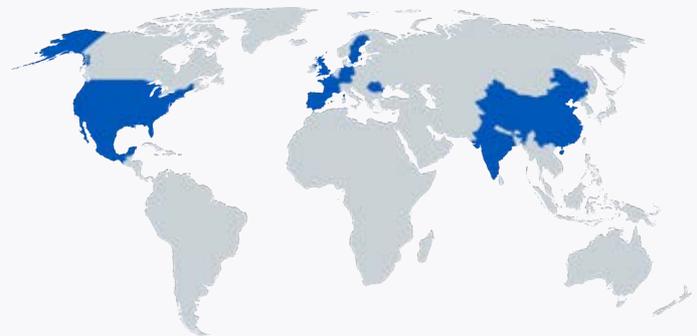




Precision Deburring

Our Solutions for Process-Optimized Precision Deburring

**Osborn
worldwide.**



Osborn offers the best solutions for your mechanical surface treatment challenges. Our experts are highly trained to serve you with the best off-the-shelf or customized tools, when and where you need them. Unlike others, we help you optimize your process, meet the highest quality and safety requirements and reduce your costs.

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Optimal Processes. High Quality.

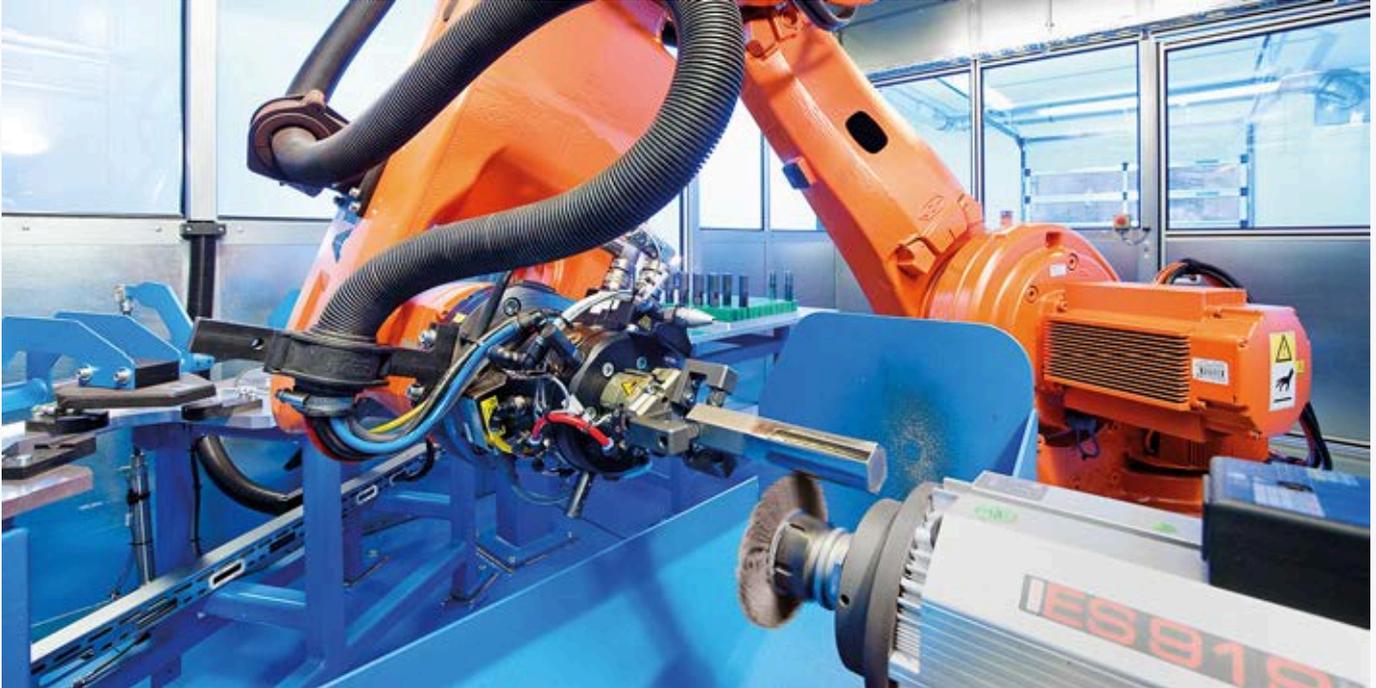


Modern Production

Our production systems represent the central element in manufacturing our premium products. We are not only able to produce large volumes and custom products, we can offer them first and foremost with constantly high quality. We have invested considerably in our production facilities in Burgwald. We have modernised the machinery and automated many areas.

At our other sites, we are also active in optimising our production processes. The production systems for our polishing buffs in Portugal, in the heart of the European textile industry, were recently equipped with new machines. An automated filling system has been added to our polishing compound plant in Haan. Furthermore, our production site in Romania has been extended with additional installations.

**Always One Step Ahead.
Research and Development.**



Test robot in Burgwald/Germany

Passionate dedication to innovation is important to us. Our aim is to help you every day so that you are able to complete your work better, quicker and more professionally.

So we are testing and optimising existing products in our portfolio in regard to quality, operating behaviour and safety. The findings of our research flow directly into our products and their production processes. A higher quality raw material, different wire knotting, a different abrasive grit, an adapted filament density or a new type of manufacturing process - there are many ways to improve products.

The same also applies for optimising our polishing buffs and compounds. Changing a single parameter brings with it a number of new possibilities. The skill is finding the promising changes and channelling them into volume production after the successful conclusion of all testing.

We are also working on new products and application solutions. Specially developed robots in our test labs in Europe and the US are assisting us. They provide accurate measurement results and guarantee that different tests are always conducted using the same parameters and under identical conditions.



A strong partner

We offer our industrial customers a professional service for parts and sample processing and will be glad to help out if you are on the lookout for the perfect tool for your special finishing or deburring process. You receive a detailed report with technical documentation on the sample parts processed, on the basis of which you are able to make the correct tool selection in consideration of the cost, life and processing time criteria.

Talk to us: service@osborn.de

Different Types of Burrs. A Classification.



Class 1

Tinsel Burr

- Only marginally attached to the workpiece
- Easy to remove
- Occurs during fine grinding



Class 2

Burr with a Small Area of Attachment

- Attached to the workpiece
- Requires mechanical removal
- Occurs during grinding



Class 3

Large Burr

- Attached to the workpiece
- Sharp edged
- Occurs during milling



Class 4

Burr with a Large Area of Attachment

- Attached to the workpiece
- Occurs during punching, broaching or turning
- Often only removable with wire



Class 5

Displaced Material

- The material is pushed in front of the cutting tool
- Difficult to remove with a brush
- Optimisation of the machining process would be useful

The Right Fill Material For Your Application.

Burr Class	Workpiece shape/ Burr position	Workpiece Material				
		Steel	Stainless Steel	Aluminium	Cast	NE-Metal
1	Flat Surface	CER 320 / SIC 320	CER 320 / SIC 320	SIC 320	ST 0,20	SST 0,20
	Complex Geometry	CER 320 / SIC 320	CER 320 / SIC 320	SIC 320	ST 0,20	SST 0,20
	Bore	SIC 320 / ST 0,08	SIC 320 / SST 0,08	AO 600	ST 0,20	SST 0,20
2	Flat Surface	CER 180 / SIC 180	CER 180 / SIC 180	SIC 180	ST 0,20	SST 0,20
	Complex Geometry	CER 180 / SIC 180	CER 180 / SIC 180	SIC 180	ST 0,20	SST 0,20
	Bore	SIC 180 / ST 0,13	SIC 180 / SST 0,13	AO 600	ST 0,20	SST 0,20
3	Flat Surface	CER 120 / SIC 120	CER 120 / SIC 120	SIC 120	ST 0,20	SST 0,20
	Complex Geometry	CER 120 / SIC 120	CER 120 / SIC 120	SIC 120	ST 0,20	SST 0,20
	Bore	SIC 120 / ST 0,13	SIC 120 / SST 0,13	SIC 120	ST 0,20	SST 0,20
4	Flat Surface	CER 80 / SIC 80	CER 80 / SIC 80	SIC 80	ST 0,20	SST 0,20
	Complex Geometry	CER 80 / SIC 80	CER 80 / SIC 80	SIC 80	ST 0,20	SST 0,20
	Bore	SIC 80 / ST 0,20	SIC 80 / SST 0,20	SIC 80	ST 0,20	SST 0,20
5	Flat Surface	Tungsten Carbide Burrs				
	Complex Geometry					
	Bore					

CER: Ceramic, SIC: Silicone carbide, AO: Aluminium oxide, ST: Steel wire, SST: Stainless steel wire

Fill Materials. Types and Usage.

For our tools, we only use filling materials developed in our house or selected specially. Regular quality tests in our R&D labs guarantee highest material quality at all times. Below you find pictures of all the facing materials used for the tools in this catalogue. The table shows the properties of all fill materials used by Osborn.



Steel wire



Stainless steel wire



Osborn special steel wire



Cordwire



Brass wire



Xtreme wire

Material	Property	Additional Properties	Benefits	Used on
Steel wire (ST)	crimped	Most common trim material for brushes	<ul style="list-style-type: none"> Dimensionally stable Diversity of applications 	Steel, cast iron, softwood, hardwood
Stainless steel wire (SST)	crimped	Standard alloys: 1.4310 and 1.4401 (1.4571 on request)	<ul style="list-style-type: none"> Usage in particular where residues of steel wires would adversely affect the surface (such as rust spots) 	Stainless steel, non-ferrous metals, aluminium
Osborn special steel wire	crimped		<ul style="list-style-type: none"> High-performance wire with high tensile strength Long service life For extreme brush applications 	Steel, cast iron, softwood, hardwood
XTREME wire (steel wire)	stranded		<ul style="list-style-type: none"> Extremely long life Combines the benefits of crimped and knotted wire 	Steel, cast iron, softwood, hardwood
Brass wire	crimped			Non-ferrous metals, softwood



Aluminium oxide

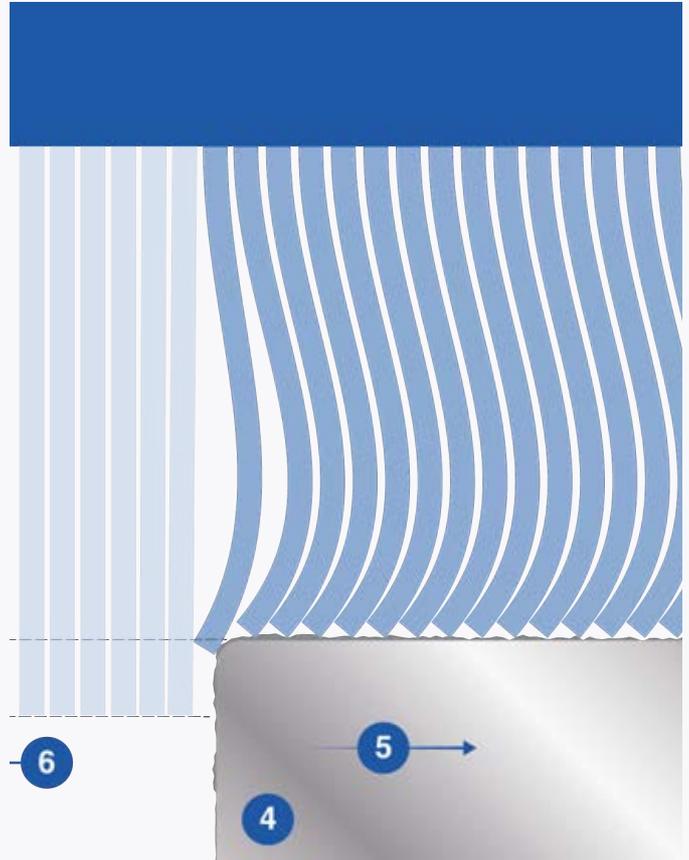
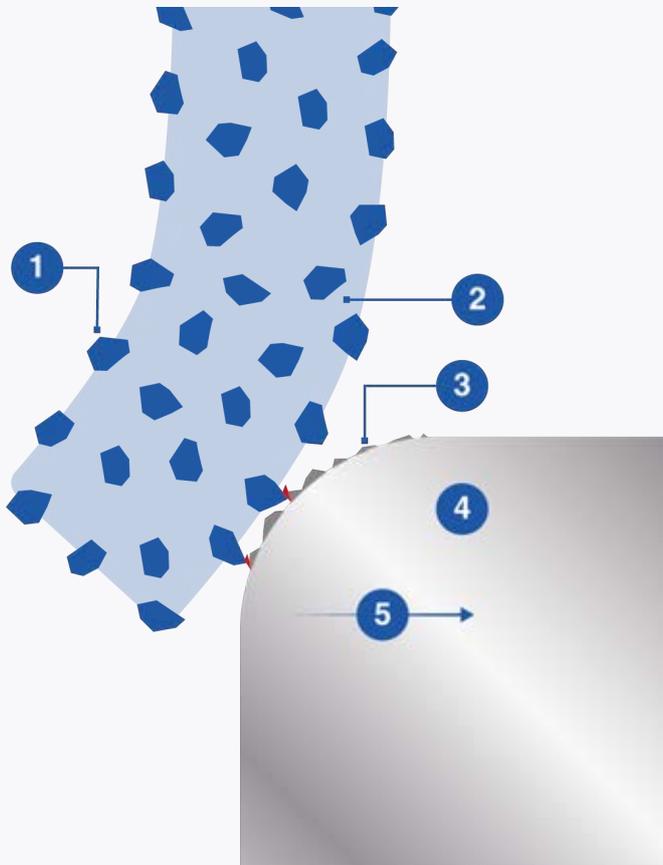
Silicon carbide

Ceramic

Novoflex-B®

Material	Property	Additional Properties	Benefits	Used on
Abrasive bristle	Aluminium oxide (AO)	Nylon threads with aluminium oxide	<ul style="list-style-type: none"> High elasticity without risk of breakage Uniform abrasive effect 	Steel, cast iron, stainless steel, non-ferrous metals, aluminium, wood
	Silicone carbide (SIC)	Nylon threads with silicone carbide	<ul style="list-style-type: none"> High elasticity without risk of breakage Uniform abrasive effect 	
	Ceramic (CER)	Nylon threads with ceramic; white trim material.	<ul style="list-style-type: none"> Particularly hard and aggressive abrasive grit The abrasive grit released during brushing has a better breaking edge and makes possible faster, more efficient deburring Perfect results through uniform, homogeneous abrasive effect 	Steel, cast iron, stainless steel, non-ferrous metals, aluminium
Novofil®	round	High temperature resistance; available with different hardness, grit and filament thicknesses; abrasive can be made of chromium oxide, silicone carbide, aluminium oxide, zirconium, diamond or nylon resistant to extreme heat.	<ul style="list-style-type: none"> High flexibility and trim density, prolonged life For working with workpieces particular high in contours 	Steel, cast iron, stainless steel, non-ferrous metals, aluminium
	flat		<ul style="list-style-type: none"> Very high abrasive grit content, higher removal rate (approx. 50% lower processing time) Ideal for honing 	
Novoflex-B®	spherical	Trim material with aluminium oxide, zirconium or silicone carbide; grit sizes from 60 to 400 possible	<ul style="list-style-type: none"> Abrasive beads on flexible design Tool is self-centring 	Steel, cast iron, stainless steel, non-ferrous metals, aluminium, alloy

Operating Principle of an Abrasive Brush.



1. Abrasive Grit

Our abrasive grit contains up to 40% abrasive loading, depending on the grit size and the filament thickness. We offer different abrasive materials, mostly used are silicon carbide, aluminium oxide and ceramic grit.

2. Synthetic Bristle

Our synthetic bristles are based on nylon 6.12. The entire bristle is covered by the abrasive grain so that it is effective over the entire length. Synthetic bristles are also suitable for wet applications with cooling lubricants.

3. Chip / Burr

A burr is created during the mechanical processing of workpieces. The burr usually forms on the edges of the workpiece.

4. Workpiece

The brush should start and finish its path completely off the workpiece. To process the workpiece efficiently, the brush should overlap the workpiece by about 20%.

5. Cutting Direction

The first pass of the brushing tool should be made in the opposite direction to the cutting tool so that the burr is optimally reached and removed.

6. Insertion depth

The immersion depth of the brush depends on the fill material. Brushes with wire need to have a lower immersion depth, as the brushes only work with the tip of the wire. Brushes with an abrasive filament can have a deeper immersion depth, because the abrasive grain covers the entire bristle so the filament works with the tips and the sides as well.

Bristle: 1.5-2.5mm

Wire: 1.0-1.5mm

Bore Types and How to Deburr Them.

Drilling processes inevitably produce burrs, which can compromise both the quality and functionality of the finished part. Depending on the type and geometry of the bore, deburring requires a tailored approach to effectively and carefully remove these imperfections. In this guide, we present an overview of various bore types—ranging from blind holes to threaded bores and complex special shapes—and explain how to deburr them efficiently. For each bore type, we recommend suitable brush types to ensure optimal results and enhance the efficiency of your production processes.



Blind Hole



Cross Bore



Threaded Bore



Angled Bore



Oval/Special Shape Bore

Bore	Property	Burr Position	Insert the Brush	Suitable Brush
Blind Hole	Blind Hole without passage	Burr is located at the borehole inlet and outlet, as well as in the hole from above	The brush is inserted into the bore from above while rotating	Internal (spiral) brush or Sibot (base and side surface) brush
Cross Bore	Bore cross or open into the main bore	Burr is located at the exit of the last bore drilled, as well as at the transitions of the bore diameters	The brush is inserted into the second last bore while rotating	Internal (spiral) brush
Threaded Bore	Processed thread, cut or cast	Burr is located at the inlet and outlet or in the threads	The brush must be inserted and removed rotating in the direction of the thread rotation	Helituf (spiral) brush
Angled Bore	Bore runs at an angle into the main bore	Burr is located at the exit of the last bore drilled	The brush is inserted into the second last hole while rotating	Internal (spiral) brush
Oval / Special Shape	Bores in a special shape	Burr is located at the bottom of the main bore, created by the last drilled cross bore	Brush must be positioned according to the geometry of the component but it centres itself	Situft (side wing) brush

Operating Parameters when Working with Internal Brushes.

When working with internal brushes, the following parameters must be considered:

- Internal brushes must be inserted into the bore while rotating and also leave the bore while rotating
- The oversize of an internal brush depends on the bore diameter and the type of the brush:
 - brushes with abrasive nylon between 10 and 20%
 - brushes with wire between 5 and 10%
- When deburring with internal brushes 3 to 4 stroke cycles are recommended
- Changing the direction of rotation
 - The brush must first be inserted into the bore while rotating clockwise
 - when changing the direction the brush has to be completely removed out of the component first
- The honing process requires a higher number of passes, e.g. 40 strokes or more



Process	Description	Fill Material	Suitable Brush	Further Information
Deburring	Removal of slightly adhering burr with slight edge rounding	Steel or stainless steel wire Abrasive bristles	Tube brush Helituf/Situft	Oversize: 10% Rotation speed : 2800 rpm Rotation : Clockwise Wet or dry use possible
Cleaning	Mechanical removal of slightly adhering burr residues, thread cleaning, removal of chips	Steel or stainless steel wire Abrasive bristles	Tube brush crimped wire Tube brush microabrasive	Oversize: 10 -15% Rotation speed: 2400-2800 rpm Rotation: according to thread pitch Dry use recommended
Rust Removal/Descaling	Removal of debris, easily adhering and corrosion as well as cleaning surfaces	Steel or stainless steel wire	Tube brush Helituf/Stituft	Oversize: 5 - 10% Speed: 3200 rpm Rotation: clockwise Dry use recommended
Edge Breaking	<ul style="list-style-type: none"> ■ Deburring of holes with minimal edge rounding, ■ Surface creation with cross grinding pattern and plateau finish 	Aluminium oxide Zirconium Silicone carbide	Novoflex-B brushes	Oversize: 5 -10 % Rotation speed: 800 - 1200 rpm Rotation: clockwise Wet use recommended
Finishing	Surface creation with defined roughness	Abrasive bristles with silicon carbide, aluminium oxide or diamond	Tube brush microabrasive	Oversize: 15 - 20 % Speed: 2200 - 2400 rpm Rotation: clockwise Wet use recommended

Process Optimization with Brush Combination Tools.

With our brush combination tools, it is possible to optimise your process and reduce your processing time by saving tool paths and tool changes. It combines several brushes on one tool holder, which makes it possible for you to deburr several areas of a workpiece at the same time. The tool is customised to the respective requirements and workpieces and is particularly suitable for deburring and surface finishing of bores in series production.



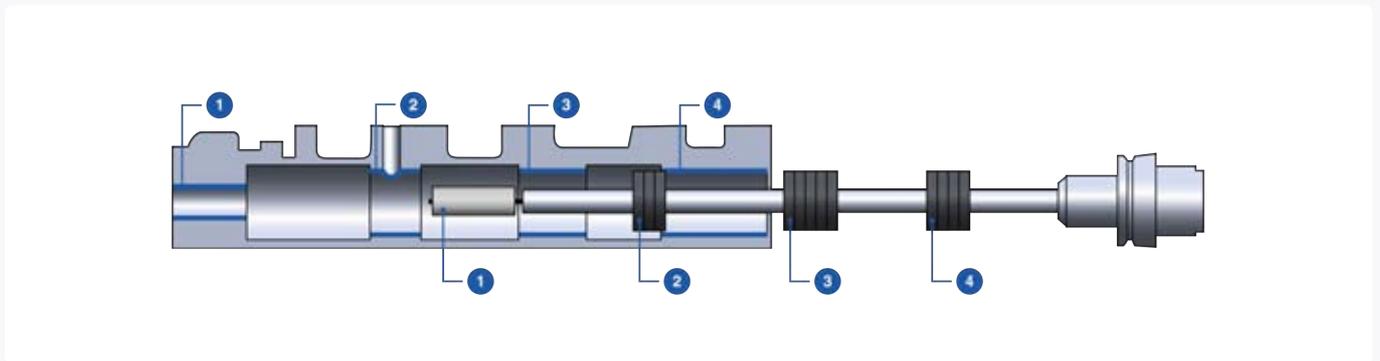
Osborn Brush Combination Tool

Case Study: Deburring four bores in one operation

A manufacturer of aluminium die-cast housing parts came to us with the aim of reducing their costs per part. In order to optimise his work process by minimising tool changes and the path of the deburring tools, we recommended our brush combination tool. The current deburring tools included a round brush and a tube brush. The brush combination tool enables the customer to combine the various work steps into one.

The result of the optimization:

- **Processing time was reduced by 70%** (from 100 seconds to 35 seconds).
- One magazine slots was freed up.



1. Deburring the first bore using the front brush

The front bore in this workpiece is the smallest in diameter. It is deburred with the front brush.

2. - 4. Deburring three bores in one step

The diameters of the second to fourth bore are identical. They are deburred by brush packs which are mounted on the shank of the tool holder. As a result, several areas of the workpiece are deburred in one work step. There is a cross bore on the second bore, which is also deburred by the brush packs.

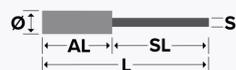


Brushes for Machining Centers and Robotic Applications

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Appearance can vary from picture depending on variant.



EUPBIB006 | SUPERIOR ★★★★★☆

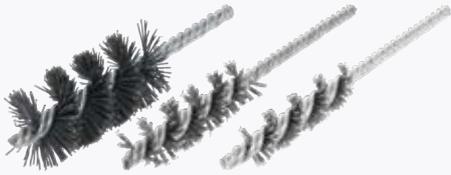
Micro-abrasive tube brushes, abrasive filament

Micro-abrasive tube brushes, industrial quality, for internal finishing.

- High levels of flexibility and abrasion resistance
- Very low production tolerances
- Very suitable for use on already finished parts
- High deburring rates for comparatively low surface impact
- Can be used on manually operated machines as well as CNC machines and machining centres

Application: Fine processing, mainly for application on non-ferrous metals, for deburring cross holes, control units, O-ring grooves and cylindrical components.

Ø	AL	L	S	SL		Silicon Carbide 1000	Aluminium Oxide 600
0.7	12	100	0.5	88	12	● 0003056400	
1.2	12	100	0.3	88	12	● 0003056403	
1.9	18	100	0.7	82	12	● 0003056406	
2.2	18	100	0.9	82	12	● 0003056409	
2.6	25	100	1.1	75	12	● 0003056412	
3.2	25	100	1.6	75	12	● 0003056415	
3.5	25	100	1.6	75	12	● 0003056418	
4.2	25	125	2.2	100	12		● 0003056425
4.8	25	125	2.2	100	12		● 0003056427
5.5	25	125	2.2	100	12		● 0003056428
6.6	25	125	3	100	12		● 0003056429
8.2	25	125	3	100	12		● 0003056432
9.8	26	125	3.4	99	12		● 0003056435
11.5	25	125	3.4	100	12		● 0003056436
13	25	125	4.1	100	12		● 0003056438
16	25	125	4.1	100	12		● 0003056441
17.5	25	125	4.1	100	12		● 0003056442
19.4	25	125	6.2	100	12		● 0003056444
22.6	25	125	5.8	100	12		● 0003056447
25.8	25	125	6.8	100	12		● 0003056450



Appearance can vary from picture depending on variant.



EUPBIB007 | SUPERIOR ★★☆☆☆

Tube brushes, abrasive filament

Tube brushes with abrasive trim, industrial quality, for internal finishing.

- High flexibility yet comparatively high deburring rate
- Retention of the edge geometry without significant rounding
- Can be used on manually operated machines as well as hightech CNC machines and machining centres

Application: Deburring of cross holes, control units, O-ring grooves and cylindrical bores.

Please note: The brush size should exceed diameter of the bore by 10 to 15%.



Ø	AL	L	S	SL		Silicon Carbide 80	Silicon Carbide 120	Silicon Carbide 320
6	50	125	3	75	12		● 0003056306	● 0003056326
7	50	125	2.6	75	1		● 0003056307	
7	50	125	3	75	1			● 0003056327
8	50	125	3.7	75	12		● 0003056308	● 0003056328
10	50	125	3	75	12		● 0003056310	
10	50	125	4	75	12			● 0003056330
10	50	125	4.1	75	12	● 0003056010		
13	50	125	5	75	12	● 0002056011	● 0002056311	● 0002056331
16	50	125	5	75	12	● 0002056012	● 0002056312	● 0002056332
19	65	125	5	60	12	● 0002056013	● 0002056313	● 0002056333
22	65	125	5.5	60	12	● 0002056014	● 0002056314	● 0002056334
25	65	125	5	60	12		● 0002056315	
25	65	125	5.5	60	12	● 0002056015		● 0002056335
32	65	125	6	60	12	● 0002056016	● 0002056316	● 0002056336
38	65	125	6	60	12	● 0002056017	● 0002056317	● 0002056337
50	65	125	6	60	12	● 0002056018	● 0002056318	● 0002056338



Appearance can vary from picture depending on variant.



EUPBIB008 | SUPERIOR ★★☆☆☆

Tube brushes, nylon-diamond

Tube brushes with nylon-diamond, high-end quality, for internal finishing.

- During processing, an already prepared surface is further smoothed and positively influenced for later use
- Flexible trim straightens itself when subject to high loading and deformation, and prevents material breaks
- Through the high-tech bristles a very homogeneous processing pattern can be achieved.
- Galvanised wire stabilised with brass sheath pressed onto the shaft
- High flexibility yet high performance; easy mounting into drill and collet chucks

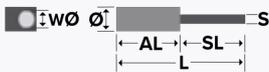
Application: Edge rounding, deburring of cross holes, processing of honed surfaces. Surface roughness is reduced considerably. Particularly suited to very hard parts (made of ceramic for example), hardened parts and precision components and parts for aerospace.

Please note: The brush size should exceed diameter of the bore by 10 to 15%.

Ø	AL	L	S		Nylon Diamond 400	Nylon Diamond 800
2	20	100	1	2	● 0008852002	
2	20	100	1	10		● 0008852802
2.5	20	100	1	2	● 0018852002	
2.5	20	100	1	10		● 0018852802
3	20	100	1.5	2	● 0008852003	
3	20	100	1.5	10		● 0008852803
3.5	20	100	1.5	2	● 0018852003	
3.5	20	100	1.5	10		● 0018852803
4	20	115	3	2	● 0008852004	● 0008852804
5	20	115	3	2	● 0008852005	● 0008852805
6	20	115	3	2	● 0008852006	● 0008852806
7	20	115	3	2	● 0008852007	● 0008852807
8	20	115	3	2	● 0008852008	● 0008852808
9	20	115	3	2	● 0008852009	● 0008852809
10	20	115	4	2	● 0008852010	● 0008852810
12	20	115	6	2	● 0008852012	● 0008852812
15	20	115	6	2	● 0008852015	● 0008852815
17	20	115	6	2	● 0008852017	
19	20	115	6	2	● 0008852019	
19	20	115	6	10		● 0008852819
22	20	115	6	2	● 0008852022	
25	20	115	6	2	● 0008852025	
25	20	115	6	10		● 0008852825



Appearance can vary from picture depending on variant.



WØ: Workpiece Bore Diameter

EUPBIB009 | EVOLUTION ★★★★★

Novoflex-B® honing and deburring tool, abrasive filament

Novoflex-B honing tool, high-end quality, for internal finishing.

- Flexible, self-centring honing tool
- Creates a plateau finish
- Cross-grinding makes it a good carrier for oil film adhesion
- Use in CNC and NC machines, machining centres and automatic machines. Can be placed into tool spindles

Application: Motor cylinders, piston rods, boreholes on shafts and cranks, pneumatic and hydraulic cylinders, valve guides, compressed air equipment, wheel cylinders, brake control cylinders, pipes and tubes, and many other applications in the automotive and aerospace industries, as well as hydraulic systems and heat exchangers.

Please note: The use of lubricants is always required. We recommend lubricating the Novoflex-B with honing oil before using it. Mineral oil, motor oil, water-soluble oil and cooling lubricants can be used as alternatives. Honing time 20 to 40 seconds. The process time can be reduced to deburr cross and longitudinal holes. Cleaning of holes using hot water and cleaning agent, and Osborn nylon pipe brushes.

Recommendations:

- For choosing the correct Novoflex-B® diameter the bore diameter of the workpiece is decisive.
- The use of lubricants is always required. We recommend lubricating the Novoflex-B® with honing oil before using it. Mineral oil, motor oil, water-soluble oil (viscosity 10W30) and cooling lubricants can be used as alternatives. On hydraulic brake cylinders please use brake fluid instead.
- Honing time 20 to 40 seconds. Recommended speed for Novoflex-B® brushes up to Ø 40 mm: 600–1000 RPM / 60–120 stroke/min. From Ø 41 mm: 350–600 RPM / 60–120 stroke/min. The process time can be reduced to deburr cross and longitudinal holes.
- Clean the bore using Osborn nylon tube brushes with hot water and cleaning agent.

Brushes for Machining Centers and Robotic Applications



Novoflex-B®

WØ	Ø	AL	L	S	SL		Zirconium Corundum 80	Zirconium Corundum 120	Zirconium Corundum 240
8	9	50	200	3.6	150	1		● 9818036509	
11	12	60	200	3.2	140	1	● 9808036512		
12	13	60	200	3.6	140	1	● 9808036513		
12	13	60	200	4.6	140	1		● 9818036513	
13	14	60	200	3.6	140	1	● 9808036514		
14	15.5	60	200	3.6	140	1	● 9808036515		
15	16	60	200	4	140	1	● 9808036516		
15.5	17	60	200	4	140	1	● 9808036517		
16	18	60	200	4	140	1	● 9808036518		
17	19	60	200	4	140	1	● 9808036519		
18	20	60	200	4	140	1	● 9808036520		
19	21	60	200	4.5	140	1	● 9808036521		
20	22	70	200	4.5	130	1	● 9808036522		
21	23	70	200	4.5	130	1	● 9808036523		
21.5	24	70	200	4.5	130	1	● 9808036524		
22	25	70	200	5	130	1	● 9808036525		
23	26	60	200	5	140	1	● 9808036526		
24	27	70	200	5	130	1	● 9808036527		
25	28	70	200	5.4	130	1	● 9808036528		
26	29	70	200	5.4	130	1	● 9808036529		
27	30	70	200	5.4	130	1	● 9808036530		
29	32	70	200	5.4	130	1	● 9808036532		
32	35	70	200	5.7	130	1	● 9808036535		
34	37	70	200	7.3	130	1		● 9818036537	
35	38	70	200	5.7	130	1	● 9808036538		
36.5	40	70	200	5.7	130	1	● 9808036540		
38	41	70	200	5.7	130	1	● 9808036541		
40	43	70	200	7.3	130	1		● 9818036543	
41	44.5	70	200	6.5	130	1			● 9938036544
41	45	70	200	5.7	130	1	● 9808036545		
43	46	56	200	7.3	144	1		● 9818036546	
45	48	56	200	7.3	144	1		● 9818036548	
45	48	70	200	6.5	130	1	● 9808036548		
47	50	56	200	7.3	144	1		● 9818036550	
47	50	70	200	6.5	130	1	● 9808036550		
48	51	70	200	6.5	130	1	● 9808036551		
51	54	70	200	6.5	130	1	● 9808036554		
54	57	70	200	6.5	130	1	● 9808036557		
57	60	70	200	7.2	130	1	● 9808036560		

more on next page →

WØ	Ø	AL	L	S	SL		Silicon Carbide 120	Silicon Carbide 180	Silicon Carbide 240
5	5.5	40	200	2.1	160	1		● 9928036305	
6	7	50	200	2.8	150	50		● 9828036307	
6.5	7	40	200	2.5	160	1		● 9928036307	
7	8	50	200	3.6	150	1		● 9828036308	
8	9	50	200	3.6	130	1	● 9818036309		
8	9	50	200	3.6	150	1		● 9828036309	
9	10	50	200	3.6	150	1	● 9818036310	● 9828036310	
10	11	60	200	3.6	140	1	● 9818036311	● 9828036311	
11	12	60	200	3.6	140	1	● 9818036312	● 9828036312	
12	13	60	200	3.6	140	1	● 9818036313	● 9828036313	
12	13	60	200	3.7	140	1			● 9838036313
14	15	60	200	3.7	140	1			● 9838036315
14	15.5	60	200	3.6	140	1	● 9818036316	● 9828036316	
16	18	60	200	4.6	140	1	● 9818036318	● 9828036318	● 9838036318
18	20	60	200	4.6	140	1	● 9818036320	● 9828036320	● 9838036320
20	22	70	200	4.6	130	1	● 9818036322	● 9828036322	● 9838036322
22	25	70	200	4.6	130	1	● 9818036325	● 9828036325	● 9838036325
24	27	70	200	5.1	130	1	● 9818036327	● 9828036327	
25	28	70	200	5.1	130	1	● 9818036328	● 9828036328	● 9838036328
27	30	70	200	5.1	130	1	● 9818036330	● 9828036330	● 9838036330
29	32	70	200	5.1	130	1	● 9818036332	● 9828036332	● 9838036332
32	35	70	200	5.7	130	1	● 9818036335	● 9828036335	● 9838036335
35	38	70	200	5.7	130	1	● 9818036338	● 9828036338	
38	41	70	200	5.7	130	1	● 9818036341	● 9828036341	
41	45	70	200	5.7	130	1	● 9818036345	● 9828036345	
45	48	70	200	5.7	130	1	● 9818036348	● 9828036348	
48	51	70	200	6.5	130	1	● 9818036351	● 9828036351	
51	54	70	200	6.5	130	1	● 9818036354	● 9828036354	
54	57	70	200	6.5	130	1	● 9818036357	● 9828036357	
57	60	70	200	7.3	130	1	● 9818036360	● 9828036360	● 9838036360
60	64	70	200	7.3	130	1	● 9818036364	● 9828036364	
76	80	76	200	7.5	124	1		● 9928036380	
89	92	89	343	7.8	254	1		● 9928036392	
95	99	89	343	7.8	254	1		● 9928036399	

Brushes for Machining Centers and Robotic Applications

Novoflex-B®



WØ	Ø	AL	L	S	SL		Silicon Carbide 320		
4	5	40	200	1.8	160	1	● 9848036305		
5	5.5	40	200	1.8	160	1	● 9748036305		
5.5	6	40	200	1.8	160	1	● 9848036306		
6	6.5	40	200	2.5	160	1	● 9748036306		
6.5	7	40	200	2.5	160	1	● 9748036307		
7	8	50	200	2.8	150	1	● 9848036308		
8	9	50	200	2.8	150	1	● 9748036308		
9	10	50	200	3.2	150	1	● 9848036310		
10	11	60	200	3.2	140	1	● 9848036311		
11	12	60	200	3.2	140	1	● 9748036312		
12	13	60	200	3.6	140	1	● 9848036313		
13	14	60	200	3.6	140	1	● 9848036314		
14	15.5	60	200	3.6	140	1	● 9848036315		
15	16	60	200	4	140	1	● 9848036316		
15.5	17	60	200	4	140	1	● 9848036317		
16	18	60	200	4	140	1	● 9848036318		
17	19	60	200	4	140	1	● 9848036319		
18	20	60	200	4	140	1	● 9748036320		
19	21	60	200	4.5	140	1	● 9848036321		
20	22	70	200	4.5	130	1	● 9848036322		
21	23	70	200	4.5	130	1	● 9848036323		
21.5	24	70	200	4.5	130	1	● 9848036324		
22	25	70	200	5	130	1	● 9848036325		
23	26	60	200	5	140	1	● 9848036326		
24	27	70	200	5	130	1	● 9848036327		
25	28	70	200	5.4	130	1	● 9848036328		
26	29	70	200	5.4	130	1	● 9848036329		
27	30	70	200	5.4	130	1	● 9848036330		
29	32	70	200	5.4	130	1	● 9848036332		
32	35	70	200	5.7	130	1	● 9848036335		
35	38	70	200	5.7	130	1	● 9848036338		
38	41	70	200	5.7	130	1	● 9848036341		
41	45	70	200	5.7	130	1	● 9848036345		
48	51	70	200	6.5	130	1	● 9848036351		
51	54	70	200	6.5	130	1	● 9848036354		



Appearance can vary from picture depending on variant.



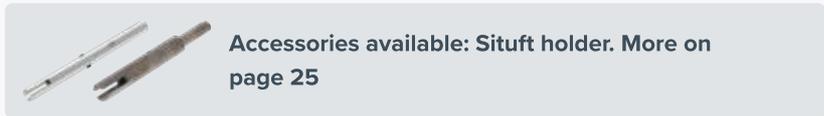
EUPBIB001 | EVOLUTION ★★★★★

SITUFT[®], crimped Osborn wire

SITUFT[®] internal brush with crimped Osborn wire arranged as a wing, high-end quality.

- Brushes can be placed into drill chucks, collet chucks and tool spindles
- Use with optional holder possible in clockwise/counter-clockwise direction
- Without holder item can only be used in clockwise direction
- The flexibility of the brush increases with increasing brush diameter
- General tip for usage: brush has to have oversize, therefore choose the next in size brush-diameter

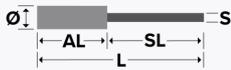
Application: Cleaning of difficult to access drill holes, cross holes, internal surfaces and longitudinal grooves, to be used after the machining process.



Ø	AL	L	S	SL		Steel 0.08	Steel 0.13	Steel 0.20	Stainless Steel 0.13
6	14	54	2.38	40	12		● 9907035023		● 9907035181
6.7	14	54	2.38	40	12	● 9907035021			
8	14	54	2.38	40	12	● 9907035031			
8.4	14	54	2.38	40	12		● 9907035032		
9.5	14	54	2.38	40	12	● 9907035041	● 9907035042		
11.5	14	54	2.38	40	12	● 9907035051	● 9907035052		
13	14	54	3.18	40	12				● 9907035197
13.6	14	54	2.38	40	12	● 9907035061	● 9907035062		
14	16	54	3.5	38	12	● 9907035081	● 9907035082		
16	16	54	3.5	38	12	● 9907035086	● 9907035087		
16	16	54	3.18	38	12				● 9907035205
16.7	16	54	3.18	38	12			● 9907035088	
18	16	54	3.1	38	12		● 9907035092		
19	16	54	3.18	38	12				● 9907035213
20	16	54	3.18	38	12	● 9907035096	● 9907035097	● 9907035098	
23.1	16	57	3.5	41	12		● 9907035107		
23.1	16	57	3.18	41	12				● 9907035221
26.3	16	57	3.18	41	12		● 9907035117	● 9907035118	
29	16	57	3.18	41	12			● 9907035128	
29.5	16	57	3.18	41	12		● 9907035127		
32	16	57	3.5	41	12		● 9907035137		
32	16	57	3.18	41	12			● 9907035138	



Appearance can vary from picture depending on variant.



EUPBIB002 | EVOLUTION ★★★★★

HELITUF®, crimped Osborn wire

HELITUF® internal brush with crimped Osborn wire arranged in a spiral, high-end quality.

- The spiral-shaped trim arrangement simulates a stroke movement and the material cut previously is conveyed perfectly out of the bore
- The brushes can be placed into drill chucks and tool spindles; it is also possible to fit them into collet chucks using Helituf holders
- Uniform working
- General tip for usage: brush has to have oversize, therefore choose the next in size brush-diameter

Application: On manually operated machines, for the cleaning and deburring of threaded holes, deburring of edges and longwise recesses (such as keyways)

 Accessories available: Helituf holder. More on page 25

Ø	AL	L	S	SL		Steel 0.13	Steel 0.20	Stainless Steel 0.13	Stainless Steel 0.20
6	25	89	3.4	64	12	● 9907036012		● 9907036139	
8	25	89	3.18	64	12	● 9907036017			
10	25	89	3.4	64	12	● 9907036022	● 9907036023	● 9907036147	
11	25	89	3.4	64	12	● 9907036027		● 9907036151	
13	25	89	3.4	64	12	● 9907036032	● 9907036033	● 9907036155	● 9907036156
14	25	89	3.4	64	12	● 9907036037			
16	25	89	3.4	64	12	● 9907036042	● 9907036043	● 9907036163	● 9907036164
18	25	89	3.4	64	12	● 9907036047			
19	25	89	3.4	64	12	● 9907036052	● 9907036053		● 9907036172
21	25	89	3.4	64	12	● 9907036057			
22	25	89	3.4	64	12	● 9907036062		● 9907036179	
22	25	89	3.18	64	12		● 9907036063		
24	25	89	3.4	64	12	● 9907036067			● 9907036188
25	25	89	3.4	64	12	● 9907036072	● 9907036073	● 9907036187	
29	25	89	3.4	64	12	● 9907036082			
32	25	89	3.4	64	12		● 9907036093		● 9907036204



Appearance can vary from picture depending on variant.



EUPBAC001

Situft holder

Shank holders for Situft brushes.

9907075131 Shank for SITUFT Brush D6x85 for shank 2,38

9907075132 Shank for SITUFT Brush D10x85 for shank 3,18

S	SL		Item Number
6	85	1	● 9907075131
10	85	1	● 9907075132



Appearance can vary from picture depending on variant.



EUPBAC002

Helituf holder

Shank holders for Helituf brushes.

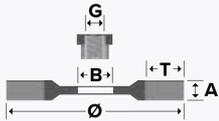
9907075126 Holder with external thread

9907075127 Holder with internal thread

S	SL	G		Item Number
5	90	M 5	1	● 9907075126
6	90	M 5	1	● 9907075127



Appearance can vary from picture depending on variant.



EUPBWB034 | EVOLUTION ★★★★★

Ringlock Wheel brushes, abrasive filament

Ringlock wheel brush, industrial quality, with abrasive silicone carbide trim for attaching to high-speed machines.

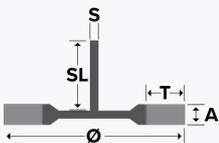
- Also suitable for non-ferrous metals and synthetics
- The small diameter enables access to hard to reach areas

Application: Deburring, edge rounding and surface finishing, can be used on a large number of materials.

Ø	A	T	B	nmax. 1/min		Silicon Carbide 120	Silicon Carbide 180	Silicon Carbide 320
38	10	6	12.7	20000	12	● 9906011146	● 9906011147	● 9906011148
50	10	11	15.87	15000	12	● 9906011149	● 9906011150	● 9906011151
63	13	17	15.87	15000	12	● 9906011153	● 9906011154	● 9906011155



Appearance can vary from picture depending on variant.



EUPBWB017 | EVOLUTION ★★★★★

Wheel brushes with shank, abrasive filament

Ringlock wheel brush, industrial quality, with abrasive silicone carbide trim for attaching to high-speed machines.

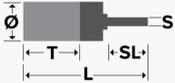
- Also suitable for non-ferrous metals and synthetics
- The small diameter enables access to hard to reach areas

Application: Deburring, edge rounding and surface finishing, can be used on a large number of materials.

Ø	A	T	S	SL	nmax. 1/min		Silicon Carbide 120	Silicon Carbide 180	Silicon Carbide 320
38	10	6	6	30	20000	10	● 9906011446	● 9906011447	● 9906011448
50	10	11	6	30	15000	10	● 9906011449	● 9906011450	● 9906011451
63	13	17	6	30	15000	10	● 9906011453	● 9906011454	● 9906011455



Appearance can vary from picture depending on variant.



EUPBEB014 | EVOLUTION ★★★★★

End brushes, abrasive filament

End brush with abrasive filament in high-end quality for use on high-speed machines and power drills.

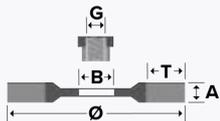
- High flexibility
- Suitable for wet and dry work and long service life given perfect conditions
- Low contact pressure and low build-up of heat
- Resistant to weak acids and bases
- No clogging of the trim surface with working residues

Application: Deburring, edge rounding, surface finishing.

Ø	T	L	S	SL	nmax. 1/min		Silicon Carbide 120	Silicon Carbide 180	Silicon Carbide 320
10	25	75	6	25	8000	12	● 9906030488	● 9906030489	● 9906030490
15	25	68	6	24	5000	12	● 9906030492	● 9906030493	● 9906030494
22	25	75	6	29	5000	12	● 9906030496	● 9906030497	● 9906030498
28	25	68	6	22	5000	12	● 9906030500	● 9906030501	● 9906030502



Appearance can vary from picture depending on variant.



EUPBWB027 | EVOLUTION ★★★★★

UNI-Master® wheel brushes, abrasive filament

Wheel brush with abrasive trim, industrial quality, for mounting on deburring machines.

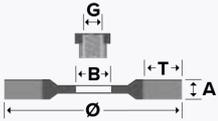
- Particularly dense and compact design with maximum number of abrasive bristles for high deburring performance and excellent service life
- Statically balanced with high concentricity accuracy
- For dry and wet application
- Resistant to weak acids and bases
- Fitted individually or combined on shaft

Application: Cutting edge deburring of pipes, profiles and flat parts made of non-ferrous metals on stationary deburring machines and automated machines.

Ø	A	T	B	B Type	Adapt.	nmax. 1/min		Silicon Carbide 80	Silicon Carbide 120	Silicon Carbide 180	Silicon Carbide 320
75	12	15	15.88	round	HP	20000	6	● 9906015001	● 9906015002	● 9906015003	
75	12	15	16	round	HP	20000	6				● 9906015004
100	13	20	15.88	round	HP	12000	6		● 9906015026		● 9906015028
100	16	20	15.87	round	HP	12000	6			● 9906015027	
100	16	20	15.88	round	HP	12000	6	● 9906015025			
125	16	30	15.87	round	HP	12000	6				● 9906015038
125	16	30	15.88	round	HP	12000	6	● 9906015035	● 9906015036	● 9906015037	
150	17	32	22.2	round	HP	8000	6	● 9906015079		● 9906015081	● 9906015082
150	17	32.5	22.2	round	HP	8000	6		● 9906015080		
178	20	47	22.2	round	HP	8000	2	● 9906015040	● 9906015041	● 9906015042	● 9906015043
200	18	35	50.8	Turtle	4M	6000	2	● 9906015050	● 9906015051	● 9906015052	● 9906015053
250	18	35	50.8	Turtle	4M	3000	2	● 9906015056	● 9906015057	● 9906015058	● 9906015059
250	18	60	50.8	Turtle	4M	3000	2			● 9946015058	
250	18	60	50.8	Turtle	4M	3600	2	● 9946015056	● 9946015057		● 9946015059
300	18	35	50.8	Turtle	4M	2400	2	● 9906015062	● 9906015063	● 9906015064	● 9906015065
300	18	60	50.8	Turtle	4M	3000	2		● 9966015063	● 9966015064	● 9966015065
350	19	55	50.8	Turtle	4M	2400	2		● 9906015069	● 9906015070	● 9906015071



Appearance can vary from picture depending on variant.



EUPBWB028 | SUPERIOR ★★☆☆☆

Wheel brushes, abrasive filament

Wheel brush with abrasive bristles, industrial quality, for use on stationary machines.

- Cost-effective finishing of components with many contours in dry applications
- Suitable for defined edge rounding
- Configurations available for use with coolants

Application: Finishing of surfaces and pipe/profile sections, particularly good for aluminium, non-ferrous metals and synthetics.

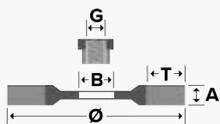
Please note: For other bore sizes, refer to table "Standard Bores for Single-Row Brushes"

Ø	A	T	B min.	B max.	B	nmax. 1/min		Silicon Carbide 80	Silicon Carbide 120
75	12	13	13	13	13	20000	6	● 9902515001	● 9902515002
100	18	18	13	20	13	12000	6	● 9902515025	● 9902515026
150	18	32	13	44	13	6000	6	● 9902515079	● 9902515080
178	18	45	13	32	13	8000	4	● 9902515040	● 9902515041
200	18	31	19	50.8	19	6000	2	● 9902515050	● 9902515051
250	18	60	20	50.8	20	3000	2	● 9962515056	● 9962515057
250	20	35	20	50.8	20	3600	2	● 9902515056	● 9902515057
300	20	35	20	50.8	20	2400	2	● 9902515062	● 9902515063
300	20	60	20	50.8	20	3000	2	● 9962515062	● 9962515063
350	20	57	32	50.8	32	2400	2		● 9902515069

Ø	A	T	B min.	B max.	B	nmax. 1/min		Silicon Carbide 180	Silicon Carbide 320
75	12	13	13	13	13	20000	6	● 9902515003	● 9902515004
100	18	18	13	20	13	12000	6	● 9902515027	● 9902515028
150	18	32	13	32	13	6000	6		● 9902515082
150	18	32	13	44	13	6000	6	● 9902515081	
178	18	45	13	32	13	8000	4	● 9902515042	● 9902515043
200	18	31	19	50.8	19	6000	2	● 9902515052	● 9902515053
250	18	60	20	50.8	20	3000	2		● 9962515059
250	18	60	20	50.8	20	3600	2	● 9962515058	
250	20	35	20	50.8	20	3000	2	● 9902515058	
300	20	35	20	50.8	20	2400	2	● 9902515064	● 9902515065
300	20	60	20	50.8	20	3000	2	● 9962515064	● 9962515065



Appearance can vary from picture depending on variant.



EUPBWB032 | XTREME ★★★★★

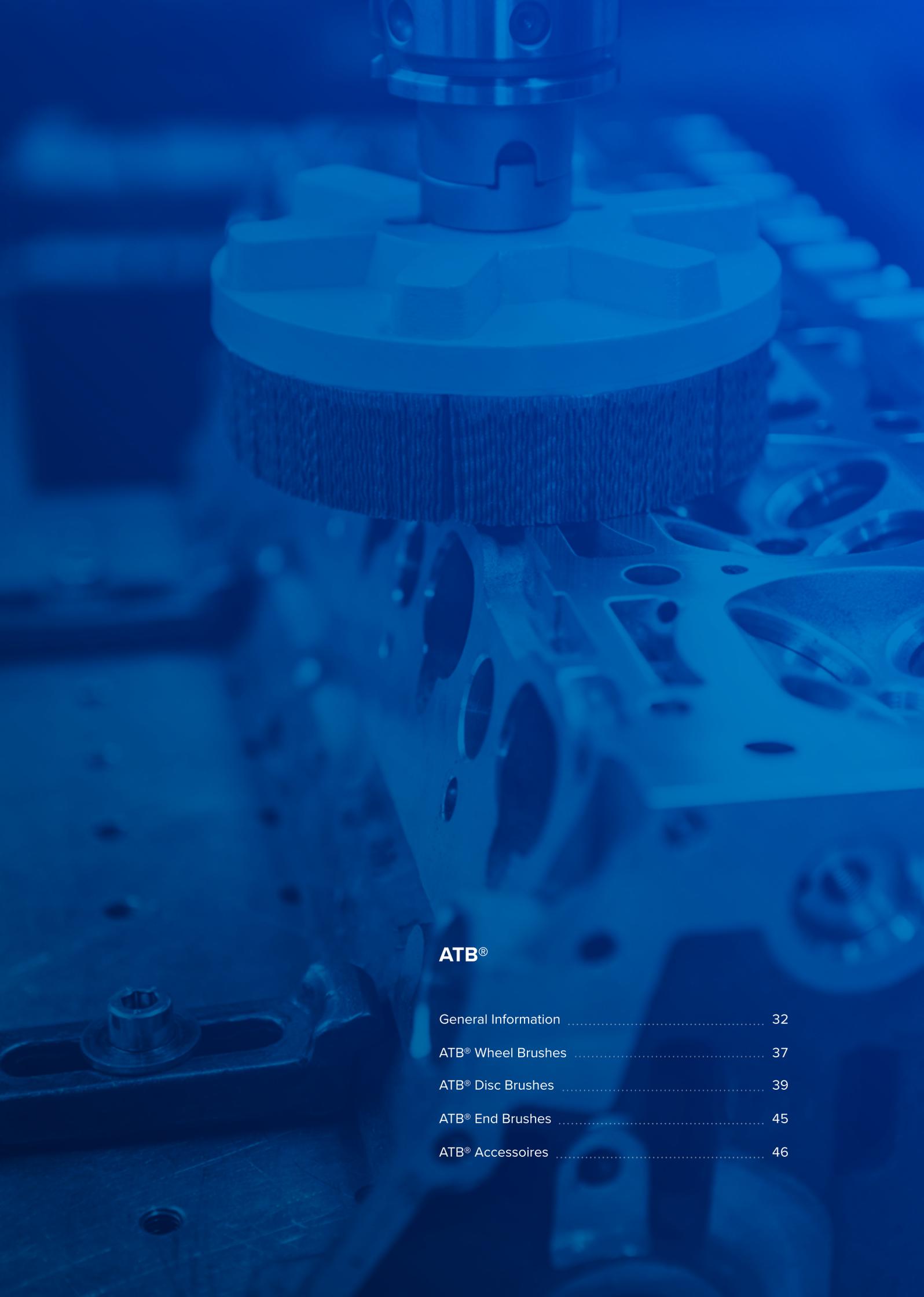
UNI-Master® Wheel brushes, Xtreme wire, crimped

Wheel brush with crimped Xtreme wire in high-end quality for use on stationary machines.

- Higher removal rate, aggressive removal of burrs
- High wire density and very flexible at the same time
- Can be mounted individually or assembled on a shaft
- Excellently suited for processing geometrically complex components as the brush adapts to the contour of the workpiece

Application: Automated production processes for deburring of processed and sawn cutting edges and surfaces

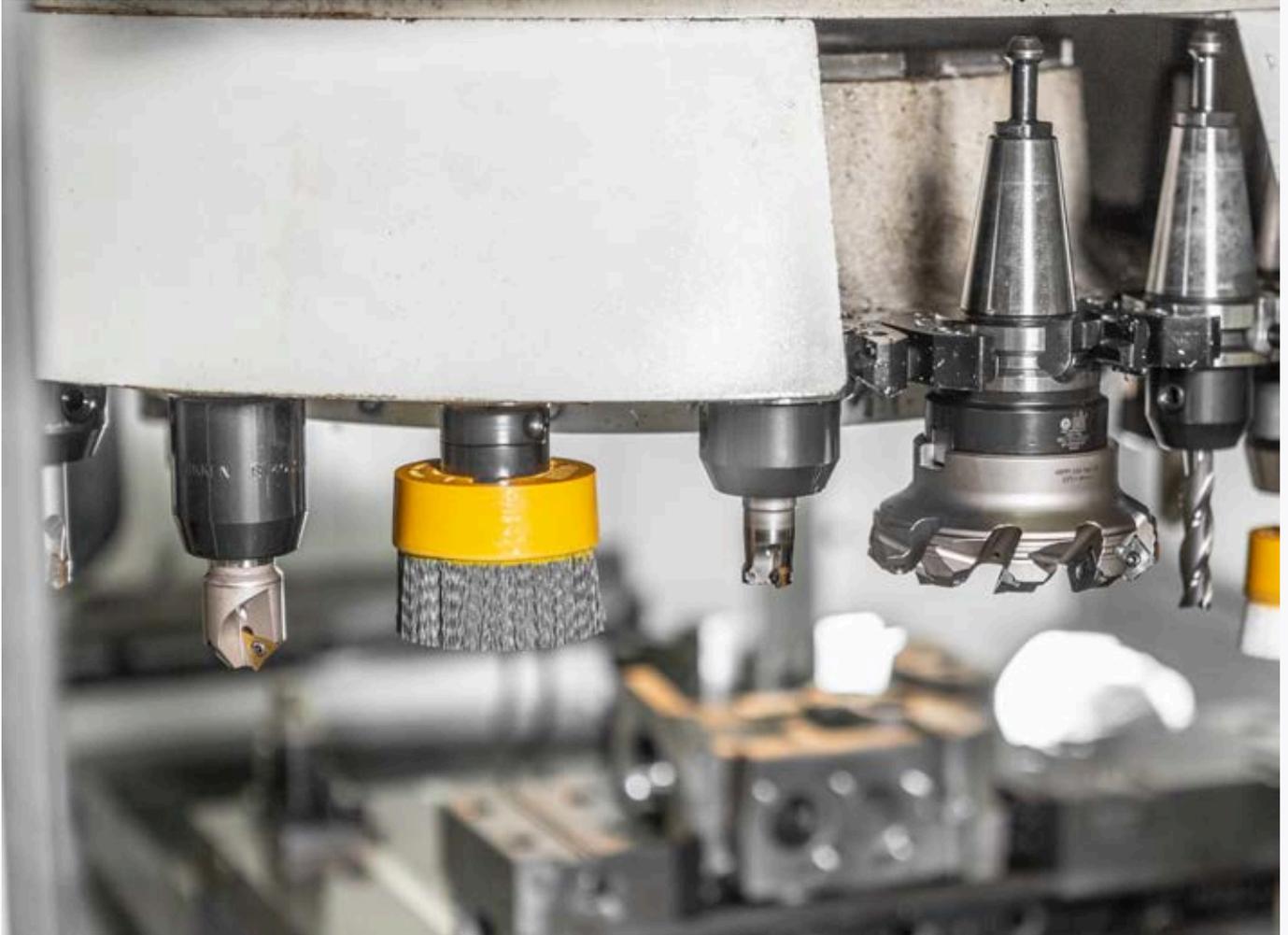
Ø	A	T	B	Adapt.	nmax. 1/min		Steel 0.30
250	26	60	50.8	4M	3600	2	● 3906013009
300	28	60	50.8	4M	3000	2	● 3906013021
380	32	72	50.8	4M	2400	2	● 3906013057



ATB®

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High-Tech Brushes for Automated Deburring.



Edge rounding without changing the workpiece geometry.

Technical brushes are precision tools that take a major part of the responsibility for the quality of end products. They can be tailored to virtually any material processed in a component-oriented manner.

Our ATB® brushes are available to you with a large selection of abrasive bristles having silicone carbide or ceramic filament, with different grit sizes and filament diameters.

ATB® brushes are designed for direct adaption on tool holders with face mill arbors (DIN 6357) and shell mill mounts (DIN 6358). This means they can be used on machining centres, CNC millers & lathes and robot cells for example.

Brushes are deployed downstream of the machining process, and the use of cooling lubricants, emulsions and water poses no problems. This means the processed work pieces can be directly deburred and finished in a reliable and reproducible manner without reclamping on the machine.



Before processing - Distinct burrs on the edge. Milling grooves on the surface.



After processing - Burrs have been reliably removed and the edges rounded. The surface has a uniform, brushed appearance.

Deburring Directly After the Machining Process.



ATB® brushes are non-cutting tools.

ATB® brushes are non-cutting tools. They are used mainly for removing burrs and secondary burrs generated in the upstream machining process. The surface textures of components are positively influenced at the same time.

Deburring directly after the machining process

Shorter cycle times and very uniform edge rounding, and so particularly suited for the deburring of:

- Milled and turned parts
- Ground components
- Sinter parts
- Punched, moulded and pressed parts
- Pneumatic and hydraulic parts
- Engine components such as cylinder heads and cylinder blocks
- Die-cast parts
- Valve plates
- Parts ground flat
- Toothed parts
- Contact and sealing surfaces
- Finishes

Maximum filament density Minimum process costs

ATB® brushes have filament densities four times higher than disc brushes manufactured in the conventional way (punched). This means brush life is prolonged many times over - with at the same time quicker processing times and better and more efficient deburring results. Features:

- Bristles are securely casted
- Extremely dense filament surface
- Planar filament surface
- High abrasive grit content for effective deburring
- High levels of form stability and concentricity
- Aggressive brushing effect
- Can be tailored to any material processed
- Use with coolant possible/recommended
- Standardised face mill arbors and shell mill mounts
- Can be used on the same machining center/CNC machine directly after the upstream machining process

Features and Benefits at a Glance.



Many diameters and patterns

A wide range of diameters are available. In addition, both the fill length and the fill pattern can be individually adapted.

Benefit: With our individualized options, we can find you the best solution for your deburring application. An increase in the fill length can, for example, increase the service life and flexibility in order to deburr challenging components. Changing the fill pattern can increase the aggressiveness depending on the need.

Direct adaptation to tool holders

For example HSK-/SK, face mill arbors and shell mill mounts.

Benefit: No separate handling/clamping. The ATB® brush can be stored in the tool magazine of the BAZ / CNC, deburring can be started immediately after the machining process without removing the part.



1. Resin cast body

The fill material is firmly cast into the bodies of our ATB®.

Benefit: ATB® can be run faster while maintaining its fill integrity, highly precise design with a high level of tilting rigidity while remaining lightweight.

3. High tech filaments

Nylon threads interspersed with abrasive grit (e.g. silicon carbide or ceramic) are the ideal fill material for deburring. Other materials are also available on request (e.g. diamond grain).

Benefit: The use in combination with coolants, emulsions or water is possible and is recommended especially for higher speeds and very thin workpieces.

2. Maximum bristle density

A maximum filament density with up to 4 times more bristles.

Benefit: Longer service life, more aggressive brushing action. Even very complex components can be deburred quickly and effectively.

4. Dimensionally stable and flat

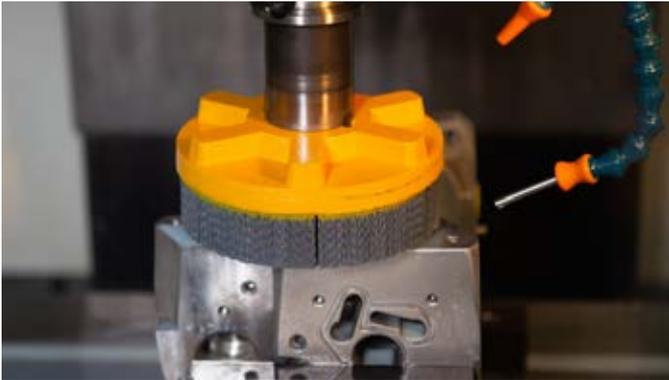
The surface of ATB® is flat.

Benefit: Even edge rounding can be achieved, wear characteristics are consistent and controllable. There is uniform contact and repeatability.

Sample and Parts Processing

If you are unsure whether you have already found the ideal tool for your industrial machining process, we recommend our parts and sample processing service. This is an excellent opportunity to put the quality of your tools currently in use to the test and, if necessary, replace them with a tool that is more suitable for the application.

We work with you to determine the ideal tools for processing your sample parts. Depending on the task, this may be a standard product or a customized product. We then define the most important parameters for processing the workpiece. Once we have received the sample parts from you and, if applicable, the current tools to be tested, we get to work in our test laboratory.



Deburring Contact Areas

We can process a wide variety of components. For this purpose, the workpiece is put in a clamping device or on a rotary table and can then be processed. Process-relevant parameters such as rotational speed, cutting speed, feeds, immersion depth, etc. can be set and the results are measured.



Complex Parts

Even complex workpiece geometries are no obstacle. We also manufacture customised solutions for your components.

Documentation

After the parts have been processed, we create a detailed documentation of our inspection results for you. In our report we define the objectives, the test sequence and the conclusions. Based on this evaluation, you can compare the quality of the tools you are currently using with our solutions and make your decision.

Put your deburring process to the Test

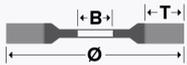
We will be happy to advise you

Our application engineers will be happy to look at your application and help you choose the right tool to ensure that cycle time, processing results and cost per-part are optimized.

Request our parts and sample processing service today: service@osborn.de



Appearance can vary from picture depending on variant.



EUIBWB001 | EVOLUTION ★★★★★

ATB® wheel brush with full trim, Cutter head holders/combined cutter arbor

ATB® wheel brush with longitudinal groove for direct clamping on tool holders (e.g. HSK, SK, BT) as cutter head holders and combi milling arbor holders. Feel free to ask our application engineers about general and specific application questions relating to the ATB® products.

- high density and concentricity
- process safety and high service life
- depending on the workpiece material to be processed, brushes are available with ceramic- (NH-C) and siliciumcarbide-trimming (NH-S)

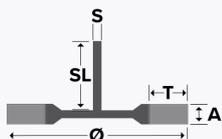
Application: On CNC machines, machining centres and on robot systems. Preferably to be used wet with cooling lubricant or oil. Suitable directly after machining for deburring and edge rounding on components with side and inner surfaces, as well as for fine machining of component contours.

Ø	T	B	B Type	nmax. 1/min		Silicon Carbide 120	Silicon Carbide 180
125	25	22	round	3500	1	● 2101401913	● 8401401913

Ø	T	B	B Type	nmax. 1/min		Ceramic 120	Ceramic 180
125	25	22	round	3500	1	● 2111401913	● 2121401913



Appearance can vary from picture depending on variant.



EUIBWB002 | EVOLUTION ★★★★★

ATB® wheel brush with full trim, shank adaption

ATB® wheel brush with shank for direct adaption on several tool holders. Please ask our application technicians for open requests and general questions about the ATB® products.

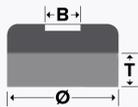
- high density and concentricity
- process safety and high service life
- depending on the workpiece material to be processed, brushes are available with ceramic- (NH-C) and siliciumcarbide-trimming (NH-S)
- high machine compatibility because of the shank adaption
- high flexibility in processing allows several customer specific variations

Application: On CNC machines, machining centres and on robot systems. Preferably to be used wet with cooling lubricant or oil. Suitable directly after machining for deburring and edge rounding on component

Ø	T	A	S	SL	nmax. 1/min		Silicon Carbide 120
70	12.5	10	6	30	3500	1	● 3601507910
80	17.5	10	6	30	3500	1	● 3601508910
100	27.5	10	6	30	3500	1	● 3601600910



Appearance can vary from picture depending on variant.



EUIBDB001 | EVOLUTION ★★★★★

ATB® disc brushes with maximum fill density, compatible with clamping fixture

Can be used for deburring components made of the most diverse of materials, such as steel, aluminium and cast iron.

Application: For use on machining centers, CNC turning and milling machines and robot cells. For deburring milled, turned and ground components, sintered parts, punched, nipped and pressed parts, pneumatic and hydraulic parts, engine components, toothed parts, etc. Can be used on a wide variety of materials such as steel, aluminium, cast iron, etc.

BØ	T	B Type	B	nmax. 1/min	Ø		Silicon Carbide 80	Silicon Carbide 120	Silicon Carbide 180	Silicon Carbide 320
50	35	hexagonal	16	3500	46	1	● 6701604912	● 5411604912	● 5431604912	● 5441604912
76	35	hexagonal	16	3500	70	1	● 3111604913	● 9841604913	● 3311604913	● 3151604913
85	35	hexagonal	16	3500	80	1	● 6201604914	● 1601604914	● 2211604914	● 6231604914
106	35	hexagonal	16	3500	100	1	● 3101604914	● 3221604914	● 3321604914	● 3401604914

BØ	T	B Type	B	nmax. 1/min	Ø		Ceramic 80	Ceramic 120	Ceramic 180	Ceramic 320
50	35	hexagonal	16	3500	46	1	● 2201604912	● 1301604912	● 1311604912	
76	35	hexagonal	16	3500	70	1	● 1321604913	● 1331604913		
85	35	hexagonal	16	3500	80	1	● 1341604914	● 1351604914	● 1361604914	
106	35	hexagonal	16	3500	100	1	● 5891604914	● 9901604914	● 4411604914	● 1381604914



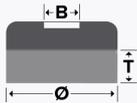
EUIBDB002 | EVOLUTION ★★★★★

ATB® disc brushes with maximum fill density, for tool holders

For deburring sealing and contact surfaces. The application should take place on stationary machines. Use with cooling lubricant, water, oil is recommended.

Appearance can vary from picture depending on variant.

Application: For deburring sealing and contact surfaces. The application should take place on stationary machines. Use with cooling lubricant, water, oil is recommended.

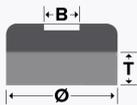


BØ	T	B Type	B	nmax. 1/min		Silicon Carbide 80	Silicon Carbide 120	Silicon Carbide 180	Silicon Carbide 320
125	40	round	18.2	3500	1	● 3101604916	● 3201604916	● 3311604916	● 3401604916
150	40	round	18.2	3500	1	● 3111604916	● 3211604916	● 4341604916	● 3411604916
175	40	round	18.2	3500	1	● 3131604916	● 3231604916		● 3431604916
200	40	round	18.2	3500	1	● 8411604918	● 4021604918	● 5901604918	
250	38	round	18.2	3500	1	● 6511604919	● 6171604916	● 2401604919	

BØ	T	B Type	B	nmax. 1/min		Ceramic 80	Ceramic 120	Ceramic 180	
125	40	round	18.2	3500	1	● 0101604916	● 0201604916	● 0311604916	
150	40	round	18.2	3500	1		● 0211604916	● 0341604916	
200	40	round	18.2	3500	1	● 1611604918	● 0021604918		
250	38	round	18.2	3500	1		● 8771604919		



Appearance can vary from picture depending on variant.



EUIBDB003 | EVOLUTION ★★★★★

ATB® disc brushes with maximum fill density, for shell mill mount

For direct mounting on shell mill holders without need of further clamping set / system.

- For usage on stationary machines
- Usage with cooling lubricant, water or oil is recommended

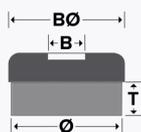
Application: For the deburring of contact and sealing surfaces, and the functional areas of the most diverse of components.

BØ	T	B Type	B	nmax. 1/min		Silicon Carbide 80	Silicon Carbide 120	Silicon Carbide 180
50	35	round	16	3500	1	● 6601604912	● 6501604912	● 6401604912
76	35	round	16	3500	1	● 6301604913	● 6311604913	● 6321604913
76	35	round	22	3500	1	● 5521604913	● 5511604913	● 5501604913
106	35	round	16	3500	1	● 5431604914	● 5511604914	● 5441604914
106	35	round	22	3500	1	● 5501604914	● 5791604914	● 5521604914
125	35	round	16	3500	1	● 6751604916	● 6801604916	● 6631604916
125	35	round	22	3500	1	● 6721604916	● 6821604916	● 6621604916
125	35	round	27	3500	1	● 6761604916	● 6811604916	● 6641604916
150	35	round	22	3500	1	● 6771604916	● 6841604916	● 6651604916
150	35	round	27	3500	1	● 6781604916	● 6831604916	● 6661604916

BØ	T	B Type	B	nmax. 1/min		Ceramic 80	Ceramic 120	Ceramic 180
50	35	round	16	3500	1	● 1421604912	● 1431604912	● 1441604912
76	35	round	22	3500	1	● 1451604913	● 5991604914	● 1461604913
106	35	round	22	3500	1		● 1431604914	
125	35	round	22	3500	1	● 2431604916	● 2441604916	● 2451604916
125	35	round	27	3500	1	● 6991604916	● 2461604916	
150	35	round	22	3500	1	● 1061604916	● 1071604916	



Appearance can vary from picture depending on variant.



EUIBDB004 | EVOLUTION ★★★★★

ATB® disc brushes with segmented trimming, Turbo-line

Brushes for use on continuous deburring systems with planetary heads.

- The trim position of ATB® Turbo-Line brushes can optionally be angled to the left or right at a defined angle. Depending on the direction of rotation, this can bring about more aggressive and effective deburring, or can limit the brush to a surface finish only.

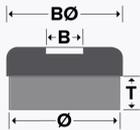
Application: For use on continuous deburring systems with planetary heads. Used for flat parts that have to be produced and deburred by punching, laser, fine blanking and forming processes.

BØ	T	B Type	B	Fill Angle	nmax. 1/min		Silicon Carbide 80	Silicon Carbide 120	Silicon Carbide 180	Silicon Carbide 320
150	25	step	25	left	3500	1	● 3161604916	● 3261604916	● 3371604916	● 3461604916
150	25	step	25	neutral	3500	1	● 3141604916	● 3241604916	● 3351604916	● 3441604916
150	25	step	25	right	3500	1	● 3181604916	● 3281604916	● 3391604916	● 3481604916

BØ	T	B Type	B	Fill Angle	nmax. 1/min		Ceramic 80	Ceramic 120	Ceramic 180	Ceramic 320
150	25	step	25	left	3500	1	● 0161604916	● 2191604916		
150	25	step	25	neutral	3500	1	● 0141604916	● 0241604916	● 0351604916	● 0441604916
150	25	step	25	right	3500	1	● 0181604916	● 0281604916	● 0391604916	



Appearance can vary from picture depending on variant.



Fill Arr.: Fill Material Arrangement

EUIBDB005 | XTREME ★★★★★★

ATB® disc brushes for planetary heads

Precise disc brushes for planetary head machines and deburring systems.

- The highly accurate and stable brush body ensures high concentricity
- It can be directly adapted to planetary heads or existing exchangeable shanks for toolholders in machining centres
- The manufacturing process with tight tolerances generates high balance and low vibration
- Available with several trimming styles, fill materials and grit sizes to offer the best solution for your application
- Special trimming styles and angles possible on request

Application: Deburring of sintered, fine blanked or lasered parts in planetary head machines with high tolerance requirements. Suits for the nearly every common materials, such as (stainless) steel, aluminium or cast iron.

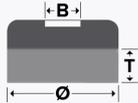
Please note: We offer all versions in a maximal precise version to make sure to meet the highest industrial requirements. Due to a optimised flatness and surface condition of the contact surface facing the machine we reach a perfect tool adaption.

BØ	Ø	T	B Type	B	Fill Arr.	Fill Angle	Ø Fill Bundle	nmax. 1/min	📦	Silicon Carbide 80	Silicon Carbide 120	Silicon Carbide 180	Silicon Carbide 320
150	144	25	step	25	bundle	left	8	3500	1	● 2101624916	● 2111624916	● 2121624916	● 2131624916
150	144	25	step	25	bundle	left	12	3500	1	● 3101624916	● 3111624916	● 3121624916	● 3131624916
150	144	25	step	25	bundle	neutral	8	3500	1	● 2001624916	● 2011624916	● 2021624916	● 2031624916
150	144	25	step	25	bundle	neutral	12	3500	1	● 3001624916	● 3011624916	● 3021624916	● 3031624916
150	144	25	step	25	bundle	right	8	3500	1	● 2201624916	● 2211624916	● 2221624916	● 2231624916
150	144	25	step	25	bundle	right	12	3500	1	● 3201624916	● 3211624916	● 3221624916	● 3231624916
150	144	25	step	25	full	neutral		3500	1	● 1001624916	● 1011624916	● 1021624916	● 1031624916
150	144	25	step	25	turbo	left		3500	1	● 4101624916	● 4111624916	● 4121624916	● 4131624916
150	144	25	step	25	turbo	neutral		3500	1	● 4001624916	● 4011624916	● 4021624916	● 4031624916
150	144	25	step	25	turbo	right		3500	1	● 4201624916	● 4211624916	● 4221624916	● 4231624916

BØ	Ø	T	B Type	B	Fill Arr.	Fill Angle	Ø Fill Bundle	nmax. 1/min	📦	Ceramic 80	Ceramic 120	Ceramic 180	Ceramic 320
150	144	25	step	25	bundle	left	8	3500	1	● 2141624916	● 2151624916	● 2161624916	● 2171624916
150	144	25	step	25	bundle	left	12	3500	1	● 3141624916	● 3151624916	● 3161624916	● 3171624916
150	144	25	step	25	bundle	neutral	8	3500	1	● 2041624916	● 2051624916	● 2061624916	● 2071624916
150	144	25	step	25	bundle	neutral	12	3500	1	● 3041624916	● 3051624916	● 3061624916	● 3071624916
150	144	25	step	25	bundle	right	8	3500	1	● 2241624916	● 2251624916	● 2261624916	● 2271624916
150	144	25	step	25	bundle	right	12	3500	1	● 3241624916	● 3251624916	● 3261624916	● 3271624916
150	144	25	step	25	full	neutral		3500	1	● 1041624916	● 1051624916	● 1061624916	● 1071624916
150	144	25	step	25	turbo	left		3500	1	● 4141624916	● 4151624916	● 4161624916	● 4171624916
150	144	25	step	25	turbo	neutral		3500	1	● 4041624916	● 4051624916	● 4061624916	● 4071624916
150	144	25	step	25	turbo	right		3500	1	● 4241624916	● 4251624916	● 4261624916	● 4271624916



Appearance can vary from picture depending on variant.



EUIBDB006 | EVOLUTION ★★★★★

Punched disc brushes for planetary heads

Disc brushes for planetary head machines and deburring systems.

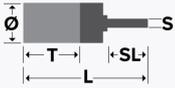
- Highly accurate and stable brush body ensures the best possible machine adaption
- It can be directly adapted to planetary heads or existing exchangeable shanks for toolholders in machining centres
- Special punching patterns possible on request

Application: Deburring of sintered, fine blanked or lasered parts in planetary head machines. Suits for the nearly every common materials, such as (stainless) steel, aluminium or cast iron.

BØ	T	B Type	B	nmax. 1/min		Silicon Carbide 80	Silicon Carbide 120	Silicon Carbide 180	Silicon Carbide 320
150	25	step	25	3500	1	● 5801634916	● 5811634916	● 5821634916	● 5831634916
165	25	step	25	3500	1	● 5801634917	● 5811634917	● 5821634917	● 5831634917



Appearance can vary from picture depending on variant.



EUIBEB001 | EVOLUTION ★★★★★

ATB® end brush, shank adaption

ATB® end brush with shank for direct adaption on several tool holders. Please ask our application technicians for open requests and general questions about the ATB® products.

- high density and concentricity
- process safety and high service life
- depending on the workpiece material to be processed, brushes are available with ceramic- (NH-C) and siliciumcarbide-trimming (NH-S)
- high machine compatibility because of the shank adaption
- high flexibility in processing allows several customer specific variations
- useful for precisly manufacturing (for example for processing groove bottoms)
- flexibility in shank length allows high processing depths

Application: On CNC machines, machining centres and on robot systems. Preferably to be used wet with cooling lubricant or oil. Suitable directly after machining for deburring and edge rounding on components with side and inner surfaces, as well as for fine machining of component contours.

Ø	BØ	T	S	SL	L	nmax. 1/min		Silicon Carbide 120	Ceramic 80
16	14	25	6	50	100	4500	1	● 7921509911	
18	18	25	6	50	100	4500	1	● 7931509911	
20	20	23	6	30	82	4500	1	● 1701509911	
20	20	25	6	40	90	4500	1		● 3301509911
25	25	30	6	30	85	4500	1	● 7911509911	● 7971509911
31	30	25	6	40	89	4500	1	● 3601509914	



EUIBAC001 | EVOLUTION ★★★★★

Clamping fixtures for ATB® disc brushes

Clamping fixtures with shank-Ø 12 mm and clamping surface DIN 6535-HB. Compatible with ATB® disc brushes including a hexagonal mounting bore.

Appearance can vary from picture depending on variant.

Ø	adapt. to	Adapt.		Item Number
50	12 DIN 6535-HB	K	1	● 5002075000
76	12 DIN 6535-HB	L	1	● 3642075000
85	12 DIN 6535-HB	J	1	● 9602075000
106	12 DIN 6535-HB	H	1	● 3652075000
125	HSK - 63 / SK - 40	C	1	● 3602075000
150	HSK - 63 / SK - 40	D	1	● 3612075000
175	HSK - 63 / SK - 40	E	1	● 3622075000
200	HSK - 63 / SK - 40	F	1	● 3692075000
250	HSK - 63 / SK - 40	G	1	● 1922075000



EUIBAC002 | EVOLUTION ★★★★★

Tool holders for ATB® disc brushes

Compatible with ATB® disc brushes including a Ø18 mm central bore with driving bores.

Appearance can vary from picture depending on variant.

adapt. to	Adapt.		Item Number
WELDON S. Ø 12, HSK - A63, DIN 69893	H, J, K, L	1	● 4933604000
WELDON S. Ø 12, HSK - A100, DIN 69893	H, J, K, L	1	● 6303604000
SK - 40, DIN 69871	C, D, E, F, G	1	● 3613604000
HSK - A63, DIN 69893	C, D, E, F, G	1	● 3603604000
HSK - A100, DIN 69893	C, D, E, F, G	1	● 3633604000



Brushes for Resharpener Hard Metals

General Information	48
Novotec	49

Cutting Edge Preparation

Manufacturers of cutting tools are faced with increasing demands. Customers are looking for higher feed and cutting speeds, higher cutting performance, lower manufacturing tolerances, and lower costs per part.

Novotec brushes can significantly improve the cutting edge preparation process before coating the workpiece and make a significant contribution to satisfying these requirements, but they also offer advantages in the resharpener process. In principle, all known carbide and HSS tools can be processed.

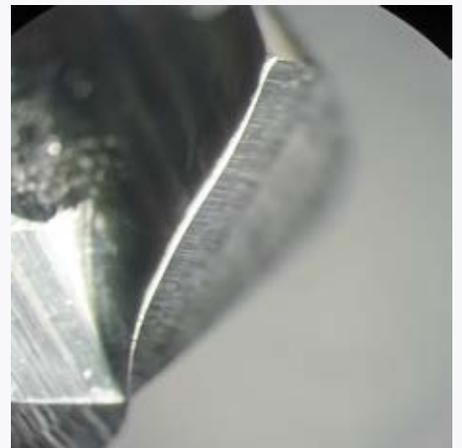
The hardest abrasive grain is diamond. The diamond grain is embedded in the bristle ranges from a 240 grit to a 1000 grit. The brush is guided to the cutting edge at 14-18 m/sec with a low immersion depth and creates the desired rounding - stable and reliable over several thousand parts.



Carbide metal drill
unprocessed



Processed with wheel brush Ø150
SIC abrasive nylon grit 180



Processed with wheel brush Ø150
Diamond bristle grit 1000

Preparing the cutting edge with Novotec brushes offers considerable advantages:

- Up to 40 times longer tool life
- Significant reduction in chipping
- Better chip flow
- Higher edge stability
- Low effort, low processing costs
- Process stability even for medium and large series



Carbide metal insert, unprocessed



Carbide metal insert, with edge processed



Appearance can vary from picture depending on variant.



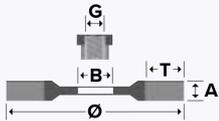
EUPBWB029 | EVOLUTION ★★★★★

Novotec diamond wheel brushes

Single disc brushes wound on a steel flange with a very narrow working width.

- The hardest abrasive is used as the abrasive grain: Diamond. This ensures a high cutting performance and a long service life of the brushes.

Application: In ceramics for homogenizing the cutting geometry of ceramic reversing plates, deburring turbo rotors. With carbide tools such as carbide drills, milling cutters, circular saws and reversing plates, the cutting geometries are also homogenized and provided with a defined cutting edge rounding. This largely prevents the cutting edge from breaking out during later use at high cutting speeds and feed rates.



Ø	A	T	B	nmax. 1/min	Ø Fill		Nylon Diamond 240	Nylon Diamond 400	Nylon Diamond 600
150	4	23	20	2800	0.4	1		● 4001901924	● 6001901924
150	4	23	20	2800	0.6	1	● 2401901924		
150	8	23	20	2800	0.4	1		● 4001902924	● 6001902924
150	8	23	20	2800	0.6	1	● 2401902924		
200	4	23	20	1400	0.4	1			● 6001901926
200	8	23	20	1400	0.4	1			● 6001902926



Brushes for Cut Edge Deburring

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General Information

Changing of the Standard Bore

For single-row as well as multi-row brushes, we provide brushes with standard bore “Min. B” if no other bore is specified. Alternative bores are provided in the following tables.

Standard Bores for Single-Row Brushes

We will be glad to change the standard bore dimension to suit your mounting. The relevant part number starts with 000200- and ends with the 4-digit code in the table. Brushes bored to bore 50.8 mm (2") can be reduced further with a 4-M adapter.

Brush Ø		Bore Ø														
mm		13		16	19	20			30		32	35	38	40	44	50.8
	inch		5/8		3/4		7/8	1		1 1/4						2
75	3	7413														
100	4	7413	7415	7416	7419	7420										
125	5	7413	7415	7416	7419	7420	7422	7425	7430	7431						
150	6	7413	7415	7416	7419	7420	7422	7425	7430	7431	7432	7435		7440	7444	
175	7	7413	7415	7416	7419	7420	7422	7425	7430	7431	7432	7435	7483			
200	8				7419	7420	7422	7425	7430	7431	7432	7435	7483			7450
250	10					7420	7422	7425	7430	7431	7432	7435		7440		7450
300	12							7425	7430	7431	7432	7435		7440		7450
350	14									7431	7432	7435		7440		7450

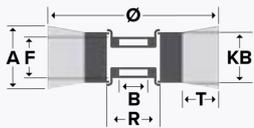
Standard Bores for Multi-Row Brushes

Multi-row brushes mounted via tube are reduced by pressing in our robust metal adapters (kept in stock). The adapters available for every tube diameter are in the following table. The relevant part number starts with 000200- and ends with the 4-digit code in the following table.

Tube Ø		Bore Ø														
mm		9.5	10	12.7	13	16	19	20	22.2	25.4	30	31.8	32	35	40	50.8
	inch	3/8		1/2		5/8	3/4		7/8	1		1 1/4				2
20		8109	8110	8112	8113	8116										
30		8209	8210	8212	8213	8216	8219	8220	8222	8225						
50.8	2			8412	8413	8416	8419	8420	8422	8425	8430	8431	8432	8435		
80						8616	8619	8620	8622	8625	8630	8631	8632	8635	8640	8642
100								8720	8722	8725	8730	8731	8732	8735	8740	8742
120										8825	8830	8831	8832	8835	8840	8842



Appearance can vary from picture depending on variant.



EUPBWB025 | SUPERIOR ★★☆☆☆

Wheel brushes for stationary deburring machines, crimped wire

Wheel brush with crimped wire, industrial quality, for mounting on deburring machines.

- Particularly dense and compact design with maximum number of wires for high deburring performance and excellent service life
- Statically balanced with high level of concentricity accuracy
- Adaptions with double keyways 13x7 and regular holes for all common table deburrers
- Special adapters possible on request

Application: Cutting edge deburring of pipes, profiles and flat parts on stationary deburring machines and automated machines. For the use on steel, stainless steel, aluminium, non-ferrous metals, wood.



Accessories available: Side Plates. More on page 62



Brush without adapter - bore type: round



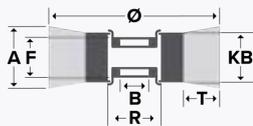
Brush with adapter - bore type: keyways

Ø	A	T	B	B Type	Adapt.	BW	F	nmax. 1/min		Steel 0.20	Steel 0.35	Steel 0.50
250	60	45	50.8	Keyways		50	35	3600	1	● 5642576145	● 5642576175	● 5642576195
250	60	45	52.9	Keyways		50	35	3600	1	● 3032576145	● 3032576175	● 3032576195
250	60	45	54.7	Keyways		50	35	3600	1	● 1002576145	● 5542576175	● 5542576195
250	60	45	100	round	side Plate	50	50	3600	1	● 0002576145	● 0042576475	● 0002576195
300	60	70	50.8	Keyways		50	35	2800	1	● 8302586145	● 5642586175	● 7702586195

Ø	A	T	B	B Type	Adapt.	BW	F	nmax. 1/min		Stainless Steel 0.20	Stainless Steel 0.35	Stainless Steel 0.50
250	60	45	50.8	Keyways		50	35	3600	1	● 5642576345	● 5642576375	● 5642576395
250	60	45	52.9	Keyways		50	35	3600	1	● 3032576345	● 3032576375	● 3032576395
250	60	45	54.7	Keyways		50	35	3600	1	● 1002576345	● 5742576375	● 5742576395
250	60	45	100	round	side Plate	50	50	3600	1	● 0002576345	● 0002576375	● 0002576395
300	60	70	50.8	Keyways		50	35	2800	1	● 4802586345	● 8702586375	● 1402586395



Appearance can vary from picture depending on variant.



EUPBWB031 | XTREME ★★★★★

Wheel brushes for stationary deburring machines, Xtreme wire, crimped

Wheel brushes with crimped Xtreme wire in high-end quality for use on stationary deburring machines.

- Particularly high wire density
- Aggressive design
- High deburring performance and outstanding tool life
- Adjustable immersion depth - adapts to the contours of complex components
- Fast and effective deburring of inner and outer edges of pipe ends in a single step

Application: For deburring the end faces of tubes, profiles and flat parts on stationary deburring machines and automated machines.



Brush without adapter - bore type: round

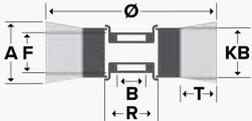


Brush with adapter - bore type: keyways

Ø	A	T	B	B Type	BW	F	nmax. 1/min		Steel 0.30
250	60	53	50.8	Keyways	55	35	3600	1	● 3902576175



Appearance can vary from picture depending on variant.



EUPBWB026 | SUPERIOR ★★☆☆☆

Wheel brushes for stationary deburring machines, abrasive filament

Wheel brush with abrasive trim, industrial quality, for mounting on deburring machines.

- Particularly dense and compact design with maximum number of bristles for high deburring performance and excellent service life
- Statically balanced with high level of concentricity accuracy
- Adaptions with double keyways and regular holes for all common table deburrers
- Special adapters possible on request

Application: Cutting edge deburring of pipes, profiles and flat parts on stationary deburring machines and automated machines.



Accessories available: Side Plates. More on page 62



Brush without adapter - bore type: round

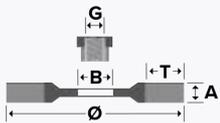


Brush with adapter - bore type: keyways

Ø	A	T	B	B Type	Adapt.	BW	F		Silicon Carbide 80	Silicon Carbide 120	Silicon Carbide 180
250	60	45	50.8	Keyways		53	38	1	● 0102576916	● 1232576916	● 1332576916
250	60	45	52.9	Keyways		53	38	1	● 0112576916	● 0122576916	● 0132576916
250	60	45	54.7	Keyways		53	38	1	● 1102576916	● 1202576916	● 1302576916
250	60	45	100	round	side Plate	53	53	1	● 2102576916	● 0002576906	● 0002576916
300	60	70	50.8	Keyways		53	38	1	● 4802576917	● 4812576917	● 4832576917



Appearance can vary from picture depending on variant.



EUPBWB023 | SUPERIOR ★★★★★☆

Wheel brushes, crimped wire

Multi-row wheel brush with crimped wire, industrial quality, for mounting on stationary machines.

- Aggressive variant
- TÜV-Süd certified (safety tested, production monitored)
- Larger body, so more wire tips are simultaneously in use
- High wire density

Application: On a workbench grinder or table deburrer for rust/paint removal, cleaning, roughening or deburring.

Please note: For brushes with Ø250-300mm, please specify the bore required when ordering. For other bore sizes, refer to table "Standard Bores for Multi-Row Brushes".

Available in practical POS box packaging with Euro-standard hole for ideal presentation at the POS.

Accessories available: Side Plates. More on page 62



Bore reduction pieces included (adapter set)

- Ø 75-125 mm: 20 mm | 1/2" and 5/8"
- Ø 150-200 mm: 31.75 | 13 | 15 | 16 | 19 | 20 mm | 7/8" and 1"



In the pictures you can see an aluminium profile with different burr classes before it was processed and after the burrs were removed.

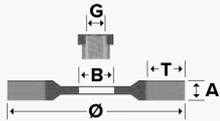
A sharp-edged surface becomes a smooth and precisely fitting contour.

Ø	A	T	B max.	R	Adapt.	nmax. 1/min	POS		Steel 0.20	Steel 0.30	Steel 0.50
75	19	16	20	20	adapter set	10000	✓	4		● 9902511162	
100	20	23	20	30	adapter set	8000	✓	5	● 9902522142	● 9902522162	
100	28	23	20	30	adapter set	8000	✓	5		● 9902522163	
125	22	30	20	30	adapter set	6000	✓	5	● 9902532142	● 9902532162	
125	30	30	20	30	adapter set	6000	✓	5		● 9902532163	
150	21	25	31.75	50.8	adapter set	6000	✓	3	● 9902544441	● 9902544461	● 9902544491
150	30	29	31.75	50.8	adapter set	6000	✓	3	● 9902544142	● 9902544162	
150	37	29	31.75	50.8	adapter set	6000	✓	3		● 9902544163	● 9902544193
178	23	38	31.75	50.8	adapter set	6000	✓	1	● 9902554441	● 9902554461	
178	32	38	31.75	50.8	adapter set	6000	✓	1	● 9902554142	● 9902554162	● 9902554192
178	38	38	31.75	50.8	adapter set	6000	✓	1		● 9902554163	
200	20	38	31.75	80	adapter set	4500	✓	1	● 9902566441	● 9902566461	● 9902566491
200	30	38	31.75	80	adapter set	4500	✓	1	● 9902566142	● 9902566162	● 9902566192
200	38	38	31.75	80	adapter set	4500	✓	1	● 9902566143	● 9902566163	● 9902566193
250	28	47	50.8	100	side Plate	3600		1	● 9902576142	● 9902576162	● 9902576192
250	38	47	50.8	100	side Plate	3600		1	● 9902576143	● 9902576163	● 9902576193
250	55	47	50.8	100	side Plate	3600		1		● 9902576464	
300	32	50	50.8	120	side Plate	3000		1	● 9902587142	● 9902587162	● 9902587192
300	44	50	50.8	120	side Plate	3000		1	● 9902587143	● 9902587163	● 9902587193
300	46	50	101.6	151	side Plate	3000		1		● 0002587162	

Ø	A	T	B max.	R	Adapt.	nmax. 1/min	POS		Stainless Steel 0.20	Stainless Steel 0.30	Brass 0.30
75	19	16	20	20	adapter set	10000	✓	4		● 9902511362	
100	20	23	20	30	adapter set	8000	✓	4	● 9902522342	● 9902522362	
100	28	23	20	30	adapter set	8000	✓	4		● 9902522363	
125	22	30	20	30	adapter set	6000	✓	2	● 9902532342	● 9902532362	
125	30	30	20	30	adapter set	6000	✓	2		● 9902532363	
150	21	25	31.75	50.8	adapter set	6000	✓	2	● 9902544341	● 9902544361	
150	30	29	31.75	50.8	adapter set	6000	✓	2	● 9902544342	● 9902544362	
178	23	38	31.75	50.8	adapter set	6000	✓	1	● 9902554341	● 9902554361	
178	32	38	31.75	50.8	adapter set	6000	✓	1		● 9902554362	
178	32	43	31.75	50.8	adapter set	6000	✓	1			● 9902553562
200	20	38	31.75	80	adapter set	4500	✓	1	● 9902566341	● 9902566361	
200	30	38	31.75	80	adapter set	4500	✓	1	● 9902566342	● 9902566362	
200	38	38	31.75	80	adapter set	4500	✓	1		● 9902566363	
250	28	47	50.8	100	side Plate	3600		1	● 9902576342	● 9902576362	
250	38	47	50.8	100	side Plate	3600		1	● 9902576343	● 9902576363	
300	32	50	50.8	120	side Plate	3000		1	● 9902587342	● 9902587362	
300	44	50	50.8	120	side Plate	3000		1	● 9902587343	● 9902587363	



Appearance can vary from picture depending on variant.



EUPBWB020 | SUPERIOR ★★☆☆☆

Wheel brushes, crimped wire

Wheel brush with crimped wire, industrial quality, for mounting on stationary machines.

- Several brushes of the same kind can be mounted on one shaft to increase the working width
- TÜV-Süd certified (safety tested, production monitored)
- Very high flexibility
- Suitable for geometrically challenging parts

Application: Smoothing, deburring, edge rounding, texturing, rust removal and paint stripping of steel, cast steel and stainless steel.

Please note: For other bore sizes, refer to table "Standard Bores for Single-Row Brushes"



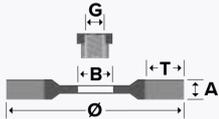
Available in practical POS box packaging with Euro-standard hole for ideal presentation at the POS.

Ø	A	T	B min.	B max.	nmax. 1/min	POS		Steel 0.20	Steel 0.30
75	11	15	13	13	10000	✓	5		● 0002511161
100	13	23	13	20	8000	✓	8	● 0002522141	● 0002522161
125	15	35	13	20	6000	✓	5		● 0002532161
150	16	32	13	32	6000		8		● 0002544161
150	16	32	13	32	6000	✓	4	● 0002544141	
178	18	45	13	32	6000		8		● 0002554161
178	18	45	13	32	6000	✓	4	● 0002554141	
200	19	33	19	50.8	4500	✓	1		● 0002566161
200	19	38	19	50.8	4500	✓	2	● 0002566141	
250	22	35	20	50.8	3600		2	● 0002576141	● 0002576161
300	26	58	20	50.8	3000		1		● 0002587161

Ø	A	T	B min.	B max.	nmax. 1/min	POS		Stainless Steel 0.20	Stainless Steel 0.30
100	13	23	13	20	8000	✓	8	● 0002522341	● 0002522361
125	15	35	13	20	6000	✓	5		● 0002532361
150	16	32	13	32	6000	✓	2		● 0002544361
150	16	32	13	32	6000	✓	3	● 0002544341	
178	18	45	13	32	6000	✓	4	● 0002554341	● 0002554361
200	19	38	19	50.8	4500	✓	2		● 0002566361
250	22	35	20	50.8	3600		2	● 0002576341	● 0002576361
300	26	58	20	50.8	3000		2	● 0002587341	



Appearance can vary from picture depending on variant.



EUPBWB022 | EVOLUTION ★★★★★

Wheel brushes, crimped Osborn wire

Crimped wheel brush, high-end quality, for mounting on stationary machines.

- Specially hardened Osborn wire for industrial applications
- Several brushes of the same kind can be mounted on one shaft
- Very high wire count / wire density
- Filled without gaps; Lower wear
- Homogeneous results

Application: Automated manufacturing processes for the deburring of processed and sawn cutting edges and surfaces.

Please note: For other bore sizes, refer to table "Standard Bores for Single-Row Brushes"



MONITOR® – Round bore



MATIC® – Keyway bore



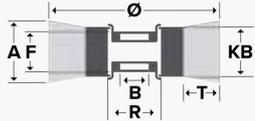
MASTER® – Turtle bore

Ø	A	T	B	B Type	Adapt.	nmax. 1/min		Steel 0.15	Steel 0.20	Steel 0.30
100	12	20	15.88	round		6000	2	● 9906021002		
125	30	28	50.8	round	1A	6000	1			● 9906022055
150	14	29	31.75	round	3A	6000	6			● 9906021163
178	35	40	50.8	round	1A	6000	1		● 9906022032	
200	18	38	50.8	Keyways	1A	4500	2	● 9906021183	● 9906021184	
200	22	37	50.8	Keyways	1A	4500	1	● 9906022081	● 9906022082	
200	22	37	50.8	Keyways	1A	4500	2			● 9906022085
200	42	37	50.8	Turtle		4500	1	● 9906022010		
250	26	60	50.8	Turtle	4M	3600	2		● 9906013008	● 9906013009
300	28	60	50.8	Turtle	4M	3000	2			● 9906013021
380	32	72	50.8	Turtle	4M	2400	2			● 9906013057

Ø	A	T	B	B Type	Adapt.	nmax. 1/min		Steel 0.35	Steel 0.50	Stainless Steel 0.26
100	12	20	15.88	round		6000	2			● 9906021055
150	14	29	31.75	round	3A	6000	6			● 9906021059
250	26	60	50.8	Turtle	4M	3600	2	● 9906013010	● 9906013011	
300	28	60	50.8	Turtle	4M	3000	2		● 9906013023	
380	32	72	50.8	Turtle	4M	2400	2	● 9906013058		



Appearance can vary from picture depending on variant.



EUPBWB024 | SUPERIOR ★★☆☆☆

Wheel brushes, crimped wire

Multi-row wheel brush with crimped wire, industrial quality, for mounting on stationary machines.

- Flexible variant due to extra long trim length
- TÜV-Süd certified (safety tested, production monitored)
- Adapts perfectly to the contours of the workpiece
- High wire density

Application: Fine surface finishing on geometrically challenging parts.

Please note: For other bore sizes, refer to table "Standard Bores for Multi-Row Brushes"

Available in practical POS box packaging with Euro-standard hole for ideal presentation at the POS.



Bore reduction pieces included (adapter set)

- Ø 75-125 mm: 20 mm | 1/2" and 5/8"
- Ø 150-200 mm: 31.75 | 13 | 15 | 16 | 19 | 20 mm | 7/8" and 1"

Ø	A	T	B max.	R	nmax. 1/min	POS		Steel 0.20	Steel 0.30	Stainless Steel 0.20
150	24	43	20	30	6000	✓	3	● 9902543142	● 9902543162	
178	32	43	31.75	50.8	6000	✓	1		● 9902553162	
200	33	55	31.75	50.8	4500	✓	1	● 9902565142	● 9902565162	
200	42	55	31.75	51	4500	✓	1		● 9902565163	
250	32	63	50.8	80	3600		1	● 9902575142	● 9902575162	● 9902575342
250	42	63	50.8	80	3600		1		● 9902575163	
300	33	70	50.8	100	3000		1	● 9902586142	● 9902586162	● 9902586342
300	45	70	50.8	100	3000		1		● 9902586163	● 9902586343

Ø	A	T	B max.	R	nmax. 1/min	POS		Stainless Steel 0.30	Brass 0.20	Brass 0.30
150	24	43	20	30	6000	✓	2	● 9902543362	● 9902543542	● 9902543562
150	32	43	20	30	6000	✓	2		● 9902543543	● 9902543563
200	33	55	31.75	50.8	4500	✓	1	● 9902565362	● 9902565542	● 9902565562
300	33	70	100	100	3000		1	● 9902586362		



EUPBEB015 | SUPERIOR ★★★★★

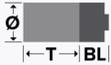
End brushes for brush heads, crimped wire

End brushes with crimped wire, high-end quality, for use in a brush head.

- Long service life, so reduced tool costs
- For speedy and efficient working
- The eccentric and oscillating circular motion increases the working radius of the brush
- For all profile contours

Application: Deburring of the cutting edges of pipe ends and profiles, and surface deburring with eccentric and oscillating circular motion.

Appearance can vary from picture depending on variant.



Ø	T	BL		Steel 0.20	Steel 0.35
25	95	25	16	● 0002509448	● 0002509478

Ø	T	BL		Steel 0.50	Stainless Steel 0.20
25	95	25	16	● 0002509498	● 0002509348



EUPBEB017 | SUPERIOR ★★★★★

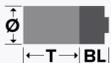
End brushes for brush heads, abrasive fill material

End brushes with abrasive fill material, high-end quality, for use in a brush head.

- Long service life, so reduced tool costs
- For speedy and efficient working
- The eccentric and oscillating circular motion increases the working radius of the brush
- For all profile contours

Application: Deburring of the cutting edges of pipe ends and profiles, and surface deburring with eccentric and oscillating circular motion.

Appearance can vary from picture depending on variant.



Ø	T	BL		Silicon Carbide 80
25	95	25	16	● 0002509908



EUPBEB018 | SUPERIOR ★★★★★

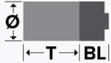
End brushes for brush heads, mixed fill material

End brushes with mixed fill material, high-end quality, for use in a brush head.

- Mixed fill material: crimped stainless steelwire Ø0,2 & Novofil NNS grit 120
- For speedy and efficient working
- The eccentric and oscillating circular motion increases the working radius of the brush
- For all profile contours
- Long service life, so reduced tool costs

Application: Deburring of the cutting edges of pipe ends and profiles, and surface deburring with eccentric and oscillating circular motion.

Appearance can vary from picture depending on variant.



Ø	T	BL		Mixed Fill Material
25	95	25	16	● 5702509938



EUACAD006

Side Plates

Side Plates for wheel brushes for the use on stationary deburring machines.

Appearance can vary from picture depending on variant.

adapt. from	adapt. to		Item Number
100.00	50.80	1	● 5495560051
100.00	54.70	1	● 5495560054
100.00	80.20	1	● 5495560080
100.00	82.00	1	● 5495560082

Terms & Conditions and Contact Addresses.

Refer to our website for our general terms of payment and delivery and further information on ordering and dispatch.

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