

**PRINCIPLE:**

Rockwell, Rockwell superficial & Rockwell Brinell tests consists of forcing an indenter (Diamond or Ball) into the surface of a test piece in two steps i.e first with preliminary test force and thereafter with additional test force and then measuring depth of indentation after removal of additional test force (Remaining preliminary test force active) for measurement of hardness value.

RASNE series machines are suitable for Rockwell and Rockwell superficial tests. These are motorized digital Hardness testers having LCD display. Graphic LCD display gives large size, clear view. The results are displayed in 0.1 Rockwell unit for more accurate measurement. For Brinell scale machine used for indentation purpose using suitable ball indenter and separate microscope provided to measure the diameter.

**OPERATION:**

Various parameters of the test can be set on the front panel by operation of key board and observing LCD display Viz high/low limits, dwell time, auto/manual start, printer selection, scale selection etc. All set data can be verified/ edited by pressing SCL key one after another.

Machine operation is very simple. The normal mode is a bar followed by "SET" indication. Raise selection screw slowly through bar indication til "SET" position which will show "PRESS START" indication. Now press "START" button. Loading/unloading cycle will be completed and shown on LCD display with High/Good/Low indication. Lower down elevating screw. Panel will show normal mode for next test.

RASNE' series of Hardness Testing Machines come with much improved design & look with following major design changes.

1. This is a motorized machine having automatic loading/unloading cycle suitable for production testing.
2. The machine body is having a taper front look and large size read-out in the front. The machine is powder coated for better look. The paint shade do not fade and machine looks new for years.
3. The elevating screw machine is guided in a hardened and ground brush, not allowing movement of elevating screw more than 0.05 mm when raised to full height. The accuracy is retained for years together due to hardened brush
4. A hardened and ground steppe bush is fixed on top of main screw for location and rest surface This guarantees no change in results due to rough handling of test table or test piece. It means trouble long life machinery.
5. An antifricition linear bearing with almost no clearance is provided for a perfect vertical movement of loading plunger with minimum friction. This enables testing of small dia. pin or ball upto 3 mm dia.
6. Both models are provided with automatic working cycle and digital LCD display with 0.1 Rockwell resolution. This ensures productivity with better accuracy.
7. Machine confirm to IS 1586:2000 for Rockwell & Rockwell Superficial and IS 2281:2005 Brinell scale.



**Front Panel for RASNE/T/B-3**

**SPECIFICATION:**

MODEL	UNIT	RASNE-3	RASNET-3	RASNEB-3
Total Load	kgf	60, 100,150	15, 30, 45, 60, 100, 150	60, 100,150,187.5,250
Minor Load	kgf	10	3, 10	10
Max. Test Height	mm	230		
Depth of Throat	mm	133		
Net Weight (approx.)	kg	75	77	
M/c Dimensions (LxWxH)	mm	450 x 175 x 627		
Operation Cycle		Automatic Load/ Dwell/ Unload		
Test Force Selection		By external dialing		
Set Position		With LCD bar indicator		
Key board entry		Through membrane switches for scale, GO-NO GO & dwell time selection		
Resolution	HR	0.1 Rockwell	0.1 Rockwell and 0.1 Rockwell Superficial	0.1 Rockwell
Output		Parallel output for connecting dot matrix Printer to get results indicating serial no. of tests, hardness scale, hardness value & high/good/ low indication		
Optional		Serial PC interface & Windows Software		

**STANDARD ACCESORIES:**

Testing table 50mm dia	No.	1		
Testing Table 38mm dia with 'V'groove for round jobs 6 to 45mm dia.	No.	1		
Diamond Indenter-Rockwell	No.	1	-	1
Diamond Indenter Rockwell Superficial	No	-	1	-
Steel Ball Indentor 1/16" with 5 spare balls	Set	1		
Stell Ball Indentor 2.5mm with 5 spare balls	set	-	-	1
Test Block Rockwell 'C'	No.	1		
Test Rockwell 'B'	No.	1		
Test Block HB 2.5/187.5	No.	-	-	1
Test Block HR 30 N	No.	-	1	-
Allen Spanners	No.	5		
Screw Driver	No.	1		
Clamping Device	No.	1		
Wooden Box for Accessories	No.	1		
Telescopic Sleeves for Elevating screw protection	set	1		
Spare 1 Amp Fuse	No.	1		
Power Cable	No.	1		
Brinell Microscope	No.	-	-	1
Machine Cover	No.	1		
Instruction Manual	No.	1		

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