Ammonia

Refrigeration Dryers

Most commonly recognized as a household cleaner, ammonia is also used as an industrial refrigerant in a variety of food and beverage processing plants around the country.

Ammonia refrigeration has been used in the food processing industry since the early 1900s. Most produce, meats and beverages in your home pass through a facility that at some point uses ammonia refrigeration. It is the most cost effective method of processing and storing frozen and unfrozen foods. Other possible uses include: post harvest cooling of fruits and vegetables, cooling of meat, poultry and fish and refrigeration in the beverage industry, particulary beer and wine.

Hot untreated air enters the dryer and is cooled to 39°F (3.9°C) by the customer's supplied ammonia. Moisture is dropped out of the air using a two stage, combination centrifugal separator and 3 micron cold coalescing filter and is expelled from the system via a zero air loss type demand drain. It is important to note that at no point throughout the drying process will the ammonia supply be in direct contact with the air side of the system.



Contact Information:

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Features & Benefits:

- Environmentally friendly.
- Energy efficient due to superior thermodynmaic properties.
- Proven safety record.
- Digital dewpoint readout allows for constant indication of dryer performance.
- Open frame construction for ease of maintenance and repair.
- NEMA 1 electrics built in acccordance with NEC.
- Designed to product a pressure dewpoint of 39°F (4°C).

- Oulet air quality conditions rated to NFPA Class H Standards.
- Ammonia supplied to dryer via existing system.
- Comprehensive 5 year warranty including full parts and labor coverage in first year on any defects in material and workmanship of the product.



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Product Selection

| Model | Nominal Capacity | Pressure Drop (psid) | Pump HP | FLA | Air In/Out | Air In/Out | Std Voltage | Max Pressure (psig) | Ammonia Required | Approx. Dimensions (ins) | | | Weight |
|-----------|---------------------|----------------------------|------------|-----|------------|------------|----------------|---------------------------|---------------------|--------------------------|----|----|--------|
| | | | | | | | | | | L | W | н | (lbs) |
| PNH3-1000 | 1000 | 4.4 | 1 | 1.9 | 3" RF | 1⁄2" - 1" | 480V | 200 | 81 | 108 | 48 | 72 | 2800 |
| PNH3-1500 | 1500 | 4.2 | 1 | 1.9 | 4" RF | 1⁄2" - 1" | 480V | 200 | 107 | 108 | 48 | 72 | 3250 |
| PNH3-2000 | 2000 | 4 | 2 | 4.4 | 6" RF | 1⁄2" - 1" | 480V | 200 | 160 | 108 | 48 | 72 | 3800 |
| PNH3-3000 | 3000 | 4.3 | 2 | 4.4 | 6" RF | 1⁄2" - 1" | 480V | 200 | 224 | 116 | 60 | 91 | 4900 |
| PNH3-4000 | 4000 | 3.5 | 3 | 5.8 | 8" RF | 1⁄2" - 1" | 480V | 200 | 270 | 144 | 72 | 91 | 5850 |

*Assuming 30°F (-1.11°C) ammonia supply, measured in lb/hr to provide 39°F (3.89°C) process air pressure dewpoint.

All unit include:

Polyisocyanurate insulation with PVC (white) jacketing.Separately labled ammonia and glycol lines.

Food grade propylene glycol (installed).All dryers provided with expansion valve (shipped loose).

Note: All units are of the intermediate mass design using a glycol/water solution for evaporative cooling. Ammonia is never directly in contact with process air supply.



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