

SINGAPORE LABORATORY
ACCREDITATION SCHEME



Number : LA-2002-0265-C-1

Date of Issue : 11 November 2022

Date of Expiry : 10 November 2026

Certificate of Accreditation

This certifies that

Cairnhill Metrology Sdn Bhd
18 Jalan Serendah 26/41, Sekitar 26,
Seksyen 26, 40400 Shah Alam,
Selangor Darul Ehsan Malaysia

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.

A handwritten signature in black ink, consisting of several loops and a vertical line, positioned above a horizontal line.

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.

This Certificate may not be reproduced except with the written permission of the Chairman.

Schedule

Cairnhill Metrology Sdn Bhd
18 Jalan Serendah 26/41, Sekitar 26
Seksyen 26, 40400 Shah Alam
Selangor Darul Ehsan, Malaysia

Certificate No. : LA-2002-0265-C-1
Issue No. : 21
Date : 14 November 2025
Expiry of Certificate : 10 November 2026
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FIELD OF TESTING : Calibration and Measurement

MEASURED QUANTITIES / RANGE / INSTRUMENTS TO BE CALIBRATED	METHOD OF CALIBRATION / INSTRUMENTS USED	CALIBRATION & MEASUREMENT CAPABILITY (CMC *)
<p>1. Profile Projector Travel 300 mm x 200 mm Resolution: 1 to 5 μm</p> <p>a) Starrett Measurement Projector b) Generic Brands</p>	In-house Calibration Procedure (WI 15-10, V7)	2.0 μm
<p>2. Accretech TSK Roundness Measurement Machine Probing diameter up to 450 mm Resolution : 0.0001 μm</p> <p><u>Features Examined</u> Roundness Parallelism</p>	In-house Calibration Procedure (WI 15-01, V7)	0.005 μm 0.2 μm
<p>3. Accretech TSK Contour Testing Machine Tracing Range X and Z up to 200 mm and 50 mm respectively Resolution : 0.1 to 1 μm</p> <p><u>Feature Examined</u> Profile: Ball Diameter Step Height: Z-Axis</p>	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 Machine (Contact Type) Measuring Range : 80 μm Resolution: 0.001 μm <u>Feature Examined</u> Roughness, Ra	In-house Calibration Procedure (WI 15-03, V7)	0.06 μm
5. Co-ordinate Measuring Machine (Contact Type) a) Accretech TSK Up to 300 mm > 300 mm to 500 mm > 500 mm to 600 mm > 600 mm to 1200 mm b) Carl Zeiss Range : X \leq 1200 mm Y \leq 1200 mm Z \leq 1000 mm Resolution : 0.02 to 1 μm c) Generic Brands Range : X \leq 1200 mm Y \leq 1200 mm Z \leq 1000 mm Resolution : 0.02 to 1 μm	In-house Calibration Procedure (WI 15-05, V7)	0.5 μm 0.6 μm 0.7 μm 0.8 μm 1.3 μm 1.3 μm
6. Universal Length Metroscope ULM Calibration Range of Measuring Headstock : X \leq 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 *)																														
7. Starrett Vision Measuring System Range: X ≤ 350 mm Y ≤ 350 mm Z ≤ 200 mm Resolution: 0.1 to 0.5 μm X and Y- axes Z-axis (For Contact Probe)	In-house Calibration Procedure (WI 15-11, V1)	2.0 μm 1.5 μm																														
8. Weighing Scales Anritsu Checkweigher (Static, On-site)	In-house Calibration Procedure (WI 15-16, V1)																															
<table><thead><tr><th><u>Resolution</u></th><th><u>Range</u></th><th></th></tr></thead><tbody><tr><td>0.001 g</td><td>0 to 100 g</td><td>0.002 g</td></tr><tr><td>0.002 g</td><td>0 to 660 g</td><td>0.010 g</td></tr><tr><td>0.01 g</td><td>0 to 600 g</td><td>0.02 g</td></tr><tr><td>0.02 g</td><td>0 to 2000 g</td><td>0.03 g</td></tr><tr><td>0.05 g</td><td>0 to 3000 g</td><td>0.06 g</td></tr><tr><td>0.1 g</td><td>0 to 3000 g</td><td>0.2 g</td></tr><tr><td>0.5 g</td><td>0 to 6000 g</td><td>0.6 g</td></tr><tr><td>1 g</td><td>0 to 15000 g</td><td>2 g</td></tr><tr><td>2 g</td><td>0 to 60000 g</td><td>3 g</td></tr></tbody></table>	<u>Resolution</u>	<u>Range</u>		0.001 g	0 to 100 g	0.002 g	0.002 g	0 to 660 g	0.010 g	0.01 g	0 to 600 g	0.02 g	0.02 g	0 to 2000 g	0.03 g	0.05 g	0 to 3000 g	0.06 g	0.1 g	0 to 3000 g	0.2 g	0.5 g	0 to 6000 g	0.6 g	1 g	0 to 15000 g	2 g	2 g	0 to 60000 g	3 g		
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* CMC is expressed as an expanded uncertainty estimated at a level of confidence of approximately 95%.

Site Offices located at:
19 Jalan Ekoperniagaan 2/8, Taman Ekoperniagaan, 81100 Johor Bahru, Johor, Malaysia &
10-G Persiaran Bayah Indah, Bayan Bay, Sungai Nibong, 11900 Penang, Malaysia.

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Approved Signatories:

Mr Lim Seng Hoo	- For items 1 to 6
Mr Loh Kum Seng	- For items 1 to 7
Mr Wong Kian Wah	- For items 1 to 6 & 8
Ms Nurfatim Nabila Binti Norasri	- For Item 8
Mr Lim Chen Kee	- For all items

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.