

SEA



**RS Calibration**  
Calibration and Repair Service  
Serial No: 87606  
Cert No: 1869887  
Cal Date: 20 Jun 2024  
Recal Due:

0310  
DPN 175 Lammas Road, Corby, Northants, NN17 9RS

# **\*\*Calibration Certificate\*\***

## **Do Not Destroy**

Calibration Certificate Attached: 1869887  
OD ref: 1236612779

Steel Rule 150mm / 6in

first

## **IMPORTANT INFORMATION**

Simply detach the label in the top right hand corner of the new front sheet and apply to your instrument as required.



**RS Calibration**  
Calibration and Repair Service  
Serial No: 2A345G02  
Cert No: 123456  
Cal Date: 01 May 2014  
Recal Due:

DPN 175 Lammas Road, Corby, Northants, NN17 9RS

**For Re-Calibration of your unit please email:**  
**[calibration.uk@rs-components.com](mailto:calibration.uk@rs-components.com)**  
or call us on 01536 405545 to arrange free collection. Please quote serial number when returning.

**RS Calibration**

# CERTIFICATE OF CALIBRATION

Issued by: RS Components Ltd

Date Issued: 20 Jun 2024

Certificate No. 1869887



Calibration and Repair Service

DPN 175, Lammas Rd,  
Weldon Industrial Est  
Corby, Northants, NN17 9RS

Tel: 01536 405545

Fax: 01536 401590



0310

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Sean Adamson

## Client

TOTAL LABORATORY SERVICES LTD  
BLANDFORD FORUM  
DORSET  
DT11 8ST

## Instrument

Steel Rule 150mm / 6in

## Serial No.

87606

## Client Reference

N/A

## Procedure ID.

D05\_1200\_# Rev. P 8

## Date of Calibration

20 Jun 2024

## Remarks

This certificate reports recorded values for the instrument 'As Received'.

## Uncertainties

The reported expanded uncertainties are 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.

For certificate statements of conformity see Appendix SCQAR 533  
The following calibration results relate only to the items defined above.

This certificate is issued in accordance with the laboratory accreditation requirements of the United Kingdom Accreditation Service. It provides traceability of measurement to the SI system of units and/or to units of measurement realised at the National Physical Laboratory or other recognised national metrology institutes

This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

# CERTIFICATE OF CALIBRATION

UKAS Accredited Calibration Laboratory No. 0310



Calibration and Repair Service

Certificate No.  
1869887

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## Environment

Prior to calibration the rule was held within a temperature controlled environment for a period of not less than 4 hours.

The ambient temperature and relative humidity throughout the calibration were  $(20 \pm 2) ^\circ\text{C}$  and  $(40 \pm 20) \% \text{RH}$  respectively.

## Method

The scale identified below was calibrated by measuring from the edge of the rule to the first position. This first position was then used as a datum from which all other positions on that scale are referenced. Measurements were made using a horizontal length measuring machine and the results recorded in the tables below.

The calibration was performed in accordance with 73-362 / EEC Class 1.

## Side One

### Top Scale

Major Position	Nominal Length	Measured Length	Measured Deviation	Major Position Limits	Measurement Uncertainties
mm	mm	mm	mm	mm	mm
0 - 10	10	9.964	-0.036	$\pm 0.200$	$\pm 0.009$
10 - 30	20	19.978	-0.022	$\pm 0.200$	$\pm 0.009$
10 - 31	21	20.992	-0.008	$\pm 0.200$	$\pm 0.009$
10 - 59	49	48.986	-0.014	$\pm 0.200$	$\pm 0.009$
10 - 60	50	49.982	-0.018	$\pm 0.200$	$\pm 0.009$
10 - 90	80	79.972	-0.028	$\pm 0.200$	$\pm 0.009$
10 - 91	81	80.972	-0.028	$\pm 0.200$	$\pm 0.009$
10 - 119	109	108.950	-0.050	$\pm 0.200$	$\pm 0.010$
10 - 120	110	109.953	-0.047	$\pm 0.200$	$\pm 0.010$
10 - 150	140	139.933	-0.067	$\pm 0.200$	$\pm 0.010$
Adjacent Position	Nominal Length	Measured Length	Measured Deviation	Adjacent Position Limits	Measurement Uncertainties
mm	mm	mm	mm	mm	mm
30 - 31	1	1.014	0.014	$\pm 0.100$	$\pm 0.009$
59 - 60	1	0.996	-0.004	$\pm 0.100$	$\pm 0.009$
90 - 91	1	1.000	0.000	$\pm 0.100$	$\pm 0.009$
119 - 120	1	1.003	0.003	$\pm 0.100$	$\pm 0.009$

## Side One

Maximum deviation found between any two major positions in the above table from 10mm to the maximum length.

Major position limit

Measurement Uncertainty

-0.067 mm  
 $\pm 0.200$  mm  
 $\pm 0.010$  mm

Maximum deviation found between any adjacent positions.

Adjacent position limit

Measurement Uncertainty

0.014 mm  
 $\pm 0.100$  mm  
 $\pm 0.009$  mm

# CERTIFICATE OF CALIBRATION

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Calibration and Repair Service

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SideOne						
Bottom Scale						
Major Position	Nominal Length	Measured Length	Measured Deviation	Major Position Limits	Measurement Uncertainties	
mm	mm	mm	mm	mm	mm	mm
0 - 10	10.000	9.995	-0.005	± 0.200	± 0.009	
10 - 30	20.000	19.986	-0.014	± 0.200	± 0.009	
10 - 31	21.000	20.985	-0.015	± 0.200	± 0.009	
10 - 59	49.000	48.977	-0.023	± 0.200	± 0.009	
10 - 60	50.000	49.979	-0.021	± 0.200	± 0.009	
10 - 90	80.000	79.967	-0.033	± 0.200	± 0.009	
10 - 91	81.000	80.968	-0.032	± 0.200	± 0.009	
10 - 119	109.000	108.955	-0.045	± 0.200	± 0.010	
10 - 120	110.000	109.942	-0.058	± 0.200	± 0.010	
10 - 150	140.000	139.900	-0.100	± 0.200	± 0.010	
Adjacent Position	Nominal Length	Measured Length	Measured Deviation	Adjacent Position Limits	Measurement Uncertainties	
mm	mm	mm	mm	mm	mm	mm
30 - 31	1.000	0.999	-0.001	± 0.100	± 0.009	
59 - 60	1.000	1.002	0.002	± 0.100	± 0.009	
90 - 91	1.000	1.001	0.001	± 0.100	± 0.009	
119 - 120	1.000	0.987	-0.013	± 0.100	± 0.009	

## SideOne

Maximum deviation found between any two major positions in the above table from 10mm to the maximum length.

Major position limit

Measurement Uncertainty

-0.100 mm  
± 0.200 mm  
± 0.010 mm

Maximum deviation found between any adjacent positions.

Adjacent position limit

Measurement Uncertainty

-0.013 mm  
± 0.100 mm  
± 0.009 mm

Squareness of datum end to side faces.	Measured Value	Limit	Measurement Uncertainty
	0.008 mm	N/A	± 0.005 mm

**Squareness of datum end to side faces.**

No limits available, measured values reported only.

**CALIBRATED BY:- SEA**

# CERTIFICATE OF CALIBRATION

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**Reported values not annotated.**

The instrument passed the stated specification, due allowance having been made for the uncertainty of measurement which carries no implication regarding the long term stability of the instrument.

END OF CALIBRATION

## Appendix SCQAR533 Certificate Statements of conformity

RS Components is standardising how it reports conformity across all disciplines in line with requirements within **ISO/IEC: 17025:2017**. Where the laboratory reports a statement of conformity to a specification, guidance has been drawn on reporting structure and decision rules from ILAC document series **ILAC-G8:09/2019**. Unless otherwise instructed by you the Customer, acceptance limits applied are derived from the manufacturers specification or applicable standard (e.g. DIN, EEC, BS etc.) or where applicable: SCQAR532\_RS Standard Limits for Calipers, available on request. The statements found on this certificate produced by RS Components Laboratory are as follow:

- 1) Reported values with **No Annotation**:  
The instrument **passed** the stated specification, even with allowance having been made for the uncertainty of measurement, which carries no implication regarding the long-term stability of the instrument.
- 2) Reported values annotated with **"#"**:  
The measured result is a **conditional pass** to the limit but by a margin less than the measurement uncertainty, it is therefore not possible to state compliance based on the stated level of confidence.
- 3) Reported values annotated with **"###"**:  
The measured result is a **conditional fail** to the limit but by a margin less than the measurement uncertainty, it is therefore not possible to state compliance based on the stated level of confidence.
- 4) Reported values annotated with **"####"**:  
The measured result **failed** the stated specification, even with allowance having been made for the measurement uncertainty.

