



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

TOLEDO TRANSDUCERS, INC.  
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CALIBRATION

Valid To: August 31, 2017

Certificate Number: 1379.01

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>2,3</sup> (±)	Comments
Calibration of Force, Load Cells –			
Tension/Compression	(5 to 100) lbf (20 to 500) lbf 100 lbf to 5 klf (1 to 50) klf 5 lbf to 120 klf	0.0032 lbf + 0.09 % 0.030 lbf + 0.09 % 0.12 lbf + 0.12 % 2.4 lbf + 0.05 % 5.1 lbf + 0.11 %	Calibrated using internal procedure 1017 with load cells
Compression Only	85 klf to 1Mlbf 175 klf to 2.25 Mlbf	210 lbf + 0.11 % 430 lbf + 0.11 %	
Calibration of Force –			
Tension & Compression	(0.1 to 5) lbf, 4 in beam	0.05 %	Class 6 dead weights, Toledo procedure 1017

Parameter/Equipment	Range	CMC <sup>2,3</sup> (±)	Comments
Calibration of Torque Load Cells	(0.125 to 20) in·lbf, 4 in beam	0.05 %	Class 6 dead weights Toledo procedure 1017
	(10 to 1000) in·lbf, 10 in beam	0.032 in·lbf + 0.08 %	Standard load cells, Toledo procedure 1017 w/ elements of E2428
	(30 to 3000) in·lbf, 30 in beam	0.096 in·lbf + 0.08 %	
	(24 to 60) in·klbf, 24 in beam	1.8 in·lbf + 0.11 %	
	(10 to 120) in·klbf, 48 in beam	3.6 in·lbf + 0.11 %	
(60 to 240) in·klbf, 48 in beam	3.6 in·lbf + 0.11 %		

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

<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 routine calibrations of nearly ideal measurement standards of 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 specified calibration.

<sup>3</sup> In the statement of CMC, percentages are to be read as percent of reading, unless noted otherwise.