

EMCO Orifice Plate with Single Pressure Tapping Series MEF/2 for Insertion between RTJ Flanges

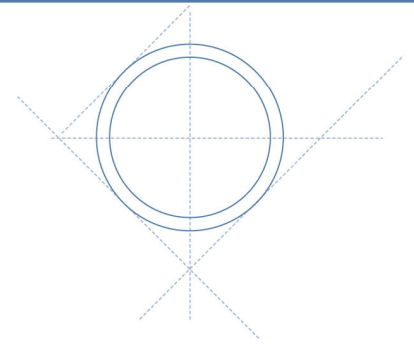
Principle

EMCO orifice plate are used as primary elements in flow measurement according to the differential pressure principle. The tapping arrangement is corner tapping.

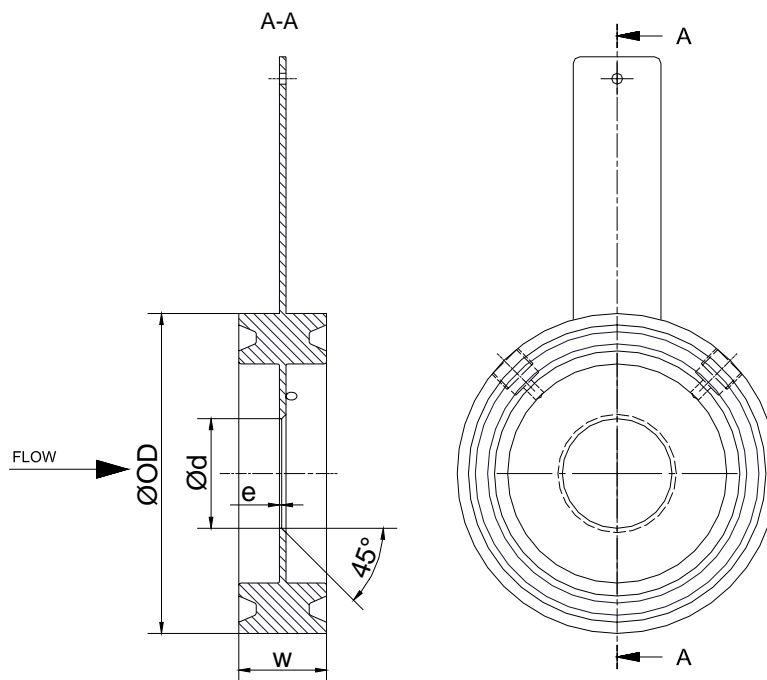
Construction

Design and calculation standards	: ISO 5167-2 2003, ASME MFC-3M, ANSI B 16.5, Shell Flow Meter Engineering Handbook
Sizes	: DN 50 - 600, 2" - 24"
β (d/D)	: $0,1 < \beta < 0,75$
Pressure rating	: 300 - 2500 lbs
Orifice plate	: Integrated with holder
Plate thickness	: 3 – 6 mm
Vent or drain hole	: On request
Material	: AISI 316, 22 Cr Duplex, 25 Cr Duplex, 6Mo, other materials on request.
Mounting style	: Between flanges with RTJ according to ANSI B 16.5 or to API.



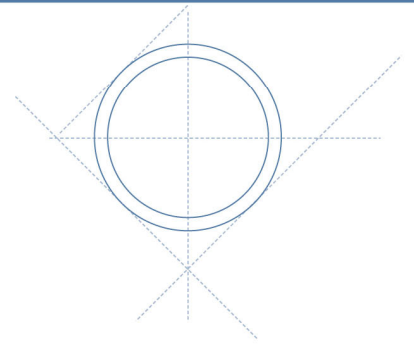


- Orifice plate : Square edge concentric, square edge eccentric, conical, 1/4 circle, segment.
The plate is bevelled on the down stream side except for 1/4 circle orifice plate.
- Pressure taps : Threaded: 1/2" NPT int. (standard) or 1/2" BSP.
Flanged: 1/2" and 3/4", 300, 600, 1500 and 2500 lbs RTJ.
- Tap location : At least 15° apart, depending on size and pressure rating.
- Marking : The orifice plate is marked with "+" and "-" and flow direction.
- Handle : With name plate in AISI 316 with the following inscription : TAG no., serial no., pressure rating, inner pipe diameter, bore, material.



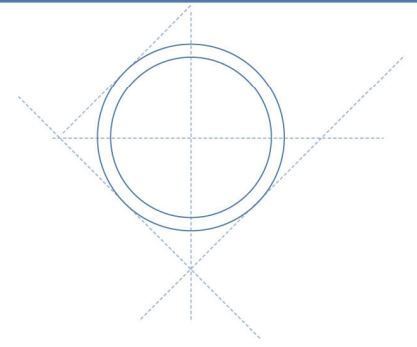
Technical Data

- Accuracy : +/- 0,5 % for $\beta < 0,6$ and equal to β for β values above 0,6
- Pressure loss : Depending on β , for β equal to 0,6 : ca. 60 % of the differential pressure measured
- Limits for Reynolds No. : $Re(D) > 5000$ for $0,1 < \beta < 0,56$ and $Re(D) > 16000 \times \beta^2$ for $\beta > 0,56$ according to ISO 5167-2 2003
 $2000 < Re < 10^8$ according to ASME MFC-3M



ASME Flanges

Size		Pressure rating lbs				
		300	600	900	1500	2500
2"	Ring No.	R23	R23	-	R24	R26
	Width (w)	44	44	-	44	44
	OD	Ø108	Ø108		Ø124	Ø133
3"	Ring No.	R31	R31	R31	R35	R32
	Width (w)	44	44	44	44	48
	OD	Ø146	Ø146	Ø156	Ø168	Ø168
4"	Ring No.	R37	R37	R37	R39	R38
	Width (w)	44	44	44	44	52
	OD	Ø175	Ø175	Ø181	Ø194	Ø203
6"	Ring No.	R45	R45	R45	R46	R47
	Width (w)	44	44	44	48	54
	OD	Ø241	Ø241	Ø241	Ø248	Ø279
8"	Ring No.	R49	R49	R49	R50	R51
	Width (w)	44	44	44	52	57
	OD	Ø302	Ø302	Ø308	Ø318	Ø340
10"	Ring No.	R53	R53	R53	R54	R55
	Width (w)	44	44	44	52	63
	OD	Ø356	Ø356	Ø362	Ø371	Ø425
12"	Ring No.	R57	R57	R57	R58	R60
	Width (w)	44	44	44	57	63
	OD	Ø413	Ø413	Ø419	Ø438	Ø495
14"	Ring No.	R61	R61	R62	R63	
	Width (w)	44	44	52	60	
	OD	Ø457	Ø457	Ø467	Ø489	
16"	Ring No.	R65	R65	R66	R67	
	Width (w)	44	44	52	63	
	OD	Ø508	Ø508	Ø524	Ø546	
18"	Ring No.	R69	R69	R70	R71	
	Width (w)	44	44	54	63	
	OD	Ø575	Ø575	Ø594	Ø613	
20"	Ring No.	R73	R73	R74	R75	
	Width (w)	48	48	54	63	
	OD	Ø635	Ø635	Ø648	Ø673	
24"	Ring No.	R77	R77	R78	R79	
	Width (w)	52	52	60	70	
	OD	Ø749	Ø749	Ø772	Ø794	



API Flanges

Size		Pressure rating psi	
		3000	5000
2 1/16"	Ring No. Width (w) OD	R or RX 24 55 Ø124	R or RX 24 55 Ø124
2 9/16"	Ring No. Width (w) OD	R or RX 27 60 Ø137	R or RX 27 60 Ø137
3 1/8"	Ring No. Width (w) OD	R or RX 31 55 Ø156	R or RX 35 65 Ø168
4 1/16"	Ring No. Width (w) OD	R or RX 37 65 Ø181	R or RX 39 80 Ø194
7 1/16"	Ring No. Width (w) OD	R or RX 45 75 Ø242	R or RX 46 95 Ø181
9"	Ring No. Width (w) OD	R or RX 49 90 Ø308	R or RX 50 110 Ø318
11"	Ring No. Width (w) OD	R or RX 53 110 Ø362	R or RX 54 130 Ø372
13 5/8"	Ring No. Width (w) OD	R or RX 57 120 Ø419	
16 3/4"	Ring No. Width (w) OD	R or RX 66 130 Ø524	
21 3/4"	Ring No. Width (w) OD	R or RX 74 150 Ø648	