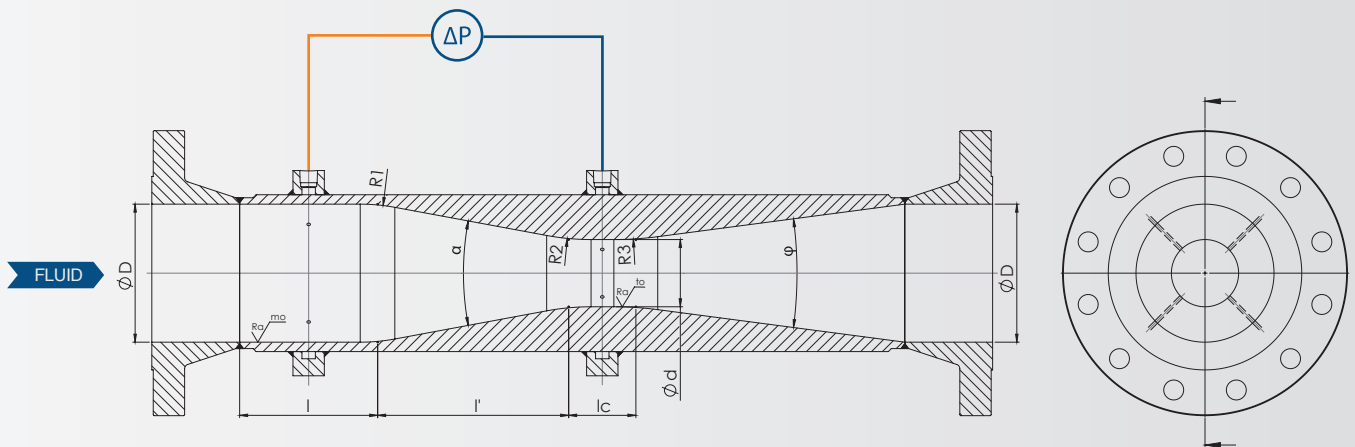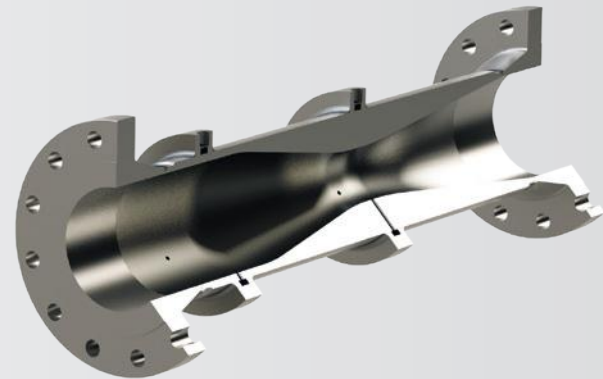# AS CAST
VENTURI TUBE

For a better accuracy

GENERAL DATA

- Standards: ISO 5167-1&4 or ASME MFC-3M
- Weld-end (BW) or flanged connection[1]
- Material:
    - o Standard: carbon steel, stainless steel
    - o Others[1]: according to your application
- Fluid: liquid, gas, steam
- Pipes from φ 100 to 1 200 mm
- Accuracy: 0.7 % of the max flow rate
- Repeatability of measurement: 0.1 %

Upstream and throat pressure taps: annular chambers or four tappings with a «triple-T» arrangement

TECHNICAL CHARACTERISTICS

		ISO 5167-1&4	ASME MFC-3M
Re_D	Reynolds number in the pipe	$2.10^5 \leq Re_D \leq 2.10^6$	$2.10^5 \leq Re_D \leq 6.10^6$
D	Inside pipe diameter	100 mm $\leq$ D $\leq$ 800 mm	100 mm $\leq$ D $\leq$ 1 200 mm
ß	d/D	0.30 $\leq$ ß $\leq$ 0.75	
Ra	Throat roughness	$Ra \leq 10^{-4}.d$	
	Entrance cylinder and convergent roughness	$Ra \leq 10^{-4}.D$	
l	Entrance cylinder minimal length	l = D ou[2] (0.25.D + 250 mm)	
l'	Entrance convergent length	l' = 2.7.(D - d)	
α	Entrance convergent angle	α = 21° ± 1°	
lc	Throat length	lc = d ± 0.03.d (minimum value = d/3)	
R_1	Radius of curvature 1 between the entrance cylinder and the convergent section	$R_1 = 1.375.D \pm 0.275.D$	
R_2	Radius of curvature 2 between the convergent section and the throat	$R_2 = 3.625.d \pm 0.125.d$	
R_3	Radius of curvature 3 between the throat and the divergent section	$5.d < R_3 < 15.d$	
φ	Exit divergent angle	7° $\leq$ φ $\leq$ 15°	

[1] For more details, see «Technical information» section on page 54.
[2] Consider the smaller value.