

# Low Charge Ammonia Packaged Chiller

A natural refrigerant-based refrigeration system that is safe, sustainable, and energy efficient in all climates.



## **Design Features:**

- Industrial-grade direct drive recip compressor
- Flooded plate & frame chiller
- PLC-based control system with touch screen user interface
- High efficiency oil management system
- Sound attenuated enclosure
- Vibration isolation drive base
- Ammonia leak detection
- Built-in ventilation
- Used with water, propylene glycol, or ethylene glycol as secondary refrigerant
- Cooling capacities ranging from 30 tons to 400 tons
- Secondary refrigerant temperature ranging from -2°F to 60°F



## **Benefits:**

#### Contractor:

- Single point power connection
- Outdoor, indoor, floor mounted or rooftop mounted.
- Insulated surge drum and cold piping
- Full access doors for commissioning, start-up and service
- Easy rig points

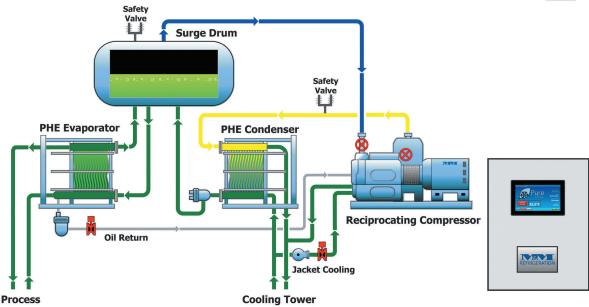
#### End User:

- Up to 10% better full-load compressor energy efficiency vs. screw compressor designs. Superior part load energy efficiency
- Industrial Grade Compressor
  - Long Product Life
  - Higher level of reliability
  - Superior part-load efficiency vs. screw compressor
- Low Installed Cost
  - Plug and play design
  - $\cdot$  Lower Maintenance
  - Fully serviceable compressor
- Reduced regulatory burdens
  Low charge ammonia
- Increase revenue-generating square footage by eliminating engine room
- Environmentally friendly, future-proof natural refrigerant



## System Diagram





# **Standard Package Includes:**

- Plate and frame evaporator and condenser. Evaporator has 304SS plates and the condenser has 316 SS plates
- Mechanical float valve liquid makeup
- One reciprocating compressor direct driven with 1800 rpm TEFC motor
- NEMA 4 VFD without bypass in 460V or 575V
- Dual flow flooded surge drum vessel complete with level eyes, and dual relief manifold assembly

- Stainless steel ammonia piping
- Surge drum and cold piping insulation
- Ammonia leak detector
- Ammonia detection horn and strobe
- Emergency / temperature exhaust fan
- PLC-based control system with touch screen interface

### **Options:**

- Evaporative condenser
- Air cooled condenser
- Adiabatic condenser
- 316 SS evaporator plates
- Titanium evaporator and condenser plates
- Outdoor enclosure
- Pump skid
- Condenser skid

## **Technical Data**

Model	Capacity TR	Power Consumption (BHP)	Motor (HP)	СОР	R717 Charge (Ibs.)	Dry Weight (lbs.)	Dimensions (ft.)	Sound Level dB(A)
PURE CHILL 104L	93	78	100	5.6	108	7200	11 x 6 x 8	77
PURE CHILL 106L	139	116	150	5.6	119	7800	11 x 6 x 8	79
PURE CHILL 108L	185	154	200	5.7	128	8600	12 x 6 x 8	80
PURE CHILL 112L	278	228	250	5.7	172	11000	14 x 6 x 8	81
PURE CHILL 116L	370	303	350	5.8	216	12500	16 x 6 x 8	82

Note: Based on 35°F evaporating, 95°F condensing

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