

## M.A. Selmon Co., Inc

www.maselmon.com 4 Oxford Road, Milford, CT 06460 203-377-3525 203-377-5238 (fax)

Miguel Torres Aquarion Water Company February 9, 2017

Subject: Report for North Stamford Water Flow Meter					
CUSTOMER	Aquarion Water Company	TRIP DATE	February 8, 2017 NA		
	10 Interlaken Road	TRIP#			
	Stamford, CT	FIELD ENG	Jonathan Christie		
		DAYS ON SITE	1		
		TYPE OF SERVICE	Startup/Installation		
APPLICATION	LIQUID	INDUSTRY	Water / Wastewater		
PARTS USED	None				

**REASON FOR TRIP:** Install Flexim meter on North Stamford pipeline.

#### Introduction

Aquarion required a Flexim meter on their pipeline in North Stamford at Interlaken Road. Meter was to be installed in single-channel mode. Meter also had to be wired to put out a 4/20 signal.

#### **Meter Installation**

The Flexim meter was installed successfully. The accuracy of the meter is verified using the Sound speed diagnostic. The sound speeds matched expected values for warm water at ~60 degrees at 1467 m/s.

The 4/20 output is being driven by the A channel.



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### **Application**

The details of the application are as follows:

Meter programmed data

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Quantity	Unit	А		
Outer Diameter	inch	18.000		
Wall thickness	inch	1.125		
Wall material		PE		
Roughness	inch	0.000		
Fluid		Water		
Fluid SOS	m/s	1467.6		
Fluid temp.	°F	60.1		
Transducer S/N		CDK1NZ772794		
Sound paths		2		
Volume Units		MGD		
Damping	s	30		

#### Flow Test Results

1 1011 1 00	i i toodito
А	А
Flow velocity	Volume flow
fps	MGD
4.60	4.02
4.54	3.97
4.56	3.99
4.56	3.98
4.53	3.96

Regards,

Jonathan Christie

Jonathan Christie jon@maselmon.com



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### **REFERENCE METER (Ref)**

Reference Flexim

Model Fluxus F601

Serial # 60107936



Configuration	Example	Typical Uses
2 Sound path		90% of Installations for Liquids, preferred configuration for Easy Applications Note: Transducers should not be installed at top or bottom of horizontal pipes







### **Calibration Certificate**

**Device under test (DUT)** 

(US) 20170127-005

Transducer:

CDK1NZ7

Ser. No.:

72794

Customer Name & Address: Aquarion Water

Transmitter:

Flexim

Ser. No.:

Master25

505 Huntington St. Shelton, CT 06484

Pipe ID [inch]:

11.84

Fluid:

G721

Water

Temperature:

66.2 °F

Range [Gal/min]: 12000.00

Spec. Accuracy: 1.0% of rate

0.023 ft/s

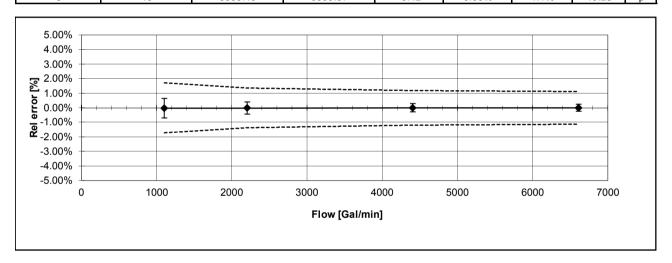
Measurement uncertainty (k=2): 0.16% of rate

Offset Allowance: Offset uncertainty: 0.016 ft/s

Certificate No.:

#### **Test results**

		Standard	DUT	measurement error		Limit	Standard	pass/
Meas. Point	Meas. time	Flowrate	Flowrate	Flowrate	Flowrate	Flowrate	Velocity	fail
		Qn	Qp	(Qp-Qn)	(Qp-Qn) / Qn	Q	٧	
	S	Gal/min	Gal/min	Gal/min	%	Gal/min;%	ft/s	
1	16	0.00	0.72	0.72	-	7.88Gpm	0.00	р
2	16	1101.27	1101.03	-0.24	-0.02%	1.7%	3.21	р
3	16	2202.30	2202.03	-0.27	-0.01%	1.4%	6.42	р
4	16	4404.79	4404.75	-0.04	0.00%	1.2%	12.83	р
5	16	6609.49	6609.37	-0.12	0.00%	1.1%	19.25	р



The DUT is within the specification limit when the measurement uncertainty is taken into account (passed / failed).

р

The instrument specified above was calibrated against measurement standards which are traceable to the National Institute of Standards and Technologies (NIST).

The calibration was carried out according to the guidelines monitored by our certified QM system in compliance with DIN EN ISO 9001. Reference meters are calibrated in accordance with ASME MFC-9M,

"Measurement of liquid flow in closed conduits by weighing method".

Standard Flexim Ser. No.

VXX1NHO

Calibration due: 2/9/2017 Certificate No. VXX1NHO10350\_\_20160209 Aperture Calibration conducted in accordance with Working Procedure AA04\_032EN

Date: 1/27/2017 Test eng.: **Matthew Parody** Signature:

This certificate contains 1 page and should be copied only in its entirety.