

# THERMOCOIL COIL TUBE THERMAL FLUID HEATER

Thermogenics Inc.  
6 Scanlon Court, Aurora, ON, Canada, L4G 7B2  
Tel: 905.727.1901 Fax: 905.727.7456  
[www.thermogenics.com](http://www.thermogenics.com)

Thermogenics USA  
4426 Mt Carmel Tobasco Road, Suite A  
Cincinnati, OH, 45244  
Tel: 513.528.0500 Fax: 513.528.0592  
[www.thermogenics.com](http://www.thermogenics.com)

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## SAFETY

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

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## CAPACITY

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

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## FUEL EFFICIENCY

- Up to 82% efficiency.
- Double walled boiler shell preheats combustion air and cools outer casing, thereby minimizing radiation losses.

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## PRESSURE SPECIFICATIONS

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

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## CODE

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

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## FUELS

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

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## COMPACT SIZE

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

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## ENVIRONMENTAL

- Compliance with current noise and NOx emissions regulations.



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## DESIGN AND OPERATIONAL

- 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.

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## STANDARD EQUIPMENT FEATURES

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

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## OPTIONAL EQUIPMENT

- Air or Water Cooled Pumps
- Deaerator/Expansion Tanks
- Automatic Bypass Valves

# 3,348,000 BTU/HR (981 kW) COIL TUBE THERMAL FLUID HEATER



## DESIGN DETAILS

### General Information

<b>BOILER TYPE</b>	Water Tube
<b>THERMAL OUTPUT</b>	3,348,000 Btu/hr (981 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 Fluid 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>	120" x 86" x 94"
<b>APPROX. SHIPPING WEIGHT</b>	8,600 lbs

\*Dimensions may vary depending on heater options selected.

## PERFORMANCE DATA

### Fuel Consumption at Rated Output\*

<b>OIL</b>	30 US gph
<b>OIL RECIRCULATION RATE</b>	180 US gph
<b>NATURAL GAS</b>	4,082 SCFH
<b>PROPANE</b>	1,623 SCFH
<b>TURNDOWN</b>	10:1

\* Up to 82% Efficiency.

## CUSTOMER CONNECTIONS

<b>STACK OUTLET:</b>	14" O.D.
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### PROCESS CONNECTIONS\*:

Inlet	2" ASME B16.5 Class 300
Outlet	2" 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 Thermal Fluid Heaters 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 Thermal Fluid Heaters are:

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