

Meta-Test

FINE GROUP'S

HARDNESS TESTERS

Rockwell, Rockwell Cum Brinell, Rockwell cum Rockwell Superficial

Meta-Test make hardness testers, Models: MRS, MRS-150, MRB, MRB-250 and MSM are manually operated. These models are designed and developed after years of experience in this field. All the 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 Testers are simple in design and easy to operate, still yet quite sensitive and accurate.

Various Models from the wide range are available for Institutes, Quality Control Laboratories, Tool-Rooms, Heat Treatment Dept, R & D Laboratories, etc.

These models strictly conforms to IS : 1586 - 2000, BS : 891 - Part 1 & 2 for Rockwell & Rockwell Superficial test. IS : 2281 - 2005, ASTM-E-10 for Brinell Test.



Model : MRS

Mastering the fine art of testing

Rockwell System

MRS : Automatic weight selection with automatic zero setting dial gauge.

MRS-150 : Automatic weight selection with automatic zero setting dial gauge with more testing height and throat

Rockwell cum Brinell Combined System

MRB : Automatic weight selection with automatic zero setting dial gauge.

MRB-250 : Arrangement similar to MRS with two additional weights of 187.5 kgf and 250 kgf for Brinell tests. On this machine small pin having dia 2mm can be tested as plunger is guided with a set of six bearings.

Rockwell cum Rockwell Superficial Combined

MSM : This hardness tester is similar to MRB-250 machine in construction, and with automatic weight selection. This is useful for carrying Rockwell and Rockwell Superficial Tests. The Rockwell Superficial method is useful for checking hardness of very thin sheets and surface hardness.



Model : MRB-250



Model : MSM

Motorised Hardness Tester

Model MRS-M	: Similar to MRS
Model MRS-150-M	: Similar to MRS-150
Model MRB-M	: Similar to MRB
Model MRB-250-M	: Similar to MRB-250
Model MSM-M	: Similar to MSM

Application and removal of major load is motorised. Motorised models have semi automatic operations for products testing. Drive motor - Single Phase, 230-V.50 Cycles AC.

Portable Hardness Tester

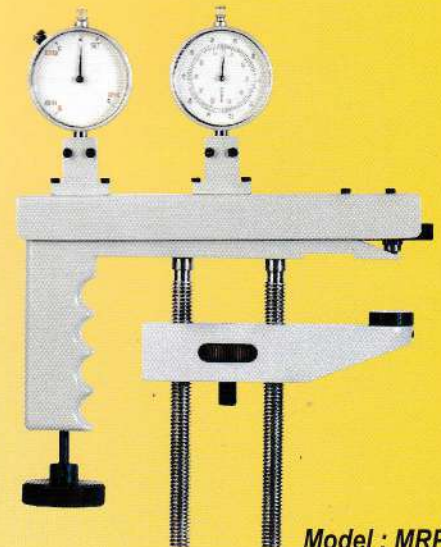
Portable Rockwell Hardness Tester model MRP-1 is able to test parts where bench type model is not useful. This machine is quite handy for product testing of crank shafts, cylinder blocks, liner and assemblies. This can be used for testing the hardness of both inside and outside of surface testing of pipes, bushings, ball bearing rings or other complicated parts. This model can be used in any direction without effecting the accuracy.

Technical Data

Maximum test height	: 110 mm
Throat capacity	: 55 mm
Weight (Approx.)	: 1.75 kg

Standard Accessories

Flat anvil ϕ 25mm	: 1 No.
V-anvil ϕ 25mm	: 1 No.
Test block HRC	: 1 No.
Test block HRB	: 1 No.
Diamond indenter	: 1 No.
1/16" ball indenter	: 1 No.
Steel Ball ϕ 1/16"	: 5 No.
Carry case	: 1 No.



Model : MRP-1

Technical Specifications -

Model	MRS	MRS-150	MRB	MRB-250	MSM
Test Loads (kgf)	60, 100, 150 (Rockwell)	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	10 (Rockwell) & 3 (Rockwell Superficial)
Max. Test Height (mm)	216	295	216	295	295
Depth of Throat (mm)	133	148	133	148	148
Max. Depth of Elevating Screw Below Base (mm)	220	295	220	295	295
Size of Base (mm) (Approx.)	425 X 180	470 X 210	425 X 180	470 X 210	470 X 210
Machine Height (mm)	630	860	630	860	860
Nett Weight (kg.) (Approx.)	75	105	75	115	115

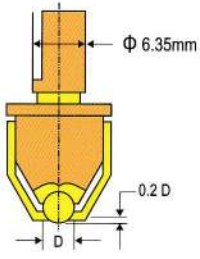
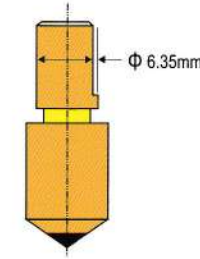
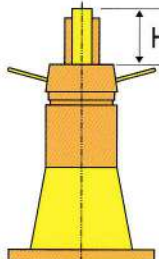
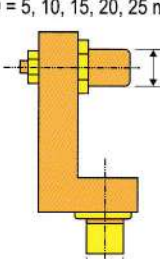
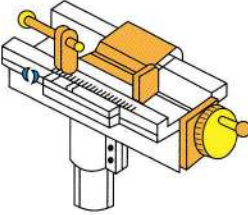
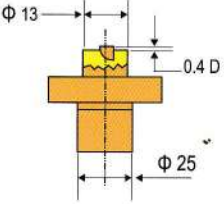
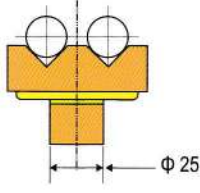
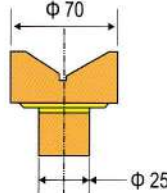
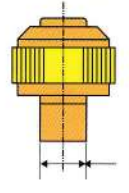
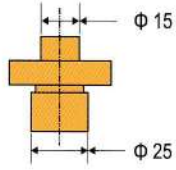
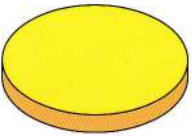
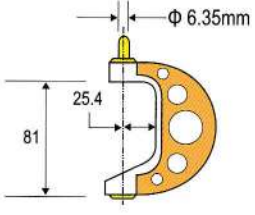
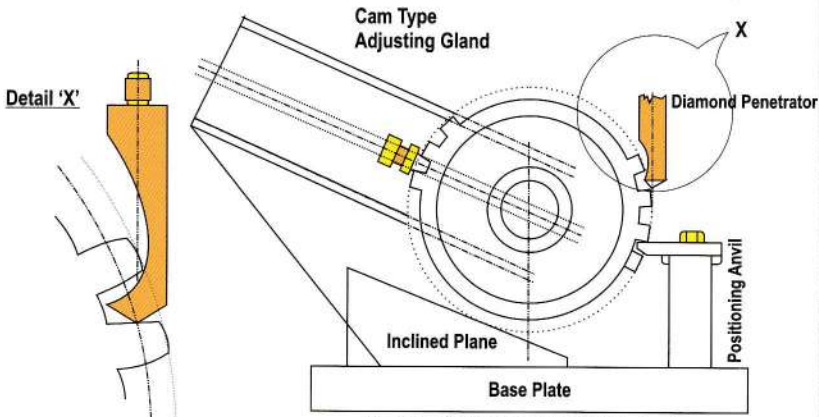
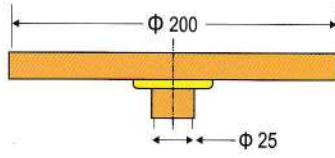
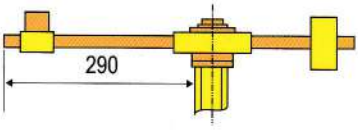
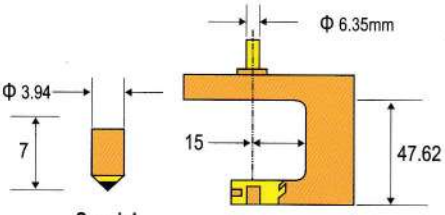
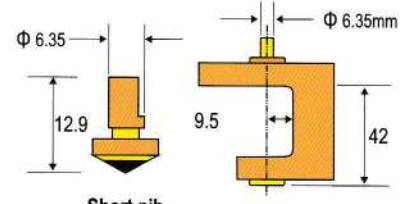
Standard Accessories -

Model	MRS	MRS-150	MRB	MRB-250	MSM
Rockwell Diamond Indentor	1 No.	1 No.	1 No.	1 No.	1 No.
Superficial Diamond Indentor	-	-	-	-	1 No.
Testing Table Φ 50 mm	1 No.	1 No.	1 No.	1 No.	1 No.
Testing Table Φ 40 mm with V Groove for round Jobs Φ 6 to 45 mm	1 No.	1 No.	1 No.	1 No.	1 No.
Ball Indentor with Φ 1/16" T.C. Ball	1 No.	1 No.	1 No.	1 No.	1 No.
Ball Indentor with Φ 2.5 mm T.C. Ball	-	-	1 No.	1 No.	-
Ball Indentor with Φ 5 mm T.C. Ball	-	-	-	1 No.	-
Test Block HRC (with Manufacturers Certificate)	1 No.	1 No.	1 No.	1 No.	1 No.
Test Block HRB (with Manufacturers Certificate)	1 No.	1 No.	1 No.	1 No.	1 No.
Test Block HB 2.5 mm/187.5 kgf (with Manufacturers Certificate)	-	-	1 No.	1 No.	-
Test Block Rockwell Superficial 30N (with Manufacturers Certificate)	-	-	-	-	1 No.
Allen Spanners	3 Nos.	3 Nos.	3 Nos.	3 Nos.	3 Nos.
Clamping Device	1 No.	1 No.	1 No.	1 No.	1 No.
Brinell Microscope	-	-	1 No.	1 No.	-
PVC Cover for Machine	1 No.	1 No.	1 No.	1 No.	1 No.
Rubber Bellow	1 No.	1 No.	1 No.	1 No.	1 No.
Instruction Manual	1 Book	1 Book	1 Book	1 Book	1 Book

Loads and Indentors for Meta-Test Hardness Testers for Rockwell and Brinell Tests -

Total Load in kgf. (Initial Load 10 kgf.)	60	100	150	187.5	250
Indentor	Diamond 120°	Ball 1/16" Φ	Diamond 120°	Ball 2.5 mm Φ	Ball 5 mm Φ
Test Scales	Rockwell A	Rockwell B	Rockwell C	Brinell, F/D ² = 30	Brinell, F/D ² = 10
Suitable for	Tests on Case hardness steel	Annealed, Ferrous & Non ferrous metals	Annealed, Hardened & Tempered deep case hardened steel	Annealed steel & Cast irons	Copper, Copper alloys & Aluminum alloys

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 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 Φ 70 mm with V groove for jobs Φ 10 to 80 mm</p>	 <p>Eyeball anvil with Φ 25.4 and Φ 38 mm</p>	 <p>Raised Centre Table (Φ15mm)</p>
 <p>Test block of various scales & ranges, Φ 50 mm (NABL Certification Cost extra)</p>	 <p>Gooseneck adaptor No.3</p>	 <p>Cam Type Adjusting Gland Detail 'X' Diamond Penetrator Inclined Plane Positioning Anvil Base Plate 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 Φ 200 mm Hardened & Ground</p>				
 <p>Vari - rest to support odd shaped jobs</p>	 <p>Special Indenter Gooseneck adaptor No. 2</p>	 <p>Short nib Indenter 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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