

## Technical Information

### CALIBRATION CERTIFICATES

T012

#### Guidance on understanding Calibration Certificates

Many centre technicians have confessed to not really understanding the information on their calibration certificates. This has become clear because they have continued to use thread gauges that are shown to be '**out of tolerance**' on the respective calibration certificate.

So how do you interpret the information shown. (See example below)

- Check that your company is listed as the 'owner' of the thread gauge.
- Check that the thread gauge listed has the correct serial number or ID.
- Double check that this identification is etched or engraved on the gauge and not just a sticky label that could come off.
- Any gauge that does not have the identification etched or engraved onto its surface cannot be traced and so is invalid. The gauge and calibration certificate must match up for traceability.
- Check that the calibration date is correct and within the limits set by IDEST.
- Check the acceptable limits for that gauge.
- Calculate the actual size if given the upper and lower tolerances and check that they fall within the acceptable tolerances.
- See whether there is an asterisk, star or other mark after the size measured. If there is, a footnote will explain that this gauge is '**out of tolerance**' and should therefore NOT BE USED to check diving and breathing apparatus cylinder/valve threads.
- A REPLACEMENT NEEDS TO BE PURCHASED from a thread gauge manufacturer.
- If you are ever in doubt about the information, contact the calibration laboratory.
- Ignorance is not an excuse for poor engineering practice.



**CERTIFICATE OF CALIBRATION**

DATE OF ISSUE: 30 November 2016      CERTIFICATE No: 425344

**Lambda** CALIBRATION LTD      11-13 Chorney Central Business Park, Stump Lane, Chertsey, PR8 DDL, Tel: 0845 241 1533

UKAS 0485

Page 1 of 1 Pages

APPROVED SIGNATORY: G.D.Hill, P.M.Davies, W.J.Popp

Customer:

Description: A used screw ring gauge Go  
M25 x 2 ISO 6g

Manufacturer: Original Equipment Manufacturer

Serial No: 31395-2

Basis of Test: BS3643:Part 2:2007 and BS919:Part 3:2007

This gauge was measured on 30 November 2016 at 20.0±1°C at six positions along its length and any taper or ovality found is reported as the two extreme conditions. The results below did not satisfy the specified tolerances.

| Effective Dia | Specified Tolerances (mm) |        | Results (mm) |         |
|---------------|---------------------------|--------|--------------|---------|
|               | Go                        | Go     | Go           | Go      |
|               | 23.630                    | 23.640 | 23.6404      | 23.6411 |

\* Denotes Out of Tolerance

Condition on receipt: Gauge is furnished, corrosion present on threads

Adjustments Made: None

Uncertainty of measurement: ±0.005mm

Traceability of equipment used via UKAS CIM 20, LMA-69-05, LMS-48-04

Theradata Serial No 1007, Release 2.0 7.25

The reported included uncertainty is based on a standard uncertainty multiplied by a coverage factor k=2, providing a level of confidence of approximately 95%. The uncertainty evaluation has been carried out in accordance with UKAS requirements.

This certificate is issued in accordance with the laboratory accreditation requirements of the United Kingdom Accreditation Service. It provides traceability of measurement to SI system of units and/or to units of measurement realized at the National Physical Laboratory or other recognized national metrology institutes. This certificate may not be reproduced other than in full except with prior written approval of the issuing laboratory.

Technical Information Sheet