

# ORIFICE PLATE WITH CONICAL ENTRANCE

Recommended for small flow rates and/or viscous fluids

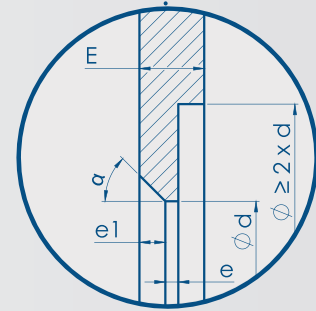
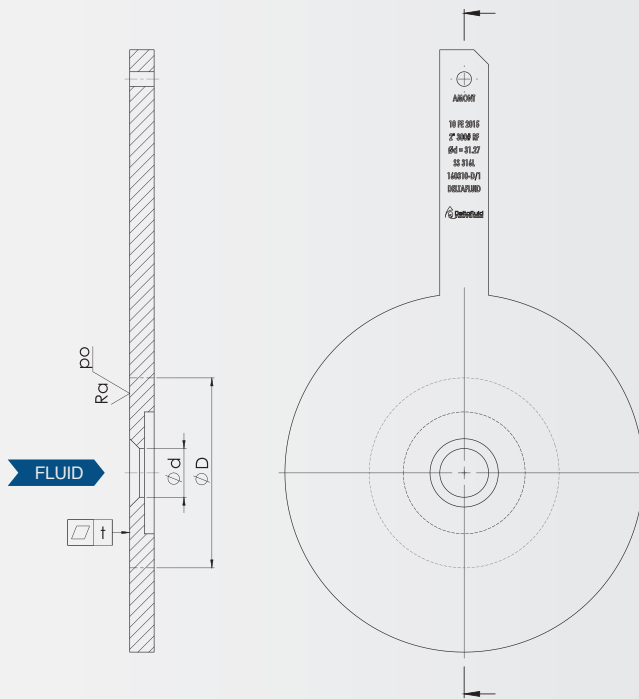
## GENERAL DATA

- Standard: ISO/TR 15377
- Flange mounting<sup>(1)</sup>:
  - o ISO PN 2.5 to PN 420
  - o ASME 150# to 2500#
  - o Others: upon request
- Material:
  - o Standard: stainless steel 304L / 316L
  - o Others<sup>(1)</sup>: according to your application
- Fluid: liquid, gas, steam
- Pipes from  $\phi$  25 to 1 000 mm
- Accuracy: 2 % of max the flow rate
- Repeatability of measurement: 0.1 %



$\Delta P$   
0/0

pressure tap<sup>(1)</sup>



Optional: stellite coating<sup>(1)</sup>

## TECHNICAL CHARACTERISTICS

### ISO/TR 15377

Symbol	Description	ISO/TR 15377
$Re_D$	Reynolds number in the pipe	$80 \leq Re_D \leq 6.10^4$
D	Inside pipe diameter	$25 \text{ mm} \leq D \leq 500 \text{ mm}$
d	Orifice diameter	$d > 6 \text{ mm}$
$\beta$	$d/D$	$0.1 \leq \beta \leq 0.316$
Ra	Upstream face roughness	$Ra \leq 10^{-4} \cdot d$
$e_1$	Thickness of the conical entrance	$e_1 = 0.084 \cdot d \pm 0.003 \cdot d$
e	Cylindrical part thickness	$e = 0.021 \cdot d \pm 0.003 \cdot d$
E	Plate thickness	$E \leq 0.1 \cdot D$
$\alpha$	Angle of the upstream bevel	$\alpha = 45^\circ \pm 1^\circ$
t	Flatness tolerance	$t < 0.005 \cdot (D - d - 2 \cdot e_1) / 2$

<sup>(1)</sup> For more details, see «Technical information» section on page 54.