

Concrete Testing

Flexural frames

The flexural and transverse strength of concrete is of interest to engineers for many reasons. Movement of structures which may be induced by e.g. temperature changes, ground vibrations, cyclic loading and many other external influences will set up internal stresses within a concrete member.

There is no clearly defined relationship between compressive and flexural strength. Generally it can be assumed for most purposes that flexural strength of normal concrete is about 10% of the compressive strength achieved in the same concrete.

Lower loads are used to test concrete in flexure, however, the shape and size of test specimens is such that larger and often heavy specimens can be difficult to handle. ELE has designed the range of machines offered to provide for ease of specimen positioning and subsequent testing, including low strength compression tests using optional ball seating assemblies.

Flexural Testing Machines

Ordering Information

EL37-6130 100 kN Flexural (Beams) Frame.
Supplied without specimen bearers.

Accessories

- EL37-6135** series 100kN Flexural Fitting Kit ADR Auto.
EL37-6135/01 for 220 – 240V AC, 50Hz, 1ph.
EL37-6135/02 for 110 – 120V AC, 60Hz, 1ph.
EL37-6138 100 kN Flexural Fitting Kit ADR.
EL37-6131 EN Specimen Bearer Assembly comprising 2 self-aligning upper bearers, 1 self-aligning and 1 fixed lower bearer. Roller bearers are 38mm diameter x 160mm long. Suitable for 3 or 4 point flexural testing of beams.
EL37-6132 ASTM C78 Specimen Bearer Assembly comprising 2 self-aligning upper bearers, 1 self-aligning and 1 fixed lower bearer; case-hardened, 38mm diameter x 160mm long.
EL37-6133 Ball Seating Assembly comprising a ball seating assembly with 150mm diameter platen and a lower platen 150mm diameter x 16mm thick. Suitable for testing low-strength specimens.

Specification

Dimensions (l x w x h)	380 x 505 x 845 mm
Vertical clearance with bearers	164 mm
Throat clearance	95 mm
Ram travel	75 mm
Weight	146 kg

Ordering Information

EL37-6140 100kN Flexural/Transverse (Flags) Frame.
Supplied without specimen bearers.



Accessories

- EL37-6135** Flexural Fitting Kit for ADR Auto compression machines.
EL37-6138 Flexural Fitting Kit for ADR compression machines.
EL37-6330 Specimen Bearer Assembly EN 12390-5 1521 13161 772-6. Comprising 2 self-aligning upper roller bearers, 1 self-aligning and 1 fixed lower roller bearer. Roller bearers are 38mm dia x 320mm long.
EL37-6362 Upper Bearer and Pair of Self-aligning Lower Steel Bearers for transverse testing of flags to BS 7263.
EL37-6364 Upper Bearer and Pair of Self-aligning Lower Steel Bearers for transverse testing of flags to BS 7263.

Specification

Dimensions (l x w x h)	380 x 505 x 845 mm
Vertical clearance with bearers	164 mm
Throat clearance	95 mm
Ram travel	75 mm
Weight	146 kg