

Industrial Series LX Models are designed for high-capacity tension, compression, bend/flex, and shear testing. Featuring a large single, test space that delivers exceptional flexibility and a small footprint, these frames are available in 300 kN (67,500 lbf) and 600 kN (135,000 lbf) capacities. Understanding the critical importance of operator safety, Instron's LX Models incorporate high-quality materials, components, and craftsmanship.

Features and Benefits

- Large, single test space design adapts to a wide range of specimen sizes, grips, fixtures, and extensometry
- Dual-acting actuator offers precise control for tension and compression testing
- Load frame, hydraulic power supply, and controller combined in a single package saves valuable lab floor space while providing a protective environment for hydraulic and electrical components
- Hydraulically adjustable and clamping crosshead option simplifies changing test opening for longer specimens
- Optional open-front hydraulic wedge grips improve operator safety and throughput, and allow a limited number of jaw faces to cover a large range of specimen sizes
- Convenient working height and ergonomic controls increase operator productivity and comfort
- Productivity panel with multiple function keys and displays allows the operator to perform common testing functions and view key test information without returning to the computer
- Powerful, yet user-friendly materials testing software provides repeatable and reproducible results for simple to sophisticated testing requirements
- Variable pressure hydraulic power supply provides pressure on demand, reducing heat generation, increasing oil life, and eliminating the need for water cooling
- Available capacities:
 - 300 kN (67,500 lbf)
 - 600 kN (135,000 lbf)

Testing Applications

- Metals - Bar, Plate, Pipe & Tube, Rebar, Structural
- Fasteners
- Wire Rod
- Composites

Standards

LX Models conform to many International Standards, including (but not limited to):

- ASTM A370, A615, E4, E8, E83, E290, F606
- EN10002-1, 10002-2, 10002-4
- ISO 6892-1, 6892-2, 7438, 9513, 15630-1
- JIS Z2248
- BS4449



Accessories

- Tensile Grips - flat, round, button head
- Bend/Flex and Shear Fixtures
- Fastener Fixtures
- Furnaces
- Compression Platens - plane and self-aligning
- Extensometers, Deflectometers
- Low-Capacity Load Cells
- Interlocked Safety Enclosures

Specifications

		300LX	600LX
Load Capacity	kN	300	600
	kgf	30,000	60,000
	lbf	67,500	135,000
Horizontal Opening (between columns)	mm	508	609
	in	20	24
Maximum Test Speed/Adjusting Speed	mm/min	152	76
	in/min	6	3
Actuator Stroke	mm	305	305
	in	12	12
Floor Space Requirements (W x D)	mm	753 x 743	968 x 964
	in	29.6 x 29.25	38.1 x 37.9

Crosshead Style

Manually Adjustable Crosshead with Notched Columns		J1	J1
Hydraulically Adjustable and Clamping Crosshead with Smooth Columns		J3	J3

Tension/Compression Opening (Measured between bottom of load cell and top of actuator)

J1A	mm	286 - 946	235 - 946
	in	11.25 - 37.25	9.25 - 37.25
J1B	mm	413 - 1251	337 - 1251
	in	16.25 - 49.25	13.25 - 49.25
J1D	mm	667 - 1861	540 - 1861
	in	26.25 - 73.25	21.25 - 73.25
J3B	mm	0 - 1251	0 - 1251
	in	0 - 49.25	0 - 49.25
J3D	mm	0 - 1861	0 - 1861
	in	0 - 73.25	0 - 73.25

Maximum Machine Height

J1A	mm	2365	2515
	in	93	99
J1B	mm	2670	2820
	in	105	111
J1D	mm	3280	3430
	in	129	135
J3B	mm	—	2925
	in	—	115
J3D	mm	3380	3535
	in	133	139

Net Weight

J1A	kgs	770	1655
	lbs	1700	3650
J1B	kgs	795	1690
	lbs	1750	3720
J1D	kgs	840	1750
	lbs	1850	3850
J3B	kgs	1065	2075
	lbs	2350	4570
J3D	kgs	1110	2135
	lbs	2450	4700

Common Specifications

Data Acquisition Rate by Software
Up to 1 kHz synchronous on load and strain

Load Measurement Accuracy
± 0.5% of reading down to 1/500 of load cell capacity

Strain Measurement Accuracy
Meets or surpasses the following standards:
ASTM E8, ISO 9513, and EN 10002-4

Position Measurement Accuracy:

Standard Encoder
6.35 µm (0.00025 in) resolution. Position accuracy of ±1% or 0.254 mm (0.01 in) displacement (whichever is greater)

High-Resolution Encoder
1.27 µm (0.00005 in) resolution. Position accuracy of ±0.5% or 0.13 mm (0.005 in) displacement (whichever is greater)

Hydraulic Power Supply
Voltage Options:
115V±10%, 1 Ph, 60 Hz, 30 Amp
230V±10%, 1 Ph, 60 Hz, 15 Amp
220V±10%, 1 Ph, 50 Hz, 15 Amp

Spare Parts Kits

W-1334-A 300LX Basic Kit
W-1334-B 300LX Recommended Kit
W-1334-C 300LX Comprehensive Kit
W-1335-A 600LX Basic Kit
W-1335-B 600LX Recommended Kit
W-1335-C 600LX Comprehensive Kit



300 kN Split Tensile Holders for Testing
.505 Button Head Specimens on 300LX

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