

**Rugged &
Reliable...
Quick delivery
meets custom
engineering**



For over 30 years, Star Electric has been solving complex and unique application problems with special Mica band/barrel heaters. Star Electric is continuously improving design and application knowledge through engineering expertise and experience with numerous OEM and end user applications. This has resulted in the development of many specialty variations of the industry standard mica band/barrel heater. Features of our Mica bands include:

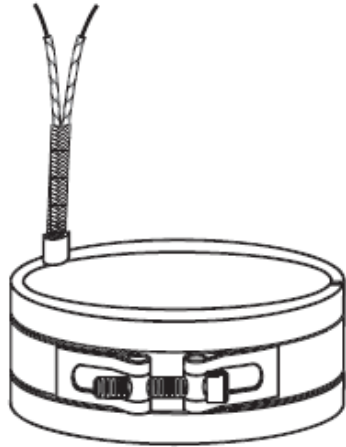
- **Operating temperatures** up to 900°F (480°C)
- **Unique clamping strap** assures efficient heat transfer
- **Low mass design** allows fast heat-up and quick response
- **Design variations** provides user convenience and heater protection

Specifications	
Electrical	Mechanical
Resistance tolerance: -10 percent (+5 percent)	Min/Max width 1 or 2 -pc: 5/8 to 15-inch
Wattage tolerance: +10 percent (-5 percent)	Min/Max ID 1-pc.: 1-5/16 to 15-inch
Maximum watt density: 150 W/in ²	Min/Max ID 2-pc.: 3 to 44-inch
Maximum operating temperature: 480°C (900°F)	Min/Max OD heater 1-pc: 3 to 22-inch
	Min/Max OD heater 2-pc: 3 to 44-inch
	Min/Max width OD heater 1 or 2 -pc: 1 to 6-inch

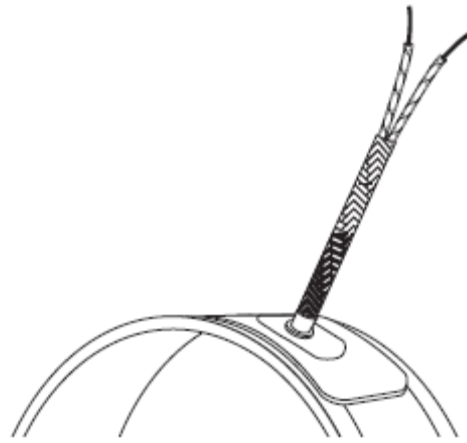


Lead Arrangements

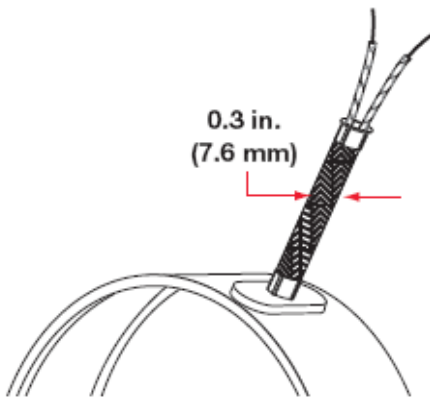
Type B - Standard



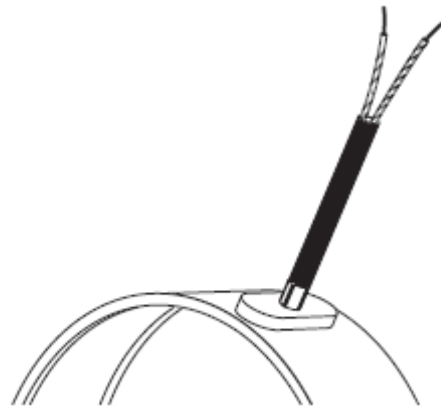
Type C - Tight Metal Braid



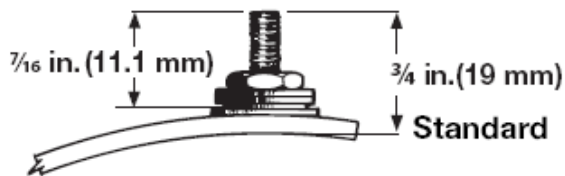
Type E - Loose Metal Braid



Type F - Loose Fiberglass Slewing

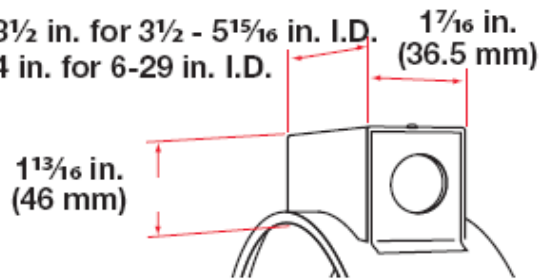


Post Terminals - with or without Terminal box



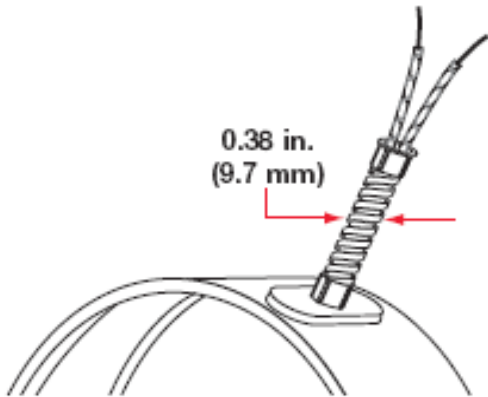
Standard post terminals have a threaded length of 7/16 in. (11.1 mm) and require 3/4 in. (19 mm) clearance from the cylinder. Post terminals can be located one on each end or both on one end. Other post terminal types include button type extended stud and post terminals with terminal housing. Terminal housings include 1/2" conduit knockout on each side.

3 1/2 in. for 3 1/2 - 5 15/16 in. I.D.
4 in. for 6-29 in. I.D.

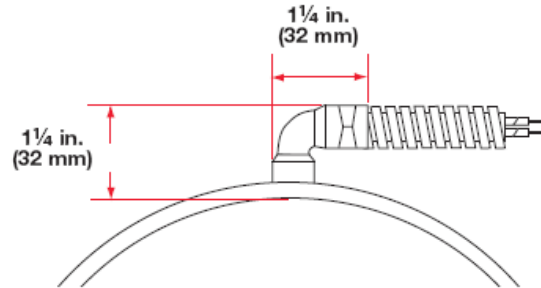


Lead Arrangements *continued*

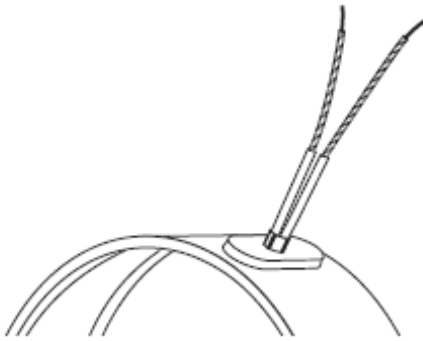
Type H - Steel Flex Hose



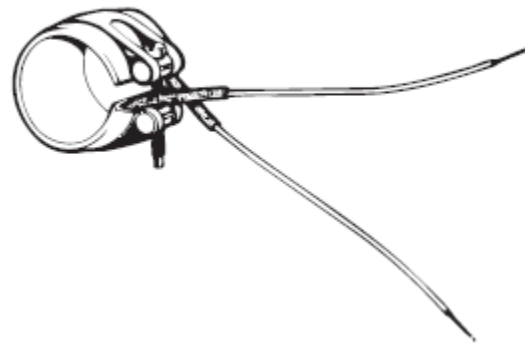
Type HR - Right Angle Steel Flex Hose



Type KV - Flexible Lead Wires Vertical



Type KH - Flexible Lead Wires Horizontal

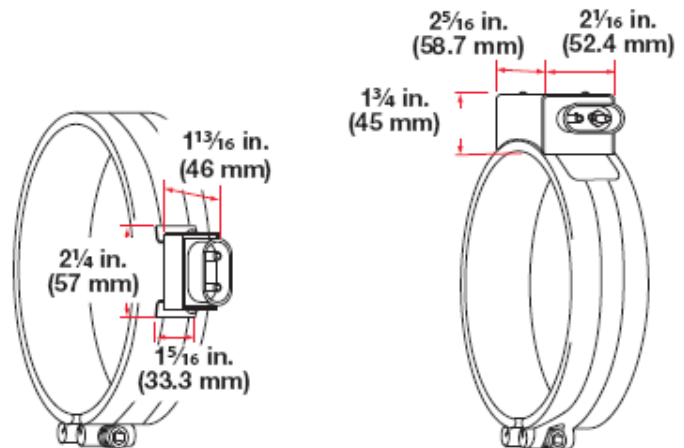


EuroPlug - Horizontal or Vertical

EuroPlugs provide the simplest and safest way to apply power to band heaters. The combination of high temperature male and female "quick disconnect" plug assemblies eliminates all live exposed terminals and electrical wiring that can be a potential hazard to employees or machine. Maximum 15 amperes at 240V \bar{A} (ac), maximum 240 volts.

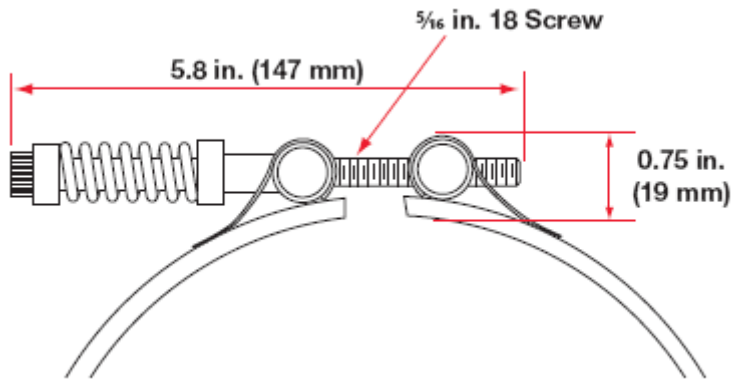
When ordering, specify vertical or horizontal

Mating connectors are also available through Star Electric's accessory program. Ask your representative for details.



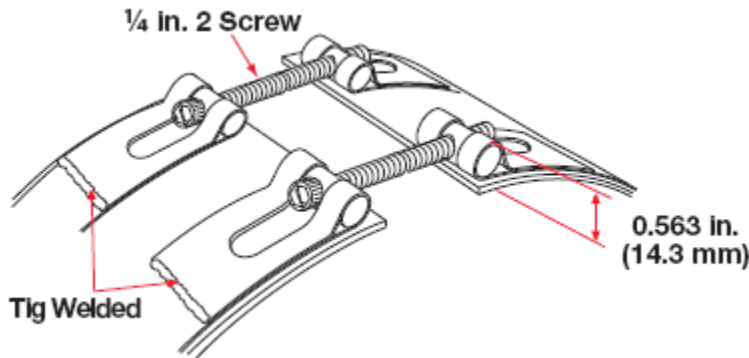
Clamping Arrangements

TIG Welded Barrel Nuts with Spring Loaded Clamping



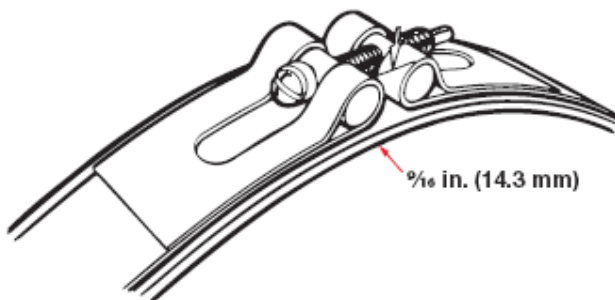
Welded Barrel Nuts with Spring Loaded Clamping are used during start-up to maintain a tight heater fit on large barrels. This clamping variation is standard for all MI band heaters that are greater than 14 in. (356 mm) in diameter and 1-1/2 in. (38 mm) or greater in width. .

TIG Welded Barrel Nuts



TIG Welded Barrel nuts are an ideal way to provide access for instrumentation is to specify an oversized gap between the heater ends. If the clamp bar screw interferes with the positioning of the instrumentation device, welded barrel nuts are recommended (TIG-welded barrel nuts are standard on 1 in. (25 mm) wide MI band heaters).

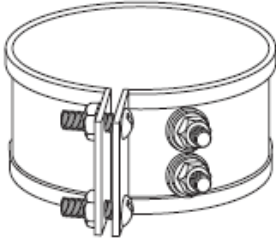
Low-Profile Clamp Bars



Low-Profile Clamp Bars are available on both 1 in. (25 mm) and 1-1/2 in. (38 mm) wide heaters, for wider widths contact you're a Star Electric representative. We recommend not using low-profile clamping on diameters and widths greater than 3 in. (76 mm) The bars are 1/4 in. (6 mm) diameter with an 8-32 screw.

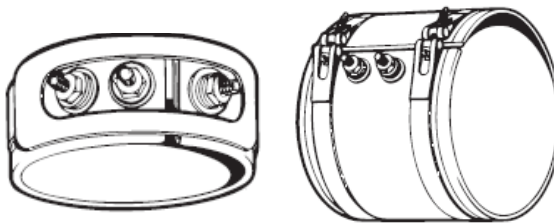
Clamping Arrangements

Tabs or Lock-up Flanges



Tabs—or lock-up flanges—are available. However, the special mica band heater and strap design provides superior clamping and improved heat transfer and should be used whenever possible

Standard and Jumper Straps



Standard jumper straps are found on the 1-pc expandable units. These straps are available on any post terminal or lead wire arrangement. This clamping style offers the greatest drawing power of any arrangement. They come in full band and narrow strip widths.

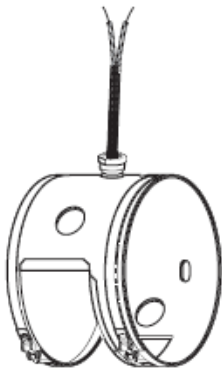
Other Options

One-Piece Expandable



Heaters 3 in. (76 mm) wide or less are constructed with a notched sheath. Heaters wider than three inches are constructed with an expansion seam. These heaters are shipped open and should not be closed and reopened more than twice.

Holes & Notches



An economical way to provide access for instrumentation is to specify an oversized gap between the heater ends. Holes and notches in the sheath should be specified only when all the cylinder surface adjacent to the hole or notch must be heated. Required holes may be provided in nearly any location as long as there is at least 1 in. (25 mm) between the hole and one side of the heater. Standard hole sizes up to 2 in. (51 mm) diameter. For proper hole and/or notch location, a *dimensional drawing or customer supplied sample heater is required.*

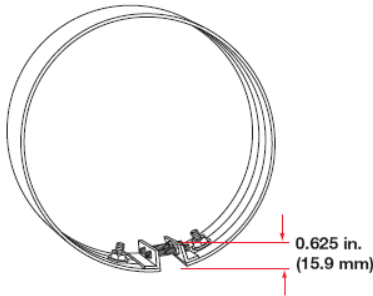
Other Options

Two-Piece Construction



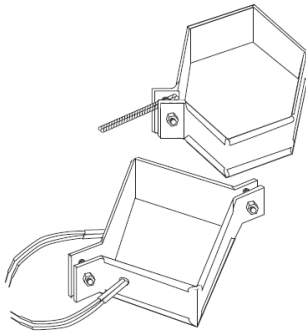
Two-piece construction is available on heaters 3 in. (76 mm) or greater in diameter. Heaters 3 in. (76 mm) wide or less with post terminals have one terminal on each end. Heaters over 3 in. (76 mm) wide with post terminals have the two terminals side by side on one end. On two-piece units with leads, also specify the power supply voltage. The power supply voltage is the voltage to which the heater will be wired. For example, a two-piece band that is 240VAC per half may be wired in series to a 480VAC power supply. In this case the band heater lead wire insulation must be rated for 480VAC.

Outside Diameter Heating



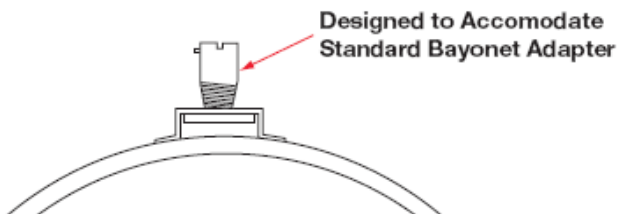
This variation is specially designed and constructed to heat the inside diameter of cylinders (i.e., large diameter blown film dies). All the terminations and mounting hardware are located on the I.D. of the heater. Contact your Star Electric representative for available sizes and terminations.

Square, Rectangular and Hexagonal Bands



Square and rectangular heaters are made in either one or two-piece construction. These units are ideal for heating dies on plastic extruders or the barrels of twin screw extruders. Hex-shaped heaters are commonly used on the hex-shaped portion of the nozzle injection molding machines. Hex-shaped heaters are made to exact customer specifications.

Thermocouple Bracket



The thermocouple bracket simplifies the installation of an external thermocouple with a bayonet adapter. The standard location for the adapter is 90° from the gap. Sizes available are 1/8 in. (3.2 mm), 1/4 in. (6 mm) and 3/8 in. (9.5 mm).