







Production hall, Maulbronn plant

**For over 100 years, Schmid & Wezel has striven to provide the highest level of precision, quality and collaborative ethos.**

The four divisions of the company include BIAX pneumatic and electric tools, BIAX flexible shafts, BIAX carbide tools and EFA meat processing machinery. These are all manufactured in three state-of-the-art production facilities situated in Germany and Switzerland.

And when it comes to product quality, Schmid & Wezel is the market leader, not least thanks to the high level of vertical integration (up to 90%).

Sustainable customer satisfaction is our goal and the most important driving force for continuous innovation and quality. The strengths of Schmid & Wezel are in providing tailored solutions in high product quality and personalised customer support.

Schmid & Wezel is ISO-certified



BIAX Maulbronn



BIAX Hilsbach



BIAX Neuhausen am Rheinfall

**Our range of tools**

Thanks to our expertise in deburring and finishing, BIAX has been one of the most respected specialists in the market for many decades. This applies to both manual and automated processing.

Ever since our foundation in 1919, we have pressed ahead with the development of a wide range of drives and rotary burrs for industrial post-processing. Our customers benefit from our wealth of knowledge, which enables us to supply them with drives and tools from a single source on the basis of comprehensive advice. This saves valuable time in the search for solutions.

We also cooperate with renowned tool manufacturers to ensure we can always offer the optimal complete solution for every application. At the same time, we endeavour to make choosing the right tools as easy as possible for you, our end users, by helping you to make informed decisions – and not overwhelming you with an unnecessary number of variants. We achieve this by providing a clearly structured catalogue and professional advice.

If you need a different shape, size or grain size than those shown in our catalogue: no problem, please contact us!

**Safety information**



**Wear safety goggles!**

Sparks or shavings can injure the eyes during grinding. Always wear safety goggles when working.



**Wear hearing protection!**

If the continuous noise level of the machine / plant exceeds 85 dB(A), hearing protection must be worn to prevent permanent hearing damage.



**Wear respiratory protection!**

If dust is generated, always wear respiratory protection when working and switch on the dust extraction system in the workplace.



**Wear protective gloves!**

Risk of injury due to sharp-edged tools or workpieces! Always wear protective gloves when working.



## Our range of cutting materials

### Bonded abrasives

**Corundum** (Knoop hardness  $\leq 21,000$ , heat resistance  $\leq 2,000^\circ\text{C}$ )

Corundum is a form of the mineral aluminium oxide  $\text{Al}_2\text{O}_3$ . Thanks to its extreme hardness and toughness it is universally applicable and therefore the most frequently used abrasive. According to its degree of purity, composition and grain structure, corundum is divided into

#### Standard brown corundum

Consists of over 94%  $\text{Al}_2\text{O}_3$  as well as various foreign substances and is the most common type of corundum.

#### White high-grade corundum

Consists of over 99.9%  $\text{Al}_2\text{O}_3$  and is somewhat harder and more brittle than standard corundum.

#### Pink high-grade corundum

Contains approx. 0.2% chromium (III)-oxide  $\text{Cr}_2\text{O}_3$ , which gives it greater toughness and edge strength.

#### Ruby red high-grade corundum

Maximum toughness is achieved via the addition of approx. 2% chromium (III)-oxide.

#### Zirconia corundum

Contains 10 – 40% zirconia  $\text{ZrO}_2$ . This increases toughness and produces a self-sharpening effect, as zirconia and aluminium oxide decompose at different rates.

These properties result in increased and longer-lasting abrasiveness.

#### Ceramic corundum (ceramic grit)

This is sintered aluminium oxide. The sintering process gives the grit a microcrystalline structure, making it self-sharpening and extremely tough. This significantly increases tool life and abrasiveness, making it even more efficient than other corundum abrasives.

Corundum tools can be found in almost every section of the catalogue that lists abrasive tools.

**SiC silicon carbide** (Knoop hardness  $\leq 24,800$ , heat resistance  $\leq 1,600^\circ\text{C}$ )

Belongs to the carbide group and is a compound of silicon and carbon.

It is harder and more brittle than corundum. The sharp-edged crystalline structure gives the grit a high degree of abrasiveness. SiC tools can be found in the Brushes and Polishing Stones catalogue sections.

**CBN cubic boron nitride** (Knoop hardness  $\leq 60,000$ , heat resistance  $\leq 1,300^\circ\text{C}$ )

A boron-nitrogen compound with a cubic crystal structure. Together with diamond, it is one of the superhard cutting materials. When used correctly, CBN has a much higher wear resistance than other abrasives, which is why it is often used for precision-grinding tools. Since it does not release carbon to steel when exposed to high temperatures, unlike diamond it is highly suitable for steel processing (not for soft steels). CBN tools can be found in the Mounted Points catalogue section.

**Diamond** (Knoop hardness  $\leq 70,000$ , heat resistance  $\leq 800^\circ\text{C}$ )

The cubic crystalline modification of carbon C and the hardest naturally occurring substance. However, its rather low heat resistance means diamond is only of limited use as a cutting material. Furthermore, due to the high affinity of iron and carbon at increasing temperatures, the machining of steel with diamond tools is in most cases uneconomical (rapid wear). Correctly used, however, tools with diamond grit are extremely wear-resistant, precise and economical, despite their higher purchase costs. Diamond tools can be found in the catalogue sections Mounted Points and Machine Files.

### Cutting materials with defined cutting edges

**Tool steel/HSS/HSSE-Co** (Hardness  $\leq 66$  HRC/870 HV, heat resistance  $\leq 600^\circ\text{C}$ )

Tool steel generally has a very high breaking strength, however its wear resistance, hardness and hot hardness are on the low side compared to other cutting materials. HSS and HSSE-Co achieve the highest hot hardness values of all tool steels ( $\leq 600^\circ\text{C}$ ). HSSE-Co contains a higher proportion of cobalt, which gives it slightly increased hot hardness, but also makes it slightly more brittle than HSS. Tool steel for use as a cutting material can be found in the catalogue sections Countersinks, Files, Chisels and Saw Blades.

**Carbide** (hardness  $\leq 2,200$  HV, heat resistance  $\leq 1,100^\circ\text{C}$ )

Carbide is a composite material produced by sintering and consists of a metallic binder phase and the carbides embedded therein, such as tungsten carbide. Carbides have much higher hardness and hot hardness values than HSS, for example. This allows high cutting speeds and economical machining of a wide range of materials. Carbide tools can be found in the Rotary Burrs and Countersinks catalogue sections.

### Coatings

**TiAlN and AlTiCrN coating** (hardness  $\leq 3,500$  HV, heat resistance  $\leq 900^\circ\text{C}$ )

These two coatings have very similar properties. The coating gives the cutting edge greater hardness, wear resistance and a lower coefficient of friction. On the one hand, this increases the tool life while also allowing its use at higher cutting speeds. You will find these coatings in the Countersinks and Rotary Burrs catalogue sections.

**DLC<sup>2</sup> coating** (hardness= 2,500 HV, heat resistance =  $350^\circ\text{C}$ )

DLC stands for "Diamond-like Carbon". This is a diamond-like protective layer of predominantly carbon, which is extremely smooth and slippery. This makes the tool highly resistant to the formation of built-up edges, clogging and abrasive wear. Highly suitable for machining tough materials that are prone to smearing. You will find this coating in the Rotary Burrs catalogue section under "Alu 14 Performance" toothing.

## Abrasiveness, tool life and dimensional stability of the tools ●●●○○

### Abrasiveness

Tools that are rated as ●○○○○ are only suitable for removing a very small amount of material or for surface smoothing. Conversely, the ●●●●● indicates that the tool is particularly suitable for removing large amounts of material.

### Tool life

Tools that are rated as ●○○○○ tend to wear out rather quickly. On the other hand, ●●●●● means the tool is particularly suitable for continuous use and also withstands coarse applications very well.

### Dimensional stability

A rating of ●○○○○ indicates that the tool is highly flexible and will adapt very well to the contours of the workpiece. Tools marked as ●●●●●, however, have zero adaptability. These include, for example, tools made of HSS or carbide with a defined cutting edge.

## Applications

### Deburring

The tool is suitable for use on edges and transitions, removing excess material and rounding off or breaking off sharp edges.

### Surface abrasion

Due to its shape and cutting properties, the tool is suitable for achieving uniform abrasion on the surface of the workpiece.

### Selective abrasion

Due to its shape and dimensional stability, the tool is suitable for achieving precise abrasion at specific points.

### Surface finishing

Improving the surface quality (roughness).

## Tool suitability for different materials

The various materials are grouped as follows:

### Steel

Structural steel, free-cutting steel, case hardening steel, tempered steel, nitriding steel, tool steel, cast steel.

### Hardened steel

Hardened case hardening, tempered and tool steels.

### Stainless steel

Stainless austenitic and ferritic steel and cast steel.

### Cast iron

Cast iron with lamellar graphite and spheroidal graphite, malleable cast iron.

### Non-ferrous metals

- › Soft non-ferrous metals: Aluminium alloys, brass, copper, zinc.
- › Hard non-ferrous metals: hard aluminium alloys, bronze.

### Removal of annealing colours

Removal of surface discolouration caused by the influence of temperature.

### Removal of welding spatter

Removal or striking off of welding spatter.

### Cleaning

Cleaning includes rust removal, paint stripping, removal of scale and dirt of all kinds.

### Slag removal

E.g. removing the slag layer from welding seams.

### Cutting

Separating of materials.

### Removal of supporting structures

Removal of the protrusions that form during 3D printing.

### Titanium

Titanium and titanium alloys.

### Superalloys

High-temperature special alloys on the basis of nickel and cobalt (e.g. Hastelloy, Inconel).

### Plastics

Thermoplast, Duroplast.

### Fibre composites

Glass fibre reinforced plastic FRP, carbon fibre reinforced plastic CFRP.

**The properties of the respective tools are particularly effective on the underlined material groups.**

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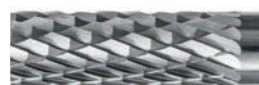
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## 01 Carbide rotary burrs

Carbide rotary burrs are the most commonly used tools for deburring and finishing. Their characteristics make them one of the most efficient tools for this type of work. They combine a long tool life with a high chip removal rate and a very good surface finish. Furthermore, instead of generating grinding dust, they produce chips that are much easier to handle.

### Cross 63 toothing



This tooth system is universally applicable. The chip chambers and chip breakers ensure good chip removal. Thanks to the sturdy cutting geometry and high number of cutting edges, the teeth are robust and easy to guide, even on harder materials. Perfect for roughing operations, but also produces a good surface for finer machining.

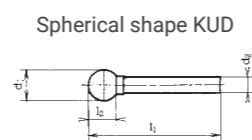
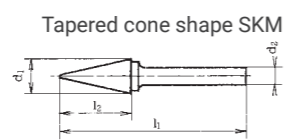
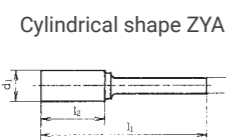
**Applications:** Deburring, selective abrasion

**Suitable for:** steel, cast iron, stainless steel, non-ferrous metals, titanium, superalloys, hardened steel, fibre composites

**Abrasiveness:** ●●●●●

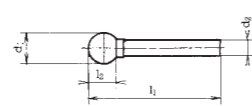
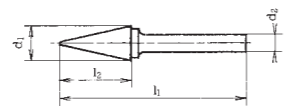
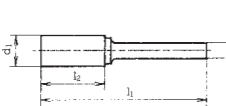
**Tool life:** ●●●●○

### Shaft: Ø 3 X 30 mm



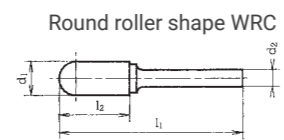
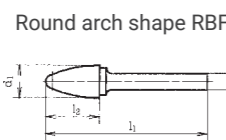
	Cylindrical shape ZYA		Tapered cone shape SKM		Spherical shape KUD	
Head Ø (d1) x head length (l2) [mm]	3 x 13	6 x 13	3 x 10	6 x 13	3 x 2.8	6 x 5
Recommended speed [rpm]	45,000 – 100,000	30,000 – 55,000	45,000 – 100,000	30,000 – 55,000	45,000 – 100,000	30,000 – 55,000
Max. speed [rpm]	100,000	55,000	100,000	55,000	100,000	55,000
Order no.	001 952 011	001 952 182	001 952 038	001 952 115	001 952 021	001 952 099

### Shaft: Ø 6 X 40 mm



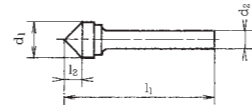
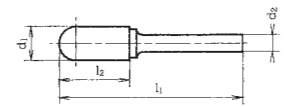
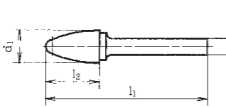
	Cylindrical shape ZYA		Tapered cone shape SKM		Spherical shape KUD	
Head Ø (d1) x head length (l2) [mm]	6 x 16	10 x 20	6 x 20	10 x 20	6 x 5	10 x 9
Recommended speed [rpm]	30,000 – 50,000	18,000 – 30,000	30,000 – 50,000	18,000 – 30,000	30,000 – 50,000	18,000 – 30,000
Max. speed [rpm]	50,000	30,000	50,000	30,000	50,000	30,000
Order no.	001 952 122	001 952 275	001 952 188	001 952 254	001 952 137	001 952 238

### Shaft: Ø 3 X 30 mm



	Round arch shape RBF		Round roller shape WRC		Countersink cone shape KSK	
Head Ø (d1) x head length (l2) [mm]	3 x 7	6 x 13	3 x 13	6 x 13	-	-
Recommended speed [rpm]	45,000 – 100,000	30,000 – 55,000	45,000 – 100,000	30,000 – 55,000	-	-
Max. speed [rpm]	100,000	55,000	100,000	55,000	-	-
Order no.	001 952 030	001 952 108	001 952 018	001 952 096	-	-

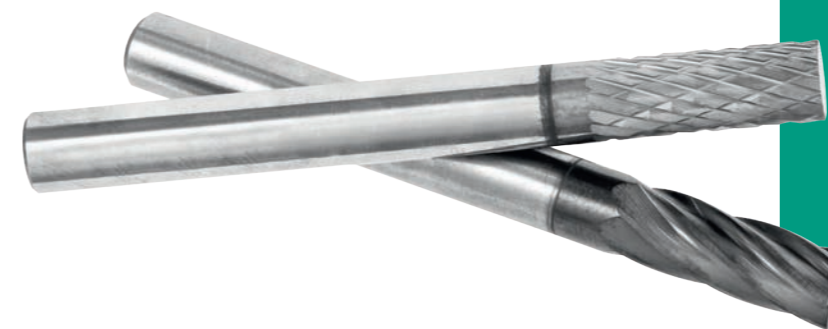
### Shaft: Ø 6 X 40 mm



	Round arch shape RBF		Round roller shape WRC		Countersink cone shape KSK	
Head Ø (d1) x head length (l2) [mm]	6 x 16	10 x 20	6 x 16	10 x 20	12 x 14	16 x 13
Recommended speed [rpm]	30,000 – 50,000	18,000 – 30,000	30,000 – 50,000	18,000 – 30,000	10,000 – 20,000	10,000 – 16,000
Max. speed [rpm]	50,000	30,000	50,000	30,000	20,000	16,000
Order no.	001 952 149	001 952 246	001 952 133	001 952 232	001 952 347	001 952 432

### Note on milling cutters with coatings

The Cross 63 and Alu 14 tooth systems are also available in a coated "Performance" model that makes them particularly effective for use on stainless steel or aluminium materials that are prone to smearing. You will find more information in the separate carbide catalogue.



### Alu 14 toothing



The 14 toothing is a specially developed serration to achieve optimum cutting performance on non-ferrous metals and plastics. The large chip chambers allow the rotary burr to "cut itself free" again and again. Clogging is thus avoided.

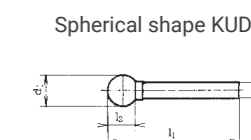
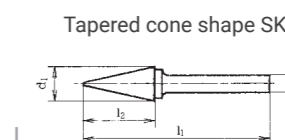
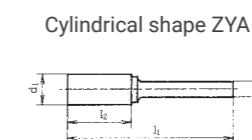
**Applications:** Deburring, selective abrasion

**Suitable for:** soft non-ferrous metals, plastic, hard non-ferrous metals

**Abrasiveness:** ●●●●●

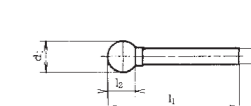
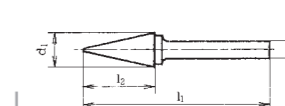
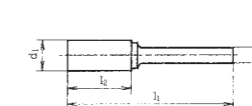
**Tool life:** ●●●●○

### Shaft: Ø 3 X 30 mm



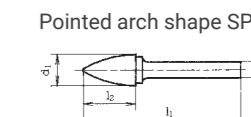
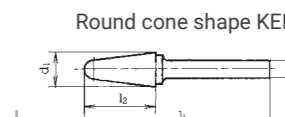
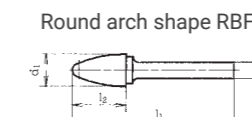
	Cylindrical shape ZYA		Tapered cone shape SKM		Spherical shape KUD	
Head Ø (d1) x head length (l2) [mm]	3 x 13	6 x 13	3 x 13	6 x 13	3 x 2.8	6 x 5
Recommended speed [rpm]	45,000 – 100,000	30,000 – 55,000	45,000 – 100,000	30,000 – 55,000	45,000 – 100,000	30,000 – 55,000
Max. speed [rpm]	100,000	55,000	100,000	55,000	100,000	55,000
Order no.	001 952 497	001 952 501	001 952 724	001 952 725	001 952 590	001 952 592

### Shaft: Ø 6 X 40 mm



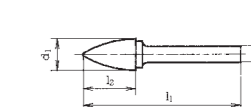
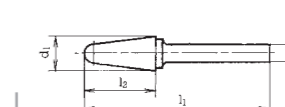
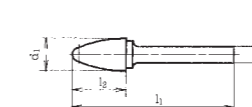
	Cylindrical shape ZYA		Tapered cone shape SKM		Spherical shape KUD	
Head Ø (d1) x head length (l2) [mm]	6 x 16	10 x 20	6 x 20	10 x 20	6 x 5	10 x 9
Recommended speed [rpm]	30,000 – 50,000	18,000 – 30,000	30,000 – 50,000	18,000 – 30,000	30,000 – 50,000	18,000 – 30,000
Max. speed [rpm]	50,000	30,000	50,000	30,000	50,000	30,000
Order no.	001 952 504	001 952 507	001 952 727	001 952 729	001 952 594	001 952 597

### Shaft: Ø 3 X 30 mm



	Round arch shape RBF		Round cone shape KEL		Pointed arch shape SPG	
Head Ø (d1) x head length (l2) [mm]	3 x 7	6 x 13	3 x 13	-	3 x 13	6 x 13
Recommended speed [rpm]	45,000 – 100,000	30,000 – 55,000	45,000 – 100,000	-	45,000 – 100,000	30,000 – 55,000
Max. speed [rpm]	100,000	55,000	100,000	-	100,000	55,000
Order no.	001 952 659	001 952 661	001 952 818	-	001 952 799	001 952 689

### Shaft: Ø 6 X 40 mm



	Round arch shape RBF		Round cone shape KEL		Pointed arch shape SPG	
Head Ø (d1) x head length (l2) [mm]	6 x 16	10 x 20	6 x 16	10 x 20	6 x 16	10 x 20
Recommended speed [rpm]	30,000 – 50,000	18,000 – 30,000	30,000 – 50,000	18,000 – 30,000	30,000 – 50,000	18,000 – 30,000
Max. speed [rpm]	50,000	30,000	50,000	30,000	50,000	30,000
Order no.	001 952 662	001 952 663	001 952 167	001 952 258	001 952 167	001 952 693





### Fine 5 tooting



This tooth system has an increased number of fine cutting edges, which makes the rotary burr less aggressive, run very smoothly and produce a higher quality surface.

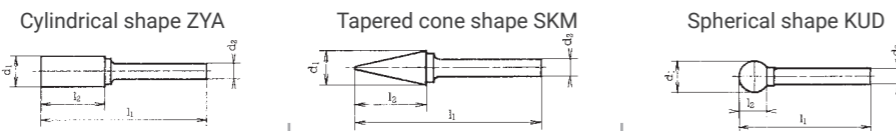
**Applications:** Deburring, selective abrasion

**Suitable for:** steel, cast iron, stainless steel, hardened steel, titanium, superalloys

**Abrasiveness:** ●●●●○

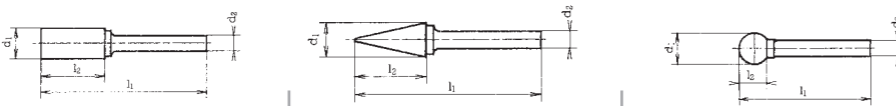
**Tool life:** ●●●●●

#### Shaft: Ø 3 X 30 mm



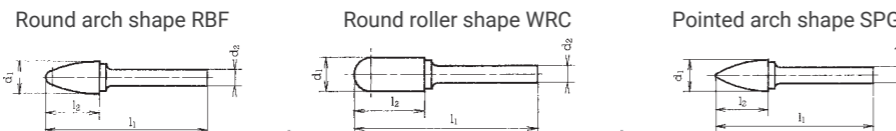
	Cylindrical shape ZYA		Tapered cone shape SKM		Spherical shape KUD	
Head Ø (d1) x head length (l2) [mm]	3 x 13	6 x 13	3 x 10	6 x 13	3 x 2.8	6 x 5
Recommended speed [rpm]	45,000 – 100,000	30,000 – 55,000	45,000 – 100,000	30,000 – 55,000	45,000 – 100,000	30,000 – 55,000
Max. speed [rpm]	100,000	55,000	100,000	55,000	100,000	55,000
Order no.	001 952 010	001 952 181	001 952 037	001 952 114	001 952 020	001 952 098

#### Shaft: Ø 6 X 40 mm



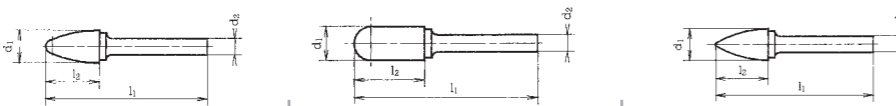
	Cylindrical shape ZYA		Tapered cone shape SKM		Spherical shape KUD	
Head Ø (d1) x head length (l2) [mm]	6 x 16	10 x 20	6 x 20	10 x 20	6 x 5	10 x 9
Recommended speed [rpm]	30,000 – 50,000	18,000 – 30,000	30,000 – 50,000	18,000 – 30,000	30,000 – 50,000	18,000 – 30,000
Max. speed [rpm]	50,000	30,000	50,000	30,000	50,000	30,000
Order no.	001 952 121	001 952 523	001 952 735	001 952 253	001 952 136	001 952 237

#### Shaft: Ø 3 X 30 mm

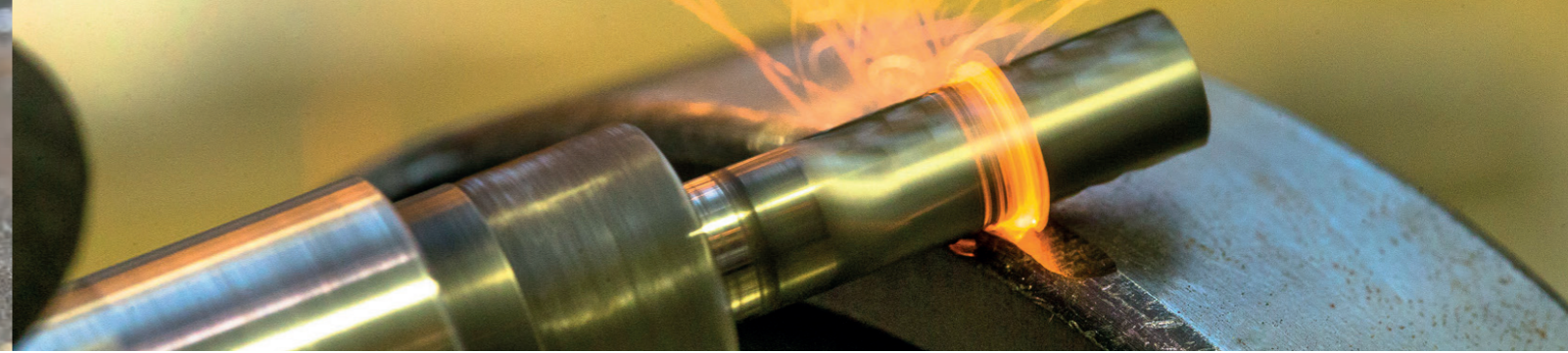


	Round arch shape RBF		Round roller shape WRC		Pointed arch shape SPG	
Head Ø (d1) x head length (l2) [mm]	3 x 7	6 x 13	3 x 13	6 x 13	3 x 13	6 x 13
Recommended speed [rpm]	45,000 – 100,000	30,000 – 55,000	45,000 – 100,000	30,000 – 55,000	45,000 – 100,000	30,000 – 55,000
Max. speed [rpm]	100,000	55,000	100,000	55,000	100,000	55,000
Order no.	001 952 029	001 952 107	001 952 017	001 952 095	001 952 051	001 952 110

#### Shaft: Ø 6 X 40 mm



	Round arch shape RBF		Round roller shape WRC		Pointed arch shape SPG	
Head Ø (d1) x head length (l2) [mm]	6 x 16	10 x 20	6 x 16	10 x 20	6 x 16	10 x 20
Recommended speed [rpm]	30,000 – 50,000	18,000 – 30,000	30,000 – 50,000	18,000 – 30,000	30,000 – 50,000	18,000 – 30,000
Max. speed [rpm]	50,000	30,000	50,000	30,000	50,000	30,000
Order no.	001 952 148	001 952 245	001 952 132	001 952 230	001 952 153	001 952 249



### Superfine 10 tooting



This has additional, finer cutting edges in comparison to the "Fine 5" tooting. It is particularly suitable for very fine deburring work in which it is important not to remove too much material and to achieve an excellent surface finish. Due to its extremely good controllability, it is also ideal for working in hard-to-reach areas

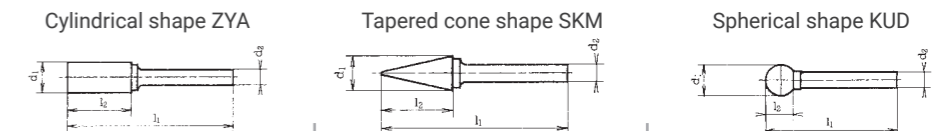
**Applications:** Deburring, selective abrasion

**Suitable for:** steel, hardened steel, cast iron, stainless steel, titanium, superalloys

**Abrasiveness:** ●●●○

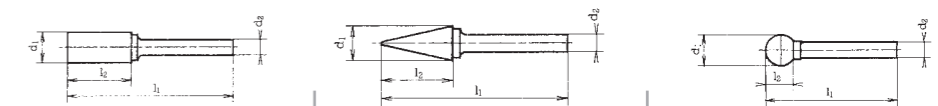
**Tool life:** ●●●●●

#### Shaft: Ø 3 X 30 mm



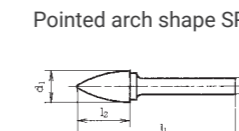
	Cylindrical shape ZYA		Tapered cone shape SKM		Spherical shape KUD	
Head Ø (d1) x head length (l2) [mm]	3 x 13	6 x 13	3 x 10	6 x 13	3 x 2.8	6 x 5
Recommended speed [rpm]	45,000 – 100,000	30,000 – 55,000	45,000 – 100,000	30,000 – 55,000	45,000 – 100,000	30,000 – 55,000
Max. speed [rpm]	100,000	55,000	100,000	55,000	100,000	55,000
Order no.	001 952 900	001 952 902	001 952 917	001 952 918	001 952 906	001 952 908

#### Shaft: Ø 6 X 40 mm



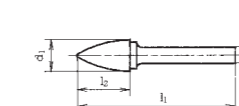
	Cylindrical shape ZYA		Tapered cone shape SKM		Spherical shape KUD	
Head Ø (d1) x head length (l2) [mm]	6 x 16	8 x 20	6 x 16	-	6 x 5	8 x 6.5
Recommended speed [rpm]	30,000 – 50,000	30,000 – 45,000	30,000 – 50,000	-	30,000 – 50,000	30,000 – 45,000
Max. speed [rpm]	50,000	45,000	50,000	-	50,000	45,000
Order no.	001 952 904	001 952 905	001 952 919	-	001 952 910	001 952 911

#### Shaft: Ø 3 X 30 mm



	Pointed arch shape SPG	
Head Ø (d1) x head length (l2) [mm]	3 x 13	6 x 13
Recommended speed [rpm]	45,000 – 100,000	30,000 – 55,000
Max. speed [rpm]	100,000	55,000
Order no.	001 952 912	001 952 913

#### Shaft: Ø 6 X 40 mm



	Pointed arch shape SPG	
Head Ø (d1) x head length (l2) [mm]	6 x 16	8 x 20
Recommended speed [rpm]	30,000 – 50,000	30,000 – 45,000
Max. speed [rpm]	50,000	45,000
Order no.	001 952 915	001 952 916

## Rotary burr sets

With our burr sets you always have the right burr for every task. They are also much cheaper in a set than when ordered individually, making them the perfect option for trying out different types of milling cutters.



### Shaft: Ø 3 X 30 mm

#### Order no. 300 000 110

Recommended Speed 45,000 – 100,000 rpm  
Max. speed 100,000 rpm

Includes 1 each of the following:

SKM 0313.03-5
KUD 0302.03-5
RBF 0307.03-63
WRC 0313.03-63
SPG 0613.03-63 (max. speed 55,000 rpm)

#### Order no. 300 006 910

Recommended Speed 45,000 – 100,000 rpm  
Max. speed 100,000 rpm

Includes 1 each of the following:

SKM 0313.03-10
SKM 0613.03-10 (max. 55,000 rpm)
SPG 0313.03-10
KUD 0302.03-10
ZYA 0313.03-10

#### Order no. 300 003 510

Recommended Speed 45,000 – 100,000 rpm  
Max. speed 100,000 rpm

Includes 1 each of the following:

SKM 0313.03-14
SKM 0313.03-63
SPG 0313.03-14
SPG 0313.03-63
ZYA 0313.03-14
ZYA 0313.03-63

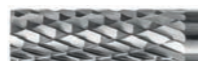


Example image: 3 mm set

### Universal / fine set 3 mm

Consisting of 2 tooth systems for universal and fine machining.

Toothings:



Cross 63



Fine 5

The exact properties of the tooth systems can be found on pages 8+10.

**Applications:** Deburring, selective abrasion

### Superfine set 3 mm

Set of rotary burrs for fine machining.

Toothings:



Superfine 10

The exact properties of the tooth system can be found on page 11.

**Applications:** Deburring, selective abrasion

### Performance set 3 mm

This set consists of coated rotary burrs.

Toothings:



Alu 14 Performance



Cross 63 Performance

**Tool life:** ●●●●●

**Applications:** Deburring, selective abrasion

The Alu 14 Perf. tooth system features a DLC coating, which ensures that even very "greasy" aluminium cannot clog the burr.

The Cross 63 Perf. toothings has a TiAlN coating for longer tool life on materials such as stainless steel, titanium and superalloys. Detailed information about the coatings can be found on page 5.



Carbide rotary burrs achieve their best results within the range of their maximum permissible speed and high true running accuracy. The BIAX pneumatic grinders combine these characteristics to perfection. See for yourself – test a perfectly matched combination of machine and rotary burr.

**Get in touch for more details!**



### Shaft: Ø 6 X 40 mm

#### Order no. 300 007 110

Recommended Speed 30,000 – 50,000 rpm  
Max. speed 50,000 rpm

Includes 1 each of the following:

SPG 0618.06-63
TCF 0606-63
ZYA 0616.06-63
KUD 0807.06-63 (max. 45,000 rpm)
WRC 0616.06-63

#### Order no. 300 006 810

Recommended Speed 30,000 – 50,000 rpm  
Max. speed 50,000 rpm

Includes 1 each of the following:

SKM 0618.06-14
SKM 0618.06-63
ZYA 0618.06-14
ZYA 0618.06-63
SPG 0618.06-14
KUD 0605.06-63

### Universal set 6 mm

Set of rotary burrs for universal machining.

Toothings:



Cross 63

The exact properties of the tooth systems can be found on page 8.

**Applications:** Deburring, selective abrasion

### Performance set 6 mm

This set consists of coated rotary burrs.

Toothings:



Alu 14 Performance



Cross 63 Performance

**Tool life:** ●●●●●

**Applications:** Deburring, selective abrasion

The Alu 14 Perf. tooth system features a DLC coating, which ensures that even very "greasy" aluminium cannot clog the burr.

The Cross 63 Perf. toothings has an TiAlN coating for longer tool life on materials such as stainless steel, titanium and superalloys. Detailed information about the coatings can be found on page 5.



Our complete range of carbide rotary burrs can be found in the separate "Carbide Tools" catalogue. This includes:

- › Other geometries and tooth systems
- › Information on special burrs and rotary burrs with extended shafts



## 02 Countersinks

Countersinks are used for deburring and countersinking holes. Some of the countersinks are specially designed for the BIAX drilling deburrers. Our countersinks are available in different cutting materials!

Detailed information about the cutting materials can be found on page 5.

### HSS

**Suitable for:** steel, non-ferrous metals, stainless steel, cast iron

### HSS with AlTiCrN coating

**Suitable for:** steel, non-ferrous metals, cast iron, hardened steel, stainless steel

### HSSE-Co with TiAlN coating, spiralled

**Suitable for:** steel, stainless steel, cast iron, non-ferrous metals, titanium, superalloys

### Carbide

**Suitable for:** stainless steel, superalloys, titanium, steel, non-ferrous metals, cast iron, hardened steel

**Abrasiveness:** ●●●●○

**Tool life:** ●●●○○

**Abrasiveness:** ●●●●○

**Tool life:** ●●●●○

**Abrasiveness:** ●●●●○

**Tool life:** ●●●●○

**Abrasiveness:** ●●●●○

**Tool life:** ●●●●●

### for BIAX angle drilling deburrer BEW 309 E



#### HSS

Countersink Ø [mm]	8	8 point	12	12 point	10	12
Countersink range [mm]	2 – 7	0.5 – 7	2.5 – 11	1 – 11	2.5 – 9	2.5 – 11
Countersink angle	90°	90°	90°	90°	60°	120°
Number of cutting edges	3	3	3	3	3	3
Shaft dimension	3 mm hex.	3 mm hex.	3 mm hex.	3 mm hex.	3 mm hex.	3 mm hex.
Order no.	001 950 293	001 950 344	001 950 297	001 950 352	001 950 332	001 950 336

#### HSS coated

Countersink Ø [mm]	8	12
Countersink range [mm]	2 – 7	2.5 – 11
Countersink angle	90°	90°
Number of cutting edges	3	3
Shaft dimension	3 mm hex.	3 mm hex.
Order no.	On request	001 950 349

#### Carbide

Countersink Ø [mm]	8	12
Countersink range [mm]	2 – 7	2.5 – 11
Countersink angle	90°	90°
Number of cutting edges	3	3
Shaft dimension	3 mm hex.	3 mm hex.
Order no.	001 950 299	On request

#### HSS divided unequally

Countersink Ø [mm]	8	12
Countersink range [mm]	2 – 7	2.5 – 11
Countersink angle	90°	90°
Number of cutting edges	3	3
Shaft dimension	3 mm hex.	3 mm hex.
Order no.	On request	001 950 289

Special drill Ø 2 mm  
Order no. 007 014 142



For drilling in hard-to-reach areas.  
Other diameters available on request.

Ball cutter head Ø 6 mm  
Order no. 001 952 921



For light milling and deburring work in very hard-to-reach areas.

### for BIAX angle drilling deburrer BEW 606 (K)



	HSS	HSS coated	Carbide
Countersink Ø [mm]	15	15	15
Countersink range [mm]	3.5 – 14	3.5 – 14	3.5 – 14
Countersink angle	90°	90°	90°
Number of cutting edges	3	3	3
Shaft dimension	6.3 mm hex.	6.3 mm hex.	6.3 mm hex.
Order no.	001 950 294	001 950 345	On request



The BIAX drilling deburrers are lighter, more ergonomic and more efficient than comparable machines. Furthermore, the angled models make it possible to access even hard-to-reach areas.

### Flexible countersink coupling for automation

The coupling lets you compensate for a slight offset between countersink and bore.



	Order no.		Order no.
Coupling: Ø 6 mm	001 610 230	Shaft: Ø 6 mm	001 622 270
Coupling: Ø 8 mm	001 610 231	Shaft: Ø 8 mm	001 622 271

### for BIAX angle drilling deburrer BEW 605 (K)



#### HSS

Countersink Ø [mm]	15	15	25.5	25.5	HSS coated	Carbide
Countersink range [mm]	3.5 – 14	3.5 – 14	5 – 24.5	5 – 24.5	3.5 – 14	3.5 – 14
Countersink angle	90°	120°	90°	120°	90°	90°
Number of cutting edges	3	3	3	3	3	3
Shaft Ø [mm] x shaft length [mm]	6 x 23	6 x 23	6 x 23	6 x 23	6 x 23	6 x 23
Order no.	001 950 295	001 950 337	001 950 296	001 950 338	On request	On request

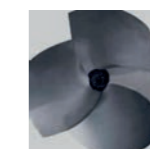
### for straight BIAX drilling deburrers



#### HSS

Countersink Ø [mm]	6.5	15	25	30	HSS coated
Countersink range [mm]	2 – 5.5	3.5 – 14	5 – 24	6 – 29	3.5 – 14
Countersink angle	90°	90°	90°	90°	90°
Number of cutting edges	3	3	3	3	3
Shaft Ø [mm] x shaft length [mm]	3 x 40	8 x 45	8 x 45	10 x 45	8 x 45
Order no.	001 950 292	001 950 290	001 950 291	001 950 341	001 950 351
For machine type	BE 309	BE 805 / BE 1005	BE 805 / BE 1005	BE 1005	BE 805 / BE 1005

### NEW! HSSE-Co coated – spiralled



These countersinks have been specially developed for use with hand-operated tools. The convex, unequal radii of the cutting edges with a variable spiral shape ensure a particularly smooth, low-vibration countersinking process. The result is a perfectly round and chatter-free counterbore.

Countersink Ø [mm]	12.4	25
Countersink range [mm]	3.3 – 11.4	4.8 – 24
Countersink angle	90°	90°
Number of cutting edges	3	3
Shaft Ø [mm] x shaft length [mm]	8 x 45	10 x 45
Order no.	001 622 280	On request
For machine type	BE 805 / BE 1005	BE 1005



### 03 Corundum, CBN and diamond mounted points

Due to their high dimensional stability and controllability, mounted points are ideal for precise grinding work on surfaces and edges. Depending on the combination of abrasive grit and bond, they are suitable for use with different materials.

#### Ceramic bonded high-grade corundum (white and ruby red)

The ceramic bond offers medium hardness (M) and ensures balanced dimensional stability and grit retention. In combination with the high-grade corundum, it is ideal for processing steel materials.

**Applications:** Deburring, selective/surface abrasion

**Suitable for:** steel, hardened steel, stainless steel

**Abrasiveness:** ●●●○○○

**Tool life:** ●●●○○○

**Dimensional stability:** ●●●●●○

Shaft: Ø 3 x 30 mm	Cylindrical shape ZY			Cone shape KE	Spherical shape KU	
	3 x 6	5 x 10	8 x 10	10 x 10	Ø 5	Ø 10
Head Ø x head length [mm]	3 x 6	5 x 10	8 x 10	10 x 10	Ø 5	Ø 10
Recommended speed [rpm]	50,000 – 100,000	50,000 – 100,000	45,000 – 65,000	40,000 – 50,000	50,000 – 100,000	50,000 – 100,000
Max. speed [rpm]	100,000	100,000	85,000	55,000	100,000	55,000
Grit	100	100	80	46	100	80
Order no.	001 622 239	001 622 240	001 622 241	001 622 245	001 622 246	001 622 247

Shaft: Ø 6 x 40 mm	Cylindrical shape ZY			Cone shape KE	Spherical shape KU	
	10 x 20	16 x 20	20 x 32	20 x 32	Ø 10	Ø 16
Head Ø x head length [mm]	10 x 20	16 x 20	20 x 32	20 x 32	Ø 10	Ø 16
Recommended speed [rpm]	40,000 – 50,000	18,000 – 30,000	12,000 – 20,000	12,000 – 20,000	40,000 – 50,000	18,000 – 30,000
Max. speed [rpm]	50,000	45,000	30,000	30,000	50,000	45,000
Grit	80	60	60	60	80	60
Order no.	001 622 242	001 622 243	001 622 244	001 622 250	001 622 248	001 622 249

Minimum order quantity 5 pieces

#### Ceramic bonded ceramic grit with high-grade corundum (white)

The ceramic bond in the soft area (J) ensures splinter propensity and a cool cut. The self-sharpening effect of the ceramic grit ensures that the burr is consistently abrasive.

**Applications:** Deburring, selective/surface abrasion

**Suitable for:** hardened steel, superalloys, titanium, hard non-ferrous metals

**Abrasiveness:** ●●●○○○

**Tool life:** ●●●○○○

**Dimensional stability:** ●●●●●○

Shaft: Ø 3 x 30 mm	Cylindrical shape ZY			Cone shape KE	Spherical shape KU	
	3 x 6	6 x 13	8 x 10	6 x 6	Ø 3	Ø 5
Head Ø x head length [mm]	3 x 6	6 x 13	8 x 10	6 x 6	Ø 3	Ø 5
Recommended speed [rpm]	50,000 – 100,000	50,000 – 100,000	45,000 – 65,000	50,000 – 100,000	50,000 – 100,000	50,000 – 100,000
Max. speed [rpm]	100,000	100,000	85,000	100,000	100,000	100,000
Grit	80	80	80	80	60	80
Order no.	001 623 101	001 622 868	001 622 847	001 623 401	001 622 858	001 623 501

Shaft: Ø 6 x 40 mm	Cylindrical shape ZY			Cone shape KE	Spherical shape KU	
	10 x 20	16 x 20	20 x 40	16 x 22	Ø 10	Ø 16
Head Ø x head length [mm]	10 x 20	16 x 20	20 x 40	16 x 22	Ø 10	Ø 16
Recommended speed [rpm]	40,000 – 50,000	18,000 – 30,000	12,000 – 20,000	20,000 – 30,000	40,000 – 50,000	18,000 – 30,000
Max. speed [rpm]	50,000	45,000	20,000	45,000	50,000	45,000
Grit	80	60	60	60	80	60
Order no.	001 623 109	001 624 108	001 623 104	001 623 403	001 623 509	001 623 503

Minimum order quantity 5 pieces



The new electronic "SE 50 Silent Grinder" micro grinder features infinitely variable speed control from 0 – 50,000 rpm and is extremely quiet and precise. Perfect for delicate work.

#### Resin-bonded high-grade corundum (white and ruby red)

The comparatively soft synthetic resin ensures grinding with less vibration than with the ceramic bond. It also promotes cool grinding and a good self-sharpening effect.

**Applications:** Deburring, selective/surface abrasion

**Suitable for:** stainless steel, titanium, hard non-ferrous metals, soft non-ferrous metals, cast iron, steel

**Abrasiveness:** ●●●○○○

**Tool life:** ●●●○○○

**Dimensional stability:** ●●●●●○

Shaft: Ø 6 x 40 mm	Cylindrical shape ZY			Cone shape KE
	8 x 16	10 x 20	16 x 32	20 x 20
Head Ø x head length [mm]	8 x 16	10 x 20	16 x 32	20 x 20
Recommended speed [rpm]	40,000 – 50,000	40,000 – 50,000	10,000 – 30,000	16,000 – 30,000
Max. speed [rpm]	50,000	50,000	30,000	30,000
Grit	46	46	30	30
Order no.	001 622 251	001 622 252	001 622 253	001 622 254

Minimum order quantity 5 pieces

#### Diamond mounted points with electroplated bond

These mounted points consist of a metal body which is coated with a single layer of diamond grit. This makes the points extremely dimensionally stable and the superhard diamond grit gives them a very long useful life.

**Applications:** Deburring, selective /surface abrasion

**Suitable for:** cast iron, non-ferrous metals, titanium, superalloys, carbide, glass, ceramics, fibre composites

**Abrasiveness:** ●●●○○○

**Tool life:** ●●●●●●

**Dimensional stability:** ●●●●●●

Shaft: Ø 3 x 30 mm	Cylindrical shape ZY		Tapered cone shape SK	Spherical shape KU	
	3 x 5	6 x 7	3 x 13	Ø 3	Ø 6
Head Ø x head length [mm]	3 x 5	6 x 7	3 x 13	Ø 3	Ø 6
Recommended speed [rpm]	50,000 – 100,000	40,000 – 65,000	50,000 – 100,000	50,000 – 100,000	40,000 – 65,000
Max. speed [rpm]	100,000	65,000	100,000	100,000	65,000
Order no. grit D91	001 622 256	001 622 257	001 622 259	On request	001 622 258

#### CBN mounted points with electroplated bond

These mounted points consist of a metal body which is coated with a single layer of CBN grit. This makes the points extremely dimensionally stable and the superhard CBN grit gives them a very long useful life.

**Applications:** Deburring, selective/surface abrasion

**Suitable for:** hardened steel, stainless steel, superalloys

**Abrasiveness:** ●●●○○○

**Tool life:** ●●●●●●

**Dimensional stability:** ●●●●●●

Shaft: Ø 3 x 30 mm	Cylindrical shape ZY		Tapered cone shape SK	Spherical shape KU	
	3 x 5	6 x 7	3 x 13	Ø 3	Ø 6
Head Ø x head length [mm]	3 x 5	6 x 7	3 x 13	Ø 3	Ø 6
Recommended speed [rpm]	50,000 – 100,000	40,000 – 65,000	50,000 – 100,000	50,000 – 100,000	40,000 – 65,000
Max. speed [rpm]	100,000	65,000	100,000	100,000	65,000
Order no. grit B91	001 622 260	001 622 261	001 622 262	On request	001 622 263

## 04 Finishing points, felt polishing points, diamond pastes

### Finishing points

Finishing points are ideal for quickly improving a surface.

**Applications:** Surface finishing

#### Rubber-bonded high-grade corundum (pink)

**Suitable for:** steel, stainless steel, superalloys, hardened steel, non-ferrous metals

Cylindrical shape ZY



**Shaft: Ø 3 x 30 mm**

Head Ø x head length [mm]	4 x 8	8 x 8	10 x 15
Recommended speed [rpm]	30,000 – 60,000	15,000 – 30,000	12,000 – 25,000
Max. speed [rpm]	65,000	35,000	28,000
Order no. grit 120	001 622 496	001 622 470	001 622 466

Minimum order quantity 5 pieces

#### Leather-bonded high-grade corundum (white)

**Suitable for:** hardened steel, soft non-ferrous metals, steel, stainless steel



**Shaft: Ø 3 x 30 mm**

Head Ø x head length [mm]	4 x 8	8 x 8	10 x 15
Recommended speed [rpm]	45,000 – 100,000	30,000 – 55,000	25,000 – 45,000
Max. speed [rpm]	100,000	65,000	50,000
Order no. grit 120	001 622 497	001 622 404	001 622 452

Minimum order quantity 5 pieces

### Felt polishing points

Felt bodies are used in combination with the diamond pastes, as the felt bodies alone do not have any abrasive components. They are suitable for producing the highest quality surface finishes.

**Applications:** Surface finishing

Cylindrical shape ZY

Pointed arch shape SPG



**Shaft: Ø 3 x 30 mm**

Head Ø x head length [mm]	6 x 10	10 x 15	8 x 12	12 x 18
Recommended speed [rpm]	16,000 – 32,000	10,000 – 20,000	12,000 – 24,000	8,000 – 16,000
Max. speed [rpm]	55,000	45,000	55,000	35,000
Order no.	001 621 523	001 621 524	001 621 528	001 621 530

Cylindrical shape ZY

Pointed arch shape SPG



**Shaft: Ø 6 x 40 mm**

Head Ø x head length [mm]	15 x 20	25 x 30	15 x 30	20 x 25
Recommended speed [rpm]	6,000 – 12,000	4,000 – 8,000	6,000 – 12,000	5,000 – 10,000
Max. speed [rpm]	30,000	19,000	30,000	20,000
Order no.	001 621 525	001 621 527	001 621 531	001 621 532

Minimum order quantity 5 pieces.

**Abrasiveness:** ●●○○○

**Tool life:** ●●○○○

**Dimensional stability:** ●●○○○

**Shaft: Ø 6 x 40 mm**

10 x 25	20 x 30
10,000 – 25,000	5,000 – 12,000
28,000	14,000
001 622 439	001 622 416

**Abrasiveness:** ●●○○○

**Tool life:** ●●○○○

**Dimensional stability:** ●●○○○

**Shaft: Ø 6 x 40 mm**

10 x 25	20 x 30
25,000 – 45,000	10,000 – 23,000
50,000	28,000
001 622 433	001 622 423

**Tool life:** ●●○○○

**Dimensional stability:** ●○○○○

### Diamond pastes

**Abrasiveness:** ●○○○○

**Suitable for:**

all metallic materials

› Universal soluble bond without silicones

› Should be used in combination with fluid (p. 32)



Quantity	10 g
Order no. 10µ	001 360 004
Order no. 7µ	001 360 003
Order no. 3µ	001 360 002



Machines with a flexible shaft are particularly suitable for surface grinding at low speed. They combine high torque with an infinitely variable speed control.

## 05 Flap wheels and finishing flap wheels

Due to their high resilience, these tools are suitable for surface grinding tasks for which fine, even material removal and high surface quality are the goal.

### Flap wheels, standard corundum

Flap wheels have a good abrasive effect and, compared to many other abrasives, adapt to the surface much better. Perfect for uniform sanding.

**Applications:** surface abrasion, removal of fine welding spatter, surface finishing

**Suitable for:** all metallic surfaces



**Abrasiveness:** ●●○○○

**Tool life:** ●●●○○

**Dimensional stability:** ●●○○○

Head Ø x head length [mm]	Shaft: Ø 3 x 40 mm			Shaft: Ø 6 x 40 mm		
	10 x 10	15 x 10	30 x 10	40 x 15	50 x 20	60 x 40
Recommended speed [rpm]	15,000 – 30,000	12,000 – 28,000	10,000 – 20,000	8,000 – 16,000	7,000 – 13,000	5,000 – 12,000
Max. speed [rpm]	35,000	35,000	25,000	20,000	16,000	13,000
Order no. grit 80	On request	On request	001 624 014	001 622 904	001 622 916	001 622 913
Order no. grit 150	001 624 024	001 624 025	001 624 015	001 622 905	001 622 917	001 622 914
Order no. grit 240	On request	On request	001 624 016	001 622 266	001 624 013	001 624 018

Minimum order quantity 5 pieces.

### Interleaved finishing flap wheels, standard corundum

The combination of abrasive cloth and abrasive non-woven material ensures low abrasion and a smoothed surface.

**Applications:** surface abrasion, removal of fine welding spatter, surface finishing

**Suitable for:** all metallic surfaces



**Abrasiveness:** ●●○○○

**Tool life:** ●●●○○

**Dimensional stability:** ●●○○○

**Shaft: Ø 6 x 40 mm**

Head Ø x head length [mm]	40 x 30	60 x 40
Recommended speed [rpm]	5,000 – 8,000	3,000 – 6,000
Max. speed [rpm]	9,000	7,000
Order no. grit 80 medium	001 622 220	001 622 222
Order no. grit 150 fine	001 622 221	001 622 223

Minimum order quantity 5 pieces.

### Non-woven finishing flap wheel with abrasive grit mixture

The soft abrasive nylon adapts perfectly to the surface contours. Ideal for smoothing and texturing surfaces.

**Applications:** Removal of annealing colours, surface finishing

**Suitable for:** all metallic surfaces



**Abrasiveness:** ●○○○○

**Tool life:** ●●●○○

**Dimensional stability:** ●○○○○

**Shaft: Ø 3 x 40 mm**

**Shaft: Ø 6 x 40 mm**

Head Ø x head length [mm]	Shaft: Ø 3 x 40 mm		Shaft: Ø 6 x 40 mm	
	20 x 20	30 x 30	40 x 30	60 x 40
Recommended speed [rpm]	6.000 - 9.000	5.000 - 8.000	5.000 - 8.000	3.000 - 6.000
Max. speed [rpm]	11.000	10.500	9.000	7.000
Order no. grit 100 medium	on request	on request	001 622 218	001 622 216
Order no. grit 180 fine	on request	on request	001 622 219	001 622 217

Minimum order quantity 5 pieces.



## 06 Spiral bands and abrasive caps

With this sanding system, the spiral bands and caps are simply pushed onto the carrier. The rubber carriers ensure slight flexibility and low-vibration sanding. Compared to bonded mounted points, the original geometry can be economically restored by simply replacing the sleeve.

**Spiral band applications:** surface abrasion

**Abrasive caps applications:** selective/surface abrasion

### Spiral bands, standard corundum

Universal spiral band, optimal for light sanding work on easy-to-machine materials

**Suitable for:** steel, cast iron, fibre composites, soft non-ferrous metals, hardened steel



**Abrasiveness:** ●●●○○○

**Tool life:** ●○○○○○

**Dimensional stability:** ●●●○○○

Diameter x length [mm]	15 x 30	22 x 20	30 x 30	45 x 30
Recommended speed [rpm]	26.000 - 36.000	18.000 - 26.000	13.000 - 19.000	8.500 - 12.700
Max. speed [rpm]	36.000	26.000	19.000	12.700
Order no. grit 60	001 621 736	001 620 749	001 620 714	001 620 720
Order no. grit 80	001 621 723	001 620 750	001 620 715	001 620 722
Order no. grit 150	001 621 724	001 620 751	001 620 770	001 620 723

Minimum order quantity 10 pieces.

### Spiral bands, zirconia corundum +

The zirconia corundum and grinding additives in the coating achieve a high abrasion rate, prevent clogging and ensure cool grinding.

**Suitable for:** stainless steel, titanium, superalloys, non-ferrous metals



**Abrasiveness:** ●●●○○○

**Tool life:** ●●○○○○

**Dimensional stability:** ●●●○○○

Diameter x length [mm]	15 x 30	22 x 20	30 x 30	45 x 30
Recommended speed [rpm]	26,000 – 36,000	18,000 – 26,000	13,000 – 19,000	8,500 – 12,700
Max. speed [rpm]	36,000	26,000	19,000	12,700
Order no. grit 50	On request	001 622 230	001 622 232	001 622 234
Order no. grit 80	On request	001 622 231	001 622 233	001 622 235

Minimum order quantity 10 pieces.

### Flap bands, ceramic grit +

Due to the overlapping arrangement of the abrasive flaps, several layers of abrasive fillings are created. This significantly increases the tool life compared to a conventional spiral bands. The ceramic grit with grinding additives combines long tool life with aggressive material abrasion and cool grinding.

**Suitable for:** stainless steel, titanium, superalloys, hardened steel, steel, non-ferrous metals



**Abrasiveness:** ●●●●○○

**Tool life:** ●●●●○○

**Dimensional stability:** ●●●○○○

Diameter x length [mm]	30 x 30	45 x 30
Recommended speed [rpm]	13,000 – 19,000	8,500 – 12,700
Max. speed [rpm]	19,000	12,700
Order no. grit 60 (grit 40 and 80 available on request)	001 622 224	001 622 225

Minimum order quantity 5 pieces.

### Band holders

**Shaft: Ø 6 x 35 mm**



Head Ø x head length [mm]	15 x 30	22 x 20	30 x 30	45 x 30
Recommended speed [rpm]	26,000 – 36,000	18,000 – 26,000	13,000 – 19,000	8,500 – 12,700
Max. speed [rpm]	36,000	26,000	19,000	12,700
Order no.	001 621 513	001 621 501	001 621 506	001 621 503



The BIAX two-hand grinders are perfectly suited for surface grinding work at medium to high speeds. They are slim, powerful and very easy to handle.

### Information about the abrasive caps:

Their conical shape facilitates flat placement on the workpiece. The closed, round cap end also makes it easy to work at specific points.

### Abrasive caps, standard corundum

Universal abrasive cap, ideal for light sanding work on easy-to-machine materials.

**Suitable for:** steel, cast iron, non-ferrous metals, hardened steel, fibre composites



**Abrasiveness:** ●●●○○○

**Tool life:** ●○○○○○

**Dimensional stability:** ●●●○○○

Diameter x length [mm]	5 x 15	11 x 25	16 x 32	21 x 40
Recommended speed [rpm]	30.000 - 50.000	15.000 - 30.000	10.000 - 18.000	7.000 - 12.000
Max. speed [rpm]	50.000	40.000	30.000	20.000
Order no. grit 80	001 622 511	001 622 514	001 622 517	001 622 520
Order no. grit 150	001 622 512	001 622 515	001 622 518	001 622 521
Order no. grit 280	001 622 513	001 622 516	001 622 519	001 622 522

Minimum order quantity 10 pieces.

### Abrasive caps, ceramic grit +

The ceramic grit with grinding additives combines aggressive material abrasion with cool grinding.

**Suitable for:** hardened steel, stainless steel, superalloys, steel, titanium



**Abrasiveness:** ●●●●○○

**Tool life:** ●●○○○○

**Dimensional stability:** ●●●○○○

Diameter x length [mm]	5 x 15	11 x 25	16 x 32	21 x 40
Recommended speed [rpm]	30,000 – 50,000	15,000 – 30,000	10,000 – 18,000	7,000 – 12,000
Max. speed [rpm]	50,000	40,000	30,000	20,000
Order no. grit 80	On request	001 622 236	001 622 237	001 622 238
Order no. grit 120	On request	On request	On request	On request

Minimum order quantity 10 pieces.

### Cap holders

**Shaft: Ø 6 x 40 mm**



Head Ø x head length [mm]	5 x 15	11 x 25	16 x 32	21 x 40
Max. speed [rpm]	50,000	40,000	30,000	20,000
Order no.	001 622 501	001 622 502	001 622 503	001 622 504

## 07 Grinding and finishing discs

### Quick-change discs for machines with a collet chuck

This sanding system offers a wide range of abrasives. The discs are screwed into the rubber backing pads without tools via a simple rotary movement. The rubber backing pads ensure flexibility and low-vibration sanding, which promotes an even result.

#### Standard discs, standard corundum

Universal disc, ideal for light sanding work on easy-to-machine materials.

**Applications:** Deburring, surface abrasion

**Suitable for:** steel, cast iron, non-ferrous metals, fibre composites, hardened steel



**Abrasiveness:** ●●●○○○

**Tool life:** ●○○○○○

**Dimensional stability:** ●●○○○○

Diameter [mm]	25	38	50	75
Recommended speed [rpm]	15,000 – 25,000	10,000 – 20,000	10,000 – 20,000	8,000 – 18,000
Max. speed [rpm]	25,000	20,000	20,000	20,000
Order no. grit 36	001 622 110	001 622 122	001 622 134	001 622 143
Order no. grit 60	001 622 111	001 622 123	001 622 135	001 622 144
Order no. grit 80	001 622 112	001 622 124	001 622 136	001 622 145
Order no. grit 120	001 622 113	001 622 125	001 622 137	001 622 146

Minimum order quantity 10 pieces

#### Standard discs, ceramic grit +

The ceramic grit increases the abrasiveness and tool life. At the same time, the grinding additives ensure cool grinding.

**Applications:** Deburring, surface abrasion

**Suitable for:** stainless steel, superalloys, titanium, steel, hardened steel



**Abrasiveness:** ●●●●○○

**Tool life:** ●●●○○○

**Dimensional stability:** ●●○○○○

Diameter [mm]	25	38	50	75
Recommended speed [rpm]	15,000 – 25,000	10,000 – 25,000	10,000 – 25,000	8,000 – 18,000
Max. speed [rpm]	25,000	25,000	25,000	20,000
Order no. grit 36	001 622 103	001 622 115	001 622 127	001 622 147
Order no. grit 60	001 622 104	001 622 116	001 622 128	001 622 148
Order no. grit 80	001 622 105	001 622 117	001 622 129	001 622 149
Order no. grit 120	001 622 106	001 622 118	001 622 130	001 622 150

Minimum order quantity 10 pieces

#### Flap discs, ceramic grit +

Due to the overlapping arrangement of the abrasive flaps, several layers of abrasive fillings are created. This significantly increases the tool life compared to the standard disc. Paired with the highly abrasive ceramic grit, these discs are ideal for applications in which a large quantity of material needs to be removed. Grinding additives ensure cool grinding.

**Applications:** Deburring, surface abrasion

**Suitable for:** stainless steel, superalloys, titanium, steel, hardened steel



**Abrasiveness:** ●●●●○○

**Tool life:** ●●●●○○

**Dimensional stability:** ●●●○○○

Diameter [mm]		50	75
Recommended speed [rpm]		10,000 – 19,000	6,500 – 12,700
Max. speed [rpm]		19,000	12,700
Order no. grit 60 (grit 80 and 120 available on request)		001 622 214	001 622 215

Minimum order quantity 5 pieces



BIAX angle grinders are particularly lightweight and easy to handle. The user benefits from excellent freedom of movement and fatigue-free working. With the extended models you can also access difficult-to-reach areas. The speeds are optimally matched to the various abrasives.

### Non-woven discs with abrasive grit mixture

The non-woven material is interspersed with a fine abrasive grain mixture and is less aggressive than the sanders with a fabric backing due to its pliable structure. Ideal for improving surfaces quickly and easily.

**Applications:** Deburring, surface abrasion, removal of annealing colours / fine welding spatter, cleaning, surface finishing

**Suitable for:** all metallic surfaces



**Abrasiveness:** ●○○○○○

**Tool life:** ●●○○○○

**Dimensional stability:** ●●○○○○

Diameter [mm]	25	38	50	75
Recommended speed [rpm]	15,000 – 25,000	10,000 – 23,000	10,000 – 23,000	8,000 – 18,000
Max. speed [rpm]	25,000	23,000	23,000	18,000
Order no. coarse	001 622 107	001 622 119	001 622 131	001 622 151
Order no. medium	001 622 108	001 622 120	001 622 132	001 622 152
Order no. fine	001 622 109	001 622 121	001 622 133	001 622 153

Minimum order quantity 10 pieces

### Non-woven finishing disc with abrasive grit mixture

The approx. 15 mm thick nylon fabric layer is extremely soft and pliable. This results in an even, fine sanding pattern even when applied at an angle.

**Applications:** Surface finishing, removal of annealing colours

**Suitable for:** all metallic materials



**Abrasiveness:** ●○○○○○

**Tool life:** ●●●○○○

**Dimensional stability:** ●○○○○○

Diameter [mm]	50	75
Recommended speed [rpm]	6,000 – 9,000	4,000 – 6,000
Max. speed [rpm]	19,000	12,700
Order no. medium	001 622 226	001 622 228
Order no. fine	001 622 227	001 622 229

Minimum order quantity 5 pieces

### Coarse cleaning disc

The aggressive and robust structure of this disc is specially designed for the coarse cleaning of surfaces. The large cavities prevent clogging with dirt, coating or rust, thus ensuring that the abrasiveness is permanently maintained.

**Applications:** Cleaning

**Suitable for:** all metallic surfaces



**Abrasiveness:** ●●●●○○

**Tool life:** ●●●●○○

**Dimensional stability:** ●●●○○○

Diameter [mm]		50	75
Recommended speed [rpm]		10,000 – 18,000	8,000 – 15,000
Max. speed [rpm]		18,000	15,000
Order no.		001 622 138	001 622 154

Minimum order quantity 5 pieces

### Rubber backing pads for quick-change discs



Tension pin for rubber backing pads  
Shaft Ø 6 x 20 mm  
Order no. 001 622 101  
(included at Ø 38, Ø 50, Ø 75)

Diameter [mm]	25	38	50	75
Max. speed [rpm]	25,000	25,000	25,000	20,000
Order no.	001 622 102	001 622 114	001 622 126	001 622 142





The WRD/H 10-20/3 S from BIAX is the smallest and lightest angle grinder for grinding discs on the market. The device can be operated with grinding and cutting discs up to Ø 75.

## Fibre discs

Fibre discs are used in conjunction with rubberbacking pads. This combination ensures low-vibration grinding with uniform results.

**Applications:** Deburring, surface abrasion

**Suitable for, standard corundum:** steel, non-ferrous metals, fibre composites, cast iron, hardened steel

**Suitable for, ceramic grit+:** stainless steel, superalloys, titanium

**Abrasiveness:** ●●●○○

**Tool life:** ●●○○○

**Dimensional stability:** ●●○○○

**Abrasiveness:** ●●●●○

**Tool life:** ●●●○○

**Dimensional stability:** ●●○○○

Fibre discs	Standard corundum	Ceramic grit+
Diameter [mm]	115	115
Recommended speed [rpm]	8,000 – 13,300	8,000 – 13,300
Max. speed [rpm]	13,300	13,300
Order no. grit 36	001 452 133	On request
Order no. grit 60	001 452 134	On request
Order no. grit 120	001 452 135	On request

Minimum order quantity 10 pieces

Rubber backing pad	
Diameter [mm]	115
Mount	M14 thread
Max. speed [rpm]	13,300
Order no.	001 452 008

## Grinding discs for angle grinders

Grinding discs are ideal for high abrasion performance. They are aggressive and durable.

**Applications:** Deburring, surface / selective abrasion

**Suitable for:** see table

Ø x thickness x hole [mm]	75 x 4.5 x 10	115 x 6 x 22.23	115 x 7 x 22.23
Grit type / bond / grit size	Standard corundum / synthetic resin / 30	Standard corundum / synthetic resin / 24	Zirconia corundum / synthetic resin / 24
Suitable for	<u>steel</u> , stainless steel, cast iron	<u>steel</u>	<u>stainless steel</u> , <u>cast iron</u> , steel
Recommended speed [rpm]	15,000 – 20,000	8,000 – 13,300	8,000 – 13,300
Max. speed [rpm]	20,000	13,300	13,300
Order no.	001 451 606	001 451 603	On request

Minimum order quantity 5 pieces

## Cutting discs for angle grinders

Cutting discs are a very good alternative for areas in which serrated saw blades are difficult to handle.

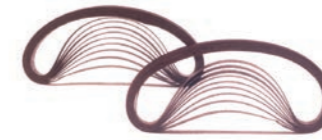
**Applications:** Cutting

**Suitable for:** see table

Ø x thickness x hole [mm]	75 x 2 x 10	115 x 2 x 22.23
Grit type / bond / grit size	Standard corundum / synthetic resin / 30	Standard corundum / synthetic resin / 30
Suitable for	<u>steel</u> , stainless steel, cast iron	<u>steel</u> , stainless steel, cast iron
Recommended speed [rpm]	15,000 – 20,000	8,000 – 13,300
Max. speed [rpm]	20,000	13,300
Order no. grit 36	001 451 713	001 451 709

Minimum order quantity 5 pieces

## 08 Abrasive belts for belt sanders



Abrasive belts can be used in many different ways. You can work on the contact surface of the sanding arm, on the deflection roller, or with a free-running belt. Compared to rotating tools, a special characteristic is the large contact surface that can be produced with the abrasive belts, which facilitates a uniform, easily controlled removal of material.

**Abrasive belt applications:** Deburring, surface / selective abrasion

**Non-woven belt applications:** surface abrasion, removal of annealing colours / fine welding spatter, cleaning, surface finishing

### Standard corundum model

Universal sanding belt, ideal for sanding work on easy-to-machine materials.

**Suitable for:** steel, cast iron, non-ferrous metals, fibre composites, hardened steel, stainless steel

**Abrasiveness:** ●●●○○

**Tool life:** ●●●○○

### Ceramic grit+ model

The ceramic grit is more aggressive than the standard corundum and has a longer useful life. The grinding additives ensure cool grinding.

**Suitable for:** stainless steel, hardened steel, superalloys, titanium, non-ferrous metals, steel

**Abrasiveness:** ●●●●○

**Tool life:** ●●●●○

### Abrasive non-woven model

Less aggressive to improve surfaces quickly and easily.

**Suitable for:** all metallic surfaces

**Abrasiveness:** ●●○○○

**Tool life:** ●●○○○

### for BIAX HB 3 belt sander

	Standard corundum			Ceramic grit+		Abrasive non-woven	
Belt width x length [mm]	3 x 305	6 x 305	12 x 305	6 x 305	12 x 305	6 x 305	12 x 305
Order no. grit 60	001 621 100	001 621 104	001 621 108	001 622 272	001 622 274	-	-
Order no. grit 120	001 621 101	001 621 105	001 621 109	001 622 273	001 622 275	medium 001 622 276	medium 001 622 278
Order no. grit 180	001 621 102	001 621 106	001 621 110	-	-	fine 001 622 277	fine 001 622 279
Order no. grit 240	001 621 103	001 621 107	001 621 111	-	-	-	-

Minimum order quantity 10 pieces

### for BIAX belt sander HB 15-1, HBH 200, hand piece HB 1527

	Standard corundum				Ceramic grit+		
Belt width x length [mm]	8 x 330	15 x 330	20 x 330	15 x 475*	8 x 330	15 x 330	20 x 330
Order no. grit 60	001 620 509	001 620 508	001 620 584	001 620 572	On request	On request	On request
Order no. grit 80		001 620 515			On request	On request	On request
Order no. grit 120	001 620 511	001 620 516	001 620 586	001 620 573	On request	On request	On request
Order no. grit 180	001 620 512	001 620 517	001 620 790	001 620 574	-	-	-
Order no. grit 240	001 620 513	001 620 518	001 620 585	001 620 575	-	-	-

Minimum order quantity 10 pieces

\* HB 15-1 with arm 15 AL-1

### for BIAX HB 12 belt sander

	Standard corundum	
Belt width x length [mm]	6 x 610	12 x 610
Order no. grit 60	001 620 559	001 620 565
Order no. grit 120	001 620 561	001 620 567
Order no. grit 180	001 620 562	001 620 568
Order no. grit 240	001 620 570	001 620 571

Minimum order quantity 10 pieces

### for BIAX HB 20 belt sander

	Standard corundum	Ceramic grit+
Belt width x length [mm]	20 x 520	20 x 520
Order no. grit 60 / 40	001 620 539	001 620 596
Order no. grit 120	001 620 540	On request
Order no. grit 180	001 620 541	-
Order no. grit 240	001 620 542	-



Brushes are highly effective on edges and protruding material – without significantly changing the actual contour of the workpiece. This makes them an excellent deburring and cleaning tool.

## 09 End brushes and cup brushes

End brushes and cup brushes are used as front-facing tools. When used on edges, these brushes have the major advantage that the edges are brushed up and down in one operation. This ensures the burr is not pushed to either side. The brushes are available with different finishing materials, which are suitable for different materials:

**Suitable materials for steel wire:** steel, cast iron

**Suitable materials for stainless steel wire:** stainless steel, non-ferrous metals, titanium, superalloys

**Suitable materials for SiC bristles:** non-ferrous metals, stainless steel, hardened steel, superalloys, titanium, cast iron, fibre composites, plastics

### Brushes with crimped wire

This model offers a good balance between abrasiveness, flexibility and tool life.

**Applications:** Deburring, cleaning

**Shaft: Ø 3 mm**



Brush Ø [mm]	5	18
Wire Ø x wire length [mm]	0.1 x 8	0.1 x 6
Shaft length / total length [mm]	25 / 45	35 / 50
Recommended speed [rpm]	8,000 – 14,000	8,000 – 14,000
Max. speed [rpm]	15,000	15,000
Order no. steel wire	001 622 207	001 622 204
Order no. stainless steel wire	001 622 208	001 622 205

Minimum order quantity 5 pieces.

**Shaft: Ø 6 mm**



Brush Ø [mm]	12 point	16	22	40	50	60
Wire Ø x wire length [mm]	0.3 x 20	0.2 x 25	0.2 x 25	0.3 x 20	0.3 x 20	0.3 x 25
Shaft length / total length [mm]	25 / 60	20 / 70	20 / 70	30 / 70	30 / 72	25 / 78
Recommended speed [rpm]	10,000 – 15,000	7,000 – 13,000	6,000 – 11,000	5,000 – 9,500	4,000 – 9,000	3,000 – 7,000
Max. speed [rpm]	20,000	15,000	12,500	10,500	10,500	8,000
Order no. steel wire	001 625 229	001 625 230	001 625 231	001 625 232	001 625 233	001 625 234
Order no. stainless steel wire	001 622 210	On request	001 622 255	On request	001 622 211	On request

### Brushes with silicon carbide bristles

The base material consists of polyamide, which makes the brushes very flexible. It is interspersed with silicon carbide abrasive grit, which is universally applicable. The bristles also have a lateral abrasive effect.

**Applications:** Deburring, surface finishing



Brush Ø [mm]	5	18	28	75
Bristle Ø x bristle length [mm]	0.25 x 8	0.25 x 5	1 x 25	1.2 x 22
Shaft length / total length [mm]	25 / 45	35 / 49	15 / 68	30 / 69
Recommended speed [rpm]	5,000 – 15,000	5,000 – 15,000	2,500 – 5,000	2,000 – 4,500
Max. speed [rpm]	15,000	15,000	5,000	4,500
Grit	800	800	180	80
Order no.	001 622 209	001 622 206	001 622 170	001 622 173

**Abrasiveness:** ●●●○○

**Tool life:** ●●●○○

**Dimensional stability:** ●●●○○

**Abrasiveness:** ●●○○○

**Tool life:** ●●○○○

**Dimensional stability:** ●○○○○

### Brushes with knotted wire

The knotting results in higher impact energy, abrasiveness and dimensional stability.

**Applications:** Cleaning, removal of slag and welding spatter

**Abrasiveness:** ●●●●●

**Tool life:** ●●●●○

**Dimensional stability:** ●●●○○

**Shaft: Ø 6 mm**



Brush Ø [mm]	65
Wire Ø / knot length [mm]	0.5 / 12
Shaft length / total length [mm]	20 / 60
Number of knots	15
Recommended speed [rpm]	3,000 – 5,000
Max. speed [rpm]	6,000
Order no. steel wire	001 622 264
Order no. stainless steel wire	On request

## 10 Brushes for internal processing

### End brushes with flexible knotted wire.

The brush opens wider at higher speed.

**Shaft: Ø 6 mm**



Brush Ø [mm]	19 – 70	29 – 82
Wire Ø / knot length [mm]	0.5 / 28	0.5 / 28
Shaft length / total length [mm]	20 / 72	20 / 70
Number of knots	6	12
Recommended speed [rpm]	1,000 – 20,000	1,000 – 20,000
Max. speed [rpm]	20,000	20,000
Order no. steel wire	001 622 171	001 622 172
Order no. stainless steel wire	On request	On request

### Brushes with plastic-bonded wire

The plastic bond makes the brush more dimensionally stable, more aggressive and more durable.

**Applications:** Deburring, cleaning, removal of fine welding spatter

**Abrasiveness:** ●●●●○

**Tool life:** ●●●●●

**Dimensional stability:** ●●●●○

**Shaft: Ø 6 mm**



Brush Ø [mm]	24	50
Wire Ø / wire length [mm]	0.3 x 25	0.3 x 15
Shaft length / total length [mm]	18 / 66	30 / 63
Recommended speed [rpm]	8,000 – 15,000	8,000 – 15,000
Max. speed [rpm]	15,000	15,000
Order no. steel wire	001 625 225	001 625 224
Order no. stainless steel wire	On request	On request

### Tube brushes with silicon carbide bristles

These tube brushes are specially designed for deburring bore transitions (cross bores) and improving the surface quality of bores.

**Applications:** Deburring, surface finishing

**Abrasiveness:** ●●○○○

**Tool life:** ●○○○○

**Dimensional stability:** ●●○○○

	Shaft: Ø 3 mm		Shaft: Ø 4 mm	
Brush Ø x bristle length [mm]	6 x 50	8 x 50	10 x 50	13 x 50
Bristle Ø / total length [mm]	0.6 / 125	0.6 / 125	0.6 / 125	0.6 / 125
Recommended speed [rpm]	500 – 1,500	500 – 1,500	500 – 2,000	500 – 2,000
Max. speed [rpm]	1,500	1,500	2,000	2,000
Order no. grit 120	001 625 201	001 625 202	001 625 205	001 625 217
	Shaft: Ø 5 mm		Shaft: Ø 5.5 mm	
Brush Ø x bristle length [mm]	16 x 50	19 x 65	22 x 65	25 x 65
Bristle Ø / total length [mm]	0.6 / 125	0.6 / 125	0.6 / 125	0.6 / 125
Recommended speed [rpm]	500 – 2,000	500 – 2,000	500 – 2,000	500 – 2,000
Max. speed [rpm]	2,000	2,000	2,000	2,000
Order no. grit 120	001 625 218	001 625 219	001 625 220	001 625 221





## 11 Wheel brushes

Wheel brushes have the great advantage that, even with a large brush diameter, it is still possible to work on a small contact area. This means that large brushes with a long tool life can also be used on small components.

The brushes are available with different finishing materials, which are suitable for different materials:

**Steel wire:** [steel](#), [cast iron](#)

**Stainless steel wire:** [stainless steel](#), non-ferrous metals, titanium, superalloys

**SiC bristles:** [non-ferrous metals](#), [stainless steel](#), all other metallic materials, plastics, fibre composites

**Nylon bristles:** [plastics](#), all metallic materials

**Rubber bristles with ceramic grit:** [all metallic materials](#)

### Brushes with crimped wire

This brush type offers a good balance between abrasiveness, flexibility and service life.

**Applications:** Deburring, cleaning

**Abrasiveness:** ●●●○○

**Tool life:** ●●●○○

**Dimensional stability:** ●●●○○



Shaft: Ø 3 X 40 mm



Shaft: Ø 6 X 40 mm



12 mm hole for brush holder



Brush holder shaft: Ø 8 X 40 mm

Order no. 001 625 228

Brush Ø x width [mm]	22 x 2	30 x 7	50 x 10	70 x 16	100 x 12
Wire Ø x wire length [mm]	0.1 x 6	0.2 x 6	0.2 x 12	0.3 x 19	0.3 x 24
Recommended speed [rpm]	5,000 – 10,000	8,000 – 15,000	5,000 – 12,000	5,000 – 12,000	3,000 – 7,000
Max. speed [rpm]	10,000	20,000	15,000	15,000	8,000
Order no. steel	001 622 201	001 622 702	001 622 704	001 622 701	001 625 226
Order no. stainless steel	001 622 203	On request	001 622 212	On request	On request

### Brushes with silicon carbide bristles

The polyamide base material makes the brushes very flexible and adaptable. The silicon carbide abrasive grit ensures an appropriate abrasive effect. The bristles also have a lateral abrasive effect.

**Applications:** Deburring, surface finishing

**Abrasiveness:** ●●○○○

**Tool life:** ●●●○○

**Dimensional stability:** ●●○○○



Shaft: Ø 3 X 40 mm



Shaft: Ø 6 X 40 mm



12 mm hole for brush holder



Brush holder shaft: Ø 8 X 40 mm

Order no. 001 625 228

Brush Ø x width [mm]	22 x 2	38 x 10	50 x 10	63 x 13	100 x 12
Bristle Ø x bristle length [mm]	0.25 x 6	1.0 x 6	1.0 x 11	1.0 x 17	0.9 x 22
Recommended speed [rpm]	5,000 – 10,000	10,000 – 15,000	8,000 – 12,000	8,000 – 12,000	5,000 – 10,000
Max. speed [rpm]	10,000	20,000	15,000	15,000	12,000
Grit	800	180	180	180	180
Order no.	001 622 202	001 625 212	001 625 210	001 625 215	001 625 227



Brushes are highly suitable for automation. Their flexibility makes it possible to compensate for positional inaccuracies.

### Brushes with knotted wire

The knotting results in higher impact energy, abrasiveness and dimensional stability.

**Applications:** Cleaning, removal of slag / welding spatter

**Abrasiveness:** ●●●●●

**Tool life:** ●●●●○

**Dimensional stability:** ●●●●○

**Shaft: Ø 6 x 40 mm**

Brush Ø x brush width [mm]	75 x 12
Wire Ø / knot length [mm]	0.5 / 15
Number of knots	18
Recommended speed [rpm]	5,000 – 15,000
Max. speed [rpm]	25,000
Order no. steel wire	001 622 213
Order no. stainless steel wire	On request



### Brushes with nylon bristles

This brush consists of pure nylon plastic without abrasive fillings. This makes it suitable for the very fine deburring work on sensitive surfaces where brush marks must not be visible. A typical application is the deburring of plastics.

**Applications:** very fine deburring

**Abrasiveness:** ●○○○○

**Tool life:** ●●●○○

**Dimensional stability:** ●○○○○

**12 mm hole for brush holder**

Brush Ø x width [mm]	100 x 12
Bristle Ø x bristle length [mm]	0.4 x 22
Recommended speed [rpm]	4,000 – 7,000
Max. speed [rpm]	8,000
Order no.	001 625 223



Brush holder shaft: Ø 8 X 40 mm

Order no. 001 625 228

### Rubber brushes with corundum grit

The rubber bristles are extremely flexible and adapt perfectly to the contours of the workpiece. The corundum grit ensures a very gentle abrasive effect. Perfect for very fine surface improvements and deburring work.

**Applications:** Deburring, removal of annealing colours, surface finishing

**Abrasiveness:** ●○○○○

**Tool life:** ●●●○○

**Dimensional stability:** ●○○○○



**Shaft: Ø 3 x 40 mm**

**Shaft: Ø 6 x 40 mm**

Brush Ø x brush width [mm]	19 x 5	25 x 5	50 x 10	75 x 10
Bristle Ø / bristle length [mm]	1 x 6	1 x 9	1 x 10	1 x 15
Recommended speed [rpm]	5,000 – 10,000	5,000 – 10,000	5,000 – 10,000	5,000 – 10,000
Max. speed [rpm]	10,000	10,000	10,000	10,000
Order no. grit 80	001 622 268	001 622 269	001 622 265	001 622 267

## 12 Machine files

Files are characterised by very good controllability, which makes them a popular tool for deburring. The different shapes allow precise work on complex and difficult-to-access contours that would not be possible with rotating tools.

### Steel files (tool steel 65 HRC)

The size and number of cutting edges is defined by the cut. The softer the material, the greater the abrasion with a large cut. A finer cut generally leads to a better surface quality.

\* The marked files are conical (dimensions refer to the widest point).

**Applications:** Deburring, surface abrasion

**Suitable for:** steel, non-ferrous metals, cast iron, stainless steel

**Abrasiveness:** ●●○○○

**Tool life:** ●●●○○

#### Shaft: Ø 3 mm

(Suitable for BIAX pneumatic files: FR 3-8, FR 5-8(N), FR 8-12, FLV 8-12, PLF 88, FLV 4-9, FLV 1-20)

Profile						
Dimensions [mm]	7 × 2	6 × 1.5	2.5 × 2.5*	3.5 × 3.5*	5.0 × 1.7*	Ø 3 *
Usable length / total length [mm]	60 / 115	70 / 115	80 / 120	70 / 105	70 / 105	80 / 105
Order no. cut 1 coarse	001 620 844	001 621 833	001 621 835	001 621 834	001 621 837	001 621 836
Order no. cut 3 fine	001 620 843	-	-	-	-	-

#### Extended shaft model

Dimensions [mm]	-	5.1 × 1.3	2.4 × 2.4*	3.5 × 3.5*	5.0 × 1.7*	Ø 3 *
Usable length / total length [mm]	-	70 / 140	70 / 140	70 / 140	70 / 140	70 / 140
Order no. cut 1 coarse	-	001 621 823	001 621 827	001 621 825	001 621 831	001 621 829
Order no. cut 3 fine	-	001 621 824	001 621 828	001 621 826	001 621 832	001 621 830

#### Shaft: Ø 3.8 mm

(Suitable for BIAX pneumatic files: FR 3-8, FR 5-8(N), FR 8-12, FLV 8-12, PLF 88)

Profil							File set
Dimensions [mm]	7 x 2	2,8 x 2,8	4,5 x 4,5	6 x 2,5 *	7,5 x 2	Ø 3,5 *	(1 piece per profile type)
Usable length / total length [mm]	60 / 100	60 / 100	60 / 100	60 / 100	60 / 90	60 / 80	-
Order no. cut 1 coarse	001 620 837	001 620 838	001 620 839	001 620 840	001 620 841	001 620 842	300 000 500
Order no. cut 2 medium	-	-	-	001 621 838	-	001 621 839	-
Order no. cut 3 fine	001 620 849	001 620 850	001 620 851	001 620 852	001 620 853	001 620 854	300 002 000

#### Shaft: Ø 4 mm

(Suitable for BIAX pneumatic files: FR 3-8, FR 5-8(N), FR 8-12, FLV 8-12, PLF 88)

Profile									
Dimensions [mm]	6.5 × 2	10 × 3	15 × 3	Ø 4	Ø 6 *	6.5 × 2.5	10 × 3	10 × 3	4.3 × 4.3
Usable length / total length [mm]	60 / 90	60 / 90	30 / 65	60 / 90	70 / 90	55 / 90	50 / 90	40 / 75	60 / 90
Order no. cut coarse	001 620 202	001 620 203	001 620 204	001 620 213	-	001 620 207	001 620 205	001 620 209	001 620 212
Order no. cut medium	001 620 201	-	-	001 620 210	001 620 211	001 620 206	-	001 620 208	-

#### Shaft: Ø 6 mm

(Suitable for BIAX pneumatic files: FR 8-12, FR 10-5, FLV 8-12, FR 8-2)

Profile							File set
Dimensions [mm]	12 × 6	7.2 × 7.2	9 × 9*	10 × 5	12 × 6	Ø 7 *	(1 piece per profile type)
Usable length / total length [mm]	80 / 110	80 / 125	80 / 110	70 / 130	80 / 115	90 / 120	-
Order no. cut 0 ultra coarse	001 620 800	-	-	-	-	-	-
Order no. cut 1 coarse	001 620 801	001 620 802	001 620 803	001 620 804	001 620 805	001 620 806	300 000 300
Order no. cut 3 fine	001 620 813	001 620 814	001 620 815	-	001 620 817	001 620 818	300 001 700



The new vibration-damped BIAX files are particularly lightweight and easy to handle. They are ideal for fine deburring and polishing work.

### Steel files (tool steel 65 HRC) – curved models

Due to their curved shape, these files can also be placed at specific points on a surface. Otherwise they have the same features as the straight models.

\* The marked files are conical (dimensions refer to the widest point).

**Applications:** Deburring, selective abrasion

**Suitable for:** steel, non-ferrous metals, cast iron, stainless steel

**Abrasiveness:** ●●○○○

**Tool life:** ●●●○○

#### Shaft: Ø 3.8 mm

(Suitable for BIAX pneumatic files: FR 3-8, FR 5-8(N), FR 8-12, FLV 8-12, PLF 88)

Profile							File set
Dimensions [mm]	7 × 1.5	3 × 3*	4 × 4*	6 × 2*	6.5 × 1.5	Ø 3.5 *	(1 piece per profile type)
Usable length / total length [mm]	60 / 95	65 / 95	60 / 90	60 / 95	65 / 110	60 / 80	-
Order no. cut 2 medium	001 620 879	001 620 880	001 620 881	001 620 882	001 620 883	001 620 884	300 000 700
Order no. cut 1 coarse	001 620 885	-	-	-	-	-	-

### Diamond files

These files are covered with an electroplated diamond grit, which results in exceptional tool life with certain materials.

\* The marked files are conical (dimensions refer to the widest point).

**Applications:** Deburring

**Suitable for:** cast iron, non-ferrous metals, hardened steel, fibre composites, superalloys, titanium, ceramics, glass, carbide

**Abrasiveness:** ●●○○○

**Tool life:** ●●●●●

#### Shaft: Ø 3 mm

(Suitable for BIAX pneumatic files: FR 3-8, FR 5-8 (N), FR 5-4, FR 8-12, FLV 8-12, PLF 88, FLV 4-9, FLV 1-20)

Profile							File set
Dimensions [mm]	5 × 2	5 × 5	3.5 × 3.5	6 × 3	Ø 2	Ø 4	(1 piece per profile type)
Usable length / total length [mm]	25 / 60	25 / 60	25 / 60	25 / 60	25 / 60	25 / 60	-
Order no. grit D107	001 620 861	001 620 862	001 620 863	001 620 864	001 620 865	001 620 866	300 000 600

#### Long model

Dimensions [mm]	5.5 × 1.5	2.5 × 2.5	3 × 3	5.5 × 2	Ø 2.5 *
Usable length / total length [mm]	45 / 85	45 / 85	45 / 85	45 / 85	45 / 85
Order no. grit D91	On request	On request	On request	On request	On request





The BIAX FLV 8-12 F has been a popular polishing tool for many years. It features stroke length adjustment and is vibration damped, which is ideal for complex polishing and deburring work.

### 13 Finishing stones and holders

Using finishing stones, very fine and precise abrasion can be achieved on edges and surfaces. On surfaces, fluid should always be used to improve the cutting performance and avoid scratches.

**Applications:** Surface finishing, surface/selective abrasion, deburring

#### Hard model (ceramic-bonded high-grade white corundum)

**Suitable for:** hardened steel, steel, stainless steel

320 Gesswein 424-4303 EDM BLUE 320

**Abrasiveness:** ●○○○○

**Tool life:** ●●●○○

**Dimensional stability:** ●●●●○

Length x height x width [mm]	150 x 3 x 6	150 x 3 x 13	150 x 6 x 13
Order no. grit 120	001 452 205	001 452 209	001 452 213
Order no. grit 220	001 452 207	001 452 211	001 452 215
Order no. grit 320	001 452 208	001 452 212	001 452 216

Minimum order quantity 5 pieces

#### Medium model (ceramic-bonded standard corundum)

**Suitable for:** steel, stainless steel, hardened steel, non-ferrous metals

D 600 GESSWEIN USA 405-2803 D 600

**Abrasiveness:** ●○○○○

**Tool life:** ●●●○○

**Dimensional stability:** ●●●●○

Length x height x width [mm]	150 x 3 x 6	150 x 3 x 13	150 x 6 x 13
Order no. grit 150	001 452 227	001 452 234	001 452 238
Order no. grit 220	001 452 228	001 452 235	001 452 239
Order no. grit 600	001 452 233	001 452 237	001 452 242

Minimum order quantity 5 pieces

#### Soft model (ceramic-bonded silicon carbide)

**Suitable for:** non-ferrous metals, steel, stainless steel, hardened steel

800 Gesswein 412-1893 MOLDBAKER PLUS 800

**Abrasiveness:** ●○○○○

**Tool life:** ●●○○○

**Dimensional stability:** ●●●○○

Length x height x width [mm]	150 x 3 x 6	150 x 3 x 13	150 x 6 x 13
Order no. grit 320	001 452 217	001 452 221	001 452 224
Order no. grit 400	001 452 218	001 452 222	001 452 225
Order no. grit 600	001 452 219	001 452 223	001 452 226

Minimum order quantity 5 pieces

### Finishing stone fluid

- › Improves the cutting performance of polishing stones
- › Prevents scratches on the surface
- › Helps to maintain the surface geometry
- › Water soluble – can be easily removed without aggressive cleaning agents



Transfer container 45 ml (001 365 402) for easier application of the polishing stone fluid.  
1 litre container (001 360 008)

### Finishing stone holders

Small, lightweight finishing stone holder with a 3 mm shaft.

Suitable for all BIAX files. Span width: 1–6 mm

Order no. 001 974 457



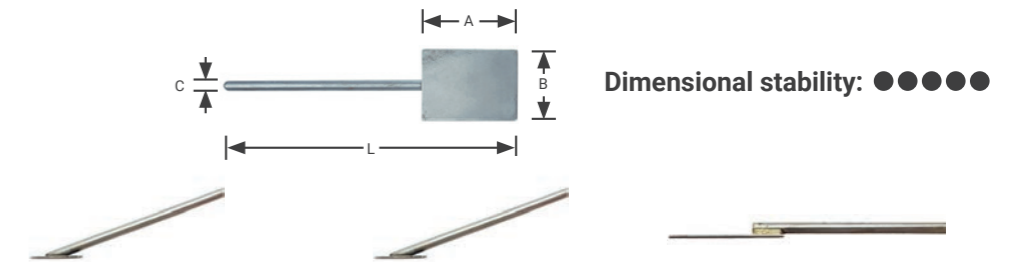
Large finishing stone holder for FR 8-12, PS1, PLF88, PLF90, FLV 8-12F, PS8. Span width 3–6 mm  
Order no. 007 011 295

## 14 Carriers for abrasive cloth and polishing paste

### Sanding shoe

Are used in combination with adhesive abrasive cloth. Their shape makes them suitable for processing flat surfaces and corners.

**Applications:** surface abrasion



Dimension A [mm]	20	20	35
Dimension B [mm]	11	20	25
Dimension L [mm]	140	140	110
Shaft C [mm]	4	4	4
Order no.	001 974 438	001 974 437	001 974 436

### Plastic carrier with toggle bar

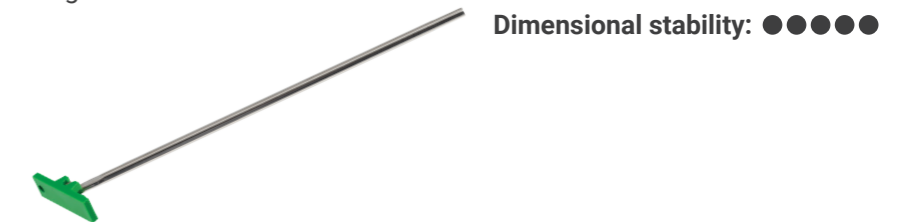
The plastic carrier can move in a see-saw motion, which allows an easy – and always flat – contact on the workpiece surface. It is simply clipped into the toggle bar and can be used with abrasive cloth or polishing paste.

**Applications:** surface abrasion, surface finishing

**Plastic carrier order no. 001 621 522**

Dimensions: 30 x 10 mm

**Toggle bar order no. 001 621 521**



### Wooden carriers

Are used in combination with the diamond pastes (p.18). They contain no abrasive components on their own.

**Applications:** Surface finishing

Height x width x length [mm]	3 x 7 x 150	6 x 12 x 150
Soft	001 621 517	001 621 519
Hard	001 621 518	001 621 520

Minimum order quantity 10 pieces

### Abrasive cloth (self-adhesive)

The abrasive cloth is simply stuck onto the sanding shoe or another carrier.

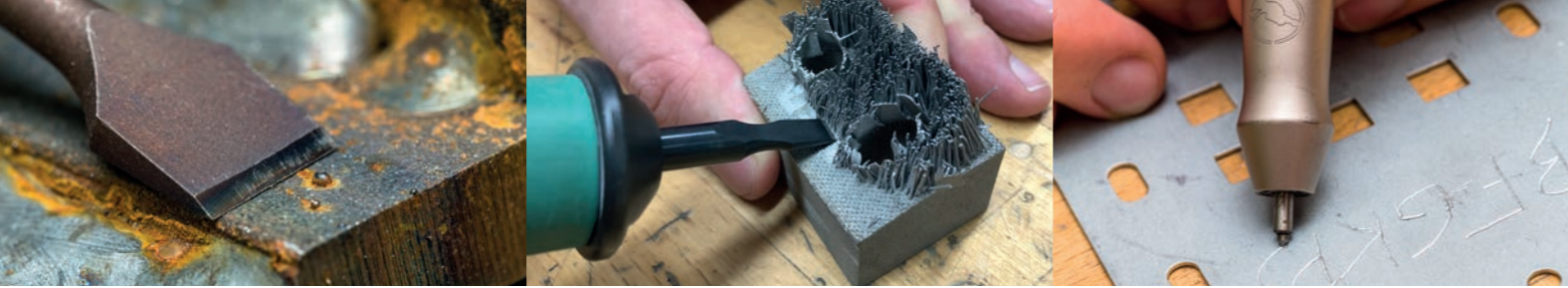
**Applications:** surface abrasion,  
surface finishing

**Suitable for:** all metallic surfaces



Grit	80	120	240	400
Order no.	001 974 439	001 974 440	001 974 441	001 974 442

Minimum order quantity 10 pieces



## 15 Chisels

Thanks to their impact energy, chisels are suitable for a wide range of tasks. They offer the major advantage that neither grinding dust nor large quantities of chips are produced, since the material is simply driven off or severed.

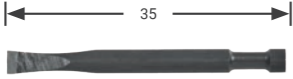
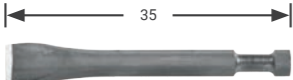
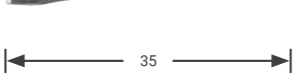

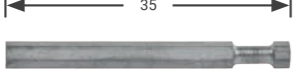
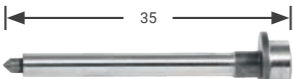
**Applications:** Deburring, engraving, removal of supporting structures in 3D printing, removal of slag and welding spatter

**Suitable for:** all materials up to the specified hardness of the chisels

### Chisels for BIAX GMD 3



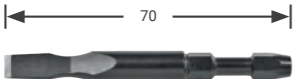


The chisels for the GMD 3 are the most intricate in the BIAX range and are made of high-quality HSS steel with a hardness of 64 HRC. The stylus is equipped with a carbide tip.

	Flat chisel, width 3 mm	Order no. 003 000 730
	Flat chisel, width 5 mm	Order no. 003 000 463
	Flat chisel, width 8 mm	Order no. 003 003 990
	Groove chisel, width 1 mm	Order no. 003 000 895
	Hex slug 3 mm allows you to grind any contour yourself	Order no. 003 000 979
	Stylus	Order no. 007 001 184
<b>Chisel set, complete</b> (without flat chisel, width 8 mm)		<b>Order no. 007 000 979</b>

### Chisels for BIAX MD 100



The MD 100 chisels are somewhat coarser than those for the GMD 3. However, their impact energy can still be controlled very well, even with one hand, allowing the component to be guided with the other hand. They also consist of HSS steel with a hardness of 64 HRC.

	Flat chisel, width 8 mm	Order no. 003 015 207
	Flat chisel, width 12 mm	Order no. 003 015 204
	Flat chisel, slanted, width 9 mm	Order no. 003 015 205



The BIAX pneumatic saws are particularly suitable for cutting car bodies and sheet metal. A new field of application is the post-processing of sand cores. Get in touch for more details!

## 16 Saw blades

**These saw blades are ideal for cutting thin sheet metal and crosspieces.**

The teeth are made from high-quality HS steel. The supporting material is made from special spring steel which has been subject to specific heat treatments to ensure maximum flexibility, resilience and freedom from fatigue. Unlike cutting discs, no grinding dust is generated during processing.

**Applications:** Cutting

**Suitable for:** steel, non-ferrous metals, plastics, wood, stainless steel, fibre composites



**Diamond saw blades are available on request**

For BIAX PS 25, PS 2, PS 3

Saw blade length [mm] L	60	60	60	60
Tooth spacing [mm] T	0.8	1.0	1.4	1.8
Number of teeth	32 TPI*	24 TPI*	18 TPI*	14 TPI*
Order no.	007 012 393	007 012 392	007 012 391	007 012 390
Applications	Thin sheet metal and high-strength steel up to 1.5 mm	Double and triple sheet metal up to 1.5 mm	Aluminium, plastic	Wood, composites, plastic

\*TPI = teeth per inch Packaging unit and minimum order quantity 10 pieces

For BIAX PS 1, PS 8, PS 90

Saw blade length [mm] L	96	96	96	72
Tooth spacing [mm] T	0.8	1.0	1.8	1.4
Number of teeth	32 TPI*	24 TPI*	14 TPI*	18 TPI*
Order no.	001 974 432	001 974 433	001 974 434	001 974 435
Applications	All thin sheet metal Sheet steel up to 1.0 mm	Sheet steel up to 3.0 mm, aluminium up to 1.5 mm, chromium sheet steel up to 1.5 mm	Aluminium, non-ferrous metal up to 4 mm, wood, chipboard	Specially designed for sawing with narrow curve radii

\*TPI = teeth per inch Packaging unit and minimum order quantity 10 pieces

For BIAX FR 10-5/2

Saw blade length [mm] L	90	90	90
Tooth spacing [mm] T	0.8	1.0	1.4
Number of teeth	32 TPI*	24 TPI*	18 TPI*
Order no.	001 974 445	001 974 446	001 974 447
Applications	All thin sheet metal Sheet steel up to 1.0 mm	Sheet steel up to 3.0 mm, aluminium up to 1.5 mm, chromium sheet steel up to 1.5 mm	Non-ferrous metal, aluminium, wood, chipboard

\*TPI = teeth per inch Packaging unit and minimum order quantity 10 pieces





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