

# CERTIFICATE OF CALIBRATION

Issued By : S.M.Gauge Company Ltd

Certificate Number :

U31184

Date of Issue : 10 February 2025

S.M. Number :

33834



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**S.M. GAUGE**  
COMPANY

**S.M.Gauge Company Ltd**

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**Yate Road, Yate,**

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**Bristol, BS37 5AA.**

**Tel: 0117 965 4615**

Approved Signatory

  
Kelvin Smith

**Customer /Owner** **Cherwell Water Utilities Backflow Limited**



**Tel:**

**Fax:**

**Email:**

**Instrument**

**Description :** **MAKO Backflow Test Kit**

**Manufacturer :** **Arbiter**

**Range :** **Mk5 ( $\pm 1$  kPa Accuracy)**

**Temperature :** **17°C to 23°C**

**Resolution :** **0.1 kPa**

**Date Received :** **06 February 2025**

**Serial Number :** **02AC24060032**

**Last Cert :**

**Comments**

The above instrument was placed into the laboratory and allowed to stabilise for at least 2 hours. The instrument was calibrated against high accuracy indicators. The pressurising medium was air. Pressure measurements are referenced to the sealing face. The results relate only to the item calibrated. Calibration procedure reference SMG6.

The SI unit of pressure is the Pascal(Pa): 1 kPa = 1000 Pa.

The measurement uncertainty is 0.10% F.S. +1 digit

***The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a coverage probability of approximately 95%. The uncertainty evaluation has been carried out in accordance with UKAS requirements.***  
***Two term uncertainty budgets need to be added in quadrature.***

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 the units of measurement realised at the National Physical Laboratory or other recognised national measurement institutes. This certificate may not be reproduced other than in full, except with prior written approval of the issuing laboratory.

**Traceability Information**

**Instrument Description :**  
Pressure Transmitter &  
Readout - 1bar

**Serial No :**  
323754

**Cert No :**  
1025714

**Cal Date :**  
24/Apr/2024

**Cal Due:**  
23/Apr/2025

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| Reading of UUT                | Rqd Pressure | Actual Pressure | Allowed Error | % of Spec |
|-------------------------------|--------------|-----------------|---------------|-----------|
| <b>Rising Pressure (kPa)</b>  |              |                 |               |           |
| 0.0 kPa                       | 0.00kPa      | 0.00kPa         | +/- 1kPa      | 0%        |
| 0.5 kPa                       | 0.50kPa      | 0.53kPa         | +/- 1kPa      | 3%        |
| 7.0 kPa                       | 7.00kPa      | 7.03kPa         | +/- 1kPa      | 3%        |
| 14.0 kPa                      | 14.00kPa     | 14.11kPa        | +/- 1kPa      | 11%       |
| 34.0 kPa                      | 34.00kPa     | 34.18kPa        | +/- 1kPa      | 18%       |
| 100.0 kPa                     | 100.00kPa    | 100.12kPa       | +/- 1kPa      | 12%       |
| <b>Falling Pressure (kPa)</b> |              |                 |               |           |
| 34.0 kPa                      | 34.00kPa     | 34.16kPa        | +/- 1kPa      | 16%       |
| 14.0 kPa                      | 14.00kPa     | 14.11kPa        | +/- 1kPa      | 11%       |
| 7.0 kPa                       | 7.00kPa      | 7.14kPa         | +/- 1kPa      | 14%       |
| 0.5 kPa                       | 0.50kPa      | 0.55kPa         | +/- 1kPa      | 5%        |
| 0.0 kPa                       | 0.00kPa      | 0.00kPa         | +/- 1kPa      | 0%        |