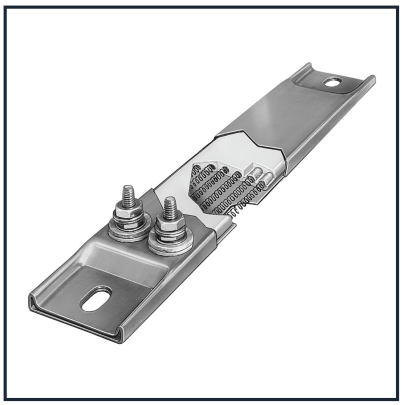
MALTEC-H

STRIP HEATERS



Strip heaters are used principally for convection-type air heating and clamp-on installations. Strip heaters, often known as component heaters, are a simple way of using surface area to transfer heat effectively. Steel strip heaters are an excellent industrial heating product and can be easily controlled by using a temperature controller such as a mechanical thermostat or a cost-effective bimetal thermostat that can be installed on the surface you are heating. Mounting holes are useful to mount the process heaters securely on almost any surface with terminal extending from the sheath for easy electrical connections. Strip heaters can be clamped or bolted onto objects or solid surface contact heating over large areas and are primarily used in indoor applications. Strip heaters are usually flat, straight and similar in shape to a ruler, but they are often finned for fuller heat radiation when they are used to heat air. They can also be used to heat tubes, pipes and nozzles, in which case they can be designed as circular bands that clamp around cylindrical objects. Strip heaters may be used individually or in groups to provide melting, drying or air heating. Strip heaters can also be used in the formation and shaping of plastics. In plastic extrusion, strip heaters can be used to assist in the plasticization of raw plastic stock while it is processed in a conveyance channel. They are also used to heat plastics in advance of bending processes.

Application

Strip heaters are designed for the heating of flat metallic parts (tools, plates, moulds, etc.) and for the indirect heating of fluids through a wall (tanks, containers, etc.) up to 600°C, 400 V 1-ph. Strip heaters clamp or bolt onto objects into order to heat a variety of materials. When used as radiant heaters, they include finned strips to maximize surface area and heat transfer to the air. Strip heaters consist of a heating element, protective sleeve, and mounting hardware.

- **Surface heating**
  - Dies
  - Molds
  - Tanks
  - Piping
- **Dropping resistors**
  - Line applications in railroads and load banks
- **Winterizing**
  - Hoppers
  - Conveyors
  - Ducts
  - Car heating systems
  - Thawing
- **Process air heating**
  - Ovens
  - Drying cabinets
  - Baking ovens
  - Vacuum dehydrating ovens

  Moisture protection for motors
- **Dehumidifiers**
- **Pace heating**
- **Packaging and sealing equipment**
- **Food warming equipment**
- **Vulcanizing presses**
- **Drying equipment**
- **Laboratory equipment**
- **Air conditioning**

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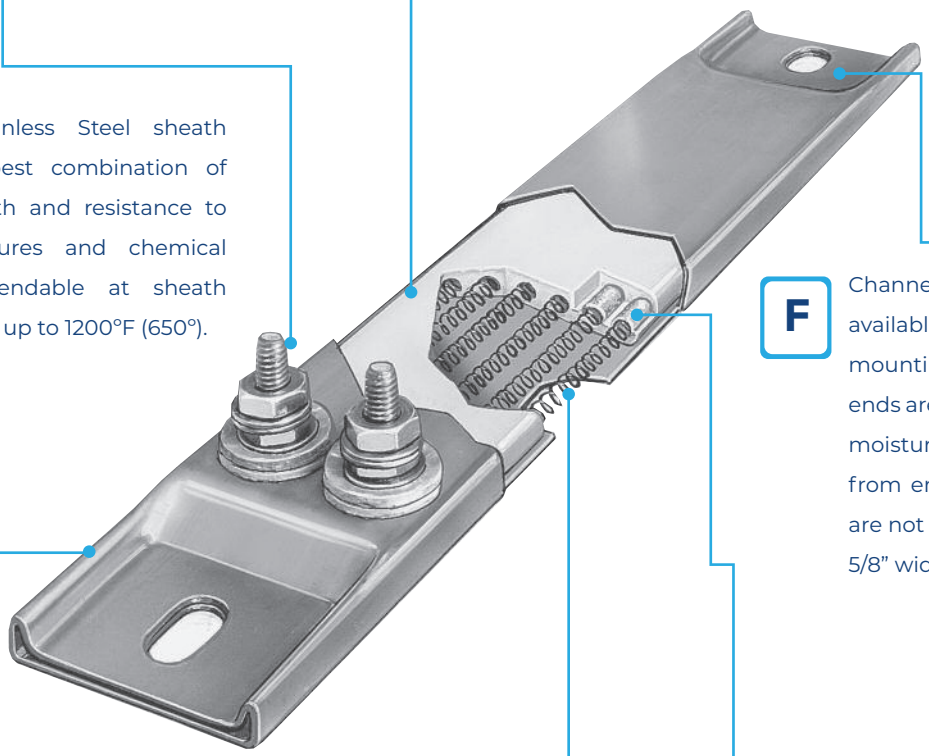
B Stainless Steel 10-32 threaded screws are standard and securely fastened. Various termination configurations and options are available.

C Specially selected and designed ceramic insulator houses the resistance wire coil, insulting it from outer sheath.

A Type 304 Stainless Steel sheath provides the best combination of physical strength and resistance to high temperatures and chemical corrosion. Dependable at sheath temperatures of up to 1200°F (650°).



F Channel strip heaters are available with or without mounting tabs. If without, the ends are welded shut to prevent moisture and contaminants from entering the heater. Tabs are not available on 1/4" thick by 5/8" wide heaters.

D Helically wound resistance wire coil made from nickel-chrome wire evenly stretched and precisely strung through the ceramic insulator, providing uniform heat Resistance wire is then mechanically connected to screw terminals or lead wires for a strong positive joint.

E A custom mixture of several high purity magnesium oxide grain sizes, chosen to increase thermal conductivity and dielectric strength, are used to fill all remaining space inside and around the ceramic insulator. Voids are densely packed.

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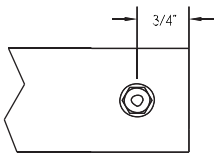
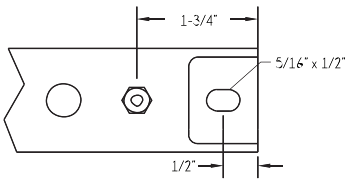
Screw Terminal Terminations

OPTION 1 Strip Heater with Screw Terminals at Each End — Available on 1" and 1-1/2" wide heaters

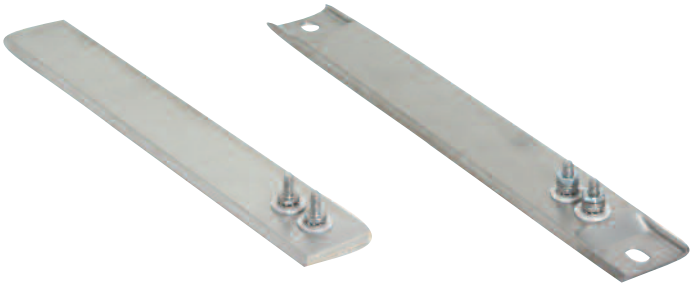
No Mounting Tabs



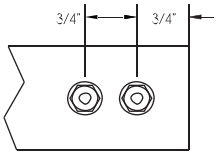
With Mounting Tabs



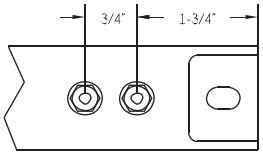
OPTION 2 Strip Heater with Screw Terminals at One End, Tandem — Available on 1" and 1-1/2" wide heaters



No Mounting Tabs

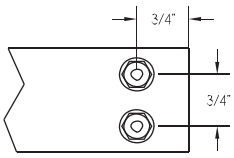


With Mounting Tabs

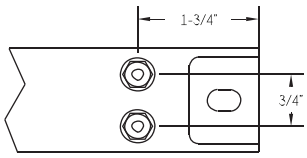


OPTION 3 Strip Heater with Screw Terminals at One End, Parallel — Available on 1" and 1-1/2" wide heaters only

No Mounting Tabs

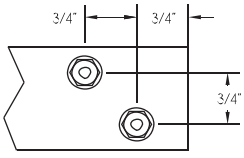


With Mounting Tabs

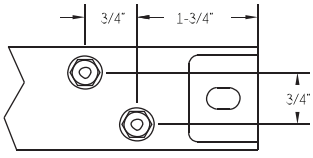


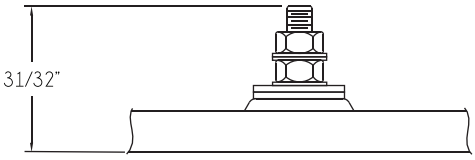
OPTION 4 Strip Heater with Screw Terminals at Each End, Offset — Available on 1" and 1-1/2" wide heaters only

No Mounting Tabs



With Mounting Tabs





10-32 Screw Terminal Height

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Finned strip heaters are extremely efficient and dependable as a heat source for hundreds of industrial and commercial applications. They are used for both forced (mounted in a duct) and natural convection air heating (mounted at the bottom of cabinet type ovens). The finned strip heater's basic design consists of a helically wound resistance coil placed in a specially designed ceramic insulator. The resistance coil is mechanically connected to the screw terminal for positive connection. Stainless steel rectangular tubing is used to house the heater assembly. All remaining voids are filled with high purity magnesium oxide to increase thermal conductivity and dielectric strength. Nickel-plated steel fins (stainless steel optional) are mounted to the rectangular tubing. The fins have been specially designed to provide maximum surface contact for good heat dissipation into the finned cross sections, thus resulting in rapid heat transfer to the air.

Design Features

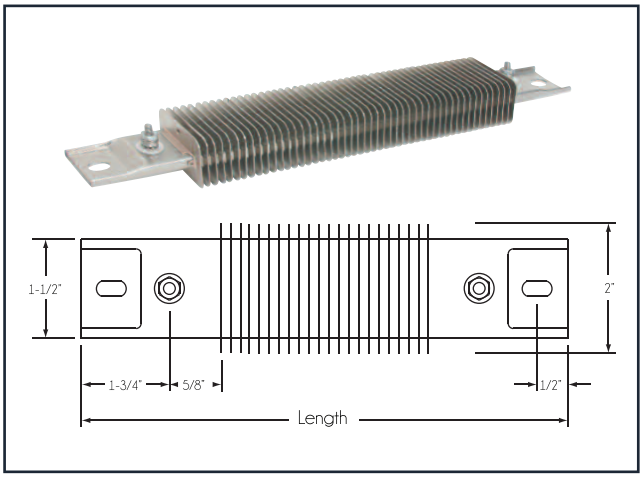
- Rugged durable construction
- Stainless steel sheath
- Nickel-plated steel fins (stainless steel optional)
- Various termination
- Trouble-free installation

Applications

- Duct heating
- Space heating
- Drying ovens
- Food warmers
- Dehumidifier
- Shrinking tunnels
- Air heating
- Heat curing

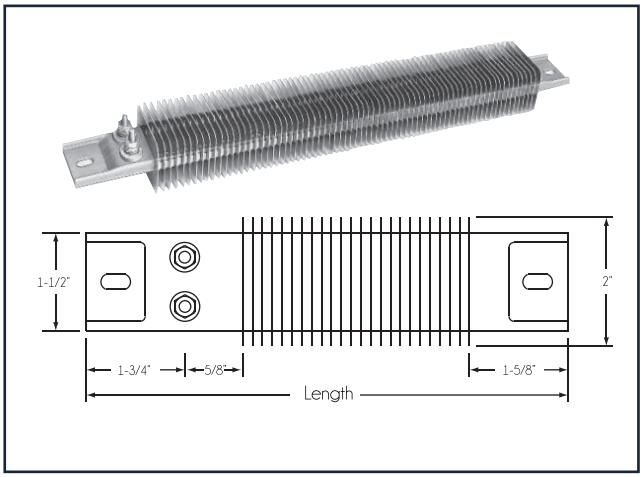
OPTION 1

Finned Strip Heater with Screw Terminals at Each End



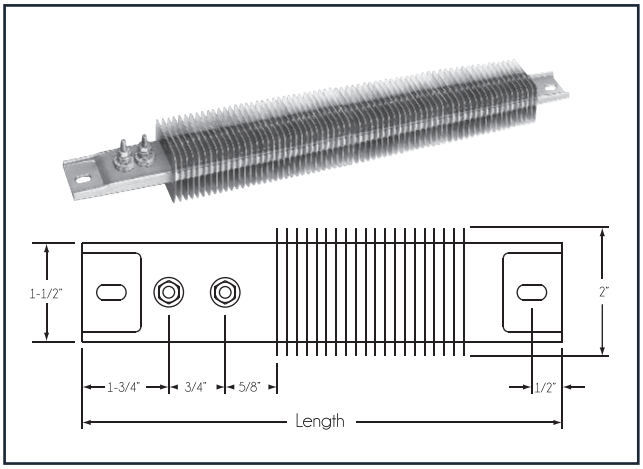
OPTION 3

Finned Strip Heater with Screw Terminals at One End, Parallel



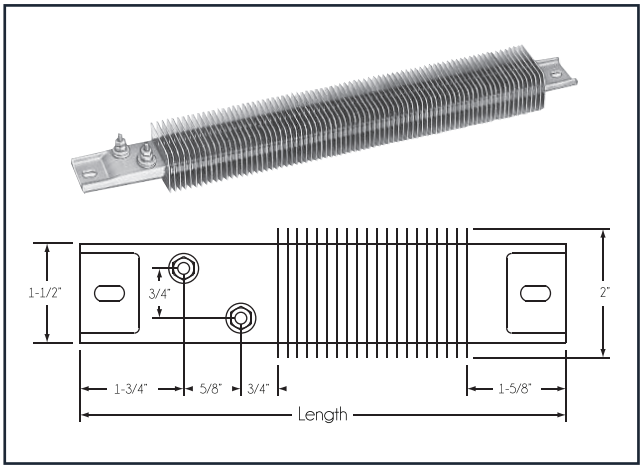
OPTION 2

Finned Strip Heater with Screw Terminals at One End, Tandem



OPTION 4

Finned Strip Heater with Screw Terminals at One End, Offset



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Ordering Table: Strip Heater Design

To Order: Please specify the complete assembly, indicate the code letter or value for each option.

Model	Length, L	Width	Wattage	Supply

Width	Description
	Width - 25mm
	Width - 38mm

Model	Description
	Strip Heater with Screw Terminals At Each End
	Strip Heater with Screw Terminals At One End, Tandem
	Strip Heater with Screw Terminals At One End, Parallel
	Strip Heater with Screw Terminals At One End, Offset
	Finned Strip Heater with Screw Terminal At Each End
	Finned Strip Heater with Screw Terminal At Each End, Tandem
	Finned Strip Heater with Screw Terminal At Each End, Parallel
	Finned Strip Heater with Screw Terminal At Each End, Offset

Example:

Finned Strip Heater with Screw Terminals At Each End

- 200mm...Length
- 38mm...Width
- 1,000 Watts
- 220 Vac