



Installation-, Operation- & Maintenance Instruction

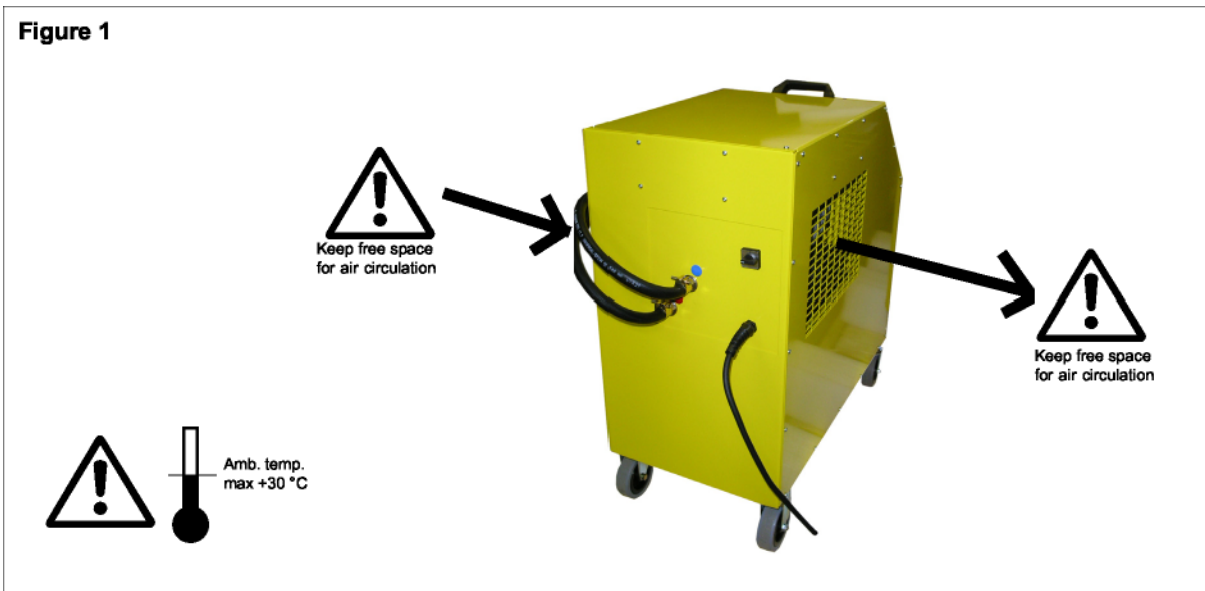


WP 20SC

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Figure 1



Safety Instructions



The unit is not a dangerous product but there may occur dangerous situations if the unit is incorrectly installed or incorrectly used. We recommend that you read the complete installation, operating and maintenance instruction before the installation starts. Special attention should be paid to the warnings and instructions below.



- Don't lift in- or pry the pipes! This can result in a leakage of refrigerant. In case of leaking refrigerant, there is risk of frost-bites and/or burns if a person is in direct contact with refrigerant in hot gas or liquid phase.
- Operations in the refrigerant circuit may only be carried out by certified companies.
- The refrigerant in this unit should not be released into the atmosphere.
- The refrigerant in this unit is of HFC type and is completely free from Freon.
- The refrigerant is not directly health-endangering and have a very small impact on the green house effect.
- The refrigerant in this unit should not be replaced by other types of refrigerant without approval from a surveyor, owner/user and manufacturer or installation contractor.
- When operations in the refrigerant circuit is required, be aware of the risk for frost-bites and burns in case of out leaking refrigerant.

Other Safety Instructions to Follow

- National laws, regulation codes and rules.
- Regulations, standards and normative documents listed in the EC - Declaration of Conformity.

Description of the Unit

The chiller unit is designed to cool down a brine within a temperature range of ± 0 to $+20$ °C.

The chiller is air cooled and should therefore have a free space on both sides in order to get the necessary air stream through the unit. The chiller can be stored within a temperature range of -20 to $+70$ °C. The working ambient temperature is limited to $+15$ to $+30$ °C.

The chiller is designed for indoors use. The sound level is less than 70 dB(A).

Unpacking

Please verify that the number of pieces corresponds to the packing list and that the material is undamaged.

In case of transport damages the transporter should immediately be contacted.

Installation

Remember to keep a free space on the chillers both sides to get a free air-circulation (figure 1).

Connect the external brine circuit to the pipe ends on the rear of the chiller. Notice the flow directions (figure 2).

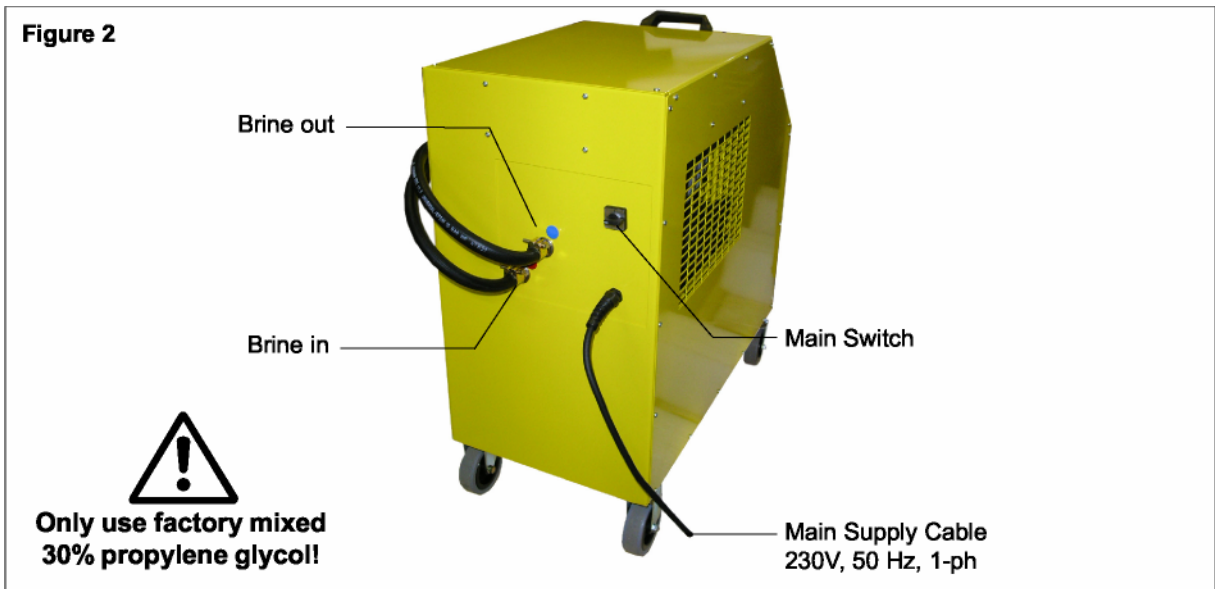
Please verify that the main switch on the chiller is in position "0" and then connect the main supply cable to an circuit breaker or approved socket plug.

Remember the high voltage. In case of electrical work or service the circuit breaker should also be switched off or the supply cable be unplugged from its wall socket.



Starting Up the Unit

- Turn the main switch in position "1"



Set Point Adjustment

- Open the upper door and locate the thermostat (figure 3).

The thermostat is from factory set to ± 0 °C. It is possible to set the thermostat between ± 0 to $+40$ °C.

Final Control

The cooling unit is at deliver pre filled with 30% propylene glycol. Depending on how long the pipes are, you may have to fill the unit with additional brine.

- Open the front door.
- Unscrew the top of the storage tank.
- Fill up with factory mixed 30% propylene glycol.
- Put everything back in reverse order.

Verify that the compressor, fan and pump starts when cooling is required. The pump is controlled by a separate signal and it is possible to run the pump when the compressor and fan is not running.

Operation and Maintenance

The chiller is on the front equipped with the following controls:

- Main switch, turning the unit on/off
- Behind the front door:
 - Thermostat
 - Storage tank

Description of Components

Main switch

The main switch cuts the main supply to the unit.

In case of electrical work or service the circuit breaker should also be switched off or the supply cable be unplugged from its wall socket.



Thermostat

The thermostat controls the temperature in the storage tank. It is factory set to ± 0 °C. To change the set-value you have to open the upper door (figure 3).

Brine

When running the unit around ± 0 °C or below, it is most important to use a brine with antifreeze protection.

In this application we use 30% propylene glycol. It is most important to use factory mixed brine to make sure that the plate heat exchanger does not burst.

Failure to do so will void warranty.

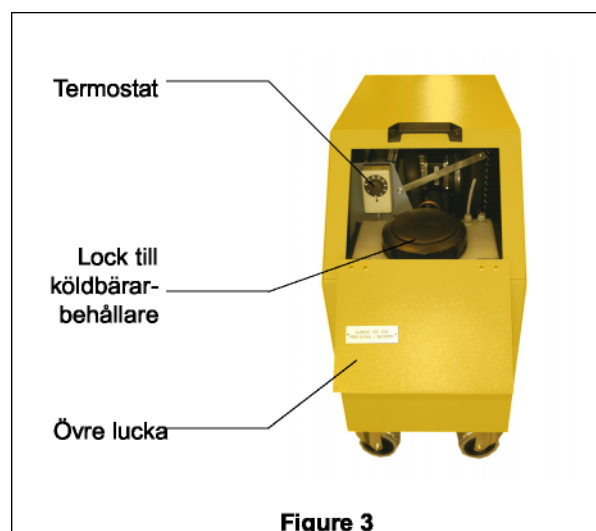
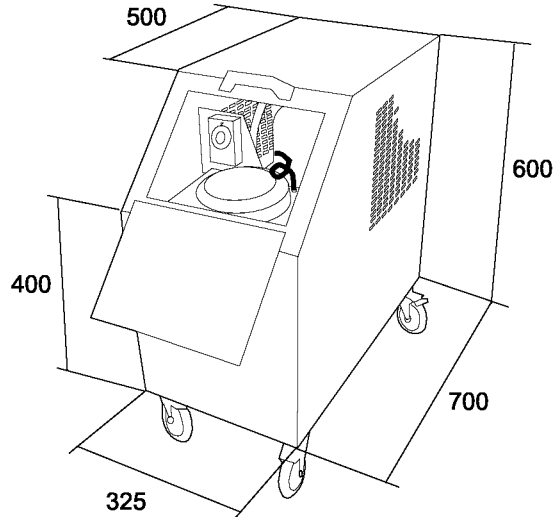


Figure 4



Maintenance

We recommend that you do some quick controls of the unit on regular basis.

Please check that:

- No objects are obstructing the air circulation on both sides of the chiller.
- The condenser is not clogged with dirt.

- The condenser fan is working properly.

Cleaning of the Unit

If the unit has to be cleaned, use a damp cloth with a mild detergent.

In case of malfunction

Always check that:

- The supply cord is connected and the circuit breaker is switched on.
- The fuses into the unit is not blown.
- The main switch of the unit is turned on.
- The operating thermostat is turned to "cooling position". I.e. set to ± 0 °C.

- The ambient temperature is not above +30

°C. In case of service

Always consult an authorized refrigeration technician for your service! Ask for a written report on what has been carried out.

See also electrical wiring diagram and data sheets...

Technical Data

Physical (figure 4)

Length	700 mm
Width	325 mm
Height	630 mm
Weight incl. 18 l prop. glycol	96 kg

Brine side

Storage tank volume	25 litre
Connection to brine water	1/2"

Cold side

Cooling Capacity	2,0 kW (+2/+40 °C)
Refrigerant	R-404A
Refrigerant charge	0,425 kg
Max working pressure	
Low side	18 bar(e)
High side	30 bar(e)
Test pressure	
Low side	24 bar(e)
High side	39 bar(e)

Electrical

Main supply	230 V
Phase	Single
Frecuence	50 Hz
Fuse	10 A
Max power input	1,5 kW
FLA	8,15 A
LRA	22 A



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