FE-Sizer Release 4.2.2. for Windows 32-bit Platform
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Service Data

Tag:	1161/2-FE-0971	Client:	
Serv:	Treated gas from 116-F-114/214	Project:	
Line No.:	6"-G.116.10915/20915-D03	J.O./P.O. No.:	

Calculation Method & Base Conditions

Sizing Parameter:	FLOWMETER BORE	C-Std:	ASME MFC-3Ma(2007)/ISO 5167(2003)
Atm Press, Patm:	14.696 psia	Tap Loc:	UPSTREAM

Meter/Pipe Data

Meter Type:	ORIFICE PLATE	Meter Matl:	316/316L SS
Meter Style:	CONCENTRIC	Tap Style:	FLANGE TAPS
Nom Pipe Size:	6.00 in	Pipe Matl:	CARBON STEEL
Pipe I.D., D(ref):	154.051 mm	Pipe Sched:	40

Sizing Data

Maximum Flow, Wm:	20000 kg/h
Normal Flow, Wn:	16000 kg/h
Maximum Differential, dPm (ref dP - H2O @ 68.0 degF):	250.00 mbar-d

Fluid Data

Fluid:	FUEL GAS
State-Units-Equation-Condition:	VAPOR-MASS-DENSITY-FLOWING
Density (Flowing), Df1:	20.9 kg/m3
Pressure (Flowing), Pf1:	30.6000 bar-ga
Temperature (Flowing), Tf1:	40.0 deg C
Viscosity, U:	0.01100 cPoise
Specific Heat Ratio (Cp/Cv), K:	1.3800

Factor Data

Drain Dia, ddh: 2.0000 mm Drain Factor, Fdh: 1.000355

Calculated Results

Sizing Factor, Sm:	0.29
Pipe Reynolds Number @ Maximum Flow, RD:	4173346
Pipe Reynolds Number @ Normal Flow, RD:	3338677
Discharge Coefficient, C:	0.60
Expansion Factor, Y1:	1
Bore Expansion Factor, Fad:	1
Pipe Expansion Factor, FaD:	1
Permanent dP Loss:	56.22 %
Throat Velocity @ Max Flow:	105.43 ft/s
Beta, B (68.0 degF):	0.66
Orifice Bore, d (68.0 degF):	102 mm
Normal Differential, dPn (ref dP - H2O @ 68.0 degF):	160 mbar-d
Orifice Uncertainty, Uo:	0.59 %

Calc Number: _____ Sht: ___ of ___ Chk: _____
By: Rev: 1 Date: 21 Apr 2024