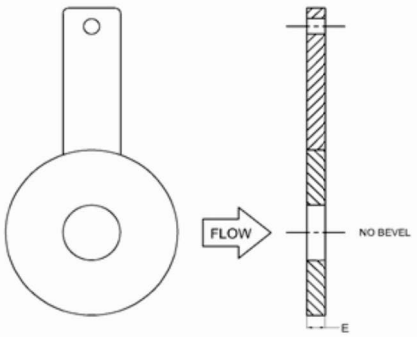
ERATECH GmbH
PROCESS MEASUREMENT & AUTOMATION

Restriction Orifice Plates

The purpose of the restriction orifice can be:
-To reduce the flow rate
-To create a pressure drop
-To decrease temperature.
The restriction orifice plates are some times placed downstream of a turbine meter to guard against over-spin.
A restriction orifice is denoted by “RO” or “FO”.

When specifying a restriction orifice, plate thickness “E” should be large enough to keep the plate from deflection. As a rule, the maximum pressure drop across a single orifice for a gas is 50%. For greater drops, multistage orifices may be used.



ORIFICE BORE TYPE
Concentric Square Edged Orifice
Quadrant Edged Orifice
Eccentric Orifice
Segmental Orifice

FLANGE RATINGS
JIS 10, 16, 20, 30, 40, 63
ANSI Class 150, 300, 600, and 900, 1500, 2500

PLATE THICKNESS
3, 6, 9, 12mm

PLATE MATERIAL
Per ASME recommendations
Non-standard: Monel, Hastelley B/C, Titanium etc.

MARKINGS
Upstream side of tab handle stamped “UPSTREAM” and with bore type and size, line size, tag number

FLOW CALCULATION STANDARDS
ISO 5167
AGA report #3
ASME MFC-3M (R.W Miller)

PRESSURE TAPS
Flange taps
Corner taps
D and 1/2D (Radius) taps
Pipe taps
Vena contract taps

TAB HANDLE
Integral with Orifice Plate
Welded to orifice plate

DRAIN AND VENT HOLE
Standard: 304SS, 316LSS
Not drilled for orifice bores smaller than 25.4mm

Nominal Pipe Size
2" to 24"