KEY FEATURES
- For low and high force ranging from HV0.02 to HV50
- Closed loop, load cell, force feedback technology for a reliable, fast measurement procedure
- Fully automatic 4-position turret can be customized by using different indentors, objectives, stages, or systems
- Automated measuring systems (Horizon)
- Meets all applicable EN, ISO, and ASTM standards
- Nearly unlimited selection of test loads and test rates for nearly any test condition
- Field upgradeable later at any time
- Vickers, Knoop, or Brinell indentors or 2 of these simultaneously
- Electronic digital microscope with precision encoder providing 15x magnification
Technical Specifications

Test force selection  Test force selectable over menu operation
Test procedure  Automatic, loading/dwell/unloading
Hardness Scales  Micro Vickers, macro Vickers, Knoop, Brinell
Hardness value  5 digits
Loading speed  Variable, depending on selected force
Turret  4 positions over 360°, fully automatic, memorized start position, option for 2 indentors and 2 objectives or 1 indentor and 3 objectives
Test force accuracy  <1% for test force from 100 g to 30 kg (.22 to 66.13 lbs), < 1.5% for test force below 100 g (.22 lbs)
User display  Length of diagonals, hardness value, converted value, test force, online statistics
Display resolution  0.1 HV, HK and HB
Hardness conversion  Rockwell, Rockwell Superficial, Brinell, Leeb, and Tensile
Standardization  EN, ISO 6507, EN ISO 6506, EN ISO 4545, ASTM E-384, ASTM E-10-08, ASTM E-384
Statistics  Total test, max, min, average, range, standard deviation, all in real time after each test
Control panel  Start test, stop test, light intensity, dwell time, print, clear, menu operation for date, time, scale and load settings, language
Memory  Memory for batch testing results (20 test results)
Data output  RS-232 Bi-Directional
Loading mechanism  Fully automatic, closed loop, force feedback, loading, dwell, unloading
Dwell time setting  Default 10 seconds, user defined 1 to 60 sec. (1 second increments)
Printer  Built-in, silent high speed thermal printer
Electronic microscope  Bright Dual line filar eyepiece with 15x magnification, 0.01 μm reading
Light source  Halogen 12V, 30 watt, green filter, dimmable
Optical path  2 way, eyepiece / video/ccd/cmos camera
Vertical capacity  165 mm/6.49" (maximum specimen height)
Horizontal capacity  135 mm/5.31" (from center-line)
Stage dimensions  100 mm x 100 mm (3.93” x 3.93”), travel 20 mm x 20 mm (.78” x .78”), reading 0.01 mm (.00039”)
Operating temperature  10° to 35°C (50° to 95°F) - (+/-20° for force 25 g and 50 g/.055 lbs and .11 lbs)
Humidity  10% to 90% non condensing
Weight  51 kg (112 lb)
Power requirements  100 VAC to 240 VAC, 50/60Hz, single phase
Power consumption  390W

STANDARD ACCESSORIES
- Manual X-Y stage
- Flat anvil 60mm
- Objectives 5x, 10x, 20x or 10x, 20x, 40x
- Electronic digital eyepiece 15x
- Set of workpiece fixtures, vice, chuck, clamp
- Built-in thermal printer
- RS-232 data output
- 4 adjustable feet
- Spare halogen lamp
- Fuse
- Installation & user manual
- Certificate

OPTIONAL ACCESSORIES
- Objectives 5x, 40x, 60x
- Horizon Video measuring and filing systems
- Motorized X-Y stage (small or large)
- Motorized X-Y-Z stage (auto focus)
- Certified indentors and hardness test blocks
- Solid tester table & storage cabinet

Fig. 6. FH-5
All measurements are in mm

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