

RO-SIZING

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Project . BINAK

Thick Restriction Orifice Plate - Gas Flow

Tag number RO-2151

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Input data

Fluid	GAS
Normal gas flow	3236 kg/h
Meter inlet pressure	62 barg
Discharge pressure	7 barg
Flow temperature	60 degC
Molecular weight	24.58
Cp/Cv specific heat ratio	1.263
Viscosity @ FTP	.011 cp
Pipe inside diameter	4 in
Density @ FTP	8.325 kg/m3
Element material	301 stainless steel
Pipe material	Carbon steel

Output data

Orifice diameter	10.4872 mm
Beta ratio	.10322
Reynolds number	1023967
Max pressure loss	28.2 bar
Max power loss	409.7 hp
Minimum plate thickness	10.49 mm

English mass units

Source - The Flow Measurement Engineering Handbook. Third Edition. Table 13.13

InstruCalc Ver.9.0.3.

Notes