

User Manual



cryo:one / cryo:one+ / cryoair flex
manufactured from 2024 onwards

Table of Contents

1	Introduction	3
1.1	About the system	3
1.2	Purpose and use	3
1.3	Environment	4
1.3.1	Temperature and humidity	4
1.3.2	Emissions	4
1.3.3	Installation environment / external fire	4
2	Health and Safety	5
2.1	Explanation of symbols	5
2.2	Safety instructions	8
2.3	Information on emergencies and safety equipment	10
2.3.1	Safety equipment	10
2.3.2	Emergency in the chamber	11
3	Scope of delivery and installation	12
4	Operating and application	13
4.1	Notes on commissioning	13
4.2	Operating mode	13
4.3	Information for users	13
4.3.1	Basic requirements	13
4.3.2	Regulations for use	14
4.4	Commissioning procedure	14
4.4.1	Guide to starting	15
4.4.2	Local network and required applications	15
4.4.3	Operation of the system	16
5	Shutdown and recommissioning	24
5.1	Shutdown	24
5.2	Recommissioning after prolonged shutdown	25
6	Cleaning and service	26
6.1	Cleaning	26
6.2	Inspection and maintenance	26
6.3	Contact	27
7	Disassembly and disposal	28
8	Annex	29

1 Introduction

This is the User Manual for Single Room Chamber systems cryo:one / cryo:one+ / cryoair flex by MECOTEC GmbH. The user manual applies to the following type of chambers from the specified serial numbers and the adjacent software version number (for display see 4.4.3 → Customer menu).

Type of chamber	from serial number/software version
cryo:one	CO24..... / V4_1_1
cryo:one+	COP24..... / V4_1_1
cryoair Flex	CF24..... / V4_1_1

The user manual is part of the product and must be available and stored in a suitable and accessible place during the entire service life.

“User” means within this user manual the person who operates the chamber.

“Customer” means within this user manual the person who stands inside the cooling chamber.

1.1 About the system

The Single Room Chamber systems have been manufactured in accordance with the directives in force in the EU and are marked with "CE".

The responsibility of the installation, maintenance, and repair lies exclusively with the manufacturer or qualified personnel. The Single Room Chamber systems are developed solely for the use and operation described in this manual.

The Single Room Chamber systems fundamentally consist of one cooling chamber and one cooling unit. The systems are operated via a touch panel integrated into the cooling unit. The cooling chamber and the cooling unit are set up in a room for cryo:one / cryo:one+, they can be set-up separately for cryoair flex. The type plate is located at the left door of the cooling unit.

1.2 Purpose and use

The Single Room Chamber systems generate temperatures of up to -85°C / -121°F. The skin surface of the user is cooled in the cooling chamber by cold air.

Only appropriately trained and instructed persons may operate the system.

The recommended application time is between 60 and 180 seconds depending on individual needs and personal perception, MECOTEC recommends 180 seconds.

The Single Room Chamber systems may only be operated for a specific purpose.

Modifications by the customer or third parties are not permitted. It should be noted that hazards for visitors and staff may occur even if the system is used properly within the prescribed environment.

1.3 Environment

1.3.1 Temperature and humidity

For operation, the system must be located in a room with a minimum temperature of 5°C / 41°F up to a maximum of 30°C / 86°F and relative humidity of maximum 55%. It is recommended to install and operate the cooling chamber in an air-conditioned room.

1.3.2 Emissions

Under appropriate operating conditions, the sound pressure level of the system, including necessary auxiliary equipment, meets all legal requirements. Hearing protection is not required.

Additional emissions in the form of vibrations, radiation, steam, dust, and wastewater do not occur during the normal operation of the system.

1.3.3 Installation environment / external fire



In the event of fire, the refrigeration chamber must be switched off and, if present, the mechanical ventilation of the machine room must also be switched off. Containers and systems filled with refrigerant can burst in the event of a fire. The refrigerants themselves are not flammable but decompose into toxic products at high temperatures.

Extinguishing instructions: Cool containers and systems with water spray.
Self-contained breathing apparatus must be used.

Furthermore, the installation room must be kept free of significant fire loads, especially in the vicinity of the refrigeration system.

2 Health and Safety

2.1 Explanation of symbols

The system complies with the recognized rules of technology. However, knowledge of the means deployed and their hazards, as well as basic knowledge of the system, are basic requirements for safe accident-free work.

This manual must be read and understood by the staff using the system. The briefing on the system must be documented in writing.

Notes on how to use this manual.

The text in this manual uses various signals, symbols, and text displays, which are briefly explained below.

Safety-related information

Safety-related information warns the user of hazards and provide instructions for the safe and intended use of the product.

The following warning symbols and signs are used in this manual:



This signal word warns of a hazard that may result in death or serious injury.

Follow the warning signs provided to avoid this.



This signal word warns of a hazard that may result in minor or moderate injury.

Follow the warning signs provided to avoid this.





















This signal word warns of light, reversible injuries as well as a situation that may result in damage to the property.

Follow the warning signs provided to avoid this.





















Notes are used to warn against operating errors and to highlight important aspects, as well as to better understand and operate the system.



















Symbols at the Single Room Chamber system

Symbol	Explanation
	The system complies with CE conformity requirements.
	Observe the user manual
	Serial number
	Main switch OFF
	Main switch ON
	Manufacturer
	Date of manufacturing
	Weight
	Grounding
	Electrical bonding
	Power supply
	Max. / min. ambient temperature
	Min. / max. relative humidity
	Min. / max. atmospheric pressure
	The system must be disposed of properly
	fragile, handle with care
	Protect system from moisture
	Telephone, e-mail, and Internet address of the MECOTEC service


















Example of type plate cryo:one

		MECOTEC GmbH Sonnenallee 14-30 06766 Bitterfeld-Wolfen Germany												
cryo:one	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">Stage</th> <th style="width: 25%;">Refrigerant</th> <th style="width: 15%;">kg</th> <th style="width: 45%;">PS[bar] HP/LP</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">R-452A</td> <td style="text-align: center;">1,5</td> <td style="text-align: center;">28,5/22</td> </tr> <tr> <td style="text-align: center;">2</td> <td style="text-align: center;">R-508B</td> <td style="text-align: center;">1,2</td> <td style="text-align: center;">28,5/22</td> </tr> </tbody> </table>	Stage	Refrigerant	kg	PS[bar] HP/LP	1	R-452A	1,5	28,5/22	2	R-508B	1,2	28,5/22	400V 3/N ~ 50 Hz 9,5 kVA
Stage	Refrigerant	kg	PS[bar] HP/LP											
1	R-452A	1,5	28,5/22											
2	R-508B	1,2	28,5/22											
<table border="0" style="width: 100%;"> <tr> <td style="width: 15%;">SN</td> <td style="width: 65%;">CO 24E112345</td> <td style="width: 20%;"></td> </tr> <tr> <td style="text-align: center;">    </td> <td style="text-align: center; font-size: 2em;">CE</td> <td style="text-align: right;"> 560 2024   </td> </tr> </table>	SN	CO 24E112345		  	CE	560 2024  	Made in Germany							
SN	CO 24E112345													
  	CE	560 2024  												
	+49 (0) 3494 / 7888-200 office@mecotec.net www.mecotec.net													

Example of type plate cryo:one+

		MECOTEC GmbH Sonnenallee 14-30 06766 Bitterfeld-Wolfen Germany												
cryo:one+	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">Stage</th> <th style="width: 25%;">Refrigerant</th> <th style="width: 15%;">kg</th> <th style="width: 45%;">PS[bar] HP/LP</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">R-452A</td> <td style="text-align: center;">2</td> <td style="text-align: center;">28,5/22</td> </tr> <tr> <td style="text-align: center;">2</td> <td style="text-align: center;">R-508B</td> <td style="text-align: center;">2</td> <td style="text-align: center;">28,5/22</td> </tr> </tbody> </table>	Stage	Refrigerant	kg	PS[bar] HP/LP	1	R-452A	2	28,5/22	2	R-508B	2	28,5/22	400V 3/N ~ 50 Hz 10,4 kVA
Stage	Refrigerant	kg	PS[bar] HP/LP											
1	R-452A	2	28,5/22											
2	R-508B	2	28,5/22											
<table border="0" style="width: 100%;"> <tr> <td style="width: 15%;">SN</td> <td style="width: 65%;">COP 24E112345</td> <td style="width: 20%;"></td> </tr> <tr> <td style="text-align: center;">    </td> <td style="text-align: center; font-size: 2em;">CE</td> <td style="text-align: right;"> 860 2024   </td> </tr> </table>	SN	COP 24E112345		  	CE	860 2024  	Made in Germany							
SN	COP 24E112345													
  	CE	860 2024  												
	+49 (0) 3494 / 7888-200 office@mecotec.net www.mecotec.net													

Example of type plate cryoair flex

		MECOTEC GmbH Sonnenallee 14-30 06766 Bitterfeld-Wolfen Germany												
cryoair Flex single chamber	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">Stage</th> <th style="width: 25%;">Refrigerant</th> <th style="width: 15%;">kg</th> <th style="width: 45%;">PS[bar] HP/LP</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">R-404A</td> <td style="text-align: center;">2</td> <td style="text-align: center;">28/19</td> </tr> <tr> <td style="text-align: center;">2</td> <td style="text-align: center;">R-508B</td> <td style="text-align: center;">2,5</td> <td style="text-align: center;">28/19</td> </tr> </tbody> </table>	Stage	Refrigerant	kg	PS[bar] HP/LP	1	R-404A	2	28/19	2	R-508B	2,5	28/19	400V 3/N ~ 50 Hz 11,5 kVA
Stage	Refrigerant	kg	PS[bar] HP/LP											
1	R-404A	2	28/19											
2	R-508B	2,5	28/19											
<table border="0" style="width: 100%;"> <tr> <td style="width: 15%;">SN</td> <td style="width: 65%;">CF 24112345</td> <td style="width: 20%;"></td> </tr> <tr> <td style="text-align: center;">    </td> <td style="text-align: center; font-size: 2em;">CE</td> <td style="text-align: right;"> 500 2024   </td> </tr> </table>	SN	CF 24112345		  	CE	500 2024  	Made in Germany							
SN	CF 24112345													
  	CE	500 2024  												
	+49 (0) 3494 / 7888-200 office@mecotec.net www.mecotec.net													

2.2 Safety instructions

The following safety instructions are to be understood as a supplement to the applicable accident prevention regulations and laws. In any case, the existing laws and regulations for accident prevention must be observed.



If the safety devices are not functioning properly, this may lead to serious injuries or even death.

- Safety equipment must not be disassembled or be bypassed!
- During maintenance, the system must be marked!
- Defect safety and monitoring equipment must be replaced immediately!



Due to an error, parts of the system may unexpectedly be under electric voltage. This may result in electric shock and overreaction.

- If cables and components are damaged, the system must immediately be disconnected from the power source and secured so that it cannot be switched on again.
- Work on the electrical system (power supply) may only be carried out by trained specialist personnel (electricians) or the manufacturer.
- The electrical equipment of the system must be checked regularly. The maintenance schedule, the regulations of the employer's liability insurance association, and of the statutory accident insurance must be observed.



Failure to perform or improper performance of maintenance or repair work can endanger the user, operator and third parties.

- Maintenance work, switching tasks, and repair works may only be carried out by the manufacturer or by qualified personnel!
- Unauthorized or incorrect maintenance or repair inevitably leads to the loss and exclusion of liability and warranty.
- The control or machine cabinet must be kept closed at all times!
- Only the manufacturer or a qualified person may open the control cabinet!



Temperatures of up to -85°C/ -121°F can be reached in the cold chamber. Improper use or prolonged exposure to the cold chamber can lead to hypothermia and frostbite.

NOTE: Please read section 0 of these instructions for use.

- It is not recommended to stay in the cooling chamber for more than 3 minutes!
- Entering the cooling chamber is only permitted with the supervision of a trained person!
- Touching the surfaces in the cooling chamber is prohibited.
- The operation of cooling chambers is only permitted to persons who have been instructed and trained in the operation of the system.
- The access to escape and emergency routes must not be blocked.



Continuous and overused operation may lead to system failure due to contamination and icing.

- Defrosting and, if appropriate, warming / drying

Application rooms must be adequately lit in accordance with legal regulations!

All employees involved in the use of the system and/or who supervise the use of the system must be thoroughly instructed in the operation of the system and the safety precautions before working with the customer. The manufacturer provides initial training during the installation of the system. Additional and ongoing training is the responsibility of the owner of the system and/or the user.

- This training must be documented in writing.

Prior to entering the cooling chamber, the operator must be informed of the following:

- Conduct in the cooling chamber
- Option to leave the cooling chamber at any time
- Positioning of the safety equipment (if available)

2.3 Information on emergencies and safety equipment

In any event, the operator's local safety regulations, such as the emergency plan, fire safety regulations, and escape and rescue plans must be observed when operating the chamber.

2.3.1 Safety equipment



NOTE

According to DIN EN 378-4:2019-12 (Refrigerating systems and heat pumps - Safety and environmental requirements), Annex D1, safety switching devices must be tested annually on site.

MECOTEC offers a maintenance agreement that includes an annual inspection and maintenance. Please contact your MECOTEC representative for more information.

The system is equipped with safety pressure limiters (push button with internal reset and labelling in accordance with PED). When the maximum pre-set pressure in the coolant circuit has been reached, the system switches to emergency stop and an error message appears on the screen. The system is NOT disconnected from the mains and NOT depressurized. When the pressure drops again, the system can return to the initial operating mode via the reset button. In addition, a pressure monitor with a switch function also serves as pressure transmitter; when the pre-set pressure has been reached, the compressor is switched off until the pressure has dropped below the set value, then the system switches itself on automatically.

Secondary or coolant circuit protection:

If the system is equipped with an external water circulation cooling system, pressure protection is not functional (free outflow).

If connected to existing cold water networks by the customer, a maximum permissible operating pressure of PS=16 bar must not be exceeded.

If the cooling is enabled by means of a closed cooling water circuit (via heat exchanger), the pressure protection is realized as follows: A pressure-controlled cooling water controller reacts to differences in pressure in the coolant circuit and adjusts the required coolant amount for the coolant circuit. The coolant circuit is secured by means of a diaphragm safety valve (3.0 bar g / 43.51131 psi) at the heat exchanger.

The main switch of the system is located at the cooling unit of the system. If it is set to "0", the system is deactivated. The system is NOT depressurized, however!



Main switch OFF

If the system needs to be restarted after the main switch has been activated, it is restarted as described in chapter "Recommissioning after prolonged shutdown".

2.3.2 Emergency in the chamber

If you open the door of the cooling chamber, cold air can escape. Condensed water and fog may lead to the formation of precarious and slippery surfaces.



- The door should only be opened to enter or leave the cooling chamber.
- Ensure that prior to entering and leaving the cooling chamber a slip-resistant surface is available at the entrance door.
- Ensure that there are no obstructions in the immediate vicinity of the system.

If an emergency arises in the cooling chamber, the operator must initiate the following measures:

Steps	Action
Step 1:	In the event of a hazardous situation, turn off the system via the main switch.
Step 2:	Open the door.
Step 3:	Assist the users in leaving the cooling chambers and the preparation room.
Step 4:	If necessary, administer first aid and call a doctor.

3 Scope of delivery and installation

The Single Room Chamber systems by MECOTEC consist of one cooling unit and one cooling chamber. The cooling chamber and the cooling unit are offered as a compact system.

The installation of the components is planned and implemented in coordination with the client and the available space. Other devices (e.g., air-conditioning systems), installations (e.g., lighting, or power supply), or devices in the installation rooms do not fall within the MECOTEC scope of delivery and service.

Standard cooling is a water flow system, fresh water is continuously consumed and discharged as wastewater.

Standard components:

- Cooling chamber
- Cooling unit

Optional components:

- Operating/music package consisting of control panel with applications and holder as well as 2x headband with integrated Bluetooth headphones
- Heat exchanger package, consisting of a pump assembly, heat exchanger system, fittings, and a flexible pipe system
- Casing for cooling unit (only cryo:one / cryo:one+)

4 Operating and application

This chapter contains a general description on commissioning, operation, and application of the chamber.

4.1 Notes on commissioning

The first start-up and training of the operators is carried out by MECOTEC or qualified persons. The cooling unit may only be operated by persons that have been instructed. The handover of the system to the operator takes place during the briefing.

4.2 Operating mode

The system is operated in automatic mode. The start and end of the application are specified by the operator.

The system automatically runs through several modes:

Mode	Description
1. Cooling mode	When the desired temperature is reached, the application can start. When the cooling mode has ended, the drying mode starts automatically.
2. Drying / heating	Defrosting and heating of the chamber When this mode has ended, the system switches to "Standby"
3. Standby	The system is not in cooling or drying / heating mode. The cooling mode has ended.

The service mode is required for maintenance or repair purposes and may only be activated and operated by a qualified person.

4.3 Information for users

After commissioning and after the chamber has reached the desired temperature, the application can be started.

4.3.1 Basic requirements

The minimum requirements for starting an application are:

- The system is in cooling mode and has reached the desired temperature (screen display)

4.3.2 Regulations for use

Before use, the user must be informed of the following regulations:

- the general risks when using the device,
- conduct in the chamber,
- option to leave the cooling chamber at any time when, for instance, discomfort sets in



Before entering the cooling chamber, care must be taken:

- that jewelry, watches, eyeglasses, etc. are taken off,
- that a mouth and nose cover is worn,
- that gloves, as well as ear protectors, or headbands are worn,
- that dry socks and closed shoes (without metal) are worn,
- that light sportswear is worn,
- that the user's skin must be dry when entering the chamber.



Cold air can escape when the cold chamber door is opened. Condensation and fog formation can make it difficult to recognize obstacles and cause slippery surfaces.

- Open the door only to enter or leave the chamber.
- Make sure that prior to entering and leaving the cooling chamber a slip-resistant surface is available.
- Make sure that escape and rescue routes are free.

4.4 Commissioning procedure

After switching on the power supply, the system is in standby mode. Prior to commissioning, the humidity in the cooling chamber must be checked and if necessary, removed. To do this, remove the loosely laid carpet.



The cooling chamber is started up from standby mode via the touch screen.

- When scheduling the first application of the day, the lead time of the system must be considered.
- With prolonged opening of the chamber door, the cooling chamber may warm up. It may take some time until the programmed temperature is reached again, and a further application can be carried out.
- If, during selection, two or more activation and switch-off time overlap, the cooling mode begins with the earliest time of the day and ends with the last entry.

4.4.1 Guide to starting

The cooling chamber is operated via the touch screen at the unit.

Optionally also via:

- a local device (smartphone/tablet/PC) via WLAN / local network

4.4.2 Local network and required applications

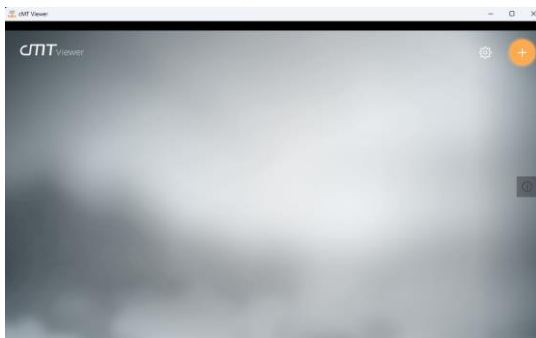
LAN network:

A local network for the connection to the LAN port, which is located at the cooling machine, must be available. The control of the cooling machine receives all required settings to enable connection with the network from your local network automatically via DHCP. Your WLAN must be in the same network as your local network.

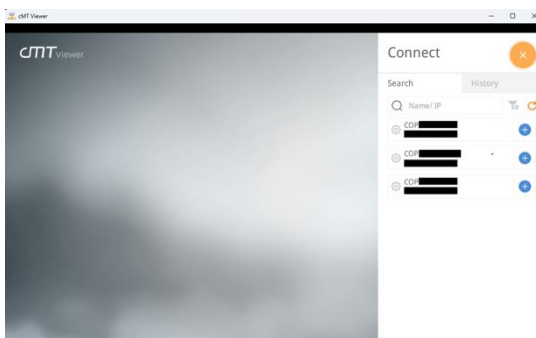
Application:

Connect your mobile device with your WLAN.

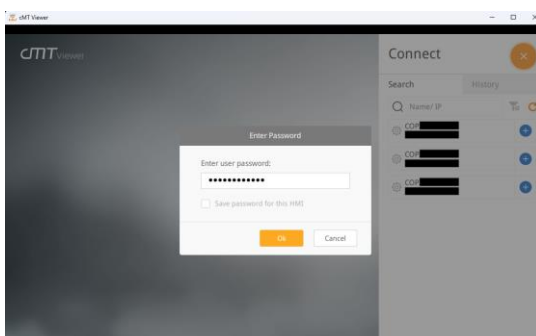
NOTE: The Single Room Chamber system must be switched on via the main switch. Your local network must be connected with the LAN port at the cooling machine. Load and install the cMT-Viewer app from the Google Play Store / Apple App Store or equivalent.



1. Open app
2. Press the orange button and search for your system name, this is the serial number of your device / cooling chamber.



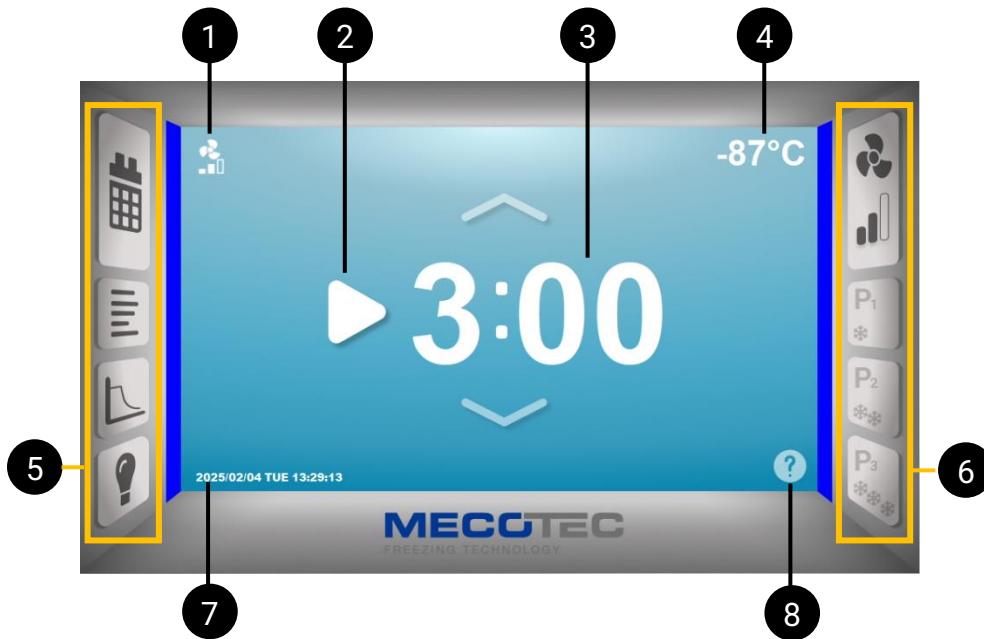
3. Push the blue button to establish a connection.



4. A password must be entered to connect. The default password corresponds to the serial number (combination of letters and numbers) of your refrigeration chamber. This can be found on the type plate, which is positioned on the left-hand door of the chiller. After confirming the password, the project file is loaded, and the runtime starts automatically.

4.4.3 Operation of the system

Use of the operator interface:



1 Fan level/programs display

2 Play button to start the application

3 Timer for setting the application time (setting the session duration by touching the number)

4 Temperature display in the chamber, can be displayed in °C and °F by touching it (see temperature display conversion → chapter 4.4.3 → “Customer Menu”)

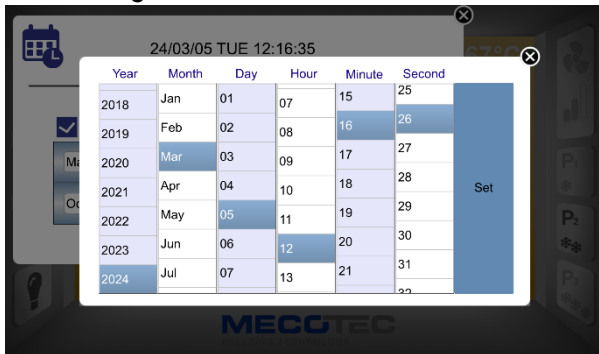
5 Sidebar on the left (with weekly planner, log, temperature curve and light control)

6 Sidebar on the right (with fan control and programs selection for the application)

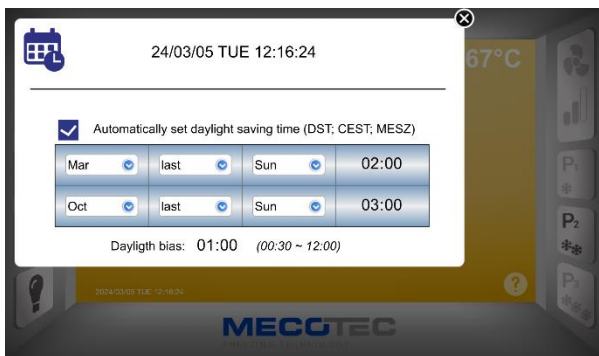
7 Date and time display and setting (local time)

8 Quick Start Guide

Initial setting of time and date:

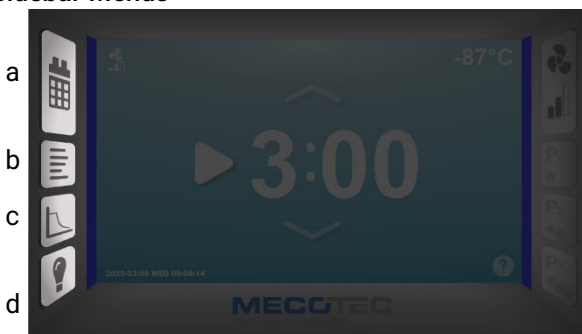


The dialogue field for "Enter date/time" can be called up by touching the displayed time **7**



It is possible to activate the automatic changeover between summer and winter time. To do this, tick the corresponding box and set summer and winter time via the drop-down menu.

Sidebar Menus



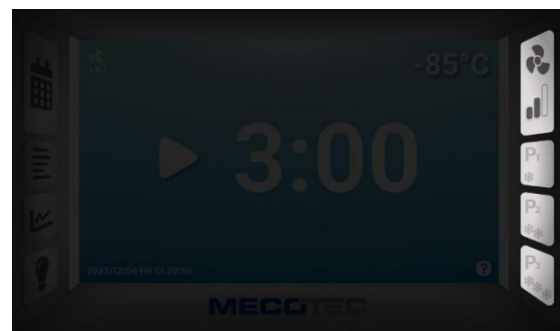
The left sidebar contains the following menu items:

- a Application time (weekly planner)
- b Log
- c Temperature curve
- d Light control

By clicking on the respective field, a pop-up window appears in the center of the screen.

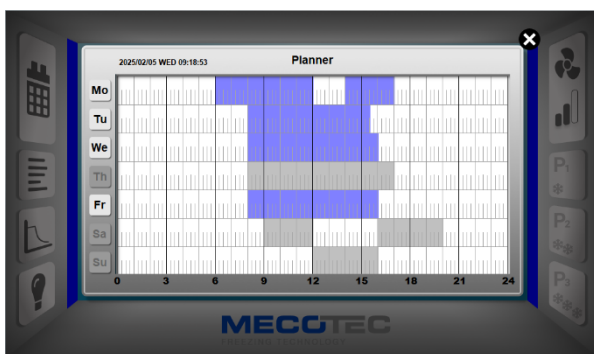
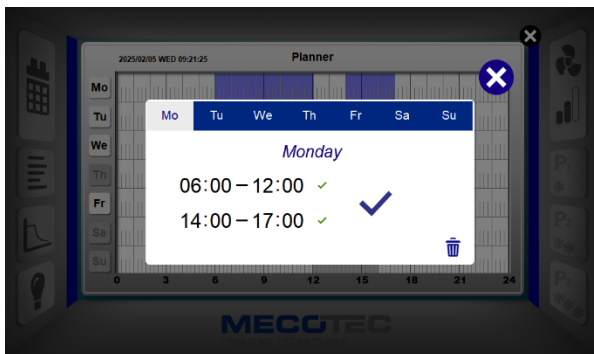
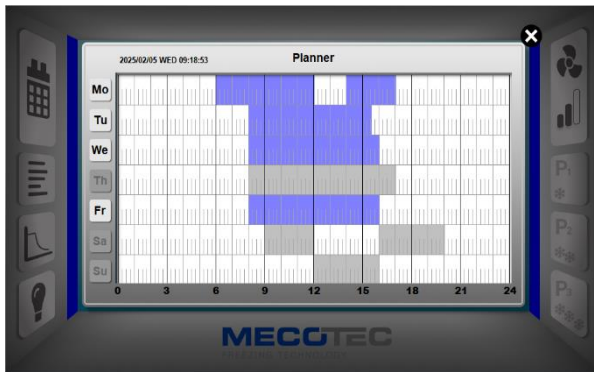
The right sidebar contains the following menu items:

- e Fan control
- f P₁ Beginner program
- g P₂ Experienced program
- h P₃ Professional program



Application times (a)

Note: The machine only starts after the timer has been configured and requires a lead time for the first application. Manual ON/OFF is not possible.



1. select your daily application interval:
Click on the calendar page at the top left of the sidebar, a weekly overview will open.
2. Tap on the overview to open the weekday selection tab;
A maximum of 2 daily application intervals can be set.
3. Changes in the appointment field are indicated by the button ✓ flashing.
The times can be entered in full and then confirmed with this button. ✓
Note: each input field must be confirmed with Enter.
4. Daily appointments for the selected weekday are deleted by pressing the 🗑️ button and must be confirmed by pressing the ✓ button. After confirmation, the content is deleted and the activation of the timer is also reset (see box for the corresponding day of the week on the left).
If “delete” has been activated by mistake, this can be cancelled with this button ↶ (if the detection has not yet been confirmed).
5. The respective weekday must be activated or deactivated in the checkbox on the left.

Please note:

The earliest possible start time that can be set for each day is 00:00.
The latest possible end time that can be set for each day is 11:59 PM.

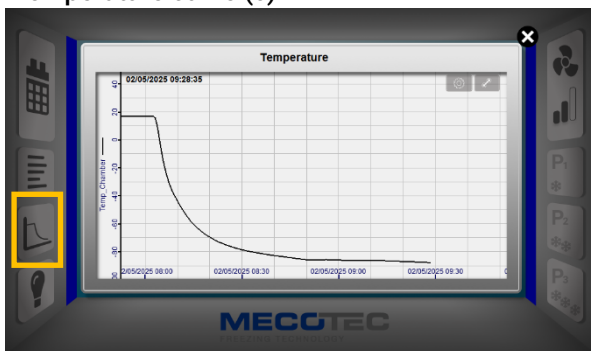
No cross-day appointments can be configured.

Log (b)



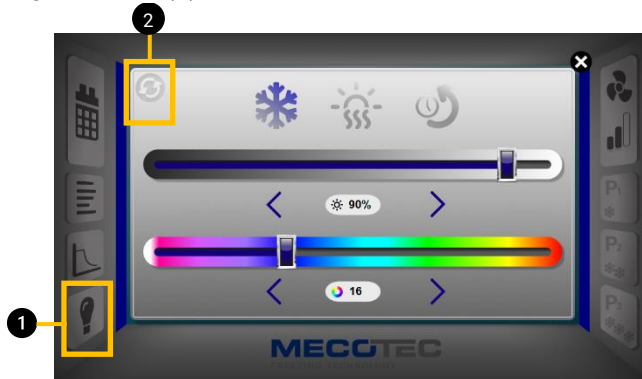
By selecting the log in the left sidebar, you can access a list of events on the following topics: session monitoring, event log, door monitoring and session report.

Temperature curve (c)



By selecting the temperature curve in the left sidebar, the temperature curve in the system is displayed as a diagram.

Light control (d)



Selecting the light control ① in the left sidebar gives you access to the settings for the LED light strips in the door. The colors for cooling ❄️, heating 🔥 and application 🌀 (top three symbols in the pop-up window) can be set here. This is done using the lower slider.

In addition, the brightness of the respective color can be adjusted in 10% increments from 10-100% using the upper slider. The LED controller can be restarted if necessary using the Refresh button ② if technical problems occur with the LED lighting.

Start application:



To start an application, press the "Play button".

Application readiness is indicated by the LED strips in the door and the "Play button" flashing. Only then is the timer started by entering the cold chamber and closing the chamber door.

Application readiness can be interrupted at any time by pressing the "Play button" again.

During an active application, the "Play button" changes to a "Stop button". The current application can be ended by pressing the "Stop button".

The progress of the application is indicated by the color change in the application in the illuminated chamber door from bottom to top. This progress is also visualized simultaneously on the screen to the left and right of the display.

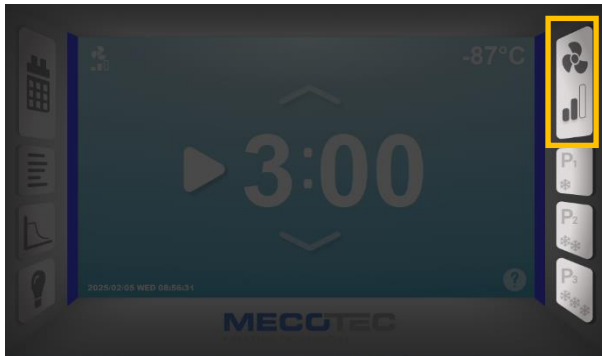
When the timer expires, a dynamic light sequence is played via the LED strips in the door and the chamber must be exited.

If the chamber is not exited within 20 seconds of the end of the application, the chamber signals a warning by means of an acoustic signal and red flashing LED strips in the door. A red warning symbol on the display of the control panel and any connected smartphones/tablets also warns the user.



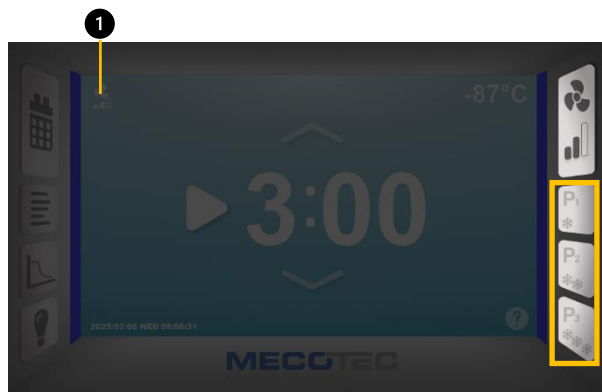
After activating the alarm function, the door of the cooling chamber must be opened and closed to reset the alarm function. This cancels the audible and visual signals.

Fan speed selection



By repeatedly clicking on the fan symbol at the top right, you can choose between the three different fan levels for the application. This setting is retained for the entire application. However, it is also possible to change the fan level during the application.

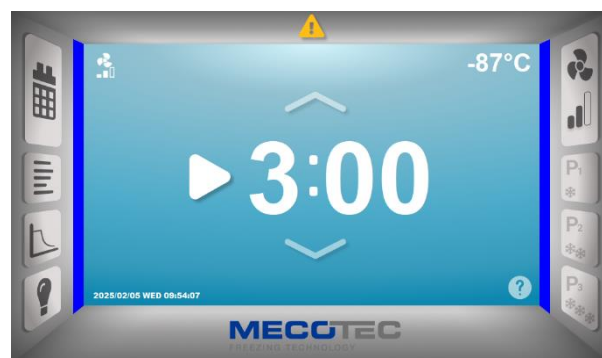
Programs with fan curve



The programmes P₁ to P₃ are stored with fan curves. The intensity is increased at the start of the application. Depending on previous experience and sensation of cold, you can choose between Beginner (P₁), Experienced (P₂) and Professional (P₃) programmes.

The active selection of the fan level or program is also displayed in the top left of the main screen. ①

Display and acknowledgement of errors



Pending alarms (except for the notice to leave the chamber) or faults are indicated by a flashing yellow warning symbol at the top center of the main screen.

Due to external circumstances or faults in the system (e.g. power failure), error messages may appear during operation.

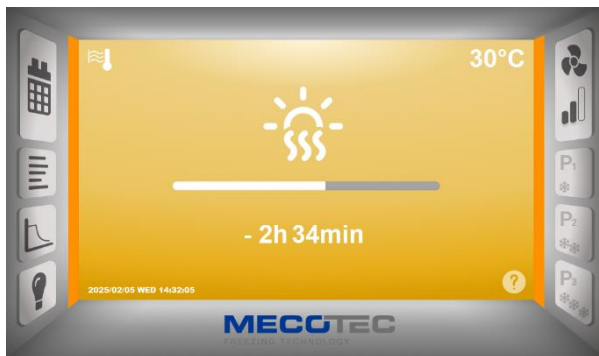
Press the warning symbol to open a pop-up window that displays "Pending alarms".

Alarms can be reset by pressing the "Reset button" after the problem has been resolved.

If the same error message occurs repeatedly, inform MECOTEC Service Support or another qualified person.

Additional measures must be agreed with the manufacturer.

Heating mode



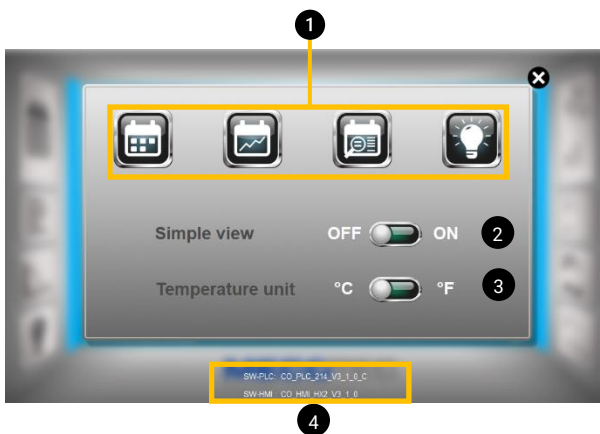
In heating mode, the display appears in a yellow colour and the chamber lighting appears in the colour set in the light control (see Light control). Drying / heating mode starts automatically at the end of each set day. The defrosting process is carried out. After the preset heating time has elapsed, the system switches to stand-by mode.

Login customer-menu



Press and hold the MECOTEC logo ① until the login window appears. Then press the 'Login' button ② to gain access to the customer menu

Customer menu



All functions ① for the weekly planner, temperature curve, event log and light settings can also be called up from the customer menu. When using the 'Simple View' in particular, these settings can only be operated from the customer menu.

In the customer menu, you can switch from the normal view to the simplified view using the toggle switch ②. The temperature display can also be switched from °C to °F using a toggle switch ③ in the customer menu. Information on the software revision can be read out in the area ④.

Overview Simplified view



1. fan control and program selection for the application
2. chamber temperature display
3. play button for establishing application readiness
4. display and setting of the application duration via arrow buttons ↑↓
5. display date & time

Note: In the simplified view, the date and time can only be displayed but not changed.

5 Shutdown and recommissioning

5.1 Shutdown

If the system is not used for a long time, it is recommended to decommission the system. The system may only be decommissioned in standby mode.

The decommissioning takes place in 3 steps:

Steps	Action
-------	--------

Step 1:	Terminate cooling mode.
---------	-------------------------

Step 2:	Complete drying of the chamber.
---------	---------------------------------

Step 3:	Turning off the entire system using the main switch at the machine cabinet.
---------	-----------------------------------------------------------------------------



Main switch OFF



Leave the door of the cooling chamber open the whole time after shutdown to ensure sufficient circulation in the cooling chamber.

5.2 Recommissioning after prolonged shutdown

Prior to recommissioning after a shutdown, the following conditions must be met:

- A user manual must be available.
- It is recommended to carry out a visual check of the system while paying attention to the following:
 - Inspection of the doors (condition of door seals)
 - Inspection of the electrical connection of the cooling unit
 - Check that the chamber is dry and clean
 - Check for visual damage

The recommissioning of the cooling chamber after a prolonged shutdown is to be carried out as follows:

Steps	Action
Step 1:	Main switch to ON; control starts automatically.
Step 2:	Check the starting screen at the touch screen to see if there are any error messages, if necessary, confirm the error message. If error messages reoccur repeatedly, stop the commissioning, and contact the manufacturer.
Step 3:	Leave the system in standby operation for at least 4 hours to preheat the oil in the refrigeration compressors.
Step 4:	Prepare the chamber for use. Step-by-step instructions can be found in Chapter 4.1.

6 Cleaning and service

6.1 Cleaning

Ensure that the chamber has run through a complete drying cycle before you start with the cleaning.

CLEANING INTERVAL

Cleaning should be carried out in regular intervals, depending on use. It is recommended to carry out a thorough clean-up at least once a month.

CLEANING STEPS

It is recommended:

- to wipe the floor of the chamber with a damp mop or cloth after removal of the carpet and dried
- to vacuum the carpeted floor
- to clean the doors and walls of the cooling chamber from the inside with a mild household cleaning and a soft cloth
- to clean windows and glass doors with a glass cleaner
- to clean the chamber from the outside with a damp, lint-free cloth
- to allow the chamber to dry completely prior to recommissioning

6.2 Inspection and maintenance



WARNING

If maintenance and repair works are not carried out or not carried out properly, the operator and third parties may be endangered.

The maintenance should be carried out at regular intervals and only by the manufacturer or qualified personnel.

Unauthorized or incorrect maintenance or repair inevitably leads to the loss and exclusion of liability and warranty.

The machine cabinet must be closed and may only be opened by qualified persons. The machine cabinet can only be opened when the main switch is in “zero” position. The entire cooling system is switched on or off via a main switch in the machine cabinet.

6.3 Contact

MECOTEC GmbH
Sonnenallee 14-30
06766 Bitterfeld-Wolfen
Germany

Phone: +49 (0)3494 7888 200

E-Mail: support@mecotec.net

Website: www.mecotec.net

7 Disassembly and disposal



Improper disassembly may result in personal injury and damage to the system. Assembly and disassembly work may only be carried out by MECOTEC or qualified persons.

Disassembly and disposal must be carried out in accordance with the regulatory and legal requirements of the system location. Such disassembly and disposal can be carried out by MECOTEC (surcharge).



Leakage of coolant may displace atmospheric oxygen. Pay attention to the following specifications during disassembly and disposal:

- the system components must be considered to be under pressure even after they have been disconnected from the power supply,
- the coolant and the oil must be drained and disposed of by a qualified person prior to the disassembly of the unit.

8 Annex

	cryo:one	cryo:one+	cryoair flex
	Chamber in regular design or as a corner solution		
System description	Purely electrically operated whole-body cold system with highly efficient cold generation		
Air temperature in chamber	down to -85°C / -121°F		
Pre-cooling time approx.	appr. 50 min	appr. 40 min	appr. 60 min
Operating time/day¹	5 h	10 h	10 h
Number of runs/h	5	10	10
System dimensions overall (WxDxH)	1200 x 1850 x 2470 mm / 3'-11" x 6'-1" x 8'-1"	1500 x 2150 x 2520 mm / 4'-11" x 7'-1" x 8'-3"	-
Application room dimensions (WxDxH)	900 x 900 x 2050 mm / 2'-11½" x 2'-11½" x 6'-9"	1200 x 1200 x 2050 mm / 3'-11" x 3'-11" x 6'-9"	-
Overall weight	590 kg / 1,301 lb.	850 kg / 1,874 lb.	-
Standard chamber dimensions overall (WxDxH)	-	-	1500 x 1500 x 2630 mm / 4'-11" x 4'-11" x 8'-7½" // 430 kg / 948 lb.
Chamber extendable in 100 mm / 3.937 inch stages (WxDxH) / max. Weight	-	-	2000 x 2000 x 2830 mm / 6'-7" x 6'-7" x 9'-3½" (max. size) // 600 kg / 1323 lb.
Unit incl. control dimensions / weight	-	-	1200 x 700 x 1600 mm / 3'-11" x 2'-3½" x 5'-3" // 500 kg / 1102 lb.
max. distance unit --> chamber	-	-	15 m / 49 ft.
Supply voltage²	380-400 V/3/50 Hz - 460 V/3/60 Hz		
Voltage range	340-440 V@50 Hz - 414-506 V@60 Hz		
Power connection	32 A		
Heat exchange (optional consumption-free with closed system)	Water		
Water inlet and outlet	G1" at the top of the unit, flow temperature max. 30°C / 86°F at min. 2 bar / 29 psi pressure		
Water consumption³ in liters/hour // US liquid gallons/hour	172 // 45	196 // 52	185 // 49
Internet connection	LAN cable RJ45 on the top of the unit		

¹ Operating time is dependent on the number of applications carried out and can be restarted after drying.

² The voltage can be adjusted with transformers to virtually any available voltage. Please inquire about your options.

³ The basis is the average recooling capacity to be dissipated at a maximum operating time at 10°C / 50°F water inlet temperature. The actual water consumption depends on the operating mode of the system.