In-line Flow Conditioning Plates

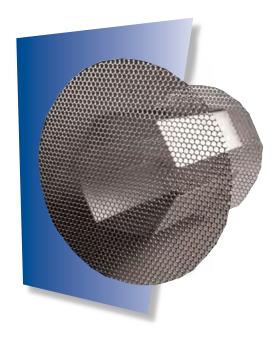
Features

- Minimizes low profile irregularities caused by elbows, valves, expansions, reductions
- Significantly reduces upstream and downstream piping requirements
- Low pressure drop
- Available in sizes for 1" to 14" schedule 40 pipe (larger sizes contact factory)
- Rugged 316 ss construction
- Easy installation using customer supplied flanges



Built-in flow conditioning creates a uniform velocity profile in constrained applications





Description

ierra Instruments' Flow Conditioning Plates
represent an economical solution to problems
associated with monitoring flow installations where
long, straight runs of piping are not available. The flow
conditioning element effectively eliminates velocity profile
distortions, swirl and temperature stratification in the gas
stream. The flow conditioner creates a uniform velocity

profile by means of two stainless steel perforated plates. Designed to work in schedule 40 pipe (other scheduals contact factory) with 150# flanges, the front flow conditioning screen is sandwiched between two 150# flanges, along with two 1/8" gaskets (gaskets and flanges are supplied by customer). The flange mounting bolts serve to center the screen in place.

The flow plates reduce upstream piping diameters to less than three diameters after most common flow disturbances. Extensive testing has demonstrated that this device virtually eliminates the effect of piping conditions with fewer upstream diameters than any other flow conditioning technique.

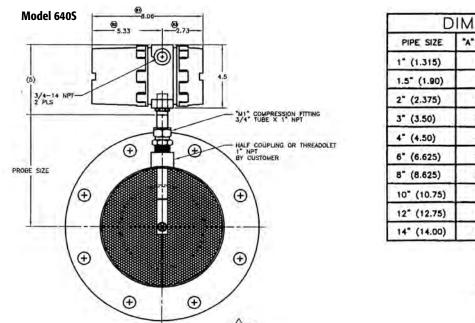
Flow plates may be purchased separately for general flow conditioning or they may used with existing Sierra insertion meters if calibrated as a set.



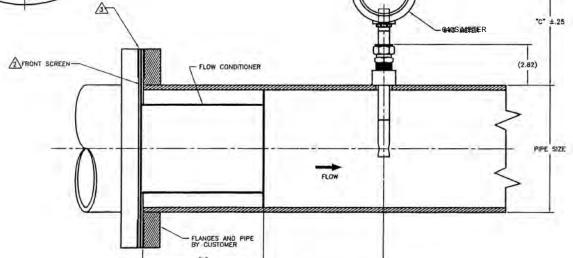
For information online...
www.sierrainstruments.com



Dimensional Specifications

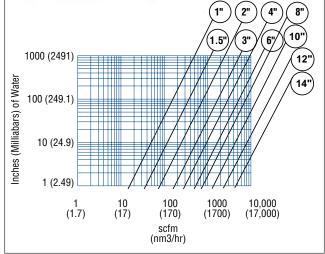


D	IMEN	SION	CHA	RT
PIPE SIZE	"A" DIM	"B" DIM	"C DIM	PROBE CODE (SIZE)
1" (1.315)	1"	2*	8.34"	L04 (4")
1.5" (1.90)	1,5*	3.	9.05*	L05 (5")
2" (2.375)	2"	4*	8.81"	L05 (5")
3" (3.50)	3"	6"	9.25"	L06 (6")
4" (4.50)	4*	8*	8.75*	L06 (6")
6" (6.625)	6*	12"	8.69"	L07 (7")
8" (8.625)	8"	16"	8.69"	L08 (8")
10" (10.75)	10*	20*	9.62"	L10 (10°)
12" (12.75)	12"	24"	8.62*	L10 (10°)
14" (14.00)	13*	26*	11.00*	L13 (137)



Required Straight Lengths Relative to Upstream Disturbances

	Upstream Diameters		
Disturbance	Orifice Plate	Flow Cond. Plates	
One 90° Elbow	28	1	
Two 90° Elbows Same Plane	36	3	
Two 90° Elbows Different Planes	62	3	
Reducer - 4/1	14	3	
Globe Valve - Fully Open	32	2	



Note: 10"-14" 87.1 inches of H₂0 @ 20,000 sfpm



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FLANGE FACE