

echo**LAB**[®]

Metallographic
sample preparation





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Metallographic
Sample Preparation

echoLAB Material Testing products are developed, produced, tested and guaranteed by the Italian manufacturer DEVCO srl, to assure quality, functionality, innovation and customization. The echoLAB brand is a reliable and qualified partner in the **metallurgical** and **physical testing** laboratories field worldwide, offering expertise, know-how and best value for money



echoLAB
EXPERIENCE





All echoLAB products are strictly controlled by our qualified engineers over the entire manufacturing process, in accordance with the EC quality standards. The echoLAB experience includes a **responsive customer service**, granting one-to-one relation with skilled personnel, as well as a global support by a network of qualified experts for **remote and on-site assistance**.

Dedicated training and availability of spare parts and consumables contribute to ensure the long-term performance of the echoLAB equipment.





To achieve excellent metallographic analysis results it is essential to prepare an optimal sample through a series of processes: cutting, mounting, grinding and polishing. EchoLAB provides a wide range of equipment, from manual to fully automatic, to cover the **entire Metallographic Sample Preparation cycle**.

Our echoLAB metallographic offer is completed with **high quality consumables** for each process to guarantee a great sample surface finishing.



Cutting

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Mounting

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Polishing

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Additional Instruments

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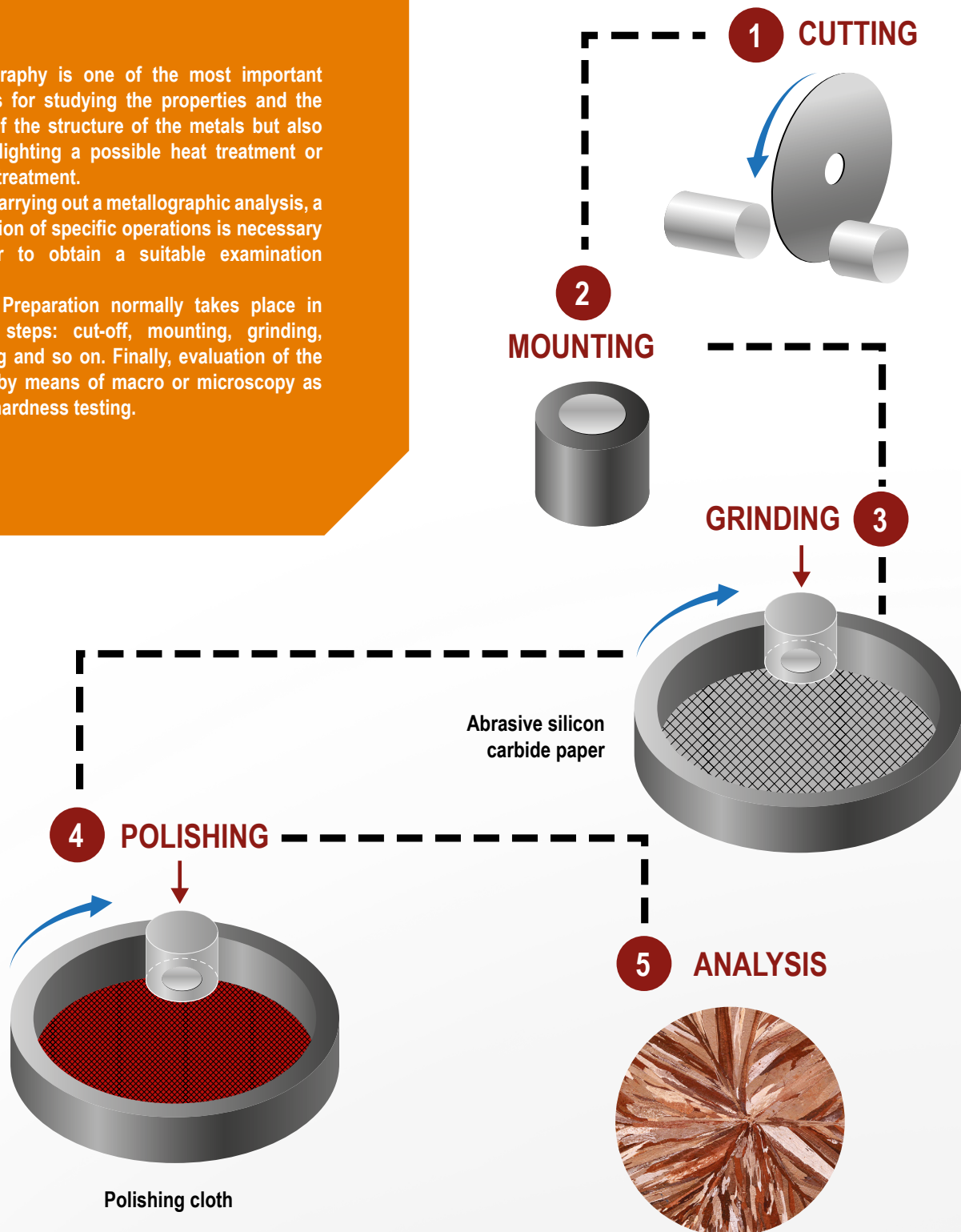
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METALLOGRAPHY

Metallography is one of the most important sciences for studying the properties and the nature of the structure of the metals but also for highlighting a possible heat treatment or surface treatment.

Before carrying out a metallographic analysis, a succession of specific operations is necessary in order to obtain a suitable examination surface.

Sample Preparation normally takes place in various steps: cut-off, mounting, grinding, polishing and so on. Finally, evaluation of the sample by means of macro or microscopy as well as hardness testing.





**METALLOGRAPHIC
CUTTING MACHINES**

Cutting

MEGACUT



Features

- PLC controlled automatic metallographic cutting machine, suitable for large samples
- Cutting chamber fully accessible from all directions
- Three controlled axes, sample laser alignment system and cutting speed frequency conversion control
- Two cutting principles: swing and continuous cutting
- Cutting table provided with T-slots to assemble different vices
- Touch screen 10" for displaying cutting data and samples positioning
- Cutting chamber equipped with internal LED illumination and ventilation system in order to increase visibility during the process. Supplied with a cooling system complete with rinse channel and magnetic separator
- This series is suitable for quality control, automotive, aeronautical industry, scientific research institutes and universities.

| Model | MEGACUT-120 | MEGACUT-200 | MEGACUT-300 |
|-------------------------|---|---|---|
| Cutting capacity | Max. \varnothing 100mm | Max. \varnothing 120mm | Max. \varnothing 130mm |
| Cutting disc dimensions | Max. \varnothing 380 x \varnothing 32mm | Max. \varnothing 400 x \varnothing 32mm | Max. \varnothing 400 x \varnothing 32mm |
| Cutting depth | 120mm | 200mm | 300mm |
| Working chamber LxW | 780x950mm | 780x1050mm | 880x1300mm |
| T-slots table LxW | 450x350mm | 485x400mm | 630x530mm |
| Clamping caliper | 120mm | 200mm | 300mm |
| Y axis travel | 250mm | 300mm | 420mm |
| Z axis travel | 160mm | 230mm | 230mm |
| Axes speed | 3,5,8,18 mm/min customizable | 3,5,8,18 mm/min customizable | 3,5,8,18 mm/min customizable |
| Speed | 500÷2800rpm | 500÷2800rpm | 500÷2800rpm |
| Noise level | <70dB | <70dB | <70dB |
| Operating temperature | 0÷30°C | 0÷30°C | 0÷30°C |
| Humidity non-condensing | <65% | <65% | <65% |
| Motor power | 5500W | 7500W | 7500W |
| Power supply | 400V \pm 10% - 50/60Hz - 3Ph | 400V \pm 10% - 50/60Hz - 3Ph | 400V \pm 10% - 50/60Hz - 3Ph |
| Cooling tank | Capacity | 120l | 120l |
| | Dimensions | 800x900x850mm | 800x900x850mm |
| | Weight | 152kg | 152kg |
| Machine | Dimensions | 1400x1000x1850mm | 1650x1100x1900mm |
| | Weight | 1800kg | 2200kg |

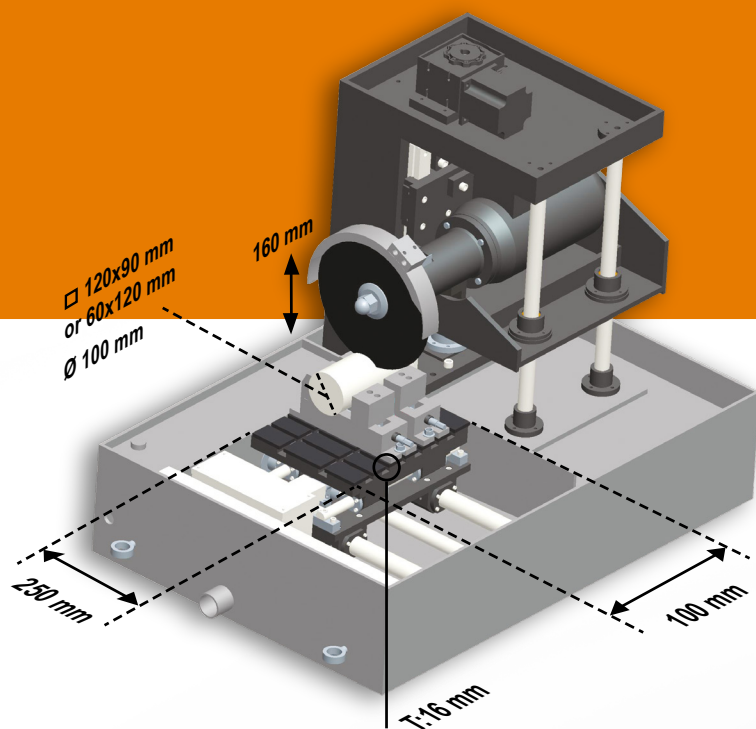
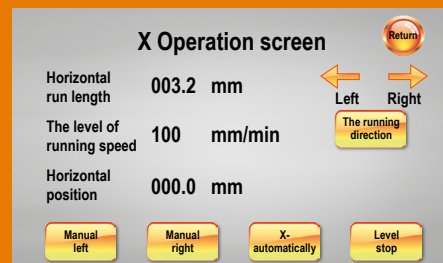
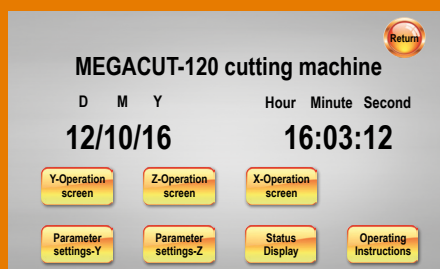
Standard accessories

Clamp for metallic and non-metallic materials such as steel, iron, aluminium, copper, ceramics, crystals, rocks, etc. 120mm; cooling tank with pipes; spanners 41mm- 46mm; cutting disc \varnothing 380x2 x \varnothing 32

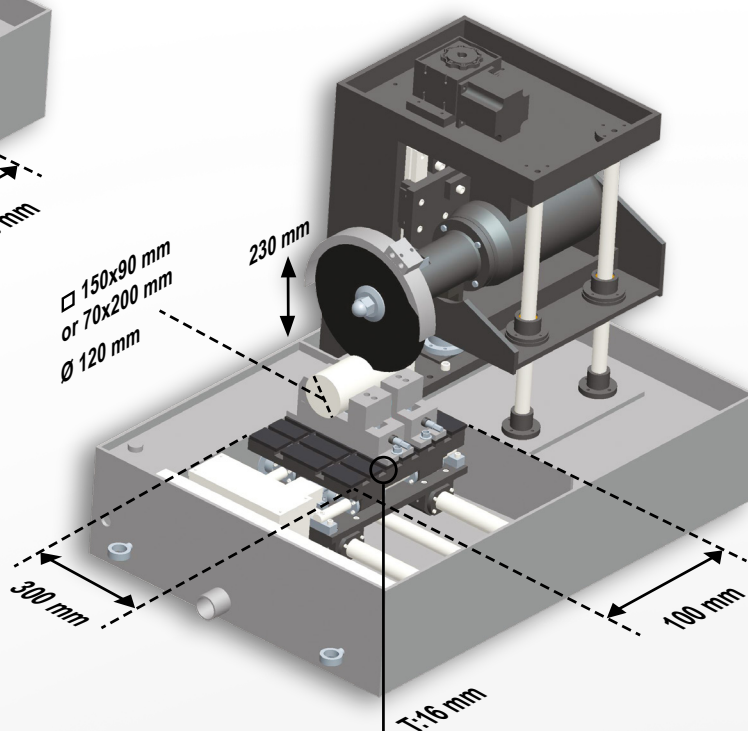
Optional accessories

195MEGA46

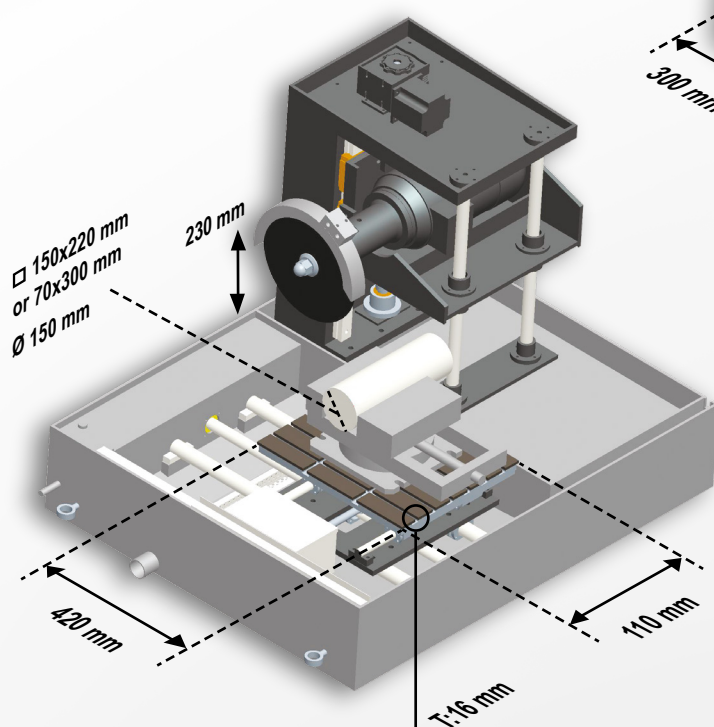
Vertical clamp for irregular shaped samples. Max. clamping 90mm. Suitable for all machines with 12mm T-slots.



MEGACUT-120



MEGACUT-200

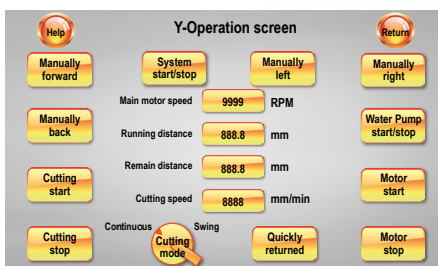
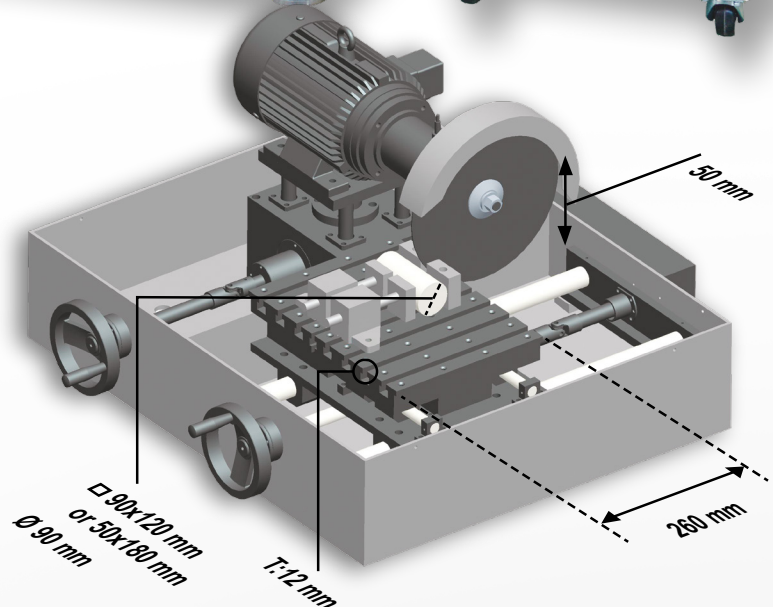


MEGACUT-300

MAXICUT-90

Features

- Automatic/manual floor-type metallographic cutting machine, equipped with PLC control and touch screen for displaying cutting data and samples positioning
- Cutting table provided with T-slots to assemble different vices
- Adjustable main axis height to allow cutting disc wearing compensation, automatic return at the end of the cutting
- Cutting chamber equipped with internal LED illumination and ventilation system in order to increase the visibility during the process. It is supplied with cooling system complete with rinse channel and magnetic separator
- Suitable for continuous cutting, in automatic mode, along with X and Y axes
- Built-in safety features, internal safety device allows operation only if the cutting chamber is closed
- This series is suitable for quality control, scientific research institutes and universities.



| Model | MAXICUT-90 |
|-------------------------|---------------------------|
| Cutting capacity | Max. ø 90mm |
| Cutting disc dimensions | Max. ø 300 x ø 32mm |
| Cutting depth | 90mm |
| Working chamber LxW | 470x750mm |
| T-slots table LxW | 435x300mm |
| Speed | 500+3000rpm |
| Noise level | <70dB |
| Operating temperature | 0+30°C |
| Humidity non-condensing | <65% |
| Motor power | 3000W |
| Power supply | 400V ±10% - 50/60Hz - 3Ph |
| Cooling tank | Capacity |
| | 88l |
| | Dimensions |
| Machine | 620x600x770mm |
| | Weight |
| | 85kg |
| Machine | Dimensions |
| | 910x935x1350mm |
| Machine | Weight |
| | 380kg |

Standard accessories

Clamp for metallic and non-metallic materials such as steel, iron, aluminium, copper, ceramics, crystals, rocks, etc.; cooling tank with pipes; spanners 46mm-24-30mm; cutting disc ø 300x2 x ø 32

Optional accessories

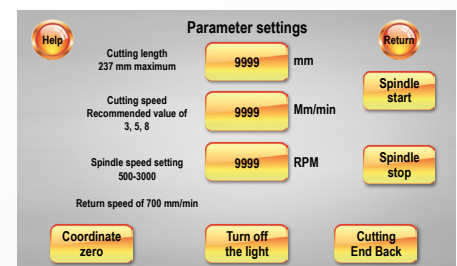
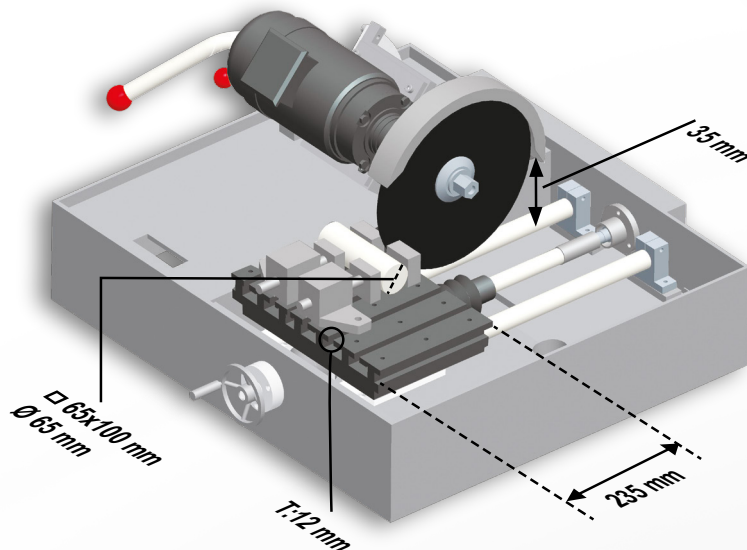
103MAXI21

Vertical clamp for irregular shaped samples. Max. clamping 90mm. Suitable for all machines with 12mm T-slots.

MAXICUT-65

Features

- Automatic/manual floor-type metallographic cutting machine, equipped with PLC control and touch screen for displaying cutting data and samples positioning
- Cutting table provided with T-slots to assemble different vices
- The cutting chamber is equipped with an internal ventilation system to increase the visibility during the process. It is supplied with 70 liters cooling system
- Built-in safety features, internal safety device allows operation only if the cutting chamber is closed
- Suitable also for cutting rocks and ceramic materials using diamond cutting discs
- This series is suitable for quality control, scientific research institutes and universities.



| Model | MAXICUT-65 |
|-------------------------|---------------------------|
| Cutting capacity | Max. ø 65mm |
| Cutting disc dimensions | Max. ø 300 x ø 32mm |
| Cutting depth | 65mm |
| Working chamber LxW | 430x660mm |
| T-slots table LxW | 350x230mm |
| Speed | 500÷3000rpm |
| Noise level | <60dB |
| Operating temperature | 0÷30°C |
| Humidity non-condensing | <65% |
| Motor power | 2200W |
| Power supply | 400V ±10% - 50/60Hz - 3Ph |
| Cooling tank | Capacity |
| | Dimensions |
| | Weight |
| Machine | Dimensions |
| | Weight |

Standard accessories

Clamp for metallic and non-metallic materials such as steel, iron, aluminium, copper, ceramics, crystals, rocks, etc.; cooling tank with pipes; spanners 46mm-24-30mm; cutting disc ø 300x2 x ø 32

Optional accessories

| | |
|-----------|---|
| 103MAXI21 | Vertical clamp for irregular shaped samples. Max. clamping 90mm. Suitable for all machines with 12mm T-slots. |
|-----------|---|

EASYCUT

Features

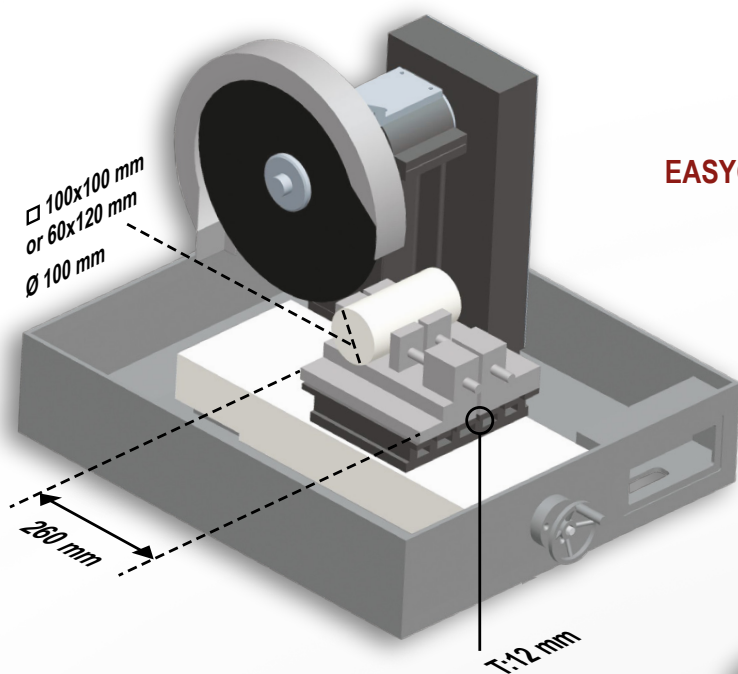
- Manual floor-type multifunctional metallographic cutting machine, used for cutting irregular metallographic samples
- Cutting table provided with T-slots to assemble different vices in addition to a double quick clamping system
- Built-in safety features, internal safety device allows the operation only if the cutting chamber is closed
- Cutting chamber equipped with LED illumination and ventilation system in order to increase the visibility during the process.
- Supplied with cooling system to avoid the sample over heating
- This series is suitable for quality control, scientific research institutes and universities.



| Model | EASYCUT-100 | EASYCUT-120 |
|-------------------------|---|---|
| Cutting capacity | Max. \varnothing 100mm | Max. \varnothing 100mm |
| Cutting disc dimensions | Max. \varnothing 350 x \varnothing 32mm | Max. \varnothing 350 x \varnothing 32mm |
| Cutting depth | 100mm | 120mm |
| Working chamber LxW | 680x780mm | 680x780mm |
| T-slots table LxW | 240x245mm | 240x245mm |
| Y-axis travel | 265mm | 265mm |
| Speed | 2800rpm | 2800rpm |
| Noise level | <75dB | <75dB |
| Operating temperature | 0÷30°C | 0÷30°C |
| Humidity non-condensing | <65% | <65% |
| Motor power | 4000W | 4000W |
| Power supply | 400V \pm 10% - 50/60Hz - 3Ph | 400V \pm 10% - 50/60Hz - 3Ph |
| Cooling tank | Capacity | 100l |
| | Dimensions | 640x460x680mm |
| | Weight | 50kg |
| Machine | Dimensions | 760x850x1400mm |
| | Weight | 380kg |

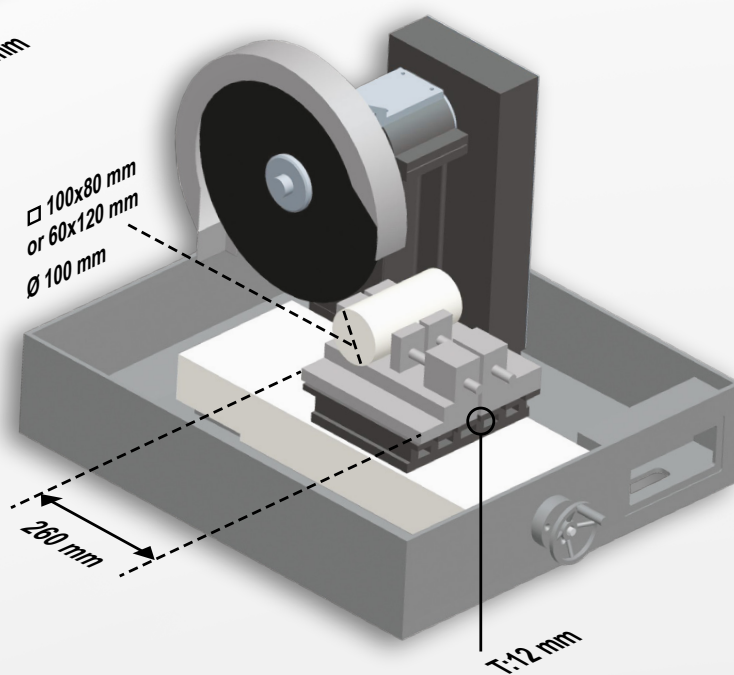
Standard accessories

Clamp for metallic material, such as steel, iron, aluminium, copper, etc.; cooling tank with pipes; spanners 36mm-46mm; cutting disc \varnothing 380x2.8x \varnothing 32

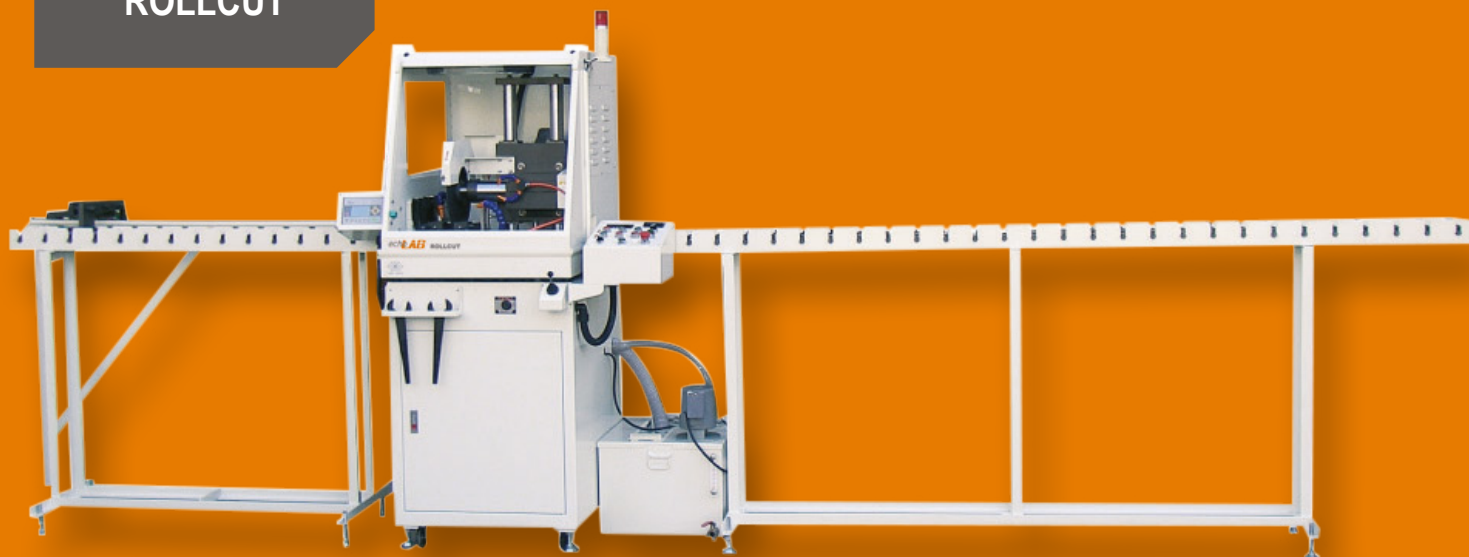


EASYCUT-100

EASYCUT-120



ROLLCUT



Features

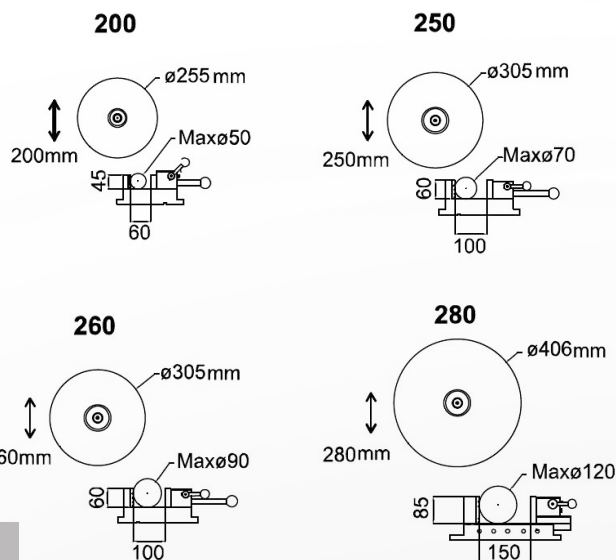
- > Fully-automatic cutting system complete with a roller table for lateral feeding of very long samples
- > It is equipped with large cutting table that can be used with cutting discs from \varnothing 250mm to \varnothing 400mm
- > Cutting table provided with T-slots to assemble different vices
- > Built-in safety features, internal safety device allows operation only if the cutting chamber is closed
- > Supplied with an external cooling system
- > Large inspection windows allows good visibility of cutting process.

Standard accessories

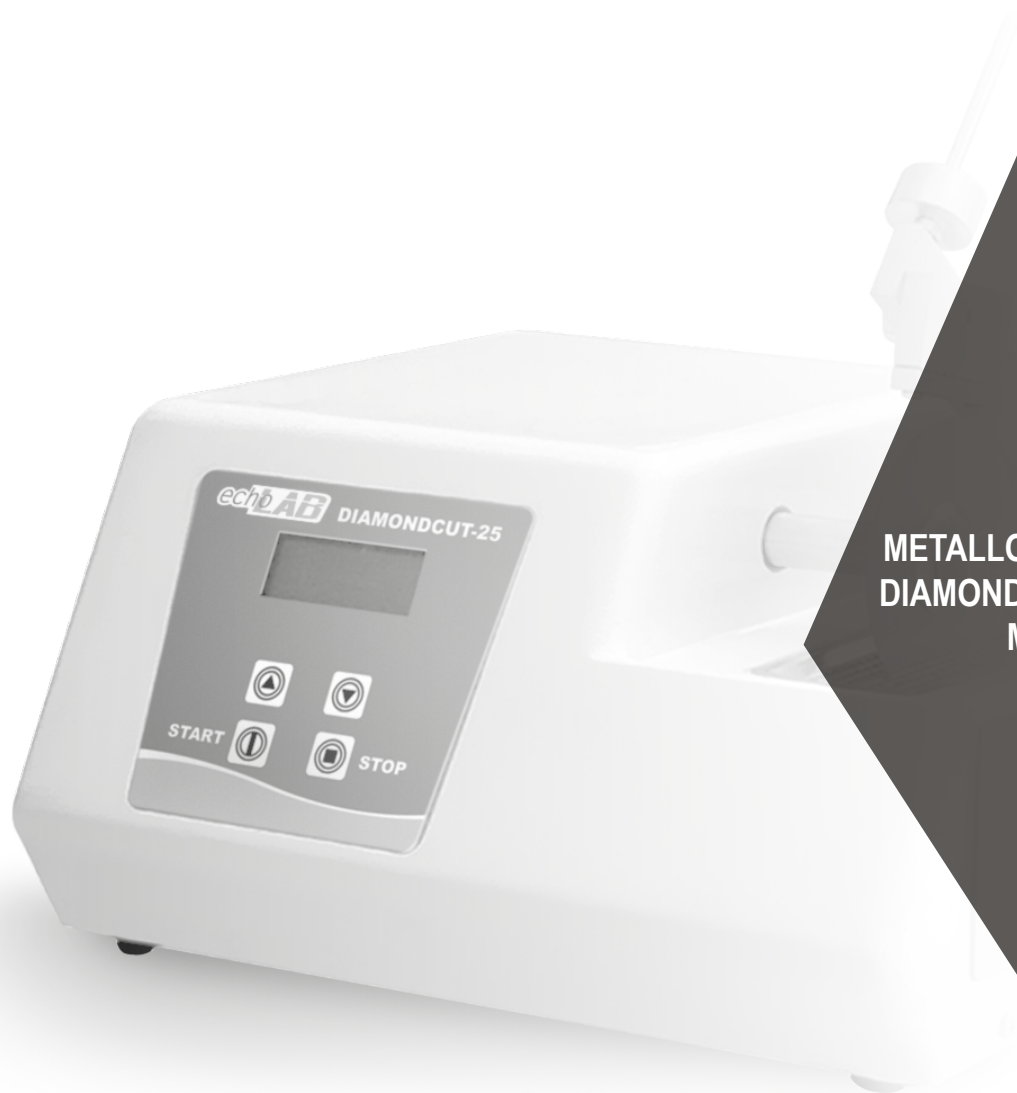
Clamp for metallic and non-metallic; cooling tank with pipes; spanners 41mm- 46mm; cutting disc

Optional accessories

ROLLCUTroll Rolling table for rollcut. Feed rack: 3000mm. Receive rack: 1500mm. The receiving rack is equipped with a digital encoder for cutting length measurement



| Model | ROLLCUT-200 | ROLLCUT-250 | ROLLCUT-260 | ROLLCUT-280 |
|-------------------------|--|--|---|---|
| Cutting capacity | Max. \varnothing 50mm | Max. \varnothing 70mm | Max. \varnothing 90mm | Max. \varnothing 120mm |
| Cutting disc dimensions | Max. \varnothing 255 x \varnothing 31,75mm | Max. \varnothing 305 x \varnothing 31,75mm | Max. \varnothing 355 x \varnothing 32mm | Max. \varnothing 406 x \varnothing 32mm |
| Cutting depth | 200mm | 250mm | 260mm | 280mm |
| Working chamber LxW | 460x250mm | 460x250mm | 460x250mm | 620x380mm |
| T-slots table LxW | 300x200mm | 300x200mm | 300x200mm | 390x315mm |
| Speed | 2500 (50Hz); 3000 (60Hz) rpm | 2500 (50Hz); 3000 (60Hz) rpm | 2500 (50Hz); 3000 (60Hz) rpm | 2500 (50Hz); 3000 (60Hz) rpm |
| Noise level | 70-80dB | 70-80dB | 70-80dB | 70-80dB |
| Operating temperature | 0÷30°C | 0÷30°C | 0÷30°C | 0÷30°C |
| Humidity non-condensing | <65% | <65 | <65 | <65 |
| Motor power | 1500W | 2200W | 3700W | 7500W |
| Power supply | 230/400V \pm 10% - 50/60Hz - 1/3Ph | 230/400V \pm 10% - 50/60Hz - 1/3Ph | 230/400V \pm 10% - 50/60Hz - 1/3Ph | 230/400V \pm 10% - 50/60Hz - 1/3Ph |
| Cooling tank | Capacity | 70l | 70l | 70l |
| | Dimensions | 650x480x700mm | 650x480x700mm | 650x480x700mm |
| | Weight | 45kg | 45kg | 45kg |
| Machine | Dimensions | 1150x1500x1800mm | 1100x1100x1800mm | 1200x1300x2000mm |
| | Weight | 310kg | 330kg | 390kg |



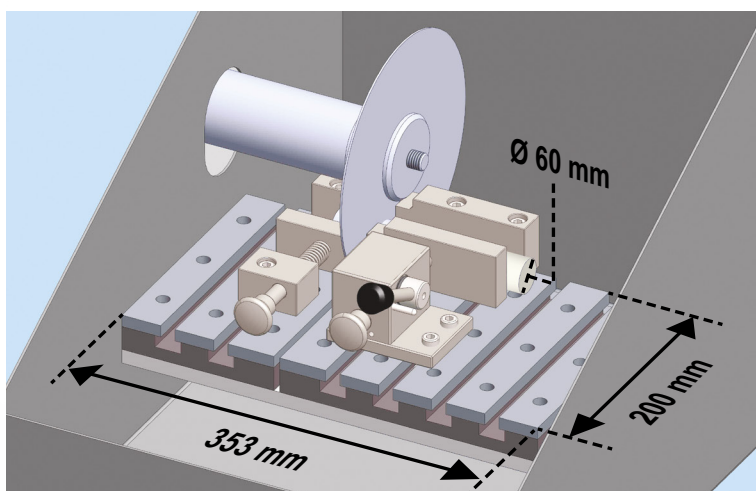
METALLOGRAPHIC
DIAMOND CUTTING
MACHINES

Cutting

DIAMONDCUT-500

Features

- High precision, bench-top automatic cutting machine
- Suitable for non-deforming materials cutting such as metals, electronic parts, ceramic, hard alloys
- High cutting accuracy and wide speed adjusting range
- Both diamond and resin cutting discs can be used
- Equipped with a LCD display with menu operation, large cutting chamber and safety protections
- Cutting table provided with T-slots to assemble different vices
- Built-in recirculating cooling system with external magnetic separator



| Model | DIAMONDCUT-500 | |
|-------------------------|--------------------------------|---------------|
| Cutting capacity | Max. \varnothing 60mm | |
| Cutting disc diameter | 100; 125; 150; 200mm | |
| Y axis travel | 200mm | |
| Noise level | 55dB | |
| Working chamber LxW | 500x400mm | |
| T-slots table LxW | 320x225mm, T-slot 12mm | |
| Speed | 500÷3000rpm | |
| Feeding speed | 0÷180mm/min (0.1mm increments) | |
| Operating temperature | -10÷50°C | |
| Humidity non-condensing | 95% | |
| Motor power | 1500W | |
| Power supply | 230V \pm 10% - 50/60Hz - 1Ph | |
| Cooling tank | Capacity | 36l |
| | Dimensions | 300x500x450mm |
| | Weight | 20kg |
| Machine | Dimensions | 850x770x460mm |
| | Weight | 140kg |

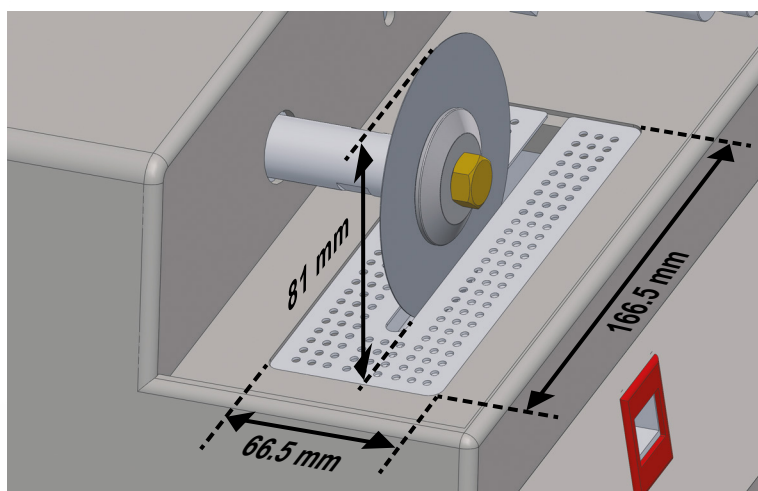
Standard accessories

Quick clamp jaw height 45mm; hexagonal keys; diamond cutting disc 200x1x32mm; cooling system complete with pipes

DIAMONDCUT-25

Features

- Bench-top automatic diamond cutting machine, suitable for hard materials, especially suggested for artificial crystals
- Equipped with four different vices, allows the best cutting angle
- Easy to use with a compact body and safety protection
- High level of positioning accuracy
- Built-in cooling system with tank



| Model | | DIAMONDCUT-25 |
|-------------------------|------------|---------------------------|
| Cutting capacity | | Max. ø 25mm |
| Cutting disc diameter | | 100x0.5x12.7mm |
| X axis travel | | 12mm, step 0.1mm |
| Noise level | | <65dB |
| Working chamber LxW | | 196x104mm |
| Speed | | 50÷800rpm |
| Operating temperature | | 5÷30°C |
| Humidity non-condensing | | ≤85% |
| Motor power | | 100W |
| Power supply | | 230V ±10% - 50/60Hz - 1Ph |
| Tank capacity | | 0.5l |
| Machine | Dimensions | 350x380x290mm |
| | Weight | 25kg |

Standard accessories

Diamond cutting disc Ø100mm; Spanners

CONSUMABLES FOR CUTTING PROCESS

Cutting is the first and most important step in metallographic sample preparation.

The selection of the correct cutting disc, based on sample materials and hardness, grants faster cutting and lower disc consumption.

All cutting discs have been manufactured with high quality materials to reduce the influence on material's properties.

Usage of cooling lubricants and anti-rust agents prevents sample overheating and oxidation.

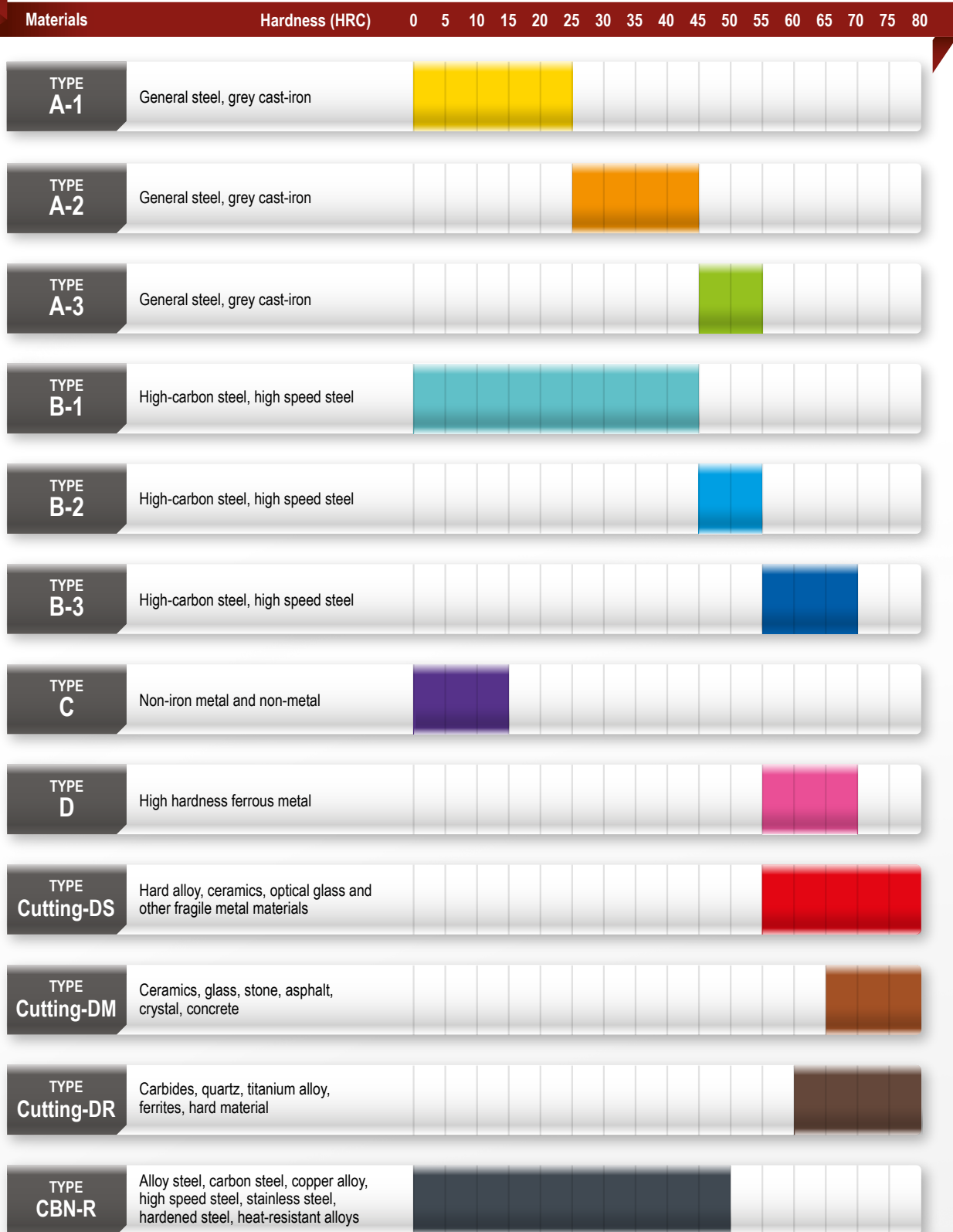
echoLAB can provide a complete range of cutting consumables to meet all preparation requirements.

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CUTTING DISCS SELECTION GUIDE



CONSUMABLES FOR CUTTING PROCESS

ABRASIVE CUTTING DISCS - Arbor 32mm

Cutting discs Type -A

| Code | Model | Diameter mm | Thickness mm | Q.ty per pack | Weight kg | Recommended for |
|---------|-------|-------------|--------------|---------------|-----------|--|
| 90A1200 | A1 | 200 | 0,8-2 | 10 | 1,5 | General steel and grey cast-iron with hardness <25 HRC |
| 90A1250 | A1 | 250 | 1,2-2 | 10 | 2 | |
| 90A1300 | A1 | 300 | 1,5-2 | 10 | 3,3 | |
| 90A1350 | A1 | 350 | 2,5 | 10 | 5,4 | |
| 90A1400 | A1 | 400 | 2,8 | 10 | 8,3 | |

| | | | | | | |
|---------|----|-----|-------|----|-----|--|
| 90A2200 | A2 | 200 | 0,8-2 | 10 | 1,5 | General steel and grey cast-iron with hardness 25÷45 HRC |
| 90A2250 | A2 | 250 | 1,2-2 | 10 | 2 | |
| 90A2300 | A2 | 300 | 1,5-2 | 10 | 3,3 | |
| 90A2350 | A2 | 350 | 2,5 | 10 | 5,4 | |
| 90A2400 | A2 | 400 | 2,8 | 10 | 8,3 | |

| | | | | | | |
|---------|----|-----|-------|----|-----|--|
| 90A3200 | A3 | 200 | 0,8-2 | 10 | 1,5 | General steel and grey cast-iron with hardness 45÷55 HRC |
| 90A3250 | A3 | 250 | 1,2-2 | 10 | 2 | |
| 90A3300 | A3 | 300 | 1,5-2 | 10 | 3,3 | |
| 90A3350 | A3 | 350 | 2,5 | 10 | 5,4 | |
| 90A3400 | A3 | 400 | 2,8 | 10 | 8,3 | |

Cutting discs Type -B

| Code | Model | Diameter mm | Thickness mm | Q.ty per pack | Weight kg | Recommended for |
|---------|-------|-------------|--------------|---------------|-----------|--|
| 90B1200 | B1 | 200 | 0,8-2 | 10 | 1,8 | High-carbon steel and high-speed steel with hardness <45 HRC |
| 90B1250 | B1 | 250 | 1,2-2 | 10 | 2,4 | |
| 90B1300 | B1 | 300 | 1,5-2 | 10 | 3,6 | |
| 90B1350 | B1 | 350 | 2,5 | 10 | 5,8 | |
| 90B1400 | B1 | 400 | 2,8 | 10 | 8,6 | |

| | | | | | | |
|---------|----|-----|-------|----|-----|--|
| 90B2200 | B2 | 200 | 0,8-2 | 10 | 1,8 | High-carbon steel and high-speed steel with hardness 45÷55 HRC |
| 90B2250 | B2 | 250 | 1,2-2 | 10 | 2,4 | |
| 90B2300 | B2 | 300 | 1,5-2 | 10 | 3,6 | |
| 90B2350 | B2 | 350 | 2,5 | 10 | 5,8 | |
| 90B2400 | B2 | 400 | 2,8 | 10 | 8,6 | |

| | | | | | | |
|---------|----|-----|-------|----|-----|--|
| 90B3200 | B3 | 200 | 0,8-2 | 10 | 1,8 | High-carbon steel and high-speed steel with hardness 55÷70 HRC |
| 90B3250 | B3 | 250 | 1,2-2 | 10 | 2,4 | |
| 90B3300 | B3 | 300 | 1,5-2 | 10 | 3,6 | |
| 90B3350 | B3 | 350 | 2,5 | 10 | 5,8 | |
| 90B3400 | B3 | 400 | 2,8 | 10 | 8,6 | |



CONSUMABLES FOR CUTTING PROCESS

| Cutting discs Type -C | | | | | | |
|-----------------------|-------|-------------|--------------|---------------|-----------|--|
| Code | Model | Diameter mm | Thickness mm | Q.ty per pack | Weight kg | Recommended for |
| 90C0200 | C | 200 | 0,8-2 | 10 | 1,3 | Non-iron metal and non-metal with hardness ≤15 HRC |
| 90C0250 | C | 250 | 1,2-2 | 10 | 1,9 | |
| 90C0300 | C | 300 | 1,5-2 | 10 | 2,8 | |
| 90C0350 | C | 350 | 2,5 | 10 | 4,9 | |
| 90C0400 | C | 400 | 2,8 | 10 | 7,5 | |

| Cutting discs Type -D | | | | | | |
|-----------------------|-------|-------------|--------------|---------------|-----------|---|
| Code | Model | Diameter mm | Thickness mm | Q.ty per pack | Weight kg | Recommended for |
| 90D0200 | D | 200 | 0,8-2 | 10 | 2,3 | High hardness ferrous metal with hardness 55+70 HRC |
| 90D0250 | D | 250 | 1,2-2 | 10 | 2,8 | |
| 90D0300 | D | 300 | 1,5-2 | 10 | 3,9 | |
| 90D0350 | D | 350 | 2,5 | 10 | 6 | |
| 90D0400 | D | 400 | 2,8 | 10 | 9,2 | |

| Cooling liquid for cutting machines | | | | |
|-------------------------------------|-----------|------------|------------------------|-----------|
| Code | Model | Quantity l | Usage | Weight kg |
| 1100101 | Cooling-C | 1 | Anti-oxidation-Cooling | 1,3 |
| 1100251 | | 2,5 | Anti-oxidation-Cooling | 2,8 |
| 1100501 | | 5 | Anti-oxidation-Cooling | 5,5 |
| 1101001 | | 10 | Anti-oxidation-Cooling | 10,5 |
| 1100051 | | 0,5 | Anti-septic | 0,8 |



CONSUMABLES FOR CUTTING PROCESS

DIAMOND CUTTING DISCS

Diamond, edge sintering type, cutting discs

| Code | Model | Diameter mm | Arbor mm | Thickness mm | Q.ty per pack | Weight kg | Recommended for |
|---------|------------|-------------|----------|--------------|---------------|-----------|---|
| 1031000 | Cutting-DS | 100 | 20 | 0,5 | 1 | 0,1 | Hard alloy, ceramic material, optical glass and other fragile metal materials with hardness 60÷82 HRC |
| 1031250 | | 125 | 25,4 | 0,5 | 1 | 0,1 | |
| 1031500 | | 150 | 25,4 | 0,6 | 1 | 0,1 | |
| 1032000 | | 200 | 32 | 1 | 1 | 0,2 | |
| 1032500 | | 250 | 32 | 2 | 1 | 0,3 | |
| 1033500 | | 350 | 32 | 2,5 | 1 | 0,5 | |

Diamond, metal bond, cutting discs

| Code | Model | Diameter mm | Arbor mm | Thickness mm | Q.ty per pack | Weight kg | Recommended for |
|---------|------------|-------------|----------|--------------|---------------|-----------|--|
| 1000760 | Cutting-DM | 76 | 12,7 | 0,2 | 1 | 0,2 | Ceramics, glass, stone, asphalt, crystal, concrete with hardness >62 HRC |
| 1001000 | | 100 | 12,7 | 0,5 | 1 | 0,2 | |
| 1001250 | | 125 | 12,7 | 0,5 | 1 | 0,2 | |
| 1001500 | | 150 | 12,7 | 0,6 | 1 | 0,3 | |
| 1001780 | | 178 | 12,7 | 0,7 | 1 | 0,4 | |
| 1002000 | | 200 | 32 | 0,9 | 1 | 0,6 | |
| 1002500 | | 250 | 32 | 1,2 | 1 | 0,8 | |
| 1003000 | | 300 | 32 | 1,4 | 1 | 1,2 | |

Diamond, resin bond, cutting discs

| Code | Model | Diameter mm | Arbor mm | Thickness mm | Q.ty per pack | Weight kg | Recommended for |
|---------|------------|-------------|----------|--------------|---------------|-----------|---|
| 1011000 | Cutting-DR | 100 | 12,7 | 0,5 | 1 | 0,2 | Carbides, quartz, titanium alloy, ferrites, hard material with hardness >52 HRC |
| 1011250 | | 125 | 12,7 | 0,5 | 1 | 0,2 | |
| 1011500 | | 150 | 12,7 | 0,6 | 1 | 0,3 | |
| 1011780 | | 178 | 12,7 | 0,7 | 1 | 0,4 | |
| 1012000 | | 200 | 32 | 0,9 | 1 | 0,5 | |
| 1012500 | | 250 | 32 | 1,2 | 1 | 0,8 | |
| 1013000 | | 300 | 32 | 1,4 | 1 | 1,2 | |

CBN, resin bond, cutting discs

| Code | Model | Diameter mm | Arbor mm | Thickness mm | Q.ty per pack | Weight kg | Recommended for |
|---------|-------|-------------|----------|--------------|---------------|-----------|---|
| 1021000 | CBN-R | 100 | 12,7 | 0,5 | 1 | 0,2 | Alloy steels, carbon steels, copper alloy, high speed steel, stainless steel, hardening steels, heat resistant alloys with hardness <49 HRC |
| 1021250 | | 125 | 12,7 | 0,5 | 1 | 0,2 | |
| 1021500 | | 150 | 12,7 | 0,6 | 1 | 0,3 | |
| 1021780 | | 178 | 12,7 | 0,7 | 1 | 0,4 | |
| 1022000 | | 200 | 32 | 0,9 | 1 | 0,5 | |
| 1022500 | | 250 | 32 | 1,2 | 1 | 0,8 | |
| 1023000 | | 300 | 32 | 1,4 | 1 | 1,2 | |

Cooling liquid for micro-cutting

| Code | Model | Quantity l | Anti-rust mix | Usage | Weight kg |
|---------|------------|------------|---------------|----------------------------|-----------|
| 1110101 | Cooling-MC | 1 | 4% | Lubrication-Anti-oxidation | 1,3 |
| 1110251 | | 2,5 | 4% | Lubrication-Anti-oxidation | 2,8 |
| 1110501 | | 5 | 4% | Lubrication-Anti-oxidation | 5,5 |
| 1111001 | | 10 | 4% | Lubrication-Anti-oxidation | 10,5 |

Dressing stone for diamond cutting discs

| Code | Model | Usage | Q.ty per pack | Weight kg |
|---------|-------------------|----------------------------|---------------|-----------|
| 80DD000 | Dressing Stone-CD | Metal and resin bond discs | 1 | 0,8 |





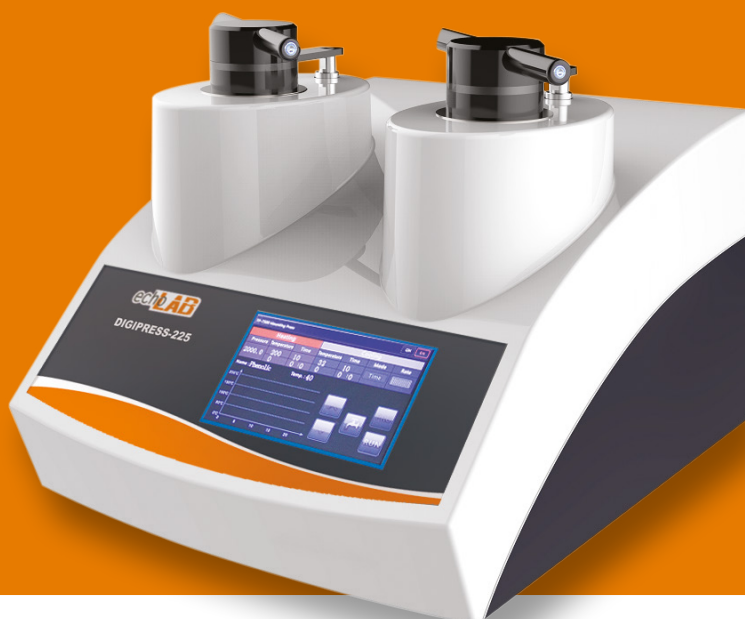
HOT MOUNTING
PRESS
MACHINES

Mounting

DIGIPRESS-200

Features

- > Fully automatic mounting press with touch screen for data setting such as heating temperature, heating time, cooling time, pressure
- > Cylinders with an intermediate piston which makes possible to carry out 4 mounting operations at same time
- > Adjustable piston height
- > Different mold sizes available (ø 25mm, ø 30mm, ø 40mm, ø 50mm)
- > Automatic water cooling system.



| Model | DIGIPRESS 225 | DIGIPRESS 232 | DIGIPRESS 240 | DIGIPRESS 250 |
|----------------------------|---------------------------|---------------------------|---------------------------|---------------------------|
| Mold diameter | ø 25mm | ø 30mm | ø 40mm | ø 50mm |
| Mounting quantity per time | 4 | 4 | 4 | 4 |
| Moulding temperature | 200°C | 200°C | 200°C | 200°C |
| Mounting time | 10min | 10min | 10min | 10min |
| Heating time to 180°C | 2-3min | 2-3min | 2-3min | 2-3min |
| Heating power | 1500W | 1500W | 1500W | 1500W |
| Cooling time | 1 to 99min | 1 to 99min | 1 to 99min | 1 to 99min |
| Pressure | 20MPa | 20MPa | 20MPa | 20MPa |
| Noise level | 70dB | 70dB | 70dB | 70dB |
| Operating temperature | 0÷40°C | 0÷40°C | 0÷40°C | 0÷40°C |
| Humidity non-condensing | <80% | <80% | <80% | <80% |
| Water inlet | ø 8mm | ø 8mm | ø 8mm | ø 8mm |
| Water outlet | ø 10mm | ø 10mm | ø 10mm | ø 10mm |
| Power supply | 230V ±10% - 50/60Hz - 1Ph | 230V ±10% - 50/60Hz - 1Ph | 230V ±10% - 50/60Hz - 1Ph | 230V ±10% - 50/60Hz - 1Ph |
| Dimensions | 540x580x500mm | 540x580x500mm | 540x580x500mm | 540x580x500mm |
| Weight | 78kg | 78kg | 78kg | 78kg |

Standard accessories

Mounting powder; filler; inlet water pipe;
outlet water pipe; hose clamp

Optional accessories

Chamber separator available on request

DIGIPRESS-100

Features

- > Fully automatic mounting press with touch screen for data setting such as heating temperature, heating time, cooling time, pressure
- > One cylinder with an intermediate piston which makes possible to carry out 2 mounting operations at same time
- > Adjustable piston height
- > Different mold sizes available (ø 25mm, ø 30mm, ø 40mm, ø 50mm)
- > Automatic water cooling system.



| Model | DIGIPRESS 125 | DIGIPRESS 132 | DIGIPRESS 140 | DIGIPRESS 150 |
|----------------------------|---------------------------|---------------------------|---------------------------|---------------------------|
| Mold diameter | ø 25mm | ø 30mm | ø 40mm | ø 50mm |
| Mounting quantity per time | 2 | 2 | 2 | 2 |
| Moulding temperature | 200°C | 200°C | 200°C | 200°C |
| Mounting time | 10min | 10min | 10min | 10min |
| Heating time to 180°C | 2-3min | 2-3min | 2-3min | 2-3min |
| Heating power | 1500W | 1500W | 1500W | 1500W |
| Cooling time | 1 to 99min | 1 to 99min | 1 to 99min | 1 to 99min |
| Pressure | 20MPa | 20MPa | 20MPa | 20MPa |
| Noise level | 70dB | 70dB | 70dB | 70dB |
| Operating temperature | 0÷40°C | 0÷40°C | 0÷40°C | 0÷40°C |
| Humidity non-condensing | <80% | <80% | <80% | <80% |
| Water inlet | ø 8mm | ø 8mm | ø 8mm | ø 8mm |
| Water outlet | ø 10mm | ø 10mm | ø 10mm | ø 10mm |
| Power supply | 230V ±10% - 50/60Hz - 1Ph | 230V ±10% - 50/60Hz - 1Ph | 230V ±10% - 50/60Hz - 1Ph | 230V ±10% - 50/60Hz - 1Ph |
| Dimensions | 410x480x500mm | 410x480x500mm | 410x480x500mm | 410x480x500mm |
| Weight | 65kg | 65kg | 65kg | 65kg |

Standard accessories

Mounting powder; filler; inlet water pipe;
outlet water pipe; hose clamp

Optional accessories

Chamber separator available on request

ZETAPRESS M2D

Features

- > Automatic mounting press with large size LCD touch screen, microprocessor controlled for setting all process parameters such as, automatic pre-heating, heating, working pressure, cooling time
- > One cylinder with intermediate piston which makes possible to carry out 2 mounting operations at same time
- > Different mold sizes available (\varnothing 25mm, \varnothing 32mm, \varnothing 40mm, \varnothing 50mm), two sizes can be selected
- > Automatic water cooling system

TWO DIFFERENT
CHAMBERS DIAMETER



| Model | ZETAPRESS M2D |
|---|--|
| Mold diameter (2 sizes can be selected as standard configuration) | \varnothing 25, \varnothing 30, \varnothing 40, \varnothing 50mm |
| Mounting quantity per time | 2 |
| Moulding temperature | 50÷300 |
| Mounting time | <15min |
| Heating time to 100°C | 8min |
| Heating time to 140°C | 10min |
| Heating time to 180°C | 12min |
| Heating power | 1000W |
| Cooling time | 3÷5min |
| Pressure | 0÷72MPa |
| Noise level | 65dB |
| Operating temperature | 0÷30°C |
| Humidity non-condensing | <85% |
| Water inlet | 8mm |
| Water outlet | 13mm |
| Power supply | 230V \pm 10% - 50/60Hz - 1Ph |
| Dimensions | 630x520x520mm |
| Weight | 120 |

Standard accessories

Two molds selected from: \varnothing 25mm, \varnothing 30mm, \varnothing 40mm, \varnothing 50mm; mounting powder; filler; inlet water pipe; outlet water pipe; hose clamp



VACUUM
MOUNTING
MACHINES

Mounting

VACUUM-X

Features

- Designed to be used with porous samples. Allows the degassing of the material porosities and replacement with cold mounting resin
- Supplied with a fully enclosed working chamber and diaphragm pump.



| Model | VACUUM-X |
|---------------------------|---------------------------|
| Vacuum chamber Dimensions | 300x300x300mm |
| Vacuum level | 0.087MPa |
| Noise level | 66dB |
| Operating temperature | 7÷40°C |
| Humidity non-condensing | 65% |
| Motor power | 180W |
| Power supply | 230V ±10% - 50/60Hz - 1Ph |
| Dimensions | 610x550x560mm |
| Weight | 73kg |

Standard accessories

Set of plastic pipes; epoxy resin; hardener; diaphragm pump

VACUUM-Y

Features

- Designed to be used with porous samples. Allows the degassing of the material porosities and replacement with cold mounting resin
- Supplied with a fully enclosed transparent working chamber and diaphragm pump.



| Model | VACUUM-Y |
|---------------------------|---------------------------|
| Vacuum chamber dimensions | ø 180x314mm |
| Vacuum level | 0.087MPa |
| Noise level | 66dB |
| Operating temperature | 7÷40°C |
| Humidity non-condensing | 65% |
| Motor power | 180W |
| Power supply | 230V ±10% - 50/60Hz - 1Ph |
| Dimensions | 480x400x400mm |
| Weight | 40kg |

Standard accessories

Set of plastic pipes; epoxy resin; hardener; diaphragm pump

CONSUMABLES FOR MOUNTING PROCESS

Mounting is the second step of the metallographic sample preparation.

This procedure is recommended for small, fragile, particularly shaped or thin layered samples.

Samples are englobed into a resin for protection, handling and having uniform sizes to obtain the best grinding/polishing operations.

Depending on the materials, two techniques are available:

- hot mounting
- cold mounting



























CONSUMABLES FOR MOUNTING PROCESS

SELECTION GUIDE

HOT MOUNTING

| Model | Resin type | Hardness | Shrinkage | Temperature | Heating time | Cooling time | Resin properties | Recommended for |
|----------------|-----------------------|------------|-----------|--------------|--------------|--------------|---|---|
| HotMresin-B | Phenolic | 90 shore D | Low | 150 to 180°C | 3 to 5 min | 2 to 4 min | Black phenolic lightly filled with glass fiber | Standard mounting media for soft materials |
| HotMresin-G | Phenolic | 90 shore D | Low | 150 to 180°C | 3 to 5 min | 2 to 4 min | Green phenolic | Standard mounting media for soft materials |
| HotMresin-R | Phenolic | 90 shore D | Low | 150 to 180°C | 3 to 5 min | 2 to 4 min | Red phenolic | Standard mounting media for soft materials |
| HotMresin-Br | Phenolic | 90 shore D | Low | 150 to 180°C | 3 to 5 min | 2 to 4 min | Brown phenolic | Standard mounting media for soft materials |
| HotMresin-Bgf | Phenolic, glass fiber | 95 shore D | Low | 150 to 180°C | 3 to 5 min | 2 to 4 min | Black phenolic with glass fiber | Standard mounting for medium-hard materials |
| HotMresin-CCB | Conductive phenolic | 90 shore D | Low | 150 to 180°C | 3 to 5 min | 2 to 4 min | Black phenolic with carbon, electrically conductive | Mounting media for soft to hard materials, for electrolytic polishing or SEM application |
| HotMresin-T | Acrylic | 88 shore D | Low | 180 to 190°C | 7 to 9 min | 5 to 6 min | Transparent acrylic | Mounting media for soft to medium materials, suitable when is required a transparent mold |
| HotMresin-CCBr | Conductive acrylic | 90 shore D | Low | 160 to 180°C | 6 to 9 min | 3 to 4 min | Brown acrylic with copper, electrically conductive | Mounting media for soft to hard materials, for electrolytic polishing |
| HotMresin-EB | Epoxy | 96 shore D | Very low | 160 to 180°C | 5 to 6 min | 3 to 4 min | Black epoxy, very low removal rate | Hard materials, edge observation, surface deposit, coating |

CONSUMABLES FOR MOUNTING PROCESS

| Hot mounting resins | | | | | |
|---------------------|----------------|---|---------------|---|-----------|
| Code | Model | Color | Q.ty kg | Description | Weight kg |
| 3000250 | HotMresin-B |  | 2,5 | Phenolic resin, lightly filled with glass fiber | 2,7 |
| 3001000 | |  | 10 | | 10,4 |
| 3002500 | |  | 20 | | 26 |
| | | | | | |
| 3010250 | HotMresin-G |  | 2,5 | Phenolic resin | 2,7 |
| 3011000 | |  | 10 | | 10,4 |
| 3012500 | |  | 20 | | 26 |
| | | | | | |
| 3020250 | HotMresin-R |  | 2,5 | Phenolic resin | 2,7 |
| 3021000 | |  | 10 | | 10,4 |
| 3022500 | |  | 20 | | 26 |
| | | | | | |
| 3030250 | HotMresin-Br |  | 2,5 | Phenolic resin | 2,7 |
| 3031000 | |  | 10 | | 10,4 |
| 3032500 | |  | 20 | | 26 |
| | | | | | |
| 3080100 | HotMresin-Bgf |  | 1 | Phenolic glass fiber resin | 1,3 |
| 3080250 | |  | 2,5 | | 2,7 |
| 3081000 | |  | 10 | | 10,4 |
| | | | | | |
| 3040100 | HotMresin-CCB |  | 1 | Carbon conductive phenolic resin | 1,3 |
| 3040250 | |  | 2,5 | | 2,7 |
| | | | | | |
| 3050100 | HotMresin-T |  | 1 | Acrylic transparent resin | 1,3 |
| 3050250 | |  | 2,5 | | 2,7 |
| 3051000 | |  | 10 | | 10,4 |
| | | | | | |
| 3060200 | HotMresin-CCBr |  | 2 | Conductive acrylic copper resin | 2,3 |
| | | | | | |
| 3070100 | HotMresin-EB |  | 1 | High quality epoxy resin | 1,3 |
| 3070250 | |  | 2,5 | | 2,7 |
| 3071000 | |  | 10 | | 10,4 |
| 3071500 | |  | 15 | | 15,6 |
| 3072500 | |  | 20 | | 20,7 |
| | | | | | |
| Mould release agent | | | | | |
| Code | Model | Q.ty ml | Description | Weight kg | |
| 75RA000 | Release agent | 500 | Spray SIL-JET | 0,5 | |

CONSUMABLES FOR MOUNTING PROCESS

SELECTION GUIDE

COLD MOUNTING

Cold mounting

| Model | Resin type | Hardness | Shrinkage | Max. temperature | Curing time | Mixing ratio volume | Resin properties | Recommended for |
|---------------|--------------------|------------|-----------|------------------|---|--|---------------------------|--|
| ColdMresin-T | Acrylic | 85 shore D | Low | 85°C | 8 to 10 min | 2 volumes of powder + 1 volume of liquid | Translucent acrylic | Control/general use with fast mounting |
| ColdMresin-G | Acrylic | 92 shore D | Very low | 78°C | 5 to 7 min | 2 volumes of powder + 1 volume of liquid | Green acrylic | Hard materials with fast mounting |
| ColdMresin-B | Acrylic | 90 shore D | No | 85°C | 7 to 10 min | 2 volumes of powder + 1 volume of liquid | Blue acrylic | Hard materials with fast mounting |
| ColdMresin-CC | Conductive acrylic | 82 shore D | Low | 75°C | 18 to 20 min | 1 volume of powder + 1 volume of liquid | Carbon conductive acrylic | SEM control or electrolytic polishing |
| ColdMresin-E | Epoxy | 84 shore D | No | 75°C / 180°C | About 12 hours at 25°C / 30 min at 80°C | 12% of hardener | Transparent epoxy | Porous materials observation edges and coating temperature sensitive materials |

CONSUMABLES FOR MOUNTING PROCESS

| Cold mounting resins | | | | | | |
|--------------------------|-----------------------|---|--------------------------|---|-----------|--|
| Code | Model | Color | Q.ty | Description | Weight kg | Mixing ratio volume |
| 20P0100 | ColdMresin-T |  | 1 kg | High quality powder acrylic translucent resin | 1,2 | 2 volumes of powder + 1 volume of liquid |
| 20P1000 | |  | 10 kg | | 10,5 | |
| 20L0050 | |  | 0,5 l | High quality liquid acrylic translucent resin | 1 | |
| 20L0100 | |  | 1 l | | 1,5 | |
| 20L0500 | |  | 5 l | | 5,6 | |
| | | | | | | |
| 22P0100 | ColdMresin-G |  | 1 kg | High quality powder acrylic green resin | 1,2 | 2 volumes of powder + 1 volume of liquid |
| 22P1000 | |  | 10 kg | | 10,5 | |
| 22L0050 | |  | 0,5 l | High quality liquid acrylic green resin | 1 | |
| 22L0100 | |  | 1 l | | 1,5 | |
| 22L0500 | |  | 5 l | | 5,6 | |
| | | | | | | |
| 23P0100 | ColdMresin-B |  | 1 kg | Very high quality powder acrylic blue resin | 2,4 | 2 volumns of powder + 1 volume of liquid |
| 23P1000 | |  | 10 kg | | 0,7 | |
| 23L0050 | |  | 0,5 l | Very high quality liquid acrylic blue resin | 0,7 | |
| 23L0100 | |  | 1 l | | 1,2 | |
| 23L0500 | |  | 5 l | | 5,6 | |
| | | | | | | |
| 25L0100 | ColdMresin-E |  | 1 l | High quality epoxy highly transparent resin | 1,3 | 120ml of Hardner-E + 1l epoxy |
| | | | | | | |
| 26P0100 | ColdMresin-CC |  | 1 kg | Powder acrylic carbon conductive resin | 1,3 | 1 volume of powder + 1 volume of liquid |
| 26L0100 | |  | 1 l | Liquid acrylic carbon conductive resin | 1,3 | |
| | | | | | | |
| Hardener for epoxy resin | | | | | | |
| Code | Model | Color | Q.ty | Description | Weight kg | Mixing ratio volume |
| 25L0100 | ColdMresin-E |  | 1 l | High quality epoxy highly transparent resin | 1,3 | 120ml of Hardner-E + 1l epoxy |
| | | | | | | |
| Code | Model | Q.ty ml | Description | Weight kg | | |
| 25HE250 | Hardner-E for 25L0100 | 250 | Hardener for epoxy resin | 0,5 | | |

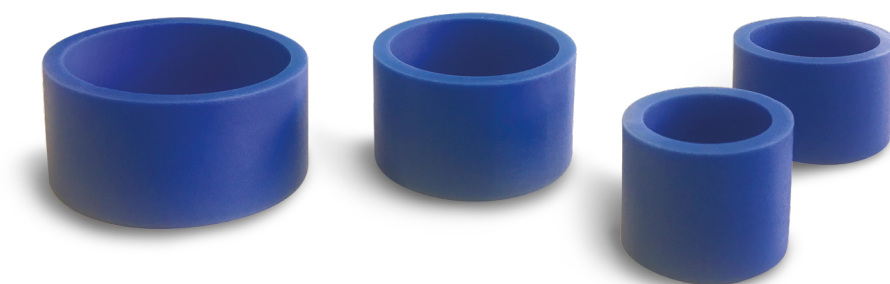


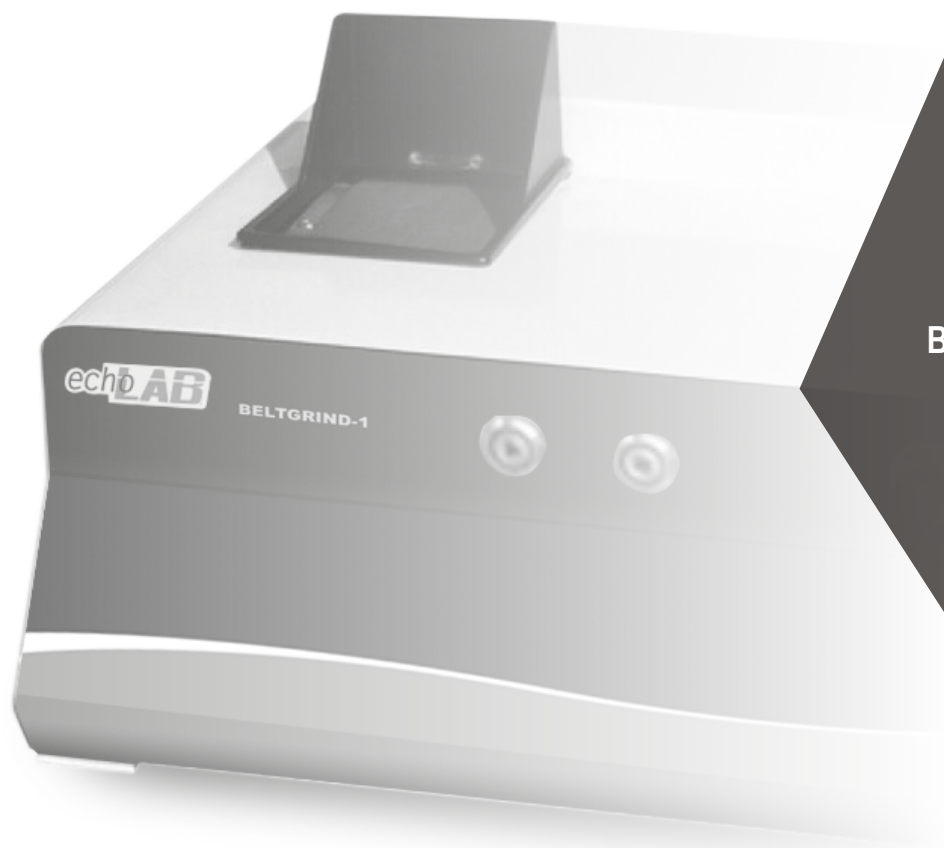
CONSUMABLES FOR MOUNTING PROCESS

Mold C

Molds for cold mounting process

| Code | Diameter mm | Lenght mm | Width mm | Height mm | Description | Q.ty/Pack | Weight kg |
|---------|-------------|-----------|----------|-----------|---------------------------|-----------|-----------|
| 5802025 | 25 | / | / | 27 | Polypropilene mold | 5 | 0,3 |
| 5802030 | 30 | / | / | 27 | | 5 | 0,3 |
| 5802040 | 40 | / | / | 27 | | 5 | 0,2 |
| 5800025 | 25 | / | / | 23 | High quality silicon mold | 5 | 0,3 |
| 5800030 | 30 | / | / | 25 | | 5 | 0,3 |
| 5800040 | 40 | / | / | 30 | | 5 | 0,3 |
| 5800050 | 50 | / | / | 30 | | 3 | 0,3 |
| 5800060 | 60 | / | / | 35 | | 3 | 0,3 |
| 5801055 | / | 55 | 30 | 22 | | 3 | 0,4 |
| 5801070 | / | 70 | 40 | 22 | | 3 | 0,4 |
| 5801100 | / | 100 | 50 | 22 | | 3 | 0,5 |





BELT GRINDING
MACHINES

Grinding

BELTGRIND-2

Features

- > Bench-top wet abrasive belt grinding machine suitable for spectroscopy samples analysis
- > Double abrasive belt station
- > Working time 2 minutes approx
- > Widely used for physical and chemical inspections in metallographic laboratories.



| Model | BELTGRIND-2 |
|------------------------------|---------------------------|
| Station | 2 |
| Abrasive belt dimensions WxL | 100x920mm |
| Motor speed | 1400rpm |
| Belt speed | 768mm/min |
| Center distance | 255mm |
| Noise level | <65dB |
| Operating temperature | 0+30°C |
| Humidity non-condensing | 85% |
| Water inlet | ø 6mm |
| Water outlet | ø 20mm |
| Motor power | 500W |
| Power supply | 400V ±10% - 50/60Hz - 3Ph |
| Dimensions | 550x570x320mm |
| Weight | 56kg |

Standard accessories

Abrasive belts 100x920mm 2pcs; inlet water pipe; outlet water pipe; hose clamp

CONSUMABLES

Abrasive-LBT

Abrasive belts

| Code | Dimension LxW mm | Grit FEPA-P (ANSI/CAM) | Description | Q.ty/pack | Weight kg |
|---------|------------------|------------------------|---|-----------|-----------|
| 7900060 | 920x100 | P60 (60) | Abrasive belt for spectroscopy sample preparation | 50 | 1 |
| 7900120 | 920x100 | P120 (120) | | 50 | 1 |
| 7900180 | 920x100 | P180 (180) | | 50 | 1 |
| 7900240 | 920x100 | P240 (240) | | 50 | 1 |
| 7900320 | 920x100 | P320 (280) | | 50 | 1 |
| 7900400 | 920x100 | P400 (320) | | 50 | 1 |

BELTGRIND-1

Features

- > Bench-top wet abrasive belt grinding machine suitable for spectroscopy samples analysis
- > Single abrasive belt station
- > Working time 2 minutes approx
- > Widely used for physical and chemical inspections in metallographic laboratories.



| Model | BELTGRIND-1 |
|------------------------------|---------------------------|
| Station | 1 |
| Abrasive belt dimensions WxL | 100x920mm |
| Motor speed | 1400rpm |
| Belt speed | 768mm/min |
| Center distance | 255mm |
| Noise level | <65dB |
| Operating temperature | 0+30°C |
| Humidity non-condensing | 85% |
| Water inlet | ø 6mm |
| Water outlet | ø 20mm |
| Motor power | 500W |
| Power supply | 400V ±10% - 50/60Hz - 3Ph |
| Dimensions | 550x570x320 |
| Weight | 56 |

Standard accessories

Abrasive belt 100x920mm; inlet water pipe; outlet water pipe; hose clamp



GRINDING
MACHINE

Grinding

QUANTUMPOL-2

Features

- > Abrasive disc grinding machine suitable for spectroscopy samples analysis
- > Compact floor structure, double grinding discs with independent controls
- > Stepless rotational speed
- > Equipped with an internal vacuum cleaner for dust removal during operation
- > Widely used for physical and chemical inspections in metallographic laboratories.



| Model | QUANTUMPOL-2 |
|-------------------------|--|
| Platen | 2 |
| Disc dimension | ø 300mm |
| Platen speed | 100÷1400 stepless or four speeds: 300, 600, 900, 1400rpm |
| Noise level | 70dB |
| Operating temperature | 0÷30°C |
| Humidity non-condensing | 65<% |
| Motor power | 1100W |
| Power supply | 230V ±10% - 50/60Hz - 1Ph |
| Dimensions | 820x440x940mm |
| Weight | 115kg |

Standard accessories

Platen ø 300mm 2pcs; abrasive paper ø 300mm 180# 2pcs; abrasive paper ø 300mm 400# 2pcs; abrasive paper ø 300mm 800# 2pcs;

Optional accessories

| | |
|---------|---|
| SHM-100 | Sample holder for round specimens (diameter on request). Mechanical type, with adjustable samples height. |
|---------|---|

CONSUMABLES

Abrasive-Q

Grinding discs for QUANTUMPOL-2

| Code | Diameter mm | Grit FEPA-P (ANSI/CAM) | Description | Q.ty/pack | Weight kg |
|---------|-------------|------------------------|---|-----------|-----------|
| 7930046 | 300 | P46 (46) | Abrasive disc for spectroscopy sample preparation | 50 | 1,8 |
| 7930060 | 300 | P60 (60) | | 50 | 1,8 |
| 7930080 | 300 | P80 (80) | | 50 | 1,8 |
| 7930100 | 300 | P100 (100) | | 50 | 1,8 |
| 7930120 | 300 | P120 (120) | | 50 | 1,8 |
| 7930180 | 300 | P180 (180) | | 50 | 1,8 |
| 7930240 | 300 | P240 (240) | | 50 | 1,8 |



**GRINDING
POLISHING
MACHINES**

Grinding/Polishing

POLITOUCH 2H

Features

- > Automatic double platen grinding/polishing machine
- > Equipped with automatic head to polishing process up to 6 samples at the same time. Possibility to choose different samples holders as standard configuration
- > Platens and automatic head controlled by LCD touch screen panel
- > DC brushless motor, stepless speeds
- > Cooling system to prevent sample overheating
- > Recommended for scientific research institutes, metallographic laboratories and universities.



| Model | POLITOUCH 2H/250 | POLITOUCH 2H/300 |
|-----------------------------|---|---|
| Platen | 2 | 2 |
| Platen controls | Double | Double |
| Platen diameter | 250mm | 300mm |
| Platen speed | 100÷1000 stepless or four speeds 250, 500, 750, 1000rpm | 100÷1000 stepless or four speeds 250, 500, 750, 1000rpm |
| Platen rotational direction | Clockwise/Counterclockwise | Clockwise/Counterclockwise |
| Torque | 5.5Nm | 5.5Nm |
| Head rotational direction | Clockwise | Clockwise |
| Head speed | 30÷120rpm | 30÷120rpm |
| Sample holder | 1 model selected from sample holder table | 1 model selected from sample holder table |
| Sample holding force | 0÷0.7MPa | 0÷0.7MPa |
| Max. sample height | 40mm | 40mm |
| Head motor power | 100W | 100W |
| Noise level | 60dB | 60dB |
| Operating temperature | 0÷30°C | 0÷30°C |
| Humidity non-condensing | <65% | <65% |
| Water inlet | ø 12mm | ø 12mm |
| Water outlet | ø 32mm | ø 32mm |
| Inlet air pressure | 0.5MPa | 0.5MPa |
| Air connection | ø 6mm | ø 6mm |
| Motor power | 1100W | 1100W |
| Power supply | 230V ±10% - 50/60Hz - 1Ph | 230V ±10% - 50/60Hz - 1Ph |
| Dimensions | 900x725x760mm | 900x725x760mm |
| Weight | 115kg | 115kg |

Standard accessories

POLITOUCH 2H/250

Sample holder;
abrasive paper ø 250mm 180# 2pcs;
abrasive paper ø 250mm 400# 2pcs;
abrasive paper ø 250mm 800# 2pcs;
cover 2pcs; sealing ring; inlet water pipe; outlet water pipe

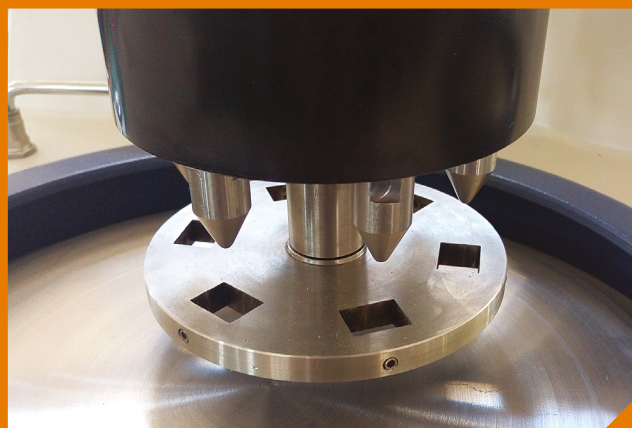
Standard accessories

POLITOUCH 2H/300

Sample holder;
abrasive paper ø 300mm 180# 2pcs;
abrasive paper ø 300mm 400# 2pcs;
abrasive paper ø 300mm 800# 2pcs;
cover 2pcs; sealing ring; inlet water pipe; outlet water pipe

Optional accessories

| Model | Description |
|-------|---|
| D-1 | Automatic dispenser for diamond/alumina/silica products |
| LV-21 | Sample leveler plate |
| PR-XX | Plastic ring reduction selected from ø 22 up to ø 45mm |



SAMPLE HOLDERS



ZH-22

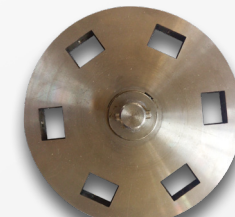
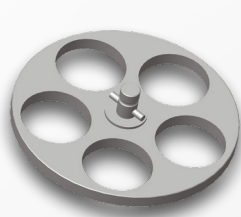
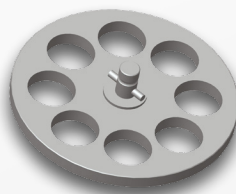
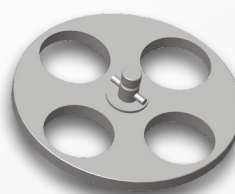
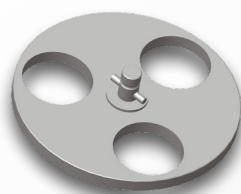


ZH-45



ZH-30

SPECIAL SAMPLE HOLDERS



Sample holders

| Model | Number of samples | Holes diameter (mm) |
|-------|-------------------|---------------------|
| ZH-22 | 6 | ø 22 |
| ZH-25 | 6 | ø 25 (on request) |
| ZH-30 | 6 | ø 30 |
| ZH-32 | 6 | ø 32 (on request) |
| ZH-40 | 6 | ø 40 (on request) |
| ZH-45 | 6 | ø 45 |
| ZH-50 | 6 | ø 50 (on request) |

Special sample holders (on request)

| Model | Number of samples | Holes diameter (mm) |
|--------|-------------------|---------------------|
| ZA-322 | 3 | ø 22 |
| ZA-325 | 3 | ø 25 |
| ZA-330 | 3 | ø 30 |
| ZA-332 | 3 | ø 32 |
| ZA-340 | 3 | ø 40 |
| ZA-345 | 3 | ø 45 |
| ZA-350 | 3 | ø 50 |
| ZA-422 | 4 | ø 22 |
| ZA-425 | 4 | ø 25 |
| ZA-430 | 4 | ø 30 |
| ZA-432 | 4 | ø 32 |
| ZA-440 | 4 | ø 40 |
| ZA-445 | 4 | ø 45 |
| ZA-450 | 4 | ø 50 |
| ZA-522 | 5 | ø 22 |
| ZA-525 | 5 | ø 25 |
| ZA-530 | 5 | ø 30 |
| ZA-532 | 5 | ø 32 |
| ZA-540 | 5 | ø 40 |
| ZA-545 | 5 | ø 45 |
| ZA-550 | 5 | ø 50 |
| ZA-822 | 8 | ø 22 |
| ZA-825 | 8 | ø 25 |
| ZA-830 | 8 | ø 30 |
| ZA-332 | 8 | ø 32 |

Sample holders customization according to samples shapes, on request

POLITOUCH 1H

FULLY PROCESS
PROGRAMMABLE

Features

- > Automatic single platen grinding/polishing machine
- > Equipped with automatic head to polishing process up to 6 samples at the same time. Possibility to choose different samples holders as standard configuration
- > Platen and automatic head controlled by LCD touch screen panel
- > DC brushless motor, stepless speeds
- > Cooling system to prevent sample overheating
- > Recommended for scientific research institutes, metallographic laboratories and universities.



| Model | POLITOUCH 1H/250 | POLITOUCH 1H/300 |
|-----------------------------|---|---|
| Platen | 1 | 1 |
| Platen diameter | 250mm | 300mm |
| Platen speed | 100÷1000 stepless | 100÷1000 stepless |
| Platen rotational direction | Clockwise/Counterclockwise | Clockwise/Counterclockwise |
| Torque | 5.5Nm | 5.5Nm |
| Head rotational direction | Clockwise | Clockwise |
| Head speed | 20÷120rpm stepless | 20÷120rpm stepless |
| Sample holder | 1 model selected from sample holder table | 1 model selected from sample holder table |
| Sample holding force | 0÷0.7MPa | 0÷0.7MPa |
| Max. sample height | 40mm | 40mm |
| Head motor power | 200W | 200W |
| Noise level | 60dB | 60dB |
| Operating temperature | 0÷3°C | 0÷30°C |
| Humidity non-condensing | <65% | <65% |
| Water inlet | ø 12mm | ø 12mm |
| Water outlet | ø 32mm | ø 32mm |
| Inlet air pressure | 0.5MPa | 0.5MPa |
| Air connection | ø 6mm | ø 6mm |
| Motor power | 1100W | 1100W |
| Power supply | 230V ±10% - 50/60Hz - 1Ph | 230V ±10% - 50/60Hz - 1Ph |
| Dimensions | 500x725x760mm | 500x725x760mm |
| Weight | 96kg | 96kg |

Standard accessories

POLITOUCH
1H/250

Sample holder;
abrasive paper ø 250mm 180# 2pcs;
abrasive paper ø 250mm 400# 2pcs;
abrasive paper ø 250mm 800# 2pcs;
cover; sealing ring; inlet water pipe;
outlet water pipe

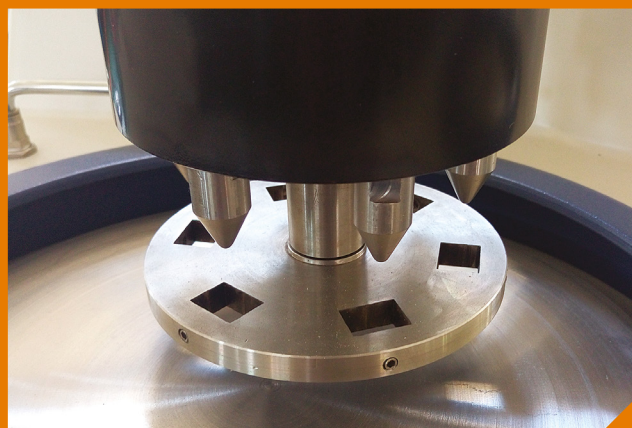
Standard accessories

POLITOUCH
1H/300

Sample holder;
abrasive paper ø 300mm 180# 2pcs;
abrasive paper ø 300mm 400# 2pcs;
abrasive paper ø 300mm 800# 2pcs;
cover; sealing ring; inlet water pipe;
outlet water pipe

Optional accessories

| Model | Description |
|-------|--|
| D-1 | Automatic dispenser for diamond/ alumina/silica products |
| LV-21 | Sample leveler plate |
| PR-XX | Plastic ring reduction selected from ø 22 up to ø 45mm |



SAMPLE HOLDERS



ZH-22

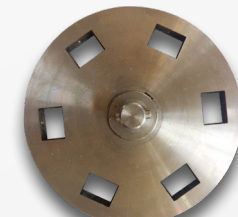
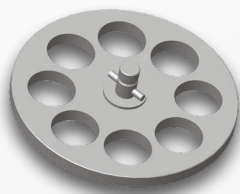
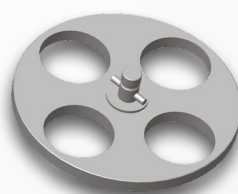
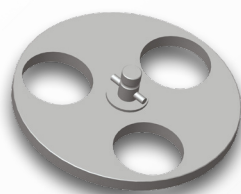


ZH-45



ZH-30

SPECIAL SAMPLE HOLDERS



Sample holders

| Model | Number of samples | Holes diameter (mm) |
|-------|-------------------|---------------------|
| ZH-22 | 6 | ø 22 |
| ZH-25 | 6 | ø 25 (on request) |
| ZH-30 | 6 | ø 30 |
| ZH-32 | 6 | ø 32 (on request) |
| ZH-40 | 6 | ø 40 (on request) |
| ZH-45 | 6 | ø 45 |
| ZH-50 | 6 | ø 50 (on request) |

Special sample holders (on request)

| Model | Number of samples | Holes diameter (mm) |
|--------|-------------------|---------------------|
| ZA-322 | 3 | ø 22 |
| ZA-325 | 3 | ø 25 |
| ZA-330 | 3 | ø 30 |
| ZA-332 | 3 | ø 32 |
| ZA-340 | 3 | ø 40 |
| ZA-345 | 3 | ø 45 |
| ZA-350 | 3 | ø 50 |
| ZA-422 | 4 | ø 22 |
| ZA-425 | 4 | ø 25 |
| ZA-430 | 4 | ø 30 |
| ZA-432 | 4 | ø 32 |
| ZA-440 | 4 | ø 40 |
| ZA-445 | 4 | ø 45 |
| ZA-450 | 4 | ø 50 |
| ZA-522 | 5 | ø 22 |
| ZA-525 | 5 | ø 25 |
| ZA-530 | 5 | ø 30 |
| ZA-532 | 5 | ø 32 |
| ZA-540 | 5 | ø 40 |
| ZA-545 | 5 | ø 45 |
| ZA-550 | 5 | ø 50 |
| ZA-822 | 8 | ø 22 |
| ZA-825 | 8 | ø 25 |
| ZA-830 | 8 | ø 30 |
| ZA-332 | 8 | ø 32 |

Sample holders customization according to samples shapes, on request

POLITOUCH 2D

Features

- > Manual double platen grinding/polishing machine, fully programmable by LCD touch screen control panel
- > Platen \varnothing 250mm or \varnothing 300mm
- > DC brushless motor, stepless speed
- > Cooling system to prevent sample overheating
- > Recommended for scientific research institutes, metallographic laboratories and universities.



| Model | POLITOUCH 2D/250 | POLITOUCH 2D/300 |
|-----------------------------|---|---|
| Platen | 2 | 2 |
| Platen controls | Double | Double |
| Platen diameter | 250mm | 300mm |
| Platen speed | 100÷1000 stepless or four speeds 250, 500, 750, 1000rpm | 100÷1000 stepless or four speeds 250, 500, 750, 1000rpm |
| Platen rotational direction | Clockwise/Counterclockwise | Clockwise/Counterclockwise |
| Torque | 5.5Nm | 5.5Nm |
| Noise level | <60dB | <60dB |
| Operating temperature | 0÷30°C | 0÷30°C |
| Humidity non-condensing | <65% | <65% |
| Water inlet | \varnothing 12mm | \varnothing 12mm |
| Water outlet | \varnothing 32mm | \varnothing 32mm |
| Motor power | 1100W | 1100W |
| Power supply | 230V \pm 10% - 50/60Hz - 1Ph | 230V \pm 10% - 50/60Hz - 1Ph |
| Dimensions | 500x725x360 mm | 500x725x360mm |
| Weight | 55kg | 55kg |

Standard accessories

POLITOUCH 2D/250

Abrasive paper \varnothing 250mm 180# 2pcs;
abrasive paper \varnothing 250mm 400# 2pcs;
abrasive paper \varnothing 250mm 800# 2pcs;
cover; sealing ring; inlet water pipe;
outlet water pipe

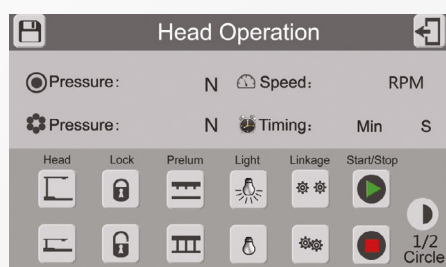
Standard accessories

POLITOUCH 2D/300

Abrasive paper \varnothing 300mm 180# 2pcs;
abrasive paper \varnothing 300mm 400# 2pcs;
abrasive paper \varnothing 300mm 800# 2pcs;
cover; sealing ring; inlet water pipe;
outlet water pipe

Optional accessories

| Model | Description |
|---------|--|
| D-1 | Automatic dispenser for diamond/ alumina/silica products |
| SHM-100 | Sample holder for round specimens (diameter on request). Mechanical type, with adjustable samples height. |



POLITOUCH 1D

Features

- > Manual single platen grinding/polishing machine, fully programmable by LCD touch screen control panel
- > Platen \varnothing 250mm or \varnothing 300mm
- > DC brushless motor, stepless speed
- > Cooling system to prevent sample overheating
- > Recommended for scientific research institutes, metallographic laboratories and universities.



| Model | POLITOUCH 1D/250 | POLITOUCH 1D/300 |
|-----------------------------|---|---|
| Platen | 1 | 1 |
| Platen diameter | 250mm | 300mm |
| Platen speed | 100÷1000 stepless or four speeds 250, 500, 750, 1000rpm | 100÷1000 stepless or four speeds 250, 500, 750, 1000rpm |
| Platen rotational direction | Clockwise/Counterclockwise | Clockwise/Counterclockwise |
| Torque | 5.5Nm | 5.5Nm |
| Noise level | <60dB | <60dB |
| Operating temperature | 0÷30°C | 0÷30°C |
| Humidity non-condensing | <65% | <65% |
| Water inlet | \varnothing 12mm | \varnothing 12mm |
| Water outlet | \varnothing 32mm | \varnothing 32mm |
| Motor power | 1100W | 1100W |
| Power supply | 230V \pm 10% - 50/60Hz - 1Ph | 230V \pm 10% - 50/60Hz - 1Ph |
| Dimensions | 500x725x360 mm | 500x725x360mm |
| Weight | 55kg | 55kg |

Standard accessories

POLITOUCH 1D/250

Abrasive paper \varnothing 250mm 180# 2pcs;
abrasive paper \varnothing 250mm 400# 2pcs;
abrasive paper \varnothing 250mm 800# 2pcs;
cover; sealing ring; inlet water pipe;
outlet water pipe

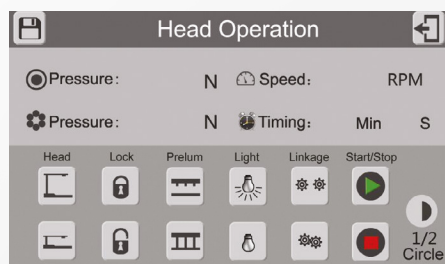
Standard accessories

POLITOUCH 1D/300

Abrasive paper \varnothing 300mm 180# 2pcs;
abrasive paper \varnothing 300mm 400# 2pcs;
abrasive paper \varnothing 300mm 800# 2pcs;
cover; sealing ring; inlet water pipe;
outlet water pipe

Optional accessories

| Model | Description |
|---------|---|
| D-1 | Automatic dispenser for diamond/ alumina/silica products |
| SHM-100 | Sample holder for round specimens (diameter on request). Mechanical type, with adjustable samples height. |



POLI-2HX

Features

- > Automatic double platen ø 250mm grinding/polishing machine
- > Equipped with automatic head for polishing processes up to 6 samples at the same time. Possibility to choose two different samples holders as a standard configuration
- > Platen and automatic head controlled by digital LCD panels
- > Stepless speed and three level constant speed
- > Fully programmable, 8 steps process control with automatic stop
- > Cooling system to prevent sample overheating
- > Recommended for scientific research institutes, metallographic laboratories and universities.



| Model | POLI-2HX/250 |
|-----------------------------|---|
| Platen | 2 |
| Platen diameter | 250mm |
| Platen speed | 0÷1000rpm |
| Platen rotational direction | Clockwise/Counterclockwise |
| Torque | 5Nm |
| Head rotational direction | Counterclockwise |
| Head speed | 50÷200rpm |
| Sample holder | 1 model selected from sample holder table |
| Sample holding force | 0.2÷0.4MPa |
| Max. sample height | 45mm |
| Head motor power | 750W |
| Noise level | 50dB |
| Operating temperature | 0÷30°C |
| Humidity non-condensing | 80% |
| Water inlet | ø 6mm |
| Water outlet | ø 25mm |
| Inlet air pressure | 0.5-0.8MPa |
| Air connection | ø 4 |
| Motor power | 550W |
| Power supply | 230V ±10% - 50/60Hz - 1Ph |
| Dimensions | 430x760x610mm |
| Weight | 74kg |

Standard accessories

1 Sample holder; magnetic plate Ø250mm 2pcs; anti-sticky disc Ø250mm 2pcs; adhesive grinding paper Ø250mm, 320# 10pcs; adhesive grinding paper Ø250mm, 1000# 10pcs; inlet water pipe; outlet water pipe

Optional accessories

| Model | Description |
|-------|--|
| D-1 | Automatic dispenser for diamond/ alumina/silica products |
| LV-21 | Sample leveler plate |
| PR-XX | Plastic ring reduction selected from ø 22 up to ø 45mm |

Sample holders

| Model | Number of sample | Holes diameter (mm) |
|-------|------------------|------------------------|
| XH-22 | 6 | ø 22 |
| XH-30 | 6 | ø 30 |
| XH-32 | 6 | ø 32 |
| XH-40 | 6 | Three ø 30; three ø 40 |
| XH-45 | 6 | Three ø 30; three ø 45 |
| XH-50 | 6 | Three ø 30; three ø 50 |



XH-22



XH-30



XH-32



XH-40



XH-45



XH-50

POLI-1HX

Features

- > Automatic single platen ø 250mm grinding/polishing machine
- > Equipped with automatic head for polishing processes up to 6 samples at the same time. Possibility to choose two different samples holders as a standard configuration
- > Platen and automatic head controlled by digital LCD panels
- > Stepless speed and three level constant speed
- > Fully programmable, 8 steps process control with automatic stop
- > Cooling system to prevent sample overheating
- > Recommended for scientific research institutes, metallographic laboratories and universities.



| Model | POLI-1HX/250 |
|-----------------------------|---|
| Platen | 1 |
| Platen diameter | 250mm |
| Platen speed | 0÷1000rpm |
| Platen rotational direction | Clockwise/Counterclockwise |
| Torque | 5Nm |
| Head rotational direction | Counterclockwise |
| Head speed | 50÷200rpm |
| Sample holder | 1 model selected from sample holder table |
| Sample holding force | 0.2÷0.4MPa |
| Max. sample height | 45mm |
| Head motor power | 750W |
| Noise level | 50dB |
| Operating temperature | 0÷30°C |
| Humidity non-condensing | 80% |
| Water inlet | ø 6mm |
| Water outlet | ø 25mm |
| Inlet air pressure | 0.5-0.8MPa |
| Air connection | ø 4 |
| Motor power | 550W |
| Power supply | 230V ±10% - 50/60Hz - 1Ph |
| Dimensions | 430x760x610mm |
| Weight | 74kg |

Standard accessories

1 Sample holder; magnetic plate Ø250mm; anti-sticky disc Ø250mm; adhesive grinding paper Ø250mm, 320# 10pcs; adhesive grinding paper Ø250mm, 1000# 10pcs; inlet water pipe; outlet water pipe

Optional accessories

| Model | Description |
|-------|---|
| D-1 | Automatic dispenser for diamond/alumina/silica products |
| LV-21 | Sample leveler plate |
| PR-XX | Plastic ring reduction selected from ø 22 up to ø 45mm |

Sample holders

| Model | Number of sample | Holes diameter (mm) |
|-------|------------------|------------------------|
| XH-22 | 6 | ø 22 |
| XH-30 | 6 | ø 30 |
| XH-32 | 6 | ø 32 |
| XH-40 | 6 | Three ø 30; three ø 40 |
| XH-45 | 6 | Three ø 30; three ø 45 |
| XH-50 | 6 | Three ø 30; three ø 50 |



XH-22



XH-30



XH-32



XH-40



XH-45



XH-50

POLI-2X

Features

- > Manual double platen Ø 250mm grinding/polishing machine, fully programmable
- > Platen LCD digital control panel
- > Cooling system to prevent sample overheating
- > Recommended for scientific research institutes, metallographic laboratories and universities.



| Model | POLI-2X/250 |
|-----------------------------|----------------------------|
| Platen | 2 |
| Platen diameter | 250mm |
| Platen speed | 50÷1000rpm |
| Platen rotational direction | Clockwise/Counterclockwise |
| Torque | 5Nm |
| Noise level | <40dB |
| Operating temperature | 0÷30 |
| Humidity non-condensing | <80°C |
| Water inlet | Ø 6mm |
| Water outlet | Ø 25mm |
| Motor power | 550W |
| Power supply | 230V ±10% - 50/60Hz - 1Ph |
| Dimensions | 710x760x330mm |
| Weight | 57kg |

Standard accessories

Magnetic plate Ø250mm; anti-sticky disc Ø250mm; adhesive grinding paper Ø250mm, 320# 10pcs; adhesive grinding paper Ø250mm, 1000# 10pcs; inlet water pipe; outlet water pipe

Optional accessories

| Model | Description |
|---------|--|
| D-1 | Automatic dispenser for diamond/ alumina/silica products |
| SHM-100 | Sample holder for round specimens (diameter on request). Mechanical type, with adjustable samples height. |

POLI-1X

Features

- > Manual single platen ø 250mm grinding/polishing machine, fully programmable
- > Platen LCD digital control panel
- > Cooling system to prevent sample overheating
- > Recommended for scientific research institutes, metallographic laboratories and universities.



| Model | POLI-1X/250 |
|-----------------------------|----------------------------|
| Platen | 1 |
| Platen diameter | 250mm |
| Platen speed | 50÷1000rpm |
| Platen rotational direction | Clockwise/Counterclockwise |
| Torque | 5Nm |
| Noise level | <40dB |
| Operating temperature | 0÷30 |
| Humidity non-condensing | <80°C |
| Water inlet | ø 6mm |
| Water outlet | ø 25mm |
| Motor power | 550W |
| Power supply | 230V ±10% - 50/60Hz - 1Ph |
| Dimensions | 410x760x330mm |
| Weight | 40kg |

Standard accessories

Magnetic plate Ø250mm; anti-sticky disc Ø250mm; adhesive grinding paper Ø250mm, 320# 10pcs; adhesive grinding paper Ø250mm, 1000# 10pcs; inlet water pipe; outlet water pipe

Optional accessories

| Model | Description |
|---------|---|
| D-1 | Automatic dispenser for diamond/ alumina/silica products |
| SHM-100 | Sample holder for round specimens (diameter on request). Mechanical type, with adjustable samples height. |



ELECTROLYTIC POLISHING MACHINE

Electrolytic polishing

ELECTRO-P

Features

- > Electrolytic polishing and etching machine for Metallographic Sample Preparation
- > Teflon electrolytic chamber
- > Equipped with voltage control display and digital timer
- > Recommended for scientific research institutes, metallographic laboratories and universities.



| Model | ELECTRO-P |
|---------------------------------|------------------------------------|
| Output voltage | 0+60V/0+25A, adjustable (1V steps) |
| Chamber capacity | 300+1000ml |
| Noise level | <60dB |
| Operating temperature | 0+30°C |
| Humidity non-condensing | <65% |
| Power supply | 230V ±10% - 50/60Hz - 1Ph |
| Control box dimensions | 450x420x230mm |
| Electrolytic chamber dimensions | 270x230x320mm |
| Weight | 10kg |

Standard accessories

Sample mask with hole 3pcs (ø 10, ø 15, ø 20mm)

Optional accessories

20ELEC05

Sample mask with hole selected from ø 10mm to ø 40mm

Appendix

Ingredients and recommended parameters for electrolyting and etching sample preparations

| NO. | Composition | Parameter | Suitable Materials |
|-----|---|--------------------------------|--|
| 1 | 30mlHCl+10mlHNO ₃ +50ml glycerin | 6-8V | Showing the general composition of heat-resistant alloy |
| 2 | 5-20% H ₃ PO ₄ aqueous solution | 8V | Showing the general composition of heat-resistant alloy |
| 3 | 40%NH ₄ OH aqueous solution | 4-8V | Heat-resistant steel, showing carbide and borate |
| 4 | 10% aqueous solution of oxalic acid | 3-6V | Showing the general composition of heat-resistant alloy |
| 5 | 3gFeSO ₄ +0.1gFe ₂ (SO ₄) ₃ +100ml distilled water | 0.1-0.2A/cm ² | Showing the composition of medium-carbon steel, low alloy, structural steel and high-speed steel |
| 6 | 10g potassium ferricyanide+90ml distilled water | 0.2-0.3 A/cm ² | Indicating the composition of high-speed steel |
| 7 | 5% aqueous solution of sulphuric acid | 6V 0.1-0.5A/cm ² | Indicating the composition of iron-chromium-nickel |
| 8 | 50% aqueous solution of nitric acid | 1.5V | Corrosive austenite or ferrite inoxidizable steel crystal |
| 9 | 700ml ethanol+100ml 2-butoxy+200ml 30% perchloric acid | 35-40V 15-20S | Steel, cast iron, aluminium, aluminium alloy, heat-resisting alloy, all polished |
| 10 | 700ml ethanol+100ml glycerine+200ml 30% perchloric acid | 15-50V 15-60S | Inox steel, high-speed steel and aluminium alloy, polished |
| 11 | 300ml water+700ml 85% phosphoric acid | 1.5-1.8V 5-10 minutes | Alloy, inox steel and copper, polished |
| 12 | 250ml water +750ml sulphuric acid | 1.5-6V 1-2 minutes | Inox steel, polished |

CONSUMABLES FOR GRINDING/POLISHING PROCESS

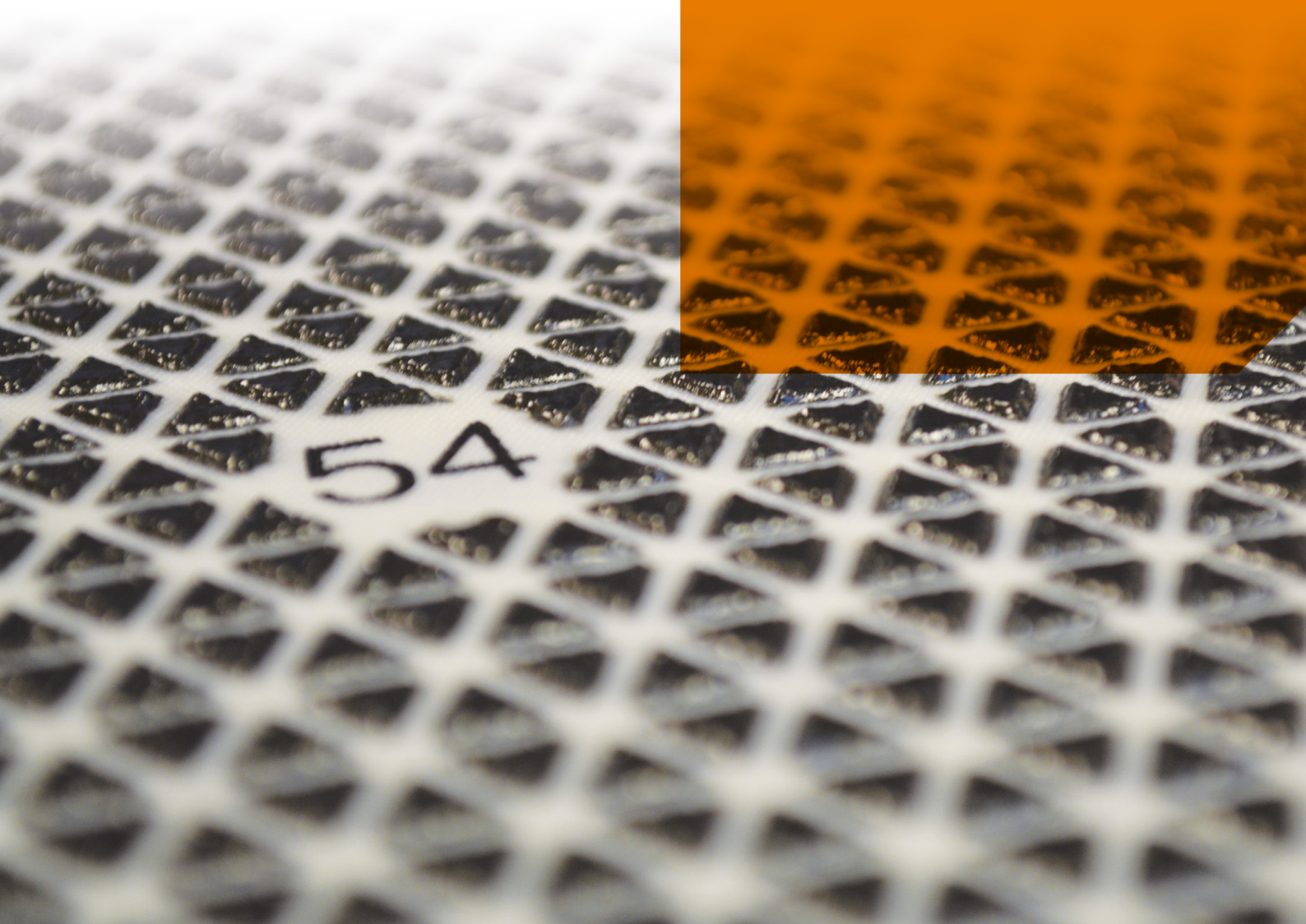
The final steps in metallographic sample preparation are grinding and polishing.

Grinding process is divided in two steps:

- planar grinding for removing surface irregularities
- fine grinding for obtaining a level surface.

Polishing process is necessary for fine grinding surface traces removal in preparation to microscope examination.

Good results depend on the right choice of consumables like abrasive papers, cloths, diamond and alumina suspensions which combined to the right machines parameters allow perfect sample preparation.



CONSUMABLES FOR GRINDING/POLISHING PROCESS

SELECTION GUIDE

Grinding discs selection guide

| Model | Description | Recommended use |
|----------------|---|---|
| Abrasive SIC-X | Water-resistant abrasive silicon carbide paper PSA | Soft non-metallic materials (soft rocks, polymers), metallic materials: non-ferrous metallic materials (aluminium, copper, nickel base, coatings), ferrous metallic materials (soft steel, low carbon, cast iron) |
| Abrasive SIC-Y | Water-resistant abrasive silicon carbide paper non PSA | Soft non-metallic materials (soft rocks, polymers), metallic materials: non-ferrous metallic materials (aluminium, copper, nickel base, coatings), ferrous metallic materials (soft steel, low carbon, cast iron) |
| Grinding-DX | Metallic or hard resin bonded diamond grinding discs for very hard non-metallic materials | Hard non-metallic materials (ceramics, glass, concrete) |
| Grinding-H2O | Soft resin bond diamond discs for hard metallic materials | Hard metallic materials (steels, refractory metals), used to reduce process time, for flat and fine grinding application and superior edge sharpness |
| Grinding-S | Grinding discs to be used with diamond suspensions Poly DS-01 and Mono DS-01 | Hard and very hard materials (hardened steel), suitable for flat and fine grinding applications and pre-polishing |

CONSUMABLES FOR GRINDING/POLISHING PROCESS

Abrasive SIC-X

Waterproof silicon carbide abrasive papers PSA (Pressure Sensitive Adhesive)

| Code | Diameter mm | Grit FEPA-P (ANSI/CAM) | Description | Q.ty/ pack | Weight kg |
|---------|-------------|------------------------|---|------------|-----------|
| 4200080 | 200 | P80 (80) | Waterproof silicon carbide abrasive (PSA) | 100 | 1,1 |
| 4200120 | 200 | P120 (120) | | 100 | 1,1 |
| 4200180 | 200 | P180 (180) | | 100 | 1,1 |
| 4200240 | 200 | P240 (240) | | 100 | 1,1 |
| 4200320 | 200 | P320 (280) | | 100 | 1,1 |
| 4200400 | 200 | P400 (320) | | 100 | 1,1 |
| 4200600 | 200 | P600 (380) | | 100 | 1,1 |
| 4200800 | 200 | P800 (400) | | 100 | 1,1 |
| 4201000 | 200 | P1000 (500) | | 100 | 1,1 |
| 4201200 | 200 | P1200 (600) | | 100 | 1,1 |
| 4202400 | 200 | P2400 (1000) | | 100 | 1,1 |
| 4204000 | 200 | P4000 (1200) | | 100 | 1,1 |
| 4250080 | 250 | P80 (80) | Waterproof silicon carbide abrasive paper (PSA) | 100 | 1,8 |
| 4250120 | 250 | P120 (120) | | 100 | 1,8 |
| 4250180 | 250 | P180 (180) | | 100 | 1,8 |
| 4250240 | 250 | P240 (240) | | 100 | 1,8 |
| 4250320 | 250 | P320 (280) | | 100 | 1,8 |
| 4250400 | 250 | P400 (320) | | 100 | 1,8 |
| 4250600 | 250 | P600 (380) | | 100 | 1,8 |
| 4250800 | 250 | P800 (400) | | 100 | 1,8 |
| 4251000 | 250 | P1000 (500) | | 100 | 1,8 |
| 4251200 | 250 | P1200 (600) | | 100 | 1,8 |
| 4252400 | 250 | P2400 (1000) | | 100 | 1,8 |
| 4254000 | 250 | P4000 (1200) | | 100 | 1,8 |
| 4300080 | 300 | P80 (80) | Waterproof silicon carbide abrasive paper (PSA) | 100 | 2,7 |
| 4300120 | 300 | P120 (120) | | 100 | 2,7 |
| 4300180 | 300 | P180 (180) | | 100 | 2,7 |
| 4300240 | 300 | P240 (240) | | 100 | 2,7 |
| 4300320 | 300 | P320 (280) | | 100 | 2,7 |
| 4300400 | 300 | P400 (320) | | 100 | 2,7 |
| 4300600 | 300 | P600 (380) | | 100 | 2,7 |
| 4300800 | 300 | P800 (400) | | 100 | 2,7 |
| 4301000 | 300 | P1000 (500) | | 100 | 2,7 |
| 4301200 | 300 | P1200 (600) | | 100 | 2,7 |
| 4302400 | 300 | P2400 (1000) | | 100 | 2,7 |
| 4304000 | 300 | P4000 (1200) | | 100 | 2,7 |



CONSUMABLES FOR GRINDING/POLISHING PROCESS

Abrasive SIC-Y

Waterproof silicon carbide abrasive papers

| Code | Diameter mm | Grit FEPA-P (ANSI/CAM) | Description | Q.ty/ pack | Weight kg |
|---------|-------------|------------------------|---|------------|-----------|
| 6200080 | 200 | P80 (80) | Waterproof silicon carbide abrasive paper | 100 | 1,2 |
| 6200120 | 200 | P120 (120) | | 100 | 1,2 |
| 6200180 | 200 | P180 (180) | | 100 | 1,2 |
| 6200240 | 200 | P240 (240) | | 100 | 1,2 |
| 6200320 | 200 | P320 (280) | | 100 | 1,2 |
| 6200400 | 200 | P400 (320) | | 100 | 1,2 |
| 6200600 | 200 | P600 (380) | | 100 | 1,2 |
| 6200800 | 200 | P800 (400) | | 100 | 1,2 |
| 6201000 | 200 | P1000 (500) | | 100 | 1,2 |
| 6201200 | 200 | P1200 (600) | | 100 | 1,2 |
| 6202400 | 200 | P2400 (1000) | | 100 | 1,2 |
| 6204000 | 200 | P4000 (1200) | | 100 | 1,2 |
| 6250080 | 250 | P80 (80) | Waterproof silicon carbide abrasive paper | 100 | 1,5 |
| 6250120 | 250 | P120 (120) | | 100 | 1,5 |
| 6250180 | 250 | P180 (180) | | 100 | 1,5 |
| 6250240 | 250 | P240 (240) | | 100 | 1,5 |
| 6250320 | 250 | P320 (280) | | 100 | 1,5 |
| 6250400 | 250 | P400 (320) | | 100 | 1,5 |
| 6250600 | 250 | P600 (380) | | 100 | 1,5 |
| 6250800 | 250 | P800 (400) | | 100 | 1,5 |
| 6251000 | 250 | P1000 (500) | | 100 | 1,5 |
| 6251200 | 250 | P1200 (600) | | 100 | 1,5 |
| 6252400 | 250 | P2400 (1000) | | 100 | 1,5 |
| 6254000 | 250 | P4000 (1200) | | 100 | 1,5 |
| 6300080 | 300 | P80 (80) | Waterproof silicon carbide abrasive paper | 100 | 2 |
| 6300120 | 300 | P120 (120) | | 100 | 2 |
| 6300180 | 300 | P180 (180) | | 100 | 2 |
| 6300240 | 300 | P240 (240) | | 100 | 2 |
| 6300320 | 300 | P320 (280) | | 100 | 2 |
| 6300400 | 300 | P400 (320) | | 100 | 2 |
| 6300600 | 300 | P600 (380) | | 100 | 2 |
| 6300800 | 300 | P800 (400) | | 100 | 2 |
| 6301000 | 300 | P1000 (500) | | 100 | 2 |
| 6301200 | 300 | P1200 (600) | | 100 | 2 |
| 6302400 | 300 | P2400 (1000) | | 100 | 2 |
| 6304000 | 300 | P4000 (1200) | | 100 | 2 |

CONSUMABLES FOR GRINDING/POLISHING PROCESS

Grinding DX

Diamond grinding discs

| Code | Diameter mm | Grit size μ | Description | Q.ty | Weight kg |
|---------|-------------|-----------------|---------------------------------------|------|-----------|
| 1520250 | 200 | 250 | Metallic bond diamond grinding disc | 1 | 0,3 |
| 1520125 | 200 | 125 | | 1 | 0,3 |
| 1520075 | 200 | 75 | | 1 | 0,3 |
| 1520040 | 200 | 40 | | 1 | 0,3 |
| 1520030 | 200 | 30 | Hard resin bond diamond grinding disc | 1 | 0,3 |
| 1520020 | 200 | 20 | Metallic bond diamond grinding disc | 1 | 0,3 |
| 1520010 | 200 | 10 | Hard resin bond diamond grinding disc | 1 | 0,3 |
| 1525250 | 250 | 250 | Metallic bond diamond grinding disc | 1 | 0,4 |
| 1525125 | 250 | 125 | | 1 | 0,4 |
| 1525075 | 250 | 75 | | 1 | 0,4 |
| 1525040 | 250 | 40 | | 1 | 0,4 |
| 1525030 | 250 | 30 | Hard resin bond diamond grinding disc | 1 | 0,4 |
| 1525020 | 250 | 20 | Metallic bond diamond grinding disc | 1 | 0,4 |
| 1525010 | 250 | 10 | Hard resin bond diamond grinding disc | 1 | 0,4 |
| 1530250 | 300 | 250 | Metallic bond diamond grinding disc | 1 | 0,4 |
| 1530125 | 300 | 125 | | 1 | 0,4 |
| 1530075 | 300 | 75 | | 1 | 0,4 |
| 1530040 | 300 | 40 | | 1 | 0,4 |
| 1530030 | 300 | 30 | Hard resin bond diamond grinding disc | 1 | 0,4 |
| 1530020 | 300 | 20 | Metallic bond diamond grinding disc | 1 | 0,4 |
| 1530010 | 300 | 10 | Hard resin bond diamond grinding disc | 1 | 0,4 |

On request, Grinding-DX are available with metallic back for magnetic applications

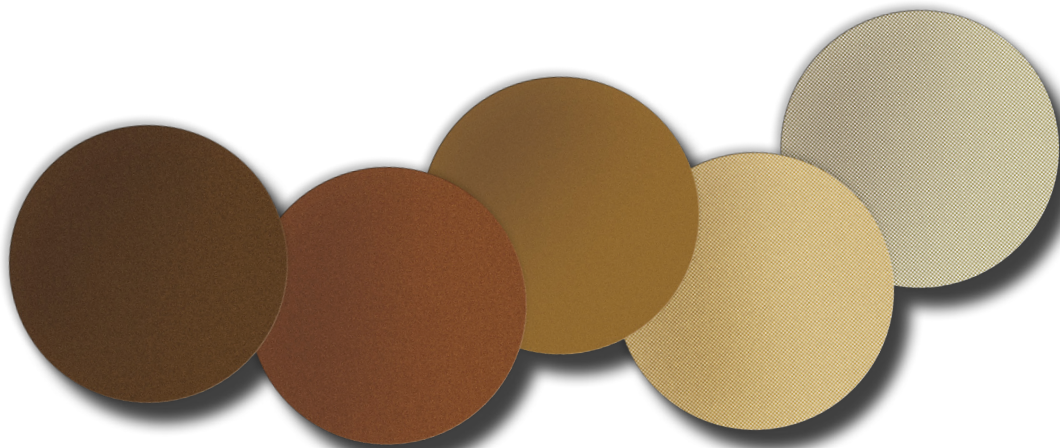
CONSUMABLES FOR GRINDING/POLISHING PROCESS

Grinding H2O

Diamond grinding discs water use

| Code | Diameter mm | Grit size μ | Description | Q.ty | Weight kg |
|---------|-------------|-----------------|---|------|-----------|
| 2020125 | 200 | 125 | Soft resin bond diamond grinding disc for hard and very hard materials with hardness >200HV | 1 | 0,5 |
| 2020075 | 200 | 75 | | 1 | 0,5 |
| 2020054 | 200 | 54 | | 1 | 0,5 |
| 2020018 | 200 | 18 | | 1 | 0,5 |
| 2025125 | 250 | 125 | Soft resin bond diamond grinding disc for hard and very hard materials with hardness >200HV | 1 | 0,5 |
| 2025075 | 250 | 75 | | 1 | 0,5 |
| 2025054 | 250 | 54 | | 1 | 0,5 |
| 2025018 | 250 | 18 | | 1 | 0,5 |
| 2030125 | 300 | 125 | Soft resin bond diamond grinding disc for hard and very hard materials with hardness >200HV | 1 | 0,7 |
| 2030075 | 300 | 75 | | 1 | 0,7 |
| 2030054 | 300 | 54 | | 1 | 0,7 |
| 2030018 | 300 | 18 | | 1 | 0,7 |

On request \varnothing 350mm and \varnothing 400mm available



CONSUMABLES FOR GRINDING/POLISHING PROCESS

Dressing stone for diamond grinding discs

| Code | Model | Dimension mm | Abrasive | Usage | Q.ty | Weight kg |
|---------|-------------------|--------------|--------------------------------|--|------|-----------|
| 81GD000 | Dressing stone-GD | 50x60x100 | Al ₂ O ₃ | Redressing diamond grinding discs models Grinding-DX and Grinding-H ₂ O | 1 | 0,3 |

Magnetic discs for platen

| Code | Model | Diameter mm | Usage | Q.ty | Weight kg |
|---------|------------|-------------|--|------|-----------|
| 2300200 | Magnetic-S | 200 | Stick on platen for metallic discs use | 1 | 0,3 |
| 2300250 | | 250 | | 1 | 0,3 |
| 2300300 | | 300 | | 1 | 0,3 |

Metallic discs for magnetic supports

| Code | Model | Diameter mm | Usage | Q.ty | Weight kg |
|---------|------------|-------------|---|------|-----------|
| 2400200 | Metallic-D | 200 | Supports for adhesive pads for magnetic discs | 1 | 0,3 |
| 2400250 | | 250 | | 1 | 0,4 |
| 2400300 | | 300 | | 1 | 0,5 |

Grinding discs for diamond suspensions

| Code | Model | Diameter mm | Suitable diamond suspension μ | Description | Q.ty | Weight kg |
|---------|------------|-------------|-----------------------------------|--|------|-----------|
| 1450200 | Grinding-S | 200 | 15, 9, 6 | Grinding disc for hard steels and cast iron with hardenss >130HV | 1 | 0,2 |
| 1450250 | | 250 | 15, 9, 6 | | 1 | 0,3 |
| 1450300 | | 300 | 15, 9, 6 | | 1 | 0,3 |

Zirconium oxide abrasive papers PSA

| Code | Model | Diameter mm | Grit FEPA-P (ANSI/CAM) | Description | Q.ty/ pack | Weight kg |
|---------|-------------|-------------|------------------------|---|------------|-----------|
| 60ZO250 | Abrasive-ZO | 250 | P80 (80) | Zirconium oxide abrasive paper adhesive, pressure sensitive, for material high removal rate | 25 | 1,8 |
| 60ZO300 | | 300 | P80 (80) | | 25 | 2,3 |



CONSUMABLES FOR GRINDING/POLISHING PROCESS

| Lubricant water soluble | | | Lubricant-L |
|-------------------------|--------|--|-------------|
| Code | Q.ty l | Description | Weight kg |
| 2900100 | 1 | Water soluble lubricant for lapping. Can be used with Grinding-H2O to increase grinding power. Can be mixed with alumina powder. | 1,2 |
| 2900500 | 5 | | 5,3 |
| 2901000 | 10 | | 10,4 |













CONSUMABLES FOR GRINDING/POLISHING PROCESS































SELECTION GUIDE

Polishing cloths selection guide




| | |
|--------------------------|---|
| Woven cloths: | With laminated back to avoid abrasive penetration. Made of different fibres with hard surface polishing properties, assure flat pre-polishing without edge wear. |
| Non-woven cloths: | Made of plastic or latex impregnated fibres and sometimes chemical treated. Used for very hard materials (quartz, semi-conductor, glass) for high precision surface finishing. |
| Flocked cloths: | Classified according to flock lenght and density grade. Used for super-polished finishing. Flocked cloths must be used for the shortest time possible in order to avoid inclusions. |

| Model | Type | Description | Main application | Recommended products | Suitable suspensions μ | Adhesive | Metallic back-side |
|-------|---|--|---|--------------------------------------|----------------------------|----------|--------------------|
| CER |  | Laminated, long durability | High and plan stock removal, excellent flatness | Diamond products | 45, 30, 15, 9, 6 | CER-X | CER-Z |
| ALL |  | Non-woven with internal film barrier | Plan polishing for medium, hard and very hard materials | Diamond products | 15, 9, 6, 3 | ALL-X | ALL-Z |
| PEC |  | Woven satin with internal barrier film | Higher material removal for all materials | Diamond products | 15, 9, 6, 3 | PEC-X | PEC-Z |
| MPE |  | Woven silk with thin adhesive film and PVC foil and internal barrier | Excellent flatness for all materials | Diamond products | 9, 6, 3, 1 | MPE-X | MPE-Z |
| BAG |  | Woven silk with internal barrier and thin adhesive film | Excellent flatness and semi-finishing for all materials | Diamond products | 9, 6, 3, 1 | BAG-X | BAG-Z |
| MAZ |  | Pure woven wool | Semi-finishing or finishing for medium and soft materials | Diamond products | 6, 3 | MAZ-X | MAZ-Z |
| LEA |  | Soft flocked with internal barrier film | Flatness, semi-finishing and finishing for all materials | Diamond products | 9, 6, 3, 1 | LEA-X | LEA-Z |
| ROS |  | Soft flocked | Flatness, semi-finishing and finishing for all materials | Diamond products | 6, 3, 1 | ROS-X | ROS-Z |
| RIZ |  | Extra-soft flocked | Semi-finishing and finishing for all materials | Diamond products, fine alumina | 3, 1, 0,25 | RIZ-X | RIZ-Z |
| CAB |  | Buffed polyurethane | Super-finishing for all materials | Colloidal silica, extra fine alumina | 1 to 0,04 | CAB-X | CAB-Z |

CONSUMABLES FOR GRINDING/POLISHING PROCESS

| Polishing cloth, pressure sensitive adhesive | | | | | | |
|--|-------|-------------|---|--|------------|-----------|
| Code | Model | Diameter mm | Colour | Description | Q.ty/ pack | Weight kg |
| 4620020 | CER-X | 200 |  | Laminated polishing cloth pressure sensitive adhesive | 10 | 0,3 |
| 4620001 | ALL-X | 200 |  | Non-woven polishing cloth pressure sensitive adhesive | 5 | 0,3 |
| 4620002 | PEC-X | 200 |  | Woven satin polishing cloth pressure sensitive adhesive | 5 | 0,3 |
| 4620003 | MPE-X | 200 |  | Woven silk polishing cloth with PVC intermediate layer pressure sensitive adhesive | 5 | 0,3 |
| 4620004 | BAG-X | 200 |  | Woven silk polishing cloth pressure sensitive adhesive | 5 | 0,3 |
| 4620005 | MAZ-X | 200 |  | 100% pure woven wool polishing cloth pressure sensitive adhesive | 5 | 0,3 |
| 4620006 | LEA-X | 200 |  | Soft flocked polishing cloth pressure sensitive adhesive | 5 | 0,3 |
| 4620007 | ROS-X | 200 |  | Soft flocked polishing cloth pressure sensitive adhesive | 5 | 0,3 |
| 4620008 | RIZ-X | 200 |  | Extra-soft polishing cloth pressure sensitive adhesive | 5 | 0,3 |
| 4620009 | CAB-X | 200 |  | Buffed polyurethane polishing cloth pressure sensitive adhesive | 5 | 0,3 |
| 4625020 | CER-X | 250 |  | Laminated polishing cloth pressure sensitive adhesive | 10 | 0,3 |
| 4625001 | ALL-X | 250 |  | Non-woven polishing cloth pressure sensitive adhesive | 5 | 0,3 |
| 4625002 | PEC-X | 250 |  | Woven satin polishing cloth pressure sensitive adhesive | 5 | 0,3 |
| 4625003 | MPE-X | 250 |  | Woven silk polishing cloth with PVC intermediate layer pressure sensitive adhesive | 5 | 0,3 |
| 4625004 | BAG-X | 250 |  | Woven silk polishing cloth pressure sensitive adhesive | 5 | 0,3 |
| 4625005 | MAZ-X | 250 |  | 100% pure woven wool polishing cloth pressure sensitive adhesive | 5 | 0,3 |
| 4625006 | LEA-X | 250 |  | Soft flocked polishing cloth pressure sensitive adhesive | 5 | 0,3 |
| 4625007 | ROS-X | 250 |  | Soft flocked polishing cloth pressure sensitive adhesive | 5 | 0,3 |
| 4625008 | RIZ-X | 250 |  | Extra-soft polishing cloth pressure sensitive adhesive | 5 | 0,3 |
| 4625009 | CAB-X | 250 |  | Buffed polyurethane polishing cloth pressure sensitive adhesive | 5 | 0,3 |
| 4630020 | CER-X | 300 |  | Laminated polishing cloth pressure sensitive adhesive | 10 | 0,4 |
| 4630001 | ALL-X | 300 |  | Non-woven polishing cloth pressure sensitive adhesive | 5 | 0,4 |
| 4630002 | PEC-X | 300 |  | Woven satin polishing cloth pressure sensitive adhesive | 5 | 0,4 |
| 4630003 | MPE-X | 300 |  | Woven silk polishing cloth with PVC intermediate layer pressure sensitive adhesive | 5 | 0,4 |
| 4630004 | BAG-X | 300 |  | Woven silk polishing cloth pressure sensitive adhesive | 5 | 0,4 |
| 4630005 | MAZ-X | 300 |  | 100% pure woven wool polishing cloth pressure sensitive adhesive | 5 | 0,4 |
| 4630006 | LEA-X | 300 |  | Soft flocked polishing cloth pressure sensitive adhesive | 5 | 0,4 |
| 4630007 | ROS-X | 300 |  | Soft flocked polishing cloth pressure sensitive adhesive | 5 | 0,4 |
| 4630008 | RIZ-X | 300 |  | Extra-soft polishing cloth pressure sensitive adhesive | 5 | 0,4 |
| 4630009 | CAB-X | 300 |  | Buffed polyurethane polishing cloth pressure sensitive adhesive | 5 | 0,4 |

CONSUMABLES FOR GRINDING/POLISHING PROCESS

| Polishing cloth, magnetic base | | | | | | |
|--------------------------------|-------|-------------|---|---|------------|-----------|
| Code | Model | Diameter mm | Colour | Description | Q.ty/ pack | Weight kg |
| 4620019 | CER-Z | 200 |  | Laminated polishing cloth magnetic back-side | 10 | 0,3 |
| 4620010 | ALL-Z | 200 |  | Non-woven polishing cloth magnetic back-side | 5 | 0,3 |
| 4620011 | PEC-Z | 200 |  | Woven satin polishing cloth magnetic back-side | 5 | 0,3 |
| 4620012 | MPE-Z | 200 |  | Woven silk polishing cloth with PVC intermediate layer magnetic back-side | 5 | 0,3 |
| 4620013 | BAG-Z | 200 |  | Woven silk polishing cloth magnetic back-side | 5 | 0,3 |
| 4620014 | MAZ-Z | 200 |  | 100% pure woven wool polishing cloth magnetic back-side | 5 | 0,3 |
| 4620015 | LEA-Z | 200 |  | Soft flocked polishing cloth magnetic back-side | 5 | 0,3 |
| 4620016 | ROS-Z | 200 |  | Soft flocked polishing cloth magnetic back-side | 5 | 0,3 |
| 4620017 | RIZ-Z | 200 |  | Extra-soft polishing cloth magnetic back-side | 5 | 0,3 |
| 4620018 | CAB-Z | 200 |  | Buffed polyurethane polishing cloth magnetic back-side | 5 | 0,3 |
| 4625019 | CER-Z | 250 |  | Laminated polishing cloth magnetic back-side | 10 | 0,3 |
| 4625010 | ALL-Z | 250 |  | Non-woven polishing cloth magnetic back-side | 5 | 0,3 |
| 4625011 | PEC-Z | 250 |  | Woven satin polishing cloth magnetic back-side | 5 | 0,3 |
| 4625012 | MPE-Z | 250 |  | Woven silk polishing cloth with PVC intermediate layer magnetic back-side | 5 | 0,3 |
| 4625013 | BAG-Z | 250 |  | Woven silk polishing cloth magnetic back-side | 5 | 0,3 |
| 4625014 | MAZ-Z | 250 |  | 100% pure woven wool polishing cloth magnetic back-side | 5 | 0,3 |
| 4625015 | LEA-Z | 250 |  | Soft flocked polishing cloth magnetic back-side | 5 | 0,3 |
| 4625016 | ROS-Z | 250 |  | Soft flocked polishing cloth magnetic back-side | 5 | 0,3 |
| 4625017 | RIZ-Z | 250 |  | Extra-soft polishing cloth magnetic back-side | 5 | 0,3 |
| 4625018 | CAB-Z | 250 |  | Buffed polyurethane polishing cloth magnetic back-side | 5 | 0,3 |
| 4630019 | CER-Z | 300 |  | Laminated polishing cloth magnetic back-side | 10 | 0,4 |
| 4630010 | ALL-Z | 300 |  | Non-woven polishing cloth magnetic back-side | 5 | 0,4 |
| 4630011 | PEC-Z | 300 |  | Woven satin polishing cloth magnetic back-side | 5 | 0,4 |
| 4630012 | MPE-Z | 300 |  | Woven silk polishing cloth with PVC intermediate layer magnetic back-side | 5 | 0,4 |
| 4630013 | BAG-Z | 300 |  | Woven silk polishing cloth magnetic back-side | 5 | 0,4 |
| 4630014 | MAZ-Z | 300 |  | 100% pure woven wool polishing cloth magnetic back-side | 5 | 0,4 |
| 4630015 | LEA-Z | 300 |  | Soft flocked polishing cloth magnetic back-side | 5 | 0,4 |
| 4630016 | ROS-Z | 300 |  | Soft flocked polishing cloth magnetic back-side | 5 | 0,4 |
| 4630017 | RIZ-Z | 300 |  | Extra-soft polishing cloth magnetic back-side | 5 | 0,4 |
| 4630018 | CAB-Z | 300 |  | Buffed polyurethane polishing cloth magnetic back-side | 5 | 0,4 |

CONSUMABLES FOR GRINDING/POLISHING PROCESS

SELECTION GUIDE

Diamond polishing products selection guide

| Model | Type | Description | Recommended lubricant |
|--------------|------------|--|---|
| Mono DS-01 | Suspension | Water base coloured monocrystalline permanent diamond suspension, high concentration for polishing. Recommended for all materials. To be used with or without lubricant. | Lubricant-WB |
| Poly DS-01 | Suspension | Water base polycrystalline permanent diamond suspension, high concentration for polishing. Recommended for hard materials. To be used with or without lubricant. | Lubricant-WB |
| Mono DS-21 | Suspension | 2in1 Water base coloured monocrystalline permanent diamond suspension, special formula with more lubricant, more smooth and high concentration for more time grip on cloths. Recommended for all materials. To be used without lubricant. | / |
| Poly DS-21 | Suspension | 2in1 Water base polycrystalline permanent diamond suspension, special formula with more lubricant, more smooth and high concentration for more time grip on cloths. Recommended for all materials. To be used without lubricant. | / |
| Mono DS-HC | Suspension | Coloured monocrystalline permanent diamond suspension, creamy formulation, without water, alcohol and oil, very high concentration. Recommended for all materials. | Lubricant-AB/Lubricant-WB/ Lubricant-WAB |
| Poly DS-HC | Suspension | Polycrystalline permanent diamond suspension, creamy formulation, without water, alcohol and oil, very high concentration. Recommended for all materials. | Lubricant-AB/Lubricant-WB/ Lubricant-WAB |
| Mono DS-AB | Suspension | Alcohol base coloured monocrystalline diamond suspension, with high concentration and very high polishing power. Recommended for all materials. | Lubricant-AB |
| Poly DS-AB | Suspension | Alcohol base polycrystalline diamond suspension, with high concentration and very high polishing power. Recommended for all hard materials. | Lubricant-AB |
| Mono DP | Paste | Water base monocrystalline diamond paste. Recommended for polishing soft materials. | Lubricant-WB |
| Poly DP | Paste | Water base polycrystalline diamond paste. Recommended for polishing hard materials. | Lubricant-WB |
| Mono SD | Spray | Water base monocrystalline diamond spray. Recommended for polishing all materials. | Lubricant-WB |
| Poly SD | Spray | Water base polycrystalline diamond spray. Recommended for polishing hard materials. | Lubricant-WB |
| Alcohol base | | Alcohol base products are suitable for polishing materials very sensitive to corrosion. Observation of inclusions. | |
| Water base | | Water base products are suitable for other application, monocrystalline and polycrystalline types are used as follow: - Monocrystalline products are used for normal polishing operations and are suitable for all types of materials. - Polycrystalline products are used for quick and high quality polishing of materials like ceramics, cast iron, carbides, treated steels. These products minimize deep scratches while keeps high removal materials rate. | |

CONSUMABLES FOR GRINDING/POLISHING PROCESS

DIAMOND SUSPENSIONS

Mono DS-01

Water base monocrystalline diamond suspensions

| Code | Grit size μ | Colour | Description | Q.ty l | Weight kg |
|---------|-----------------|--------|---|--------|-----------|
| 8002505 | 0,25 | Grey | Suitable for all materials, easy to clean and biodegradable | 0,5 | 0,8 |
| 8010005 | 1 | Blue | | 0,5 | 0,8 |
| 8030005 | 3 | Green | | 0,5 | 0,8 |
| 8060005 | 6 | Yellow | | 0,5 | 0,8 |
| 8090005 | 9 | Orange | | 0,5 | 0,8 |
| 8150005 | 15 | Red | | 0,5 | 0,8 |

| | | | | | |
|---------|------|--------|---|---|-----|
| 8002510 | 0,25 | Grey | Suitable for all materials, easy to clean and biodegradable | 1 | 1,3 |
| 8010010 | 1 | Blue | | 1 | 1,3 |
| 8030010 | 3 | Green | | 1 | 1,3 |
| 8060010 | 6 | Yellow | | 1 | 1,3 |
| 8090010 | 9 | Orange | | 1 | 1,3 |
| 8150010 | 15 | Red | | 1 | 1,3 |

| | | | | | |
|---------|------|--------|---|-----|-----|
| 8002525 | 0,25 | Grey | Suitable for all materials, easy to clean and biodegradable | 2,5 | 2,6 |
| 8010025 | 1 | Blue | | 2,5 | 2,6 |
| 8030025 | 3 | Green | | 2,5 | 2,6 |
| 8060025 | 6 | Yellow | | 2,5 | 2,6 |
| 8090025 | 9 | Orange | | 2,5 | 2,6 |
| 8150025 | 15 | Red | | 2,5 | 2,6 |

| | | | | | |
|---------|------|--------|---|---|-----|
| 8002550 | 0,25 | Grey | Suitable for all materials, easy to clean and biodegradable | 5 | 5,4 |
| 8010050 | 1 | Blue | | 5 | 5,4 |
| 8030050 | 3 | Green | | 5 | 5,4 |
| 8060050 | 6 | Yellow | | 5 | 5,4 |
| 8090050 | 9 | Orange | | 5 | 5,4 |
| 8150050 | 15 | Red | | 5 | 5,4 |



CONSUMABLES FOR GRINDING/POLISHING PROCESS

Poly DS-01

Water base polycrystalline diamond suspensions

| Code | Grit size μ | Colour | Description | Q.ty l | Weight kg |
|---------|-----------------|--------|--|--------|-----------|
| 9002505 | 0,25 | ● | Suitable for hard materials, easy to clean and biodegradable | 0,5 | 0,8 |
| 9010005 | 1 | ● | | 0,5 | 0,8 |
| 9030005 | 3 | ● | | 0,5 | 0,8 |
| 9060005 | 6 | ● | | 0,5 | 0,8 |
| 9090005 | 9 | ● | | 0,5 | 0,8 |
| 9150005 | 15 | ● | | 0,5 | 0,8 |

| | | | | | |
|---------|------|---|--|---|-----|
| 9002510 | 0,25 | ● | Suitable for hard materials, easy to clean and biodegradable | 1 | 1,3 |
| 9010010 | 1 | ● | | 1 | 1,3 |
| 9030010 | 3 | ● | | 1 | 1,3 |
| 9060010 | 6 | ● | | 1 | 1,3 |
| 9090010 | 9 | ● | | 1 | 1,3 |
| 9150010 | 15 | ● | | 1 | 1,3 |

























| | | | | | |
|---------|------|---|--|-----|-----|
| 9002525 | 0,25 | ● | Suitable for hard materials, easy to clean and biodegradable | 2,5 | 2,6 |
| 9010025 | 1 | ● | | 2,5 | 2,6 |
| 9030025 | 3 | ● | | 2,5 | 2,6 |
| 9060025 | 6 | ● | | 2,5 | 2,6 |
| 9090025 | 9 | ● | | 2,5 | 2,6 |
| 9150025 | 15 | ● | | 2,5 | 2,6 |

| | | | | | |
|---------|------|---|--|---|-----|
| 9002550 | 0,25 | ● | Suitable for hard materials, easy to clean and biodegradable | 5 | 5,4 |
| 9010050 | 1 | ● | | 5 | 5,4 |
| 9030050 | 3 | ● | | 5 | 5,4 |
| 9060050 | 6 | ● | | 5 | 5,4 |
| 9090050 | 9 | ● | | 5 | 5,4 |
| 9150050 | 15 | ● | | 5 | 5,4 |

CONSUMABLES FOR GRINDING/POLISHING PROCESS

Mono DS-21

2in1 monocrystalline diamond suspensions

| Code | Grit size μ | Colour | Description | Q.ty l | Weight kg |
|---------|-----------------|---|--|--------|-----------|
| 6002505 | 0,25 |  | Suitable for all materials, easy to clean and biodegradable more lubricant and more smooth | 0,5 | 0,8 |
| 6010005 | 1 |  | | 0,5 | 0,8 |
| 6030005 | 3 |  | | 0,5 | 0,8 |
| 6060005 | 6 |  | | 0,5 | 0,8 |
| 6090005 | 9 |  | | 0,5 | 0,8 |
| 6150005 | 15 |  | | 0,5 | 0,8 |
| 6002510 | 0,25 |  | Suitable for all materials, easy to clean and biodegradable more lubricant and more smooth | 1 | 1,3 |
| 6010010 | 1 |  | | 1 | 1,3 |
| 6030010 | 3 |  | | 1 | 1,3 |
| 6060010 | 6 |  | | 1 | 1,3 |
| 6090010 | 9 |  | | 1 | 1,3 |
| 6150010 | 15 |  | | 1 | 1,3 |
| 6002525 | 0,25 |  | Suitable for all materials, easy to clean and biodegradable more lubricant and more smooth | 2,5 | 2,6 |
| 6010025 | 1 |  | | 2,5 | 2,6 |
| 6030025 | 3 |  | | 2,5 | 2,6 |
| 6060025 | 6 |  | | 2,5 | 2,6 |
| 6090025 | 9 |  | | 2,5 | 2,6 |
| 6150025 | 15 |  | | 2,5 | 2,6 |
| 6002550 | 0,25 |  | Suitable for all materials, easy to clean and biodegradable more lubricant and more smooth | 5 | 5,4 |
| 6010050 | 1 |  | | 5 | 5,4 |
| 6030050 | 3 |  | | 5 | 5,4 |
| 6060050 | 6 |  | | 5 | 5,4 |
| 6090050 | 9 |  | | 5 | 5,4 |
| 6150050 | 15 |  | | 5 | 5,4 |

CONSUMABLES FOR GRINDING/POLISHING PROCESS

Poly DS-21





2in1 polycrystalline diamond suspensions

| Code | Grit size μ | Colour | Description | Q.ty l | Weight kg |
|---------|-----------------|--------|---|--------|-----------|
| 7002505 | 0,25 | ● | Suitable for hard materials, easy to clean and biodegradable more lubricant and more smooth | 0,5 | 0,8 |
| 7010005 | 1 | ● | | 0,5 | 0,8 |
| 7030005 | 3 | ● | | 0,5 | 0,8 |
| 7060005 | 6 | ● | | 0,5 | 0,8 |
| 7090005 | 9 | ● | | 0,5 | 0,8 |
| 7150005 | 15 | ● | | 0,5 | 0,8 |
| 7002510 | 0,25 | ● | Suitable for hard materials, easy to clean and biodegradable more lubricant and more smooth | 1 | 1,3 |
| 7010010 | 1 | ● | | 1 | 1,3 |
| 7030010 | 3 | ● | | 1 | 1,3 |
| 7060010 | 6 | ● | | 1 | 1,3 |
| 7090010 | 9 | ● | | 1 | 1,3 |
| 7150010 | 15 | ● | | 1 | 1,3 |
| 7002525 | 0,25 | ● | Suitable for hard materials, easy to clean and biodegradable more lubricant and more smooth | 2,5 | 2,6 |
| 7010025 | 1 | ● | | 2,5 | 2,6 |
| 7030025 | 3 | ● | | 2,5 | 2,6 |
| 7060025 | 6 | ● | | 2,5 | 2,6 |
| 7090025 | 9 | ● | | 2,5 | 2,6 |
| 7150025 | 15 | ● | | 2,5 | 2,6 |
| 7002550 | 0,25 | ● | Suitable for hard materials, easy to clean and biodegradable more lubricant and more smooth | 5 | 5,4 |
| 7010050 | 1 | ● | | 5 | 5,4 |
| 7030050 | 3 | ● | | 5 | 5,4 |
| 7060050 | 6 | ● | | 5 | 5,4 |
| 7090050 | 9 | ● | | 5 | 5,4 |
| 7150050 | 15 | ● | | 5 | 5,4 |

CONSUMABLES FOR GRINDING/POLISHING PROCESS





Mono DS-HC

Monocrystalline diamond suspensions very high concentration, water, oil and alcohol free

| Code | Grit size μ | Colour | Description | Q.ty l | Weight kg |
|---------|-----------------|---|--|--------|-----------|
| 9100105 | 1 |  | Suitable for all materials, easy to clean, biodegradable and not hazardous | 0,5 | 0,8 |
| 9100305 | 3 |  | | 0,5 | 0,8 |
| 9100605 | 6 |  | | 0,5 | 0,8 |
| 9100905 | 9 |  | | 0,5 | 0,8 |













Poly DS-HC

Polycrystalline diamond suspensions very high concentration, water, oil and alcohol free

| Code | Grit size μ | Colour | Description | Q.ty l | Weight kg |
|---------|-----------------|---|---|--------|-----------|
| 9200105 | 1 |  | Suitable for hard materials, easy to clean, biodegradable and not hazardous | 0,5 | 0,8 |
| 9200305 | 3 |  | | 0,5 | 0,8 |
| 9200605 | 6 |  | | 0,5 | 0,8 |
| 9200905 | 9 |  | | 0,5 | 0,8 |

Mono DS-AB

Alcohol base monocrystalline diamond suspensions

| Code | Grit size μ | Colour | Description | Q.ty l | Weight kg |
|---------|-----------------|---|--|--------|-----------|
| 4002505 | 0,25 |  | Suitable for all materials and water sensitive materials, very high polishing power, easy to clean and biodegradable | 0,5 | 0,8 |
| 4010005 | 1 |  | | 0,5 | 0,8 |
| 4030005 | 3 |  | | 0,5 | 0,8 |
| 4060005 | 6 |  | | 0,5 | 0,8 |
| 4090005 | 9 |  | | 0,5 | 0,8 |
| 4150005 | 15 |  | | 0,5 | 0,8 |
| 4002510 | 0,25 |  | Suitable for all materials and water sensitive materials, very high polishing power, easy to clean and biodegradable | 1 | 1,3 |
| 4010010 | 1 |  | | 1 | 1,3 |
| 4030010 | 3 |  | | 1 | 1,3 |
| 4060010 | 6 |  | | 1 | 1,3 |
| 4090010 | 9 |  | | 1 | 1,3 |
| 4150010 | 15 |  | | 1 | 1,3 |

CONSUMABLES FOR GRINDING/POLISHING PROCESS

Poly DS-AB

Alcohol base polycrystalline diamond suspensions

| Code | Grit size μ | Colour | Description | Q.ty l | Weight kg |
|---------|-----------------|--------|---|--------|-----------|
| 5002505 | 0,25 | ● | Suitable for all hard materials and water sensitive materials, very high polishing power, easy to clean and biodegradable | 0,5 | 0,8 |
| 5010005 | 1 | ● | | 0,5 | 0,8 |
| 5030005 | 3 | ● | | 0,5 | 0,8 |
| 5060005 | 6 | ● | | 0,5 | 0,8 |
| 5090005 | 9 | ● | | 0,5 | 0,8 |
| 5150005 | 15 | ● | | 0,5 | 0,8 |
| 5002510 | 0,25 | ● | Suitable for all hard materials and water sensitive materials, very high polishing power, easy to clean and biodegradable | 1 | 1,3 |
| 5010010 | 1 | ● | | 1 | 1,3 |
| 5030010 | 3 | ● | | 1 | 1,3 |
| 5060010 | 6 | ● | | 1 | 1,3 |
| 5090010 | 9 | ● | | 1 | 1,3 |
| 5150010 | 15 | ● | | 1 | 1,3 |

DIAMOND PASTES

Mono DP

Monocrystalline diamond pastes

| Code | Grit size μ | Colour | Description | Q.ty g | Weight kg |
|-------------|-----------------|--------|-----------------------------|--------|-----------|
| Mono DP-0.5 | 0,5 | ● | Suitable for soft materials | 5 | 0,2 |
| Mono DP-1 | 1 | ● | | 5 | 0,2 |
| Mono DP-1.5 | 1,5 | ● | | 5 | 0,2 |
| Mono DP-2 | 2 | ● | | 5 | 0,2 |
| Mono DP-2.5 | 2,5 | ● | | 5 | 0,2 |
| Mono DP-3 | 3 | ● | | 5 | 0,2 |
| Mono DP-3.5 | 3,5 | ● | | 5 | 0,2 |
| Mono DP-5 | 5 | ● | | 5 | 0,2 |
| Mono DP-6 | 6 | ● | | 5 | 0,2 |
| Mono DP-7 | 7 | ● | | 5 | 0,2 |
| Mono DP-9 | 9 | ● | | 5 | 0,2 |
| Mono DP-10 | 10 | ● | | 5 | 0,2 |



CONSUMABLES FOR GRINDING/POLISHING PROCESS

Poly DP

Polycrystalline diamond pastes

| Code | Grit size μ | Colour | Description | Q.ty g | Weight kg |
|-------------|-----------------|--------|-----------------------------|--------|-----------|
| Poly DP-0.5 | 0,5 | ● | Suitable for hard materials | 5 | 0,2 |
| Poly DP-1 | 1 | ● | | 5 | 0,2 |
| Poly DP-1.5 | 1,5 | ● | | 5 | 0,2 |
| Poly DP-2 | 2 | ● | | 5 | 0,2 |
| Poly DP-2.5 | 2,5 | ● | | 5 | 0,2 |
| Poly DP-3 | 3 | ● | | 5 | 0,2 |
| Poly DP-3.5 | 3,5 | ● | | 5 | 0,2 |
| Poly DP-5 | 5 | ● | | 5 | 0,2 |
| Poly DP-6 | 6 | ● | | 5 | 0,2 |
| Poly DP-7 | 7 | ● | | 5 | 0,2 |
| Poly DP-9 | 9 | ● | | 5 | 0,2 |
| Poly DP-10 | 10 | ● | | 5 | 0,2 |

DIAMOND SPRAYS

Mono SD

Monocrystalline diamond sprays

| Code | Grit size μ | Colour | Description | Q.ty ml | Weight kg |
|-------------|-----------------|--------|----------------------------|---------|-----------|
| Mono SD-0.5 | 0,5 | ● | Suitable for all materials | 350 | 0,4 |
| Mono SD-1 | 1 | ● | | 350 | 0,4 |
| Mono SD-1.5 | 1,5 | ● | | 350 | 0,4 |
| Mono SD-2.5 | 2,5 | ● | | 350 | 0,4 |
| Mono SD-3.5 | 3,5 | ● | | 350 | 0,4 |
| Mono SD-5 | 5 | ● | | 350 | 0,4 |
| Mono SD-6 | 6 | ● | | 350 | 0,4 |
| Mono SD-7 | 7 | ● | | 350 | 0,4 |
| Mono SD-9 | 9 | ● | | 350 | 0,4 |
| Mono SD-10 | 10 | ● | | 350 | 0,4 |

Poly SD

Polycrystalline diamond sprays

| Code | Grit size μ | Colour | Description | Q.ty ml | Weight kg |
|--------------|-----------------|--------|-----------------------------|---------|-----------|
| Poly SD-0.25 | 0,5 | ● | Suitable for hard materials | 200 | 0,3 |
| Poly SD-0.5 | 0,5 | ● | | 200 | 0,3 |
| Poly SD-1 | 1 | ● | | 200 | 0,3 |
| Poly SD-3 | 3 | ● | | 200 | 0,3 |
| Poly SD-6 | 6 | ● | | 200 | 0,3 |
| Poly SD-9 | 9 | ● | | 200 | 0,3 |
| Poly SD-15 | 15 | ● | | 200 | 0,3 |



CONSUMABLES FOR GRINDING/POLISHING PROCESS

LUBRICANTS

Lubricant-WB

Water base lubricants

| Code | Colour | Application | Q.ty l | Weight kg |
|---------|--------|----------------------|--------|-----------|
| 7150010 | ● | Water base lubricant | 1 | 1,2 |
| 7150025 | ● | | 2,5 | 2,8 |
| 7150050 | ● | | 5 | 5,3 |
| 7150100 | ● | | 10 | 10,4 |

Lubricant-WAB

Water and alcohol base lubricants

| Code | Colour | Application | Q.ty l | Weight kg |
|----------|--------|----------------------------------|--------|-----------|
| 72500101 | ● | Water and alcohol base lubricant | 1 | 1,2 |
| 72500251 | ● | | 2,5 | 2,8 |
| 72500501 | ● | | 5 | 5,3 |
| 72501001 | ● | | 10 | 10,4 |

Lubricant-AB

Alcohol base lubricants

| Code | Colour | Application | Q.ty l | Weight kg |
|---------|--------|------------------------|--------|-----------|
| 7350010 | ● | Alcohol base lubricant | 1 | 1,2 |
| 7350025 | ● | | 2,5 | 2,8 |
| 7350050 | ● | | 5 | 5,3 |
| 7350100 | ● | | 10 | 10,4 |



CONSUMABLES FOR GRINDING/POLISHING PROCESS

COLLOIDAL SILICA & ALUMINA PRODUCTS

For final high quality mirror sample surfaces.

CS-SW

Colloidal silica suspensions white

| Code | Colour | Description | Q.ty l | Weight kg |
|---------|--------|--|--------|-----------|
| 3300100 | ○ | Super-finishing with anticrystallization agent | 1 | 1,3 |
| 3300250 | ○ | | 2,5 | 3,3 |
| 3300500 | ○ | | 5 | 6,5 |

CS-SP

Colloidal silica suspensions pink

| Code | Colour | Description | Q.ty l | Weight kg |
|---------|--------|--|--------|-----------|
| 3400100 | ● | Super-finishing with anticrystallization agent and more aggressive | 1 | 1,3 |
| 3400250 | ● | | 2,5 | 3,3 |
| 3400500 | ● | | 5 | 6,5 |

CS-SB

Colloidal silica suspensions blue




| Code | Colour | Description | Q.ty l | Weight kg |
|---------|--------|--|--------|-----------|
| 3500100 | ● | Super-finishing for ferrous materials with anticrystallization agent and Al_2O_3 | 1 | 1,3 |
| 3500250 | ● | | 5 | 6,5 |



CONSUMABLES FOR GRINDING/POLISHING PROCESS




Alumina-C

Alumina creams

| Code | Grit size μ | Quality | Colour | Description | Q.ty l | Weight kg |
|---------|-----------------|---------|---|----------------------------|--------|-----------|
| 3600410 | 0,04 | Gamma |  | Super-finishing neutral pH | 1 | 1,3 |
| 3603010 | 0,3 | Alpha |  | | 1 | 1,3 |
| 3610010 | 1 | Alpha |  | | 1 | 1,3 |

Alumina-SS

Alumina smooth suspensions

| Code | Grit size μ | Quality | Colour | Description | Q.ty l | Weight kg |
|---------|-----------------|---------|---|--|--------|-----------|
| 3700410 | 0,04 | Gamma |  | Super-finishing, slower dry and high concentration, with lubricant | 1 | 1,3 |
| 3703010 | 0,3 | Alpha |  | | 1 | 1,3 |
| 3710010 | 1 | Alpha |  | | 1 | 1,3 |

Alumina-WB

Alumina suspensions

| Code | Grit size μ | Quality | Description | Q.ty l | Weight kg |
|---------|-----------------|---------|--|--------|-----------|
| 3800410 | 0,04 | Gamma | Super-finishing, water base suspension | 1 | 1,1 |
| 3803010 | 0,3 | Alpha | Super-finishing, water base suspension | 1 | 1,1 |
| 3810010 | 1 | Alpha | Finishing, water base suspension | 1 | 1,1 |

Alumina-P

Alumina powders

| Code | Grit size μ | Quality | Description | Q.ty kg | Weight kg |
|---------|-----------------|----------|-----------------|---------|-----------|
| 3900410 | 0,04 | Gamma | Super-finishing | 1 | 1,2 |
| 3903010 | 0,3 | Alpha | | 1 | 1,2 |
| 3910010 | 1 | Alpha | High-finishing | 1 | 1,2 |
| 4010010 | 1 | Standard | Finishing | 1 | 1,2 |
| 4030010 | 3 | Standard | Semi-finishing | 1 | 1,2 |
| 4050010 | 5 | Standard | | 1 | 1,2 |
| 4090010 | 9 | Standard | Lapping | 1 | 1,2 |
| 4150010 | 15 | Standard | | 1 | 1,2 |
| 4300010 | 30 | Standard | | 1 | 1,2 |





ADDITIONAL
INSTRUMENTS

Metallography

ADDITIONAL INSTRUMENTS

Digital ultrasonic cleaners



| Model | Type | Capacity | Heating | Frequency | Ultrasonic power | Heating power | Power supply | Tank dimensions | Overall dimensions | Weight | Recommended for: |
|-------------|----------------------------|----------|---------|-----------|------------------|---------------|--------------|-----------------|--------------------|--------|---|
| SONIC-D06 | Digital ultrasonic cleaner | 0,6 l | No | 40 kHz | 50 W | – | 230V - 50Hz | 150x85x65 mm | 175x110x155 mm | 1,5kg | For cleaning samples surfaces after the cutting and mounting processes, before the grinding/polishing processes |
| SONIC-D06H | Digital ultrasonic cleaner | 0,6 l | Yes | 40 kHz | 50 W | 30 W | 230V - 50Hz | 150x85x65 mm | 175x110x155 mm | 1,5kg | |
| SONIC-D16H | Digital ultrasonic cleaner | 1,3 l | Yes | 40 kHz | 70 W | 30 W | 230V - 50Hz | 150x135x100 mm | 180x165x205 mm | 2,5kg | |
| SONIC-D32H | Digital ultrasonic cleaner | 3,2 l | Yes | 40 kHz | 120 W | 100 W | 230V - 50Hz | 240x135x100 mm | 265x165x235 mm | 4kg | |
| SONIC-D55H | Digital ultrasonic cleaner | 4,5 l | Yes | 40 kHz | 180 W | 200 W | 230V - 50Hz | 300x150x100 mm | 330x180x260 mm | 5,5kg | |
| SONIC-D70H | Digital ultrasonic cleaner | 7 l | Yes | 40 kHz | 240 W | 500 W | 230V - 50Hz | 300x240x100 mm | 330x270x260 mm | 8,5kg | |
| SONIC-D150H | Digital ultrasonic cleaner | 15 l | Yes | 40 kHz | 360 W | 500 W | 230V - 50Hz | 330x300x150 mm | 360x330x330 mm | 11kg | |

ADDITIONAL INSTRUMENTS



EG 710



D-1

DD-1



SHM-100

| Model | Type | Stroke/min | Power | Power supply | Standard accessories | Weight | Recommended for: |
|--------|---------------|------------|--------|--------------|----------------------|--------|------------------|
| EG 710 | Engraving pen | 7100 | 0,1 kW | 230V - 50Hz | 2 set of tips | 0,3kg | Samples marking |

| Model | Type | Heating power | Power supply | Recommended for: |
|-------|---------------|-----------------------------------|--------------|--------------------|
| DD-1 | Drying device | 2000W, 900W, ordinary temperature | 230V - 50Hz | Fast sample drying |

| Model | Description | Recommended for: |
|---------|--|----------------------------|
| SHM-100 | Sample holder for round specimens (diameter on request). Mechanical type, with adjustable samples height | Easy handling of specimens |

| Model | Description | Recommended for: |
|-------|---|--|
| D-1 | Automatic dispenser for diamond/alumina/silica products | Automatic distribution of products during grinding/polishing processes |

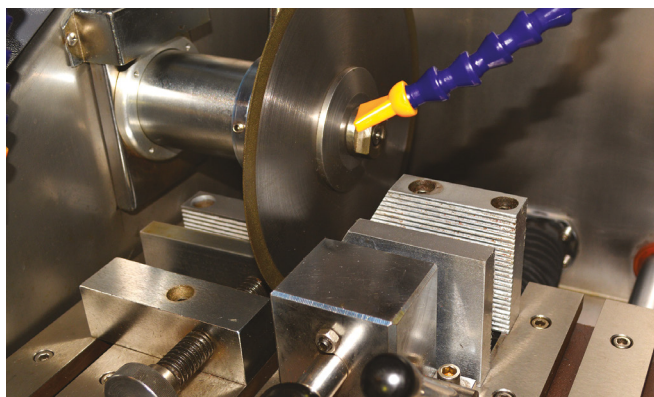
APPLICATIONS
HINTS

Metallography

APPLICATION
HINTS

| Sample material | Standard steel, solution 1 | | | |
|----------------------------|---|-----------------------------|------------------------------------|-----------------------|
| Cutting process | Cutting disc recommended: all models type-A in according with material hardness | | | |
| Mounting process | Mounting resin recommended: all mounting resins | | | |
| Grinding/polishing process | | | | |
| Step | Grinding disc recommended / Grit | Polishing cloth recommended | Diamond product recommended / Grit | Lubricant recommended |
| 1 | Model abrasive SIC-X/ Abrasive SIC-Y / P180 | / | / | Water |
| 2 | Model abrasive SIC-X/ Abrasive SIC-Y / P320 | / | / | Water |
| 3 | Model abrasive SIC-X/ Abrasive SIC-Y / P600 | / | / | Water |
| 4 | Model abrasive SIC-X/ Abrasive SIC-Y / P1200 | / | / | Water |
| 5 | / | Model BAG-X/BAG-Y | Model DS-01 / 6μ | Model lubricant-WB |
| 6 | / | Model MAZ-X/MAZ-Y | Model DS-01 / 3μ | Model lubricant-WB |
| 7 | / | Model ROS-X/ROS-Y | Model DS-01 / 1μ | Model lubricant-WB |

| Sample material | Standard steel, solution 2 | | | |
|----------------------------|---|-----------------------------|------------------------------------|-----------------------|
| Cutting process | Cutting disc recommended: all models type-A in according with material hardness | | | |
| Mounting process | Mounting resin recommended: all mounting resins | | | |
| Grinding/polishing process | | | | |
| Step | Grinding disc recommended / Grit | Polishing cloth recommended | Diamond product recommended / Grit | Lubricant recommended |
| 1 | Model Grinding-H2O / 54μ | / | / | Water |
| 2 | Model Grinding-H2O / 18μ | / | / | Water |
| 3 | Model abrasive SIC-X/ Abrasive SIC-Y / P1200 | / | / | Water |
| 4 | / | Model BAG-X/BAG-Y | Model mono DS-01 / 6μ | Model lubricant-WB |
| 5 | / | Model MAZ-X/MAZ-Y | Model mono DS-01 / 3μ | Model lubricant-WB |
| 6 | / | Model ROS-X/ROS-Y | Model mono DS-01 / 1μ | Model lubricant-WB |



APPLICATION
HINTS

| Sample material | Standard steel (water sensitive), solution 1 | | | |
|----------------------------|---|-----------------------------|------------------------------------|-----------------------|
| Cutting process | Cutting disc recommended: all models type-A in according with material hardness | | | |
| Mounting process | Mounting resin recommended: all mounting resins | | | |
| Grinding/polishing process | | | | |
| Step | Grinding disc recommended / Grit | Polishing cloth recommended | Diamond product recommended / Grit | Lubricant recommended |
| 1 | Model abrasive SIC-X/ Abrasive SIC-Y / P180 | / | / | Water |
| 2 | Model abrasive SIC-X/ Abrasive SIC-Y / P320 | / | / | Water |
| 3 | Model abrasive SIC-X/ Abrasive SIC-Y / P600 | / | / | Water |
| 4 | Model abrasive SIC-X/ Abrasive SIC-Y / P1200 | / | / | Water |
| 5 | / | Model BAG-X/BAG-Y | Model mono DS-01 / 6μ | Model lubricant-AB |
| 6 | / | Model MAZ-X/MAZ-Y | Model mono DS-01 / 3μ | Model lubricant-AB |
| 7 | / | Model ROS-X/ROS-Y | Model mono DS-01 / 1μ | Model lubricant-AB |

| Sample material | Standard steel (water sensitive), solution 2 | | | |
|----------------------------|---|-----------------------------|------------------------------------|-----------------------|
| Cutting process | Cutting disc recommended: all models type-A in according with material hardness | | | |
| Mounting process | Mounting resin recommended: all mounting resins | | | |
| Grinding/polishing process | | | | |
| Step | Grinding disc recommended / Grit | Polishing cloth recommended | Diamond product recommended / Grit | Lubricant recommended |
| 1 | Model Grinding-H2O / 54μ | / | / | Water |
| 2 | Model Grinding-H2O / 18μ | / | / | Water |
| 3 | Model abrasive SIC-X/ Abrasive SIC-Y / P1200 | / | / | Water |
| 4 | / | Model BAG-X/BAG-Y | Model mono DS-01 / 6μ | Model lubricant-AB |
| 5 | / | Model MAZ-X/MAZ-Y | Model mono DS-01 / 3μ | Model lubricant-AB |
| 6 | / | Model ROS-X/ROS-Y | Model mono DS-01 / 1μ | Model lubricant-AB |

APPLICATION
HINTS

| Sample material | Stainless steel, solution 1 | | | |
|----------------------------|---|-----------------------------|------------------------------------|--|
| Cutting process | Cutting disc recommended: all models type-A or Type-B in according with material hardness | | | |
| Mounting process | Mounting resin recommended: all mounting resins | | | |
| Grinding/polishing process | | | | |
| Step | Grinding disc recommended / Grit | Polishing cloth recommended | Diamond product recommended / Grit | Lubricant recommended |
| 1 | Model abrasive SIC-X/ Abrasive SIC-Y / P180 | / | / | Water |
| 2 | Model abrasive SIC-X/ Abrasive SIC-Y / P320 | / | / | Water |
| 3 | Model abrasive SIC-X/ Abrasive SIC-Y / P600 | / | / | Water |
| 4 | Model abrasive SIC-X/ Abrasive SIC-Y / P1200 | / | / | Water |
| 5 | / | Model BAG-X/BAG-Y | Model mono DS-01 / 6μ | Model lubricant-AB |
| 6 | / | Model MAZ-X/MAZ-Y | Model mono DS-01 / 3μ | Model lubricant-AB |
| 7 | / | Model ROS-X/ROS-Y | Model mono DS-01 / 1μ | Model lubricant-AB |
| 8 | / | Model CAB-X/CAB-Y | Model CS-SW | (Water) Optional step, is possible use water 18 seconds before end, to clean polishing cloth |

NOTE: to avoid micro-black points use limited quantity of diamond suspension

| Sample material | Stainless steel, solution 2 | | | |
|----------------------------|---|-----------------------------|------------------------------------|--|
| Cutting process | Cutting disc recommended: all models type-A or Type-B in according with material hardness | | | |
| Mounting process | Mounting resin recommended: all mounting resins | | | |
| Grinding/polishing process | | | | |
| Step | Grinding disc recommended / Grit | Polishing cloth recommended | Diamond product recommended / Grit | Lubricant recommended |
| 1 | Model Grinding-H2O / 54μ | / | / | Water |
| 2 | Model Grinding-H2O / 18μ | / | / | Water |
| 3 | Model abrasive SIC-X/ Abrasive SIC-Y / P1200 | / | / | Water |
| 4 | / | Model BAG-X/BAG-Y | Model mono DS-01 / 6μ | Model lubricant-AB |
| 5 | / | Model MAZ-X/MAZ-Y | Model mono DS-01 / 3μ | Model lubricant-AB |
| 6 | / | Model ROS-X/ROS-Y | Model mono DS-01 / 1μ | Model lubricant-AB |
| 7 | / | Model ROS-X/ROS-Y | Model CS-SW | (Water) Optional step, is possible use water 18 seconds before end, to clean polishing cloth |

NOTE: to avoid micro-black points use limited quantity of diamond suspension

APPLICATION
HINTS

| Sample material | Aluminium alloys | | | |
|----------------------------|---|-----------------------------|------------------------------------|--|
| Cutting process | Cutting disc recommended: Model type-C | | | |
| Mounting process | Mounting resin recommended: all mounting resins | | | |
| Grinding/polishing process | | | | |
| Step | Grinding disc recommended / Grit | Polishing cloth recommended | Diamond product recommended / Grit | Lubricant recommended |
| 1 | Model abrasive SIC-X/ Abrasive SIC-Y / P180 | / | / | Water |
| 2 | Model abrasive SIC-X/ Abrasive SIC-Y / P320 | / | / | Water |
| 3 | Model abrasive SIC-X/ Abrasive SIC-Y / P600 | / | / | Water |
| 4 | Model abrasive SIC-X/ Abrasive SIC-Y / P1200 | / | / | Water |
| 5 | / | Model BAG-X/BAG-Y | Model mono DS-01 / 6µ | Model lubricant-WB |
| 6 | / | Model MAZ-X/MAZ-Y | Model mono DS-01 / 3µ | Model lubricant-WB |
| 7 | / | Model ROS-X/ROS-Y | Model mono DS-01 / 1µ | Model lubricant-WB |
| 8 | / | Model CAB-X/CAB-Y | Model CS-SW or model CS-SP | (Water) Optional step, is possible use water 18 seconds before end, to clean polishing cloth |

| Sample material | Treated steel | | | |
|----------------------------|---|-----------------------------|------------------------------------|-----------------------|
| Cutting process | Cutting disc recommended: all models type-B in according with material hardness | | | |
| Mounting process | Mounting resin recommended: model HotMresin-EB | | | |
| Grinding/polishing process | | | | |
| Step | Grinding disc recommended / Grit | Polishing cloth recommended | Diamond product recommended / Grit | Lubricant recommended |
| 1 | Model Grinding-H2O / 54µ | / | / | Water |
| 2 | Model Grinding-H2O / 18µ | / | / | Water |
| 3 | / | Model BAG-X/BAG-Y | Model mono DS-01 / 9µ | Model lubricant-WB |
| 4 | / | Model BAG-X/BAG-Y | Model mono DS-01 / 3µ | Model lubricant-WB |
| 5 | / | Model ROS-X/ROS-Y | Model IMono DS-01 / 1µ | Model lubricant-WB |

| Sample material | Very hard treated steel | | | |
|----------------------------|--|-----------------------------|------------------------------------|-----------------------|
| Cutting process | Cutting disc recommended: model type-B3 | | | |
| Mounting process | Mounting resin recommended: model HotMresin-EB | | | |
| Grinding/polishing process | | | | |
| Step | Grinding disc recommended / Grit | Polishing cloth recommended | Diamond product recommended / Grit | Lubricant recommended |
| 1 | Model Grinding-H2O / 54µ | / | / | Water |
| 2 | Model Grinding-H2O / 18µ | / | / | Water |
| 3 | / | Model BAG-X/BAG-Y | Model Poly DS-01 / 9µ | Model lubricant-WB |
| 4 | / | Model BAG-X/BAG-Y | Model Poly DS-01 / 3µ | Model lubricant-WB |
| 5 | / | Model ROS-X/ROS-Y | Model Poly DS-01 / 1µ | Model lubricant-WB |

APPLICATION
HINTS

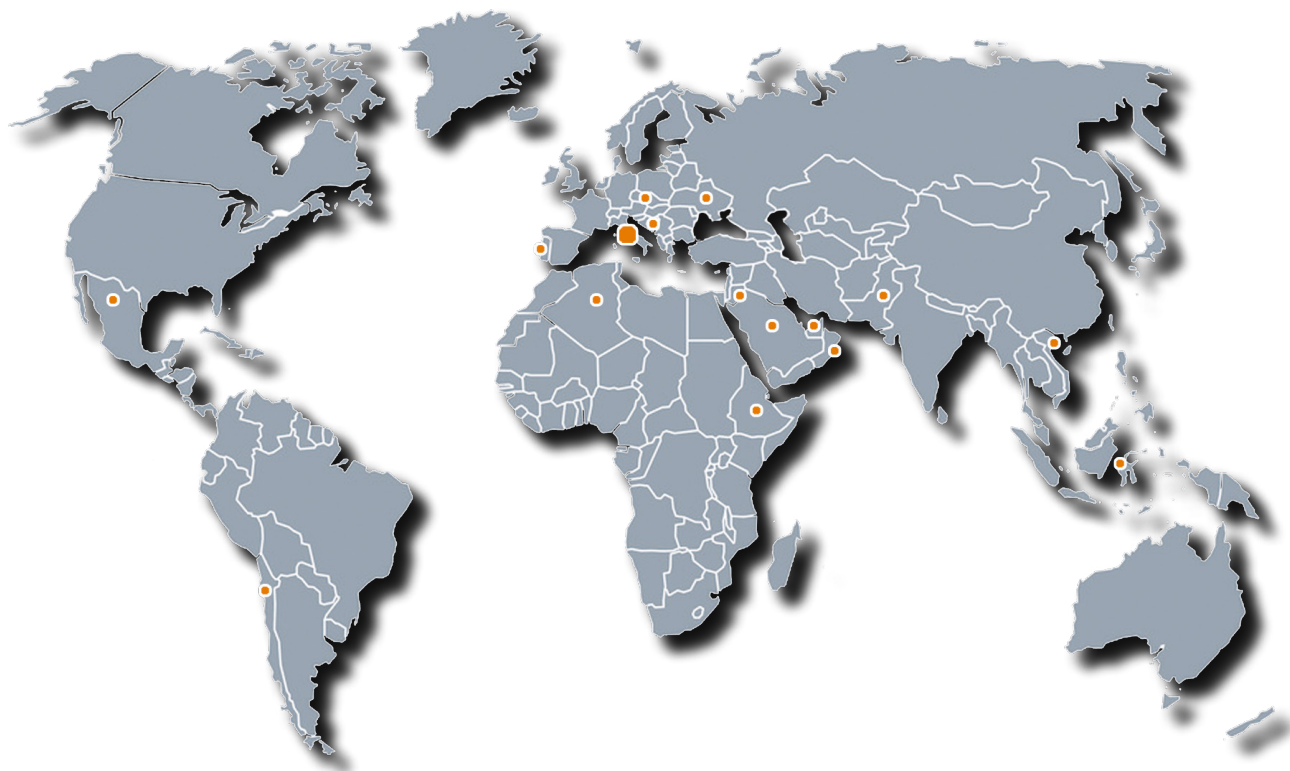
| Sample material | Titanium solution 1 | | | |
|----------------------------|---|-----------------------------|------------------------------------|-----------------------|
| Cutting process | Cutting disc recommended: models type-C | | | |
| Mounting process | Mounting resin recommended: all mounting resins | | | |
| Grinding/polishing process | | | | |
| Step | Grinding disc recommended / Grit | Polishing cloth recommended | Diamond product recommended / Grit | Lubricant recommended |
| 1 | Model Grinding-H2O / 54µ | / | / | Water |
| 2 | / | Model BAG-X/BAG-Y | Model Poly DS-01 / 9µ | Model lubricant-WB |
| 3 | / | Model CAB-X/CAB-Y | Model CS-SP | / |

| Sample material | Titanium solution 2 | | | |
|----------------------------|---|-----------------------------|------------------------------------|-----------------------|
| Cutting process | Cutting disc recommended: model type-C | | | |
| Mounting process | Mounting resin recommended: all mounting resins | | | |
| Grinding/polishing process | | | | |
| Step | Grinding disc recommended / Grit | Polishing cloth recommended | Diamond product recommended / Grit | Lubricant recommended |
| 1 | Model abrasive SIC-X/ Abrasive SIC-Y / P180 | / | / | Water |
| 2 | Model abrasive SIC-X/ Abrasive SIC-Y / P320 | / | / | Water |
| 3 | Model abrasive SIC-X/ Abrasive SIC-Y / P600 | / | / | Water |
| 4 | Model abrasive SIC-X/ Abrasive SIC-Y / P1000 | / | / | Water |
| 5 | Model abrasive SIC-X/ Abrasive SIC-Y / P4000 | / | / | Water |
| 6 | / | Model CAB-X/CAB-Y | Model CS-SW or model CS-SP | / |



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