Scope of Accreditation

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National Association of Testing Authorities, Australia

Accreditation Number 1710 PCS Precision (Aust)

Site Number 1703 PCS Precision (Aust)

Contact Summary

Address

Unit 11,

21-23 Daniel Street

WETHERILL PARK

NSW 2164

AUSTRALIA

Phone +61 0297561944

Mobile 0416018323

Email pcsweighing@bigpond.com

Web www.pcsweighing.com.au

Contact

Site Availability Services available to external clients

Site Supervision

Site Scope Last Modified: 23/02/2018

Scope (AC = Accreditation Status, AU= Authorisation Status, D = Do Not Publish)

ISO/IEC 17025 - Calibration (2005) - Dimensional Metrology

ISO/IEC 17025 - Calibration

The uncertainty of measurement is reported as an expanded uncertainty having a level of confidence of 95% unless stated otherwise

Service	Product	Determination	Technique	Procedure	AC	AU
Calibration of engineering equipment and precision instruments	Dial gauges; Extensometers; External micrometers; Feeler gauges; Vernier calipers	Length measurements	To be determined	External micrometers for compliance with AS 2102 and BS EN ISO 361; Dial gauges and test indicators for compliance with AS 2103; Including electronic indicators and LVDTs to PCS test method ZHC12501; Electronic and vernier callipers for compliance with AS 1984 and JIS B 7507; Feeler gauges for compliance with AS 1655; Extensometers to AS 1545	O	Auth

Limitation / Range

External micrometers up to 300 mm

Dial gauges, test and electronic indicators from 1µm to 25 mm

Self-indicating devices with up to 100 mm displacement and 10 µm (or greater) resolution to the NATA Construction Materials Testing supplementary requirements
Electronic and vernier callipers up to 1000 mm

Feeler gauges up to 2 mm

Extensometers from 0 to 25 mm

Measurement Uncertainty

External micrometers

1.3 µm for linear measurements up to 25 mm;

2.3 µm for linear measurements above 25 mm up to 100 mm;

3.2 µm for linear measurements above 100 mm up to 200 mm;

5.0 µm for linear measurements above 200 mm up to 300 mm;

0.3 µm for parallelism up to 50 mm;

0.5 µm for parallelism above 50 up to 100 mm;

2.5 µm for parallelism above 100 mm;

Dial gauges, electronic and test indicators

1.3 µm for linear measurements from 1µm to 10 mm;

1.6 µm for linear measurements above 10 mm to 25 mm;

Electronic and vernier callipers

13 µm for linear measurements up to 150 mm;

18 µm for linear measurements from 150 mm to 300 mm;

23 µm for linear measurements from 300 mm to 600 mm;

32 µm for linear measurements from 600 to 1000 mm;

2.5 µm for form and geometry measurements

Feeler gauges 2 µm;

Extensometers 1.3 µm

ISO/IEC 17025 - Calibration (2005) - Force Metrology

ISO/IEC 17025 - Calibration
The uncertainty of measurement is reported as an expanded uncertainty having a level of confidence of 95% unless stated otherwise

Service	Product	Determination	Technique	Procedure	AC	AU
Calibration of force measuring and testing equipment	Compression and universal machines in compression; Load cells; Load measuring rings; Tension and universal machines in tension	Force in compression; Force in tension	Comparison measurement with reference load cell; Gravimetric measurement with reference mass	AS 2193	O	Auth

Limitation / Range

Tension

5 N to 500 kN

Compression
5 N to 2 MN

Measurement Uncertainty

Tension

0.2% of reading from 5 N to 500 kN to Class AA requirements of AS 2193

Compression

0.2% of reading from 5 N to 1.5 MN to Class AA requirements of AS 2193

0.35% of reading from 1.5 MN to 2 MN to Class A requirements of AS 2193

Calibration of force measuring and testing equipment	Hydraulic rams and jacks	Force in compression; Force in tension		AS2193	O	Auth

Limitation / Range

1 kN to 1.0 MN to class A requirements of AS2193

Measurement Uncertainty

0.4% of reading

Calibration of hardness standards and equipment	Brinell hardness machines; Indenters; Portable Brinell measuring microscopes; Rockwell hardness machines; Vickers hardness machines	Brinell hardness; Rockwell hardness; Vickers hardness	Comparison measurement against reference standard	Vickers hardness machines except indenter dimensions to AS 1817 from 49 N to 980 N Rockwell hardness machines except indenter dimensions and measuring apparatus to AS 1815 Brinell hardness machines to AS 1816 from 39.2 N to 29.4 kN	O	Auth

ISO/IEC 17025 - Calibration (2005) - Mass and Weighing Devices

ISO/IEC 17025 - Calibration
The uncertainty of measurement is reported as an expanded uncertainty having a level of confidence of 95% unless stated otherwise

Service	Product	Determination	Technique	Procedure	AC	AU
Calibration of weighing devices	Hopper weighing systems; Industrial weighing devices; Laboratory weighing devices; Precision	Mass	Gravimetric measurement against reference mass		O	Auth

laboratory balances

Limitation / Range

Precision laboratory balances from 1 mg up to and including 10000 g;

Industrial balances from 1 g up to 60 kg

Industrial and Hopper Weighing Systems from 1 kg up to 14 t;

Measurement Uncertainty

Precision laboratory balances

1 in 10^6 or 6 µg (whichever is greater) from 1 mg up to 6000 g;

1 in 10^6 or 10 mg above 6000 g up to and including 10000 g

Industrial balances

1 in 10^5 or 1 mg (whichever is greater);

Industrial and Hopper Weighing Systems

5 in 10^5 or 100 mg (whichever is greater) from 1 kg up to 2 t;

1 in 10^4 from 2 to 5 t;

2 kg from 5 to 10 t;

5 kg from 10 to 14 t

Determination of mass	Industrial mass standards; Mass standards	Mass	Gravimetric measurement against reference mass	O	Auth

Limitation / Range

Mass standards

from 1 mg to 10 kg;

Industrial mass standards

20 kg up to 1.1 t

Measurement Uncertainty

Mass standards

10 µg from 1 mg to 1 g;

20 µg at 2 and 5 g;

30 µg at 10 and 20 g;

45 µg at 50 g;

60 µg at 100 g;

0.11 mg at 200 g;

1.5 mg at 500 g;

1.5 mg at 1 kg;

15 mg at 2, 5 and 10 kg;

Industrial mass standards

120 mg at 20 kg;

1 g at 50 kg;

1.5 g at 100 kg;

3 g at 200 kg;

7.5 g at 250 kg;

8 g at 500 kg;

15 g from 1 t up to 1.1 t;

ISO/IEC 17025 - Calibration (2005) - Pressure Metrology

ISO/IEC 17025 - Calibration
The uncertainty of measurement is reported as an expanded uncertainty having a level of confidence of 95% unless stated otherwise

Service	Product	Determination	Technique	Procedure	AC	AU
Calibration of pressure and vacuum measuring equipment AS 1349 and MSA Test Method 2	Pressure gauges; Vacuum gauges	Absolute pressure			O	Auth

Limitation / Range

0.005 kPa to 120 MPa

Measurement Uncertainty

0.015% of reading or 5 Pa (whichever is the greater)

Service	Product	Determination	Technique	Procedure	AC	AU
Calibration of pressure and vacuum measuring equipment Pressure and Vacuum gauges to the methods of AS 1349 and MSA Test Method 2 Pressure transducers and recorders to the methods of MSA Test Method 1	Pressure gauges; Pressure recorders; Pressure transducers; Vacuum gauges	Gauge pressure			O	Auth

Limitation / Range

-100 kPa to 120 MPa

Measurement Uncertainty

0.015% of reading or 0.6 Pa (whichever is the greater)

In-situ calibration of pressure and vacuum measuring equipment Calibration of industrial gauges as defined in AS 1349 Self indicating and electrical transducers with dc voltage or dc current output to the methods of MSA Test Method 1	Pressure gauges; Pressure transducers	Gauge pressure	O	Auth

Limitation / Range

-95 kPa to 120 MPa

Measurement Uncertainty

0.3%

ISO/IEC 17025 - Calibration (2005) - Temperature Metrology

ISO/IEC 17025 - Calibration
The uncertainty of measurement is reported as an expanded uncertainty having a level of confidence of 95% unless stated otherwise

Service	Product	Determination	Technique	Procedure	AC	AU
Calibration of temperature measuring equipment	Digital temperature measuring systems	Temperature	Measurement against reference standard		O	Auth

Limitation / Range

-80 °C to 200 °C

Measurement Uncertainty

0.05 °C from -80 °C to 0 °C

0.01 °C at 0 °C

0.05 °C from 0 °C to 200 °C

ISO/IEC 17025 - Calibration (2005) - Torque

ISO/IEC 17025 - Calibration
The uncertainty of measurement is reported as an expanded uncertainty having a level of confidence of 95% unless stated otherwise

Service	Product	Determination	Technique	Procedure	AC	AU
Calibration of torque measuring and testing equipment	Torque transducers; Torque wrenches	Torque	Comparison measurement with reference standard	Calibration of torque wrenches to AS 4115-1993 Calibration of torque transducers to PCS test method ZHC17302	O	Auth

Limitation / Range

Torque wrenches: 0.5 Nm to 2000 Nm

Torque transducers: 1 Nm to 2000 Nm

Measurement Uncertainty

Torque wrenches

With least uncertainties of measurement of:-
2% of reading from 0.5 Nm to 3Nm

1% of reading from 3 Nm to 15 Nm
0.5% of reading from 15 NM to 1500 Nm

Torque transducers

With least uncertainties of measurement of:-
0.2% of reading