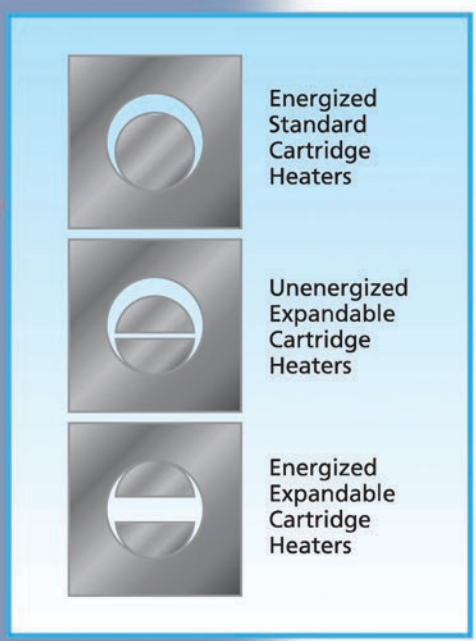
# EXPANDABLE CARTRIDGE HEATERS






## Typical Heating Applications:

- *Plastic Molding*
- *Packaging Equipment*
- *Plastic Extrusion*
- *Labeling Machines*
- *Platens and Dies*
- *Hot Stamping*

At any given temperature the maximum watt-density that can be applied to a conventional cartridge heater depends on the clearance between the cartridge and the insertion hole of a die or a mold. The larger the clearance the less efficient is the heat transfer from the cartridge to its surrounding. Excessive clearances might cause premature failures

Expandable cartridge heaters are made for insertion holes that through wear has become oversized or intentionally are made larger than acceptable tolerances to facilitate the removal of failed cartridges.

Expandable cartridge heaters have two legs that are joined together at the tip. The two legs are made from single tubular heater that has a semicircular cross-section. When Expandable heaters energize, the two semicircular legs expand with respect each other and press against the insertion hole wall.

| Available Diameters Tolerances and Limitations | | | | | | |
|---|---|---|---|---|---|---|
| Nominal Diameters | 0.25" | 0.375" | 0.5" | 0.625" | 0.75" | 1" |
| Actual Diameters (+/- 0.003") | 0.245" | 0.370" | 0.495" | 0.620" | 0.745 | 0.995 |
| Max Insertion Length | 18" | 36" | 48" | 72" | 72" | 72" |
| Min Insertion Length | 2" | 2" | 2.5" | 3" | 5" | 8" |
| Maximum Voltage | 240 V | 240 V | 240 V | 480 V | 480 V | 480 V |
| Wattage Tolerance | +5/-10% | | | | | |
| Length Tolerance | +/- 3% up to 24", +/- 2% above 24" | | | | | |

## Termination and Mounting Styles

**A1 Style:** High temperature fiberglass leads straight

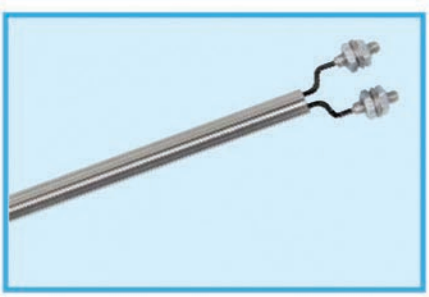
**A3 Style:** Right angle high temperature leads

**K1 Style:** SS braided high temperature leads

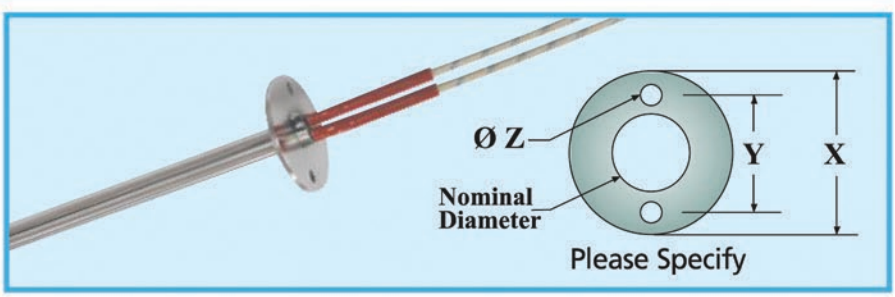
**K2 Style:** Right angle SS braided high temperature leads

**X1 Style:** High-temp leads with armor-cable

**X2 Style:** Right-angle high-temp leads with armor-cable



**PT Style:** Screw terminals




**FL Style:** Flange mounting attachments or stop rings