CERTIFICATE OF ACCREDITATION

ANSI National Accreditation Board

11617 Coldwater Road, Fort Wayne, IN 46845 USA

This is to certify that

Holtgreven Scale & Electronics Corporation

420 East Lincoln Street
Findlay, OH 45840

has been assessed by ANAB and meets the requirements of international standard

ISO/IEC 17025:2017

while demonstrating technical competence in the field of

CALIBRATION

Refer to the accompanying Scope of Accreditation for information regarding the types of activities to which this accreditation applies

L2012-1
Certificate Number

ANAB Approval

Certificate Valid Through: 12/22/2021
Version No. 003 Issued: 11/13/2019

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).

ANSI National Accreditation Board

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

Holtgreven Scale & Electronics Corporation

420 East Lincoln Street
Findlay, OH 45840
Len Holtgreven
419-422-4779

CALIBRATION

Valid to: **December 22, 2021** Certificate Number: **L2012-1**

Mass and Mass Related

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Lab Balance and High Precision Scales – Class I (0.000 1 g resolution)	(0 to 210) g	0.63 mg	ASTM E617 Class 1 Weights and NIST Handbook 44 utilized for the calibration of the Weighing System
(0.001 g resolution)	(0 to 1 000) g	3 mg	
(0.01 g resolution)	(0 to 1 000) g	13 mg	
(0.02 g resolution)	(0 to 2 000) g	26 mg	
(0.05 g resolution)	(0 to 5 000) g	66 mg	
Lab Balance and High Precision Scales – Class II (0.01 g resolution)	(0 to 5) kg	13 mg	
(0.1 g resolution)	(0 to 11) kg	132 mg	
Industrial Scales [2] (0.05 g resolution)	(0 to 500) g	0.12 g	NIST Class F Weights and NIST Handbook 44 utilized for the calibration of the Weighing System
(0.1 g resolution)	(0 to 1) kg	0.22 g	
(0.2 g resolution)	(0 to 2) kg	0.37 g	
(0.5 g resolution)	(0 to 5) kg	0.83 g	
(1 g resolution)	(0 to 10) kg	1.7 g	
(2 g resolution)	(0 to 20) kg	3.3 g	

Mass and Mass Related

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Industrial Scales cont'd [2] (5 g resolution)	(0 to 50) kg	9 g	NIST Class F Weights and NIST Handbook 44 utilized for the calibration of the Weighing System
(0.01 kg resolution)	(0 to 100) kg	16 g	
(0.02 kg resolution)	(0 to 200) kg	29 g	
(0.05 kg resolution)	(0 to 500) kg	0.08 kg	
(0.1 kg resolution)	(0 to 1 000) kg	0.16 kg	
(0.2 kg resolution)	(0 to 2 000) kg	0.29 kg	
(0.5 kg resolution)	(0 to 5 000) kg	0.89 kg	
(1 kg resolution)	(0 to 10 000) kg	1.8 kg	
(2 kg resolution)	(0 to 20 000) kg	3.5 kg	
(5 kg resolution)	(0 to 50 000) kg	8.9 kg	
(0.001 lb resolution)	(0 to 10) lb	0.03 oz	
(0.002 lb resolution)	(0 to 20) lb	0.04 oz	
(0.005 lb resolution)	(0 to 50) lb	0.01 lb	
(0.01 lb resolution)	(0 to 100) lb	0.02 lb	
(0.02 lb resolution)	(0 to 200) lb	0.03 lb	
(0.05 lb resolution)	(0 to 500) lb	0.07 lb	
(0.1 lb resolution)	(0 to 1 000) lb	0.17 lb	
(0.2 lb resolution)	(0 to 2 000) lb	0.33 lb	
(0.5 lb resolution)	(0 to 5 000) lb	0.76 lb	
(1 lb resolution)	(0 to 10 000) lb	1.8 lb	
(2 lb resolution)	(0 to 20 000) lb	3.5 lb	
(5 lb resolution)	(0 to 50 000) lb	8.7 lb	

Mass and Mass Related

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Industrial Scales cont'd [2] (10 lb resolution)	(0 to 100 000) lb	18 lb	NIST Class F Weights and NIST Handbook 44 utilized for the calibration of the Weighing System
(20 lb resolution)	(0 to 200 000) lb	35 lb	
(50 lb resolution)	(0 to 400 000) lb	87 lb	

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. Industrial Scales include Bench, Counting, Crane/Hanging, Floor, Forklift, Tank, Hopper, Vehicle and other types of industrial weighing applications.
3. This scope is formatted as part of a single document including Certificate of Accreditation No. L2012-1.

Vice President