

VENTURI TUBE MODEL : F700 SERIES

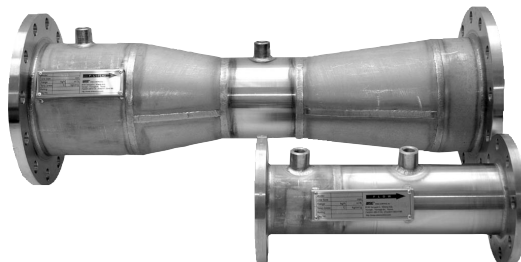
WISE[®]

DESCRIPTION

The Venturi tube, is characterized by its tapered inlet and diverging outlet. This design greatly reduces head loss to the system when compared to an orifice plate. In fact, the Venturi can handle 25% to 50% more flow than an orifice for comparable larger line size and lower head loss. The Venturi is well suited for dirty fluids. There are no places for dirt to build up in the tube. Traditionally, the Venturi tube has been used on low pressure gas flow, water and waste applications.

Venturi tubes are generally constructed with a system of pressure taps which project radially into the pipe and feed into a common camber known as a piazometer ring. This multiple tap arrangement provides an average pressure reading over the entire circumference of the element. As a result, the need for long pipe runs is eliminated. A general rule is that a venturi tube requires only half the upstream and downstream runs of an orifice plate.

The discharge coefficient of the Venturi is constant and predictable to $\pm 1\%$ for pipe Reynolds numbers greater than 100,000. Venturi elements are not as reliable at lower Reynolds numbers (Figure 10). The Venturi tube is a relatively high cost device. However, low pumping costs and reduced piping requirements can make it cost effective.



SPECIFICATION

VENTURI TYPE -

- fabricated flange type
- fabricated weld-on type
- machined flange type
- rectangular type

FLOW CALCULATION STANDARDS -

ISO 5167

FLANGE RATINGS -

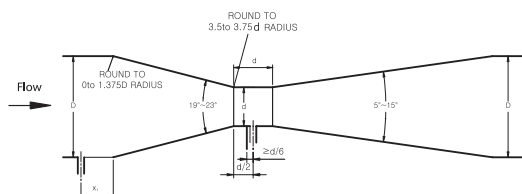
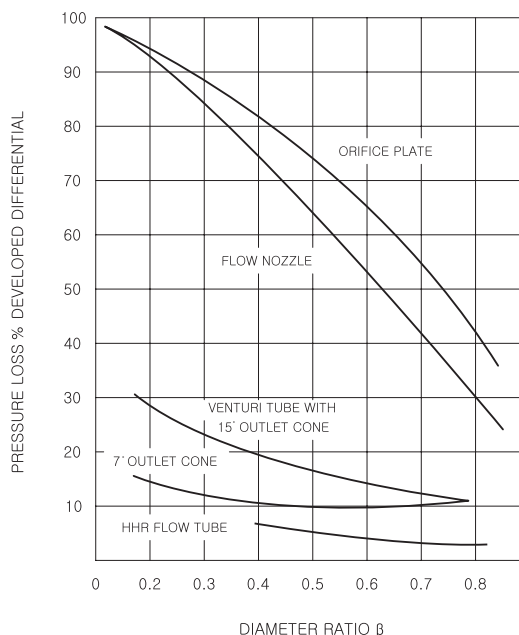
JIS 20
ANSI 300LB

NOMINAL PIPE SIZES AVAILABLE -

50mm to 1200mm
(2 to 48 INCH)

MATERIAL -

CARBON STEEL
304SS, 316SS



The Critical Dimension of the Classical Venturi Tube

VENTURI TUBE ORDERING INFORMATION

F700

TYPE

FF : Fabricated Flanged
FW : Fabricated Weld-On
MF : Fabricated Flanged

MW : Machined Weld-On
RF : Rectangular Flanged
RW : Rectangular Weld-On

LINE SIZE

JIS (mm)	ANSI (inch)	DIN (mm)	JIS (mm)	ANSI (inch)	DIN (mm)
J015 : 15A	A001 : 1/2B	D015 : 15A	J250 : 250A	A012 : 10B	D250 : 250A
J020 : 20A	A002 : 3/4B	D020 : 20A	J300 : 300A	A013 : 12B	D300 : 300A
J025 : 25A	A003 : 1B	D025 : 25A	J350 : 350A	A014 : 14B	D350 : 350A
J040 : 40A	A004 : 1 1/2B	D040 : 40A	J400 : 400A	A015 : 16B	D400 : 400A
J050 : 50A	A005 : 2B	D050 : 50A	J450 : 450A	A016 : 18B	D450 : 450A
J065 : 65A	A006 : 2 1/2B	D065 : 65A	J500 : 500A	A017 : 20B	D500 : 500A
J080 : 80A	A007 : 3B	D080 : 80A	J600 : 600A	A018 : 24B	D600 : 600A
J100 : 100A	A008 : 5B	D100 : 100A	J700 : 700A	A019 : 28B	D700 : 700A
J125 : 125A	A009 : 5B	D125 : 125A	J800 : 800A	A020 : 32B	D800 : 800A
J150 : 150A	A010 : 6B	D150 : 150A	J000 : 1000A	A021 : 40B	D000 : 1000A
J200 : 200A	A011 : 8B	D200 : 200A	XXXX : OTHER		

BODY MATERIAL

C : C.S 6 : SUS316L
4 : SUS304 O : Other
5 : SUS316

FLANGE RATING

JIS	ANSI	DIN
J010 : JIS 10K	A010 : ANSI 150#	P010 : PN10
J016 : JIS 16K	A020 : ANSI 300#	P016 : PN16
J020 : JIS 20K	A030 : ANSI 600#	P025 : PN25
J030 : JIS 30K	A040 : ANSI 900#	P040 : PN40
J040 : JIS 40K	A050 : ANSI 1500#	
J063 : JIS 63K	A060 : ANSI 2500#	

FLANGE MATERIAL

A : A105
S : SUS304
O : Other
N : None

BOSS MATERIAL

CS : A105
S4 : SUS304
OH : Other
N : None

OPTION

O : Other
N : None

F700

FF

A016

4

A020

S

S4

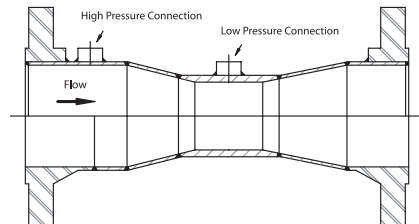
N

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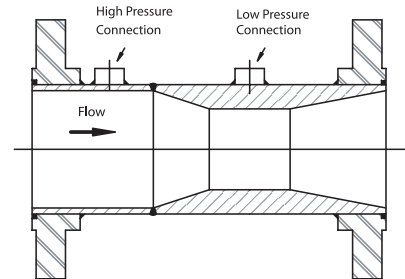
**FABRICATED FLANGE TYPE
AVAILABLE IN SIZE 6" AND LARGER**

MODEL : F700-FF



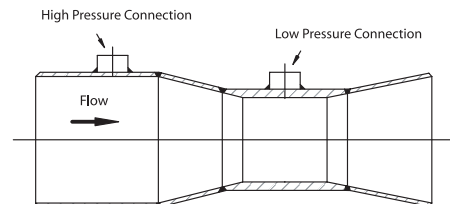
**MACHINED FLANGE TYPE
AVAILABLE IN SIZE 6" AND SMALLER**

MODEL : F700-MF



**FABRICATED WELD-ON TYPE
AVAILABLE IN SIZE 6" AND LARGER**

MODEL : F700-FW



**RECTANGULAR TYPE
AVAILABLE IN SIZE 6" AND LARGER**

MODEL : F700-RW

