

Introduction

The pressure system provides two separate lines for the desired constant pressure inside the triaxial cell (cell pressure system) and in the specimen drainage line (back pressure system).

A specimen volume change indicator (burette or electric transducer type) is also provided.

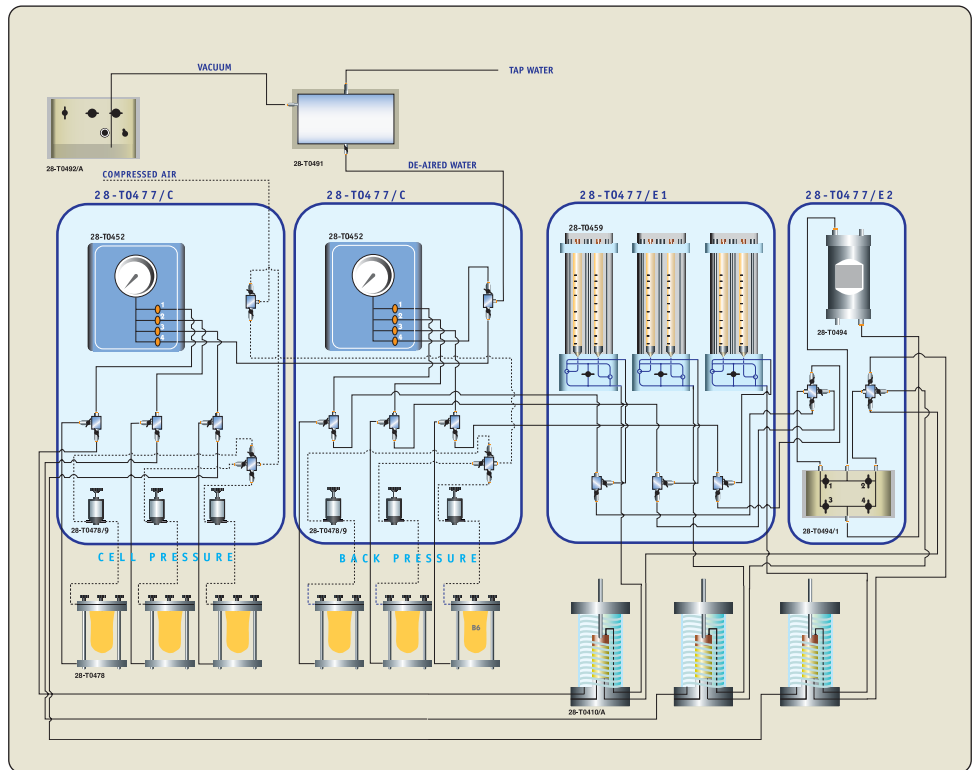
The system is completed by a de-aired water apparatus and by all other accessories such as tubing, valves etc.

Different solutions are available depending on the type of test to be performed.

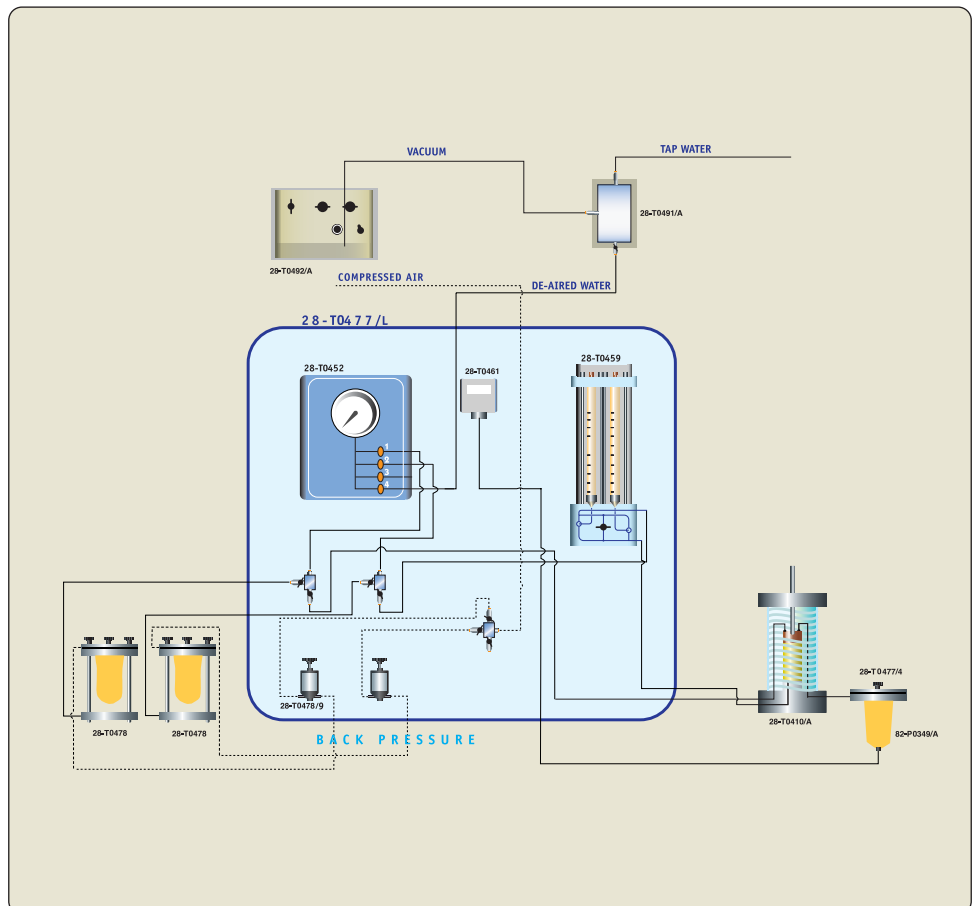
- **Air/water bladder system** actuated by a pneumatic compressor
- **Motorised oil and water system**
- **Automatic digital controllers connectable to PC.**

For clarity we propose first the most common layout systems and then all single components.

All single components can however be combined to provide different solutions conforming to the user's requirements.



Triaxial pressure system for three triaxial cells (see also page 82)



Triaxial pressure system for one triaxial cell (see also page 82)

Typical configuration of a pressure system for Unconsolidated Undrained test (UU)

Item list

28-T0474/B	Oil and water constant pressure apparatus complete with precision test gauge 0-1700 kPa
28-T0490	Nylon tubing 6x4 mm dia. 20 m coil

Typical configuration of a pressure system

for Consolidated-Undrained and Drained test (CU/CD) on one specimen

Item list

Q.ty

28-T0477/L	Control panel for 1 triaxial cell	1
28-T0478	Bladder air/water pressure cylinder	2
28-T0490	Nylon tubing 6x4 mm dia. 20 m coil	1
28-T0490/1	Flaring tool	1
28-T0491/A	De-airing tank 7 litres capacity	1
28-T0478/6	Nylon tubing 12x6 mm dia. 10 m coil	2
28-T0492/A	De-airing water apparatus	1
86-D2018	Air compressor, working constant pressure up to 10 bar	1
86-D2018/1	Auxiliary air reservoir	1
28-T0478/10	Quick coupling	1

Note. Digital pressure readout unit, pore pressure transducer and de-airing block are all included on 28-T0477/L.



Pressure system 28-T0474/B with triaxial machine and cell

OIL AND WATER CONSTANT PRESSURE SYSTEM

■ 28-T0474/B

Oil and water constant pressure apparatus for pressures up to 1700 kPa. 230 V, 50 Hz, 1 ph.

■ 28-T0474/C

Oil and water constant pressure apparatus for pressures up to 3500 kPa. 230 V, 50 Hz, 1 ph.

General description and specifications

This apparatus provides an infinitely variable constant pressure using an adjustable spring type dead weight pressure feedback system connected in line with a pump and an oil/water interchange vessel. The apparatus comprises: hydraulic pump (motorised); honed piston/spring assembly; cylindrical oil/water interchange vessel; precision dial gauge 100 mm dia.; valves; 2 kg of oil.

Pressure range: 0-1700 (model 28-T0474/B) and 0-3500 kPa (model 28-T0474/C)

Power: 35 W

Dimensions: 310x300x400 mm

Weight approx.: 16 kg

Accessories

- ▼ 28-T0475/2 High viscosity oil. 5 kg



Pressure system for CU/CD test on one specimen with triaxial machine and cell

**Typical configuration of an advanced 3 cells Pressure System
for Consolidated-Undrained and Drained test (CU/CD) for connection
to Automatic Data acquisition and processing system**

Item List	Q.ty.	
28-T0477/C	Control panel for 3 triaxial cells (cell pressure and back pressure)	2
28-T0477/E1	Control panel for three burettes for volume change measurement with distribution valves	1
28-T0477/E2	Control panel for automatic volume change measurement	1
28-T0478	Bladder air-water pressure cylinder	6
28-T0490	Nylon tubing 6x4 mm dia. 20 m coil	4
28-T0490/1	Flaring tool	1
28-T0491	De-airing tank 33 l capacity	1
28-T0478/6	Nylon tubing 12x6 mm. 10 m coil for compressed air and water connection	2
28-T0492/A	De-airing water apparatus	1
86-D2018	Air compressor	1
86-D2018/1	Auxiliary air reservoir	1
28-T0478/10	Quick coupling	1
82-P0349	Pressure transducer 0-10 bar	3
28-T0477/4	De-airing block	3



Typical pressure system for CU/CD tests on three cells (see layout on page 80)