

RASN-TSFA-MH



Over **60** years of
consistent excellence



Moving Head Rockwell Hardness Testing Machine



Direct Digital Reading



Motorized & load cell based loading & unloading



High accuracy & repeatability
of measurement at all loads.





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Moving Head Rockwell Hardness Tester Model : RASN-TSFA-MH

The FIE make Fully Automatic Digital Rockwell Hardness Tester Model: RASN-TSFA-MH is a load cell based closed loop system assures absolute accuracy at all test conditions and moving head mechanism is driven by a high precision Ball Screw eliminating all possible indenter errors.

A wide and stable work holder plate bearing test pieces masses 1000kg, eliminate the anvil instability problems, maintenance & adjustment.

The work table accommodate large or very irregular test pieces which cannot be easily received by the regular bench hardness tester.

The electronics of this machine equipped with an Industrial "fan-less" heavy duty HMI system and handles any challenging requirement including the control of a 3 axis position system if required, easily connect via USB, LAN, WLAN and Blue tooth with any network or quality assurance software and all hardness values can be converted to other scales according to ISO 18265, ISO 50150, ASTM E140.

Features :

- Fully automatic operation and a single start button perform automatic test cycle. It avoids any risk of human errors & improves accuracy.
- Innovative measurement technology with vertical measure.
- Equipped with a unique closed loop electronic force measurement system.
- Achieves highest level of measurement of depth accuracy and resolution available for a hardness test.
- Robust body mounted with LM guideways ensures long service life.
- Wide working area bearing 1000kg test pieces.
- High speed PLC and HMI.
- Easily connect via USB, LAN, WLAN and Bluetooth
- Results are not affected by any structural deflection, misalignment or vibration
- Accurate measurement even on first test, eliminate the need for multiple repeated test

Technical Specifications :

Test Load	60, 100, 150 kgf.
Load Accuracy	Better than $\pm 1\%$.
Head Stroke	525 mm (Optional 1000mm).
Depth of throat	170 mm.
Principle of operation	Load cell and closed loop.
Display	Resistive touch screen HMI.
Machine control	PLC system.
Resolution of depth measurement	1 micron.
Motorized height adjustment	400 mm / min (max.).
Data output	Through pen drive in PDF & excel format.
Machine dimensions (L x W x H) approx.	560 x 1000 x 1450 mm.
Electronic panel dimensions (L x W x H) approx.	560 x 320 x 510 mm.
Power supply	Single phase, 230 VAC, 50 Hz, 4 AMP.
Net weight approx.	500 kg.

- Due to continuous improvement of the product, FIE reserves all rights to change the above specifications without any prior notice.
- PC & Printer is not in our standard scope of supply.



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The FIE system can perform automatic contact with the test piece surface. It automatically moves the indenter and the hardness tester's head until contact is made blocking the piece; after this sequence the force is applied and indentation made. The hardness tester can measure automatically in Rockwell and convert into other scales.

The HMI used as an operator control panel and it is glass projected capacitive touch screen and the brilliant display give optical performance with the support of multi touch gestures programming.

The air cooled electrical panel provided separately & it contains of,

- Motor drive & other electrical circuit with relays and contactors.
- The Programmable Logic Controller (PLC) control system using electronic operations. It is high-speed, stable and highly reliable applications. The PLC used in hardness testing machine carry out multiple motion control and it performs complex application as per information, data and situational metrics.