

testXpert® III Testing Software



testXpert® III



...is intuitive and workflow-based

that prevents operator error?

testXpert® III is intuitive & workflow-based

Getting started is easy! Experience a workflow that reflects the work processes used in your lab.

The screenshot displays the testXpert III software interface. The title bar shows the file path: C:\PROGRAMDATA\ZWICK\TESTXPRT III VIDEO\SYSDATA\SAMPLES\XTE051_07 DIN EN ISO 6892-1 VERFAHREN A(1).ZS2. The interface is divided into three main sections:

- Set up testing system:** A red-bordered box highlights a gear icon and the text "Set up testing system" over a keyboard image.
- Configure test:** A mouse icon and the text "Configure test" are shown over a mouse image.
- Run test:** A play button icon and the text "Run test" are shown over a mechanical testing machine image.
- View results:** A graph showing a red curve and the text "View results" are shown over a graph image. The graph has a y-axis from 0 to 40 and an x-axis labeled "Dehnung" with a value of 10. Below the graph, various material properties are listed: $\sigma_{0.2}$ MPa, $\epsilon_{0.2}$ %, σ_M MPa, ϵ_M %, σ_s MPa.

A central text box contains a bullet point: "Configure all **machine-relevant** settings for your application in one central place."

testXpert® III is intuitive & workflow-based

Zwick / Roell

Getting started is easy! Experience a workflow that reflects the work processes used in your lab.

The screenshot displays the testXpert III software interface. The title bar shows the file path: C:\PROGRAMDATA\ZWICK\TESTXPRT III VIDEO\SYSDATA\SAMPLES\XTE051_07 DIN EN ISO 6892-1 VERFAHREN A(1).Z52. The main window features the testXpert III logo and the Zwick / Roell brand name. The interface is divided into several sections: a keyboard with a gear icon and the text 'Set up testing system', a mouse with a flowchart icon and the text 'Configure test', a central area with a play button and the text 'Run test', and a right-hand panel with a graph and the text 'View results'. A red arrow points from the 'Run test' area to the 'View results' area. The graph shows a stress-strain curve with a peak and a subsequent decline. The right-hand panel contains icons for user profile, folder, checkmark, magnifying glass, question mark, and a document icon.

- Configure **test-relevant** settings with the help of our intelligent wizard.

testXpert® III is intuitive & workflow-based

Zwick / Roell

Getting started is easy! Experience a workflow that reflects the work processes used in your lab.

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- Top Left:** A gear icon with the text "Set up testing system".
- Bottom Left:** A mouse icon with a checklist icon and the text "Configure test".
- Center:** A large image of a red tensile specimen being tested, with a play button icon and the text "Run test".
- Right:** A graph showing a stress-strain curve with a red line. Below the graph is a "View results" button and a list of material properties: $\sigma_{0.2}$ (MPa), $\sigma_{0.01}$ (MPa), $\sigma_{0.001}$ (MPa), $\epsilon_{0.2}$ (%), $\epsilon_{0.01}$ (%), $\epsilon_{0.001}$ (%).

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Zwick / Roell

Getting started is easy! Experience a workflow that reflects the work processes used in your lab.

The screenshot displays the testXpert III software interface. The title bar shows the file path: C:\PROGRAMDATA\ZWICK\TESTXPRT III VIDEO\SYSDATA\SAMPLES\XTE051_07 DIN EN ISO 6892-1 VERFAHREN A(1).Z52. The main window is divided into three sections: 'Set up testing system' (with a gear icon), 'Configure test' (with a flowchart icon), and 'Run test' (with a play button icon). A red-bordered box highlights the 'View results' section, which features a stress-strain graph and a table of test results. The graph shows a red curve on a grid with the y-axis labeled 'MPa' ranging from 0 to 60 and the x-axis ranging from 0 to 20. The table below the graph lists test parameters for two series.

testXpert® III

Zwick / Roell

Set up testing system

- All series & exports can be viewed in an additional **secure mode** protected from manipulation.

Configure test

Run test

View results

Nr	Serie	ϵ_y	σ_M	ϵ_M	σ_B	ϵ_{IB}
1		%	MPa	%	MPa	%
2	3070					

testXpert® III is intuitive & workflow-based

Zwick / Roell

In testXpert III all test-relevant settings are logically grouped and kept separate from general system settings.

The screenshot displays the testXpert III Administrator software interface. The window title is "testXpert III (Administrator)". The interface features the "testXpert® III" logo on the left and the "Zwick / Roell" logo on the right. The main content area is divided into three sections: "Set up testing system" (with a gear icon and a keyboard image), "Configure test" (with a flowchart icon and a mouse image), and "Run test" (with a play button icon and a mechanical test image). On the right side, there is a sidebar menu with the following items: "Administrator" (with a user icon and a right arrow), "User swap...", "Users...", "User groups...", "Guidelines...", "Load test..." (with a folder icon), "Traceability" (with a checkmark icon), "Settings" (with a wrench icon), "Help" (with a question mark icon), and "System information" (with an information icon). A graph showing a red curve is visible in the background of the "Run test" section.

testXpert® III is intuitive & workflow-based

Zwick / Roell

testXpert III is a role-based software with integrated user management.

testXpert III (Administrator)

testXpert® III

Zwick / Roell

Set up testing system

Configure test

Run test

- Administrator
- User swap...
- Users...
- User groups...
- Guidelines...
- Load test...
- Traceability
- Settings
- Help
- System information

testXpert® III is intuitive & workflow-based

testXpert III is a role-based software with integrated user management. Use of Windows accounts is possible.

The screenshot displays the testXpert III Administrator interface. On the left, a sidebar contains the testXpert III logo and two main sections: 'Set up testing system' (with a keyboard icon) and 'Configure test' (with a mouse icon). The main window is titled 'User management guidelines' and contains several configuration panels. The 'Password guidelines' panel includes options for 'Minimum password length' (7 characters), 'Password expiration time' (45 days), 'Password chronicle' (3 passwords), and 'Passwords with special characters'. The 'Log in monitoring' panel includes 'Log in monitoring' (3 failures), 'Time lag following login errors (Duration 1 minute)', 'Blocking accounts', and 'Pass on blocking message'. A 'Test' button is located at the bottom right of this panel. At the bottom of the window, a red box highlights the option 'Using the Windows user management (LDAP)'. On the right side of the interface, a sidebar menu is visible, with a red box highlighting the 'Administrator' user profile and its associated options: 'User swap...', 'Users...', 'User groups...', and 'Guidelines...'. Other menu items include 'Load test...', 'Traceability', 'Settings', 'Help', and 'System information'.

testXpert® III is intuitive & workflow-based

Zwick / Roell

Users see only what is important to them and can focus on the task at hand right from the start. This keeps training time to a minimum.

The screenshot displays the testXpert III software interface. The window title is "testXpert III (Tester without configuration access)". The interface features the "testXpert® III" logo and the "Zwick / Roell" logo in the top right corner. The main area is split into two panels: on the left, a live video feed of a red tensile specimen being tested in a machine, with a white play button and the text "Run test" overlaid; on the right, a stress-strain graph with a red curve showing the test results. Below the graph is a table of material properties. A vertical sidebar on the right contains icons for user profile, folder, checkmark, help, and information. At the bottom, a status bar shows "testControl II - The connection to testControl has been established." and "User: Tester Group: Tester without configuration access".

Nr	E _T	σ _y	σ _M	ε _M	σ _B	ε _{0.2}	b	h	A ₀
Serie	MPa	MPa	MPa	%	MPa	%	mm	mm	mm ²
3070	-	65,3	7,4	45,2	-	-	-	-	-
3070	-	-	-	-	-	-	-	-	-

testXpert® III is intuitive & workflow-based

Navigate through each test in the same straightforward way. Expressive icons make it fast and easy to find what you need.

The screenshot shows the testXpert III software interface. At the top, a toolbar contains icons for Home, Save, Save as, Zero the force, Start pos., Start, Stop, Back, Evaluate, Print, Lock, and Help. A red box highlights the 'EXPORT TEST DATA' button. Below the toolbar, the main window displays specimen data and a stress-strain graph.

Specimen Data Tables:

Legend No.	E_t MPa	σ_Y MPa	ϵ_Y %	σ_M MPa	ϵ_M %	σ_B MPa	ϵ_{tB} %	b mm	h mm	A_0 mm ²
1	3110	66,2	7,1	66,2	7,1	52,8	23,1	9,90	3,95	39,11
2	3070	65,3	7,4	65,3	7,4	51,3	26,6	9,90	3,96	39,20
3	3080	66,0	7,1	66,0	7,1	54,0	24,9	9,91	3,95	39,14
4	3040	65,4	7,3	65,4	7,3	52,2	30,3	9,92	3,96	39,28
5	3050	66,0	7,2	66,0	7,2	61,6	14,6	9,92	3,95	39,18

Series	E_t MPa	σ_Y MPa	ϵ_Y %	σ_M MPa	ϵ_M %	σ_B MPa	ϵ_{tB} %	b mm	h mm	A_0 mm ²
n = 5										
x	3070	65,8	7,2	65,8	7,2	54,4	23,9	9,91	3,954	39,18
s	27,9	0,391	0,13	0,391	0,13	4,15	5,85	0,01	0,005477	0,07
v [%]	0,91	0,60	1,76	0,60	1,76	7,64	24,49	0,10	0,14	0,17

Stress-Strain Graph:

The graph shows Stress in MPa on the y-axis (0 to 20+) and Strain in % on the x-axis (0 to 30+). A single data series is plotted as a blue line, showing a linear increase in stress with strain.

Test Results Summary:

F: 6,02 N Grip to grip separation: 5,000 mm Crosshead absolute: 274,000 mm

System configuration name: Default User: Administrator Group: Administrator

All related information is associated visually.

testXpert III (Administrator) - C:\ProgramData\zwick\testxpert III\V1_1\SysData\Samples\xt051_01 DIN EN ISO 527-1.zs2

Home Save Save as Zero the force Start pos. Start Stop Back Evaluate Print Lock Help Zwick / Roell

SET UP TESTING SYSTEM CONFIGURE TEST **RUN TEST** EXPORT TEST DATA

Series layout Specimen graph Media Video capture ...

Series

- Specimen 1
- Specimen 2
- Specimen 3
- Specimen 4
- Specimen 5
- Specimen 6

Specimen thickness: 3,95 mm

Specimen width: 9,90 mm

Thickness of the specimen

Differentiation of specimen by color

Stress in MPa

Specimen 1

Specimen thickness: 3,95 mm

Specimen width: 9,90 mm

Legend No.	E_t	σ_Y	ϵ_Y	σ_M	ϵ_M	σ_B	ϵ_{IB}	b	h	A_0
	MPa	MPa	%	MPa	%	MPa	%	mm	mm	mm ²
1	3110	66,2	7,1	65,3	7,1	51,3	23,1	9,90	3,95	39,11
2	3070	65,3	7,4	65,3	7,4	51,3	26,6	9,90	3,96	39,20
3	3080	66,0	7,1	66,0	7,1	54,0	24,9	9,91	3,95	39,14
4	3040	65,4	7,3	65,4	7,3	52,2	30,3	9,92	3,96	39,28
5	3050	66,0	7,2	66,0	7,2	61,6	14,6	9,92	3,95	39,18

Series	E_t	σ_Y	ϵ_Y	σ_M	ϵ_M	σ_B	ϵ_{IB}	b	h	A_0
n = 5	MPa	MPa	%	MPa	%	MPa	%	mm	mm	mm ²
x	3070	65,8	7,2	65,8	7,2	54,4	23,9	9,91	3,954	39,18
s	27,9	0,391	0,13	0,391	0,13	4,15	5,85	0,01	0,005477	0,07
v [%]	0,91	0,60	1,76	0,60	1,76	7,64	24,49	0,10	0,14	0,17

6,02 N Grip to grip separation

5,000 mm Crosshead absolute

274,000 mm

System configuration name: Default User: Administrator Group: Administrator

All related information is associated visually.

The screenshot displays the testXpert III software interface. At the top, there is a navigation bar with icons for Home, Save, Save as, Zero the force, Start pos., Start, Stop, and Back. On the right, there are icons for Evaluate, Print, Lock, and Help, along with the Zwick / Roell logo.

The main interface is divided into several sections:

- Series layout:** A list of specimens (Specimen 1 to 6) with color-coded markers.
- Specimen graph:** A 3D model of a specimen with red arrows indicating thickness and width measurements.
- Configuration:** Input fields for Specimen thickness (3,95 mm) and Specimen width (9,92 mm).
- Legend Table:** A table listing specimen properties for 6 specimens.
- Series Table:** A summary table for the current series (n=5).
- Stress-strain Graphs:** Two graphs showing Stress in MPa vs. displacement. The top graph is titled "Differentiation of specimen by color" and shows multiple curves. The bottom graph is a zoomed-in view of the initial part of the curves.
- Bottom Status Bar:** Displays current force (6,02 N), crosshead absolute position (5,000 mm), and grip to grip separation (274,000 mm).

Legend No.	E _t	σ _y	ε _y	σ _M	ε _M	σ _B	ε _{tB}	b	h	A ₀
	MPa	MPa	%	MPa	%	MPa	%	mm	mm	mm ²
1	3110	66,2	7,1	65,2	7,1	52,8	23,1	9,90	3,95	39,11
2	3070	65,3	7,4	65,3	7,4	51,3	26,6	9,90	3,96	39,20
3	3080	66,0	7,1	66,0	7,1	54,0	24,9	9,91	3,95	39,14
4	3040	65,4	7,3	65,4	7,3	52,2	30,3	9,92	3,96	39,28
5	3050	66,0	7,2	66,0	7,2	61,6	14,6	9,92	3,95	39,18

Series	E _t	σ _y	ε _y	σ _M	ε _M	σ _B	ε _{tB}	b	h	A ₀
n = 5	MPa	MPa	%	MPa	%	MPa	%	mm	mm	mm ²
x	3070	65,8	7,2	65,8	7,2	54,4	23,9	9,91	3,954	39,18
s	27,9	0,391	0,13	0,391	0,13	4,15	5,85	0,01	0,005477	0,07
v [%]	0,91	0,60	1,76	0,60	1,76	7,64	24,49	0,10	0,14	0,17

Channel and status is displayed throughout the entire test.

testXpert III (Administrator) - C:\ProgramData\zwick\testxpert III\V1_1\SysData\Samples\xt051_01 DIN EN ISO 527-1.zs2

Home Save Save as Zero the force Start pos. Start Stop Back Evaluate Print Lock Help

SET UP TESTING SYSTEM CONFIGURE TEST **RUN TEST** EXPORT TEST DATA

Series layout Specimen graph Media Video capture ...

Series

- Specimen 1
- Specimen 2
- Specimen 3
- Specimen 4
- Specimen 5
- Specimen 6

Specimen thickness: 3,95 mm

Specimen width: 9,90 mm

Thickness of the specimen

Legend No.	E_t	σ_Y	ϵ_Y	σ_M	ϵ_M	σ_B	ϵ_{tB}	b	h	A_0
	MPa	MPa	%	MPa	%	MPa	%	mm	mm	mm ²
1	3110	66,2	7,1	66,2	7,1	52,8	23,1	9,90	3,95	39,11
2	3070	65,3	7,4	65,3	7,4	51,3	26,6	9,90	3,96	39,20
3	3080	66,0	7,1	66,0	7,1	54,0	24,9	9,91	3,95	39,14
4	3040	65,4	7,3	65,4	7,3	52,2	30,3	9,92	3,96	39,28
5	3050	66,0	7,2	66,0	7,2	61,6	14,6	9,92	3,95	39,18

Series	E_t	σ_Y	ϵ_Y	σ_M	ϵ_M	σ_B	ϵ_{tB}	b	h	A_0
n = 5	MPa	MPa	%	MPa	%	MPa	%	mm	mm	mm ²
\bar{x}	3070	65,8	7,2	65,8	7,2	54,4	23,9	9,91	3,954	39,18
s	27,9	0,391	0,13	0,391	0,13	4,15	5,85	0,01	0,005477	0,07
v [%]	0,91	0,60	1,76	0,60	1,76	7,64	24,49	0,10	0,14	0,17

Differentiation of specimen by color

Stress in MPa

Strain in %

F 6,02 N Grip to grip separation 5,000 mm Crosshead absolute 274,000 mm

System configuration name: Default User: Administrator Group: Administrator

Additional functionalities are available via buttons if needed.

The screenshot displays the testXpert III software interface. At the top, there is a navigation bar with icons for Home, Save, Save as, Zero the force, Start pos., Start, Stop, Back, Evaluate, Print, Lock, and Help. Below this is a menu bar with options: SET UP TESTING SYSTEM, CONFIGURE TEST, **RUN TEST**, and EXPORT TEST DATA. The main workspace is divided into several sections:

- Series layout:** A list of six specimens, each with a unique color-coded icon.
- Context Menu:** A menu is open over the specimen list, showing options such as "New specimen", "Invalidate", "Re-evaluate", "Select for testing", "Display data sources...", "Display sensors...", "Delete specimen", "Change designation...", "Measuring graph export...", "Excel export", "Export specimen", "Select field contents...", "Edit current layout...", and "Edit layouts...".
- Specimen Graph:** A 3D model of a specimen with a red arrow indicating the direction of force. Below it, a table shows specimen parameters.
- Stress-Strain Graph:** A graph titled "Differentiation of specimen by color" showing Stress in MPa on the y-axis (0 to 60) and Strain in % on the x-axis (0 to 30). Multiple colored curves represent different specimens, showing their respective stress-strain profiles.

At the bottom of the interface, there are three large numerical displays: **6,02 N** (Grip to grip separation), **5,000 mm** (Crosshead absolute), and **274,000 mm**. The status bar at the very bottom indicates "System configuration name: Default User: Administrator Group: Administrator".

Additional functionalities are available via context menu if needed.

The screenshot displays the testXpert III software interface. At the top, there is a navigation bar with icons for Home, Save, Save as, Zero the force, Start pos., Start, Stop, Back, Evaluate, Print, Lock, and Help. Below this is a menu bar with options: SET UP TESTING SYSTEM, CONFIGURE TEST, **RUN TEST**, and EXPORT TEST DATA. The main workspace is divided into several sections:

- Series layout:** Includes a legend for Specimen 1 through 6 and a 3D model of a specimen with a blue grip area. Parameters for Specimen thickness (3,95 mm) and Specimen width (9,90 mm) are shown.
- Legend Table:**

Legend No.	E_t MPa	σ_Y MPa	ϵ_Y %	σ_M MPa	ϵ_M %	σ_B MPa	ϵ_{tB} %	b mm	h mm	A_0 mm ²
1	3110	66,2	7,1	66,2	7,1	52,8	23,1	9,90	3,95	39,11
2	3070	65,3	7,4	65,3	7,4	51,3	26,6	9,90	3,96	39,20
3	3080	66,0	7,1	66,0	7,1	54,0	24,9	9,91	3,95	39,14
4	3040	65,4	7,3	65,4	7,3	52,2	30,3	9,92	3,96	39,28
5	3050	66,0	7,2	66,0	7,2	61,6	14,6	9,92	3,95	39,18
- Series Table:**

Series	E_t MPa	σ_Y MPa	ϵ_Y %	σ_M MPa	ϵ_M %	σ_B MPa	ϵ_{tB} %	b mm	h mm	A_0 mm ²
n = 5	3070	65,8	7,2	65,8	7,2	54,4	23,9	9,91	3,954	39,18
x	27,9	0,391	0,13	0,391	0,13	4,15	5,85	0,01	0,005477	0,07
s	0,91	0,60	1,76	0,60	1,76	7,64	24,49	0,10	0,14	0,17
- Graph:** A stress-strain graph titled "Differentiation of specimen by color". The y-axis is "Stress in MPa" (0 to 60) and the x-axis is "Strain in %" (0 to 30). A context menu is open over the graph, listing options: Configure Curve graph..., Print 'Curve graph', Copy to clipboard, Activate cross-wires, Set 'Point of break', Show lettering, Select field contents..., Edit current layout..., and Edit layouts... A mouse cursor is visible over the graph.
- Bottom Bar:** Displays test results: $F = 6,02 \text{ N}$ (Grip to grip separation), $5,000 \text{ mm}$ (Crosshead absolute), and $274,000 \text{ mm}$.

testXpert® III is intuitive & workflow-based

An intelligent wizard function enables easy and structured input of all test parameters and automatic verification of entries for plausibility.

testXpert III (Administrator) - C:\ProgramData\zwick\testxpert III\V1_1\SysData\Samples\zte051_01 DIN EN ISO 527-1.zs2

Home Save Save as Zero the force Start pos. Start Stop Back Evaluate Print Lock Help Zwick / Roell

SET UP TESTING SYSTEM **CONFIGURE TEST** RUN TEST EXPORT TEST DATA

View

- Pre-test
- Test parameters
- Results
- Tensile modulus
- Yield strength
- Control parameter
- Parameters for the report
- Reports
- Export interfaces

Grip to grip separation at the start position A 115.00 mm

Speed, start position 200 mm/min

Approach path None

Gage length correction

Pre-load 0,1 MPa

Speed, pre-load 5 mm/min

The current value of the machine is accepted by activating the action button

< Back Next >

F 6,02 N Grip to grip separation 5,000 mm Crosshead absolute 274,000 mm

System configuration name: Default User: Administrator Group: Administrator

testXpert® III is intuitive & workflow-based

The intelligent wizard guides you systematically through the test configuration.

testXpert III (Administrator) - C:\ProgramData\zwick\testxpert III\V1_1\SysData\Samples\xt051_01 DIN EN ISO 527-1.zs2

Home Save Save as Zero the force Start pos. Start Stop Back Evaluate Print Lock Help Zwick / Roell

SET UP TESTING SYSTEM CONFIGURE TEST RUN TEST EXPORT TEST DATA

View Results and all specimen specific parameters Display activated only

Act...	Abbreviation	Unit	Name
<input type="checkbox"/>	Specimen no.		Specimen number
<input type="checkbox"/>	Date		Date
<input type="checkbox"/>	Clock time		Clock time
<input type="checkbox"/>	Date/Clock time		Date/Clock time
<input type="checkbox"/>	Lo CH	mm	Gage length, crosshead
<input type="checkbox"/>	Lo	mm	Gage length
<input type="checkbox"/>	σ_{low}	MPa	Tensile modulus, begin
<input type="checkbox"/>	σ_{high}	MPa	Tensile modulus, end
<input checked="" type="checkbox"/>	E_t	MPa	Tensile modulus
<input type="checkbox"/>	R ²		Coefficient of determination R ² of the elastic gradient straight line
<input type="checkbox"/>	S _m	N/mm	Standard deviation of the gradient S _m of the elastic gradient straight line
<input type="checkbox"/>	S _{m(rel)}	%	Relative standard deviation of the gradient S _m of the elastic gradient straight line
<input type="checkbox"/>	N		Number of data points in the evaluation range
<input type="checkbox"/>	σ_{x1}	MPa	Stress at x1% strain
<input checked="" type="checkbox"/>	σ_Y	MPa	Yield strength
<input checked="" type="checkbox"/>	ϵ_Y	%	Yield strain
<input checked="" type="checkbox"/>	σ_M	MPa	Tensile strength
<input checked="" type="checkbox"/>	ϵ_M	%	Strain at tensile strength
<input checked="" type="checkbox"/>	σ_B	MPa	Stress at break
<input checked="" type="checkbox"/>	ϵ_{tB}	%	Nominal strain at break
<input checked="" type="checkbox"/>	b	mm	Specimen width
<input checked="" type="checkbox"/>	h	mm	Specimen thickness
<input checked="" type="checkbox"/>	A ₀	mm ²	Cross-section

6,02 N Grip to grip separation 5,000 mm Crosshead absolute 274,000 mm

testControl II - Drive system - Controlled hold System configuration name: Default User: Administrator Group: Administrator

testXpert® III is intuitive & workflow-based

Once you set all the options and parameters you need for testing and exporting the test data, you're ready to start the test.

testXpert III (Administrator) - C:\ProgramData\zwick\testxpert III\VI_1\SysData\Samples\yte051_01 DIN EN ISO 527-1.zs2

Home Save Save as Zero the force Start pos. Start Stop Back Evaluate Print Lock Help Zwick / Roell

SET UP TESTING SYSTEM **CONFIGURE TEST** RUN TEST EXPORT TEST DATA

View

Name	Type	Moment in time of expo...
ASCII	Results (ASCII)	- None -
Excel default	Excel	- None -
Export to Excel + autom...	Results (ASCII)	At the series end
Measuring graphs (A...	Measuring graphs (A...	- None -
Microsoft Word (.DOC)	Word	- None -
Microsoft Word - short r...	Word	- None -
PDF default (Standard re...	Report	- None -
testXpert default	Measuring graphs (t...	

Available help topics:
[Export interfaces](#)
[FAQ](#)

Default export interface

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F 6,02 N Grip to grip separation 5,000 mm Crosshead absolute 274,000 mm

testControl II - Drive system - Controlled hold System configuration name: Default User: Administrator Group: Administrator

testXpert® III is intuitive & workflow-based

You can use the standard, expanded or even customized intelligent wizard for advanced adjustments.

testXpert III (Administrator) - C:\ProgramData\zwick\testxpert III\V1_1\SysData\Samples\xt051_01 DIN EN ISO 527-1.zs2

Home Save Save as Zero the force Start pos. Start Stop Back Evaluate Print Lock Help Zwick / Roell

SET UP TESTING SYSTEM **CONFIGURE TEST** RUN TEST EXPORT TEST DATA

View [Icons] ...

- Start position ✓
- Pre-load ✓
- Specimen data ✓
- Test ✓
- End of test ✓
- Results ✓
- Tensile modulus ✓
- Yield strength ✓
- Break investigation ✓**
- Actions after the test
- Measurement value storage
- Control parameter
- Parameters for the report
- Reports
- Export interfaces ✓

Number of captures for break investigation: 50

Force transition: 5 %

Negative strain transition: 10 %

Positive strain transition: 10 %

Number of captures used for break investigation

< Back Next >

F 6,02 N Grip to grip separation 5,000 mm Crosshead absolute 274,000 mm

testControl II - Drive system - Controlled hold System configuration name: Default User: Administrator Group: Administrator

testXpert® III



...offers prepared standard tests

standardized test methods?

testXpert® III offers prepared standard tests

Zwick / Roell

testXpert III contains over 600 Standard Test Programs, enabling you to find the right test program for almost any standard.

- All parameters, results and the report are already pre-configured by our experts with taking this into account.



AUTOMOTIVE



ACADEMIA



COMPOSITES

testXpert® III offers prepared standard tests

Zwick / Roell

We understand our customers' industries. Special functions & terminology make testXpert III tests optimized for each industry.

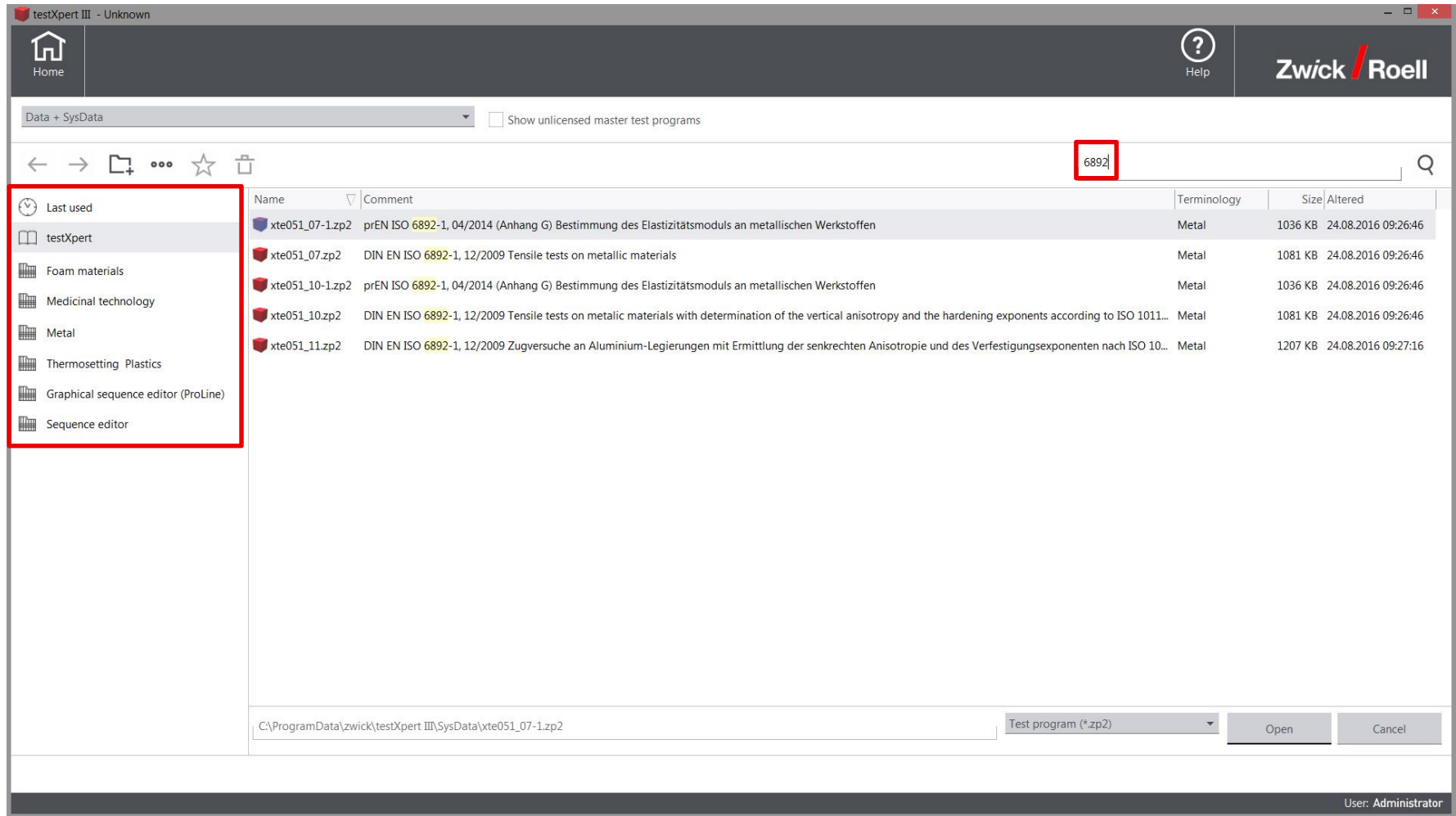
The screenshot displays the testXpert III software interface. At the top, the title bar reads "testXpert III (Administrator) - C:\ProgramData\zwick\testxpert III\V1_1\SysData\Samples\xt051_01 DIN EN ISO 527-1.zs2". The main header features the "testXpert® III" logo on the left and the "Zwick / Roell" logo on the right. The interface is divided into three main sections:

- Left Section:** Shows a keyboard with a gear icon and the text "Set up testing system". Below it, a mouse is shown with a circuit diagram icon and the text "Configure test".
- Center Section:** A large image of a red test specimen being held by a testing machine, with a white play button icon and the text "Run test".
- Right Section:** A sidebar menu with the following items: "Administrator" (with a user icon and a right arrow), "Load test..." (highlighted with a red box), "Traceability" (with a checkmark icon), "Settings" (with a wrench icon), "Help" (with a question mark icon), and "System information" (with an information icon). In the background, a graph shows a red curve on a coordinate system with "MPa" on the y-axis and "Nr" and "Serie" on the x-axis.

At the bottom of the interface, there is a status bar with the following information:

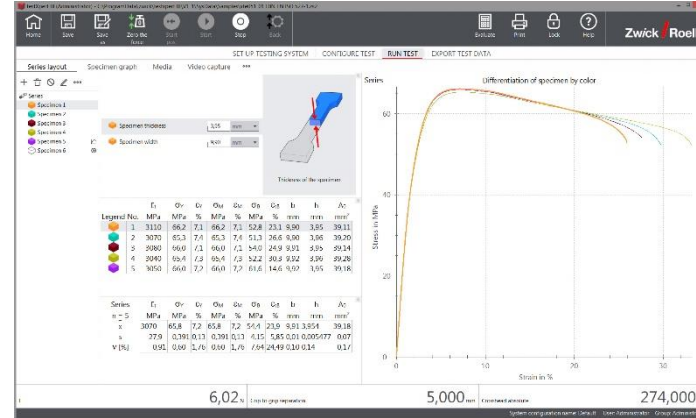
- Left: "F" and "testControl II - The connection to testControl has been established."
- Center: "6,02 N" and "Grip to grip separation"
- Right: "5,000 mm" and "Crosshead absolute"
- Far Right: "274,000 mm"
- Bottom Right: "System configuration name: Default User: Administrator Group: Administrator"

You can instantly start a Standard Compliant Test in your application in just a few seconds with the Open & Search dialog.



testXpert® III offers prepared standard tests

Standard-compliant testing can be as easy as that!

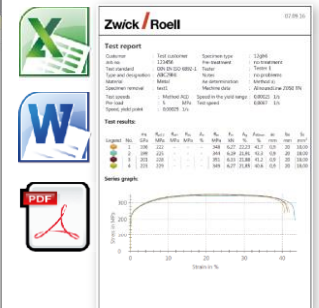
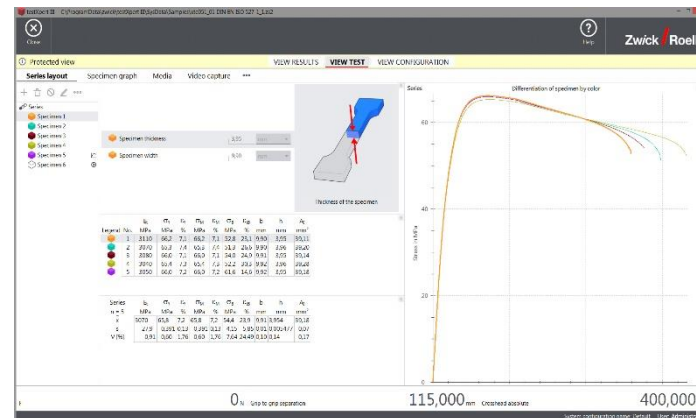
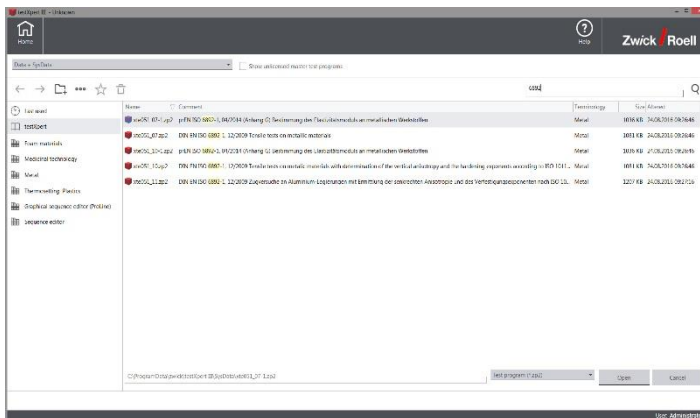


➔ Open **testXpert® III**

➔ Run test

➔ Load test program

➔ View report and test settings



testXpert® III



...is versatile

Or the same software for different types of machines?

testXpert® III is versatile

testXpert III is the result of close cooperation with software users in the materials testing industry and the experience of over 30,000 successful testXpert installations.

- The workflow-based philosophy of testXpert III fits to all testing machines & instruments of the ZwickRoell Group.

The same software can be used for all applications and test types.



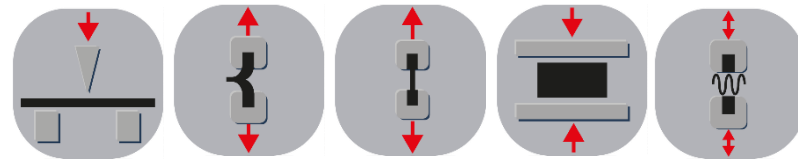
testXpert® III is versatile

testXpert III offers you a superior product portfolio.

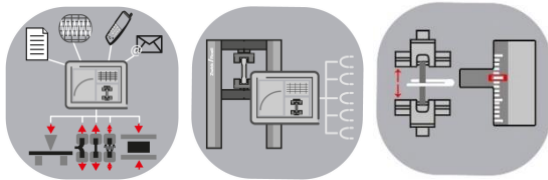
Standard Test Programs



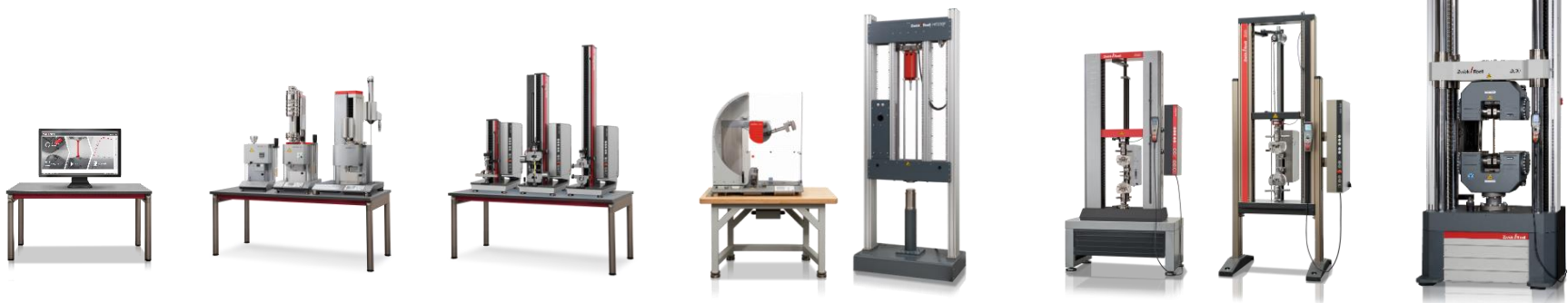
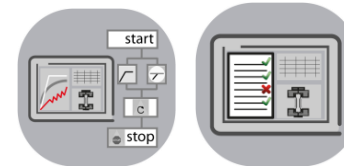
Master Test Programs



Options/Sensors



Graphical Sequence Editor/ Customized Solutions



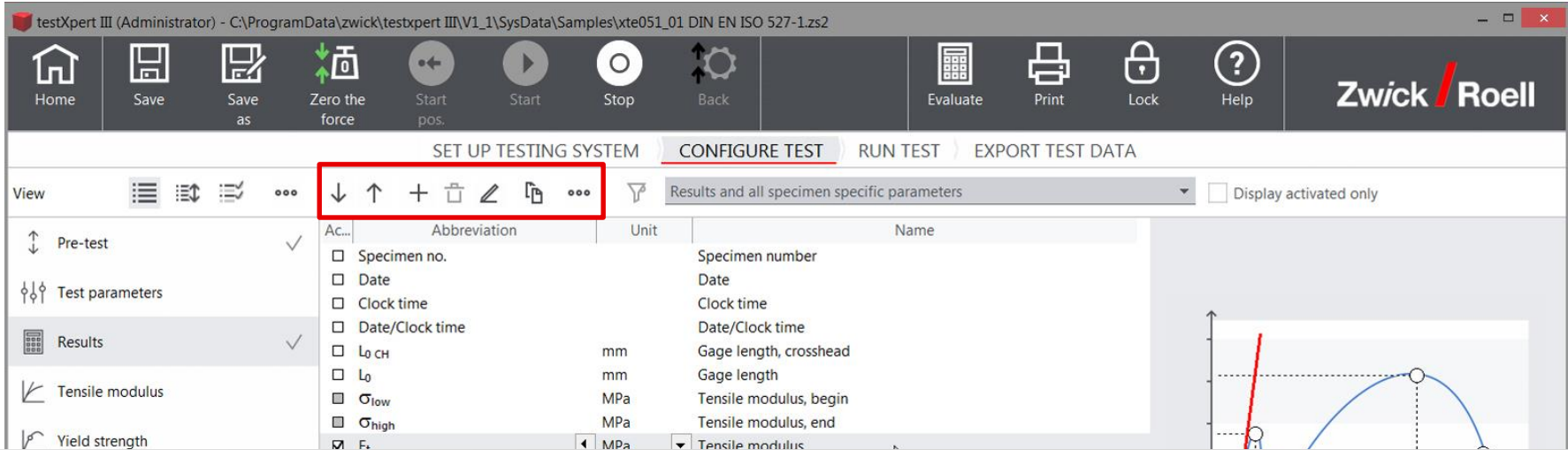
Additional channels can be easily added in testXpert III.

The screenshot displays the testXpert III software interface. At the top, a navigation bar includes icons for Home, Save, Save as, Zero the force, Start pos., Start, Stop, Back, Evaluate, Print, Lock, and Help. Below this is a breadcrumb trail: SET UP TESTING SYSTEM > CONFIGURE TEST > RUN TEST > EXPORT TEST DATA. The main configuration area is titled 'System configuration' and shows a 'Default' configuration. It includes radio buttons for 'Type of test' (Tensile selected) and 'Test area' (Bottom selected). A checkbox for 'Enable start of test with sensors defined in the system configuration only' is present. A red box highlights a 'testControl II' configuration table:

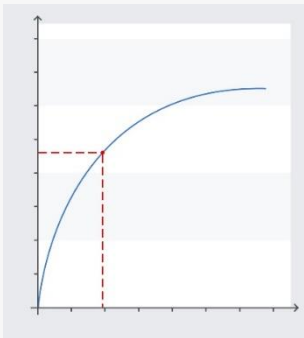
testControl II	TEST PROGRAM
Control SN: 999700	Machine
Crosshead SN: 999700	Crosshead
makroXtens SN: 161487	Standard extensometer
Travel formula element No. 1	Standard load cell
Force 2.5 kN SN: 999703	Set value
Force formula element No. 1	Act. value
Set value	Control point
Actual value	
Control point	

At the bottom of the configuration area are 'Save' and 'Save system configuration, continue' buttons. The status bar at the bottom shows: F 6,02 N Grip to grip separation 5,000 mm Crosshead absolute 274,000 mm. The footer includes 'testControl II - Drive system - Setup', 'System configuration name: Default', 'User: Administrator', and 'Group: Administrator'.

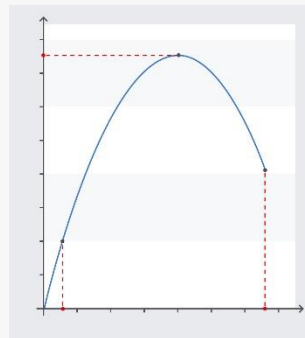
Additional results can be easily added in testXpert III.



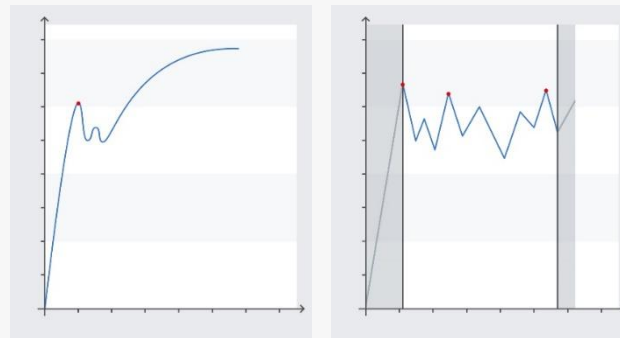
Reference values



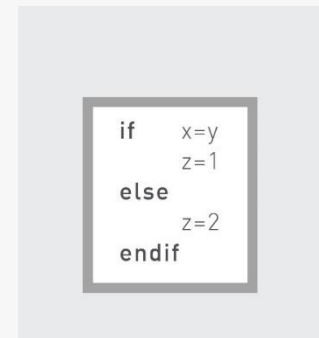
Statistical values



Peaks/Gradients



Complex ZIMT results



testXpert® III



...ensures reliable test results

traceable results?

ZwickRoell, together with its machine and software solutions, stands for accuracy, repeatability and reproducibility and for seamless result traceability.

Our machines operate with precision. The average of the test results obtained is very close to the reference value.

accurate

When tests are repeated under the same conditions, the results obtained are closely grouped.

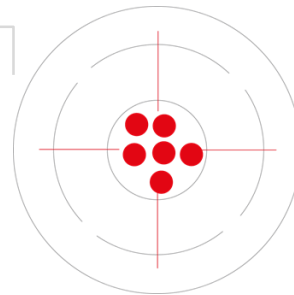
repeatable

When ZwickRoell machines performing the same test are compared, the results are reproducible.

reproducible

The continuous documentation of calibrations and tests makes all results transparent and traceable.

traceable



testXpert® III ensures reliable test results

Zwick / Roell

You can define reproducible test conditions with our unique System Configuration Builder, which guarantees repeatability of the test results.

The screenshot displays the testXpert III software interface. At the top, the title bar reads "testXpert III - C:\PROGRAMDATA\ZWICK\TESTXPRT III VIDEO\SYSDATA\SAMPLES\XTE051_07 DIN EN ISO 6892-1 VERFAHREN A(1).ZS2". The main window features the "testXpert® III" logo on the left and the "Zwick / Roell" logo on the right. The interface is divided into three main sections:

- Set up testing system:** A red-bordered box highlights a keyboard with a gear icon and the text "Set up testing system".
- Run test:** A central image shows a red test specimen being held by a testing machine, with a play button icon and the text "Run test".
- View results:** A graph on the right shows a stress-strain curve with the y-axis labeled "Spannung" (Stress) and the x-axis labeled "Dehnung" (Strain). Below the graph, a table of results is visible, including a "View results" icon and a table with columns for σ_y , ϵ_y , σ_M , ϵ_M , and σ_B .

On the right side of the interface, there is a vertical toolbar with icons for user profile, folder, checkmark, wrench, question mark, and information.

Select the test area you're operating in.

The screenshot shows the 'testXpert III (Administrator)' software interface. The main window title is 'testXpert III (Administrator) - C:\ProgramData\zwick\testxpert III\V1_1\SysData\Samples\zte051_01 DIN EN ISO 527-1.zs2'. The interface includes a top toolbar with icons for Home, Save, Save as, Zero the force, Start pos., Start, Stop, Back, Evaluate, Print, Lock, and Help. Below the toolbar are tabs for 'SET UP TESTING SYSTEM', 'CONFIGURE TEST', 'RUN TEST', and 'EXPORT TEST DATA'. The 'SET UP TESTING SYSTEM' tab is active, showing a 'System configuration' list on the left and configuration options on the right. The 'Type of test' is set to 'Tensile'. The 'Test area' is set to 'Bottom', which is highlighted with a red box. A callout box on the left shows 'Test area: Top Bottom'. Below the configuration options, there is a 'TEST PROGRAM' section with a tree view showing 'Machine', 'Crosshead', 'Standard extensometer', and 'Standard load cell'. At the bottom, there are 'Save' and 'Save system configuration, continue' buttons. The status bar at the bottom shows 'testControl II - Drive system - Setup', 'Grip to grip separation 100,000 mm', 'Crosshead absolute 400,000 mm', and 'System configuration name: System configuration 1 User: Administrator Group: Administrator'.

Set the start and safety positions of the crosshead.

testXpert III (Administrator) - C:\ProgramData\zwick\testxpert III\V1_1\SysData\Samples\xte051_01 DIN EN ISO 527-1.zs2

Home Save Save as Zero the force Start pos. Start Stop Back Evaluate Print Lock Help Zwick / Roell

SET UP TESTING SYSTEM CONFIGURE TEST RUN TEST EXPORT TEST DATA

System configuration + -

Default

- Master 2,5kN foam
- Simple tensile test Fmax 100kN
- Standard tensile Test Fmax 100kN Metal

Option Crosshead SN: 999700

Enter the data for the crosshead.

Serial number:	999700	OK
End value:	1170,00 mm	Cancel
Position:	274,000 mm	Help
Slot number:	Driveboard INC	Position

Identification: Crosshead SN: 999700

Upper softend	A	300,000	mm	Reference
Lower softend	A	150,000	mm	
Current tool separation/Current grip to grip separation		5,000	mm	
Integration time		2,000	ms	
Correct. curve		---		

Determine the upper softend.

Save Save system configuration, continue

F 6,02 N Grip to grip separation 5,000 mm Crosshead absolute 274,000 mm

testControl II - Drive system - Setup System configuration name: Default User: Administrator Group: Administrator

Set the force limits to protect the user and testing system.

testXpert III (Administrator) - C:\ProgramData\zwick\testxpert III\V1_1\SysData\Samples\xte051_01 DIN EN ISO 527-1.zs2

Home Save Save as Zero the force Start pos. Start Stop Back Evaluate Print Lock Help Zwick / Roell

SET UP TESTING SYSTEM CONFIGURE TEST RUN TEST EXPORT TEST DATA

System configuration + -

Default

Master 2,5kN foam

Simple tensile test Fmax 100kN

Standard tensile Test Fmax 100kN Metal

Option Force SN: 999703

Enter the data for the load cell.

Serial number: 999703

Slot number: Mainboard Slot 1

Nominal force (Tensile): 2500,00 N

Total force: 6,02 N

Identification: Force 2.5 kN SN: 999703

Upper force limit: 2500,000 N

Lower force limit: -2500,000 N

Operator and specimen protection function

Integration time: 100,000 ms

OK

Cancel

Help

State

Determines the highest permissible total force.

Save Save system configuration, continue

F 6,02 N Grip to grip separation 5,000 mm Crosshead absolute 274,000 mm

testControl II - Drive system - Setup System configuration name: Default User: Administrator Group: Administrator

Set up the safety area to protect the tools and extensometers.

testXpert III (Administrator) - C:\ProgramData\zwick\testxpert III\V1_1\SysData\Samples\xt051_01 DIN EN ISO 527-1.zs2

Home Save Save as Zero the force Start pos. Start Stop Back Evaluate Print Lock Help Zwick / Roell

SET UP TESTING SYSTEM CONFIGURE TEST RUN TEST EXPORT TEST DATA

System configuration Option makroXtens SN: 161487

testControl - Extensometer

Serial number: 161487
Slot number: Mainboard Slot 2
Measurement travel (tensile): 1800,00 mm
Measured value: 105,000 mm

Identification: makroXtens SN: 161487

Gage length: 10,000 mm
Integration time: 2,000 ms

Safety area monitoring

Minimum distance to the specimen grips: 5,00 mm
 Crosshead stop at detaching
Correct. curve: ---

Enter the sensor's gage length.

274,000 mm

testControl II - Drive system - Setup System configuration name: Default User: Administrator Group: Administrator

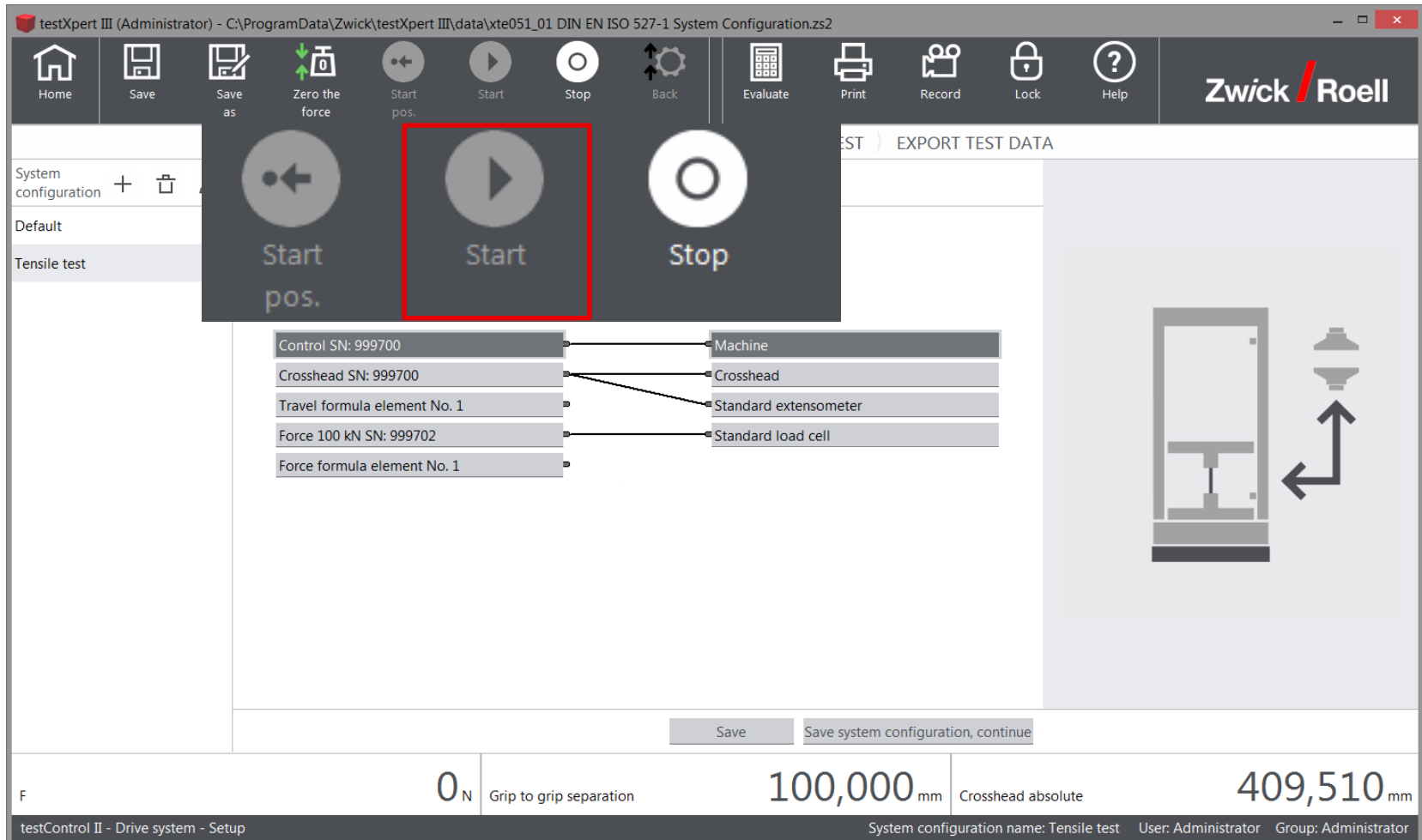
Ensure that you have the maximum safety.

The screenshot displays the testXpert III software interface. The title bar reads "testXpert III (Administrator) - C:\ProgramData\Zwick\testXpert III\data\xt051_01 DIN EN ISO 527-1 System Configuration.zs2". The top navigation bar includes icons for Home, Save, Save as, Zero the force, Start pos., Start, Stop, Back, Evaluate, Print, Record, Lock, and Help. The main menu has four tabs: "SET UP TESTING SYSTEM" (selected), "CONFIGURE TEST", "RUN TEST", and "EXPORT TEST DATA".

The "System configuration" panel on the left shows a "Default" section with a "Tensile test" option highlighted by a red box. The "Type of test" is set to "Tensile" (radio button selected), and the "Test area" is set to "Bottom" (radio button selected). A checkbox labeled "Enable start of test with sensors defined in the system configuration only" is checked. Below this, a diagram shows a "Force 100 kN SN: 999702" and "Force formula element No. 1" connected to a "Standard load cell".

The bottom status bar displays the following information: "F", "0 N", "Grip to grip separation", "100,000 mm", "Crosshead absolute", and "409,510 mm". The footer text reads "testControl II - Drive system - Setup" on the left and "System configuration name: Tensile test User: Administrator Group: Administrator" on the right.

The test can be started only if parameters match the predefined sensors.



The information about the connected sensors is saved and traceable for each specimen.

The screenshot displays the testXpert III software interface. On the left, there is a sidebar with navigation icons (Home, Save, Save as, Zero the force) and a list of specimens (Specimen 1 to 6) with a legend. The main area is divided into several sections:

Overview sensors

Channel	Designation	Serial number	Nominal value	
Crosshead travel sensor (40401)	Crosshead	724467	1164 mm	Details
Standard load cell (40402)	Force	766807	20000 N	Details
Standard extensometer (40403)	makroXtens	234277	25 mm	Details

Crosshead

Serial number: 724467
 Nominal value: 1164 mm
 Calibration date:

Accuracy grades:

Direction of test	Range	Class
Tensile	0% - 100%	-
Tensile	0% - 0%	-
Compression	0% - 100%	-
Compression	0% - 0%	-

[return to overview](#)

Force

Serial number: 766807
 Nominal value: 20000 N
 Calibration date: 18.05.2016

Accuracy grades:

Direction of test	Range	Class
Tensile	0.2% - 100%	1
Tensile	1% - 100%	0.5
Compression	0.2% - 100%	1
Compression	1% - 100%	0.5

On the right side, there is a graph titled "Evolution of specimen by color" showing multiple curves. The x-axis is labeled "Strain in %" with markers at 20 and 30. The y-axis is labeled "Force" with a value of 274,000 mm. The Zwick / Roell logo is visible in the top right corner of the software window.

Save the system configuration and link it to the test program.

The screenshot displays the testXpert III software interface. At the top, the title bar shows the file path and name: "testXpert III (Administrator) - C:\ProgramData\Zwick\testXpert III\data\zte051_01\ DIN EN ISO 527-1 System Configuration.zs2". The main toolbar includes icons for Home, Save, Save as, Zero the force, Start pos., Start, Stop, Back, Evaluate, Print, Record, Lock, and Help. The Zwick / Roell logo is in the top right corner.

The central workspace is titled "SET UP TESTING SYSTEM" and contains the following configuration options:

- Type of test: Tensile, Compression
- Test area: Top, Bottom
- Enable start of test with sensors defined in the system configuration only

A diagram titled "testControl II" and "TEST PROGRAM" shows the following connections:

- Control SN: 999700 is connected to Machine.
- Crosshead SN: 999700 is connected to Crosshead and Standard extensometer.
- Travel formula element No. 1 is connected to Standard extensometer.
- Force 100 kN SN: 999702 is connected to Standard load cell.
- Force formula element No. 1 is connected to Standard load cell.

At the bottom of the configuration area, there are "Save" and "Save system configuration, continue" buttons. The status bar at the very bottom shows:

- Left: F
- Center: 0_N Grip to grip separation
- Right: 100,000 mm Crosshead absolute
- Far right: 409,510 mm

The status bar also includes the text "testControl II - Drive system - Setup" and "System configuration name: Tensile test" (highlighted with a red box), along with "User: Administrator" and "Group: Administrator".

testXpert® III ensures reliable test results



testXpert III always knows how, where and with what the test is to be performed and offers maximum safety for the user and testing system.

Test area

Selector sensor limits

Safety and tool distance

Crosshead position

Safety measures

"When does who, do what, why and who is responsible?"

testXpert III (Administrator)

testXpert® III

Zwick / Roell

Administrator

- Load test...
- Traceability
 - Logging active
 - Configure logging...
 - Export application settings...
 - Export document settings...
 - Show logging...
 - Export logging...
 - Enter reasons...
- Settings
- Help
- System information

testControl II - The connection to testControl has been established.

User: Administrator Group: Administrator

testXpert III logs all test- and system-relevant actions and settings and enables you to trace the reason for a change.

The screenshot displays the testXpert III Administrator interface. The main window is titled "testXpert III" and features the Zwick / Roell logo. A "Traceability application settings - Status: Activated" dialog box is open, showing the following settings:

- Check the change of the file name
- Electronic signature
- Scope of logging: Maximum
- Scope of reasoging: Maximum

The "Settings:" table is as follows:

Name	Logging	Reason
Application		
- Application management	<input checked="" type="checkbox"/>	<input type="checkbox"/>
- Channel zeroing	<input checked="" type="checkbox"/>	<input type="checkbox"/>
- Definition of result values	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
- Dialog for confirmation messages	<input checked="" type="checkbox"/>	<input type="checkbox"/>
- Error message	<input checked="" type="checkbox"/>	<input type="checkbox"/>
- Export (General)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
- Export (Report)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
- Export Long-term evaluation	<input checked="" type="checkbox"/>	<input type="checkbox"/>
- Group rights in the program	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
- Import Long-term evaluation	<input checked="" type="checkbox"/>	<input type="checkbox"/>
- Machine emergency message	<input checked="" type="checkbox"/>	<input type="checkbox"/>
- Machine: Sensor adjustment	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
- Machine: Setup actions	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
- Main window layouts	<input checked="" type="checkbox"/>	<input type="checkbox"/>
- Message pane	<input checked="" type="checkbox"/>	<input type="checkbox"/>
- Organization data	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The sidebar menu on the right includes:

- Administrator
- Load test...
- Traceability
 - Logging active
 - Configure logging...**
 - Export application settings...
 - Export document settings...
 - Show logging...
 - Export logging...
 - Enter reasons...
- Settings
- Help
- System information

Any changes to the test configuration will be documented.

The screenshot shows the testXpert III software interface. At the top, there is a navigation bar with icons for Home, Save, Save as, Zero the force, Start pos., Start, Stop, Back, Evaluate, Print, Lock, and Help. The main window is titled "testXpert III (Administrator) - C:\ProgramData\zwick\testxpert III\V1_1\SysData\Samples\xt051_01 DIN EN ISO 527-1.zs2". The interface is divided into several sections:

- View:** A sidebar on the left with options like Pre-test, Test parameters, Results, Tensile modulus, Yield strength, Control parameters, Parameters for the test, Reports, and Export interfaces.
- Reasons:** A central dialog box titled "Reasons" with the text "A reason is required for these action:". It contains two checked items: "Parameter 'Grip to grip separation at the start position' (ID: 48129): New value: 120 mm | Previous value: 115 mm" and "Parameter 'Grip to grip separation at the start position' (ID: 48129): New value: 150 mm | Previous value: 120 mm". Below this is a text input field with the text "We changed the grip to grip separation because of ..." highlighted by a red box. There are buttons for "OK", "Defer", "Help", and "Sign".
- Diagram:** On the right, there is a 3D diagram of a test specimen being held by a machine. A red double-headed arrow indicates the grip-to-grip separation. Below the diagram, it says "the machine is accepted by activating the action button".
- Status Bar:** At the bottom, it shows "6,02 N Grip to grip separation 5,000 mm Croshead absolute 274,000 mm".
- Footer:** At the very bottom, it says "System configuration name: Default User: Administrator Group: Administrator".

You can see exactly when, who, did what, why and who permitted this action or signed off on it.

Logging display

Document logging xte051_01 DIN EN ISO 527-1.zs2

Moment in time of the output: 28.02.2017 16:03:14

Output by: Administrator

Date	User	Instance	Message	Reason
28.02.2017 09:45:14	Administrator	7968	testXpert file C:\ProgramData\zwick\testxpert III\V1_1\SysData\Samples\xte051_01 DIN EN ISO 527-1.zs2 (Test program & Series not electronically signed) loaded (testXpert V1.1) PC name: ZUE-W-12155 Serial number: 999700 System configuration: Default Organization data configurations: Organization data series protection: Protected	
28.02.2017 11:01:09	Administrator	7968	testXpert error no. 3341: The saved connection in system configuration "Simple tensile test Fmax 100kN" between the machine element Standard load cell and the device with the ID "ForceMeter SN: 999702" could not be established. Because machine element "ForceMeter SN: 999702" is not plugged-in. Please proceed as follows:	
28.02.2017 15:57:24	Administrator	7968	Parameter "Grip to grip separation at the start position" (ID: 48129): New value: 120 mm Previous value: 115 mm Context reference: Series	We changed the grip to grip separation because of ...
28.02.2017 15:57:47	Administrator	7968	Parameter "Grip to grip separation at the start position" (ID: 48129): New value: 150 mm Previous value: 120 mm Context reference: Series	We changed the grip to grip separation because of ...
28.02.2017 16:02:49	Administrator	7968	Parameter dialog "Pre-test" closed	
28.02.2017 16:02:56	Administrator	7968	Parameter dialog "Pre-test" opened	

Zwick / Roell

Administrator

Load test...

- Traceability
 - Logging active
 - Configure logging...
 - Export application settings...
 - Export document settings...
 - Show logging...
 - Export logging...
 - Enter reasons...

When **Who** **What** **Why** **Responsibility**

Electronic signature protects from unauthorized changes.

The screenshot displays the testXpert III Administrator interface. The main window title is "testXpert III (Administrator)". The interface features the testXpert III logo on the left and the Zwick / Roell logo on the right. A "Traceability application settings - Status: Activated" dialog box is open, showing the following settings:

- Check the change of the file name
- Electronic signature (highlighted with a red box)
- Scope of logging: Maximum
- Scope of reasoning: Maximum

The dialog box also contains a table of settings:

Name	Logging	Reason
Application		
- Application management	<input checked="" type="checkbox"/>	<input type="checkbox"/>
- Channel zeroing	<input checked="" type="checkbox"/>	<input type="checkbox"/>
- Definition of result values	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
- Dialog for confirmation messages	<input checked="" type="checkbox"/>	<input type="checkbox"/>
- Error message	<input checked="" type="checkbox"/>	<input type="checkbox"/>
- Export (General)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
- Export (Report)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
- Export Long-term evaluation	<input checked="" type="checkbox"/>	<input type="checkbox"/>
- Group rights in the program	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
- Import Long-term evaluation	<input checked="" type="checkbox"/>	<input type="checkbox"/>
- Machine emergency message	<input checked="" type="checkbox"/>	<input type="checkbox"/>
- Machine: Sensor adjustment	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
- Machine: Setup actions	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
- Main window layouts	<input checked="" type="checkbox"/>	<input type="checkbox"/>
- Message pane	<input checked="" type="checkbox"/>	<input type="checkbox"/>
- Organization data	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Buttons for "OK", "Cancel", "Help", "Export...", "Reset...", and "Display..." are visible. A "Configure..." button is next to the "Electronic signature" checkbox. The background shows a graph with a red curve and a document icon.

On the right side, a settings menu is open, showing the following options:

- Traceability (highlighted with a red box)
- Configure... (highlighted with a red box)
- Export application settings...
- Export document settings...
- Show logging...
- Export logging...
- Enter reasons...

Other menu items include "Settings", "Help", and "System information". The user is identified as "Administrator" and the group as "Administrator".

testControl II - The connection to testControl has been established.

User: Administrator Group: Administrator

The electronic signature protects the test program from manipulation and can be used as paperless documentation.

The screenshot shows the testXpert III software interface. The top toolbar includes icons for Home, Save, Save as, Zero the force, Start pos., Start, Stop, Back, Evaluate, Print, Record, Lock, Help, and Signature. The main window displays a stress-strain graph with a yellow curve. A red box highlights the 'Signature' button in the top toolbar and a 'Signature' button in a floating panel. Another red box highlights a 'Help' button in the same floating panel. The interface also shows a specimen data table and a status bar at the bottom.

Legend	No.	E_t MPa	σ_Y MPa	ϵ_Y %	σ_M MPa	ϵ_M %	σ_B MPa	ϵ_{1B} %	b mm	h mm	A_0 mm ²
1	3110	66,2	7,1	66,2	7,1	52,8	23,1	9,90	3,95	39,11	
2	3070	65,3	7,4	65,3	7,4	51,3	26,6	9,90	3,96	39,20	
3	3080	66,0	7,1	66,0	7,1	54,0	24,9	9,91	3,95	39,14	
4	3040	65,4	7,3	65,4	7,3	52,2	30,3	9,92	3,96	39,28	
5	3050	66,0	7,2	66,0	7,2	61,6	14,6	9,92	3,95	39,18	

Series	E_t MPa	σ_Y MPa	ϵ_Y %	σ_M MPa	ϵ_M %	σ_B MPa	ϵ_{1B} %	b mm	h mm	A_0 mm ²
n = 5	3070	65,8	7,2	65,8	7,2	54,4	23,9	9,91	3,954	39,18
x	27,9	0,391	0,13	0,391	0,13	4,15	5,85	0,01	0,005477	0,07
V [%]	0,91	0,60	1,76	0,60	1,76	7,64	24,49	0,10	0,14	0,17

Status bar: F 0,000 N Grip to grip separation 100,000 mm Crosshead absolute 409,510 mm

testControl II - The connection to testControl has been established. System configuration User: Administrator Group: Administrator

User management allows you to set who or how many people must sign the test program or the report.

The screenshot displays the testXpert III software interface. At the top, a toolbar contains icons for Home, Save, Save as, Zero the force, Start pos., Start, Stop, Back, Evaluate, Print, Record, Lock, Help, and Signature. Below the toolbar are tabs for 'SET UP TESTING SYSTEM', 'CONFIGURE TEST', 'RUN TEST', and 'EXPORT TEST DATA'. The main window shows a stress-strain graph with 'Stress in MPa' on the y-axis (0 to 60) and displacement on the x-axis (0 to 100,000 mm). A blue window titled 'Signature of the series' is open, showing a list of signatures. One signature is listed as 'Signatur' with a green checkmark and a timestamp of 'Signed: 24.02.2017 16:56:03'. Another window titled 'Electronic signature' is also open, showing a login form with fields for 'User ID' (administrator) and 'Password' (#####), and buttons for 'OK', 'Log out', and 'Cancel'. The bottom status bar shows 'F 0,000 N Grip to grip separation', '100,000 mm Crosshead absolute', and '409,510 mm'. A message at the bottom left states 'testControl II - The connection to testControl has been established.' and the bottom right shows 'System configuration User: Administrator Group: Administrator'.

Easy traceability of specimen behavior is assured with videos synchronized exactly to the test – Video Capturing Plus.

The screenshot displays the testXpert III software interface. At the top, there is a navigation bar with icons for Home, Save, Save as, Kraft nullen, Start pos., Start, Stop, Back, Evaluate, Print, Record, Lock, and Help. Below this is a menu bar with options: SET UP TESTING SYSTEM, CONFIGURE TEST, RUN TEST (highlighted), and EXPORT TEST DATA. The main interface is divided into several sections:

- Specimen layout:** A list of 10 specimens, each with a unique color and a small icon.
- Media:** A section for managing test programs and specimens, including a 'Live frame' and a 'Test program' field.
- Video capture:** A large central window showing a live video feed of a specimen being tested. Below the video is a playback control bar with a 'Pause' button.
- Graph:** A graph titled 'Current specimen' showing 'Force in N' on the left y-axis (0 to 300) and 'Strain in $\mu\text{m}/\text{m}$ ' on the right y-axis (0 to -500). The x-axis is 'Strain in mm' (0 to 6). The graph shows a blue curve representing the test data, with a peak force of 6,606 N and a strain of 302,909 $\mu\text{m}/\text{m}$. The test data line is identified as 1985.
- Scale:** A section for setting the scale of the video capture, with options for 'x', 'y', and '0 - manually'.

At the bottom of the interface, there is a status bar displaying test parameters: F 0 N, Tool separa 100,000 mm, Crosshead 409,510 mm, Prot 1, 0,000 $\mu\text{m}/\text{m}$, DMS1 abs. 0,000%, and DMS2 abs. 0,000%. The status bar also includes the text 'testControl II - Drive system - Controlled hold' and 'System configuration name: Default User: Administrator Group: Administrator'.

testXpert® III ensures reliable test results

Zwick / Roell

You can visually reconstruct the specimen behavior & generate single frames to view interesting points in the test sequence.

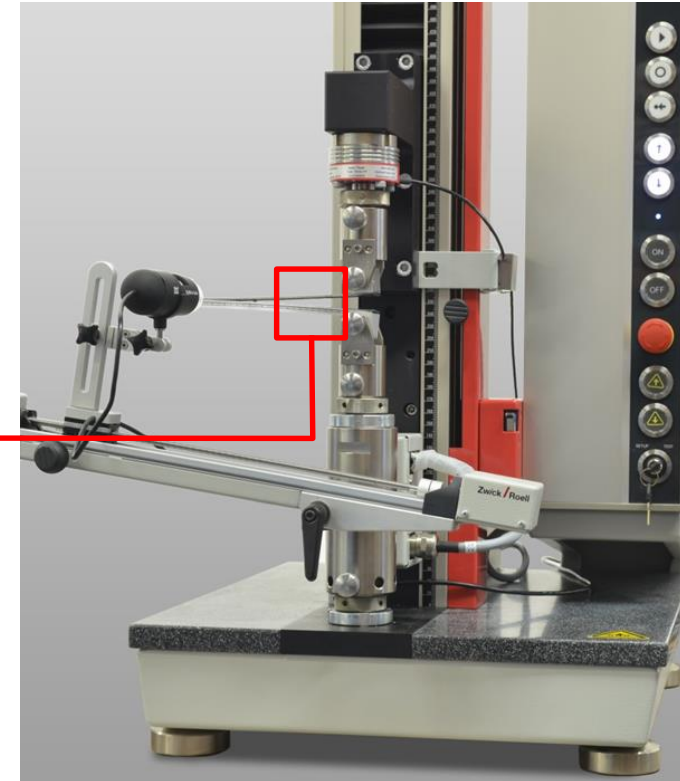
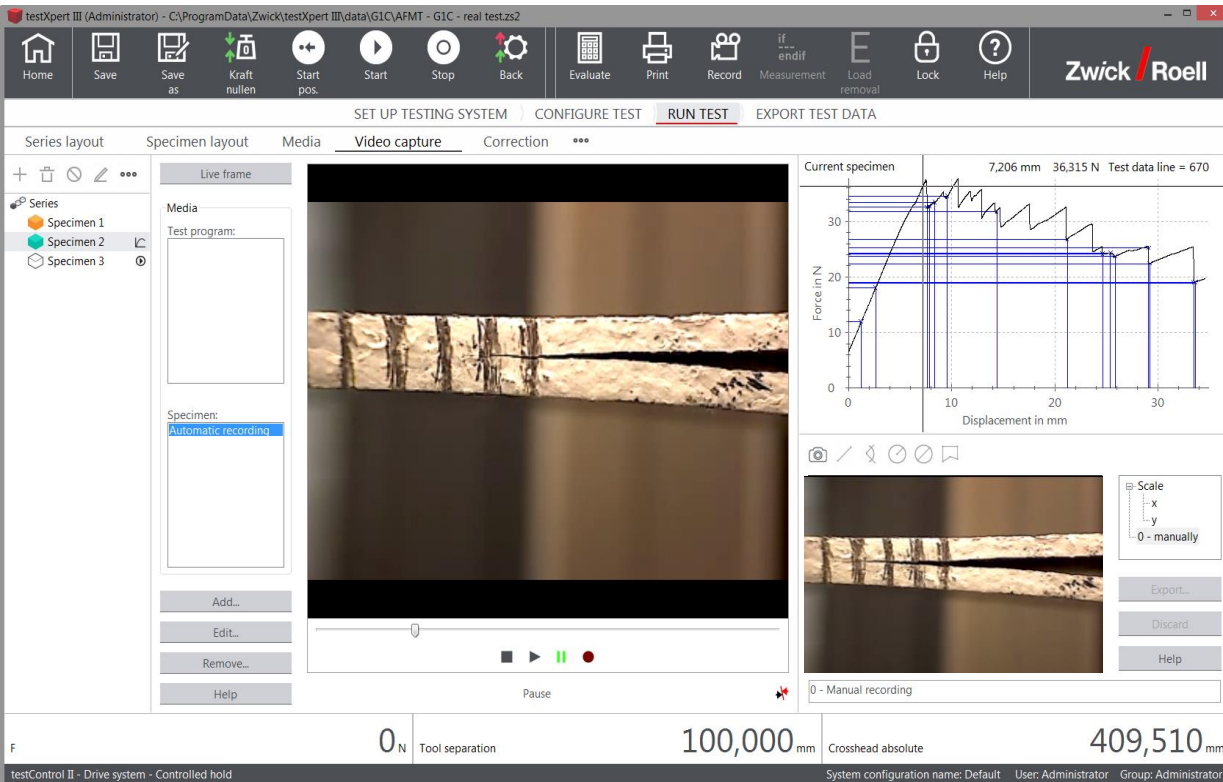
The screenshot displays the testXpert III software interface. The top menu bar includes icons for Home, Save, Save as, Zero the force, Start pos., Start, Stop, Back, Evaluate, Print, Record, Lock, and Help. The main window is titled "testXpert III (Administrator) - C:\ProgramData\Zwick\testXpert III\data\Delfi\zwicki-3-mehrkamera_sync.zs2". The interface is divided into several sections:

- Series layout:** Shows a list of specimens: Specimen 1 (orange), Specimen 2 (green), Specimen 3 (red), and Specimen 4 (blue).
- Media:** Includes a "Live frame" section and a "Test program:" field.
- Video capture:** Displays a live video feed of the specimen being tested, with a "Pause" button below it.
- Graph:** Shows a plot of "Standard force in N" (left y-axis, 0 to 80) and "Kontakt in Digits" (right y-axis, 0.0 to 2.0) versus "Nominal strain in mm" (x-axis, 0 to 6). The graph shows a curve that rises to a peak of approximately 40 N at 4.5 mm strain, then drops sharply. A red box highlights the peak region. The current specimen data is shown as "2,906 mm 25,243 N Test data line = 940".
- Scale:** A "Scale" panel is visible, showing "x" and "y" axes and a "0 - manually" option.
- Bottom Status Bar:** Displays "F 0 N", "Tool separation 100,000 mm", "Crosshead absolute 409,510 mm", "Kontakt 0,000 Digits", and "testControl II - The connection to testControl has been established." System configuration name: Default, User: Administrator, Group: Administrator.

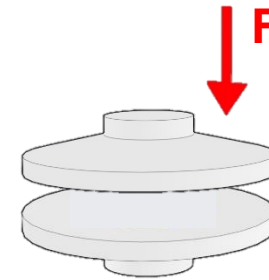
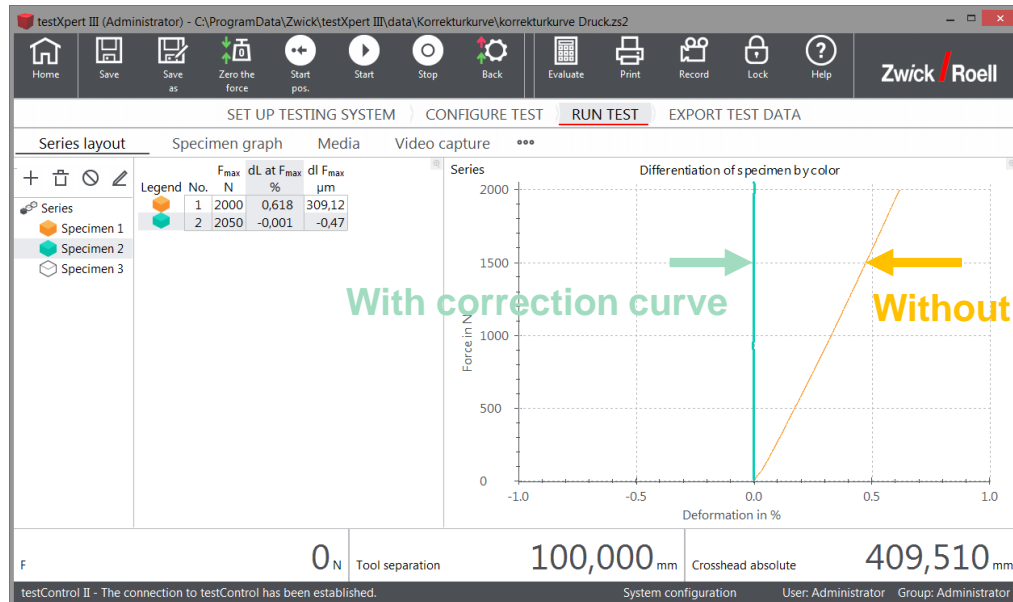
testXpert® III ensures reliable test results

Zwick / Roell

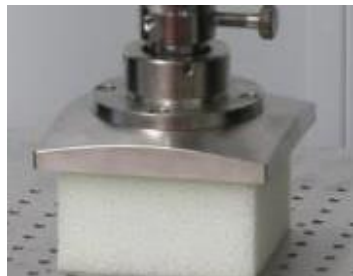
You can trace crack propagation measurements and even reposition the crack points after testing.



Accurate results for compression tests are ensured by means of automatic real-time correction of machine deformation.



- Maximum displacement measurement accuracy
 - Control is directly through the corrected channel
- 100mm → Allowing displacement targets to be attained exactly

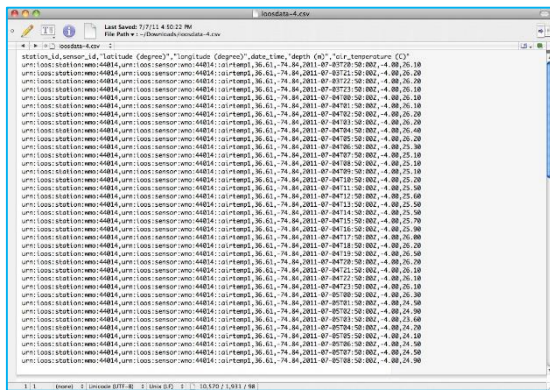


Compare test results with TENSTAND software validation to ensure reproducible test results (Part of ISO 6892-1 2009).



Dataset	Material	Rp0.1 (MPa)	Rp0.2 (MPa)	ReH (MPa)	ReL (MPa)	Rm (MPa)	Fm (N)	A (%)	At (%)	Ag (%)	Agt (%)	Ae (%)	E (GPa)
1	Nimonic 75, CRM 661	303.4 - 304.5	309.6 - 310.1			764.4	59973	41.2	41.5	30.8	31.2		200.8 - 216.5
6	Nimonic 75, CRM 661	300.5 - 301.8	308.0 - 308.6			761.1	59780	41.4	41.7	31.4	31.8		182.7 - 195.8
10	13%Mn Steel	334.5 - 334.9	337.1 - 337.2			937.0	72667	51.4	51.9	49.8	50.4		180.6 - 184.0
13	S355 Structural steel			479.4	431.8	567.2	44503	29.4	29.5	14.5	14.7	1.98 - 2.10	238.8 - 231.0
17	316L Stainless Steel	244.7 - 245.2	261.0 - 261.2			575.7	45278	51.1	51.3	39.3	39.6		193.9 - 202.3
22	Tin Coated packaging steel	525.6 - 530.6	562.5 - 564.6			596.7	2369	0.9	1.2	0.6	0.9		198.7 - 207.3
30	Sheet steel - DX56	157.2 - 157.6	162.7 - 162.9			301.5	4272	39.9 - 40.1	40.1	22.5	22.6		195.0 - 207.4
38	Aluminium Sheet - hard AA5182	385.2 - 388.8	386.4 - 397.1			434.3	2007	4.7	5.4	4.3	4.9		68.1 - 69.3
42	Aluminium Sheet - soft AA1050	26.48 - 26.55	30.01 - 30.05			83.8	1210	44.5	44.6	28.6	28.7		68.7 - 72.0
46	Aluminium Sheet -soft AA5182	133.4 - 133.9	134.5 - 134.8			284.6	8420	22.6 - 22.7	23.2	20.5	20.9		68.7 - 70.0
50	Sheet steel - DX56	158.6 - 158.7	163.9 - 164.0			303.9	2665	43.4 - 43.9	44.2	23.9	24.1		162.2 - 165.3
53	Sheet steel - ZStE			270.1	228.7	318.9	3752	40.3 - 40.8	40.8	19.9	19.1	1.74 - 1.80	198.7 - 208.6
57	Synthetic Digital Curve - zero noise	432.4	434.3			738.5	58000	50.0	50.2	39.6	40.0		207.5 - 208.0
61	Synthetic Digital Curve - 0.5% noise	431.8 - 434.1	438.1 - 441.6			748.1	58754	50.0	50.2	39.2	39.6		201.6 - 211.5
63	Synthetic Digital Curve - 1% noise	429.6 - 432.7	446.6 - 448.2			759.3	59632	50.0	50.2	37.3	37.7		203.0 - 211.6

Check of results

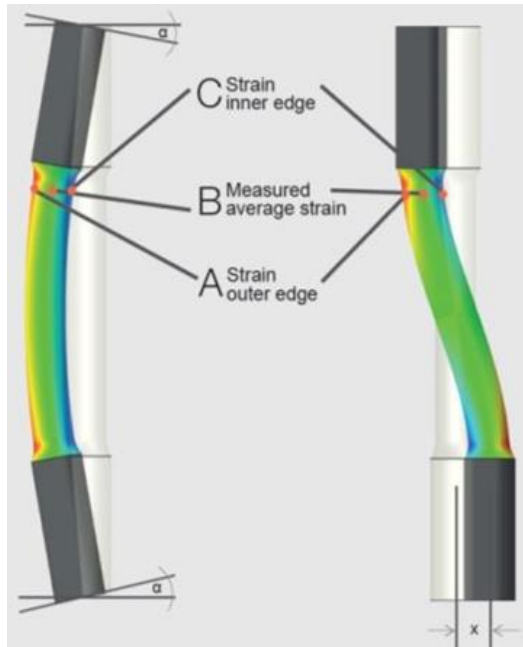


Legend No.	mE	Rp0.1	Rp0.2	ReH	Ae	Rel	Rm	Ag	Agt	Rb	A	At
	GPa	MPa	MPa	MPa	%	MPa	MPa	%	%	MPa	%	%
3	196,2	157,5	162,9	-	-	-	301	22,4	22,6	142	39,9	40,0



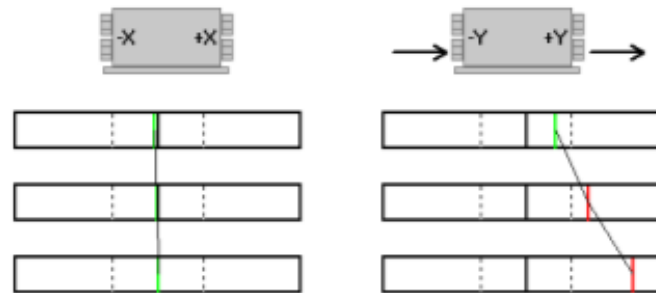
Internationally recognized raw data sets and internationally recognized tensile test results ensure reproducibility in the calculation of characteristic values.

In the case of brittle specimens, or in creep and fatigue tests, the exact alignment of the load string is critical to obtaining accurate test results.

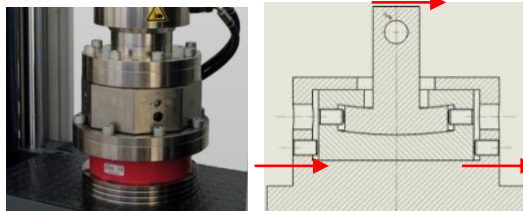
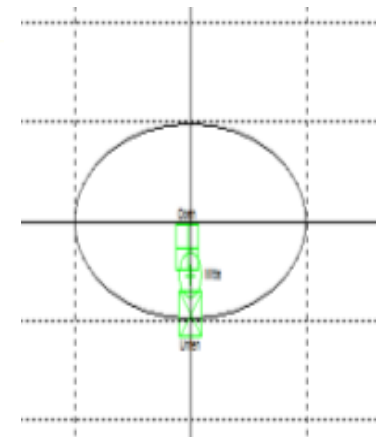


Correct specimen alignment

- Determination of angular error and offset error using a strain-gaged alignment transducer
- Mechanical correction via alignment unit + testxpert III software



Anzeigebereich
-25.000% 25.000%
Toleranz
-8.000% 8.000%



testXpert® III

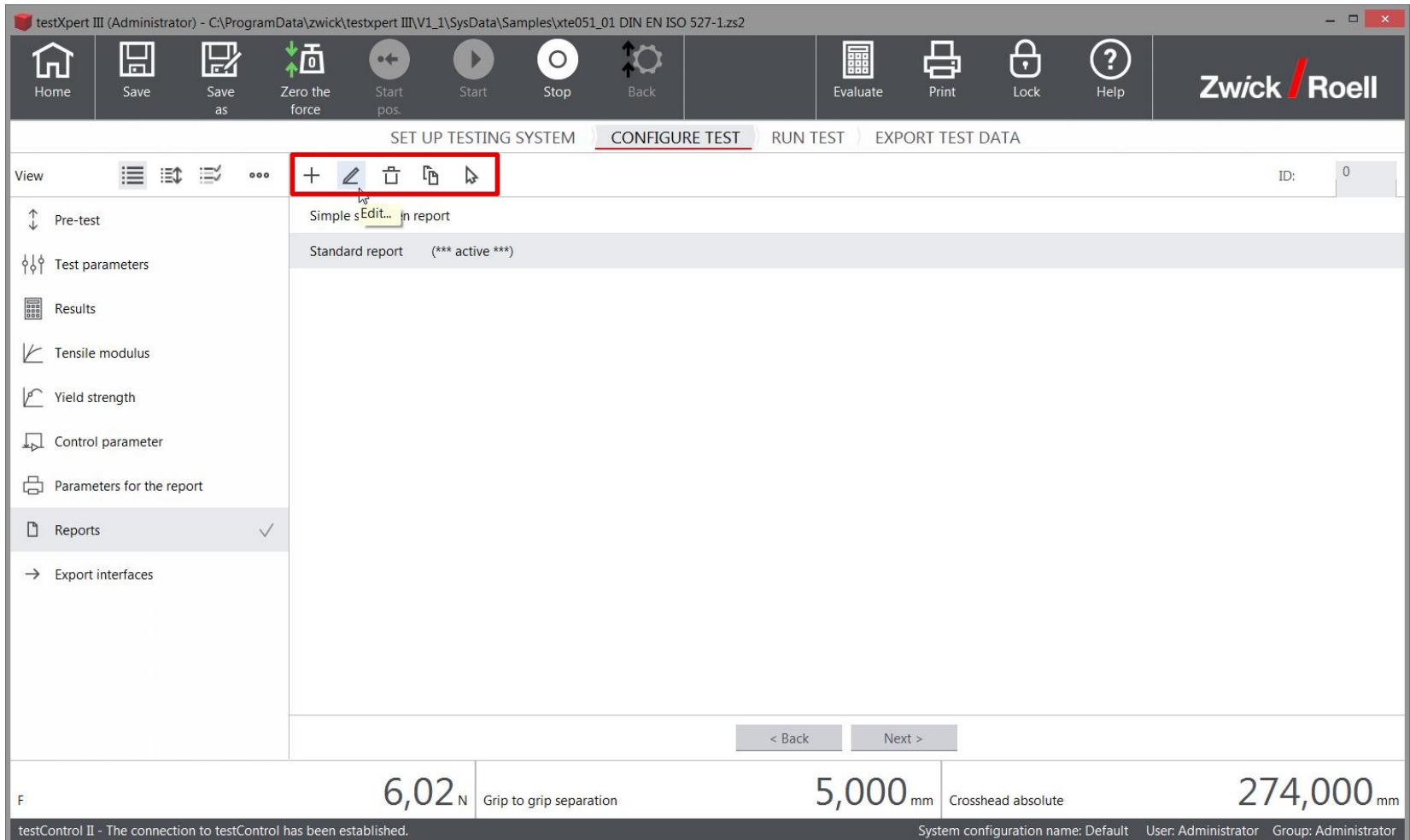


...can be integrated perfectly

company's IT landscape?

testXpert® III can be integrated perfectly

Quickly edit and export test reports as needed and create reports to individual requirements and specifications.



testXpert® III can be integrated perfectly

Set your requirements using the Structure Editor's wide range of functions and testXpert III will automatically export the data.

The screenshot displays the 'Report editor (expert mode)' window. The main area shows a preview of a test report with the Zwick / Roell logo and the date 23.02.17. The report content includes:

Test report
Customer : Test Company
Job no. : 12345
Test standard : DIN EN ISO 527-1
Specimen removal : Batch 23-12
Pre-treatment : None
Tester : Mary Test
Notes : Comparative test to yesterday's delivery, order 287
Machine data : Zwick 2005, Machine No.8
Clock time : 14:43:28

Pre-load : 0,1 MPa
Speed, tensile modulus : 1 mm/min
Test speed : 50 mm/min
Grip to grip separation at the start position : 115,00 mm

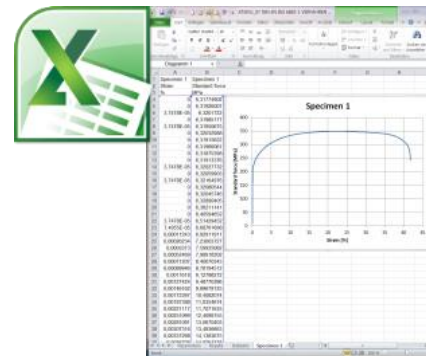
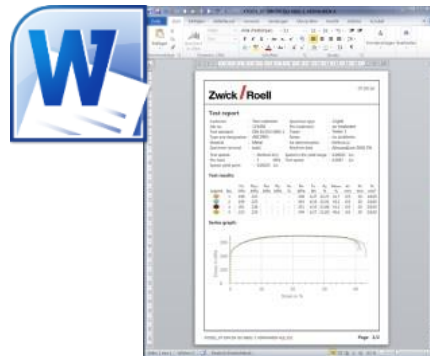
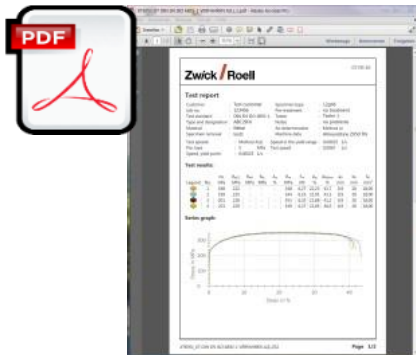
Test results:

Legend	No.	E _t MPa	σ _V MPa	ε _V %	σ _{0.2} MPa	ε _{0.2} %	σ _B MPa	ε _B %	b mm	h mm	A ₀ mm ²
1	3110	66,2	7,1	66,2	7,1	52,8	23,1	9,90	3,95	39,11	
2	3070	65,3	7,4	65,3	7,4	51,3	26,6	9,90	3,96	39,20	
3	3080	66,0	7,1	66,0	7,1	54,0	24,9	9,91	3,95	39,14	
4	3040	65,4	-	65,4	7,3	52,2	30,3	9,92	3,96	39,28	
5	3050	66,0	7,2	66,0	7,2	61,6	14,6	9,92	3,95	39,18	

At the bottom of the report preview, it says 'xte051_01 DIN EN ISO 527-1.zs2' and 'Page1/2'. The right-hand side of the interface is the 'Structure Editor', showing a tree view of the report layout with elements like Header, Body, Border, Test, and Footer. A 'Report name' field contains 'Standard report'. A vertical toolbar on the right contains buttons for OK, Cancel, Help, New..., Delete, Settings..., Position..., Up, Down, Page layout..., Printer..., Print, and Preview...

testXpert® III can be integrated perfectly

Export all required test data, to common applications or to your own customized solutions.

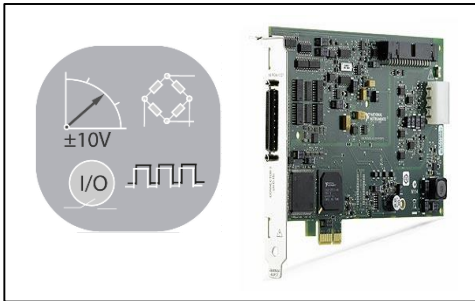


ASCII

testXpert® III can be integrated perfectly

testXpert III integrates data from external sensors, I/Os and external devices or measurement amplifiers.

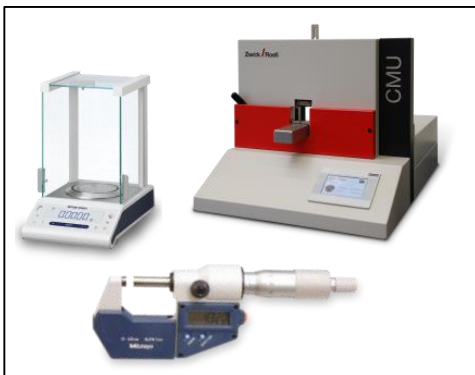
I/O cards & sensors



HBM measurement amplifiers



External devices



testXpert® III



testXpert® III can be integrated perfectly

testXpert III reduces input errors, increases efficiency in the test lab, and communicates with every IT system through automated importing and exporting.

Databases/ERP systems



Read in order, e.g. via barcode



testXpert® III



testXpert® III



...is flexible

to individual and future requirements?

testXpert® III is flexible

Create test sequences of any type with all the flexibility you need with the Graphical Sequence Editor.

testXpert III - C:\ProgramData\zwick\testXpert III_150\SysData\Xte051.zp2

Home Save Save as Force 0 Start pos. Start Stop Back Evaluate Print User Record Help Zwick / Roell

SET UP TEST SYSTEM CONFIGURE TEST **RUN TEST** VIEW RESULTS

Series layout Specimen graph Media Video capture **Sequence editor**

Test sequence 100%

Positioning
Drive without target input
Hold
Sine
Cycles
Break detection
Limit
Cyclic request
Digital input
Measurement value storage
Sensor control
Specimen grips control
Controller settings
Temperature chamber control
Digital output
IF
ZIMT
Loop
Stop
Waiting time

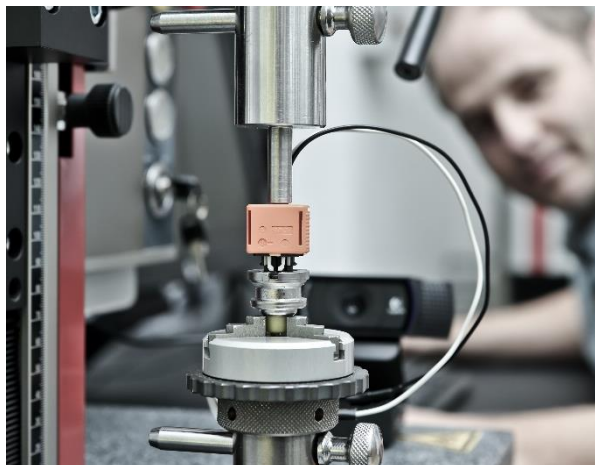
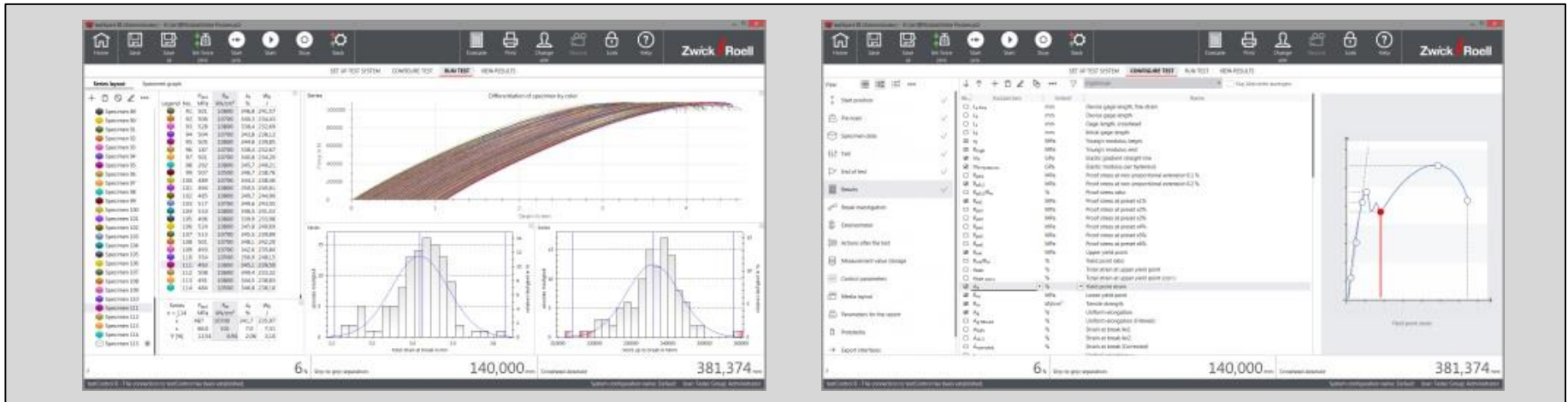
0 N Tool separation 115,000 mm Crosshead absolute 400,000 mm StrG 1,420 mV/V

System configuration name: Default User: Mattielighoval

testXpert® III is flexible

Zwick / Roell

Unique test and evaluation requirements are possible with testXpert III: we get started where the others leave off!



testXpert® III








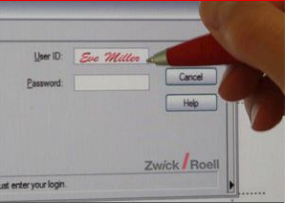


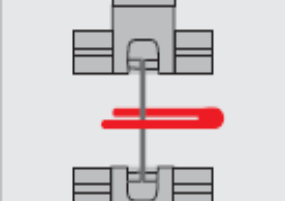





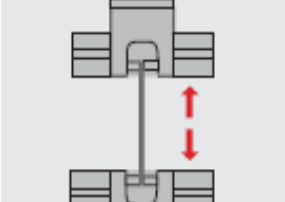

...is the safest testing system

on overall safety?

testXpert® III is the safest testing system

Zwick / Roell

We make no compromises with ZwickRoell safety technology – we use only high-quality, industry-proven safety components in all products.

Mechanics		Electronics		Software	
					
Safety doors	Safety housing	testControl II	Emergency STOP	Safe operation	Traceability
					
Safety devices	Safety enclosures with access control	2-handed operation	Safety interlocks	Safety area monitoring	Crosshead limits for test area
					
Safety devices with interlocks	Pneumatic safety control unit	Limit switches	Mobile emergency STOP	Fixture separation	User management

testXpert® III

Testing Software



Thank you for your attention!
Any questions?