

Elastocon

Automatic creep tester EB 15



Full Notch Creep Tester (FNCT)



The ten test stations

The instrument is offered in a number of customer defined configurations of test stations and load ranges and is available for testing in liquids according to ISO 16770 (Full Notch Creep Test) or in air according to ISO 899.

Utilising load cells and servo motors to apply and hold the load the FNCT tester both eliminates the handling problems associated with dead weights and offers the possibility of running new features such as load and temperature ramps controlled by the computer.

For ISO 899 the test stations are built into a precision air ageing oven for tight control of temperature and air flow.

Creep can be measured by clip on extensometers for dumbbell specimens or by the motor encoder for parallel specimens.

Results are presented in graphical or table formats as absolute creep or creep index. In order to study the actual sample failure the data logging rate is increased just before break occurs.

Technical data

Liquid bath and storage tanks.

Precise control and distribution of temperature within the fluid bath is achieved by :

- Circulating the liquid from the top of one end of the bath to the lower part of the other end. Extending the heating element over most of the base of the bath to create convection within the bath for uniform temperature control and distribution.
- The same pump is also used for filling the bath from a storage tank, thus eliminating manual liquid handling.
- Temperature controller (PID) with 0,1 °C indication and set point. The temperature is set from the computer software.
- Peltier element cooling enables measurements to be carried out down to 20°C.
- Liquid level control and alarm indicator
- Specification includes windows based Creep Software.

The Test Stations

- The load is applied by a load cell – amplifier system with a PID control function
- The elongation can be measured by the digital encoder in the motor.
- The load cell amplifier and the motor control are connected in a closed loop control which works even without the computer. The load is set from the computer software.

Materials in the liquid:	stainless steel
Materials in other places:	oxidate treated aluminum, or powder coated steel.
Load range: N	0 – 500 (other ranges optional)
Load accuracy:%	< 0,5
Temperature range: °C	20 - 80
Motor system:	AC-servo with stepping function

Sizes of test stations,

diameter x h, mm	75 x 500
Elongation accuracy, mm	<± 0,005

Storage tank volume:

Soap solution: l	35
Distilled water l	35
Number of test stations:	variable according to customer requirements.

Software and computer

Computer recommended for the software EB15 Creep

Pentium 4; 2GHz; 256 MB RAM; 100Mb free disc space; 3 serial ports available



ARTEC TESTNOLOGY
P.O. Box 12 - NL-5330 AA KERKDRIEL
Salie 15 - NL-5331 DJ KERKDRIEL
Tel: +31(0)418 637590 - Fax: +31(0)418 637599
E-mail: info@artec.nl - Web: http://www.artec.nl