Hegewald & Peschke
Meß- und Prüftechnik GmbH

Data sheet

Testing device for threshold/caster tests, floor friction and shaking tests

on pedestal base chairs and four-leg chairs, in accordance with ES1058 and BIFMA X5.1, Calmar one

zertifiziert nach DIN EN ISO 9001 TÜV CERT Zert. Nr. 08/100/9044/3

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This test bench is used to test the durability of footrests or their castors by means of cyclic back and forth movement, whereby thresholds are crossed depending on the test specification. For this purpose, the footrest is loaded with a defined weight. The test specimen can move freely in a vertical direction so that it can follow the unevenness of the floor covering or thresholds.

Consisting of:

- Fixed base plate 1200 mm x 900 mm with substructure, surface: plywood covered with stainless steel
- Linear units driven synchronously on both sides, which are connected to a height-adjustable cross profile
- 3 removable thresholds
- Control cabinet with PLC control, mounted on a column
- Connection accessories for connection to test specimens
- On request: Set of fastening elements for anchoring to the laboratory floor

Optional accessories:

- Towing arm for four feeter and free swinging chairs (maximum external dimensions of the feet: 600 mm x 600 mm when driving from the inside) *(40-933-195-BG20)*

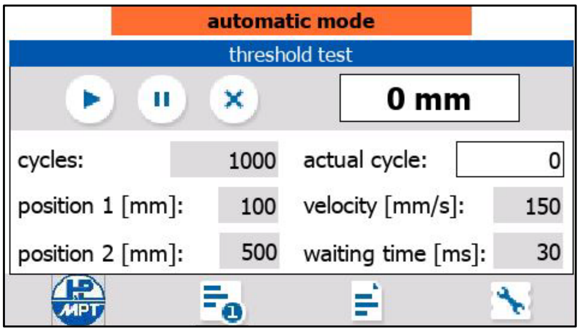
Various floor coverings can be attached to the base plate to optimally simulate the load in real-life use.
On both sides of the base plate there are synchronously electrically driven linear units with a stroke of up to 762 mm, which allows caster tests according to ES1058 and BIFMA X5.1 (section 16). This design enables precise guidance of the chair fixed to a cross profile and the load can be transferred very rigidly without twisting.
This prevents the test specimen from swinging during load or direction changes and prevents excessive stress on the guide in the event of test specimen failure.

Fifteen cycles per minute can be performed at a fixed speed, taking into account the ±200 mm vibration test.
We recommend anchoring the test device for friction and shake tests.

Technical data:

Electrical connection	1NPE/230VAC/ 50Hz
Control accuracy	±1% of final value
Measurement resolution	<0.1 mm
Measurement accuracy, displacement	±1 mm

The control is based on a PLC with analog value processing, which is mounted directly on the test bench. Parameterization is carried out via a touch display, which informs the user about the current status of the system and is used to enter the target values and select the test sequences.



The functionality is based on the standards relevant for the test bench, but allows the user of the system to vary details such as cycle times and load levels and to define individual test sequences.
At the end of the test, the control system saves all data required for documenting the test, such as the target number of cycles, the actual number of cycles achieved, error messages, and proof of compliance with the maximum load values. The data can then be downloaded to a PC and used to create the test report.