SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005
& ANSI/NCSL Z540-1-1994

MAXPRO CORPORATION
427 Sargon Way, Unit D
Horsham, PA 19044
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CALIBRATION

Valid To: January 31, 2020 Certificate Number: 3912.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following calibrations[1]:

I. Mechanical

Parameter/Equipment	Range	CMC[2] (±)	Comments
Pressure[3] – Measuring Equipment, Pressure Gauges	(-25 to -15) psi (>-15 to -5) psi (>-5 to 50) psi (>50 to 75) psi (>75 to 90) psi (>90 to 200) psi (>200 to 900) psi (>900 to 9000) psi (>9000 to 10 000) psi	0.2 psi 0.1 psi 0.2 psi 0.5 psi 0.2 psi 0.6 psi 0.3 psi 1.5 psi 1.7 psi	Comparison to standard hydraulic pressure gauge Deadweight tester
Torque[3] – Static, Manual Torque Wrenches	Up to 4 in·lbf (>4 to 15) in·lbf (>15 to 100) in·lbf (>100 to 240) in·lbf (>240 to 400) in·lbf (>400 to 1000) in·lbf (83 to 100) ft·lbf (>100 to 200) ft·lbf (>200 to 400) ft·lbf (>400 to 600) ft·lbf (>600 to 1000) ft·lbf	0.076 in·lbf 0.19 in·lbf 0.34 in·lbf 0.80 in·lbf 1.4 in·lbf 3.6 in·lbf 0.61 ft·lbf 1.0 ft·lbf 1.4 ft·lbf 4.7 ft·lbf 7.4 ft·lbf	Torque transducers

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Parameter/Equipment	Range	CMC[2, 4] (±)	Comments
Torque[3] – Dynamic			
Pneumatic Torque Wrench	Up to 100 ft·lbf (>100 to 500) ft·lbf (>500 to 1000) ft·lbf (>1000 to 2000) ft·lbf (>2000 to 4000) ft·lbf (>4000 to 6000) ft·lbf (>6000 to 7000) ft·lbf (>7000 to 8500) ft·lbf (>8500 to 11 000) ft·lbf	5 ft·lbf 10 ft·lbf 12 ft·lbf 24 ft·lbf 54 ft·lbf 61 ft·lbf 110 ft·lbf 120 ft·lbf 130 ft·lbf	Torque transducers
Electronic Torque Wrench	Up to 750 ft·lbf (>750 to 2000) ft·lbf (>2000 to 4000) ft·lbf (>4000 to 6000) ft·lbf (>6000 to 7500) ft·lbf (>7500 to 9000) ft·lbf (>9000 to 10 500) ft·lbf	6.8 ft·lbf 30 ft·lbf 57 ft·lbf 42 ft·lbf 64 ft·lbf 89 ft·lbf 100 ft·lbf	
Battery Torque Wrench	Up to 500 ft·lbf (>500 to 3000) ft·lbf	22 ft·lbf 30 ft·lbf	
Electric Torque Wrench	Up to 1000 ft·lbf (>1000 to 1750) ft·lbf (>1750 to 2500) ft·lbf	6.4 ft·lbf 11 ft·lbf 15 ft·lbf	
Hydraulic Torque Wrench	Up to 500 (>500 to 1000) (>1000 to 2000) (>2000 to 2500) (2500 to 25 000) ft·lbf	14 ft·lbf 18 ft·lbf 21 ft·lbf 23 ft·lbf (18 + 0.009*T*) ft·lbf	
Torque Transducers	(4 to 10) in·lbf (>10 to 40) in·lbf (>40 to 50) in·lbf (>50 to 240) in·lbf (>240 to 600) in·lbf (>600 to 1000) in·lbf (>83 to 100) ft·lbf (>100 to 250) ft·lbf (>250 to 1000) ft·lbf (>1000 to 6000) ft·lbf (>6000 to 12 000) ft·lbf (12 000 to 20 000) ft·lbf	0.025 in·lbf 0.031 in·lbf 0.062 in·lbf 0.13 in·lbf 0.19 in·lbf 0.30 in·lbf 0.09 ft·lbf 0.12 ft·lbf 0.24 ft·lbf 3.4 ft·lbf 9.9 ft·lbf 17 ft·lbf	Moment arms and weights

Parameter/Equipment	Range	CMC[2] (±)	Comments
Torque Multipliers	(100 to 20 000) ft·lbf	3.3 % Output	Torque transducer torque wrench

[1] This laboratory offers commercial and field calibration service.

[2] 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.

[3] 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.

[4] In the statement of Calibration and Measurement Capability, *T* represents the numerical value of the torque reading of the device.

Accredited Laboratory

A2LA has accredited

MAXPRO CORPORATION

Horsham, PA

for technical competence in the field of

Calibration

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 *General requirements for the competence of testing and calibration laboratories*. This laboratory also meets the requirements of ANSI/NCSL Z540-1-1994 and 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 8 January 2009*).

Presented this 21st day of December 2017.

President and CEO
For the Accreditation Council
Certificate Number 3912.01
Valid to January 31, 2020

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