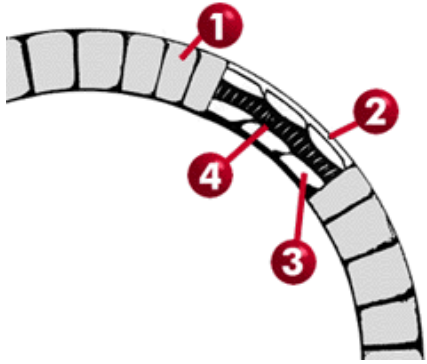


Ceramic Band Heaters

Plastic processing requires high operating temperatures and fast production rates. The ceramic Band Heaters are designed to meet these demands. These heaters are, in effect, high temperature electric furnaces capable of very efficient heat transfer by radiation, conduction and convection. Built-in insulation minimizes unwanted temperature changes along the barrel.

Other types of band heaters are primarily conductive, requiring an intimate fit with components being heated. Grooves or other surface irregularities form voids under the bands, resulting in hot spots and premature heater failure. Ceramic bands are recommended here because efficient heat transfer is not affected by irregular surfaces or loose fit. At higher watt densities they can be used in wider increments than other heaters. This means you can reduce the number of bands used and simplify wiring.



1. Stainless Steel Sheath

Resists rust and high temperatures, and provides firm mechanical support. Easily wraps around barrel due to fluted construction.

2. Thermal Insulation

1/4 inch of ceramic fiber prevents heat loss, thereby lowering energy costs.

3. Ceramic Coil Supports

Designed for their dielectric and thermo-conductive characteristics, the interlocking feature provides flexibility so band wraps easily around barrel.

4. Nickel-Chrome Heating Coil

Precision wound, helical construction gives extended service. A heavier weight than found in mica or other conventional heaters.

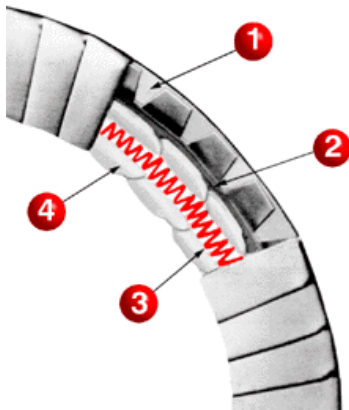
Insulation Plus - The Energy Saver

1. Insulation Plus employs an additional 1/4" of thermal insulation encased in a separate flexible stainless steel shell.

2. Standard 1/4" thick thermal insulation found on all ceramic band heaters.

3. Helical nickel-chrome coil for extended service.

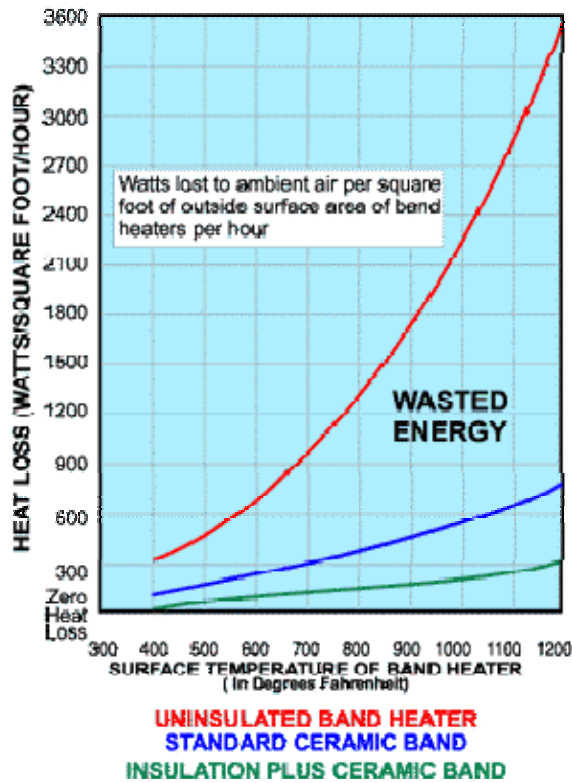
4. Ceramic coil supports.



Cooler ambient temperature around the operating machines



Ceramic Band Heaters



Insulation Plus Designs



Stud Terminals in Low Profile Box (1" High) With BX installed



Stud Terminals in Standard Two Terminal Box (1-3/4" High) Standard Flange Lock-Up



Optional spring Loaded Latch and Trunnion Lock-Up For Large Diameter Bands.



Thermo Couple Hole in Gap Shell Overlap With Lock-up



Stud Terminals in Standard Three Terminal Box (1-3/4")



Thermo Couple Hole in Gap Shell Overlap With Lock-up

Super Insulation Plus 1 1/4" Thick, 7/8" thermal insulation - up to 40 watts/sq. in.

Super Insulation Plus employs an additional 5/8" of thermal insulation encased in a separate flexible stainless steel shell.

Maximum energy savings, minimum sheath temperatures

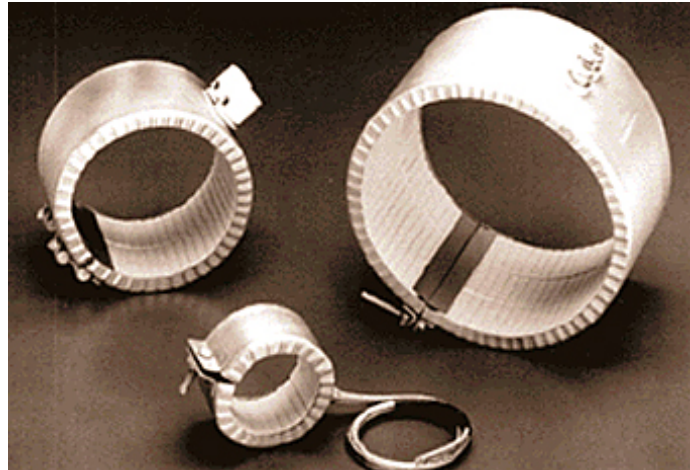


Ceramic Band Heaters

Ultra-Thin Ceramic Band Heaters

3/8" Thick, 3/16" thermal insulation, up to 65 watts/sq. in.

High performance heater band for processing high temperature engineering resins. "Ultra-Thin" heater bands have the same basic construction as our standard ceramic heaters except they are much thinner and have a high ratio of thermal to electrical insulation. The thin ceramic insulation used results in a lower



mass construction, which improves response to control and minimizes temperature lag and overshoot. The backside thermal insulation is highly efficient and results in minimal heat loss and lower sheath temperature. The "Ultra-Thin" has averaged 100 deg. F lower sheath temperature when tested against other high temperature heaters at 600 deg. F cylinder temperatures. The "Ultra-Thin" without thermal insulation and with a perforated sheath is ideally suited for air cooled systems. "Ultra-Thin" heaters are constructed of all high temperature materials. The heater element itself is computer designed for maximum wire size which results in a long service life.

Specifications:

Insulation - 3/16" thick thermal insulation (ceramic fiber)

Sizes - Minimum ID 1-1/2" (38.1mm) 1" wide and up

Terminals - Post Terminals Standard (10-24 Thread or 1/4"-20 Thread)

Sheath - Stainless Steel

Lock-up - Flange or Barrel Nut Standard

Standard Gap - 1/4" when tightened

Metric sizes available

Wall Thickness - 11/32" (+1/32", -.00)

Temperature - Up to 1400 Deg. F

Watt Density - Up to 65W/Sq. in. (9.9 W/C2)

Voltage - Up to 480 V (Single or three phase)

Resistance-Tolerance +10%-5%

Wattage Tolerance +5%-10%

Maximum Amperage - 20/Circuit

Options:

A - Armored Cable (BX)

B - Braided Over Leads

C - Plain Leads

D - Right Angle Armor

E - Right Angle Braided

F - Partial Coverage

G - T/C Hole (specify location)

H - Inner S.S. Liner

I - Ground Stud or Wire

J - Dual Voltage

K - Latch-Trunnion Lock-Up

L - Overlap on shell at gap

M - Standard Terminal Box

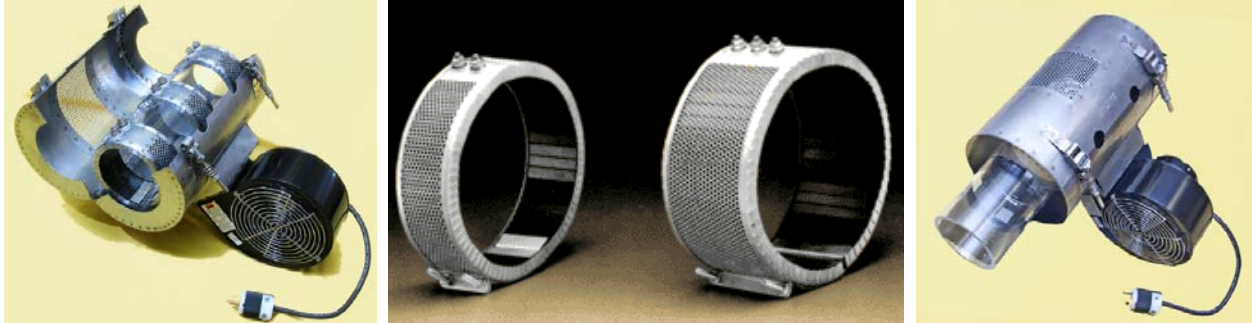
N - Low Profile (1" high) Terminal Box

O - Ceramic Terminal Caps

P - Quick Disconnected High Temperature Plugs For other options consult factory!

Ceramic Band Heaters

Air Cooled Heaters



Super-efficient and economical air cooled ceramic heater bands are designed for use on extrusion machinery or on any heat/cool operation. They feature 63% open perforated metal sheath, which assures maximum surface area exposure.

They also provide the user with a more economical operation, via a rapid heat-up and cool-down feature. Their "Black Star" coating further increases efficiency. Advantages of air cooled vs. Liquid cooled operation include: lower cost, replaceable heaters, low maintenance, no leak problems, and close temperature control.

Air cooled ceramic heater bands are available in various sizes to either accommodate new designs or to replace less efficient, more expensive cast aluminum heaters. They also offers a full line of custom and standard heaters and controls.

Specifications:

Temperature - Up to 1200 Deg. F
Watt Density -Up to 45 W/Sq. In.
Voltage - Up to 480 V (single or three phase)
Resistance -Tolerance NEMA Standard plus 10% Minus 5%
Wattage Tolerance - NEMA Standard plus 5%, Minus 10%
Maximum Amperage - 25/Circuit
Sizes - 2" dia. And up: 1-1/2" width and up (in 1/2" increments)
Terminals - 1/4"-20 post terminals standard
Sheath - Aluminized steel
Lock-up - Flange type steel
Maximum ID - Consult factory
Standard width increments -1/2"
Standard gap when tightened - 1/4"
Thickness - 1/2"

Options:

A - Armored Cable (BX)
B - Braided Wire
C - Lead Wire, No Braid or Armor
D - Terminal Connectors on studs - Ring lugs
E - Partial Coverage
F - Thermocouple hole in element area
G - Thermocouple hole in gap area, notched
H - Twist Lock Plug on leads
I - Wider than normal gap, specify
J - Ground stud
K - Dual Voltage - for bands 2-1/2" or more in width
Note: A) Terminal boxes and stud terminals are normally located 180 degrees opposite the gap.