

Scope of Accreditation For McCann Equipment LTD.

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In recognition of a successful assessment to ISO/IEC 17025:2005 and ANSI Z540.3 (sub-clause 5.3) accreditation is granted to **McCann Equipment Ltd.** to perform the following **Calibrations**:

Accreditation granted through: **June 29, 2013**

Calibration

Mass – Torque

Calibration Parameter/Equipment ¹	Range	Calibration and Measurement Capability(+/-) ²	Remarks
Hand Torque Wrenches and Torque Limiting Screwdrivers	4 ozf·in to 2 000 lbf·ft 0.028 Nm to 2 712 Nm	0.48% of applied load	ISO 6789
Pneumatic Torque Wrenches	0.4 lbf·ft to 25 000 lbf·ft 0.04 Nm to 33 900 Nm	1.52% of applied load	Electronic transducer and display unit per McCann procedures
Hydraulic Torque Wrenches	127 lbf·ft to 25 000 lbf·ft 172 Nm to 33 900 Nm	1.17% of applied load	Electronic transducer and display unit per McCann procedures
Electronic Torque Wrenches	4 ozf·in to 2 000 lbf·ft 0.028 Nm to 2 712 Nm	0.6% of applied load	Electronic transducer and display unit per McCann procedures
Hand Torque Multipliers	127 lbf·ft to 25 000 lbf·ft 172 Nm to 33 900 Nm	0.59% of applied load	Electronic transducer and display unit per McCann procedures

Calibration Parameter/Equipment¹	Range	Calibration and Measurement Capability(+/-)²	Remarks
Torque Closure Meters	1 lbf·in to 100 lbf·in	0.5% of applied load	Electronic transducer and display unit per McCann procedures
DC Electronic Torque Wrench	1.5 lbf·in to 5 000 lbf·ft 0.17 Nm to 6 780 Nm	0.36% of applied load	Electronic transducer and display unit per McCann procedures
Torque Transducers Torque Testers	4 ozf·in to 1 200 lbf·ft 0.028 Nm to 1 630 Nm	0.04% of applied load	Dead Weight Test Unsupported Beams

Mass – Pressure

Calibration Parameter/Equipment¹	Range	Calibration and Measurement Capability(+/-)²	Remarks
Pneumatic Pressure Gauge	0.1 psi to 300 psi	0.15% of applied load	GE Druck Digital Pressure Indicator Model DPI 280 Pressure Transducer Model PDCR 4010 per ASME B40

Mass – Force

Calibration Parameter/Equipment¹	Range	Calibration and Measurement Capability(+/-)²	Remarks
Bolt Load Meter	(200 to 10 000) lbf	180 lbf	Skidmore J
Bolt Load Meter	(2 000 to 30 000) lbf	328 lbf	Skidmore J & RJ
Bolt Load Meter	(2 000 to 126 000) lbf	650 lbf	Skidmore M, MS & MZ
Bolt Load Meter	(4 000 to 170 000) lbf	1 252 lbf	Skidmore H

Notes:

- 1) Laboratory offers calibration services at the laboratory's own facilities and at the client or other agreed upon facilities.
- 2) Calibration and Measurement Capability represents expanded uncertainties at approximately a 95% confidence level using a coverage factor of k=2.

 Approved by:  Date: July 22, 2010

 R. Douglas Leonard
Chief Technical Officer

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