

**Product Name :**  
Astra Scientific Pitot Tube Apparatus

**Product Code :**  
Fluid Mechanics Lab0030



**Description :**

Astra Scientific Pitot Tube Apparatus

**Technical Specification :**

**DESCRIPTION:**

The designed pitot tube unit the change in flow speed within a tube can be determined. The Pitot static tube can be moved across the whole cross- section of the tube, and thus to measure the pressure profile. This tube is connected to manometers via hoses.

The Pitot tube can be moved across the cross-section of the pipe in order to measure the dynamic head profile. The position of the measuring tip relative to the wall of the pipe can be read on a scale. The Pitot tube is connected to a pressurized water manometer to measure the differential head across the pitot static tube.

The position of the measuring head relative to the bottom edge of the tube can be measured on a scale.

The water supply can come from the Hydraulics Bench or from the Basic Hydraulic Feed System.

The Pitot tube can be moved across the cross-section of the pipe in order to measure the dynamic head profile.

#### **FEATURES:**

- Study of the function of a pitot static tube.
- To use a pitot static tube.
- Determination of tube flow speed profiles.
- Demonstration that the flow speed is proportional to the  $\sqrt{\text{pressure}}$  difference between the total pressure and the  $\sqrt{\text{static}}$  pressure.
- Error determination in flow measurements using the  $\sqrt{\text{Pitot}}$  tube as measurement instrument.
- Factor  $C_d$  determination in the Pitot tube.
- Operation of a pitot static tube and pressurized water manometer
- Velocity flow profile in a pipe
- Demonstration that the fluid velocity is proportional to the square root of the head difference between the total head and the static head

#### **SPECIFICATION:**

- Pitot static tube:  $\sqrt{\text{Head}}$  diameter: 2.5 mm.
- Transparent pipe:  $\sqrt{32}$  mm. internal diameter
- Transparent pipe: 430-mm.-length approx.
- Hose connections.
- Water manometer, 500 mm. length.
- Easy and quick coupling system
- Built-in.  $\sqrt{\text{Anodized}}$  aluminum structure and panel of painted steel.



## **Astra Scientific**

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