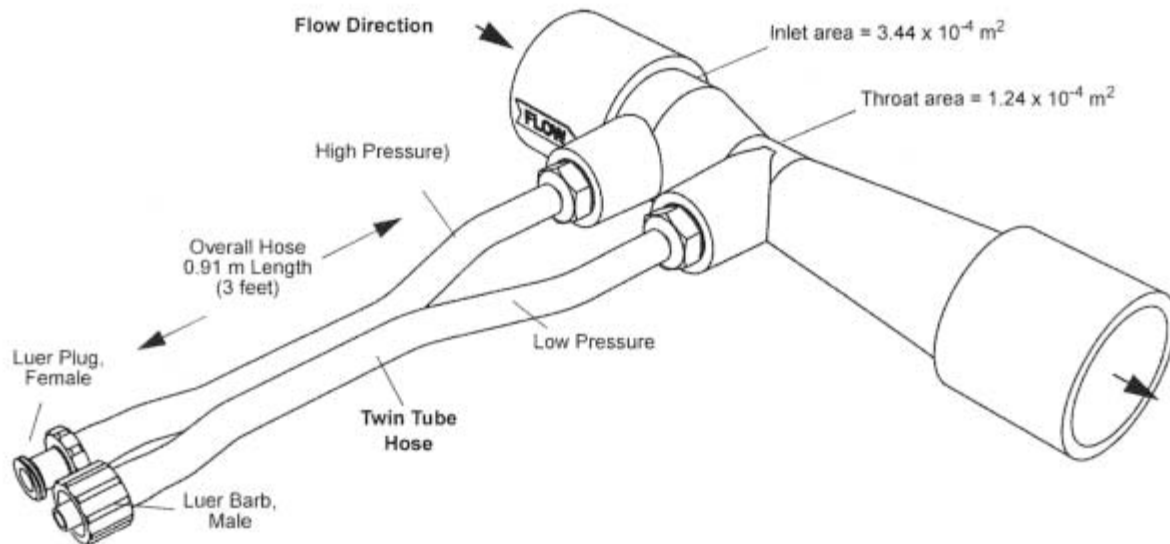


Venturi Tube



Required Items

General Flow Sensor

PASCO Interface

PASCO Data Acquisition Software

Product Description

The Venturi Tube is designed to work with the General Flow Sensor. The Venturi Tube connects to the General Flow Sensor by way of a flexible twin tube hose. The connectors on the General Flow Sensor are reversed from the connectors on the Venturi Tube so that they cannot be attached incorrectly.

The General Flow Sensor is a versatile differential pressure measuring device. It measures the difference in pressure between the two input tubes.

The Venturi Tube is designed to be used with standard Schedule 40 polyvinyl chloride (PVC) pipe. The open ends of the Venturi Tube have an inside diameter of approximately 2.69 cm (1.05 in). The inlet cross sectional area of the Venturi Tube is $3.44 \times 10^{-4} \text{ m}^2$ and the throat cross sectional area is $1.24 \times 10^{-4} \text{ m}^2$.

The plastic used in the Venturi Tube is compatible with standard PVC glues and the Venturi Tube may be glued into a piping network to measure flow rates. Alternatively, the Venturi Tube may be temporarily placed in a piping network using tape. The overall hose length is 0.91 m (three ft.).

Using the PASCO data acquisition software, the user can select the accessory that is attached to the sensor and what fluid is flowing through the accessory. Once these selections are made, the sensor provides the calculated values for flow velocity or volumetric flow (assuming standard temperature and pressure). The units of measure are selectable as metric or non-metric.

General Flow Sensor with the Venturi Tube

Item	Value with Venturi Tube
Accuracy - Water	± 2.1 gallons per minute (gpm)
Accuracy - Air	± 2.5 scfm
Range - Water:	0 to $0.00530 \text{ m}^3/\text{s}$ (0 to 84 gpm)
Range - Air:	0 to $0.0488 \text{ m}^3/\text{s}$ (0 to 102 gpm)

Setup and Use with the General Flow Sensor

Connect the Sensor

Connect tubes from the Venturi Tube to the General Flow Sensor. Insure that connections are tightly sealed prior to the introduction of any liquids to the system.

