

Product Information

roboTest F (Clamp) robotic testing system for not dimensionally stable specimens



Robotic testing system roboTest F

Applications

The robotic testing system roboTest F is used for fully automated execution of tensile tests on not dimensionally stable specimens such as films, textiles and nonwovens.

A variety of specimen grips and holders can be used with the robotic testing system. These holders can be in the form of metal clips, clamps or magnets and are optimized for the different types of specimen shapes.

System configuration

- 5 kN to 250 kN materials testing machine with symmetrically closing, pneumatic or hydraulic grips and optional extensometer
- Automatic specimen feeding system roboTest F with servo-controlled traveling axis and a carousel for up to 200 specimen holders.
- Industrial controller with testXpert III testing software and autoEdition3 automation software

Advantages

- ZwickRoell has over 35 years of experience and expertise, gained while supplying more than 700 automated testing systems worldwide.
- Operator influences (hand temperature/moisture, offcenter or angled specimen insertion, etc.) are eliminated for high test-result reproducibility.

- Qualified laboratory staff are relieved of routine activities, making them available for more complex tasks.
- The machine can be used during idle times (lunch breaks and night shifts), which increases capacity and produces faster results.
- The testing system reduces the testing costs per specimen and typically pays for itself within one to two years.
- Manual tests can be performed whenever required by coupling the specimen feeder.

Test procedure

- The operator fills the specimen magazine directly at the system.
- The specimen data (identification number, width, thickness, etc.) is entered on a PC. This step can be skipped if you are in barcode mode.
- After starting the system on the PC, the specimens are fed via the materials testing machine's carousel and the tensile test is performed. After the test, the specimen remains are dropped or returned to the specimen grips.



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Technical data

Туре	roboTest F	
Mechanics		
Attachment	Attachable to the load frame	
Magazine capacity	100 or 200 specimens	
Dimensions ¹⁾ (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
Power specifications		
Electrical connection	230	V
Power consumption (full load), approx.	200	VA
Power frequency	50/60	Hz
Compressed air	6	bar
Compressed air requirement	2	l/min
Controller		
Automation	autoEdition3	
Peripheral connection	Profinet	
Test		
Type of test	Tensile and tear growth tests	
Specimens		
Specimen shape	Dumbbell and strip specimens	
Material	Dimensionally stable	
Max. weight with		mm
100 specimens	200	g
200 specimens	100	g
Specimen dimensions	Upon request	

1) Without materials testing machine

Options

• Data exchange with higher-level computer systems (e.g. LIMS) via upload/download of ASCII files or ODBC

• Optical status indicator via 3-tiered light (running, refill specimens/finished, error/malfunction)