

THERMOCOIL COIL TUBE HOT WATER BOILER

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SAFETY

- Thermogenics coil tube boilers can be used for unattended operation in specific jurisdiction.

CAPACITY

- Hot Water applications from 2.51 mmBTU/hr to 20.08 mmBTU/hr (up to 750°F).

FUEL EFFICIENCY

- Up to 84% efficiency.
- Double walled boiler shell preheats combustion air and cools outer casing, thereby minimizing radiation losses.

PRESSURE SPECIFICATIONS

- Standard up to 250 psig (higher on request).

CODE

- ASME, NATIONAL BOARD or as specified. Complies with local code requirements as applicable.
- ASME BPVC SECTION I, CSA B51.

FUELS

- Natural Gas
- Number 2 Oil
- Propane
- Combination of any of the above

COMPACT SIZE

- Compact size and low weight for reduced installation and engineering cost.

ENVIRONMENTAL COMPLIANCE

- Compliance with current noise and NOx emissions regulations.



DESIGN AND OPERATIONAL

- Full output in minutes from cold start.
- Redesigned low NOx burner with increased efficiency.
- PLC based panel complete with flame safeguard with linkageless control.
- Fully compatible with PLC based lead / lag control.
- Coil temperature system with individual temperature readouts and set points.

STANDARD EQUIPMENT FEATURES

- Fully modulating burner with upto 10:1 turndown on Natural Gas, Number 2 Oil and Propane.
- NEMA 4 enclosures.

OPTIONAL EQUIPMENT

- Pumping options available
- Expansion tanks
- Automatic Bypass Valves

20,083,000 BTU/HR (5,886 kW) COIL TUBE HOT WATER BOILER



DESIGN DETAILS

General Information

BOILER TYPE	Water Tube
THERMAL OUTPUT	20,083,000 Btu/hr (5,886 kW)
HEATING SURFACE	1243 ft ²
CONSTRUCTION CODES	ASME, BPVC Sec I, CSA B51
BOILER SHELL	Combustion Air Cooled

DESIGN PRESSURE

250 psig (1725 kPag)

Contact factory for up to 500 psig (3450 kPag)

CONTROLS

- Siemens LMV5X linkageless burner control
- Siemens PLC and touch screen including the following:
 - Excess Water Pressure
 - Flame Failure Protection
 - Coil Temperature Limits
 - Additional Low Flow Boiler Protection

BURNER

MANUFACTURER	Thermogenics Inc.
FUELS	Natural Gas, Number 2 Oil, Propane or Combination
BURNER TYPE: OIL	Air atomization
BURNER TYPE: GAS	Multiple Zone Orifice Nozzle
GAS PRESSURE REQUIRED	5 psig (or 10 psig optional)
IGNITION TYPE	Electric Spark Interrupted
IGNITION FUEL	Natural Gas, Propane

POWER REQUIREMENTS

MAIN POWER	<ul style="list-style-type: none">• 208/240/460/575 VAC, 3 ph, 60 Hz• 380 VAC, 3 ph, 50 Hz
CONTROL POWER	120 VAC, 1 ph, 60 Hz
FD FAN POWER	25 HP

OVERALL DIMENSIONS*

LENGTH X WIDTH X HEIGHT	188" x 115" x 120"
APPROX. SHIPPING WEIGHT	35,400 lbs

*Dimensions may vary depending on boiler options selected.

PERFORMANCE DATA

Fuel Consumption at Rated Output*

OIL	171 US gph
OIL RECIRCULATION RATE	180 US gph
NATURAL GAS	23,909 SCFH
PROPANE	9,503 SCFH
TURNDOWN	10:1

*Up to 84% Efficiency.

CUSTOMER CONNECTIONS

STACK OUTLET:	28" O.D.
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PROCESS CONNECTIONS*:

Inlet	6" ASME B16.5 Class 300
Outlet	6" ASME B16.5 Class 300

* Higher system flow rates achievable with optional bypass connection

MAIN GAS SUPPLY	3" NPT
PILOT GAS SUPPLY	½" NPT (INTERNAL)
OIL SUPPLY	1" NPT
OIL RETURN	¾" NPT
ATOMIZING AIR SUPPLY	½" NPT

SAFETY VALVE OUTLET

150, 250 psig	3" NPT
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Built to meet strict ASME standards, Thermogenics Hot Water Boilers are skid-mounted and completely packaged; all burners, and required safety and operating devices, are supplied and installed at the factory.

Additionally, the advantages of our Hot Water Boilers are:

- Fast Start-up
- High Pressure
- Compact Size & Low Weight
- Safe Operation
- Modulating Output