Brinell Hardness Tester
FH-9 Series

KEY FEATURES
The FH-9 is a quality Brinell and Vickers testing system in a robust, rigid frame. It integrates a precision optical system with high quality objectives and a digital display, and offers conversion to other hardness scales and online statistics, as well as an RS-232 data output.

- Load cell, closed loop system
- Test loads 62.5 kgf/612 N – 3000 kgf/29 kN (137.8 lbf – 6614 lbf)
- LCD display showing Brinell value, statistics and tester settings, or 7.5” full color touchscreen on selected models.
- Simultaneous conversion to Rockwell, Vickers, Brinell, and Leeb rebound testing
- Microscope with 20x magnification and analog scale for indentation measurement (analog models)
- CCD camera for automatic indentation measurement (on selected models)
- Standard objectives for 10x, 25x and 100x magnification with CCD camera
- Extended frame (XL) versions available with 390 mm (15.35”) workpiece height, 220 mm (8.66") throat depth

HORIZON SOFTWARE
High performance PC-based camera indent measuring system. Automatic measurement of the indent on the LCD screen. Store, file, handle images and data on the hard disk.

Increasing Levels Of Sophistication

Basic - manual operation with analog microscope and LED light.
Standard Frame - Model FH9-0
Extended Frame - Model FH9-1

Popular - manual operation with touchscreen display and CCD camera and LED light
Standard Frame - Model FH9-26
Extended Frame - Model FH9-27

Advanced - almost automatic operation with motorised turret, CCD camera and touchscreen display and control.
Extended Frame - Model FH9-20

Fig. 1. FH-9-26 With portable CCD camera

Fig. 2. FH-9-20 Automatic Measurement and 2 position turret
Technical Specifications

Brinell test range   62.5 kgf/612 N (137.8 lbf), 80kgf/784 N (176.3 lbf), 100 kgf/980.7 N (220.5 lbf), 120 kgf/1176 N (264.4 lbf), 150 kgf/1470 N (330.7 lbf), 200 kgf/1960 N (437.4 lbf), 250 kgf/2450 N (539.4 lbf), 500 kgf/4900 N (1103 lbf), 750 kgf/7350 N (1654 lbf), 1000 kgf/9800 N (2205 lbf), 1500 kgf/14700 N (3307 lbf), 2000 kgf/19600 N (4374 lbf), 3000 kgf/29000 N (6614 lbf)

Indentors (Optional)  Balls 2.5 mm – 5 mm – 10 mm (0.098425" - 0.19685" - 0.3937"

Test force selection   Electronic, closed loop, load cell, force feedback system, indication in kgf or N, Test force selectable over menu operation

Test procedure   Automatic, loading/dwell/unloading

Loading speed   Variable, depending on load application

Test force accuracy   < 0.5% full range

User display   Diameter of indent, length of diagonals, hardness value, converted value, test force, online statistics

Display resolution   0.1 HB, HV

Hardness conversion   Rockwell, Vickers, Brinell, Leeb, and Tensile 2 scales simultaneously

Standards   Conforms to EN, ISO 6507, EN ISO 6506, ASTM E-384, ASTM E-10-08, ASTM E-384

Statistics   Total tests, max, min, average, range, standard deviation, all in real time after each test

Control panel   Start test, stop test, dwell time, print, clear, menu operation for date, time, scale and load settings, language

Memory   Large memory for testing results

Data output   RS-232 Bi-Directional, USB, WLAN, LAN RJ45

Loading mechanism   Fully automatic, closed loop, force feedback, loading, dwell, unloading

Dwell time setting   Default 10 seconds, user defined 1 to 99 seconds

Eyepiece microscope   Analog or CCD camera depending on model

Vertical capacity   220 mm (8.66") standard model, 390 mm (15.35") XL model.

Horizontal capacity   220 mm/8.66", (from center-line) all models

Operating Temperature Range   10° to 35°C (50° to 95°F)

Operating Humidity Range   10% to 90% non-condensing

Weight   130 kg (286.6 lb) / 160 kg (352 lb) XL model

Power supply   100V AC to 240V AC, 50Hz/60Hz, single phase

Power consumption   390W

STDARD ACCESSORIES
   •  Analog measuring microscope with 20x (analog series)
   •  V-anvil ø80 mm (3.1496")
   •  Large flat anvil ø200 mm (7.87401")
   •  CCD camera (on selected models series) for automatic indent measurement
   •  Fuse 2A (3 pcs)
   •  RS-232, USB and /or RJ45 connections for data output
   •  Adjustable feet (4 pcs)
   •  Certificate
   •  Installation and user manual

OPTIONAL ACCESSORIES
   •  Certified ball indentors
   •  Certified hardness test blocks
   •  Motorized spindle for fully automatic testing on XL models
   •  Large testing table 350 mm x 250 mm (13.8" x 9.8")
   •  FH-20 Video measuring and database system
   •  Motorized X-Y stage
   •  Solid tester table and storage cabinet
   •  Two position turret with fully automated systems.

Fig. 3. Model FH-9 standard model dimensions, dimensions for XL models are shown in table. All measurements are in mm

Contact Your Local Representative:

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Horsham, PA USA

Redhill, Surrey UK

Noida, UP India

info@tiniusolsen.com
www.TiniusOlsen.com
www.testinghardness.com