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

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Range of application
The system is used for the following fully automatic tests:
- tensile tests on metal specimens (e.g. to EN 10002-1, ISO 6892, ASTM E8, JIS Z2201)

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	metals	
Type of test	tensile tests	
Specimens		
Specimen shape	dumbbell, strip	
Specimen gripper	pincer gripper	
Magazine slots	max. 160	
Material	dimensionally stable, non-tacky	
Weight	max. 1	kg
Length	max. 300	mm
Shoulder width (flat)	20 to 40	mm
Diameter (round)	2 to 20	mm
Thickness	0.1 to 18	mm

Description	ArticleNumber
Automatic specimen feeding system roboTest L for tensile tests	**3008305**

• Base unit with power supply
• Linear feed axis
• Pneumatically actuated pincer gripper with rotation unit
• Buffer tray position for alignment of the specimen

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Description	ArticleNumber
• Magazine table with centering pins for specimen magazine • Sliding table for expansion of the magazine capacity • Sliding table stroke: max. 990 mm • CE-compliant protective cover • For four magazines with **310 mm max. specimen length each**	

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)