



Beaumont

Revolutionizing Injection Molding



Viking achieves full cavity utilization with MeltFlipper®

"Our customers find that Viking can produce more products with faster mold commissioning times, faster cycle times and less scrap." -Marty Radock, Senior Project Manager at Viking Plastics

An inherited 4-cavity mold producing a Delphi HVAC unit for a Saturn vehicle would



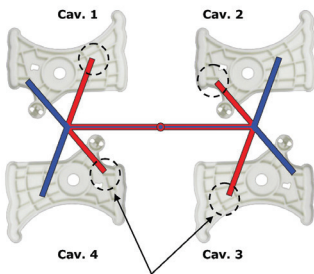
VIKING PLASTICS
A VPI Acquisition Company

not be expected to cause many production problems. However, when Viking Plastics received the product mold, it was only capable of producing two out of four cavities within specifications.

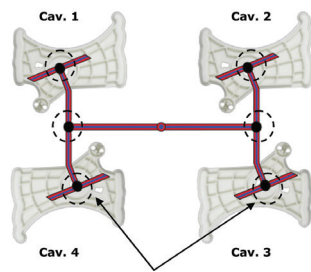
Upon seeing the pattern in filling, Senior Project Manager Marty Radock said, "Not only did we understand that the problem was with the mold, but we also knew where to go for the solution — Beaumont." Viking Plastics had worked with Beaumont on several projects in the past and were

confident in its technologies and understanding of rheology.

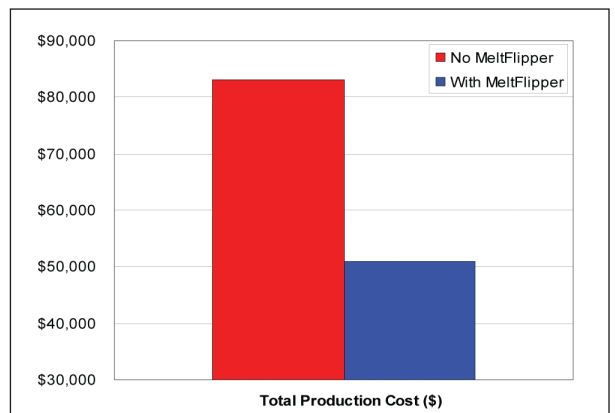
Although the runner and gates were geometrically balanced, Beaumont knew that the problem, called "intra-cavity" imbalance, could be found within the distribution of the high-sheared material within the cavities. By correcting this imbalance, Viking noticed a complete turnaround in the performance and profit of the tool. Implementing the MeltFlipper® reduced the machine, material, maintenance and inspection costs. Ultimately, Viking saw an annual production savings of \$32,470. By controlling the rheology to ensure uniform material properties within each cavity, Viking saved nearly \$114,000 over the life of this project.



High-sheared laminates feeding different locations between cavities



Equal distribution of high-sheared material with MeltFlipper® technology



PROJECT DESCRIPTION:

- 4-cavity mold
- Delphi automotive component for HVAC
- Mineral-filled nylon

PROBLEMS:

- 75% cavitation at best
- Excessive costs: machine, material, and inspection
- Intra-cavity imbalance
- Short shorts with 48% scrap

SOLUTION:

- Install MeltFlipper® technology

RESULTS:

- 100% cavity utilization
- Nearly \$114,000 in savings for the life of the tool
- Short Shots eliminated