# FA SERIES – 5000kN Automatic Concrete Compression Testers with Touch EDI





The TO-320E-FA-CT-5000-ET Automatic Concrete Compression Testing Machine has been designed to meet the need for a simple, economic and reliable method of testing the compressive strength of concrete.

The design emphasizes simplicity both of construction and operation and makes the machine easy to use and maintain.

The unit is compact, making it useful for site applications. The FA machines are provided with a pace rate indicator to indicate pace rate on a bar graph. With a little experience, the pace rate can be controlled manually while the test is in progress.

The loading frame has a fully welded construction with a top crosshead, base and solid side walls. The precision ground hydraulic piston is fixed to the base and the machine's platens are hardened, ground and polished.

The upper platen comes with a self-aligning action and suitably sized spacers are also provided as standard to accommodate a variety of different sizes of specimen – the specification table on the next page shows which platen set comes with the machine. The two-speed pump allows the fast approach of the platens for daylight closure and also allows precise control over the load application using a control lever and valve. A pace rate bar on the display gives operator feedback on the loading rate.

The controller incorporates a digital display, with values of force and stress in SI units and features the integral load pacing bar display in kN/sec or Ibf/sec. Maximum load is held and retained for approximately 15 minutes, unless cancelled, using the panel mounted reset switch.

Results from approximately 200 complete runs/tests can be stored in the memory and logged data can be printed directly via the built-in parallel port.

The calibrated operating range of the machines is between 10% and 100% of the machine capacity, with an accuracy of +/-1% of the applied load.

## APPLICABLE STANDARDS

 ASTM C39, C109, AASHTO T22, BS-12390 and other ASTM, BS and EN specifications depending on platens and accessories chosen.

# Specifications

Screw handles provided to lift up the heavy spacers and platen



#### Features and benefits

- Pace deviation bar graph display.
- Automatic stress determination and display.
- Overload and over-travel safety protection.
- Self aligning platen with fast accessory change capability.
- Predefined machine capacities for each engineering unit. Specific capacity can be selected from the drop-down menu.
- Flexible calibration points calibration can be done on 5 to 10 points.
- Peak Load, Peak Stress and Unique Record No. is displayed.
- EDI can configure more than one Mode: Mode 1 - compression/Mode 2 - flexure/ Mode 3 – prism testing/Mode 4 –tensile splitting strength. Each mode has independent calibration points and the calibration points are also flexible.
- Mode 4 runs with Mode 1 calibration.
- Dynamic calibration.
- Works with any Centronics dot matrix printer.
- Menu-driven sample details.
- Data storage of approximately 200 records.
- Data download through USB drive.
- User can set break point.
- Stored records can be viewed (optional).
- Peak stress calculation based on sample type and shape.
- Easy to operate.
- Password protection for system and calibration setup.
- 2% overload facility to calibrate the machine up to full capacity.
- Start, Stop, Pause & Reset.

#### TO-320E-FA-CT-5000-ET SPECIFICATIONS

Capacity	1, 125,000lbf/5000kN/500,000kg
Horizontal clearance	24.4in/620mm
Maximum clearance between platens	24in/610mm
Piston stroke	2in/50mm
Piston diameter	13.4in/341mm
Platen size	13in/335mm
Specimen size	6-12in/150-300mm cubes, and 6 x 12in/150 x 300mm to 12 x 12in/300 x 300mm cylinders

#### Notes:

1. Conforms to all relevant European CE Health and Safety Directives

- EN 50081-1, 580081-1, 73/23/EEC, EN 61010-1
- 2. Specifications are subject to change without notice.
- Appropriate brick platens can be supplied as an option.
  A set of spacers to suit stated specimen sizes are supplied with the machine.

### ORDERING INFORMATION

- TO-320E-FA-CT-5000-ET-01 5000kN compression tester configured for 110VAC, 60Hz
- TO-320E-FA-CT-5000-ET-02 5000kN compression tester configured for 220VAC, 60Hz
- TO-320E-FA-CT-5000-ET-03 5000kN compression tester configured for 220VAC, 50Hz

#### Touchscreen EDI mounted on hydraulic unit



