

# AUTOMATED XY TESTING SYSTEM

Instron® AT2 XY Stage



Instron's Automated AT2 XY stage is designed for automated compression, tension, and flexure testing of devices or components with multiple and repetitive test points or locations. These systems are ideally suited for testing medical devices, syringes, small electronics, keypads, and pharmaceutical pills.

## INCREASED THROUGHPUT

An automated testing system tests multiple specimens without operator intervention. This reduces the overall test time for a sample, allowing data used for product development and production to be provided more quickly.

## BETTER USE OF SKILLED LABOR

An automated testing system runs unattended, generating results while skilled operators improve their efficiency by focusing on other important tasks.

## INCREASED REPEATABILITY

Automated systems reduce operator influence over test results, allowing more consistent and repeatable results. This is especially helpful for organizations using multiple operators in multiple labs.

## IMPROVED SAFETY & ERGONOMICS

Automated testing minimizes repetitive motion and reduces the amount of physical interaction with the testing system, reducing operator injuries.

# BLUEHILL UNIVERSAL INTEGRATION

**Live Display:** Displacement [mm] .0000, Force [gf] -1.583, Position X [mm] -69.06, Position Y [mm] 40.70

**Graph 1: Specimen 1 to 12**

**Results 1**

	XY test location	Click ratio at Button	Operating force at Button [gf]	Return force at Button [gf]
XY test location: Favorite 1				
1	Favorite 1	0.05	1035.67	980.38
7	Favorite 1	0.05	1033.12	978.01
XY test location: Favorite 2				
XY test location: Return				
XY test location: Start				
4	Start	0.05	1051.88	995.39
10	Start	0.05	1044.91	993.16
XY test location: Stop				
XY test location: Unlock				

## LIVE DISPLAYS

Configure unlimited Live Displays to view the current X and Y coordinates of the stage, along with force, displacement, time, and results, throughout a test.

## GRAPHS AND RESULTS

Graphs provide real-time data from multiple specimens, most commonly displaying force vs. displacement or stress vs. strain data. Multiple graphs can be displayed in the workspace.

The configurable results table allows users to include critical information from a test, including sample information, specimen properties, and calculated results.

**XY Stage Settings**

Position X [mm] -69.06, Position Y [mm] 40.70

Settings: Set zero, Reset to center

Control: X: 0.00 mm, Y: 0.00 mm

Buttons: Move to position, Move to zero, Stop

## XY STAGE MOVEMENT

Intuitive software interface allows users to move the XY stage into various positions for specimen set up and test location identification.

## SUBSAMPLE

Group specimens by shared traits, such as XY test location or part ID, to easily compare results from similar parts.

**Sequences: Grid - Grid**

Sequence name: Grid, Units: mm, Decimal places: 2

Home position: X: 0.00, Y: 0.00

First position: X: 0.00, Y: 0.00

Delta: X: 2.00, Y: -2.00

Rows: 6, Columns: 6

Convert to a custom sequence.

**Sequences: Custom - 6800 Handset Tactility**

Sequence name: 6800 Handset Tactility, Units: mm, Decimal places: 2

Name	Move type	X [mm]	Y [mm]
Home	Home	-69.06	40.70
1 Favorite 1	Absolute	-47.69	62.45
2 Favorite 2	Absolute	-23.77	62.45
3 Return	Absolute	-24.55	45.33
4 Start	Absolute	-24.55	31.39
5 Stop	Absolute	-36.38	-55.04
6 Unlock	Absolute	-47.84	38.59

Import, Export

## SEQUENCE BUILDER

Build a sequence of test locations for multiple specimens or multiple test points on a single specimen. Basic grid and button sequences allow users to easily set up tests on uniform samples.

Custom sequences can also be created to test components where the distance between test locations varies.

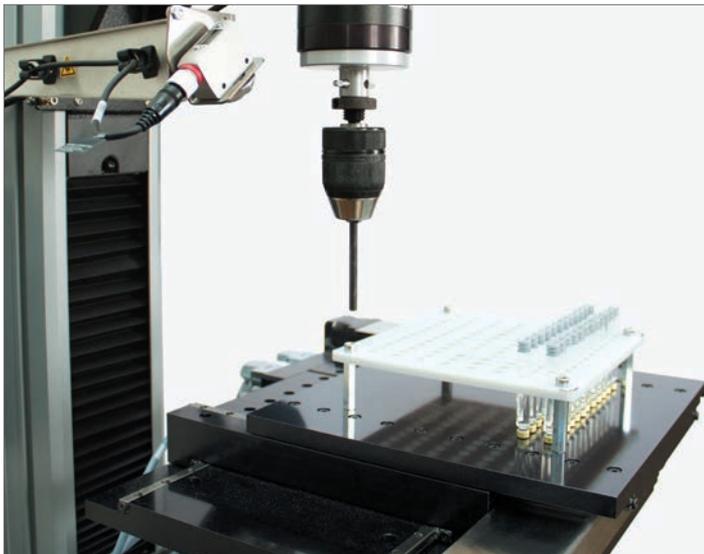
## SPECIFICATIONS

The XY stage is compatible with Instron's 6800 and 5900 systems. It mounts easily to a new system or can be retrofitted onto an existing system in the field.

Maximum Stage Load Capacity	kN	2
	lbs	450
XY Stage Travel (Option 1)	mm	300 × 150
	in	11.8 × 5.9
XY Stage Travel (Option 2)	mm	150 × 150
	in	5.9 × 5.9
Stage Speed	mm/sec	25
	in/sec	1
Stage Position Accuracy (Option 1)	µm	±60
	in	±0.002
Stage Position Accuracy (Option 2)	µm	±40
	in	±0.0016
Stage Position Repeatability	µm	±5
	in	±0.0002
Electrical Requirements	-	Single Phase, 47/63 Hz, 120 or 220 VAC
Operating Temperature	°C	+10 to 38
	°F	+50 to 100



Compression Testing on Springs used in Surgical Equipment



Unattended Tests Performed Automatically on up to 96 Glass Vials



Tactility Testing on Multiple Cell Phone Buttons

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