Mold Technologies Division

Division of Society of Plastics Engineers

Message from the Chair

In prior years, it was not uncommon for this message to review the state of the economy, the state of the global body politic, and other wide-ranging subjects. However, as we start this year, I want to look inward and see what is happening in our division and what we plan, as a board, to do in the coming months and hopefully, in the coming years.

This will be my third round as chair of the Mold Technologies Division. As I look around, I notice that there is a great deal of energy on our board. And that, my friends, is quite exciting.

The MTD recently premiered an exciting project on our LinkedIn Page – "Track the Apprentice." In this program we have solicited the assistance of a bright young future mold maker, as we track, through video blogs, the journey from apprentice to journeyman. The inaugural release on the

25th of August is amazing. Our (and I do claim a "Royal Our") apprentice Taylor loves what she does, and it shows – her (yes, I said HER) enthusiasm is infectious. She graduated from Hartford Union High School in Hartford Wisconsin this past June with two years as a Youth Apprentice and is starting her first year as a full Apprentice CNC Machinist. Please look for the video at https://www.linkedin.com/posts/spe-mold-tech-nologies-division_track-the-apprentice-episode-1-activity-6968938521235529728-7qTK.

Of course, we need to thank Hannah Coombs (our appointed director) for all her work in reviewing and editing the content prior to uploading to the LinkedIn site. Hannah is an appointee to the board and in the time she has been with us has shown an enthusiasm for the Track the Apprentice program second to none. At PT-Expo last spring, Hannah took Taylor around the show and introduced her to our industry's many progressive companies and leaders. She made certain that Tony did a "Live Cast" from the show floor that included Taylor and her employer – Stephen Hansen of CDM Tool & Manufacturing in Hartford, Wisconsin.

Speaking of Stephen, let's meet our new Assistant Chair of Sponsorship. Stephen will be joining Greg Osborn in soliciting new sponsors for our division newsletter. This will be Stephen's second year in the leadership of the division as a director and we expect that he and Greg will find new value propositions to give greater impetus to being a sponsor of the newsletter and in turn giving the division greater resources to enhance our Track the Apprentice and other division scholarship initiatives.

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Secott Peters SPE Mold Technologies Division Chair 2022 / 2024





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Editor's Commentary

We've been hearing the lament for well over a decade: There are more toolmakers retiring than there are coming into the business. That extends beyond toolmakers and includes designers, machinists, polishers, and project managers. Many of the shops I speak with tell a similar story – their veterans are nearing retirement age (or have already begun their retirement) and there is a huge gap between them and the newest generation of the technical workforce. They have a core team of 50- and 60-year-olds and a good roster of 20 to early 30s, but there is a gap in the middle.

The drop in technical college enrollment, specifically in tool & die, that started hitting the manufacturing industry in the early 2000s, lasted for ten years or more (depending on which area of the country you are in). The general population began souring on the prospect of their children working toward a career in manufacturing, as the news was filled with stories of plant shutdowns and big OEMs outsourcing everything to low cost "over-



John Berg SPE Mold Technologies Division 2018 / 2023 Newsletter Editor

seas" sources. That, of course, resulted in far fewer tech college students becoming apprentices, in turn becoming mold makers, machinists, designers...

The good news is that we have been seeing more interest in manufacturing from the next generation, which is likely the result of our industry's promotion of career opportunities and of a more progressive approach to manufacturing education at the high school level. I have visited and met with the technical education leaders at several high schools and have been very impressed with the resources and facilities they have created for their shop students. Modernizing shop class areas with applicable equipment and software goes a long way in generating excitement for students and preparing them for career launch. The "help-wanted / starting bonus" signs I see on almost every facility in nearly every industrial park likely helps, as well.

Editor's Commentary - continued

We must keep pushing! Do you know the shop teachers and technical education decision-makers in your greater community? When was the last time you met with them – at their place? Student tours of your shop are great introductions to our segment of the manufacturing industry. Participating in local job fairs raises the level of awareness of your company and our industry. But do consider taking an extra step – ask to visit a class in session. See what the students are up to, the equipment and software they use, the tools at their disposal, the projects they are working on, and the general environment.

What might you and your company do to make that program more successful? Writing a check to buy equipment, tools, and raw materials is great, of course – and very much encouraged! How about bringing one of your designers or project managers or sales engineers in to discuss the different applications and challenges that cross their desks? Or to describe why they love their job? One topic that may be of value is your perspective on how they might consider shaping their career path. Likely every one of them either already has a part time job at a local machine shop or mold maker or there will be a line waiting for them as they near graduation with offers of apprenticeships and perhaps tuition assistance. Talk about the differences in working for a 12man shop vs. a 60-man shop. Would you recommend starting at an injection mold builder, or at an in-house shop of an OEM brand owner? The environments and cultures at those examples may well vary greatly.

You have a wealth of experiences and observations, of successes and failures to share. When you bestow that gift, it does keep giving.





Message From the Chair - continued

Davide Masato has been our Technical Program Chair for the past two years and will continue in that role going forward. He will also continue as the International Liaison for the division coordinating with our membership throughout the world. Of course, that means he will be exceptionally busy looking for opportunities to enhance the Technical Content of ANTEC and our own Divisional Technical Offerings as well as looking for opportunities to grow the active membership in Asia, Canada, the EU, and the UK. If you have any ideas on these initiatives, please reach out to Davide.

Two of our newly elected members will head the Education Committee. Jason Murphy is assuming the role of Education Chair and his associate Education Chair is Kerry Kanbara. Both Jason and Kerry have deep and abiding affection for our industry and want to find ways to further the educational efforts of our division. They are looking at grant opportunities as well as potentially finding scholarship opportunities. For the past few years, we have not seen any requests for funding and now are going to be reaching out to academia to connect and grow our opportunities to impact mold makers, designers, and repair / preventive maintenance practitioners in meaningful ways.

Another of our new leaders, Mr. Eric Hecker comes to the board with enthusiasm to find the proper mix of content and networking opportunities to bring young members into the division and the SPE at large. We welcome Eric as an immerging young leader in the industry and wish him every success both on our board and in his business. As an aside, Eric is the 3rd generation of leadership in the family business, following closely in the footsteps of his father Rick and his grandfather. It is this kind of young entrepreneurial leadership that we need to reach out further and wider to our new practitioners of the industry and involve them in propelling our businesses forward.

Returning to our division is Mrs. Barbara Arnold-Ferret. Barbara is not new to our division leadership. She has been a major advocate of our division while serving on other division boards and was the EC Liaison to our division while serving as Vice President of the Society. She has agreed to take on the role of Division Councilor. In this role she will be our direct liaison to SPE HQ and the Executive Committee of the Society. Division councilors act, in many ways, like senators in the government. Their role is to assist the Executive Committee in developing short and long-term plans for the society at large and to act in the best interests of the Society in general. In addition to this role, Barbara is in the midst of planning a DIV Tech Conference (Divisional Technical Conference) focused on Additive Manufacturing in the Mold Making Industry. This is still in the developmental phase, and I am certain that Barbara would welcome assistance in lining up the content map and speakers for the event.

Hopefully you can see that we have an excited and enthusiastic board with big plans to lead our division forward into the 2030's and beyond. The plans we make today are not just for today – but are for decades to come as Mold Making, Mold Design, and Mold Repair are all growing career tracks. We all look forward to working together and to working with you, our members as servant leaders seeking to meet your desires and needs as the Practitioners of our Craft.



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Component Innovations from Progressive Components New Standards to Improve Mould Performance

This material, shared by our very good friends and supporters at Progressive Components, is from content created for the K-Show

At the company's ninth K Show exhibition, additions include:

- Plate sequencing: Plate Retainers are a compact new method to pull parting lines in small to medium-sized moulds, and Plate Locks have seen the addition of a large Cam Bar for robust parting line actuation of big moulds.
- Undercut release: C-Series UniLifters® self-adjust to compensate for ejector plate misalign ment and offer a click-in-place feature to make mould assembly straightforward.
- Mould handling: RhinoFeet[™] eliminate wood beams and pallets and are available in 50, 75, and 100 mm heights for over 12,000 kg strength per unit.
- Mould monitoring: High-temperature mould CounterViews® are available in left and right-hand versions for temperatures up to 190°C.



Track Assets and Maintain Tooling

Progressive Components announces the release of ProFile® v4, a cloud-based tracking system designed for OEMs, Moulders, and Mould Builders to organise and track tooling activity.

Along with housing info for moulds, dies, machines, and fixtures, ProFile can interface with Progressive's CVe Monitors for complete real-time monitoring capabilities. Additionally, asset information can now be accessed from a QR code asset tag or the serial number off a Progressive CounterView cycle counter.

ProFile delivers distinct features for different manufacturing roles and priorities. An OEM's global tooling assets can have real-time visibility to performance and key metrics. Moulders can track downtime and rejects to report OEE, as well as be assisted with preventive maintenance work orders and track spare parts inventory. And for supply chain data sharing, users can connect Pro-File with existing ERP/MES systems utilising APIs and connect to report-generating platforms for custom reports.

ProFile's intuitive user interface is suited for any role within an organization to provide various levels of allowed visibility. For a demo to evaluate needs and generate a budgetary quote, contact Progressive via email sales.eu@procomps.com, or visit www.procomps.com.



Message From the Chair - continued

As we close out this message, I would be remiss in not acknowledging the times in which we live. Yes, the global economy is wavering, the global body politic seems to be clamoring for more and more industrial control, and there is war raging in Central Europe. And lest we forget, COVID-19 still looms on the horizon, rearing its ugly head with new variants and renewed concerns of travel controls.

All of this has a profound effect our all our lives. Oil Prices are up – Plastic Prices are up – Food Prices are up – what are we to do to survive! I only wish I was smart enough to provide the answers to these temporal questions... I do have one and without sounding too "Preachy" it is this – Look to the heavens and PRAY. Pray for the leaders of the world to have cooler heads and steadying control on their responses – Pray for Hope – because without HOPE we are HOPELESS...

And remember, of course, to pray for the people of the Ukraine who are being invaded in a hostile takeover. One of my favorite books puts it this way – Pray without ceasing... I hope that as you consider this option that you too will receive the Peace that Passes ALL Understanding, and the questions will be answered for you.

Until next time, I remain in your service as division chair. Scott



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

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Power Point® Hot Edge Gate Nozzles from Melt Design Inc. Create Clean Gate Vestiges, Tips Never Wear Out

Hot runner systems run extremely long periods of time without failure or maintenance

St. Charles, IL – Melt Design Inc. (MDi), a leading innovator in the manufacture of hot runner systems and components for the injection molding industry, designed its Power Point® Hot Edge Gate Nozzles to deliver multiple advantages for injection molders, chief of which is excellent gate vestige. Another benefit? The nozzle tip will never wear out.

Power Point Edge Gate Nozzles are ideal for molding fast-cycling, high-volume production parts such as thin-wall packaging applications and medical goods like pipettes, syringes, and personal hygiene products.

Typically, parts are gated in the center, but when a sidewall gate is needed, Melt Design's edge gate nozzles are a good option. "Take a flip-top cap, for example. Using our edge gate nozzle, the resin is injected away from all the moving mold components and shut offs required to produce the hinges," Panos Trakas, president of Melt Design, says. "The material flows through the nozzle, makes a 90-degree turn to enter the cavity, and as the part ejects the gate is seared cleanly off. You can barely see it."

Trakas notes that because the edge gate tips sit in the opening and do not touch the steel at all, the tips will never wear out. Cold runner side gates are eliminated because these nozzles gate directly to the part.



Additionally, as with all of Melt Design's Power Point nozzles, the edge gate nozzles are internally heated for more optimal heat profiles. The thermocouple, located at the nozzle tip, is replaceable and a dual seal system and solid body construction prevents leakage, so the MDi nozzles and complete systems run for millions of cycles without failure or need for maintenance.

Power Point Hot Edge Gate nozzles are available as a single body nozzle in small and medium sizes with 1 through 4 gates and as a three-piece replaceable tip assembly for higher temperature processing materials.

For more information, visit www.meltdesign.com or call 1-800-MDI-ONLY.

Melt Design, Inc. specializes in the design and manufacture of failure resistant, internally heated Hot Runner systems and components servicing molders and mold makers since 1984.



MST is pleased to announce the arrival of our newly-added Laser texturing and engraving 5 axis machine. This added technology offers MST Inc. the ability to provide our customers with 3 dimensional type patterns that are virtually unlimited. We are excited to bring MST Inc. into this amazing technology and look forward to working with you on your future projects.



For quotes or questions, please contact Joe Gendron, President - MST Inc. 4485 Crystal Parkway - Suite 300 - Kent, Ohio 44240 Office: 330-678-8590 - Fax: 330-678-8594 - Cell: 330-352-5082 Email: jgendron@mstextures.com

New HASCO Positioning Wedges Z1855

To be able to change inserts in injection molds easily and quickly, positioning wedges are used for precision fixing.

Simple assembly and dismantling

The new HASCO positioning wedges Z1855/... are particularly easy to install and uninstall because they have extraction threads in the through-holes. Free corner radii additionally simplify assembly because the installation geometry can be carried out more easily. To adjust the fixing tension and release the wedge, use is made of the central headless screw Z35/....

Accurate fixing of mold inserts

Through the use of two positioning wedges, exact fixing in two axes is possible. The use of cold

work steel 1.2842 makes the wedges particularly tough and thus offers maximum wear resistance. The new positioning wedges Z1855/... offer optimum conditions for the fast and accurate fixing of mold inserts in injection molding tools and are a great help in reducing setting-up times.

HASCO Standard Mold Units with Digital Innovation

In modern mold making, it is important to identify individual components quickly and easily in injection molding tools, and to have rapid access to comprehensive details about the components so as to save both time and costs.

As a full-service provider for modern mold making, HASCO is always keen to deliver market-oriented innovations. With the introduction of a Mould Tag on technically demanding products, HAS-CO offers its customers an intelligent digital solution that represents significant added value for selected mold units.

Digital and forgery-proof product identification

The new HASCO Mould Tag A5910/... is provided with an RFID Tag (Radio Frequency Identification) and enables the easy and reliable digitalization of original HASCO standard mold units in injection molding tools. Whereas bar codes or QR codes can be easily copied, the Mould Tag offers unambiguous identification with forgery-proof certification of origin.

Correct installation through direct access to all product information

The HASCO Mould Tag allows direct access to all relevant product information such as order reference, product category, product type, material number or maximum mold size to ensure correct installation of the mold units. In addition to a safety datasheet, the user has all the relevant spare parts available at a glance. CAD data and product animations round off the information package.



The first step was to digitalize the range of

two-stage ejectors Z169/... - Z1698/... and to equip them for RFID identification. The Mould Tags are installed ex works and are linked on delivery directly with the customer's order. The HASCO Mould Tag can be read with any modern smartphone via the new HASCO App.

Always one step ahead

HASCO is the first supplier of standard mold units on the market to come up with this intelligent solution – once again defining the standard with increasing digitalization in the world of mold making.

HASCO Cooling Range extended with the USA System

Through continuous and market-oriented new and further developments, HASCO is able to offer one of the largest ranges of cooling systems in the field of mold making.

The portfolio, consisting of numerous standard components, a high-temperature range, the Push-Lok system, the stainless steel and clean-break ranges, as well as an innovative multi-coupling system, has now been enlarged even further.

New – Cooling range, USA system



With the new USA system, HASCO offers an extended service with a global standard. The exceptional variety of combination possibilities of nipples, couplings, sleeves, and hoses allows future-oriented solutions for all challenges in cooling technology. Interchangeable between USA and Euro style connections are fully defined now.

Highest quality standards enable worldwide compatibility

As a company certified to DIN ISO 9001, HASCO attaches major importance to top raw material quality and constant quality controls. Very tight manufacturing tolerances allow global compatibility, while the unambiguous product labelling guarantees 100% traceability and maximum safety standards in mold cooling. With 50 years of experience, HASCO is the leading specialist partner in this field of cooling technology.



ABOUT - CALL FOR SPEAKERS - AGENDA WORKSHOPS FOR SPONSORS HOTEL INFORMATION REGISTRATION

SPE is hosting ANTEC® 2023 at the Hilton Denver City Center, Denver, CO from March 27–30, 2023.

ANTEC® 2023 will showcase the latest advances in industrial, national laboratory, and academic work. Learn about new findings and innovations in polymer research, products, and technologies. At ANTEC® 2023, there will be multiple opportunities to spend time with colleagues at SPE-hosted meetings, receptions, networking luncheons, and SPE Chapter networking events.

Meeting Minutes SPE Mold Technologies Division - October 8, 2022

	Present	Absent	Excused		Present	Absent	Excused
Tony Demakis	x			Kerry Kamar	х		
John Berg	x			Jason Murphy		х	
Scott Peters	x			Cyndi Kustush	Ex-Officio		
Eric Hecker	x			Brenda Clark	Ex-Officio – was present		
Greg Osborn			x	Davide Masato	х		
Barbara Arnold- Feret	х			Wes Stephens	x		
Stephen Hansen	x			Richard Evans	х		
Rich Martin	x						
Raymond Gibler	x			Hannah Coombs	х		

Ex-Officio Members are non-voting Call to order: 3:07 PM Central

Division Chair – Scott Peters

Presentation of the Mold Designer of the Year Award at the receiving school is being coordinated between Glen Starkey – Progressive Components, Marcin Zajac – A-1 Tool, and Mike Matticks – East Leyden Township High School.

Presentation of the Mold Maker of the Year Award at the receiving school is being coordinated by Brenda Clark – HASCO US, Rick Finnie – MR Molds, and Vishu Shaw – Cal-Poly University.

Chair-Elect Report – Richard Evans

Richard has posted on LinkedIn for nominations.

Treasurer's Report – Rich Martin

Rich sent report to board members \$172,400 in Bank of America, \$802 in BMO

Division Secretary Report – Wes Stephens

Thanks to Richard for taking notes last month

Division Councilor Report – Barbara

10/31/22 - virtual councilor meeting that Barbara is attending

Membership Chair – Eric Hecker

Lost 9 members; Five members from the US and four from outside of the US

Sponsorship Chair Report – Greg Osborn / Stephen Hansen

Nothing to report

TPC Report – Davide Masato

ANTEC will be scheduled in Denver in March. In-person We are all encouraged to try to get people to submit papers There will be workshop at the conference to demonstrate their technology

RETEC Report – Barbara Ferret-Arnold

TOPCON – sent information for the event to group SPE Chicago isn't showing interest. AMUG is right after TOPCON

Newsletter Editor Report – John Berg

Planning to finish the newsletter in the next few weeks

Education Chair Report – Kerry Kamar

Scott Kraemer has withdrawn from group (pulled his membership from SPE)

Web and Public Interest – Hannah Coombs

7000 people joined in at IMTS to view SPE – right place and right time
Scott asked if Hannah could send link so it could be shared
Next video that was filmed on site at IMTS focuses on new technology
Promotion – Westminster Tool to visit schools showing Taylor's video to promote manufacturing month

International Committee – Davide Masato

Nothing to report If someone wants to help, it would be welcome Scott suggested starting with Canadian sections to begin discussions, and then universities in Europe

Intersociety Liaison Chair – Richard Evans

Richard is looking for a new person to take over this role (Meet influencers to further our industry and trade)

Barbara is willing to take on this role. Scott will talk with Richard offline

Old Business

None

New Business

Scholarship Opportunities and Timing

Glenn Beall is moving to emeritus.

Barbara proposed Tony makes an award by Thanksgiving

John proposed a testimonial for Glenn. Scott and Barbara will create this

It's that time of year - when we start thinking about cool nights, bonfires, eating all our kids Halloween candy, and deciding who is best **Mold Maker** and **Designer** in the industry. We're looking for another round of nominations! We are also, for the first time ever, accepting nominations **Mold Repair Person of the Year**.



We all know that one person that goes above

and beyond the call of duty to keep customers happy and do the right thing, so let's bring them to the spotlight and give them the recognition they deserve!

DETAILS:

This award is for an individual person, not a company as a whole.

Candidate does not need to be an active member of the SPE but has made significant contributions to the SPE and has shown a strong technical expertise with a reputation for conducting business in a fair and ethical manner.

Awards will be presented in person at the PTXPO in Chicago, March 28-30, 2023.

Candidate will receive a reward and donation will be made in their name to a technical institution of their choosing.

Award comes packed with a solid year of bragging rights to all your industry buddies.

CRITERIA:

Name, address, email, phone number for the candidate and the person making the nomination.

Business Biography (2 pages max) highlighting candidate's contribution to SPE, the mold making/ design/repair industry.

Nominations need to be submitted by February 15, 2023 to be considered.

Address To: Richard Evans, Division Chair Elect, Mold Technologies Division, SPE

HUGE thanks to the sponsors that make this happen:

Progressive Components HASCO Hasenclever GmbH + Co KG MoldTrax

Newsletter Sponsorship

The SPE Mold Technologies Division Newsletter is now issued four times a year, with readership composed of individuals involved in all aspects of the mold making industry. These issues are made possible through the support of sponsors shown in this Newsletter. SPE Mold Technologies Division thanks these sponsors for their generosity and encouragement in the publishing of our Newsletter.

For information on sponsorship of future issues, please contact: Scott Peters - Chair Elect/Awards Chair/Sponsorship Chair Scott.peters@moldedmarketing.com

SPONSORSHIP INFO 2022-2023

Platinum (\$2500/year)

- Full page color ad in guarterly newsletter for one year circulated to members and distributed at SPE MTD events
- First right of refusal to a tabletop at Technical Tours to educate participants on new technologies/strategies
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- Company logo on signage at ANTEC
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Gold (\$1250/year)

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- First right of refusal to a tabletop at Technical Tours to educate participants on new technologies/strategies
- Opportunity to submit a technical article for publication in newsletter
- Company logo on signage in MTD booth at AmeriMold
- Company logo on signage at ANTEC
- Company logo displayed at SPE events

Silver (\$625/year)

- Quarter page color ad in quarterly newsletter for one year circulated to members and distributed at SPE MTD events
- First right of refusal to a tabletop at Technical Tours to educate participants on new technologies/strategies
- Opportunity to submit a technical article for publication in newsletter
- Company logo displayed at SPE events

Bronze (\$250/year)

- Business card size ad in quarterly newsletter for one year circulated to members and distributed at SPE MTD events
- Company logo displayed at SPE events

Release Dates Spring Issue

Publication

April 2022

Summer Issue October 2022

Fall Issue December 2022

> Winter Issue January 2023

Ad Specs: 4.75" H x 3.5" W

Ad Specs: 2" H x 3.5" W

Ad Specs: 4.75" H x 7.25" W

Ad Specs: 9.75" H x 7.25" W