Installation RECOMMENDATIONS

1. Disconnect electric power to the machine and/or heaters prior to installing or replacing heaters.
2. Do not install heaters in areas where combustible gases, vapor or dust is present.
3. Use as many narrow band heaters as the application will permit. 1-1/2" through 3" wide heaters are recommended.
4. Using a heater that closely matches the wattage requirements will decrease the frequency of cycling and temperature overshoot, thereby increasing the life of the heater.
5. Make certain that all barrel surfaces are clean and have a smooth finish. Any contaminants or imperfections on the surface can cause premature heater failure.
6. Tempco expandable type Mica Band Heaters may be opened once at the gap to fit on the barrel. Do not open these heaters beyond their specified heater diameter.

CAUTION *Do not open Tempco One-Piece Non-Expandable Type mica band Heaters. Opening of these heaters can damage Mica Insulation and will create electrical short circuits.*

7. Position heater bands on the barrel.
8. Securely tighten heater bands around the barrel. Clamping force must be equally distributed on heaters with more than one set of clamping brackets.

Recommended clamping bolt torque is 10 ft./lbs.

9. For heaters with screw terminals, remove the top nut and flat washers from the power screw terminals. Do not remove or loosen the bottom nut on the power screw terminals. The bottom nut is tightened to 60 in./lbs. at the factory. A loose bottom nut may cause premature heater failure.

Installation Accessories Available

IMMEDIATE DELIVERY!

- *High Temperature Terminal Lugs*
- *Igloo™ Ceramic Terminal Covers*
- *UL Listed Plugs*
- *High Temperature Lead Wire 842°F (450°C)*
- *Armor Cable*
- *Stainless Steel Braid*
- *High Temperature Sleeving*
- *High Temperature Mica Insulated Wiring Harnesses 842°F (450°C)*
- *Thermocouples*
- *Temperature Controllers*
- *High Temperature Fiberglass Tape*

10. All electrical wiring of heater bands should be done by a qualified electrician.
    - **a.** Use only Stainless Steel or other high temperature lugs to prevent material degradation when exposed to high temperatures over a prolonged period of time.

      CAUTION *DO NOT USE COPPER OR PLATED COPPER LUGS.*

    - **b.** Use only lead wire with high temperature insulation and proper gauge size.
    - **c.** When connecting power leads to screw terminals make certain that barrels of terminal lugs are not facing down toward the heater case, which will create a short circuit.

      Tighten the top nut to 30 in/lbs.

    - **d.** Make certain power lead wires do not make contact with hot heater surface to avoid degradation of lead wire, as this can cause electrical short circuits.
    - **e.** Make sure the voltage input to the heater bands does not exceed the voltage rating that is stamped on the heater band.
    - **f.** It is recommended that an amperage reading is taken for each heater to verify proper wiring. (Amps = Watts/Volts)
11. Insulate all live electrical wires per applicable safety standards.
12. Begin heater band re-tightening procedure. Be sure to wear protective gloves.
    - **a.** Energize heater bands and allow the heater to reach 300°F (149°C). This usually takes between 3 and 5 minutes.
    - **b.** Turn off power and immediately re-tighten the heater bands to 10 ft./lbs. Turn power back on.
13. Install shrouds around the machine to meet applicable safety requirements.
14. Once installed, check surroundings to make sure that contaminants won't get on the heater while the unit is in operation. Accumulation of contaminants on heaters can cause premature heater failure.
15. Insulating blanket installations must have band heater retightening sequence (#12) completed before blanket installation. Lead wires must exit the insulation blanket as soon as possible; do not entrap lead wires between heater sheath and insulation blanket.

CAUTION It is imperative that upon start-up of new machines at customer facilities, all of the aforementioned parameters are double checked by qualified field service personnel.

Exposed electrical wiring on band heater installations is a violation of Electrical Safety Codes including O.S.H.A.