

FEATURES

- Design generally to BS EN ISO 5167
- Range of designs:
 - One piece construction
 - Screwed on plate
- Proven technology
- Suitable for 1" lines and above
- Orifice sizing on request

Range of Orifice Types:

- Concentric Square Edge
- Restriction



PRODUCT OVERVIEW

The RTJ type orifice plate incorporates an integral gasket, either oval or octagonal ring, for mounting between ring type joint flanges. 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.

DIMENSIONS

Plate thicknesses depends on line size and differential pressure, and should be sufficient to prevent the plate from bending under operating conditions. Recommended plate thickness for flow measurement plates are shown in below table.

Sangan Sanat Co. standard plate and ring dimensions are shown in next page figures. Orifice plates can be made in accordance with customer drawings as required, also.

Pipe Diameter	Standard Plate Thickness (mm) for Differential Pressure ΔP		
	$\Delta P = 250\text{mbar}$	$\Delta P = 251 - 500 \text{ mbar}$	$\Delta P = 501 - 2500 \text{ mbar}$
$D \leq 150 \text{ mm}$	3	3	3
$200 \leq D \leq 250$	3	3	6
$300 \leq D \leq 500$	6	6	10
$600 \leq D \leq 900$			
$\beta \leq 0.5$	10	10	12
$\beta > 0.5$	6	10	12

ORIFICE FLANGE ASSEMBLIES

RTJ type orifice plates can be supplied complete with ANSI B16.36 orifice flanges. Please refer to Product Data Sheet FL50 for further details. Meter runs are also available.

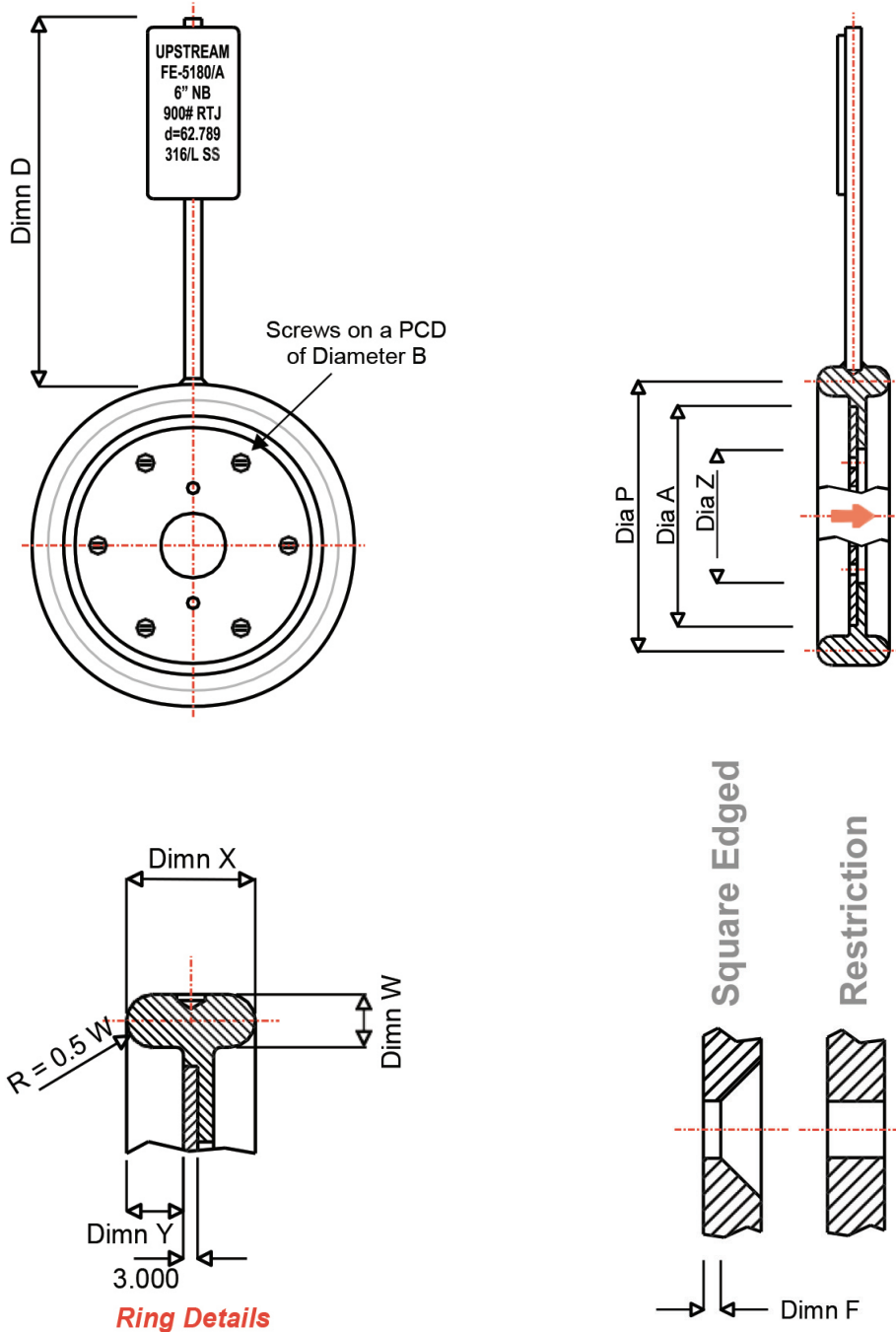
MATERIALS

RTJ type orifice plates may be machined in one piece, or alternatively from two pieces, with an orifice plate screwed onto a carrier ring/gasket. Standard material grades for orifice plates include 316 Stainless Steel, 304 Stainless Steel, Carbon Steel. Common carrier ring/gasket materials include Stainless Steel and soft iron. Please contact the sales office for other grades.

ORIFICE BORE SIZING

Orifice calculations for flow measurement are performed to the latest revision of ISO 5167, ASME MFC-3M, AGA, or API standards according to the specific requirement by the customer and/or process conditions. Orifice calculations for restriction plates are performed generally in accordance with the formulae in RW Miller's Flow Measurement Handbook, when requested. The Sangan Sanat Co uses standard sizing programs such as RW Miller, Conval and proprietary developed softwares for special conditions not covered in standards.

DIMENSIONAL DRAWING



RATING AND LINE SIZE (INCHES)				RING No	DIA P	DIMN W	DIMN X	DIMN Y	DIA Z	DIMN F	DIA A	DIA B	DIMN D
300# 600#	900#	1500#	2500#										
1	1	1		R 16	50.8	7.9	23.8	10.3	25.4	0.5	41.3	33.3	125
			1	R 18	60.2	7.9	23.8	10.3	25.4	0.5	41.3	33.3	150
1.5	1.5	1.5		R 20	68.3	7.9	23.8	10.3	38.1	0.5	54	46	125
			1.5	R 23	82.5	11.1	27	10.3	38.1	0.5	54	46	150
2				R 23	82.5	11.1	27	11.9	50.8	0.75	69.8	60.3	125
	2	2		R 24	95.3	11.1	27	11.9	50.8	0.75	82.55	66.6	150
			2	R 26	101.6	11.1	27	11.9	50.8	0.75	82.55	66.6	150
2.5				R 26	101.6	11.1	27	11.9	63.5	0.75	85.5	69.5	125
	2.5	2.5		R 27	107.9	11.1	27	11.9	63.5	0.75	91.8	75.8	150
			2.5	R 28	111.1	12.7	27	11.9	63.5	0.75	93.4	77.4	150
3	3			R 31	123.8	11.1	27	11.9	76.2	1	107.9	92	150
			3	R 32	127	12.7	28.6	12.7	76.2	1	107.9	92	150
		3		R 35	136.5	11.1	27	11.9	76.2	1	107.9	92	150
4	4			R 37	149.2	11.1	27	11.9	104	1.5	136.5	120.6	150
			4	R 38	157.2	15.9	31.7	14.3	104	1.5	136.5	120.6	150
		4		R 39	162	11.1	27	11.9	104	1.5	136.5	120.6	150
6	6			R 45	211.1	11.1	27	11.9	158.7	1.5	190.5	174.6	150
		6		R 46	211.1	12.7	34.9	12.7	158.7	1.5	190.5	174.6	150
			6	R 47	228.6	19.1	27	15.9	158.7	1.5	190.5	174.6	175
8	8			R 49	269.9	11.1	27	11.9	209.5	3.5	241.3	225.4	175
		8		R 50	269.9	15.9	31.7	14.3	209.5	3.5	241.3	225.4	175
			8	R 51	279.4	22.2	38.1	17.5	209.5	3.5	241.3	225.4	175
10	10			R 53	323.8	11.1	27	11.9	260.3	3.5	292.1	276.2	175
		10		R 54	323.8	15.9	31.7	14.3	260.3	3.5	292.1	276.2	175
			10	R 55	342.9	28.6	46	21.4	260.3	3.5	292.1	276.2	200
12	12			R 57	381	11.1	27	11.9	311.2	3.5	342.9	327	175
		12		R 58	381	22.2	38.1	17.5	311.2	3.5	342.9	327	175
			12	R 60	406.4	31.7	49.2	23	311.2	3.5	342.9	327	200
14 OD				R 61	419.1	11.1	27	11.9	343	5	374.6	358.8	150
	14 OD			R 62	419.1	15.9	31.7	14.3	343	5	374.6	358.8	175
		14 OD		R 63	419.1	25.4	27	19.8	343	5	374.6	358.8	175
16OD				R 65	469.9	11.1	27	11.9	393.7	5	425.4	409.6	150
	16 OD			R 66	469.9	15.9	31.7	14.3	393.7	5	425.4	409.6	200
		16 OD		R 67	469.9	28.6	46	21.4	393.7	5	425.4	409.6	200
18 OD				R 69	533.4	11.1	27	11.9	444.5	5	476.2	460.4	175
	18 OD			R 70	533.4	19.1	34.9	15.9	444.5	5	476.2	460.4	200
		18OD		R 71	533.4	28.6	46	21.4	444.5	5	476.2	460.4	200
20 OD				R 73	584.2	12.7	28.6	12.7	495.3	8	517.5	501.6	175

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