

AutoMet™

Grinder-Polisher System

BUEHLER

Strong Partner, Reliable Solutions

AutoMet™ 250 & 300

High Performance for High Volume Environments

The AutoMet grinder polishers are high performance machines designed for reliability, flexibility, and ease of use.

Ensure reproducible results with the intelligent programming and functionality of the Pro models. Ideal for customers in demanding environments needing to process a high volume of samples.





Intelligent Interface

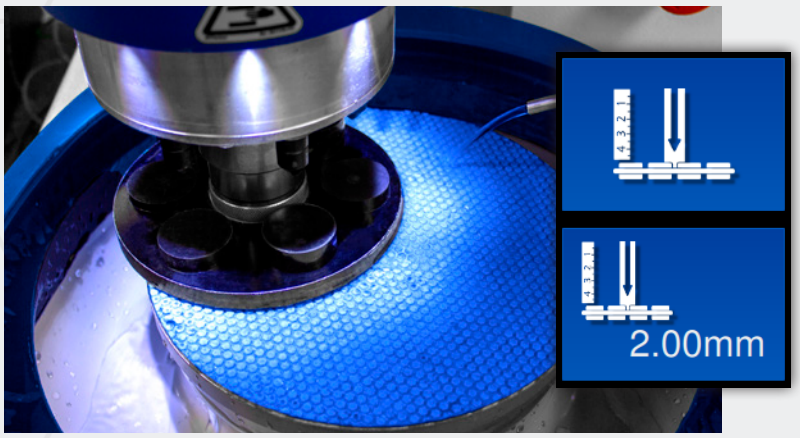
Detailed Methods

Save surface and abrasive information into method names to ensure consistent preparation across batches. Swipe to quickly change between steps in a method.



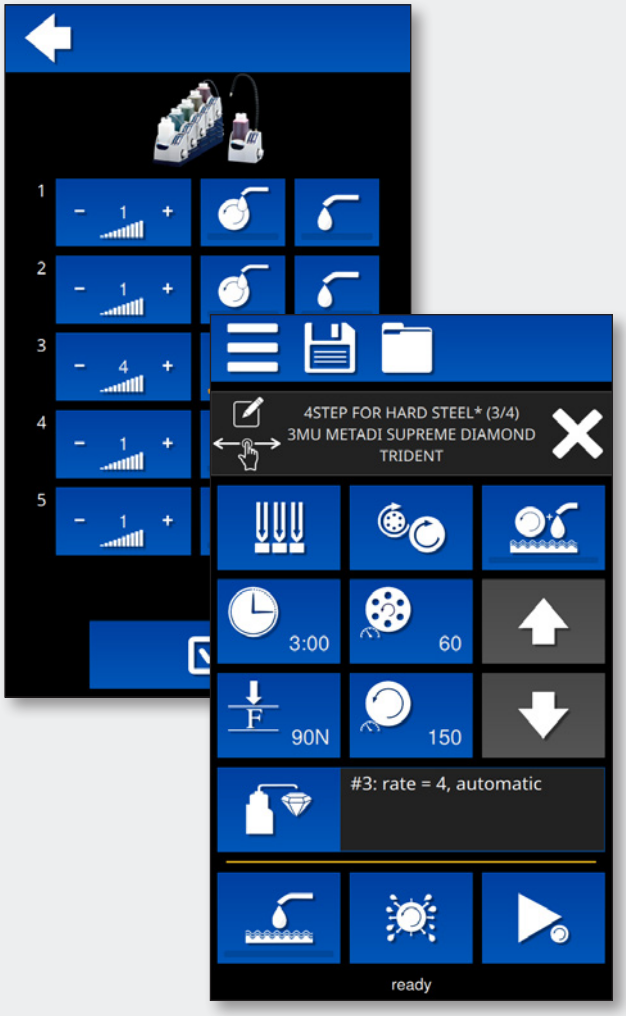
Z-Axis Removal Mode

Consistently grind to the area of interest by programming the machine to remove a certain depth. Set the desired depth on the main screen and begin the grinding cycle.



Automated Dispensing

Improve consistency across batches of samples by controlling the amount of abrasive used during polishing. Control up to five Burst Dispensing Modules through the interface and save dispensing rates within methods.

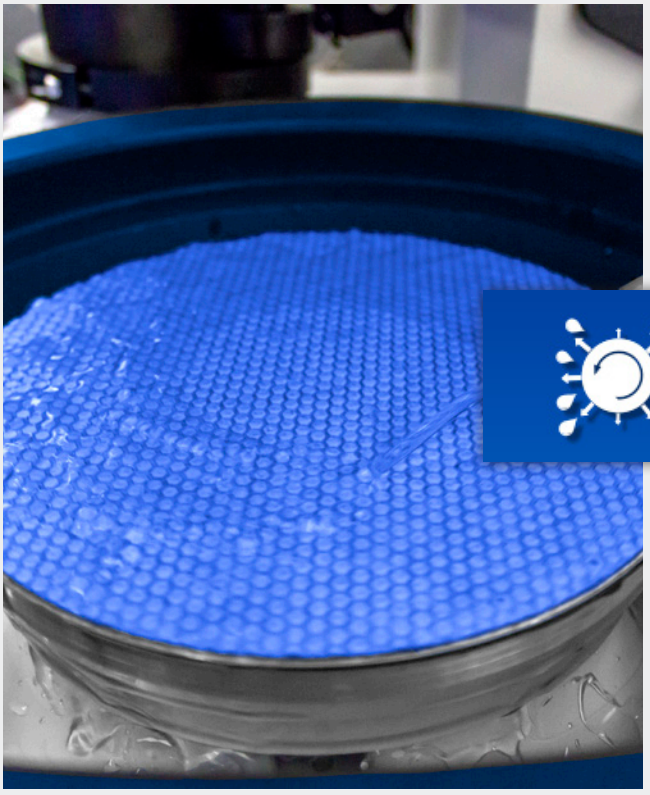




Effortless Cleaning

Rinse and Spin

Prevent cross contamination between preparation steps by using the new Rinse and Spin feature. Simply activate the cycle and let the machine rinse the polishing surface before moving to the next step.



Quick Clean Liner

Reduce the amount of time to clean out the bowl with the disposable bowl liner. Easily remove or replace the bowl liner to shorten the cleaning process.





Retractable Water Hose

Wash out the entire bowl and splash ring with ease. The retractable water hose allows users to reach across the entire bowl to ensure proper cleaning.



Trusted Quality



For over 10 years, the AutoMet family of products has been praised for its reliability. This high level of loyalty from labs around the world confirms its reputation for solid construction and smart design.



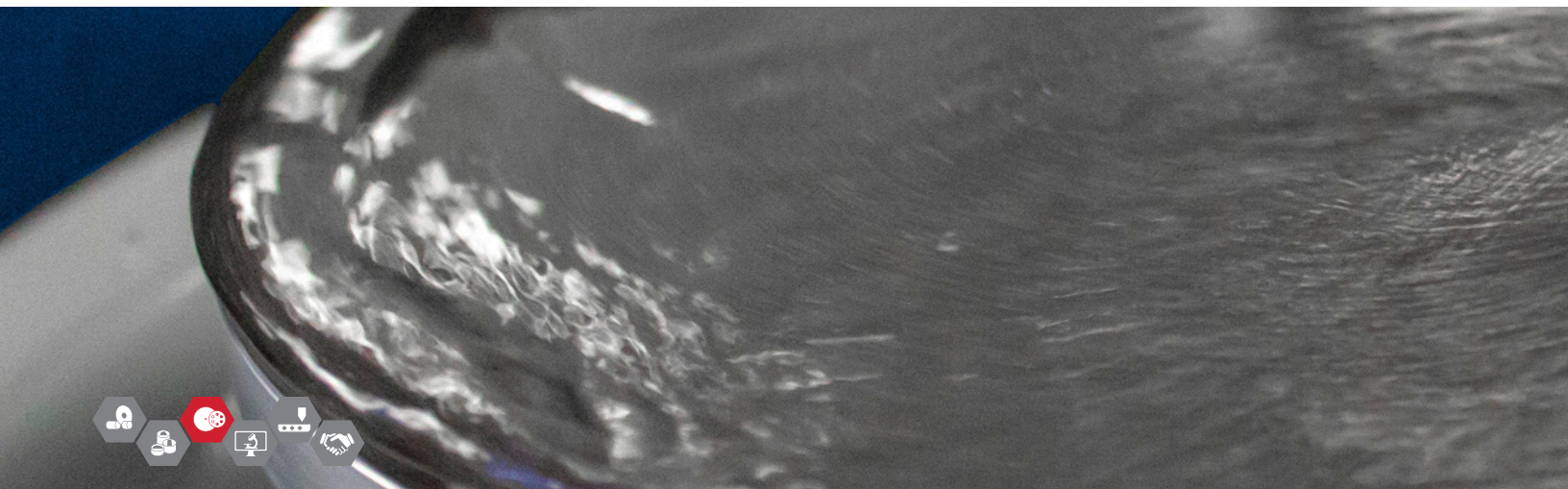
The heavy duty cast aluminum base provides durability for long life and minimizes vibrations to improve results. A protective coating provides stain and chip resistance for a long lasting like-new appearance.

Always a Perfect Fit For User Applications

The Pro models offer method storage, Burst dispensing integration and Z-axis removal to provide a consistent and efficient solution for any lab. Choose the AutoMet 250 or AutoMet 250 Pro when a 8in or 10in platen is needed. Upgrade to the AutoMet 300 Pro for larger capacity on a 12in platen.

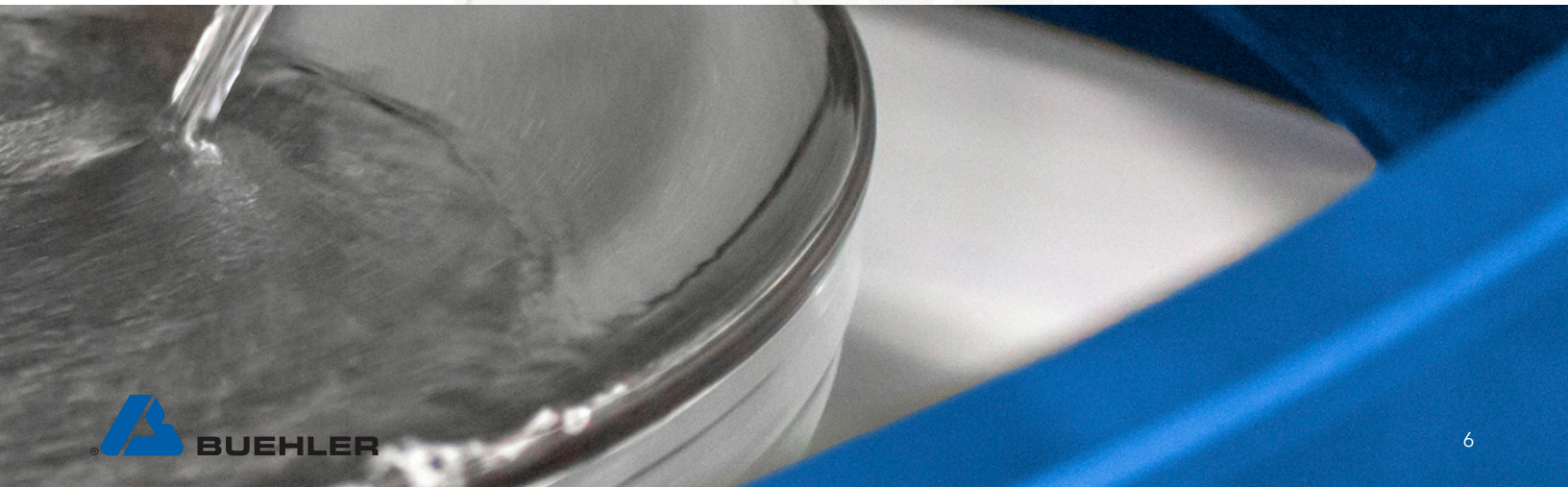
Models and Features

	AutoMet 250	AutoMet 250 Pro	AutoMet 300 Pro
Durable Cast Aluminum Construction	●	●	●
Retractable Water hose	●	●	●
Available Bowl Liners	●	●	●
Integrated 360º bowl rinse	●	●	●
Reversible Platen Direction	●	●	●
Accepts 8" or 10" Platen	●	●	
Accepts 10” or 12" Platen			●
Membrane Controls	●		
TouchScreen Control		●	●
Method Creation/Storage		●	●
Z axis removal by depth		●	●
Integrates with Burst Dispenser (page 8)	●	●	●
Single Force (6 pistons)	●	●	●
Central Force	●	●	●
Samples up to Ø 40mm	●	●	●
Samples up to Ø 50mm			●
Lighted Work Area	●	●	●
Splash Guard Compatibility	●	●	●



Technical Specifications

	AutoMet 250	AutoMet 250 Pro	AutoMet 300 Pro
Machine Power	100-240VAC, 50/60Hz 1 phase		170 – 240VAC, 50/60Hz, 1 phase
Base Motor Power	1 hp (750W)		2 hp (1500W)
Platen Diameter	8in [203mm], 10in [254mm]		10in [254mm], 12in [305mm]
Platen Wheel Speed	10-500rpm in 10rpm increments		50-400rpm in 10rpm increments
Wheel Direction	Platen:Clockwise/Counter-Clockwise Head:Clockwise/Counter-Clockwise		
Base & Head Power Usage	1730 W (1.1Kw @ 115V)		3600 W (3.6kW) @ 220V
Touchscreen Control Panel	Membrane	Full color LCD Screen,7in [175mm] diagonal	
Base & Head Sound Rating	70dB @500rpm/60rpm		74.5dB @400rpm/150rpm
Head Motor Power	0.125hp (116W)		0.75hp (560W)
Water Supply Pressure	40-100psi (2.5-6.5 bar)		
Head Wheel Speed	30 – 60 rpm in 10 rpm increments		60 – 150 rpm in 10 rpm increments
Central Specimen Force	5-60 lbs (20-260N)		10-120 lbs (40-535N)
Single Specimen Force	1-10lbs (5-45N)		1-20lbs (5-90N)
Central Force Specimen Capacity	1in,1.25in,1.5in,25mm, 30mm,40mm		1in,1.25in,1.5in, 25mm, 30mm, 40mm,50mm
Single Force Specimen Capacity	1in,1.25in,1.5in, 25mm, 30mm,40mm		1in,1.25in,1.5in, 25mm, 30mm, 40mm,50mm
Air Supply Hose	0.23in [6mm] OD tube		
Air Supply Pressure	35 psi (+/- 1 psi) or 2.4 bar (+/- .07 bar)		
Weight	170lbs [77kg]		219lbs [99kg]
Compliance	CE Directives		



Ordering Information

Get Started



Choose the AutoMet model to best fit lab needs.

Model	Part Number	Voltage/Frequency
AutoMet 250	49-7257	100 - 240VAC, 50-60Hz
AutoMet 250 Pro	49-7258	100 - 240VAC, 50-60Hz
AutoMet 300 Pro	49-7268	170-240 VAC, 50-60Hz

Accessories

AutoMet 250 & 250 Pro Platen *(Required)*

40-4061 8in [203mm] Aluminum Platen
40-0500 10in [254mm] Aluminum Platen

AutoMet 300 Pro Platen *(Required)*

49-1777 12in [305mm] Aluminum Platen

Additional Accessories

60-9080 Disposable Bowl Liner (Qty 5) (for AutoMet 250)
60-9081 Disposable Bowl Liner (Qty 5) (for AutoMet 300)
49-2250 Splash Kit for AutoMet 250 & 250 Pro
4961-300 Splash Guard for AutoMet 300 Pro
49-1250 Lid for AutoMet 250 & 250 Pro
49-1300 Lid for AutoMet 300 Pro

PC Met™ Precision High Volume Printed Wiring Board Accessory



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 ofthrough-holes down to 0.008in [200µm] in diameter. Central force drive adapter (60-9000) required (sold separately).

Part Number	Contents
60-5090	Indexing pins, carbide and diamond stops, coupon loader, dial indicator, gauge blocks and wooden case

PWB Met™ Small Hole Accessory



This preparation system is designed for cross-sectioning printed wiring boards with through-holes down to 0.004in [100µm] in diameter. Prepares up to 18 coupons simultaneously. Central force drive adapter (60-9000) required (sold separately).

Part Number	Contents
60-5175	Indexing pins, polycrystalline diamond stops, coupon loader, dial indicator calibration gauge, silicon mold release spray, gauge blocks, sample extractor and wooden case

Maximize Time with a Burst Dispensing System

The Burst Dispensing System is a flexible, easy to operate dispensing system for all diamond and final polishing suspensions. This product improves both productivity and consistency by dispensing suspensions at fixed intervals and configurable rates.

Choose from two different Burst Configurations

Fully Integrated

The Grinder Polisher controls the start/stop function and the volume rate.



*(*AutoMet Pro shown with 5 burst modules and a stadium seating module.)*

Compatible with AutoMet 250 Pro and AutoMet 300 Pro

How to configure fully integrated burst system:

Choose up to 5 burst modules (Part Number 40-10005)

- Add stadium seating module (Part Number 40-10004)
- Add dispensing arm (Part Number 40-10006)
- Add optional stir bar (Part Number 00-10100)

Accessories

40-10004 **Stadium Seating Module**
A compact and efficient method to hold up to 5 burst modules

40-10006 **Dispensing Arm for AutoMet™ 250/300**
The dispensing arm attaches the AutoMet pro grinder polisher to the burst dispensing system. Outlet tubing from the burst system is secured neatly into the arm Outlet nozzles dispense suspension on to the platen.

00-10100 **Stir Bar**
Magnetically driven stir bars prevents settling of suspension. Use one for each module.

Independent

The Burst Module Control Panel is used to control dispensing stop/start and volume rate.



Compatible with all Grinder Polishers

How to configure independent burst modules:

Choose burst module (Part Number 40-10005)

- Up to 5 modules can be connect to one electrical power source, requires cable for connecting module to module (Part Number 40-2832)
- Add optional stir bar (Part Number 00-10100)
- Add optional hand switch (Part Number 40-2823)

Accessories

40-2832 **Cable for connecting module to module**
For connecting more than 1 burst module in the independent configuration. Up to 5 modules can be connected together. Requires one cable for each module added to the first module.

40-2823 **Hand Switch**
Used to control the start/stop function.

00-10100 **Stir Bar**
Magnetically driven stir bars prevents settling of suspension. Use one for each module.

Choose the Specimen Holder to Enhance Your Equipment

Sample holders are designed for use with Buehler's grinder-polishers to facilitate process automation and optimization. Many options for different sample sizes and shapes are available depending on the shapes, sizes, and capacities required.

Single Force Specimen Holders

Round/Barrel Rectangle Slides Teardrop

AutoMet™ 300 Power Head

For use with 60-9005 Drive Adapter.

Part Number	Style	Size	Capacity	Additional Accessories
60-9060	◯	1in	6	63-1022 Retaining Rings (Qty 6) 60-9120 1 x 3in Glass Slide Holder 60-9130 2 x 3in Glass Slide Holder 60-9100 27 x 46mm Glass Slide Holder 60-9140 28 x 48mm Glass Slide Holder
60-9061	◯	1.25in	6	63-1023 Retaining Rings (Qty 6)
60-9062	◯	1.5in	6	63-1024 Retaining Rings (Qty 3)
60-9063	◯	2in	6	
60-9070	◯	25mm	6	63-1022 Retaining Rings (Qty 6)
60-9071	◯	30mm	6	63-1023 Retaining Rings (Qty 6)
60-9072	◯	40mm	6	63-1024 Retaining Rings (Qty 3)
60-9073	◯	50mm	6	
60-9049	◯	For Target Holders	3	



AutoMet™ 250 Power Head

For use with 60-9005 Drive Adapter.

Part Number	Style	Size	Capacity	Additional Accessories
60-9010	◯	1in	6	63-1022 Retaining Rings (Qty 6) 60-9120 1 x 3in Glass Slide Holder 60-9130 2 x 3in Glass Slide Holder 60-9100 27 x 46mm Glass Slide Holder 60-9140 28 x 48mm Glass Slide Holder
60-9011	◯	1.25in	6	63-1023 Retaining Rings (Qty 6)
60-9012	◯	1.5in	6	63-1024 Retaining Rings (Qty 3)
60-9020	◯	25mm	6	63-1022 Retaining Rings (Qty 6)
60-9021	◯	30mm	6	63-1023 Retaining Rings (Qty 6)
60-9022	◯	40mm	6	63-1024 Retaining Rings (Qty 3)
60-9030	◯	For Distance Rings	6	60-9031 1in Distance Rings (Qty 6) 60-9032 1.25in Distance Rings (Qty 6) 60-9033 25mm Distance Rings (Qty 6) 60-9034 30mm Distance Rings (Qty 6)



Central Force Specimen Holders

Round/Barrel | Rectangle | Slides | Teardrop

AutoMet 300 Power Head

For use with 60-9000 Drive Adapter.
*Uses Loading Plates 60-2412 or 60-2413 = **

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
60-5299*	◯	2in	5
60-5296*	◇	2in or 50mm	5
60-5245*	▭	2 x 1.38in [50 x 35mm]	5
60-5297*	▭	55 x 30mm	5
60-5298*	▭	70 x 40mm	3

AutoMet™ 250 Power Heads

For use with 60-9000 Drive Adapters
Uses Loading Plates 60-2411 or 60-2413 = •
Uses Loading Plates 60-2411 or 60-2412,Requires 10in [254mm] platen. = †

Part Number	Style	Size	Capacity
60-2482•	◯	1in	6
60-2483•	◯	1.25in	6
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
60-8240†	◇	18 - 51mm	5
60-8210†	◇	12 - 40mm	6
60-8262†	◇	10 - 25mm	12
60-8254†	▭	55 x 30mm	5
60-8255†	▭	70 x 40mm	3

Can be used with AutoMet 300 power head

Accessories for Specimen Holders

Loading Fixtures and Plates



Used for loading Central Force Specimen Holders to ensure planar samples.

**See table above for loading plate and specimen holder compatibility.*

Part Number	Description
60-2410	Loading Fixture
60-2411	Loading Plate for 130mm and 157mm diameter
60-2412	Loading Plate for 157mm and 181mm diameter
60-2413	Loading Plate for 130mm and 181mm diameter

Drive Adapters



Pairs specimen holders to the chuck of the automatic head

Part Number		Compatible With
60-9000	Central Force	AutoMet 250/300, EcoMet 30 PlanarMet 300
60-9005	Single Force	AutoMet 250/300 EcoMet 30

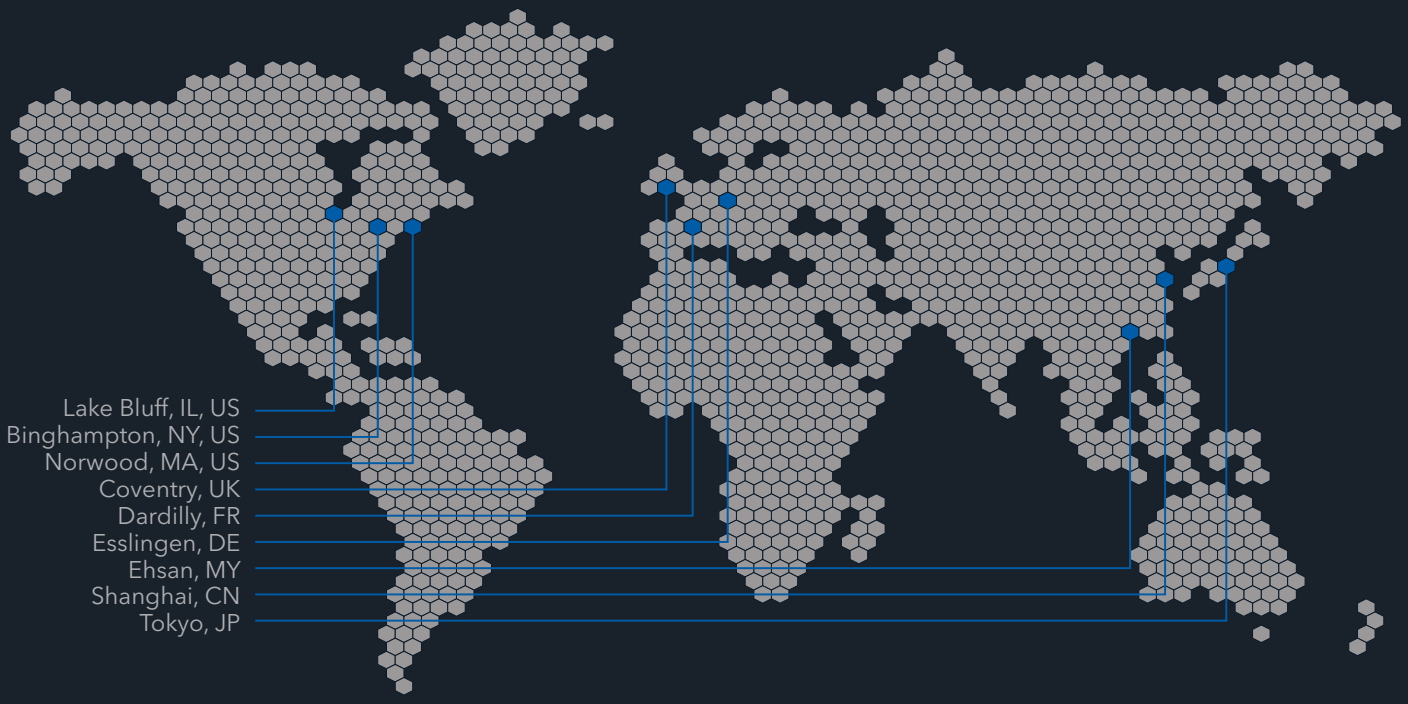
Target Holders



Designed for precise material removal to specified depths. Includes one ceramic and one steel stop ring.
For use on AutoMet 300 Pro only.

Part Number	Description
60-8100	For 28 x 48mm glass slide
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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