



FUEL INSTRUMENTS & ENGINEERS PVT.LTD.

SAROJ MAKE ROCKWELL HARDNESS TESTING MACHINE



RAS



RAB - 250



RAB - TWIN

FEATURES :

ROCKWELL, ROCKWELL BRINELL COMBINED, ROCKWELL/ROCKWELL SUPERFICIAL COMBINED SYSTEM HARDNESS TESTERS.

SAROJ Hardness Testers Model RAS, RAB-1, RAB-250, TWIN are manually operated. All these models are suitable for testing hardness of metals and alloys of all kinds hard or soft, whether flat, round, or irregular shape. These testers are simple in design and easy to operate, yet sensitive & accurate. Various models from the wide range are suitable for schools, laboratories, tool-rooms, inspection, heat treatment departments, factories etc. These testers strictly conform to IS : 3804 -1988, BS : 891 parts 1 & 2, ASTM : E 18 for Rockwell test, IS : 2281 -1983, BS : 240, ASTM : E 10 for Brinell test and IS 5073 -1988 ASTM : E 18 for Rockwell Superficial Test.

| MODEL RAS : | MODEL RAB-1 | MODEL TWIN |
|---|---|---|
| Automatic load selection with automatic | Automatic load selection & automatic zero | Automatic load selection with automatic |
| zero setting dial gauge. | setting dial gauge. Facility for Brinell tests | zero setting dial gauge. |
| Manual operation. | with 187.5 kgf. load with 2.5 mm Ball | Manual operation. |
| | indenter, additional load 250 kgf. with 5mm | Diamond holder is guided in a ball cage, |
| | Ball indenter for testing hardness of non-ferrous metals. | which enables testing of small pins having dia. |
| | | Less than 6 mm (up to 3mm dia.) |

| | | |
|---|--|--|
| MODEL RASM (MOTORISED) : | MODEL RAB 250 | |
| Similar to 'RAS' but motorised model. | Similar to 'RAB-1' but of bigger capacity. | |
| | Diamond holder is guided in a ball cage, | |
| Semiautomatic operation for production testing. | which enables testing of small pins having dia less than 6 mm (up to 3 mm dia.) | |
| Drive motor single phase 230 V 50 Cycles. | | |

STANDARD ACCESSORIES :

| MODEL | RAS /RASM | RAB-1 / RAB-250 | TWIN |
|---|------------------|------------------------|-------------|
| Testing table 50mm dia | 1 pc. | 1 pc. | 1 pc. |
| Testing Table 38mm dia with 'V groove for round jobs 6 to 45mm dia. | 1 pc. | 1 pc. | 1 pc. |
| Diamond Indentor 120° | 1 pc. | 1 pc. | 1pc. |
| Stell ball Indentor 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. | 1pc. |
| Instruction Manual | 1 Book | 1 Book | 1 Book |
| Brinell Microscope | NIL | 1 pc. | NIL |
| Stell Ball Indentor 2.5mm | NIL | 1 pc. | NIL |
| Test Block HB 2.5/187.5 | NIL | 1 pc. | NIL |
| Stell Ball Indentor 5mm ' | NIL | 1 'pc. -. | NIL |

TECHNICAL DATA:

| MODEL | UNIT | RAS | RASM | RAB-1 | RAB-250 | TWIN |
|--|------|-------------|-------------|------------------------------|-----------------------------|---|
| Loads | kgf. | 60, 100 150 | 60, 100 150 | 60, 100 150, 187.5 250 | 60, 100 150, 187. 250 | 15, 30,45 (Rockwell Superficial) 60,100,150 (Rockwell) |
| Initial Load | kgf. | 10 | 10 | 10 | 10 | 3 (Rockwell Superficial) 10 (Rockwell) |
| Max. Test Height | mm. | 230 | 230 | 230 | 330 | 330 |
| Depth of Throat | mm. | 133 | 133 | 133 | 150 | 150 |
| Max. depth of elevating screw below base | mm. | 240 | 240 | 240 | 355 | 355 |
| Size of base (approx.) | mm | 170x430 | 170x430 | 170x430 | 210x474 | 210x474 |
| Machine Height (approx.) | mm | 655 | 655 | 655 | 850 | 850 |
| Nett Weight (approx.) | kg. | 65 | 65 | 65 | 100 | 100 |

LOADS & INDENTORS FOR 'SAROJ' HARDNESS TESTERS FOR ROCKWELL & BRINELL TESTS.

| | | | | | |
|---|------------------------------|--|--|----------------------------|-----------------------------------|
| Total load in kgf. (Initial load 10 kgf.) | 60 | 100 | 150 | 187.5 | 250 |
| Indentor | Diamond 120° | Ball 1/16" O | Diamond 120° | Ball 2.5 mm 0 | Ball 5mm 0 |
| Test Scales | Rockwell A | Rockwell B | Rockwell C | Bhnell,F/D 2=30 | Bhnell, F/D 2=10 |
| Suitable for | Tests on case hardened stell | Annealed, Ferrous & non ferrous metals | Annealed, hardened & tempered deep case hardened steel | Annealedsteel & cast irons | Copper, Copper alloys &AI. alloys |

