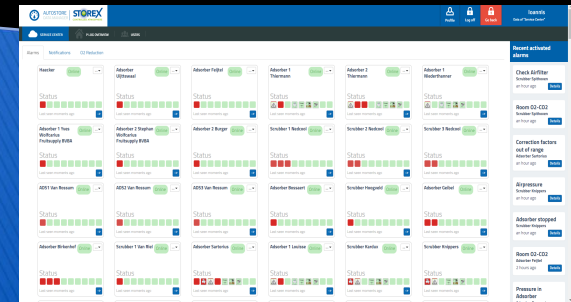
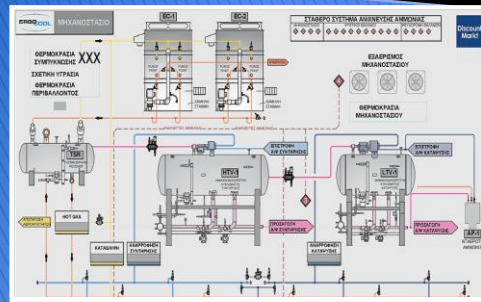


Cloud-based SCADA system + Temperature control system



Our offer:

1. A cloud based (service) platform to be in contact with the cooling installation(s) of your connected clients
2. An advanced SCADA portal for your (existing) cooling installation(s) for a complete range of modern functions
3. Reasonable priced



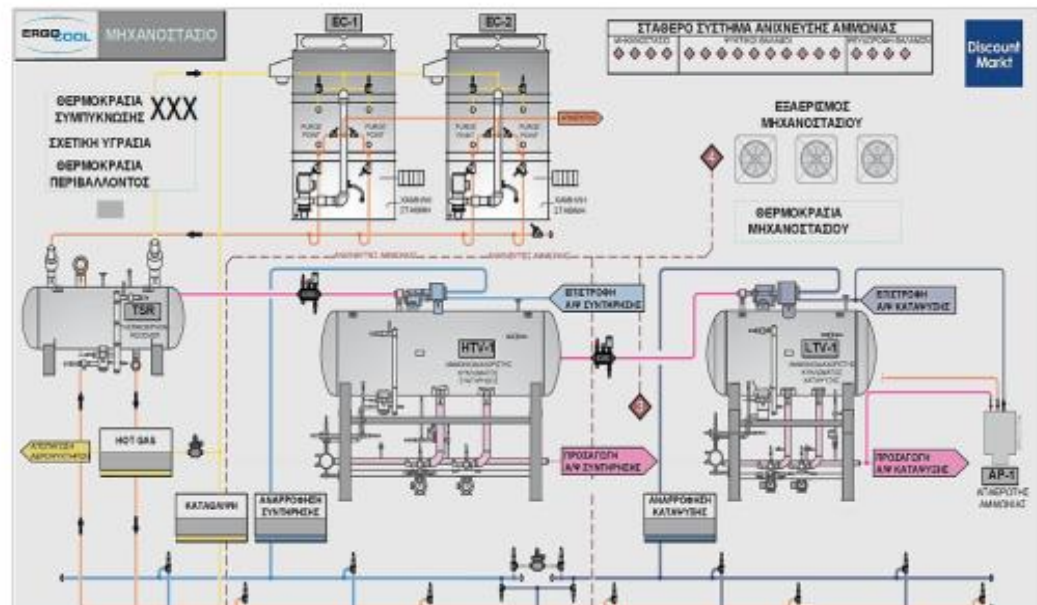
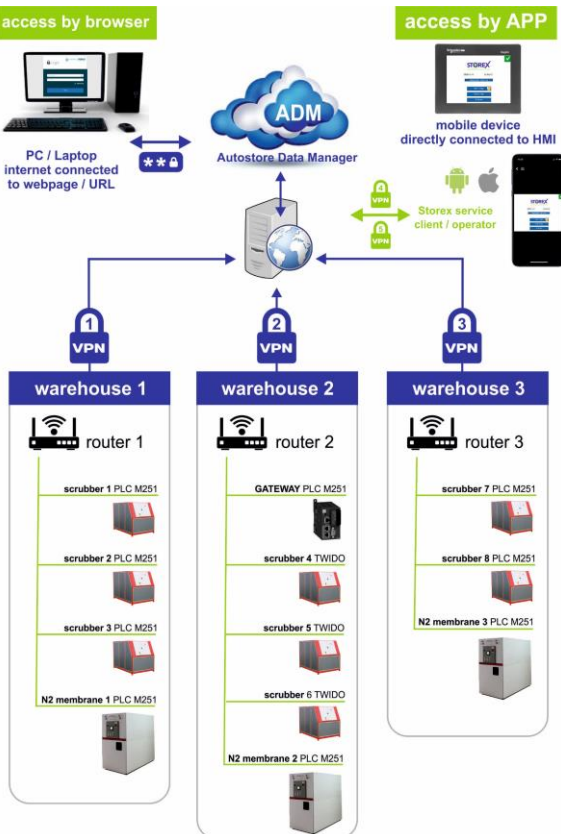
How does it work

- ▶ 1. Together with your engineers we design a cloud-based portal for your installation(s).
- ▶ 2. In the control panel of the cooling installation we install a router which is in contact with your cooling program and communicates with the cloud-based platform.
- ▶ 3. You will remain in charge on which data will be displayed and which settings can be made by customers.
- ▶ 4. The system is set on line. Data will be saved, and all the functions are available.
- ▶ 5. A service platform will be created for your connected installation(s).



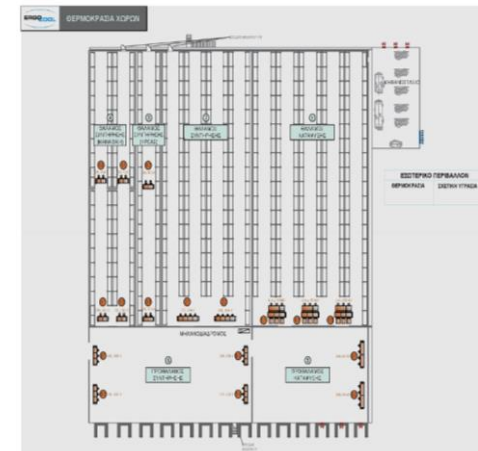
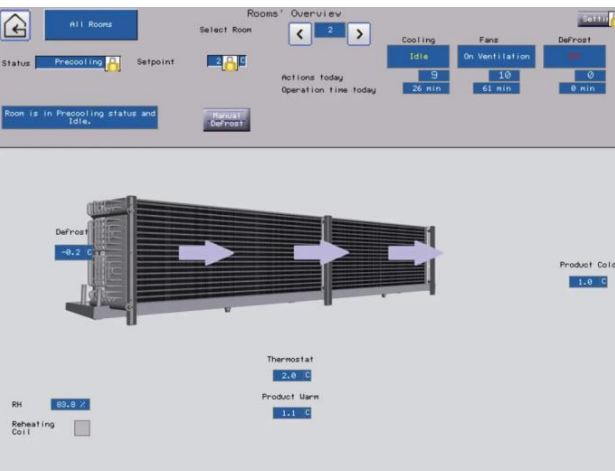
Cloud based platform

- ▶ Cloud based platform with advanced SCADA system for your temperature control system
- ▶ Graphic will be tailor made as option



Advantages of Storex Cloud based SCADA system

- ▶ No need for a PC
- ▶ All your connected systems present in one network
- ▶ Everywhere accessible on PC, Laptop, Mobile devices with internet access
- ▶ Advanced security system and VPN
- ▶ Automatic back-ups integrated in the system.
- ▶ Safe and easy exchange of data with third parties, using API
- ▶ The implementation of AI models for analysis of these data



Easy access to all connected cooling systems

- ▶ In your central portal you easily select and visit all your connected cooling installations

The screenshot displays the STOREX AUTOSTORE DATA MANAGER web interface. The top navigation bar includes the STOREX logo, 'AUTOSTORE DATA MANAGER', and user information for 'Peter Administrator'. The main menu contains 'DASHBOARD', 'USERS', 'TEMPLATES', 'DESIGNER', 'DEVICES', and 'PARAMETERS'. The 'USERS' section is active, showing a search for 'Storex bv' and a list of users. The 'Adm-en' user is selected, and their details are shown in a table below.

Company	Users
Storex bv	Glass Brothers
	Glass Brothers/ST500
	Goeree
	Golturo
	Gorodnyanski Sady
	Grab
	Graham Hewitt
	Grob Gemuese
	Grundler GmbH
	Lieuwe

Users	Details
Adm-en	
Eleni	
Ibrahim Culcu	
Ina	
Jom Vercauteren	
Kristof	
Lieuwe	
Lieuwe Bakker	
Remco	
Service Center	
Wilfried	

Dealer Client relationships	Company Board Overview

Address	Value
Address	/ / / / /
Mail notifications for alarms	On
Mail recipients for alarms	pieter.meiresone@gmail.com pieter.meiresone@vub.ac.be
SMS notifications for alarms	Off
SMS recipients for alarms	+32478373377
ApiKey	549WTFHSMZ-qPb0NsbBxUoW2tzOgx06plQA24NvOic-
Created	01/01/1900 00:00

PIcs			
id	Name	Serial number	Last synchronization

Service platform

- ▶ Your own tailor-made cloud-based service center.
- ▶ Clear overview of information and alarms of all connected installations

The screenshot displays the STOREX Service Center interface. At the top, there is a navigation bar with the STOREX logo and 'CONTROLLED ATMOSPHERE' text. The user is logged in as 'Ioannis' with the role 'Data of "Service Center"'. The main area is divided into a grid of installation status cards and a sidebar on the right.

Installation Status Cards:

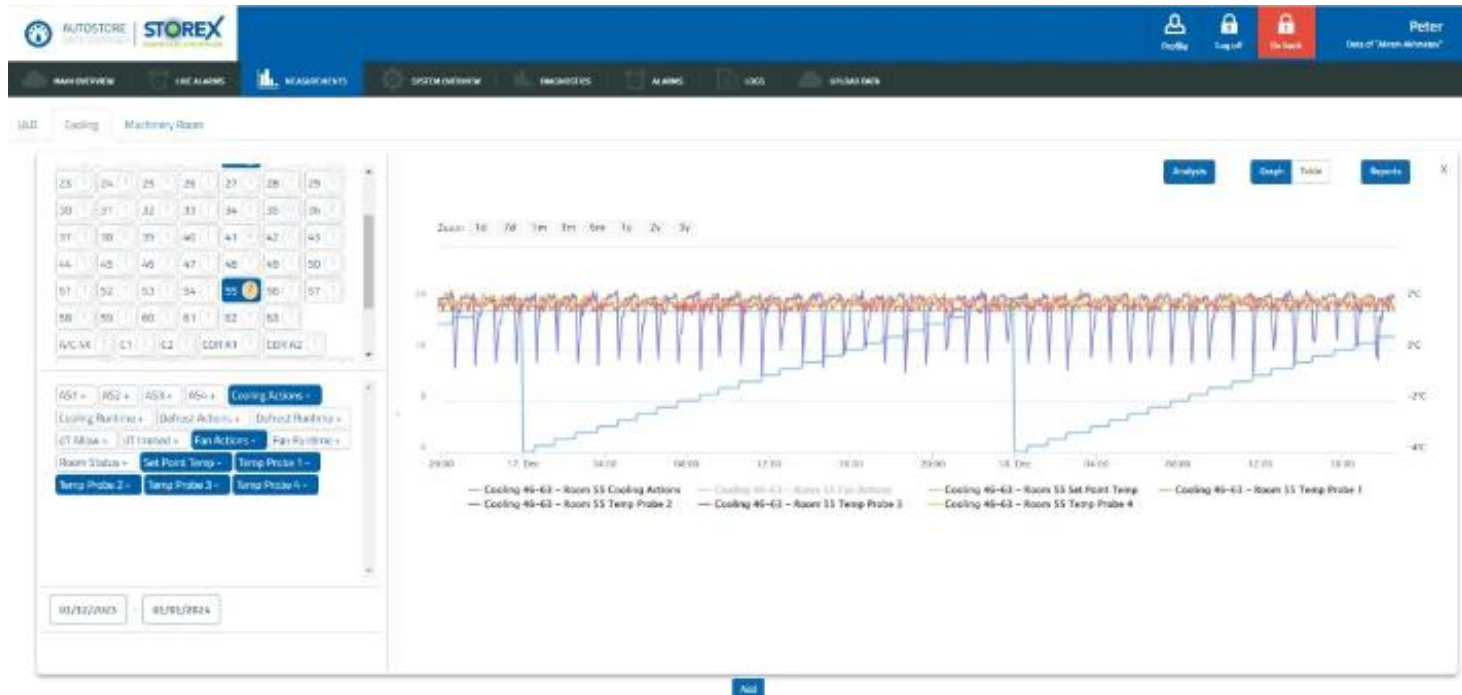
- Each card shows the name of the installation (e.g., 'Haecker', 'Adsorber Ujttewaal', 'Adsorber Feijtel', 'Adsorber 1 Thiermann', 'Adsorber 2 Thiermann', 'Adsorber 1 Niederthanner', 'Adsorber 1 Yves Wolfcarius Fruitsupply BVBA', 'Adsorber 2 Stephan Wolfcarius Fruitsupply BVBA', 'Adsorber 2 Burger', 'Scrubber 1 Nedcool', 'Scrubber 2 Nedcool', 'Scrubber 3 Nedcool', 'ADS1 Van Rossum', 'ADS2 Van Rossum', 'ADS3 Van Rossum', 'Adsorber Bossaert', 'Scrubber Hoogveld', 'Adsorber Geibel', 'Adsorber Birkenhof', 'Scrubber 1 Van Riel', 'Adsorber Sartorius', 'Adsorber 1 Louise', 'Scrubber Kardux', 'Scrubber Knippers').
- Each card includes a status indicator (Online, Offline, or Error) and a 'Status' section with a progress bar and a 'Last seen moments ago' timestamp.

Recent activated alarms sidebar:

- Check Airfilter:** Scrubber Spithoven, an hour ago.
- Room O2-CO2:** Scrubber Spithoven, an hour ago.
- Correction factors out of range:** Adsorber Sartorius, an hour ago.
- Airpressure:** Scrubber Knippers, an hour ago.
- Adsorber stopped:** Scrubber Knippers, an hour ago.
- Room O2-CO2:** Adsorber Feijtel, 2 hours ago.
- Pressure in Adsorber:** (partially visible).

Clear graphs of all data

- ▶ Real time monitoring of relevant data and data storage
- ▶ Advance graph program to select and present historical data



Data and settings

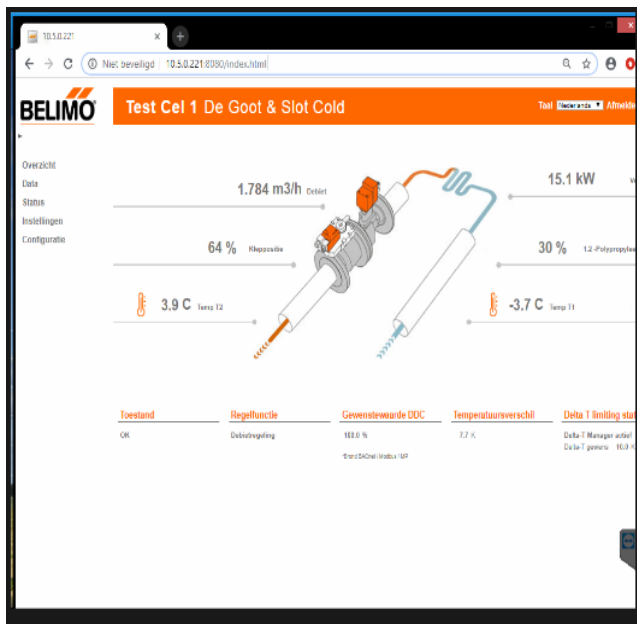
- ▶ Complete overview of data and (changeable) settings

Cooling Rooms

Room	KAT1.1	KAT1.2	KAT1.3	KPE3.1	KPE3.2	MAN4.1	MAN4.2	MAN4.3	MAN4.4	PRO5.1	PRO5.2	PRO6.1	PRO6.2	PRO6.3	PRO6.4	SYN2.1	SYN2.2
Room status	Precooling	Precooling	Precooling	Off	Off	Precooling	Precooling	Precooling	Precooling	Precooling	Precooling	Precooling	Precooling	Precooling	Precooling	Precooling	Precooling
Temp. Setpoint	-20.5 °C	-21.4 °C	-20.5 °C	10.0 °C	10.0 °C	4.0 °C	4.0 °C	2.0 °C	2.0 °C	-5.0 °C	-5.0 °C	4.0 °C	4.0 °C	4.0 °C	7.0 °C	3.9 °C	3.8 °C
dT Start allowed	1.5 °C	1.5 °C	1.5 °C	0.5 °C	0.5 °C	1.5 °C	1.5 °C	1.5 °C	1.5 °C	2.0 °C	2.0 °C	2.0 °C	2.0 °C	2.0 °C	2.0 °C	1.5 °C	1.5 °C
dT Start immediately	2.5 °C	2.5 °C	2.5 °C	1.0 °C	1.0 °C	2.5 °C	2.5 °C	2.5 °C	2.5 °C	3.0 °C	3.0 °C	3.0 °C	3.0 °C	3.0 °C	3.0 °C	2.5 °C	2.5 °C
Thermostat	-19.7 °C	-21.7 °C	-20.3 °C	11.2 °C	10.4 °C	4.7 °C	4.6 °C	3.1 °C	3.0 °C	-4.5 °C	-4.2 °C	3.9 °C	3.7 °C	4.6 °C	8.8 °C	4.8 °C	4.7 °C
Defrost	-30.1 °C	-29.0 °C	-29.2 °C	10.5 °C	10.4 °C	-5.0 °C	-5.6 °C	-6.6 °C	-6.5 °C	-9.9 °C	-9.0 °C	2.3 °C	1.3 °C	-6.5 °C	-8.8 °C	2.5 °C	0.2 °C
Product 1	-21.2 °C	-21.2 °C	-21.2 °C	10.5 °C	10.4 °C	4.5 °C	4.5 °C	3.3 °C	3.3 °C	-4.4 °C	-4.4 °C	5.6 °C	5.6 °C	5.6 °C	5.6 °C	5.7 °C	5.7 °C
Product 2	-21.3 °C	-21.3 °C	-21.3 °C	0.0 °C	0.0 °C	0.0 °C	0.0 °C	0.0 °C	0.0 °C	0.0 °C	0.0 °C	0.0 °C	0.0 °C	0.0 °C	0.0 °C	5.7 °C	5.7 °C
Product 3	-3.6 °C	-2.6 °C	-16.7 °C	10.6 °C	10.4 °C	0.0 °C	0.0 °C	0.0 °C	0.0 °C	-3.1 °C	-3.3 °C	0.0 °C	0.0 °C	0.0 °C	0.0 °C	0.0 °C	0.0 °C
Actual Cooling Status	Room is in Precooling status and runs normally.	Room is in precooling status and idle	Room is in Precooling status and runs normally.	This room is off	This room is off	Room is in Precooling status and runs normally.	Room is in Precooling status and runs normally.	Room is in Precooling status and runs normally.	Room is in Precooling status and runs normally.	Room is in precooling status and idle	Room is in precooling status and idle	Room is in precooling status and idle	Room is in precooling status and idle	Room is in Precooling status and runs due to high temperature.	Room is in Precooling status and runs normally.	Room is in precooling status and idle	Room is in precooling status and idle
Alarm Status	No Alarm	No Alarm	No Alarm	No Alarm	No Alarm	No Alarm	No Alarm	No Alarm	No Alarm	No Alarm	No Alarm	No Alarm	No Alarm	No Alarm	No Alarm	No Alarm	No Alarm
Cooling valve status	Cooling	Idle	Cooling	Off	Off	Cooling	Cooling	Cooling	Cooling	Idle	Idle	Idle	Idle	Cooling	Cooling	Idle	Idle
Fan Status	On Cooling	Idle	On Cooling	Off	Off	On Cooling	On Cooling	On Cooling	On Cooling	Idle	Idle	Idle	Idle	On Cooling	On Cooling	Idle	Idle
Defrost Status	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off
Cooling Actions	20 :	7 :	11 :	0 :	0 :	12 :	7 :	6 :	8 :	12 :	11 :	1 :	1 :	8 :	12 :	6 :	5 :
Cooling runtime	241 m	209 m	157 m	0 m	0 m	98 m	44 m	83 m	256 m	82 m	60 m	18 m	0 m	254 m	45 m	34 m	43 m

Connect with p.e. Mycom compressor or Danfoss thermostat

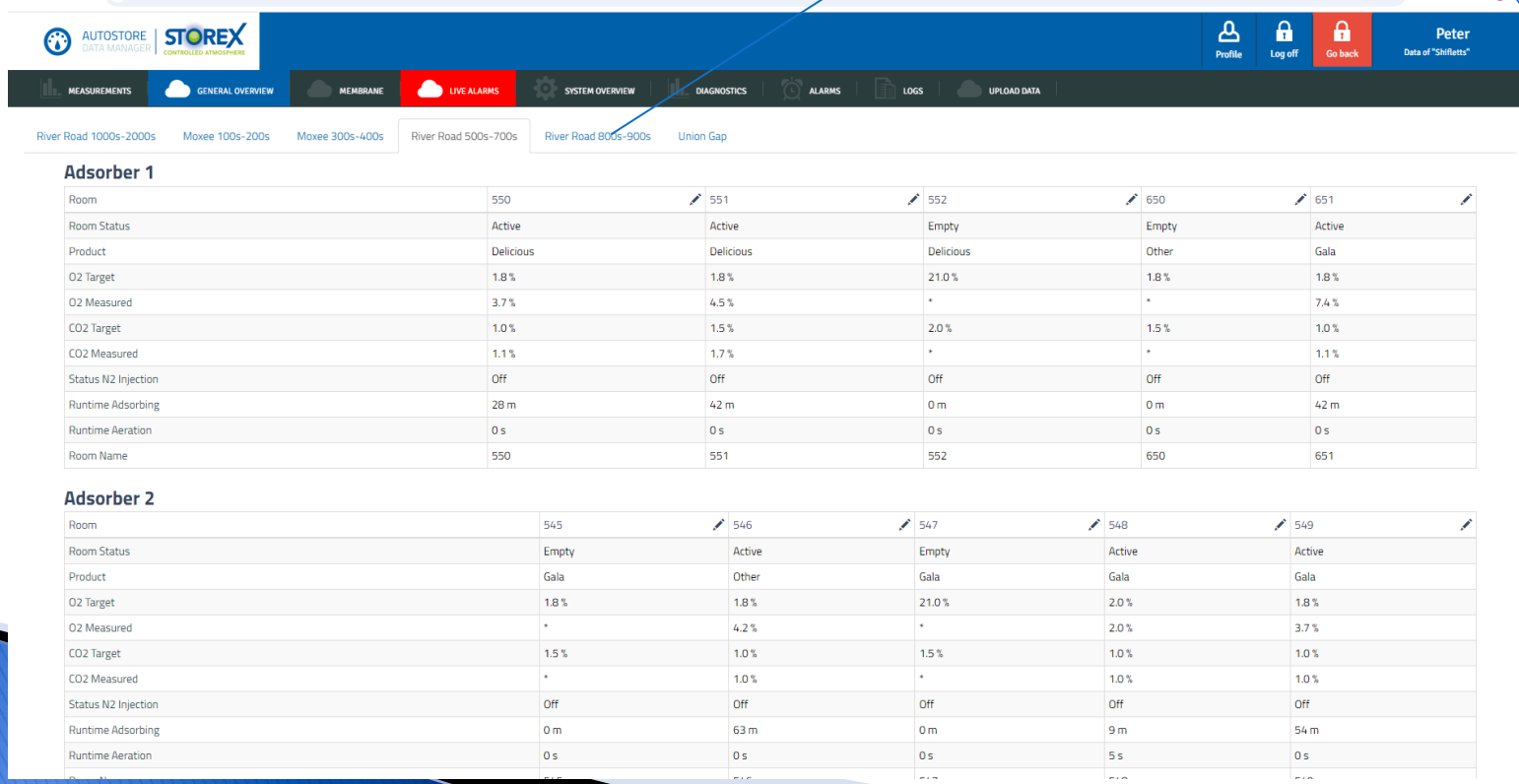
- ▶ Reading (changeable) settings and information



Easy access to various Installation on different locations

- ▶ Access to switch to multiple cooling systems via portal of the client

Select one of the present locations and connect



The screenshot shows the STOREX client portal interface. At the top, there is a navigation bar with tabs for MEASUREMENTS, GENERAL OVERVIEW, MEMBRANE, LIVE ALARMS, SYSTEM OVERVIEW, DIAGNOSTICS, ALARMS, LOGS, and UPLOAD DATA. Below the navigation bar, there are location tabs: River Road 1000s-2000s, Moxee 100s-200s, Moxee 300s-400s, River Road 500s-700s, River Road 800s-900s, and Union Gap. The main content area displays two data tables for Adsorber 1 and Adsorber 2.

Adsorber 1

Room	550	551	552	650	651
Room Status	Active	Active	Empty	Empty	Active
Product	Delicious	Delicious	Delicious	Other	Gala
O2 Target	1.8%	1.8%	21.0%	1.8%	1.8%
O2 Measured	3.7%	4.5%	*	*	7.4%
CO2 Target	1.0%	1.5%	2.0%	1.5%	1.0%
CO2 Measured	1.1%	1.7%	*	*	1.1%
Status N2 Injection	Off	Off	Off	Off	Off
Runtime Adsorbing	28 m	42 m	0 m	0 m	42 m
Runtime Aeration	0 s	0 s	0 s	0 s	0 s
Room Name	550	551	552	650	651

Adsorber 2

Room	545	546	547	548	549
Room Status	Empty	Active	Empty	Active	Active
Product	Gala	Other	Gala	Gala	Gala
O2 Target	1.8%	1.8%	21.0%	2.0%	1.8%
O2 Measured	*	4.2%	*	2.0%	3.7%
CO2 Target	1.5%	1.0%	1.5%	1.0%	1.0%
CO2 Measured	*	1.0%	*	1.0%	1.0%
Status N2 Injection	Off	Off	Off	Off	Off
Runtime Adsorbing	0 m	63 m	0 m	9 m	54 m
Runtime Aeration	0 s	0 s	0 s	5 s	0 s

Daily reports, alarms by Email/SMS

- ▶ Sending daily reports on relevant information (free programmable)
- ▶ Handy program for sending selected alarms by e-mail / sms

Alarms via SMS / Email/Daily report

Alarm by SMS

Daily report

Settings for alarms

Wie moeten we een melding sturen?

Email:

Telefoon:

Wanneer moeten we u informeren?

	Schakel 1	Schakel 2	Schakel 3	ONS
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Al alarms	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Compressed air	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Pressure scrubber	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Floorscans	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Ventilator	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Analyzer disconnected	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Carbonfactor	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Diagnostic	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Alarm notification by email

From: StoreX [mailto:info@storex.nl]

To: Peter Wille [mailto:info@chelan.nl]

Sent: Monday, 28 November 2018 13:03

Subject: Chelan Fruit Groovers - Alarm active in de Membrane

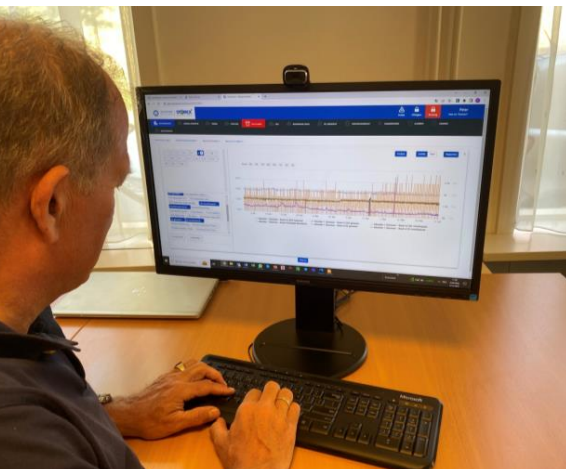
Attention! An alarm has occurred on the job Membrane.

Time	Alarm	Status
18-11-2018 11:18:00	General Stop	On
18-11-2018 11:18:00	Air pressure	On

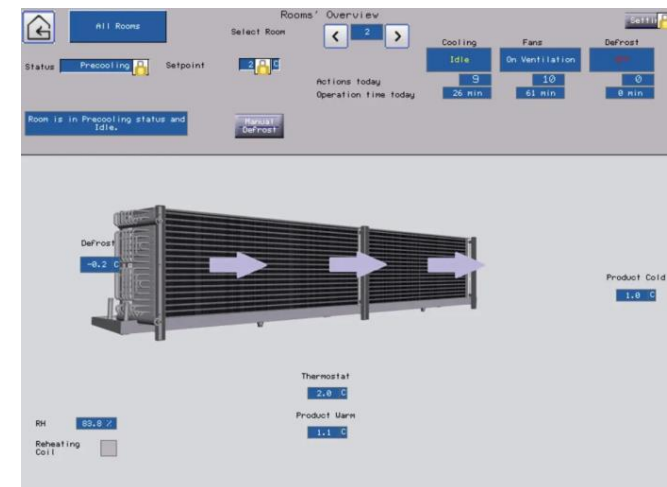
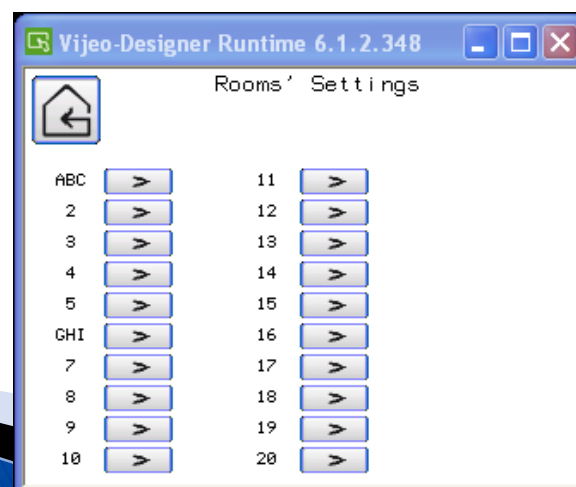
Please contact StoreX if you have questions.

Your benefits in short :

- ▶ SCADA platform which is easy to connect with existing cooling systems and plc's through Modbus
- ▶ Maximum flexibility to safeguard multiple locations with any mobile device
- ▶ Modern SCADA portal for your clients
- ▶ Cloud-based, so ready for AI models
- ▶ Safe and easy exchange of data with third parties , using API
- ▶ Your own tailor-made cloud-based service center , using open-source software

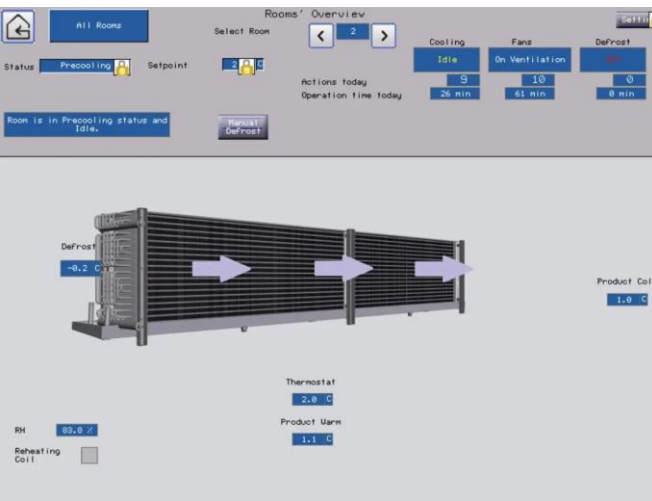


Temperature Control system



Main components

- ▶ A powerful software program for accurate temperature measurement & control + PLC and communication cards
- ▶ Can modules + PT1000 temperature sensors
- ▶ Remote control via App and SCADA platform
- ▶ PLC, Touchscreen + router build-in control box of cooling system
- ▶ Optional relative humidity RH sensors with high accuracy in the range 90–100%
- ▶ With pressure sensor the effect of cooling actions can be followed

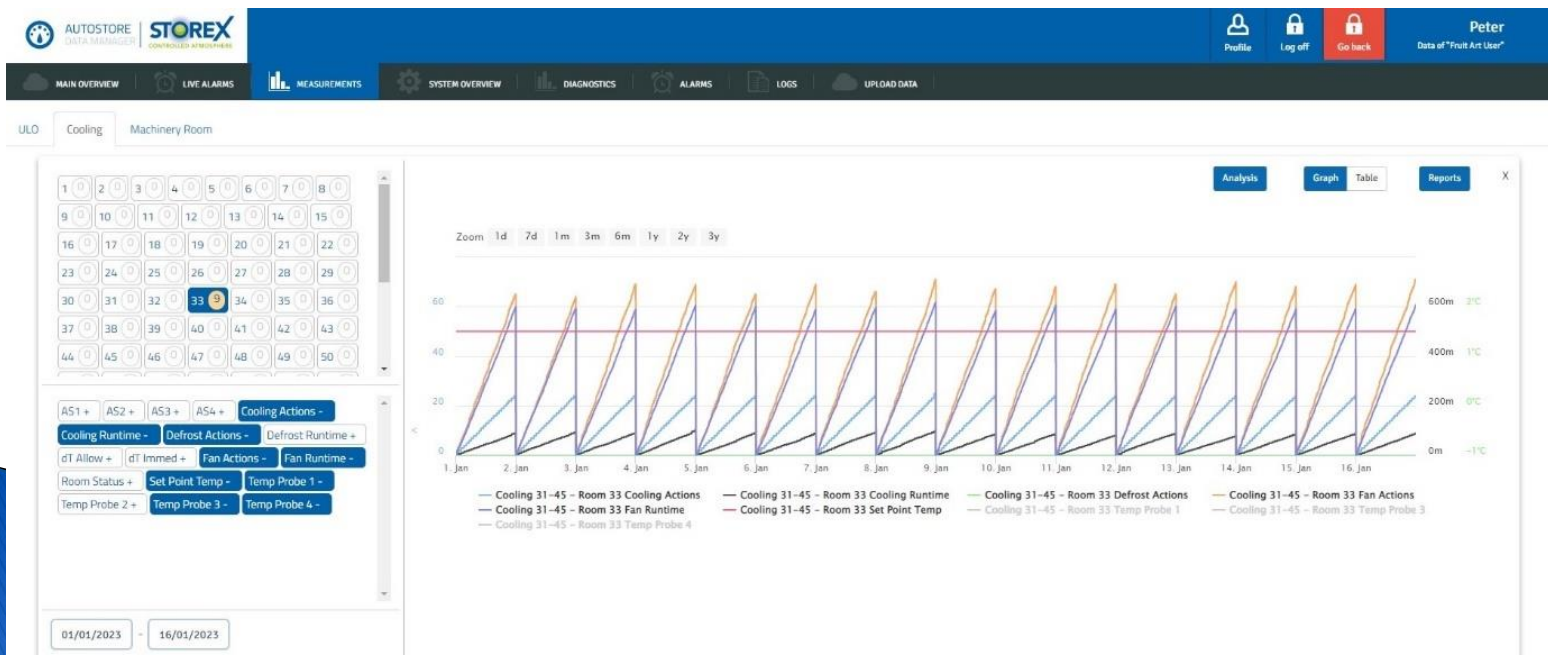


Functions (settings) of the cooling equipment

Function	Remark
Temperature	<ul style="list-style-type: none">• Setting room temperature per 0.1 degree in range -10 to +40 °C• Differential setting between a minimum of 0.2 and 3.0 Kelvin/Celsius• May / should and relay scheme in cooling• Possibility to group rooms in cooling• Setting of number of rooms that are allowed to cool simultaneously of the cooling unit
Air circulation	<ul style="list-style-type: none">• Adjustable per room• Automatic circulation• Continuous circulation• Adjustable circulation time after cooling action• Interval circulation (between cooling actions) with adjustable time for circulation and pause/time out• Link circulation to specific control (including absorption scrubber) through potential free contact
Defrost	<ul style="list-style-type: none">• Adjustable per room• Type defrost adjustable per cooler (hot glycol or air)• Defrosting frequency adjustable based on interval time (fixed absolute time or linked to cooling hours)• Adjustable specific defrost times• Termination of defrosting both on temperature (block sensor) and time (maximum time)• Adjustable dripping times• Adjustable freezing times (after defrost)• Defrosting the allowable number of cells simultaneously

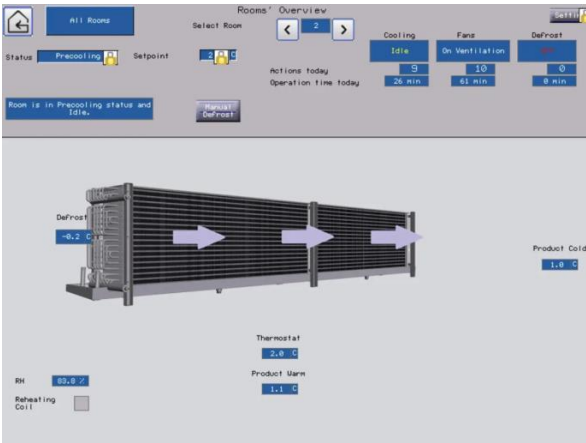
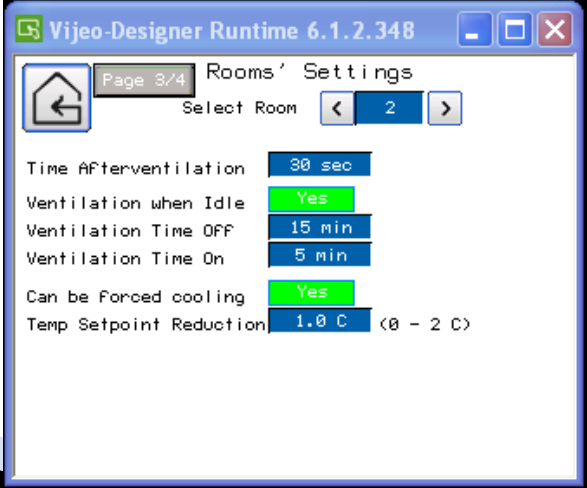
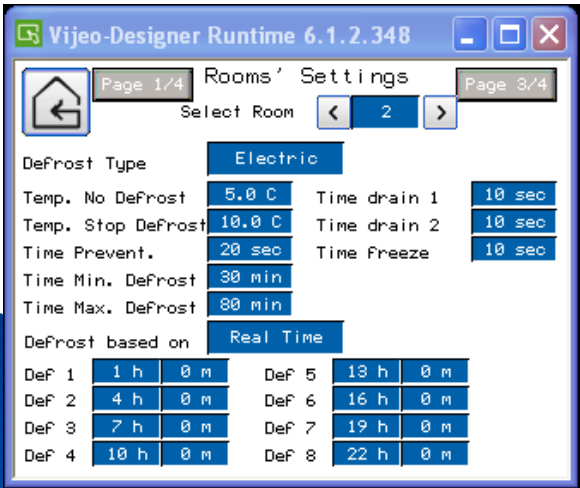
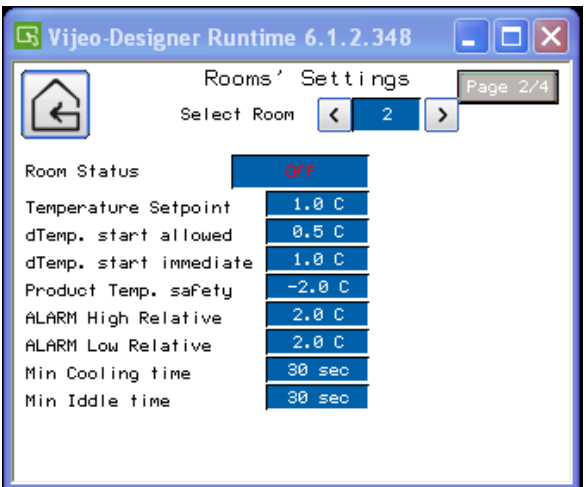
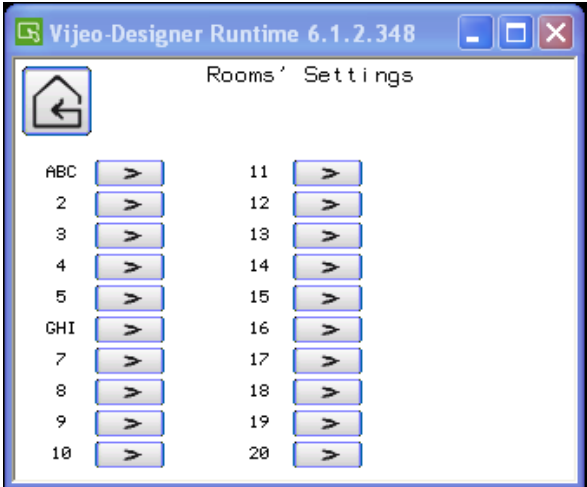
Available data and settings

- ▶ Target temperature setpoint and readings of temperature sensors
- ▶ Cooling time, cooling actions, both from actual date as total of previous day
- ▶ Ventilation time, ventilations actions, both from actual date as total of previous day
- ▶ Defrost actions, defrost time, both from actual date as total of previous day
- ▶ Alarms, daily reports
- ▶ All data easy accessible via App and ADM on one platform



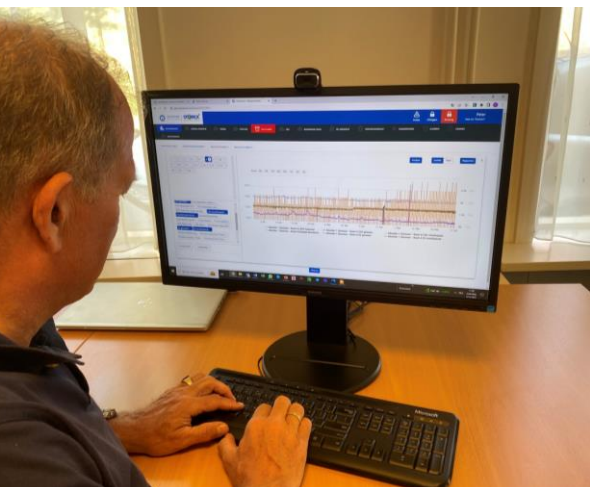
Storex App

▶ The App is a copy of the present touchscreen



Your benefits in short :

- ▶ Complete temperature control system
- ▶ Complete range of functions on board
- ▶ Modern Cloud based SCADA portal
- ▶ Remote control via App
- ▶ Accessories easy to integrate; Gas analysers, RH, pressure
- ▶ Open-source software, easy to adapt
- ▶ Reasonable priced



Feel free to contact us

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Email: info@storex.nl

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3295 XB 's Gravendeel
The Netherlands

