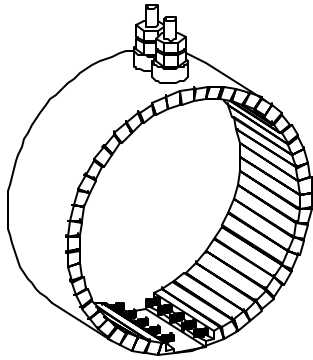


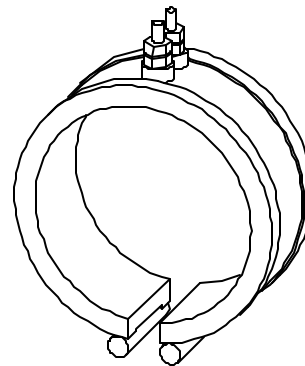
APPLICATIONS - INJECTION MOLDING

INJECTION MOLDING : an intermittent process that alternately produces a quantity of molten plastic material, and shoots that material into a mold. A barrel/screw assembly melts a defined quantity of material then a hydraulic system pushes the screw forward to "inject" the plastic inside the mold, while the clamping system holds both halves of the mold together. Standard **mica or ceramic band heaters** are used to heat-up the barrel, and injection nozzle. Most presses have an integrated control system using **thermocouples** as temperature sensors. Use of **energy saving insulating blankets** is recommended. Molds have to be cooled for the material to solidify, thus allowing the final part to be ejected. Acrolab's **Isobars** can be used for cooling small cores or core pins. Hot runner systems reduce the amount of waste material by keeping the plastic from freezing inside the channels leading to cavities, using **tubular heaters** or **cartridge heaters** in the manifold itself, and **coil heaters** or **mineral insulated band heaters** on the nozzles/bushings. **Hopper-loaders** and **colour mixers** allow for colour changes by adding colour concentrates to the natural material.

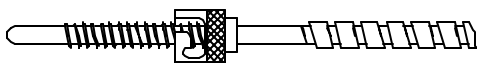
Ceramic Band Heater



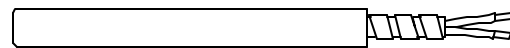
Mica Band Heater



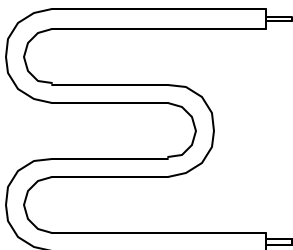
Thermocouple



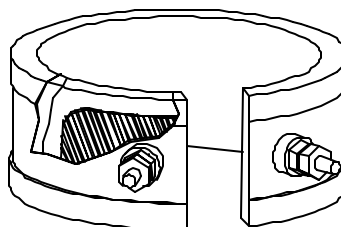
Cartridge Heater



Tubular Heater



Mineral Insulated Band Heater



Coil Heater

