Thermal Leverage

UNFIRED STEAM GENERATOR SPECIFICATION STEAM TO STEAM

Unfired Steam Generator shall be as manufactured by Thermal Leverage Inc. Copiague, Long Island, New York

Unfired Steam Generator shall be furnished as a complete package ready for installation.

Unfired Steam Generator shall be ASME Code constructed and stamped in accordance with Section VIII, Division I, for Unfired Steam Generators.

Unfired Steam Generators shall be registered with the National Board of Boiler and Pressure Vessel Inspectors, and signed copy of shop inspection report shall be furnished.

Unfired Steam Generator vessel shall be Constructed from SA 516 GR 70 Carbon Steel.

Unfired Steam Generator shall be insulated with not less than 3" of Fiberglass insulation, protected by not less than 20 ga. thick enameled steel jacket.

Unfired Steam Generator shall be mounted on a suitable I-Beam support skid which shall be permanently welded to the shell.

Unfired Steam Generator shall have a submerged coil of 18 BWG 3/4" O.D. 90/10 Cupronickel tubes expanded into a steel tube sheet with fabricated steel heads.

Unfired Steam Generator shall be furnished with an electronic operated 2-way control valve to modulate the Incoming STEAM to maintain the desired output of steam pressure +/-2 psi.

Control valve shall be suitable for 150 psi at 350°F with 150LB Flanges.

The Control valve shall modulate the STEAM to maintain constant output pressure.

Unfired Steam Generator shall be furnished with a ASME Code Section I pressure relief valve or valves with a capacity to relieve the total BTU of output of the generator.

Unfired Steam Generator shall be furnished with a vessel steam gauge, tube side Pressure gauge to monitor the incoming Steam Pressure.

Unfired Steam Generator shall be furnished with electronic level controller. Water column shall also be furnished with gauge glass.

Unfired Steam Generator shall be furnished with a Motorized bottom blow off valve that can be programmed to Automatically Blow down the vessel on timed schedule Hourly Daily or Monthly at a varying time duration depending on water quality.

All components for the Unfired Steam Generator shall be factory mounted, piped, and tested and the unit shall be shipped from the factory as a complete unit ready for installation.

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Unfired Steam Generator shall be furnished with a steam separator.

Unfired steam generator shall be supplied with solid state control module with LED backlit LCD display and LED pilot lights to indicate on-off, high pressure, low pressure, low water, high water, and water feed.

Solid state control module shall allow the owner to set pressure limits on display screen.

Solid state control module shall have flashing red alarm light and alarm horn with built in alarm silence relay.

Solid state control module shall be supplied with dry contact closure outputs to indicate to building automation controls (BAC) the occurrence of power on, high pressure, low pressure, low water, high water, and water feed.

The control module shall allow the BAC to turn the unfired steam generator on or off through a remote relay suitable for 24 VAC, 1 amp.

The control module shall allow the BAC to remotely monitor the operating pressure. Control module shall be supplied with an on-off switch and shall be mounted in a NEMA 4 panel.

All solenoids and limits shall be 24 VAC.

Furnish a factory installed stainless steel feed water solenoid valve sized to feed the capacity of the steam generator with a maximum pressure drop of 10 psi.
Solenoid valve shall be factory wired to the level controller.

Furnish a factory installed check valve between the solenoid valve and Unfired Steam Generator.

Package shall include a centrifugal boiler blow off condensate cooler.
High water cut off shall be factory furnished.

High water cut off shall include a high-level float in the level control connected to an electric operated power to open spring to close stainless steel ball valve.

In the event of high water, a high-water condition the secondary ball valve will close.

Unfired Steam Generator shall be Thermal Leverage Model TLSG, designed with an output of _____#/HR of STEAM at ___ psi pressure and feed water of ___ °F. when supplied with _____ #/HR of _____PSIG STEAM.

Electrical Requirements 110V 1PH/ 60HZ 2 Amps