

**Datasheet**

Rev.3 Nov 2017

***Restriction orifice plate – single or multi-bores***

- ✓ Designed to reduce the line pressure or to restrict the flowrate
- ✓ Single or multi-bores plate
- ✓ Plate design based on ISO5167, ASME.MFC.3M industry standards
- ✓ Designed according to ASME B31
- ✓ Calculation of noise level
- ✓ In compliance with the 2014/68/UE PED european directive
- ✓ Hydrostatic testings
- ✓ Delivered with relevant certificates



Fig 1 : restriction orifice plate - single



Fig 2 : restriction orifice plates – multi holes

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Restriction orifice is used **to reduce the fluid pressure or to restrict the flow rate in a pipe work**. The pressure drop produced by forcing the flow through the restriction orifice is calculated accurately taking into account all the relevant operating conditions.

The orifice bore and plate thickness are calculated to achieve the required reduction of flowrate or pressure whilst maintaining plate integrity.

The maximum pressure drop depends on the critical flow of the fluid, at which point sonic velocity is reached (choked flow for gases). This is the maximum velocity from which any reduction of pressure is impossible.

In case the target pressure drop cannot be achieved with a single plate, a multi-stage restriction orifice assembly is required. It allows reducing the pressure in different steps (multiple stages) and avoids such specific phenomena (cavitation, sonic and choke conditions) - see corresponding datasheet.

**Technical specifications**

**Applications – standards**

Standards	ISO5167-1, ASME.MFC.3M ASME B31
Fluid temperature	According specifications
Type of fluid	Gas, steam, liquid
Nominal diameters	ND15 to ND1000 (from 1/2 to 40 inches) Restriction orifice outside the scope of the standard available on request
Nominal pressure rating	Limited by the flange rating - from 150# to 2500#

The restriction orifice is dimensionally checked in compliance with the manufacturing quality controls.

Manufacturing is possible according 2014/68/UE PED european directive requirements.

**Features**

Material	Carbon steel, Stainless steel, Monel alloy, Hastelloys, Inconels, Titanium, PVC, etc
Type	RF design to be inserted between flanges with flat seals or spiral wound gaskets Or RTJ design male or female versions to be inserted between corresponding flanges – with or without an RTJ plate holder
Plate thickness	3 mm minimum Calculated taking into account the required reduction in pressure and the pipe size in order to prevent the plate from bending
Noise – Number of bores	Depending on the application, multi-bores restriction orifices are used to reduce the noise level (limited to 85dB(A) according to international noise standards)
Data plate	An arrow for the way of the fluid, the tag number and others parameters are indicated on the data plate