



# PERRY JOHNSON LABORATORY ACCREDITATION, INC.

## Certificate of Accreditation

*Perry Johnson Laboratory Accreditation, Inc. has assessed the Laboratory of:*

### ***Turbine Tools Ltd***

***Unit K, Sheddingdean Business Centre, Marchants Way, Burgess Hill, West Sussex, RH15  
8QY United Kingdom***

*(Hereinafter called the Organization) and hereby declares that Organization is accredited  
in accordance with the recognized International Standard:*

### **ISO/IEC 17025:2017**

This accreditation demonstrates technical competence for a defined scope and the  
operation of a laboratory quality management system  
(as outlined by the joint ISO-ILAC-IAF Communiqué dated April 2017):

### ***Mechanical Calibration*** ***(As detailed in the supplement)***

Accreditation claims for such testing and/or calibration services shall only be made from addresses referenced within this certificate. This Accreditation is granted subject to the system rules governing the Accreditation referred to above, and the Organization hereby covenants with the Accreditation body's duty to observe and comply with the said rules.

For PJLA:

Tracy Szerszen  
President

*Initial Accreditation Date:*

March 01, 2023

*Issue Date:*

March 01, 2023

*Expiration Date:*

May 31, 2025

*Revision Date:*

February 28, 2024

*Accreditation No.:*

106505

*Certificate No.:*

L23-175-R1

Perry Johnson Laboratory  
Accreditation, Inc. (PJLA)  
755 W. Big Beaver, Suite 1325  
Troy, Michigan 48084

*The validity of this certificate is maintained through ongoing assessments based on a  
continuous accreditation cycle. The validity of this certificate should be  
confirmed through the PJLA website: [www.pjllabs.com](http://www.pjllabs.com)*



# Certificate of Accreditation: Supplement

## Turbine Tools Ltd.

Unit K, Sheddingdean Business Centre, Marchants Way, Burgess Hill,  
West Sussex, RH15 8QY United Kingdom

Contact Name: Mr. Steve Skinner Phone: (+44) 01342-716-600

*Accreditation is granted to the facility to perform the following calibrations:*

### Mechanical

MEASURED INSTRUMENT, QUANTITY OR GAUGE	RANGE OR NOMINAL DEVICE SIZE AS APPROPRIATE	CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY ( $\pm$ )	CALIBRATION EQUIPMENT AND REFERENCE STANDARDS USED	CALIBRATION MEASUREMENT METHOD OR PROCEDURES USED
Torque Multiplier <sup>F</sup>	300 lbf•ft to 20 000 lbf•ft	1.2 % Reading	AKO TSD20235 Measurement System with TSD20011, TSD1221, TSD521 and TSD6500-4.	Laboratory procedure TCP01
	200 lbf•ft to 5 000 lbf•ft	1.6 % Reading	TT4000 Measurement System with Norbar 50630, 50773 and SHC 700 Series	
	4 000 lbf•ft to 35 000 lbf•ft	1.8 % Reading	TT4000 Measurement System with Norbar 50604, 50773 and SHC 700 Series	
	8 000 lbf•ft to 80 000 lbf•ft	1.9 % Reading	TT4000 Measurement System with Norbar 50637, 50773 and SHC 700 Series	
Torque Multiplier with Built-in Indicator <sup>F</sup>	250 lbf•ft to 5 000 lbf•ft	0.9 % Reading	AKO TSD5035 Measurement System with TSD5011-L and TSD6500-4	Laboratory procedure TCP02
	1 000 lbf•ft to 12 000 lbf•ft	0.52 % Reading	AKO TSD20235 Measurement System with TSD20011 and TSD6500-4	
Hydraulic Torque Wrench with Built-in Indicator <sup>F</sup>	400 lbf•ft to 20 000 lbf•ft	0.98 % Reading	AKO TSD20235 Measurement System with TSD20011 and TSD6500-4	Laboratory procedure TCP03
	250 lbf•ft to 3 000 lbf•ft	1.2 % Reading	TT4000 Measurement System with Norbar 50630, 50604 and TTT Series 3	
	4 000 lbf•ft to 35 000 lbf•ft	1.0 % Reading	TT4000 Measurement System with Norbar 50604 and TTT Series 3	



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*Accreditation is granted to the facility to perform the following calibrations:*

1. The CMC (Calibration and Measurement Capability) stated for calibrations included on this scope of accreditation represents the smallest measurement uncertainty attainable by the laboratory when performing a more or less routine calibration of a nearly ideal device under nearly ideal conditions. It is typically expressed at a confidence level of 95 % using a coverage factor k (usually equal to 2). The actual measurement uncertainty associated with a specific calibration performed by the laboratory will typically be larger than the CMC for the same calibration since capability and performance of the device being calibrated and the conditions related to the calibration may reasonably be expected to deviate from ideal to some degree.
2. The laboratories range of calibration capability for all disciplines for which they are accredited is the interval from the smallest calibrated standard to the largest calibrated standard used in performing the calibration. The low end of this range must be an attainable value for which the laboratory has or has access to the standard referenced. Verification of an indicated value of zero in the absence of a standard is common practice in the procedure for many calibrations but by its definition it does not constitute calibration of zero capacity.
3. The presence of a superscript F means that the laboratory performs calibration of the indicated parameter at its fixed location.
4. Measurement uncertainties obtained for calibrations performed at customer sites can be expected to be larger than the measurement uncertainties obtained at the laboratories fixed location for similar calibrations. This is due to the effects of transportation of the standards and equipment and upon environmental conditions at the customer site which are typically not controlled as closely as at the laboratories fixed location.