



E.C.D. Castings Ltd.

Formerly Elmatic Cast Division

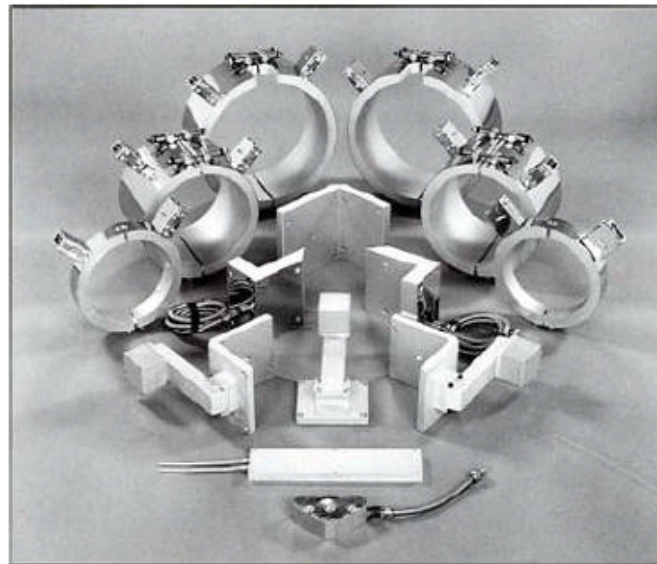
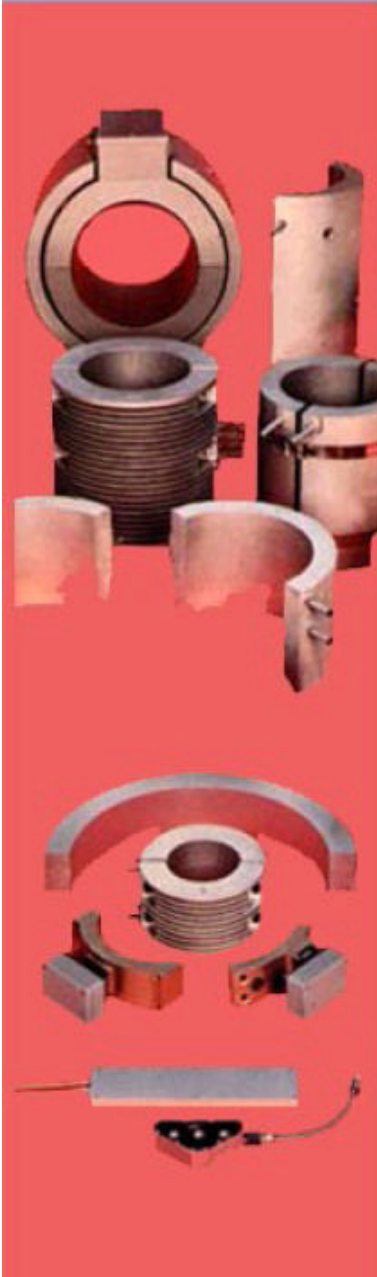
Applications

Cast Aluminium / Bronze Heaters provide for better results, where uniform heat distribution and efficiency is important. The high thermal conductivity of aluminium / bronze allows for an extremely uniform temperature to be applied to the component surfaces, alleviating hot or cold spots which may affect the equipment's performance.

Heat is provided by a tubular sheathed wire element, which has long been recognised for its reliability, strength and adaptability. It is due to the versatility of this element that cast heaters can be manufactured to suit limitless applications and specifications.

All Cast Heaters are manufactured totally on site, from tubular heating element design and construction, element forming, foundry casting through to machining and electrical connection. With control over the entire process, we guarantee our heater manufacture and performance to be of the highest standards.

We have vast experience in Cast Heater design and manufacture, the highest in the industry, combined with an ongoing policy of research and development. Our qualified design engineers would welcome the opportunity to discuss and advise you on your Cast Heater requirements and applications.





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Cast Heater Advantages

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|---------------------------------|--|
| 1) High Thermal Conductivity | Providing extremely uniform temperatures over the whole of the heated surfaces. |
| 2) Accurate Temperature Control | The high thermal conductivity eliminates any hot or cold spots that may occur with other form of heating. This uniform heat distribution makes for accurate temperature control. |
| 3) Exceptionally Long Life | Utilising a recognisable reliable tubular sheath wire element and ribbed construction, Cast Heaters provide a good resistance to misuse. |
| 4) Efficiency | The high thermal conductivity rapidly conducts this heat away from the tubular element to the component surface. |
| 5) Contamination Resistant | With the heating element cast into the aluminium and together with sealed terminal boxes, the cast heater becomes a contaminant resistant heating unit. |

Cast Aluminium Finned

Forced air cooling of extruder barrels using finned heaters has proved itself in the field for many years. Advances in casting methods producing more fin area and with increased output and efficiency of modern blowers enables air cooling to compete with water cooling in many applications. Its advantages are mainly; clean, efficient, relatively inexpensive and easy to maintain.





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The finned heaters are cast in halves bolted together and machined in pairs to fit exactly on extruder barrels. They can be supplied with close fitting air cowls to increase efficiency, insulated to reduce heat losses and reduce ambient outer casing temperatures and fitted with inlet and outlet air deflecting boxes with fan mounting attachment plate.



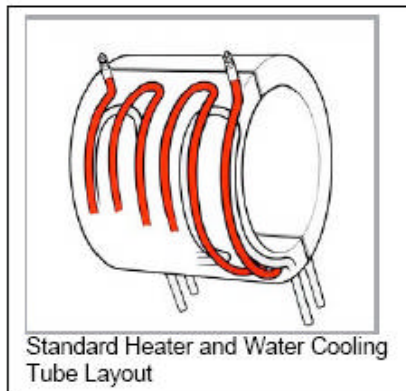
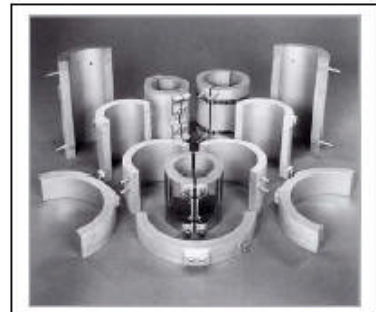
With high output blowers (single or double outlet) bolted to the inlet box, we are able to supply the complete heating and cooling unit.

We also specialise in complete machine conversions from water cooling to air cooling systems.

Cast Aluminium / Bronze Heaters / Coolers

Liquid cooling has been used in plastic extrusion for many years and is generally recognised as one of the most efficient forms available.

Aluminium / Bronze heater coolers are now considered standard in the plastics process industry, replacing expensive machine grooved barrels.



Standard Heater and Water Cooling Tube Layout

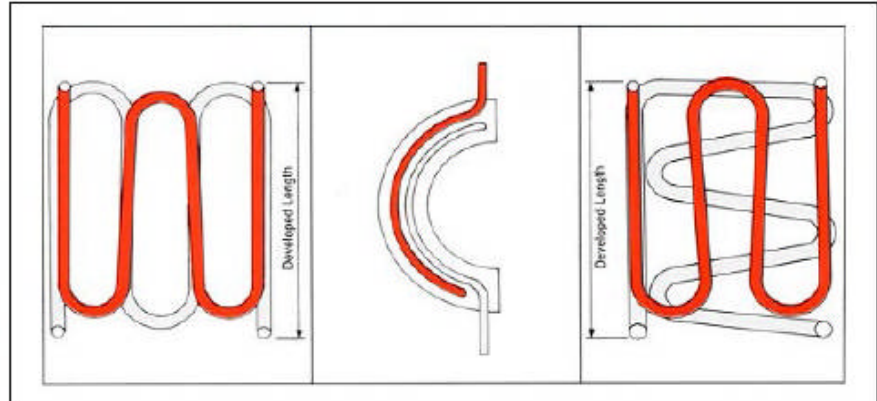
The heater coolers are cast in halves, strapped or bolted together and machined in pairs to fit exactly on extruder barrels.

They are available with single or double cooling tubes which can be cut to length, pre-formed, to accommodate extruder obstacles, or factory fitted with various types of pipe fittings.



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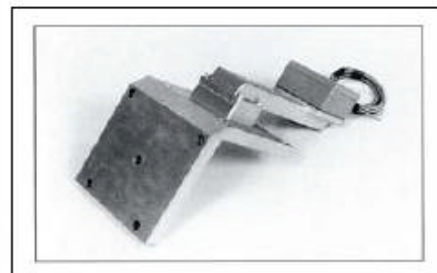


The design and layout of the cooling tube is very important as continuous heating and cooling cycles create internal thermal stresses which may cause premature failure to an incorrectly designed cooling tube.

Cast Aluminium / Bronze Heaters

Cast Aluminium Bronze 'L' Shape

Complete with terminal extension housing and splash proof box to comply with IP54 rating.

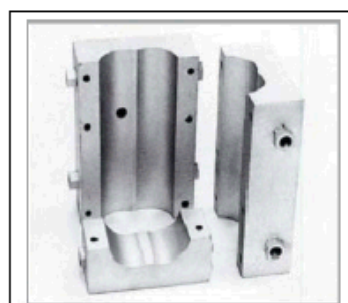


Insulated Cast Aluminium 'L' Shape

Cut away to show insulation and stainless steel cover

Cast Aluminium Finned

Cast Aluminium Finned Heaters with insulated Cooling Cowls, complete with Input and Output Air Boxes, ready for Blowers to be fitted.



Special Small Twin Screw Heater Coolers with Cast in Water Connectors