

# Hardness Testing Machines



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

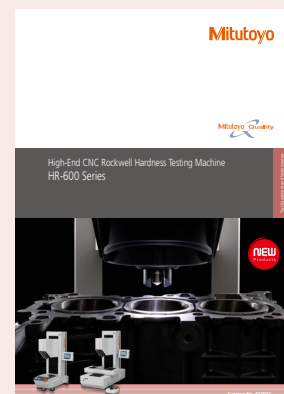
- A workpiece that cannot be placed on a tester due to its large size can be placed on the stage of this product and tested as is. (Maximum loading mass 100 kg)
- The motorized stage makes automatic multi-point testing at multiple places and of multiple workpieces possible.
- Plastic hardness testing 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** is operable with a touch panel display (some functions are operable with **AVPAK** software) and the **HR-620B** is operable with a touch panel display and **AVPAK** software.
- Automatic testing by moving in the X-, Y- and Z-axis directions for workpieces with uneven surfaces or steps is made possible by adding X-axis stage and **AVPAK** software to **HR-620B**, which is equipped with a motorized Y-axis stage as standard. Also, using **FORMEio** software makes possible easy communication with PLCs for automation purposes, such as control of handling devices and work cells.



**HR-610A**  
(Motorized X-axis stage is available)



**HR-620B**  
(With a motorized Y-axis stage as standard and an optional motorized X-axis stage)



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

## SPECIFICATIONS

Model	HR-610A		HR-620A		HR-620B
Display unit	metric	inch/mm	metric	inch/mm	—
Test methods/ Standard No.	Rockwell	JIS B7726:2017, ISO 6508-2:2015, ASTM E18-20			
	Brinell	JIS B7724:2017, ISO 6506-2:2017, ASTM E10-18			
	Plastic			ISO 2039-1:2001	
	Indentation Brinell hardness			JIS K 7202-2:2001, ISO 2039-2:1987, ASTM D785-08 [A&B]	
Indentation Vickers hardness			VDI/VDE 2616		
Initial test force N (kgf)	Rockwell	29.42 (3) 98.07 (10)		9.807 (1)	
	Plastic			98.07 (10)	
	Indentation Brinell hardness	98.07 (10) 490.3 (50)			
	Indentation Vickers hardness			9.807 (1)	
Test force N (kgf)	Rockwell	147.1 (15) 294.2 (30) 441.3 (45) 588.4 (60) 980.7 (100) 1471 (150)		9.807 (1) to 2452 (250)	
	Brinell	49.03 (5) to 1839 (187.5)		49.03 (5) 132.4 (13.5) 358.0 (36.5) 962.1 (98.1)	
	Plastic			588.4 (60) 980.7 (100) 1471 (150)	
	Indentation Brinell hardness	612.9 (62.5) 1839 (187.5)		612.9 (62.5) 1839 (187.5) 2452 (250)	
	Indentation Vickers hardness			294.2 (30) 490.4 (50)	
Power supply			AC100 to 200 V 50/60 Hz		
Mass	176 kg		181 kg		205 kg

Note 1: Plastic tests may not be supported depending on the plastic material.

Note 2: For Brinell hardness testing, an indenter (optional) and a measurement microscope are required. A measurement microscope should be prepared by customer.

Note 3: No indenter and hardness standard block is supplied with the unit. These items (conform to the applicable standard) must be purchased separately.

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