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Brinell Hardness Tester FH-9 Series



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

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.



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

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 touch-screen 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

Technical Specifications

Brinell test range	62.5 kgf/612 N (137.8 lbf), 80kgf/784 N (176.3lbf), 100 kgf/980.7 N (220.5 lbf), 120kgf/1176 N (264.4 lbf), 125 kgf/1225 N (275.6 lbf), 187.5 kgf/1838 N (413.4 lbf), 250 kgf/2.45 kN (551.2 lbf), 500 kgf/4.9 kN (1102.3 lbf), 750 kgf/7.35 kN (1653.5 lbf), 1000 kgf/9806 N (2204.6 lbf), 1500 kgf/14.7 kN (3307 lbf), 3000 kgf/29 kN (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

STANDARD 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.

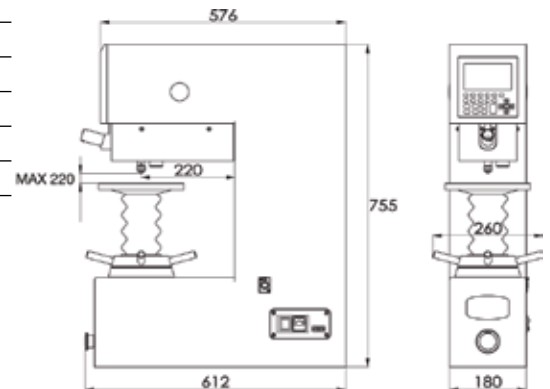


Fig. 3. Model FH-9 standard model dimensions, dimensions for XL models are shown in table. All measurements are in mm

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