

Technical Specification for Water Cooled Screw Chiller

General

The water cooled screw chiller will be designed and manufactured in accordance with following European directives:

Construction of pressure vessel	97/23/EC (PED)
Machinery Directive	2006/42/EC
Low Voltage	2006/95/EC
Electromagnetic Compatibility	2004/108/EC
Electrical & Safety Codes	EN 60204-1 / EN 60335-2-40
Manufacturing Quality Stds	UNI - EN ISO 9001:2004

The unit will be tested at full load in the factory at the nominal working conditions and water temperatures. Before shipment a full test will be held to avoid any losses.

Chiller will be delivered to the job site completely assembled and charged with refrigerant and oil.
Comply with the manufacturer instructions for rigging and handling equipment.

The unit will be able to start up and operate as standard at full load and condenser entering fluid temperature from °C to °C with an evaporator leaving fluid temperature between °C and °C

All units published performances have to be certified by **Eurovent**.

Refrigerant

Only HFC 134a will be accepted.

Freeze protection

- ✓ Number of water cooled screw chiller:
- ✓ Cooling capacity for single water cooled screw chiller: kW
- ✓ Power input for single water cooled screw chiller in cooling mode: kW
- ✓ Plate to plate evaporator entering water temperature in cooling mode: °C
- ✓ Plate to plate evaporator leaving water temperature in cooling mode: °C
- ✓ Plate to plate evaporator water flow: l/s
- ✓ Shell & tube condenser entering water temperature in cooling mode: °C
- ✓ Shell & tube condenser leaving water temperature in cooling mode: °C
- ✓ Shell & tube condenser water flow: l/s
- ✓ The unit should work with electricity in range 400V ±10%, 3ph, 50Hz without neutral and shall only have one power connection point.

Unit description

Chiller shall include as standard: 1 or 2 independent refrigerant circuits, semi-hermetic rotary single screw compressors, electronic expansion device (EEXV), direct expansion plate to plate evaporator and shell & tube condenser, R134a refrigerant, lubrication system, motor starting components, control system and all components necessary for safe and stable unit operation.
Chiller will be factory assembled on a robust base-frame made of zinc coated steel, protected by an epoxy paint.

Noise level and vibration

Sound pressure level at 1 meter distance in free field, semispheric conditions, shall not exceed dBA. The sound pressure levels must be rated in accordance to ISO 3744. Other types of rating unacceptable.
Vibration level should not exceed 2 mm/s.

Dimension

Unit dimensions shall not exceed following indications:

- ✓ unit length: mm,
- ✓ unit width: mm,
- ✓ unit height: mm.