

 **QUAKELOGIC**

QL-FORTIS 300E

HIGH-PRECISION ELECTROMECHANICAL UNIVERSAL
TESTING SYSTEM (300 KN)



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- The Fortis 300E integrates a rigid dual-column welded steel frame, C3-grade ball screws, and AC- servo drivetrain to provide exceptional stability and repeatability across the full 300 kN range.
- This architectural approach ensures minimal lateral deflection during high-force testing scenarios, critical for accurate material characterization in both research and quality control environments.
- The mechanical architecture features pre-loaded precision ball screws and high-torque servo motors that deliver smooth, controlled motion across an extensive speed range.
- Low-noise operation below 70 dB maintains a comfortable laboratory environment, while automatic lubrication systems ensure long-term reliability and reduced maintenance requirements.
- The combination of these elements creates a testing platform that meets the most demanding research specifications.

✓ Load Frame

| | |
|---------------------------|---|
| Type: | Dual-column floor model |
| Force Capacity: | 300 kN (67 kip) |
| Vertical Test Space: | ≥1500 mm |
| Horizontal Test Space: | 575 mm (22.6 in)-650 mm (25.6 in) |
| Speed Range: | a. 0.0001 mm/min to 560 mm/min (up to 640 mm/min return) b. Up to 750 mm/min (30 in/min) |
| Voltage Requirements: | a. 208/240V, 3 Phase b. 380–480V AC, 3 Phase |
| Height of the instrument: | 10 feet (3.05 m) |

✓ Load Cell

| | |
|-----------|---|
| Capacity: | 300 kN |
| Accuracy: | a. $\leq \pm 0.5\%$ of reading across the full measurement range b. High stiffness, overload protection. |

✓ Grips and Fixtures

a) Compression Platens:

Suitable for the full 300 kN capacity

b) Three-Point Bend Fixture:

Bending fixtures meeting standard ASTM requirements

c) Wedge Grips:

Hydraulic or mechanical wedge grips for flat and round specimens

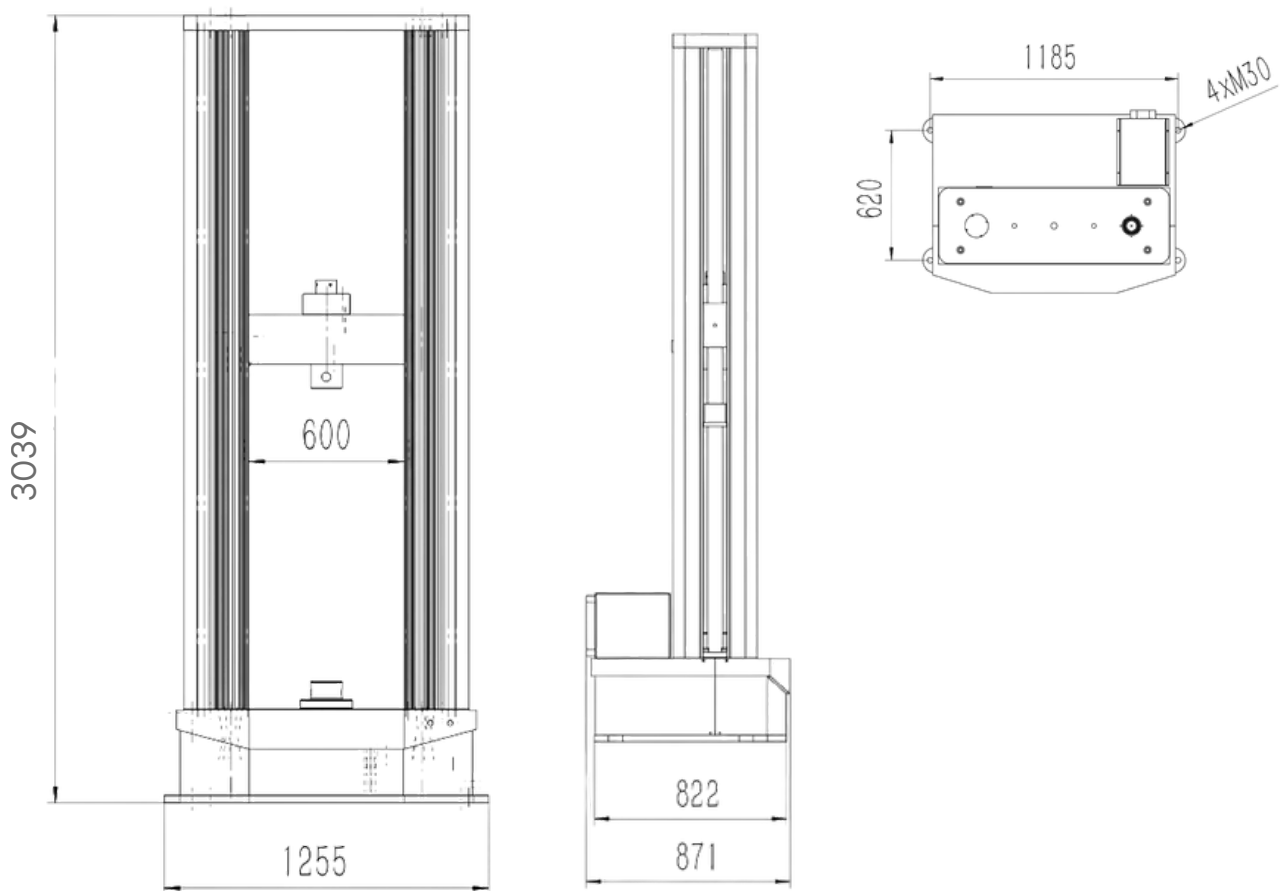
d) Extra features:

High-precision clip-on or non-contact extensometer (ASTM E83 compliant)

✓ Technical Specifications for QL-Fortis 300E:

| | |
|---------------------|---|
| Dimensions (LxWxH) | 3.8 x 3.0 x 10.0 (ft) |
| Weight | 4,000 lbs |
| Voltage | 208/240V, 3 Phase, 60 Hz., 30A |
| Force Capacity | 67.4 kip (300 kN) |
| Vertical Test Space | 1500 mm |
| Speed Range | 0.0001 mm/min to 560 mm/min (up to 640 mm/min return) |

✓ All Dimensions in mm:



Advancing Material Testing Precision with QuakeLogic Excellence

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