

From development to  
implementation



Czech manufacturer of materials testing equipment and automation



Testing machines with  
low-speed drive  
**C.5 – CREEPTest 6.30 – 250**

From development to  
implementation

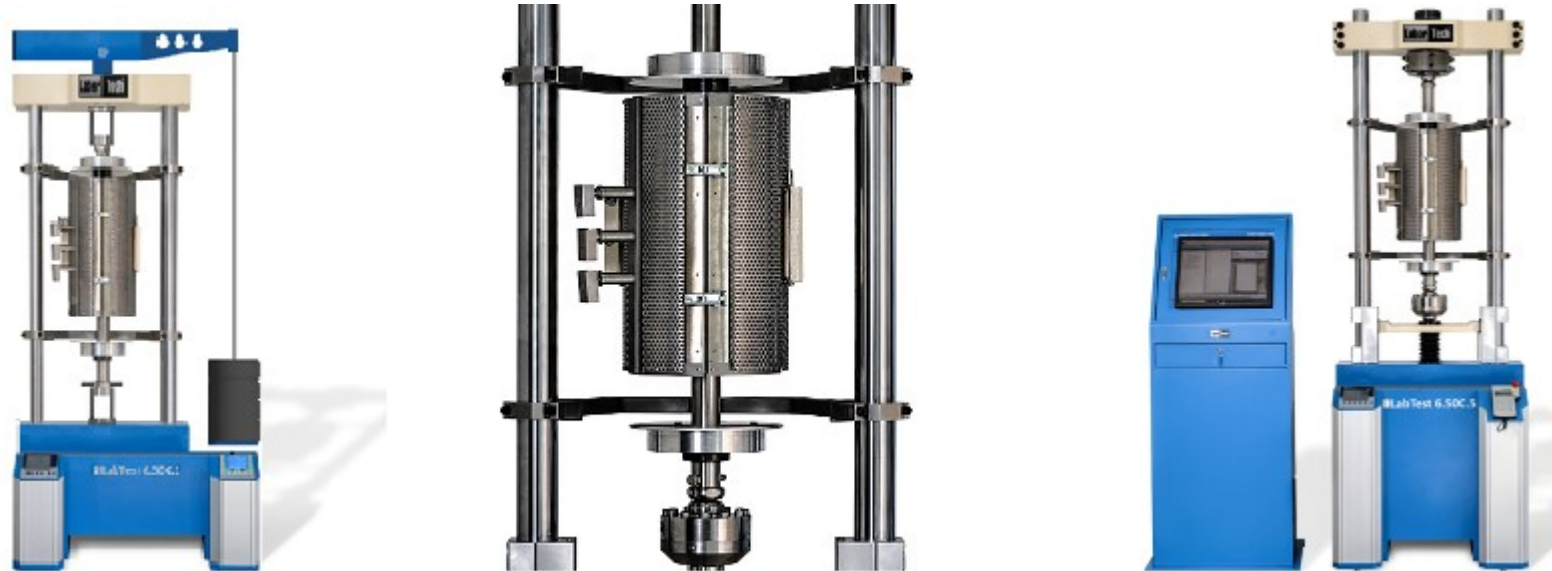


Production of materials testing  
equipment and automation

# Testing machines for long-term test - CREEPTest

Reliable, precise with high rigidity and repeatability

The LABORTECH company offers special testing machines for long-term CREEP TEST tests designed to determine creep or stress relaxation in the material. These machines allow tests to be performed at a constant temperature up to 1600 ° C, where the deformation is recorded at specified time intervals. The constant load of these machines is derived from a lever mechanism and weight, a spring mechanism or a special low-speed AC drive with a long service life.



All modifications of CREEP test systems manufactured by us are designed so that the customer can fully rely on its function and accuracy with long-term constant loading (material flow) with force or stress, including elongation and at a constant homogeneous temperature in a high-temperature furnace. Intuitive and trouble-free use of test software designed for long-term tests produced by LABORTECH guarantees you a reliable declaration of results even after 100,000 hours of continuous loading.

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## Key features of the C.5 series

Low cycle testing over "0" with guaranteed accuracy, coaxiality and reliability.



Vertical two-column stand design with high rigidity, guaranteed mechanical coaxiality and durability inducing direct load by means of a precise linear servo drive with low noise. These machines are designed to perform **long-term low-cycle fatigue in I. and III. quadrant up to a frequency of 2 Hz**, determination of crack expansion, creep, stress relaxation in the material, corrosion resistance, etc. The machine includes durable vibration pads to prevent the transmission of vibrations.



High comfort of machine operation at a very high level thanks to the RMCi remote control with LCD display, having independent machine control, machine movement control, grips, extensometer, **crossbar displacement and clamping**, test start and especially integrated CENTRAL STOP button



The control of the machine is performed by the new measuring and control electronics of the EDCi series with a sampling frequency of 2.5 kHz. Resolution level of analog signals  $\pm 250,000$  parts (20 ms). Internal frequency 64 bit, data acquisition 32 bit, AD 24 bit, arithmetic. Integrated RS232 for VIDEO extensometers. PC connection - Ethernet 10/100 Mbit, USB 2.0



Based on their concept and construction, LABORTECH machines comply with all the above-mentioned ES directives on machines and equipment. Only state-of-the-art safety techniques and proven industrial components are used that work in accordance with the new safety functions according to ENB ISO 13850-SIL 1 / PL.



Each CREEP machine includes a high-temperature furnace controlled by a JUMO LCD PID regulator, which ensures the accuracy of temperature control in accordance with the EN ISO 6892-2 standard. Depending on the tested material and temperature, high-temperature furnaces operating in the temperature range from 200°C to 1600 °C and can be used with the possibility of using axial extensometers.



The intuitive CREEPTest software and Test & Motion+ - BASIC test software produced by LABORTECH guarantees you reliable, accurate, efficient and long-term testing. These software will increase the quality of testing in your test rooms and testing laboratories by using various modules for individual testing standards.



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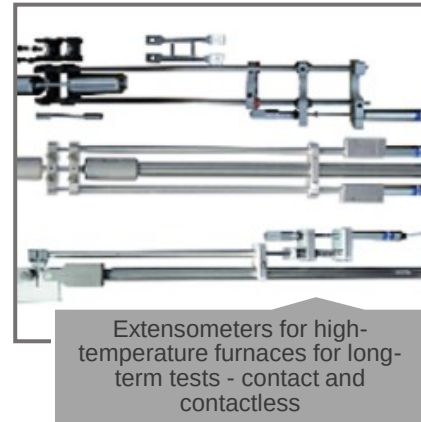
## Create your own machine configuration!

**Test everything with our wide range of accessories...**

A large range of various accessories, including software, will allow you to configure the machine exactly according to your ideas, technical requirements and standards. Just fill out the simple form <http://cientec.com.mx> and we will send you a price offer immediately. We offer both standard accessories and "tailor-made" accessories.



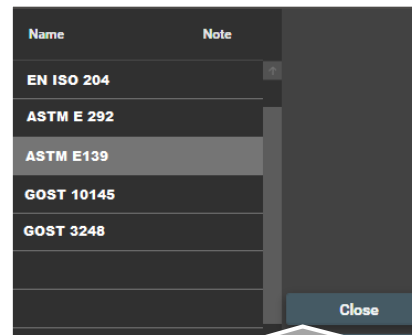
Clamping and centering jigs designed for long-term tests with jigs for high-temperature furnaces.



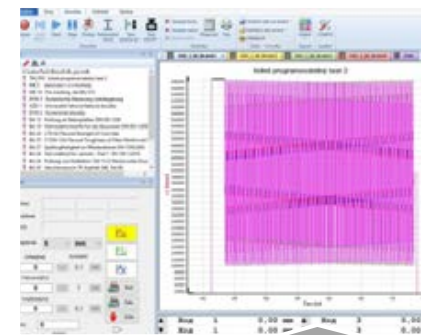
Extensometers for high-temperature furnaces for long-term tests - contact and contactless



High temperature furnaces in the temperature range from 200 to 1600 ° C



CREEPTest software supplied by LABORTECH with various test modules.

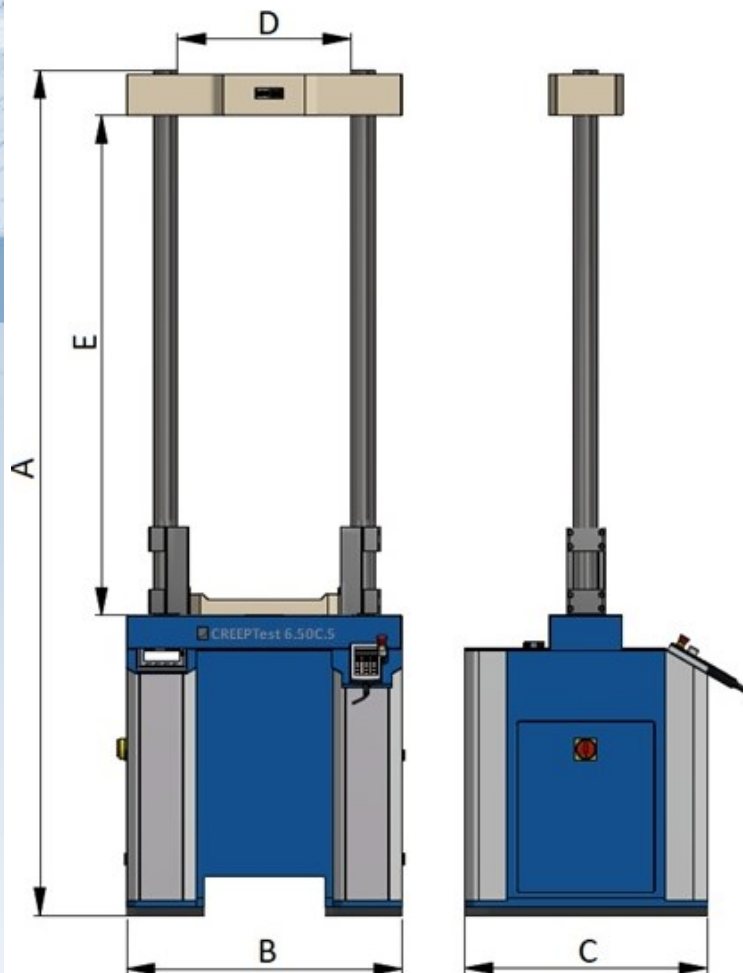


Test & Motion+ test software supplied by LABORTECH with various test modules.

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## C.5 series – with low-speed electric drive over "0"

| Technical data                                  | Units            | 6.30C.5            | 6.50C.5            | 6.100C.5           | 6.250C.5           |
|-------------------------------------------------|------------------|--------------------|--------------------|--------------------|--------------------|
| Product ordering code                           |                  | 1.03050019         | 1.03050119         | 1.03050219         | 1.03050319         |
| Maximum load                                    | kN               | 30                 | 50                 | 100                | 250                |
| Testing speed                                   | mm/h -<br>mm/min | 0,001 up to<br>100 | 0,001 up to<br>100 | 0,001 up to<br>100 | 0,001 up to<br>100 |
| <b>Measurement accuracy</b>                     |                  |                    |                    |                    |                    |
| Accuracy class 1 – measuring from               | kN               | 0.09               | 0.15               | 0.3                | 0.75               |
| Accuracy class 0,5 – measuring from             | kN               | 0.3                | 0.5                | 1                  | 2.5                |
| Traction sensor resolution                      | um               | 0.0023             | 0.0023             | 0.0023             | 0.0023             |
| positioning accuracy                            | mm               | ± 0.001            | ± 0.001            | ± 0.001            | ± 0.001            |
| <b>Machine dimensions</b>                       |                  |                    |                    |                    |                    |
| Machine height - A                              | mm               | 2315               | 2315               | 2475               | 2475               |
| Machine width - B                               | mm               | 795                | 795                | 895                | 895                |
| Machine depth - C                               | mm               | 700                | 700                | 880                | 880                |
| Width of the working space - D                  | mm               | 500                | 500                | 610                | 610                |
| Height of the working space - E*                | mm               | 1350               | 1350               | 1350               | 1350               |
| Machine weight                                  | kg               | 752                | 752                | 940                | 1085               |
| <b>Electrical connection</b>                    |                  |                    |                    |                    |                    |
| Supply voltage / frequency                      | V/Hz             | 230 / 50-60        | 230 / 50-60        | 230 / 50-60        | 230 / 50-60        |
| Number of phases                                |                  | 1Ph/N/E            | 1Ph/N/E            | 1Ph/N/E            | 1Ph/N/E            |
| Power consumption                               | VA               | 820                | 820                | 1410               | 1930               |
| Power consumption with high temperature furnace | VA               | 3700               | 3700               | 3700               | 3700               |
| <b>Environmental conditions</b>                 |                  |                    |                    |                    |                    |
| Working environment temperature                 | °C               | +10 ... +35        | +10 ... +35        | +10 ... +35        | +10 ... +35        |
| Storage temperature                             | °C               | -25 ... +55        | -25 ... +55        | -25 ... +55        | -25 ... +55        |
| Humidity of the working environment             | %                | <90                | <90                | <90                | <90                |
| <b>Others</b>                                   |                  |                    |                    |                    |                    |
| Color combination                               | RAL              | 1015, 5015         | 1015, 5015         | 1015, 5015         | 1015, 5015         |

Technical changes reserved during development, machine parameters at room temperature, \* without testing fixtures

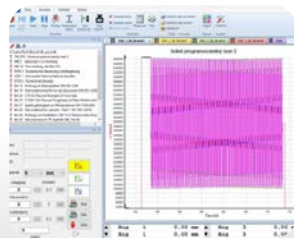
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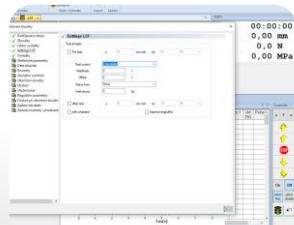
# Software Test&Motion+

Intuitive long-term exam software you'll love...

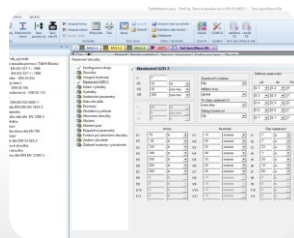


## Test&Motion+ – BASIC software features

Test&Motion+ – BASIC - intelligent, intuitive and powerful software to help you increase productivity and testing quality in your testing laboratories. You can streamline, refine and speed up the execution of your tests and adapt your testing environment to it was easy for the operator to measure the mechanical properties of the materials in tension, bending pressure and torsion with the support of EN, ISO, DIN, ASTM and GOST standards.



- Unlimited number of test methods.
- Modular system of libraries designed for standardized tests - to select for activation.
- Evaluation of optional parameters: maximum strength, strength, elongation, elongation, stress, 5 different reference points, etc .
- Graph in real time, possibility of individual processing after the test
- Mass graphs, Zoom, serial testing
- Data export to ASCII, EXCEL, WORD, Eclipse, Diadem, Q-DAS,
- Clamping length setting for each method
- Display of multiple quantities on the x, y axes



- Online display of up to 6 graphs with arbitrary quantities in the x, y axis
- Control of feed rate depending on elongation, force, stress, elongation, etc ..
- Software control of hydraulic and pneumatic jaws, temperature, automatic extensometer
- Receiving sample dimensions from peripheral devices
- Data collection from analog and digital external meters
- Setting user rights, operator login
- Custom setting of test results
- Automatic saving of results according to the selected tree, database
- Statistical evaluation
- 12 language mutations (CZ, En, De, Fr, Pl, It, Es, Ru, NI, Tr, Zh, Pt)

