



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

KING TESTER CORPORATION  
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CALIBRATION

Valid To: May 31, 2024

Certificate Number: 4877.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following calibrations<sup>1</sup>:

I. Mechanical

| Parameter/Equipment  | Range   | CMC <sup>2</sup> (±)   | Comments                                   |
|--|---|--|--|
| Direct Verification of Brinell Hardness Testers <sup>3</sup> – |   |  | Direct verification per ASTM E10, ISO 6506 |
| Verification of the Test Force                                 | 187.5 kgf<br>500 kgf<br>750 kgf<br>1000 kgf<br>1500 kgf<br>3000 kgf | 1.5 kgf<br>1.1 kgf<br>1.0 kgf<br>1.4 kgf<br>1.2 kgf<br>1.7 kgf | Brinell proving ring                       |
| Verification of the Device for Measuring Indentation Diameters | 0.6 mm  | 0.001 mm   | Stage micrometer                           |

| Parameter/Equipment  | Range   | CMC <sup>2</sup> (±)  | Comments   |
|--|---|---|--|
| Indirect Verification of Brinell<br>Harness Testers at Test<br>Condition(s) <sup>3</sup> – |   |   |  |
| HBW 10/3000  | (95 to 224) HBW<br>(225 to 650) HBW   | 0.48 HBW<br>2.6 HBW   | Indirect verification<br>method per ASTM E10,<br>ISO 6506  |
| HBW 10/1500  | (47.7 to 113) HBW<br>(114 to 327) HBW   | 0.8 HBW<br>4.1 HBW  |  |
| HBW 10/1000  | (31.8 to 75) HBW<br>(75.2 to 218) HBW   | 0.6 HBW<br>2.8 HBW  |  |
| HBW 5/750  | (95 to 224) HBW<br>(225 to 650) HBW   | 2.4 HBW<br>2.7 HBW  |  |
| HBW 10/500   | (15.9 to 37.5) HBW<br>(37.5 to 109) HBW   | 1.2 HBW<br>0.9 HBW  |  |
| HBW 2.5/187.5  | (95 to 224) HBW<br>(225 to 650) HBW   | 2.3 HBW<br>4.7 HBW  |  |
| Verification of Brinell<br>Measurement Device <sup>3</sup> –                               |   |   |  |
| Type A Device<br>Type B Device   | (1 to 7) mm<br>(1 to 7) mm  | 0.001 mm<br>0.1 mm  | Verification method per<br>ASTM E10, ISO 6506  |
| Calibration of Standardized<br>Brinell Hardness Test Blocks –<br>Mean Hardness Value       | ≤ 225 HBW<br>>225 HBW   | 1.0 HBW<br>2.4 HBW  | Standardization method<br>per ASTM E10, ISO<br>6506  |
| Force – Measure  | (0 to 125) gf<br>(125 to 1000) gf<br>(1000 to 5000) gf<br><br>(5 to 20) lbf<br>(20 to 100) lbf<br>(100 to 500) lbf<br>(500 to 1200) lbf<br>(1200 to 2000) lbf | 0.04 % + 0.29 g<br>0.062 % + 3.5 g<br>0.085 % + 8.8 g<br><br>1.7 % + 0.12 lb<br>0.25 % + 2.5 lb<br>0.83 % + 0.57 lb<br>0.38 % + 4.8 lb<br>0.68 % + 2.7 lb | ASTM E4, NIST Class<br>F dead weights<br><br>Cable, wire, fiber,<br>strap, band, web<br>tension meters |

<sup>1</sup> This laboratory offers commercial calibration service.

<sup>2</sup> Calibration and Measurement Capability Uncertainty (CMC) is the smallest uncertainty of measurement that a laboratory can achieve within its scope of accreditation when performing more or less routine calibrations of nearly ideal measurement standards or nearly ideal measuring equipment. CMCs represent expanded uncertainties expressed at approximately the 95 % level of confidence, usually using a coverage factor of  $k = 2$ . The actual measurement uncertainty of a specific calibration performed by the laboratory may be greater than the CMC due to the behavior of the customer's device and to influences from the circumstances of the specific calibration.

<sup>3</sup> Field calibration service is available for this calibration. Please note the actual measurement uncertainties achievable on a customer's site can normally be expected to be larger than the CMC found on the A2LA Scope. Allowance must be made for aspects such as the environment at the place of calibration and for other possible adverse effects such as those caused by transportation of the calibration equipment. The usual allowance for the actual uncertainty introduced by the item being calibrated, (e.g. resolution) must also be considered and this, on its own, could result in the actual measurement uncertainty achievable on a customer's site being larger than the CMC.



# Accredited Laboratory

A2LA has accredited

## KING TESTER CORPORATION

Phoenixville, PA

for technical competence in the field of

### Calibration

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 *General requirements for the competence of testing and calibration laboratories*. This laboratory also meets R205 – Specific Requirements: Calibration Laboratory Accreditation Program. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).



Presented this 3<sup>rd</sup> day of May 2022.

A blue ink signature of the Vice President of Accreditation Services.

Vice President, Accreditation Services  
For the Accreditation Council  
Certificate Number 4877.01  
Valid to May 31, 2024

*For the calibrations to which this accreditation applies, please refer to the laboratory's Calibration Scope of Accreditation.*