Laboratory Accreditation Programmes

Schedule to

CERTIFICATE OF ACCREDITATION

ScaleLogic Limited **Client Number 9430**

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Authorised Representative
Mr Mike Adamson
Director

Programme
Metrology & Calibration Laboratory

Accreditation Number 1427 **Initial Accreditation Date** 23 March 2023

Conformance Standard
ISO/IEC 17025:2017
General requirements for the competence of testing and calibration laboratories

Laboratory Services Summary

5.21	Masses
5.22	Precision Laboratory Balances
5.23	Industrial Balances
5.24	Industrial Weighing Appliances
5.44	Pressure and Vacuum
5.45	Pressure Equipment Tests
5.51	Force Measuring Devices
5.53	Testing Machines
5.61	Temperature Measuring Equipment
5.63	Temperature Controlled Enclosures

Key Technical Personnel

Mr Mike Adamson	5.21, 5.22, 5.23, 5.24, 5.44, 5.45, 5.51, 5.53, 5.61, 5.63
Mr Daryl Pettit	5.21, 5.22, 5.23, 5.24, 5.44, 5.45, 5.51, 5.53, 5.61, 5.63

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Calibration and Measurement Capability (CMC) uncertainties are expressed as an expanded uncertainty corresponding to a level of confidence of 95 % Note1.

Measurement results are traceable to the International System of Units (SI) via an unbroken chain of comparisons to the New Zealand National Standards or to the National Standards of other Signatories to the CIPM MRA.

Measurements can be made in the laboratory or at the customer's premises. The laboratory maintains a temperature of 20 °C ±5 °C.

Measurand/Range	CMC Uncertainty

5.21 Masses

(a) Examination of laboratory standards of mass
(b) Examination of industrial standards of mass

In accordance with an in-house procedure OPL05 based on the Measurement Standards Laboratory of New Zealand Technical Guide 7 and OIML R 111-1

1 mg to 10 g	30 µg
10 g to 200 g	3 µg/g
200 g to 5 kg	4 µg/g
5 kg to 30 kg	3 µg/g
30 kg to 100 kg	69 µg/g
100 kg to 500 kg	1130 µg/g
500 kg to 5000 kg	450 µg/g

5.22 Precision Laboratory Balances

In accordance with an in-house procedure OPL03 based on the Measurement Standards Laboratory of New Zealand Technical Guide 25 and OIML R 111-1

CMCs as per 5.21

5.23 Industrial Balances

In accordance with an in-house procedure OPL03 based on the Measurement Standards Laboratory of New Zealand Technical Guide 25 and OIML R 111-1

CMCs as per 5.21

5.24 Industrial Weighing Appliances

In accordance with an in-house procedure OPL06 based on the Measurement Standards Laboratory of New Zealand Technical Guide 25 and OIML R 111-1

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CMCs as per 5.21

5.44 Pressure and Vacuum

(a) Pressure gauges
(b) Vacuum gauges

By comparison with reference gauges to an in-house method to determine accuracy requirements for BS EN 837-1, ASME B40.100, or to manufacturer's specifications.

-0.95 bar to 1 bar	0.0019 bar
1 bar to 20 bar	0.007 bar
20 bar to 70 bar	0.01 bar
70 bar to 140 bar	0.3 bar
140 bar to 400 bar	0.9 bar
400 bar to 700 bar	0.9 bar

1 bar = 100 kPa

Test medium is air or nitrogen.

Pressure gauges of accuracy 0.25 %, 0.6 %, 1 %, 1.6 %, 2.5 %, 4 %
(accuracy classes as defined in BS EN 837-1 or equivalent in similar standards)

5.45 Pressure Equipment Tests

(e) Pressure relief valve tests

The testing of Pressure Relief Valves up to 70 bar in accordance with in-house methods.

5.51 Force Measuring Devices

(b) Elastic force measuring devices and force dynamometers

In accordance with an in-house procedure OPL08 based on ISO 376 and OIML R 111-1

By comparison with reference masses

0 N to 500 N	0.02 %

By comparison with reference load cells

0 kN to 50 kN	0.50 %

5.53 Testing Machines

(a) Tension and universal machines in tension

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(b) Compression and universal machines in compression

In accordance with an in-house procedure OPL07 based on ISO 7500

0 kN to 50 kN	0.50 %
50 kN to 2000 kN	0.25 %

5.61 Temperature Measuring Equipment

(a) Rare metal thermocouples
(b) Base metal thermocouples
(c) Platinum (and other metallic) resistance thermometers
(g) Clinical thermometers
(k) Vapour pressure thermometers
(m) Bimetallic systems
(o) Indicators, recorders and controllers
(p) Other direct reading temperature measuring systems, including gas actuated thermometers

Temperature calibration by comparison to reference thermometers using a calibration bath/block (or an Ice-point) in accordance with in-house procedures OPL11 and OPL12

-20 °C to 0 °C	0.2 °C
Ice-point	0.02 °C
0 °C to 200 °C	0.3 °C
200 °C to 300 °C	0.4 °C
300 °C to 600 °C	0.5 °C

5.63 Temperature Controlled Enclosures

(a) Ovens and furnaces (including autoclaves)
(b) Baths
(c) Incubators
(d) Refrigerators and freezers
(e) Conditioning rooms and cabinets
(f) Dry block calibrators
(g) Other enclosures

Spatial measurements using temperature loggers or thermocouples in accordance with in-house procedure OPL13

-20 °C to 70 °C	0.2 °C
70 °C to 300 °C	0.2 °C

Note 1:
Unless stated otherwise the CMC is based on the performance of the best available device and measurement uncertainties achieved for specific calibrations may be greater than the CMC Uncertainty. A laboratory may

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not report measurement uncertainties lower than its CMC. However, if the device under calibration has a greater accuracy than the device used to calculate the CMC the laboratory may be able to use the calibration data to lower its CMC Uncertainty. Please contact the laboratory to discuss your specific requirements.

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