

OptiFlo™ Melt Rotation Hot Runner System assists Phillips Plastics Corporation in process improvement.

Phillips Plastics Wisc. a leading injection molding company ranked within the top 30 in the USA recently requested INCOE® Corporation and Beaumont Technologies Inc. to assist them in their continual commitment for a 0 % PPM reject production goal. Phillips has a reputation for supplying precision tolerance injection molded consumer products.

To achieve the next level of improvement Phillips chose INCOE® Corporation to manufacture a Hot Runner System utilizing the Meltflipper technology from Beaumont Technologies Inc. for the production of a medical device cover using a pc/abs material.

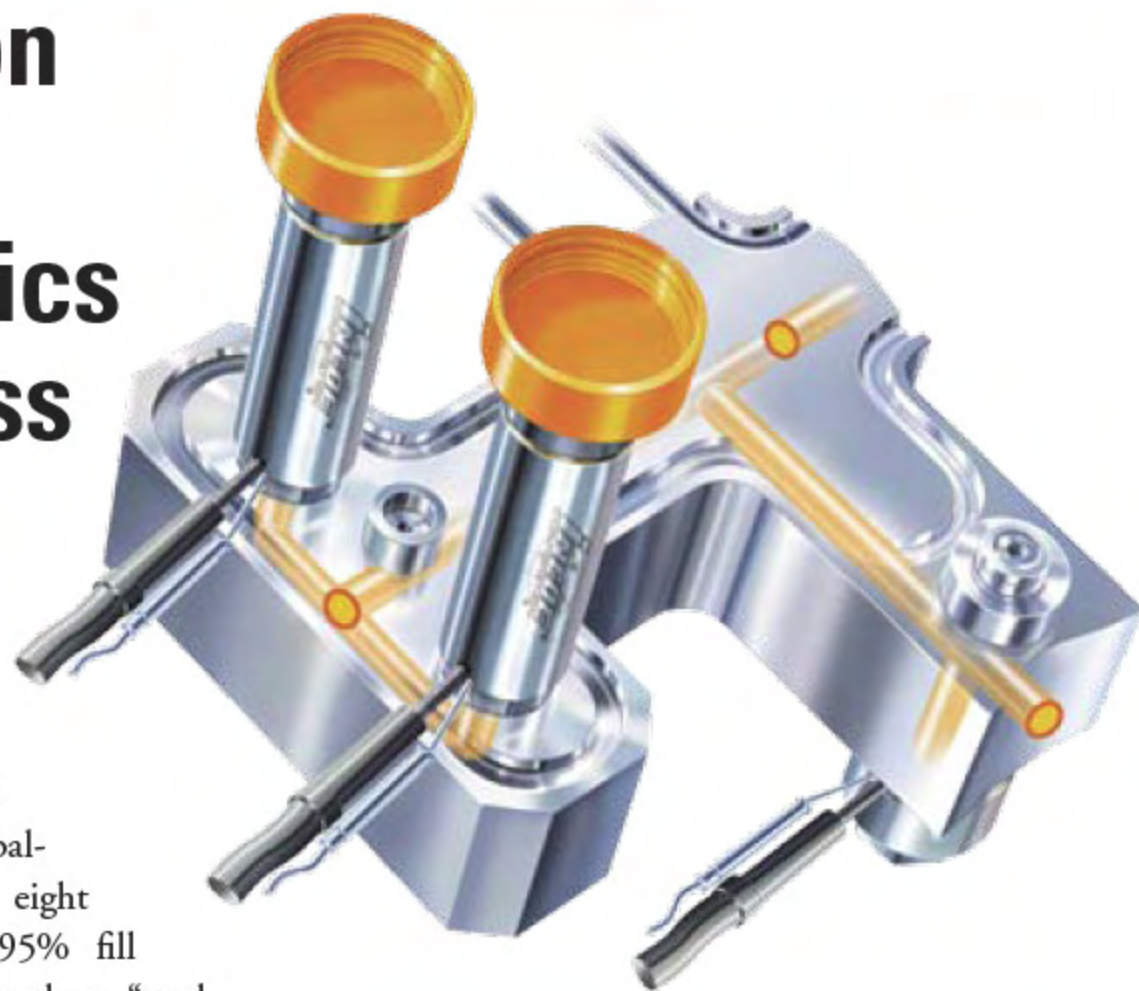
Phillips recognizes filling inconsistencies caused by shearing of the material during injection molding leads to a poor part quality. The eight drop hot runner system was required to produce less than 5% part weight deviation on a 95% filled part molding pc/abs.

Short shot part weight differences also cause longer start-ups due to the continual "tweaking" of nozzle temperatures until a stable process is established. This process, and the lengthy time period were virtually eliminated.

The INCOE® system delivered an average of 0.375% imbalance for all eight cavities at the 95% fill condition. Other than "steel variations" which are inconsistencies in machining that can be identified and corrected; shear induced imbalances have been the root cause for filling imbalances in both cold and hot runner systems but remained a mystery until John Beaumont of Beaumont Technologies discovered the phenomenon and created a method to compensate for the effect.

Also included in the Phillips evaluation of this hot runner system was a deliberate 20 degree F change in the melt temperature setpoint. Still no filling imbalances were detected further demonstrating the robustness of the technology.

INCOE® Corporation is the exclusive licensee for incorporating Beaumont's Meltflipper technology in Hot Runner Systems.



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