

## DATA SHEET

### Universal, Open Structure Flexural Frame, 300 kN Cap.



300kN UNIFLEX frame (50-C1601/FR) with bearers (50-C1601/1)

#### 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 to compensate frame deformation during the test thus ensuring 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.

#### Main features

- High flexibility universal flexural frame, 300 kN cap.
- C-shaped open structure for easy specimen loading,
- Vertical rod hydraulically controlled to compensate frame deformation during the test
- 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.

#### Standards

- EN 14488-5
- EN 14651
- ASTM C1550
- EN 12390-5
- ASTM C293
- ASTM C78
- EN 1339
- EN 1340
- ASTM C1609

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### Specifications

Max. load capacity: 300 kN

Load sensor: high precision load cell

Piston travel: 110 mm

Max. Vertical daylight (without accessories): 546 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

\* To be reduced with spacers. See Accessories



Easy specimen loading with fork lift

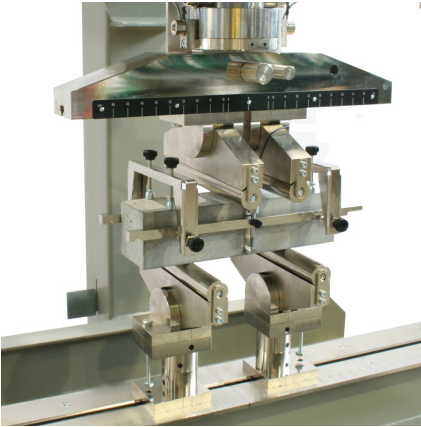


300kN UNIFLEX frame (50-C1601/FR) fitted with accessory for energy absorption tests on square slab (50-C1601/6B)

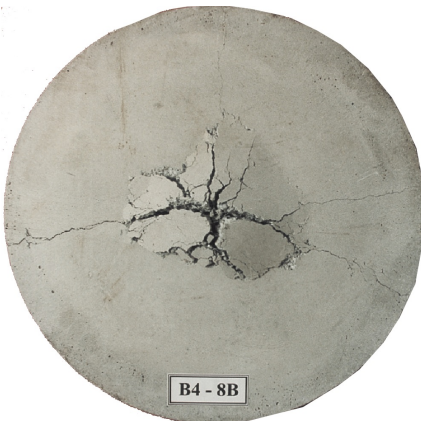
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300kN UNIFLEX frame (50-C1601/FR) fitted with accessory for energy absorption tests on round slab (50-C1601/7)



Beam deflection and toughness test, detail of auxiliary frame (50-C1200/5) fitted with two displacement transducers (P0331/C)



Energy absorption test, detail of dia.800mm slab

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CMOD test, detail of clip gauge transducer (82-P0331/E)



300kN UNIFLEX frame (50-C1601/FR) fitted with accessories for flags testing (50-C1601/2 and 50-C1601/KIT)



300kN UNIFLEX frame (50-C1601/FR) fitted with accessories for kerbs testing (50-C1601/2, 50-C1601/3, 50-C1601/KIT)

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300kN UNIFLEX frame (50-C1601/FR) fitted with accessory for compression tests (50-C1601/4 and 50-C1601/KIT)

### Products

#### 50-C1602/FR

300kN cap. high stiffness flexure frame, complete with strain gauge load cell fitted to the piston connection kit to the control console. Upper and lower rollers not included.

### Accessories and consumables

#### 50-C1500/6

Accessory for 50-C15xx/FR and 50-C17xx/FR flexure frames for testing concrete slab to EN 14488-5. Including supporting square frame and spherically seated loading element. To be completed with displacement transducers 50-C1500/9 and 50-C1500/8.

#### 50-C1500/8

LDT displacement transducer for 50-C15xx/FR and 50-C17xx/FR flexure frames, 50mm travel, for underneath displacement measurement of sprayed concrete slab.

#### 50-C1700/7

Accessory for flexure frames 50-C17xx/FR and 50-C1601/FR for testing sprayed concrete slab to ASTM C1550. Includes: 3-points supporting base and spherically seated loading element.

#### 50-C1700/8

Displacement transducer for FRC slab central deflection, 60 mm travel

#### 50-C1500/2

Set including 2 bearers and 1 loading roller 50-C15xx/FR and 50-C17xx/FR flexure frames for flagstones (paving slab) testing to EN 1339. Roller dimensions: 40 mm dia x 620 mm.

#### 50-C1500/3

Upper loading swivel joint 40 mm dia for 50-C15xx/FR and 50-C17xx/FR flexure frames for kerbs stones testing to EN 1340. Lower bearers not included. It shall be used in combination with accessory 50-C1500/2.

#### 50-C1500/50

Distance piece 50mm thickness for flexure frame

#### 50-C1500/80

Distance piece 80mm thickness for flexure frame

#### 50-C1700/1

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Upper and lower roller assembly for 50-C1701/FR flexure frame for centre and third point testing of concrete beams up to h. 250mm, conforming to EN12390-5, ASTM C78, C293, C1018, EN 14651. Roller dimensions: 30 mm dia. x 310 mm long

**50-C1700/4**

Upper loading rollers for third and center point flexure test, including two loading rollers 310 mm x 40 mm dia. To be used with support bearers of 50-C1500/2.