PRODUCT SPECIFICATION

CONTINUOUS BOILER BLOWDOWN FLOW CONTROL

MADDEN ORIFICE METER

1. General: The contractor shall furnish and install a flow control for continuous boiler blowdown, model no. (OM250 or OM650) as manufactured by Madden Manufacturing, Inc., Elkhart, IN. This equipment will have a maximum design working pressure of (250 or 650) p.s.i.g.

2. The meter will be capable of precise flow control of continuous boiler blowdown using the straight edge orifice principle at a boiler operating pressure of ___ p.s.i.g., with a blowdown flow range from ____PPH to ____PPH.

3. The flow control shall consist of:
A multiple orifice meter with an attached filter and sediment chamber designed to trap scale and suspended solids that could clog the small orifice holes. The stainless steel filter screen mesh will be smaller than the smallest hole in the orifice plate. The flow control will have a hardened stainless steel plate with not less than seventeen (17) graduated orifices, spaced and indexed so only one of the orifices will be opened to flow at a time. The orifices will be graduated in size to provide a range in rate of flow to cover the minimum and maximum continuous blowdown requirements of the boiler. The orifice plates shall be machined, heat treated, and along with the mating selector disc be ground and lapped to a flatness of three light bands to prevent leakage and wire drawing damage. The unit will have a gear driven indexing mechanism with a removable key to prevent tampering. A drain valve will be provided to flush the filter and sediment chamber.

4. A flowchart will be provided showing the blowdown flow in pounds per hour at the boiler operating pressure for each orifice setting. A manual for installation, operation and maintenance will be provided.

5. One orifice meter unit is required for each boiler. The number of units required will be as follows:

a. Number required: _____ Boiler pressure: ____p.s.i.g.
Flow range: min ____PPH maximum: ____PPH

b. Number required: ____ Boiler Pressure: ____p.s.i.g.
Flow range: min ____PPH maximum: ____PPH