

RO

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Project 2112. BINAK

Thick Restriction Orifice Plate - Gas Flow

Tag number RO-2112

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Input data

Fluid	GAS
Normal gas flow	144.1 kg/h
Meter inlet pressure	9 barg
Discharge pressure	4.5 barg
Flow temperature	36.87 degC
Molecular weight	24.52
Cp/Cv specific heat ratio	1.26
Viscosity @ FTP	.011 cp
Pipe inside diameter	2 in
Density @ FTP	9.98 kg/m3
Element material	301 stainless steel
Pipe material	Carbon steel

Output data

Orifice diameter	.214888 in
Beta ratio	.107444
Reynolds number	91195
Max pressure loss	4.475 bar
Max power loss	2.415 hp
Minimum plate thickness	.2149 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