

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

TRH5 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

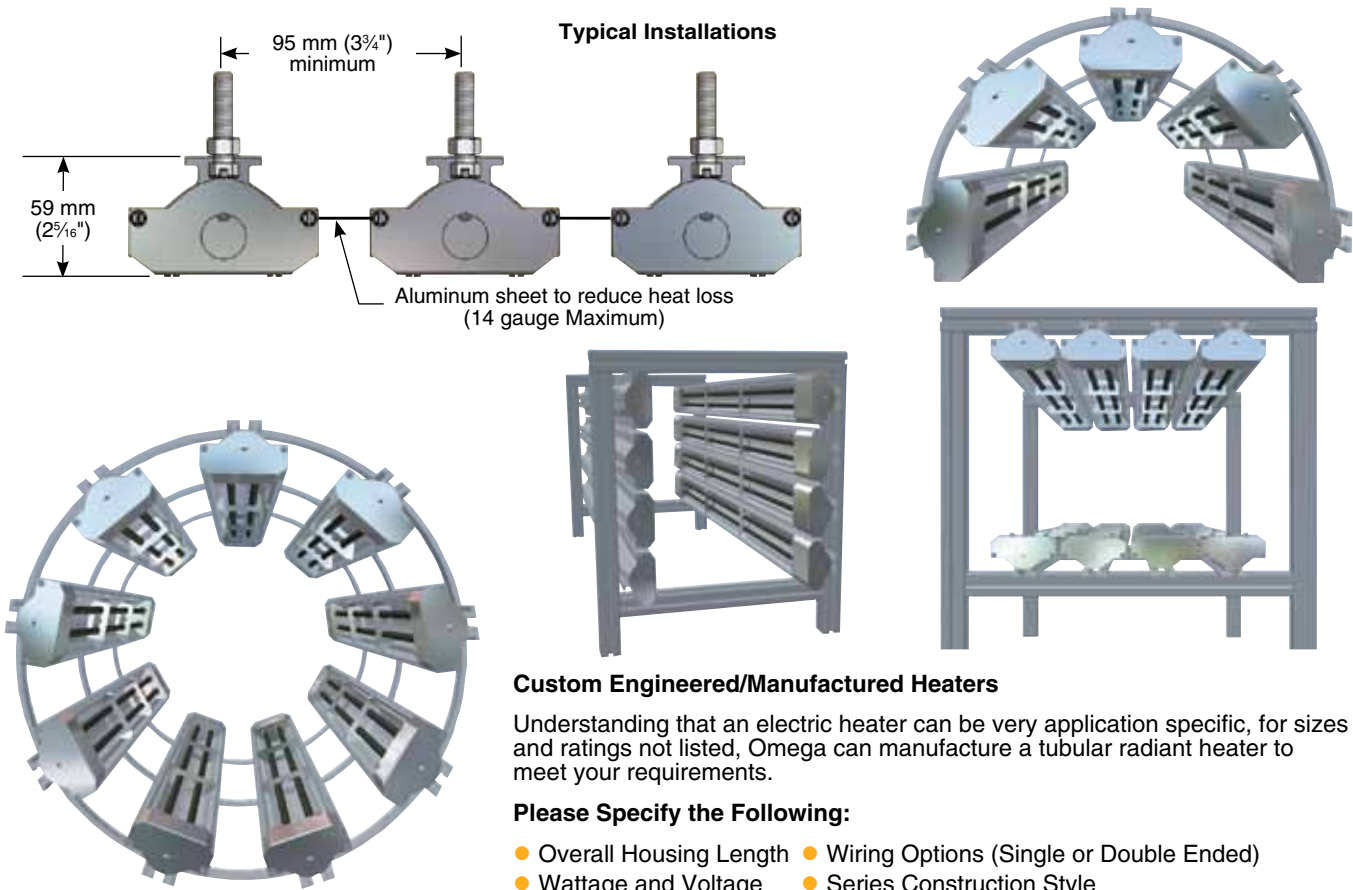
TRH radiant heaters stand apart from all other similar products. Its rugged construction, enhanced design features and flexibility in installation allow it to be used in applications requiring a single unit or to be used as modules creating various configurations for process radiant heating systems.

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



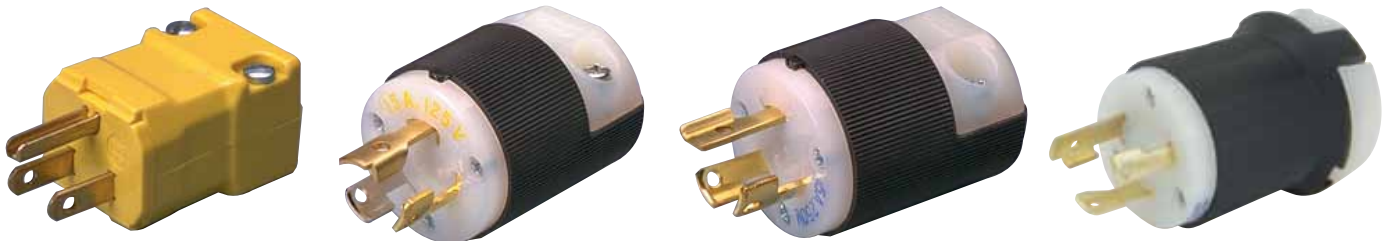
Custom Engineered/Manufactured Heaters

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

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.

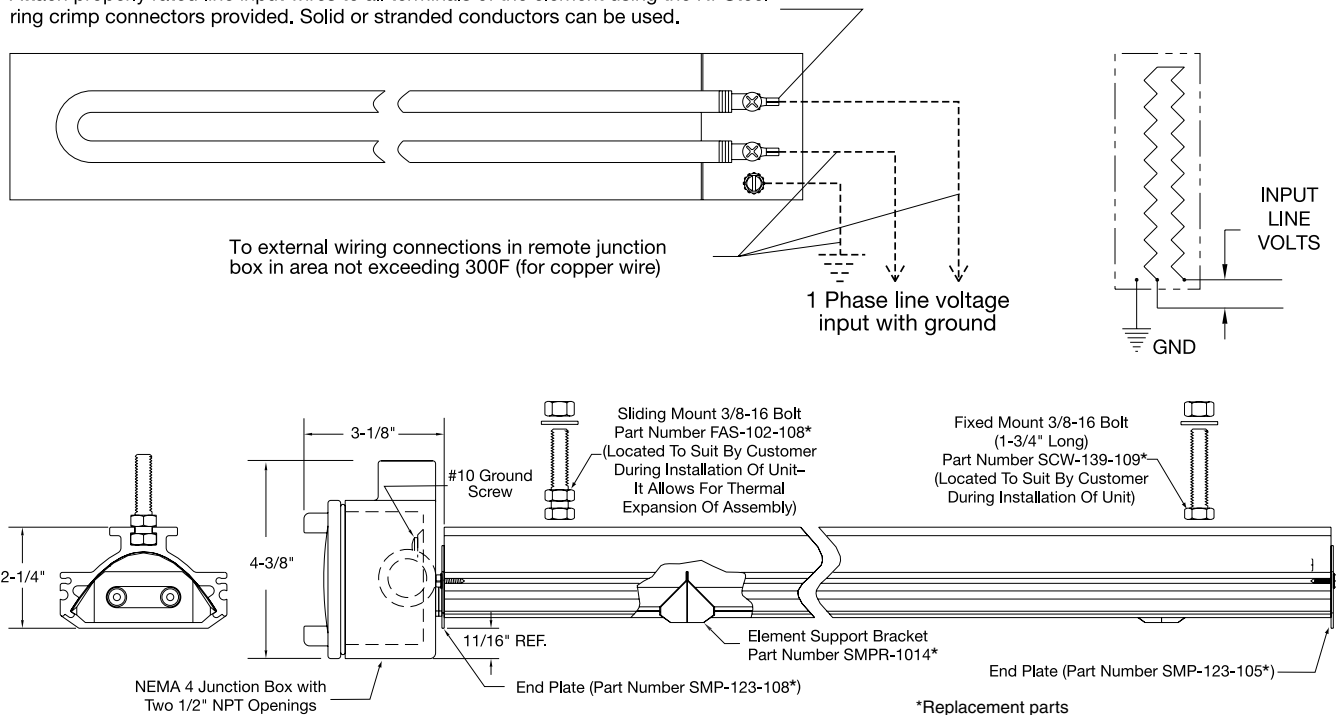
Wire conductors should be nickel, nickel plated copper or nickel clad copper.

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.

TRH5 Standard Single-End Wiring

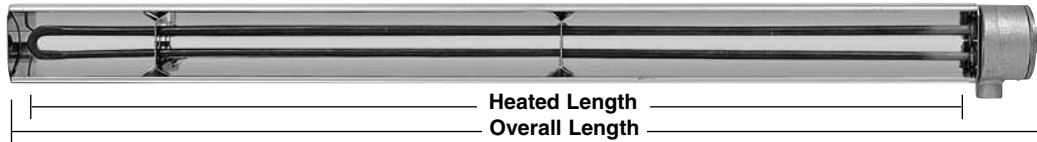
Attach properly rated line input wires to all terminals of the element using the Ni-Steel ring crimp connectors provided. Solid or stranded conductors can be used.



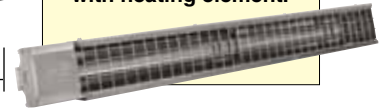


Radiant Process Heaters

TRH5 Series—Single Hairpin Element Liquid Tight Single End Termination



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



To Order Visit omega.com/trh5 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
TRH50001	TRH50040	800	120	0.3 (12)	178 mm (7)	THE09177	GRD-104-112	SMPR-1035	1
TRH50002	TRH50041	800	208	0.3 (12)	178 mm (7)	THE09178	GRD-104-112	SMPR-1035	1
TRH50003	TRH50042	800	240	0.3 (12)	178 mm (7)	THE09179	GRD-104-112	SMPR-1035	1
TRH50004	TRH50043	800	277	0.3 (12)	178 mm (7)	THE09180	GRD-104-112	SMPR-1035	1
TRH50005	TRH50044	1200	120	0.5 (18)	0.3 (13)	THE09181	GRD-104-113	SMPR-1036	1
TRH50006	TRH50045	1200	208	0.5 (18)	0.3 (13)	THE09182	GRD-104-113	SMPR-1036	1
TRH50007	TRH50046	1200	240	0.5 (18)	0.3 (13)	THE09183	GRD-104-113	SMPR-1036	1
TRH50008	TRH50047	1200	277	0.5 (18)	0.3 (13)	THE09184	GRD-104-113	SMPR-1036	1
TRH50009	TRH50048	1800	208	0.6 (24)	0.5 (19)	THE09185	GRD-104-114	SMPR-1037	1
TRH50010	TRH50049	1800	240	0.6 (24)	0.5 (19)	THE09186	GRD-104-114	SMPR-1037	1
TRH50011	TRH50050	1800	277	0.6 (24)	0.5 (19)	THE09187	GRD-104-114	SMPR-1037	1
TRH50012	TRH50051	1800	480	0.6 (24)	0.5 (19)	THE09188	GRD-104-114	SMPR-1037	1
TRH50013	TRH50052	2500	208	0.8 (30)	0.6 (25)	THE09189	GRD-104-115	SMPR-1038	1
TRH50014	TRH50053	2500	240	0.8 (30)	0.6 (25)	THE09190	GRD-104-115	SMPR-1038	1
TRH50015	TRH50054	2500	277	0.8 (30)	0.6 (25)	THE09191	GRD-104-115	SMPR-1038	1
TRH50016	TRH50055	2500	480	0.8 (30)	0.6 (25)	THE09192	GRD-104-115	SMPR-1038	1
TRH50017	TRH50056	3000	208	0.9 (36)	0.8 (31)	THE09193	GRD-104-116	SMPR-1039	1
TRH50018	TRH50057	3000	240	0.9 (36)	0.8 (31)	THE09194	GRD-104-116	SMPR-1039	1
TRH50019	TRH50058	3000	277	0.9 (36)	0.8 (31)	THE09195	GRD-104-116	SMPR-1039	1
TRH50020	TRH50038	3000	480	0.9 (36)	0.8 (31)	THE09196	GRD-104-116	SMPR-1039	1
TRH50021	TRH50059	3600	208	1.2 (48)	1.1 (43)	THE09197	GRD-104-117	SMPR-1040	1
TRH50022	TRH50060	3600	240	1.2 (48)	1.1 (43)	THE09198	GRD-104-117	SMPR-1040	1
TRH50023	TRH50061	3600	277	1.2 (48)	1.1 (43)	THE09199	GRD-104-117	SMPR-1040	1
TRH50024	TRH50062	3600	480	1.2 (48)	1.1 (43)	THE09200	GRD-104-117	SMPR-1040	1
TRH50025	TRH50063	5000	208	1.5 (60)	1.4 (55)	THE09201	GRD-104-118	SMPR-1041	2
TRH50026	TRH50064	5000	240	1.5 (60)	1.4 (55)	THE09202	GRD-104-118	SMPR-1041	2
TRH50027	TRH50065	5000	277	1.5 (60)	1.4 (55)	THE09203	GRD-104-118	SMPR-1041	2
TRH50028	TRH50066	5000	480	1.5 (60)	1.4 (55)	THE09204	GRD-104-118	SMPR-1041	2

Ordering Examples: TRH50040, 800 watt radiant heater with guard, 120 Vac.
TRH50026, 5000 watt radiant heater, 240 Vac.

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