INSTRON®

The difference is measurable®

IMPLANTABLE DEVICES

Instron® - A Total Solution Provider

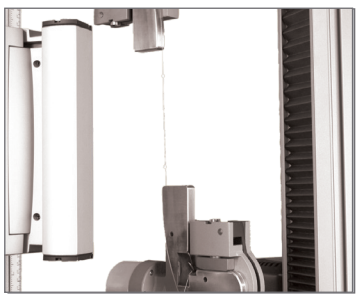
Ease-of-use

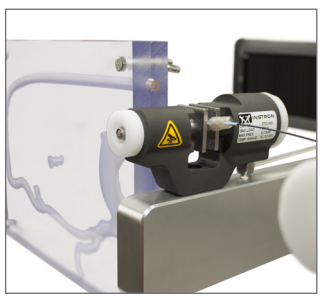
Reliability

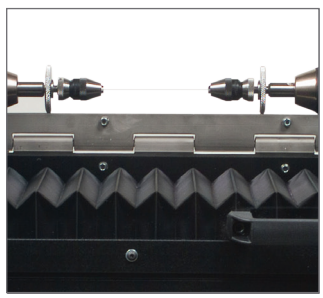
FDA Compliance

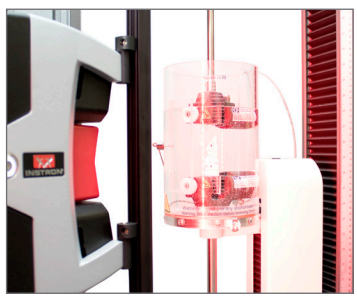
Small-Footprint

Implantable devices take many forms from cardiovascular, endovascular, neurovascular stenting and associated delivery systems to heart valves and pacemakers, through to auditory and ocular implants, such as intraocular or contact lenses. Mechanical testing takes many forms, from static tensile or compressive testing of the constituent metals and alloys, compression or flexural testing of complete devices, through to fatigue of stent materials and dynamic simulation of pressure pulsation.









IMPLANTABLE DEVICES

Instron®- A Total Solution Provider

Ease-of-use

Intuitive software workflows in Bluehill Universal mean less operator training is required. This is ideal for research laboratories and universities with constantly changing test requirements and many Instron users. Laboratories will save time as the testing system is simple to use.

Reliability

For over 75 years, Instron has designed and manufactured dependable materials testing systems. Instron's professional services team offers calibration and preventive maintenance to keep systems running for years. Despite test system robustness, Instron systems maintain the precision to measure micron-size displacements and gram-level forces.

FDA Compliance

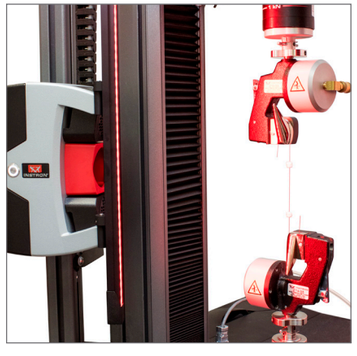
Instron offers validation assistance to laboratories that are required to meet U.S. Food and Drug Administration (FDA) guidelines, including installation qualification (IQ) and operational qualification (OQ). For over 10 years, Instron has partnered with Xybion Corporation, FDA compliance experts, to offer ComplianceBuilder software for meeting 21 CFR Part 11 compliance.

Small-Footprint

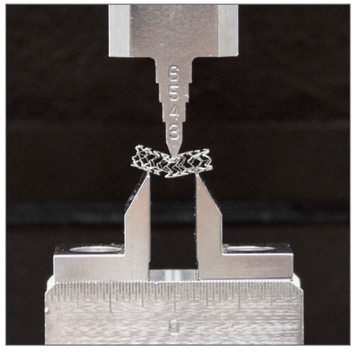
The small physical footprint of Instron's tabletop systems enable laboratories to save space, stay organized, and keep the laboratory clean. The small machine footprint includes both the test system and necessary software control, ideal for optimizing benchtop space in clean rooms and academic laboratories.

An X-Y Stage helps to perform compression and pull-off tests on catheters & luer locks

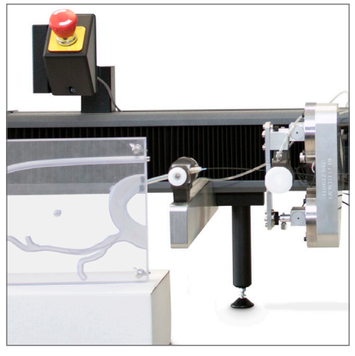
The strength of contact lenses can be evaluated in a simulated environment at 37 °C



Tensile testing of Nitinol wire to ASTM F2516 using non-contacting strain measurement helps to characterize its use in many implantable devices

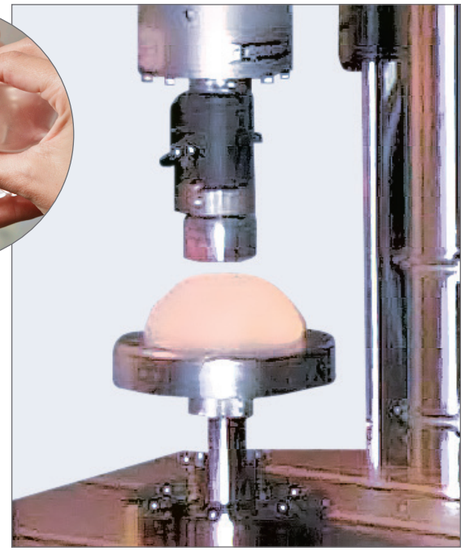


Three-point bending of expandable vascular stents performed to ASTM F2606



Tortuosity tests quantify frictional forces associated with medical procedures such as an endoscopy or implantation of a stent

Testing of intraocular lenses to ISO 11979-3 requires a high precision test system with the stability to handle
micro-level forces



Breast implants can be evaluated to ISO 14607 or ASTM F2051

The Instron® 5944 electromechanical system with pneumatic grips and a BioBox for testing at 37 °C, offers repeatable and quick testing of catheter tubing

The fatigue life of stent structures and materials can be evaluated using a multi-specimen fixture on an ElectroPuls™ E3000 test system

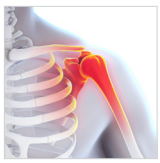
Instron's instruments and technologies are used for various types of tests across many diverse medical sectors. The flexibility of Instron systems to adapt to numerous applications make our systems truly universal.

Designed from the ground up for touch, Instron's static testing software, Bluehill® Universal, is easy-to-use, increases testing efficiency, and contains modular features that enable users to run the most complex tests.

With ISO 9001 accreditation, our goal is to provide the best ownership experience by delivering the highest quality products, expert support, and world-class service. Instron Connect provides users with a powerful communication platform via a secure connection between the Instron system at your facility and Instron's global technical support engineers. With Instron Connect, users receive faster remote technical support, reduce risk with schedule verification and preventive maintenance reminders, and are effortlessly able to keep up to date with the latest software features.

Medical Sectors

Visit our website to learn more about the different medical sectors we support: go.instron.com/bio



BIOMATERIALS & TISSUE ENGINEERING

ORTHOPAEDICS

DENTISTRY & DENTAL MATERIALS

IMPLANTABLE DEVICES

PHARMACEUTICAL

HOSPITAL & SURGICAL SUPPLIES

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