• FLOW STRAIGHTENER •
FOR VORTEX FLOW METERS

DESCRIPTION

The optional flow straightener accessory for ONICON F-2000 Series Vortex Flow Meters is a wafer-style flow conditioner that is designed to be installed between two ANSI class 150 or class 300 flanges (provided by installer) that are located a specified distance upstream of the flow meter.

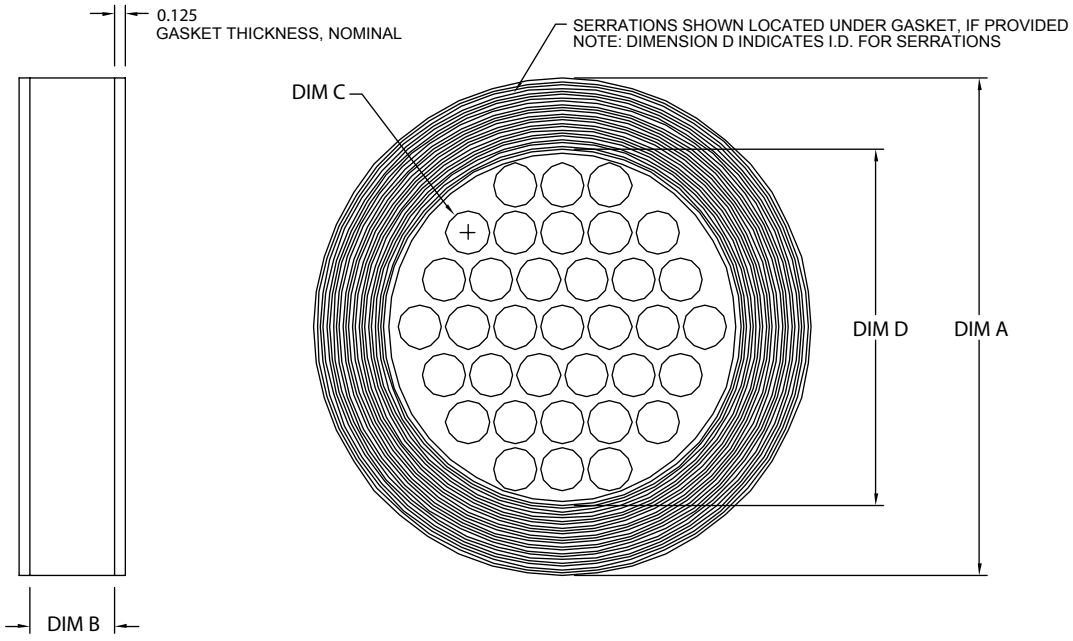
Use of a flow straightener significantly reduces the upstream straight pipe length requirement for ONICON Vortex Flow Meters.

The size of the straightener should always match the meter size (as opposed to the original pipe size).

The flow straightener is made of 304/A 351 CF8 Stainless Steel.

TABLE 1 - ALL DIMENSIONS SHOWN IN INCHES

SIZE	DIM A	DIM B	DIM C	DIM D	NUMBER OF HOLES
2”	3.93	1.0625	.28	2.14	35
3”	5.31	1.0625	.43	3.24	35
4”	6.26	1.0625	.55	4.22	35
6”	8.50	1.0625	.78	6.07	35
8”	10.62	1.0625	1.02	7.98	35
10”	13.23	1.0625	1.30	10.02	35
12”	15.00	1.0625	1.53	12.00	35



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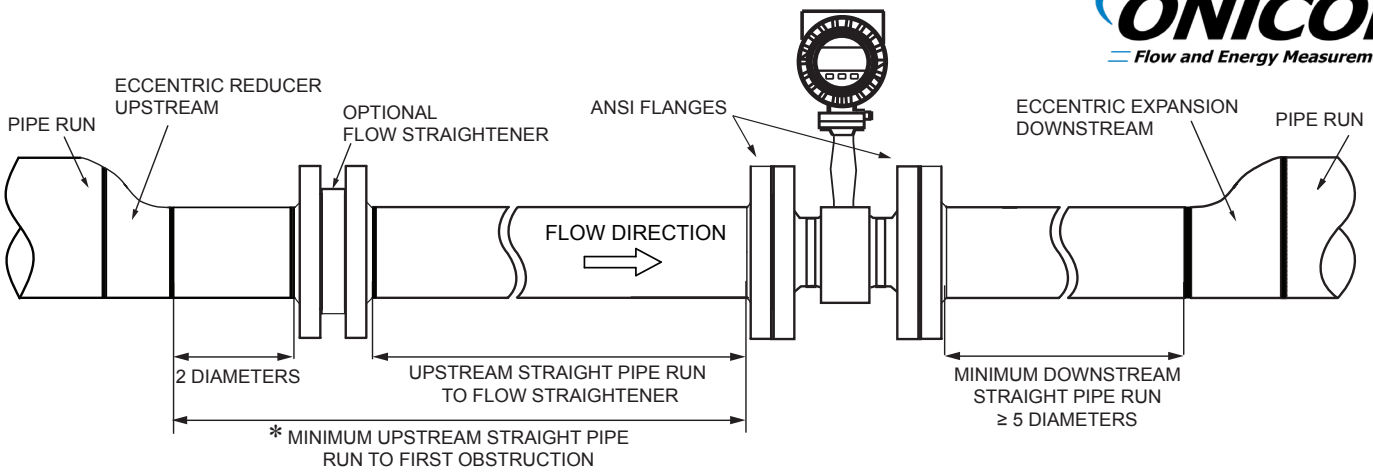
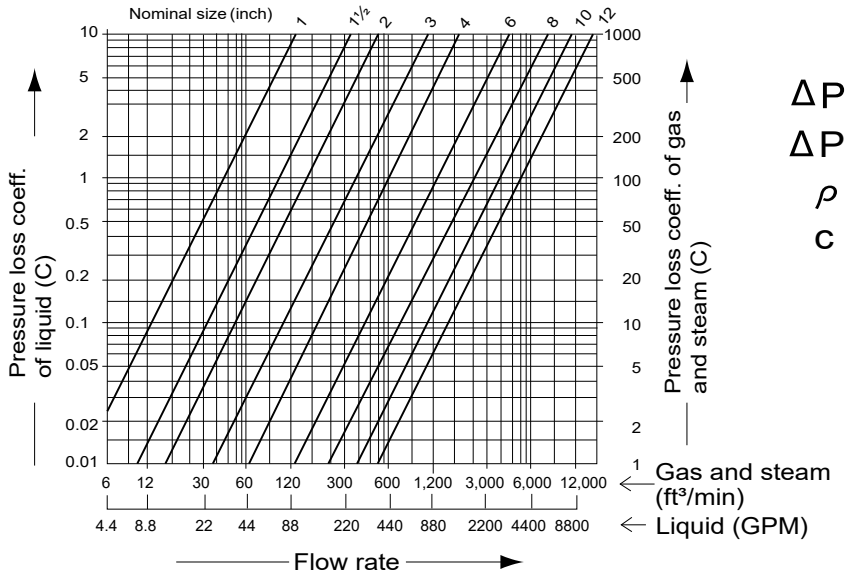


Obstruction	*Minimum Upstream Straight Pipe Run Requirements	
	Straight pipe run without flow straightener	Straight pipe run to flow straightener
Single bend preceded by ≥ 9 diameters of straight pipe	10 Dia	N/A
Outflowing tee	10 Dia	N/A
Pipe size reduction before meter	10 Dia	N/A
Single bend preceded by ≤ 9 diameters of straight pipe	15 Dia	8 Dia
Expansion before meter	20 Dia	8 Dia
Multiple bends out of plane	30 Dia	13 Dia
Partially open valve	30 Dia	13 Dia
Control valve / P.R.V.	50 Dia	23 Dia

NOTES
1. Consult ONICON for meter size and applicable meter pipe run for each application. Install according to manufacturer's recommendations.
2. Provide eccentric reducer and expander when required.
3. Provide flow straightener when required to meet recommended minimum upstream pipe run requirements.
4. Flanges provided by contractor. Center straightener between flanges during installation.

Pressure Loss for Flow Straightener



$$\Delta P = c \cdot \rho \cdot 0.023232$$

ΔP: Pressure loss in psi

ρ : Density(lb/ft³)

c : Pressure loss coefficient

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