



The first name in materials testing

FH 12-38

Rockwell, Superficial Rockwell, Brinell Hardness Testing Machine



The model FH 12-38 is a load cell, closed loop, force feedback, test force application system with Rockwell, Superficial Rockwell & Brinell scales as part of Hardness testing capabilities.



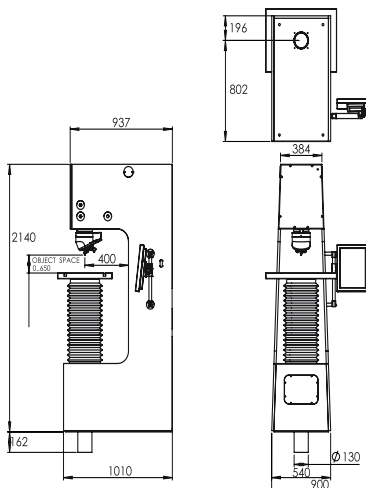
Model FH 12-38

The model FH 12-38 is a rigid, rock solid C-frame with supreme rigidity. The closed loop system based on a load cell and Rockwell, superficial Rockwell, Brinell, Ball indentation, HVT and HBT scales are part of testing capabilities.

The test force ranges from 3kgf to 150kgf and test cycles can be automatic or manual. With motorized Z axis and descending test head capable of workpiece detection, it is one of the most loaded technological Hardness tester. 15" industrial touch screen and PC based Horizon software added advantage for this equipment.

Features and benefits

- Load cell, closed loop, force feedback system
- Load range 3-150kgf (29.4-1471 N)
- Meets or exceeds ISO, ASTM and JIS standards
- Motorized Z axis (standard)
- Descending test head with automatic workpiece detection
- PC based Horizon hardness testing firmware and database file system, standard
- Large, adjustable 15" industrial touch screen
- Brinell option: optical - high resolution palm scanner with on screen auto read and fine tune adjustments of indentation
- Testing procedure and results storage on internal hard drive
- LAN, WLAN, USB-2, RS232, printer and DVI connectivity, standard
- On board built-in driver for (optional) motorized XY stage, standard
- Free definable test patterns case depth, traverse, free style, etc, optional
- Raise and lower up to 800kg specimen (standard)



MODEL DETAILS

FH-012-0038 3-150kgf Rockwell, Superficial Rockwell, Brinell(optional)

STANDARD ACCESSORIES

- T-slot testing table 650x500mm
- Single indenter position
- SMP palm scanner (Brinell)
- Built-in 3 axis support driver
- Power cable
- Four adjustable feet
- Certificate
- Installation and user manual
- Keyboard & Mouse

Specifications

FH 12-38 specifications

Item #	FH-012-0038
Hardness scales	Rockwell, Superficial Rockwell and Brinell, HVT, HBT
Load application	Load cell, force feedback, closed loop system
Load range	3kgf-150kgf
Rockwell test scales available	A, B, C, D, E, F, G, H, K, L, M, P, R, S, V
Superficial Rockwell scales available	15N, 30N, 45N, 15T, 30T, 45T, 15W, 30W, 45W, 15X, 30X, 45X, 15Y, 30Y, 45Y
Brinell test scales (optional)	HBW1/1, 1/2.5, 1/5, 1/10, 1/30 HBW2.5/6.25, 2.5/15.625, 2.5/31.25, 2.5/62.5 HBW5/25, 5/62.5, 5/125 HBW10/100, 10/125
HVD (HVT)	HV5, 10, 20, 30, 50, 100, 120
HBD (HBT)	HBT1/5, 1/10, 1/30kgf HBT2.5/6.25, 2.5/15.625, 2.5/31.25, 2.5/62.5kgf HBT5/25, 5/31.25, 5/62.5, 5/125kgf HBT10/100, 10/125kgf



...specifications continued

Display	15" full color industrial touchscreen, testing results, statistics
Optical system	High definition 5MP palm scanner system (Brinell)
Display resolution	0.01HR, 1HBW
Standards	Meets or exceeds ISO, ASTM, JIS standards
Test cycles	Motorized, automatic, pre-load, load, dwell, unload process
Indenters (optional)	Rockwell diamond cone: 120° Rockwell balls: 1/16in, 1/8in, 1/4in, 1/2in Brinell balls: 1mm, 2.5mm, 5mm, 10mm
Dwell time (user defined)	Pre-load 1-250 seconds, Main load 1-250 seconds, Recovery 1-250 seconds
Connectivity	LAN, W-LAN, USB-3, Bluetooth (optional)
Workpiece accommodation	Vertical capacity 650mm Horizontal capacity 400mm (from indenter center-line)
Machine dimensions	900 x 1010 x 2140 mm (WxDxH)
Weight	1100kg (2425lb)
Test force tolerance	<0.5%
Operating temperature range	5-40°C (41-104°F) non-condensing
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-053-0002	Brinell opt: inc: scanner, 5/10mm Brinell scales Ø1.6-6mm
FH-053-0003	Brinell opt: inc: scanner, 1/2.5mm Brinell scales Ø0.5-1.5mm
Software modules	
FH-500-0014	Pattern testing software module
Connectivity	
FH-500-0011	FH-series connection w/ external Horizon
FH-500-0031	Artificial intelligence deep learning brinell module
Motorized stage	
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-050-0112	Fixture for Jominy testing. 1 quench end test sample with quick release. req: mot stage and FH-500-0014
FH-050-0113	Fixture for Jominy testing. 3 quench end test sample with quick release. req: mot stage and FH-500-0014
FH-050-0334	Stage mounting flange
FH-050-0322	Mounting plate for flange
FH-050-0027	Cable for motorized stage
Stage/Anvil	
FH-050-0266	60mm flat anvil
FH-050-0117	Testing table flat 80mm
FH-050-0041	Pedestal spot anvil 5mm
FH-050-0126	10mm spot anvil

FH-050-0123	V-Anvil Ø120mm for 15-100mm
FH-050-0124	V-Anvil Ø120mm for 3.3-20mm
FH-050-0125	V-Anvil Ø120mm for 30-200mm
FH-050-0238	50mm extension clamp
FH-050-0239	100mm extension clamp

Cover

FH-053-0009	Industrial dust protection
FH-052-0011	Tester cover 80x115x210cm

Indenters

FH-200-1014	Rockwell C Diamond Indenter acc. to ISO 6508/2 & ASTM-E18 A3 (17mm)
FH-200-1015	Rockwell Indenter 1/16". Incl: 1 carbide ball ISO 6508/2 & ASTM-E18 A3 (17mm)
FH-200-1016	Rockwell Indenter 1/8". Incl: 1 carbide ball ISO 6508/2 & ASTM-E18 A3 (17mm)
FH-200-1017	Rockwell Indenter 1/4". Incl: 1 carbide ball ASTM-E18 A3 (17mm)
FH-200-1018	Rockwell Indenter 1/2". Incl: 1 carbide ball ASTM-E18 A3 (17mm)
FH-200-1019	Brinell Indenter 1mm. Incl: 1 carbide ball ISO 6506/2 & ASTM-E10 A3 (17mm)
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-200-1023	1/16" carbide ball acc. to ISO 6508/2 & ASTM-E18 A3
FH-200-1024	1/8" carbide ball acc. to ISO 6508/2 & ASTM-E18 A3
FH-200-1025	1/4" carbide ball acc. to ISO 6508/2 & ASTM-E18 A3
FH-200-1026	1/2" carbide ball acc. to ISO 6508/2 & ASTM-E18 A3
FH-200-1027	1.0mm carbide ball Spare acc. to ISO 6506/2 & ASTM-E10 A3
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
FH-051-0008	Rockwell 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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