

THERMACAST™ ELECTRIC

GAS TRIM HEATERS



Product Datasheet **1.1**



Thermax Thermacast™ Electric Gas Trim Heaters are dependable, high quality, fully automatic, compact, low pressure drop units ideally suited for warming gas downstream of ambient vaporizers and other industrial gas heating applications. These units are designed to warm gas, at the rated capacity, by 100°F. The outlet temperature is automatically maintained by cycling the heaters on and off via a feedback loop using an adjustable temperature controller and temperature probe.

CONSTRUCTION:

Stainless steel heat transfer coils are cast into a solid aluminum block. Electric cartridge heaters, moisture sealed and replaceable, are inserted into precision-drilled heat sinks in the aluminum block. Controls are enclosed in a NEMA 4 rated weatherproof electrical enclosure.

Standard features

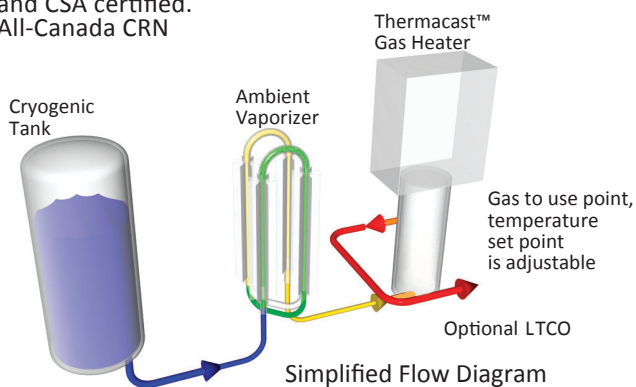
- Replaceable stainless steel cartridge heaters
- NEMA 4 Electrical Cabinet
- Adjustable outlet temperature from 40°F to 120°F
- Fully automatic operation
- Compact design
- Redundant high temperature switches for safety
- Stainless steel casting jacket with insulation for corrosion resistance, low maintenance, improved appearance, and safety
- Thermacast™ unit comes fully factory wired, tested and ready to install
- Quick delivery of standard units
- Built in conformance with ASME B31.3 Process Piping Code
- 300 series Stainless Steel wetted parts
- Design pressure of 500 PSIG
- Terminals to allow for emergency shutdown
- Dry contacts for main contractor ON and high block temperature limit
- Auxiliary 120V terminals (2 A max.)
- The components and electrical cabinet are all UL/cUL marked, and the heating elements are all UL recognized and CSA certified.
- All-Canada CRN

Standard Options

- Low Temperature Cut Off (LTCO) Kit featuring a temperature sensor and solenoid valve to prevent the flow of cold gas downstream of the trim heater, 500 PSIG MAWP (add on item to any unit)
- "All-Weather" Package including NEMA 4X main high-voltage cabinet and side 120V cabinet, and internal cabinet heater
- Junction box with remote cabinet for hazardous area installation

Custom Options

- Thermacast™ units for Carbon Dioxide, Carbon Monoxide, Ethanol, Ammonia, Chlorine, Ethylene, Methanol, SO₂, N₂O, etc.
- Gas outlet temperature from -40°F to 400°F
- Design pressure to 12,000 PSIG
- High Purity, electropolished units
- Monel, Hastelloy or 316 Stainless Steel wetted part construction materials
- Class 1, Division 2, Group B, C, or D Hazardous Area Purge Package
- Remote Cabinet Option
- Custom Inlet/Outlet Connections or Flanges
- Custom controls and contacts



Innovation. Experience. Performance.™

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Thermacast™ Gas Trim Heaters											
Model	Nominal Power (kW)	Voltage				N ₂ /O ₂ Capacity (SCFH)	Ar/He Capacity (SCFH)	Dimensions			
		120	240	480	600			LxWxH (in)	Inlet FNPT	Outlet FNPT	Weight (lbs.)
		Amps									
TT3	3	25	12.5	-	-	5,000	7,000	26x14x28	3/4"	3/4"	60
TT15	15	-	36	18	14	25,000	30,000	26x14x56	1"	1"	270
TT30	30	-	72	36	29	50,000	60,000	28x14x58	1-1/2"	1-1/2"	300
TT50	50	-	120	60	48	83,000	100,000	28x19x58	2-1/2"	2-1/2"	350
TT100	100	-	-	120	96	166,000	200,000	39x20x72	3" FLG	3" FLG	600
TT200	200	-	-	241	192	332,000	400,000	58x31x77	6" FLG	6"FLG	1,200

* TT3 is a single phase, wall-mounted unit

* Nominal power and capacity based on standard heater tolerances: +5/-10%

* Thermacast™ Trim Heaters are designed to raise the temperature of gas, at the above rated capacity, by 100°F.

Note: If the actual voltage differs from the design voltage of the vaporizer, the power and capacity will be effected by the ratio of $(V_{\text{actual}} \div V_{\text{design}})^2$.

All tables shown in this Datasheet are intended as a guide that reflect our experience on these models. Actual performance may vary.

Please call Thermax Inc. for guidance on specific applications.

