## CATALOG 2023

PREPARATION
CHARACTERIZATION
SERVICES
EQUIPMENT





#### **EDITORIAL**

## An enhanced offer

Innovation is our guideline. Innovate to move metallography forward, our core business since 1961. Today we are one of the main global players in this field.

Member of "La French Fab" and a French manufacturer of metallographic machines and consumables, we also produce our mechanical parts in our machining unit - MOP.

Innovating means being in tune with your needs. We are constantly adapting our processes and our offers, in line with the evolution and emergence of **new professions.** 

This is why **TESTWELL CONTROL** is now part of our group.

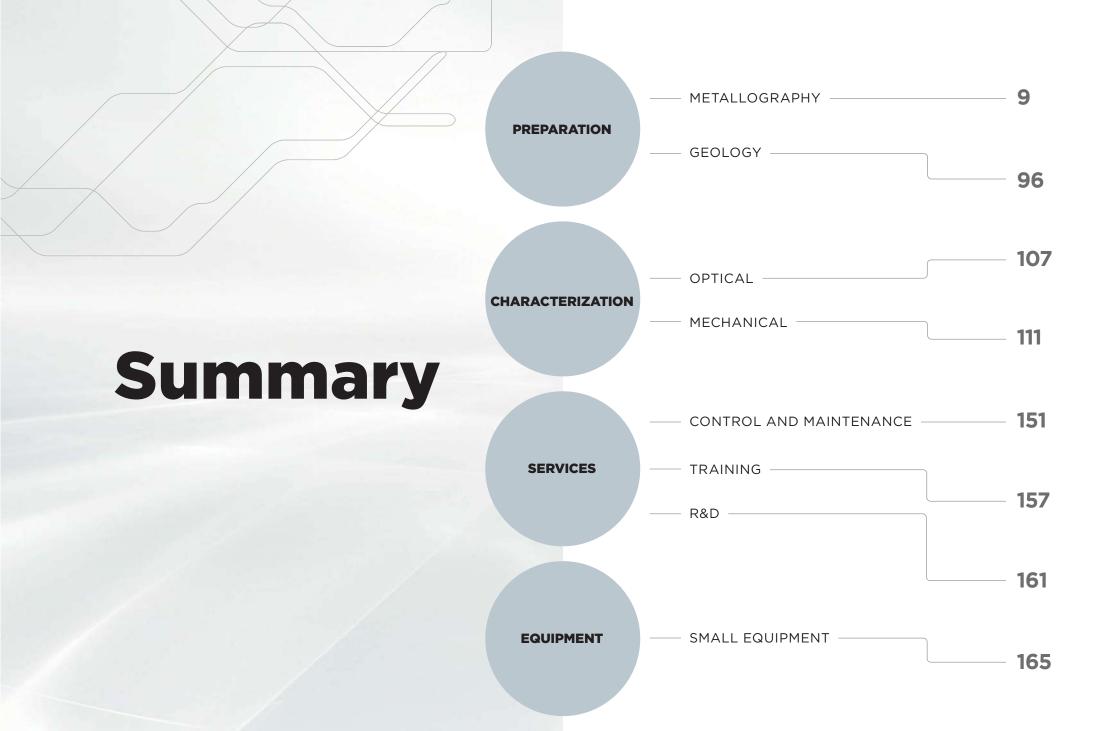
The specialist in mechanical characterization, certification and maintenance of equipment. PRESI and TESTWELL CONTROL combined, represent an offer of products and services unprecedented on the market.

This new and completely revised catalog, gives you a complete vision of what PRESI is today.

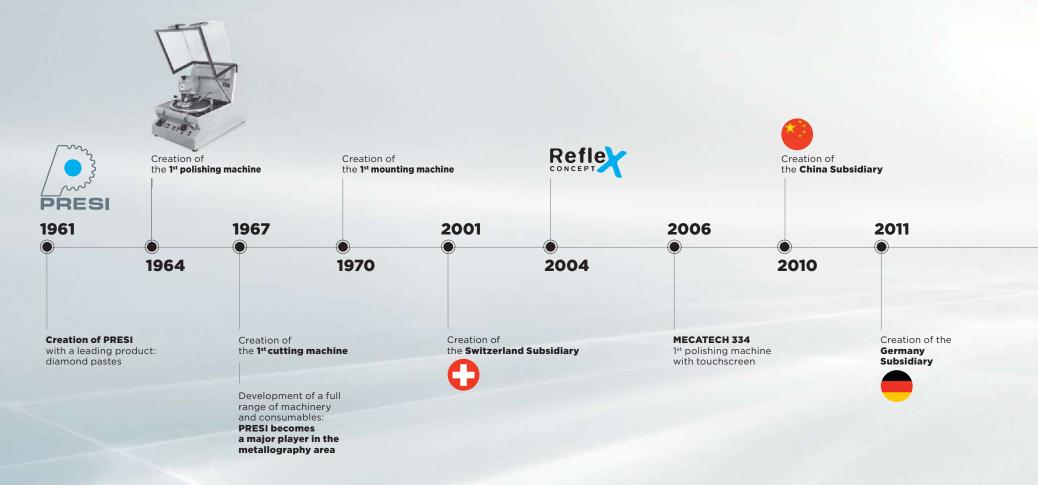
The objective remains the same: the search for excellence, to serve your development.

The PRESI team





### Since 1961...



%
TURNOVER
FOR
EXPORT

SUBSIDIARIES: CHINA, GERMANY, SWITZERLAND, ROMANIA, SPAIN

COUNTRIES WHERE PRESI IS ALREADY PRESENT

7000 ACTIVE CLIENTS



IMAX-R **Diamond Discs** 

Creation of the **Geology** offer



2016

2014



Creation of the Romania Subsidiary

Full renewal of the range of polishing machines



2020



Creation of the **ELD** diamond range of cut-off wheels



Renewal of the cutting machine range



2021

2022



**MOP** integration

Founded 1988, MOP specializes in the machining of mechanical parts. Historical supplier of PRESI for more than 30 years for its machines, MOP works with state-of-the-art equipment of technology. MOP also puts its skills at the service of other companies

or research laboratories.

#### HZ50-4

1st fully automatic micro-hardness tester

2018

#### **MECAPLAN 350**

Prepolishing machine

2019

#### **Inauguration of the new PRESI Headquarters** 4,500m<sup>2</sup>



#### Integration of TESTWELL CONTROL

Specialist for over 70 years in providing equipment for mechanical tests. TESTWELL CONTROL also offers a whole range of services, ranging from control to maintenance.

Creation of the Spain Subsidiary



A GROUP AT THE SERVICE OF MANY INDUSTRY **SECTORS** 













METALLURGY











AERONAUTICS

AEROSPACE

AUTOMOTIVE

FOUNDRY

INDUSTRY

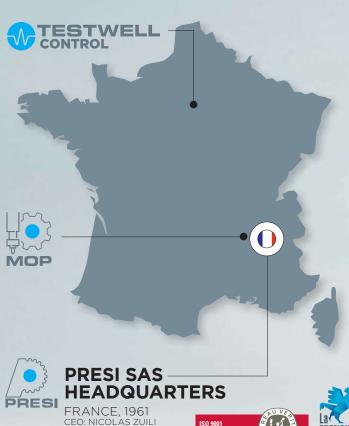
PRECISION MECHANICS

SCHOOLS &

MEDICAL AGRI-FOOD

### Global Reach

The metallography market is a global market. This is why we have developed a network around 5 subsidiaries and more than 40 distributors. Our teams, dynamic and reactive, allow us to offer a tailor-made service to our customers.



OPRESI SÀRL

SWITZERLAND. 2001 MANAGER: DAVID GRAUFEL

#### PRESI Sàrl

Rue Jehan-Droz 13 CH 2400 Le Locle Phone: +41 (0) 32 931 17 91 Fax: +41 (0) 32 931 23 36 presi.ch@presi.com

#### PRESI GMBH

GERMANY, 2011 MANAGER: BOGDAN DINU

#### **PRESI GmbH**

Rohrstrasse 15. 58093 Hagen Phone: +49(0)2331-73678-70 Fax: +49(0)2331-73678-99 presi.de@presi.com

#### PRESI TRADE CO., LTD

CHINA, 2010 MANAGER: JOHN LU

#### PRESI (Shanghai) Trade.,Ltd

Rm D, 8/F, bldg 01 9 Joy Plaza, 9 Zhenning Rd 200050 Shanghai Phone: +86 (0)21 5237 12 77 Fax: +86 (0)21 5237 11 78 presi,china@presi,com

#### **Xiamen Office**

Room 815, Innovation Building, Industrial Research Institute, No.1300, Jimei Avenue, Jimei District, Xiamen 361021 Phone: +86 177 0600 7860

#### **Nanjing Office**

Room 3-1-1903, No. 218 Wanda west, Jiqingmen Street 210000 Nanjing Phone: +86 (0)25 8457 7759 Fax: +86 (0)25 8777 1068 m.li@presi.com

#### **Beijing Office**

Chaoyang District 100020, Beijing Phone: 186 1225 1911 I.wana@presi.com

#### Chengdu Office

Rm 1707, Building C Fortune Center, No.6 Daye Rd, Jinjiang District 610016 Chengdu Sichuan Province Phone: +86 (0)28 6505 6710 Fax: +86 (0)28 6505 67 10 t.li@presi.com

#### PRESI **METALOGRAFIE SRL**

ROMANIA, 2018 MANAGER: BOGDAN DINU

#### **PRESI Metalografie SRL**

Bucuresti, Sectorul 3, Strada Burnitei Nr. 24. Biroul A140. Etai 1 Phone: +40 (0)744 313 350 c.constantin@presi.com

#### PRESI **METALOGRAFIA**

**SPAIN. 2021** MANAGER: MOHAMED MAJOUL

#### PRESI Metalografia Barcelona

Paseo de Gracia Num. 101 Planta 4. Puerta 1, 08008 Barcelona Phone: +216 28 728 350 m.majoul@presi.com





11, rue du Vercors, 38320 Eybens Phone: +33 (0)4 76 72 00 21 Fax: +33 (0)4 76 72 05 84 presi@presi.com



## More 40 than distributors

#### AMERICA

BRAZIL • São Paulo CANADA • Toronto CHILE • Santiago COLUMBIA • Bogota ECUADOR • Cuenca MEXICO • Mexico • Leon PERU • Lima USA • Sturbridge VENEZULA • Caracas

#### **EUROPA** AUSTRIA • Gmunden

BOSNIA
CROATIA • Zagreb
CZECH REP. • Praha
GREECE • Pallini
HUNGARY • Gmunden (AT)
ITALY • Noventa Padovana
Milano • Torino
LITHUANIA • Vilnius
MACEDONIA
NETHERLANDS • Tilburg
POLAND • Warszawa
PORTUGAL • Porto

#### ROMANIA • Bucarest SLOVAKIA • Bratislava SLOVENIA SPAIN • Bilbao SWITZERLAND • Le Locle UKRAINE • Kyiv

UNITED KINGDOM • Leeds

AFRICA EGYPT • Cairo SOUTH AFRICA Johannesburg

#### MIDDLE East

BAHRAIN • Mahooz IRAN • Tehran JORDAN • Amman KUWAIT • Hawalla City OMAN • Azaiba QATAR • Doha SAUDI ARABIA • Jeddah UNITED ARAB EMIRATES Dubaï

#### ASIA

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#### **OUR ENGAGEMENTS**

# the human the innovation the proximity



Design and manufacture of PRESI machines **100% made in France.** 



Attachment to the local social fabric and economy, participating in entertainment and territorial development.



Choice of nearest suppliers and subcontractors **within 100km** of Grenoble (France).



**Training** and maintenance of Staff skills.



**Mobilization of service teams** to provide assistance and advice as soon as possible.



Special attention paid to the **health** and **safety** of employees.



**Systematic Environmental Impact Analysis** of the different activities.



Reduction of the products dangerousness.



Renewal of the vehicle fleet to reduce consumption.



Installation of **electric vehicles** charging stations.

#### **PREPARATION**

## Metallo graphy

Metallography is the determination and study of the properties and nature of the structure of metals but also to reveal any heat treatment, surface 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.

PRESI is recognised as one of the world's leading manufacturers of machines and consumables for metallography and materialography.

CUTTING	10
MOUNTING	36
POLISHING	48
REAGENTS	93

## PREPARATION ► METALLOGRAPHY

## Cutting

The cutting step allows the extraction of a sample, in order to analyze its characteristics. Robust, powerful and easy to use, our new machines are adapted to all situations. Our high quality cut-off wheels allow full preservation of the structure of the sample, during a metallographic cut.

14

16





MECATOME T205

**FLEXICUT** 

MECATOME T345







28

30



### **MACHINES FOR EVERY NEED**

60 years of experience, in manufacturing machines for metallography.

Today our range of cutting machines is expanding and ergonomically changing, with an updated design.

With technical advances which optimize working time and offer new possibilities for sample cutting including the most complex ones.

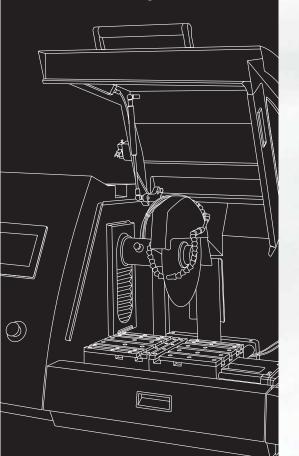
The MECATOME range is evolving, in particular with these new cutting modes (for automatic models) in order to continuously adapt to your needs.





**MECATOME** An extended and renewed range according to your needs

Increased simplicity New design Real working comfort



#### **AUTOMATIC CUTTING MODES**

#### **ASSISTED MODE**



In this mode, the user directly controls the Y or Z axis feed (only T215 & T345) using the joystick and defines the maximum speed and the regulation if necessary. This is an efortless manual cut.

T215	T335	T345
_	_	~

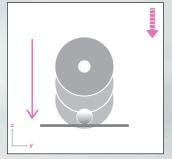
#### Y PULSE MODE



Cutting mode where the table advances intermittently along the Y axis. Dedicated to difficult materials or massive parts, this mode allows gradual release of the constraints and limits temperature peaks.

T215	T335	T345
~	~	~

#### **Z PULSE MODE**



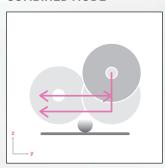
Cutting mode where the wheel advances intermittently along the Z axis. Dedicated to difficult materials, this mode allows gradual release of the constraints and limits temperature peaks.

T215	T335	T345	
		~	

#### **DISCOVER THEM** IN IMAGES!



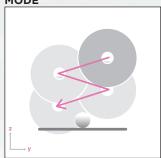
#### COMBINED MODE



Cutting mode allowing a Z then Y cut, regulated or not. This mode increases the cutting capacity of the machine. The multi-combined work mode allows the cut to be broken down into several steps along the Z axis. This mode is particularly suitable for thick parts.

T215	T335	T345
~		~

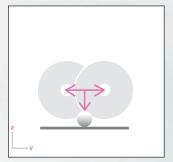
#### PROGRESSIVE COMBINED MODE



Cutting mode allowing a progression of the cut both along the Z axis and the Y axis, regulated or not. This mode optimizes the cutting

T215	T335	T345
~		~

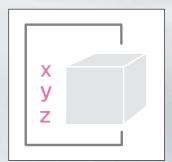
#### **OSCILLATING MODE**



Z cutting mode, oscillating along the Y axis, regulated or not. This mode is particularly dedicated to materials that are difficult to cut. The lubrication of the cutting area is greatly improved.

T215	T335	T345	
~	- 77	~	

#### **EXPERT MODE**



Operating mode that transformes your machine into a numerical control center, dedicated to cutting. This mode is compatible with the program mode.

T215	T335	T345
~	~	~

#### **MECATOME**

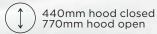
**T205** 



#### PRECISION MANUAL MICRO CUTTING MACHINE

#### **REF. 51760**

The MECATOME T205 is a manual precision micro-cutting machine characterized by its robustness and compact design. With a large working space, it allows for cuts with the highest precision and to work on a wide range of materials, from the softest to the hardest. Its powerful motor makes it possible to work at high and constant torque over the entire speed range from 100 to 4000 RPM.











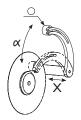


2 available cutting modes Manual or by gravity



**Recovery - Filtration** 100µm washable stretch fabric filter

#### **CUTTING CAPACITY\***



0-100 mm



Ø 40 mm



0-50°

Check the technical specifications of the MECATOME T205



\*This cutting diagram has been designed for informational purposes. It represents the theoretical maximum cutting capacity. The described cutting capacities can be increased depending on the materials, the cutting frequency and selected flanges.

No-load sound level

Type	Metal Frame & PETG
Safety	Mechanical locking of the hood during cutting Braked stopping of the cut-off wheel Zero speed check before unlocking the hood
MOTORISATION - POWER SUPPLY	
Power	960W
Motor	Brushless, controlled by regulation board
Power supply	110-230V - Single phase - 50/60Hz
CUT-OFF WHEEL	
Cut-off wheel	Braked stopping of the cut-off wheel
Type of cut-off wheel	Resinoid & Metallic
Size of the cut-off wheel	from Ø75 to Ø200mm
Rotation speed	from 100 to 4000 RPM
Arbor size	12.7mm
CONTROL	
Control interface	4.3" TFT color touch screen, 16/9
Security access	Can be activated
Programmability	Up to 3 programs
CUTTING	
Operating mode	Manual or by gravity (weight / counterweight)
X axis travel	Lateral movement of the arm - Travel distance 100mm
Holders	Sample holders fixed on arm
LUBRICATION- COOLING	
Type of lubrication	By pump, flow rate 45L/min
Recirculation tank	Integrated - Capacity 3.5L
Type of filtration	100μm fabric filter stretched over a metal frame
Method of directing pumped coolant	1 adjustable lubrication point
ERGONOMICS	
Internal lighting	LED lighting integrated into the hood (IP 68)
Spray nozzle for cleaning	Quick connector, linked to main lubrication point
Cutting disc change	Tool-less cut-off wheel changing system

< 70 dB

#### ACCESSORIES SAMPLE HOLDERS



V shaped sample chuck Ref. 51715



Chuck for small samples (vice typ) Ref. 51713



**Orientable chuck** (To be used with aluminium plates Ref. 51162 and 51163) - 51156



Chuck for cylindrical samples Ref. 51714



Vice chuck for longitudinal cuts Ref. 51717



Chuck for irregular shape samples Ref. 51716



Quick coupler rack T205/T215 51765

#### **VICES**



Mini screw vice Ref. 51722



Vice chuck for longitudinal cuts (length 53mm) Ref. 51718

#### **FLANGES**



Set of aluminium flanges ø 35mm for wheel ø 75 to 100mm Ref. 51710

Set of aluminium flanges ø 50mm for wheel ø 100 to 150mm Ref. 51711

Set of aluminium flanges ø 75mm for wheel ø 150 to 200 mm Ref. 51712

#### **OTHER ACCESSORY**



Analogical refractometer Brix 0-10 Ref. 19074



Quick-release nut for T205/T215 Tool-less cut-off wheel change Ref. 51725

## **FLEXICUT**

MICRO CUTTING MACHINE **DEDICATED TO PCB** AND FLAT SAMPLES

#### **REF. 51800**

The FLEXICUT is a micro-cutting machine suitable for the manual cutting of flat samples.

It has 3 cutting modes:

- Longitudinal table mode: for PCB cutting.
- · Fixed table mode.
- · Micro-cutting machine mode.









CE

Check the technical specifications of the FLEXICUT



Flexicut



Linear table for PCB cuts Ref. 51801



**Fixed table for PCB** cuts Ref. 51802

#### **CUTTING CAPACITY\***





0 - 230mm



Ø 150: 200 x 200 x 14mm Ø 180: 200 x 180 x 29mm Ø 200: 200 x 170 x 39mm

\*This cutting diagram has been designed for informational purposes. It represents the theoretical maximum cutting capacity. The described cutting capacities can be increased depending on the materials, the cutting frequency and selected flanges.

HOOD
------

HOOD	
Туре	PETG enclosure with metal hinges
Safety	Closure switch to cut off motor when hood opened
Fumes extraction outlet	45mm
MOTORISATION - POWER SUI	PPLY
Power	575W
Power supply	220V / Single phase / 50Hz-110V / Single phase / 60Hz
CUT-OFF WHEELS	
Type of cut-off wheels	Resin bonded and metal bonded
Cut-off wheel size range	From Ø 75 to Ø 180mm - Ø 200mm for PCB cutting
Rotation speed	From 300 to 2.500 RPM Option: slow speed kit from 100 to 1.200 RPM

#### Arbor size CONTROL

CONTROL		
Control Interface	Color touch control screen	
Security Access	Can activate password protection	

12.7mm

#### CUTTING

Cutting method	Manual or by gravity (Weight/counter-Weight)
Type of table movement	Fixed or moving table options (Y axis) for PCB sectioning
Y axis range	Length of Y axis traverse - 230mm
X axis range	100mm X-axis movement of the sample carrier arm
Table dimensions	Longitudinal movement table option for PCB cutting: 385 x 250mm Fixed table option for PCB cutting: 430 x 520mm
Table material	Option table with longitudinal movement - micro-rollers
Holders	Sample carrier arm will accept a wide variety of holders

LUBRICATION - COOLING	
Pump & tank	Integrated - Capacity 2.8L
Type of lubrication	Recirculating pump or drag feed
Method of directing pumped coolant	A single alignable nozzle
Type of filtration	Exchangeable paper filters
ERGONOMICS	
Spray nozzle for cleaning	Integrated

#### **ACCESSORIES**

#### **SAMPLE HOLDERS**



V shaped sample chuck Ref. 51715



Vice chuck for longitudinal cuts Ref. 51717



Orientable chuck To be used with aluminium plates Ref. 51162 and 51163 Ref. 51156



Linear table for PCB cuts Ref. 51801



Chuck for small samples (vice typ) 30mm max -**40mm on request** Ref. 51713



Chuck for cylindrical samples Ref. 51714



Chuck for irregular shape samples Ref. 51716



**TABLES AND POSITIONING** 

Fixed table for PCB cuts Ref. 51802

#### **VICES**



Mini screw vice Ref. 51722



Vice chuck for longitudinal cuts (length 53mm) Ref. 51718

#### **FLANGES**



Set of aluminium flanges ø 35mm for wheel ø 75 to 100mm Ref. 51710

Set of aluminium flanges ø 50mm for wheel ø 100 to 150mm Ref. 51711

Set of aluminium flanges ø 75mm for wheel ø 150 to 180mm Ref. 51712

#### **OTHER ACCESSORIES**



Versatile led light with magnetic fixing Ref. 51730

Set of 10 filters for Flexicut Ref. 51721



Analogical refractometer Brix 0-10 Ref. 19074

#### **MECATOME**

**T265** 

#### SIMPLE AND **ROBUST MANUAL CUTTING MACHINE**

#### **REF. 51270**

The robust MECATOME T265 accepts cutting discs of Ø250 & Ø300mm. Its rotation speeds ranged from 1300 to 4000 RPM allow the use of diamond blades as well as resinoid discs. Its L-shaped table allows quick clamping of parts either horizontally or vertically.





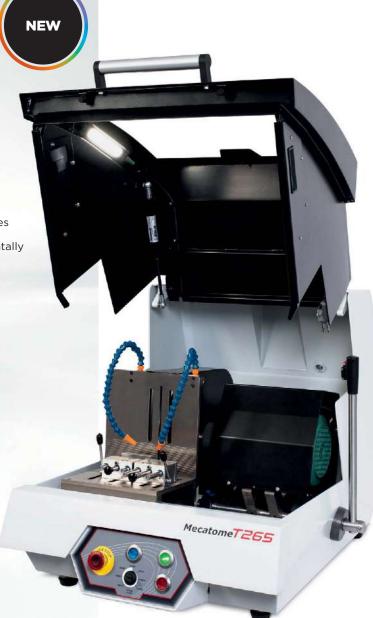




CE

Check the technical specifications of the MECATOME T265





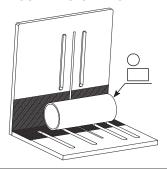






**Cleaning Gun** 

#### **CUTTING CAPACITY\***







120 x 60mm 150 x 25mm 85 x 85mm

\* This cutting diagram has been designed for informational purposes. It represents the theoretical maximum cutting capacity. The described cutting capacities can be increased depending on the materials, the cutting frequency and selected flanges.

#### HOOD

Mechanical locking of the hood during cutting Safety Braked stopping of the cut-off wheel Zero speed check before unlocking the hood  Fumes extraction Option: mist extraction with fluid recovery	pe	Metal Frame & PETG Stainless steel cutting chamber	
Fumes extraction Ontion: mist extraction with fluid recovery	ety	Braked stopping of the cut-off wheel	
Turnes extraction option. This extraction with half recovery	mes extraction	Option: mist extraction with fluid recovery	

#### **MOTORISATION - POWER SUPPLY**

Nominal power S1	2200W
Nominal power S2	2700W
Nominal power S3	3200W
Motor	Asynchronous motor controlled by frequency inverter
Power supply	400V - Three-phase - 50/60Hz

#### **CUT-OFF WHEEL**

Type of cut-off wheel	Resinoid & Metallic
Size of the cut-off wheel	from Ø 250 to Ø 300mm
Rotation speed	1300, 1600, 2000, 2400, 2800, 3200, 3800 & 4000 RPM
Arbor size	25.4mm

#### CONTROL

Control interface	Control Panel
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#### **CUTTING**

Operating mode	Manual
Table type	Treated Steel L-shaped table - 240mm wide
Holders	Vices in horizontal or vertical position

#### **LUBRICATION - COOLING**

Type of lubrication	By pump, flow rate 70L/min
Recirculation tank	External - Capacity 25L
Type of filtration	Washable 100µm cloth filter, optional magnetic filter
Method of directing pumped coolant	2 adjustable lubrication points

#### **ERGONOMICS**

Internal lighting	LED lighting integrated into the hood (IP 68)
Spray nozzle for cleaning	Integrated
Cutting disc change	Shaft lock for wheel change Tool-less cut-off wheel changing system
No-load sound level	< 70 dB

#### **ACCESSORIES**

#### STAINLESS STEEL VICE & CLAMPING SYSTEMS



Left quick clamping vice Ref. 51280 Right quick clamping vice Ref. 51281



Kopal clamp Ref. 50616

Kopal Kit Ref. 50613



Special fragile samples "Delrin" thermoplastic moving jaw for clamping vice Ref. 51283

#### TABLES & POSITIONING



Cross table Ref. 51212

#### **OTHER ACCESSORIES**

Stainless steel V-type moving jaw for clamping vice 45mm height Ref. 51282



Suction & extraction Ref. 51273



Magnetic filter (option) Réf. 51271



Quick-release nut for Tool-less cut-off wheel change Ref. 51272



**3 Filters for cooling tank 25L** Ref. 51621



Base cabinet Ref. 51006



Base cabinet for manual cutting machine (small mode) Ref. 51275



Analogical refractometer Brix 0-10

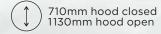
#### **MECATOME**

**T305** 

#### **ROBUST AND FLEXIBLE** MANUAL CUTTING **MACHINE**

#### **REF. 50220**

Robust and flexible, the MECATOME T305 accepts Ø250 & Ø300mm cutting discs. Its rotation speeds ranging from 1000 to 4000 RPM allow the use of diamond discs as well as resinoids. Its stainless steel pallet table is compatible with all clamping systems on the market and its plunge cutting movement makes it the ideal machine for routine cutting.









CE

Check the technical specifications of the MECATOME T305





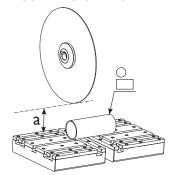




Cleaning gun

4 point lubrication

#### **CUTTING CAPACITY\***



(wheel Ø 300mm)



Ø 105mm



210 x 50mm

\*This cutting diagram has been designed for informational purposes. It represents the theoretical maximum cutting capacity. The described cutting capacities can be increased depending on the materials, the cutting frequency and selected flanges.

#### HOOD

Туре	Metal Frame & PETG Stainless steel cutting chamber
Safety	Mechanical locking of the hood during cutting Braked stopping of the cut-off wheel Zero speed check before unlocking the hood
Fumes extraction	Option: mist extraction with fluid recovery

#### **MOTORISATION - POWER SUPPLY**

Nominal power S2	3700W
Nominal power S3	4000W
Motor	Asynchronous motor controlled by frequency inverter
Power supply	400V - Three-phase - 50/60Hz

#### **CUT-OFF WHEEL**

Type of cut-off wheel	Resinoid & Metallic	
Size of the cut-off wheel	from Ø 250 à Ø 300mm	
Rotation speed	1000 to 4000 RPM	
Arbor size	25.4mm	

#### CONTROL

Control interface	Touchscreen Visualization of the motor load
Security access	Can be activated

#### **CUTTING**

Cutting modes	Manual
Distance between cut-oof wheel and table	90mm (with Ø 300mm cut-off wheel)
Table type	Treated aluminum table, interchangeable stainless steel pallets
Holders	T-slotted table (12mm) accepting all commercial clamping systems

#### **LUBRICATION - COOLING**

Type of lubrication	By pump, flow rate 70L/min
Recirculation tank	External - Capacity 55L
Type of filtration	Washable 100µm cloth filter, optional magnetic filter
Method of directing pumped coolant	2 lubrication points integrated in cut-off wheel guard 2 orientable lubrication points

#### **EDGONOMICS**

ERGONOMICS	
Internal lighting	LED lighting integrated into the hood (IP 68)
Spray nozzle for cleaning	Integrated
Cutting disc change	Tool-less cut-off wheel changing system
No-load sound level	< 70 dB

#### **ACCESSORIES**

#### STAINLESS STEEL VICE & CLAMPING SYSTEMS



Left quick clamping vice 45mm height removable Ref. 50236



Right quick clamping vice 45mm height + moving jaw Ref. 50235



Left quick clamping vice 70mm height removable jaw + rear jaw Ref. 50241



Right quick clamping vice 70mm height removable jaw + rear jaw Ref. 50240



Left quick clamping vice 45mm height removable jaw+ rear jaw Ref. 50246



Right quick clamping vice 45mm height removable jaw+ rear jaw



Stainless steel V-type moving jaw for clamping vice 45mm height Ref. 51282

Stainless steel V-type moving jaw for clamping vice 45mm height Ref. 50243



Special fragile samples "Delrin" thermoplastic moving jaw for clamping vice 45mm Ref. 51283

Special fragile samples "Delrin" thermoplastic moving jaw for clamping vice 45mm Ref. 50242

#### **TABLES & POSITIONNEMENT**



Manual transversal table Ref. 50244



Kit of v positioning supports Ref. 50370



Kopal Clamp Ref. 50616



Kopal Kit Ref. 50613

#### **OTHER ACCESSORIES**



Base cabinet for manual cutting machine Ref. 51275



Base cabinet Ref. 51006



Magnetic filter Ref. 50222



Suction & extraction Ref. 51273



3 Filters for cooling tank Ref. 51620



Analogical refractometer Brix 0-10 Ref. 19074

#### **MECATOME**

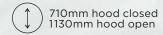
ST315



#### MANUAL CUTTING MACHINE WITH **OSCILLATING** MOVEMENT

#### **REF. 50230**

Robust and powerful, the MECATOME ST315 accepts cutting discs of Ø250 & Ø300mm. Its rotation speeds ranging from 1000 to 4000 RPM allow the use of diamond discs as well as resinoids. Its stainless steel pallet table is compatible with all clamping systems on the market and its plunge and swing cutting movement make it the ideal machine for fast cutting with time savings of up to 60%.



720mm

975mm

160kg

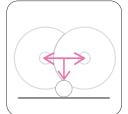
CE

Check the technical specifications of the MECATOME ST315





Mecatome 57315

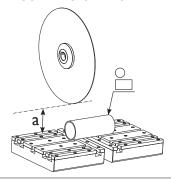




Oscillating movement

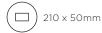
Cleaning Gun

#### **CUTTING CAPACITY\***



(wheel Ø 300mm)







#### HOOD

Туре	Metal Frame & PETG Stainless steel cutting chamber
Safety	Mechanical locking of the hood during cutting Braked stopping of the cut-off wheel Zero speed check before unlocking the hood
Fumes extraction	Option: mist extraction with fluid recovery

#### **MOTORISATION - POWER SUPPLY**

Nominal power S2	3700W
Nominal power S3	4000W
Motor	Asynchronous motor controlled by frequency inverter
Power supply	400V - Three-phase - 50/60 Hz

#### CUT-OFF WHEEL

COI-OFF WHEEL	
Type of cut-off wheel	Resinoid & Metallic
Size of the cut-off wheel	from Ø 250 à Ø 300mm
Rotation speed	1000 to 4000 RPM
Arbor size	25.4mm

#### CONTROL

Control interface	Touchscreen Visualization of the motor load
Security access	Can be activated

#### **CUTTING**

Cutting modes	Manual, swing movement
Distance between cut-oof wheel and table	130mm (with Ø 300mm cut-off wheel)
Table type	Treated aluminum table, interchangeable stainless steel pallets
Holders	T-slotted table (12mm) accepting all commercial clamping systems

#### **LUBRICATION - COOLING**

Type of lubrication	By pump, flow rate 70 L/min
Recirculation tank	External - Capacity 55L
Type of filtration	Washable 100µm cloth filter, optional magnetic filter
Method of directing pumped coolant	2 lubrication points integrated in cut-off wheel guard 2 orientable lubrication points

#### **ERGONOMICS**

Internal lighting	LED lighting integrated into the hood (IP 68)
Spray nozzle for cleaning	Integrated
Cutting disc change	Tool-less cut-off wheel changing system
No-load sound level	< 70 dB

#### **ACCESSORIES**

#### STAINLESS STEEL VICE & CLAMPING SYSTEMS



Left quick clamping vice 45mm height removable Ref. 50236



Right quick clamping vice 45mm height + moving jaw Ref. 50235



jaw + rear jaw Ref. 50241



70mm height removable



70mm height removable jaw + rear jaw Ref. 50240



Left quick clamping vice 45mm height removable jaw+ rear jaw Ref. 50246



Right quick clamping vice 45mm height removable jaw+ rear jaw



Stainless steel V-type moving jaw for clamping vice 45mm height Ref. 51282





Special fragile samples "Delrin" thermoplastic moving jaw for clamping vice 45mm Ref. 51283

Special fragile samples "Delrin" thermoplastic moving jaw for clamping vice 45mm Ref. 50242

#### **TABLES & POSITIONING**



Manual transversal table Ref. 50244



Kit of v positioning supports Ref. 50370



Kopal Clamp Ref. 50616



Kopal Kit Ref. 50613

#### **OTHER ACCESSORIES**



Base cabinet for manual cutting machine Ref. 51275



Base cabinet Ref. 51006



Magnetic filter Ref. 50222



Suction & extraction Ref. 51273



3 Filters for cooling tank Ref. 51620



Analogical refractometer Brix 0-10 Ref. 19074

#### **MECATOME**

**T215** 



#### **AUTOMATIC MICRO CUTTING MACHINE**

#### **REF. 51460**

Robust and compact, the MECATOME T215 is an automatic micro-cutting machine. Its three programmable motorized axes make it a machine that adapts to all situations. The MECATOME T215 offers numerous cutting modes that allow to optimize the cutting of the most complex parts.









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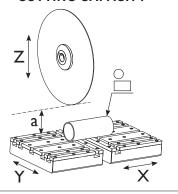
Magnetic filtration

Two-hand control



Transversal table with motorized movement Ref. 51461

#### **CUTTING CAPACITY\***



60mm

Optional: 100mm

40mm (cut-off wheel Ø 200mm) Ø 55mm

55 x 190mm

Check the technical specifications of the MECATOME T215



\*This cutting diagram has been designed for informational purposes. It represents the theoretical maximum cutting capacity. The described cutting capacities can be increased depending on the materials, the cutting frequency and selected flanges.

Stainless steel cutting chamber Two-hand control for table positioning, when hood open Mechanical locking of the hood during cutting Braked stopping of the cut-off wheel Zero speed check before unlocking the hood Option: mist extraction with fluid recovery  MOTORISATION - POWER SUPPLY Nominal power S1  1500W Nominal power S2  2200W Nominal power S2  2200W Notor Power supply  230V - Single phase - 50/60Hz  CUT-OFF WHEEL Type of the cut-off wheel Size of the cut-off wheel Resinoid & Metallic Size of the cut-off wheel Rotation speed from 300 to 6000 RPM Arbor size  CONTROL  CONTROL  CONTROL  CONTROL  CONTROL  COTORIO Interface Security access Programmability Up to 100 programs, password protected  CUTING Operating mode Assisted, Automatic, Program Mode Cutting modes Regulated, Pulse Cutting, Combined, Oscillating Table automation V-axis movement Cutting control  Cutting control Feeding Regulation Cutting axis Motorized Y & Z axes (The X axis being a positioning axis) Y axis travel 2 axis travel 3 children in the size of the size of the cut-off wheel Positioning laser  Left table: 82 x 210mm Right table: 142 x 210mm Distance between cut-off wheel and table Programma flight in the size of the cut-off wheel Positioning laser  LUBRICATION - COOLING  Type of filbration  By pump, flow rate 45L/min Integrated - Capacity 10L Option: Tested aluminum table, Interchangeable stainless steel pallets  LUBRICATION - COOLING  Type of filbration  By pump, flow rate 45L/min Integrated - Capacity 10L Option: Tested table (12mm) accepting all commercial clamping systems  LUBRICATION - COOLING  Type of filbration  By pump, flow rate 45L/min Integrated - Capacity 10L Option: Tested table (12mm) accepting all commercial clamping systems  LUBRICATION - COOLING  Type of filbration  ERGOOMICS  Integrated - Capacity 10L Option: Tested table (12mm) accepting all commercial clamping systems  LUBRICATION - COOLING  Type of filbration  ERGOOMICS  LUBRICATION - COOLING  Type of filbration  Authority and the substance of the cut-off wheel guard	HOOD	Metal Frame & PETG
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MOTORISATION - POWER SUPPLY Nominal power S1 Nominal power S2 2200W Nominal power S3 2700W Motor Asynchronous motor controlled by frequency inverter Power supply 230V - Single phase - 50/60Hz  CUT-OFF WHEEL Type of the cut-off wheel Resinoid & Metallic Size of the cut-off wheel Rotation speed Arbor size 12.7mm  CONTROL Control interface 3-dimensional joystick with 2 shortcut buttons Security access Can be activated Programmability Up to 100 programs, password protected CUTING Operating mode Assisted, Automatic, Program Mode Cutting modes Regulated, Pulse Cutting, Combined, Oscillating Table automation Y-axis movement Cutting control Feeding Regulation Cutting axis Motorized Y & Z axes (The X axis being a positioning axis) Y axis travel Z axis travel Z axis travel G 60mm Z axis speed from 0.01 to 3mm/s Serial cutting Option: motorized x-axis table, travel distance 100mm Left table: 82 x 210mm Right table: 142 x 210mm Right table		
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Motor Asynchronous motor controlled by frequency inverter Power supply 230V - Single phase - 50/60Hz  CUT-OFF WHEEL Type of the cut-off wheel Resinoid & Metallic Size of the cut-off wheel from Ø 75 to Ø 200mm Rotation speed from 300 to 6000 RPM Arbor size 12.7mm  CONTROL  Control interface 3-dimensional joystick with 2 shortcut buttons Security access Can be activated Programmability Up to 100 programs, password protected  CUTTING  Operating mode Assisted, Automatic, Program Mode Cutting modes Regulated, Pulse Cutting, Combined, Oscillating Table automation Y-axis movement Cutting control Feeding Regulation Cutting axis Motorized Y & Z axes (The X axis being a positioning axis) Y axis travel 250mm Y axis speed from 0.01 to 3mm/s Serial cutting Cutting Table dimensions Information Option: motorized x-axis table, travel distance 100mm Left table: 82 x 210mm Right table: 142 x 210mm Right table: 142 x 210mm Distance between cut-off wheel and table Positioning laser Option: Laser Class IM; Po = ImW; I = 635nm Treated aluminum table, interchangeable stainless steel pallets Holders T-slotted table (12mm) accepting all commercial clamping systems  LUBRICATION - COOLING Type of filtration By pump, flow rate 45L/min Integrated; Grid & 100µm cloth filter, magnetic filter External: Washable 100µm cloth filter, magnetic f	Nominal power S2	2200W
Power supply 230V - Single phase - 50/60Hz  CUT-OFF WHEEL Type of the cut-off wheel Resinoid & Metallic Size of the cut-off wheel from Ø 75 to Ø 200mm Rotation speed from 300 to 6000 RPM Arbor size 12.7mm  CONTROL  Control interface 3-dimensional joystick with 2 shortcut buttons Security access Can be activated Programmability Up to 100 programs, password protected  CUTTING Operating mode Assisted, Automatic, Program Mode Cutting modes Regulated, Pulse Cutting, Combined, Oscillating Table automation Y-axis movement Cutting control Feeding Regulation Cutting axis Motorized Y & Z axes (The X axis being a positioning axis) Y axis travel 250mm Y axis speed from 0.01 to 3mm/s Z axis travel 60mm Z axis speed from 0.01 to 3mm/s Serial cutting Cutting Cutting Option: motorized x-axis table, travel distance 100mm Left table: 82 x 210mm Robits are between cut-off wheel and table Positioning laser Treated aluminum table, interchangeable stainless steel pallets T-slotted table: (12 mm) accepting all commercial clamping systems  LUBRICATION - COOLING Type of filtration By pump, flow rate 45L/min Integrated - Capacity 10L Option: 25L external tank and pump Integrated - Capacity 10L Option: 25L external tank and pump Integrated: Grid & 100µm cloth filter, magnetic filter External: Washable 100µm cloth filter, magnetic filter	Nominal power S3	2700W
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Type of the cut-off wheel Resinoid & Metallic Size of the cut-off wheel from Ø 75 to Ø 200mm Rotation speed from 300 to 6000 RPM Arbor size 12.7mm  CONTROL  Control interface Touchscreen 3-dimensional joystick with 2 shortcut buttons Security access Can be activated Programmability Up to 100 programs, password protected  CUTTING  Operating mode Assisted, Automatic, Program Mode Cutting modes Regulated, Pulse Cutting, Combined, Oscillating Table automation Y-axis movement Cutting control Feeding Regulation  Cutting axis Motorized Y & Z axes (The X axis being a positioning axis) Y axis travel 250mm Y axis speed from 0.01 to 3mm/s  Z axis travel 60mm Serial cutting Option: motorized x-axis table, travel distance 100mm Right table: 142 x 210mm Right table: 142 x 210mm Right table: 142 x 210mm Distance between cut-off wheel and table 40mm (with Ø 200m cut-off wheel)  Cutsing Control Fread aluminum table, interchangeable stainless steel pallets  T-slotted table (12mm) accepting all commercial clamping systems  LUBRICATION - COOLING  Type of filtration By pump, flow rate 45L/min Integrated - Capacity 10L Option: 25L external tank and pump Integrated: Grid & 100µm filter, optional magnetic filter External: Washable 100µm cloth filter, magnetic filter External lighting LED lighting integrated into the hood (IP 68) Spray nozzle for cleaning Quick connector, linked to main lubrication point Tool-less cut-off wheel changing system	Power supply	230V - Single phase - 50/60Hz
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Arbor size  CONTROL  Control interface  Security access  Can be activated Programmability  Up to 100 programs, password protected  CUTTING  Operating mode  Cutting mode  Cutting modes  Regulated, Pulse Cutting, Combined, Oscillating Programmability  Cutting control  Cutting control  Cutting axis  Motorized Y & Z axes (The X axis being a positioning axis) Y axis travel Y axis ravel Second Serial cutting  Coption: motorized x-axis table, travel distance 100mm  Left table: 82 x 210mm Right table: 142 x 210mm  Distance between cut-off wheel and table Positionning laser  Treated aluminum table, interchangeable stainless steel pallets  LUBRICATION - COOLING  Type of filtration  Recirculation  ERGONOMICS  ERGONOMICS  LED lighting integrated into the hood (IP 68) Spray nozzle for cleaning Quick connector, linked to main lubrication point Cutting disc change Tool less cut-off wheel to main lubrication point Cutting disc change Tool less cut-off wheel to main lubrication point Cutting disc change Tool less cut-off wheel to main lubrication point Cutting disc change Tool less cut-off wheel to main lubrication point Cutting disc change Tool less cut-off wheel to main lubrication point Cutting disc change Tool less cut-off wheel to main lubrication point Cutting disc change Tool less cut-off wheel to main lubrication point Cutting disc change Tool less cut-off wheel to main lubrication point		
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Security access		Touchscreen
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Operating mode Cutting modes Regulated, Pulse Cutting, Combined, Oscillating Table automation Cutting control Feeding Regulation Cutting axis Motorized Y & Z axes (The X axis being a positioning axis) Y axis travel Y axis speed From 0.01 to 3mm/s Z axis travel A saxis speed From 0.01 to 3mm/s Serial cutting Option: motorized x-axis table, travel distance 100mm Table dimensions Distance between cut-off wheel and table Positionning laser A option: Laser Class 1M; Po = 1mW; I = 635nm Treated aluminum table, interchangeable stainless steel pallets Holders  LUBRICATION - COOLING Type of lubrication Recirculation By pump, flow rate 45L/min Recirculation tank Integrated - Capacity 10L Option: 25L external tank and pump Type of filtration Recondition Recondition Method of directing pumped coolant  ERGONOMICS Internal lighting LED lighting integrated into the hood (IP 68) Spray nozzle for cleaning Quick connector, linked to main lubrication point Cutting disc change Tool-less cut-off wheel changing system	CUTTING	
Regulated, Pulse Cutting, Combined, Oscillating Table automation Y-axis movement Cutting control Feeding Regulation Cutting axis Motorized Y & Z axes (The X axis being a positioning axis) Y axis travel 250mm Y axis speed From 0.01 to 3mm/s Z axis travel 60mm Z axis speed From 0.01 to 3mm/s Serial cutting Option: motorized x-axis table, travel distance 100mm Table dimensions Left table: 82 x 210mm Right table: 142 x 210mm Right table: 142 x 210mm Positionning laser Option: Laser Class 1M; Po = 1mW; I = 635nm Treated aluminum table, interchangeable stainless steel pallets T-slotted table (12mm) accepting all commercial clamping systems  LUBRICATION - COOLING Type of lubrication By pump, flow rate 45L/min Recirculation tank Integrated - Capacity 10L Option: 25L external tank and pump Integrated: Grid & 100µm filter, optional magnetic filter External: Washable 100µm cloth filter, optional filter Exter	Operating mode	Assisted, Automatic, Program Mode
Table automation Y-axis movement Cutting control Feeding Regulation Cutting axis Motorized Y & Z axes (The X axis being a positioning axis) Y axis travel 250mm Y axis speed from 0.01 to 3mm/s Z axis travel 60mm Z axis speed from 0.01 to 3mm/s Serial cutting Option: motorized x-axis table, travel distance 100mm Table dimensions Left table: 82 x 210mm Right table: 142 x 210mm Distance between cut-off wheel and table 40mm (with Ø 200mm cut-off wheel) Positionning laser Option: Laser Class 1M; Po = 1mW; I = 635nm Table type Treated aluminum table, interchangeable stainless steel pallets T-slotted table (12mm) accepting all commercial clamping systems  LUBRICATION - COOLING Type of flubrication By pump, flow rate 45L/min Recirculation tank Integrated - Capacity 10L Option: 25L external tank and pump Type of filtration External: Washable 100µm filter, optional magnetic filter External: Washable 100µm cloth filter, magnetic filter External: Washable 100µm cloth filter, magnetic filter External lighting  ERGONOMICS  Internal lighting LED lighting integrated into the hood (IP 68) Spray nozzle for cleaning Quick connector, linked to main lubrication point Cutting disc change Tool-less cut-off wheel changing system		
Cutting control Cutting axis Motorized Y & Z axes (The X axis being a positioning axis) Y axis travel 250mm Y axis speed from 0.01 to 3mm/s Z axis travel 60mm Z axis speed from 0.01 to 3mm/s Serial cutting Option: motorized x-axis table, travel distance 100mm Left table: 82 x 210mm Right table: 142 x 210mm Distance between cut-off wheel and table Positionning laser Option: Laser Class 1M; Po = 1mW; I = 635nm Treated aluminum table, interchangeable stainless steel pallets T-slotted table (12mm) accepting all commercial clamping systems  LUBRICATION - COOLING Type of lubrication By pump, flow rate 45L/min Integrated - Capacity 10L Option: 25L external tank and pump Integrated: Grid & 100µm filter, optional magnetic filter External: Washable 100µm cloth filter, magnetic filter External: Washable 100µm cloth filter, magnetic filter External lighting  ERGONOMICS  Integrated Integrated into the hood (IP 68) Spray nozzle for cleaning Quick connector, linked to main lubrication point Cutting disc change Tool-less cut-off wheel changing system		
Cutting axis  Motorized Y & Z axes (The X axis being a positioning axis) Y axis travel 250mm Y axis speed from 0.01 to 3mm/s Z axis speed from 0.01 to 3mm/s  Serial cutting Option: motorized x-axis table, travel distance 100mm Left table: 82 x 210mm Right table: 142 x 210mm Distance between cut-off wheel and table Option: Laser Class 1M; Po = 1mW; I = 635nm  Treated aluminum table, interchangeable stainless steel pallets T-slotted table (12mm) accepting all commercial clamping systems  LUBRICATION - COOLING Type of fubrication By pump, flow rate 45L/min Integrated - Capacity 10L Option: 25L external tank and pump Type of filtration Method of directing pumped coolant Integrated: Grid & 100µm filter, optional magnetic filter External: Washable 100µm cloth filter, magnetic filter External: Washable 100µm cloth filter, magnetic filter External lighting  ERGONOMICS Internal lighting LED lighting integrated into the hood (IP 68) Spray nozzle for cleaning Quick connector, linked to main lubrication point Cutting disc change Tool-less cut-off wheel changing system		
Y axis travel Y axis speed Y axis speed Y axis speed From 0.01 to 3mm/s  Z axis speed From 0.01 to 3mm/s  Z axis speed From 0.01 to 3mm/s  Z axis speed From 0.01 to 3mm/s  Serial cutting Option: motorized x-axis table, travel distance 100mm  Left table: 82 x 210mm Right table: 142 x 210mm  Distance between cut-off wheel and table Positionning laser Option: Laser Class 1M; Po = 1mW; I = 635nm  Treated aluminum table, interchangeable stainless steel pallets  T-slotted table (12mm) accepting all commercial clamping systems  LUBRICATION - COOLING  Type of lubrication By pump, flow rate 45L/min Integrated - Capacity 10L Option: 25L external tank and pump  Type of filtration By pump flow rate 45L/min filter, optional magnetic filter External: Washable 100µm filter, optional magnetic filter External: Washable 100µm cloth filter, magnetic filter External: Washable 100µm cloth filter, magnetic filter External lighting  ERGONOMICS  Internal lighting LED lighting integrated into the hood (IP 68)  Spray nozzle for cleaning Quick connector, linked to main lubrication point Cutting disc change Tool-less cut-off wheel changing system	-	
Y axis speed from 0.01 to 3mm/s Z axis travel 60mm Z axis speed from 0.01 to 3mm/s Serial cutting Option: motorized x-axis table, travel distance 100mm Table dimensions Left table: 82 x 210mm Right table: 142 x 210mm Distance between cut-off wheel and table 40mm (with Ø 200mm cut-off wheel) Positionning laser Option: Laser Class 1M; Po = 1mW; I = 635nm Treated aluminum table, interchangeable stainless steel pallets T-slotted table (12mm) accepting all commercial clamping systems  LUBRICATION - COOLING Type of lubrication By pump, flow rate 45L/min Recirculation tank Integrated - Capacity 10L Option: 25L external tank and pump Type of filtration Integrated: Grid & 100μm filter, optional magnetic filter External: Washable 100μm cloth filter, magnetic filter External: Washable 100μm cloth filter, magnetic filter External lighting LED lighting integrated into the hood (IP 68) Spray nozzle for cleaning Quick connector, linked to main lubrication point Cutting disc change		
Z axis travel Z axis speed From 0.01 to 3mm/s Serial cutting Option: motorized x-axis table, travel distance 100mm Table dimensions Left table: 82 x 210mm Right table: 142 x 210mm Distance between cut-off wheel and table Positionning laser Option: Laser Class 1M; Po = 1mW; I = 635nm Treated aluminum table, interchangeable stainless steel pallets T-slotted table (12mm) accepting all commercial clamping systems  LUBRICATION - COOLING Type of lubrication Recirculation tank Integrated - Capacity 10L Option: 25L external tank and pump Integrated: Grid & 100µm filter, optional magnetic filter External: Washable 100µm cloth filter, magnetic filter External: Washable 100µm cloth filter, magnetic filter External lighting  ERGONOMICS Internal lighting LED lighting integrated into the hood (IP 68) Spray nozzle for cleaning Quick connector, linked to main lubrication point Cutting disc change Tool-less cut-off wheel changing system		
Zaxis speed   From 0.01 to 3mm/s	·	
Serial cutting Option: motorized x-axis table, travel distance 100mm Left table: 82 x 210mm Right table: 142 x 210mm Distance between cut-off wheel and table 40mm (with Ø 200mm cut-off wheel) Positionning laser Option: Laser Class 1M; Po = 1mW; I = 635nm Treated aluminum table, interchangeable stainless steel pallets Holders T-slotted table (12mm) accepting all commercial clamping systems  LUBRICATION - COOLING Type of lubrication By pump, flow rate 45L/min Integrated - Capacity 10L Option: 25L external tank and pump Type of filtration Integrated: Grid & 100µm filter, optional magnetic filter External: Washable 100µm cloth filter, magnetic filter External: Washable 100µm cloth filter, magnetic filter External lighting  ERGONOMICS Internal lighting LED lighting integrated into the hood (IP 68) Spray nozzle for cleaning Quick connector, linked to main lubrication point Cutting disc change		
Table dimensions  Left table: 82 x 210mm Right table: 142 x 210mm Distance between cut-off wheel and table 40mm (with Ø 200mm cut-off wheel) Positionning laser  Option: Laser Class 1M; Po = 1mW; I = 635nm  Treated aluminum table, interchangeable stainless steel pallets  Holders  T-slotted table (12mm) accepting all commercial clamping systems  LUBRICATION - COOLING  Type of lubrication  By pump, flow rate 45L/min  Integrated - Capacity 10L Option: 25L external tank and pump  Type of filtration  Integrated: Grid & 100 μm filter, optional magnetic filter External: Washable 100 μm cloth filter, magnetic filter External: Washable 100 μm cloth filter, magnetic filter External lighting  ERGONOMICS  Internal lighting  LED lighting integrated into the hood (IP 68) Spray nozzle for cleaning  Quick connector, linked to main lubrication point Cutting disc change		, ,
Right table: 142 x 210mm  Distance between cut-off wheel and table 40mm (with Ø 200mm cut-off wheel)  Positionning laser Option: Laser Class 1M; Po = 1mW; I = 635nm  Table type Treated aluminum table, interchangeable stainless steel pallets  Holders T-slotted table (12mm) accepting all commercial clamping systems  LUBRICATION - COOLING  Type of lubrication By pump, flow rate 45L/min  Recirculation tank Integrated - Capacity 10L Option: 25L external tank and pump  Type of filtration Integrated: Grid & 100µm filter, optional magnetic filter External: Washable 100µm cloth filter, magnetic filter External: Washable 100µm cloth filter, magnetic filter External lighting LED lighting integrated into the hood (IP 68)  Spray nozzle for cleaning Quick connector, linked to main lubrication point Cutting disc change		
Distance between cut-off wheel and table 40mm (with Ø 200mm cut-off wheel)  Positionning laser Option: Laser Class 1M; Po = 1mW; I = 635nm  Treated alluminum table, interchangeable stainless steel pallets  T-slotted table (12mm) accepting all commercial clamping systems  LUBRICATION - COOLING  Type of lubrication By pump, flow rate 45L/min  Integrated - Capacity 10L  Option: 25L external tank and pump  Integrated: Grid & 100μm filter, optional magnetic filter External: Washable 100μm cloth filter, magnetic filter External: Washable 100μm cloth filter, magnetic filter External lighting  ERGONOMICS  Internal lighting LED lighting integrated into the hood (IP 68)  Spray nozzle for cleaning Quick connector, linked to main lubrication point Cutting disc change	Table dimensions	
Positionning laser  Option: Laser Class 1M; Po = 1mW; I = 635nm  Treated aluminum table, interchangeable stainless steel pallets  T-slotted table (12mm) accepting all commercial clamping systems  LUBRICATION - COOLING  Type of lubrication  By pump, flow rate 45L/min  Integrated - Capacity 10L  Option: 25L external tank and pump  Type of filtration  Integrated: Grid & 100µm filter, optional magnetic filter External: Washable 100µm cloth filter, magnetic filter  Method of directing pumped coolant  ERGONOMICS  Internal lighting  LED lighting integrated into the hood (IP 68)  Spray nozzle for cleaning  Quick connector, linked to main lubrication point  Cutting disc change  Tool-less cut-off wheel changing system	Distance between cut-off wheel and table	-
Treated aluminum table, interchangeable stainless steel pallets  Holders T-slotted table (12mm) accepting all commercial clamping systems  LUBRICATION - COOLING  Type of lubrication By pump, flow rate 45L/min  Integrated - Capacity 10L Option: 25L external tank and pump  Type of filtration Integrated: Grid & 100µm filter, optional magnetic filter External: Washable 100µm cloth filter, magnetic filter External: Washable 100µm cloth filter, magnetic filter External in the cut-off wheel guard  ERGONOMICS  Internal lighting LED lighting integrated into the hood (IP 68) Spray nozzle for cleaning Quick connector, linked to main lubrication point Cutting disc change Tool-less cut-off wheel changing system		
Holders  T-slotted table (12mm) accepting all commercial clamping systems  LUBRICATION - COOLING  Type of lubrication  Recirculation tank  Option: 25L external tank and pump  Type of filtration  Integrated: Grid & 100µm filter, optional magnetic filter External: Washable 100µm cloth filter, magnetic filter  Method of directing pumped coolant  ERGONOMICS  Internal lighting  LED lighting integrated into the hood (IP 68)  Spray nozzle for cleaning  Quick connector, linked to main lubrication point  Cutting disc change  Tool-less cut-off wheel changing system		
LUBRICATION - COOLING  Type of lubrication By pump, flow rate 45L/min  Recirculation tank Integrated - Capacity 10L Option: 25L external tank and pump  Type of filtration Integrated: Grid & 100µm filter, optional magnetic filter External: Washable 100µm cloth filter, magnetic filter Method of directing pumped coolant 6 lubrication points in the cut-off wheel guard  ERGONOMICS  Internal lighting LED lighting integrated into the hood (IP 68) Spray nozzle for cleaning Quick connector, linked to main lubrication point Cutting disc change Tool-less cut-off wheel changing system	Table type	pallets
Type of lubrication  Recirculation tank  Recirculation tank  Integrated - Capacity 10L Option: 25L external tank and pump  Type of filtration  Integrated: Grid & 100µm filter, optional magnetic filter External: Washable 100µm cloth filter, magnetic filter Method of directing pumped coolant  ERGONOMICS  Internal lighting  LED lighting integrated into the hood (IP 68) Spray nozzle for cleaning  Quick connector, linked to main lubrication point Cutting disc change  Tool-less cut-off wheel changing system	Holders	
Type of lubrication  Recirculation tank  Recirculation tank  Integrated - Capacity 10L Option: 25L external tank and pump  Integrated: Grid & 100µm filter, optional magnetic filter External: Washable 100µm cloth filter, magnetic filter Method of directing pumped coolant  6 lubrication points in the cut-off wheel guard  ERGONOMICS  Internal lighting  LED lighting integrated into the hood (IP 68) Spray nozzle for cleaning  Quick connector, linked to main lubrication point Cutting disc change  Tool-less cut-off wheel changing system	LUBBICATION - COOLING	•
Recirculation tank  Integrated - Capacity 10L Option: 25L external tank and pump  Type of filtration  Integrated: Grid & 100µm filter, optional magnetic filter External: Washable 100µm cloth filter, magnetic filter Method of directing pumped coolant  6 lubrication points in the cut-off wheel guard  ERGONOMICS  Internal lighting  LED lighting integrated into the hood (IP 68) Spray nozzle for cleaning Quick connector, linked to main lubrication point Cutting disc change  Tool-less cut-off wheel changing system		By pump flow rate 451 /min
Type of filtration  Type of filtration  Integrated: Grid & 100µm filter, optional magnetic filter External: Washable 100µm cloth filter, magnetic filter External: Washable 100µm cloth filter, magnetic filter Method of directing pumped coolant  ERGONOMICS  Internal lighting  LED lighting integrated into the hood (IP 68)  Spray nozzle for cleaning  Quick connector, linked to main lubrication point  Cutting disc change  Tool-less cut-off wheel changing system		
External: Washable 100µm cloth filter, magnetic filter  Method of directing pumped coolant  6 lubrication points in the cut-off wheel guard  ERGONOMICS  Internal lighting  LED lighting integrated into the hood (IP 68)  Spray nozzle for cleaning  Quick connector, linked to main lubrication point  Cutting disc change  Tool-less cut-off wheel changing system	Recirculation tank	
ERGONOMICS  Internal lighting LED lighting integrated into the hood (IP 68)  Spray nozzle for cleaning Quick connector, linked to main lubrication point  Cutting disc change Tool-less cut-off wheel changing system	Type of filtration	
Internal lighting  LED lighting integrated into the hood (IP 68)  Spray nozzle for cleaning  Quick connector, linked to main lubrication point  Cutting disc change  Tool-less cut-off wheel changing system	Method of directing pumped coolant	6 lubrication points in the cut-off wheel guard
Internal lighting  LED lighting integrated into the hood (IP 68)  Spray nozzle for cleaning  Quick connector, linked to main lubrication point  Cutting disc change  Tool-less cut-off wheel changing system	ERGONOMICS	
Spray nozzle for cleaning Quick connector, linked to main lubrication point Cutting disc change Tool-less cut-off wheel changing system		LED lighting integrated into the hood (IP 68)
Cutting disc change Tool-less cut-off wheel changing system	<u> </u>	

#### **ACCESSORIES**

#### **SAMPLE HOLDERS**



Adapting support for sample chuck (to use only with a transversal table)



Vice chuck for longitudinal cuts



Orientable chuck (to be used with aluminium plates ref. 51162 And 51163) Ref. 51156



Chuck for cylindrical samples Ref. 51714



Chuck for small samples (Vice Typ) Ref. 51713



Chuck for irregular shape samples Ref. 51716



Quick coupler rack T205/T215 Ref. 51765



Motorized transversal Ref. 51461





V shaped sample chuck



Manual transversal table for MECATOME T201/ T210/T215 Ref. 51355

#### OTHER ACCESSORIES

Base cabinet for automatic cutting machine Ref. 51470



Base cabinet (small model) Ref. 51006



25L recirculating tank Ref. 51462



Suction & extraction Ref. 51464

#### STAINLESS STEEL VICE & CLAMPING SYSTEMS



Cast in one piece quick clamping vice with moving left side - Ref. 51466 right side - Ref.51465

Special fragile samples "Delrin" thermoplastic

vice T215

Ref. 51467

**Kopal Clamp** 

Ref. 50616

Kopal kit

Ref. 50613

moving jaw for clamping



Stainless steel quick clamping vice for long samples



Stainless steel V-type moving jaw for clamping vice T215 Ref. 51468



Set of stainless steel flanges ø 75mm for wheel ø 150 to 200mm Ref. 51325 Set of stainless steel flanges ø 50mm for wheel ø 100 to 150mm



Ref. 51326

#### **MECATOME**

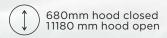
**T335** 



#### MANUAL AND AUTOMATIC **CUTTING MACHINE**

#### **REF. 50380**

Powerful and precise, the MECATOME T335 is an automatic cutting machine on its logitudinal axis and manual on its vertical axis. Its rotation speeds ranging from 1000 to 6000 RPM allow the use of diamond discs as well as resinoids. The MECATOME T335 offers the best of both worlds with the possibility of performing regulated or impulse cuts while maintaining the ease of manual cutting.









CE

Check the technical specifications of the MECATOME T335







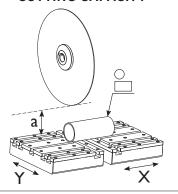


Transversal table with motorized movement Ref. 50381



**Two-hand control** 

#### **CUTTING CAPACITY\***



MecatomeT335

Optional: 100mm



Ø 105mm

105 x 145mm

80mm (cut-off wheel Ø 300mm)

\* This cutting diagram has been designed for informational purposes. It represents the theoretical maximum cutting capacity. The described cutting capacities can be increased depending on the materials, the cutting frequency and selected flanges.

HOOD	
Type	Metal Frame & PETG Stainless steel cutting chamber
	Two-hand control for table positioning, when hood open
Safety	Mechanical locking of the hood during cutting
-	Braked stopping of the cut-off wheel Zero speed check before unlocking the hood
Fumes extraction	Option: mist extraction with fluid recovery
MOTORISATION - POWER SUPPLY	operation with many receivery
Nominal power S2	3700W
Nominal power S3	4000W
Motor	Asynchronous motor controlled by frequency inverter
Power supply	400V - Three-phase - 50/60Hz
CUT-OFF WHEEL	
Type of cut-off wheel	Resinoid & Metallic
Size of the cut-off wheel	from Ø 250 à Ø 300mm
Rotation speed	1000 à 6000 RPM
Arbor size	25.4mm
CONTROL	
CONTROL	T
Control interface	Touchscreen 2-dimensional joystick with 2 shortcut buttons
Security access	Can be activated
Programmability	Up to 100 programs, password protected
	op to 100 programs, password protected
CUTTING	Marrial Assistant Automotic Duranian Marta
Operating mode	Manual, Assisted, Automatic, Program Mode
Cutting modes	Regulated, Pulse Cutting
Table automation	Y-axis movement Feeding Regulation
Cutting control Cutting axis	Motorized Y-axis and Manual Z-axis (The X axis being a
Y axis travel	positioning axis) 240mm
Y axis speed	from 0.01 to 3mm/s
Z axis travel	60mm
Z axis speed	from 0.01 to 3mm/s
Serial cutting	Option: motorized x-axis table, travel distance 100mm
Table dimensions	Left table: 192 x 230mm
	Right table: 192 x 230mm
Distance between cut-off wheel and table	77.5mm (with Ø 300mm cut-off wheel)
Positionning laser	Option: Laser Class 1M; Po = 1mW; I = 635nm
Table type	Treated aluminum table, interchangeable stainless steel pallets
Holders	T-slotted table (12mm) accepting all commercial clamping systems
LUBRICATION - COOLING	
Type of lubrication	By pump, flow rate 70L/min
	By pump, flow rate 70L/min External - Capacity 55L
Type of lubrication	
Type of lubrication Recirculation tank	External - Capacity 55L
Type of lubrication Recirculation tank Type of filtration	External - Capacity 55L  Washable 100µm cloth filter, optional magnetic filter  2 lubrication points integrated in cut-off wheel guard
Type of lubrication Recirculation tank Type of filtration Method of directing pumped coolant  ERGONOMICS	External - Capacity 55L  Washable 100µm cloth filter, optional magnetic filter  2 lubrication points integrated in cut-off wheel guard 2 orientable lubrication points
Type of lubrication Recirculation tank Type of filtration Method of directing pumped coolant  ERGONOMICS Internal lighting	External - Capacity 55L  Washable 100µm cloth filter, optional magnetic filter  2 lubrication points integrated in cut-off wheel guard
Type of lubrication Recirculation tank Type of filtration Method of directing pumped coolant  ERGONOMICS	External - Capacity 55L  Washable 100µm cloth filter, optional magnetic filter  2 lubrication points integrated in cut-off wheel guard 2 orientable lubrication points  LED lighting integrated into the hood (IP 68)

#### **ACCESSORIES**

#### STAINLESS STEEL VICE & CLAMPING SYSTEMS



Left quick clamping vice 45mm height removable jaw + rear jaw Ref. 50236



Right quick clamping vice 45mm height removable jaw + rear jaw Ref. 50235



Left quick clamping vice 45mm removable jaw Ref. 50241



Right quick clamping vice 45mm removable jaw Ref. 50240



Left quick clamping vice 45mm height removable jaw + rear jaw Ref. 50246



Right quick clamping vice 45mm height removable jaw + rear jaw Ref. 50245



Stainless steel V-type moving jaw for clamping vice 45mm height Réf. 51282

Ref. 50243





Special fragile samples "Delrin" thermoplastic moving jaw for clamping vice 45mm Ref. 51283

Special fragile samples "Delrin" thermoplastic moving jaw for clamping vice 70mm Ref. 50242



**Kopal Clamp** Ref. 50616

Kopal Kit Ref. 50613



Motorized transversal table Ref. 50381





Manual transversal table Ref. 50244



Kit of V positioning supports Ref. 50370

#### **OTHER ACCESSORIES**



Base cabinet for automatic cutting machine



Base cabinet (big size) Ref. 51010



Magnetic filter



Suction & extraction Ref. 51273



Positioning laser for MECATOME T335 Ref. 50382



3 Filters for cooling tank Ref. 51620



Analogical refractometer Brix 0-10 Ref. 19074

#### **MECATOME**

T345



#### **AUTOMATIC CUTTING MACHINE**

#### **REF. 50390**

Powerful and precise, the MECATOME T345 is an automatic cutting machine. Its rotation speeds ranging from 1000 to 6000 RPM allow the use of diamond discs as well as resinoids. Its three programmable motorized axes make it a machine that adapts to all situations. The MECATOME T345 offers numerous cutting modes which optimize the cutting of the most complex parts.







210kg

CE

Check the technical specifications of the MECATOME T345





Cleaning gun

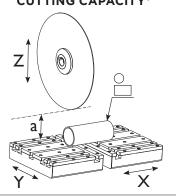


Transversal table with motorized movement Ref. 50391



**Two-hand control** 

#### **CUTTING CAPACITY\***



150mm



Optional: 100mm

MecatomeT345

90mm (cut-off wheels Ø 300mm)

Ø 105mm



105 x 145mm

\*This cutting diagram has been designed for informational purposes. It represents the theoretical maximum cutting capacity. The described cutting capacities can be increased depending on the materials, the cutting frequency and selected flanges.

HOOD	Metal Frame & PETG
Туре	Stainless steel cutting chamber
	Two-hand control for table positioning, when hood open
Safety	Mechanical locking of the hood during cutting
salety	Braked stopping of the cut-off wheel
	Zero speed check before unlocking the hood
-umes extraction	Option: mist extraction with fluid recovery
MOTORISATION - POWER SUPPLY	
Nominal power S2	3700W
Nominal power S3	4000W
Motor	Asynchronous motor controlled by frequency inverter
Power supply	400V - Three-phase - 50/60Hz
CUT-OFF WHEEL	
Type of cut-off wheel	Resinoid & Metallic
Size of the cut-off wheel	Up to Ø 300mm
Rotation speed	1000 to 6000 RPM
Arbor size	25.4mm
CONTROL	
	Touchscreen
Control interface	3-dimensional joystick with 2 shortcut buttons
Security access	Can be activated
Programmable Programmable	Up to 100 password protected programs
CUTTING	
	Assistant Automostic Duranum Manta
Operating mode	Assisted, Automatic, Program Mode
Cutting modes	Regulated, Pulse Cutting, Combined, Oscillating
Table automation	Y-axis movement
Cutting control	Feeding Regulation
Cutting axis	Motorized Y & Z axes (The X axis being a positioning axis)
Y axis travel	240mm
Y axis speed	from 0.01 to 3mm/s
Z axis travel	150mm
Z axis speed	from 0.01 to 3mm/s
Serial cutting	Option: motorized x-axis table, travel distance 100mm
Table dimensions	Left Table: 192 x 230mm Right Table: 192 x 230mm
Distance between cut-off wheel	
and table	77.5mm (with Ø 300mm cut-off wheel)
Positionning laser	Option: Laser Class 1M; Po = 1mW; I = 635nm
Table type	Treated aluminum table, interchangeable stainless steel pallets
Holders	T-slotted table (12mm) accepting all commercial clamping systems
LUBRICATION - COOLING	
Type of lubrication	By pump, flow rate 70L/min
Recirculation tank	External - Capacity 55L
Type of filtration	Washable 100 µm cloth filter, optional magnetic filter
Method of directing pumped coolant	2 lubrication points integrated in cut-off wheel guard Two orientable lubrication points
ERGONOMICS	
Internal lighting	LED lighting integrated into the hood (IP 68)
Spray nozzle for cleaning	Integrated
Cutting disc change	Tool-less cut-off wheel changing system
No-load sound level	< 70 dB
110 IOGG SOGIIG ICVCI	- , 0 4D

#### **ACCESSORIES**

#### STAINLESS STEEL VICE & CLAMPING SYSTEMS



Left quick clamping vice 45mm height removable jaw + rear jaw Ref. 50236



Right quick clamping vice 45mm height removable jaw + rear jaw Ref. 50235



Left quick clamping vice 45mm removable jaw Ref. 50241



Right quick clamping vice 45mm removable jaw Ref. 50240



Left quick clamping vice 45mm height removable jaw + rear jaw Ref. 50246



Right quick clamping vice 45mm height removable jaw + rear jaw Ref. 50245



Stainless steel V-type moving jaw for clamping vice 45mm height Réf. 51282

Stainless steel V-type moving jaw for clamping vice 45mm height Ref. 50243



Special fragile samples "Delrin" thermoplastic moving jaw for clamping vice 45mm Ref. 51283

Special fragile samples "Delrin" thermoplastic moving jaw for clamping vice 70mm Ref. 50242



**Kopal Clamp** Ref. 50616 Ref. 50613

Kopal Kit

#### **TABLES & POSITIONING**



Motorized transversal Ref. 50381



Manual transversal table Ref. 50244



Kit of V positioning supports Ref. 50370

#### **OTHER ACCESSORIES**



Base cabinet for automatic cutting machine Ref. 51470



Base cabinet (big size) Ref. 51010



Magnetic filter Ref. 50222



Suction & extraction Ref. 51273



Positioning laser for MECATOME T345 Ref. 50392



3 Filters for cooling tank Ref. 51620



Analogical refractometer Brix 0-10 Ref. 19074

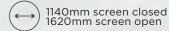
EVO 400/400+

#### HIGH CAPACITY **CUTTING MACHINE**

**EVO 400 REF. 50400 EVO 400+ REF. 50430** 

The EVO 400 is a spatious, powerful and robust cutting machine. It has a height under cut-off wheel of 190mm and its tables can support samples weighing more than 200kg. This machine, suitable for workshops, combines robustness and ease of use. It offers 3 cutting modes: assisted, automatic and programmable (repeatability of cuts) and can cut through the toughest materials. Ergonomic, it is equipped with a motorized cover and a multilingual color touch screen facilitating the man-machine interface.













Tray and Filter

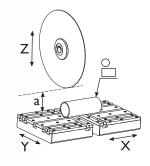


X-axis manual table 250 x 600mm travel 200mm - Ref. 50410



Y-axis manual table 600 x 300mm travel **300mm** - Ref. 50411

#### **CUTTING DIAGRAM\***





Ø 125mm





70 x 270mm

Check out the EVO 400 user video



\*This cutting diagram has been designed for informational purposes. It represents the theoretical maximum cutting capacity.
The described cutting capacities can be increased depending on the materials, the cutting frequency and selected flanges.

Motorised opening and closing Locked during motor rotation 76mm  EVO 400: 7500W / EVO 400 +: 9000W EVO 400: 11,000W / EVO 400 +: 15,000W 380V / Three-phases / 50Hz Frequency inverter  Resinoid & diamond Up to 400mm 1000 to 3000 RPM 32mm  Colour touchscreen Can be activated
76mm  EVO 400: 7500W / EVO 400 +: 9000W  EVO 400: 11,000W / EVO 400 +: 15,000W  380V / Three-phases / 50Hz  Frequency inverter  Resinoid & diamond  Up to 400mm  1000 to 3000 RPM  32mm  Colour touchscreen
EVO 400: 7500W / EVO 400 +: 9000W EVO 400: 11,000W / EVO 400 +: 15,000W 380V / Three-phases / 50Hz Frequency inverter  Resinoid & diamond Up to 400mm 1000 to 3000 RPM 32mm  Colour touchscreen
EVO 400: 11,000W / EVO 400 +: 15,000W  380V / Three-phases / 50Hz  Frequency inverter  Resinoid & diamond Up to 400mm 1000 to 3000 RPM 32mm  Colour touchscreen
EVO 400: 11,000W / EVO 400 +: 15,000W  380V / Three-phases / 50Hz  Frequency inverter  Resinoid & diamond Up to 400mm 1000 to 3000 RPM 32mm  Colour touchscreen
380V / Three-phases / 50Hz Frequency inverter  Resinoid & diamond Up to 400mm 1000 to 3000 RPM 32mm  Colour touchscreen
Resinoid & diamond Up to 400mm 1000 to 3000 RPM 32mm  Colour touchscreen
Resinoid & diamond Up to 400mm 1000 to 3000 RPM 32mm  Colour touchscreen
Up to 400mm 1000 to 3000 RPM 32mm Colour touchscreen
Up to 400mm 1000 to 3000 RPM 32mm Colour touchscreen
1000 to 3000 RPM 32mm Colour touchscreen
32mm  Colour touchscreen
Colour touchscreen
Can be activated
Up to 6 password-protected programmes
Modbus
Assisted, automatic, programmed, by impulse
Movement of the arm according to motor load
Travel 300mm* (optional)
Travel 200mm* (optional)
320mm
Left table 300 x 600mm. Right table 300 x 600mm
Left table 300 x 600mm. Right table 250 x 600mm
Left table 300 x 300mm. Right table 300 x 300mm
Option
200mm
Treated aluminium table, interchangeable stainless steel palettes
Slotted T table (12mm) accepting all clamping systems available on the market
External - 200L
Pump
Cutting disc housing and 2 mobile sprinklers on the table
100µm washable cloth filter
LED
Integrated

<sup>\*</sup> Customizable tables and strokes.

#### **ACCESSORIES**

#### STAINLESS STEEL VICE & CLAMPING SYSTEMS



Left quick clamping vice 45mm height removable jaw Height 45mm - Ref. 50236

Height 70mm - Ref. 50241

0

Left quick clamping vice

45mm height removable

jaw+ rear jaw

Ref. 50246



Right quick clamping vice jaw+ rear jaw



Right quick clamping vice 45mm height + moving jaw + rear jaws Height 45mm - Ref. 50235

Height 70mm - Ref. 50240



Double quick clamping vices right & left height 90mm



45mm height removable



Stainless steel V-type moving jaw for clamping vice 45mm height Ref. 51282

Stainless steel v-type moving jaw for clamping vice 70mm height Ref. 50243



Special fragile samples "Delrin" thermoplastic moving jaw for clamping vice 45mm Ref. 51283

Special fragile samples "Delrin" thermoplastic moving jaw for clamping vice 70mm Ref. 50242



**Kopal Clamp** Ref. 50616

Kopal Kit Ref. 50613



Kopal chain clamping system Ref. 50617

#### **TABLES & POSITIONING**

X-axis manual table Ref. 50410

Y-axis manual table Ref. 50411

Y-axis option - motorized longitudinal movement table Ref. 50409



Kit of V positioning supports Ref. 50370

#### **OTHER ACCESSORIES**



Positioning laser Ref. 50412



Set of 2 filters Ref. 81500



Suction & extraction

## **EVO 450**

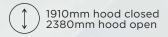
#### HIGH CAPACITY **CUTTING MACHINE**

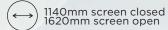
#### **REF. 50450**

The EVO 450 is a spatious, powerful and robust cutting machine. It has a height under cut-off wheel of 165mm and its tables can support samples weighing more than 200kg. This machine, suitable for workshops, combines robustness and ease of use. It offers 3 cutting modes: assisted, automatic and programmable (repeatability of cuts) and can cut through the toughest materials. Ergonomic, it is equipped with a motorized cover and a multilingual color touch screen facilitating the man-machine interface.

Available as an option:

- Positioning Laser
- Manual transverse table (X axis) to facilitate lateral adjustment of the part and cutting parallel sections.
- Longitudinal manual table (Y axis)
- · Tray and filter.









750kg

CE

Check out the EVO 450 user video







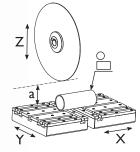
Tray and Filter

**Positioning laser** 





#### **CUTTING DIAGRAM\***





Ø 150mm





70 x 344mm



HOOD	
Туре	Metal frames & PETG Motorised opening and closing
Safety	Locked during motor rotation
Fumes extraction outlet	76mm
MOTORISATION - POWER SUPPLY	
Nominal power S1	11000W
Nominal power S3	18500W
Power supply	380V / Three-phases / 50Hz
Control of the motor	Frequency inverter
CUT-OFF WHEELS	
Type of cutting disc	Resinoid & diamond
Size of cutting disc	Up to 450mm
Rotation speed	1000 to 3000 RPM
Shaft diameter	32mm
CONTROL	
Control interface	Colour touchscreen
Code protection	Can be activated
Programmable	Up to 6 password-protected programmes
Communication interface / Machine control	Modbus
CUTTING	
Cutting method	Assisted, automatic, programmed, by impulse
Cutting regulation	Movement of the arm according to motor load
Axis Y travel	Travel 300mm* (optional)
Axis X travel	Travel 200mm* (optional)
Axis Z travel	320mm
Standard table	Left table 300 x 600mm. Right table 300 x 600mm
With X axis option - Manual transverse movement table	Left table 300 x 600mm. Right table 250 x 600mm
With Y axis option - Manual longitudinal movement table	Left table 300 x 300mm. Right table 300 x 300mm
Positioning laser	Option
Distance between cut-off wheel and table	200mm
Type of table	Treated aluminium table, interchangeable stainless steel palettes
Holders	Slotted T table (12mm) accepting all clamping systems available on the market
LUBRICATION- COOLING	
Pump & tank	External - 200L
Type of lubrication	Pump
Method of directing pumped coolant	Cutting disc housing and 2 mobile sprinklers on the table
Type of filtration	100µm washable cloth filter
ERGONOMICS	
Internal lighting	LED
Spray nozzle for cleaning	Integrated

<sup>\*</sup> Customizable tables and strokes.

#### **ACCESSORIES**

#### STAINLESS STEEL VICE & CLAMPING SYSTEMS



Left quick clamping vice 45mm height removable jaw

Height 45mm - Ref. 50236 Height 70mm - Ref. 50241



Right quick clamping vice 45mm height + moving jaw + rear jaws

Height 45mm - Ref. 50235 Height 70mm - Ref. 50240



Double quick clamping vices right & left height 90mm



Left quick clamping vice 45mm height removable jaw+ rear jaw Ref. 50246



Right quick clamping vice 45mm height removable jaw+ rear jaw Ref. 50245



Stainless steel V-type moving jaw for clamping vice 45mm height Ref. 51282

Stainless steel v-type moving jaw for clamping vice 70mm height Ref. 50243



Special fragile samples "Delrin" thermoplastic moving jaw for clamping vice 45mm Ref. 51283

Special fragile samples "Delrin" thermoplastic moving jaw for clamping vice 70mm Ref. 50242



**Kopal Clamp** Ref. 50616

Kopal Kit Ref. 50613



Kopal chain clamping system

#### **TABLES & POSITIONING**



X-axis manual table Ref. 50410



Kit of V positioning supports Ref. 50370

#### **OTHER ACCESSORIES**



**Positioning laser** Ref. 50412



Set of 2 filters Ref. 81500



Y-axis manual table Ref. 50411

Y-axis option - motorized longitudinal movement Ref. 50409



Suction & extraction Ref. 50408

#### **DIAMOND WIRE**

## SAWS

#### ABSOLUTE CUTTING FINESSE AND PRECISION

#### **REF. 52020**

With their stainless steel wire set with diamonds, the diamond wire saws allow the cutting of most materials.

They are particularly recommended for cutting delicate samples such as silicon, glass or electronic components.

Low speeds allow excellent protection for the sample surface and no risk of overheating.

They ensure flat cutting surfaces with sharp edges and avoid the modification of structure on both sides of the cut.

Finally the sample clamping system avoids any dimensional deformation and the horizontal or vertical working mode makes cutting easier.



#### **SAW 4500** REF. 52040











**SAW 6500** REF. 52050





L: 650mm l: 480mm

CE

**SAW 3400 REF. 52030** 







L: 450mm I: 290mm



**SAW 3500 BASE REF. 52010** 









**SAW 3500 PREMIUM REF. 52020** 







Check the DIAMOND WIRE SAWS video



	3500	3500 PREMIUM	3400
POWER SUPPLY - CONTROL			
Voltage 230V, 50-60Hz	~	~	~
Access code	~	~	~
Main cable	~	~	~
Power supply USB 5V on the side of the machine	~	<b>✓</b>	~
Touchscreen (optimal regulation of wire speed, measurement of effective cutting time)	•	•	•
WiFi Ready	on demand	on demand	on demand
Timer	~	~	~
WORKING AREA  Height adjustment (counterweight position markers using coloured dots, like on the winder)	•	<b>~</b>	
ADVANCEMENT			
Gravity (wire)	~	~	
Scale/Weight (sample)			~
CUTTING DEPTH			
Maximum in mm	60	35/52	50
Slider with electronic end-of-cut stop		~	
SAMPLE HOLDER			
Slotted table	~	~	
Micrometric table	option	~	~
30mm diameter with 5 ceramic plates	~	<b>✓</b>	~
30mm diameter 90° with 5 ceramic plates	option	option	option
Turning deck		~	
LUBRIFICATION			
Dampening device	~	<b>~</b>	<b>✓</b>
WARRANTY			

#### **CONSUMABLES**

REF.	DESCRIPTION	Ø	GRANULOMETRY
52100	Standard wire 120m	Ø 0.3mm	60µ
52101	Standard wire 120m	Ø 0.3mm	40μ
52102	Standard wire 120m	Ø 0.22mm	40μ
52103	Standard wire 120m	Ø 0.17mm	30µ
52104	Standard wire 120m	Ø 0.17mm	20µ
52105	Standard wire 120m	Ø 0.13mm	30µ
52106	Standard wire 120m	Ø 0.13mm	20µ
52107	Standard wire 120m	Ø 0.1mm	20μ
52200	Standard wire 30m	Ø 0.3mm	60µ
52201	Standard wire 30m	Ø 0.3mm	40μ
52202	Standard wire 30m	Ø 0.22mm	40μ
52203	Standard wire 30m	Ø 0.17mm	30μ
52204	Standard wire 30m	Ø 0.17mm	20μ
52205	Standard wire 30m	Ø 0.13mm	30μ
52206	Standard wire 30m	Ø 0.13mm	20μ
52207	Standard wire 30m	Ø 0.1mm	20μ
52293	Wire refill 10m	Ø 0.3mm	60µ
52294	Wire refill 10m	Ø 0.3mm	40μ
52295	Wire refill 10m	Ø 0.22mm	40μ
52296	Wire refill 10m	Ø 0.17mm	30μ
52297	Wire refill 10m	Ø 0.17mm	20μ
52298	Wire refill 10m	Ø 0.13mm	30μ
52299	Wire refill 10m	Ø 0.13mm	20μ
52300	Wire refill 10m	Ø 0.1mm	20μ



**33 type winder** Ref. 52301



Stainless steel axis for sample holder support Ref. 52305

#### **ACCESSORIES**







Sample holder Ref. 52307

Turning deck Ref. 52308

X-Y table Ref. 52309







Micrometric table Ref. 52310

table Dual Vice Ref. 52311

Goniometer Ref. 52312

523II R







**Cutting fluid** Ref. 52302 500 ml Ref. 52304 5 L

Set of 5 ceramic plates Ref. 52303

**Drum** Ref. 52306

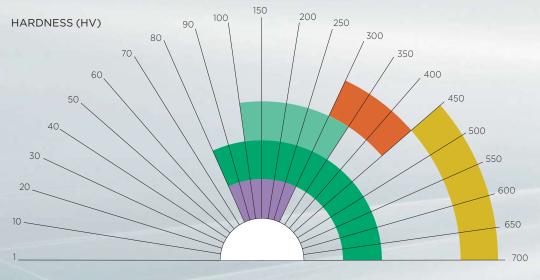
All the sample holders of the Mecatome T205 are adaptable on all our wire saws.



#### **FERROUS MATERIALS**

Resinoid cut-off wheels are made of a mixture of resin and abrasive powder and are suitable for cutting most materials.

The nature of the abrasive and the hardness of the resin used are fundamental elements to ensure a perfect cut. The harder the material is, the softer the cut-off wheel must be.



WHEELS	RECOMMENDED MATERIALS
S	Treated steels, with fragile coatings, difficult materials.
АО	Treated steels, stainless steels, refractory metals, alloyed cast irons.
A	Low carbon, mild and extra mild and treated steels with medium cross-sections.
UTW	All types of metallic materials.
S	All types of metallic materials.
AOFII	Rubber bonded cut-off wheel, thin section cutting, low cross-section sintered steels, hard metal layers.

#### STANDARD RESINOID CUT-OFF WHEELS

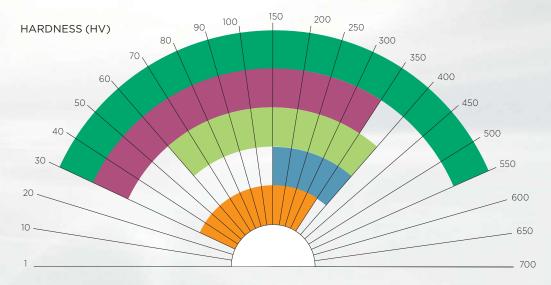
Pack of 10

REF.	DESCRIPTION	ABRASIVE	Ø
KET.	DESCRIPTION	S	
01016	Cut-off wheels		Ø 250 x 1.6 x 32mm
01022	Cut-off wheels	_	Ø 300 x 2 x 32mm
01032	Cut-off wheels	_	Ø 350 x 2.5 x 32mm
01034	Cut-off wheels	Al <sub>2</sub> O <sub>3</sub>	Ø 400 x 3 x 32mm
01039	Cut-off wheels	_	Ø 450 x 3.5 x 32mm
01064	Cut-off wheels		Ø 500 x 3 x 32mm
010.46	C. L W	AO	0.105 0.5 10.7
01046	Cut-off wheels		Ø 125 x 0.5 x 12,7mm
01043	Cut-off wheels		Ø 150 x 0.5 x 12,7mm
01002	Cut-off wheels		Ø 200 x 1.6 x 25,4mm
01008	Cut-off wheels	<u>-</u> -	Ø 230 x 1.6 x 22mm
01014	Cut-off wheels	— Al <sub>2</sub> O <sub>3</sub>	Ø 250 x 1.6 x 32mm
01020	Cut-off wheels	_	Ø 300 x 2 x 32mm
01030	Cut-off wheels		Ø 350 x 2.5 x 32mm
01027	Cut-off wheels	_	Ø 400 x 3 x 32mm
01036	Cut-off wheels		Ø 450 x 3.5 x 32mm
01063	Cut-off wheels		Ø 500 x 3.5 x 32mm
		Α	
01040	Cut-off wheels	Α	Ø 100 x 0.3 x 12,7mm
01040 01015	Cut-off wheels Cut-off wheels	A	Ø 100 x 0.3 x 12,7mm Ø 250 x 1.6 x 32mm
		A	
01015	Cut-off wheels	A Al <sub>2</sub> O <sub>3</sub>	Ø 250 x 1.6 x 32mm
01015 01021	Cut-off wheels		Ø 250 x 1.6 x 32mm Ø 300 x 2 x 32mm
01015 01021 01033	Cut-off wheels Cut-off wheels Cut-off wheels		Ø 250 x 1.6 x 32mm Ø 300 x 2 x 32mm Ø 350 x 2.5 x 32mm
01015 01021 01033 01029	Cut-off wheels Cut-off wheels Cut-off wheels Cut-off wheels		Ø 250 x 1.6 x 32mm Ø 300 x 2 x 32mm Ø 350 x 2.5 x 32mm Ø 400 x 3 x 32mm
01015 01021 01033 01029 01038	Cut-off wheels Cut-off wheels Cut-off wheels Cut-off wheels Cut-off wheels		Ø 250 x 1.6 x 32mm Ø 300 x 2 x 32mm Ø 350 x 2.5 x 32mm Ø 400 x 3 x 32mm Ø 450 x 3.5 x 32mm
01015 01021 01033 01029 01038 01062	Cut-off wheels Cut-off wheels Cut-off wheels Cut-off wheels Cut-off wheels Cut-off wheels		Ø 250 x 1.6 x 32mm Ø 300 x 2 x 32mm Ø 350 x 2.5 x 32mm Ø 400 x 3 x 32mm Ø 450 x 3.5 x 32mm Ø 500 x 3 x 32mm
01015 01021 01033 01029 01038 01062	Cut-off wheels	Al <sub>2</sub> O <sub>3</sub> UTW  SIC	Ø 250 x 1.6 x 32mm Ø 300 x 2 x 32mm Ø 350 x 2.5 x 32mm Ø 400 x 3 x 32mm Ø 450 x 3.5 x 32mm Ø 500 x 3 x 32mm
01015 01021 01033 01029 01038 01062	Cut-off wheels Cut-off wheels Cut-off wheels Cut-off wheels Cut-off wheels Cut-off wheels		Ø 250 x 1.6 x 32mm Ø 300 x 2 x 32mm Ø 350 x 2.5 x 32mm Ø 400 x 3 x 32mm Ø 450 x 3.5 x 32mm Ø 500 x 3 x 32mm
01015 01021 01033 01029 01038 01062 01100 01101	Cut-off wheels	OF SIC SIC SIC	Ø 250 x 1.6 x 32mm Ø 300 x 2 x 32mm Ø 350 x 2.5 x 32mm Ø 400 x 3 x 32mm Ø 450 x 3.5 x 32mm Ø 500 x 3 x 32mm
01015 01021 01033 01029 01038 01062	Cut-off wheels	Al <sub>2</sub> O <sub>3</sub> UTW  SiC  SiC	Ø 250 x 1.6 x 32mm Ø 300 x 2 x 32mm Ø 350 x 2.5 x 32mm Ø 400 x 3 x 32mm Ø 450 x 3.5 x 32mm Ø 500 x 3 x 32mm
01015 01021 01033 01029 01038 01062 01100 01101	Cut-off wheels	OF SIC SIC SIC	Ø 250 x 1.6 x 32mm Ø 300 x 2 x 32mm Ø 350 x 2.5 x 32mm Ø 400 x 3 x 32mm Ø 450 x 3.5 x 32mm Ø 500 x 3 x 32mm Ø 500 x 3 x 32mm
01015 01021 01033 01029 01038 01062 01100 01101	Cut-off wheels	UTW SiC SiC SiC	Ø 250 x 1.6 x 32mm Ø 300 x 2 x 32mm Ø 350 x 2.5 x 32mm Ø 400 x 3 x 32mm Ø 450 x 3.5 x 32mm Ø 500 x 3 x 32mm Ø 500 x 3 x 32mm
01015 01021 01033 01029 01038 01062 01100 01101	Cut-off wheels	UTW SiC SiC SiC AOF II	Ø 250 x 1.6 x 32mm Ø 300 x 2 x 32mm Ø 350 x 2.5 x 32mm Ø 400 x 3 x 32mm Ø 450 x 3.5 x 32mm Ø 500 x 3 x 32mm Ø 180 x 0.5 x 25,4mm Ø 200 x 0.5 x 25,4mm
01015 01021 01033 01029 01038 01062 01100 01101	Cut-off wheels	UTW SiC SiC SiC	Ø 250 x 1.6 x 32mm Ø 300 x 2 x 32mm Ø 350 x 2.5 x 32mm Ø 400 x 3 x 32mm Ø 450 x 3.5 x 32mm Ø 500 x 3 x 32mm Ø 500 x 3 x 32mm Ø 180 x 0.5 x 25,4mm Ø 180 x 0.5 x 25,4mm



#### NON-FERROUS MATERIALS

Resinoid cut-off wheels are made of a mixture of resin and abrasive powder and are suitable for cutting most materials. The nature of the abrasive and the hardness of the resin used are fundamental elements to ensure a perfect cut. The harder the material is, the softer the cut-off wheel must be.



WHEELS	RECOMMENDED MATERIALS	
S	All types of metallic materials.	
UTW	All types of metallic materials.	
MNF	Aluminium, copper and alloys, non ferrous metals, titanium and alloys.	
Т	Titanium, titanium alloys, non ferrous metals.	
F	White, grey and spheroidal graphite cast iron, titanium and alloys.	
С	Aluminium, copper and alloys, non ferrous metals, titanium and alloys.	

#### STANDARD RESINOID CUT-OFF WHEELS

Pack of 10

REF.	DESCRIPTION	ABRASIVE	Ø
		S	
01060	Cut-off wheels	SiC	Ø 180 x 0.5 x 25.4mm
		UTW	
01100	Cut-off wheels		Ø 180 x 0.5 x 25.4mm
01101	Cut-off wheels	— SiC	Ø 200 x 0.5 x 25.4mm
		MNF	
01005	Cut-off wheels	PINE	Ø 200 x 1.6 x 25.4mm
01017	Cut-off wheels		Ø 250 x 1.6 x 32mm
01023	Cut-off wheels		Ø 300 x 1.8 x 32mm
01031	Cut-off wheels	SiC	Ø 350 x 2.5 x 32mm
01028	Cut-off wheels		Ø 400 x 3 x 32mm
01037	Cut-off wheels		Ø 450 x 3.5 x 32mm
01066	Cut-off wheels		Ø 500 x 3 x 32mm
		т	
01071	Cut-off wheels		Ø 250 x 1.6 x 32mm
01072	Cut-off wheels		Ø 300 x 2 x 32mm
01073	Cut-off wheels	— SiC	Ø 350 x 2.5 x 32mm
01047	Cut-off wheels		Ø 400 x 3 x 32mm
01048	Cut-off wheels		Ø 450 x 3.5 x 32mm
01065	Cut-off wheels		Ø 500 x 3 x 32mm
		F	
01018	Cut-off wheels	— SiC	Ø 250 x 1.6 x 32mm
01024	Cut-off wheels	— SIC	Ø 300 x 2 x 32mm
		С	
01041	Cut-off wheels	SiC	Ø 100 x 0.3 x 12.7mm

#### **ULTRA THIN CUT-OFF WHEELS UTW**

Ultra-thin resinoid cut-off wheels. Suitable for cutting all types of metallic materials and allow cutting with great precision thanks to their extreme finesse.



### **CUTTING**

#### **METALLIC CUT-OFF**

## WHEELS

Diamond and CBN wheels only cut hard materials. There are two types of abrasives: diamond and boron nitride (CBN). Resin binders provide better surface finishes than metal binders. Metal binders have a longer lifespan than resin binders.

#### HARD FERROUS MATERIALS

#### CBN CUTTING DISCS (BORON NITRIDE CARBIDE)

Delivered with a dressing stick

	CI	BN
REF.	DESIGNATION	
02059	CBN cutting disc	Ø 75 x 0.5 x 12.7mm
02062	CBN cutting disc	Ø 100 x 0.5 x 12.7mm
02050	CBN cutting disc	Ø 125 x 0.5 x 12.7mm
02065	CBN cutting disc	Ø 150 x 0.6 x 12.7mm
02056	CBN cutting disc	Ø 175 x 0.7 x 12.7mm
02039	CBN cutting disc	Ø 200 x 0.9 x 32mm
02043	CBN cutting disc	Ø 250 x 1.2 x 32mm
02047	CBN cutting disc	Ø 300 x 1.2 x 32mm

#### **CBN** Resin bond

High concentration boron nitride disc for cutting hard ferrous materials: cast irons, treated steels, high speed steels and hard steels.

#### HARD NON-FERROUS MATERIALS

#### **METALLIC CUT-OFF WHEELS**

Delivered with a dressing stick

	LF	2
REF.	DESIGNATION	Ø
02058	Cut-off wheel	Ø 75 x 0.5 x 12.7mm
02033	Cut-off wheel	Ø 100 x 0.5 x 12.7mm
02035	Cut-off wheel	Ø 125 x 0.5 x 12.7mm
02037	Cut-off wheel	Ø 150 x 0.6 x 12.7mm
02067	Cut-off wheel	Ø 175 x 0.7 x 12.7mm
02041	Cut-off wheel	Ø 200 x 0.9 x 32mm
02045	Cut-off wheel	Ø 250 x 1.2 x 32mm
02049	Cut-off wheel	Ø 300 x 1.2 x 32mm

#### LR Resin bond

High concentration disc recommended when looking for the best possible cutting quality. For cutting hard and fragile materials, composites, plasma deposits, ceramics, electronic components, etc.

## DRESSING STICK FOR DIAMOND DISC

REF.	DESIGNATION
51164	Dressing stick for diamond disc



Dressing stick for diamond disc

	LM	1
REF.	DESIGNATION	Ø
02030	Cut-off wheel	Ø 75 x 0,3 x 12.7mm
02031	Cut-off wheel	Ø 100 x 0.3 x 12.7mm
02034	Cut-off wheel	Ø 125 x 0.5 x 12.7mm
02036	Cut-off wheel	Ø 150 x 0.6 x 12.7mm
02055	Cut-off wheel	Ø 175 x 0.7 x 12.7mm
02038	Cut-off wheel	Ø 200 x 0.9 x 32mm
02042	Cut-off wheel	Ø 250 x 1.2 x 32mm
02046	Cut-off wheel	Ø 300 x 1.4 x 32mm

#### LM Metallic bond

Very polyvalent disc, normal concentration, designed to cut very hard materials such as: ceramics, alumina, sintered carbides, minerals, crystals, concretes, rocks.

	LM	+
REF.	DESIGNATION	Ø
02057	Cut-off wheel	Ø 75 x 0.3 x 12.7mm
02060	Cut-off wheel	Ø 100 x 0.3 x 12.7mm
02063	Cut-off wheel	Ø 125 x 0.5 x 12.7mm
02064	Cut-off wheel	Ø 150 x 0.6 x 12.7mm
02066	Cut-off wheel	Ø 175 x 0.7 x 12.7mm
02040	Cut-off wheel	Ø 200 x 0.9 x 32mm
02044	Cut-off wheel	Ø 250 x 1.2 x 32mm

#### LM+ Metallic bond

High concentration disc designed to cut hard materials such as: tungsten carbide, silicon carbide, composites, plasma deposits, coated samples, refractory materials.

## ELD DIAMOND CUT-OFF WHEELS



ELD diamond discs are cut-off wheels with a metal body, on which the diamond is electrodeposited. Due to the absence of a binder to fix the abrasive, the diamond is very accessible, the cut is clean. This wheel, designed for cutting plastics and composites, will also provide good results on polyurethane foams, plaster, concrete and rocks. ELD wheels do not need to be dressed.

ELD		
REF.	DESIGNATION	Ø
02100	Cut-off wheel	Ø 100 x 1.4 x 12.7mm
02101	Cut-off wheel	Ø 125 x 1.4 x 12.7mm
02102	Cut-off wheel	Ø 150 x 1.4 x 12.7mm
02103	Cut-off wheel	Ø 175 x 1.4 x 12.7mm
02104	Cut-off wheel	Ø 200 x 1.8 x 32mm
02105	Cut-off wheel	Ø 250 x 1.8 x 32mm
02106	Cut-off wheel	Ø 300 x 1.8 x 32mm

## **CUTTING**

#### **CONSUMABLES**

#### **ANTI-RUST ADDITIVE**

For the use of our cut-off wheels, we recommend using our anti-rust additive which prevents any problems of corrosion or oxidation on the cutting machines and the parts to be cut. The anti-rust additive is available in 1, 5 or 10 liter containers and is used at a rate of 4% of product mixed in water.

REF.	DESIGNATION
01025	1L bottle
01090	5L drum
01026	10L drum







5L drum

10L drum

#### **ANALOGICAL REFRACTOMETER**

Device used to measure and maintain the optiumum concentration of anti-rust additive in the cutting machine tank.

REF.	DESIGNATION
19074	Analogical refractometer BRIX 0-10



Analogical refractometer BRIX 0-10

#### **ANTI-FOAM ADDITIVE**

The anti-foam additive reduces or potentially eliminates foam during cutting.

Available in 1, 5 or 10 liter containers, it can be used at a rate of 0.01 g/l to 0.5 g/l depending on water hardness and working conditions.

REF.	DESIGNATION
01094	1L bottle
01095	5L drum
01096	10L drum







5L drum 10L drum

#### **ANTI-SEPTIC LIQUID**

The anti-spetic liquid prevents the development of bacteria in the cutting machine. It therefore prevents bad odors while prolonging the lifespan of the equipment. The anti-septic liquid is used at a rate of 1.6% of product mixed with water.

REF.	DESIGNATION
01093	500CC anti-septic bottle
01097	1L anti-septic bottle
01098	5L anti-septic drum



## DRESSING STICK FOR DIAMOND DISC

Ref.	DESIGNATION
51164	Dressing stick for diamond disc
19015	Pack of 10 Tissediam wheel edging sticks



Dressing stick for diamond disc

#### **REDUCTION RINGS\***

Designed to adapt the interior diameter of the cut-off wheel with the machine arbor.

REF.	DESIGNATION	Ø
Pack of	20	
01089	Reduction ring teflon	32 / 25.4mm x 2mm
01091	Reduction ring teflon	25.4 / 22mm x 1.6mm
01092	Reduction ring teflon	32 / 25.4mm x 3mm
Pack of	<sup>1</sup> 5	
51324	Reduction ring aluminium	25.4 / 12.7mm x 1.5mm
51331	Reduction ring aluminium	32 / 12.7mm x 1.5mm
51332	Reduction ring aluminium ultra thin	25.4 / 12.7mm x 0.9mm





Reduction ring teflon

Reduction ring

<sup>\*</sup> Other diameters on request

## PREPARATION ► METALLOGRAPHY

## Mounting

Achieving a high quality mount is essential. Our machines and **cold mounting** consumables cover all the possible requirements involved in the handling of any given sample type. For cold mounting, we use either acrylic, epoxy, or polyester resins. The advantages of our processing techniques include eliminating the risk of blistering and guaranteeing low shrinkage.

In some cases, **hot mounting** is indicated. This process offers an increased hardness and a more precise mount diameter. Our hot mounting resins can be phenolic, epoxy, acrylic or allylic.

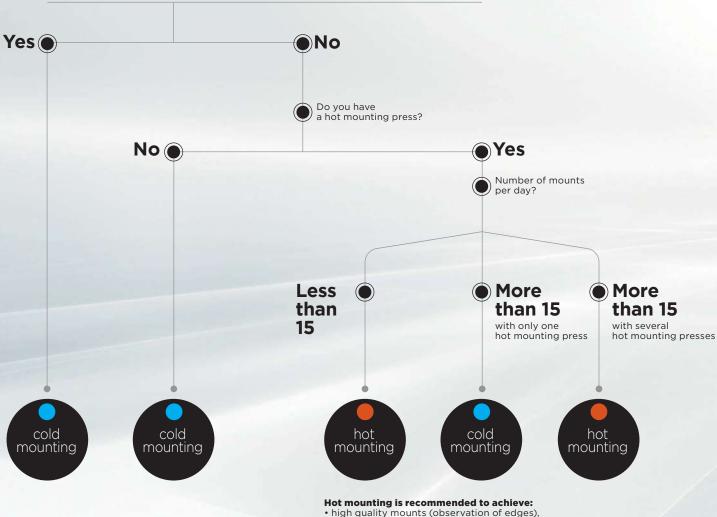
48 42 44 46 50 43 47 PRESI GUIDE **PRESSURE TRANSPARENT KM-BACK MOULDS MECAPRESS 3 RESINS** AND VACUUM & OPAQUE **IP-FAST** MOUNTING **RESINS MACHINES COLD MOUNTING HOT MOUNTING** 



# Cold or hot mounting?

## Does the material to be analyzed fulfill one or more of the following criteria?

- Fragile material / sensitive to temperature or pressure?
- Porous material? Honeycomb structures?
- Ceramics? Rocks?
- Studies of cracks?



hardness measurements,polishing in individual pressure.

## COLD **MOUNTING**

#### PRESSURE VESSEL FOR MOUNTING **UNDER PRESSURE**

#### **REF. 04300**

The pressure vessel improves the rendering of KM-series acrylic mounting resins, makes the KM-U resin transparent and reduces shrinkage.

Can be used with all cold resins.





4.5 liters



220mm



2 bar



Removable bottom for easy cleaning



Safety valve protection



#### **VACUUM IMPREGNATION SYSTEM**

#### **REF. 53600**

#### Vacuum impregnation system

The vacuum impregnation system allows the impregnation of porous materials with epoxy type resins. Device controlled by a touch screen, automatic and programmable, multiple levels of vacuum, time delay from one minute to several hours. This device incorporates a resin dispensing device. Following the vacuum impregnation operation, the sample can be pressurized.

#### **ACCESSORIES**

50 bed protection sheets Ref. 53605

Pipes and plastic nozzles (set of 50) Ref. 53606

KIT POLY'VAC **REF. 53600** 50 bed protection sheets 50 pipes 50 plastic nozzles

See our POLY'VAC video here



#### **TRANSPARENT**

## **RESINS**

MA2+, 2S and IP resins are composed of two liquid parts: the resin and its hardener. These resins are totally transparent. MA2+, 2S and IP polymerize at ambient temperature (or vacuum for IP).

TYPE OF RESINS	USE	POLYMERIZATION TIME	SHRINKAGE	EXOTHERMIC PEAK	HARDNESS	PROPORTION
IP (époxy)	General use, observations of edges, very good impregnation capacity, suitable for hard materials	8 at 10h at 20°C (3h at 50°C)	Very low	30°C	83 Shore D	10% catalyst
IP-FAST (epoxy)	General use, visual control of material removal with fast polymerization, suitable for hard materials	2h* at 20 °C	Low	120°C	89 Shore D	30% catalyst
MA2 + (epoxy)	General use, visual control of material removal, suitable for soft materials	12h at 20°C	Low	60°C*	62 Shore D	10% catalyst
KM-U under pressure (acrylic)	General use with fast polymerization	15min at 20°C	Low	115°C	90 Shore D	2 volumes of powder for 1 volume of liquid
2S (polyester)	General use with fast polymerization, suitable for large quantity of mounts at one time	1h30 at 20°C	Medium	80°C	76 Shore D	2.5% catalyst

<sup>\*</sup> depends on the volume

#### **DYES POWDER**



Ref. 04184



Ref. 04185



Yellow Ref. 04186



#### **IP RESIN**

REF.	DESIGNATION
04200	Pack 1kg resin + 100CC catalyst**
04201	Catalyst: 100CC
04202	Resin: 1kg
04805	Resin: 15kg
04806	Catalyst: 1.5L

#### **IP-FAST RESIN**

REF.	DESIGNATION
04070	Pack 1kg resin + 300CC catalyst**
04071	Catalyst: 300CC
04072	Resin: 1kg

#### MA2+ RESIN

REF.	DESIGNATION
04040	Pack 1kg resin + 100CC catalyst**
04009	Catalyst 100CC
04041	Resin: 1kg
04803	Resin: 15kg
04804	Catalyst: 1.5L

#### **2S RESIN**

REF.	DESIGNATION
04010	Pack 1kg resin + 30CC catalyst**
04011	Catalyst: 30CC
04042	Resin: 1kg

<sup>\*\*</sup> Packs of IP, IP-FAST, MA2+ and 2S resins are delivered with: 10 plastic cups, 10 stirring sticks and 2 dosing syringes.

## DYES (POWDER) FOR IP / IP-FAST / MA2+ / 2S RESINS

REF.	DESIGNATION
04184	1000mg Red
04185	1000mg Blue
04186	1000mg Yellow

## OPAQUE

## **RESINS**

The KM resins are acrylic. They are composed of two parts: powder and liquid. Easy to use, these resins polymerize quickly with an exothermic peak around 70°C and 115°C. Those temperatures do not alter most samples.

TYPE OF RESINS	USE	POLYMERIZATION TIME	SHRINKAGE	EXOTHERMIC PEAK	HARDNESS	COLOR	PROPORTION
KM-U (acrylic)	Control/ General use with fast polymerization	15min at 20 °C	Medium	115°C	90 Shore D	White	2 volumes of powder for 1 volume of liquid
KM-B (acrylic)	Control/ General use with fast polymerization. Mineral loaded for a reduction of shrinkage	15min at 20°C	Very low	115°C	91 Shore D	Blue	2 volumes of powder for 1 volume of liquid
KM-EM (acrylic)	Creating a replica of the sample surface	8min at 20°C	-	95°C	87 Shore D	Yellow	2 volumes of powder for 1 volume of liquid
KM-CO (acrylic)	Graphite filled conductive resin for SEM applications	30min aty 20°C	Medium	70 °C	62 Shore D	Black	8 volumes of powder for 5 volumes of liquid
KM- BACK (acrylic)	100% acetone soluble resin, allows sample recovery	10 to 15min at 20 °C	Medium	115 °C	83 Shore D	Green	2 volumes of powder for 1 volume of liquid









#### **KM-U RESIN**

REF.	DESIGNATION
04140	Pack 1kg powder + 500CC catalyst*
04141	Powder: 1kg
04142	Catalyst: 500CC
04143	Powder: 10kg
04144	Catalyst: 5L

#### **KM-B RESIN**

REF.	DESIGNATION
04130	Pack 1 kg powder + 500 CC catalyst*
04131	Powder: 1kg
04132	Catalyst: 500 CC

#### **KM-EM RESIN**

REF.	DESIGNATION
04150	Pack 1kg powder + 500CC catalyst*
04151	Powder: 1kg
04152	Catalyst: 500CC

#### **KM-CO RESIN**

REF.	DESIGNATION
04160	Pack 1kg powder + 1L catalyst*
04161	Powder: 1kg
04162	Catalyst: 1L

#### **KM-BACK RESIN**

REF.	DESIGNATION
04060	Pack 1kg powder + 500CC catalyst*
04061	Powder: 1kg
04062	Catalyst: 500CC

<sup>\*</sup> Packs of KM-U / KM-B / KM-EM / KM-CO and KM-BACK are delivered with: 10 plastic cups and 10 stirring sticks.

#### DYES (LIQUID) FOR KM-U

REF.	DESIGNATION
04180	10ml dye red
04181	10ml dye green
04182	10ml dye blue
04183	10ml dye yellow

## KM-BACK

#### **ITS MAIN ADVANTAGE:**

ACRYLIC RESIN 100% DISSOLUBLE

## KM-BACK acrylic resin was designed to get back rare and unique samples.

Those who, after analysis and control, need to be preserved in their entirety and reused for other purposes. The KM-Back resin has the particularity **to dissolve completely** in acetone. Its hardness is 83 ShD. It polymerizes quickly, between 10 and 15 minutes.







#### **IP-FAST:**

#### AN EXPOY RESIN WITH FAST POLYMERIZATION

The IP-FAST resin was developed to significantly reduce the control and analysis times of mounted samples with an epoxy resin.

This transparent resin, with an excellent hardness (89 ShD), polymerizes very quickly: in only 2 hours.

Its very low shrinkage preserves the edges of the sample and reduces the risk of pollution.



IP-FAST

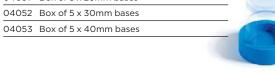
### MOUNTING MOULDS

#### KM 2.0

Box of 5 bases and 50 rings. Removable and reusable base.

REF.	DESIGNATION
04048	Kit of 50 rings + 5 x 25mm bases
04049	Kit of 50 rings + 5 x 30mm bases
04050	Kit of 50 rings + 5 x 40mm bases
04045	50 x 25mm ring refills
04046	50 x 30mm ring refills
04047	50 x 40mm ring refills

04051 Box of 5 x 25mm bases





#### Precise

The sample size is always perfectly calibrated thanks to the adjusted ring.



#### So simple

No more unmolding problems. The base is made of silicone, easy to remove.



#### 100% transparent

The ring ensures maximum transparency: the sample to be polished is thereby easily identified.



#### Clean

The silicon base is totally airtight.



#### Respecting the environment

The silicon base is reusable, which means less waste. The concept requires less resin.



#### **TEFLON**

Box of 5.

Detachable base. Reusable.

REF.	DESIGNATION
04016	Teflon Ø 20mm
04017	Teflon Ø 25mm
04036	Teflon Ø 25.4mm
04018	Teflon Ø 30mm
04037	Teflon Ø 31.7mm
04038	Teflon Ø 38.1mm
04019	Teflon Ø 40mm
04020	Teflon Ø 50mm



#### **RUBBER SILICONE**

Box of 5 One piece. Reusable.

REF.	DESIGNATION
04021	Silicone Rubber Ø 25mm
04022	Silicone Rubber Ø 30mm
04023	Silicone Rubber Ø 40mm
04025	Rectangular 55 x 30 x 25mm
04026	Rectangular 70 x 40 x 25mm
04027	Rectangular 100 x 50 x 25mm



#### **POLYETHYLENE**

Box of 5.

Detachable base. Reusable. Not suitable for individual pressure polishing methods.

REF.	DESIGNATION
04028	Polyethylene Ø 25mm
04029	Polyethylene Ø 30mm
04030	Polyethylene Ø 40mm



#### **ACCESSORIES**

DESIGNATION

REF.	DESIGNATION			
04112	Set of 100 holding (multi-colour) clips			
04110	Set of 100 spring clips (metal) Ø 9mm			
04111	Set of 100 holding blue clips (plastic)			
04024	Box of 5 graduated measuring cups (250CC) with stirring sticks			
04900	Set of 100 paper cups + 100 stirring sticks			
04901	Kit 25 syringes 50ml + 25 syringes 5ml for liquid resins			
04114	Box of 50 holding clips "six slots"			
19062	Self-adhesive teflon fabric for bench protection 1m x 2m "Lab'Board Protect"			
19064	Roll of universal absorbent and anti-static fabric 40cm x 46m			



Set of 100 holding (multi-colour) clips Ref 04112



Set of 100 spring clips (metal) Ø 9mm



Set of 100 holding blue clips (plastic) Ref 04111



Box of 5 graduated measuring cups (250CC) with stirring sticks



Set of 100 paper cups + 100 stirring sticks Ref. 04900



Kit 25 syringes 50ml + 25 syringes 5ml for liquid resins



Box of 50 holding clips "six slots"

#### **MOUNT RELEASE SPRAY**

Just spray into the cold-mounting molds.

REF.	DESIGNATION
03208	Silfree-Jet* mould removal aerosol

<sup>\*</sup> Non-disruptive mold release spray.



## **HOT MOUNTING**

## MECAPRESS 3

#### THE HOT MOUNTING PRESS

#### **REF. 53500**

MECAPRESS 3 is a fully automatic hot mounting press. Easy to use, it combines the parameters of a very high-precision machine: memorization and adjustment of processes, personalization, speed of execution.

MECAPRESS 3 also allows a significant reduction in water consumption.
A flexible, powerful machine.



530mm



320mm



560mm



) 65kg

 $\epsilon$ 





Mounting mould Mecapress 3

R&D mode	Ø 30
82 °C	170 °C
0.5	360 s
0 s	210 s
0 daN	1200 daN
₩ 300: ⊠	↑ FI

Colour touch screen

#### **CHARACTERISTICS**

<b>✓</b>
<b>~</b>
From 100 to 200°C, by step of 1°C
From 0 to 1800 seconds, by step of 1 second
From 0 to 1800 seconds, by step of 1 second
<b>✓</b>
From 300 to 1.800 daN, by step of 1 daN (for a 6 bars compressed air network)
✓ only with acrylic resin
25.4/30/31.7/38.1/40/50mm
•
<b>✓</b>
•
<b>✓</b>
More than 100 processes
<b>✓</b>
•
<b>✓</b>
<b>✓</b>
> 2 KW
230 V/50-60 Hz/8 A
6-10 bars
Ø 10mm
Ø 12mm

See our MECAPRESS 3 video here



#### **ACCESSORIES**

#### **MOULD SETS FOR MECAPRESS 3**



Mould set Ø 25.4mm Ref. 53505 Mould set Ø 30mm Ref. 53506

Mould set Ø 38.1mm Ref. 53508

Mould set **Ø 40mm** Ref. 53509 Ø 31.7mm Ref. 53507 Mould set Ø 50mm Ref. 53510

#### **INTERMEDIATE RAMS**

The intermediate pistons make it possible to realize two simultaneous mounts with a single mould.



Intermediate rams Ø 25.4mm Ref. 53416

Intermediate rams Ø 38.1mm Ref. 53422

Intermediate Intermediate rams Ø 30mm rams Ø Ref. 53420 31.7mm Ref. 53421

rams Ø 50mm

Ref. 53424

Intermediate rams Intermediate Ø 40mm Ref. 53423

#### **OTHER ACCESSORIES**



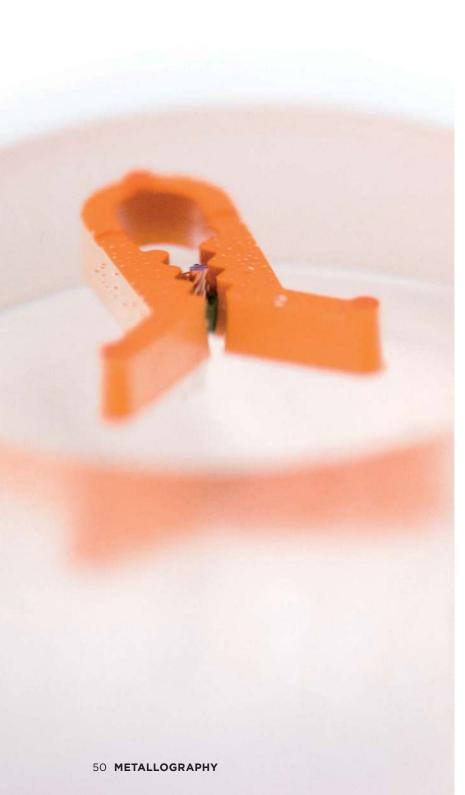
Stainless steel recirculation tank
and pump system (55l)
It allows to work with a closed circuit cooling.
It saves water during the sample cooling cycle
without increasing the time.
A gesture for the environment!
• No more problems with limestone
Water saving
Ref. 53515



Ultra-silent air compressor, 24L tank. Dimensions (WxDxH): 400x400x600mm Ref. 67750



Refill cartridge for anti chalk system Mecapress 3



## **RESINS**

When properly cured, hot mounting resins are hard, acid and solvent resistant and have low shrinkage. As such, they also provide excellent edge retention.

TYPE OF RESINS	USE	SHRINKAGE	HARDNESS	CONDUCTIVITY	COLOUR
EPOXY	Hard materials, edge observation, surface deposits, coatings	Very low	96 Shore D	-	Black
PHENOLIC	Standard resin for classic control of all soft to medium-hard materials	Low	90 Shore D	-	White, green, red, black
CONDUCTIVE PHENOLIC (with carbon)	SEM applications or electrolytic polishing	Low	90 Shore D	Good	Black
GLASS FIBER PHENOLIC	Classic control of all medium-hard to hard materials	Low	95 Shore D	-	Black
GLASS FIBER ALLYLIC	Observation of sample edges	Very low	93 Shore D	-	Blue
ACRYLIC	When a transparent mount is required	Low	88 Shore D	-	Transparent
ACRYLIC COPPER POWDER	For electro-polishing or electrolytic etching	Low	90 Shore D	Good	Copper

#### **EPOXY RESIN**

REF.	DESIGNATION	
03009	Pack 2.5kg	Black Epoxy
03109	Pack 10kg	Black Epoxy
03156	Drum 25kg	Black Epoxy

#### **PHENOLIC RESIN**

REF.	DESIGNATION	
03001	Pack 2.5kg	Black Phenolic
03101	Pack 10kg	Black Phenolic
03150	20kg	Black Phenolic
03002	Pack 2.5kg	Green Phenolic
03102	Pack 10kg	Green Phenolic
03151	20kg	Green Phenolic
03003	Pack 2.5kg	Red Phenolic
03103	Pack 10kg	Red Phenolic
03152	20kg	Red Phenolic
03011	Pack 2.5kg	White Phenolic
03105	Pack 10kg	White Phenolic
03010	Pack 2.5kg	Black fiber glass
03111	Pack 10kg	Black, with fiber glass filler
03012	Pack 2.5kg	Conductive Phenolic (black carbon)
03112	Pack 10kg	Resin phenolic red fine grain
03017	Pack 2.5kg	Resin phenolic red fine grain
03153	Drum 20kg	Resin phenolic red fine grain

#### **ALLYLIC RESIN**

REF.	DESIGNATION		
03005	Pack 2.5kg	Allylic fiber glass	
03106	Pack 10kg	Allylic fiber glass	
03157	Drum 20kg	Allylic fiber glass	

#### **ACRYLIC RESIN**

REF.	DESIGNATION	
03006	Pack 2.5kg	Acrylic, with copper powder additive
03007	Pack 2.5kg	Transparent Clear Acrylic
03108	Pack 10kg	Transparent Clear Acrylic
03015	Pack 2.5kg	Granite Clear Acrylic

#### **MOUNT RELEASE AGENT**

Just spray into the mould of the hot mounting press.

REF.	DESIGNATION

03208 Silfree-Jet\* mould removal aerosol

\* Non-disruptive mold release spray.



## PREPARATION ► METALLOGRAPHY

## Polishing

The polishing step is essential in order to eliminate residual scratches and defects that would otherwise interfere with microscopic analysis or hardness measurements. Ever-more efficient, our new range of manual and automatic polishing machines covers all of your requirements, from the grinding stage to the super-finishing polishing stage, or from the polishing of a single sample to the polishing of multiple samples at a time.

The high performance of our polishing process is made possible thanks to our wide range of consumables that fully preserve the integrity of the materials to be analysed.

54 56

LE CUBE MINITECH

ADAPTATION DEVICES

GRINDING





74

76



## LE CUBE

#### THE IDEAL SOLUTION FOR BASIC POLISHING **OPERATIONS**

#### **REF. 66250**

LE CUBE is a Ø 200 and 250mm manual polishing machine. Simple, reliable and sturdy, it is the ideal solution for laboratories, schools or research centres. Equipped with a frequency inverter, LE CUBE has a high-torque motor turning either clockwise or counterclockwise.

The polishing plate is equipped with two speed rotation settings (150 & 300 RPM). The multi-jet water spray ensures the optimum lubrication of the platen surface. With its removable platen the cleaning of the machine is very easy. LE CUBE is dust free thanks to the transparent integrated hood.

LE CUBE'S direct transmission on bearings confers an incomparable silence in use.

LE CUBE can be used with any type of polishing support: non-adhesive, adhesive, PRESI Reflex System and magnetic. No particular adaptation is required.

700mm (hood open) 372mm (hood closed)



398mm

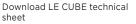






Le Cube - hood closed

- Water inlet: designed for a hose with inside Ø 12mm (not supplied)
- · Water outlet: delivered with a hose with outside Ø 25mm





#### **CHARACTERISTICS**

Diameter of the polishing platen	200 or 250mm
Rotation speed	150 & 300 RPM
Direction of rotation	Clockwise and counter-clockwise
Multi jet water spray	<b>~</b>
Removable polishing platen	<b>✓</b>
Nominal power S1	90 W
Nominal power S3	180 W
Frequency inverter	<b>✓</b>
High-torque motor	<b>~</b>
Speed and torque compensation	<b>~</b>
Immediate stop of the platten (safety)	<b>✓</b>
Progressive acceleration	<b>✓</b>
Transparent protection hood	<b>✓</b>
Splash guard	<b>✓</b>
Simple to maintain and service	<b>✓</b>
Power supply	230V / 50-60Hz

#### **ACCESSORIES**

## PLATENS AND BASE PLATENS



Almagtech platen ø 200mm Ref. 67822

Almagtech platen ø 250mm Ref. 67820



Circular paper holder (PVC) ø 250mm - Ref. 56070 ø 200mm - Ref. 56067

#### OTHER ACCESSORIES



Grinding recirculation tank with 5µ filter Ref. 67130



## MINITECH

THE MANUAL POLISHING MACHINE RANGE



sheet

#### **PLATEN DIAMETERS: 200 TO 250MM**

#### **MINITECH 250 SP1 REF. 66400**



330mm

510mm

- 35kg
- 1 platen • 1 motor

• 1 watering ramp

810mm

• 1 removable bowl

#### **MINITECH 250 DP1 REF. 66410**



330mm

920mm

- 50kg
- 2 platens • 1 motor

• 2 watering ramps • 2 removable bowls

735mm

**MINITECH 250 DP2 REF. 66420** 



- 330mm
- 735mm

920mm

- 58kg
- 2 platens • 2 motors

2 watering ramps2 removable bowls

**PLATEN DIAMETERS: 250 TO 300MM** 

#### MINITECH 300 SP1 **REF. 66430**



- 330mm
  - 620mm 42kg
- 1 platen • 1 motor

- 1 watering ramp
- 1 removable bowl

875mm

#### **MINITECH 300 DP1 REF. 66440**



330mm

• 2 platens

1100mm

- 810mm
- - 60kg
- 2 watering ramps
- 1 motor • 2 removable bowls

#### **MINITECH 300 DP2 REF. 66450**



- 330mm
- 810mm
- 1100mm
- 70kg
- 2 platens • 2 motors

- 2 watering ramps
- 2 removable bowls

#### **CHARACTERISTICS MINITECH**

	250 SP1	250 DP1	250 DP2	300 SP1	300 DP1	300 DP2
Number of platens	1	2	2	1	2	2
Number of motors	1	1	2	1	1	2
Diameter of the polishing platen	200 to 250mm	200 to 250mm	200 to 250mm	250 to 300mm	250 to 300mm	250 to 300mm
Rotation speed (in increment of 1RPM)	20 to 700 RPM					
Rotation direction	Clockwise and counter-clockwise					
Timer	<b>~</b>	<b>~</b>	<b>~</b>	~	~	<b>✓</b>
Speed display	<b>~</b>	~	~	~	~	<b>✓</b>
Time display in seconds	<b>→</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>~</b>
Display of applied force	<b>~</b>	<b>~</b>	<b>→</b>	<b>→</b>	<b>✓</b>	~
Memorization of settings	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	~
Watering by multijet ramp	<b>→</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>~</b>
Nominal power S1	750W	750W	750W	900W	900W	900W
Nominal power S3	1100W	1100W	1100W	1500W	1500W	1500W
600 RPM drying function	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	~
High engine torque	·	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	~
Constant speed of the platen	<b>~</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	~
mmediate stop of the platen	<u> </u>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	~
Bearing transmission	·	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	~
Additional bowl	<b>→</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>~</b>
Progressive acceleration of the platen	·	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	~
Splash guard	·	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	~
Power supply*	230 VAC					
Frequency	50 - 60 Hz					
Max. current	8 A	8 A	8 A	8 A	8 A	8 A
Water inlet	Ø 12mm					
Water outlet	Ø 32mm					

<sup>\*</sup> available on request: 110 VAC: 50 - 60Hz

## ACCESSORIES PLATEN AND BASE PLATEN



Drive platen with aluminium positioner ø 196mm. Ref. 56350 ø 245mm. Ref. 67221



Almagtech platen Ø 200mm. Ref. 67822 Ø 250mm. Ref. 67820 Ø 300mm. Ref. 67821



Circular paper holder (PVC) Ø 200mm. Ref. 56067 Ø 250mm. Ref. 56068 Ø 300mm. Ref. 56069



Full PVC platen with integrated cone Ø 200mm. Ref. 56053 Ø 250mm. Ref. 56063 Ø 300mm. Ref. 56064

#### OTHER ACCESSORIES



PVC lid ø 250mm. Ref. 66050 ø 300mm. Ref. 66025



Grinding recirculation tank with 5µm filter Ref. 67130



Set of 2 removable bowls ø 250mm. Ref. 66500 ø 300mm. Ref. 66505

Accessories 100% compatible with the older generation of MINITECH



### **50L WASTE COLLECTION** TANK

#### **REF. 57170**

This 50L settling tank is an option for polishing machines. Indeed, these polishing machines require the use of water and abrasive suspensions during polishing. Mixed with the fine particles of your polished materials, polishing sludge is formed. Until now, this sludge was evacuated directly into your wastewater network.

In a spirit of eco-responsibility, PRESI proposes and advises the use of a settling tank which can be procured on delivery of the machine. Installing the 50L tank on your polishing machine after delivery does not require any specific changes. It is therefore not necessary to return your machine to our PRESI workshops in order to install this new equipment. The use of this tank allows the recovery of polishing sludge in a bag provided for this purpose and disposal of remaining fluids into your wastewater system. This settling tank is compatible with all brands of polishing machines.



### **FILTRATION TANK 60L**

#### **REF. 53555**

The 60L fltration tank is an option for polishing machines. Indeed, these machines require the use of water and abrasive suspensions during polishing. Mixed with the fine particles of your polished materials, polishing sludge is formed. Until now, this sludge was evacuated directly into your wastewater network. In a spirit of eco-responsibility, PRESI proposes and advises the use of a fltration tank which can be procured on delivery of the machine. The installation of the 60L bin on your polishing machine after delivery of the latter does not require any specific changes. It is therefore not necessary to return your machine to our PRESI workshops in order to install this new equipment. The use of this tank allows the recovery of polishing sludge after a fltration of 100µm. This filtration tank is compatible with all brands of polishing machines.



#### **FEATURES**

Capacity	50L
Materials	polyvinyl chloride
Handling	4 wheels
Tank delivered with	1 transparent lid, 1 collection bag, 1 divider with 3 walls, 1 connecting element in beige PVC for the flter, 2 connection elements in gray PVC for the flter, 1 flter and its attachment gasket, 1 gray PVC connection element for sludge inlet
Power supply - ins	tallation

Power supply	No power supply
Tank Installation	Connects to polishing machine drain
Accessories	
Recovery bag	Set of 2 bags - Ref. 571810
Filters	Set of 5 filters + attachment seal - Ref. 571820









#### **FEATURES**

Capacity	60L
Materials	polyvinyl chloride
Handling	4 wheels
Filter type	Cylindrical filter Ø 260mm - Filtration 100µm
Tank delivered with	1 washable cylindrical filter Ø 260mm - Filtration 100µm 1 connection pipe Ø ext 32mm / L = 1.5m 1 1/4 turn valve

#### Power supply - installation

Power supply	No power supply
Tank Installation	Connects to the drain of the polishing machine using a pipe Ø ext 32mm
Accessories	
Cylindrical filter	Set of 3 filters 100µm - Ref. 516200





600mm





## 60L RECIRCULATION TANK

#### **REF. 67130**

The 60L recirculation tank is an option for LE CUBE/MINITECH/MECATECH. These polishing machines require the use of water and abrasive suspensions during polishing. A polishing sludge is formed, mixed with fine particles of your polished materials.

Until now, this sludge was evacuated directly into your wastewater network.

In the spirit of eco-responsibility, PRESI suggests and advises the use of a recirculation tank.

The installation of the 60L tank on your LE CUBE/MINITECH/MECATECH after delivery of the latter requires a specific modifications. It is therefore necessary to return your machine to our PRESI workshops in order to install this new bin. When this tank is ordered with a PRESI polishing machine, the modification will be carried out directly in the workshop before delivery.

The use of this tank makes it possible to operate in a closed circuit, providing total autonomy. It also saves water and thus avoids its waste.

It is equipped with 2 fltration systems: a pre-filter of 30µm and a fltering cartridge of 5µm. Its pump, directly controlled by the polishing machine, ensures the recirculation of the filtered water.



625mm



800mm



400mm





#### **FEATURES**

Tank Installation

Accessories

Cylindrical filter

Filter cartridge

FLATORES	
Capacity	60L
Materials	Polyvinyl chloride
Handling	4 wheels
Filter type	Cylindrical pre-filter Ø 260mm – Filtration 30µm Cartridge - Filter 5µm
Tank delivered with	1 single-phase 230V pump with power cable 1 washable cylindrical pre-filter Ø 260 - Filtration 30µm 1 filter cartridge - Filtration 5µm 1 connection pipe Ø ext 32mm / L = 1.5m 2 connection pipes pump - filter - bin Ø ext 18mm 1 1/4 turn valve
Power supply - Installation	on
Pump power supply	Pump powered by the polishing machine
Pump control	Pump controlled by the polishing machine
· · · · · · · · · · · · · · · · · · ·	

Set of 3 filters of 30um - Ref. 838010

Filters of 5um - Ref. 838000

Connects to the drain of the polishing machine using the Ø ext 32mm pipe

Connects electrically using a connector located at the back of the polishing machine

MECAPLAN 350

## AUTOMATIC PLANAR GRINDING MACHINE

#### **REF. 54200**

MECAPLAN 350 is an automatic planar grinding machine that allows rapid and extensive removal of material while preserving the integrity of the samples.

Powerful and fast, it saves time and consumables. This machine is particularly suitable for laboratories or workshops that perform tests on many samples.

2300mm (open hood) 1850mm (closed hood)

(\sqrt{1240mm})

500kg

 $\epsilon$ 

Download MECAPLAN 350 technical sheet







Polishing head



Large colour touch screen



Dressing diamond and touch sensor

#### **GRINDING WHEEL CHARACTERISTICS**

Diameter of the grinding wheel	356mm
Rotation speed	1000 à 2000 RPM
Direction of rotation	Clockwise and counter-clockwise
Nominal power S1	5500W
Nominal power S3	9000W
Constant torque	~
Immediate stop of the platen	<b>✓</b>
Progressive acceleration of the grinding wheel	<b>✓</b>
TFT LCD 7" 16/9 colour touch screen	<b>✓</b>
Secure cover with interlocking	<b>✓</b>
LED light on head and machine	<b>✓</b>
Simplified service and maintenance without dismantling	<b>✓</b>
Voltage	400V three-phases
Frequency	50-60Hz
Max. current	21 A
Air pressure	5 - 10 bars
Compressed air	Ø 10mm
Cleaning kit	~
Integrated recycling system	~
Suction & extraction	Option: mist extraction with fluid recovery

#### **POLISHING HEAD**

Central pressure	<b>✓</b>
Mounted samples	<b>~</b>
Non mounted samples	<b>~</b>
Rectangular samples	•
Head movement	Automatic
Rotation speed	100 to 200 RPM
Rotation direction	Clockwise and counter-clockwise
Motor power	500W
Maximum power available	100daN
Material removal measurement with automatic stop	<b>~</b>
Force controlled electronically	<b>~</b>
Force reduced at start and end of cycle	·
Polishing head vertical movement: 150mm	<b>~</b>

#### **MACHINE ACCESSORIES**

#### **CLAMPING VICE**

54210 Clamping vice Ø 120mm For specimen holder Ø 120mm
54211 Clamping vice Ø 140mm For specimen holder Ø 140mm
54212 Clamping vice Ø 160mm For specimen holder Ø 160mm
54213 Clamping vice Ø 170mm For specimen holder Ø 170mm
54214 Clamping vice Ø 210mm For specimen holder Ø 210mm
54215 Clamping vice Ø 220mm For specimen holder Ø 220mm



**Diamond for dressing** Ref. 01054



Suction & extraction Ref. 51260

All information regarding specimen holders on page 69







#### **GRINDING WHEEL**

REF.	DESIGNATION	GRIT
01052	Stone grinding wheel Ø 356mm	150



Grinding wheel Abrasive Al<sub>2</sub>o<sub>3</sub>

#### **MECATECH**

334 SPC

#### SINGLE STATION, AUTOMATIC POLISHING MACHINE

#### **REF. 67960**

Equipped with a Ø 250 to 300mm platen, the MECATECH 334 SPC is a powerful and reliable polishing machine with the most advanced technologies for easy operation and easy maintenance. It gives the best polishing results on all types, sizes and number of samples.



520mm





750mm

 $\epsilon$ 

#### **CHARACTERISTICS**

Number of motors	1
Number of polishing platens	1
Diameter of the polishing platen	250 to 300mm
Rotation speed	20 to 700 RPM
Rotation direction	Clockwise and counter-clockwise
Nominal power S1	750W
Nominal power S3	1100W
Torque compensation	Automatic
Immediate stop of the platen	Automatic
Progressive acceleration of the platen	Automatic
Drying function	600 RPM
Spindle on bearing	<b>~</b>
Base platen + anti-vibration seals	~
Additional removable bowl	<b>✓</b>
Splash guard	<b>✓</b>
High strength mechanically welded + painted steel chassis	<b>✓</b>
Composite body	<b>✓</b>
16/9 color TFT LCD touch screen 7"	<b>✓</b>
Simplified service and maintenance without dismantling	<b>✓</b>
Voltage	230V VAC
Frequency	50-60Hz
Max. current	8 A
Air pressure	5 - 10 bars
Water inlet	Ø 12mm
Water outlet	Ø 32mm
Compressed air	Ø 10mm





#### **POLISHING HEAD**

Individual pressure	<b>✓</b>
Central pressure	<b>✓</b>
Mounted samples	<b>✓</b>
Non mounted samples	<b>✓</b>
Rectangular samples	<b>✓</b>
Rotation speed	20 to 150 RPM
Rotation direction	Clockwise and counter-clockwise
Motor power	180W
Force per specimen	0,1 - 5daN
Maximum power available	30daN
LED lighting	<b>✓</b>
Force controlled electronically	<b>✓</b>
Force reduced at start and end of cycle	<b>✓</b>
50mm vertical movement of the polishing head	<b>✓</b>
Manual locking of the polishing head	<b>✓</b>
200CC lubricant reservoir included in the polishing head	<b>~</b>

#### SPECIMEN HOLDERS FOR CENTRAL PRESSURE POLISHING



Specimen holder Ø 160m for 6 samples Ø 25 to 32mm



Specimen holder Ø 160mm annular holding for 4 samples Ø 40mm Ref. 57107



Specimen holder

Ø 30 to 40mm

Ø 160mm for 4 samples

Compulsory hooking system for central pressure specimen holder



Blank specimen holder Ø 160mm Ref. 57105

Specimen holder

Ø 160mm

for 6 samples Ø 30mm Ref. 57106



Levelling press for samples - Minipress Ref. 57127

**REDUCTION RINGS** 

FOR SPECIMEN HOLDERS

#### **SPECIMEN HOLDERS** FOR INDIVIDUAL PRESSURE POLISHING



Specimen holder Ø 170mm for 6 samples Ø 50mm Ref. 67835

SPECIFIC HOLDERS **ON REQUEST** 



#### **ACCESSORIES FOR POLISHING HEAD**

#### Specimen holders for Central pressure polishing

57102	Specimen holder Ø 160mm	for 6 samples Ø 25 to 32mm
57103	Specimen holder Ø 160mm	for 4 samples Ø 30 to 40mm
57104	Specimen holder Ø 160mm	for 4 samples Ø 40 to 50mm
57106	Specimen holder Ø 160mm annular holding	for 6 samples Ø 30mm
57107	Specimen holder Ø 160mm annular holding	for 4 samples Ø 40mm
57105	Blank specimen holder	Ø 160mm
57119	Specimen holder Ø 170mm	for 6 samples Ø 30 to 40mm
57108	Specimen holder Ø 210mm	for 12 samples Ø 25 to 32mm
57109	Specimen holder Ø 210mm	for 8 samples Ø 30 to 40mm
57110	Specimen holder Ø 210mm	for 6 samples Ø 50mm
57114	Specimen holder Ø 210mm	for 6 rectangular samples 30 x 55mm
57111	Specimen holder Ø 220mm	for 3 rectangular samples 50 x 100mm
57116	Compulsory hooking system	for central pressure specimen holder
57117	Specimen holder Ø 170mm	for 3 rectangular samples 70 x 40mm
57127	Levelling press for samples N	1 inipress

#### Specimen holders for individual pressure polishing

67830	Specimen holder Ø 150mm	for 6 samples Ø 30mm
57145	Specimen holder Ø 160mm	for 6 samples Ø 38.1mm
67833	Specimen holder Ø 160mm	for 6 samples Ø 40mm
67835	Specimen holder Ø 170mm	for 6 samples Ø 50mm

#### **Reduction rings for specimen holders**

67850	1 reduction ring	Ø 50mm> Ø 25mm	
67851	1 reduction ring	Ø 50mm> Ø 25,4mm	
67852	1 reduction ring	Ø 50mm> Ø 30mm	
67853	1 reduction ring	Ø 50mm> Ø 31.7mm	
67854	1 reduction ring	Ø 50mm> Ø 38.1mm	
67855	1 reduction ring	Ø 50mm> Ø 40mm	
67856	1 reduction ring	Ø 40mm> Ø 25mm	
67857	1 reduction ring	Ø 40mm> Ø 25.4mm	
67858	1 reduction ring	Ø 40mm> Ø 30mm	
67859	1 reduction ring	Ø 40mm> Ø 31.7mm	

MECATECH

THE AUTOMATIC POLISHING MACHINE RANGE

Equipped with platens from Ø200 to 300mm, the new range of MECATECH automatic polishing machines has the most advanced technologies. The MECATECH range allows both manual and automatic use.

Thanks to a motor power from 750W to 1500W, the entire PRESI experience is condensed in this most complete range on the market. Whatever the size or the number of samples, MECATECH guarantees an optimal polishing. With its affirmed style and edged lines, this new range is distinguished by its new design with an easily recognizable sleek and refined carbon look.



#### **PLATEN DIAMETERS: 200 TO 250MM**



- 66 mm
- 810mm
- 510mm
- 73kg **(€**
- 1 platen 4 pistons
- Individual pressure

#### **MECATECH 250 SPC**

**REF. 67920** 



- 665mm
- - 810mm
- 510mm
- 73kg **(€**
- 1 platen 6 pistons
- Central and Individual pressure

#### **MECATECH 250 DPC** REF. 67930



- 665mm
- 735mm

- 920mm
- 98kg **(€**
- 2 platens 6 pistons
- Central and Individual pressure

#### **PLATEN DIAMETERS: 250 TO 300MM**

#### **MECATECH 300 SPC**

REF. 67940

- 680mm
  - 620mm
    - 82kg **(€**

875mm

- 1 platen 6 pistons
- Central and Individual pressure

#### **MECATECH 300 SPS** REF. 67950



- 700mm
- - 875mm
- 620mm
- - 96kg **(€**
- 1 platen 8 pistons
- Central and Individual pressure

#### **CHARACTERISTICS**

MACHINES	250 SPI	250 SPC	250 DPC	300 SPC	300 SPS
Number of motors	1	1	2	1	1
Number of polishing platens	1	1	2	1	1
Diameter of the polishing platen	200 to 250mm	200 to 250mm	200 to 250mm x 2	250 to 300mm	300mm
Rotation speed	20 to 700 RPM				
Rotation direction	Clockwise and counter-clockwise				
Nominal power S1	750W	750W	2 x 750W	900W	900W
Nominal power S3	1100W	1100W	2 x 1 100W	1500W	1500W
Torque compensation	Automatic	Automatic	Automatic	Automatic	Automatic
Immediate stop of the platen	Automatic	Automatic	Automatic	Automatic	Automatic
Progressive acceleration of the platen	Automatic	Automatic	Automatic	Automatic	Automatic
Drying function	600 RPM				
Spindle on bearing	~	<b>✓</b>	<b>✓</b>	~	~
Base platen + anti-vibration seals	<b>~</b>	~	~	<b>✓</b>	<b>~</b>
Additional removable bowl	<b>~</b>	~	~	~	~
Splash guard	<b>~</b>	~	~	~	~
High strength mechanically welded + painted steel chassis	~	~	~	~	~
RIM injection body	~	~	~	~	~
16/9 color TFT LCD touch screen 7"	<b>✓</b>	~	~	~	<u> </u>
Simplified service and maintenance without dismantling	<u> </u>	~	<b>~</b>	~	<u> </u>
Power supply	230V 1P				
Frequency	50 - 60Hz				
Max. current	8A	8A	8A	8A	8A
Air pressure	5 - 10 bars				
Water inlet	Ø 12mm				
Water outlet	Ø 32mm				
Compressed air	Ø 10mm				
POLISHING HEADS	250 SPI	250 SPC	250 DPC	300 SPC	300 SPS
Individual pressure	~	<b>~</b>	<b>~</b>	~	<u> </u>
Central pressure	-	<b>✓</b>	<b>✓</b>	~	<u> </u>
Mounted samples		<u> </u>	<u> </u>	<u> </u>	<u> </u>
Non mounted samples	-	<u> </u>	<u> </u>	<u> </u>	<u> </u>
Rectangular samples	<b>~</b>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
Rotation speed	20 to 150 RPM				
Rotation direction	Clockwise and	Clockwise and	Clockwise and	Clockwise and counter-clockwise	Clockwise and
Motor power	180W	180W	180W	270W	270W
Force per specimen	0,1 - 5daN				
Maximum power available	20daN	30daN	30 daN	30daN	40daN
Material removal measurement with automatic stop	-	<b>~</b>	<b>~</b>	~	~
Force controlled electronically		<u> </u>	<b>~</b>	<b>~</b>	<u> </u>
Force reduced at start and end of cycle	~	<b>~</b>	<b>~</b>	~	~
50mm vertical movement of the polishing head		~	~	<u> </u>	-
Automatic locking of the polishing head	~	~	~	~	
200CC (x2) lubricant reservoirs included in the polishing head	·	<b>~</b>	<b>~</b>	·	~
Sweeping function	-	-	-	-	<b>~</b>
shooping random					*

#### **MECATECH MACHINES ACCESSORIES**

#### **ACCESSORIES**



Almagtech platen ø 200mm. Ref. 67822 ø 250mm. Ref. 67820 ø 300mm. Ref. 67821



PVC cover ø 250mm. Ref. 66050 ø 300mm. Ref. 66025



Ultra-silent air compressor, 24L tank. Dimensions (WxDxH): 400x400x600mm Ref. 67750



Grinding recirculation tank with 5µ filter Ref. 67130



Set of 2 removable bowls ø 250mm. Ref. 66500 ø **300mm.** Ref. 66505

### **DISTRITECH 5.1**

REF. 67890

#### **ABRASIVE SUSPENSIONS DISPENSER** SYSTEM

Compatible with the entire MECATECH range

- Capacity: 5 bottles of 500CC.
- Each abrasive suspension dispenser is managed by the machine.
- No risk of pollution: each bottle has its own distribution circuit.
- LED illuminated display indicates the bottle in operation.
- Colloidal silica distribution with automatic rinsing function, no risk of crystallisation.



## MECATECH POLISHING HEAD ACCESSORIES

The polishing heads have a powerful geared motor controlled by a frequency converter and an automatic locking system for the head at the start of the cycle: avoids any risk of error. Lateral movement of the head, in order to completely free the polishing platen and work in manual mode.

			250 SPI	250 SPC	250 DPC	300 SPC	300 SPS
Specin	nen holders for Central pr	essure polishing					
57120	Specimen holder Ø 120mm	for 3 samples Ø 25 to 32mm	-	<b>v</b>	<b>✓</b>	-	-
57126	Specimen holder Ø 140mm	for 6 samples Ø 25 to 32mm	-	<b>✓</b>	~	-	-
57125	Specimen holder Ø 140mm	for 3 samples Ø 30 to 40mm	-	<b>✓</b>	~	-	-
57102	Specimen holder Ø 160mm	for 6 samples Ø 25 to 32mm	-	<b>✓</b>	~	<b>✓</b>	~
57103	Specimen holder Ø 160mm	for 4 samples Ø 30 to 40mm	-	<b>✓</b>	~	<b>✓</b>	~
57104	Specimen holder Ø 160mm	for 4 samples Ø 40 to 50mm	-	<b>✓</b>	~	<b>✓</b>	~
57106	Specimen holder Ø 160mm annular holding		-	~	~	~	<b>~</b>
57107	Specimen holder Ø 160mm annular holding	for 4 samples Ø 40mm	-	~	<b>~</b>	~	<b>✓</b>
57105	blank specimen holder	Ø 160mm	-	~	~	~	<b>✓</b>
57117	Specimen holder Ø 170mm	for 3 rectangular samples 70 x 40mm	-	~	~	~	~
57119	Specimen holder Ø 170mm	for 6 samples Ø3 0 to 40mm	-	<b>✓</b>	~	✓	✓
57108	Specimen holder Ø 210mm	for 12 samples Ø 25 to 32mm	-	-	_	<b>✓</b>	<b>✓</b>
57109	Specimen holder Ø 210mm	for 8 samples Ø3 0 to 40mm	-	-	_	<b>✓</b>	<b>✓</b>
57110	Specimen holder Ø 210mm	for 6 samples Ø 50mm	-	-	-	<b>✓</b>	<b>✓</b>
57114	Specimen holder Ø 210mm	for 6 rectangular samples 30 x 55mm	-	-	-	~	<b>✓</b>
57111	Specimen holder Ø 220mm	for 3 rectangular samples 50 x 100mm	-	-	-	~	<b>✓</b>
57116	Compulsory hooking system	for central pressure specimen holder	-	<b>~</b>	<b>~</b>	~	<b>~</b>
57127	Levelling press for samples Minipress		-	<b>~</b>	~	~	~
Specin	nen holders for individual	pressure polishing					
57142	Specimen holder Ø 140mm	for 4 samples Ø30mm	~	-	-	-	-
57141	Specimen holder Ø 150mm	for 4 samples Ø40mm	<b>~</b>	-	-	-	-
57144	Specimen holder Ø 150mm	for 4 samples Ø38.1mm	<b>~</b>	-	-	-	-
67830	Specimen holder Ø 150mm	for 6 samples Ø30 mm	-	<b>✓</b>	~	<b>✓</b>	-
57145	Specimen holder Ø 160mm	for 6 samples Ø38.1mm	-	~	~	~	-
67833	Specimen holder Ø 160mm	for 6 samples Ø40mm	-	<b>~</b>	~	~	-
57143	Specimen holder Ø 170mm	for 3 samples Ø50mm	-	~	~	-	-
67835	Specimen holder Ø 170mm	for 6 samples Ø50mm	-	-	-	~	-
67838	Specimen holder Ø 180mm	for 8 samples Ø30mm	-	-	-	-	~
67837	Specimen holder Ø 190mm	for 8 samples Ø40mm	-	-	-	-	<b>~</b>
67836	Specimen holder Ø 200mm	for 8 samples Ø50mm	-	-	-	-	~
Reduct	tion rings for specimen ho	olders					
67850	1 reduction ring	Ø 50mm> Ø 25mm	-				
67851	1 reduction ring	Ø 50mm> Ø 25.4mm	-	<u>,</u>	<u> </u>	<u>,</u>	<u>,</u>
67852	1 reduction ring	Ø 50mm> Ø 30mm	-		<u> </u>	<u>,</u>	<u>,</u>
67853	1 reduction ring	Ø 50mm> Ø 31.7mm	-	<u>,</u>		~	<u>,</u>
67854	1 reduction ring	Ø 50mm> Ø 38.1mm	_	<u> </u>	<u> </u>	<u>,</u>	<u>,</u>
67855	1 reduction ring	Ø 50mm> Ø 40mm	_	<u> </u>		<u>,</u>	<u>,</u>
67856	1 reduction ring	Ø 40mm> Ø 25mm		<u> </u>	<u> </u>	<u> </u>	<u>,</u>
67857	1 reduction ring	Ø 40mm> Ø 25.4mm	<del>`</del>	<del>,</del>	<u> </u>	<u>,</u>	<u>,</u>
67858	1 reduction ring	Ø 40mm> Ø 30mm	- V	<u>,</u>	<del></del>	<del>-</del>	~
67859	1 reduction ring	Ø 40mm> Ø 31.7mm	<u>`</u>	<del>-</del>	<del></del>	<del>-</del>	~
27033	risauctioning	S TOMIN & SOUTHIN		*	•	*	

### SPECIMEN HOLDERS FOR CENTRAL PRESSURE POLISHING



Specimen holder Ø 120mm for 3 samples Ø 25 to 32mm Ref. 57120 Specimen holder Ø 140mm for 3 samples Ø 30 to 40mm Ref. 57125



Specimen holder Ø 160mm for 6 samples Ø 25 to 32mm Ref. 57102 Specimen holder Ø 140mm for 6 samples Ø 25 to 32mm Ref. 57126



Specimen holder Ø 160mm for 4 samples Ø 30 to 40mm Ref. 57103



Blank specimen holder Ø 160mm Ref. 57105



Specimen holder Ø 160mm annular holding for 6 samples Ø 30mm Ref. 57106



Specimen holder Ø 160mm annular holding for samples for 4 samples Ø 40mm Ref. 57107



Compulsory hooking system for central pressure specimen holder Ref. 57116



Levelling press for samples - Minipress Ref. 57127

### SPECIMEN HOLDERS FOR INDIVIDUAL PRESSURE POLISHING



Specimen holder Ø 150mm for 6 samples Ø30 mm Ref. 67830 Specimen holder Ø 160mm for 6 samples Ø40mm Ref. 67833 Specimen holder Ø 170mm for 6 samples Ø50mm



Specimen holder Ø 200mm for 8 samples Ø50mm Ref. 67836 Specimen holder Ø 180mm for 8 samples Ø30mm Ref. 67838



Specimen holder Ø 140 to 150mm for 4 samples Ø40mm Ref. 57141 For 4 samples Ø30mm Ref. 57142 For 4 samples Ø38.1mm Ref. 57144



Ref. 67835

Special individual pressure plate for thin sections

#### REDUCTION RINGS FOR SPECIMEN HOLDERS



### SPECIFIC HOLDERS ON REQUEST



#### **MECATECH**

**300 SPS** 

THE AUTOMATIC SWEEPING POLISHING MACHINE HIGH-CAPACITY

The sweeping movement of the MECATECH 300 SPS polishing head optimizes the use of consumables and improves samples flatness.

Compared to other MECATECH models, the 300 SPS model improves productivity by increasing the capacity of the polishing head from 6 to 8 samples.



## MECA PROTECT

#### **OPTIONAL**

This protection hood meets the most stringent safety requirements. It perfectly isolates the machine from the operator. The connection between the machine and the hood prevents the MECATECH from working when the hood is open. The hood only exists in black color.



MECAPROTECT 250 REF. 67915



## **CUSTOMIZE**YOUR MACHINE

Fancy some colors? Mix and customize to give new energy to your equipment!

Customization possible on all machines of the MINITECH and MECATECH range

Select the RAL colour you prefer.



## VIBROTECH

300

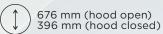
## THE AUTOMATIC VIBRATION POLISHING MACHINE

#### **REF. 68100**

The VIBROTECH 300 is a reliable and robust vibrating polishing machine of Ø 305mm

Vibration polishing is an ultra-soft technique suitable for the super-finishing stages and particularly for the samples to be analysed in EBSD (electron backscatter diffraction) or AFM (atomic force microscopy).

This polishing method makes it possible to save inclusions and to eliminate surface hardening. Very easy to use, the frequency and amplitude of the vibrations can be modified in real time.



←→) 715mm



90k

 $\epsilon$ 





Vibrotech 300 closed hood

**EBSD** mapping



Download the VIBROTECH 300 technical sheet



#### **CHARACTERISTICS**

Polishing bowl diameter	Ø 308mm
Sample polishing capability	up to 21 simultaneous
Polishing cloths	Ø 300 to 305mm
Suitable polishing cloths	Self-adhesive or PAD-MAG
Vibration frequency	80 - 110Hz
Rotation direction	Clockwise
Power of the vibration bowl	519 W
Power supply	230 VAC
Frequency	50 - 60Hz
16/9 color TFT LCD touch screen 7"	<b>✓</b>
Hood	Transparent
Progressive acceleration of the vibration	<b>✓</b>
Interchangeable polishing bowls	<b>✓</b>

#### **SAMPLE HOLDER**

FEATURES	Ø 25 Ø 25.4	Ø 30 Ø 31.7	Ø 38.1 Ø 40	Ø 50
Weight of the rack (g)	360	425	545	675
Max. capacity weight	4	4	4	4
Weight per unit (in g)	150	180	255	340
Sample holder max. weight (in g)	960	1145	1565	2035



#### **ACCESSORIES**



Storage rack for consumables Ref. 57157



Storage box (3 to 18 samples) Ref. 19005



Ultrasonic tanks Ref. 61101 to 61108



Polishing bowl Ref. 68105



**Draining for plates storage Ø 200 à 300mm** Ref. 57155



Reflex MAG Ø 300mm for VIBROTECH Ref. 24055

#### **SAMPLE HOLDER + LEVELLING PLATE**

REF.	Ø
68110	Ø 25mm
68111	Ø 25.4mm
68112	Ø 30mm
68113	Ø 31.7mm
68114	Ø 38.1mm
68115	Ø 40mm
68116	Ø 50mm





Standard or magnetic polishing platens, non-adhesive, adhesive or magnetic polishing supports... Possible combinations are varied and sometimes complex!

### PRESI invented and patented a revolutionary fastening process: Reflex FIX.

This exclusive system is a holding method for all kind of polishing supports (abrasive papers, diamond discs or polishing cloths).

#### Simplicity and speed.

No more adhesive or magnetic polishing supports, polish all your samples on one polishing platen!



- **Easier processes**
- Flexibility of use
- ( Time saving
- No tedious removal of adhered surfaces

## REFLEX CONCEPT

AN IDEA OFTEN COPIED, NEVER EQUALLED.

European patent n° EP 1504846







0

Stick

the Reflex FIX to the polishing platen.

2

Put

your consumable on the Reflex FIX. It is fixed!

3

Remove

your consumable by simply lifting it.

Download the Reflex Fix technical sheet



# ADAPTATION DEVICES

These devices enable adaptation across-all manufacturer machines and consumables.

### **REFLEX FIX**



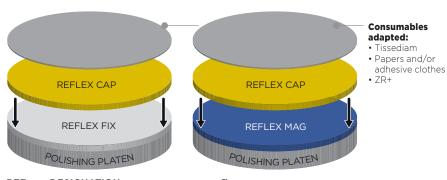
#### Consumables adapted to Reflex FIX:

- NAC abrasive papers
- I-MAX R diamond discs
- MED R polishing discs
- PAD-Mag polishing cloths
- Reflex CAP

REF.	DESIGNATION	Ø
24030	1 device Reflex Fix	Ø 200mm
24031	1 device Reflex Fix	Ø 230mm
24032	1 device Reflex Fix	Ø 250mm
24033	1 device Reflex Fix	Ø 300mm
24034	1 device Reflex Fix	Ø 400mm

### **REFLEX CAP**

**The Reflex CAP** (metallic plate) is a device that allows the use of adhesive consumables on the Reflex FIX or Reflex MAG.



REF. DESIGNATION		Ø
Box of 5	5 discs	
24040	Reflex CAP	Ø 200mm
24042	Reflex CAP	Ø 250mm
24043	Reflex CAP	Ø 300mm

#### Non-adhesive device AD/AC

Adhesive device fixed on the polishing platen. It allows to use adhesive consumables with strong glue and to remove them without leaving any traces of glue.

REF. DESIGNATION		Ø
Box of	5 discs	
14950	AD/AC Device	Ø 200mm
14951	AD/AC Device	Ø 250mm
14952	AD/AC Device	Ø 300mm
14953	AD/AC Device	Ø 400mm

#### **REFLEX MAG**

**The Reflex MAG** is a device that allows the use of PRESI metal-backed consumables (for those who do not use the Reflex FIX) as well as all other magnetic consumables of a brand other than PRESI.



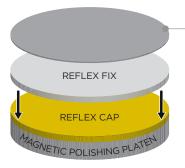
#### Consumables adapted to Reflex MAG:

- I-MAX R diamond discs
- MED R polishing discs
- PAD-MAG polishing cloths

REF.	DESIGNATION	Ø
24036	1 Reflex MAG	Ø 200mm
24038	1 Reflex MAG	Ø 250mm
24039	1 Reflex MAG	Ø 300mm

### **MAGNETIC FIX**

**The Magnetic FIX** is a device that allows the use of Reflex consumables on any polishing machine equipped with a magnetic polishing platen.



#### Consumables adapted to Reflex FIX:

- NAC abrasive papers
- I-MAX R diamond discs
- MED R polishing discs
- PAD-MAG polishing cloths
- Reflex CAP

REF.	DESIGNATION	Ø
24025	Magnetic Fix (1 Reflex Fix + 1 Reflex CAP)	Ø 200mm
24026	Magnetic Fix (1 Reflex Fix + 1 Reflex CAP)	Ø 250mm
24027	Magnetic Fix (1 Reflex Fix + 1 Reflex CAP)	Ø 300mm



FEPA P	P 60	P 80	P 100	P 120	P 180	P 240	P 320	P 400	P 600	P 800	P 1000	P 1200	P 2400	P 4000
US	60	80	100	120	180	240	-	320	1-9-	400	600	-	800	1200
µ average	260	200	150	120	76	60	46	35	26	22	18	15	10	5
I-Max R		1:	25		7	<b>'</b> 5		54			18			1

## **GRINDING**

#### I-MAX R

New diamond discs with resin binder, designed and manufactured by PRESI, for a polishing time saving of about 40%. Delivering perfect flatness, the discs are developed with an innovative pattern for better residue flow. With high diamond concentration, I-MAX R is designed for hard ferrous metal materials (cast iron, treated steal, etc.), and are adapted to short production runs. Supplied with dressing stick.

REF.		GRIT	Ø
24067	Reflex I-Max R	Grey 18µ	200mm
24069	Reflex I-Max R	Grey 18µ	250mm
24070	Reflex I-Max R	Grey 18µ	300mm
24072	Reflex I-Max R	Yellow 54µ	Ø 200mm
24074	Reflex I-Max R	Yellow 54µ	Ø 250mm
24075	Reflex I-Max R	Yellow 54µ	Ø 300mm
24077	Reflex I-Max R	Red 75µ	Ø 200mm
24079	Reflex I-Max R	Red 75µ	Ø 250mm
24080	Reflex I-Max R	Red 75µ	Ø 300mm
24082	Reflex I-Max R	Blue 125µ	Ø 200mm
24084	Reflex I-Max R	Blue 125µ	Ø 250mm
24085	Reflex I-Max R	Blue 125µ	Ø 300mm



Dressing stick for IMAX-R Ref 19014

Download the I-MAX R technical sheet



## I-MAX R

**EVEN MORE EFFICIENT DIAMOND DISCS!** 



Unparalleled flatness

for perfect polishing homogeneity.

100% european

Designed, developed and manufactured by PRESI.



Durable

Unparalleled service life for less waste.



Effective

Polishing time gain of around 40%.



\* Depends on materials and polishing processes used.



(g) Multi-purpose

Recognition of granulometry thanks to colour. 4 colours = 4 grit. Metal back to fit magnetic or Reflex FIX devices.



## **GRINDING**

#### I-MAX

Resin bond diamond discs designed for hard ferrous materials (cast iron, treated steel, etc...) adapted for fewer steps.

DESIGNATION	GRIT	Ø
Reflex I-Max	18µ	200mm
Reflex I-Max	18µ	250mm
Reflex I-Max	18μ	300mm
Reflex I-Max	18µ	400mm
Reflex I-Max	54µ	200mm
Reflex I-Max	54µ	250mm
Reflex I-Max	54µ	300mm
Reflex I-Max	54µ	400mm
Reflex I-Max	75µ	200mm
Reflex I-Max	75µ	250mm
Reflex I-Max	75µ	300mm
Reflex I-Max	75µ	400mm
Reflex I-Max	125µ	200mm
Reflex I-Max	125µ	250mm
Reflex I-Max	125µ	300mm
	Reflex I-Max	Reflex I-Max         18μ           Reflex I-Max         18μ           Reflex I-Max         18μ           Reflex I-Max         18μ           Reflex I-Max         54μ           Reflex I-Max         54μ           Reflex I-Max         54μ           Reflex I-Max         54μ           Reflex I-Max         75μ           Reflex I-Max         125μ           Reflex I-Max         125μ



#### **TISSEDIAM**

Adhesive metallic or resin bond diamond discs for the leveling or grinding of non-metallic hard materials (ceramic, glass, quartz, ...). Delivered with dressing stick. If used with Reflex Fix, plan to use a Reflex CAP (cf p. 75).

DESIGNATION	GRIT	Ø
1 Tissediam R	Blue 10µ	200mm
1 Tissediam R	Blue 10µ	250mm
1 Tissediam R	Blue 10µ	300mm
1 Tissediam R	Yellow 30µ	200mm
1 Tissediam R	Yellow 30µ	250mm
1 Tissediam R	Yellow 30µ	300mm
1 Tissediam M	Grey 20µ	200mm
1 Tissediam M	Grey 20µ	250mm
1 Tissediam M	Grey 20µ	300mm
1 Tissediam M	Yellow 40µ	200mm
1 Tissediam M	Yellow 40µ	250mm
1 Tissediam M	Yellow 40µ	300mm
1 Tissediam M	Red 75µ	200mm
1 Tissediam M	Red 75µ	250mm
1 Tissediam M	Red 75µ	300mm
1 Tissediam M	Black 125µ	200mm
1 Tissediam M	Black 125µ	250mm
1 Tissediam M	Black 125µ	300mm
1 Tissediam M	Green 250µ	200mm
1 Tissediam M	Green 250µ	250mm
1 Tissediam M	Green 250µ	300mm
	1 Tissediam R 1 Tissediam M	1 Tissediam R Blue 10µ 1 Tissediam R Blue 10µ 1 Tissediam R Blue 10µ 1 Tissediam R Yellow 30µ 1 Tissediam R Yellow 30µ 1 Tissediam R Yellow 30µ 1 Tissediam M Grey 20µ 1 Tissediam M Grey 20µ 1 Tissediam M Grey 20µ 1 Tissediam M Yellow 40µ 1 Tissediam M Yellow 40µ 1 Tissediam M Yellow 40µ 1 Tissediam M Red 75µ 1 Tissediam M Red 75µ 1 Tissediam M Red 75µ 1 Tissediam M Black 125µ 1 Tissediam M Green 250µ 1 Tissediam M Green 250µ

R = resin bond M = metallic bond



#### **SPECIAL ABRASIVE DISCS ZIRCONIUM OXIDE - ZR+**

Abrasive discs made of zirconium oxide for high removal rate of material.

REF.	DESIGNATION	GRIT	Ø
Box of 25			
14224	Self adhesive	P 60	200mm
14225	Self adhesive	P 80	200mm
14226	Self adhesive	P 120	200mm
14227	Self adhesive	P 180	200mm
14267	Self adhesive	P 60	250mm
14268	Self adhesive	P 80	250mm
14269	Self adhesive	P 120	250mm
14270	Self adhesive	P 180	250mm
14317	Self adhesive	P 60	300mm
14318	Self adhesive	P 80	300mm
14319	Self adhesive	P 120	300mm
14320	Self adhesive	P 180	300mm

#### **DRESSING STICKS**

For the cleaning and dressing of diamond discs. 20 x 12 x 75mm. Delivered in pack of 10.

REF.	DESIGNATION	GRIT
19015	For metallic bond	220
19016	For resin bond	400



**Dressing sticks** for Tissediam

## ABRASIVE FOR LAPPING

#### **SILICON CARBIDE POWDER\***

REF.	DESIGNATION	GRIT	FEPA
1kg per b	юх		
12027	Silicon Carbide	7µ	F800
12026	Silicon Carbide	9μ	F600
12024	Silicon Carbide	17µ	F400
12023	Silicon Carbide	23µ	F360
12021	Silicon Carbide	37µ	F280
12020	Silicon Carbide	45µ	F240
5kg per k	оох		
12127	Silicon Carbide	7µ	F800
12126	Silicon Carbide	9μ	F600
12125	Silicon Carbide	17µ	F400
12124	Silicon Carbide	23µ	F360
12123	Silicon Carbide	37µ	F280
12122	Silicon Carbide	45μ	F240

<sup>\*</sup> Other abrasives and grain sizes: contact us.



Silicon Carbide

#### **BORON CARBIDE POWDER\***

REF.	DESIGNATION	GRIT	FEPA	
5kg per l	5kg per box			
12033	Boron Carbide	37µ	F280	
12035	Boron Carbide	17µ	F400	
12036	Boron Carbide	9μ	F600	
12038	Boron Carbide	5μ	F1000	

<sup>\*</sup> Other abrasives and grain sizes: contact us.



**Boron Carbide** 

#### **ALUMINA OXIDE POWDER\***

REF.	DESIGNATION	GRIT	FEPA
1kg per b	ox		
12018	Alumina oxide powder	1μ	F1500
12016	Alumina oxide powder	3μ	F1200
12015	Alumina oxide powder	5μ	F1000
12014	Alumina oxide powder	9μ	F600
12013	Alumina oxide powder	12µ	F500
12012	Alumina oxide powder	15µ	F400
12011	Alumina oxide powder	20μ	F380
12010	Alumina oxide powder	25μ	F340
12009	Alumina oxide powder	30µ	F320
12008	Alumina oxide powder	40µ	F260
5kg per	box		
12139	Alumina oxide powder	1μ	F1500
12138	Alumina oxide powder	3µ	F1200
12137	Alumina oxide powder	5μ	F1000
12136	Alumina oxide powder	9µ	F600
12135	Alumina oxide powder	12µ	F500
12134	Alumina oxide powder	15µ	F400
12133	Alumina oxide powder	20μ	F380
12132	Alumina oxide powder	25μ	F340
12131	Alumina oxide powder	30µ	F320
12130	Alumina oxide powder	40µ	F260

<sup>\*</sup> Other abrasives and grain sizes: contact us.



Alumina oxide

#### **LAPPING OIL**

Lapping mineral oil for abrasive powders (150 to 200g/l).

REF.	DESIGNATION
12040	Bottle 1I
12042	Bottle 10I

#### **LAPPING LUBRICANT**

Water soluble lubricant.

REF.	DESIGNATION	
12041	Bottle 1I	
12043	Drum 10I	

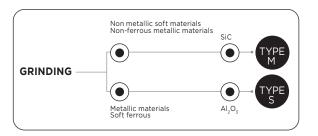


Lapping lubricant

### Micro abrasives

Polyester sheets loaded with alumina oxide or diamond for optics and electronic polishing. **Contact us.** 

### ABRASIVE PAPERS Ø 200MM



#### **NON-ADHESIVE**

REF.	DESIGNATION	GRIT	
Box of 10	0		
13099	Type S	P 60	
13100	Type S	P 100	
13101	Type S	P 120	
13102	Type S	P 180	
13103	Type S	P 240	
13104	Type S	P 320	
13105	Type S	P 400	
13106	Type S	P 600	
13107	Type S	P 800	
13400	Туре М	P 80	
13401	Туре М	P 120	
13402	Туре М	P 180	
13403	Туре М	P 240	
13404	Туре М	P 320	
13405	Туре М	P 400	
13406	Туре М	P 600	
13407	Туре М	P 800	
13408	Туре М	P 1000	
13409	Туре М	P 1200	
13150	Туре М	P 2400	
13080	Туре М	P 2500	
13151	Туре М	P 4000	
Box of 25			
13200	Type S	P 100	
13201	Type S	P 120	
13202	Type S	P 180	
13209	Type S	P 240	
13203	Type S	P 320	
13204	Type S	P 400	
13205	Type S	P 600	
13206	Type S	P 800	
13207	Туре М	P 1000	
13208	Туре М	P 1200	
13222	Туре М	P 2400	
13085	Туре М	P 2500	
13223	Туре М	P 4000	

#### **ADHESIVE**

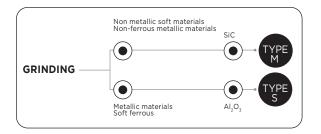
REF.	DESIGNATION	GRIT
Box of 100		
14096	Type S	P 60
14099	Type S	P 100
14100	Type S	P 120
14101	Type S	P 180
14102	Type S	P 240
14097	Type S	P 320
14103	Type S	P 400
14106	Type S	P 600
14104	Type S	P 800
14600	Туре М	P 80
14601	Туре М	P 120
14602	Туре М	P 180
14603	Туре М	P 240
14604	Туре М	P 320
14605	Туре М	P 400
14606	Туре М	P 600
14607	Туре М	P 800
14608	Туре М	P 1000
14609	Туре М	P 1200
14107	Туре М	P 2400
14070	Туре М	P 2500
14108	Туре М	P 4000
Box of 25		
14199	Type S	P 60
14200	Type S	P 100
14201	Type S	P 120
14202	Type S	P 180
14209	Type S	P 240
14203	Type S	P 320
14204	Type S	P 400
14205	Type S	P 600
14206	Type S	P 800
14207	Туре М	P 1000
14208	Туре М	P 1200
14244	Туре М	P 2400
14074	Туре М	P 2500
14245	Туре М	P 4000

#### **REFLEX NAC**



REF.	DESIGNATION	GRIT	
Box of 100			
24500	Type S	P 60	
24501	Type S	P 100	
24502	Type S	P 120	
24503	Type S	P 180	
24504	Type S	P 240	
24505	Type S	P 320	
24506	Type S	P 400	
24507	Type S	P 600	
24508	Type S	P 800	
24575	Туре М	P 80	
24576	Туре М	P 120	
24577	Туре М	P 180	
24578	Туре М	P 240	
24579	Туре М	P 320	
24580	Туре М	P 400	
24581	Туре М	P 600	
24582	Туре М	P 800	
24583	Туре М	P 1000	
24584	Туре М	P 1200	
24511	Туре М	P 2400	
24490	Туре М	P 2500	
24512	Туре М	P 4000	
	·	·	

### **ABRASIVE PAPERS** Ø 250MM



GRIT

#### **NON-ADHESIVE**

REF.	DESIGNATION	GRIT	
Box of 10	0		
13161	Type S	P 60	
13120	Type S	P 100	
13121	Type S	P 120	
13122	Type S	P 180	
13123	Type S	P 240	
13124	Type S	P 320	
13125	Type S	P 400	
13126	Type S	P 600	
13127	Type S	P 800	
13420	Туре М	P 80	
13421	Туре М	P 120	
13422	Туре М	P 180	
13423	Туре М	P 240	
13424	Туре М	P 320	
13425	Туре М	P 400	
13426	Туре М	P 600	
13427	Туре М	P 800	
13428	Туре М	P 1000	
13429	Туре М	P 1200	
13154	Туре М	P 2400	
13082	Туре М	P 2500	
13155	Туре М	P 4000	
Box of 25	;		
13250	Type S	P 100	
13251	Type S	P 120	
13252	Type S	P 180	
13259	Type S	P 240	
13253	Type S	P 320	
13254	Type S	P 400	
13255	Type S	P 600	
13256	Type S	P 800	
13257	Туре М	P 1000	
13258	Туре М	P 1200	
13295	Туре М	P 2400	
13087	Туре М	P 2500	
13296	Туре М	P 4000	

#### **ADHESIVE**

**DESIGNATION** 

REF.

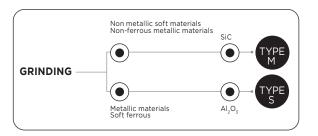
		•
Box of 100		
14134	Type S	P 60
14120	Type S	P 100
14121	Type S	P 120
14122	Type S	P 180
14123	Type S	P 240
14128	Type S	P 320
14124	Type S	P 400
14125	Type S	P 600
14126	Type S	P 800
14620	Туре М	P 80
14621	Туре М	P 120
14622	Туре М	P 180
14623	Туре М	P 240
14624	Туре М	P 320
14625	Туре М	P 400
14626	Туре М	P 600
14627	Туре М	P 800
14628	Туре М	P 1000
14629	Туре М	P 1200
14130	Туре М	P 2400
14072	Туре М	P 2500
14131	Туре М	P 4000
Box of 25		
14249	Type S	P 60
14250	Type S	P 100
14251	Type S	P 120
14252	Type S	P 180
14259	Type S	P 240
14253	Type S	P 320
14254	Type S	P 400
14255	Type S	P 600
14256	Type S	P 800
14257	Туре М	P 1000
14258	Туре М	P 1200
14265	Туре М	P 2400
14075	Туре М	P 2500
14266	Туре М	P 4000

#### **REFLEX NAC**



DESIGNATION	GRIT	
Type S	P 60	
Type S	P 100	
Type S	P 120	
Type S	P 180	
Type S	P 240	
Type S	P 320	
Type S	P 400	
Type S	P 600	
Type S	P 800	
Туре М	P 80	
Туре М	P 120	
Туре М	P 180	
Туре М	P 240	
Туре М	P 320	
Туре М	P 400	
Туре М	P 600	
Туре М	P 800	
Туре М	P 1000	
Туре М	P 1200	
Туре М	P 2400	
Туре М	P 2500	
Туре М	P 4000	
	Type S Type M	

### ABRASIVE PAPERS Ø 300MM



#### **NON-ADHESIVE**

REF.	DESIGNATION	GRIT		
Box of 100	)			
13163	Type S	P 60		
13130	Type S	P 100		
13131	Type S	P 120		
13132	Type S	P 180		
13133	Type S	P 240		
13134	Type S	P 320		
13135	Type S	P 400		
13136	Type S	P 600		
13137	Type S	P 800		
13430	Туре М	P 80		
13431	Туре М	P 120		
13432	Туре М	P 180		
13433	Туре М	P 240		
13434	Туре М	P 320		
13435	Туре М	P 400		
13436	Туре М	P 600		
13437	Туре М	P 800		
13438	Туре М	P 1000		
13439	Туре М	P 1200		
13156	Туре М	P 2400		
13803	Туре М	P 2500		
13157	Туре М	P 4000		
Box of 25				
13300	Type S	P 100		
13301	Type S	P 120		
13302	Type S	P 180		
13309	Type S	P 240		
13303	Type S	P 320		
13304	Type S	P 400		
13305	Type S	P 600		
13306	Type S	P 800		
13307	Туре М	P 1000		
13308	Туре М	P 1200		
13330	Туре М	P 2400		
13088	Туре М	P 2500		
13331	Туре М	P 4000		

#### **ADHESIVE**

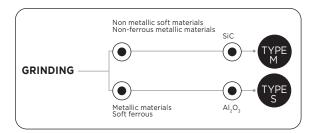
REF.	DESIGNATION	GRIT
Box of 100		
14133	Type S	P 60
14109	Type S	P 100
14110	Type S	P 120
14111	Type S	P 180
14112	Type S	P 240
14117	Type S	P 320
14113	Type S	P 400
14116	Type S	P 600
14114	Type S	P 800
14640	Туре М	P 80
14641 Type M		P 120
14642	Туре М	P 180
14643	Туре М	P 240
14644	Туре М	P 320
14645	Туре М	P 400
14646	Туре М	P 600
14647	Туре М	P 800
14648	Туре М	P 1000
14649	Туре М	P 1200
14119	Туре М	P 2400
14073	Туре М	P 2500
14132	Туре М	P 4000
Box of 25		
14299	Type S	P 60
14300	Type S	P 100
14301	Type S	P 120
14302	Type S	P 180
14309	Type S	P 240
14303	Type S	P 320
14304	Type S	P 400
14305	Type S	P 600
14306	Type S	P 800
14307	Туре М	P 1000
14308	Туре М	P 1200
14315	Туре М	P 2400
14076	Туре М	P 2500
14316	Туре М	P 4000

#### **REFLEX NAC**



			•
REF.	DESIGNATION	GRIT	
Box of 100			
	Type S	P 60	
24546	Type S	P 100	
24547	Type S	P 120	
24548	Type S	P 180	
24549	Type S	P 240	
24550	Type S	P 320	
24551	Type S	P 400	
24552	Type S	P 600	
24553	Type S	P 800	
24605	Туре М	P 80	
24606	Туре М	P 120	
24607	Туре М	P 180	
24608	Туре М	P 240	
24609	Туре М	P 320	
24610	Туре М	P 400	
24611	Туре М	P 600	
24612	Туре М	P 800	
24613	Туре М	P 1000	
24614	Туре М	P 1200	
24556	Туре М	P 2400	•
24493	Туре М	P 2500	
24557	Туре М	P 4000	

### **ABRASIVE PAPERS** Ø 230MM - Ø 305MM Ø 400MM



#### **NON-ADHESIVE Ø 230MM**

REF.	DESIGNATION	GRIT	
Box of 10	0		_
13110	Type S	P 100	_
13111	Type S	P 120	_
13112	Type S	P 180	_
13113	Type S	P 240	_
13114	Type S	P 320	_
13115	Type S	P 400	
13116	Type S	P 600	_
13117	Type S	P 800	_
13410	Туре М	P 80	_
13411	Туре М	P 120	_
13412	Туре М	P 180	_
13413	Туре М	P 240	_
13414	Туре М	P 320	_
13415	Туре М	P 400	_
13416	Туре М	P 600	_
13417	Туре М	P 800	_
13418	Туре М	P 1000	_
13419	Туре М	P 1200	
13152	Туре М	P 2400	
13083	Туре М	P 2500	
13153	Туре М	P 4000	_
Box of 25	5		
13230	Type S	P 100	_
13231	Type S	P 120	_
13232	Type S	P 180	_
13239	Type S	P 240	
13233	Type S	P 320	_
13234	Type S	P 400	_
13235	Type S	P 600	_
13236	Type S	P 800	_
13237	Туре М	P 1000	_
13238	Туре М	P 1200	_
13240	Туре М	P 2400	_
13086	Туре М	P 2500	
13241	Туре М	P 4000	

#### **REFLEX NAC Ø 230MM**



REF.	DESIGNATION	GRIT	
Box of 100	)		
24515	Type S	P 60	
24516	Type S	P 100	
24517	Type S	P 120	
24518	Type S	P 180	
24519	Type S	P 240	
24520 Type S		P 320	
24521	Type S	P 400	
24522	Type S	P 600	
24523	Type S	P 800	
24585	Туре М	P 80	
24586	Туре М	P 120	
24587	Туре М	P 180	
24588	Туре М	P 240	
24589	Туре М	P 320	
24590	Туре М	P 400	
24591	Туре М	P 600	
24592	Туре М	P 800	
24593	Туре М	P 1000	
24594	Туре М	P 1200	
24526	Туре М	P 2400	
24491	Туре М	P 2500	
24527	Туре М	P 4000	

#### **ADHESIVE Ø 400MM**

REF.	DESIGNATION	GRIT
Box of 25		
14410	Type S	P 60
14400	Type S	P 100
14401	Type S	P 120
14402	Type S	P 180
14409	Type S	P 240
14403	Type S	P 320
14404	Type S	P 400
14405	Type S	P 600
14406	Type S	P 800
14407	Туре М	P 1000
14408	Туре М	P 1200
14411	Туре М	P 2400
14413	Туре М	P 2500
14412	Туре М	P 4000

#### **NON-ADHESIVE Ø 305MM**

REF.	DESIGNATION	GRIT
Box of 100		
13140	Type S	P 100
13141	Type S	P 120
13142	Type S	P 180
13143	Type S	P 240
13144	Type S	P 320
13145	Type S	P 400
13146	Type S	P 600
13147	Type S	P 800
13450	Туре М	P 80
13451	Туре М	P 120
13452	Туре М	P 180
13453	Туре М	P 240
13454	Туре М	P 320
13455	Туре М	P 400
13456	Туре М	P 600
13457	Туре М	P 800
13458	Туре М	P 1000
13459	Туре М	P 1200
13158	Туре М	P 2400
13084	Туре М	P 2500
13159	Туре М	P 4000



Polishing cloths influence the properties of the cutting of abrasives (diamond, alumina, silica...) with which they are used.

MED R with a complete range of self-adhesive cloths and REFLEX PAD-MAG, solve all metallography or geology polishing problems using abrasives such as diamond, alumina, mechanico-chemical SPM solution.

Polishing cloths are classified in 4 main families: fine-grinding, rough-finishing, finishing and super-finishing.

#### MED R AND FINE GRINDING

NAME	TYPE	COMPOSITION	MAIN APPLICATIONS	RECOMMENDED PRODUCTS	ASSOCIATED SUSPENSIONS	ADHESIVE	METALLIC BACK-SIDE VERSION PAD MAG	Refle
MED R		Resinoids studs	Levelling of all types of materials	Polycrystalline super abrasive product / Diamond product	15 to 6µ		Ref. 24087: Ø 200 mm Ref. 24089: Ø 250 mm Ref. 24090: Ø 300 mm	·
ТОР		Plasticised acetate silk taffeta	Levelling of all types of materials	Diamond products	15 to 6µ	Ref. 16214: Ø 200mm Ref. 16264: Ø 250mm Ref. 16314: Ø 300 mm	Ref. 24161: Ø 200 mm Ref. 24191: Ø 250 mm Ref. 24206: Ø 300 mm	
RAMII		Acetate silk satin, plasticised and glued to a semi-rigid support	Soft materials	Diamond products	9 to 6µ	Ref. 16211: Ø 200mm Ref. 16261: Ø 250mm Ref. 16311: Ø 300mm	Ref. 24162: Ø 200 mm Ref. 24192: Ø 250 mm Ref. 24219: Ø 300 mm	

#### **ROUGH-FINISHING CLOTHS**

NAME	TYPE	COMPOSITION	MAIN APPLICATIONS	RECOMMENDED PRODUCTS	ASSOCIATED SUSPENSIONS	ADHESIVE	METALLIC BACK-SIDE VERSION PAD MAG	Ref
RAM		Acetate silk satin, plasticised and glued to a semi-rigid support	Polishing and finishing with excellent flatness. Inclusion retention-All materials	Diamond products	3 to 1µ	Ref. 16216: Ø 200mm Ref. 16266: Ø 250mm Ref. 16316: Ø 300mm	Ref. 24160 : Ø 200mm Ref. 24190 : Ø 250mm Ref. 24205 : Ø 300mm	
STA		Acetate silk satin, plasticised and glued to a semi-rigid support	All materials	Diamond products	9 to 6µ	Ref. 16212: Ø 200mm Ref. 16262: Ø 250mm Ref. 16312: Ø 300mm	Ref. 24170: Ø 200mm Ref. 24200: Ø 250mm Ref. 24215: Ø 300mm	
ADRII		Woolen fabric woven on a flexible support	Semi-finishing polishing with excellent flatness. All types of steels/stainless steels	Diamond products	6 to 3µ	Ref. 16226 : Ø 200mm Ref. 16276 : Ø 250mm Ref. 16326 : Ø 300mm	Ref. 24172: Ø 200mm Ref. 24202: Ø 250mm Ref. 24218: Ø 300mm	
NWF+		Synthetic fibers, elastomer bonded to a rough surface	Final polishing of hard materials, refractories, carbides, ceramics. Applications for optics: glass and quartz (alumina & cerium oxide)	Diamond products Cerium oxide Alumina	3 to 1µ 2,5µ (cerium) 0,3µ (alumina)	Ref. 16215: Ø 200mm Ref. 16265: Ø 250mm Ref. 16309: Ø 300mm	Ref. 24168: Ø 200mm Ref. 24198: Ø 250mm Ref. 24213: Ø 300mm	•

#### **FINISHING CLOTHS**

NAME	TYPE	COMPOSITION	MAIN APPLICATIONS	RECOMMENDED PRODUCTS	ASSOCIATED SUSPENSIONS	ADHESIVE	METALLIC BACK-SIDE VERSION PAD MAG	Ref
NT		Flocked fabric fixed on soft cotton taffeta	Polishing and super-polishing of all types of materials	Diamond products Aluminas SPM	3 to 1/4μ 0,03μ (SPM)	Ref. 16206: Ø 200mm Ref. 16256: Ø 250mm Ref. 16306: Ø 300mm	Ref. 24165: Ø 200mm Ref. 24195: Ø 250mm Ref. 24210: Ø 300mm	
TFR		Very short and very soft flocked fabric embedded in a layer of flexible plastic	Super-finishing for inclusion investigations and control of structure on steels, aluminium, zirconium, magnesium	Diamond products	1 to 1/4μ	Ref. 16204: Ø 200mm Ref. 16254: Ø 250mm Ref. 16304: Ø 300mm	Ref. 24167: Ø 200mm Ref. 24197: Ø 250mm Ref. 24212: Ø 300mm	_
RFI		Very short flocked fabric on cotton cloth	Final polishing for all steels and super-finishing (inclusions)	Diamond products	3 to 1µ	Ref. 16230: Ø 200mm Ref. 16280: Ø 250mm Ref. 16330: Ø 300mm	Ref. 24169: Ø 200mm Ref. 24199: Ø 250mm Ref. 24207: Ø 300mm	
HS V		Very short flocked fabric attached to a semi-rigid plastic	Polishing and finishing of all materials	Diamond products (or alumina in some cases)	3μ	Ref. 16201: Ø 200mm Ref. 16251: Ø 250mm Ref. 16301: Ø 300mm	Ref. 24163: Ø 200mm Ref. 24193: Ø 250mm Ref. 24208: Ø 300mm	
HS B		Very short flocked fabric on strong cotton cloth	Polishing and finishing of all materials	Diamond products (or alumina in some cases)	1μ	Ref. 16202: Ø 200mm Ref. 16252: Ø 250mm Ref. 16302: Ø 300mm	Ref. 24164: Ø 200mm Ref. 24194: Ø 250mm Ref. 24209: Ø 300mm	_
NWF+		Elastomer bonded synthetic fibers on rough surface	Final polishing of hard materials, refractories, carbides, ceramics. Applications for optics: glass and quartz (alumina & cerium oxide)	Diamond products Cerium oxide Aluminas	3 to 1μ 2,5μ (cerium) 0,3μ (alumina)	Ref. 16215: Ø 200mm Ref. 16265: Ø 250mm Ref. 16309: Ø 300mm	Ref. 24168 : Ø 200mm Ref. 24198 : Ø 250mm Ref. 24213 : Ø 300mm	-

#### **SUPER-FINISHING CLOTHS**

NAME	TYPE	COMPOSITION	MAIN APPLICATIONS	RECOMMENDED PRODUCTS	ASSOCIATED SUSPENSIONS	ADHESIVE	METALLIC BACK-SIDE VERSION PAD MAG	Refl
DBM		Billiard cloth 100% wool	Polishing and super-finishing for soft materials (tin, lead)	Alumina Cerium oxide	6 to 0,3μ	Ref. 16218: Ø 200mm Ref. 16268: Ø 250mm Ref. 16318: Ø 300mm	Ref. 24173: Ø 200mm Ref. 24203: Ø 250mm Ref. 24231: Ø 300mm	
SUPRA		Synthetic fiber felt impregnated with latex, covered with a layer of polyurethane foam	Super-finishing of all materials. Mirror polishing of semi-conductors, glass	SPM Colloidal silica	0,03μ (SPM)	Ref. 16224: Ø 200mm Ref. 16274: Ø 250mm Ref. 16324: Ø 300mm	Ref. 24166: Ø 200mm Ref. 24196: Ø 250mm Ref. 24211: Ø 300mm	-
NV		Very soft flocked fabric, attached to a soft cotton cloth	Final polishing for soft materials (aluminium alloys, copper Super -finishin for ceramics with cerium oxide	Diamond products Alumina	0,8 - 1μ (alumina) 2,5μ (cerium)	Ref. 16207: Ø 200 mm Ref. 16257: Ø 250mm Ref. 16307: Ø 300mm	Ref. 24171: Ø 200mm Ref. 24201: Ø 250mm Ref. 24217: Ø 300mm	-
LDR		Polyurethane impregnated polyester fiber felt	Electronics, carbon fiber Semi-conductors polishing	Diamond products Alumine	1 to 1/4µ	Ref. 16223: Ø 200 mm Ref. 16273: Ø 250 mm Ref. 16323: Ø 300 mm	On request	-

#### **WOVEN**

Made with different **fibres and weave sizes,** they are all laminated at the back to avoid penetration of the abrasive and extender into the adhesive layer. They generally offer "hard surface" polishing properties and guarantee flatness without edge deterioration.

#### **FLOCKED**

They are classified according to their type, length, density and grade of flock, as well as flock support and bonding. Only flocked cloths provide a super-polished finish. They must be used for the shortest possible time in order to avoid pull-out of inclusions.

#### **NON-WOVEN**

Mixture of various fibres impregnated with plastic, elastomer, latex... and often subject to mechano-chemical treatments. They are used on very hard materials in order to get a high removal rate and for the finishing of light alloys. They are an extension of metallographic methods for finishing of high precision surfaces such as glass, quartz, saphire and semi-conductors.

## MED R

#### **DISCS MED R**

Polishing discs composed of resin pads, which are used with a polycrystalline diamond suspension or a dedicated super abrasive suspension.

REF.	DESIGNATION	Ø
24087	Disc	Ø 200mm
24089	Disc	Ø 250mm
24090	Disc	Ø 300mm

#### **POLYCRYSTALLINE DIAMOND** SUSPENSION FOR MED R

REF.	DESIGNATION	GRIT
20613	500CC Bottle	6μ
20623	1l Bottle	6μ
20633	2.5l Bottle	6µ
20614	500CC Bottle	9μ
20624	1l Bottle	9μ
20634	2.5l Bottle	9μ
20615	500CC Bottle	15μ
20625	1l Bottle	15µ
20635	2.5l Bottle	15µ

#### SUPER-ABRASIVE SUSPENSION FOR MED R

REF.	DESIGNATION	GRIT
20653	500CC Bottle	6μ
20663	1l Bottle	6μ
20673	2.5l Bottle	6μ
20654	500CC Bottle	9μ
20664	1l Bottle	9μ
20674	2.5l Bottle	9μ
20655	500CC Bottle	15µ
20665	1l Bottle	15μ
20675	2.5l Bottle	15μ

MED R **FASTER. MORE EFFECTIVE.** 

Used with a polycrystalline diamond suspension or a special super-abrasive suspension

#### **Replaces several polishing stages:**

savings in abrasive papers and polishing cloths

more resistant than a polishing cloth

**Better removal** 

**Better flatness** 

**Enhanced circulation** of polishing fluids

COMPLETE RANGE 3 diameters: 200, 250 and

Download the MED R technical sheet





## POLISHING CLOTHS

#### Ø 200MM

#### **ADHESIVE**

Box of 5.

REF.	DESIGNATION
16226	ADR II
16218	DBM
16202	HS-B
16201	HS-V
16223	LDR
16206	NT
16207	NV
16215	NWF +
16216	RAM
16211	RAMII
16230	RFI
16212	STA
16224	SUPRA
16204	TFR
16214	TOP

#### **REFLEX PAD-MAG**

Box of 5.

REF.	DESIGNATION	
24172	ADR II	
24173	DBM	
24164	HS-B	
24163	HS-V	
24165	NT	
24171	NV	
24168	NWF +	
24160	RAM	
24162	RAMII	
24169	RFI	
24170	STA	
24166	SUPRA	
24157	SUPRA embossed	
24167	TFR	
24161	TOP	

#### Ø 250MM

#### **ADHESIVE**

Box of 5.

REF.	DESIGNATION
16276	ADR II
16268	DBM
16252	HS-B
16251	HS-V
16273	LDR
16256	NT
16257	NV
16265	NWF +
16266	RAM
16261	RAMII
16280	RFI
16262	STA
16274	SUPRA
16254	TFR
16264	TOP

#### **REFLEX PAD-MAG**

Box of 5.

REF.	DESIGNATION
24202	ADR II
24203	DBM
24194	HS-B
24193	HS-V
24195	NT
24201	NV
24198	NWF +
24190	RAM
24192	RAMII
24199	RFI
24200	STA
24196	SUPRA
24158	SUPRA embossed
24197	TFR
24191	TOP

#### Ø 300MM

#### **ADHESIVE**

Box of 5.

REF.	DESIGNATION
16326	ADR II
16318	DBM
16302	HS-B
16301	HS-V
16323	LDR
16306	NT
16307	NV
16309	NWF +
16316	RAM
16311	RAMII
16330	RFI
16312	STA
16324	SUPRA
16304	TFR
16314	TOP

#### **REFLEX PAD-MAG**

Box of 5.

REF.	DESIGNATION
24218	ADR II
24231	DBM
24209	HS-B
24208	HS-V
24210	NT
24217	NV
24213	NWF+
24205	RAM
24219	RAMII
24207	RFI
24215	STA
24211	SUPRA
24159	SUPRA embossed
24212	TFR
24206	TOP

#### Ø 400MM

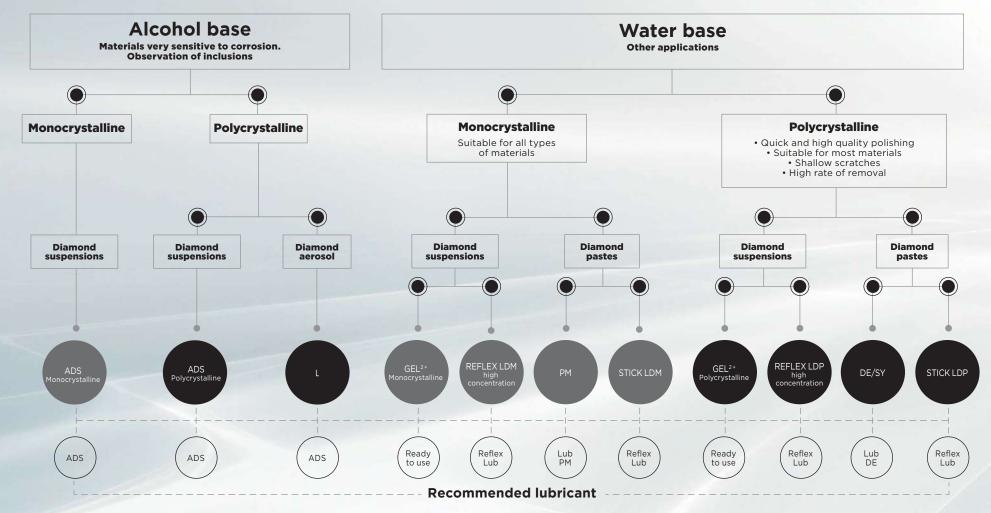
#### **ADHESIVE**

Box of 5.

REF.	DESIGNATION	
16402	HS-B	
16401	HS-V	
16423	LDR	
16406	NT	
16441	NWF +	
16416	RAM	
16411	RAMII	
16430	RFI	
16412	STA	
16424	SUPRA	

Our adhesive polishing cloths are available in several other diameters! Contact us.





NB: all monocrystalline solutions are colored (except PM pastes). The color is related to the grain size.

#### **MONOCRYSTALLINE DIAMOND**

## **SUSPENSIONS**

#### **REFLEX LDM**



Water based coloured diamond suspensions, monocrystalline, high concentration. For the polishing of semi-hard and ductile materials. To be used with lubricant Reflex Lub.

REF.	DESIGNATION	μ
24330	250CC Bottle*	1/4µ
24250	500CC Bottle*	1/4µ
24283	1l Bottle	1/4µ
24290	2.5l Drum	1/4µ
24331	250CC Bottle*	1μ
24251	500CC Bottle*	1μ
24284	1l Bottle	1μ
24291	2.5l Drum	1μ
24332	250CC Bottle*	3μ
24252	500CC Bottle*	3μ
24285	1l Bottle	3μ
24292	2.5l Drum	3μ
24333	250CC Bottle*	6μ
24253	500CC Bottle*	6μ
24286	1l Bottle	6μ
24293	2.5l Drum	6μ
24334	250CC Bottle*	9μ
24254	500CC Bottle*	9μ
24287	1l Bottle	9μ
24294	2.5l Drum	9μ
24335	250CC Bottle*	15µ
24255	500CC Bottle*	15µ
24288	1l Bottle	15µ
24295	2.5l Drum	15µ

<sup>\*</sup> Comes in a spray bottle

#### **ADS MONOCRYSTALLINE**

Alcohol based diamond suspensions, anhydrous. For the polishing of semi-hard and ductile materials, sensitive to corrosion and for observation of inclusions.

To be used with lubricant Lub ADS.

REF.	DESIGNATION	μ
20096	250CC Bottle*	1/4µ
20105	500CC Bottle*	1/4µ
20114	1l Bottle	1/4µ
20122	2.5l Drum	1/4µ
20097	250CC Bottle*	1μ
20106	500CC Bottle*	1μ
20115	1l Bottle	1μ
20123	2.5l Drum	1μ
20098	250CC Bottle*	3μ
20107	500CC Bottle*	3μ
20116	1l Bottle	3μ
20124	2.5l Drum	3μ
20099	250CC Bottle*	6μ
20108	500CC Bottle*	6μ
20117	1l Bottle	6μ
20125	2.5l Drum	6μ
20100	250CC Bottle*	9μ
20109	500CC Bottle*	9μ
20118	1l Bottle	9μ
20126	2.5l Drum	9μ
20101	250CC Bottle*	15µ
20110	500CC Bottle*	15µ
20119	1l Bottle	15µ
20127	2.5l Drum	15µ

<sup>\*</sup> Comes in a spray bottle

#### **ODS MONOCRISTALLINS**

New oil-based diamond suspensions, anhydrous. For the polishing of ductile and semi-hard materials, sensitive to corrosion and for observation of inclusions. To be used with Lub ODS lubricant.

REF.	DESIGNATION	μ
20750	250CC Bottle	 1/4μ
20760	500CC Bottle	1/4µ
20770	1l Bottle	1/4µ
20780	2.5l Drum	1/4µ
20751	250CC Bottle	1μ
20761	500CC Bottle	1μ
20771	1l Bottle	1μ
20781	2.5l Drum	1μ
20752	250CC Bottle	3µ
20762	500CC Bottle	 3μ
20772	1l Bottle	 3μ
20782	2.5l Drum	3μ
20753	250CC Bottle	6μ
20763	500CC Bottle	6μ
20773	1l Bottle	6μ
20783	2.5l Drum	6μ
20754	250CC Bottle	9μ
20764	500CC Bottle	9μ
20774	1l Bottle	9μ
20784	2.5l Drum	9μ
20755	250CC Bottle	15µ
20765	500CC Bottle	15µ
20775	1l Bottle	15µ
20785	2.5l Drum	15µ

#### **GEL<sup>2+</sup> MONOCRYSTALLINE**

Coloured water based diamond gel, monocrystalline. For the polishing of semi-hard and ductile materials.

Ready for use, no need to add lubricant.

2.5l Drum	DESIGNATION	μ
24301	1l Bottle*	1/4µ
24315	2.5l Drum	1/4µ
24302	1l Bottle*	1μ
24316	2.5l Drum	1μ
24303	1l Bottle*	3μ
24317	2.5l Drum	3
24304	1l Bottle*	6µ
24318	2.5l Drum	6μ
24305	1l Bottle*	9μ
24319	2.5l Drum	9μ
24306	1I Bottle*	15µ
24320	2.5l Drum	15µ

<sup>\*</sup> Comes in a spray bottle

#### **SPRAYS**

REF.	DESIGNATION	
10008	5 bottles of 500CC	
10015	10 bottles of 250CC	
10016	50 bottles of 50CC	





Sprays 500 CC

#### **POLYCRYSTALLINE DIAMOND**

## **SUSPENSIONS**

#### **REFLEX LDP**

Refle

Water based diamond suspensions, polycrystalline, high concentration. For the polishing of semi-hard to very-hard materials. To be used with lubricant Reflex Lub.

REF.	DESIGNATION	μ	
24340	250CC Bottle*	1/4µ	
24260	500CC Bottle*	1/4µ	
24439	1l Bottle	1/4µ	
24446	2.5l Drum	1/4µ	
24341	250CC Bottle*	1μ	
24261	500CC Bottle*	1μ	
24440	1l Bottle	1μ	
24447	2.5l Drum	1μ	
24342	250CC Bottle*	3μ	
24262	500CC Bottle*	3μ	
24441	1l Bottle	3μ	
24448	2.5l Drum	3μ	
24343	250CC Bottle*	6μ	
24263	500CC Bottle*	6μ	
24442	1l Bottle	6μ	
24449	2.5l Drum	6µ	
24344	250CC Bottle*	9μ	
24264	500CC Bottle*	9μ	
24443	1l Bottle	9μ	
24450	2.5l Drum	9μ	
24345	250CC Bottle*	15µ	
24265	500CC Bottle*		
24444	1l Bottle	15µ	
24451	2.5l Drum 15 <sub>l</sub>		

<sup>\*</sup> Comes in a spray bottle

#### **ADS POLYCRYSTALLINE**

Alcohol based diamond suspensions, anhydrous. For the polishing of semi-hard to very-hard materials, sensitive to corrosion and for observation of inclusions.

To be used with lubricant Lub ADS.

REF.	DESIGNATION	μ
20060	250CC Bottle*	1/4µ
20069	500CC Bottle*	1/4µ
20078	1l Bottle	1/4µ
20087	2.5l Drum	1/4µ
20061	250CC Bottle*	1μ
20070	500CC Bottle*	1μ
20079	1l Bottle	1μ
20088	2.5l Drum	1μ
20062	250CC Bottle*	3μ
20071	500CC Bottle*	3µ
20080	1l Bottle	3μ
20089	2.5l Drum	3µ
20063	250CC Bottle*	6µ
20072	500CC Bottle*	6μ
20081	1l Bottle	6μ
20090	2.5l Drum	6μ
20064	250CC Bottle*	9μ
20073	500CC Bottle*	9μ
20082	1l Bottle	9μ
20091	2.5l Drum	9μ
20065	250CC Bottle*	15µ
20074	500CC Bottle*	15µ
20083	1l Bottle	15µ
20092	2.5l Drum	15µ
* C:-		

<sup>\*</sup> Comes in a spray bottle

#### **ODS POLYCRYSTALLINE**

New oil-based diamond suspensions, anhydrous. For the polishing of semi-hard to very-hard materials, sensitive to corrosion and for observation of inclusions.

To be used with lubricant Lub ODS.

REF. DESIGNATION		μ	
20710	250CC Bottle	1/4µ	
20720	500CC Bottle	1/4µ	
20730	1l Bottle	1/4µ	
20740	2.5l Drum	1/4µ	
20711	250CC Bottle	1μ	
20721	500CC Bottle	1μ	
20731	1l Bottle	1μ	
20741	2.5l Drum	1μ	
20712	250CC Bottle	3μ	
20722	500CC Bottle	3μ	
20732	1l Bottle	3μ	
20742	2.5l Drum	3μ	
20713	250CC Bottle	6μ	
20723	500CC Bottle	6μ	
20733	1l Bottle	6μ	
20743	2.5l Drum	6μ	
20714	0714 250CC Bottle		
20724	500CC Bottle	9μ	
20734	1l Bottle	9μ	
20744	2.5l Drum	9μ	
20715	250CC Bottle 15µ		
20725	500CC Bottle	15μ	
20735	1l Bottle	15µ	
20745	2.5l Drum 15µ		

#### **GEL<sup>2+</sup> POLYCRYSTALLINE**

Water based diamond Gel, polycrystalline. For the polishing of semi-hard to very-hard materials. Ready for use, no need to add lubricant.

REF.	DESIGNATION	μ
24309	1I Bottle*	1/4µ
24321	2.5l Drum	1/4µ
24310	1l Bottle*	1μ
24322	2.5l Drum	1μ
24311	1l Bottle*	3μ
24323	2.5l Drum	3μ
24312	1l Bottle*	6μ
24324	2.5l Drum	6μ
24313	1l Bottle*	9μ
24325	2.5l Drum	9μ
24314	1l Bottle*	15μ
24326	2.5l Drum	15µ

<sup>\*</sup> Comes in a spray bottle

#### **SPRAYS**

REF.	DESIGNATION	
10008	5 bottles of 500CC	
10015	10 bottles of 250CC	
10016	50 bottles of 50CC	



Sprays 500 CC



Sprays 50 CC

## **DIAMOND PASTES & STICKS**

#### MONOCRYSTALLINE AND POLYCRYSTALLINE



#### **DIAMOND PASTES - PM**

Monocrystalline diamond paste, high concentration, soluble in water and alcohol. For the polishing of special and stainless steels, cast iron... To be used with lubricant PM.

REF.	DESIGNATION	GRIT
05001	5g syringe	1/4µ
05002	10g syringe	1/4µ
05003	5g syringe	1μ
05004	10g syringe	1μ
05005	5g syringe	2μ
05006	10g syringe	2μ
05007	5g syringe	3µ
05008	10g syringe	3μ
05009	5g syringe	6µ
05010	10g syringe	6µ
05011	5g syringe	9μ
05012	10g syringe	9μ
05013	5g syringe	15µ
05014	10g syringe	15μ
05015	5g syringe	30µ
05016	10g syringe	30μ
05017	5g syringe	45µ
05018	10g syringe	45µ

#### **DIAMOND AEROSOLS - L**

Alcohol based diamond suspension, polycrystalline, aerosol. For the polishing of very hard and ductile materials.

REF.	DESIGNATION	GRIT
07001	150CC Bottle	1/4µ
07002	150CC Bottle	1μ
07003	150CC Bottle	3µ
07004	150CC Bottle	6µ

#### **DIAMOND PASTES - DE/SY**

Polycrystalline diamond paste, high concentration, soluble in water and alcohol. For the polishing of hard materials. To be used with lubricant DE.

REF.	DESIGNATION	GRIT	
06017	5g syringe	1/4µ	
06018	10g syringe	1/4µ	
06019	5g syringe	1μ	
06020	10g syringe	1μ	
06021	5g syringe	3 μ	
06022	10g syringe	3μ	
06023	5g syringe	6µ	
06024	10g syringe	6μ	
06025	5g syringe	9μ	
06026	10g syringe	9μ	
06027	5g syringe	15μ	
06028	10g syringe	15µ	
06029	5g syringe	30µ	
06030	10g syringe	30µ	
06031	5g syringe	45µ	
06032	10g syringe	45µ	

#### **LUBRICANTS**

REF.	DESIGNATION	TYPE	COLOR
10005	1l Bottle	DE	Pink
10020	10l Drum	DE	Pink
10006	1l Bottle	PM	Orange
10021	10l Drum	PM	Orange
10013	1l Bottle	ADS	Transparent
10025	10l Drum	ADS	Transparent
24270	1l Bottle*	Reflex Lub	Green
24271	10l Drum	Reflex Lub	Green
10014	1l Bottle	ODS	Transparent
10027	10l Drum	ODS	Transparent

<sup>\*</sup> Comes in a spray bottle

#### **DIAMOND STICKS - LDM**

Coloured water based diamond paste, monocrystalline, delivered in stick. For the polishing of semi-hard to very-hard materials. To be used with lubricant Reflex Lub.

REF.	DESIGNATION	GRIT
18010	20g	1/4µ
18011	20g	1μ
18012	20g	3μ
18013	20g	6μ
18014	20g	9μ
18015	20g	15μ
18016	20g	25μ

#### **DIAMOND STICKS - LDP**

Water based diamond paste, polycrystalline, not coloured, delivered in stick. For the polishing of semi-hard to very-hard materials. To be used with lubricant Reflex Lub.

REF.	DESIGNATION	GRIT
18020	20g	1/4μ
18021	20g	1μ
18022	20g	3μ
18023	20g	6μ
18024	20g	9μ
18025	20g	15µ
18026	20g	25µ



Diamond sticks







Lubricants

#### **SUPER-FINISHING**

## **POLISHING**

#### PRESI ALUMINA SUSPENSIONS

#### PRESI Nº 1 - Grit: 0.04µ.

Use: super-finishing of soft materials such as copper, lead, aluminium...

#### PRESI N° 2 - Grit: 0.3μ.

Use: finishing of copper alloys, nickel, brass, bronze, aluminium...

#### PRESI N° 3 - Grit: 0.8µ.

Use: finishing of steels and hard metals (finish suitable for direct observation or medium magnification).

#### PRESI Nº 4 - Grit: 1µ.

Use: specially recommended for fine pre-polishing of all metals.

DESIGNATION	GRIT			
Bottle of 1I				
N° 1 (48h)	0.04µ			
N° 2 (24h)	0.3μ			
N° 3 (12h)	0.8μ			
N° 4 (6h)	1μ			
	N° 1 (48h) N° 2 (24h) N° 3 (12h)	N° 1 (48h) 0.04μ N° 2 (24h) 0.3μ N° 3 (12h) 0.8μ		

#### **SPM (COLLOIDAL SILICA) NON CRYSTALLISING**

New SPM non crystallising formula, especially recommended for super-finishing of samples with thin coatings.

REF.	DESIGNATION	GRIT
12045	11 Bottle	0.03μ
12046	10l Drum	0.03µ
24281	11 trigger Spray bottle (Reflex)*	0.03μ

<sup>\*</sup> Comes in a spray bottle

#### **DUJARDIN ALUMINA SUSPENSIONS**

#### DUJARDIN Nº 1 - Grit: 0-1µ. Blue.

Use: suitable for polishing of steels and hard steels.

#### DUJARDIN N° 2 - Grit: 0-0.7µ. White.

Use: provides a flawless surface for all hard and semi-hard metals. Suitable for brass, bronze... and more generally, for all copper and nickel alloys.

#### DUJARDIN Nº 3 - Grit: 0-0.3µ, Pink.

Use: for finishing of metallographic samples and in particular for soft metals: copper, lead... Can be used in certain cases for finishing after diamond polishing.

DESIGNATION	GRIT	
f 1l		
N° 3	0-0.3μ	
N° 2	0-0.7μ	
N° 1	Ο-1μ	
	<b>f 1l</b> N° 3 N° 2	<b>f 1l</b> N° 3

#### **SPM (COLLOIDAL SILICA)**

SPM suspension is recommended for super-finishing of aluminium. copper, titanium samples and more generally any sample with thin layers. This suspension can be diluted up to 7 times in water. To avoid crystallisation, the sample and the cloth must be thoroughly rinsed with water after polishing.

REF.	DESIGNATION	GRIT
12006	1l Bottle	0.03μ
12007	10l Drum	0.03μ
24280	1l trigger Spray bottle (Reflex)*	0.03μ

<sup>\*</sup> Comes in a spray bottle

#### PRESI ALUMINA POWDERS

REF.	DESIGNATION		
Box of 1 kg			
11001	001 Gamma 0.04μ		
11002	Type alpha 0.3µ		
11003	Type alpha 1µ	Type alpha 1µ	

#### **CERIUM OXIDE**

Suitable for the polishing of optics and ceramics.

REF.	DESIGNATION	GRIT	
36207	1kg Pack	2.5µ	

## **REAGENTS**

## **ELECTROLYTIC POLISHING**

Electrolytic attack polishing is used for the examination of homogenously-structured materials, both for control and research purposes.

#### **ELECTROLYTES FOR ELLOPOL** TYPE PORTABLE DEVICE

ELLOPOL electrolytes can be used on-site for non-destructive testing (replic) or in the laboratory. They can only be used in the case of pad polishing. The area to polish is just dampened with the electrolyte contained in the cap, and a very small quantity of electrolyte is used. The polishing or attack operation is slower, but delivers ideal attack of fine structures.

REF.	DESIGNATION	FORMULA	USE
17201	Electrolyte BEPER	909ml butylene glycol + 91ml perchloric acid	Alpax, beryllium, cadmium, magnesium and its alloys, cast irons
17202	Electrolyte BAPER	944ml butylene glycol + 56ml perchloric acid	Magnesium and its alloys
17203	Electrolyte BUPAC	455ml butylene glycol + 454ml acetic acid + 91ml perchloric acid	Lamellar or nodular graphite cast iron
17204	Electrolyte BUPER	833ml butylene glycol + 167ml perchloric acid	Lamellar or nodular graphite cast iron
17206	Electrolyte FOSET*	400ml orthophosphoric acid + 560ml Ethanol + 40ml water	Copper and alloys, aluminium and alloys, uranium
17213	Electrolyte OPALU-B*	540ml orthophosphoric acid + 216ml butylene glycol + 216ml Ethanol + 27ml water	Copper and alloys, uranium

<sup>\*</sup> Subject to customs regulations in France. Certificate of use to be provided.

#### SOLUTIONS FOR ELECTROLYTIC POLISHING FOR POLISEC C 25

POLISEC electrolytes are designed for laboratory control on samples.

They are designed to be used in cells or in a bath, depending on the materials to be polished or attacked. Polishing or attack operations are generally very short because of the circulation of electrolytes causing rapid material removal.

REF.	DESIGNATION	FORMULA	USE	
17100	Electrolyte D 11 1/2*	700ml Ethanol + 100ml butylene glycol	_ Steels, stainless steels,	
17100	Electrolyte D 11 2/2	200ml Perchloric acid	aluminium, iron, nickel	
17101	Electrolyte D 12 1/2	590ml methanol + 350ml butylene glycol	_ Molybdène, zirconium,	
17101	Electrolyte D 12 2/2	60ml perchloric acid	titane, aluminium	
17102	Electrolyte D 13 1/2*	600ml Ethanol + 180ml glacial acetic acid + 45g sodium acetate + 32g sodium hydroxide	Uranium, lead, tin,	
	Electrolyte D 13 2/2	90ml perchloric acid + 66ml water	antimony antimony	
17103	Electrolyte D 14 1/2*	900ml Ethanol + 50g tartric acid	Aluminium alloys,	
1/103	Electrolyte D 14 2/2	60ml perchloric acid	cobalt alloys	
17104	Electrolyte D 15 1/2*	1l Ethanol + 100g sodium thiocyanate + 100g citric acid	Cast iron, magnesium — and magnesium alloys,	
17104	Electrolyte D 15 2/2	15ml perchloric acid	high-alloys steels	
17106	Electrolyte D 31 1/2	500ml water + 250ml orthophosphoric acid + 250ml ethyl alcohol	Copper, cobalt alloys,	
	Electrolyte D 31 2/2	50ml isopropanol + 5g urea	– brass	
17107	Electrolyte D 61*	lyte D 61* 800ml Ethanol + 160g sodium thiocyanate + 80ml butyl glycol		
17100	Electrolyte D 62 1/2*	900ml Ethanol + 300g copper nitrate	Copper alloys, bronze,	
17108	Electrolyte D 62 2/2	30ml nitric acid	brass	
17110	Electrolyte D 71 1/2	1l water	Turantan	
17110	Electrolyte D 71 2/2	200g sodium hydroxide	— Tungsten	
* 0 1 :		- Forman Contificate of our to be a second deal		

<sup>\*</sup> Subject to customs regulations in France. Certificate of use to be provided.

#### **ATTACK**

## **REAGENTS**

Attack reagents reveal the macrographic or micrographic structure of your samples. Generally applied to a properly-prepared surface they will reveal: welds, grain joints, phases, etc. As a contrast agent or a true revealer of a structure or microstructure, PRESI has selected a set of reagents to meet practically all your needs. Specific reagents on demand.

Hazardous products: specific transport costs and prices upon request.

REF. 100ML	REF. 1L	DESIGNATION	FORMULA	ETCHANT	USE
17251	17252	NITAL 3%	3ml HNO <sub>3</sub> + 100ml Ethanol		Steels - Revealing ferrite grains / phases Magnesium and most magnesium alloys
17220	17221	NITAL 4%	4ml HNO <sub>3</sub> + 100ml Ethanol	Micro	Tin and tin rich alloys with cadmium, copper, iron and antimony Gadolinium
17253	17254	NITAL 5%	5ml HNO <sub>3</sub> + 100ml Ethanol		Rare earth Cobalt alloys
17255	17256	NITAL 7%	7ml HNO <sub>3</sub> + 100ml Ethanol	Macro	Steels - after approach work
17257	17258	NITAL 15%	15ml HNO <sub>3</sub> + 100ml Ethanol		Steels after approach work
17259	17260	Oberhoffer etchant*	$500 \text{ml H}_2\text{O} + 500 \text{ml Ethanol}$ + $50 \text{ml HCl} + 30 \text{g FeCl}_3$ + $1 \text{g CuCl}_2 + 0.5 \text{g SnCl}_2$	Macro	Unalloyed or low-alloyed steels
17222	17223	Picral -1 etchant*	10g Picric acid + 100ml Ethanol		Iron Carbon steels Low-alloyed steels
17261	17262	Picral -2 etchant*	4g Picric acid + 100ml Ethanol	Micro	Cast iron & cast steels coated with iron / tin General etchant for steels, in particular revealing carbide, good phase resolution
17263	17264	Béchet - Beaujard etchant	4g acid picrique + 99ml H <sub>2</sub> O + 1ml Teepol	Micro	Steels - Revealing grain joints in and low-alloys quenched and tempered carbon steels (1 to 3 hours attack)
17265	17266	Iron chloride III acidified solution	48ml H <sub>2</sub> O + 12 ml HCl + 5g FeCl <sub>3</sub>	Macro	Steels - Macroscopic examination in general use. For chromium steels, nickel and stainless steels
17267	17268	Iron chloride III neutral solution	Aqueous solution - 41% FeCl <sub>3</sub>	Macro	Steels - Steels weld
17228	17229	Fry A etchant*	40ml HCl + 5g CuCl <sub>2</sub> + 30ml H <sub>2</sub> O + 25ml Ethanol	Macro	Steels - Steels attack
17283	17284	Fry B etchant	$100$ ml $H_2$ O + $150$ ml HCl + $67$ g CuCl $_2$	Macro	Carbon steels - Flux lines
17327	17290	Le Chatelier etchant	25g NaOH + 6g Picric acid + 100ml $\rm H_2O$	Micro	Steel - Revelation of cementite and/or nitrides
17269	17270	Le Chatelier N°2 etchant*	100ml Ethanol + 10ml H <sub>2</sub> O + 1g CuCl <sub>2</sub> + 0,5g Picric acid + 2ml HCl	Micro	Iron - Eutectic cells of a grey cast iron
17244	17245	Curran etchant	10ml FeCl <sub>3</sub> + 30ml HCl + 100ml H <sub>2</sub> O	Micro	
17232	17233	Marble etchant	10g CuSO <sub>4</sub> + 50 ml HCl + 50 ml H <sub>2</sub> O	Macro	Stainless steels
17224	17225	Aqua regia	20ml HNO <sub>3</sub> + 60ml HCl	Micro	Austenitic stainless steels
17230	17231	Murakami etchant	10 g K <sub>3</sub> Fe(CN) <sub>6</sub> + 10g KOH + 100ml H <sub>2</sub> O	Micro	Austenitic and ferritic stainless steels, tungsten carbide
17226	17227	Villela etchant*	2g CuCl <sub>2</sub> + 40ml HCl + 60ml Éthanol	Micro	Austenitic and ferritic stainless steels

<sup>\*</sup> Subject to customs regulations in France. Certificate of use to be provided.

REF. 100ML	REF. 1L	DESIGNATION	FORMULA	ETCHANT	USE
17234	17235	Villela etchant*	5ml HCl + 1g Picric acid + 100ml Ethanol	Micro	Austenitic stainless steels - Revealing of grain, tool steels, martensitic stainless steels
17285	17286	V2A etchant	100ml H <sub>2</sub> O + 100ml HCl + 10ml HNO <sub>3</sub>	Micro	Stainless steels - Size of grain (Attack between 50 and 60°C)
17322	17320	Catella etchant*	2g Picric acid 2g + 6g CH <sub>3</sub> COOH + 10g HCl + 100g ethanol	Micro	Treated martensitic stainless steels - Revealing the structure and grains
17236	17237	Barker etchant	5g HBF <sub>4</sub> + 200ml H <sub>2</sub> O	Micro	Aluminium - Revealing of structure/grains
17238	17239	Keller etchant	2ml HF + 3ml HCl + 5ml HNO <sub>3</sub> + 190ml H <sub>2</sub> O	Micro	Aluminium - Revealing of structure.
17271	17272	5% HF solution in distilled water	Aqueous solution - 5% HF	Micro	Aluminium - Microstructures of brazed aluminium seals (Observation of dissolution phenomena)
17326	17325	Graff & Sargent's etchant	$3g$ CrO $_3$ + 15.5ml HNO $_3$ + 0.5ml HF + 84ml H $_2$ O	Micro	Aluminium - Grain removal on 2XXX, 3XXX, 6XXX and 7XXX series & alloys. Immerse between 20 and 60 s under gentle agitation.
17273	17274	5% sodium solution	Aqueous solution - 5% NaOH	Micro	Aluminium alloys
17273	17274	5% sodium solution	Aqueous solution - 5% NaOH	Micro	Aluminium alloys
17275	17276	10% sodium solution	Aqueous solution - 10% NaOH	Macro	Aluminium alloys, weld
17240	17241	Potassium dichromate	1g K <sub>2</sub> Cr <sub>2</sub> O <sub>7</sub> + 4ml H <sub>2</sub> SO <sub>4</sub> + 50ml H <sub>2</sub> O	Micro	Copper - Revealing of grain
17277	17278	Alcohol solution of iron chloride III acid	5g de FeCl <sub>3</sub> + 5ml d'HCl + 95ml Ethanol	Micro	Copper compounds - Copper compound attack
17246	17247	INVAR / KOVAR	$400 \mathrm{ml}$ HCl + $8 \mathrm{g}$ CuCl2 + $400 \mathrm{ml}$ H $_2 \mathrm{O}$ + $800 \mathrm{ml}$ MEthanol + $28 \mathrm{g}$ FeCl3 + $20 \mathrm{ml}$ HNO $_3$	Micro	Invar - Kovar
17324	17323	Weck etchant*	$2g NH_4HF_2 + 25ml ethanol + 100ml H_2O$	Micro / Macro	Titanium / Aluminium - Weld Structure and Development
17242	17243	Kroll etchant	3ml HF + 6ml HNO <sub>3</sub> + 100ml H <sub>2</sub> O	Micro	Titanium - Revealing of structure Titanium alloys primarily alloys Ti-Al-V-(Sn)
17279	17280	Adler etchant	25ml water + 3g [(NH <sub>4</sub> )2CuCl <sub>4</sub> , 2 H <sub>2</sub> O] + 50ml HCl + 15g FeCl <sub>3</sub>	Micro/Macro	Attack of Inconel Superalloys Corrosion resistant steels Cobalt and nickel alloys

<sup>\*</sup> Subject to customs regulations in France. Certificate of use to be provided.

#### ATTACK OF A STEEL WELD USING NITAL 4%



Macro before attack



Macro after attack



Micro before attack



Micro after attack

#### **PREPARATION**

# Geology

It is through collaboration with our customers that our range has been developed and it is still within this environment that we develop and evolve our offering.

Our network and our ability to work with our customers is our strength, we are proud to have built this relationship of trust allowing ever more innovation and development.

The technology we have developed directly inherits our know-how of more than 50 years in metallography: cutting, mounting, polishing and observation. Always with innovation and adaptability as a leitmotif.

98

99





THIN SECTION PREPARATION

MECATOME T265

**GEOPRESS** 

POLY'VAC

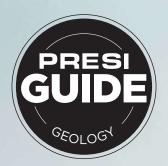




104

104





# THIN SECTION PROCESS

BY PRESI

Lithopreparation is a set of essential techniques to many sectors: geology, archeology, mining research, etc.

With its range dedicated to the preparation of thin sections, PRESI constantly brings additional solutions, services and expertise to its customers.



## **CUTTING**

#### **MECATOME**

## T265 T305

Manual, reliable and robust cutting machines.
Particularly suitable for cutting rock samples, the MECATOME T265 and T305 have a cylindrical cutting capacity with a diameter of 95mm. These cutting machines provide maximum flexibility of use thanks to their tables allowing the vertical or horizontal positioning of a clamping system.

#### **Options**

- Double cutting disc which allows the cutting of slices in one step
- Pneumatic vice







Discover them in detail p.18 and p.20

## **THINING**

#### **DIAMOND**

## **WIRE SAWS**

Diamond wire saws for cutting rock samples.

They are particularly recommended for cutting delicate samples such as silicium or glass.

The low forces applied allow samples to be cut without damage.



Wire Saw 3400 Ref. 52030



Wire Saw 3500 BASE



Wire Saw 3500 PREMIUM Ref. 52020



Wire Saw 4500 Ref. 52040



Wire Saw 6500 Ref. 52050



Winding device

All their technical characteristics p.34

## **CUTTING • SHAPING • THINING • GRINDING**

#### **GEOTOME**

## DUAL

TWO WORKING AREAS ADAPTABILITY: CUSTOM MADE SAMPLE HOLDERS

#### **REF. 62830**

Geotome dual has two working areas. One allowing cutting of rock samples, the other pre-polishing of thin sections.



510mm Hood open 950mm Hood closed



1150mm



780mm



170kg

CE





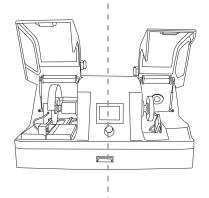




#### **CUT• SHAPE • THIN**

The cutting side uses LM diamond discs with a diameter of 250 mm.

Equipped with a longitudinal table with manual movement, it allows to cut the rock and shape the sugar.
Once the sugar has been glued onto a glass slide, it can be thinned to a fixed or variable size, using a mobile or fixed vacuum vice.



#### GRINDING

or vitrified binder.

The grinding area of GEOTOME DUAL allows you to pre-polish up to 4 thin sections simultaneously.
They are held by a vacuum sample holder and are rectified thanks to a 175mm diameter diamond head cup wheel with resinoid, metallic

#### **CHARACTERISTICS**

#### **HOODING - INTERIOR ENVIRONMENT**

Type	Metal & PETG frame
Safety	The grinding area and the unused area are locked
	during motor rotation

#### **MOTOR POWER - ELECTRICAL SUPPLY**

Power / Elecrtical supply	2200W / 220V / Single phase / 50Hz
Motor piloting	Frequency controller

#### **CUT-OFF WHEEL**

Wheel type	Diamond
Wheel size	Cutting: diamond disc Ø 250mm
	Rectification: cup wheel Ø 175mm
Rotation speed	1000 to 3000 RPM
Shaft diameter	25.4mm

#### CONTROL

Control interface	Colour touch screen	
Protection by access code	Can be activated	
Communication / Machine piloting interface	Modbus	

#### **CUTTING - GRINDING**

Cutting method	Manual	
Type of movement	Cutting: manual on longitudinal table	
	Rectification: manual with micrometric knob	
Travel of Y axis	On the cutting table: 300mm	
Travel of X axis	Grinding sample holder: 35mm	
Dimensions of cutting table	260 x 300mm	
Type of table	Cutting: micro bead-blasted stainless steel table	
	Grinding: aluminium sample hoder with ceramic sole	
Clamping / Vacuum clamping	A T-slot (12mm) compatible with all clamping	
	systems on the market	
Sample / Cutting	Max height: 50mm	
	2 sections 30x45mm or 1 section 60x45mm*	
Sample / Grinding	4 sections 30x45mm or 1 section 60x45mm*	

#### **LUBRIFICATION - COOLING**

Pump & Tray	External - 60L	
Type of lubrification	Pumped	
Configuration of lubrification points -	Cutting: wheel guard	
Cooling	Grinding: directional lubrication nozzle	
Type of filter	100µm washable fabric filter	

#### **ERGONOMICS**

Interior lighting	LED
Cleaning gun	Integrated
No load noise level	< 70db

<sup>\*</sup> Others dimensions on request.

#### **ACCESSORIES**



Jointed magnetic stand for gauge Ref. 62848



Vaccum holder for cutting 2 thin sections 30 x 45mm\* Ref. 62837



Holding block for manual cutting Ref. 62846



Gauge with lifting cable 300mm Ref. 62849



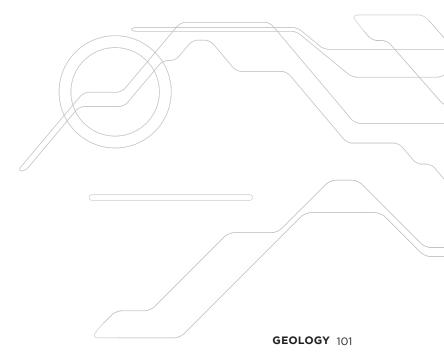
Manual micrometric vacuum holder for cutting Travel: 40mm Precision: 0,1mm Capacity: 2 thin sections 30 x 45mm\* Ref. 62842



GEOTOME DUAL Vacuum system Automatic purge Ref. 62831



Ceramic vacuum holder for grinding Capacity: 4 thin sections 30 x 45mm\* Ref. 62832



<sup>\*</sup> Others dimensions on request.

## LAPPING

## LE CUBE

#### SPACE-SAVING EASY TO USE ROBUST

#### **REF. 66250**

The CUBE is a  $\emptyset$  200 or 250mm manual polisher with a high torque motor that can rotate clockwise and counterclockwise.

The polishing plate has two rotation speeds (150 and 300 rpm).

The CUBE mainly allows the manual lapping of sugars.







) 420mm



CE







Precise holder for thin section 30 x 45mm Ref. 62862



Precise holder for thin section 28 x 48mm Ref. 62863

## **MINITECH**

#### USER-FRIENDLY, RELIABLE, ROBUST

#### Ø 200 TO 250MM / Ø 250 TO 300MM

Ideal for manual lapping of « sugar cubes ».

MINITECHs are top-of-the-range, manual polishing machines.

Equipped with removable bowls, they are very easy to clean.

Hood and tank are made of composite material, preventing any corrosion.













All MINITECH models p.56

## **POLISHING**

## **MECATECH 300 SPC**

**OPTIMAL POLISHING** QUALITY POWER AND RELIABILITY **AUTOMATIC** 

#### **REF. 67940**

The MECATECH 300 SPC integrates the most advanced technologies for ease of use. Its removable over-bowl allows easy maintenance. In geology version, this polishing machine has a speed range suitable for working with thin sections.



Precise holder for thin section 30 x 45mm

Specimen holder for individual pressure

for 6 thin sections 30 x 45mm



Precise holder for thin section 28 X 48mm





for precise holder



**REF. 67960** 

is also available.

640mm

**MECATECH** 



**334 SPC** 

A simplified version of a single station

automatic polishing machine

750mm







Specimen holder for double contact holder for thin section 30 x 45mm











More information about the Mecatech 300 SPC p.66

More information about the Mecatech 334 SPC p.64

## **GLUING**

## **GEOPRESS**

#### **PROGRAMMABLE ADJUSTABLE TEMPERATURE**

#### **REF. 62820**

GEOPRESS allows you to glue up to 20 samples simultaneously under individual weights of 600g to 1.6kg. It is the only press on the market which allows progressive, controlled temperature increase. **GEOPRESS** works at temperatures up to 110°C.





370mm



60mm



290mm



#### $\epsilon$

#### **CHARACTERISTICS**

Number of samples	20 sections 30x45 or 10 sections 60x45
Size oh heating plate	130 x 500mm
Weight-block weight	600g
Heating power	750W
Maximum temperature	110°C
Multilingual touch screen	<b>✓</b>
Programmable	<b>✓</b>
Timer	<b>✓</b>
Gradient management	~
Security Access	Activable
Power supply	220V AC 50Hz
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#### **ACCESSORIES**



10 overweights of 1kg Ref. 62821



20 teflon weight distribution stands

## **POLY'VAC**

#### **TURNTABLE PROGRAMMABLE**

#### **REF. 53600**

The POLY'VAC Vacuum mounting system allows rock stabilisation by impregnation whatever the thin section preparation stage. Piloted by a touch screen, POLY'VAC is programmable (several levels of vacuum, time lag between a minute and several hours). This system includes a resin distribution dispenser.

More info about POLY'VAC p.43



## **PRESSURE VESSEL**

#### **REF. 04300**

The pressure vessel improves the rendering of KM-series acrylic mounting resins, makes the KM-U resin transparent and reduces shrinkage. Can be used with all cold resins.



All the information about the pressure device p.43

### SUPER FINISHING

## VIBROTECH 300

## EFFICIENT ROBUST SILENT

#### **REF. 68100**

The VIBROTECH 300 is a reliable and robust vibratory polishing machine, suitable for polishing consumables in Ø300 and 305mm.

Vibratory polishing is an ultra-soft technique, suitable for super-finishing stages. This polishing method improves the results of EBSD and AFM analyzes.





676mm Hood open



715mm



554mm



90kg



#### SAMPLE HOLDER

REF	DIAMETER
68110	Ø 25mm
68111	Ø 25,4mm
68112	Ø 30mm
68113	Ø 31,7mm
68114	Ø 38,1mm
68115	Ø 40mm
68116	Ø 50mm



## **OBSERVING**

## THIN SECTION

## CONTROLLER

#### **REF. 62802**

The controller measures the thickness of a thin section during preparation.

Jointed magnetic stand for gauge Ref. 62848 Gauge with lifting cable 300mm Ref. 62849

Type of table	Granite
Table dimensions	180x120mm
Table thickness	50mm
Column lenght	160mm
Column diameter	30mm
Gauge travel	12.7mm
Resolution	1µm
Accuracy	3µm
Lifting cable	300mm



## **MICROSCOPES**

Polarised light microscopes control thin section thickness and flatness.

Offer on request: please consult us.





#### **EVERYTHING YOU NEED FOR**

## PETROGRAPHY

PRESI manufactures and sells a wide range of consumables suitable for petrography: cut-off wheels, diamond discs, abrasive for lapping, polishing cloths, diamond suspensions.

#### **CUT-OFF WHEEL**



Diamond LM See p.37

#### **CUP WHEELS** Ø 175MM X 25.4MM



Metal binder Ref. 02300



Resin binder Ref. 02301



Vitrified binder Ref. 02302

#### **POLISHING CLOTHS**



**TOP cloth** Ø 300mm See p. 87



Ø 300mm



NT cloth Ø 300mm



SUPRA cloth Ø 300mm

#### **ABRASIVE FOR LAPPING**



Silicon Carbide See p.79

#### DIAMOND **SUSPENSIONS**



Monocrystalline & Polycrystalline from 1/4 µ to 15 µ Also available in oil and alcohol base

from 1/4µ to 25µ

#### DIAMOND STICKS



Monocrystalline & Polycrystalline

#### **DIAMOND PASTES**



Monocristalline & Polycrystalline from 1/4µ to 45µ

#### **DIAMOND DISCS**



I-MAX R from 18µ to 125µ See p.77



Tissediam from 10µ to 250µ



Abrasive paper type M See p.80

#### OTHER **CONSUMABLES**

Bottle 1kg resin IP Ref. 42020

Petrography expoxy set of 500ml Ref. 04175

Glass plate Ø 300mm thickness 6mm Ref. 28202

### **CHARACTERIZATION**

# Optical







**MICROSCOPES** 



**MEASUREMENT SOFTWARE** 

STEREOMICROSCOPES 108

MICROSCOPES 109

MEASUREMENT 110 SOFTWARE

## **STEREOMICROSCOPES**

#### **SMZ745T**

Powerful and economic trinocular stereomicroscope

With the highest magnification of its category (x7.5 zoom) this model offers powerful imaging capabilities at an economical price. It is suitable for digital imaging both in the industrial field and in the biomedical sector. A camera port and a C-mount adapter of x0.55 allow direct installation of digital cameras.

- Trinocular optical head is ideal for monitoring and photomicrography
- 7.5x zoom: the most powerful in its class
- · Maximum ergonomics
- Working distance: 115mm



#### SMZ800N

Stereomicroscope that combines work efficiency and advanced performance

Thanks to the improvement of the zoom ratio to x8 (x1 -x8), this model offers high definition observation required in areas such as IVF. In addition, the new Objectives "Plan Apo WF and ED Plan WF" offer more clear and sharp images.

- Improved ergonomics thanks to the existence several optical tubes
   Double-objective turret adjustable
   Wide zoom range up to x8 high resolution
  - Modular with a wide range of accessories

#### **ADDITIONAL ACCESSORIES: LIGHTING**







### **MICROSCOPES**

#### STRAIGHT MICROSCOPE **ÉCLIPSE LV150N**

The encounter between digital imagery and an advanced optical system with halogen or LED lighting

These manual turret microscopes respond to different needs of observation, inspection, research and analysis of many industrial areas. Thanks to a numerical aperture and an unprecedented working distance, they offer superior optical performance and ultra-efficient digital imaging.

#### **INVERTED MICROSCOPE MA100N**

Robust, easy to use, led lighting

Compact, this model is very polyvalent for different industries (metallurgy, additive manufacturing, optics, electronics ...). Thanks to the high intensity LED lighting, its environmental impact is reduced.

#### **INVERTED MICROSCOPE ÉCLIPSE MA200**

Innovative design and faultless ergonomics

This model offers many accessories and possibilities of evolution. It takes on its full dimension when coupled with NIKON image analysis systems and software.

- · Compatible with several observations: bright field. dark field, simple polarization, interferential/differential contrast, epifluorescence and double band interferometry • Objectives x1 to x150
- The latest CFI60-2 range offers exceptionally long working distances as well as an optimal chromatic aberrations correction
- · Modular stand adapted to different tasks and observations
- · Halogen or LED lighting and modular stand

Digital imaging very easy to use

- Aperture of the diaphragm to control contrast and the depth
- · No height constraint of the sample to be to place the sample directly on the rectangular stage
- x1 to x150
- The latest range CFI60-2 offers: - Exceptionally long working distances long and an optimal - A numerical aperture and working distances never reached before
- · High intensity LED lighting
- Compact stand

- observed, possibility
- Objectives
- chromatic aberrations correction

- · Evolutionary microscope
- Magnification from x50 up to x1000
- PLAN objectives
- · Trinocular head
- · Ergonomic stand: positioning of the sample on the front



PRESI, in partnership with NIKON, offers a range specially adapted to the needs of metallography and observation of materials in general. The goal is to answer to all needs in term of preparation, hardness, optics and software, acquisition and image analysis.

# "PRESI VIEW MEASUREMENT" PACK

ACQUISITION AND MEASUREMENT SOFTWARE, DEVELOPED BY PRESI

#### **REF. 71101**

Measurement software on calibrated pictures developed by our engineers around a brand new generation

of digital cameras, in order to respond to the needs of the laboratories and digital cameras users.





Automatic analysis



#### **Key features and advantages**

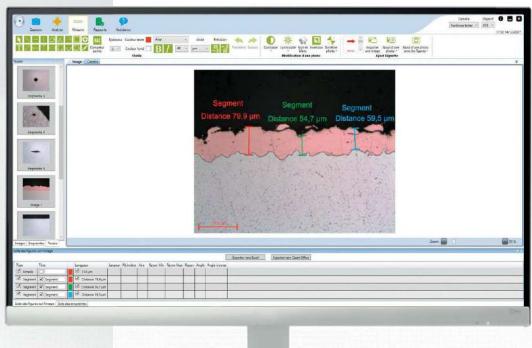
- Dimensional control on cut samples, paint layers, coatings, etc.
- · Lengths, thickness, markers, angles, etc.
- Radius, diameters, perimeters, areas, circles, bow circles, etc.
- · Text areas insertion, titles and arrows, etc.
- · User friendly, made to take, treat and edit pictures
- Ergonomic and customizable interface, easy to use for all users.
- Full HD camera (monochromatic digital camera or USB2 color, equipped with CMOS" sensors with Rolling or Global Shutter according to the model) and high fluidity during motions.
- 5 camera entries
- · Customizable comments
- Saving in many formats
- Pictures insertions in reports
- · "PIP" function

#### PRESI VIEW HARDNESS (optional)

#### **REF. 71168**

This software also has a Vickers and Knoop indents measurement module, providing excellent versatility.

It adapts on stereomicroscopes, microscopes, hardness testers and micro-hardness testers equipped with a video output with a C-mount.







- Vickers and Knoop hardness measures
- Automatic measure of the indent by picture analysis
- · Results board

### **CHARACTERIZATION**

# Mechanical

Mechanical tests make it possible to characterize the laws of behavior of materials which establish a relationship between stresses and deformations (elongation).

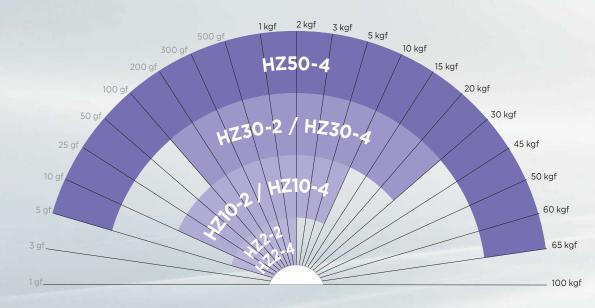
Robust, reliable, precise, our machines allow you to carry out all your tensile, compression, bending, shearing, peeling tests, etc.

HARDNESS TEST	112
UNIVERSAL TEST MACHINES	132
RESILIENCE TEST MACHINES	142
NON-DESTRUCTIVE TESTS	146



# HZ RANGE LOAD CELLS

#### LOAD RANGE

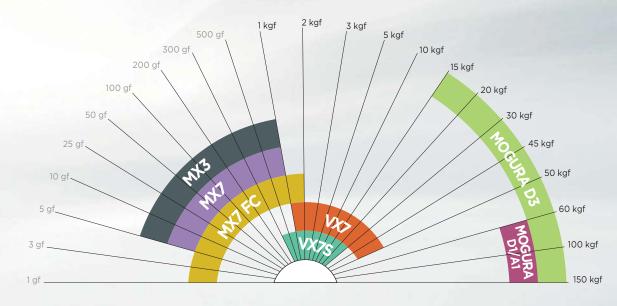


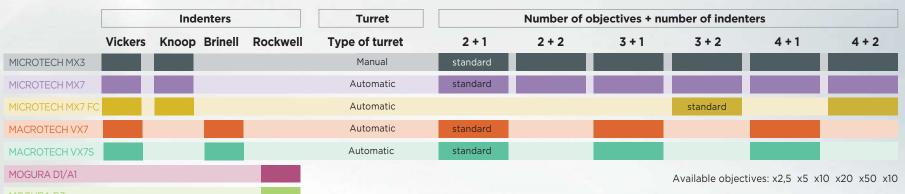
	Hardness tester	Indenters	Turret	Objectives	Indenters
HZ2-2	Semi-automatic	Vickers or Knoop	Automatic	up to 4	1
HZ10-2	Semi-automatic	Vickers or Knoop	Automatic	up to 4	1
HZ30-2	Semi-automatic	Vickers or Knoop	Automatic	up to 4	1
HZ2-4	Automatic	Vickers or Knoop	Automatic	up to 4	1
HZ10-4	Automatic	Vickers or Knoop	Automatic	up to 4	1
HZ30-4	Automatic	Vickers or Knoop	Automatic	up to 4	1
HZ50-4	Automatic	Vickers, Micro Vickers and Knoop	Automatic	4	2



# MATSUZAWA DEAD WEIGHTS

#### LOAD RANGE





# HZ HARDNESS TESTERS

#### THE HARDNESS TESTERS RANGE BY PRESI

Semi-automatic or automatic, HZ hardness testers are instantly recognizable. 100% made in France, their original design along with their robustness and highly technical capacities make them an essential work tool.



☐ Precision

( Reliability

(1) 800mm

(←→) 370mm

( 700mm

( 80kg





Nikon objectives with a magnification up to 2000x



Motorized turret Up to 7 positions, with touch sensor



**2 LED lighting systems:** for micro and macroscopy use

#### **TABLES**



Fixed table



Motorized table Standard



Manual table



Motorized table Marble

Download the HZ50-4 technical sheet



HZ HARDNESS TESTERS	s	EMI-AUTOMAT	гіс		AUT	OMATIC	
MODEL / REFERENCE	HZ2-2 71218	HZ10-2 71216	HZ30-2 71200	HZ2-4 71219	HZ10-4 71217	HZ30-4 71201	HZ50-4 71123
LOAD APPLICATION							
Load range	5 gf - 2 kgf	10 gf - 10 kgf	100 gf - 30 kgf	5 gf - 2 kgf	10 gf - 10 kgf	100 gf - 30 kgf	5 gf - 65 kgf
Indenter type	Vickers or Knoop	Vickers and Knoop					
FRAME	КПООР						
Load cells	1	1	1	1	1	1	2
Touch sensor	~	<b>~</b>	<u> </u>	~	<u> </u>	<b>~</b>	<u> </u>
Objectives	up to 4	4					
Magnification	200 to 2000x	200 to 2000>					
Full HD microscopic camera	~	<b>~</b>	<b>~</b>	~	~	<b>~</b>	<b>✓</b>
Full HD macroscopic camera: observable field 62x50mm	-	-	-	0	0	0	~
LED light source	~	<b>✓</b>	<b>✓</b>	~	<b>~</b>	<b>~</b>	~
Z axis travel	250mm						
TABLES							
Fixed 200 x 200mm Maximum work piece weight: 50kg Compatible with single place sample holder	•	<b>~</b>	~	-	-	-	-
Manual 110 x 110mm XY travels 25 x 25 mm Table feeding accuracy with analog micrometers: 10µm Table feeding accuracy with digital micrometers: 1µm. Maximum work piece weight: 50kg Compatible with single place sample holder	o	o	•	-	-	-	-
Automatic standard 280 x 200mm XY travels 100 x 130mm Table feeding accuracy: 1µm Maximum work piece weight: 80kg Compatible with single place sample holder	-	-	-	•	•	<b>~</b>	-
Automatic marble 420 x 210mm XY travels 180 x 200mm Table feeding accuracy: 1µm Maximum work piece weight: 100kg Compatible with multiple and single place sample holder	-	-	-	o	0	0	V
SOFTWARE							
PRESI Touch Essential	<b>~</b>	<b>✓</b>	~	-	-	_	-
PRESI Touch Manual	0	0	0	-	-	_	-
PRESI Touch Pattern	-	-	-	~	<b>~</b>	<b>~</b>	-
PRESI Touch Automatic "Full"	-	-	-	0	0	0	✓
External PC and 28" screen	~	<b>~</b>	<b>✓</b>	~	<b>✓</b>	<b>~</b>	<b>✓</b>
GENERAL							
Test load accuracy < 1%	~	~	~	~	~	~	<b>✓</b>
Dwell time: 5 - 999 s	~	~	~	~	~	~	<b>✓</b>
Standard compliance: ISO 6507 & 4545, ASTM E384 and E92	•	•	<b>~</b>	•	<b>~</b>	<b>~</b>	~

LEGEND: - Incompatible / ✓ Included / o Option

# HZ SEMI-AUTOMATIC HARDNESS TESTERS







#### HZ AUTOMATIC HARDNESS TESTERS









# HZ SOFTWARE

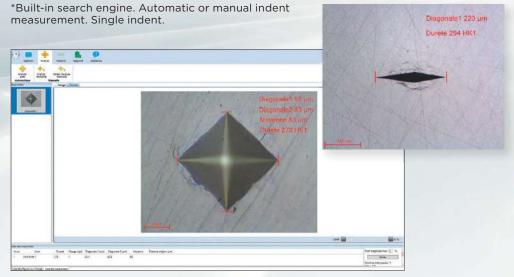
#### PRESI TOUCH ESSENTIAL & MANUAL

#### COMPATIBILITY:

HZ semi-automatic hardness testers HZ 2-2 | HZ 10-2 | HZ 30-2

#### PRESI TOUCH ESSENTIAL

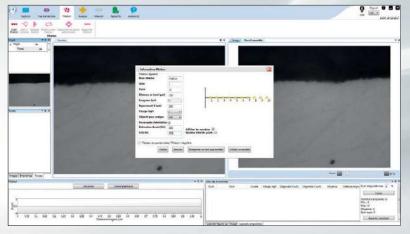
Intuitive software with a graphic menu. 100% customizable interface. Permanent overall view of the results and data.



**PRESI Touch Essential** Automatic or manual measurement of Vickers or Knoop indents.

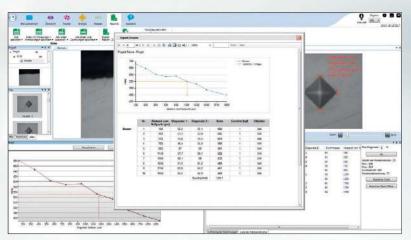
#### PRESI TOUCH MANUAL

Higher version of the software that integrates manual pattern.



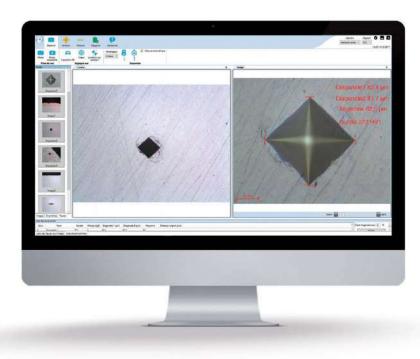
#### **PRESI Touch Manual**

A graphic and dynamic assistant allows pattern visualisation during its programing.



#### **PRESI Touch Manual**

Automatic report. In one click, a report formats the results. This report is printable or recordable in many formats.



Easy and intuitive

**Image fluidity** 

Data storage

#### **CHARACTERISTICS**

SOFTWARE	PRESI TOUCH ESSENTIAL	PRESI TOUCH MANUAL
INDENT TYPE		
Single indent	<b>✓</b>	<b>~</b>
Manual pattern	-	<b>~</b>
FEATURES		
Automatic measurement of the indent	<b>✓</b>	<b>✓</b>
Manual measurement of the indent	~	<b>✓</b>
Autofocus	~	<b>✓</b>
Automatic light	<b>✓</b>	<b>✓</b>
Incorrect measurements alerts	<b>✓</b>	<b>✓</b>
Pattern settings	-	<b>✓</b>
Simulation of the size of the indent	-	<b>✓</b>
Hardness value conversion	<b>✓</b>	<b>✓</b>
Analysis reports	-	<b>✓</b>
Measurement Toolboxes	0	<b>✓</b>
Automatic storage	<b>✓</b>	<b>✓</b>
Multilingual software	<b>~</b>	<b>~</b>
EQUIPMENT		
Full HD digital camera for microscopy	~	<b>~</b>
Hardness tester / PC communication	<b>~</b>	<b>~</b>
Turret control	<b>✓</b>	<b>✓</b>
XYZ 3-axis joystick	<b>✓</b>	<b>~</b>
External PC and 28" screen	<u> </u>	<b>✓</b>

LEGEND: - Incompatible / ✓ Included / o Option

# HZ SOFTWARE

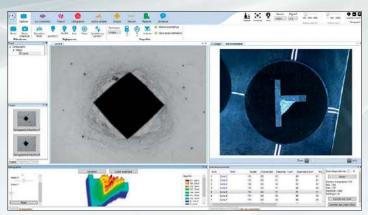
# PRESI TOUCH PATTERN & AUTOMATIC "FULL"

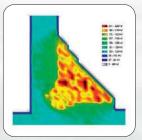
#### COMPATIBILITY:

HZ automatic hardness testers HZ 2-4 | HZ 10-4 | HZ 30-4 | HZ 50-4

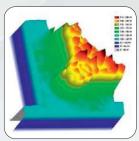
#### PRESI TOUCH AUTOMATIC "FULL"

User-friendly, intuitive and customizable software. All the features directly accessible. Permanent overall view of the results and data. Comprehensive software with all available applications. Single indent, regular or irregular pattern. Mapping with 2D / 3D image.





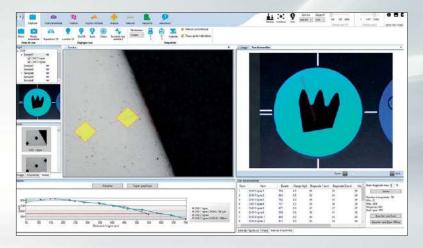
2D mapping



3D mapping

#### PRESI TOUCH PATTERN

Special version for patterns, heat treatments, CHD, NHT.



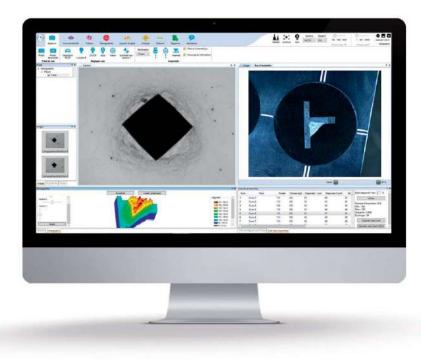
#### **Automatic sample detection**











- Very high image quality
- Intuitive navigation
- (Y) Time saving

#### **CHARACTERISTICS**

CHARACTERISTICS		
SOFTWARE	PRESI TOUCH PATTERN	PRESI TOUCH AUTOMATIC "FULL"
INDENT TYPE		
Single indent	<b>→</b>	<b>~</b>
Manual pattern	<b>→</b>	<b>~</b>
Automatic pattern	<b>✓</b>	<b>~</b>
Manual mapping	-	<b>✓</b>
Automatic mapping	-	<b>~</b>
FEATURES		
Automatic measurement of the indent	~	<b>✓</b>
Manual measurement of the indent	<b>→</b>	<b>✓</b>
Autofocus	<b>✓</b>	<b>✓</b>
Automatic light	<b>✓</b>	<b>✓</b>
Incorrect measurements alerts	<b>✓</b>	<b>✓</b>
Pattern settings	<b>✓</b>	<b>✓</b>
Simulation of the size of the indent	<b>✓</b>	<b>~</b>
Hardness value conversion	<b>✓</b>	<b>~</b>
Analysis reports	<b>✓</b>	<b>~</b>
Measurement Toolboxes	<b>✓</b>	<b>✓</b>
Macroscopic overview	(1)	(1)
Reconstruction of macroscopic images	(1)	(1)
Reconstruction of microscopic images	<b>✓</b>	<b>✓</b>
Automatic storage	<b>✓</b>	<b>~</b>
Multilingual software	<b>~</b>	<b>~</b>
EQUIPMENT		
Full HD digital camera for microscopy	<b>✓</b>	•
Full HD digital camera for macroscopy	(1)	(1)
Hardness tester / PC communication	<b>~</b>	<b>✓</b>
Turret control	<b>~</b>	<b>~</b>
XYZ 3-axis joystick	<b>~</b>	<b>✓</b>
External PC and 28" screen	•	<b>~</b>

LEGEND: - Incompatible /  $\checkmark$  Included / o Option

(1) Available with macroscopic camera

MICROTECH

# MX3

#### **REF. 71116**

The Vickers MX3 hardness tester with manual turret offers a complete solution in order to meet the needs of quality laboratories, as well as on-line controls.



530mm



250mm



520mm



35kg

- Manual turret up to 6 positions
- Vickers and Knoop hardness
- Automatic load application
- High-rigidity frame



# CHARACTERISTICS

	STANDARD	OPTION
Manual turret	2 objectives x10 x50 1 Vickers indenter	Up to 4 objectives including x10 and x50, 1 Vickers indenter and 1 Knoop indenter
Load application	Automatic load application	-
Indentation time	5 to 99s	-
Precision	0.01µm (x200 - x1000)	-
Magnification	x100 - x500	x25 - x1000
Max. measurable length	200µm	-
Data output	RS 232C output	-
Memory	999 max. memorized measurements	-
Conversions	Conversion to other scales according to SAE (J-417B), ASTM (E-140)	-
Max. sample height	120mm	-
Power supply	240V / 50 - 60Hz	-
Touchscreen	LCD display with backlight	-
Visualisation/Measurement	Direct measurement in the eyepiece and results display	-
Lighting	LED	-

OPTION
PRESI VIEW
software

LOAD RANGE (GF)



#### **AVAILABLE OPTIONS**

#### **INDENTERS**



VICKERS Ref. 71164



KNOOP Ref. 71134

#### STANDARD VICES



100mm opening Ref. 71199

#### **OBJECTIVES**



**x2,5** Ref. 71106

**x5** Ref. 71154

x10 Ref. 71142

x20 Ref. 71129

x50 Ref. 71143

x100 Ref. 71135

#### SAMPLE HOLDERS AND REMOVABLE HOLDERS



Sample holder for non-mounted samples Ref. 71157



Single place sample holder Ref. 71109



Sample holder 4 places Ref. 71175



Removable holder ø 25mm Ref. 71174

Removable holder Removable holder ø 25.4mm Ref. 71144

ø 30mm

ø 31.7mm

ø 38.1mm

ø 40mm

Removable holder Removable holder Removable holder ø 50mm

#### **TURRET**

3-position turret for objectives Ref. 71131

**4-position turret for objectives** Ref. 71130

2 indenters Knoop and Vickers Ref. 71115

#### **OTHER ACCESSORIES**



C Mount for Microtech Ref. 71108



Standard Vickers test block ø 30mm x 10mm for Microtech Ref. 71113



Object micrometer Ref. 71503



Digital micrometers for manual XY stage Ref. 71120

**MICROTECH** 

MX7



#### MX7 REF. 71114 MX7 low loads REF. 71105

The Vickers MX7 and MX7 low load hardness testers with automatic turret offer a complete solution in order to meet the needs of quality laboratories, as well as on-line controls.

( ) 530mm

(←→) 250mm

520mm

(n) 35kg

- Automatic turret up to 5 positions
- Vickers and Knoop hardness
- Automatic load application
- High-rigidity frame

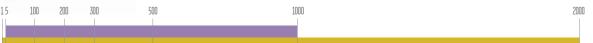


OPTION
PRESI VIEW
software

#### **CHARACTERISTICS**

	MX7	MX7 LOW LOADS
Automatic turret	2 objectives x10 x50 1 Vickers indenter	3 objectives x10 x50 x100 1 Vickers indenter + 1 Knoop indenter
Turret options	Up to 4 objectives including x10 x50 + 2 indenters	Up to 4 objectives including x10 x50 x100
Load application	Automatic load application	Automatic load application
Load application speed	50μm/s	50μm/s
Indentation time	5 to 99s	5 to 99s
Precision	0.1µm (x200 - x1000)	0.1µm (x200 - x1000)
Magnification	x100 - x500	x100 - x500 - x1000
Max. measurable length	200µm	200μm
Data output	RS 232C output	RS 232C output
Memory	999 max. memorized measurements	999 max. memorized measurements
Conversions	Conversion to other scales according to SAE (J-417B), ASTM (E-140)	Conversion to other scales according to SAE (J-417B), ASTM (E-140)
Max. sample height	120mm	120mm
Power supply	240V / 50 - 60Hz	240V / 50 - 60Hz
Touchscreen	LCD display with backlight	LCD display with backlight
Lighting	LED	LED

LOAD RANGE (GF)



#### **AVAILABLE OPTIONS**

#### **INDENTERS**



VICKERS Ref. 71164



KNOOP Ref. 71134

#### STANDARD VICES



50mm opening Ref. 71133 100mm opening Ref. 71199

#### **OBJECTIVES**



**x2,5** Ref. 71106

**x5** Ref. 71154

x10 Ref. 71142

x20 Ref. 71129

x50 Ref. 71143

x100 Ref. 71135

#### SAMPLE HOLDERS AND REMOVABLE HOLDERS



Sample holder for non-mounted samples Ref. 71157



Single place sample holder Ref. 71109



Sample holder 4 places Ref. 71175



Removable holder ø 25mm Ref. 71174

Removable holder Removable holder ø 25.4mm Ref. 71144

ø 30mm

ø 31.7mm

ø 38.1mm

ø 40mm

Removable holder Removable holder Removable holder ø 50mm Ref. 71173

#### **TURRET**

3-position turret for objectives Ref. 71131

**4-position turret for objectives** Ref. 71130

2 indenters Knoop and Vickers Ref. 71115

#### **OTHER ACCESSORIES**



C Mount for Microtech Ref. 71108



Standard Vickers test block ø 30mm x 10mm for Microtech Ref. 71113



Object micrometer Ref. 71503



Digital micrometers for manual XY stage Ref. 71120

OPTION
PRESI VIEW
software

# MACROTECH

# MACROTECH WACROTECH WACROTECH

#### VX7 REF. 71124 VX7S REF. 71132

The Vickers VX7 and VX7S hardness testers and semi-macro hardness testers with automatic turret offer a complete solution to meet the needs of quality laboratories, as well as production line controls.



770mm



230mm



580mm



55kg for MACROTECH VX7 52kg for MACROTECH VX7S

- 6-position automatic turret
- Touchscreen
- Hardness Vickers, Knoop and Brinnel
- Automatic load application
- High-rigidity frame



#### **CHARACTERISTICS**

	VX7	VX7S
Automatic turret	2 objectives x10 x20, 1 Vickers indenter	2 objectives x10 x20, 1 Vickers indenter
Options turret	Up to 4 objectives including x10 x20 + 1 indenter	Up to 4 objectives including x10 x20 + 1 indenter
Load application	Automatic load application	Automatic load application
Load application speed	85µm/s	85µm/s
Indentation time	5 to 99s	5 to 99s
Precision	In accordance with ISO 6507-2, JIS B7725, ASTM (E-384) standards	In accordance with ISO 6507-2, JIS B7725, ASTM (E-384) standards
Magnification	x100 - x200	x100 - x200
Max. measurable length	999.9µm - 600µm	999.9µm - 600µm
Data output	RS 232C output	RS 232C output
Memory	999 max. memorized measurements	999 max. memorized measurements
Conversions	Conversion to other scales according to ASTM (E-140) et JIS	Conversion to other scales according to ASTM (E-140) et JIS
Max. sample height	250mm	250mm
Max. sample length	150mm	150mm
Power supply	240V / 50 - 60Hz	240V / 50 - 60Hz
Touchscreen	LCD display with backlight	LCD display with backlight
Lighting	LED	LED

LOAD RANGE (GF)



#### **AVAILABLE OPTIONS**

#### **INDENTERS**



VICKERS Ref. 71164



KNOOP Ref. 71134

#### STANDARD VICES



50mm opening Ref. 71133 100mm opening Ref. 71199

#### **OBJECTIVES**



**x2,5** Ref. 71106

**x5** Ref. 71154

x10 Ref. 71142

x20 Ref. 71129

x50 Ref. 71143

x100 Ref. 71135

#### SAMPLE HOLDERS AND REMOVABLE HOLDERS



Sample holder for non-mounted samples Ref. 71157



Single place sample holder Ref. 71109



Sample holder 4 places Ref. 71175



Removable holder ø 25mm Ref. 71174

Removable holder Removable holder ø 25.4mm Ref. 71144

ø 30mm

ø 31.7mm

ø 38.1mm

ø 40mm

Removable holder Removable holder Removable holder ø 50mm

#### **TURRET**

**3-position turret for objectives** Ref. 71131

4-position turret for objectives Ref. 71130

#### **OTHER ACCESSORIES**



Video output + C mount Ref. 71128



Standard Vickers test block (ø 64 x 15mm) Ref. 71141



Object micrometer Ref. 71503



Digital micrometers for manual XY stage Ref. 71120

**Stage adapter for ref. 71122 & 71152** Ref. 71121

Manual XY stage 25 x 25mm movement Ref. 71122

# HARDNESS TESTERS

Digital

### **ROCKWELL** MATSUZAWA MOGURA D1/D3/A1

The range of **Rockwell hardness testers** is enriched with the new "Matsuzawa MoguRa" models. With digital or analog display, for Rockwell and/or Superficial Rockwell scales, very robust and easy to use.

High performance, high precision and mastered costs, Rockwell MoguRa hardness testers are perfectly suited for production workshops and teaching.







#### **TECHNICAL CHARACTERISTICS**

TYPE		DIGITAL				ANALOG
Name	me MoguRa-d1 MoguRa-d3		MoguRa-a1			
Test		Rockwell	Rockw	ell/Surfa	се	Rockwell
Display		LCD				Gauge
Test Load		60, 100, 150 kgf	15, 30, 150 kgf	45 kgf 60	0, 100,	60, 100, 150 kgf
Pre-charge		10 kgf	3, 10 kg	gf		10 kgf
Included	DIA	ADC	A D C 15N	30N	45N	ADC
scales	1/6" ball	FBG	F B G 15T	30T	45T	FBG
	1/8" ball	HEK	H E K 15W	30W	45W	HEK
Optional scales	1/4" ball	LMP	L M P 15W	30W	45W	LMP
	1/2" ball	RSV	R S V 15Y	30Y	45Y	RSV
Sample size Max height 246n		Max height 246mm, M	ax. 158mm			
Standards ISO 6508-1, ISO 6508-2, ASTM E18-19, JIS Z 2245, JIS B7726			IS B7726			
Dimensions		Height 776mm x Width 460mm x Depth 190mm. Weight 65kg			eight 65kg	
Power Supply AC240 50/60Hz						

#### **OPTIONAL ACCESSORIES**

#### **BALL INDENTERS**











Ball indenter	Diameter 1/8", 1/4", 1/2", 3/4"
Steel balls	Diameter 1/8", 1/4", 1/2", 3/4"
Round table	Diameter 200mm
Other tables	V-table (small), plot, diamond plot
JIG tests on long samples	Vari-Rest & Jack-Rest
Micrometric Displacement table for Jomini tests	Max displacement: about 55mm Minimum graduation: 1/10mm or 1/160"

#### OTHER ACCESSORIES



Rockwell test blocks (ø 64mm x 15mm) Ref. 71167

# SOFTWARE

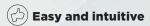
#### **PRESI VIEW HARDNESS**

ACCESSIBLE AND INTUITIVE DIGITAL IMAGERY FOR SINGLE INDENTS

#### COMPATIBILITY:

Matsuzawa hardness testers range MX3 | MX7 MX7 LOW LOADS VX7 | VX7S

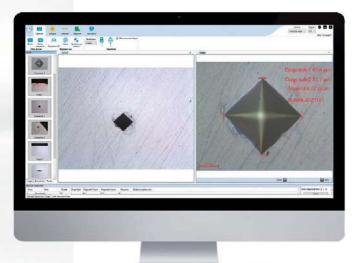
Specially designed for single indent analysis, the PRESI View Hardness software has a simple interface and a pleasant workspace. Thanks to easily identifiable icons, the software is user-friendly and the operator is quickly autonomous on his tasks. On-screen visualisation of the indent, as well as the assisted analysis, offer a great work comfort.





Automatic analysis

Data storage



# EXTENDED FEATURES WITH PRESI VIEW MESURE

- · Lengths, thicknesses, markers, angles...
- Rays, diameters, perimeters, surfaces, circles, arcs...
- Text boxes insertions, titles and arrows.

#### **FUNCTIONALITIES**

#### LANGUAGE

Software available in 3 languages: English + French + German

#### INDENTATION TYPE

Single indent

#### **SOFTWARE**

Simultaneous functioning with multiple cameras on different acquisition means (macro lens, stereomicroscope, microscope, hardness tester and Vickers micro hardness tester)

Manual or automatic measurement

Miniature view of pictures

Customizable formatting

Streamlined and intuitive interface

#### **SETUP MENU**

Easy and fast camera settings. Calibrations achievable in seconds

Presets of the measurement display

#### **EXPLOITATION OF RESULTS**

Many recording formats

Automatic storage of results in database

Pictures exportation in format: JPEG / PNG / BMP / GIF

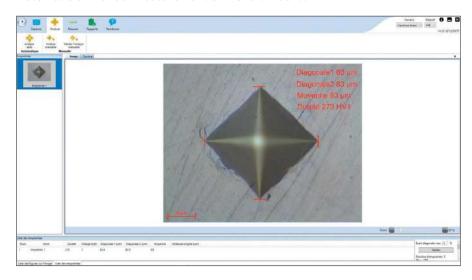
Data exportation in format: Excel / Open Office

#### COMPATIBILITY

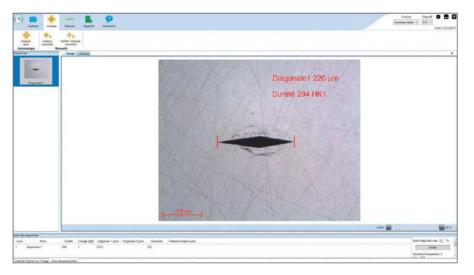
The software is compatible with all our Microtech, Macrotech VX7 and VX7S hardness testers, and all brands equipped with a video output and C mount

#### PRESI VIEW HARDNESS

Automatic or manual measurement of Vickers indents.

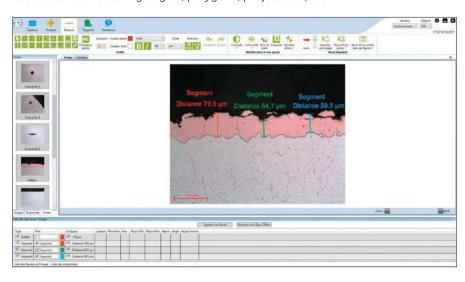


Automatic or manual measurement of Knoop indents.

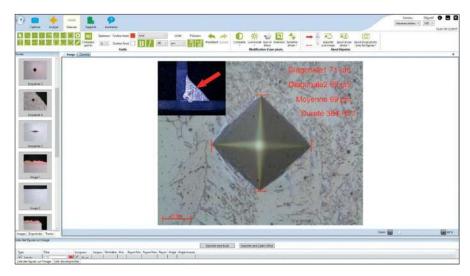


#### PRESI VIEW FULL

The optional measurement module provides a large number of measurement tools such as measuring angles, polygons, projections, etc.



The addition of a thumbnail enriches the number of information on a photo. The drafting of the report is thus facilitated.



# **PORTABLE HARDNESS**

When classic hardness machine-measurement is not possible, there are devices allowing the measuring of hardness on rather massive metal parts with the Leeb method by ball rebound, or on thinner parts with a Rockwell probe or a UCI probe. For plastics or rubbers, the measurement is made with a Shore hardness tester.

# **HARDNESS TEST BLOCKS**

It is necessary to control the hardness test machines with standard blocks having a very precise hardness value. These gauge blocks can be squared so as to better distribute the points of hardness. We also offer indenters used to apply hardness for any machine models.







**HLD Rebound hardness tester** 



Rockwell hardness tester



**Equotip hardness tester** with range of probes



WORLDWIDE



UCI hardness tester mounted on a measuring frame



Shore hardness tester mounted on a measuring



Shore hardness test blocks

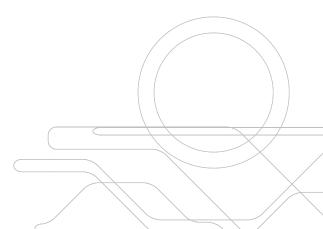


Brinell Hardness Test Blocks. Vickers, Rockwell, Leeb



Diamond indenters and ball indenters





### **CHARACTERIZATION**

# Mechanical



**TEST MACHINES** 







NON-DESTRUCTIVE TESTS

### **UNIVERSAL TEST MACHINES**



#### INSPEKT

# SOLO s/M/L

For testing of materials and components in small batches, the inspekt solo universal test machine series is available in three different test heights. The inspekt solo is a low weight economical tabletop device with high bending stiffness, suitable for tensile, compression and bending tests

on various materials.
In combination with the ergonomic design and the new brushless drive concept, a reliable and fast measurement with its electronics is guaranteed.

The simple use of its software makes it effective both in harsh production environments as well as in sterile laboratories.

#### **Applications:**

- Tests on plastics, elastomers, rubber.
- Lightweight materials and components, component testing.
- Springs, films and textile tests.



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Force sensor



Dockings



**Pilot Remote Control** 

FEATURES	S	M	L		
Tensile/Compressive Force	2.5 kN				
Mechanical Design	1 backlash-free ball screw, brushless motor				
Frame Rigidity, including the Deformation of Cell and Adapter		2.7 kN/mm			
Transversal Travel Speed		From 1.5µm/min to 1200mm/min			
Transversal Displacement Resolution		< 0.025µm			
Force	Class 1 between 0.1 and 100% of the nominal force capacity (optional: class 0.5) depending on the use of the force sensor (according to EN ISO 7500-1, ASTM E4)				
Force measurement resolution	24 bit (±8,388,608 digits)				
Control and measurement electronics	Integrated force and crosshead displacement channels. In option, 3 free slots for expansion cards for analog, digital, force and displacement signals, strain gauges and 0-10V input for an external measurement system				
Power Supply	2	30 VAC, 0.5 kVA, 50 Hz, 10-30°C, 20 - 80% hum	idity		
Data Treatment	Ethernet (LAN)	or USB, 50 Hz (standard), optional increased da	ta acquisition rates		
Weight	48kg 55kg 60kg		60kg		
Dimensions (DxWxH)	631 x 631 x 705mm	631 x 631 x 1305mm	631 x 631 x 1605mm		
Test Height	475mm	1075mm	1375mm		
Maximum Stroke	365mm	965mm	1265mm		

#### **ACCESSORIES**









**TEMPERATURE** 



## UNIVERSAL TEST MACHINES



#### **INSPEKT**

# DUO

For the testing of materials and components compliant with standards in the low load range, the universal test machine Inspekt duo is available in two different test space heights. The inspekt duo is an economical, low-weight tabletop machine with high bending stiffness suitable for tensile, compression and bending tests on various materials. In combination with the ergonomic design and the new concept of brushless drive, it guarantees a reliable and fast measurement with its electronics. The ease of use of its software makes it effective regardless of the environment, in difficult production process environments as well as in sterile laboratories.

#### **Applications:**

- Tests on plastics, elastomers, rubber.
- Lightweight materials and components, testing of components.
- Springs, films and textiles tests.



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**Force Sensor** 



**Pilot Remote Control** 

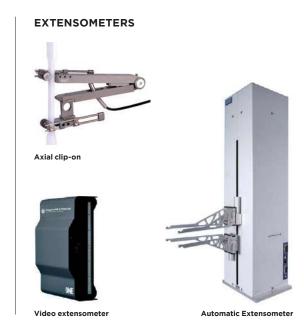


**Dockings** 

FEATURES	INSPEKT DUO 5 KN	INSPEKT DUO 10 KN				
Tensile/Compressive Force	5 kN	10 kN				
Mechanical Design	2 backlash-free ballscrews, brushless motor					
Frame Rigidity including the deformation of cell and adapter	11 kN	I/mm				
Transversal Travel Speed	Of 1.5µm/min à 1200mm/min	From 0,8 µm/min à 600mm/min				
Transversal Displacement Resolution	< 0.025µm	< 0.012µm				
Force measurement		Class 1 between 0.1 and 100% of the nominal force capacity (optional class 0.5) depending on the use of the force sensor (according to EN ISO 7500-1, ASTM E4				
Force measurement resolution	24 bit (±8,388,608 digits)					
Control and measurement electronics	Integrated force and crosshead displacement channels Optional, 3 free slots for expansion cards for analog, digital, force, displacement signals, strain gauges and 0-10V input for external measurement system					
Power Supply	230 VAC, 0,5 kVA, 50 Hz, 10-30 °C, 20 - 80 % humidity					
Data Processing	Ethernet (LAN) or USB, 50 Hz (standard), optional increased data acquisition rates					
Index	This series of test machines is not designed to connect external electrical devices e.g. temperature chambers) to the emergency stop circuit of the machine					
Weight	83kg	88kg				
Dimensions (DxWxH)	631x 631 x 1305mm	631 x 631 x 1605mm				
Test Height	1025mm	1325mm				
Maximum Stroke	970mm	1270mm				

#### **ACCESSORIES**





## UNIVERSAL TEST MACHINES



#### **INSPEKT**

# **BLUE**

Material test machines of the Inspekt blue series are particularly suitable for standard quality assurance applications. Due to the high demand for cost-effective test machines, the inspekt blue has been equipped with a simple yet multi-functional load frame.

The inspekt blue is suitable for testing tension, compression, peeling and bending on various materials. In combination with the ergonomic design and the new brushless drive concept, a reliable and fast measurement is guaranteed with its electronics. The ease of use of its software makes it effective whatever its environment, in difficult production process environments as well as sterile laboratories.

#### **Applications:**

- · Metal testing, Wire testing.
- Testing of plastics, lightweight materials and components.
- Component and creep tests, elastomer tensile tests.
- · Spring, films, textile tests.



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Force sensor



Dockings

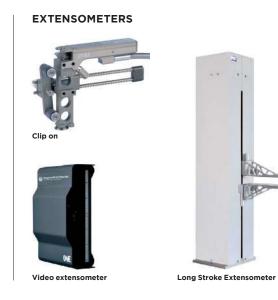
FEATURES	INSPEKT BLUE 20 KN	INSPEKT BLUE 30 KN			
Tensile/Compressive Force	20 kN	30 kN			
Mechanical design	2 backlash-free ballscrews, brushless motor				
Rigidity of the frame including the deformation of the cell and the adapter	35 kN/mm	40 kN/mm			
Transversal Travel Speed	From 0,3 µm/min to 400 mm/min	From 0.2µm/min to 240mm/min			
Transversal Displacement Resolution	< 0.005µm	< 0.003µm			
Force measurement	Class 1 between 0.1 to 100% of the nominal force capacity (optional class 0.5) depending on the use of the force sensor according to EN ISO 7500-1, ASTM E4)				
Force measurement resolution	24 bit (±8,388,608 digits)				
Control and measurement electronics	Integrated force and crosshead displacement channels, optional, 3 free slots for expansion cards for analog, digital, force, displacement, strain gauges and 0-10V input for external measurement system				
Power supply	230 VAC, 0,5 kVA, 50 Hz, 10-30 °C, 20-80 % humidity				
Data processing	Ethernet (LAN) or USB, 50 Hz (standard), optional increased data acquisition rates				
Index	This series of test machines are not designed to connect external electrical devices (eg temperature chambers) to the emergency stop circuit of the machine.				
Weight	140kg				
Dimensions (DxWxH)	450 x 790 x 1420mm				
Test height	1100mm				
Maximum Stroke	1005mm				

#### **ACCESSORIES**

Bending



Shearing



## UNIVERSAL TEST MACHINES



#### **INSPEKT**

# **TABLE**

Modern and flexible load frame design for various applications

- Load frame extremely variable in height and width.
- > Optimal adaptation to different sample and component sizes.
- Possibility of connecting peripheral devices (e.g. furnaces, thermal chambers), measuring channels and additional controls (e.g. extensometers, measurement probes, optical sensors).
   The innovative construction guarantees the highest measurement accuracy.
- Use of larger diameter backlash-free precision ball screws (preloaded in aluminum support brackets) and a special nut system.
- > Precise load transmission
- > High lateral force stability
- > Increased axial stiffness.
- Brushless AC drive for static material testing as well as for alternating and continuous loads.



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Force sensor



Anchors for screws



Dockings

FEATURES	5 KN	10 KN	20 KN	50 KN	100 KN	250 KN
Tensile/Compressive Force	5 kN	10 kN	20 kN	50 kN	100 kN	250 kN
Mechanical Design	2 backlash-free ballscrews, brushless motor					
Rigidity of the frame including deformation cell and adapter	15 kN/mm	18 kN/mm	40 kN/mm	68 kN/mm	120 kN/mm	200 kN/mm
Transversal Travel Speed	From 1µm/min at 2000mm/min	From 1µm/min at 1200mm/min	From 1µm/min at 600mm/min	From 1µm/min at 800mm/min	From 0.5µm/min at 400mm/min	From 0.5µm/min at 175mm/min
Transversal Displacement Resolution	< 0.001µm	< 0.005µm	< 0.0025µm	< 0.005µm	< 0.0025µm	< 0.0002µm

Class 1 between 0.1 and 100% of the nominal force capacity (optional class 0.5) depending on the use of the force sensor (according to EN ISO 7500-1, ASTM E4) Force measurement (according to EN ISO 7500-1, ASTM E4)

Force measurement resolution 24 bit (±8,388,608 digits)

Integrated load and move channel, additional 3 free slots\* for expansion cards for analog/ digital Inputs / outputs for force, displacement, strain gauges, as well as +/-10 V input for external measuring devices, protective door connection Control and measurement electronics \*possibly expandable to 7 slots

Power supply	230 VAC, 0,5 kVA, 50 Hz, 10-30 °C,	230 VAC, 0,5 kVA, 50 Hz, 10-30 °C, 20-80 % humidity			20-80 % humidity	
Data Treatment	Ethernet (LAN)	Ethernet (LAN) or USB, 50 Hz (standard), optional increased data acquisition rates				
Weight	100kg	100kg 130kg		400kg	570kg	
Dimensions (DxWxH)	550 x 685 x 1420m	550 x 685 x 1420mm			695 x 880 x 2250mm	
Test Height	1080mm	1080mm	1170mm	1145mm	1100mm	
Maximum Stroke	1025mm	1005mm	1095mm	1065mm	1030mm	

The provided data is for information purposes only and corresponds to "standard" machines and dimensions.

The Inspekt Table series load frames are available with different heights and widths > optimal adaptation to different sample and component sizes. Also available for different transversal speeds, please contact us.

#### **ACCESSORIES**

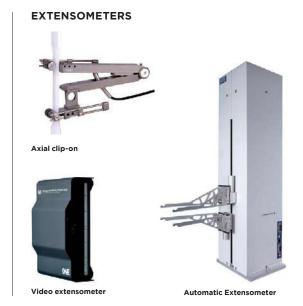
#### **DOCKINGS**



Traction

Compression









## UNIVERSAL TEST MACHINES



#### **INSPEKT**

# STAND-ALONE

4 guidance column frame design for various applications

- Load frame with extreme versatility in height and width.
- > Optimal adaptation to various sample and component sizes.
- Possibility of connecting peripheral devices (e.g. furnaces, thermal chambers), additional measurement and control channels (e.g. extensometers, measurement probes, optical sensors).

The innovative construction guarantees the highest measurement accuracy

- Use of larger diameter backlash-free precision ball screws (preloaded in profiled aluminum brackets) and a special nut system.
- > Precise load transmission.
- > High lateral force stability.
- > Increased axial rigidity.



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Force sensor



**Hydraulic dockings** 



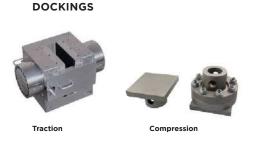
Extensometer

FEATURES	100 KN	250 KN	400 KN	600 KN	1200 KN	1500 KN
Tensile/Compressive Force	100 kN	250 kN	400 kN	600 kN	1200 kN	1500 kN
Mechanical Design	2 backlash-free ball screw, 4 guide columns, brushless motor					
Rigidity of the frame including deformation cell and adapter	170 kN/mm	260 kN/mm	390 kN/mm	680 kN/mm	1350 kN/mm	1685 kN/mm
Transversal Travel Speed	From 0.1µm/min at 1000mm/min	From 0.06µm/min at 600mm/min	From 0.1µm/min at 500mm/min	From 1µm/min at 800mm/min	From 0.1µm/min at 250mm/min	From 0.1µm/min at 250mm/min
Transversal Displacement Resolution	< 0.002µm	< 0.0012µm	< 0.05µm	< 0.005µm	< 0.05µm	< 0.05µm
Force measurement	Class 1 between 0.2 and 100% of the nominal force capacity (optional class 0.5) depending on the use of the force sensor (according to EN ISO 7500-1, ASTM E4) (according to EN ISO 7500-1, ASTM E4)					
Force Measurement Resolution	24 bit (±8,388,608 digits)					
Control and Measurement Electronics	Integrated load and move channel, 7 free expansion card slots for analog/digital Inputs/outputs for force, displacement, strain gauges, as well as +/-10 V input for external measuring devices, protective door connection					
Power Supply	3P/PE/400V/50Hz/ (TN-Net) 4.0kW, 4 m cable with 16CEE socket for machine controller, 5-40°C, 20-80% humidity  3P/PE/400V/50Hz/ (TN-Net) 7.0kW, 4 m cable with 16CEE socket for machine controller, 5-40°C, 20-80% humidity			3NPE/400V/50Hz/ (TN-net) 16kVA, 35 A preliminary fuse, permanent electrical wiring, 5-40°C, 20-80% humidity		
Data Treatment	Ethernet (LAN) or USB, 50 Hz (standard), optional increased data acquisition rates					
Weight	11C	1100kg		2300kg		8500kg
Dimensions (DxWxH)	700 x 1 08	850 x 1350 x 2450mm		1 710 x 1930 x 3160mm		
Test Height	1210	Omm	1350	)mm	1710mm	1840mm
	· · · · · · · · · · · · · · · · · · ·					+

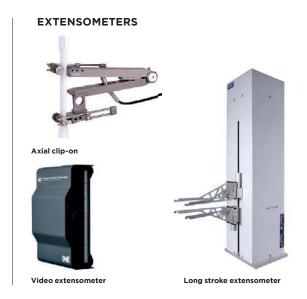
The provided data is for information only and corresponds to "standard" machines and dimensions.

#### **ACCESSORIES**

Maximum Stroke







1090mm



**TEMPERATURE** 

1110mm



1410mm

1460mm

**High Temperature Furnaces** 

The İnspekt Stand-Alone series load frames are available with different heights and widths > optimal adaptation to different sample and component sizes.

Also available with different transversal speeds, please contact us.

### **RESILIENCE TEST MACHINES**



#### **PENDULUM IMPACT TESTER**

# STEEL

The HyTT pendulum impact tester has been designed to test metals according to the Charpy or Izod impact test standard. It can run tests automatically and is operated via a simple and intuitive touch screen. Its safety enclosure includes a polycarbonate door, which meets the requirements of the CE marking and the ISO 13849 standard.

#### **Characteristics:**

- Available capacities: 300, 450 and 750 Joules.
- Fully automatic.
- · Ability to run rapid test cycles.
- The electromagnetic brake allows the safe launching of the hammer.
- Motorized hammer elevation with automatic return after each test, for increased productivity and safety in use.
- Automatic test start when the protective door is closed.
- · Simple touch screen operation.
- Charpy impact hammers according to ASTM and ISO.
- Self-centering specimen support device (according to ISO 148-1 and ASTM E23).
- Foundation base according to EN ISO148-2 and ASTM E23.
- Data acquisition software to connect the machine to a PC.



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Impactor



**Brackets** 



Display

FEATURES	HYTT 300J	HYTT 450J	<b>HYTT 750J</b>		
Impact Energy	300J	450J	750J		
Pendulum Length	800mm				
Clearance Angle	150°				
Maximum Impact Speed	5.42m/s				
Resolution	0.01J				
Power Supply	220V - 750W				
Weight	3000kg		3500kg		
Dimensions	1150 x 2000 x 2570mm				

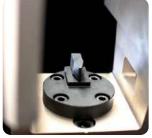
#### **ACCESSORIES**



Charpy test tube holder



Centering Pliers



Charpy Impactor



**Centering Device** 



Broaching machine



Notch Broach



### RESILIENCE TEST MACHINES



#### **PENDULUM IMPACT TESTER**

# **PLASTIC**

The table pendulum hammer was designed to test plastics and composites according to the Charpy or Izod impact test standards. It is available in capacities from 2 to 25 J with complete change of arm and hammer and a 50J model. It is controlled via a simple and intuitive touch screen. Its octagonal protective frame includes a polycarbonate sliding door with an electric lock, which meets the requirements of the CE marking and ISO 13802.

#### **Characteristics:**

- Capacities available for the 25J hammer: ISO 2, 4, 5, 7.5, 15, 25 / ASTM 2.7, 5.4, 10.8, 21.6 / IZOD 2.75, 5.5,11, 22
- · Automatic brake.
- Automatic test start when the polycarbonate protection door is closed.
- Simple operation via touch screen.
- Charpy impact hammers as per ASTM or ISO.
- Languages: English, Spanish, French and German.



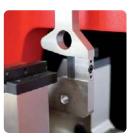
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25 J Pendulum Hammer



50 J Pendulum Hammer



Impactor



Display



Support



Protection

FEATURES	MP 25J	MP 50J
Impact Energy (*)	2 of 25J	2 of 50J
Charpy pendulum length below 5J	230mm	340mm
Charpy pendulum length above 5J And ASTM and IZOD test	340mm	340mm
Charpy Test Impact Velocity below 5J	2.9m/s	3.46m/s
Charpy Test Impact Velocity from 5J and ASTM and IZOD Test	3.46m/s	3.46m/s
Resolution	0.01 J	O,O1J
Power Supply	220V	220V
Weight	200kg	500kg
Dimensions (D x W x H)	600 x 1000 x 1000mm	800 x 1250 x 1040mm

(\*) Pendulum capacity available According to ISO standard: 2 / 4/5 / 7.5/15/25 joules According to ASTM: 2.7/5.4/10.8/21.6 joules According to IZOD: 2.75/5.5/11/22

# **ACCESSORIES**





**Test Piece Holder** 

**Broaching Machine** 



# **NON-DESTRUCTIVE TESTING**



# STRAIN GAUGE FORCE SENSORS

Force sensors are used to measure a pressure force and/or the traction exerted on the sensor. Electronic models are most commonly designed with strain gauges stuck in the sensor, they measure the sensor deformation under the effect of the exerted force and transform it into an electrical signal.









Round Sensor



Cylindrical Sensor

# MULTI-COMPONENT FORCE SENSORS

Multi-component force sensors are used to measure a pressure and/or traction force exerted on the sensor, namely on the 3 axes X, Y and Z (3-component sensors). Some 6-component models also measure the torque exerted on the sensor on the 3 axes X, Y and Z.





3 component sensor





# **DYNAMOMETERS**

Dynamometers allow the measuring of a pressure and/or traction force, there are hydraulic, mechanical (dynamometric rings) or electronic models.











**Dynamometer Rings** (with analogue or digital display)

# SMALL HAND AND MOTORIZED MACHINES

(for use with an electronic dynamometer)

These small machines allow a simple measuring of forces on parts or components with an application of the force exerted either manually by hand wheel or lever, or in a motorized way.





Manual machine with force and displacement measurement



Manual bi-column machine with force measurement



Motorized machine with force and displacement measurement

# NON-DESTRUCTIVE TESTING



# **TORQUE METERS**

A torque meter allows the control of dynamometric tools or the control of tightening and loosening of vial or bottle caps. Static or dynamic models are mounted on test benches of rotating mechanisms or systems such as motors.





**Torque Meters** for Torque Tools



**Torque Meters** for Cap Tightening Control



**Static Torque Meters** 



**Dynamic Torque Meters** 

# **THICKNESS MEASURING DEVICES**

It is possible to measure the thickness of a material by means of a micrometer, a thickness controller or even an ultrasonic thickness gauge for the less accessible areas. The coating thickness measuring device also called thickness gauge or permascope measures the thickness of the coating deposited on a metal part.



Coating Thickness Controllers





**Thickness Controllers** for Paper, Cardboard, Plastic and Aluminum Films



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**Precision Micrometers** 







**Ultrasonic Controllers** 





# **ROUGHNESS METERS**

The roughness measurement allows characterisation of irregularities present on a material in order to evaluate the condition of its surface. There are many roughness measurement parameters due to different methods and standards such as Ra and Rz. We also offer you a range of roughness standards to control these devices.







Glass Roughness Standards



**Metal Roughness Standards** 

# **MEASUREMENT FILMS**

"Prescale" pressure films allow a quick and precise determination of the pressure quick to determine the pressure exerted on a surface. Under a certain pressure, the film turns red; the density of the color is proportional to the supported pressure.

After the test, the film shows a image of the pressure distribution on the surface. "Thermoscale" heat-sensitive films allow a determination of the temperature applied to a surface during a manufacturing process, just like the "UV scale" films measure the UV radiation emitted on a surface during a process.





UV radiation Measurement films



Temperature Measurement Films



**Pressure Measurement Films** 

# NON-DESTRUCTIVE TESTING



# MANUAL SPRING TEST MACHINES

Spring test machines are designed for quality control tests on springs, in particular by determining their compression force and their stiffness constant.

They can also check tension springs, torsion springs are controlled

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on a torsiometer.



Two-Column Machines



**Single Column Machines** 

**SERVICES** 

# Control & Maintenance

PRESI and TESTWELL CONTROL use their experience to ensure the proper functioning of your machines.
Follow-up, real support, compliance, modernization solutions in order to meet the new standards: we offer customized services.



# **CONTROL**



PRESI carries out control activities under the TESTWELL CONTROL brand.

Control makes it possible to define the compliance or classification of equipment with respect to a set of criteria, defined in normative references.

It may be necessary as part of the periodic monitoring of your machines or after repairs or modernization.

By this statement you can meet the normative requirements as well as the requirements of your clients:

- in terms of machine compliance for the carrying out of your tests,
- in terms of connection.

For its control activity of the mechanical testing machines, PRESI is accredited by COFRAC.

Controls are carried out in accordance with the following normative references (the list is non-exhaustive). For controls carried out under accreditation, refer to the COFRAC website (www.cofrac.fr)

### ROCKWELL - BRINELL VICKERS - KNOOP LEEB HARDNESS MACHINE ACCORDING TO THE DIRECT AND INDIRECT METHOD

- NF EN ISO 6506-2
- NF EN ISO 6507-2
- NF EN ISO 6508-2
- NF EN ISO 4545-2
- ASTM E10
- ASTM E18
- ASTM E384
- ASTM E92
- ASTM A956

# XY TABLE ON HARDNESS MACHINE

• Internal procedure PT EMV 15

# TRACTION AND/OR COMPRESSION MACHINE

### Applied force:

- NF EN ISO 7500-1
- NF EN 12390-4 for building materials)
- ASTM E4

#### **Crosshead Displacement:**

- NF EN ISO 9513
- ASTM E2309/E2309M

### **Displacement Speed:**

• Internal procedure PT EMV04

#### Alignment:

• ASTM E 1012

#### **EXTENSOMETER**

- NF EN ISO 9513
- NF EN ISO 527-1
- ASTM E83
- ASTM E399

# PENDULUM IMPACT TESTING MACHINE

• NF EN ISO 148-2



The services are performed at the customer premises or in the workshop (only for portable equipment), by experienced technicians who can provide you with technical support.



The measurement readings are taken using standards or reference materials calibrated by accredited bodies, which guarantee traceability according to national norms and standards.



Each control involves the drafting of a control report outlining:

- normative reference and applied criteria
- standards and their connections
- measurement readings
- the approval relating to the analysis of the results (compliance or classification).



A preventive maintenance operation of your machines is always carried out in addition to the control.

If necessary and feasible, a corrective maintenance operation can be carried out.



A training session in the use of the machines can also be carried out by the technicians.

Different points are then approached:

- help with the setting up of tests
- assistance in drafting the test procedures
- explanation of the testing standards
- tests on customer parts





# MAINTENANCE AND TROUBLESHOOTING

# **Curative** maintenance

Curative maintenance can be carried out on the equipment marketed by PRESI under the TESTWELL CONTROL brand.

A first telephone contact with an experienced technician allows information to be collected in order to define the issue noted by the client. A remote pre-diagnosis is developed in order to anticipate the need for spare parts, an on-site intervention is then carried out, either to finalize the expertise or to carry out the repair.

The repair can also be done by returning the machine to our workshops.

Depending on the nature of the repair, a machine control may be necessary in order to comply with the control standards and/or to ensure the reliability of test results.

The maintenance of your equipment is vital in order to ensure its operation. This could mean preventive maintenance or corrective maintenance. The purposes are different. The purpose of preventive maintenance is to reduce the risk of breakdown or deviations, and thus to increase the longevity of your equipment over time and provide for a better reliability of the results.

# **Corrective** maintenance

Corrective maintenance is necessary when a problem is observed on a piece of equipment: **mechanical**, **electrical**, **electronic problems**, **out of tolerance results**.

It can involve the replacement of parts and/or an adjustment.

Preventive maintenance is generally complementary to control services and can be performed on **all machine brands**.

The following operations can be carried out (non-exhaustive list, to be adapted according to the machine type and brand):

- replacement of wear parts
- cleaning of optics, weights, comparator, changeover switches
- emptying and changing filters on hydraulic machines
- control of the proper functioning of security systems.



MAINTENANCE THAT ADAPTS TO YOUR NEEDSUNDER DIFFERENT FORMS:



VIDEO-ASSISTANCE



TELEPHONE SUPPORT



REMOTE TROUBLESHOOTING



PROCEDURE SENDING



TRAVELLING TECHNICIANS



MAINTENANCE CONTRACTS



Machining of mechanical parts of PRESI machines (and other brands) is entrusted to MOP, a sister company of PRESI.



# RETROFITTING OF MATERIAL CHARACTERIZATION MACHINES



Retrofitting can be a solution for hardness or tensile test machines which no longer meet the current normative and technological requirements.

Responding to increased quality market requirements remains a key challenge for businesses. Updates are obtained according to the latest security standards, which also ensures the tracking of test data.

Retrofitting allows to gain in precision and reproducibility, but also to progress with the latestadvanced technologies.

All the components used during this operation originate from our development and our standard machines.

Each machine is unique. That's why we are listening to our cleints for more than 50 years so as to support them in the process of improving their test equipment, without discrimination of brand or technology.









ZWICK Z010TN2S 10KN





Retrofitting of hardness test machine

# CUSTOMIZED FOR EVERY APPLICATION



When a machine no longer meets the various normative standards of today and tomorrow, solutions do exist. PRESI offers its clients a complete expertise of their test system, with control of dockings or up-to-date measuring means in order to check their compliance with the market requirements. PRESI also offers a whole range of compatible accessories for the various existing machines.

# High temperature furnace



# Thermal chamber



Long Travel Extensometer



Video

Corners docks

Hydraulic docks

Docks

#### Hardness Determination



# **SERVICES**

# Training

Support for our customers is a key point of our business approach. In situ or at our premises, face-to-face or remotely, we have developed a set of customized services. Trainings for better understanding and practice. Trainings for an increased efficiency. Practical tools to control technical processes.

This is the mission of PRESIACADEMY.







# **PRESIACADEMY**



# METALLO TRAINING

For better learning, understanding, practice.

PRESI offers customized training programs adapted for all public, from newbie to experienced metallographers.

Our training sessions are led by metallography experts in our **LAB** fitted with the latest equipment. Choose the content of your training according to your expectations and your problems:

# General (over 2 or 3 days)

Review of fundamentals of metallographic preparation techniques (cutting, mounting, polishing, hardness and microscopy).

# Specific (1 day)

Response to a specific problem or an in-depth study of a step of preparation in particular. Our training courses combine the theoretical and practical approaches at the same time.



FOR MORE INFORMATION ON OUR TRAINING, CONTACT US BY EMAIL: PRESI@PRESI.COM



**TECHNIQUES AND METHODS** IN METALLOGRAPHY

Based on the report drafted by the PRESI Laboratory, trainees will be invited to reproduce the gestures and techniques of metallographic preparation of their samples

Duration: 3 days (21h)

#### 1. Cutting (6h)

#### Theory

- The different types of cut-off wheels vs the different materials
- The cutting parameters (rotation speed / table speed)
- Defects and errors due to cutting

#### **Practice**

Cutting of parts

#### 2. Mounting (5h)

### Theory

- Presentation of the different resins
- Resin / materials combination
- Mounting defects and ways to remedy them

• Mount the previously taken samples

## 3. Polishing (10h)

#### Theory

- The machines used
- Advantages and disadvantages of manual polishing, central
- or individual pressure

   Presentation of typical polishing range

   Presentation of the ranges established on the basis of the samples provided

   Presentation of foreseeable faults
- in the event of a range error

#### Practice

- Polish of samples from the presented
- Analyze of results and identification of any defects of the polished samples





# PRESIACADEMY



# PRESI LAB

Pillar of the PRESI expertise.

A 100% PRESI creation, the **LAB** is a prime importance cell. It welcomes new company collaborators for training as well as our customers. This is also the place where the R&D department tests its machines and products. Innovations and optimizations necessarily pass through the **LAB**.

The LAB is in direct contact with customers in order to support them in optimizing their processes. It is an essential means of initiating and validating the developments of our R&D department.

PRESI and its subsidiaries have their own **LAB** in order to stay as close as possible to their customers and provide them with 100% personalized advice.

#### **An Expert Centre**

Customized support and technical responses for specific projects, design and optimization of preparation processes... The **LAB** deepens the areas initiated by our R&D Dept.

# **LAB'**NOTES

In addition to training, PRESI also provides **LAB**'Notes that can be downloaded from its website.

Created by the lab, these **LAB**'Notes present in a clear and detailed way all the processes related to a large number of applications. For example, quality control (steel, cast iron, copper, titanium, etc.), heat treatment or even biomaterials.



TO BE DOWNLOADED ON PRESI.
COM EXPERTISE SECTION
> APPLICATIONS





# R&D

Machines, consumables, as methods evolve. The PRESI R&D department plays therefore a major role.

# PRESI R&D

CONSTANTLY OPTIMISE IMAGINE INNOVATE New issues, special cases, evolution of machines and consumables, arising of new needs... PRESI and TESTWELL CONTROL are constantly on the lookout.

Faced with these challenges, our R&D Department is rethinking our machines **on average every 6 years.** 

Study and development of new solutions for metallographic analyses, design of prototypes, technology watch, development of specific tailor-made applications...

The goal is simple: to optimize and improve our product ranges and our services in order to meet all the needs of our customers.

# R&D, a central hub at PRESI

Since innovation is at the heart of our company, we are always trying to offer our customers the best solutions, but above all, different solutions.

We are able to offer technical solutions for our machines and consumables.

We are also able to offer customised solutions for our machines, thanks to our technical R&D department which has tripled in size in 4 years.

It is also thanks to the support of the R&D department that 8 new MECATOME cutting machines were launched this year. More ergonomic and easier to use, they offer real working comfort. A question of expertise...



# **CUSTOMIZED**

Since 1961, we have been expanding our experience, the know-how of our technicians and the resources of our Research & Development department.

Our customers trust us and come to us for more and more precise and specific requests.

This allows us to turn our initial offer into 100% adapted products: biomedical, aeronautics, metallurgy.

A tested and approved method to offer you a 100% tailor-made solution.

Whatever your field of application, your problem, your budget or your deadline, PRESI will support you in your projects.

## **CUTTING** VICES AND OTHER SPECIFIC ACCESSORIES



Ball vice T300, T330, ST310



Pneumatic vice for cutting core drills on T260 double blade



Specific vice for grooving of indexed tablet at 90°



Rotary table placed on the grooved T-table (T300, ST310, T330, EVO 400)



Specific bit for vice

# **POLISHING SPECIFIC PLATES**



Special plate central pressure for tubing



Special plate central pressure with double clamping



Special plate central pressure for tubing thin sections



Special plate central pressure for rectangular samples



Special plate individual pressure for thin sections

# CUSTOMIZED DEVELOPMENT OF WORKBENCHES

A fully equipped custom created materialography laboratory (monitoring of the project in 3D with projections in realistic format).





# PRESI R&D

# **NUCLEAR**

# PRESI has real expertise in adapting to hostile environments. Our experience is based on strengths:

- absolute control of the development and manufacturing processes
- a cutting-edge technique
- easy to use tools

To meet very specific needs, PRESI adapts its cutting, mounting and polishing machines with a view to high quality and high technology.

# Exemplary reliability for glove boxes and hot cells.

Designed and developed on demand, our custom-made equipment and accessories are completely redesigned with appropriate materials: stainless steel, less plastics, etc.

They offer optimal resistance to aggressive environments and adapt safely to them. In some cases, they can be used remotely thanks to the manipulator arms and remote controls.



SPECIFIC PROJECT, UNIQUE SOLUTION.

With or without specifications, PRESI accompanies you to guide your project until its completion, from the study to the training of on-site personnel to use these unique machines.











NUCLEARIZED CUTTING MACHINE

NUCLEARIZED MOUNTING MACHINE NUCLEARIZED POLISHING MACHINE



# Small laboratory equipment

To satisfy all the requirements of our customers and their laboratories, PRESI offers a range of equipment.

Everything for the laboratory and for the person: protection, cleaning, observation, organisation, etc.

# SMALL LABORATORY EQUIPMENT

# **CLASSIFYING**

REF.	DESIGNATION
19005	Storage box (6 to 18 specimen, Ø 40mm)
57157	Top Quality storage cabinet 9 platens Ø 200 to 300mm, closing by sliding doors, 350mm, H: 390mm
19018	Pack of 3 pins in tungsten carbide for engraver Ref. 19020
19019	Diamond point for engraver Ref. 19020
57155	Draining board for plates Ø 200 to 300mm
19020	Electrical engraver with carbide tungsten point for specimen marking

# **REPLICATING**

REF.	DESIGNATION
19035	Replica Kit complete with 20 replica sheets 10 x 12cm (thickness 0.035mm), 80 glass slides, 1 bottle of solvent 125 CC
19036	Pack of 20 replica sheets

# **BONDING**

REF.	DESIGNATION
19004	500g sample mounting wax, Ø 300mm, thickness 5mm
19010	Glue spray can for polyurethane discs (500ml)
19011	5 red wax sticks, 50g, 190 x 20 x 20 mm
19012	25m double sided adhesive roll (width: 310mm)
19031	Bottle 100g Canada Balsam for mounting to glass slides

# **POSTERS**

REF.	DESIGNATION
78031	Poster diagram steel/carbon
78032	Poster polishing processes

# **OBSERVING**

Non destructive testing.

REF.	DESIGNATION
55035	Precision rule I 400mm
57236	Precision rule I 300mm
07010	500ml developer aerosol (white)
07011	500ml dye penetrant aerosol (red)
07015	400ml dye penetrant aerosol (Fluo)
07016	400ml developer aerosol (Fluo)
07020	500ml background colour aerosol (white)
07021	500ml magnetic particles aerosol

# WIPING - CLEANING - DRYING PROTECTING

REF.	DESIGNATION		
Oil-base	Oil-based cleaner		
17997	5L drum technical acetone		
17281	5L drum denatured ethanol		
17282	10L drum denatured ethanol		
Water-b	pased cleaner		
19001	1l cleaning liquid "AllClean"		
19002	5L drum "Allclean"		
19006	Protective lacquer spray (400ml)		
19007	Pack of 4 Jet Pur Sprays (400ml)		
19060	300 special wiping clothes (extreme softness, scratch free)		
19070	Extra pure cotton wool (100g)		
57159	Wall-mounted sample dryer		
57160	Base-mounted sample dryer		
19064	Absorbent roll for all liquids (46m x 41cm)		

# WEIGHING

REF.	DESIGNATION
70051	Precision (Kern) weighing machine-from 0 to 500g. Accuracy 0.1g
19061	Box of 500 pipettes 3/0.5ml Length 155mm
04901	Kit 25 syringes 50ml + 25 syringes 5ml for liquid resins

# **PROTECTING**

REF.	DESIGNATION
19071	Safety glasses
78001	Lab coat (blue) PRESI
78002	Lab coat (white) PRESI
19050	Box of 100 Latex gloves (Size S)
19051	Box of 100 Latex gloves (Size M)
19052	Box of 100 Latex gloves (Size L)
19053	Box of 200 Nitrile gloves (Size S)
19054	Box of 200 Nitrile gloves (Size M)
19055	Box of 200 Nitrile gloves (Size L)
19062	Self-adhesive Teflon coated fabric for lab bench protection, 1m x 2m (Lab'Board Protect)

# ACCESSORIES FOR OPTICS (MICROSCOPE)

REF.	DESIGNATION
19030	100 glass slides 30 x 45 x 1.2mm
19021	100 glass slides 28 x 43 x 0.13mm
19063	Storage box in wood for 50 glass slides 30 x 45mm
19072	PRESI mod-white plasticine to use with Press'l, 200g
71505	Press'I-Levelling press for microscopy



Storage box (3 at 18 specimen, Ø 40mm) Ref. 19005



**Draining board for plates Ø 200 to 300mm** Ref. 57155



Wall-mounted sample dryer Ref. 57159



Press'l-Levelling press for microscopy Ref. 71505



Electrical engraver with carbide tungsten point for specimen marking Ref. 19020



300 special wiping clothes (extreme softness, scratch free) Ref. 19060



Base-mounted sample dryer Ref. 57160



Waste recovery tray Ref. 57170



Absorbent roll for all liquids (46m x 41cm)
Ref. 19064



9-tray storage tower Ø 200 to 300mm closing by sliding doors Depth: 350mm Height: 390mm



Ultra-quiet air compressor, 24L tank. Dimensions (WxDxH): 400x400x600mm Ref. 67750

# SMALL LABORATORY EQUIPMENT

# **ELECTER EVOLUTION**

#### **REF. 58100**

Portable apparatus for mechanical grinding and polishing 'in-situ". The ELECTER EVOLUTION is ideal for preparation of surfaces before chemical etching or polishing and electrolytic etching.

- Strong case for transport
- Control panel
- Electronic speed control
- 2 outlets for motor connection
- Selection of rotation direction
- Torque motor 1500 to 25000 RPM
- Reducer 1/4 increasing the power by 4
- Tool holder with 90° bevel gear
- Voltage: 220 Volts.
- Built in accordance with EC standards



330mm



260mm



) 4,9kc







Strengthened transport case

#### ABRASIVE PAPERS ADHESIVE Ø 32MM

REF.	GRIT		
Bag of 1	Bag of 100		
14010	P 60		
14000	P 100		
14001	P 120		
14002	P 180		
14003	P 240		
14004	P 320		
14005	P 400		
14006	P 600		
14007	P 800		
14008	P 1000		
14009	P 1200		
14011	P 2400		
14012	P 4000		

# POLISHING CLOTHS Ø 32MM

REF.	DESIGNATION	
Bag of 25		
16004	Self Adhesive Disc HS-B	
16001	Self Adhesive Disc HS-V	
16002	Self Adhesive Disc RAM	_
16005	Self Adhesive Disc ADR II	_

#### ABRASIVE PAPERS ZR+ Ø 32MM

REF.	GRIT
14016	P 80
14015	P 120
14017	P 180

# ULTRASONIC CLEANER

At that time, the ultrasonic cleaning is one of the most commonly used laboratory processes for cleaning. The main interest with this type of cleaning is to quickly produce automatic clean samples for analysis with no damage to the samples. This cleaning process is applied just after the samples polishing. Tank supplied with lid.



# **CHARACTERISTICS**

REF.	DESIGNATION	TANK DIMENSIONS	CAPACITY
61101	Ultrasonic cleaner	190 x 85 x 60mm	0.81
61121	Basket for tank 0.8I		
61102	Ultrasonic cleaner	151 x 137 x 100mm	1.751
61122	Basket for tank 1.75I		
61103	Ultrasonic cleaner	240 x 137 x 100mm	2.75
61123	Basket for tank 2.75I		
61104	Ultrasonic cleaner	240 x 137 x 150mm	4.251
61124	Basket for tank 4.25l		
61105	Ultrasonic cleaner	300 x 151 x 150mm	5.751
61125	Basket for tank 5.75I		
61106	Ultrasonic cleaner	300 x 240 x 150mm	9.5l
61126	Basket for tank 9.5I		
61107	Ultrasonic cleaner	300 x 240 x 200mm	12.75
61127	Basket for tank 12.75I		
61108	Ultrasonic cleaner	505 x 300 x 200mm	281
51128	Basket for tank 28I		

# COMPLEMENTARY EQUIPMENTS



Super Torque Brushless Motor EVO ENK-250 T with power cord Ref. 90076



Ø 3 clamp for HG 200 Ref. 90060



HG 200 Straight end piece HG 200 Ref. 90052



KC 300 45° angle end piece Ref. 90056



RG01 speed reduction gear (1/4) Ref. 90071



Disc holder (set of 3) Ø 32mm Ref. 25002

# Index

Acrylic resin	50-51
Acrylic resin copper powder	
Adapter devices	
AL <sub>2</sub> O <sub>2</sub>	63-76
Alumina oxide powder	85
Allylic glass fibre resin	50-51
Antibacterial fluid	
Anti-emulsion additive	39
Anti-rust additive	39
Attacking reagents	94-95
Automatic cutting mode	13
С	
CBN cut-off wheels	38
Cerium oxide	
Cold mounting	
Conductive phenolic resin	
Cutting	
Customised	
D	
Diamond cup wheels	106
Diamond cutting-off wheels	
Diamond pastes	
Diamond sticks	
Diamond wire saws	
Dujardin alumina suspension	92
Dynamometers	
Ē	
Electer Evolution	168
Electrolytes for handheld devices	93
Electrolytic polishing	93
Epoxy resin	50-51
EVO 400	30
EVO 400+	30
EVO 450	32
F	
Filtration / recovery / recirculation to	
Filtration Solutions	
FLEXICUT	16
G	
Gel2+ single crystal	
Gel2+ polycrystalline	
Geology	
Geopress	
Geotome Dual	
Grinding rod for diamond discs	39-78
H	
	17.0
Hardness gauge wedge	130
Hardness testers	
Hardness testers Hot Mounting	42
Hardness testers	42 114

I	
I-MAX	77
I-MAX R	
INSPEKT BLUE	
INSPEKT DUO	
INSPEKT SOLO	
INSPEKT STAND-ALONE	
INSPEKT TABLE	
IP resin	
IP-FAST resin	
V	
KM-B resin	
KM-BACK resin	
KM-CO resin	
KM-EM resin	
KM-U resin	46-47
L	
Lapidary grinding wheels for surfacer	63
Lapping abrasives	
LE CUBE	
Liquid dyes	45
Lubricants	91
М	
MA2+ resin	
Manual spring testi machines	150
Macrodurometers	124
MACROTECH VX7	
MACROTECH VX7S	124
Magnetic FIX	75
Maintenance and Repair	
MATSUZAWA MOGURA D1/D3/A1	126
Mesurment films	149
MECAPRESS 3	
MECAPLAN 350	
MECAPROTECT	
MECATECH	
MECATECH 250 SPI	
MECATECH 250 DPC	
MECATECH 250 SPC	
MECATECH 300 SPC	
MECATECH 300 SPS	
MECATECH 334 SPC	
MECATOME ST315	
MECATOME T205	
MECATOME T265	
MECATOME T305	
MECATOME T335	
MECATOME T345	
MECATOME T215	
MED R	
MED R discs	
Mechanical characterisation Metallography	
Microdurometer	
Microscopes	

120

MICROTECH MX3....

MICROTECH MX7	122
MICROTECH MX7 Low loads	IZZ
MINITECH	
MINITEC 250 SP1	
MINITECH 250 DP1	61
MINITECH 250 DP2	61
MINITECH 300 DP1	
MINITECH 300 DP2	
MINITECH 300 SP1	61
Modernisation of material characterisation	
machines	155
Monocrystalline diamond suspensions	90
Mounting	40
Mounting moulds	
Mounting moulds for silicone rubber	
Mounting cups KM 2.0	
Mounting cups polyethylene	49
Multi-component force sensor	. 146
N	
Non-destructive testing	146
Non-destructive testing	140
Nuclear	. 164
0	
ODS Single crystals	89
Opaque resins	
Optics	107
<b>D</b>	
P	
•	1/12
Pendulum impact tester	
Pendulum impact tester	.144
Pendulum impact tester	.144 0-51
Pendulum impact tester	. 144 0-51 51
Pendulum impact tester	.144 0-51 51 87
Pendulum impact tester	.144 0-51 51 87 96
Pendulum impact tester	.144 0-51 51 87 96
Pendulum impact tester	.144 0-51 51 87 96
Pendulum impact tester	.144 0-51 51 87 96 90
Pendulum impact tester	.144 0-51 51 87 96 90 91
Pendulum impact tester Pendulum mounts Phenolic resin	.144 0-51 51 87 96 90 91 86 44
Pendulum impact tester	.144 0-51 51 96 90 91 86 44
Pendulum impact tester	.144 0-51 51 96 90 91 86 44 52
Pendulum impact tester Pendulum mounts Phenolic resin	.144 0-51 51 96 90 91 44 52 .130 44
Pendulum impact tester	.144 0-51 51 96 90 91 44 52 130 44
Pendulum impact tester	.144 0-51 51 96 96 91 44 52 130 44 76
Pendulum impact tester	.144 0-51 51 96 96 91 44 52 130 44 76 158
Pendulum impact tester	. 144 0-51 51 96 90 91 86 44 52 130 44 76 158 92 92
Pendulum impact tester	.144 0-51 51 96 90 91 86 44 52 130 44 76 158 92 92
Pendulum impact tester	.144 0-51 51 96 90 91 86 44 52 130 44 76 158 92 92
Pendulum impact tester	.144 0-51 51 96 90 91 86 44 52 130 44 76 158 92 92 92 98
Pendulum impact tester	.144 0-51 51 96 90 91 86 44 75 158 92 92 92 42 98 98 98
Pendulum impact tester	.144 0-51 51 96 90 91 86 44 76 158 92 42 92 42 98 98
Pendulum impact tester	.144 0-51 51 87 96 86 44 52 130 158 92 98 84 88 88 82 88
Pendulum impact tester	.144 0-51 51 87 96 86 44 52 130 158 92 98 84 88 88 82 88
Pendulum impact tester	.144 0-51 51 96 90 86 44 52 130 158 92 92 42 98 84 98 84 98 98 98 91
Pendulum impact tester	.144 0-51 51 87 90 90 90 44 52 158 92 42 98 89 80 8
Pendulum impact tester	.144 0-51 87 96 90 90 44 52 44 158 92 42 89 88 88 88 89 81 100 110
Pendulum impact tester	.144 0-51 57 96 96 44 52 .130 44 76 158 92 92 82 82 82 82 81
Pendulum impact tester	.144 0-51 57 96 96 44 76 158 92 42 98 82 82 82 81 110 111 116 1128
Pendulum impact tester	.144 O-51 51 96 96 96 44 52 .130 44 52 158 92 98 84 92 98 84 116 118 118 118

#### R R&D. .161 Reduction rings.. .39-69 Reflex CAP.. ..75 Reflex FIX. ..75 Reflex LDM. 89 Reflex LDP 90 Reflex MAG. ...75 Reflex NAC. .80-81 Resilience test machines.. ... 142 Resinoid cutting discs... 36-37 Resinoid cut-off wheels. 36 Rockwell... 126 Roughness meters.... 149 Running-in oil... 79 Running-in lubricant. 79 2S resin. 44 S Sanding papers.. 80 Services... .151 Sic abrasive.. 76 Silicon carbide powder... 79 Single crystal ADS... 95 Small equipment .... 165 Small hand and motorised machines... .147 Solutions for electrolytic polishing.. 93 Special abrasive discs. 78 92 SPM non-crystallising. 92 Spray bottles... 89 Stereomicroscopes... .108 Strain gauge force sensor ..... 146 Super abrasive suspensions for MED R. 86 Superfinish polishing... 92 Teflon mounting cups... 49 Thickness mesuring device... 148 Thin film controller... 105 Torque meters.... ..148 Tissediam... 78 Training... .157 Transparent resins .... 44 U Ultrasonic cleaning tanks.... 169 Universal testing machines. ..132 Vacuum mounting equipment POLY'VAC 43 Verification... .152

Verification and maintenance

VIBROTECH 300....

Vickers..

151

72

121

# Your main contacts







# **Export**

Export Manager • Bogdan DINU • b.dinu@presi.com

Export Assistant • Sylvie NUTTIN • s.nuttin@presi.com

Area Sales Manager • Mohamed MAJOUL • m.majoul@presi.com



# **LAB & Optical**

Guillaume JAILLETTE • g.jaillette@presi.com

