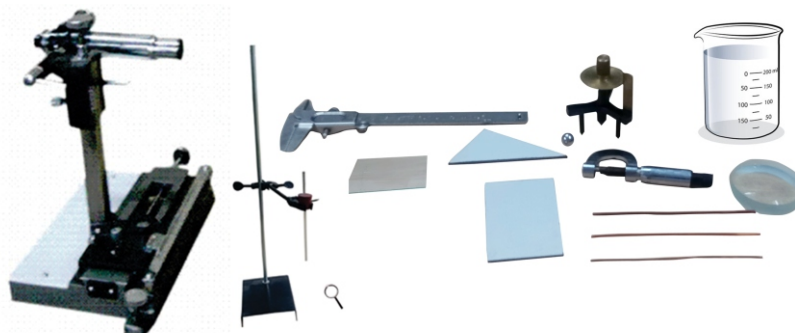


**MEASUREMENTS OF LENGTH (OR DIAMETER) USING VERNIER CALIPER, SCREW GAUGE, SPHEROMETER AND TRAVELLING MICROSCOPE
OMEGA TYPE ES-418**



OMEGA TYPE ES-418 Experimental Set Up has been designed specifically to Measurements of Length (Or Diameter) Using Vernier Caliper, Screw Gauge, Spherometer and Travelling Microscope

The set up is absolutely self contained and requires no other apparatus.

Practical experience on this set up carries great educative value for Science and Engineering Students.

OBJECT

01 Use of Vernier Callipers to

- 1.1 measure diameter of a small spherical/cylindrical body.
- 1.2 Measure the dimensions of a given regular body of known mass and hence to determine its density;
- 1.3 Measure the internal diameter and depth of a given cylindrical object like beaker/ glass/ calorimeter and hence to calculate its volume.

2. Use of Micrometer screw gauge to

- 2.1 Measure diameter of a given wire,
- 2.2 Measure thickness of a given sheet
- 2.3 Determine volume of an irregular lamina

03. To determine the radius of curvature of a

given spherical surface by a spherometer

04. To learn the parts of a Traveling Microscope

and to read a reading

FEATURES

The Set up consists of the following :

- 01 Vernier Calliper : Steel, Chromium plated, one side graduated in inches (5") & the other in cms (12 cms.) with adjusting wheel and depth gauge.

- 02 Micrometer Screw Gauge brass body stop arrangement 20 x 1 /100 mm

- 03 Spherometer

04 Travelling Microscope :

With horizontal & vertical scales. The bed is of heavy casting, thoroughly aged, machined and is fitted with levelling screws. On the dovetail guide ways slides the horizontal carriage which can be clamped at any position by means of a thumb screw. A second sliding carriage slides along a gun metal vertical pillar fitted on the horizontal carriage.

The slow motion guide bars are made of sturdy material and the motion is very smooth.

- 05 Magnifier (Reading Lens) : Metallic, chromium plated 40 mm Mag. 3.5 x F.L. 10 cm.

- 06 Capillary Tube with rubber cork

- 07 Retord Stand

- 08 D-convex Mirror Size 50 X 15mm for spherometer

- 09 Wire Iron Size 4" SWG 16/18/20 for screw Gauge

- 10 Bob : Size 10 mm for vernier

- 11 Backlite Rectangular & E Regular Plate Size 2 X

- 3 " Thickness 1.6 mm for vernier / screw Gauge

- 12 Beaker: 250 ml for vernier

- 13 Ground Glass Size 90X90 mm

thickness 4 mm spherometer

- 14 Weight : 11 Kg. (Approx.)

- 15 Strongly supported by detailed Operating

Instructions, giving details of Object, Theory, Design procedures, Report Suggestions and Book References.

We are committed to the continuous development of our products, and therefore reserve the right to amend specifications without prior notice.

OMEGA ELECTRONICS