

CUTTING

MOUNTING

POLISHING

HARDNESS & MICROSCOPY



MECATECH

250 SPI | 250 SPC | 250 DPC
300 SPC | 300 SPS

POWERFUL. RELIABLE. EFFICIENT.

The latest generation of automatic
polishing machines

BY PRESI



innovate.

THE PRESI SIGNATURE. ALL AROUND THE WORLD.





MECATECH, the latest generation of automatic polishing machines

BY PRESI

Innovation.

Equipped with platens from Ø200 to 300 mm, the new range of MECATECH automatic polishing machines has the most advanced technologies.

Versatility.

The MECATECH range allows both manual and automatic use.

Unrivalled motor power.

Thanks to a motor power from 750W to 1500W, the entire PRESI experience is condensed in this most complete range on the market.

Reliability and regularity.

Whatever the size or the number of samples, MECATECH guarantees an optimal polishing.

Robustness and character.

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.

Accessories 100% compatible with the older generation of MECATECH

LED illuminated display indicates the bottle in operation

Protection hood

OPTIONAL

DISTRITECH 5.1 - Ref. 67890

Abrasive suspensions dispenser device

Compatible with the entire MECATECH range

- Capacity: 5 bottles of 500 cc
- Each abrasive suspension dispenser is managed by the machine
- No risk of pollution: each bottle has its own distribution circuit
- Priming function
- Colloidal silica distribution with automatic rinsing function, no risk of crystallisation



Large touchscreen

- 7" TFT LCD color display, 16/9
- Ergonomic and intuitive user interface
- Many features:
 - Speed and direction of rotation (head and platen)
 - Sprinkling
 - Drying
 - Stage duration
 - Applied force
 - Management of Distritech 5.1 and the 2 tanks integrated

Programming and memorization

- Easy creation and modification of polishing methods
- Perfect reproducibility of methods
- Password protection
- A USB connection makes it possible to save the integrity of the registered polishing methods and ensures the evolution of the material.

POLISHING HEADS

Polishing heads have a :

- Powerful motor gearing driven by a frequency inverter
- Automatic polishing head locking when the cycle starts: avoids every risk of error
- Lateral shifting of the head to completely release the polishing platen and work in manual mode (except for the 300 SPS model)

Material removal function

Programming the value of the desired material removal with central pressure. An ultra-accurate linear gauge (+ or -5 µ on a suitable polishing pad) measures the movement of the cylinder. This function frees the operator of tedious manipulations.

Optimum polishing quality

A proportional electronic valve enables the air pressure to be measured and stabilised at a precise value. The force applied to the samples is perfectly constant and reproducibility is guaranteed.

Precise dosing

Lubricants or abrasives distribution is ensured by 2 tanks with peristaltic pump. They avoid a possible heating of the polishing support and ensure a precise dosage which frees the operator from a restrictive surveillance.

LED lighting

Removes shadow areas under the polishing head giving the user better visual control during operation.

FREQUENCY INVERTER

« Inverter » technology which controls the three-phase motor :

- Gives exceptional power to the head and the platen
- Ultra-precise speed variation
- Constant torque and speed whatever the applied load
- Progressive acceleration and immediate stop
- 2 directions of rotation (head and platen)
- Thermal security in case of prolonged overload

Easy maintenance

- Additional removable bowl easy to clean
- The tank incorporates an anti-splah device that prevents any projection
- The body and the composite of the removable bowl exclude any oxidation

Silent motor

Driven by a frequency converter and a fully mounted poly-V belt drive, it provides significant work comfort in a lab environment.

Emergency stop button

Convenient and quick access to the machine emergency stop button to immediately stop its operation.

MECATECH range

Platen diameters : 200 to 250 mm

MECATECH
250 SPI



Compliance
CE

Ref. 67910
Width : 510 mm
Depth : 810 mm
Height : 665 mm
Weight : 73 kg
1 platen - 4 pistons
Individual pressure

MECATECH
250 SPC



Compliance
CE

Ref. 67920
Width : 510 mm
Depth : 810 mm
Height : 665 mm
Weight : 73 kg
1 platen - 6 pistons
Central and individual pressure

MECATECH
250 DPC



Compliance
CE

Ref. 67930
Width : 920 mm
Depth : 735 mm
Height : 665 mm
Weight : 98 kg
2 platens - 6 pistons
Central and individual pressure

Platen diameters : 250 to 300 mm

MECATECH
300 SPC



Compliance
CE

Ref. 67940
Width : 620 mm
Depth : 875 mm
Height : 680 mm
Weight : 82 kg
1 platen - 6 pistons
Central and individual pressure

MECATECH
300 SPS



SWEEPING FUNCTION

The MECATECH SPS sweeping function optimizes the use of consumables and improves samples flatness. In addition, productivity is improved by increasing the capacity of the polishing head from 6 to 8 samples.

Compliance
CE

Ref. 67950
Width : 620 mm
Depth : 875 mm
Height : 700 mm
Weight : 96 kg
1 platen - 8 pistons
Central and individual pressure

OPTIONAL

MECAPROTECT

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.

MECAPROTECT 250 Ref. 67915 - MECAPROTECT 300 Ref. 67945








TECHNICAL FEATURES

Automatic polishing machines MECATECH

MODEL OF THE POLISHING MACHINE	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 250 mm	200 to 250 mm	200 to 250 mm x2	250 to 300 mm	300 mm
Rotation speed	20 to 700 RPM	20 to 700 RPM	20 to 700 RPM	20 to 700 RPM	20 to 700 RPM
Rotation direction : clockwise and counter-clockwise	✓	✓	✓	✓	✓
Motor power	750 W	750 W	2 x 750 W	1500 W	1500 W
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	600 RPM	600 RPM	600 RPM	600 RPM
Spindle on bearing	✓	✓	✓	✓	✓
Base platen + anti-vibration seals	✓	✓	✓	✓	✓
Additional removable bowl	✓	✓	✓	✓	✓
Splash guard	✓	✓	✓	✓	✓
High strength mechanically welded + painted steel chassis	✓	✓	✓	✓	✓
Body RIM injection	✓	✓	✓	✓	✓
16/9 color TFT LCD touch screen 7"	✓	✓	✓	✓	✓
Simplified service and maintenance without dismantling	✓	✓	✓	✓	✓
Power supply	230V 1P	230V 1P	230V 1P	230V 1P	230V 1P
Frequency	50-60 Hz	50-60 Hz	50-60 Hz	50-60 Hz	50-60 Hz
Max. current	8A	8A	8A	8A	8A
Air pressure	5-10 bars	5-10 bars	5-10 bars	5-10 bars	5-10 bars
Water inlet	Ø 12 mm	Ø 12 mm	Ø 12 mm	Ø 12 mm	Ø 12 mm
Water outlet	Ø 32 mm	Ø 32 mm	Ø 32 mm	Ø 32 mm	Ø 32 mm
Compressed air	Ø 10 mm	Ø 10 mm	Ø 10 mm	Ø 10 mm	Ø 10 mm
POLISHING HEADS	250 SPI	250 SPC	250 DPC	300 SPC	300 SPS
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	20 to 150 RPM
Rotation direction : clockwise and counter-clockwise	✓	✓	✓	✓	✓
Motor power	180 W	180 W	180 W	270 W	270 W
Force per specimen	0,1-5 daN	0,1-5 daN	0,1-5 daN	0,1-5 daN	0,1-5 daN
Maximum power available	20 daN	30 daN	30 daN	30 daN	40 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 (x2) lubricant included in the polishing head	✓	✓	✓	✓	✓
Sweeping function	-	-	-	-	✓

MECATECH Accessories

Almagtech platen	Circular paper holder (metal)	Circular paper holder (PVC)	PVC lid	Air compressor
				
Ø 200 mm. Ref. 67822	Ø 200 mm. Ref. 56054	Ø 200 mm. Ref. 56067	Ø 250 mm. Ref. 66050	For labs with no compressed air supply Ref. 67750
Ø 250 mm. Ref. 67820	Ø 250 mm. Ref. 56055	Ø 250 mm. Ref. 56068	Ø 300 mm. Ref. 66025	
Ø 300 mm. Ref. 67821		Ø 300 mm. Ref. 56069		

POLISHING HEADS ACCESSORIES

			MECATECH				
Specimen holders for central pressure polishing			250 SPI	250 SPC	250 DPC	300 SPC	300 SPS
57120	specimen holder Ø120 mm	for 3 samples Ø25 to 32 mm	-	✓	✓	-	-
57126	specimen holder Ø140 mm	for 6 samples Ø25 to 32 mm	-	✓	✓	-	-
57125	specimen holder Ø140 mm	for 3 samples Ø30 to 40 mm	-	✓	✓	-	-
57102	specimen holder Ø160 mm	for 6 samples Ø25 to 32 mm	-	✓	✓	✓	✓
57103	specimen holder Ø160 mm	for 4 samples Ø30 to 40 mm	-	✓	✓	✓	✓
57104	specimen holder Ø160 mm	for 4 samples Ø40 to 50 mm	-	✓	✓	✓	✓
57106	specimen holder Ø160 mm annular holding	for 6 samples Ø30 mm	-	✓	✓	✓	✓
57107	specimen holder Ø160 mm annular holding	for 4 samples Ø40 mm	-	✓	✓	✓	✓
57105	blank specimen holder	Ø160 mm	-	✓	✓	✓	✓
57119	specimen holder Ø170 mm	for 6 samples Ø30 to 40 mm	-	✓	✓	✓	✓
57108	specimen holder Ø210 mm	for 12 samples Ø25 to 32 mm	-	-	-	✓	✓
57109	specimen holder Ø210 mm	for 8 samples Ø30 to 40 mm	-	-	-	✓	✓
57110	specimen holder Ø210 mm	for 6 samples Ø50 mm	-	-	-	✓	✓
57114	specimen holder Ø 210 mm	for 6 rectangular samples 30 x 55mm	-	-	-	✓	✓
57111	specimen holder Ø 220 mm	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			250 SPI	250 SPC	250 DPC	300 SPC	300 SPS
57142	specimen holder Ø140 mm	for 4 samples Ø30 mm	✓	-	-	-	-
57141	specimen holder Ø150 mm	for 4 samples Ø40 mm	✓	-	-	-	-
57144	specimen holder Ø150 mm	for 4 samples Ø38,1 mm	✓	-	-	-	-
67830	specimen holder Ø150 mm	for 6 samples Ø30 mm	-	✓	✓	✓	-
57145	specimen holder Ø160 mm	for 6 samples Ø38,1 mm	-	✓	✓	✓	-
67833	specimen holder Ø160 mm	for 6 samples Ø40 mm	-	✓	✓	✓	-
57143	specimen holder Ø170 mm	for 3 samples Ø50 mm	-	✓	✓	-	-
67835	specimen holder Ø170 mm	for 6 samples Ø50 mm	-	-	-	✓	-
67838	specimen holder Ø180 mm	for 8 samples Ø30 mm	-	-	-	-	✓
67837	specimen holder Ø190 mm	for 8 samples Ø40 mm	-	-	-	-	✓
67836	specimen holder Ø200 mm	for 8 samples Ø50 mm	-	-	-	-	✓
Reduction rings for specimen holders			250 SPI	250 SPC	250 DPC	300 SPC	300 SPS
67850	1 reduction ring	Ø 50 mm --> Ø 25 mm	-	✓	✓	✓	✓
67851	1 reduction ring	Ø 50 mm --> Ø 25,4 mm	-	✓	✓	✓	✓
67852	1 reduction ring	Ø 50 mm --> Ø 30 mm	-	✓	✓	✓	✓
67853	1 reduction ring	Ø 50 mm --> Ø 31,7 mm	-	✓	✓	✓	✓
67854	1 reduction ring	Ø 50 mm --> Ø 38,1 mm	-	✓	✓	✓	✓
67855	1 reduction ring	Ø 50 mm --> Ø 40 mm	-	✓	✓	✓	✓
67856	1 reduction ring	Ø 40 mm --> Ø 25 mm	✓	✓	✓	✓	✓
67857	1 reduction ring	Ø 40 mm --> Ø 25,4 mm	✓	✓	✓	✓	✓
67858	1 reduction ring	Ø 40 mm --> Ø 30 mm	✓	✓	✓	✓	✓
67859	1 reduction ring	Ø 40 mm --> Ø 31,7 mm	✓	✓	✓	✓	✓



Ref. 57120 - 57125



Ref. 57102 - 57126



Ref. 57103



Ref. 57105



Ref. 57106



Ref. 57107



Ref. 67830 / 33 / 35



Ref. 67836 to 67838



Ref. 57141 / 42 / 44



Ref. 57116



Reduction ring



Specific holders
on request



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