

# 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

# 5,021,000 BTU/HR (1,471 kW) COIL TUBE HOT WATER BOILER



## DESIGN DETAILS

### General Information

<b>BOILER TYPE</b>	Water Tube
<b>THERMAL OUTPUT</b>	5,021,000 Btu/hr (1,471 kW)
<b>HEATING SURFACE</b>	255 ft <sup>2</sup>
<b>CONSTRUCTION CODES</b>	ASME, BPVC Sec I, CSA B51
<b>BOILER SHELL</b>	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

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

## POWER REQUIREMENTS

<b>MAIN POWER</b>	<ul style="list-style-type: none"><li>• 208/240/460/575 VAC, 3 ph, 60 Hz</li><li>• 380 VAC, 3 ph, 50 Hz</li></ul>
<b>CONTROL POWER</b>	120 VAC, 1 ph, 60 Hz
<b>FD FAN POWER</b>	5 HP

## OVERALL DIMENSIONS\*

<b>LENGTH X WIDTH X HEIGHT</b>	128" x 86" x 76"
<b>APPROX. SHIPPING WEIGHT</b>	8,600 lbs

\*Dimensions may vary depending on boiler options selected.

## PERFORMANCE DATA

### Fuel Consumption at Rated Output\*

<b>OIL</b>	43 US gph
<b>OIL RECIRCULATION RATE</b>	180 US gph
<b>NATURAL GAS</b>	5,978 SCFH
<b>PROPANE</b>	2,376 SCFH
<b>TURNDOWN</b>	10:1

\*Up to 84% Efficiency.

## CUSTOMER CONNECTIONS

<b>STACK OUTLET:</b>	16" O.D.
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### PROCESS CONNECTIONS\*:

Inlet	3", 4" ASME B16.5 Class 300
Outlet	3", 4" ASME B16.5 Class 300

\* Higher system flow rates achievable with optional bypass connection

<b>MAIN GAS SUPPLY</b>	2" NPT
<b>PILOT GAS SUPPLY</b>	½" NPT (INTERNAL)
<b>OIL SUPPLY</b>	1" NPT
<b>OIL RETURN</b>	¾" NPT
<b>ATOMIZING AIR SUPPLY</b>	½" NPT

## SAFETY VALVE OUTLET

150, 250 psig	2 ½" 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