Micro Motion Calculation Summary

Date:	01.28.17
Company:	
Project Name:	4220-EK-16-0005185
Service:	
Sensor Model #:	CMF400M446N2FZE3ZZWG
Sensor Tag(s):	
Transmitter Model #:	2700R11AFFEZDZPK
Transmitter Tag(s):	
Wetted Material:	316L nerezová oceľ
Fluid:	CRUDE OIL
Fluid State:	Kvapalina
Mass Flow Accuracy at Operating. Flow (+/- % of Rate):	0,05000
Density Accuracy at all Rates (+/-):	0,20000 kg/m3
Pressure Drop at Operating Flow:	1,27739 bar
Sensor Minimum Pressure at operating conditions:	bar-g
Velocity at Operating Flow:	13,65475 m/sec

	Min	Operating*	Max	Design	Units
Flow Rate:	40000,000	350000,000	400000,000	400000,000	kg/hr
Pressure:	10,000	60,000	62,000	65,000	bar-g
Process Fluid Temperature:	-10,000	20,000	30,000	35,000	C
Ambient Temperature:	-25,000	20,000	35,000	40,000	C
Density:	810,000	850,000	890,000		kg/m3
Viscosity:		20,000			cP

Gas only	**Base Reference Temperature:** C		Density:	
	Base Reference Pressure: kPa-a			
	Base Reference Density: kg/m3			

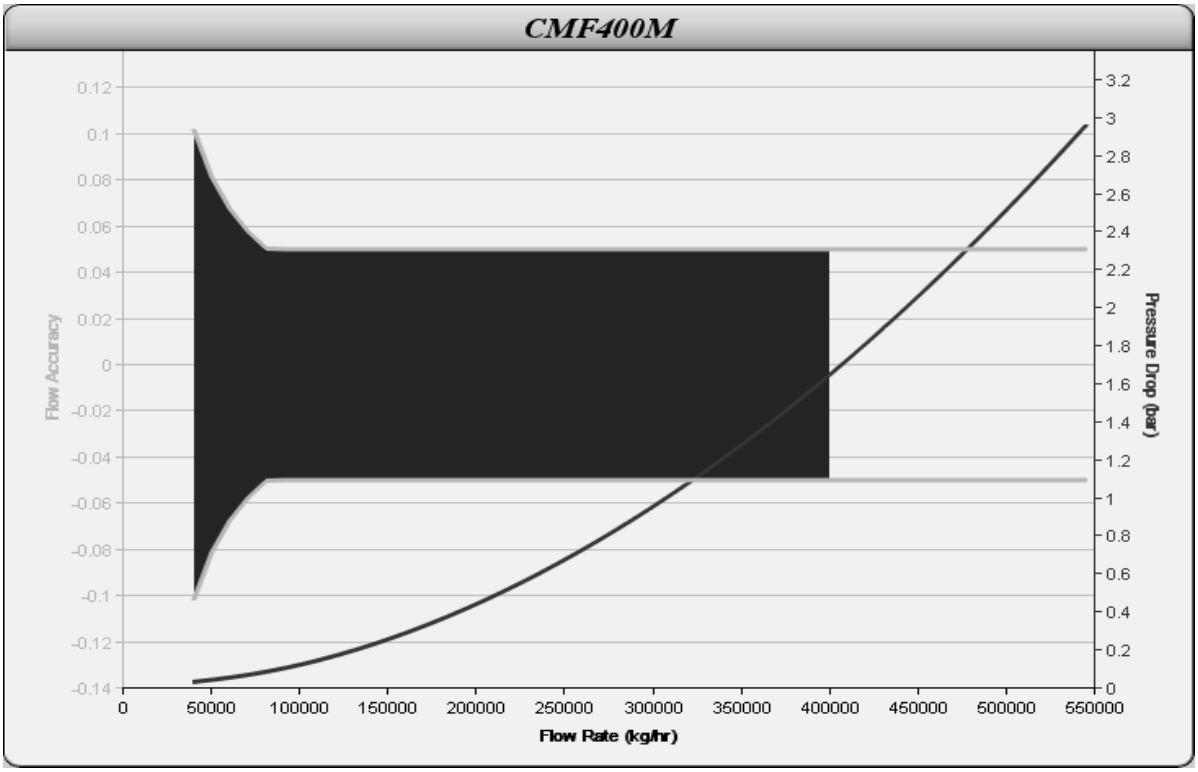
Process Connection:	DN150 PN100 EN 1092-1 F316/F316L krková príruba vyhotovenie B2
Process Connection Pressure Rating:	99,974 bar-g
@ Temperature:	35,000 C

Flow Rate kg/hr	Mass Flow Accuracy +/- % of Rate	Pressure Drop* bar	Velocity* m/sec	Re
400000,000	0,050	1,646	15,605	48432,407
350000,000	0,050	1,277	13,655	42378,356
328000,000	0,050	1,129	12,796	39714,574
292000,000	0,050	0,905	11,392	35355,657
256000,000	0,050	0,705	9,987	30996,740
220000,000	0,050	0,528	8,583	26637,824
184000,000	0,050	0,376	7,178	22278,907
148000,000	0,050	0,249	5,774	17919,991
112000,000	0,050	0,149	4,370	13561,074
76000,000	0,054	0,076	2,965	9202,157
40000,000	0,102	0,032	1,561	4843,241

*All pressure drop and velocity results are based on the process conditions (except flow rate) that are entered in the Operating column.

Notes:

Prepared by:		**Project ID:**	4220-EK-16-0005185 : 1028181
Instrument Toolkit	Version: 3.0 (Build201A)	**Application:**	CMF400


CMF400M
Flow Accuracy
Pressure Drop (bar)
Flow Rate (kg/hr)
0.12
0.1
0.08
0.06
0.04
0.02
0
-0.02
-0.04
-0.06
-0.08
-0.1
-0.12
-0.14
3.2
3
2.8
2.6
2.4
2.2
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
0
50000
100000
150000
200000
250000
300000
350000
400000
450000
500000
550000