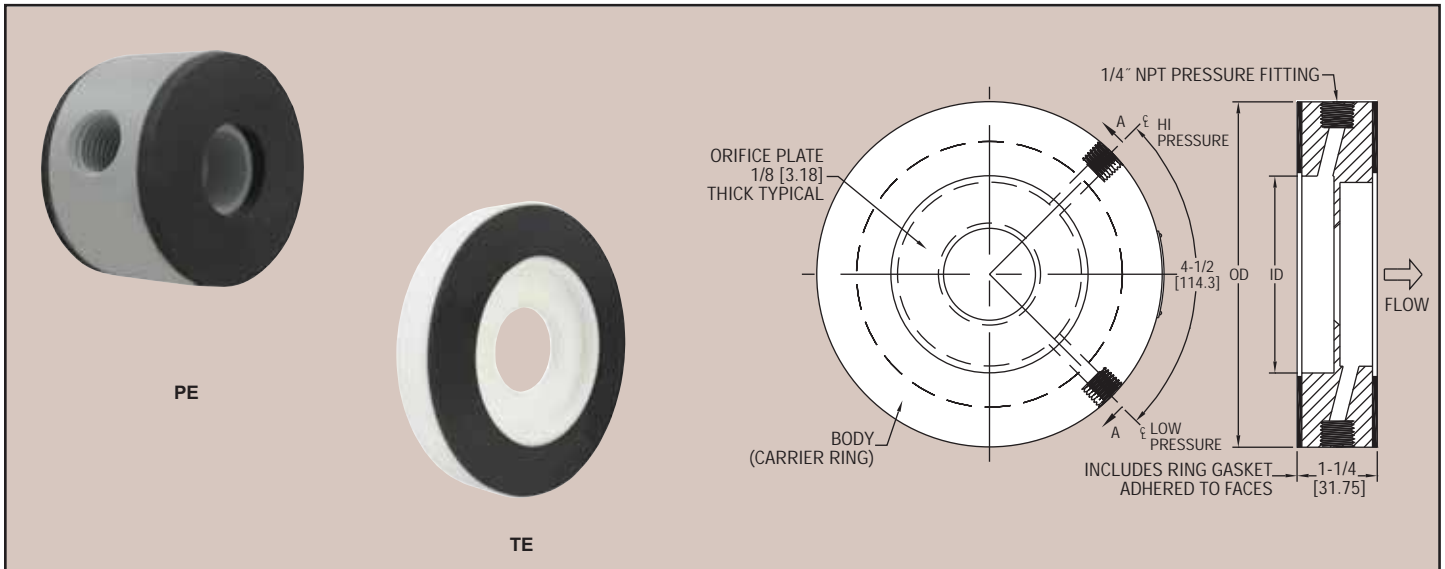




Series
PE
&
TE

Orifice Plate Flowmeter

PVC or PTFE Orifice Plates



The Series PE Orifice Plate Flow Meter offers one-piece PVC construction incorporating a unique holder or carrier ring containing metering taps and integral gaskets. Unlike a standard orifice plate, the Series PE is a true primary element including the various components for differential pressure measurement. It was designed for use wherever there is an application for a conventional flow orifice plate. It can also be used in place of other primary differential producers for efficiency and cost effectiveness. The Series PE is available in line sizes from 1/2" to 24" and used for air and most gases. It meets or exceeds ASME, AGA & ISO standards.

SERIES PE FEATURES

- Mounted with standard flanges
- Standard "corner tap" configuration
- Corrosion free material
- Simplified installation
- Built in metering taps (1/4" female NPT STD)
- Proven through a wide range of applications for accuracy and energy efficiency
- Assures long term reliability and accuracy

The Series TE Orifice Plate Flowmeter offers one-piece PTFE construction similar to the OP and PE Series orifice plates, which incorporate a unique holder or carrier ring containing metering taps and integral gaskets. Available for line sizes from 1/2" to 24", the Series TE orifice plate can be used with gases, liquids, corrosive, and high temperature fluids. The Series TE can be easily installed by slipping the unit between standard flanges (orifice flanges are not required). The Series TE was designed for use anywhere there is an application for a conventional flow orifice plate. It can also be used in place of other primary differential producers for efficiency and cost effectiveness.

SERIES TE FEATURES

- Excellent chemical resistance
- Weather resistant
- Flame retardant (without factory gaskets)
- Low friction (minimum wear)
- Orifice plate thickness 1/4" offering greater stability

SPECIFICATIONS

- Service:** PE: Clean air and compatible gases; TE: Compatible gases and liquids.
- Wetted Material:** Monolithic (single piece) constructed entirely of gray PVC for PE or white PTFE for TE, Buna-N gaskets.
- Accuracy:** $\pm 0.6\%$ full scale flow. (Beta = .2-.6) $\pm 0.7\%$ for Beta greater than .6.
- Temperature:** PE: 140°F max (60°C max); TE: -40 to 200°F (-40 to 93.3°C).
- Pressure:** 150 psi (10 bar) max.
- Head Loss:** $1 - \text{Beta ratio}^2$ eg: $1 - 0.7^2 = 1 - 0.49 = 51\%$ of the d.p.
- Line Sizes:** 1/2" to 24".
- Process Connections:** 1/4" female NPT.
- Installation:** Standard flange 125#/150# rating.
- Pipe Requirements:** General requirements 10 diameter upstream and 5 diameter downstream.
- Weight:** Varies with line size. See chart.

Series PE Orifice Plate Flowmeter – Air Capacity Structure

- Material PVC- Gaskets Buna-N
- Based on 70°F, 14.7 psia (Base Conditions)
- Beta Value Based on Std Sch pipe I.D.
- 1.25" overall thickness
- Orifice plate thickness is 0.125"

Series TE Orifice Plate Flowmeter – Capacity Structure

- Material PTFE - Gaskets Buna-N
- Based on 70°F, 14.7 psia (base conditions)
- Beta value based on Std Sch pipe I.D.
- 1.25" overall thickness
- Orifice plate thickness is 0.250"

PE Model	PE Weight (lb)	TE Model	TE Weight (lb)	Line Size	Bore	Beta	Water Capacity (TE)		Air Capacity - Flow in SCFM			
							Inch d/p W/C	Inch d.p. W/C	Inch Flow GPM	at 14.7 psia (0 psig)	at 20 psig	at 100 psig
PE-A-1	1.00	TE-A-1	1.00	1/2"	0.200"	0.3	20	20	0.62	2.35	3.63	6.61
PE-A-2	1.00	TE-A-2	1.00	1/2"	0.310"	0.5	100	100	3.44	12.21	19.58	36.37
PE-A-3	1.00	TE-A-3	1.00	1/2"	0.430"	0.69	200	320	13.00	32.77	56.15	107.47
PE-B-1	1.00	TE-B-1	1.00	3/4"	0.250"	0.3	20	20	0.97	3.65	5.66	10.3
PE-B-2	1.00	TE-B-2	1.00	3/4"	0.400"	0.49	100	100	5.69	20.21	32.44	60.26
PE-B-3	1.00	TE-B-3	1.00	3/4"	0.580"	0.7	200	320	23.82	59.92	102.91	197.2
PE-C-1	1.00	TE-C-1	1.00	1"	0.300"	0.29	20	20	1.38	5.24	8.11	14.8
PE-C-2	1.00	TE-C-2	1.00	1"	0.520"	0.49	100	100	9.63	34.2	54.92	102.09
PE-C-3	1.00	TE-C-3	1.00	1"	0.720"	0.69	200	320	36.15	91.28	156.51	300
PE-D-1	1.00	TE-D-1	1.00	1.25"	0.400"	0.29	20	20	2.46	9.31	14.41	26.3
PE-D-2	1.00	TE-D-2	1.00	1.25"	0.700"	0.51	100	100	17.48	62.09	99.75	185.5
PE-D-3	1.00	TE-D-3	1.00	1.25"	1.00"	0.72	200	320	71.77	180	309.97	595.2
PE-E-1	2.00	TE-E-1	2.00	1.5"	0.500"	0.31	20	20	3.85	14.57	22.55	41.16
PE-E-2	2.00	TE-E-2	2.00	1.5"	0.800"	0.5	100	100	22.73	80.82	129.68	241.5
PE-E-3	2.00	TE-E-3	2.00	1.5"	1.100"	0.68	200	320	83.95	212.18	363.93	697.39
PE-F-1	2.00	TE-F-1	2.00	2"	0.600"	0.29	20	20	5.52	20.92	32.38	59.13
PE-F-2	2.00	TE-F-2	2.00	2"	1.000"	0.48	100	100	35.34	125.74	202.03	375.8
PE-F-3	2.00	TE-F-3	2.00	2"	1.450"	0.7	200	320	147.74	372.09	639.87	1227.63
PE-G-1	2.00	TE-G-1	2.00	2.5"	0.750"	0.3	20	20	8.63	32.71	50.64	92.48
PE-G-2	2.00	TE-G-2	2.00	2.5"	1.250"	0.5	100	100	55.54	197.54	317.58	590.91
PE-G-3	2.00	TE-G-3	2.00	2.5"	1.750"	0.7	200	320	216.30	543.99	936.56	1798.86
PE-H-1	2.00	TE-H-1	2.00	3"	0.920"	0.3	20	20	12.97	49.17	78.13	139.06
PE-H-2	2.00	TE-H-2	2.00	3"	1.500"	0.49	100	100	79.94	282.9	454.77	846.21
PE-H-3	2.00	TE-H-3	2.00	3"	2.150"	0.7	200	320	324.16	816.7	1404.95	2696.28
PE-J-1	3.00	TE-J-1	3.00	4"	1.200"	0.3	20	20	22.03	83.58	129.44	236.48
PE-J-2	3.00	TE-J-2	3.00	4"	2.000"	0.5	100	100	141.51	503.76	810.06	1507.64
PE-J-3	3.00	TE-J-3	3.00	4"	2.800"	0.7	200	320	547.11	1380.03	2373.02	4553.68
PE-K-1	3.00	TE-K-1	4.00	5"	1.500"	0.3	20	20	34.39	130.48	202.11	369.29
PE-K-2	3.00	TE-K-2	4.00	5"	2.500"	0.5	100	100	220.80	786.23	1264.42	2353.51
PE-K-3	3.00	TE-K-3	4.00	5"	3.500"	0.69	200	320	853.09	2152.83	3701.57	7103.22
PE-L-1	4.00	TE-L-1	4.00	6"	1.800"	0.3	20	20	49.46	187.86	291	531.75
PE-L-2	4.00	TE-L-2	4.00	6"	3.000"	0.49	100	100	317.74	1331.63	1820.05	3387.93
PE-L-3	4.00	TE-L-3	4.00	6"	4.200"	0.69	200	320	1226.98	3097.20	5325.20	10219.28
PE-M-1	5.00	TE-M-1	6.00	8"	2.400"	0.3	20	20	87.95	333.87	517.25	945.28
PE-M-2	5.00	TE-M-2	6.00	8"	4.000"	0.5	100	100	565.77	2014.95	3241.45	6034.85
PE-M-3	5.00	TE-M-3	6.00	8"	5.600"	0.7	200	320	2195.86	5532.00	9525.43	18290.00
PE-N-1	6.00	TE-N-1	8.00	10"	3.000"	0.3	20	20	137.35	521.58	808	1476.77
PE-N-2	6.00	TE-N-2	8.00	10"	5.000"	0.5	100	100	883.04	3145.50	5060.38	9421.74
PE-N-3	6.00	TE-N-3	8.00	10"	7.000"	0.7	200	320	3421.26	8626.42	14846.80	28506.17
PE-O-1	7.00	TE-O-1	10.00	12"	3.600"	0.3	20	20	197.73	750.9	1163.44	2126.47
PE-O-2	7.00	TE-O-2	10.00	12"	6.000"	0.5	100	100	1271.62	4530	7288.16	13570.33
PE-O-3	7.00	TE-O-3	10.00	12"	8.400"	0.7	200	320	4930.86	12430.00	21397.00	41089.02
PE-P-1	9.00	TE-P-1	15.00	14"	4.000"	0.3	20	20	244.14	927.14	1436.59	2625.81
PE-P-2	9.00	TE-P-2	15.00	14"	6.600"	0.5	100	100	1537.49	5477.67	8812.87	16409.42
PE-P-3	9.00	TE-P-3	15.00	14"	9.300"	0.7	200	320	6052.57	15251.50	28262.66	50437.78
PE-Q-1	10.00	TE-Q-1	18.00	16"	4.500"	0.3	20	20	308.76	1172.63	1817.05	3321.32
PE-Q-2	10.00	TE-Q-2	18.00	16"	7.600"	0.5	100	100	2038.95	7264.58	11688.26	21764.08
PE-Q-3	10.00	TE-Q-3	18.00	16"	10.700"	0.7	200	320	8007.74	20179.85	34749.32	66737.64
PE-R-1	12.00	TE-R-1	22.00	18"	5.200"	0.3	20	20	412.26	1565.79	2426.34	4435.12
PE-R-2	12.00	TE-R-2	22.00	18"	8.600"	0.5	100	100	2610.71	9302.08	14966.93	27869.85
PE-R-3	12.00	TE-R-3	22.00	18"	12.000"	0.7	200	320	10027.37	25299.92	43535.32	83587.01
PE-S-1	14.00	TE-S-1	29.00	20"	5.780"	0.3	20	20	509.55	1935.37	2999.11	5482.22
PE-S-2	14.00	TE-S-2	29.00	20"	9.600"	0.5	100	100	3252.22	11588.20	18645.74	34720.84
PE-S-3	14.00	TE-S-3	29.00	20"	13.500"	0.7	200	320	12742.82	32115.34	55303.34	106215.88
PE-T-1	16.00	TE-T-1	32.00	24"	7.000"	0.3	20	20	747.18	2838.14	4398.25	8038.99
PE-T-2	16.00	TE-T-2	32.00	24"	11.700"	0.5	100	100	4835.93	17229.62	27726.33	51633.81
PE-T-3	16.00	TE-T-3	32.00	24"	16.300"	0.7	200	320	18572.50	46810.53	80610.19	154823.78

Note: Differential pressure values should be less than 50% of the inlet absolute pressure.

