Tubular Radiant Heater Assemblies (800 to 5000 Watts) Single Hairpin Element Single End Termination

TRH3 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

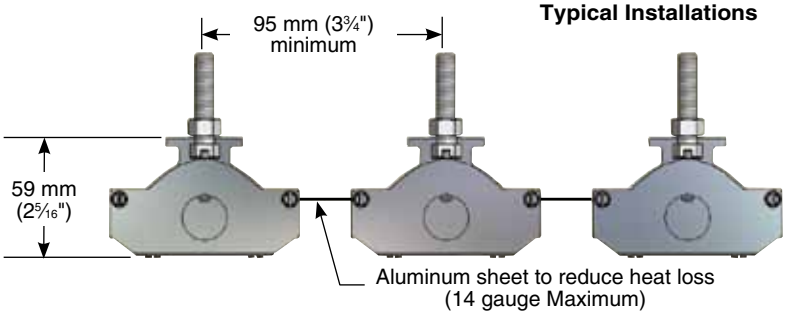
Universal 2000 heaters are ideal for reliable service, providing great flexibility for many diverse industrial and commercial applications. Manufactured with the proper options, Universal 2000 Radiant Heater Assemblies can be used outdoors or in wet locations.

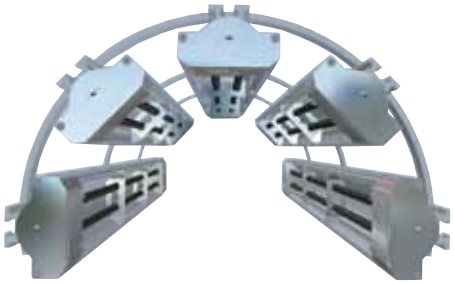
Construction Characteristics

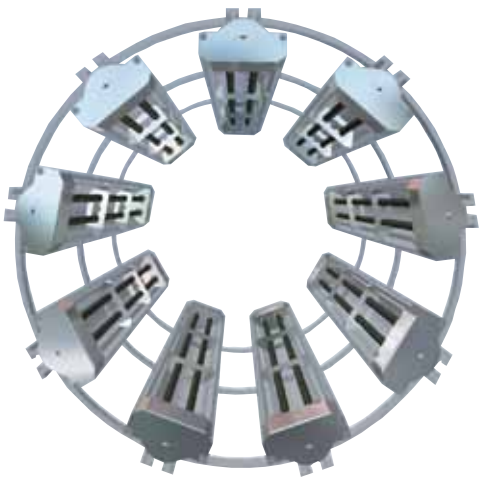
TRH radiant heaters stand apart from all other similar products. Its rugged construction, enhanced design features and flexibility in installation allow it to be used in applications requiring a single unit or to be used as modules creating various configurations for process radiant heating systems.

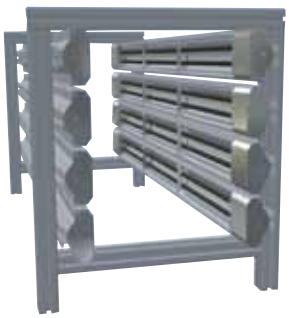
TRH radiant heaters are available in a full range of standard construction variations, physical dimensions and electrical ratings. They are also available in custom engineered/ manufactured units up to 3353 mm (132") for series TRH1, 4 and 6. TRH3 and 5 series units are available up to 3048 mm (120") 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.

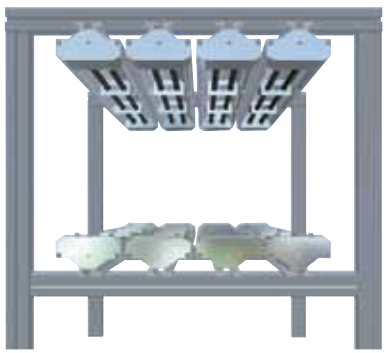
Typical Installations











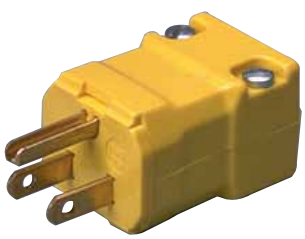
Custom Engineered/Manufactured Heaters

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

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 informatiom.

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 (1¾") long, ⅜-16 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 (3¾") on center for heaters mounted side-by-side. Do not exceed 1.1 m (42") between sliding mounting bolts.

2. 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.
3. In applications where water or solvents are being evaporated, proper ventilation is required to expel vapors or fumes.
4. Standard NEMA 1 electrical enclosures located at opposite ends of the heater housing with standard 22 mm (⅞") diameter knock-outs and a ½ 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 (½") trade size hubs oriented 90° to each other. Openings accept standard electrical fittings.
5. 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

Maintenance

1. Never perform any type of service prior to disconnecting all electrical power to the heater installation.
2. 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.
3. 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.

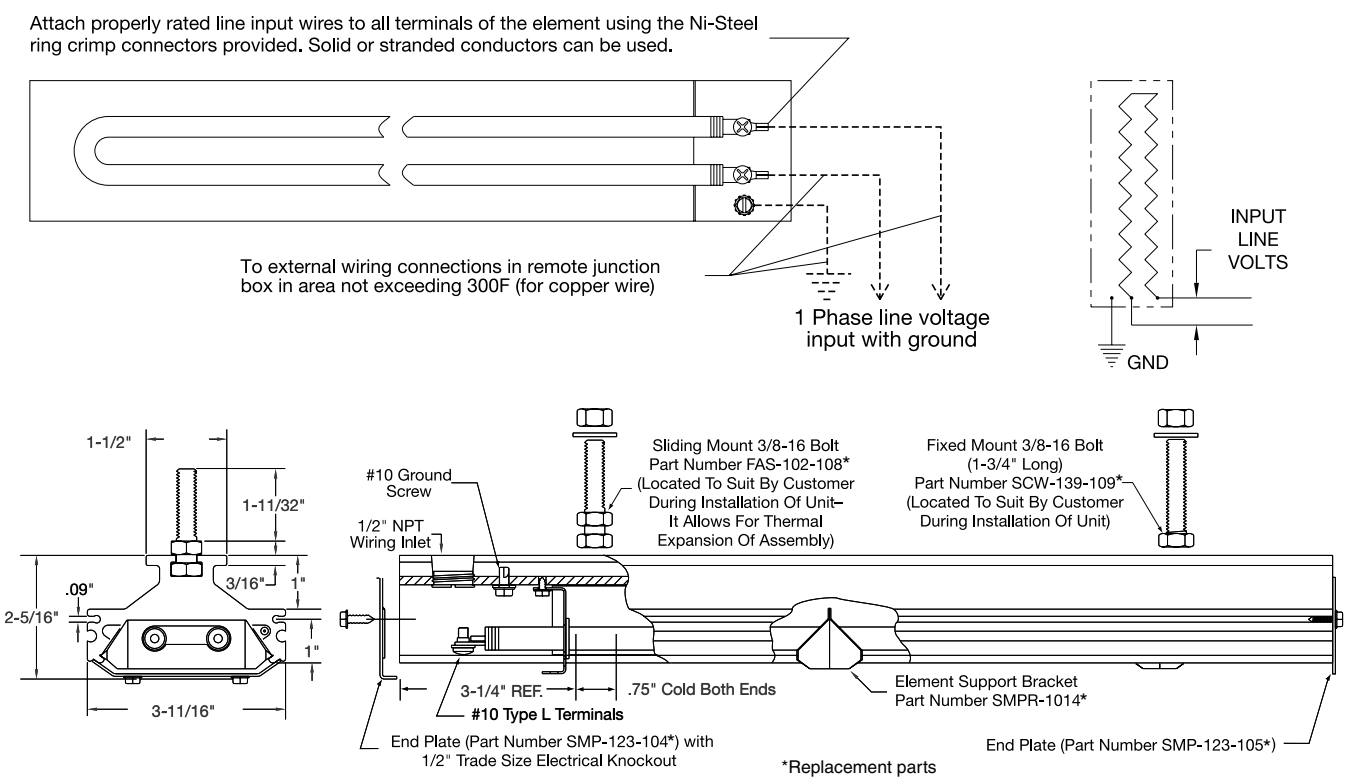
Voltage rating should be equal to the operating voltage of the installation.

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

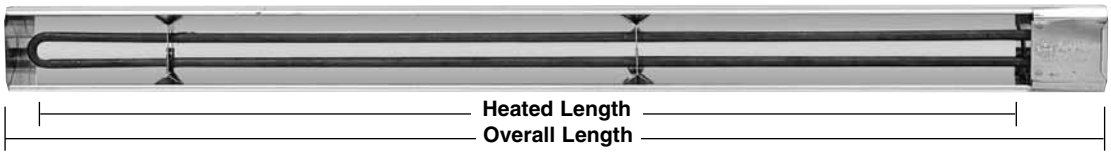
Do not use silver plated or unplated copper wire conductors.

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.

TRH3 Standard Single-End Wiring



TRH3 Series—Single Hairpin Element Bend Single End Termination



To Order *Visit omega.com/trh3 for Pricing and Details*

Model No.								Replacement Reflectors	
Without Guard	With Guard	Watts	Volts	Overall Length m (in)	Heated Length m (in)	Replacement Element	Replacement Guard	Model No.	Number Required
TRH30001	TRH30036	800	120	0.3 (12)	178 mm (7)	THE09133	GRD-104-112	SMPR-1028	1
TRH30002	TRH30037	800	208	0.3 (12)	178 mm (7)	THE09134	GRD-104-112	SMPR-1028	1
TRH30003	TRH30038	800	240	0.3 (12)	178 mm (7)	THE09135	GRD-104-112	SMPR-1028	1
TRH30004	TRH30039	800	277	0.3 (12)	178 mm (7)	THE09136	GRD-104-112	SMPR-1028	1
TRH30005	TRH30040	1200	120	0.5 (18)	0.3 (13)	THE09137	GRD-104-113	SMPR-1029	1
TRH30006	TRH30041	1200	208	0.5 (18)	0.3 (13)	THE09138	GRD-104-113	SMPR-1029	1
TRH30007	TRH30042	1200	240	0.5 (18)	0.3 (13)	THE09139	GRD-104-113	SMPR-1029	1
TRH30008	TRH30043	1200	277	0.5 (18)	0.3 (13)	THE09140	GRD-104-113	SMPR-1029	1
TRH30009	TRH30044	1800	208	0.6 (24)	0.5 (19)	THE09141	GRD-104-114	SMPR-1030	1
TRH30010	TRH30045	1800	240	0.6 (24)	0.5 (19)	THE09142	GRD-104-114	SMPR-1030	1
TRH30011	TRH30046	1800	277	0.6 (24)	0.5 (19)	THE09143	GRD-104-114	SMPR-1030	1
TRH30012	TRH30047	1800	480	0.6 (24)	0.5 (19)	THE09144	GRD-104-114	SMPR-1030	1
TRH30013	TRH30048	2500	208	0.8 (30)	0.6 (25)	THE09145	GRD-104-115	SMPR-1031	1
TRH30014	TRH30049	2500	240	0.8 (30)	0.6 (25)	THE09146	GRD-104-115	SMPR-1031	1
TRH30015	TRH30050	2500	277	0.8 (30)	0.6 (25)	THE09147	GRD-104-115	SMPR-1031	1
TRH30016	TRH30051	2500	480	0.8 (30)	0.6 (25)	THE09148	GRD-104-115	SMPR-1031	1
TRH30017	TRH30052	3000	208	0.9 (36)	0.8 (31)	THE09149	GRD-104-116	SMPR-1032	1
TRH30018	TRH30053	3000	240	0.9 (36)	0.8 (31)	THE09150	GRD-104-116	SMPR-1032	1
TRH30019	TRH30054	3000	277	0.9 (36)	0.8 (31)	THE09151	GRD-104-116	SMPR-1032	1
TRH30020	TRH30035	3000	480	0.9 (36)	0.8 (31)	THE09152	GRD-104-116	SMPR-1032	1
TRH30021	TRH30055	3600	208	1.2 (48)	1.1 (43)	THE09153	GRD-104-117	SMPR-1033	1
TRH30022	TRH30056	3600	240	1.2 (48)	1.1 (43)	THE09154	GRD-104-117	SMPR-1033	1
TRH30023	TRH30057	3600	277	1.2 (48)	1.1 (43)	THE09155	GRD-104-117	SMPR-1033	1
TRH30024	TRH30058	3600	480	1.2 (48)	1.1 (43)	THE09156	GRD-104-117	SMPR-1033	1
TRH30025	TRH30059	5000	208	1.5 (60)	1.4 (55)	THE09157	GRD-104-118	SMPR-1034	2
TRH30026	TRH30060	5000	240	1.5 (60)	1.4 (55)	THE09158	GRD-104-118	SMPR-1034	2
TRH30027	TRH30061	5000	277	1.5 (60)	1.4 (55)	THE09159	GRD-104-118	SMPR-1034	2
TRH30028	TRH30062	5000	480	1.5 (60)	1.4 (55)	THE09160	GRD-104-118	SMPR-1034	2

Ordering Examples: TRH30040, *1200 watt radiant heater with guard, 120 Vac.*
TRH30001, *800 watt radiant heater, 120 Vac.*

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