



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

TOKYO BOEKI NORTH AMERICA, INC. (TBNA, INC.)

11 Spiral Dr. Suite 3  
Florence, KY 41042

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CALIBRATION

Valid To: December 31, 2021

Certificate Number: 3946.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following calibrations <sup>1,4</sup>:

I. Dimensional

Parameter/Equipment	Range	CMC <sup>2</sup> (±)	Comments
Vector Arms <sup>3</sup> –			
Plane Repeatability	Up to 0.2 mm	0.011 mm	Multigage, end standards
Fixed Point Repeatability/ 2 Sigma	Up to 0.2 mm	0.020 mm	Tokyo Boeki calibration procedure for contact and non-contact systems
Measurement Accuracy/ 2 Sigma	0.5 m & 1 m	0.048 mm	
Layout Tables <sup>3</sup> –			
Tilting of Column	Up to 0.8 mm	0.064 mm	Reference square, dial gage, height gage, grade A level
Squareness	Up to 0.8 mm	0.064 mm	
Parallelism	Up to 0.8 mm	0.074 mm	
End Scriber	Up to 0.8 mm	0.044 mm	Tokyo Boeki calibration procedure
Surface Table Flatness	Up to 0.1 mm/m	0.038 mm/m	

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<sup>1</sup> This laboratory offers commercial calibration service and field calibration services for Tokyo Boeki compatible manufactured systems.

<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 and this laboratory meets A2LA R104 – *General Requirements: Accreditation of Field Testing and Field Calibration Laboratories* for these calibrations. 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.

<sup>4</sup> This scope meets A2LA's *P112 Flexible Scope Policy*.



# Accredited Laboratory

A2LA has accredited

## TOKYO BOEKI NORTH AMERICA

*Florence, KY*

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 2<sup>nd</sup> day of December 2019.

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

Vice President Accreditation Services  
For the Accreditation Council  
Certificate Number 3946.01  
Valid to December 31, 2021

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