

MACKLOW SMITH

Compression Test Application



Macklow Smith are pleased to announce their first fully functional compression test application for all the Macklow Smith compression machines such as; carton compression testers, box compression testers, universal compression testers. This compression test application can be retro fitted to all Macklow Smith compression machines. It is of course also an essential option on all new compression test machines to enhance their functionality.

The Benefits

Ease of use, with computer control of the operation and the tests, there are three types of compression test that can be performed automatically, **Normal, Maintain and Cycling.**

An on screen Graph showing in real time as test progresses, a second graph showing current test progress and up to nine previous tests all in different colours for easy identification, Maximum force indicator for each test and average maximum force for all the tests carried out. Details of test, operator, sample type/number are typed in and the date, time, graph and data for spreadsheet are automatically produced, "on screen" viewing of the two graphs and a dedicated report in pdf is prepared that can be tailored to suit your requirements.

The Tests

Normal compression test with automatic switching of the platen drive when the computer senses the maximum *force* has been reached, at a set time after this point has been reached the platen drive will stop, wait and then return the platen to the original position before the test began, thus saving the operator time and effort re-setting the machine ready for the next test.

Maintain load test with automatic switching of the platen drive when the computer senses that the set *force* has been reached, as the test piece collapses the platen drive is automatically started and stopped again when the set *force* has been reached, this can be repeated as many times as the operator requires by setting the parameters in the program, After the tests have been completed the test run is then stopped and then the platen returns to the original position before the test began, thus saving the operator time and effort re-setting the machine ready for the next test.

Cycling load test with automatic switching of the platen drive when the computer senses that the maximum set *force* has been reached, waits for the set amount of *time*, then reduces the load to the minimum set *force*, waits for the set amount of *time*, then increases the load to the maximum set *force*, waits for the set amount of *time*. This can be repeated as many times as the operator requires by setting the parameters in the program. After the tests have been completed the test is then automatically stopped and then the platen returns to the original position before the test began, thus saving the operator time and effort re-setting the machine ready for the next test.

Optional

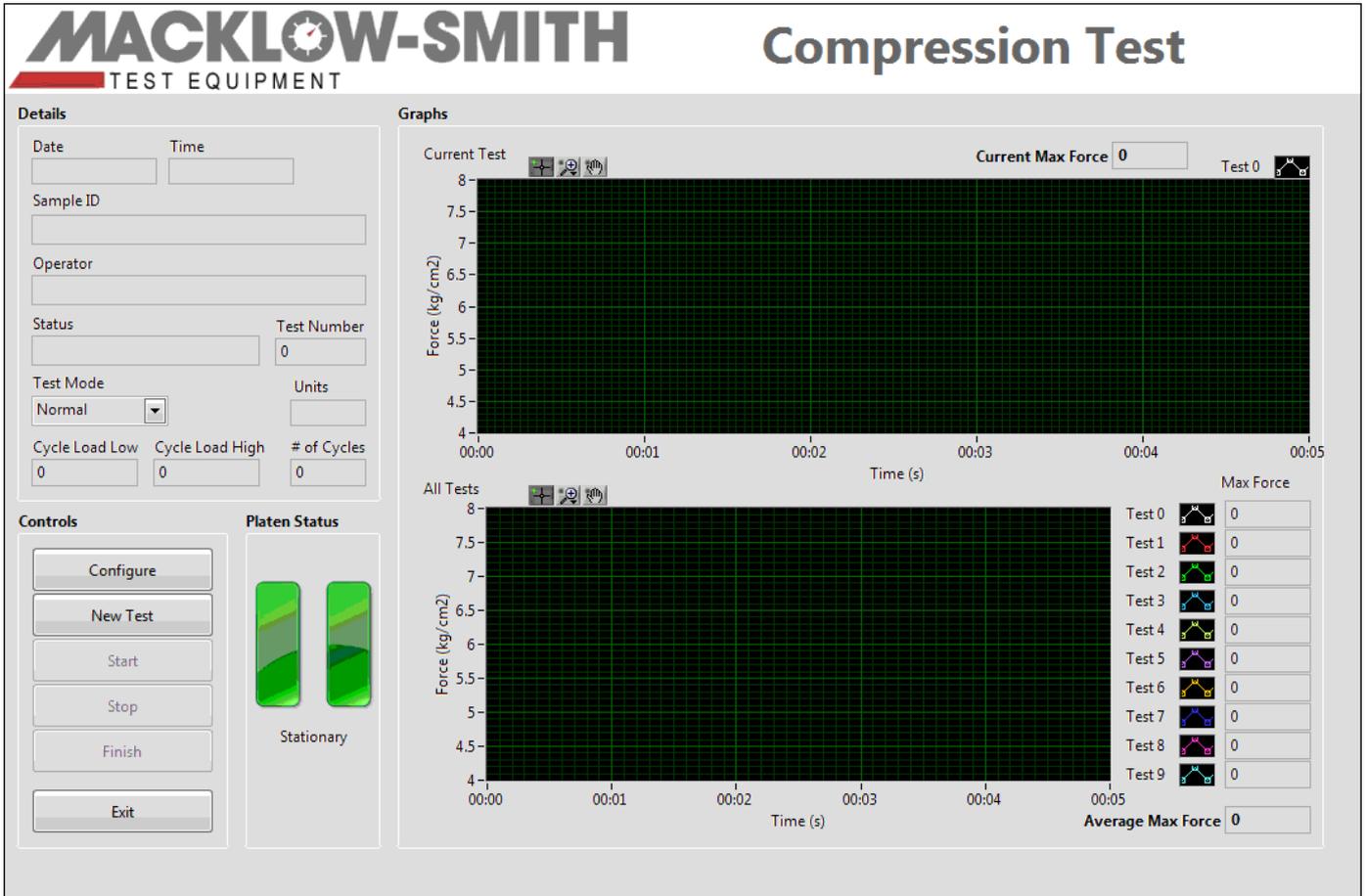
To automatically move the platen to a (safe) position at exiting the program.

In the interest of product development we reserve the right to alter specifications without prior notice.

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Compression Test Application

View of test screen



The "Date and Time" are set by the computer and are recorded on each report.

The "Sample ID and Operator" details are input by the operator after pressing the New Test button

The "Status and Test Number" are set by the computer

The "Test Mode" option is selected by the operator in the test settings screen

The "Units" are the engineering units that your compression tester has been calibrated in

The "Cycle Low/High and Number of Cycles" is selected by the operator in the test settings screen

The "Configure" button takes the operator to the Test Settings/Logging and Report settings screen

The "New Test" button takes the operator to input details in the sample ID, operator and a notes dialogue box

The "Platen Status" green buttons show the movement of the platen, stationary II, UP ▲, DOWN ▼

The "Start" button to start test

The "Stop" button to stop machine during a test

The "Finish" button to close the current batch of tests and automatically generate reports and spreadsheet data

The "Exit" button to close the test session

Current test maximum force is shown above the top graph while graph is being plotted

Maximum force for previous tests is shown to the side of the lower graph, each test has an individual plot colour, the graph displays the plots of up to ten tests.

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Compression Test Application

View of Test Settings screen

Configure Settings

Test Settings | Logging and Report Settings

Test Mode: Maintain Load | Load Set Point: 500 | Dead Band (%): 5

Stop Criteria

Auto Stop Enabled: | Mode: Less Than Max | Number of Samples: 2 | Minimum Load: 0

Cycle Mode

High Load: 0 | Low Load: 0 | Number of Cycles: 0 | High Time (s): 0 | Low Time (s): 0

Return Platen to Top when exiting Program:

Help | Calibration | OK | Cancel

“Test Mode” selects the Normal, Maintain and Cycling test modes

“Load Set Point” sets the load for Maintain mode

“Dead band(%)” sets the % load drop before the load is increased back to the set load in Maintain Mode

“Stop Criteria”

“Auto Stop Enabled” sets auto stop ON/OFF

“Mode” with two options: Continually Decreasing – the auto stop is enabled after the set Number of Samples
: Less than Max-the auto stop is enabled after the set Number of Samples

“Number of Samples” sets the number of samples to be taken before any stop action

“Minimum Load” sets a minimum load before any stop action is performed

“Cycle Mode”

“High Load” sets maximum load

“Low Load” sets minimum load

“Number of Cycles” number of cycles to complete before auto switch off

“High Time” sets time in seconds that the maximum load is applied

“Low Time” sets time in seconds that the minimum load is applied

“Return Platen...” is an option, that will return the platen to a safe position when exiting the program

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Compression Test Application

View of Test Logging and Report Settings screen

Configure Settings

Test Settings | **Logging and Report Settings**

File Directories

Logging Directory
C:\My documents\Test Reports

Report Directory
C:\My Documents\Test Reports

Report Numeric Precision
1

Company Details

Include in Report

Company Name

Address

Logo Path

Help Calibration OK Cancel

File Directory "Logging Directory" allows the test data to be saved automatically in a file path of the operators choice

File Directory "Report Directory" allows the pdf report to be saved automatically in a file path of the operators choice

File Directory "Report Numeric Precision" allows the report to show from 0 down to eight decimals points

Company Details "Include in Report" sets whether the company details are shown on the pdf report

Company Details "Address" the test house or customer details are entered here to be included in the pdf report

Company Details "Logo Path" sets where the company logo is filed and whether shown on the pdf report

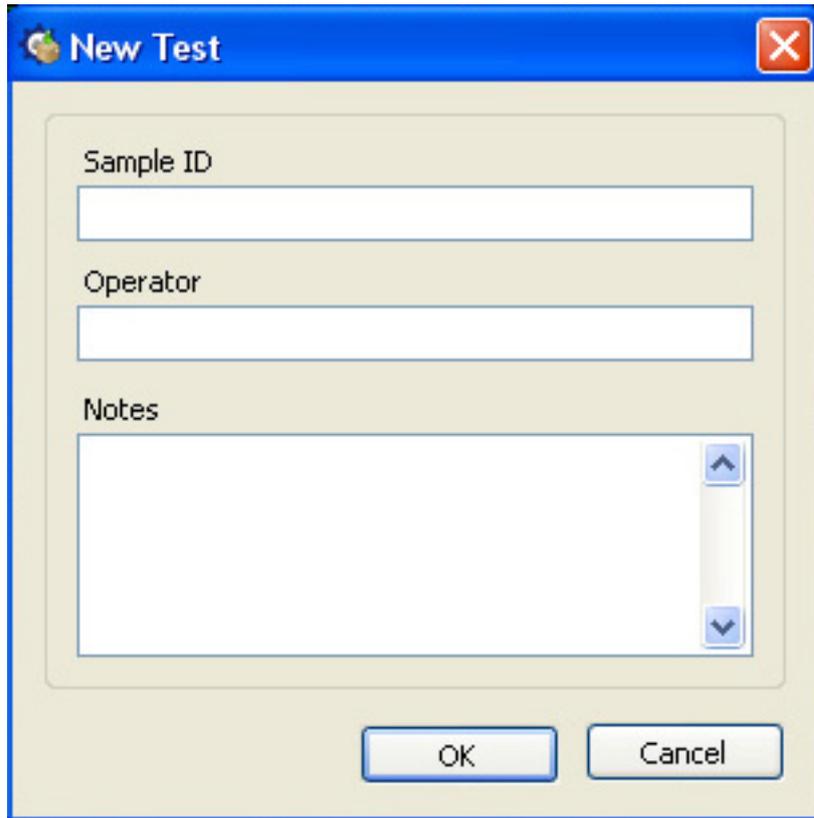


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Compression Test Application

View of New Test screen



The screenshot shows a standard Windows-style dialog box titled "New Test". It features a blue title bar with a close button (X) in the top right corner. The main area is light beige and contains three input fields: "Sample ID" (a single-line text box), "Operator" (a single-line text box), and "Notes" (a multi-line text area with a vertical scrollbar on the right side). At the bottom of the dialog are two buttons: "OK" and "Cancel".

“Sample ID” allows the information of the test/batch sample ID to be entered, this is then reproduced in the pdf report

“Operator” allows the operator to input their name or employee number , this is then reproduced in the pdf report

“Notes” allows the operator to enter any specific details about the test, conditions or any other detail relevant to this batch of samples, this is then reproduced in the pdf report



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