

MODEL FH-9

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 RS232 data output.

Features and benefits

- Load cell, closed loop system.
- Test loads 30kgf/294N to 3000kgf/29kN (66-6614lbf).
- Full-color industrial touchscreen 7.5" on the FH9-26 and 15" on the FH9-20
- Simultaneous conversion to Rockwell, Vickers, and Leeb rebound testing.
- Brinell digital scanner (CCD camera) for automatic indentation measurement (FH9-26).
- FH-9-20 equipped with an extended frame (XL) with 390mm (15.35in) workpiece height and 220mm (8.66in) throat depth.
- Horizon high performance PC-based camera indent measuring system. Automatic measurement of the indent on the industrial touch screen. Archive, file, handle images and data on the tester or your network.

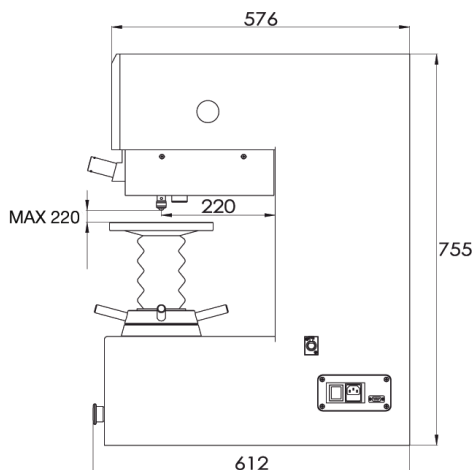
INCREASING LEVELS OF SOPHISTICATION

Popular

- Manual operation
- Touchscreen display
- Integrated high resolution palm scanner
- LED light
- Standard frame – FH9-26

Advanced

- Almost automatic operation with motorised turret
- CCD camera
- Touchscreen display and control
- Extended frame – FH9-20



FH-9-20 automatic measurement and two-position turret

MODEL DETAILS

- **FH009-0026** 62.5-3000kgf With Brinell digital scanner and touchscreen display
- **FH009-0020** 30-3000kgf Large frame auto Brinell with motorized Z axis

Specifications

HB



FH-9 SPECIFICATIONS

Brinell test range	30kgf/294N (66lbf), 62.5kgf/612N (137.8lbf), 80kgf/784N (176.3lbf), 100kgf/980.7N (220.5lbf), 120kgf/1176N (264.4lbf), 125kgf/1225N (275.6lbf), 187.5kgf/1838N (413.4lbf), 250kgf/2.45kN (551.2lbf), 500kgf/4.9kN (1102.3lbf), 750kgf/7.35kN (1653.5lbf), 1000kgf/9806N (2204.6lbf), 1500kgf/14.7kN (3307lbf), 3000kgf/29kN (6614lbf)
Indenters (optional)	Balls 1mm, 2.5mm, 5mm, 10mm (0.0394in, 0.0984in, 0.1969in, 0.3937in)
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, maximum, minimum, 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	RS232 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 1-99 seconds
Eyepiece microscope	Analog or CCD camera, depending on model
Vertical capacity	220mm (8.66in) standard model, 390mm (15.35in) XL model
Horizontal capacity	220mm/8.66in (from center-line) all models
Operating temperature range	10-35°C (50-95°F)
Operating humidity range	10-90% non-condensing
Weight	130kg (286.6lb)/160kg (352lb) XL model
Power supply	100V AC to 240V AC, 50Hz/60Hz, single phase
Power consumption	390W

INDENT MEASUREMENT SPECIFICATIONS

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	Field of View – 0.5 to 1.6mm	On-screen magnification – 40x	Measurement Resolution – 1066 pixels/mm

STANDARD FEATURES

- Fuse 2A (3 pcs)
- RS232, 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)

STAGE/ANVIL

		9-26	9-20
FH-050-0266	60mm Flat Anvil	yes	yes
FH-050-0117	Testing table flat 80mm (all models)	yes	yes
FH-050-0041	Pedestal spot anvil 5mm	yes	yes
FH-050-0037	10mm Spot anvil	yes	yes
FH-050-0126	Spot anvil 10mm	yes	yes
FH-050-0040	V-anvil Ø40mm for 6-60mm	yes	yes
FH-050-0326	V-anvil Ø63mm 10-100mm	yes	yes
FH-050-0025	V-anvil Ø80mm for 3.3-20mm	yes	yes
FH-050-0026	V-anvil Ø80mm for 15-80mm	yes	yes
FH-050-0027	V-anvil Ø80mm for 23-40mm	yes	yes
FH-050-0324	Cylindrical V anvil 6-80mm	yes	yes
FH-050-0325	Cylindrical V anvil 50-200mm	yes	yes
FH-050-0029	Test Table 100x100mm, V-Grove 20mm wide, 10mm deep	yes	yes
FH-050-0028	Flat test table Ø 200mm screwfix	yes	yes
FH-050-0031	Testing table flat 235 MM, Screwfix	yes	yes
FH-050-0079	Large flat surface testing table 350x250mm, thickness 30mm with 2 T-slots, for large components **	yes	yes
FH-050-0030	Large flat surface testing table 450x350mm, thickness 35mm with 2 T-slots, for large components **	yes	yes
FH-050-0024	Large flat surface testing table 600x300mm, thickness 25mm, with 2 T-slots, for large light components **	yes	yes
**	requires FH-050-0196 mounting hardware	yes	yes
FH-050-0196	Mounting hardware fit T slot table	yes	yes

VICE

		9-26	9-20
FH-050-0329	Spring loaded clamping system	yes	

SCANNERS

		9-26	9-20
FH-009-0031	Brinell digital scanner I; Indent size 1.5-6mm	STD	
FH-009-0030	Brinell digital scanner II; Indent size 0.5-1.66mm	yes	

INDENTERS

		9-26	9-20
FH-200-0015	Brinell indenter 1.0mm, Carbide ball; ISO 17025 Accredited		yes
FH-200-0017	Brinell indenter 2.5mm, Carbide ball; ISO 17025 Accredited	yes	yes
FH-200-0019	Brinell indenter 5mm, Carbide ball; ISO 17025 Accredited	yes	yes
FH-200-0020	Brinell indenter 10mm, Carbide ball; ISO 17025 Accredited	yes	yes
FH-200-0024	Brinell spare tungsten carbide ball 1mm. ISO 17025 Accredited		yes
FH-200-0025	Brinell spare tungsten carbide ball 2.5mm. ISO 17025 Accredited	yes	yes
FH-200-0026	Brinell spare tungsten carbide ball 5mm. ISO 17025 Accredited	yes	yes
FH-200-0027	Brinell spare tungsten carbide ball 10mm. ISO 17025 Accredited	yes	yes

CONNECTIVITY

		9-26	9-20
FH-500-0011	FH-Series Connection w/ External Horizon (add. requirements per FH-model)	yes	yes

CABINET/TABLE

		9-26	9-20
FH-095-1008	Cabinet/table for bench machines 710 x 750 x 800 mm. (Grey/Black top)	yes	yes
FH-009-1009	Cabinet/table for bench machines 1500 x 750 x 800 mm. (Grey/Black top)	yes	yes