

High Force Fatigue Testing Machines | UT-05-XXXX

Instron Magnum models are designed for high-capacity tension, compression, bend/flex, and shear testing. Featuring an ultra-large single test space and adjustable crosshead options, these frames deliver exceptional flexibility for a wide range of applications and are available in capacities of 600, 1000, 1200, 1500, 2000 & 3000 kN. Understanding the critical importance of operator safety, Magnum models incorporate high-quality materials, components, and craftsmanship.

Features and Benefits

- Adjustable crosshead options allow the ultra-large test space to be adapted to a wide range of test specimens, applications and accessories
- Anti-rotation clamp on actuator maintains precise alignment for the entire stroke of the actuator
- Co-axially mounted encoder accurately measures actuator travel at the center of the load string
- Convenient working height and ergonomic controls improve operator productivity and comfort
- Machine base design reduces operator fatigue when installing specimens
- Long stroke, high-speed actuator accommodates both tension and compression testing applications
- Optional open-front hydraulic wedge-action and side-acting grips improve operator safety and throughput, and allow a limited number of jaw faces to cover a large range of specimen sizes
- Control 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 frame capacities:
 - 600 kN
 - 1000 kN
 - 1200 kN
 - 1500 kN
 - 2000 kN
 - 3000 kN

Testing Applications

- Metals - Bar, Plate, Pipe & Tube, Rebar, Structural
- Wire - Rod, Strand
- Concrete
- Fasteners
- Wood
- Composites
- Components

Standards

KPX Models conform to many international standards, including (but not limited to):

- ASTM A370, A615, C39, C109, E4, E8, E9, E83, E290, F606
- ISO 6892-1, 6892-2, 7438, 7500-1, 9513, 15630-1
- BS 4449
- EN10002-1, 10002-2
- JIS Z2241, Z2248

Accessories

- Hydraulic Wedge Action and Side-Acting Grips
- Bend/Flex and Shear Fixtures
- Extensometers, Deflectometers
- Fastener Fixtures
- Compression Platens - Plane and Self-Aligning



		UT-05-600	UT-05-1000	UT-05-1200	UT-05-1500	UT-05-2000	UT-05-3000
Load Capacity	kN	600	1000	1200	1500	2000	3000
Test Stroke	mm	150	150	150	150	150	300
Maximum Test Speed	mm/min	up to 500	up to 500	up to 500	up to 500	up to 500	up to 500
Maximum Jog Speed	mm/min	300	300	300	300	300	300
Horizontal Test Opening	mm	1000 x 800	1000 x 800	1000 x 800	1000 x 800	1000 x 800	1000 x 800
Machine Base Depth	mm	1500	1500	1500	1600	1600	1600

UT-05-600

Vertical Daylight ¹	mm	Up to 3000
Maximum Machine Height	mm	5000
Machine Weight	kg	11000

UT-05-1000

Vertical Daylight ¹	mm	Up to 3000
Maximum Machine Height	mm	5000
Machine Weight	kg	11000

UT-05-1200

Vertical Daylight ¹	mm	Up to 3000
Maximum Machine Height	mm	5000
Machine Weight	kg	11000

UT-05-1500

Vertical Daylight ¹	mm	Up to 3000
Maximum Machine Height	mm	5500
Machine Weight	kg	14300

UT-05-2000

Vertical Daylight ¹	mm	Up to 3000
Maximum Machine Height	mm	5500
Machine Weight	kg	14300

UT-05-3000

Vertical Daylight ¹	mm	Up to 3000
Maximum Machine Height	mm	5500
Machine Weight	kg	16000

Common Specifications

Data Acquisition Rate by Software
Up to 6 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 Accuracy
≤ ±0.005 mm or ± 0.1% of displayed reading, whichever is greater

Position Control Resolution Options
Coaxial High Resolution Encoder - 1 µm (0.00004 in)

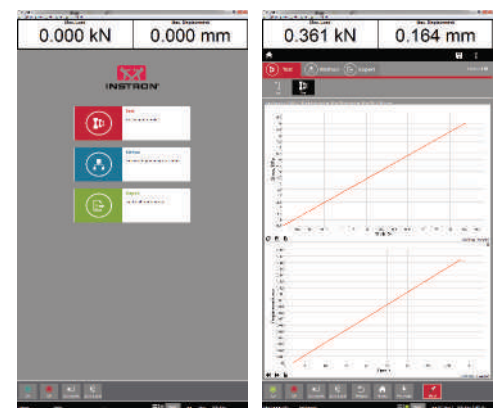
Hydraulic Power Supply Voltage Options
208/230 VAC, 3 Ph, 50/60 Hz
380/400/415 VAC, 3 Ph, 50/50 Hz

BLUEHILL - ST, the Static Testing Software

Bluehill-ST is easy to use and user-friendly static test application software. Easy-to-understand icons and work flow make it easy to train new or experienced users. Users can learn it quickly and start testing faster. This software provides flexibility to conduct new development requirements. Tests can be conducted using existing methods or create new methods and export data to Excel, CSV or SQL database.

Notes:

1. Measured between bottom and top crosshead



www.instron.com



Worldwide Headquarters
825 University Ave, Norwood, MA 02062-2643, USA
Tel: +1 800 564 8378 or +1 781 575 5000

India Headquarters
No. 497E, 14th Cross, 4th Phase, PIA, Bangalore – 560 058, India
Tel: +91 (80) 28360184