

**OMEGA TYPE ES - 382** Experimental Set-Up has been designed specifically to determine the surface tension of water by capillary rise method.

Surface tension is the fundamental property of a liquid surface. By virtue of the property of surface tension, the free surface of liquid behaves like a stretched membrane. There is an inherent property of liquid to alter its shape in such a way that the area of its free-surface is minimum possible and this fact can be readily explained on the basis of molecular theory.

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 To determine the surface tension of water by capillary rise method.

**FEATURES**

The Complete Experimental Set-up consists of following items.

01 Apparatus for measuring surface tension including:  
A fine motion adjustable stand whose height can be increased or decreased slowly. A beaker can be put over it. Three capillary tubes of different diameters & a pin fixed on an adjustable clamp and stand.

02 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.

**2.1 Microscope Tube :**

Inclinable in any angle. True vertical and horizontal positions marked focusing.

**2.2 Guide Ways :**

The guide ways over which slides the vertical carriage is made of gun metal.

**2.3 Scales and Verniers :**

Made of life time Stainless Steel.

**2.4 OPTICS :**

True achromatic objective with 7.5 cm. focusing distance from object, 10X Ramsden Eyepiece with fine cross wire is provided.

**2.5 TRAVEL :**

20 cm. horizontally and 15 cm. vertically.

**2.6 LEAST COUNT**

Horizontal scale : 0.001 cm.

Vertical scale : 0.001 cm.

03 One Beaker

04 Thermometer : 110°C

05 Strongly supported by detailed Operating Instructions, giving details of Object, Theory, Experimental procedure, 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.