

For Immediate Release

Buehler's EcoMet 250/300 Pro Grinder-Polisher with AutoMet 250/300 Power Head Improves Consistency and Repeatability in Materials Analysis, Testing

Semi-automatic operation, programmability increase consistency and repeatability, while new functions enable method optimization.

Highlights/Key Facts

- [EcoMet® 250/300 Pro](#) (programmable) grinder-polisher stores and recalls 32 methods.
- Unique Zaxis function enables material removal by target depth.
- Power head speeds now adjustable from 30 to 60 rpm (AutoMet 250) or 60 to 150 rpm (AutoMet 300), both in 10 rpm increments.
- Accepts central specimen holders or single force holders.

LAKE BLUFF, Ill., Dec. 22, 2010—[Buehler](#), the world's premier manufacturer of scientific equipment and supplies for material preparation and analysis, introduces its [EcoMet® 250/300 Pro](#) grinder-polisher with AutoMet® 250/300 power head.

New capabilities include the ability to store and recall 32 methods via touch screen controls, a Zaxis (Z-axis) function that removes material by depth instead of time and platen and power head speeds that adjust in 10 rpm increments.

The EcoMet 250/300 Pro/AutoMet 250/300 semi-automatic system, with its programmable and adjustable functions, increases consistency and repeatability, ensures better flatness and enables method optimization compared to manual grinding. The optional PriMet® Pro modular dispensing satellite uses peristaltic pumps, not mist technology, to distribute lubricant, diamond, alumina and colloidal polishing suspensions. Controlled dispensing offers repeatable results regardless of the operator, and it can lower consumables costs by preventing over-use.

Buehler also offers the EcoMet in a non-programmable version with push-button controls and digital readouts.

Links

- [Buehler Grinder/Polishers](#)
- [EcoMet Pro Video](#)
- [EcoMet 250/AutoMet 250 Video](#)
- [Buehler's e-Club](#).

Additional Information

Tools to Improve Quality

While they also allow manual sample preparation, EcoMet Pro/AutoMet semi-automatic grinder/power head systems provide several tools that help increase consistency and repeatability. For example, semi-automatic material removal helps ensure better flatness (critical when making measurements) because it eliminates hand rocking, while the Zaxis function enables targeting a specific plane.

“After determining the average depth of material needed to be removed to reach the damage-free/stress-free section, personnel can program the EcoMet Pro to remove a specific amount of material, rather than programming it by time,” says Andrea Johnson, Buehler product manager.

Johnson notes that testing and lab personnel believe that they must have a “hand touch” to prevent over-preparing a sample. Unfortunately, manually prepared samples often have planar issues and exhibit variations between samples.

“To ensure that all specimens are prepared using the same method—and to save time—use the EcoMet’s programmable function to store up to 32 of methods and instantly recall them,” she says.

Additional benefits of semi-automatic systems include variable speed adjustments that provide the flexibility to custom tailor methods to the type and hardness of a sample.

Higher speeds impact the abrasive very aggressively, while slower speeds are gentler on the sample.

The EcoMet 250 Pro/AutoMet 250 system features platen speeds of 10 to 500 rpm and power head speeds 30 to 60 rpm (both adjustable in 10 rpm increments), as well as a central specimen force of 5 to 60 lbs. (20 to 260 N) and single specimen force of 1-10 lbs (5 to 45 N). The EcoMet 300 Pro/AutoMet 300 system features platen speeds of 10 to 400 rpm and power head speeds of 60 to 150 rpm (both adjustable in 10 rpm increments), a central specimen force of 10 to 120 lbs. (40 to 535 N) and single specimen force of 1 to 20 lbs. (5 to 90 N). Operating parameters, such as speed and force, are adjustable during the preparation sequence. A pause function allows the operator to stop operation during a step, remove a sample for examination, and then complete that step at a later time.

“The range covered by these machines enables use for preparing small, fragile, multi-composition parts, large, un-mounted welds or anything in between,” says Johnson.

Buehler is the world's premier manufacturer of scientific equipment and supplies for material preparation and analysis. Buehler's products are used throughout the world in manufacturing facilities, quality laboratories and universities to enable material characterization, ensure quality and perform materials research. For more information, visit www.buehler.com or contact Buehler at 41 Waukegan Road, Lake Bluff, IL 60044 or (ph) 847-295-6500. Buehler is a wholly owned subsidiary of Illinois Tool Works (NYSE: ITW).

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Image Information

JPG Name: EcoMet 250 Pro and AutoMet 250

Caption: EcoMet[®] 250 Pro grinder-polisher with AutoMet[®] 250 power head provides more control and the ability to store 32 methods, increasing consistency and repeatability.