



CERTIFICATE OF ACCREDITATION

In terms of section 22(2) (b) of the Accreditation for Conformity Assessment, Calibration and Good Laboratory Practice Act, 2006 (Act 19 of 2006), read with sections 23(1), (2) and (3) of the said Act, I hereby certify that:-

CAPE METROLOGY FIELD SERVICES CC
Co. Reg. No.: 1998/041535/23
DIMENSIONAL CALIBRATION LABORATORY

Accreditation Number: **042**

is a South African National Accreditation System Accredited Calibration Laboratory
provided that all SANAS conditions and requirements are complied with

This certificate is valid as per the scope as stated in the accompanying scope of accreditation
Annexure "A", bearing the above accreditation number for

DIMENSIONAL METROLOGY

The facility is accredited in accordance with the recognised International Standard

ISO/IEC 17025:2017

The accreditation demonstrates technical competency for a defined scope and the operation of a
laboratory quality management system

While this certificate remains valid, the Accredited Facility named above is authorised to use the
relevant SANAS accreditation symbol to issue facility reports and/or certificates

Ms FS Radebe
Acting Chief Executive Officer

Effective Date: 16 January 2023
Certificate Expires: 15 January 2028



ANNEXURE A

SCOPE OF ACCREDITATION

DIMENSIONAL METROLOGY

Accreditation Number: 042

Permanent Address of Laboratory: Cape Metrology Field Services CC Dimensional Calibration Laboratory Unit 5, ADF Centre Saxenburg Park 2 Blackheath 7580 Postal Address: P O Bos 5169 Helderberg 7135 Tel: (021) 904-9811 Cell: 082 333-7373 Email: nadia@capemet.co.za		Technical Signatory: Mr CW Newlands Nominated Representative: Ms N de Lange Expiry date: 02 Issue No.: 16 January 2023 Date of issue: 15 January 2028		
ITEM	MEASURED QUANTITY OR TYPE OF GAUGE OR INSTRUMENT	RANGE OF MEASURED QUANTITY	CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (\pm)	METHOD / PROCEDURE
2	LINEAR DIMENSIONS			
2.1	Length Instruments			
2.1.4	Height measuring instruments (including vernier height gauges)	Up to 600 mm 600 to 1000 mm	10 μ m 25 μ m	Calibration by comparison measurements of gauge blocks / length bars on a surface table
2.2.	End Standards			
2.2.1	Gauge blocks	Up to 10 mm 10 mm to 25 mm 25 mm to 50 mm 50 mm to 75 mm 75 mm to 100 mm	0,10 μ m 0,12 μ m 0,14 μ m 0,16 μ m 0,18 μ m	Calibration using a mechanical comparator against a primary gauge block set.
2.2.2	Length Bars (Long gauge blocks)	Up to 200 mm 200 mm to 500 mm 500 mm to 775 mm	1,2 μ m 1,8 μ m 2,2 μ m	Comparison against a standard using gauge blocks and length bars.
2.2.3	Micrometer setting rod	Up to 200 mm 200 mm to 500 mm 500 mm to 700 mm	2,0 μ m 2,5 μ m 3,0 μ m	Calibration by comparison with gauge blocks or length bars on a surface table.
2.2.6	Feeler gauges	Up to 5 mm	2,0 μ m	Direct measurement using a universal testing machine.

Original date of accreditation: 02 October 2020

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The CMC, expressed as an expanded uncertainty of measurement, is stated as the standard uncertainty of measurement multiplied by a coverage factor $k = 2$, corresponding to a confidence level of approximately 95%


 Accreditation Manager

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2.3	Line Standards			
2.3.9	Engineer or machinist scale steel (including steel rule)	Up to 2 000 mm	1,5 mm	Comparison against a master steel rule.
2.4	Diameter Standards			
2.4.1	External cylinder (plain plug gauges, piston, cylindrical pins and wires)	Up to 200 mm	1,5 μ m	Comparison with a reference standard using gauge blocks and length gauges.
2.4.2	Internal cylinder (including plain ring gauges)	13 mm to 150 mm 150 mm to 200 mm	2,0 μ m 2,5 μ m	Comparison with reference standard using gauge blocks and length gauges.
5	COMPLEX GEOMETRY			
5.2	Screw Standards			
5.2.1	Thread plug plain (including check on wear check plugs)	5 mm to 100 mm	3,0 μ m	Calibration using a universal length measuring machine and thread measuring wire by comparison.
5.2.3	Thread ring	14 mm to 80 mm	5,0 μ m	Calibration by comparison using universal length machine and reference standard gauge blocks.
6	VARIOUS DIMENSIONAL			
6.1	Hand Instruments			
6.1.1	External micrometer	Up to 100 mm 100 mm to 200 mm 200 mm to 500 mm	2,0 μ m 3,0 μ m 5,0 μ m	Calibration by comparison to gauge blocks, length bars, flatness and parallelism with optical flats and parallels.
6.1.3	Depth micrometer	Up to 100 mm 100 mm to 300 mm	3,0 μ m 5,0 μ m	Comparison with a reference standard using gauge blocks and length gauges.
6.1.4	Calliper (vernier and electronic)	Up to 300 mm 300 mm to 600 mm 600 mm to 1000 mm	15 μ m 20 μ m 30 μ m	Calibration of the measurement error, parallelism and repeatability (where applicable) using gauge blocks and length bars.
6.1.5	Depth gauge (including vernier depth)	Up to 300 mm 300 mm to 600 mm	15 μ m 20 μ m	Comparison with a reference standard using gauge blocks and length gauges.

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6.1.6	Internal two-point (bore) micrometer (Including tubular and stick)	Up to 300 mm	10 μ m	Comparison with a reference standard using gauge blocks and length gauges.
6.1.7	Internal three-point (bore) micrometer	Up to 100 mm	5,0 μ m	Calibration using ring gauges by comparison.
6.1.8	Dial (Thickness) gauge Plunger and lever type	Up to 10 mm 10 up to 50 mm	3,0 μ m	Calibration using a dial calibration tester and gauge blocks.
6.1.11	Reference disc (contour gauge)	Up to 200 mm	0,1 mm	Direct measurement using a profile projector.
6.5	REFERENCE MATERIALS			
6.5.2	sieve, mesh opening	Min: 0,07 mm Max: 2,36 mm	15,0 μ m	Direct measurement using a profile projector.
7	On-site calibration for item 2.1.4, 2.2.6, 2.3.9, 6.1.1, 6.1.3, 6.1.4, 6.1.5 and 6.1.8			

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ISSUED BY THE SOUTH AFRICAN NATIONAL ACCREDITATION SYSTEM

Accreditation Manager

