Zwick / Roell

Product Information
roboTest L (Linear) robotic testing system for plastic

roboTest L robotic testing system for plastics

Range of application
The system is used for the following fully automatic tests:
- tensile and flexure tests on plastics specimens (e.g. to ISO527-2 (1A, 1B, 1BA), ISO 178 or ASTM D790)

System configuration
- 5kN or 250kN materials testing machine with symmetrically closing pneumatic or hydraulic grips and optional extensometer
- roboTest L automatic specimen feed system
- Cross-section measuring device (optional)
- Industrial controller with testXpert testing software and autoEdition3 automation software

Benefits
- ZwickRoell has over 35 years of experience and expertise, gained while supplying more than 700 automated testing systems worldwide.
- Operator influences (hand temperature/moisture, off-center 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—the specimen feeder simply slides out of the way for access.

Test sequence
- The operator fills the removable specimen magazine during specimen preparation or directly on the system. The magazine is then placed on the magazine table.
- Specimen data (identification number, width, thickness etc.) are entered on the PC. This step can be omitted when using barcodes.
- Once the system has been started, specimen feed, tensile testing and disposal of specimen remains are performed automatically.
- Once all the specimens in the magazine have been tested it can be refilled or replaced with a magazine insert which has already been filled. Alternatively magazines can be 'topped up' with specimens during the automatic sequence.

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Technical data

Type	roboTest L	
Mechanics		
Attachment	Can be docked to the load frame	
Dimensions (H x W x D)		
roboTest L, metals	1600[1] x 1330[2] x 1500[3]	mm
roboTest L, plastics	1200[1] x 1230[2] x 1600[3]	mm
Weight (without specimens, with cross-section measuring device and magazine)		
roboTest L, metals	250	kg
roboTest L, plastics	200	kg
Power specifications		
Nominal supply voltage	230	V AC
Power consumption	200	Procedure Instruction
Power frequency	50/60	Hz
Compressed air, filtered, not oiled	5 ... 6	bar
Compressed air consumption, approx.	30	l/h
Controller		
Automation	autoEdition3	
Peripheral connection	*Profinet*	

[1] Dependent on the testing machine

[2] Incl. movable magazine table; additional travel distance: 990 mm

[3] With linear axis

Description	Value	
Test	Plastics	
Type of test	tensile tests, flexure tests	
Specimens		
Specimen shape	dumbbell, strip	
Specimen gripper	pincer or suction gripper	
Magazine slots	max. 600	
Material	rigid, non-tacky	
Weight	max. 0.1	kg
Length	max. 260	mm
Shoulder width (flat)	6 to 25	mm
Diameter (round)	-	mm
Thickness	max. 15	mm

Description	ArticleNumber
roboTest L automatic specimen feed system with **pincer gripper**	3008305
• For **tensile tests** • Pneumatic specimen gripper with rotation unit • Magazine table with centering pins for 4 magazine inserts	

All data at ambient temperature.

Subject to change in the course of further development.

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Description	ArticleNumber
Technical data • Gripper opening width: max. 20 mm • Specimen thickness 0,1 to 18 mm • Air consumption: approx. 30 l/h	
roboTest L automatic specimen feed system with **suction gripper** • For **tensile and flexure tests** • Magazine table with centering pins for 48 specimen-stacks in 4 rows Technical data • Specimen thickness 1 to 6 mm • Air consumption approx. 30 l/h	**1090735**

Options
• Specimen identification
• Cross-section measurement No. measurements/specimen: 1/3
• Specimen disposal
• Good/bad sorter
• Data exchange: Higher-level computer system (e.g. LIMS) via upload/download of ASCII filesor ODBC
• Visual status display: 3-aspect lights (running, refill magazine/finished, error)