

# CAST-IN HEATERS

## L-SHAPED



### **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 MPI Morheat 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 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**

#### ***Design Features***

- Cast-In Bronze or Brass Alloys for high temperature, high shear applications
- 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
- Choice of terminal protection housings
- Moisture resistant terminal housing which is available in a variety of different styles and mounting arrangements
- Elevated temperature terminations and enclosures
- Prevents premature heater failure due to accelerated corrosion or oxidation of terminals caused by high heater surface temperature.

#### ***Enhanced Features***

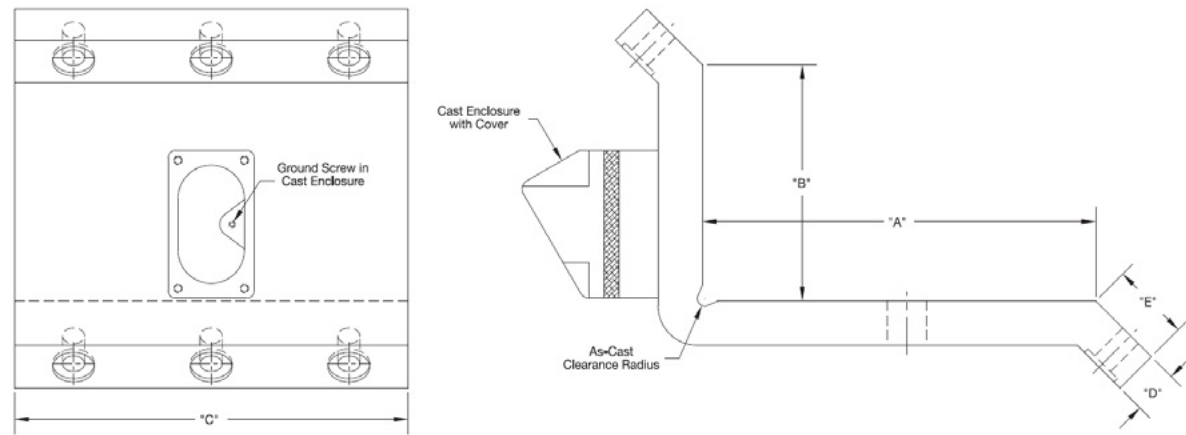
To aid processors in reducing maintenance downtime, there are several optional construction features to the basic “L” shaped design that will extend the life and performance of your Cast-In Heaters.

- 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). Eliminates cracked and broken cooling tubes.

# CAST-IN HEATERS

## ORDER INFORMATION

### “L” SHAPED CAST-IN HEATERS – 45° FLANGE MOUNT STYLE



#### VARIABLE DIMENSIONS

“A” \_\_\_\_\_ “B” \_\_\_\_\_ “C” \_\_\_\_\_ “D” \_\_\_\_\_ “E” \_\_\_\_\_

#### MATERIAL SPECIFICATIONS

Aluminum  Bronze  Brass

#### ELECTRICAL SPECIFICATIONS

Watts each half \_\_\_\_\_ Volts each half \_\_\_\_\_ Phase \_\_\_\_\_

#### TERMINAL STYLE

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

#### TERMINAL PROTECTION BOX

None  “C2” Standard  Cast on box as shown  
 “EP” Explosion Resistant  “MR1” Rigid Moisture Resistant Box  
 “MPR” Moisture Resistant Box  “P2” High Temperature Quick Disconnect

#### CLAMPING STYLE

Bolt Clamp  Other

#### COOLING TUBE SPECIFICATIONS

1/4” O.D. SS  3/8” O.D. SS  1/2” O.D. SS  
 3/8” O.D. Incoloy®  1/2” O.D. Incoloy®  Dual Cooling Tubes  
 Standard Wall Thickness  Other Wall Thickness, Specify \_\_\_\_\_

#### COOLING TUBE FITTINGS

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

#### SURFACE FINISH

125 RMS Standard or to Customer Specifications

#### SPECIAL CAST-IN FEATURES

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

### MPI Morheat Inc

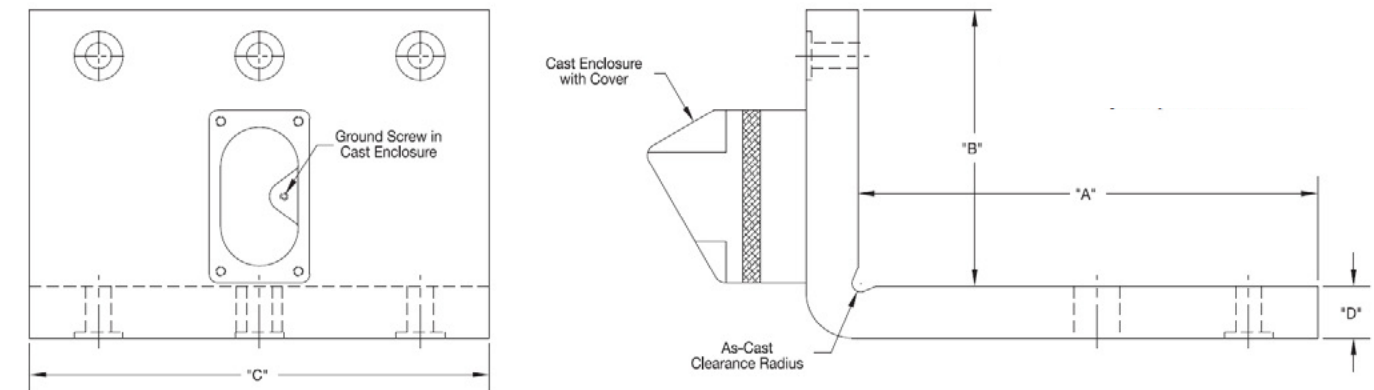
**SALES & SERVICE**  
170 Brockport Dr., Unit #97 (South Side), Toronto  
Ontario, Canada M9W 5C8

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fx (416) 675-7349  
sales@mpimorheat.com

# CAST-IN HEATERS

## ORDER INFORMATION

### “L” SHAPED CAST-IN HEATERS BOLT DIRECT TO BARREL STYLE



#### VARIABLE DIMENSIONS

“A” \_\_\_\_\_ “B” \_\_\_\_\_ “C” \_\_\_\_\_ “D” \_\_\_\_\_

#### MATERIAL SPECIFICATIONS

Aluminum  Bronze  Brass

#### ELECTRICAL SPECIFICATIONS

Watts each half \_\_\_\_\_ Volts each half \_\_\_\_\_ Phase \_\_\_\_\_

#### TERMINAL STYLE

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

#### TERMINAL PROTECTION BOX

None  “C2” Standard  Cast on box as shown  
 “EP” Explosion Resistant  “MR1” Rigid Moisture Resistant Box  
 “MPR” Moisture Resistant Box  “P2” High Temperature Quick Disconnect

#### CLAMPING STYLE

Bolt Clamp  Other

#### COOLING TUBE SPECIFICATIONS

1/4” O.D. SS  3/8” O.D. SS  1/2” O.D. SS  
 3/8” O.D. Incoloy®  1/2” O.D. Incoloy®  Dual Cooling Tubes  
 Standard Wall Thickness  Other Wall Thickness, Specify \_\_\_\_\_

#### COOLING TUBE FITTINGS

Non-exposed 3/8” NPTF  “HS” Hi-Seal Fitting  “RA” 90° Copper Elbow  
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