

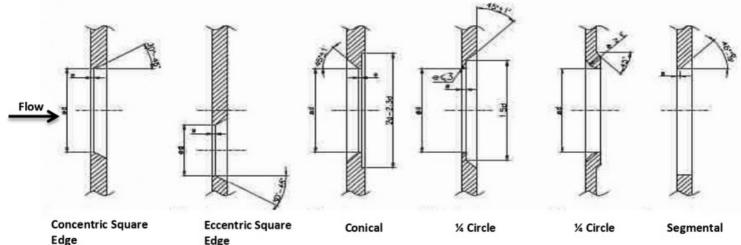
# Perfect Engineering Services

### **Orifice Plate Assembly**

#### DESCRIPTION

The Orifice Plate is a differential pressure device suitable to measure the flow rate in a closed conduit (it is an affordable device for general applications).





Applications Oil & Gas / Petrochemical Industries / Power Stations

orifice

Material As per Customer's requirements / Main material Reference: ASTM-ASME Code

Type of Pressure Flange Taps
Taps and Relevant Corner Taps
Calculation Radius Taps
Pipe Taps

construction

Type Of Flange Taps: with pressure taps on flanges or on carrier ring

Corner Taps: with pressure taps on flanges, or on annular chambers, or on a

monolithic plate

Radius / Pipe Taps: pressure taps shall be welded on pipe (in this case the assembly

shall be supplied complete with the relevant spool pipe)

Flow Calculation Main Reference code: ISO 5167/ASME MFC-3M; ASME PTC 19.5

Type of Plate All / Main Connections: RF-RJ Connections



# Perfect Engineering Services

Type of Flanges WN-SW-LJ-THD-SO according to International Standards

(ANSI/ASME/UNI/DIN/API)

Other Options Single Chamber Orifice Plate Assembly: is a special kind of construction with a system

that allows an easy removal of the plate from the assembly

**Dual Chamber Orifice Plate Assembly:** is a special kind of construction with a system that allows an easy removal of the plate from the assembly under pressure (with the line

still in operation)

#### STANDARD LIMITS AND APPLICATION FIELDS

**Dimensions:** All taps configurations: 2" to 40" **Beta Ratio:** All taps configurations: 0.1 to 0.75

Reynolds Number For beta ratio up to 0.56; greater than 5000 (for lower Reynolds numbers, special orifice

Range: types are required)

#### **PERFORMANCES**

- Accuracy (referred to the discharge coefficient): as per ISO Code
- Rangeability: 1 to 3
- Repeatability: +/-0.1%
- Max PPL 50 to 70% of full scale differential pressure
- Straigth Lengths Requirements: as per ISO 5167

### TYPICAL SUPPLY CONFIGURATIONS

- Orifice Plate only
- Orifice Plate Assembly
- Meter Run Assembly (up to 2")
- Complete Upstream /Downstream Spool Orifice Assembly (with Flow Conditioner, if required) for 2" and above

#### **CALIBRATION**

Accuracy (referred to the discharge coefficient) after calibration in an accredited laboratory +/-0.5% of F.S.

#### NOTE

- \* Flow Meters can be manufactured according to client specifications
- \* Flow Meter can be supplied complete with all relevant accessories (valves / manifold/condensing pot /transmitter/ fitting / tubing)