

SALIENT FEATURES

- Orifice Design as per BS EN ISO 5167
- Range of Orifice types
 - 1) Concentric Square Edge
 - 2) Quarter Circle
 - 3) Segmental
 - 4) Eccentric
- Non IBR and IBR certified Orifice assembly
- Available in wide variety of materials
- No moving parts, simple construction
- Maintenance-free



DESCRIPTION

Electronet series orifice plate is the most common differential pressure flow primary element. It is based on proven technology has no moving parts and is suitable for high temperature and pressure applications. Orifice plates are recommended for clean liquids, gases and low velocity steam flows. Flow measurement using orifice plates requires the accurate location of up stream and downstream pressure tappings. Various types of orifice carrier assemblies are available to suit a wide range of applications

TECHNICAL SPECIFICATIONS

Service	: Liquid, Gas and Vapor Application
Line Size	: 1/2" to 20"
Type	: 1) Concentric Square Edge 2) Quarter Circle 3) Segmental 4) Eccentric
Orifice Assembly	: 1) Orifice plate with ANSI B16.36 Flange 2) Integral Orifice. 3) Carrier ring type
Materials	: SS316 Std.(Others on Request)

TYPES OF ORIFICE

1. Square Edge :

For general applications in clean fluids-the most widely used design. Suitable for pipes up to 1000 mm diameter

2. Quarter Circle :

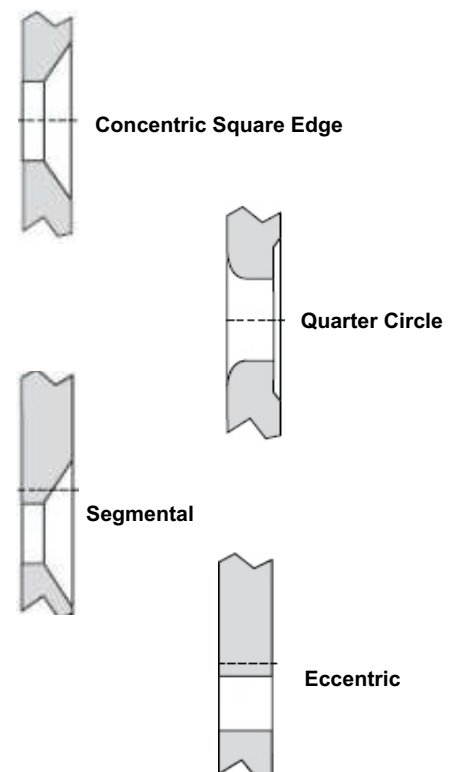
Suitable for measurement of low Reynolds number flows in pipelines of diameter less than 750 mm.

3. Segmental:

Suitable for measurement for measurement of dirty fluids and 2 phase flow-allows passage of extraneous matter . Suitable for pipes up to 350mm

4. Eccentric:

Suitable for measurement of dirty fluids and 2 phase flow, preferred to segmental pipelines of diameters less than 350 mm.

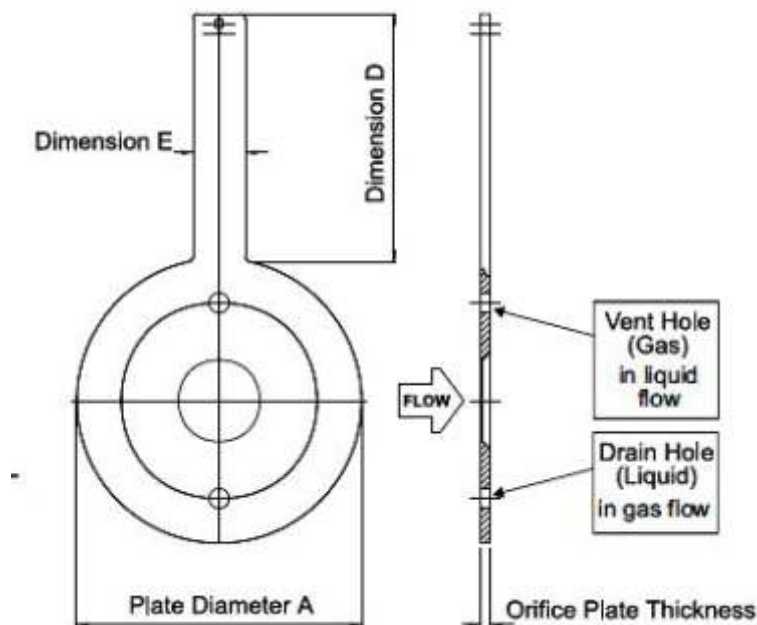


ORIFICE MATERIAL

- 316 Stainless Steel
- Hastelloy® C276
- Hastelloy® B3
- Monel® 400
- Titanium
- Tantalum
- PTFE and PVDF .

DIMENSIONAL DETAILS

The outside diameter of the orifice plate is equal to the bolt circle diameter of the connecting flanges minus the diameter of the bolt. This ensures that the plate is centered accurately in the line. Plate thicknesses depend on line size and differential pressure, and is sufficient to prevent the plate from bending under operating conditions. Orifice plates can be made in accordance with customer drawings as required.



Nominal Line Size		150 LB			300 LB			400 LB			600 LB			900 LB			1500 LB			2500 LB		
mm	IN	A	D	E	A	D	E	A	D	E	A	D	E	A	D	E	A	D	E	A	D	E
15	1/2	47.6	125	25	54	125	28	54	125	28	54	125	32	63.5	125	28	63.5	125	32	69.9	125	32
20	3/4	57.2	125	32	66.7	125	32	66.7	125	32	66.7	125	32	69.9	125	32	69.9	125	32	76.2	125	32
25	1	66.7	125	32	73	125	32	73	125	32	73	125	32	79.4	125	32	79.4	125	32	85.7	150	32
30	1 1/4	76.2	125	32	82.6	125	32	82.6	125	32	82.6	125	32	88.9	125	32	88.9	125	32	104.8	150	32
40	1 1/2	85.7	125	32	95.3	125	32	95.3	125	32	95.3	125	32	98.4	125	32	98.4	125	32	117.5	150	32
50	2	104.8	125	32	111.1	125	28	111.1	125	28	111.1	125	28	142.9	150	32	142.9	150	32	146	150	32
65	2 1/2	123.8	125	32	130.2	125	32	130.2	125	32	130.2	125	32	165.1	150	32	165.1	150	32	168.3	150	32
80	3	136.5	125	32	149.2	125	32	149.2	125	32	149.2	125	32	165.3	150	32	174.6	150	32	196.9	150	32
100	4	174.6	150	32	181	150	32	177.8	150	32	193.7	150	32	206.4	150	32	209.6	150	32	225	150	32
125	5	198.8	150	32	215.9	150	32	212.7	150	32	241.3	150	32	247.7	150	32	254	150	32	279.4	175	32
150	6	222.3	150	32	250.8	150	32	247.7	150	32	266.7	150	32	266.9	150	32	262.6	150	32	317.5	175	32
200	8	279.4	150	32	308	150	32	304.8	150	32	326.7	150	32	355.8	175	32	352.4	175	32	367.4	175	32
250	10	329.7	150	32	362	150	32	358.8	150	32	400	150	32	425	175	32	425	175	32	476.3	200	32
300	12	409.6	150	32	422.3	150	32	419.1	150	32	457.2	150	32	498.5	175	32	520.7	175	32	549.3	200	32
350	14	459.9	150	32	485.6	150	32	482.6	150	32	492.1	150	32	520.7	175	32	577.9	175	32	-	-	-
400	16	514.4	150	32	539.8	150	32	536.6	150	32	565.2	150	32	574.7	200	32	641.4	200	32	-	-	-
450	18	546.1	175	32	593.7	175	32	587.4	175	32	609.6	175	32	625	200	32	701.7	200	32	-	-	-
500	20	603.3	175	32	650.8	175	32	644.5	175	32	678.5	175	32	695.3	200	32	752.5	200	32	-	-	-

ANSI B 16.36 ORIFICE FLANGES

Orifice flanges are intended for use instead of standard pipe flanges when an orifice plate or flow nozzle must be installed. Pairs of pressure tapings are machined into the orifice flange, making separate orifice carriers or tappings in the pipe wall unnecessary.

The range of orifice flanges covers all standard sizes and ranges, and all common flange materials. Flanges are available in socket weld or weld neck form, and are typically supplied with two 1/2" NPT tappings in each flange. Jacking screws to ensure ease of removal of the primary flow element are provided.

Orifice flanges are supplied complete with bolting and gasket kits.



ANSI B 16.36 ORIFICE FLANGE ASSEMBLY

INTEGRAL ORIFICE

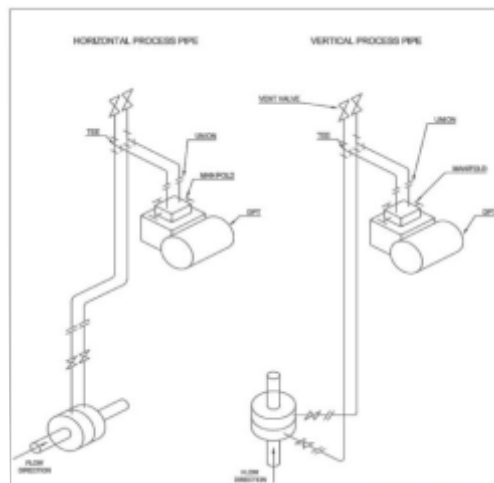
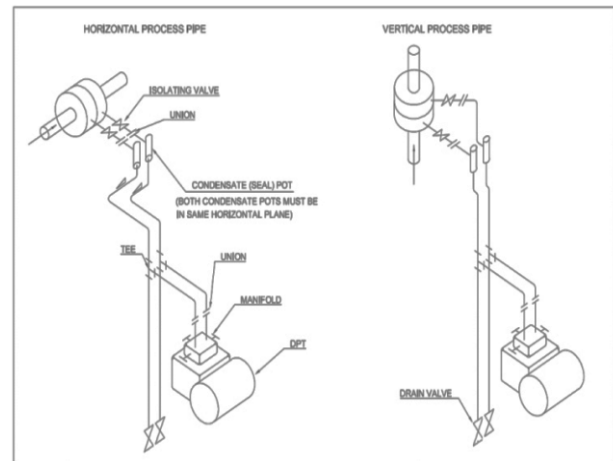
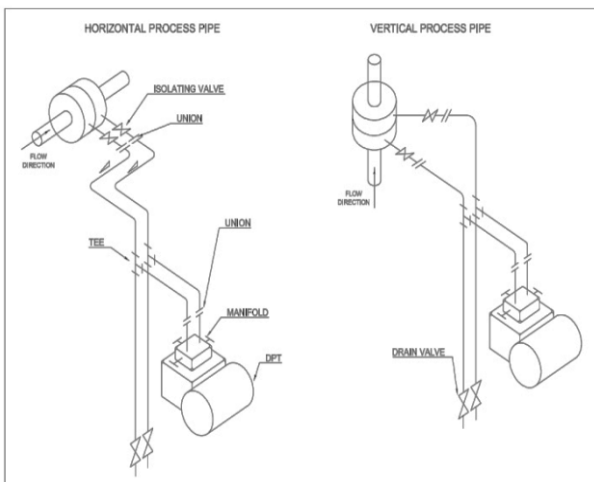
Typically consisting of a factory assembled section of pipe with an orifice plate mounted between two flanges near the center of the run, terminated with a flange at each end to connect to the process. Building the assembly in the factory allows us to control all the variables which can lead to inaccuracies which can arise if the system is assembled by untrained personnel on-site.

Other advantages include reduced installation time; the completed section only needs to be bolted into the pre-prepared line. The complete assembly can be calibrated to provide the maximum accuracy.



INTEGRAL ORIFICE PLATE ASSEMBLY

IMPULSE PIPING FOR ORIFICE



TECHNICAL INFORMATION REQUIRED

Orifice Details	Line Size	<input type="checkbox"/> _____
	Type	<input type="checkbox"/> Concentric Square Edge <input type="checkbox"/> Quarter Circle <input type="checkbox"/> Segmental <input type="checkbox"/> Eccentric
	Material	<input type="checkbox"/> SS 316 <input type="checkbox"/> SS 304 <input type="checkbox"/> Other (PI Specify)
	Tap Location	<input type="checkbox"/> Flange <input type="checkbox"/> Corner <input type="checkbox"/> Other - D&D/2
	IBR Certification	<input type="checkbox"/> No <input type="checkbox"/> Yes

Orifice Assembly	Required	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Type	<input type="checkbox"/> Flange <input type="checkbox"/> Integral
	Flange Rating	<input type="checkbox"/> 150 LB <input type="checkbox"/> 300 LB <input type="checkbox"/> 600 LB <input type="checkbox"/> 900 LB <input type="checkbox"/> Others
	Material	<input type="checkbox"/> ASTM A182 F316 Stainless Steel <input type="checkbox"/> ASTM A182 F304 Stainless Steel
	Connection	<input type="checkbox"/> Socket Weld <input type="checkbox"/> Weld neck <input type="checkbox"/> Other (PI Specify)
	Studbolt & Nut	<input type="checkbox"/> ASTM A193 B7 and ASTM A194 Gr 2H <input type="checkbox"/> ASTM A320 L7 and ASTM A194 Gr 4 or 7 <input type="checkbox"/> Others

Process Data	Service	<input type="checkbox"/> Liquid <input type="checkbox"/> Gas <input type="checkbox"/> Steam
	Flow Unit	<input type="checkbox"/> M ³ /h <input type="checkbox"/> Kg/s <input type="checkbox"/> TPH <input type="checkbox"/> Other (PI Specify)
	Flow Rate	<input type="checkbox"/> Max. _____ <input type="checkbox"/> Min. _____ <input type="checkbox"/> Nor. _____
	Pressure	<input type="checkbox"/> Max. _____
	Temperature	<input type="checkbox"/> Max. _____
	Density	<input type="checkbox"/> @ 20~C _____ <input type="checkbox"/> @Flowing Condition _____
	Viscosity	<input type="checkbox"/> @ Flowing Condition _____
	Base Temp.	<input type="checkbox"/> _____ ~C (For GAS / Vapor)
	Base Pressure	<input type="checkbox"/> _____ Kg/Cm ² (For GAS / Vapor)

Accessories	Condensing Pot	<input type="checkbox"/> Required <input type="checkbox"/> Not Required
	Impulse Tubing	<input type="checkbox"/> Required _____ Mtrs. <input type="checkbox"/> Not Required
	Isolation valves	<input type="checkbox"/> Required <input type="checkbox"/> Not Required
	Nipples	<input type="checkbox"/> Required <input type="checkbox"/> Not Required

Authorised Dealer



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