

We are Element, one of the world's leading independent providers of testing, inspection and certification services to a diverse range of industries, where failure "in service" is simply not an option.

We exist to help all of our customers to make certain that the materials and products that they make are safe, quality, compliant and ultimately fit for purpose using our 200 years

## OUR TESTING SERVICES

### ORTHOPEDIC, SPINE & TRAUMA IMPLANT TESTING

- Static and fatigue loading
  - Axial
  - Torsional
  - Bending
  - Multi-axis
- Wear testing
- Biomechanical studies

### CARDIOVASCULAR DEVICE TESTING

- Pulsatile fatigue
- Durability testing
- Radial force
- Peripheral stent gait motion simulation
- Nickel ion leaching

### PACKAGING AND ENVIRONMENTAL TESTING

- ISTA shipping
- Accelerated aging
- Shelf life

### PRODUCT TESTING

- Chemical resistance
- Foam testing (wheelchairs, gurneys, etc)
- Medical bed testing

### EMC/EMI TESTING

- IEC 60601 & IEC 60601-1-2
- ANSI C63.27 wireless coexistence
- AIM 7351731 RFID immunity
- OTA 3D antenna testing & SAR
- Wireless testing & global approvals

### MATERIALS TESTING

- Chemical analysis
- Microstructure
- Hardness
- SEM/EDS
- Tensile testing
- HCF/LCF
- Fracture mechanics
- Creep and rupture
- Non-destructive testing

### MICROBIOLOGICAL TESTING

- Endotoxin
- Bioburden
- Cytotoxicity
- TOC (Total Organic Compound)
- Gravimetric Cleanliness Testing (Residual & Particulate)
- Water Analysis (HPC< LAL, RO/DI)

### OTHER TESTING

- Corrosion
- Coatings and Adhesives
- Polymer testing
- Analytical testing
- Extractables and leachables
- Failure analysis
- Pharmaceutical method development and research
- Wear debris analysis particle counting
- Tissue and cadaveric testing
- Trace Metals Analysis

### TYPES OF DEVICES TESTED

- Knee
- Spine
- Hip
- Extremity & trauma
- Dental
- Coatings
- Stents & grafts
- Heart valves
- Catheters
- Occluders and closure devices
- Pacemakers
- Stimulator leads
- Animal and human tissue
- Diagnostic equipment
- Therapeutic equipment
- Wireless equipment
- Pharmaceuticals
- Combination products
- Implantable Equipment

### MATERIALS

- Titanium
- Stainless steel
- Cobalt chrome
- Nitinol
- Ceramics

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