



FLOW METERING EQUIPMENT

Model ASF Ellipse® Pitot Tube Annular Flow Meter

Preso's patented elliptical design outperforms and provides greater accuracy than traditional differential pressure flow measurement devices. This differential pressure flow meter is designed with a series of ports facing the upstream velocity pressures, as well as flow sensing ports strategically located ahead of the trailing edge flow separation.

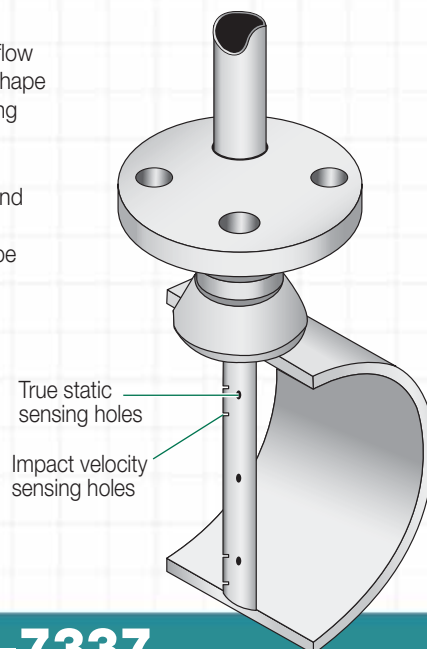
Features

- Patented elliptical design outperforms traditional devices
- Single point pipe entry for DP, temperature and static pressure
- No dampening software required
- Lowest pressure loss in industry (typically 3% of DP in a 12" line) due to its patented aerodynamic profile
- NIST traceable calibration: Optional independent labs

Benefits

- Accuracy: $\pm 0.75\%$ of reading, repeatability: $\pm 0.1\%$ of reading
- Turndown ratio: 17:1; no vacuum effects
- No moving parts equals long, trouble-free service life
- True static pressure measurement rather than a calculated value
- Overcomes loss of accuracy caused by fluid separation at the sensor body

The multi-ported, self averaging flow element consists of an elliptical shape with two independent flow sensing chambers. The impact velocity sensing holes (high pressure) are located along the leading edge and the true static sensing holes (low pressure) are on the exterior probe side. Model ASF comes with instrument shut-off valves with connections to accept a transmitter or direct indicating meter.



Specifications

Applications:	Steam
Pipe Sizes:	2 to 48 inches (50 to 1220 mm)
Pressure:	Vary per flange ratings
Temperature:	Vary per flange ratings
Accuracy:	$\pm 0.75\%$ of reading
Turndown Ratio:	17:1 with no vacuum effect
Standard Components:	T-type head, 316 SS 1/2" FNPT connection CS compression fitting with SS ferrule CS 3000 lb. weld fitting – ASTM A105 316/316L SS Ellipse sensor 316 SS ID tag with wire
Reynolds Number:	Greater than 75,000 maintains most accurate flow measurements Less than 75,000 consult factory for estimated results
Resonance:	If greater than 0.8, use double support per ASME PTC 19.3

1-800-632-7337

www.preso.com



Model ASF Ellipse® Pitot Tube Annular Flanged Flow Meter

Part Number Construction: PASF (7/8") PASF1 (1-1/4") PASF2 (2-1/4")

Pipe Size (PASF)	Pipe Size (PASF1) (PASF2)	Pipe Orientation	Probe Material	Instrument Connection	Pipe Mounting	Instrument Valve*
A) 2 inch B) 2-1/2 inch C) 3 inch D) 3-1/2 inch E) 4 inch F) 5 inch G) 6 inch H) 8 inch I) 10 inch J) 12 inch K) 14 inch	A) 12 inch B) 14 inch C) 16 inch D) 18 inch E) 20 inch F) 24 inch G) 30 inch H) 36 inch I) 42 inch J) 48 inch	A) Horizontal B) Vertical	1) 316/316L-SS 2) Monel® 3) Inconel® 4) Hastelloy® X) Other (consult factory for information)	A) 1/2" NPT B) 1/2" Socket C) TT3 (Integral 3 Valve Trans-Mount) D) TT5 (Integral 5 Valve Trans-Mount) E) Transmitter Flange Connection	1) A105 CS 3000# 2) 316/316L SS 3000# 3) A105 CS 3000# w/DbI Support (see below) 4) 316/316L SS 3000# w/DbI Support	A) 1/2" Gate CS w/cross B) 1/2" Gate SS w/cross Z) Not required
Schedule						
A) Std B) 20 C) 30 D) 40 E) 60 F) 80		G) 100 H) 120 I) 140 J) 160 K) XH	L) XXH M) 5S N) 10S O) 40S P) 80S			

Connection

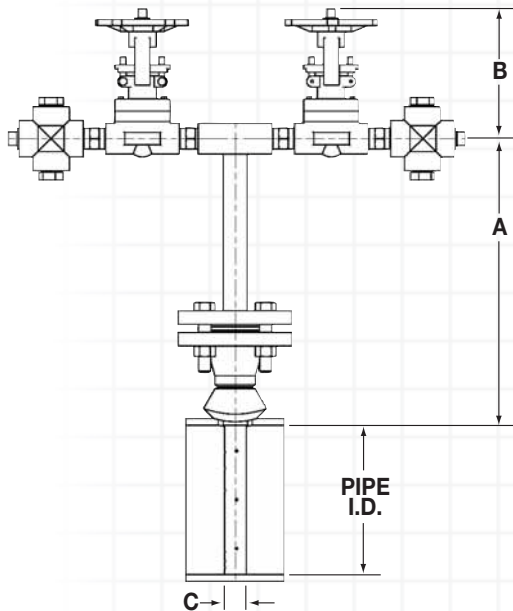
PASFO	PASF	PASF1	PASF2	
A) 3/4"	1-1/4"	1-1/2"	3"	RF Flange 150# CS
B) 3/4"	1-1/4"	1-1/2"	3"	RF Flange 300# CS
C) 3/4"	1-1/4"	1-1/2"	3"	RF Flange 600# CS
D) 3/4"	1-1/4"	1-1/2"	3"	RF Flange 900/1500# CS
E) 3/4"	1-1/4"	1-1/2"	3"	RF Flange 150# SS
F) 3/4"	1-1/4"	1-1/2"	3"	RF Flange 300# SS
G) 3/4"	1-1/4"	1-1/2"	3"	RF Flange 600# SS
H) 3/4"	1-1/4"	1-1/2"	3"	RF Flange 900/1500# SS

RTD

- 1) 100 Ohm RTD 3 wire w/Explosion Proof Head
- 2) 100 Ohm RTD 3 wire, Integral w/Aluminum Head
- Z) Not required

Dimensions (inches)

	Probe Length		Probe Width	
	A	B	C	
ASF	11.63	5.25	ASF .875	
ASF1	11.63	5.25	ASF1 1.25	
*ASF2	10.00	5.25	*ASF2 2.25	



*ASF2 probe design not pictured
contact factory for more information

Maximum Allowable DP (Inches of Water Column)

Pipe Size (inches)	Single Support Probe Size			Double Support Probe Size		
	7/8	1-1/4	2-1/4	7/8	1-1/4	2-1/4
2	880	—	—	2380	—	—
2-1/2	525	—	—	1568	—	—
3	396	—	—	1283	—	—
3-1/2	283	—	—	1117	—	—
4	197	—	—	980	—	—
5	153	—	—	757	—	—
6	126	—	—	689	—	—
8	114	360	—	512	—	—
10	100	240	779	315	960	—
12	87	175	660	250	700	—
14	53	147	610	195	585	—
16	—	113	495	—	450	—
18	—	90	410	—	360	—
20	—	74	346	—	295	—
24	—	68	315	—	270	952
26	—	50	218	—	215	878
30	—	34	187	—	155	780
32	—	—	136	—	—	550
36	—	—	105	—	—	410
42	—	—	85	—	—	350



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