

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

SIGMA VIDEO



About SIGMA interface

SCITEQ

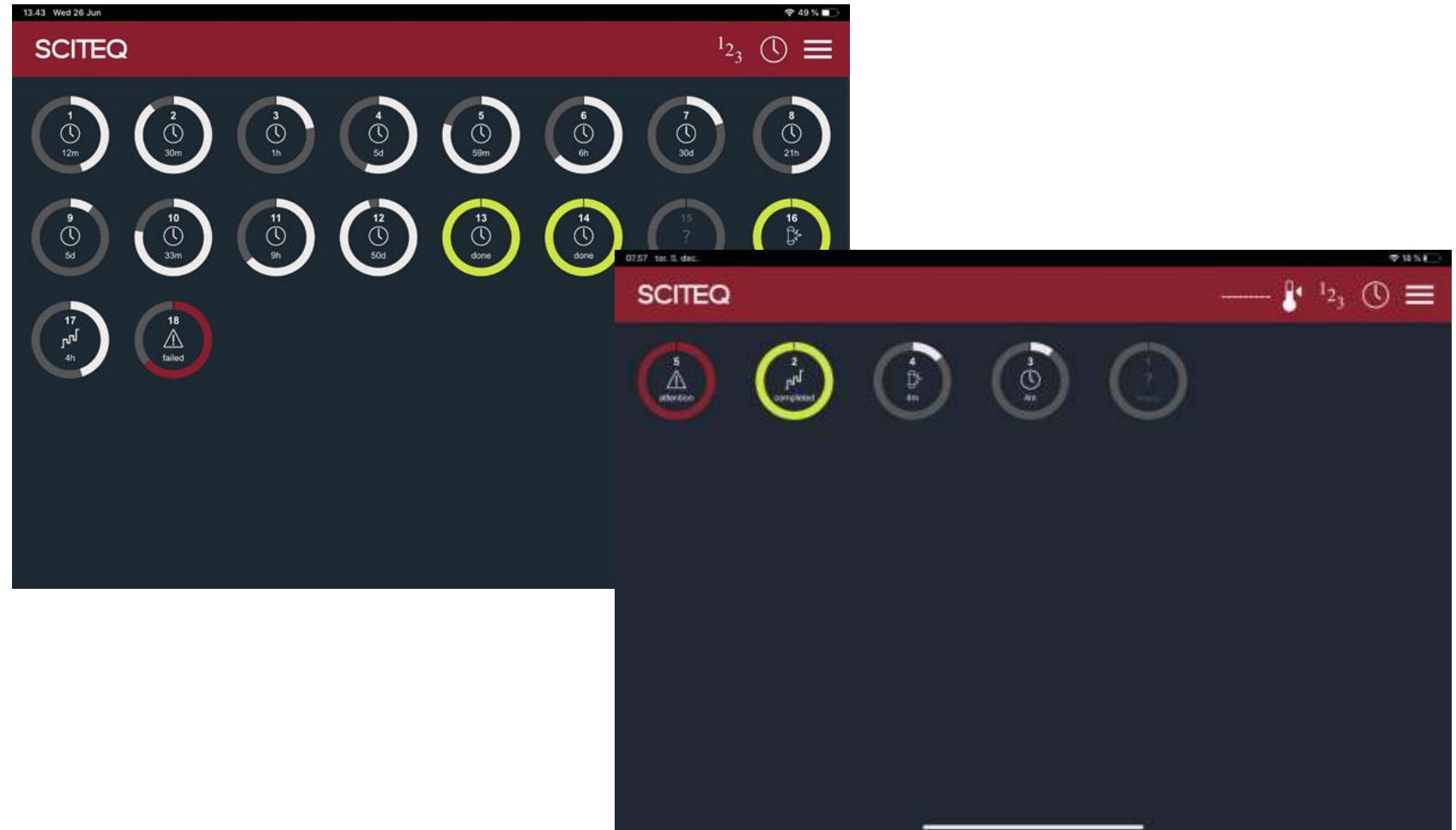
SIGMA 'One page overview'

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.

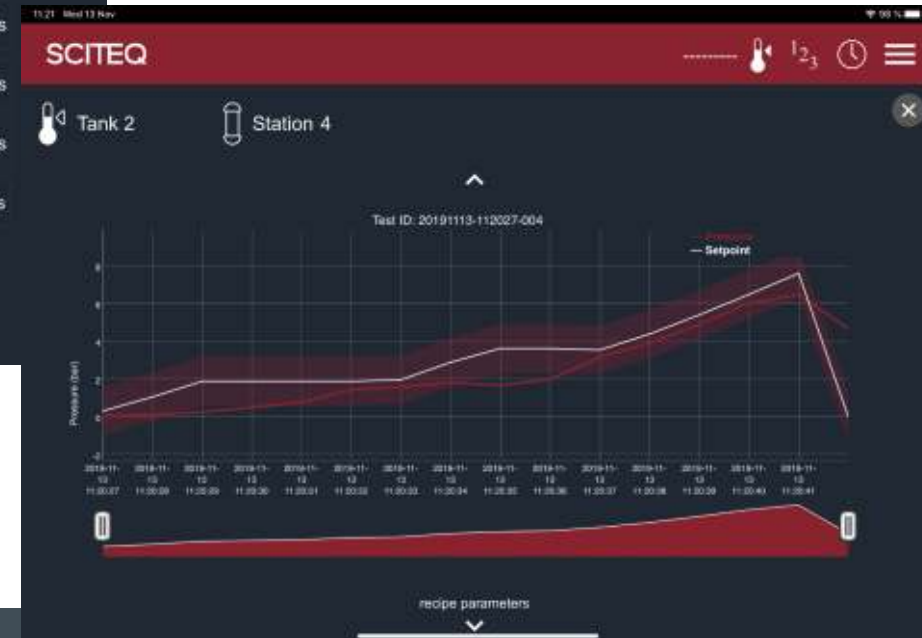
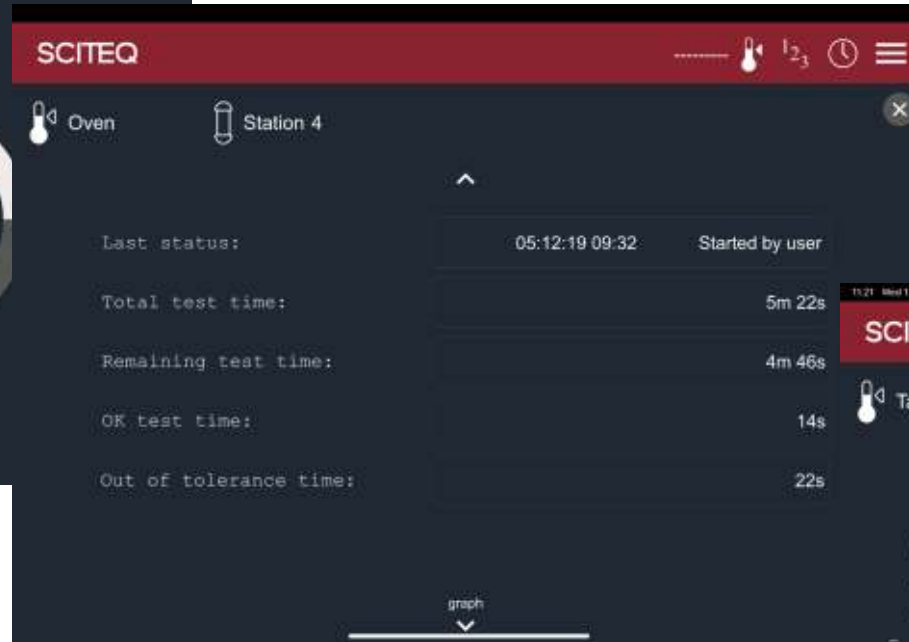
Optimized for touch

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.

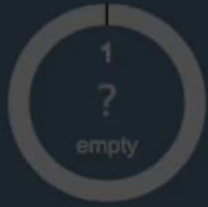


About SIGMA test overview



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.



The screenshots illustrate the SCITEQ mobile application interface for managing test recipes. The top-left screenshot shows the main menu with 'Tank 2' and 'Station 5' selected, and options to 'Choose test recipe' and 'Create new test recipe'. The middle screenshot shows a 'Choose test recipe' screen with a search bar, sort options, and a table of test recipes. The bottom-right screenshot shows a configuration screen for 'Tank 1' and 'Station 2' with various test parameters and their values.

Recipe Name	Date
BURST.100.1m.DN0.05112019.062742	2019-11-05 06:27:46
BURST.85.1m.DN25.13102019.072510	2019-10-13 07:25:10
BURST.70.1m.DN30.09102019.142333	2019-10-09 14:23:34
BURST.75.1m.DN205.11102019.094649	2019-10-11 09:46:46
PR.3.50m.DN0.25102019.105427	2019-10-25 10:54:32
PR.3.5m.DN0.25102019.102338	2019-10-25 10:24:02
STATIC.15.50m.DN63.13102019.072205	2019-10-13 07:22:04

Configuration parameters for Tank 1, Station 2:

- Station test type: Static
- Set pressure: 70.00 bar
- Set test time: 10,000 hours, 0 minutes, 0 seconds
- Pressure rise time: 20 s
- Conditioning mode: Yes
- Min pressure regulation hysteresis: 1.0% (-0.70 bar)
- Max pressure regulation hysteresis: 1.0% (0.70 bar)
- Min pressure alarm limit: 2.0% (-1.40 bar)
- Max pressure alarm limit: 2.0% (1.40 bar)

SIGMA Recipe

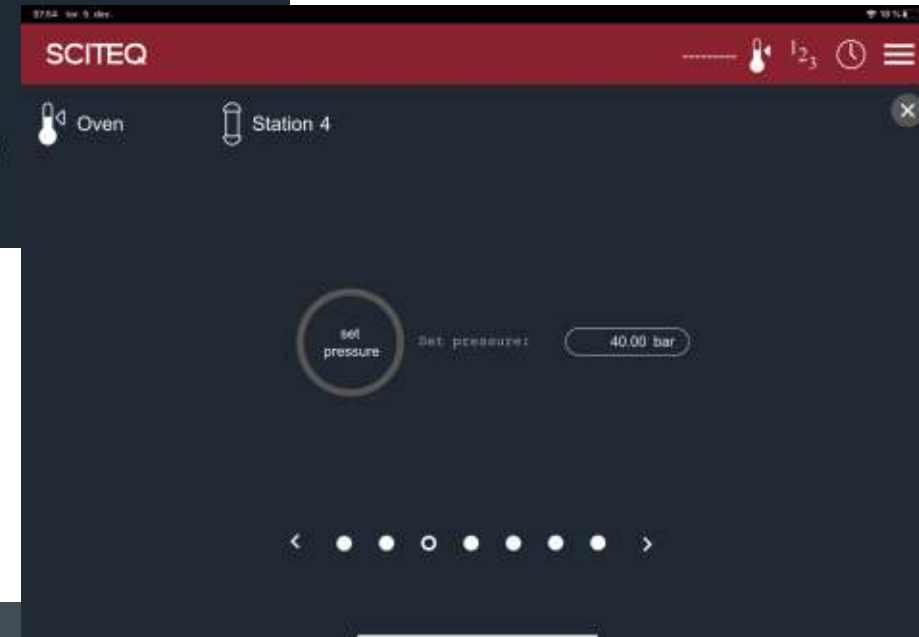
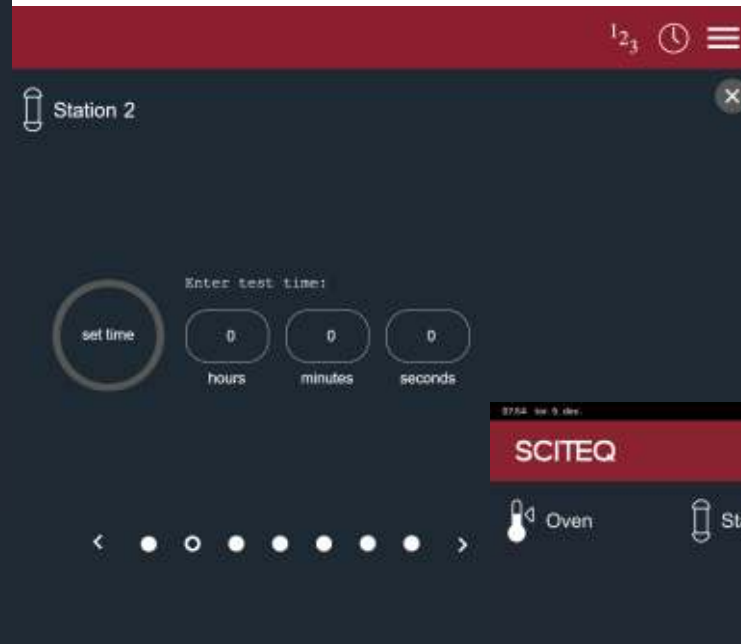
The recipe system enables quick test start as well as creating, exporting and importing recipes customized for a specific test.

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



About SIGMA recipe wizard

SCITEQ



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.

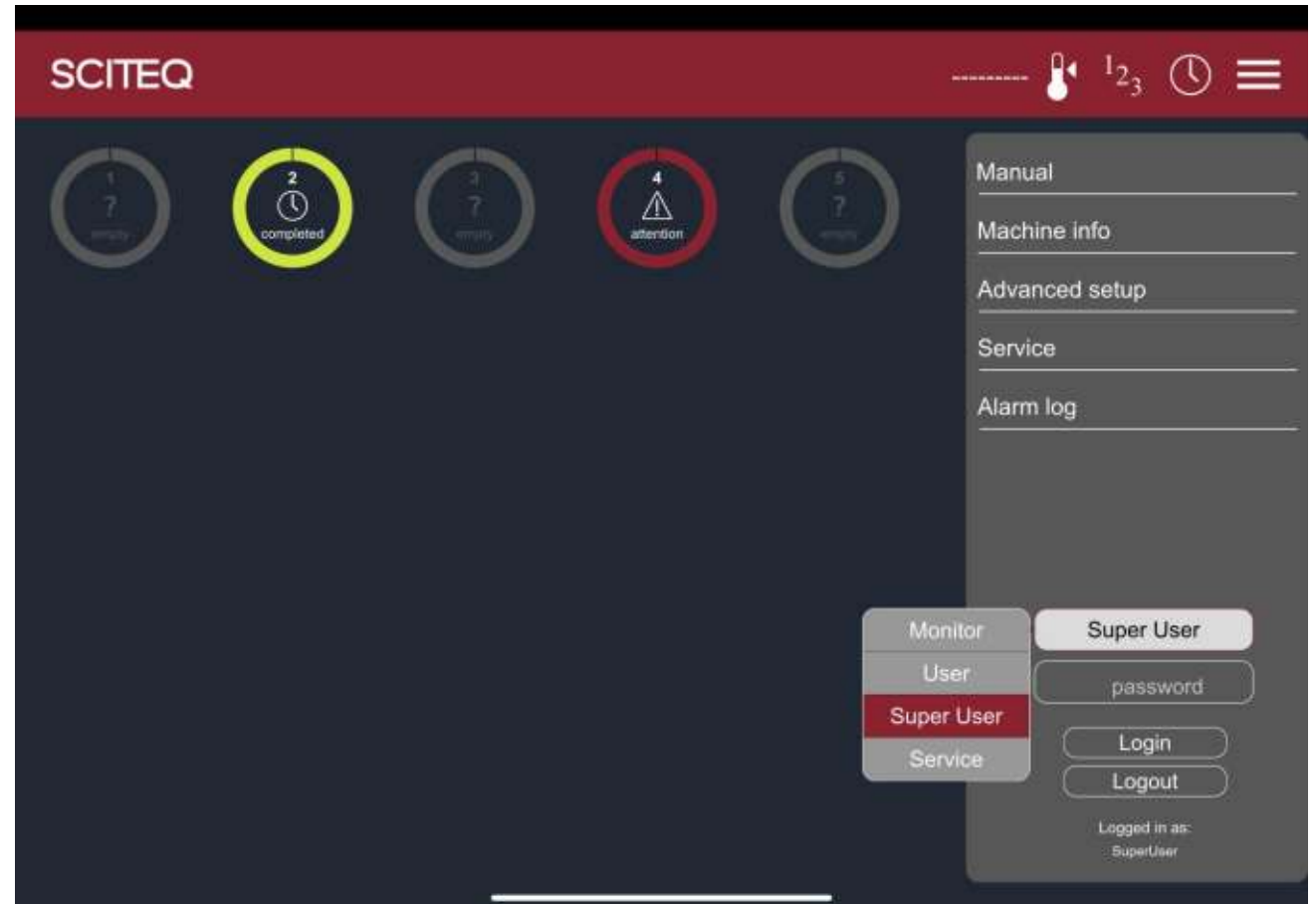
When a recipe is created a test can be started with only four click.



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

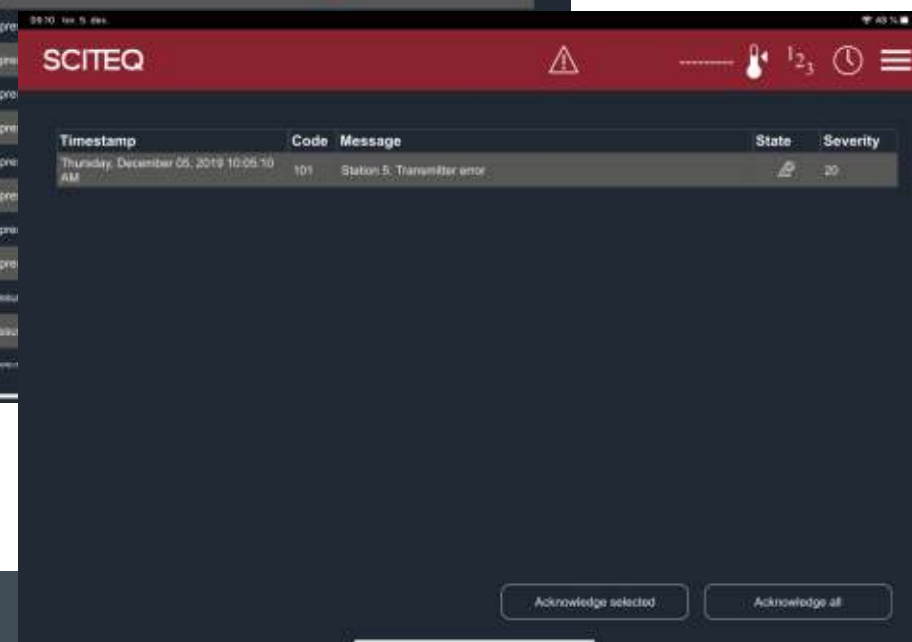
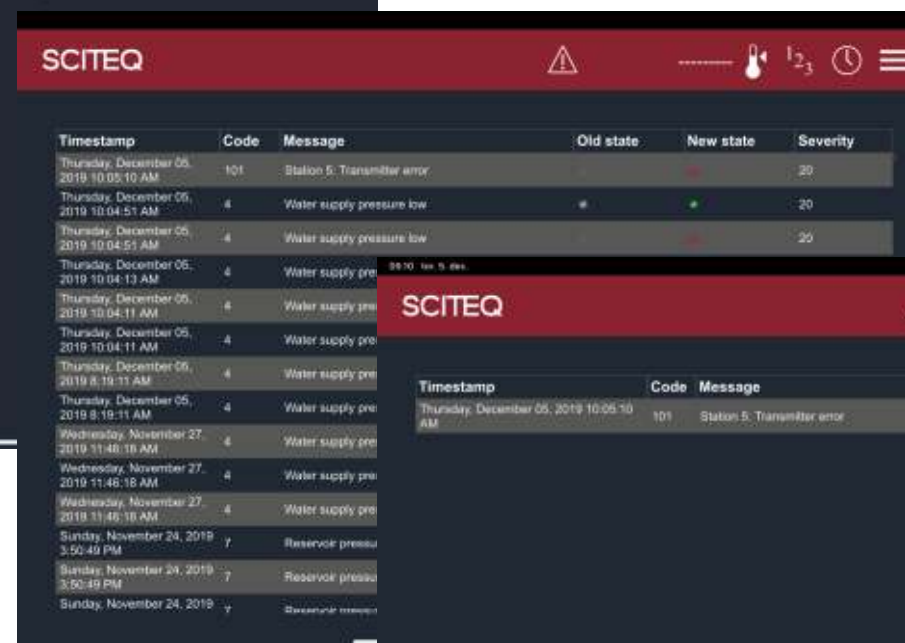


SIGMA predictive maintenance

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)





Self diagnostic system

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

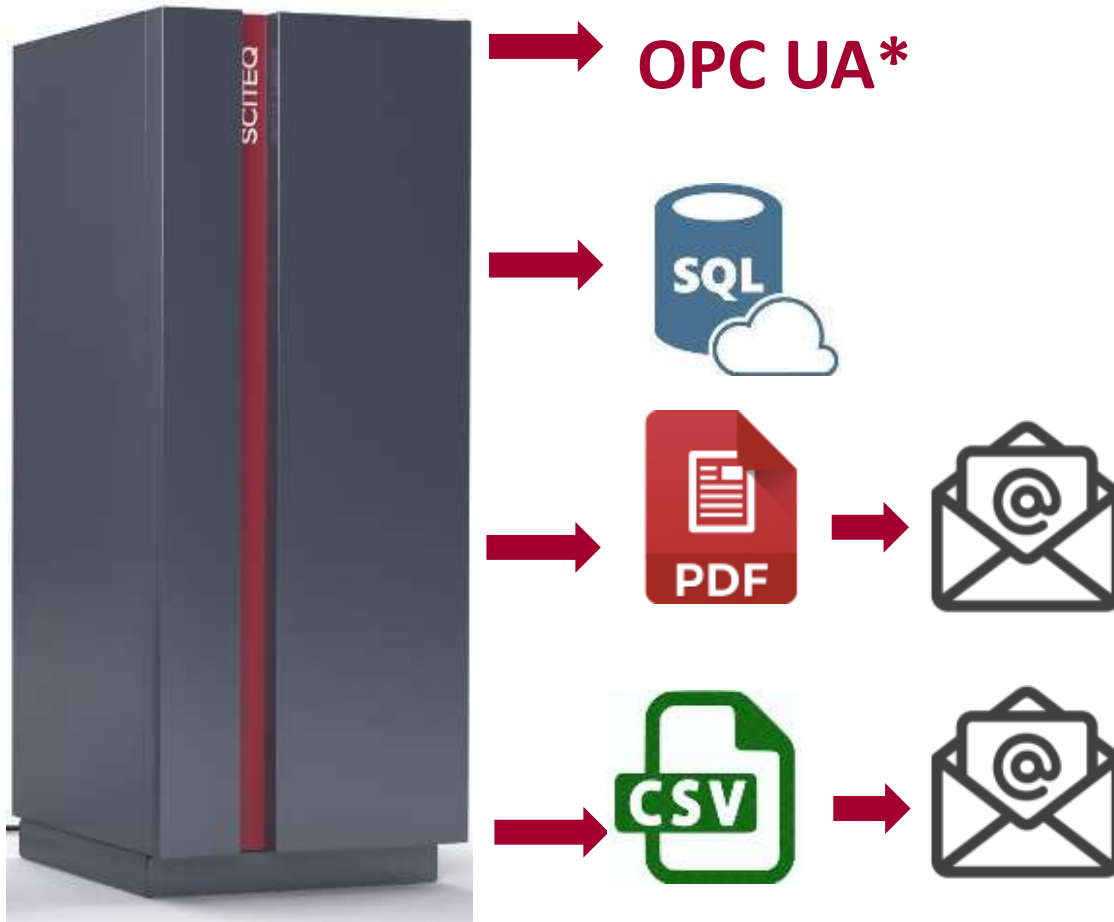
Alarm

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.



SIGMA auto generated pdf report

Pressure Test Report

Report details		Product info	
Report ID	20210011-1050-1-4001	Customer	
Report ID (email)		Product name	
Test details		Part name	
Test ID	SCITLASH-1051	Length unit	mm
Test type	Static	Flaw length	0 mm
Test reference		Material	
Operator		Flaw offset	0 mm
Notation	1	Pressure info	
Company name		Set pressure	5.0 bar
Complied standards		Rated pressure	0 bar
Referred standards		Max pressure	0.518 bar
Date and time info		Leak Rate	1000 %/min
Test time	0h Time	Pressure unit	bar
Start date of test	DTM:2021-05-31 10:52:47	Start of last calibration check	DTM:2020-01-02 00:00:00
End date of test	DTM:2021-01-02 00:00:00	Max pressure alarm limit	0 %
Basic pressure time	0 sec	Min pressure alarm limit	1 %
React time	30 sec	Part name	na
OK time	05 Time	Conditioning info	
Total test time	0h 05m Time	Leak set temperature	0 °C
Out of tolerance time	0s Time	Leak set temperature delta	0 °C
Work before time	0s Time	Tank set temperature to tank	0 °C
		Leak no.	0
		Leak pressure unit	bar
		Conditioning time	0 sec
		Conditioning name ID	N/A

Report generated by:
Date: 31.05.2021, 11:20:09

SCITEQ
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*OPC UA: Unified Architecture - machine to machine communication protocol for industrial automation.

Reports

Test ID	Start date	End date	Status
20210127-070115-004	2021-01-27 07:01:15	2021-01-27 07:09:11	Complete
SCITE_QC-TEST	2021-03-01 10:54:38	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

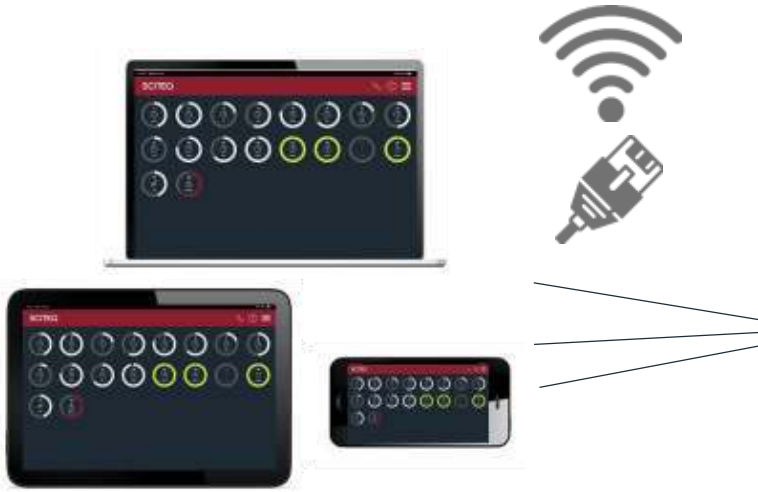
Report ID	Start date	End date	Status
20210301-105438-002	2021-03-01 10:54:38	2021-03-01 10:55:15	Active
20210301-105547-004	2021-03-01 10:55:47	2021-03-01 11:01:20	Active

Test Data Page

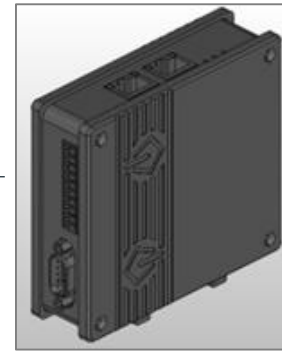
All test data from each individual test is stored in the database. Access the data from the unique IP address from any browser.

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.

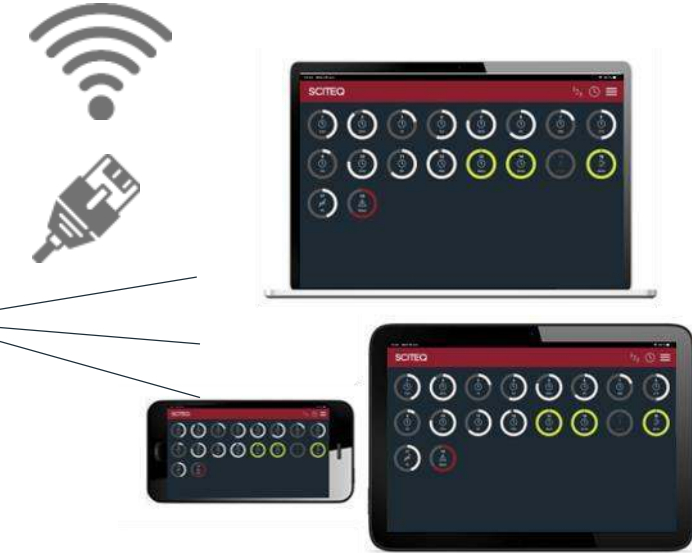
Local ethernet/wifi



Sitemanager
embedded in controller



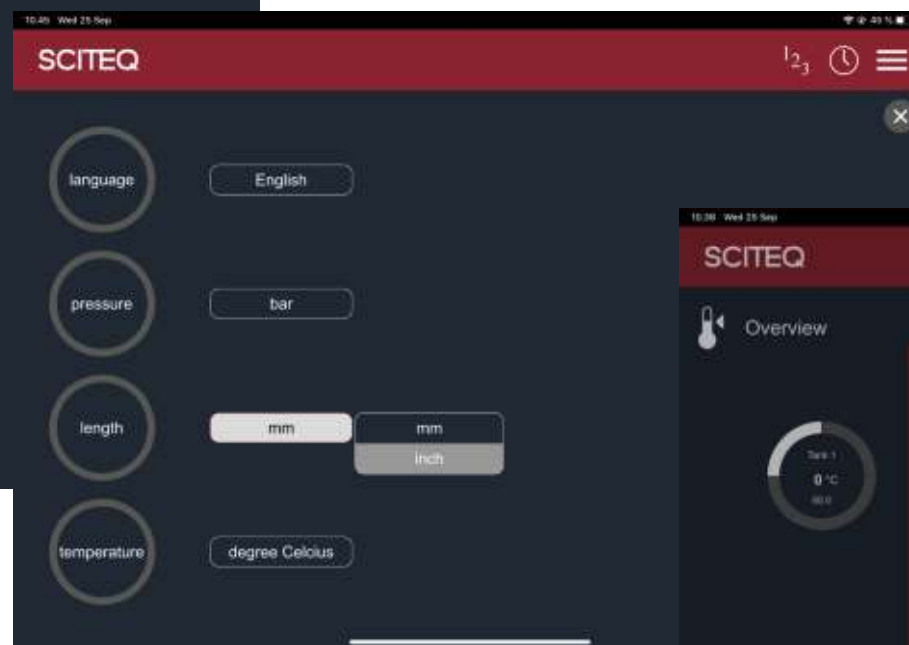
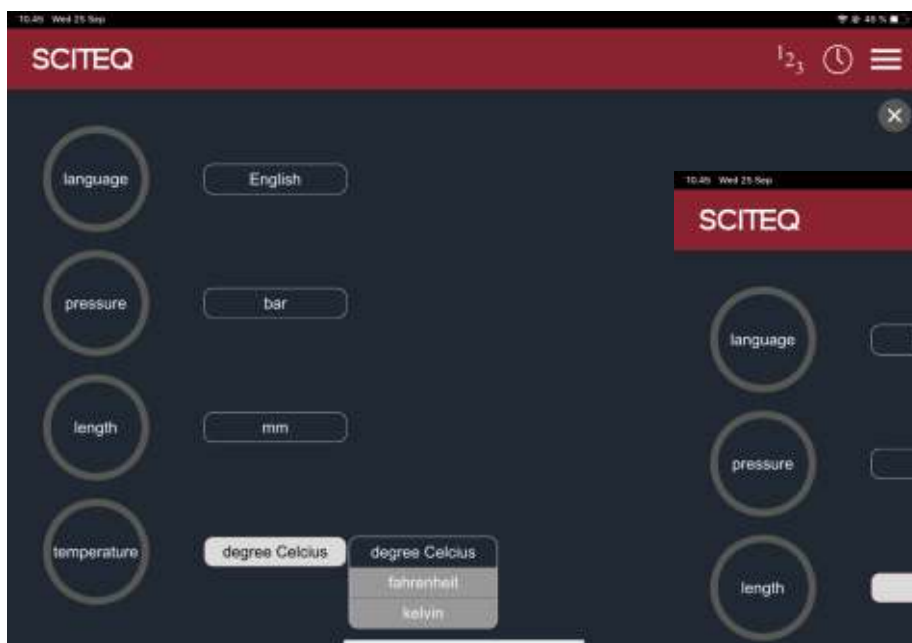
World wide web



Get connected

The SIGMA UI is optimized for touch screen of 11" . It can be entered from a large range of web browsers such as Edge, Chrome, Safari, Firefox, Explore etc. We recommend using an APPLE IPAD PRO 11" to get the full user experience of the UI. The software does support other browser-based devices, however performance may variate. The UI software is preinstalled before on the SIGMA pressure equipment

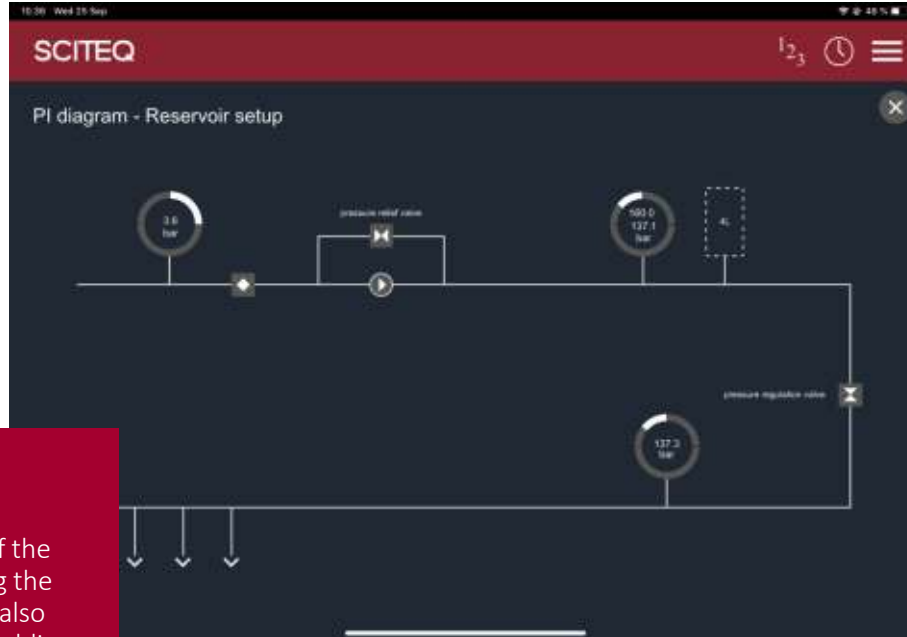
About SIGMA general settings



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.

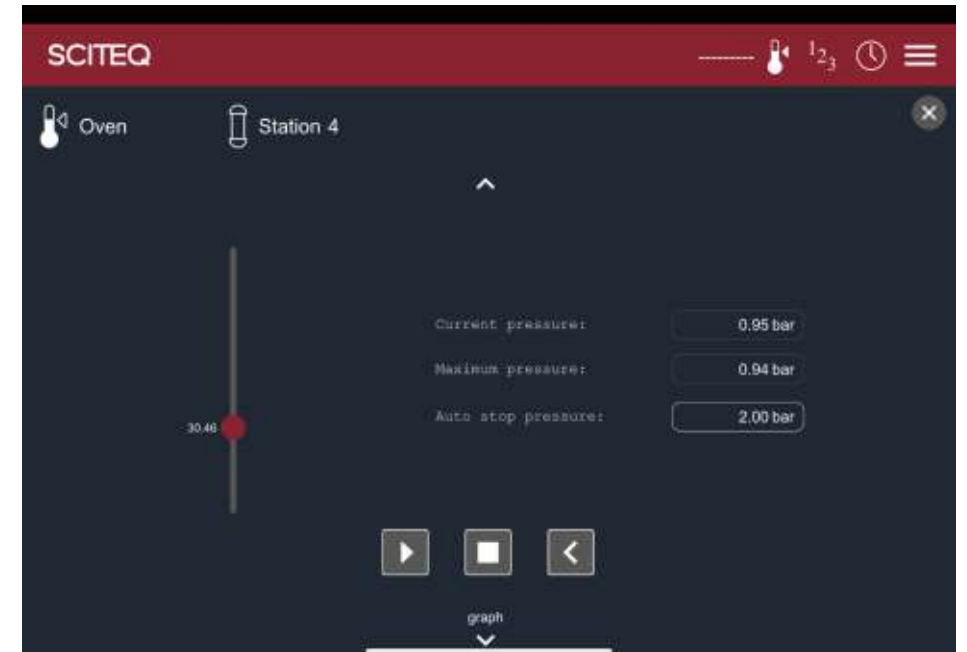


PI diagramme

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.





	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

	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 supplied by SCITEQ SIGMA Pressure Cabinet



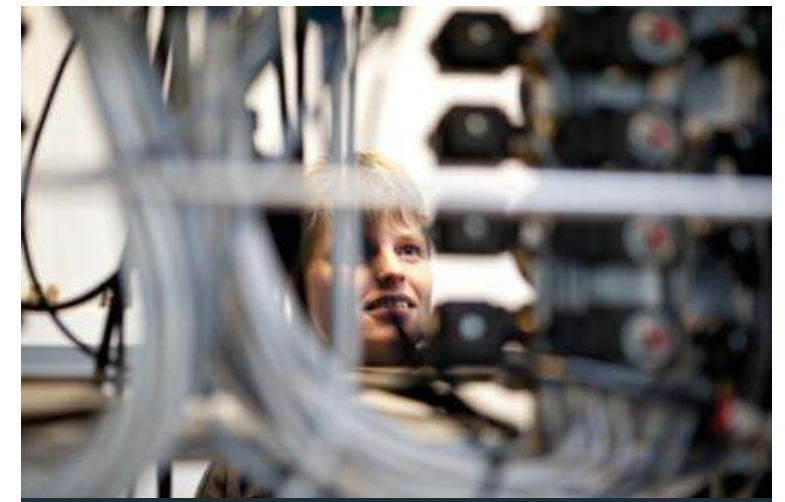
Installation & training

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 or call us for urgent support.