

Certificate of Accreditation



Avery Weigh-Tronix (a trading name of ITW Ltd)

Calibration Laboratory No. 0450

Is accredited in accordance with International Standard ISO/IEC 17025:2017 – General Requirements for the competence of testing and calibration laboratories.

This accreditation demonstrates technical competence for a defined scope specified in the schedule to this certificate, and the operation of a management system (refer joint ISO-ILAC-IAF Communiqué dated April 2017). The schedule to this certificate is an essential accreditation document and from time to time may be revised and reissued.

The most recent issue of the schedule of accreditation, which bears the same accreditation number as this certificate, is available from www.ukas.com.

This accreditation is subject to continuing conformity with United Kingdom Accreditation Service requirements.

A handwritten signature in black ink, appearing to read "Matt Gantley", is positioned above a horizontal line.

Matt Gantley, *Chief Executive Officer*
United Kingdom Accreditation Service

Initial Accreditation: 20 September 1993
Certificate Issued: 25 January 2021




Scan QR Code to
verify

Schedule of Accreditation

issued by

United Kingdom Accreditation Service

2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

 0450 Accredited to ISO/IEC 17025:2017	Avery Weigh-Tronix (a trading name of ITW Ltd)	
	Issue No: 026 Issue date: 20 July 2022	
	Foundry Lane Smethwick Warley West Midlands B66 2LP	Contact: Mr Ishverlal Patel Tel: +44 (0)121 568 1576 Fax: +44 (0)121 697 5576 E-Mail: ipatel@awtx-itw.com Website: www.averyweigh-tronix.com

Calibration performed by the Organisations at the locations specified below

Locations covered by the organisation and their relevant activities

Laboratory locations:

Location details	Activity	Location code
Address Foundry Lane Smethwick Warley West Midlands B66 2LP	Local contact Mr Ishverlal Patel Tel: +44 (0)121 568 1576 Fax: +44 (0)121 697 5576	Mass Mass (weights) Perm Lab

Site activities performed away from the locations listed above:

Location details	Activity	Location code
At customers premises The customers' site or premises must be suitable for the nature of the particular calibrations undertaken and will be the subject of contract review arrangements between the laboratory and the customer.	Mass (Weighing machines)	Site



0450
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Calibration and Measurement Capability (CMC)

Measured Quantity Instrument or Gauge	Range	Expanded Measurement Uncertainty (k = 2)	Remarks	Location Code
MASS See notes 1 and 2	Nominal value (g)	(mg)	NOTES 1. Intermediate values can be calibrated with an uncertainty not less than that interpolated from the next higher and lower nominal value in the table. 2. Calibrations are performed using Borda's method of substitution	Perm Lab
	25 000	200		
	20 000	20		
	10 000	10		
	5 000	5.0		
	2 000	2.0		
	1 000	1.0		
	500	0.5		
	200	0.20		
	100	0.10		
	50	0.060		
	20	0.050		
	10	0.040		
	5	0.032		
	2	0.024		
	1	0.020		
	0.5	0.016		
	0.2	0.012		
	0.1	0.010		
	0.05	0.008 0		
	0.02	0.006 0		
	0.01	0.005 0		
	0.005	0.004 0		
	0.002	0.004 0		
	0.001	0.004 0		
NON AUTOMATIC WEIGHING MACHINES See notes 1 to 3 From 1 mg to 5000 kg	200 mg 500 mg 1 g 2 g 5 g 10 g 20 g 50 g 100 g 200 g 500 g 1 kg 2 kg 5 kg 10 kg 20 kg 50 kg 100 kg 200 kg 500 kg 1000 kg 2000 kg 5000 kg	0.015 mg 0.020 mg 0.025 mg 0.030 mg 0.038 mg 0.051 mg 0.067 mg 0.095 mg 0.17 mg 0.34 mg 0.89 mg 1.7 mg 5.5 mg 13 mg 27 mg 56 mg 150 mg 700 mg 3.1 g 30 g 60 g 120 g 290 g	1. Weights are available in OIML Class: E2 from 1 mg to 200 g, max. grouped load 1 kg F1 from 5 mg to 10 kg, max. grouped load 200 kg M1 from 1 g to 1000 kg, max. grouped load 5000 kg 2. Other loads within the overall listed range may also be used. 3. The method of calibration is based on EURAMET CG-18	Site
END				



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Appendix - Calibration and Measurement Capabilities

Introduction

The definitive statement of the accreditation status of a calibration laboratory is the Accreditation Certificate and the associated Schedule of Accreditation. This Schedule of Accreditation is a critical document, as it defines the measurement capabilities, ranges and boundaries of the calibration activities for which the organisation holds accreditation.

Calibration and Measurement Capabilities (CMCs)

The capabilities provided by accredited calibration laboratories are described by the Calibration and Measurement Capability (CMC), which expresses the lowest measurement uncertainty that can be achieved during a calibration. If a particular device under calibration itself contributes significantly to the uncertainty (for example, if it has limited resolution or exhibits significant non-repeatability) then the uncertainty quoted on a calibration certificate will be increased to account for such factors.

The CMC is normally used to describe the uncertainty that appears in an accredited calibration laboratory's schedule of accreditation and is the uncertainty for which the laboratory has been accredited using the procedure that was the subject of assessment. The measurement uncertainty is calculated according to the procedures given in the GUM and is normally stated as an expanded uncertainty at a coverage probability of 95 %, which usually requires the use of a coverage factor of $k = 2$. An accredited laboratory is not permitted to quote an uncertainty that is smaller than the published measurement uncertainty in certificates issued under its accreditation.

Expression of CMCs - symbols and units

It should be noted that the percentage symbol (%) represents the number 0.01. In cases where the measurement uncertainty is stated as a percentage, this is to be interpreted as meaning percentage of the measurand. Thus, for example, a measurement uncertainty of 1.5 % means $1.5 \times 0.01 \times q$, where q is the quantity value.

The notation $Q[a, b]$ stands for the root-sum-square of the terms between brackets: $Q[a, b] = [a^2 + b^2]^{1/2}$