

## Product Information

### Robotic Testing System 'roboTest F' (Clamp) for Flexible Specimens



Robotic Testing System 'roboTest F'

#### Applications

The robotic testing system 'roboTest F' is used for the fully automatic performance of tensile tests on flexible specimens such as foils, textiles and non-wovens.

With the robotic testing system the use of different specimen holders is possible. The specimen holders are available as metal clamps, braces or magnets and are optimized for the different kind of specimen shapes.

#### System Configuration

- Materials testing machine 5 kN up to 250 kN with symmetrically closing, pneumatic or hydraulic specimen grips and an optional extensometer
- Robotic feeding system 'roboTest F' with travelling axis plus chain holding up to 200 specimen holders.
- Industry Controller with test software *testXpert*® and automation software *autoEdition2*

#### Advantages of the Robotic Testing System 'roboTest F'

- A high reproducibility of the test results is obtained because operator influences are excluded (hand temperature, moist hands, eccentric or inclined insertion of specimens etc.).
- Qualified laboratory staff is relieved of routine jobs and is thus available for more complex activities.
- The machine can be used during idle times (break, night shift) and thus increases the rate of utilization and allows „quicker“ results.
- The system reduces the testing costs per specimen and usually pays off within one to two years.
- Manual tests are still possible by uncoupling the robotic feeding system.
- The usage of state-of-the-art web-technologies ensures a constant process control and remote diagnostics of the robotic testing system. Results as well as status messages can be sent directly via email or SMS.
- The automatic data logging system ensures secure documentation and enables statistical long-term monitoring (Statistical Process Control).
- The components of the robotic testing system are not subject to wear; they are low maintenance and designed for three-shift operation.

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Feeding of a strip specimen to the materials testing machine

#### Test Sequence

- The user fills the specimen magazine directly on the robotic testing system.
- The specimen data (ident number, width, thickness,...) are entered on the PC. In barcode operation this step can be omitted.
- After the startup of the system on the PC the specimens are fed to the materials testing machine by the chain holding and the tensile test will be performed. After the test the specimen rests are removed out of the specimen grips by compressed air or additional removal grips.
- The data exchange with the superior computer can be realized via the RS232 port as well as a local PC network.

#### Technical Data

Mechanics	
Mounting	Coupled to the load frame
Capacity	100 or 200 specimens
Dimensions <sup>1)</sup> (H x W x D)	
• 100 specimens	1100...1500 x 500 x 1300 mm
• 200 specimens	1100...1500 x 500 x 2000 mm
Weight	Approx. 150 kg (without specimen)

<sup>1)</sup> Without materials testing machine

Connected values	
Electrical connection	230/115 V
Output	200 VA
Mains frequency	50/60 Hz
Compressed air	6 bar
Required compressed air	2 lpm

Control	
Automation software	autoEdition2
Peripheral connection	PROFIBUS

Specimens	
Specimen type	dumbbells, stripes specimens
Material	flexible
Weight	
• 100 specimens	max. 200 g
• 200 specimens	max. 100 g
Specimen dimensions	on request

Options	
• Data exchange with superior processor systems (e.g. LIMS) via upload/download of ASCII-files or ODBC	
• Optical status indicator by threefold „traffic light“ (running, refill specimens/finished, error)	