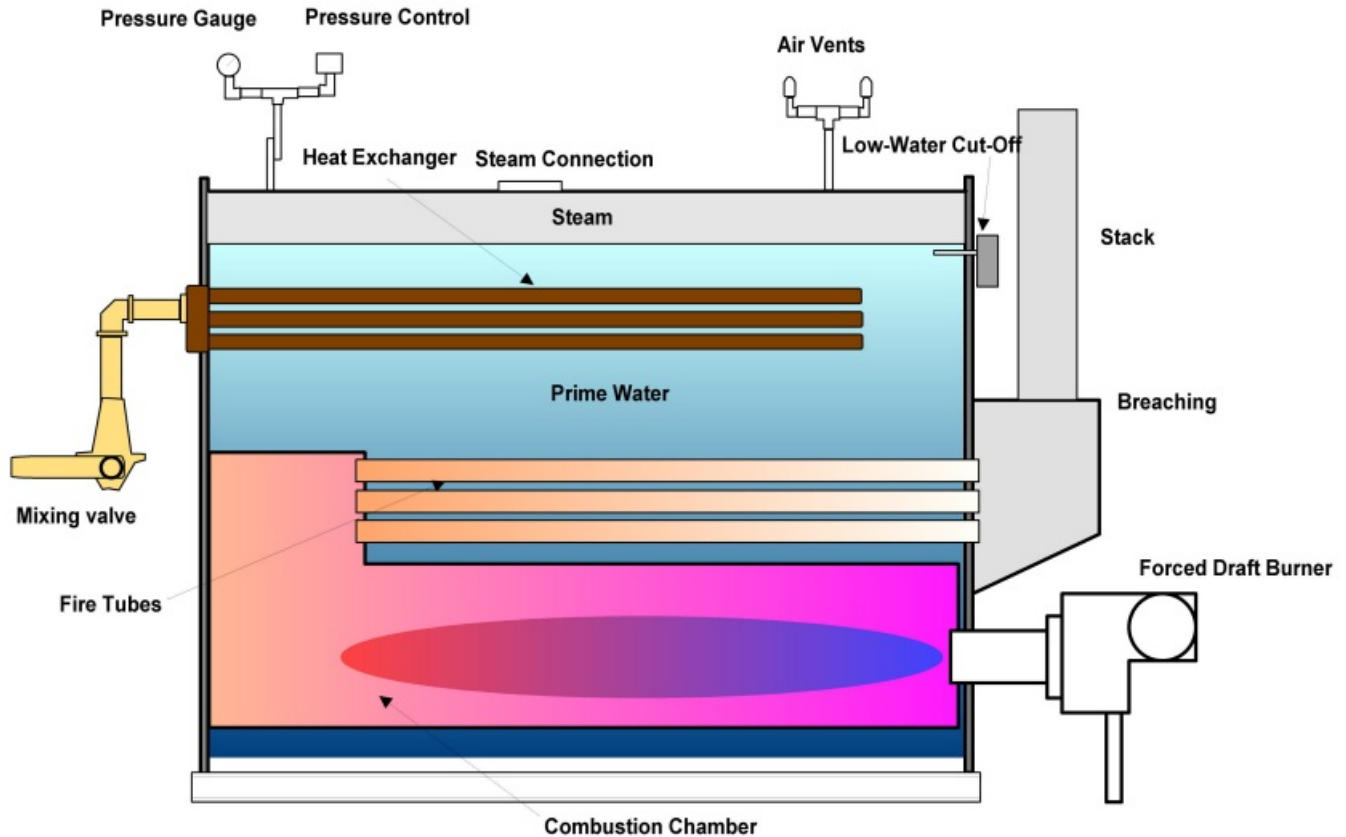


# NATCO TANKLESS OPERATING PRINCIPAL



- Forced draft burner fires into
- Water cooled combustion chamber
- Fire tubes carry hot products of combustion and heats prime water up to 240F
- Breaching, gases have been cooled by transferring heat to prime water and now enters the breaching which connects to the
- Exhaust stack which carries the product of combustion to the outside atmosphere (Exhaust stack is not furnished by NATCO)
- Steam up to 14 psi, produced. This pressure within boiler makes it possible to heat the prime water to 240F. The large amount of prime water at 240F and the steam (up to 14psi) in steam space combine to create a large internal heat reserve. This heat reserve enable the NATCO to supply a large volume of hot water to meet peak demands, thus eliminating the need of a storage tank.
- Low pressure steam can be taken from steam connection at top of boiler for steam heating or other process applications.
- The high volume heat exchanger is engineered to have a heating surface capable of heat transfer needed to meet high peak intermittent demand which is far in excess of the heating surface required to meet the hourly demand.
- Cold water enters the heat exchanger and is heated by taking the heat from the prime water. The water to be heated travels only through the heat exchanger and never comes in contact with the steel boiler. This water is guaranteed to be rust free.
- The water leaves the high volume heat exchanger at temperatures up to 200F.
- Tempering valve automatically blends cold water with hot water from the heat exchanger to produce a mixed water temperature at any preselected setting from 130 to 200F (Tempering valves with lower temperature settings are available.)
- Tempered water outlet.
- Pressure control senses steam pressure in the steam space and turns the burner on and off in response to steam pressure changes.

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