SINGAPORE LABORATORY
ACCREDITATION SCHEME

Singapore Accreditation Council

Number : **LA-2002-0265-C**

Date of Issue : **11 November 2022**

Date of Expiry : **10 November 2026**

Certificate of Accreditation

This certifies that

Cairnhill Metrology Pte Ltd

5 Jalan Kilang Barat

#07-05/06 Petro Centre

Singapore 159349

is accredited by the Singapore Accreditation Council to

ISO / IEC 17025 : 2017

for specific scope within the field of

Calibration & Measurement

as detailed in the attached schedule.

Chairman

This Certificate is awarded subject to the organisation's compliance with the stated criteria and terms and conditions laid down by the Singapore Accreditation Council.

SINGAPORE LABORATORY ACCREDITATION SCHEME

Accredited Laboratory SAC-SINGLAS

Schedule

Cairnhill Metrology Pte Ltd
5 Jalan Kilang Barat
#07-05/06 Petro Centre
Singapore 159349

Certificate No. : LA-2002-0265-C

Issue No. : 20

Date : 09 February 2025

Expiry of Certificate : 10 November 2026

FIELD OF TESTING : Calibration and Measurement

MEASURED QUANTITIES / RANGE / INSTRUMENTS TO BE CALIBRATED	METHOD OF CALIBRATION / INSTRUMENTS USED	CALIBRATION & MEASUREMENT CAPABILITY (CMC *)
1. Profile Projector Travel 300 mm x 200 mm Resolution : 1 to 5 μm a) Starrett Measurement Projector b) Generic Brands	In-house Calibration Procedure (WI 15-10, V7)	2.0 μm
2. Accretech TSK Roundness Measurement Machine Probing diameter up to 450 mm Resolution : 0.0001μm <u>Feature examined</u> Roundness Parallelism	In-house Calibration Procedure (WI 15-01, V7)	 0.006 μm 0.3 μm
3. Accretech TSK Contour Testing Tracing Range X and Z up to 200 mm and 50 mm respectively Resolution : 0.1 to 1 μm <u>Feature Examined</u> Profile: Ball Diameter Step Height: Z-Axis	In-house Calibration Procedure (WI 15-02, V7)	 0.5 μm 0.5 μm

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MEASURED QUANTITIES / RANGE / INSTRUMENTS TO BE CALIBRATED	METHOD OF CALIBRATION / INSTRUMENTS USED	CALIBRATION & MEASUREMENT CAPABILITY (CMC *)
4. Accretech TSK Surface Roughness Testing (Contact Type) Measuring Range : 80 μm Resolution : 0.001 μm	In-house Calibration Procedure (WI 15-03, V7)	
<u>Feature examined</u> Roughness, Ra		0.06 μm
5. Co-ordinate Measuring Machine (Contact Type)		
a) Accretech TSK Using gauge block Up to 500 mm > 500 mm to 600 mm > 600 mm to 1000 mm	In-house Calibration Procedure (WI 15-05, V7)	 0.6 μm 0.7 μm 0.8 μm
b) Generic Brands Using gauge block up to 1000mm		1.7 μm
6. Optical / Non-Contact Co-ordinate Measuring Machine		
Starrett Non-Contact CMM Range: X ≤ 350 mm Y ≤ 350 mm Z ≤ 200 mm Resolution: 0.1 to 0.5 μm	In-house Calibration Procedure (WI 15-11, V1)	
X and Y- axes Z-axis (For Contact Probe)		2.0 μm 0.4 μm
7. Universal Length Metroscope ULM Calibration Range of Measuring Headstock: X ≤ 100 mm Resolution: 0.01 μm	In-house Calibration Procedure (WI 15-08, V7)	0.21 μm

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MEASURED QUANTITIES / RANGE / INSTRUMENTS TO BE CALIBRATED	METHOD OF CALIBRATION / INSTRUMENTS USED	CALIBRATION & MEASUREMENT CAPABILITY (CMC *)
8. Weighing Scales Anritsu Checkweigher (Static, On-site) Resolution / Range Up to 0.01 g / 0 to 600 g 0.02 g ~ 0.05 g / 0 to 3000 g 0.1 g / 0 to 3000 g 0.2 g ~ 1 g / 0 to 15000 g 2 g / 0 to 25000 g 2 g / 0 to 35000 g 2 g / 0 to 60000 g	In-house Calibration Procedure (WI 15-16, V1)	0.02 g 0.07 g 0.2 g 2 g 4 g 18 g 15 g
9. (#) Dimensional Measurement Coordinate Measuring Machine (CMM), (Lab) Length: Up to 200 mm >200 mm to 1200 mm	In-house Calibration Procedure (WI 15-23, V1)	0.0008 mm Q [0.0007 mm, 2.9E-06 L], L in mm

* CMC is expressed as an expanded uncertainty estimated at a level of confidence of approximately 95%.

Calibration Facility located at: 5 Jalan Kilang Barat, #01-02 Petro Centre, Singapore 159349.

Approved Signatories:

Mr Lim Seng Hoo	- For Items 1 to 7
Mr Tan Peng	- For Items 1 to 7
Mr Loh Kum Seng	- For Items 1 to 7
Mr Wong Kian Wah	- For Items 1 to 5, 7 & 8
Mr Tan Wei Hong Dennis	- For Item 8
Mr Ng Shyh Yu	- For Item 9
Mr Lim Chen Kee	- For all accredited calibrations

Schedule

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Branch Offices

MALAYSIA

Cairnhill Metrology Sdn Bhd **LA-2002-0265-C-1**
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Sekitar 26, Seksyen 26
40400 Shah Alam, Selangor Darul Ehsan
Malaysia

THAILAND

Cairnhill Metrology (Thai) Ltd **LA-2002-0265-C-2**
89 Cosmo Office Park
7th Floor Unit N
Popular Road, Ban Mai
Pakkret, Nonthaburi, 11120, Thailand

PHILIPPINES

Cairnhill Metrology (Phils) Inc **LA-2002-0265-C-3**
Unit 7-10 8F, Paz Madrigal Plaza, Lot-1 Finance St
Corner Industry St., Madrigal Business Park
Ayala Alabang, Muntinlupa City
1780 Philippines

Note:

This laboratory is accredited in accordance with the recognised International Standard ISO/IEC 17025. A laboratory's fulfilment of the requirements of ISO/IEC 17025 means the laboratory meets both the technical competence requirements and **management system requirements** that are necessary for it to consistently deliver technically valid calibration results. The **management system requirements** in ISO/IEC 17025 are written in language relevant to laboratory operations and operate generally in accordance with the principles of ISO 9001.