

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 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.

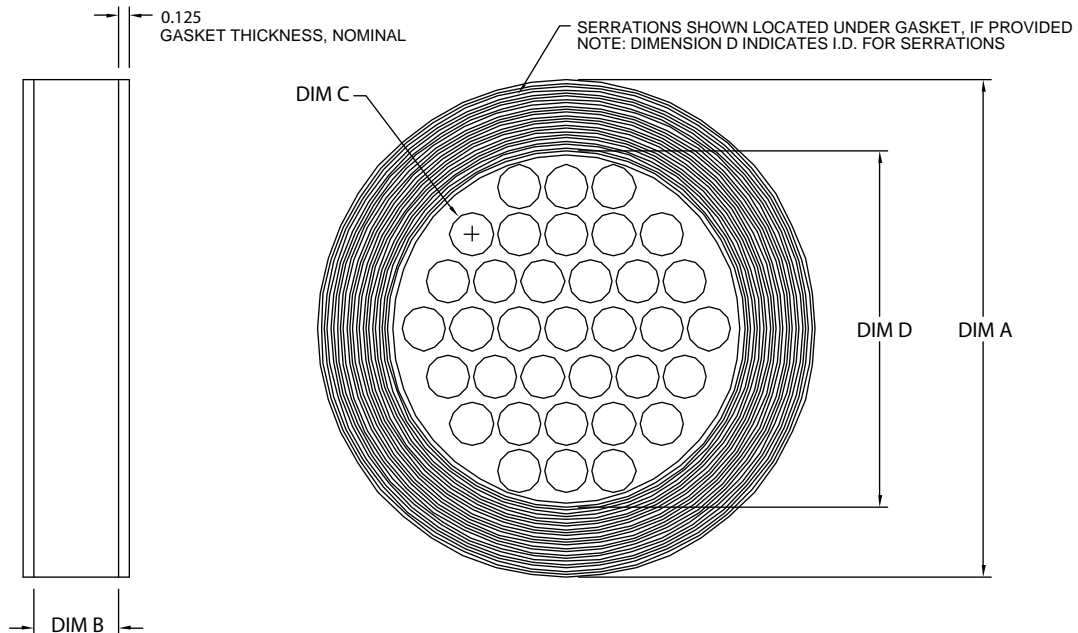
The size of the straightener should always match the meter size (as opposed to the original pipe size).

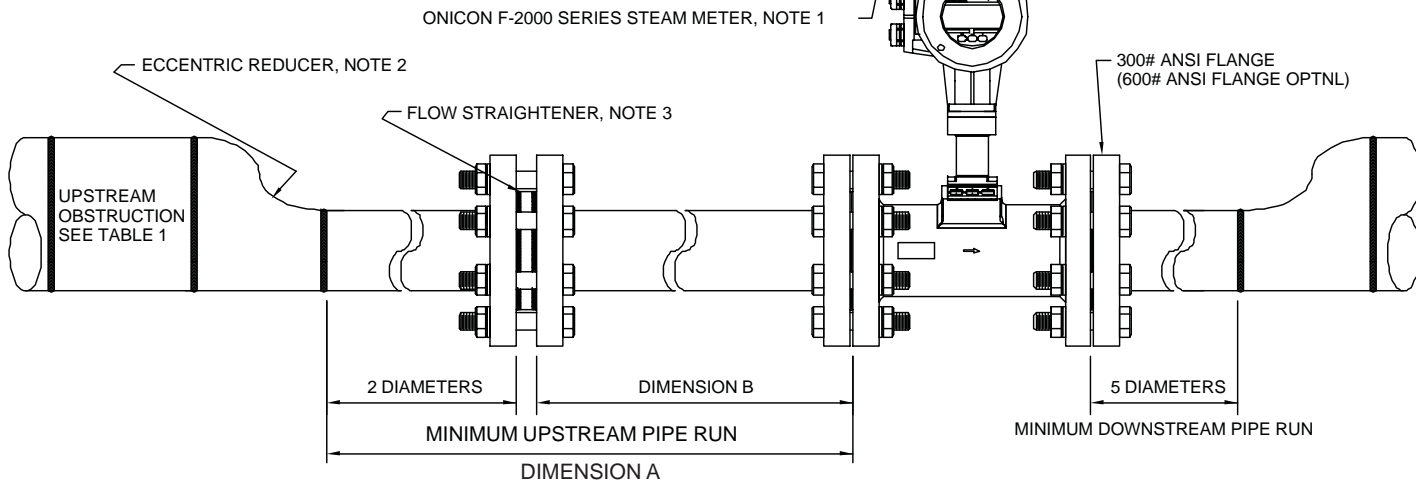
The flow straightener is made of 304/A 351 CF8 Stainless Steel.



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



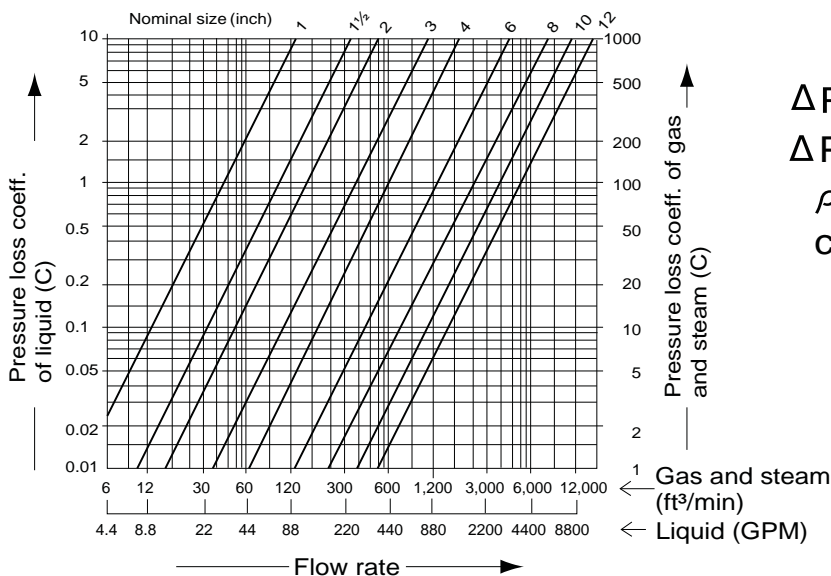


REQUIRED DIMENSIONS FOR INSTALLATIONS WITH FLOW STRAIGHTENER		
UPSTREAM OBSTRUCTION	DIMENSION A	DIMENSION B
	TOTAL UPSTREAM PIPE RUN	DISTANCE BETWEEN FLOW METER AND STRAIGHTENER
SINGLE 90	12 DIA	10 DIA
TEE	12 DIA	10 DIA
RDCR/EXPNDR	12 DIA	10 DIA
TWO 90'S SAME PLANE	17 DIA	15 DIA
BALL/GATE VALVE FULLY OPEN	17 DIA	15 DIA
TWO 90'S OUT OF PLANE	22 DIA	20 DIA
CONTROL VALVE	27 DIA	25 DIA
PRV	27 DIA	25 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