

CIRCULATION CHILLER COR 400

User manual

CE

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1. INTRODUCTION

The Chiller is designed to cool the cooler rotary vacuum evaporator (it can also be used for two rotary evaporators together). The chiller can be used for other device which need cooling. The control module controls temperature in the cooling tanks. The chiller is designed as a single functional instrument.



Warning :

Using devices other than as described in the instructions can cause security breaches!

2. DESCRIPTION AND SPECIFICATION

2.1 Description

The instrument consists of a box in which is thermostatic tank, as a source of cold a modern compressor cooling unit Lindr is used that uses the input electric energy for direct transfer to chilling. Cooling loop in a thermostated tank is made of stainless steel. Cooled thermostated tank is equipped with a circulation pump. Temperature control and cooler run is through digital thermostat.

Used materials meet the highest requirements for hygiene standards and guarantee a long working life of this cooler.

Two grips located on the sides of the cooler facilitate handling.

2.2 Specification

Performance	.1/4 HP
Performance $22^{\circ}C =>7^{\circ}C$. 80 l/hour
Minimum temperature	. 1°C for water
Minimum temperature	-20°C for antifreezing mix
Regulation accuracy	.±1°C
Volume of cooling tank	201
Displacement pump	7 m
Pump flow	120 l/hour
Cooling gas	R 290
Power supply	230V, 50Hz
Power	max. 391 VA
Weight	29 kg
Dimensions (w x d x h)	530 x 330 x 474 mm

The instrument is designed for an ambient temperature 15 - 35 °C; with humidity up to 80% without acid and caustic vapors.

3. COMMISSIONING

3.1 Unpacking

Carefully unpack the instrument from the shipping container. Check the exterior of the instrument, suffer during the transport from visible damage. Should any damage occur during the transport, contact the shipping company.

According to the delivery note check all items. In case of discrepancy carefully inspect all packing material. If any item is missing, contact the manufacturer or your supplier.

Place the instrument on the table and familiarize yourself with the distribution and function of the controls and connections. Before operating read the instructions of this manual thoroughly.

Place the chiller so that the heat generated by the chiller may be sufficiently ventilated, must not be placed near radiant heat or direct sunlight. The chiller should be placed on a horizontal surface. Do not place objects the chiller that would prevent air circulation. The chiller can in no case be put on its side even during transport!

3.1.1 What you will need

To put into operation, you will need the following items:

- 1. Tubing with insulation and couplings for connection to a rotary vacuum evaporator cooler.
- 20 25 liters of antifreeze with a freezing point of about 5°C lower than the lowest temperature set on the thermostat. When setting the lowest limit of temperature of 1°C and above, you can be used water.

Fill the plastic tank with liquid to the overflow.

3.1.2 Connecting elements, instrument assembly

The power switch is located on the panel (green with glow lamp). Furthermore, on the panel is switch displacement pump (red with glow lamp) and a temperature controller.

Cooled liquid output is in labeled outlet. Returning liquid input is in labeled input. Using the supplied hoses and couplings assemble the cooling circuit and check the connection hose. Hoses must be straight cut-away in the event that it can not be inserted into the coupling, it is necessary to moisten the end.

3.2 Temperature controller

Display along with a button keyboard provide user comfort for direct control.

The function of the individual keys is as follows:

\bigcirc	Button to turn on/ turn of temperature control.
Set	Button to enter the setup mode.
Û	Setting button.
Ţ	Setting button.

Setting parameters

- Enter the setup mode. Press the SET button for more than 5 seconds, the LED turns on lights up and displays the set temperature.
- 2. Setting the temperature. Use the settings button to set the desired temperature.
- Leave the settings mode.
 Press the SET button more than 5 seconds, or in 30 seconds the thermostat (when there is no button operation) will return to normal operating mode.

Entry to the mode menu

- 1. Entry to management menu Press the SET button and setting button **1** for more than 5 seconds, the LED lights and the display shows the code F0.
- 2. Setting parameters Setting buttons to select the code and press SET button.
- 3. Change settings Setting buttons to set the parameters of the selected code.
- 4. To return to the parameter setting Press the button SET.
- 5. Leave the setting mode

Press the SET button more than 5 seconds, or in 30 seconds the thermostat (when there is no button operation) will return to normal operating mode.

Setting item	Range setting parameters	Factory setting	code
Temperature difference	1°C ~ 16°C	1°C	F0
Compressor delay	0 ~ 9 minute	0 minute	F1
Lower limit temperature	up to -40°C	-20°C	F2
Upper limit temperature	up to +70°C	20°C	F3
Selectable mode	1:cooling; 2:heating; 3:alarm	1	F4
Temperature calibration	$-5^{\circ}C \sim +5^{\circ}C$	0	F5

3.3 Switching on the instrument

The procedure to turn on the instrument is as follows:

- 1. Plug the instrument into the mains with corresponding voltage.
- 2. Check hose connections.
- 3. Turn on the power switch.
- 4. Set the temperature regulator.
- 5. Turn on the circulating pump.

4. ROUTINE MAINTENANCE AND SERVICE

At the latest after six months of operation, replace the contents of the bath. Periodically check the cleanliness and filling of bath. During sanitizing the water temperature must not be higher than 40°C. Cleaning of all external surfaces of the instrument should be done with a soft cloth. You can use common cleansers. Do not leave the instrument on a surface contaminated from corrosive substances. This could cause damage of paint on the instrument. The surface of the instrument clean with a soft cloth.

Cleaning the condenser perform at least 1x per month by sweeping, or air pressure, or CO_2 . Fan cover by pulling upward pull of metal trails. Unscrew the fastening screws from the cooler on the condenser side. Loose cover first pull up upwards 3 cm, than pull to the side. Loosen the other side of the cover so that you can pull the whole cover of metal trails. Now you can clean the condenser.

Warning: When cleaning, unplug the instrument!





Ejecting the fan





Putting the fan in place

Unscrewing the cover



Removing the cover



Condenser ready for cleaning

5. ACCESSORIES

2 pcs Set of hoses and couplings for connection RVO 400

6. WARRANTY, OPERATING CONDITIONS

For the instrument the manufacturer provides a warranty of two years from the delivery to the customer. The instrument may be used only in the manner described in this manual. The producer is not liable for damages resulting for failure to comply with the conditions set in this manual.

The instrument is designed for an ambient temperature 15 - 35 °C; with humidity up to 80% without acid and caustic vapors. The inlet cord plugs into a socket circuit featuring protection 16 A.

All warranty and post warranty repairs are to be performed by the manufacturer, or its authorized body.

Warning!

For using water as coolant, set in mode F2 lower limit of the temperature at 1°C and above.

7. WASTE DISPOSAL

At the end of life discard the instrument according to valid regulations on waste or return to the vendor or producer for liquidation.

The instrument contains a cooling gas R 290. The instrument is destroyed as electronic waste.

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