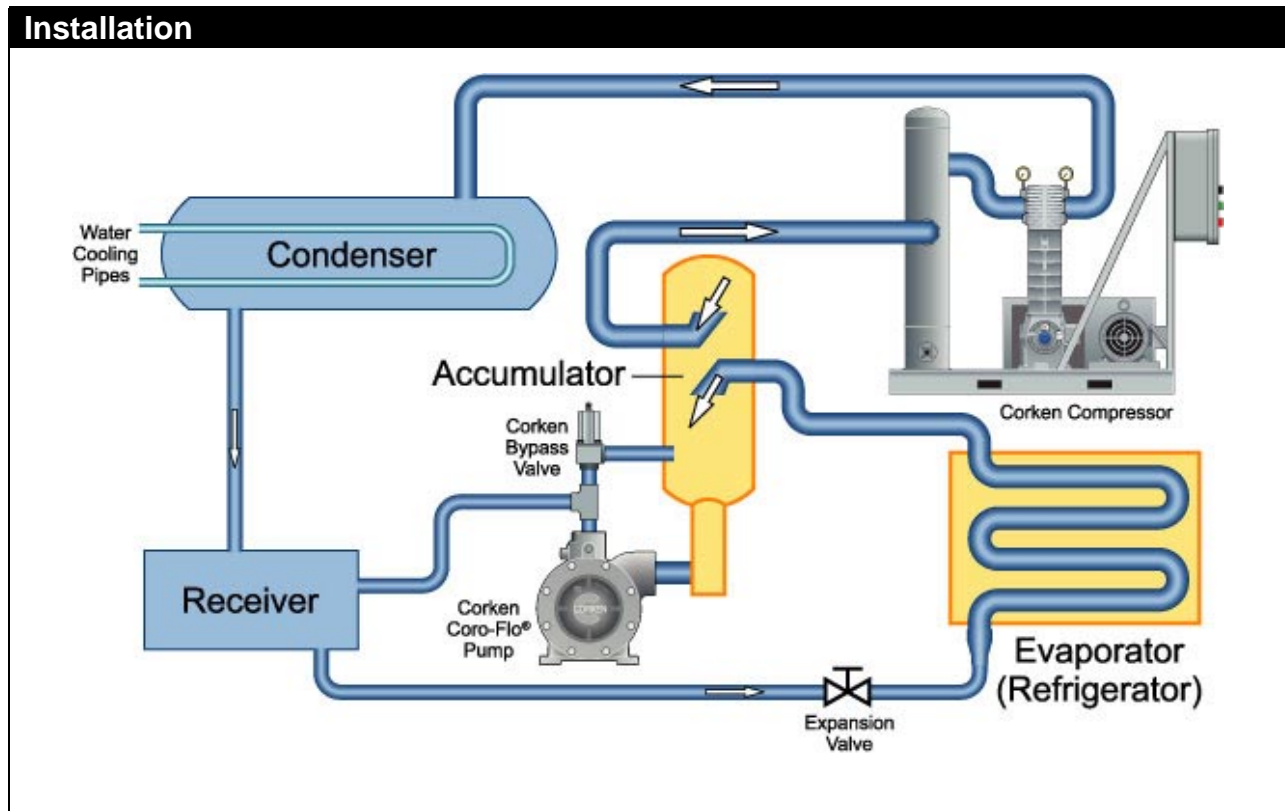


PROCESS SHEET

For Refrigerant Ammonia Systems

Application	Business Sector
<ul style="list-style-type: none"> Commercial refrigeration 	<ul style="list-style-type: none"> Poultry Beef Ice cream Beverage Produce Seafood Ice



Process Description

In large commercial refrigeration warehouses, ammonia serves as an efficient, and cost effective refrigerant. Pumps and compressors are used to move the ammonia through the refrigeration system. The two most common uses for ammonia pumps and compressors in a refrigeration system are for circulating ammonia through the cooling loop in and high-pressure transfer from the accumulator back to the storage tank.

History

First used in the 1800's as a refrigerant in Europe, ammonia systems have changed very little since system were perfected in the early 1900's. Ammonia refrigeration systems have been and continue to be the refrigerant of choice for the food industry. Ammonia is highly efficient and a cost effective way to provide cold storage to the large food and beverage industry. Ammonia is a naturally occurring compound and refrigerant. There is no affect on nature and ammonia poses no threat to global warming. The sale of ammonia refrigerant systems has continued to grow each year due to the fact it's proven technology and the price of anhydrous ammonia is far less than other refrigerants.

Medium

- Anhydrous Ammonia (NH₃)

Equipment used in this process

- Corken Coro-Flo Pumps
- Corken Side Channel Pumps
- Corken Industrial Compressors

Benefits of Corken equipment

Corken Coro-Flo Pumps

- Excellent for pumping light liquids (Ammonia .62 sp. Gravity)
- Continuous duty pump
- No metal to metal contact
- Pulse free flow

Corken Side Channel Pumps

- Capable of pumping up to 50% vapor
- Low Net Positive Suction Head Required (NPSHR)
- Continuous duty pump
- Capable of high differential pressures (250 psid)
- Available in seal-less magnetic-drive

Corken Industrial Compressors

- Used to transfer ammonia vapor from accumulator through the condenser to re-condense into liquid ammonia.
- Available with single distance piece or double distance piece designed for ammonia service.
- Oil-Free
- Extremely reliable. Corken compressor has set the standard in ammonia transfer.

Technology

- Ammonia refrigeration systems have been in use for 200 years.
- Ammonia is the most efficient of the most commonly used refrigerants

Ammonia refrigeration systems are smaller in size than other freon systems due to the high latent heating capacity of ammonia.