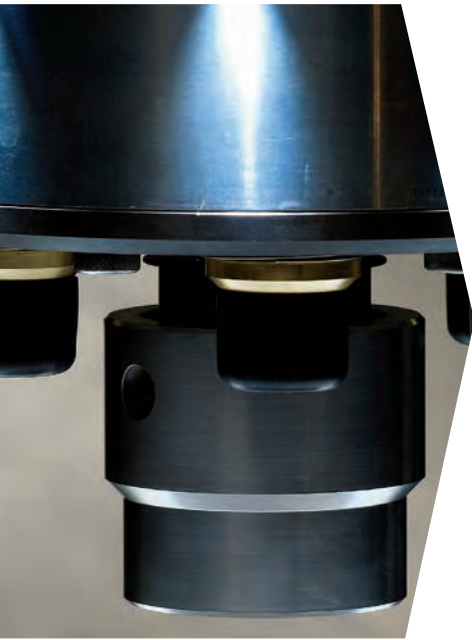


EcoMet™/AutoMet™ 250 & 300

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.

Variable Speed Power Head

- Single & Central force operation
- Variable speed for complimentary or contra rotation

Simple Operation

- Touch screen Pro version or tactile feedback membrane control
- Easy to actuate blue flashing iridescent Power standby button
- Large, red and easily accessible emergency-stop button for safety

Accessible Workspace

- D-style bowl for easy platen changing
- Removable splash guard minimizes splashing
- Bowl cover protects platen while not in use

Lighting

- Unique LED lighting illuminates platen and work area

Cleanability

- Retractable water hose for washdown
- Disposable bowl liner for quick cleaning
- Integrated 360° bowl rinse

Distinctive Base

- Reversible platen direction for minimizing vibration
- Belt driven platen design and variable speed cooling fan ensures whisper quiet operation

Distinctive Base

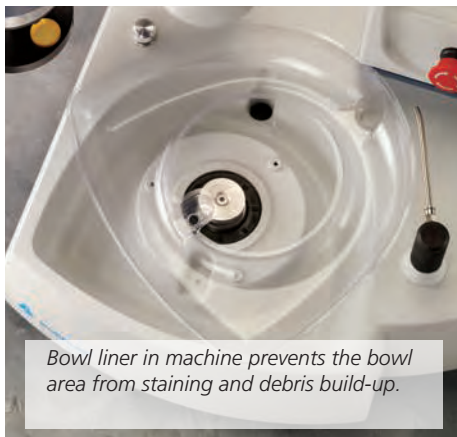
- Thick heavy duty cast aluminum base
- Protective coating provides stain and chip resistance for a long lasting like new appearance

At a Glance

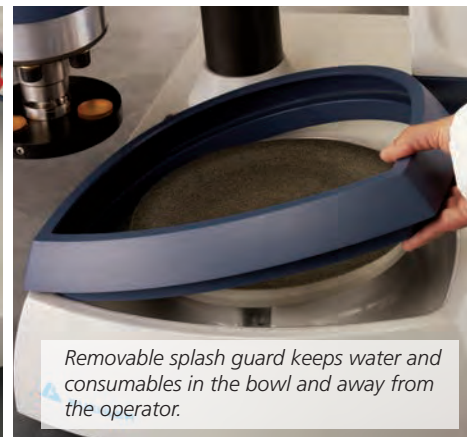
- Unique bowl shape for easy access to 8in [203mm], 10in [254mm] or 12in [305mm] platens
- Pro version integrates seamlessly with Burst Dispensing System
- Bright, energy-efficient LED lighting and quick release lift lock chuck allows easy specimen holder changes
- Multipurpose water nozzle provides 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



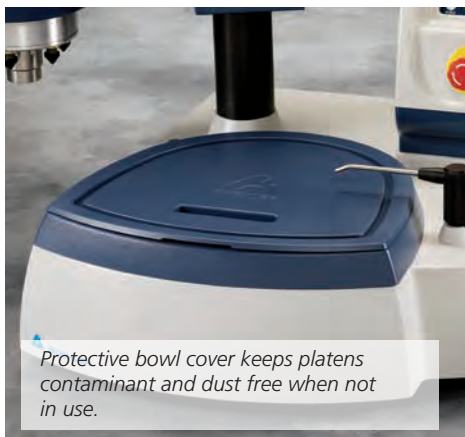
Unique D-style bowl design provides ample hand room for easy platen changing.



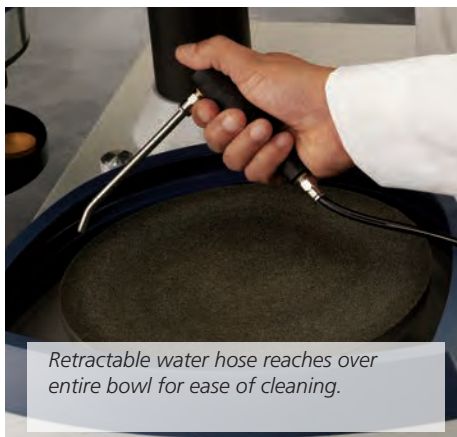
Bowl liner in machine prevents the bowl area from staining and debris build-up.



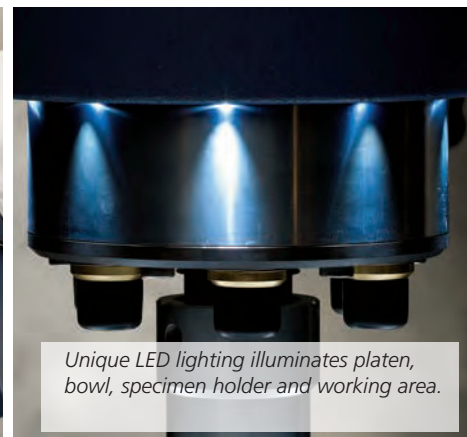
Removable splash guard keeps water and consumables in the bowl and away from the operator.



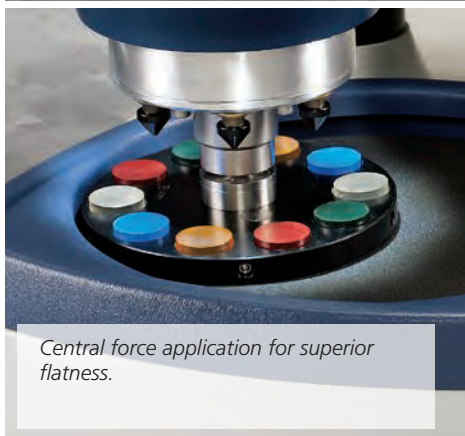
Protective bowl cover keeps platens contaminant and dust free when not in use.



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



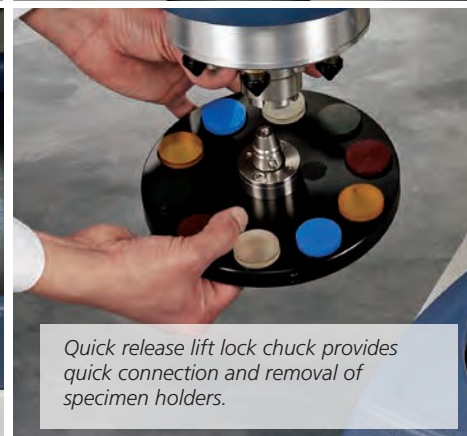
Unique LED lighting illuminates platen, bowl, specimen holder and working area.



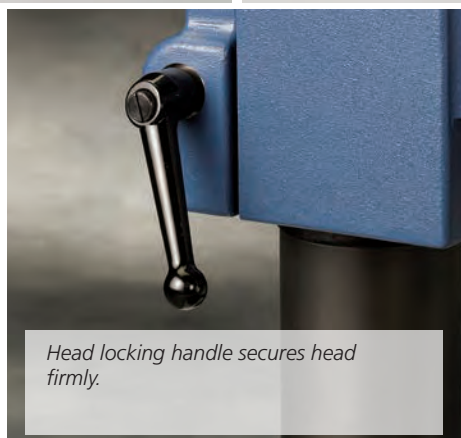
Central force application for superior flatness.



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.

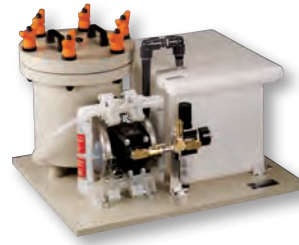
Automated Dispensing Systems



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).



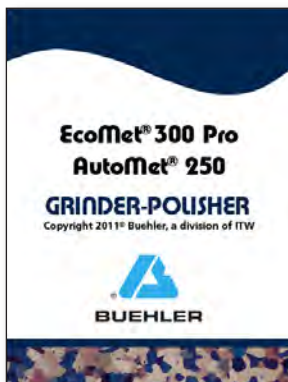
Membrane keypad control panel with tactile feed back buttons, bright LED's and easy-to-read intuitive icons.



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.

Technical Specifications



Left: EcoMet™ 250 Grinder-Polisher Base
Right: EcoMet 250 Grinder-Polisher Pro/AutoMet™ 250 Power Head



Left: EcoMet 300 Grinder-Polisher Base
Right: EcoMet 300 Grinder-Polisher Pro/AutoMet 300 Power Head

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

- Membrane 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
- Compatible with Burst Dispensing System and Stadium Seating in manual and semi-automatic modes

Operation	Base	Power Head	Voltage/Frequency
Manual	49-7250	n/a	85-264VAC, 50/60Hz
Semi- Automatic	49-7250	AutoMet 250	85-264VAC, 50/60Hz



EcoMet 250 Pro

- Touchscreen 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
- Full programmability, Z-axis removal and full integration with Burst Dispensing System

Operation	Base	Power Head	Voltage/Frequency
Manual	49-7201	n/a	85-264VAC, 50/60Hz
Semi- Automatic	49-7251	AutoMet 250	85-264VAC, 50/60Hz



Accessories for EcoMet 250 & 250 Pro Grinder-Polishers

40-4061	8in [203mm] Aluminum Platen	60-9005	Single Force Drive Adapter
40-0500	10in [254mm] Aluminum Platen	49-6111-160	Recirculating Tank [160VAC, 60Hz]
16-2071	8in [203mm] Apex™ MagnoDisc with MagnoFix	49-6111-250	Recirculating Tank [250VAC, 50Hz]
16-2571	10in [254mm] Apex MagnoDisc with MagnoFix	609094 ^{2, 3}	250mℓ drip feed dispensing bottle with AutoMet attachment
60-9080	Disposable Bowl Liner (qty 5)		
60-9000	Central Force Drive Adapter		

Specimen Holders for AutoMet 250



Round/Barrel



Rectangle



Slides



Teardrop

Single Force

For use with 60-9005 Drive Adapter.

Part Number	Style	Size	Capacity
60-9010	○	1in	6
60-9011	○	1.25in	6
60-9012	○	1.5in	6
60-9020	○	25mm	6
60-9021	○	30mm	6
60-9022	○	40mm	6
60-9030	○	Multiple	6

Central Force

For use with 60-9000 Drive Adapter

Part Number	Style	Size	Capacity
60-2482	○	1in	6
60-2483	○	1.25in	6
60-2484	○	1.25in	3
60-2422	◊	1.25in [32mm]	6
60-2485	○	1.5in	3
60-2486	○	30mm	6
60-2487	○	40mm	3
60-2409	□	1 x 1.25in [25.4 x 31.75mm]	4

EcoMet™ 300

- Membrane controls
- Manual use or upgrade with AutoMet™ 250 or 300 Power Head
- Durable construction, well lit, ergonomic platen removal
- Retractable water hose for washdown
- Compatible with Burst Dispensing System and Stadium Seating in manual and semi-automatic modes

Operation	Base	Power Head	Voltage/Frequency
Manual	49-7210	n/a	85-264VAC, 50/60Hz
Semi- Automatic	49-7260	AutoMet 300	85-264VAC, 50/60Hz
Semi-Automatic	49-7255	AutoMet 250	85-264VAC, 50/60Hz



EcoMet 300 Pro

- Touchscreen controls
- Manual use or upgrade with AutoMet™ 250 or 300 Power Head
- Durable construction, well lit, ergonomic platen removal
- Retractable water hose for washdown
- Full programmability, Z-axis removal and full integration with Burst Dispensing System

Operation	Base	Power Head	Voltage/Frequency
Manual	49-7211	n/a	85-264VAC, 50/60Hz
Semi- Automatic	49-7261	AutoMet 300	85-264VAC, 50/60Hz
Semi-Automatic	49-7256	AutoMet 250	85-264VAC, 50/60Hz



Accessories for EcoMet 300 & 300 Pro Grinder-Polishers

49-1777	12in [305mm] Aluminum Platen	49-6111-160	Recirculating Tank [160VAC, 60Hz]
16-3071	12in [305mm] Apex™ MagnoDisc with MagnoFix	49-6111-250	Recirculating Tank [250VAC, 50Hz]
60-9081	Disposable Bowl Liner (qty 5)	609094 ^{2, 3}	250ml drip feed dispensing bottle with AutoMet attachment
60-9000	Central Force Drive Adapter		
60-9005	Single Force Drive Adapter		

Specimen Holders for AutoMet 300

○ Round/Barrel

□ Rectangle

 Slides

 Teardrop

Single Force

For use with 60-9005 Drive Adapter.

Part Number	Style	Size	Capacity
60-9060		1in	6
60-9061	○	1.25in	6
60-9062	○	1.5in	6
60-9063	○	2in	6
60-9070	○	25mm	6
60-9071	○	30mm	6
60-9072	○	40mm	6
60-9073	○	50mm	6
60-9040	○	Multiple	6
60-9049	○	Multiple Target Holders	



Single Force Specimen Holder with Distance Rings

Specimen Holders for AutoMet™ 300 (cont'd)



Round/Barrel



Rectangle



Slides



Teardrop

Central Force

For use with 60-9000 Drive Adapter.

Part Number	Style	Size	Capacity
60-5281	○	1in	10
60-5282	○	1.25in	10
60-5252	∇	1.25in or 30mm	9
60-5287	○	30mm	10
60-5283	○	1.5in	6
60-5253	∇	1.5in or 40mm	6
60-5288	○	40mm	6
60-5289	○	2in	3
60-5299	○	2in	5
60-5296	∇	2in or 50mm	5
60-5245	□	2 x 1.38in [50 x 65mm]	5
60-5250	□	3 x 1.38in [76 x 35mm]	3
60-5297	□	55 x 30mm	5
60-5298	□	70 x 40mm	3



Target Holders

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

Part Number	Description
60-8100	For 26 x 48mm glass slide (histologic holder)
60-8101	For 1in [25mm] mounted specimens
60-8102	For 1.25in [32mm] mounted specimens
60-8112	For 30mm mounted specimens
60-8113	For 40mm mounted specimens
60-9049	Specimen Holder for Target Holders (Drive Adapter required)



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For a complete listing of consumables, visit our website at www.buehler.com or refer our Product Catalogue. Buehler continuously makes product improvements; therefore technical specifications are subject to change without notice.

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