



### Inside this issue:

<b>NEW HIRE:</b> Technical Accounts Manager Brings BTI Presence to Carolinas, Southeast	1
<b>SAME NAME, BETTER SITE</b> Web Site Improved for Faster, Easier Access to BTI's Products	1
<b>NEW SERVICE:</b> Custom Training Sessions Tailored to Your Corporation	2
<b>Upcoming Events</b>	2
<b>Case Study:</b> Dunlop "Flips" to Produce World-Class Golf Balls	3
<b>New Corporate Literature Available</b>	4

## NEW HIRE

### Technical Accounts Manager Brings BTI Presence to Carolinas, Southeast



Fred Phillips, formerly with Moldflow Corp., has joined BTI as its newest Technical Accounts Manager. Fred will work out of Charlotte, N.C., to focus support for our clients in the southern United States, but he will have the flexibility to provide our products to other areas as well.

management technology is creating lots of excitement in the plastics industry and I'm anxious to be part of it."

Fred will leverage BTI's relationship as a Moldflow-certified consulting partner and authorized reseller to provide a complete solutions package of part and process optimization technologies. Local representation will allow molders in the southern states ready access to the array of BTI products and services, from MeltFlipper® to the latest release of CAE by BTI™.

A former student of John Beaumont's, Fred graduated from Penn State Erie's plastics engineering technology program in 1998. After seven years in industry, he says that he looks forward to a new challenge. "Today, people are looking for any manufacturing edge they can get. Companies are finding that the runner system itself holds a lot of control over final part quality," he says. "Melt

When not working, Fred enjoys golf, hiking, and playing his guitar. He is active in the Carolinas' SPE, has served on its board of directors for three years, and was elected section president for the 2005-06 term. Contact Fred by calling 704-545-4000 (work) or 704-231-9485 (cell) or via e-mail at [fphillips@runnertech.net](mailto:fphillips@runnertech.net).

## SAME NAME, BETTER SITE

### Web Site Improved for Faster, Easier Access to BTI's Products

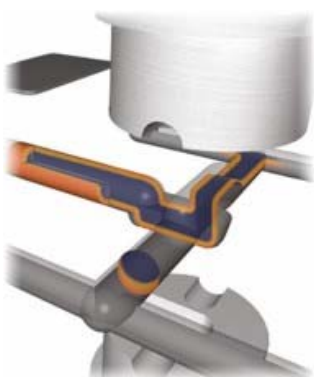
All is merry and bright at BTI, now that our new Web site is up and running. After much hard work, we've created a totally new site that speeds the time it takes for you to learn everything you wanted to know about MeltFlipper®, CAE by BTI™, runner design and mold evaluation services, and the 5 Step Process™ -- but were afraid to ask.

surfing's easier and more informative. There's now a complete overview of the company's products and services, plus numerous other resources on injection molding optimization technologies. In addition, we now exhibit Moldflow's MPA® software as part of BTI's new authorized reseller status, and a training seminar menu on various topics has been added to demonstrate how academic knowledge combined with industrial experience generates practical solutions for injection molders.



The name remains the same - [www.meltflipper.com](http://www.meltflipper.com) - but the

(Continued on page 4)





## NEW SERVICE

### Custom Training Sessions Tailored to Your Corporation

Training seminars to enhance plastics processing operations are now available on a made-to-order basis.

We are now customizing corporate seminars on three subjects: 5 Step Process™ Methodology for mold qualifying procedures, Practical Rheology, and Runner and Gating Designs. The seminars are geared to

provide a complete understanding of the subject matter, and are presented in a way that simplifies complex subjects for quick comprehension.

The **5 Step Process Methodology** seminar provides attendees with a complete understanding of filling imbalances and how to identify and quantify the root causes of this molding problem. Since processors benefit from faster mold commissioning times with quicker payments and better time-to-market for finished goods, BTI promises to help ferret out challenging mold

*“We tailor each course to meet your company’s unique needs and challenges...”*

problems fast with the practical application of this course plus the company’s 5 Step Process software.

The course typically requires four hours of staff time, and the host company’s seminar participants will each receive a free 30-day trial of the BTI 5 Step Process software.

**Practical Rheology** is a complete overview of how polymer flow characteristics affect process stability and part quality. The subjects covered include, but are not limited to, pressure, temperature, viscosity, shear, molecular and filler orientation, linear and volumetric shrinkage. Attendees will benefit from the seminar by learning how process and design changes can impact a molded part. Participants also will receive a free copy of the book *“Successful Injection Molding: Processing, Design and Simulation,”* a \$129.95 value.

The third seminar, **Runner and Gating Design**, offers “best design practices” for cold and hot runners, including the many gating styles and how these impact different types of resins. Processors will learn how the location of a gate, the gate design, and the runner system used can impact the end quality of an injection-molded part. Beyond these important points, shear, shrink, stress development, runner design, and runner sizing principles will be covered. Participants will receive a complimentary copy of the popular book *“Runner and Gating Design Handbook: Tools for Successful Injection Molding,”* a \$129.95 value.

We tailor each course to meet your company’s unique needs and challenges, drawing from our strengths as a solution provider with strong industrial and academic background coupled with practical knowledge and tactical manufacturing savvy. Let us quote a price on a seminar that meets your specific expectations.

## UPCOMING EVENTS

We love to talk melt rotation! Visit us at one of these upcoming industry events:



**MOLDING<sup>2005</sup>**  
Executive Conference

**Molding 2005**  
“Vital Technologies for Business Success in a Changing Global Market”  
New Orleans, La.  
February 2-4, 2005  
Omni Royal Orleans Hotel

BTI presentation on February 3,  
11:30 a.m. until noon.  
“Melt-Management Technologies for Improving Efficiencies, Reducing Costs, and Achieving Six Sigma ”



**massPLASTICS 2005**  
Fitchburg, Ma.  
March 30-31, 2005  
Best Western Royal Plaza Hotel  
and Conference Center  
Booth #506



**MoldMaking Expo 2005**  
Rosemont, Ill.  
April 19-21, 2005  
Donald Stephens Convention  
Center  
Booth #416

BTI presentation on April 20,  
3 to 4 p.m.  
“Preventive Maintenance for Your Mold Design”



## CASE STUDY

### Dunlop “Flips” to Produce World-Class Golf Balls BTI Mold Optimization Technology Working to Create “The Perfect Ball”

Although molding flaws, scrap, waste generated during manufacturing, and delays caused by switching production lines don't directly impact a round of golf, to Dunlop Sports Manufacturing of Westminster, South Carolina, they are as important as going under par on the last hole of a tournament.

A long-time player in the golf ball market, Dunlop began producing balls in 1910, and made significant technological hurdles over the next nearly 100 years in the business, including the introduction of the 360 dimpled ball (vs. the conventional 336). Other top name golf balls – Maxfli, Slazenger, and Taylor Made among others – have been developed and manufactured by Dunlop.

Dunlop produces 30,000 dozen golf balls per day, on multiple manufacturing lines with several product changeovers per week. Achieving this demanding production schedule while making smooth production changes and not wasting time, material, or machine time was a driving reason Dunlop sought mold optimization products.



“The desire to make a strong comeback in world golf circles and keep quality, productivity and profitability at the highest

Six Sigma standards has seen us buy into new and proven licensed process technology, as we did with the MeltFlipper,” says Joel Nelson, process engineer.

Nelson joined Dunlop in 2001 as part of a new House Rejuvenation and Six Sigma Quality Program where the new standards were and continue to be: safety, quality, customer service, production, people, organization and innovation. One of his objectives was to improve production quality by reducing scrap and waste.

In the manufacture of golf balls, consistent polymer flow (in this case, DuPont's Surlyn ionomer-class thermoplastic resins) into the molds is paramount—it is this property that molds perfectly balanced balls and eliminates mold

blemishes that would make the final product undeliverable. Dunlop also has the added challenge of constantly changing lines (four to five per week on average) to accommodate a variety of products, so the stability of the melt flow is tested to the limit.



The exacting production standards at Dunlop call for close scrutiny of SEW – Speed, Efficiency and Waste – every day during company meetings. MeltFlipper technology is integral to achieving this goal at Dunlop, because when surface imperfections or unbalanced mandrels are made, runs are wasted and significant amounts of scrap are generated.

Says Nelson, “There were issues during changeover with mold balance and startup, but once we licensed the MeltFlipper technology used on our Nissei and Newbury 150 ton presses, we don't have to check or open gates to eliminate flow marks on the outside mantle of the balls – now all flow fronts come to one point and we achieve a well balanced flow in our multicavity molds.”

MeltFlipper technology allowed Dunlop to balance mold pressure, temperature, and viscosity within the entire mold; this represents a holistic approach to the process, rather than piecemeal solutions like steel balancing or temperature manipulation. As a result, Dunlop realized faster cycle times and better fill balancing that produced higher quality golf balls, all while eliminating typical processing problems such as short shots, dimensional variations, mold marks and core shifts. The process yields higher mold efficiencies for lower part prices, and faster mold commissioning times. Dunlop now owns an Annual Site License for MeltFlipper technology that allows them to put the technology into every mold for every part.



With the success of sponsored athlete John Daly, who won this year's Buick Open with the company's new line of Loco balls, Dunlop is showing the golf world that use of innovative new technologies is a manufacturing hole in one.

## ***Beaumont Technologies, Inc.***

2103 East 33<sup>rd</sup> Street  
Erie, PA 16510-2529

Phone: 814-899-6390

Fax: 814-899-7117

Email: meltflipper@runnertech.net

### **Revolutionizing Runner Designs for Injection Molding**



WE'RE ON THE WEB:  
[WWW.MELTFLIPPER.COM](http://WWW.MELTFLIPPER.COM)

**Beaumont Technologies, Inc.** (BTI), the exclusive licensor of MeltFlipper® melt rotation technologies, is the plastics industry's source for mold and process optimization products and services. MeltFlipper technologies are 100% GUARANTEED to solve your problematic filling imbalances to ultimately achieve reduced scrap rates, faster cycle times, quicker time to market, and increased process efficiencies.

BTI is dedicated to take the plastics industry to the "next level" through an understanding that part quality and process stability start within the melt delivery system. BTI's advanced design practices for hot and cold runners have increased the quality and productivity of manufacturing companies worldwide. Because of our commitment to continuous R&D and quick response to industry needs, BTI has expanded its capabilities and services beyond the development of MeltFlipper technologies.

Our core products (**MeltFlipper®**, **5 Step Process™**, and **CAE by BTI™**) are successfully being used to help produce parts to Six Sigma quality standards in a vast array of industry segments. Contact BTI today and give us the opportunity to help your company become more profitable through our mold and process optimization tools - with **NO NEW CAPITAL EQUIPMENT REQUIRED!**

Please visit [www.meltflipper.com](http://www.meltflipper.com) for more information.

## **New Corporate Literature Available**

BTI's new full-color corporate brochure is now available. Perfect for making the case for melt management technology to your company's decision-makers, the brochure explains how mold debugging and mold optimization technologies prevent molding problems and offer quick return on investment.

For copies of the new literature contact Beaumont Technologies directly or fill in the request form on our new and improved web site, [www.meltflipper.com](http://www.meltflipper.com), and we will contact you.

## **Web Site Improved**

(Continued from page 1)



The site also outlines the instrumental plastics engineering work by John Beaumont, company founder and president, and allows visitors to read the numerous magazine articles the company has generated since 1998. Using links to distributors CoreTech Systems, General Polymers, and INCOE® Corp., and strategic partners Custom Tool & Design, RJG, Inc., Sunset Mold and Prototype, Inc. and Moldflow Corp., the trip to [www.meltflipper.com](http://www.meltflipper.com) offers a full array of processing technologies, suppliers, and mold and tooling manufacturers for a virtual "full plate" of injection molding resources.