

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:-

HJR MICROPTIC CC
Co. Reg. No.: 1989/032363/23
FORCE CALIBRATION LABORATORY

Accreditation Number: **CAL 022-08-00**

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

FORCE 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

Mr F Osman
Acting Chief Executive Officer

Effective Date: 20 June 2025
Certificate Expires: 31 August 2029

ANNEXURE A

SCOPE OF ACCREDITATION

FORCE METROLOGY

Accreditation Number: CAL 022-08-00

Permanent Address of Laboratory: HJR Microptic CC Force Calibration Laboratory 593 Smook Street Roseville Pretoria 0031 Postal Address: PO Box 31230 Wonderboompoort 0033 Tel: (012) 335-6663/4 Fax: (012) 335-6665 E-mail: microptic@mweb.co.za Jacques@microptic.net		Technical Signatories: Mr JC van Aswegen Mr A van der Merwe (Item 5 only) Nominated Representative: Mr H van Deventer Issue No.: 14 Date of Issue: 21 September 2022 Expiry Date: 31 August 2029		
ITEM	MEASURED QUANTITY OR TYPE OF GAUGE OR INSTRUMENT	RANGE OF MEASURED QUANTITY	CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY ($\pm$)	METHOD/ PROCEDURE
4	FORCE			
4.1	Tension			
4.1.2	Tensiometers	10 lbf (44,48 N) 15 lbf (66,72 N) 20 lbf to 25 lbf (88,96 N to 111,2 N) 30 lbf to 80 lbf (133,4 N to 355,9 N) 90 lbf to 400 lbf (400,3 N to 1 779 N)	8,0 % 6,0 % 4,0 % 3,0 % 2,0 %	Direct comparison against a Reference Standard Force Transducer Where: 1 lbf = 4,448222 N

Original Date of Accreditation: 01 May 2001

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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

ANNEXURE A

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5	TORQUE			
5.2	Torque Generating Devices			
5.2.1	Torque Wrenches	0,05 N•m to 1000 N•m	3,5 % Where <i>T</i> is torque in N•m	Direct comparison against a Reference Standard Torque Transducer.
7	HARDNESS			
7.2	Hardness Testers – Indirect Method			
7.2.2	Rockwell HRB HRC	20 to 68 40 to 85	2,0 HR pts 2,5 HR pts	Direct comparison against a Reference Standard Hardness Blocks.
7.2.3	Shore Shore A	10 to 100	3 Shore units	
9.0	On-Site Accreditation for all items			

Original Date of Accreditation: 01 May 2001

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ISSUED BY THE SOUTH AFRICAN NATIONAL ACCREDITATION SYSTEM

Accreditation Manager