

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

### SPINESERV GMBH & CO.KG

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#### **MECHANICAL**

Valid To: March 31, 2026 Certificate Number: 5702.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following types of tests on <u>Surgical Implants and Prosthetics</u>:

Test Technology:	<b>Test Method(s):</b>
<u>Tribology</u>	
Implants for surgery — Wear of total knee-joint prostheses — Part 1: Loading and displacement parameters for wear-testing machines with load control and corresponding environmental conditions for test	ISO 14243-1
Implants for surgery — Wear of total knee-joint prostheses — Part 3: Loading and displacement parameters for wear-testing machines with displacement control and corresponding environmental conditions for test	ISO 14243-3
Implants for surgery — Wear of total knee prostheses — Part 5: Durability performance of the patellofemoral joint	ISO 14243-5
Elbow wear testing (Test procedure developed by SpineServ based on the findings described by Kincaid, Mimnaugh et al. 2012 - Development of a Laboratory Wear Test Methodology for the Evaluation of Total Elbow Prostheses)	S14
Shoulder wear testing (Test developed by SpineServ based on the findings described by Kohut, Georges; Dallmann, Frank; Irlenbusch, Ulrich (2012): Wear-induced loss of mass in reversed total shoulder arthroplasty with conventional and inverted bearing materials)	S10
<u>Mechanical</u>	
Stainless steel needle tubing for the manufacture of medical devices — Requirements and test methods	ISO 9626 Annex B, C & D

(A2LA Cert. No. 5702.01) 04/04/2024

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<u>Test Technology:</u> <u>Test Method(s):</u>

Infusion equipment for medical use — Part 4: Infusion sets for ISO 8536-4

single use, gravity feed and flow rate

Annex A.3, A.4 & A.5

Standard Test Methods for Determination of Cyclic Fatigue ASTM F2345

Strength of Ceramic Modular Femoral Heads

Standard Test Method for Dynamic Impingement Between ASTM F2582

Femoral and Acetabular Hip Components

Standard Test Methods for Metallic Bone Plates Used in Small ASTM F3437

Bone Fracture Fixation

<u>Packaging</u>

Method for Detecting Seal Leaks in Medical Packaging by Dye ASTM F1929

Penetration

Accelerated Aging of Sterile Barrier Systems and devices

ASTM F1980

<u>Test Technology:</u> <u>Parameters:</u> <u>Test Method(s):</u>

Static Testing:

Static Load $(\pm 0.4 \text{ to} \pm 20,000) \text{ N}$ pTI-FatigueStatic Torsion $(\pm 0.02 \text{ to} \pm 50) \text{ Nm}$ Testing

Stroke (0 to 550) mmAngular Displacement  $(0 \text{ to } \pm 1,800) \text{ deg}$ 

**Dynamic Testing:** 

Dynamic Load (±0.1 to ±25) kN pTI-Static Testing

Dynamic Torsion  $(\pm 0.25 \text{ to } \pm 25) \text{ Nm}$ Angular Displacement  $(0 \text{ to } \pm 360) \text{ deg}$ 

Dynamic

Environmental: Humidity (10 to 50) % at (10 to 60) °C pTI-Aging

Temperature (-10 to 300) °C

Wear Testing:

Rotation X-(0 to  $\pm 25$ ) °; Y-(-60 to  $\pm 120$ ) °; Z-(0 to  $\pm 30$ ) ° pTI-Wear Testing

Translation X-(0 to  $\pm 20$ ) mm; Z-(0 to  $\pm 11$ ) mm Force X & Y-(0 to  $\pm 600$ ) N; Z-(0 to  $\pm 3500$ ) N

Torque  $X-(0 \text{ to } \pm 6) \text{ Nm}; Y-(0 \text{ to } \pm 50);$ 

Nm; Z- $(0 \text{ to } \pm 100) \text{ Nm}$ 

Weighing:

Weight (4.10 to 220,000.00) mg pTI-Weighing

Pressure Testing:

Pressure (0 to +500 and 0 to -900) kPa pTI-Pressure

Testing



# **Accredited Laboratory**

A2LA has accredited

## SPINESERV GMBH & CO.KG

Ulm, Germany

for technical competence in the field of

## Mechanical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017

General requirements for the competence of testing and calibration laboratories. 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).



Presented this 4th day of April 2024.

Mr. Trace McInturff, Vice President, Accreditation Services For the Accreditation Council Certificate Number 5702.01 Valid to March 31, 2026