

FE-SIZING

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Project . BINAK

ISO Orifice Plate - Concentric - Flange Taps - Liquid FlowTag number RO-2111

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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	19.67 barg
Differential range	250 mbar
SG @ flow conditions	.716
Viscosity @ FTP	.6327 cp
Pipe inside diameter	3 in
Base pressure	14.69595 psia
Base temperature	59 degF
Barometric pressure	14.7 psia
Element material	304 Stainless steel
Pipe material	Carbon steel

Output data

Orifice diameter	27.7003 mm
Beta ratio	.36352
Normal flow differential	206.7 mbar
Uncertainty percent	.6269 percent
Reynolds number	52520
Max pressure loss	209.1 mbar
Max power loss	.08596 hp
Minimum plate thickness	3.175 mm
Thermal expansion factor	1.00001
Discharge coefficient	.601786

English mass units
Source - ISO 5167-2:2003. Orifice plates
InstruCalc Ver.9.0.3.

Notes