

FL 29.1 - FLUID STATICS AND MANOMETRY



Equipment designed for the study of fluid static and pressure measurement with different types of piezometric tubes and level measuring elements such as graduated scales and limnimeter.

The equipment has a transparent tank, in which we will pour water, and through the different valves and pipes, the water is sent to the different columns.

One of the columns of water has a system to be able to tilt it, so that you can clearly visualize the effect of different inclinations.

In both columns and in the tank, there is a graduated scale to directly visualize the height of the water.

In addition, a limnimeter is included for precise measurement of the level of water.

The equipment is delivered with a complete workbook.



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LEARNING OBJECTIVES

A wide range of **experiments** and experiences can be realized, some of which are listed below:

- Study and verification of the hydrostatic paradox.
- Comparison between absolute and relative manometers.
- Use of the piezometric tube.
- Measurement of pressures with the following types of manometers:
 - in "U"
 - in "U" inverted
 - inclined
 - differential
- Use of a limnimeter to measure the water level.
- Use of graduated scales to determine the water level.
- Study of the influence of the air inside the manometers.
- Study of load losses.

TECHNICAL DATA Tank:

- - Storage capacity 4I.
 - Maximum height 560 mm.
 - Inner diameter of the tank 94 mm.

Manometers:

- Manometer in U. Scale 460 mm.
- Piezometric tubes. Scale 460 mm.
 - 2 parallels.
 - Variable section.
- Inclined manometer, scale 460 mm, 4 positions:
 - 50.
 - 30°.
 - 60°.
 - 90°.

Other elements:

- Limnimeter: Reading maximum capacity 150 mm.
- Non-return valve.