

EcoMet™/AutoMet™ 250 & 300

Grinder-Polisher/Power Head



BUEHLER

Solutions for Materials Preparation, Testing and Analysis

EcoMet™/AutoMet™ 250 & 300 Grinder Polisher/Power Head



EcoMet/AutoMet 250 & 300 Family

The EcoMet 250/300 family of Grinder-Polishers and AutoMet 250/300 family of Power Heads has been designed to meet the needs of the materials analyst requiring the versatility of manual or automated sample preparation.

The EcoMet Pro controls upgrade to a color touch-screen control panel for Z-axis material removal by depth, method creation/storage and automated dispenser programmability.

Features and Benefits

- Unique bowl shape for easy access to 8in [203mm], 10in [254mm] or 12in [305mm] platens
- Pro version integrates seamlessly with Burst Dispensing System

- Bright, energy-efficient LED lighting and quick release lift lock chuck allows easy specimen holder changes
- Multipurpose water nozzle provides critical cooling and lubrication during preparation and stowable hose enables quick cleanup
- High torque continuous-duty motor provides constant platen speed and torque through a whisper quiet belt drive
- Variable speed, reversible power head provides both single and central force operation with a head locking handle to secure the head, while the head location stop lever locates the specimen holder in the exact location each time
- Platen cooling to help minimize platen heat build-up and reduce sample deformation in heavy-duty use



Unique D-style bowl design provides ample hand room for easy platen changing.



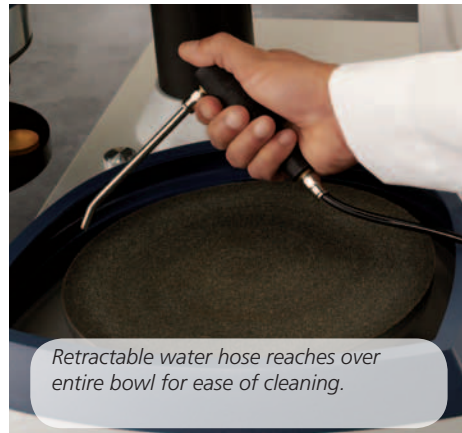
Bowl liner in machine prevents the bowl area from staining and debris build-up.



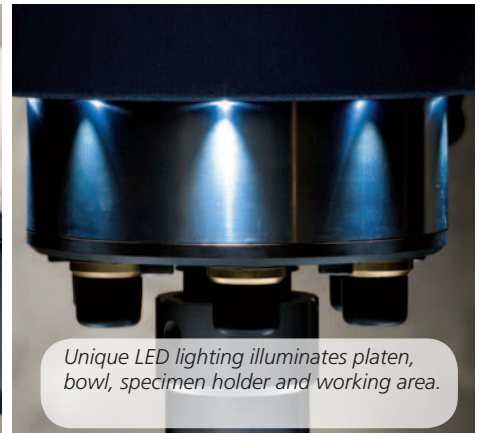
Removable splash guard keeps water and consumables in the bowl and away from the operator.



Protective bowl cover keeps platens contaminant and dust free when not in use.



Retractable water hose reaches over entire bowl for ease of cleaning.



Unique LED lighting illuminates platen, bowl, specimen holder and working area.



Central force application for superior flatness.



Single force application for preparation flexibility.



Quick release lift lock chuck provides quick connection and removal of specimen holders.



Head locking handle secures head firmly.



Head position locator stop handle allows specimens to be located at the same position over the platen every time.

Accessories

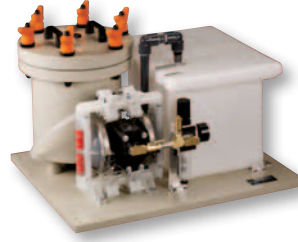
Automated Dispensing Systems



Burst Dispensing system can be connected to the EcoMet™, with resident control from the Burst or integrates fully with Pro versions.



Optional EnvironMet™ Filter System is ideal for laboratories concerned with water regulations, conservation requirements and environmental issues.



PC Met™ Precision High Volume Printed Wiring Board Accessory (left)

This preparation system is designed for cross-sectioning printed wiring boards copper plated through-holes. The fixture can prepare up to 36 coupons at the same time, 1in [25mm] long in six separate cavities. It provides accurate, reproducible cross-sections or through-holes down to 0.008in [200µm] in diameter. Central force drive adapter (60-9000) required (*sold separately*).



PWB Met™ Small Hole Accessory (right)

This preparation system is designed for cross-sectioning printed wiring boards with through-holes down to 0.04in [100µm] in diameter. Prepares up to 18 coupons simultaneously. Central force drive adapter (60-9000) required (*sold separately*).



Membrane keypad control panel with tactile feed back buttons, bright LED's and easy-to-read intuitive icons.



EcoMet Pro graphics mode offers icon based controls for simplicity and ease of use.



Text mode offers traditional "buttons-look" control. Base only screen shows run time and allows control of platen rotation, speed, water and dispenser.



Touch-Screen splash screen initializes at start up.



Base and Power Head text mode screen allows control of time, force, speed, rotation, water, dispenser, Z-axis and methods creation/storage.



Methods programmability allows creation and storage of methods for specific applications and materials. A maximum of 32 custom methods can be stored.



Specifications	EcoMet 250 / EcoMet 250 Pro	EcoMet 300 / EcoMet 300 Pro
Machine Power	85-264VAC, 50/60Hz, 1 phase	170-240VAC, 50/60Hz, 1 phase
Motor Power	1Hp [750W]	2Hp [1500W]
Platen Diameter	8in [203mm], 10in [254mm]	12in [305mm]
Platen Wheel Speed	10-500rpm in 10rpm increments	50-400rpm in 10rpm increments
Wheel Direction	Clockwise or Counter-Clockwise	
Water Supply Hose	0.25in [6mm] OD tube	
Water Supply Pressure	40-100psi [25-60bar]	
Base Power Usage	1.1kW, 9.6/4.8A @ 115/230VAC	2.3kW, 10A @ 230VAC
Base & Head Power Usage	1.73kW, 15/7.5A @ 115/230VAC	3.6kW, 15A @ 230VAC
Membrane Control Panel for 250/300	Display: Three 3-digit LED displays, 14 status LED's; Units: Metric or Imperial	
Touchscreen Control Panel for 250/300 Pro	Full color LCD Screen; 7in [175mm] diagonal; NEMA4 (IP65) water resistant	
Base Sound Rating*	59.5dB @ 100rpm	51.5dB @ 100rpm
Base & Head Sound Rating*	61.5dB @ 100/30rpm	64.5dB @ 100/60rpm
Weight	100 lbs [45kg]	127 lbs [58kg]
Compliance	CE; EC applicable directives	

*Taken from 1.5ft [0.5m] distance under no load.

Specifications	AutoMet 250 Power Head	AutoMet 300 Power Head
Machine Power	0.156Hp [116W]	0.75Hp [560W]
Speed	30-60rpm in 10rpm increments	60-150rpm in 10rpm increments
Central Specimen Force	5-60 lbs [20-260N]	10-120 lbs [40-535N]
Single Specimen Force	1-10 lbs [5-45N]	1-20 lbs [5-90N]
Central Force Specimen Capacity	1in, 1.25in, 1.5in, 25mm, 30mm, 40mm and large or irregular specimens	1in, 1.25in, 1.5in, 2in, 25mm, 30mm, 40mm, 50mm and large or irregular specimens
Single Force Specimen Capacity	1in, 1.25in, 1.5in, 25mm, 30mm, 40mm	1in, 1.25in, 1.5in, 2in, 25mm, 30mm, 40mm, 50mm
Air Supply Hose	0.25in [6mm] OD tube	
Air Supply Pressure	35psi [2.4bar]	
Power Usage	630W, 5.5/2.7A @ 115/230VAC	1.3kW, 5.65A @ 230VAC
Weight	70 lbs [32kg]	92 lbs [42kg]
Compliance	CE; EC applicable directives	

Ordering Information

EcoMet™ 250 & 250 Pro Grinder-Polisher

- Membrane or touch screen controls
- Manual use or upgrade with AutoMet™ 250 Power Head for semi-automatic use
- Durable construction, well lit, ergonomic platen removal
- Retractable water hose for washdown
- Pro version offers programmability, Z-axis removal and full integration with Burst Dispensing System
- Membrane version compatible with Burst Dispensing System and Stadium Seating in manual and semi-automatic modes

Accessories for EcoMet 250 & 250 Pro

EcoMet 250 Grinder-Polisher Accessories

- 40-4061 8in [203mm] Aluminum Platen
40-0500 10in [254mm] Aluminum Platen
60-9080 Disposable Bowl Liner (qty 5)

Available in the following 1 phase voltage & frequency:

- 49-7200 Membrane controlled base [85-264VAC, 50/60Hz]
49-7201 Pro, touch screen controlled base [85-264VAC, 50/60Hz]
49-7250 Membrane controlled base with AutoMet 250 Power Head [85-264VAC, 50/60Hz]
49-7251 Pro, touch screen controlled base with AutoMet 250 Power Head [85-264VAC, 50/60Hz]
60-7230 AutoMet 250 Power Head [85-264VAC, 50/60Hz]
(must be installed by an authorized Buehler representative)

AutoMet 250 Power Head Single Force Specimen Holders

- 60-9010 6 x 1in
60-9011 6 x 1.25in
60-9012 6 x 1.5in
60-9020 6 x 25mm
60-9021 6 x 30mm
60-9022 6 x 40mm



Single Force Specimen Holder

Central Force Specimen Holders for AutoMet 250



Barrel Specimen Holders

- 60-2484 3 x 1.25in
60-2485 3 x 1.5in
60-2487 3 x 40mm



Barrel Specimen Holders

- 60-2482 6 x 1in
60-2483 6 x 1.25in
60-2486 6 x 30mm



Blank Specimen Holder

60-2408



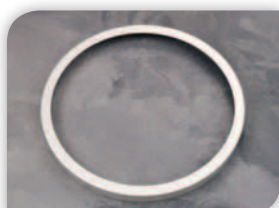
Teardrop Specimen Holder

- 60-2422 6 x 1.25in [32mm]



Rectangular Specimen Holder

- 60-2409 4 x 1 x 1.25in [25.4 x 32mm]



Paper Holding Band

(for use with manual grinding only)

- 30-2008 8in [203mm]
95-2825 10in [254mm]
46-2013 12in [305mm]



Single Force Tips (qty 6)

- 60-9092 Cone Design
60-9093 U-Cup Design



Drive Adapter

- 60-9000 Central Force
60-9005 Single Force



Loading Fixtures & Plates

(for central force specimen holders)

- 60-2410 Loading Fixture
60-2411 Reversible Plate for 8in [203mm] and 10in [254mm]
60-2412 Reversible Plate for 10in [254mm] and 12in [305mm]
60-2413 Reversible Plate for 8in [203mm] and 12in [305mm]

EcoMet™ 300 & 300 Pro Grinder-Polisher

- Membrane or touch screen controls
- Manual use or upgrade with AutoMet™ 250 or 300 Power Head for semi-automatic use
- Durable construction, well lit, ergonomic platen removal
- Retractable water hose for washdown
- Pro version offers programmability, Z-axis removal and full integration with Burst Dispensing System
- Membrane version compatible with Burst Dispensing System and Stadium Seating in manual and semi-automatic modes

Accessories for EcoMet 300 & 300 Pro

49-1777 12in [305mm] Aluminum Platen
 60-9081 Disposable Bowl Liner (qty 5)
 60-9040 6 x 2in (for use with Distance Rings)

Distance Rings for 60-9040 (qty 6)

60-2106 1in and 25mm
 60-2103 1.25in
 60-2104 1.5in
 60-2102 30mm
 60-2105 40mm

Available in the following 1 phase voltage & frequency:

49-7210 Membrane controlled base [170-240VAC, 50/60Hz]
 49-7211 Pro touch screen controlled base [170-240VAC, 50/60Hz]
 49-7260 Membrane controlled base with AutoMet 300 Power Head [170-240VAC, 50/60Hz]
 49-7261 Pro touch screen controlled base with AutoMet 300 Power Head [170-240VAC, 50/60Hz]
 49-7255 Membrane controlled base with AutoMet 250 Power Head [170-240VAC, 50/60Hz]
 49-7256 Pro touch screen controlled base with AutoMet 250 Power Head [170-240VAC, 50/60Hz]
 60-7240 AutoMet 300 Power Head [170-240VAC, 50/60Hz]
(must be installed by an authorized Buehler representative)

AutoMet 300 Power Head Single Force Specimen Holders

60-9060 6 x 1in
 60-9061 6 x 1.25in
 60-9062 6 x 1.5in
 60-9063 6 x 2in
 60-9070 6 x 25mm
 60-9071 6 x 30mm
 60-9072 6 x 40mm
 60-9073 6 x 50mm



Single Force Specimen Holder with Distance Rings

Central Force Specimen Holders for AutoMet 300



Barrel Specimen Holders

60-5283 6 x 1.5in [38mm]
 60-5288 6 x 40mm
 60-5289 3 x 2in [50mm]
 60-5299 5 x 2in [50mm]



Barrel Specimen Holders

60-5281 10 x 1in [25mm]
 60-5282 10 x 1.25in [32mm]
 60-5287 10 x 30mm



Blank Specimen Holder

60-5254



Teardrop Specimen Holders

60-5252 1.25in [32mm]
 60-5253 1.5in [38mm]
 60-5296 2in [50mm]



Rectangular Specimen Holders

60-5245 5 x 2 x 1.375in [50 x 35mm]
 60-5250 3 x 3 x 1.375in [76 x 35mm]
 60-5297 5 x 55 x 30mm
 60-5298 3 x 70 x 40mm

General Accessories

60-9090 Air Filter Kit for Power Heads (included)
 60-9091 Water Filter (included)
 40-10005 Burst Dispensing System
 49-2500 EnvironMet™ Recirculating Filter System
 49-2501 EnvironMet™ Filter System
 60-5090 PC Met™ Precision High Volume Printed Wiring Board Accessory Kit
 60-5175 PWB Met™ Small Hole Accessory Kit
 49-6111-160 Recirculating System with Cart, 115VAC, 22gal [83ℓ] Reservoir
 49-6111-250 Recirculating System with Cart, 230VAC, 22gal [83ℓ] Reservoir



Air regulator/filter (included).



Water filter ensures contaminate free lines and connectors (included).

Target Holders ▶

- Designed for precise material removal to specified depths
- Includes one ceramic and one steel stop ring



- 60-8097 Target Holder for 1 x 3in [25 x 76mm] glass slide (mounted stop ring)
 60-8100 Target Holder for 26 x 48mm glass slide (histologic holder)
 60-8101 Target Holder for 1in [25mm] mounted specimens
 60-8102 Target Holder for 1.25in [32mm] mounted specimens
 60-8103 Target Holder for 1.5in [38mm] mounted specimens

- 60-8112 Target Holder for 30mm mounted specimens
 60-8113 Target Holder for 40mm mounted specimens
 60-8110 Replacement stop ring, ceramic coating
 60-8111 Replacement stop ring, hardened steel surface
 60-9049 Specimen Holder for Target Holders
 (Drive Adapter required)

Petrographic Accessories



Petrographic glass slide hand-held holder for 27 x 46mm glass slides

30-8005



Histologic Precision Grinding Fixture

(may be used for a variety of applications)

60-8100



60-9010 Petro Histologic Single Force Specimen Holder for 60-9050 PetroThin™ Section Glass Slide Holders (for AutoMet™ 250, does not include drive adapter)



60-9060 Petro Histologic Single Force Specimen Holder for 60-9051 & 60-9052 PetroThin Section Glass Slide Holders (for AutoMet 300, does not include drive adapter)



PetroThin Section Glass Slide Holders

- 60-9050 – 28 x 48mm slides (for use with 60-9010)
 60-9051 – 28 x 48mm slides (for use with 60-9060)
 60-9052 – 28 x 76mm slides (for use with 60-9060)

For a complete listing of consumables, please refer to our Buehler Buyer's Guide or contact your local Buehler Sales Engineer. Buehler continuously makes product improvements; therefore technical specifications are subject to change without notice.

Sectioning
AbrasiMet • AbrasiMatic • IsoMet

Mounting
SimpliMet

Grinding & Polishing
EcoMet • AutoMet • MetaServ

Imaging & Analysis
OmniMet

Hardness Testing
Wilson® Hardness

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