

PLASTIC INJECTION MOLDING

High temperature heating for melting plastic pellets

Application

Common plastic products created through injection molding include toys, packaging, consumer items, furniture, containers, machine parts, tools, and much more. To create these plastic products, manufacturers begin the process with plastic granules or pellets. The pellets are fed through a hopper and into a barrel or chamber where they are melted and directed by a screw conveyor to the individual molds. The melting process must be fast and powerful to ensure production efficiency. Temperatures required to melt plastic can be at or above 500°F (260°C), and the heaters used must be able to survive contact with molten plastic if a leak occurs. If the temperatures are not maintained across the entire surface, the process loses efficiency which could lead to costly downtime.

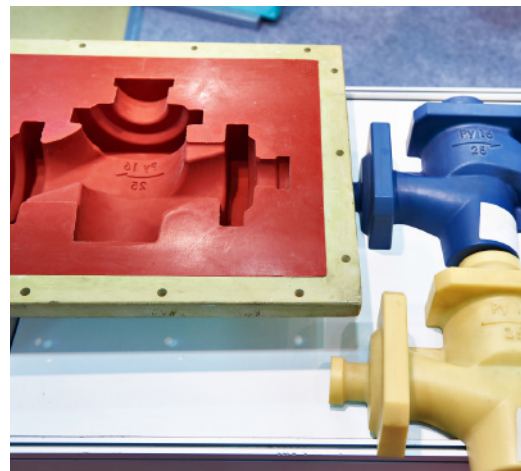
Solution

BriskHeat's mica band heaters wrap firmly around the nozzle barrel to provide the necessary heat to efficiently melt the pellets. Heaters are designed to the exact dimensions of the barrel to ensure maximum heat transfer and extended heater life. They can generate up to 40 W/in² (6 W/cm²) and reach temperatures up to 900°F (482°C). Galvanized or optional stainless steel sheaths are moisture and corrosion resistant, have low-profile 0.125 in (3 mm) designs, and are constructed with evenly-wound nickel/chromium resistance wire for uniform heat distribution.

For industrial applications where monitoring temperature is a critical need, the TTD controller is an easy-to-use controller that offers a digital display for easy programming and visual temperature identification. Larger heaters with amp ratings greater than 12 amps, should use a TC4000 Series controller with ratings up to 30 amps per zone or BH-610 for up to 40 amps.

Other Applications

This application is very similar to plastic extrusion, where long, preshaped plastic products are created. Additionally, BriskHeat Band Heaters are used in applications found in diecasting, blow molding, tank & drum heating, pulp & paper processing equipment, food & candy extruders, vending machines, and analytical instrumentation.



TTD



Band & Nozzle Heaters



BH-610

Types of Users

Production Engineers and Managers	Facilities Maintenance
Design Engineers	Process Engineers
	Plant Managers

Industry

Injection Molding/Plastics/ Rapid Prototyping	Manufacturing
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