

# Thermocoil – Coil Tube Thermal Fluid Heater



**Efficient, Safe and Economical Process Heat,  
up to 20,000,000 BTU/Hour Output.**

- THERMAL HEATER TYPE** – Forced Circulation, Multi-Coiled Tube, Forced Draft Fired.
- EFFICIENCY** – Up to 84%.
- GAS BURNER** – Multi-orificed by Thermogenics.
- OIL BURNER** – Air Atomized by Thermogenics.
- COMBINATION BURNER** – Air Atomized Oil, Multi-orificed Gas by Thermogenics.
- IGNITION TYPE** – Electric Spark Ignited, Interrupted Gas Pilot.
- TURNDOWN** – Up to 10:1 turndown.
- CONSTRUCTION** – Registered to ASME and CSA requirements and Hydro approved.
- SAFETY** – Programmed Flame Safeguard Control with Ultra Violet Flame Detection. Individual Coil Temperature Control and Outlet Temperature Limits.
- OPERATING PRESSURE** – 750°F design temperature, up to 250 PSIG.

MANUFACTURED IN CANADA BY:  
**THERMOGENICS INC.**

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## DESIGN AND OPERATION IMPROVEMENTS

- No refractory combustion chamber, new membrane wall furnace.
- Redesigned combustion air blower ensures quiet operation.
- Redesigned damper blades on combustion blower provide lower excess air levels.
- Redesigned burner increases efficiency.
- Optional linkageless control provides lower turn-down rates and more consistent efficiencies across the modulating range.
- 4-20 ma modulation for feedback to PLC based Lead/Lag Control.
- Complete flexibility on burner management systems.
- Solid state coil temperature system with individual temperature readouts and set points.

## STANDARD EQUIPMENT FEATURES

- Fully modulating burner with up to 10:1 turndown on Natural Gas and #2 Oil.
- Switch controls and warning devices located in a central control panel at the front of the boiler skid for ease of operation and trouble shooting.
- All coils have individual monitoring sensors.
- Quick response to load changes.
- Rapid start up from cold start.
- Long life with minimal maintenance coils designed for 1000 PSIG.
- Rear door access at floor level without disturbing refractory seal.
- All electrical boxes are oil/dust tight.
- All electrical conduit liquid tight.
- Separate high voltage side panel.
- Combustion air blower at floor level for ease of inspection and maintenance.
- Recirculating pump and combustion blower direct drive.
- Most service connections located at common junction point.
- Double walled boiler shell preheats combustion air and cools outer casing, thereby minimizing radiation losses.
- Optional air or water cooled pumps.
- Optional deaerator/expansion tanks.

### PERFORMANCE DATA, SIZES AND DIMENSIONS\*

RATED BOILER CAPACITY B.H.P.	THERMAL OUTPUT BTU/HR (KCAL/HR) x 1000	FLUE OUTLET CONNECTION INCHES (mm)	APPROXIMATE FUEL CONSUMPTION		DIMENSIONS INCHES (mm)			FLUID HEATER CAPACITY GAL (Lits)	APPROXIMATE SHIPPING WEIGHT LBS (Kg)
			NATURAL GAS SCFH	#2 FUEL OIL GPH (Lits/H)	L	W	H		
75	2,511 (633)	12 (305)	3,138	20 (91)	114 (2,896)	94 (2,388)	87 (2,210)	50 (227)	5,700 (2,591)
100	3,348 (844)	14 (356)	4,185	25 (114)	114 (2,896)	94 (2,388)	87 (2,210)	58 (263)	6,300 (2,863)
150	5,021 (1,265)	16 (406)	6,276	38 (173)	120 (3,048)	94 (2,388)	91 (2,311)	75 (341)	8,100 (3,682)
200	6,696 (1,687)	18 (457)	8,367	50 (227)	131 (3,327)	100 (2,540)	101 (2,566)	110 (500)	10,700 (4,864)
250	8,369 (2,109)	20 (508)	9,990	63 (286)	131 (3,327)	100 (2,540)	101 (2,566)	135 (613)	13,000 (5,909)
300	10,043 (2,531)	24 (610)	12,553	63 (286)	138 (3,505)	100 (2,540)	101 (2,566)	160 (727)	13,900 (6,318)
350	11,717 (2,953)	24 (610)	14,646	75 (341)	160 (4,064)	102 (2,590)	101 (2,566)	185 (840)	16,600 (7,545)
400	13,391 (3,374)	24 (610)	16,739	100 (455)	164 (4,166)	124 (3,150)	116 (2,947)	290 (1,317)	28,100 (12,773)
500	16,738 (4,218)	26 (660)	18,881	112 (511)	176 (4,470)	126 (3,200)	116 (2,947)	350 (1,590)	31,600 (14,364)
600	20,086 (5,062)	28 (711)	16,739	100 (455)	188 (4,775)	126 (3,200)	116 (2,947)	410 (1,863)	35,400 (16,091)

\*Subject to change without notice. Oil fired available for #2 and diesel oil only.

\*The descriptions and specifications contained in this brochure are approximate and were in effect at the time of printing. Thermogenics policy is one of continuous improvement and update. Changes to specific models may occur at anytime without notice or incurring any obligation.

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