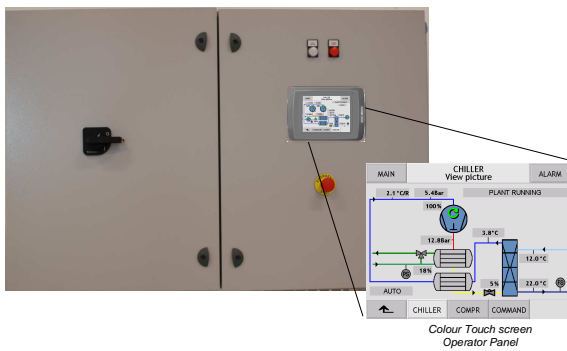




Marine Chiller Unit control concept

Efficient control and monitoring of the standard MSCH-P and MSCH-S Chiller Unit



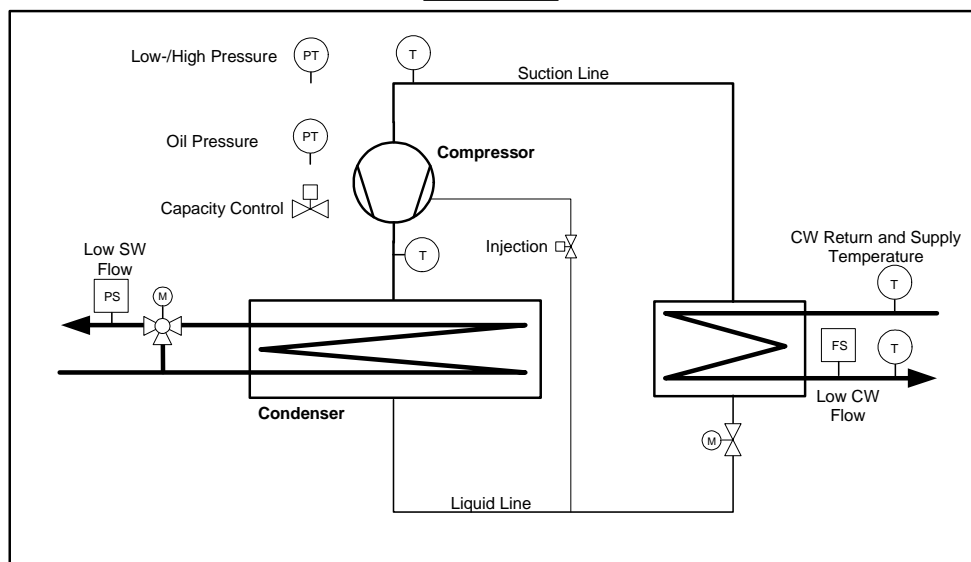
Advantages

- Logical operation at a 6.5" colour touch screen operator panel
- Compressor supervision and control
- Delayed start after blackout
- Password and alarm system
- Common alarm output to main alarm system
- Integrated electrical starter and control panel in IP55 execution, including:
 - Compressor motor starter
 - Main switch, power ON and alarm lamps
 - Pilot voltage transformer
- Condenser pressure control (Optional)
- Remote operator panel (Optional)
- Gas monitoring system (Optional)
- Communication to integrated chiller sequence and AHU controller (Optional)
- Network communication, on request, to SCADA system (Optional)
- Virtual Network Computing (VNC) Server function (Optional)

Description

The Chiller Unit control concept integrates control and monitoring of one compressor and one or two evaporators. The combination of compressor types, capacity steps, supervision equipment and compressor control is configured according the specific design. The Chiller Unit control concept includes an electrical panel complete with motor starter and configurable control equipment.

Chiller Unit



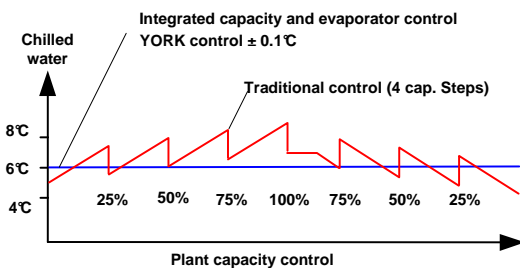
Additional benefits

- Standardized system ensures optimal functionality and reliability
- Quick installation and commissioning
- ISO9001 compliance

Compressor/Unit control

Selections

- Semi hermetic reciprocating or screw compressors
- Compressor capacity steps
- Motor protection device for Semi-Hermetic compressor
- Pressure transmitters and PT100 sensors for compressor supervision
- Capacity control by means of supply or return chilled water temperature
- Evaporator superheat supervision
- Chilled water stop valve ON/OFF
- Condenser pump start signal
- Condenser pressure control



The below mentioned data, settings and functions ensure optimal chiller unit operation.

Measurements data and settings:

- Chilled water supply/return temperature
- Suction pressure and discharge pressure
- Compressor status incl. actual amps.
- Running hours, including service warnings
- Capacity regulation manual or auto mode

Compressor protection against:

- High discharge pressure
- Low suction pressure
- Low lubrication oil pressure
- Low condenser-water pressure
- Low chilled water flow
- Motor overload and recycling

Local operation

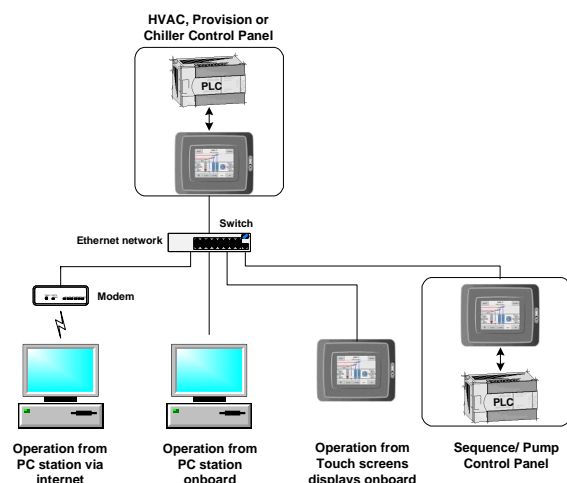
At the operator panel local operation of the Chiller Unit system includes:

- Efficient operation from a 6.5" colour touch-screen display
- Graphic overview pictures of the entire system
- Monitoring of all status values, alarms and warnings
- Operation of connected equipment and setting of modes, limits and regulation set points
- Trend curves that provides excellent overview of plant performance, e.g. temperature logging
- Trend curves and settings can be stored on a USB key

Remote operation

Connected to the ships LAN Network, the Chiller Unit system can be remotely controlled and monitored from operator panels or PC stations, such as:

- Monitoring and remote control of all data from any given PC on the network
- Monitoring and remote control, via the internet, to Johnson Controls Marine service centre or owners technical department, for optimal crew support at e.g. trouble shooting



The above technical information is subject to updates in content and specification without prior notice.