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Battenfeld Gloucester's President Brian Marvelley seals the deal with Zhou Shan, Chairman of Hebei B&S Group.

Battenfeld and Hebei B&S Group Sign Strategic Agreement

The agreement was signed during the Chinaplas exposition in Beijing last December by Zhou Shan, chairman of Hebei B&S Group (HBS), and executives of the Battenfeld extrusion divisions - Battenfeld Gloucester Engineering, Gloucester, MA, which manufactures film, sheet, and foam extrusion equipment, Battenfeld Extrusionstechnik, Bad Oeynhausen, Germany, and Battenfeld Chen Extrusion Systems, Shunde, People's Republic of China, a manufacturer of film, sheet, pipe, and profile lines.

Under the agreement, the Battenfeld companies designate HBS as a key account and share with the company new designs in extrusion equipment, information on emerging applications worldwide in flexible packaging and pipe and profile, provide technical advice on product development, and keep the processor apprised of global trends in polymer consumption and other relevant market data that can be used to help develop business in China. Battenfeld will also provide HBS with

regularly scheduled sales and service calls, training, and technical seminars.

HBS makes the Battenfeld companies preferred vendors for extrusion equipment and will inform them about future projects so they may submit proposals for equipment and technical support. The processor will also share information with Battenfeld on market trends in China for flexible packaging and pipe and profile, product requirements of its end-user customers and other market information, and technical feedback on equipment performance and process needs that can be used in the engineering of extrusion systems.

The Battenfeld companies have been doing business with the Hebei B&S Group for some time. Among the equipment installed are blown film and cast polypropylene sheet lines from Battenfeld Gloucester, several PVC pipelines from Battenfeld Extrusionstechnik, including socketing units, as well as polyethylene pipelines and PVC window extruders. Battenfeld Chen Extrusion Systems has supplied pipe extrusion and multilayer blown film lines to the group.

"This agreement is extremely significant to the development of business in China for both Hebei B&S Group and Battenfeld," says Bill Joyce,

Battenfeld Gloucester's Director of International Business for Asia. "Hebei B&S Group has the opportunity to develop a close relationship with Battenfeld Gloucester Engineering, Battenfeld Extrusionstechnik and Battenfeld Chen Extrusion Systems that will give it a huge competitive advantage in extrusion technology and product development. Battenfeld gains greater insight into the product and process needs of China's

(continued on page 2)

1

In this issue:

Customer Highlights

Battenfeld and Hebei B&S Sign Agreement	1-2
Flexible Packaging Stretches to the Far East	2
Battenfeld Gloucester Earns Repeat Order in Film-plant Expansion	3-4

People

New Group Product Manager	4
New Additions	4

Company News

New 9-layer Lab Line	5
Meet the Process Development Team	5

Technical Tips

Extrol Graph Tips	6
Service Department Update	6

Products

New Slitters for Trimless Rolls	7
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Marketing

New Brochures	8
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SMS group

(Battenfeld Hebei B&S continued from page 1)



Battenfeld Gloucester and Hebei B&S Group members join together at the signing ceremony in Beijing, China.

growing extrusion business, which will enable it to design more competitive machines for the market."

"The deal is all the more notable", Wolfgang Studener, President of Battenfeld Extrusionstechnik, says, "because it affirms the leadership position that Battenfeld has attained in the People's Republic of China. In the past several years Battenfeld has gone from being a new entrant in China to the No. 1 supplier for a major processor. Our progress in this market demonstrates the competitive advantages of our equipment and technology, and the commitment we bring to customer support and satisfaction."



2

Flexible Packaging Stretches to the Far East

The growing packaging markets in China are already implementing some western high tech packaging technologies. Milk, previously not a highly consumed beverage by the Asian population, is now appearing abundantly in Chinese supermarkets in flexible pouch containers. Another

product already available in China, and just starting to appear in the US market, is laundry detergent in standup pouches. Though pet food still comes predominately in coated paper bags in the United States, the Chinese market mainly presents this product in all-plastic packaging.

Western supermarket chains, like Carrefour are helping to promote packaging solutions among the population in the major Chinese cities.



Different packaging options are available in the growing Chinese markets.





Danafilms' General Manager Al Simoncini and Plant Manager, Dan Lowdermilk in front of a 1031S winder producing jumbo rolls.

Battenfeld Gloucester Earns Repeat Order in Film-plant Expansion

Blown film processor Danafilms is a custom house specializing in films for converting and other high end applications. The company supplies products for a range of markets – food packaging, bags, overwrap, duct tape, coatings, and lamination. The

"We worked closely with Danafilms' engineers to understand their requirements and deliver machines that would meet not only their expectations, but also their customers'"

end-uses are diverse but the films have one feature in common: high quality. The company works hard to perfect its products and provide the best films in the

market. The result, says General Manager Alan Simoncini, is a successful business that has grown by satisfying some of the film industry's most demanding customers.

Danafilms has been in business since 1970. It operates two plants – a 40,000 square foot (3716 square meter) facility with 15 lines at its Westborough, MA headquarters, and a 50,000 square foot (4645 square meter) site with three lines in Franklin, KY. While the Westborough plant has equipment from different machinery makers, the Franklin plant has lines from just one supplier, Battenfeld Gloucester Engineering, a division of the SMS Plastics Technology Group. Two lines were

originally installed, and the third was added later.

Danafilms' decision to be a repeat customer of Battenfeld Gloucester attests to the machinery maker's success in helping the processor meet its exacting production needs. "We deal with high quality products," says Simoncini. "What we look for is equipment that will help us produce nice flat rolls with good gauge

control. We think Battenfeld Gloucester does that for us."

Uniform film quality is critical to Danafilms' customers. Variations in quality can affect the productivity of converting operations like coating, laminating, and printing. The company works almost exclusively with polyethylene, primarily low density, linear low density and metallocene grades. Processing equipment must be able to run these materials efficiently. Simoncini notes that on Battenfeld Gloucester lines, Danafilms routinely extrudes film with gauge variation roughly one half the industry average.

The Battenfeld Gloucester lines also improve Danafilms' ability to maintain quality when producing the wide and large diameter rolls that converters increasingly specify to reduce changeovers. Danafilms can wind 42-inch (1067 mm) diameter rolls and, with a 22-inch (559 mm) die, achieve layflat widths of 70 to 90 inches (1778 to 2286 mm).

(continued on page 4)



Large diameter rolls for duct tape and industrial applications produced at the Kentucky plant.

Battenfeld Gloucester Engineering Names New Group Product Manager



Battenfeld Gloucester is pleased to announce the promotion of Tom Fyrer to the position of Group Product Sales Manager for the company's Sheet, Cast, Foam, and Extrusion Coating Division. Tom joined BGE in 1991 as a Sales Coordinator and was subsequently promoted to Sales Engineer and then to the position of Blown Film Product Manager. Tom holds a Bachelor of Science degree in Electrical Engineering from Merrimack College and brings over 13 years of experience in the extrusion industry to his new position. He assumed the position from Al Hall who retired in February 2004.

"I am looking forward to working with an already well established, knowledgeable and professional group. The opportunities Al and his people have initiated during the past few years have laid the ground work for an even brighter future for this Product Group".

BGE Group Product Manager Retires

Al Hall joined Battenfeld Gloucester in 1990 as a Sales Engineer and was subsequently promoted to Group Product Sales Manager Sheet, Cast, Foam, and Extrusion Coating in 1991. He also acted as a facilitator for the Managing Total Quality process training for the entire company. His comprehensive knowledge of Battenfeld Gloucester's products lines and extensive travel schedule contributed to the success of the company for more than a decade. Bob Weeks, Battenfeld Gloucester's VP Sales & Marketing comments, "Al was

instrumental in our ability to grow our cast film business and to dominate the marketplace here and abroad. He was a significant influence and contributor to our success over thirteen years of service."



Scott MacDonald has joined Battenfeld Gloucester in the role of Marketing Specialist. With an award-winning marketing and graphics background, Scott provides the Sales and Marketing departments with graphics and communications media that effectively represent the company and its product and services, including newsletters

and presentations. He is also responsible for our website management and the coordination of domestic tradeshows.

Stephan Westermann has assumed the position of Chief Financial Officer of Battenfeld Gloucester Engineering. With degrees in both Engineering and Economics he has the responsibility for all accounting, treasury, financial planning and IT operations. With seven years experience with SMS Demag AG, most recently as General Manager Controlling, he was responsible for the financial consolidation of the various divisions within the SMS Group.



(Danafilms continued from page 3)



Danafilms' new Franklin, Kentucky state of the art blown film plant.

Simoncini notes that Danafilms made a point of buying "all the best options" that Battenfeld offered to maximize production capabilities. "Every one of them seems to help us."

These included an UltraCool air ring in conjunction with an autoprofile control system, bubble-centering guide, Digisonic™ IBC layflat control, 94-inch (2388 mm) horizontal oscillating hauloff, and a 94-inch (2388 mm) model 1031S center winder with linear layon, loadcell tension control, automatic cutover in forward

or reverse winding mode, electrostatic web transfer, and swing out shafts, all controlled via a touchscreen.

The line also has a 6-inch (152 mm) diameter, 30:1 Contracool® extruder paired with a 15-inch (381 mm) or 22-inch (559 mm) die (interchangeable among the lines); a hydraulic screen changer with power pack; composite roller collapsers with motorized adjustments; and a 94-inch (2388 mm) secondary nip. The lines are controlled via Battenfeld's Extrol™ process control system, which includes Extrol

Anywhere, a processor-activated, real-time monitoring system for remote diagnostics.

Danafilms' production standards made them "a very demanding customer," says Gary Siy, Northeast and Mid-Atlantic sales manager for Battenfeld Gloucester. "We worked closely with Danafilms' engineers to understand their requirements and deliver machines that would meet not only their expectations, but also their customers' expectations for flat uniform film that converts readily."



Nine Layers? Incredible!

It wasn't that long ago that a 3-layer blown film line was a marvel of engineering. As plastics processing becomes more and more sophisticated, and film converters become more demanding, companies are spurred on to push the envelope of technology.

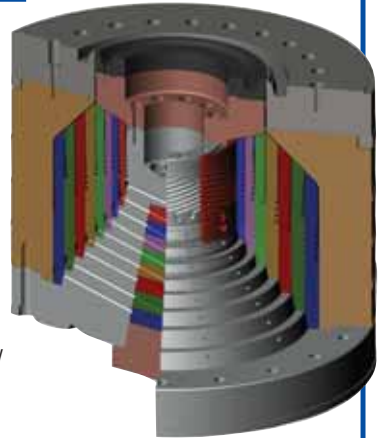
Battenfeld Gloucester Engineering has done just that with the addition of its first-in-the-industry 9-layer blown film labline! With completion expected in late August, the production-scaled line will be showcased in our world-class Technical Center featuring:

- (9) 2.0" 30:1 Contracool® extruders
- (9) 2.0" Dynisco manual screen changers

- (3) 4-component AcuraBlend™ compact batch blenders and loading system
- 16" 9-layer Optiflow™ LP (low profile) IBC die
- 16" UltraCool 900 series air ring with Autoprofile™ controller
- Digisonic IBC layflat control system
- Extrol™ 6032 microprocessor controller
- Air bearing bubble cage
- RollAir collapsing frames
- Elevating Traversanip® oscillating hauloff
- NDC beta gauge
- Secondary nip station with trimless edge slitter system
- Offset pivot guide
- 1008D phantom axis dual-turret winder for rolls up to 30"

in diameter

Carl Johnson, Battenfeld Gloucester's Blown Film Group Product Manager comments, "Our customer's continue to demand manufacturing technology that gives them a competitive edge; manufacturing high end products faster, better, and cheaper. Nine layer technology allows them greater flexibility such as minimizing the thickness of the seal layer or splitting the barrier layer. Smaller extruders are typically supplied with a nine layer machine and that means quicker product, color, or material changeover time."



Battenfeld Gloucester Engineering's Technical Center also includes a 3-layer blown film line, a 5-layer sheet line, and a 7-layer cast film line.



Meet Our Process Development Team



Dave Smith – Vice President Technology



Mike Andrews - Process Applications Manager



Bill Wild – Process and Control Systems Engineer

With the assistance of the Process Development Team and their complementary skill set, customers and resin suppliers can schedule the Technical Center for both material and equipment testing and process development scenarios.

We're looking forward to your success!



Jack Slate – Senior Design Engineer



Ralf Puehler – Process Development Engineer



Fred Ellis – Lab Technician



Mike Greel – Lab Technician

Extrol™ Graph Tips

Here are a few helpful hints for operating our Extrol™ 6032 microprocessor control system when viewing gauge plots and trends.

Stacking Gauge Plots on a single display

This tool is used to see the progress of the process changes on film gauge variation. It has finer detail than the "smoothed" average plot. Plus non-consecutive plots can be stacked. Gauging normally has two pages (e.g. 4&5, 5&6, 6&7). To stack gauge plots, you need to be on the second page of gauging.

1. Go to the second page of gauging.
2. Press the gray DISPLAY PLOTS key.
3. The prompt in the lower left corner will ask for the *First Plot?*
4. If you want the current scan, enter '0' followed by a comma.
5. You are then prompted for the second plot.
6. To display previous scans, enter the scan number preceded by a negative sign, and then enter a comma. For instance if

you enter -4, this will result in the scan from four times ago to be displayed under the first scan you selected.

7. Any three scans that were previously made can be stacked and displayed.

Using the Trend Display

1. To auto-center all 3 trends on the Trend Display page:

- a) Hold down the SHIFT key while selecting a catalog letter from the Trend Catalog.
2. To save a Trend Catalog "group" (a set of three trends on the Trend Display page) once it is modified:
 - a) Press the TREND CATALOG (green key).
 - b) At the *Trend Group (a-l)?* prompt, press the Return (Insert) key.
 - c) Assign a letter on one of the ten pages available for Catalog groups. This will replace an existing group or set a new group.



Extrol microprocessor controller trend keys.

3. There is a Cross-Plot feature available which allows the user to plot data from two different trend plots in an "X-Y" format instead of a time format. This feature is useful for understanding the cause and effect of two variables upon each other. In other words, if you change variable A by x amount, variable B changes by y amount.

- a) To use, press the green TOP TREND key. When prompted for *Zone Number?* press the TOP TREND key a second time.
- b) Top plot = vertical axis
- c) Middle plot = horizontal axis
- d) Center and plot range for each axis — taken from their appropriate trend plots.



Service Department Update

418/4180 Bag Machine seal bar/bracket compatibility

Customers using double seal bar C10045043 may find the seal bar sits too close to the outer edge of the platen. Switching to bracket B04180144-001 will help position the seal closer to the center of the platen.

Double seal bar	C10045043
Radius	1/16 x 1/8 x 1/16"
Existing bracket	B10065181-001
New bracket	B04180144-001



Contact our service department for information at 978-281-1800.



New Slitters Contribute to Conversion Quality Trimless Rolls

Trimless rolls, those produced without removing the edge of the film before it is wound, can be a real challenge. The material and cost savings that result from the lack of edge trim, can make it an enticing niche to some film manufacturers. Producing quality film for converting operations, at the highest possible first pass yield, makes the difference between success and failure in many

- Resin savings
- Scrap elimination
- Layflat accuracy
- Scratch- and stretch-free films
- Improved roll geometry
- Higher converting speeds

markets. The rolls need to be flat, smooth, compact, tight from end to end, and ready for high speed printing and converting. Reliable equipment and a stable bubble are critical. This is where Battenfeld Gloucester's blown film lines contribute to this success.

Between the die and the top of the tower, a number of Battenfeld Gloucester

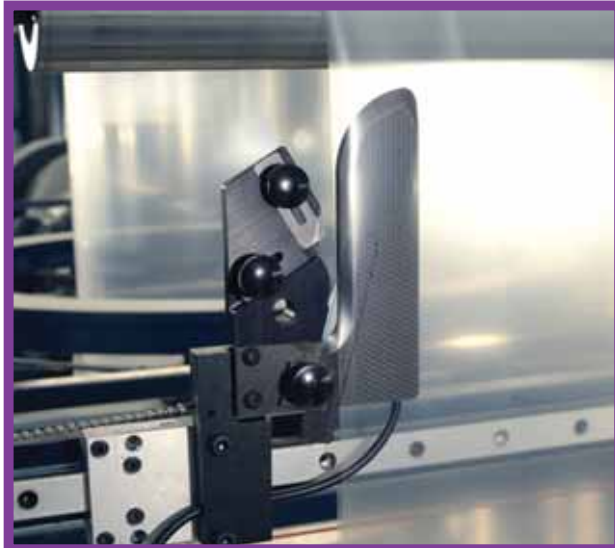
technologies maintain the optimized quality of the film exiting the die. The user friendly UltraCool Air Ring is easy to adjust with repeatable settings. The system is very stable. Even with difficult to process materials and structures, the end result is less bubble breathing and fewer wrinkles.

The automated start up function of the Digisonic™ IBC (internal bubble cooling) Control System helps ease thread up and faster product changeovers. Optimized hardware configurations and sophisticated control algorithms enhance maximum bubble cooling while minimizing gauge variations (thick/thin areas).

A contact style Bubble Cage with fully teflon-surfaced rollers and composite roller collapsers helps minimize layflat variation while minimizing the effects of friction and temperature for those products that will tolerate contact. BGE offers alternative non contact cages and collapsing frames for ultra critical products.

The Oscillating Hauloff at the top of the tower randomizes any remaining gauge imperfections.

Before actual winding, the film tube is slit by the Trimless Edge Slitter Station. The new high quality slitter design features a lower blade that faces upward towards the inner



shoe. The film "walks" down the blade, pulling tension on the film, making for a better cut. The dimpled teflon-coated surface allows the film to float better with less air volume, preventing a "pillowing" effect above the blade holder. Less film-pillows mean better layflat

control and fewer edge wrinkles.

The precision and stability of the Model 1008 phantom axis dual turret winder with loadcell tension control is the final assurance of perfect edges and tight smooth rolls.



Demanding converting applications require high quality rolls.



2004

BGE Trade Shows

Plastimagen

April 27-30

Mexico City, Mexico

Interplas Thailand

May 6-9

Bangkok, Thailand

Chinaplas

June 29 - July 3

Shanghai, China

ColombiaPlast

September 28 - October 2

Bogota, Colombia

K Show

October 20-27

Dusseldorf, Germany

BGE Conferences

2004 Extrusion Coating & Blown Film Short Course (TAPPI-PLACE)

April 19-21

St. Louis, MO USA

Chinaplas 04 Technical Seminar

June 29 - July 3

Shanghai, China

LatinPack 2004

July 14-15

São Paulo, Brazil

Battenfeld Gloucester Engineering Co., Inc.

Blackburn Industrial Park/Post Office Box 900
Gloucester, Massachusetts 01931-0900 USA
Tel 978-281-1800 Fax 978-282-9111
email: welcome@bge.battenfeld.com
www.bge.battenfeld.com

SMS Folientechnik GmbH & Co. KG

Laxenburger Strasse 246
A-1230 Vienna, Austria
Tel: +43 1 614 50 0
Fax: +43 1 614 50 7980
email: welcome@sms-folien.com

Marketing



New Battenfeld Gloucester Literature

Systems Designed for Profitable Blown Film Production

Using industry-leading technology, Gloucester's experienced blown film specialists will help you implement the right system for virtually any blown film

application.

Thermoforming Sheet Line

Our newest sheet equipment offering is the TSL (Thermoforming Sheet Line). Although the TSL is designed primarily for the thin gauge thermoforming market, it still

offers the reliability and features for both thermoforming and non-thermoforming sheet areas.

To request copies of either brochure, email us at welcome@bge.battenfeld.com or call 978-281-1800.

8

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