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Series Horizontal Testing Machines

CREEPTest 7.100 - 7.2000 C.3L

LABORTECH horizontal testing machines of the CREEPTest 7.100–7.2000.C3L series are designed for long-term load testing of materials, components and complex assemblies that require high accuracy, stability and reliability in time-consuming applications. With a massive welded horizontal structure with high rigidity, these machines provide ideal conditions for testing bulky or long samples while maintaining accurate and uniform loads.

The base frame is available in several lengths, with all key parts machined on CNC machines with tight tolerances, guaranteeing high repeatability of results even during very long tests. The machines are suitable for testing anchoring elements, threaded joints, ropes, chains, rods and entire structural units. Various types of drives are available – electromechanical, hydraulic or lever with a weight (up to 100 kN), with loading taking place smoothly and with precise control in real time. The whole system is fully compatible with LABORTECH control and measurement systems, including Test&Motion software and add-on automation modules according to customer specifications.

A high level of safety is ensured by integrated force and displacement sensors, advanced machine condition monitoring and optional safety guards. The modular design of the machine allows easy adaptation to different types of tests without interfering with the frame, which significantly reduces changeover times and increases flexibility of operation. The overall ergonomic layout ensures comfortable operation, easy maintenance and optimal access to the test area.

Versatility, accuracy, repeatability and performance are our priorities...

Industry

Engineering, energy, shipbuilding, construction, heavy industry and research institutions, etc.

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Key features and benefits of the C.3L series

We use new technologies and emphasize safety...

Test frames with integrated force sensor

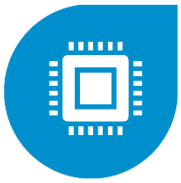
The test frame is a key structural element of each LABORTECH machine, designed with an emphasis on high rigidity, safety and long-term operational reliability. The robust welded steel construction ensures stability even under high mechanical stress. Thanks to optimization using FEM calculations, ideal distribution of forces is achieved and deformations during loading are minimized. The basic frame segment with a length of 3000 mm serves as a supporting axis, which is followed by two cantilever parts with the possibility of mounting drives - electromechanical, hydraulic or lever (up to 100 kN). The brackets are designed modularly and equipped with silent blocks or damping rubbers that absorb more than 80% of vibrations. This contributes to component protection as well as operator comfort. An integrated protective trough covers the lower part of the frame and protects the work area from dirt. Fixation holes with hardened inserts, spaced at 300 mm (axis-axis), allow flexible attachment of accessories according to the type of load application – static and dynamic. The frame includes two robust crossbars. The movable crossbar is manually adjustable, mounted on covered bearings and equipped with an ergonomic handle and locking pins for quick adjustment. The fixed crossbar is designed for the connection of a force sensor and ensures precise power transmission. The force transducer is calibrated according to EN ISO 7500-1 (accuracy class 1), designed for extreme load conditions with short-term overloads of up to 300% and equipped with an SGS connector with EEPROM for direct communication with the test software. – more HERE

Machine control – powerful and precise AC actuator, hydraulic system or lever

The electromechanical drive is designed for tensile and long-term tests up to 500 kN. It offers a stroke of 350 mm and a flange mount. The low-friction ball screw is optimized for horizontal loading. Limit switches protect the mechanics during stop-over. The drive is equipped with an IRC sensor for precise position measurement. **The hydraulic drive** allows loads of up to 10,000 kN at strokes of 350 to 620 mm. The piston rod design ensures minimal friction and high resistance to lateral forces. The cylinder is fitted with shoulders. Compatibility with ISO valves ensures flexible configuration. The drive contains an SSI sensor. **The lever drive** is ideal for long-term flow with a constant load generated by the weight. It offers automatic lever leveling, end of the test after breaking. – more HERE

Safety system – maximum operator protection without compromise

LABORTECH testing machines meet the strictest safety standards. The type of guard depends on the drive used – lever, electromechanical or hydraulic. **Manual cover – A mechanically** closable 3 m segment serves as a reliable physical barrier. Ideal for lever drives and less demanding operations. Construction according to ČSN EN 12100. **Electromechanical cover – Motion** controlled by a precise servo drive. A light barrier and RMCi7 control are included. Designed for machines with electromechanical drive. **Hydraulic cover – Robust** hydraulic control with damped operation. Suitable for machines with hydraulic drive, supplemented with a light barrier and remote control. – more HERE

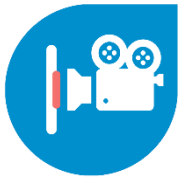


Terminal, measuring and control electronics, remote control of the machine

The LABORTECH Edition 30 industrial PC terminal serves as a robust and ergonomic interface between the operator and the control system of the testing machine. It is designed for industrial environments and everyday operation, while the construction is based on the LABORTECH design line with an emphasis on simplicity, durability and functionality. A key role in the system is played by the powerful EDCi20x measuring and control electronics, designed for precise control of static tests. This unit offers a high resolution of up to ±1,000,000 divisions, a maximum test frequency of 5 Hz and a data communication speed of 2.5 kHz. It supports automatic sensor identification, linearization and zero force correction. With up to 16 expandable slots, additional modules can be easily integrated according to customer needs. USB 3.0 and Ethernet interfaces are used to connect to a PC, the electronics are fully compliant with CE standards and include safety functions including ECO mode and emergency stop according to ISO 13850:2015. In conjunction with the ergonomic RMCi6 and RMCi7 controllers, which enable intuitive machine control even without direct access to the PC, the terminal forms an efficient tool for comfortable and safe control of test processes. – more HERE

Test&Motion+ Testing Software

It is included with every LabTest testing machine and is designed to increase productivity and quality testing. This intuitive software allows tests to be performed efficiently and accurately with a customizable environment for measuring the mechanical properties of materials. The user-friendly interface on the LCD touchscreens makes operation easy. It supports international standards (EN, ISO, DIN, ASTM, GOST) and allows the creation and management of test methods for different types of tests. It provides instant and accurate results, facilitates integration with automation systems, and offers easy export



Testing accessories

LabTest testing machines are designed with flexibility and adaptability in mind, allowing for easy integration of different types of accessories. The most commonly used are VIDEO extensometers for non-contact deformation measurement or temperature chambers. – more HERE

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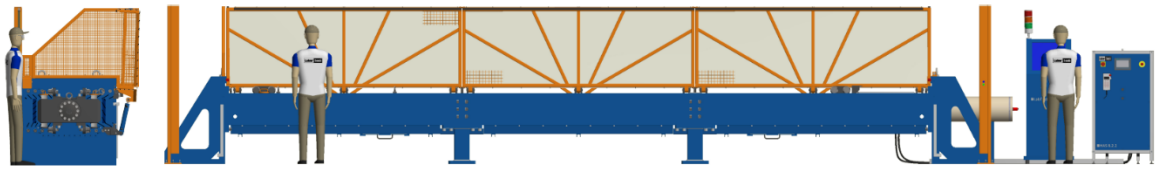
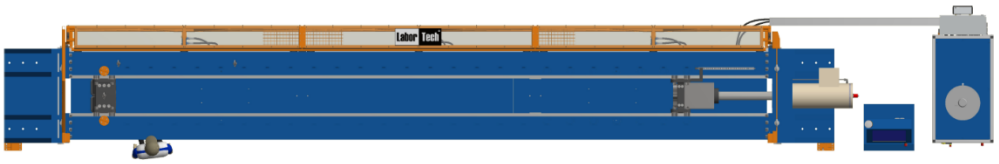
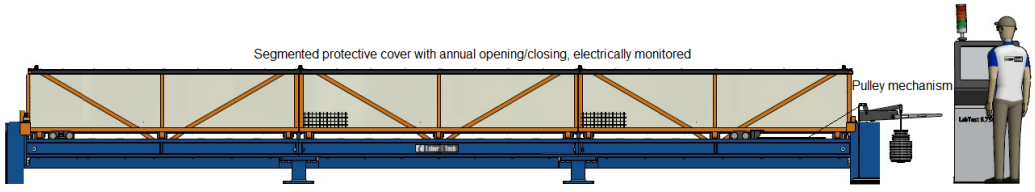
Basic specifications of CREEPTest 7.100 to 7.2000C.3L testing machines

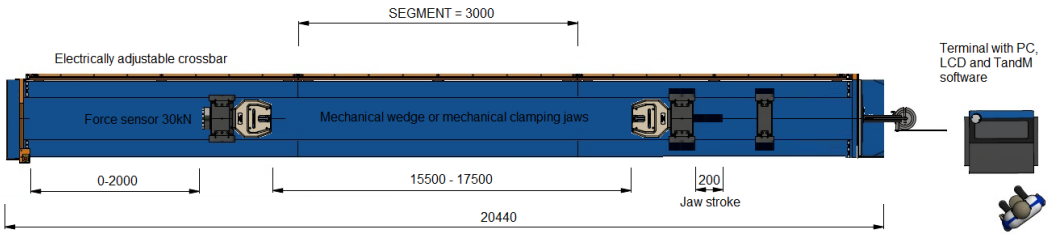
Ratings	Units	CREEPTest 6.100-250	CREEPTest 6.500-750	CREEPTest 6.1000-1500	CREEPTest 6.2000
Product code		1.03031025	1.03031125	1.03031225	1.03031325
Test force	Cn	100-250	500-750	1000-1500	2000
Machine configuration		Horizontal segmented weld construction			
Measurement accuracy		Better than +/- 0.5% read down to 1/1000th of load cell capacity			
Test frame					
Maximum machine length	mm	30 000	30 000	20 000	20 000
Adjustable length of the test space	mm	300	300	300	300
Single segment length	mm	3000	3000	3000	3000
Machine drive					
Drive type		AC servo motor, hydraulic or lever mechanism			
Lever mechanism – F Max.	Cn	YES (up to 100)	NO	NO	NO
Electromechanical drive	Cn	YES	YES	NO	NO
Hydraulic drive	Cn	YES	YES	YES	YES
Electrical connection					
Supply voltage/frequency	V/Hz	115 or 230/50-60/1 phase			
Machine power consumption	Kva	1,5	1,5	1,5	1,5
Other parameters					
The basic weight of the machine without	Kg	148	164	180	204
Machine noise at V max[4]	dB	67	67	67	67
Color combination	RAL	1015, 5015			
Interface to PC[5]		USB, Ethernet			
Environmental conditions					
Working Environment Temperature	°C	+10 ... +35			
Humidity of the working environment	%	<90			

[1]* Exact test specification required









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The elements that characterize us...

We offer everything from development to implementation and listen to your needs...

Warranty and post-warranty service

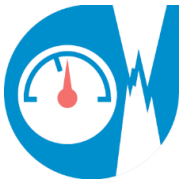
From the moment our machines are delivered, our commitment does not end. We pride ourselves on standing behind our products and customers even after they leave our company. In order to ensure maximum satisfaction and peace of mind with our devices, we provide a complete online warranty and post-warranty service. Thanks to our dedicated team of experts, we are here to provide you with the best possible support throughout the entire lifecycle of our products. With our online warranty and post-warranty service, you are safe, aware of our support whenever you need it.

Ecological approach

We are proud to be a company that not only develops and manufactures quality testing machines and equipment, but also takes the environment seriously. For us, ecology is not just a phrase, but an essential aspect of our business. We are committed to minimal environmental impact and sustainable working practices. Our commitment to the environment does not end with the possession of the ISO 14001:2016 certificate. We believe that every step towards sustainability is crucial for the future of our planet.

Simple operation

In the company, our company emphasizes quality training and training for the operation of our machines. We believe that expertise and ease of use are key factors in achieving optimal results and customer satisfaction. When developing our devices, we focus not only on performance and innovation, but also on ease of use. This allows for quick adaptation and efficient work even for less experienced users. We are here to ensure that our technologies are not only powerful, but also easy to use for all users.



Reliability, accuracy and repeatability of measurements

With LabTest test machines, accuracy and repeatability of force and displacement measurements are our top priority. We have combined these key aspects with high dynamics of electronics to guarantee a more affordable and efficient way to set up our devices. Thanks to the innovative approach to electronics in our testing machines, we have achieved excellent accuracy and repeatability in the testing process. The reliability of our equipment is important not only for research and development, but also for industrial and testing applications.

Versatility and versatility

Our LabTest testing machines have a double advantage: versatility and intuitive operation, which brings efficiency during the tests themselves. By combining our high-quality testing machines with highly functional accessories, we offer versatility for a wide range of testing needs. This flexibility allows our customers to perform different types of tests and measurements with one device, which is an economic and practical benefit. Thanks to these features, you can rely on precise results and trouble-free operation in everyday practice.

Safety at the highest level

We strongly promote safety at the highest level in accordance with the latest directives 2006/42/EC and 2023/1230 and industry standards such as IEC 60947. Every product we create is the result of many years of experience, research and experimentation in the field of mechanical testing of materials. Our compliance with standards is documented by the EC and EU Declaration of Conformity, which is why we leave nothing to chance.

Mechanical resistance and maintenance-free operation

When developing products, we emphasize that LabTest machines have robustness, rigidity, long service life, mechanical resistance and maintenance-free operation – these are our key priorities. Our offer includes professional engineering and consulting services, which harmoniously blend in the design of systems and the implementation of the tests themselves.

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LABORTECH, s.r.o.
Rolnicka 130 a, 747 05 OPAVA, Czech Republic
Phone: +420 553 668 648, E-mail: info@labortech.cz
www.labortech.cz