



# CERTIFICATE OF NIST TRACEABLE CALIBRATION

Calibration Certificate No: 95597

## Customer Information

Customer: ILRT Inc.  
Address : 237 Phinney Road  
Hannibal, NY 13074



Customer PO #: PO220104A R0

## Calibration Procedure Information

Procedure ID: GTP Rotameter

Revision #: 8

Revision Date: 10/19/2018

## Calibration Standards Information

<u>Graftel ID</u>	<u>Manufacturer</u>	<u>Model #</u>	<u>Description</u>	<u>CAL Due</u>
10190	American Meter Co.	NA	Sonic Nozzle A	10/15/2022
10164	Graftel	9202	Temperature	5/29/2023
10040	Paroscientific	760-1K	Pressure, 1000 psia	5/20/2022
60031	Paroscientific	760-100A	Pressure, 100 psia	5/20/2022
T1830482	Vaisala	HMW95D	RH/Temp. Logger	6/17/2022
1A01JMGKP36	Graftel	N/A	Digital Barometer	6/16/2022

## Sensor Information

Manufacturer: Brooks      Description: Rotameter      Method Used: Sonic Nozzle  
Model #: 1110CK42CLGAA      Rated Accuracy:  $\pm 2$  % of Full Scale      Accuracy Specified By: Brooks  
Instrument ID#: GP-0085      Range: 1.34 to 13.5 scfm      Condition: Functional  
Serial #: 0199090114946/001

Comments: Calibration Date: 01-31-2022  
Calibration Due: 01-31-2023

*This calibration is Nuclear Safety Related. 10CFR50 Appendix B and 10CFR Part 21 apply.*

*The calibrations within the certificate/report are traceable through NIST or another National Metrology Institute to the International System of Units (SI). The reported calibration uncertainty has a confidence level of 95% ( $k=2$ ). A calibration uncertainty ratio of 4:1 was maintained unless required uncertainty is supported by analysis. Graftel Quality Assurance System complies with applicable requirements of ISO/IEC-17025-2017, ANSI/NCSS Z540-1-1994 and ISO 9001. All results contained within this certificate relate only to item(s) calibrated. This certificate shall not be reproduced except in full and with the written consent of Graftel. Acceptance Criteria per Simple Acceptance Rule: Measurement Uncertainty is not applied to the measured value when in/out of tolerance statement is made.*

Performed By:   
David Stocks  
Calibration Technician

Date: 1/31/2022

Approved By:   
Scott Pickett  
Vice President, Lab Services

Date: 1/31/2022

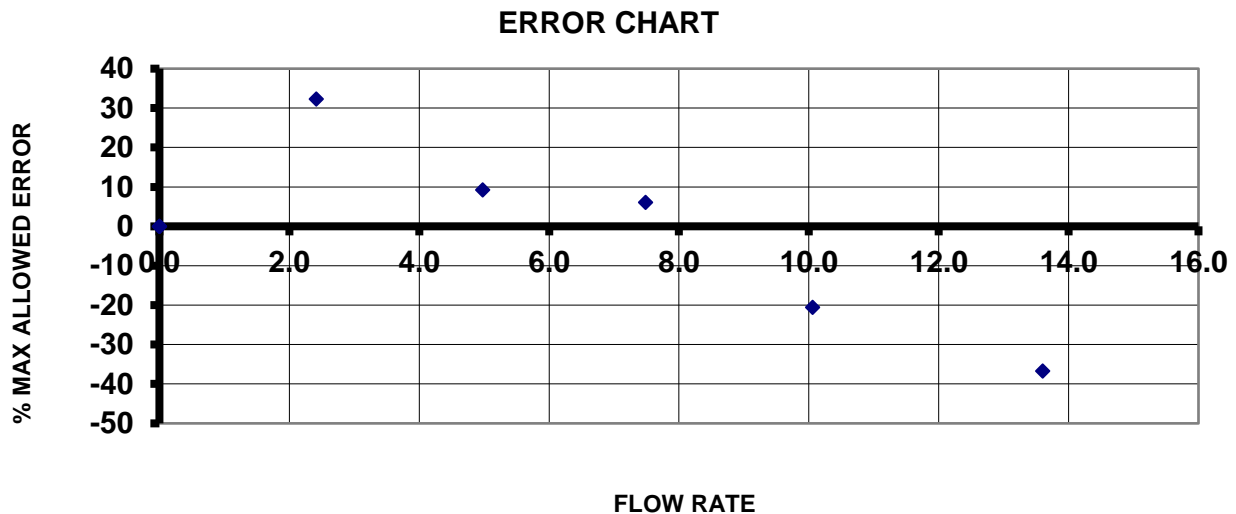


**ATTACHMENT TO CALIBRATION CERTIFICATE  
AS FOUND / AS LEFT DATA**

**95597**

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Data Set Number	Reading From Standard, scfm	Lower Limit of Meter Reading, scfm	Measured Reading From Meter, scfm	Upper Limit of Meter Reading, scfm	Error, %/FS	STATUS
1	2.413	2.143	2.5	2.683	0.646	Pass
2	4.975	4.705	5.0	5.245	0.184	Pass
3	7.484	7.214	7.5	7.754	0.121	Pass
4	10.056	9.786	10.0	10.326	-0.411	Pass
5	13.599	13.329	13.5	13.869	-0.734	Pass



Expanded Uncertainty at k=2 is Less Than: 0.5% of reading

**INSTRUMENT AND TEST PARAMETERS**

Meter's Full Scale	13.5	scfm
Meter's Rated Accuracy	2	%/FS
Meter's Calibrated Pressure	14.7	psia
Meter's Calibrated Temperature	70	F
Meter's Calibrated Flow Gas	Air	
Gas Used to Perform Calibration	Air	
Meter's Standard Gas	Air	
Meter's Standard Pressure	14.7	psia
Meter's Standard Temperature	70	F

**LABORATORY AMBIENT CONDITIONS**

Pressure	14.35	psia
Relative Humidity	16.29	% RH
Temperature	64.13	F

This rotameter has been calibrated in general compliance with ISA-RP16.6-1961,  
"Methods and Equipment for Calibration of Variable Area Meters,(Rotameters)"



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FLOW - TEMPERATURE - HUMIDITY - PRESSURE - DESIGN - CONSULTING - ENGINEERING

**NIST Traceable Calibration Data Sheet**

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