

Surface Condenser, the Main Auxiliary to the Steam Turbine

The steam surface condenser is a critical component of both the traditional coal fired power plant and the new generation of Cogeneration and Combined Cycle power plants. Mazda designs an economically sized condenser suitable for smaller turbine ratings under 25 MW. The circular configuration is compact for easy shipping and maintains the level of quality afforded all of our condenser designs.

All of Mazda's condensers are designed and built to the Heat Exchange Institute Standards. We also strive to meet all of our client's project specific requirements.

Our condenser design can incorporate enhanced deaeration systems, and or a variety of turbine exhaust options, which can assist greatly in improving plant layouts. We continually address and refine these and other considerations associated with circular designs where space is at a premium.

Mazda condensers are fabricated in in-house state of the art fabrication facilities located in Ahmedabad. All of the fabrication facilities are according to ASME code and an impeccable reputation for quality fabrication and on time delivery.

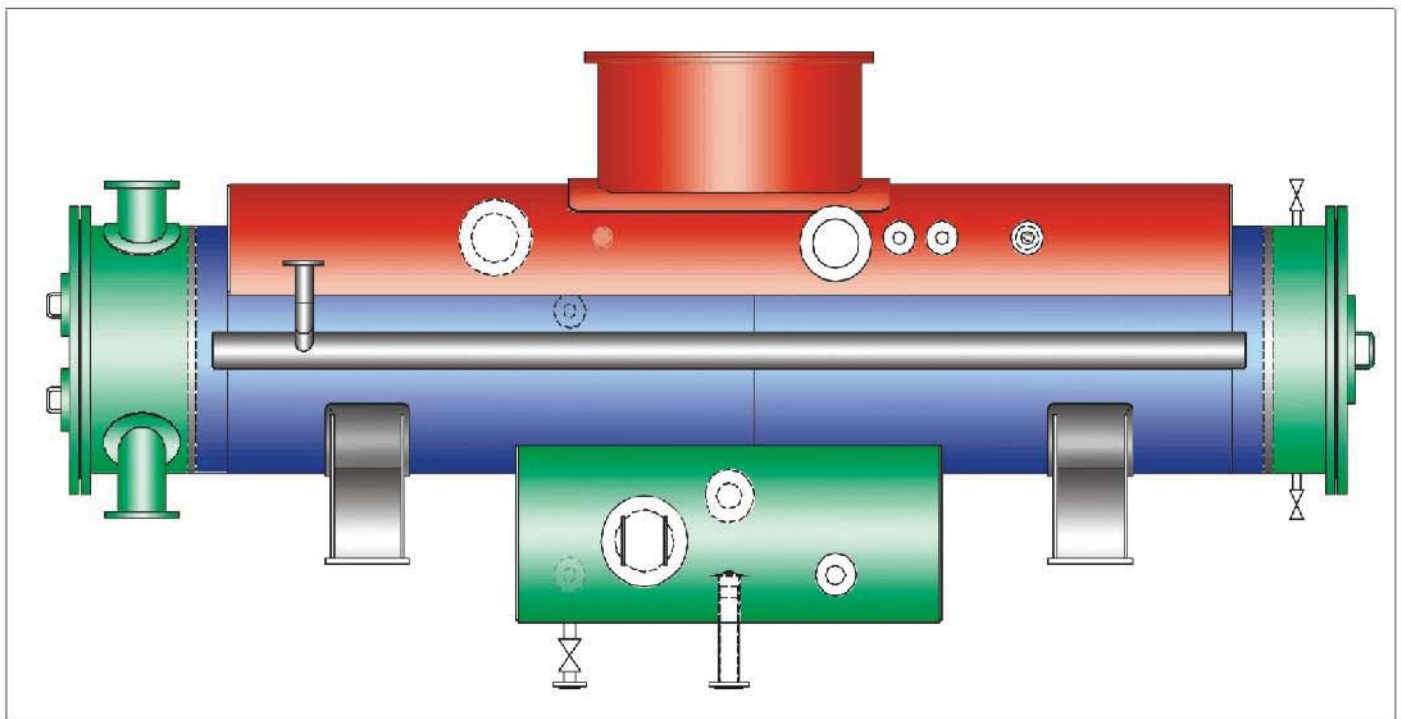


Special design baffles of surface condenser under drilling on our drilling machine. Our drilling machine has a capacity to drill tube plates upto 150 mm thick and upto diameter 2000 mm



Effective steam condenser design, of necessity, must take many performance variables into consideration. Not the least of these variables are :

- The configuration of the exhaust flow pattern entering the condenser.
- The moisture content of the incoming steam.
- The design of the transition piece to achieve the most uniform distribution of incoming steam over the tube bundle.
- Shell design parameters that provide maximum support to the tube bundle without impacting pressure drop.
- De-aeration and re-heat requirements for the steam condensate.
- Tube sheet design considerations that will enhance the steam flow over and through the tube bundle to achieve maximum performance efficiencies.
- Optimizing tube layout geometries
- Maximizing available surface area
- Managing destructive velocities
- Minimizing pressure drop
- Effectively removing non-condensable
- Reducing sub cooling potential
- Plus many more design variables that impact condenser performance.



Our condensers feature high overall heat transfer coefficients (which result in smaller heat transfer areas and thus optimal use of the available space) and extremely low oxygen concentrations in the condensate. They are designed to stand up to turbine and steam generator overloads and to variations in cooling water temperature at different times of the year.

We also supply other power plant equipment, such as Steam Jet Air Ejector (SJAE) System, steam dump device, Low Pressure Feed Water Heater, High Pressure Feed Water Heater, Gland Steam Condenser system, Turbine Bypass Valve, Steam Desuperheater, Pressure Reducing and Desuperheating Station (PRDS) systems, Safety Valves and Pressure Reducing Valves.



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