

## RO-SIZING

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Project . BINAK

### Thick Restriction Orifice Plate - Gas Flow

Tag number RO-2112

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#### Input data

Fluid	GAS
Normal gas flow	250.7 kg/h
Meter inlet pressure	9 barg
Discharge pressure	4.5 barg
Flow temperature	36.92 degC
Molecular weight	24.52
Cp/Cv specific heat ratio	1.246
Viscosity @ FTP	.01 cp
Pipe inside diameter	2 in
Density @ FTP	5.47 kg/m3
Element material	301 stainless steel
Pipe material	Carbon steel

#### Output data

Orifice diameter	7.21371 mm
Beta ratio	.142002
Reynolds number	174524
Max pressure loss	4.448 bar
Max power loss	7.62 hp
Minimum plate thickness	7.214 mm

Modified Mass English, basic calculation, calculate size

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

InstruCalc Ver.9.0.3.

Notes