

# From Sample Preparation to Automated Hardness Testing

Under the heading "From Sample Preparation to Automated Hardness Testing – Your Single-Source Supplier For All Your Needs", new solutions from its extensive product portfolio, comprising equipment, consumables and accessories for metallography preparation and hardness testing, all

a high degree of automation. Exhibits from the areas of grinding, polishing, sectioning and mounting of samples illustrate the width of Buehler's portfolio, which covers applications from fundamental research to automated in-process quality control.

grinder which provides rapid, highly accurate and at the same time cost-efficient and convenient sample preparation in metallography. The unit's fixed 305 mm grinding stone along with a high-performance motor is designed to remove up to 0.6 mm of material per minute – up to ten times faster than grinding with SiC paper.



SimpliMet™ 4000



Wilson® VH3300



PlanarMet™ 300

At Control 2016, Buehler ITW Test and Measurement will be showcasing their latest additions to their range of products for metallography preparation and hardness testing, designed for applications ranging from fundamental research to automated, in-process quality control testing. Buehler – ITW Test & Measurement GmbH

under one roof. For the first time, Buehler will be showcasing its ergonomically optimized VH1002 Series hardness testers – configurable in various levels of automation and equipped with weights from 10 g up to 2 kg – as well as its newly developed DiaMet universal hardness testing software. Another highlight at the booth will be the new SimpliMet 4000 mounting press – a highly reliable and time-saving solution for mounting of samples prior to grinding and polishing, specifically designed for use in a demanding industrial environment.

Further exhibits will include the recently launched PlanarMet 300 table-top grinder and the Wilson VH3300 micro hardness tester, both of which provide for

The revolutionary DiaMet software suite is designed for analyzing macro and micro Vickers, Knoop, Rockwell and Brinell indents in accordance with all relevant ISO and ASTM standards. The software is the first solution which can be used across a wide range of systems and is tailored to meet global hardness testing requirements, enabling measurements to be completed and documented reliably and compared internationally across a wide range of industries. Featuring clear menu navigation and high ease of operation, DiaMet meets the requirements of a variety of users, from production staff with limited training up to specialists in scientific research. PlanarMet 300 is a recently released bench-top planar

The central-force specimen holder, accommodating up to 10 samples at a time, enables three to four grinding stages to be combined into a single step. The time and cost saving PlanarMet 300 system therefore offers all the power of a large, floor-standing model in a space-saving, compact bench-top design.

The Wilson® VH3300 Vickers and Knoop hardness testers were designed for maximum flexibility and efficiency. These systems excel through a wide range of test loads from 10 g to 50 kg, a high magnification and a 6-position test head with three indenters and three zoom objectives, all of which contribute to its universal applicability. A patent-pending collision protection system and a high-speed sample stage system contribute towards speeding up the workflow in automated hardness testing.

The system's area of application extends from material and product development to routine quality control testing in a clean production environment. Buehler ITW Test & Measurement's product portfolio includes a wide variety of sectioning and high-precision sectioning systems, mounting systems including the associated epoxy and acrylic resins, grinders and polishers as well as Rockwell, Vickers/Knoop, Brinell and universal hardness testers.

For more details:  
[www.buehler.com](http://www.buehler.com)