ROCK PERMEABILITY EQUIPMENT

This apparatus, originally designed for soil mechanics test applications, can also be used to provide an infinitely variable constant pressure and is used in conjunction with the Hoek cell fit with the permeability end caps, for the investigation of the permeability of rock at high confining pressure, in the laboratory. The apparatus comprises: motorized hydraulic pump; honed piston/spring assembly; precision test gauge 0-3500 kPa range; cylindrical oil/water interchange vessel; valves; 2 kg of high viscosity oil.
The lateral pressure can be applied with the 32-D0558 Low friction pressure maintainer or, as alternative, with the 32-D7022/S sercomp S or 32-C7022/RCK Sercomp Rock, servo-hydraulic control console which is part of the Automatic Uniaxial and Triaxial test systems.

- Pressure range: 0 to 3500 kPa
- Overall dimensions: 310x300x390 mm
- Weight approx.: 16 kg

As alternative to oil-water constant pressure system 28-WF4312 it is possible to use new HYDROMATIC standalone closed loop pressure/volume controller:

- 28-WF45SG: powers 1 hydraulic pressure line and measures the associated volume change. Used for applying 1 level of pressure higher than atmospheric pressure.
- 28-WF45DG: powers 2 hydraulic pressure line and measures the associated volume change. Used for applying 2 levels of pressure higher than atmospheric pressure.

Typical configurations of Rock permeability test set

Manual Rock permeability system - Oil and water pressure apparatus

Code	Description	Q.ty
28-WF4312	Oil and water constant pressure apparatus	1
28-WF0490	Nylon tubing 6x4 mm dia., 20 m coil	1
32-D0556(1)	Hoek cell NX size, 54.74 mm dia. x 100 mm	1
32-D0556/3	Permeability end caps for NX Hoek cell. Set of two.	1
28-WF4191	Connecting hose to the Hoek cell	1
86-D1160	Graduated glass burette 25 ml cap. x 1.1 ml div.	1
86-D1445	Support base 200x130 mm complete with rod 10 mm dia. x 500 mm	1
86-D1451	Double sleeve metal/glass	1
32-D0558	Low friction pressure maintainer	1
32-C7022/S(2)	Sercomp Rock control console	1

Automatic Rock permeability system - 1 level of pressure with HYDROMATIC standalone pressure / volume controller

Code	Description	Q.ty

28-WF45SG	HYDROMATIC standalone closed loop pressure/volume controller. Powers one hydraulic pressure line	1
32-D0556/KIT	Hydraulic kit for Hudromatic stand-alone system with Hoex cell for rock permeability application	1
32-D0556(1)	Hoek cell NX size, 54.74 mm dia. x 100 mm	1
32-D0556/3	Permeability end caps for NX Hoek cell. Set of two.	1
28-WF4191	Connecting hose to the Hoek cell	1
86-D1160	Graduated glass burette 25 ml cap. x 1.1 ml div.	1
86-D1445	Support base 200x130 mm complete with rod 10 mm dia. x 500 mm	1
86-D1451	Double sleeve metal/glass	1
32-D0558	Low friction pressure maintainer	1
32-C7022/S(2)	Sercomp Rock control console	1

Automatic Rock permeability system- 2 levels of pressure with HYDROMATIC standalone pressure / volume controller

Code	Description	Q.ty
28-WF45DG	HYDROMATIC standalone closed loop pressure/volume controller. Powers two hydraulic pressure lines	1
32-D0556/KIT	Hydraulic kit for Hudromatic stand-alone system with Hoex cell for rock permeability application	1
32-D0556(1)	Hoek cell NX size, 54.74 mm dia. x 100 mm	1
32-D0556/3	Permeability end caps for NX Hoek cell. Set of two.	1
28-WF4191	Connecting hose to the Hoek cell	1
32-D0558	Low friction pressure maintainer	1
32-C7022/S(2)	Sercomp Rock control console	1

(1) Other models are available. See Hock cell details
(2) An alternative to the manual model 32-D0558

ROCK PERMEABILITY EQUIPMENT

ACCESSORIES

28-WF4312

Constant pressure system 3500kPa oil/water 230V/50-60Hz/1ph

28-WF0490

Nylon tubing 4 x 6 mm dia 20 m coil

28-WF4191

Nylon tubing 6mm bore x 8mm outside diameter, 10 metre length

32-C7022/S

Sercomp 7, servohydraulic control console for la- teral pressure to perform triaxial rock testing. 230V, 50 Hz, 1ph.

32-D0558

Low friction pressure maintainer for lateral pres-sure in the Hoek triaxial cells

32-C7022/RCK

SERCOMP7 ROCK, servohydraulic control console suitable for lateral pressure control in triaxial testing system for rock (hoek cell method). In combination with the unit ADVANTEST9 ROCK performs the stress-path test fully automatically. 230V/50Hz/1ph.

28-WF45DG

HYDROMATIC standalone closed loop pressure/volume controller. Powers two hydraulic pressure lines and measures the associated volume changes. - max pressure: 3500 kPa - volume capacity: 250cc. 110-220V,50-60 Hz, 1ph.

28-WF45SG

HYDROMATIC standalone closed loop pressure/volume controller. Powers one hydraulic pressure line and measures the associated volume change. - max pressure: 3500 kPa - volume capacity: 250cc. 110-220V,50-60 Hz, 1ph.

ORDERING CODE

32-D0553/3

Permeability end caps for triaxial cell AX

32-D0554/3

Permeability end caps for triaxial cell 1.5" (38,1 mm)

32-D0555/3

Permeability end caps for triaxial cell BX

32-D0556/3

Permeability end caps for NX triaxial cells cat. 45-D0556

32-D0553/HC

Hoek triaxial cell AX (30.2 mm dia. sample), one rubber sealing sleeve included.

32-D0554/HC

Hoek triaxial cell 1.5in (38.1 mm dia. sample), one rubber sealing sleeve included.

32-D0555/HC

Hoek triaxial cell BX (42.04 mm dia. sample), one rubber sealing sleeve included.

32-D0556/HC

Hoek triaxial cell NX (54.74 mm dia. sample), one rubber sealing sleeve included.

32-D0557/HC

Hoek triaxial cell HQ (63.5mm dia. sample), one rubber sealing sleeve included.