



MODEL TO-309E-FA-ET

AUTOMATIC COMPRESSION TESTING MACHINE, DUAL MODE, 25/250KN

EQUIPMENT DESCRIPTION

The machine we see here is the Model TO-309E-FA-ET and has a maximum testing capacity of 250kN. TO-309E-FA-ET is a dual range, automatic compression testing machine with the availability of a 25kN low capacity load frame as standard. It extends the test capability of the machine for low strength compression or flexural testing.

The Tinius Olsen FA Series of fully automatic compression testers features highly robust frames for exceptional stability when testing cylinders or cubes. These compact testers are made up of three core pieces, namely the heavy duty load frame, hydraulic pump, and control and display systems.

The large lower bearing block includes a bellows, so preventing leaks caused by dust and debris getting into the loading piston. The other advantage of this large bearing block is that it allows for a 10" horizontal entrance opening and plenty of ready access for loading and removing specimens. Additionally these machines offer an optional chute for quick removal of completed specimens and rapid cleaning of the test area.

This series also includes the rapid change platen system with which operators can quickly and easily change accessories, quickly switching between cube and beam specimen testing.

The digital display has a straightforward design using a Touchscreen LCD display to let operators select the test parameters simply and efficiently. A pace bar graph on the display allows operators to finely tune the loading during the test, and as a further convenience, the display stores up to 150 tests.

The FA series are microprocessor controlled units where the pace rate is automatically controlled by the controller / display; operator control is restricted to starting the test from a pc, if desired. Since the FA series can communicate with a computer through a bidirectional RS485 and RS232, the test start, test data recording, load release at the end of the test, and presentation of the test data in graphical form is possible on the supplied software.



KEY FEATURES

- Dual range - max. 250kN capacity frame with 25kN low capacity frame
- Meets or exceeds BS EN ISO 7500-1; ASTM E4 specifications
- Tests cement, mortar, concrete, lime, and Fly Ash
- Tests a wide variety of specimen sizes
- Automatic pace rate control
- Automatic stress determination and display
- Interlocked safety doors with mesh window as standard
- Overload and over travel safety protection
- Self aligning platen with fast accessory change capability
- Menu driven interface.
- Automatic data logging.
- Data storage for 150 runs.
- Peak load capture and recording.

SPECIFICATIONS



MODEL TO-309E-FA-ET:

Capacity	56,000 lbf / 250 kN / 25,000 kgf	5,600 lbf / 25 kN / 2,500 kgf
Max Horizontal Clearance	10 in / 260 mm	9 in / 230 mm
Max Vertical Clearance	15 in / 390 mm	9 in / 230 mm
Platen Size	5.5 in / 140 mm	5.5 in / 140 mm
Display Resolution	0.01 (kN or lbf)	0.01 (kN or lbf)
Specimen Size	40mm, 50mm and 70.6mm cubes	40mm cubes & 40x40x160mm prisms

Notes:

1. Appropriate brick platens can be supplied as an option.
2. A set of spacers to suit stated specimen sizes are supplied with the machine.
3. These models conform to all relevant European CE Health and Safety Directives EN 50081-1, 580081-1, 73/23/EEC, EN 61010-1
4. Specifications are subject to change without notice



OPTIONAL ACCESSORIES:

TO-320-5500	Platen set for 6" x 12" cylinders
TO-320-5502	Platen set for 4" x 8" cylinders
TO-320-5504	Platen set for 3" x 6" cylinders
TO-320-5510	Platen set for 2" cubes
TO-320-5512	Platen set for 6" cubes
TO-320-5518	Platen set for blocks up to 12"
TO-320-5519	Cylindrical Specimen caps - 2 caps per set
TO-320-5520	Rubber insert for 6" cap with 60 shore A hardness (bag of 10)
TO-320-5521	Compression frame jig assembly (without platens)
TO-320-5521/01	50mm square platen set for TO 320-5521
TO-320-5521/02	2 in square platen for TO 320-5521
TO-320-5521/03	40mm square platens
TO-320-5522	Flex jig / attachment 40x40x160mm
TO-320-5524	Cylindrical specimen cap, 4" dia - 2 per set
TO-320-5525	Rubber insert for 4" cap with 60 shore A hardness (bag of 10)
TO-320-5528	Tensile split strength test attachment
TO-320-5529	RS 232, 9 pin cable
TO-320-5532	Rectangular platen set for prisms, 475 x 250 mm
TO-320-5534	Platen set , 165mm dia., with concentric rings in upper platen
TO-31727-1	Strain measurement attachment
TO-33101-BS	Flexural test frame, 100kN, no pump, using CTM 2 way valve
TO-33101-ASTM	Flexural test frame, 100kN, no pump, using CTM 2 way valve
TO-314-LU-SPL	1,000kN loading frame for testing hollow prisms-3 stack max.
TO-320-LU-SPL	Prism/block test frame 3,000kN, no pump, uses CTM valve
TO-343	Mold in cast iron for 100mm cube
TO-344	Mold in cast iron for 150mm cube
TO-344-20	Mold in cast iron for 200mm cube
TO-417	Mold in cast iron for 50mm cube
TO-414	Mold in steel for 70.6mm cube
TO-417-CI	Three gang mold in cast iron for 50mm cube
TO-417-3-NB	Three gang mold in Navy Brass for 50mm cubes-per ASTM

SOFTWARE

21001104 Civil Engineering (CTM) Primary platform for Horizon software



SUPPLIED AS STANDARD WITH:

- RS232, 9 pin cable
- 5x Spacers (142, 142, 45, 30 and 20 mm)
- Lower platen (150mm diameter)
- Spherical Seat with upper platen



ORDERING INFORMATION:

TO-309E-FA-01-ET Automatic Compression Testing Machine Dual Mode, 25/250kN capacity, configured for 110 VAC, 60 Hz, 1 ph

TO-309E-FA-02-ET Automatic Compression Testing Machine Dual Mode, 25/250kN capacity, configured for 220 VAC, 60 Hz, 1 ph

TO-309E-FA-03-ET Automatic Compression Testing Machine Dual Mode, 25/250kN capacity, configured for 220 VAC, 50 Hz, 1 ph



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