

Mold Technologies Division



Division of Society of Plastics Engineers

Volume 42, Issue 4, Summer 2021

Message from the Chair

Dare I say that the plastics industry is busier than ever and continuing to trend in the right direction. Whether you make consumer goods, food and beverage products, automotive, or health care and medical products, there is a good chance that you are firing on all cylinders, and searching for a way to increase the amount of cylinders you have. It's a familiar story right now, and we all need to pull together to fix it.

Having the opportunity to travel the country and talk with business owners on a daily basis is one of the favorite parts of my job. It is a passion of mine to meet new people and hear their stories and experiences, to learn from them as we problem solve together. Everyone I meet I ask the same question, "Are you busy?" The response is typically something along the lines of, "We are slammed right now. We just can't get the work done fast enough, because we cannot find people." This is every conversation.

As industry leaders we have a collective responsibility to help solve this problem. Not only for our own wellbeing as individual companies, but to push the industry further. As your leadership team, the SPE Mold Technologies Division is challenging ourselves to find new ways to attract the next generation of engineers and makers to join our space. We are exploring the addition of new programs, committees, and opportunities for your young apprentices to get involved and share their experiences.

Richard Bach, author of *"Illusions: The Adventures of a Reluctant Messiah"*, has a theory that postulates "like attracts like", which simply means that people who are similar to each other often gravitate towards each other. I mean it makes perfect sense... However, if that is, in fact, the case, then how can we expect a bunch of grey haired men and women (generally the people reading this) to attract the next generation of innovators. They see old people, doing old things, getting old results and the interest isn't there.

My pastor concludes every message on Sunday mornings by saying, "Here is the summons. No summons, no sermon." Meaning, you heard what I have to say, now how do we apply it. This is most definitely not a sermon, but it is a warning that what we are doing as an industry is not working and it is time to try something new. So here is my summons to you, the leaders reading this newsletter: Over the next several months, we are challenging you to showcase your young talent. Register your upcoming leaders in various organizations

Continued on page 11



Tony Demakis

SPE Mold Technologies Division Chair

Editor's Commentary—Help Wanted

I was once in a one-sided conversation with a toolmaker and while he regaled me with the litany of impossible tasks and challenges on his desk, another toolmaker happened on us. This second toolmaker listened for approximately a half sentence before he interjected, “No matter how busy you think you are; I am literally twice as busy.”

Everyone's busy. The scramble for resources is in full swing. From the wide array of people and businesses with whom I engage to what I read from industry publications, the manufacturing sector is busy, getting busier, and acquiring the means to deliver is getting more challenging. Certainly, for mold making / tool / machine shops, it is difficult to increase capacity quickly and effectively when pricing and availability of critical raw materials, consumables, and machining equipment continues to fluctuate and be extended. Prolonged lead times for new CNC machines and automation / robotic systems are common so the need for capacity has the used equipment market being hit hard. Everyone's busy.

The shortage of the most critical resource is still there – we are all looking for more good people. Our company's machine shops, those of our supply chain partners and those of our OEM customers with internal manufacturing and assembly capabilities, are all looking for people. Everyone is recruiting.

Every high school in our area has a line of manufacturers pitching to the students. While we look for them, we need to keep planting them. We need to look for every opportunity to engage with the students and the parents. We need to show them that manufacturing is the road to a great career. They need to see how many options for success are available to them – whether on the concrete or the carpet. Have that Open House, host a Student and Parent Day, participate in local and regional employment fairs, have an employee picnic on your grounds and ask them to invite their families and neighbors, have an employee fund-raiser or food drive and let the community know... Build your reputation as a place people identify as an active company – an important part of the community.

We SPE MTDsters deliver this message every chance we get – because it is so important while you do your best to harvest new talent, continue to plant seeds – be proactive.



John Berg

SPE Mold Technologies Division
2018/2019 Newsletter Editor



John Berg

Sponsor's Index

Sponsor	Page	Sponsor	Page
Boride Engineered Abrasives	5	PRISM Plastics	21
DME	14	Progressive Components	23
Glenn Beall Plastics	10	Synventive Molding Solutions	22
HASCO	19	Wisconsin Engraving/Unitex	6
Mold Surface Textures, Inc.	17		



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A Board Seat on the SPE Mold Technologies Division - What's In It for The Company???

Scott Peters, Chair-Elect

In the last newsletter, we started a thread related to the prospect of membership on a volunteer board of directors. Specifically, we were talking about the Mold Technologies Division Board of the Society of Plastics Engineers Inc.

In that discussion I said that it would be the first of a 3-Part series of articles related to the subject – Volunteering for a Board of Directors. It was then and remains now my hope that the reader would see both the personal and corporate benefit of participating and would have a strong desire to join. While answering the question “What’s in it for me” I pointed to several things that may have been considered “Low Hanging Fruits” hoped that they would spur thought – Those benefits were (are):

- Meeting altruistic desires
- Providing Industry Notoriety
- Feeding your Professional Ego
- Providing INSTANT recognition as an Industry Leader
- Providing Leadership Training – Mentorship
- Providing close association resources
- Building Lifelong Friendships

Personally, I hope that my intent was a success and that we can count on your participation...

But, if you are like me, and I bet you are, there are others that you must satisfy with reasons to support your participation. Folks like (but not limited to) Company Owners, General Managers, Shop Fore-people, Department Managers and most importantly the Spouses. So, let’s take a dive

into how those folks will find satisfaction in your stepping out as a leader in this great industry.

First your spouse – Yep that is right, first and foremost your spouse needs to be on board and she or he needs to see the benefits of your participation. You know, this leadership thing, while voluntary, is time consuming and you are already away from home 40 – 60 hours a week – and that is a long time. Participation may (No Guarantees here) take more of your home time and there must be a WIN for the SPOUSE.

Let's see if we can answer the "What's in it for Her/Him." (By the way, did I mention that this isn't a demographic exclusive group of leaders?) The short answer goes something like this – there is pride. It is pride in your pride in your industry. That is a BIG DEAL.

I have been in the plastics industry for 45-years. My wife has been alongside me every step of the way for 43 of those years. When we met, she asked what I did for a living and my response was "I am a tool designer." She thought I meant hammers and screw drivers – but when we went shopping, and I showed her the model cars and boats and planes from two companies that I had worked for and that I had been involved in making a reality – she took pride and understood my pride in my craft.

As I moved from company to company and industry to industry, my pride in craft grew – mostly because the impact moved from Toys to Medical Devices – to Electronics and so on. With each new step my sphere of impact in the world around me grew and that drove greater pride for both of us.

That said, when I have pride in my craft and in my industry – she too shares that pride and has pride in herself over being involved in a business that touches literally every person's life on the

globe. From Toys as little kids to Housewares as adults to Automobiles to Medical Devices – we are surrounded by plastics and that means that Mold Makers and Mold Designers have had their collective hands in every person's life in one way or another.

But what is in it for my Company – Well now there is a good question.

The company, you know, the folks that have staked their fortune in the abilities of their team to deliver the finest quality in design and execution will want to see some return on investment. I mean let's face it there is a commitment of time and resources and nobody makes an investment without some expectation of returns... do they? We will now explore some of the returns the company can hope to see.

First – Notoriety in the industry. As I mentioned in my last article, having a member of the leadership of the Mold Technologies Division on staff provides instant industry recognition. Your participation sets you and your company apart from the rest of the competition. However, it is up to you both how you capitalize on that notoriety. Keeping your participation under wraps so to speak will yield nothing – you and your employer need to "Blow Your Own (collective) Horns." Putting your participation in a "News and Events" spot on the corporate website – placing your name front and center as a leader in the industry also places your employer as a forward thinking – forward leading – heavily invested firm that is well worth investigation as a supply partner – and that means BUSINESS!

Second – and I know it sounds like a broken record – Networking! That is correct, your participation not only expands your network, but it also expands the entire company network. The management of your company may be well tied into

the local network – they may have touch points in the state network and heck they probably do have national connections. BUT and that is a big BUT, with your participation on an International Board of Directors, that network has just gone GLOBAL.

At our last board meeting we reviewed the membership statistics of the Mold Technologies Division of SPE. What we found was interesting. 21% of the membership of our division comes from outside the United States. That's right nearly 80 folks (as of today and we hope more tomorrow) are instantly added to your "Network" and that of your company – on DAY 1! Think about how having your name and that of your employer attached division organizational structure can grow your business and influence as industry leaders. Add to that the nearly 300 additional US contacts that see you and your company as being willing to invest in the industry and being willing to act on that investment through leadership in the dissemination of information about the state of the industry and technologies employed in the application of our craft. Those investments can and often-times do, pay real dividends.

If you have read this far, I am sure that you are certainly getting the concept.

Third – Resources (here we go again on Networking). That network that just grew to a Global Scale includes resources. And let's face it – we all need resources from time to time.

Our industry and the technology we use in it seems to be change on a moment-by-moment basis. It is difficult at best to know what is changing and improving in one area of the shop and virtually impossible to know and how to apply those changes across the entire enterprise.

So where do you go when you reach a new technology impasse? Of course, you have local

resources – the people in the workplace and within your local sphere. You can reach out to industry leaders that you may have crossed paths with at various trade events. You may even listen intently to the salespeople that have a vested interest in introducing new technologies and then (hopefully) assisting in the implementation of those technologies within your company. But let's dream for just a moment – let's say that you are in a place where the decision is made and the technology is in your shop and, much like the old GE Appliance commercial, you open the door looking for help and all that is out there is a vast desert and not a person in sight... What do you do then? Here is one suggestion – reach out to your fellow board members. That's right, there is a good chance that one



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or more of the members of the board of directors have gone through, if not the same issue – something very similar – and they are willing to help!

Or perhaps your sales engineer has taken on a project that is a “Stretch” for your team. The design staff may have some concepts – the manufacturing team has ideas about approach and the execution is up to you – the owner... (Here is a little secret, Sales Engineers do overreach and do cause companies to stretch and grow... but sometimes it can be a stretch too far). So, what is the answer when you have reached that point? Again, I have one word – NETWORK. Your team member’s participation on the board of directors opens many new resources for various discussions – and again because we are all volunteer members, we all have a vested interest in helping one another to achieve that next level of success. Be it a mold design project – there are other designers on the board. Be it a mold construction issue – there are other mold makers on the board. Be it a mold plating or finishing issue – there are subject matter experts across the board all available at a moment’s notice and all part of the Network that is called Mold Technologies Division SPE.

We could carry this discussion on for many more pages with little more information conveyed. So, we will just summarize the benefits and move on...

Benefit #1 – Pride – pride for your spouse or significant other – and pride for your employer as showing that they are foresighted and willing to invest in the future of the industry.

Benefit #2 – Marketing Collateral – “Blowing your own and your company Horn” about your participation in the leadership of our industry...

Benefit #3 – Networking – Networking – Networking – nothing says benefit like having new networking abilities and having them on a Global Scale...

In our next newsletter we will discuss the investment, because unfortunately with all the benefits there will be an investment required... But rest assured, at the end of the day the costs will seem inconsequential. Stay tuned!!!

About the author – Scott L. Peters is president and founder of Molded Marketing LLC – a marketing company dedicated to the art and craft of Mold Making and Design. He has served on this board in all roles from Assistant Newsletter Sponsorship to Division Chair and Division Councilor to International – in 2008 he led the Student Activities Committee of ANTEC Milwaukee to do great things for student authors and future leaders of the industry. He can be reached at scott.peters@moldedmarketing.com or +1-330-201-3751

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IN THE SPOTLIGHT

A New Culture Brings New Opportunities

John Farrelly, *President, CDM Tool & Manufacturing*
Stephen Hansen, *CEO/Owner, CDM Tool & Manufacturing*

A rich history of mold making helps, but it alone isn't enough to survive in today's marketplace. The following is a story of how CDM Tool remade itself into an Employer of Choice and how that transition is enabling CDM and its customers to win.

Founded in 1962, CDM Tool has a rich history of mold making in Wisconsin and the Midwest. From its 40,000 square foot facility in Hartford, Wisconsin, CDM was historically known as a team that would tackle large, complicated, and challenging molds for its customers with presses from 700 tons all the way up to 6,600 tons.

However, in the early 2010's, CDM found itself underinvested in its facilities, equipment, tooling and personnel. More importantly, the untimely death of its owner, together with the retirement of two key leaders, created a vacuum of valuable knowledge. Although its workforce continued to produce high quality molds, CDM struggled to strategically differentiate itself from the competition and to grow its sales.

What follows is a brief story of how CDM has regained its position as an industry leader in a challenging marketplace and has become an Employer of Choice for high quality mold makers and machinists.

In 2015 a new ownership group purchased CDM. These new owners were prepared to invest in the business and its people. New machines and facility enhancements were added, with several of significant impact on productivity and delivery:

In 2016, a new Toshiba CNC upgraded CDM's bar machining capabilities

In 2017, a new Fooke 5-axis High Speed Milling Machine provided additional high speed / high accuracy finishing capabilities

In 2018, a new overhead crane system was installed with a carrying capacity of 30 tons

Heavy capital investments were made then and continue to be made in existing machine maintenance and in tooling replacements and upgrades. The plant layout was reconfigured in 2017 for optimal machining center efficiency. Further investments were made in leadership training for all department heads, supervisors, and managers, providing a framework for CDM's Core Values and Fundamental Behaviors.

Most importantly, the new ownership brought an open, collaborative, and humble management style. Employee views and opinions are valued and sought after in making business decisions. A renewed focus on Safety, Quality, Delivery and Cost, in that order, has led to improved results in all four.

From this leadership style change, a new culture emerged that values open, candid communication and problem solving by all, celebrating wins while learning from losses and taking personal responsibility for the work done. The new handbook states simply "We hire adults, we expect employees to act like adults and we are committed to treating employees like adults." Responsibilities and expectations are more clearly articulated and understood.



An example of the optimized manufacturing strategies employed by CDM, this FPT Pragma 3+2 horizontal machining center was set up and programmed to machine three individual mold plates.

Using a specific example, CDM's design process includes input from the entire team assigned to a new mold build; early and frequent collaborative interaction between the toolmaker, the machinists and the design team results in designing the best mold for our customer, manufactured efficiently and at the highest quality. The team truly owns the responsibility for the mold's performance in the customer's press.

As a result of this engaged team collaboration, CDM has earned a reputation as an Employer of Choice – a recruiting machine that brings on new talent as needed for growth. Some recent new hires sought out CDM because of the reputation of the culture and the investments made by the new owners.

By working together, CDM solves tough challenges and stays competitive in the global mar-

ketplace. This enables CDM to win, but more importantly it enables CDM's customers to win. One recent example of the CDM team working together to solve challenges and deliver wins for its customers comes from the reshoring initiative that key customer mDesign is undergoing. mDesign has historically sourced molds and plastic products from China, but with shipping costs increasing for their plastic parts, mDesign began looking for alternative options. In CDM, mDesign found a partner that can deliver molds that are designed and manufactured with high quality at a reasonable price. CDM's creative approach to manufacturing is exhibited in a recent

project for mDesign in which CDM utilized its large machines to machine three blocks at once for mDesign molds. This creative approach from the CDM team enabled lights out machining that benefits CDM and mDesign. The next project will bring different challenges, but by becoming an Employer of Choice and having a team that is engaged and wants to win, CDM will continue to bring creative solutions to the table for mDesign and other customers.





CALL FOR CANDIDATES

SPE MOLD TECHNOLOGIES DIVISION

Mold Maker and Mold Designer of the Year 2022 Award

Are you an innovative mold designer or mold maker? Do you know someone who deserves to be honored for their mold making skills or mold design creativity and expertise? If so, please consider nominating them for the 2022 SPE Mold Technologies Division (MTD) Mold Maker of the Year and Mold Designer of the Year.

Each year, the SPE MTD honors two top-notch individuals in mold making and mold design. The criteria are pretty simple. Candidates should have:

- Made a contribution to the industry or the SPE
- Strong technical experience
- A reputation for conducting business in a fair and honest manner

Anyone may submit a candidate for either of these two prestigious honors and the recipient need not be an SPE Member. Fill out your contact information and the contact information for the award candidate and send it with the required supporting documents by May 1, 2022.

Please identify the award that for which you are submitting the candidate, be it Mold Maker of the Year, or Mold Designer of the Year. Please include information on the candidate (bio, description of accomplishments, etc.) to explain why you feel that your candidate should receive the respective award.

The MTD Board of Directors will select the award recipients based on the merits of the candidates.

Your contact information:

Full Name: _____

Mailing Address: _____

Phone Number: _____ Email: _____

Please indicate which award applies to the candidate (check the box that applies):

☐ Mold Maker of the Year 2022 ☐ Mold Designer of the Year 2022

Please note that in some cases, a candidate can be suitable for consideration for either award if their background is in both mold making and mold design.

Contact information for award candidate:

Full Name: _____

Mailing Address: _____

Phone Number: _____ Email: _____

Bio for candidate is attached. (Note: Bio/Description must be submitted for consideration.)

Send Nominations to Wayne Hertlein - email: wayneh7758@aol.com

Global Perspective on Next-Generation Mold Engineers: Main Takeaways from an SPE Mold Technologies Division Panel Discussion

Davide Masato, TPC, International Committee Chair

The MTD division recently revamped its International Committee with the goal of outreaching to an international mold design, engineering, and making community. Towards the end of 2019, as the TPC of the Division, I took the lead of the International Committee and reached out to a few academic and industry friends and colleagues. The response was incredible, and within a couple of weeks, we had brought together a group of people from the US, Canada, Denmark, Italy, India, and South Korea. All members were excited about organizing educational and outreach activities for our members.

We hosted our first International Committee event in April 2021 to discuss workforce development in the mold-making and engineering industry. The panel discussion provided a global perspective on the next generation of mold builders and engineers. Invited industry speakers from different countries, industries, roles, age groups, and backgrounds, provided great insight on strategies, and shared their perspectives. The virtual event was organized by inviting industry speakers from different countries (India, Canada, US, Germany, and Denmark), different industries (mold and dies manufacturers, molders, material suppliers), and different roles (VP of engineering, R&D manager, technical consultant, tooling engineer, and CAE manager). The discussion with the panel revolved around three main questions that we asked to learn more about global recruiting and training strategies. The responses provided valuable in-

sight into the global mold-making and engineering workforce.

- **Do profiles on your local job market match your company's needs and expectations?**
 - Challenges to find hires from technicians to engineers.
 - Issues with replacing retiring employees and motivating the young people to get into manufacturing.
 - Not enough people are being educated as tool makers, big companies attracting all the best talents. The shortage is also for engineering jobs.
 - Months to years to fill positions, universities are more focused on metalworking, mold design for injection molding courses are challenging to find, need to engage students early.
- **What are the challenges when searching for a new skilled workforce? What are the hiring strategies that have been working for your company?**



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- Advertise to underrepresented communities and find strong candidates that are willing to relocate. Military veterans, remote workers from international locations have been great resources.
 - A global workforce better addresses the wide range of educational needs in manufacturing. Requires language skills, company culture to onboard international candidates, and resources to help bring people up to speed.
 - Need to promote industry culture and manufacturing cool factor. Companies effectively contributed to the students' education through participation in SPE events as judges.
 - Hard to find someone that checks all boxes, hence the importance of meeting some critical aspects and then focus on training and development. It is important not to focus only on the technical skills but on the mindset too. New hires can be motivated by new technologies, such as simulation or additive manufacturing.
 - **What are the training and educational strategies you have implemented to develop your new hires and foster the growth of current employees?**
 - Customized training and mentoring are necessary because the more is invested in the new hires, the more companies can get back from them.
 - Importance of experiences on the shop floor and program management skills for people working in engineering positions.
 - The company should help new hires creating a network within the company.
 - Individualized onboard training based on new hire background. Technical training has for not technical jobs helps the company culture.
- The SPE Mold Technologies Division wishes to thank the International Committee members for

contributing their time and passion to the organization of a successful event:

- Marco Sorgato - Assistant Professor, Department of Industrial Engineering, University of Padova (Padova, Italy)
- Dario Loaldi – Tooling Engineer, Novo Nordisk (Copenhagen, Denmark)
- Guido Tosello – Associate Professor, Department of Mechanical Engineering, Denmark Technical University (Lingby, Denmark)
- Vivek Gaval – Professor, Institute of Chemical Technology (Mumbai, India)
- Sun Kyoung Kim – Professor, Seoul National University of Science and Technology (Seoul, South Korea)
- Shi-Chang (Stanley) Tseng, Office of International Affairs, YunTech (Taiwan)

Board Chair's Letter continued from page 1

and allow them to feel important and valued. Bring your younger team to meetings and allow them to take pride in what they are doing. Then give them a voice and a platform to share what they are doing for your company and what they are learning every day they are there. Encourage them to post on LinkedIn and other social media sites to draw attention to what they do and how it makes a difference in the world around them. Let's utilize the people we have, to get more of the people that we want.

Right now, we are the dinosaurs and as someone who does a bit of hiring, it is becoming harder and harder to find the right candidates. Before we go extinct, let's explore evolving. Who's with me?



Tony Demakis



CALL FOR PAPERS

ANTEC® 2022

SPE has announced its Call for Technical Papers for Antec 2021. The event attracts over 3,000 plastics professionals from around the world with job functions encompassing managers, engineers, research and development, academia, operations, and consulting. Technical papers submitted for consideration for presentation at Antec 2021 will focus on the latest in industrial, national laboratory and academic work.

Papers will share findings in polymer research or new and improved products and technologies. Some of the topics for paper submissions include:

- Additive Manufacturing/3D Printing
- Automotive
- Bioplastics
- Building and Infrastructure
- Color & Appearance
- Composites
- Electrical & Electronic
- Extrusion
- Flexible Packaging
- Foams
- Injection Molding
- Medical Plastics
- Sustainability and Plastics Recycling
- Rheology
- Thermoforming
- Thermoplastics Materials

"Papers and presentations that emphasize new processes and new approaches in plastics will be seen by a large and diverse grouping of people," said David Anzini, Antec 2022 Technical Chair. "For 2022, we are expanding our Antec program to maximize global reach. The options we will be offering will be unprecedented for plastics professionals who will have multiple opportunities to gather and share their most innovative ideas."

Technical paper submission deadline is November 15, 2021. Information about submitting a technical paper into Antec 2022, as well as a full range of paper submission topics, can be found at www.4spe.org/anteccfp.

HASCO SET – The Standard Engineering Tool for moldmaking

Designers and builders of injection molding tools greatly appreciate the various possibilities offered by the HASCO portal. From the mold-making assistant, and the generation of parts lists, through to the direct and easy ordering of quality mold units, the online portal simplifies the day-to-day work of the users. With the new HASCO SET Standard Engineering Tool, the internationally leading producer of standard mold units has now come up with a completely newly developed offline software program geared specifically to the needs of moldmaking designers.

Because CAD computers in design – often for security reasons – are not connected with the Internet, the HASCO SET as an offline version offers the optimum solution here. Simply install it and utilize the entire product library comfortably at the CAD workstation. Regular updates guarantee the user access to more than 100,000 quality mold units, current product data and the very latest information.

HASCO SET – The key to success for designers in moldmaking

The Standard Engineering Tool enables mold designers to utilize the required mold units in the fastest possible way. The already proven moldmaking assistant from the HASCO portal provides further support. With just a few clicks and with the integrated layout editor, personalized mold structures can be easily configured. Furthermore, interfaces are

available for all conventional CAD systems. Models of the products can be directly imported and exported. The assembly environments of the standard mold units can be called up directly and can be generated and configured with just a few clicks, resulting in considerable time savings and making the design of injection molding tools even easier.

Unique combination of offline and online

The unique combination of offline and online tools brings the designers numerous advantages. The uploading of parts lists in the HASCO portal makes it possible to place orders easily and quickly. The HASCO SET interface can be adapted without problem to the user's individual needs, allowing mold-making designers to focus on the important aspects and thus significantly increase efficiency.





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New Dual Zone Hot Sprue Bushing from Melt Design

The [Equatemp® Dual Zone Sprue Bushing](#) from Melt Design Inc. (MDI) is a recently added addition to the company's patented Equatemp® line of internally heated sprue bushings. The dual zone provides a nearly 100 percent even heat profile through the entire flow passage. In addition, each of the heaters can be independently adjusted for even more control.

The Dual Zone Hot Sprue Bushing is designed for higher-precision applications and is especially ideal for high-temp engineering resins, such as those

used for automotive and certain medical products. It can be directly retrofitted to cold sprue bushings and the thermocouple is replaceable if needed. Four tip options are available.

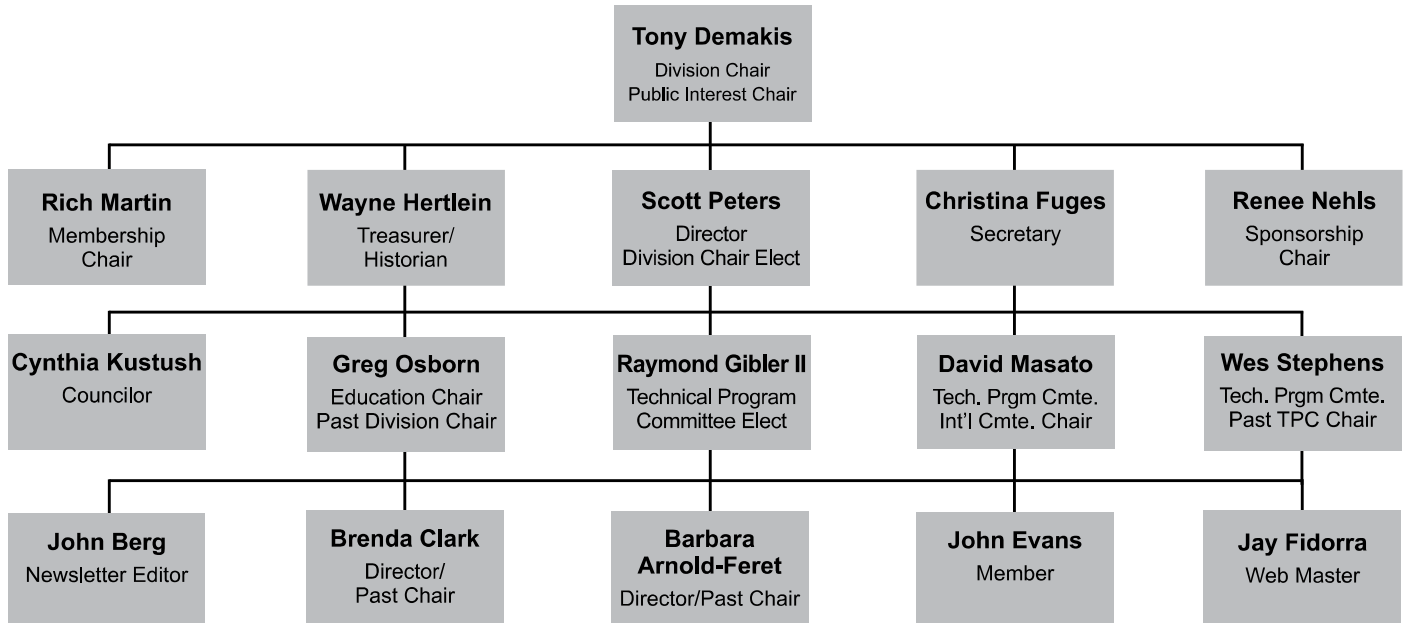
Melt Design, Inc. specializes in the design and manufacture of failure resistant, internally heated Hot Runner systems and components servicing molders and mold makers since 1984. For more information, visit www.meltdesign.com and see us on LinkedIn. Call 800-MDI-ONLY.





MOLD TECHNOLOGIES DIVISION

2020/2021 BOARD OF DIRECTORS



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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[MTD Website](#)

New high-performance grease Z2600/...especially for clean-room applications

As a reliable full service provider, HASCO offers in its extensive product portfolio not only standardised quality mould units and individual hot runner systems but also, among other things, numerous proven aids for mouldmaking.

Heavy-duty lubricant offers optimum protection

There are a large number of moving tool components in injection moulding machines that have to be lubricated with grease to reduce wear and tear. Universal high-performance lubricants with long-term effectiveness offer optimum protection.



New high-performance grease Z2600/... complies with FDA purity regulations

The new heavy-duty lubricant Z2600/... from HASCO can also be used safely when direct contact with food cannot be excluded. It is registered to NSF H1, complies with the FDA purity regulations and is therefore ideal for use in the food industry.

Highly pressure-resistant, oxidation-resistant, does not emulsify in water

The maximum service temperature is 160°C with a melt point of 250°C. The high-performance grease is also highly pressure-resistant, oxidation-resistant and does not emulsify in water. The lubricant is available in three variants. Apart from the 90 g and 180 g containers with a practical pump dispenser, there is also a 1000 g container, that could be for useful when you have large machines and moulds.

MST INC.
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Standardization of Mold Base and Components

Brenda Clark, HASCO America Inc

Through the years there have been many companies offering standardization of mold base assemblies and certain mold action components. The true standardization of mold bases and components began at HASCO in 1924. Hugo Hasenclever, a goldsmith and engraver, was forming tools that were each unique and with his son, Rolf started to think about efficiency and simplicity. This uniqueness did not take into consideration the need for ease of serviceability. Standardization – it is all around us now in every aspect of life with these innovations bring simplicity into mold manufacturing. The beginning in 1930 was to produce a line of moldmaking standards for the plastics industry. Mold plate assemblies that fit between the molding machine tie bars or Euromap sizing was patent worldwide in 1960. HASCO is the leading global supplier for metric mold base plates and components.

What are the advantages of mold base and component standardization?



Standardization of mold base plates and assemblies' one advantage is in ordering quickly off the shelf items. Mold designers and mold builders can use this concept further the same way with the many mold action components required to make the mold design function. Standardization of mold components will also make it easier to order quickly off the shelf for initial build and into the future with maintenance and repairs. Standard mold components also have standard available spare parts. Your supplier will have on hand a spare parts catalog, or at least a product break up showing available spare parts on the shelf.

What should a mold design specification document contain? Why should we have one?

When designing any cold runner, hot runner, 3-plate, or combination mold assembly specifications are important for clarity. This documentation starts in the hands of the plant owner, OEM and mold designer to create a plan together. For items required in each mold assembly from the top clamp down through to the bottom clamp plate and everything in between required to produce the final molded article. Items such as sprue bushings, ejector pins, guided ejection, plate guidance like side locks and latch sequences, to special actions like slides, collapsible or threaded cores, lifters, and 2 stage ejection the standards will help to save time and money. Having an in house mold design specification check list document will assist your mold designers, mold builders as well as your suppliers. This documentation should highlight all sections

for the mold design from injection to ejection. It can even go as far as to state how certain size molds are to be designed for certain repeat customer requirements. Standardization is key for every step of the process and every location required to have a hand at making the project go as smoothly as planned. These documents are to be considered “live” documents and should be checked and updated frequently. New products are coming to the market every day in all aspects of mold build and molding. Keeping your specification documentation up to date will help keep your mold assemblies up to date as well. The documentation when first created will be the guideline for all projects and keep as the corporate standard for projects. The documentation will also be

tailored for each individual project and keep with that project portfolio. The document should be tailored by the mold builder and customer and should be maintained where the mold is finally in process or stored. The mold can also hold a copy of this documentation along with process information, and a bill of materials on the newest mold component the mold memory USB stick that is easily mounted in a plate or rail within the mold. The documentation can be updated at any maintenance or repair schedule, while the main corporate documentation should be reviewed either yearly or bi-yearly.

Why use a mold design specification document?

“ I develop DLC coated high-quality standard components, to ensure a longer service life for your molds.



- Approved for clean-room applications
- Maximum service life
- No galling of metal even when running without lubrication
- Good corrosion protection

More than 100,000 high-quality standardized components make HASCO the most reliable full service provider for modern moldmaking.

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HASCO has such a check list document to assist with this standardization for mold design and mold build that even extends into processing. The “Specifications for Injection Molds” allows the user to “check” off standard requirements for every aspect of the mold design and mold build right down to the specific material and coating for each component used in the mold build.

In mold design and build today the metric mold plates and metric mold components are 99% of the supplied mold assemblies in the world. This amount of product use in the industry has allowed the metric parts to be much lower in cost than the imperial or inch equivalent parts while allowing the quality to remain at the highest standard. This is why HASCO made the change over to mostly metric mold plate and metric mold components back in 2008.

For example you are designing a standard 4 cavity mold for one customer and another customer contacts you with a similar 4 cavity design. Both mold bases will have the same size, standard components, but the cavity and core will change. You can save valuable time and effort by designing the first mold, creating a specification check list,

and only making cavity and core changes between the two individual mold builds. The specification list will assist with future mold designs and builds, with another advantage of making the bill of materials and ordering a breeze.

How can standardizations and design flexibility work together?

Designing a standard mold base for instance you have an A-series mold. A-series molds have top clamp plate, A plate, B plate, support plate, ejector plates, ejector rails and bottom clamp plate. Your first standardization! This is the HASCO way of thinking for mold base plate assembly, HASCO takes this to a higher level. With HASCO mold plates you can specify from the top clamp plate to the bottom clamp plate in an A-series, B-series, stripper series, single floating and multiple floating plate assemblies with ease. Basically any mold plate combination is easier build up to specify from the beginning of your project. This is why there are some items not included as a standard from the start. These are the return pins, guided ejection and some center holes and parts. These items when left out of the original standard allow designers much more flexibility of design. Design flexibility for water-line inlet and outlets, return pins with spring pockets fully enclosed into the mold plates (no more springs breaking through the side of the mold base) to name just a few. You see where I’m going with this now.

From there you start to add in what you need to have the mold function to properly manufacture the current molded product design. Will it need clean room coatings? guided ejection? side locks? date stamps? ejector pins or blades? etc. Your second, third, fourth and so on standardizations! Any component within your design can be standardized.

Even down to the ejector pin anti rotation or keyed feature as a standard item. With standards the end user will also not have to worry about “special” items at mold preventative maintenance or mold repair intervals. This will allow the end user to get back to production faster, easier and more economically.

Remember this standardization is also not limited to only one customer, or one mold design. The standards can be tailored to your specific company requirements across the board and kept as a guide for future employees and projects. Small and large projects can be covered within the same standards.

While not every mold can be fully standardized should “special” items be required they can also be documented so the end user is fully aware of any extra lead time requirements that will have to

be scheduled with special manufacturing time. The thinking and concept is still also possible with the proper documentation specification including “special” notes. This allows for standardizations while still having design flexibility.



amerimold 2021

Live Educational Technology Sessions Return

[Amerimold](#) 2021 is live and in person this September 21-23 in Rosemont, IL, and its show floor Tech Talk Theater is back with a full educational lineup. Expert insight and advice covered in 24 unique sessions will touch on all things related to the design, manufacture, maintenance and management of molds. This event is sponsored by [Progressive Components](#), [Oerlikon HRS-flow](#), [Beaumont Technologies](#), [Hasco America](#) and [Rey Technologies](#).

As always, the education sessions are completely **FREE** for all attendees and exhibitors. Sessions will take place in the Tech Talk Theater directly on the show floor (you can view the floor plan [here](#)).

Some topics that will be covered include:

- 3D Printing Applications
- Improving Maintenance Times
- Hot Runner Applications
- Utilizing Automation in Moldmaking
- Cutting Tool Best Practices
- Accessing Data.

Take a look at what Amerimold has in store [at this link](#), and register to attend to start building out your Amerimold MyPlanner.

And then what about info from here too: <https://www.moldmakingtechnology.com/articles/surging-north-american-plastics-market-bodes-well-for-amerimold-2021>.

Board of Directors Meeting Minutes

SPE Mold Technologies Division

July 1, 2021

	Present	Absent	Excused		Present	Absent	Excused
Tony Demakis	X			Renee Nehls	X		
John Berg	X			Cyndi Kustush			X
Scott Peters	X			Brenda Clark		X	
Wayne Hertlein		X		Davide Masato		X	
Greg Osborn	X			Wes Stephens	X		
Barbara Arnold-Feret	X			Richard Evans	X		
Steven Hansen			X	Scott Kraemer	X		
Rich Martin		X		Hannah Coombs	X		
Raymond Gibler	X						

Meeting called to order a 3:05pm CST.

Division Chair Report – Tony Demakis

- Meetings will be the first Thursday of every month
- Welcomed Richard Evans, Scott Kraemer, Hannah Coombs
- Introductions of all members for new members
- Student video
 - Find students to create a running story of their entrance into mold making
 - Want to resonate with other new students for future
 - Looking into donations and grants
 - More to come

Chair-Elect Report – Scott Peters

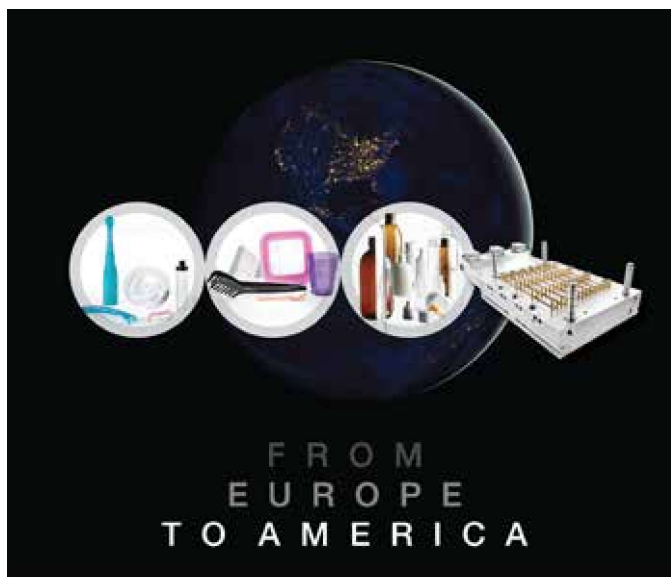
- Scott will take over Division Chair next year, 7/1/2022

Division Secretary Report – Wes Stephens

- Wes appointed for (2) years – starting 7/1/2021

Division Councilor Report – Cyndi Kustush

- Cyndi's 6 -year terms will continue for (1) more year



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– Barbara will be councilor elect

- No Report

Membership Chair – Rich Martin

- No report

Sponsorship Chair Report – Renee Nehls

- Renee has stepped down. Division will need new person to take over
- Position will need an assistant role too

TPC Report –Davide Masato

- Ray Gibler – TPC elect

Newsletter Editor Report – John Berg

- Next publish date is July 31
- Want good content for newsletter
- John soliciting content from Board members on technology.

Education Chair Report – Greg Osborn

- No grant requests yet
- Greg suggested another person to fill Education chair position, which would free him up for another role within MTD

Web and Public Interest – Need to fill position

- Hannah and Scott had ideas about engagement of content

Treasurer's Report – Wayne Hertlein

- No report
- Cindy is looking to be Treasurer, after her councilor role is completed
- Brenda is second signature
- Will send registered letter to Wayne requesting division books.
- Will need a second signature person eventually

International Committee – Davide Masato

- No Report

New Business

- Roles to be filled:
 - Intersociety Liaison
 - Sponsorship Chair
 - Web/Public Interest Marketing
 - Need assistant for each role (redundant person)
 - Richard requested role description for each role
- Amerimold – volunteers needed to work the SPE/MTD booth
 - Establish budget for SWAG for booth

Meeting adjourned at 4:20 CST.

Next Meeting: Aug 5, 2021, 3PM CST



PERFORMANCE IS KEY.

ALIGN WITH PROGRESSIVE COMPONENTS

As a manufacturer of high precision, complex tooling, Steve Rotman, President of Ameritech Die & Mold, aligns with engineering-focused suppliers that drive innovation and exceed expectations.

"Progressive's innovations improve the performance of our tools."

Advance your tooling standards by specifying Progressive Components to secure a globally competitive position with your customers.

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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:

Tony Demakis, Division Chair, Alliance Specialties and Laser Sales
tony@alliancelasersales.com

Publication Release Dates

Fall Issue
October 2021

Winter Issue
January 2021

Spring Issue
March 2021

Summer Issue
June 2021

SPONSORSHIP INFO 2020-2021

Platinum (\$2500/year)

Ad Specs: 9.75" H x 7.25" W

- Full 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 on signage in MTD booth at AmeriMold
- Company logo on signage at ANTEC
- Company logo displayed at SPE events

Gold (\$1250/year)

Ad Specs: 4.75" H x 7.25" W

- Half 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 on signage in MTD booth at AmeriMold
- Company logo on signage at ANTEC
- Company logo displayed at SPE events

Silver (\$625/year)

Ad Specs: 4.75" H x 3.5" W

- 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)

Ad Specs: 2" H x 3.5" W

- 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