

Transferring Mature Product Line to Low-Cost Geography Improves Manufacturing Process while Reducing Cost



CUSTOMER SITUATION

The creation of a Catheter Center of Excellence in Costa Rica presented an opportunity for Vention to transfer a medical device it had been

manufacturing for more than a decade in the US to a low-cost geography. The product was a balloon catheter from a large surgery technology company based in Asia. The objectives were to reduce cost and to enhance the robustness and stability of the manufacturing process of this mature product line.



VENTION SOLUTION

To initiate the project, teams from 2 of Vention's US catheter manufacturing facilities collaborated to document best practices from each site and

determine which processes to use for the transfer to Costa Rica. Team members analyzed lessons learned from previous transfers and built a plan to mitigate risk.

Several new capabilities were added to the manufacturing line in Costa Rica, including:

- *Laser bonding*
- *Marker band positioning/swaging*
- *Split die bonding*
- *UV bonding*
- *Balloon catheter functional testing using a hydraulic burst/leak tester*

The team used Design for Manufacturability (DFM) principles to analyze processes, implementing one-piece flow and standardizing the manufacturing process to

make it less susceptible to operator variability. The team also conducted a rigorous, 3-week training process including Verification of Effectiveness to ensure consistent procedures among operators.



OUTCOME

This manufacturing transfer presented an opportunity to demonstrate how Vention could achieve cost savings and manufacturing efficiencies at

its Catheter Center of Excellence in Costa Rica. The streamlined manufacturing line reduced assembly time and improved yield, and the standardized process reduced operator variability. In addition, the cost savings target was achieved while maintaining the highest product quality standards.