

from development to
implementation



Czech manufacturer of materials testing equipment and automation



Testing machines with low speed
electric drive series
C.3 - CREEPTest 6.500

from development to
implementation

all base corners
radius R125

Labor Tech[®]

Production of materials testing
equipment and automation

constant speed operation of
the drive and its maintenance
with the LabTech software
allows for easy access to the test
data.



Every small detail matters...

Testing machines for long-term test - CREEPTest

Reliable, precise with high rigidity and repeatability

The LABORTECH company offers special testing machines for long-term CREEPTest 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.3 series

Accuracy, coaxiality and durability are the parameters in the standard



Vertical four-column stand design with high rigidity, guaranteed mechanical coaxiality and durability inducing direct load using a precise linear actuator with low noise. These machines are designed to perform long-term low-cycle fatigue in the I quadrant up to 2 Hz stress in the material, corrosion resistance, etc. The machine includes durable vibration pads to prevent the transmission of vibrations.



High comfort of the machine operator at a very high level thanks to the RMCi remote control with LCD display, which has independent control of the machine, machine movement control, jaws, extensometer, crossbar feed 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 $\pm 250,000$ divisions (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 EC directives on machinery 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 controller, which ensures the accuracy of temperature control in accordance with the EN ISO 6892-2 standard. Depending on the material tested, one can choose from one to three zone furnaces operating in the temperature range from 200 ° C to 1600 ° C with the possibility of using axial extensometers.



The intuitive CREEPTest 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 [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



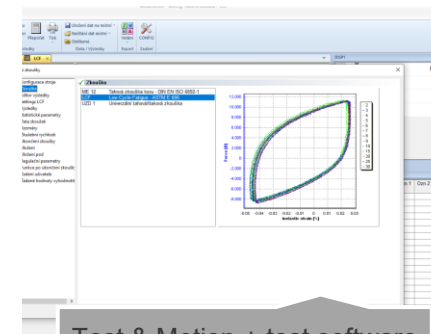
High temperature furnaces in the temperature range from 200 to 1600 ° C

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

CREEPTest software supplied by LABORTECH with various test modules..



Temperature chambers with a range from - 80 ° C to + 350 ° C.



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



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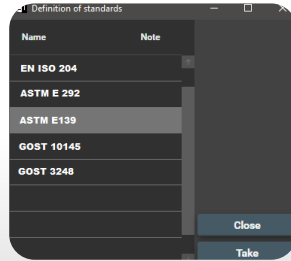
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Production of materials testing
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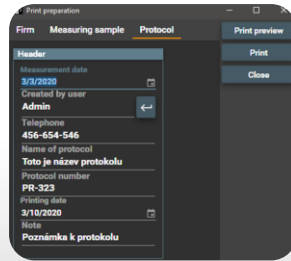
Software CREEPTest

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

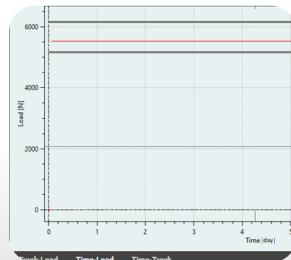


Features of CREEPTest – BASIC software

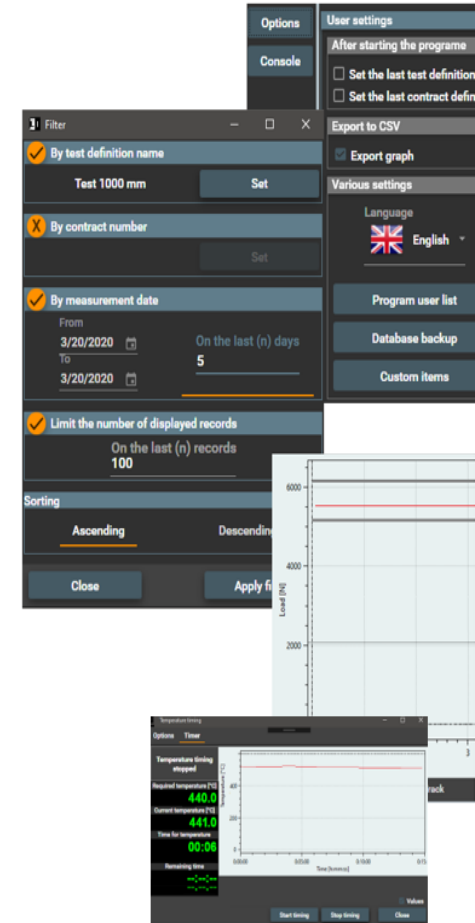
CREEPTest - BASIC will help you increase reliability and quality during long-term testing in your test rooms and testing laboratories. Software designed for long-term CREEP tests with full automation of the test process and elimination of errors during long-term tests according to EN, ISO, ASTM and GOST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



- Simple and intuitive operation, continuous data collection from multiple stations of the C.1 and C.2 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



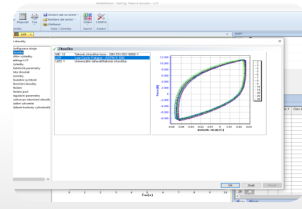
- Modules for long - term tests, determination of creep, stress relaxation in material, Andrade creep test at constant real stress during uniform deformation of test specimen, fracture time depending on deformation and time, Sherby - Dorn parameter, etc.
- Automatic control, including temperature records 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



Every small detail matters...

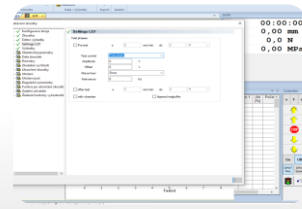
Software Test&Motion+

Intuitive long-term exam software you will love ...

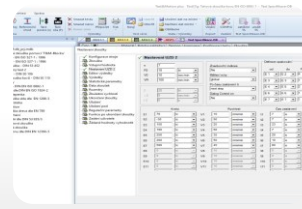


Features of Test & Motion + - BASIC software

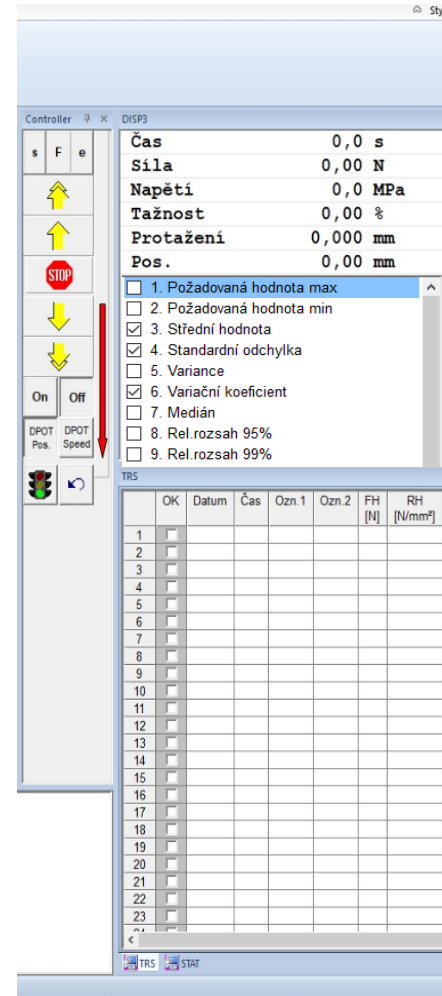
Test & Motion + - BASIC - intelligent, intuitive and powerful software to help you increase productivity and testing quality in your testing laboratories. You can streamline, refine and speed up the execution of your tests and adapt your testing environment to it was easy for operators to measure the mechanical properties of 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 various 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)



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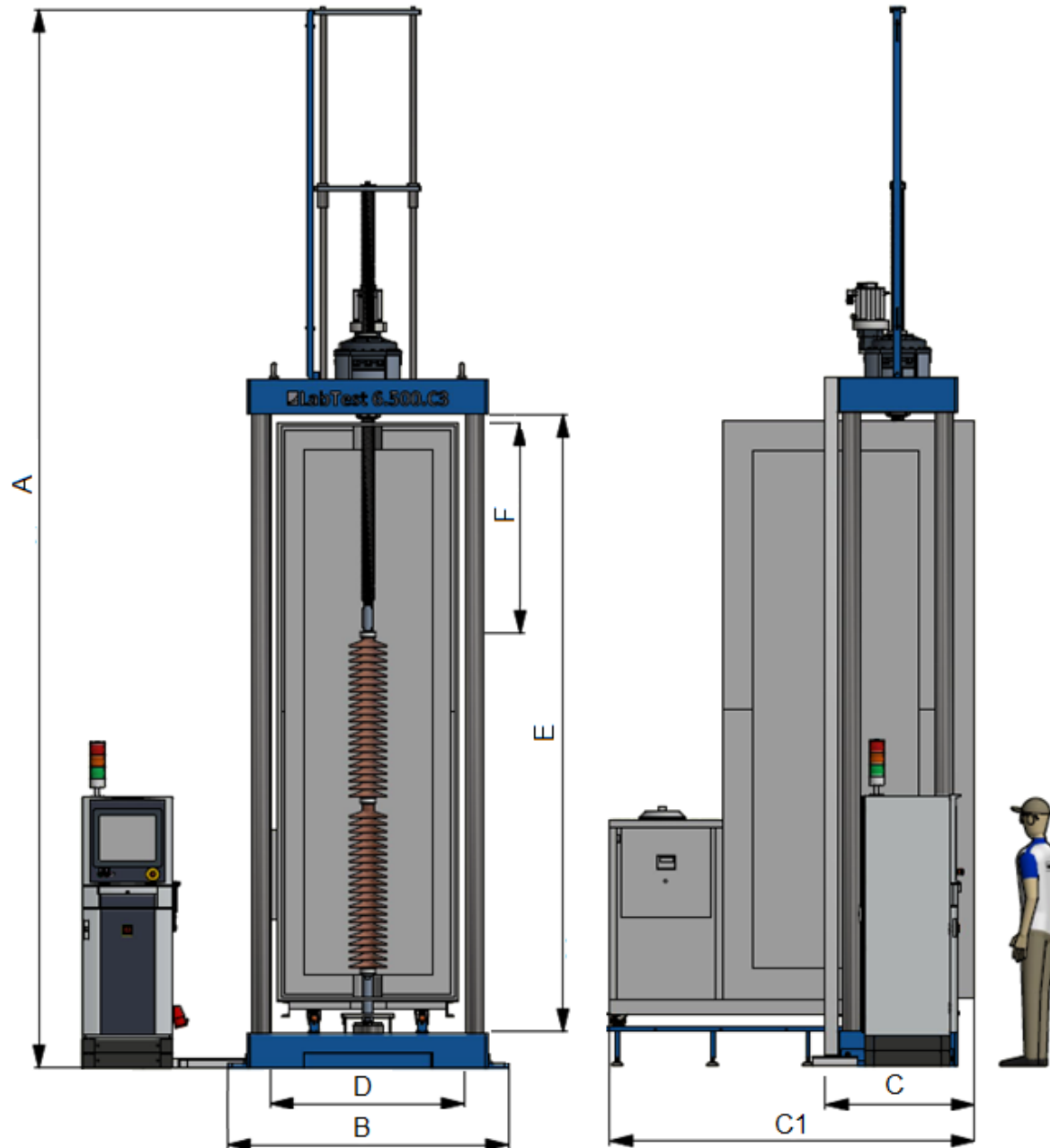
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constant speed or variable
frequency drive to maintain
constant force level
with or without chamber
with force control



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C.3 series – with special chamber

Technical data	Units	6.500C.3
Product ordering code		1.03020319
Maximum load	kN	500
Test speed	mm/min	0,00001 až 50
Adjustment speed	mm/min	1000
Stiffness of the machine at max. force (without sensor)	kN/mm	875
Measurement accuracy		
Accuracy class 1 – measurement from...	kN	1,5
Positioning accuracy	mm	± 0,01
Machine dimensions		
Machine height – A	mm	7105
Machine width – B	mm	1600
Machine depth - C	mm	935
Depth of machine with chambre – C1	mm	2635
Width of the working space – E	mm	1300
Height of the working space – D	mm	4120
Working height of the machine - stroke – F	mm	60-2075
Machine weight*	kg	7000
Environmental conditions		
Working environment temperature	°C	+10 ... +35
Storage temperature	°C	-25 ... +55
Humidity of the working environment	%	<90
Electrical connection		
Supply voltage / frequency	V/Hz	400 / 50-60
Number of phases		3Ph/N/E
Power consumption	kVA	8
Power consumption with the chamber	kVA	20
Others		
Color combination	RAL	1015, 5015

Technical changes reserved during development, machine parameters at room temperature, * without test fixtures, chambers, etc.

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Technical specifications C.3 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

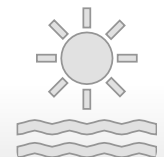
Monitor-Standard - LCD monitor, 1920x1080 resolution and higher.



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.



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all base corners
radius 1.125"



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customer help is provided at
the factory and to maintain
with our 24-hour service
center. For more information, contact us.



Every small detail matters...

LABORTECH in the world

Where to find LABORTECH representations...



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