News@BTI Volume X, Issue 3 - August 2010

Aug 05, 2010 | Posted in News

Inside the Newsletter

- NEW! Plastics Professional Membership Program
- Omni Mold, Ltd. Case Study Testimonial: 48-cavity hot-to-cold runner system to produce a tight tolerance medical device
- 1D versus 3D Mesh Comparison for CAE Mold Filling Simulation
- BTI Changes Name for One Training Seminar...and Begins Development of a New Training Seminar
- Tradeshows, Seminars, and Events: Highlight – "Scientific Molding for Critical Tolerances", by Scientific Molding Expert John Bozzelli

NEW! Plastics Professional Membership Program

The Plastics Professional Membership Program (PPM Program) was developed when the need for such a program arose out of the cancellation of Penn State's Plastics CAE Center. The Plastics CAE Center, or CAE Consortium, was made up of numerous companies including material suppliers, OEM's, mold builders, design firms, and injection molders. The membership levels were purchased in exchange for various levels of mold filling simulation services. However, that cancellation of the CAE Consortium left a void with many of its members. As such, BTI was being approached to develop a similar program to help fill the void.

BTI listened to the need of the customers and took the CAE Consortium idea to a new level by including options to bundle in our other proprietary products and services that were not available through the Penn State Plastics CAE Center, such as BTI's Training Seminars, Mold & Part Diagnostic Software, Rheological Control Systems™, and Veri-flo™ Material Verification Services.

The mix of products and services available in the PPM Program provides Members not only with the training required to effectively improve their design and troubleshooting skills, but it also provides them with all of the tools required to implement the principles taught in the training seminars. The end result of which makes it easy for companies to fully integrate the technologies within their standard operations.

The PPM Program is offered in three customizable membership levels coupled with additional discounts available from bundling our products and services together. These discounts and other PPM Program benefits are not available to non-Members.

Click HERE for details.

Omni Mold, Ltd. Case Study Testimonial: 48-cavity hot-to-cold runner system to produce a tight tolerance medical device

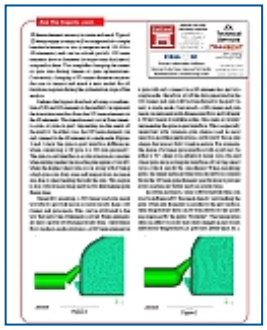
James Lew, Omni Mold Ltd., stated: "We needed to build a 48-cavity hot-to-cold runner system to produce a tight tolerance medical device molded component. The high cavitations and complexity of the mold prompted Omni Mold's engineers to contact Beaumont Technologies, Inc. (BTI) to provide mold filling and balancing solutions.

As part of the solutions proposed, BTI recommended INCOE®'s Opti-Flo® hot runner system to control the material flow inside of the manifold, and also provided RCS cold runner MeltFlipper® technology. CAE mold filling simulation service to control the flow within the cold runner system and part cavities was also part of the solution. Upon first sampling of the new mold, the benefits were immediately realized as the system started up without any mold filling problems.

Right from the start, this saved Omni Mold rework and qualification costs that would have otherwise likely been incurred due to the inherent imbalanced cavity to cavity layout. The difficult mold layout was required by the post molding processes. We certainly have learned a great deal working with Beaumont and INCOE®, and plan on using them for future projects."

1D versus 3D Mesh Comparison for CAE Mold Filling Simulation

The 2010 Summer SPE Injection Molding Newsletter features BTI's CAE analyst John Ralston who provides some technical advice regarding the various mesh types available for simulation.



Click Image to Open the Newsletter

Question 1: Recently our company has been utilizing our CAE software's 3D part meshing capabilities. Does a 3D part mesh require a 3D runner system? If so, will this increase the model element count and resultant analysis run time?

Question 2: Can a 3D part mesh be analyzed properly using a 1D beam runner? And are there any known issues with mixing and matching mesh types?

The article can be found on pages 4-6 of the newsletter. You can also contact us directly to inquire about your specific applications.

Visit SPE's Injection Molding Newsletter Site for additional information and to access previous newsletters.

BTI Changes Name for One Training Seminar...and Begins Development of a New Training Seminar

BTI's Plastics Professional Training Series emphasizes fundamental plastic principles to teach state-of-the-art design, process, and diagnostic procedures. Currently there are two courses available: PlasticsPro and FillPro.

However, there seems to be some confusion with our clients that BTI's PlasticsPro seminar is an "injection molding process" training seminar. As such, BTI has decided to change the name of the seminar to DesignPro. David Hoffman of BTI says "Several companies were interested in our training seminars, but were confused thinking that this course taught the process principles that several other training professionals teach. Of course we discuss processing in general, but our course is unique in that it is geared toward understanding plastic flow, shrink, and warp and how to take that knowledge into consideration when designing a plastic part and melt delivery system."

BTI is also developing a new training seminar based on recent customer demand. The new seminar, called MoldPro, is being designed to teach fundamental mold design principles. Says Hoffman, "Many companies have told us that they have project engineers attend mold design review/approval meetings, but often times those engineers do not know enough about mold design to offer good insight or to ask the right questions. Therefore we are developing a basic mold design course that teaches students such things as mold steel selection, mold functions, proper cooling designs and techniques, ejection options and design considerations, and a variety of other mold design details."

Click HERE to learn more about BTI's Plastics Professional Series Training Seminars.

Tradeshows, Seminars, and Events

September 11, 2010, **PLET Alumni Golf Outing**, Culbertson Hills, Edinboro, PA

This year's golf outing is held in honor and memory of Marty Dropik (PLET Professor) and Keith Reiland (PLET Alum).

October 12-14, 2010, **Scientific Molding for Critical Tolerances**, Beaumont Technologies, Inc., 1524 East 10th Street, Erie, PA 16511

BTI is sponsoring a training seminar by Scientific Molding Expert John Bozzelli.

Contact John Bozzelli with any questions
(Phone: 989-832-2424,John@ScientificMolding.com)

Please do not make reservations that you cannot cancel before John Bozzelli confirms your reservation for the seminar.

November 12, 2010, **Pittsburgh SPE**, Penn Hills Comfort Inn, 699 Rodi Road, Pittsburgh, PA

Topic: Properly Sizing Runners: Constant vs. Variable Runner Diameters
Presenter: Mason Myers, Applications Engineer; Beaumont Technologies, Inc.

Runner sizing techniques will be discussed in detail using industry standard practices and CAE flow simulation while taking into account such considerations as packing requirements, filling pressures, material volume and cycle time. After all, the filling of your part cavity starts with a melt delivery system. As such, we need to be taking a closer look at good runner sizing practices and how it can go a long way in saving molders time and money.

For a downloadable PDF of this newsletter, please visit our Newsletters & Literature Page.

© Beaumont Technologies, Inc. All Rights Reserved. Privacy Policy | Site Map

ProWebsite provided by newline Creations