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.