

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

Thermogenics USA
4426 Mt Carmel Tobasco Road, Suite A
Cincinnati, OH, 45244
Tel: 513.528.0500 Fax: 513.528.0592
www.thermogenics.com

SAFETY

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

CAPACITY

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

FUEL EFFICIENCY

- Up to 82% 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 with current noise and NOx emissions regulations.



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.

STANDARD EQUIPMENT FEATURES

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

OPTIONAL EQUIPMENT

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

16,736,000 BTU/HR (4,905 kW) COIL TUBE THERMAL FLUID HEATER



DESIGN DETAILS

General Information

BOILER TYPE	Water Tube
THERMAL OUTPUT	16,736,000 Btu/hr (4,905 kW)
HEATING SURFACE	858 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 Fluid 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	30 HP

OVERALL DIMENSIONS*

LENGTH X WIDTH X HEIGHT	166" x 93" x 107"
APPROX. SHIPPING WEIGHT	21,000 lbs

*Dimensions may vary depending on heater options selected.

PERFORMANCE DATA

Fuel Consumption at Rated Output*

OIL	146 US gph
OIL RECIRCULATION RATE	180 US gph
NATURAL GAS	20,410 SCFH
PROPANE	8,112 SCFH
TURNDOWN	10:1

* Up to 82% Efficiency.

CUSTOMER CONNECTIONS

STACK OUTLET:	26" O.D.
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PROCESS CONNECTIONS*:

Inlet	4", 5", 6" ASME B16.5 Class 300
Outlet	4", 5", 6" ASME B16.5 Class 300

* Higher system flow rates achievable with optional bypass connection

MAIN GAS SUPPLY	2" 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 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