

Triaxial system components and accessories:

Standard Triaxial Cells

Standard triaxial cells essentially consist of a transparent polycarbonate chamber which has a top plate with a piston assembly fitted into it and a double flange base fitted to the bottom. Three (or six) simple thumb-screws are used to clamp the upper part of the cell to the base, which makes assembly and disassembly a very quick and simple operation.

Main FEATURES

- » Maximum working pressure of 1700 kPa
- » Light alloy construction, stainless steel ram and O-ring seal
- » Suitable for submersible and/or external load cell
- » Four on/off no-volume changes valves fitted as standard
- » For sample sizes between 35 and 100 mm dia.
- » Suitable for total and effective stress tests
- » Rapid assembly design
- » Cells are designed to accommodate a specimen with a height twice its diameter
- » Pedestal, top caps, porous disc, rubber membranes and sealing rings are not included. See accessories.



Ordering information

28-WF0410/B

Standard triaxial cell for 35, 38 and 50 mm diameter samples

28-WF0411/B

Standard triaxial cell for 35, 38, 50 and 70 mm diameter samples

28-WF0416/B

Standard triaxial cell for 70 and 100 mm diameter samples

ACCESSORIES

Pedestal

Cell code 28- Sample diameter, mm	28-WF0410/B	28-WF0411/B	28-WF0416/B
35	28-WF0410/A1	28-WF0411/A1	
38	28-WF0410/A2	28-WF0411/A2	
50	28-WF0410/A3	28-WF0411/A3	
70		28-WF0411/A4	28-WF0416/A1
100			28-WF0416/A2

Test	28-WF0410/B	28-WF0411/B	28-WF0416/B
Effective stress/Total stress	●	●	●

Model	28-WF0410/B	28-WF0411/B	28-WF0416/B
Nominal size diameter mm	50	70	100
For spec. size diameter mm	35 to 50	35 to 70	35 to 100
Max. working pressure [kPa]	1700	1700	1700
Max. height [mm]	450	500	560
Inlet points for top/bottom drainage, cell pressure, and pore pressure	4	4	4
Quick coupling for two drainage lines on the base	Included	Included	Included
Diameter mm (including valves)	270	310	340
Weight approx.[kg]	5	8	15



Detail of standard triaxial cell fitted with submersible load cell

Top Cap and Accessories

	Sample dimension	35	38	50	70	100
1	Top cap	28-WF0420/A3	28-WF0422/A3	28-WF0425/A3	28-WF0428/A3	28-WF0432/A3
2	Pair of porous discs	28-WF0420/A4	28-WF4034	28-WF4054	28-WF4074	28-WF4104
3	Membrane, 10 pieces	28-WF0420/A5	28-WF4035	28-WF4055	28-WF4075	28-WF4105
4	O Rings, 10 pieces	28-WF0420/7	28-WF4036	28-WF4056	28-WF4076	28-WF4106
5	Membrane stretcher	28-WF0420/8	28-WF4031/A	28-WF4051/A	28-WF4071/A	28-WF4101/A
6	O Ring placing tool	28-WF0420/10	28-WF4031/B	28-WF4051/B	28-WF4071/B	28-WF4101/B
7	Two part split former	28-WF0420/A6	28-WF0422/A6	28-WF0425/A6	28-WF0428/A6	28-WF0432/A6
8	Two part split mould	28-WF0420/13	28-WF4031/D	28-WF4051/D	28-WF4071/D	28-WF4101/D
9	Lateral filter drains, pack of 50	28-WF0420/A9	28-WF4031/E	28-WF4051/E	28-WF4071/E	28-WF4101/E
10	Filter discs, pack of 100	28-WF0420/5	28-WF4031/F	28-WF4051/F	28-WF4071/F	28-WF4101/F
11	Hand sampler	28-WF0420/9	28-WF4031/G	28-WF4051/G	28-WF4071/G	28-WF4101/G

28-WF4005/39

Platen adapter to fit standard triaxial cell (model 28-WF0410/B) onto TRITECH50

28-WF0410/B5

Piston locking device to hold the triaxial cell ram on triaxial cell model 28-WF041X/B



Standard triaxial cell, fitted with submersible load cell, displacement transducer



Triaxial cell and sample preparation accessories

Triaxial system components and accessories:

Banded triaxial cells

Banded triaxial cells essentially consist of a transparent chamber which is banded to prevent excessive expansion during the test. The design of the cell ensures vertical alignment of the loading ram by clamping the Perspex wall separately from the cell top. From 28-WF4070 to 28-WF4150 cells can be fitted with an upgrading kit so that tests can be performed using local strain transducers and bender elements.



Ordering information

28-WF4050
Banded triaxial cell for 38 and 50 mm diameter samples

28-WF4070
Banded triaxial cell for 38, 50 and 70 mm diameter samples

28-WF4100
Banded triaxial cell for 38, 50, 70, 100 mm diameter samples

28-WF4150
Banded triaxial cell for 38, 50, 70, 100, 150 mm diameter samples.

Main FEATURES

- » Maximum working pressure of 2000 kPa or 3500 kPa (28-WF4050; 28-WF4070)
- » Light alloy construction, stainless steel ram and O-ring seal
- » Built-in cell ram clamp
- » Five on/off no-volume changes valves fitted as standard
- » For sample sizes between 38 and 150 mm diameter
- » Suitable for submersible and/or external load cell
- » Rapid assembly design
- » Cells are designed to accommodate a specimen with a height twice its diameter
- » Pedestal, top caps, porous disc, rubber membranes and sealing rings are not included. See accessories.
- » Suitable perform stress path tests and dynamic test using a vacuum attachment (28-WF4070; 28-WF4100; 28-WF4150)
- » Can be upgraded with an advanced kit making them compatible with mini on sample transducers and bender elements (28-WF4070; 28-WF4100; 28-WF4150)

ACCESSORIES

Pedestal

Cell code Sample diameter mm	28-WF4050	28-WF4070	28-WF4100	28-WF4150
38	28-WF4031/5	28-WF4031/7	28-WF4031/10	28-WF4031/15
50	28-WF4051/5	28-WF4051/7	28-WF4051/10	28-WF4051/15
70		28-WF4071/7	28-WF4071/10	28-WF4071/15
100			28-WF4101/10	28-WF4101/15
150				28-WF4151/15



Model	28-WF4050	28-WF4070	28-WF4100	28-WF4150
Nominal size diameter (mm)	50	70	100	150
Diameter range (mm)	38 to 50	38 to 70	38 to 100	38 to 150
Max. working pressure (kPa)	3500	3500	2000	2000
Max. height [mm]	410	550	600	710
Inlet points for top/bottom drainage, cell pressure, and pore pressure	5	5	5	5
Quick coupling for two drainage lines on the base	Included	Included	Included	Included
Vacuum attachment for vacuum top cap for extension tests	○	Included	Included	included
Upgrading option for use of mini-on-sample transducers and bender elements	○	With 28-WF4070/ADV	With 28-WF4100/ADV	With 28-WF4150/ADV
Diameter including valves (mm)	350	400	440	520
Weight approx.[kg]	7	18	21	40

Test				
Effective stress/Total stress	●	●	●	●
Stress path		●	●	●
Dynamic test		●	●	●
On sample/Bender elements		●	●	●

Top Cap and Accessories

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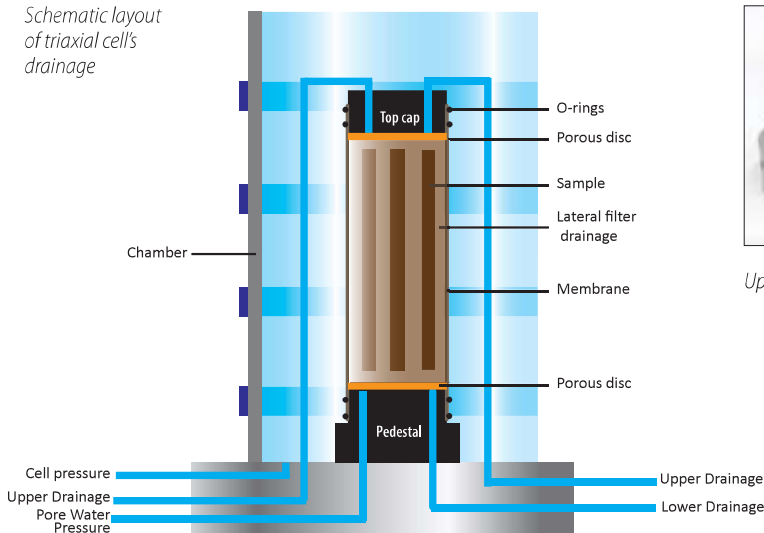


Triaxial cell and sample preparation accessories

	Sample dimension	38	50	70	100	150
1	Top cap	28-WF4032/A	28-WF4052/A	28-WF4072/A	28-WF4102/A	28-WF4152/A
2	Vacuum top cap*	28-WF4032/AV	28-WF4052/AV	28-WF4072/AV	28-WF4102/AV	28-WF4152/AV
3	Base disc	28-WF4033	28-WF-4053	28-WF4079	28-WF4103	28-WF4153
4	Pair of porous discs	28-WF4034	28-WF4054	28-WF4074	28-WF4104	28-WF4154
5	Membrane, 10 pieces	28-WF4035	28-WF4055	28-WF4075	28-WF4105	28-WF4155
6	O Rings, 10 pieces	28-WF4036	28-WF4056	28-WF4076	28-WF4106	28-WF4156
7	Membrane stretcher	28-WF4031/A	28-WF4051/A	28-WF4071/A	28-WF4101/A	28-WF4151/A
8	O Ring placing tool	28-WF4031/B	28-WF4051/B	28-WF4071/B	28-WF4101/B	28-WF4151/B
9	Two parts split mould	28-WF4031/D	28-WF4051/D	28-WF4071/D	28-WF4101/D	28-WF4151/D
10	Lateral filter drains, pack of 50	28-WF4031/E	28-WF4051/E	28-WF4071/E	28-WF4101/E	28-WF4151/E
11	Filter discs, pack of 100	28-WF4031/F	28-WF4051/F	28-WF4071/F	28-WF4101/F	28-WF4151/F
12	Hand sampler	28-WF4031/G	28-WF4051/G	28-WF4071/G	28-WF4101/G	-
13	Two part split former with vacuum attachment	28-WF4031/H	28-WF4051/H	28-WF4071/H	28-WF4101/H	28-WF4151/H

* Used for stress path and dynamic testing with dedicated triaxial cell with vacuum attachment

Schematic layout of triaxial cell's drainage



Upgrading kits, 28-WF4070/ADV, 28-WF4100/ADV, 28-WF4150/ADV

Triaxial system components and accessories:

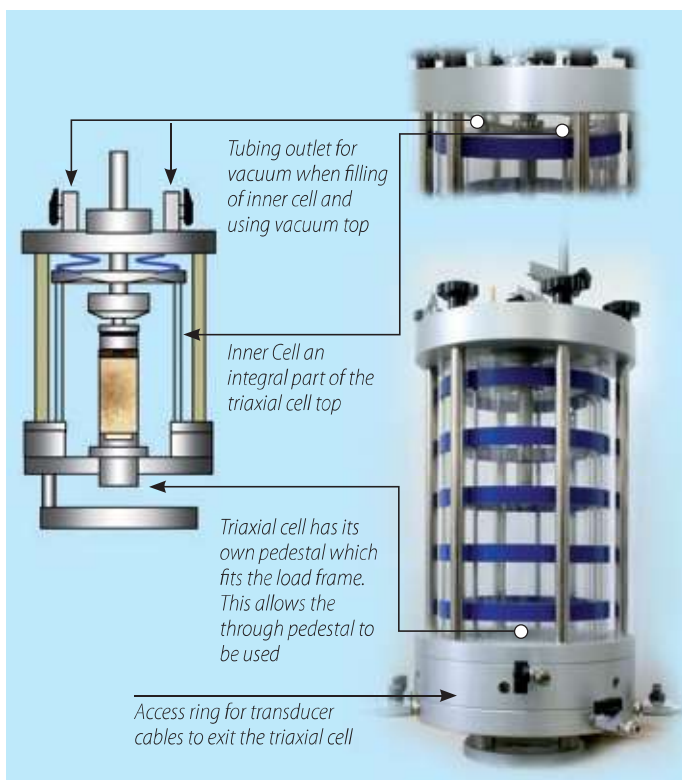
Double wall triaxial cell - Unsaturated Test

Double wall triaxial cell with inner wall, complete with access ring for transducer cables. The cell has to be completed with the base pedestal with High Entry Stone. See accessories. For detailed information and a complete test configuration please visit our website.

Main FEATURES

- » Ideal solution for measuring volume change in unsaturated soil test
- » To be used together with High Air Entry Stone mounted in the specific pedestal, for Axis translation method
- » Maximum working pressure up to 2000 kPa
- » Two models available up to 70 mm sample or up to 100 mm sample
- » Suitable for 50, 70 ,100 mm diameter sample
- » Including vacuum attachment for vacuum top cap for extension test suitable also for saturated soil sample
- » Different capacity of HAES from 1 bar up to 15 bar

Model	28-WF4170	28-WF4171
For spec. size diameter mm	50 to 70	50 to 100
Max. working pressure kPa	2000	2000
Max. height [mm]	690	795
Inlet points	5	5
Quick coupling for two drainage lines on the base	Included	Included
Vacuum attachment	Included	Included
Diameter mm (including valves)	478	535
Weight approx.[kg]	30	50



ACCESSORIES

Triaxial cell unsaturated pedestal.

Including 3 bar High Air Entry Stone (HAES).

Dia. mm	For cell 28-WF4170	For cell 28-WF4171
50	28-WF4170/50	28-WF4171/50
70	28-WF4170/70	28-WF4171/70
100	-	28-WF4171/100

Alternative High Air Entry Stones (HAES).

The 3 bar HAES included in the pedestal can be easily replaced with stones of 1, 5 or 15 max. pressure, as indicated in the following table.

Pedestal dia. mm	50	70	100
Max pressure			
1 bar	28-WF4150/1B	28-WF4170/1B	28-WF4171/1B
5 bar	28-WF4150/5B	28-WF4170/5B	28-WF4171/5B
15 bar	28-WF4150/15B	28-WF4170/15B	28-WF4171/15B

Components of pedestal set for unsaturated cell:

- 1) Pedestal for unsaturated test;
- 2) High Air Entry Stone HEAS) sealed on aluminum ring;
- 3) Aluminum compensation ring;
- 4) Aluminum plate for saturated soil test;
- 5) Porous stone for saturated soil test

