

RO

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Project 2151. BINAK

Thick Restriction Orifice Plate - Gas Flow

Tag number RO-2151

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Input data

Fluid	GAS
Normal gas flow	3960 kg/h
Meter inlet pressure	62 barg
Discharge pressure	7 barg
Flow temperature	60 degC
Molecular weight	24.58
Cp/Cv specific heat ratio	1.51
Viscosity @ FTP	.014 cp
Pipe inside diameter	3 in
Density @ FTP	70.09 kg/m3
Element material	301 stainless steel
Pipe material	Carbon steel

Output data

Orifice diameter	.442799 in
Beta ratio	.1476
Reynolds number	1312732
Max pressure loss	30.85 bar
Max power loss	65.14 hp
Minimum plate thickness	.4428 in

Modified Mass English, basic calculation, calculate size

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

InstruCalc Ver.9.0.3.

Notes