

Mold Making & Mold Design



Division of Society of Plastics Engineers

Volume 36, Issue 3, Spring 2015

Message from the Chair

Our SPE Division continues to develop... Here's where the Board's focus is at:

First, after putting together an excellent group of speakers for ANTEC (co-located with NPE March 23-27), Cyndi Kustush, our Technical Program Chair, is looking to also provide speakers at more industry events throughout the coming year. Discussions are underway to hold a plant tour in the Chicago area in September, as well as a Minitex conference in the fall, and once again we will provide speakers for the SPI Mike Koebel Western Moldmakers Trade Fair in Pomona, CA. In the meantime, we need volunteers to staff our booth at AmeriMold in Chicago, June 17-18. Please email Cyndi at cyndi.kustush@procomps.com if you can help.

Next, we're revving up work from an Educational standpoint. Along with co-producing a video titled "Moldmaking Matters: Your Career Can Make A Difference" that we sponsored with the SPI, AMBA, Gardner Business Media, SME and MoldMaking Technology and Plastics Technology magazines, our Education Chair, Brenda Clark, is overhauling our process for providing grant money to mold making programs.

While it's exciting to reach out to the industry in those two aspects, we also have to further develop our Division infrastructure, and all on the Board (see Org Chart and listing on page 6) are helping to drive improvements. We've updated our mission statement (shown on page 2), and are driven to "walk the talk". We're looking at a Division name change, as well as overhauling the format of our newsletter and communications with our Members in the 2015/2016 year.

A bit of recognition came our way, as our Division was awarded the SPE Silver Pinnacle Award during ANTEC in Orlando on March 22nd. I'm appreciative of the Board's work to make this happen.

If you'd like to be a part the next wave of leadership of the Division, or if you would like to be one of our technical speakers at a future event, drop me a line at gs@procomps.com. It's the time of year when we are adding Board members, and we can discuss how dedicating a little bit of time towards our Division results in a rewarding and positive impact for our industry.



Glenn Starkey

SPE Mold Making and Mold Design
Division Chair

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A Message from the Newsletter Editor

Dear Fellow SPE Members:

You all have news about your company or about new technologies, equipment, software and other items of interest to the members of the SPE Mold Making & Mold Design Division. All you have to do to share this information with your fellow members is send an e-mail to Clare Goldsberry (clarewrite@aol.com) or give Clare a call (602-996-6499) and tell your news. She'll do all the writing! It's easy and your contributions make our newsletter much more interesting and informative.



Clare Goldsberry

SPE Mold Making & Mold Design Division
2015 Newsletter Editor

SPE Moldmaking & Mold Design Division New and Improved Mission Statement

"To be the leading industry resource for technical information to advance plastic mold engineering technologies, while fostering industry growth, education and leadership."

Following is the old mission statement:

"To foster growth in the mold making and design profession by encouraging the training of mold makers at the apprentice level, and by supporting the continuing development of established mold makers by gathering and exchanging information on materials and mold performance."

DIVISION HOTLINE

For questions or comments about the SPE Mold Making & Mold Design Division please contact Glenn Starkey at:

gs@procomps.com
1-630-369-9120

SPE Mold Making & Mold Design Division 2014 Mold Maker of the Year

Mold Maker of the Year, Manfred Hoffmann, formally received his award at the recent Plastec West show in Anaheim, California.

His career spans 64 years, since he began as an Apprentice Toolmaker at AEG (General Electric) in Berlin, Germany in 1951, and attended a 5-year Technical University through evening classes.

In 1965, he continued his career as a Senior mold maker with CACO Pacific Corp in Covina, California, and held various management and executive management positions throughout his career there.

In 1985 Manfred became a major shareholder of the company as well as the President, CEO and Chairman of the Board. During his 48-year tenure with CACO Pacific, the company has created more than 300 Journeyman Mold Makers and precision machinists, 30 of which have gone on to establish mold making companies of their own throughout the Rocky Mountain west.

Congratulations to Manfred Hoffmann!



WE NEED YOU!



The Mold Making and Mold Design Division Board of Directors is in need of a ***"Few Good Men and Women."***

If you are interested in the continued betterment of our industry around the globe, and would like to be a part of the leadership within the Mold Making and Mold Design Division, then we have a place for you!

Please complete the form below and return to gs@procomps.com.

Name: _____

Mold Maker: _____ Mold Designer: _____ Both: _____

Phone: _____

Mobile: _____

E-Mail: _____





Society of Plastics Engineers

6 Berkshire Blvd., Suite 306
Bethel, CT 06801-1065 USA

Membership Application

PH: 203-775-0471 • Fax: 203-775-8490
www.4spe.org • membership@4spe.org

Contact Information *Please print clearly*

First Name (Given Name) _____		Middle Name _____
Last Name (Family Name) _____		
Company Name/University Name (if applicable) _____		
Mailing Address is: <input type="checkbox"/> Home <input type="checkbox"/> Business Gender: <input type="checkbox"/> Male <input type="checkbox"/> Female (for demographic use only)		
Address Line 1 _____		
Address Line 2 _____		
Address Line 3 _____		
City _____		State/Province _____
Country _____	Zip/Postal Code _____	Phone _____
Preferred Email (This will be your member login and is required for usage of online member services) _____		
Alternate Email _____		
Date of Birth (Required for Young Professional membership) _____		
Graduation Date (Required for Student membership) _____		Job Title _____

Membership Types *Check one*

- ☐ **Student: \$31** (Graduation date is required above)
☐ **Young Professional: \$99** (Professionals under the age of 35. Date of birth is required above)
☐ **Professional: ~~\$144.00~~ \$129** (Includes \$15 new member initiation fee)

Choose 2 *free* Technical Division and/or Geographic Section Member Groups. →

1. _____ 2. _____

Additional groups may be added for \$10 each. Add Special Interest Groups at no charge.

1. _____ 2. _____

3. _____ 4. _____

Dues include a 1-year subscription to *Plastics Engineering* magazine-\$38 value (non-deductible).
SPE membership is valid for 12 months from the date your membership is processed.

Payment Information *Payment must accompany application. No purchase orders accepted.*

☐ Check Enclosed Amount _____

Charge: ☐ Visa ☐ Mastercard ☐ American Express Expiration Date: _____

Account Number: _____

Amount Authorized: _____ CSC#: _____ Last 3 digits from the back of MC/Visa.
4 digits from the front of AMEX.

Cardholder's Name (as it appears on card): _____

Signature of Cardholder: _____

Payment by Wire Transfer Instructions

You **must** include account number +ABA number + bank fees.
Please include the Member ID# and Name so we may apply payment to the correct person.

USD: WELLS FARGO: 108 Federal Road, Danbury, CT 06811 USA
ACCT #2681786097 ABA #121000248 SWIFT CODE #WFBUS6S

The SPE Online Member Directory is included with membership. Your information is automatically included unless you indicate otherwise.

- ☐ Exclude my email address from the Online Membership Directory
☐ Exclude all my information from the Online Membership Directory
☐ Exclude my address from 3rd party mailings

By signing below, I agree to be governed by the Bylaws of the Society and to promote the objectives of the Society. I certify that statements made in the application are correct and I authorize SPE and its affiliates to use my phone, fax, address and email to contact me.

Signature _____ Date _____

Technical Division Member Groups - Connect with a global community of professionals in your area of technical interest.

- | | |
|---|--|
| <input type="checkbox"/> Additives & Color Europe - D45 | <input type="checkbox"/> Injection Molding - D23 |
| <input type="checkbox"/> Applied Rheology - D47 | <input type="checkbox"/> Medical Plastics - D36 |
| <input type="checkbox"/> Automotive - D31 | <input type="checkbox"/> Mold Making & Mold Design - D35 |
| <input type="checkbox"/> Blow Molding - D30 | <input type="checkbox"/> Plastics Environmental - D40 |
| <input type="checkbox"/> Color & Appearance - D21 | <input type="checkbox"/> Polymer Analysis - D33 |
| <input type="checkbox"/> Composites - D39 | <input type="checkbox"/> Polymer Modifiers & Additives - D38 |
| <input type="checkbox"/> Decorating & Assembly - D34 | <input type="checkbox"/> Product Design & Development - D41 |
| <input type="checkbox"/> Electrical & Electronic - D24 | <input type="checkbox"/> Rotational Molding - D42 |
| <input type="checkbox"/> Engineering Properties Structure - D26 | <input type="checkbox"/> Thermoforming - D25 |
| <input type="checkbox"/> European Medical Polymers - D46 | <input type="checkbox"/> Thermoplastic Materials & Foams - D29 |
| <input type="checkbox"/> European Thermoforming - D43 | <input type="checkbox"/> Thermoset - D28 |
| <input type="checkbox"/> Extrusion - D22 | <input type="checkbox"/> Vinyl Plastics - D27 |
| <input type="checkbox"/> Flexible Packaging - D44 | |

Geographic Section Member Groups - Network with local industry colleagues.

- | | |
|--|---|
| <input type="checkbox"/> Alabama/Georgia-Southern | <input type="checkbox"/> Ohio-Akron |
| <input type="checkbox"/> Asean* | <input type="checkbox"/> Ohio-Cleveland |
| <input type="checkbox"/> Australia-New Zealand | <input type="checkbox"/> Ohio-Miami Valley |
| <input type="checkbox"/> Benelux | <input type="checkbox"/> Ohio-Toledo |
| <input type="checkbox"/> Brazil | <input type="checkbox"/> Oklahoma |
| <input type="checkbox"/> California-Golden Gate | <input type="checkbox"/> Ontario |
| <input type="checkbox"/> California-Southern California | <input type="checkbox"/> Oregon-Columbia River |
| <input type="checkbox"/> Caribbean | <input type="checkbox"/> Pennsylvania-Lehigh Valley |
| <input type="checkbox"/> Carolinas | <input type="checkbox"/> Pennsylvania-Northwestern Pennsylvania |
| <input type="checkbox"/> Central Europe | <input type="checkbox"/> Pennsylvania-Philadelphia |
| <input type="checkbox"/> China | <input type="checkbox"/> Pennsylvania-Pittsburgh |
| <input type="checkbox"/> Colorado-Rocky Mountain | <input type="checkbox"/> Pennsylvania-Susquehanna |
| <input type="checkbox"/> Connecticut | <input type="checkbox"/> Portugal |
| <input type="checkbox"/> Eastern New England | <input type="checkbox"/> Quebec |
| <input type="checkbox"/> France | <input type="checkbox"/> Spain |
| <input type="checkbox"/> Hong Kong | <input type="checkbox"/> Taiwan |
| <input type="checkbox"/> Illinois-Chicago | <input type="checkbox"/> Tennessee-Smoky Mountain |
| <input type="checkbox"/> India | <input type="checkbox"/> Tennessee Valley |
| <input type="checkbox"/> Indiana-Central Indiana | <input type="checkbox"/> Texas-Central Texas |
| <input type="checkbox"/> Israel | <input type="checkbox"/> Texas-Lower Rio Grande Valley |
| <input type="checkbox"/> Italy | <input type="checkbox"/> Texas-North Texas |
| <input type="checkbox"/> Japan | <input type="checkbox"/> Texas-South Texas |
| <input type="checkbox"/> Kansas City | <input type="checkbox"/> Tri-State |
| <input type="checkbox"/> Korea | <input type="checkbox"/> Turkey |
| <input type="checkbox"/> Louisiana-Gulf South Central | <input type="checkbox"/> United Kingdom & Ireland |
| <input type="checkbox"/> Mexico-Centro | <input type="checkbox"/> Upper Midwest |
| <input type="checkbox"/> Michigan-Detroit | <input type="checkbox"/> Utah-Great Salt Lake |
| <input type="checkbox"/> Michigan-Western Michigan | <input type="checkbox"/> Virginia |
| <input type="checkbox"/> Middle East | <input type="checkbox"/> Washington-Pacific Northwest |
| <input type="checkbox"/> Nebraska | <input type="checkbox"/> West Virginia-Southeastern Ohio |
| <input type="checkbox"/> New Jersey-Palisades | <input type="checkbox"/> Western New England |
| <input type="checkbox"/> New York | <input type="checkbox"/> Wisconsin-Milwaukee |
| <input type="checkbox"/> North Carolina-Piedmont Coastal | |

*Asean: Indonesia, Malaysia, Phillipines, Singapore, Thailand, Cambodia, Laos & Vietnam

Special Interest Groups - Explore emerging science, technologies and practices shaping the plastics industry. Choose as many as you would like, at no charge.

- | | |
|--|---|
| <input type="checkbox"/> Advanced Manufacturing / 3D - 033 | <input type="checkbox"/> Plastics Educators - 018 |
| <input type="checkbox"/> Bioplastics - 028 | <input type="checkbox"/> Plastic in Building and Construction - 027 |
| <input type="checkbox"/> Failure Analysis & Prevention - 002 | <input type="checkbox"/> Quality/Continuous Improvement - 005 |
| <input type="checkbox"/> Joining of Plastics & Composites - 012 | <input type="checkbox"/> Radiation Processing of Polymers - 019 |
| <input type="checkbox"/> Marketing & Management - 029 | <input type="checkbox"/> Reaction Injection Molding - 032 |
| <input type="checkbox"/> Non-Halogen Flame Retardant Tech. - 030 | <input type="checkbox"/> Thermoplastic Elastomers - 006 |
| <input type="checkbox"/> Plastic Pipe & Fittings - 021 | |

Recommended by (optional) _____ ID# _____

Fairway Injection Molding Systems Invests \$3 Million in New Machinery

Strong demand for Fairway Injection Molding Systems' advanced technology, high-volume production molds in the markets the company serves has driven Fairway to make investments of \$1 million annually over the past three years in production mold manufacturing machinery and injection molding machines. Founded in 1977, Fairway, located in Walnut, CA, is a premier designer and manufacturer of precision, high-volume injection molds for the packaging (caps/closures), medical, and personal care markets.

"We've seen tremendous growth opportunities over the past three years," states Gregg Van Bogget, Director of Sales and Marketing for Fairway. "To take advantage of these opportunities, Fairway has not only invested in machinery and equipment but in management, engineering and sales personnel as well to take the company where it needs to go."

Molding presses have become an absolute necessity for Fairway as its plans call for greater capabilities to perform mold qualification. Fairway operates four injection molding machines, including the latest, a Husky Hylectric 720-ton high-speed packaging machine to accommodate customers' larger molds. The other injection molding machines include a 105-ton, a 250-ton and a 490-ton 2-shot press. Fairway now has the capability to sample and qualify a wide range of mold types including Tandem and Stack molds, multi-shot molds, as well as single face molds and molds that accommodate in-mold closing and in-mold labeling (IML) for the company's packaging customers.



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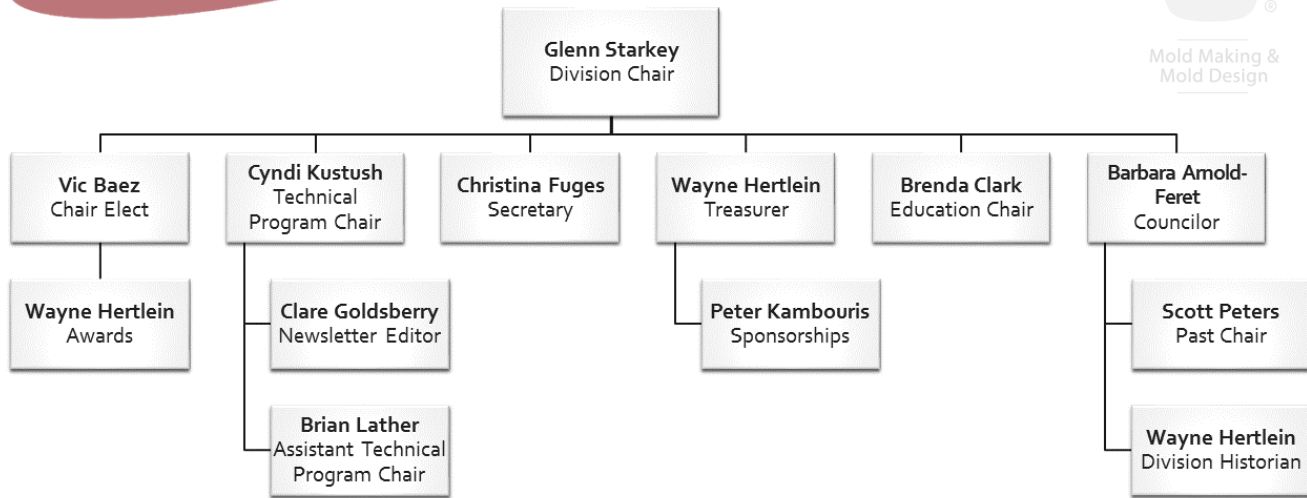
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2015 Board of Directors

Mold Making and Mold Design Division
Society of Plastics Engineers, Inc.



Mold Making &
Mold Design



2015 SPE Mold Making and Mold Design Division Board of Directors Contact Information

Division Chair

Glenn Starkey**

Progressive Components

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Chair Elect / House Committee Chair

Victor Baez

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Manufacturing Engineer Executive

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Clare Goldsberry

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Wayne Hertlein **

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Secretary

Christina Fuges

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Brenda Clark

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Pete Kambouris

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P: 262-786-4521 | pckambouris@wi-engraving.com

Councilor

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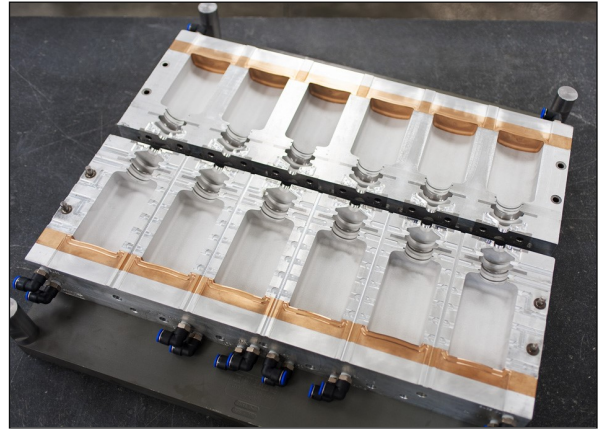
EngATech | email: ppsltd@airmail.net

Note: ** Indicates Past Division Chair

Big 3 Precision and Creative Blow Mold Tooling Announce Partnership

Big 3 Precision located in Centralia, IL, and Creative Blow Mold Tooling in Lee's Summit, MO, have announced the formation of a strategic partnership to create Centers of Excellence (CoE) for the design and manufacture of injection blow and injection stretch blow molds (IBM/ISBM), as well as the design and manufacture of extrusion blow molds.

The goal of the partnership and the CoE is to help existing customers with speed to market through increased product development and support. Big 3 and Creative also intend to use the CoE concept to help balance engineering and manufacturing capacity, increase efficiencies, and further reduce lead times for customers. The partnership will allow customers to source tooling on complementary platforms through a known and trusted business partner. For some customers, access to the CoE will allow them to more quickly and efficiently expand their existing capabilities to other platforms.



Creative Blow Mold Multi-Cavity Bottle Mold.

As a primary supplier, each company will be able to tap into the CoE for engineering and manufacturing leadership, project management, and technical support. The primary supplier will be responsible for program management and manufacturing. The newly formed alliance will be a partnership of the companies' technical capabilities and expertise.

Westminster Tool Invests in Software, Equipment

An injection mold is only as good as the parts that it produces. This concept is the driving force behind Westminster Tool's recent investments which include Moldex 3D® molding simulation software, an RJG eDart System™ for process monitoring as well as increased RJG Master MolderSM support; and a Sepro America 5-axis CNC robot.

These investments reinforce Westminster's commitment to 'Bridging the Gap Between Concept and Production' – a proprietary in-house program – to implement higher levels of performance for their customer base to better meet customers' requirements. 'Bridging the Gap' is a strategic focus that allows customers' complete injection mold solutions to leave Westminster Tool with a scientifically developed, repeatable production process. This "production ready" injection mold solution can reduce overall project lead times and increase speed to market.

Westminster Tool (Plainfield, Connecticut) is a mold manufacturer that specializes in innovative mold manufacturing and production solutions for plastics and composites. "We believe that our customers deserve fully integrated solutions that help bring high-quality products to market faster," said company owner and President, Ray Coombs. "That is why we are dedicated to investing in manufacturing technology and in developing a workforce that takes personal ownership in partnering with customers, thus bridging any gaps along the process from concept to production".

SPE Mold Making and Mold Design Division

February 27, 2015 Meeting Minutes

To: Board of Directors Mold Making and Mold Design Division SPE
From: Christina Fuges – Secretary to the Board
Subject: Minutes of the Meeting of the Board of Directors on 27-February-2015

The meeting was called to order by Division Chair – Glenn Starkey at 9:00am (CST). Division Chair presided over the meeting – Christina Fuges took the recorded minutes as the Secretary. There were no representatives from SPE Headquarters present for the meeting.

The role was taken according to the leadership roster:

	Present	Absent		Present	Absent
Scott Peters		X	Brian Lather		X
Glenn Starkey	X		Cyndi Kustush	X	
Wayne Hertlein	X		Brenda Clark	X	
Vic Baez	X		Christina Fuges	X	
Barbara Arnold-Feret		X	Clare Goldsberry	X	
			Pete Kambouris		X

Chair Report – Glenn Starkey:

Settling into our roles. Newsletter has a production process. Education Chair update from Brenda and we are providing input. Time now for us to get nominations going and elections going. Call outs for positions for filling current roles and additional spots to fill need to take place.

Division Secretary Report – Christina Fuges Baez:

Minutes Review: 11-November 2014 minutes were approved February 23, 2015.

Treasures Report – Wayne Hertlein

Minimal change to overall network of Div and ITQ. Still dealing with Michigan Bank to find ITQ's money. All clear with IRS for the Division. The CPA discounted their rate for us to \$405. Summary was sent for review.

TPC Report—Cyndi Kustush

ANTEC session review. All is set for Tuesday and Wednesday morning. Glenn and Scott moderating and someone from Injection Molding Div. 8-Noon. Plaques for Awards ready. BOD meeting at 12:30 on Tuesday during NPE in conference room with lunch possibly. Working on a spring summer MiniTech with the injection molding division. A plant tour (Flextronics, possibly) and mini conference in one day in local Midwest area. Share any ideas thoughts on speakers. Maybe automation, EDM and design topics.

Division Councilor Report – Barbara Arnold-Feret:

Not present

Membership Chair – Barbara Arnold-Feret:

Not present

Sponsorship Chair Report – Pete Kambouris:

(Glenn) and Pete will meet for verification that 2014/15 was handed off to him and is (essentially) closed, and they'll share thoughts for 2015/16 changes.

(Wayne) Forward checks to Wayne. He has not received any yet. Send email and copy Glenn.

Newsletter Report—Clare Goldsberry

(Clare) All the articles and editorial by Clare and other news items have been written and submitted to Tammy and Cyndi, but she is not sure where we're at insofar as its completion.

(Cyndi) is reviewing with Tammy and shortening up material and being laid out. Should go out next week.

(Glenn) discussing format, frequency, timing and sponsorship structure of newsletter. For example, monthly electronic one pager instead of quarterly and heavy with content. Mid-summer will propose a format change.

Intersociety Liaison Report – Scott Peters:

Not present

Awards Chair Report – Wayne Hertlein:

(Wayne) Everything out to Progressive for ANTEC. Will need to get 2015 Awards taken care of for Amerimold. Need ballots sent out for nominations.

(Glenn) Amerimold timeframe is when we need to have new



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positions too. Glenn presented SPE's MoldMaker of the Year 2014 award to Manfred Hoffman of Caco Pacific at Plastec West on show floor.

(Wayne) Would like photo of Manfred presenting check to school.

Education Chair Report – Brenda Clark:

(Brenda) Cyndi, Glenn and Brenda have had several meetings.

Cover letter in process and grant form is in question. Flyer ready to be sent out to general membership and schools on list. Feel free to send Brenda schools you want on the list. ANTEC is a place where we can get submissions and grant requests approved.

(Glenn) At ANTEC we will have budget and process (proactive and reactive requests) updates to approve/discuss/ vote and built into our budget.

(Brenda) Streamline process so emergency requests can be granted (like videos).

(Wayne) Existing grant submission form (Doug Hugo has process put together)

(Glenn) Will connect with Doug Hugo. We will put Education report into final newsletter of the year to inform membership.

Old Business:

(Glenn) Mission statement, division name change

(Cyndi) Between now and then we will assemble materials on why we want to make the name change, etc. for Barbara to present at next council meeting. Hoping to plan to vote at ANTEC on this. If not, we'll do it via email.

(Glenn) To take advantage of opportunities for Division visibility (for example, man a booth at different events, provide speakers etc.) We need a portable booth (banner). So along with the name change approval we will seek booth approval, and then our plan is to first use it a Amerimold in June.

(Glenn) Determining amount of scholarships

(Cyndi) In September (16-18), *Plastics News Caps & Closures* event, we are looking at our Division to sponsor a plant tour at Nypro. Looking for Board member to attend and represent Division.

(Cyndi) Need to find an ITQ liaison. John Harding would be a good person to determine who would be appropriate.

(Glenn) Will connect with John for his advice.

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(Cyndi) MoldMaking Matters: Your Career Can Make a Difference video update. The Division will promote it. Christina sent links to video and related content to Cyndi. Suggest putting it into next Newsletter.

New Business:

(Glenn) ANTEC Minitex update. Milwaukee Chapter has really grown. And they say plant tours really help. They have 3-4 a year. We want to get this model down and make it repeatable in many locations.

(Brenda) We need a general email for the Division.

She is willing to work on it. General email and then someone forwards it to appropriate person.

(Glenn) We will tie general email into the name change proposal.

(Scott added via email) We have a standard e-mail it is SPEMMMD@gmail.com

(Glenn) When newsletter comes out, please carefully review. In addition to the new member blast out, think about who you know personally who would be good to add to our team. Anticipating larger numbers at ANTEC this year being at NPE.

(Glenn) Call for a motion to move to adjourn. Clare and Brenda made motions.

Next meeting at NPE.

Respectfully submitted,
Christina Fuges
Secretary to the Board

02/27/15

To: Mold Making & Mold Design Board of Directors

From: Wayne Hertlein – Treasurer

Subject: Treasurer Summary

Checking

• 01/31/15	Balance	\$44,526.94
• 02/14/15	MMOY Award	\$ (500.00)
• 02/19/15	Antec Awards	\$ (297.12)
• 02/25/15	Deposit Refund	\$ 607.50
○ Total:		\$43,736.57

Investment Accounts

Acc #	Renewal	Amount	Maturity
• 8347	6/18/15	\$10,320.57	1 Year
• 3592	1/18/16	\$10,305.31	11 Months
• 3600	8/18/15	\$10,493.77	1 ½ Years
• 3618	6/18/15	\$26,969.51	2 ½ Years
• 3626	10/18/18	\$31,132.05	4 Years
○ Total:		\$89,221.21	

MM&MD Division Total \$132,957.78

ITQ Foundation Summary

Checking

• 10/31/14	Balance	
○ Total:		\$ 0.00

Huntington Bank declared checking account Unclaimed Funds and sent \$536.99 to State of Michigan

Investment Account

Acc #	Renewal	Amount	Maturity
• 6529	9/03/15	\$39,067.61	5 Years

ITQ Foundation Total \$39,067.61

MM&MD Division Net Worth \$172,025.39

Respectfully submitted:



Upcoming Industry Events

The following are some really great events that mold makers and mold designers should attend to learn about the latest, greatest technology in both moldmaking and plastics processing technology. So after you've soaked your feet and recovered from NPE, here are more great conferences to attend.

RAPID 2015 – (www.rapid3devent.com) **May 18-21, 2015** at the Long Beach Convention Center, Long Beach, CA. Everything 3D can be found here including some of the hottest new machine tools that perform both 2D and 3D in one machine. It's the wave of the future!

Plastics-in-Motion – (www.executive-conference.com) **June 1-4, 2015** at the Adoba Hotel in Dearborn, MI. This automotive conference brings together OEMs, suppliers and anyone interested in the latest plastics technology for the automotive industry.

Amerimold 2015 – (www.amerimoldexpo.com) **June 17-18, 2015**, Donald E. Stephens Convention Center, Rosemont, IL. This is the conference expo that we've all come to know and love through the years. Excellent presentations, exhibits and people walking the floor with lots of questions for mold makers.

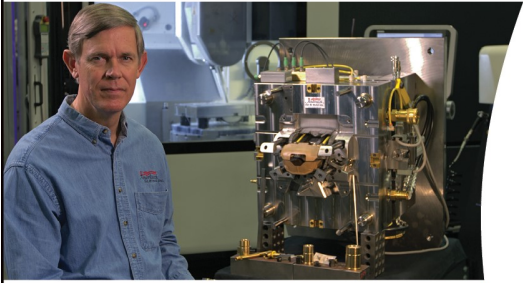
Molding 2015 – **June 16-18, 2015**, and co-located with *Amerimold*, this molding conference has gained in popularity through the years. Mold makers need to understand molding processing to be the best at their trade. Don't miss out on this event also at the Donald E. Stephens Convention Center.

Additive Manufacturing Conference – (www.additivemanufacturinginsight.com) **October 20-21, 2015**, Knoxville, TN, sponsored by Modern Machine Shop, Additive Manufacturing magazine, Oak Ridge National Labs (ORNL), The Association for Manufacturing Technology (AMT), America Makes, and Local Motors.

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Next issue due out: June/July of 2015



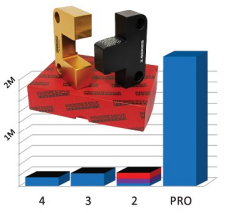
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Industrial Molds Continues Equipment Purchases/Installation:

\$1.4 Million Expected Investment in 2015

Growth at Industrial Molds, a Rockford, IL-based custom manufacturer of injection molds, continues into 2015 as the company announces additional equipment purchases while installing equipment purchased in the last quarter of 2014. According to Dennis Nord, Production Supervisor for Industrial Molds, the new Micron HSM 400 ULP 5-axis electrode cutting machine doubles Industrial Molds' electrode production and will help the company meet demand in that department. "We Can cut electrodes 20-30% faster with this new 42,000 RPM equipment," Nord comments.

The newest carbon cutting machine is on a robot that operates with a second carbon cutting machine, with a silo that holds 220 electrodes and can run lights out for a long period of time, Nord explains. The OKK HM1000s horizontal mill purchased in Q4 of 2014 a 60-tool changer and higher RPMs, enabling the company to run jobs back-to-back and increase lights out operations for the mold base area.

Industrial Molds is also updating its wire EDM equipment to have the ability to automate the threading and give it lights out capabilities. The company plans to purchase two wire EDMs in the first quarter of this year. Additionally, a free-standing two-ton crane system is being installed to accommodate the larger mold base sizes that the company will be able to make.

Industrial Molds Makes ANTEC Presentation

Industrial Molds provided a technical presentation at the Society of Plastics Engineers (SPE) Annual Technical Conference (ANTEC), which was held in conjunction with the Society of the Plastics Industry's National Plastics Exposition (NPE) last week at the Orlando Convention Center, Orlando, Florida.

Kerry Smith, Project Engineer, presented "**Mold Design for Reduction of Offline Assembly and Secondary Operations**". Kerry's paper focused on designing for metal-to-plastic conversion for part consolidation, two-shot molding and other molding technologies for reducing production costs and improving quality.



"A good leader is not the person who does things right, but the person who finds the right things to do.."

[Anthony T. Dadavano]

Sharing Best Practices

Sometimes “Best Practices” in mold making and mold design involve the “soft” side of business such as marketing and sales. It’s often not enough just to do what your customers ask you to do. Companies committed to excellence go above and beyond to come up with creative solutions, and this is where collaborative efforts between sales and engineering teams between you and your customers become most effective.

Sales people need to ask the right questions up front to ensure that what the customer wants in a mold design and mold build is feasible. What is and what isn’t manufacturable is key to a project’s success. Mold makers aren’t magicians – they’re mold makers.

Engineering teams – project engineers from the mold maker/designer side and the customers’ company – need to engage in real communication so that everyone understands what is required. Often, the customer will bring in their marketing personnel. Why? Because in today’s consumer driven economy, it’s the marketing people who understand what the consumer wants. The mold designer and mold maker must also have a clear understanding of these requirements.



One mold manufacturing company, R&D/Leverage in Lee’s Summit, MO, not only builds molds but they help their consumer products customers do much of the front end work. Rare among the custom mold making industry, R&D/Leverage offers creative services for Structural Brand development which includes consumer research, design strategy, design for manufacture, virtual prototyping and physical prototyping, for the food and beverage, home, personal care and healthcare industries.

When thinking about your marketing and sales strategies this year

don’t forget to find out what your customers are really asking for when they ask for a mold. It’s generally *not* a mold they really want; it’s a highly functional product that offers consumers something new, different, easy-to-use, and attractive to look at all at an optimum cost. Best practices are often as much about tending to the soft side of your business as it is about the latest software and machine tools.



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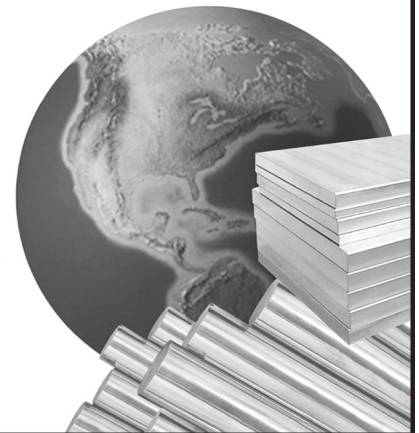


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***“Management is efficiency
in climbing the ladder of
success; leadership
determines whether the
ladder is leaning against
the right wall.”***

Stephen Covey

Tomorrow's Toolmaker

Tomorrow's toolmaker will have some new and interesting technologies to work with to manufacture molds. Last year, several new "hybrid" machine tools were introduced that combine 3D additive manufacturing with 2D subtractive manufacturing. For example, Mazak Corporation (www.mazakusa.com) unveiled its newest machine, the Integrex i-400AM (additive manufacturing) Hybrid Multi-Tasking machine that offers a fusion of additive technology (3D printing) and Mazak's advanced "Multi-Tasking" capabilities. The machine will significantly reduce part cycle times while providing high-efficiency Done-In-One® processing.

As a turnkey system, the Integrex i-400AM offers manufacturers an innovative alternative to conventional processing in terms of part design and machining. The technology is especially well suited for small lot production of very difficult-to-cut materials such as those used in the aerospace, energy and medical industries, said Mazak's information. With the additive capability, manufacturers can easily generate/clad near-net-shape component features then quickly complete them with high-precision finish machining operations – as well as laser mark parts if needed.

In operation, the Integrex i-400AM

melts metal powder using fiber laser heat. Cladding heads (additive manufacturing nozzles) apply the molten material layer by layer, each of which solidifies as the desired shape grows. Plus, the system can join different types of metals to one another, a capability beneficial in the efficient repair of existing worn or damaged components, such as aerospace turbine blades.

Cladding heads store in the Integrex i-400AM's tool magazine, and the standard automatic tool changer loads them into the machine's milling turret. Mazak offers two types of cladding heads – high speed or high accuracy. Users select the appropri-



ate head based on the intended process and the particular metal powder to be used.

On the Multi-Tasking machine side, the Integrex i-400AM provides full 5-axis capability to easily process prismatic parts from solid billets or castings (chucked or bar fed), round parts, highly contoured parts and now those with features built using additive technology. The machine provides -30/+210 degree B-axis movement in its milling spindle, full

C-axis contouring with its turning spindle and an NC tailstock that is fully programmable.

The Integrex i-400AM was recently demonstrated at a trade show in Japan, but is not available in North America as yet, but will part of Mazak Corp.'s offerings in the future.

While there are some mold components being manufactured using 3D metal deposition processes, the demand for actual mold cores/

cavities isn't there just yet. But wait and see! With some of the large-scale metal additive manufacturing solutions, like that introduced last summer from Sciack using a turnkey electron beam additive manufacturing process for titanium end-use parts for the aerospace industry, can the ability to make metal mold cores and cavities using solely 3D additive manufacturing be far behind?

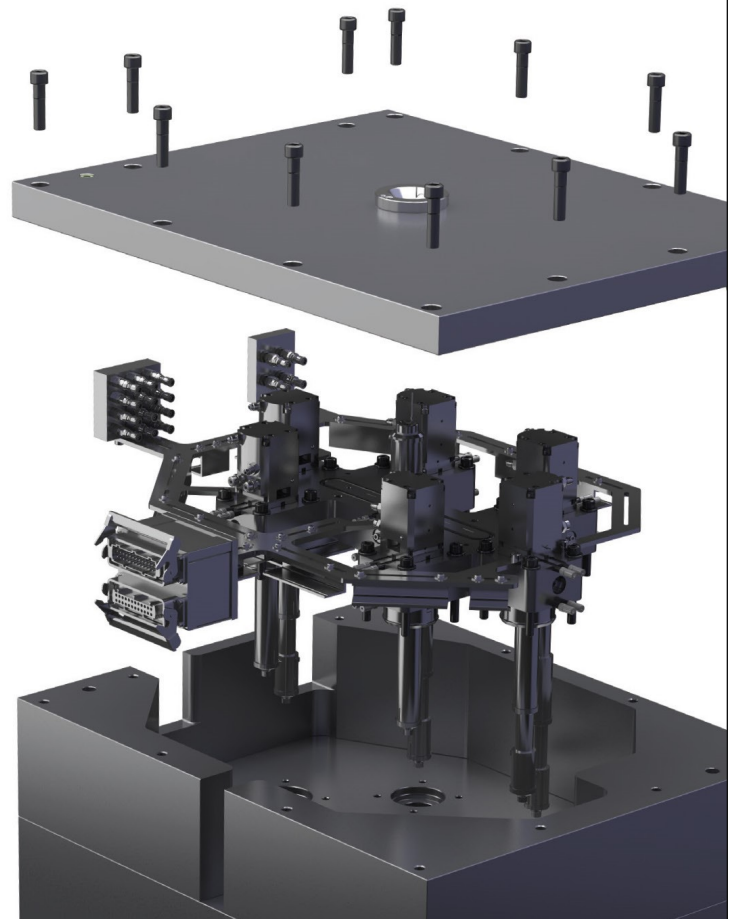


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Stephen R. Covey

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