

... from development to
implementation



Czech manufacturer of testing machines and automation

Creep machines for determining the residual life
of materials according to the methodology CWA
15627 – "BULGE"
C.4 series - CREEPTest 6.005 and 6.010



... from development to implementation

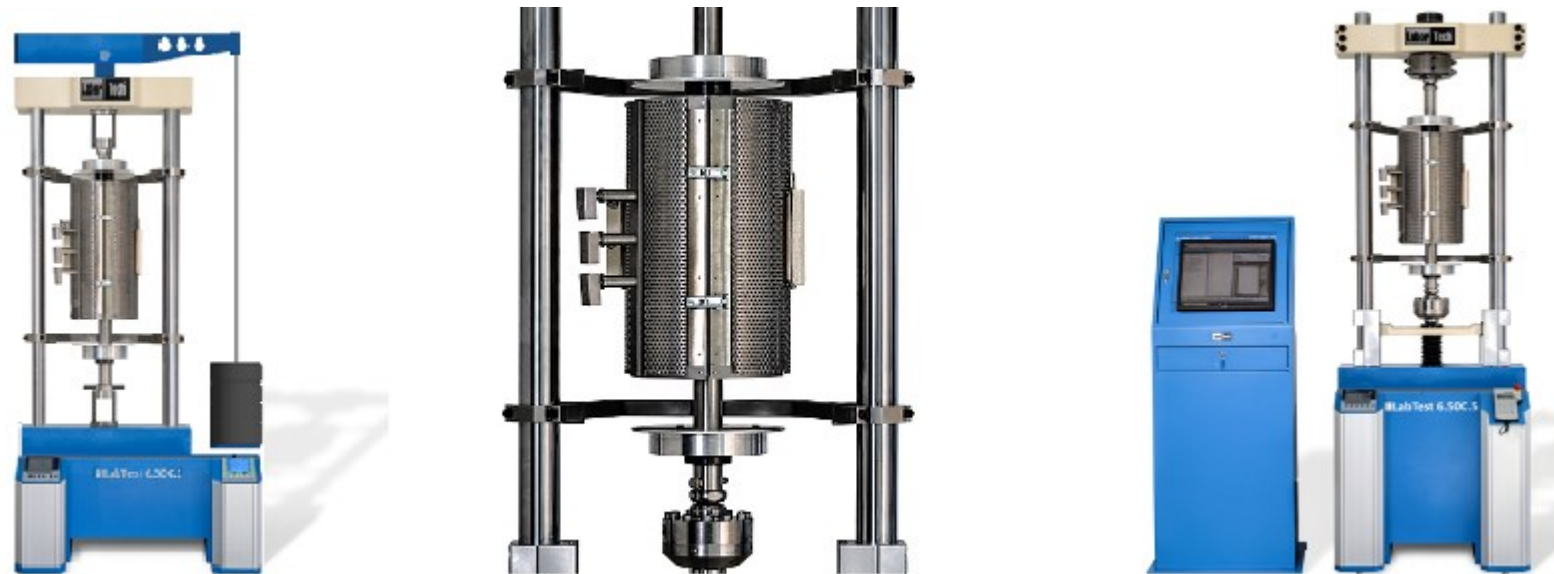


Production of materials testing equipment and automation

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.



Every small detail matters

... from development to implementation

Labor Tech[®]

Production of materials testing equipment and automation

Key features of C.4 series

Accuracy, concentricity and durability, these are the parameters in the standard...



Vertical two-column stand design with high rigidity, guaranteed mechanical coaxiality and durability inducing direct load by means of a precise linear actuator with low noise. These machines are designed to **determine the residual life of materials operating at elevated temperatures according to CWA 15627 using the "Bulge" creep test.**



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



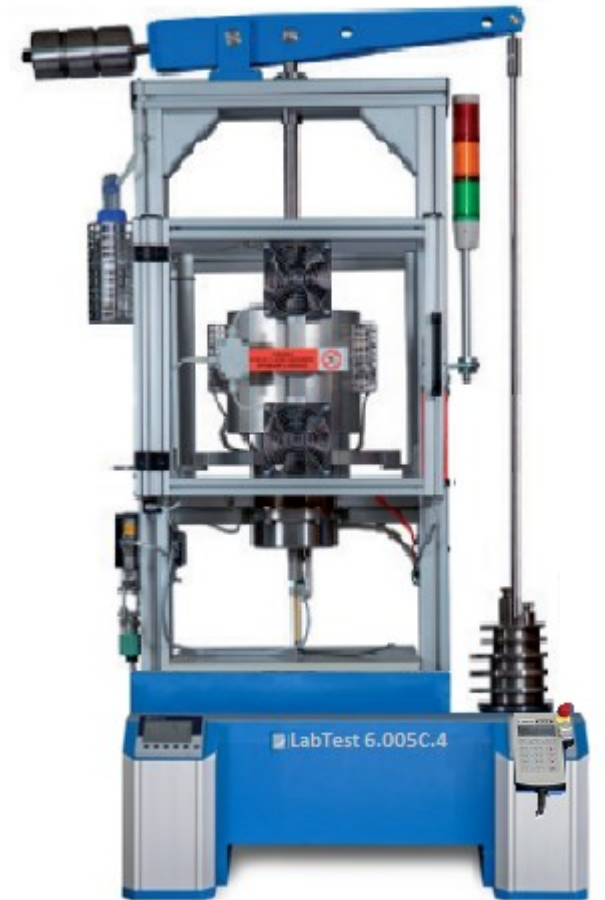
Based on their concept and construction, LABORTECH machines comply with all the above-mentioned ES directives on machines and equipment. Only state-of-the-art safety techniques and proven industrial components are used that work in accordance with the new safety functions according to ENB ISO 13850-SIL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



Součástí každého CREEP stroje je vysokoteplotní pec řízená z SIEMENS LCD PID regulátoru, který zabezpečuje přesnost řízení teploty v souladu s normou EN ISO 6892-2 . V závislosti na zkoušeném materiálu lze vybírat z jedno až tří zónových pecí pracujících v teplotním rozsahu od 200°C do 1600°C (doporučení pro C.4 – 800°C) s možností použití axiálních extenzometrů.



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.



Every small detail matters

... from development to implementation



Production of materials testing equipment and automation

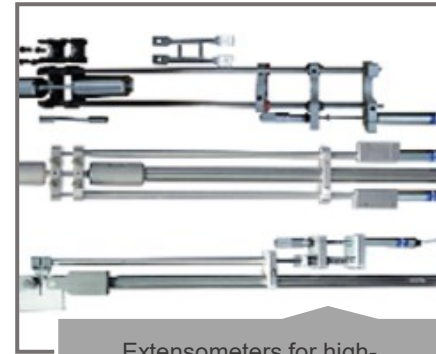
Create your own machine configuration!

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 [HERE](#) 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

Name	Note
EN ISO 204	
ASTM E 292	
ASTM E139	
GOST 10145	
GOST 3248	

CREEPTest software supplied by LABORTECH with various test modules.



Every small detail matters

... from development to implementation



Production of materials testing equipment and automation

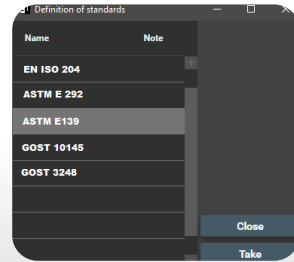


Every small detail matters

Software CREEPTest

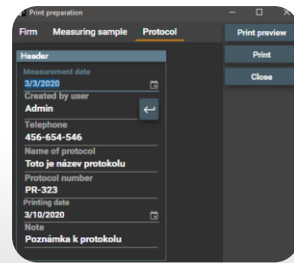
Higher form of software for long-term tests with great endurance...

CREEPTest - BASIC - intelligent, intuitive and powerful add-on software that will help you increase confidence and quality during long-term testing in your testing laboratories. Software designed for long-term CREEP tests with full automation of the test process and elimination of errors during long-term tests according to ISO 204, ASTM E139, ASTM E292, EN 2002-005, ASTM E1457, GOST 3248, etc.

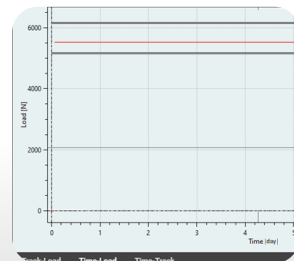


Features of CREEPTest software – BASIC

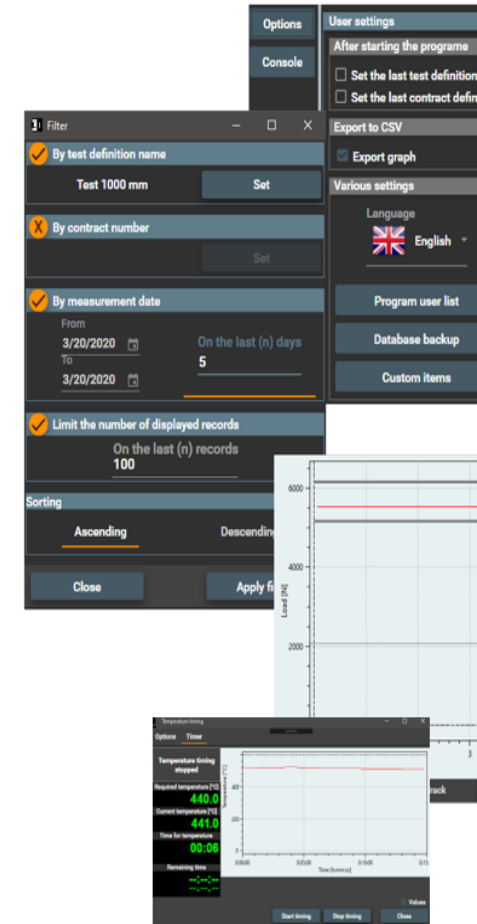
CREEPTest - BASIC will help you increase reliability and quality during long-term testing in your test rooms and testing laboratories. Software designed for long-term CREEP tests with full automation of the test process and elimination of errors during long-term tests according to EN, ISO, ASTM and GOST standards.



- Simple and intuitive operation, continuous data collection from multiple stations of the C.1, C.2 and C.4 series
- Digital display of all current values.
- Remote monitoring of the testing process, statistical processing of results and analysis of tests, database storage of results, data backup
- Saving of measured data in a database with the possibility of filtering



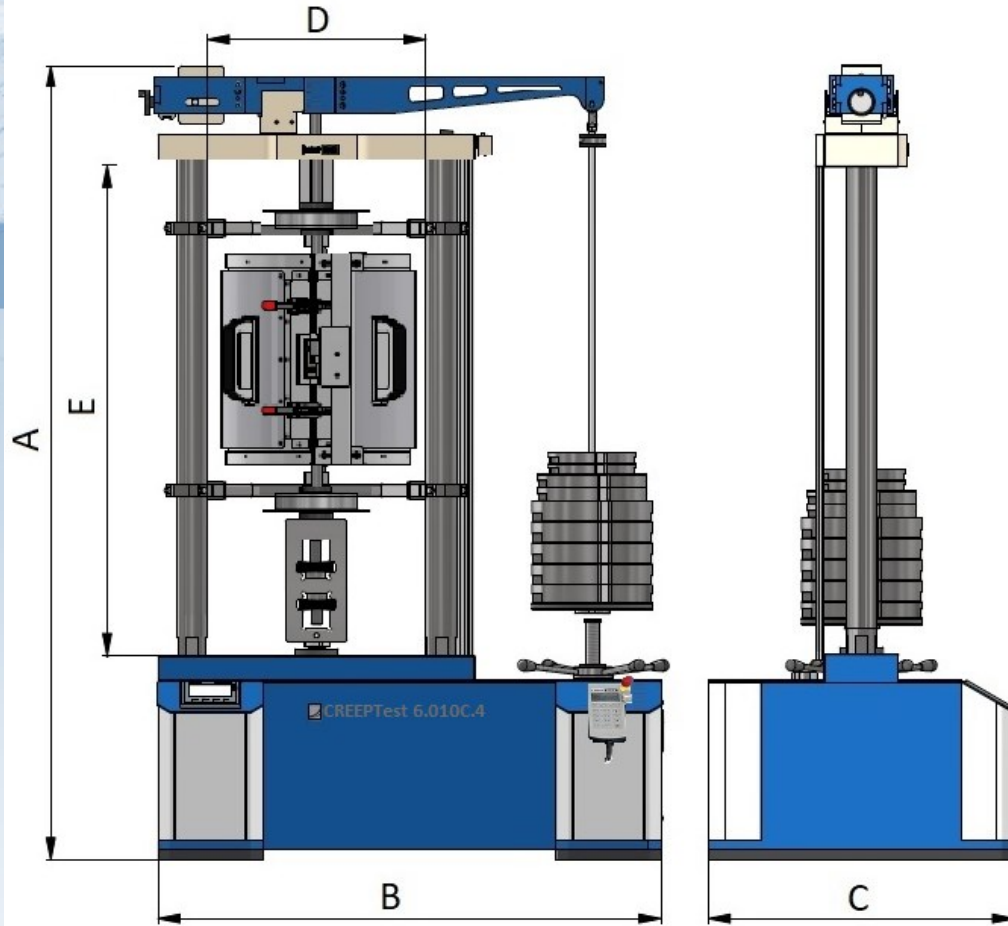
- Modules for long - term tests, determination of creep, stress relaxation in material, Andrade creep test at constant real stress during uniform deformation of test specimen, fracture time depending on deformation and time, Sherby - Dorn parameter, etc.
- Automatic control, including temperature records during long-term tests
- Multilingual version (CZ, EN, POL, RU, ESP atd.)
- Data export to CSV - BASIS, or to MYSQL and MS SQL
- Unlimited license



... from development to implementation



Production of materials testing equipment and automation



C.4 series - with lever, weight and load cell

Technical data	Units	6.005C.4	6.010C.4
Product ordering code		1.03040019	1.03040119
Maximum load	N	500	1000
Lever arm ration		20:1	20:1
Machine dimensions			
Machine height - A	mm	1850	1850
Machine width - B	mm	1150	1150
Machine depth - C	mm	700	700
Height of the working space - E*	mm	1030	1030
Width of the working space - D	mm	500	500
Machine weight	kg	420	420
Measurement accuracy			
Accuracy class 1		0,3 up to 100% nominal load	
Auxiliary energy			
Max. Argon protective gas pressure 5.2	kPa	200	200
Gas purity	%	99,992	99,992
Electrical connection			
Supply voltage / frequency	V/Hz	230 / 50-60	230 / 50-60
Number of phases		1Ph/N/E	1Ph/N/E
Power consumption with high temperature furnace	VA / °C	2300 / 800	2300 / 800
Environmental conditions			
Working environment temperature	°C	+10 ... +35	+10 ... +35
Storage temperature	°C	-25 ... +55	-25 ... +55
Humidity of the working environment	%	<90	<90
Others			
Color combination	RAL	1015, 5015	1015, 5015

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



Every small detail matters

... from development to implementation



Production of materials testing equipment and automation



Every small detail matters

Technical specifications C.4 series

What else you have to know...



Security

The safety corresponds to the European safety of machines CE directives (89/392 / EEC and 91/368 / EEC - safety of machinery EN60204-1: 1992). The emergency stop function electrically interrupts the drive of the hydraulic power unit and the entire machine. All safety systems are dual-circuit and fail-safe.



Minimum PC configuration requirements for CREEPTest software.

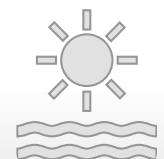
PC-Standard - Processor: min. two cores, min. 2.5 GHz, RAM: min. 4GB, Hard drive: HDD min. 500GB or SSD min. 120GB, Graphics card: integrated in the processor, network connector: min. 2x, Drive: DVD RW, keyboard, mouse, min. 2x USB 3.0, operating system: MS Windows 10 Pro
Monitor-Standard - LCD monitor, 1920x1080 resolution and higher



Servis

STANDARD servis - Our testing machines can work 24 hours a day, 7 days a week, 365 days a year. We provide you with On-line service at all times with our qualified application and service technicians on the telephone line +420 602 527 577.

LABWEBservis - Telephone service using remote access provided by LABORTECH employees. Up to 10 minutes FREE, further according to the LABORTECH price list



Environmental and operating conditions

Power voltage - Guaranteed reliable operation of our machines is possible with the usual deviations (supply voltage $\pm 10\%$, frequency $\pm 1\%$, ie 230V - 1f or 400V - 3f).

Electromagnetic compatibility (EMC) - Our test systems are designed in accordance with the applicable EMC directives.

Environment - It is necessary to observe the range of working temperatures and humidity according to the manufacturer's recommendations to secure the machine against corrosion, shocks, vibrations, oscillations, etc.



... from development to implementation



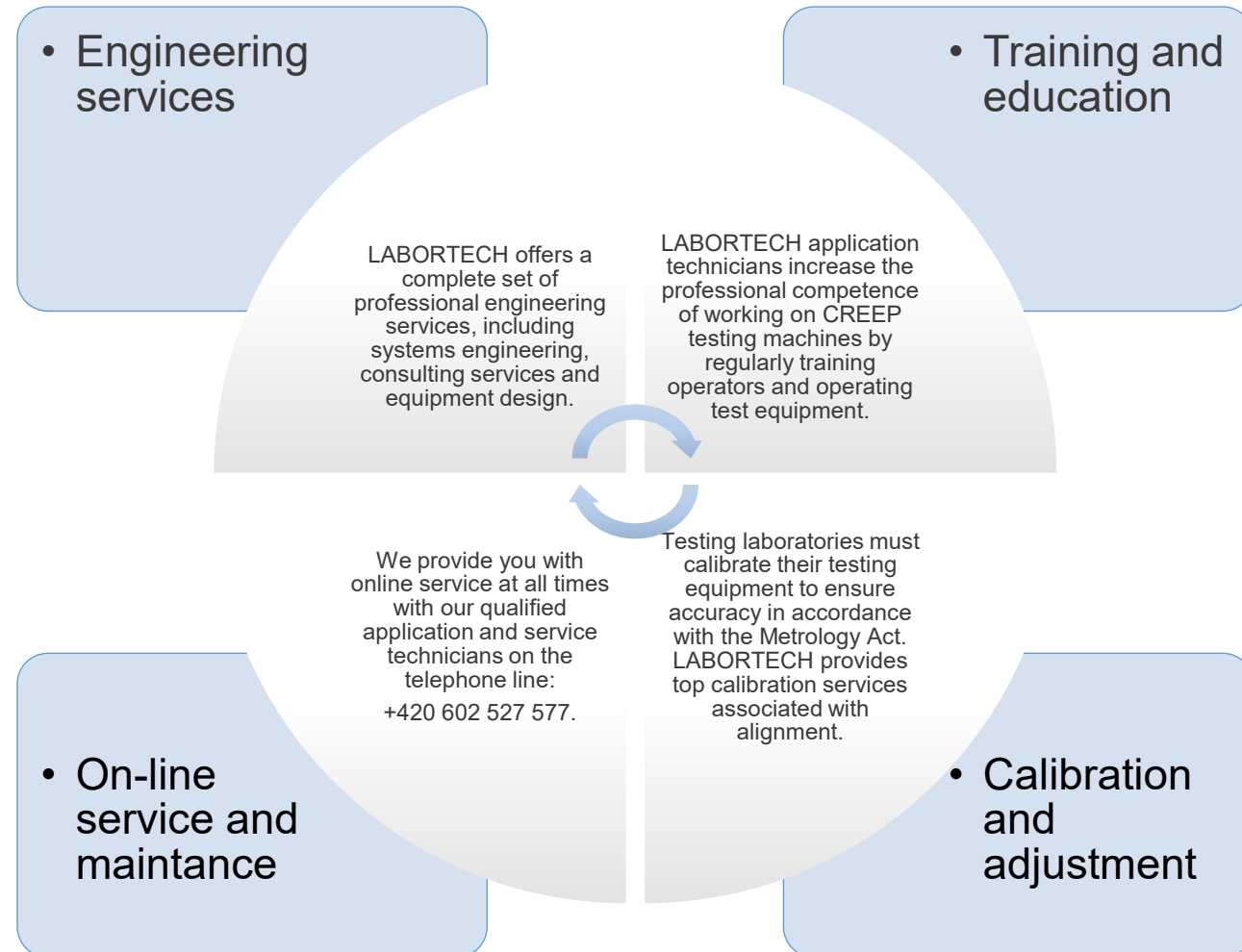
Production of materials testing equipment and automation



Every small detail matters

Why buy machines of C.4 series from LABORTECH?

Because we offer everything from A to Z, ie. from development to implementation...



... from development to implementation



Production of materials testing equipment and automation



Every small detail matters

LABORTECH in the world

Where to find LABORTECH representations...



Contact:

LABORTECH, s.r.o.

Rolnická 1543/130a, 747 05 OPAVA, Czech Republic

Telephone: +420 553 731 956, +420 553 668 648

E-mail: info@labortech.cz

Web: www.labortech.cz

GPS: 49°57'05.1"N

17°54'04.4"E

LABORTECH TRADING s.r.o.

Na Florenci 1686/9, 111 71 PRAHA 1, Czech Republic

Telephone: +420 724 731 956

E-mail: trading@labortech.cz

Web: www.labortech.eu