Complete
Instrumentation Solutions

ibertest
ADVANCED TESTING SOLUTIONS

Material Testing Machines

Electromechanical Creep Testing Machines
IB-CREEP Series

Capacity: 10 - 200 kN

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Introduction

Electromechanical machine especially designed for creep testing, relaxation, low fatigue, etc. According to: ISO 204, ASTM E139, ASTM E606/E606M-12, ISO 12106.

New optimised design of our IB-CREEP series which leads our machines a big step beyond, placing them as one of the most advanced Creep testing machines in the world.

- ***Always forward***. Fully renovated Furnace.
- ***Powerful and intuitive***. New advanced furnace control system.
- ***Higher efficiency***. Improved energy efficiency of the machine.
- ***Robust and reliable***. Increased stiffness of the entire system.
- ***Save space and intelligent design***. Integration of electronics into the machine frame**.**
- ***Easy*** *adjustment of Setpoints.*

Application

New IB-CREEP series provide you a wide range of testing possibilities into the branch of Creep tests:

- Creep tests.
- Relaxation tests.
- Creep rupture tests.
- Creep crack tests.
- Long-term tests.
- Low cycle fatigue tests (LCF).
- Ask for other specific test.

NEW: ALL in One touch PC interface

New user interface, with embedded touch screen PC, modern, user-friendly and with improved performances.

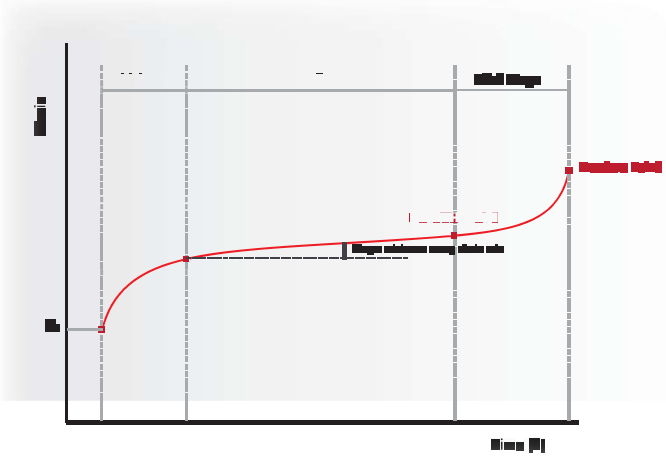
An alternative to conventional table top PC's, placing together a compact design with touch screen, with all the performances of other systems.

This system is directly fitted to testing frame with an orientable support, reducing space requirements and offers an ergonomic working position for machine operation as well as for testing devices management.

IB-CREEP 30. Maximum Capacity 30 kN.

Creep Testing

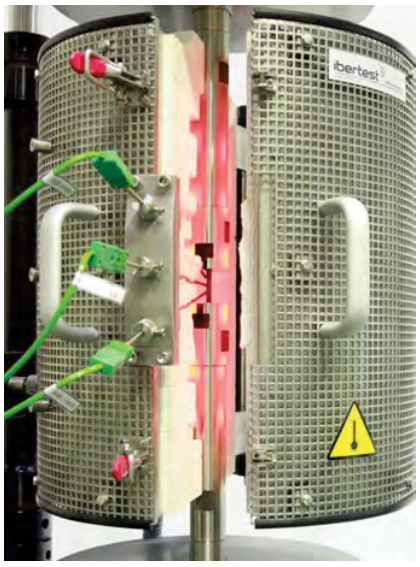
The "Creep Test" is performed on a specimen. In simple terms, the specimen is heated up to a temperature between 300°C and 1200°C depending on material. Once the temperature set-point is reached, a constant load is applied to exert a longitudinal force on the grain structure of the material. The load is maintained for the period of the test or until the specimen ruptures. During the test, data is continuously monitored and recorded to qualify the stability of the temperatures, load and specimen elongation.



Technical specifications for IB-CREEP 10 - 200

SERIE	IB-CREEP 10	IB-CREEP 20	IB-CREEP 30	IB-CREEP 50	IB-CREEP 100	IB-CREEP 200
Maximum load	10 kN	20 kN	30 kN	50 kN	100 kN	200 kN
Load measurement	Universal strain-gage load cell (tension-compression). Possibility of assembly of other load cells of lower capacity than the nominal of the machine					
Load cell Repeatability	Better or equal to ± 0.05 %					
Measuring Range	1 % to 100 % of the load cell nominal capacity (autoescale)					
Class	0.5 according to ISO 7500 - Meets ASTM E-4					
Strength Resolution	5 dígits with floating coma					
Number of Guiding columns	2					
	Chromed plated and grounded with adjustable mechanical stops					
Screw drivers	1 high precision ball screw drivers with scrapers					
Displacement speed range	Between 0,001 and 100,00 mm/min (Other speed are possible request)					
Displacement measurement	Encoder					
Displacement resolution	5 dígits (3 integers and 2 decimals) : ± 0,001 mm					
Power supply	Three-phase 380 V plus neutral and earth, 50/60 Hz (to specify)					
Power consumption without furnace	≤500 W	≤500 W	≤500 W	≤750 W	≤1000 W	≤1000 W
Emergency stop	" Mushroom " type, placed on the testing frame					

IBERTEST reserves the right to modify the specifications described without prior notice.



Performing the creep test

Typical steel specimen for creep test

Specimen before and after test