

# Hardness Testing Machines

Start quality control from the material — Mitutoyo's hardness testing machines can handle it

## HR-600 SERIES 810 — Rockwell Hardness Testing Machines

**MeasurLink<sup>®</sup> ENABLED**  
Data Management Software by Mitutoyo

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Products equipped with the measurement data output function can be connected to the measurement data network system MeasurLink (refer to page A-5 for details).



An inspection certificate is supplied as standard. Refer to page U-11 for details.

- A workpiece that cannot be placed on a tester due to its large size can be placed on the table of this product and tested as is. (Maximum loading mass 100 kg)
- The motorized stage makes automatic multi-point testing at multiple places and of multiple workpieces possible.
- Plastic hardness testing is also available in addition to Rockwell/Brinell tests on metal. Brinell and Vickers indentation hardness tests which do not require vision measurement can also be performed.
- The **HR-610A / 620A** main unit is operable with the touch panel display and the **HR-620B** is operable with the touch panel display and **AVPAK** software.
- Automatic testing with movement in the X-, Y- and Z-axis directions for a workpiece having uneven surfaces or steps becomes possible by adding an X-axis stage and **AVPAK** software to **HR-620B**. Also, using **FORMEio** software makes possible easy communication with PLCs for automation purposes, such as control of handling devices and work cells.



**810-510-11  
HR-610A**  
(Motorized X-axis table is available)



**810-525-11  
HR-620B**  
(Equipped with motorized Y-axis table. Motorized X-axis table is also available.)



Refer to the **HR-600 Series Brochure (E17011)** for more details.

## SPECIFICATIONS

Order No.	810-510-11	810-510-13	810-511-11	810-511-13	810-512-11	810-512-13	810-520-11	810-520-13	810-521-11	810-521-13	810-522-11	810-522-13	810-525-11	810-526-11	810-527-11		
Model	HR-610A						HR-620A						HR-620B				
Unit (display unit)	metric	inch/mm	metric	inch/mm	metric	inch/mm	metric	inch/mm	metric	inch/mm	metric	inch/mm	—	—	—		
Indenter type*1	Diamond 1/16" Steel ball		Diamond 1/16" Tungsten carbide ball		—		Diamond 1/16" Steel ball		Diamond 1/16" Tungsten carbide ball		—		Diamond 1/16" Steel ball		Diamond 1/16" Tungsten carbide ball		
Hardness testing methods	Rockwell		JIS B 7726, ISO 6508-2, ASTM E18*2						—						—		
	Brinell*3		JIS B 7724, ISO 6506-2, ASTM E10						—						—		
	Plastic		ISO 2039-1						—						—		
	Indentation Brinell hardness		JIS K 7202-2, ISO 2039-2, ASTM D785						—						—		
Indentation Vickers hardness		VDI/VDE 2616						—						—			
Initial test force N (kgf)	Rockwell		29.42 (3) 98.07 (10)						—						—		
	Plastic		9.807 (1)						—						—		
	Indentation Brinell hardness		98.07 (10)						—						—		
	Indentation Vickers hardness		98.07 (10) 490.3 (50)						—						—		
Test force N (kgf)	Rockwell		147.1 (15) 294.2 (30) 441.3 (45) 588.4 (60) 980.7 (100) 1471 (150)						—						—		
	Brinell		49.03 (5) to 1839 (187.5)						9.807 (1) to 2452 (250)						—		
	Plastic		49.03 (5) 132.4 (13.5) 358.0 (36.5) 962.1 (98.1)						—						—		
	Indentation Brinell hardness		588.4 (60) 980.7 (100) 1471 (150)						—						—		
Indentation Vickers hardness		612.9 (62.5) 1839 (187.5) 2452 (250)						—						—			
Power supply	AC 100 to 200 V 50/60 Hz						—						—				
Mass	176 kg						181 kg						205 kg				

\*1 Supplied as standard.

\*2 Please contact us for information on ASTM standards.

\*3 For Brinell hardness testing, an indenter (optional) and a measurement microscope are required.

Note: Plastic testing may not be enabled depending on the material. For Brinell hardness, indentation Brinell hardness, and plastic hardness testing, other special accessories are required.

CAUTION: The **AVPAK-20** software package is not for use within, or export to, the United States of America  
The **AVPAK-10** software package is for the United States of America