

Product Information

roboTest C (Compact) robotic testing system

CTA: 131239



'roboTest C' robotic testing system

Range of application

The system is used for fully automatic tensile tests on:

- metal specimens (e.g. to DIN EN 10002-1, JIS Z 2201, ASTM E8)
- dimensionally stable specimens made of other materials

System configuration

- 300 kN to 1200 kN materials testing machine
- Symmetrically closing hydraulic grips
- Extensometer (optional)
- roboTest C automatic specimen feed system with magazine for 20 or 40 specimens
- 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 swings out of the way for access.

Test sequence

- The operator fills the specimen magazine directly on the system. Specimens can be added at any time to magazine slots which are still unoccupied.
- 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 on the PC, specimen feed, tensile testing and disposal of specimen remains are performed automatically.

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Technical data

Type	roboTest C	
Mechanical		
Mounting	"docked" to load frame	
Magazine slots	24 specimens / 40 specimens	
Dimensions (H x W x D)	2218 x 3200 x 700	mm
Weight (without specimens), approx.	200	kg
Power supply data		
Electrical supply	3x 400V	3L/N/PE
Power consumption	200	VA
Power supply frequency	50/60	Hz
Compressed air, filtered, oil-free	6	bar
Compressed air consumption, approx.	2	l/min
Control system		
Automation	autoEdition 3	
Peripherals connection	Profinet	
Test		
Type of test	tensile tests	
Specimens		
Specimen shape	dumbbell, strip, round, pipe, profile specimens	
Material	dimensionally stable, non-tacky	
Specimen length, max.	450	mm
Specimen width, max.	60	mm
Specimen thickness, max.	30	mm
Weight, max.	5.67	kg

Description	ArticleNumber
roboTest C automatic testing system for flat tensile specimens <ul style="list-style-type: none"> • Belt magazine, typically for 24 specimens (3 specimen carriers) • Feed unit with pincer gripper • Gripper stroke: 26 mm • Max. specimen thickness: 30 mm 	640334
roboTest C automatic testing system for flat tensile specimens <ul style="list-style-type: none"> • Belt magazine, typically for 40 specimens (5 specimen carriers) • Feed unit with pincer gripper • Gripper stroke: 26 mm • Max. specimen thickness: 30 mm 	010244

Specimen carriers

With roboTest C the specimen carrier (yellow) is the basic unit for positioning specimens. Specimen spacer units (green) and specimen supports (red) are mounted on the specimen carrier

Description	ArticleNumber
Specimen carrier (400 x 480 mm) for roboTest C (Compact) testing system	646654

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Specimen spacer units

Specimen spacer units are required for positioning specimens of different thickness.

A set contains 4 spacer units and is sufficient for filling one specimen carrier.

Description	ArticleNumber
Set of specimen spacer units for specimen thickness 2 to 8 mm	646655
Set of specimen spacer units for specimen thickness 8 to 16 mm	646656
Set of specimen spacer units for specimen thickness 16 to 30 mm	646657

Specimen supports

Specimen supports are required for positioning specimens of different parallel width.

A set contains 2 supports and is sufficient for filling one specimen carrier.

Specimens with a parallel width of 40 mm can be inserted directly into specimen spacer units; additional specimen supports are required for other widths.

Description	ArticleNumber
Set of specimen supports for specimen parallel width 25 mm	646658
Set of specimen supports for specimen parallel width 20 mm	646659
Set of specimen supports for specimen parallel width 12.5 mm	646660

The specimen gripper is included in the basic system and does not have to be offered separately.

An associated gripper finger (depending on specimen thickness) must be offered for the gripper.

Description	ArticleNumber
Gripper finger for roboTest C specimen feeding system • Flat specimens 1.5 to 25mm thick	640332
Gripper finger for roboTest C specimen feeding system • Flat specimens 6 to 30 mm thick	010245

Options

- Specimen identification
- Specimen disposal
- Data exchange: Higher-level computer systems (e.g. LIMS) via upload/download of ASCII files or ODBC
- Optical status indicator: 3-tiered light (running, refill specimens/finished, error/malfunction)