

Compression and Flexure Testing

50

Flexural

Testing



Universal, open structure flexural frame, 300 kN capacity.
50-C1601/FR with 50-C1601/2 and 50-C1601/KIT

MAIN FEATURES

- High flexibility universal flexural frame, 300 kN cap.
- C-shaped open structure for easy specimen loading, closed for testing by a vertical rod hydraulically clamped.
- Load measurement by high precision load cell
- Large testing space for a wide range of accessories for conventional and tests under control of displacement and strain rate.
- For connection to suitable control consoles (eg. 50-C9842 ADVANTEST 9)

GENERAL DESCRIPTION

UNIFLEX 300 flexural frame has been designed to satisfy the stringent requirements prescribed by the standards concerning, above all, the determination of deformability and ductility index of sprayed concrete and fiber reinforced concrete. The “C” shaped open structure allows an easy and practical front loading but, once the specimen is in the loading position, the structure is closed by a vertical rod hydraulically clamped and controlled assuring high rigidity.

Fitted with high precision strain gauge load cell for accurate and reliable test results. The frame has to be connected to a control console and completed with the suitable testing accessories depending on the test to be performed. The tests under control of displacement and strain rate can only be performed with the [ADVANTEST 9, Servo-hydraulic control console](#) or [MCC, multifunctional control console](#)



53 Granite Street, GEEBUNG, QLD, 4034, Australia | P.O. Box 124, VIRGINIA, QLD 4014, Australia

Ph.: +61 (0)7 3265 4952 | Fax: +61 (0)7 3265 2713 | Email: sales@geo-con.com.au | Web: www.geo-con.com.au

Compression and Flexure Testing

50

Universal, open structure flexural frame, 300 kN capacity contd.

TECHNICAL SPECIFICATION

- Max. load capacity: 300 kN
- Load sensor: high precision load cell
- Piston travel: 110 mm
- Max. Vertical daylight (without accessories): 546 mm
- Max. vertical daylight with accessories:
 - 50-C1601/1: 263 mm
 - 50-C1601/2: 263 mm
 - 50-C1601/3: 221 mm
 - 50-C1601/4: 350 mm
 - 50-C1601/6: 128 mm
 - 50-C1601/7: 110 mm

Horizontal daylight (between uprights) : 900 mm

- Min./Max. distance between lower bearers: adjustable from 80 to 1500 mm
- Min./Max. distance between upper bearers: adjustable from 80 to 500 mm
- Overall dimensions (lxwxh) : 1700x1266x1512 mm
- Weight approx. : 605 kg

Note: Using the accessories 50-C1601/1, 50-C1601/1B, 50-C1601/2, 50-C1601/3, 50-C1601/4, the vertical daylight of the frame has to be reduced by the accessory 50-C1601/KIT. See **ACCESSORIES**.

ORDERING INFORMATION

50-C1601/FR UNIFLEX 300, Universal open structure flexural frame, 300 kN cap., complete with connection kit for separate control console.

VARIOUS CONFIGURATIONS



50-C1601/FR frame fitted with 50-C1601/1B assembly and 50-C1601/KIT



50-C1601/FR with 50-C1601/2 and 50-C1601/KIT



50-C1601/FR, fitted with lower bearers incl. in 50-C1601/2, upper punch incl. in C1601/3 & 50-C1601/KIT



50-C1601/FR frame fitted with 50-C1601/4 assembly and 50-C1601/KIT



53 Granite Street, GEEBUNG, QLD, 4034, Australia | P.O. Box 124, VIRGINIA, QLD 4014, Australia

Ph.: +61 (0)7 3265 4952 | Fax: +61 (0)7 3265 2713 | Email: sales@geo-con.com.au | Web: www.geo-con.com.au

Compression and Flexure Testing

50

Universal, open structure flexural frame, 300 kN capacity contd.

ACCESSORIES

- 50-C1601/1** Upper and lower roller assembly for centre and third point test of concrete beams up to 200x200x800 mm, conforming to EN 12390-5 and ASTM C78,C1609, C1018, EN 14488-3.
 * Bearers dimensions: 40 mm dia x 300 mm long
 * Weight approx.: 52 kg
- 50-C1601/1B** Upper and lower roller assembly for centre and third point test of concrete beams up to 200x200x800 mm, conforming to EN 12390-5 and ASTM C78, C1609, C1018, EN 14488-3, EN 14651.
 * Bearers dimensions: 30 mm dia x 300 mm long
 * Weight approx.: 52 kg
- 50-C1601/2** Set of one upper and two lower roller assembly for testing paving flags, conforming to EN 1339
 * Bearers dimensions: 40 mm dia. x 620 mm long
 * Weight approx.: 66 kg
- 50-C1601/3** Swivel jointed loading pad for testing kerbs, conforming to EN 1340. To be used with support bearers of 50-C1601/2.
 * Weight approx.: 5 kg
- 50-C1601/4** Set of lower platen and upper platen spherically seated, 165 mm dia., for compression tests on small and low strength specimens. This accessory can also be used to perform the splitting test on paving blocks with the accessory 50-C9070.
 * Weight approx.: 19 kg
- 50-C1601/5** 110mm displacement transducer for measuring the piston travel. Complete with attachments.
 * Weight approx.: 1 kg
- 50-C1601/6** Accessory for testing sprayed concrete slab to EN 14488/5 and UNI 10834. Including supporting square base and spherically seated loading element. To be completed with displacement transducers 50-C1601/5 and 50-C1601/8. More information is available on "Energy absorption test on slabs"
 * Weight approx.: 78 kg
- 50-C1601/7** Accessory for testing round slabs of fiber reinforced concrete to ASTM C1550. To be completed with displacement transducers 50-C1601/5 and 50-C1601/8. More information is available on "Energy absorption test on slabs"
 * Weight approx.: 59 kg
- 50-C1601/KIT** Set of 4 distance pieces dia. 68x42 mm high and 2 base plates for adjusting the vertical daylight.
 * Weight approx.: 10 kg

Other accessories and information is available relating to Displacement Transducers for measurement of Crack Opening, Energy Absorption Test on Slabs and Measurement of Beam Deflection and Toughness.



53 Granite Street, GEEBUNG, QLD, 4034, Australia | P.O. Box 124, VIRGINIA, QLD 4014, Australia

Ph.: +61 (0)7 3265 4952 | Fax: +61 (0)7 3265 2713 | Email: sales@geo-con.com.au | Web: www.geo-con.com.au