

Safeguarding Neonatal Infant Care Supply When Every Moment Matters

An Opportunity for Partnership

A leading global medical device manufacturer set out to strengthen the reliability and scalability of a critical molded frame insert assembly used in a nutrition system supporting maternal-infant care in neonatal intensive care unit (NICU) environments. This component helps ensure vulnerable infants receive safe, temperature-controlled nutrition. As part of a broader supply chain strategy, the company brought final assembly operations in-house to reduce costs and gain greater control, while continuing to outsource injection molding for three essential components: **the frame insert, liner ring and warmer tray**. With limited inventory available and no tolerance for disruption in hospital supply, the manufacturer needed a partner to manage an urgent tool transfer while delivering engineering, validation and long-term capacity solutions to ensure continuity and future growth.

The Challenge: Bring aging, multimillion-shot tools into stable production quickly while addressing the limitations of a complex 6+6 family tool that combined two dissimilar parts with different geometries and cooling requirements. Transitioning to individually engineered tools was essential to improve gating, cooling, cavitation and cycle time, while ensuring continuous availability of components used in critical NICU nutrition systems.

Innovation in Action

A cornerstone of the program's success was Hoffer's ability to execute a rapid, medically compliant tool transfer while simultaneously elevating the performance of the entire molding system. Within 48 hours of tool arrival, Hoffer had the molds in presses, producing first shots and baseline parts for evaluation, **delivering sample parts to the customer within three days**.

FROM TRANSFER TO PRODUCTION

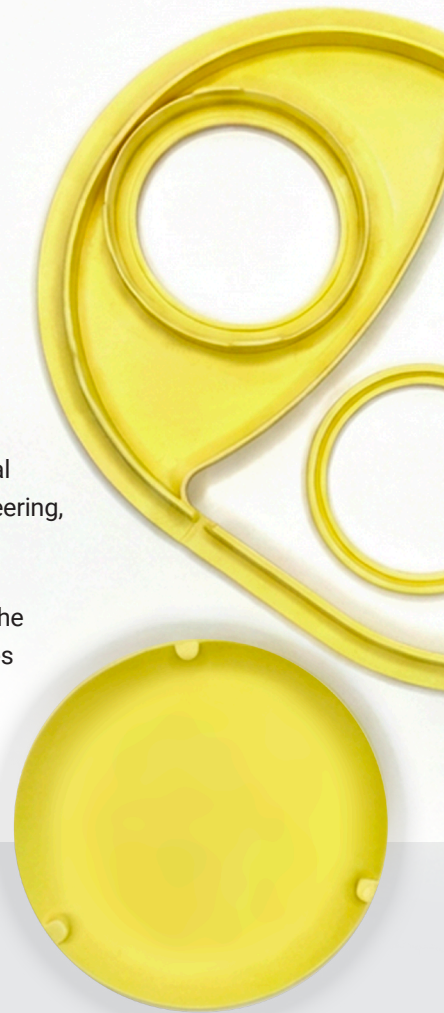
Medical Grade Validation at Unprecedented Speed: Hoffer completed IQ/OQ/PQ validation in just days, compressing a process that typically requires four-to-six weeks. This allowed the customer to maintain uninterrupted supply for its critical product.

Engineering Enhancements That Elevated Performance: By optimizing cooling, adjusting gate design and refining processing windows, Hoffer stabilized legacy tools and laid the foundation for next-generation molds that delivered faster cycle times, improved flow balance and a more forgiving process window.

Automation Integration & Precision Handling: Hoffer's automation team designed and engineered the customer's legacy hardware with a custom end-of-arm tool and tailored part-handling for thin-walled components, eliminating manual labor while improving quality and reducing costs.

Packaging Innovation for Part Protection: To address historical issues with part warping during transit, Hoffer developed a custom, reusable foam insert that secures parts inside each box, which allows for higher packaging density.

By combining rapid transfer execution with strategic engineering improvements, Hoffer created a more efficient and future-ready manufacturing platform for critical components.





"Our goal wasn't just to move tools. It was to elevate the entire manufacturing system for our customer.

This program succeeded because of true cross-functional collaboration. From tooling and engineering to quality and automation, our teams worked as one to execute a rapid transfer, accelerating approvals and onboarding production without compromising part quality or supply for these essential medical components against an unprecedented timeframe."

Drew Wessel

Sales Manager, Hoffer Plastics



Delivering Measurable Results

The successful multi-tool transfer and evolution of this healthcare molding program delivered far more than continuity. It produces up to 38% more assemblies per day, creating a stronger, more efficient and more resilient manufacturing platform for equipment used in critical neonatal intensive care applications.

20% reduction in cycle time expanding overall production capacity.

Labor savings up to \$80,000 per year through the successful introduction of custom automation.

Splitting the 6+6 family tool into two new 16 cavity tools resulted in **\$90,000 in savings annually**.

Together, these results demonstrate how a high-stakes tool transfer can become a catalyst for long-term operational improvement. The outcome delivers speed, consistency and confidence for critical maternal-infant care.

We Go ALL IN to Help You WIN!

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