

Whirley Drinkworks finds enormous value from AIM's PTE Program



PROBLEM

- ▶ Inconsistent parts
- ▶ Misunderstanding of root problem

SOLUTION

- ▶ Company savings of over \$500,000
- ▶ Consistent parts

Whirley Drinkworks is a plastic manufacturing company located in Warren, PA that designs and manufactures a wide variety of cups, lids, and other products for the food and beverage industry. Two Whirley employees were recently enrolled in The American Injection Molding Institute's Plastics Technology and Engineering (PTE) Certificate program. They studied the four primary disciplines of injection molding- materials, tool design, part design, and processing. Prior to enrolling into the program, Whirley experienced problems while running a PET material on their injection presses. The material was exiting the barrel at excessive temperatures (625°) which caused shot-to-shot inconsistencies and prevented the company from properly stretch blow molding.

Whirley contacted their screw supplier for recommendations, however the supplier told them the problem was not within the screw, but rather, it was within the press itself. As such, the company considered replacing the presses to alleviate the manufacturing issue. With a price tag of over \$500,000 to replace the presses, Whirley wanted to be sure it was the correct course of action.

Using the knowledge gained from PTE Certificate program, Whirley was able to determine that the screw was indeed the root cause of the issue. Its design for PET material caused a variety of problems, including a high degree of compression and shear heating. The Whirley employees made recommendations for an improved



screw design, and by doing so, saved the company over \$500,000! If not for the PTE program, they would not have had the knowledge to question those they relied on and design engineered experiments to determine the actual root-cause.

"While we did have goals in mind when we first signed on for the PTE Certificate program, I was later surprised by how many different ways the education affected our day-to-day job responsibilities," said Ruth McClellan, Chief Engineer/Engineering Manager at Whirley. "Being able to communicate on the same level as your suppliers, vendors, and customers is a highly valuable asset. It goes to show the investment in training can pay off in multiple, unforeseen ways."