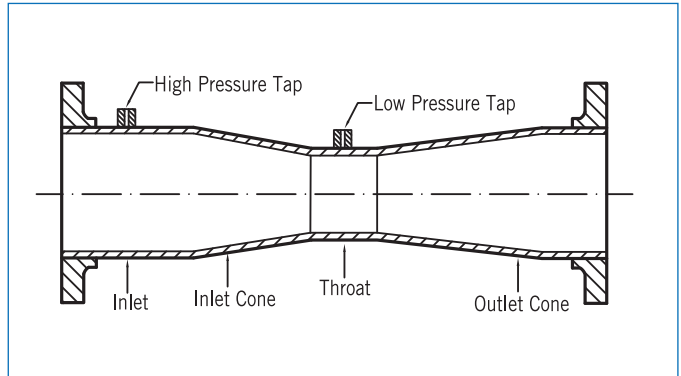


CLASSICAL VENTURI TUBES



Classic Venturi Tube



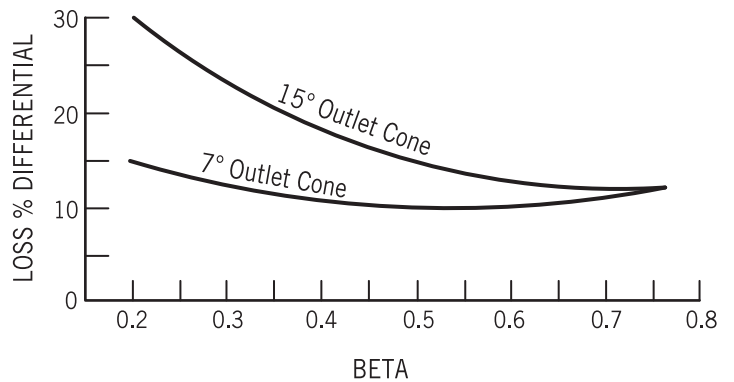
The classical venturi tube consists of a straight inlet section of the same diameter as the pipe and in which the high pressure tap is located a converging conical inlet section in which the cross section of the stream decreases and the velocity increases with a consequent increase of velocity head and decrease of pressure head.

The pressure taps are located one-quarter to one-half pipe diameter upstream of the inlet cone and at the middle of the throat section.

Technical Data

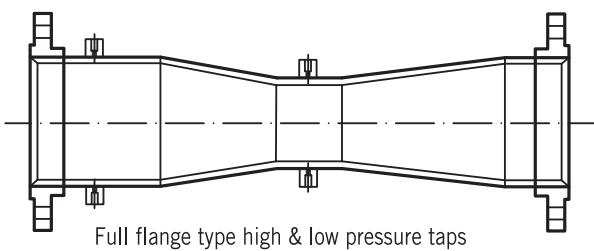
- ISO-5167-4 standard
- Diameter ratio β : 0.3~0.75
- Minimum recommended reynold number: 75,000
- Minimum recommended pipe I.D: 3" (75mm)
- Size: 3" ~ 42" available
- Material: A105, steel, stainless steel, available.
Special material on request.

Venturi Pressure Loss

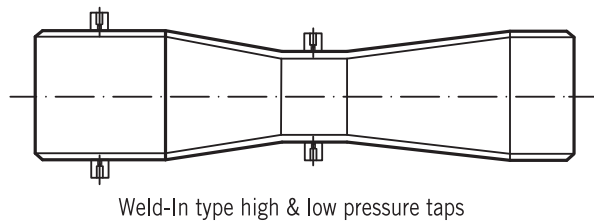


Representative Schematic

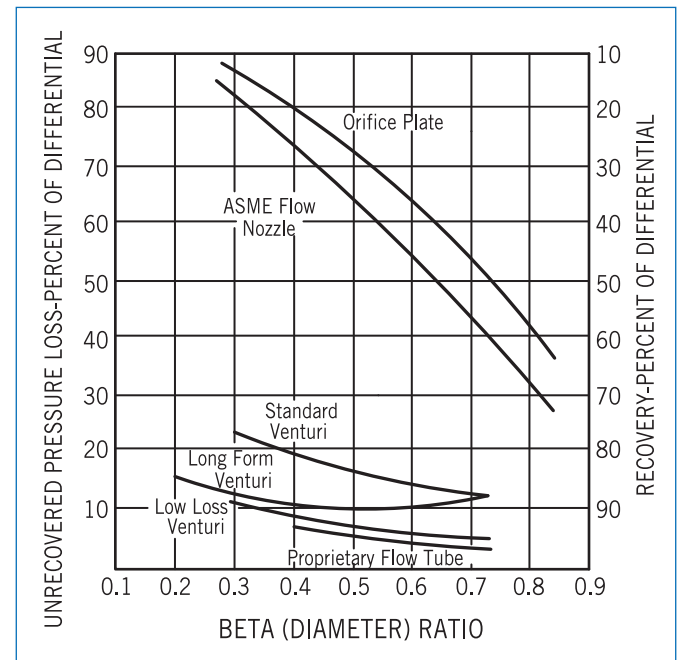
Model VTF



Model VTW

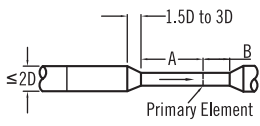
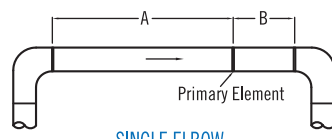
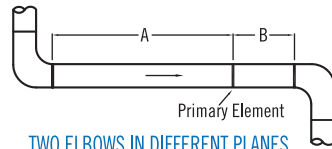
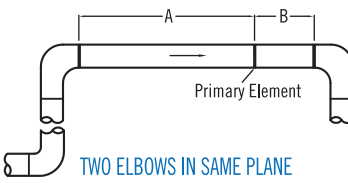
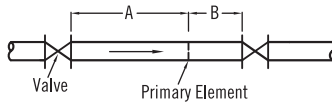
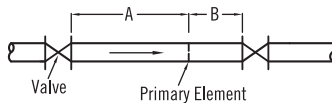
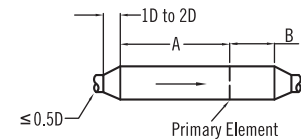


Pressure Loss Curves



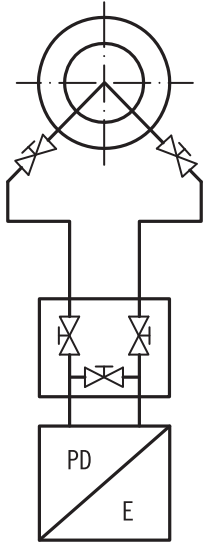
ISO Standard 5167 Required

Straight Lengths for Orifice Nozzle ISA Venturi Nozzle and Venturi in Multiples of Pipe Diameter D

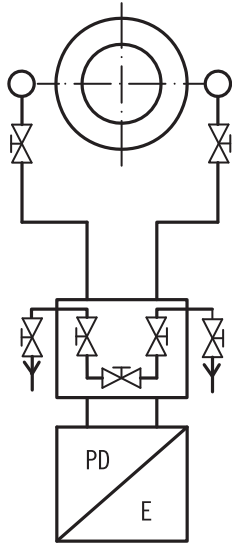
Upstream disturbance	Dimension	Device	β							
			0.2	0.3	0.4	0.5	0.6	0.7	0.75	
 <p>REDUCER</p>	A	Orifices Nozzles	5	5	5	6	9	14	22	
		Venturis		0.5	2.5	5.5	8.5	10.5	11.5	
 <p>SINGLE ELBOW</p>	A	Orifices Nozzles	14	16	18	20	26	28	36	
		Venturis		0.5	0.5	1.5	3	4	4.5	
 <p>TWO ELBOWS IN DIFFERENT PLANES</p>	A	Orifices Nozzles	34	34	36	40	48	62	70	
		Venturis		0.5	0.5	8.5	17.5	27.5	29.5	
 <p>TWO ELBOWS IN SAME PLANE</p>	A	Orifices Nozzles	14	16	18	20	26	36	42	
		Venturis		1.5	1.5	2.5	3.5	4.5	4.5	
 <p>GATE VALVE, FULLY OPEN</p>	A	Orifices Nozzles	12	12	12	12	14	20	24	
		Venturis		1.5	2.5	3.5	4.5	5.5	5.5	
 <p>GLOBE VALVE, FULLY OPEN</p>	A	Orifices Nozzles	18	18	20	22	26	32	36	
		Venturis								
 <p>EXPANDER</p>	A	Orifices Nozzles	16	16	16	18	22	30	38	
		Venturis		1.5	1.5	2.5	3.5	5.5	6.5	
Downstream length for all Pictured disturbances	B	Orifices Nozzles	4	5	6	6	7	7	8	
		Venturis		4d	4d	4d	4d	4d	4d	

Venturi Tube Installed Guide

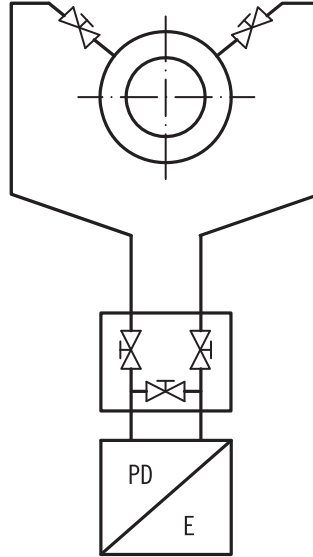
Liquid
DP-Flow Element
 With 3-way manifold.



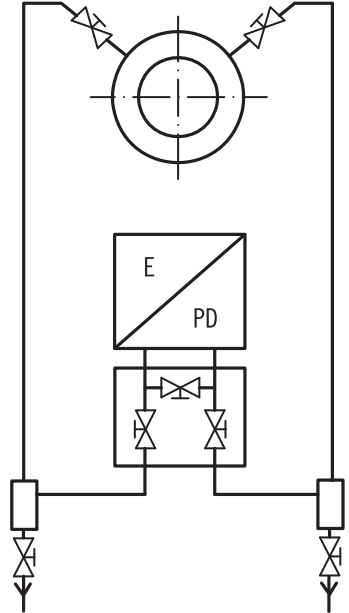
Steam
DP-Flow Element
 With 5-way manifold and
 condense pots



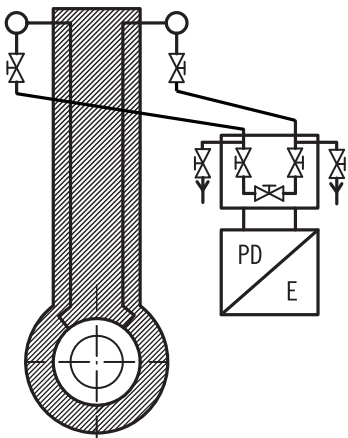
Dry Gas
DP-Flow Element
 With 3-way manifold



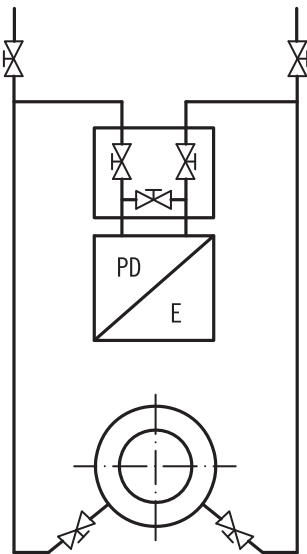
Humid Gas
DP-Flow Element
 With 3-way manifold and
 drain pot



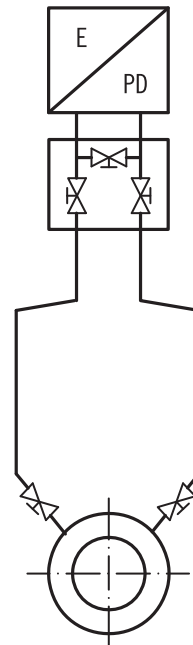
Steam
DP-Flow Element on
 top mounting
 With condense pots



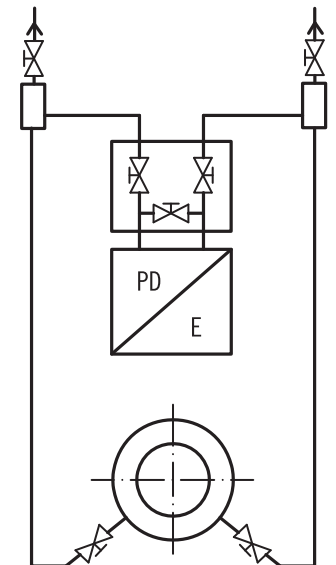
Liquid
DP-Flow Element on
 top mounting
 With 3-way manifold and
 vent valves



Gas, dry and humid
DP-Flow Element on
 top mounting
 With 3-way manifold



Gaseous Fluid
DP-Flow Element on
 top mounting
 With 3-way manifold and
 vent pots



Ordering Information

Individual Specification				Requirement		Requirement	
1	Model No.						
2	P&ID No.						
3	Line No.						
4	Service						
Meter							
5	Type of Element						
6	Size & Process Connection						
7	Pressure Taps						
8	Taps Connection						
9	Wetted Parts Material						
10	Condensate or Sealing Chamber						
11	Diff. Pressure (mmH ₂ O)	Design	Calculated				
12	Beta Ratio	Design	Calculated				
13	Calculation STD	Design	Calculated				
14	Painting						
15	Fluid	Phase					
16	Flow Range	Flow unit					
17	Flow Rate	Max.	Nor.				
18	Temp. (°C)	Max.	Nor.				
19	Press. (kg/cm ² G)	Max.	Nor.				
20	Viscosity @Cp	Cp/Cv					
21	SpGr @Cp./@Base	Mol. Wt.					
22	Pipe Size (mm)	I.D	O.D				
23	Pipe Material	Pipe Schedule No.					
24	Max. Permissible Pressure Loss (mmH ₂ O)						
25	Tag No.						

* Please fill in above block on request.