

## **Tubular Radiant Heater Assemblies (1200 to 7200 Watts) Dual Straight Element Double End Termination**

### TRH2 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**

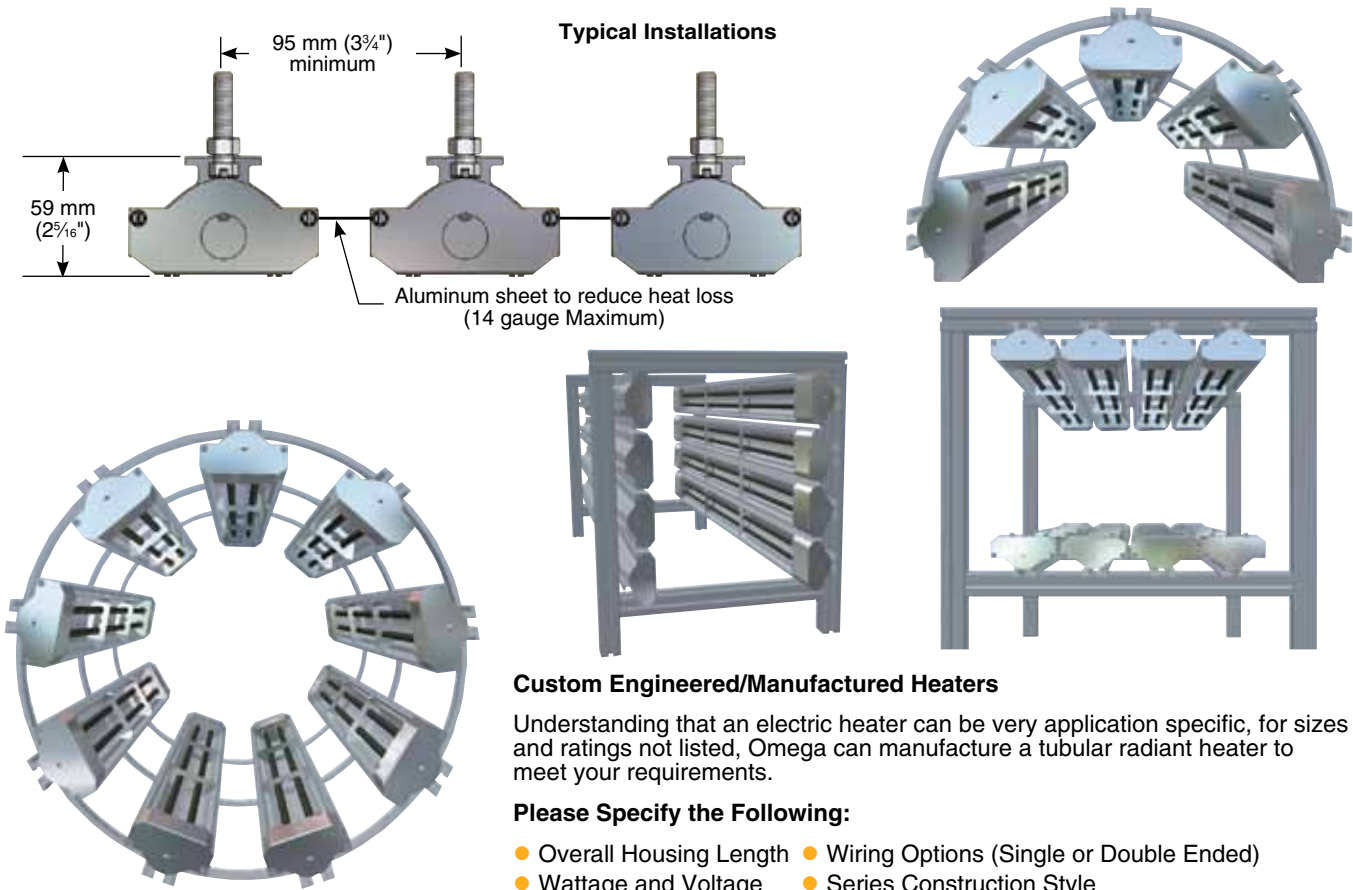
TRH radiant heaters stand apart from all other similar products. Its rugged construction, enhanced design features and flexibility in installation allow it to be used in applications requiring a single unit or to be used as modules creating various configurations for process radiant heating systems.

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



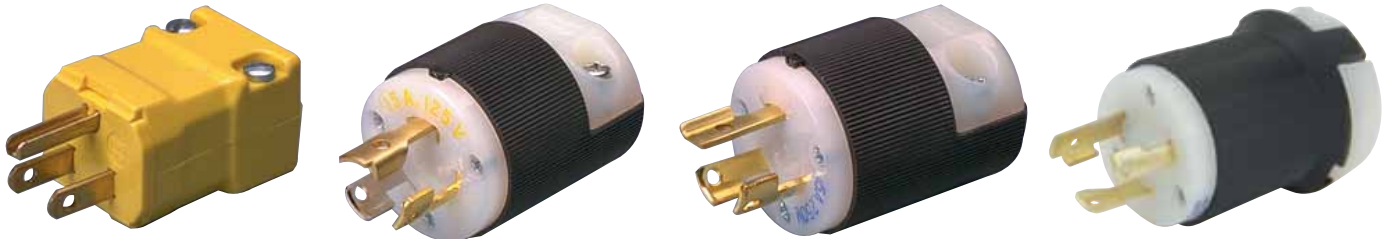
## Custom Engineered/Manufactured Heaters

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

1. 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.

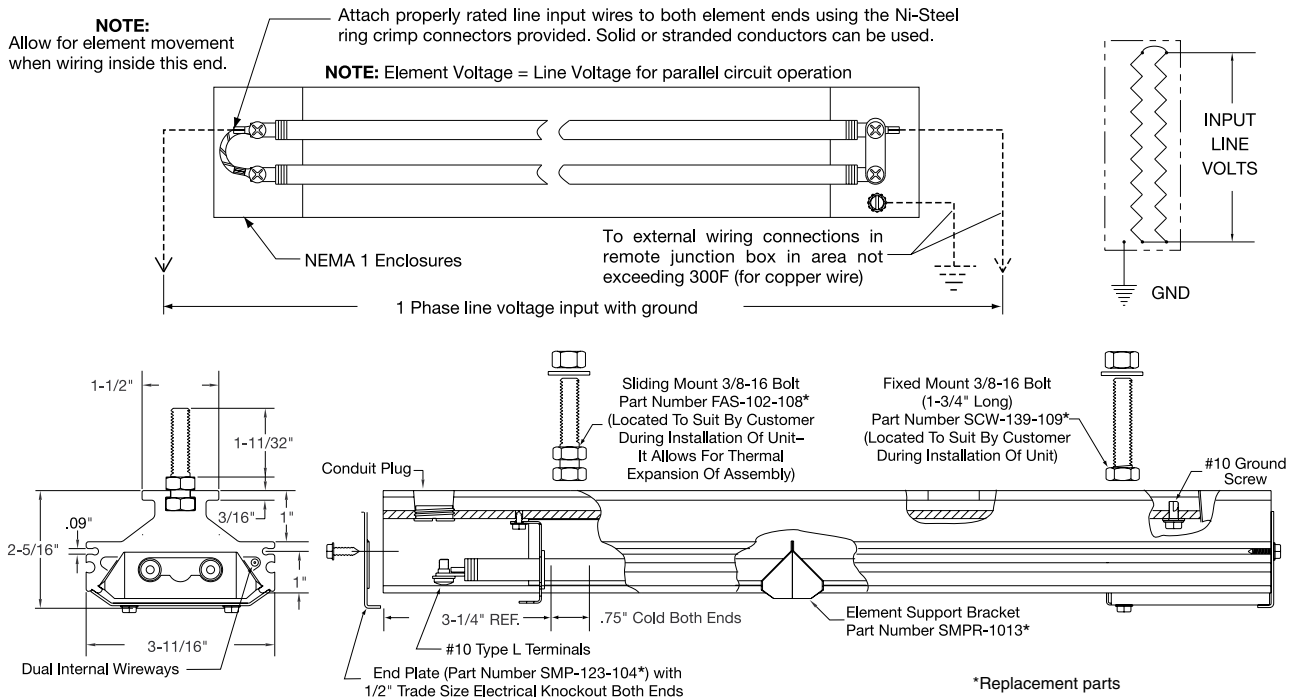
Voltage rating should be equal to the operating voltage of the installation.

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.

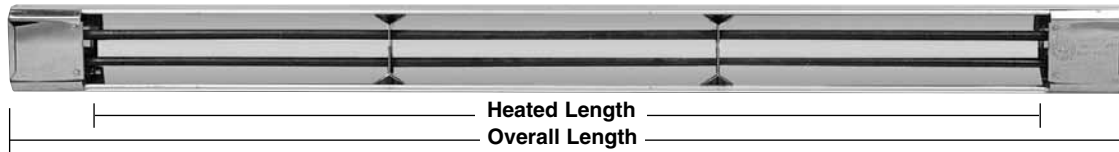
## TRH2 Standard Double-End Wiring



**DANGER: Fire Hazard. Radiant Process Heaters with NEMA 1 electrical housings are not to be used in applications where flammable vapors, gases or liquids are present as defined in the National Electrical Code. Do not mount the heater closer than 6 inches to any structural or surrounding material that does not have a minimum temperature rating of continuous operation at 200°C (395°F). Proper ventilation is required to expel vapors or fumes away from the process and personnel.**



## TRH2 Series—Dual Straight Element Double End Termination



**To Order Visit [omega.com/trh2](http://omega.com/trh2) 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
TRH20001	TRH20054	1200	120	0.5 (18)	0.3 (10)	THE09100	GRD-104-104	SMPR-1018	1
TRH20002	TRH20055	1200	208	0.5 (18)	0.3 (10)	THE09101	GRD-104-104	SMPR-1018	1
TRH20003	TRH20056	1200	240	0.5 (18)	0.3 (10)	THE09102	GRD-104-104	SMPR-1018	1
TRH20004	TRH20057	1200	277	0.5 (18)	0.3 (10)	THE09103	GRD-104-104	SMPR-1018	1
TRH20005	TRH20058	1600	120	0.6 (24)	0.4 (16)	THE09104	GRD-104-105	SMPR-1019	1
TRH20006	TRH20059	1600	208	0.6 (24)	0.4 (16)	THE09106	GRD-104-105	SMPR-1019	1
TRH20007	TRH20060	1600	240	0.6 (24)	0.4 (16)	THE09106	GRD-104-105	SMPR-1019	1
TRH20008	TRH20061	1600	277	0.6 (24)	0.4 (16)	THE09107	GRD-104-105	SMPR-1019	1
TRH20009	TRH20062	2200	120	0.8 (30)	0.6 (22)	THE09108	GRD-104-106	SMPR-1020	1
TRH20010	TRH20063	2200	208	0.8 (30)	0.6 (22)	THE09109	GRD-104-106	SMPR-1020	1
TRH20011	TRH20064	2200	240	0.8 (30)	0.6 (22)	THE09110	GRD-104-106	SMPR-1020	1
TRH20012	TRH20065	2200	277	0.8 (30)	0.6 (22)	THE09111	GRD-104-106	SMPR-1020	1
TRH20013	TRH20066	2200	480	0.8 (30)	0.6 (22)	THE09112	GRD-104-106	SMPR-1020	1
TRH20014	TRH20067	2600	208	0.9 (36)	0.7 (28)	THE09113	GRD-104-107	SMPR-1021	1
TRH20015	TRH20068	2600	240	0.9 (36)	0.7 (28)	THE09114	GRD-104-107	SMPR-1021	1
TRH20016	TRH20069	2600	277	0.9 (36)	0.7 (28)	THE09115	GRD-104-107	SMPR-1021	1
TRH20017	TRH20070	2600	480	0.9 (36)	0.7 (28)	THE09116	GRD-104-107	SMPR-1021	1
TRH20018	TRH20071	3600	208	1.2 (48)	1.0 (40)	THE09117	GRD-104-108	SMPR-1022	1
TRH20019	TRH20072	3600	240	1.2 (48)	1.0 (40)	THE09118	GRD-104-108	SMPR-1022	1
TRH20020	TRH20073	3600	277	1.2 (48)	1.0 (40)	THE09119	GRD-104-108	SMPR-1022	1
TRH20021	TRH20074	3600	480	1.2 (48)	1.0 (40)	THE09120	GRD-104-108	SMPR-1022	1
TRH20022	TRH20075	5000	208	1.5 (60)	1.3 (51)	THE09121	GRD-104-109	SMPR-1023	2
TRH20023	TRH20050	5000	240	1.5 (60)	1.3 (51)	THE09122	GRD-104-109	SMPR-1023	2
TRH20024	TRH20076	5000	277	1.5 (60)	1.3 (51)	THE09123	GRD-104-109	SMPR-1023	2
TRH20025	TRH20077	5000	480	1.5 (60)	1.3 (51)	THE09124	GRD-104-109	SMPR-1023	2
TRH20026	TRH20078	6000	208	1.8 (72)	1.6 (63)	THE09125	GRD-104-110	SMPR-1024	2
TRH20027	TRH20079	6000	240	1.8 (72)	1.6 (63)	THE09126	GRD-104-110	SMPR-1024	2
TRH20028	TRH20080	6000	277	1.8 (72)	1.6 (63)	THE09127	GRD-104-110	SMPR-1024	2
TRH20029	TRH20081	6000	480	1.8 (72)	1.6 (63)	THE09128	GRD-104-110	SMPR-1024	2
TRH20030	TRH20082	7200	208	2.1 (84)	1.9 (75)	THE09129	GRD-104-111	SMPR-1025	2
TRH20031	TRH20083	7200	240	2.1 (84)	1.9 (75)	THE09130	GRD-104-111	SMPR-1025	2
TRH20032	TRH20084	7200	277	2.1 (84)	1.9 (75)	THE09131	GRD-104-111	SMPR-1025	2
TRH20033	TRH20085	7200	480	2.1 (84)	1.9 (75)	THE09132	GRD-104-111	SMPR-1025	2

Ordering Examples: TRH20054, 1200 watt radiant heater with guard, 120 Vac. TRH20009, 2200 watt radiant heater, 120 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).