

 **QUAKELOGIC**

# QL-ForceMax 3000

**AUTOMATIC CONCRETE COMPRESSION TESTING MACHINE**



# QL-ForceMax 3000

## AUTOMATIC CONCRETE COMPRESSION TESTING MACHINE

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- The QL-ForceMax 3000 is a fully automatic, computer-controlled concrete compression testing machine designed for laboratory and continuous-duty operation. Built with a heavy-duty four-column load frame and an industrial-grade rigid steel structure, the system delivers high-accuracy compression testing for concrete and construction materials. Its closed-loop servo-controlled hydraulic loading system ensures smooth and precise operation, while automatic ASTM-compliant loading control provides reliable and consistent testing performance for demanding industrial and research applications.



## ✓ Applicable Standards:

✓	• ASTM C39	• ASTM C469
	• ASTM C78	• ASTM C496
	• ASTM C1856	• AASHTO T22
	• ASTM E4	• EN 12390-3
	• EN 12390-4	• ISO 7500-1

## ✓ Testing Capacity:

✓	Maximum Capacity:	• 3000 kN (674,000 lbf)
	Minimum Measurable Load:	• 1% of Full Scale
	Accuracy Class:	• Class 0.5
	Load Accuracy:	• $\pm 1\%$
	Load Resolution:	• 1/500,000 Full Scale
	• Suitable for continuous repeatable laboratory operation	

## ✓ Load Frame:



- Heavy-duty rigid steel load frame
- Four-column frame construction
- Integrated hydraulic cylinder structure
- Designed for repeated cyclic loading applications
- Protective specimen fragment safety enclosure
- Relocatable machine structure without major disassembly
- Four anchor mounting locations

## ✓ Compression Area:



Vertical Opening	<ul style="list-style-type: none"><li>• 14 in (355 mm)</li></ul>
Horizontal Clearance:	<ul style="list-style-type: none"><li>• 10 in (254 mm) or greater</li></ul>
Compression Platens:	<ul style="list-style-type: none"><li>• 300 mm hardened steel platens</li></ul>
	<ul style="list-style-type: none"><li>• Hardened bearing surfaces</li><li>• Removable spacers and bearing blocks</li><li>• Corrosion-resistant plated components</li></ul>

## ✓ Hydraulic System:

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- Closed-loop microprocessor-controlled hydraulic system
- Automatic loading rate control
- Constant-rate stress control
- Constant-rate displacement control
- Automatic piston advance system
- Servo hydraulic loading technology
- Maximum Hydraulic Pressure: 35 MPa
- Low-noise hydraulic operation
- Maintenance-free hydraulic pump configuration

## ✓ Control System:

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- Computer-controlled testing operation
- Closed-loop force control
- Closed-loop deformation control
- Closed-loop displacement control
- Real-time graphical monitoring
- Adjustable loading rates
- ASTM preset testing profiles
- Automatic load cell zeroing
- Pause and resume testing functionality

## ✔ Software & Data Processing:

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- Automatic test report generation
- English and Metric unit selection
- Six-digit digital load display
- Internal storage capacity for minimum 500 test records
- Power-loss protected data retention
- Real-time test curve display
- Automatic calculation functions

## ✔ Automatic Reports Include:

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- Specimen ID
- Test method
- Specimen dimensions
- Loading rate
- Maximum load
- Calculated compressive strength
- Correction factors
- Fracture type

## ✓ Electrical Requirements:

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- 110V / 60Hz compatible configuration
- Compatible with standard North American laboratory electrical service
- Industrial servo motor drive system
- Integrated electrical protection system

## ✓ Accessories Included:


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- Hardened compression platens
- Metal spacers
- Bearing blocks
- ASTM C496 splitting tensile fixture
- ASTM C469 modulus of elasticity testing accessory
- Industrial control computer
- Testing software package
- Printer
- Calibration accessories
- Safety shield system

## ✓ Specimen Capability:

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	<b>SUITABLE FOR TESTING:</b>	<ul style="list-style-type: none"><li>• Concrete cylinders</li><li>• Concrete cubes</li><li>• Concrete blocks</li><li>• Cement specimens</li><li>• Bricks</li><li>• Structural construction materials</li></ul>
	<b>SUPPORTED SPECIMEN DIMENSIONS:</b>	<ul style="list-style-type: none"><li>• Diameter: 2–6 inches</li><li>• Height: 2–12 inches</li></ul>

## ✓ Warranty & Support:

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	<ul style="list-style-type: none"><li>• Minimum 12-month warranty</li></ul>
	<ul style="list-style-type: none"><li>• Technical support available</li></ul>
	<ul style="list-style-type: none"><li>• Installation and commissioning support available</li></ul>
	<ul style="list-style-type: none"><li>• Operator training available</li></ul>
	<ul style="list-style-type: none"><li>• Calibration support available</li></ul>

# Advanced Concrete Compression Testing & Material Strength Solutions

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## Corporate Headquarters

QUAKELOGIC INC.  
2008 Opportunity Dr. Suite 130  
Roseville, CA 95678, USA

## Executive Support Line

**+1 (916) 899-0391**

Direct support for compression testing systems, hydraulic control solutions, and construction material testing applications.

Available Monday - Friday, 9 AM - 5 PM PST

## Strategic Inquiries

**[sales@quakelogic.net](mailto:sales@quakelogic.net)**

For concrete compression testing systems, laboratory material testing solutions, and industrial strength analysis applications.

## Our Commitment to Advanced Material Testing Solutions

### High-Precision Compression Testing

Delivering precise and repeatable compression testing performance for concrete, cement, and structural construction materials.

### Servo-Controlled Hydraulic Performance

Providing stable closed-loop servo hydraulic control with automatic ASTM-compliant loading for reliable laboratory operation.

### Dedicated Client Support

Ensuring reliable operation with technical support, calibration assistance, operator training, and commissioning services for laboratory environments.

## Scan to Explore Concrete Compression Testing Solutions



### Explore Compression Testing Capabilities and Material Analysis Applications

Discover how QL-ForceMax 3000 enhances accuracy, repeatability, and testing performance for concrete and structural material applications.

**[www.quakelogic.net](http://www.quakelogic.net)**