

OSBORN
PRO



Product range for professional applications

OSBORN
INTERNATIONAL

1. Drive Type

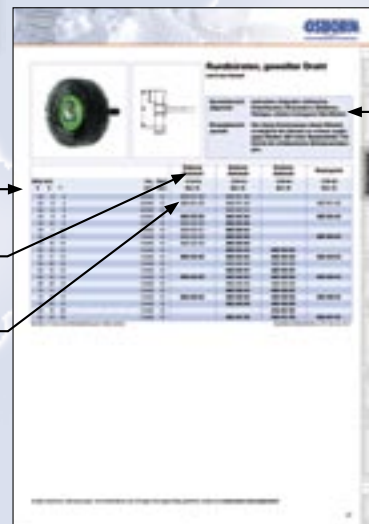
2. Brush type & page reference



5. Dimensions

6. Fill material

7. Item-number



3. Recommended range of application

4. Drive element

OSBORN

The new PRO catalogue

Easy guide to selecting the appropriate brushing tool

1. Identify fill material and brush type on **page 10**
2. Establish the type of drive you require.
3. Select the required brush type.
Please Note: Review the characteristic features of the selected brush!
4. General and special fields of application

Which material is treated?

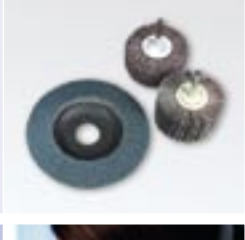
- Recommended fill material ! **page 12**

What result is required?

- Characteristic features of the fill material **page 13**
- You've established the type of material and the result required.
- How do I select the correct brush? On **page 14** we show you the easy steps to correct selection

Characteristic features of various fill materials?

- Ideal material
- You've established the type of material to be treated. **How do I select the appropriate fill material for the surface to be treated?** On **page 14** we show you the easy steps to correct selection.

Technical information		■ Technical information ■ Products in use ■ Fill materials ■ Brush types	as of page 10 as of page 12 as of page 14 as of page 16	 Technics
Angle grinder		■ Wheel brushes ■ Cup brushes ■ Bevel brushes	as of page 18 as of page 19 as of page 23	 Angle grinder
Portable hand drill		■ Wheel brushes ■ Cup brushes ■ End brushes ■ Flap Wheel brushes ■ Tube brushes	as of page 26 as of page 31 as of page 33 as of page 36 as of page 37	 Portable hand drill
High-speed		■ Wheel brushes ■ End brushes	as of page 40 as of page 42	 High speed
Stationary		■ Wheel brushes ■ End brushes	as of page 48 as of page 56	 Stationary
Treatment of bores		■ Tube Brushes	as of page 58	 Treatment of bores
Manual		■ Hand scratch brushes ■ Brooms ■ Paint brushes ■ Tube brushes ■ Tube cleaning articles	as of page 62 as of page 73 as of page 76 as of page 79 as of page 80	 Manual
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OSBORN International.

Your competent partner for surface finishing tools – worldwide.

Organisations throughout the world trust in the quality and efficiency of OSBORN products. In 12 locations worldwide we are manufacturing brushes and abrasives of high quality for professional use in the industrial, trade and private sector.

In Germany OSBORN International GmbH is located in Burgwald. High-performance power brushes made in Burgwald are sold all over the world. Special attention is of course paid to the supply of the number of distributors in the German-speaking area.

International operating industrial partners always meet their requirements with OSBORN products for surface treatment and support of their plants in their vicinity.



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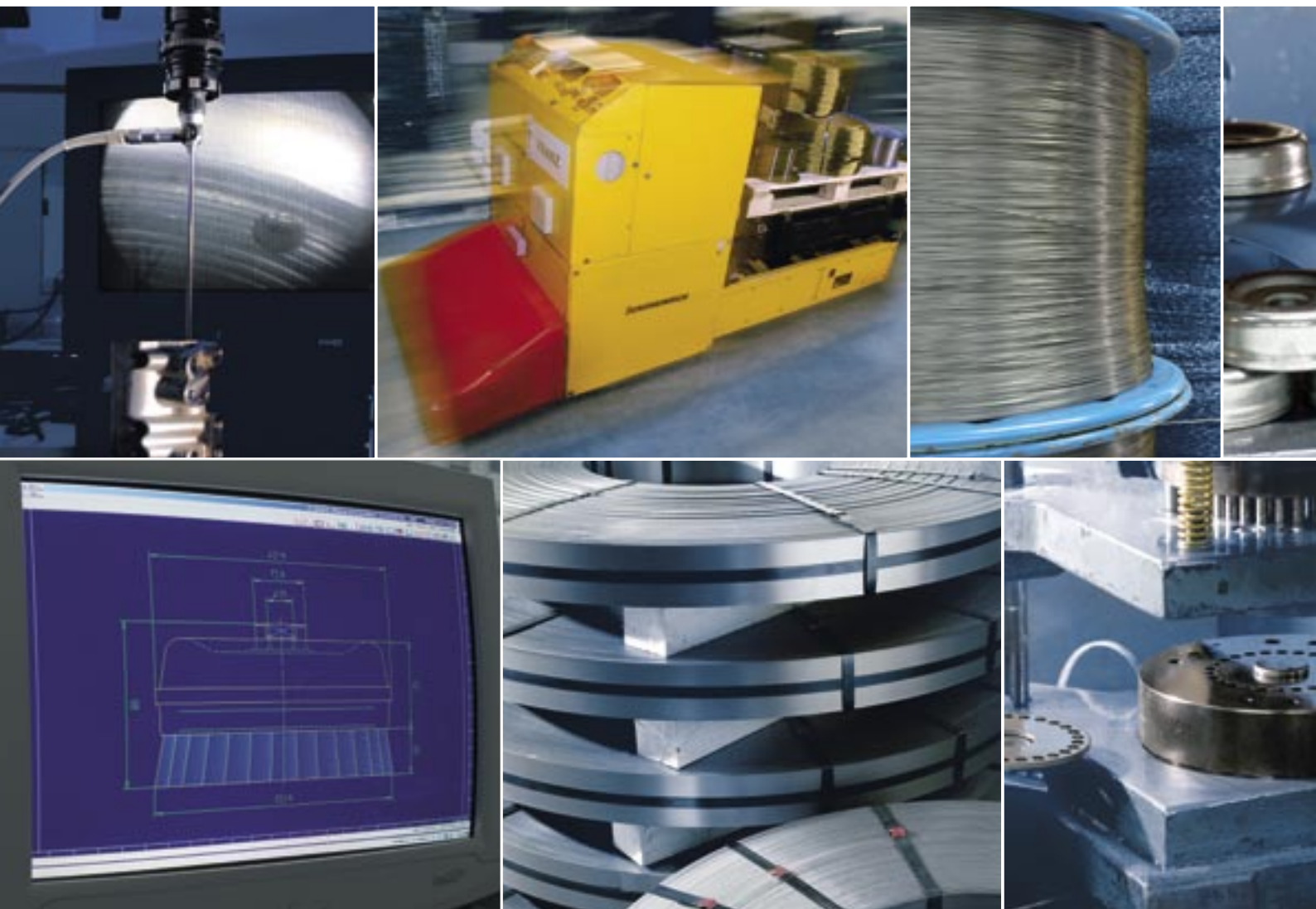
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Development. Testing. Production.

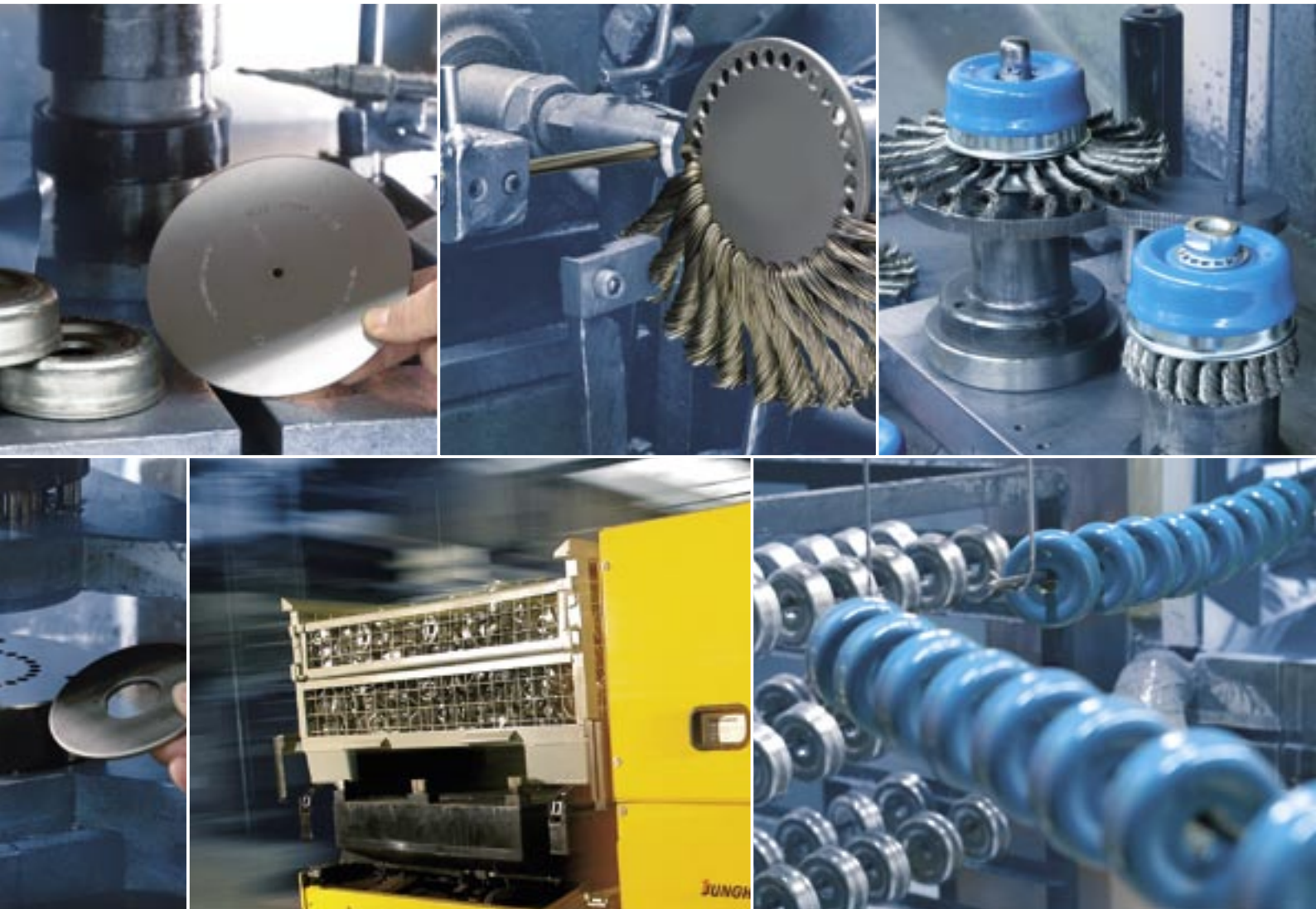
For products matching your requirements.

If you use OSBORN brushes or abrasives, you can be certain to use a product perfectly matched to your application.

Every new product, which OSBORN introduces into the market, is tested in field trials for optimal functionality after the construction phase. Only in this way we can guarantee a perfect cooperation of machine and OSBORN brush. Customers and

end users benefit from the large experience and exchange of information of our technicians who develop solutions for the surface treatment all over the world.

All experience gained is immediately integrated into the production; thus the manufacturing procedures are continuously modified. By doing this we maintain the high quality standard and the permanent extension of our technological lead.



OSBORN Quality.

Factor for efficient working.

Raw materials of high quality; experience of many years; high-precision manufacturing techniques; meticulous processing and professional finish: These are the criteria providing the constant high quality of OSBORN products.

From blank to finished brush, quality assurance and control is firmly anchored in the OSBORN manufacturing processes. Product and quality controlling measures are integrated in every phase of production. The control of spot samples from

the running production as well as the regular quality supervision by independent inspection institutes prove that OSBORN products sustain the essential quality criteria.

The certification of all operational procedures as well as the product quality DIN EN ISO 9001:2000 achieved by OSBORN is therefore self evident. Furthermore, all products correspond to the standards of the European Community (EN 1083-1, EN 1083-2) and the production processes are in accordance with the regulations for prevention of accidents.



OSBORN.
**Suitable products for
every application of surface
treatment.**

A particular strength our customers appreciate all over the world: OSBORN offers products perfectly matched for each type of application meeting all requirements in regard of functionality, safety and efficiency during operation. OSBORN offers

a wide range of brushes and abrasives that are developed and made for the specific needs of the user – from work piece cleaning to complex tasks of surface treatment.

One of OSBORN's core competences is the integration of brushes into plant engineering processes. Engineering and development, as well as the high product quality standard, guarantee optimal performance in production processes.



OSBORN Service.

Technology alone is not sufficient for us

OSBORN customers benefit from the advantages of a strong, international operating enterprise.

The large product assortment is of course stocked appropriately – rapid deliveries enable uninterrupted working processes at the customer's site.

Through ultra-modern, computer controlled transport and storing systems OSBORN is in the position to deliver goods ordered within 24 hours. Moreover, web-based purchasing platforms and open EDP-systems facilitate the whole process from providing quotations to invoicing. Availability, flexibility and quick reaction to customer requirements are therefore a real advantage for users of OSBORN quality products.

OSBORN's sales engineers are at the customer's disposal to answer technical questions and to assist in the specific product selection.



OSBORN. Pro Assortment.

Top products require appropriate packing – OSBORN delivers all wheel-, cup- and bevel brushes in popular assortments with perfect equipment:

■ Marking – complete!

An EAN barcode is printed on each carton – this simplifies stock movements and the sale at the till.

■ Product info - comprehensive!

Cut-outs in the carton enable the customer to see product details and the quality of the brush – additional product descriptions and important safety instructions are printed on each package

■ Sales promotoin - professional!

The OSBORN PRO line contains attractive display boxes for the presentation of promotion articles – tailored to meet individual needs.

■ Packing – functional!

All PRO assortments are supplied with Euro-holes for mounting on hooks of all customary sales shelves.

■ Presentation - optimal!

The packaging of OSBORN products is optimized with regard to size and stability. The slimline design allows large quantities to be stacked easily and the turnover per m² sales space can be increased noticeably.

With the OSBORN PRO assortment line you can offer your customers top quality products at the highest sales level.



OSBORN. Individual Assortments.

Do you want to address a specific target group or to present a product line completely different? This is no problem with the individual OSBORN assortments.

■ To stand out with the packing!

We develop individual packing solutions according to your ideas and provide the range of OSBORN products you sell with an outstanding appearance.

■ Minimum order quantities – as much as you need!

Apart from individual packaging, we also supply OSBORN PRO assortments in small minimum order quantities.

■ Flexibility belongs to our business!

Our logistics provides you just-in-time with the optimal merchandise volume and the required product-mix.

■ You can make use of our experience!

Talk to our experienced sales team. We will find the suitable assortment mix for your customers.

■ Special cases and sales campaigns are good!

Do you plan a sales campaign for a specific target group or do your customers have special demands? We react promptly and arrange an individual brush assortment for you.

OSBORN is open to your individual requirements and also supplies extraordinary assortment-solutions for your sales success.

Technical information. Rules to be observed.



Brush diameter and trim length of fill material

The brush diameter and length of fill material are the determining factors for the surface working result.

A combination of smaller diameter brush body and greater length of fill material results in soft and flexible brushes which are ideally suitable for the treatment of structured workpieces and for easy, gentle surface working.

A larger diameter of the brush body and smaller length of fill material result in more aggressive brushes which can be used for deburring and removal of tougher dirt.

For most efficient surface working, please select the maximum brush diameter, which can be mounted on the respective driving device. The peripheral speed and consequently the performance of the brush can be influenced by the brush diameter.

Important: Portable machines must only be used with brushes with maximum 180 mm diameter!

Work- and safety r.p.m. during brushing

To entirely fulfil the requirements of workplace safety the maximum safety r.p.m. indicated on the products must not be exceeded under any circumstances.

The optimal work r.p.m. for the brushing of work pieces is defined by peripheral speed and brush diameter. The optimal r.p.m. during operation is therefore often appreciably less than the safety r.p.m.

Operating Speed & Maximum Safe Free Speed (MSFS)

To guarantee your safety, please select the largest possible brush diameter that can be used on your driving device. Standard values for safe peripheral speeds are approx. 30-35 m/sec for brushes with crimped wires, 18-22 m/sec for brushes with synthetic filaments and plastic bonded fill materials.

For further recommendations of optimal work speeds and driving power, please refer to the tables listed in this catalogue or contact our technical service for assistance.

Optimal positioning of the brush towards the work piece: The contact pressure of a brush is among other things defined by the depth of insertion in the work piece. Our recommendation is the 3-fold filament diameter, e.g. 1.0 mm depth of insertion for 0.35 mm diameter of wire.

We are pleased to answer your questions regarding the optimal positioning of the work piece towards the brush centre. Please take into consideration that the brush wears out much faster if the positioning of work piece and brush is not accurate.



Fill material density of the brush

The fill material density depends on the number of wire tips per surface unit.

High fill material densities are the basis for optimal cutting performance and service life of the brushes as well as perfect results, e.g. during deburring.

Low fill material densities increase the flexibility of the brush and are the prerequisite for the treatment of strongly profiled surfaces.

If the brush diameter stays the same, the fill material density can be influenced by the measure of the body.

Working- and clamping width of the brush

The working width describes the contact surface of the brush on the work piece.

The rotational speed of the brush during operation may influence the indicated maximum working width.

To measure the working width, please press the fill material surface slightly together.

The clamping width of the brush is measured between the clamping adaptors and normally differs from the working width.

Assembly Instructions

Before mounting of the brush, please consider the following:

- The r.p.m. of your machine's driving shaft must not exceed the maximum safety r.p.m. of the brush!
- The length of the drive shaft should be dimensioned in a way, that an absolutely firm seat of the spindle nut is guaranteed.
- Brushes with clamping shank can be mounted easily in customary drill chucks.
- The connecting threads of brushes are fitted with adapted key faces for easy mounting and dismounting.

rpm	Brush diameter in mm											
	20	40	50	80	100	125	150	180	200	250	300	350
800				3,35	4,19	5,23	6,28	7,53	8,37	10,47	12,56	14,75
900			2,35	3,77	4,71	5,88	7,06	8,48	9,41	11,77	14,12	16,47
1.150			3,01	4,81	6,01	7,52	9,02	10,83	12,03	15,04	18,04	21,04
1.200	1,26	2,51	3,14	5,02	6,28	7,85	9,41	11,30	12,55	15,69	18,83	21,97
1.400	1,46	2,93	3,66	5,86	7,32	9,15	10,98	13,18	14,64	18,31	21,97	25,63
1.500	1,57	3,14	3,92	6,28	7,85	9,81	11,77	14,13	15,69	19,61	23,54	27,46
1.800	1,88	3,77	4,71	7,54	9,41	11,77	14,12	16,95	18,83	23,54	28,24	32,95
2.000	2,09	4,19	5,23	8,37	10,26	13,08	15,69	18,84	20,92	26,15	31,38	36,61
2.500	2,62	5,23	6,54	10,47	13,08	16,35	19,61	23,55	26,15	32,67	39,23	45,76
2.800	2,93	5,86	7,32	11,72	14,64	18,31	21,97	26,37	29,29	36,61	43,93	51,25
3.000	3,14	6,28	7,85	12,56	15,69	19,62	23,54	28,26	31,38	39,23	47,07	54,92
3.200	3,35	6,70	8,37	13,40	16,74	20,92	25,10	30,14	33,47	41,84	50,21	58,58
3.500	3,66	7,33	9,15	14,65	18,31	22,89	27,46	32,97	36,61	45,76	54,92	64,07
4.000	4,19	8,37	10,46	16,75	20,92	26,16	31,38	37,68	41,84	52,33	62,76	73,22
4.500	4,70	9,42	11,77	18,84	23,54	29,43	35,30	42,40	47,07	58,84	70,61	82,43
5.000	5,23	10,47	13,08	20,93	26,15	32,70	39,23	47,10	52,33	65,38	78,50	
5.400	5,65	11,30	14,12	22,94	28,24	35,31	42,36	50,67	56,48	70,61	84,78	
6.000	6,28	12,56	15,69	25,12	31,38	39,24	47,07	56,52	62,76	78,50		
7.000	7,33	14,66	18,31	29,31	36,61	45,78	54,92	65,94	73,22	91,58		
8.000	8,37	16,75	20,92	33,94	41,48	52,32	62,76	75,36	83,73			
9.000	9,42	18,84	23,54	37,68	47,07	58,86	70,61	84,78	94,20			
10.000	10,47	20,93	26,17	41,86	52,33	65,40	78,50	94,20				
12.500	13,08	26,17	32,71	52,33	65,42	81,75	98,13					
15.000	15,70	31,40	39,25	62,80								
17.500	18,32	36,63	45,79	73,26								
20.000	20,93	41,87	52,33	83,73								
22.500	23,55	47,10	58,88	94,20								
25.000	26,17	52,33	65,42	104,66								

Table of surface speeds in metres per sec. Which speed for which brush? Our technical sales department will advise you

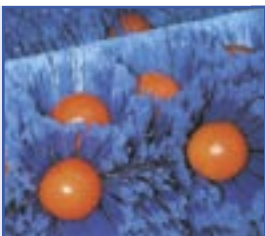
$$\text{Surface speed (v)} = \frac{\text{Brush diameter (d)} \times \pi \times \text{speed (n)}}{1000 \times 60}$$

General Safety Instructions

We strongly recommend the wearing of safety clothing and protective goggles during brushing in order to exclude possible injuries through extraneous elements, dirt, rust, and burr residuals. No persons without protective clothing should stand in the direct vicinity of the work area of the brush.

In the interest of your own safety and that of your co-workers, please observe all instructions regarding work safety, the recommended work- and safety r.p.m.s of OSBORN products as well as the recommendations and operating instructions of the manufacturers of the driving device you use.

Products in operation. 4 Steps to find the ideal fill material

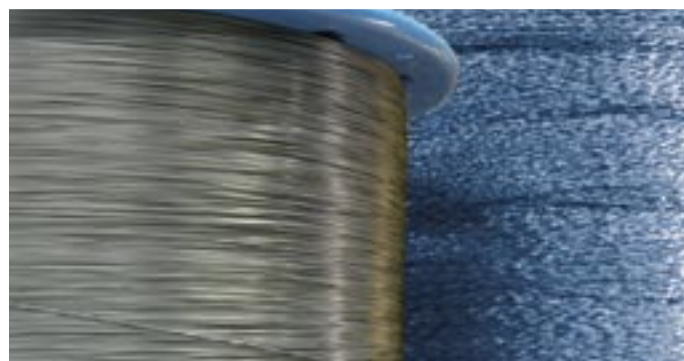
		Material to be brushed	Recommended fill material
Derusting + Cleaning		■ Non-ferrous metals + aluminium	■ Stainless steel wire, crimped
		■ Steels	■ Steel wire, crimped
		■ Non-ferrous metals + aluminium	■ Stainless steel wire, knotted
		■ Steels	■ Steel wire, knotted
		■ Non-ferrous metals + aluminium	■ Stainless steel wire, straight
Deburring		■ Non-ferrous metals + steel	■ Abrasive filament
		■ Non-ferrous metals + aluminium	■ Stainless steel wire, crimped
		■ Steels	■ Steel wire, crimped
Cleaning of Welding Seams		■ Stainless wire for non-ferrous metals + aluminium	■ Stainless steel wire, knotted
		■ Steels	■ Steel wire, knotted
		■ Aluminium surfaces	■ Stainless steel wire, crimped
Surface Cleaning		■ All materials	■ Abrasive filament, coarse, grit 80-120
		■ All materials	■ Abrasive filament, fine, grit 120-320
		■ Non-ferrous metals + aluminium	■ Stainless steel wire, crimped + fine wires <0.30 mm and abrasive nylon
		■ Steels	■ Steel wire, crimped + fine wires <0.30 mm
		■ Brass, bronze, copper	■ Brass wires and abrasive nylon, stainless steel
Washing, Dusting		■ Wood	■ Mexican Fibre (Tampico)
		■ All materials	■ Horsehair
		■ All materials	■ Nylon, Polypropylene, Polyester
Wood graining		■ Wood	■ Brass-coated steel wires
		■ Wood	■ Abrasive filaments
		■ Wood	■ Fibre

Features of Fill Material

Required Result

■ flexible wire, adapts itself ideally to the surface of the workpiece	■ blank, homogeneous surfaces
■ flexible wire, adapts itself ideally to the surface of the workpiece	■ blank, homogeneous surfaces
■ aggressive wire with high cleaning effect	■ heavy cleaning jobs
■ aggressive wire with high cleaning effect	■ heavy cleaning jobs
■ aggressive wire with high cleaning effect, for hand-scratch brushes, manual use	■ heavy cleaning jobs
■ flexible, adapts itself ideally to the surface of the workpiece	■ edge breaking with small radius
■ flexible wire with stronger abrasive performance	■ for medium to heavy deburring operations
■ flexible wire with stronger abrasive performance	■ for medium to heavy deburring operations
■ high cleaning effects at high surface speeds	■ no removal of welding stock
■ high cleaning effects at high surface speeds	■ no removal of welding stock
■ high cleaning effects	■ removing welding residues + oxide layers without damaging the welding stock
■ flexible, adapts itself ideally to the surface of the workpiece	■ light roughing of surfaces
■ flexible, adapts itself ideally to the surface of the workpiece	■ smoothing of surfaces
■ flexible, adapts itself ideally to the surface of the workpiece	■ good cleaning effects, without changing the geometry of the workpiece
■ flexible, adapts itself ideally to the surface of the workpiece	■ good cleaning effects, without changing the geometry of the workpiece
■ flexible, adapts itself ideally to the surface of the workpiece	■ very smooth brushing of the workpiece + giving a mat finish to the surface
■ flexible, soft, no abrasion	■ dedusting of surfaces
■ flexible, soft, no abrasion	■ sealing, stripping-off, pressing, transporting
■ flexible, soft, no abrasion	■ washing and cleaning of surfaces
■ wood graining	■ hard, adapts itself to the grain of wood
■ removing upright wood fibres	■ hard, adapts itself to the grain of wood
■ smoothing of surfaces / follows the contours	■ hard, adapts itself to the grain of wood

Fill Materials. The right Material



For our high quality products we only use fill materials that have been developed by us or which have been specifically selected. Constant laboratory tests assure a high quality. Regardless of the task to be performed, we have a comprehensive range of fill materials available. Our technical sales department will be pleased to advise you on the ideal fill material for your particular application.

Tempered quality steel wire, crimped



- most common fill material
- for flexible brushing tools
- application: suitable for light / medium surface treatment and deburring operations

Quality steel wire, straight or knotted



- for extreme brushing requirements
- for brushing tools with less flexibility
- application: cleaning weld seams and removal of heavy deposits of scale or corrosion

Special steel wire, crimped or knotted



- heavy duty steel wire
- high tensile strength
- high elongation
- long brush life
- for extreme brushes requirements

Stainless steel wire, crimped, straight or knotted



- most commonly used alloy 1.4401
- other alloys are also available (1.4571 or 302)
- This wire is used where residues from normal steel wire would affect surfaces such as stainless steel, aluminium and other non-ferrous metals.

Brass wire



- surface finishing on non-ferrous materials (copper and brass)

Brass-coated steel wire, mono wire



- single wires
- high tensile strength
- for demanding brushing and deburring operations

Brass-coated steel wire, cord wire



- high tensile strength
- for demanding brushing and deburring operations
- suitable for wood graining

Fibre



- pure vegetable fibre
- for wet and dry cleaning operations
- heat-resistant

Horse hair



- animal hair
- for light cleaning operations

Synthetic filaments



- highly flexible
- resistant to weak acids and alkaline solutions
- non-abrasive

Abrasive filament, aluminium oxide



- nylon filaments impregnated with abrasive grit.
- for light deburring of steel, aluminium, non-ferrous, metals.
Final surface finishing

Abrasive filament, silicon carbide



Abrasive nylon brushes offer a modern concept in final product finishing. These versatile brushes are manufactured using nylon filaments, which have been impregnated with a silicon carbide at the point of extrusion. The combination of four different grits, the natural properties of strength, chemical resistance, stiffness, fatigue resistance, durability and high melting point, all combine to produce some extraordinary results. Abrasive nylon filaments flex at all angles when in contact with the work surface, effectively brushing the contours of the component being worked. Pads, belts and wheels cannot do the same. The abrasive nylon brush is suitable for a diverse range of applications where traditional filamented products are inappropriate.

Outstanding features and advantages of these brushes include:

- nylon filaments being impregnated with silicon carbide
- uniform abrasive actions ensured by the filament construction
- high elasticity and flexibility without danger of breaking
- residues will not clog up the fill material
- low absorption rate makes the product suitable for both wet and dry applications
- resistance to weak acids and alkaline solutions
- trimming of the fill material is unnecessary in normal use
- long brush life ensured by:
 - a) adequate R.P.M. (22 m/sec tip speed)
 - b) low contact pressure
 - c) low heat development

Abrasive nylon brushes should be regarded as grinding tools. This results from the abrasive grains, which work at the tips as well as at the sides of the nylon filaments.

Wire brushes remove surface contamination, whereas abrasive nylon brushes actually remove microscopic sized pieces of the work surface.

Typical applications

Aircraft construction

- deburring turbine blades, transmission wheels and spacers
- removing carbon encrustation from engines and frames
- removing oxide and coatings from aircraft surfaces

Automobile bodies

- removing light burrs. Grinding and priming by light even abrasion

Automotive industry

- deburring pinions, pump impellers and gear wheels, cylinder heads, gearboxes and other sealing surfaces

Electronics

- deburring and precision grinding of laminations, printed circuit boards, and printed circuits

Metalworking

- Removing burrs caused by cutting or punching

Synthetics

- roughening and surface refining or smoothing

Tool Shop

- removing corrosion and die marks, edge breaking

Furniture industry

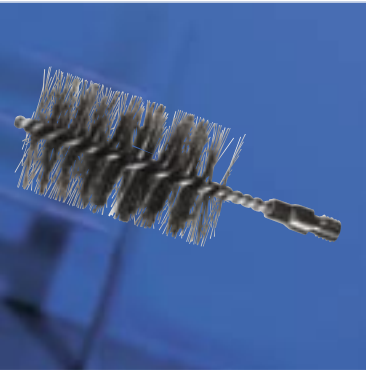
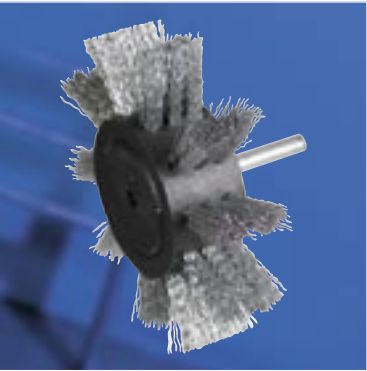
- smoothing wooden furniture and panels

Timber industry

- smoothing wood and plywood

For details and further demanding operations which can be handled newer high-tec filaments, please ask for our Novofil leaflet.

Brush types. The ideal brush

Technics	Wheel brushes	Cup brushes	Tube and internal cleaning rushes	Flap brushes
Angle grinder				
Portable hand drill	Treatment of rod, tube, profiles, weld seams, sawn edges, gear teeth, keyways, narrow surfaces	Efficient treatment of flat surfaces, weld seams.	Cleaning the internal surfaces of bores, tapped holes.	With their light plastic body, these brushes are suitable for use on drills for light duty applications.
High speed	■ roughing ■ deburring ■ edge breaking ■ giving a mat finish ■ structuring ■ derusting ■ excess rubber ■ polishing ■ deslagging	■ cleaning ■ deburring ■ deslagging ■ derusting ■ lacquer removal	■ roughing ■ swarf removal ■ deburring ■ cleaning ■ honing	■ Surface roughing ■ Polishing ■ Paint removal ■ Satinising ■ Wood Treatment ■ Varnish removal
Stationary				

Stationary	End brushes	Bevel brushes	Hand-scratch brushes	Strip brushes
Treatment of bores				
Manual	Effective brushing of hard-to-reach areas and internal surfaces for removing	Ideal for brushing edges and fillet weld preparation and slag removal. (combines the advantages of cup- and wheel brush)	For general use	For movable parts, cable channels, doors and gates
Miscellaneous	■ paint ■ rust ■ burrs ■ weld slag ■ scale ■ decarbonizing ■ excess rubber	■ cleaning ■ roughing	■ roughing ■ cleaning ■ derusting	■ Energy conservation ■ Rodent control ■ General Sealing ■ Cable Management Systems. ■ Conveyor Guides ■ Noise suppression
General				



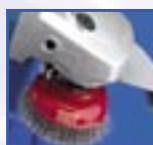
Angle grinders

- Ø 115 mm (4½")
operating speed 12.500 RPM
- Ø 125 mm (5")
operating speed 11.000 RPM
- Ø 150 mm (6")
operating speed 8.500 RPM
- Ø 180 mm (7")
operating speed 8.500 RPM
- Ø 230 mm (9")
operating speed 6.500 RPM



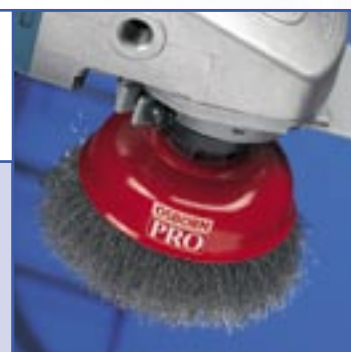
Wheel brushes

- knotted wire
- crimped wire



Cup brushes

- knotted wire
- crimped wire
- abrasive filament



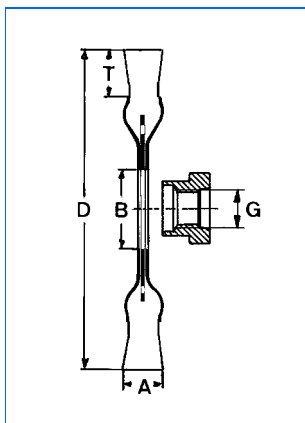
Bevel brushes

- knotted wire
- crimped wire



Which brush fits to which angle grinder?

Ø	60	65	75	80	90	100	115	120	125	150	178
Wheel brush, knotted						115	115		125	150	180
Wheel brush, crimped						115	115				
Cup brush, knotted		115	125	150		180		230			
Cup brush, crimped	115		125	150		150 180			230	230	
Cup brush, abrasive filament						adjustable 150					



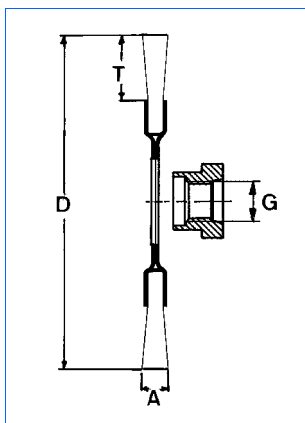
Wheel brushes, knotted wire

aggressive type

Area of application generally	Deburring, removing lacquer, derusting, removing slag, de-scaling, cleaning
Area of application particularly	Brushes for extreme applications for use at high surface speeds. The orientation of the knots has been designed for all possible applications.

							Steel wire	Steel wire	Steel wire	
Dimensions [mm]							0,35 mm	0,50 mm	0,80 mm	
D	A	T	Arbor hole [mm]	Thread	Adapter	max. min ⁻¹	Item No.	Item No.	Item No.	
100	12	20	22,2		K	12.500	0002-621 131	0002-621 151		
115	12	23	22,2		K	12.500	0002-631 131	0002-631 151		
115	12	23		M14x2,0		12.500	0402-631 131	0402-631 151		
125	13	28	22,2		K	12.500	6152-631 131	2202-631 151		
125	13	28		M14x2,0		12.500	1402-631 131	1402-631 151		
150	13	37	22,2		K	12.000	0002-641 131	0002-641 151	0002-641 181	
178	13	42	22,2		K	12.000	0002-653 131	0002-653 151	0002-653 181	

							Stainless steel wire	Stainless steel wire		
Dimensions [mm]							0,35 mm	0,50 mm		
D	A	T	Arbor hole [mm]	Thread	Adapter	max. min ⁻¹	Item No.	Item No.		
100	12	20	22,2		K	12.500		0002-621 351		
115	12	23	22,2		K	12.500	0002-631 331	0002-631 351		
115	12	23		M14x2,0		12.500	0402-631 331	0402-631 351		
125	13	28	22,2		K	12.500	2202-631 331	2202-631 351		
125	13	28		M14x2,0		12.500	1402-631 331	1402-631 351		
150	13	37	22,2		K	12.000		0002-641 351		
178	13	42	22,2		K	12.000		0002-653 351		



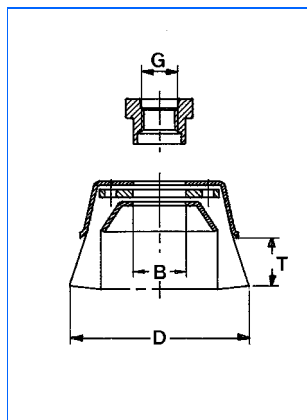
Wheel brushes, cord wire

with thread

Area of application generally	Cleaning, removing lacquer, derusting, removing slag
Area of application particularly	Brush for medium to heavy applications. For homogenous bright surfaces. For roughening/removing rubber, wood graining.

							Cordwire			
Dimensions [mm]							0,27 mm Rusticord			
D	A	T		Thread	Adapter	max. min ⁻¹	Item No.			
100	12	20		M14x2		12.000	2802-522 051			
115	12	28		M14x2		12.000	2812-522 051			

Other threads, dimensions and wire sizes on request. The standard stocked items are printed in bold type!

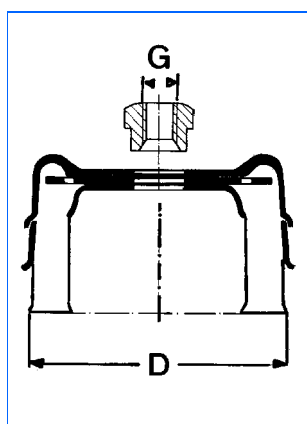


Cup brushes, knotted wire

with thread or arbor hole for angle grinders

Area of application generally	Deburring, removing lacquer, derusting, removing slag, de-scaling, cleaning
Area of application particularly	Aggressive tools for heavy cleaning jobs on flat surfaces.

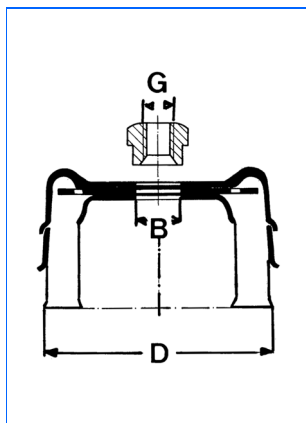
Dimensions [mm]						Steel wire	Steel wire	Stainless steel wire	Stainless steel wire
Arbor hole [mm]		Thread		max.	Pack.	0,35 mm	0,50 mm	0,35 mm	0,50 mm
D	T	B	G	min ⁻¹	Qty.	Item No.	Item No.	Item No.	Item No.
65	20	16		12.500	1	1602-608 131	1602-608 151	1602-608 331	1602-608 351
65	20		M10x1,25	12.500	1	2352-608 131	2352-608 151	2352-608 331	2352-608 351
65	20		M10x1,5	12.500	1	0102-608 131	0102-608 151	0102-608 331	0102-608 351
65	20		M12x1,5	12.500	1		1162-608 151		
65	20		M14x2,0	12.500	1	0002-608 131	0002-608 151	0002-608 331	0002-608 351
65/80	30		M14x2,0	12.500	1	3892-608 131			



Cup brushes, knotted wire

Area of application generally	Deburring, removing lacquer, derusting, removing slag, de-scaling, cleaning
Area of application particularly	Aggressive tools for heavy cleaning jobs and brushing large surfaces. The removable bridge controls the flexibility of the brush.

Dimensions [mm]					Steel wire	Steel wire		
Arbor hole [mm]		Thread		max.	Pack.	0,35 mm	0,50 mm	
D	T	B	G	min ⁻¹	Qty.	Item No.	Item No.	
75	20		M14x2,0	11.000	1	0008-608 132	0008-608 152	
75	20		5/8"x11NC	11.000	1	0808-608 132	0808-608 152	

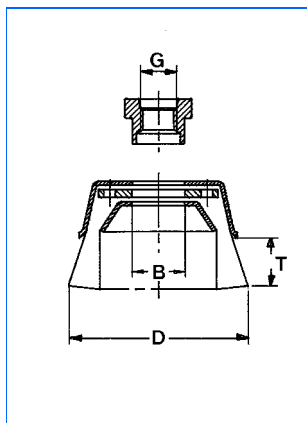


Cup brushes, knotted wire

Area of application generally	Roughening, deburring, removing lacquer, de-scaling, cleaning
Area of application particularly	Aggressive tools for heavy cleaning jobs and brushing large surfaces. The removable bridle controls the flexibility of the brush.

						Steel wire	Steel wire	Steel wire	
Dimensions [mm]		Arbor hole [mm]		Thread	max. min ⁻¹	Pack. Qty.	0,35 mm Item No.	0,50 mm Item No.	0,80 mm Item No.
D	T	B		G					
80	20	22,2			8.500	1	0002-607 133	0002-607 153	0002-607 183
80	20			M14x2,0	8.500	1	0002-608 133	0002-608 153	0002-608 183
80	20			5/8"x11NC	8.500	1	0802-608 133	0802-608 153	0802-608 183
100	20	22,2			8.500	1	0002-607 134	0002-607 154	0002-607 184
100	20			M14x2,0	8.500	1	0002-608 134	0002-608 154	0002-608 184
100	20			5/8"x11NC	8.500	1	0802-608 134	0802-608 154	0802-608 184
120	20	22,2			6.500	1	0002-607 135	0002-607 155	0002-607 185
120	20			M14x2,0	6.500	1	0002-608 135	0002-608 155	0002-608 185
120	20			5/8"x11NC	6.500	1	0802-608 135	0802-608 155	0802-608 185

						Stainless steel wire	Stainless steel wire		
Dimensions [mm]		Arbor hole [mm]		Thread	max. min ⁻¹	Pack. Qty.	0,35 mm Item No.	0,50 mm Item No.	
D	T	B		G					
80	20			M14x2,0	8.500	1	0002-608 333	0002-608 353	
100	20	22,2			8.500	1		0002-607 354	
100	20			M14x2,0	8.500	1	0002-608 334	0002-608 354	

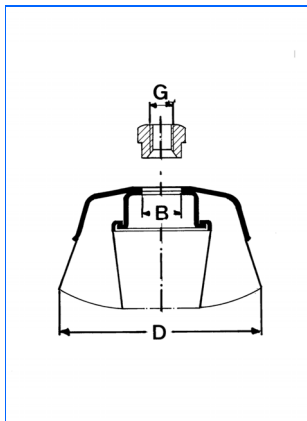


Cup brushes, crimped wire

with thread or arbor hole for angle grinders

Area of application generally	Roughening, deburring, removing lacquer, derusting, de-scaling, depolishing, cleaning
Area of application particularly	Brushes for easy to medium cleaning jobs, for treatment of large surfaces, e.g. removal of rust films.

						Steel wire	Steel wire	Stainless steel wire	
Dimensions [mm]		Arbor hole [mm]	Thread	max.	Pack.	0,20 mm	0,30 mm	0,30 mm	
D	T	B	G	min ⁻¹	Qty.	Item No.	Item No.	Item No.	
60	21	16		12.500	1	1602-613 141	1602-613 161	1602-613 361	
60	21		M10x1,25	12.500	1	5262-613 141	5262-613 161		
60	21		M10x1,5	12.500	1	0102-613 141	0102-613 161		
60	21		M14x2,0	12.500	1	0002-613 141	0002-613 161	0002-613 361	
75	23	16		12.500	1	1602-613 142	1602-613 162	1602-613 362	
75	23		M10x1,25	12.500	1	5652-613 142	5652-613 162		
75	23		M10x1,5	12.500	1	0102-613 142	0102-613 162		
75	23		M14x2,0	12.500	1	0002-613 142	0002-613 162	0002-613 362	
75	23		5/8"x11NC	12.500	1	0802-613 142	0802-613 162	0802-613 362	



Cup brushes, crimped wire

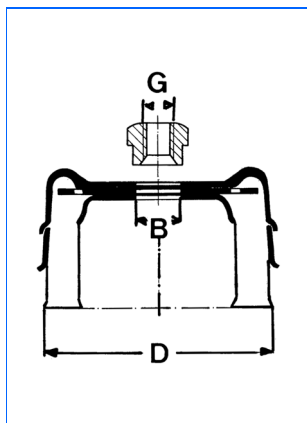
with thread or arbor hole for angle grinders

Area of application generally	Roughening, deburring, removing lacquer, derusting, de-scaling, depolishing, cleaning
Area of application particularly	Sturdy tools for easy cleaning jobs and brushing large surfaces.

						Steel wire	Steel wire	Steel wire	Steel wire
						0,20 mm	0,30 mm	0,38 mm	0,50 mm
Dimensions [mm]	Arbor hole [mm]		Thread	max.	Pack.	Item No.	Item No.	Item No.	Item No.
D	T	B	G	min ⁻¹	Qty.				
80	25	20		8.500	1		0002-603 163		
80	25	22,2		8.500	1	1902-603 143	1902-603 163		
80	25		M14x2,0	8.500	1	0002-613 143	0002-613 163		0002-613 193
80	25		5/8"x11NC	8.500	1	0802-613 143	0802-613 163		
100	30	22,2		8.500	1	0002-603 144	0002-603 164		0002-603 194
100	30		M14x2,0	8.500	1	0002-613 144	0002-613 164		0002-613 194
100	30		5/8"x11NC	8.500	1	0802-613 144	0802-613 164		0802-613 194
125	30	22,2		6.500	1	0002-603 145	0002-603 165		0002-603 195
125	30		M14x2,0	6.500	1	0002-613 145	0002-613 165		0002-613 195
125	30		5/8"x11NC	6.500	1	0802-613 145	0802-613 165		0802-613 195
140	35		M14x2,0	8.500	1			0004-613 175	0004-613 195
140	35		5/8"x11NC	8.500	1			0804-613 175	0804-613 195
150	40		M14x2,0	4.500	1	0002-613 146	0002-613 166		0002-613 196
150	40		5/8"x11NC	4.500	1	0802-613 146	0802-613 166		0802-613 196

						Stainless steel wire	Stainless steel wire	Brass coated Steel wire	
						0,30 mm	0,38 mm	0,30 mm	
Dimensions [mm]	Arbor hole [mm]		Thread	max.	Pack.	Item No.	Item No.	Item No.	
D	T	B	G	min ⁻¹	Qty.				
80	25	20		8.500	1	0002-603 363			
80	25	22,2		8.500	1	1902-603 363			
80	25		M14x2,0	8.500	1	0002-613 363		0002-613 063	
80	25		5/8"x11NC	8.500	1	0802-613 363		0802-613 063	
100	30		M14x2,0	8.500	1	0002-613 364		0002-613 064	
100	30		5/8"x11NC	8.500	1	0802-613 364		0802-613 064	
125	30		M14x2,0	6.500	1	0002-613 365		0002-613 065	
125	30		5/8"x11NC	6.500	1	0802-613 365		0802-613 065	
140	35		M14x2,0	8.500	1		0004-613 375		
140	35		5/8"x11NC	8.500	1	0804-613 375			
150	40		M14x2,0	4.500	1			0002-613 066	
150	40		5/8"x11NC	4.500	1			0802-613 066	

Other threads, dimensions and wire sizes on request. The standard stocked items are printed in **bold type**!



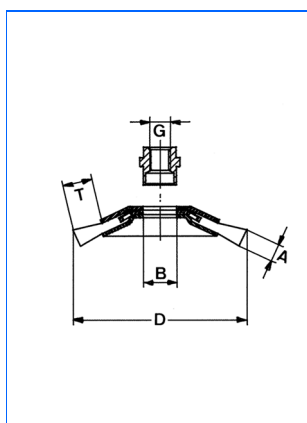
Cup brushes, abrasive filament silicon carbide

for angle grinders with adjustable RPM

Area of application generally	Angle grinders with adjustable RPM
Area of application particularly	Wood graining and grinding. Deburring and cleaning of non-ferrous metals. Recommended RPM: 4,000

						Abrasive filament			
Dimensions [mm]		Arbor hole [mm]	Thread	max.	Pack.	Grit 180*			
D	T	B	G	min ⁻¹	Qty.	Item No.			
100	25	22,2		8.500	1	1802-607 914			
100	25		M14x2,0	8.500	1	1802-608 914			
100	25		5/8"x11NC	8.500	1	0802-608 914			

*Other grit sizes on request.



Bevel brushes, knotted wire

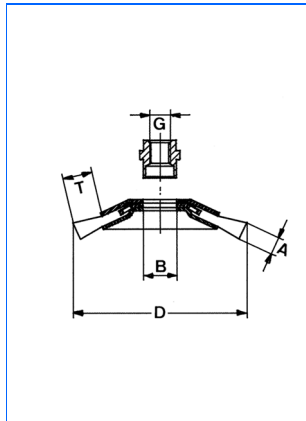
thread or arbor hole for angle grinders

Area of application generally	Deburring, removing lacquer, derusting, removing slag, de-scaling, cleaning
Area of application particularly	Brushes for versatile use in heavy cleaning applications. Due to their shape these brushes are ideal for brushing hard-to-reach areas. For cleaning panels boards.

						Steel wire	Steel wire	Stainless steel wire	Stainless steel wire
Dimensions [mm]		Arbor hole [mm]	Thread	max.	Pack.	0,35 mm	0,50 mm	0,35 mm	0,50 mm
D	A	T	B	G	min ⁻¹	Qty.	Item No.	Item No.	Item No.
100	13	22	16		12.500	1	1602-622 131	1602-622 151	1602-622 331
100	13	22		M10x1,25	12.500	1	2352-622 131	2352-622 151	2352-622 331
100	13	22		M10x1,5	12.500	1	0102-622 131	0102-622 151	0102-622 331
100	13	22		M14x2,0	12.500	1	0002-622 131 *	0002-622 151 *	0002-622 331 *
100	13	22		M14x2,0	12.500	1	0002-623 131 *	0002-623 151 *	0002-623 331 *
115	15	20	16		12.500	1	1602-632 131	1602-632 151	1602-632 331
115	15	20		M14x2,0	12.500	1	0002-632 131	0002-632 151	0002-632 331
115	15	20		5/8"x11NC	12.500	1	0802-632 131	0802-632 151	0802-632 331

*very aggressive model (22 knots)

Dimensions "A" can vary according to wire quality and size.



Bevel brushes, crimped wire

thread or arbor hole for angle grinders

Area of application generally	Roughening, deburring, removing lacquer, derusting, de-scaling, depolishing, cleaning
Area of application particularly	Brushes for versatile use in heavy cleaning applications. Due to their shape these brushes are ideal for brushing hard-to-reach areas.

						Steel wire		Stainless steel wire	Stainless steel wire
Dimensions [mm]						0,30 mm		0,20 mm	0,30 mm
D	A	T	B	Thread G	max. min ⁻¹	Pack. Qty.	Item No.	Item No.	Item No.
100	10	20	16		12.500	1	1602-512 161		
100	20	20	16		12.500	1	1602-512 162	1602-512 342	1602-512 362
100	10	20		M10x1,25	12.500	1	2352-512 161		
100	20	20		M10x1,25	12.500	1	2352-512 162	2352-512 342	2352-512 362
100	10	20		M10x1,5	12.500	1	0102-512 161		
100	20	20		M10x1,5	12.500	1	0102-512 162	0102-512 342	0102-512 362
100	10	20		M14x2,0	12.500	1	0002-512 161		
100	20	20		M14x2,0	12.500	1	0002-512 162	0002-512 342	0002-512 362

Dimensions "A" can vary according to wire quality and size.



Portable hand drill

- variable speed, hammer drills, etc.
- suitable for all makes
- operating speed approx. 1,500 – 3,500 RPM



Wheel brushes

- knotted wire
- crimped wire
- abrasive filament
- plastic-bonded wire fill



Cup brushes

- knotted wire
- crimped wire
- abrasive filament
- plastic-bonded wire fill



End brushes

- crimped wire
- abrasive filament
- plastic-bonded wire fill



Flap wheel brushe

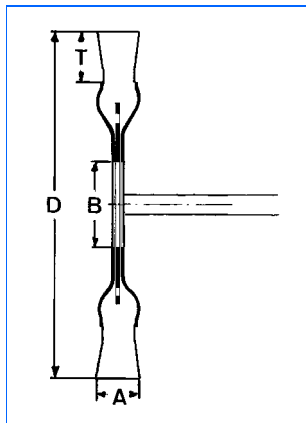
- crimped steel wire
- abrasive filament
- fibre



Tube brushes

- steel wire
- abrasive filament



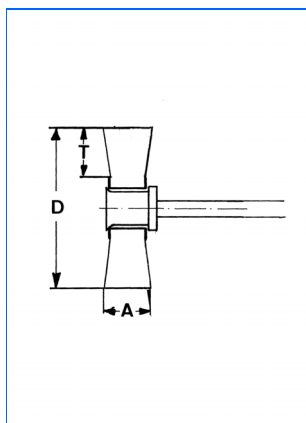


Wheel brushes, knotted wire

aggressive type

Area of application generally	Deburring, removing lacquer, derusting, removing slag, descaling, cleaning of weld seams
Area of application particularly	Brushes for extreme applications for use at high surface speeds.

Dimensions [mm]				Arbor hole [mm]		Shank [mm]		max. min ⁻¹	Pack. Qty.	Steel wire 0,35 mm Item No.	Steel wire 0,50 mm Item No.	Stainless steel wire 0,50 mm Item No.	
D	A	T	B										
75	12	15	13					20.000	12	0002-611 131	0002-611 151		
75	12	18				6		20.000	12	0202-611 131	0202-611 151	0202-611 351	



Wheel brushes, crimped wire

with 6 mm shank

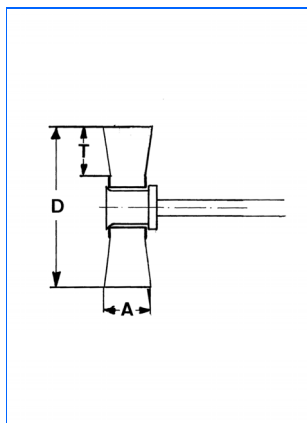
Area of application generally	Roughening, deburring, removing lacquer, removing slag, descaling, depolishing, cleaning, bright homogeneous surfaces
Area of application particularly	Due to their small diameter these brushes are ideal for brushing hard-to-reach areas. With medium fill material density. For light or medium brush applications.

Dimensions [mm]				max. min ⁻¹		Pack. Qty.	Steel wire 0,15 mm Item No.	Steel wire 0,20 mm Item No.	Steel wire 0,30 mm Item No.	Steel wire 0,50 mm Item No.
D	A	T								
20	6	4		20.000		10	0002-501 132	0002-501 142		
20	9	4		20.000		10		0002-501 143		
30	6	6		20.000		10		0002-502 141		
30	9	6		20.000		10	0002-502 132	0002-502 142		
30	12	6		20.000		10		0002-502 143		
40	7	10		18.000		10		0002-503 141		
40	11	10		18.000		10	0002-503 132	0002-503 142		
40	16	10		18.000		10		0002-503 143		
50	10	13		15.000		10		0002-504 141	0002-504 161	
50	17	13		15.000		10	0002-504 132	0002-504 142	0002-504 162	
50	23	13		15.000		10		0002-504 143	0002-504 163	
60	12	15		15.000		10		0002-505 141	0002-505 161	
60	18	15		15.000		10	0002-505 132	0002-505 142	0002-505 162	
60	23	15		15.000		10		0002-505 143	0002-505 163	
70	11	15		15.000		10		0002-506 141	0002-506 161	
70	18	15		15.000		10	0002-506 132	0002-506 142	0002-506 162	
70	23	15		15.000		10		0002-506 143	0002-506 163	
70	10	14		15.000		10				5183-506 192
80	19	20		15.000		10		0002-507 142	0002-507 162	

Dimensions "A" can vary according to wire quality and size.

Recommended operating speed approx. 50 % of the maximum rpm.

Other threads, dimensions and wire sizes on request. The standard stocked items are printed in **bold type**!



Wheel brushes, crimped wire

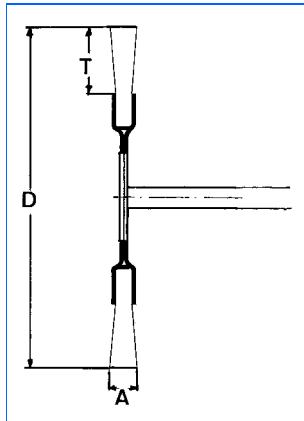
with 6 mm shank

Area of application generally	Roughening, deburring, removing lacquer, removing slag, de-scaling, depolishing, cleaning, bright homogeneous surfaces
Area of application particularly	Due to their small diameter these brushes are ideal for brushing hard-to-reach areas. With medium fill material density. For light or medium brush applications.

Dimensions [mm]			max. min ⁻¹	Pack. Qty.	Stainless steel wire	Stainless steel wire	Stainless steel wire	Brass wire
D	A	T			0,15 mm Item No.	0,20 mm Item No.	0,30 mm Item No.	0,20 mm Item No.
20	6	4	20.000	10	0002-501 332	0002-501 342		
20	9	4	20.000	10	0002-501 333	0002-501 343		0002-501 542
30	6	6	20.000	10		0002-502 341		
30	9	6	20.000	10	0002-502 332	0002-502 342		0002-502 542
30	12	6	20.000	10	0002-502 333	0002-502 343		
40	7	10	18.000	10	0002-503 331	0002-503 341		
40	11	10	18.000	10	0002-503 332	0002-503 342		0002-503 542
40	16	10	18.000	10	0002-503 333	0002-503 343		
50	10	13	15.000	10		0002-504 341	0002-504 361	
50	17	13	15.000	10	0002-504 332	0002-504 342	0002-504 362	0002-504 542
50	23	13	15.000	10		0002-504 343	0002-504 363	
60	12	15	15.000	10		0002-505 341	0002-505 361	
60	18	15	15.000	10	0002-505 332	0002-505 342	0002-505 362	0002-505 542
60	23	15	15.000	10		0002-505 343	0002-505 363	
70	11	15	15.000	10		0002-506 341	0002-506 361	
70	18	15	15.000	10	0002-506 332	0002-506 342	0002-506 362	0002-506 542
70	23	15	15.000	10		0002-506 343	0002-506 363	
80	10	20	15.000	10			5162-507 361	
80	19	20	15.000	10		0002-507 342	0002-507 362	0002-507 542

Dimensions "A" can vary according to wire quality and size.

Recommended operating speed approx. 50 % of the maximum rpm.

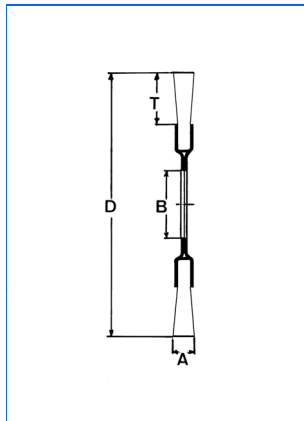


Wheel brushes, crimped wire

do-it-yourself model, with 6 mm shank

Area of application generally	Deburring, removing lacquer, derusting, removing slag, de-scaling, cleaning
Area of application particularly	Brush with medium fill density, for cleaning jobs such as removing paint, rust, scale, incrustations and burrs - with efficient brushing results.

Dimensions [mm]				Steel wire	Steel wire	Brass wire	
D	A	T		crimped, coarse Item No.	crimped, fine Item No.	crimped, fine Best.-Nr.	
40	5	10		0008-600 121	0003-600 111		
50	7	10		0008-600 221	0003-600 211		
63	9	13		0008-600 321	0003-600 311		
75	10	16		0008-600 421	0008-600 411	0502-600 451	
75	15	16		0008-600 422	0003-600 412		
100	12	22		0008-600 521	0008-600 511		
100	17	22		0008-600 522	0003-600 512		

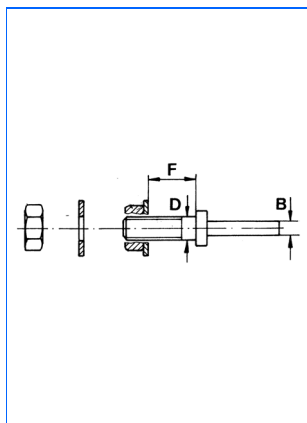


Wheel brushes, crimped wire

do-it-yourself model with arbor hole

Area of application generally	Deburring, removing lacquer, derusting, descaling, cleaning
Area of application particularly	These brushes can be mounted individually (type II) on a drive arbor or in multiples (type I) to give a larger face width.

Dimensions [mm]				max.	Pack.	Steel wire	Steel wire		
D	A	T	B	min ⁻¹	Qty.	crimped, coarse Item No.	crimped, fine Item No.		
50	7	10	9,6	4.500	20	0008-601 221	0003-601 211		
63	9	13	9,6	4.500	20	0008-601 321	0003-601 311		
75	10	16	9,6	4.500	10	0128-601 421	0123-601 411		
75	10	16	12,7	4.500	10	0008-601 421	0003-601 411		
100	12	22	12,7	4.500	10	0008-601 521	0003-601 511		

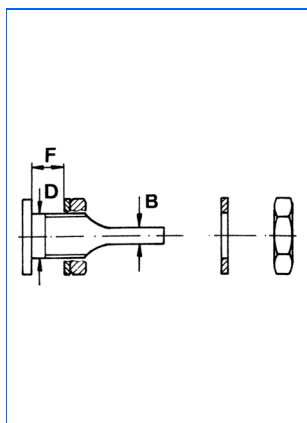


Drive Arbors

Type I

Area of application generally	For the mounting of brushes up to max. 20 mm face width on drills
Area of application particularly	For wheel brushes with arbor hole. Brushes can be mounted up to a face width of max. 20 mm.

Dimensions [mm]				Item No.			
D	D"	shank	F				
10		6	20	0003-000 100			
13		6	20	0003-000 130			
12,7	1/2"	6	20	0004-000 127			
6,35	1/4"	6	20	0004-000 063			
9,52	3/8"	6	20	0004-000 095			

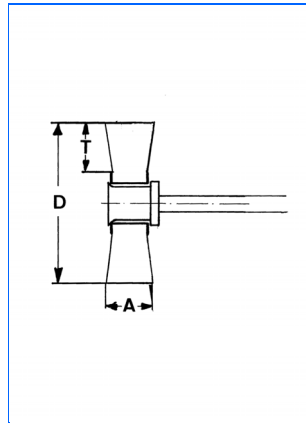


Drive Arbors

Type II

Area of application generally	For the mounting of brushes up to max. 11 mm face width on drills
Area of application particularly	For wheel brushes with arbor hole. Brushes can be mounted up to a face width of max. 11 mm.

Dimensions [mm]				Item No.			
D"	B		F				
3/8"	6		11	9907-075 128			
1/2"	6		11	9907-075 129			
5/8"	6		11	9907-075 130			

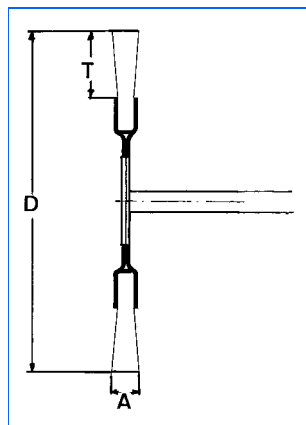


Brushes for wood graining

with 8 mm shank

Area of application generally	Wood graining
Area of application particularly	The fill material of these brushes is cord wire (brass coated steel wire, bundled) which gives good abrasion on both soft and hard woods. The depth of graining required is controlled through adjustment of the feed speed and repetition of the operation.

Dimensions [mm]				Cordwire			
D	A	T	max. min ⁻¹	Pack. Qty.	0,25 mm Rusticord Item No.		
80	35	25	4.000	1	0908-507 061		

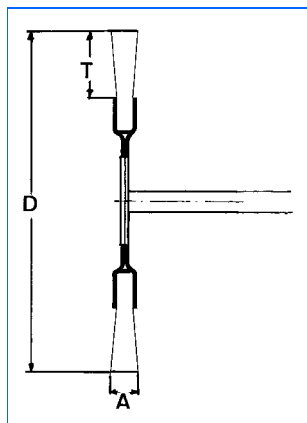


Wheel brushes with abrasive filament, aluminiumoxide

"Grittyflex" with 6 mm shank

Area of application generally	Removing lacquer, dedusting, smoothing, depolishing, cleaning, wood graining
Area of application particularly	The fill material of these brushes adapts itself ideally to the profile of the work piece without damaging the surface. During use, new abrasive grits are continuously exposed, so giving optimum abrasive performance.

Dimensions [mm]				Abrasive filament	Abrasive filament		
D	A	T	max. min ⁻¹	Pack. Qty.	red, Grit 80 Item No.	blue, Grit 180 Item No.	
75	16	10	4.500	10	0802-600 491	0182-600 491	
100	23	10	4.500	10	0802-600 591	0182-600 591	

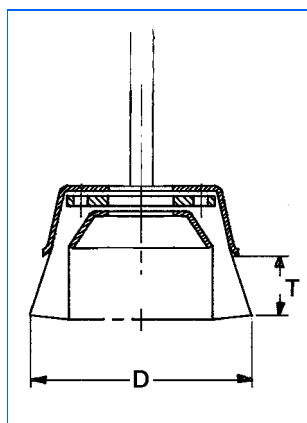


Wheel brushes, crimped wire, plastic-bonded

with 6 mm shank

Area of application generally	Deburring, removing lacquer, derusting, removing slag, de-scaling, cleaning
Area of application particularly	Safety brushes are ideal for removing paint and varnish, for deburring and cleaning different surfaces. Advantages of these brushes: TÜV-examined (association for technical inspection), tenfold brush life, wire does not break.

Dimensions [mm]				max. min ⁻¹	Pack. Qty.	Brass coated steel wire crimped, rubber-bonded 0,30 mm Item No.			
D	A	T							
63	8	20		15.000	12	0002-911 941			
76	8	26		15.000	12	0002-911 951			

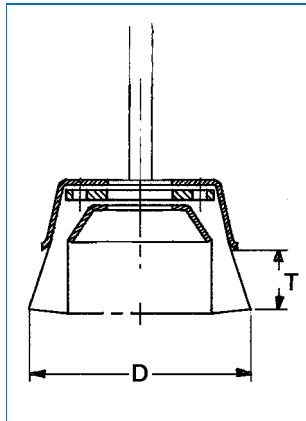


Cup brushes, knotted wire

6 mm shank, aggressive type

Area of application generally	Roughening, deburring, removing lacquer, de-scaling, cleaning
Area of application particularly	Brush for extreme applications. For brushing flat surfaces.

Dimensions [mm]				max. min ⁻¹	Pack. Qty.	Steel wire 0,50 mm Item No.			
D	T								
65	23			6.000	12	1004-608 151			

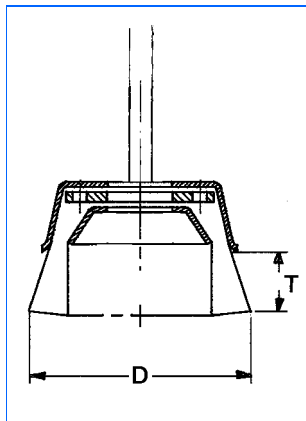


Cup brushes, crimped wire

do-it-yourself model with 6 mm shank

Area of application generally	Deburring, removing lacquer, derusting, descaling, cleaning
Area of application particularly	Brush with medium fill density, for cleaning jobs such as removing paint, rust, scale, incrustations and burrs - with efficient brushing results.

Dimensions [mm]				Steel wire	Steel wire	Brass wire	
D	T	max. min ⁻¹	Pack. Qty.	crimped, coarse Item No.	crimped, fine Item No.	crimped, fine Item No.	
50	17	4.500	20	0008-600 821	0008-600 811	0023-600 851	
60	20	4.500	10	0008-600 823	0003-600 813		
75	20	4.500	10	0008-600 921	0008-600 911		
80	23	4.500	10	0008-601 921	0003-601 911		

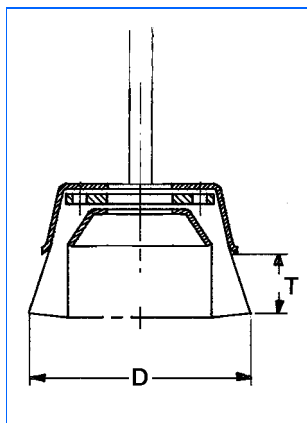


Cup brushes with abrasive filament, aluminiumoxide

"Grittyflex" with 6 mm shank

Area of application generally	Removing lacquer, dedusting, smoothing, depolishing, cleaning, wood graining
Area of application particularly	The fill material of these brushes adapts itself ideally to the profile of the work piece without damaging the surface. During use, new abrasive grits are continuously exposed, so giving optimum abrasive performance.

Dimensions [mm]				Abrasive filament	Abrasive filament		
D	T	max. min ⁻¹	Pack. Qty.	red, Grit 80 Item No.	blue, Grit 180 Item No.		
50	17	4.500	10	0802-600 891	0182-600 891		
75	23	4.500	10	0802-600 991	0182-600 991		

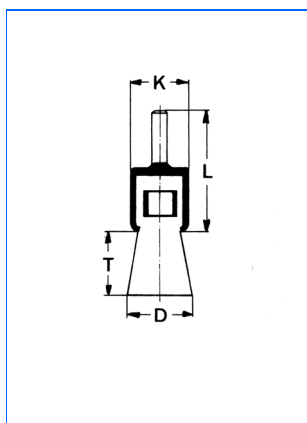


Cup brushed, crimped wire,

with 6 mm shank

Area of application generally	Deburring, removing lacquer, derusting, removing slag, de-scaling, cleaning
Area of application particularly	Safety brushes are ideal for removing paint and varnish, for deburring and cleaning different surfaces. Advantages of these brushes: TÜV-examined (association for technical inspection), tenfold brush life, wire does not break.

Dimensions [mm]				Brass coated steel wire			
D	T	max. min ⁻¹	Pack. Qty.	crimped, rubber-bonded 0,30 mm Item No.			
50	15	15.000	6	0002-930 821			



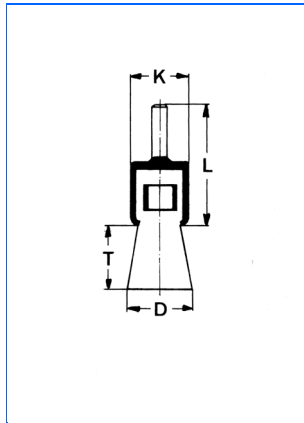
End brushes, crimped wire

with 6 mm shank, for use in drills and other high speed electric tools

Area of application generally	Roughening, deburring, removing lacquer, removing slag, de-scaling, depolishing, cleaning
Area of application particularly	For removing burrs, rust, cinder, scale, paint, excess rubber, residues of combustion and other heavy contamination in hard-to-reach areas and internal surfaces.

Dimensions [mm]					max. min ⁻¹	Pack. Qty.	Steel wire	Steel wire	Steel wire	
D	T	K	L				0,20 mm Item No.	0,30 mm Item No.	0,50 mm Item No.	
10	20	10	45		20.000	12	0003-509 141	0003-509 161	0003-509 191	
17	25	15	45		18.000	12	0002-509 142	0002-509 162	0002-509 192	
25	25	22	45		18.000	12	0002-509 143	0002-509 163	0002-509 193	
30	25	28	45		15.000	12	0002-509 144	0002-509 164	0002-509 194	

Dimensions [mm]					max. min ⁻¹	Pack. Qty.	Stainless steel wire	Stainless steel wire	Brass wire	Brass wire
D	T	K	L				0,20 mm Item No.	0,30 mm Item No.	0,20 mm Item No.	0,30 mm Item No.
10	20	10	45		20.000	12	0003-509 341	0003-509 361	0003-509 541	0003-509 561
17	25	15	45		18.000	12	0002-509 342	0002-509 362	0002-509 542	0002-509 562
25	25	22	45		18.000	12	0002-509 343	0002-509 363	0002-509 543	0002-509 563
30	25	28	45		15.000	12	0002-509 344	0002-509 364	0002-509 544	0002-509 564

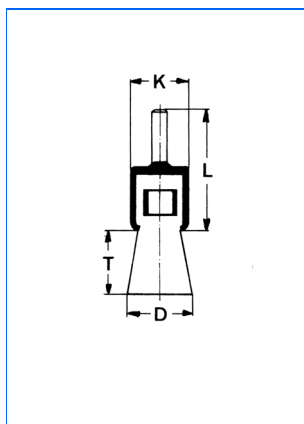


End brushes, crimped wire

do-it-yourself model, with 6 mm shank
for use in drills

Area of application generally	Roughening, deburring, removing lacquer, removing slag, de-scaling, depolishing, cleaning
Area of application particularly	For removing burrs, rust, cinder, scale, paint, excess rubber, residues of combustion and other heavy contamination in hard-to-reach areas and internal surfaces.

Dimensions [mm]						Steel wire			
D	A	T	K	L	max. min ⁻¹	Pack. Qty.	crimped, 0,30 mm Item No.		
12	20	10	45		4.500	20	0008-509 161		
17	25	15	45		4.500	12	0008-509 162		
25	30	24	50		4.500	12	0008-509 163		
30	35	29	50		4.500	12	0008-509 164		

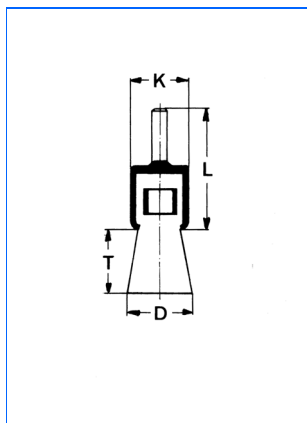


End brushes with abrasive fill material, aluminium oxide

"Grittyflex" with 6 mm shank

Area of application generally	Removing lacquer, dedusting, smoothing, depolishing, cleaning, wood graining
Area of application particularly	The fill material of these brushes adapts itself ideally to the profile of the work piece without damaging the surface. During use, new abrasive grits are continuously exposed, so giving optimum abrasive performance.

Dimensions [mm]						Abrasive filament	Abrasive filament		
D	T	K	L	max. min ⁻¹	Pack. Qty.	red, Grit 80 Item No.	blue, Grit 180 Item No.		
25	25	22	45	4.500	12	0812-509 913	1812-509 913		

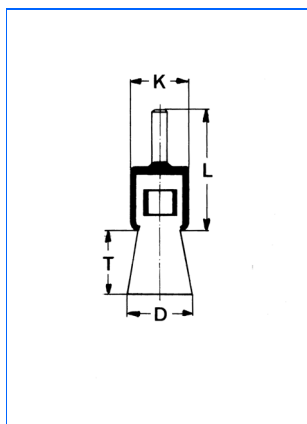


End brushes, abrasive fill material, silicium carbide

Area of application generally	Roughening, deburring, removing lacquer, descaling, depolishing
Area of application particularly	The fill material of these brushes adapts itself ideally to the profile of the work piece without damaging the surface. During use, new abrasive grits are continuously exposed, so giving optimum abrasive performance.

Dimensions [mm]						Abrasive filament	Abrasive filament	Abrasive filament	
D	T	K	L	Shank-Ø	max. min ⁻¹	Pack. Qty.	Grit 120* Item No.	Grit 180* Item No.	Grit 320* Item No.
10	25	10	50		5.000	12		1802-509 911	3202-509 911
15	25	15	43		5.000	12	1202-509 912	1802-509 912	3202-509 912
22	25	22	43		5.000	12	1202-509 913	1802-509 913	3202-509 913
28	25	28	45		5.000	12	1202-509 914	1802-509 914	3202-509 914

* Other grit sizes on request.

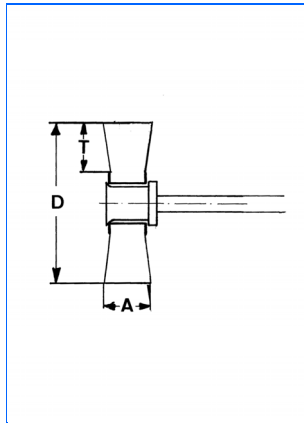
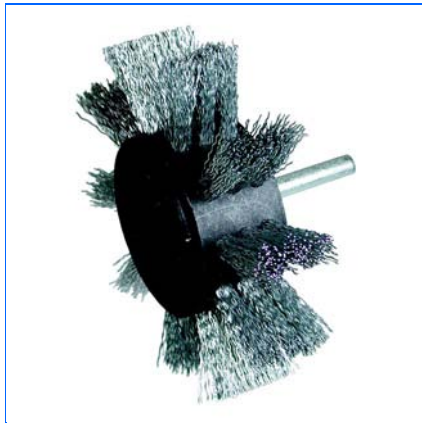


End brushes, crimped wire, plastic-bonded

with 6 mm shank

Area of application generally	Deburring, removing lacquer, derusting, removing slag, de-scaling, cleaning
Area of application particularly	Safety brushes are ideal for removing paint and varnish, for deburring and cleaning different surfaces. Advantages of these brushes: TÜV-examined (association for technical inspection), tenfold brush life, wire does not break.

Dimensions [mm]						Brass coated steel wire			
D	A	T	K	L	max. min ⁻¹	Pack. Qty.	crimped, rubber-bonded 0,30 mm Item No.		
17	24	16	43		15.000	12	0002-930 902		
24	23	23	43		15.000	12	0002-930 907		
31	23	29	43		15.000	12	0002-930 912		



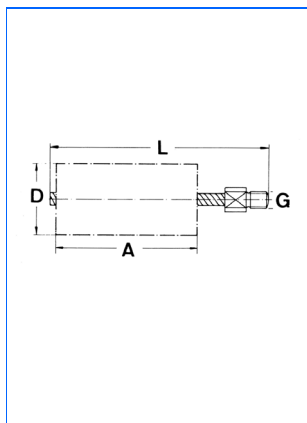
Flap brushes

with 6 mm shank

Area of application generally	Polishing, wood graining, removing lacquer, dedusting, deburring, de-scaling, smoothing, cleaning
Area of application particularly	Brushes with abrasive filaments are ideally suitable for the treatment of wood. Brushes with fibre filaments are specially suited for polishing. Weight reduction through plastic body.

					Galvanized steel wire	Brass coated Steel wire	Abrasive filament Aluminium oxide	Abrasove filament Aluminium oxide
Dimensions [mm]			max.	Pack.	crimped 0,30 mm	crimped 0,30 mm	red, Grit: 80	blue, Grit: 180
D	A	T	min ⁻¹	Qty.	Item No.	Item No.	Item No.	Item No.
100	23	25	3.500	5	0004-401 132	0004-401 052	0001-401 912	0011-401 912

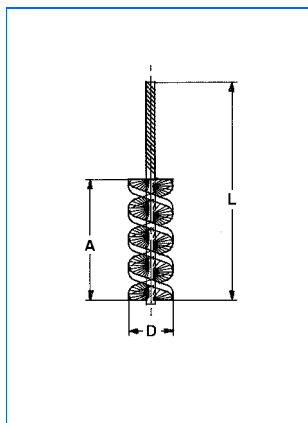
Dimensions [mm]				Fiber			
D	A	T	max. min ⁻¹	Pack. Qty.	Item No.		
100	23	25	3.500	5	0004-401 942		



Cylindrical tube and flue brushes

Area of application generally	Tube cleaning, deburring, removing lacquer, derusting, cleaning
Area of application particularly	Cylindrical tube brushes with two or four twisted wires. Cleaning of capacitors and heating tubes.

Dimensions [mm]					Steel wire	Steel wire		
D	A	L	Thread G	Pack. Qty.	Single spiral Item No.	Double spiral Item No.		
10	100	140	M6	10	0003-815 210			
12	100	140	M6	10	0002-815 212			
14	100	140	M6	10	0002-815 214			
15	100	140	5/16" BSW	10	0002-812 215			
18	100	140	5/16" BSW	10	0002-812 218			
20	100	140	5/16" BSW	10	0002-812 220			
25	100	160	1/2" BSW	5	0002-808 125	0003-810 125		
28	100	160	1/2" BSW	5		0003-810 128		
30	100	160	1/2" BSW	5	0002-808 130	0003-810 130		
32	100	160	1/2" BSW	5	0002-808 132	0003-810 132		
38	100	160	1/2" BSW	5	0002-808 138	0003-810 138		
40	100	160	1/2" BSW	5	0002-808 140	0003-810 140		
44	100	160	1/2" BSW	5	0002-808 144	0003-810 144		
50	100	160	1/2" BSW	5	0002-808 150	0003-810 150		
57	100	160	1/2" BSW	5		0003-810 157		
63	100	160	1/2" BSW	5	0002-808 163	0003-810 163		
69	100	160	1/2" BSW	5		0003-810 169		
75	100	160	1/2" BSW	5	0002-808 175	0003-810 175		
82	100	160	1/2" BSW	5		0003-810 182		
101	100	160	1/2" BSW	5	0002-808 100	0003-810 100		



Cylindrical tube and flue brushes, abrasive filament

silicon carbide

Area of application generally	Deburring, roughening, smoothing
Area of application particularly	Cylindrical tube brushes for cleaning the inside of bores and finishing non-ferrous metals, steel and cast iron parts. Specially suited for the deburring of cross drillings, steering parts, O-rings slots and cylindrical bores. We recommend a brush diameter

					Abrasive filament	Abrasive filament	Abrasive filament	
Dimensions [mm]					Grit 80 Item No.	Grit 120 Item No.	Grit 320 Item No.	
D	A	L	Shank-Ø mm	Pack. Qty.				
6	50	125	3	12		0003-056 306	0003-056 326	
8	50	125	3	12		0003-056 308	0003-056 328	
10	50	125	4	12	0003-056 010	0003-056 310	0003-056 330	
13	50	125	4	12	0002-056 011	0002-056 311	0002-056 331	
16	50	125	5	12	0002-056 012	0002-056 312	0002-056 332	
19	65	125	5	12	0002-056 013	0002-056 313	0002-056 333	
22	65	125	5,5	12	0002-056 014	0002-056 314	0002-056 334	
25	65	125	5,5	12	0002-056 015	0002-056 315	0002-056 335	
32	65	125	6	12	0002-056 016	0002-056 316	0002-056 336	
38	65	125	6	12	0002-056 017	0002-056 317	0002-056 337	
50	65	125	6	12	0002-056 018	0002-056 318	0002-056 338	

Connecting threads, shank extensions can be delivered on request!



High-speed

- horizontal grinders
- pneumatic tools
- high-speed driving devices



Wheel brushes

- knotted wire
- crimped wire



End brushes

- with knotted wire
- with crimped wire
- with extra long shank
- special models



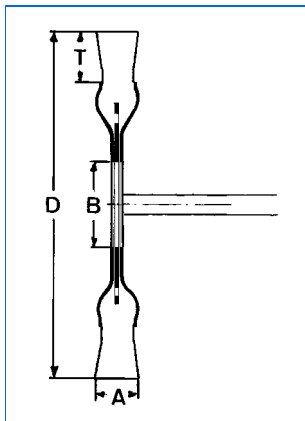
Important Product Info!

The products depicted in this section are manufactured with robust components with integral shanks. They are ideally suitable for operating at high speeds.

Please observe the maximum safe free working speed (MSFS) of the brush product and also the maximum operating speed of the tool to be used.

The MSFS should never be exceeded.

The recommended operating speeds are approx. 50 % of the maximum RPM.

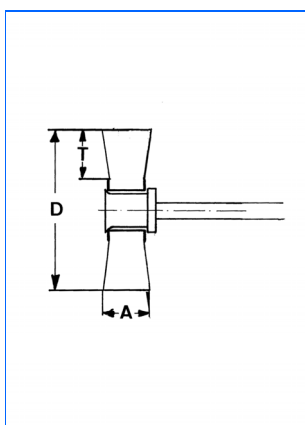


Wheel brushes, knotted wire

aggressive type

Area of application generally	Deburring, removing lacquer, derusting, removing slag, descaling, cleaning of weld seams
Area of application particularly	Brushes for extreme applications for use at high surface speeds.

						Steel wire	Steel wire	Stainless steel wire	
Dimensions [mm]		Arbor hole [mm]		Shank [mm]	max. min ⁻¹	Pack. Qty.	0,35 mm Item No.	0,50 mm Item No.	0,50 mm Item No.
D	A	T	B						
75	12	15	13		20.000	12	0002-611 131	0002-611 151	
75	12	18		6	20.000	12	0202-611 131	0202-611 151	0202-611 351



Wheel brushes, crimped wire

with 6 mm shank

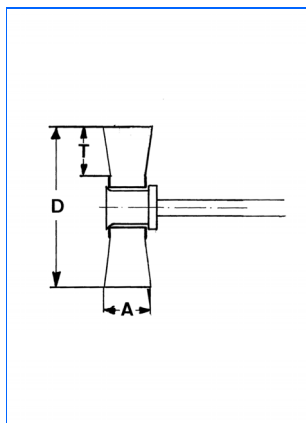
Area of application generally	Roughening, deburring, removing lacquer, removing slag, descaling, depolishing, cleaning, bright homogeneous surfaces
Area of application particularly	Due to their small diameter these brushes are ideal for brushing hard-to-reach areas. With medium fill material density. For light or medium brush applications.

Dimensions [mm]				max. min ⁻¹	Pack. Qty.	Steel wire	Steel wire	Steel wire	Steel wire
D	A	T				0,15 mm Item No.	0,20 mm Item No.	0,30 mm Item No.	0,50 mm Item No.
20	6	4		20.000	10	0002-501 132	0002-501 142		
20	9	4		20.000	10		0002-501 143		
30	6	6		20.000	10		0002-502 141		
30	9	6		20.000	10	0002-502 132	0002-502 142		
30	12	6		20.000	10		0002-502 143		
40	7	10		18.000	10		0002-503 141		
40	11	10		18.000	10	0002-503 132	0002-503 142		
40	16	10		18.000	10		0002-503 143		
50	10	13		15.000	10		0002-504 141	0002-504 161	
50	17	13		15.000	10	0002-504 132	0002-504 142	0002-504 162	
50	23	13		15.000	10		0002-504 143	0002-504 163	
60	12	15		15.000	10		0002-505 141	0002-505 161	
60	18	15		15.000	10	0002-505 132	0002-505 142	0002-505 162	
60	23	15		15.000	10		0002-505 143	0002-505 163	
70	11	15		15.000	10		0002-506 141	0002-506 161	
70	18	15		15.000	10	0002-506 132	0002-506 142	0002-506 162	
70	23	15		15.000	10		0002-506 143	0002-506 163	
70	10	14		15.000	10				5183-506 192
80	19	20		15.000	10		0002-507 142	0002-507 162	

Dimensions "A" can vary according to wire quality and size.

Recommended operating speed approx. 50 % of the maximum rpm.

Other threads, dimensions and wire sizes on request. The standard stocked items are printed in **bold type**!



Wheel brushes, crimped wire

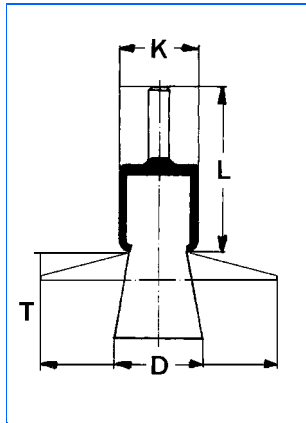
with 6 mm shank

Area of application generally	Roughening, deburring, removing lacquer, removing slag, de-scaling, depolishing, cleaning, bright homogeneous surfaces
Area of application particularly	Due to their small diameter these brushes are ideal for brushing hard-to-reach areas. With medium fill material density. For light or medium brush applications.

Dimensions [mm]			max. min ⁻¹	Pack. Qty.	Stainless steel wire	Stainless steel wire	Stainless steel wire	Brass wire
D	A	T			0,15 mm Item No.	0,20 mm Item No.	0,30 mm Item No.	0,20 mm Item No.
20	6	4	20.000	10	0002-501 332	0002-501 342		
20	9	4	20.000	10	0002-501 333	0002-501 343		0002-501 542
30	6	6	20.000	10		0002-502 341		
30	9	6	20.000	10	0002-502 332	0002-502 342		0002-502 542
30	12	6	20.000	10	0002-502 333	0002-502 343		
40	7	10	18.000	10	0002-503 331	0002-503 341		
40	11	10	18.000	10	0002-503 332	0002-503 342		0002-503 542
40	16	10	18.000	10	0002-503 333	0002-503 343		
50	10	13	15.000	10		0002-504 341	0002-504 361	
50	17	13	15.000	10	0002-504 332	0002-504 342	0002-504 362	0002-504 542
50	23	13	15.000	10		0002-504 343	0002-504 363	
60	12	15	15.000	10		0002-505 341	0002-505 361	
60	18	15	15.000	10	0002-505 332	0002-505 342	0002-505 362	0002-505 542
60	23	15	15.000	10		0002-505 343	0002-505 363	
70	11	15	15.000	10		0002-506 341	0002-506 361	
70	18	15	15.000	10	0002-506 332	0002-506 342	0002-506 362	0002-506 542
70	23	15	15.000	10		0002-506 343	0002-506 363	
80	10	20	15.000	10			5162-507 361	
80	19	20	15.000	10		0002-507 342	0002-507 362	0002-507 542

Dimensions "A" can vary according to wire quality and size.

Recommended operating speed approx. 50 % of the maximum rpm.



End brushes, knotted wire

with 6 mm shank

Area of application generally	Roughening, deburring, removing lacquer, removing slag, de-scaling, depolishing, cleaning
Area of application particularly	The special features of these brushes are their particular flexibility and great cleaning efficiency. Centrifugal force arising in use causes these brushes to expand in diameter. These brushes are also specially suitable for inside cleaning of cylindrical

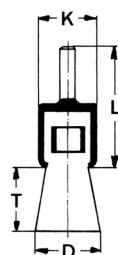
Dimensions [mm]					Steel wire		Steel wire		Stainless steel wire	
D	T	K	L	max. min ⁻¹	Pack. Qty.	0,26 mm Item No.	0,35 mm Item No.	0,26 mm Item No.	0,35 mm Item No.	Stainless steel wire
20	29	20	44	22.000	12	0002-630 304	0002-630 305	0002-630 328		
23	29	23	44	20.000	12	0002-630 310	0002-630 311	0002-630 334	0002-630 335	
30	29	30	44	20.000	12	0002-630 316	0002-630 317	0002-630 340	0002-630 341	



Matrix showing the working diameter

Item No.	Ø of body	Wire size	Spreading for Ø in mm at a speed of RPM 5.000	Spreading for Ø in mm at a speed of RPM 8.000	Spreading for Ø in mm at a speed of RPM 15.000
630304-0002 / 630328-0002 630305-0002	20 20	0,26 0,35	55 25	70 50	75 70
630310-0002 / 630334-0002 630311-0002 / 630335-0002	23 23	0,26 0,35	40 35	65 55	75 70
630316-0002 / 630340-0002 630317-0002 / 630341-0002	30 30	0,26 0,35	55 50	70 70	85 80

Recommended operating speed approx. 50 % of the maximum rpm.



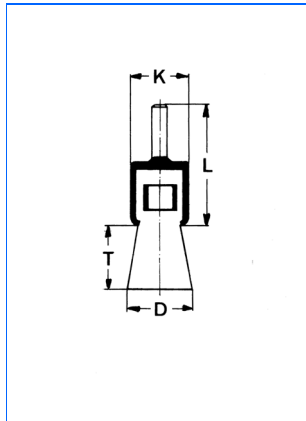
End brushes, crimped wire

with 6 mm shank, for use in drills and other high speed electric tools

Area of application generally	Roughening, deburring, removing lacquer, removing slag, de-scaling, depolishing, cleaning
Area of application particularly	For removing burrs, rust, cinder, scale, paint, excess rubber, residues of combustion and other heavy contamination in hard-to-reach areas and internal surfaces.

Steel wire						Steel wire	Steel wire	Steel wire	
Dimensions [mm]						0,20 mm Item No.	0,30 mm Item No.	0,50 mm Item No.	
D	T	K	L	max. min ⁻¹	Pack. Qty.				
10	20	10	45	20.000	12	0003-509 141	0003-509 161	0003-509 191	
17	25	15	45	18.000	12	0002-509 142	0002-509 162	0002-509 192	
25	25	22	45	18.000	12	0002-509 143	0002-509 163	0002-509 193	
30	25	28	45	15.000	12	0002-509 144	0002-509 164	0002-509 194	

Stainless steel wire						Stainless steel wire	Brass wire	Brass wire	
Dimensions [mm]						0,20 mm Item No.	0,30 mm Item No.	0,20 mm Item No.	0,30 mm Item No.
D	T	K	L	max. min ⁻¹	Pack. Qty.				
10	20	10	45	20.000	12	0003-509 341	0003-509 361	0003-509 541	0003-509 561
17	25	15	45	18.000	12	0002-509 342	0002-509 362	0002-509 542	0002-509 562
25	25	22	45	18.000	12	0002-509 343	0002-509 363	0002-509 543	0002-509 563
30	25	28	45	15.000	12	0002-509 344	0002-509 364	0002-509 544	0002-509 564

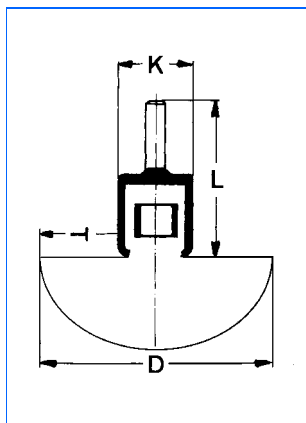


End brushes, crimped wire

extra long, with 6 mm shank

Area of application generally	Roughening, deburring, removing lacquer, removing slag, de-scaling, depolishing, cleaning
Area of application particularly	For removing burrs, rust, cinder, scale, paint, excess rubber, residues of combustion and other heavy contamination in hard-to-reach areas and internal surfaces.

Dimensions [mm]					max. min ⁻¹	Pack. Qty.	Steel wire 0,20 mm Item No.	Steel wire 0,30 mm Item No.	Stainless steel wire 0,20 mm Item No.	Stainless steel wire 0,30 mm Item No.
D	T	K	L							
10	18	11	100		10.000	10	0003-509 149	0003-509 169	0003-509 349	0003-509 369

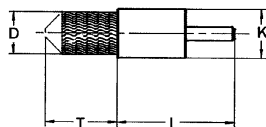


End Brushes circular

circular model

Area of application generally	Roughening, deburring, removing lacquer, removing slag, de-scaling, depolishing, cleaning
Area of application particularly	For removing burrs, rust, cinder, scale, paint, excess rubber, residues of combustion and other heavy contamination in hard-to-reach areas and internal surfaces.

Dimensions [mm]					max. min ⁻¹	Pack. Qty.	Steel wire 0,30 mm Item No.		
D	T	K	L						
50		22	45		18.000	5	0002-509 165		
70		28	45		15.000	5	0002-509 167		

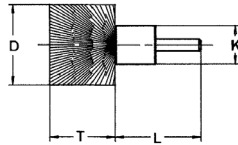


Special end brushes

flat model, dimensionally stable

Area of application generally	Roughening, deburring, removing lacquer, removing slag, de-scaling, depolishing, cleaning
Area of application particularly	Special brush. Designed to treat hard-to-reach areas and internal surface burrs, scale, cinder, paint, residues of combustion, moulding sand and other contaminated areas.

Dimensions [mm]				Type	max. min ⁻¹	Pack. Qty.	Steel wire	Stainles steel wire		
D	T	K	L				crimped 0,40 mm Item No.	crimped 0,50 mm Item No.		
8	29	9,5	57	122 F	12.000	12	0024-509 101			
9,5	29	11	55	123 F	12.000	12	0024-509 102			
10	27	8	158	121 F/L	12.000	6	1224-509 101			
12	29	12,7	60	124 F	12.000	12	0024-509 111			
12	55	12	55	302	12.000	6	0014-509 102			
20	25	22	47	102 F	12.000	6	0024-509 103	0024-509 303		
20	70	22	51	303	12.000	6	0034-509 103			
28	25	29	47	103 F	12.000	6	0004-509 104	0004-509 304		



Special end brushes

pointed model, dimensionally stable

Area of application generally	Roughening, deburring, removing lacquer, removing slag, de-scaling, depolishing, cleaning
Area of application particularly	Particularly aggressive special brushes. Designed to treat hard-to-reach areas and internal surface burrs, scale, cinder, paint, residues of combustion, moulding sand and other contaminated areas.

Dimensions [mm]							Steel wire	Steel wire	Steel wire	
D	T	K	L	Type	max. min ⁻¹	Pack. Qty.	straight 0,30 mm Item No.	straight 0,40 mm Item No.	crimped 0,50 mm Item No.	
9,5	32	9,5	57	122 P	12.000	12		0124-509 101		
10	31	11	55	123 P	12.000	12		0224-509 101		
10	27	8	125	121 P/L	12.000	6		2224-509 101		
11	32	13	59	102 A	12.000	6	0004-509 102			
12	30	12	61	124 P	12.000	12		0124-509 111		
19	31	22	51	102 P	12.000	6			0124-509 103	
19	64	22	50	225	12.000	1			0024-509 100	
25	35	29	50	103 P	12.000	6		0014-509 104		

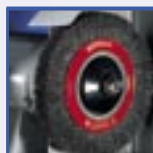
Dimensions [mm]							Stainless steel wire	Stainless steel wire		
D	T	K	L	Type	max. min ⁻¹	Pack. Qty.	straight 0,30 Item No.	straight 0,50 mm Item No.		
9,5	32	9,5	57	122 P	12.000	12	0074-509 301			
11	32	13	59	102 A	12.000	6		0004-509 302		
19	31	22	51	102 P	12.000	6		0124-509 303		
25	35	29	50	103 P	12.000	6		0014-509 304		

Other threads, dimensions and wire sizes on request. The standard stocked items are printed in **bold type**!



Stationary

- bench grinders
- OEM de burring machines



Wheel brushes

- knotted wire
- crimped wire
- abrasive filament



End brushes

- for special brush mounting tools, de burring of saw cut edges



Important!

Please ensure your order clearly states your arbor hole requirements (4-figure number). Otherwise the brush will be delivered with the standard arbor hole „B min“.

Standard arbor holes for single-row brushes

of brush-Ø	of arbor hole-Ø mm	13	15,9	16	19	20	22,2	25,4	30	31,8	32	35	38	40	44,4	50,8
mm	inch	inch	5/8"		3/4"		7/8"	1"		1 1/4"		1 3/8"				2"
75	3"		7113													
100	4"		7213	7215	7216	7219	7220									
125	5"		7213	7215	7216	7219	7220	7222**	7225**	7230**	7231**					
150	6"		7413	7415	7416	7419	7420	7422	7425	7430	7431	7432	7435**		7440**	7444**
178	7"		7413	7415	7416	7419	7420	7422	7425	7430	7431	7432	7435**	7438**		
200	8"					7619	7620	7622	7625	7630	7631	7632	7635	7638**		7642*
250	10"						7720	7722	7725	7730	7731	7732	7735		7740	7742*
300	12"								7925	7930	7931	7932	7935		7940	7942*
350	14"										7931	7932	7935		7940	7942*

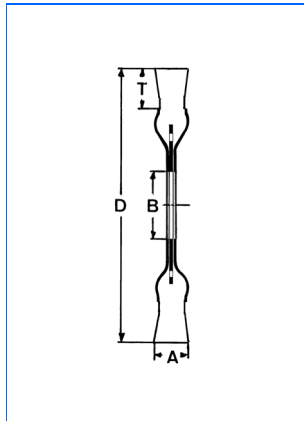
* can be reduced with 4-M-adapter, with keyways

** only for REFILL-single rings

Standard arbor holes for multiple row brushes

Ø*	Tube	of arbor hole-Ø mm	9,53	10	12,7	13	16	19	20	22,2	25,4	30	31,8	32	35	40	50,8
mm		inch	3/8"		1/2"		5/8"	3/4"		7/8"	1"		1 1/4"		1 3/8"		2"
20			8109	8110	8112	8113	8116										
30			8209	8210	8212	8213	8216	8219	8220	8222	8225						
50,8					8412	8413	8416	8419	8420	8422	8425	8430	8431	8432	8435		
80							8616	8619	8620	8622	8625	8630	8631	8632	8635	8640	8642
100							8716	8719	8720	8722	8725	8730	8731	8732	8735	8740	8742
120											8825	8830	8831	8832	8835	8840	8842

* of tube

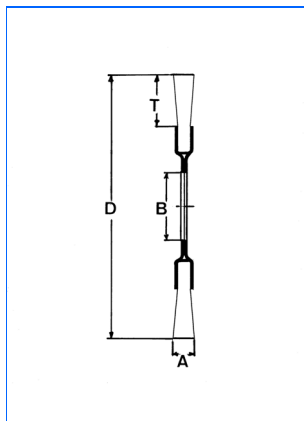


Wheel brushes, knotted wire

aggressive type

Area of application generally	Deburring, removing lacquer, derusting, removing slag, de-scaling, cleaning
Area of application particularly	Brushes for extreme applications for use at high surface speeds. The orientation of the knots has been designed for all possible applications.

Dimensions [mm]						Arbor hole [mm]		Adapter	max. min ⁻¹	Pack. Qty.	Steel wire	Steel wire	Steel wire	Stainless steel wire
D	A	T	B min.	B max.	R	B min.	B max.				0,35 mm Item No.	0,50 mm Item No.	0,80 mm Item No.	0,50 mm Item No.
150	13	37	22,2					K	12.000	1	0002-641 131	0002-641 151	0002-641 181	0002-641 351
178	13	42	22,2					K	12.000	1	0002-653 131	0002-653 151	0002-653 181	0002-653 351
200	13	42	20	40				4-M	8.500	1	0002-664 131	0002-664 151	0002-664 181	
200	26	42			50,8				8.500	1		0002-664 152		
200	35	42			35				8.500	1		5462-664 153		
250	15	42	25,4	40	50,8			4-M	4.500	2	0002-676 131	0002-676 151	0002-676 181	
300	18	55	25,4	40	50,8			4-M	3.600	2	0002-686 131	0002-686 151	0002-686 181	



Wheel brushes, crimped wire

single row, aggressive type

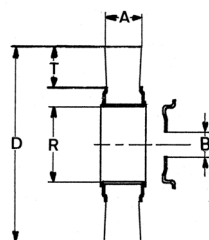
Area of application generally	Roughening, deburring, removing lacquer, de-scaling, depolishing, cleaning
Area of application particularly	Mounted as a roller brush, these brushes give highly satisfactory results when used for deburring cut edges.

Dimensions [mm]						Arbor hole* [mm]		Adapter	max. min ⁻¹	Pack. Qty.	Steel wire	Steel wire	Stainless steel wire	Stainless steel wire
D	A	T	B min.	B max.	R	B min.	B max.				0,20 mm Item No.	0,30 mm Item No.	0,20 mm Item No.	0,30 mm Item No.
75	11	15		13					10.000	1	0002-511 141	0002-511 161	0002-511 341	0002-511 361
100	13	23	13	20					8.000	1		0002-522 161	0002-522 341	0002-522 361
100	13	23	13	30					8.000	1	0002-522 141			
125	15	35	13	20					6.000	1		0002-532 161	0002-532 341	0002-532 361
125	15	13	13	20					6.000	1	0002-532 141			
150	16	32	13	32					6.000	1	0002-544 141	0002-544 161	0002-544 341	0002-544 361
178	18	45	13	32					6.000	1	0002-554 141	0002-554 161	0002-554 341	0002-554 361
200	19	38	19	40	50,8			4-M	4.500	1	0002-566 141	0002-566 161	0002-566 341	0002-566 361
250	22	35	20	40	50,8			4-M	3.600	2	0002-576 141	0002-576 161	0002-576 341	0002-576 361
300	26	58	25,4	40	50,8			4-M	3.000	2	0002-587 141	0002-587 161	0002-587 341	0002-587 361

*Other arbor holes on request!

Dimensions "A" can vary according to wire quality and size.

Other threads, dimensions and wire sizes on request. The standard stocked items are printed in **bold type**!



Wheel brushes, crimped wire

multiple rows, aggressive type

Area of application generally	Roughening, deburring, removing lacquer, de-scaling, depolishing, cleaning,
Area of application particularly	All-round brush with medium fill density for medium to heavy brush applications. Multiple row brushes are best for treating larger surface areas because of their wider face width.

Dimensions [mm]				Arbor hole* [mm]		max. min ⁻¹	Pack. Qty.	Steel wire	Steel wire	Steel wire	Steel wire
D	A	T	B min.	B max.	R			0,20 mm Item No.	0,30 mm Item No.	0,35 mm Item No.	0,50 mm Item No.
75	19	16			20	10.000	1	9902-511 142	9902-511 162		
100	20	23	20		30	8.000	1	9902-522 142	9902-522 162		
100	28	23	20		30	8.000	1	9902-522 143	9902-522 163		
125	22	30	20		30	6.000	1	9902-532 142	9902-532 162		
125	30	30	20		30	6.000	1	9902-532 143	9902-532 163		
150	21	25	31,75		50,8	6.000	1	9902-544 441	9902-544 461	9902-544 471	9902-544 491
150	30	25	31,75		50,8	6.000	1	9902-544 442 *	9902-544 462 *	9902-544 472 *	9902-544 492 *
150	30	29	31,75		50,8	6.000	1	9902-544 142	9902-544 162	9902-544 172	9902-544 192
150	37	29	31,75		50,8	6.000	1	9902-544 143	9902-544 163	9902-544 173	9902-544 193
178	23	38	31,75		50,8	6.000	1	9902-554 441	9902-554 461	9902-554 471	9902-554 491
178	32	38	31,75		50,8	6.000	1	9902-554 142	9902-554 162	9902-554 172	9902-554 192
178	38	38	31,75		50,8	6.000	1	9902-554 143	9902-554 163	9902-554 173	9902-554 193
200	20	38	31,75		80	4.500	1	9902-566 441	9902-566 461	9902-566 471	9902-566 491
200	30	38	31,75		80	4.500	1	9902-566 142	9902-566 162	9902-566 172	9902-566 192
200	38	38	31,75		80	4.500	1	9902-566 143	9902-566 163	9902-566 173	9902-566 193
250	28	47	20	50,8	100	3.600	1	9902-576 142	9902-576 162		9902-576 192
250	38	47	20	50,8	100	3.600	1	9902-576 143	9902-576 163	9902-576 173	9902-576 193
250	55	47	20	50,8	100	3.600	1		9902-576 464	9902-576 474	
300	32	50	25,4	50,8	120	3.000	2	9902-587 142	9902-587 162		9902-587 192
300	44	50	25,4	50,8	120	3.000	1	9902-587 143	9902-587 163		9902-587 193

*Other arbor holes on request!

A special feature is the range of bore adapters supplied with each other

75 - 125 mm

20 mm = 1/2"

20 mm = 5/8"

150 - 200 mm

31,75 mm = 13 mm

31,75 mm = 15 mm

31,75 mm = 16 mm

31,75 mm = 19 mm

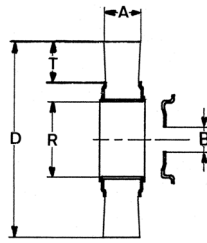
31,75 mm = 20 mm

31,75 mm = 7/8"

31,75 mm = 1"

Important!

When ordering brushes Ø250 - 300 mm please ensure your order clearly states your arbor hole requirements, see table on page 47, otherwise the brush will be delivered with the standard arbor hole.



Wheel brushes, crimped wire

multiple rows, aggressive type

Area of application generally	Roughening, deburring, removing lacquer, de-scaling, depolishing, cleaning,
Area of application particularly	All-round brush with medium fill density for medium to heavy brush applications. Multiple row brushes are best for treating larger surface areas because of their wider face width.

							Stainless steel wire	Stainless steel wire		
Dimensions [mm]		Arbor hole* [mm]				max. min ⁻¹	Pack. Qty.	0,20 mm Item No.	0,30 mm Item No.	
D	A	T	B min.	B max.	R					
75	19	16			20	10.000	1	9902-511 342	9902-511 362	
100	20	23		20	30	8.000	1	9902-522 342	9902-522 362	
100	28	23		20	30	8.000	1	9902-522 343	9902-522 363	
125	22	30		20	30	6.000	1	9902-532 342	9902-532 362	
125	30	30		20	30	6.000	1	9902-532 343	9902-532 363	
150	21	25		31,75	50,8	6.000	1	9902-544 341	9902-544 361	
150	30	25		31,75	50,8	6.000	1	9912-544 342 *	9912-544 362 *	
150	30	29		31,75	50,8	6.000	1	9902-544 342	9902-544 362	
150	37	29		31,75	50,8	6.000	1	9902-544 343	9902-544 363	
178	23	38		31,75	50,8	6.000	1	9902-554 341	9902-554 361	
178	32	38		31,75	50,8	6.000	1	9902-554 342	9902-554 362	
178	38	38		31,75	50,8	6.000	1	9902-554 343	9902-554 363	
200	20	38		31,75	80	4.500	1	9902-566 341	9902-566 361	
200	30	38		31,75	80	4.500	1	9902-566 342	9902-566 362	
200	38	38		31,75	80	4.500	1	9902-566 343	9902-566 363	
250	28	47	20	50,8	100	3.600	1	9902-576 342	9902-576 362	
250	38	47	20	50,8	100	3.600	1	9902-576 343	9902-576 363	
300	32	50	25,4	50,8	120	3.000	2	9902-587 342	9902-587 362	
300	44	50	25,4	50,8	120	3.000	1	9902-587 343	9902-587 363	

* Other arbor holes on request!

A special feature is the range of bore adapters supplied with each other

75 - 125 mm

20 mm = 1/2"

20 mm = 5/8"

150 - 200 mm

31,75 mm = 13 mm

31,75 mm = 15 mm

31,75 mm = 16 mm

31,75 mm = 19 mm

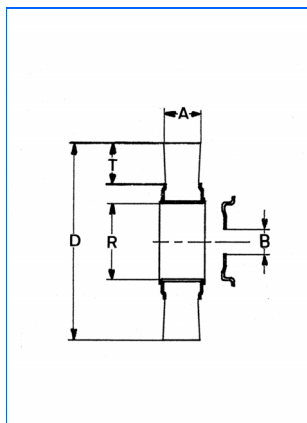
31,75 mm = 20 mm

31,75 mm = 7/8"

31,75 mm = 1"

Important!

When ordering brushes Ø250 - 300 mm please ensure your order clearly states your arbor hole requirements, see table on page 47, otherwise the brush will be delivered with the standard arbor hole.



Wheel brushes, crimped wire

multiple rows, flexible type

Area of application generally	Roughening, deburring, removing lacquer, de-scaling, depolishing, cleaning
Area of application particularly	These brushes are ideally suited to removing rust, paint, light burrs and dirt from very profiled parts because of their whip-like flexibility.

Dimensions [mm]								Steel wire	Steel wire	Stainless steel wire	Stainless steel wire
Arbor hole*[mm]								0,20 mm	0,30 mm	0,20 mm	0,30 mm
D	A	T	B min.	B max.	R	max. min ⁻¹	Pack. Qty.	Item No.	Item No.	Item No.	Item No.
150	24	43	20	30		6.000	1	9902-543 142	9902-543 162	9902-543 342	9902-543 362
150	32	43	20	30		6.000	1	9902-543 143	9902-543 163	9902-543 343	9902-543 363
178	32	43	31,75	50,8		6.000	1	9902-553 142	9902-553 162	9902-553 342	9902-553 362
178	40	43	31,75	50,8		6.000	1	9902-553 143	9902-553 163	9902-553 343	9902-553 363
200	33	55	31,75	50,8		4.500	1	9902-565 142	9902-565 162	9902-565 342	9902-565 362
200	42	55	31,75	50,8		4.500	1	9902-565 143	9902-565 163	9902-565 343	9902-565 363
250	32	63	20	50,8	80	3.600	1	9902-575 142	9902-575 162	9902-575 342	9902-575 362
250	42	63	20	50,8	80	3.600	1	9902-575 143	9902-575 163	9902-575 343	9902-575 363
300	33	70	25,4	50,8	100	3.000	1	9902-586 142	9902-586 162	9902-586 342	9902-586 362
300	45	70	25,4	50,8	100	3.000	1	9902-586 143	9902-586 163	9902-586 343	9902-586 363

*Other arbor holes on request!

Dimensions "A" can vary according to wire quality and size.

A special feature is the range of bore adapters supplied with each other

150 mm

20 mm = 1/2"

20 mm = 5/8"

178 - 200 mm

31,75 mm = 13 mm

31,75 mm = 15 mm

31,75 mm = 16 mm

31,75 mm = 19 mm

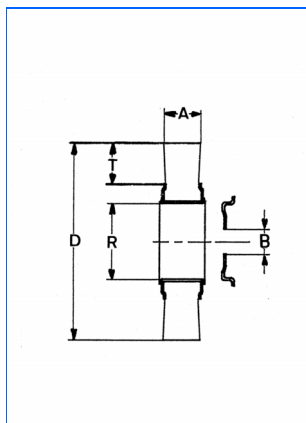
31,75 mm = 20 mm

31,75 mm = 7/8"

31,75 mm = 1"

Important!

When ordering brushes Ø250 - 300 mm please ensure your order clearly states your arbor hole requirements, see table on page 47, otherwise the brush will be delivered with the standard arbor hole.



Wheel brushes, crimped wire

multiple rows, flexible type

Area of application generally	Roughening, deburring, removing lacquer, de-scaling, depolishing, cleaning
Area of application particularly	For polishing of brass-workpeaces

Dimensions [mm]				Arbor hole*[mm]		max. min ⁻¹	Pack. Qty.	Brass wire				
D	A	T	B min.	B max.	R			0,20 mm Item No.	0,30 mm Item No.			
150	24	43		20	30	6.000	1	9902-543 542	9902-543 562			
150	32	43		20	30	6.000	1	9902-543 543	9902-543 563			
178	32	43		31,75	50,8	6.000	1	9902-553 542	9902-553 562			
178	40	43		31,75	50,8	6.000	1	9902-553 543	9902-553 563			
200	33	55		31,75	50,8	4.500	1	9902-565 542	9902-565 562			
200	42	55		31,75	50,8	4.500	1	9902-565 543	9902-565 563			
250	32	63	20	50,8	80	3.600	1	9902-575 542	9902-575 562			
250	42	63	20	50,8	80	3.600	1	9902-575 543	9902-575 563			
300	33	70	25,4	50,8	100	3.000	1	9902-586 542	9902-586 562			
300	45	70	25,4	50,8	100	3.000	1	9902-586 543	9902-586 563			

*Other arbor holes on request!

Dimensions "A" can vary according to wire quality and size.

A special feature is the range of bore adapters supplied with each other

150 mm

20 mm = 1/2"

20 mm = 5/8"

178 - 200 mm

31,75 mm = 13 mm

31,75 mm = 15 mm

31,75 mm = 16 mm

31,75 mm = 19 mm

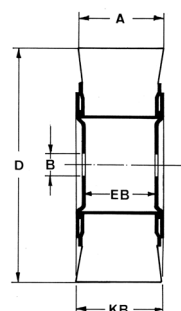
31,75 mm = 20 mm

31,75 mm = 7/8"

31,75 mm = 1"

Important!

When ordering brushes Ø250 - 300 mm please ensure your order clearly states your arbor hole requirements, see table on page 47, otherwise the brush will be delivered with the standard arbor hole.



Wheel brushes for portable deburring machines

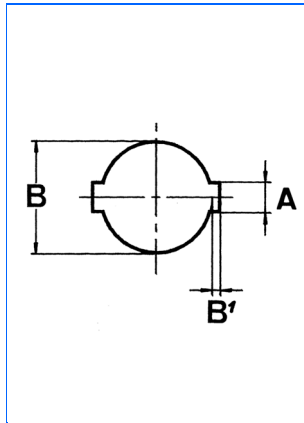
Area of application generally	Deburring the ends of tubes, bar and profiled pieces.
Area of application particularly	Brushes for portable deburring machines have a good brush balance and are manufactured with high precision.

Dimensions [mm]							Steel wire	Steel wire	Steel wire	Steel wire
D	T	KB	EB	R	max. min ⁻¹	Pack. Qty.	0,20 mm Item No.	0,30 mm Item No.	0,35 mm Item No.	0,50 mm Item No.
250	45	50	33	100	3.600	1	0022-576 445		0042-576 475	0022-576 495
250	45	55	38	100	3.600	1	0002-576 145	0042-576 165		0002-576 195
250	45	95	95	100	3.600	1	3132-703 147	3162-703 167		3232-703 197
300	50	55	38	100	2.800	1			0002-586 175	
300	70	95	95	100	2.800	1			3132-703 178	

Dimensions [mm]							Stainless steel wire	Stainless steel wire	Stainless steel wire	Stainless steel wire
D	T	KB	EB	R	max. min ⁻¹	Pack. Qty.	0,20 mm Item No.	0,30 mm Item No.	0,35 mm Item No.	0,50 mm Item No.
250	45	50	33	100	3.600	1	0022-576 345		0022-576 375	0022-576 395
250	45	55	38	100	3.600	1	0002-576 345	0042-576 365		0002-576 395
250	45	95	95	100	2.800	1	3132-703 347		3142-703 377	3432-703 397
300	70	95	95	100	2.800	1			3142-703 378	

Dimensions [mm]							CD steel wire	CD steel wire	CD steel wire	
D	T	KB	EB	R	max. min ⁻¹	Pack. Qty.	0,20 mm Item No.	0,35 mm Item No.	0,50 mm Item No.	
250	45	55	38	100	3.600	1	0002-576 445	0002-576 475	0002-576 495	

Dimensions [mm]							Abrasive nylon	Abrasive nylon	Abrasive nylon	
D	T	KB	EB	R	max. min ⁻¹	Pack. Qty.	Grit 120 Item No.	Grit 180 Item No.	Grit 320 Item No.	
250	45	55	38	100	3.600	1	0002-576 906	0002-576 916	0002-576 926	

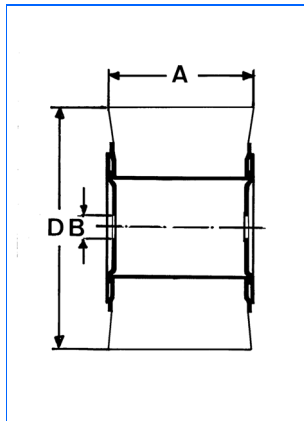


Axle plates with double keyways

for brushes for portable deburring machines

Area of application generally	Axle plates for portable deburring machines

Arbor hole [mm]			Keyway		Arbor hole Item No.			
B	A	B	A	B				
50,8	13,2	7,1			5495-560 051			
52,9	13,5	6,4			5495-560 052			
54,7	13,6	5,8			5495-560 054			
80,2	13,5	7,5			5495-560 080			
82	13,5	6,4			5495-560 082			



Brushes for wood graining with cord wire / abrasive filament / fibre

for hand held and stationary machines

Area of application generally	Wood graining

				Cordwire		Cordwire		Abrasive filament	
Dimensions [mm]		Arbor hole [mm]		max. min ⁻¹	Pack. Qty.	0,17 mm Rusticord Item No.		0,20 mm Rusticord Item No.	
D	A	B						Grit 80 Rustifil Item No.	
100	100	16		4.000	1	3142-703 032			
150	80	16		4.000	1			0142-703 914	
150	80	16/30		4.000	1			1632-703 914	
150	85	16		4.000	1			0142-703 044	
150	85	16/30		4.000	1			0142-703 044	
150	120	16		4.000	1			0262-713 044	
								2852-713 915	

				Cordwire		Abrasive filament		Fibre/Phosphor bronze	
Dimensions [mm]		Arbor hole [mm]		max. min ⁻¹	Pack. Qty.	0,20 mm Rusticord Item No.		Grit 80 Rustifil Item No.	
D	A	B						0,15 mm Staining Brush Item No.	
150	120	30		4.000	1	2102-713 044		2152-713 915	
150	140	30		4.000	1	0362-713 044		3242-713 904	
								3142-713 904	

Other threads, dimensions and wire sizes on request. The standard stocked items are printed in **bold type**!

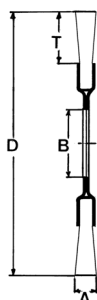


Drive Arbors

for wood graining brushes

Area of application generally	Drive arbor for brushes for wood graining

Dimensions [mm]			Item No.		
L					
M16 / M14	90	For face width 85 mm	0283-000 105		
M16 / M14	105	For face width 100 mm	0183-000 105		
M16 / M14	125	For face width 120 mm	0083-000 105		



Wheel brushes with abrasive filament

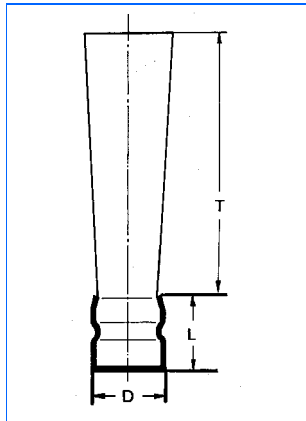
for assembly either individually or in multiples onto shafts

Area of application generally	Roughening, deburring, removing lacquer, de-scaling, depolishing, structuring
Area of application particularly	These brushes are extremely economical and reliable in operation. Assembly either individually or in multiples onto shafts.

								Abrasive filament	Abrasive filament	Abrasive filament	Abrasive filament	
Dimensions [mm]			Arbor hole*[mm]		Adapter	max. min ⁻¹	Pack. Qty.	Grit 80	Grit 120	Grit 180	Grit 320	
D	A	T	B min.	B max.				R	Item No.	Item No.	Item No.	Item No.
75	12	13		13		20.000	6	9902-515 001	9902-515 002	9902-515 003	9902-515 004	
100	18	18	13	20		12.000	6	9902-515 025	9902-515 026	9902-515 027	9902-515 028	
150	18	32	13	32		6.000	6	9902-515 079	9902-515 080	9902-515 081	9902-515 082	
178	18	45	13	32		6.000	2	9902-515 040	9902-515 041	9902-515 042	9902-515 043	
200	18	35	19	40	50,8	4-M	6.000	2	9902-515 050	9902-515 051	9902-515 052	9902-515 053
250	18	60	20	40	50,8	4-M	3.000	2	9962-515 056	9962-515 057	9962-515 058	9962-515 059
250	20	35	20	40	50,8	4-M	3.000	2	9902-515 056	9902-515 057	9902-515 058	9902-515 059
300	20	34	25,4	40	50,8	4-M	2.400	2	9902-515 062	9902-515 063	9902-515 064	9902-515 065
300	20	60	25,4	40	50,8	4-M	3.000	2	9962-515 062	9962-515 063	9962-515 064	9962-515 065
350	20	57	32	40	50,8	4-M	2.400	2	9902-515 069			9902-515 071

*Other grit sizes on request

Dimension "A" can vary according to grit size.



End brushes, crimped CD-steel wire

for brush mounting, for deburring of cut edges

Area of application generally	Deburring of cut edges of tubes and profiles as well as deburring of surfaces (e.g. motor units)
Area of application particularly	These end brushes are used as a set of 8, 16, 24 single brushes applied in a brush mounting.

				CD steel wire	CD steel wire	CD steel wire	
Dimensions [mm]				0,20 mm	0,35 mm	0,50 mm	
D	T	L	Pack. Qty.	Item No.	Item No.	Item No.	
25	95	25	16	0002-509 448	0002-509 478	0002-509 498	

				Stainless steel wire	Stainless steel wire	Stainless steel wire	
Dimensions [mm]				0,20 mm	0,27 mm/Cordwire	0,35 mm	
D	T	L	Pack. Qty.	Item No.	Item No.	Item No.	
25	95	25	16	0002-509 348	0002-509 378	3212-509 068	

				Abrasive filament	Abrasive filament	Abrasive filament	Mixed fill material Abrasive filament
Dimensions [mm]				Grit 80	Grit 120	Grit 180	Grit 120
D	T	L	Pack. Qty.	Item No.	Item No.	Item No.	Item No.
25	95	25	16	0002-509 908	0002-509 928	0002-509 988	5702-509 938

Other threads, dimensions and wire sizes on request. The standard stocked items are printed in **bold type**!



Treatment of bores

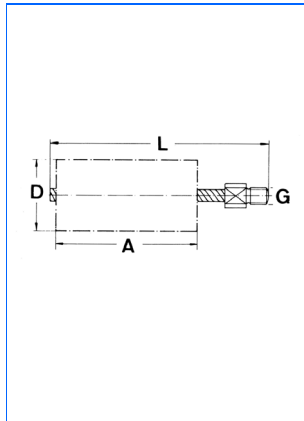
- Cleaning and de burring of tubes and bores.



Tube brushes

- wire fill material
- abrasive filament





Cylindrical tube and flue brushes

Area of application generally	Tube cleaning, deburring, removing lacquer, derusting, cleaning
Area of application particularly	Cylindrical tube brushes with two or four twisted wires. Cleaning of capacitors and heating tubes.

					Steel wire	Steel wire		
Dimensions [mm]					Single spiral	Double spiral		
D	A	L	Thread G	Pack. Qty.	Item No.	Item No.		
10	100	140	M6	10	0003-815 210			
12	100	140	M6	10	0002-815 212			
14	100	140	M6	10	0002-815 214			
15	100	140	5/16" BSW	10	0002-812 215			
18	100	140	5/16" BSW	10	0002-812 218			
20	100	140	5/16" BSW	10	0002-812 220			
25	100	160	1/2" BSW	5	0002-808 125	0003-810 125		
28	100	160	1/2" BSW	5		0003-810 128		
30	100	160	1/2" BSW	5	0002-808 130	0003-810 130		
32	100	160	1/2" BSW	5	0002-808 132	0003-810 132		
38	100	160	1/2" BSW	5	0002-808 138	0003-810 138		
40	100	160	1/2" BSW	5	0002-808 140	0003-810 140		
44	100	160	1/2" BSW	5	0002-808 144	0003-810 144		
50	100	160	1/2" BSW	5	0002-808 150	0003-810 150		
57	100	160	1/2" BSW	5		0003-810 157		
63	100	160	1/2" BSW	5	0002-808 163	0003-810 163		
69	100	160	1/2" BSW	5		0003-810 169		
75	100	160	1/2" BSW	5	0002-808 175	0003-810 175		
82	100	160	1/2" BSW	5		0003-810 182		
101	100	160	1/2" BSW	5	0002-808 100	0003-810 100		

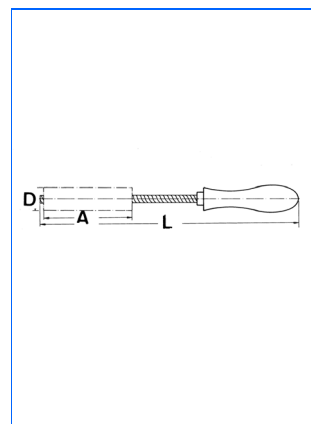


Thread adapters

(reducing couplings)

Area of application generally	For flexible wire handles

Reduction from	to	Pack. Qty.	Item No.			
1/2" BSW	M12x1,75	10	0002-819 012			
3/8" BSW	M10x1,5	10	0002-819 010			
5/16" BSW	M8x1,25	10	0002-819 008			
3/4" BSW	M6x1	10	0002-819 006			

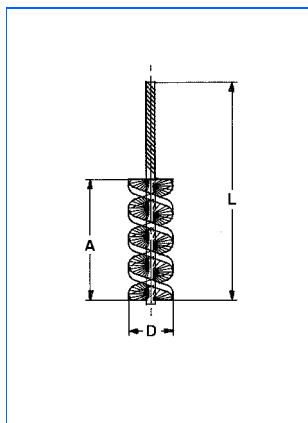


Hole cleaning brushes, crimped steel wire

double wire core and wooden handle

Area of application generally	Internal cleaning of steel, wood and synthetics
Area of application particularly	Removal of chips and loose particles.

Dimensions [mm]			Pack. Qty.	Steel wire				
D	A	L		crimped	Item No.			
15	100	280	10		0002-892 215			
20	100	280	10		0002-892 220			
25	100	280	10		0002-892 225			
30	100	280	10		0002-892 230			



Cylindrical tube and flue brushes, abrasive filament

silicon carbide

Area of application generally	Deburring, roughening, smoothing
Area of application particularly	Cylindrical tube brushes for cleaning the inside of bores and finishing non-ferrous metals, steel and cast iron parts. Specially suited for the deburring of cross drillings, steering parts, O-rings slots and cylindrical bores. We recommend a brush diameter

					Abrasive filament	Abrasive filament	Abrasive filament	
Dimensions [mm]			Shank-Ø	Pack.	Grit 80	Grit 120	Grit 320	
D	A	L	mm	Qty.	Item No.	Item No.	Item No.	
6	50	125	3	12		0003-056 306	0003-056 326	
8	50	125	3	12		0003-056 308	0003-056 328	
10	50	125	4	12	0003-056 010	0003-056 310	0003-056 330	
13	50	125	4	12	0002-056 011	0002-056 311	0002-056 331	
16	50	125	5	12	0002-056 012	0002-056 312	0002-056 332	
19	65	125	5	12	0002-056 013	0002-056 313	0002-056 333	
22	65	125	5,5	12	0002-056 014	0002-056 314	0002-056 334	
25	65	125	5,5	12	0002-056 015	0002-056 315	0002-056 335	
32	65	125	6	12	0002-056 016	0002-056 316	0002-056 336	
38	65	125	6	12	0002-056 017	0002-056 317	0002-056 337	
50	65	125	6	12	0002-056 018	0002-056 318	0002-056 338	

Connecting threads, shank extensions can be delivered on request!

Manual

- Brushes for manual operations, for cleaning, rust removal, de burring, lacquering

Hand scratch brushes

- with plastic handle
- with wooden handle
- wire scratch brushes

Brooms

- with wire fill material
- with nylon fill material
- scrubbing brushes
- dusting brushes

Paint brushes

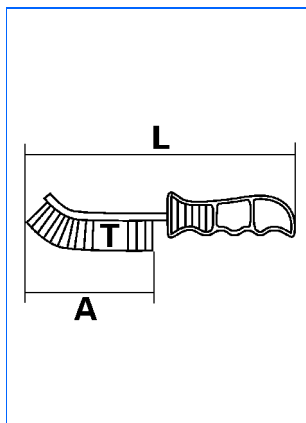
- flat paint brushes
- round paint brushes
- special paint brushes

Tube brushes

- aperture cleaning brushes
- tube brushes
- pipe fitting cleaning brushes

Tube cleaning articles

- sewer cleaning brushes
- radiator brushes
- battery terminal brushes
- pipe fitting cleaning brushes
- stove pipe cleaners

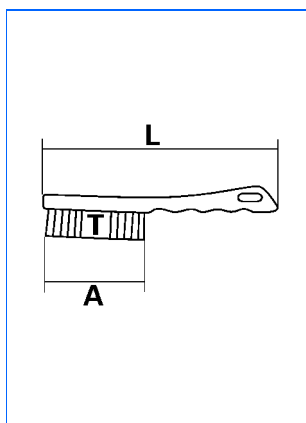


Hand scratch brushes, crimped wire

universal design

Area of application generally	Dedusting, derusting, cleaning
Area of application particularly	The brush back is made of strong steel fitted with a shaped handle. Can be used for both light and heavy cleaning and also in narrow places.

					Steel wire	Stainless steel wire	Brass wire	
Dimensions [mm]			Rows	Pack. Qty.	crimped 0,30 mm Item No.	crimped 0,30 mm Item No.	crimped 0,30 mm Item No.	
A	T	L						
140	25	265	1	24	0008-462 291	0008-462 391	0008-462 591	

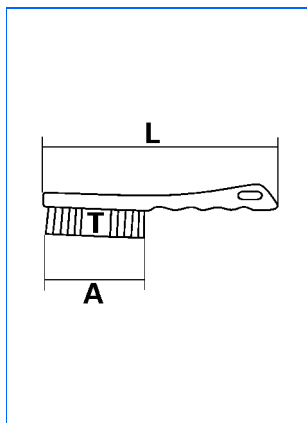


Hand scratch brushes, straight and crimped wire

with plastic handle

Area of application generally	Dedusting, derusting, cleaning
Area of application particularly	Brushes ideal for versatile use in light rust removal and cleaning applications.

					Steel wire	Stainless steel wire	Brass wire	
Dimensions [mm]			Rows	Pack. Qty.	straight 0,35 mm Item No.	straight 0,30 mm Item No.	crimped 0,20 mm Item No.	
A	T	L						
100	23	280	1	10	0001-433 521			
100	23	280	2	10	0008-462 132	0008-451 332	0008-447 572	
100	23	280	3	10	0008-462 133	0008-451 333	0008-447 573	
100	23	280	4	10	0008-462 134	0008-451 334	0008-447 574	
100	23	280	5	10	0008-462 135			

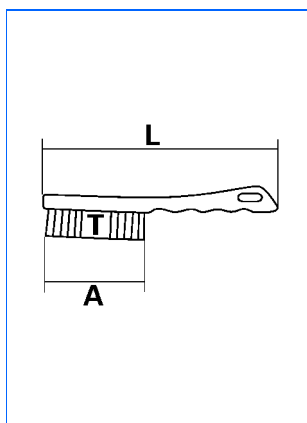


Hand scratch brushes, straight wire

with plastic handle and scraper

Area of application generally	Dedusting, derusting, cleaning
Area of application particularly	Removal of heavy dirt.

Dimensions [mm]					Pack. Qty.	Steel wire			
A	T	L				straight 0,35 mm Item No.			
90	23	240		6	5	0001-431 075			

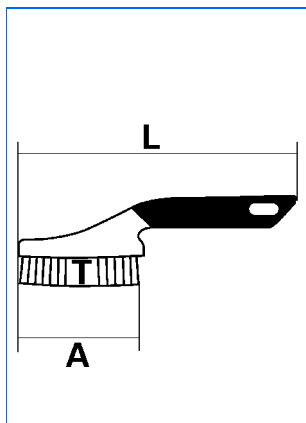


Hand scratch brushes, straight wire or synthetic fill material

with plastic shoe handle

Area of application generally	Dedusting, derusting, cleaning
Area of application particularly	Brushes ideal for general purpose use in light rust removing and cleaning applications. Very gentle cleaning with synthetic fill material.

Dimensions [mm]					Pack. Qty.	Steel wire	Nylon (white)	PVC (black)	
A	T	L				straight 0,35 mm Item No.	straight 0,30 mm Item No.	straight 0,20 Item No.	
140	23	280		1	10	0001-433 521	0001-433 501	0001-433 511	
140	23	280		2	10	0001-433 522	0001-433 502	0001-433 512	
140	23	280		3	10	0001-433 523	0001-433 503	0001-433 513	

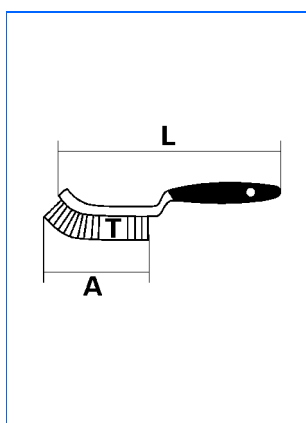


Hand scratch brushes, straight or crimped wire

with nonskid handle

Area of application generally	Dedusting, derusting, cleaning
Area of application particularly	The curved handle of nonskid material prevents injuring of fingers and back of the hand.

Dimensions [mm]					Pack. Qty.	Steel wire straight 0,35 mm Item No.	Stainless steel wire straight 0,35 mm Item No.	Brass wire crimped 0,20 mm Item No.	
A	T	L							
110	23	270	1		5	0001-432 601	0001-432 611	0001-432 621	
110	23	270	2		5	0001-432 602	0001-432 612	0001-432 622	
110	23	270	3		5	0001-432 603	0001-432 613	0001-432 623	
110	23	270	4		5	0001-432 604	0001-432 614	0001-432 624	
110	23	270	5		5	0001-432 605	0001-432 615	0001-432 625	

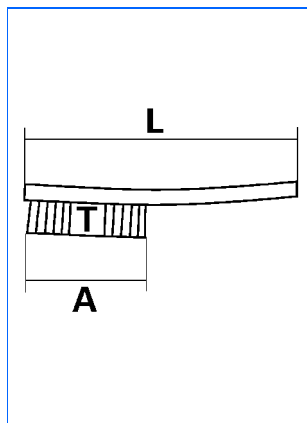


Brake shoe cleaning brushes

with plastic handle

Area of application generally	Derusting and cleaning
Area of application particularly	Ideally suited brush from for cleaning brake shoes.

Dimensions [mm]					Pack. Qty.	Steel wire straight 0,30 mm Item No.	Steel wire crimped 0,35 mm Item No.	Brass wire crimped 0,30 Item No.	
A	T	L							
95	23	245	2		10	3301-462 122	3301-462 162	3301-462 562	



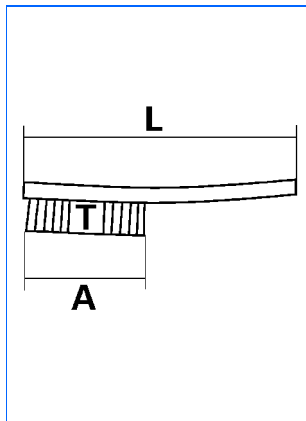
Hand scratch brushes, straight or crimped wire

standard design

Area of application generally	Dedusting, derusting, cleaning
Area of application particularly	Brush body is made of first class hardwood with rounded edges and 10 mm suspension hole. The professional brush can be used for most rust removal and cleaning applications. Brushes filled with stainless steel (quality 1.4571) are non-magnetic.

					Steel wire	Brass coated steel wire	Stainless steel wire	Stainless steel wire
Dimensions [mm]					straight 0,35 mm	straight 0,35 mm	straight 0,30 mm /	crimped 0,30 mm /
A	T	L	Rows	Pack. Qty.	Item No.	Item No.	stainless steel 1.4301	stainless steel 1.4301
140	23	285	1	12	0001-152 131			
145	25	295	2	100	0001-151 132	0001-151 022		
145	25	295	2	12	0001-152 132	0001-152 022	0001-151 332	0001-151 392
145	25	295	3	100	0001-151 133	0001-151 023		
145	25	295	3	12	0001-152 133	0001-152 023	0001-151 333	0001-151 393
145	25	295	4	100	0001-151 134	0001-151 024		
145	25	295	4	12	0001-152 134	0001-152 024	0001-151 334	0001-151 394
145	25	295	5	100	0001-151 135	0001-151 025		
145	25	295	5	12	0001-152 135	0001-152 025	0001-151 335	0001-151 395
145	25	295	6	100	0001-151 136			
145	25	295	6	12	0001-152 136		0001-151 336	0001-151 396

					Stainless steel wire	Brass wire	Brass wire	
Dimensions [mm]					straight 0,30 mm /	straight 0,25 mm	crimped 0,30 mm	
A	T	L	Rows	Pack. Qty.	stainless steel 1.4571	Item No.	Item No.	
145	25	295	2	12	0001-152 332	0001-158 522	0001-150 592	
145	25	295	3	12	0001-152 333	0001-158 523	0001-150 593	
145	25	295	4	12	0001-152 334	0001-158 524	0001-150 594	
145	25	295	5	12	0001-152 335		0001-150 595	
145	25	295	6	12	0001-152 336		0001-150 596	

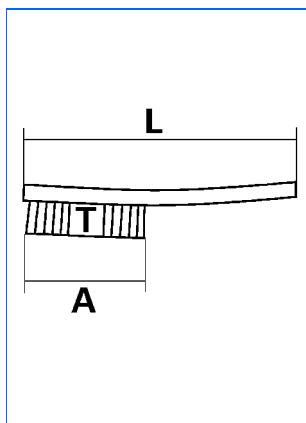


Hand scratch brushes, straight wire

heavy duty grade - professional -

Area of application generally	Dedusting, derusting, cleaning
Area of application particularly	Brush body is made of first class beech-wood with rounded edges and 10 mm suspension hole. The professional brush can be used for most rust removal and cleaning applications. Brushes filled with stainless steel (quality 1.4571) are non-magnetic.

Dimensions [mm]					Steel wire	Stainless steel wire	Brass wire	
A	T	L	Rows	Pack. Qty.	straight 0,35 mm Item No.	straight 0,35 mm Item No.	straight 0,30 mm Item No.	
160	30	310	1	12	0901-151 091	0901-152 331	0901-151 591	
160	30	310	2	12	0901-151 092	0901-152 332	0901-151 592	
160	30	310	3	12	0901-151 093	0901-152 333	0901-151 593	
160	30	310	4	12	0901-151 094	0901-152 334	0901-151 594	
160	30	310	5	12	0901-151 095	0901-152 335	0901-151 595	

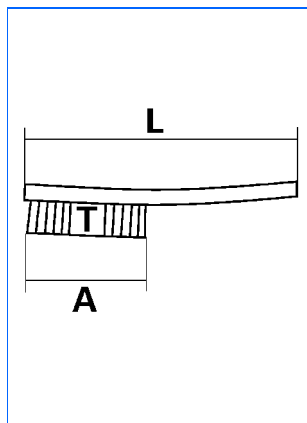


Hand scratch brushes, straight wire

with scraper

Area of application generally	Dedusting, derusting, cleaning
Area of application particularly	Removal of heavy dirt with scraper.

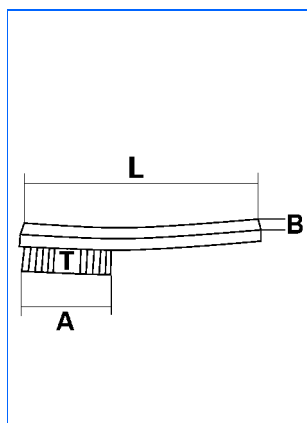
Dimensions [mm]					Steel wire			
A	T	L	Rows	Pack. Qty.	straight 0,35 mm Item No.			
135	23	280	4	12	0001-181 134			



Fillet weld brushes, straight wire

Area of application generally	Removing lacquer, derusting, cleaning
Area of application particularly	Ideal brush form for cleaning fillet welds

					Steel wire	Stainless steel wire		
Dimensions (mm)					straight 0,35 mm Item No.	straight 0,35 mm / V2A, 1.4301 Item No.		
A	T	L	Rows	Pack. Qty.				
145	35	295	3	12	0003-162 133	0003-162 333		



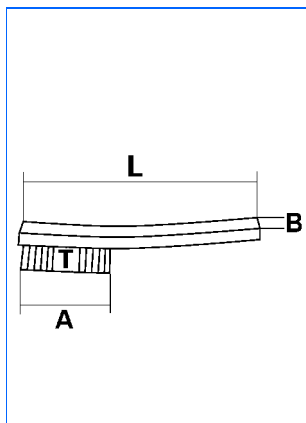
Hand scratch brushes, straight wire

with long handle

Area of application generally	Dedusting, derusting, cleaning
Area of application particularly	Special models: Brushes which can clean more effectively. First class beechwood, extra wire, prime quality wire.

					Steel wire	Stainless steel wire		
Dimensions (mm)					straight 0,35 mm Item No.	straight 0,35 mm Item No.		
A	T	L	B	Rows	Pack. Qty.			
105	25	325	25	3x13	12	0101-377 093		
150	27	350	25	3x19	12	0101-177 093	0001-177 333	
150	27	350	25	3x19	12	0101-186 093 *		
150	27	350	32	4x19	12	0101-177 094		

*(with scraper)

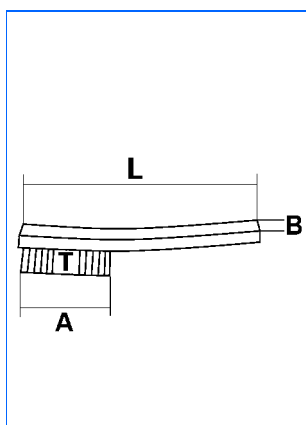


Hand scratch brushes, straight wire

with shoe handle

Area of application generally	Dedusting, derusting, cleaning
Area of application particularly	Special models: Brushes which can clean more effectively. First class beechwood, extra wire, prime quality wire.

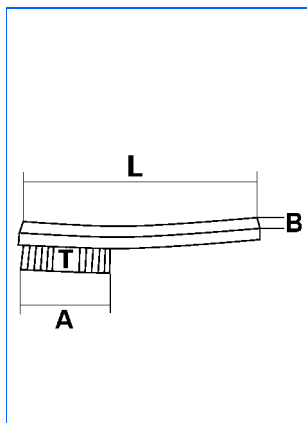
Dimensions [mm]						Steel wire			
A	T	L	B	Rows	Pack. Qty.	straight 0,35 mm Item No.			
125	30	255	25	3x16	12	0101-180 093			
125	30	255	32	4x16	12	0101-180 094			



Radiator brushes, straight wire

Area of application generally	Removing lacquer, derusting, cleaning
Area of application particularly	Special models for cleaning of curved parts: Brushes which clean more effectively. Brush body made of first class beechwood; extra wire; prime quality wire.

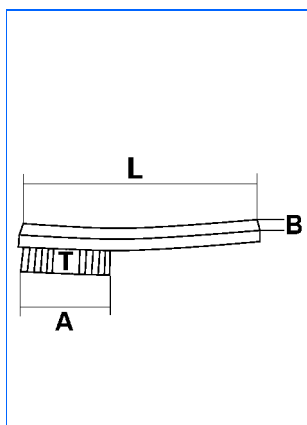
Dimensions [mm]						Steel wire			
A	T	L	B	Rows	Pack. Qty.	straight 0,25 mm Item No.			
100	15	450	15	2	100	0001-192 112			
100	15	450	16	3	100	0001-192 113			



Platers fine wire scratch brushes

Area of application generally	Removing lacquer, cleaning
Area of application particularly	Special models: Brushes which can clean more effectively. First class beechwood, extra wire, prime quality wire.

Dimensions [mm]						Brass wire	Rosshaar		
A	T	L	B	Rows	Pack. Qty.	crimped 0,15 mm Item No.	Item No.		
105	18	220	22	4	12	0003-165 584	0003-165 964		

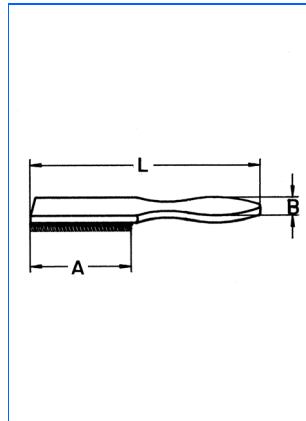


Sparkplug brushes, crimped brass wire

with wooden or plastic handle

Area of application generally	Cleaning
Area of application particularly	Cleaning of sparkplugs

Dimensions [mm]						Brass wire Body: wood	Brass wire Body: plastic		
A	T	L	B	Rows	Pack. Qty.	crimped 0,20 mm Item No.	crimped 0,20 mm Item No.		
25	15	100	16	2x5	50	0003-131 572			
33	15	180	15	3x5	24		0008-432 573		
45	18	200	18	3x6	24	0003-133 573			
50	20	195	26	5x8	24	0003-134 575			

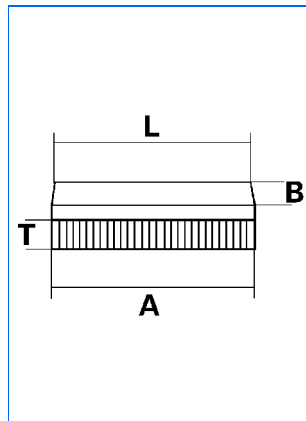


File cards

(card filleting)

Area of application generally	Cleaning
Area of application particularly	Cleaning of files.

Dimensions [mm]				Scratching belt			
A	L	B	Pack. Qty.	straight Item No.			
100	235	25	12	0003-140 101			
115	235	40	12	0003-140 102			
165	300	40	12	0003-140 103			
115	235	55	12	0003-140 104			

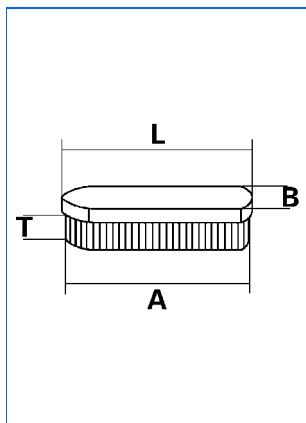


Wire scratch brushes, straight wire

with straight wooden block

Area of application generally	Removing lacquer, derusting, cleaning

Dimensions [mm]						Steel wire			
A	T	L	B	Rows	Pack. Qty.	straight 0,35 mm Item No.			
100	30	115	42	5x10	12	0101-179 094			
170	30	185	60	6x19	12	0101-179 095			
170	40	185	60	6x19	12	0101-179 096			



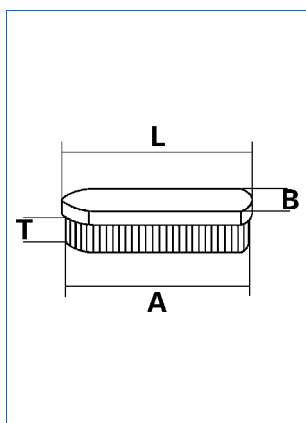
Belgium wire scratch brushes, straight wire

with wooden and plastic handle

Area of application generally	Cleaning

Dimensions [mm]					Pack. Qty.	Steel wire with plastic handle and intermediate board*	Steel wire with plastic handle without intermediate board		
A	T	L	B	Rows		straight 0,35 mm Item No.	straight 0,35 mm Item No.		
190	40	205	60	5	10	0281-307 095	7601-306 095		

*The fill material length can be changed with the intermediate board.

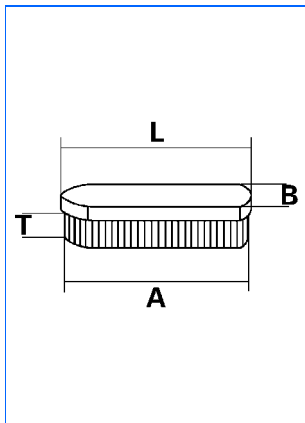


Butchersbrush, flat wire

with wooden handle and loop

Area of application generally	Cleaning

Dimensions [mm]					Pack. Qty.	Strengthened flat wire			
A	T	L	B	Rows		3,3 x 0,6 mm Item No.			
180	35	190	75	6	100	0003-105 056			

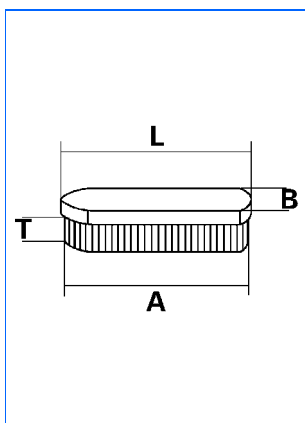


Wire scratch brushes, straight wire

with wooden handle, violin-shaped

Area of application generally	Cleaning

Dimensions [mm]						Steel wire	Brass coated Steel wire	Stainless steel wire	
A	T	L	B	Rows	Pack. Qty.	straight 0,35 mm Item No.	straight 0,30/0,38 mm Item No.	straight 0,35 mm Item No.	
170	35	210	59/51	5	10	0001-179 097	0001-179 297	0001-179 397	



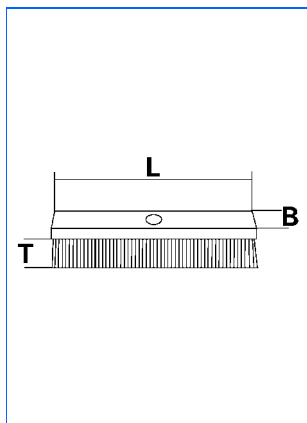
Staining brushes, fill material: phosphor bronze / fibre / leather strips

with wooden handle

Area of application generally	Staining, cleaning
Area of application particularly	For preparing wood, opening pores, removing glue and adhesive residues prior to staining, for rubbing in stain and for polishing.

Dimensions [mm]						Phosphor bronze	Fibre/Phosphor bronze	Fibre/Leather strips	Fiber
A	T	L	B	Rows	Pack. Qty.	crimped 0,20 mm Item No.	crimped 0,20 mm Item No.	crimped 0,20 mm Item No.	crimped 0,20 mm Item No.
145/125	15	145/125	55	6	12	0001-166 686	0001-166 936		
150	15	150	60	7	12	0001-167 677			
185/155	15	185/155	60	6	12	0001-166 687			
165	18	165	58	6	12			0001-168 936	
165	19	165	75	8	12			0001-168 939	
190	25	190	80	7	12				0001-167 947

with intermediate board and strip

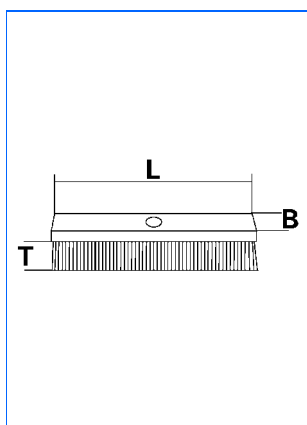


Brooms, steel wire fill material

wooden body with handle hole

Area of application generally	Dedusting, cleaning

Dimensions [mm]			Rows	Pack. Qty.	Steel wire	Flat wire	Flat wire	
T	L	B			0,50 mm Item No.	0,75 x 0,25 mm Item No.	1,10 x 0,25 mm Item No.	
75	300	60	5x20	10	0001-102 095	0001-102 005		
75	300	60	6x20	10		0001-102 006	0001-102 016	

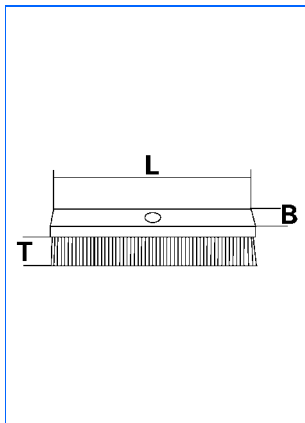


Brooms, steel wire fill material

heavy duty with shaped wooden body with hand hole

Area of application generally	Dedusting, cleaning

Dimensions [mm]			Rows	Pack. Qty.	Flat wire	Flat wire	Flat wire	
T	L	B			1,10 x 0,25 mm Item No.	1,10 x 0,45 mm Item No.	1,80 x 0,45 mm Item No.	
75	300	60	6x20	10	0001-100 016			
75	350	70	6x26	10	0001-101 016	0001-101 036		
100	350	70	6x26	10			0001-284 046	



Floor brooms, brown nylon filament

with wooden body, natural colour or brown-stained

Area of application generally	Dedusting, cleaning
Area of application particularly	Standard: brown stained, shaped wooden body with handle hole. For industrial use: wooden body with handle hole. Extra wide broom: wooden body with hole for special cast iron handle holder.

					Korfil-D (varnished) Item No.	Korfil-D (unlackiert) Item No.	Korfil-D extra large Item No.	
Dimensions [mm]			Rows	Pack. Qty.				
T	L	B						
75	400	60	6x36	1	0001-104 924	0001-104 925		
70	700	70	7x27	1			9711-104 925	

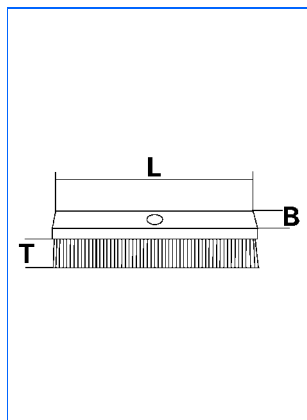


Handle holders

for floor brooms, "extra wide"

Area of application generally	Handle holder for item-no. 9711-104 925

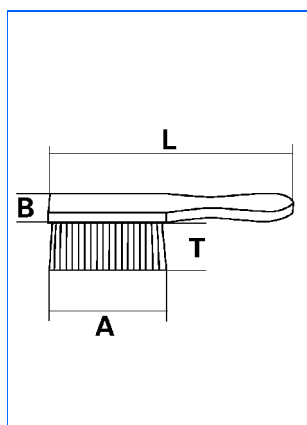
		Holder			
Accessory Broom	Pack. Qty.	Item No.			
Handle holder for floor brooms	1	0003-000 001			



Scrub brushes

Area of application generally	Dedusting, cleaning

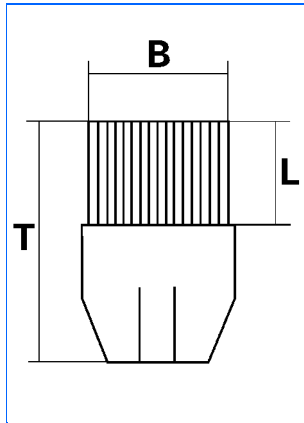
					Steel wire	Brass wire		
Dimensions [mm]					straight	crimped		
T	L	B	Rows	Pack. Qty.	Item No.	Item No.		
30	210	60	6x17	10	0001-122 096	0001-122 596		
40	210	60	7x18	10	0001-120 097			



Dusters, straight wire or brown nylon

Area of application generally	Dedusting, cleaning

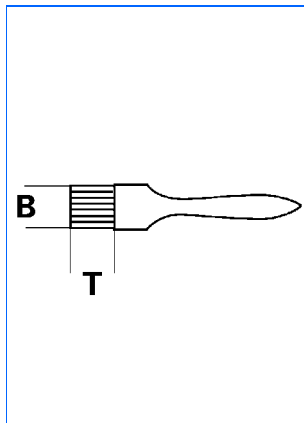
					Steel wire	Korfil-D		
Dimensions [mm]					straight			
T	L	A	B	Rows	Item No.	Item No.		
60	310	150	35	4x13	0001-110 114	0181-110 924		



Rail switch track brooms, flat wire

Area of application generally	Cleaning of rail switch tracks

Dimensions [mm]					Flat wire			
T	L	B	Rows	Pack. Qty.	1,8 x 0,45 mm Item No.			
150	300	150	3	10	0003-314 033			

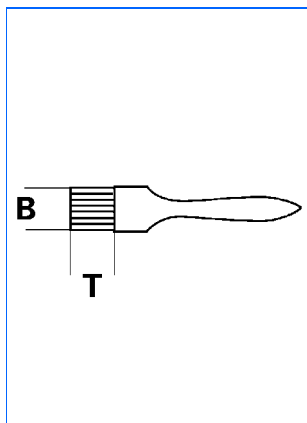


Large surface paint brushes, white bristle

universal design

Area of application generally	Applying paint, lacquering, dedusting

Dimensions [mm]				Bright bristle			
T	B	Width	Pack. Qty.	Item No.			
40	20	9	12	0003-086 102			
40	30	9	12	0003-086 103			
40	40	9	12	0003-086 104			
43	50	9	12	0003-086 105			
43	60	10	12	0003-086 106			
45	70	10	12	0003-086 107			
45	100	15	12	0003-086 110			

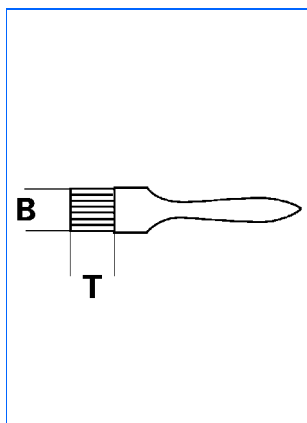


Large surface paint brushes, white bristle

proven quality

Area of application generally	Applying paint, lacquering, dedusting

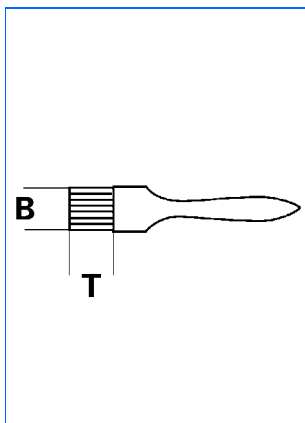
Dimensions [mm]				Pack. Qty.	Bright bristle			
T	B [mm]	Thickness [inch]	[mm]		Item No.			
40	19	3/4"	11	12	0003-086 019			
40	25	1"	13	12	0003-086 025			
40	38	1 1/2"	14	12	0003-086 038			
45	50,8	2"	14	12	0003-086 050			
48	63	2 1/2"	14	12	0003-086 063			
50	75	3"	15	12	0003-086 075			



Radiator Paint Brush

Area of application generally	Applying paint, lacquering, dedusting

Dimensions [mm]				Pack. Qty.	Bright bristle			
T	B [mm]	Thickness [inch]	Zoll		Item No.			
42	25	1"		12	1003-086 425			
42	38	1 1/2"		12	1003-086 438			
42	50,8	2"		12	1003-086 450			
48	63	2 1/2"		12	1003-086 463			
45	75	3"		12	1003-086 475			

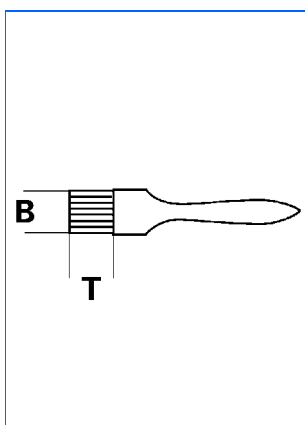


Round paint brushes, white bristle

practicle handle with hanger

Area of application generally	Applying paint, lacquering, dedusting

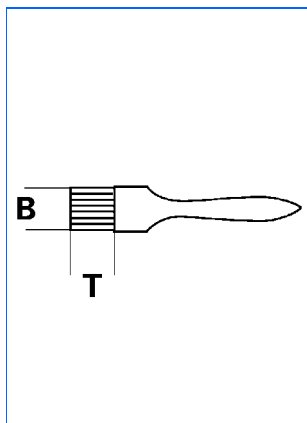
Dimensions [mm]			Bright bristle			
T	B	Pack. Qty.	Item No.			
40	8	12	1003-086 202			
40	10	12	1003-086 204			
40	13	12	1003-086 206			
40	16	12	1003-086 208			
45	20	12	1003-086 210			
45	23	12	1003-086 212			
50	26	12	1003-086 214			
50	30	12	1003-086 216			
50	33	12	1003-086 218			
53	36	12	1003-086 220			



Soldering solution brush white bristle

Area of application generally	Special model for applying soldering solution

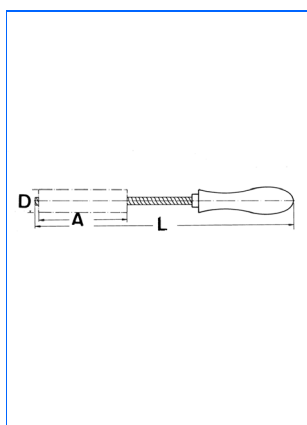
Dimensions [mm]			Bright bristle			
T	B	Pack. Qty.	Item No.			
10	10 / 16	50	0003-328 961			
15	15 / 8	50	0003-328 962			
20	30 / 10	50	0003-328 963			



Soluble oil brushes fill material horsehair

Area of application generally	Special models for applying of diluted soluble oil

Dimensions [mm]			Horsehair			
T	B	Pack. Qty.	Item No.			
40	7	50	0003-327 961			
55	10	50	0003-327 962			

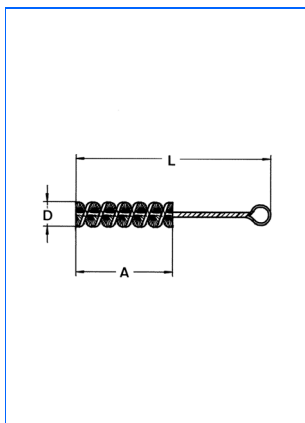


Hole cleaning brushes, crimped steel wire

double wire core and wooden handle

Area of application generally	Internal cleaning of steel, wood and synthetics
Area of application particularly	Removal of chips and loose particles.

Dimensions [mm]			Steel wire			
D	A	L	crimped Item No.			
15	100	280	10	0002-892 215		
20	100	280	10	0002-892 220		
25	100	280	10	0002-892 225		
30	100	280	10	0002-892 230		

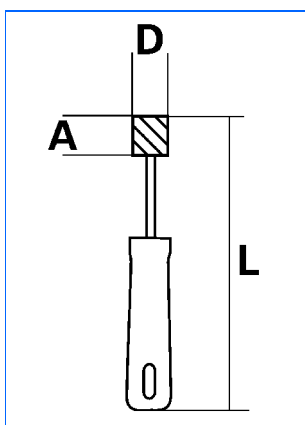


Aperture cleaning brushes, crimped wire or Nylon

with looped double wire stem

Area of application generally	Cleaning, dedusting, deburring, removing lacquer
Area of application particularly	Ideally suited brush for cleaning nozzles, gas bottles, pipes, tubes, etc.

Dimensions [mm]				Steel wire	Brass wire	Nylon	Stainless steel wire
D	A	L	Pack. Qty.	crimped Item No.	crimped Item No.	straight Item No.	crimped Item No.
4	100	300	20	0003-816 204		0003-816 804	0003-816 304
5	100	300	20	0003-816 205		0003-816 805	0003-816 305
6	100	300	20	0003-816 206	0003-816 506	0003-816 806	0003-816 306
8	100	300	20	0003-816 208	0003-816 508	0003-816 808	0003-816 308
10	100	300	20	0003-816 210	0003-816 510	0003-816 810	0003-816 310
12	100	300	20	0003-816 212	0003-816 512	0003-816 812	0003-816 312
15	100	300	20	0002-816 215	0002-816 515	0003-816 815	0002-816 315
18	100	300	20	0002-816 218	0002-816 518	0003-816 818	0002-816 318
20	100	300	20	0002-816 220	0002-816 520	0003-816 820	0002-816 320
25	100	300	20	0002-816 225	0002-816 525	0003-816 825	0002-816 325



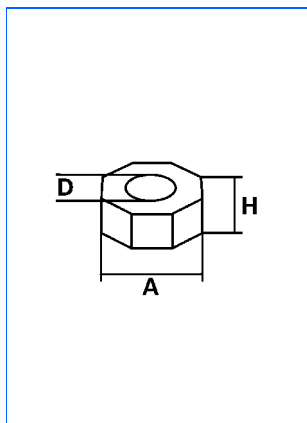
Pipe fitting cleaning brushes, for internal cleaning

with practical handle

Area of application generally	Cleaning, dedusting, de-scaling
Area of application particularly	Special brushes for fast and effective cleaning and removal of oxide films in tubes and solder fittings made of copper or brass.

Dimensions [mm]				Steel wire	Steel wire	Steel wire	
D	A	L	Pack. Qty.	0,12 mm Item No.	0,20 mm Item No.	0,26 mm Item No.	
6	25	160	12	0003-075 250			
10	25	160	12	0003-075 251			
13	25	160	12		0003-075 252		
16	25	160	12		0003-075 253		
19	28	160	12		0003-075 254		
23	32	160	12		0003-075 255		
26	25	160	12		0003-075 256		
29	32	160	12			0003-075 257	
33	35	160	12			0003-075 258	
42	38	160	6			0003-075 259	
56	51	160	6			0003-075 260	

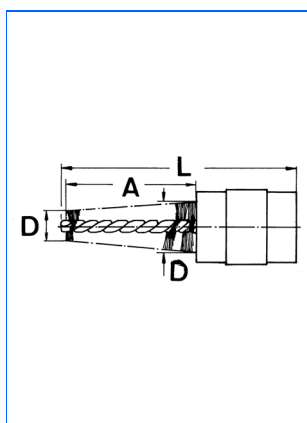
Other dimensions and wire sizes on request. The standard stocked items are printed in **bold type!**



Pipe fitting cleaning brushes for outside cleaning

Area of application generally	Cleaning, dedusting, de-scaling.
Area of application particularly	Special hand scratch brushes for fast and effective cleaning and removal of oxide films in tubes and solder fittings made of copper or brass.

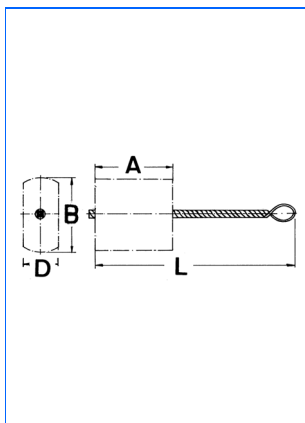
Dimensions [mm]				Steel wire			
D	A	H	Pack. Qty.	0,20 mm Item No.			
12	37	27	12	4308-075 237			
15	40	27	12	4308-075 240			
22	48	35	12	4308-075 248			
28	53	33	12	4308-075 253			



Battery terminal brush

Area of application generally	Cleaning of batteries
Area of application particularly	With plastic body and transparent Cellidor cap. On one end a conical tube brush for cleaning connectors and on the other end a scraper ring for cleaning terminals.

Dimensions [mm]				Steel wire			
D	A	L	Pack. Qty.	crimped Item No.			
15/25	65	120	12	0008-493 100			



Radiator brushes, straight wire

Area of application generally	Cleaning of heating boilers
Area of application particularly	with double wire core and threaded nipple pressed on

						Steel wire			
Dimensions [mm]				Thread	Pack. Qty.	straight Item No.			
D	A	B	L	G					
40	100	90	170	1/2" BSW	10	0002-820 110			
40	100	90	170	3/8" R	10	0002-828 110			
50	100	100	170	1/2" BSW	10	0002-820 115			
50	100	100	170	3/8" R	10	0002-828 115			
50	100	120	170	1/2" BSW	10	0002-820 119			
40	70	50	750	1/2" BSW	10	0002-821 240			
50	100	100	1000	1/2" BSW	10	0002-821 135			



Flexible wire handles, with thread

1000 mm long

Area of application generally	Extension of radiator brushes and tube brushes

Thread	Pack. Qty.	Item No.			
G					
1/2" BSW	10	0002-819 110			
3/8" R	10	0002-829 110			
M6	10	1132-819 110			
5/16" BSW	10	1103-819 110			

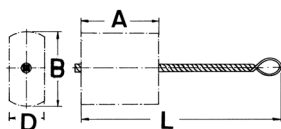


Thread adapters

(reducing couplings)

Area of application generally	For flexible wire handles

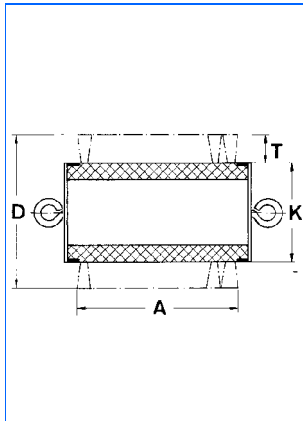
Reduction from	to	Pack. Qty.	Item No.			
1/2"	M12x1,75	10	0002-819 012			
3/8"	M10x1,5	10	0002-819 010			
5/16"	M8x1,25	10	0002-819 008			
3/4"	M6x1	10	0002-819 006			



Stove pipe cleaners

Area of application generally	Cleaning of heating boilers
Area of application particularly	Stove pipe cleaners with flexible, galvanised wire handle.

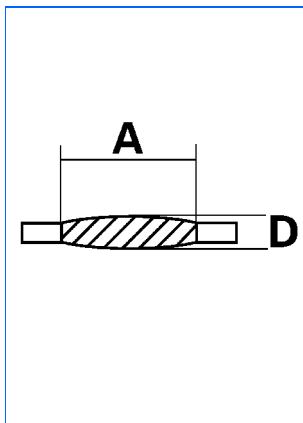
Dimensions [mm]			Pack. Qty.	Steel wire			
D	A	L		crimped Item No.			
125	120	2000	10	0002-824 213			
125	120	3000	10	0002-825 213			
140	120	2000	10	0002-824 214			
140	120	3000	10	0002-825 214			
160	120	3000	10	0002-825 216			
210	120	2000	10	0002-824 221			



Sewer cleaning brushes, crimped Elaston

Area of application generally	Sewer cleaning
Area of application particularly	With wroughtiron fittings, continuous metal core and fitted pull and rings on both ends.

Dimensions [mm]					Elaston			
D	A	T	K	Pack. Qty.	crimped Item No.			
80	100	15	40	1	0001-385 108			
100	100	25	50	1	0001-385 110			
150	150	35	80	1	0001-385 115			
200	200	50	100	1	0001-385 120			
250	230	50	150	1	0001-385 125			
300	230	50	200	1	0001-385 130			
350	230	50	250	1	0001-385 135			
400	230	50	300	1	0001-385 140			
500	230	50	400	1	0001-385 150			
600	230	75	450	1	0001-385 160			



Spiral triangular steel scrapers with thread

Area of application generally	Cleaning of sewer tubes
Area of application particularly	For very heavy cleaning jobs. Diameter adjustable.

Dimensions [mm]				Thread	Pack. Qty.	Item No.			
D	A			G					
15-24	120			M6	5	0002-800 102			
25-35	140			M8	5	0002-800 103			
36-44	160			M10	5	0002-800 104			
45-57	190			M12	5	0002-800 105			
58-75	220			M16	5	0002-800 107			
76-94	250			M16	5	0002-800 109			

Miscellaneous

Door seal strip brushes

- with aluminium extrusions
- with plastic extrusions



Abrasive materials

- flap wheels ■ abrasive discs ■ flap wheels with abrasive fleece ■ abrasive discs with burdock side
- surface conditioning discs ■ pads of abrasive fleece ■ endless sanding belts



Brush assortments

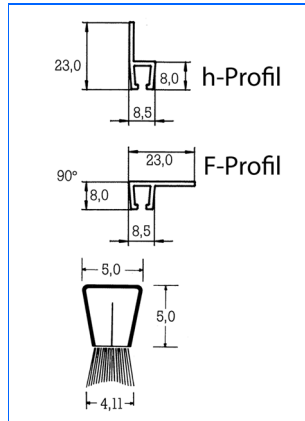
- brush assortments in attractive display box



Accessories

- adaptors and drive arbors



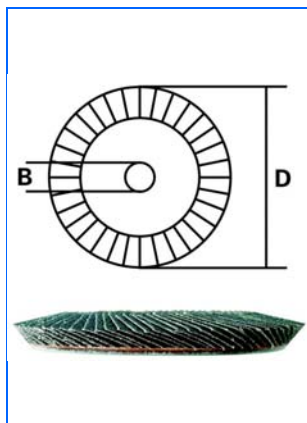


Door seal strip brushes with horsehair fill material

with or without aluminium extrusion

Area of application generally	Sealing
Area of application particularly	Strip brushes, densely filled. Offered with or without aluminium extrusions. Brushes and extrusions can be easily shortened to any required length.

Dimensions [mm]			Blister packed without extrusion	Blister packed with extrusion	Blister packed with extrusion	
T	L	Pack. Qty.	Item No.	f profile Item No.	h profile Item No.	
15	1000	10	0004-905 962	0014-293 324	0004-906 962	
15	1200	10	0024-905 962	0084-293 324	0024-906 962	
15	2000	10	0034-905 962	0124-293 324	0034-906 962	
25	1000	10	0004-905 963	0024-293 324	0004-906 963	
25	1100	10	0014-905 963	0064-293 324	0014-906 963	
25	1200	10	0024-905 963	0094-293 324	0024-906 963	
25	2000	10	0034-905 963	0134-293 324	0034-906 963	
25	2200	10	0044-905 963	0164-293 324	0044-906 963	
25	3000	10	0054-905 963	0194-293 324	0054-906 963	
35	1000	10	0004-905 954	0044-293 324	0004-906 954	
35	1100	10	0014-905 954	0074-293 324	0014-906 954	
35	1200	10	0024-905 954	0104-293 324	0024-906 954	
35	2000	10	0034-905 954	0144-293 324	0034-906 954	
35	2200	10	0044-905 954	0174-293 324	0044-906 954	
35	3000	10	0054-905 954	0204-293 324	0054-906 954	
45	1000	10	0004-905 955	0054-293 324	0004-906 955	
45	1200	10	0024-905 955	0114-293 324	0024-906 955	
45	2000	10	0034-905 955	0154-293 324	0034-906 955	
45	2200	10	0044-905 955	0184-293 324	0044-906 955	
45	3000	10	0054-905 955	0214-293 324	0054-906 955	



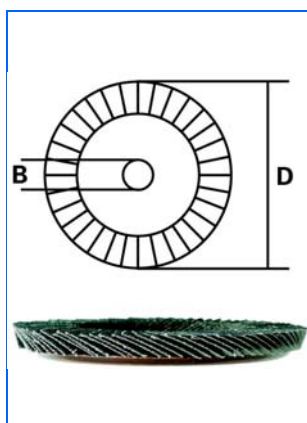
Abrasive discs STS, zircon corundum

bevelled model

Area of application generally	Grinding, deburring, removing lacquer, derusting, de-scaling, smoothing
Area of application particularly	Abrasive discs with zircon-corundum achieve an extremely high metal removal rate and are particularly suited for treating stainless steel.

				Zircon corundum	Display box	Zircon corundum	
Dimensions [mm]	Arbor hole* [mm]	max.	Pack.	Grain 40	Grain 60	Grain 80	
D	B	min ⁻¹	Qty.	Item No.	Item No.	Item No.	
115	22,2	13.300	10	3703-003 114	3703-003 116	3703-003 118	
125	22,2	13.300	10	3703-003 124	3703-003 126	3703-003 128	
178	22,2	8.500	5	3703-003 174	3703-003 176	3703-003 178	

*Other arbor holes on request!

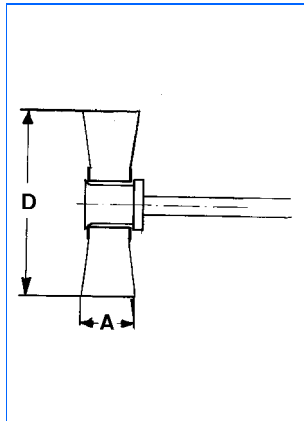


Abrasive discs STF, zircon corundum

flat model

Area of application generally	Grinding, deburring, removing lacquer, derusting, de-scaling, smoothing
Area of application particularly	Abrasive discs with zircon-corundum achieve an extremely high metal removal rate and are particularly suited for treating stainless steel.

				Zircon corundum	Display box	Zircon corundum	
Dimensions [mm]	Arbor hole [mm]	max.	Pack.	Grain 40	Grain 60	Grain 80	
D	B	min ⁻¹	Qty.	Item No.	Item No.	Item No.	
115	22,2	13.300	10	3723-003 114	3723-003 116	3723-003 118	
125	22,2	13.300	10	3723-003 124	3723-003 126	3723-003 128	
178	22,2	8.500	5	3723-003 174	3723-003 176	3723-003 178	

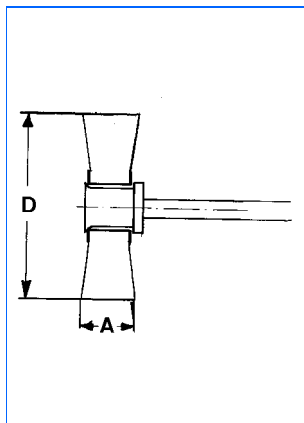


Flap wheels

card packed, without display box

Area of application generally	Grinding, deburring, removing lacquer, derusting, de-scaling, smoothing
Area of application particularly	Flap wheels are suited for surface finishing of most component parts out of steel, non-ferrous metals, wood and hard plastics.

				Aluminium oxide	Steel wire	Aluminium oxide	Aluminium oxide
Dimensions [mm]				Grit 60	Grit 80	Grit 120	Grit 240
D	A	Shank-Ø mm	max. min ⁻¹	Pack. Qty.	Item No.	Item No.	Item No.
30	5	6	23.000	10	0063-003 005	0083-003 005	0123-003 005
30	10	6	23.000	10	0063-003 010	0083-003 010	0123-003 010
30	20	6	23.000	10	0063-003 020	0083-003 020	0123-003 020
40	10	6	17.000	10	0063-004 010	0083-004 010	0123-004 010
40	15	6	17.000	10	0063-004 015	0083-004 015	0123-004 015
40	30	6	17.000	10	0063-004 030	0083-004 030	0123-004 030
50	10	6	14.000	10	0063-005 010	0083-005 010	0123-005 010
50	20	6	14.000	10	0063-005 020	0083-005 020	0123-005 020
50	30	6	14.000	10	0063-005 030	0083-005 030	0123-005 030
60	20	6	11.000	10	0063-006 020	0083-006 020	0123-006 020
60	30	6	11.000	10	0063-006 030	0083-006 030	0123-006 030
60	40	6	11.000	10	0063-006 040	0083-006 040	0123-006 040



Flap wheels of abrasive fleece

card packed, without display box

Area of application generally	Removing lacquer, derusting, de-scaling, smoothing, depolishing
Area of application particularly	Flap wheels of abrasive fleece are especially suited for surface cleaning. On metal surfaces, they produce a grinding finish with a high density.

				Aluminium oxide	Aluminium oxide	Aluminium oxide	
Dimensions [mm]				coarse, 80	middle, 150	fine, 240	
D	A	Shank-Ø mm	max. min ⁻¹	Pack. Qty.	Item No.	Item No.	Item No.
40	20	6	8.000	10	0083-304 020	0153-304 020	0243-304 020
40	30	6	8.000	10	0083-304 030	0153-304 030	0243-304 030
50	20	6	7.500	10	0083-305 020	0153-305 020	0243-305 020
50	30	6	7.500	10	0083-305 030	0153-305 030	0243-305 030
50	40	6	7.500	10	0083-305 040	0153-305 040	0243-305 040
60	30	6	7.000	10	0083-306 030	0153-306 030	0243-306 030
60	40	6	7.000	10	0083-306 040	0153-306 040	0243-306 040
60	50	6	7.000	10	0083-306 050	0153-306 050	0243-306 050

Other threads, dimensions and wire sizes on request. The standard stocked items are printed in **bold type**!



Assortment, "do-it-yourself" brushes, crimped wire

bulk packed in display box

Further articles on a display card and in display boxes can be found in our separate assortment brochure.

Area of application generally	Deburring, removing lacquer, derusting, de-scaling, cleaning
Area of application particularly	Assortment with: - 12 wheel brushes (6x 0008-600 421, 3x 0003-600 511, 3x 0008-600 522) - 18 cup brushes (3x 0003-600 811, 6x 0008-600 821, 3x 0003-600 911, 6x 0008-600 921) - 6 end brushes (6x 0008-509 164)

					Steel wire			
Dimensions [mm]	Shank-Ø	Content	max.	Pack.	0,20 - 0,30 mm			
D	mm	Pcs.	min ⁻¹	Qty.	Item No.			
Divers	6	36	4.500	1	0002-600 004			



Assortment, "do-it-yourself" brushes, crimped wire

bulk packed in display box

Area of application generally	Deburring, removing lacquer, derusting, de-scaling, cleaning
Area of application particularly	Assortment with: - 26 wheel brushes (10x 0008-600 221, 10x 0008-600 321, 6x 0008-600 421) - 10 cup brushes (10x 0008-600 821)

					Steel wire			
Dimensions [mm]	Shank-Ø	Content	max.	Pack.	0,20 - 0,30 mm			
D	mm	Pcs.	min ⁻¹	Qty.	Item No.			
	6	36	4.500	1	8904-600 001			

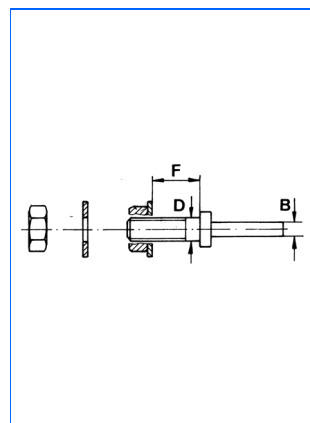


4-M-Adapter

Outer diameter 2"

Area of application generally	Adapter for reduction of arbor holes of wheel brushes

Dia. of bore [mm]		Item No.			
B	B"				
12,7	1/2"	0003-075 064			
19	3/4"	0003-075 066			
22,2	7/8"	0003-075 067			
25,4	1"	0003-075 068			
31,8	1 1/4"	0003-075 070			

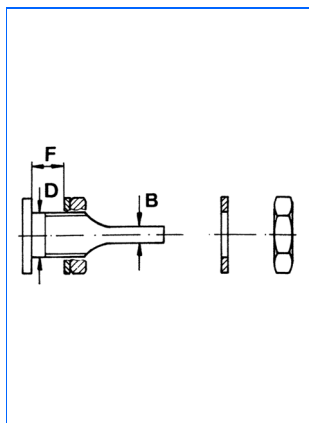


Drive Arbors

Type I

Area of application generally	For the mounting of brushes up to max. 20 mm face width on drills
Area of application particularly	For wheel brushes with arbor hole. Brushes can be mounted up to a face width of max. 20 mm.

Dimensions [mm]				Item No.			
D	D"	shank	F				
10		6	20	0003-000 100			
13		6	20	0003-000 130			
12,7	1/2"	6	20	0004-000 127			
6,35	1/4"	6	20	0004-000 063			
9,52	3/8"	6	20	0004-000 095			



Drive Arbors

Type II

Area of application generally	For the mounting of brushes up to max. 11 mm face width on drills
Area of application particularly	For wheel brushes with arbor hole. Brushes can be mounted up to a face width of max. 11 mm.

Dimensions [mm]			Item No.			
D"	B	F				
3/8"	6	11	9907-075 128			
1/2"	6	11	9907-075 129			
5/8"	6	11	9907-075 130			

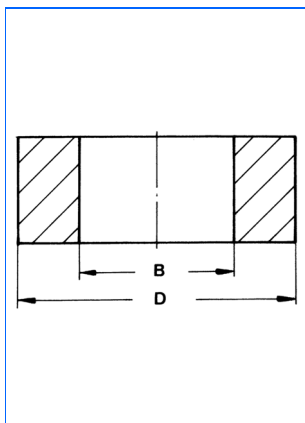


Drive Arbors

for wood graining brushes

Area of application generally	Drive arbor for brushes for wood graining

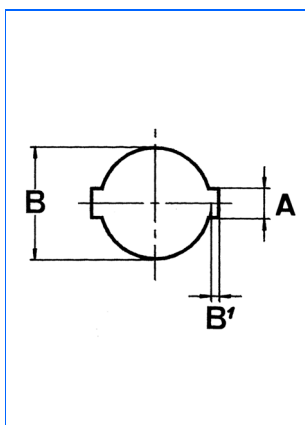
Dimensions [mm]			Item No.			
L						
M16 / M14 90	For face width 85 mm		0283-000 105			
M16 / M14 105	For face width 100 mm		0183-000 105			
M16 / M14 125	For face width 120 mm		0083-000 105			



Adapters

Area of application generally	For reduction of arbor holes

Dimensions [mm]				Item No.			
D	D"	B	B"				
16	5/8	6	1/4"	0003-000 221			
16	5/8	10	3/8"	0003-000 222			
16	5/8	13	1/2"	0003-000 223			
22,2	7/8"	10	3/8"	0003-000 242			
	7/8"	13	1/2"	0003-000 243			
	7/8"	16	5/8"	0003-000 244			
	7/8"	19	3/4"	0003-000 245			
20		10		0003-000 276			
20		12		0003-000 290			
20		14		0003-000 279			
20		15		0003-000 280			
20		16		0003-000 278			
20		17		0003-000 281			
20		18		0003-000 282			
30		12		0003-000 291			



Axle plates with double keyways

for brushes for portable deburring machines

Area of application generally	Axle plates for portable deburring machines

Arbor hole [mm]			Arbor hole Item No.			
B	A	B				
50,8	13,2	7,1	5495-560 051			
52,9	13,5	6,4	5495-560 052			
54,7	13,6	5,8	5495-560 054			
80,2	13,5	7,5	5495-560 080			
82	13,5	6,4	5495-560 082			



Thread adapters

(reducing couplings)

Area of application generally	For flexible wire handles

Reduction from	to	Pack. Qty.	Item No.			
1/2" BSW	M12x1,75	10	0002-819 012			
3/8" BSW	M10x1,5	10	0002-819 010			
5/16" BSW	M8x1,25	10	0002-819 008			
3/4" BSW	M6x1	10	0002-819 006			



Flexible wire handles, with thread

1000 mm long

Area of application generally	Extension of radiator brushes and tube brushes

Thread G	Pack. Qty.	Item No.			
1/2" BSW	10	0002-819 110			
3/8" R	10	0002-829 110			
M6	10	1132-819 110			
5/16" BSW	10	1103-819 110			



Handle holders
for floor brooms, "extra wide"

Area of application generally	Handle holder for item-no. 9711-104 925

		Holder			
Accessory	Pack.	Item No.			
Broom	Qty.				
Handle holder for floor brooms	1	0003-000 001			

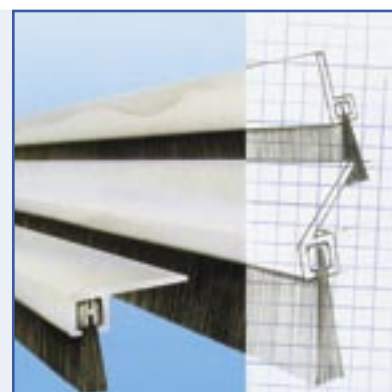
Other threads, dimensions and wire sizes on request. The standard stocked items are printed **in bold type!**

Our further product range!



Multistrip: Door and general seal strips.

Multistrip is a broad range of 'ex stock' brushes stocked in 3 metre lengths available to retrim and re cut to suit customer requirements.



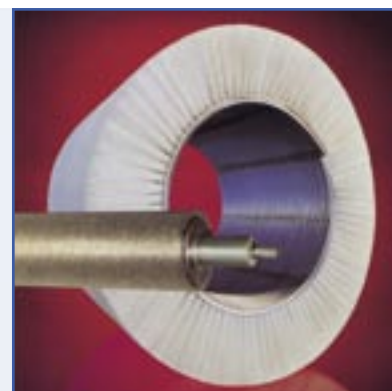
High performance power brushes

Superior range for demanding applications and intense production conditions in industry.



Special brushes and roller brushes

Specially designed and engineered to meet customer's specific application needs.



Novofil: The high-tec filament

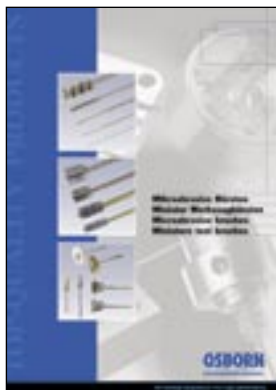
Abrasive nylon brushes in Hi Tec filaments , rectangular and round in Diamond, Zirconium, Aluminium Oxide and Silicon Carbide. Available in a wide range of grit values.





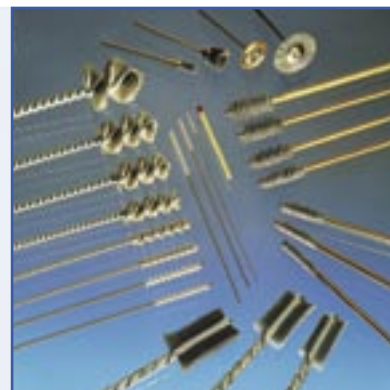
Brushes for weld cleaning

Power driven brushes for the pipeline industry, e.g. cleaning the internal diameters of pipe, external cleaning, edge preparation, removal of insulation coatings, remedial work, cleaning weld seams prior to welding and weld bead deslag.



Micro-abrasive brushes and miniature brushes

Flexible, highly efficient brushing tools for surface finishing of small bores and cross hole deburring.



Multizack system and punched roller brushes

Products for a wide range of applications.



Non-woven mill rolls

The economical alternative to conventional rubber-coated, PUR- and felt rolls. The chemical resistance of our non-woven materials is matched to the individual demand through the ideal combination of fibre material and bonding agent.



Load runners: idler rollers and load rails for high-capacity load handling

Load handling systems for precise movement of heavy loads in demanding industrial applications.



Index numeral

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