

**TO DETERMINE THE COEFFICIENT OF  
THERMAL CONDUCTIVITY OF A  
METAL, BY USING SEARLE'S  
APPARATUS  
OMEGA TYPE ES-421**



**OMEGA TYPE ES-421** Experimental Set Up has been designed specifically to determine the coefficient of thermal conductivity of a metal, by using Searle's apparatus.

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 coefficient of thermal conductivity of a metal, by using Searle's apparatus.

**FEATURES**

The Experiment Set up consists of the following :

- 01. Searle's thermal conductivity apparatus
- 02. Four Thermometer 110 Degree x 1/2
- 03. Steam Boiler using hot plate with boiler.
- 04. Constant presser water flow arrangement with retort stand size 4"x6" base with 18" rod.

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

06. One jar of 1 Litre for constant water level tank.

07. One jar of 1 Litre for Waste water

08. One jar of 1 litre for Extra Water

09. Rubber Tube

10. Digital Stop Clock OMEGA TYPE DSC-602 with START/STOP operation by means of toggle switch & RESET by push button switch. It has a range of 999.9 second with resolution of 0.1 seconds and accuracy of  $\pm 0.01\%$  (Quartz controlled). Display is thorough 4 no's of 12.5 mm bright seven segment display and working voltage of the unit is  $230V \pm 10\% 50Hz$ .

11. Weight : 10.3 Kg. (Approx.)

12. 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**