Hegewald & Peschke
Meß- und Prüftechnik GmbH

Product Information

Integrated control unit for Furniture Testing Systems

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

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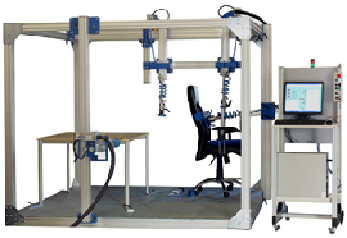
With the testing software LabControl multiaxial tests on different kinds of furniture are carried out, monitored and evaluated. The modular design of the testing system allows for the assignment of different tasks to the axes. The testing procedure can be designed with a block programme. Thus, it is possible to customise the testing system to a wide range of applications and customer-specific requirements.

Applications



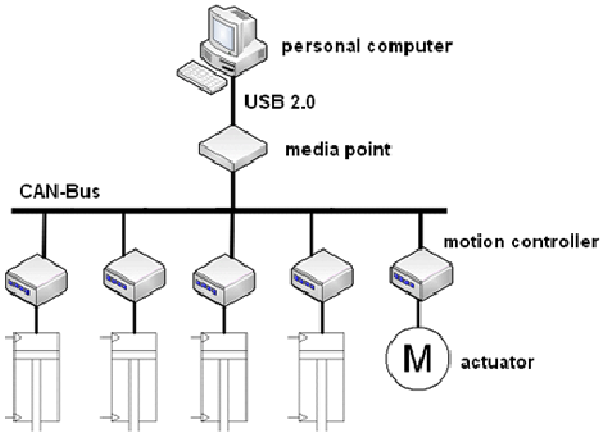
Universal test bay for testing seating furniture, tables, upholsteries and home furniture

Rotation test stand for testing castors and swivel joints

Electromotive linear module for testing castors and home furniture

Drop test stand for testing tables, seating furniture and upholsteries

Control conception

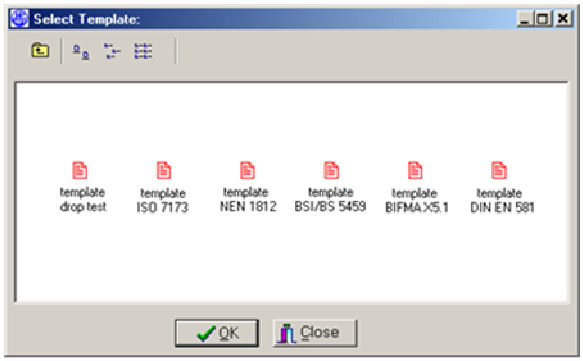


The decentral, modular control enables testing configurations with up to five axes. The following types of axes are available:

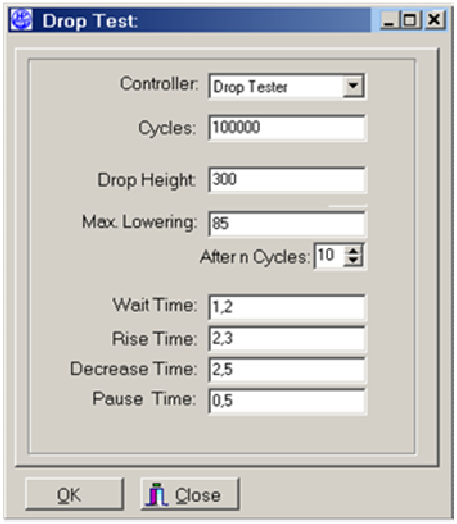
- pneumatic axes
- electromotive rotating axes
- electromotive linear axes
- drop tester
- customer-specific solutions

Each axis has its own powerful motion controller. It can be moved either position or load controlled. The axes controls are integrated into the testing system as decentral periphery via a bus system. The controller of the central supply terminal synchronises the axes controllers in order to keep the phase shift of the individual axes movements timed.

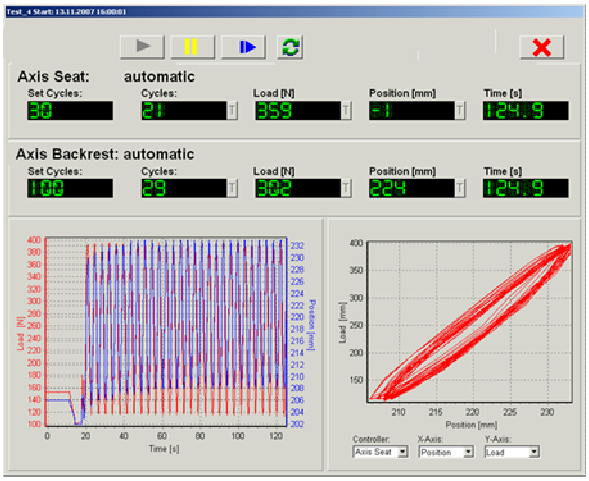
Start menu / Test selection



Tests can be parameterised with little effort by selecting one of the templates. A template includes parameters of the axis movement (test parameter), specimen data, and test conditions. When a template is loaded, the default settings can be adjusted to the coming test. (For this example the settings of a drop test are used.)



While the test is being carried out, a window displays the actual state of the test. That means, actual values and the relevant statuses of certain functions are shown.



To guarentee repeatable documentation of the testing procedure, all operator control actions and errors are logged during the test. A log of events lists the kind, cause, triggering axis, and time of all events.

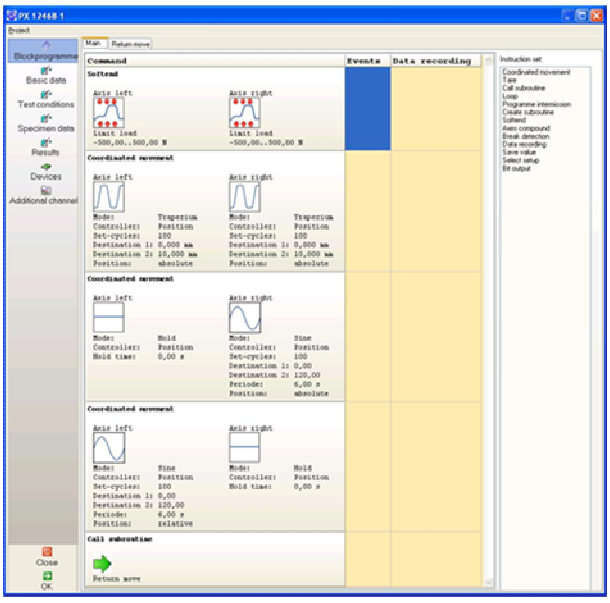
Free definition of tests with a block programme

As an alternative to using test templates, there is the possibility to define the testing procedure with the help of a block programme. The block programme is made up of a sequence of commands, which determine the testing procedure, axis movement, and data recording. The visual application programming interface facilitates the generation of a block programme.

The variable design of the block programme allows for manifold, standard, and customer-specific tests with a high level of automation.

Among others, the demands of the following standards can be met:

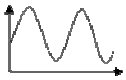
- DIN 4551
- DIN EN 1335
- DIN EN 1727
- DIN EN 1728
- BSI/BS 5459
- ISO 7173
- NEN 1812
- BIFMA X5.1
- DIN EN 1022
- DIN EN 527
- DIN EN 528
- DIN EN 581



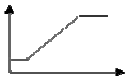
Possible load profiles and course of movement

- recurring – trapezoidal

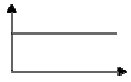
- sinusoidal



- Increasing



- Static



Axis networks and shut-down criterions

Axis networks logically connect multiple axes with each other. If one axis stops because of a shut-down criterion, all other axes of the network stop as well.

These are the shut-down criterions:

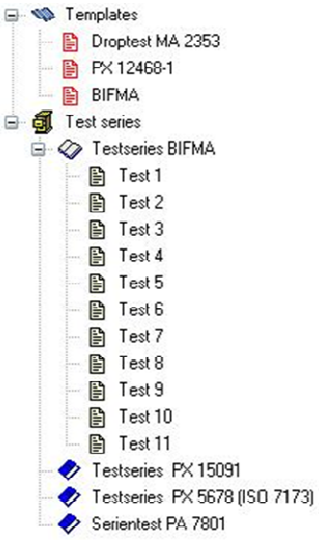
- Operating pressure is too low / actuation is not ready
- Control deviation
- Limit switch has been reached
- Limit for position or load has been crossed
- Fracture (load decrease)
- Manual stop

Data management

All test data and settings are saved in a database. The complete data set is managed with an explorer:

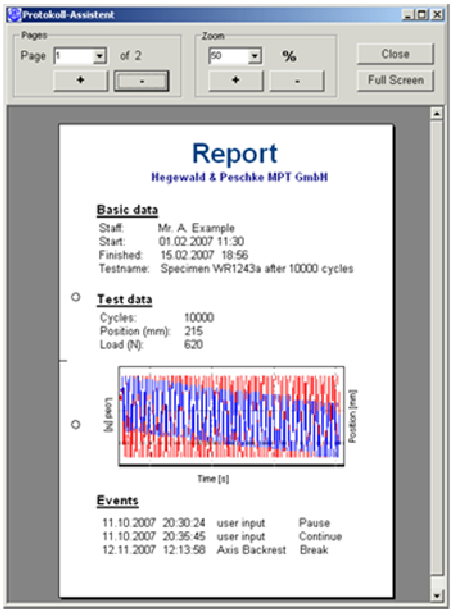
- Test: Includes the block programme, identifying data of the test (basic data, specimen data, test conditions), and recorded measured data, and test results.
- Test series: Group tests in one directory structure and include a test template for new tests.
- Templates: Include presettings from which new test series and tests can be generated.

All relevant settings, test data and recorded measuring data can be exported to text files. Highly efficient backup and recovery functions are available for the backup of the complete set of data.



Analysis

With the analysis module it is possible to calculate test results and to compare tests with each other. A log generator creates ready for printing logs. The print layout can be designed individually. The integration of images and commentaries allows for comprehensive documentation of the test. Settings can be saved as log template and re-used in future logs. The print layout can be checked before printing with the preview function.



User administration

With the user administration it is possible to assign access rights to functions of the software to different groups of users. Thus, the user interface can be customized to fit the needed functions of different users.

Your contact person: