

# Schedule of Accreditation



Organisation Name	Mason Technology Ltd
Trading As	Mason Technology
INAB Reg No	043C
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Accreditation Standard	EN ISO/IEC 17025 C
Standard Version	2017
Date of award of accreditation	26/07/1994
Scope Classification	Metrology
Services available to the public <sup>1</sup>	Yes

<sup>1</sup> Refer to document on interpreting INAB Scopes of Accreditation

Sites from which accredited services are delivered		
(the detail of the accredited services delivered at each site are on the Scope of Accreditation)		
	Name	Address
1	Head Office	228 South Circular Road, Dublin, D08 DX8P

# Scope of Accreditation

Head Office

Metrology

Category: A

Metrology field - Calibrated Device Type	Measured quantity	Calibration range	Expanded uncertainty of measurement	Std. ref/SOP	Products	Remarks
101 Mass - .01 Precision laboratory balances	Precision laboratory balances	1 mg - 5 g	0.020 mg	SOP W1 SOP W2	Balances and Industrial Scales	OIML Class E2 Weights
		5 g - 22 g	0.026 mg			OIML Class F1 Weights
		22 g - 100 g	0.051 mg			
		100 g - 600 g	0.14 mg			
		600 g - 1000 g	1.0 mg			
		1000 g - 8100 g	1.4 mg			
		20 g – 600 g	0.60 mg			
		600 g - 1000 g	2.5 mg			
		1 kg - 5 kg	6.0 mg			
		5 kg - 20 kg	10 mg			
		20 kg - 60 kg	65 mg			



		5000 g 2000 g 1000 g 500 g 200 g 100 g 50 g 20 g 10 g 5 g 2 g 1 g 0.5 g 0.2 g 0.1 g 0.05 g 0.02 g 0.01 g 0.005 g 0.002 g 0.001 g	8.3 mg 2.0 mg 1.0 mg 0.50 mg 0.20 mg 0.12 mg 0.060 mg 0.050 mg 0.040 mg 0.030 mg 0.024 mg 0.020 mg 0.016 mg 0.012 mg 0.010 mg 0.0080 mg 0.0060 mg 0.0050 mg 0.0040 mg 0.0040 mg 0.0048 mg			Added in SOP before MS2, MS4 for continuity.
104 Volume - .02 Special laboratory volumetric apparatus	Multi Channel Pipettes/ dispensers	0.1 to 5µl 5 to 20µl 20 to 100µl 100 to 200µl 200 to 500µl 500 to 1,000µl 1,000 to 2,000µl 2,000 to 5,000µl 5,000 to 10,000µl	0.11 µl 0.20 µl 0.30 µl 0.60 µl 2.0 µl 4.0 µl 8.0 µl 10 µl 20 µl	SOP PIP1 SOP PIP2	Multi Channel Pipettes/ dispensers	Multi channel fixed and variable volume pipettes/ dispensers
	Single Channel Pipettes/ dispensers	0.1 to 5µl 5 to 20µl 20 to 100µl 100 to 200µl 200 to 500µl 500 to 1,000µl 1,000 to 2,000µl 2,000 to 5,000µl 5,000 to 10,000µl 10ml to 50ml burettes, dispensers 50ml to 100ml burettes, dispensers	0.11 µl 0.20 µl 0.30 µl 0.60 µl 2.0 µl 4.0 µl 8.0 µl 10 µl 20 µl 40 µl 60 µl	SOP PIP1 SOP PIP2	Single Channel Pipettes/ dispensers	Single channel fixed and variable volume pipettes/ dispensers
107 Temperature measuring equipment - .09 Digital temperature	Temperature - All Other Probes	Permanent -86°C to 0°C	Permanent 0.084°C + Unit Resolution	SOP TS1	Thermometers/ Digital Indicators	107.09 A and B should be together

indicator systems		0°C to +125°C +125°C to +300°C  Permanent (Temperature Sensors Incorporated into Humidity Instruments) 0°C to +15°C  +15°C to + 30°C  +30°C to +60°C	0.049°C + Unit Resolution 0.126°C + Unit Resolution   0.14°C+ Unit Resolution 0.11°C + Unit Resolution  0.14°C + Unit Resolution	SOP RH1	Temperature/ Humidity Devices	
	Temperature - Thermocouples	Permanent -86°C to 0 °C  0°C to +125°C  +125°C to +300°C	0.22°C + Unit Resolution  0.21°C + Unit Resolution  0.24°C + Unit Resolution	SOP TS1	Thermometers/ Digital Indicators	107.09 A and B should be together
108 Temperature controlled enclosures - .01 Ovens, furnaces, baths	Temperature	-80°C to 0°C (WS) 0C° to +140°C (WS) +140°C to +300°C (WS) -80°C to +75°C (Veriteqs)	0.48°C 0.18°C 0.48°C  0.32°C	SOP T1 SOP T2	Ovens, Baths, Blocks, Temperature Controlled Rooms	108.01 A and B should be together. Furnaces are N/A. Fridges and freezers are now separate see 108.99
108 Temperature controlled enclosures - .02 Incubators	Temperature	-10°C to +100°C (WS) -10°C to +75°C (Veriteqs)	0.18°C  0.32°C	SOP T3	Incubators	108.02 A and B should be together
108 Temperature controlled enclosures - .03 Autoclaves and sterilising ovens	Temperature/ Time	Autoclaves: +80°C to +140°C 5 mins. to 24 hrs. time interval	0.18 °C 1.6 secs per 1 hour	SOP T6	Autoclaves	108.03 A and B should be together
		Sterilising Ovens: +80°C to +140°C 5 mins. to 24 hrs. time interval	0.18 °C 1.6 secs per 1 hour	SOP T1	Sterilising Ovens	
108 Temperature controlled enclosures - .04	Temperature	-80°C to 0°C (WS) -80°C to 0°C	0.48°C 0.32°C	SOP T1	Freezers, Temperature Controlled Rooms	108.04 A and B should be together

Industrial freezers		(Veriteqs)				
108 Temperature controlled enclosures - 0.05 Fridges	Temperature	0°C to +10°C (WS) 0°C to +10°C (Veriteqs)	0.48°C 0.32°C	SOP T1	Fridges, Temperature Controlled Rooms	108.99 A and B should be together.
112 Speed - .01 Centrifuges	Speed	0 to 599.9 rpm 599.9 to 9,999.9 rpm 10,000 to 50,000 rpm  Elapsed time 1 second to 1 hour	2.2 rpm 2.9 rpm 13 rpm  0.18 seconds	SOP SMD1	Centrifuges	112.01 A and B should be together. Figure for elapsed time changed from +/-0.51sec to +/-0.18sec as per Roger Worrall NC001289/ RW/2017-3
116 Hygrometry - .01 Humidity testing device	Humidity/ Temperature Devices	5% to 95%rH in the range of 0°C to 60°C  0°C to +15°C 5%rH to 90%rH:  +15°C to +30°C 5%rH to 95%rH:  +30°C to +60°C 5%rH to 90%rH  Temperature sensors incorporated in humidity instruments  0°C to +15°C  +15°C to +30°C  +30°C to +60°C	0.22%rH to 1.9%rH  0.18%rH to 1.3%rH  0.15%rH to 1.1%rH  0.14°C + Unit Resolution 0.11°C + Unit Resolution 0.14°C + Unit Resolution	SOP RH1	Temperature/Humidity Devices	
116 Hygrometry - .02 Environmental Chambers	Temperature/ Humidity	10°C to 60°C 20%rH to 85%rH	0.32°C 3.3%rH	SOP T7	Stability, Climatic, Environmental Chambers	116.02 A and B should be together

*Calibration Measurement Capability (CMC) is expressed in terms of the following parameters:*

- Measurand or reference material*
- Calibration or measurement method or procedure and type of instrument or material calibrated/measured*
- Measurement range and additional parameters where applicable*
- Measurement uncertainty.*

*Measurement uncertainty shall be reported in compliance with EA 4/02 "Evaluation of the Uncertainty of Measurement in Calibration".*

*In accordance with INAB policy, uncertainties are calculated for an estimated confidence level of not less than 95%.*

Metrology

Category: B

Metrology field - Calibrated Device Type	Measured quantity	Calibration range	Expanded uncertainty of measurement	Std. ref/SOP	Products	Remarks
101 Mass - .01 Precision laboratory balances	Precision laboratory balances	1 mg - 5 g	0.020 mg	SOP W1 SOP W2	Balances and Industrial Scales	OIML Class E2 Weights
		5 g - 22 g	0.026 mg			OIML Class F1 Weights
		22 g - 100 g	0.051 mg			
		100 g - 600 g	0.14 mg			
		600 g - 1000 g	1.0 mg			
		1000 g - 8100 g	1.4 mg			
		20 g – 600 g	0.60 mg			
		600 g - 1000 g	2.5 mg			
		1 kg - 5 kg	6.0 mg			
		5 kg - 20 kg	10 mg			
		20 kg - 60 kg	65 mg			
101 Mass - .02 Industrial balances	Industrial balances	1 mg - 5 g	0.020 mg	SOP W1 SOP W2	Balances and Industrial Scales	OIML Class E2 Weights
		5 g - 22 g	0.026 mg			OIML Class F1 Weights
		22 g - 100 g	0.051 mg			
		100 g - 600 g	0.14 mg			
		600 g - 1000 g	1.0 mg			
		1000 g - 8100 g	1.4 mg			
		20 g – 600 g	0.60 mg			
		600 g - 1000 g	2.5 mg			
		1 kg - 5 kg	6.0 mg			
		5 kg - 20 kg	10 mg			
		20 kg - 60 kg	65 mg			
101 Mass - .03 Industrial weighing appliances	Weighing appliances	1 mg - 5 g	0.020 mg	SOP W1 SOP W2	Balances and Industrial Scales	OIML Class E2 Weights
		5 g - 22 g	0.026 mg			OIML Class F1 Weights
		22 g - 100 g	0.051 mg			
		100 g - 600 g	0.14 mg			
		600 g - 1000 g	1.0 mg			
		1000 g - 8100 g	1.4 mg			
		20 g – 600 g	0.60 mg			
		600 g - 1000 g	2.5 mg			

		1 kg - 5 kg 5 kg - 20 kg 20 kg - 60 kg	6.0 mg 10 mg 65 mg			
104 Volume - .02 Special laboratory volumetric apparatus	Multi Channel Pipettes/ dispensers	0.2 to 5µl 5 to 20µl 20 to 100µl 100 to 200µl 200 to 500µl 500 to 1,000µl 1,000 to 2,000µl 2,000 to 5,000µl 5,000 to 10,000µl	0.11 µl 0.20 µl 0.30 µl 0.60 µl 2.0 µl 4.0 µl 8.0 µl 10 µl 20 µl	SOP PIP1 SOP PIP2	Multi Channel Pipettes/ dispensers	Multi channel fixed and variable volume pipettes/ dispensers
	Single Channel Pipettes/ dispensers	0.2 to 5µl 5 to 20µl 20 to 100µl 100 to 200µl 200 to 500µl 500 to 1,000µl 1,000 to 2,000µl 2,000 to 5,000µl 5,000 to 10,000µl 10ml to 50ml burettes, dispensers 50ml to 100ml burettes, dispensers	0.11 µl 0.20 µl 0.30 µl 0.60 µl 2.0 µl 4.0 µl 8.0 µl 10 µl 20 µl 40 µl 60 µl	SOP PIP1 SOP PIP2	Single Channel Pipettes/ dispensers	Single channel fixed and variable volume pipettes/ dispensers
107 Temperature measuring equipment - .09 Digital temperature indicator systems	Temperature - All Other Probes	Site -80°C to -30°C  -30 °C +140°C  +140°C to +250°C	Site 0.55°C + Unit Resolution 0.22°C + Unit Resolution 0.33°C + Unit Resolution	SOP TS1	Thermometers/ Digital Indicators	107.09 A and B should be together
	Temperature - Thermocouples	Site -80°C to -30°C  -30C° to +140°C  +140°C to +250°C	Site 0.59°C + Unit Resolution 0.30°C + Unit Resolution 0.39°C + Unit Resolution	SOP TS1	Thermometers/ Digital Indicators	107.09 A and B should be together
108 Temperature controlled enclosures - .01 Ovens, furnaces, baths	Temperature	Site -80°C to 0°C (WS) 0°C to +140°C (WS) +140°C to +300°C (WS) -80°C to +75°C	0.48°C 0.18°C 0.48°C 0.32°C	SOP T1 SOP T2	Ovens, Baths, Blocks, Temperature Controlled Rooms	108.01 A and B should be together. Furnaces are N/A. Fridges and freezers are now separate see 108.99



		(Veriteqs)				
108 Temperature controlled enclosures - .02 Incubators		-10°C to +100°C (WS) -10°C to +75°C (Veriteqs)	0.18°C 0.32°C	SOP T3	Incubators	108.02 A and B should be together
108 Temperature controlled enclosures - .03 Autoclaves and sterilising ovens	Temperature/ Time	Autoclaves: +80°C to +140°C 5 mins. to 24 hrs. time interval  Sterilising Ovens: +80°C to +140°C 5 mins. to 24 hrs. time interval	0.18°C 1.6 secs per 1 hour  0.18 °C 1.6 secs per 1 hour	SOP T6  SOP T1	Autoclaves  Sterilising Ovens	108.03 A and B should be together
108 Temperature controlled enclosures - .04 Industrial freezers	Temperature	-80°C to 0°C (WS) -80°C to 0°C (Veriteqs)	0.48°C 0.32°C	SOP T1	Freezers, Temperature Controlled Rooms	108.04 A and B should be together
108 Temperature controlled enclosures - 0.05 Fridges	Temperature	0°C to +10°C (WS) 0°C to +10°C (Veriteqs)	0.48°C 0.32°C	SOP T1	Fridges, Temperature Controlled Rooms	108.99 A and B should be together
112 Speed - .01 Centrifuges	Speed	0 to 599.9 rpm 599.9 to 9,999.9 rpm 10,000 to 50,000 rpm  Elapsed time 1 second to 1 hour	2.2 rpm 2.9 rpm 13 rpm  0.18 seconds	SOP SMD1	Centrifuges	112.01 A and B should be together. Figure for elapsed time changed from +/-0.51sec to +/-0.18sec as per Roger Worrall NC001289/RW/2017-3
116 Hygrometry - .02 Environmental Chambers	Temperature/ Humidity	10°C to 60°C 20%rH to 85%rH	0.32°C 3.3%rH	SOP T7	Stability, Climatic, Environmental Chambers	116.02 A and B should be together

*Calibration Measurement Capability (CMC) is expressed in terms of the following parameters:*

- Measurand or reference material*
- Calibration or measurement method or procedure and type of instrument or material calibrated/measured*
- Measurement range and additional parameters where applicable*
- Measurement uncertainty.*

*Measurement uncertainty shall be reported in compliance with EA 4/02 "Evaluation of the Uncertainty of Measurement in Calibration".*

*In accordance with INAB policy, uncertainties are calculated for an estimated confidence level of not less than 95%.*