



SOCIETY OF PLASTICS ENGINEERS BLOW MOLDING DIVISION

Spring 2003 Issue

PLASTIC HALL OF FAME INDUCTEES 2003

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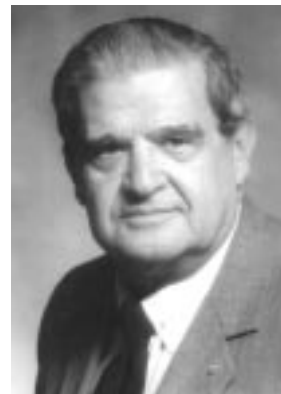


SAMUEL BELCHER

Samuel L. Belcher is a plastics packaging pioneer who made his mark in the field of blow molding, particularly stretch blow molding. President of his consulting firm, Sabel Plastics of Moscow, Ohio, since 1987, Mr. Belcher's industry affiliations include Cincinnati Milacron of Batavia, Ohio; Wheaton Industries of Millville, N.J.; Owens-Illinois of Toledo, Ohio; and Rubbermaid of Wooster, Ohio.

Mr. Belcher's many technical achievements include the first PET bottle with an integrated handle (patented and licensed to Mitsubishi of Japan); the first flip-flop living hinge closure for liquid detergent bottles (patented); the McDonalds' foam clamshell package (patented), and a process to add printing to the thermoformed container; the first injection blow molding machine for PET bottles, which was reportedly used to blow mold the first automotive front wheel drive boots for GM and Ford; plastic spice turntable; quartz and RF ovens for reheating PET preforms. In addition, Mr. Belcher has written for many technical books and magazines, and has 54 patents to his credit.

A Fellow of SPE, Mr. Belcher has received a Lifetime Achievement Award in Blow Molding from SPE's Blow Molding Division. He holds a BSME degree from the University of Akron and an MBA from the University of Toledo. Mr. Belcher is listed in *Who's Who in Plastics and Polymers*.



MICHAEL GIGLIOTTI

A graduate of the Stevens Institute of Technology (Hoboken, N.J.), Michael F.X. Gigliotti held a number of technical management positions during his 35-year career with Monsanto's plastics group (now Solutia). He created and managed Monsanto's Structural Plastics Engineering Group, which carried out pioneering prototyping and commercialization programs for plastics in automotive, pipe, construction, housing, and furniture applications. Mr. Gigliotti also created and managed the Monsanto House of the Future project (1957) the world's first all-plastic house--which was featured at the entrance to Disneyland's *Tomorrowland* for 10 years. At Monsanto, he created and managed LOPAC (low-oxygenation-permeation packaging), which accomplished the commercialization and licensing of EVAL, the plastics industry's first true barrier material, and the commercial introduction of Coca Cola's first plastic carbonated beverage bottle.

Following Mr. Gigliotti's early retirement in 1977, he co-founded TopWave Instruments, a manufacturer of plastics container inspection and testing equipment. He also established MGA, Inc., an international technical management consultancy, where he has been active organizing conferences, trade missions, and/or tours for plastics industry associations in South Africa, Finland, Australia, China, Japan, Korea, and New Zealand.

Chairperson's Message
Welcome to the Spring 2003 Newsletter
From Robert A. Slawska

The SPE Blow Molding Division has again received The Pride and Outstanding Awards for the second year in a row. Thank you to all of our Board of Directors and Members who made this possible.

This issue of the SPE Blow Molding Division is my last as Editor. As previously mentioned, Mr. Timothy Noggle will become your new Editor with the Fall 2003 Issue. Please give your support to Tim and provide him with any newsworthy blow molding information.

Please be sure to attend the SPE Blow Molding Division Fall (Oct. 2003) Conference on Automotive Applications. The conference details are provided in this newsletter.

Mr. Bruce Thompson will be your New Chairperson for the Blow Molding Division. Bruce has previously been a Chairperson and has the experience to guide our division in the future. Please support Bruce with your assistance throughout the next year.

I wish to again thank all of you for your support to me as Chairperson and Newsletter Editor.

Sincerely,

Robert A. Slawska

Chairman, SPE Blow Molding Division



Plastics Innovation in the Windy City

ANTEC 2004

I am the Technical Paper Chairperson for next year's ANTEC, which will be held in Chicago next year. The SPE will be soliciting papers for this event in the very near future. You can visit the SPE's website at : www.4spe.com for more information and details regarding the paper submission process and deadline dates.

If you need any further information, please contact me at :
joe_almari@grahamengr.com

Phone: 717-505-4816
Fax : 717-846-1931

We look forward to your submissions
Thanks,
Joe Altamari

Blow Molding Calendar of Events
2003

June 23 -27: NPE 2003 - National Plastics Exhibition, McCormick Center, Chicago, IL

August 25 - 27: High Performance Blow Molding Seminar, York, PA, Norman Lee, Workshop Leader & Graham Engineering will host - more info on page 9 of this newsletter.

October 14th & 15th: SPE Blow Molding Division Annual Technical Program Conference (Automotive & After-market focus) - Michigan State University, Troy, MI. Bob Jackson - Chairperson, Robert Dirrado is Co-Chair, Sharon St. Louis - Local Coordinator. Technical Session, Formal business meeting & BOD Mtg., Lifetime Achievement awards presented.

PLASTIC HALL OF FAME INDUCTEES 2003:

continued from cover

Mr. Gigliotti is well known for his volunteer efforts with the National Plastics Center & Museum, where he served as founding director; the Plastics Institute of America, where he spearheaded the recent reinvigoration of the organization and its relocation to the University of Massachusetts/Lowell, where he serves on the Plastics Engineering Dept.'s Advisory Board. He is also assisting U. Mass Lowell in establishing the Valyi Institute for Plastics Forming, and is currently acting director. In addition, Mr. Gigliotti is a Fellow of SPE.

The Plastics Hall of Fame is administered by the Plastics Academy of Leominster, Mass. Membership in its ranks is the highest honor bestowed in the plastics industry.



Picture of Michael Gigliotti and one of the first LOPAC Plastic Bottles made for Coca-Cola. This picture was taken in 1975.

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OR

Any of the Board of Directors
listed on the back of
the Newsletter

Annual Blow Molding
Conference

Oct. 14 & 15, 2003

at Management

Education Center,

Troy, MI

Contact:

Sharon St. Louis at

519-735-8805 or

email: sstlouis-spe.cogeco.ca

(see further details in this newsletter)

High Production
Blow Molding Workshop
Norman Lee,
Workshop
Leader

Aug. 25-27, 2003

at Four Points Sheraton
in York, PA

See Page 9 for details

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A New Approach For Prediction of Parison Swell In Extrusion Blow Moulding

by: **A.M. Yousefi, D. Laroche, P. Collins, R. DiRaddo**

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ABSTRACT:

The numerical simulation of parison formation in extrusion blow moulding remains a challenging task when it comes to the high production rates featuring high Weissenberg numbers. The Finite element software developed in this work attempts to avoid the instability issues encountered by conventional fluid-mechanics simulation codes through introducing a hybrid fluid mechanics / solid-mechanics approach. To better address the role of key parameters in swell predictions, the approach combines the principal conservation laws with a phenomenological model capturing the influence of material behaviour and die geometry. The numerical predictions are compared with experimental data for a variety of operating conditions, resins and die geometries.

INTRODUCTION

Some of the most challenging problems in the numerical simulation of viscoelastic flows are associated with singularities or boundary layers, which occur in the high Weissenberg number limit [1]. As a consequence, the numerical simulation of parison formation in extrusion blow moulding remains a challenging task when it comes to high flow rates.

A hybrid approach was developed in this work to predict the immediate parison swell as well as the time-dependent swell due to stress relaxation of the melt. The flow kinematics in the die is predicted based on Hele-Shaw model assuming Carreau model type behaviour for the melt [2]. The flow kinematics is then used as input for the K-BKZ viscoelastic model to predict parison formation upon emerging the die based on solid mechanics approach using membrane elements. The K-BKZ model is an integral type model allowing the integration of the deformation history in the die based on particle tracking technique [3]. The overall stress components evaluated for each element are considered as the initial stress being removed at the moment the element emerges from the die. Therefore, the stress relaxation of the semi-solid extrudate is predicted based on solid-mechanics principles. To better capture the role of key parameters in swell predictions, a phenomenological model was developed in this work. This model makes use of dimensionless principles. To better capture the role of key parameters in swell predictions, a phenomenological model was developed in this work. This model makes use of dimensionless quantities to address the elongational forces in the die and streamline realignment at the die exit [4].

While there are several ways of defining swell ratios, the results in this work are presented in terms of the diameter swell (B_1) and the thickness swell (B_2). These quantities are defined as follows:

$$B_1 = \frac{D_p}{D_o} \quad B_2 = \frac{H_p}{H_o}$$

where D_p is the parison outside diameter, D_o is the die outside diameter, h_p is the thickness of the parison, and h_o is the die gap.

EXPERIMENTAL

The experiments were conducted on three industrial scale intermittent and continuous machines using both diverging and straight dies. The pinch-off technique was used to measure the parison swell and sag. Two commercial HDPE blow moulding resins, denoted A and B, were employed in this study. The zero-shear viscosity as well as the relaxation time for these resins is given in Table 1.

Table1. Zero-shear viscosity (η_0) and relaxation time (λ) for the HDPE resins

Resin	η_0 (in Pa.s)	λ (in s)
A	88400	0.63
B	992570	3.3

RESULTS AND DISCUSSION

Figures 1 and 2 compare the experimental data and numerical predictions of the diameter and thickness swell at a die gap opening of 1 mm for Resins A and B, respectively. Different relaxation times associated with the two resins lead to a variation in the Weissenberg number between 99 and 327. It can be seen that Resin B exhibits a higher diameter swell because of its more pronounced elasticity.

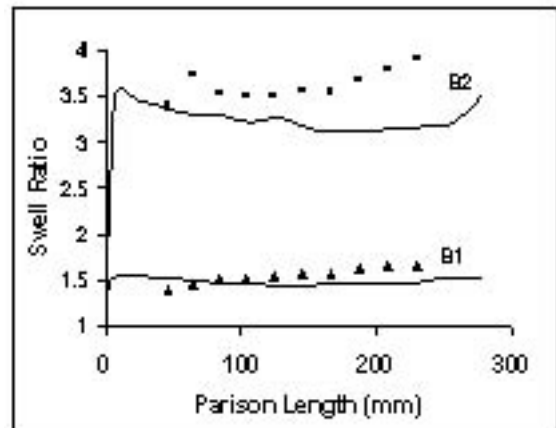


Fig. 1. Experimental (dots) and numerical prediction (solid lines) of diameter and thickness swell for resin A; die gap=1 mm. WE No.=99. continued on next page

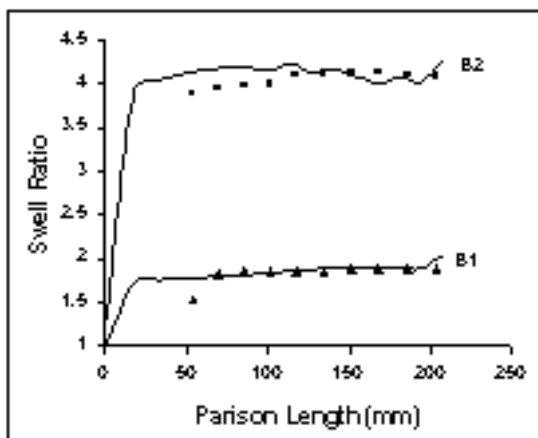


Fig. 2. Experimental (dots) and numerical prediction (solid lines) of diameter and thickness swell for resin B; die gap=1mm; WE No.=327.

Figure 3 shows the effect of opening the die from 1 mm to 2 mm on the thickness swell. The arrows indicate the die gap for each portion of parison. It is interesting to see that doubling the die gap does not affect the thickness of the parison since the thickness swell is reduced by a factor of 2. This points out the requirement for an accurate swell prediction in order to achieve a desired thickness distribution for the part through die gap programming. The numerical predictions in Fig. 3 show the capacity of the hybrid approach in capturing the effects of die geometry and die gap programming.

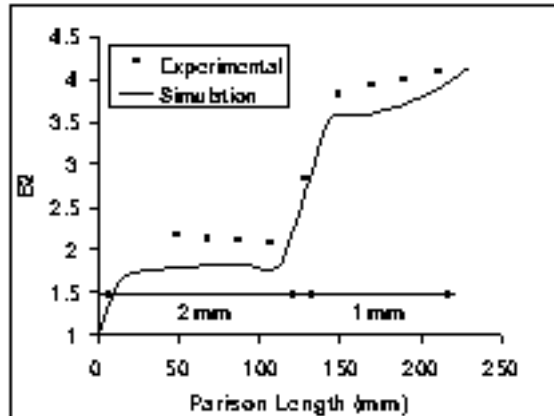


Fig. 3. Effect of parison programming on thickness swell for resin A.

CONCLUSION

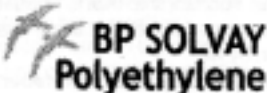
This work presented a new approach for prediction of parison swell in extrusion blow moulding. The requirement for an accurate swell prediction was particularly emphasized for the parts made through die gap programming. The numerical tools are the key to a better design and a better control over thickness distribution for complex parts. In a future work, we will look at the possibility of replacing the 2.5D approach featuring membrane elements with 3D prediction of flow kinematics and parison formation to better capture the die geometry effects.

REFERENCES

1. M. Renardy, Current issues in non-Newtonian flows: a mathematical perspective, *J. Non-Newtonian Fluid Mech.*, 90 (2000) 243-259.
2. Charles L. Tucker III, "Computer Modeling for Polymer Processing - Fundamentals", HANSER Publishers (1989).
3. Luo and R.I. Tanner, Finite Element Simulation of Long and Short Circular Die Extrusion Experiments using Integral Models, *Int. J. Num. Meth. Eng.*, 25 (1988) 9-22.
4. A.M. Yousefi, D. Laroche, P. Collins, R. DiRaddo, "A hybrid fluid-mechanics/solid-mechanics approach for prediction of parison swell in extrusion blow moulding," 6th Esaform Conference, Salerno, Italy (2003).

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Board of Director's Meeting

Minutes of the Board of Directors of the Blow Molding Division of SPE,
Meeting held at The APC Automotive Headquarters, Troy Michigan.

- ❑ **Executive Meeting: Present Bob Slawska, Jon Meckley, Ron Puvak, Bruce Thompson, Bob Jackson, Lew Ferguson, Mark Heitker**

Objectives: time commitment - BOD members

- Do we excuse BOD members?
- Model conference at Graham; how do we keep going?

ACTION ITEMS:

Executive committee drafted a policy for the times when board will have a teleconference instead of a face to face. Basic concept is: Executive committee quorum must meet, BOD members will be asked to attend, those that cannot will be allowed to teleconference. Face to face meetings are preferred.

- ❑ **Call to order 8:46 am**
 - Robert Slawska reviewed SPE anti-trust policy
 - Guest introduced - Karl Bruning
 - BOD Members Excused : Robert Gilbert, Cheryl Hayek, Dave Holliman, Gordon Williams, John Rathman, Charlie Keener
 - ❑ **Secretary's Report by Ron Puvak**
 - Reviewed minutes of last BOD meeting
 - Gary Henneberry motioned to approve minutes; seconded by Robert Slawska; approved
 - ❑ **Treasurer's Report by Mark Heitker**
 - Motion to purchase certificates of deposit in the amount of \$40,000 with part of the Disbursement fund. Motion to approve by Gary Henneberry; seconded by Jon Meckley; approved
 - Motion to move the Disbursement fund from the current Scudder money market fund to a separate Charles Schwab money market fund. Motion to approve by Gary Henneberry, seconded by Robert Slawska; Approved
 - Motion to retain prudent reserves in case newsletter revenues and other income does not occur so that we can cover expenses? Motion to approve by Gary Henneberry, seconded by Robert Slawska; Approved
 - ❑ **Finance Report by Bob DeLong**
 - Disbursement fund will be adjusted by motion detailed above.
 - Discussion to expand education scholarships; could add one or two this year.
 - Website budget account up to \$4,000
- Motion to approve by Gary Henneberry, seconded by Mark Barger; Approved
- ❑ **Nominating Committee Report by Bob Gilbert (Bruce Thompson ? report)**
 - Election of officers - motion to approve by Gary Henneberry, seconded by Bob Slawska
 - Councilor position nominations opened from the floor, Bob DeLong & Bob Gilbert recommended.
 - Election for TPC held - Jon Meckley elected TPC via paper ballot
 - Approved Joe Altamari to accept position of Director 2004 slot; Motion to approve by Bob Jackson, seconded by Bruce Thompson; Approved.
 - ❑ **Awards Report by Dave Holliman**
 - No Fellows nominations for 2003
 - No Honored Service Awards for 2003
 - Vote on outstanding BOD members; Nominees; Mark Barger, Bob Slawska, Mark Heitker - silent vote taken
 - ❑ **Membership Report by Lew Ferguson**
 - Total as of 12/31/02 - primary 673

ACTION ITEMS:

1. Lew Ferguson to investigate discounted membership at ABC through the SPE. This was offered by Jenny at last ABC

Continued on Page 10

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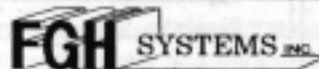


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Thank You Gary Henneberry

Gary has decided to "retire" from our SPE Blow Molding Division Board of Directors.

Gary served on many committees and also Chairperson in 1995/1996. More recently, Gary held the important position as Finance Chairperson for the Division. His valuable guidance proved to be "Right On" and the only way on many issues.

Our Division certainly will miss all of his knowledge and talents. Gary was always there to step into a difficult challenge.

Gary Henneberry, Principal Engineer at Polyone, Burlington, NJ, has been elected *FELLOW* of the Society of Plastics Engineers (SPE) in recognition of his outstanding, long-term contribution to the industry. Mr. Henneberry was one of 15 SPE Senior Members to acquire this distinction. Since the award's inception in 1984, only 183 of the current 29,000 SPE memberships have been so honored.

Gary co-developed the process, compounds, additives, as well as designed production lines to produce Econvinyl™, which was the only commercial PVC bottle compound made from 35% post consumer regrind. He created compounds and process technology for extruded PVC tool handles, and, for 20 years, trained several hundred blow molding machine operators to make clear rigid blow molded parts. His development of high melt strength, rigid PVC compound with outstanding weather ability is potentially a breakthrough in blow molding PVC.

Gary has been member of the Society since 1978. He is affiliated with the Philadelphia Section and Blow Molding Division. He holds a BSIE from the University of Missouri. He and his wife, Vicki, reside in Burlington, NJ. Thank you again, Gary - Let us know if you want to do some "Moonlighting" there is always a spot for you.

"High Tech" Management Skills

A young engineer was leaving the office at 6 p.m. when he found the CEO standing in front of a shredder with a piece of paper in his hand.

"Listen," said the CEO, "this is important, and my secretary has left. Can you make this thing work?"

"Certainly," said the young engineer. He turned the machine on, inserted the paper, and pressed the start button.



"Excellent, excellent!" said the CEO as his paper disappeared inside the machine. "I just need one copy."

.....

YOU MAY BE AN ENGINEER... Part 1

- > If your spouse sends you an e-mail instead of calling you to dinner
- > If you can quote scenes from any Monty Python movie
- > If Dilbert is your hero
- > If you stare at an orange juice container because it says CONCENTRATE
- > If the only jokes you receive are through e-mail
- > If you use a CAD package to design your son's Pine Wood Derby car
- > If you have used coat hangers and duct tape for something other than hanging coats and taping ducts
- > If you window shop at Radio Shack
- > If your ideal evening consists of fast-forwarding through the latest sci-fi movie looking for technical inaccuracies
- > If you have "Dilbert" comics displayed anywhere in your work area
- > If you carry on a one-hour debate over the expected results of a test that actually takes five minutes to run
- > If you are convinced you can build a phazer out of your garage door opener and your camera's flash attachment
- > If you don't even know where the cover to your personal computer is
- > If you have modified your can-opener to be microprocessor driven
- > If you have ever taken the back off your TV just to see what's inside
- > If a team of you and your co-workers have set out to modify the antenna on the radio in your work area for better reception

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SPE BLOW MOLDING DIVISION

Receives 2003 PRIDE & Outstanding Division Award For a Second Year in a Row

The Pride Award stands for Performance Review for Individual Divisional Excellence.

It was established in 1987, the PRIDE program is a means for Divisions to evaluate the programs and services they provide to their members, other Divisions and Sections, and the plastics industry.

Criteria forms are sent to all Divisions each year to enable them to report on their activities in areas such as ANTEC programming, topical conference programming, collaboration with Sections regarding technical meetings and events. These events include: educational opportunities and scholarships, finances and administration, work with students and the general public, and participation in various Society-sponsored events and contests. Divisions who meet a specified number of criteria receive an award at ANTEC each spring.

Congratulations, Blow Molding Division

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High Production Blow Molding Workshop

Focusing on Problems and Solutions

August 25-27, 2003

Four Points Sheraton Hotel & Suites in York, PA

Workshop Leader: Norman C. Lee, P.E.

Who should attend?

This program is intended for technical, engineering and management personnel interested in improving their company's blow molding operations and increasing understanding of modern day methods, providing insight into product improvement and new development. Managerial, marketing and marketing product managers, and those with a great awareness of blow molding technology will find this workshop valuable for its coverage of applications that lead to new markets and evaluation of new process developments. It will also be of interest to those actively engaged in considering alternate manufacturing systems, developing specialized new materials, preparing realistic specifications, procuring specialized parts and marketing blow molded products and packages.

GENERAL INFORMATION

LOCATION: The program will be held at the Four Points Sheraton Hotel & Suites. It is located at 1650 Toronita Street, York, PA 17402. The telephone number is (717) 846-4940. The hotel is located 30 miles from Harrisburg International Airport.

TIME: Check-in/Registration

Monday, August 25th, 8:00 - 8:30 AM at the Four Points Sheraton Hotel & Suites at 1650 Toronita Street, York, PA 17402.

Workshop hours

Monday, August 25, 8:30 AM - 5:00 PM,

Tuesday, August 26, 8:30 AM - 3:30 PM, Plant tour 4:00 PM ñ 5:30 PM

Wednesday, August 27, 8:30 - 3:30 PM

Departures should be scheduled to allow for the 3:30 PM ending time on Wednesday.

OVERNIGHT ACCOMMODATIONS:

Attendees are responsible for making their own hotel reservations and for their own hotel charges.

SUGGESTED ATTIRE: Casual business attire is appropriate. Please be prepared for moderate temperature variation in the seminar room.

REGISTRATION

Register on-line: <http://www.4spe.org/semconf/seminars/0308blow.htm>

Register by fax: Complete the registration form, include payment and fax to (203) 775-8490 Attn: Seminars.

Register by mail: Complete the registration form, include your payment and mail to: Attn: Seminars, SPE, P O Box 403, Brookfield, CT 06804-0403. Registrations by mail must be received two weeks prior to the program and will be processed, subject to availability in the program.

Register by phone: Call SPE at (203) 740-5403

All forms of registration must include payment; otherwise the registration will not be processed. SPE will not accept company purchase orders. Checks should be made payable to SPE Seminars in U.S. funds.

REGISTRATION FEES

Your registration fee covers classroom instruction, course manual, textbook, lunches, and refreshment breaks. It does not include hotel accommodations, or transportation to and from the Polymers Center of Excellence and the plant tour.

All forms of registration are considered binding and subject to all cancellation policies. Check your confirmation to verify that you are registered for the seminar/program requested. If you do not receive a confirmation prior to attending, please call (203) 740-5403 to verify your registration.

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- 5 - TIMOTHY NOGGLE

- ❑ **Councilor's Report by Charlie Keener (given by Bob Slawska on behalf of Bob Gilbert)**
- Budget cut; society still in red; membership is at 21,240
- ❑ **Newsletter Report by Bob Slawska**
- BOD recognized Bob Slawska for past newsletters

ACTION ITEMS:

1. *BOD members need to promote sponsorship.*
2. *Form newsletter committee to decide how to publish newsletter*
3. *Separate the need to contact sponsors from the Finance Chair job.*
4. *Decision*

TPC - Jon Meckley

TPC - SUB-COMMITTEES/ACTIVITIES

- ❑ **ANTEC 2003 Report - John Meckley**
- See report; committee meeting on Sunday, BOD meeting on Monday
- Mark Barger to attend student reception on Wednesday to award scholarship
- ❑ **ABC 2003, Detroit MI - Bob Jackson**
- Paypal will only be solution for about 80% of registrants.
- Program was reconfirmed as a go by the BOD.
- ❑ **ABC 2004 - Bob Dirrado at the NRC.**
- Motion made to accept Bob ? Proposal - motion to accept by Mark Barger, seconded by Mark Heitker
- *Bob will prepare detailed report and cost spreadsheet, which will be forwarded to BOD members.*
- ❑ **ABC 2005**
- Action Item: Jon Meckley check additional sites and possible corporate sponsor.
- ❑ **Education - Mark Barger**
- Motion to rename workplace scholarship to "Graham Machinery" workplace scholarship. Motion to approve by Mark Barger, seconded by Mark Heitker; approved
- Will award Carrie Fox Solon Memorial scholarship at Wednesday's student awards at Antec
- ❑ **Marketing - Warren Bentkover**
- Letter sent this month defining benefits of SPE membership

OLD BUSINESS:

- Discussion on how to make the board more effective; Options discussed include, reducing the number of committees, reassignment of duties, etc.

NEW BUSINESS:

- Motion to rename Best Paper Award to Andres Rejon-Garcia Best Paper award - Motion made by Mark Heitker, seconded by Gary Henneberry; Approved.
- Newsletter discussion - options outlined; pay for services needed.
- ❖ New Fundraising Committee to coordinate.
- ❖ Bob Slawska to revisit Emma's job description and send out hours and dollars that it would cost.
- ❖ Bob Jackson to contact three people to be a content editor for the newsletter
- Motion to allocate enough funds for publication of newsletter; this means that sponsorship will not be a requirement; Motion to approve by Bob Jackson, seconded by Mark Heitker; Approved
- Guest introduced - Winn Barrington
- Motion to form a fundraising group to become part of marketing committee as a subcommittee; Motion to approve by Bruce Thompson, seconded by Bob Jackson Approved;
- Payment to SPE national dispute ; will pay the 30% split;
- ❖ Bob Slawska to send a letter to explain that 2003 ABC needs to be discussed.

ADJOURNMENT: Motion to adjourn - Bruce Thompson, Seconded by Mark Heitker; Approved; 1:55 PM

SPE BLOW MOLDING DIVISION NEW MEMBERS



February 2003 - June 2003

<u>NAME</u>	<u>COMPANY</u>
Temitay O. Ajiboye	Nigeria
David Bourguignat	Jamaica, NY
Alain J. Cressen	RTP Company, Winona, MN
Dean V. DiMarco	Industrial Systech Ltd, ON, Canada
Earl Dowman	Vertex Pacific, New Zealand
Heidi M. Eichner	Southeastern Container, Bowling Green, OH
Peter Ford	Plaspak Steri-Plas, Australia
Mark Gooi	Holden Ltd., Australia
David Macauley	United Milk Ltd, New Zealand
Ted Mann	Plaspak Stei-Plas, Australia
Paul A. Manton	New Zealand
Mike C. Marcato	Safety Guide of Alabama, Montgomery, AL
Hugh L. Miller	RTP Company, Winona, MN
Mike Miller	Tetra Pak Plastics Div, Joplin, MO
Jack Palion	ACI Plastics Packaging, Australia
Donald L. Southern	American Nursery Products, Eden, NC
Kevin Strahan	Captive Plastics
Lance Wyatt	Vertex Pacific
Michael E. Florczykowski	Fralo Plastech Manufacturing, Syracuse, NY
James E. Gunter	Sonoco, Hartsville, SC
Philippe Kalmes	Structural Europe, Belgium
Paul P. Manos	Sun Plastics, Salt Lake City, UT
Lawrence L. Seitzer	ATMI Packaging, Minneapolis, MN
Kien Mun Tang	Milliken Chemical Company, Rep. of Singapore
Robert A. Valentine	Shelbourne Plastics, Manchester, NH
Martin A. Baron	Atofina Canada Inc, Canada
Mike A. Bloomhuff	PHD Inc., Fort Wayne, IN 46809
Joe Bruchman	Setco Inc., Anaheim, CA
Pat Ferren	Hancor Inc., Findlay, OH
Chuck Flammer	SIG Kautex, Somerville, NJ
David J. Gramling	Dutchland Plastics, Oostburg, WI
Paul Hewes	Russell-Stanley, Inc., Rancho Cucamonga, CA
John Livingston	Ball Plastic Container Opera, Smyrna, GA
John Meyer	Pretium Packaging, Hermann, MO
Noam Negby	Plastiv, Israel
Hern Jin Park	SK Chemicals Co Ltd, Republic of Korea
Patrick Pickart	ICM Plastics, Rogers, MN
Randall J. Roeder	Material Recovery Inc., Milwaukee, WI
Rierre Saillour	Industrias Termos, Peru
Luis Sanchez	Nampac PR, Puerto Rico
Neal Thomas	Richey Industries Inc., Medina, OH
Jim E. Thompson	Inergy Automotive Systems, Lagrange, GA
Douglas W. Weaver	G K Packaging Inc., Plain City, OH

Blow Molding Division of SPE presents:

The Annual Blow Molding Conference
October 14th & 15th, 2003

Held at:

The Management Education Center, Troy Michigan
contact:

Conference/Registration Coordinator
Sharon St. Louis
519-735-8805
ssstlouis-spe@cogeco.ca

Conference Chair
Robert R. Jackson
262-284-1066
bbj@jackson-machinery.com

Visit our website : www.blowmoldingdivision.org -
click on conference for information - to register - to pay

2003 SPE International Award Winner Glenn L. Beall



The SPE International Award for 2003 goes to **Glenn Beall**. The South Texas Section of the Society of Plastics Engineers sponsors this award. SPE's 2002-2003 President, Claudius Feger, made the presentation during the Society's 61st Annual Technical Conference (ANTEC) at the Wednesday Plenary session on May 7th, held in the Nashville Convention Center, Tennessee. Mr. Beall's plenary title is

"The Importance of Plastic Product Design."

A product designer, inventor, consultant, lecturer, and plastics industry activist, Glenn Beall, president of Glenn Beall Plastics, Ltd., in Libertyville, IL, joined the plastics industry in 1957. He was employed by General Electric and Abbott Laboratories before starting his own plastic product design and development business in 1968. His creative design work resulted in 35 patents. He is an active member of several technical societies and trade associations.

He is a Fellow and Distinguished Member of Society of Plastics Engineers, and a Fellow of the British Institute of Materials, as well as a member of the British Plastics consultants Network. His continuing contributions and work in educating designers has been recognized and acknowledged by several organizations.

In 1993, he received the Society of Plastics Engineers' International Educator's award. In 1995 he received the Gabriel-Injection Molding Magazine Lifetime Achievement in Design award. The Society of Plastics Engineers named the product design competition in his honor in 1995. Mr. Beall was inducted into the Plastics Hall of Fame in 1997 and the Rotational Molding Hall of Fame in 1998. The Society of Manufacturing Engineers presented their Gold Medal Award to Glenn in 2000 for designer education.

Most recently Glenn was initiated into the 700 year old, British-based, Worshipful Company of Horners. He is the first American citizen to be admitted to the Company. He also received the distinction of being granted the Freedom of the City of London. His long service in the plastics industry, his insistent promotion of the industry, and his work as an educator account for his having been invited to gain admittance to these two prestigious organizations.

Glenn's expertise includes material and process selection, with emphasis on optimizing part design for chosen process and material combination. Projects include cost reduction, fast track tooling, troubleshooting, failure analysis, expert witnessing and plastic technology seminars.

Glenn is an outspoken proponent of good plastic product design. He currently writes *Injection Molding Magazine's* "By Design Column." He is the former design editor of *Plastics Design Forum* and was a contributing editor for *Kunststoffe* (German Plastics) magazine. More than 34,000 have attended his ongoing series of design seminars.

Origin of the International Award

The International Award was established on January 25, 1961 by SPE's New York Section, as a memorial to an SPE member, Herbert Preiss, to achieve the following:

- to stimulate and encourage fundamental contributions in plastics science and engineering throughout the world.
- to acknowledge outstanding achievements by honoring distinguished scientists and engineers.
- to disseminate the technical information of Award Lectures widely among plastics scientists and engineers.

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450-641-5064 FAX 450-641-5106

E-Mail: robert.diraddo@nrc.ca

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E-Mail: gary.henneberry@polyone.com

Expertise: Extrusion blow molding of PVC

John Rathman**Chevron Phillips Chemical Co.**

918-661-3431 FAX 918-662-2220

E-Mail: rathmjr@cpchem.com

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Mark Barger**Dow Chemical Co. Inc.**

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E-Mail: markbarger@dow.com

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Lewis Ferguson**Parisons**

609-368-7230 FAX 609-368-7229

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918-661-0144 FAX 918-662-2220

E-Mail: hollidc@cpchem.com

Expertise: Blow Molding Technical/
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908-359-7888 FAX 908-359-1006

E-Mail: RSlawska@aol.com

Expertise: Machine Designs/Upgrades, Processes
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847-679-8490 FAX 847-679-8491

E-Mail: warren.bentkover@sig-group.com

Expertise: Blow Molding Machinery, Total Systems

Robert Gilbert

513-248-9466

E-Mail: Irgilbert @fuse.net

Expertise: Blow Molding Technology,
Engr. Materials & Process Engineering**Robert Jackson****Jackson Machinery, Inc.**

262-284-1066 FAX 262-284-5466

E-Mail: bob@jackson-machinery.com

Expertise: Machinery, Accessories,
Processes for blow molding**Bruce Thompson****Entegris, Inc.**

952-556-1893 FAX 952-556-1867

E-Mail: bruce_thompson@entegris.com

Expertise: Chemistry of resins-additives, modifiers, elastomers
HDPE, engineered resins, large part, etc & IM, TM & Extr**Gary Carr****Bekum America Corp.**

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E-Mail: gcarr@bekumamerica.com

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814-898-6147 FAX 814-898-6006

E-Mail: jmeckley@psu.edu

Expertise: Educator

Gordon G. Williams

908-561-0407 FAX: 908-561-1519

Cell: 908-816-9399 / E-Mail: gglydarwilliams@aol.com

Expertise: Blow Molding machinery, process capabilities & systems

Expertise: Chemistry of resins-additives, modifiers, elastomers
HDPE, engineered resins, large part, etc & IM, TM & Extr**Robert DeLong****BP Solvay Polyethylene**

800-338-0489 FAX 713-307-3521

E-Mail: robert.delong@bpsolvaype.com

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inspection, stretch, large parts, bottles, etc.**Mark Heitker****BP Solvay Polyethylene**

713-307-3702 FAX 713-307-3521

E-Mail: mark.heitker@bpsolvaype.com

Expertise: Extrusion blow molding,
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724-482-2163 FAX 724-482-2767

E-Mail: rpuvak@agrintl.com

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Michael Cappelletti, Exe Dir./203-775-0471/FAX 203-775-8490

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