

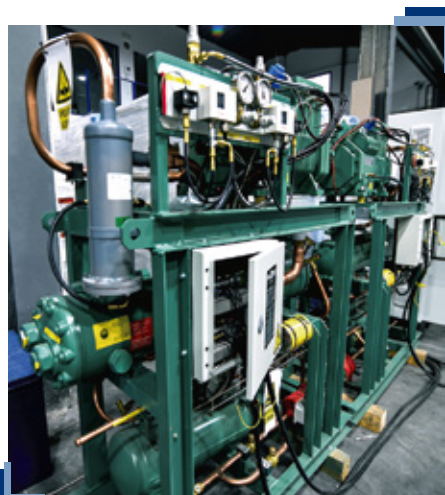
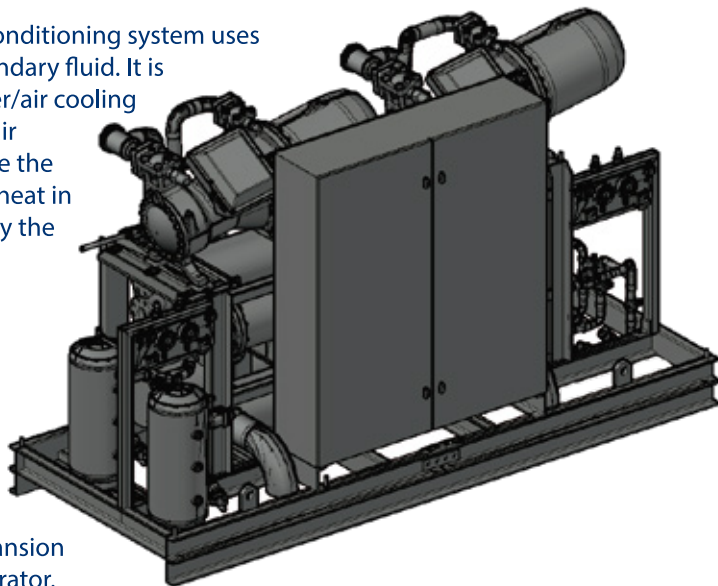
## DESCRIPTION

The Chilled Water Plant is the core of an HVAC System. This is where the glycol water is cooled by direct expansion of refrigerant in the heat exchanger.

A chilled water air conditioning system uses glycol water as secondary fluid. It is pumped to the water/air cooling coil installed in the air handling units where the sensitive and latent heat in the air is absorbed by the glycol water, returning to the cooling plant to be cooled again.

The main components of the unit are the compressor, the condenser, the expansion valve and the evaporator. According to the condensing medium available, the condenser could be designed for fresh water or sea water.

\* Control System (See page 9).

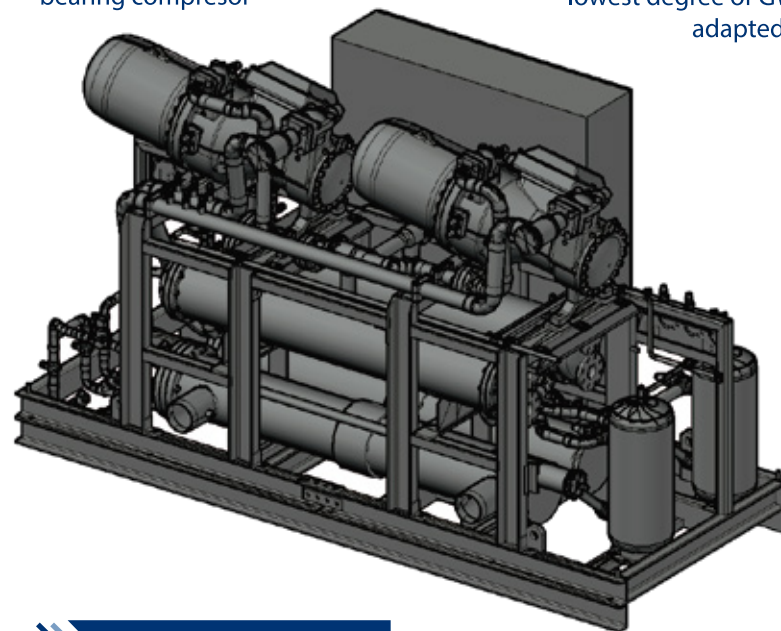


## APPLICATIONS

This system has great advantages, since, firstly, its size can be adapted to the simultaneous thermal loads foreseen in the installation and, secondly, it can be adjusted to the inertia of the system. This is the reason why chilled water plants are often used in vessels with high occupancy levels and large public spaces and also in those which have a large amount of climate-controlled technical areas (navy, hydrography and seismology areas, etc).

## DATA SHEET

- Cooling power according to the project calculations 10kW... 1250 kW... etc.
- Power supply 230V, 400V, 440V, 690V and 50/60Hz
- Open drive/semihermetic/hermetic compressor
- Piston/screw/centrifugal/ magnetic bearing compressor
- Sea water/fresh water/air cooled condenser
- Tube & shell heat exchangers (evaporator/condenser)
- One or several compressor(s)/ refrigerant circuit(s) adapted to the redundancy requirements
- Environmentally friendly refrigerants with the lowest degree of GWP (Global Warming Potential), adapted to the project's requirements.



## MATERIAL SPECIFICATION

- **Condenser:**
  - Copper or Cupronickel 90/10 tubes
- **Base frame:**
  - Steel
- **Refrigerant circuit:**
  - Copper / Steel
- **Finishing:**
  - Marine Painted

## SPECIAL UNITS

- Chilled water and/or sea water pumps could be integrated in the unit
- Equipment and/or components certified by the Classification Society
- Control and communication devices coordinated with ship platform management system
- Magnetic bearing compressor installed in order to fulfil the highest performance capacities
- Shock qualification according to project requirement