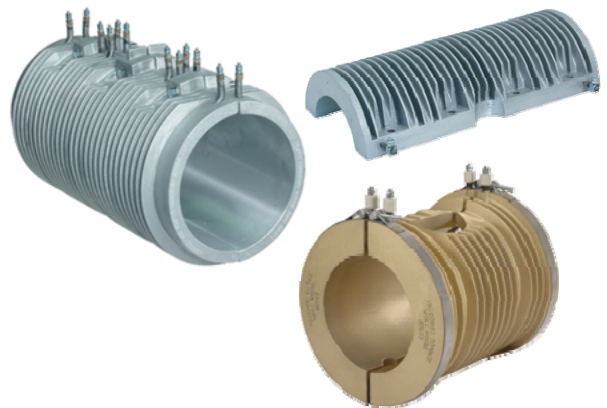


## Precision Heating and Cooling Cast-in One Rugged Package



Fast production cycles and consistent operating temperatures are essential for plastics processing. Extruding specially engineered resins requires not only efficient thermal heating of the barrel upon startup, but also cooling to remove shear heat generated from screw rotation - all without degrading the material being processed.

Heat/cool band heaters from Star Electric are made of cast aluminum, providing high thermal conductivity and extremely uniform surface temperatures for extrusion barrels. For high-volume quantities, Star Electric utilizes permanent molds to ensure exacting precision batch-to-batch. These molds are constructed of steel or cast iron and provide a superior exterior finish. Pressure formed sand molds are used for small quantity runs and utilize wood patterns. This process provides a more economical approach due to lower mold costs as well as providing shorter initial lead times.

The heat/cool band heater consists of tubular heaters cast in with cooling tubes. These tubes are placed in proximity to the heating elements to produce an efficient heat/cool design. Heat/cool bands from Star Electric are contamination and corrosion resistant and can withstand high temperature and pressures in harsh environments with years of trouble free service.

### Features & Benefits:

- Optimized cooling tubes allow instant cooling, which improves efficiency of extruder barrel plastics processing.
- Delivery is available on many replacement OEM designs in four weeks and non-standard designs are available in five weeks.
- Star Electric's partnership foundry capabilities assure precise and uniform placement of the element in the casting.
- UL® component recognition on cast-in heaters is available.
- Holes, cutouts, slots

### Other Options:

- Thermowells
- Thermocouple fittings
- Cooling tube fittings
- Three-phase heater configuration
- Incoloy® cooling tube
- Self-draining cooling tube construction
- Operating temperatures up to 370°C

### Performance Capabilities

- (700°F) with 319 or 356 aluminum
- Maximum watt densities to 9 W/cm<sup>2</sup> (60 W/in<sup>2</sup>) on the tubular sheath

