



# Series : **RAS-D**

Over **60** years of  
consistent excellence



## Digital Rockwell & Combined Hardness Testing Machine



Automatic Loading/Unloading Cycle



Direct Digital Reading



Perfect vertical movement of  
loading plunger with minimum friction





Over **60** years of consistent excellence

## Digital Rockwell, Rockwell Brinell Combined, Rockwell/Rockwell Superficial Combined System Hardness Testers

FIE Hardness Testers, Model : RAS-D, RAB-1-D, RAB-250-D & TWIN-D are manually operated. All these models are suitable for testing hardness of metals & alloys of all kinds hard or soft, whether flat, round & irregular shape. These testers are simple in design & easy to operate, yet sensitive and accurate. Various models from the wide range are suitable for Tech Institutes, Laboratories, Tool-rooms, Inspection, Heat treatment departments, Factories etc.

These testers strictly confirm to IS:1586-2 for Rockwell & Rockwell superficial test.

### Model : RAS-D

- Manual load selection with automatic Zero setting dial gauge.
- Manual Operation.

### Model : TWIN-D

- Manual load selection with automatic Zero setting dial gauge.
- Manual Operation.
- Diamond holder is guided in a ball cage, which enables testing of small pins having dia from 3.0 mm onwards.

### Model : RAB-1-D

- Manual load selection & automatic Zero setting dial gauge.
- Facility for Brinell tests with 187.5 kgf. load with 2.5 mm ball indenter, additional load 250 kgf with 5 mm ball indenter for testing hardness of non-ferrous material.

### Model : RAB-250-D

- Similar to 'RAB-1' but bigger capacity.
- Diamond holder is guided in a ball cage, which enables testing of small pins having dia from 3.0 mm onwards.



### Technical Data :

MODEL	UNIT	RAS-D	RAB-1-D	RAB-250-D	TWIN-D
Loads	kgf.	60, 100, 150	60,100, 150, 187.5, 250	60,100, 150, 187.5, 250	15,30,45 (Rockwell Superficial) 60,100,150 (Rockwell)
Initial Load	kgf.	10	10	10	3 (Rockwell Superficial) 10 (Rockwell)
Max. Test Height	mm	230	230	330	330
Depth of Throat	mm	133	133	150	150
Max. depth of elevating screw below base	mm	240	240	355	355
Size of base (approx.)	mm	170x430	170x430	210x474	210x474
Machine Height (approx.)	mm	655	655	850	850
Nett Weight (approx.)	kg.	65	65	100	100

### Standard Accessories :

MODEL	RAS-D	RAB-1 / RAB-250-D	TWIN-D
Testing table 50 mm dia.	1 pc.	1 pc.	1 pc.
Testing table 38 mm dia. with 'V' groove for - round jobs 6 to 45 mm dia.	1 pc.	1 pc.	1 pc.
Diamond Indenter 120°	1 pc.	1 pc.	1 pc.
Steel ball Indenter 1/16"	1 pc.	1 pc.	1 pc.
Test block Rockwell 'C'	1 pc.	1 pc.	1 pc.
Test block Rockwell 'B'	1 pc.	1 pc.	1 pc.
Test block Rockwell Superficial 'N'	NIL	NIL	1 pc.
Allen Spanners	5 pcs.	5 pcs.	5 pcs.
Clamping Device	1 pc.	1 pc.	1 pc.
Dash Pot Oil	1 bottle	1 bottle	1 bottle
Rubber bellow for elevating screw protection	1 pc.	1 pc.	1 pc.
Instruction Manual	1 book	1 book	1 book
Brinell Microscope	NIL	1 pc.	NIL
Steel ball indenter 2.5 mm	NIL	1 pc.	NIL
Test block HB 2.5/187.5	NIL	1 pc.	NIL
Steel ball indenter 5 mm	NIL	1 pc.	NIL

**Note :** For Brinell scale - manually select (187.5 or 250 kgf) with respected ball indenter. At that time take reference of set point only, apply the load, then measure the impression diameter by Brinell microscope only. (No Brinell scale display on screen).

Due to continuous improvement of the product, SAROJ reserves all rights to change the above specifications without any prior notice.

Manufactured By :

## Fuel Instruments & Engineers Pvt. Ltd.

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