

CUTTING



MOUNTING



POLISHING



HARDNESS TESTING



MECATECH 334

INNOVATION IN POLISHING



PRESI all technological experience dedicated
to the most complete polishing machine
on the market!



A STRONG WORLDWIDE PRESENCE THROUGH SUBSIDIARIES AND MORE THAN 35 DISTRIBUTORS



FUNCTIONALITIES

REF. 67805

Width
520mm

Depth
750mm

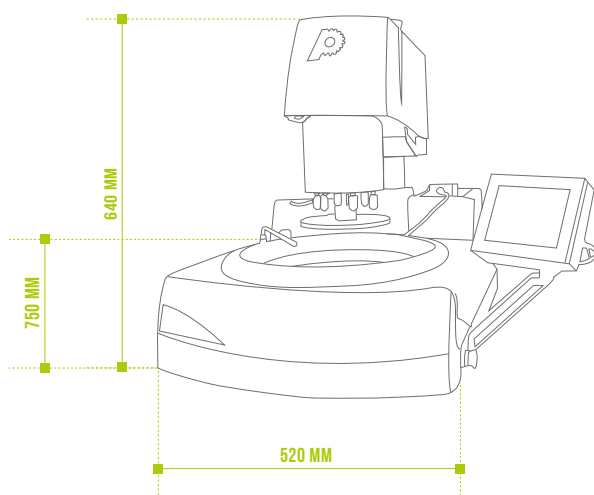
Height
640mm

Weight
75kg

Conformity
EC

Single station, automated polishing machine

MECATECH 334 is a robust, powerful and reliable machine, incorporating the most advanced technologies for ease of use and simple maintenance. Its Ø 250mm and Ø 300mm platens, associated with the TC 15, TI 15 and TCI 15 polishing heads give the best polishing results on all types, sizes and numbers of specimens.



TECHNICAL GLOSSARY

FREQUENCY CONTROLLER

Uses "Inverter" technology. This unit controls the three phase motors. The functions used with the MECATECH 334 are: ultra precise speed variation, constant torque and speed whatever the load, progressive acceleration and immediate stop, two directions of rotation and safety in the event of prolonged overload.

LOCKING OF POLISHING HEADS

A mechanical device provides a vertical movement of 50 mm for good ergonomics and automatic locking in the horizontal plane, for increased safety and comfort.

120 X 90 TFT LCD SCREEN

Very sensitive colour touch screen covering all the functions of the MECATECH 334, avoiding a proliferation of keys or buttons and any errors in settings. Very easy to use, with "logical functions".

MEMORISATION

It is possible to store 100 methods of polishing, which ensures perfect reproducibility of methods and enables operators to save their own settings and protect them with a password.

MEASUREMENT OF MATERIAL REMOVAL

An ultra-accurate linear gauge measures the movement of the actuator. This function is particularly useful when it is necessary to remove a precise amount of material, or to look for a defect. The accuracy obtained is plus or minus 5 µ with a suitable polishing pads.

ELECTRONIC PROPORTIONAL VALVE

This unit enables the air pressure to be measured and stabilised at a precise value, thereby ensuring a perfectly constant and reliable force on the specimens. No drift is possible, unlike using a classical pressure controller, ensuring perfect reproducibility with the MECATECH 334.

PERISTALTIC MICRO-PUMP

These pumps give very accurate dosing of liquids, unlike gravity devices. This precise dosing prevents any overheating or drying of the polishing pad and frees the operator from continuous monitoring.

FUNCTIONING

TFT LCD COLOUR TOUCH SCREEN

Thanks to the LCD touch screen, which can be located on the left or right, it is very easy to create or modify a method or to record (100 methods can be stored) and manage the functions of the MECATECh 334. While the cycle is in progress, the current operation is displayed together with the next or previous operation, enabling the operator to anticipate future consumables.

POWERFUL AND SILENT MOTORS

The powerful and quiet motors controlled by frequency controllers, and a poly-V belt transmission, with no tension adjustment (new technology) endow the MECATECH 334 with silent operation, giving a high level of comfort in the laboratory.

HIGH POLISHING QUALITY

The force applied to the specimens is controlled by an electronic proportional valve ensuring unequalled accuracy. automatically calculates the force to be applied to the specimen, whatever the number of specimens, eliminating any risk of operator error. The force is reduced when starting and stopping the cycle to give optimum polishing quality.

PRECISE DOSING

Lubricants and abrasives are introduced by peristaltic micro pumps giving an accurate dose, resulting in substantial economies and perfect reproducibility, whoever the user.

AUTOMATIC LOCKING

Automatic locking of the polishing head at the start of the cycle eliminates any risk of error due to the use of a lever. raising the polishing head at the end of the cycle improves ergonomics and the loading/unloading of the specimen stage or individual specimens

PROGRAMMABLE

Apart from the usual adjustment of the polishing time, it is also possible to program the desired amount of material to be removed from the specimen, freeing the operator from tedious and stressful manual operations, with central pressure only.

LED LIGHTING

Illumination of the polishing pad with a LED lamp eliminates shadow areas under the polishing head, giving the user better visual control during operation.

ELECTRICAL SUPPLY

The 230 V single phase electrical power supply enables the MECATECH 334 to be positioned wherever the user wishes, without any special connection requirements.



USEFUL INFORMATION

MECATECH 334 is equipped with a frequency controller uses inverter technology. This unit controls the three phase motors. The functions used with the MECATECh 334 are: ultra precise speed variation, constant torque and speed whatever the load, progressive acceleration and immediate stop, two directions of rotation and safety in the event of prolonged overload.

CHARACTERISTICS

	MECATECH 334
Number of polishing platens	1
Diameter of the polishing platen	250 to 300mm
Rotation speed	20 to 600 RPM
Direction of rotation	Clockwise and counter-clockwise
Motor Power	900 W
Torque compensation	automatic
Immediate stop of the platen	automatic
Progressive acceleration of the platen	automatic
Drying function 600 RPM	✓
Spindle on bearings + seal	✓
Base platen + anti-vibration joints	✓
Automatic diamond distribution Distritech 1	1
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
Air pressure	5-10 bars
Water inlet	Ø 12mm
Water outlet	Ø 32mm
Compressed air (inside)	Ø 10mm

ACCESSORIES

Platens and base drive platens

67820

Almagtech platen Ø 250mm

67821

Almagtech platen Ø 300mm

56055

Circular paper holder (metal) Ø 250mm

56068

Circular paper holder (PVC) Ø 250mm

56069

Circular paper holder (PVC) Ø 300mm



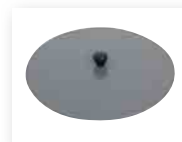
REF. 67820 - 67821



REF. 56055



REF. 56068 - 56069



REF. 66025



REF. 67870



REF. 67750

Slurry dispenser

67870

Distritech 1

Covers for polishing machines

66025

PVC Lid (Mecatech 334)

Other accessory

67750

Air compressor
(for labs with no compressed air supply)

DISTRITECH

DISTRITECH 1 - REF. 67870

INCORPORATED SLURRY DISPENSER ON MECATECH 334.



- 500cc capacity
- Slurry dispenser for MECATECH 334, easily interchangeable from one bottle to another.
- Dosage is integrated with MECATECH 334.
- Every DISTRITECH 1 has its own peristaltic micro-pump, its distribution pipe to avoid cross contamination, as well as a storage support.
- Priming function.

DISTRITECH 5 - REF. 67875

COMPATIBLE WITH THE WHOLE MECATECH RANGE.



- 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.

POLISHING HEADS FOR MECATECH 334

TI15 - REF. 67812

Individual pressure

For polishing of 1 to 6 mounts (maximum Ø 50mm) automated, reproducible.



TC15 - REF. 67811

Central pressure

For automated and reproducible polishing of 3 to 12 mounts in specimen holders Ø 160 to 220mm.



Use

Four types of polishing head are available for MECATECH 334.

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.

TCI15 - REF. 67810

Individual and Central pressure

Integrated functions of the TI15 and TC15 heads.



TCI MAX - REF. 67813

Individual and Central pressure

Integrated functions of the TC15 head. For automated and reproducible polishing of 1 to 8 mounts in individual mode (maximum Ø 40mm).



CHARACTERISTICS

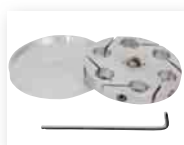
	TI15	TC15	TCI15	TCIMAX
Individual pressure	✓		✓	✓
Central pressure		✓	✓	✓
Mounted samples	✓	✓	✓	✓
Non mounted samples		✓	✓	✓
Rectangular samples	✓	✓	✓	✓
Rotation speed	20 to 150 RPM	20 to 150 RPM	20 to 150 RPM	20 to 150 RPM
Direction of rotation	Clockwise and counter-clockwise	Clockwise and counter-clockwise	Clockwise and counter-clockwise	Clockwise and counter-clockwise
Motor power	180 W	180 W	180 W	180 W
Force per specimen	0.1-5 daN	0.1-5 daN	0.1-5 daN	0.1-5 daN
Maximum power available	30 daN	30 daN	30 daN	30 daN
Material removal measurement with automatic stop		✓	✓	
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				TI15	TC15	TCI15	TCIMAX
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 180mm	for 6 samples Ø 38.1 to 40mm		✓	✓	✓
57108	Specimen holder	ø 210mm	for 12 samples Ø 25 to 32mm		✓	✓	✓
57109	Specimen holder	ø 210mm	for 8 samples Ø 38.1 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				✓	✓	✓
57162	Levelling press for samples				✓	✓	✓
SPECIMEN HOLDERS FOR INDIVIDUAL PRESSURE POLISHING							
67830	Specimen holder	ø 150mm	for 6 samples ø 30mm	✓		✓	✓
67833	Specimen holder	ø 160mm	for 6 samples ø 40mm	✓		✓	✓
67835	Specimen holder	ø 170mm	for 6 samples ø 50mm	✓		✓	✓
67840	Specimen holder	ø 170mm	for 8 samples ø 30mm				✓
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. 57103



REF. 57106



REF. 57105



REF. 57116



REF. 67835



REF. 67840



REF. 67850



SPECIFIC HOLDERS
ON REQUEST

PRESI IS ALSO...

CUTTING



Mecatome ST 310

MOUNTING



Mecapress 3

POLISHING



Mecattech 234-264

HARDNESS TESTING



Microtech MX1

CONSUMABLES



Resins



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