

# SCITEQ

## SIGMA Software



We help you perform even better



### Advantages

SCITEQ's browser-based user interface is accessible from any device – any time, anywhere.

- ✓ 4 different user levels
- ✓ Easy recipe set-up
- ✓ Dynamically adjusted real-time finish time
- ✓ Multiple simultaneous users
- ✓ Multiple specimen test per station
- ✓ SQL database compatible with all server types

# About SIGMA interface

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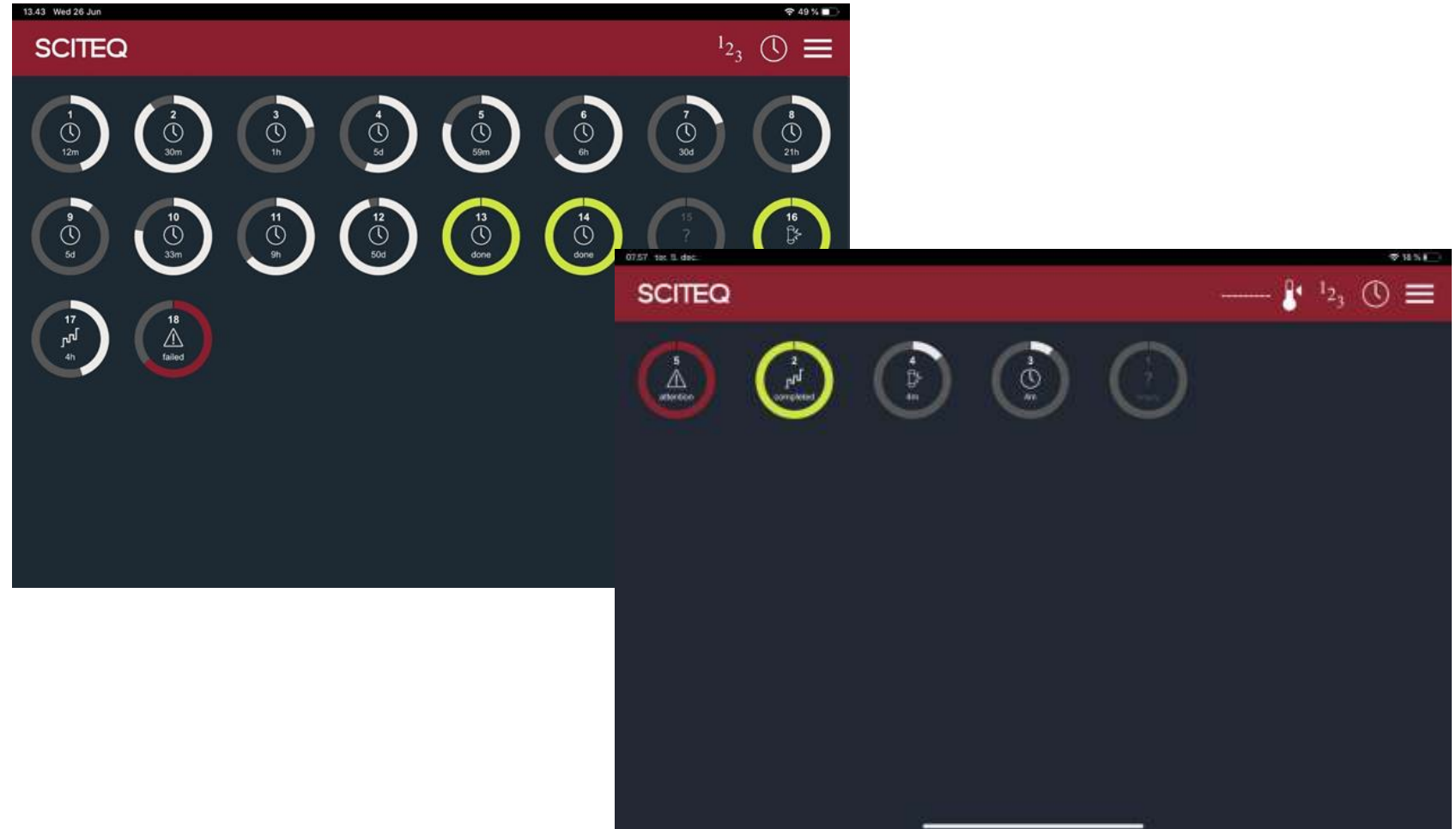
## SIGMA 'One page overview'

The "One page" overview provides full view of all stations. Multiple filtering options. Displaying ongoing tests listed in order ranked according to 'attention urgency' / time left to completion.

## Optimized for touch

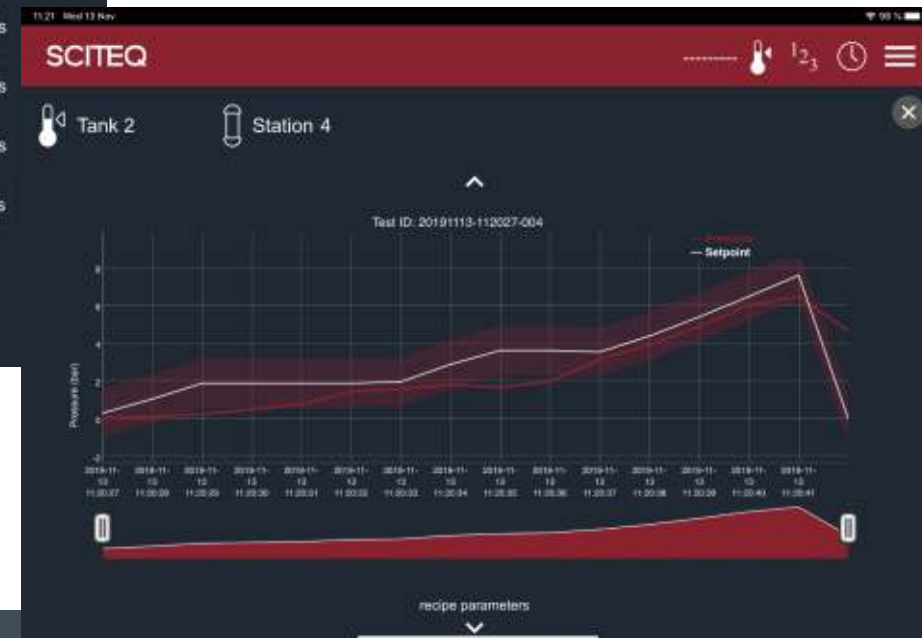
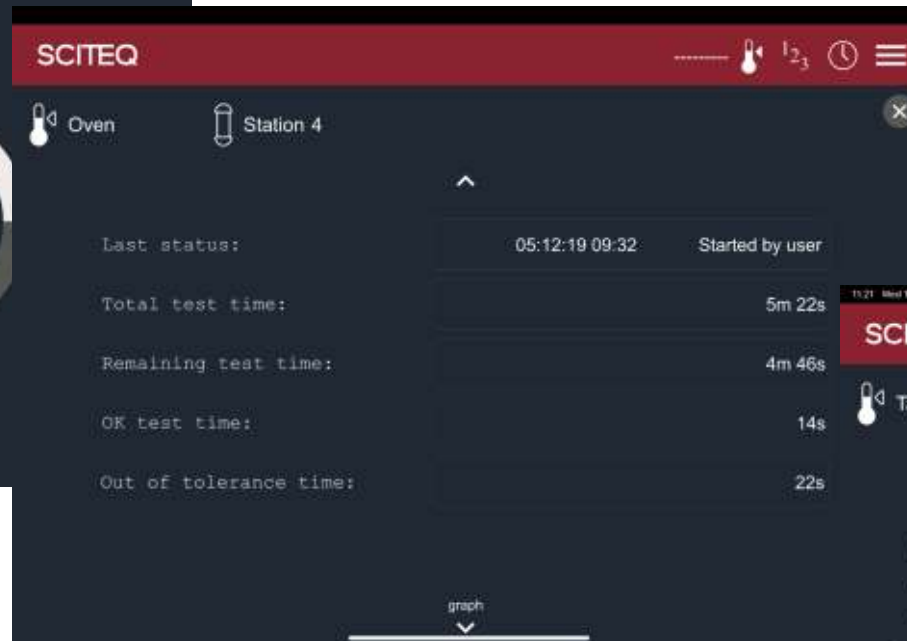
The interface is optimized for touch, but can also be operated with mouse & keyboard.

SCITEQ recommends the use of an iPad pro 11" in shock and water proof cover. This is offered as option for SIGMA pressure installments.



# About SIGMA test overview

# SCITEQ



## All data at hand

With SIGMA you will have a the full view of ongoing tests with all real time data and recipe parameters conveniently shown in one screen.

# About SIGMA recipe

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The image displays three overlapping screenshots of the SCITEQ mobile application interface, illustrating the SIGMA recipe system workflow.

**Top Screenshot (Recipe Selection):** Shows the main menu with 'Tank 2' and 'Station 5' selected. Options include 'Choose test recipe' and 'Create new test recipe'.

**Middle Screenshot (Recipe List):** Displays a list of test recipes under the heading 'Choose test recipe'. The list includes a search bar, sorting options ('Sort by name', 'Sort by date'), and a 'Load' button. The selected recipe is highlighted in red.

Recipe Name	Date
BURST.100.1m.DN0.05112019.062742	2019-11-05 06:27:46
<b>BURST.85.1m.DN25.13102019.072510</b>	<b>2019-10-13 07:25:10</b>
BURST.70.1m.DN60.09102019.142333	2019-10-09 14:23:34
BURST.75.1m.DN200.11102019.094649	2019-10-11 09:46:46
PH.3.50m.DN0.25102019.105427	2019-10-25 10:54:32
PH.3.5m.DN0.25102019.102338	2019-10-25 10:24:02
STATIC.15.50m.DN63.13102019.072205	2019-10-13 07:22:04

**Bottom Screenshot (Recipe Configuration):** Shows the configuration screen for 'Tank 1' and 'Station 2'. The 'Station test type' is set to 'Static'. The 'Set pressure' is 70.00 bar. The 'Set test time' is 10,000 hours, 0 minutes, and 0 seconds. The 'Pressure rise time' is 20 s. The 'Conditioning mode' is 'Yes'. The 'Min pressure regulation hysteresis' is 1.0% (-0.70 bar). The 'Max pressure regulation hysteresis' is 1.0% (0.70 bar). The 'Min pressure alarm limit' is 2.0% (-1.40 bar). The 'Max pressure alarm limit' is 2.0% (1.40 bar).

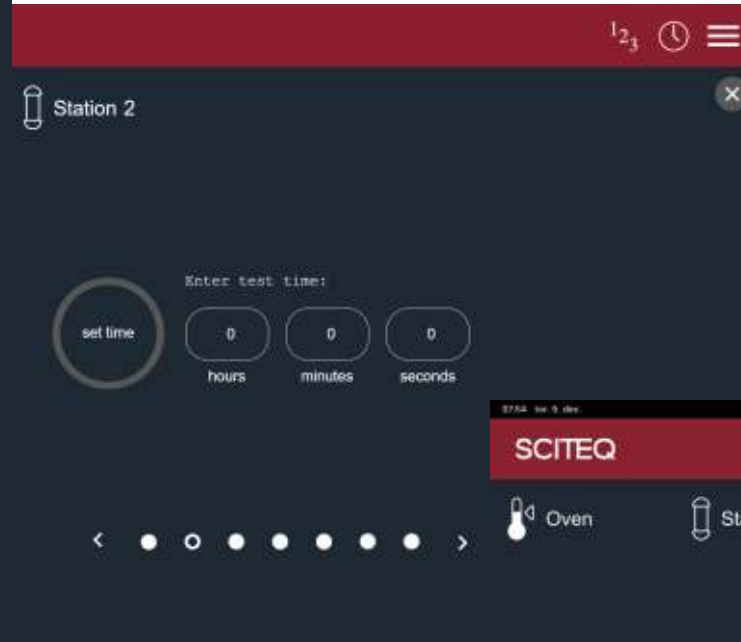
## SIGMA Recipe

The recipe system enables quick test start as well as creating, exporting and importing recipes customized for a specific test.

When a recipe is created a test can be started with only four click.

# About SIGMA recipe wizard

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## SIGMA Recipe wizard

The recipe system enables user to create, export and import recipes customized for a specific test.

Recipes are quick and easy to set-up, saving you time when initiating or repeating tests based on previous test parameters.

When a recipe is created a test can be started with only four click.



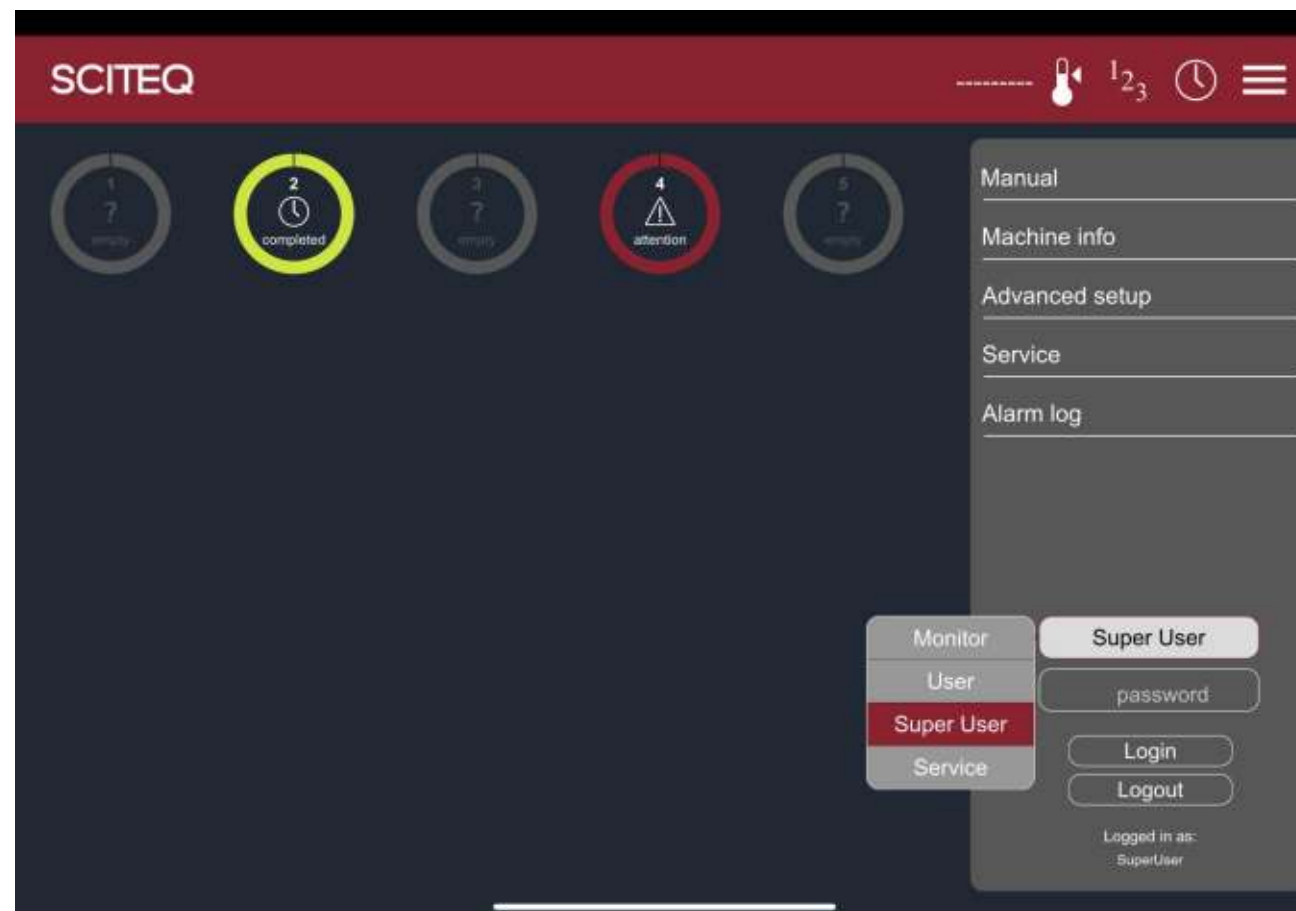
# About SIGMA user levels



## SIGMA User levels

The default settings of the four different user-levels from Basic to Advanced ensure convenient and quick start up as well as individual access levels. A view-only access is also included, allowing stakeholders to monitor the entire process remotely when needed. The four levels are:

- ✓ Monitor: Only monitoring
- ✓ User: start and stop of tests
- ✓ Super User: all functions
- ✓ Service: all functions



# About SIGMA predictive maintenance

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## SIGMA predictive maintenance

The SIGMA solution offers predictive maintenance system ensuring on-time maintenance and replacement of parts due to wear and tear. In case parts needs changing, this can easily be sourced via SCITEQ online spare part shop with individual customer login.

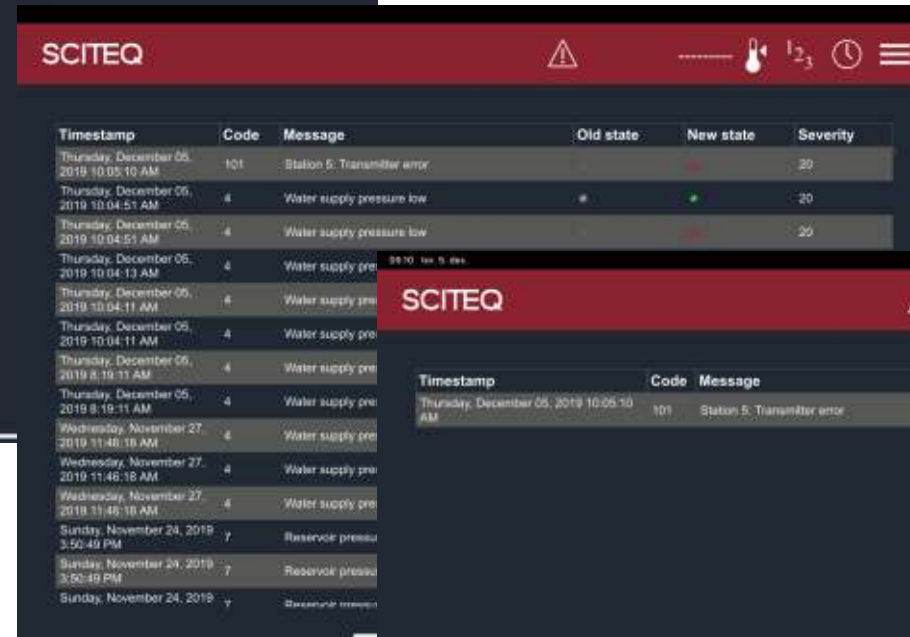
- ✓ Solve irregularities in time
- ✓ Maintenance & cleaning of parts in time
- ✓ Replace parts in time
- ✓ Calibrate in time (calibration is done by SCITEQ service engineers)





# About SIGMA self diagnostic system

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## Self diagnostic system

The system will alert irregularities with a code referreing to information found in the 'Troubleshooting guide' in the SIGMA manual.

## Alarm

SCITEQ recommends the use of an iPad pro 11" in shock and water proof cover. This is offered as option for SIGMA pressure installments.

## Browser based data handling

Data can be extracted by OPC UA and when your test is completed you can export the test data to csv, PDF or directly to your database by SQL.

Completed tests are automatically uploaded to the browser based SIGMA test data page, you simply navigate to the page and export the file according to your preferences.



OPC UA\*



## SIGMA auto generated pdf report

Pressure Test Report	
<b>Report details</b>	<b>Product info</b>
Report ID: 20210001-1050-1-4004	Customer:
Report ID: 20210001-1050-1-4004	Production no:
<b>Test details</b>	Part no:
Test ID: SCHLUP-1031	Length unit: mm
Test type: Static	Free length: 3 mm
Test temperature:	Material:
Operator:	Hydrostatic: 0 bar
Position:	<b>Pressure info</b>
Company name:	Test pressure: 50 bar
Complied standards:	Rated pressure: 0 bar
Retesting standards:	Max pressure: 0.518 bar
<b>Date and time info</b>	Leak Rate: 1000 %/min
Test time: 00:00 Time	Pressure unit: bar
Start Date of test: DT#2021-05-01 10:52:47	Start test calibration: DT#1970-01-01 00:00:00
End date of test: DT#1970-01-01 00:00:00	Max pressure alarm limit: 0 %
Test pressure time: 0 sec	Min pressure alarm limit: 1 %
Relax time: 30 sec	Part no:
OK time: 05 Time	<b>Conditioning info</b>
Total test time: 00:00 Time	Leak test temperature: 0 °C
Out of tolerance time: 05 Time	Leak test temperature rel. max: 0 °C
Force failure time: 05 Time	Tank set temperature to: 0 °C
	Tank no:
	Temperature unit: °C
	Conditioning time: 0 sec
	Conditioning name ID: N/A
Test approved by: _____ Date: 01/05/2021, 11:00:00	
SCITEQ <small>www.sciteq.com</small>	
page: out 2	

### Reports

Test ID				Report ID			
Search	Start date	End date	Status	Search	Start date	End date	Status
20210127-070115-004	2021-01-27 07:01:15	2021-01-27 07:09:11	Complete	20210301-105438-002	2021-03-01 10:54:38	2021-03-01 10:55:15	Active
SCITE_QC-TEST	2021-03-01 10:54:38	2021-03-01 11:01:20	Active	20210301-105547-004	2021-03-01 10:55:47	2021-03-01 11:01:20	Active
Shut_down-test	2021-01-27 06:50:17	2021-01-27 06:51:17	Complete				
TEST_10000hrs	2021-01-25 11:04:47	2021-03-01 11:01:01	Active				
kkkkkk	2021-02-24 19:54:17	2021-02-24 20:03:50	Complete				

### Test Data Page

All test data from each individual test is stored in the database. Access the data from the unique IP address from any browser.

Choose the specific test from the menu, filter the data you wish to export from the menu or include all data in the auto-generated pdf. report or CSV file.

## Test report & export of test data

Click boxes in the menu to choose the test data you wish to include in the report (your choice will be auto-saved for future reports). Export to pdf. report template or CSV file.

## Real-time graph

The graph shows the complete test sequence real-time. During running test it is possible to zoom in/out on the graph for a closer look on a specific time period/sequence.

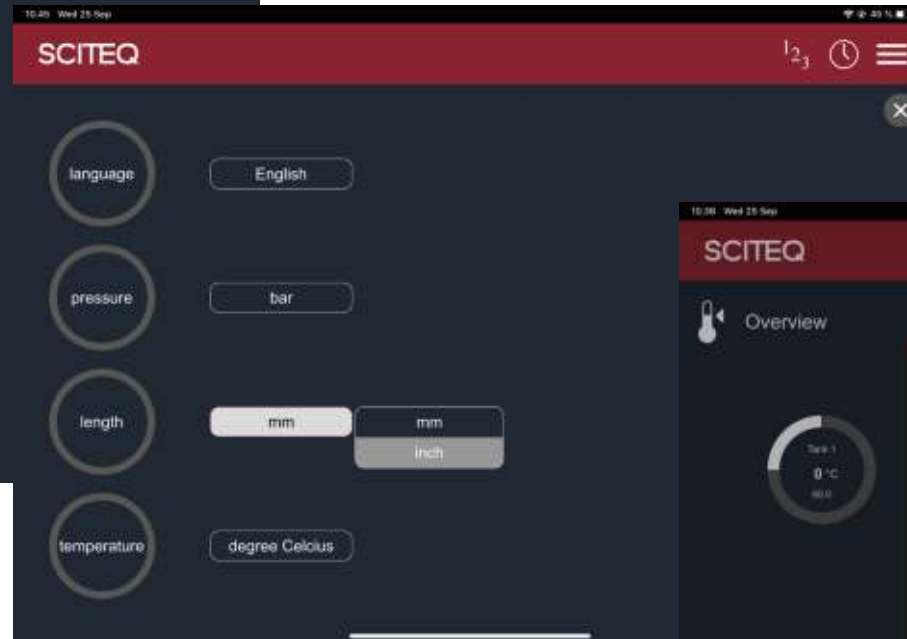
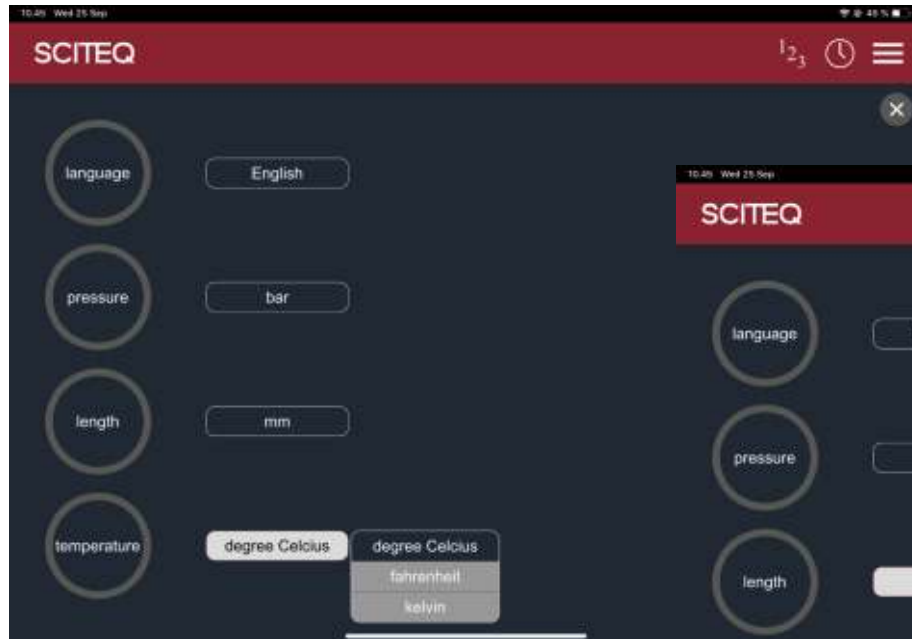






# About SIGMA general settings

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## Easy to configure

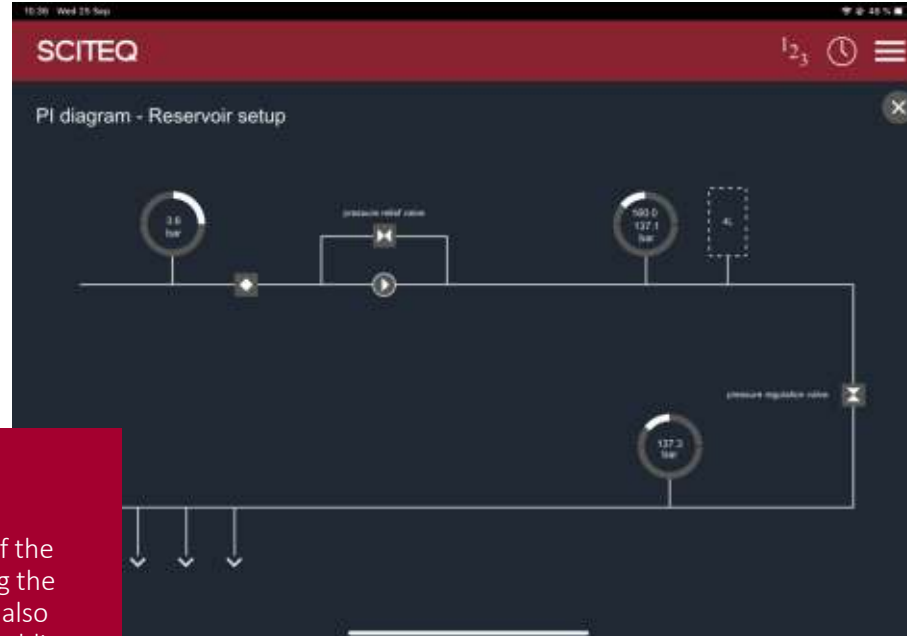
You can easily set and choose between the multiple language and measurement units available as standard.

Setting up the interface for pressure & tanks, oven or other condition unit is conveniently done from the standard menu.



## About SIGMA further features

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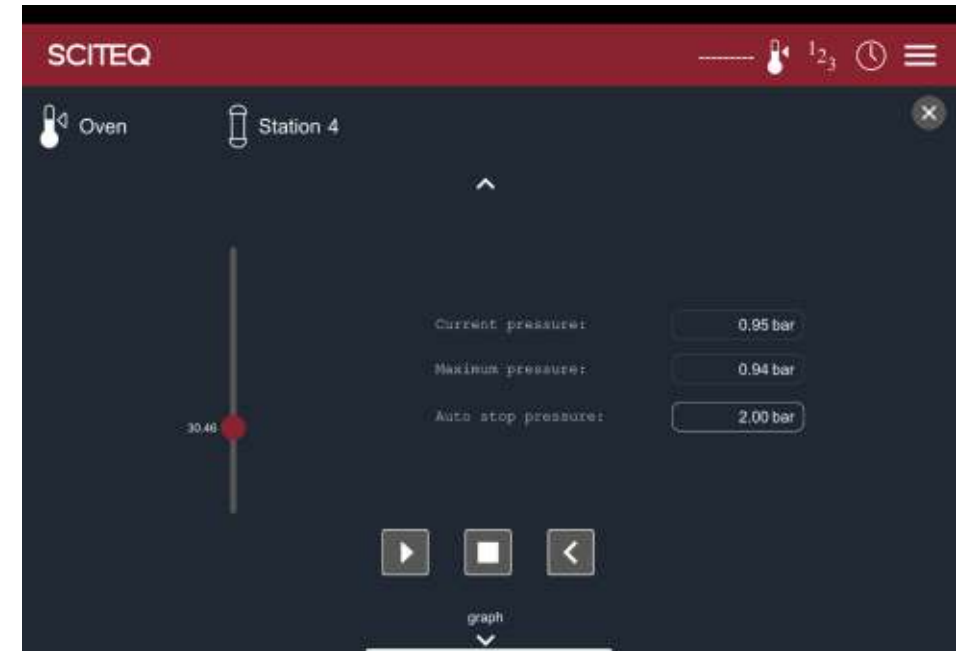


### PI diagramme

The PI diagram provides an overview of the reservoir setup and the components of the pressure test system. The diagram will also conveniently show any irregularities enabling easy troubleshooting.

### Auto-fill bleed valve

The auto bleed feature will automatically ensure the sample is correctly filled at low pressure, enabling quick preparation for accurate test.



# Specifications SIGMA Software



	SIGMA Software/user interface
One page pressure station overview	√
Controller type	SCITEQ-B&R Controller
Intuitively and user friendly user interface	√ User interface is designed with focus on minimizing numbers of clicks and reducing complexity
User interface*	Chrome, Firefox, Edge, Safari, Internet Explore browser or similar.
User interface control	Optimized for touch screen, but useable with standard mouse and keyboard setup.
Multiple, password protected, user levels	√
Programmable test recipe's	√
Recipe library memory	At least 5000 unique recipe's
Recipe smart search function	√
Recipe download/upload	√
Secure remote accessible**	√
Dynamic test finish time estimate	√
Remote software update service incl. ***	√
Cloud/server backup	√ Database can be mirrored to multiple types of cloud/web storage services or external/internal servers
Test & recipe database system	SQL
Database storage memory	Approx. 100 GB of free memory for test/recipe data . 1 hour of testing takes approx. 5.4 KB of storage, meaning 1000 test of 10000 hours will take $1000 \times 10000 \times 5.4 = 54000000$ KB => 54 GB and so on.

\*SCITEQ is recommending the use of IPAD PRO 11", or similar with screen resolution:2388x1668

# Specifications SIGMA Software



	SIGMA Software/user interface
Real time pressure/temp/time –curve	√
Test modes	Static pressure, Burst and Step test
Bleed/water filling function	√
Thermo tank specified station overview UX	√ SIGMA can be set up to only show the stations designated each thermo tank, meaning there will be a controller located with each thermo tank only showing the stations assigned for this tank.
Batch test mode*	√
Real time system P-I overview	√
SCITEQ machine error diagnose	√
SCITEQ preventive maintenance system	√
System alarm/error log	√
Post power failure auto resume	√
Max. quantity of simultaneous users	3
Internal password protected WIFI connection	√ 2,4 GHZ and 5 GHZ
Temperature interface	√ Up to 10 internal or external conditioning systems can be controlled/logged from SIGMA
Required connection	Preferable web access, but system can run offline
Max. pressure station quantity**	100 as standard

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	SIGMA Software/user interface
Test data output	SCITEQ test report, CSV, XLXS, PDF, SQL output and similar
UX accessible by cabled connection	√ RJ 45 Ethernet and DVI
Controller power supply	24 V DC, but suplied by SCITEQ SIGMA Pressure Cabinet

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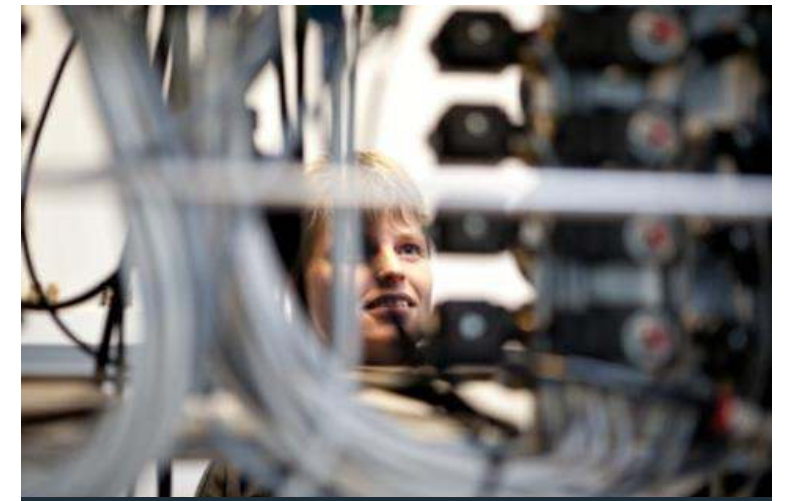
## Installation & training

SCITEQ's trained service technicians perform onsite installation of your new SCITEQ equipment as well as onsite or remote training of your operating personnel who will be using the equipment.



## SCITEQ Care

You will find the level of service suitable for your test setup with SCITEQ Care. SCITEQ service engineers will visit you annually to perform the best service and calibration. With SCITEQ Basic, More or All Care package you gain access to a long list of advantages, discounts and free support from SCITEQ skilled technician. [Learn more about SCITEQ Care](#)



## Support online & on-site

SCITEQ offers online and on-site support on all SCITEQ products, for fast and effective problem solving, training, setup, etc. If you have an unforeseen challenge or you need advise asap, you can contact [service@sciteq.com](mailto:service@sciteq.com) or call us for urgent support.