

# THERMOCOIL COIL TUBE THERMAL FLUID HEATER

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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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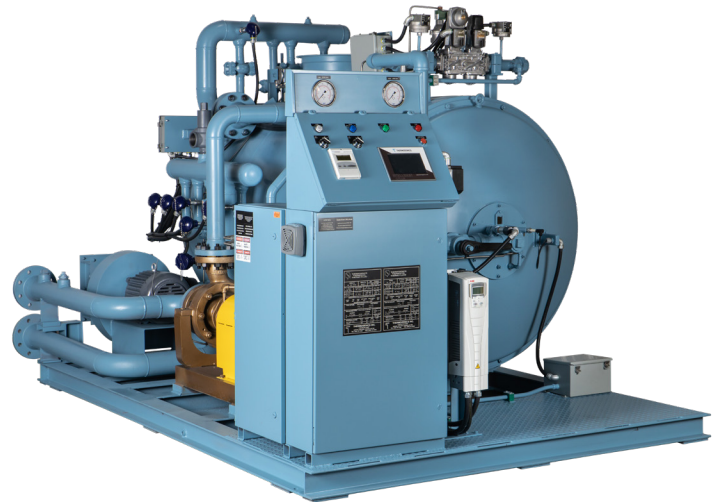
## COMPACT SIZE

- 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

# 11,715,000 BTU/HR (3,433 kW) COIL TUBE THERMAL FLUID HEATER



## DESIGN DETAILS

### General Information

|                           |                              |
|---------------------------|------------------------------|
| <b>BOILER TYPE</b>        | Water Tube                   |
| <b>THERMAL OUTPUT</b>     | 11,715,000 Btu/hr (3,433 kW) |
| <b>HEATING SURFACE</b>    | 635 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>  | 15 HP   |

## OVERALL DIMENSIONS\*

|                                |                   |
|--------------------------------|-------------------|
| <b>LENGTH X WIDTH X HEIGHT</b> | 150" x 113" x 94" |
| <b>APPROX. SHIPPING WEIGHT</b> | 14,600 lbs        |

\*Dimensions may vary depending on heater options selected.

## PERFORMANCE DATA

### Fuel Consumption at Rated Output\*

|                               |             |
|-------------------------------|-------------|
| <b>OIL</b>                    | 103 US gph  |
| <b>OIL RECIRCULATION RATE</b> | 180 US gph  |
| <b>NATURAL GAS</b>            | 14,287 SCFH |
| <b>PROPANE</b>                | 5,679 SCFH  |
| <b>TURNDOWN</b>               | 10:1        |

\* Up to 82% Efficiency.

## CUSTOMER CONNECTIONS

|                      |          |
|----------------------|----------|
| <b>STACK OUTLET:</b> | 24" O.D. |
|----------------------|----------|

### PROCESS CONNECTIONS\*:

|        |                         |
|--------|-------------------------|
| Inlet  | 4" ASME B16.5 Class 300 |
| Outlet | 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 | 3" NPT |
|---------------|--------|

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