

THE BRUSH COMPANY

**LESSMANN**<sup>®</sup>  
DRAHTBÜRSTEN · WIRE BRUSHES



Catalogue 

**2012**

 QUALITY MADE IN GERMANY

# Here you can gain a lot!

We are looking forward to presenting our new catalogue to you – and we are very proud to be able to! One reason for this is that in our range of 15.000 high quality brushes with the most different applications in industry and handcraft, we have a lot of

innovations, which we developed by means of improvement of materials, components or constructions. When offering new articles, tailored to suit the market need, once again we can demonstrate our commendable customer focus.

On the first page, we would like to inform you about our company and our focus on high quality and world wide presence. After sales service, test results and material characteristics are further topics.

## Clearlier arranged and more user friendly

In relation to our wide range of standard and featured articles we structured our current catalogue clearly.

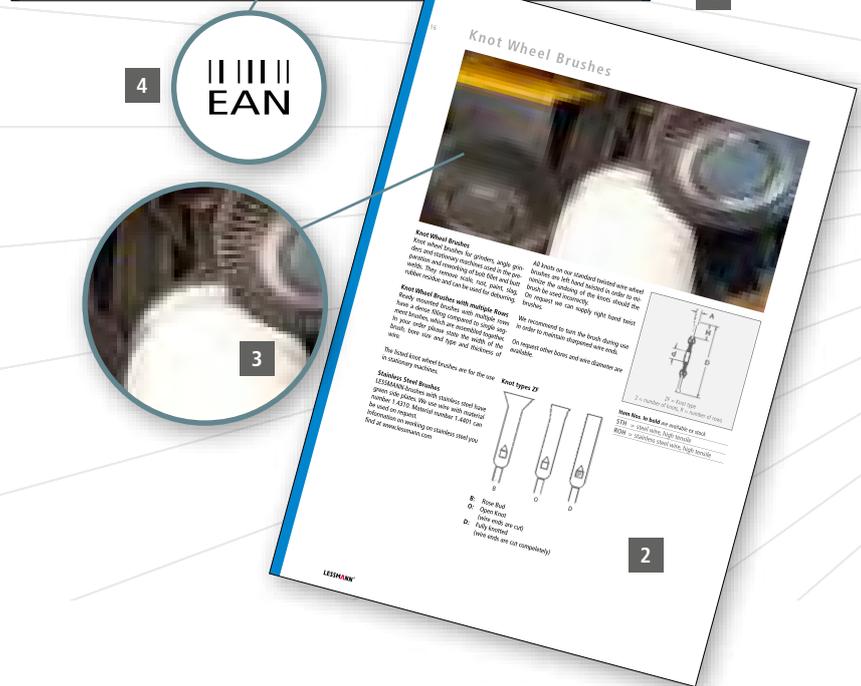
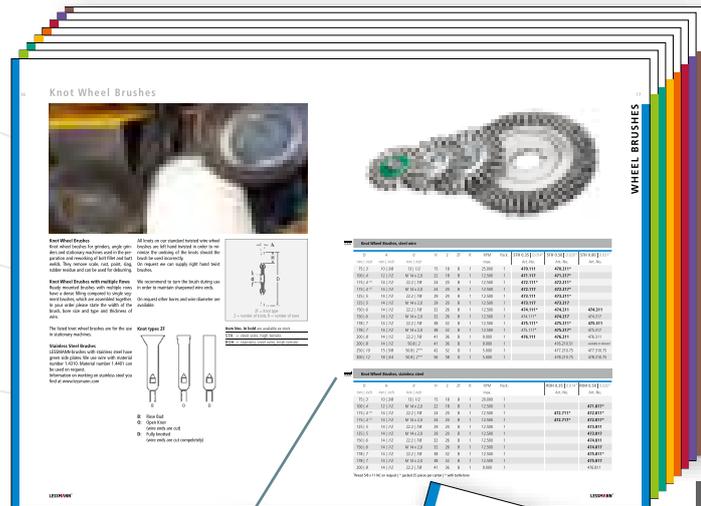
**1** First of all we separated our product lines with a colour coding, by bright and conspicuous colours at the page margin, so that you can find the desired product easily.

**2** At the beginning of each chapter we inform you on a separate page about the most important technical characteristics of the articles summarized here.

**3** Furthermore large and descriptive pictures of applications illustrate examples of the usage and capabilities of our brushes.

**4**  This symbol shows, which articles are marked with an EAN Code in particular.

All in all, we hope that we can simplify with our new catalogue your work and to guide you fast and precise to the desired product.



The product margin of our custom-made products you can find on pages 124 – 135. If you cannot find an article in the main part, look it up here. In the course of further technical developments, the right is reserved to change the construction and appearance of the brushes without prior notice. Indications of size are approximate and without obligation or recourse to third parties.

**Bold printed** item numbers are always on stock. The other items as well as special brushes will be produced for you with a short delivery time. Please also see our terms on page 137.

You will find a list of the article numbers on page 136 together with our sales conditions and the keyword index on page 137.

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Deburring Brushes, Roller Brushes, Deburring End Brushes

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Cup Brushes, Bevel Brushes, Brushes for grass trimmers

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# Quality, Fairness, Reliability

# LESSMANN®

To do the right things to the right time: the success of our company nowadays is based on contributions and entrepreneurial decisions in the past, ushering in developments, changing structures and founding innovative products. Every day till this day, we, as a family enterprise in the third generation, are facing new customer demands and market statues, react flexible and work efficient, to gear our company up for the future!

Quality, Fairness and Reliability are the most important values in the relation to our customers and partners, since Johann Lessmann and its children Edgar and Traudel founded a small brush factory in Oettingen. Ever since

we are manufacturing technical brushes for all segments of Industry and handcraft. More than 10.000 high quality articles are distributed in more than 50 countries. The standard model of the commercial transactions or the custom-made productions for special industrial applications prove its worth worldwide in the metal industry, pipeline construction and the wood-working, automobile and glass industry as well as in foundry, shipbuilding or heating.

Strict quality management, uncompromising customer orientation and decades of experience make up the foundation of our success. One of the most important strengths are our 200 qualified and motivated employees, who are willing to get into new challenges, react flexible and to bring in their knowledge und competence. That's how we work together to have a mutual success.



# THE BRUSH COMPANY



LESSMANN

## 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.

Every year we produce several millions of brushes in our headquarter in Oettingen and provide a very high volume of delivery within extremely short periods. 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 in-

spectations 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.



## Fit for the Globe

First-class quality products, expertise and a high flexibility are characteristics of LESSMANN, which well-known customers on the globe appreciate since many years – 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.

# Perfect Service for Perfect Presentation

LESSMANN knows what is important for traders: short delivery times, an advice service as necessary, no complaints if possible – the ideal situation for articles, which are the most profitable. LESSMANN fully meets these requirements by high quality products, trouble free logistics, committed service, and the ability to supply a complete range of products and attractive packaging, as well as displays.

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](http://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

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 in-

creasing your brush sales. The comprehensive and at the same time clear presentation makes the customer's choice much easier. Take advantage of our experience and use this idea that will lead to successful and increased sales.

# 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

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.**



## Quality is our feature!

Accredited with DIN EN ISO 9001



# 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 DIN 68 347 part 1 and 2 and EN 1083. 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 Eye Protection!



## 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.

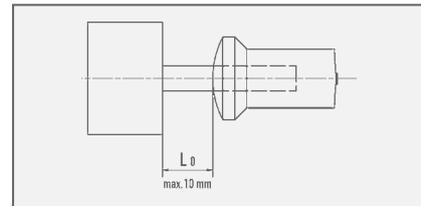
## Correct Pressure

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. The indicated curves inform you about the expected power. The power ratings refer to a brush with 30 mm width.

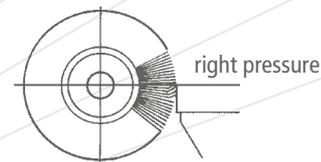
## Working with Shank Brushes

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

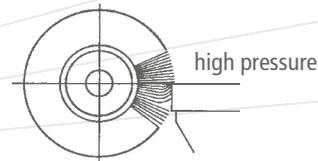
This is especially necessary when working with high RPM, for example on straight grinders and pneumatic tools. Generally it is best if the shank sticks out only 10 mm when the brush is mounted.



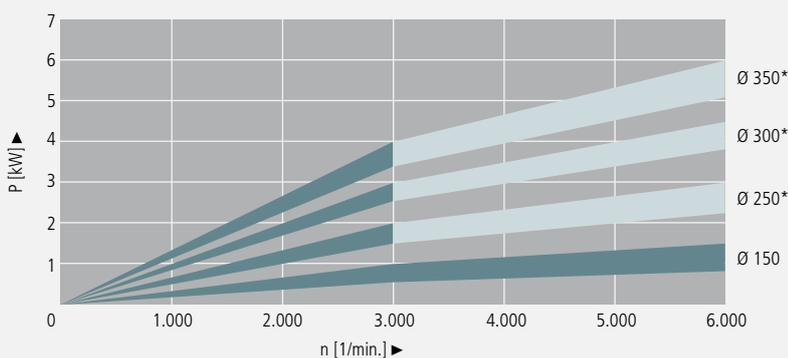
## Correct



## Incorrect



Power requirements for Wheel Brushes



The performance figures mentioned above are only guidelines.  
\*Power requirements for a brush width = 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 PRM = 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

### 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 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.

### 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.

### 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](http://www.lessmann.com)

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	16.2	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								

$$v = \frac{\text{Brush diameter (d)} \times \pi \times \text{Peripheral Speed (n)}}{1.000 \times 60}$$

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"	

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

Recommended Peripheral Speed for Brushing Application									
Application	Peripheral Speed in m/s								
	15	20	25	30	35	40	45	50	
Removing Burrs				25 - 35					
Cleaning Welds						35 - 45			
Removing Scale						35 - 45			
Polishing					30 - 40				
Working on Plastic	15 - 20								

## Recommended Peripheral Speed for Brushing with Abrasive Filaments

- Dry conditions: 16 - 18 m/s  
Wet conditions: 25 - 30 m/s

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

# Brush filling materials and the characteristics



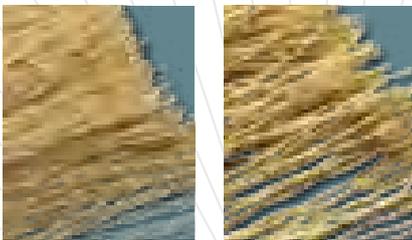
## **STA Steel Wire straight / crimped**

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 / RO8 Stainless Steel Wire**

must be used when working on stainless steel. Hereby we rely on quality wires with material number (WNR.) **1.4301 (AISI 304)** and **WNR. 1.4310 (AISI 301)**. This wire is resistant against corrosion and high temperatures. Furthermore we offer brushes with stainless steel wire **(RO4) WNR. 1.4401 (AISI 316)**. Brushes with stainless steel wire **(RO8) WNR. 1.4860** are extremely heat resistant. Please order separately.

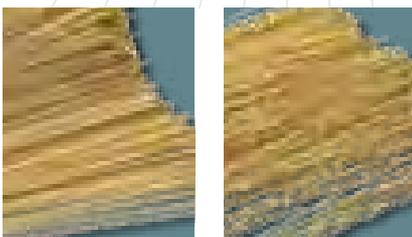
## **ROL Stainless Steel Wire with cord construction WNR. 1.4310**



## **ROH Stainless Steel Wire High Tensile**

This special high tensile wire marks out through a better tensile strength and fatigue limits. Beside a similar resistance against acids, bleaches, corrosion and high temperature like WNR. **1.4301** brushes with this wire convince through longer lifetime even in extreme applications. **WNR. 1.4310HLS (AISI 302)**.

Further information on brushing on stainless steel materials you find at [www.lessmann.com](http://www.lessmann.com)

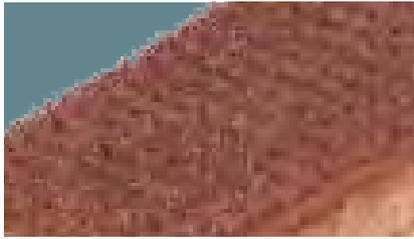


## **MES Brass Wire (CuZn)**

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 non sparking brushes are needed.



## **NSI** Nickel Silver (CuNi)

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



## **PP, PA, PE** 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)
- Polyamid (PA) - PA 6, PA 6.6, PA 6.12
- Polyethylen (PE)



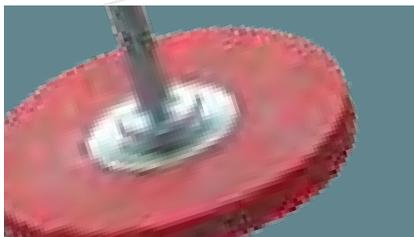
## **FIB** Fibre

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.

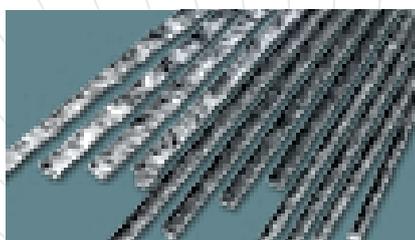
Normally 2 polyamide-types are used:

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 Körnungen in Siliziumcarbid

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 aluminium and stainless steel

**Our Standard:** K 80/1,4, K 180/1,0, K 240/0,75, K 320/0,60, K 800/0,25, K 800/0,50

#### 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

**Our Standard:** 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

#### Diamonds filaments(filament K60 to K1000):

- for aggressive applications
- used for materials with high material strength
- self-renewing through independent sharpening

By ordering our standard grit, also with small quantities you receive short delivery times!

The chemical components of nylon please find at [www.lessmann.com](http://www.lessmann.com)

### Physical Characteristics

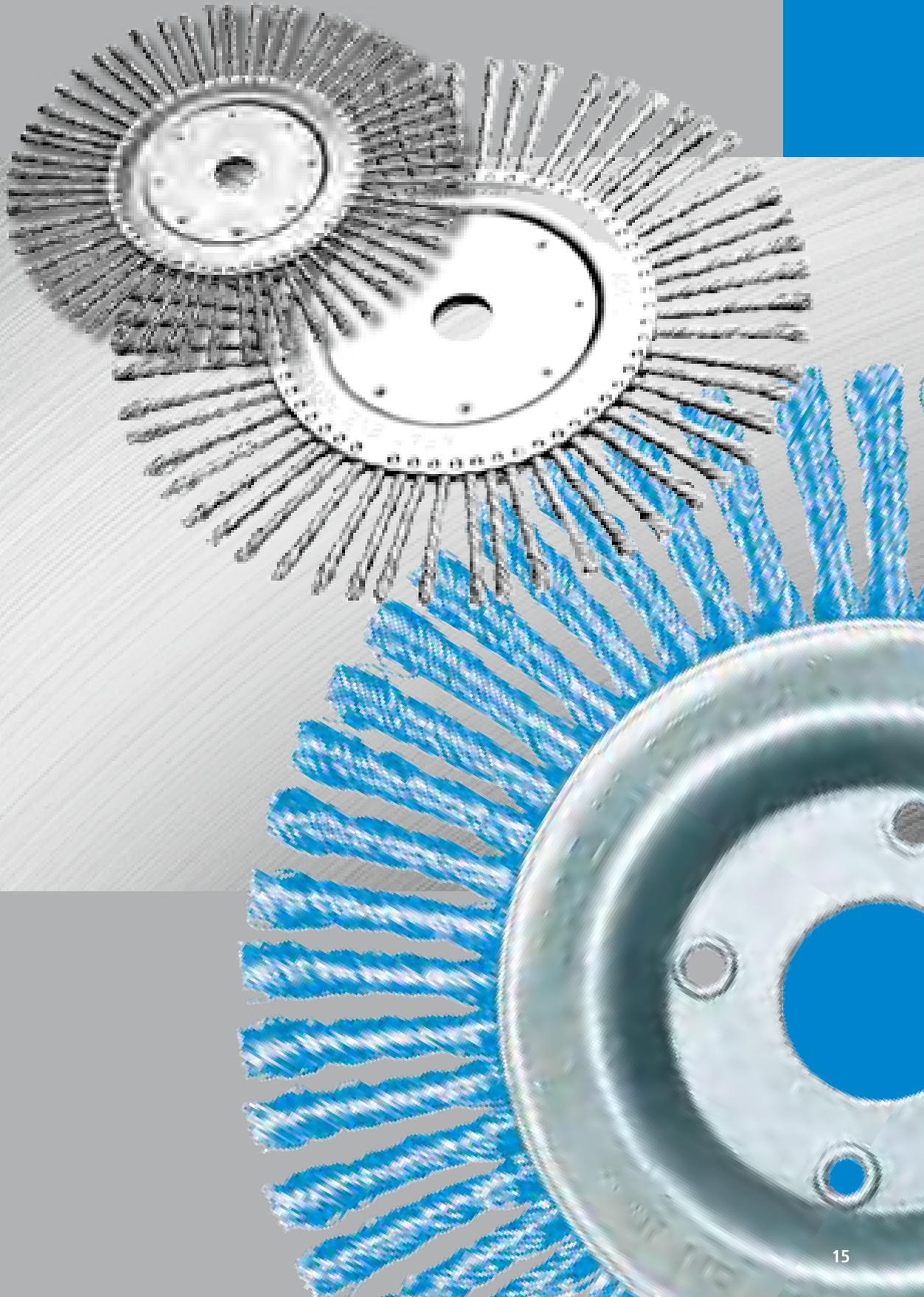
	STA	STH	ROF	ROH	RO4	RO8	STM / STL	MES
WNr.			1.4301	1.4310	1.4401	1.4860		CuZn37
AISI			304	301	316			
Tensile Strength in N/mm <sup>2</sup> *	1,800 - 2,100	2,300 - 2,500	1,900 - 2,200	2,000 - 2,400	1,600 - 1,800	1,600 - 1,800	2,300 - 2,600	900 - 1,200
Specific Gravity in g/cm <sup>3</sup>	7,85	7,85	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<sup>®</sup>**  
DRAHTBÜRSTEN · WIRE BRUSHES

# WHEEL BRUSHES



# 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.

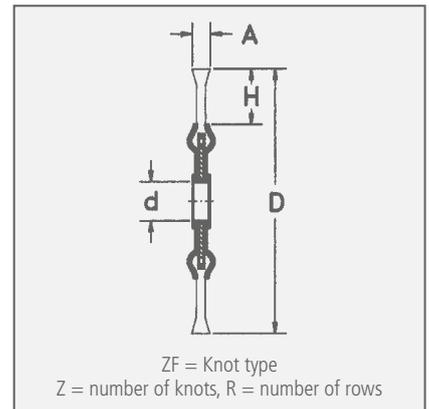
All knots on our standard twisted wire wheel brushes are left hand twisted in order to minimize the undoing of the knots should the brush be used incorrectly. On request we can supply right hand twist brushes.

## 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.

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

On request other bores and wire diameter are available.



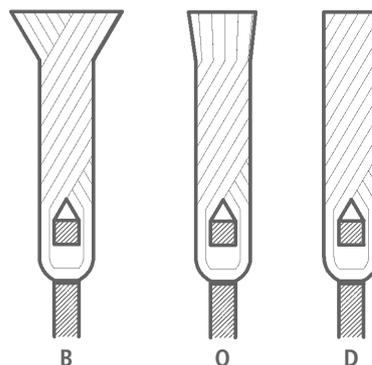
The listed knot wheel brushes are for the use in stationary machines.

## Knot types ZF

## 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](http://www.lessmann.com)



- B:** Rose Bud
- O:** Open Knot  
(wire ends are cut)
- D:** Fully knotted  
(wire ends are cut completely)

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

**STH** = steel wire, high tensile

**ROH** = stainless steel wire, high tensile



**Knot Wheel Brushes, Steel Wire**

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

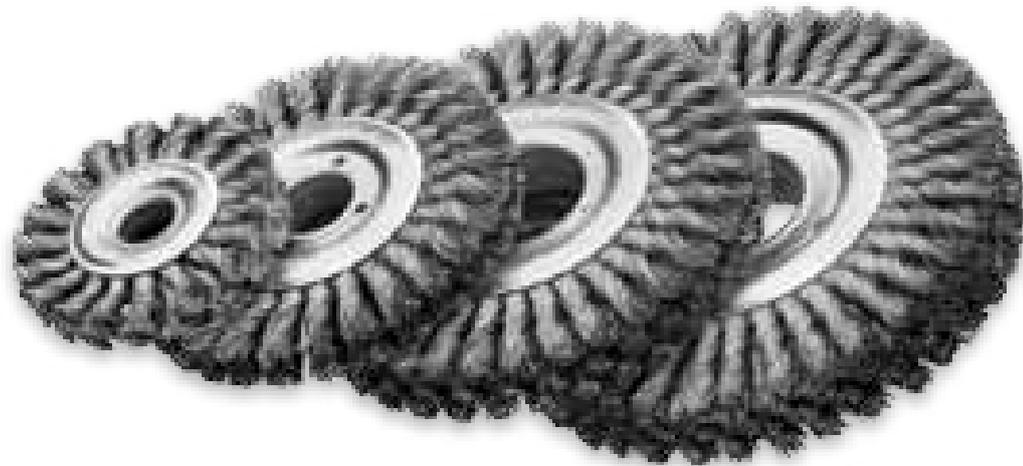


**Knot Wheel Brushes, Stainless Steel Wire**

D	A	d	H	Z	ZF	R	RPM	Pack.	ROH 0.35   0.014"	ROH 0.50   0.020"
mm   inch	mm   inch	mm   inch					max.		Art.-No.	Art.-No.
75   3	10   3/8	13   1/2	15	18	B	1	20,000	1		
100   4	12   1/2	M 14 x 2,0	22	18	B	1	12,500	1		<b>471.817*</b>
115   4 1/2	14   1/2	22.2   7/8	24	20	B	1	12,500	1	<b>472.711*</b>	<b>472.811*</b>
115   4 1/2	14   1/2	M 14 x 2,0	24	20	B	1	12,500	1	<b>472.717*</b>	<b>472.817*</b>
125   5	14   1/2	22.2   7/8	29	20	B	1	12,500	1		<b>473.811</b>
125   5	14   1/2	M 14 x 2,0	29	20	B	1	12,500	1		<b>473.817</b>
150   6	14   1/2	22.2   7/8	32	26	B	1	12,500	1		<b>474.811</b>
150   6	14   1/2	M 14 x 2,0	32	26	B	1	12,500	1		<b>474.817</b>
178   7	14   1/2	22.2   7/8	38	32	B	1	12,500	1		<b>475.811*</b>
178   7	14   1/2	M 14 x 2,0	38	32	B	1	12,500	1		<b>475.817</b>
200   8	14   1/2	22.2   7/8	41	36	B	1	9,000	1		476.811

Thread 5/8 x 11 NC on request | \* packed 25 pieces per carton | \*\* with turtle bore

# Knot Wheel Brushes, multiple rows

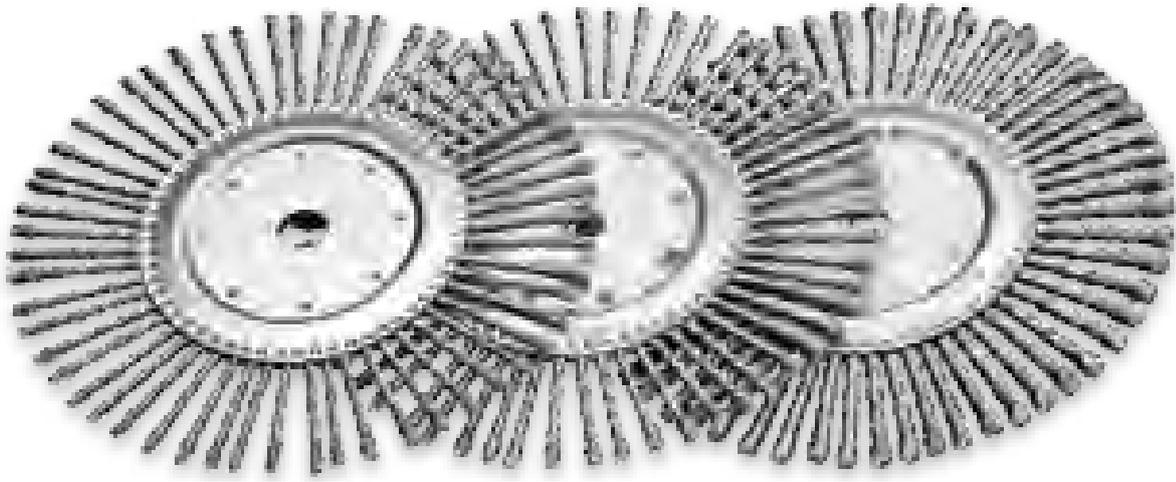


IIII  
EAN

## Knot Wheel Brushes, multiple rows

D	A	EB	R = d Stand	H	Z x rhg	d min	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	21	18 x 2	10	12,500	1	471.12K	471.22K	471.72K	471.82K
100   4	30-32	18	20   3/4	21	18 x 3	10	12,500	1	471.13K	471.23K	471.73K	471.83K
100   4	34-36	25	20   3/4	21	18 x 4	10	12,500	1	471.14K	471.24K	471.74K	471.84K
115   4 1/2	22-24	18	30   1 1/4	23.5	22 x 2	10	12,500	1	472.12K	472.22K	472.72K	472.82K
115   4 1/2	30-32	25	30   1 1/4	23.5	22 x 3	10	12,500	1	472.13K	472.23K	472.73K	472.83K
115   4 1/2	34-36	30	30   1 1/4	23.5	22 x 4	10	12,500	1	472.14K	472.24K	472.74K	472.84K
125   5	22-24	18	30   1 1/4	28.5	24 x 2	13	12,500	1	473.12K	473.22K	473.72K	473.82K
125   5	30-32	25	30   1 1/4	28.5	24 x 3	13	12,500	1	473.13K	473.23K	473.73K	473.83K
125   5	34-36	30	30   1 1/4	28.5	24 x 4	13	12,500	1	473.14K	473.24K	473.74K	473.84K
150   6	22-24	18	30   1 1/4	31.5	28 x 2	13	12,500	1	474.12K	474.22K	474.72K	474.82K
150   6	30-32	25	30   1 1/4	31.5	28 x 3	13	12,500	1	474.13K	474.23K	474.73K	474.83K
150   6	36-38	30	30   1 1/4	31.5	28 x 4	13	12,500	1	474.14K	474.24K	474.74K	474.84K
178   7	22-24	18	50   2	37.5	34 x 2	16	12,500	1	475.12K	475.22K	475.72K	475.82K
178   7	30-32	25	50   2	37.5	34 x 3	16	12,500	1	475.13K	475.23K	475.73K	475.83K
178   7	36-38	30	50   2	37.5	34 x 4	16	12,500	1	475.14K	475.24K	475.74K	475.84K
200   8	22-24	18	50   2	41	38 x 2	16	9,000	1	476.12K	476.22K	476.72K	476.82K
200   8	30-32	25	50   2	41	38 x 3	16	9,000	1	476.13K	476.23K	476.73K	476.83K
200   8	36-38	30	50   2	41	38 x 4	16	9,000	1	476.14K	476.24K	476.74K	476.84K
250   10	24-26	18	100   4	42	52 x 2	20	5,000	1	477.12K	477.22K	477.72K	477.82K
250   10	32-34	26	100   4	42	52 x 3	20	5,000	1	477.13K	477.23K	477.73K	477.83K
250   10	44-46	34	100   4	42	52 x 4	20	5,000	1	477.14K	477.24K	477.74K	477.84K
300   12	24-26	18	100   4	56	58 x 2	30	5,000	1	478.12K	478.22K	478.72K	478.82K
300   12	34-36	26	100   4	56	58 x 3	30	5,000	1	478.13K	478.23K	478.73K	478.83K
300   12	48-50	34	100   4	56	58 x 4	30	5,000	1	478.14K	478.24K	478.74K	478.84K

# Joint Cleaning Brushes

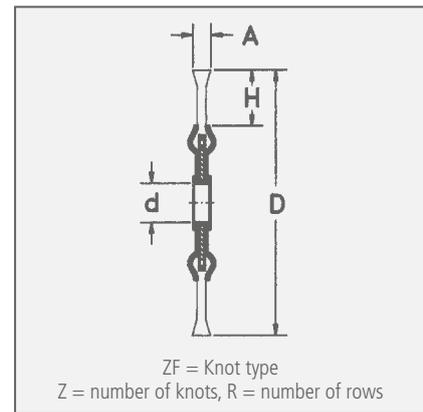


Joint Cleaning Brushes										STA 0.50   0.020"	STH 0.80   0.031"
D	A	d	H	Z	ZF	R	RPM	Pack.		Art.-No.	Art.-No.
mm   inch	mm   inch	mm   inch					max.				
300   12	6   1/4	20   3/4	67	56	D	1	5,000	5		<b>478.200.06</b>	478.300.06
300   12	8   5/16	20   3/4	67	56	D	1	5,000	5		<b>478.200.08</b>	<b>478.300.08</b>
300   12	10   3/8	20   3/4	67	56	D	1	5,000	5		<b>478.200.10</b>	478.300.10
300   12	6   1/4	25.4   1	67	56	D	1	5,000	5		478.225.06	478.325.06
300   12	8   5/16	25.4   1	67	56	D	1	5,000	5		478.225.08	478.325.08
300   12	10   3/8	25.4   1	67	56	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.

When treating concrete and mastic asphalt joints, mainly knots with a tough wire without rose bud are used, because those knots show superb resistance.



Item Nos. in bold are available ex stock

STA = steel wire

STH = steel wire, high tensile

# Pipeline Brushes



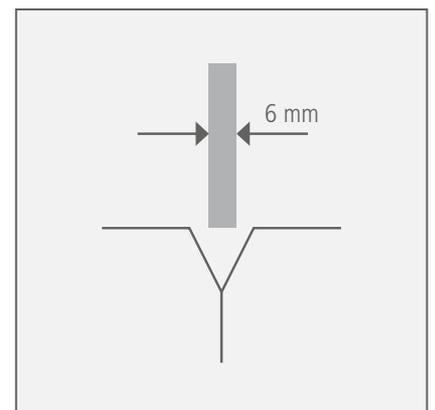
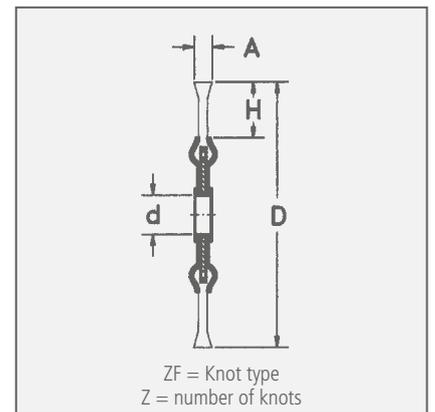
## Pipeline-Brushes

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

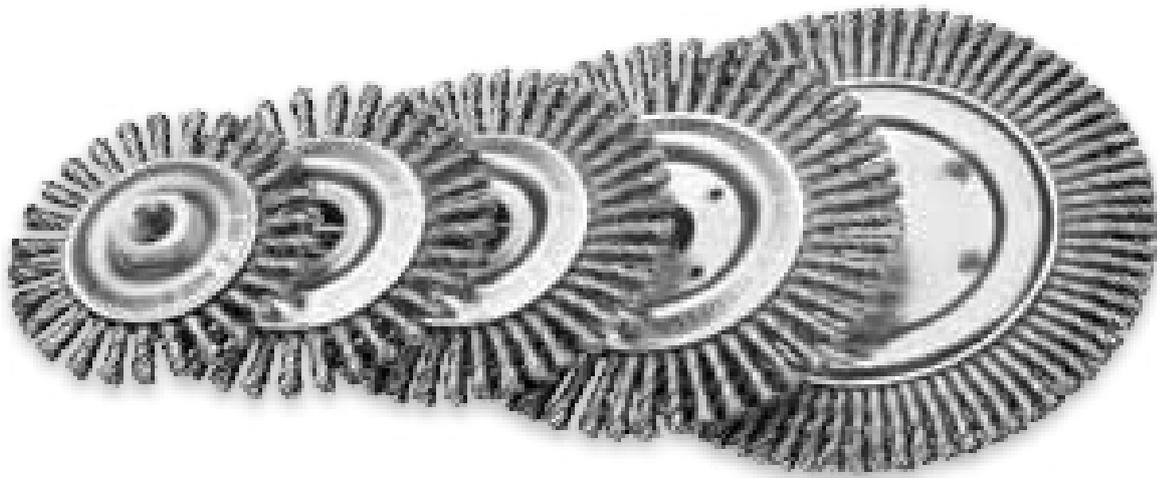
## Stainless Steel Brushes

LESSMANN-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](http://www.lessmann.com)



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

**STH** = steel wire, high tensile



Pipeline-Brushes, Steel Wire							Bo. 22.2   7/8"	M 14 x 2.0	W 5/8 x 11 NC
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   2	6   1/4	19	28	D	20,000	5	available on demand	<b>471.207.28</b>	471.208.28
115   4 1/2	6   1/4	22	32	D	15,000	5/10	<b>472.201.32</b>	472.207.32	472.208.32
115   4 1/2	6   1/4	22	39	D	15,000	10	<b>472.201.39</b>	available on demand	available on demand
125   5	6   1/4	26	40	D	12,500	5/10	<b>473.201.40</b>	<b>473.207.40</b>	473.208.40
150   6	6   1/4	30	48	D	12,500	5/10	<b>474.201.48</b>	474.207.48	474.208.48
178   7	6   1/4	36	48	D	12,500	5/10	<b>475.201.48</b>	475.207.48	475.208.48
178   7	6   1/4	30	56	D	12,500	5/10	<b>475.201.56</b>	475.207.56	475.208.56
178   7	6   1/4	30	76	D	12,500	5/10	<b>475.201.76</b>	<b>475.207.76</b>	475.208.76

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

# Pipeline-Brushes



Pipeline-Brushes, Stainless Steel							Bo. 22.2   7/8"	M 14 x 2.0	W 5/8 x 11 NC
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   2	6   1/4	19	28	D	20,000	5	available on demand	<b>471.807.28</b>	<b>471.808.28</b>
115   4 1/2	6   1/4	22	32	D	15,000	5/10	<b>472.801.32</b>	472.807.32	472.808.32
115   4 1/2	6   1/4	22	39	D	15,000	10	<b>472.801.39</b>	available on demand	available on demand
125   5	6   1/4	26	40	D	12,500	5/10	<b>473.801.40</b>	473.807.40	473.808.40
150   6	6   1/4	30	48	D	12,500	5/10	<b>474.801.48</b>	474.807.48	474.808.48
178   7	6   1/4	36	48	D	12,500	5/10	<b>475.801.48</b>	475.807.48	475.808.48
178   7	6   1/4	30	56	D	12,500	5/10	<b>475.801.56</b>	475.807.56	475.808.56
178   7	6   1/4	30	76	D	12,500	5/10	<b>475.801.76</b>	475.807.76	475.808.76

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



**1 Pipeline Brushes, rose bud**

D	A	d	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, left-right knotted**

D	A	d	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, encapsulated**

D	A	d	H	RPM	Pack.	STH 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	10	300.771.KG
178   7	6   1/4	22.2   7/8	43	9,000	10	351.771.KG

**Pipeline 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.

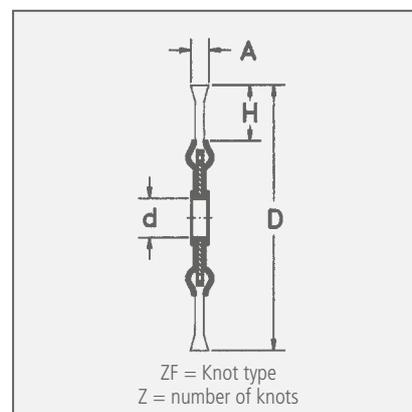
**Pipeline Brushes, left-right knotted**

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.

**Pipeline Brushes, encapsulated**

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



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

**STH** = steel wire, high tensile

**STL** = cord wire, crimped

**ROH** = stainless steel wire, high tensile

# 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.

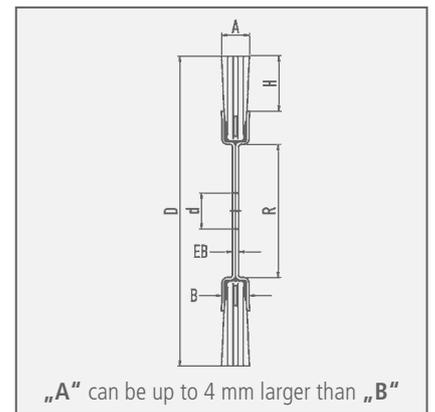
## Stainless Steel Brushes

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

Information on working on stainless steel you find at [www.lessmann.com](http://www.lessmann.com)



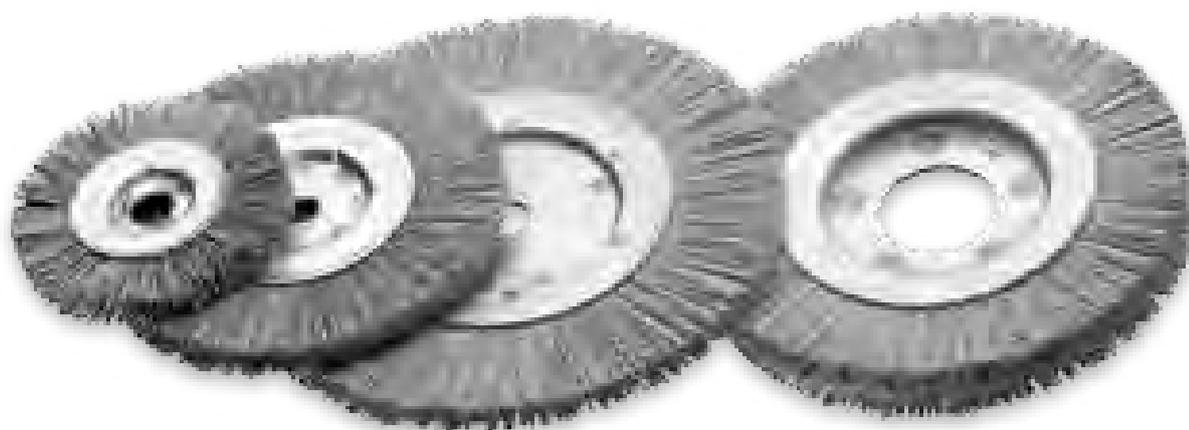
Laser imprint of brushes



For further information on abrasive filaments please see page 13.

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

**SIC** = silicon carbide bristles



1

2

**1 Single Segment Wheel Brushes, Silicon Carbide Bristles**

D mm   inch	R	B	H	d Stand. mm   inch	d min./max.	RPM max.	Pack.	SIC 120/1.1 Art.-No.	SIC 120/0.6 Art.-No.	SIC 180/1.0 Art.-No.	SIC 320/0.6 Art.-No.
80   3 1/4	26	12	17	12   1/2	12-16	12,000	5	available on demand	310.841	310.851	310.871
100   2	30	12	21	12   1/2	12-20	8,000	5	available on demand	<b>320.841</b>	<b>320.851</b>	<b>320.871</b>
125   5	30	12	33	12   1/2	12-20	8,000	5	available on demand	<b>330.841</b>	330.851	330.871
150   6	50	14	32	12   1/2	12-30	6,000	5	340.831	<b>340.841</b>	<b>340.851</b>	<b>340.871</b>
178   7	50	14	46	12   1/2	12-30	6,000	5	350.831	<b>350.841</b>	350.851	350.871
178   7	60	16	43	12   1/2	12-40	6,000	5	available on demand	351.841	351.851	351.871
200   8	60	16	54	12   1/2	12-40	6,000	5	361.831	361.841	361.851	361.871
200   8	80	14	43	16   5/8	16-60	6,000	5	available on demand	362.841	<b>362.851</b>	362.871
200   8	100	16	33	16   5/8	16-80	6,000	5	360.831	360.841	<b>360.851</b>	<b>360.871</b>
250   10	100	16	58	16   5/8	16-80	6,000	5	available on demand	370.841	<b>370.851</b>	370.871
250   10	120	16	45	20   3/4	20-100	3,600	5	available on demand	371.841	371.851	371.871
250   10	150	19	30	25.4   1	25-130	3,600	5	372.831	372.841	372.851	372.871
300   12	120	16	70	20   3/4	20-100	3,600	5	available on demand	380.841	380.851	380.871
300   12	150	19	35	25.4   1	25-130	3,600	5	381.831	381.841	381.851	381.871

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

D mm   inch	R	B	H	d Stand. mm   inch	d min./max.	RPM max.	Pack.	SIC 120/0.6 Art.-No.	SIC 180/1.0 Art.-No.	SIC 320/0.6 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

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 5,00 / 11 - 25 pcs. EUR 3,00  
 R > 60 EB 3.0 mm / R < 60 EB 2.4 mm

# Single Segment Wheel Brushes



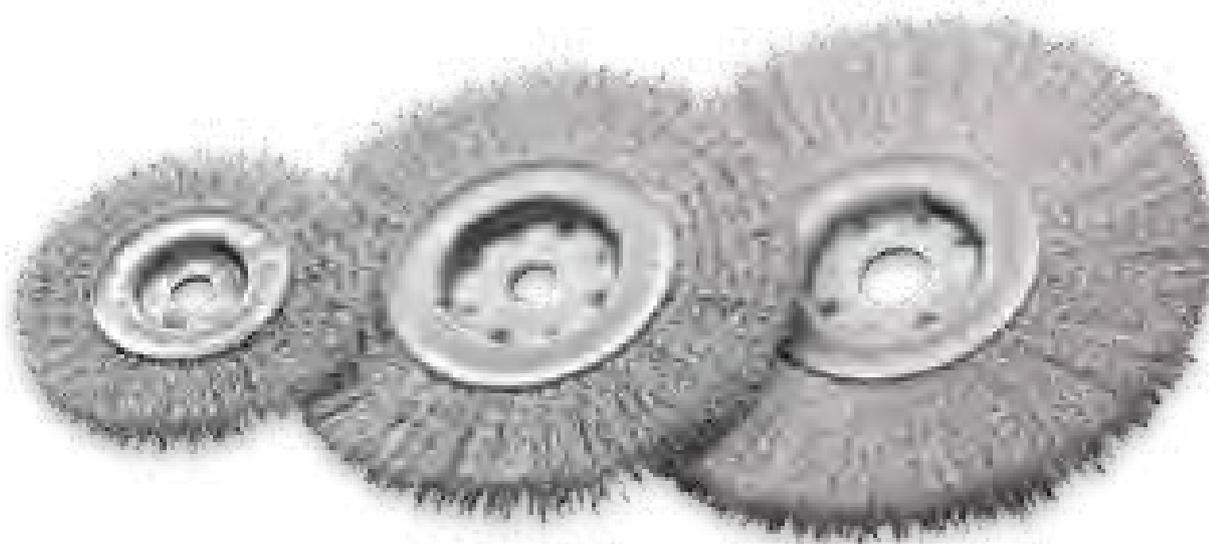
## Single Segment Wheel Brushes, Steel Wire

D	R	B	H	d Stand.	d	RPM	Pack.	1			2
								STA 0.20   0.008"	STA 0.30   0.012"	STL 0.35   0.014"	
mm   inch				mm   inch	min./max.	max.		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	<b>320.161</b>	320.707	
125   5	30	12	33	12   1/2	12-20	8,000	5	330.141	330.161	available on demand	
150   6	50	14	32	12   1/2	12-30	6,000	5	340.141	<b>340.161</b>	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	43	12   1/2	12-40	6,000	5	351.141	351.161	351.707	
200   8	60	16	54	12   1/2	12-40	6,000	5	361.141	361.161	available on demand	
200   8	80	14	43	16   5/8	16-60	6,000	5	362.141	362.161	362.707	
200   8	100	16	33	16   5/8	16-80	6,000	5	360.141	360.161	360.707	
250   10	100	16	58	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	

## Single Segment Wheel Brushes, Steel Wire, 2 rows

D	R	B	H	d Stand.	d	RPM	Pack.	STH 0.35   0.014"
mm   inch				mm   inch	min./max.	max.		Art.-No.
200   8	80	27	43	16   5/8	16-60	6,000	5	362.272
250   10	100	27	58	16   5/8	16-80	6,000	5	370.272

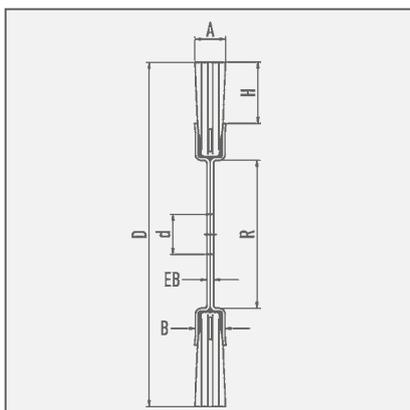
Bore must be indicated in the order. Standard bore delivery ex stock, short termed. Other bores are available with extra charge: 1 - 10 pcs. EUR 5,00 / 11 - 25 pcs. EUR 3,00  
R > 60 EB 3.0 mm / R < 60 EB 2.4 mm



### Single Segment Wheel Brushes, Stainless Steel Wire

D mm   inch	R	B	H	d Stand. mm   inch	d 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	<b>320.341</b>	<b>320.361</b>
125   5	30	12	33	12   1/2	12-20	8,000	5	330.341	330.361
150   6	50	14	32	12   1/2	12-30	6,000	5	<b>340.341</b>	<b>340.361</b>
178   7	50	14	46	12   1/2	12-30	6,000	5	350.341	<b>350.361</b>
178   7	60	16	43	12   1/2	12-40	6,000	5	351.341	351.361
200   8	60	16	54	12   1/2	12-40	6,000	5	361.341	361.361
200   8	80	14	43	16   5/8	16-60	6,000	5	362.341	362.361
200   8	100	16	33	16   5/8	16-80	6,000	5	360.341	360.361
250   10	100	16	58	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

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 5,00 / 11 - 25 pcs. EUR 3,00  
R > 60 EB 3.0 mm / R < 60 EB 2.4 mm



For further information on abrasive filaments please see page 13.

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

**STA** = steel wire

**STL** = cord wire, crimped

**ROF** = stainless steel wire

**SIC** = silicon carbide bristles

# 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 - 10.

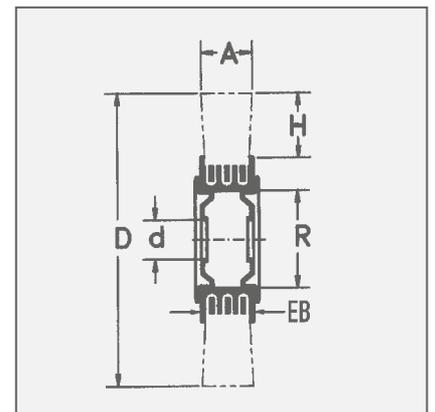
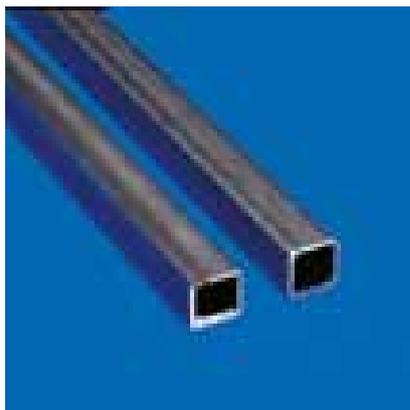
The bore must be indicated in the order. Without any instruction delivery will be with standard bore "d Stand".

## Stainless Steel Brushes

Information on working on stainless steel you find at [www.lessmann.com](http://www.lessmann.com)

## 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.



## 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.

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

STA = steel wire

STM = brass coated steel



1

2



Wheel Brushes, Steel Wire

D mm   inch	A	EB	R	H	d Stand. mm   inch	d min./max.	RPM max.	Pack.	1			2
									STA 0.15   0.006"	STA 0.20   0.008"	STA 0.30 / 0.35* 0.012" / 0.014"	STM 0.35   0.014"
									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	<b>312.142</b>	<b>312.162</b>	
80   3 1/4	25-27	24	20	20	10   3/8	10-20	10,000	1	available on demand	312.143	<b>312.163</b>	
100   2	20-22	19	30	23	Set 1	10-30	8,000	1	323.132	<b>323.142</b>	<b>323.162</b>	
100   2	28-30	25	30	23	Set 1	10-30	8,000	1	323.133	<b>323.143</b>	<b>323.163</b>	
125   5	21-23	20	40	27	Set 2	13-40	6,000	1	334.132	<b>334.142</b>	<b>334.162</b>	
125   5	29-31	26	40	27	Set 2	13-40	6,000	1	available on demand	334.143	<b>334.163</b>	
150   6	22-24	20	40	33	Set 2	13-40	6,000	1	344.132	<b>344.142</b>	<b>344.172*</b>	
150   6	30-34	26	40	33	Set 2	13-40	6,000	1	344.133	<b>344.143</b>	<b>344.173*</b>	
150   6	23-25	22	50	33	Set 3	13-50	6,000	1	345.132	<b>345.142</b>	<b>345.162</b>	345.762
150   6	30-34	29	50	33	Set 3	13-50	6,000	1	345.133	<b>345.143</b>	<b>345.163</b>	
178   7	23-26	22	50	37	Set 3	16-50	6,000	1	available on demand	<b>355.142</b>	<b>355.162</b>	355.762
178   7	32-35	29	50	37	Set 3	16-50	6,000	1	355.133	<b>355.143</b>	<b>355.163</b>	
200   8	24-27	22	50	48	Set 3	16-50	6,000	1	365.132	<b>365.142</b>	<b>365.172*</b>	
200   8	35-38	29	50	48	Set 3	16-50	6,000	1	365.133	<b>365.143</b>	<b>365.173*</b>	
200   8	28-32	25	80	38	Set 4+1	16-80	4,500	1	available on demand	<b>366.142</b>	<b>366.162</b>	366.762
200   8	40-45	33	80	38	Set 4+1	16-80	4,500	1	available on demand	366.143	<b>366.163</b>	
250   10	30-35	25	80	50	Set 4+1	20-80	3,600	1	available on demand	<b>376.142</b>	<b>376.162</b>	
250   10	42-45	33	80	50	Set 4+1	20-80	3,600	1	available on demand	available on demand	<b>376.163</b>	
250   10	32-37	26	100	50	Set 4+1	20-100	3,600	1	available on demand	<b>377.142</b>	<b>377.162</b>	377.762
250   10	43-48	35	100	50	Set 4+1	20-100	3,600	1	available on demand	377.143	<b>377.163</b>	
250   10	55-60	45	100	50	Set 4+1	20-100	3,600	1	available on demand	377.144	<b>377.164</b>	
300   12	35-40	26	100	60	Set 4	30-100	3,000	1	available on demand	<b>387.142</b>	<b>387.162</b>	
300   12	47-52	35	100	60	Set 4	30-100	3,000	1	available on demand	387.143	<b>387.163</b>	
350   14	35-40	26	100	85	Set 5	32-100	2,400	1	available on demand	397.142	<b>397.172*</b>	
350   14	55-60	35	100	85	Set 5	32-100	2,400	1	available on demand	397.143	<b>397.173*</b>	

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 5.00 / 11 - 25 pcs. EUR 3.00

# Wheel Brushes



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## Wheel Brushes, Stainless Steel

D	A	EB	R	H	d Stand.	d	RPM	Pack.	ROF 0.20   0.008"	ROF 0.30   0.012"
mm   inch					mm   inch	min./max.	max.		Art.-No.	Art.-No.
80   3 1/4	18-20	18	20	20	10   3/8	10-20	10,000	1	312.342	<b>312.362</b>
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	<b>323.362</b>
100   4	28-30	25	30	23	Set 1	10-30	8,000	1	323.343	<b>323.363</b>
125   5	21-23	20	40	27	Set 2	13-40	6,000	1	334.342	<b>334.362</b>
125   5	29-31	26	40	27	Set 2	13-40	6,000	1	334.343	<b>334.363</b>
150   6	22-24	20	40	33	Set 2	13-40	6,000	1	344.342	<b>344.362</b>
150   6	30-34	26	40	33	Set 2	13-40	6,000	1	available on demand	<b>344.363</b>
150   6	23-25	22	50	33	Set 3	13-50	6,000	1	345.342	<b>345.362</b>
150   6	30-34	29	50	33	Set 3	13-50	6,000	1	345.343	<b>345.363</b>
178   7	23-26	22	50	37	Set 3	16-50	6,000	1	355.342	<b>355.362</b>
178   7	32-35	29	50	37	Set 3	16-50	6,000	1	available on demand	<b>355.363</b>
200   8	24-27	22	50	48	Set 3	16-50	6,000	1	365.342	<b>365.362</b>
200   8	35-38	29	50	48	Set 3	16-50	6,000	1	365.343	<b>365.363</b>
200   8	28-32	25	80	38	Set 4+1	16-80	4,500	1	366.342	<b>366.362</b>
200   8	40-45	33	80	38	Set 4+1	16-80	4,500	1	available on demand	<b>366.363</b>
250   10	30-35	25	80	50	Set 4+1	20-80	3,600	1	376.342	<b>376.362</b>
250   10	42-45	33	80	50	Set 4+1	20-80	3,600	1	376.343	<b>376.363</b>
250   10	32-37	26	100	50	Set 4+1	20-100	3,600	1	377.342	<b>377.362</b>
250   10	43-48	35	100	50	Set 4+1	20-100	3,600	1	377.343	<b>377.363</b>
300   12	35-40	26	100	60	Set 4	30-100	3,000	1	387.342	<b>387.362</b>
300   12	47-52	35	100	60	Set 4	30-100	3,000	1	387.343	387.363
350   14	35-40	26	100	85	Set 5	32-100	2,400	1	available on demand	397.362

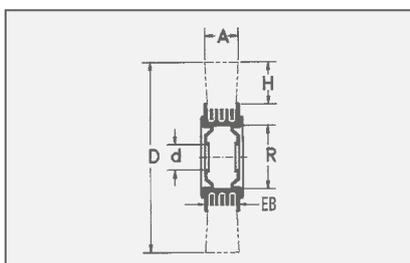
Bore must be indicated in the order. Standard bore delivery ex stock, short term. Other bores are available with extra charge: 1 - 10 pcs. EUR 5.00 / 11 - 25 pcs. EUR 3.00



## Wheel Brushes, Brass Wire

D mm   inch	A	EB	R	H	d Stand. mm   inch	d min./max.	RPM max.	Pack.	MES 0.20   0.008"	MES 0.30   0.012"
									Art.-No.	Art.-No.
80   3 1/4	18-20	18	20	20	10   3/8	10-20	10,000	1	<b>312.542</b>	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	<b>323.542</b>	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	<b>334.542</b>	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	<b>344.562</b>
150   6	30-32	26	40	33	Set 2	13-40	6,000	1	344.543	<b>344.563</b>
150   6	23-25	22	50	33	Set 3	13-50	6,000	1	<b>345.542</b>	<b>345.562</b>
150   6	30-34	29	50	33	Set 3	13-50	6,000	1	345.543	<b>345.563</b>
178   7	23-26	22	50	37	Set 3	16-50	6,000	1	355.542	<b>355.562</b>
178   7	32-35	29	50	37	Set 3	16-50	6,000	1	355.543	<b>355.563</b>
200   8	24-27	22	50	48	Set 3	16-50	6,000	1	365.542	<b>365.562</b>
200   8	35-38	29	50	48	Set 3	16-50	6,000	1	365.543	<b>365.563</b>
200   8	28-32	25	80	38	Set 4+1	16-80	4,500	1	<b>366.542</b>	<b>366.562</b>
200   8	40-45	33	80	38	Set 4+1	16-80	4,500	1	366.543	366.563
250   10	30-35	25	80	50	Set 4+1	20-80	3,600	1	376.542	376.562
250   10	42-45	33	80	50	Set 4+1	20-80	3,600	1	available on demand	available on demand
250   10	32-37	26	100	50	Set 4+1	20-100	3,600	1	available on demand	<b>377.562</b>
250   10	43-48	35	100	50	Set 4+1	20-100	3,600	1	available on demand	available on demand
300   12	35-40	26	100	60	Set 4	30-100	3,000	1	available on demand	<b>387.562</b>
300   12	47-52	35	100	60	Set 4	30-100	3,000	1	available on demand	available on demand
350   14	35-40	26	100	85	Set 5	32-100	2,400	1	available on demand	397.562

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 5.00 / 11 - 25 pcs. EUR 3.00



Item Nos. in bold are available ex stock

ROF = stainless steel wire

MES = brass wire

# Special Models



## Band Saw Brushes

These brushes clean saw blades of band saws while the saw is running.

## Stripping Brushes

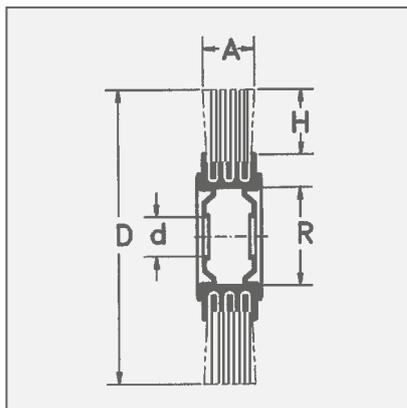
For the removal of laquer and other insulations from cables and electric equipment. The polished surface and the concentric running enable soft removal of laquer from the wires.

## Satin Brushes

Satin brushes are the perfect tool for satining, polishing, abrading/smoothing, matting and structuring.

## Stainless Steel Brushes

Information on working on stainless steel you find at [www.lessmann.com](http://www.lessmann.com)



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

**STA** = steel wire

**STM** = brass coated steel

**STL** = cord wire, crimped

**ROF** = stainless steel wire

**PA** = polyamide

**SIC** = silicon carbide bristles



### Band Saw Brushes

	Filling	D mm   inch	A mm   inch	H	d mm   inch	RPM max.	Pack.	Art.-No.
1	PA 0.50   0.020"	85   3 1/4	10   3/8	14	12   1/2	8,000	10	300.091
	PA 0.50   0.020"	100   4	13   1/2	21	12   1/2	8,000	10	<b>320.001</b>
	PA 0.50   0.020"	100   4	13   1/2	21	13   1/2	8,000	10	<b>320.004</b>
	PA 1.0   0.040"	125   5	13   1/2	33	13   1/2	8,000	5	<b>330.001</b>
2	STA 0.20   0.008"	80   3 1/4	12   1/2	20	10   3/8	15,000	10	312.141
	STA 0.35   0.014"	100   4	13   1/2	21	12   1/2	4,500	10	<b>320.161.12</b>
	STM 0.20   0.008"	60   2 3/8	10-12   3/8	19	6   1/4	15,000	10	300.742
	STM 0.30   0.012"	80   3 1/4	15   5/8	27	8   5/16	15,000	10	<b>311.762</b>
	STL 4 x 0.25   0.010"	80   3 1/4	18-20   3/4	27	6   1/4	15,000	10	<b>310.702.06</b>

### 3 Stripping Brushes

D	A	d	STA 0.10   0.004"	STA 0.15   0.006"	STA 0.20   0.008"	STA 0.25   0.010"	STA 0.30   0.012"
mm   inch	mm   inch	mm   inch	Art.-No.	Art.-No.	Art.-No.	Art.-No.	Art.-No.
30   1 1/4	20   3/4	6   1/4	301.213.10	301.213.15	301.213.20		301.213.30
35   1 1/2	20   3/4	6   1/4		301.214.15	301.214.20	available on demand	301.214.30
40   1 3/8	25   1	10   3/8		301.225.15	301.225.20	301.225.25	301.225.30
80   3	30   1 1/4	16   5/8			301.236.20	available on demand	301.236.30

All articles on request, please mention quantities!

### 4 Satin Brushes

D	A	H	d	RPM	Pack.	ROF 0.20   0.008"	SIC 80/1.2	STL 0.25   0.010"
mm   inch	mm   inch		mm   inch	max.		Art.-No.	Art.-No.	Art.-No.
100   4	70   2 3/4	23	19.2   3/4	8,000	1	<b>323.348.19</b>	<b>323.828.19</b>	<b>323.704.19</b>
100   4	100   4	23	19.2   3/4	8,000	1	323.305.19	323.805.19	323.705.19

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 5.00 / 11 - 25 pcs. EUR 3.00

# 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.

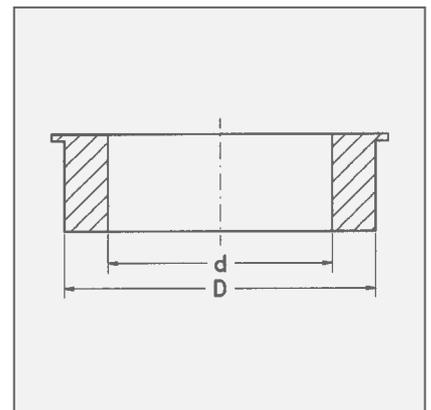
Single plastic reducing rings in many different dimensions can be supplied ex stock.

## 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 page 29 - 31. Please indicate the required bore size on your order and note that normally two metal plates are required for one brush.





Adapter Sets					Art.-No.
		D	d		
1	Set 1 Tube 30	30	1" - 22.2 - 20 - 16 - 1/2" - 12		<b>83.886.630</b>
2	Set 2 Tube 40	40	32 - 1" - 22.2 - 20 - 16 - 1/2"		<b>83.886.640</b>
3	Set 3 Tube 50	50	32 - 1" - 22.2 - 20 - 16 - 1/2"		<b>83.886.650</b>
4	Set 4 Tube 80/100	50.8	30 (further adapters with Set 1)		<b>83.886.680</b>
	Set 5 Tube 80/100	50.8	32		<b>000.888.32</b>
5	Single plastic reducing rings in many different dimensions can be supplied ex stock.				

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Drive Arbors							
			6				7
D mm   inch	L mm   inch	Thread	Art.-No.	D mm   inch	L mm   inch	Thread	Art.-No.
6   1/4	60   2 3/8	M 10 x 1,5	<b>000.041</b>	6   1/4	40   1 3/8	M 10 left	<b>000.044*</b>
10   3/8	60   2 3/8	M 10 x 1,5	<b>000.042</b>	6   1/4	50   2	M 12 left	<b>000.045**</b>
10   3/8	75   3	M 10 x 1,5	<b>000.043</b>				

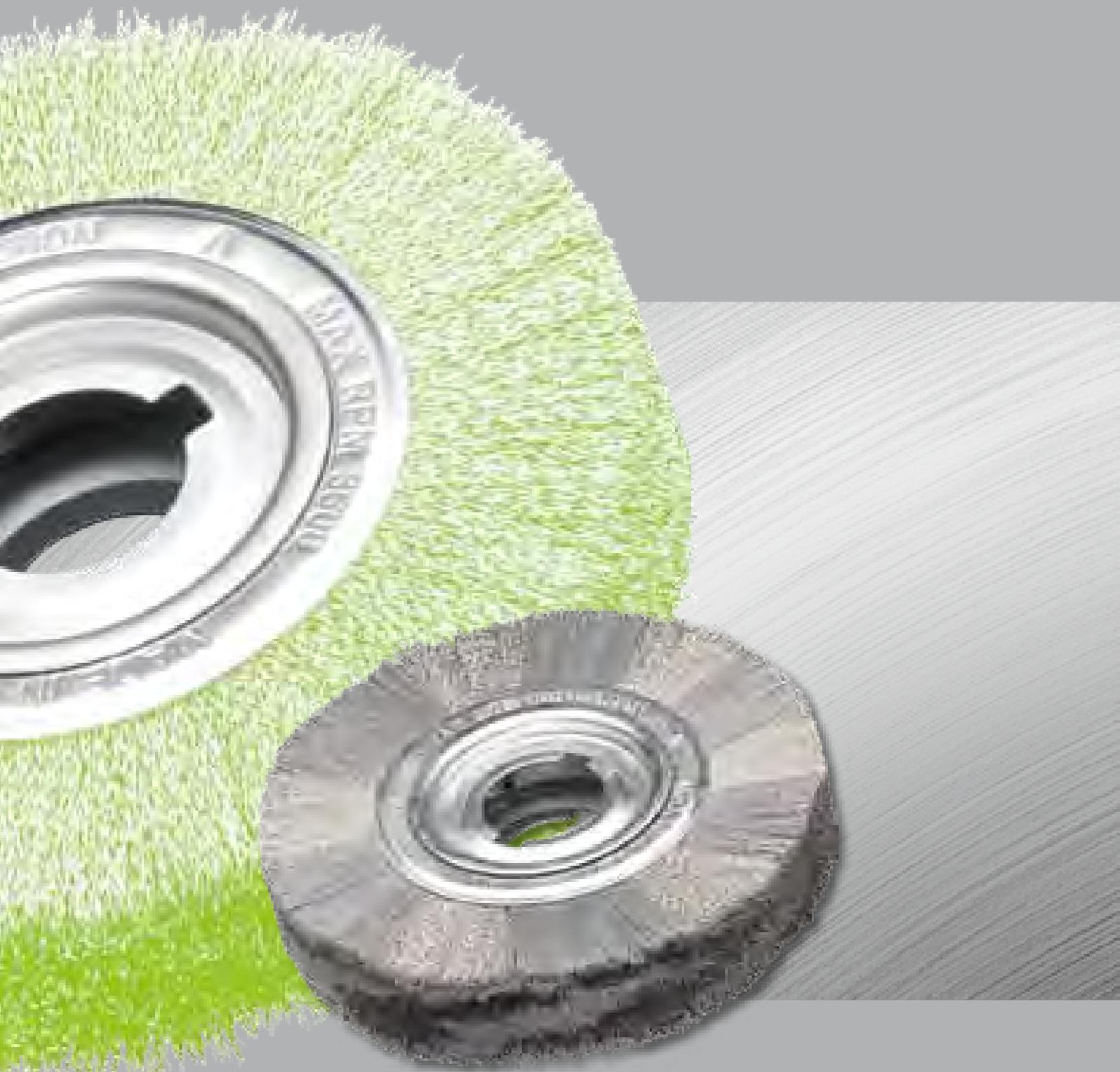
8 Metal Discs as Spare Part									
	Art.-No.		Art.-No.		Art.-No.		Art.-No.		Art.-No.
R 30	<b>000.631</b>	R 40	<b>000.641</b>	R 50	<b>000.651</b>	R 80	<b>000.661</b>	R100***	<b>000.671</b>

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9 Thread Adapter				
from	to	L mm   inch	Pack.	Art.-No.
Internal W 1/2	Internal M 12	40   1 3/8	1	<b>001.211</b>
Internal W 1/2	Internal M 10	40   1 3/8	1	<b>001.212</b>
Internal W 3/8	Internal M 10	40   1 3/8	1	<b>001.215</b>
External M 10	Internal W 1/2	40   1 3/8	1	<b>001.222</b>
External M 10	Internal W 3/8	40   1 3/8	1	<b>001.225</b>

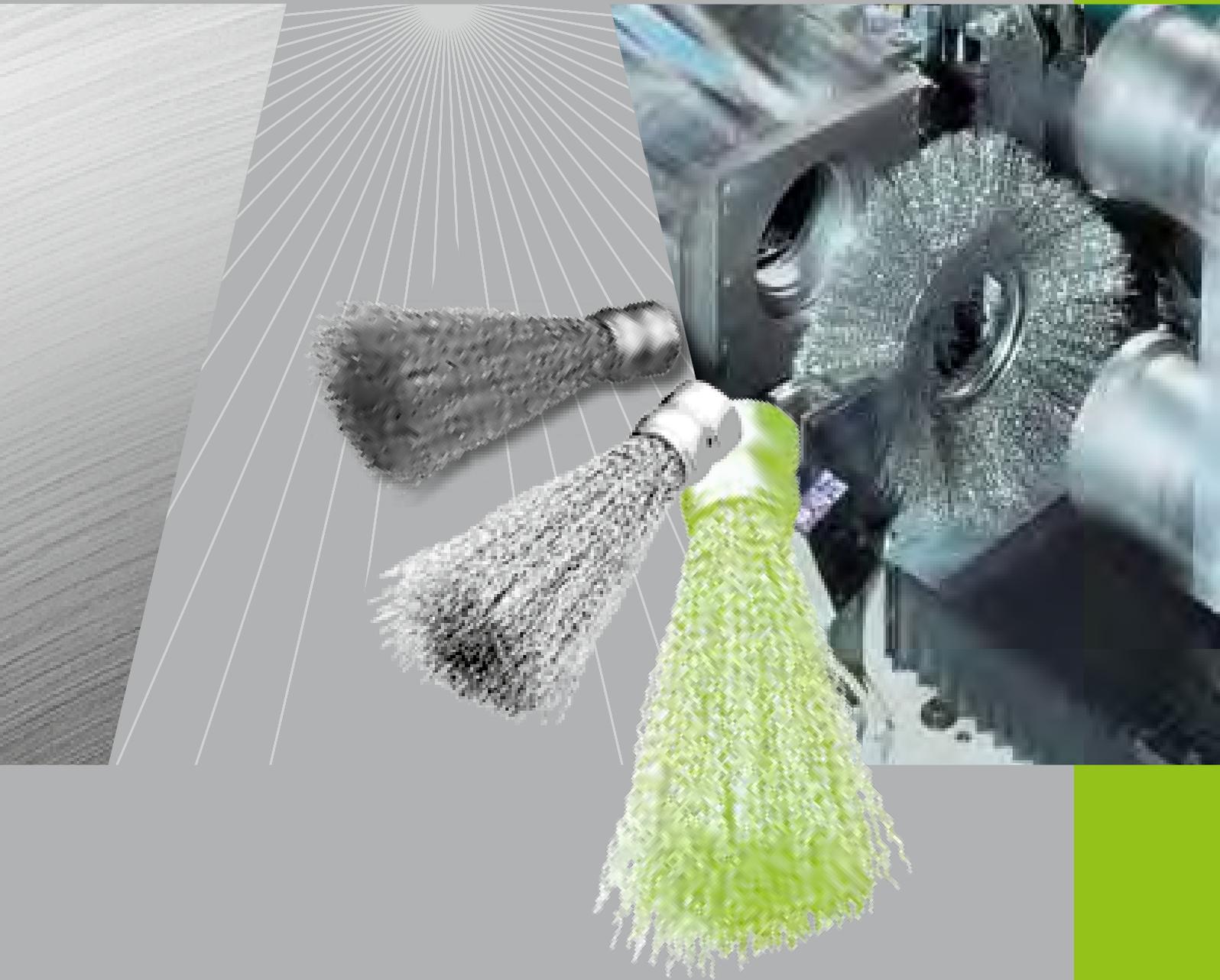
Bore must be indicated!

\* e.g. for wheel brush Art. No. 301.163 (see page 18) | \*\* e.g. for wheel brush Art. No. 300.705 (see page 18) | \*\*\* On request with double keyset 12 x 7 (50.8 / 52.9 / 54.5)

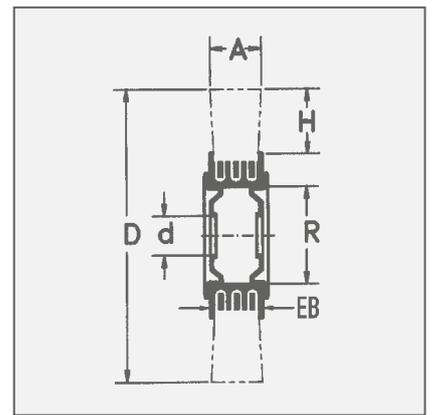


**LESSMANN**<sup>®</sup>  
DRAHTBÜRSTEN · WIRE BRUSHES

# DEBURRING BRUSHES



# Deburring Brushes



## 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 beak of the wires can be prevented. Therefore the brush has a longer life time and a better durability.

## 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](http://www.lessmann.com)

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

Item Nos. in bold are available ex stock

**STH** = steel wire, high tensile

**STM** = brass coated steel

**STL** = cord wire, crimped



1

2

## 1 Deburring Brushes, Steel Wire

D	A	EB	R	H	d	RPM	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	<b>377.051</b>	<b>377.053</b>	<b>377.054</b>
250   10	60   2 3/8	55	100   4	50   2	100	3,600	377.051.00	377.053.00	377.054.00
250   10	60   2 3/8	53	100   4	50   2	50.8	3,600	377.051.T1	377.053.T1	377.054.T1
250   10	60   2 3/8	50	100   4	50   2	100	3,600	377.051.TA	377.053.TA	377.054.TA
250   10	80   3 1/4	79	100   4	50   2	50.8	3,600	377.052	377.095	377.077
250   10	100   4	99	100   4	50   2	50.8	3,600	377.059	377.066	377.096
300   12	60   2 3/8	55	100   4	60   2 3/8	50.8	3,000	387.051	387.053	387.054
300   12	100   4	95	100   4	60   2 3/8	50.8	3,000	available on demand	387.055	available on demand

## 2 Deburring Brushes, Cord Wire, Brass Coated Steel Wire

D	A	EB	R	H	d	RPM	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	<b>377.043</b>	<b>377.063</b>
250   10	60   2 3/8	55	100   4	50   2	100	3,600	377.043.00	377.063.00
250   10	60   2 3/8	53	100   4	50   2	50.8	3,600	377.043.T1	377.063.T1
250   10	60   2 3/8	50	100   4	50   2	100	3,600	377.043.TA	377.063.TA
250   10	80   3 1/4	79	100   4	50   2	50.8	3,600	377.045	available on demand
250   10	100   4	99	100   4	50   2	50.8	3,600	377.048	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.

# Deburring Brushes



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EAN

## Deburring Brushes, Stainless Steel Wire

D mm   inch	A mm   inch	EB	R	H	d Stand.	RPM max.	1			2
							ROH 0.20   0.008"	ROH 0.35   0.014"	ROH 0.50   0.020"	ROL 0.35   0.014"
							Art.-No.	Art.-No.	Art.-No.	Art.-No.
250   10	60   2 3/8	58	100	50	50.8	3,600	377.044	<b>377.089</b>	377.094	377.707
250   10	60   2 3/8	55	100	50	100	3,600	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	377.044.T1	377.089.T1	377.094.T1	377.707.T1
250   10	60   2 3/8	50	100	50	100	3,600	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	377.047	377.090	377.097	available on demand
250   10	100   4	99	100	50	50.8	3,600	377.049	377.093	377.099	available on demand
300   12	100   4	95	100	60	50.8	3,000	available on demand	available on demand	available on demand	available on demand

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EAN

## Deburring Brushes, encapsulated

D mm   inch	A mm   inch	R	Pack.	3		4	
				STA 0.20   0.008"	STA 0.35   0.014"	ROF 0.20   0.008"	ROF 0.35   0.014"
				Art.-No.	Art.-No.	Art.-No.	Art.-No.
250   10	13   1/2	100	1	370.141.KG	370.171.KG	<b>370.341.KG</b>	370.371.KG
250   10	20   3/4	100	1	370.142.KG	370.172.KG	<b>370.342.KG</b>	370.372.KG

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.



2

1



## 1 Deburring Brushes, Silicon Carbide Bristles

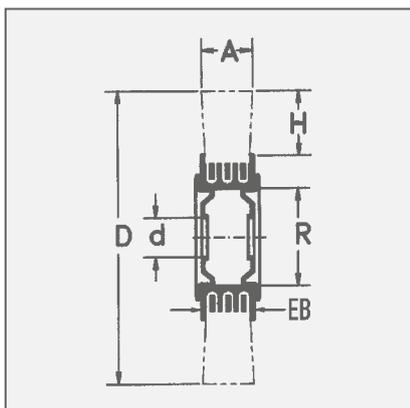
D	A	EB	R	H	d	RPM	SIC 80/1.2	SIC 120/1.1	SIC 180/1.0	SIC 320/0.56
mm   inch	mm   inch		mm   inch	mm   inch	Stand.	max.	Art.-No.	Art.-No.	Art.-No.	Art.-No.
250   10	60   2 3/8	58	100   4	50   2	50.8	3,600	377.824	<b>377.835</b>	<b>377.854</b>	377.875
250   10	60   2 3/8	55	100   4	50   2	100	3,600	377.824.00	377.835.00	377.854.00	377.875.00
250   10	60   2 3/8	53	100   4	50   2	50.8	3,600	377.824.T1	377.835.T1	377.854.T1	377.875.T1
250   10	60   2 3/8	50	100   4	50   2	100	3,600	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	available on demand	377.837	available on demand	available on demand
250   10	100   4	99	100   4	50   2	50.8	3,600	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	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	available on demand	available on demand	available on demand	available on demand



## 2 Deburring Brushes, mixed filament

D	A	EB	R	H	d	RPM	ROH 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	377.091
250   10	60   2 3/8	55	100   4	50   2	100	3,600	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

STA = steel wire

ROF = stainless steel wire

ROL = stainless steel, cord wire

ROH = stainless steel wire, high tensile

SIC = silicon carbide bristles

# Roller Brushes



## Roller Brushes

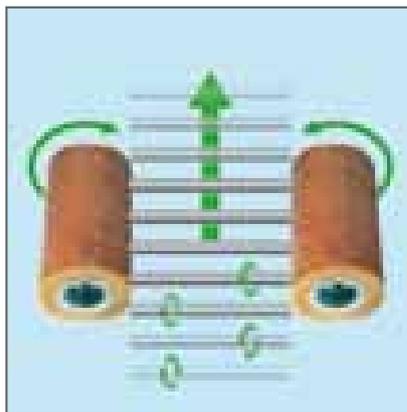
Roller Brushes for the use in deburring machines. For Deburring e.g. cutting edges of tubes. As filling material you can choose from steel and stainless steel wire, brass coated steel wire or cord wire. These brushes feature with their dense filling.

## Roller Brushes

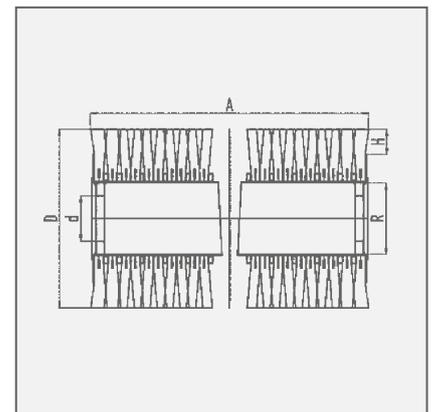
Deburring brushes are available with  
**D = 250 - 400 mm** and  
**A = 55 - 700 mm**

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.



Function chart of a deburring machine with roller brushes



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

**STH** = steel wire, high tensile

**STL** = cord wire, crimped

**ROH** = stainless steel wire, high tensile

**SIC** = silicon carbide bristles

Strip brushes for deburring machines you find on pages 132 - 133.



**Roller Brushes, Steel Wire**

D	A	R	H	d	RPM	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	377.240.30	377.270.30	377.290.30	377.780.30
250   10	460   18	100   4	50   2	100	3,600	377.240.46	377.270.46	377.290.46	377.780.46
250   10	600   24	100   4	50   2	100	3,600	377.240.60	377.270.60	377.290.60	377.780.60
300   12	460   18	100   4	60   2 <sup>3/8</sup>	100	3,000	387.240.46	387.270.46	387.290.46	387.780.46
300   12	460   18	120   4 <sup>3/4</sup>	50   2	120	3,000	388.240.46	388.270.46	388.290.46	388.780.46
300   12	600   24	120   4 <sup>3/4</sup>	50   2	120	3,000	388.240.60	388.270.60	388.290.60	388.780.60

**Roller Brushes, Stainless Steel, Abrasive Bristles**

D	A	R	H	d	RPM	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	377.440.30	377.470.30	377.490.30	377.830.30
250   10	460   18	100   4	50   2	100	3,600	377.440.46	377.470.46	377.490.46	377.830.46
250   10	600   24	100   4	50   2	100	3,600	377.440.60	377.470.60	377.490.60	377.830.60
300   12	460   18	100   4	60   2 <sup>3/8</sup>	100	3,000	387.440.46	387.470.46	387.490.46	387.830.46
300   12	460   18	120   4 <sup>3/4</sup>	50   2	120	3,000	388.440.46	388.470.46	388.490.46	388.830.46
300   12	600   24	120   4 <sup>3/4</sup>	50   2	120	3,000	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



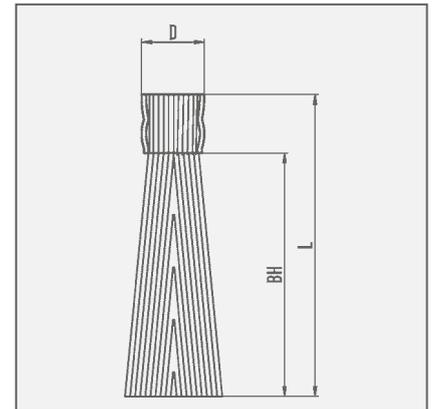
## Deburring End Brushes

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](http://www.lessmann.com)



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

**STH** = steel wire, high tensile

**STL** = cord wire, crimped

**ROH** = stainless steel wire, high tensile

**SIC** = silicon carbide bristles



## 1 Deburring End Brushes, Steel Wire

D	L	BH	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 <sup>3/4</sup>	95   3 <sup>1/2</sup>	16	<b>048.241</b>	<b>048.271</b>	<b>048.291</b>

## 2 Deburring End Brushes, CordWire

D	L	BH	Pack.	STL 0.35   0.014"	STL 0.38   0.015"
mm   inch	mm   inch	mm   inch		Art.-No.	Art.-No.
25   1	120   4 <sup>3/4</sup>	95   3 <sup>1/2</sup>	16	<b>048.701</b>	<b>048.081</b>

## 3 Deburring End Brushes, Stainless Steel Wire

D	L	BH	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 <sup>3/4</sup>	95   3 <sup>1/2</sup>	16	<b>048.441</b>	<b>048.471</b>	<b>048.491</b>

## Deburring End Brushes, Silicon Carbide Bristles, mixed wire

D	L	BH	Pack.	4			5
mm   inch	mm   inch	mm   inch		SIC 80 / 1.2	SIC 120 / 1.1	SIC 180 / 1.0	SIC 120 / 1.1 - ROH 0.20
				Art.-No.	Art.-No.	Art.-No.	Art.-No.
25   1	120   4 <sup>3/4</sup>	95   3 <sup>1/2</sup>	16	<b>048.821</b>	<b>048.841</b>	<b>048.851</b>	<b>048.901*</b>
25   1	120   4 <sup>3/4</sup>	95   3 <sup>1/2</sup>	16				<b>048.941**</b>

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



**LESSMANN**<sup>®</sup>  
DRAHTBÜRSTEN · WIRE BRUSHES

# CUP AND BEVEL BRUSHES



# Cup Brushes



## Knot 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!

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!

## 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

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.

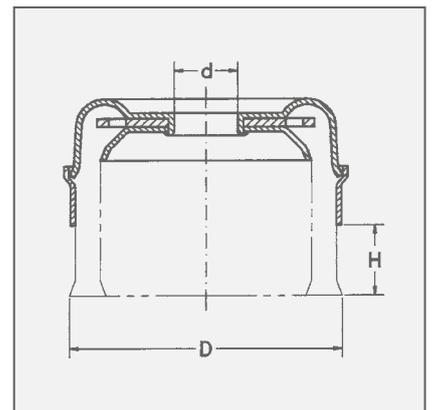
## Special Designs

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-sparking applications.

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

## 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](http://www.lessmann.com)



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

**STH** = steel wire, high tensile



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

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

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

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

## 3 Knot Cup Brushes without Bridle, 2 Rows, Steel Wire

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

\* Packed 25 pieces per carton | \*\* packed 20 pieces per carton

# Cup Brushes



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## Knot Cup Brushes with Bridle, 1 Row, Steel Wire

D	d	H	Z	RPM	Pack.	STH 0.35   0.014"	STH 0.50   0.020"	STH 0.80   0.031"
mm   inch	mm   inch	mm   inch		max.		Art.-No.	Art.-No.	Art.-No.
80   3 1/4	22.2   7/8	25   1	20	9,000	1	<b>484.111</b>	<b>484.211</b>	<b>484.311*</b>
80   3 1/4	M 14 x 2.0	25   1	20	9,000	1	<b>484.117</b>	<b>484.217*</b>	<b>484.317*</b>
80   3 1/4	W 5/8 x 11 NC	25   1	20	9,000	1	484.118	<b>484.218</b>	484.318
100   4	22.2   7/8	23   7/8	26	9,000	1	<b>486.111</b>	<b>486.211**</b>	<b>486.311**</b>
100   4	M 14 x 2.0	23   7/8	26	9,000	1	<b>486.117</b>	<b>486.217**</b>	<b>486.317**</b>
100   4	W 5/8 x 11 NC	23   7/8	26	9,000	1	486.118	<b>486.218**</b>	<b>486.318**</b>
125   5	22.2   7/8	25   1	32	7,000	1	487.111	<b>487.211</b>	<b>487.311</b>
125   5	M 14 x 2.0	25   1	32	7,000	1	<b>487.117</b>	<b>487.217</b>	<b>487.317</b>
125   5	W 5/8 x 11 NC	25   1	32	7,000	1	487.118	<b>487.218</b>	487.318

\* Packed 25 pieces per carton | \*\* packed 20 pieces per carton



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

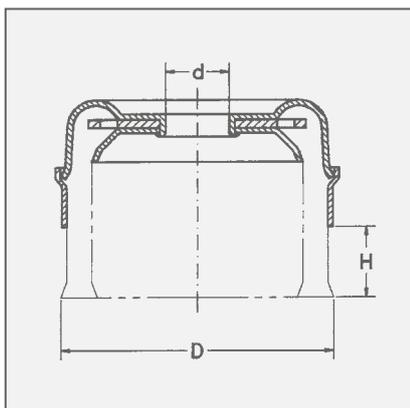
D	d	H	Z	RPM	Pack.	ROH 0.35   0.014"	ROH 0.50   0.020"
mm   inch		mm   inch		max.		Art.-No.	Art.-No.
65   2 1/2	M 10 x 1.5	20   3/4	18	12,500	1	<b>482.714</b>	482.814
65   2 1/2	M 14 x 2.0	20   3/4	18	12,500	1	<b>482.717*</b>	<b>482.817*</b>
75   3	M 14 x 2.0	20   3/4	20	12,500	1	available on demand	483.817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



## 2 Knot Cup Brushes with Bridle, 1 Row, Stainless Steel Wire

D	d	H	Z	RPM	Pack.	ROH 0.35   0.014"	ROH 0.50   0.020"
mm   inch	mm   inch	mm   inch		max.		Art.-No.	Art.-No.
80   3 1/4	22.2   7/8	25   1	20	9,000	1	484.711	484.811
80   3 1/4	M 14 x 2.0	25   1	20	9,000	1	<b>484.717</b>	<b>484.817*</b>
80   3 1/4	W 5/8 x 11 NC	25   1	20	9,000	1	484.718	484.818
100   4	22.2   7/8	23   7/8	26	9,000	1	<b>486.711</b>	486.811
100   4	M 14 x 2.0	23   7/8	26	9,000	1	<b>486.717**</b>	<b>486.817**</b>
100   4	W 5/8 x 11 NC	23   7/8	26	9,000	1	486.718	486.818
125   5	M 14 x 2.0	23   7/8	32	9,000	1	available on demand	487.817

\* Packed 25 pieces per carton | \*\* Packed 20 pieces per carton



Item Nos. in bold are available ex stock

STH = steel wire, high tensile

ROH = stainless steel wire, high tensile

# Cup Brushes



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## Cup Brushes with Crimped Wire

D mm   <i>inch</i>	d mm   <i>inch</i>	H	RPM max.	Pack.	1			2	3
					STA 0.20   0.008" Art.-No.	STA 0.35   0.014" Art.-No.	STA 0.50   0.020" Art.-No.	ROH 0.30   0.012" Art.-No.	MES 0.30   0.012" Art.-No.
60   2 <sup>3/8</sup>	M 10 x 1,5	20	12,000	1		<b>421.164*</b>		<b>421.364</b>	<b>421.564</b>
60   2 <sup>3/8</sup>	M 14 x 2.0	20	12,000	1	<b>421.147</b>	<b>421.167*</b>	<b>421.197</b>	<b>421.367*</b>	<b>421.567</b>
75   3	M 14 x 2.0	25	12,500	1		<b>423.167*</b>	available on demand	<b>423.367</b>	available on demand
75   3	W 5/8 x 11 NC	25	12,500	1		<b>423.168</b>	available on demand	423.368	available on demand
80   3 <sup>1/4</sup>	22.2   7/8	25	8,500	1		<b>424.171</b>	available on demand	424.361	available on demand
80   3 <sup>1/4</sup>	M 14 x 2.0	25	8,500	1	<b>424.147</b>	<b>424.177*</b>	<b>424.197</b>	<b>424.367*</b>	<b>424.567</b>
80   3 <sup>1/4</sup>	W 5/8 x 11 NC	25	8,500	1		<b>424.178</b>	424.198	<b>424.368</b>	available on demand
100   4	22.2   7/8	30	9,000	1		<b>426.171</b>	426.191	426.361	426.561
100   4	M 14 x 2.0	30	9,000	1	<b>426.147</b>	<b>426.177**</b>	<b>426.197</b>	<b>426.367**</b>	<b>426.567</b>
100   4	W 5/8 x 11 NC	30	9,000	1		<b>426.178**</b>	<b>426.198</b>	426.368	426.568
125   5	22.2   7/8	30	8,000	1		<b>427.171</b>	available on demand	available on demand	available on demand
125   5	M 14 x 2.0	30	8,000	1		<b>427.177</b>	<b>427.297</b>	<b>427.367</b>	<b>427.567</b>
125   5	W 5/8 x 11 NC	30	8,000	1		<b>427.178</b>	427.298		
150   6	22.2   7/8	40	6,500	1		<b>429.171</b>	429.191		
150   6	M 14 x 2.0	40	6,500	1		<b>429.177</b>	<b>429.197</b>	<b>429.367</b>	
150   6	W 5/8 x 11 NC	40	6,500	1		<b>429.178</b>	<b>429.198</b>		

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EAN

## Cup Brushes, Brass Coated Steel Wire, Abrasive Filament

D mm   <i>inch</i>	d	H	RPM max.	Pack.	4		
					STL 0.35   0.014" Art.-No.	STM 0.30   0.012" Art.-No.	SIC 80/1,2 Art.-No.
60   2 <sup>3/8</sup>	M 14 x 2.0	20	12,000	1		<b>421.767</b>	<b>421.827</b>
100   4	22.2   7/8	30	9,000	1	426.701		
100   4	M 14 x 2.0	30	9,000	1	426.707	<b>426.767</b>	

\* Packed 25 pieces per carton | \*\* packed 20 pieces per carton

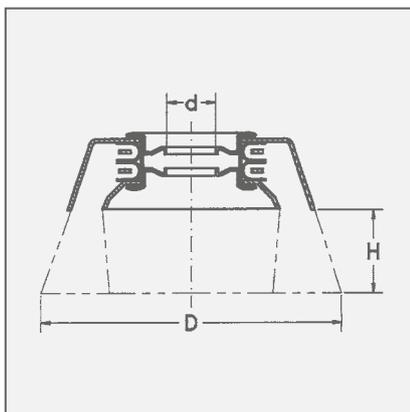


Cup Brushes, Straight Filament

					1	2	3	
D	d	H	RPM	Pack.	<b>STH 0.35   0.014"</b>	<b>STM 0.35   0.014"</b>	<b>SIC K180</b>	<b>SIC 80/1.2</b>
mm   inch	mm   inch	max.			Art.-No.	Art.-No.	Art.-No.	Art.-No.
100   4	M 14	30	9,000	1	446.277	available on demand	446.857	available on demand
100   4	22.2   7/8	30	9,000	1	available on demand	446.771	available on demand	available on demand
125   5	M 14	30	7,000	1	447.277	available on demand	447.857	447.827

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 (see picture right above). Please contact us for more information!



Item Nos. in bold are available ex stock

- STA = steel wire
- STH = steel wire, high tensile
- STM = brass coated steel
- STL = cord wire, crimped
- ROH = stainless steel wire, high tensile
- MES = brass wire
- SIC = silicon carbide bristles

# 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

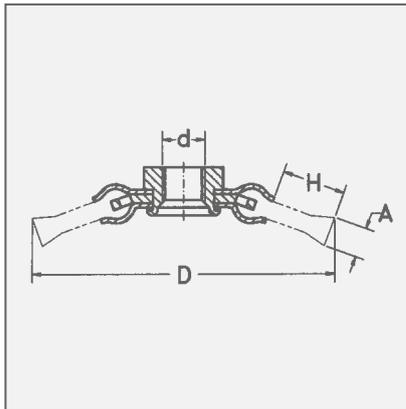
Like bevel brushes, wheel brushes with a thread are ideal for working in areas which are hard to reach. Usually the brushes are used on angle grinders.

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](http://www.lessmann.com)



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

**STM** = brass coated steel

**STH** = steel wire, high tensile

**ROF** = stainless steel wire

**ROH** = stainless steel wire, high tensile



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

								1		2	
D	A	d	H	Z	RPM	Pack.	STH 0.35   0.014"	STH 0.50   0.020"	ROH 0.35   0.014"	ROH 0.50   0.020"	
mm   inch	mm   inch	mm   inch			max.		Art.-No.	Art.-No.	Art.-No.	Art.-No.	
100   4	12   1/2	M 10 x 1.5	20	18	12,500	1		<b>471.254</b>			
100   4	12   1/2	M 14 x 2.0	20	18	12,500	1	<b>471.157</b>	<b>471.257*</b>	<b>471.757</b>	<b>471.857*</b>	
100   4	12   1/2	22.2   7/8	20	18	12,500	1		<b>471.251</b>			
115   4 1/2	12   1/2	M 14 x 2.0	24	20	15,000	1	<b>472.157</b>	<b>472.257*</b>	<b>472.757</b>	<b>472.857*</b>	
115   4 1/2	12   1/2	22.2   7/8	24	20	15,000	1		<b>472.251</b>			

|||||  
EAN

**Bevel Brushes, Crimped Wire**

							3		4
D	A	d	H	RPM	Pack.		STA 0.35   0.014"	ROH 0.30   0.012"	STM 0.30   0.012"
mm   inch	mm   inch			max.			Art.-No.	Art.-No.	Art.-No.
100   4	10   3/8	M 14 x 2.2	20	12,500	1		<b>422.177*</b>	<b>422.367</b>	<b>422.767</b>

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**Wheel Brushes, crimped wire, with thread**

						5	6
D	A	d	H	RPM	Pack.	ROF 0.30   0.012"	STM 0.30   0.012"
mm   inch	mm   inch			max.		Art.-No.	Art.-No.
115   4 1/2	12   1/2	M 14	24	8,000	1	304.361.14	304.761.14
125   5	13   1/2	M 14	19.5	6,000	1	335.361.14	335.761.14

\* Packed 25 pieces per carton

# Brushes for grass trimmers

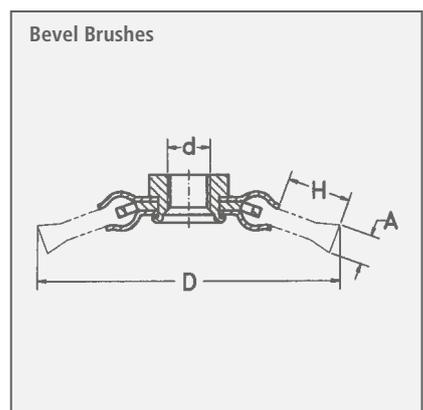
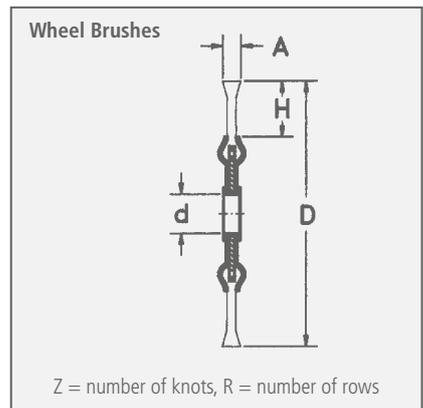


## Brushes for grass trimmers

Knotted brushes 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.

**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](http://www.lessmann.com).



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

STA = steel wire



## 1 Knotted Wheel Brushes, for grass trimmers

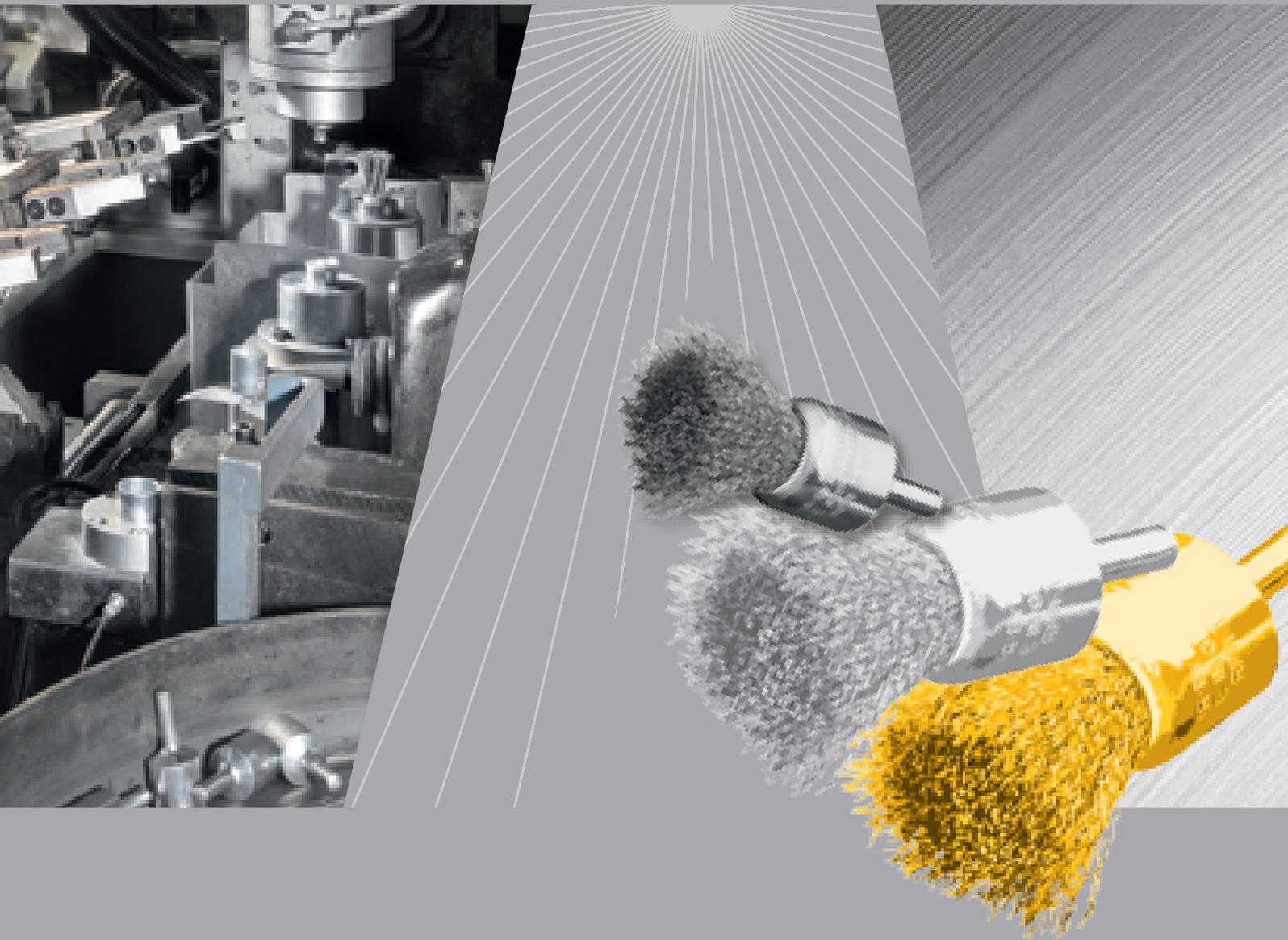
D	A	H	Z	d	RPM	Pack.	STA 0.50   0.020"
mm   inch	mm   inch	mm   inch		mm   inch	max.		Art.-No.
175   6 <sup>7/8</sup>	6   1/4	34   1 <sup>1/4</sup>	40	20   3/4	12,500	1	<b>475.260.01</b>
175   6 <sup>7/8</sup>	6   1/4	34   1 <sup>1/4</sup>	40	25.4   1	12,500	1	<b>475.261.01</b>
200   8	6   1/4	46   1 <sup>49/64</sup>	40	20   3/4	12,500	1	<b>476.260.01</b>
200   8	6   1/4	46   1 <sup>49/64</sup>	40	25.4   1	12,500	1	<b>476.261.01</b>
250   10	6   1/4	42   1 <sup>5/8</sup>	56	20   3/4	10,000	1	<b>477.260.01</b>
250   10	6   1/4	42   1 <sup>5/8</sup>	56	25.4   1	10,000	1	<b>477.261.01</b>
300   12	6   1/4	67   2 <sup>5/8</sup>	56	20   3/4	10,000	1	<b>478.260.01</b>



## Knotted Bevel Brushes, for grass trimmers

D	A	H	Z	d	RPM	Pack.	STA 0.50   0.020"
mm   inch	mm   inch	mm   inch		mm   inch	max.		Art.-No.
<b>2</b> 170   6 <sup>3/4</sup>	12   1/2	50   2	32	20   3/4	10,000	1	<b>475.250.01</b>
170   6 <sup>3/4</sup>	12   1/2	50   2	32	25.4   1	10,000	1	<b>475.251.01</b>
<b>3</b> 200   8	14   9/16	37   1 <sup>1/2</sup>	36	20   3/4	10,000	1	<b>476.250.01</b>
200   8	14   9/16	37   1 <sup>1/2</sup>	36	25.4   1	10,000	1	<b>476.251.01</b>

The brushes are suitable for all common grass trimmer and brush cutter models. Possible special diameters or special bores are deliverable on demand.

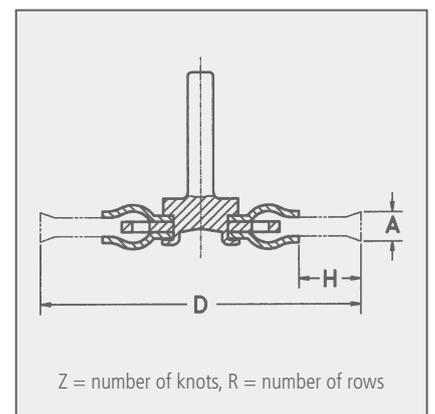


**LESSMANN**<sup>®</sup>  
DRAHTBÜRSTEN · WIRE BRUSHES

## 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.

## 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.

## 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.

## Wheel brushes with shank completely stainless steel

All the inner and outer parts of these brushes such as shanks, side plates, rings, etc. are made of stainless steel. Therefore these brushes are the perfect tool for working in damp and difficult places. These brushes do not have green side plates.

## Structuring Brushes with Shank

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

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

The best brushing results you receive with high rotation speed!

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

**STA** = steel wire

**STH** = steel wire, high tensile

**ROH** = stainless steel wire, high tensile

## Stainless Steel Brushes

LESSMANN 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.

More information for brush applications on stainless materials you will find at [www.lessmann.com](http://www.lessmann.com)

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 6 mm Ø

	D mm   inch	A mm   inch	H mm   inch	Z	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	1	25,000	10		<b>417.198.11</b>	
	75   3	12   1/2	15   5/8	18	1	25,000	10	<b>417.168</b>	<b>417.198</b>	<b>417.398</b>
2	75   3	16   5/8	15   5/8	18	2	25,000	10		<b>417.199</b>	<b>417.399</b>

## Wheel Brushes with Shank 6 mm Ø, 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	<b>415.160</b>
	60   2 3/8	8   5/16	18   3/4	15,000	10	<b>416.160</b>
	76   3	8   5/16	23   7/8	15,000	10	<b>417.160</b>

# Wheel Brushes with Shank



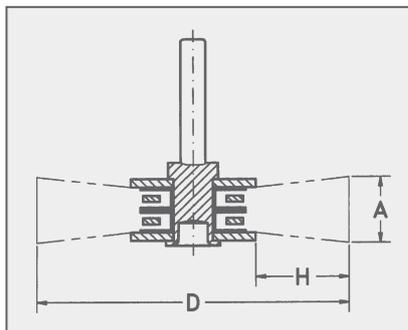
## Wheel Brushes with Shank 6 mm Ø

D mm   inch	A	H	RPM max.	Pack.	1   2				3
					STA 0.15   0.006" Art.-No.	STA 0.20   0.008" Art.-No.	STA 0.30   0.012" Art.-No.	STA 0.50   0.020" Art.-No.	STM 0.25   0.010" Art.-No.
20   3/4	4	3	20,000	10	411.132	<b>411.142</b>			
30   1 1/4	6	6	20,000	10	<b>413.132</b>	<b>413.142</b>	<b>413.162</b>		
30   1 1/4	9	6	20,000	10	413.133	<b>413.143</b>	<b>413.163</b>		
40   1 3/8	10	9	18,000	10	<b>414.132</b>	<b>414.142</b>	<b>414.162</b>	<b>414.192</b>	414.752
40   1 3/8	14	9	18,000	10	414.133	<b>414.143</b>	<b>414.163</b>	<b>414.193</b>	available on demand
50   2	10	12	15,000	10	415.132	<b>415.142</b>	<b>415.162</b>	<b>415.192</b>	<b>415.752</b>
50   2	14	12	15,000	10	<b>415.133</b>	<b>415.143</b>	<b>415.163</b>	415.193	available on demand
60   2 3/8	10	17	15,000	10	416.132	<b>416.142</b>	<b>416.162</b>	available on demand	416.752
60   2 3/8	14	17	15,000	10	<b>416.133</b>	<b>416.143</b>	<b>416.163</b>	416.193	available on demand
70   2 3/4	12	19	15,000	10	417.132	<b>417.142</b>	<b>417.162</b>	<b>417.192</b>	<b>417.752</b>
70   2 3/4	16	19	15,000	10	<b>417.133</b>	<b>417.143</b>	<b>417.163</b>	available on demand	available on demand
80   3 1/4	12	20	15,000	10	available on demand	<b>418.142</b>	<b>418.162</b>	<b>418.192</b>	418.752
80   3 1/4	18	20	15,000	10	available on demand	<b>418.143</b>	<b>418.163</b>	available on demand	available on demand
70   2 3/4	10	14	15,000	10				<b>417.196*</b>	

## Structuring Brushes with Shank 8 mm Ø

D mm   inch	A	H	RPM max.	Pack.	4	
					STM 0.25   0.010" Art.-No.	SIC 80/1.4 Art.-No.
80   3 1/4	35	28	4,000	1	<b>418.704</b>	418.803

\* cambered plates



Item Nos. in bold are available ex stock

STA = steel wire

STM = brass coated steel

ROF = stainless steel wire

MES = brass wire

SIC = silicon carbide bristles



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

D mm   inch	A mm   inch	H mm   inch	RPM max.	Pack.	1		2
					ROF 0.20   0.008" Art.-No.	ROF 0.30   0.012" Art.-No.	MES 0.20   0.008" Art.-No.
20   3/4	4   1/4	3   1/8	20,000	10	411.342		411.542
30   1 1/4	6   1/4	6   1/4	20,000	10	413.342	413.362	413.542
30   1 1/4	9   3/8	6   1/4	20,000	10	413.343	413.363	413.543
40   1 3/8	10   3/8	9   3/8	18,000	10	414.342	414.362	414.542
40   1 3/8	16   5/8	9   3/8	18,000	10	414.343	available on demand	414.543
50   2	10   3/8	12   1/2	15,000	10	415.342	415.362	415.542
50   2	14   9/16	12   1/2	15,000	10	415.343	415.363	415.543
60   2 3/8	10   3/8	17   5/8	15,000	10	416.342	416.362	416.542
60   2 3/8	14   9/16	17   5/8	15,000	10	416.343	416.363	416.543
70   2 3/4	12   1/2	19   3/4	15,000	10	417.342	417.362	417.542
70   2 3/4	16   5/8	19   3/4	15,000	10	417.343	417.363	417.543
80   3 1/4	12   1/2	20   3/4	15,000	10	418.342	418.362	418.542
80   3 1/4	18   3/4	20   3/4	15,000	10	418.343	418.363	418.543

3 Wheel Brushes with Shank 6 mm Ø, Completely Stainless

D mm   inch	A mm   inch	H mm   inch	RPM max.	Pack.	ROF 0.20   0.008"		ROF 0.30   0.012"	
					Art.-No.	Art.-No.	Art.-No.	Art.-No.
50   2	15   5/8	12   1/2	15,000	10	415.301		415.302	
60   2 3/8	17   5/8	17   5/8	15,000	10	416.303		416.302	
70   2 3/4	18   3/4	19   3/4	15,000	10	417.306		417.309	

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

D mm   inch	A mm   inch	H mm   inch	RPM max.	Pack.	SIC 120/1.1		SIC 180/0.9		SIC 320/0.6	
					Art.-No.	Art.-No.	Art.-No.	Art.-No.	Art.-No.	Art.-No.
50   2	10   3/8	12   1/2	15,000	10	415.842		415.852		415.872	
70   2 3/4	12   1/2	20   3/4	15,000	10	417.842		417.852		417.872	
80   3 1/4	14   9/16	22   7/8	15,000	10	418.842		available on demand		418.872	

# Cup Shank Brushes



## Cup Brushes with Shank

Ideal for working on medium and large areas.

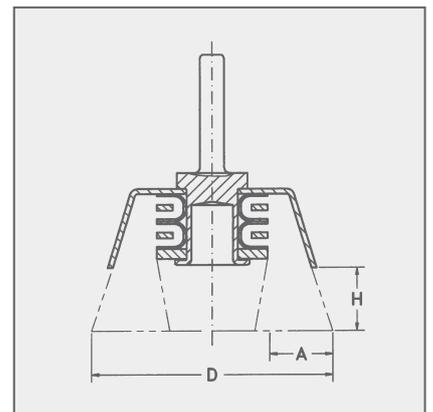
## Cup Shank Brushes with Plastic Cup

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.

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

**STA** = steel wire

**STH** = steel wire, high tensile

**ROF** = stainless steel wire

**MES** = brass wire

**SIC** = silicon carbide bristles



#### 1 Cup Brushes with Shank 6 mm Ø

D	A	H	RPM	Pack.	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"
mm   inch	mm   inch	mm   inch	max.		Art.-No.	Art.-No.	Art.-No.	Art.-No.	Art.-No.
40   1 3/8	10   3/8	20   3/4	10,500	10	<b>434.142</b>	<b>434.162</b>	434.342	<b>434.362</b>	<b>434.542</b>
50   2	22   7/8	20   3/4	10,500	10	<b>435.142</b>	<b>435.162</b>	435.342	<b>435.362</b>	<b>435.542</b>
60   2 3/8	15   5/8	25   1	8,000	10	available on demand	<b>436.162</b>	available on demand	<b>436.362</b>	available on demand
70   2 3/4	24   1	25   1	6,000	10	<b>437.142</b>	<b>437.162</b>	437.342	<b>437.362</b>	<b>437.542</b>

#### 2 Cup Brushes with Shank 6 mm Ø and Plastic Cup

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

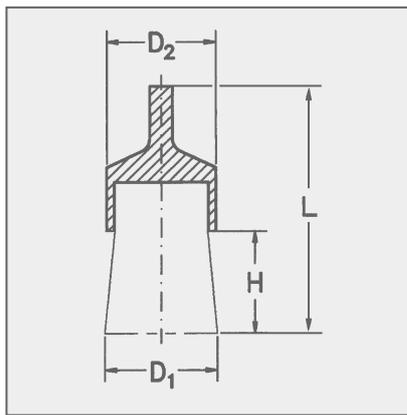
#### 3 Cup Brushes with Shank 6 mm Ø, Silicon Carbide Bristles

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

#### 4 Knot End Brushes with Shank 6 mm Ø, Steel Wire

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

# End Brushes



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

**STA** = steel wire

**STH** = steel wire, high tensile

**ROF** = stainless steel wire

## 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 brush narrow with crimped wire features through its dense filling. These brushes show a harder brushing effect than brushes with normal crimped wire (e.g. page 68). 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 advantages when working with encapsulated brushes are longer lifetime and harder brush effect. However, it might be possible that the brush will leave marks on the work piece.

## Stainless Steel Brushes

Further information for brushing on stainless steel you will find on [www.lessmann.com](http://www.lessmann.com)

## Special Design

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



### Special End Brushes with Shank 6 mm Ø, narrow crimping

	D1 mm   inch	D2 mm   inch	H mm   inch	L mm   inch	RPM max.	Pack.	STH 0.35   0.014" Art.-No.	STH 0.50   0.020" Art.-No.
1	11   4/9	12   1/2	25   1	71   2 3/4	12,000	10	466.171	available on demand
2	11   4/9	12   1/2	25   1	71   2 3/4	12,000	10	466.172*	available on demand*
1	20   3/4	22   7/8	25   1	75   3	12,000	10	available on demand	available on demand
2	20   3/4	22   7/8	25   1	75   3	12,000	10	available on demand*	available on demand*

### 3 Square End Brushes with Shank 6 mm Ø

D1 mm   inch	A mm   inch	L 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	100   4	4,500	10	469.131	469.151	469.362
31.8   1 1/4	8   5/16	100   4	4,500	10	469.133	469.153	available on demand
38.1   1 1/2	8   5/16	100   4	4,500	10	available on demand	available on demand	available on demand
50.8   2	8   5/16	100   4	4,500	10	available on demand	available on demand	available on demand

### 4 End Brushes with Shank 6 mm Ø, Encapsulated

D1 mm   inch	D2 mm   inch	H mm   inch	L 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	28   1	30   1 1/4	75   3	13,000	10	456.160

\* pointed

# End Brushes



## End Brushes with Shank 6 mm Ø, Steel Wire

	D1 mm   inch	D2 mm   inch	H mm   inch	L mm   inch	RPM max.	Pack.	STA 0.15   0.006" Art.-No.	STA 0.20   0.008" Art.-No.	STA 0.30   0.012" Art.-No.	STA 0.50   0.020" 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 6 mm Ø, Brassed Steel Wire, Cord Wire

	D1 mm   inch	D2 mm   inch	H mm   inch	L mm   inch	RPM max.	Pack.	7 STM 0.25   0.010" Art.-Nr.	8 STL 0.175   0.007" Art.-Nr.	STL 0.22   0.009" Art.-Nr.
	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

\* pointed | \*\* spreaded



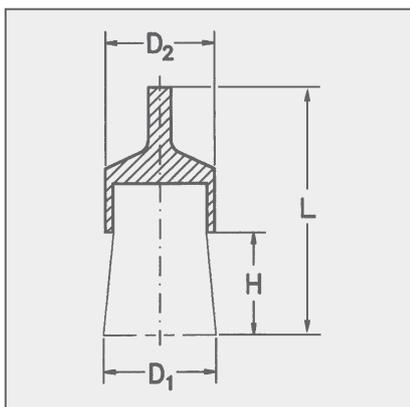
**End Brushes with Shank 6 mm Ø, Stainless Steel and Brass Wire**

D1 mm   inch	D2 mm   inch	H	L	RPM max.	Pack.	1		2	
						ROF 0.20   0.008" Art.-No.	ROF 0.30   0.012" Art.-No.	MES 0.20   0.008" Art.-No.	MES 0.30   0.012" Art.-No.
<b>12</b>   1/2	<b>10</b>   3/8	20	60	20,000	10	<b>451.341</b>	<b>451.361</b>	<b>451.541</b>	<b>451.561</b>
12   1/2	10   3/8	20	60	20,000	10		<b>451.362*</b>	available on demand	available on demand
<b>3</b>   12	<b>10</b>   3/8	20	120	15,000	10	458.341	<b>458.361</b>	<b>458.541</b>	<b>458.561</b>
<b>17</b>   5/8	<b>16</b>   5/8	22	65	20,000	10	<b>452.341</b>	<b>452.361</b>	<b>452.541</b>	<b>452.561</b>
<b>23</b>   7/8	<b>22</b>   7/8	25	68	18,000	10	<b>453.341</b>	<b>453.361</b>	<b>453.541</b>	<b>453.561</b>
<b>30</b>   1 1/4	<b>29</b>   1 1/8	25	68	18,000	10	<b>456.341</b>	<b>456.361</b>	<b>456.541</b>	<b>456.561</b>
<b>50</b>   2	<b>22</b>   7/8	18	68	18,000	10		<b>453.363**</b>		

**4 End Brushes with Shank 6 mm Ø, Silicon Carbide Bristles**

D1 mm   inch	D2 mm   inch	H mm   inch	L mm   inch	RPM max.	Pack.	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	available on demand	451.871
17   5/8	16   5/8	22   7/8	68   2 3/4	20,000	10	452.851	available on demand
23   7/8	22   7/8	25   1	70   2 3/4	10,000	10	<b>454.851</b>	<b>454.871</b>
30   1 1/4	28   1	30   1 1/4	75   3	10,000	10	<b>456.851</b>	<b>456.871</b>

\* pointed | \*\* spreaded



Item Nos. in bold are available ex stock

STA = steel wire

STM = brass coated steel

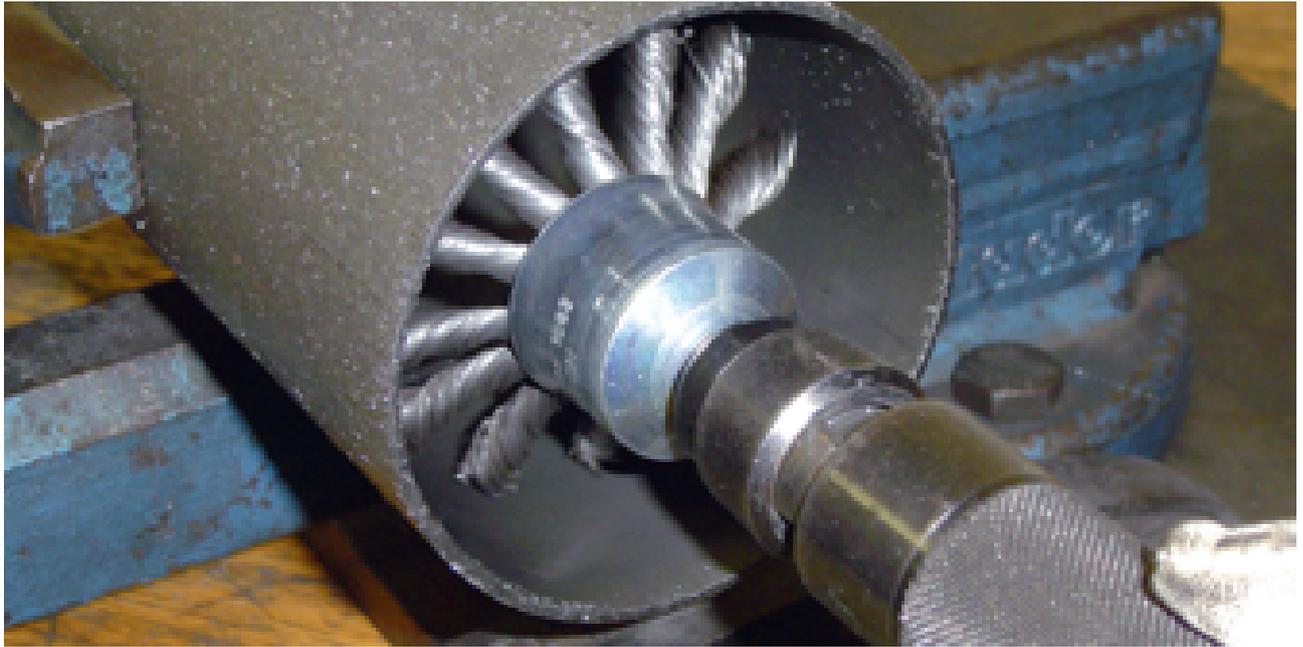
STL = cord wire, crimped

ROF = stainless steel wire

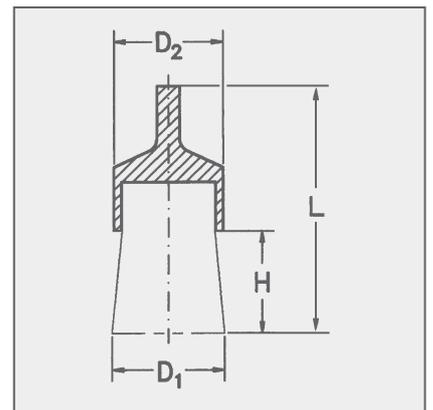
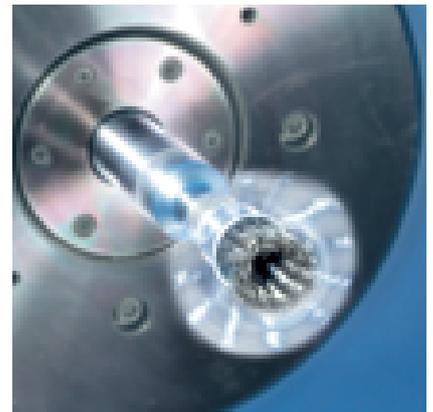
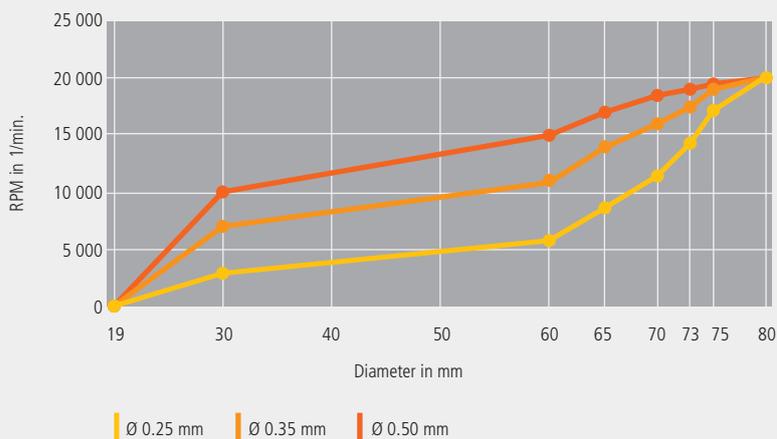
MES = brass wire

SIC = silicon carbide bristles

# Knot End Brushes / Encapsulated



Opening of the end brushes (D1 = 19 mm) 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](http://www.lessmann.com)

## Special End Brushes with Shank 6 Ø, one Knot

One-knotted End Brushes to render precise working possible.

Item Nos. in bold are available ex stock

**STH** = steel wire, high tensile

**RO4** = stainless steel wire, 1.4401



### Knot End Brushes with Shank 6 mm Ø, Steel Wire

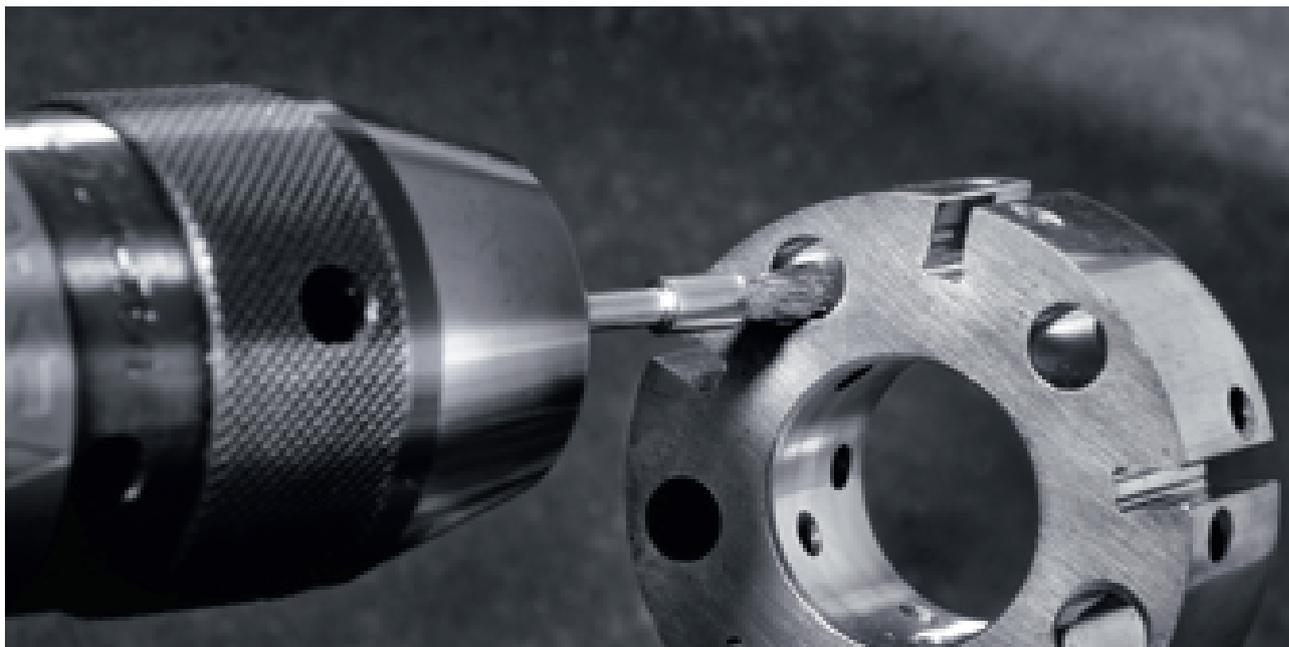
	D1/D2 mm   inch	L mm   inch	H mm   inch	Z	RPM max.	Pack.	STH 0.15   0.006" Art.-No.	STH 0.25   0.010" Art.-No.	STH 0.35   0.014" Art.-No.	STH 0.50   0.020" Art.-No.
1	6/10   1/4/3/8	65   2 1/2	25   1	1	4,500	10	available on demand	451.258	451.278	available on demand
2	19   3/4	72   2 7/8	28   1	6	20,000	10	453.238	453.258	453.278	453.298
3	22   7/8	72   2 7/8	28   1	8	20,000	10	454.238	454.258	454.278	454.298
4	29   1 1/8	72   2 7/8	28   1	12	20,000	10	456.238	456.258	456.278	456.298
5	19   3/4	72   2 7/8	28   1	4	20,000	50	available on demand	available on demand	452.278GH*	available on demand

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

	D1/D2 mm   inch	L mm   inch	H mm   inch	Z	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	4,500	10	available on demand	451.458	451.478	available on demand
	19   3/4	72   2 7/8	28   1	6	20,000	10	453.338	453.358	453.378	available on demand
	22   7/8	72   2 7/8	28   1	8	20,000	10	454.338	454.358	454.378	454.398
	29   1 1/8	72   2 7/8	28   1	12	20,000	10	456.338	456.358	456.378	456.398

\* filled with epoxy resin

# Miniature Brushes



## Miniature Brushes

Miniature Brushes are suitable for cleaning, deburring or polishing of small-area surfaces or small working pieces.

Typical fields of applications:

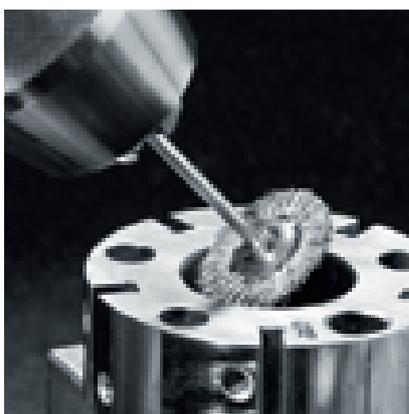
- precision tools
- fine mechanics
- pneumatic and hydraulics

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](http://www.lessmann.com)



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

**STH** = steel wire, high tensile

**ROF** = stainless steel wire

**SIC** = silicon carbide bristles

**AO** = aluminium oxide bristles



### 1 Miniature Wheel Brushes

outer Ø mm   inch	RPM max.	shank Ø mm   inch	h	Pack.	Diamond K400 Art.-No.	SIC 500/0.46 Art.-No.	AO 500/0.46 Art.-No.	STH 0.10   0.004" Art.-No.	ROF 0.10   0.004" Art.-No.
16   5/8	15,000	3   1/8	3	10	410.811.DB	410.881	410.801	410.221	410.321
19   3/4	12,000	3   1/8	5	10	410.812.DB	410.882	410.802	410.222	410.322
22   7/8	10,000	3   1/8	6	10	410.813.DB	410.883	410.803	410.223	410.323

### 2 Miniature Cup Brushes

outer Ø mm   inch	RPM max.	shank Ø mm   inch	h	Pack.	Diamond K400 Art.-No.	SIC 500/0.46 Art.-No.	AO 500/0.46 Art.-No.	STH 0.10   0.004" Art.-No.	ROF 0.10   0.004" Art.-No.
15   5/8	15,000	3   1/8	5	10	430.812.DB	430.882	430.802	430.222	430.322
18   3/4	15,000	3   1/8	6	10	430.813.DB	430.883	430.803	430.223	430.323

### 3 Miniature End Brushes

outer Ø mm   inch	RPM max.	shank Ø mm   inch	h	Pack.	Diamond K400 Art.-No.	SIC 500/0.46 Art.-No.	AO 500/0.46 Art.-No.	STH 0.10   0.004" Art.-No.	ROF 0.10   0.004" Art.-No.
5   13/64	5,000	3   1/8	8	10	450.821.DB	450.881	450.801	450.221	450.311

All Brushes also available with shank Ø 2,34 and 3,17 mm.



**LESSMANN**<sup>®</sup>  
DRAHTBÜRSTEN · WIRE BRUSHES

# HAND BRUSHES AND BROOMS



# 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. The handles are made of beech wood with two hanging holes.

LESSMANN Handbrushes are of superb quality and yet are economic 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 cooperation 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

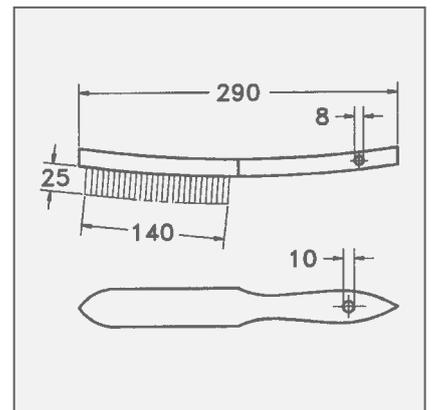
These models have a larger wooden handle and a longer and dense wire filling than our standard models.

## 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](http://www.lessmann.com)



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



We are accredited!

# Hand Brushes Standard



IIII  
EAN

## Hand Brushes

Filling	Rows Pack	1 Art.-No.	2 Art.-No.	3 Art.-No.	4 Art.-No.	5 Art.-No.	6 Art.-No.	
1	STA straight 0.35   0.014"	12	<b>100.011</b>	<b>100.021</b>	<b>100.031</b>	<b>100.041</b>	<b>100.051</b>	<b>100.061</b>
	STA straight 0.35   0.014"	100		<b>100.020</b>	<b>100.030</b>	<b>100.040</b>	<b>100.050</b>	
	STM crimped 0.30   0.012"	12		<b>105.421</b>	<b>105.431</b>	<b>105.441</b>	<b>105.451</b>	<b>105.461</b>
	STM crimped 0.30   0.012"	100		<b>105.420</b>	<b>105.430</b>	<b>105.440</b>	<b>105.450</b>	
	STA crimped 0.20   0.008"	12		<b>102.421</b>	<b>102.431</b>	<b>102.441</b>		
	STA crimped 0.30   0.012"	12	<b>102.611</b>	<b>102.621</b>	<b>102.631</b>	<b>102.641</b>	<b>102.651</b>	<b>102.661</b>
	STA crimped 0.30   0.012"	100		<b>102.620</b>	<b>102.630</b>			
2	ROF crimped 0.15   0.006"	12		<b>104.321</b>	<b>104.331</b>	<b>104.341</b>	<b>104.351</b>	
	ROF crimped 0.20   0.008"	12		<b>104.421</b>	<b>104.431</b>	<b>104.441</b>	<b>104.451</b>	
	ROF crimped 0.30   0.012"	12	<b>104.611</b>	<b>104.621</b>	<b>104.631</b>	<b>104.641</b>	<b>104.651</b>	<b>104.661</b>
	ROF crimped 0.30   0.012"	100			<b>104.630</b>	<b>104.640</b>		
	ROF straight 0.30   0.012"	12	<b>103.711</b>	<b>103.721</b>	<b>103.731</b>	<b>103.741</b>	<b>103.751</b>	<b>103.761</b>
	RO8 straight 0.30   0.012"	12		<b>105.721</b>	<b>105.731</b>	<b>105.741</b>	<b>105.751</b>	
3	MES crimped 0.15   0.006"	12		<b>107.321</b>	<b>107.331</b>	<b>107.341</b>	<b>107.351</b>	
	MES crimped 0.25   0.010"	12	<b>107.411</b>	<b>107.421</b>	<b>107.431</b>	<b>107.441</b>	<b>107.451</b>	<b>107.461</b>
	MES crimped 0.35   0.014"	12	<b>107.611</b>	<b>107.621</b>	<b>107.631</b>	<b>107.641</b>	<b>107.651</b>	<b>107.661</b>
	MES crimped 0.35   0.014"	100			<b>107.630</b>	<b>107.640</b>		
	MES straight 0.35   0.014"	12		<b>106.621</b>	<b>106.631</b>	<b>106.641</b>	<b>106.651</b>	
4	BRO crimped 0.20   0.008"	12			<b>108.331</b>	<b>108.341</b>	<b>108.351</b>	
	PA straight 0.40   0.016"	12		<b>109.421</b>	<b>109.431</b>	<b>109.441</b>	<b>109.451</b>	<b>109.461</b>
4	FIB	12			<b>109.731</b>	<b>109.741</b>		
	ROS	12					<b>109.851</b>	

Other filling materials and trim length on request.

Item Nos. in bold are available ex stock

STA = steel wire

STM = brass coated steel

ROF = stainless steel wire

RO8 = stainless steel wire, extremely heat resistant

MES = brass wire

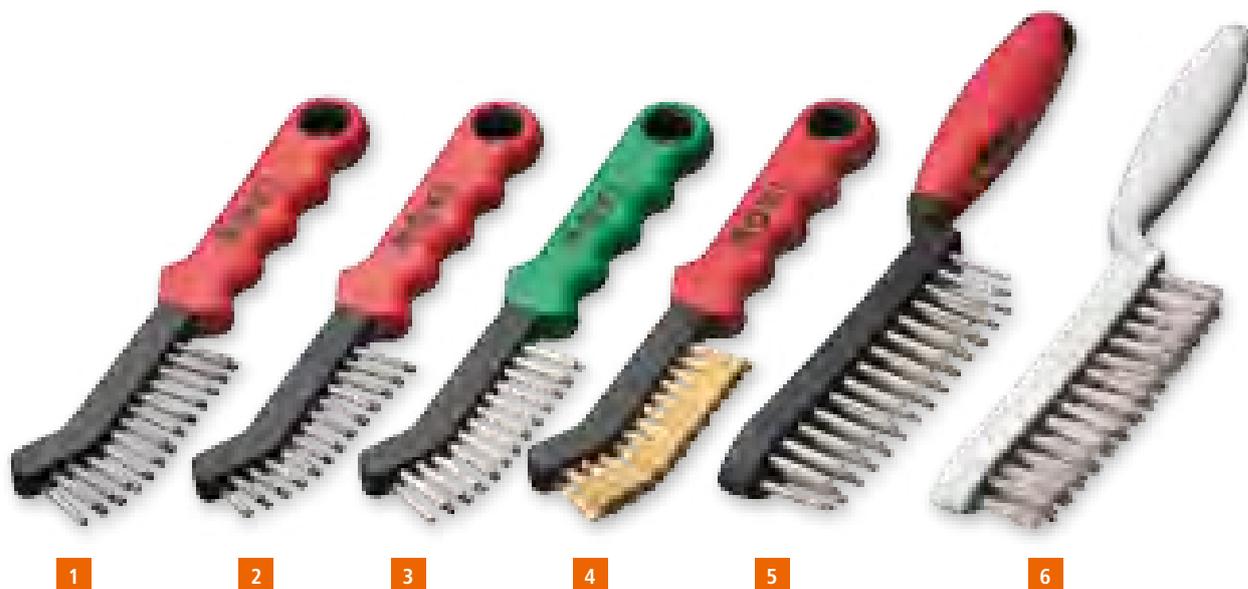
BRO = brone wire

PA = polyamide

FIB = fibre

ROS = horse hair

# Special Hand Brushes



## Special Hand Brushes

Filling	Rows	L	B	A	H	Pack.	Art.-No.
<b>Brake Caliper Brushes with Two-Components Handles</b>		mm   inch	mm   inch	mm   inch	mm   inch		
<b>1</b> STA straight 0.35   0.014"	2 x 13	225   9	12   1/2	90   3 1/2	22   7/8	10	<b>182.401</b>
STA crimped 0.30   0.012"	2 x 13	225   9	12   1/2	90   3 1/2	22   7/8	10	<b>182.411</b>
<b>2</b> STA straight 0.35   0.014"	2 x 12/13	225   9	12   1/2	90   3 1/2	12/18   1/2/5/8	10	<b>182.431*</b>
<b>3</b> ROF straight 0.35   0.014"	2 x 13	225   9	12   1/2	90   3 1/2	22   7/8	10	<b>182.421</b>
<b>4</b> MES crimped 0.25   0.010"	2 x 13	225   9	12   1/2	90   3 1/2	22   7/8	10	<b>182.451</b>

### Hand Brushes with Plastic Handles

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

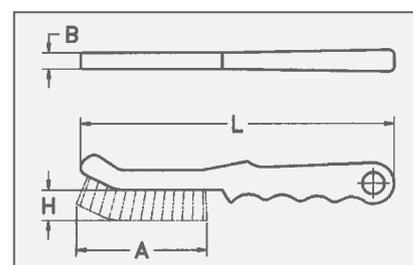
### Hand Brushes with Two-Components Handles

<b>4</b>	ROF straight 0.35   0.014"	3	285   11 1/4	26   1	130   5 1/8	25   1	10	<b>186.431</b>
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\* Special hard brushes, pointed |  For the food industry

### Brushes for the food industry

These brushes comply to the hygiene charter of the FEIBP (European Brushware Federation) and are accredited in the food industry.



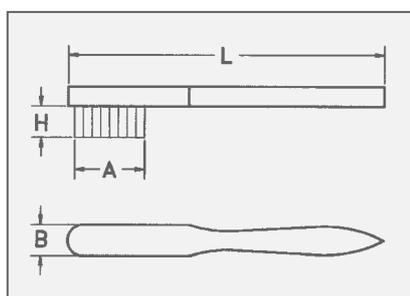
# Special Hand Brushes



## Special Hand Brushes

IIIIII  
EAN

Filling	Rows	L	B	A	H	Pack.	Art.-No.
		mm   inch	mm   inch	mm   inch	mm   inch		
<b>1 Rivet Brushes</b>							
<b>STA</b> 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	<b>120.801</b>
<b>ROF</b> 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	<b>120.811</b>
<b>RO8</b> 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	<b>120.831</b>
<b>2 Hand Brushes with Scraper</b>							
<b>STA</b> straight 0.35   0.014"	4 x 15	290   11 3/8	35   1 1/2	140   5 1/2	25   1	12	<b>120.401</b>
<b>STA</b> straight 0.35   0.014"	6 x 15	290   11 3/8	45   2	140   5 1/2	25   1	12	<b>120.601</b>
<b>3 Hand Brushes Heavy Duty</b>							
<b>STA</b> straight 0.35   0.014"	2 x 16	290   11 3/8	30   1 1/4	150   6	32   1 1/4	12	<b>136.101</b>
<b>STA</b> straight 0.35   0.014"	3 x 16	290   11 3/8	35   1 1/2	150   6	32   1 1/4	12	<b>136.102</b>
<b>STA</b> straight 0.35   0.014"	4 x 16	290   11 3/8	40   1 3/8	150   6	32   1 1/4	12	<b>136.103</b>
<b>Hand Brushes Export Model</b>							
<b>4 STA</b> straight 0.35   0.014"	4 x 17	300   12	30   1 1/4	130   5 1/8	25   1	12	<b>122.401</b>
<b>5 STA</b> straight 0.35   0.014"	4 x 19	350   14	30   1 1/4	160   6 3/8	30   1 1/4	6	<b>122.801</b>
<b>6 Universal Wire Brushes</b>							
<b>STM</b> crimped 0.30   0.012"	1	260   10 1/4	10   3/8	135   5 3/8	28   1	24	<b>056.001</b>
<b>STA</b> crimped 0.35   0.014"	1	260   10 1/4	10   3/8	135   5 3/8	28   1	24	<b>056.301</b>
<b>ROF</b> crimped 0.30   0.012"	1	260   10 1/4	10   3/8	135   5 3/8	28   1	24	<b>056.501</b>
<b>MES</b> crimped 0.30   0.012"	1	260   10 1/4	10   3/8	135   5 3/8	28   1	24	<b>056.701</b>



Item Nos. in bold are available ex stock

**STA** = steel wire

**STM** = brass coated steel

**ROF** = stainless steel wire

**RO8** = stainless steel wire, extremely heat resistant

**MES** = brass wire

# Spark Plug Brushes



## Standard Spark Plug Brushes

	Filling	Rows	L mm   inch	B mm   inch	A mm   inch	H mm   inch	Pack.	Art.-No.
<b>1</b>	MES crimped 0.15   0.006"	3 x 5/6	150   6	15   5/8	35   1 1/2	15   5/8	12	<b>125.211</b>
	STA crimped 0.15   0.006"	3 x 5/6	150   6	15   5/8	35   1 1/2	15   5/8	12	<b>125.201</b>
	ROF crimped 0.15   0.006"	3 x 5/6	150   6	15   5/8	35   1 1/2	15   5/8	12	<b>125.231</b>
	MES crimped 0.15   0.006" / PP	3 x 5/6	150   6	15   5/8	35   1 1/2	15   5/8	12	<b>125.221</b>
	MES crimped 0.15   0.006"	3 x 5/6	150   6	15   5/8	40   1 3/8	15   5/8	12	<b>125.311*</b>
	ROF crimped 0.20   0.008"	3 x 5/6	150   6	15   5/8	30   1 1/4	15   5/8	12	<b>125.241</b>
	PA straight 0.30   0.012"	3 x 5/6	150   6	15   5/8	30   1 1/4	15   5/8	12	<b>125.251</b>
<b>2</b>	BRO crimped 0.15   0.006"	3 x 5/6	200   8	15   5/8	40   1 3/8	15   5/8	12	<b>132.801</b>

## Small Spark Plug Brushes

<b>3</b>	MES crimped 0.15   0.006"	2 x 5	100   4	15   5/8	25   1	15   5/8	50	<b>125.111</b>
<b>4</b>	MES crimped 0.15   0.006"	2 x 4	100   4	12   1/2	22   7/8	12   1/2	50	<b>182.001**</b>

## Large Spark Plug Brushes

<b>5</b>	MES crimped 0.15   0.006" / PP	5 x 8/10	190   1 1/2	24   1	55   2 1/4	18   3/4	12	<b>125.511</b>
<b>6</b>	MES crimped 0.15   0.006"	4 x 6	155   6	22   7/8	40   1 3/8	18   3/4	12	<b>182.331**</b>

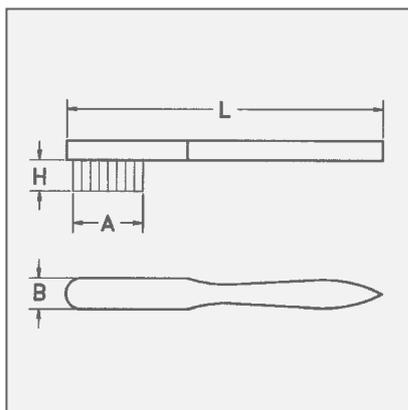
\* Wooden body varnished | \*\* Plastic body

## Spark Plug Brushes

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

They are available in different sizes and filling materials. The models 182.001 and 182.331 have plastic bodies, the other models have a beech wood body.

The body of 125.311 is varnished.



Item Nos. in bold are available ex stock

STA = steel wire

STM = brass coated steel

ROF = stainless steel wire

MES = brass wire

BRO = brone wire

PA = polyamide

ROS = horse hair

# Fine Scratch Brushes



Fine Scratch Brushes										
	Filling	Rows	L mm   inch	B mm   inch	A 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	225   9	20   3/4	110   4 3/8	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		
	MES crimped 0.15   0.006"	4	225   9	20   3/4	100   4	20   3/4	12	182.162**		
ROF crimped 0.15   0.006"	4	225   9	20   3/4	110   4 3/8	20   3/4	12	126.481			
	ROF crimped 0.15   0.006"	4	225   9	20   3/4	100   4	20   3/4	12	182.152**		
2	STA crimped 0.15   0.006"	4	225   9	20   3/4	110   4 3/8	20   3/4	12	126.401		
3	PA straight 0.30	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		
<b>Special Brushes</b>										
6	MES crimped 0.35   0.014"	4 x 11/12	350   14	22   7/8	80   3	10   3/8	12	137.701		
7	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		
5	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**		
<b>Gas Cooker Brushes</b>										
8	MES crimped 0.25   0.010"	2 x 10	200   8	15   5/8	80   3	19   3/4	12	132.701		

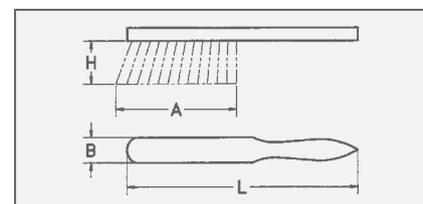
\*\* Plastic body

## 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.

## Gas Cooker Brushes and Special Brushes

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



# 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 models 140.900 and 140.901 have 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 brushes 144.701 and 144.801 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

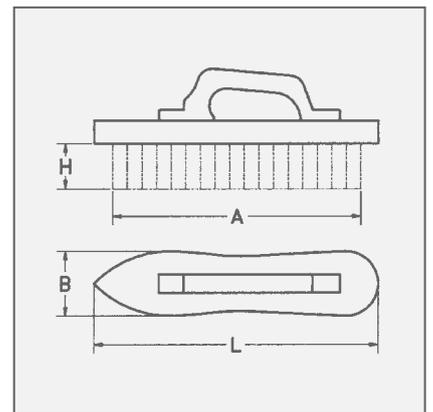
For pre and retreatment of brickwork for painters and bricklayers. All models have a jute or plastic strap.

## Plasterer's Brushes

These are for roughening and structuring of plaster. Body is made of beech wood, the steel pins are hardened. Model 061.111: the outer steel pins are obliquely arranged in order to reach into corners.

## 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

**STA** = steel wire

**STM** = brass coated steel

**BRO** = brone wire



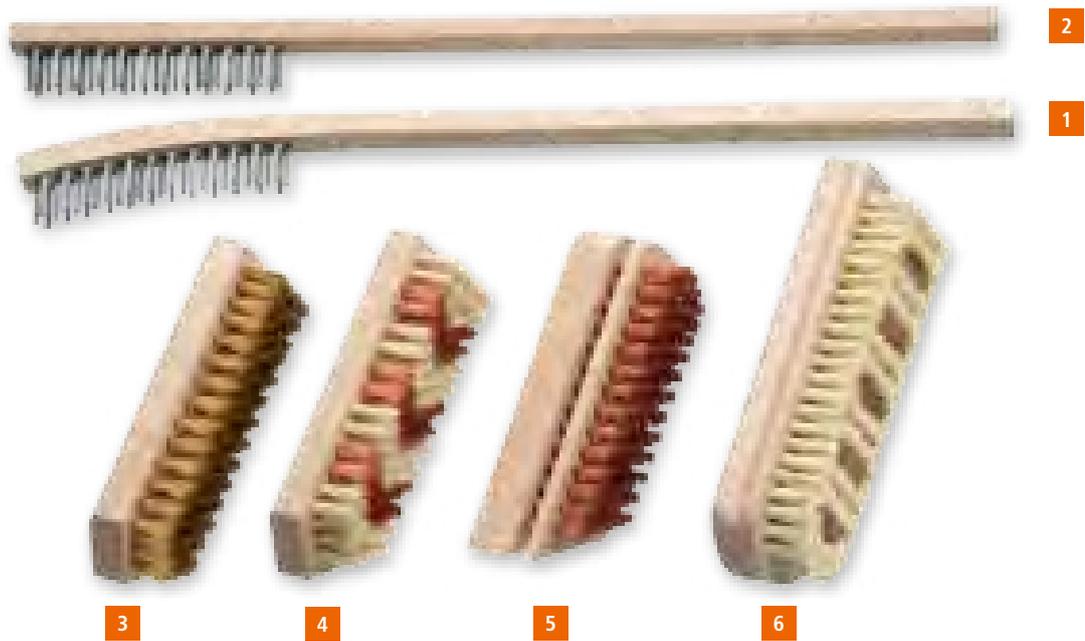
We are accredited!



Special Hand Brushes								
	Filling	Rows	L	B	A	H	Pack.	Art.-No.
	<b>Hand Brushes Rectangular and Violin</b>		mm   inch	mm   inch	mm   inch	mm   inch		
1	STA straight 0.40   0.016"	6 x 19	185   7 1/4	57   2 1/4	175   7	30   1 1/4	12	140.201
	STA straight 0.40   0.016"	6 x 19	185   7 1/4	57   2 1/4	175   7	45   1 3/4	12	140.211
2	STA straight 0.40   0.016"	5	200   8	60   2 3/8	190   7 1/2	35   1 1/2	16	141.231
	STA straight 0.40   0.016"	5	200   8	55   2 1/4	170   6 5/8	40   1 3/8	36	140.601
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
<b>Hand Brushes with Bracket</b>								
4	STA straight ca. 0.40   0.016"	5	225   9	55   2 1/4	200   8	38   1 1/2	16	140.901*
	STA straight ca. 0.40   0.016"	5	225   9	55   2 1/4	200   8	38   1 1/2	75	140.900*
5	STM crimped 0.35   0.014"	5	225   9	55   2 1/4	200   8	38   1 1/2	16	140.811
<b>Hand Brushes with Strap</b>								
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
<b>Hand Brushes for removing wet storage stain</b>								
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	10	152.811

\* with adjustable board

# Special Models



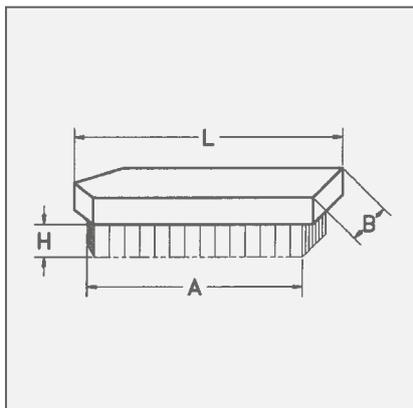
## Radiator Brushes

	Filling	Rows	L mm   inch	B mm   inch	A mm   inch	H mm   inch	Pack.	Art.-No.
<b>1</b>	STA straight 0.25   0.010"	3 x 13	420   16 1/2	20   3/4	115   4 1/2	20   3/4	12	<b>121.111*</b>
<b>2</b>	STA straight 0.25   0.010"	3 x 13	420   16 1/2	20   3/4	115   4 1/2	20   3/4	12	<b>121.211**</b>

## Staining Brushes

	Filling	Rows	L mm   inch	B mm   inch	A mm   inch	H mm   inch	Pack.	Art.-No.
<b>3</b>	MES crimped 0.15   0.006"	7	150   6	50   2	140   5 1/2	20   3/4	12	<b>144.001</b>
	BRO crimped 0.15   0.006"	7	150   6	50   2	140   5 1/2	20   3/4	12	<b>144.011</b>
<b>4</b>	BRO 0.15   0.006" / FIB	7	150   6	50   2	140   5 1/2	20   3/4	12	<b>144.021</b>
	BRO crimped 0.15   0.006"	7	180   7	60   2 3/8	170   6 5/8	20   3/4	12	<b>144.111</b>
	BRO 0.15   0.006" / FIB	7	180   7	60   2 3/8	170   6 5/8	20   3/4	12	<b>144.121</b>
<b>5</b>	BRO crimped 0.15   0.006"	6	150   6	50   2	130   5 1/8	20   3/4	12	<b>144.211***</b>
	BRO crimped 0.15   0.006"	6	150   6	50   2	130   5 1/8	15   5/8	12	<b>144.311</b>
	BRO crimped 0.15   0.006"	6	180   7	60   2 3/8	160   6 3/8	15   5/8	12	<b>144.411</b>
<b>6</b>	Leder + FIB	3/7	175   6 7/8	60   2 3/8	160   6 3/8	20   3/4	12	<b>144.701</b>
	Leder + FIB	4/9	203   8	72   2 7/8	190   7 1/2	20   3/4	12	<b>144.801</b>

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



Item Nos. in bold are available ex stock

ROF = stainless steel wire

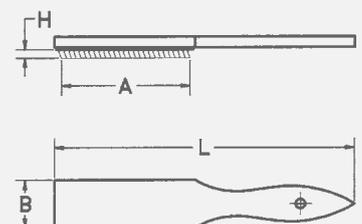
MES = brass wire

BRO = brone wire

PP = polypropylene

FIB = fibre

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**1 File Cleaners**

File Cards	L mm   inch	B mm   inch	A mm   inch	Pack.	Art.-No.
<b>STA</b>	210   8 1/4	25   1	100   4	12	<b>037.101</b>
<b>STA</b>	210   8 1/4	25   1	100   4	100	<b>037.100</b>
<b>STA</b>	250   10	40   1 3/8	115   4 1/2	12	<b>037.201</b>
<b>STA</b>	250   10	40   1 3/8	115   4 1/2	100	<b>037.200</b>
<b>ROF</b>	250   10	40   1 3/8	115   4 1/2	12	<b>037.221</b>

**2 File Cards**

Filling, without interval	STA width 25 Art.-No.	STA width 38 Art.-No.	STA width 51 Art.-No.	ROF width 38 Art.-No.
	<b>000.311*</b>	<b>000.321*</b>	<b>000.331*</b>	<b>000.323*</b>

**Bricklayer's Brushes with Strap**

Filling	Rows	L mm   inch	B mm   inch	A mm   inch	H mm   inch	Pack.	Art.-No.
<b>3 STA</b> straight 0.25   0.010"	9	210   8 1/4	100   4	200   8	35   1 1/2	12	<b>142.101</b>
<b>4 MES</b> crimped 0.20   0.008" / PP	9	210   8 1/4	95   3 3/4	200   8	20   3/4	12	<b>142.211**</b>

**Plasterer's Brushes**

Filling	L mm   inch	B mm   inch	A mm   inch	H mm   inch	Pack.	Art.-No.
<b>5 86 steel Pins</b> hardend	190   7 1/2	97   3 3/4	165   6 1/2	16   5/8	12	<b>061.101</b>
<b>6 116 steel Pins</b> hardend / outer row slanting	190   7 1/2	97   3 3/4	190   7 1/2	16   5/8	12	<b>061.111</b>

**7 Spiked Rollers**

Filling	Rows	L mm   inch	B mm   inch	A mm   inch	H mm   inch	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	<b>064.050</b>

\* Please indicate length. | \*\* Wooden body varnished

# Brooms and Scrubs

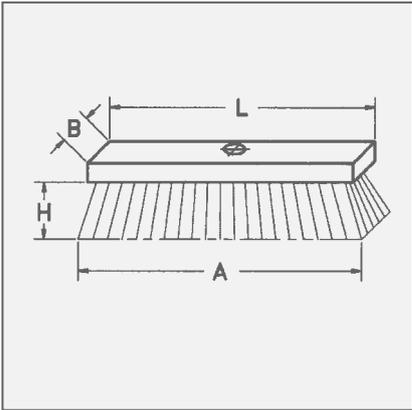


**Brooms and Scrubs**

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

The shown brooms and scrubs are the best selling models. All models have a handle hole. The tree-trunk scrubs 148.601 is half-rounded for use in the forestry and sawmill area.

The brooms with flat steel wire 1.80 x 0.45 mm make the so called broom lines on cement floors thus receiving a rough surface.



Item Nos. in bold are available ex stock

STA = steel wire

ROF = stainless steel wire

MES = brass wire



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

Filling	Rows	L mm   inch	B mm   inch	A mm   inch	H mm   inch	Pack.	Art.-No.
STA straight 0.50   0.020"	5 x 16/17	250   10	60   2 <sup>3/8</sup>	270   10 <sup>5/8</sup>	70   2 <sup>3/4</sup>	12	147.101
STA straight 0.50   0.020"	5 x 20	300   12	60   2 <sup>3/8</sup>	330   13	70   2 <sup>3/4</sup>	12	147.401
STA straight 0.50   0.020"	6 x 20/21	300   12	70   2 <sup>3/4</sup>	330   13	70   2 <sup>3/4</sup>	12	147.201
STA straight 0.50   0.020"	6 x 20/21	300   12	70   2 <sup>3/4</sup>	330   13	70   2 <sup>3/4</sup>	42	147.200
ROF straight 0.50   0.020"	6 x 20	300   12	70   2 <sup>3/4</sup>	330   13	70   2 <sup>3/4</sup>	12	147.261
STA straight 0.50   0.020"	6 x 23	350   14	70   2 <sup>3/4</sup>	390   15 <sup>3/8</sup>	70   2 <sup>3/4</sup>	12	147.301

## 2 Brooms Raised Wooden Stock, with Handle Hole 23 Ø

Filling	Rows	L mm   inch	B mm   inch	A mm   inch	H mm   inch	Pack.	Art.-No.
STA straight 0.50   0.020"	5 x 16/17	250   8 <sup>1/4</sup>	60   2 <sup>3/8</sup>	270   10 <sup>5/8</sup>	70   2 <sup>3/4</sup>	12	146.101
STA straight 0.50   0.020"	6 x 20/21	300   12	70   2 <sup>3/4</sup>	330   13	70   2 <sup>3/4</sup>	12	146.201
STA flach 1.80 x 0.45	6 x 20/21	300   12	70   2 <sup>3/4</sup>	330   13	70   2 <sup>3/4</sup>	12	146.241
STA straight 0.50   0.020"	6 x 23/24	350   14	70   2 <sup>3/4</sup>	390   15 <sup>3/8</sup>	70   2 <sup>3/4</sup>	12	146.301
STA flat 1.80 x 0.45	6 x 23/24	350   14	70   2 <sup>3/4</sup>	390   15 <sup>3/8</sup>	70   2 <sup>3/4</sup>	12	146.341

## 3 Scrubs, with Handle Hole 23 Ø

Filling	Rows	L mm   inch	B mm   inch	A mm   inch	H mm   inch	Pack.	Art.-No.
STA straight 0.35   0.014"	6 x 16/17	220   8 <sup>5/8</sup>	60   2 <sup>3/8</sup>	225   9	35   1 <sup>1/2</sup>	12	148.101
ROF straight 0.35   0.014"	6 x 16/17	220   8 <sup>5/8</sup>	60   2 <sup>3/8</sup>	225   9	35   1 <sup>1/2</sup>	12	148.161
MES crimped 0.25   0.010"	6 x 16/17	220   8 <sup>5/8</sup>	60   2 <sup>3/8</sup>	225   9	25   1	12	148.141
STA straight 0.25   0.010"	6 x 17/18	240   9 <sup>1/2</sup>	70   2 <sup>3/4</sup>	245   9 <sup>5/8</sup>	35   1 <sup>1/2</sup>	12	148.201
STA straight 0.40   0.016"	7 x 15/16	230   9	65   2 <sup>1/2</sup>	220   8 <sup>5/8</sup>	35   1 <sup>1/2</sup>	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.

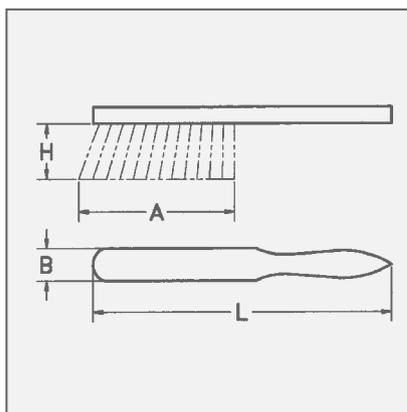
Next to horse hair we offer dusters with coco filament as a good value alternative.

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

STA = steel wire

**STA flat** = steel wire, flat

ROF = stainless steel wire

MES = brass wire

PP = polypropylene

ROS = horse hair



We are accredited!



Dusters									
	Filling	Rows	L mm   <i>inch</i>	B mm   <i>inch</i>	A mm   <i>inch</i>	H mm   <i>inch</i>	Pack.	Art.-No.	
1	STA straight 0.25   0.010"	4	320   12 1/2	35   1 1/2	150   6	60   2 3/8	12	124.101	
2	MES crimped 0.25   0.010"	4	320   12 1/2	35   1 1/2	150   6	40   1 3/8	12	124.121	
3	coco	4	280   11	40   1 3/8	160   6 3/8	70   2 3/4	12	124.201	
4	coco	4	430   17	40   1 3/8	165   6 1/2	70   2 3/4	20	124.401	
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	

II III III  
EAN

\* Wooden body varnished

# Weed Brushes and Weed Brooms

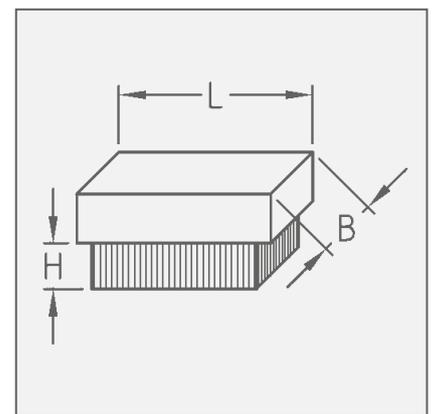


## Weed Brush

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.



## 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“.

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



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

**STA** = steel wire

**STM** = brass coated steel

3

Displaybox



IIIIII  
EAN

## Weed Brushes, with Handle Hole 23 Ø

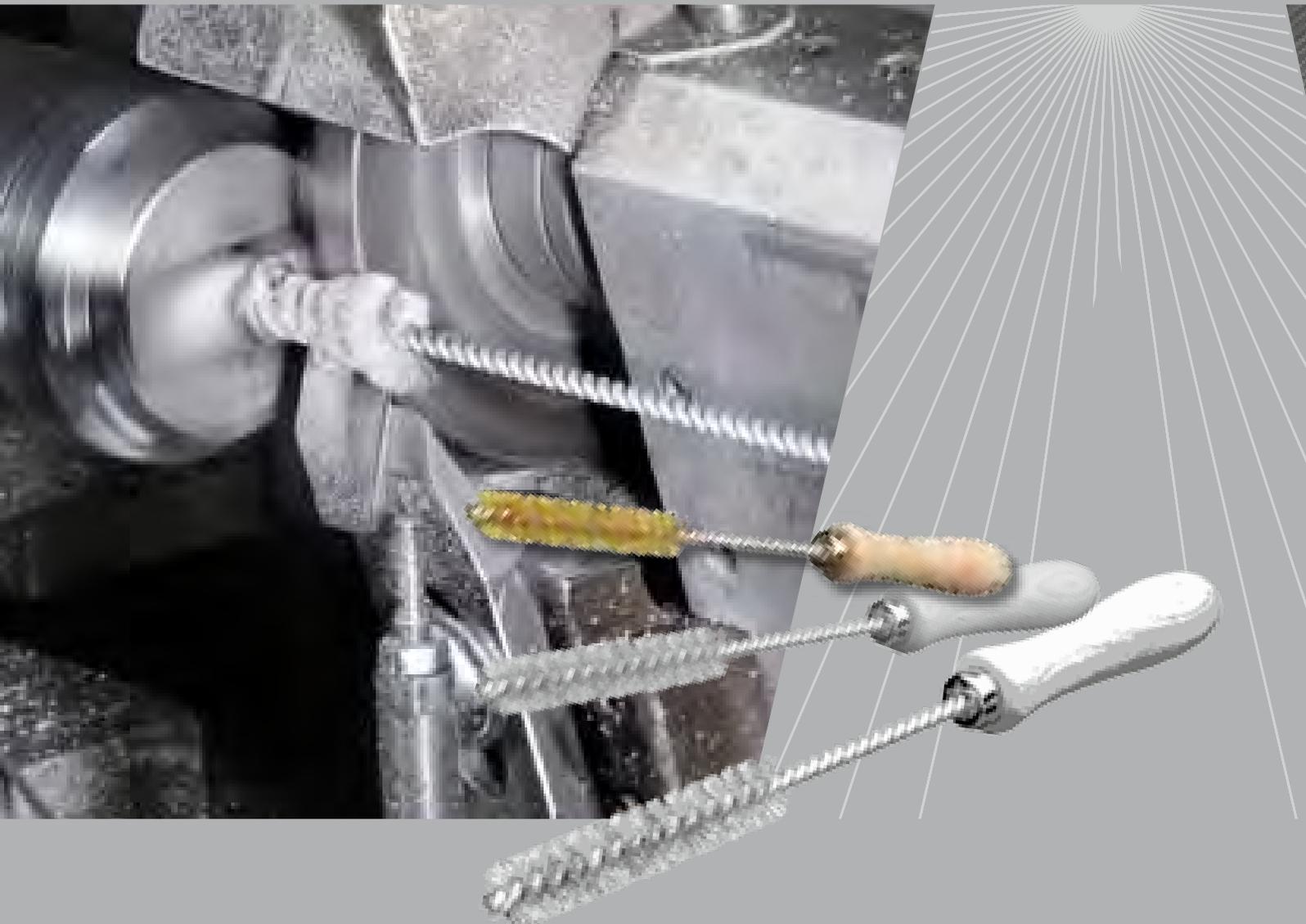
	Filling	L	B	H	Rows	Pack.	Art.-No.
		mm   inch	mm   inch	mm   inch			
<b>without handle</b>							
1	STA 0.35   0.014"	100   4	35   1 1/2	36   1 1/2	3	25	151.108
2	STM 0.35   0.014" Filling set in working direction	100   4	35   1 1/2	36   1 1/2	3	25	151.511
<b>with handle, 1400 mm long, Ø 28 mm, incl. Displaybox</b>							
3	STA 0.35   0.014"	100   4	35   1 1/2	36   1 1/2	3	30	151.991.07*
	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*

IIIIII  
EAN

## Weed Broom, with Handle Hole 23 Ø

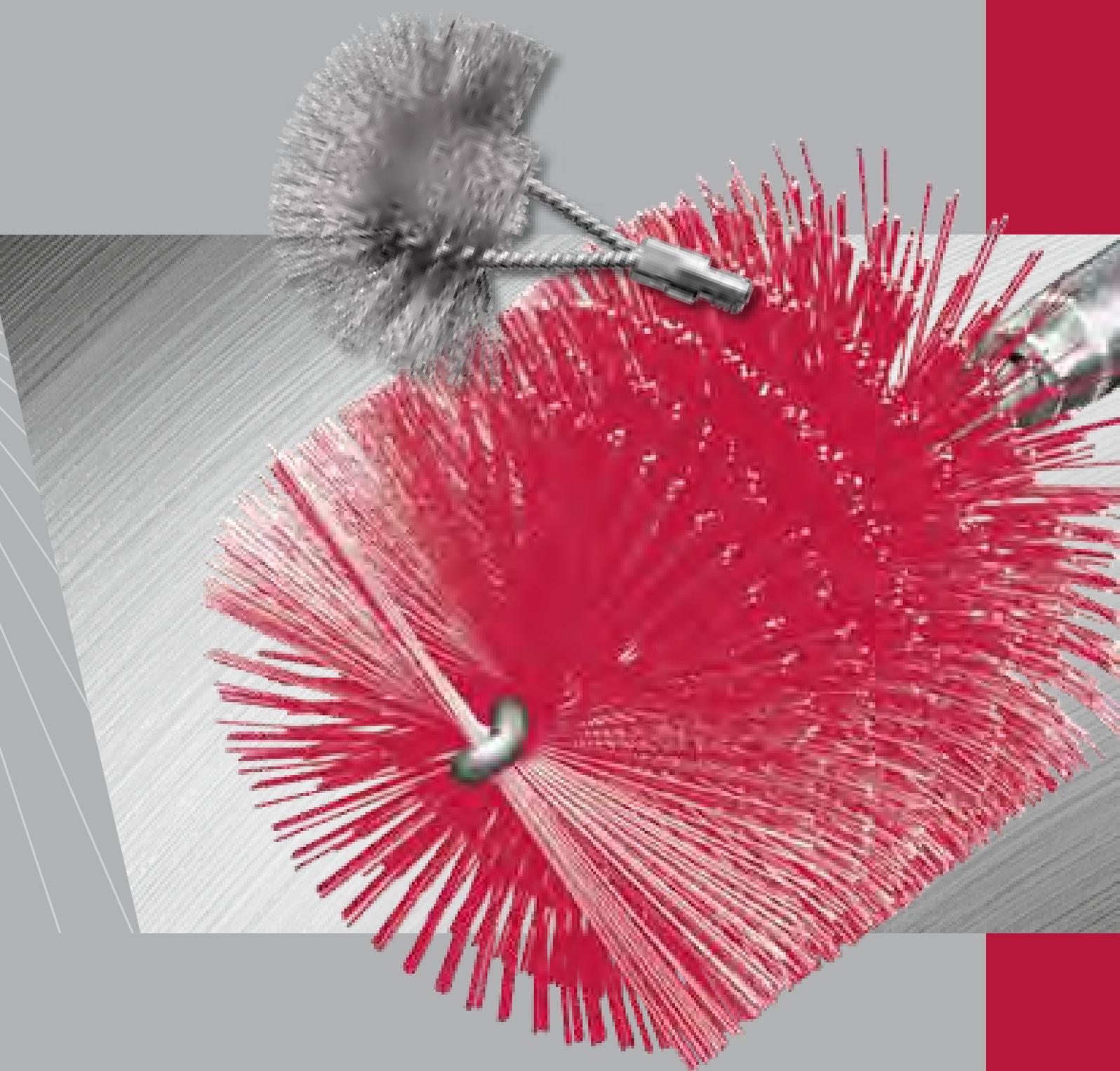
	Filling	L	B	H	Rows	Pack.	Art.-No.
		mm   inch	mm   inch	mm   inch			
<b>without handle</b>							
4	STM 0.50   0.020"	140   5 1/2	60   2 3/8	70/60   2 3/4 / 2 3/8	10/9	16	152.510
<b>with handle, 1400 mm long, Ø 28 mm, incl. Displaybox</b>							
	STM 0.50   0.020"	140   5 1/2	60   2 3/8	70/60   2 3/4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

\* Delivery only in full packaging units.

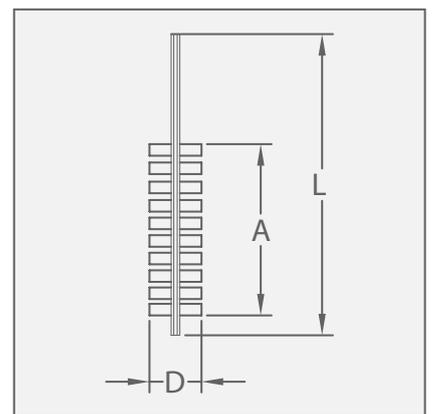


**LESSMANN**<sup>®</sup>  
DRAHTBÜRSTEN · WIRE BRUSHES

# INTERIOR BRUSHES



# Micro Interior Brushes



## 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.

## Stainless Steel Brushes

Information on working on stainless steel you find at [www.lessmann.com](http://www.lessmann.com)

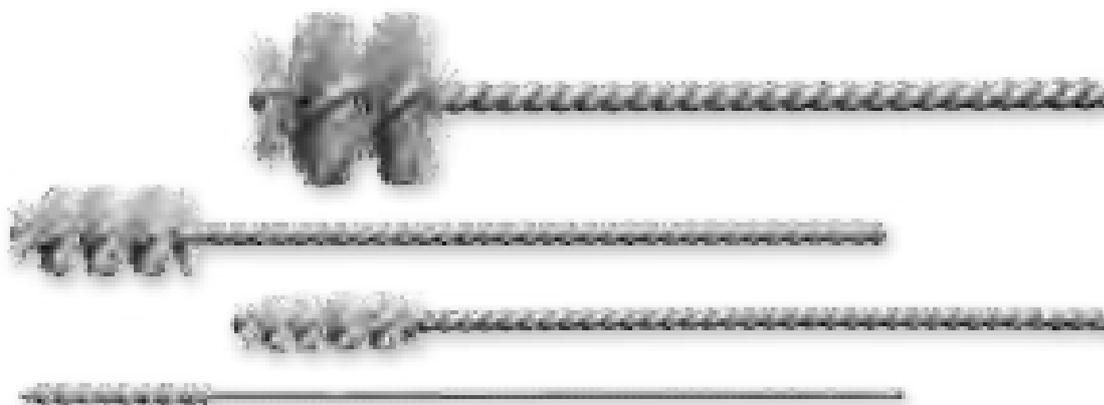
Item Nos. in **bold** are available ex stock

**AO** = aluminium oxide bristles



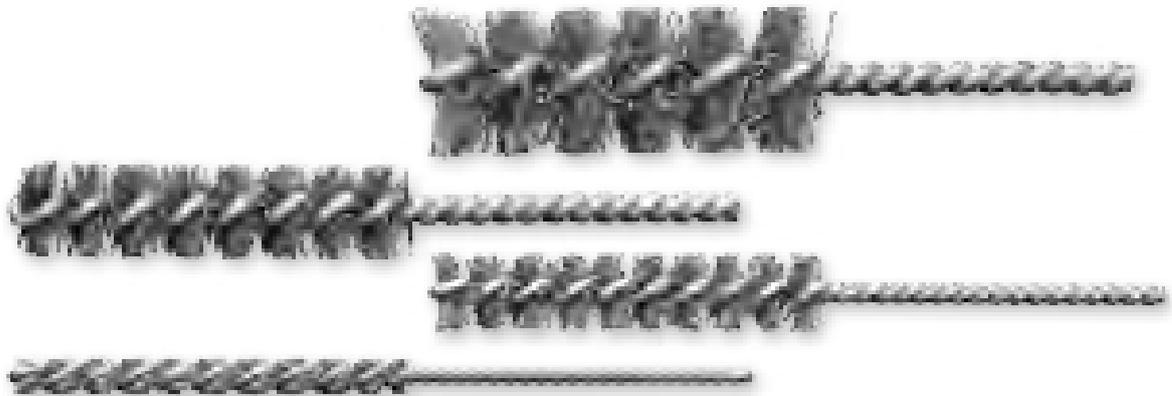
Mikro Interior Brushes are also available with special contours, e.g. **layered cut**.

Please ask for our special leaflet „Interior Brushes“.



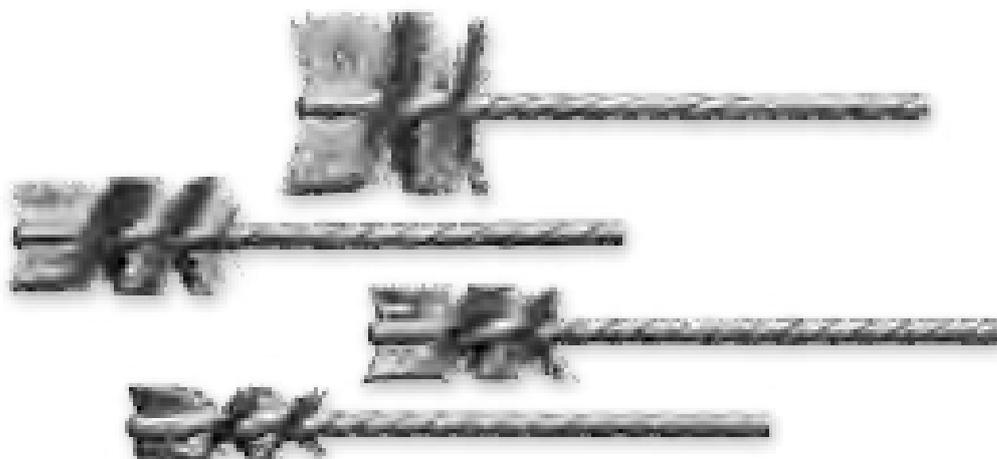
Microabrasive Interior Brushes, Aluminum Oxide Bristles						
D	L	A	Shank Ø	Pack.	AO 600/0.30	AO 1000/0.25
mm   inch	mm   inch	mm   inch	mm   inch		Art.-No.	Art.-No.
3.2   1/8	125   5	25   1	1.5   9/16	10	541.084	540.067
4.2   5/32	125   5	25   1	2.2   1/12	10	541.045	540.068
4.8   3/16	125   5	25   1	2.2   1/12	10	541.083	540.069
5.5   7/32	125   5	25   1	2.2   1/12	10	541.079	540.070
6.6   1/4	125   5	25   1	2.5   1/10	10	541.037	540.071
8.2   5/16	125   5	25   1	3.2   1/8	10	541.076	540.072
9.8   3/8	125   5	25   1	3.2   1/8	10	541.077	540.073
11.5   7/16	125   5	25   1	3.7   1/7	10	541.085	540.074
13   1/2	125   5	25   1	3.7   1/7	10	541.087	540.075
16   5/8	125   5	25   1	3.7   1/7	10	541.089	540.076
20   3/4	125   5	25   1	4.7   3/16	10	541.093	540.077
25   1	125   5	25   1	4.7   3/16	10	541.095	540.078

# Interior Brushes



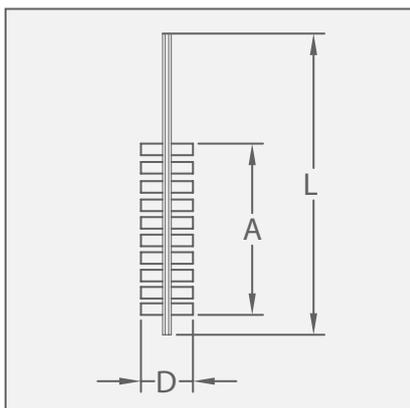
Microabrasive Interior Brushes, Silicon Carbide Bristles

D		L		A		Shank Ø		Pack.	SIC 120/0.6	SIC 320/0.6	SIC 1000/0.25
mm	inch	mm	inch	mm	inch	mm	inch		Art.-No.	Art.-No.	Art.-No.
1.2	3/64	100	4	12	1/2	0.5	1/64	10			545.200.12
1.9	9/128	100	4	18	5/8	0.7	1/32	10			545.200.19
2.6	7/64	100	4	25	1	1.0	3/64	10			545.200.26
3.2	1/8	100	4	25	1	1.7	1/16	10			545.200.32
4.2	5/32	125	5	25	1	2.2	1/12	10			545.200.42
5.5	7/32	125	5	25	1	2.2	1/12	10			545.200.55
6	1/4	125	5	65	2 1/2	3.0	1/8	10	<b>541.200.60</b>	<b>543.200.60</b>	545.200.60
8	5/16	125	5	65	2 1/2	3.0	1/8	10	<b>541.200.80</b>	<b>543.200.80</b>	545.200.80
10	3/8	125	5	65	2 1/2	3.7	1/7	10	<b>541.201.00</b>	<b>543.201.00</b>	545.201.00
13	1/2	125	5	65	2 1/2	3.7	1/7	10	<b>541.201.30</b>	<b>543.201.30</b>	545.201.30
16	3/8	125	5	65	2 1/2	5.2	1/5	10	<b>541.201.60</b>	<b>543.201.60</b>	545.201.60
19	3/4	125	5	65	2 1/2	5.2	1/5	10	<b>541.201.90</b>	<b>543.201.90</b>	545.201.90
22	7/8	125	5	65	2 1/2	5.7	7/32	10	<b>541.202.20</b>	<b>543.202.20</b>	545.202.20
25	1	125	5	65	2 1/2	5.7	7/32	10	<b>541.202.50</b>	<b>543.202.50</b>	545.202.50
28	1	125	5	65	2 1/2	5.7	7/32	10	<b>541.202.80</b>	<b>543.202.80</b>	545.202.80
30	1 1/4	125	5	65	2 1/2	5.7	7/32	10	<b>541.203.00</b>	<b>543.203.00</b>	545.203.00
32	1 1/4	125	5	65	2 1/2	5.7	7/32	10	<b>541.203.20</b>	543.203.20	545.203.20



**Micro Interior Brushes, Steel Wire**

D	L	A	Shank Ø	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		Art.-No.	Art.-No.	Art.-No.	Art.-No.
6   1/4	90   3 1/2	25   1	3.8   5/32	10	available on demand	available on demand		
8   5/16	90   3 1/2	25   1	3.8   5/32	10	available on demand	available on demand		
10   3/8	90   3 1/2	25   1	3.8   5/32	10	<b>565.321.00</b>	<b>565.341.00</b>	565.521.00	
13   1/2	90   3 1/2	25   1	3.8   5/32	10	<b>565.321.30</b>	<b>565.341.30</b>	565.521.30	
16   5/8	90   3 1/2	25   1	3.8   5/32	10	<b>565.321.60</b>	<b>565.341.60</b>	565.521.60	565.541.60
19   3/4	90   3 1/2	25   1	3.8   5/32	10	<b>565.321.90</b>	<b>565.341.90</b>	565.521.90	565.541.90
25   1	90   3 1/2	25   1	3.8   5/32	10	565.322.50	<b>565.342.50</b>		565.542.50
29   1 1/8	90   3 1/2	25   1	3.8   5/32	10	565.322.90	565.342.90		565.542.90
32   1 1/4	90   3 1/2	25   1	3.8   5/32	10	565.323.20	565.343.20		565.543.20



Item Nos. in bold are available ex stock

STH = steel wire, high tensile

ROH = stainless steel wire, high tensile

SIC = silicon carbide bristles

# Cylinder Brushes



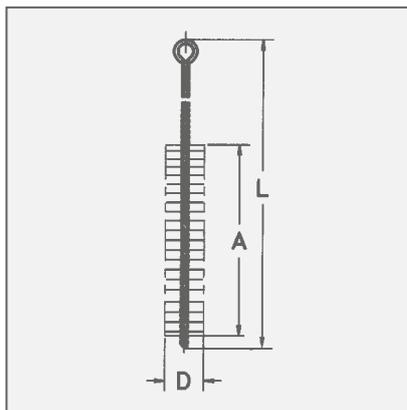
## Cylinder Brushes

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.

When the brushes are inserted in a suitable working piece, higher RPM can be applicable.

## Stainless Steel Brushes

Information on working on stainless steel you find at [www.lessmann.com](http://www.lessmann.com)



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

**STA** = steel wire

**ROF** = stainless steel wire

**MES** = brass wire

**PA** = polyamide



### Cylinder Brushes with Loop

					1	2	3	4
D	L	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   1/8	300   12	100   4	10	542.351	542.508	542.740	542.823	
5   1/8	300   12	100   4	10	542.347	542.538	542.739	542.822	
6   1/4	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   3/8	300   12	100   4	10	542.303	542.503	542.703	542.803	
12   3/8	300   12	100   4	10	542.304	542.504	542.704	542.804	
13   1/2	300   12	100   4	10	542.305	available on demand	542.705	available on demand	
14   1/2	300   12	100   4	10	542.306	542.506	542.706	542.812	
15   5/8	300   12	100   4	10	542.307	542.507	542.707	542.807	
18   5/8	300   12	100   4	10	542.309	available on demand	542.709	542.818	
20   3/4	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	300   12	100   4	10	542.315	542.515	542.715	542.815	
40   1 3/8	300   12	100   4	10	542.319	available on demand	542.719	542.819	
50   2	300   12	100   4	10	542.320	available on demand	542.720	542.820	
5	25x5   1x1/8	450   17 3/4	80   3	10	551.718*			

### 6 Cylinder Brushes with Shank 8 mm Ø

D	L	A	RPM	Pack.	STA
mm   inch	mm   inch	mm   inch	max.		Art.-No.
13   1/2	200   8	55   2 1/4	1,000	10	503.311
20   3/4	200   8	55   2 1/4	1,000	10	503.313
26   1	200   8	55   2 1/4	800	10	503.314
32   1 1/4	200   8	55   2 1/4	800	10	503.316
38   1 1/2	200   8	55   2 1/4	800	10	503.318

\* flat filling

# Hole Cleaning Brushes



Hole cleaning Brushes with Wooden Handle

					1	2	3
D	L	A	Pack.		STA	ROF	MES
mm   inch	mm   inch	mm   inch			Art.-No.	Art.-No.	Art.-No.
10   3/8	300   12	100   4	10		560.310	560.510	560.710
15   5/8	300   12	100   4	10		560.315	560.515	560.715
20   3/4	300   12	100   4	10		560.320	560.520	560.720
25   1	300   12	100   4	10		560.325	560.525	560.725
30   1 1/4	300   12	100   4	10		560.330	560.530	560.730
4 10/18   3/8 / 5/8	200   8	70   2 3/4	10		561.304*		

\* conical filling

## Hole Cleaning Brushes

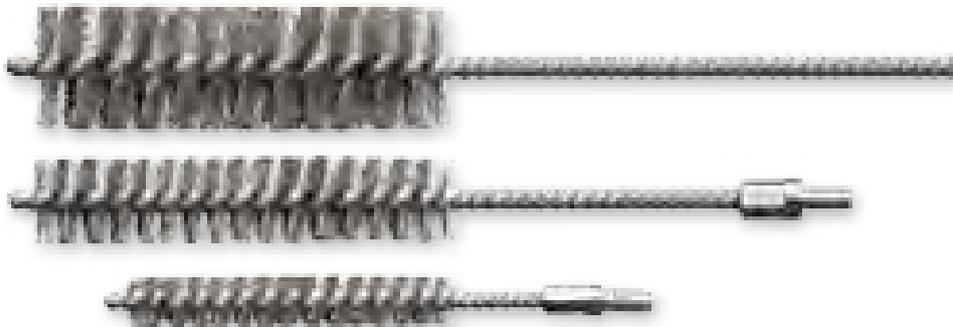
Those hole cleaning brushes have a wooden handle. Hence the brushes allow a very comfortable working in various application fields.

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.

The model 561.304 has the filling material conically cut.

# Bore Hole Cleaning Brushes



**Bore Hole Cleaning Brushes, Steel, without Thread**

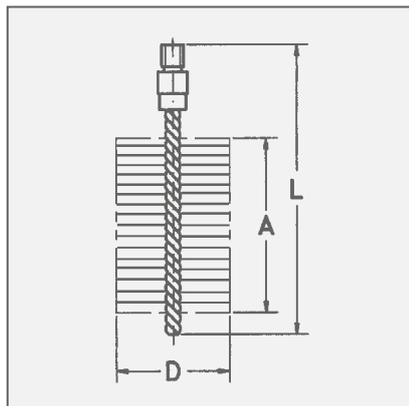
D	L	A	Suitable for bore hole	Pack.	STA 0.10   0.004"	STA 0.15   0.006"	STA 0.20   0.008"
mm   inch	mm   inch	mm   inch	mm   inch		Art.-No.	Art.-No.	Art.-No.
12   1/2	130   5 1/8	80   3	10   3/8	10	504.301		
14   1/2	140   5 1/2	80   3	12   1/2	10	504.302		
16   5/8	180   7	80   3	14   1/2	10		504.333	
20   3/4	200   8	100   4	18   5/8	10		504.334	
24   1	220   8 5/8	100   4	22   7/8	10		504.335	
26   1	250   10	100   4	24   1	10			504.346
28   1	290   11 3/8	100   4	26   1	10			504.347

**Bore Hole Cleaning Brushes, Stainless Steel, with Thread**

D	L	A	Suitable for bore hole	Thread	Pack.	ROF 0.10   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   1/2	130   5 1/8	80   3	10   3/8	M 6	10	504.501.06		
14   1/2	140   5 1/2	80   3	12   1/2	M 6	10	504.502.06		
16   5/8	180   7	80   3	14   1/2	M 6	10		504.533.06	
20   3/4	200   8	100   4	18   5/8	M 6	10		504.534.06	
24   1	220   8 5/8	100   4	22   7/8	M 6	10		504.535.06	
26   1	250   10	100   4	24   1	M 6	10			504.546.06
28   1	290   11 3/8	100   4	26   1	M 6	10			504.547.06

## 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

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.

**Recommendation for users:** When using twisted brushes on machines please use only in a clockwise running direction. Failure to do so may cause the brush wire to open up.

## 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](http://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



For all brushes with thread M 6, M 10, W 1/2" and W 3/8" a practical hanger assembly is available for presenting the brushes individually. More information you find on the pages 118 and 121.

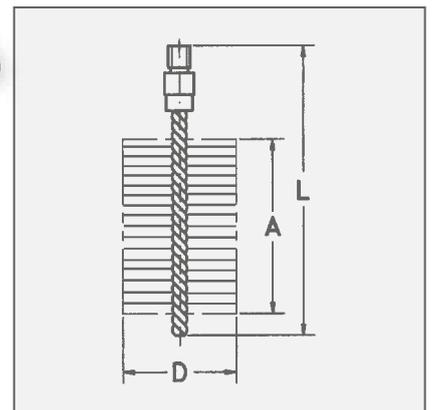
## Suitable thread adapter,

see on page 111

## Handles and Extension Pieces

see on page 111

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



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

**STA** = steel wire

**ROF** = stainless steel wire

**MES** = brass wire

**PA** = polyamide

**SIC** = silicon carbide bristles



## Tube Brushes with external Thread

						1	2	3   4			
D	L	A	Thread	Pack.		STA	ROF	MES	PA	STA	
mm   inch	mm   inch	mm   inch				Art.-No.	Art.-No.	Art.-No.	Art.-No.	Art.-No.	
						<b>Single Spirale</b>				<b>Double Spirale</b>	
6   1/4	115   4 1/2	80   3	M 4	10		501.301	501.501	501.701	501.801		
8   5/16	115   4 1/2	80   3	M 6	10		500.308	500.508	500.708	500.808		
10   3/8	115   4 1/2	80   3	M 6	10		500.310	500.510	500.710	500.810		
12   1/2	115   4 1/2	80   3	M 6	10		500.312	500.512	500.712	500.812		
13   1/2	115   4 1/2	80   3	M 6	10		500.313	500.513	500.713	500.813		
14   9/16	115   4 1/2	80   3	M 6	10		500.314	500.514	500.714	500.814		
15   5/8	115   4 1/2	80   3	M 6	10		500.315	500.515	500.715	500.815		
16   5/8	115   4 1/2	80   3	M 6	10		500.316	500.516	500.716	500.816		
18   5/8	115   4 1/2	80   3	M 6	10		500.318	500.518	500.718	500.818		
19   3/4	115   4 1/2	80   3	M 6	10		500.319	500.519	500.719	500.819		
20   3/4	115   4 1/2	80   3	M 6	10		500.320	500.520	500.720	500.820		
20   3/4	150   6	100   4	W 3/8	10		502.120	502.420	502.720	502.820	522.120	
22   7/8	150   6	100   4	W 3/8	10		502.122	502.422	502.722	502.822	522.122	
25   1	150   6	100   4	W 3/8	10		502.125	502.425	502.725	502.825	522.125	
28   1	150   6	100   4	W 3/8	10		502.128	502.428	502.728		522.128	

## 5 Interior Brushes with external thread, Silicon Carbide Bristles

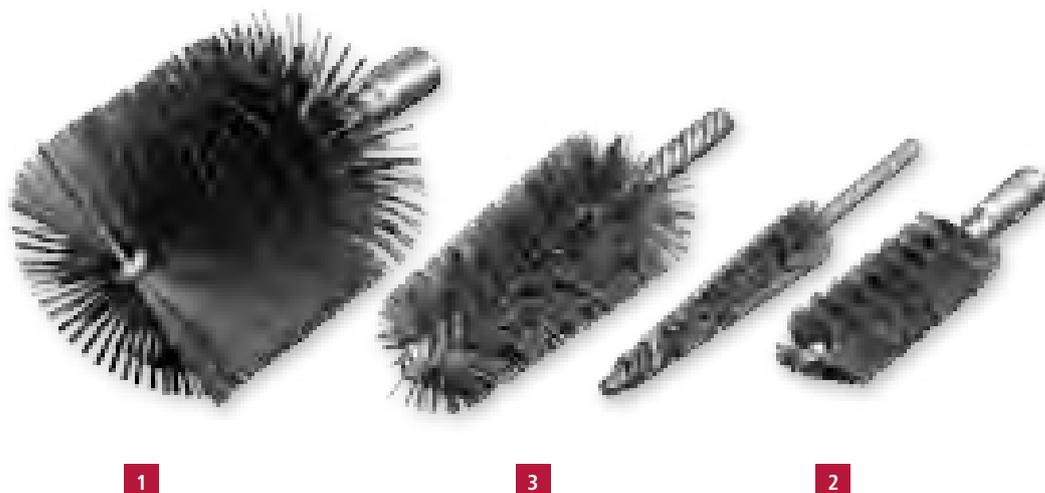
D	L	A	Thread	Pack.		SIC 180/0.9
mm   inch	mm   inch	mm   inch				Art.-No.
						<b>Single Spirale</b>
10   3/8	115   4 1/2	80   3	M 6	10		500.010
18   5/8	115   4 1/2	80   3	M 6	10		500.016
20   3/4	150   6	100   4	W 3/8	10		502.050
22   7/8	150   6	100   4	W 3/8	10		502.052
25   1	150   6	100   4	W 3/8	10		502.055
28   1	150   6	100   4	W 3/8	10		502.058

# Tube/Sleeve brushes



Tube Brushes with external Thread

						1	2	3	4	5
						Single Spirale			Double Spirale	
D	L	A	Thread	Pack.		STA straight	ROF straight	MES straight	PA straight	STA straight
mm   inch	mm   inch	mm   inch				Art.-Nr.	Art.-Nr.	Art.-Nr.	Art.-Nr.	Art.-Nr.
30   1 1/4	160   6 3/8	100   4	W 1/2	10		506.130	506.430	506.730	506.830	526.130
32   1 1/4	160   6 3/8	100   4	W 1/2	10		506.132	506.432	506.732	506.832	526.132
35   1 1/2	160   6 3/8	100   4	W 1/2	10		506.135	506.435	506.735	506.835	526.135
38   1 1/2	160   6 3/8	100   4	W 1/2	10		506.138	506.438	506.738	506.838	526.138
40   1 3/8	160   6 3/8	100   4	W 1/2	10		506.140	506.440	506.740	506.840	526.140
44   1 3/4	160   6 3/8	100   4	W 1/2	5		506.144	506.444	506.744	506.844	526.144
50   2	160   6 3/8	100   4	W 1/2	5		506.150	506.450	506.750	506.850	526.150
57   2 1/4	160   6 3/8	100   4	W 1/2	5		506.157	506.457	506.757	506.857	526.157
63   2 1/2	160   6 3/8	100   4	W 1/2	5		506.163	506.463	506.763	506.863	526.163
69   2 3/4	160   6 3/8	100   4	W 1/2	5		506.169	506.469	506.769	506.869	526.169
75   3	160   6 3/8	100   4	W 1/2	5		506.175	506.475	506.775	506.875	526.175
82   3 1/4	160   6 3/8	100   4	W 1/2	1		506.182	506.482	506.782	506.882	526.182
88   3 3/8	160   6 3/8	100   4	W 1/2	1		506.188	506.488	506.788	506.888	526.188
94   3 5/8	160   6 3/8	100   4	W 1/2	1		506.194	506.494	506.794	506.894	526.194
101   4	160   6 3/8	100   4	W 1/2	1		506.101	506.401	506.701	506.801	526.101
125   5	160   6 3/8	100   4	W 1/2	1		506.106	available on demand	available on demand	available on demand	526.106
150   6	160   6 3/8	100   4	W 1/2	1		506.211	available on demand	available on demand	available on demand	available on demand
200   8	160   6 3/8	100   4	W 1/2	1		506.220	available on demand	available on demand	available on demand	available on demand



1

3

2

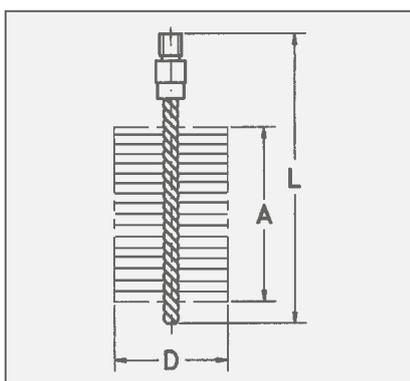
**Tube Brushes with internal Thread**

	D mm   inch	L mm   inch	A mm   inch	Thread	Pack.	STA Art.-No.	PA Art.-No.
<b>Single Spirale</b>							
1	90   3 1/2	160   6 1/4	100   4	M 10i	10	<b>507.190</b>	available on demand
	120   4 3/4	160   6 1/4	100   4	M 10i	10	<b>507.105</b>	<b>506.805.60</b>
2	20 x 30   3/4 / 1 1/4	140   5 1/2	80   3	M 10i	10	<b>533.405</b>	available on demand

**Sleeves Brushes Conical, without Thread**

	D mm   inch	L mm   inch	A mm   inch	Pack.	STA Art.-No.
<b>Double Spirale</b>					
3	10/20   3/8 / 3/4	170   6 3/4	100	10	<b>549.101</b>
	15/25   5/8 / 1	170   6 3/4	100	10	<b>549.102</b>
	20/30   3/4 / 1 1/4	170   6 3/4	100	10	<b>549.103</b>
	25/35   1 / 1 3/8	170   6 3/4	100	10	<b>549.104</b>
	32/42   1 1/4 / 1 5/8	170   6 3/4	100	5	<b>549.105</b>
	40/50   1 3/8 / 2	170   6 3/4	100	5	<b>549.106</b>
	38/70   1 1/2 / 2 3/4	170   6 3/4	100	5	<b>549.107</b>
	60/95   2 3/8 / 3 3/4	170   6 3/4	100	1	<b>549.108</b>

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



Item Nos. in bold are available ex stock

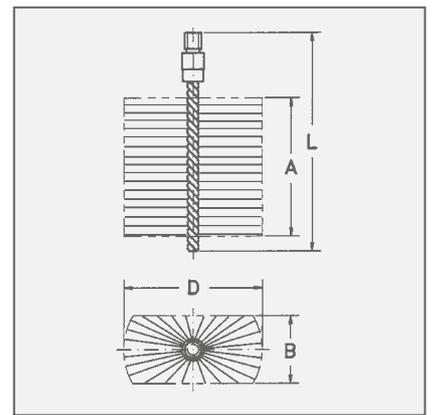
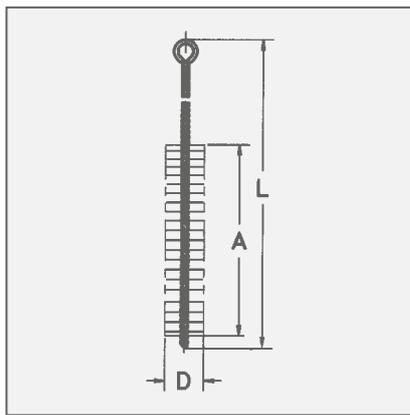
STA = steel wire

ROF = stainless steel wire

MES = brass wire

PA = polyamide

# 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 thread nipple, for screwing and lengthing by using a separate handle.

### Handles and Extension Pieces

For tube brushes, boiler brushes and stove pipe brushes, see pages 103 - 105, 107 - 110. The twisted handles have an internal thread and a grip loop, the extension pieces have both an internal thread and an external thread.

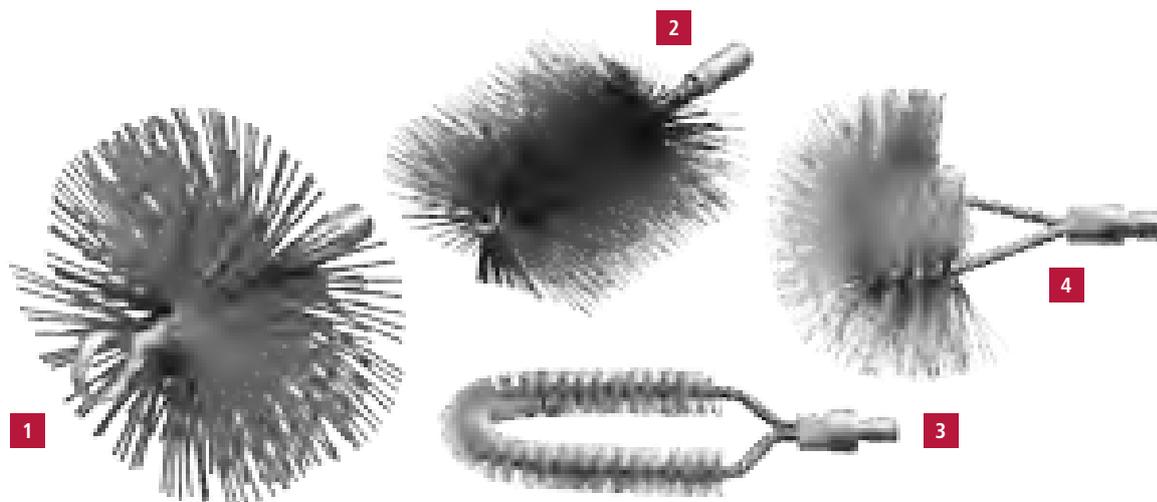
### Suitable Thread Adapters

see page 111

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

**STA** = steel wire

**PA** = polyamide



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EAN

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

Filling	D	L	A	Internal Thread	Art.-No.	Filling	D	L	A	Internal Thread	Art.-No.
STA flat	125	160	55	M 12 i	<b>507.007</b>	STA flat	250	160	55	M 12 i	<b>507.004</b>
STA flat	150	160	55	M 12 i	<b>507.001</b>	STA flat	300	160	55	M 12 i	<b>507.005</b>
STA flat	175	160	55	M 12 i	<b>507.002</b>	STA flat	350	160	55	M 12 i	<b>507.006</b>
STA flat	200	160	55	M 12 i	<b>507.003</b>						

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

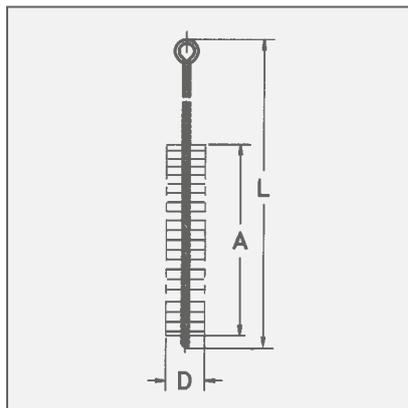
Filling	B mm   inch	D mm   inch	Format	L mm   inch	A mm   inch	Thread	Art.-No.
<b>1</b> PA straight	30   1 1/4	50   2	rectangular	160   6 3/8	100   4	W 1/2	<b>533.008.24</b>
PA straight	50   2	100   4	rectangular	160   6 3/8	100   4	W 1/2	<b>533.010.24</b>
<b>2</b> STA straight	30   1 1/4	50   2	rectangular	160   6 3/8	100   4	W 1/2	<b>532.218</b>
STA straight	30   1 1/4	80   3	rectangular	160   6 3/8	100   4	W 1/2	<b>532.211</b>
STA straight	40   1 3/8	80   3	rectangular	160   6 3/8	100   4	W 1/2	<b>532.202</b>
STA straight	50   2	100   4	rectangular	160   6 3/8	100   4	W 1/2	<b>532.203</b>
STA straight	50   2	120   4 3/4	rectangular	160   6 3/8	100   4	W 1/2	<b>532.205</b>
<b>3</b> STA crimped	18   5/8	70   2 3/4	curved	160   6 3/8	100   4	W 3/8	<b>529.301</b>
STA crimped	30   1 1/4	80   3	curved	175   6 7/8	120   4 3/4	W 1/2	<b>529.302</b>
<b>4</b> STA crimped	80   3	150   6	curved	150   6	120   4 3/4	W 1/2	<b>529.311</b>
PA straight	80   3	150   6	curved	150   6	120   4 3/4	W 1/2	<b>529.811</b>

# Boiler Brushes



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

\* Rod made from spring steel 5 Ø | \*\* with scooped handle

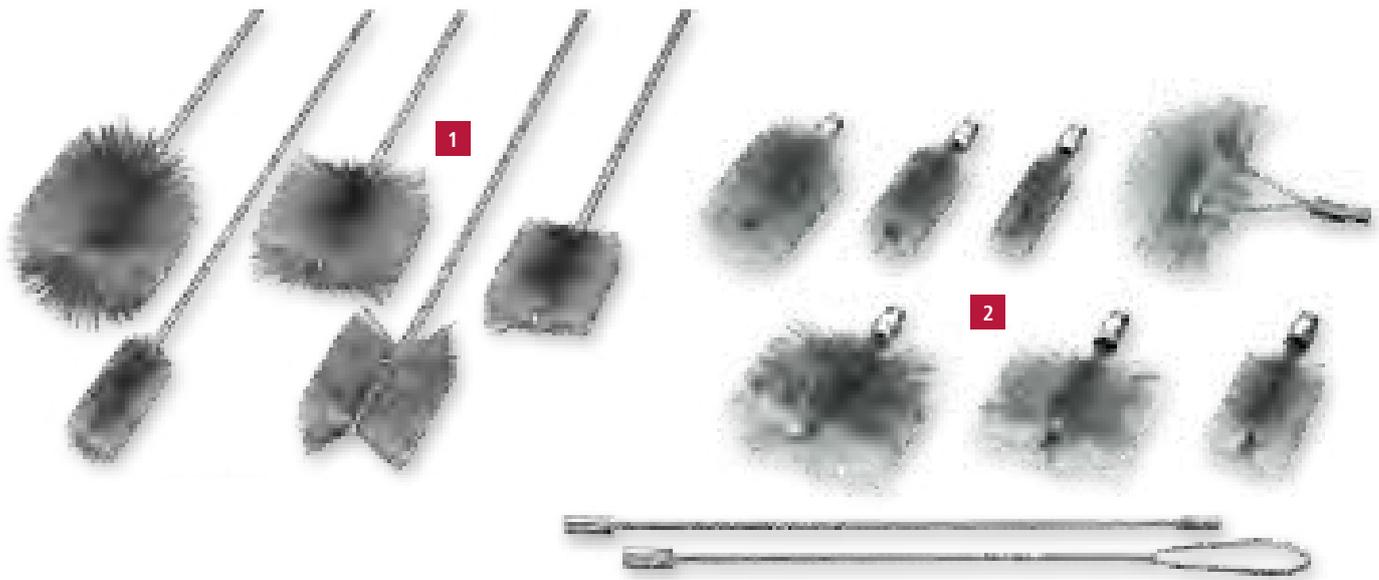


Item Nos. in bold are available ex stock

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	L	Art.-No. Set	Art.-No.	D	L	Art.-No. Set
Cylinder Brush	100	round	544.303	38	1.000	<b>599.921</b>	544.307	15	600	<b>599.931</b>
Cylinder Brush	100	round	545.331	100	1.000		544.361	25	800	
Boiler Brush	100	rectangular	552.811	30 x 70	1.000		559.831	31 x 20	600	
Boiler Brush	100	rectangular	552.816	50 x 100	1.000		551.811	30 x 20	500	
Boiler Brush	100	rectangular	559.713	75 x 30	1.000		551.812	50 x 40	700	

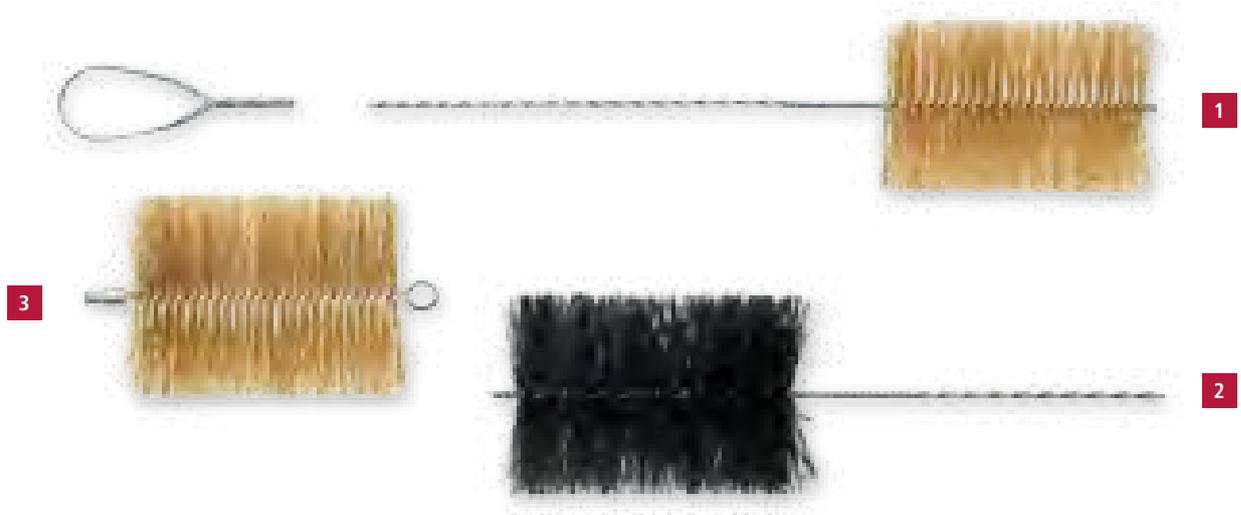
## 2 Brush Set, Steel Wire, external Thread W 1/2, crimped, 9 pieces

Content: 1 piece each		D mm   inch	L mm   inch	A mm   inch	Format	Art.-No. Set
506.330	Interior Brushes	30   1 1/4	160   6 1/4	100   4	round	<b>599.962</b>
506.340	Interior Brushes	40   1 3/8	160   6 1/4	100   4	round	
506.363	Interior Brushes	63   2 1/2	160   6 1/4	100   4	round	
532.718	Boiler Brush	30 x 50   1 1/4 / 2	160   6 1/4	100   4	rectangular	
532.716	Boiler Brush	30 x 90   1 1/4 / 3 1/2	160   6 1/4	100   4	rectangular	
532.703	Boiler Brush	50 x 100   2 / 4	160   6 1/4	100   4	rectangular	
529.311	Back board brush	80 x 150   3 / 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	L mm   inch	A mm   inch	Format	Art.-No. Set
506.838	Interior Brushes	38   1 1/2	160   6 1/4	100   4	round	<b>599.991</b>
506.855	Interior Brushes	55   2 1/4	160   6 1/4	100   4	round	
506.860	Interior Brushes	60   2 3/8	160   6 1/4	100   4	round	
533.008.24	Boiler Brush	30 x 50   1 1/4 / 2	160   6 1/4	100   4	rectangular	
533.009.24	Boiler Brush	30 x 90   1 1/4 / 3 1/2	160   6 1/4	100   4	rectangular	
533.010.24	Boiler Brush	50 x 100   2 / 4	160   6 1/4	100   4	rectangular	
529.811	Back board brush	80 x 150   3 / 6	150   6			
567.671	Handle with Eye		500   20			
567.771	Extension		500   20			

# Stove Pipe Brushes



## Stove Pipe Brushes with Twisted Handle

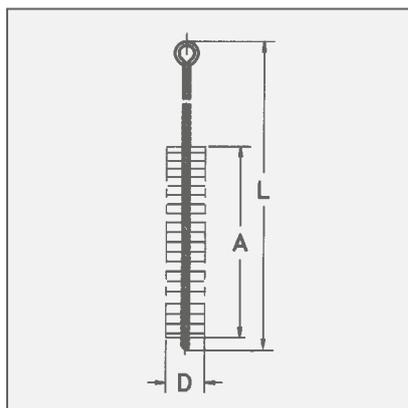
Filling	D mm   <i>inch</i>	L mm   <i>inch</i>	A mm   <i>inch</i>	Pack.	Art.-No.
<b>STM</b>	130   5 1/8	2,000   78 3/4	200   8	10	<b>546.302</b>
<b>STM</b>	130   5 1/8	3,000   118	200   8	10	<b>546.304</b>
<b>1 STM</b>	150   6	2,000   78 3/4	200   8	10	<b>546.306</b>
<b>STM</b>	180   7	2,000   78 3/4	200   8	10	<b>546.314</b>
<b>STM</b>	200   8	2,000   78 3/4	200   8	10	<b>546.318</b>
<b>2 BAS</b>	150   6	2,000   78 3/4	200   8	10	<b>546.906</b>
<b>BAS</b>	150   6	3,000   118	200   8	10	<b>546.908</b>

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

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## 3 Stove Pipe Brushes with separate Handle

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



Item Nos. in bold are available ex stock

STM = brass coated steel

BAS = bassine black

# Accessories



## Handle with Eye

	L mm   inch	Thread	Format	Art.-No.
<b>1</b>	400   16	External M 10	round steel, straight	<b>568.805</b>
	800   31 1/2	External M 10	round steel, straight	<b>568.802</b>
	1,000   40	External M 10	round steel, straight	<b>568.806</b>
<b>2</b>	1,000   40	Internal M 4	twisted wire	<b>566.603</b>
	1,000   40	Internal M 6	twisted wire	<b>566.601</b>
	1,000   40	Internal M 10	twisted wire	<b>566.602</b>
	1,000   40	External M 12	twisted wire	<b>567.201</b>
	1,000   40	Internal W 3/8	twisted wire	<b>567.603</b>
	500   20	Internal W 1/2	twisted wire	<b>567.671</b>
	1,000   40	Internal W 1/2	twisted wire	<b>567.601</b>

## 3 Extension

	L mm   inch	Thread	Format	Art.-No.
<b>3</b>	1,000   40	Internal M 4	twisted wire	<b>566.703</b>
	1,000   40	Internal M 6	twisted wire	<b>566.701</b>
	1,000   40	Internal M 10	twisted wire	<b>566.702</b>
	1,000   40	External M 12	twisted wire	<b>567.731</b>
	1,000   40	Internal W 3/8	twisted wire	<b>567.703</b>
	500   20	Internal W 1/2	twisted wire	<b>567.771</b>
	1,000   40	Internal W 1/2	twisted wire	<b>567.701</b>

## 4 Adapter Threads

from	to	L mm   inch	Pack.	Art.-No.
Internal W 1/2	Internal M 12	40   1 3/8	1	<b>001.211</b>
Internal W 1/2	Internal M 10	40   1 3/8	1	<b>001.212</b>
Internal W 3/8	Internal M 10	40   1 3/8	1	<b>001.215</b>
External M 10	Internal W 1/2	40   1 3/8	1	<b>001.222</b>
External M 10	Internal W 3/8	40   1 3/8	1	<b>001.225</b>

# Fitting Brushes



## 1 Interior Fitting Brushes

D mm   inch	L	A	Filling Material	Pack.	Art.-No.	D mm   inch	L	A	Filling Material	Pack.	Art.-No.
8   5/16	185	12	ROH 0.10   0.004"	10	562.508	18   5/8	185	20	ROH 0.15   0.006"	10	562.518
10   3/8	185	12	ROH 0.10   0.004"	10	562.510	22   7/8	185	25	ROH 0.20   0.008"	10	562.522
12   1/2	185	15	ROH 0.10   0.004"	10	562.512	28   1	185	25	ROH 0.20   0.008"	10	562.528
15   5/8	185	20	ROH 0.15   0.006"	10	562.515	35   1 1/2	185	25	ROH 0.20   0.008"	10	562.535

## 2 Exterior Fitting Brushes, Steel Wire

D mm   inch	d	Marking	Pack.	Art.-No.	D mm   inch	d	Marking	Pack.	Art.-No.
39   1 3/8	10	1/4"	6	037.921	48   1 7/8	18	5/8"	6	037.924
39   1 3/8	12	3/8"	6	037.922	48   1 7/8	22	3/4"	6	037.925
42   1 5/8	15	1/2"	6	037.923	55   2 1/4	28	1"	6	037.927

## 3 Fitting Brush Set, 8 Pieces

	Art.-No.
4 interior and exterior brushes each dia 1/2 / 5/8 / 3/4 / 7/8 in a plastic bag	599.908

### Fitting Brushes

#### Now with new 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. Fitting brushes for exterior cleaning contain a card from steel wire.

### Fitting Brush Set

A case of artificial leather that contains the most frequently needed interior and exterior brushes.

**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.



# Brushes and Scratcher



## 1 Battery Terminal Brushes

Filling Material	D mm   inch	L mm   inch	A mm   inch	Pack.	Art.-No.
<b>STA</b>	17/24   5/8 / 1	120/180   4 3/4 / 7	60   2 3/8	12	<b>563.301*</b>

## 2 Soluble Oil Brushes

Filling Material	Ø Bundle mm   inch	L mm   inch	H mm   inch	Pack.	Art.-No.
<b>mixed hair</b>	7   1/4	150   6	40   1 3/8	100	<b>570.907</b>
<b>mixed hair</b>	10   3/8	240   9 1/2	55   2 1/4	100	<b>570.910</b>
<b>mixed hair</b>	18   3/4	300   12	70   2 3/4	100	<b>570.918</b>

## 3 Soldering Fluid Brushes

Filling Material	D mm   inch	L mm   inch	H mm   inch	Pack.	Art.-No.
<b>bristles</b>	10   3/8	123   4 7/8	20   3/4	100	<b>045.910</b>
<b>bristles</b>	15   5/8	140   5 1/2	25   1	100	<b>045.915</b>

## 4 Rust Scratcher

Filling Material	D mm   inch	L mm   inch	H mm   inch	Pack.	Art.-No.
<b>STA</b> straight 0.23	5/8   1/4 / 5/16	100   4	6   1/4	180	<b>184.101</b>
<b>STA</b> Straight 0.23   0.009" + <b>PP</b> 0.15   0.006"	5/8   1/4 / 5/16	100   4	6/15   1/4 / 5/8	180	184.104

\* conical filling

### 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.

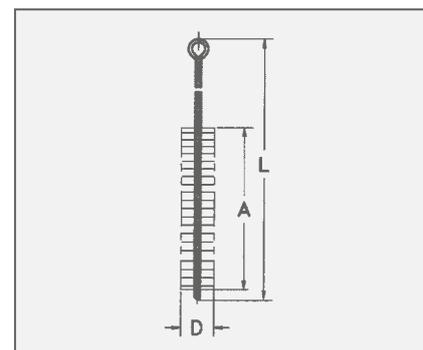
### Soldering Fluid Brushes

The handle is made of tinned metal.

Item Nos. in bold are available ex stock

**STA** = steel wire

**ROH** = stainless steel wire, high tensile





**LESSMANN**<sup>®</sup>  
DRAHTBÜRSTEN · WIRE BRUSHES

# 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](http://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

**STA** = steel wire

**STH** = steel wire, high tensile

**MES** = brass wire

**SIC** = brass wire

## 5 End Brushes with Shank 6 mm Ø

D mm   inch	RPM max.	Pack.	STA 0.30   0.012" Art.-No.	SIC 80/1.2 Art.-No.
25   1	12,000	10	<b>455.161</b>	<b>453.821</b>

## 6 Cylinder Brushes with Shank 6 mm Ø

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

## 7 D.I.Y. Wheel Brushes with bore

D mm   inch	A mm   inch	d mm   inch	RPM max.	Pack.	STA 0.35   0.014" Art.-No.
75   3	10   3/8	1/2"	4,500	10	<b>300.102</b>
100   4	10   3/8	1/2"	4,500	10	<b>320.102</b>



**Wheel Brushes with Shank 6 mm Ø**

				1			
D	A	RPM	Pack.	STA 0.20   0.008"	STA 0.30   0.012"	ROF 0.20   0.008"	ROF 0.30   0.012"
mm   inch	mm   inch	max.		0.25   0.010"	0.35   0.014"	Art.-No.	Art.-No.
50   2	8-10   3/8	4,500	10	410.122	410.123		
75   3	8-10   3/8	4,500	10	410.132	410.133	410.134	410.135
75   3	14-16   5/8	4,500	10		410.173		
100   4	8-10   3/8	4,500	10	410.152	410.153	410.154	410.155
100   4	14-16   5/8	4,500	10		410.183		410.185

				2		
D	A	RPM	Pack.	MES 0.25   0.010"	SIC 80/1.2	SIC 180/0.9
mm   inch	mm   inch	max.		Art.-No.	Art.-No.	Art.-No.
75   3	8-10   3/8	4,500	10	410.136	410.138	410.139
100   4	8-10   3/8	4,500	10		410.158	410.159

**3 Cup Brushes with Shank 6 mm Ø**

D	RPM	Pack.	STA 0.25   0.010"	STA 0.35   0.014"	ROF 0.20   0.008"	ROF 0.30   0.012"
mm   inch	max.		Art.-No.	Art.-No.	Art.-No.	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

				4		
D	RPM	Pack.	MES 0.25   0.010"	SIC 80/1.2	SIC 180/0.9	
mm   inch	max.		Art.-No.	Art.-No.	Art.-No.	
50   2	4,500	10	430.126	430.128	430.129	
75   3	4,500	10	430.136	430.138	430.139	

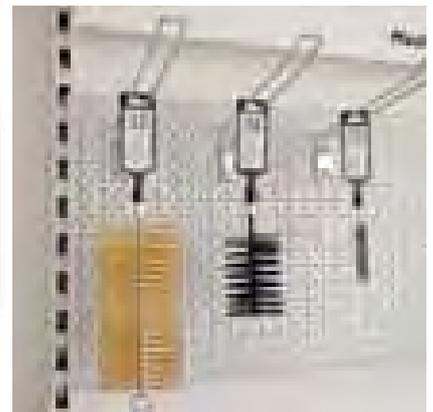
# Packing and Sales Promotion



Low-cost product presentation – Brushes on card



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



The most demanded tool brushes are not only offered single or bulk packed. These fast sellers are presented even better in sale promoting display cartons. They can be put on tool shelves or on the counter.

The standard assortment contains:

- Knot cup brushes diameter 65
- Knot wheel brushes diameter 115
- Knot bevel brushes diameter 100
- Cup brushes with crimped wire diameter 60

A display carton with the best selling Do It Yourself Brushes, bulk packed, completes the offer (see pages 122 - 123).

## 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.

## 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 M6, M10, W3/8" and W1/2". All hangers are with a eurohole. A label can be fixed at the front of the hanger.

## 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.



**Displaybox with Toolbrushes**

Pack	Catalogue Page	Filling	D mm   inch	d mm   inch	RPM max.	Pack.	Art.-No.
Knot Cup Brushes	49	STH 0.50   0.020"	65   2 1/2	M 14 x 2.0	12.500	20	<b>482.217.07</b>
Knot Wheel Brushes	52	STH 0.50   0.020"	115   4 1/2	22.2   7/8	12.500	18	<b>472.211.07</b>
Knot Bevel Brushes	55	STH 0.50   0.020"	100   4	M 14 x 2.0	12.500	12	<b>471.257.07</b>
Crimped Cup Brushes	52	STA 0.30   0.012"	60   2 3/8	M 14 x 2.0	12.500	20	<b>421.167.07</b>

**D.I.Y. Brush Assortments; Shank Brushes, Description Page 117**

Contents: 36 pieces assorted						Art.-No.
6 Wheel Brushes	410.132	6 Wheel Brushes	410.153	6 Cup Brushes	430.123	<b>499.907</b>
6 Cup Brushes	430.133	6 End Brushes	455.161	6 Cylinder Brushes	541.301	
9 Wheel Brushes	410.132	9 Cup Brushes	430.123			<b>499.921</b>
9 Wheel Brushes	410.153	9 Cup Brushes	430.133			



**Brushes with Shank 6 mm Ø on Card**

Description and technical data please see table above and on page 61, 116, 117

	D mm   inch	Pack.	STA 0.30   0.012" 0.35   0.014"	MES 0.25   0.010" Art.-No.	SIC 80 Art.-No.	STH knotted 0.50   0.020"
Wheel Brushes	50   2	10	<b>410.123.07</b>			
	75   3	10	<b>410.133.07</b>	<b>410.136.07</b>	<b>410.138.07</b>	<b>417.198.07</b>
	100   4	10	<b>410.153.07</b>		<b>410.158.07</b>	
Cup Brushes	50   2	10	<b>430.123.07</b>	<b>430.126.07</b>	<b>430.128.07</b>	
	75   3	10	<b>430.133.07</b>		<b>430.138.07</b>	
End Brushes	25   1	10	<b>455.161.07</b>		453.821.07	
Cylinder Brushes	28   1	10	<b>541.301.07</b>			

Item Nos. in bold are available ex stock

STA = steel wire

STH = steel wire, high tensile

MES = brass wire

SIC = brass wire

# Packing and Sales Promotion



|||||  
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.	ROH 0.30   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

|||||  
EAN

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

	D mm   inch	STH 0.35   0.014" Art.-No.	STH 0.50   0.020" Art.-No.	ROH 0.35   0.014" Art.-No.
Knot End Brushes	19   3/4	453.278.09		
	22   7/8	454.278.09		454.378.09
Knot Wheel Brushes	75   3		417.198.09	

|||||  
EAN

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

	D mm   inch	STA 0.25   0.010" Art.-No.	STA 0.30   0.012" 0.35   0.014" Art.-No.	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	430.132.09	430.133.09			430.138.09
End Brushes	25   1		455.161.09			453.821.09
Cylinder Brushes	28   1		541.301.09			



Item Nos. in bold are available ex stock

STA = steel wire

STH = steel wire, high tensile

ROF = stainless steel wire

ROH = stainless steel wire, high tensile

MES = brass wire

PP = polypropylene

SIC = brass wire

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

Interior Thread	Total length mm   inch	Width mm   inch	Height mm   inch	Art.-No.
M 6	135   5	42   1 5/8	2   5/64	<b>85.750.001</b>
M 10	135   5	42   1 5/8	2   5/64	<b>85.750.003</b>
W 3/8"	135   5	42   1 5/8	2   5/64	<b>85.750.006</b>
W 1/2"	135   5	42   1 5/8	2   5/64	<b>85.750.007</b>

**2 Brushes with thread, on 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	3/8"	10	<b>502.120.03</b>
	30   1 1/4	160   6 1/4	100   4	1/2"	10	<b>506.130.03</b>
	35   1 1/2	160   6 1/4	100   4	1/2"	10	<b>506.135.03</b>
	40   1 3/8	160   6 1/4	100   4	1/2"	10	<b>506.140.03</b>
	50   2	160   6 1/4	100   4	1/2"	10	<b>506.150.03</b>
	63   2 1/2	160   6 1/4	100   4	1/2"	10	<b>506.163.03</b>
	75   3	160   6 1/4	100   4	1/2"	10	<b>506.175.03</b>
Boiler Brushes	101   4	160   6 1/4	100   4	1/2"	10	<b>506.101.03</b>
	40   1 3/8	160   6 1/4	100   4	1/2"	10	<b>532.202.03</b>
	50   2	160   6 1/4	100   4	1/2"	10	<b>532.203.03</b>

**3 Brushes in Cut Cases**

	Pack.	Art.-No.
<b>Hand brushes STA</b> straight 0.35, 4 Rows	10	100.041.CC
<b>Hand brushes ROF</b> crimped 0.35, 4 Rows	10	104.641.CC
<b>Hand brushes MES</b> crimped 0.35, 4 Rows	10	107.641.CC
<b>Spark Plug Brushes MES</b> crimped 0.15, 3 Rows	25	125.211.CC
<b>Cup Brushes STA</b> crimped 0.35, Drm. 60, Gew. M 14	15	421.167.CC
<b>Knot Conical Brushes STH</b> straight 0.50, Drm. 100, Gew. M 14	5	471.257.CC
<b>Knot Wheel Brushes STH</b> straight 0.50, Drm. 115, Bo. 22,2	6	472.211.CC
<b>Knot Cup Brushes STH</b> straight 0.50, Drm. 65, Gew. M 14	12	482.217.CC
<b>Knot Cup Brushes STH</b> straight 0.50, Drm. 90, Gew. M 14	8	485.237.CC

# 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 | Little helps for orientation (labels)

They give hints regarding brushes and their application. Available for following article groups: Hand brushes, brushes for drilling machines and brushes for angle grinders.

## 5 | Hand Brushes with EAN Code

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



## 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.



6

**6 | Brush-Know-how Poster**

All important brush applications at first glance! Available as label 100 x 40 cm and as poster 40 x 60 cm. Ask us or our representatives!

7

**7 | Brush-Know-how Flyer**

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

8

**8 | Display boxes for Shank Brushes**

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

9

**9 | We will help you with the right choice of shelf**

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

12

**10 | Hanger Assembly for tube brushes**

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

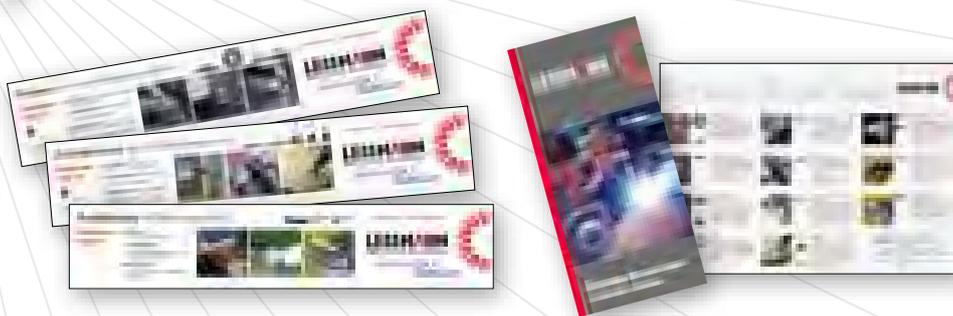
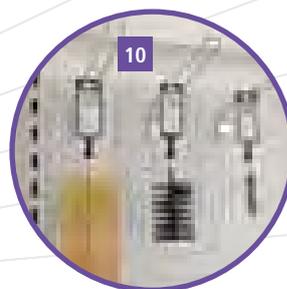
**11 | Small self-service wall**

A suitable alternative solution: A practical self-service wall with the measurements 80x70 cm.

**12 | Cut Cases**

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

10

**Cut Cases**

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

**Labels as help for orientation**

They explain brushes and their applications. Available for 3 article groups:

- Hand brushes
- Brushes for drilling machines
- Angle grinders

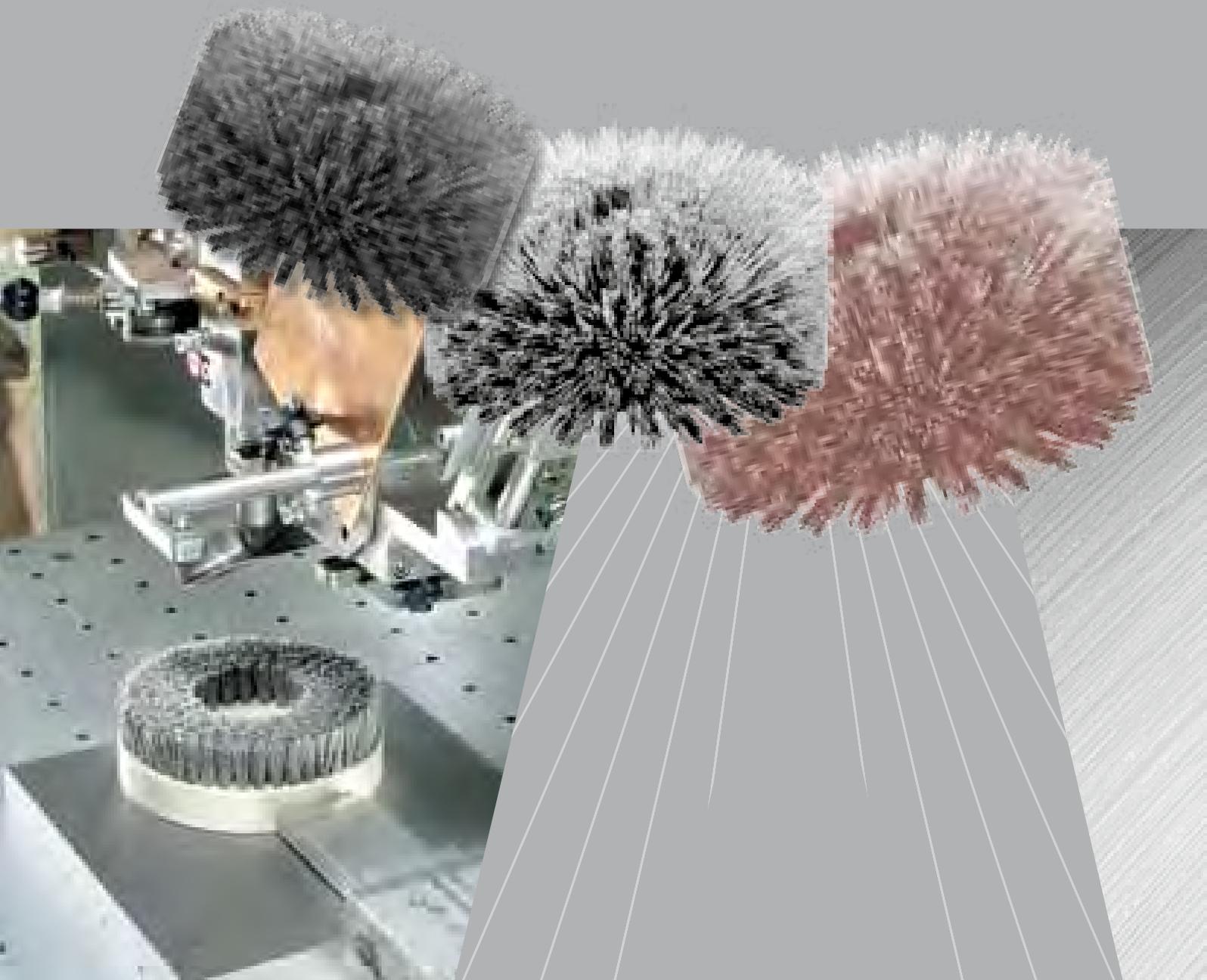
**Brush-Know-how flyer**

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

Order now:

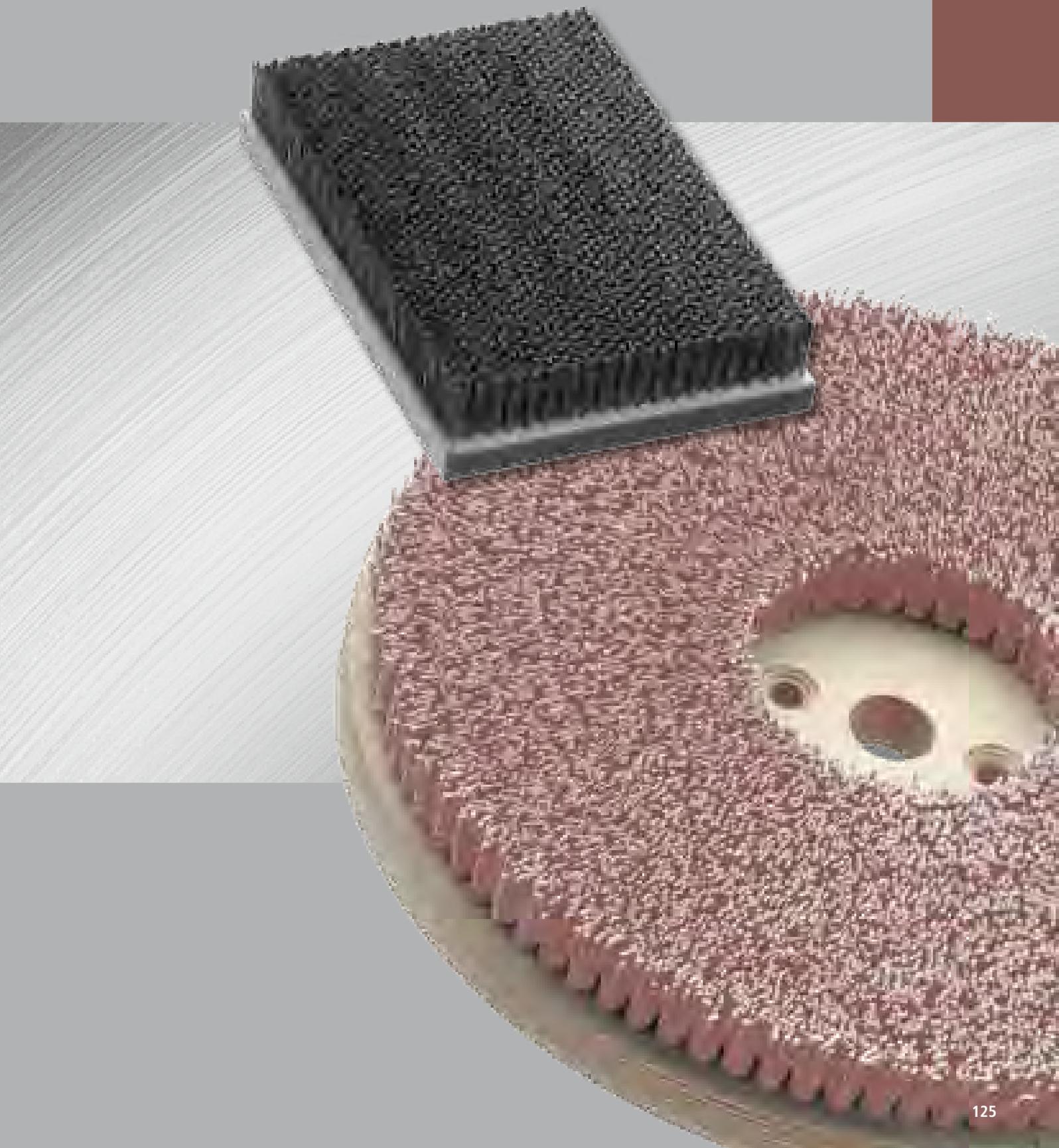
German version: Art.-No. **99BKHDEU**

English version: Art.-No. **99BKHENG**



**LESSMANN**<sup>®</sup>  
DRAHTBÜRSTEN · WIRE BRUSHES

## SPECIAL BRUSHES



# Staple Set Brushes



## Staple Set Brushes

For applications with little mechanic load, brushes in a staple set edition are produced. Typical applications are for example cleaning, 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.

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

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

# Disc Brushes



## Disc Brushes

DA - External Diameter mm	KD - Body Height mm	BH - Filling Length mm	Deviation of the Bristles
min. 10, max. 800	min. 10, max. 100	min. 8	max. 40°
		max. 95 Steel	
		max. 130 Plastic	

**Body Material:** PP, PE, PA, Wood, Steel, Aluminium  
**Filling Material:** STA, STM, MES, ROF, PP, PE, PA, FIB, ROS, SIC, AO

### 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

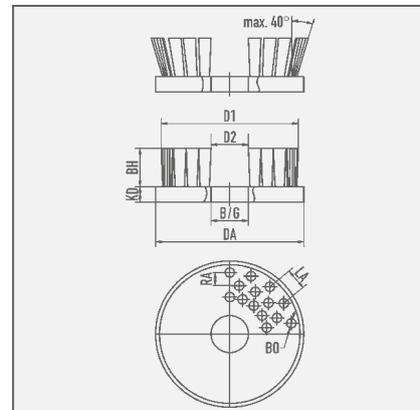
Disc brushes used for the wood machining industry have a very long filling material (SIC). Used on angle grinders, the disc brushes are ideal for maintaining, cleaning, structuring or polishing wood.

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 for short delivery time and low costs.

The inquiry form for disc brushes you find on page 129 or at [www.lessmann.com](http://www.lessmann.com)



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

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

## 2 Disc Brushes for the wood machining

Filling	D mm   inch	KD mm   inch	Filling length	Thread	RPM max.	Art.-No.
<b>SIC 46/1.6</b>	130   5 1/8	20   3/4	50   2	M 14	2,500	405.843
<b>SIC 60/1.5</b>	130   5 1/8	20   3/4	50   2	M 14	2,500	405.844
<b>SIC 80/1.2</b>	130   5 1/8	20   3/4	50   2	M 14	2,500	405.845

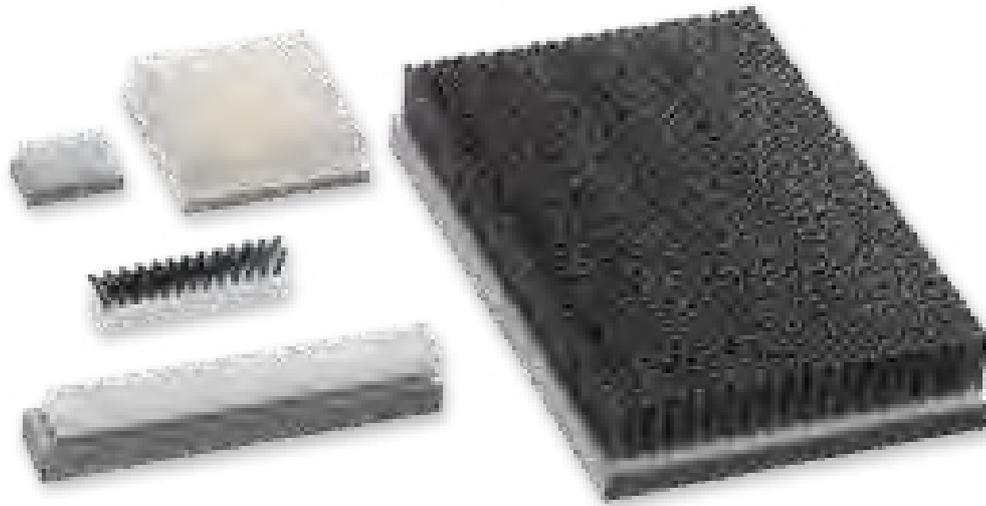
## Circular Discs – Standard Body

DA mm   inch	KD mm   inch	Bore B / Thread G	Body Material
150   6	25   1	Bore 12	PP red
150   6	25   1	Bore 35 x 10.5 / 25, mounting hole 11	PP red
180   7	18   5/8	Thread M 12	PP red
180   7	18   5/8	Thread M 12 left	PP red
200   8	25   1	Bore 12	PP red
200   8	25   1	Bore 35 x 10.5 / 25, mounting hole 11	PP red
220   8 5/8	20   3/4	Bore 40	PP red

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



# Lath Brushes

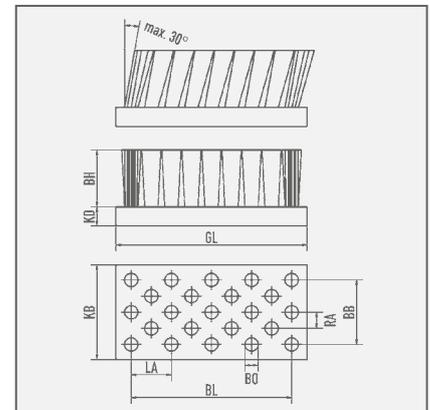


Lath Brushes				
Body Width	Total Length	KD - Body Size	BH - Trim Length	Deviation of the Bristles
mm	mm	mm	mm	
min. 8, max. 750	max. 2.400	min. 10, max. 100	min. 8	max. 30°
			max. 95 Steel	
			max. 130 Plastic	

**Body Material:** PP, PE, PA, Wood, Steel, Aluminium  
**Filling Material:** STA, STM, MES, ROF, PP, PE, PA, FIB, ROS, SIC, AO

## Lath Brushes

They work in machines and are used for clearing, cleaning, insulating and discharging electric charges etc. Various body materials are possible: including wood, metal and plastic. The filling material can be manifold and goes from fine horsehair to firm steel wire. Through the deviation of the bristles until 30° the lath brushes are very flexible in their applications.



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

- 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**

[Grid area for drawing or description]

**Brush Application**

- deburring
- cleaning
- roughening / structuring
- others

**Material**

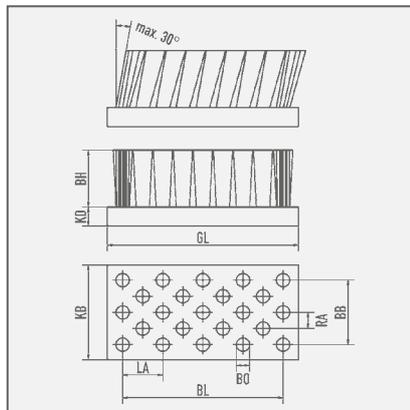
- steel
- aluminium
- wood
- stainless steel
- plastic
- others

**Filling material**

- steel
- brass coated steel
- brass
- stainless steel
- PP
- PA
- PE
- abrasive filament (SIC)
- abrasive filament (AO)
- fibre
- horsehair

Please mention measurements according to drawing

- GL total length \_\_\_\_\_ mm
- KB total width \_\_\_\_\_ mm
- KD body size \_\_\_\_\_ mm
- BH trim height \_\_\_\_\_ mm
- BL trim length \_\_\_\_\_ mm
- BB trim width \_\_\_\_\_ mm
- RA row distance \_\_\_\_\_ mm
- LA hole distance \_\_\_\_\_ mm
- BO bundle bore \_\_\_\_\_ mm



**Diameter of filling material:** \_\_\_\_\_

**Body**

- PP
- PE
- PA
- wood
- steel
- aluminium

**Piece number:** \_\_\_\_\_

**sender: company, contact person**

[Empty box for sender information]

**More information required?**

Hotline Industry Sales department:  
+49 9082 707-0  
e-mail: info@lessmann.com

Other requirement forms you find at  
[www.lessmann.com](http://www.lessmann.com)

Please fax this form to: +49 9082 707-78

# Wheel Brushes and Wide Face Brushes



Wheel Brushes and Wide Face Brushes

KD - Body Diameter mm	D - Total Diameter mm	GL - Total Width mm	BL - Trim Length mm	B - Bore
min. 25, max. 250	min. 45	min. 5, max. 800	min. 5, max. 780	min. 5, max. 200
	max. 440 Steel			
	max. 500 Plastic			

**Body Material:** PP, PE, PA, Wood, Steel, Aluminium  
**Filling Material:** STA, STM, MES, ROF, PP, PE, PA, FIB, ROS, SIC, AO

## Wheel Brushes and Wide Face Brushes

For work without a mechanical load on the brushes.

The brush body is of wood, aluminium or plastic. The filling material is determined by the brushes purpose. Please also consider temperature, chemical and mechanical characteristics during use.

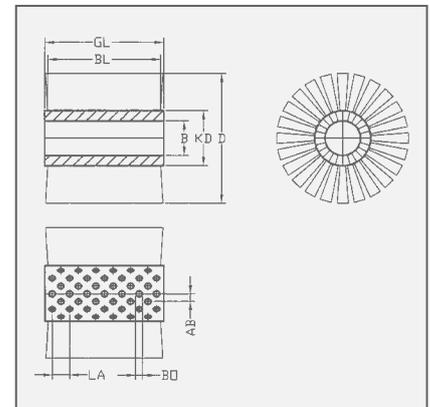
The density of the filling material can be varied by the diameter and the distance of and from the hole.

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.

LESSMANN produces staple set wheel and roller brushes with bore or arbor absorption, depending on the customers' specification. Please contact us for personal advice!

### Note:

For applications which have a high mechanical load on the brushes we advise our wheel and roller brushes with crimped or knotted wire.



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

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

# Enquiry for Wheel Brushes / Wide Face Brushes

**Drawing / description of application**

[Grid area for drawing or description]

**Brush Application**

- deburring
- cleaning
- roughening / structuring
- others

**Material**

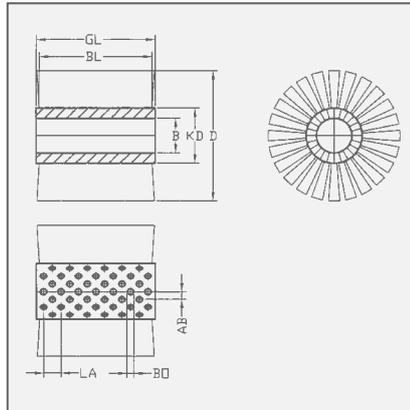
- steel
- aluminium
- wood
- stainless steel
- plastic
- others

**Filling material**

- steel
- brass coated steel
- brass
- stainless steel
- PP
- PA
- PE
- abrasive filament (SIC)
- abrasive filament (AO)
- fibre
- horsehair

Please mention measurements according to drawing

- GL total length \_\_\_\_\_ mm
- BL filling length \_\_\_\_\_ mm
- B bore of axis \_\_\_\_\_ mm
- KD diameter of body \_\_\_\_\_ mm
- D total diameter \_\_\_\_\_ mm
- RA distance of rows \_\_\_\_\_ mm
- LA distance of holes \_\_\_\_\_ mm
- BO bore of bundle \_\_\_\_\_ mm



**Diameter of filling material:** \_\_\_\_\_

**Body**

- PP
- PE
- PA
- wood
- steel
- aluminium

**Piece number:** \_\_\_\_\_

**sender: company, contact person**

[Empty box for sender information]

**More information required?**

Hotline Industry Sales department:  
+49 9082 707-0  
e-mail: info@lessmann.com

Other requirement forms you find at  
[www.lessmann.com](http://www.lessmann.com)

Please fax this form to: +49 9082 707-78

# Strip Brushes



## Strip Brushes

Strip brushes are mainly used as cover in association with moving parts. They insulate doors and windows or help to keep moving parts on machines clean. There are many forms and profiles, with or without holders. Therefore, please indicate full measurements and holder details when ordering.

The profile can be made of steel, aluminium or plastic. The filling material can be bristles or steel wire (see pages 11 - 13).

## Brushes for deburring machines

Special Strip Brushes as component part of deburring machines.

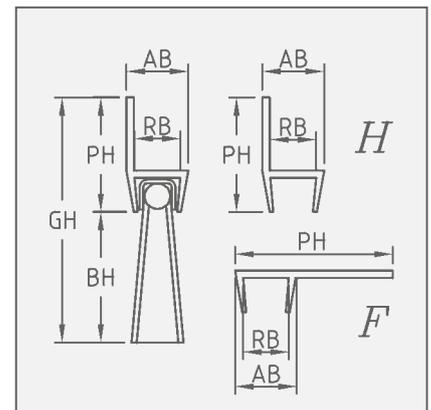
The inquiry form for strip brushes you find at [www.lessmann.com](http://www.lessmann.com)

## Required measurements and data:

GH total height  
 BH filling length  
 RB back width  
 shape of fixing

## Filling Material:

STA, STM, MES, ROF, PP, PE, PA, FIB, ROS



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

**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



**Strip Brushes with H profile**

mounting	GH mm   inch	PH	BH mm   inch	AB	RB	Total length mm   inch	PA 0.30   0.012" Art.-No.	Steel Wire Art.-No.	Horsehair Art.-No.
Steel plate narrow	50   2	25	25   1	8	5	1,000   40	052.881	available on demand	051.021
Steel plate wide	90   3 1/2	40	50   2	12	8	1,000   40	052.891	available on demand	available on demand
Stainless steel plate wide	50   2	25	25   1	8	5	1,000   40		available on demand	available on demand
Stainless steel plate narrow	90   3 1/2	40	50   2	12	8	1,000   40		available on demand	available on demand

**Strip Brushes for deburring machines**

mounting	GH mm   inch	BH mm   inch	Total length mm   inch	PA 0.35   0.014" Art.-No.
Steel plate zinc coated	40   1 3/8	35   1 1/2	500   20	052.860
Steel plate zinc coated	40   1 3/8	35   1 1/2	600   23 5/8	052.868

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## General Conditions of Sale and Delivery

Dear customer, you can find the full version of our general conditions under [www.lessmann.com/english/pdf/allgemein/](http://www.lessmann.com/english/pdf/allgemein/)

GenCond.pdf The most important conditions are:

### 1. Scope

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. 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. Our general conditions of sale shall apply only to commercial businesses, not to private consumers.

### 2. Offer

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. 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

All prices are in € (EURO), ex works Oettingen, exclusive costs of packaging. Our prices do not include Value-Added Tax. 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. 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.

### 6. Reservation of Ownership

The customer shall obtain ownership of the delivered products only after we have received all payments from the business relationship with the customer. 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. 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. 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. 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

Place of jurisdiction shall be the place of our office. We also may take proceedings against the customer at the place of its office. Our office is the place of performance, unless our acknowledgement of the order stated something different. 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

**Special designs can not be taken back. Our deliveries may deviate from the agreed volume by +/- 15%.**

The minimum order value, as well as extra payments for small volume purchases, are fixed in the actual price list. 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 light printed articles:

net € 250,00 / article

Extra payment for incomplete packets:

net € 3,00

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.

## More information...

... found on our homepage!

Beside the variety of languages (german, english, spanish, czech, turkish and russian) we also provide you with useful information.

For example you can download::

- the complete article-number-catalogue-side-index
- enquiry forms of the different special brushes
- notes regarding the filling materials e. g. tables of the chemical and physical characteristics
- our brochure "Brush-Know-How"
- safety and operating instructions
- ISO 9001 certificate
- general terms and conditions



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