

... From development to
implementation



Labor Tech[®]

Production of materials testing equipment and automation

Static servo-hydraulic testing machines
series **LabTest H.2** up to 2 500 kN



Made in Czech Republic



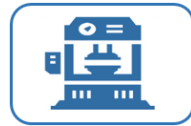
Production of materials testing
equipment and automation

Servo-hydraulic testing
machines series
LabTest H.2 up to
2 500 kN

... From development to
implementation

Basic description

Servo-hydraulic testing machines of the H. 2 series in four-column design up to 2.5MN are designed for safe and effective testing of materials and whole products in tension, compression, bending and special testing of high-strength materials. This series of machines is characterized by an abnormally high rigidity and mechanical resistance of the frame. The basic equipment of the machine includes **central silent and economical hydraulic drive** with hybrid control of hydraulic grips with diagnostics HALT 18 - SIEMENS.



Main advantages and functions

- Test frame with four hard chrome bars with fixed or adjustable crosshead (mechanically or hydraulically).
- In the version with adjustable crosshead and hydraulic crosshead locking it is possible to adjust the test area up to 15 seconds via the remote control of the RMC series.
- Robustness, rigidity, durability and resistance of the test frame to vibration and mechanical damage.
- High operating comfort of the machine and adaptation to specific customer requirements, for example by extending the test frame, higher test speeds, etc.
- Prepared for LABORTECH side or wedge-type hydraulic jaws with integrated jaw synchronization.
- Preparation of the test frame for the use of mechanical and non-contact extensometers.
- Possibility of hydraulic machine control via remote control RMCi 7 without PC.
- The test frame includes a servo-cylinder with integrated LVDT length sensor and a MOOG servo valve for power and position loop control.

Measuring and control machine electronics

New fast, accurate and reliable EDCi measurement and control electronics with variable sampling rate up to 10 kHz, 64 bit internal accuracy, 32 bit measurement and 24 bit resolution ADCs. Modular system with possibility to extend measurement up to 16 sensors. SAFETY mode with new safety functions according to ENB ISO 13850-SIL 1 / PL.



Force measuring system

- The H.2 series power sensors belong to the RF series and are characterized by high resistance to transverse forces, bending moments and high overload resistance. Accuracy class according to EN ISO 7500-1, ASTM E4.
- Precise non-contact path measurement system is provided by a linear position sensor based on the magnetostrictive principle integrated directly into the hydraulic servo cylinder. This system has a linearity of $\pm 0.02\%$, a standard resolution of 1 μ m and a high shock resistance.

Hydraulic units

The HAS and HAS-G hydraulic power units are specially designed to meet the demanding requirements of servohydraulic testing machines and test systems. HA supplies a regulated oil quantity at a constant pressure of 350 bar depending on consumption. HAS units have low noise levels.



All LABORTECH HA are equipped with HALT-18 monitoring system. This system provides complete diagnostics of the hydraulic system with the possibility of controlling the pressure in individual branches, monitoring the quality of the oil filling and filters, maintenance planning, etc.

Basic features of Test & Motion[®] software

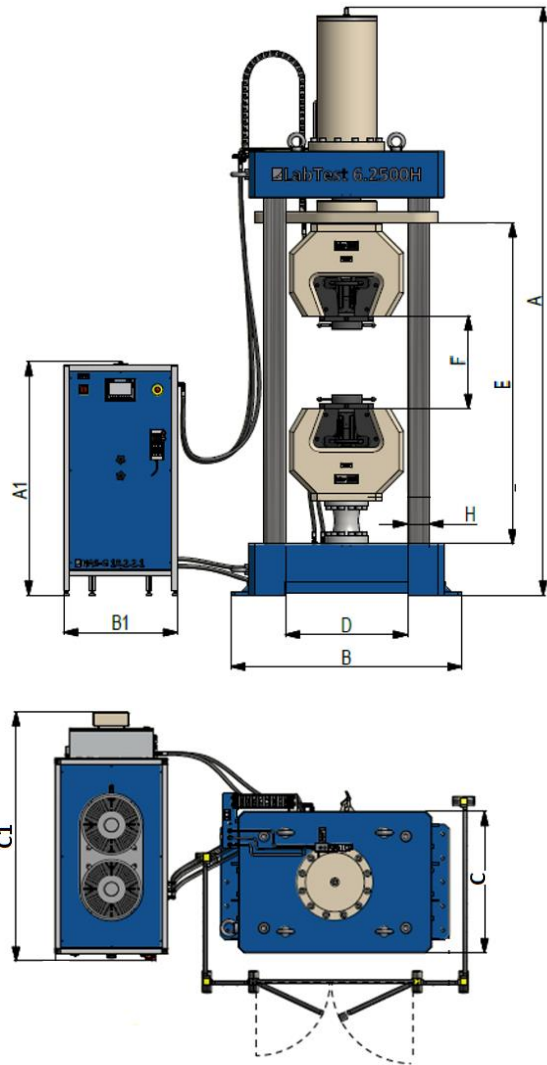
- Intelligent software designed for tensile and compression testing.
- Unlimited number of test methods depending on EN, ISO, ASTM, GOST standard or customer method.
- A modular system of libraries designed for standardized tests – selection for activation.
- Evaluation of optional parameters: maximum force, strength, elongation, elongation, tension of 5 different reference points.
- Real-time graph, individual processing after test.
- Bulk Charts, zoom, serial testing.
- Adding comments to curves and measured points.
- Setting the clamping length for each method.
- Multiple quantities displayed on the x, y axes.
- Online display of up to 6 graphs with any quantities in the x, y axis.
- Control of feed speed depending on elongation, force, stress, ductility, etc.
- Software control of hydraulic and pneumatic jaws, temperature, automatic extensometers etc.
- Receiving sample sizes from peripheral devices
- Data collection from analog and digital external meters
- Setting user rights, operator login
- Customization of test results
- Automatic saving of results according to selected tree, database.



- Statistical evaluation
- Graphical editor of protocol design
- Any setting of windows and appearance of the environment, anchoring
- Data export to ASCII, EXCEL, WORD, Eclipse, Diadem, Q-DAS,
- 11 language mutations (Cz, En, Ge, Fr, Pol, It, Sp, Ru, Du, TR, CHN, PRT)
- Unlimited license
- Installation on any computer without a license, FREE DEMO
- Compatibility with every EDC or EDCi system from LABORTECH

Labor Tech

Production of materials testing equipment and automation



Technical data	Units	6.2000H.2.41.1	6.2500H.2.41.1
Maximal load	kN	2 000	2 500
Number of columns		4	
Piston stroke	mm	620	
Minimal test speed	mm/min	0,001	
Maximal test speed	mm/min	200	
Crossbar travel resolution	µm	1	
Accuracy of speed control	%	±0,05	
Weight without accessories	kg	9 400	
Weight with grips ¹	kg	11 990	
Color finish		RAL 1015, RAL 5015	
Dimension			
Height of the machine (A)	mm	4 125	
Width of the machine (B)	mm	1 620	
Depth of the machine (C)	mm	1 000	
Width of test space (D)	mm	857	
Height of test space (E)	mm	2 252 ¹	
Height of test space between grips (F)	mm	Depends on used grips type -- 1.L13.01.xxxx or 1.L13.20.xxxxx	
Column diameter (H)	mm	150	
Height of hydraulic unit (A1)	mm	1 639	
Width of hydraulic unit (B1)	mm	785	
Depth of hydraulic unit (C1)	mm	1763	
Environmental conditions			
Operating temperature	°C	from 10 to 35	
Storage temperature	°C	from -35 to 55	
Humidity range	%	< 90	
Noise level ²	dB	< 70	
Electrical connection			
Supply voltage	V	3Ph/N/PE/400/50-60Hz	
Fuse	A	25	25
Power requirement (without accessories)	kVA	15	15

¹Adjustable height of testing space - range dimension on demand. ²If the hydraulic unit is covered by the original cover from manufacturer. Measured at 1 m distance from hydraulic unit.

Servo-hydraulic testing machines series LabTest H.2 up to 2 500 kN

... From development to implementation

LABORTECH in the world



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.

Areál 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

Labor Tech®

Production of materials testing
equipment and automation

LABORTECH in the
world

... From development to
implementation