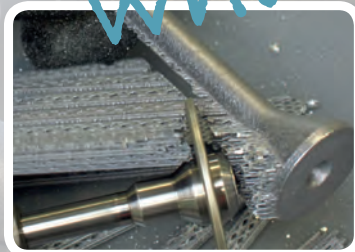


# Jolke



## 3D printing!

*Finer,  
what's next...?*



# 3D printing!

*Fine,  
what's next...?*

## The complete range for 3D postprocessing

Additive manufacturing" processes have become indispensable in today's world. They are becoming more and more important every day. One problem often remains however - postprocessing – as well as the eternal questions

- How do I remove the support structures quickly and easily without damaging the mould?
- What is the quickest and most effective way of achieving my desired surface?
- How do I process moulds that are difficult to access?

In our brochure, you will find the solutions to your problem in the shape of devices and tools specially designed for finishing additively manufactured parts.

These topics often require professional assistance.

You can reach us during business hours on phone +49 (0) 22 04 / 8 39-0 and via e-mail [sale@joke.de](mailto:sale@joke.de).

We are looking forward to hearing from you!

Yours sincerely,

Frank Westerhoff  
Head of Export



### Drives and accessories

For many tools, a control unit is needed - fine or powerful - depending on requirements!



### Removal of support structures

Brand new, it makes short work of the workpiece or in this case, the supports!



### Coarse surface finishing

Finer support structures and burrs can be easily removed using deburring knives and milling cutters.



### Postprocessing

Grinding or blasting get you very close to your goal, depending on your requirements!



### Finishing

Unidirectional or mirror polishing - everything is possible!



### Workplace

We care about your health. Protect yourself against injuries.

# Content

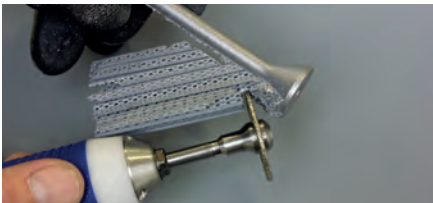
## Drives and accessories



**ENESKA micro control unit** (from page 5) • **Handpiece** (from page 7)  
• **Collets** (page 8)

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## Removal of support structures



**Precision pliers JGH-SPN-120** (page 10) • **Ultrasonic minicutter Z0-91** (page 10) • **Spatula, tool assortment, set of pliers and engineer's hammer** (page 11) • **Diamond cut-off discs with galvanic bond** (page 11) • **Solid carbide circular saw blades** (page 12)

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## Coarse surface finishing



**Deburring knife** (page 14) • **Milling cutters made of ceramic material** (page 14) • **grinding points vacuum-brazed bonding** (page 15) • **Ultrafine tungsten carbide milling burs** (page 16)  
• **AlCrN-coated milling points** (page 17) • **Milling cutters for processing aluminium** (page 17)

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## Postprocessing



**VORTEX® blue grinding points** (page 19) • **AWCO grinding points** (page 20) • **Fibre-laminated polishing and grinding points** (page 21) • **SIC-Alu grinding points** (page 21) • **Tool system CRATEX®** (page 22) • **Diamond hand file and Diamond-metal foils** (page 23) • **Diamond grinding points** (page 23) • **Fine blasting unit mikromat 50 eco** (page 24) • **Tabletop fine blasting device joke-microjet** (page 25)

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## Finishing



**Grinding files joke PU-DIA** (page 27) • **Padded abrasive cloth MX** (page 27) • **Diamond-coated PET strip** (page 28) • **Grinding strip holders and strips** (page 28) • **Diamond compounds and fluids** (page 29) • **Polishing felts and cloths** (from page 30) • **Magic super-fine polishing suspension** (page 32) • **Simichrome polishing compound** (page 32)

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## Workplace



**Protective goggle** (page 33) • **Fine dust masks** (page 33) • **Nubbed thermal assembly gloves** (page 34) • **Maxi-Hit all round gloves** (page 33) • **Cleaning fluid X 73016-A** (page 34) • **Deburring box** (page 35)

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# Drives



## ENESKAmicro - a sound basis for optimum surface results

Selection of the correct drive plays a crucial role in processing the widest range of materials. Especially in the case of materials such as titanium, stainless steel or nickel-based alloys, a high working speed with an equally high and constant torque is required. Fluctuating speeds are otherwise negatively transferred to the surface to be processed.

With the ENESKAmicro motor system, we combine these high motor outputs with highly ergonomic handpieces for the most diverse applications in additive manufacturing. Particularly through the multitude of handpieces and their possible combinations, the ENESKAmicro provides the optimum basis for covering everything ranging from removal of the support structure to finishing.

Regardless of whether work is performed according to the SLM (Selective Laser Melting), SLS (Selective Laser Sintering) or FDM (Fused Deposition Modelling) method, the joke drives allow quick and efficient removal of the support structure and provide the surface with the requisite surface characteristics. The high level of true running accuracy combined with a high tool clamping force allows precise work, even with complex geometries.

With the adaptable angle handpieces and linear filing devices, hard-to-reach areas and a wide variety of surfaces are easily accessible.

P.S. You already have handpieces or motors that you have been using on another micromotor system up to now and would like to continue to do so? No Problem! The majority of handpieces & motors, even from other manufacturers, can also be connected to the ENESKAmicro system! Consult us!



# ENESKAmicro

joke presents the new generation for grinding, polishing, milling and deburring.

Handpieces & Motors  
universally compatible  
regardless of manufacturer

highest  
clamping force  
in the world

enhanced  
handpieces

30 % more  
efficiency

extremely  
high true  
running accuracy

ON/Off switch  
at the motor

based  
on IP 54


extremely  
quiet running

20 % higher  
final speed


**100 %**  
Made in GERMANY



## The ENESKAmicro set for universal use


ENESKAmicro 600 set 2.5	Order No.	Price
 <p>The set contains the following components:</p> <ul style="list-style-type: none"> <li>1 x ENESKAmicro 600 control unit (order no. 0 011 201)</li> <li>1 x ENESKAmicro motor HT60/rapid chuck Power (order no. 0 011 400)</li> <li>1 x ENESKAmicro motor cable HT, 1.8 m (order no. 0 011 302)</li> <li>1 x ENESKAmicro collet type EMA, Ø 3.0 mm (order no. 0 011 413)</li> <li>1 x ENESKAmicro handpiece support HT, white (order no. 0 011 109)</li> </ul> <p><b>Contact us:</b> Technical data concerning the control unit and handpiece can be found in our online catalogue on <a href="http://www.joke-technology.com">www.joke-technology.com</a>.</p>	<b>0 011 220</b>	

## The ENESKAmicro set with ergonomic handpiece

ENESKAmicro 600 Set 2.14	Order No.	Price
 <p>The set contains:</p> <ul style="list-style-type: none"> <li>1 x ENESKAmicro 600 control unit (order no. 0 011 201)</li> <li>1 x ENESKAmicro COMPACT HT60 SMALL, motor incl. rapid chuck Power, (order no. 0 011 460)</li> <li>1 x ENESKAmicro motor cable HT, 1.8 m (order no. 0 011 402)</li> <li>1 x ENESKAmicro collet type EMA, Ø 3.0 mm (order no. 0 011 413)</li> <li>1 x ENESKAmicro handpiece tray, white (order no. 0 011 109)</li> </ul> <p><b>Contact us:</b> Technical data concerning the control unit and handpiece can be found in our online catalogue on <a href="http://www.joke-technology.com">www.joke-technology.com</a>.</p>	<b>0 011 270</b>	



Many other variants at  
[sales@joke.de](mailto:sales@joke.de)

## The ENESKAmicro set with exchangeable handpiece

ENESKAmicro 600 Set 2.10	Order No.	Price
 <p>The set contains the following components:</p> <ul style="list-style-type: none"> <li>1 x ENESKAmicro 600 control unit (order no. 0 011 201)</li> <li>1 x ENESKAmicro motor JBM 50 HT with ENESKA 4 (+) connection, (order no. 0 008 806)</li> <li>1 x ENESKAmicro motor cable JBM 50 HT/EM, 1.6 m (order no. 0 011 504)</li> <li>1 x ENESKAmicro handpiece tray standard, black (order no. 0 011 110)</li> <li>1 x ENESKA rapid-chuck handpiece JEHR 500 (order no. 0 008 810) incl. collet type CHH, Ø 3 mm</li> </ul> <p><b>Contact us:</b> Technical data concerning the control unit and handpiece can be found in our online catalogue on <a href="http://www.joke-technology.com">www.joke-technology.com</a>.</p>	<b>0 011 255</b>	


## Belt grinder JBS 400

for processing flat and curved surfaces

Belt grinder JBS 400	Order No.	Price										
 <p>for grinding belts 4, 6 and 8 mm wide</p> <table border="0"> <tr> <td>Gearing</td> <td>8:3</td> </tr> <tr> <td>Input speed</td> <td>max. 40,000 rpm</td> </tr> <tr> <td>Speed</td> <td>max. 15,000 rpm</td> </tr> <tr> <td>Weight</td> <td>355 g</td> </tr> <tr> <td>Scope of supply</td> <td>two 6 x 300 mm grinding belts each, in grit sizes 120, 140 and 400</td> </tr> </table> <p> for supplement your ENESKAmicro-Sets 2.10</p>	Gearing	8:3	Input speed	max. 40,000 rpm	Speed	max. 15,000 rpm	Weight	355 g	Scope of supply	two 6 x 300 mm grinding belts each, in grit sizes 120, 140 and 400	<b>0 008 850</b>	
Gearing	8:3											
Input speed	max. 40,000 rpm											
Speed	max. 15,000 rpm											
Weight	355 g											
Scope of supply	two 6 x 300 mm grinding belts each, in grit sizes 120, 140 and 400											

## ENESKAmicro COMPACT HT60-D6

the powerful variant for your tools with a Ø 6 mm shank

ENESKAmicro COMPACT HT60-D6, motor incl. rapid chuck	Order No.	Price												
 <ul style="list-style-type: none"> <li>• with collet Ø 6 mm and motor cable 1.8 m</li> <li>• Brushless DC motor BLDC</li> <li>• On-off switch located on the micromotor</li> </ul> <table border="0"> <tr> <td>Motor speed</td> <td>up to max. 60,000 rpm</td> </tr> <tr> <td>Output</td> <td>8.9 N cm at 280 W</td> </tr> <tr> <td>Weight</td> <td>0.475 kg</td> </tr> <tr> <td>Dimensions (D x L)</td> <td>Ø 30 x 180 mm</td> </tr> <tr> <td>Concentricity</td> <td>&lt; +/- 0.01 mm</td> </tr> <tr> <td>Collet type</td> <td>EMB</td> </tr> </table>	Motor speed	up to max. 60,000 rpm	Output	8.9 N cm at 280 W	Weight	0.475 kg	Dimensions (D x L)	Ø 30 x 180 mm	Concentricity	< +/- 0.01 mm	Collet type	EMB	<b>0 011 420</b>	
Motor speed	up to max. 60,000 rpm													
Output	8.9 N cm at 280 W													
Weight	0.475 kg													
Dimensions (D x L)	Ø 30 x 180 mm													
Concentricity	< +/- 0.01 mm													
Collet type	EMB													


## Angle handpiece JERA 270 and JEKC 300

Angle heads - for reaching concealed corners

Angle handpiece JERA 270	Order No.	Price												
 <table border="0"> <tr> <td>Collet</td> <td>CHS (Ø 3 mm when delivered)</td> </tr> <tr> <td>Speed</td> <td>max. 20,000 1/min, reverse initial rotation</td> </tr> <tr> <td>Head gearing</td> <td>1:1,5</td> </tr> <tr> <td>Concentricity</td> <td>± 0.01 mm</td> </tr> <tr> <td>Dimensions</td> <td>Ø 22.4 x 71 mm (without thread)</td> </tr> <tr> <td>Weight</td> <td>100 g</td> </tr> </table> <p> for supplement your ENESKAmicro-Sets 2.10</p>	Collet	CHS (Ø 3 mm when delivered)	Speed	max. 20,000 1/min, reverse initial rotation	Head gearing	1:1,5	Concentricity	± 0.01 mm	Dimensions	Ø 22.4 x 71 mm (without thread)	Weight	100 g	<b>0 009 812</b>	
Collet	CHS (Ø 3 mm when delivered)													
Speed	max. 20,000 1/min, reverse initial rotation													
Head gearing	1:1,5													
Concentricity	± 0.01 mm													
Dimensions	Ø 22.4 x 71 mm (without thread)													
Weight	100 g													
Angle handpiece JEKC 300	Order No.	Price												
 <table border="0"> <tr> <td>Collet</td> <td>CHC (Ø 3 mm when delivered)</td> </tr> <tr> <td>Speed</td> <td>max. 20,000 1/min, same rotation direction</td> </tr> <tr> <td>Head gearing</td> <td>3:4</td> </tr> <tr> <td>Concentricity</td> <td>± 0.01 mm</td> </tr> <tr> <td>Dimensions</td> <td>Ø 22.5 x 69.5 mm (without thread)</td> </tr> <tr> <td>Weight</td> <td>60 g</td> </tr> </table> <p> for supplement your ENESKAmicro-Sets 2.10</p>	Collet	CHC (Ø 3 mm when delivered)	Speed	max. 20,000 1/min, same rotation direction	Head gearing	3:4	Concentricity	± 0.01 mm	Dimensions	Ø 22.5 x 69.5 mm (without thread)	Weight	60 g	<b>0 009 813</b>	
Collet	CHC (Ø 3 mm when delivered)													
Speed	max. 20,000 1/min, same rotation direction													
Head gearing	3:4													
Concentricity	± 0.01 mm													
Dimensions	Ø 22.5 x 69.5 mm (without thread)													
Weight	60 g													

## Hand-filing machine FMD/3-2/EM


for linear processing • the powerful variant

Hand-filing machine FMD/3-2/EM with built-in micromotor and motor cable	Order No.	Price
 <p>for direct connection to ENESKA<sub>micro</sub> control units 450 and 600</p> <p>Stroke length: 0.5 – 6 mm, infinitely adjustable            No. of strokes 1,000 - 7,800 strokes/min            Input speed max. 30.000 rpm            Tool receptacle Ø 1 - 6.2 mm            Weight 800 g            Accessories 2 tool holders, tools, oil, storage box</p>	<b>0 011 550</b>	







Many other variants at  
[sales@joke.de](mailto:sales@joke.de)

## Mini hand-filing machines DIPROFIL® FMR/E 15

for linear processing • the small and handy variant

DIPROFIL® FMR/E 15 Mini hand-filing machines	Order No.	Price
 <p>can be connected to micromotors JBM 50 S and JBM 50 T</p> <p>Stroke length 1.5 mm            No. of strokes max. 8,000 strokes/min            Tool receptacle Ø 3.5 mm            Sound level &lt; 70 dB(A)            Vibration &lt; 2.5 m/s<sup>2</sup>            Dimensions Ø 24 x 90 mm (without thread)            Weight 120 g            Accessories storage box, tools, oil, rubber covering (long)</p>	<b>0 001 209</b>	

 for supplement your ENESKA<sub>micro</sub>-Sets 2.10

Suitable Collets	Type	for handpieces	Dimensions	Order No.	Price
	<b>CHH</b>	JEHR 500	Ø 2.35 mm	<b>0 009 152</b>	
	<b>EMA</b>	HT60/rapid chuck Power	Ø 2.35 mm	<b>0 011 412</b>	
	<b>EMB</b>	COMPACT HT60-D6	Ø 2.35 mm	<b>0 011 422</b>	
	<b>EMB</b>	COMPACT HT60-D6	Ø 3 mm	<b>0 011 423</b>	
	<b>CHC</b>	JEKC 300	Ø 2.35 mm	<b>0 009 202</b>	
	<b>CHS</b>	JERA 270	Ø 2.35 mm	<b>0 750 511</b>	



# Removal of support structures



## Removal of support structures

First of all, the support structures must be removed quickly and effectively. Accurate work using precise tools, right from the outset, saves time-consuming and expensive working hours during postprocessing.

### Plastic



The strengths and processing possibilities of plastics are widely different. In most cases however, very good progress can be made with **precision pliers**, such as the **JGH**. For those who need to process larger quantities or simply prefer to work mechanically, the **ultrasonic minicutter** offers a very good alternative. It guarantees "ultra-smooth" and precise separation of supports and projections.

### Metal and non-ferrous



Metals and non-ferrous metals do not always make it easy for us in everyday life. Machining can get very tough with the wrong tool.

Materials that are difficult to machine are best processed using **diamond tools**. Super-hard diamond cutting material is excellently suited for short-chipping materials. The tremendous hardness has many advantages, e.g. long service life as well as geometric and dimensional stability and therefore allows processing of the hardest materials such as **Inconel and Titanium**. With conventional steels and stainless steels, **solid carbide circular saw blades** are used to free the tool from supports more easily than with conventional tools.



#### **Other tried and trusted alternatives**

We recommend our high quality stainless steel spatula for removing the workpieces from the base plate. For all those who prefer a more "old school" approach, the following pages include suitable items such as hammer, chisel and plier set - really helpful for initial preparatory work!

## Precision pliers JGH-SPN-120

the right tool for manual removal of plastic supports



Precision pliers JGH-SPN-120 for plastic	Order no.	Price
<ul style="list-style-type: none"> <li>• for cleanly removing injection points, burrs, etc.</li> <li>• no crushing, clean cut edge owing to specially ground and shaped cutting edge</li> </ul>	<b>0 413 955</b>	



 Contact us:  
Other pliers and deburring tools at [sales@joke.de](mailto:sales@joke.de).

Many other variants at  
[sales@joke.de](mailto:sales@joke.de)

## Ultrasonic minicutter ZO-91

convenient for larger numbers of items



Ultrasonic minicutter ZO-91	Order no.	Price
Consisting of: 1 x control unit 1 x handpiece with cable 1 x blade receptacle ZH04 3 x spare screws HB03, for blade receptacle 40 x blades HA04 1 x Allen key RR02, for blade receptacle	<b>0 006 260</b>	

Accessories	Order no.	Price
<b>Spare blades HA04, standard, PA = 40 pieces</b>	<b>0 006 270</b>	
<b>Blade receptacle ZH04, standard, 1 piece</b>	<b>0 006 271</b>	
<b>Blade receptacle set ZH04S, standard, 1 piece</b>	<b>0 006 272</b>	
<b>Spare screw HB03, 1 piece</b>	<b>0 006 273</b>	
<b>Spare blades ZH10, 25 mm long version, 1 piece</b>	<b>0 006 274</b>	
For all those who need to cut deeper.		
<b>Spare blades ZH11, saw blade fine, 1 piece</b>	<b>0 006 275</b>	
For all those who do more sawing than cutting.		
<b>Spare blades ZH03, rounded R5, 1 piece</b>	<b>0 006 276</b>	
For all those who need to "go round corners".		



## Practical helpers, always handy

### Spatula, chisel, pliers and hammer

Many other variants at  
[sales@joke.de](mailto:sales@joke.de)



#### Spatula

50 mm working width, rustproof

Order No.	Price
<b>0 960 820</b>	

#### Tool assortment

Set contains:

- Flat chisel (125 x 10 x 11 mm)
- Flat chisel (150 x 12 x 15 mm)
- Groove cutting chisel (125 x 10 x 4 mm)
- Center punch (120 x 10 mm)
- Punch (120 x 10 x 2 mm)
- Punch (120 x 10 x 4 mm)



Order No.	Price
<b>0 960 810</b>	

#### Set of pliers, 3-piece

Set contains:

- Diagonal side cutter (160 mm)
- Combination pliers (180 mm)
- Flat-nosed pliers (160 mm)

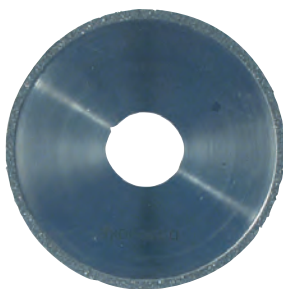
Order No.	Price
<b>0 960 840</b>	



**Engineer's hammer with fibreglass  
haft, 300 grams, 300 mm haft**

Order No.	Price
<b>0 960 830</b>	

## Diamond cut-off discs with galvanic bond for a clean cut



#### Diamond cut-off discs, galvanic bond

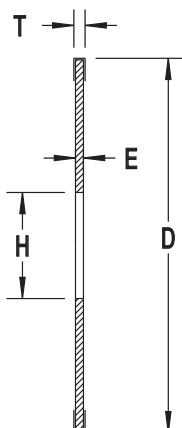
A clean, fast cut is what you want when machining your workpieces. That is exactly what you get with the diamond cut-off discs.

We recommend both grit sizes: D 181 for normal to fine cutting tasks and D 356 (very coarse) for extreme cases in which high temperatures need to be dissipated, e.g. with Inconel and plastics.

Looking for another grit size? We have still even more variants at [sales@joke.de](mailto:sales@joke.de).

**Please note that you need a suitable cut-off disc receptacle with a carbide shank for this tool (see next page)!**

Diamond cut-off discs, galvanic bonding	Dimensions Dia. x D	Drilling dim. H	Blade thickness E	Grit size	Matching receptacles	Order No.	Price from 5 pieces	Price from 1 piece
	Ø 32 x 1.45 mm	Ø 8 mm	1.0 mm	D 181	TA8	<b>0 561 617</b>		
	Ø 32 x 1.75 mm	Ø 8 mm	1.0 mm	D 356	TA8	<b>0 561 618</b>		



A cut-off disc receptacle is required for this tool (see next page).

Many other variants at  
[sales@joke.de](mailto:sales@joke.de)

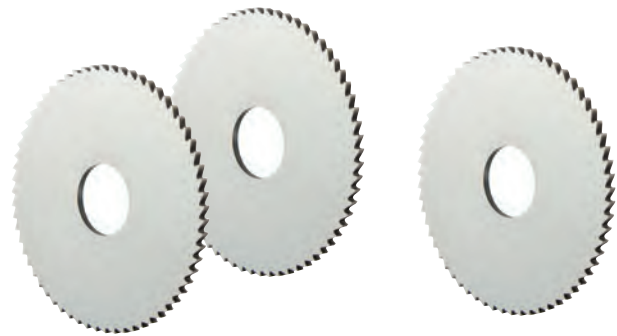
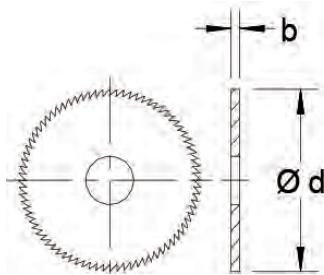
# Solid carbide circular saw blades

## the effective alternative to conventional tools

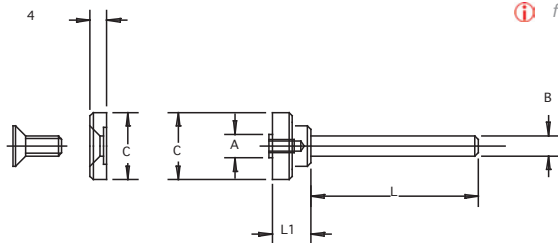
### Solid carbide circular saw blades

The solid carbide circular saw blades are high quality products with a precision cut and lateral hollow grinding by the mirror-grinding process for slotting and separating. The cutting speed can be increased 3 to 4-fold by using solid carbide circular saw blades in comparison to HSS saw blades. Furthermore, high-strength materials with 800 - 1200 N/mm<sup>2</sup> and abrasive materials can be readily processed (e.g. tungsten copper, copper, aluminium, stainless steel, titanium, cast iron, brass, bronze, thermoplastics and duroplastics).

Solid carbide circular saw blades	Solid carbide circular saw blades	Drilling Ø	Design	Material	Order No.	Price
	Ø 30 x 0.4 mm	8 mm	80 teeth	solid carb.	<b>0 500 384</b>	
	Ø 30 x 0.8 mm	8 mm	64 teeth	solid carb.	<b>0 500 386</b>	



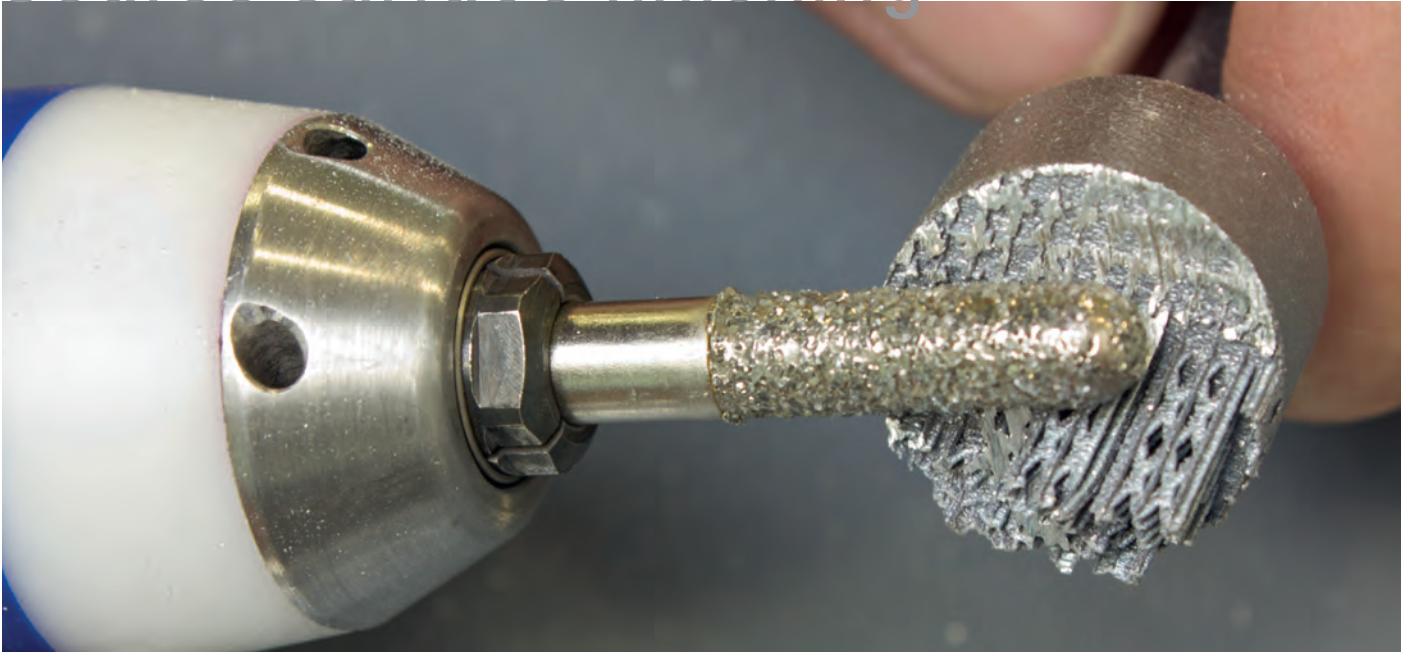
Cut-off disc receptacles with carbide metal shank	Type	for drilling dim. A	Head dimensions C	Shank dimensions B x L	Order No.	Price
	TA8	8 mm	Ø 12 mm	Ø 3 x 45 mm	<b>0 561 947</b>	
	TA8	8 mm	Ø 12 mm	Ø 6 x 45 mm	<b>0 561 948</b>	



further selection at [www.joke.de](http://www.joke.de)

Many other variants at [sales@joke.de](mailto:sales@joke.de)

# Coarse surface finishing



## Coarse surface finishing

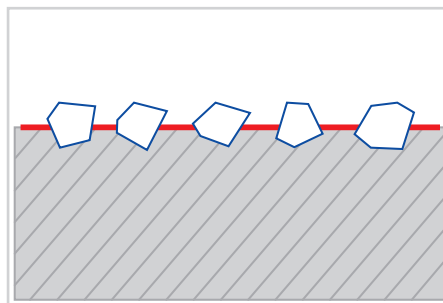
As with any activity, preparatory work needs to be carried out prior to surface finishing. The more precise this is, the less effort is required for rough work and finishing.

Especially when machining hard materials, tools with long service lives and maximum cutting performance are required. With the products listed on the following pages, you are well equipped for any type of material.

Vacuum brazed tools are particularly noteworthy here. The advantages of this new bond at a glance.



*very high stock removal, owing to greater grain protrusion*



*The grit is directly welded to the base material.*



*cooler cut owing to larger chip spaces*

## Deburring knife

### manual deburring of plastics

#### Deburring knife, red

- Lies firmly in your hand owing to non-slip plastic casing
- Protective cap to reduce risk of injury
- Knurled screw for easy blade change and absolutely secure hold of blades
- Spare blades in handy dispenser



	Order no.	Price
<b>Deburring knife, red</b> with rapid-change blade	<b>0 402 000</b>	

#### Accessories

#### Spare blade dispenser

Contents: 100 pieces



Order no. Price

**0 402 009**

Many other variants at  
[sales@joke.de](mailto:sales@joke.de)

## Milling cutters made of ceramic material

### for mechanical deburring of plastics

#### Milling cutters made of ceramic material

The cutters made of high-performance ceramics are available in a cylindrical, round conical and tree shape. Coarse, medium and fine teeth are available for each shape. The cutters are characterised by a long service life, very good cutting properties, little temperature increase, no smearing/clogging and very quiet running.

Optimally suited for processing plastic, rubber, silicone, foam, plaster and acrylic, etc.

**Recommended speed range: 15,000 - 30,000 rpm, max. speed 40,000 rpm.**



Set	Order No.	Price
<b>Set of ceramic milling cutters, shank Ø 2.35 mm, contents: 3 pieces</b>	<b>0 529 005</b>	
Set, consisting of: 1 ceramic milling cutter, tree shape, Ø 6 x 14 mm, fine criss-cross teeth (order no. 0 529 023) 1 ceramic milling cutter, tree shape, Ø 6 x 14 mm, medium criss-cross teeth (order no. 0 529 024) 1 ceramic milling cutter, tree shape, Ø 6 x 14 mm, coarse criss-cross teeth (order no. 0 529 025)		

 further selection at [sales@joke.de](mailto:sales@joke.de)

# Diamond grinding points vacuum-brazed bonding for good stock removal

## Diamond grinding points vacuum-brazed bonding

The new vacuum-brazed bonding provides a much better adhesion of grits to the carrier thanks to direct fusing. These tools are particularly suited for fibre glass reinforced materials GFK and CFK (in aircraft construction and shipbuilding), tungsten carbide green components (unsintered carbide), ceramics (i.e. valve covers for car engines), coal products (i.e. brake discs, carbon brushes), cast materials.

### Benefits of this new bonding:

- Very good metal removal thanks to higher grain protrusion
- Clearly better retention force of grit
- Cooler grinding thanks to larger chipping spaces



Set	Order No.	Price
<b>Diamond grinding points, vacuum brazed, shank Ø 3 mm, contents: 10 pieces</b>	<b>0 563 003</b>	
The set consists of the following ten diamond grinding points with a vacuum brazed bond in addition to a grit size of D 427, shank Ø 3 x 55 mm:		
<ul style="list-style-type: none"> <li>• Cylinder, Ø 7 x 7 mm (order no. 0 563 037)</li> <li>• Rounded cylinder, Ø 4 x 7 mm, R = 2 (order no. 0 563 038)</li> <li>• Rounded cylinder, Ø 6 x 10 mm, R = 3 (order no. 0 563 039)</li> <li>• Ball, Ø 6 mm (order no. 0 563 040)</li> <li>• Ball, Ø 7 mm (order no. 0 563 041)</li> <li>• Pointed cone, Ø 6 x 4 mm, 60° (order no. 0 563 035)</li> <li>• Pointed cone, Ø 6 x 10 mm, 30° (order no. 0 563 036)</li> <li>• Rounded cone, Ø 4 / 1 x 10 mm, 14°, R = 0.5 (order no. 0 563 033)</li> <li>• Rounded cone, Ø 6 / 3 x 10 mm, 20°, R = 1.5 (order no. 0 563 034)</li> <li>• Rounded cone, Ø 7 / 3 x 7 mm, 36°, R = 1.5 (order no. 0 563 032)</li> </ul>		

Set	Order No.	Price
<b>Diamond grinding points, vacuum brazed, shank Ø 6 mm, contents: 10 pieces</b>	<b>0 563 005</b>	
The set consists of the following ten diamond grinding points with a vacuum brazed bond in addition to a grit size of D 427, shank Ø 6 x 60 mm:		
<ul style="list-style-type: none"> <li>• Rounded cone, Ø 6 / 1 x 19 mm, 15°, R = 0,50 (order no. 0 563 042)</li> <li>• flame-shaped, Ø 8 x 14 mm (order no. 0 563 043)</li> <li>• Pointed cone, Ø 9 x 4,5 mm, 90° (order no. 0 563 044)</li> <li>• Pointed cone, Ø 7 x 6 mm, 60° (order no. 0 563 045)</li> <li>• Cylinder, Ø 8 x 20 mm (order no. 0 563 046)</li> <li>• Cylinder, Ø 10 x 24 mm, S.-Ø 6 x 65 mm (order no. 0 563 047)</li> <li>• Rounded cylinder, Ø 6 x 31 mm, R = 3, S.-Ø 6 x 65 mm (order no. 0 563 048)</li> <li>• Ball, Ø 6 mm (order no. 0 563 049)</li> <li>• Ball, Ø 8 mm (order no. 0 563 050)</li> <li>• Ball, Ø 12 mm (order no. 0 563 051)</li> </ul>		

Many other variants at  
[sales@joke.de](mailto:sales@joke.de)

# Ultrafine tungsten carbide milling burs

## for an effective, clean grind

### Ultrafine tungsten carbide milling burs

Ultrafine tungsten carbide milling burs are designed for very fine surface finishing. They are characterised by good stock removal and at the same time good surface quality. Almost all materials up to a hardness of 65 HRC can be worked. These milling burs are also perfect for applications in which normal grinding points would be suitable, yet greater stock removal is required. This product series is frequently used for punching and cutting tools in toolmaking and mould building.



Set	Order No.	Price
<b>Carbide milling cutter set, ultrafine cut, shank-Ø 3 mm, contents: 10 pieces</b>	<b>0 527 560</b>	
Set, consisting of:		
• 1 milling cutter, cylinder, Ø 2 x 11 mm (order no. 0 527 510)		
• 1 milling cutter, cylinder, Ø 3 x 14 mm (order no. 0 527 511)		
• 1 milling cutter, rounded cylinder, Ø 2 x 11 mm (order no. 0 527 520)		
• 1 milling cutter, rounded cylinder, Ø 3 x 14 mm (order no. 0 527 521)		
• 1 milling cutter, ball, Ø 2 mm (order no. 0 527 530)		
• 1 milling cutter, ball, Ø 3 mm (order no. 0 527 531)		
• 1 milling cutter, ball, Ø 4 mm (order no. 0 527 532)		
• 1 milling cutter, tree shape, Ø 3 x 6 mm (order no. 0 527 540)		
• 1 milling cutter, tree shape, Ø 3 x 14 mm (order no. 0 527 541)		
• 1 milling cutter, tree shape with pointed end, Ø 3 x 14 mm (order no. 0 527 550)		



Set	Order No.	Price
<b>Set of tungsten carbide milling burs, Ø 6 mm shank, contents: 6 pieces</b>	<b>0 527 570</b>	
Set, consisting of:		
• 1 milling cutter, cylinder, Ø 6 x 16 mm (order no. 0 527 514)		
• 1 milling cutter, rounded cylinder, Ø 6 x 16 mm (order no. 0 527 524)		
• 1 milling cutter, ball, Ø 10 mm (order no. 0 527 534)		
• 1 milling cutter, tree shape with pointed end, Ø 6 x 18 mm (order no. 0 527 552)		
• 1 milling cutter, tree shape with pointed end, Ø 12 x 30 mm (order no. 0 527 553)		
• 1 milling cutter, pointed cone, Ø 12 x 25 mm (order no. 0 527 584)		



Many other variants at  
[sales@joke.de](mailto:sales@joke.de)



# AlCrN-coated milling points for hard materials

**New!**

## AlCrN-coated milling points

AlCrN stands for aluminium chromium nitride and is a coating in which chromium has been replaced with titanium, thus achieving significantly higher performance. The coating thickness of 1 to 4 µm, a hardness of 3500 HV and temperature stability up to 1200°C convince with strength, resistance and the associated service life when using the milling cutter.

**This high-performance coating is ideal for titanium, high-temperature alloys and steels that are difficult to machine.**



Set	Order No.	Price
<b>Set AlCrN-coated milling points, Ø 3 mm shank, contents: 6 pieces</b>	<b>0 501 710</b>	
Set, consisting of:		
• 1 milling cutter, cylinder, Ø 3 x 14 mm (order no. 0 501 720)		
• 1 milling cutter, rounded cylinder, Ø 3 x 14 mm (order no. 0 501 730)		
• 1 milling cutter, ball, Ø 3 mm (order no. 0 501 740)		
• 1 milling cutter, tree shape, Ø 3 x 12,7 mm (order no. 0 501 750)		
• 1 milling cutter, tree shape with pointed end, Ø 3 x 12,7 mm (order no. 0 501 760)		
• 1 milling cutter, flame-shaped, Ø 3 x 6,3 mm (order no. 0 501 770)		

Many other variants at  
[sales@joke.de](mailto:sales@joke.de)



## Milling cutters with coarse cut for aluminium processing

### Milling cutters for processing aluminium

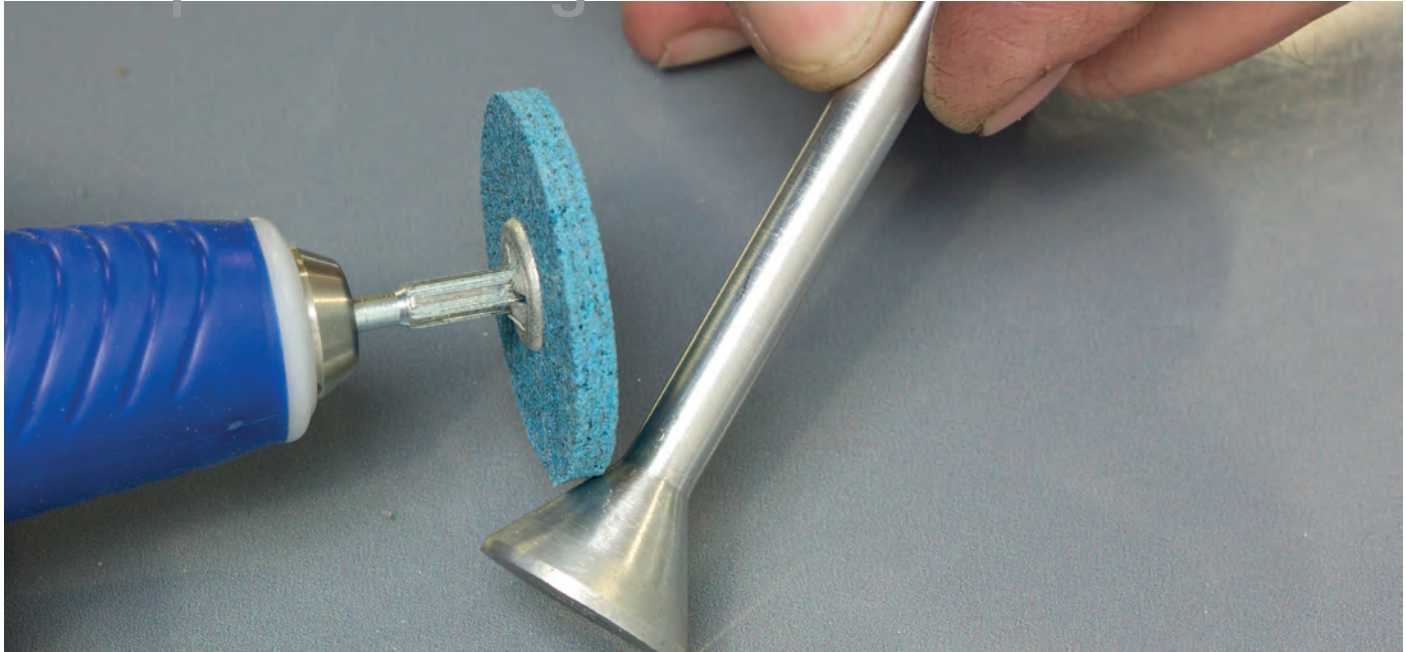
Milling cutters with coarse cut and Ø 3 mm shank. For processing non-ferrous metals, aluminium, copper, brass and plastic. Optimally suited for milling work (deburring, welding seam processing, contours etc.) in mould making, machine and model building.



Set	Order No.	Price
<b>Set of milling cutters for processing aluminium, shank Ø 3 x 38 mm, 8 pieces</b>	<b>0 526 080</b>	
Set, consisting of:		
• 1 milling cutter, cylinder, end cut, Ø 3 x 14 mm (order no. 0 526 063)		
• 1 milling cutter, rounded cylinder, Ø 3 x 14 mm (order no. 0 526 065)		
• 1 milling cutter, sphere, Ø 3 mm (order no. 0 526 067)		
• 1 milling cutter, drop, Ø 3 x 6 mm (order no. 0 526 070)		
• 1 milling cutter, tree, Ø 3 x 14 mm (order no. 0 526 072)		
• 1 milling cutter, tree with pointed end, Ø 3 x 14 mm (order no. 0 526 074)		
• 1 milling cutter, round cone, Ø 3 x 14 mm (order no. 0 526 076)		
• 1 milling cutter, pointed cone, Ø 3 x 11 mm (order no. 0 526 078)		
<b>Cutting speed 400 - 1,000 m/min</b>		



# Postprocessing



## Choosing the right postprocessing technique

What happens when the support structures have been removed, but the workpiece needs to be given a better surface? There are many possibilities here. Two alternatives worth recommending are grinding and blasting.

### Grinding / "pre-polishing"



Grinding is a metal-cutting production process for precise and final machining of workpieces. It can be used manually or on grinding machines. As with all cutting methods, excess material is removed in the form of chips. The edges of the microscopically small, hard, mineral crystals in the grinding tool function as blades in this case.

Polishing is a machining process for various different materials. The polishing grit contained in the polishing compound mechanically cuts into the surface. The polishing process often comprises several stages. The polishing time is mainly determined by the initial state (preliminary grinding), the performance of the polishing agent used and the selected process parameters such as contact pressure and speed as well as the desired final surface.

### Blasting



Blasting is a surface finishing method in which blasting shot is projected at high speed on to the workpieces. The blasting result essential depends on the type of blasting shot selected, in addition to various machine types and configuration parameters.

In machine types, we at joke, differentiate between injector and pressure blasting systems, which differ significantly in their performance.

Selection of the blasting shot is a crucial factor in governing the application. Ranging from refining and hardening the surface, including cleaning and deburring, to rapid and aggressive stock removal.

# VORTEX® blue grinding points for hard materials

## Set of VORTEX® blue grinding points

The set is ideally suited for processing hard materials that are difficult to machine, such as titanium, Inconel, etc. The patented high performance grit is ideal for rapid stock removal and reduces processing times.

### The following versions are available:

- Wheel version (slightly flexible)
- Cylinder version (firm)

Many other variants at  
[sales@joke.de](mailto:sales@joke.de)



Set	Shank dimensions	Order No.	Price
<b>Set of VORTEX® blue grinding points</b>	Ø 3 x 40 mm	<b>0 571 915</b>	
The set consists of the following five coarse-grit, hard grinding points with a shank Ø 3 x 40 mm:			
<ul style="list-style-type: none"> <li>• Wheel, Ø 25 x 3 mm (order no. 0 571 904)</li> <li>• Wheel, Ø 30 x 3 mm (order no. 0 571 900)</li> <li>• Cylinder, Ø 5 x 13 mm (order no. 0 571 901)</li> <li>• Cylinder, Ø 6 x 13 mm (order no. 0 571 902)</li> <li>• Cylinder, Ø 10 x 12 mm (order no. 0 571 903)</li> </ul>			



Set	Shank dimensions	Order No.	Price
<b>Set of VORTEX® blue grinding points</b>	Ø 6 x 40 mm	<b>0 571 925</b>	
The set consists of the following three coarse-grit, hard grinding points with a shank Ø 6 x 40 mm:			
<ul style="list-style-type: none"> <li>• Cylinder, Ø 10 x 20 mm (order no. 0 571 920)</li> <li>• Cylinder, Ø 13 x 20 mm (order no. 0 571 921)</li> <li>• Cylinder, Ø 20 x 25 mm (order no. 0 571 922)</li> </ul>			

## AWCO grinding points

### ideal for harder materials

#### AWCO grinding points

The ideal points for use on titanium materials in addition to nickel and cobalt alloys. Likewise very good for regrinding repair weldings and for processing hardened steel components.

Produced from ceramic bond with a mixture of white high-grade corundum and blue ceramic sintered corundum. The results of this material combination are extraordinarily high chip removal rates with an excellent service life.

#### The advantages:

- cool cutting owing to friability of the grit mixture
- high stock removal rates with a very good service life
- self-sharpening effect of the sintered corundum for consistent stock removal rates



Set	Shank dimensions	Order No.	Price
<b>Set of grinding points AWCO</b>	Ø 3 x 40 mm	<b>0 542 420</b>	

The set consists of the following twelve grinding points with a shank Ø 3 x 40 mm:

- Cylinder, Ø 2 x 5 mm, grit 80, (order no. 0 542 424)
- Cylinder, Ø 3 x 6 mm, grit 80, (order no. 0 542 427)
- Cylinder, Ø 4 x 8 mm, grit 80, (order no. 0 542 430)
- Cylinder, Ø 5 x 10 mm, grit 80, (order no. 0 542 433)
- Cylinder, Ø 6 x 13 mm, grit 60, (order no.-Nr. 0 542 436)
- Cylinder, Ø 8 x 6 mm, grit 60, (order no. 0 542 440)
- Tree with pointed end, Ø 3 x 6 mm, grit 80 (order no. 0 542 455)
- Tree with pointed end, Ø 4 x 8 mm, grit 80 (order no. 0 542 458)
- Wheel, Ø 13 x 3 mm, grit 60 (order no. 0 542 443)
- Wheel, Ø 20 x 6 mm, grit 60 (order no. 0 542 445)
- Ball, Ø 3 mm, grit 80 (order no. 0 542 447)
- Ball, Ø 6 mm, grit 80 (order no. 0 542 449)

Many other variants at  
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Set	Shank dimensions	Order No.	Price
<b>Set of AWCO grinding points</b>	Ø 6 x 40 mm	<b>0 542 470</b>	

The set consists of the following ten grinding points with a grit size of 46 and a shank Ø 6 x 40 mm:



- Cylinder, Ø 8 x 16 mm, (order no. 0 542 471)
- Cylinder, Ø 10 x 13 mm, (order no. 0 542 473)
- Cylinder, Ø 10 x 20 mm, (order no. 0 542 475)
- Cylinder, Ø 13 x 25 mm, (order no. 0 542 477)
- Cylinder, Ø 16 x 20 mm, (order no. 0 542 479)
- Cylinder, Ø 13 x 32 mm, (order no. 0 542 481)
- Cylinder, Ø 20 x 25 mm, (order no. 0 542 483)
- Cylinder, Ø 20 x 40 mm, (order no. 0 542 485)
- Ball, Ø 13 mm, (order no. 0 542 491)
- Tree shape with pointed end, Ø 13 x 20 mm, (order no. 0 542 494)

# Polishing and grinding points

## universal helpers

### Fibre-laminated polishing and grinding points

These fibre-laminated polishing and grinding points achieve excellent surface qualities with a high stock removal. The tools allow vibration-free grinding and polishing in a single working operation, without clogging, which results in a very long service life. Ideal for high chrome-plated steels and for all difficult steels in aircraft, drive and power plant construction. The points are available in two bond hardnesses and different grit sizes.

**Hard:** Aggressive for high stock removal and fine surfaces

**Soft:** Polishing with limited stock removal and deburring

Set	Bond	Grit size	Shank dimensions	Order no.	Price
<b>Set of polishing and grinding points, fibre-laminated, corundum</b>	soft	80	Ø 3 x 40 mm	<b>0 545 690</b>	

The set consists of the following seven soft-bonded fibre-laminated grinding points with K 80 corundum grit, shank Ø 3 x 40 mm:

- Cylinder, Ø 6 x 6 mm, (order no. 0 545 612)
- Cylinder, Ø 6 x 13 mm, (order no. 0 545 615)
- Cylinder, Ø 10 x 19 mm, (order no. 0 545 619)
- Cylinder, Ø 13 x 13 mm, (order no. 0 545 622)
- Ball, Ø 13 mm, (order no. 0 545 609)
- Pointed cone, Ø 10 x 19 mm, (order no. 0 545 607)
- Kegel, Ø 13 x 19 mm, (order no. 0 545 603)



Owing to limited stock removal, the grinding points are particularly suitable for polishing aluminium and for deburring

Set	Bond	Grit size	Shank dimensions	Order no.	Price
<b>Set of polishing and grinding points, fibre-laminated, corundum</b>	hard	80	Ø 3 x 40 mm	<b>0 545 695</b>	

The set consists of the following seven hard-bonded fibre-laminated grinding points with K 80 corundum grit, shank Ø 3 x 40 mm

- Cylinder, Ø 6 x 6 mm, (order no. 0 545 611)
- Cylinder, Ø 6 x 13 mm, (order no. 0 545 614)
- Cylinder, Ø 10 x 19 mm, (order no. 0 545 618)
- Cylinder, Ø 13 x 13 mm, (order no. 0 545 621)
- Ball, Ø 13 mm, (order no. 0 545 627)
- Pointed cone, Ø 10 x 19 mm, (order no. 0 545 606)
- Cone, Ø 13 x 19 mm, (order no. 0 545 602)



Owing to high stock removal, the grinding points are suitable for fine surfaces.

Set	Grit size	Shank dimensions	Order No.	Price
<b>Set of grinding points, SiC-Alu</b>	80	Ø 3 x 30 mm	<b>0 542 530</b>	

The set consists of the following five cylindrical grinding points with a grit size of SiC 80, shank Ø 3 x 30 mm:

- Cylinder, Ø 4 x 8 mm, (order no. 0 542 501)
- Cylinder, Ø 5 x 10 mm, (order no. 0 542 502)
- Cylinder, Ø 6 x 10 mm, (order no. 0 542 503)
- Cylinder, Ø 8 x 10 mm, (order no. 0 542 504)
- Cylinder, Ø 10 x 10 mm, (order no. 0 542 505)



The grinding points are particularly suitable for processing aluminium and hard chrome-plated steels as well as high-alloy and ultra-high alloy steels. They are also suitable for annealed and hardened steels and for soft non-ferrous metals.

## Tool system CRATEX® with rubber bond

### Tool system CRATEX®

The bond is made of chemical rubber. In contrast to conventional hard grinding wheels, the CRATEX® bond has a unique cushioned action ensuring soft, smooth and free cutting. With harder materials, CRATEX® yields a clean, polishable cut, free from corrugation and discolouration. CRATEX® grinds and polishes soft materials and plastics without tearing. It resists clogging and smearing and does not result in any glassy spots.

CRATEX® can be used for dry and wet grinding. The tools are insensitive to all common grinding cooling media and rust protectors and to oil. Even more gentle work can be achieved in conjunction with polishing compounds.

#### Typical applications:



Smoothing and polishing of casting moulds, dies and other production tools, smoothing of edges on punched or sheared parts or glass, lapping of welded seams after rough grinding: sharpening of cutting dies, deburring and smoothing of plastic workpieces, reworking injection channels; polishing of moulds.

#### The advantages at a glance:

- flexible and adaptable
- clean, discolouration-free polished section
- for all metals, non-ferrous metals and plastics
- grinding, polishing, deburring and smoothing
- four different grit sizes

CRATEX® tools are available in four standard grit sizes, which each has a different colour for ease of differentiation.



CRATEX® Set 777, 84 pieces	Order No.	Price
 <p data-bbox="637 1100 956 1131">Contents in plastic storage case:</p> <ul data-bbox="637 1166 1089 1484" style="list-style-type: none"> <li>8 wheels shape 2</li> <li>16 points shape 6</li> <li>16 points shape 8</li> <li>8 points shape 10</li> <li>8 wheels shape 54</li> <li>16 wheels shape 74</li> <li>8 wheels shape 86</li> <li>equally assorted in the four CRATEX® grit sizes</li> <li>2 point mounting shanks shape 22 (Ø 3 mm)</li> <li>2 point mounting shanks shape 12 (Ø 3 mm)</li> </ul>	0 545 292	
 <p data-bbox="637 1761 956 1792">Contents in plastic storage case:</p> <ul data-bbox="637 1827 1089 2175" style="list-style-type: none"> <li>8 points shape 4</li> <li>8 points shape 6</li> <li>8 points shape 8</li> <li>8 points shape 10</li> <li>8 points shape 11</li> <li>8 points shape 12</li> <li>8 points shape 14</li> <li>8 points shape 15</li> <li>equally assorted in the four CRATEX® grit sizes</li> <li>2 point mounting shanks shape 12 (Ø 3 mm)</li> <li>2 point mounting shanks shape 13 (Ø 3 mm)</li> </ul>	0 545 291	

Many other variants at  
[sales@joke.de](mailto:sales@joke.de)

# Diamantwerkzeuge

## rapid results for the highest demands

### Diamond hand file set

These diamond files in galvanic bonding can be used as hand files with the plastic cover provided or alternatively mechanically.

Diamond hand file set	Coating length	Shank dim.	Overall length	Grit size	Order No.	Price
Contents: 6 pieces	50 mm	Ø 3 mm	180 mm	D 126	<b>0 403 010</b>	

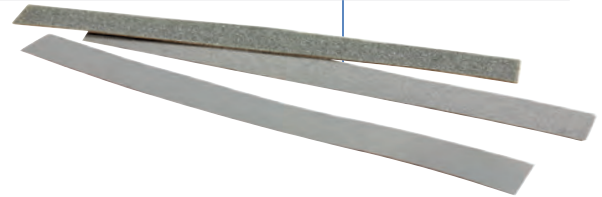


### Diamond-metal foils

Foil thickness 0.25 - 0.4 mm. Diamond-coated metal foils. Galvanic bond. Very high stock removal. Flexible, can be cut to size with scissors. Applications: carbide, ceramic, glass, hardened steels, fibreglass, jewellery, stone.

Set	Bond	Dimensions	Order No.	Price
<b>Diamond-metal foils, self-adhesive</b>	galvanic	10 x 100 mm	<b>0 403 470</b>	

Contents: 3 pieces, 1 x grain  
 • Grit #120/D126,  
 • Grit #300/D46  
 • Grit #800/D15



### Diamond grinding point sets

With these sets, you will always have the right diamond grinding point at hand – at an unbeatable price.

Grit size D 107 for head Ø up to 2.5 mm  
 Grit size D 126 for head Ø more than 2.5 mm

Set	Order No.	Price
<b>Diamond grinding point set, shank dim. Ø 3 mm, content: 30 pieces</b>	<b>0 403 551</b>	

The set contains diamond grinding points in cylinder, rounded cylinder, sphere, trapezium, rounded cone, tree with pointed end and pointed cone shapes.



Set	Order No.	Price
<b>Diamond grinding point set, shank dim. Ø 6 mm, content: 10 pieces</b>	<b>0 403 551-6</b>	

D126, overall length 60 mm

With this diamond set, you will always have the right diamond grinding point at hand. The points are manufactured with the super-hard abrasive diamond in a galvanic bond and are used in processing hard metal, ceramic, glass, GRP, CFRP, ferrites, etc., etc. ...

The set contains diamond grinding points in shapes:

- |                               |                  |                    |                   |
|-------------------------------|------------------|--------------------|-------------------|
| • Pointed cone                | Ø 6 x 25 mm, 10° | • Rounded cylinder | Ø 6.5 x 15 mm     |
| • Tree shape with pointed end | Ø 6.5 x 22 mm    | • Trapeze          | Ø 8 x 5.5 mm, 20° |
| • Cone                        | Ø 8/4 x 15 mm    | • Cylinder         | Ø 8 x 15 mm       |
| • Pointed cone                | Ø 8 x 15 mm, 30° | • Ball             | Ø 8 mm            |
| • Wheel                       | Ø 10 x 1.2 mm    | • Tree shape       | Ø 8 x 15 mm       |

# joke mikromat 50 eco

## universal blasting unit

### Fine blasting unit mikromat 50 eco

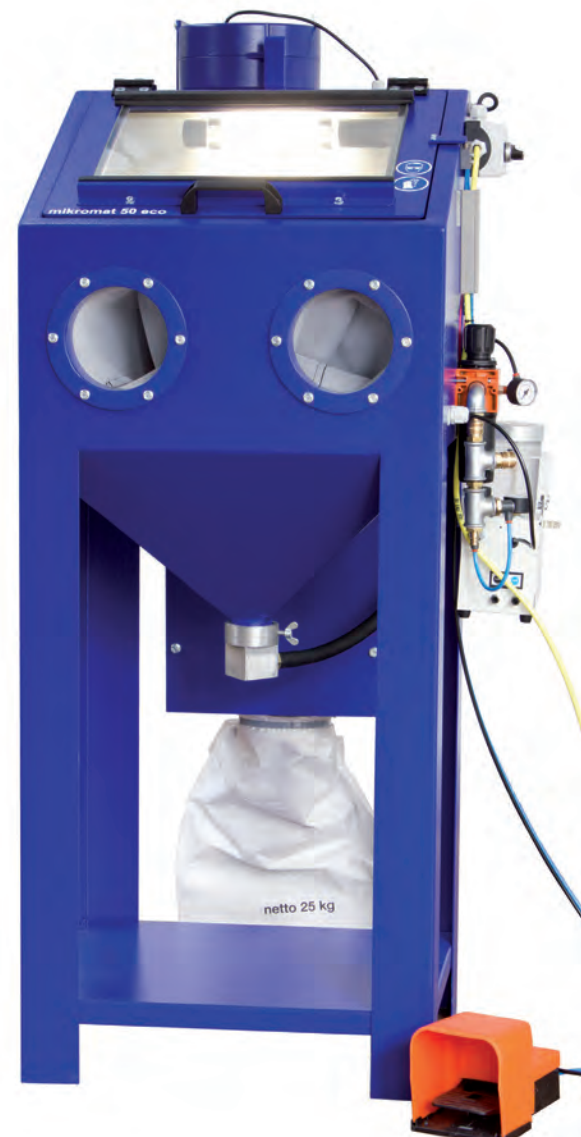
The new, budget-priced entry level model offering professional quality for workshop and factory. It is highly recommended for deburring, derusting, descaling and removing of lacquer. This unit offers modern technology with many practical features:

NEW: The units are now fully equipped with LED work chamber illumination!

#### Highlights:

- Compact, space-saving design
- Integrated dust exhaust for perfect visibility during the blasting process
- Blasting shot is processed in a closed loop, i.e. only dust etc. is removed, the blasting shot is recycled
- High-performance filter cartridge (up to 8 m<sup>2</sup> filter space)
- Large window
- Adjustable blasting pressure via pressure regulator
- Easy exchange of blasting shot thanks to steep funnel
- Grid with high loading capacity
- Integrated safety device
- LED work chamber illumination
- Easy self-installation of the optional equipment, even as retrofitting

	<b>mikromat 50 eco</b>
Working chamber dimensions (W x D x H)	approx. 500 x 450 x 470 mm
Unit dimensions (W x D x H)	approx. 705 x 760 x 1,520 mm
Field of vision	400 x 280 mm
Weight (kg)	approx. 85 kg
Load-bearing capacity, working surface	50 kg
Supply voltage	230 V / 50-60 Hz Euro plug
Compressed-air connection	Rapid-release coupling 1/2"
Compressed-air adjustment range	0,5 - 10 bars
Air consumption	approx. 700 l/min at 7 bars
Fan output	approx. 350 m <sup>3</sup> /h
Lighting	LED
Number of filter cartridges	1
Filter area	4 m <sup>2</sup>
Number of dust bags	1
Number of gloves	Gloves with quick-change system
Scope of delivery	Blasting nozzle made of hardened steel (Ø 7 mm), safety switch (no blasting shot supply when hood open), pressure controller with water separator, foot switch for starting/stopping the blasting process
Order No.	<b>0 951 100-8</b>
Price	





## joke microjet compact table-top unit

### Tabletop fine blasting device joke-microjet

The microjet is a blasting device developed for surface treatment of metals. Particularly suitable for removing residues and oxide layers or when using glass beads for polishing the precious metal surfaces

#### Highlights:

- Depending on equipment, a choice of one, two or three blasting shots is available during work.
- Handpiece can be used with a Ø 0.8, 1.0 or 1.2 mm fine blasting nozzle.
- Wide viewing window with easily replaceable protective film.
- Steel housing with stove-enamel finish
- Pneumatic foot switch
- Tank with 2 kg capacity (approx. 1 litre)
- Compact, space-saving construction
- Switches for light and external extractor provided.

	joke microjet 2
Unit dimensions (W x D x H)	approx. 380 x 570 x 280 mm
Weight	approx. 11 kg
Working pressure	0.5 - 6 bar
Air consumption	max. 80 l/min at max. 6 bars
Lighting	9 W (fluorescent tubes in housing)
Supply voltage	230 V, 50/60 Hz
Scope of delivery	2 handpieces with Ø 1.2 mm blasting nozzle made of hardened steel, foot switch, 1 container respectively for blasting shot of grit size 90-120 µm and 150-250 µm (switchable), compressed air controller with filter and gloves (installed).
Order No.	<b>0 951 220</b>
Price	



Many other variants at  
[sales@joke.de](mailto:sales@joke.de)



#### There are many possibilities:

The microjet 2 is supplied as standard with the above-mentioned blasting shot container and blasting nozzles. Other blasting shot container combinations or version with only one or three containers are possible.

#### Blasting shot container combinations • Blasting shot and blasting nozzle:

70 - 40 µm	GPF	glass beads	Ø 0.8 mm
110 - 70 µm	GPF	glass beads	Ø 1.0 mm
200 - 100 µm	GPM	glass beads	Ø 1.2 mm

### Blasting shot and suction unit EUR

The right blasting shot for each application. Almost all blasting shots offer you a choice between the handy 5-litre canister and the economical sack containing 25 kg. A wide selection is available at [sales@joke.de](mailto:sales@joke.de).

Here you will also find the matching suction unit EUR with the dual filter system.



# Finishing



## The finish polish

Finishing involves the final processing stages to improve the surface – either for technical or purely aesthetic purposes.

Depending on the material, tool and processing technique, surface results ranging from linear to mirror polishing can be achieved. The first steps towards a shine are accomplished by using grinding files and/or abrasive cloths.

If the surface is to be polished to a shine, polishing felts are used in combination with diamond compounds. Gradually better and increasingly brilliant surface results can be obtained by step-by-step use of the compounds from coarse to fine.

It should be noted that the surface must be cleaned before using a finer compound and a new felt must be used to avoid any residues of coarser compound being introduced into the process.



## Elastic grinding files joke PU-DIA for preliminary polishing

### Rubber-bonded grinding files joke PU-DIA

Synthetic diamond grits bonded in polyurethane (PU). Excellent stock removal performance on hardened surfaces and also the correct medium of choice for removing erosion structures. Owing to the elastic bond, these tools also adapt very well to the widest array of contours without any risk of breaking. Two dimensions in each of six grit sizes as standard (others on request!).

**Use:** wet/dry with water, fluid or oil.

**Tip:** make your own grinding files. The joke Pu-Dia's can be simply cut to size and adapted.



Elastic grinding files joke PU-DIA	Dimensions	Grit size	Colour	Order No.	Price from 5 pieces	Price from 1 piece
	20 x 20 x 100 mm	D 3	green	<b>0 545 811</b>		
		D 9	red	<b>0 545 812</b>		

Many other variants at  
[sales@joke.de](mailto:sales@joke.de)

## Padded abrasive cloth MX intelligent abrasive for finishing

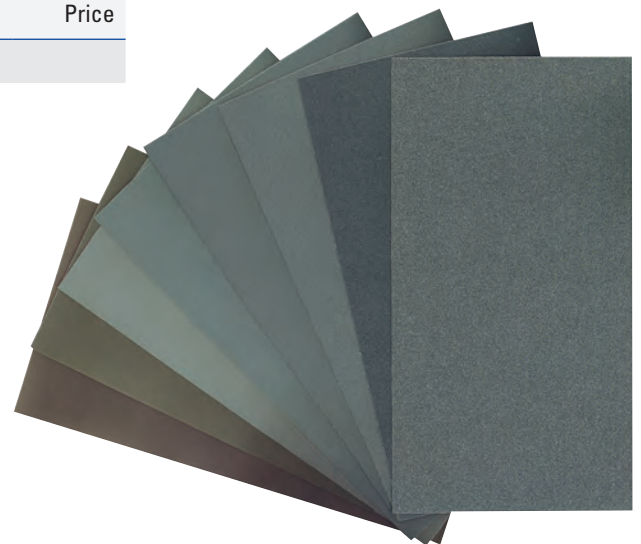
### Padded abrasive cloth MX

The somewhat different kind of abrasive. The grinding crystals are accommodated in an elastic latex layer on a fabric base. The crystals move flexibly during grinding and always optimally align themselves in relation to the surface; the stock removal level constantly remains flat. The result is a completely smooth surface on almost all materials: metal, plastics, glass, wood, lacquer or stone. Practically all smooth surfaces can be superfine ground. In doing so, it is possible to work with a considerably coarser grit size than usual and markedly finer surfaces result all the same. Comparatively large grinding crystals and the flexible carrier material prevent scratches on the workpiece, since no adherence of the grinding crystals occurs as a result of dust particle accumulation.



Use with and without  
coolant/lubricant!

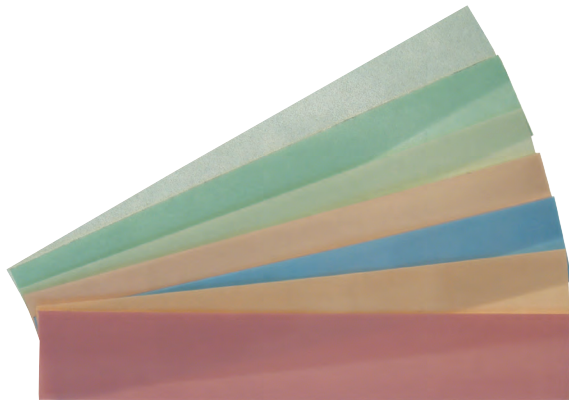
Set	Order No.	Price
<b>Set of padded abrasive cloth MX</b>	<b>0 401 650</b>	
One sheet per grit size respectively (180, 240, 320, 360, 400, 600, 800 und 1200)		



#### What advantages does "padded grinding" offer?

- Up to 15 times longer service life
- Markedly finer microsection than with conventional abrasives for the same grit size
- Grit size 400 corresponds to the surface roughness of P 2500 grit despite high stock removal!
- Delayed friction, hence less heat generation
- Large crystals
- No built-up edges

## Diamond-coated PET strip for versatile preliminary polishing



### Diamond-coated PET strip

Strip thickness 75 µm. Highly flexible abrasive film for use in tool and mould building. Particularly suited to high gloss polishing. The sheets are waterproof and impress through high tensile strength and heat resistance. Can be cut to any desired dimension. Applications: tungsten carbide, ceramic, glass, hardened steels, jewellery, stone.

Set	Order No.	Set price
<b>Diamond-coated PET strip set</b>	<b>0 403 468</b>	
The set contains one sheet of each grit size.		

## Microfinishing grinding strip holders and strips for very fine finishing by hand

### Microfinishing grinding strip holders and strips

The microfinishing grinding strip holders and strips are the ideal tool for use in the metal, wood and jewellery industries as well as in all areas of very fine finishing. The holder has 3 geometrically different working areas (surface, tip, radius), which make it the ideal tool for finishing. The integrated spring ensures good pretensioning and easy changing of the strips. The individual holders are supplied with a microgrinding strip; spare strips in 8 different grit sizes are available.

Set	Order No.	Price
<b>Set of grinding strip holders with microgrinding strip, 160 x 6 mm</b>	<b>0 415 022</b>	
Contents: 8 holders incl. grinding strip (grit size 220, 270, 320, 400, 600, 800, 1000, 1200)		



## joke Magic FAS diamond compounds for hard materials

### joke Magic FAS diamond compounds

This diamond compound consists of a viscous, easily spreading, oil soluble carrier with hard synthetic diamonds (PKD). It is ideally suitable for materials such as ceramic, carbide, cobalt, titanium or nickel.




joke Magic FAS diamond compounds, oil soluble	Content	Grit size	Concentration	Order No.	Price from 6 pcs	Price from 3 pcs	Price from 1 pce
	10 g	3 µm	extra high	0 590 822			
		6 µm	extra high	0 590 823			
		9 µm	extra high	0 590 824			

Many other variants at  
[sales@joke.de](mailto:sales@joke.de)



## joke Magic ALU diamond compounds for aluminium

### joke Magic ALU

Special compound for aluminium and all non-ferrous metals. Can be used on all host materials, in either a rotating or a linear motion.

joke Magic ALU diamond compound, water soluble and alcohol soluble	Content	Grit size	Concentration	Order No.	Price from 6 pcs	Price from 3 pcs	Price from 1 piece
	10 g	3 µm	extra high	0 591 102			
		6 µm	extra high	0 591 103			
		9 µm	extra high	0 591 104			

## Diamond fluids joke Magic suitable diluent for your compound

Diamond fluids joke Magic	Content	Order No.	Price
	500 ml	0 590 451	
<b>Diamond fluid joke Magic, oil soluble</b> Diamond fluid from joke is suitable for the following suspensions: • joke Magic diamond compounds, oil soluble			
	500 ml	0 591 451	
<b>Diamond fluid joke Magic ALU, water soluble and alcohol soluble</b> Specially for joke Magic ALU diamond compounds.			

## Polishing felts for the perfect result

### Polishing felts

Our polishing felt selection is the result of accumulated experience. All common shapes, dimensions and degrees of hardness are available. joke polishing felts are characterised by high stability, with at the same time outstanding elasticity of the material. To ensure that you consistently achieve the best possible results, they should always be used in conjunction with Magic and/or Hyprez® diamond compounds. Our polishing felts let you polish even the most complicated moulds such as for example pressure die-casting and injection moulds, cutting tools and punches etc. safely, cleanly and efficiently.

Many other variants at  
[sales@joke.de](mailto:sales@joke.de)



Set	Order No.	Price
<b>Set of polishing felts, shank Ø 3 x 40 mm</b>	<b>0 570 300</b>	
<p>The set consists of 14 polishing felts of standard degree of hardness (0.65 g/cm<sup>3</sup> density) and a shank Ø of 3 x 40 mm:</p> <ul style="list-style-type: none"> <li>• Tree shape, Ø 6 x 10 mm, (order no. 0 570 308)</li> <li>• Tree shape, Ø 8 x 12 mm, (order no. 0 570 311)</li> <li>• Tree shape with pointed end, Ø 6 x 10 mm, (order no. 0 570 310)</li> <li>• Tree shape with pointed end, Ø 7 x 15 mm, (order no. 0 570 314)</li> <li>• Tree shape with pointed end, Ø 8 x 12 mm, (order no. 0 570 309)</li> <li>• Pointed cone, , Ø 10 x 18 mm, (order no. 0 570 304)</li> <li>• Trapeze, Ø 15 / 10 x 15 mm, (order no. 0 570 305)</li> <li>• Drop, Ø 6 x 10 mm, (order no. 0 570 306)</li> <li>• Drop, Ø 8 x 12 mm, (order no. 0 570 307)</li> <li>• Rounded cylinder, Ø 6 x 10 mm, (order no. 0 570 312)</li> <li>• Rounded cylinder, Ø 8 x 12 mm, (order no. 0 570 313)</li> <li>• Cylinder, Ø 6 x 10 mm, (order no. 0 570 301)</li> <li>• Cylinder, Ø 8 x 12 mm, (order no. 0 570 317)</li> <li>• Cylinder, Ø 10 x 12 mm, (order no. 0 570 319)</li> </ul>		

Set	Order No.	Price
<b>Set of polishing felts, shank Ø 6 x 40 mm</b>	<b>0 570 330</b>	
<p>The set consists of 12 polishing felts of standard degree of hardness (0.65 g/cm<sup>3</sup> density) and a shank Ø of 6 x 40 mm::</p> <ul style="list-style-type: none"> <li>• Cone, Ø 20 x 30 mm, (order no 0 570 339)</li> <li>• Tree shape, Ø 15 x 20 mm, (order no 0 570 340)</li> <li>• Tree shape, lang, Ø 20 x 70 mm, (order no. 0 570 342)</li> <li>• Cylinder, Ø 10 x 12 mm, (order no. 0 570 331)</li> <li>• Cylinder, Ø 12 x 12 mm, (order no. 0 570 332)</li> <li>• Cylinder, Ø 15 x 20 mm, (order no. 0 570 333)</li> <li>• Cylinder, Ø 15 x 30 mm, (order no. 0 570 334)</li> <li>• Cylinder, Ø 20 x 20 mm, (order no. 0 570 335)</li> <li>• Cylinder, Ø 20 x 30 mm, (order no. 0 570 336)</li> <li>• Cylinder, Ø 25 x 30 mm, (order no. 0 570 337)</li> <li>• Cylinder, Ø 30 x 35 mm, (order no. 0 570 338)</li> <li>• Cylinder, semicircular, Ø 30 x 20 mm, (order no. 0 570 341)</li> </ul>		

## Polishing cloths for the perfect result

### Polishing cloths

Polishing cloths are ideal for final polishing. Owing to the self-adhesive backing, the cloths can be mounted on a very wide variety of carriers. Tools used during preliminary processing can for example be reused by simply gluing on the polishing cloth. You can choose between the standard polishing cloths and the new Magic JOKER and FINAL polishing cloths, specially adapted to joke Magic diamond compound. These cloths can be used on 99% of materials. They are ideal for polishing all steels and aluminium. The cushioned base results in very smooth running.



Polishing cloths standard, self-adhesive (Packing unit: 10 pieces)	Dimensions	Type	Packing unit	Order No.	Price from 5 pack	Price from 1 pack
Type 432 for diamond compounds of grit sizes 3 to 1/4 µm	Ø 33 x 1 mm	432	10 pieces	<b>0 543 303</b>		

<i>suitable rubber carrier</i>	Dimensions	Shank dimensions	Type	suitable grinding sheets	Order No.	Price from 10 pieces	Price from 5 pieces	Price from 1 piece
	Ø 30 mm	Ø 3 x 26 mm	RK 2	R 2	<b>0 544 104</b>			



The suitable rubber carrier for  
self-adhesive polishing cloths.

**7,500 rpm**

Many other variants at  
[sales@joke.de](mailto:sales@joke.de)

## Magic super-fine polishingsuspension with anti-corrosion power

### Magic super-fine polishingsuspension

Magic super-fine polishing suspension with combined anti-corrosion power gives workpieces that final, brilliant gloss. This thin suspension and the blocky, agglomerate-free diamonds it contains enables totally scratch-free polishing.

Water-soluble. Specially developed for polishing plastics.

Super-fine polishing suspensions joke Magic	Grit size	Content	Order No.	Price
Super-fine diamond plastic polishing medium joke Magic	1 µm	50 ml	<b>0 590 901</b>	
	1 µm	500 ml	<b>0 590 902</b>	



Many other variants at  
[sales@joke.de](mailto:sales@joke.de)

### Practical helpers



#### Polishing cloths Kleenex

High quality 3-ply cloth for wiping after polishing and for applying joke Magic very fine polishing suspension (similar illustration).

Packing unit	Order no.	Price
1 pack (72 cloths)	<b>0 590 602</b>	

## Simichrome polishing compound suitable for almost all metals

### Simichrome polishing compound

Suitable for almost all metals such as stainless steel, chrome, copper, tin, aluminium, brass, magnesium, gold and silver.

- Extremely fine metal polish
- Removes small scratches and aging layers
- Leaves an absolutely tremendous shine
- Additionally forms an ultrafine and lasting protective film




Simichrome polishing compound	Contents	Order no.	Price
	50 g tube	<b>0 580 638</b>	
	250 g can	<b>0 580 642</b>	



# Workplace



## Protective goggle lightweight protection with a great effect

Protective goggle	Order no.	Price
 <ul style="list-style-type: none"> <li>• Clear, optically correct, single-piece PC pane</li> <li>• Scratchproof coating</li> <li>• 99.9 % UV protection</li> <li>• Mechanical strength</li> <li>• Comfort pads on the temple ends</li> <li>• Soft nose pad</li> </ul>	<b>0 203 083</b>	

## Fine dust masks reliable protection against fine dust

### Fine dust masks

Fine dust masks Professional protection against solid and liquid particles, fine dust and even smog. High-quality valve technology ensures a fresh climate under the mask with all models, since warm, moist expired air is vented to the exterior.

The innovative filtering allows on the one hand greater protection and at the same time facilitates breathing when the mask is applied. The masks are comfortably and safely positioned owing to the preformed mask bodies and the flexible nose pads. The FFP3 model is equipped with a foam sealing lip and therefore sits even more comfortably and tightly in place.



Fine dust masks	Packing unit	Order no.	Price / piece
<b>Professional fine dust mask FFP3 with expiration valve</b>	5 pieces	<b>0 960 722</b>	

## Gloves

### for protection against injuries

#### Nubbed thermal assembly gloves

- Heat-resistant up to 150°C
- Abrasion-resistant, sensitive, breathable
- Highly adaptable fit owing to stretchability

Material, LINER: 100 % polyacryl liner with foam nitrile



	Size	Packing unit	Order no.	Price / pair
<b>Nubbed thermal assembly gloves</b>	9	12 pairs	<b>0 960 705</b>	
	10	12 pairs	<b>0 960 705-10</b>	

#### Maxi-Hit all round gloves

- Nitril Foam Technology (NFT) makes these gloves an "all-rounder":
- Abrasion-resistant, pleasant, flexible and breathable
- Liquid repellent
- Hard wearing and sensitive
- Back of hand made of Spandex liner for high stretchability and rapid drying

LINER material: 96 % nylon, 4 % elastane with (NFTT) nitrile coating



	Size	Packing unit	Order no.	Price / pair
<b>All round gloves with (NFT) nitrile coating</b>	9	12 pairs	<b>0 960 701-9</b>	
	10	12 pairs	<b>0 960 701</b>	

## Cleaning fluid

### versatile in use



#### Cleaning fluid X 73016-A

For all metals, glass, ceramic and many plastics. Use: cleaning moulds, cleaning machine components, pretreatment of glue points, pretreatment for lacquering. The spray cleaner rapidly evaporates and works without leaving residues. Unlike during use of solvent, no residual layer is left behind. Even removes resinated lubricants. Thermoplastics such as PVC, Plexiglas, polystyrene and simple paint strokes can be dissolved.

	Content	Order no.	Price
<b>Cleaning fluid X 73016-A</b>	500 ml aerosol	<b>0 580 521</b>	







*Brilliant solutions for perfect surfaces*

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