

double alternating bending test rig for seat/backrest and Side to Side Test, 4 test axes



Double test rig for alternate bending tests seat, backrest and Side-to-Side tests according to EN 1335, EN 581-2-3, EN 1728, DIN 68878, BIFMA X5.1, load or load/position controlled.

Because of the broadening of the base plate and the enhancement of the clamping devices this test rig can be used either for the **simultaneous seat/backrest testing of two chairs** or for Side to Side tests. The test axes each have their own controllers assembled in the immediate vicinity, which are operated from a PC via CAN-bus and work synchronised. They are supplied via a central supply terminal, which can carry up to 5 pneumatic test axes.

Central supply terminal and PC can be positioned on a separate framework.

Via a USB interface on the PC the data, control commands and software settings are transmitted via the central supply terminal to the pneumatic test axes.

Part of the test stand is our **extensive testing and evaluation software** for the system software Windows 2000, XP or Win7.

Included:

- 1 framework with traverse member and base plate 1350 x 2000mm, 12mm thick, galvanised steel, with screwed on stiffening, drill pattern with thread M10; moveable and vibration-reduced
- 2 electrical stroke systems for height adjustment of the traverse member
- 1 pneumatic test axis for seat, load controlled, piston diameter 80mm, stroke 500mm, test load up to 2500N, load cell 5kN
The axis is vertically installed on the crossbeam and relocatable from front to back 150 mm. Furthermore it is relocatable below the crossbeam 100 mm each to the left and to the right.
- 1 pneumatic test axis for backrest, load controlled, piston diameter 63mm, stroke 500mm, test load up to 1500N, load cell 5kN.
The direction of load transmission is adjustable.
The laterally adjustable range is 50 mm each to the right and to the left.
- 2 pneumatic test axes for Side to Side testing, load controlled piston diameter 63mm, stroke 500mm, test load up to 1500N, load cell 5kN.
- 4 load cells 5kN integrated in the axes
- Operating pressure and cylinder limit switch control
- 1 emergency stop button on each test axis
- Number of cycles and course of load to be set arbitrarily in the PC software
- 1 bottom mock-up load piece EN 1728 with gimbal clamp
- 1 load pad diameter 200mm for seat according to DIN EN 1335, clamp
- 1 load pad 300 x 250-R400/R30 for backrest according to DIN 4551, GF UP, clamp
- 1 load pad 250 x 200-R450/R12 for backrest according to DIN EN 1335, GF-UP, clamp
- 2 sets of fastening elements (4 mounting links, 8 eyebolts, 4 tension belts) for the specimens,

1 supply terminal for 5 test axes

The supply terminal is used as a connector for up to 5 test axes. It converts the CAN-protocol to USB and therefore is the connection to the PC. The cables for connecting the test axes are built-in. Furthermore it contains a central emergency stop, which can shut off all axes in a hazardous situation. The air conditioning consisting of filter, switch-on-valve and distributor is also situated on the supply terminal. The test axes can be attached via hoses with quick disconnect couplers.

1 Framework for supply terminal, PC, keyboard and screen, moveable

Framework for supply terminal made from aluminium profiles for installing a supply terminal and setting it up separately next to the test rig. It stands on fixable plastic wheels and can thus be used as a moveable or stationary system. On the backside of the supply terminal there is a table approx. 1000mm above the ground to carry a TFT-display, keyboard and mouse. Below the tabletop is storage to carry the PC. A gap in the tabletop allows cable feedthrough. The framework is designed as a standing workstation for test bench configuration.

- Accessories for the CAN-Bus and PC connection via USB interface

Not included:

- PC with accessories (screen, printer ...)
- testing software