewellt 0,30	DRM 100	Shank 6 mm	20	1	541.301.CC

Measurement in mm: Carton Size 1: 300 x 100 x 130 | Carton Size 2: 300 x 200 x 130

Item Nos. in **bold** are available ex stock.

Consider our minimum order value for *italic printed* article numbers (see page 178).

STA = steel wire, crimped

STH = steel wire, high tensile, straight

ROF = stainless steel wire

ROH = stainless steel wire, high tensile, straight

MES = brass wire

PA = polyamide

PP = polypropylene

SIC = silicon carbide bristles

Packing and Sales Promotion



Brushes with blister packing

All standard brushes for drilling machines and angle grinders are available with blister packing. The blister packing is available with attractive labels with information about technical data and EAN-bar code. The clam shells emphasize the brushes' value, protect them and provide good visible presentation.

On request we can arrange your individual private label solution.

Technical data on front, details and EAN on back: Blister Packing

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EAN

Brushes for Angle Grinders in Blister Packaging

	D mm inch	Thread mm inch	STH 0.35 0.014" Art.-No.	STH 0.50 0.020" Art.-No.	ROF 0.35 0.012" Art.-No.	ROH 0.50 0.020" Art.-No.	STA 0.35 0.014" Art.-No.
Knot Cup Brushes	65 2 1/2	M 14	482.117.09	482.217.09		482.817.09	
	65 2 1/2	M 10		482.214.09			
Knot Wheel Brushes	115 4 1/2	Bo. 22.2 7/8		472.211.09		472.811.09	
	115 4 1/2	M 14		472.217.09			
Knot Bevel Brushes	100 4	M 14		471.257.09			
	115 4 1/2	M 14		472.257.09		472.857.09	
Cup Brushes crimped	60 2 3/8	M 14			421.367.09		421.167.09
	60 2 3/8	M 10					421.164.09
	75 3	M 14					423.167.09
Conical Brushes crimped	100 4	M 14					422.177.09

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EAN

Brushes for Grinders and Drilling Machines with Shank Ø 6 mm in Blister Packaging

	D mm inch	STH 0.35 0.014" Art.-No.	STH 0.50 0.020" Art.-No.	RO4 0.35 0.014" Art.-No.
Knot End Brushes	19 3/4	453.278.09		
	22 7/8			454.378.09
Knot Wheel Brushes	75 3		417.198.09	

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EAN

D.I.Y. Brushes for Grinders and Drilling Machines with Shank Ø 6 mm in Blister Packaging

	D mm inch	STA 0.25 0.010" Art.-No.	STA 0.30 0.012" 0.35 0.014"	ROF 0.30 0.012" Art.-No.	MES 0.25 0.010" Art.-No.	SIC 80/1.2 Art.-No.
Wheel Brushes	50 2		410.123.09			
	75 3		410.133.09	410.135.09	410.136.09	410.138.09
	100 4	410.152.09	410.153.09			410.158.09
Cup Brushes	50 2	430.122.09	430.123.09		430.126.09	430.128.09
	75 3		430.133.09			430.138.09
Cylinder Brushes	28 1		541.301.09			

Sales Promotion Hangers / Card



Presentation for tube brushes

With this practical hanger assembly from now on also tube brushes with thread can be presented on self-service walls in the retail market.

The hangers are available in M 6, M 10 and W 1/2". All hangers are with a eurohole.

A label can be fixed at the front of the hanger.

3

Low-cost product presentation – Brushes on card

Item Nos. in **bold** are available ex stock.

Consider our minimum order value for *italic printed* article numbers (see page 178).

STA = steel wire, crimped

STH = steel wire, high tensile, straight

MES = brass wire, crimped

SIC = silicon carbide bristles

1 Hanger assembly for tube brushes, PP black, with euro hole

Interior Thread	Total length mm inch	Width mm inch	Height mm inch	Pack.	Art.-No.
M 6	135 5	42 1 5/8	2 5/64	10	000.501
M 10	135 5	42 1 5/8	2 5/64	10	000.503
W 1/2"	135 5	42 1 5/8	2 5/64	10	000.507

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EAN

2 Brushes with thread, incl. hanger assembly

	Diameter Brush mm inch	Total length Brush mm inch	Total length Brush mm inch	Thread Brush	Pack.	STA Art.-No.
Tube Brushes	20 3/4	150 6	100 4	W 1/2"	10	502.120.03
	30 1 1/4	160 6 1/4	100 4	W 1/2"	10	506.130.03
	35 1 1/2	160 6 1/4	100 4	W 1/2"	10	506.135.03
	40 1 3/8	160 6 1/4	100 4	W 1/2"	10	506.140.03
	50 2	160 6 1/4	100 4	W 1/2"	10	506.150.03
	63 2 1/2	160 6 1/4	100 4	W 1/2"	10	506.163.03
	75 3	160 6 1/4	100 4	W 1/2"	10	506.175.03
	101 4	160 6 1/4	100 4	W 1/2"	10	506.101.03
Boiler Brushes	40 x 80 1 3/8 / 3	160 6 1/4	100 4	W 1/2"	10	532.202.03
	50 x 100 2 / 4	160 6 1/4	100 4	W 1/2"	10	532.203.03

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EAN

3 Brushes with Shank Ø 6 mm on Card

Description and technical data please see pages 73, 132, 133

	D mm inch	Pack.	STA 0.30 0.012" 0.35 0.014"	MES 0.25 0.010" 0.30 0.012"	SIC 80 Art.-No.	STH knotted 0.50 0.020"
Wheel Brushes	50 2	10	410.123.07			
	75 3	10	410.133.07	410.136.07	410.138.07	417.198.07
	100 4	10	410.153.07		410.158.07	
Cup Brushes	50 2	10	430.123.07	430.126.07	430.128.07	
	75 3	10	430.133.07		430.138.07	
Cylinder Brushes	28 1	10	541.301.07			

Sales Promotion

Professionalism, service, quality...

The LESSMANN Display units will make a good impression on your customers. They are not only good for your image but will also have a positive effect on promoting and increasing your brush sales. The comprehensive and at the same time clear presentation makes the customers choice much easier.

Take advantage of our experience and use this possibility that will lead to successful increased sales. Beside your special demands the most important thing to know is the branch where your most important customers come from and what their demands are. We have tried and tested variations of assortments for different kind of constellation. Please do not hesitate to contact us and we will arrange your individual programme. Because the production of high quality brushes is as important as having success with our products!

1 | Self-service Wall 100 x 220 cm

The most effective sales promotion for your LESSMANN brush assortment. Available with LESSMANN logo or Brush-Know-how label.

2 | Individual mix for Success

Products that fit in with the wishes of your (most important) customers and their main demand, arranged together with you and your customers. Your assortment can mainly consist of technical brushes or hand brushes.

3 | Carton Packing

All brushes for angle grinders in sales promoting single packing – stable and safe.

4 | Hand Brushes with EAN Code

All standard hand brushes (article no. 10x.xxx) with EAN code. Without extra charges for you!

5 | Display boxes for Shank Brushes

Available as a standard for all shank wheel brushes, cup brushes and end brushes with shank.

6 | Brush-Know-how Flyer

The most important brush applications of our brush assortment in length DIN with technical information and hints!

7 | Hanger Assembly for tube brushes

With this hanger with euro hole, brushes with thread can be presented.

8 | Cut Cases

Cut Cases for an easy solution of presenting products in large quantities.

We will help you with the right choice of shelf

On request we can arrange the right shelf solution for presenting your brushes!

Small self-service wall

A suitable alternative solution: A practical self-service wall with the measurements 67 x 180 cm.



Private Label

A good idea with different solution possibilities. Ask for your own brand!

Sales promoting blister packing

For all drilling machines and angle grinders.

Take a look at quality

All technical data and safety information as well as observation windows for recognising the brushes (e.g. green marking for stainless steel brushes).



Stainless Steel Marking

LESSMANN brushes with stainless steel wire can easily be recognised by green cups or side plates.



Brush-Know-how flyer

The most important brush application of our brush assortment in length DIN with technical information and hints!

Order now:

German version: Art.-No. 99BKHDEU

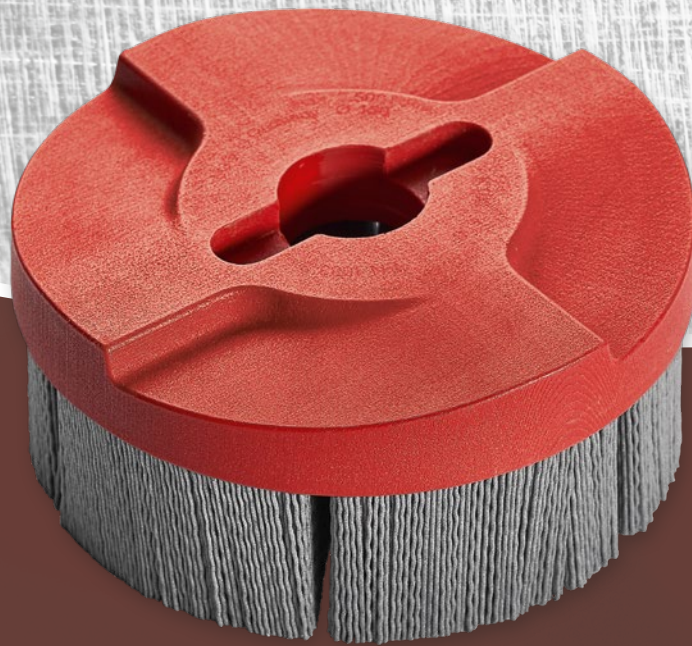
English version: Art.-No. 99BKHENG

Cut Cases

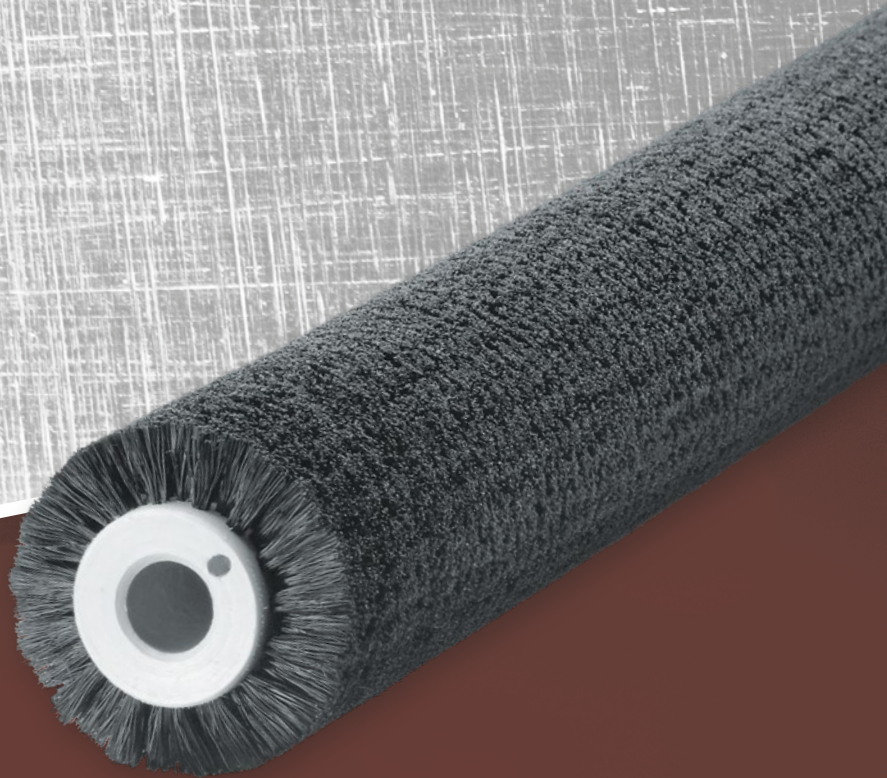
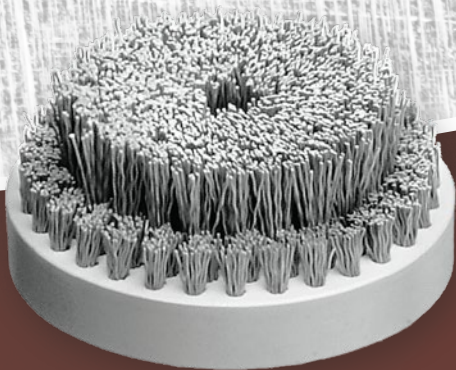
Cut Cases for an easy solution of presenting products in large quantities.

LESSMANN®

THE GERMAN BRUSH COMPANY



INDUSTRIAL BRUSHES



Brushes with carbon fibre



Brushes with carbon fibre for electrochemical cleaning

To use in machines for cleaning weld seams

Due to oxidation on stainless steel surfaces temper colour is a result from heating. Hence often a post-treatment of the surface is necessary to reestablish the original character. End brushes with carbon fibres are used in special machines for cleaning weld seams. The typical electrochemical jobs are the following:

Cleaning

To remove tepering colour and scales on stainless steel surfaces, e.g. on weld seams.

Polishing

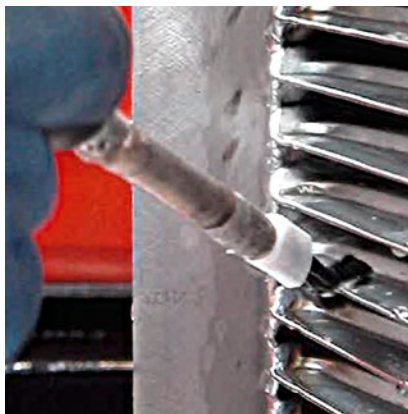
For polishing stainless steel surfaces. Residues can be removed with end brushes.

Marking

With special patterns surfaces can be marked permanently by the electrochemical process.

Electroplating / Surfacing

Due to the use of the end brushes, different coatings can be put on the surfaces or they can be refined.



Cleaning of areas which are hard to reach



Before the treatment | After the treatment
Cleaning of weld seams

End brushes for standard machines

For many customary available machines for weld seam treatment LESSMANN offers the suitable end brushes.

Depending on the customers' demands the end brushes are available with different adapters, e.g. interior / exterior threads.

Time-saving and effective

Unlike other processes, working with special machines for weld seam cleaning are environmentally friendly and by using it correctly no toxic vapours are generated.

Due to the high flexibility of the filament also areas which are hard to reach can be treated easily.

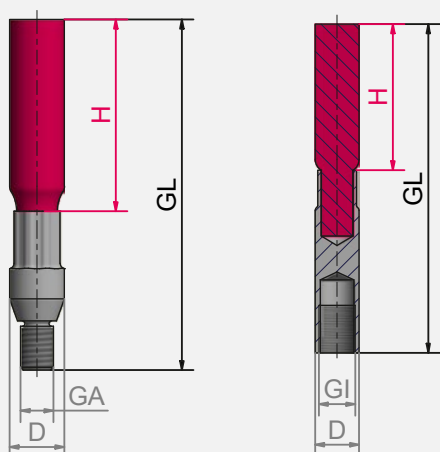
By using LESSMANN brushes within a short time a clean result is achieved. Weld seams are treated without any residues and surfaces are treated without being damaged.



Brushes with carbon fibre

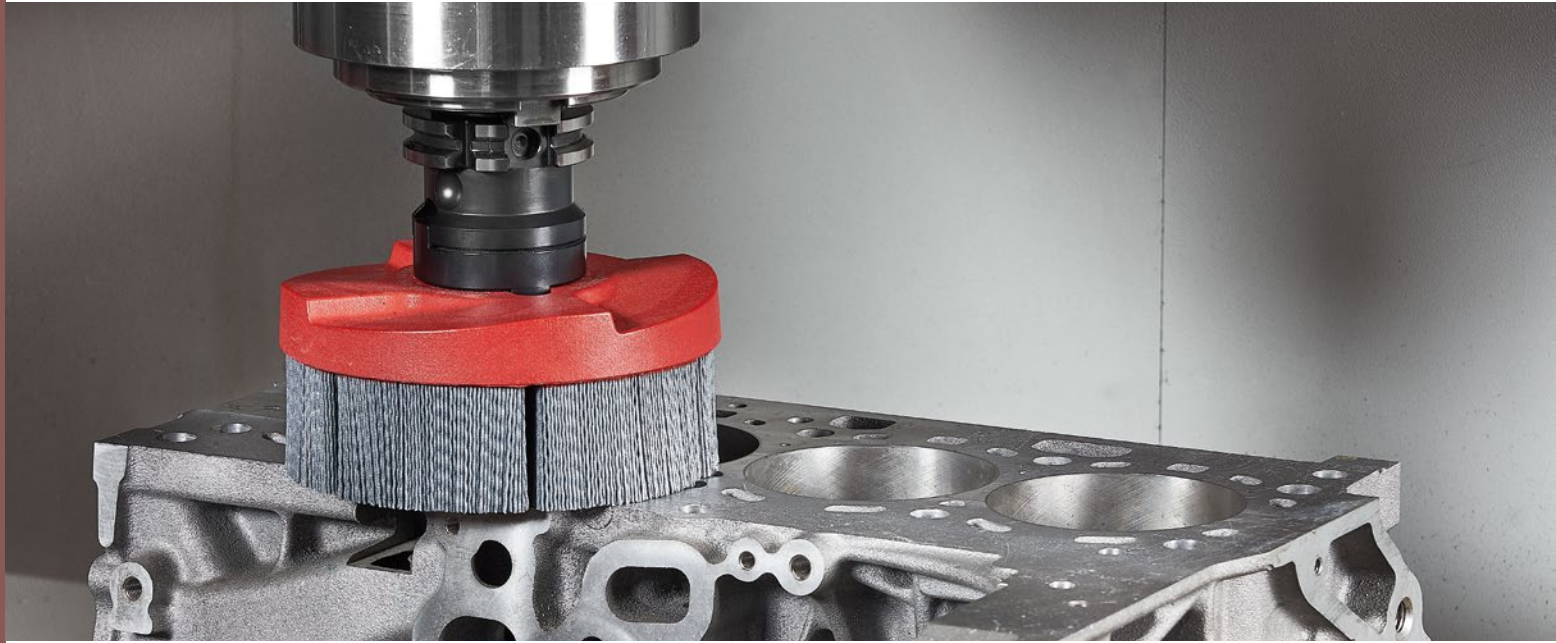
	Sleeve	D	GL	H	Shape of thread	GA/GI	Presentation	Pack.	Art.-No.
		mm inch	mm inch	mm inch					
1	Copper	10 25/64	65 2 3/8	30 1 3/16	outside	M6		10	047.700
2	Copper	12 15/32	90 3 1/2	40 1 5/8	inside	M10 x 0.75	Plastic coating	10	047.705
	Copper	12 15/32	90 3 1/2	40 1 5/8	inside	M10 x 1.0	Plastic coating + side thread M4	10	047.707
	Copper	10 25/64	80 3 1/4	30 1 3/16	inside	M8 x 1.0	Plastic coating	10	047.708
3	Stainless Steel	8 5/16	50 2	30 1 3/16	outside	M6 x 1.0	Teflon sleeve (DRM 12 mm)	10	047.750
	Stainless Steel	8 5/16	50 2	30 1 3/16	outside	M6 x 1.0		10	047.755
4	Stainless Steel	8 5/16	72 2 53/64	42 1 21/32	outside	M6 x 0.75	Plastic coating	10	047.754
5	Stainless Steel	12 15/32	75 3	40 1 5/8	inside	M10		10	047.757
6	Stainless Steel	10 25/64	130 5 1/8	60 2 3/8	outside	M6 x 0.75	Plastic coating + external thread M12	10	<i>047.763*</i>
	Stainless Steel	10.5 13/32	130 5 1/8	60 2 3/8	outside	M6 x 0.75	Plastic coating + external thread M14	10	<i>047.764*</i>
7	Brass	12 15/32	75 3	40 1 5/8	inside	M10		10	047.801

* Teflon protective sleeve on request



Item Nos. in bold are available ex stock.
Consider our minimum order value for *italic printed* article numbers (see page 178).

High Performance Filament Brushes



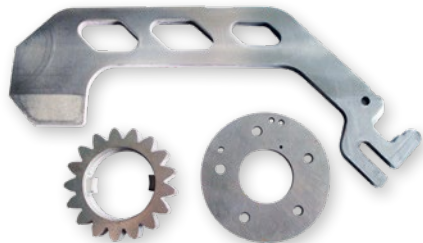
HFB Disc Brushes

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.

They 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.



Typical work pieces which are treated with LESSMANN HFB brushes.

Filling material

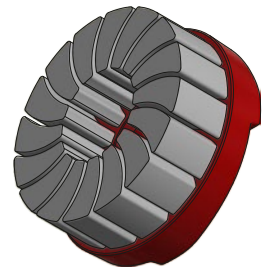
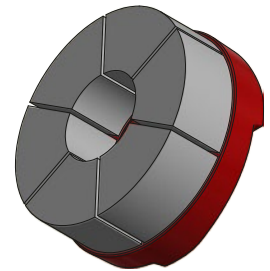
In a special production process LESSMANN HFB brushes are manufactured with a very high filling density. Available are high abrasive nylons with silicon carbide, ceramic or diamond grit. Standard in LESSMANN HFB Brushes high quality filling material is used (PA 6.12). It is very bending resistant and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

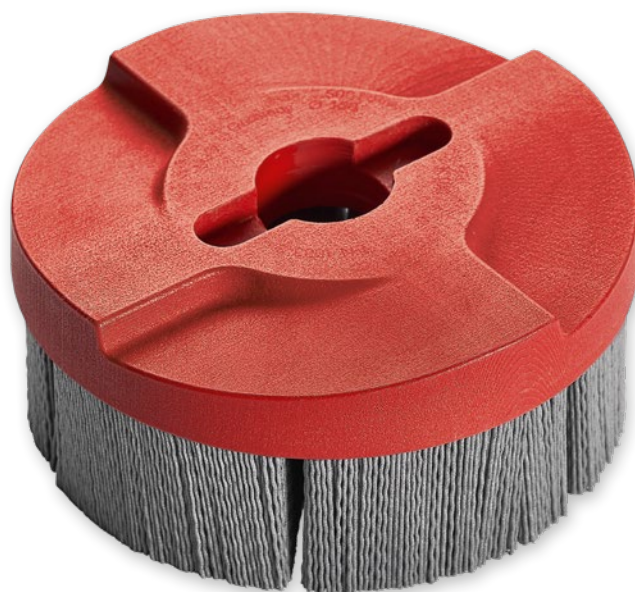
Depending on the HFB application the brushes can be used under dry condition or with addition of coolants.

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



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.

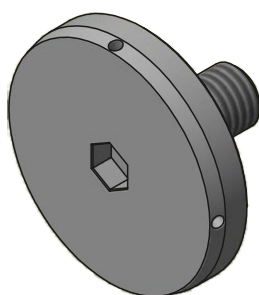
On request we can deliver the brushes with bore according to your special requirements.

Revised design

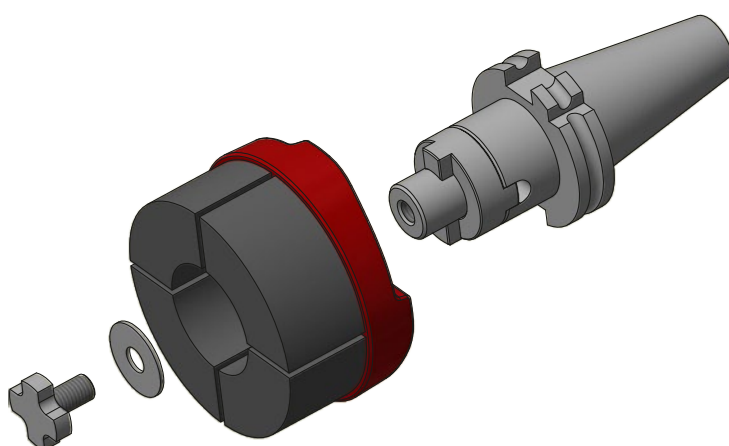
LESSMANN HFB brushes are constantly being further developed to meet the latest technical requirements. The latest adaptation is the revised design of the brush plate, which has been given a curved shape. Thus the brush can be used more flexible and the brush body is even more stable. The resulting dynamic 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.

User tips

- The optimum speed is usually clearly below the maximum speed. Please note the information on the brush body. See page 10 for details.
- The feed rate of the brush depends on the desired brush result and must be determined individually.
- 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.



Clamping screw with coolant holes



Common combi arbor holder for HFB brushes.

Contact us for further information and a nonbinding consultation!

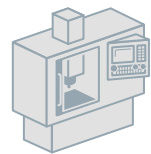
High Performance Filament Brushes



1



2



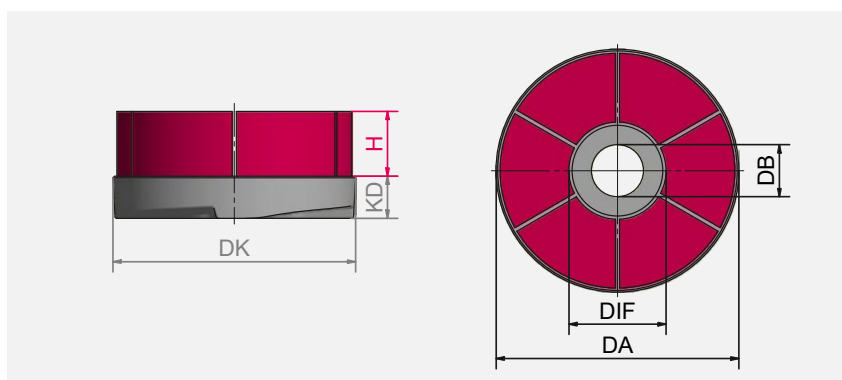
1 HFB Disc Brushes, full body, silicon carbide bristles

Body Ø DA	Body Thickness KD	Filling Length H	Bore DB	Open Space		RPM max.	Pack.	SIC 80/1,2 Art.-Nr.	SIC 120/1,1 Art.-Nr.	SIC 180/1,0 Art.-Nr.
mm inch	mm inch	mm inch		DIF mm inch	DA mm inch					
50 2	18 5/8	35 1 ^{3/8}	16 DKN	25 1	45 2	4,500	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}	4,500	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 ^{7/16}	2,500	1	605.265.20	605.365.20	605.465.20

2 HFB Disc Brushes, full body, ceramic grit

Body Ø DA	Body Thickness KD	Filling Length H	Bore DB	Open Space		RPM max.	Pack.	KK 80/1,2 Art.-Nr.	KK 120/1,1 Art.-Nr.
mm inch	mm inch	mm inch		DIF mm inch	DA mm inch				
50 2	18 5/8	35 1 ^{3/8}	16 DKN	25 1	45 2	4,500	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}	4,500	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 ^{7/16}	2,500	1	605.265.30	605.365.30

DKN = double keyway



Item Nos. in **bold** are available ex stock.
Consider our minimum order value for *italic printed* article numbers (see page 178).

SIC = silicon carbide bristles

KK = ceramic grit

Enquiry for High Performance Filament Brushes

Drawing / description of application

Piece number _____

Brush Application ☐ dry ☐ wet

☐ deburring

☐ others _____

Material to be treated _____ °C Temperature

☐ steel

☐ aluminium

☐ stainless steel

☐ others _____

Filling material

☐ silicon carbide bristles (SIC)

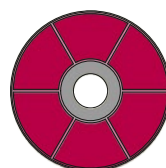
☐ aluminium oxide bristles (AO)

☐ ceramic grit (KK)

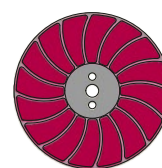
☐ diamond grit (DIA)

Diameter of filling material _____

filling placement



☐ full-body



☐ turbo

turbo right / left (standard right) _____

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

DK body diameter _____ mm

DA Dia filament outside _____ mm

DIF Dia filament inside _____ mm

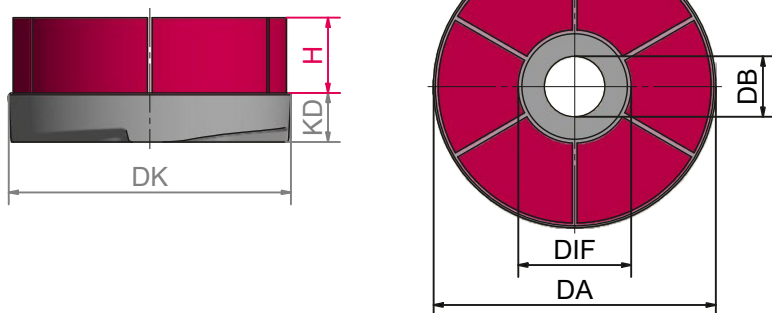
H Filling height _____ mm

Deviation of the bristles _____ °

☐ Standard bore

(adapted to body diameter, see table on left page)

☐ Special bore _____



Sender: company, contact person

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Staple Set Brushes



Staple Set Brushes

For applications with little mechanic load, brushes in a staple set edition are produced. Typical applications for staple set Wheel Brushes and Wide Face Brushes, Disc Brushes or Lath Brushes are for example cleaning, deburring, surface finishing, structurizing, smoothing, transporting, sorting or moistening.

Depending on the requirements, the filling material can be fixed individually into the body. The distance of the bundles are variable and comply with the application.

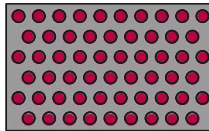
As filling material next to different wires also fibres are available. Also mixed filament in various mixing proportions are possible.

Disc Brushes usually are delivered with thread or bore. Staple set wheel and roller brushes are produced with bore or arbour absorption, depending on the customers' specification.

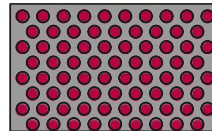
Please inform yourself on the following pages and do not hesitate to contact us for personal advice!

Possible densities of brush filling material

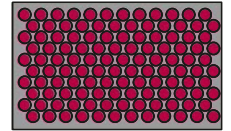
for Wheel Brushes and Wide Face Brushes, Disc Brushes and Lath Brushes



thin filling material



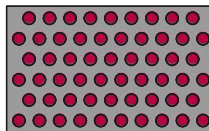
mean density of filling material



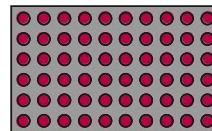
dense filling material

Possible placement of brush filling material

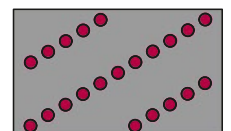
for Wheel Brushes and Wide Face Brushes, Disc Brushes and Lath Brushes



staggered filling material



straight filling material



spiral filling material

Disc Brushes



Disc Brushes – Measurements

DA	KD	H	DB/GI				
External diameter	Body height	Trim height	Deviation of the Bristles	Thread	Body Material	Trim Material	Trim Density
mm	mm	mm					
10–800	10–100	8–95 steel 8–135 Plastic	max. 45°	freely selectable	PP, PE, PA, Wood, Plywood	STA, STM, MES, ROF, PP, PE, PA, FIB, ROS, SIC, AO	thin, mean, dense

Disc Brushes – for cleaning and deburring

Disc Brushes are used for the treatment of plane surfaces on almost every material. The numerous variations of body and trimming materials and adapter systems make them for all purposes applicable.

For deburring working pieces, disc brushes can be inserted in individual equipments as well as in machining centres for removing secondary burrs.

Disc Brushes for the wood machining industry

Disc brushes used for the wood machining industry have a very long filling material (SIC). Used on angle grinders, the disc brushes are ideal for maintaining, cleaning, structuring or polishing wood.

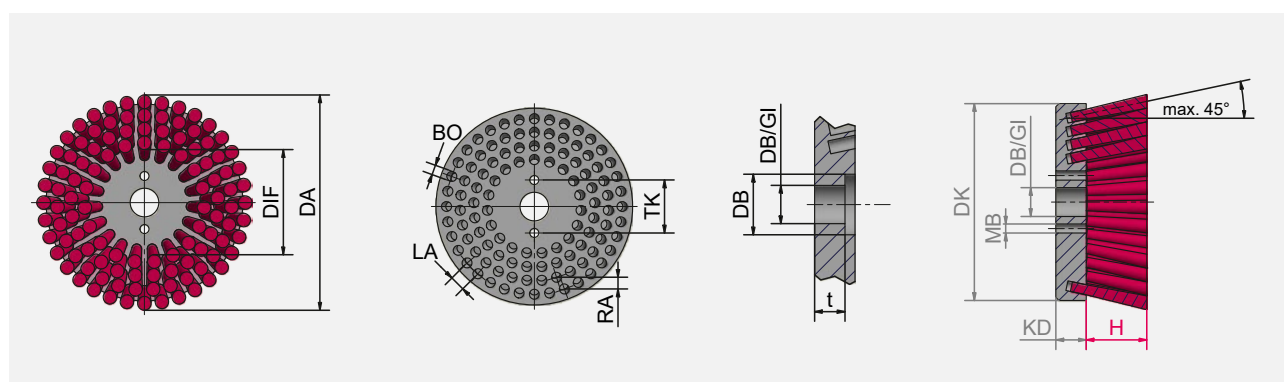
The brushes are very effective when working on large surfaces.

Circular Discs – Standard Body

If your application allows the mentioned sizes, we recommend our standard bodies.

Item Nos. in **bold** are available ex stock. Consider our minimum order value for *italic printed* article numbers (see page 178).

STA	= steel wire
STM	= brass coated steel
ROF	= stainless steel wire
MES	= brass wire
PP	= polypropylene
PA	= polyamide
PE	= polyethylene
FIB	= fibre
ROS	= horse hair
SIC	= silicon carbide bristles
AO	= aluminium oxide bristles



Disc Brushes



Disc Brushes

Filling	DA mm inch	KD mm inch	H mm inch	d1 mm inch	RPM max.	Art.-No.
STA 0.20 0.008"	150 6	25 1	25 1	M 14	2,000	405.006
SIC 180/1.0	125 5	25 1	25 1	22.2 7/8	3,000	405.854
SIC 180/1.0	150 6	25 1	20 3/4	25 1	2,000	405.835
SIC 120/1.1	150 6	25 1	25 1	25 1	2,000	405.864
1 Mixed filament STA 0.30 / PA 0.35	130 5 1/8	25 1	40 1 3/8	M 14	2,500	405.908
Mixed filament STA 0.30 / PA 0.35	200 8	25 1	40 1 3/8	M 14	1,500	405.905

2 Disc Brushes for the wood machining

Filling	DA mm inch	KD mm inch	H mm inch	d1	RPM max.	Pack.	Art.-No.
SIC 46/1.6	130 5 1/8	20 3/4	50 2	M 14	2,500	1	405.843
SIC 60/1.5	130 5 1/8	20 3/4	50 2	M 14	2,500	1	405.844
SIC 80/1.2	130 5 1/8	20 3/4	50 2	M 14	2,500	1	405.845

Circular Discs – Standard Body Measurements (in Stock) Body Material PP (red)

DA mm inch	KD mm inch	Bore / Thread
130 5 1/8	20 3/4	Bore 22.5 / 19
150 6	25 1	Bore 12
150 6	25 1	Bore 35 / 25, mounting hole 2 x Ø 11 mm, TK 56
165 8 1/2	25 1	Bore 20 / 30, mounting hole 1 x Ø 7 mm, TK 48
180 7	18 5/8	Thread M12
180 7	18 5/8	Thread M12 left
200 8	25 1	Bore 12
200 8	25 1	Bore 35 / 25, mounting hole 2 x Ø 11 mm, TK 56
220 8 5/8	20 3/4	Bore 40

The standard bodies can be adapted on demand (dress to size, drill) for receiving other measurements.

3 Brush intake with shank

D mm inch	KL mm inch	mm inch	Art.-No.
16 5/8	81 3 1/16	Bore 35/25 1 3/8/1	000.051

Enquiry for Disc Brushes

Drawing / description of application

Piece number: _____

Brush Application ☐ dry ☐ wet

- ☐ deburring
☐ cleaning
☐ surface treatment
☐ others _____

Material to be treated _____ °C Temperature

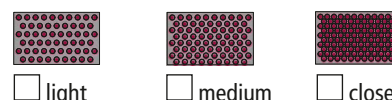
- ☐ steel
☐ aluminium
☐ wood
☐ stainless steel
☐ plastic
☐ others _____

Filling material

- ☐ steel
☐ brass coated steel
☐ brass
☐ stainless steel
☐ polypropylene
☐ polyethylene
☐ polyamide
☐ silicon carbide bristles (SIC)
☐ aluminium oxide bristles (AO)
☐ fibre
☐ horse hair
☐ other _____

Diameter of filling material _____

Filling density



☐ light ☐ medium ☐ close

Filling placement



☐ full seat ☐ block fill ☐ dynamic fill

Please mention measurements according to drawing (mm)

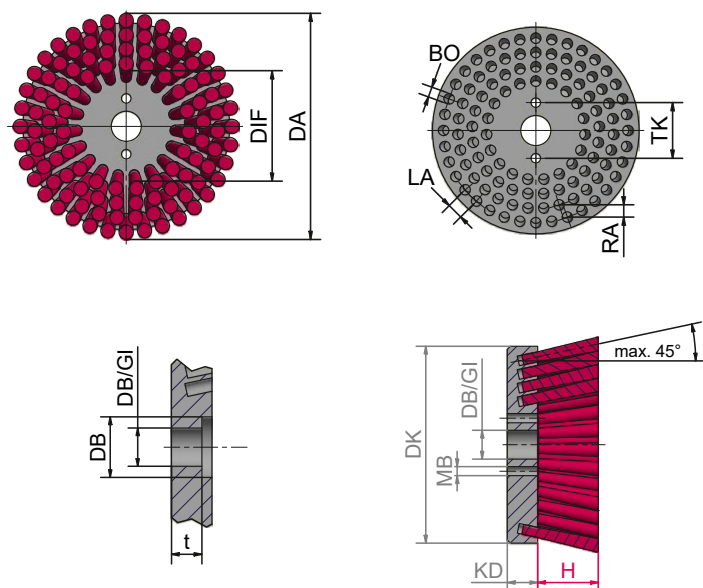
DK body diameter _____ mm
 DA outer diameter _____ mm
 DIF inner diameter _____ mm
 KD body thickness _____ mm
 DB/GI bore _____ mm
 DB diameter counterbore _____ mm
 TK pitch circle drive bore _____ mm
 MB diameter drive bore _____ mm
 H trim height _____ mm
 Stocking skew _____ °

Body material

- ☐ polypropylene (standard)
☐ other _____

Circular Discs – Standard Body Measurements (in Stock) Body Material PP (red)

DA	KD	Bore / Thread
mm inch	mm inch	
130 5 1/8	20 3/4	Bore 22.5 / 19
150 6	25 1	Bore 12
150 6	25 1	Bore 35 / 25, mounting hole 2 x Ø 11 mm, TK 56
165 8 1/2	25 1	Bore 20 / 30, mounting hole 1 x Ø 7 mm, TK 48
180 7	18 5/8	Thread M12
180 7	18 5/8	Thread M12 left
200 8	25 1	Bore 12
200 8	25 1	Bore 35 / 25, mounting hole 2 x Ø 11 mm, TK 56
220 8 5/8	20 3/4	Bore 40



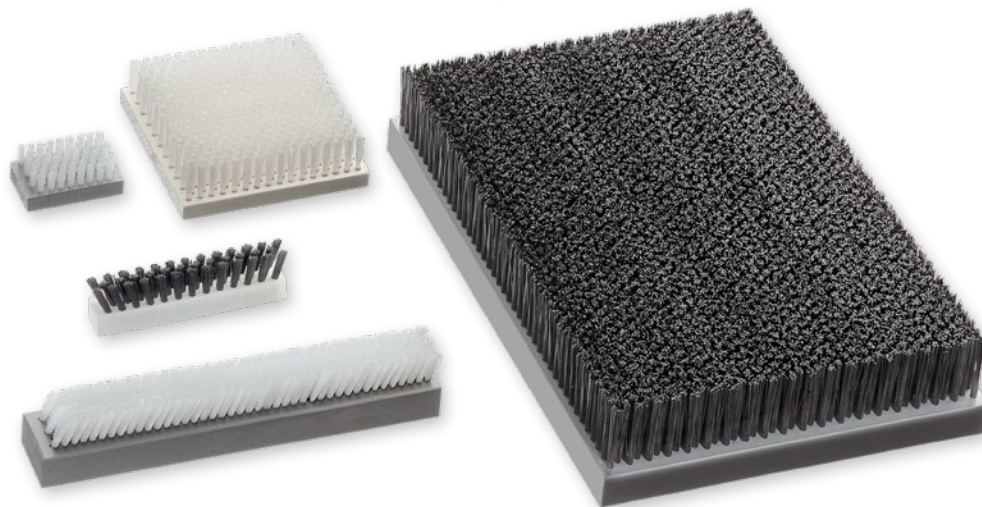
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Lath Brushes



Lath Brushes – Measurements

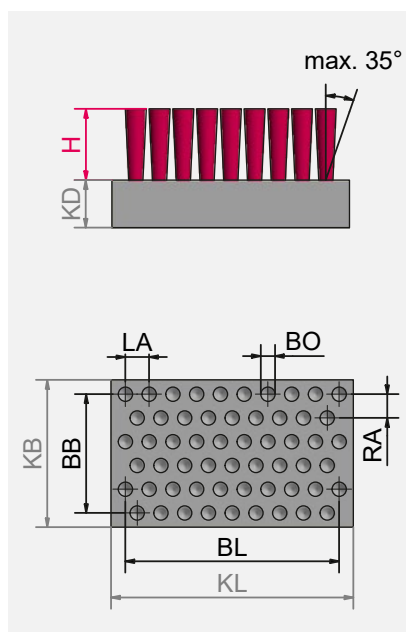
KB mm	KL mm	KD mm	H mm	Deviation of the Bristles	Body Material	Filling Material	Filling Density
8–750	8–2400	10–100	8–95 Steel 8–135 Plastic	max. 35°	PP, PE, PA, Wood, Stack wood	STA, STM, MES, ROF, PP, PE, PA, FIB, ROS, SIC, AO	thin, mean, dense

Lath Brushes

Lath Brushes work in machines and are used for clearing, cleaning, insulating and discharging electric charges etc. Various body materials are possible: including wood and plastic.

The filling material can be manifold and goes from fine horsehair to firm steel wire. Through the deviation of the bristles until 35° the lath brushes are very flexible in their applications.

As required the stocked standard bodies could be reworked (turned, drilled out) to get further dimensions



Item Nos. in **bold** are available ex stock.

Consider our minimum order value for *italic printed* article numbers (see page 178).

STA = steel wire

STM = brass coated steel

ROF = stainless steel wire

MES = brass wire

PP = polypropylene

PA = polyamide

PE = polyethylene

FIB = fibre

ROS = horse hair

SIC = silicon carbide bristles

AO = aluminium oxide bristles

Enquiry for Lath Brushes

Drawing / description of application

Piece number _____

Brush Application ☐ dry ☐ wet

- ☐ caulk
- ☐ cleaning
- ☐ fix
- ☐ transporting
- ☐ others _____

Material to be treated _____ °C Temperature


- ☐ steel
- ☐ aluminium
- ☐ wood
- ☐ stainless steel
- ☐ plastic
- ☐ others _____

Filling material


- ☐ steel
- ☐ brass coated steel
- ☐ brass
- ☐ stainless steel
- ☐ polypropylene
- ☐ polyethylene
- ☐ polyamide
- ☐ silicon carbide bristles (SIC)
- ☐ aluminium oxide bristles (AO)
- ☐ fibre
- ☐ horse hair
- ☐ others _____

Diameter of filling material _____


Filling density

- 

☐ light




☐ medium

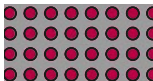


☐ close

Filling placement

- 

☐ added



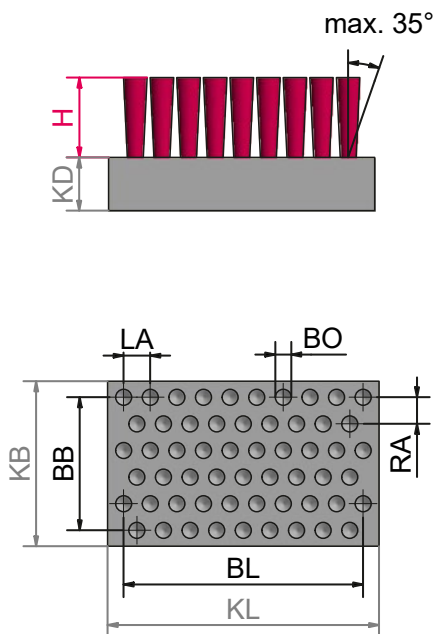
☐ straight

Please mention measurements according to drawing (mm)

- KL total length _____ mm
- KB total width _____ mm
- KD body thickness _____ mm
- BL occupied length _____ mm
- BB occupied width _____ mm
- H trim height _____ mm
- Deviation of the Bristles _____ °

Body material

- ☐ polypropylene (standard)
- ☐ other _____



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Wheel Brushes and Wide Face Brushes



Staple Set Wheel and Roller Brushes – Measurements

D	KD	KL	A	d	Body Material	Filling Material	Filling Density
mm	mm	mm	mm	mm			
45–440 steel	25–250	5–800	3–780	freely selectable	PP, PE, PA, Wood	STA, STM, MES, ROF, PP, PE, PA, FIB, ROS, SIC, AO	thin, mean, dense
45–500 plastic							
Standard body diameter (on stock) in body material PP							
50, 80, 100, 140							

Staple Set Wheel and Roller Brushes

These brushes are used for cleaning, deburring, surface finishing, structurizing, smoothing and transporting.

The brush body is of wood or plastic. The filling material is determined by the brushes purpose. Please also consider temperature, chemical and mechanical characteristics during use. Filling length, filling material, filling diameter and filling density are significant for the mode of action of the brush.

The density of the filling material can be varied by the diameter and the distance of and from the hole.

The staple set wheel and roller brushes are available with bore or arbor absorption, depending on the customers' specification.

The mentioned data in the chart should support you defining the right brush for your application.

For further information or support do not hesitate to contact us by e-mail, phone or fax. We will be very pleased to support you.



Note:

For applications which have a high mechanical load on the brushes we advise our wheel and roller brushes with crimped or knotted wire (chapters „Wheel Brushes“ & „Deburring Brushes“ in this catalogue).



As required the stocked standard bodies could be reworked (turned, drilled out) to other further dimensions

Item Nos. in bold are available ex stock.

Consider our minimum order value for *italic printed* article numbers (see page 178).

STA = steel wire

STM = brass coated steel

ROF = stainless steel wire

MES = brass wire

PP = polypropylene

PA = polyamide

PE = polyethylene

FIB = fibre

ROS = horse hair

SIC = silicon carbide bristles

AO = aluminium oxide bristles

Enquiry for punched Wheel and Wide Face Brushes

Drawing / description of application

Piece number _____

Brush Application ☐ dry ☐ wet

- ☐ deburring
- ☐ cleaning
- ☐ roughening / structuring
- ☐ transporting
- ☐ others _____

Material to be treated _____ °C Temperature

- ☐ steel
- ☐ aluminium
- ☐ wood
- ☐ stainless steel
- ☐ plastic
- ☐ others _____

Filling material

- ☐ steel
- ☐ brass coated steel
- ☐ brass
- ☐ stainless steel
- ☐ polypropylene
- ☐ polyethylene
- ☐ polyamide
- ☐ silicon carbide bristles (SIC)
- ☐ aluminium oxide bristles (AO)
- ☐ fibre
- ☐ horse hair
- ☐ others _____

Diameter of filling material _____

Filling density



☐ light



☐ medium



☐ close

Filling design



☐ added



☐ straight



☐ spirally

Please mention measurements according to drawing (mm)

D outer diameter _____ mm

KD body diameter _____ mm

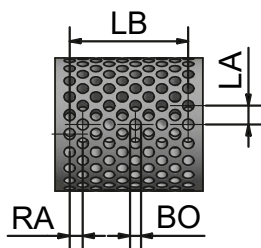
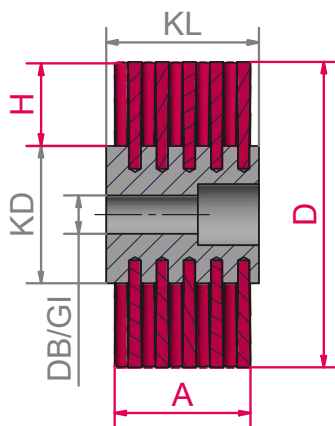
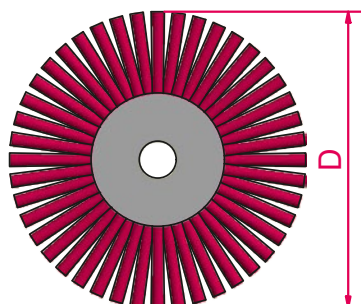
KL body length _____ mm

A occupied width _____ mm

DB/GI bore _____ mm

Body material

- ☐ polypropylene (standard)
- ☐ other _____



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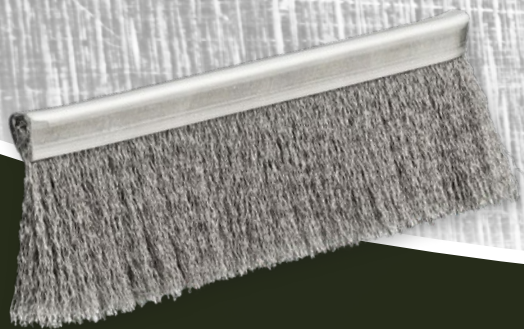
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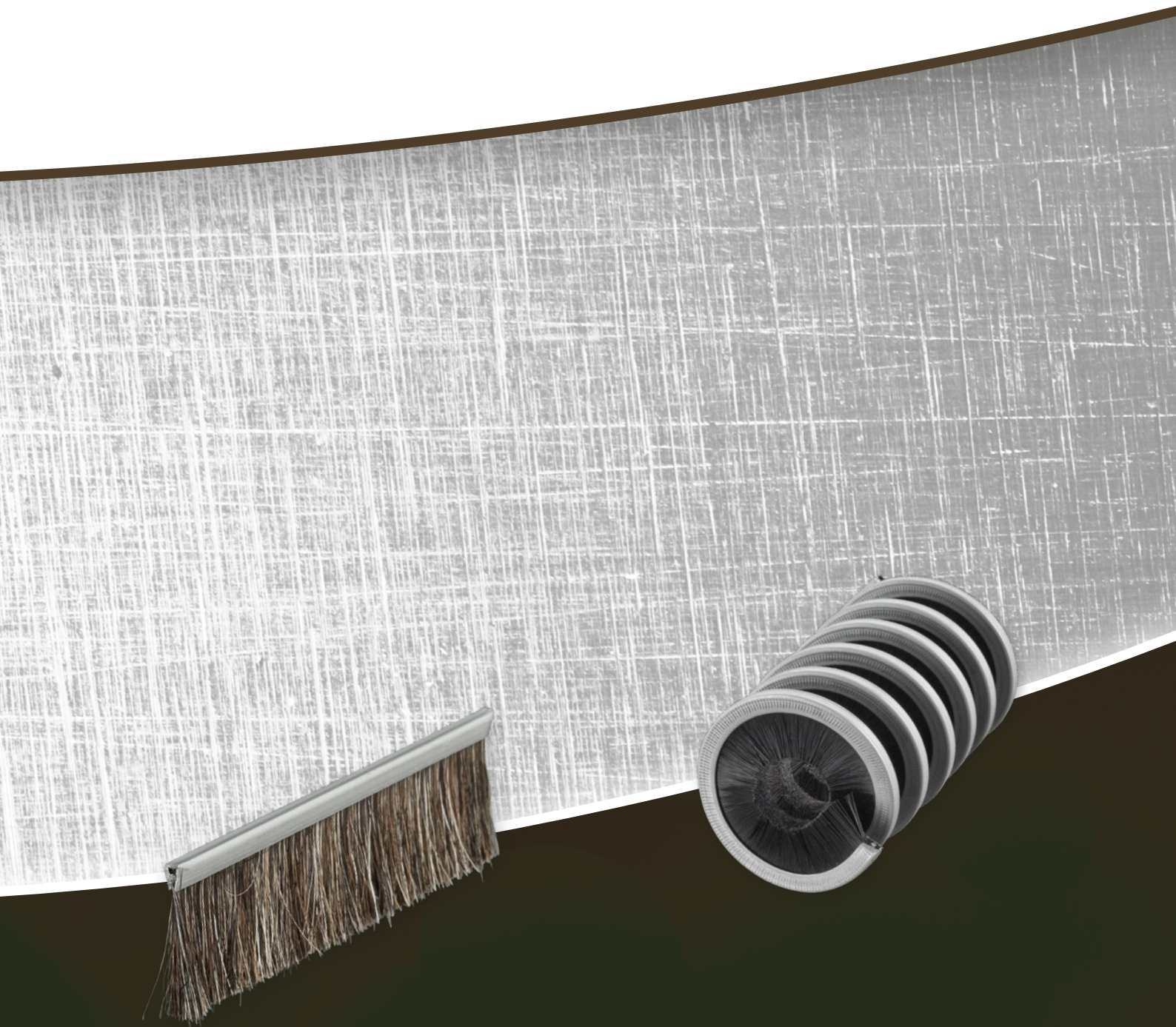


LESSMANN®

THE GERMAN BRUSH COMPANY



STRIP BRUSHES



Strip Brushes

Strip brushes

Strip brushes can be used in many ways. Strip brushes have very dense and close fillings and thus they can help to save energy with long lifetime.

They seal gates and doors and prevent of infiltration, cold, humidity, leaves and dirt.

They also protect moving parts (installation in machines and systems) from dust and other undesirable particles. Strip brushes also can be used for transport, guiding and securing of sensitive objects. Strip brushes from Lessmann are available in different shapes and with different adapters and filling materials.



Filling materials

All LESSMANN strip brushes are available with the following filling materials:

Natural hair:

Horse hair, grey and black



Highly effective and the most used material of filling for sealing gates and both hinged doors and sliding doors. This type of filling can be used in wet and dry areas and even at high temperatures (up to 150 °C). Their static charge is low. As standard, we use a mixture of 70 % horsehair and 30 % polyethylene.

The color specification „grey“ (top) refers to light horsehair, „black“ (bottom) refers to dark horsehair. However, since it is a natural material, color variations may occur.

Synthetic filaments:

- Polypropylene PP, Ø 0.15–3 mm, white and black.

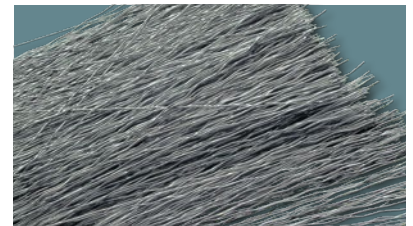


Inexpensive bristle for many uses, does not absorb water, retains initial rigidity in wet environments, low bend recovery.

- Polyamide PA, Ø 0.08–3 mm, white and black. Available in all grades. Good heat and wear resistance, good bend recovery. PA 6.6: Good bend recovery, good abrasion resistance, water absorption up to max. 10 %. PA 6.12 (ideally suited for use in wet environments): Flexible and excellent bend recovery, high abrasion resistance, water absorption up to max. 3 %.
- Polyester (PBT), Ø 0.08–3 mm, black, white, transparent. Lower water absorption than PA 6.12, very good bend recovery, good chemical resistance.

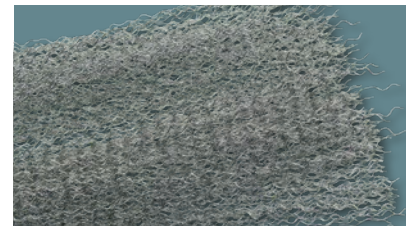
Wires:

- Steel wire



Good mechanical properties, good wear resistance, temperature resistance (up to approx. 300 °C). Suitable for deburring, derusting, roughening and paint removal.

- Stainless steel wire

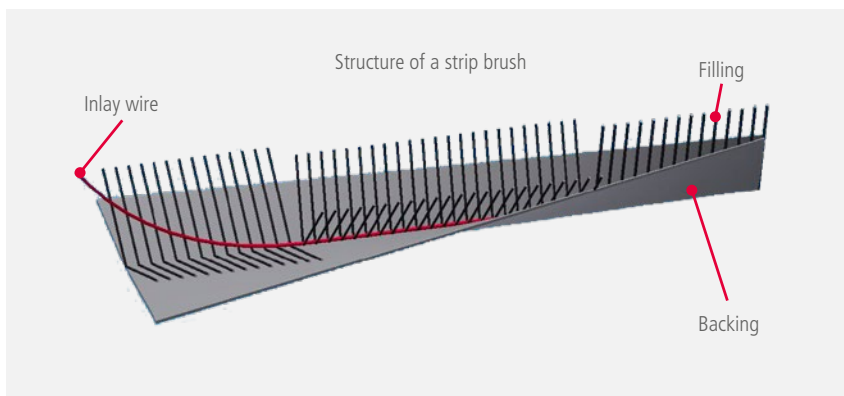


Usable in high-temperature range (up to approx. 400 °C), corrosion-resistant.

- Brass wire



Softer, therefore very suitable for working on soft woods and sensitive metal surfaces, temperature resistant (up to approx. 200 °C).



Standard backing

The filling materials of strip brushes will be bound in a U-shaped metal strip.

We offer following backings:

- Zinc-plated steel plate



- Stainless steel plate



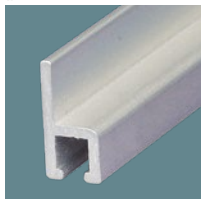
- Brass strip (only for selected brush types, please inquire)



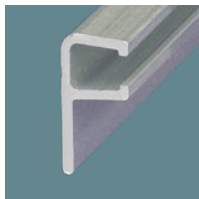
- Other backing materials available on request.

Profiles

In general, we supply our strip brushes in holding profiles made of high-quality, untreated aluminum, both type „h“ / A and type „F“ / AG.



h Profile / Type A



F Profile / Type AG

On request, the profiles are also available with anodizing and colored coatings:

- Silver (C-0)



- Bronze (C-34)



- Black (C-35)



- Powder coated profiles in different colours

Other natural hair, bristles, fibers, plant fibers, plastic bristles and wires in different variants available on request.

The length of profiles and brushes is limited to max. 5 000 mm due to shipping restrictions.



Ordering information

For all strip brushes, please **always indicate in addition** to the article number

- the desired trim height (BH)
- the total length (GL)

We will automatically select the optimum filament diameter for you based on the fill height.

The given article numbers always refer to a brush without a frame coating.

For all other versions, please use the inquiry form on pages 171/172.



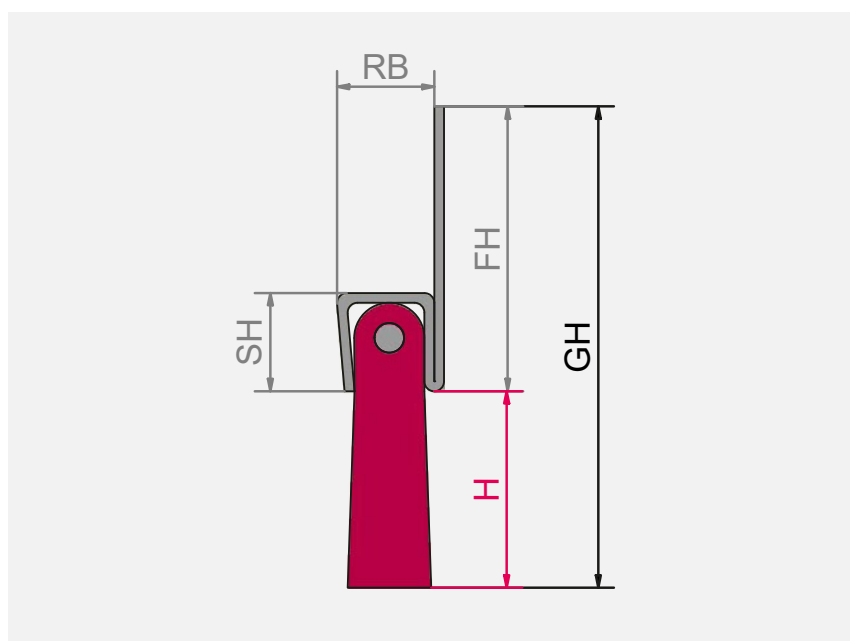
You can also find our request forms in the respective category at: www.lessmann.com/en/Products

Sealing brushes straight fittings



Sealing brushes straight						ROS grey		ROS black		PA 6.6 black		
Type	RB	SH	FH	H	GH	Backing STV	Backing ROF	Backing STV	Backing ROF	Backing STV	Backing ROF	Filament Ø
	mm	mm	mm	mm	mm	Art. No.	Art. No.	Art. No.	Art. No.	Art. No.	Art. No.	mm
FH 17	6	7	17	8–19	max. 36	220.353.10	230.453.10	220.353.00	230.453.00	220.323.00	230.423.00	0.15
				20–39	max. 56					220.326.00	230.426.00	0.25
				40–79	max. 96					220.329.00	230.429.00	0.40
				80–100	max. 117					220.32C.00	230.42C.00	0.50
FH 22	6	7	22	8–19	max. 41	221.353.10	231.453.10	221.353.00	231.453.00	221.323.00	231.423.00	0.15
				20–39	max. 61					221.326.00	231.426.00	0.25
				40–79	max. 101					221.329.00	231.429.00	0.40
				80–100	max. 122					221.32C.00	231.42C.00	0.50
FH 25	6	7	25	8–19	max. 44	222.353.10	232.453.10	222.353.00	232.453.00	222.323.00	232.423.00	0.15
				20–39	max. 64					222.326.00	232.426.00	0.25
				40–79	max. 104					222.329.00	232.429.00	0.40
				80–100	max. 125					222.32C.00	232.42C.00	0.50
FH 30	6	7	30	8–19	max. 49	223.353.10	233.453.10	223.353.00	233.453.00	223.323.00	233.423.00	0.15
				20–39	max. 69					223.326.00	233.426.00	0.25
				40–79	max. 109					223.329.00	233.429.00	0.40
				80–100	max. 130					223.32C.00	233.42C.00	0.50
FH 40	6	7	40	8–19	max. 59	224.353.10	234.453.10	224.353.00	234.453.00	224.323.00	234.423.00	0.15
				20–39	max. 79					224.326.00	234.426.00	0.25
				40–79	max. 119					224.329.00	234.429.00	0.40
				80–100	max. 140					224.32C.00	234.42C.00	0.50
FH 40/D	9	10	40	30–99	max. 139	225.553.10	235.653.10	225.553.00	235.653.00	225.529.00	235.629.00	0.40
				100–149	max. 189	–	–	–	–	225.52E.00	235.62E.00	0.60
				150–300	max. 340					225.52I.00	235.62I.00	0.80
				301–500	max. 540					on demand*	on demand*	–
FH 50/D	9	10	50	30–99	max. 149	226.553.10	236.653.10	226.553.00	236.653.00	226.529.00	236.629.00	0.40
				100–149	max. 199	–	–	–	–	226.52E.00	236.62E.00	0.60
				150–300	max. 350					226.52I.00	236.62I.00	0.80
				301–500	max. 540					on demand*	on demand*	–

* additional over-shearing of the bristles possible on request.



Sealing brushes straight

We offer sealing brushes in different sizes as well as different backing width and length of the legs. The sealing brushes can be mounted directly. Depending on the brush application we offer different filling materials.

On request we can produce the profiles with perforation or/and notches at the profile legs.

The brushes type „FH 40/D“ and „FH 50/D“ are produced with a thicker metal sheet and are therefore much more stable and resistant than the standard types.



Ordering information

For all strip brushes, please **always indicate in addition** to the article number

- the desired trim height (H)
- the total length (GL)

We will automatically select the optimum filament diameter for you based on the fill height.

The given article numbers always refer to a brush without a frame coating.

For all other versions, please use the inquiry form on page 171.

For *items printed in italics* consider our minimum order value (see page 178).

PA = Polyamide

ROS = Horse hair
(mixed with 30% Polyethylene)

STV = Zinc-plated steel

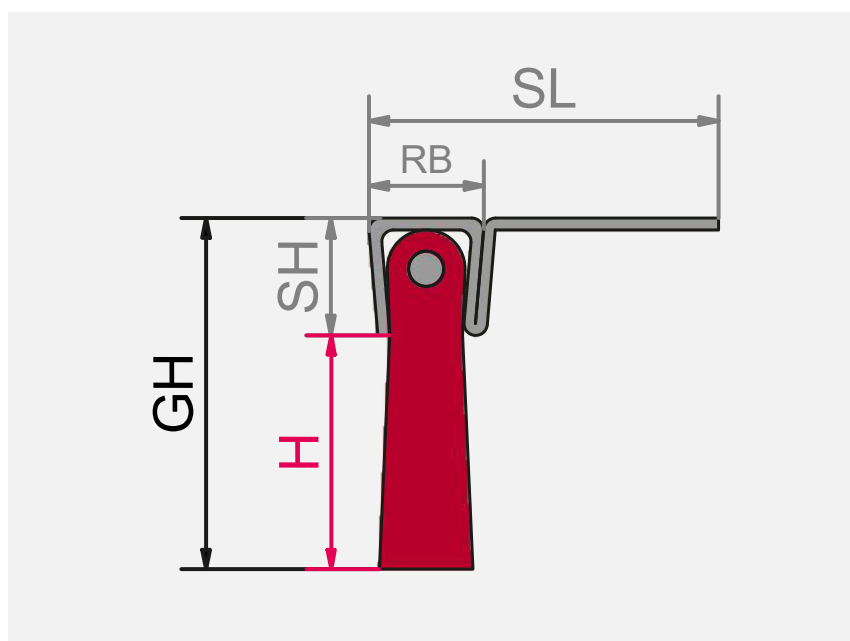
ROF = Stainless steel

Sealing brushes angled fittings



Sealing brushes angled						ROS grey		ROS black		PA 6.6 black		
Type	RB	SH	SL	H	GH	Backing STV	Backing ROF	Backing STV	Backing ROF	Backing STV	Backing ROF	Filament Ø
	mm	mm	mm	mm	mm	Art. No.	Art. No.	Art. No.	Art. No.	Art. No.	Art. No.	mm
SL 16	6	7	16	8–19	max. 26	240.353.10	250.453.10	240.353.00	250.453.00	240.323.00	250.423.00	0.15
				20–39	max. 46					240.326.00	250.426.00	0.25
				40–79	max. 86					240.329.00	250.429.00	0.40
				80–100	max. 107	–	–	–	–	240.32C.00	250.42C.00	0.50
SL 21	6	7	21	8–19	max. 26	241.353.10	251.453.10	241.353.00	251.453.00	241.323.00	251.423.00	0.15
				20–39	max. 46					241.326.00	251.426.00	0.25
				40–79	max. 86					241.329.00	251.429.00	0.40
				80–100	max. 107	–	–	–	–	241.32C.00	251.42C.00	0.50
SL 24	6	7	24	8–19	max. 26	242.353.10	252.453.10	242.353.00	252.453.00	242.323.00	252.423.00	0.15
				20–39	max. 46					242.326.00	252.426.00	0.25
				40–79	max. 86					242.329.00	252.429.00	0.40
				80–100	max. 107	–	–	–	–	242.32C.00	252.42C.00	0.50
SL 29	6	7	29	8–19	max. 26	243.353.10	253.453.10	243.353.00	253.453.00	243.323.00	253.423.00	0.15
				20–39	max. 46					243.326.00	253.426.00	0.25
				40–79	max. 86					243.329.00	253.429.00	0.40
				80–100	max. 107	–	–	–	–	243.32C.00	253.42C.00	0.50
SL 39	6	7	39	8–19	max. 26	244.353.10	254.453.10	244.353.00	254.453.00	244.323.00	254.423.00	0.15
				20–39	max. 46					244.326.00	254.426.00	0.25
				40–79	max. 86					244.329.00	254.429.00	0.40
				80–100	max. 107	–	–	–	–	244.32C.00	254.42C.00	0.50
SL 39/D	9	10	39	30–99	max. 106	245.553.10	255.653.10	245.553.00	255.653.00	245.529.00	255.629.00	0.40
				100–149	max. 156	–	–	–	–	245.52E.00	255.62E.00	0.60
				150–300	max. 307					245.52I.00	255.62I.00	0.80
				301–500	max. 510					on demand*	on demand*	–
SL 49/D	9	10	49	30–99	max. 106	246.553.10	256.653.10	246.553.00	256.653.00	246.529.00	256.629.00	0.40
				100–149	max. 156	–	–	–	–	246.52E.00	256.62E.00	0.60
				150–300	max. 307					246.52I.00	256.62I.00	0.80
				301–500	max. 510					on demand*	on demand*	–

* additional over-shearing of the bristles possible on request.



Sealing brushes angled

We offer sealing brushes in different sizes as well as different backing width and length of the legs. The sealing brushes can be mounted directly. Depending on the brush application we offer different filling materials.

On request we can produce the profiles with perforation or/and notches at the profile legs.

The brushes type „SL 39/D“ and „SL 49/D“ are produced with a thicker metal sheet and are therefore much more stable and resistant than the standard types.



Ordering information

For all strip brushes, please **always indicate in addition** to the article number

- the desired trim height (H)
- the total length (GL)

We will automatically select the optimum filament diameter for you based on the fill height.

The given article numbers always refer to a brush without a frame coating.

For all other versions, please use the inquiry form on page 171.

For *items printed in italics* consider our minimum order value (see page 178).

PA = Polyamide

ROS = Horse hair
(mixed with 30% Polyethylene)

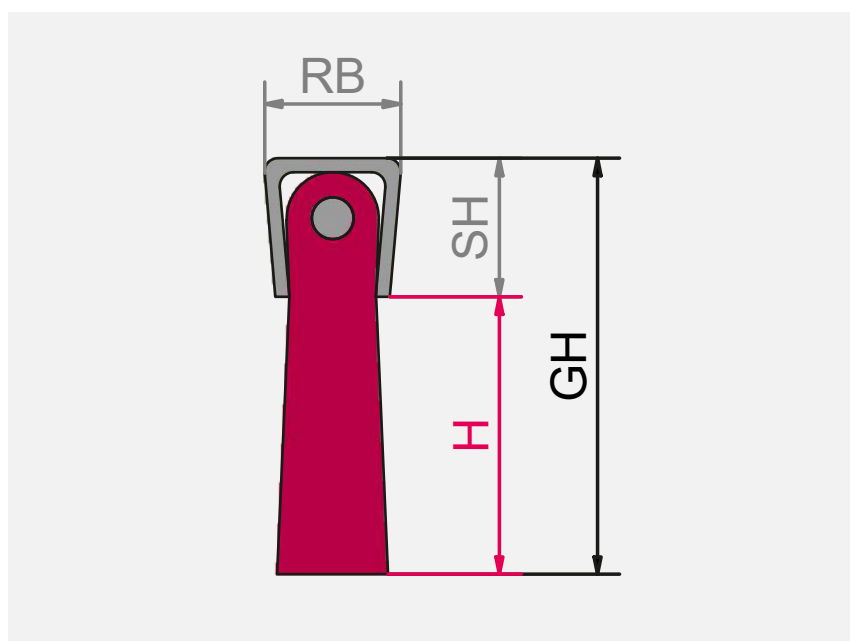
STV = Zinc-plated steel

ROF = Stainless steel

Strip brushes for slots / profiles



Strip brushes for slots / profiles					ROS grey		ROS black		PA 6.6 black		
Type	RB	SH	H	GH	Backing STV	Backing ROF	Backing STV	Backing ROF	Backing STV	Backing ROF	Filament Ø
	mm	mm	mm	mm	Art. No.	Art. No.	Art. No.	Art. No.	Art. No.	Art. No.	mm
2	1.8–2.1	max. 2.2	6–28	max. 30	200.C53.10	210.D53.10	200.C53.00	210.D53.00	200.C21.00	210.D21.00	0.10
2.5	2.4–2.7	max. 2.9	7–50	max. 53	201.C53.10	211.D53.10	201.C53.00	211.D53.00	201.C23.00	211.D23.00	0.15
3	2.8–3.2	max. 3.1	8–19	max. 22	202.853.10	212.753.10	202.853.00	212.753.00	202.821.00	212.721.00	0.10
			20–39	max. 42					202.823.00	212.723.00	0.15
			40–60	max. 63					202.825.00	212.725.00	0.20
3.5	3.3–3.7	max. 4.3	8–19	max. 23	203.853.10	213.753.10	203.853.00	213.753.00	203.821.00	213.721.00	0.10
			20–39	max. 43					203.823.00	213.723.00	0.15
			40–65	max. 69					203.825.00	213.725.00	0.20
4	3.7–4.2	max. 4.2	6–19	max. 23	204.853.10	214.753.10	204.853.00	214.753.00	204.823.00	214.723.00	0.15
			20–39	max. 43					204.826.00	214.726.00	0.25
			40–60	max. 64					204.827.00	214.727.00	0.30
4.5	4.2–4.5	max. 5.2	6–24	max. 29	201.153.10	211.253.10	201.153.00	211.253.00	201.123.00	211.223.00	0.15
			25–59	max. 64					201.126.00	211.226.00	0.25
			60–90	max. 95					201.127.00	211.227.00	0.30
5	4.6–5.2	max. 5.3	6–24	max. 29	206.153.10	216.253.10	206.153.00	216.253.00	206.123.00	216.223.00	0.15
			25–59	max. 64					206.126.00	216.226.00	0.25
			60–90	max. 95					206.127.00	216.227.00	0.30
8	7.5–8.3	max. 9.5	30–100	max. 110	207.A53.10	217.B53.10	207.A53.00	217.B53.00	207.A29.00	217.B29.00	0.40
			101–300	max. 310					207.A2E.00	217.B2E.00	0.60
			301–550	max. 560					207.A2I.00	217.B2I.00	0.80
10	9.7–10.5	max. 10.5	30–100	max. 110	208.A53.10	218.B53.10	208.A53.00	218.B53.00	208.A29.00	218.B29.00	0.40
			101–300	max. 310					208.A2E.00	218.B2E.00	0.60
			301–550	max. 560					208.A2I.00	218.B2I.00	0.80



Strip brushes for slots / profiles

We offer strip brushes in different sizes as well as different backing width and length of the legs. Depending on the brush application we offer different filling materials.

The mentioned dimensions vary due to the density, the thickness and the selection of the trim material. Upon request, all brushes can be adapted to existing profiles.



Ordering information

For all strip brushes, please **always indicate in addition** to the article number

- the desired trim height (H)
- the total length (GL)

We will automatically select the optimum filament diameter for you based on the fill height.

The given article numbers always refer to a brush without a frame coating.

For all other versions, please use the inquiry form on page 171.

For *items printed in italics* consider our minimum order value (see page 178).

PA = Polyamide

ROS = Horse hair
(mixed with 30% Polyethylene)

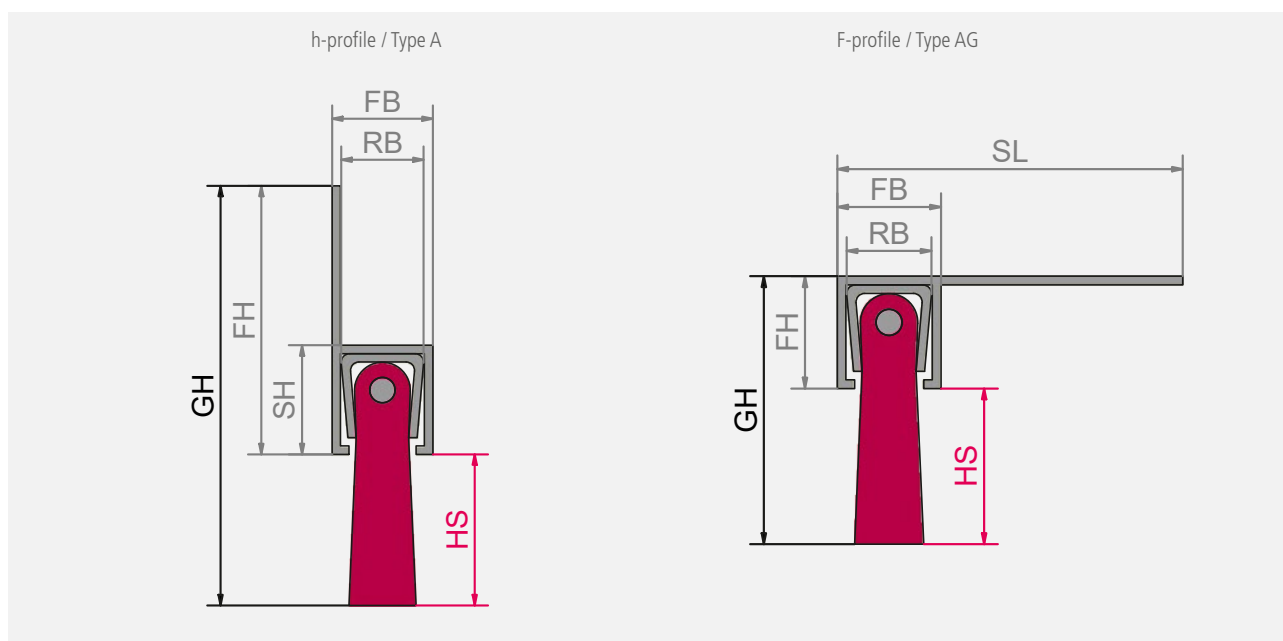
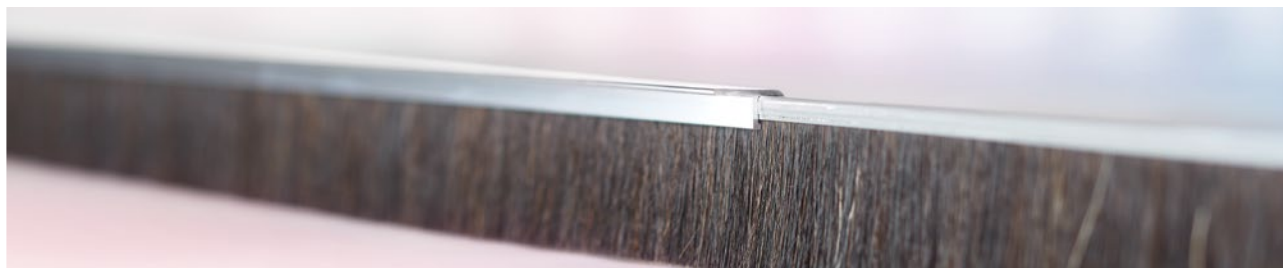
STV = Zinc-plated steel

ROF = Stainless steel

Strip brushes in aluminum profile



Strip brushes in aluminum profile								ROS grey		ROS black		PA 6.6 black		
Brush type	Profile type	SH mm	SL mm	FB mm	FH mm	H mm	GH mm	Backing Art. No.	STV Art. No.	Backing Art. No.	STV Art. No.	Backing Art. No.	STV Art. No.	ROF Filament Ø mm
2.5	13.5 A	4.0	—	4.4	13.5	4–47	max. 61	261.C53.10	271.D53.10	261.C53.00	271.D53.00	261.C23.00	271.D23.00	0.15
						3–16	max. 31					264.823.00	274.723.00	0.15
	15 A	7.0	—	7.3	15	17–36	max. 51	264.853.10	274.753.10	264.853.00	274.753.00	264.826.00	274.726.00	0.25
						37–57	max. 72					264.827.00	274.727.00	0.30
4						3–16	max. 23					265.823.00	275.723.00	0.15
	16 AG	—	16.0	7.3	7.0	17–36	max. 43	265.853.10	275.753.10	265.853.00	275.753.00	265.826.00	275.726.00	0.25
						37–57	max. 64					265.827.00	275.727.00	0.30
						3–21	max. 61					269.123.00	279.223.00	0.15
	40/5 A	9.2	—	8.8	40	22–56	max. 96	269.153.10	279.253.10	269.153.00	279.253.00	269.126.00	279.226.00	0.25
						57–87	max. 127					269.127.00	279.227.00	0.30
						3–21	max. 46					262.123.00	272.223.00	0.15
	25 A	9.2	—	8.8	25	22–56	max. 81	262.153.10	272.253.10	262.153.00	272.253.00	262.126.00	272.226.00	0.25
						57–87	max. 112					262.127.00	272.227.00	0.30
						3–21	max. 38					266.123.00	276.223.00	0.15
5	17 A	9.2	—	8.8	17	22–56	max. 73	266.153.10	276.253.10	266.153.00	276.253.00	266.126.00	276.226.00	0.25
						57–87	max. 104					266.127.00	276.227.00	0.30
						3–21	max. 30					263.123.00	273.223.00	0.15
	25 AG	—	25	8.5	8.5	22–56	max. 65	263.153.10	273.253.10	263.153.00	273.253.00	263.126.00	273.226.00	0.25
						57–87	max. 96					263.127.00	273.227.00	0.30
						3–21	max. 30					260.123.00	270.223.00	0.15
	18 AG	—	18	8.5	8.5	22–56	max. 65	260.153.10	270.253.10	260.153.00	270.253.00	260.126.00	270.226.00	0.25
						57–87	max. 96					260.127.00	270.227.00	0.30
						27–97	max. 137					267.A29.00	277.B29.00	0.40
	40/8 A	13.5	—	12.5	40	98–297	max. 337	267.A53.10	277.B53.10	267.A53.00	277.B53.00	267.A2E.00	277.B2E.00	0.60
						298–547	max. 587					267.A2I.00	277.B2I.00	0.80
8						27–97	max. 111					268.A29.00	278.B29.00	0.40
	40/8 AG	—	40	12.5	13.5	98–297	max. 311	268.A53.10	278.B53.10	268.A53.00	278.B53.00	268.A2E.00	278.B2E.00	0.60
						298–547	max. 561					268.A2I.00	278.B2I.00	0.80



Profiles

We supply h- and F-profiles made of aluminum for strip brushes. On request we can produce the profiles with perforation or/and notches at the profile legs as well as cut them on requested measurement. Anodized and powder coated profiles are also available in different colors upon request.

Standard lengths of the profiles:

1 000 mm, 1 100 mm, 1 200 mm, 1 300 mm, 2 000 mm, 2 500 mm, 3 000 mm.

For items printed in *italics* consider our minimum order value (see page 178).

PA = Polyamide

ROS = Horse hair
(mixed with 30% Polyethylene)

STV = Zinc-plated steel

ROF = Stainless steel



Of course, you can get all profiles individually, without brush, as well.



Ordering information

For all strip brushes, please **always indicate in addition** to the article number

- the desired trim height (H)
- the total length (GL)

We will automatically select the optimum filament diameter for you based on the fill height.

The given article numbers always refer to a brush without a frame coating.

For all other versions, please use the inquiry form on page 171.

Shaped strip brushes, filling facing outwards



Shaped strip brushes. filling facing outwards							ROS black or grey		PA 6.6 black		
Type	RB mm	SH mm	DI mm	DA mm	H mm	GH mm	Backing STV Art. No.	Backing ROF Art. No.	Backing STV Art. No.	Backing ROF Art. No.	Filament Ø mm
2.5	2.4–2.7	max. 2.9	6–80	26–186	7–50	max. 53	<i>on demand</i>	<i>on demand</i>	<i>on demand</i>	<i>on demand</i>	0.15
					8–19	max. 22			<i>on demand</i>	<i>on demand</i>	0.10
3	2.8–3.2	max. 3.1	12–80	34–206	20–39	max. 42	<i>on demand</i>	<i>on demand</i>	<i>on demand</i>	<i>on demand</i>	0.15
					40–60	max. 63			<i>on demand</i>	<i>on demand</i>	0.20
					6–19	max. 23			<i>on demand</i>	<i>on demand</i>	0.15
4	3.7–4.2	max. 4.2	20–140	40–266	20–39	max. 43	<i>on demand</i>	<i>on demand</i>	<i>on demand</i>	<i>on demand</i>	0.25
					40–60	max. 64			<i>on demand</i>	<i>on demand</i>	0.30
					6–24	max. 29			<i>on demand</i>	<i>on demand</i>	0.15
5	4.6–5.2	max. 5.3	25–140	47–326	25–59	max. 64	<i>on demand</i>	<i>on demand</i>	<i>on demand</i>	<i>on demand</i>	0.25
					60–90	max. 95			<i>on demand</i>	<i>on demand</i>	0.30
					30–100	max. 110			<i>on demand</i>	<i>on demand</i>	0.40
8	7.5–8.3	max. 9.5	80–320	160–1000	101–300	max. 310	<i>on demand</i>	<i>on demand</i>	<i>on demand</i>	<i>on demand</i>	0.60
					301–550	max. 560			<i>on demand</i>	<i>on demand</i>	0.80

Special shaped strip brushes

Special shaped strip brushes complement our assortment of classic strip brushes.

Spiral or ring shaped brushes are available with outward or inward facing filament.

Strip brushes with **filling facing outward** can be used for cleaning, polishing, for applying liquids, for gentle transport and for deburring.

We offer strip brushes in different sizes and backing width and height. Depending on the individual application we offer different filling materials.



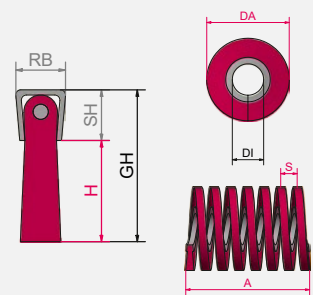
Ordering information

For all shaped strip brushes, please **always indicate in addition** to the article number

- the desired trim height (H)
- inner & outer diameter
- work width

Please use the inquiry form on page 172.

We will automatically select the optimum filament diameter for you based on the fill height.



Shaped strip brushes, filling facing outwards

For items printed in italics consider our minimum order value (see page 178).

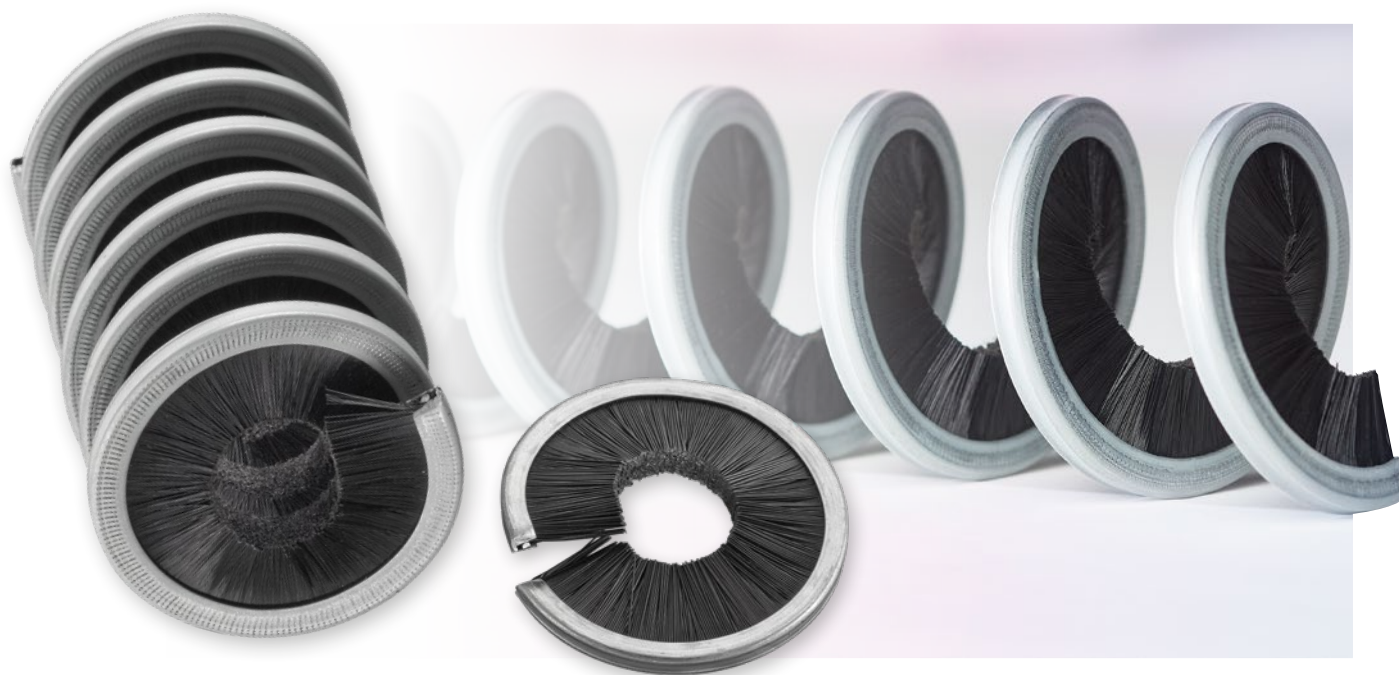
PA = Polyamide

ROS = Horse hair
(mixed with 30% Polyethylene)

STV = Zinc-plated steel

ROF = Stainless steel

Shaped strip brushes, filling facing inwards



Shaped strip brushes. filling facing inwards							ROS black or grey		PA 6.6 black		
Typ	RB	SH	DI	DA	H	GH	Backing STV	Backing ROF	Backing STV	Backing ROF	Filament Ø
	mm	mm	mm	mm	mm	mm	Art. No.	Art. No.	Art. No.	Art. No.	mm
2.5	2.4–2.7	max. 2.9	0–240	20–260	7–50	max. 53	<i>on demand</i>	<i>on demand</i>	<i>on demand</i>	<i>on demand</i>	0.15
					8–19	max. 22			<i>on demand</i>	<i>on demand</i>	0.10
3	2.8–3.2	max. 3.1	0–260	22–290	20–39	max. 42	<i>on demand</i>	<i>on demand</i>	<i>on demand</i>	<i>on demand</i>	0.15
					40–60	max. 63			<i>on demand</i>	<i>on demand</i>	0.20
					6–19	max. 23			<i>on demand</i>	<i>on demand</i>	0.15
4	3.7–4.2	max. 4.2	0–320	20–340	20–39	max. 43	<i>on demand</i>	<i>on demand</i>	<i>on demand</i>	<i>on demand</i>	0.25
					40–60	max. 64			<i>on demand</i>	<i>on demand</i>	0.30
					6–24	max. 29			<i>on demand</i>	<i>on demand</i>	0.15
5	4.6–5.2	max. 5.3	0–320	22–345	25–59	max. 64	<i>on demand</i>	<i>on demand</i>	<i>on demand</i>	<i>on demand</i>	0.25
					60–90	max. 95			<i>on demand</i>	<i>on demand</i>	0.30
					30–100	max. 110			<i>on demand</i>	<i>on demand</i>	0.40
8	7.5–8.3	max. 9.5	0–420	80–500	101–300	max. 310	<i>on demand</i>	<i>on demand</i>	<i>on demand</i>	<i>on demand</i>	0.60
					301–550	max. 560			<i>on demand</i>	<i>on demand</i>	0.80

Strip brushes with **filling facing inwards** can be used for sealing, cleaning and carrying cylindrical parts in mechanical engineering, tool manufacturing and vehicle construction.

We offer strip brushes in different sizes and backing width and height. Depending on the individual application we offer different filling materials.



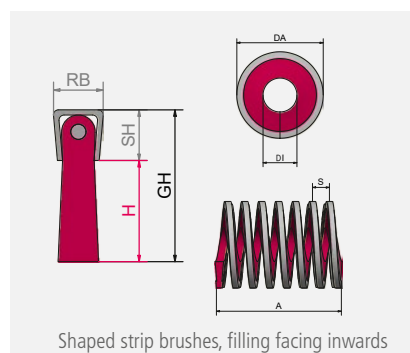
Ordering information

For all shaped strip brushes, please **always indicate in addition** to the article number

- the desired trim height (H)
- inner & outer diameter
- work width

Please use the inquiry form on page 172.

We will automatically select the optimum filament diameter for you based on the fill height.



For *items printed in italics* consider our minimum order value (see page 178).

PA = Polyamide

ROS = Horse hair
(mixed with 30% Polyethylene)

STV = Zinc-plated steel

ROF = Stainless steel

Cup shaped strip brushes



Cup shaped strip brushes						ROS black or grey		PA 6.6 black		
Type	RB mm	SH mm	DI/DA mm	H mm	GH mm	Backing STV Art. No.	Backing ROF Art. No.	Backing STV Art. No.	Backing ROF Art. No.	Filament Ø mm
2.5	2.4–2.7	max. 2.9	14–120	7–50	max. 53	<i>on demand</i>	<i>on demand</i>	<i>on demand</i>	<i>on demand</i>	0.15
3	2.8–3.2	max. 3.1	15–130	8–19	max. 22	<i>on demand</i>	<i>on demand</i>	<i>on demand</i>	<i>on demand</i>	0.10
				20–39	max. 42			<i>on demand</i>	<i>on demand</i>	0.15
4	3.7–4.2	max. 4.2	25–140	40–60	max. 63	<i>on demand</i>	<i>on demand</i>	<i>on demand</i>	<i>on demand</i>	0.20
				6–19	max. 23			<i>on demand</i>	<i>on demand</i>	0.15
				20–39	max. 43			<i>on demand</i>	<i>on demand</i>	0.25
5	4.6–5.2	max. 5.3	50–180	40–60	max. 64	<i>on demand</i>	<i>on demand</i>	<i>on demand</i>	<i>on demand</i>	0.30
				6–24	max. 29			<i>on demand</i>	<i>on demand</i>	0.15
				25–59	max. 64			<i>on demand</i>	<i>on demand</i>	0.25
8	7.5–8.3	max. 9.5	90–500	60–90	max. 95	<i>on demand</i>	<i>on demand</i>	<i>on demand</i>	<i>on demand</i>	0.30
				30–100	max. 110			<i>on demand</i>	<i>on demand</i>	0.40
				101–300	max. 310			<i>on demand</i>	<i>on demand</i>	0.60
				301–550	max. 560			<i>on demand</i>	<i>on demand</i>	0.80

Cup shaped strip brushes can be used for sealing rotating tools or nozzles, for cleaning, for applying liquids and polishing surfaces.

i

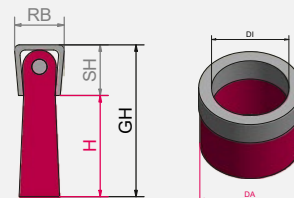
Ordering information

For all shaped strip brushes, please **always indicate in addition** to the article number

- the desired trim height (H)
- inner & outer diameter

Please use the inquiry form on page 172.

We will automatically select the optimum filament diameter for you based on the fill height.



Cup shaped strip brushes

For items printed in italics consider our minimum order value (see page 178).

PA = Polyamide

ROS = Horse hair
(mixed with 30% Polyethylene)

STV = Zinc-plated steel

ROF = Stainless steel

Inquiry for straight strip brushes

Drawing / description of application

No. of pieces _____

Brush length _____ mm

Application _____ ☐ dry ☐ wet

- ☐ sealing
☐ sloughing
☐ cleaning
☐ deburring
☐ roughening
☐ transporting
☐ other _____

Material to be treated _____ °C Temperature

- ☐ steel
☐ aluminum
☐ wood
☐ stainless steel
☐ plastic
☐ other _____

Filling material

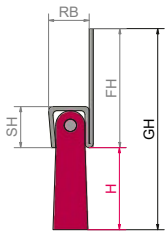
- ☐ horse hair ☐ mixed with 30% PE ☐ pure
☐ Polyamide (PA)
☐ Polyethylene (PE)
☐ Polypropylene (PP)
☐ steel
☐ brass coated steel
☐ brass
☐ stainless steel
☐ abrasive filament (SIC)
☐ abrasive filament (AO)
☐ fibre
☐ other _____
☐ Diameter for filling material _____ mm

Please indicate the dimensions according to the technical drawing

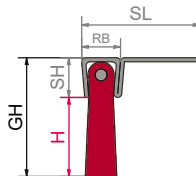
- H filling height _____ mm
 RB backing width _____ mm
 SH socket height _____ mm
 GH total height _____ mm
 FH backing height _____ mm
 SL socket length _____ mm

 LB perforation width _____ mm
 LH perforation height _____ mm
 LY distance _____ mm
 from upper backing edge
 LX distance _____ mm
 from lateral backing edge
 LA hole spacing _____ mm
 + number of holes _____ pcs.

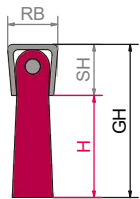
☐ Sealing brushes straight
 (Type h / FH)



☐ Sealing brushes angled
 (Type F / SL)

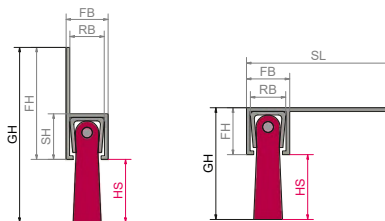


☐ Strip brushes for slots



☐ Strip brushes in aluminum slot
 Form/Type of profile

☐ h/A ☐ F/AG

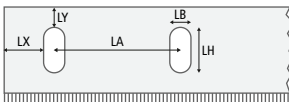


Anodization

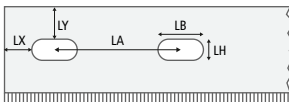
- ☐ Blank / none
☐ Silver
☐ Dark bronze
☐ Black

☐ Predefined perforation

☐ vertical



☐ horizontal



Sender: Company, contact person

Inquiry for shaped strip brushes

Drawing / description of application

No. of pieces _____

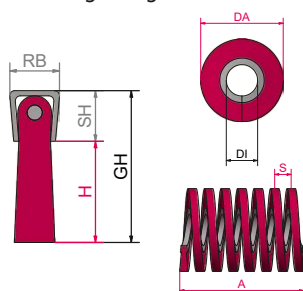
Application _____ ☐ dry ☐ wet

- ☐ sealing
☐ sloughing
☐ cleaning
☐ deburring
☐ roughening
☐ transporting
☐ other _____

Material to be treated _____ °C Temperature

- ☐ steel
☐ aluminum
☐ wood
☐ stainless steel
☐ plastic
☐ other _____

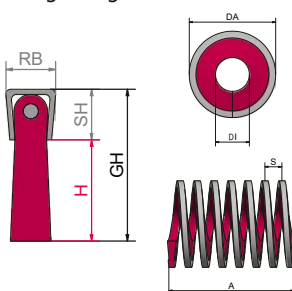
☐ Shaped strip brushes,
filling facing outwards



Form

☐ Spiral ☐ Ring

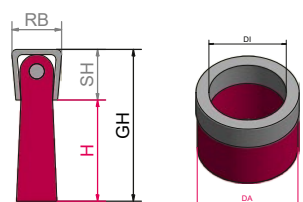
☐ Shaped strip brushes,
filling facing inwards



Form

☐ Spiral ☐ Ring

☐ Cup shaped strip brushes



Filling material

- ☐ horse hair ☐ mixed with 30% PE ☐ pure
☐ Polyamide (PA)
☐ Polyethylene (PE)
☐ Polypropylene (PP)
☐ steel
☐ brass coated steel
☐ brass
☐ stainless steel
☐ abrasive filament (SIC)
☐ abrasive filament (AO)
☐ fibre
☐ other _____

☐ Diameter for filling material _____ mm

Please indicate the dimensions according to the technical drawing

H filling height _____ mm
 RB backing width _____ mm
 SH socket height _____ mm
 GH total height _____ mm
 FH backing height _____ mm
 SL socket length _____ mm
 DI diameter inner _____ mm
 DA diameter outer _____ mm
 A work width _____ mm
 number of windings (spiral brushes) _____ pcs.
 S pitch (if required) _____ mm

Sender: Company, contact person



Enquiry for Cutback Brushes

Drawing / description of application

Piece number _____

Brush Application ☐ dry ☐ wet

☐ removal of pipe coatings

☐ others _____

Material to be treated _____ °C Temperature

☐ steel

☐ stainless steel

☐ others _____

Filling material

☐ steel

☐ brass coated steel

☐ stainless steel

Diameter of filling material: _____

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

D Diameter _____ mm

DB bore _____ mm

DKN double keyway _____ mm

H trim height _____ mm

A working width _____ mm

Z number of knots _____ pcs.

EBR clamping width _____ mm

Knot type

☐ B Rose Bud

☐ O Open Knot (wire ends are cut)

☐ D Fully knotted (wire ends are cut completely)

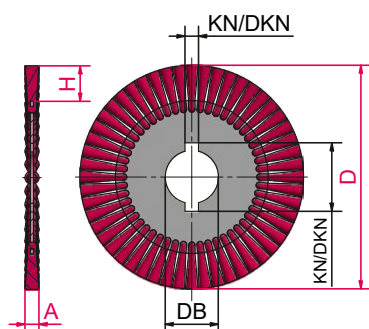
Used machine

☐ stationary machine, Type _____

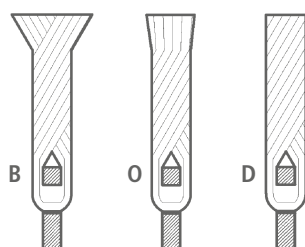
☐ others _____

Machine data

max. speed _____



Knot type ZF



Sender: Company, contact person

Inquiries and Infos:

Phone: +49 9082 707-0

Fax: +49 9082 707-76

info@lessmann.com

www.lessmann.com



Enquiry for Wheel and Deburring Brushes

Drawing / description of application

Piece number _____

Brush Application ☐ dry ☐ wet

- ☐ derusting
- ☐ removing paint
- ☐ deburring
- ☐ cleaning
- ☐ roughening / structuring
- ☐ weld dressing
- ☐ others _____

Material to be treated _____ °C Temperature

- ☐ steel
- ☐ aluminium
- ☐ wood
- ☐ stainless steel
- ☐ plastic
- ☐ others _____

Filling material

- ☐ crimped ☐ knotted
- ☐ steel
- ☐ brass coated steel
- ☐ brass
- ☐ stainless steel
- ☐ polyamide
- ☐ silicon carbide bristles (SIC)
- ☐ aluminium oxide bristles (AO)

Diameter of filling material _____

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

D Diameter _____ mm

DB bore/thread _____ mm

H trim height _____ mm

A working width _____ mm

R tube _____ mm

EBR clamping width _____ mm

Knot type if necessary (more aggressive execution)

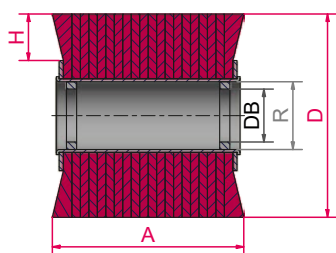
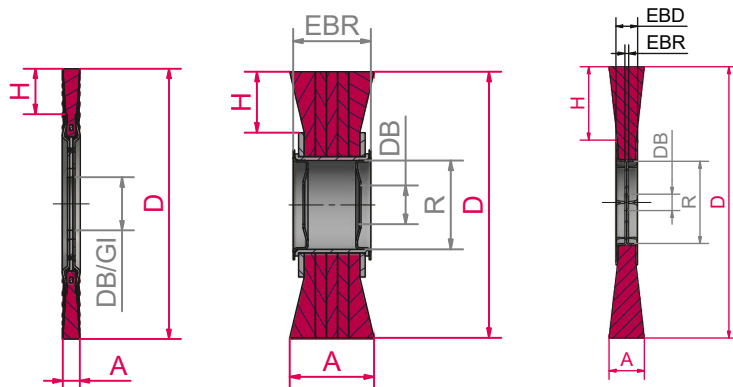
- ☐ B Rose Bud
- ☐ O open Knot (wire ends are cut)
- ☐ D Fully knotted (wire ends are cut completely)

Used machine

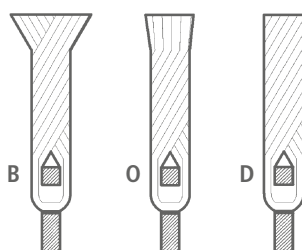
- ☐ Hand-operated machine (e.g. angle grinders) _____
- ☐ stationary machine (z.B. CNC) _____
- ☐ others _____

Machine data

max. speed _____



Knot type ZF



Sender: Company, contact person

Inquiries and Infos:

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Fax: +49 9082 707-76

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www.lessmann.com



Enquiry for Cup and Bevel Brushes

Drawing / description of application

Piece number _____

Brush Application ☐ dry ☐ wet

☐ derusting

☐ removing paint

☐ deburring

☐ cleaning

☐ weld dressing

☐ others _____

Material to be treated ____ °C Temperature

☐ steel

☐ aluminium

☐ stainless steel

☐ others _____

Filling material

☐ crimped ☐ knotted

☐ steel

☐ brass coated steel

☐ brass

☐ stainless steel

☐ silicon carbide bristles (SIC)

Diameter of filling material _____

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

D Diameter _____ mm

DB/GI bore/thread _____ mm

H trim height _____ mm

A working width _____ mm

H1 Height of support cuff _____ mm

Used machine

☐ hand-operated machine (e.g. angle grinders) _____

☐ stationary machine (z.B. CNC) _____

☐ others _____

Machine data

max. speed _____

max. brush height _____ mm

Sender: Company, contact person

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info@lessmann.com

Fax: +49 9082 707-76

www.lessmann.com



Enquiry for Brushes with Shank

Drawing / description of application

Piece number _____

Brush Application ☐ dry ☐ wet

- ☐ derusting
- ☐ removing paint
- ☐ deburring
- ☐ cleaning
- ☐ roughening / structuring
- ☐ weld dressing
- ☐ others _____

Material to be treated ____ °C Temperature

- ☐ steel
- ☐ aluminium
- ☐ wood
- ☐ stainless steel
- ☐ plastic
- ☐ others _____

Filling material

- ☐ crimped ☐ knotted
- ☐ steel
- ☐ brass coated steel
- ☐ brass
- ☐ stainless steel
- ☐ polyamide
- ☐ silicon carbide bristles (SIC)

Diameter of filling material _____

Please indicate the dimensions according to the technical drawing (mm): (shank standard 6 mm)

D Diameter _____ mm

H trim height _____ mm

A working width _____ mm

GL overall length _____ mm

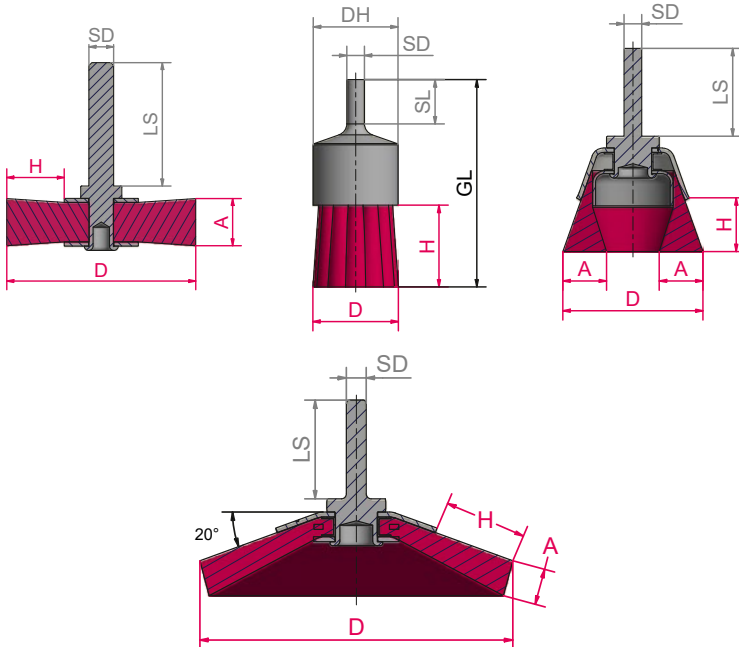
DH Housing diameter _____ mm

Used machine

- ☐ hand-operated machine (e.g. angle grinders) _____
- ☐ stationary machine (z.B. CNC) _____
- ☐ others _____

machine data

max. speed _____



Sender: Company, contact person

Inquiries and Infos:

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info@lessmann.com

Fax: +49 9082 707-76

www.lessmann.com



Enquiry for Wheel and Interior Brushes

Drawing / description of application

Piece number _____

Brush Application ☐ dry ☐ wet

- ☐ derusting
- ☐ deburring
- ☐ cleaning
- ☐ others

Material to be treated _____ °C Temperature

- ☐ steel
- ☐ aluminium
- ☐ stainless steel
- ☐ plastic
- ☐ others

Filling material

- ☐ steel
- ☐ brass coated steel
- ☐ brass
- ☐ stainless steel
- ☐ polyamide
- ☐ silicon carbide bristles (SiC)
- ☐ aluminium oxide bristles (AlO)
- ☐ others

Diameter of filling material _____

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

D Diameter _____ mm

SD core wire _____ mm

A working width _____ mm

GL overall length_____ mm

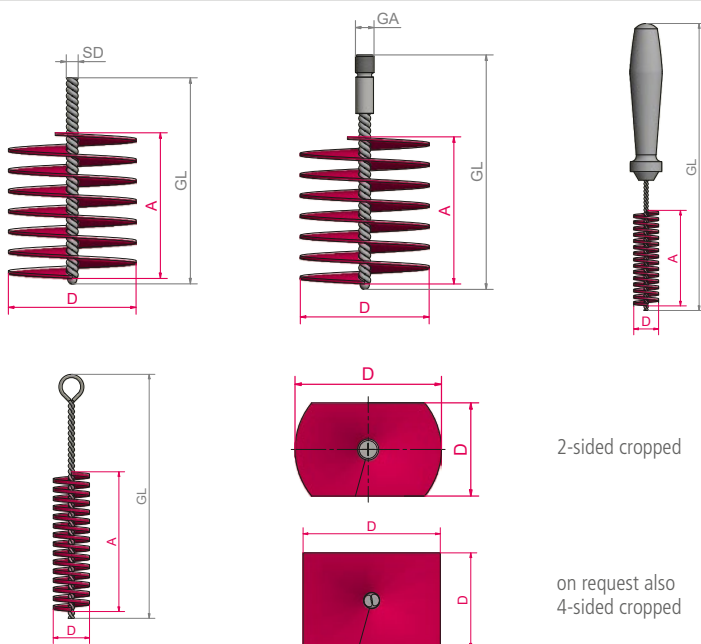
Commitment

- ☐ manually
- ☐ machine

Brush mount

- ☐ shank _____ mm
- ☐ thread

Sender: Company, contact person



Inquiries and Infos:

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info@lessmann.com

Fax: +49 9082 707-76

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General Conditions of Sale and Delivery

1. Scope

- (1) Our general conditions of sale apply exclusively; we do not acknowledge any conditions of the customer which are contrary to or deviate from our general conditions of sale, unless we explicitly consented in writing to their validity.
- (2) All agreements reached between us and the customer for the purpose of carrying out this contract must be made in writing. This applies also to offers and orders which were agreed with our sales representatives.
- (3) Our general conditions of sale shall apply only to commercial businesses, not to private consumers.

2. Offer

- (1) All prices contained in an offer are subject to alterations. The prices are valid as fixed prices for 6 months, only after acknowledgement of the order.
- (2) We reserve rights of ownership and copyrights on diagrams, drawings, design worksheets and other documents; they must not be made accessible to third parties.

3. Prices – Terms of Payment

- (1) All prices are in € (EURO), ex works Oettingen, exclusive costs of packaging.
- (2) Our prices do not include Value-Added Tax.
- (3) Unless stated otherwise in the acknowledgement of the order we grant 2% cash discount on payments in cash made within 10 days after the date of the invoice, payments shall be made within 30 days from the date of the invoice.
- (4) In case of a delayed payment, we are entitled to demand interest at a rate of 4% p.a. above the actual basis rate of the EZB.

4. Period of Delivery – Despatch – Delivery on Demand

- (1) Our liability in cases of delayed delivery is limited to cases of intent and gross negligence.
- (2) In case of delayed delivery the customer has to set us an appropriate time limit for the delivery. If we have not delivered by that date the customer has the right to withdraw from the contract. Customer's rights to claim damages is limited to the extent of the foreseeable damage and to cases of intent and gross negligence. In other cases the right to claim damages is limited to the amount of the contract price.
- (3) The limitations according to paragraphs (1) and (2), shall not apply in case a delivery at a fixed time has been agreed, or if the customer has lost its interest in the delivery due to the delay.
- (4) We will keep our delivery obligations on condition that the customer will keep its obligations correctly and in time.
- (5) Unless otherwise agreed we will take care of the most favourable way of transport at our own discretion on account and at the risk of customer. This shall also apply to carriage paid and FOB deliveries.
- (6) If delivery on demand has been agreed we may buy the material necessary to produce the complete order and we may produce the complete quantity immediately.

5. Warranty for Defects – Liability

- (1) The customer shall examine our deliveries immediately and report complaints about defects immediately. We can only be held responsible for defects if the customer has correctly fulfilled this obligation.
- (2) In case of defects we will either remedy the defect or replace the product by a not defective one. In case we replace the product we will pay the additional expenses. We will bear transport costs for the transport not farther than to the place of performance. In case of delayed delivery the customer has the option of either withdrawing from the contract or demanding a reduction in the price. Customer has no further claims. Our liability is not limited in cases of intent, gross negligence, undertaking of a guarantee, violation of an obligation non compliance with which would endanger the purpose of the contract, for damages caused by injury to life, body or health and for claims based on the German product liability law (Produkthaftungsgesetz).
- (3) Any and all claims against us are subject to a limitation period of 12 months from delivery. This does not apply as far as §§ 438 subpar. 1 No 2, 479 subpar. 1 and 634a subpar. 1 No 2 of the German Civil Code lays down a longer period or if we are liable due to intent or gross negligence.

6. Reservation of Ownership

- (1) The customer shall obtain ownership of the delivered products only after we have received all payments from the business relationship with the customer.
- (2) In the event of seizures or other actions by third parties, the customer shall inform us thereof immediately in writing. As far as the third party is not able to reimburse our total costs of legal action in accordance with paragraph 771 of the German Code of Civil Procedure, the customer shall reimburse us the loss.
- (3) The customer is entitled to sell the products. The customer shall assign all rights and titles arising from the further sale to us regardless of whether the products have been processed or not. The customer remains entitled to collect the payments from the sales. We shall not collect any payments except the customer is behind with payments and/or has gone bankrupt and/or has stopped payments.
- (4) Any processing, marking or other changes of the products by the customer shall be done on our behalf. If we have to take back the products, the customer shall give us the name and address of the customer who wished the products to be processed, marked or changed.
- (5) We shall, at the request of customer, release our rights and titles up to the amount which exceeds 20% of the value of our payment claim to be protected. The selection of the rights and titles to be released shall be at our discretion.

7. Place of Jurisdiction – Place of Performance – Law

- (1) Place of jurisdiction shall be the place of our office. We also may take proceedings against the customer at the place of its office.
- (2) Our office is the place of performance, unless our acknowledgement of the order stated something different.
- (3) The laws of the Federal Republic of Germany shall apply. The United Nations Convention on Contracts for the International Sale of Goods (CISG) shall not apply.

8. Miscellaneous

- (1) Special designs can not be taken back. Our deliveries may deviate from the agreed volume by +/- 15%.
- (2) The minimum order value, as well as extra payments for small volume purchases, are fixed in the actual price list.
- (3) Quantities deviating from the standard packet will be increased or decreased to the corresponding standard packet, otherwise extra payments per incomplete packet will be charged in accordance with the actual price list.

Minimum order value:

For stock articles (**bold printed** articles):
net € 100.00

For special production and *italic printed* articles:
net € 250.00 / article

Extra payment for incomplete packets:
net € 4.00

Delivery costs on request.
Express delivery on extra charge available.

We reserve the right to change the construction and design of the brushes in the course of further technical developments. Information to measurements are approximate and not binding. All measurements are in mm.

The LESSMANN free dimension tolerances apply.
Request these if necessary.

Purchase Order Form

Supplier
Lessmann GmbH
Lucas-Schultes-Str. 2
D-86732 Oettingen

Buyer	Date
.....	Customer Number
.....	Contact Person
.....	Phone
.....	E-Mail

Order Number:

Article Number	Article Name	Quantity	Price	Discount	Date of Delivery

Shipping Address (if different from above):	Billing Address (if different from above):
.....
.....
.....
.....

☐ Yes, please electronic order confirmation to be sent to: E-Mail

☐ Yes, please electronic invoice to be sent to: E-Mail

For more information about our brush selection please visit our website www.lessmann.com/en/Products

We hereby accept the current „General Conditions of Sale and Delivery“ of Lessmann GmbH as printed in the Lessmann catalogue on page 178 available to us.

Buyer's Signature / Stamp



Article Numbers

[illegible]

Art. No.	Page						
410.873.A0	87	416.462	75	422.177.09	136	430.134	133
410.881	87	416.542	77	422.367	63	430.135	133
410.882	87	416.543	77	422.767	63	430.136	133
410.883	87	416.562	77	423.167	60	430.138	79, 133
410.891	87	416.752	76	423.167.09	136	430.138.07	137
410.891.A0	87	416.842	77	423.168	60	430.138.09	136
410.892	87	416.852	77	423.16X	67	430.139	79, 133
410.892.A0	87	416.872	77	423.17X	67	430.222	87
410.893	87	417.132	74	423.367	60	430.223	87
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11
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+1x Cup brush crimped DIA 2 1/2", Thread M 14	421.167 STA 0,014"	421.367 ROH 0,014"
+1x Knotted wheel brush with shank DIA 3"	417.198 STH 0,020"	—
+1x Abrasive wheel brush with shank DIA 2"	—	415.842 SIC 120/0,043"
+1x Wheel brush crimped with shank DIA 2 3/8"	417.162 STA 0,012"	417.362 ROF 0,012"
+1x End brush crimped with shank DIA 7/8", long 2 5/8"	453.161 STA 0,012"	453.361 ROF 0,012"
+1x Cylindrical brush 12 x 4", DIA 3/8"	542.303 STA 0,006"	542.503 ROF 0,006"
+1x Cylindrical brush 12 x 4", DIA 3/4"	542.311 STA 0,006"	542.511 ROF 0,006"
+1x Professional hand brush 9 x 3/4", 2 rows	182.401 STA 0,014"	182.421 ROF 0,014"
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