

CUTTING



MOUNTING



POLISHING



HARDNESS TESTING



MECATECH 234 - 264

AUTOMATIC POLISHING MACHINES



Top of the range of automatic polishing machines,
efficient and powerful, with memorisation
of all your polishing processes.



A STRONG WORLDWIDE PRESENCE THROUGH SUBSIDIARIES AND MORE THAN 35 DISTRIBUTORS



FUNCTIONALITIES

MECATECH 234 REF. 67100

Width
445mm

Depth
664mm

Height
640mm

Weight
47 kg

Conformity
EC

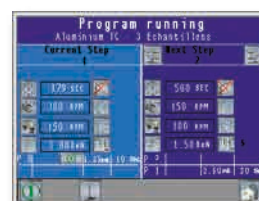
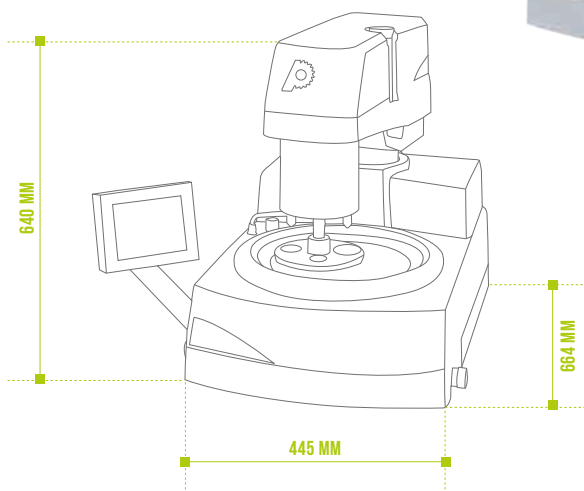


The top of the range of automatic polishing machines

MECATECH 234-264 is a range of robust, powerful and reliable polishing machines incorporating the most advanced technologies for an easy use and fast maintenance. Its platens Ø 200 and 250mm, associated with the TC 10, T110 and TC110 polishing heads give the best polishing results on all types, sizes and numbers of specimen.

Technical specifications

- Water inlet: designed for a hose with inside Ø 12mm (not supplied)
- Water outlet: delivered with a hose with outside Ø 38mm
- Air inlet: designed for a hose with inside Ø 10mm (not supplied)



MECATECH 264 REF. 67105

Width
855mm

Depth
664mm

Height
640mm

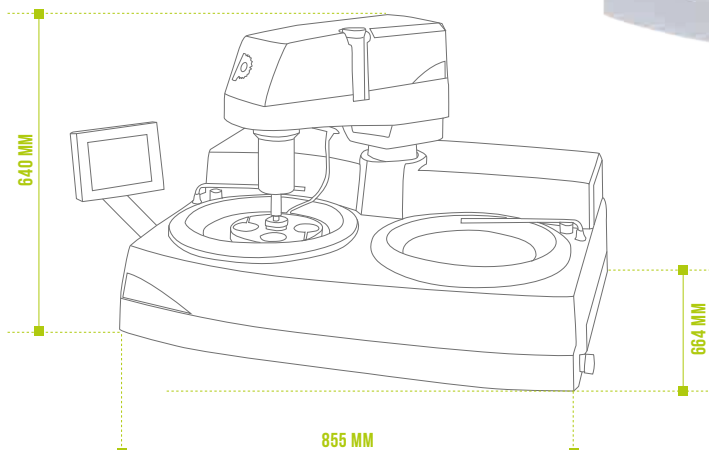
Weight
64 kg

Conformity
EC



Technical specifications

- Water inlet: designed for a hose with inside Ø 12mm (not supplied)
- Water outlet: delivered with a hose with outside Ø 38mm
- Air inlet: designed for a hose with inside Ø 10mm (not supplied)



FUNCTIONING

TFT LCD COLOUR TOUCH SCREEN

Thanks to the LCD touch screen which can be positioned on the left or right side of the polishing machine, it is very easy to create or modify a polishing method, to store it (memory capacity: 100 methods) and to manage the functions of MECATECH 234-264. During the progress of the cycle, the current operation can be displayed as well as the following one or the previous one, allowing the operator to anticipate consumables to come.

POWERFUL AND SILENT MOTORS

The powerful and quiet motors controlled by a frequency inverter and a Poly-V belt transmission, completely mounted on ball bearings, dispense adjustments of tension and give silent functioning to MECATECH 234-264 in a laboratory environment.

HIGH POLISHING QUALITY

The force applied on the samples is controlled by a proportional electronic valve giving a total precision. MECATECH 234-264 calculates automatically the force to be applied on the sample, whatever the number or samples, avoiding any risk of mistakes to the operator. The force applied to samples is reduced to the starting up and to the stop of the cycle for an optimal quality of polishing

PRECISE DOSING

The flow of lubricants or abrasives is controlled by micro-peristaltic pumps allowing a precise dosage, generating substantial savings as well as perfect reproducibility, whatever the user is.

AUTOMATIC LOCKING

The automatic locking of the polishing head when the cycle is starting, avoids every risk of error due to the use of a handle. The lifting of the polishing head at the end of the cycle facilitates the ergonomics and the loading / unloading of the plates or single samples.

ELECTRICAL SUPPLY

The 230 V single phase power supply enables to set up the MECATECH 234-264 where the user wants, without constraints of specific connections.

SIMPLE MAINTENANCE

MECATECH 234-264 was designed for an easy cleaning:

- Removable bowl with anti-splash device, easy to clean.
- Easy maintenance : the sluice gate controlling the water inlet is outside the machine
- A way in /out card enables to control all the functions and can be replaced.
- LCD on the side of the machine
- Frequency inverter easy to reach without removal the hood.



USEFUL INFORMATION

MECATECH 234-264 is equipped with a frequency inverter with **vectorial flow technology** that enables to control three phase motors although the machine is equipped with one single phase motor 220V. This technology gives **exceptional power** to the machine both on the polishing head and on the plate. Speed variations are very precise, torque and speed are constant whatever the load. **Acceleration is progressive**, the two directions of rotation are available (head and plate) and the machine has a thermal security in case of prolonged overheating.

TECHNICAL GLOSSARY

FREQUENCY INVERTER

'Inverter' technology. This equipment allows managing three phase motors: ultra precise speed variation, constant torque and speed whatever the load is, progressive acceleration and immediate stop, two directions of rotation, security in case of prolonged overload.

AUTOMATIC LOCKING OF POLISHING HEAD

MECATECH 234-264 is equipped with a mechanical locking of the head during polishing. No handle to tighten.

CONTROL OF THE MACHINE

The machine is driven through the LCD coloured touch screen gathering all the functions available. This process avoids the multiplication of buttons or function keys and potential setting mistakes. Very easy to use, 'logical' functions.

LCD TOUCH SCREEN TFT 120 X 90

Very sensitive coloured touch screen gathering all MECATECH 234-264 functions, avoiding the multiplication of buttons or function keys and potential setting mistakes. Very easy to use, 'logical functions'.

MÉMORISATION

It is possible to store 100 polishing methods which allows a perfect reproducibility of methods and enables the users to save their own settings and to protect them with a pass word.

PROPORTIONAL ELECTRONIC VALVE

This equipment allows measuring and stabilizing the air pressure at a very precise value. The applied force on the samples is perfectly constant and reliable. No variation is possible contrary with a classic valve, assuring MECATECH 234-264 a perfect reproducibility.

MICRO-PERISTALTIC PUMP

These pumps guarantee a precise dosage of liquids, contrary to a gravity device. This precision avoids a potential heating or drying of the polishing support. No need of close surveillance by the user.

CHARACTERISTICS

	MECATECH 234	MECATECH 264
Number of motors	1	2
Number of polishing platens	1	2
Diameter of the polishing platen	200 to 250mm	200 to 250mm (x2)
Rotation speed	20 to 600 RPM	20 to 600 RPM
Direction of rotation	Clockwise and counter-clockwise	Clockwise and counter-clockwise
Motor power	250 W	250 W
Torque compensation	automatic	automatic
Immediate stop of the platen	automatic	automatic
Progressive acceleration of the platen	automatic	automatic
Drying function 600 RPM	✓	✓
Spindle on bearing + seal	✓	✓
Base platen + anti-vibration seals	✓	✓
Composite removable tank	✓	✓
Splash guard	✓	✓
High strength mechanically welded + painted steel chassis	✓	✓
Composite casting	✓	✓
TFT LCD 120 x 90mm colour touch screen	✓	✓
Simplified service and maintenance without dismantling	✓	✓
Voltage / Frequency / Max. current	230 V 1P 50-60 Hz/8A	230 V 1P 50-60 Hz/8A
Air pressure	5 - 10 bars	5 - 10 bars
Water inlet	Ø 12mm	Ø 12mm
Water outlet	Ø 32mm	Ø 32mm
Compressed air (inside)	Ø 10mm	Ø 10mm

ACCESSORIES

Platens and base drive platens

67822

Almagtech platen Ø 200mm

67820

Almagtech platen Ø 250mm

56054

Circular paper holder (metal) Ø 200mm

56055

Circular paper holder (metal) Ø 250mm

56067

Circular paper holder (PVC) Ø 200mm

56068

Circular paper holder (PVC) Ø 250mm

Covers for polishing machines

66050

PVC lid, (Mecatech 234/264)

Other accessory

67750

Air compressor (for labs with no compressed air supply)



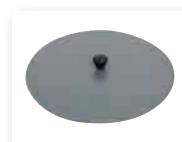
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REF. 56054 - 56055



REF. 56067 - 56068



REF. 66050



REF. 67750

POLISHING HEADS FOR MECATECH 234-264

T110-TC10-TCI10 to equip Mecatech 234-264. All polishing heads have powerful motor gearing with frequency inverter, proportional electronic valve and 50mm vertical travel improving ergonomics, automatic locking when the cycle starts, and lubricant tank with micro-peristaltic pump for a precise dosage.

T110 - REF. 67112

Individual pressure

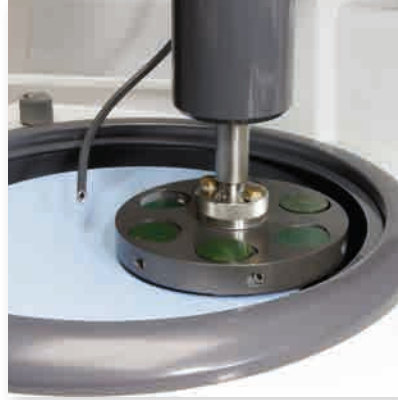
For the automated and reproducible polishing of 1 to 4 mounts (Ø 50mm).



TC10 - REF. 67111

Central pressure

For the automated and reproducible polishing of 3 to 6 mounts per holder (4 at Ø 50mm or 6 at Ø 32mm maximum).



TCI10 - REF. 67110

Individual and central pressure

Integrates the functionalities of polishing heads T110 and TC10..



DISTRITECH 5 - REF 67875

- Slurry dispenser device, with a capacity of 5 bottles, 500cc each to be placed next to MECATECH.
- Each bottle dosage is managed by MECATECH. Each DISTRITECH 5 bottle has its own peristaltic pump and its own distribution pipe to avoid cross contamination.
- Priming function.
- Allows colloidal silica distribution by integrating an automatic rinsing function to avoid crystallisation.

CHARACTERISTICS

	T110	TC10	TCI10
Individual pressure	✓		✓
Central pressure		✓	✓
Mounted samples	✓	✓	✓
Non mounted samples		✓	✓
Rectangular samples	✓	✓	✓
Rotation speed	20 to 150 RPM	20 to 150 RPM	20 to 150 RPM
Direction of rotation	Clockwise and counter-clockwise	Clockwise and counter-clockwise	Clockwise and counter-clockwise
Motor power	74 W	74 W	74 W
Force per specimen	0,1-5 daN	0,1-5 daN	0,1-5 daN
Maximum power available	20 daN	20 daN	20 daN
Force controlled electronically	✓	✓	✓
Force reduced at start and end of cycle	✓	✓	✓
50mm lowering and raising of the polishing head	✓	✓	✓
Automatic locking of the polishing head	✓	✓	✓
200cc lubricant included in the polishing head	✓	✓	✓

ACCESSORIES FOR POLISHING HEADS

SPECIMEN HOLDERS FOR CENTRAL PRESSURE POLISHING				T110	TC10	TCI10
57120	Specimen holder	ø 120mm	for 3 samples ø 25 to 32mm		✓	✓
57126	Specimen holder	ø 140mm	for 6 samples ø 25 to 32mm		✓	✓
57125	Specimen holder	ø 140mm	for 3 samples ø 38,1 to 40mm		✓	✓
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			✓	✓
57116	Compulsory hooking system for central pressure specimen holder				✓	✓
57162	Levelling press for samples				✓	✓
SPECIMEN HOLDERS FOR INDIVIDUAL PRESSURE POLISHING						
57142	Specimen holder	ø 140mm	for 4 samples ø 30mm	✓		✓
57141	Specimen holder	ø 150mm	for 4 samples ø 40mm	✓		✓
57140	Specimen holder	ø 160mm	for 4 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		✓		✓



REF. 57120 - 57125



REF. 57102 - 57126



REF. 57103



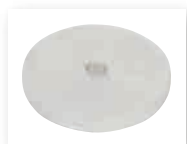
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REF. 57107



SPECIFIC HOLDERS
ON REQUEST



REF. 57105



REF. 57116



REF. 57140 - 57141
57142



REDUCTION RING

PRESI IS ALSO...

CUTTING



Mecatome ST 310

MOUNTING



Mecapress 3

POLISHING



Mecatech 334

HARDNESS TESTING



Microtech MX 1

CONSUMABLES



Resins



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