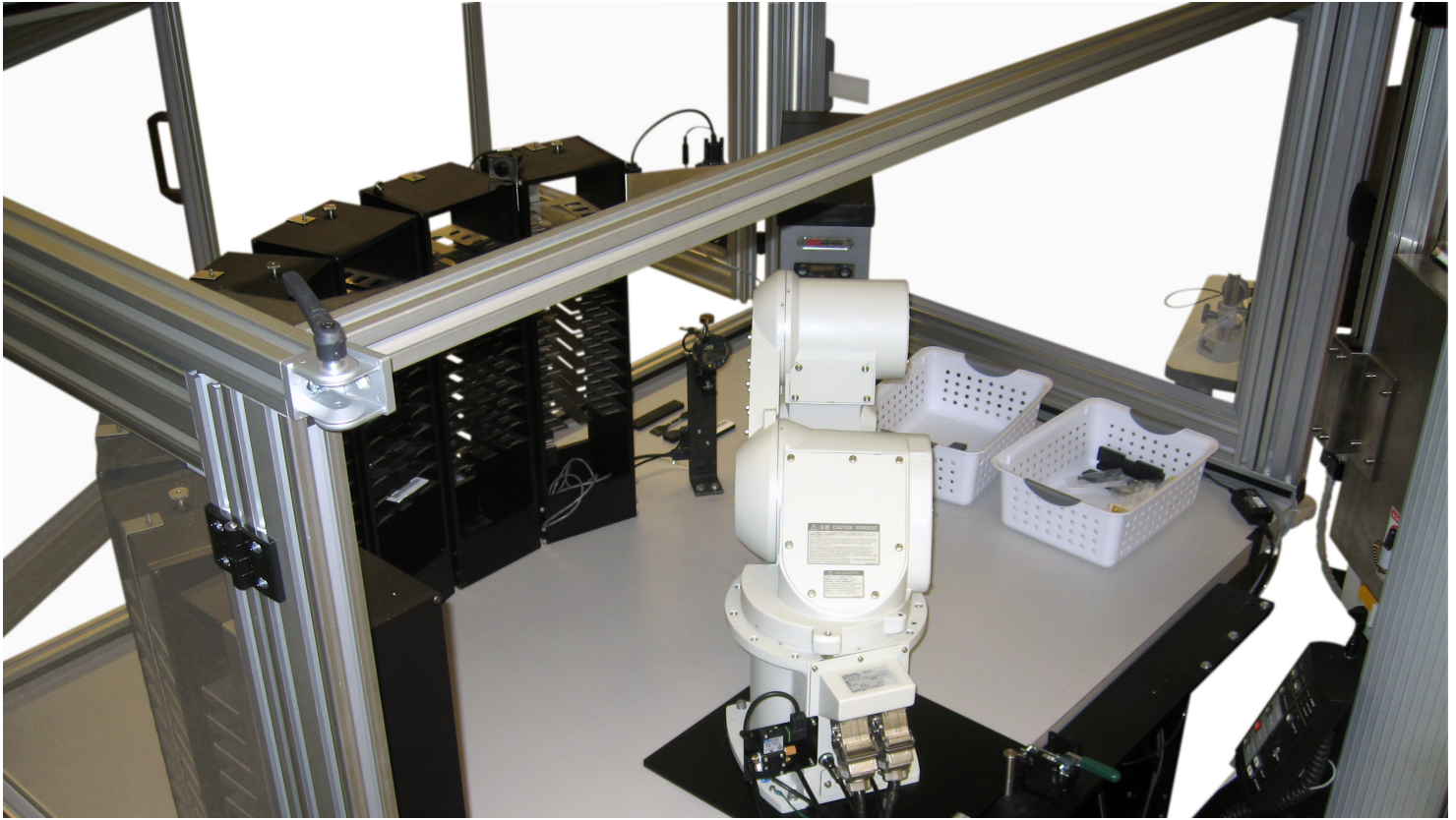


Automated Testing System | Tensile and Tear Testing of Elastomers



Instron® Automated Testing Systems for elastomeric/rubber material, utilizing TestMaster™ Automation Control Software, are ideal for performing unattended tensile and/or tear tests of elastomeric specimens ranging in thicknesses of 0.05 mm to 10 mm. These systems are designed to meet ASTM D412, D624, ISO 37, and other elastomer tensile and tear standards. Barcodes, placed on batch separators, are utilized to pass the specimen geometry, robotic handling, and testing information for a batch of specimens to the TestMaster Automation Control Software. A typical system can hold approximately 350 specimens, but storage type and capacity is dependent on the geometry of specimens.

The testing system typically consists of an extra-height Instron Universal Testing Frame for longer crosshead travel, non-contacting Standard Video Extensometer (SVE), and pneumatic wedge action grips with an air supply kit. To ensure safety, all TestMaster Automation Systems are fully enclosed with a Plexiglas safety enclosure equipped with interlocked doors to immediately stop the robot's motion upon opening.

Improve Efficiency and Increase Throughput of Your Facility

- Storage racks can be easily loaded prior to the end of the day and left for unattended, overnight testing
- Consistent specimen loading and testing improves repeatability and reproducibility of results by eliminating human variability
- Operators available to work on more value-added activities
- Overall costs are lower due to reduction in training and injury-related expenses



Robotic System Components

- Mitsubishi industrial-grade articulated arm
- Specimen storage racks designed to fit customer specifications*
- Barcode reader, compatible with 1D or 2D barcodes
- Single-axis specimen measurement device for measuring specimen thickness
- Automatic ink transfer marking station to apply video targets, if applicable
- Bluehill® Materials Testing Software
- Premium PC
- TestMaster Automation Control Software

*The system storage racks typically hold up to 350 specimens, but this may vary depending on sample size and geometry

Options

- Temperature conditioning chamber with Vee-shaped door to accommodate robot access and use of video extensometry simultaneously
- Bi-directional communications with a Laboratory Information Management System (LIMS)
- Use of both dual- and single-axis measurement devices to obtain combined average thickness measurement (for concave specimens)
- Pass/Fail tested specimen sorting

Specifications

System/Load Capacity	kN	1 to 30 Available
	lbs	225 to 6,750
Robot Capacity	kg	3
Maximum Specimen Weight	kg	< 0.79
	lbs	1.75
Electrical Requirements		Single Phase, 50/60 Hz At least one Line must be 220 VAC Remaining Equipment can be Either 120 OR 220 VAC
Storage Rack Type		Discrete Position
Measurement Device		Single-Axis Horizontal
Gauge Type		Mitutoyo
System Dimensions Overall with Enclosure Doors Open	mm	4430 × 3110 × 2370 ht
	in	175 × 122 × 101

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