

DATA SHEET



Oedometers, front loading

BS 1377:5 | ASTM D2435 | ASTM D3877 | ASTM D4546 | AASHTO T216 | NF P94-090-1 | NF P94-091 | UNE 103-405 | UNE 103-602

MAIN FEATURES

- Compact and robust design
- 3 lever arm ratio
- Screw jack support
- Same cell for standard and permeability test
- Possible connection with Data acquisition and processing system

GENERAL DESCRIPTION

This test determines the rate and magnitude of consolidation of a soil specimen restrained laterally and subjected to a number of successive increments of vertical loads.

The oedometer consists of a rigid aluminium alloy frame to avoid any distortion under load. The lever arm assembly is supported in precision self-aligning bearings and has three hanger positions for 9:1, 10:1 and 11:1 ratio. The oedometers fit with linear potentiometric transducers, can be connected to Data acquisition unit.

The consolidation test can also be automatically performed with the Automatic Computerized oEdometer.

Consolidation cells, dial gauge/displacement transducer, weight sets and bench are not included and have to be ordered separately. See accessories.

TECHNICAL SPECIFICATIONS

- Max loading (using 11:1 beam ratio): 1848 kg, corresponding to 9.061 MPa (92.40 kgf/cm²) on 20 cm² specimen (50.47 mm dia.)
- Overall dimensions: 500x200x750 mm (height less hanger x width x length)
- Weight approx.: 21 kg

ORDERING INFO

26-WF0302 Front loading oedometer

ACCESSORIES

Consolidation cells

To perform either standard or permeability test

Model 26-	Specimen dia. x ht (mm)	Specimen area [cm ²]	Cell dimension dia. x ht (mm)	Weight [kg]	Calibration disk
WF0320	50.47x20	20	139x74	1.3	26-WF0320/9
WF0321	63.50x20	31.67	139x74	1.3	26-WF0321/9
WF0325	71.40x20	40	139x74	1.3	26-WF0325/9
WF0326	75x20	44.16	139x74	1.3	26-WF0326/9
WF0335	112.80x25	100	200x74	3	26-WF0335/9

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Accessories

Weight sets

- 26-WF0230/C2** Weight set, 64 kg in total, including: 2x0.250, 1x0.500, 1x1, 1x2, 1x4, 7x8 kg weights.
26-WF0230/D2 Weight set, 80 kg in total, including: 2x0.250, 3x0.500, 1x1, 1x2, 3x5, 6x10 kg weights. Slotted steel weights

Axial displacement dial indicators/linear transducers

- 30-WF6401** Dial gauge, 10 mm travel x 0.002 mm divisions, anticlockwise rotation.
30-WF6207 Linear potentiometric transducer, 10 mm travel
30-WF6042 Transducer extension cable, 6 m long
30-WF6044 Transducer extension cable, 12 m long

Permeability attachment

- 26-WF0338/A** Permeability attachment with 50 ml graduated burette . Complete with clamps, stand and rubber hose for connection to the cell. Weight 4 kg.

Consolidation bench

- 26-WF0312** Bench for up to three oedometers. Overall dimensions: 960x1000x700 (hxlxw)

Data acquisition and processing

- Data acquisition unit, GEODATALOG 16 - 32
Data acquisition unit, GEODATALOG 8

Consolidation cells spare parts

Code model.	26-WF0320	26-WF0321	26-WF0325	26-WF0326	26-WF0355
Dia. sample.[mm]	50.47	63.50	71.40	75	112.8
Upper porous disk	26-WF0320/4	26-WF0321/4	26-WF0325/4	26-WF0326/4	26-WF0355/4
Lower porous disk	26-WF0325/10	26-WF0326/10	26-WF0325/10	26-WF0326/10	26-WF0355/10
Cutting ring	26-WF0320/3	26-WF0321/3	26-WF0325/3	26-WF0326/3	26-WF0355/3

ADDITIONAL INFORMATION

Weight application guide

This information is intended for making easy the weight selection conforming to the cell size, the lever ratio and the max load applied.

Cell Model	WF0320		WF0321		WF0325		WF0326		WF0335	
Area [cm²]	20		31.67		40		44.16		100	
Beam ratio	1:10		1:11		1:10		1:9		1:10	
Max pressure [kg/cm²]	32 [kg/cm ²]	64 [kg/cm ²]	20 [t/ft ²]	64 [t/ft ²]	16 [kg/cm ²]	32 [kg/cm ²]	16 [kg/cm ²]	32 [kg/cm ²]	8 [kg/cm ²]	16 [kg/cm ²]
Weight set 26-WF0230/C2	X	X	X	X	X	X	-	-	-	-
Weight set 26-WF0230/D2	-	-	-	-	-	-	X	X	X	X
Add. Weight 8 x 27-WF0275/A	-	X	-	X	-	X	-	X	-	X
Total weight [kg]	64	128	64	128	64	128	80	160	80	160

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Three oedometers 26-WF0302, complete with cells, 30-WF6210 displacement electronic transducers connected to 30-WF6016 GEODATALOG, and 26-WF0312 consolidation bench.



26-WF0338/A Permeability attachment fit to the 26-WF0302 with 26-WF0320 cell,



26-WF0320 Consolidation cell. Also used for permeability test.



Slotted steel weights