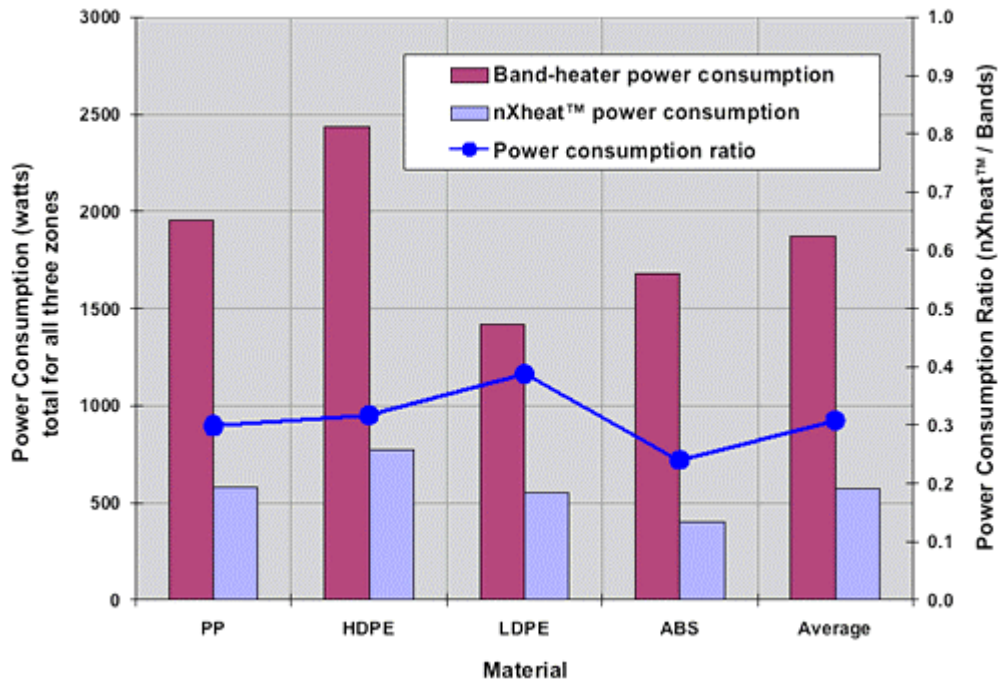


Xaloy nXheat™ Induction Barrel Heating:

It Cuts Molding Costs, Improves Part Yield and Quality



Now there's a better way to heat the barrel of injection molding machines. Xaloy nXheat™ induction barrel heating (patent pending) sharply cuts energy costs and improves temperature control for better quality and less scrap compared with conventional heater bands.



Benefits

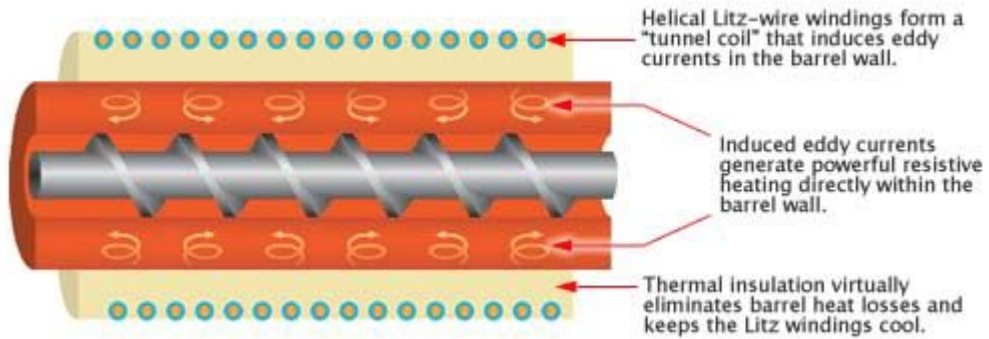


- Energy savings for barrel heating of up to 70% compared with heater bands;
- Additional energy savings -- up to 35% more -- due to reduced air conditioning load;
- Additional energy cost reduction from reduced peak power demand;
- Fewer heater failures to cut downtime and maintenance costs;
- Immediate cooling and heating response to improve quality and reduce scrap;

- Quicker heat-up - typically 2X or more - to boost productivity;
- More heating capacity -- typically 3X higher wattage into the barrel - eliminates a bottleneck;
- Higher barrel temperature capability to mold high-temperature polymers, or metal;
- Cool exposed surfaces for increased operator safety.

How it works

The nXheat™ system uses a high-frequency power supply and helical induction coils to generate heat directly within the barrel wall. A thermal insulating layer is interposed between the coils and barrel to combat heat loss, increase efficiency and improve control

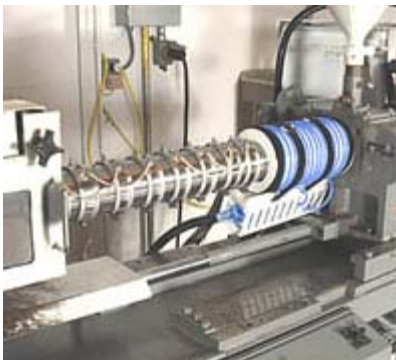


response.

System options: All-zone or hybrid



All-zone nXheat™ system



nXheat-Hybrid™ system – Barrel shroud removed for demo purposes.

The system is available in two forms: 1) all-zone nXheat™ in which induction heating completely replaces conventional heater bands; and 2) nXheat-Hybrid™ in which power-saving induction technology heats the barrel's feed zone while conventional band heaters handle downstream zones.

All-zone nXheat™ delivers maximum savings in power consumption, about 50 to 70 %. It is the ideal system for larger machines with more than three heating zones because of the high value of the reduction in power consumption.

On smaller machines with two or three zones the nXheat-Hybrid™ system can deliver most of the savings of the all-zone system because induction is used in the barrel's feed zone where the greatest amount of heat input is required to start the melting process. On such machines, which usually have barrels with inside diameters of 50 mm or less, the hybrid system will typically provide a 30 to 50 % reduction in power consumption.

In the hybrid system, downstream zones can use either insulated or uninsulated band heaters. Greater energy savings are achieved with the use of insulated band heaters. The same sheet insulation that is used in the induction-heated feed zone can be used to wrap the downstream band heaters. The precision and fast response of induction heating in the feed zone will also substantially reduce temperature overshoot problems that can occur with insulated band heaters.

A smart investment

Your investment in nXheat™ systems will pay for itself with power cost savings and other cost and quality benefits. These include reduced scrap stemming from less variation in melt temperature and faster response to changes in target melt temperature. The payback period on investment costs for nXheat™ systems is highly dependent on electricity rates, machine size and production schedule (i.e., hours of operation per year). A nXheat-Hybrid™ system typically costs about 25-50% of an all-zone system.

To learn more about gaining the benefits of nXheat™ induction barrel heating in your molding plant, [contact an Xaloy representative](#) in your global region.