PRECISION BOILERS

BLOWDOWN TANK

INSTALLATION & OPERATION

1.0   INSTALLATION AND ASSEMBLY

1.1   ERECTION
   1.1.1   Position the blowdown tank in its proper position and then shim the bearing plates to assure the tank if plumb using the Bessel sides as reference.
   1.1.2   Attach bearing plates to the floor using (4) anchor bolts of proper size.
   1.1.3   Grout the bearing plates to assure the tank remains plumb.

1.2   ASSEMBLY OF EXTERNAL COMPONENTS
Refer to *Blowdown Dimensional Drawing*

   1.2.1   Gauges
   Install the temperature, pressure and sight gauges in their proper position.
   1.2.2   Valves
   Install the cold water quench and drain valves in their proper position.

1.3   PIPING ASSEMBLY

   1.3.1   Inlet Piping
   Connect the boiler blowdown and separator trap discharge to the blowdown tank inlet.

   NOTE: This piping must be adequately braced/supported to allow for rapid thermal expansion and associated forces therefrom.

   1.3.2   Drain Piping
   Pipe the blowdown tank outlet and drain to a suitable floor drain.
   1.3.3   Quench Piping
   Pipe cooling water with full size pipe to the quench valve.
   1.3.4   Vent Piping
   Pipe the vent with full size pipe outside the building to a point of safe discharge.

1.4 PRESSURE CHECK (If Required)

    1.4.1   Place plates (pans) between the vent flanges and outlet (discharge) flanges as applicable.

    1.4.2   Close blowdown tank quench and drain valves, and boiler blowdown valves.

    1.4.3   Perform hydrostatic test at 75 psi on the entire system

        NOTE: Loosen the vent flange bolts to vent air from the tank.

    1.4.4   Drain water from the tank and remove flange blanking plates (pans)

2.0 OPERATION

2.1   Using quench valve, fill tank to point of overflow (even with bottom of discharge pipe).

2.2   **Small Automatic Discharges**
Normal separator trap discharges and boiler surface blowoffs should be accommodated without any manual attention.

2.3   **Large Manual Discharges**
To accommodate boiler bottom blowdown operation, the quench valve on the blowdown tank must be opened prior to the blowdown operation, and then closed after the blowdown is complete.