

From development to implementation



Czech manufacturer of testing equipment and automation



Static servo-hydraulic  
testing machines of the  
**LabTest 6.2000 and 6.2500 series**  
with adjustable crossbar



Production of testing technology and automation

# 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



Every small detail matters...

## Key features of the H.2 01 series

### First-class product with high utility value and durability



Robust vertical four-column upright design with **adjustable distance between crossbars manually or electro-hydraulically** at one push button from RMCi. **The jaw stroke is guaranteed** by a hydraulic cylinder with proportional control in the power and position loop. The machine has high rigidity, mechanical resistance and durability, guaranteeing 100% repeatability of results. 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 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 (20 ms). Internal frequency 64 bit, data acquisition 32 bit, 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 in accordance with EN ISO 13850-SIL 1/PL.



Each H.2 servo-hydraulic test series includes a compact hydraulic power unit of the HAS series with integrated jaw contact force control. Monitoring of all states of the hydraulic unit is carried out by the HALT Diagnostic unit with a Simatic PLC and an LCD display. The HA noise enclosure guarantees a noise level of less than 68 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.





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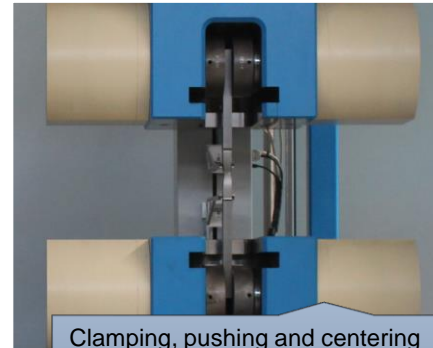


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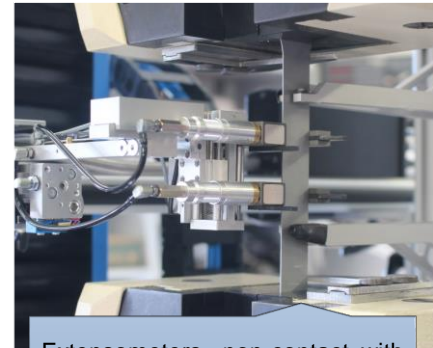
# Create your own machine configuration!

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.



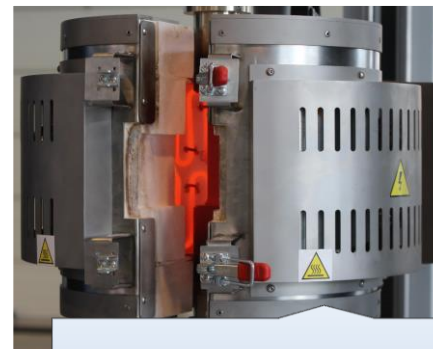
Clamping, pushing and centering jigs. Selection according to nominal strength, surface, frequency of testing, standard etc.



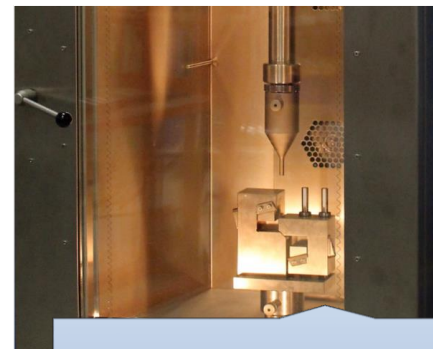
Extensometers - non-contact, with limited deformation, up to complete deformation.



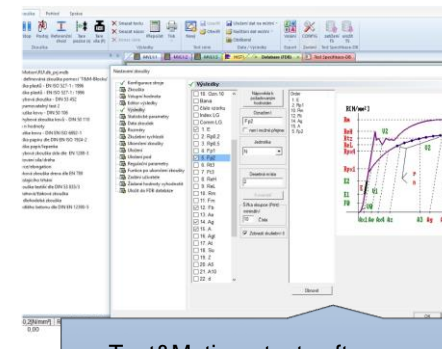
HAS – hydraulic aggregates designed for static tests with integrated diagnostics HALT 16 – Simatic.



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.



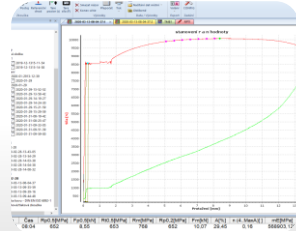
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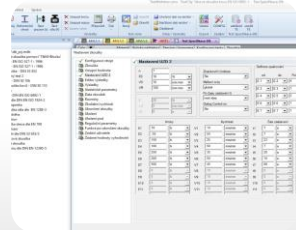
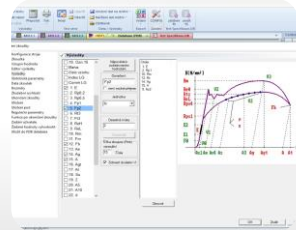
# Software Test&Motion+

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



### Features of software Test&Motion+ – BASIC

Test&Motion+ - BASIC - intelligent, intuitive and powerful software that helps 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
- Statistical evaluation
- 12 language versions (Cs, En, De, Fr, Pl, It, Es, Ru, NI, Tr, Zh, Pt)

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

1. Požadovaná hodnota max  
 2. Požadovaná hodnota min  
 3. Střední hodnota  
 4. Standardní odchylka  
 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

Sprache / Language

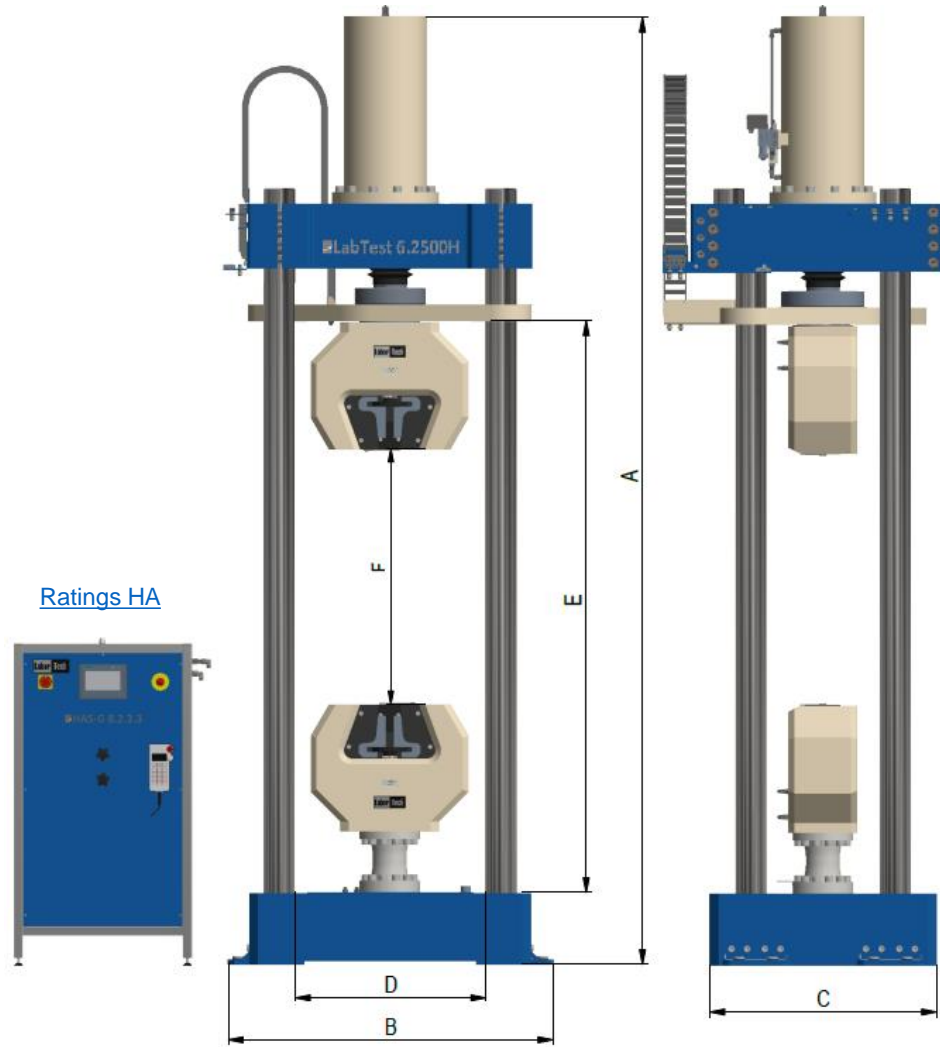
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	<input type="radio"/> Turkish
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	<input type="radio"/> Portuguese

Verze 1.02-2021-04-T&M+H+E





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Ratings HA

Expandable accessories	
Extension of the ER machine	+500 mm or +1000 mm (according to the customer's wishes)
Modules for hydraulic jaws – wedge-shaped, with side pressure	- see <a href="#">Catalogue sheet</a>
Different types of hydraulic aggregates HAS or HAS-G	- see <a href="#">Catalogue sheet</a>

## H.2 series – with adjustable crossbar

Ratings	Units	6.2000H.2	6.2500H.2
Product code		1.08020917	1.08021420
Maximum load	kN	2000	2500
Machine rigidity at max. force*	kN/mm	3225	3850
Piston stroke	mm	620	620
Max. test speed**	mm/min	250	200
Speed control precision	%	±0,05	±0,05
<b>Measurement accuracy</b>			
Accuracy class 1 – measurement from..	kN	6	7,5
Accuracy class 0,5 – measurement from..	kN	20	25
Displacement sensor resolution	µm	0,1	0,1
Positioning accuracy	mm	± 0,01	± 0,01
<b>Dimensions and weight of the machine</b>			
Machine height - A	mm	3885	4067
Machine width - B	mm	1620	1620
Machine depth - C	mm	1000	1000
Height of the workspace - E	mm	2230	2230
Width of the workspace - D	mm	857	857
Machine weight*	kg	7659	9420
<b>Environmental conditions</b>			
Temperature of the working environment	°C	+10 ... +35	
Storage temperature	°C	-25 ... +55	
Humidity of the working environment	%	<90	
<b>Electrical connection</b>			
Supply voltage/frequency	V/Hz	400 / 50-60	
Number of phases		3Ph/N/E	
Wattage**	kVA	15	15
Color combination	RAL	1015, 5015	

Technical changes reserved during development, machine parameters at room temperature:  
\* without jaws and sensor \*\*standard hydraulic unit







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# Technical specification of H.2 series

## What else you need to know...



### Safety

The safety corresponds to the European machinery safety CE Directive (2006/42/EC, 2014/35/EU, 2014/30/EU, EN ISO 60204-1 ed.3, etc.). 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 in accordance with EN ISO 13850:2017.



### 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.

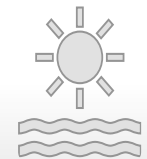
**Monitor-Standard** - LCD monitor, resolution 1920x1080 and higher



### 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.



From development to implementation

all bases covered



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



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# LABORTECH in the world

## Where to find our representation...



### Contact:

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