



CERTIFICATE OF ACCREDITATION

The ANSI National Accreditation Board

Hereby attests that

Knight Testing
3205 Clairmont Ct., Ste. B
Fort Wayne, IN 46808

Fulfills the requirements of

ISO/IEC 17025:2017

In the field of

TESTING

This certificate is valid only when accompanied by a current scope of accreditation document.
The current scope of accreditation can be verified at www.anab.org.

A handwritten signature in black ink, appearing to read 'R. Douglas Leonard Jr.', is positioned above a horizontal line.

R. Douglas Leonard Jr., VP, PILR SBU

Expiry Date: 09 January 2026
Certificate Number: L2167



This laboratory 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 (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

Knight Testing
 3205 Clairmont Ct., Ste. B
 Fort Wayne, IN 46808
 Peter R. Sinn peter.sinn@knighttesting.com
 260 489 1444

TESTING

Valid to: **January 9, 2026**

Certificate Number: **L2167**

Mechanical

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
Tension & Compression Monotonic Testing (-250 000 to 250 000) N (0 to 150) mm	Customer supplied specifications Customized Specifications of Test Methods Identified in Annex 1	Mechanical components: medical, automotive, aerospace, heavy vehicle, agricultural, defense, and consumer products and All Metal Alloys	Load Frames Controllers LVDTs Load Cells
Force Controlled Cyclic Testing (-250 000 to 250 000) N (0 to 150) mm (0 to 30) Hz	Customer supplied specifications Customized Specifications of Test Methods Identified in Annex 1	Mechanical components: medical, automotive, aerospace, heavy vehicle, agricultural, defense, and consumer products	Load Frames Controllers LVDTs Load Cells
Displacement Controlled Cyclic Testing (-250 000 to 250 000) N (0 to 150) mm (0 to 30) Hz	Customer supplied specifications Customized Specifications of Test Methods Identified in Annex 1	Mechanical components: medical, automotive, aerospace, heavy vehicle, agricultural, defense, and consumer products	Load Frames Controllers LVDTs Load Cells
Torsional Monotonic Testing (-225 to 225) Nm (0 to 15) Revolutions	Customer supplied specifications Customized Specifications of Test Methods Identified in Annex 1	Mechanical components: medical, automotive, aerospace, heavy vehicle, agricultural, defense, and consumer products	Load Frames Controllers LVDTs ADTs Load Cells

Mechanical

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
Torque Controlled Cyclic Testing (-225 to 225) Nm (0 to 270) degrees (0 to 5) Hz	Customer supplied specifications Customized Specifications of Test Methods Identified in Annex 1	Mechanical components: medical, automotive, aerospace, heavy vehicle, agricultural, defense, and consumer products	Load Frames Controllers LVDTs ADTs Load Cells
Fracture Toughness Testing (-250 000 to 250 000) N (Up to 5) in	ASTM E399 ASTM B645 ASTM E1820	All Metal Alloys	Load Frames Controllers LVDTs COD Gage Load Cells
Axial Fatigue Testing (Strain and Stress) (-250 000 to 250 000) N	ASTM E466 ASTM E606	All Metal Alloys	Load Frames Controllers LVDTs Load Cells Extensometer

Knight Testing has demonstrated technical competency to perform ISO/IEC 17025:2017 accredited testing activities per the test technologies identified in the table above and the test methods identified below per the attached annex 1.

Annex 1 – ISO/IEC 17025 Accredited Test Methods

ASTM Test Methods:

- F382 Standard Specification and Test Method for Metallic Bone Plates
- F543 Standard Specification and Test Methods for Metallic Medical Bone Screws
- F564 Standard Specification and Test Methods for Metallic Bone Staples
- F1044 Standard Test Method for Shear Testing of Calcium Phosphate Coatings and Metallic Coatings
- F1147 Standard Test Method for Tension Testing of Calcium Phosphate and Metal Coatings
- F1160 Standard Test Method for Shear and Bending Fatigue Testing of Calcium Phosphate and Metallic Medical and Composite Calcium Phosphate/Metallic Coatings



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- F1440 Standard Practice for Cyclic Fatigue Testing of Metallic Stemmed Hip Arthroplasty Femoral Components without Torsion
- F1223 Standard Test Method for Determination of Total Knee Replacement Constraint
- F1264 Standard Specification and Test Methods for Intramedullary Fixation Devices
- F1612 Standard Practice for Cyclic Fatigue Testing of Metallic Stemmed Hip Arthroplasty Femoral Components with Torsion
- F1717 Standard Test Methods for Spinal Implant Constructs in a Vertebrectomy Model
- F1798 Standard Guide for Evaluating the Static and Fatigue Properties of Interconnection Mechanisms and Subassemblies Used in Spinal Arthrodesis Implants
- F1800 Standard Test Method for Cyclic Fatigue Testing of Metal Tibial Tray Components of Total Knee Joint Replacements
- F1820 Standard Test Method for Determining the Axial Disassembly Force of a Modular Acetabular Device
- F2009 Standard Test Method for Determining the Axial Disassembly Force of Taper Connections of Modular Prostheses
- F2028 Standard Test Methods for Dynamic Evaluation of Glenoid Loosening or Disassociation
- F2077 Test Methods for Intervertebral Body Fusion Devices
- F2193 Standard Specifications and Test Methods for Components Used in the Surgical Fixation of the Spinal Skeletal System
- F2267 Standard Test Method for Measuring Load Induced Subsidence of an Intervertebral Body Fusion Device under Static Axial Compression
- F2345 Standard Test Methods for Determination of Static and Cyclic Fatigue Strength of Ceramic Modular Femoral Heads
- F2502 Standard Specification and Test Methods for Bioabsorbable Plates and Screws for Internal Fixation Implants
- F2706 Standard Test Methods for Occipital-Cervical and Occipital-Cervical-Thoracic Spinal Implant Constructs in a Vertebrectomy Model
- F2777 Standard Test Method for Evaluating Knee Bearing (Tibial Insert) Endurance and Deformation Under High Flexion
- E8 Standard Test Methods for Tension Testing of Metallic Materials
- E9 Standard Test Methods of Compression Testing of Metallic Materials at Room Temperature
- E466 Standard Practice for Conducting Force Controlled Constant Amplitude Axial Fatigue Tests of Metallic Materials
- E606 Standard Test Method for Strain-Controlled Fatigue Testing
- E1820 Standard Test Method for Measurement of Fracture Toughness J_{Ic}



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- E399 Standard Test Method for Linear-Elastic Plane-Strain Fracture Toughness K_{Ic} of Metallic Materials
- B645 Standard Test Method for Linear-Elastic Plane-Strain Fracture Toughness of Aluminum Alloys
- F3090 Test Method for Fatigue Testing of Acetabular Devices for Total Hip Replacement
- F3140 Test Method for Cyclic Fatigue Testing of Metal Tibial Tray Components of Unicondylar Knee Joint Replacements
- F1829 Test Method for Static Evaluation of Anatomic Glenoid Locking Mechanism in Shear
- F2580 Standard Practice for Evaluation of Modular Connection of Proximally Fixed Femoral Hip Prosthesis
- F1875 Standard Practice for Fretting Corrosion Testing of Modular Implant Interfaces: Hip Femoral Head-Bore and Cone Taper Interface
- D695 Standard Test Method for Compressive Properties of Rigid Plastics
- F3210 Standard Test Method for Fatigue Testing of Total Knee Femoral Components Under Closing Conditions
- F3574 Standard Test Methods for Sacroiliac Joint Fusion Devices

ISO Test Methods:

- 7206-4 Implants for surgery -- Partial and total hip joint prostheses -- Part 4: Determination of endurance properties and performance of stemmed femoral components
- 7206-6 Implants for surgery -- Partial and total hip joint prostheses -- Part 6: Determination of endurance properties of head and neck region of stemmed femoral components
- 7206-10 Implants for surgery -- Partial and total hip-joint prostheses -- Part 10: Determination of resistance to static load of modular femoral heads
- 9585 Determination of bending strength and stiffness of bone plates
- 14801 Dentistry -- Implants -- Dynamic fatigue test for endosseous dental implants
- 6892-1 Metallic Materials -- Tensile Testing -- Part 1: Method of Test at Room Temperature
- 7206-12 Implants for surgery -- Partial and total hip prostheses -- Part 12: Deformation test method for acetabular shells
- 7206-13 Implants for surgery -- Partial and total hip prostheses -- Part 13: Determination of resistance torque of head fixation of stemmed femoral components

13314 Mechanical testing of metals — Ductility testing — Compression test for porous and cellular metals

Note:

1. This scope is formatted as part of a single document including Certificate of Accreditation No. L2167.
2. This laboratory offers commercial testing service.



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