



# National Association of Testing Authorities, Australia

## SCOPE OF ACCREDITATION

### IPAC Solutions Pty Ltd

#### IPAC SOLUTIONS PTY LTD

| Accreditation Number: 15808 | Site Number: 17043 |

**Date of Accreditation:** 19/03/2009

**Address Details:**

F14, 64-86 Beresford Road  
LILYDALE, VIC 3140  
AUSTRALIA

**Website:** [www.ipacsolutions.com.au](http://www.ipacsolutions.com.au)

**Contact Details:**

Mr Robert Thomson  
+61(03) 97358888  
[robert.thomson@ipacsolutions.com.au](mailto:robert.thomson@ipacsolutions.com.au)

**Availability:** Services available to external clients

Note: Not all of the columns of the scope of accreditation displayed include data.

The only data displayed is that deemed relevant and necessary for the clear description of the activities and services covered by the scope of accreditation.

Grey text appearing in a SoA is additional freetext providing further refinement or information on the data in the preceding line entry.

**ISO/IEC 17025 (2017)**

**Calibration**

SERVICE	PRODUCT	DETERMINANT	TECHNIQUE	PROCEDURE	LIMITATION/RANGE
Mass - Determination of mass and calibration of weighing devices	Laboratory weighing devices; Precision laboratory balances;	Mass	Gravimetric measurement against reference mass	EUROMET Calibration Guide 18 NMI Monograph 4 Section 6 IPAC Solutions 6-7-12-01 Calibration of a Weighing Instrument	

**CAPABILITY**

Including on site calibrations with Calibration and Measurement Capability of -  
6 µg from 1 mg up to and including 500 mg  
1 in 10<sup>6</sup> or 0.01 mg (whichever is greater) above 500 mg up to and including 300 g  
1 in 10<sup>6</sup> or 6 mg (whichever is greater) above 300 g up to and including 10 kg  
5 in 10<sup>5</sup> or 1 mg (whichever is greater) above 10 kg up to 40 kg

	Industrial weighing devices	Mass	Gravimetric measurement against	EUROMET Calibration Guide 18 NMI Monograph 4	
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			reference mass	Section 6 IPAC Solutions 6-7-12-01 Calibration of a Weighing Instrument	
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**CAPABILITY**

Including on site calibrations  
 With Calibration and Measurement Capability of -  
 1 in 10<sup>4</sup> or 100 mg (whichever is greater) up to 300 kg

Pressure metrology - Pressure and vacuum measuring equipment	Manometers; Pressure gauges; Pressure recorders; Pressure transducers; Vacuum gauges;	Gauge pressure	Comparison with dead weight tester; Comparison with reference instrument;	As defined in MSA Test Method 1 or 2, as appropriate. For liquid manometers as defined in in-house method 3_5_06 Master Calibration - Standard Operating Procedures for Liquid Manometers	
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**CAPABILITY**

with Calibration and Measurement Capability of -  
Pneumatic instruments  
 0.006% of reading or 0.8 Pa (whichever is greater) from -100 kPa to -1 kPa and 1 kPa to 3500 kPa  
 0.8 Pa from -1 kPa to 1 kPa  
Hydraulic instruments  
 0.012 % of reading or 0.05 kPa (whichever is greater) from 0 MPa to below 4 MPa  
 0.010% of reading at 4 MPa to below 60 MPa  
 0.008 % of reading at 60 MPa to 120 MPa  
in-situ Pneumatic instruments  
 1 Pa from -1 to 1 kPa  
 0.03% of reading or 0.06 kPa (whichever is greater)

		Absolute pressure	Comparison with dead weight tester; Comparison with reference instrument;	As defined in MSA Test Method 1 or 2, as appropriate.	
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**CAPABILITY**

with Calibration and Measurement Capability of -  
Pneumatic Instruments  
**0.006%** of reading or 0.020 kPa (whichever is greater) from 1 kPa to 3500 kPa (absolute)  
Hydraulic Instruments  
 0.012 % of reading or 0.05 kPa (whichever is greater) from 0 to below 4 MPa  
 0.010% of reading at 4 MPa to below 60 MPa  
 0.008 % of reading at 60 MPa to 120 MPa  
in-situ Pneumatic Instruments  
 0.03% of reading or 0.06 kPa (whichever is greater) from 1 kPa to 3500 kPa (absolute)



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Pressure metrology - Pressure standards	Pressure calibrators - Non-dead weight	Gauge pressure	Comparison with dead weight tester; Comparison with reference instrument;	As defined in MSA Test Method 1	
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**CAPABILITY**

with Calibration and Measurement Capability of -

Pneumatic instruments

**0.006%** of reading or 1 Pa (whichever is greater) from -100 kPa to -1 kPa and 1 kPa to 3500 kPa

**0.8 Pa** from -1 kPa to 1 kPa

Hydraulic instruments

**0.008%** of reading or 0.05 kPa (whichever is greater)

		Absolute pressure	Comparison with dead weight tester; Comparison with reference instrument;	As defined in MSA Test Method 1 .	Pneumatic instruments 1 kPa to 3500 kPa (abs) Hydraulic instruments 500 kPa to 120 MPa (abs)
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**CAPABILITY**

with Calibration and Measurement Capability of -

Pneumatic Instruments

**0.006%** of reading or 0.008 kPa (whichever is greater) from 1 kPa to 3500 kPa (absolute)

Hydraulic Instruments

**0.008%** of reading from 3500 kPa to 120 MPa (absolute)

in-situ Pneumatic Instruments

**0.03%** of reading or 0.06 kPa (whichever is greater) from 1 kPa to 3500 kPa (absolute)

Temperature metrology - Humidity measuring equipment	Hygrometers; Relative humidity sensors;	Relative humidity (RH)	Comparison with a reference standard		
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**CAPABILITY**

including on-site calibration

with Calibration and Measurement Capability of -

Temperature

Calibration of temperature sensors for RH sensors **0.23 °C** at 5 °C

**0.16 °C** at 10 °C

**0.08 °C** at 20 °C

**0.08 °C** at 30 °C

**0.11 °C** at 40 °C

**0.18 °C** at 50 °C

**0.24 °C** at 60 °C

Relative Humidity



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Calibration of relative humidity sensors  
all values are in % relative humidity

	5 %	10 %	20 %	30 %	40 %	50 %	60 %	70 %	80 %	90 %	95 %
5 °C	-	0.50	0.50	0.70	0.80	1.00	1.20	1.30	1.50	1.60	-
15 °C	0.40	0.50	0.60	0.60	0.65	0.70	0.80	0.85	0.95	1.00	1.05
21 °C	0.50	0.50	0.55	0.60	0.70	0.75	0.80	0.85	0.95	1.00	1.00
25 °C	0.50	0.50	0.55	0.65	0.70	0.75	0.80	0.85	0.95	1.00	1.05
44 °C	0.45	0.50	0.55	0.65	0.65	0.75	0.80	0.85	0.95	1.00	1.05
60 °C	-	0.50	0.50	0.60	0.70	0.80	0.90	1.00	1.20	(at 88 % RH)	-

Temperature metrology - Temperature measuring equipment	Digital temperature measuring systems	Temperature	Measurement against reference standard		
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**CAPABILITY**

with Calibration and Measurement Capability of -

In the laboratory

0.025°C from - 90°C to below - 80°C

0.016°C from - 80°C to 250°C

0.005°C at 0°C

On site calibration

0.03°C from -90°C to below 150°C

0.05°C from 150°C to 250°C

0.01°C at 0°C

Temperature metrology - Verification of controlled enclosures	Environmental chambers - Temperature; Freezers; Incubators; Ovens;	Spatial uniformity; Temperature;	Direct temperature measurement	AS2853-1986 and IPAC in-house method 4_7_84_02_Temp Lab SOP - Temperature Controlled Enclosure
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**CAPABILITY**

with Calibration and Measurement Capability of - including on-site calibrations

Freezers, ovens, environmental chambers

0.5 °C from -90°C to 150 °C

Incubators 0.3 °C from 0 °C to 50 °C (thermistor sensors)

0.5 °C from 0 °C to 150 °C (thermocouple sensors)

Medical refrigeration equipment	Spatial uniformity; Temperature;	Direct temperature measurement	AS2853-1986 and IPAC in-house method 4_7_84_02_Temp Lab SOP - Temperature
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				Controlled Enclosure Six-monthly tasks and annual tasks by the methods of AS3864.2 clauses 3.6 and 3.7 excluding clause 3.6.4 and IPAC in-house method 4_7_84_15_Temp Lab SOP – Medical Spatial temperature distribution verification by the methods of AS3864.2 clause 3.8 and IPAC in-house method 4_7_84_15_Temp Lab SOP – Medical
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### CAPABILITY

with Calibration and Measurement Capability of -  
including on-site calibrations  
0.3 °C from -90 °C to 25 °C (thermistor sensors)  
0.5 °C from -80 °C to 25 °C (thermocouple sensors)  
Six-monthly tasks and annual tasks  
0.1 °C from -90 °C to 25 °C

| Accreditation Number: 15808 | Site Number: 17043 | Printed on : 11-Dec-2020

----- END OF SCOPE -----