# 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:-*

## RHEINMETALL DENEL MUNITION (PTY) LTD

**Co. Reg. No.: 2007/032918/07**

Facility Accreditation Number: **005**

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 schedule 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 17025:2005**

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 R Josias**
**Chief Executive Officer**

**Effective Date: 21 June 2017**
**Certificate Expires: 08 May 2022**

ANNEXURE A

# SCHEDULE OF ACCREDITATION

## DIMENSIONAL METROLOGY

Facility Number: 005


**Permanent Address of Laboratory:**
Rheinmetall Denel Munition (Pty) Ltd
Boskop
Carltonville Road
Potchefstroom
2499

**Postal Address:**
Private Bag X1254
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2520

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**Technical Signatory:** Mr FH Knop

**Nominated Representative:** Mr FH Knop


Issue No.: 12
Date of Issue: 21 June 2017
Expiry Date: 08 May 2022

| ITEM | MEASURED QUANTITY OR TYPE OF GAUGE OR INSTRUMENT | RANGE OF MEASURED QUANTITY | CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (±) |
|---|---|---|---|
| **2** | **Linear Dimensions** | | |
| **2.2** | **End Standards** | | |
| **2.2.1** | Gauge Blocks | 0,5 mm to 10 mm<br>10 mm to 25 mm<br>25 mm to 50 mm<br>50 mm to 100 mm | 0,08 µm<br>0,09 µm<br>0,10 µm<br>0,12 µm |
| **2.2.3** | Micrometer Setting Rod | 25 mm to 100 mm<br>125 mm to 275 mm | 1,0 µm<br>1,6 µm |
| **2.4** | **Diameter Standards** | | |
| **2.4.2** | Plain Setting Ring | 3 mm to 150 mm | 1,2 µm |

Original Date of Accreditation: 1980



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

Facility No.: 005
Date of Issue: 21 June 2017
Expiry Date: 08 May 2022

| ITEM | MEASURED QUANTITY OR TYPE OF GAUGE OR INSTRUMENT | RANGE OF MEASURED QUANTITY | CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (±) |
|---|---|---|---|
| **4** | **Form** | | |
| **4.2** | **Roundness Standards** | | |
| **4.2.1** | External Cylinder | 3 mm to 150 mm | 1,2 µm |
| **4.2.2** | Internal Cylinder | 3 mm to 150 mm | 1,2 µm |
| **5** | **Complex Geometry** | | |
| **5.1** | **Surface Texture Standards** | | |
| **5.1.4** | Roughness Standard | Ra - Rt | 0,2 µm |
| **5.2** | **Screw Standards** | | |
| **5.2.1** | Thread plug, plain | 5 mm to 100 mm | 2,2 µm |
| **5.2.3** | Thread ring, plain | 5 mm to 150 mm | 3,0 µm |
| **6** | **Various Dimensional** | | |
| **6.1** | **Hand Instruments** | | |
| **6.1.1** | External Micrometer | 0 mm to 100 mm<br>125 mm to 200 mm<br>225 mm to 300 mm | 2,0 µm<br>3,0 µm<br>4,0 µm |
| **6.1.4** | Digital and Vernier Caliper | 0 mm to 300 mm | 15,0 µm |



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%

ISSUED BY THE SOUTH AFRICAN NATIONAL ACCREDITATION SYSTEM

**Accreditation Manager**