

Model

SAP-810 For Gas, Liquid and Steam

Principle

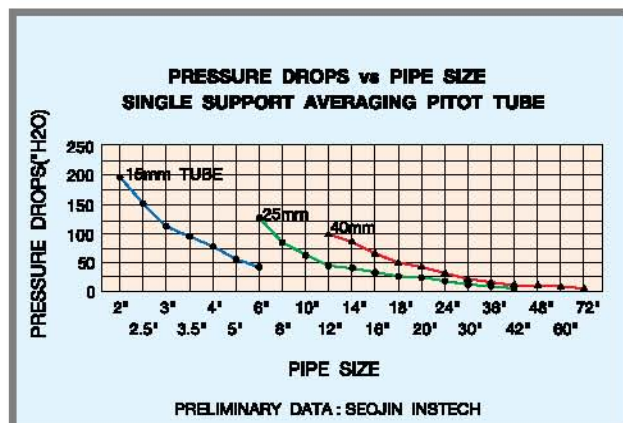
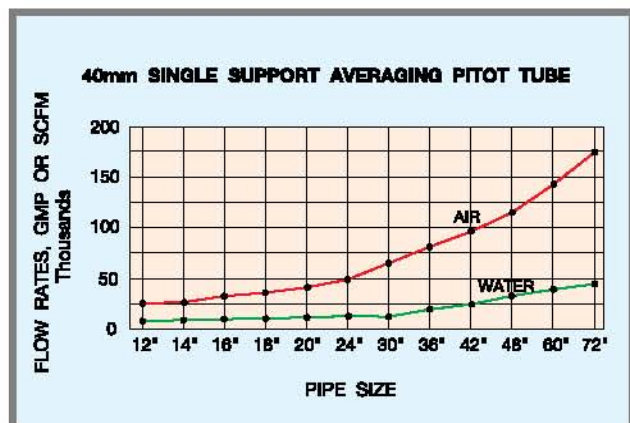
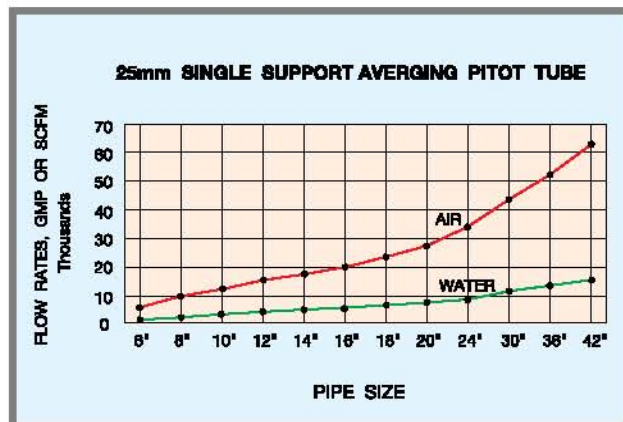
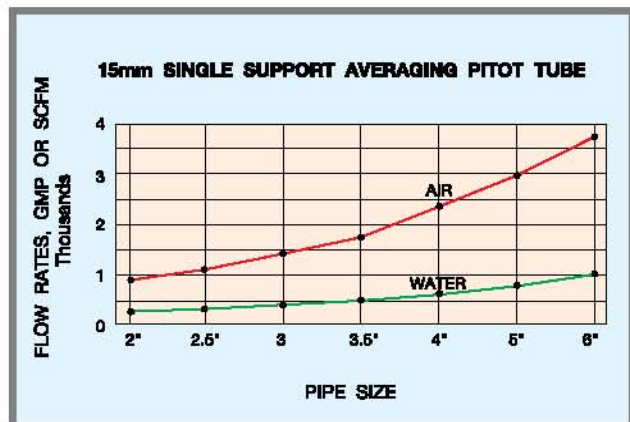
Fluid passing around a Pitot tube generates a pressure difference between the front and rear of the tube that is proportional to the velocity of the flow. The holes placed on the front and rear of the tube are used to sense the difference, which is needed to calculate the flow rate. Multiple sets of pressure-sensing holes give a distinct advantage in automatically averaging the non-uniform flow profile across pipe.

Features

- Easy installation
- Low pressure drop
- High accuracy
- Low maintenance cost
- Long term stability



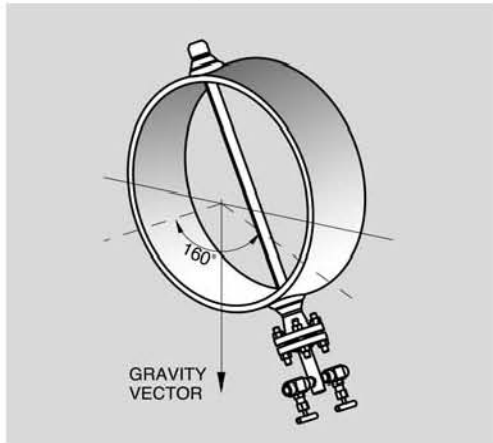
Maximum Allowable Flow Rates



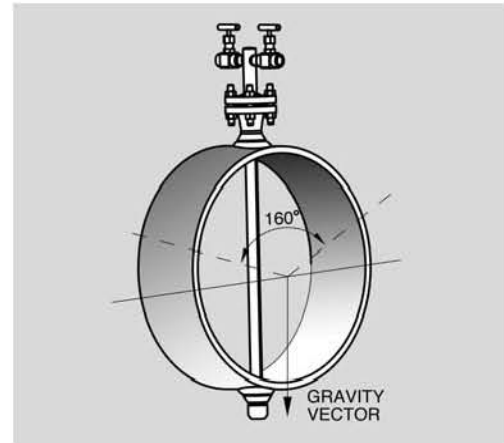
Installation

Note: Other orientations are possible with additional considerations.

Horizontal Pipes

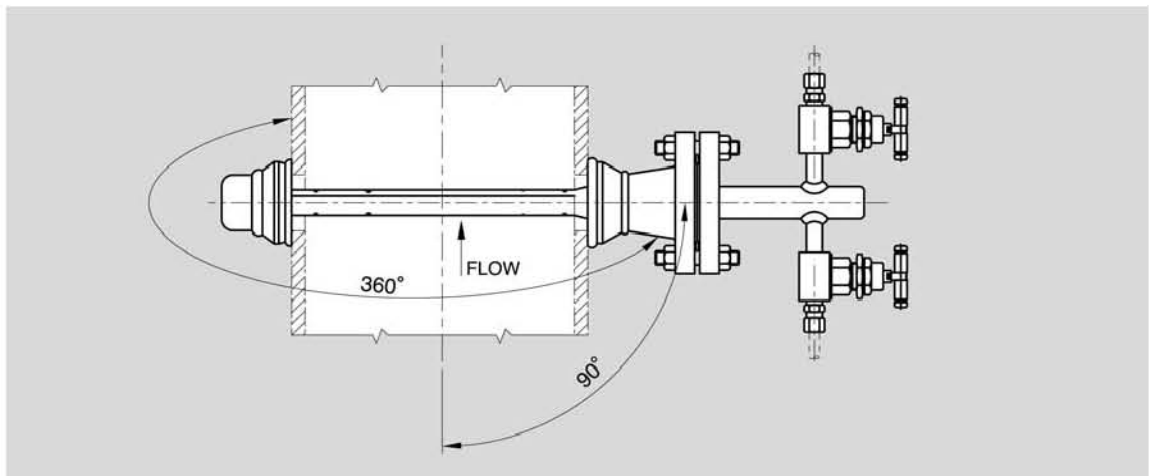


Liquids Services



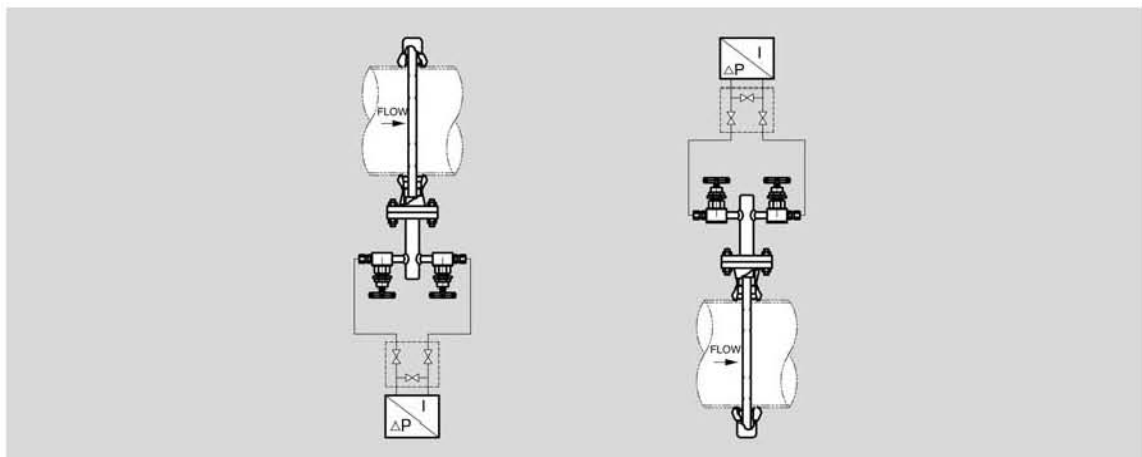
Gas, Steam Services

Vertical Pipes



Liquids, Gas, Services, except Steam

Transmitter Location



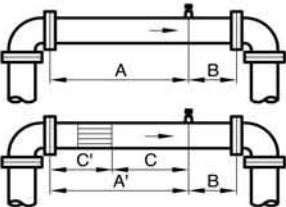
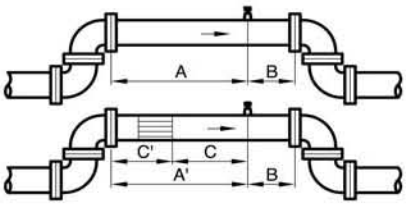
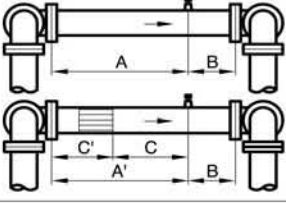
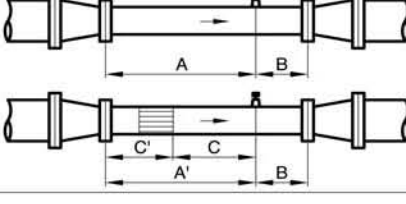
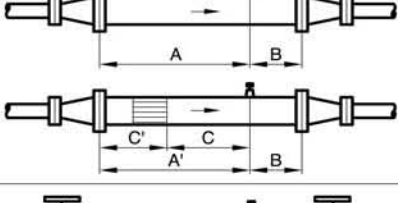
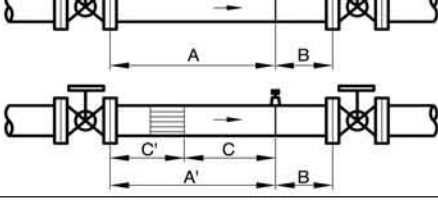
Liquids Services

Gas, Steam Services

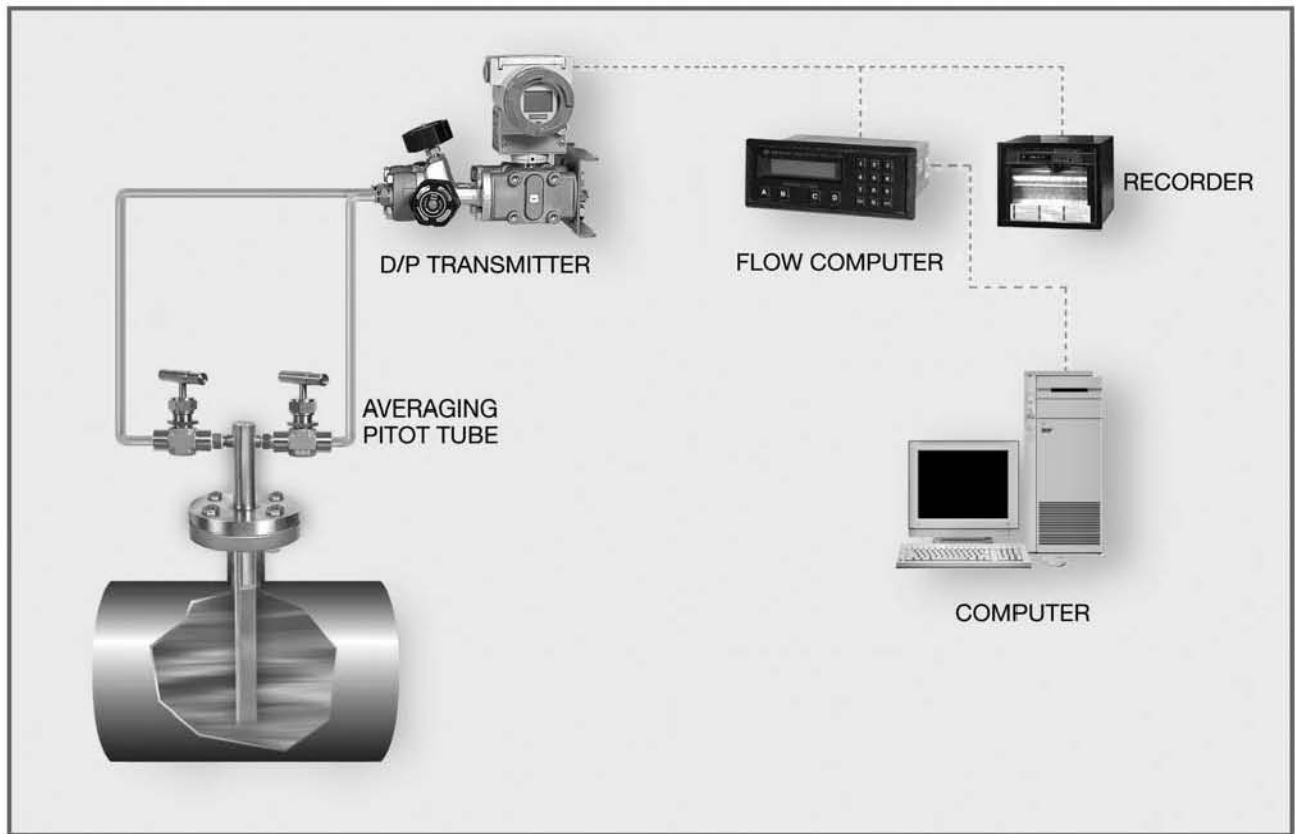
Straight Run Requirements

Use of recommended straight pipe lengths of uniform diameter upstream and downstream ensures that flow measurement will be made in flow with fully developed characteristics. The flowing chart describes the minimum number of pipe diameters upstream and downstream of the SAP. Longer lengths are always preferred (if available) for accurate flow measurement.

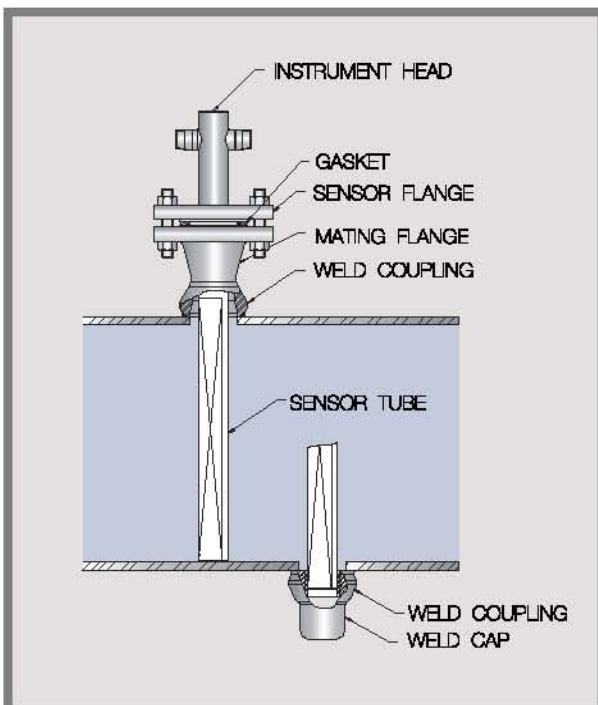
Note: Straight runs listed below are for water. Multiply times 1.5 for gases or steam.

| Minimum Diameters Straight Pipe | Upstream Dimensions | | | | | Downstream Dimension |
|---|---------------------|-------------------|------------|----|----|-------------------------|
| | Without Vanes | | With Vanes | | | |
| | In Plane A | Out Plane A | A' | C | C' | B |
|  | 8D | 10D | | | | 4D |
| | | | 8D | 4D | 4D | |
|  | 11D | 16D | | | | 4D |
| | | | 8D | 4D | 4D | |
|  | 23D | 28D | | | | 4D |
| | | | 8D | 4D | 4D | |
|  | 12D | 12D | | | | 4D |
| | | | 8D | 4D | 4D | |
|  | 18D | 18D | | | | 4D |
| | | | 8D | 4D | 4D | |
|  | 30D | 30D | | | | 4D |
| | | | 8D | 4D | 4D | |

Complete Flow Loops



This Averaging Pitot Tube developed by Seojin Instech with the support of KEPCO is a highly efficient, reliable and repeatable head-type flowmeter.



Specifications

| | |
|----------------------|--------------------------|
| Meter Type | Averaging Pitot Tube |
| Model | SAP-810 Series |
| Sensor Configuration | Modified Rate |
| Accuracy | $\pm 1.0\%$ of Rate |
| Repeatability | -0.1% of Rate |
| Sensor Material | 316SS, Monel |
| Mounting Material | C.S, 304SS, 316SS, Monel |
| Turn Down Ratio | 5 : 1 |
| Process Fluid | Liquid, Gas, Steam |

■ AVERAGING PITOT TUBE

SAP- 810 | 1 | A | 1 | A | 1 | A | 1

FLUID

- 1 = Liquid
- 2 = Air(Gas or Steam)

MATERIAL FOR MOUNTING HARDWARE

- A = Carbon steel
- B = 304SS
- C = 316SS
- OP= etc.

MATERIAL FOR SENSOR TUBE

- 1 = 304SS
- 2 = 316SS
- 3 = MONEL
- OP= etc.

FLANGE MATERIAL

- A = 304SS
- B = 316SS
- C = MONEL
- OP = etc.

FLANGE RATING

- 1 = JIS 10K
- 2 = JIS 20K
- 3 = JIS 30K
- 4 = ANSI #150
- 5 = ANSI #300
- 6 = ANSI #600
- 7 = ANSI #900
- OP= etc.

LINE SIZE

- 1 = 15A(1/2")
- 2 = 20A(3/4")
- 3 = 25A(1")
- 4 = 32A(1-1/2")
- 5 = 50A(2")
- 6 = 65A(2-1/2")
- 7 = 80A(3")
- 8 = 100A(4")
- 9 = 125A(5")
- 10 = 150A(6")
- 11 = 200A(8")
- OP= etc.

TYPE OF SUPPORT

- 1 = Single support
- 2 = Double support

■ When placing an order, selected ordering number should be indicated on the purchase order sheet.