

PRODUCT SPECIFICATION

CONTINUOUS BOILER BLOWDOWN HEAT RECOVERY SYSTEM

TYPE HC, Horizontal Style

1. General: The contractor shall furnish and install a Heat Recovery System, Type HC, model no. ____, as manufactured by Madden Manufacturing, Inc. This equipment will be constructed in accordance with standards of the A.S.M.E. Code for Unfired Pressure Vessels, Section VIII Div.1, for 150 p.s.i.g. pressure.
2. The system will be capable of handling ____ lbs. of blowdown water per hour for a boiler operating at a pressure of up to ____ p.s.i.g.
3. The heat recovery system shall consist of:
 - a. Horizontal flash tank with relief valve, gauge glass, hand hole, and pressure gauge. Tank will have a flow control manifold with (qty)____ threaded inlet connections. Flash steam vent connection 150 psi RF flanged. Tank will be designed to prevent sludge accumulation and sized to generate clean flash steam with a minimum steam volume of 1 cu. ft. for each cubic foot of flash steam generated per second at the maximum rated capacity.
 - b. External balanced pressure drain valve
 - c. Float controller with 6" x 8" stainless steel float.
 - d. Heat exchanger, U tube type, with tube bundle constructed with type 304 stainless steel, with a minimum surface area of ____ square feet, sized for a makeup water flow rate of ____ GPM with a pressure drop of less than 2 psi. Makeup water inlet and outlet to be 150 psi RF flanged.
 - e. Thermometer gauge panel showing temperatures of feed water inlet, feed water outlet, and blowdown water to drain. Gauges to be liquid filled type.
 - f. High level alarm system with Magnetrol float switch and Malory Sonalert electronic alarm signal.
 - g. (Qty)____ Madden orifice meter for precise, adjustable blowdown flow control. Model no. _____.
 - h. The unit will be assembled on a saddle type base ready for floor mounting.
4. The Contractor will furnish and install all related piping, fittings and valves to provide a complete system. This includes piping from feed water source to heat exchanger, piping from the heat exchanger to the feed water heater, piping to drain for blowdown water, and piping of the flash steam from the system. The Contractor will be responsible for installing the gauge glass, relief valve, and gauges at the job sight as well as the orifice meters and the high level alarm.