

SUBCOOLER ASSEMBLY GUIDE SPECIFICATIONS

Furnish and install, as shown on the plans and schedule, a Colmac Subcooler Assembly as described in the subsections below

1. The capacity of the Subcooler Assembly shall support a minimum evaporator load of _____ Tons.
 - 1.1. It shall be rated to cool liquid ammonia from 95°F to 40°F with an evaporating temperature of 30°F
 2. The heat exchanger will be a fusion welded plate heat exchanger.
 - 2.1. The heat exchanger shall be DX feed on the cold side
 - 2.2. The heat exchanger shall be rated for 400 Psig DWP at 300°F DWT
 3. Seal cap, bolted bonnet, weld in line valves shall be provided to service the assembly at the following locations:
 - 3.1. Main liquid inlet and outlet
 - 3.2. Main liquid bypass (Normally Closed)
 - 3.3. Vapor outlet
 - 3.4. Liquid feed to expansion valve
 4. The DX liquid feed shall be factory piped from the main cold liquid line and include:
 - 4.1. A weld in line solenoid valve
 - 4.2. A weld in line Danfoss ICM Motorized Expansion valve
 5. Both sides of plate heat exchanger shall be protected by hydrostatic safety relief valves.
 6. The cold liquid outlet temperature shall be controlled and monitored with a temperature probe
 7. All liquid piping shall be sized for less than 4 ft/sec velocity at maximum flow rate.
 8. All ammonia piping shall be of 304SS and comply with ANSI B31.5 and IIAR-2, latest editions
 9. A UL listed NEMA-4 control panel will be included with the following items
 - 9.1. Subcooler energized Light
 - 9.2. Subcooled liquid temperature, Digital readout
 - 9.3. Subcooler expansion valve % capacity, Digital readout
 10. The above components shall be factory assembled and supported by a corrosion resistant free standing stainless steel frame with a stainless steel drip tray
 11. The above assembly will be factory pressure tested, evacuated and shipped with a holding charge of dry nitrogen.
 12. The above assembly shall be factory shrink wrapped prior to shipment
 13. The above assembly shall be provided with a one year factory warranty
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