

Boiler Blowdown Tank - Installation Instructions

Model BD _____ (Dia) (SM-SM)

Purpose and Function of Tank: Blowdown Tanks are used as an alternative system for cooling the bottom boiler blowdown. These large tanks retain the blowdown water volume from one blow down after the flash steam has been vented to the atmosphere. They then allow this remaining condensate to cool down by natural convection over a 6-12 hour period. This retained water that did not reach the tank's overflow drain will reduce to room temperature when it is displaced by the next blowdown. The resulting mixture of retained water and new blowdown entering the tank will be $\leq 140^{\circ}$ Fahrenheit as it is displaced out of the overflow drain.

Design: This tank has been fabricated to meet ASME Sec. VIII, Div. 1 standards.

Installation Guidelines:

1. Once the system is at the job site inspect for signs of physical shipping damage and to ensure conformity to drawing specifications.
 - a. If any damage or nonconforming parts are observed contact the factory for resolution before installing.
2. Erect and secure the system to the appropriate platform/skid, or lag directly to the floor. The tank has (4) support legs with footpads containing bolt holes.
3. Vent: pipe vent to ensure steam will not harm personnel in the room which the blowdown tank is installed. *Specifics should be provided by the installing contractor and/or the project's design engineering firm.*
4. Overflow Type Drain: pipe to floor drain/city sewer. *Specifics should be provided by the installing contractor and/or the project's design engineering firm.*
5. Cleanout Drain: ideally this will be piped into the overflow drain piping locally. It may also be run separately to a floor drain/city sewer. *Specifics should be provided by the installing contractor and/or the project's design engineering firm.*
6. Centrifugal Inlet(s): from the boiler, pipe the boiler blowdown line(s) the rest of the way to this tank's centrifugal inlet pipe(s). *Specifics should be provided by the installing contractor and/or the project's design engineering firm.*
7. Ancillary Equipment: install appropriate gauges and valves as necessary.
8. Initial Operation: Madden recommends filling the tank above the overflow drain with cool city water to observe function and ensure tank is operating leak free before sending boiler water into the tank.