

# MODEL FH1 ROCKWELL AND UNIVERSAL HARDNESS TESTING MACHINE



## KEY FEATURES

- Load cell, force feedback, closed loop system
- Unparalleled rigidity
- Unmatched gauge repeatability and reproducibility
- Load range 1 kgf up to 250 kgf (2.2 lbf up to 551 lbf)
- Complies with all applicable EN/ISO, ASTM, and JIS standards
- Shape correction settings for curved surfaces
- Optical depth measuring system (Rockwell, HBT, HVT, ball indentation for plastic ISO 2039/1)
- 6.5 in industrial full colour touchscreen display; user-friendly interface, easy to operate
- Go / No Go function with visual and acoustic warning
- Large memory for measurements with statistic results
- Easy calibration function
- Testing program storage
- Standard nose cone clamping attachment
- 9 pin serial and USB-2 outputs
- External Brinell palm scanner with LED backlight (FH-1-5 model)
- Large work piece accommodation
- Motorized spindle (optional)

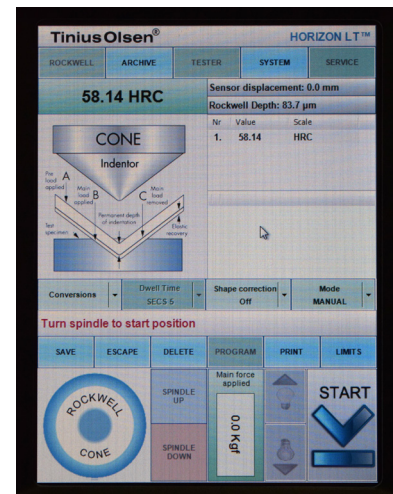


Fig. 1. Model FH-1-4 Rockwell/Superficial Rockwell hardness tester.

# SPECIFICATIONS



Load application	Load cell, force feedback, closed loop system
Hardness scales FH-1-4	Rockwell / Superficial Rockwell, HVT, HBT, ball indentation for plastic ISO 2039/1
Hardness scales FH-1-5	Rockwell / Superficial Rockwell, Brinell, HVT, HBT, ball indentation for plastic ISO 2039/1
Load range FH-1-4	1 kgf to 250 kgf (2.2 lbf to 551 lbf)
Load range FH-1-5	1 kgf to 250 kgf (2.2 lbf to 551 lbf)
Test loads	1, 2, 2.5, 3, 5, 10, 15, 15.625, 20, 30, 31.25, 45, 50, 60, 62.5, 100, 125, 150, 187.5, 250 kgf (2.2, 4.4, 5.5, 5.51, 6.6, 11, 22, 33, 34, 44, 66, 69, 79, 110, 132, 138, 220, 276, 331, 413, 551 lbf) depending on model
Brinell test range	HB1/2.5, 5, 10, 31.25 kgf (5.5, 11, 22, 69 lbf) HB2.5/6.25, 15.625, 31.25, 62.5, 187.5 kgf (14, 34, 69, 138, 413 lbf) HB5/25, 62.5, 125 kgf (55, 138, 276 lbf) HB10/100 kgf (220 lbf) HBT2.5/62.5, 187.5 kgf (138, 413 lbf)
Rockwell scales	A, B, C, D, E, F, G, H, K, L, M, P, R, S, V
Rockwell superficial scales	15N, 30N, 45N, 15T, 30T, 45T, 15W, 30W, 45W, 15X, 30X, 45X, 15Y, 30Y, 45Y
Plastic ball indentation	Meets or exceeds the requirements of ISO 2039/1
Scale resolution (depth)	0.1 micron
Display	6.5" full color industrial touch screen, testing results, statistics, can also be operated by mouse and keyboard
Standards	Complies with, or exceeds, EN/ISO, ASTM, and JIS standards
Test cycles	Fully automatic, Load, Dwell, Unload
Dwell time	1- 99 seconds
Data output	USB-2 (RS-232), RJ45 ethernet
Specimen accommodation	Height 300 mm (11.81"); Throat 200 mm (7.87")
Operating Temperature Range	10° to 35°C (50° to 95°F)
Operating Humidity Range	10% to 90% non-condensing
Weight	96 kg (211 lbs)
Power	100V to 240V AC, 50/60 Hz, single phase

## STANDARD ACCESSORIES

- Brinell palm scanner with LED backlight for dark field illumination (FH-1-5)
- Flat anvil, hardened,  $\varnothing 60$  mm (2.36")
- V-anvil hardened  $\varnothing 80$  mm (3.6")
- Fuse 3A slow (2 pcs)
- Power cable
- Certificate
- Installation and user manual

## OPTIONAL ACCESSORIES

- Certified hardness test blocks
- Certified indentors.
- Long indentors
- Goose neck indentor holder (350x250)
- Large testing table with T-slot
- Custom testing tables
- Precision vices, V-blocks, and special clamps
- Testing table, hardened,  $\varnothing 180$  mm (7.09")
- Manual X-Y stage 100mmx60mm; micrometer travel 25mmx25mm
- Motorized spindle option



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