



Hegewald & Peschke

Meß- und Prüftechnik GmbH

Product Information

Double test rig for chair testing

seat/backrest, side-to-side and arm rest testing e.g. acc. EN 1335, EN 581-2, EN 1728, BIFMA X5.1, BIFMA X5.4, BIFMA X6.5, BS 5459; Calmar one



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Application: various seat/backrest tests, side-to-side tests and arm rest testing

The system is based on a PLC with data export functionality to a personal computer. The PLC with analogue value processing is directly mounted to the test rig in a handy panel, tiltable in the up/down and left/right direction to fit the user point of view. The touch panel allows the parameterization of tests and depicts the real time status of the connected test axis. The parameterization can be done individually and saved as a template or based on a prevalent standard conform template. For example parameters such as the amount of cycles, time intervals, maximum and minimum values can be set.

During the test run the user can view the test status. E.g. the cycle number, failure messages and a graphical visualization of the test run can be observed. At test end the control saves automatically all for the documentation necessary parameter and allows the export of the data to a computer for test reporting.

Consisting of (incl. accessories):

- 1 test frame based on a solid galvanized steel base plate 1,2 x 2.4 m, 12 mm strong, with underscrewed enforcement, on vibration damped feet, M10 thread pattern for flexible fixation possibilities.
- 1 column with sliding guide and manual height adjustment for the adaption of the seat-backrest test axis outside of the base plate
- 1 portal frame work with easy motion electrical height adjustment of vertical carrier for e.g. arm rest test axis
- 1 PLC with touch display in a handy panel tiltable in the up/down and left/right direction to fit the user point of view
- centralized pressurized air connection (NW7,2) with air conditioning unit consisting of filtering systems, pressurized air distributor and switch-on-valve
- 1 test axis for backrest testing, angular adjustment and lateral positioning, an additional guiding minimizes the risk of crossloads and avoids the twist away of the

chair, sidewise end positions to also fix the chair at excentric load applications, Fmax 1200 N

- 1 test axis for seat loading, adjustable for acentric load application, flexible front/rear moving of seat loading pad, depending on test requirements spring balanced fixation (e.g. EN1335) or by an auxiliary pneumatic axis for controlled positioning of different load application positions (BS 5459), Fmax 1600 N
- 2 test axis for side-to-side and arm rest testing, fixed and angular adjustment, incl. fixation to cross bar. Adjustable stopper restrict the tilting angle to the inside. During loading the test axis can follow the arm rest movement to the outside displacement. Fmax 1200 N
- Force regulation: 4 load cells 2 kN or indirect force regulation by pressure control valve
- 1 seat loading pad; clamping connection $\varnothing 20$ cardanic; EN 1335 (41-006-220)
- 1 backrest loading pad 250x200-R450/R12; clamping connection $\varnothing 20$ cardanic; DIN EN 1335 (41-006-303)
- 2 fixation elements for office chairs (40-001-050)
- 2 stop bars (40-001-056)
- fixation elements for free swinging chairs (40-001-055)
- 1 accessory box including 2 eye bolts and 2 straps to enhance fixation of specimen (40-001-059)

Technical data:

- power connection: 230VAC, 50 Hz
- pneum. connection: pressurized air 6-10 bar, quality acc. ISO/DIS 8573-1
- control accuracy: $\pm 5\%$ of set value above 20% of nominal load
- load resolution: 0.5 N
- load accuracy: $\pm 1\%$ of end value

Options:

- computer & monitor for data export
- remote maintenance modul (40-930-009)
- fixation set for tables (40-001-117)
- 2 loading pads (side-to-side test) (41-006-101)
- loading pad for arm rests (41-006-5xx)

