

## JDSR Series

# ASME Tangential Air/Dirt Separators For Sediment and Air Removal in Hydronic Systems

### GENERAL INSTRUCTIONS

1. Tangential air separators are typically installed between the system boiler, chiller, or heat exchanger and the system pump. See figure 2 for the recommended installation guidelines.
2. Full flow through the JDSR separator ensures fast elimination of the sediment and solids, preventing potential damage to pump seals and other system components.
3. Sizes through 8" (inlet/outlet connection size) can be supported in the piping system if the piping system hangers are located under the inlet and outlet nozzles as close as possible to the outside diameter of the shell of the unit.
4. Larger sizes require additional structural supports located under the separator.
5. **WARNING:** The ASME Boiler and Pressure Vessel Code Section VIII, Div. 1 does not permit any field modification to the pressure vessel after the ASME inspection process is completed. Welding to pressure retaining parts will void the ASME certification.
6. Factory installed lifting lugs are not designed to support the air separator in the piping system.
7. Air separators with strainers require periodic maintenance to ensure safe and efficient system operation. Minimum distances must be maintained between the strainer access cover plate and any other piping, wall, or other obstruction to allow for the strainer removal.

### INSTALLATION INSTRUCTIONS

1. A manual or automated blowdown valve may be added to the blowdown connection at the bottom of the tank. The blowdown valve facilitates the removal of collected sediment.
2. Blowdown valves must be designed for sediment service to prevent clogging and seat wear.
3. An automatic high capacity air vent is typically installed in the piping above the top of the air separator. The air vent is designed to release air that accumulates during normal system operation.
4. The inlet system piping must be connected to the opening at the top of the tank side wall. The outlet piping must be connected to the opening at the bottom of the tank side wall.

### OPERATING / MAINTENANCE INSTRUCTIONS

1. The vortex action created by the tangential openings allows the heavier sediment particles to move down the tank wall and accumulate in the sediment bowl on the bottom of the tank.
2. The collected sediment must be periodically removed (blown down) from the sediment bowl. If routine maintenance is not performed, excess sediment will start to pass through the separator. Manual or automatic purges valves should be installed to facilitate the blowdown of the sediment bowl.
3. Open the blowdown drain valve for a few seconds to remove loose sediment. The timer cycle and the length of time required for blowdown will depend on the amount of sediment in the system.
4. For separators with horizontal strainers, removal and cleaning of the strainer assembly is recommended per the following schedule: 24 hours after system start-up, 30 days after system start-up, and at periodic intervals (based on experience).

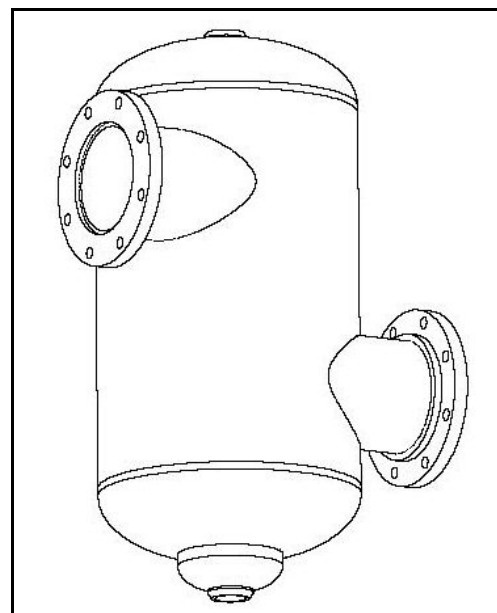


Figure 1

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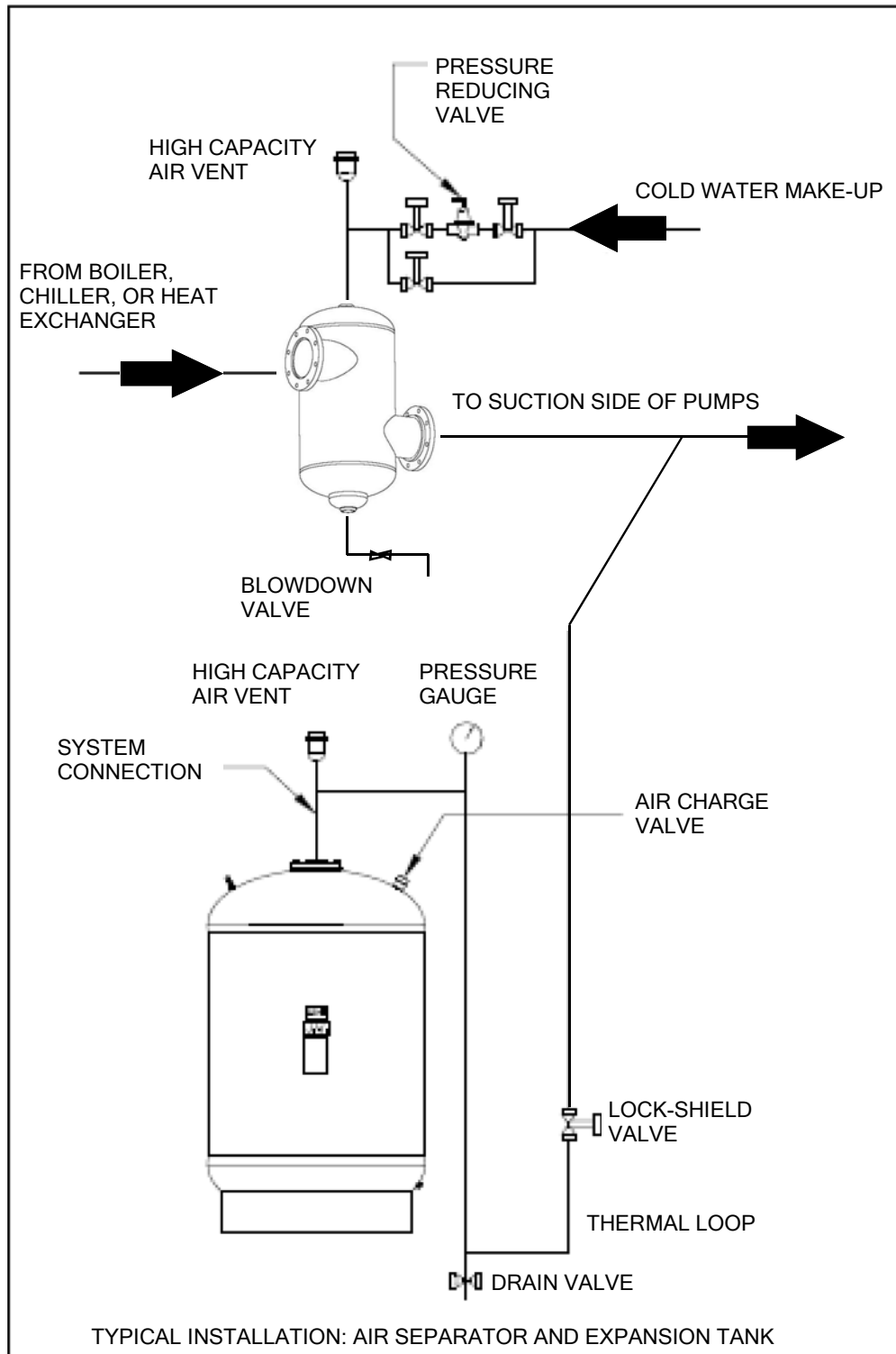


Figure 2