

# **CERTIFICATE OF ACCREDITATION**

## **The ANSI National Accreditation Board**

Hereby attests that

## Gerhart Systems and Controls Corp. 603 Washington Avenue South Amboy, NJ 08879

Fulfills the requirements of

## **ISO/IEC 17025:2017**

and national standard

### ANSI/NCSL Z540-1-1994 (R2002)

In the field of

## CALIBRATION

This certificate is valid only when accompanied by a current scope of accreditation document. The current scope of accreditation can be verified at <u>www.anab.org</u>.





Jason Stine, Vice President

Expiry Date: 01 October 2026 Certificate Number: AC-1345

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).



### **SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017**

### AND

### ANSI/NCSL Z540-1-1994 (R2002)

#### Gerhart Systems and Controls Corp.

603 Washington Avenue South Amboy, NJ 08879 Stuart Cattell (President), Carol Rendfrey (Quality Manager), John J. Smith (Lab Manager) 732-525-1000

### CALIBRATION

Valid to: October 1,2026

Certificate Number: AC-1345

#### Mass and Mass Related

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Mass Artifacts – Laboratory and Test	5 000 g 3 000 g 2 000 g 1 000 g 500 g 300 g 200 g 100 g 50 g 30 g 20 g 10 g 5 g 3 g 2 g 1 g 500 mg 300 mg 200 mg 100 mg 50 mg 30 mg 20 mg 10	1 mg   0.41 mg   0.39 mg   0.12 mg   0.24 mg   29 µg   26 µg   19 µg   15 µg   14 µg   5.9 µg   3.3 µg   1.9 µg   1.5 µg   1.3 µg   0.96 µg   1.2 µg   0.78 µg   0.91 µg   0.78 µg   0.78 µg   0.78 µg   0.78 µg   0.78 µg   0.76 µg	ASTM E617 Class 1 Weights, OIML Class E <sub>1</sub> Weights, Sartorius CCE5004 Balance, Sartorius CC310 Balance, Sartorius MC21S Micro Balance, Sartorius CCE6 Mass Comparator



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#### Mass and Mass Related

		Expanded Uncertainty of	Reference Standard,
Parameter/Equipment	Range	Measurement (+/-)	Method, and/or
	8		Equipment
	5	0.71	ASTM E617
	5 mg	$0.71 \mu g$	Class 1 Weights,
Mass Artifacts –	3  mg	0.88 μg	OIML Class E <sub>1</sub> Weights,
Laboratory and Test	2  mg	$0.05 \ \mu g$	Sartorius CCE6
	1 mg	0.05 µg	Mass Comparator
	25 kg	10 mg	
	20 kg	10 mg	ASTM E617
	10 kg	3.1 mg	Class 1 Weights,
Mass Artifacts –	<b>70 11</b>		ASTM E617
NIST Class F Commercial	50 lb	2.7 mg	Class 2 Weights,
Test Weights	25 16	3.1 mg	Sartorius CCE40K3
C	20 16	2.7 mg	Balance,
	10 16	0.76 mg	Sartorius CCE5004
	5 lb	0.55 mg	Balance
Laboratory Palanaga 1	1 10	0.12 mg	ASTM E617 Close 1
(0.001  mg resolution)	Up to 5 g	3.5	Weights internal procedure
(0.001 mg resolution)	Op 10 5 g	5.5 µg	WI 5 4 and NIST
(0.01 mg resolution)	Up to 200 g	26 µg	Handbook 44 utilized in the
(0.01 mg 10001000)	op 10 200 8		calibration of the weighing
(0.1 mg resolution)	Up to 500 g	70 µg	system.
Top Loading Balances <sup>1</sup>			ASTM E617 Class 2
(0.001 g resolution)	Up to 1 000 g	0.2 mg	Weights, internal procedure
			WI 5.4 and NIST
(0.01 g resolution)	Up to 5 000 g	1.4 mg	Handbook 44 utilized in the
			calibration of the weighing
(0.1 g resolution)	Up to 20 000 g	0.12 g	system.
Industrial Scales <sup>1</sup>		0.00001	
(0.01 lb resolution)	Up to 500 lb	0.006 16	
(0, 1, 1) resolution)	Un to 500 lb	0.06.11	NIST Class E Weights
(0.1 lb resolution)	Up to 300 lb	0.06 16	INIST Class F weights
(0.5 lb resolution)	Up to 3 000 lb	0.4 lb	utilized in the calibration of
(0.5 10 resolution)	0 10 5 000 10	0.710	the weighing system
(1 lb resolution)	Up to 5 000 lb	0.6 lb	the worghing system.
	5p 10 0 000 10		
(2 lb resolution)	Up to 10 000 lb	1.4 lb	
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#### Mass and Mass Related

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Heavy Capacity Scales <sup>1</sup>			
(5 lb resolution)	Up to 30 000 lb	2.9 lb	NIST Class F Weights
(10 lb resolution)	Up to 90,000 lb	5.0.16	and NIST Handbook 44
	00 10 90 000 10	3.9 10	the weighing system.
(20 lb resolution)	Up to 200 000 lb	11.7 lb	
Pressure Measuring Devices	(150 to 1 500) psig	0.008 3 % of reading + 0.03 psi	Ametek T-150
Tressure measuring Devices	(1 500 to 15 000) psig	0.008 4 % of reading + 0.36 psi	Deadweight Tester

#### Thermodynamic

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Temperature – Source (Thermometers, Probes, etc.)	(-20 to 100) °C	0.12 °C	Hart Temperature Probe, Bath
	(20 to 350) °C	0.12 °C	Hart Temperature Probe, Dry-block

Calibration and Measurement Capability (CMC) is expressed in terms of the measurement parameter, measurement range, expanded uncertainty of measurement and reference standard, method, and/or equipment. The expanded uncertainty of measurement is expressed as the standard uncertainty of the measurement multiplied by a coverage factor of 2 (*k*=2), corresponding to a confidence level of approximately 95%.

Notes:

1. On-site calibration service is available for this parameter, since on-site conditions are typically more variable than those in the laboratory, larger measurement uncertainties are expected on-site than what is reported on the accredited scope.

2. Gerhart has resident technicians in Painted Post, NY; Tatamy, PA; Newark, DE; and Pennsauken, NJ.

3. This scope is formatted as part of a single document including Certificate of Accreditation No. AC-1345.

Jason Stine, Vice President





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