

**SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017**

**First Gear Engineering and Technology**

4321 Goshen Road  
Fort Wayne, IN 46818  
Derek Fritz  
260-490-3238 ext. 307

**CALIBRATION**

Valid to: **May 31, 2021**

Certificate Number: **L2454**

**Length – Dimensional Metrology**

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-) <sup>1</sup>	Reference Standard, Method, and/or Equipment
Measurement Over Wires	(0.15 to 13) in	(7 + 3.2D) μin	Lab Master
Measurement Between Wires	(0.2 to 13) in	(36 + 1.0D) μin	
Major Diameter	(0.15 to 13) in	(7 + 2.2D) μin	
Minor Diameter	(0.2 to 13) in	(6.5 + 2.2D) μin	
Index (external)	(0.15 to 11) in	(110 + 0.9D) μin	Peco Gear Analyzer
Index (internal)	(0.2 to 11) in	130 μin	
Lead (external)	(0.15 to 11) in	(64 + 0.6D) μin	
Lead (internal)	(0.2 to 11) in	(65 + 0.6D) μin	
Profile (external)	(0.15 to 11) in	(57 + 0.6D) μin	
Profile (internal)	(0.2 to 11) in	(69 + 0.5D) μin	
Runout (external)	(0.15 to 11) in	(130 + 0.9D) μin	
Runout (internal)	(0.2 to 11) in	140 μin	
Tooth Thickness (external)	(0.15 to 11) in	(71 + 0.5D) μin	Peco Gear Analyzer
Tooth Thickness (internal)	(0.2 to 11) in	(78 + 0.6D) μin	

**Length – Dimensional Metrology**

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-) <sup>1</sup>	Reference Standard, Method, and/or Equipment
Length/Diameter External	(0.15 to 13) in	$(7 + 2.2D) \mu\text{in}$	Lab Master
Length/Diameter Internal	(0.2 to 13) in	$(6.5 + 2.2D) \mu\text{in}$	

Calibration and Measurement Capability (CMC) is expressed in terms of the measurement parameter, measurement range, expanded uncertainty of measurement and reference standard, method, and/or equipment. The expanded uncertainty of measurement is expressed as the standard uncertainty of the measurement multiplied by a coverage factor of 2 ( $k=2$ ), corresponding to a confidence level of approximately 95%.

Notes:

1.  $D$  = diameter or length in inches
2. This scope is formatted as part of a single document including Certificate of Accreditation No. L2454.



R. Douglas Leonard Jr., VP, PILR SBU

