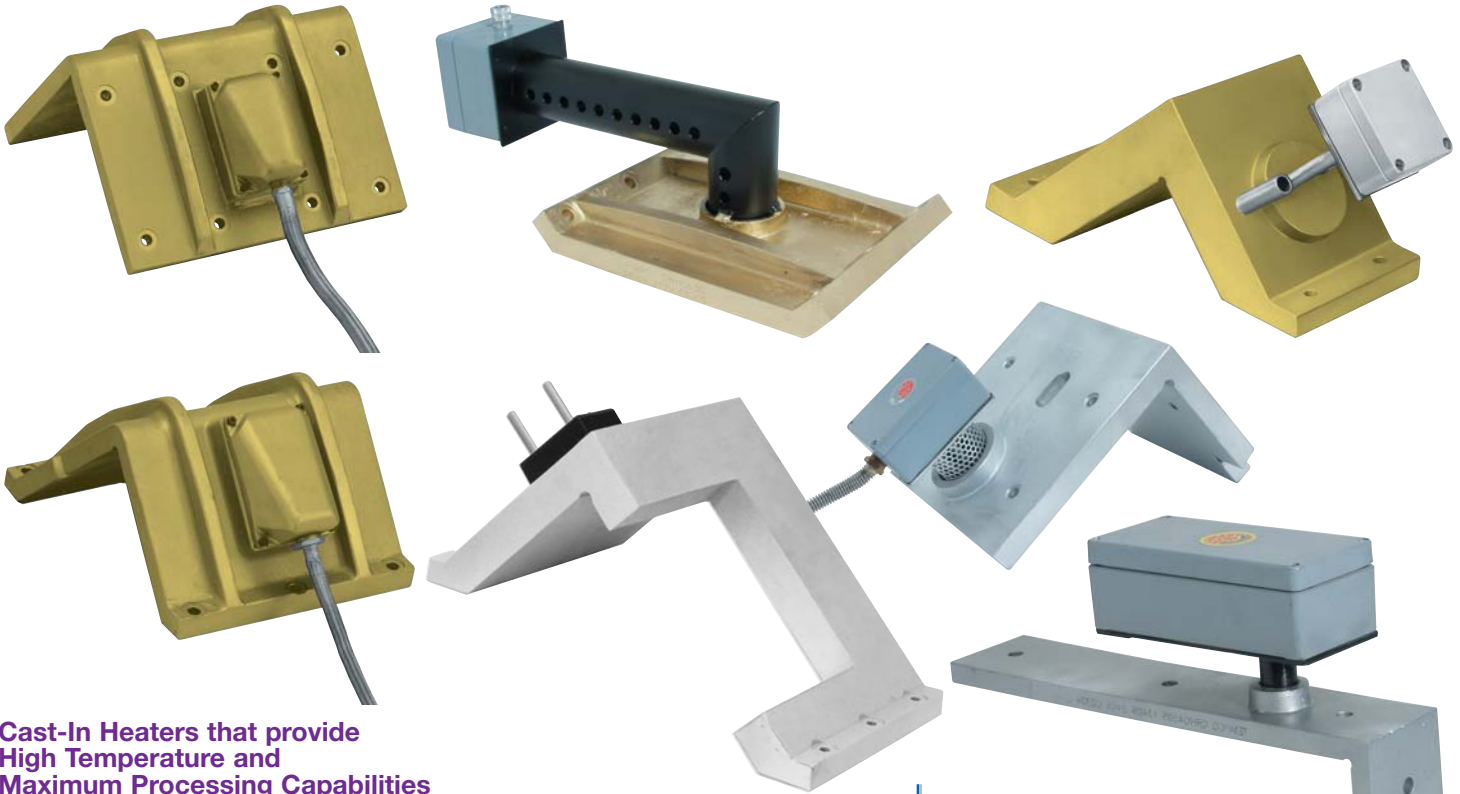




## “L” Shaped

### “L” Shaped Bronze, Brass or Aluminum Cast-In Heaters for Square and Rectangular Extruder Barrels



#### Cast-In Heaters that provide High Temperature and Maximum Processing Capabilities

The “L” Shaped Cast-In Heaters are typically used on square and rectangular twin screw extruder barrels in compounding and plastic resin manufacturing applications. Due to high shear rates, which are common in this process, extreme operating temperatures and high watt densities are frequently encountered. For these reasons Tempco manufactures “L” shaped heaters in bronze or brass alloys, which are capable of withstanding high temperatures at higher watt densities.

In the case of applications requiring lower temperatures and lower watt densities, aluminum alloys can be used. Aluminum castings are desirable as they have greater thermal conductivity and weigh substantially less than their bronze or brass counterparts, allowing for greater ease of installation.

For mounting purposes, the heaters can be designed with 45° flanged ear extensions that are bolted and drawn together, or can be made with through holes machined into the casting body to bolt directly onto the barrel itself. Thermocouple and transducer holes or other special features can be accommodated as well.

To enhance the cooling capabilities, or to be used in place of integral feed screw cooling, “L” shaped heaters can be manufactured with cast-in cooling tubes to satisfy liquid cooling requirements. This feature allows processors the ease of changing a single unit at a time, thus representing a far less time-consuming and less expensive alternative should a cooling line become clogged or severely restricted.

#### Standard “L” Shaped Cast-In Heaters Design Features

- \* Cast-In Bronze or Brass Alloys for high temperature, high shear applications
- \* Manufactured in sets consisting of two corresponding halves
- \* Flange bolt clamping arrangement or through holes in the heater body, allowing bolt mounting directly to the barrel
- \* High precision machining of the inner contact surface of the heater, yielding exceptional heat transfer to the process
- \* Moisture resistant terminal housing which is available in a variety of different styles and mounting arrangements
- \* Choice of terminal protection housings
- \* Elevated temperature terminations and enclosures. Prevents premature heater failure due to accelerated corrosion or oxidation of terminals caused by high heater surface temperature. See page 3-68 and 3-69 for details on how to order.

#### Enhanced Features

To aid processors in reducing maintenance downtime, Tempco has introduced several optional construction features to the basic “L” shaped design.

- \* Cast-In Aluminum Alloys for applications requiring lower temperatures and less watt density
- \* 3/8" or 1/2" O.D. cooling tubes for liquid cooling
- \* Non-Exposed cooling tubes (Type RC—See page 3-53). Eliminates cracked and broken cooling tubes.

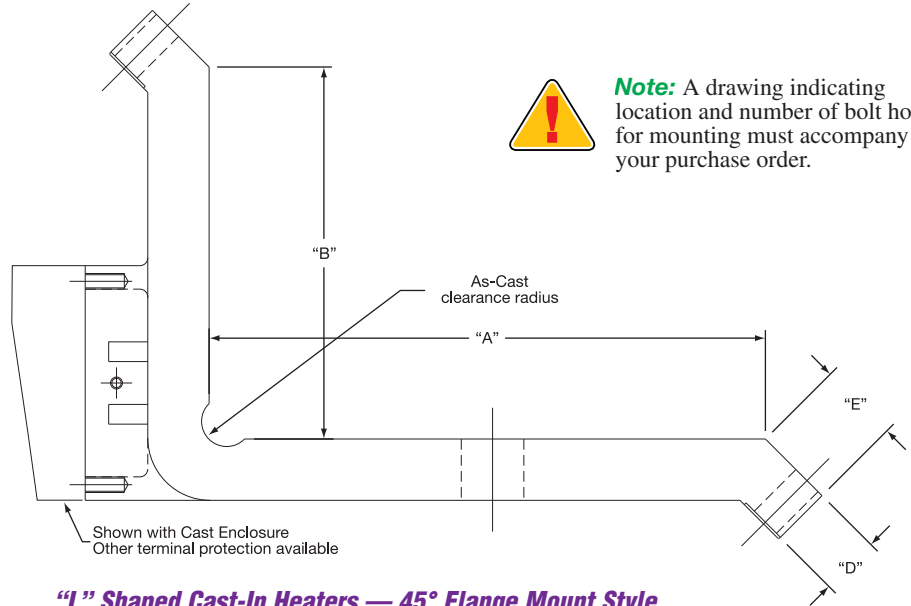
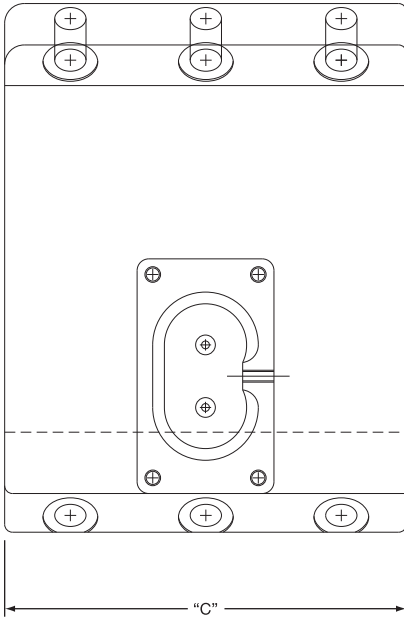


**Note:** All of the options listed above are design enhancements that will provide value-added benefits to the basic “L” shape configuration, thereby extending the life and performance of your Cast-In Heaters.



## Ordering Information

### "L" Shaped Cast-In Heater – 45° Flange Mount Style Ordering Information



**Note:** A drawing indicating location and number of bolt holes for mounting must accompany your purchase order.

### "L" Shaped Cast-In Heaters — 45° Flange Mount Style

#### Variable Dimensions

"A" \_\_\_\_\_ "B" \_\_\_\_\_ "C" \_\_\_\_\_  
 "D" \_\_\_\_\_ "E" \_\_\_\_\_

### Ordering Information

To process your order or quotation, please specify the following information.

#### Material Specifications

Aluminum  Bronze  Brass

#### Electrical Specifications

Watts each piece \_\_\_\_\_ Volts each piece \_\_\_\_\_ Phase \_\_\_\_\_

#### Clamping Style

Bolt Clamp  Other

#### Cooling Tube Sizes

1/4" O.D. SS  3/8" O.D. SS  1/2" O.D. SS  Optional Incoloy® (1/2" only)  
 Dual Cooling Tubes

#### Cooling Tube Fittings

Non-exposed 3/8" NPTF  "HS" Hi-Seal Fitting  "RA" 90° Copper Elbow  
 Non-exposed 1/2" NPTF  "BF" High Pressure  "RT" 90° Threaded Elbow  
 "FF" Flared Seal  "R3" Straight Threaded

#### Termination Style

"S" Post Terminals  "T7" Post Terminals  "T" Post Terminals  
 "R1" Armor Cable Leads  "E" Right Angle Lugs

#### Terminal Protection Box

"C2" Standard  Cast on box as shown  
 "EP" Explosion Resistant  "MR1" Rigid Moisture Resistant Box  
 "MPR" Moisture Resistant Box  "P2" High Temperature Quick Disconnect  
 "CB1" Cast Aluminum Box

#### Surface Finish

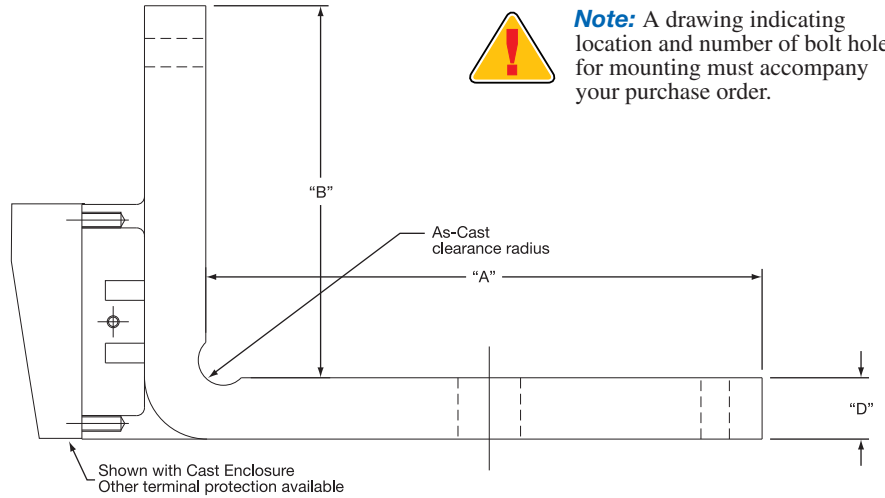
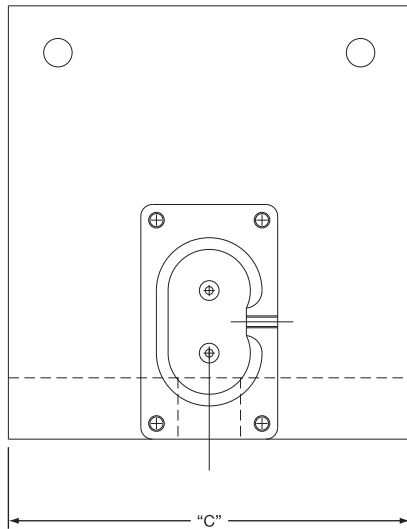
Machined or As-Cast. *Indicate surfaces to be machined.*

#### Special Cast-In Features

Holes, Cutouts, Slots, Bevels, Mounting Studs, Stand-Offs and Taper Angles.  
*For special features a detailed drawing is required.*



### "L" Shaped Cast-In Heaters Bolt Direct to Barrel Style Ordering Information



**Note:** A drawing indicating location and number of bolt holes for mounting must accompany your purchase order.

### "L" Shaped Cast-In Heaters Bolt Direct to Barrel Style

#### Variable Dimensions

"A" \_\_\_\_\_ "B" \_\_\_\_\_ "C" \_\_\_\_\_  
"D" \_\_\_\_\_

### Ordering Information

To process your order or quotation, please specify the following information.

#### Material Specifications

Aluminum  Bronze  Brass

#### Electrical Specifications

Watts each piece \_\_\_\_\_ Volts each piece \_\_\_\_\_ Phase \_\_\_\_\_

#### Clamping Style

Bolt Clamp  Other

#### Cooling Tube Sizes

1/4" O.D. SS  3/8" O.D. SS  1/2" O.D. SS  
 Optional Incoloy® (1/2" only)  Dual Cooling Tubes

#### Cooling Tube Fittings

Non-exposed 3/8" NPTF  "HS" Hi-Seal Fitting  "RA" 90° Copper Elbow  
 Non-exposed 1/2" NPTF  "BF" High Pressure  "RT" 90° Threaded Elbow  
 "FF" Flared Seal  "R3" Straight Threaded

#### Termination Style

"S" Post Terminals  "T7" Post Terminals  "T" Mica Washers  
 "R1" Armor Cable Leads  "E" Right-Angle Lugs

#### Terminal Protection Box

"C2" Standard  Cast on box as shown  
 "EP" Explosion Resistant  "MR1" Rigid Moisture Resistant Box  
 "MPR" Moisture Resistant Box  "P2" High Temperature Quick Disconnect  
 "CB1" Cast Aluminum Box

#### Surface Finish

Machined or As Cast. *Indicate surfaces to be machined.*

#### Special Cast-In Features

Holes, Cutouts, Slots, Bevels, Mounting Studs, Stand-Offs and Taper Angles.  
*For special features a detailed drawing is required.*