

From development to implementation



Czech manufacturer of testing equipment and automation



Static servo-hydraulic
testing machines of the
H.1 – LabTest 6.200 – 500 series

with adjustable crossbar

From development to implementation

all bases covered



Production of testing technology and automation

contact us to discover our
full range of products and
services for your business



Every small detail matters...

Static servo-hydraulic test machines

Safe, reliable and accurate with high rigidity and repeatability

LABORTECH is a very strong player in the world in the field of production of static hydraulic testing machines designed for all areas of use. These are quality control, research and development projects, automotive industry and serial testing etc... We have a portfolio of universal testing machines for tensile, compression, bending, shear and torsion tests under stress of samples and entire products, precision testing presses or machines for tensile tests of modular design. All modifications of hydraulic testing machines manufactured by us are designed so that the customer can fully rely on its function even when performing more demanding tasks in the field of mechanical testing of materials.



Our goal is to provide our customers with modern technical and technological solutions supported by the necessary services in the field of testing. We will be happy to advise you on how to choose a suitable testing machine that would meet your requirements and needs. The intuitive and hassle-free use of the Test&Motion+ and DYNPACK test software guarantees you reliable and accurate testing.



Production of testing technology and automation

Key features of the H.1 series

First-class product with one-button machine changeability



The robust vertical stand design **with adjustable crossbar** has high rigidity, mechanical resistance and durability guaranteeing 100% repeatability of results. **The crossbar can be adjusted mechanically or fully automatically by hydraulics.** The machine is ergonomically designed so that the handling of samples and jigs is simple and, above all, safe.



High comfort of machine operation at a very high level thanks to the RMCi remote control with LCD display, having independent machine control of the machine, control of the machine's movement, jaws, extensometer, movement and **clamping of the crossbar**, test start and, above all, an integrated CENTRAL STOP button.



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



Based on their concept and design, LABORTECH machines comply with all the EC directives on machinery and equipment. Only state-of-the-art safety techniques and tried-and-tested industrial components are used in accordance with the new safety functions according to ENB ISO 13850-SIL 1/PL.



A part of each H.1 servo-hydraulic test series is a compact hydraulic unit of the HAS series operating with a maximum constant pressure of 350 bar. Monitoring of all HA states is carried out by the HALT 16 unit with a Simatic PLC and an LCD display. The HA noise enclosure guarantees a noise level of less than 62 dB.



The intuitive testing software Test&Motion+ - BASIC produced by LABORTECH guarantees reliable testing. It helps you to increase the productivity and quality of testing in your test rooms and test laboratories by using different modules for individual test standards.



From development to implementation

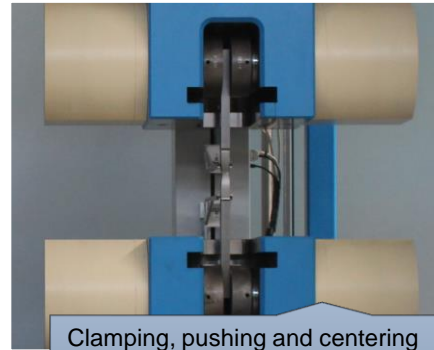


Production of testing technology and automation

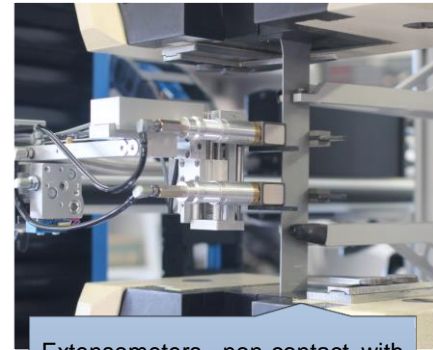
Create your own machine configuration!

With our range of accessories, you can try everything...

A large assortment of various options and accessories, including software, allows you to configure the machine exactly according to your ideas, technical requirements and standards. All you have to do is fill in [HERE](#) a simple form and we will send you a quote immediately. We offer both standard accessories and "tailor-made" accessories.



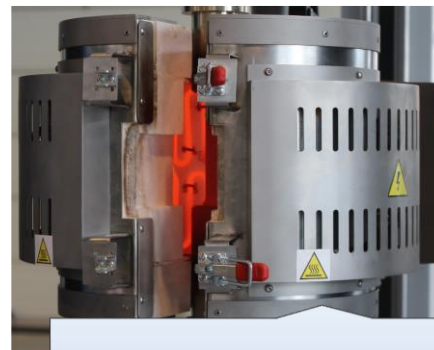
Clamping, pushing and centering jigs. Selection according to nominal strength, surface, frequency of testing, standard etc.



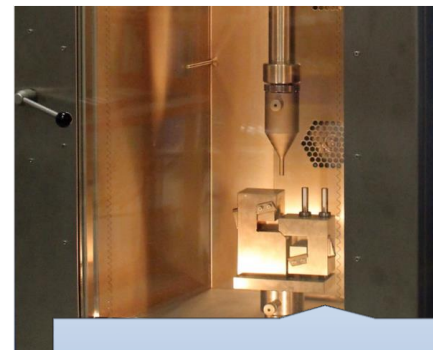
Extensometers - non-contact, with limited deformation, up to complete deformation.



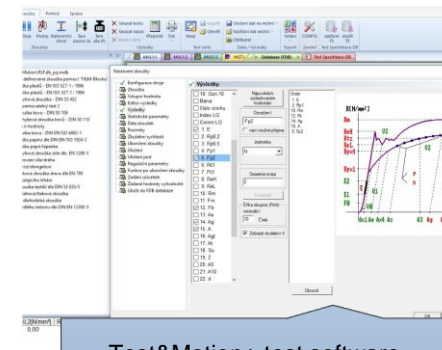
HAS – hydraulic aggregates designed for static tests with integrated diagnostics HALT 16 – Simatic.



High-temperature furnaces up to temperatures of 1600°C.



Temperature chambers ranging from -196°C to +350°C.



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



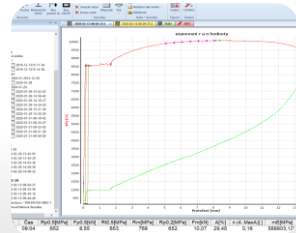
Every small detail matters...



Production of testing technology and automation

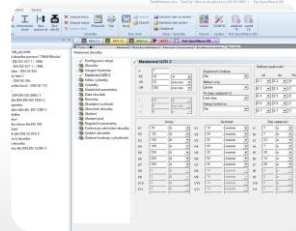
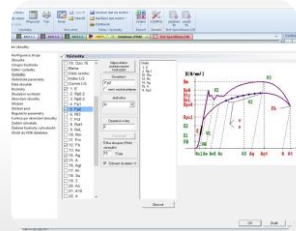
Software Test&Motion+

Intuitive tensile and compression testing software you'll love...



Features of the software Test&Motion+ – BASIC

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



- Unlimited number of test methods.
- Modular system of libraries designed for standardized tests - to be selected for activation.
- Evaluation of optional parameters: maximum force, strength, elongation, elongation, tension, 5 different reference points, etc.
- Real-time graph, possibility of individual processing after the exam
- Mass Charts, Zoom, Serial Testing
- Export data to ASCII, EXCEL, WORD, Eclipse, Diadem, Q-DAS,
- Clamping length adjustment for each method
- Display of multiple variables on the x-axes
- Online display of up to 6 graphs with any values in the x, y axis
- Control feed rate depending on stretch, force, tension, elongation, etc.
- Software control of hydraulic and pneumatic jaws, temperature, automatic extensometer
- Receiving sample dimensions from peripherals
- Data collection from analog and digital external gauges
- Setting user rights, operator login
- Customizing test results
- Automatic saving of results according to the selected tree, data

Controller x DISP3

Čas 0,0 s
 Síla 0,00 N
 Napětí 0,0 MPa
 Tažnost 0,00 %
 Protážení 0,000 mm
 Pos. 0,00 mm

1. Požadovaná hodnota max
 2. Požadovaná hodnota min
 3. Střední hodnota
 4. Standardní odchyłka
 5. Variance
 6. Variační koeficient
 7. Medián
 8. Rel.rozsah 95%
 9. Rel.rozsah 99%

OK	Datum	Čas	Rm [MPa]	Rp0.2 [MPa]	Fm [N]
1	23.04.19	13.27	24	13	4396.60
2	23.04.19	14.02	35	20	4401.60
3	23.04.19	14.17	35	32	4345.80
4	23.04.19	14.23	0	0	0.00

Sprache/Language

	<input type="radio"/> German	<input type="radio"/>
	<input type="radio"/> English	<input type="radio"/>
	<input checked="" type="radio"/> Czech	<input checked="" type="radio"/>
	<input type="radio"/> Polish	<input type="radio"/>
	<input type="radio"/> French	<input type="radio"/>
	<input type="radio"/> Italian	<input type="radio"/>
	<input type="radio"/> Spanish	<input type="radio"/>
	<input type="radio"/> Dutch	<input type="radio"/>
	<input type="radio"/> Russian	<input type="radio"/>
	<input type="radio"/> Turkish	<input type="radio"/>
	<input type="radio"/> Chinese	<input type="radio"/>
	<input type="radio"/> Portuguese	<input type="radio"/>

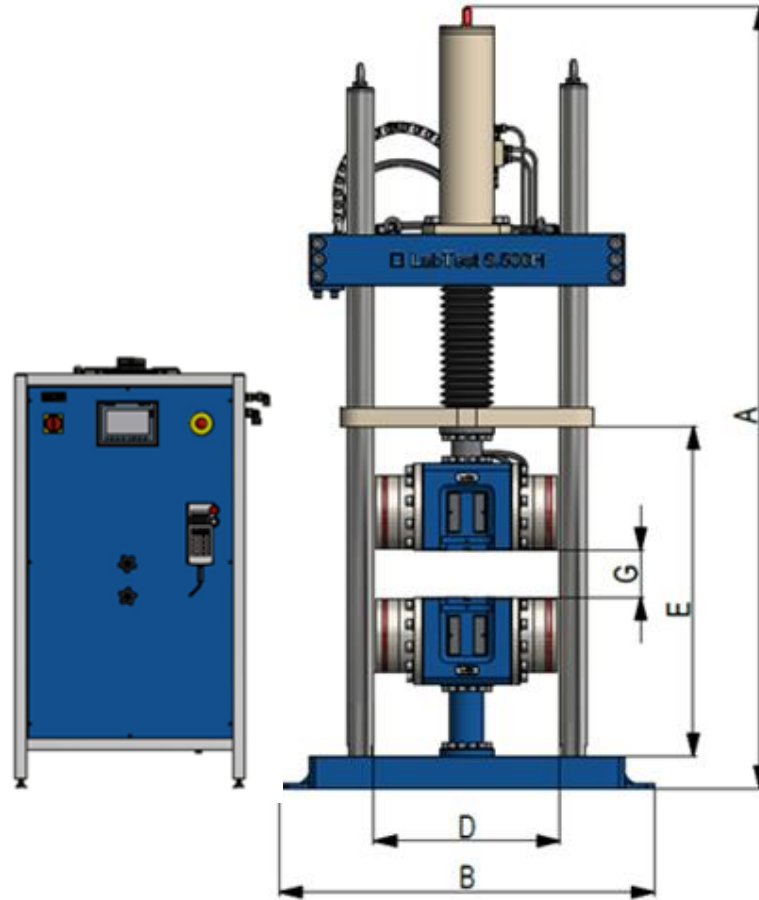
7x <ALT> -> Úpravy



From development to implementation



Production of testing technology and automation



Expandable accessories

- Extension of the ER machine - +500 or +1000 mm (according to the customer's wishes)
- Hydraulic movement of the HCD crossbar, hydraulic clamping of the HC crossbar
- Modules for hydraulic jaws – wedge-shaped, with side pressure - see [Catalogue sheet](#)
- Different types of hydraulic aggregates HAS or HAS-G – see [Catalogue sheet](#)

H.1 series – with adjustable crossbar

Ratings	Units	6.200H.1	6.300H.1	6.500H.1
Product code		1.08010117	1.08010317	1.08010517
Maximum load	kN	200	300	500
Rigidity of the machine at maximum force*	kN/mm	640	620	640
Max. test speed**	mm/min	620	410	520
Speed control precision	%	±0,05	±0,05	±0,05
Measurement accuracy				
Accuracy class 1 – measurement from..	kN	0,6	0,9	1,5
Accuracy class 0.5 – measurement from..	kN	2	3	5
Displacement sensor resolution	µm	0,1	0,1	0,1
Positioning accuracy	mm	± 0,01	± 0,01	± 0,01
Dimensions and weight of the machine				
Machine height - A	mm	2271	2300	2742
Machine height - B	mm	920	920	1390
Depth of the machine - C	mm	623	623	623
Height of the workspace - E	mm	0 to 1120	0 to 1250	0 to 1464
Width of the workspace - D	mm	620	620	670
Piston stroke - G	mm	500	500	500
Machine weight*	kg	1380	1590	1840
Environmental conditions				
Temperature of the working environment	°C	+10 ... +35	+10 ... +35	+10 ... +35
Storage temperature	°C	-25 ... +55	-25 ... +55	-25 ... +55
Humidity of the working environment	%	<90	<90	<90
Electrical connection				
Supply voltage/frequency	V/Hz	400 / 50-60	400 / 50-60	400 / 50-60
Number of phases		3Ph/N/E	3Ph/N/E	3Ph/N/E
Wattage*	kVA	4	4	8,5
Color kombination	RAL	1015, 5015	1015, 5015	1015, 5015

Technical changes reserved during development, machine parameters at room temperature
* without jaws and sensor **standard HA



Every small detail matters...



Production of testing technology and automation

Technical specification of the H.1 series

What else you need to know...



Safety

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



Minimum configuration of a computer assembly for software Test&Motion

PC-Standard - Processor: min. two cores, min. 2.5 GHz, RAM: min. 4GB, Hard disk: HDD min. 500GB or SSD min. 120GB, Graphics card: integrated in processor, network connector: min. 2x, Drive: DVD RW, keyboard, mouse, min. 2x USB 3.0, operating system: MS Windows 10 Pro

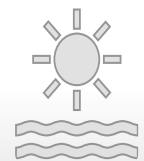
Monitor-Standard - LCD monitor, resolution 1920x1080 and higher



Service

STANDARD service - Our testing machines can work 24 hours a day, 7 days a week, 365 days a year. We provide you with on-line service by our qualified application and service technicians at +420 602 527577.

LABWEB service - Telephone service with the help of remote access provided by an employee of LABORTECH. Up to 10 minutes FREE, then according to the LABORTECH price list.



Environmental and operating conditions

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

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

Ambient 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.



CERTIFIKÁT

Certifikát systémového managementu Č. 3003
TUV SÚD Czech s.r.o.
působící ve specializaci



LABORTECH, s.r.o.
Rozsocha 1543/138a
ČE - 161 00 Praha, Katedrální
číslo: 62369051

Seznam pracovišť / ystřizňovací střediska, je uveden v příloze tohoto
certifikátu, včetně je uvedených možností a oborů / 1. úrovně.

základní a podřízené
systém managementu kvality v oblasti:
výroby, výroby, prodeje, servisu a modernizace
školení a laboratorní techniky

Na základě vypracování auditu, číselka č. 12.029.103
bylo prokázáno splnění
požadavků normy

ČSN EN ISO 9001:2016

Tento certifikát je platný od 15.10.2016 do 15.10.2022
Registrační číslo certifikátu: 12.029.102



UNITED STATES DEPARTMENT OF COMMERCE
National Institute of Standards and Technology
325 Broadway
Boulder, CO 80305-3337

From development to implementation

all bases covered



Production of testing technology and automation

constant work to provide our
clients with the most advanced
technology and the best service



Every small detail matters...

LABORTECH in the world

Where to find our representation...



Contact:

LABORTECH s.r.o.

Rolnická 130a, 747 05 OPAVA, Czech Republic

Phone: +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.

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

Phone: +420 731 656 723, +420 724 020 052

E-mail: trading@labortech.cz

Web: www.labortech.eu