

FE-2111

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Project 2111. BINAK

ISO Orifice Plate - Concentric - Flange Taps - Liquid Flow

Tag number FE-2111

By A.KHAJEVAND

Input data

Fluid	LIQUID
Maximum liquid flow	7873.8 kg/h
Normal liquid flow	7160 kg/h
Flow temperature	20.6 degC
Meter inlet pressure	19.5 barg
Differential range	250 mbar
SG @ flow conditions	.716
Viscosity @ FTP	.63 cp
Pipe inside diameter	3 in
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	1.09057 in
Beta ratio	.363523
Normal flow differential	206.7 mbar
Uncertainty percent	.6268 percent
Reynolds number	52745
Max pressure loss	209.1 mbar
Max power loss	.08596 hp
Minimum plate thickness	.125 in
Thermal expansion factor	1.00001
Discharge coefficient	.601778

Modified mass English, basic calculation, calculate size  
Source - ISO 5167-2:2003. Orifice plates  
InstruCalc Ver.9.0.3.

Notes