

Electromechanical Structural Panel Flexure Testing Machine Series EMBP 5500 Nm

This testing machine is used to determine the flexural properties of structural panels tested both parallel and perpendicular to the long dimension of the panel.

Structural panels in use include plywood, wafer board, oriented strand board (OSB) and composites of veneer and wood based layers. This method is ideally suited for evaluating effects of knots, knot-holes, areas of sloping grain, and patches for their effect on standard full-size panels. It is equally well suited for testing uniform or clear material whenever specimen size is adequate. Measured deformation and elastic constants are free of shear deformation effects; and panels can be bent to large deflections without incurring errors from horizontal force components occurring in other methods. Specimen size and span above certain minimums are quite flexible. It is preferred when equipment is available. Available as stand alone machine with free adjustable rate of loading facility or with high resolution digital closed loop controller and application software for free programmable, rapid and productive testing with automatic calculations, graphs (as load/deflection) and report generator with details of all test parameters, conditions and references plus calculated results along with statistical analysis.

Standards and Tests

- **Flexural Tests**
ASTM D3043
Method C: Pure Moment Test

Samples

- Structural Panels 4 x 8 ft

Frame

- Rigid machine construction
- High responsive AC brush-less servomotor with high start up torque for best control and highest accuracy at a extremely low noise level
- High accurate torque load cell
- Electronic deflection transducer
- Compact system on rollers
- Clean and maintenance free operation as no oil is needed compared with hydraulic machines
- Free adjustable rate of loading
- Protection device

Control

- Automatic test procedure in closed loop mode in connection with digital controller **PCS 8000** and testing software **DION 7**

Accessories / Options

- Displacement transducer
- Extensometers

The EMBP is also available for other specimens dimensions and max. bending torques!



w+b Materials Testing Systems



Specifications

Force Capacities	Flexural: 5500 Nm
Accuracy	In accordance with ISO 7500-1, Grade 1.
Colour	Light Grey RAL 7035. Others upon request.
Power Requirements	3 x 400 V, 50 Hz. Others upon request.



Technical Data

EMBP 5500

Torque Capacity	Nm	5500
Accuracy Range	Nm	55 - 5500
Torque Angle	°	max. 300
Torque Speed	°/sec.	0 - 4.5
Test Chamber Height (Ph)	mm	max. 1300
Test Chamber Width (Pb)	mm	max. 2300
Distance betw. Columns	mm	100
Frame Width (B)	mm	2500
Frame Depth (T)	mm	1200
Frame Height (H)	mm	2300
Working Height (A)	mm	640
Weight	kg	-

