



DIGITAL MOTORISED ROCKWELL HARDNESS TESTING MACHINE



MODEL : TRS-DN

Mastering the fine art of testing

'BIE' make Digital Motorized Rockwell Hardness Testing Machines, Model : TRS-DN, TRB-DN, TRB-250-DN, TSM-DN are designed and developed after years of experience in this field. All these models are manufactured under strict quality control at all manufacturing stages.

These models are suitable for testing hardness of metals and alloys of all kinds, hard or soft, whether flat or round, etc or of irregular shape.

These models strictly conform to IS : 1586-2000, BSEN-ISO-6508-2, ASTM-E-18 for Rockwell test and IS: 2281-1983, BS-240, ASTM-E-10 for Brinell test and IS: 1586-2000, ASTM-E-18 for Rockwell Superficial test.

Salient Features :

- Motorized system for application & removal of major load.
- Minor load setting by LCD bar graph.
- Numerical Keyboard for data entry.
- Hi-ok-low (Limits) indication for hardness value.
- Easy to read, large size LCD display.
- Parallel port for connecting Dot Matrix printer (Dot Matrix printer to be provided by Customer).
- Sufficient error codes for smooth functioning of machine.
- Three modes of operation of machine, viz. Motorized Automatic Mode, Semi Automatic Mode, Manual Mode.
- Serial Interface (RS-232 port) is provided for connecting it to Computer (Computer to be provided by Customer).
- Standard Software (Consists of Sr. No., Hardness Values, Limits) in CD is provided.
- Indenter is guided in linear bearings facilitates to test small diameter jobs.
- Auto Cylindrical correction facility is provided.
- Conversion table available for few selected scales.
- Special software with statistical analysis can be given (Optional).

• Digital Motorized Rockwell Hardness Testing Machine : Model : TRS-DN

- Automatic weight selection by rotating thumb wheel.
- Loads of 60, 100 & 150 kgf.

• Digital Motorized Rockwell Hardness Testing Machine (with Brinell Test Loads) : Model : TRB-DN

- Automatic weight selection by rotating thumb wheel.
- Apart from loads of Model : TRS-DN, the additional test load of 187.5 kgf for Brinell scale is provided.
- Brinell Microscope (25X magnification) is provided for Brinell indentation measurement.

Model : TRB-250-DN

- Automatic weight selection by rotating thumb wheel.
- Apart from loads of Model : TRS-DN, the additional test loads of 187.5 kgf & 250 kgf for Brinell scales are provided.
- Brinell Microscope (25X magnification) is provided for Brinell indentation measurement.

• Digital Motorized Rockwell cum Rockwell Superficial Hardness Testing Machine : Model : TSM-DN

- Automatic weight selection by rotating thumb wheel.
- Separate lever is provided for selecting minor 3 kgf load.
- Loads of 15, 30, 45, 60, 100 & 150 kgf are provided.

Note :

- 1) Model : TRS-DN-P is available for testing of polymeric material.
- 2) Non Motorized models are also available.



MODEL : TRS-DN



MODEL : TRB-DN & TRB-250-DN



MODEL : TSM-DN

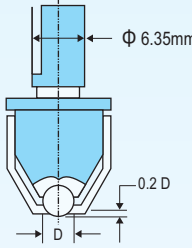
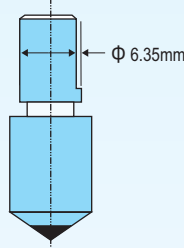
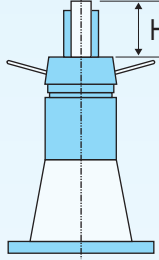
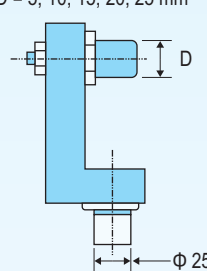
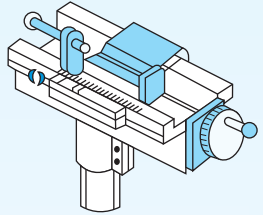
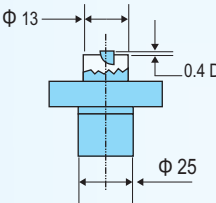
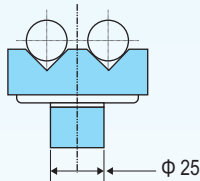
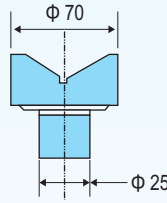
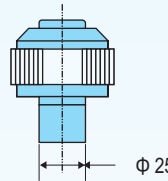
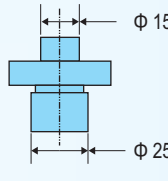
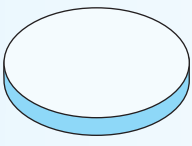
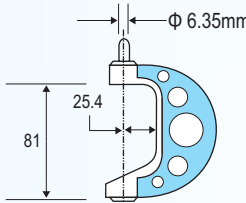
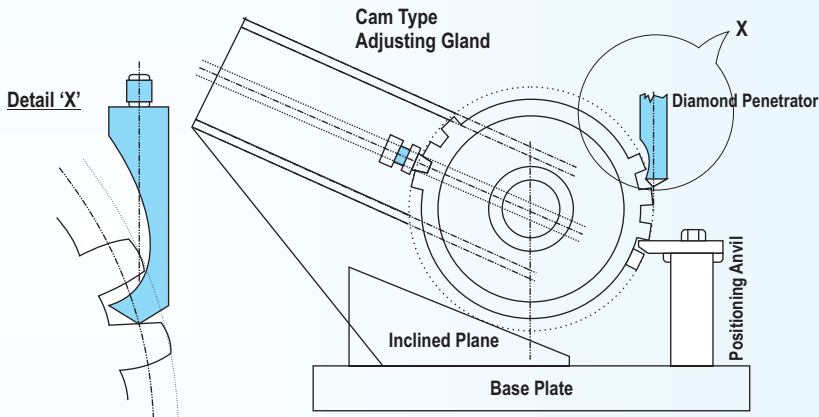
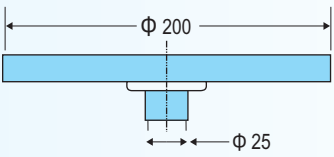
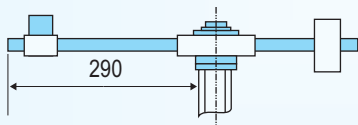
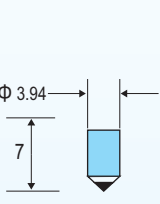
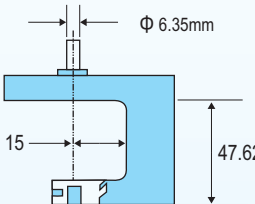
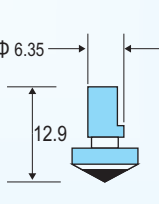
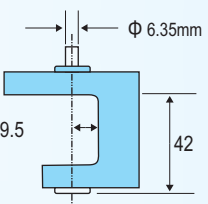
Technical Specifications :

Models	TRS-DN	TRB-DN	TRB-250-DN	TSM-DN
Test loads (kgf)	60, 100, 150 (Rockwell)	60, 100, 150 (Rockwell) 187.5 (Brinell)	60, 100, 150 (Rockwell) 187.5, 250 (Brinell)	60, 100, 150 (Rockwell) 15, 30, 45 (Rockwell Superficial)
Initial loads (kgf)	10	10	10	10 (Rockwell) & 3 (Rockwell Superficial)
Max. Test Height (mm)	285	285	285	285
Depth of throat (mm)	130	130	130	130
Max. depth of elevating screw below base (mm)	290	290	290	290
Overall dimensions (L x W x H) (mm) (Approx)	610 x 240 x 730	610 x 240 x 730	610 x 240 x 730	610 x 240 x 730
Net Wt. Approx (kg)	100	105	110	115
Scales Displayed	Rockwell A, B, C, D, E, F, G, H, K, L, M, P, R, S, V, (in Nos. 1 to 15 resp.)			Rockwell A, B, C, D, E, F, G, H, K, L, M, P, R, S, V Rockwell Superficial 15N, 30N, 45N, 15T, 30T, 45T, (in Nos. 1 to 21 resp.) 15W, 30W, 45W, 15X, 30X, 45X 15Y, 30Y, 45Y (9 scales optional) (in Nos. 22 to 30 resp.)
Least Count	0.1	0.1	0.1	0.1 for Rockwell 0.2 for Rockwell Superficial
Minor Load Setting	By Bar Graph Indicator (Manual Setting)			
Load Control	Automatic (Loading, Dwell, Unloading for major load)			
Dwell Time	1 to 99 seconds selectable			
Printer Interface	Parallel Port to connect Dot Matrix Printer (<i>Dot Matrix printer to be provided by Customer</i>).			
Serial Interface	RS-232 Port to connect Computer (<i>Computer to be provided by Customer</i>).			
Standard Software	Consists of specimen Sr. No., Hardness Values, Limits in CD is provided			
Power supply	220 V, Single Phase, 50 Hz, AC (3 Wire System)			

Standard Accessories :

Rockwell Diamond Indenter	1 No	1 No	1 No	1 No
Superficial Diamond Indenter	-	-	-	1 No
Testing table dia 50 mm	1 No	1 No	1 No	1 No
Testing table dia. 40 mm (V Groove for round jobs dia. 6 to 45 mm)	1 No	1 No	1 No	1 No
Ball Indenter with T.C. ball dia. 1/16"	1 No	1 No	1 No	1 No
Ball Indenter with T.C. ball dia. 2.5 mm	-	1 No	1 No	-
Ball Indenter with T.C. ball dia. 5 mm	-	-	1 No	-
Test Block HRC (With Manufacturers Cert.)	1 No	1 No	1 No	1 No
Test Block HRB (With Manufacturers Cert.)	1 No	1 No	1 No	1 No
Test Block HB 2.5 mm / 187.5 kgf (With Manufacturers Cert.)	-	1 No	1 No	-
Test Block Rockwell Superficial 30N (With Manufacturers Cert.)	-	-	-	1 No
Allen Spanners	3 Nos	3 Nos	3 Nos	3 Nos
Clamping Device	1 No	1 No	1 No	1 No
Brinell Microscope (25X Magnification)	-	1 No	1 No	-
PVC Cover for Machine	1 No	1 No	1 No	1 No
Rubber bellow for Elevating screw	1 No	1 No	1 No	1 No
Instruction Manual	1 Book	1 Book	1 Book	1 Book

Details of Optional Accessories for Hardness Testers :

 <p>Steel Ball Indenter Dia. (1/16", 1/8", 1/4", 1/2", 2.5mm, 5mm)</p>	 <p>Diamond Indenter</p>	 <p>Jack rest for long jobs jobs H-200 & 300mm</p>	 <p>D = 5, 10, 15, 20, 25 mm Gooseneck anvil for pipe 5 to 25 mm ID with 5 mm step</p>	 <p>Jominy Fixture for end quench test (Pitch 1 mm)</p>
 <p>Diamond spot anvil</p>	 <p>Cylindron anvil for testing big job above 20mm</p>	 <p>Testing Table of 70 mm with V groove for jobs 10 to 80 mm</p>	 <p>Eyeball anvil with 25.4 and 38 mm</p>	 <p>Raised Centre Table (15mm)</p>
 <p>Test block of various scales & ranges, 50 mm (NABL Certification Cost extra)</p>	 <p>Gooseneck adaptor No.3</p>	 <p>Cam Type Adjusting Gland Diamond Penetrator Inclined Plane Base Plate Positioning Anvil Detail 'X'</p> <p>Gear Testing fixture with special Indenter Fixture No. 1 for PCD 1" to 7" and Fixture No. 2 for PCD 7" to 14" Imported Steel / Carbide Balls of Dia. 1/16", 1/8", 1/4", 1/2", 3/4"</p>		
 <p>Testing Table 200 mm Hardened & Ground</p>	 <p>Vari - rest to support odd shaped jobs</p>	 <p>Special Indenter</p>	 <p>Gooseneck adaptor No. 2</p>	 <p>Short nib Indenter</p>
 <p>Gooseneck adaptor No. 1</p>				

We can also supply – Universal Testing Machines, Compression Testing Machines, Tensile Testing Machines, Chain and Rope Testing Machines, Spring Testing Machines, Vickers / Brinell / Rockwell Hardness Testing Machines, Dynamic Balancing Machines, Dynamic Hardness Testers, Impact Testing Machines, Torsion & Fatigue Testing Machines & Special purpose Material Testing Machines, etc.



Manufactured By :

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