

Ventil

CRS 2.0 Manual

Information on how to
operate test software.

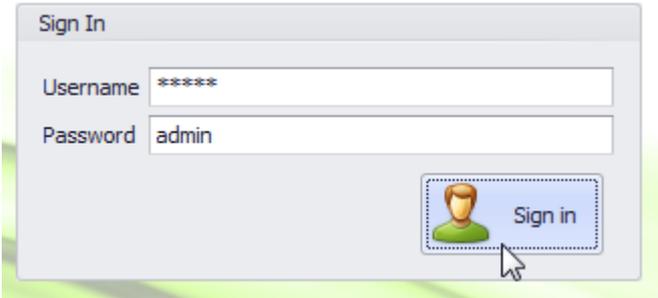
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1 Start up

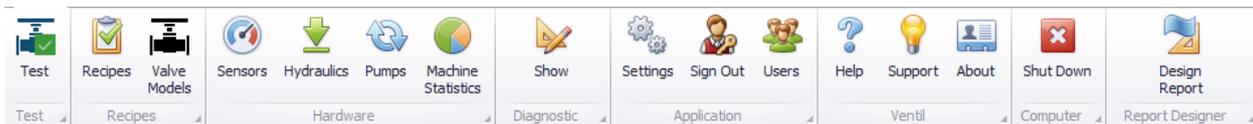
When starting up the CRS software you will have to sign in to gain access to testing and recipe management.

1. Click on Sign in to continue.



2 Main menu

An overview of the main menu buttons.

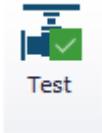


Icon	Menu text	Description
 Test	Test	Starts the test wizard.
 Recipes	Recipes	Create, view or edit Recipes.
 Valve Models	Valve Models	Create, view or edit Valve Models
 Sensors	Sensors	Sensor settings.
 Hydraulics	Hydraulics	Hydraulic settings.
 Pumps	Pumps	Pump settings.
 Machine Statistics	Machine Statistics	Statistics about the use of the machine.

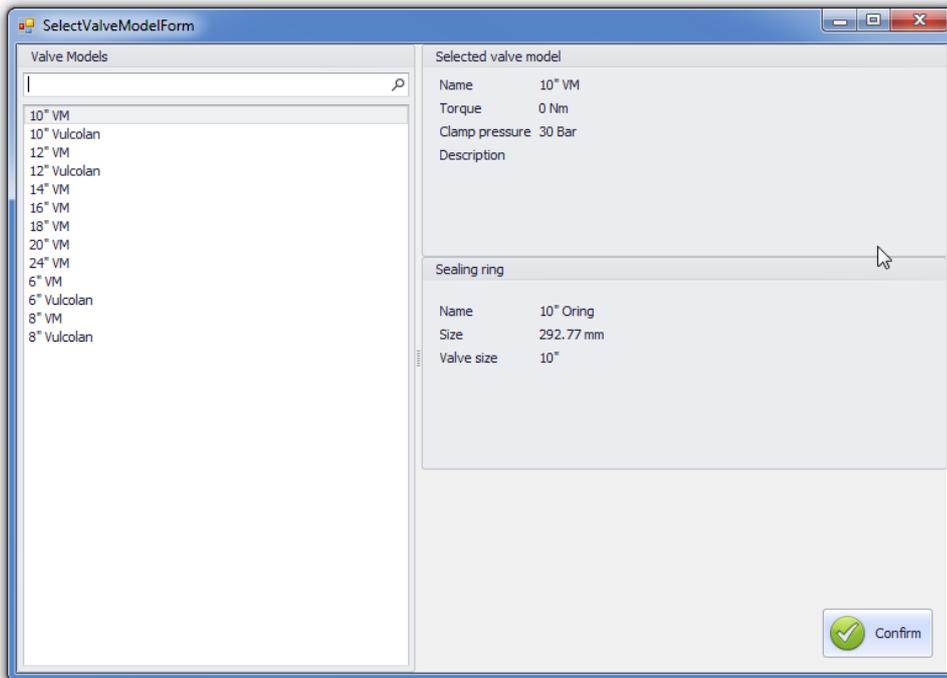
 Show	Show	Shows the Diagnostics screen.
 Settings	Settings	Application settings.
 Sign Out	Sign Out	Sign out current user.
 Users	Users	User management.
 Help	Help	Opens this help document.
 Support	Support	Opens the Ventil service website.
 About	About	Shows Version information and Ventil contact information.
 Shut Down	Shut Down	Shuts down the computer.
 Design Report	Design Report	Show the report designer.

3 How to perform a test

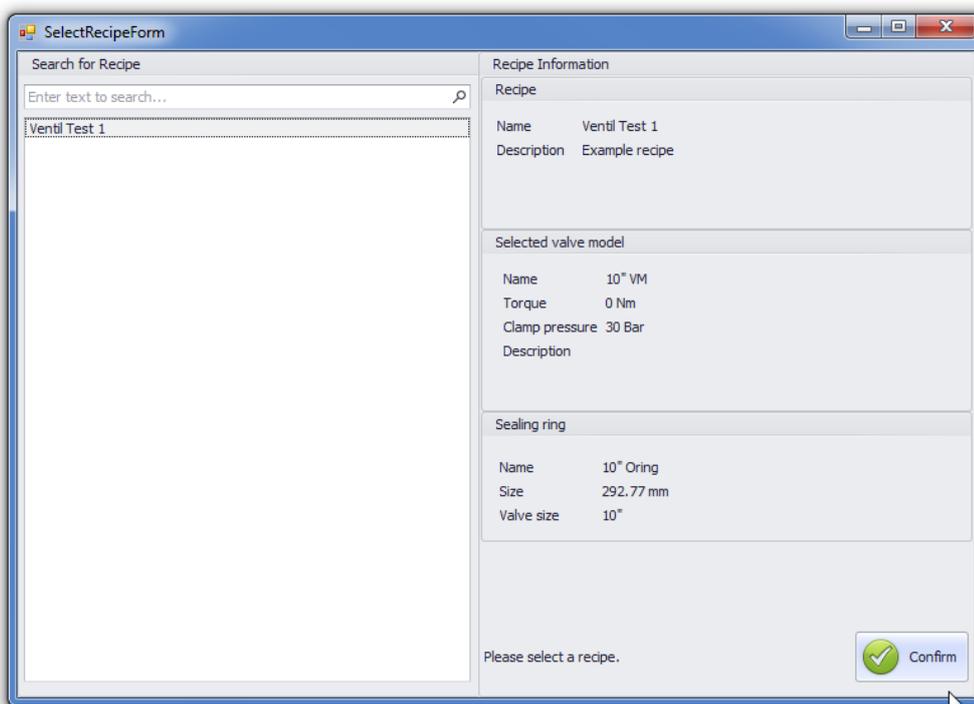
1. Start the test wizard by clicking on the Test button in the main menu.



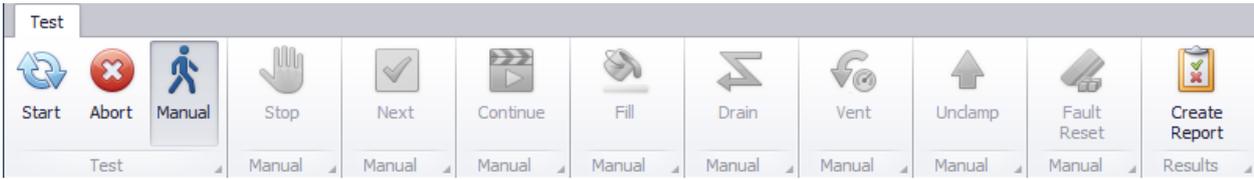
2. Select a Valve Model on the left side of the screen.
On the right side of the screen some information about the valve model will be shown.



3. Click Confirm to continue.
4. Select a recipe on the left side of the screen.
On the right side of the screen some information about the recipe will be shown.



5. Click Confirm to continue.
6. Click Start to begin testing.



Progress can be followed through the recipe tree.

Sequence	Parameter	Status
Clamp		
Manual Clamp	54 Bar	Busy
Fill - 40 sec		
Actuate Control	Half Open	
Fill	0:00:40	
Hydrostatic Body Test - 52 Bar		
Pressurize	52 Bar	
Stabilize	0:00:30 52 Bar	
Test With Block	0:00:30 52 Bar	
Vent		
Undamp		
Manual Undamp		

7. Follow the instructions as they are shown on the screen.

Clamp

Please clamp the valve.

Manual Undamp

Measurements

Test

Elapsed time 00:00:10 / 00:00:00

Test direction A + B

Test System High pressure Liquid

Valve position Almost closed

Pressure

0 50 100 150 200 250

Bar

0:00:00 0:00:01 0:00:02 0:00:03 0:00:04 0:00:05 0:00:06 0:00:07 0:00:08 0:00:09 0:00:10 0:00:11 0:00:12

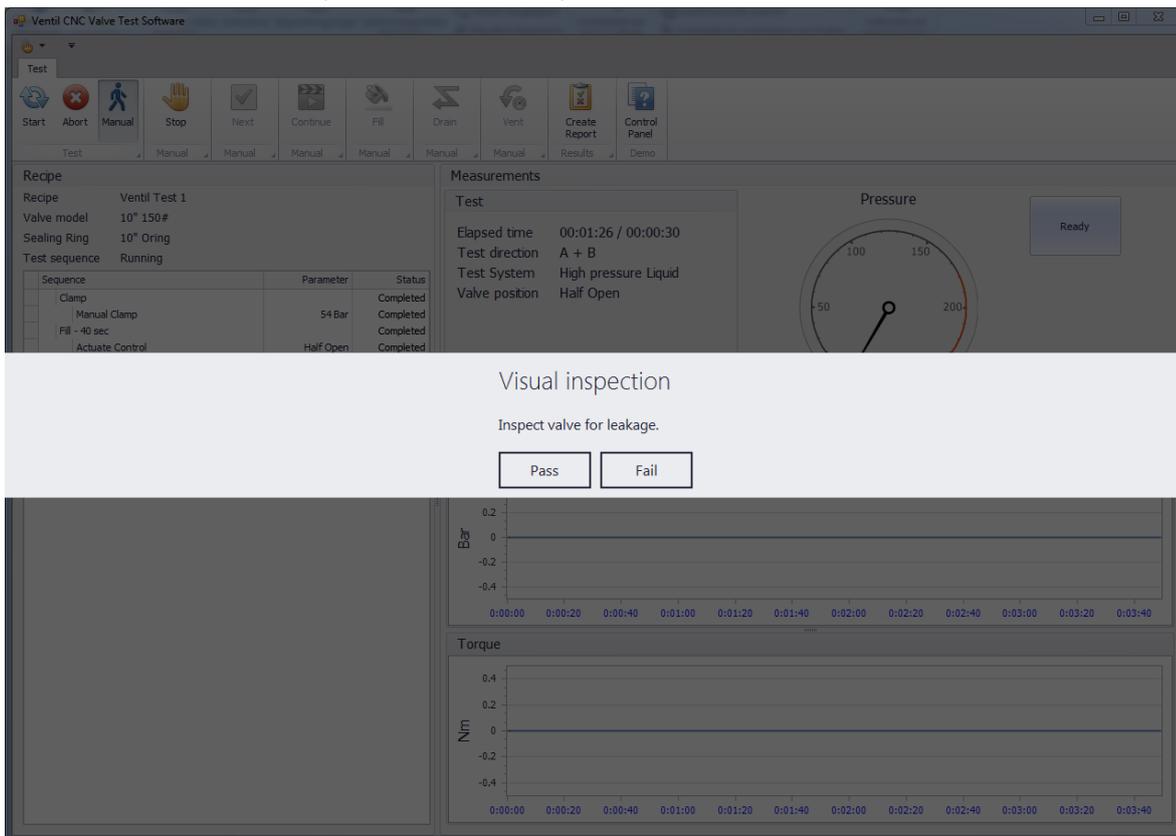
Torque

0.4 0.2 0 -0.2 -0.4

Nm

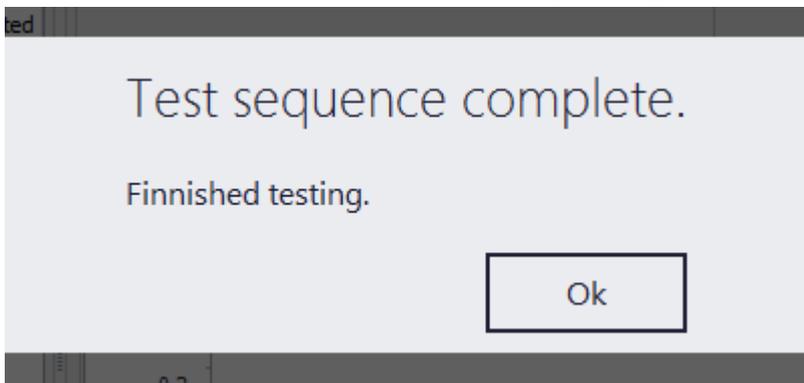
0:00:00 0:00:01 0:00:02 0:00:03 0:00:04 0:00:05 0:00:06 0:00:07 0:00:08 0:00:09 0:00:10 0:00:11 0:00:12

For some instructions an operator action is required.



Press one of the buttons to continue.

8. When the recipe has been tested the following message will be shown.



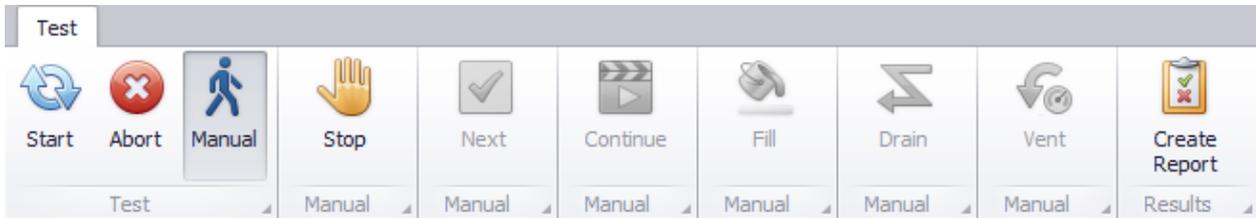
Press Ok.

Don't close the window as it is needed for making a test report.

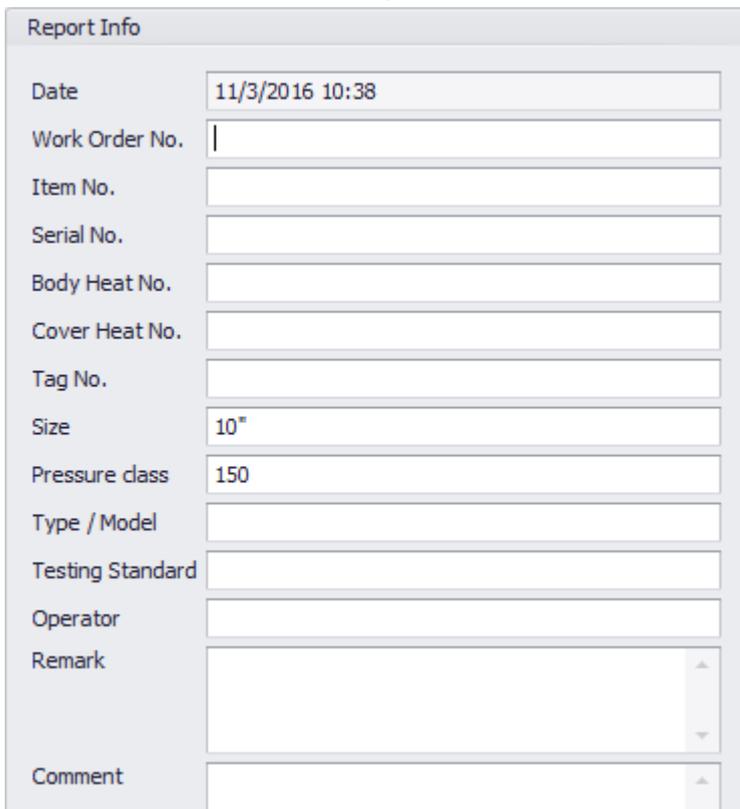
4 Create test report

Make sure you have tested a recipe as shown in: [How to perform a test.](#)

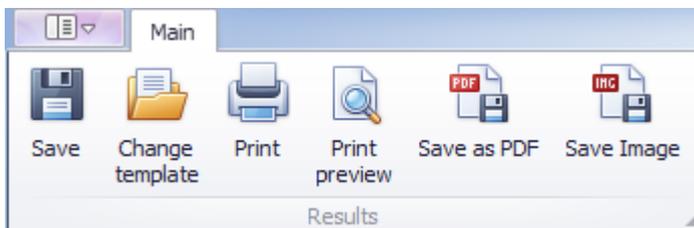
1. Click on Create Report



2. On the left side of the screen report information can be filled in.

A screenshot of the 'Report Info' form in the Ventil software. The form is a vertical list of input fields. The 'Date' field is filled with '11/3/2016 10:38'. The other fields are empty: 'Work Order No.', 'Item No.', 'Serial No.', 'Body Heat No.', 'Cover Heat No.', 'Tag No.', 'Size' (filled with '10*'), 'Pressure class' (filled with '150'), 'Type / Model', 'Testing Standard', 'Operator', 'Remark', and 'Comment'. Each field has a small arrow on the right side, indicating it is a dropdown or scrollable list.

3. Press Save, when all relevant information has been filled in.



This will save all test results and report information to the database.
A pdf of the report is also being generated.

4. The window can now be closed by clicking on the X.



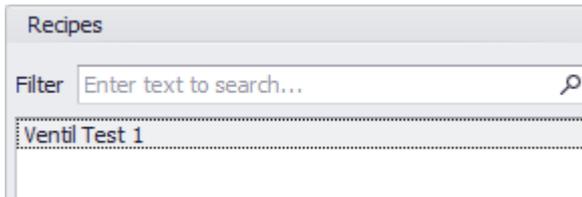
5 Creating, viewing, editing a recipe

Creating, viewing and editing can all be done by clicking on the Recipes button in the main menu.

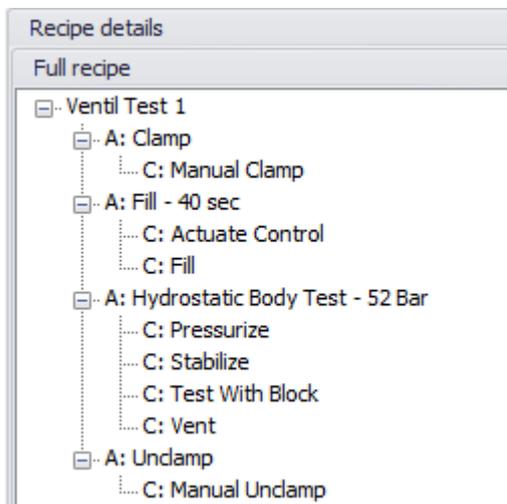


5.1 View a recipe

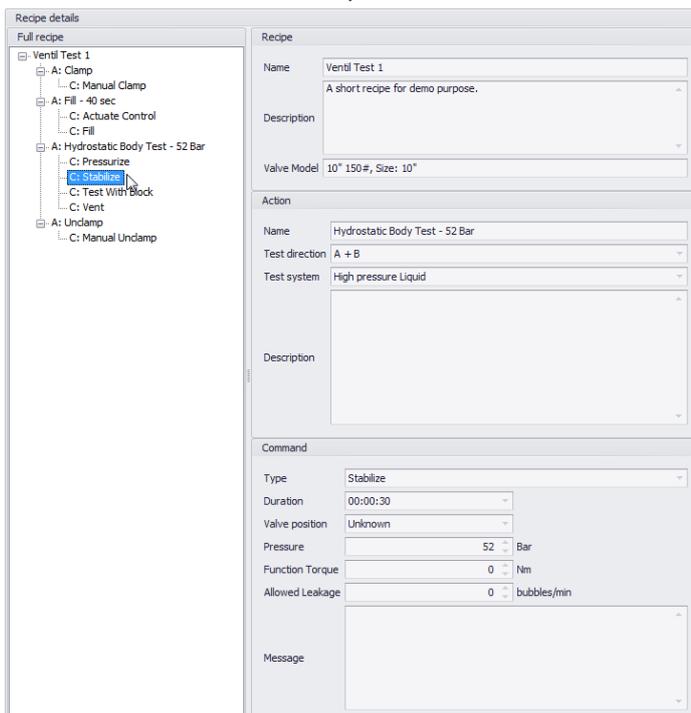
1. Recipe information can be found by selecting a recipe on the left side of the screen.



In the middle of the screen the structure of the recipe can be seen.



2. Detailed information of every action or command can be seen by clicking on desired item.



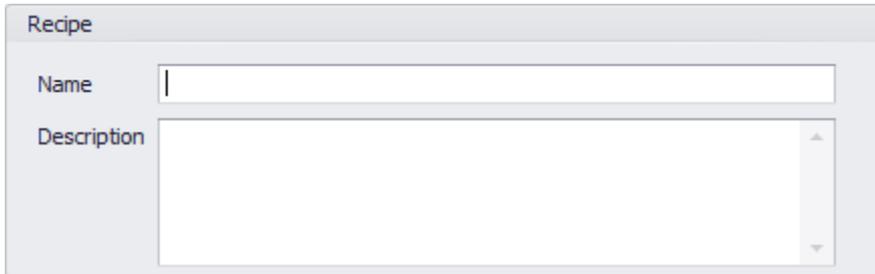
5.2 Create a recipe

1. In the bottom left of the screen you see 4 buttons



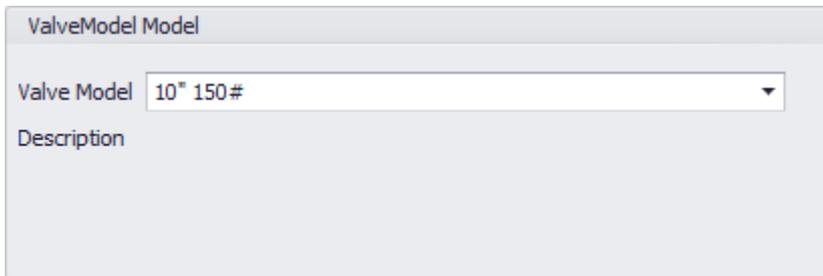
Click on  to open a new screen.

2. Recipe information can be typed in the upper left of the screen.

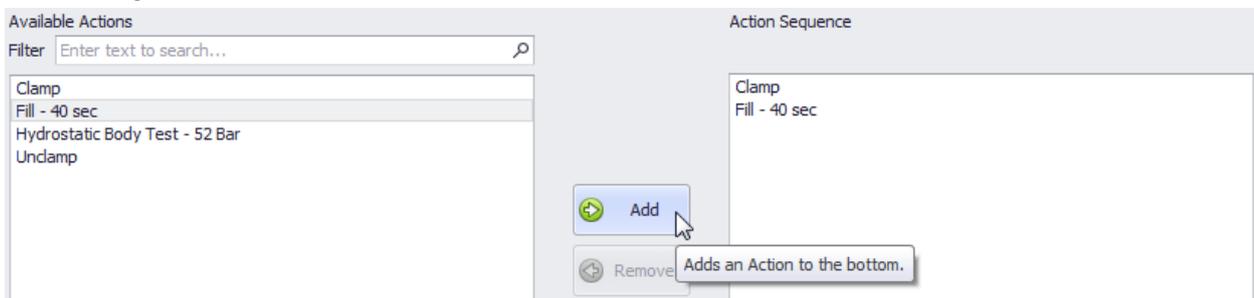


To be able to save the recipe, the recipe has to have a name.

3. In the upper right of the screen a valve model has to be selected.

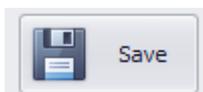


4. To program a recipe you fill the “Action Sequence” by selecting an Action from the left list (Available Actions) and clicking on the Add button.



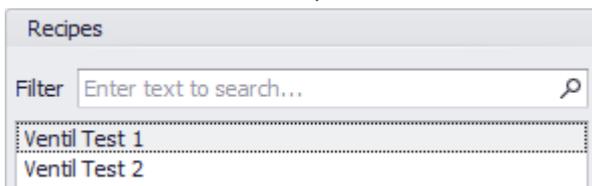
If the correct action isn't available, you can program it, see [Programming an Action](#) for more information.

5. Press Save to store the recipe.



This will close the window.

6. You can find the new Recipe at the bottom of the list.



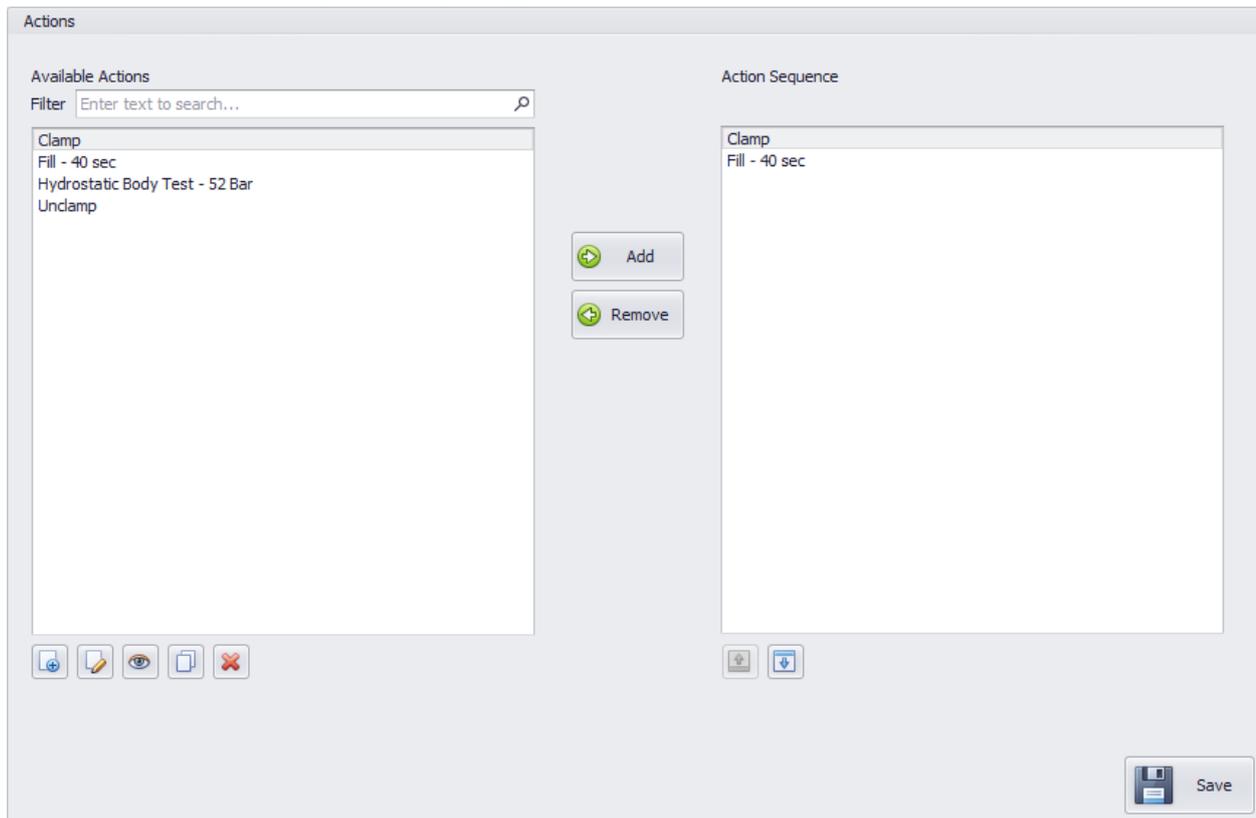
5.3 Edit a recipe

1. Select a recipe on the left side of the screen.



Click on  to edit the selected recipe.

2. It is now possible to change the recipe details.
Also Actions can be added/removed/changed.



3. Press Save to save the changes.

6 Creating, viewing, editing an Action

Actions can only be created, viewed, edited while creating or editing a recipe.

6.1 Create an Action

1. Click on Recipes in the Main menu.



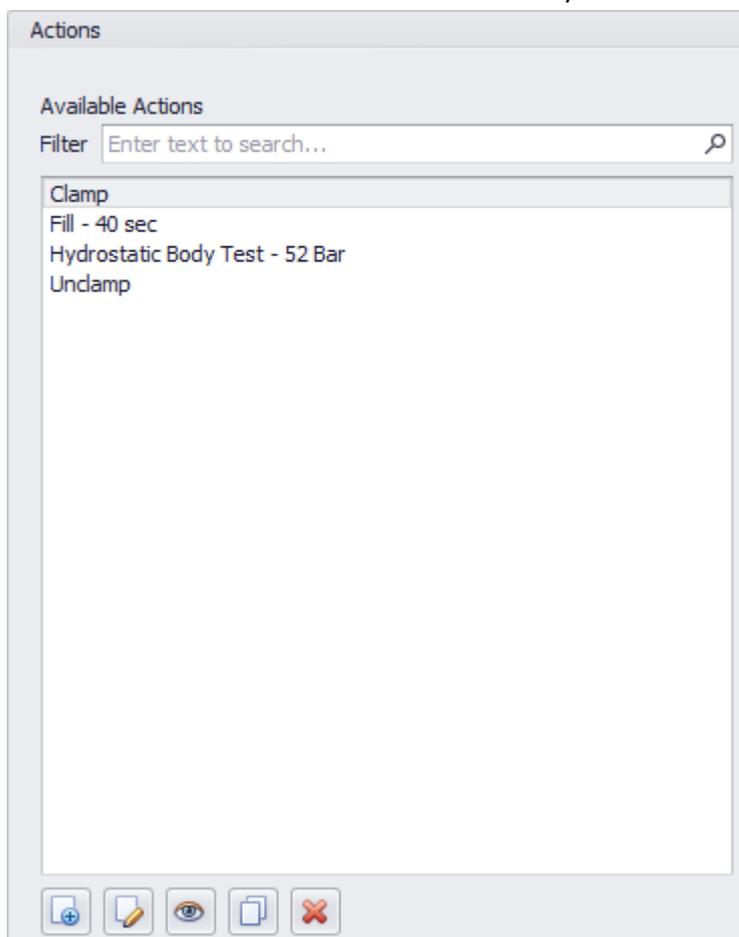
Recipes

2. In the bottom left of the screen you see 4 buttons



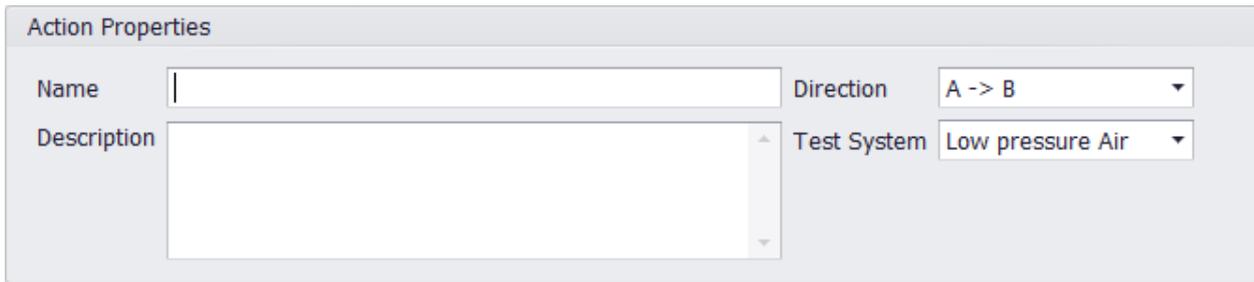
Click on  to open the new recipe screen.

3. Under the bottom of the Available Actions list you can see 5 buttons.



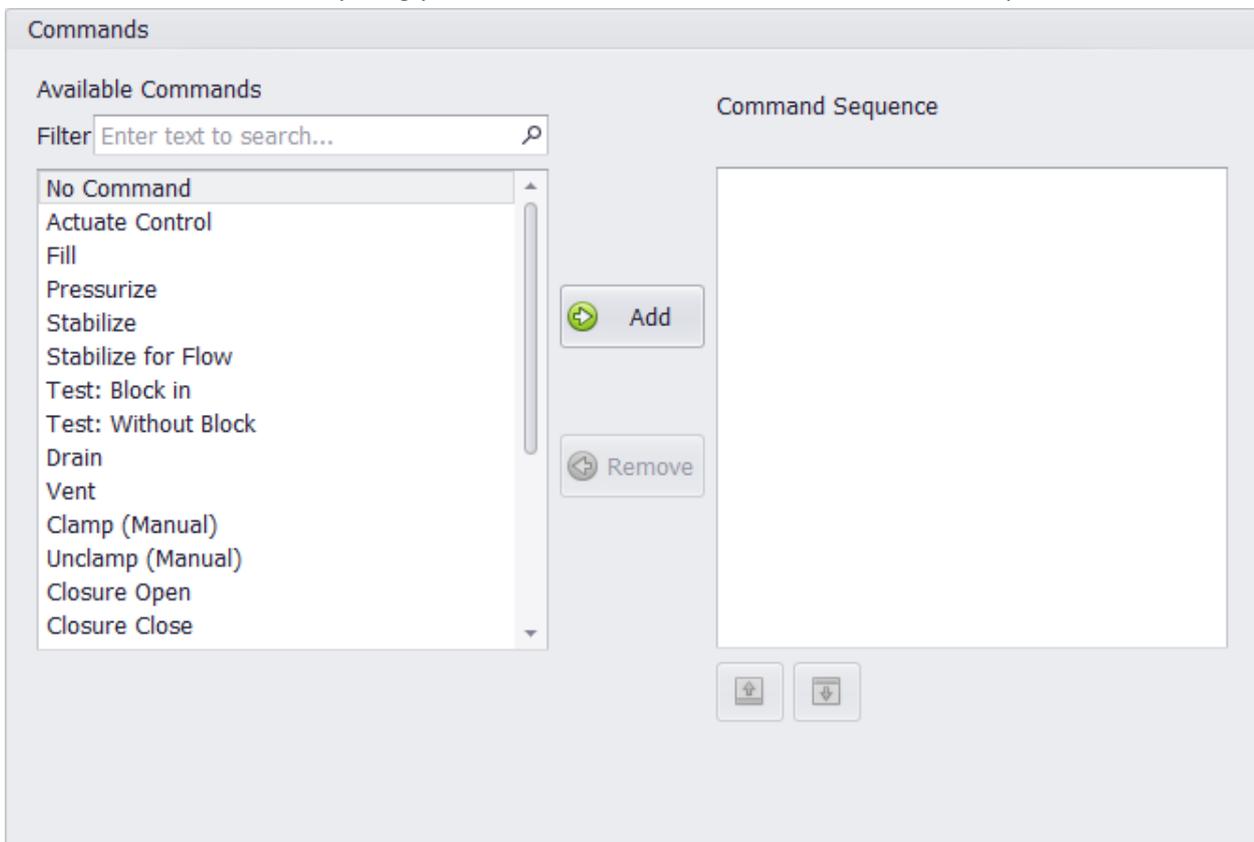
Click on  to open the new action screen.

- At the top half of the screen you can set some Action properties.
The name of the Action is required to be able to save.



The screenshot shows a dialog box titled "Action Properties". It contains four fields: "Name" (a text input field), "Description" (a larger text area), "Direction" (a dropdown menu with "A -> B" selected), and "Test System" (a dropdown menu with "Low pressure Air" selected).

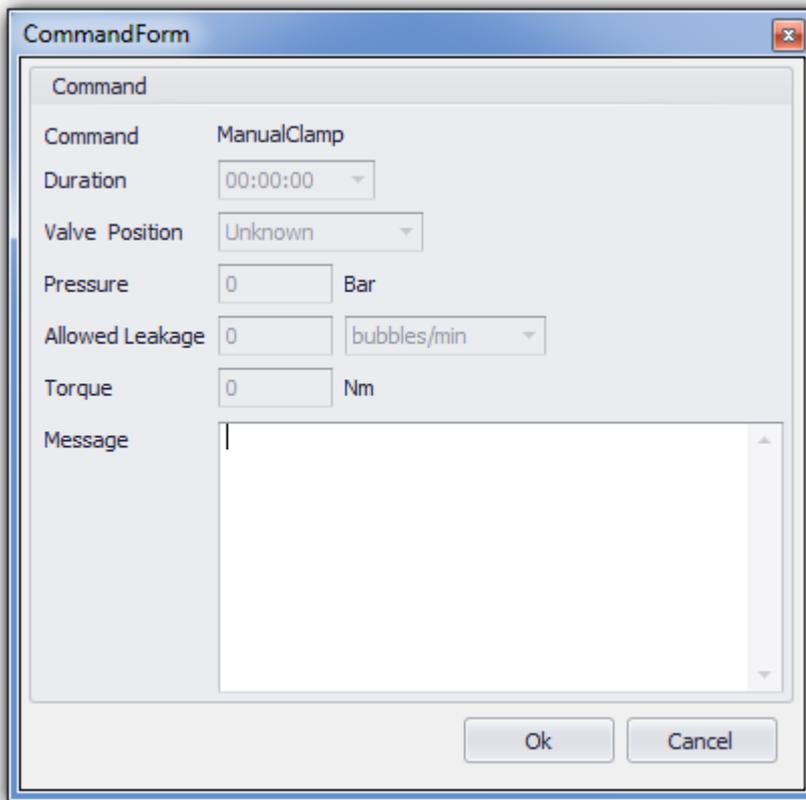
- The Direction determines where to pressurize from and where to measure.
A -> B means pressurize at table A, measure on table B.
- The Test System determines what pumps/medium is used for testing.
- To make the machine do anything you have to add Commands to the Command Sequence



The screenshot shows a dialog box titled "Commands". It is divided into two main sections: "Available Commands" on the left and "Command Sequence" on the right. The "Available Commands" section has a search filter "Enter text to search..." and a list of commands: "No Command", "Actuate Control", "Fill", "Pressurize", "Stabilize", "Stabilize for Flow", "Test: Block in", "Test: Without Block", "Drain", "Vent", "Clamp (Manual)", "Unclamp (Manual)", "Closure Open", and "Closure Close". Below the list are "Add" and "Remove" buttons. The "Command Sequence" section is a large empty box. At the bottom of the dialog are two small icons for up and down arrows.

Select a Command and click on Add (Double click on an Command will also add it).

An popup screen appears.



8. Depending on the the Command different input is required.
Fill in the necessary fields and press Ok.
The Command is now added to the Action.
Add as many Commands as needed.
9. Click Save to store the Action and make it available for a recipe.



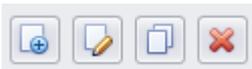
6.2 Editing an Action

1. Click on Recipes in the Main menu.



Recipes

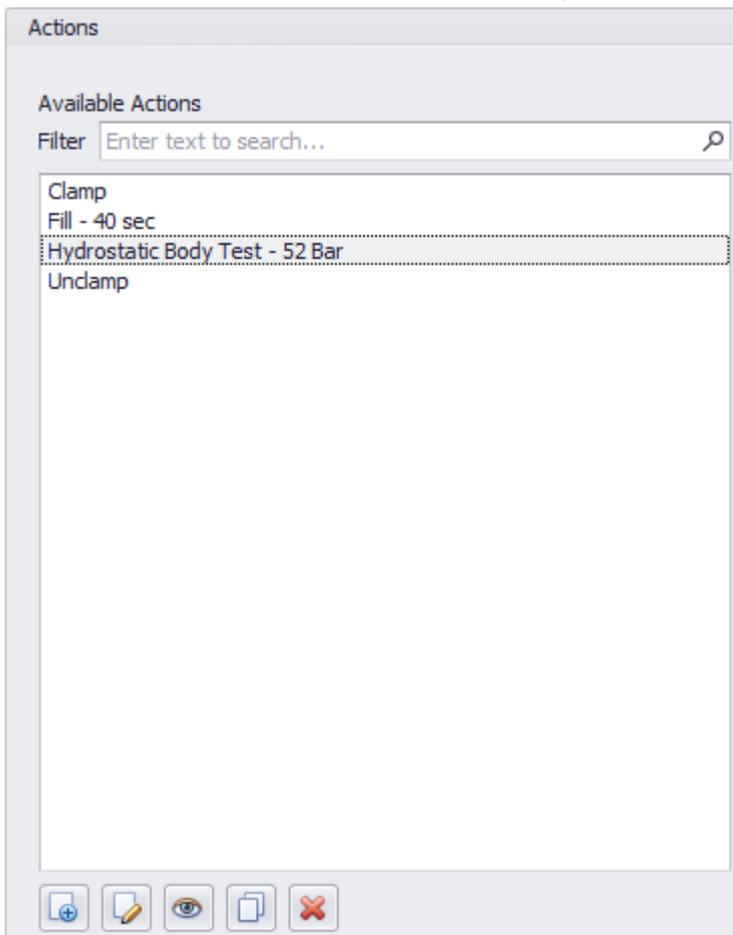
2. In the bottom left of the screen you see 4 buttons



Click on  or  to open the (new) recipe screen.

3. Select an Action.

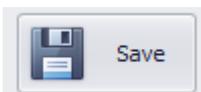
- Under the bottom of the Available Actions list you can see 5 buttons.



Click on  to edit the action.

The Action screen is now opened.

- Double click on an Command in the Command Sequence to view/ edit the command properties.
Only Commands in the Command Sequence can be edited.
The command properties screen appears.
- Click Save when done.



7 Command List

An overview of the machine capabilities.

Command	Description
NoCommand	Will stop the machine.
ActuateControl	Turns the actuator to the given position (Open, Close or ½ Open).
Fill	Fills the object with water for a given time.
Pressurize	Pressurizes the object to a given pressure.
Stabilize	Will block pressure in for x time, giving the object time to stabilize.
StabilizeWithFlow	Monitors the pressure for a given time. During this time it will activate a pump when pressure drops too low.
StabilizeOnPressureDrop	Monitors the pressure and will activate a pump when pressure drop too low, it will continue to stabilize until the pressure drop is below the given leakage.
TestWithBlock	Blocks the pressure in the object and will monitor the pressure drop.
Drain	Purges the object for a given time.
Vent	Vents pressure from the test system including the object.
ManualClamp	Asks the operator to clamp the object.
ManualUnclamp	Asks the operator to unclamp the object.
ManualClosureOpen	Asks the operator to open the closure.
ManualClosureClose	Asks the operator to close the closure.
TestWithCounter	Tests the object for bubbles or drips for a given time on a given pressure.
FunctionTest	
BTO	Brake to open test.
ShowMessage	Displays a message on the screen.
Reset	Resets the drive (in case any errors occur).
FillActuate	Combination of Fill and ActuateControl. During actuating the object will be filled for a given time.
DrainActuate	Combination of Drain and ActuateControl. During actuating the object will be purged for a given time.