INJECTION MOLDING

MOLDING VIEWS

Brought to you by the Injection Molding Division of the Society of Plastics Engineers

Winter 2022 | No. 118

Chair's Message

David A. Okonski

Division Membership & Fellow SPE Colleagues,

It's early on a mid-December morning as I sit at my desk to write this message; I'm waiting for barrel temperatures to reach steady state. There is a light snow falling. My skis are sharpened and waxed. I'm just waiting for some free time to hit the slopes – it's just another beautiful, pure Michigan day!! It is two weeks to GM's mandatory holiday shutdown, and the tasks before me include getting all those planned molding trials completed and final invoices approved. I've been through this year-end drill 38 times and usually very happy to wrap things up, but this year I have mixed emotions. There is anxiety over a looming recession which would really screw-up next year's plans – GM has already curtailed spending in anticipation of an economic slowdown. I'm also feeling melancholy about the loss of one of my besties, Pete Grelle. Pete was the Technical Director for the Injection Molding Division (IMD) for several decades and was instrumental in developing our conferencing strategy as we moved forward from one year to the next – that responsibility now falls on Chad Ulven, and I'm excited to see what Chad brings forward to the IMD Board for 2023 and beyond. The last conference Pete was involved with was our most recent offering "Sustainability Rocks". Fond memories of working on this conference with Pete takes the chill off this cold, dark December morning.

"Sustainability Rocks" took place on October 13 th in the Cleveland, Ohio area. Pete passed back in August, and Conference Chair Susan Montgomery dedicated the conference to Pete. It was my honor and privilege to moderate this one-day, single track conference that was attended by 62 people – just about a third of the attendees were students from Penn State Erie's Plastics and Engineering Technology (PLET) Program. If you didn't attend, you should have because it was great. The conference included a keynote address to start things off in both the morning and afternoon sessions; each keynote was followed by four presentations. The presentations had the right mix of commercial and technical content that kept the audience fully-engaged, and as moderator, I made sure that every attendee asked at least one question or offered a comment to one of the speakers – that's my superpower. Attendees networked with each other throughout the day and went home inspired. Sponsors were happy. Pete Grelle would have been proud.

Your next opportunity to engage with the IMD is coming in March at ANTEC® 2023 in Denver, Colorado. We had 43 abstracts/presentations submitted to the Division. I'm on the review committee and looking forward to developing a strong technical program with Ray McKee, ANTEC® 2023 Technical Program Chair. Please don't miss this opportunity to learn something new and interact with industry professions. I'm looking forward to meeting you at the registration table.

Happy Holidays and Best Wishes for the New Year,

David A. Okonski
SPE Injection Molding Division Chair
Staff Research Engineer, GM Global Research & Development Center

In This Issue:

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Industry Events/Webinar Calendar

Click the show links for more information on these events!

JANUARY 2023

IN-PLANT RECYCLING AND RECLAIM OF PLASTIC SCRAP FOR IMPROVED SUSTAINABILITY—SPE CAROLINAS SECTION

TUESDAY, JANUARY 17, 2023 11:00 AM EST - 12:00 PM EST

Virtual Event
The Polymers Center of Excellence, Inc., 8900 Research Dr., Charlotte, NC 28262 or via Zoom

Producers of extruded/molded products have three main options when dealing with their own internal scrap 1) reuse it, 2) sell it, or 3) dispose of it. For all three, some type of re-processing is usually beneficial. In this course we will review the logistics, economics, and processing technologies typically used for extruded/molded products, with the main focus on the in-house recovery of scrap that is then fed back into the raw material stream—an important first step in your plant's sustainability journey. Join us as we listen to Dana Darley, Business Development Manager at Vecoplan LLC, discuss the process by which we recover our waste to reduce our environmental impact and improve the sustainability of our raw materials.

FOR MORE INFORMATION: https://www.4spe.org/i4a/calendar/details.cfm?id=711&pageID=3277

FEBRUARY 2023

SPE MEDICAL PLASTICS DIVISION MINITEC 2023

MONDAY, FEBRUARY 6, 2023 8:00 AM (PST) - TUESDAY, FEBRUARY 7, 2023 5:00 PM (PST)

Anaheim Convention Center, Anaheim, CA
Hosted by SPE Medical Plastics Division

FOR MORE INFORMATION: https://mpd.4spe.org/

STARVE FEEDING OF CO-ROTATING TWIN SCREW EXTRUDERS–SPE CAROLINAS SECTION

TUESDAY, FEBRUARY 14, 2023 11:00 AM (EST) - 12:00 PM (EST)

The Polymers Center of Excellence, 8900 Research Dr., Charlotte, NC 28262
Hosted by SPE Carolinas Section

Given the array of raw materials often fed into compounding twin screw extruders it's no wonder that the feeders often become problematic. Join the Carolinas Section for their February meeting and hear Andy Kovats of Brabender discuss how such feeders work, how to specify the correct feeder for your application, and how to configure, program, and troubleshoot it.

Starting with some examples of the materials to be fed into the extruder, Andy will discuss agitation techniques to ensure consistent flow, then move on to screw design for belt or vibratory feeders for volumetric feeding. Installing such feeders on scales, however, permits Brabender to supply loss-in-weight feeders, including the process by which they are refilled, controlled, and programed. He will end with a short discussion on liquid feeding using loss-in-weight feeders as well.

FOR MORE INFORMATION: https://www.4spe.org/i4a/calendar/details.cfm?id=703&pageID=3277

Industry Events/Webinar Calendar

MARCH 2023

SPE INTERNATIONAL POLYOLEFINS CONFERENCE

SUNDAY, MARCH 5, 2023 11:30 AM CST) - WEDNESDAY, MARCH 8, 2023 5:00 PM (CST)

Galveston Island Convention Center, Galveston, TX

Hosted by SPE South Texas Section

The 2023 SPE International Polyolefins Conference will be a hybrid Conference (both in-person and virtual). The Pheedloop software platform will enhance the in-person conference with the mobile app and also allow virtual attendance using the internet. The in-person Conference will be held in the Galveston Convention Center in Galveston, TX on March 5-8, 2023. The Convention Center overlooks the Galveston beach with hotels in close proximity.

FOR MORE INFORMATION: https://www.4spe.org/i4a/calendar/details.cfm?id=684&pageID=3277

SPE ADDITIVES AND COLOR EUROPE CONFERENCE

WEDNESDAY, MARCH 8, 2023 9:00 AM (CET) - FRIDAY, MARCH 10, 2023 2:00 PM (CET)

Courtyard by Marriott Brussels Hotel, Brussels, Belgium

Hosted by SPE Additives and Color Europe Division

This biannual conference is the best place to learn about the latest in state-of-the-art additives, pigments & dyes and master batches for plastics, and connect with the entire industry value chain, from raw material and equipment suppliers to OEMs (Original Equipment Manufacturers).

FOR MORE INFORMATION: https://www.4spe.org/i4a/pages/index.cfm?pageid=7916

ANTEC® 2023

MONDAY, MARCH 27, 2023 - THURSDAY, MARCH 30, 2023

Hilton Denver City Center, 1701 California St., Denver, CO 80202

Hosted by SPE Additives and Color Europe Division

FOR MORE INFORMATION: https://www.4spe.org/i4a/pages/index.cfm?pageid=1

APRIL 2023

TWIN SCREW APPLICATION AND DESIGN–SPE CAROLINAS SECTION

TUESDAY, APRIL 4, 2023 11:00 AM (EDT) - 12:00 PM (EDT)

The Polymers Center of Excellence, 8900 Research Dr., Charlotte, NC 28262

Hosted by SPE Carolinas Section

We ask a lot of our compounding equipment--take a base polymer, melt but not degrade it, combine it with various ingredients, distribute those additives and disperse them, then discharge the mixture uniformly through a die so that it can be cut into uniform pellets. Join Chris Tucker from NFM Welding Engineers as he discusses the rate limits, screw and barrel design, power, speed, and reliability of extruder design.

FOR MORE INFORMATION: https://www.4spe.org/i4a/calendar/details.cfm?id=705&pageID=3277

Tribute

A Tribute to our Friend Peter Grelle
Peter F. Grelle 1952-2022

It is with heavy hearts that we announce the passing of our dear friend and a long time SPE Detroit Section and Injection Molding Division Board member, Peter F. Grelle on Thursday August 11, 2022. Peter was a light in this world, and now we need to continue shining his light by carrying it within us in our own lives.

Peter was a native of Lawrence, Massachusetts. He was born in Lawrence, MA on May 5, 1952, to the late Peter and Frances Grelle. Peter was a compassionate and a caring man, who loved and valued his family and friendships.

Peter loved the plastics industry and was involved in many plastics societies, events, and conferences. His interest in Plastics started while attending Lowell Technical Institute (now University of Massachusetts at Lowell), he decided to study Plastics Engineering based on a suggestion by his mother Frances Grelle. She told him, from 1934-1936 she was the first female injection molding machine operator in the General Tire Rubber Company in Lawrence, MA. In 1974 Peter received his Bachelor of Science degree in Plastics Technology and followed in 1980 his Master of Science degree in Plastics Engineering.

Peter F. Grelle was employed in the plastics industry for more than 45 years. He was the owner/president of Plastics Fundamentals Group LLC, a company specializing in Plastics Technology training, and an adjunct instructor in the Plastics Technology Program at Schoolcraft College, Livonia, MI. Peter was employed by the Dow Chemical Company for nearly 20 years, and prior to Dow was employed by the Monsanto Company, the Winchester Group of Olin Corporation, and Wellman Inc. Plastics Division.

He was one of the super active members of SPE. Peter joined SPE in 1972. He served as the board member of the Injection Molding Division since 1991. From 1993 – 1996 Peter served as the Director on the SPE Rochester NY Board of Directors. He was a Chairperson of the Division from 1997-1998. Since 1999, peter served as the Technical Director of the Injection Molding Division and in 2000 he received the Division Engineer of the Year Award. In 2006, Peter received the SPE Honored Service Member Award.

In 2009, Peter became a member of the SPE Detroit Section Board of Directors and became a President of the Detroit Section from 2013 – 2014. In 2015, Peter received the Lifetime Achievement Award from the SPE Detroit Section.

In addition to the SPE activities, Peter was very active on the Society of Plastics Industry Structural Plastics Conference Committee from 1994 to 2007 and became the Conference Chair from 1999 – 2001.

SAVE THE DATE!

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.

Additional details and registration information will be available soon!

Be a Speaker at ANTEC® 2023!

Speakers are not required to submit a technical paper. A presentation may be submitted in lieu of a paper.

For more details visit:
https://www.4spe.org/i4a/pages/index.cfm?pageid=7956

Be a Speaker at ANTEC® 2023!

As an ANTEC® 2023 Sponsor, you will reach a global audience of plastics decision-makers at one of the leading plastics technology events.

For more details visit:
https://www.4spe.org/i4a/pages/index.cfm?pageID=7929

Thank you to our attendees, exhibitors and sponsors!

On October 13, at Corporate College East, Beachwood, OH, the SPE Injection Molding Division and the SPE CLE Chapter, were excited to host an in-person technical conference: "SUSTAINABILITY ROCKS: PART II"

The conference was dedicated to the memory of Peter Grelle, SPE Injection Molding Division Technical Director, who held this role since 1991. Pete was also active in the Detroit SPE Chapter. He was a passionate plastics professional who will be deeply missed.

Over sixty attendees engaged with eleven circular economy expert presenters and six industry sponsors (MAGNET OH Manufacturing Extension Partnership; Beaumont, HASCO, Kistler, Moxietec and Polymer Systems Solutions/ Regloplas). Following the technical presentations, the event concluded with a networking reception which was thoroughly enjoyed by all. As Program Chair, I would like to express sincere thanks to David Okonski, SPE IMD Chair; Dennis Meade, SPE CLE Councilor and Dr. Saeed Farahani from the IMD Board of Directors for their support with the planning, organization and assistance on the day of the conference. View the conference program here: **https://www.4spe.org/files/events/2022/sustainability-rocks-part2/IMD_Sustainability_Brochure_10_6_22.pdf**

We are planning some remote and in-person events starting up in January 2023. Stay tuned! More information to follow!

Susan E. Montgomery SPE Cleveland Section President
susan.elizabeth.m.montgomery2@gmail.com Mobile: (330) 221-1808

Recommended Practices for Establishing a Preventative Maintenance Program for Your Molds

Looking to improve your mold maintenance PMs and not sure where to start? This article will identify low-cost tools and best practices to get you on your way! It will also provide secondary steps you can take to further advance your process.

By Bryan Whitaker, Technical Manager, iD Additives, Inc. – Bwhitaker@idadditives.com

Data = Dollars

Many shops that we visit have tooling technicians that have everything stored in their head; they know each tool by memory, because they have been servicing the same tools for years. Unfortunately, when those techs leave or retire, the information goes out the door with them. This scenario, compounded with today's labor demand challenges, is an equation leading to extreme loss of productivity if you do not take the necessary precautions. Steve Johnson and Glenn Keith of Moldtrax (Ashland, OH), are notorious for driving the phrase, "data equals dollars," into the heads of their class attendees. When I first heard them say that phrase almost four years ago, I did not put as much weight to it as was emphasized at the time. However, after over 200 hundred visits to different shops around the country, it became noticeably clear: the first key to any successful PM program is useful documentation. By that, I do not mean writing down how many pins, bushings, or O-rings you used on a scratch notebook, I mean inputting this data, so it can be tracked for future PMs or integrated with your ERP, saving valuable time when that tool lands on your bench next.

Do you have your eye on those more expensive components that management always says no to? Documenting just how many part failures/replacements you must perform on a tool allows management to see the hard data and do a cost analysis. More often than not, this gets your wish list the green light, saving your company money, and saving you time down the road on that tool.

Think you don't have time to document everything you are doing while at the bench? It can be as simple as setting up a cataloging system for your spare parts. Think Dewey Decimal system plus a stoplight; separate your spare parts with colored cards. When you pull spares, pull the card along with it and write down the number used. Once your PM is complete, those cards get turned into your team lead, or whomever has the designated computer time to input the data. If a yellow card lands on their desk, that should be a flag indicating their order has not arrived and they can check with your supplier. If a red card lands on their desk, that warrants a deeper look into where your system failed.

On the flip side of this system, if you are allotted more time to PM a tool, having a mobile computer with software designed for mold maintenance can be a major game changer. There are a handful of companies that offer software to assist you with this, but I can personally speak to the MoldTrax software and set up being extremely cost effective and more importantly, easy to use and implement.

Must-Have Inspection Tools

Once you have the capability to document your PMs, you can extrapolate your needs from there. Aligning with the tooling side, I always tell people the two instruments with the biggest ROI on them, are an endoscopic camera and a flowmeter.

The camera will give you a visual representation of your cooling channels (and other auxiliary equipment running water). I primarily use this tool to gauge the amount of time that tool will take me to perform a descaling/flushing, but it can also help quickly identify contaminants. Keep in mind though, while contamination can collect within tools, it is not necessarily the source. It is, however, one of the best areas for data, as it is easily accessible and can help paint a broader scope of water issues.

It is common for a tech to simply shoot air through one passage, feeling for air on the exit side, and green tagging the channels as good to go. However, by not seeing inside the passage, you are allowing contamination to continue to build until the channel is completely blocked. One of the main contaminants is iron and allowing that to collect/solidify on the walls of your cooling channels is not something that can easily be reversed (if at all).

Having clean passages allows your process technicians to dial in their Reynolds Number and achieve turbulent flow instead of laminar flow; thus, you optimize part cooling and increase your product output performance. If these terms are unfamiliar territory for you, take a peek at Smartflow-USA (https://www.smartflow-usa.com/); they have free calculators online for turbulent flow and scientific cooling!

The camera I use is very inexpensive and waterproof (I found this specific camera after trialing many other more expensive models and this seems to perform very well, and comes equipped with an 8gb memory card…my current card has 600+ pictures and about 100 videos on it and am nowhere close to being full on memory): https://www.pcs-company.com/inspection-camera-bore-scope.

To capture GPM readings and benchmark cooling passages, a flowmeter is the best tool. I often tell companies that are starting to implement a PM program to take readings prior to descaling, so they know where they are at. Then, take another reading after the flushing occurs (and you can visually inspect clear lines), and that becomes your benchmark. The next time that tool comes out, you can hook up your flowmeter to determine if a flushing is necessary. This will just be dependent upon the GPM tolerances you deem acceptable. As an example, if I get a GPM reading of 3.2 after primary cleaning and the tool comes out for its second PM and reads at 3.0 GPMs, you may count that as acceptable vs a reading of 2.5 GPMs.

The flowmeter I carry is a digital Smartflow meter (Burger and Brown) and is equipped with a flow regulator. When I demo my Eco-Pro System, I am subject to the cavitation of the pump, so my pressure jumps two psi; having this regulator allows me to dial in the water pressure and provide a more accurate reading. If you have an existing water station that gets consistent pressure, you can just plumb in the digital readout without the need for a regulator. You will also notice on it, that I have male quick connects on it – this is so I can switch to individual lines quickly. On the bottom of that picture, you will see a different digital flowmeter (Keyence). It reads GPMs but does so using ultrasonic technology by clamping onto a pipe. The Keyence is more expensive, but its clamping ability also allows me to take it over and use throughout the facility (think water supply to heat exchangers, TCUs, etc.).

Flushing Systems and Ultrasonic Baths

For the most part, gone are the days of gun drilling out your tools' water lines, as cooling passages are becoming more intricate with the advancement of conformal cooling technology. To help keep everything clean, I usually recommend one of two pieces equipment (although having both is not uncommon): a flushing system and/or an ultrasonic bath.

The system I represent is called Eco-Pro, which consists of the Eco-Pro 360 chemical and the Eco-Pro Cart. The chemical itself is safe to work with, is non-flammable, works quickly, and above all else, is reusable! My longest user has been using the same cart and chemical since February or 2019, and has only had a need to reorder filters, which keeps the chemical at peak performance. When designing the cart, we chose an air diaphragm pump for two main reasons. One, every shop has accessible air throughout their facility, and two, if the pump senses a pressure build due to a blockage, it will simply pause operation. Some electric pumps on the market will continue to pump a caustic acid until something downstream ruptures, and then it's, "cleanup on aisle not fun." The chemical is versatile, as is the equipment I flush when visiting shops; you can see it in action in various applications on our YouTube channel.

If you're looking into ultrasonic baths for mold cleaning, I make no hesitations to tell my customers to look into Fisa (https://www.fisa.com). Their cleaning process will never damage your tooling surface, finish, polish, or geometry, and equally as important, doesn't tie up a lot of labor. Furthermore, they have demo facilities for prospective clients to clean tooling and validate the process.

I hope this helps give you starting guidance on the path to creating a successful PM program. If I can be a resource to anyone looking for help, please reach out. I have been in many shops, have seen the major dos and don'ts, and if I can help your shop fall in the former category, I want to.

Component Innovations from Progressive

New Standards to Improve Mould Performance

Progressive Components is a leading developer and distributor of globally standard components and web-based mould monitoring innovations.

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 misalignment 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.

To view a complete list of all product lines offered by Progressive Components, visit procomps.com.
For Customer Service dial +44 (0) 203-399-0999 or email sales.eu@procomps.com.

PROGRESSIVE COMPONENTS

SHUTER Joins Hands with Moldex3D to Build a Green Dreamfactory

SHUTER Babbuza Dreamfactory is the world's largest indoor tourism factory—located in a mountainside technology park in Nantou, Taiwan. The towering Tree of Life is the central feature of the factory, crafted entirely from the engineered wood. Visitors can rappel a 30- meter-high drop, whiz down a 100-meter zip line, and scale an indoor rock-climbing wall—all activities are rarely seen in tourism factories.

Babbuza Dreamfactory was built by SHUTER, Taiwan's leading provider of home, office, and industrial storage products, at a cost of more than US$70 million. This manufacturing-tourism hub has won 12 international design awards for its innovative construction. It's a "smart factory" harboring three green building technologies: a patented water circulation cooling system, a rainwater harvesting system, and solar photovoltaic technology. The factory is also home to the world's largest automated storage and retrieval system (ASRS), a 46-meter-high storage area with single-track and multi-vehicle systems. It is the embodiment of the successful digital transformation of a traditional enterprise that many decades-old Taiwanese companies are striving for.

The "Tree of Life" and the world's largest automated storage and retrieval system (ASRS).
(Image courtesy of SHUTER.)

Yira Wu, Chairman of SHUTER, consistently refuses to simply copy what others in the storage manufacturing sector are doing. By combining SHUTER's unique brand voice with smart

Yira Wu, Chairman of SHUTER, consistently refuses to simply copy what others in the storage manufacturing sector are doing. By combining SHUTER's unique brand voice with smart manufacturing and green economy innovations, SHUTER Babbuza Dreamfactory was always destined to become a world-class complex. SHUTER strives to uphold environmentally friendly practices while bringing in tourism revenue and improving production technology and product competitiveness. It is challenging to achieve those goals simultaneously. After careful evaluation, SHUTER decided to adopt the simulation and smart management technologies pioneered by Moldex3D to deal with issues that arise at all stages—from design to manufacturing to shipping—and implement a knowledge management system.

"To realize the vision of becoming a world-class manufacturer, we need a world-class partner," says Wu, "SHUTER and Moldex3D are both international brands that focus on technology development and environmental protection. Moldex3D helps us with product design validation and molding cost reduction.

"Moreover, iSLM, the cloud-based data management platform powered by Moldex3D, helps us store the valuable data we generate throughout the manufacturing process, significantly enhancing our production and resource efficiency."

SHUTER's storage products have been sold in more than 70 countries. Yet, this significant achievement is not enough for Wu. Today, he is focused on making SHUTER a green company in all aspects.

MHC helps SHUTER to improve material selection efficiency.

First, SHUTER adopted the Material Hub Cloud (MHC) developed by Moldex3D to enhance material selection efficiency and comprehensively evaluate material properties, reducing resource waste.

MHC Helps SHUTER to Improve Material Selection Efficiency.

The next issue to tackle was product design. Moldex3D is probably the most well-known for its plastic engineering simulation technology, which excels at predicting and providing solutions for dimension precision and surface defects—essential for storage products. SHUTER uses Moldex3D to validate product designs, optimize product quality and reduce production costs.

Systematic management of valuable molding knowledge and experiences is also a primary factor for traditional factories to successfully enter the digital era. Moldex3D's iSLM is a big data platform tailored for the plastic molding industry. SHUTER used this technology to create a smart design data cloud for scientific mold trials. They built a cyber-physical environment for design, process, and production that accumulates design experiences and continuously upgrades the company's competitiveness.

iSLM, the Big Data Management Platform Tailored for Mold Design.

Yira Wu is determined to "pioneer a model and create a legend." He wants to see SHUTER products on store shelves and used in homes, offices, and workshops worldwide. Even more than that, he wants to share SHUTER's unique brand culture of courage and action-taking with visitors to the Babbuza Dreamfactory. Choosing the right partners and tools is undeniably one of the company's keys to success. "We look forward to future cooperation with Moldex3D so that we can create our own 'smart era' together," Wu concludes.

iSLM, the big data management platform tailored for mold design.

Injection Pressure is a Key Variable in Injection Molding

By Tyler Williams, Sr. Engineer htiplastic

Injection pressure is a key variable in injection molding because it takes a significant amount of pressure to mold thermoplastic parts.

Injection pressure is a key variable in injection molding. This is because it takes a significant amount of pressure to mold thermoplastic parts. Modern injection molding machines are capable of 30,000-40,000 psi injection pressure. The amount of pressure required to injection mold a part depends on many variables such as polymer grade, part geometry, runner system, tool temperature, polymer flow rate, etc.

Read Full Story>

KraussMaffei at Formnext for the First Time: New 3D Printing Division Brings Industrialized Production Solutions to Market

KraussMaffei is a worldwide leader in plastics processing as an innovative technology partner for injection molding, extrusion technology and reaction technology. "With additive manufacturing as the fourth technology, we create new opportunities both for established plastics processors and for companies that see their core competence in additive manufacturing and want to take a step towards industrial production of plastic parts," explains Rolf Mack, Head of Additive Manufacturing at KraussMaffei. With this fourth technology, KraussMaffei has another production process at its disposal so that it can offer its customers the best possible solution depending on their needs and requirements.

Read Full Story>

IMD Board of Directors Meeting Minutes

October 14th 2022

Respectfully Submitted by Tom Giovannetti

Welcome & Opening Remarks (David Okonski/ Tom Giovannetti)

Roll Call: 24 active board members on roster: quorum achieved.

Approval of previous Meeting Minutes (Sue Montgomery/ Tom Giovannetti)
Motion: Approve previous minutes (David Okonski), and seconded (Tom Giovannetti). Motion passes.

Financial Report (Ray McKee, Treasurer)

No report, Mckee on vacation.

Technical Director's Report (Chad Ulven, Technical Director)

ANTEC Update & TOPCON Review

Due to Pete Grelle passing, Chad Ulven will become new Technical Director of the SPE IMD. Nebel gave update on the National Week of Learning IMD presentations and said the IMD NWOL was the highest attended of all the NWOL's. Antec will be held in Denver, CO on March 27-30, 2023 and McKee is the current IMD TPC. The team for reviewing the Antec papers will be: Okonski, Ray, Ulven and Giovannetti. Penn State Erie conference will be held on June 21-22, 2023 and IMD will support. Auto Epcon will be held on May 2, 2023 and will also be supported by IMD. David Okonski is looking for volunteers to be on the Auto Epcon committee. Bradley Johnson asked if anybody has ideas for Senior Capstone Projects to let him know. Davide Masato talked about hosting a Topcon at UMass Lowell next year. David Kusuma suggested a tour at Husky Technologies who are part of the company that he works for.

Sustainability Rocks Conference Review / Discussion (Sue Montgomery)

Sue Montgomery reported that the conference was a great success with 62 attendees including 23 students. We also had 2 premier sponsors and 5 basic sponsors. Saeed Farahani talked about a hosting a hybrid molding workshop in October 2023. He applied for grant money to host this conference at Cleveland State University. He wants to partner with the IMD to help bring in content/sponsorship. The conference would be one day with the morning consisting of talks and a workshop in the afternoon. Saeed Farahani will know if he got the grant in about 5 months. Davide Masato talked about the SPE Eastern New England Chapter wanting to host a conference with the Extrusion and IMD. The IMD would share technical content and not have to supply make up money.

Sponsorship Committee Update (Sriraj Patel)

Sriraj Patel talked about having a fee structure for sponsorship and about sending out a letter to potential sponsors stating the IMD upcoming events for 2023. The letter will contain information about past conference attendence and demographics.

Action Item: Sue Montgomery will get data from Sustainability Rocks conference.

By-Laws Committee Update (Jeremy Dworshak / David Okonski)

Jeremy Dworshak presented Rev 8, the final revision of the new By-Laws. Discussion was held and Tom Turng was concerned with the Chair being able to appoint more than one person to board. He wanted to change the By-Laws again. Jeremy expressed concern about another change and a vote was called to leave the By-Laws as is. 8 voted to leave as is and 6 voted against.

Motion: Approve Rev 8 of the By-Laws (Jeremy Dworshak) and seconded (Bradley Johnson). Motion Passes

Nominations Committee Update (Hoa Pham)

Hoa Pham reported Chad Ulven is taking the TD position for the remainder of the 2022-2023 year and vacating the Chair-Elect postion. To fill the vacancy of Chair-Elect, Jeremy Dworshak volunteered to be Chair-Elect for remainder of 2022-2023 and then move to Chair for 2023-2024. Hoa Pham suggested to include the secretary position to the progression to Chair chart. Board approved.

Membership Update (Erik Foltz)

Erik Foltz reported that we have 1700 IMD members and we get no rebate from addition of students. Erik suggested that TOPCONS should be located where demographics indicate strong IMD membership. It was suggested we add a "Here's what you missed" in the newsletter regarding Sustainability Rocks Part Two conference and here is what is coming.

Action Item: Erik Foltz to work with Angela Rodenburgh to make that happen.

Fellows & Honored Service Member Update (Tom Turng)

Tom Turng reported we have 1 applicant for HSM which is Brad Johnson and 1 for Fellow which is Jon Ratzlaff. Tom asked for nominations for next year.

Awards & Scholarships Committee Update (Lynzie Nebel)

Lynzie Nebel reported that a Young Professional Award will be presented at ANTEC 2023.

Councilor Report (Edwin Tam)

Edwin Tam presented 2 slides recapping ANTEC and the tenetive schedule for each day.

Any New Business / Next Meeting Venue and Dates

Communications: Newsletter info needed by November 1. With the passing of new by-laws, regarding the activity of members, review the worksheet on committees.

Adam Kramschuster not engaged with the board. Dismissal for missing so many meetings?

New IMD BOD Members: Dave Okonski suggested Jim Knoll from ATL Section, was at conference in Detroit. He wants to join board. Works for Evonik. Dave also invited some Detroit area sponsors.

Training for future conference chairs suggested by Susan Montgomery. Tricks and tips, social media and other promotions. TPO organizing committee has 45 people per Dave Okonski.

Commitment from board for future conferences. One day event. 2023 conference chairs: Saeed Farahani and Davide Masato. We will rely on HQ for managing registration and sponsorship money collection.

Srikanth Pilla — Education Committee: Investigate support of Plastivan activities for MS and HS students. Detroit Section committed to $60K/yr for Plastivan visits.

Jeremy Dworshak suggested that local municipality recycling committees connect with Eve as part of a sustainability model.

PETER GRELLE NATIONAL SCOLARSHIP: Detroit Section and IMD national scholarship through SPE Foundation. Dave Okonski will provide more information but said financing a national scholarship is payable over 5 years ($25K from IMD, $25K from Detroit). Detroit already has established a local scholarship for Pete.

Adjournment

Motion to adjourn (Hoa Pham), and seconded (Angela Rodenburgh). Motion passes.

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