

# Heater / Heat Exchanger

## PFT® Heater / Heat Exchanger Equipment

Two basic types of PFT heating equipment are available – a combination heater / heat exchanger or separate tube in tube heat exchanger.

The integrally built heater and heat exchanger is completely designed and built by Siemens Water Technologies, insuring the compatibility between the boiler, heat exchanger, and controls required for successful operation.

Safety is the paramount consideration in the PFT heater and heat exchanger design. The flame safeguard system operates throughout the boiler performance. The induced draft fan maintains a negative pressure on the firing chamber eliminating the possibility of dangerous gases leaking to the surrounding area.

In addition to positive purging the fire chamber prior to ignition, the induced draft configuration permits the burner to operate at lower digester gas pressures, eliminating the need for gas booster pumps and optimizing the use of all available digester gas.

All fired surfaces on the PFT heater / heat exchanger, including the rear return section known as the water back, transfer heat to the boiler water. The water back, unlike conventional refractory return sections which require frequent replacement, will last the life of the boiler resulting in a substantial savings in maintenance and a reduction in downtime.

The heat exchanger section of all the PFT units is designed for durability and ease of maintenance. Return bends of cast iron construction insure long life. Heat exchange tubes are held in place by gaskets and cast iron following rings. This arrangement permits cleaning of the interior surfaces of the tubes without draining the water bath. The multiple gasket arrangement incorporating the cast iron following ring insures early detection of gasket failure and eliminates the possibility of waste solids or water fouling the interior of the heat exchanger.



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Data Sheet

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