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BTI...We Are "More Than MeltFlipper®"

CAE Mold Filling Simulation * ProSeries Training Seminars * Rheological Control Systems * Mold Diagnostic Software * Consulting / Troubleshooting * Molding / Sampling Capabilities

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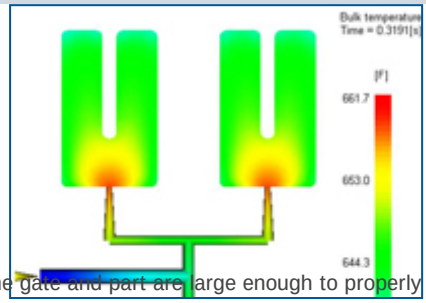
Thogus Products and BTI to co-present at PDx/Amerimold show in Cincinnati, OH

During the start-up of Thogus Products' first Opti-Flo hot runner system through INCOE Corporation (which includes BTI's MeltFlipper® technologies), short shot data was sent immediately to BTI for evaluation with our 5 Step Process mold diagnostic software. The data quickly identified a steel imbalance in the mold...literally. The source of the variation was later found to come from far outside of the mold or machine themselves. Had Thogus not trusted in the 5 Step software data, this issue probably would have been explained away as "noise", which could have had devastating consequences for this mold and other molds lined up for production. Get the full details by attending the PDx/Amerimold show in Cincinnati, OH (May11-13).

PlasticsPro Training Course Highlight - Should runners be sized differently at each branch?

How many times have you had this debate with a mold designer, processor, consultant, or mold maker? More often than not,



people are convinced that you must size runners differently at each branch. But what is the scientific reason for this? There are several theories offered to "justify" the technique. Most common of which is "we have always done it that way". And notice we said upsizing...not downsizing. When sizing runners you should always start at the gate feed runner and size accordingly by working back toward the sprue. This ensures the runners feeding the gate and part are large enough to properly pack the part.

In regards to the upsizing theories, we asked "Are those theories valid? And if so, do they even matter to the quality of the molded part?" The explanation and review of each theory goes far beyond what can fit in this newsletter, but we can tell you this...only one of the theories that we tested actually held true. But the end result of that theory for the part and layout studied actually provided no real benefit to the part and process versus other runner sizing options for the same part. In fact, upsizing the runners at each runner branch in this case created more runner scrap and a longer cycle time.

Food for thought: When sizing runners, there are three options: 1) upsize at every branch in the runner, 2) constant diameter through the entire system, and 3) a mixture of 1 and 2. There is no real "one case fits all" answer. It is best to evaluate each case by itself and make sound engineering decisions based on what is most important to you and the success of the project such as: pressure drop, molding machine capability, packing requirements, material type, material scrap, and cycle time.

To learn more, contact BTI and inquire about our PlasticsPro training seminar , a 2-day course and part of our ProSeries training seminars.

CAE Mold Filling Simulation - BTI achieves Silver Certification through Autodesk Moldflow

With increasing demand for our CAE mold filling simulation services, BTI continues to train and advance our engineers to new levels of Moldflow certification. This investment is done to ensure that we continue to be the industry leading supplier of mold flow simulation.

Most recently, BTI has acquired Silver Certification status with Autodesk Moldflow software. Silver Certification is the second highest level of certification available to individual users of MPI/Flow, MPI/Cool, and MPI/Warp. The certification signifies that BTI has completed the necessary training and is capable of offering sound insight into specific design recommendations based on advanced simulation results.

In addition to in-depth project reports, BTI also offers free on-line project reviews during the quoting, simulation, and summary stages. This gives our customers the ability to ask detailed questions while viewing fill patterns and other simulation output in real time, and have meaningful discussions with our engineers in order to ensure the designs are being evaluated from all critical aspects.

If you are having issues with an existing mold or if you need help optimizing a new part and mold design, contact BTI ..."Where the Industry Goes for Answers"

BTI Continues to Hire

At a time when many companies have put a freeze on hiring, BTI is continuing to expand engineering in order to

fill customer needs. After several years in industry, Alex Beaumont has moved back to Erie, PA to be a part of his family's growing business. Alex is a graduate of the Plastics Engineering Technology program at Penn State Erie - the Behrend College. Over the years since graduation, Alex worked as a Project Engineer whose job responsibilities included prototyping, quoting, tool layout, process debug, and production approval for both injection and blow molded products.

Alex states, "It would have been easy for me to step into the family business right out of college. However, we all felt it was best that I spend time in manufacturing to gain experience in more traditional industrial settings. I think that experience will prove invaluable in giving me a better understanding of our customer's problems and needs. I'm looking forward to being an integral part of the BTI team, and to couple the knowledge I gained in manufacturing with the products and services offered here. It's great to be back in Erie and to be working with our engineering team to help our customers be more profitable."

Tradeshows and Seminars

BTI continues to showcase our new range of products and services world wide. We have upcoming shows in the United States and in Europe throughout 2010, and we will also be a part of several technical conferences to offer our engineering insight into some of the most challenging problems faced by the injection molding community. Be sure to check our Homepage listings to keep updated on where and when we will be at the conferences.

Molding 2010 (April 12-14, San Antonio, TXI) - David Rose will present "Development Through Production: Rheological Control Strategies for Reducing Waste and Time-to-Market"

ABSTRACT:
It is hard enough to fight production fires every day, let alone adding a round with Isaac Newton and the laws of physics. But yet that is what many of us do on a daily basis without even knowing it. In this case the laws of physics refer to the laws of rheology and plastic flow, and these laws are a major factor in the success of a project from the development phase through production. During development, a gate location is selected, cooling channels are laid out, a melt delivery system is designed, and, often, a low cavitation prototype mold is built to test the part and mold design concept. The idea is that the production mold will be constructed to mimic the lessons learned in the prototype mold. But all too often the physics of plastic flow are ignored, or not understood during development, thus creating additional unanticipated problems in the production mold. This presentation will show several examples that highlight the benefits of developing a rheological control system strategy, which would include the use of mold filling simulation and rheological control system inserts within the runner, from development through production. These case studies will show how rheological control strategies were able to reduce time-to-market and eliminate waste in on-going production molds.

PDx/Amerimold, Booth 724 (May 11-13, Cincinnati, OH) - BTI and Thogus Products will be a part of the show conference discussing how BTI's 5 Step Process software helped save time and money during a new mold start-up. Conference day and time is not yet determined by show management, so check our Homepage for updates.

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