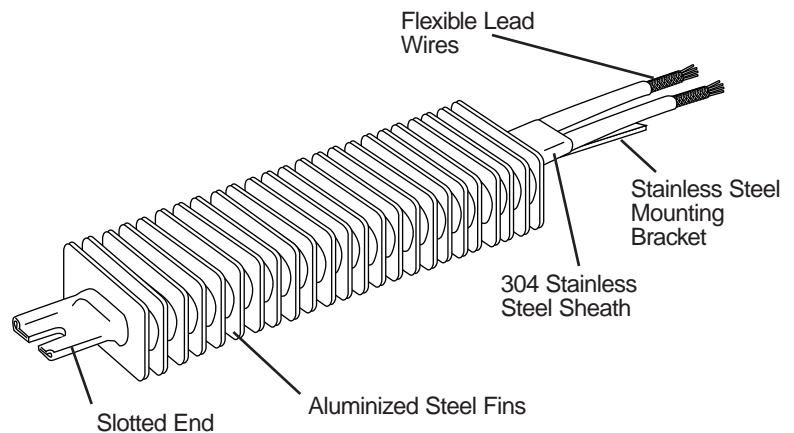


Finned Construction Maximizes Heat Transfer



Features

- Rugged, aluminized steel fins
- Single-ended termination
- Stainless steel mounting bracket, welded to the terminal end, is supplied with a slotted end
- Lavacone seals

Benefits

- Effectively increase surface area to approximately 16 square inches for every linear inch of element length. Fins press fitted to the heating element improve heat transfer to the air.
- Simplifies wiring and installation
- Makes installation easier
- Provide protection against humid storage conditions. Moisture retardant to 390°F (200°C)

Composed of aluminized steel fins press fitted to a 1-inch single-ended FIREBAR® element. The FINBAR is designed to improve heat transfer to the air and permits putting more power in tighter spaces—like forced air ducts, dryers, ovens and load bank resistors.

Heat transfer, lower sheath temperature and element life are all maximized by its finned construction.

Installation is simplified by terminations exiting at one end and mounting accommodations on both ends.



A subsidiary of Watlow, Designer and Manufacturer of Industrial Heaters, Sensors and Controls
 6 Industrial Loop Road
 Hannibal, Missouri 63401 USA
 Phone: 573-221-2816
 Fax: 573-221-3723
 Internet: www.watlow.com

FINBAR

Applications

- Forced air heating for dryers, ovens and ducts
- Still air heating for ovens, comfort heating
- Incubators
- Ink drying
- Load bank resistors

Construction Features

Construction features are detailed for assembly stock products only. Optional materials, sizes, terminations and ratings may be available at additional cost. For availability and ordering information on options, contact your local Watlow representative.

Watt Density: Stock: up to 40 W/in² (6.2 W/cm²);
Made-to-Order: up to 50 W/in² (7.7 W/cm²)

Fin Surface Area: 16 in²/linear inch (40.5 cm²/linear cm)

Fin Cross Section: 2 x 1 inch (50 x 25 mm)

Maximum Operating Temperature: Sheath material:
304 Stainless Steel, 1200°F (650°C); Fin material:
Aluminized Steel, 1100°F (600°C)

Heater Length: Stock: 10 to 48 inches (260 to 1210 mm);
Made-to-Order : 6 to 120 inches (150 to 3050 mm);
No-Heat Length: 1 inch minimum, 12 inch maximum (25/305 mm)

Voltages: Up to 480VAC

Phase: Stock: 1-phase parallel; Made-to-Order: 1-phase parallel or 3-phase wye

Resistance Coils: Stock: 1; Made-to-Order: 1 or 3

Terminations: Flexible leadwires, quick connect (spade), screw lug (plate) and threaded stud

Seal Material: Lavacone, rated to 390°F (200°C)

Optional Internal Thermocouple: Made-to-Order only, ANSI Type J and K

Single-End Configuration: Stock: slotted; Made-to-Order: slotted, no-slot or sealed

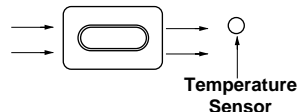
Agency Recognition: refer to FIREBAR UL® file #E52951 and CSA file #31388

Application Hints

- Avoid deteriorating the fins by not exceeding the recommended maximum fin temperature of 1100°F (600°C).
- Ensure proper air flow to prevent premature heater failure.
- Locate the temperature sensor downstream from heater(s) for process temperature sensing.

The following mounting parameters are recommended:

- Air flow over element must be parallel with the flat side.
- Element center line to element center line spacing must be a minimum of 1½ inches (38 mm).



Proper air flow relative to the heater's sheath is parallel with the longer cross sectional axis.

Dual Ended FINBAR

FINBAR elements are typically terminated at one end. Upon request, however, dual ended FINBAR heaters can be ordered.

Ordering Information

How to Order

To order a stock FINBAR heating element, specify:

- Watlow code number (from Watlow Heater's Catalog)
- Volts/watts
- Termination options
- Options
- Quantity

For Made-to-Order FINBAR heating elements, specify:

- Type of application, including air flow velocity, volume, etc.
- Single- or double-ended element
- Volts / watts
- Heated length
- No-heat length
- Terminal pin length or termination options, including moisture seal type
- Quantity
- Options, including thermocouple, sealed end, no mounting bracket, etc.

Availability

Assembly Stock: 3 working days

Modified Stock^⓪: 5-7 working days

Made-to-Order: 4-5 weeks

Options, complexity and quantity may affect availability and leadtimes. Consult factory.

^⓪Assembly Stock units with catalog options.