



The first name in materials testing

FH 9-32

Brinell Hardness Testing Machine



The model FH 9-32 series, fully automatic, Brinell Hardness testing machines is a new generation that uses a unique, load cell based, closed loop system and integrates a precision optical system with high quality objectives and a digital display.

Model FH 9-32

The model FH 9-32 is a fully automatic Brinell testing system in a robust, rigid frame. It is equipped with a 6 position motorized turret, with 3 indenter positions, a laser positioning system and 2 objectives with ring lights and offers conversion to other Hardness scales and online statistics, as well as USB, LAN, W-LAN, RS232 data output. The system controls are managed via a simple-to-use 15" full color industrial touch screen, which will also display results and statistics.

Features and benefits

- Load cell, closed loop, force control
- Load range 31.25-3000kgf (306N-29kN)
- Meets or exceeds ISO, ASTM and JIS standards
- 15" full-color industrial touch screen
- CCD camera
- Simultaneous conversion to Rockwell, Vickers and Leeb rebound testing
- 6 position motorized turret; 3 indenters, 2 Brinell objectives with ring lights and 1 laser positioning system
- 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



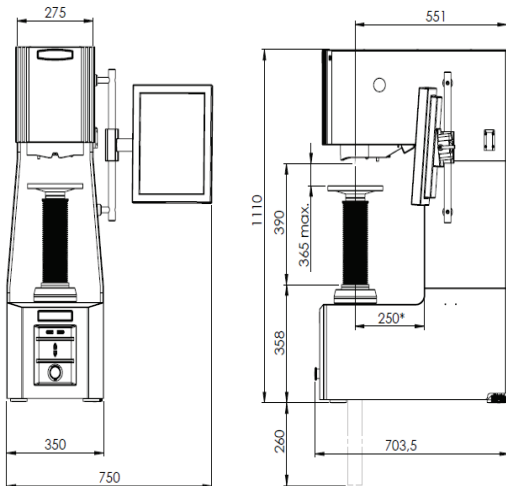
MODEL DETAILS

FH-009-0032 31.25-3000kgf Brinell

STANDARD ACCESSORIES

- RS232, USB, and/or RJ45 connections for data output
- Four adjustable feet
- Power cable
- Certificate of calibration
- Installation and user manual
- Keyboard & Mouse

Specifications



FH 9-32 Specifications

Item #	FH-009-0032
Hardness scales	Brinell
Load application	Load cell, force feedback, closed loop system
Load range	31.25-3000kgf
Optical system	CCD camera
Indenters (optional)	2.5, 5, 10mm
Brinell test range	31.25, 62.5, 100, 125, 187.5, 250, 500, 750, 1000, 1500, 3000kgf
Test cycles	Automatic, loading/dwell/unloading
Standards	complies to or exceeds ISO, ASTM, JIS (Nadcap)
Test for accuracy	<0.5% full range
Display resolution	0.1HB
Hardness conversion	Rockwell, Vickers, Brinell, Leeb and Tensile 2 scales simultaneously

...specifications continued

FH 9-32 Specifications	
Statistics	Total test, max, min, average, range, standard deviation, all in real time after each test
Memory	Large memory for testing results
Connectivity	USB, RJ45 ethernet, LAN, W-LAN, RS232
Dwell time setting	Default 10 seconds, user defined
Workpiece accommodation	Vertical capacity 365mm Horizontal capacity 230mm (from indenter center-line)
Machine dimensions	180 x 612 x 755mm (WxDxH)
Weight	130kg (287lb)
Operating temperature range	10-35°C (50-95°F) non-condensing
Power consumption	390W
Power supply	100-240V AC, 50Hz/60Hz, single phase
Humidity	10-90%, non-condensing
*Calibration of scales is required prior to use. Please specify desired scales at the time of ordering	

OPTIONAL ACCESSORIES

Factory options	
FH-053-0009	Industrial dust protection
Software modules	
FH-500-0014	Pattern testing software module
FH-500-0024	Drawing and measuring (distance & angles) application
FH-500-0025	Automatic edge detection
FH-500-0030	Q-DAS certified connectivity protocol
FH-500-0031	Artificial intelligence deep learning Brinell module
Stage/Acc	
FH-049-0017	Motorized 410x280mm XY stage max 4000kg displacement 200x150mm
FH-049-0018	Motorized 510x280mm XY stage max 4000kg displacement 300x150mm
FH-049-0019	Motorized 630x238mm XY stage max 4000kg displacement 400x150mm
FH-050-0079	Large flat surface testing table 350x250mm, with 2 T-Slots
FH-050-0030	450x350mm flat test table w/ 2 T-Slots for large components
FH-050-0224	Flat test table Ø 650x300x25mm max cap 250kgf
Items required for fitment of anvil or XY stage	
FH-050-0322	Mounting plate for motorized XY stage
FH-050-0114	Cable set for connecting CNC stage to embedded driver
FH-050-0196	Locking ring
Anvil/Acc	
FH-050-0266	60mm flat anvil
FH-050-0117	Testing table, flat 80mm
FH-050-0041	Pedestal spot anvil 5mm
FH-050-0037	10mm spot anvil
FH-050-0353	V block with bracket 40x40x50mm (LxBxH)
FH-050-0354	Steel, cross type, (X) V-block 60x120x100mm 8-90mm pair

OPTIONAL ACCESSORIES

FH-050-0044	Irregular part table support ø150mm
FH-050-0040	V-Anvil ø40mm for 6-60mm
FH-050-0326	V-Anvil ø63mm for 10-100mm
FH-050-0025	80mm V-Anvil for 3.3-20mm
FH-050-0026	80mm V-Anvil for 12-80mm
FH-050-0027	80mm V-Anvil for 20-140mm
FH-050-0324	Cylindrical V-Anvil 6-80mm
FH-050-0325	Cylindrical V-Anvil 50-200mm
FH-050-0029	Test table 100x100mm, V-Grove 20mm wide, 10mm deep
FH-006-1008	Small V-Anvil 3-20mm requires base plate (requires manual/automated XY stage)
FH-006-1009	Large V-Anvil 20-75mm requires base plate (requires manual/automated XY stage)
FH-050-0028	Flat test table Ø200mm screwfix
FH-050-0031	Testing table flat 235mm, screwfix

Connectivity

FH-500-0011	FH-series connection w/ external Horizon (add. requirements per FH-model)
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Cabinet/Table

FH-095-1006	Cabinet/table for bench machines 710x750x700mm (grey/black top)
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Cover

FH-052-0008	Tester cover 60x70x100cm
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Fixtures/Vice

FH-050-0340	Polished precision vice with lock, opening width 25mm, opens 20mm
FH-050-0341	Polished precision vice with lock, opening width 36mm, opens 42mm
FH-050-0342	Polished precision vice with lock, opening width 48mm, opens 75mm
FH-050-0343	Polished precision vice with lock, opening width 75mm, opens 100mm

Indenters

FH-200-1020	Brinell Indenter 2.5mm. Incl: 1 carbide ball. ISO 6506/2 & ASTM-E10 A3 (17mm)
FH-200-1021	Brinell Indenter 5mm. Incl: 1 carbide ball ISO 6506/2 & ASTM-E10 A3 (17mm)
FH-200-1022	Brinell Indenter 10mm. Incl: 1 carbide ball ISO 6506/2 & ASTM-E10 A3 (17mm)
FH-200-1028	2.5mm carbide ball Spare acc. to ISO 6506/2 & ASTM-E10 A3
FH-200-1029	5.0mm carbide ball Spare acc. to ISO 6506/2 & ASTM-E10 A3
FH-200-1030	10.0mm carbide ball Spare acc. to ISO 6506/2 & ASTM-E10 A3

Calibration options

FH-051-0000	Direct calibration; ISO 17025-A2LA compliant/per scale (factory)
FH-051-0002	Additional scales calibration
FH-051-0006	BRINELL direct and indirect verification/calibration & certification in compliance with ISO & ASTM, NADCAP. Includes direct force and indirect verification report (block readings), GR & R report

Tinius Olsen



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