



# SCREEN TOUCH MOTORISED ROCKWELL HARDNESS TESTING MACHINE



MODELS : TRS-DS / TRS-DO

*Mastering the fine art of testing*

**'FSA'** make Screen Touch Motorized Rockwell Hardness Testing Machines, Models : TRS-DS/DO, TRB-DS/DO, TRB-250-DS/DO, TSM-DS/DO 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 : 1586-2021, BSEN-ISO-6508-2 for Rockwell test and IS: 1500-2018 & BS-240 for Brinell test and IS: 1586-2021 for Rockwell Superficial test.

### Salient Features :

- Machine is provided with Screen Touch & Large display. Easy to read
- Motorized system for application & removal of major load.
- Minor load setting by Touch Screen.
- Touch Screen Keyboard for data entry.
- High-OK-Low (Limits) indication for hardness value.
- Easy to read, large size Touch Screen display.
- RS 232 port for report generation & Printing
- Sufficient error messages for smooth functioning of machine.
- Two modes of operation of machine, viz. 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) is provided.
- Indenter is guided in linear bearings facilitates to test small diameter jobs.
- Conversion table available for few selected scales.
- Special software with statistical analysis can be given (Optional).
- Three different dwell times are provided to suit for testing of various material

#### • **Screen Touch Motorized Rockwell Hardness Testing Machine: Model: TRS-DS / DO**

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

#### • **Screen Touch Motorized Rockwell Hardness Testing Machine (with Brinell Test Loads): Model:TRB-DS/DO**

- Automatic weight selection by rotating thumb wheel.
- Apart from loads of Model : TRS-DS/DO, 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-DS/DO**

- Automatic weight selection by rotating thumb wheel.
- Apart from loads of Model : TRS-DS/DO, 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.

#### • **Screen Touch Motorized Rockwell cum Rockwell Superficial Hardness Testing Machine :**

#### **Model : TSM-DS / DO**

- 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.



MODELS : TRS-DS / TRS-DO



MODELS : TRB-DS / TRB-DO  
TRB-250-DS / TRB-250-DO



MODELS : TSM-DS / TSM-DO

Note :

Model : TRS-DS/DO-P is available for testing of Polymers material.

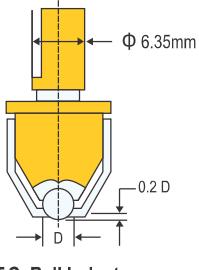
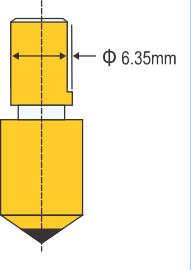
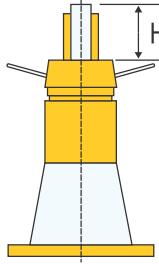
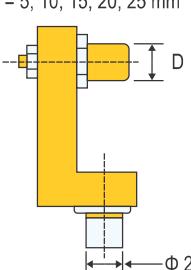
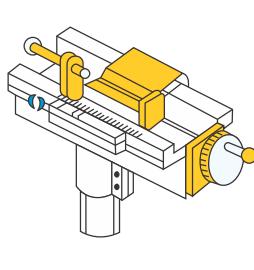
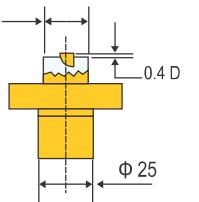
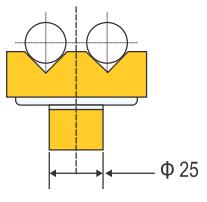
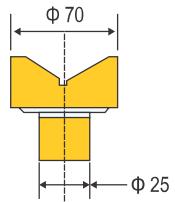
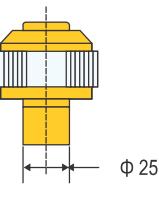
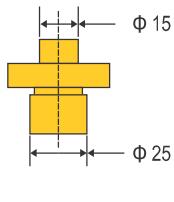
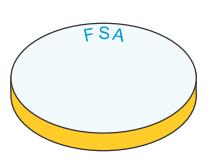
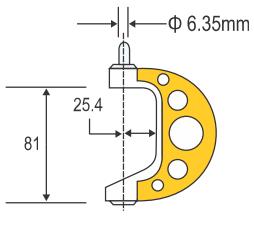
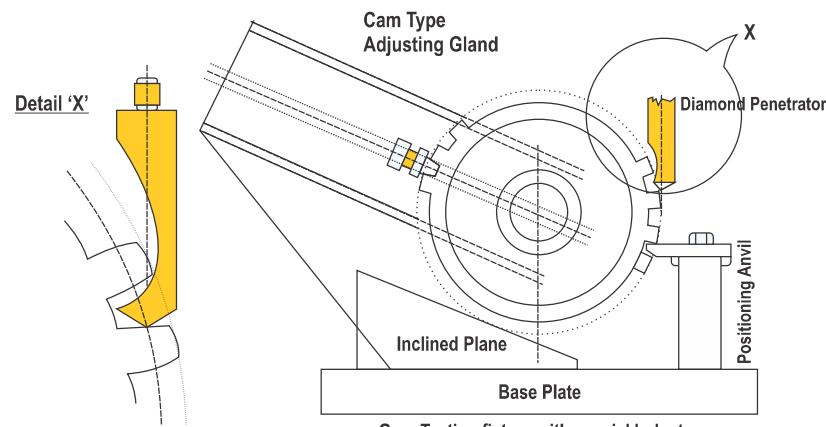
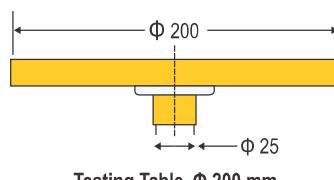
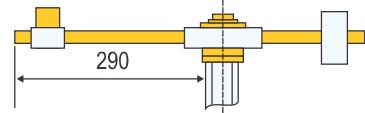
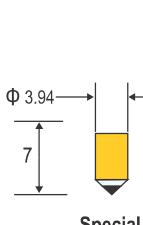
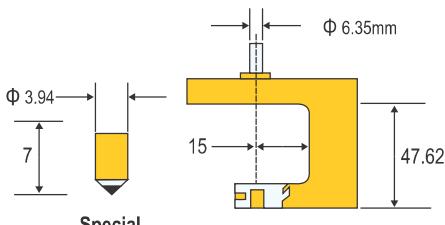
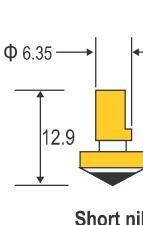
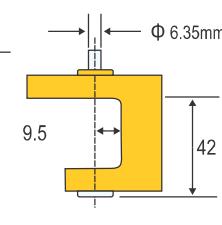
## Technical Specifications :

Models	TRS-DS / TRS-DO	TRB-DS / TRB-DO	TRB-250-DS / TRB-250-DO	TSM-DS / TSM-DO
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)	133	133	133	133
Max. depth of elevating screw below base (mm)	290	290	290	290
Overall dimensions (Lx 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 <b>Rockwell Superficial</b> 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	3 to 99 seconds selectable			
Printer Interface	RS-232 Port for interface (printer to be provided by Customer).			
Serial Interface	RS-232 Port to connect Computer (Computer to be provided by Customer).			
Standard Software	Consists of specimen Sr. No., Hardness Values, Limits 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	5 Nos	5 Nos	5 Nos	5 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 :

 T.C. Ball Indenter Dia. (1/16", 1/8", 1/4", 1/2", 2.5mm, 5mm)	 Diamond Indenter	 Jack rest for long jobs H-200 & 300mm	 Gooseneck anvil for pipe 5 to 25 mm ID with 5 mm step	 Jominy Fixture for end quench test (Pitch 1 mm)
 Diamond spot anvil	 Cylindron anvil for testing big job above 20mm	 Testing Table of $\Phi$ 70 mm with V groove for jobs $\Phi$ 10 to 80 mm	 Eyeball anvil with $\Phi$ 25.4 and $\Phi$ 38 mm	 Raised Centre Table ( $\Phi$ 15mm)
 Test block of various scales & ranges, $\Phi$ 50 mm (NABL Certification Cost extra)	 Gooseneck adaptor No.3	 Detail 'X' Cam Type Adjusting Gland Diamond Penetrator Inclined Plane Base Plate Gear Testing fixture with special Indentor 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"		
 Testing Table $\Phi$ 200 mm Hardened & Ground				
 Vari - rest to support odd shaped jobs	 Special Indenter	 Gooseneck adaptor No. 2	 Short nib Indenter	 Gooseneck adaptor No. 1

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.



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