

### Product Code

UTSP-0400 Concrete Creep Testing System

### Standards

EN ISO 7500-2

UTEST Creep Testing System on Concrete specimen is designed to determine time - dependent deformation of concrete under sustained and constant load.

Deformation is monitored periodically over time and compared to companion unloaded specimens to obtain the creep strain of the concrete, which can then be used to calculate the creep compliance, or "specific creep" of the material.

The system's capacity on the picture that seen above is 300 kN on each loading frame and the cylindrical specimens dimensions are 130 x700 mm. On the system one power pack is used for 3 frames. For creep systems custom designs are provided with required capacity and specimen dimensions with suitable accessories.

The standard creep test consists of a loading frame, data acquisition unit and hydraulic power pack and load control system to apply constant load on cylindrical specimens. (If required, the mold with required dimensions for the cylindrical specimens is supplied separately)

### HYDRAULIC POWER PACK

UTEST Hydraulic Power Pack is designed to supply required power to the frames (specimens) and supplies the power that system's required.

This unit prevents oil heating and reduces the energy consumption by working when load decreases on the sample. Hydraulic Power Pack designs in order to prevent sudden discharge of loads on the specimens when the electricity is down.

If the system requires hydraulic pressure, Hydraulic Power Pack starts to work and it stops when system reaches enough hydraulic pressure.

### FRAME

The frames of these systems are high stiffness constructions with stable loading on the specimens. Frictions on the piston is on minimum value by using special seals. There is load adjustment valve located on the each frame to set the required load value. The frame loads can be adjustable independently on each frame by using those pressure valves.

### DATA ACQUISITION CONTROL UNIT

Data acquisition unit collects and evaluates data via data logger with using sensors. Each piston has a pressure transducer and on each sample there are two 0,001 mm accuracy displacement transducer attached to the sample with compression meter. It is also possible to connect temperature sensors to data acquisition system.

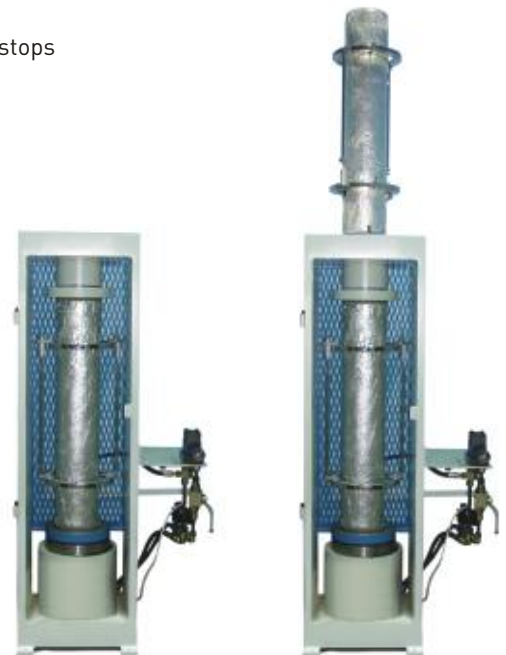
UTEST designs and manufacture the system needed according to the user specifications.



Concrete Creep Testing System



Hydraulic Unit



Load Frame

Load Frame & Reference Sample