**Band Heaters**

**Tubular Bands**

**Tubular Construction Barrel & Nozzle Band Heaters**

**Designed to Perform Under Adverse Conditions**

**Tempco Tubular Band Heater** design stands apart from all other similar type band heaters. This band heater is capable of performing under the most adverse conditions. Highly recommended for heating applications where premature nozzle band heater burn-out on plastic injection molding machines is a constant problem due to contamination from plastic overflow or other contaminants. Proven to be very effective for processing Teflon® and high temperature engineering resins, providing long, trouble-free service.

**Construction Characteristics**

Incoloy® sheath .315 diameter tubular heating elements are used as heat source. The tubular element is formed to the specified inside diameter to produce a snug slip-on fit.

A low thermal expansion alloy is used to make the strap that houses the tubular heating element. The strap edges are rolled over the element to prevent the strap from separating from the tubular heater. Specially designed mounting brackets are spot welded to the strap, providing the clamping force required to tightly draw the tubular heater against the cylinder.

**Advantages and Variations**

The straight section of the tubular heater is fully annealed, remaining ductile for field bending. Normally done to guide the leads away from machine obstructions.

If bending is required—

A. Secure the tubular band heater to the cylinder in the position required.

B. Draw the strap as tight as possible.

C. Using a piece of 1/2" water pipe, insert the leads and tubular element into the pipe up to the point where you need the bend.

Proceed to bend with a generous radius.

**Standard Specifications and Tolerances**

of Tubular Band Heaters. If tighter tolerances are required consult Tempco.

**PERFORMANCE RATINGS**

Maximum Temperature: 1000°F (540°C)
Maximum Watt Density: 40 W/in² (7 W/cm²)

**ELECTRICAL RATINGS**

Resistance Tolerance: +10%, −5%
Wattage Tolerance: +5%, −10%
Maximum Volts: 277 Volts
Maximum Watts: Depends on diameter
Maximum Amps: 30 Amps

**MECHANICAL**

Minimum Width: 1-1/2" (38.1 mm)
Minimum Inside Diameter: 1-1/2" (38.1 mm)
Standard Gap: 3/8"
Holes: Can be accommodated. Consult Tempco with your requirements.

**Ordering Information**

**Standard** — Select a Tubular Band heater from the table. All Tubular Band Heaters listed are supplied with Type W3 termination, 24" long.

**Custom Engineered/Manufactured** — An electric heater can be very application specific; for sizes and ratings not listed TEMPCO will design and manufacture a Tubular Band Heater to meet your requirements.

**Standard lead time is 3 weeks.**

Please Specify the following:

- Inside Diameter
- Lead Cable/Braid Length
- Voltage and Wattage
- Width
- Termination

**CAUTION:** Don’t Make a Sharp Bend As You Will Crack the Heating Element.

**WARNING:** Cancer and Reproductive Harm - www.P65Warnings.ca.gov.

View Product Inventory @ www.tempco.com
**Standard (Non-Stock) Tubular Band Heaters**

Tubular band heaters listed have Type W3 termination, 24” long.

**Type W3—Wire Braid Leads** *(Standard Termination)*

Wire Braid provides strength and protection to the lead wire insulation, offering sharp bending not possible with armor cable. 20’ of wire braid and 24” flexible leads are standard.

**Options:**
- Longer leads or braid
- Male or female plugs attached to leads. For plug selection, see Accessory Section, page 15-15.

**Type T1—Screw Terminals**

Screw Terminals will provide a rigid connection when it is required. Standard thread size is 8-32. If another type is required, specify when ordering. You should make special arrangements to properly insulate the electrical connections.

**Type C1—Single Armor Cable**

Armor Cable provides excellent protection against abrasion and contaminants. The cable exits through an adapter that encapsulates both tubular heater ends. The adapter tube is tack welded to the heating element and the cable is crimped to the adapter for maximum security and seal protection. 20’ of cable and 24” flexible leads are standard.

**Type C1A—Galvanized Armor Cable**
**Type C1B—Stainless Steel Armor Cable**

**Options:**
- Male or female plugs attached to leads. For plug selection, see Accessory Section, page 15-15.

**Type C2—Individual Armor Cable**

Armor Cable provides excellent protection against abrasion and contaminants. The cable is securely fastened individually to the tubular heater ends, allowing more flexibility to the electrical wiring connections. 20’ of cable and 24” flexible leads are standard.

**Type C2A—Galvanized Armor Cable**
**Type C2B—Stainless Steel Armor Cable**

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**Type C3—Single Armor Cable Out Top**

Armor Cable provides excellent protection against abrasion and contaminants. The cable exits through an adapter that encapsulates both tubular heater ends. The adapter tube is tack welded to the heating element and the cable is crimped to the adapter for maximum security and seal protection. 20’ of cable and 24” flexible leads are standard.

**Type C3A—Galvanized Armor Cable**
**Type C3B—Stainless Steel Armor Cable**

**Options:**
- Male or female plugs attached to leads. For plug selection, see Accessory Section, page 15-15.

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**ID** | **Width** | **Watt Density** | **Part Number** | **Part Number**
--- | --- | --- | --- | ---
1¼ | 1 | 200 | 42 | TNB01001 |
1½ | 1½ | 200 | 28 | TNB01003 |
1½ | 2 | 300 | 31 | TNB01005 |
1½ | 2½ | 300 | 25 | TNB01007 |
1¼ | 1 | 300 | 36 | TNB01009 |
1¼ | 1½ | 300 | 36 | TNB01011 |
1¼ | 2 | 400 | 36 | TNB01013 |
1¼ | 2½ | 400 | 29 | TNB01015 |
2 | 1 | 250 | 39 | TNB01017 |
2 | 1½ | 250 | 26 | TNB01019 |
2 | 2 | 350 | 27 | TNB01020 |
2 | 2½ | 450 | 28 | TNB01021 |
2½ | 1 | 250 | 35 | TNB01022 |
2½ | 1½ | 250 | 33 | TNB01023 |
2½ | 2 | 350 | 24 | TNB01024 |
2½ | 2½ | 450 | 25 | TNB01026 |
2½ | 1 | 300 | 38 | TNB01027 |
2½ | 1½ | 350 | 29 | TNB01028 |
2½ | 1½ | 400 | 33 | TNB01029 |
2½ | 1½ | 750 | 62 | TNB01030 |
2½ | 2 | 450 | 28 | — |
2½ | 2½ | 450 | 22 | — |
2½ | 1 | 300 | 34 | TNB01034 |
2½ | 1½ | 350 | 27 | TNB01036 |
2½ | 2 | 450 | 26 | — |
2½ | 2½ | 600 | 27 | — |
3 | 1 | 300 | 31 | TNB01039 |
3 | 1½ | 450 | 31 | — |
3 | 2 | 600 | 31 | — |
3 | 2½ | 660 | 25 | — |
3 | 1½ | 450 | 29 | — |
3 | 2 | 600 | 29 | — |
3½ | 1½ | 300 | 18 | — |
3½ | 3 | 700 | 21 | — |
3½ | 1½ | 200 | 38 | — |
3½ | 1½ | 465 | 21 | — |
5 | 1½ | 600 | 25 | — |
5 | 2 | 600 | 19 | — |
5 | 2½ | 200 | 63 | — |
5 | 2½ | 1150 | 32 | — |
5½ | 2½ | 900 | 24 | — |
5½ | 3 | 300 | 6 | — |
5½ | 2 | 600 | 17 | — |
6 | 2 | 600 | 15 | — |