

New Wilson® Micro Hardness Testers Provide High Ease of Operation and Accelerate Workflow in Test Labs and Industry



Wilson® VH1102 and VH1202 are two new universal hardness testers from Buehler – ITW Test & Measurement GmbH (www.buehler.com), offering a cost-efficient and reliable solution for Knoop and Vickers micro-hardness testing in accordance with ISO 6507, 9385 and 4546 or ASTM E384 and E92.

The instruments meet highest standards in terms of accuracy and can be used both in quality control and research and development. Featuring deadweight loads from 10 g up to 2 kg and nine different, automatically selectable loading stages, the testers offer class-leading flexibility.

Both models in the new VH1000 series feature an ergonomic, adjustable 7" color touchscreen for rapid test method selection and data collection. The system is highly intuitive to use and can be operated by less extensively trained staff after a brief period of training.

The wide load range with test scales from HV/HK0.01 to HV/HK2 is the same for both models. The usual knob for manual selection of test weights has been replaced by a durable, software-controlled electric motor to automatically change test weights, thereby providing a level of operator convenience on the new Wilson micro hardness testers which is normally found only on higher-end instruments.

The two models differ with regard to the electrically driven, high-speed, low-noise turret. The VH1102 model is equipped with a turret providing four positions, including an indenter for Knoop or Vickers and two standard objectives for 10x and 50x magnification at normal working distance. The VH1202 model is equipped with a six-position turret, including two indenters for both Knoop and Vickers, and an additional objective with 5x magnification at long working distance. For both models, all you need to do in order to set the turret to the magnification selected on the touch screen is push the Start button.

The hardness testers can be configured to meet a wide range of requirements, from a standalone version for use in laboratories with a relatively low sample volume, up to a fully equipped system catering for high sample volumes in an industrial environment. The standard model includes a digital eyepiece for manual indent measurement, including camera connection capability and a USB port enabling data to be exported for further processing with a standard spreadsheet program. The semi-automatic version supports presetting of simple traverses for determining the hardening depth on surface-hardened components (CHD) and eliminates the 'human factor' by automatically measuring the indents.

The fully featured version includes, in addition to a high-resolution camera, a 3-axial sample stage and autofocus, along with Buehler's recently upgraded DiaMet™ hardness testing software. Both systems are thus capable of automatically handling and documenting hundreds of indentations without any user intervention with high precision and repeatability within a minimum of time.

Over and above the new micro-hardness testers, the Buehler ITW Test & Measurement product portfolio comprises a full range of further Rockwell, Vickers/Knoop, Brinell and universal hardness testers with numerous options for automation, as well as a variety of sectioning and precision sectioning machines optimized for specific applications, mounting systems including the associated epoxy and acrylic resins, grinding and polishing machines, and solutions for image analysis.