

Orifice plate with ring

Model : F200

Spec. sheet no. **FD02-01**

Description

Orifice ring assemblies are used for flow measurement of smaller or medium sized pipes at lower pressure. Each assembly consists of one orifice plate and two orifice rings. Differential pressure is taken out in a corner tap system. Orifice block, which are of a unit-construction type and provide higher pressure ratings than the orifice ring assemblies, also are available.



Specification

Orifice bore type

Concentric square edged orifice
Quadrant edged orifice
Multi-hole orifice

Drain and vent hole

Per ASME recommendations
Not drilled for orifice bores smaller than 25.4 mm

Flow calculation standards

ISO 5167-1 and 2 2003
AGA-3
ASME MFC-3M and 14M
JIS Z 8762
BS 1042

Markings

Upstream side of tab handle stamped "Upstream" and with bore type and size, line size, tag number and flange rating.

Flange ratings

JIS 5, 10, and other
ANSI (or JPI) 150 and other
(Note: ANSI and JPI ring dimensions are identical)

Special markings

Special marking may be furnished to meet special requirements

Pressure taps

Corner taps

Plate thickness

3, 6, 9, 12 mm and Over

Materials

Ring and pressure tap nipple : 304SS, 316SS and other
Plate : 304SS, 316L SS, Monel and other

Pressure tap nipples

Pipe size : 15 mm ($\frac{1}{2}$ inch), Sch 40 and 80
Length : 75 and 150 mm
Tap connections : $\frac{1}{2}$ PT and $\frac{1}{2}$ NPT male
socket welding and butt welding
flange connection

Gaskets

Material : Non-Asbestos and Teflon
Thickness : 1.5, 2.0 and 3.0 mm

Main order

Ordering information

1. Base model

F200 Orifice plate with ring

2. Line size

| | | | |
|------------|-------|------------|------|
| A01 | ½" | J01 | 15A |
| A02 | ¾" | J02 | 20A |
| A03 | 1" | J03 | 25A |
| A04 | 1½" | J04 | 40A |
| A05 | 2" | J05 | 50A |
| A06 | 3" | J06 | 80A |
| A07 | 4" | J07 | 100A |
| A08 | 6" | J08 | 150A |
| A09 | 8" | J09 | 200A |
| A10 | 10" | J10 | 250A |
| A11 | 12" | J11 | 300A |
| A12 | 14" | J12 | 350A |
| ZZZ | Other | | |

3. Connection

| | | | |
|------------|----------|------------|--------|
| A01 | 150Lb RF | J01 | 10K RF |
| A11 | 150Lb FF | J11 | 10K FF |
| ZZZ | Other | | |

4. Element type

| | |
|----------|------------|
| 1 | Concentric |
| 2 | Quadrant |
| 3 | Multi-hole |
| 4 | Eccentric |
| 5 | Segmental |
| O | Other |

5. Element material

| | |
|----------|---------|
| 6 | 316L SS |
| O | Other |

6. Ring material

| | |
|----------|---------|
| 4 | 304SS |
| 6 | 316SS |
| L | 316L SS |
| O | Other |

7. Drain / Vent hole

| | |
|----------|------------|
| D | Drain hole |
| V | Vent hole |
| N | None |

(Bore size < 25.4 mm or Required or Multi-hole orifice)

8. Tap connection

| | |
|----------|------------------------------------|
| 1 | ½" NPT, with nipple (150 and 150L) |
| 2 | ½" PE, with nipple (150 and 150L) |
| O | Other |

9. Option

| | |
|----------|------------------|
| C | Calibration test |
| O | Other |
| N | None |

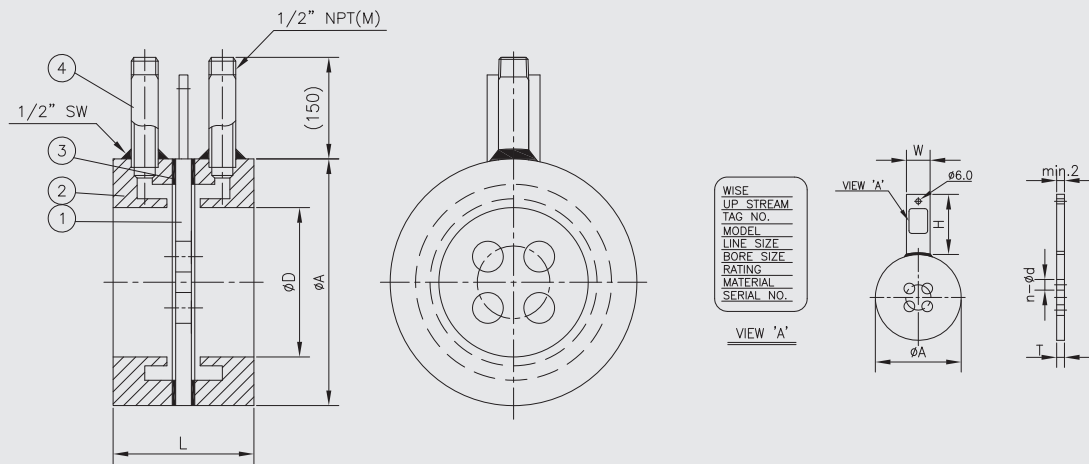
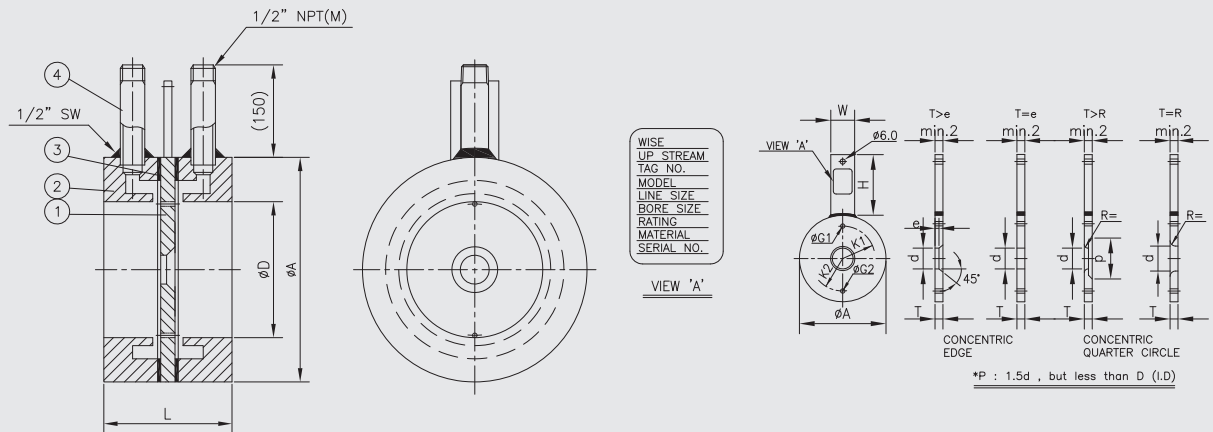
Sample ordering code

| | | | | | | | | |
|-------------|------------|------------|----------|----------|----------|----------|----------|----------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| F200 | A01 | A01 | 1 | 6 | 4 | D | 1 | C |



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Dimension



RING ORIFICE FOR ANSI(ASME)
ORIFICE PLATES DIMENSIONS : ISA RP 3.2 UNIT : mm

| SIZE (INCH) | O.D 150LB | T | e | L | PLATE HANDLE | | VENT & DRAIN | |
|----------------|--------------|---|-----|----|-----------------|-----|-----------------|-------|
| | A | | | | W | H | G | K1/K2 |
| 1/2 | 47.8 | 3 | 0.5 | 77 | 25 | 95 | — | — |
| 3/4 | 57.3 | 3 | 0.5 | 77 | 25 | 95 | — | — |
| 1 | 66.5 | 3 | 0.5 | 77 | 25 | 95 | — | — |
| 1 1/2 | 85.8 | 3 | 0.7 | 77 | 25 | 95 | 1.6 | * |
| 2 | 104.6 | 3 | 0.8 | 77 | 25 | 95 | 1.6 | * |
| 2 1/2 | 123.6 | 3 | 0.8 | 77 | 25 | 95 | 1.6 | * |
| 3 | 136.6 | 3 | 0.8 | 77 | 25 | 95 | 1.6 | * |
| 4 | 174.6 | 3 | 1.6 | 77 | 38 | 120 | 1.6 | * |
| 6 | 222.5 | 3 | 1.6 | 77 | 38 | 120 | 1.6 | * |
| 8 | 279.5 | 3 | 3 | 77 | 38 | 120 | 1.6 | * |
| 10 | 339.8 | 6 | 3 | 80 | 38 | 140 | 2 | * |
| 12 | 409.8 | 6 | 3 | 80 | 38 | 140 | 2.5 | * |
| 14 | 450.6 | 6 | 3 | 80 | 38 | 140 | 2.5 | * |

RING ORIFICE FOR KS(JIS)
ORIFICE PLATES DIMENSIONS : ISA RP 3.2 UNIT : mm

| SIZE (DN) | O.D 10K | T | e | L | PLATE HANDLE | | VENT & DRAIN | |
|--------------|------------|---|-----|----|-----------------|-----|-----------------|-------|
| | A | | | | W | H | G | K1/K2 |
| 15A | 58 | 3 | 0.5 | 77 | 25 | 95 | — | — |
| 20A | 63 | 3 | 0.5 | 77 | 25 | 95 | — | — |
| 25A | 74 | 3 | 0.5 | 77 | 25 | 95 | — | — |
| 40A | 89 | 3 | 0.7 | 77 | 25 | 95 | 1.6 | * |
| 50A | 104 | 3 | 0.8 | 77 | 25 | 95 | 1.6 | * |
| 65A | 124 | 3 | 0.8 | 77 | 25 | 95 | 1.6 | * |
| 80A | 134 | 3 | 0.8 | 77 | 25 | 95 | 1.6 | * |
| 100A | 159 | 3 | 1.6 | 77 | 38 | 120 | 1.6 | * |
| 150A | 220 | 3 | 1.6 | 77 | 38 | 120 | 1.6 | * |
| 200A | 270 | 3 | 3 | 77 | 38 | 120 | 1.6 | * |
| 250A | 333 | 6 | 3 | 80 | 38 | 140 | 2 | * |

Note