

## **Tubular Radiant Heater Assemblies (6000 to 9000 Watts) Dual Hairpin Element Bend Double End Termination**

### TRH4 Series

- Direct Retrofit to Existing Applications
- Rugged Anodized Extruded Aluminum Housing
- Polished Aluminum Reflector (Replaceable)
- Incoloy® Sheath Tubular Heaters (Replaceable)
- Element Support Brackets (Replaceable)
- Sliding Mounting Bolts (Replaceable)
- Dual Internal Wireways for Single End Wiring
- Ground Terminal Lug
- Slots for Heat Shield on Side of Housing for Between Units
- Convenient Field Wiring
- Made to Order/Custom Products

#### Typical Applications

- Adhesive Drying
- Comfort Heating
- Conveyorized Drying
- Drying Bulk Materials
- Drying Ceramics
- Food Warming
- Freeze Protection
- Heating Rubber or Steel Rolls
- Ink Drying
- Manufacturing Glass and Mirrors
- Moisture Evaporation
- Outdoor Comfort Heating
- Paint Drying
- Resin Curing
- Shrink Fitting
- Thermoforming
- Washdown Facilities
- Welding Preheating



The TRH Series heaters are ideal for reliable service, providing great flexibility for many diverse industrial and commercial applications.



### **Designed for Maximum Efficiency, Ease of Installation and Trouble-Free Service...**

TRH radiant heaters are a direct retrofit replacement for existing and new applications, utilizing similar products regardless of make.

Its unique design offers several quality enhancements without compromising fit and function on existing applications.

### **Delivering Value-Added Performance**

Universal 2000 heaters are ideal for reliable service, providing great flexibility for many diverse industrial and commercial applications. Manufactured with the proper options, Universal 2000 Radiant Heater Assemblies can be used outdoors or in wet locations.

### **Construction Characteristics**

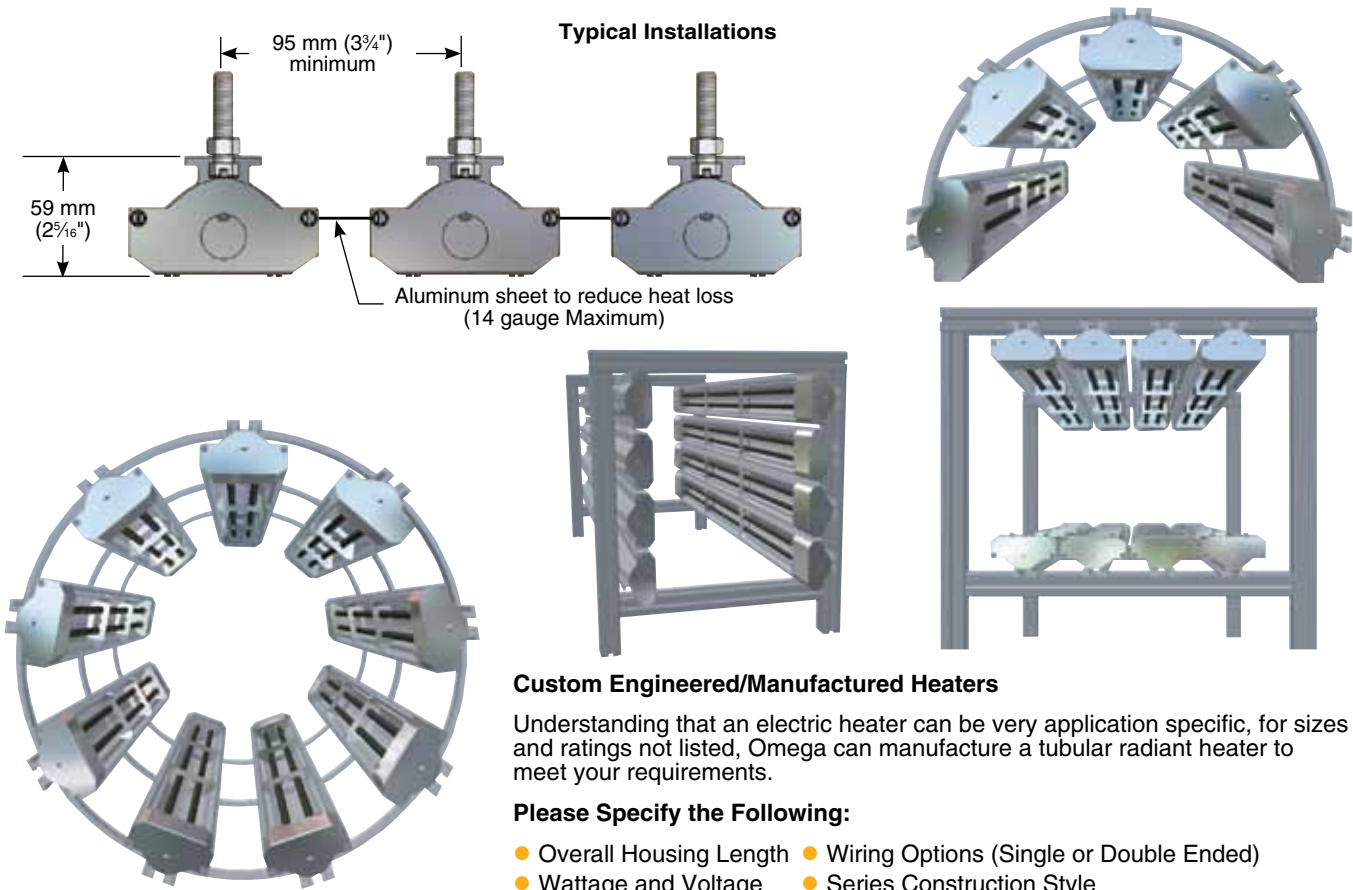
TRH radiant heaters stand apart from all other similar products. Its rugged construction, enhanced design features and flexibility in installation allow it to be used in applications requiring a single unit or to be used as modules creating various configurations for process radiant heating systems.

TRH radiant heaters are available in a full range of standard construction variations, physical dimensions and electrical ratings. They are also available in custom engineered/ manufactured units up to 3353 mm (132") for series TRH1, 4 and 6. TRH3 and 5 series units are available up to 3048 mm (120") lengths. Special electrical ratings, single end wiring, dual voltage, multiple heat designs, and optional fast response Quartz heater options (TRH1 and 2 NEMA 1 units only), along with pre-wired units using flexible/ rigid conduit or SJO cord/plug can be custom designed to fit your application.



# Radiant Process Heaters

## Typical Installations



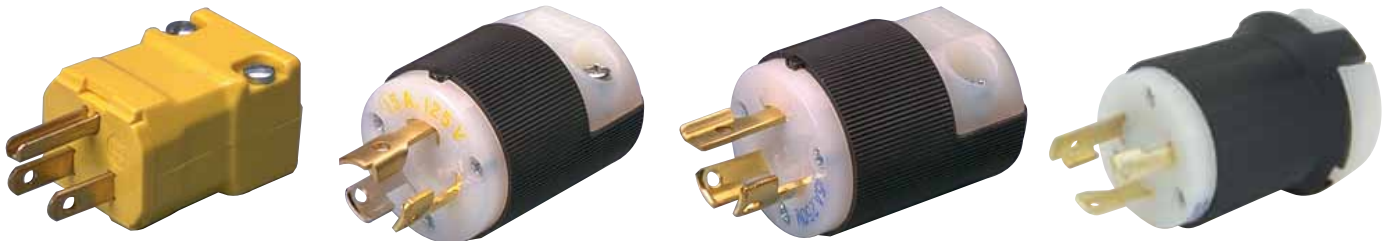
## Custom Engineered/Manufactured Heaters

Understanding that an electric heater can be very application specific, for sizes and ratings not listed, Omega can manufacture a tubular radiant heater to meet your requirements.

### Please Specify the Following:

- Overall Housing Length
- Wiring Options (Single or Double Ended)
- Wattage and Voltage
- Series Construction Style
- Termination Features

## Heavy Duty Quick Disconnect Plugs and Receptacles



P3

P4

P6

P7

Optional Electrical Plugs listed can be attached to armor cable or SJO cord described under wiring options. Receptacles listed are cable mount matching units for the plugs listed, please contact Sales for more information.

### To Order Specify Model Number

Plug Model No.	Reference	NEMA P or R	Max Amps	Volts	Receptacle Model No.
EHD-102-103	P3 straight	5-15	15 A	125V	EHD-103-102
EHD-102-113	P4 twist lock	L5-15	15 A	125V	EHD-103-104
EHD-102-122	P6 twist lock	L6-20	20 A	250V	EHD-103-105
EHD-102-126	P7 twist lock	L6-30	30 A	250V	EHD-103-125

Ordering Example: EHD-102-103, P3 straight connector, 125 Vac.

## Installation Recommendations

- Sliding mounting bolts [44 mm (1 3/4") long, 3/8"-16 thread] slide along the length of the aluminum housing for mounting the heater to common structural framing materials, creating multiple heater installations accommodating flat, rectangular, polygonal, cylindrical or any other shape arrays.
- Minimum distance of 95 mm (3 3/4") on center for heaters mounted side-by-side. Do not exceed 1.1 m (42") between sliding mounting bolts.
- To reduce heat losses, heat deflector shields up to 14 gauge thick are recommended between heaters. Fiber insulation can also be placed behind the heater housing.
  - In applications where water or solvents are being evaporated, proper ventilation is required to expel vapors or fumes.
  - Standard NEMA 1 electrical enclosures located at opposite ends of the heater housing with standard 22 mm (7/8") diameter knock-outs and a 1/2 NPT conduit threaded opening out the top of the housing facilitate single or double end wiring. Heaters with NEMA 3-4 boxes have dual 13 mm (1/2") trade size hubs oriented 90° to each other. Openings accept standard electrical fittings.
  - Hold the tubular heater terminal tabs with pliers when tightening the screws to ensure secure electrical connections. Use only high temperature hook-up lead wire and nickel-plated steel or Monel® lugs.

**Electrical wiring should be done by a qualified electrician with full knowledge of the installation and in accordance with local codes and the National Electrical Code.**

**High temperature hook-up wire and terminal lugs are available visit [omega.com](http://omega.com)**

## Maintenance

- Never perform any type of service prior to disconnecting all electrical power to the heater installation.
- To maintain reflector efficiency, clean periodically with mild soap and water. Do not use alkali or other strong cleaners. They will dull the aluminum reflector finish.
- Replacement of elements, support brackets and reflectors. (A) Remove terminal enclosure covers. (B) Disconnect power wires from element terminals. (C) Snap out support brackets. (D) Remove elements and old reflectors from front of unit.

When replacing elements, reflectors should be replaced. Install new reflectors by snapping edges into housing grooves and reassemble other parts in reverse order.

## Wiring Hints

Wire selection depends on the requirements of the installation.

Wire temperature rating for inside the heater housing should be 250°C (482°F) or higher depending on the installation.

Voltage rating should be equal to the operating voltage of the installation.

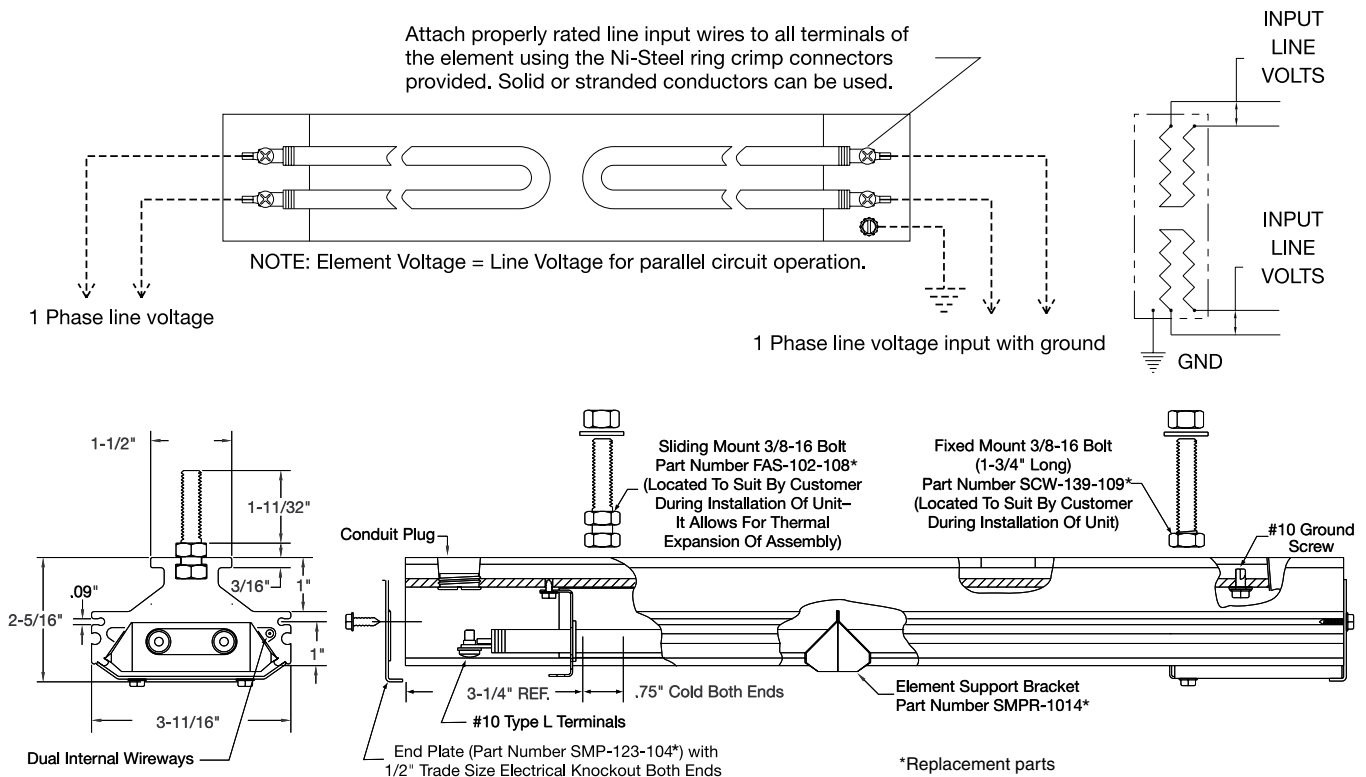
Wire conductors should be nickel, nickel plated copper or nickel clad copper.

Do not use silver plated or unplated copper wire conductors.

Amperage rating (wire gauge) should be 12 gauge for units drawing over 20 A of current. Use 14 gauge for units drawing under 20 A of current.

## TRH4 Standard Double-End Wiring

Attach properly rated line input wires to all terminals of the element using the Ni-Steel ring crimp connectors provided. Solid or stranded conductors can be used.

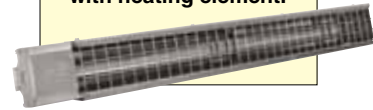




## TRH4 Series—Dual Hairpin Element Bend Double End Termination



Heater with protective guard helps prevent accidental direct contact with heating element.



### To Order Visit [omega.com/trh4](http://omega.com/trh4) for Pricing and Details

Model No.		Watts	Volts	Overall Length m (in)	Heated Length m (in)	Replacement Element	Replacement Guard	Replacement Reflectors	
Without Guard	With Guard							Model No.	Number Required
TRH40001	TRH40019	6000	208	1.8 (72)	1.6 (64)	THE09161	GRD-104-119	SMPR-1070	2
TRH40002	TRH40020	6000	240	1.8 (72)	1.6 (64)	THE09162	GRD-104-119	SMPR-1070	2
TRH40003	TRH40021	6000	277	1.8 (72)	1.6 (64)	THE09163	GRD-104-119	SMPR-1070	2
TRH40004	TRH40022	6000	480	1.8 (72)	1.6 (64)	THE09164	GRD-104-119	SMPR-1070	2
TRH40005	TRH40023	7200	208	2.1 (84)	1.9 (76)	THE09165	GRD-104-120	SMPR-1069	2
TRH40006	TRH40024	7200	240	2.1 (84)	1.9 (76)	THE09166	GRD-104-120	SMPR-1069	2
TRH40007	TRH40025	7200	277	2.1 (84)	1.9 (76)	THE09167	GRD-104-120	SMPR-1069	2
TRH40008	TRH40026	7200	480	2.1 (84)	1.9 (76)	THE09168	GRD-104-120	SMPR-1069	2
TRH40009	TRH40027	8000	208	2.4 (96)	2.2 (88)	THE09169	GRD-104-121	SMPR-1071	2
TRH40010	TRH40028	8000	240	2.4 (96)	2.2 (88)	THE09170	GRD-104-121	SMPR-1071	2
TRH40011	TRH40029	8000	277	2.4 (96)	2.2 (88)	THE09171	GRD-104-121	SMPR-1071	2
TRH40012	TRH40030	8000	480	2.4 (96)	2.2 (88)	THE09172	GRD-104-121	SMPR-1071	2
TRH40013	TRH40031	9000	208	2.7 (108)	2.5 (100)	THE09173	GRD-104-122	SMPR-1072	3
TRH40014	TRH40032	9000	240	2.7 (108)	2.5 (100)	THE09174	GRD-104-122	SMPR-1072	3
TRH40015	TRH40033	9000	277	2.7 (108)	2.5 (100)	THE09175	GRD-104-122	SMPR-1072	3
TRH40016	TRH40034	9000	480	2.7 (108)	2.5 (100)	THE09176	GRD-104-122	SMPR-1072	3

Ordering Examples: TRH40019, 6000 watt radiant heater with guard, 208 Vac.  
TRH40005, 7200 watt radiant heater, 208 Vac.

Note: Tubular elements are supplied at the same rated voltage as the overall assembly and are wired in parallel. 120 or 240V rated assemblies can be used at twice the rated voltage by wiring the elements in series (120/240V or 240/480V).

See page 2 for heavy-duty quick disconnect plugs and receptacles.