

## INDUSTRIAL SERIES

### LX Models

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, the Instron® LX Models are CE compliant and 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
- Optional hydraulically adjustable and clamping crosshead simplifies changing test opening for load strings or specimens of varying lengths
- 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, large toe relief area, 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, 12100, 13849-1, 15630-1
- JIS Z2241, 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

## SPECIFICATION TABLE

Model	Load Capacity			Horizontal Opening (between columns)		Maximum Test Speed		Actuator Stroke		Floor Space Requirements (W × D)	
	kN	kgf	lbf	mm	in	mm/min	in/min	mm	in	mm	in
300 LX	300	30,000	67,500	508	20	152	6	305	12	786 × 993	30.94 × 39.13
600 LX	600	60,000	135,000	609	24	76	3	305	12	974 × 1206	38.31 × 47.5

Configuration	Description	System Compatibility
J1	Manually Adjustable Crosshead with Notched Columns	300 LX, 600 LX
J3	Hydraulically Adjustable and Clamping Crosshead with Smooth Columns	300 LX, 600 LX

Model	Tension Opening (Adjustable)		Maximum Operating Height		Net Weight	
	mm	in	mm	in	kgs	lbs
300 LX						
J1E1	305 - 965	12 - 38	2388	94	1045	2300
J1E2	305 - 1321	12 - 52	2743	108	1060	2340
J1E3	305 - 1854	12 - 73	3277	129	1100	2420
J3E3	0 - 1854	0 - 73	3380	133	1360	3000
600 LX						
J1E1	305 - 1016	12 - 40	2438	96	1745	3840
J1E2	305 - 1422	12 - 56	2845	112	1780	3925
J1E3	305 - 2032	12 - 80	3454	136	1840	4055
J3E3	0 - 2032	0 - 80	3556	140	2245	4950

## COMMON SPECIFICATIONS

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

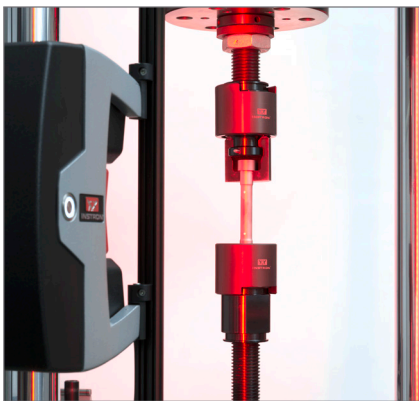
Load Measurement Accuracy  
± 0.5% of reading down to 1/500 of load  
cell capacity

Strain Measurement Accuracy  
Meets or surpasses the following standards:  
ASTM E83, ISO 9513, and EN 10002-4

Displacement Measurement  
1.0 µm (0.00004 in) resolution  
Accuracy of ±0.5% or 0.13 mm (0.005 in)  
displacement (whichever is greater)

Hydraulic Power Supply  
Voltage Options  
200-250 VAC, 3PH, 50/60 HZ, 15 Amps  
380-415 VAC, 3PH, 50/60 HZ, 10 Amps  
440-480 VAC, 3PH, 50/60 HZ, 10 Amps

Notes: Linear guidance option (H2) reduces  
available test opening dimensions by 178 mm (7 in)



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



300LX with Linear Guidance option (H2)

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