MINICHILLY ICECHILLY

GB

INSTRUCTION MANUAL
COMPACT COOLING UNIT

MINICHILLY / ICECHILLY

BEDIENUNGSANLEITUNG - INSTRUCTION MANUAL – INSTRUCTIONS DE SERVICE – MANUAL DE INSTRUCCIONES

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QUANTOR

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The described cooling unit may only be put into operation, if the operator is sufficiently trained and the operating and maintenance personnel have studied this instruction manual in detail.

1. Safety instructions

1.1 Installation and commissioning

Place the unit on a plain, dry and clean place. Pay attention that the connecting cable is untangled and free and that nothing is resting on it. For direct product cooling use the cooling coil offered by the manufacturer only (optional item). It is imperative to provide sufficient ventilation of the unit. The ventilation slots must remain free for sufficient evacuation of heat. No objects may be placed under the unit!

The following safety measures must be observed:

- Min. water temperature: -6 °C (with propylene glycol)
- Max. water temperature: +30 °C
- Max. ambient temperature: +32 °C
- **ATTENTION: For cold water temperatures below 0 °C it is mandatory, to add 30 % of propylene glycol to the cooling water !**
  Note: There can be no ice bank building when using Glycol.
- Keep the unit clean from any dirt, fiber etc.
- Make sure to connect the unit to the required supply voltage
- Protect the unit from moisture, no fluids may enter the electric parts
- Observe the warning and safety information on the electrical components and in this instruction manual

1.2 Safety information

The unit should be connected and operated by trained personnel. Adjustments, maintenance and repairs should be performed by qualified personnel.

Correct function and reliability of operations of this unit can only be warranted, if during operation and service the general common saftey precautions, as well as the specific safety instructions described in this manual will be carefully observed.

Handling and treatment of the unit not according to the safety instructions required for electrical appliances and the instruction in this document may result in severe bodily harm which is not under the responsibility of the manufacturer. Injury and property damage can accure through:

- inappropriate operation
- incorrect installation or operation
- improper removal of the necessary protective cover or housing, wetting the electrical parts
- Opening of the unit during operation, which is prohibited

1.2.1 Impairment of safety

If the unit is damaged, it must be unplugged, set aside, marked to warn others against using it, and a technician must be called before it is returned to operation. Using the unit if it is damaged is unsafe and therefore stricktly prohibited.

1.2.2 Safety instructions

The unit may only be operated after an appropriate protection earth has been connected, and the directions of the country of destination, regional regulations as well as manufacturer's safety instructions have been observed.

1.3 Spare parts

If assemblies or parts are replaced, only use identical assemblies or parts from the manufacturer.

1.4 Transport/Storage

Check your unit for damaged on arrival, and note any damages found in the delivery note before signing for it, so you may claim the from the transport company. Postpone commissioning it until you have consulted with the manufacturer. The unit may only be stored in a dry, dust-free environment at temperature of 0°C to 40°C.

1.5 Electrical installation

All electrical installations are to be carried out by qualified personnel, under the conditions:

- The electrical unit has been unplugged from the electric socket and secured against unintentional resetting
- Disconnection from electric power has been verified.
- It is ensured for the operation of this control system that also the additional designated monitoring and saftey fuse has been installed in a professional manner.

The installation is made with compliance to national and the manufacturer's safety standards.

1.6 Service

All information in this instruction manual regarding service work must be strictly observed.

2. Intended use

The cooling units MiniCHILLY and IceCHILLY are suitable for the cooling in process for the production of beverages. With the additional stainless steel cooling coil (as option), liquids can be cooled directly (see safety instructions, min./max. water temperature). The cooling units are only authorized for the above mentioned range of application. They are not suitable for cooling hot liquids, chemicals or the like.

3. Commissioning

1) Remove the lid and fill the water tank with water up to the maximum mark (see water level device at the MiniCHILLY units). Close the lid.

Never operate the unit when it is open with the lid removed!

2) Connect the water pipes, check for possible leaks

3) Establish the electric network connection (see 1.5 Electrical installation)

4) Start the pump (switch on the pump switch next to the controller)

After start-up of the pump the liquid level may drop as the tubes which are outside of the unit will start filling with water from the unit container. In this case the liquid level has to be checked and if necessary water has to be refilled. If you are using Glycol, ensure 30% concentration in the water of your installation (unit and pipes). **Never** operate the unit with a liquid level beneath the lowest water level mark "min“ (at MiniCHILLY units) or the water tank must be filled with sufficient water all the time in order to protect the unit e.g. against damage to the pump.

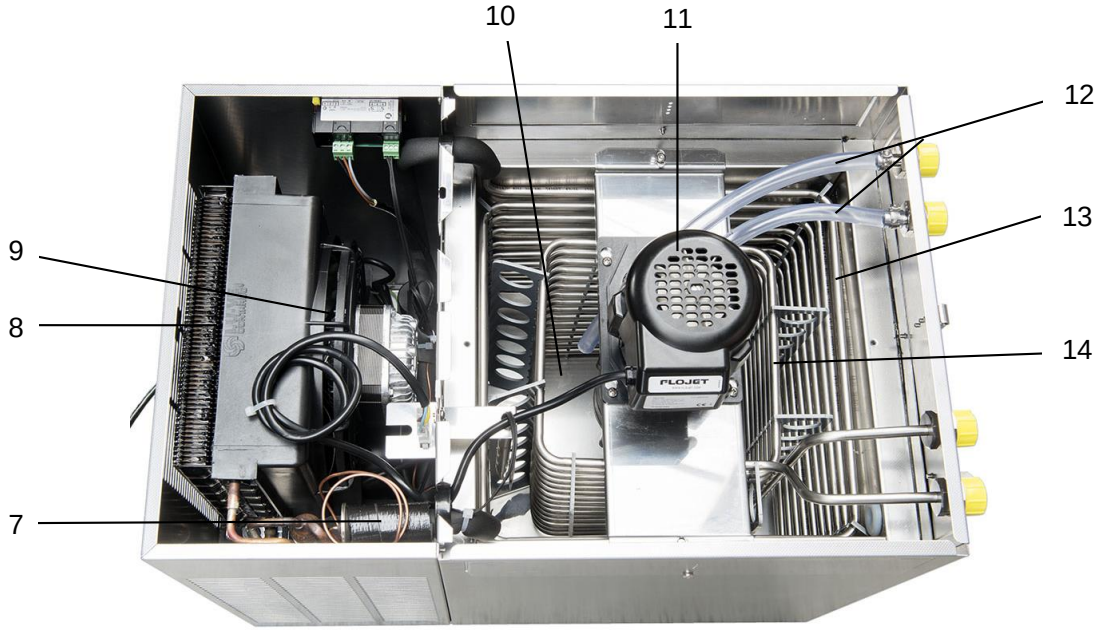
5) Adjust the required temperature on the thermostat (see 5. temperature setting). After reaching the adjusted set-point temperature the unit is ready for operation.

3.1 Connection

Verify that all connections are sealed. No dirt particles may gain access into the pipes.

3.2 Chart

1	Water level device and tank emptying (only MiniCHILLY)	4	Electric motor of the pump
2	Connection 3/4"	5	Thermostatic controller
3	Cover fastener		



7	Expansion valve	11	Submersible pump
8	Condenser	12	Hoses for water circuit
9	Fan	13	Evaporator (cooling circuit)
10	Water tank	14	Cooling coil (optional)

4. Decommissioning

- Switch off the unit and disconnect the power plug.
- Remove the pipes/hoses from the unit.
- Draining and cleaning of the unit by qualified personnel.

5. Temperature setting

Thermostatic operation: adjust the desired set-point temperature at the controller (5).

Never operate the unit when it is open with the lid removed!
Make sure that the lid is fastened before switching the unit on!

For ice bank building

- Ice bank will be build approx. 2 hours after starting the unit
- Recommended set-point temperature for using an ice bank: -1,0 °C (30,2 °F)
- **ATTENTION: to avoid damage on the unit (internal freezing) => Never let the working machine unattended over a longer time (cooling without glycol in the water)**

For required cold water temperatures down to -6 °C (21,2 °F)

- For cooling temperatures down to -6 °C (21,2 °F) use a glycol-water mixture (min. 30 % propylene glycol)
- No ice bank building possible due to the anti-frost qualities of the glycol

1.0 Buttons and LED Eliwell

To activate the LOC function: - Call up the "Basic commands" menu with the key. set

Within 2 seconds, press the "Standby)" and operate .

If the LOC function is activated, the LOC display appears when an attempt is made to access the "Parameters" menu. In this case, the parameters can be viewed but not changed.

To unlock the keyboard, repeat the above procedure.

When the instrument is switched on, a lamp test is performed; the display and led flash for a few seconds to indicate their correct operation.

Press and release Scrolls through the menu options Increases the values

Press for at least 5 s

Activates the manual defrost functionP

DOWN

Press and release

Scrolls through the menu options Decreases the values

STANDBY (ESC)

Press and release

One level higher than current menu

Accept parameter value Press for at least 5 s Activates STANDBY function (if not within the menus)

Press and release

Display of alarms (if present) Access to menu Basic commands Press for at least 5 s

Access to programming menu Confirmation of commands

Compressor led

Permanently lit: Compressor on Flashing: Delay, protection or

Activation blocked

Led alarm

Permanently lit: Presence of an alarm

Flashing: alarm cleared

2.0 Set basic Function

The WTG Quantor multifunction controller has three functions:

APP 1 Ice bench controller

APP 2 Temperature controller for wet cooler

APP 3 Temperature controller for dry cooler

The selected function is set when booting the controller:

set Press and hold, at the same time connect the power supply to the controller or the chiller.

After the functional test of all displays, the display will show APP 1, 2, 3.

set let go

or Press to select the corresponding function.

The input is confirmed by the controller with "Y".

Please note! The functions can only be put into operation if the corresponding sensors are installed.

3.0 Programming Menu.

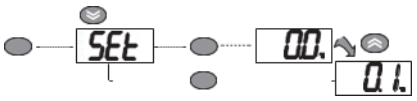
The resources organized in menus can be accessed by pressing and releasing the set

(menu "Basic commands") or by pressing the key for more than 5 seconds. set
("Programming" menu) can be accessed.
If the keyboard is not used for more than 15 seconds (timeout) or after pressing the key once
the last value shown on the display is taken over and the previous display is shown again.

4.0 Set Point Adjustment

To display the set point, press "SET" when the label is displayed.
The setpoint appears on the display. To change the setpoint within 15 seconds, press the keys

and press. The change by pressing set take over.



6. Cleaning of the cooling unit

Casing: Before cleaning the units disconnect the mains plug! Please do not use water directly on the unit, clean only with a wet cloth and a little dish liquid. The cleaning of the units and the beverage coils have to take place according to the instructions of the industrial safety regulations.

Prevent any moisture from getting into the electric part of the unit!

The condenser should be cleaned at regular intervals (min. every six months) by qualified personnel to remove the accumulated air dust.

7. Troubleshooting

Error	Possible cause	Error correction
• **The unit does not start**	• No mains connection • No water in the tank • Thermostat is disconnected • Thermostat does not close circuit • Starting device at the compressor is defect • Interference of the compressor (interwinding fault)	• Establish main connection (plug the unit) • Fill in water • Switch on the Thermostat • Change the Thermostat • Exchange the starting device (relay and condenser) • Change the compressor
• **Unit is running, but does not cool**	• The condenser is blocked with dirt • Failure of the condenser fan • Leakage in the refrigeration system • Compressor interference	• Clean the condense • Exchange the fan • Repair the leakage, evacuate gas, and fill with the refrigerant gas (R134a) • Exchange the compressor
• **Unit does not switch off**	• Thermostat defect • Leakage in the refrigeration system • Cooling demand is to large	• Exchange Thermostat • Repair the leakage, and fill with the refrigerent (R134a) • Control the cooling demand and if necessary reduce the cooling load

All these works have to be carried out by skilled and qualified personnel!

Should it not be possible to take care of the failure, please contact the responsible service.

8. Noise emission

70 dB (A) data according to EN 292 part 2 A1
At level, which are lower as or equal 70 dB (A), the inscription "70 dB (A)" is adequate.

9. Technical Data

		MiniCHILLY 03	MiniCHILLY 05	MiniCHILLY 09	MiniCHILLY 17	IceCHILLY 33	IceCHILLY 77
Refrigerant R		290	290	290	290	290	134a
Cooling capacity (0°C water temp.)* [W] 50Hz		320	312	510	890		3570
Cooling capacity (15°C water temp.)* [W] 50 Hz		460	588	755	1650		7000
Cooling capacity (0°C water temp.)* [W] 60Hz			380	610	1050	1910	4280
Cooling capacity (15°C water temp.)* [W] 60 Hz			650	900	1920	3300	8000
Water tank volume [L]		6,3	27	27	63	67	320
Water connection		3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
Dimensions	**Length [mm]**	390	700	700	750	1040	1075
	Width [mm]	295	370	370	400	530	920
	Height [mm]	325	495	495	550	550	785
Weight empty [kg]		21	40	40	51	91	175
Ice bank [kg]		1,2	8	8	12	25	100
Connected load [W]		250	350	490	730	1600	3050

* at 32 °C surrounding temperature

- Cooling circuits: 1 (type MiniCHILLY), 2 (type IceCHILLY)
- Evaporator: 1.4301 (stainless steel)
- Casing: Stainless steel
- Frequency: 50/60 Hz
- Voltage: 230 V / 1 Ph
- Submersible pump with stirrer (see manufacturer)

10. Declaration of conformity

We, WTG-Quantor GmbH, D-54343 Föhren, declare in sole responsibility that the cooling units MiniCHILLY 03, MiniCHILLY 05, MiniCHILLY 09, MiniCHILLY 17, IceCHILLY 33 and IceCHILLY 77, which this declaration refers to, comply with the following standards and normative documents.

- EN 60204-1 (VDE 0113)
- DIN 6650

In accordance with the low-voltage directive 2014/35/EU, EG 1935/2004.

This declaration becomes void for any modification of the units not agreed with us.

Föhren, 06.06.2016

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Markus Milz
Managing director WTG-Quantor GmbH

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