



The orifice plate can be used for differential pressure flow-rate measurement in aggressive and non-aggressive gaseous and liquid media.

- For differential pressure flow-rate measurement
- Nominal pressures PN 6 to PN 320
- Nominal width DN 50 to DN 1600

Technical Description

The set-up consists of a carrier-ring including an orifice plate with single bore. It can be delivered as an standard orifice according to DIN ISO 5167, as cylindrical orifice, as quarter circle nozzle or as a segmental orifice or double coned orifice according to the specific conditions of use. The orifice plate may either be welded or screwed into the carrier-ring or is manufactured as single piece. When using soft steel the bore is reinforced with stainless steel. When using special materials the orifice plate is screwed into the carrier-ring. The orifice plate and the single bore pressure tap is easy to clean and thus suitable for media that are dirty and need servicing often.

Specifications

Nominal Pressure

Standard: PN 6 up to PN 320

Nominal Width

DIN-Standard: Flanges PN 16 DN 50 to DN 1600
Special nominal diameters and other pressure ratings are possible

Installation Length (L)

Depending on seal type: 25, 40, 65 mm
Special length are possible

Outer diameter of the carrier rings (d4)

Outer diameter d4 hole circle diameter pipe line
flange – hole diameter
Rebound: Outer diameter d4 plus 10 mm
Nut: Outer diameter d4 plus 10 mm
Ring Seal: Outer diameter d4 plus 16 mm

Inner diameter of the carrier rings (d1)

From DN 50 to DN 100 D + 1 mm
Above DN 100 to DN 400 D + 2 mm
Above DN 400 D + 4 mm
D ... inner diameter of the pipe line

Bore Diameter (d)

The bore-Ø is carefully calculated from the supplied operation data considering the relevant standards and regulations documented in the calculation data-sheet.

Pressure Loss

The remaining pressure loss depends on the nozzle opening ratio $\beta = d^2/D^2$ and is approx. 30-80% of the measured effective DP. This information is stated also in the calculation data-sheet.

Seal Types

RF	Flat Sealing
LT	Prebound
LG	Rebound
SG	Nut
RTJ	Ring-Joint-Sealing

Designation

Number of the choke device, PN, D, d, material, flow direction and designation of the extraction socket with + and -.

Approvals

Production and check go along with the relevant guidelines such as TRD, "AD-Merkblatt" and customer-specifications. Material certificates according to EN 10204 3.1 A and B.

Ordering Information

The standard orifice plate with carrier ring will be designed and optimized to the customer specifications. For a quote we need the following data:

- Flow range(s)
- Gas type(s)
- Orifice nominal width(s)
- Installation length
- Seal type
- Material
- Operating conditions (pressure and temperature)
- Permitted pressure drop
- Accuracy
- Ambient conditions

Material conformity certifications of material and testing, e.g. according to the guidelines of EN 10204, can be delivered on request.