

Project . BINAK

ISO Orifice Plate - Concentric - Flange Taps - Gas Flow

Tag number FE-2101

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Input data

Fluid	GAS
Maximum gas flow	7220.493 kg/h
Normal gas flow	6564.084 kg/h
Meter inlet pressure	5.5 barg
Differential range	250 mbar
Flow temperature	46.11 degC
Molecular weight	26.36
Cp/Cv specific heat ratio	1.225
Viscosity @ FTP	.011 cp
Pipe inside diameter	6 in
Density @ FTP	6.664 kg/m3
Critical pressure	bara
Critical temperature	degC
Base pressure	14.69595 psia
Base temperature	59 degF
Barometric pressure	14.7 psia
Element material	301 stainless steel
Pipe material	Carbon steel

Output data

Orifice diameter	83.9942 mm
Beta ratio	.551142
Normal flow differential	206.6 mbar
Uncertainty percent	.6009 percent
Reynolds number	1384279
Max pressure loss	170.7 mbar
Max power loss	6.909 hp
Flow status	
Minimum plate thickness	3.175 mm
Thermal expansion factor	1.0004
Discharge coefficient	.604234
Gas expansion factor	.988557
Base pressure factor	1
Base temperature factor	1

English mass units

Source - ISO 5167-2:2003. Orifice plates

InstruCalc Ver.9.0.3.

Notes