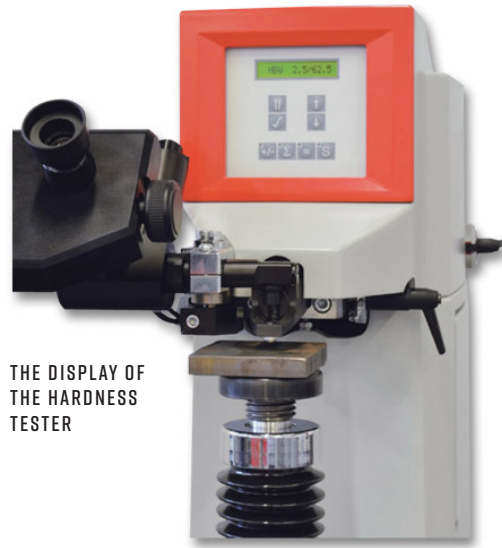


SM1017

UNIVERSAL HARDNESS TESTER

A bench-top industrial-standard tester for accurate measurements of Vickers, Brinell and Rockwell hardness.



THE DISPLAY OF THE HARDNESS TESTER

KEY FEATURES

- Industrial instrument specifications
- Dead weight load combinations up to 187.5 kg
- Setting of hardness tolerance and statistics (\bar{x} and R), for a range of experiments
- Integral microscope with measuring shutters and push button for transfer of dimensional data
- Simple operation including:
 - Automatic load application and removal
 - Diagonal value transfer at the touch of a button
 - Automatic evaluation of hardness value

LEARNING OUTCOMES

Hardness testing of a range of different materials, using three different methods:

- Vickers (HV) DIN EN ISO 6507, ASTM E92
- Brinell (HB) DIN EN ISO 6506, ASTM E10
- Rockwell (HR) DIN EN ISO 6508, ASTM E18

KEY SPECIFICATIONS

- Screen display of hardness value and scale with 0.1 unit resolution
- Built-in x50 total magnification
- Variable test sequence timing from 1 to 50 s
- Multiple loads available
 - Vickers: 3, 5, 10, 30 and 100 kgf
 - Brinell: 5, 10, 30, 62.5 and 187.5 kgf
 - Rockwell: 10, 60, 100 and 150 kgf

UNIVERSAL HARDNESS TESTER

DESCRIPTION

The machine performs Brinell, Vickers and Rockwell tests in accordance with established specifications:

- Brinell: ISO 6506, ASTM E10
- Vickers: ISO 6507, ASTM E92
- Rockwell: ISO 6508, ASTM E18

The machine is provided with a backlit LCD display. It is used to display measured hardness results, to monitor the progress of the test and to display information that may be required when setting up the machine for a variety of parameters.

Conversions of the results are also possible, including:

- Rockwell to Vickers, Brinell, Knoop, and UTS
- Brinell to Vickers, Knoop, UTS, and Rockwell HRA, HRB, HRC
- Vickers to Brinell, Knoop, UTS, and Rockwell HRA, HRB, HRC

The SM1017 is an industrial instrument and if used in accordance with the following instructions, and given reasonable care and attention, it will maintain accurate and reliable hardness scales.

STANDARD FEATURES

- Supplied with a comprehensive user guide
- Five-year warranty
- Manufactured in accordance with the latest European Union directives
- ISO9001 certified manufacturer



ACCESSORIES (INCLUDED AS STANDARD)

- Specimen support tables

INDENTERS:

- Vickers diamond pyramid
- Hard metal ball, dia. 2.5 mm
- Hard metal ball, dia. 1 mm
- Hard metal ball, dia. 1/16"
- Rockwell diamond cone

RECOMMENDED ANCILLARY

- Reference test blocks with UKAS certificates (HTB-B, HTB-V and HTB-R)

OPERATING CONDITIONS

OPERATING ENVIRONMENT:

Laboratory

SOUND LEVELS:

Less than 70 dB(A)

ESSENTIAL SERVICES

BENCH SPACE REQUIRED:

900 x 600 x 1100 mm

ELECTRICAL SUPPLY:

3 A single-phase, 240/120 V switchable

DETAILED SPECIFICATIONS

TecEquipment is committed to a programme of continuous improvement; hence we reserve the right to alter the design and product specification without prior notice.

NETT DIMENSIONS AND WEIGHT:

- Height 782 mm x width 348 mm x depth 700 mm
- 90 kg

APPROXIMATE PACKED DIMENSIONS AND WEIGHT:

- 840 x 550 x 1000 mm, 0.47 m³
- 105 kg

STANDARD SPECIMEN ACCOMMODATION VERTICAL:

250 mm (10"), Throat: 150 mm (6")