



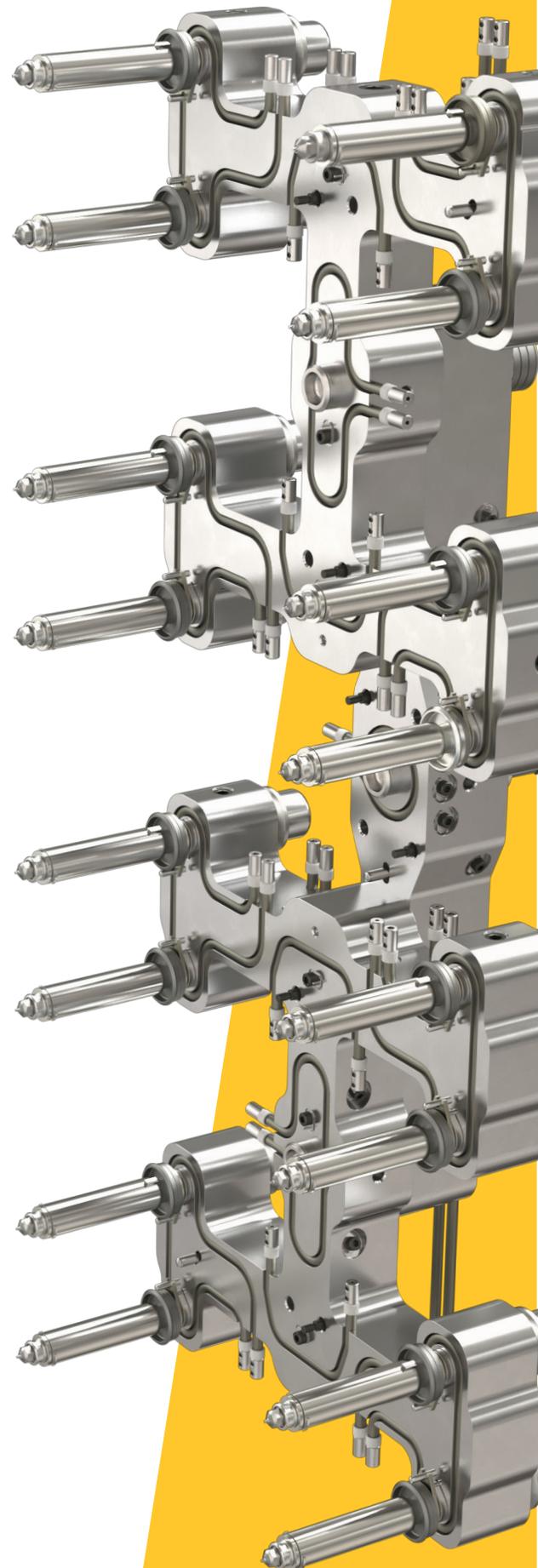
## ULTRAMELT™

UltraMelt™ is Husky's premium melt-delivery approach for applications where resin chemistry and characteristics have a distinct influence on molding operation, part appearance, and product success. It was developed to align with trends observed in medical molding applications: smaller parts made from materials with greater sensitivity to temperature and chemical reaction. UltraMelt™ is the result of over six years of development, utilizing over fifty different test manifolds. Husky even designed and built unique measurement equipment and testing procedures to investigate the combined effects of time, temperature, chemistry, and rheology on resin integrity – even effects unseen by the naked eye.

Resin integrity is very important for materials whose natural state is transparent or translucent. This full-volume view of the part makes any degradation, oxidation, or contamination easy to see. Even when color does not affect product function, it can still be of concern to the brand owner and end user – especially in the medical market. In cases where small parts are made at high melt temperatures like polycarbonate, this attention to detail is even more important.

There are so many resins to utilize when injection molding, each with their own unique combination of attributes and properties. These are what make them best for their specific operating environment and processing approach. Some of these resins have a chemistry which makes them corrosive to metals when molten. This is typical to:

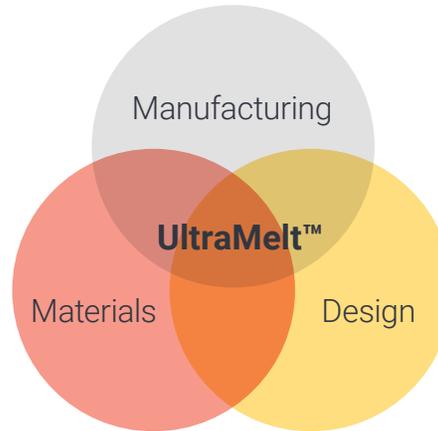
- PVC: both rigid and flexible
- Bioresins like PHA and PLA
- Resins including additives such as brominated or halogenated flame-retardants



# ULTRAMELT™

To accomplish the unique needs of these resin types, Husky accomplishes success in three ways:

- **Materials:** all hot runner components contacting molten resin are non-reactive
- **Design:** all components are designed for ideal thermal profile and optimal temperature control
- **Manufacturing:** built with our classic Husky attention to quality and detail



Great wear resistance and good thermal conductivity are two extremely important attributes when it comes to choosing materials for molds and melt delivery. With these sensitive applications, it is also critical to minimize the risk of reaction between the molten resin and melt delivery components – ensuring long-term molding success.

Husky manifolds are designed with guidelines and considerations to consider the melt delivery of the mold but also the thermal needs of the molten resin. All designs are validated by industry experts and thermal FEA.

Additional features are included in manifold design and manufacturing, such as finer melt channel surface finishes. This decreases the risk of resin hanging onto the melt channel wall and stagnating at the microscopic level. Melt channel diameter transitions, when used, are also more gradual. These also minimize the risk of unwanted degradation, as abrupt changes to diameter can increase likelihood of flow stagnation.

Craftsmanship is second-to-none when it comes to Husky's machining and manufacturing capability. All fits and finishes are superior, with confidence backed by Husky's three-year leakproof guarantee.

UltraMelt™ is globally available and customized for each application with a variety of gate methods, nozzle sizes, and actuation styles for both low and high mold cavitations.

## HUSKY®

**Husky Technologies™**  
**husky.co**

**Head Office** Canada • Tel (905) 951 5000 • Fax (905) 951 5384  
**Asia Pacific** China • Tel (86) 21 2033 1000 • Fax (86) 21 5048 4900  
**Europe** Luxembourg • Tel (352) 52 11 51 • Fax (352) 52 60 10

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