Message from the Chair

The SPE operates on a July – June fiscal year, so we are now winding down 2014/2015 activities, with an eye on 2015/2016 ahead.

A fundamental aspect to having our house in order is to shore up the makeup of our Board of Directors. We’ve formulated the roles going forward and how the Org Chart will look for the year ahead. We’ve held elections, and I’d like to welcome Greg Osborn of Synventive and Renee Nehls of MGS Manufacturing Group. Please see their bios inside on page 13; they have great qualifications and we look forward to putting them to work! I’d like to thank Brian Lather as he completes his term, and Wayne Hertlein and Scott Peters, after tirelessly “keeping the wheels on” our Division for many years, will now be in a Director Emeritus type role and Division Historians.

At the AmeriMold exhibition this month, our Division awarded Harry Raimondi of Bales Metal Surface Solutions with the Mold Maker of the Year award (sponsored by DME Company), and Chris Hanes of Micro Mold Co., Inc., with the Mold Designer of the Year award (sponsored by Progressive Components). Congrats to them for the recognition that they deserve!

We end the year with a strong financial position, and are envisioning our initiatives ahead. We’re partnering with Gardner Publications (Plastics Technology, MoldMaking Technology, Modern Machine Shop, etc.) in a “Manufacturing Matters” initiative to further get the word out on careers in manufacturing. We’re investigating hosting a MiniTec conference, and once again will organize and moderate technical speakers at the SPI’s Annual Mike Koebel Western Moldmakers Trade Fair and Conference on November 11 in Pomona, CA.

Thanks to the current Board, as we are positioned for a great year ahead. And to you, our membership, do not hesitate contacting me at gs@procomps.com if you’d like to discuss how together we can further be a technical resource for the industry, and how we can further support initiatives geared towards tomorrow’s tooling personnel.
A Message from the Newsletter Editor

Mold makers are pretty busy these days – it’s been a good half of 2015 and we can only hope it continues. I’m still hearing a lot about reshoring from various sectors of manufacturing, which is always good news. But don’t let your guard down, moldmakers.

The competition the entire plastics industry has experienced over the past 20 years, particularly from low-cost labor countries, has made us better and stronger as an industry. Often when we’ve got our backs against the wall we tend to be more creative in just how to get out of this predicament. I’ve seen mold companies step up to the plate and implement new technologies – high-speed machining and automation in particular – that have given shops a cutting edge in both time-to-market and reduced costs through reduction in man-hours.

In May I attended the RAPID 2015 conference and trade show in Long Beach, CA, and talked to several mold makers in attendance there. A couple of companies were promoting quick-turn conventional tooling; one was promoting not only conventional tooling but 3D polymer printing of prototypes and 3D metal printing as well. I think most mold manufacturers are still trying to figure out where they fit into the whole 3D scheme of things.

In June I attended the Plastics In Motion automotive conference in Dearborn, MI, where I heard a lot of interesting presentations on the latest and greatest in light-weighting of automotive components including exterior, interior and under-hood applications. I also heard a good presentation on how automotive suppliers can be successful in dealing with Tier 1 and OEM manufacturers. A good business strategy is always beneficial when dealing with the automotive industry.

So don’t think that just because the winds of change are now blowing favorably in your direction that you can kick back and take it easy. It’s still a tough business and one in which you need to be a few steps ahead of your customers if you want to be successful and profitable.

DIVISION HOTLINE

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

gs@procomps.com
1-630-369-9120
2015 SPE Mold Maker and Mold Designer of the Year Award Winners Announced

The Mold Making and Mold Design Division announced this year’s honorees for its annual Mold Maker and Mold Designer of the Year awards during the Amerimold Expo on June 17. The nominees for these awards, which are sponsored by DME Corporation and Progressive Components International Corporation respectively, were impressive and we thank everyone for submitting them. This year’s winners are Harry Raimondi, technical services manager for Bales Metal Surface Solutions, who is the Mold Maker of the Year, and Chris Hanes, engineering manager for Micro Mold and Plastikos, who is the Mold Designer of the Year.

In addition to receiving plaques that declare their honors each honoree will also receive a $500 scholarship award that will be donated in their names to the trade related schools or programs of their choice.

► Continued on page 5
Society of Plastics Engineers
6 Berkshire Blvd., Suite 306
Bethel, CT 06801-1065 USA

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

Contact Information  Please print clearly

First Name (Given Name)  Middle Name
Last Name (Family Name)  
Company Name/University Name (if applicable)  

Making Address:  ☐ Home  ☐ Business  Gender:  ☐ Male  ☐ Female (for demographic use only)
Address Line 1  
Address Line 2  
Address Line 3  
City  State/Province  
Country  Zip/Postal Code  Phone
Preferred Email (This will be your member login and is required for usage of online member services)
Alternate Email

Date of Birth (Required for Young Professional membership)
Graduation Date (Required for Student membership)  Job Title

Membership Types  Check one
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SPE membership is valid for 12 months from the date your membership is processed.

Payment Information  Payment must accompany application. No purchase orders accepted.
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The SPE Online Member Directory is included with membership. Your information is automatically included
unless you indicate otherwise.
☐ Exclude my email address from the Online Membership Directory
☐ Exclude all my information from the Online Membership Directory
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By signing below, I agree to be governed by the Bylaws of the Society and to promote the objectives of the Society. I certify that statements made in the application are correct and I authorize SPE and its affiliates to use my phone, fax, address and email to contact me.

Signature ___________________________ Date ___________________________

Technical Division Member Groups - Connect with a global community of professionals in your area of technical interest.
☐ Additives & Color Europe - D45  ☐ Injection Molding - D23
☐ Applied Rheology - D47  ☐ Medical Plastics - D36
☐ Automotive - D31  ☐ Mold Making & Mold Design - D35
☐ Blow Molding - D30  ☐ Plastics Environmental - D40
☐ Color & Appearance - D21  ☐ Polymer Analysis - D33
☐ Composites - D39  ☐ Polymer Modifiers & Additives - D38
☐ Decorating & Assembly - D34  ☐ Product Design & Development - D41
☐ Electrical & Electronic - D24  ☐ Rotational Molding - D42
☐ Engineering Properties Structure - D26  ☐ Thermoforming - D25
☐ European Medical Polymers - D46  ☐ Thermoplastic Materials & Foams - D29
☐ European Thermforming - D43  ☐ Thermostat - D20
☐ Extrusion - D22  ☐ Vinyl Plastics - D27

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

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

Special Interest Groups - Explore emerging science, technologies and practices shaping the plastics industry. Choose as many as you would like, at no charge.
☐ Advanced Manufacturing / 3D - 033  ☐ Plastics Educators - 018
☐ Bioplastics - 028  ☐ Plastic in Building and Construction - 027
☐ Failure Analysis & Prevention - 002  ☐ Quality/Continuous Improvement - 005
☐ Joining of Plastics & Composites - 012  ☐ Radiation Processing of Polymers - 019
☐ Marketing & Management - 026  ☐ Reaction Injection Molding - 032
☐ Non-Halogen Flame Retardant Tech. - 030  ☐ Thermoplastic Elastomers - 006
☐ Plastic Pipe & Fittings - 021

Recommended by (optional) ___________________________ ID# ___________________________

PE15
Mold Maker of the Year:
Harry Raimondi, Technical Services Manager
Bales Metal Surface Solutions

Harry Raimondi was fresh out of high school in 1964 and wondering what to do with his life when a conversation with an uncle, who was a mold maker, sparked him to enter the trade. He spent the next 29 years learning his moldmaking skills and plying his trade at various moldmaking companies in the Northern Illinois area.

Because of his many years of “behind-the-bench” experience, Harry was led into other jobs in the industry including a move to Bales Mold as that company’s first-ever Technical Services Manager in 1996. It was there that Harry helped Bales’ customers – moldmakers – tackle their toughest surface and finishing issues. He also used his experience and expertise in mold making to support new business development, as well as consultation and management of all services Bales offers.

Today, Harry is helping the second generation of the family-owned company, now known as Bales Metal Surface Solutions, grow the business with values of honesty and integrity. Love of the moldmaking trade is why Harry has stayed with the industry all these years. “I feel strongly about attracting young people to the industry,” remarked Harry.

In addition to his regular job at Bales, Harry spends time promoting the trade, writing articles and technical papers, and leading webinars.

Vice President of Bales, Sara Mortensen, commented: “He’s a pillar of the moldmaking community, not just in Chicagoland but around the U.S."

Mold Designer of the Year:
Chris Hanes, Engineering Manager
Micro Mold and Plastikos

With a BS in Plastics Engineering Technology (PLET) from Penn State Erie, The Behrend College, Chris Hanes began his career at Micro Mold on May 20, 1991, as a design engineer, for this manufacturer of precision-engineered molds. “I started at the bottom, completing detailed drawings, making blueprints and assembly drawings,” said Hanes. “I needed to prove myself capable before progressing into more demanding projects.”
ballgame,” he stated. “There are many more demands on my time from multiple departments rather than being able to focus my attention on just one or two projects; I have to be focused on the much bigger picture.”

However, Hanes has successfully implemented a number of continuous improvement initiatives at Micro Mold and Plastikos including overseeing several end-of-arm tooling designs to mitigate part damage during mold ejection, and exploring new ways to improve manufacturing efficiency while maintaining the highest standards of quality.

After 24 years (and counting) Hanes offers this advice to the next generation in the trade: “Be humble and realize that you will never know everything. Even after all these years, I realize just how much I don’t know. College is a good foundation to a lifetime of learning, but if someone is willing to teach you something, listen and learn.”

SPE Mold Designer of the Year Chris Hanes (right) presents a $500 scholarship check from Progressive Components to Craig Huegel, president of the SPE Northwest Pennsylvania Chapter, which has established a scholarship fund to benefit students in the Penn State Behrend plastics program.

Introducing UNIFY™ Manifold System

Husky’s new UNIFY™ manifold system is pre-wired and pre-assembled with hydraulic valve gate actuators for simple, quick installation into your mold. The UltraSeal design keeps the nozzles aligned to the mold gate in cold condition, at operating temperature and anywhere in between. UNIFY™ manifold systems save you time and effort during installation and provide the same leakproof performance as all Husky Hot Runners.

www.husky.ca
Amerimold 2015 Wrap-up

Kicking off the summer with the Amerimold conference and trade show has become a tradition and this year’s event was a success with 2,700 registered attendees and more walk-ins. Amerimold is always a great gathering place for mold makers, suppliers, students studying the trade and anyone interested in what’s new in moldmaking to share ideas, introduce new products and renew relationships.

The innovation displayed on the show floor and through the many conference presentations was specifically geared toward engineering, building and maintaining a better mold. Included in the many presentations was everything from software, additive manufacturing and training to mold materials, hot runner and mold components. Machining technology and cutting tools, as well as surface treatments for molds, maintenance and repair were also included to round out an excellent conference.

Suppliers to the industry, top-notch companies that are always ready to help their customers and the industry as a whole with new products and technology were promoting themselves as “solutions providers” – not just sellers of products and services. Whether it was software solutions from Missler providing turnkey manufacturing solutions, or International Mold Steel helping customers lower overall tool costs by changing to newer material, or OSG USA showing attendees the importance of having the right mix of tooling, machine tools and programming, suppliers came out to support Amerimold and the industry. OSG also held a four-hour workshop with Sur-Kut Machine on a step-by-step process to guide your approach to programming 3D parts.

There were more mold manufacturers at Amerimold this year than at any show previously, representing a diverse array of sizes, specialties and capabilities, and from across the country. The industry is extremely busy and most of these companies have purchased new equipment in recent months. Many are adding capacity or replacing old machinery with the latest and greatest, and adding capabilities as well.

This year’s Leadtime Leader Award winner, Cavalier Tool and Manufacturing from Windsor, Ontario, is in the midst of increasing its automation in EDM operations. Dynamic Tool and Design, this year’s Leadtime Leader, honorable mention award winner, recently added manufacturing space dedicated entirely to scientific mold qualification. The awards are presented each year by Moldmaking Technology magazine.

Next year’s event will be in Novi, Michigan. Stay tuned for more information at amerimold-expo.com.
2015 SPE Mold Making and Mold Design Division
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**Chair Elect / House Committee Chair**
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**Division Historian / Treasurer**
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**Secretary**
Christina Fuges
Moldmaking Technology Magazine
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**Education Chair**
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**Councilor**
Barbara J. Arnold-Feret
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*Note: ** Indicates Past Division Chair*
SPE Mold Making and Mold Design Division
June 12, 2015 Meeting Minutes

To: Board of Directors Mold Making and Mold Design Division SPE
From: Christina Fuges – Secretary to the Board
Subject: Minutes of the Meeting of the Board of Directors on 12-June-2015

The meeting was called to order by Division Chair – Glenn Starkey at 12:20pm (EST). Division Chair presided over the meeting – Christina Fuges took the recorded minutes as the Secretary. Roll was taken according to the leadership roster:

Call motion to begin meeting.

Introductions of board members.

Division Chair Report – Glenn Starkey
Current Directors’ Terms
- Glenn organized a spreadsheet of when three-year director terms will be ending.
- Cyndi, Wayne and Scott gave input on terms.
- Glenn will circulate spreadsheet with envisioned roles pending a conversation with Brian Lather on commitment to serve.
- Determining Director Emeritus positions
- Division Historians: Wayne Hertlein and Scott Peters. They are always invited, never obligated, and invited to share with Division when beneficial to Division for a historical perspective.

Elections status
- As per Kathy Schacht we have until the end of this
month to get elections in. End of SPE fiscal year. Glenn sent her a draft of the current roster.

- We have three positions open: board members/directors. Remaining at an 11-member board.
- Ballot for three candidates with blank for a write-in.
- Document Glenn is sending will reveal the positions we are looking for.
- Used to be a one-year term of the exec board, voted as a director on 3-year term no
- For exec committee (secretary, treasurer) those are one year terms. Then they were moved to two-year terms and we are working back toward one-year terms.
- Identified two qualified candidates, Greg Osborn, Synventive (serves on AMBA Chicago’s Education Committee) and Renee Nehls at MGS Mfg Group (past chair of SPE Milwaukee Section). Scott Peters says Rocky Huber from Ivanhoe Tool is interested. Glenn will contact Rocky to verify interest and send bios/photos to Pedro at SPE by Tuesday 6/16/15. Need to have active roster on hand by July 1st.

**2015/2016 Initiatives**

First meeting of the year, initial initiatives will be presented.

**Division Secretary Report – Christina Fuges**

None

**Chair Elect Report – Victor Baez**

None

**Treasurer’s Report – Wayne Hertlein**

- $44,000 at 5/30/15 balance
- Another rebate check to deposit
- Three checks to write for MM MD Awards, and for DVD for MoldMaking Technology videos
- Wayne is going to train next Treasurer and work on consolidating tasks.
- ITQ still trying to get last money out of state of Michigan

**Mini Tech Report/TPC Report – Cyndi Kustush**

- Joint Minitec with IMD is in the works. Event could be held at new Flextronics plant (formerly Rexam) in Illinois or another company located between Chicago and Milwaukee area.
- Amerimold – Next week the Division will have a booth (#417) at Amerimold and will be offering and doing the following:
  - We have division banner for booth.
  - Did two email blasts promoting presence at Amerimold.
  - A special Amerimold rate of $109 for membership. Please have new members use AM-N15 to get a $35 discount off of the $144 new member rate and AM-R15 will be the renewal discount code to get $20 off the $129 renewal rate.
  - Will present our Mold Maker and Mold Designer of the year awards at our booth on Wednesday at Amerimold at 12:30 pm. Checking on whether Chris will be present. Harry will be there.
  - Several giveaway items have been received for distribution during Amerimold, including SPE lanyards, pens, brochures, MM Matters DVDs, etc.

**Awards Chair Report – Wayne Hertlein**

Will present our Mold Maker and Mold Designer of the year awards at our booth on Wednesday at Amerimold at 12:30 pm. Checking on whether Chris will be present. Harry will be there.

**Division Councilor Report – Barbara Arnold-Feret**

None

**Membership Chair – Barbara Arnold-Feret**

None

**Sponsorship Chair Report – Pete Kambouris**

- Glenn: Pete did respond he is up to date on sponsorships.
- Wayne: has he received any checks? No deposits since Jerry left. Glenn will inquire when seeing Pete at Amerimold next week.

**Newsletter Editor Report – Clare Goldsberry**
• Getting next one out before the end of this month to be compliant. Will include: terms, positions, new division name and logo, MM MD Division Award winners
• Clare: Christina will do commentary on Amerimold (attendee #s, photos, etc.). Copy due early week of 6/22.

Education Chair Report – Brenda Clark
Brenda has some good candidates for scholarship.
• Brenda to TPC

Old Business
• Cyndi: June 5 voting in favor of new name. Sent email to Barbara to take proposal to Council to get a vote to get name change approved by this month to change all materials and get into next newsletter.
• Wayne, once it is all officially changed, we’ll have to do a lot of clean up with IRS, bank accounts, etc. as we are a 501C. Put money for legal assistance into budget to get this all taken care of.
• Glenn: Changing the Division name and logo to Mold Technologies Division (MTD).
• Glenn: ITQ Liaison needs to be appointed. Update: leaving this open for now as we wait for election results.
• Wayne: for ITQ we have a CD whose term ends September of this year so state of Michigan does not take this, too. We have $39,000 in that CD.
• Glenn: Visibility of Division at events, speaking opportunities, etc.: Need event promotional materials, like tabletop display. Budget item. Portable rollaway banners, 1.5 feet wide; 6 feet tall, pulls up, etc. Approx $500.

New Business
$5,000.00 sponsor/participation with “Moldmaking” recruitment video
• Glenn will forward email from Jackie Dalzell of Gardner Business Media to Board on a video Gardner is working on with Todd Schuett to promote careers in mold making. It covers various mold making job functions and six shops.
• SPE MM MD Division email destination for these videos for those wanting to pursue mold making further. Will get a template response with a rep in that individual’s area. (For example, two AMBA member shops in your area (company not an individual) and a technical college in your area; a customized response.)
• Bounce off of Jackie actual email address designation, so we can start promoting it as a place to go if someone wants to know more.
• Cyndi makes the motion to support this GBM initiative on Manufacturing Matters video series with a $5000 contribution and a role in leading the follow-up correspondence.
• Wayne seconds the motion
• All in favor say Aye
• Motion passes unanimously.
• Cyndi will ask Jackie when the invoice will be coming, but GBM was really seeking commitment before Amerimold at this time.

Next Meeting:
Tentative: last two weeks of July.
Glenn calls for a motion adjourn the meeting.

Meeting adjourned.
Respectfully submitted,
Christina Fuges
Secretary to the Board
Meet the Newly Elected SPE Mold Making and Mold Design Board Members

Greg Osborn is the Midwest Regional Account Manager for Syngentive Molding Solutions and has worked in the metalworking industry for more than 25 years. His experience ranges from machinist to mold maker, CNC programmer and project manager. Greg enhanced his practical training by earning a B.S.B.A. from Cardinal Stritch, Milwaukee, and he soon moved into sales. His passion for education and the trades moved him to pursue a Master’s degree and in 2014 he entered into a MBA in Finance program through Benedictine University in Lisle, Illinois, with an expected graduation date of 12/2016.

Greg is actively involved on the AMBA Chicago Chapter Education Committee and, if elected to the position of Education Chair of the SPE Mold Making and Mold Design Division, he will continue to dedicate his efforts toward promoting the metalworking trades as a viable career path through targeted education initiatives.

Renee Nehls is a Senior Mold Designer with MGS Mfg. Group, Inc., whose Corporate Headquarters are in Wisconsin. Renee’s vocation in the plastics industry is approaching three decades. Her experience encompasses 20+ years in mold design and the balance in product design and development. She continues her education through the University of Wisconsin system and Topical Conferences. Renee is also a long time mentor of high school and collegiate student athletes throughout the state of Wisconsin. She has been a SPE member since 1988 and is currently serving the term of Immediate Past President of the Milwaukee Section. Renee enthusiastically welcomes the opportunity to bring a mold designer’s perspective to the Mold Making and Mold Design Division Board of Directors.

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

Anthony T. Dadavano
Upcoming Industry Events

SPE Thermoforming Conference
August 31 – Sept. 2, 2015
The 24th Annual Society of Plastics Engineers Thermoforming Division Conference, Renaissance Atlanta Waverly Hotel and Cobb Galleria Center. Features all-day workshops on Monday, Aug. 31, and two days of technical presentations, a parts competition, more than 100 exhibitors, and a special evening honoring the Thermoformer of the Year.
www.thermoformingdivision.com

Euromold
September 22-25, 2015,
Europe’s premier mold, tool and pattern manufacturing trade show for 21 years, Euromold—located in Dusseldorf, Germany—is the showcase for new mold and tool technology, machine tool equipment and more.
www.euromold2015.com

Westec 2015
September 15-17, 2015
This large regional show, at the Los Angeles Convention Center, Los Angeles, California, is billed as the West Coast’s premier manufacturing event where attendees can evaluate and compare cutting-edge manufacturing technology and equipment, and connect with industry prospects in aerospace, medical, and more.
www.westeconline.com

PackExpo 2015
September 28-30, 2015
The trade show for the packaging industry, and held in Las Vegas, Nevada, draws huge crowds of brand owners evaluating suppliers, new packaging technology; presentations on packaging trends and technology.
www.packexpolасvegas.com

Plastics Caps & Closures
September 16-18
Located at the Westin Chicago, in Itasca, Illinois, this is Plastics News 5th Annual event for new cap and closure innovation and technologies in materials, processes and structures. Special Technical Forum on Sept. 15.
www.plasticsnews.com

“You don’t have to hold a position in order to be a Leader.”
Anthony J D’Angelo

Headquartered in Fraser, Michigan and with company roots dating back to 1950, PCS Company manufactures and distributes mold components, mold bases, hot runner products, and molding supplies for the plastic injection and die casting industries. Our customers include plastic injection molders, mold makers, mold designers, and die casters throughout North America.

Phone: 800-521-9546 www.pcs-company.com E-mail: sales@pcs-company.com Fax: 800-505-3299
One new trend that is catching on in manufacturing – and that includes a few mold shops – is "Workflex," which is basically creating an environment in which employees can have more flexible work schedules depending on their job requirements on any given day. Automation technology is helping workflex to become a reality in many job-shops because the use of automation provides the opportunity for employees to be more flexible in their jobs.

Workflex allows employees’ hours to fluctuate with the demand of the projects. We’ve all seen times when shops are so busy that overtime becomes a way of life. At other times, things begin to slow down and the work load becomes lighter. A shop that implements a flexible work schedule can realize the benefits of a supply/demand environment.

Recently, one mold shop moved to a flexible schedule in an informal way. For example, if the end of the work day comes but there is a set-up that needs to be done so the CNC machine can run unattended throughout the night, the employee stays until the set-up is done. However, the next day he can come in to work later if he chooses to. For some employees that system works well.

Cross-training, which is common in many mold shops today, also helps companies develop a flexible work schedule. Employees can train for various jobs in the shop so that if one worker needs to leave early for an appointment or to take care of personal business, others can fill in, similar to a job-share program.

Work cells have also made flexible working schedules possible. Typically one person will oversee three or four machines in a cell, and with several employees knowing how to operate all the machines in the cell, there is more opportunity to be flexible.

On the website When Work Works—www.whenworkworks.org/downloads/manufacturing-guide.pdf—this white paper explains how workflex can be possible in a manufacturing environment. One of the examples the authors give in this white paper is that of PlastiCert, a custom injection molder and moldmaking company. All of
PlastiCert’s employees are cross-trained on all the machines. Also, the company uses the cellular manufacturing method. “Cellular manufacturing combined with cross-training increases employees’ understanding and ownership of the manufacturing process thereby improving product quality and rate of return,” said the white paper. “It also protects production systems from being halted because an employee is unavailable as would happen in a production line. In return, the company can be more generous with time-off policies because the plant can keep operating when someone is out despite a lean (20 employees total) workforce.”

Mold shops who have tried a flexible working schedule realize the benefits of this, but the key is to get buy-in from everyone and everyone understands that it’s not a license to be a slouch, but a real opportunity to use the flexible schedule in concert with all the employees to benefit everyone.

When Work Works notes in its white paper: “For many, the idea of flexible work arrangements for production jobs is little more than a dream. But in reality, it is possible and has been instituted on a number of factory floors across the country. Not only is it possible, it actually helps boost employee satisfaction, and ultimately productivity and the bottom line.”

Since 1958, the automotive trucking industry has come to rely on the technology and expertise INCOE extends. From big rigs to heavy haulers, INCOE has provided the innovative hot runner systems and creative solutions for large scale, road tough and durable components. Trucking demands nothing less; it has to be on time, every time. After all, when you compete in an uncompromising and demanding marketplace, you can’t afford to leave your molding solutions to just anyone. Look to INCOE... we’re tried, tested and true.

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“No man will ever make a great leader who wants to do it all by himself or to get all the credit for doing it.”

Andrew Carnegie
Tomorrow’s toolmaker will be one that is not only better educated in molding processing technology but will be better able to educate customers about the need to focus on one of the most critical factors: mold cooling.

Molds are not much more than thermal transfer machines, and getting the heat out of a mold quickly is the key to reducing cycle times and part costs. Obviously having good water in the mold (turbulent flow) is the key. However, there are some part configurations that don’t allow for water lines close to the geometry of the part or parts that have both thin and thick wall sections, making it more difficult to get the heat out.

To solve that problem, conformal cooling is becoming a hot topic. There are some really innovative methods for designing conformal cooling channels to improve molding efficiency and part quality, while reducing cycle time and costs. There is the “plate fusion technology” from Polyshot Corporation that the company claims has helped customers see a 39% cycle time savings in one particular application.

StackTeck Ltd. introduced its “KoolTrack” conformal cooling technology, the culmination of several developments, combining the company’s ability to simulate heat transfer in the part and molding surface components with a new proprietary bonding technology. The bonding process in the manufacture of molding surface components allows for intricate cooling channels to be cut in steel parts that are then bonded together to make cores and cavities that have cooling circuits inside. This is providing cycle time savings of 10-15% for sub 10-second cycle times, the company claims.

Linear Mold & Engineering is seeing big demand for that company’s conformal cooling channels created using 3D metal printing technology, also known as additive manufacturing.

Mold makers say they are getting more inquiries about conformal cooling, particularly as OEMs are looking for ways to get the cost out of molded parts while improving the quality. That’s where the education comes in. If an application comes in that could benefit from conformal cooling, the mold maker has to become an “educator” and help the customer understand the

Polyshot conformal cooling systems are used for numerous applications including automotive and electronics industries.
benefits of this technology.

Educating your OEM customers in the molding process and what optimum cooling – whether it is conformal cooling or conventional cooling lines – is key to helping them understand how they can get better cycle times. When it comes to high-cavitation tools, shaving even tenths of a second off the cycle can really add up in dollars saved over the long term.

Recently, at a Plastics-In-Motion conference John Bozzelli – who has been around the industry for a long time – gave a lecture on good mold cooling. “Cooling rate and time is a profit killer,” he told the audience. “95% of the cycle is cooling but it’s neglected by our industry. If you don’t know your Reynolds number you don’t know plastics and cooling. Heat comes from the center of the part out. Cycle time costs money!”

That’s a good lesson that we all need to know, and teach our customers!

“Effective leadership is putting first things first. Effective management is discipline, carrying it out.”

Stephen R. Covey

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