

... From development to  
implementation



## Production of materials testing equipment and automation

Testing machines for long-term tests  
**CREEP TEST LabTest C.3**  
up to 500 kN



Made in Czech Republic



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### Basic description

The electromechanical testing machines of C.3 series in a vertical floortop design up to 500 kN maintaining a constant load by means of a central loading mechanism consisting of a central ball screw and a special bearing of a precision cycloid gearbox with an integrated AC servo-unit. These machines are designed to perform long-term CREEP tests, creep determination, relaxation of material stress, etc. This series of machines is characterized by high rigidity of the frame, cohesiveness and mechanical resistance.



### Main advantages and functions

- The ideal ergonomic design of the machine allows the operator to easily perform long-term tests.
- Robust vertical four-column frame with high rigidity, alignment, resistance, durability and maintenance-free operation.
- The application of the test force is ensured by a central ball screw with a cycloid gearbox with almost zero friction, no wear and continuous application of force.
- Precision synchronous maintenance-free AC servo-unit with gearbox and low noise.
- Machine design in accordance with EN ISO 204, ASTM E 292 and ASTM E139.
- Automatic weight set fixation
- Integrated tripod for blast furnace
- Mechanical multifunctional drive system for basic settings
- Accuracy class 1 according to EN ISO 7500-2 within the range of 1 to 100% of rated load.
- Remote control holder RMC6
- Modular arrangement of the machine with the possibility of adding any LABORTECH accessories, including extensometers, high-temperature furnaces, temperature chambers, probes, fixtures, cooling circuits, etc.

- Control and display electronics SIEMENS in the machine base. Test progress displayed on a color LCD monitor.
- Integrated LOTETest software in the machine base.
- Possibility to extend the machine with CREEPTest - BASIS software and add-on modules for mass testing of multiple machines.
- Modification of machine frame to various widths, heights and depths according to customer requirements (OPTION)



### Measuring and control machine electronics

- Long-term reliable, accurate measuring and control electronics of the EDCi series with an integrated UPC unit ensuring data conservation in the event of a power failure. Sampling system with frequency up to 5kHz, 64bit internal accuracy, 32bit measurement and 24bit resolution ADCs..
- Modular system with possibility to extend measurement up to 16 sensors. SAFETY with new safety functions according to ENB ISO 13850-SIL 1 / PL.

### Force measuring system

- The C-series load cells are ideal for tensile, compression, bending and cyclic tests. They are characterized by high resistance to lateral forces, bending moments and high overload resistance. Accuracy class according to EN ISO 7500-1, ASTM E4 is commonplace. Each sensor is equipped with an SGS connector with an integrated EEPROM to which the calibration constant and linearization can be configured.
- The accuracy class of the load cells supplied by us is 0,5 or 1.
- The load cell type is always chosen according to the type of the testing and test fixtures used.

### Basic features of LOTETest® software

- Intelligent and intuitive software included in the price of the machine base (with option to upgrade on version CREEPTest-BASIS software), designed to collect data and view measured values from track, force, sample and high temperature chambers while performing long-term CREEP tests over time.
- Digital display of all actual values of active channels, Test run graph.
- Saving of measured data into database with possibility of filtering according to definition, order, date etc.



### Upgraded software model CREEPTest - BASIS®

- Software designed for long-term testing CREEP with full automation of the test process and elimination of errors during long-term tests according to EN-ISO, ASTM, GOST standards.
- Simple intuitive operation, continuous collection, remote monitoring of test process, statistical processing of results and analysis of tests, database storage of results, data backup, possibility to generate own methods and test templates, automation of error reports, graphical processing of tests.
- Data export to CSV – BASIS, or to MY SQL and MS SQL
- 9 language versions (Cz, En, Ge, Fr, Pol, It, Sp, Ru, Du)
- Service menu

### Safety and service life requirements

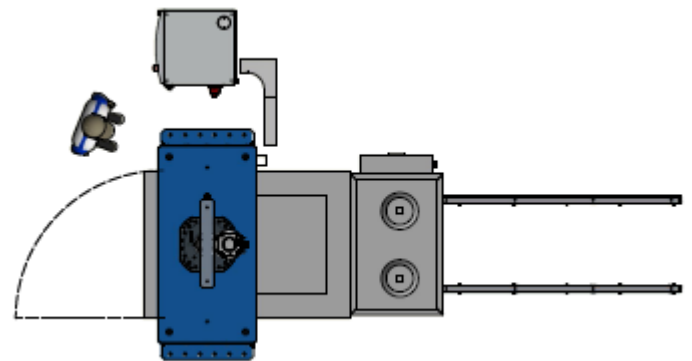
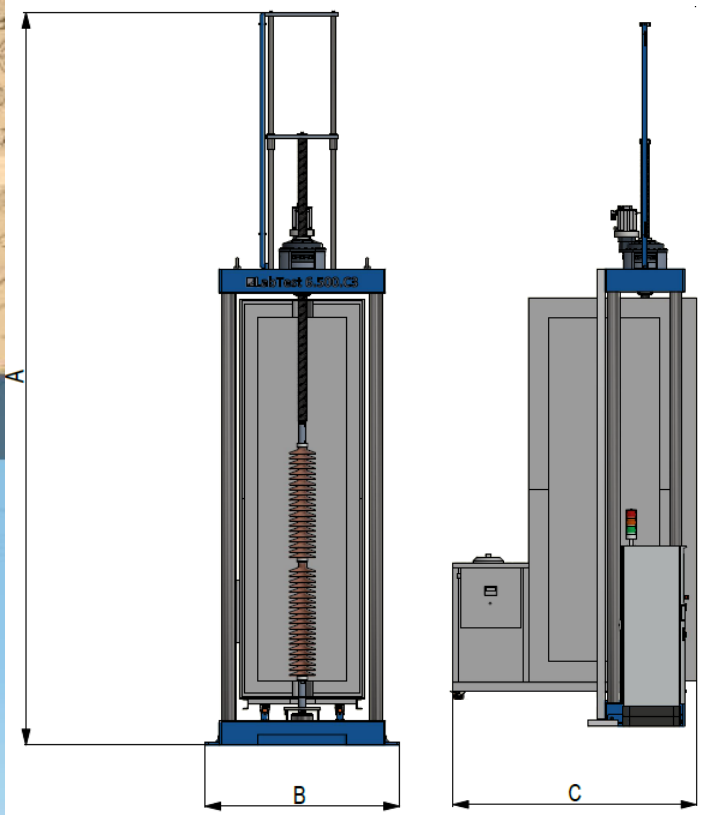
- LABORTECH machines, based on their design and construction, comply with all of the above EC Machinery and Equipment Directives.
- The customer always receives an EC declaration of conformity.
- Only state-of-the-art safety technology and proven industrial components operating in accordance with the new ENB ISO 13850-SIL 1 / PL safety features are used.
- Spare parts are available 10 years after the end of the machine type production.

**Labor Tech**

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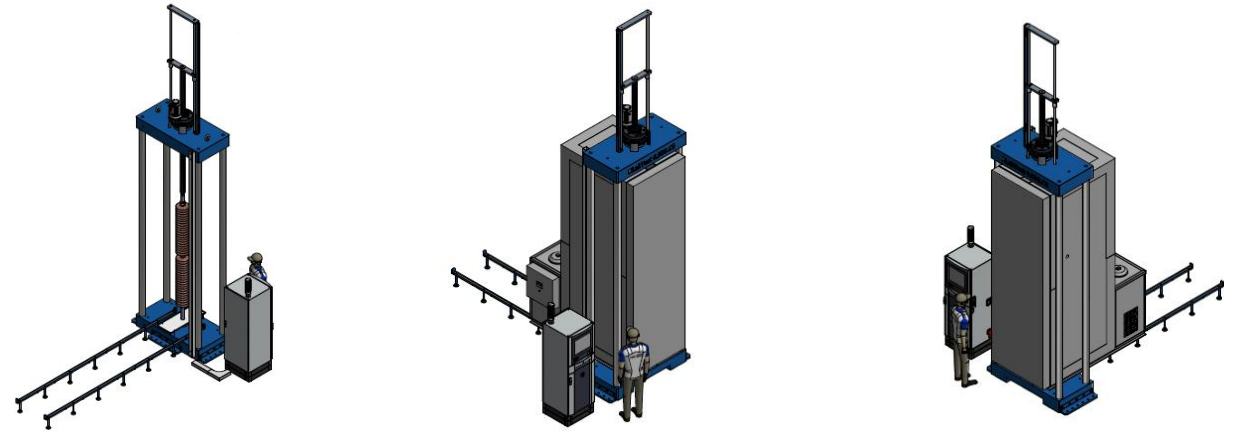
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Technical data	Units	CREEPTest 6.30C.3	CREEPTest 6.50C.3	CREEPTest 6.100C.3	CREEPTest 6.250C.3	CREEPTest 6.500C.3	CREEPTest 6.30C.3C
Nominal load	kN	30	50	150	250	500	30
Test speed	mm/min	0,00001 – 50					
Load cell accuracy	%	±0,5/1					
Crosshead position repeatability	μm	±5**					
Weight <sup>1</sup>	kg	835	835	1095	1095	7000	615
<b>Dimensions<sup>2</sup></b>							
Machine height (A)	mm	2310	2310	2395	2395	7105	2310
Machine width (B)	mm	860	860	860	860	2635	860
Machine depth (C)	mm	650	650	690	690	1890	650
Height of workspace	mm	1360	1360	1360	1360	4120	1360
Width of workspace	mm	610	610	610	610	1360	610
<b>Environmental conditions</b>							
Work environment temperature	°C	od 10 do 35					
Storage temperature	°C	od -35 do 55					
Humidity range	%	< 90					
Noise level <sup>3</sup>	dB	< 65					
<b>Electrical connection</b>							
Supply voltage	V	230V, 400V/50Hz*					

<sup>1</sup> The machine weight is without of testing inserts and Load cell. <sup>2</sup> dimensions without tripod <sup>3</sup> Machine noise is measured 1 m from the test machine. <sup>3</sup>When used as an accessory. \* Supply voltage 3x400V/50Hz for CREEPTest 6.500C.3 machines. \*\* Not repeated for CREEPTest 6.30C.3C



## LABORTECH in the world



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