



# Instruction Sheet

102-071

## VorTech® Air Separator

SUPERSEDES: January 1, 2004

EFFECTIVE: April 1, 2005

Plant I.D. Number 001-994

### Design Conditions:

- Maximum Operating Pressure: 150 PSI (1034 KPa)
- Maximum Operating Temperature: 240 °F (115 °C)
- Media: Water or Water/Glycol Mixture
- Recommended Flow Rate: 4 feet/second
- Maximum Flow Rate: 8 feet/second
- C<sub>v</sub>: VRTX075 – 14.0      VRTX150 – 34.8  
           VRTX100 – 15.5      VRTX200 – 42.7  
           VRTX125 – 21.4

### Description:

The Taco VorTech® Air Separator utilizes a tangential design to create a chamber of swirling water and air in which a low pressure area forms in the center. Combined with the Bubble Breaker Cartridge and a downward direction change in the flow of the water before exiting, air is quickly and effectively released upward and out through the high pressure Taco 419 3/4" Hy-Vent.

### Installation Instructions:

1. Install the Air Separator in a horizontal line according to the flow direction arrow indicated on the body. No minimum length of pipe required after bend or elbow.

2. The 1/2" female NPT threaded connection on the bottom of the Air Separator is provided for connecting a Diaphragm Type Expansion Tank.
3. After the system is filled, the Air Separator will automatically remove unwanted air to the atmosphere through the factory equipped Taco 419 3/4" Hy-Vent.

### Installation with Plain Steel Expansion Tank:

If using a compression tank, you can direct-connect a 3/4" pipe to the top cap (in place of the Hy-Vent). The pitch up to the tank can not be less than 1" in 5 feet, and not exceed 7 feet in total length. If the distance is more than 7 feet, increase pipe size to 1".

### Recommended Start-Up Procedure:

Excess flux used in system installation may collect in the Hy-Vent. To avoid any venting problems due to flux buildup, run the system at operating temperature and circulate the water throughout the system for 10-15 minutes. Turn off the boiler, lower the pressure in the system to "0" at the vent and then unscrew the top of the Hy-Vent. Clean the Hy-Vent by wiping out any flux from the inside walls and rinse the top float mechanism in a hot solution of liquid or powder dish washer detergent. Reconnect the top of the vent and proceed with normal system operation.

