

**Alternating bending test rig for seat and back rest  
testing acc. to the new standard DIN EN 1335-3:2009**



Test test rig for alternating bending tests of seat and backrest according to DIN 4551, NEN 1812 and the **new standard DIN EN 1335-3:2009**, load or load/length controlled.

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 either up to 2 or 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 or XP.

**The test frame consists of:**

- 1 framework with crosshead and base plate 1250 x 1350mm, 12mm thick, galvanised steel, with screwed on stiffening, drill pattern with thread M10; moveable and vibration-reduced
- 2 electrical lifting systems for height adjustment of the crosshead
- 1 pneumatic test axes for seat, load and position controlled, piston diameter 80mm, stroke 500mm, test load up to 2500N, load cell 5kN, position measuring system  
The axes are installed vertically on the crossbeam and relocatable from front to back.
- 1 pneumatic test axis for backrest, load and position controlled, piston diameter 2 x 50mm
- (2 cylinders), stroke 800mm, test load up to 1500N, load cell 5kN, position-measuring system.  
The direction of load transmission is adjustable.
- 2 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 can be set arbitrarily in the PC software
- set of fastening elements (4 mounting links, 8 eyebolts, 4 tension belts) for the specimens, additionally options to fix the chair centred over the gas spring (stop rail, tension bridge)
- 1 bottom mock-up load piece EN 1728 with gimbal clamp
- 1 load plate 250 x 200-R450/R12 for backrest according to DIN EN 1335, GF-UP, clamp

**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 establishes 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 bench.

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 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.

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

**Not included:**

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