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U.S. Deaerator Company. For all your deaerator, boiler feed, condensate, and water heating equipment needs.

US DEAERATOR APPLICATION DATA FORM

PROVIDING YOUR SYSTEM INFORMATION WILL ALLOW US TO PROPERLY SIZE AND SELECT YOUR NEW US DEAERATOR FOR OPTIMUM PERFORMANCE AND A LONG SERVICE LIFE.

Please fill in as completely as possible

1. Deaerator outlet capacity in pounds per hour equals your boiler system combined peak steam output _____ #/hr. If not known, please advise horsepower ratings of boilers, maximum number of boilers used at once and their respective firing rate percent

   _____.

2. Boiler operating pressure _____ PSIG.
3. Desired deaerator corrosion allowance _____ inch. A minimum of 1/16" is recommended.
4. Deaerator design temperature _____ deg F. Normal design temperature is 450 degree F.
5. Desired deaerator operating pressure _____ PSIG. Normal operating pressure is 5-10 PSIG.
6. Percent of system condensate return _____ % @ _____ degree F.
7. Pressure & temperature of softened makeup water _____ PSIG @ _____ degree F.
8. Makeup water: city water source or other source _____ . If other, please explain

   _____.

   If city water, please advise municipal water source so we can obtain water analysis _____

   _____.

9. Manner of control:

A. Does condensate return directly to the deaerator? _____.

B. Is condensate collected in a condensate receiver along with softened makeup water and then pumped to the deaerator? _____ If so, what is the transfer pressure of that condensate/makeup going to the deaerator? _____.

10. Configuration:

A. All vertical tank with vertical storage _____.

B. Vertical deaerating section welded to horizontal storage tank _____.

C. Vertical deaerating section flange mounted to horizontal storage tank _____.

D. Horizontal deaerating section flange mounted to horizontal storage tank _____.

11. Storage volume desired to ¾ tank level:

A. Two minute storage is standard on all vertical units _____.

B. Ten minute storage is standard on all horizontal storage tanks _____.

C. Greater storage volume is available for either configuration, please specify _____.

12. Available space for deaerator:

A. Please specify length, width and height of the intended area for new deaerator _____

_____.

13. Control accessories to be included with deaerator:

A. **Steam safety valve:** Please specify the fail open capacity of your steam pressure regulating device that admits steam to the deaerator _____ PPH. If not known, please provide the nameplate information from that regulating device along with the upstream steam pressure _____ PSIG.

Is that saturated steam or superheated steam coming to your regulating valve? _____

_____.

B. **Steam pressure reducing valve:** Please specify the upstream pressure and we will size the valve as needed _____ PSIG.

Advise your preference for steam pressure regulation as follows:

1. Self-contained steam pressure regulator _____ or
2. Pneumatic actuated steam pressure control valve _____ or
3. Electric actuated steam pressure control valve _____.

C. **Inlet water control valve:** Please specify the upstream pressure of your inlet water coming to the deaerator _____ PSIG.

Advise your preference for inlet water regulation as follows:

1. Pneumatic actuated inlet water control valve _____ or
2. Electric actuated inlet water control valve _____.

D. **Overflow valve:** Advise your preference for overflow control as follows.

1. Self-contained float operated overflow trap _____ or
2. Pneumatic actuated valve and float switch _____ or
3. Electric actuated valve and float switch _____.

E. **Water level indicator:** Advise your preference for water level as follows.

1. Tubular sight glass and gage valves _____.

2. Magnetic flag type indicator _____.

F. **Boiler feed pumps:**

1. Two 100% capacity pumps _____.

2. One light load pump and two 100% capacity pumps _____.

G. **Standard accessories:**

1. Always include two thermometers and one steam pressure gauge.

2. Always include a vacuum breaker valve.

3. Always include high level, low level and pump cutoff float switches.

H. **Control panel:**

1. Always include at minimum NEMA 12 enclosure with main disconnect, magnetic starters, adjustable overloads, HOA switches, run lights, CPT, alarm horn and silence button.

14. Special considerations:

A. Full vacuum vessel design _____.

B. Post weld heat treatment _____.

C. Mag particle, radiography or and other special testing _____.