

# Strip & Ring Heaters

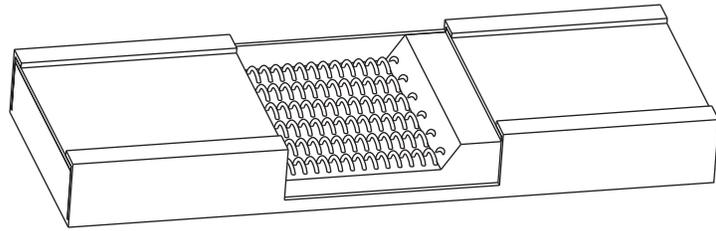
## Applications & Features



- Up to 72" Lengths
- Up to 3,000 Watts
- 120 - 480 Volt
- Up to 38 W/In<sup>2</sup>
- Maximum Sheath Temp.
  - Rust-Resisting Iron 750°F
  - MONEL<sup>®</sup> 900°F
  - Chrome Steel 1200°F
  - INCOLOY<sup>®</sup> 1500°F
- Accessory Clamping Devices, Optional

**High Quality, Coiled Alloy Resistor Wire** is uniformly spaced over the width and length of the strip heater to assure even heat distribution.

**Resistor Wire is Embedded** in specially formulated, high-grade refractory material which both insulates the resistor and transfers heat rapidly to the sheath.



**Refractory is then Compressed to Rock-Hardness** and high density under tremendous hydraulic pressure to maximize heat transfer from coil to sheath. Elements are oven cured at high temperatures to semi-vitrify and mature the refractory.

**Maximum Heat Transfer**, from the instant the element is first energized, is provided by the high emissivity black oxide finish. Elements with shiny surfaces do not transfer heat as well.

### Applications

Chromalox strip heaters are used principally for convection-type air heating and clamp-on installations. When selecting strip heaters for either, two important factors must be considered:

1. The proper sheath material for resisting any rusting and oxidizing inherent in the process or environment and for withstanding the sheath temperature required. Standard sheath materials are rust-resisting iron, chrome steel and INCOLOY<sup>®</sup> (type NS only). Stainless Steel and MONEL<sup>®</sup> sheaths are available.
2. The watt density of the element, or watts per square inch of heated area, should be low for heating asphalt, molasses and other thick substances with low heat transferability. It can be higher for heating air, metals and other heat-conducting materials. (See Technical section for determining allowable watt densities.)

When high operating temperatures are needed, watt density must be limited in order not to exceed the maximum sheath temperature. Watt density is given in the table for each strip heater.

In general, a viscous material with low thermal conductivity requires a low watt density. High watt densities can be used with thinner liquids and with materials of high thermal conductivity. Premature loss of the element due to excessive temperature may result if the material's heat-take-away ability is low. Also, the material may be charred, carbonized or its chemical makeup altered by overheating.

### Features

**Choice of Sheath Materials** capable of operating up to 1500°F sheath temperature to heat various processes economically. These include rust-resisting iron (750°F), chrome steel (1200°F), Monel<sup>®</sup> (900°F), and INCOLOY<sup>®</sup> (1500°F).

**Refractory Insulated Construction** exclusively. By far the most rugged and best for long, dependable service.

**More Types and Ratings** — More precise matching to your power service and work load requirements. Special ratings and sizes can be manufactured readily.

### Lengthwise and Cross Section Curving

— Available only on made-to-order products for efficient heat transfer. Strip and ring heaters can be factory formed to fit the shape of the surface to be heated.

**Easy Installation** — Chromalox clamping devices and mounting tabs speed installation.

**More Choices of Strip Heater Terminal Locations** — To simplify wiring layout between elements and power lines.

**Many Additional Features** — Available to adapt heaters to suit special applications — made-to-order.

**Installations** — Minimum maintenance costs.