

MODEL FH9 BRINELL HARDNESS TESTER



FH-9-26 With high resolution Brinell palm scanner

The FH-9 is a quality Brinell 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.

FEATURES AND BENEFITS:

- 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, and Leeb rebound testing
- Microscope with 20x magnification and analog scale for indentation measurement (analog models FH-9-0, FH-9-1 and FH-9-17)
- Standard Brinell digital scanner (CCD camera) for automatic indentation measurement (on selected models)
- Extended frame (XL) versions available with 390 mm (15.35") workpiece height, and 220 mm (8.66") throat depth
- Horizon 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.(selected models)



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 touchscreen display and integrated high resolution palm scanner 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

Tinius Olsen

The First Name In Materials Testing

FH9 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 1 mm, 2.5 mm, 5 mm, 10 mm (0.0394", 0.0984", 0.1969", 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
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
Hardness conversion	Rockwell, Vickers, Brinell, Leeb, and Tensile 2 scales simultaneously
Standards	Conforms to EN ISO 6506, ASTM E-10
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

Model Detail

FH009-0000	30 – 3000kgf, with external analog microscope
FH009-0001	30 – 3000kgf, Large frame with external microscope
FH009-0017	30 – 3000kgf, Large frame with external analog microscope and motorized Z axis!
FH009-0026	62.5 - 3000kgf with Brinell digital scanner and touchscreen display
FH009-0027	62.5 – 3000kgf, Large frame with Brinell digital scanner and touchscreen display.
FH009-0028	62.5 - 3000kgf, Large frame with Brinell digital scanner, touchscreen display, and motorized Z axis
FH009-0020	30 – 3000kgf, Large frame auto Brinell with motorized Z axis.

Standard Features For All Models

- Analog measuring microscope with 20x (analog series)
- V-anvil ø80 mm (3.1496")
- Large flat anvil ø200 mm (7.87401")
- Brinell Digital palm Scanner (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
- Two position turret with fully automated systems.(FH-9-20 only)

Optional Features For All Models

- Certified ball indentors
- Certified hardness test blocks
- Motorized spindle on XL models
- Large testing table 350 mm x 250 mm (13.8" x 9.8")
- Motorized X-Y stage
- Solid tester table and storage cabinet

Indent Measurement Specifications

Analog Microscope	Model FH-9-21	Objective - 20X	Horizontal - 8mm
Analog Microscope	Model FH-9-22	Objective- 40X	Horizontal - 5mm
Analog Microscope	Model FH-9-23	Objective - 60X	Horizontal - 2.5 mm
Standard 5 MP Brinell Scanner	Field of View - 1.5 to 6mm	On screen magnification - 10X	Measurement Resolution - 158 pixels/mm
Optional 5MP Brinell Scanner - FH-9-30	Field of View - 0.5 to 1.6 mm	On-screen magnification - 40X	Measurement Resolution - 1066 pixels/mm