Product Information

Servo-Hydraulic Vertical Dynamic Axial-Torsion Two Column Test Machines **LabTest 6.xxxH.8**

Machine use

Servo-hydraulic, vertical, dynamic, axial-torsion, two and four-column test machines of the series H.8 with adjustable testing area with hydraulic clamping are intended for safe and effective testing of materials and whole products in tensile, pressure and simultaneous **torsion** in **dynamic mode**. A wide range of hydraulic units allows dynamic loading of specimens in forces up to 500kN, frequency up to 100 Hz and force moment up to 6000Nm.

Machine description and main advantages

- Vertical two and four columns frame with high stiffness and ideal ergonomic design.
- Ergonomics of the working area and sufficient wide of test space allow easy manipulation with specimens and accessories.
- Robustness of the frame ensures high rigidity, durability and resistance to vibration and mechanical damage.
- Special anti-vibration leveling feet for absorbing vibrations
- Wide range of hydraulic units according customer needs, automatic control of hydraulic unit parameters etc.
- Hydrostatic piston positioning guarantees operation without friction and high resistance to lateral forces
- The damping of servo-cylinders in the end positions enables movements in high speeds
- Automatic check of controlled loading by proportional servo valve.
- Synchronized control of the torsion loop
- The modular configuration of the machine with the ability to add any accessories from LABORTECH company, including extensometers, temperature chambers, tools etc.
- Due to high data acquisition rate **5kHz** and high resolution of AD converters **24-bit**, the measuring electronics allows very accurate testing in dynamic mode.
- High operator comfort and customization tools for specific customer requirements as special protective covers, different speeds, different types of special grips, etc.
- Possibility of machine control by the remote control RMC 7.
- Support according standards EN, ISO, ASTM, DIN, GOST, etc.

Software Features Test & Motion ®- DYNPACK ®

- Simple, intuitive and efficient
- Definable all kinds of protocols printing
- Individual files programming
- A set of programs for your own individual testing
- Available almost all standard methods of evaluation
- Special specific applications, programmable modules
- Digital display of all channels
- Extensive statistics of results
- Saving the resulting data in ASCII format, SQL and Excel file
- Transferring data from other devices like touch thickness gauge, weight machine etc.
- Compatibility with every EDC box system by LABORTECH company
- Possibility to add more additional channels
- Quick and efficient testing
- 9 languages (En, Cz, Ge, Fr, Pol, It, Sp, Ru, Du)
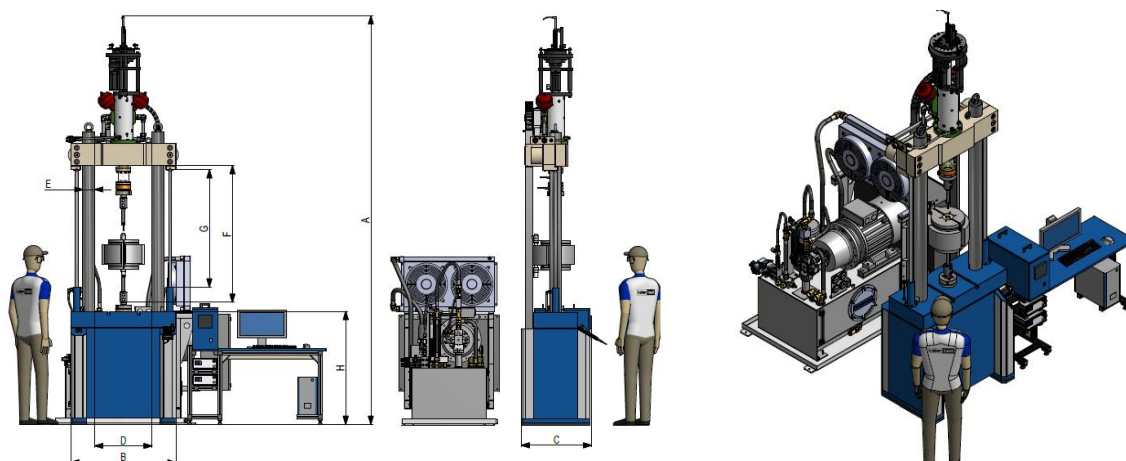- Protocol printing in various languages

The base machine includes:

- The frame including combined load and torsion sensor with a preparation for servo-cylinder
- Hydraulic unit with measuring electronics EDC 580
- Hydraulic connection between Hydraulic unit and the frame
- Remote control RMC7 with LCD and STOP button
- Software integrated in the remote control

Supplements and Accessories:

- Wide range of clamping grips and tools
- Extensometers (mechanical, contactless)
- Safety covers
- Temperature chambers and furnaces

Technical data	Units	6.25H.8	6.50H.8	6.125H.8	6.250H.8	6.500H.8
Load capacity	kN	25	50	125	250	500
Maximum torsion	Nm	100	100	1000	2000	6000
Combination		Another combination tension / compression and torsion on request				
Number of column		2				
X-head shift		Hydraulic – by remote control				
X-head clamping		Manual or Hydraulic – by remote control				
Height of the Machine (A)	mm	2690 (3190)[1]	3240 (3740)[1]	3500 (4000)[1]	3830 (4330)[1]	4150 (4650)[1]
Width of the Machine (B)	mm	1050	1050	1050	1250	1550
Depth of the Machine (C)	mm	680	700	680	1030	1290
Width of test space (D)	mm	460	570	570	670	810
Diameter of column (E)	mm	80	100	120	140	140
Height of test space (F)[2]	mm	1100 (1600)[1]	1260(1760)[1]	980(1480)[1]	1630(2130)[1]	1980(2480)[1]
Displacement of X-head (G)	mm	1000	1000	1000	1150	1250
Height of top edge of lower X-head (H)[3]	mm	1160	1160	1160	1160	1160
Weight[4]	kg	955(1120)[1]	1050(1460)[1]	1240(1650)[1]	1880(2290)[1]	4050(4650)[1]
Frame stiffness at 1000 mm – stress analysis	kN	950	1050	1200	1580	2640
Frame for pistons with a max. stroke[5]	mm	200	100	100	100	100
Height of Hydraulic unit (A1)	mm	According to the type of hydraulic unit. The size of the hydraulic unit (flow) is defined according to frequency and amplitude (flow).				
Width of Hydraulic unit (B1)	mm					
Depth of Hydraulic unit (C1)	mm					
Environmental conditions						
Operating temperature	°C	10 to 35				
Storage temperature	°C	-35 to 55				
Humidity range	%	< 90				
Noise level[6]	dB	< 68				
Electrical connection						
Supply voltage	V	3Ph/N/PE/400/50-60Hz				
Fuse	A	According to the type of hydraulic unit.				
Power range (without accessories)	kVA					

[1]Adjustable heights of test space up to + 500 mm – For models series 6.xxxH.8.xx.1
[2]The distance between the piston and the top flange beam with retracted piston
[3]Machine height including vibration dampers
[4]Weight without hydraulic unit, force transducers and all accessories
[5]Maximum test frequencies up to 50 Hz. Higher test frequencies up to 100Hz according to special offers.
[6]In case HU is cowled by original cover from the manufacturer. Measured 1 m from the HU, and provided by water cooling

Technical changes are reserved by manufacturer

Manufacturer:

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