

## Product Information

### Robotig Testing System 'roboTest L' (Linear) for Testing of Rubber O-Rings



Robotic testing system 'roboTest L' with testing machine 2.5 kN

#### Applications

The robotic testing system is used for the fully automatic performance of tensile tests on rubber rings (e.g. according to DIN 53504 with standard rings R1/R2, ISO 37 or ASTM D412).

#### System configuration

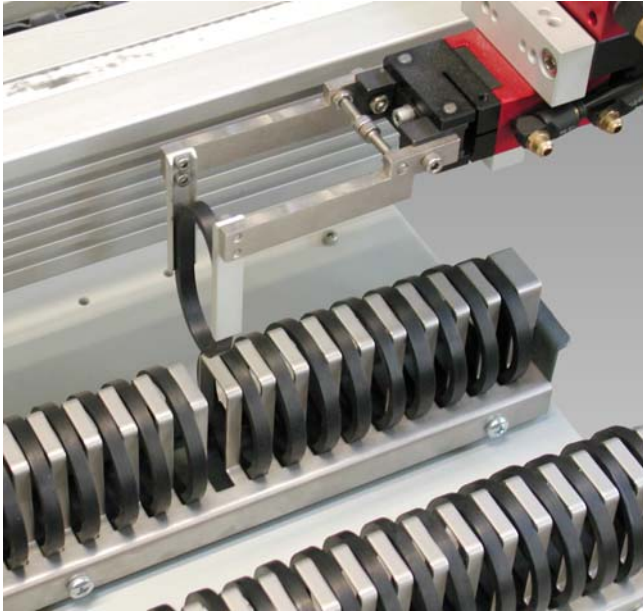
- Materials testing machine 2.5 kN up to 20 kN with roller grips according to DIN 53504 or ISO 37
- Removable specimen magazines for each 50 rings
- Robotic feeding system 'roboTest L' with pincer gripper
- Automatic thickness measuring unit for o-rings (measurement at one point)
- Industry Controller with test software *testXpert*® and automation software autoEdition2

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

- 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 modular system makes an economical adaptation to specific customer requirements possible.
- The system reduces the testing costs per specimen and usually pays off within one to two years.
- Manual tests are still possible by simply moving the robotic feeding system aside.
- 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 per 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 maintenance-free and designed for three-shift operation.

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Pincer gripper takes O-ring out of magazine

## Test Sequence

- The user fills the removable specimen magazine at the specimen preparation or directly on the test system with O-rings. Then the magazine will be placed on the magazine table.
- After the startup of the system, feed and test of the specimens are carried out automatically. With the optional expansion „motoric moving table“ integrated, up to 7 specimen magazines (=294 specimens) are tested in succession.
- After testing of all magazined specimens the magazine can be refilled or changed by a prepared insert. A refilling of specimens in empty magazine places is possible at any time.
- By the individual loading of specimen into the magazines the order of testing can be controlled by the operator. Urgent specimens can be tested immediately by defining priorities.

## Technical Data

### Mechanics

Mounting	coupled to the load frame
Dimensions (H x W x D)	1200 <sup>1)</sup> x 700 <sup>2)</sup> x 1500 <sup>3)</sup> mm
Weight	approx. 200 kg (without specimens, depends on the equipment)

<sup>1)</sup> depends on the load frame

<sup>2)</sup> without option "motorized magazine table"

<sup>3)</sup> with linear axis

### Connected values

Electrical connection	230/115 V
Output	approx. 200 VA
Mains frequency	50/60 Hz
Compressed air	6 bar
Required compressed air	10 lpm

### Control

Automation	autoEdition2
Peripheral connection	RS 232

### Specimens

• Specimen type	o-ring specimens
• Capacity	50 (standard) 294 (with option moving table)
• Material	rubber
• Diameter (round)	44.6 / 52.6 mm
• Thickness	4 mm

### Options

- Motorized magazine table for 294 specimens
- 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)