

Product Information

Automatic Testing of Foils, Metals, Wires, Fleece and Textiles: Clamp Type Specimen Feeding



Pic 1: Automatic Specimen Feeding System „Clamp“ Type

Automatic Tensile Test on Foils, Metals, Wires and Textiles

The automatic specimen feeding system „Clamp“ Type is conceived for non-solid samples, e.g. foils, textiles or fleece. By using the referring sample clamps also metal and plastic samples as well as wires can be tested.

The above pictured testing system consists of a tensile test machine and an automatic specimen feeding system (handling system).

The feeding system itself has two main parts: Two servo-driven axis and a circulating specimen chain with up to 200 specimen holders. These brackets can be designed as metal clamps, grippers or magnets and are optimized for the different kind of sample shapes.

The free-programmable servo axis allows equipping the specimen chain with different kind of sample clamps to take up different specimen shapes. Beside conventional metal or plastic samples also non-solid foils and textiles or thin metal- or carbon wires can be handled.

The total system is controlled by a PLC. The user

program Zwick testXpert does the test evaluation on the connected Personal Computer. Zwick testXpert runs under Windows 95/98 or NT 4.0.

The operator can also perform manual tests at any time without doing mechanical adaptations. For uncoupling the feeding system just two screws have to be released.

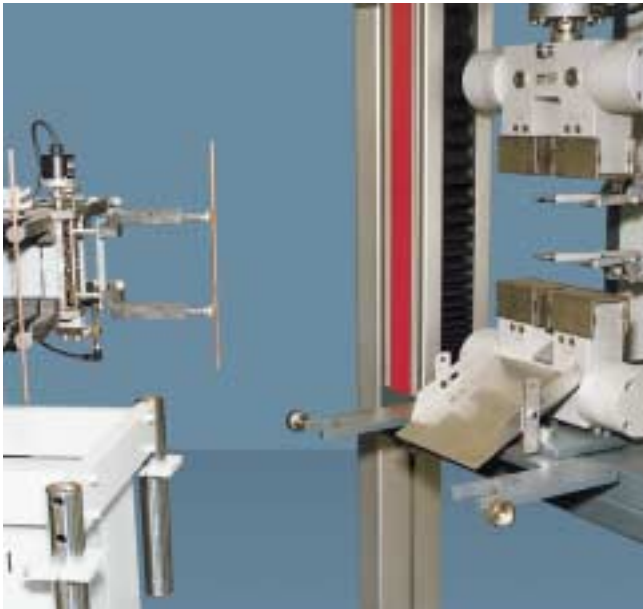
As an option the samples can be identified with a barcode scanner. The test preferences and results can be directly and online requested by or transferred to the HOST computer.

The data exchange with the superior computer can be realized via the RS232 port as well as a local PC network.

A specimen remains removal with good/bad sorting is possible by corresponding tolerance preferences for the test results.

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Pic 2: Easy manual testing by uncoupling the specimen feeding system with two screws

Main uses of automatic specimen feeding

- * The modular system makes an economic adaptation to specific customer requirements possible
- * Because of the modular construction of the automatic specimen feeder, manual testing can be performed on the machine at any time
- * Elimination of subjective influences through the high positioning accuracy of the automatic specimen feeding
- * The order of testing can be controlled by the operator with individual loading of specimen and free selection of where the specimen gripper picks up the specimen
- * The universal and easy operation of the automatic testing system is guaranteed through collection of all system functions in the operational masks of the Zwick user's software testXpert

Further advantages of the automatic specimen feeding

- * Reproducibility of the testing requirements even over a long operating time, no influences through different operators
- * Secure documentation and statistical long-term control of process and production
- * Unmonitored testing ("ghost shift"), loading of the system by untrained personnel possible
- * "All from one source": Zwick takes over everything from consultation until service, for the testing machine as well as for the automated specimen feeding
- * The Zwick maintenance and calibration service is officially recognized by the Physical-Technical Institute (PTB) as a DKD-calibration laboratory. Zwick is there by authorised to check materials testing machine on location and issue DKD calibration certificates for the measurement units for force and extension measurements.

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