

LCH "Speedy" Tester

Servo-Hydraulic Tension & Compression Test System
150 kN & 300 kN Frames

Industry & Application Guide

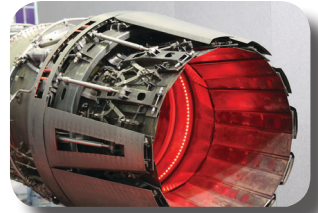


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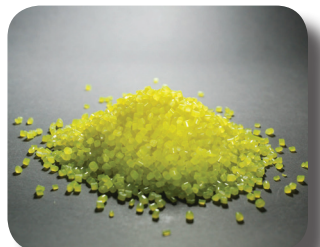
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Test A Variety of Parts & Components

United's LCH "Speedy" Tester is a portable, bench-top hydraulic driven tension and compression force testing machine. Designed to perform a variety of tests, the "Speedy" Tester features automatic rate-of-load display, overload protection and rugged construction for years of reliable, trouble-free testing.

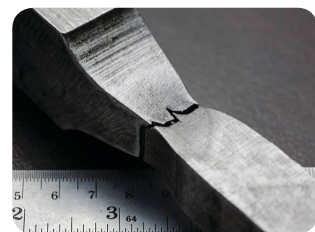
The versatile, easy to use "Speedy" Tester can be fitted with a variety of different grips and fixtures to accommodate a wide range of materials. For any part or component that is welded, screwed, soldered, glued, or fastened in any way, the "Speedy" tester gives users the ability to perform a basic strength test in a compact, yet powerful, easy-to-use package.

The "Speedy" is ideal for testing applications where putting expensive lab or R&D equipment on the factory floor may not be feasible.

By incorporating interchangeable load cells and two frame options, the "Speedy" can test loads from a few pounds up to 67,000 Lbf. (300kN)

Common applications include, but are not limited to;

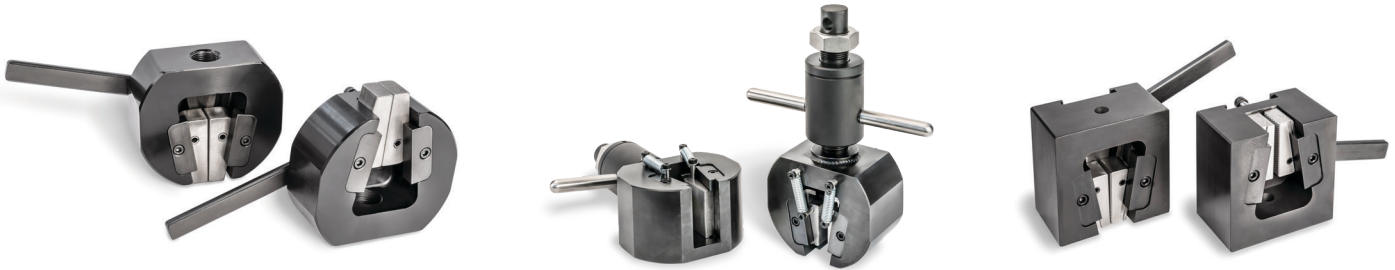
- **Adhesive Bonds**
- **Brazed & Soldered Joints**
- **Belts and Straps**
- **Chain**
- **Cable, Cord and Rope**
- **Composite Material**
- **Fasteners (Bolts, Screws)**
- **Riveted Joints & Seams**
- **Spot Welds**
- **Latches and Hinges**
- **Wiring Harness Components**



LCH "Speedy" Test Fixtures

Tension Testing

Test flat or round samples, plus a variety of custom parts and components using United's wedge grips which are available in a variety of styles and offer a variety of interchangeable jaw options.



Compression Testing

Perform compression testing on many different parts and components using a variety of compression plates available in various diameters and thickness, depending on capacity requirements and sample properties.



Custom Grips & Fixtures

United has a long history of designing and manufacturing custom grips and fixtures for unique or specialty applications.



Features & Specifications

Standard Features:

- Automatic rate-of-load display
- Digital display with resolution of one pound
- RS-232C port
- Peak load detection—displays and freezes highest reading obtained
- Overload protection system
- Interchangeable load cells (1 kN, 5 kN, 10 kN, 50 kN, 100 kN, 150 kN, 300 kN)
- Easily adjustable crosshead
- High accuracy—within $\pm 0.5\%$ of indicated load + 0.005% of capacity
- JOG sample pre-load system

Optional Features:

- Additional vertical column height
- Low cycle fatigue/proof load system
- Custom floor stand with storage
- Various grips & fixtures
- Lower capacity load cells
- Compression cage
- Safety cabinet
- Over travel switch



Floor Stand

Specifications:

Machine Capacity: 150kN Frame (~30,000 lbs.)

- LCH-10: 50 kN (~10,000 lbs.) capacity
- LCH-20: 100 kN (~20,000 lbs.) capacity
- LCH-30: 150 kN (~30,000 lbs.) capacity

Load Rate:

- Variable. Approx. 100 lbs. (0.44 kN)/min. to a maximum of 40,000 lbs. (178 kN/min)
- Return Speed: 4 inches (102mm) per minute
- Piston Travel: 4.75 inches (121mm)
- Column Height: 30 inches (762mm)
- Power Req.: 120V, 60Hz, 20A or 240V, 50HZ, 10A
- Weight: 160 lbs. (72.6Kg) excluding grips
- Dimensions: 23" wide x 42" high x 12" deep

Machine Capacity: 300 kN Frame (~60,000 lbs.) *This is a floor model system.*

- LCH-60: 300 kN (~60,000 lbs.) capacity

Load Rate:

- Variable. Approx. 100 lbs. (0.44 kN)/min. to a maximum of 100,000 lbs. (4400 kN/min)
- Return Speed: 5 inches (127mm) per minute
- Piston Travel: 8 inches (204mm) maximum
- Column Height: 41 inches (1041mm) standard, with 13.5" (342.9mm) between columns
- Power Req.: 120V, 60Hz, 20A or 240V, 50HZ, 10A
- Weight: 1380 lbs. (626 Kg) excluding grips & fixtures
- Dimensions: 36" wide x 72" high x 24" deep (914mm x 1829mm x 610mm)

LCH "Speedy" Display Overview

The "Speedy" is designed for ease of use while providing the user with a variety of options usually available only with computer-controlled test machines. Test data, such as Load Range, Peak, and Instant Load, is displayed simultaneously on a large, easy-to-read display. Simple push-button operation allows quick selection of any desired measurement unit and placement of the decimal point at any desired location on the scale. The panel can be locked out to prevent unauthorized changes to the setup



Digital Display Screen Specs

- 9 touch-selectable units of measure (Lbf, N, kN, kgf, gf, mV/V, mV, PSI, MPa)
- Simultaneous display of peak, gross, and rate values
- Resistive touchscreen allows use of gloves
- Enlarged gross force or stress value display
- Selectable auto-scaling decimal place by value magnitude
- 20 available stored load cell profiles
- Automated printing & peak reset triggered by specimen break
- Configuration security PIN
- Durable buttons for harsh environments and touch feature enable/disable
- Stress area calculation

RS-232 Port - Outputs peak force result to a serial printer or external PC (software not included)

LCH "Speedy" Models & Standard Accessories

(All Accessories Sold Separately)



MADE IN USA



Wedge Grips



Flat Jaw Inserts

Round Jaw Inserts



Load Cell



Model	Load Cell (Kn)	Lbf	Kgf	LCH Frame
LCH-10*	50 kN	11,240	5,095	LCH-150
LCH-20	100 kN	22,480	10,190	LCH-150
LCH-30	150 kN	33,720	15,285	LCH-150
LCH-60	300 kN	67,440	30,570	LCH-300

*Lower capacity load cells are available to match your expected capacity require-