Medical consumables and equipment includes syringes, needles, sutures, staples, packaging, tubing, catheters, medical gloves, gowns, masks, adhesives and sealants for wound dressing and a whole host of other devices and tools used with a hospital or surgical environment. Depending on the device, mechanical testing can be carried out in tensile, compression or flexure, in dynamic or fatigue, or impact or with the application of torsion.

The 3342 500 N electromechanical system is suited to test a variety of catheters, tubing, syringes, gloves, and packaging.
The MT Torsion Tester applies static torque over multiple revolutions to medical tubing.

Submersible pneumatic grips and the non-contacting video extensometer are used for evaluating the tensile properties of sutures under simulated physiological conditions.

Test fixture designed to meet the requirements of ISO 7886-1 Annex G for sterile, single-use hypodermic syringes.

The tensile strength of medical gloves is evaluated to ASTM D6319 using rubber coated jaw faces.

Pneumatic side-action grips are used to perform a T-peel test on bandage packaging; this determines the seal strength.
An XY-Stage is used to finely position a catheter during multiple push tests on the individual components.

A 90° pull test of the conducting tubing in a blood bag is performed on a universal system fitted with a tapped plate.

The Instron® BioBox enclosure heats the test space to a body temperature of 37 °C and allows for using a wide range of grips and test fixtures.
Instron® – A Total Solution Provider

The Instron range of testing systems provides extensive capability; 3300 and 5900 electromechanical machines offer static tests, where as ElectroPuls® all-electric dynamic test instruments perform quasi-static, cyclic and high-frequency fatigue tests.

Instron’s instruments and technologies are used for various types of tests across many diverse medical sectors. 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. This includes support services such as IQ/OQ and products to help comply with 21 CFR Part 11.

Global Support That is Local to You

Founded in 1946, Instron is the leading supplier of materials testing equipment and solutions. Operating with 25 offices, including three state-of-the-art manufacturing facilities, in 18 countries, and more than 1200 employees, we have a global infrastructure that is local to you.

Medical Sectors

- BIOMATERIALS AND TISSUE ENGINEERING
- ORTHOPAEDICS
- DENTISTRY AND DENTAL MATERIALS
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