

MAY - MEETING AGENDA

DATE:

TUESDAY, MAY 24, 2022

WHERE:

This will be a HYBRID Meeting

**Plumbing Industry Training Center
in Troy, MI**

5:00 PM - 6:00 PM

Trends in Water Design - Part 1

6:00 PM - 6:30 PM

Dinner / Vendor Table Top Presentation

6:30 PM - 7:30 PM

Trends in Water Design - Part 2

REGISTRATION REQUIRED

IN-PERSON: <https://www.eventbrite.com/e/aspe-emc-may-2022-technical-program-tickets-248181326027>

VIRTUAL: <https://education.aspe.org/products/eastern-michigan-chapter-meeting-trends-in-water-design-may-2022>

SEE INSIDE COVER FOR TABLE OF CONTENTS

From Pam Hartsell, CPD, PMP President of ASPE EMC



A Bitter-Sweet Hello Again Eastern Michigan!

This will be my last report as your current president, so I wanted to start by saying Thank You to our members, volunteers and sponsors. It's been an honor to serve the chapter in this role, and a very rewarding experience for me personally. Eastern Michigan continues to set a high bar for quality programming within the ASPE organization, and that makes me incredibly proud. It's truly a team effort and your chapter board is, undeniably, a phenomenal team!

I also want to send a heartfelt Thank You to Theresa Green, our Newsletter Editor and Webmaster. If you're reading this, Theresa is the one who made that happen! Her commitment to the chapter and thoughtful attention to detail are remarkable. We put our trust in her to present us to the world and she does so with unwavering dedication. Thank you, Theresa, for everything you do!

Looking ahead to next year, the results are in from our recent chapter elections. Congratulations to the proposed slate of officers on becoming the 2022-2023 Board of Directors! Our members are fortunate to have such a dedicated group serving them, so please take a moment to thank a board member the next time you get the opportunity!

Our April meeting was classroom-style discussion on right sizing for hot water return. We were fortunate to have Christoph Lohr, VP of Strategic Initiatives at IAPMO, as our guest speaker for both presentations. His thoughtful style and energetic delivery were both instructive and engaging, and the meeting received great feedback from our audience. If you missed it, you can still view the recording on our YouTube channel with the link in the VP tech report here in the newsletter.

A special Thank You to Balfrey & Johnston for sponsoring our AYP Happy Hour last month. We had a nice group of students from LTU, along with their teacher, EMC Member Pierce Sadlier, join us for the meeting. It was great to be able to take them out for a little socializing afterwards. Thanks also to our ASPE Young Professionals liaison George Bellman for organizing the event. It was a lot of fun!

In May we'll be welcoming Christoph back for another insightful program, this time on Trends in Water Design. The presentation will focus on plumbing resiliency and the impact of updating the Hunter's Curve.

Continued on page 2

NOTICES

Contents

President's Report	1
2022 ASPE Convention & Expo	2
Program	3
In The Know	4
New 2022-2023 Board	5
VP Technical Report	6
WOA Donation Event	7
VP Membership Report	8
Swimwear & Safety	9 - 10
Back to Basics	12 - 13
April Attendees	16
Photos	17 - 21
Mentorship	26
EMC 45th Anniv. History Book	27
Code Study & Development Books	28
Line Card Sponsors	30 - 31

ASPE EASTERN MI CHAPTER WOA DONATION EVENT

This drive is taking place **2/1/22 - 5/30/22**
Please help us help others.
For more info click [HERE](#)

MAY BOARD MEETING

Virtual Online Meeting
Tuesday, 5/3/2022 @ 4:30 PM

MAY PROGRAM

HYBRID Meeting
Tuesday, 5/24/2022, 5:00 - 7:30 PM

ASPE IS ACCEPTING APPLICATIONS FOR THE ALFRED STEELE SCHOLARSHIP

Contact ASPE National for more information at
(847) 296-0002, or email info@aspe.org

President's Report (cont. from page 1)

Pam Hartsell, CPD

This will be another hybrid meeting, with a slightly different schedule. We'll be meeting later than usual this month, on May 24th, so that Christoph and his son can visit family here in MI. It should be a great meeting!

A friendly reminder that our personal hygiene products drive wraps up this month at the May meeting, and you can find a complete list of accepted items in the flyer here in the newsletter. Thank You, again, to everyone who has already donated!

Registration for the 2022 Convention is open and we want you there! Start planning now to join your fellow chapter and society members in Indy next September! More details are available at aspe.org.

It's been an amazing two years, Eastern Michigan! Thanks for giving me the opportunity to serve!

Your Chapter President,
Pam Hartsell
president.aspe.ec@gmail.com



CLICK HERE FOR MORE INFORMATION

ASPE

Convention
& Expo **2022**

Indianapolis // September 16-21

LATEST NEW MEMBER
~ WELCOME ~

ALEXANDER COSTAKIS
TERRY BURGER
RYAN LEVI LYLE

MAY DESIGN SESSIONS

5:00-6:00PM & 6:30-7:30PM

TOPIC: Trends in Water Design - Part 1 & 2

This presentation will help engineers of all experiences and background understand what plumbing resiliency is, and how it applies to domestic water design. We will address how pipe sizing impacts water quality and why updating the Hunter's Curve is one of the most important action items for the industry. Christoph will challenge us to consider possible new design approaches to build in more resiliency into domestic water system design and review some of the latest trends coming to market and discuss potential applications.



Presenter: **Christoph Lohr**, IAPMO,
Vice President of Strategic Initiatives

Christoph is IAPMO's Vice President of Strategic Initiatives. As part of his duties he provides industry leadership through participation in strategic industry initiatives, and provide technical support to all IAPMO's business units as needed. He has over a decade of experience in designing plumbing systems for healthcare, laboratory, hospitality, sports, and university projects.

Christoph Lohr

Lohr's Bio Continued:

He is a licensed professional engineer (PE) in six states, has his Certified-in-Plumbing-Design (CPD) certification from ASPE, is a LEED AP BD+C, and has his ASSE 12080 Legionella Mitigation Specialist designation. He has spoken at the ASPE 2018 Convention, Legionella 2018 and 2019 conferences, HITS Consortium, NIBS, and the ACEEE Hot Water Forum and has written over 50 articles and blog posts on the topics of water, legionella, medical gas, and leadership. Christoph's professional activities in the industry extend into multiple committees including ASPE Phoenix Chapter, ASPE Society, ASPE Legionella Working Group, ASHRAE Committees, PIPE Trust of Arizona, AWWA Plumbing Premise Committee, among others. He consistently looks to find long-term, holistic solutions that positively impact public health and safety, particularly in the world of water and plumbing. He is a distinguished graduate from the Virginia Military Institute, with a Bachelor of Science in Mechanical Engineering. Christoph grew up in Rochester, Michigan.

About Registration and CEUs:

If you are attending virtually: there is a link to register via the ASPE Education page. Please follow all directions. Using this platform for virtual meetings allows us to streamline the CEU process. So all attendees that plan to join virtually, need to register via the corresponding ASPE Education link. Our meetings will also be listed on the ASPE Education calendar, so you can find registration info there as well. <https://education.aspe.org/>

There is also a passcode that needs to be entered for the virtual meetings now. This passcode is in the email invite as well as listed in the webinar instructions.

If you will attend in person (when we can offer this option): You will need to register using an Eventbrite link that will be in the email. This allows us to know how many people we can expect in person. Thus, allowing us to make sure we maintain the indoor gathering limits imposed by the Governor, and also order enough food for all. For those that attend in person, we will still require sign in/sign out sheets and your CEUs will be submitted to national within 1 week of our event. It may take up to another 2 weeks for the CEUs to show in your ASPE Education log. The PITS does have guest protocols we will have to obey in order to meet there, so please follow all posted signage and procedures.



YOUNG PROFESSIONALS

IN THE KNOW

EMC 45TH ANNIVERSARY HISTORY BOOK NOW AVAILABLE FOR ORDER!

Available in time for the holidays. \$50 Each

Check or Credit Card Accepted

Pick up @ SES or during a Hybrid Chapter Meeting

FREE digital download on the ASPE EMC website.

TABLE TOP SPONSORSHIP PRICING

ASPE Members

- \$200.00 for the 1st table per meeting/per vendor
- \$150.00 for each additional table per meeting/per vendor

Non-Members

- \$250.00 for the 1st table per meeting/per vendor
- \$200.00 for each additional table meeting/per vendor

If a vendor purchases table tops for 3 meetings during the year, a 4th meeting table top will be provided for free.



Commercial Washrooms. Brought to Life.
HANDWASHING & DRYING | ACCESSORIES | PARTITIONS | LOCKERS

CUTTING-EDGE HANDWASHING TAKES SHAPE

The next generation WashBar raises your restroom to new heights by providing touch-free soap, water and drying in an edgy new design for an unforgettable handwashing experience. The single connection point to the sink provides an impressive design element and creates more open space for cleaning.

ADVANTAGES OF THE WASHBAR

- Floating design for a simple and clean aesthetic
- Single connection point to the sink for easier cleaning
- Eliminates the cost and mess of paper towels
- Icons and LED lights to visually orient users
- Smart sensor technology eliminates false activations
- WashBar and bowl work together to keep water in the basin
- Gallon soap capacity to reduce the number of replacements
- Captures soap and water activations for maintenance planning

The new WashBar WB2 is available with the Verge® LVQ basin in Evero® natural quartz, OmniDeck® 5010 in Terreon® solid surface, or pair with a Terreon solid surface or Evero natural quartz undermount basin with the deck or countertop of your choice.



AVAILABLE IN SIX BEAUTIFUL FINISHES



WEST MICHIGAN		WEST MICHIGAN		EAST MICHIGAN		EAST MICHIGAN	
Michael Zago		Rod Cox		Todd Hiler		Ross Beck	
D (248) 960-1147 x 107		D (248) 960-1147 x 116		D (248) 960-1147 x 106		D (248) 960-1147 x 115	
C (616) 293-2121		C (616) 706-1481		C (613) 633-2609		C (734) 673-2119	
E mikez@newcenturysales.com		E rodc@newcenturysales.com		E toddh@newcenturysales.com		E rossb@newcenturysales.com	

www.newcenturysales.com

ALL-IN-ONE WASHBAR



All the fundamentals of handwashing have been thoughtfully designed into Bradley's innovative WashBar.

WASHBAR FEATURES

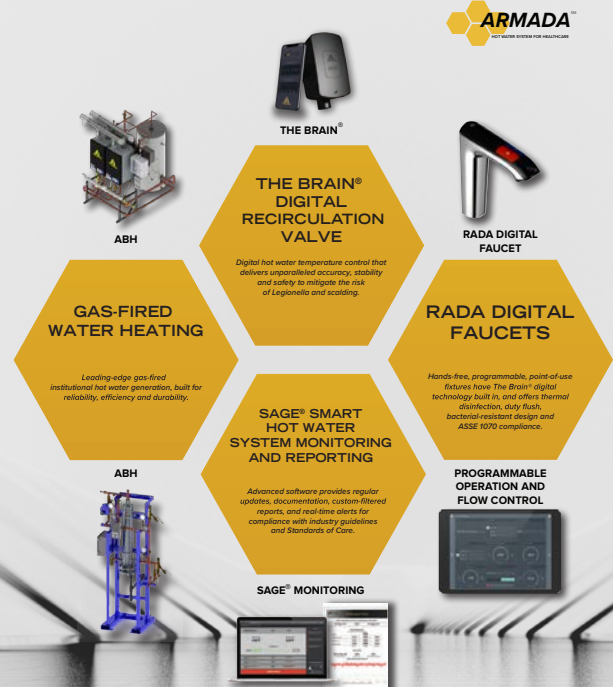
- CLEAN**
 - Touch-free activation
 - Low level LED indicator
 - Gallon (3.8 L) soap capacity
 - Simply replace soap tank – no cleaning or refilling
 - Liquid and foam soap

- RINSE**
 - Touch-free activation
 - 0.5 GPM (1.9 LPM)
 - Ultra-high efficient 0.35 GPM (1.4 LPM) option where water conservation is a necessity

- DRY**
 - Touch-free activation
 - Heated air stream dries hands quickly and efficiently
 - Adjustable speed for quieter hand drying

bradleycorp.com
800 BRADLEY • (1 262 251 6000
W142 N9101 Fountain Boulevard
Menomonee Falls, WI USA 53051
bradleycorp.com/washbar

A TOTAL, STATE-OF-THE-ART HOT WATER SYSTEM, ENGINEERED TO DELIVER A SUPERIOR LEVEL OF USER SAFETY, INFECTION CONTROL AND COMPLIANCE, FROM MECHANICAL ROOM TO THE POINT OF USE.



MERLO ENERGY
Chip.digare@merloenergy.com
(586) 256-9822



The New

2022-2023 ASPE EMC BOARD

WILLIAM GRAYZAR

PRESIDENT

PAM HARTSELL

VP TECHNICAL

RYAN LYLE

VP LEGISLATIVE

JOSH PEDRAJA

VP MEMBERSHIP

KRISTIN SIMONEAUX

VP EDUCATION

RACHEL GENDICH

TREASURER

GEORGE JOHNSTON II

ADMIN. SECRETARY

JOSH PEDRAJA

CORRESPONDING SECRETARY
VP SOCIAL MEDIA

CHIP BIDIGARE

AFFILIATE LIAISON

RACHEL GENDICH

AYP LIAISON

MIKE MELERAGNI

DIRECTOR

THERESA CARD

DIRECTOR

BRIANNE HALL

DIRECTOR

DANN HOLMES

DIRECTOR

VP Technical Report

Theresa Card, P.E., CPD, LEED AP BD+C



Hello from your VP Tech!

We had an OUTSTANDING meeting in April with 59 attendees! Christoph Lohr, our speaker, was lively and engaging and we had good questions and discussions – all on hot water return design! I always love when we can get together and nerd out on one, seemingly small plumbing topic – realizing how complicated a good plumbing system

can actually be.

I would like to send a big THANK YOU [Balfrey & Johnston, Diversified Sales, JW Sales and RL Deppmann](#) for being sponsors at our April meeting. *Remember to support those who support the Chapter!*

Past Meeting Recordings

Below you will find the link to this program year's recorded meetings. If you would like copies of the pdf handouts, please email me to let me know. I apologize, but no CEUs can be provided for watching meeting recordings. Please note you will likely have to copy the text below and paste into a browser to see the videos – as we have found some cannot click the links directly from the newsletter itself.

If you have missed any of the meetings from the 2019-2020 Program Year you can email me, and I will send you the link or you can look at past newsletters from last year.

September 2021 Presentations Recordings: Right Sizing Plumbing: An Overview and Plumbing 101

- <https://youtu.be/B2jR9wO7JHM>

October 2021 Presentation Recording: Metered Flow vs Traditional Sizing and Utility Rebates Panel Discussion

- <https://youtu.be/mXxpKw7UCrs>

November 2021 Presentation Recording: Right Sizing Water Heaters and Submersible Pumps

- <https://youtu.be/mXxpKw7UCrs>

December 2021 Presentation Recording: Fire Protection – Standpipes, Fire Pumps and Dry Systems

- <https://youtu.be/Xr1jWJ3qnfw>

January 2022 Presentation Recording: 2018 MPC Updates and Michigan Code Promulgation Process

- <https://youtu.be/loceE-uIUfg>

February 2022 Presentation Recording: Right Sizing Hydronics and High Purity Lab Gas Systems

- <https://youtu.be/dAWGGrNzGi0>

March 2022 Rainwater Harvesting and Interceptors

- <https://youtu.be/Hq8iwwAeshk>

April 2022: Rainwater Harvesting and Interceptors

- <https://youtu.be/jw-B2rCncBo>

May Meeting info:

Well, it is that time of the year for the last meeting of our 2021-2022 Program Year. It goes by so quickly. We are bringing Christoph Lohr from IAPMO back again for May to talk about overall Trends in Water Design. This will cover all the current trends we are seeing in domestic water systems now. For an industry that is known for now changing much since the Roman Era – we are sure seeing some actual, real changes in how we design plumbing systems and seeing the benefit those changes can make on the owner's budget, the environment and overall effectiveness of the system. We hope you can join us for another great meeting in May, whether in person or virtually. See links below to register!

Virtual attendance registration:

<https://education.aspe.org/products/eastern-michigan-chapter-meeting-trends-in-water-design-may-2022>

In person registration:

<https://www.eventbrite.com/e/aspe-emc-may-2022-technical-program-tickets-248181326027>

Please remember to register early if you plan to attend in person. We are limited in seating capacity and we have to give our caterer the final attendance numbers the week before the event. Thank you for your help!

To get the full bio on Christoph – visit the ASPE EMC yearly program: <https://www.aspe.org/eastern-michigan/program.html>

Finally, we will be holding our Annual Programming Meeting in June again this year where we plan out the 2022-2023 ASPE Eastern Michigan Program year. **If you have any topic you would like use to consider for a design or technical presentation next year – please let any board member know.**

Hope to see you in May, but if I don't then have a great summer!

Cheers!

Sincerely, Theresa Card

Vpt.aspe.emc@gmail.com

ASPE
Eastern Michigan Chapter WOA
DONATION EVENT!

Spring is in the air! With that – spring cleaning! While you or your friends/spouse/children are cleaning out your drawers – instead of throwing away that make-up you never used or that product you used once and didn’t like – donate it!

We will be collecting items to ship to a local women’s shelter or, if none can be found, Project Beauty Share in Washington.

Items can be dropped off during ASPE meetings or with:

C/O Theresa Card
ASPE EMC WOA Liaison
Strategic Energy Solutions
4000 W. 11 Mile Road, Berkley, MI

Contact Theresa with questions at:
tcard@sesnet.com

Donations will be collected from
February 1 to May 30 (Memorial Day)

WHAT WE WILL BE COLLECTING

New	New or Lightly Used	Lightly Used
Make-up brushes	Moisturizers	Pressed eyeshadow
Lip products/lip liners	Cleansers	Pressed blush
Mascara	Eye creams	Pressed bronzer/highlighters
Eyeliners	Exfoliators	Face primer
Foundations	Primers	Squeeze tube foundations
Concealers	Sunscreen	Airless pump foundations
Deodorant	Face masks	
Razors	Body lotions	
Bar soap	Shower gel	
Toothbrushes	Body spray	
Toothpaste	Perfumes	
Floss/mouthwash	Shampoo, conditioner	
Feminine hygiene	Hair color	
Sample packets	Hair styling products	
Hotel travel-size items		
Makeup bags		
Nail products		
Misc. face tools		

**Lightly used products must be at least ¾ full. Anything that comes in a tub or jar must be new.

ITEMS NOT ACCEPTED

Any item with a wand that has been used or swatched, such as mascara, lip gloss, liquid lip color, liquid eyeliner, foundations and concealers

Loose powders in containers that are without seal, such as mineral powder foundations, blush, eyeshadow, and highlighters

Cream eyeliners, eyeshadow, blushes, bronzers, and highlighters in pots or pans that have been used or swatched

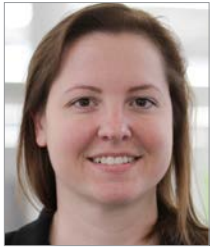
Liquid foundations in bottles with screw-on lids and cream foundations that have been used or swatched

All lip products that have been used or swatched

All eyeliner and lip liners that have been used or swatched

VP Membership Report

Kristin Simoneaux, P.E., CPD, LEED



Greetings everyone! I hope you are all staying healthy. Are you making the most of your membership? Not only are the amazingly awesome chapter meetings covered by your membership but you also have access to CEUs through the ASPE education website using the Read, Learn, and Earn articles. Check them out at:

<https://education.aspe.org/RLE>.

One of the many benefits to becoming an ASPE member is the mentoring program. If you are interested in becoming a mentor to a plumbing Padawan or wish you had a gray water Gandalf of your very own to help guide you through your plumbing career, please check out our Mentoring Program (<https://connect.aspe.org/aspe-mentor-match/mentoring>). Our ASPE Connect Mentor Match program helps you find, connect, and share experiences with others as either a mentor or mentee.

Are you interested in becoming a mentor? Looking for a mentor? ASPE Connect Mentor Match program will help you reach your professional development goals. You can apply in four easy steps!

- Step 1: Complete your ASPE Connect profile
- Step 2: Enroll as either a mentor or a mentee (or both!)
- Step 3: Search for your topics of interest.
- Step 4: Connect with your mentor/mentee!

Did you know you can get a **discount with your ASPE membership at the ASPE bookstore**? Interested in getting your CPD? The bookstore has the study guide! Ever be in a conversation about plumbing and get lost on the terminology? Get the Plumbineering Dictionary! Whatever your plumbing questions, the ASPE bookstore has the answers. With your ASPE membership you get significant discounts!

If you ever have membership questions please feel free to reach out to me. Until we meet again, stay healthy!

Kristin Simoneaux, P.E., CPD, LEED AP
 Associate / Senior Mechanical Engineer
 Direct: (248)336-4760
ksimoneaux@stantec.com

Some fun Bookstore items!:

		
Electronic Download	Uncategorized	Books
ASPE's Plumbineering Dictionary	ASPE Tables App	CPD Study Guide – 2020
Price: \$59.95	Price: \$0.00	Price: \$85.00
Member Price: \$29.95	Member Price: \$0.00	Member Price: \$50.00

Swimwear & Safety

Kristin Simoneaux, P.E., CPD, LEED

Hi Everyone! Quick safety moment for you: As the weather is getting warmer and dreams of going up north to the cabin or other exotic locations to go swimming, paddle boarding, and jet skiing are closer to being a reality, please be aware while purchasing the swim suit that color matters. The color of your suit may help or hurt you being seen in the event of something going wrong. Below pictures indicate some testing of swim suit colors and visibility done by Alive Solutions. Although dark colors work well in a swimming pool environment as they pop out against the usually sky-blue bottom of most pools, they blend in with the debris/vegetation on the bottom of lakes.

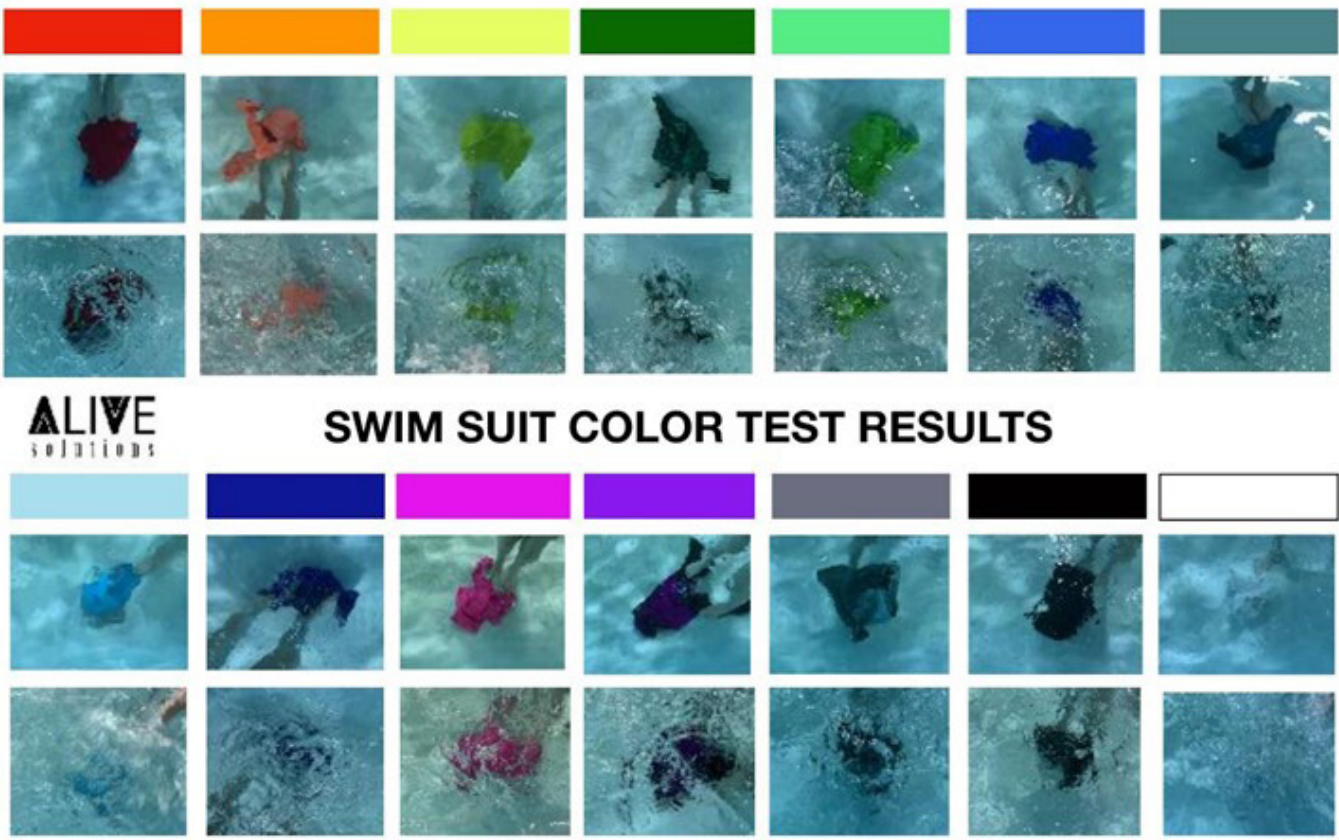
If lake swimming, the study showed neon colors work best. The neon colors orange, pink, and yellow stand out the most against the dark bottom of a lake. If you would like to see more information, please check out their website:

<https://alive-solutions.com/water-safety>

or Facebook page: [@aquaticsafetyconnection](https://www.facebook.com/aquaticsafetyconnection).

A variety of swim suit colors were tested in a pool environment 18” below the water surface with the top picture being still water and bottom picture being with the water surface disrupted.

For more information on the pool test please go to <https://alive-solutions.com/blog/f/buying-swimwearthink-safety>.



The image displays a grid of 14 swim suit color test results. The top section shows seven colors: red, orange, yellow, green, light green, blue, and dark blue. The bottom section shows seven colors: light blue, dark blue, pink, purple, grey, black, and white. Each color is shown in two rows of images: the top row shows the swimmer in still water, and the bottom row shows the swimmer in turbulent water. The 'ALIVE solutions' logo is visible in the bottom left of the grid. Below the grid, the text 'FB + IG: @AQUATICSAFETYCONNECTION' and 'WEBSITE: ALIVE-SOLUTIONS.COM' is displayed.

ALIVE solutions

SWIM SUIT COLOR TEST RESULTS

FB + IG: @AQUATICSAFETYCONNECTION WEBSITE: [ALIVE-SOLUTIONS.COM](https://alive-solutions.com)

Continued on page 10

Stayin' Alive (continued)

Kristin Simoneaux, P.E., CPD, LEED

The swim suit colors were also tested with a cloudy day, lake environment 18" below the water surface with the top picture being still water and bottom picture being with the water surface disrupted. As you can see, some of the colors almost disappear completely.



For more information on the lake test please go to <https://alive-solutions.com/water-safety/f/buying-bathing-suits-for-lakes-open-water>.

Please keep these in mind when selecting the next swim suit/gear for your family or yourself. It could make the difference between being seen and unseen by a life guard or other help.

As always, be safe while swimming and have some fun this spring/summer season!

Kristin Simoneaux, P.E., CPD, LEED AP
Associate / Senior Mechanical Engineer
Direct: (248)336-4760
ksimoneaux@stantec.com



ETV *Platinum Plus*

ELECTRONIC TEMPERING VALVE

Designed for Critical Temperature DHW Application

- Maintains Set Point within +/- 2°F

Safeguard Against High Temperature Conditions

- Optional High Temp Limit Valve
- Alarm Output

Maintenance Free

- Stainless Steel Valve Body reduces Scale Buildup
- External Actuator Eliminates Gasket Maintenance



ETS AND ETS-LT

ELECTRONIC TEMPERING STATION

Pre-wired and Pre-Piped Assembly

- Contains ETV Platinum Plus
- Includes all Fittings, Isolation Valves

Wall Mounted and Floor Mounted

- Minimal Footprint
- Sizes from 3/4" to 4"



Conforms to the following:

ASSE 1017

California Lead Free Plumbing Law

CSA B 125.3 (NSF/ANSI 61 Section 8)



Major/Lozuaway & Associates

Major Lozuaway and Associates

Mike Ostrowski

1117 W. Grand Blanc Road

Grand Blanc, MI 48439

Phone: 810-287-6983

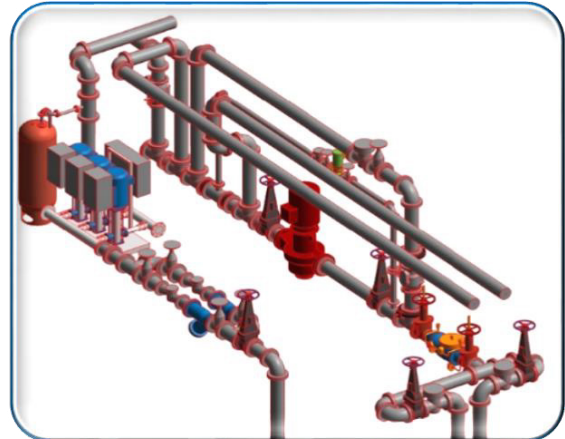
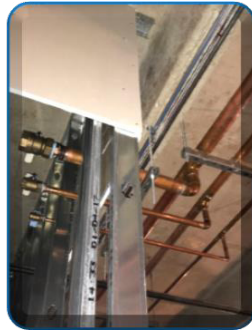
Email: moski@lozuaway.com

It is a fact that most of the time we are designing plumbing systems without really knowing how all the components were approved for a particular application or how a system got together. Our goal is to clarify as much as we can regarding some of those grey areas without a particular order. We often do things because we know that they work, and because we know that they are approved to be used. These assumptions become a routine, and unfortunately due the rush schedule that most of the industry is going through, the design routines get copied from one job to the next one. Moreover, it escalates to the point where some senior designers had already forgotten how a system is sized, or how it works due to the dependency on popular and reliable sizing tables & calculation programs.

Pipes and Tubes

PIPES AND TUBES

Everything that we do is related to a Pipe, or a Tube. [There is the open channel; but not on today's topic]. Let's define when a pipe is better suited to be used instead of a tube, or the other way around.



Definitions: (Merriam-Webster)
 Pipe = A long tube or hollow body for conducting a liquid, gas, or finely divided solid or for structural purposes.

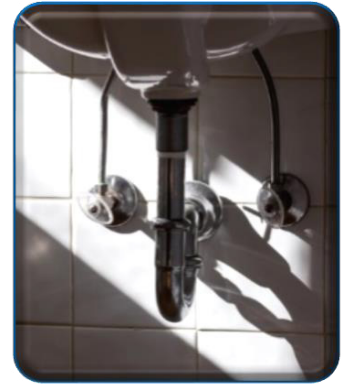
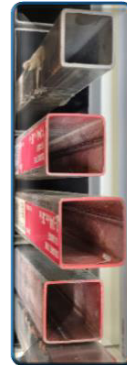
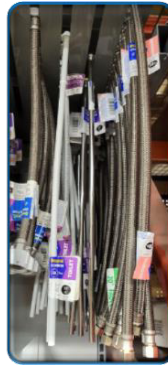
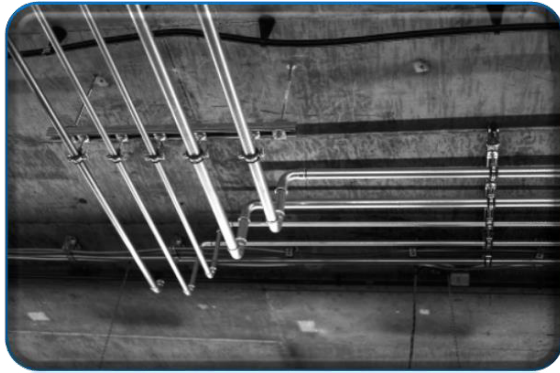
- ID = Inside Diameter
- IPS = Iron Pipe Size
- NPS = Nominal Pipe Size
- OD = Outside diameter

Pipes are typically specified by the Nominal Pipe Size (NPS) approximate interior diameter. Example: A 1-inch diameter pipe has an approximate 1-inch interior diameter, and the exterior diameter will depend on the pipe material, and the applied system working pressure. The wall thickness is also called Schedule. Note: Plumbing systems are tested for integrity at a higher pressure than the intended system working pressure. The selected schedule number can be the same for multiple pipe sizes; however, the actual wall thickness will be different.

$$\begin{aligned} \text{NPS 1" IPS} &= 1.049" \text{ ID @ Schedule 40} = 0.133" \text{ Wall thickness} = 1.315 \text{ OD} \\ \text{NPS 1" IPS} &= 0.957" \text{ ID @ Schedule 80} = 0.179" \text{ Wall thickness} = 1.315 \text{ OD} \end{aligned}$$

The schedule number increases the wall size, and that the wall thickness changes based on the nominal pipe size. Pipes are always cylindrical. The circular shape of the pipe {or a tube} makes the pressure force evenly distributed. Pipes accommodate larger applications with sizes that range from a 1/2 inch to several feet.

Back to Basics



Tubes are specified based on the outside diameter and wall thickness.

The strength of a tube depends on the wall thickness.
The thickness of a tube is defined by a gauge number.
Smaller gauge numbers indicate larger outside diameters.
The inside diameter (ID) is theoretical.

Tubes have in different shapes: square, rectangular, and cylindrical, they are commonly used in Lavatories and sinks from the stop valve to the faucet, as well as for the drainage. The other most used application is for medical gases. The circular shape of the pipe or a tube makes the pressure force evenly distributed.

Pipes accommodate larger applications with sizes that range from a 1/2 inch to several feet.
Tubing is generally used in applications where smaller diameters are required. Normally from 1/16" to 2".
Pipes will be defined by their internal diameter while the Tubes will be defined by their external diameter.

Due to the present lack of building materials, some projects are changing pipe materials (from Cast Iron to PVC, or from Copper to PEX). In addition to that some pipes are changing schedule thickness (From 80 to 40, or from 40 to 10). Therefore, always check that the system pressure loss allowance won't be compromised if the pipe material and/or scheduled is changed. And always verify with the AHJ to see if the change is in compliance with the local codes.

References:
ASPE Design Handbooks.
IPC (International Plumbing Code)
UPC (Uniform Plumbing Code)

J. Francisco DeHoyos, CPD, FASPE.
Senior Lead Plumbing Designer.



ASPE Central Texas Chapter, VPL.
ASPE Houston Chapter, Education Chairman.
ASPE Society Legislative Committee, Co-Chairman.
ASPE Society Education Committee, Member.
ASPE Society Long Range Committee, Member.



jfdehoyos@gmail.com

TOPGOLF AUBURN HILLS: QuantumFlo Booster,
Beeco RPZ, & Beeco Automatic Control Valve



GM Flint Assembly Plant: Hubbell
Model EMV120-85-1.5SLA-A-XX Electric Tepad Water Heater



Velocity Boiler, Previously Crown Boiler

CRANE PUMPS & SYSTEMS

CRANE PUMPS & SYSTEMS



BOILERS & COMBINATION UNITS

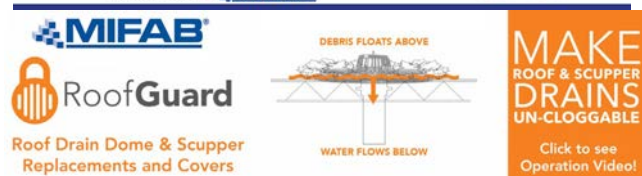
RIELLO

Energy For Life



QUALITY WATER & AIR: (248)589-8010

MIFAB PRODUCT LINE



When you need to flex some serious muscle, bring out the big guns.



Edge
HP IRON

Step up to the new Edge HP Iron for aggressive DWV applications.

SEE THE DETAILS AT CHARLOTTEPIPE.COM/EDGEHPIRON

CHARLOTTE
PIPE AND FOUNDRY COMPANY
You can't beat the system.

APRIL MEETING

THANK YOU TO OUR ATTENDEES!

Juliana Azzi
David Bailey
Benjamin Baker
Sarah Balz
Boyce Barger
Jamie Caporosso
Theresa Card
Mario Carranza
Fidel Castro
Carmen Cejudo
Lyle Collins
Andrew Corzine
Larry D'Ascenzo
Troy Dawes
Alan Deal
Vivian Enriquez
Rachel Gendich
William Grayzar
Brienne Hall
Pamela Hartsell

Emma Hartwig
Nicklaus Heppner
Dann Holmes
Thomas Huck
John Johnson
George II Johnston
Sophia Jones
Mike Kennedy
Hank Koppelo
Markus Lott
Doug Maddox
Jeremy Martin
Adrian McIlveen
Sean McIntosh
Kris Merritt
Salvador Morales
Rachel Nagy
Andy Pak
Brenda Pesmark
Gerry Potapa

Paul Prentice
Adam Rebecca
Ron Ross
Pierce Sadlier
Dalia Saleem
Bill Sample
Rick Sawyer
Emily Schwarzkopf
Marc Sessine
Kristin Simoneaux
Shane Straub
Ryan Suh
David Sullivan
Ali Tarazkar
Bob Taylor
Bob Thomas
Paul Xiong
Artur Zych
Denizard

APRIL MEETING PHOTOS



Christoph Lohr of IAPMO gave a great presentation on Right-Sizing Hot Water Return



We had a nice turn out for the April Meeting

APRIL MEETING PHOTOS



APRIL MEETING PHOTOS



Vendor Sponsor - R.L. Deppmann Co.



Vendor Sponsor - Diversified Spec. Sales, Inc.

APRIL MEETING PHOTOS



Vendor Sponsor - J.W. Sales, Inc.



Vendor Sponsor - Balfrey & Johnston, Inc.

APRIL MEETING PHOTOS



Chapter President Pam Hartsell and April Speaker Christoph Lohr



Our AYP Happy Hour event with students from LTU was a lot of fun!



New Century Sales, Inc.
Manufacturer's Representatives

EAST MICHIGAN
1715 Traditional Dr.
Commerce Township, MI 48390
P (248) 960-1147 F (248) 960-1149

WEST MICHIGAN
550 36th St. SE
Grand Rapids, MI 49548
P (616) 600-9660

 Expansion Tanks www.amtrol.com	 Shower Doors www.bascoshowerdoor.com	 Washroom Solutions www.bradleycorp.com	 Hydronic Solutions Hydronic Accessories www.caleffi.com/usa/en-us	 ISOTUBI USA Plumbing Fittings www.copperpress.com www.isotubi-usa.com
 Bath Furniture www.fairmontdesigns.com	 Sewer Cleaning Machines www.drainbrain.com	 PVC Products www.genovaproducts.com	 Better Boilers www.ibcboiler.com	 Stainless Steel Sinks www.justmfg.com
 Valves and Fittings www.matco-norca.com	 Water and Waste Pumps www.femyers.com	 Fiberglass & Acrylic Tub & Showers www.oasisbath.com	 Oasis Water Coolers www.oasiscoolers.com	
 Supply Chain Services www.oatey.com	 Bath Fans https://na.panasonic.com/us/home-living-solutions/ventilation-indoor-air-quality/	 Pipe Installation Tools https://pexgun.com/		
 PEX Plumbing Products www.rehau.com/us-en	 Water Heaters www.rheem.com www.ruud.com	 Bathroom Vanities & Cabinets www.strasserwood.com	 Brazing & Soldering https://www.esabna.com/us/en/products/gas-equipment/brazing-and-soldering/index.cfm	
 www.dewalt.com www.irwin.com www.lenoxtools.com		 Link to Good Living www.americanstandard-us.com www.d xv.com www.fiatproducts.com www.grohe.us/en_us		

www.newcenturysales.com

Replacing Your Water Heater Every Few Years is Not Our Business Plan



Conquest[®] condensing, gas-fired water heaters are constructed from AquaPLEX[®] duplex stainless steel so they're corrosion-resistant in potable water at any temperature. Available in 199-1000 MBH, Conquest provides even more BTUs in small spaces and fits through a standard 36-inch doorway. With a thermal efficiency of up to 96%, long product life and a 15-year tank and heat exchanger warranty, you can't afford not to have one.

Call R.L. Deppmann or visit our Monday Morning Minutes blog at deppmann.com for information on PVI Water Heaters
800.589.6120



800.784.8326 | pvi.com

MegaPress® G
Press safer.
Press bigger.



Connected in quality.

Quick, safe connections on large diameter gas lines.

Viega MegaPress(R)G requires no open flames or added cost of fire watch, so projects are safer and more profitable. Installers can secure gas pipe up to 4" in 16 seconds or less, saving 60-90% on labor costs. That's why professionals choose MegaPressG - the trusted press connection method approved for gas lines ½" to 4".

Carl Petitt
 Technical Manager
 (614) 852-2691
carl.petitt@viega.us

Michael Norgan
 District Sales Manager
 (989) 415-2431
michael.norgan@viega.us

ALL-IN-ONE SCALD PROTECTION



420-T Series

Now there's no need to install a thermostatic mixing valve below the sink. The new 420-T Series combines Chicago Faucets durability with integrated scald protection. The result is a solid, easy-to-install restroom faucet that complies with ASSE 1070 requirements. With the 420-T, everything you need to meet current building codes and protect users against scalding is built right into the faucet.

Visit chicagofaucets.com or call your local representative for more information.

Taggart-Knight Group
 248/553-4388
info@taggartknight.com





EDUCATION



PUBLIC VENUES

COMMERCIAL OFFICES

T&S IS HERE >

T&S is proud to be a trusted name across a wide range of markets — staying at the forefront of today’s evolving industry and providing a vast selection of reliable solutions that meet required codes and compliances.

Learn more at tsbrass.com/markets.

Find us in



HEALTHCARE



T&S plumbing products represented in Eastern Michigan by: Diversified Spec Sales - 248-398-2400



New Century Sales, Inc.
Manufacturer's Representatives



COPPERPRESS® SYSTEM BENEFITS

- Size range from 1/2” to 4”
- Green visual applicaton bands
- Consistent wall thickness on all products
- Leak before press systems
- Less equipment required
- Compatibility of fittings and tools

www.copperpress.com

Approvals & Certifications

- NFS ANSI/CAN 61
- UPC
- cUPC
- IPC
- IAPMO PS-117
- ICC-ES-PMG
- ASME B16.51



ISOTUBI USA

Stainless Steel Press Solutions

<https://isotubi-usa.com>

Represented by New Century Sales:

WEST MICHIGAN

Michael Zago
C (616) 293-2121

E mikez@newcenturysales.com

WEST MICHIGAN

Rod Cox
C (616) 706-1481

E rodcd@newcenturysales.com

EAST MICHIGAN

Todd Hiler
C (513) 633-2609

E todhd@newcenturysales.com

EAST MICHIGAN

Ross Beck
C (734) 673-2119

E rossb@newcenturysales.com

www.newcenturysales.com

Code Study and Development Group of Southeastern Michigan

Item No.	Description	Price Each*	Order Date			
3200S18MI	2018 MI Plumbing Code	\$ 89.50				
3300S18MI	2018 MI Mechanical Code (Not Yet Available)	\$ 89.50	PO Number			
3200S18	2018 IPC without Commentary	\$ 86.00	(If required)			
3210S18	2018 IPC with Commentary	\$ 112.00				
3300S18	2018 IMC without Commentary	\$ 86.00				
3310S18	2018 IMC with Commentary	\$ 112.00				
3600S18	2018 IFGC without Commentary	\$ 86.00				
3610S18	2018 IFGC with Commentary	\$ 112.00				
3000S18	2018 International Building Code	\$ 130.00				
3000S15MI	2015 MI Building Code	\$ 139.00				
3100S15MI	2015 MI Residential Code	\$ 126.00				
3550S15MI	2015 MI Rehab for Existing Bldgs	\$ 90.00				
3800S15MI	2015 MI Energy Code	\$ 48.00				
3600S15	2015 IFGC without Commentary	\$ 84.00				
3310S15	2015 IMC with Commentary	\$ 109.00				
		\$ -				

- **Payment MUST accompany order / verify your preferred delivery method**
- **Credit cards, cash or company check accepted.**
- Dann Holmes - buildingwaterhealth@outlook.com or (248) 921-0582
- If orders are to be mailed, call Dann and you will be advised of additional freight charges.

• **Make check payable to: Code Study & Development Group of SE Michigan**

Mailing Address: **Will be given upon placement of order**

Item No.	Description	Quantity	Unit Price	Item Total	Status
				\$ -	
				\$ -	
				\$ -	
				\$ -	
				\$ -	
				\$ -	
				\$ -	
				\$ -	
				\$ -	
				\$ -	

Total books subject to incoming ICC Frgt charges **0**

Client Information		Order Details	
Company		Sub-Total	\$ -
Address		ICC Frgt	\$ -
City		USPS Frgt	\$ -
State		MI Sales Tax	\$ -
Zip-Code		Invoice Total	\$ -
Contact Information			
Attention		Received By: _____	
E-Mail			
Phone			

Check No. _____ or Cash _____ Date Paid _____
 Credit Card Approval No. _____

***Supersedes all pricing forms printed before October 19, 2021**

2021 Code Study Order Form

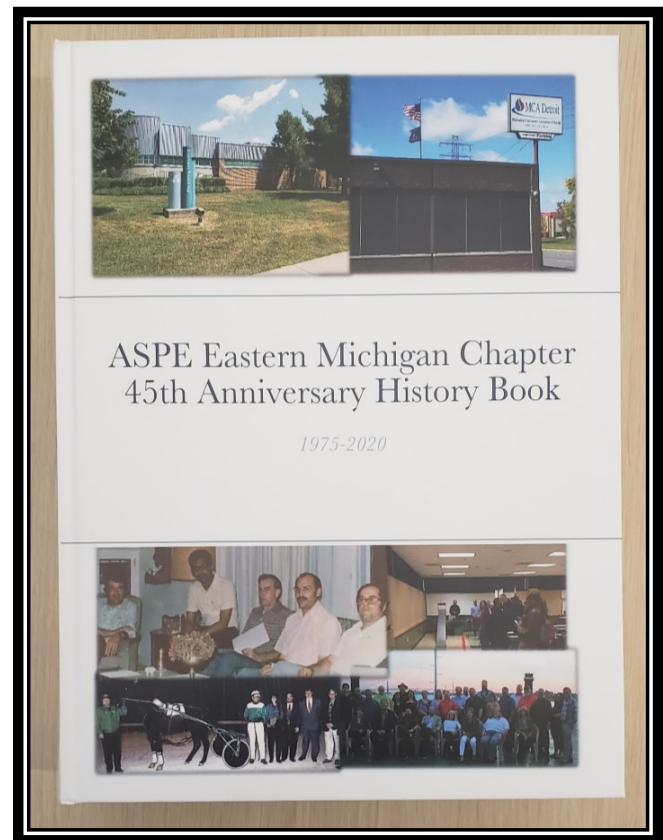
EMC 45TH ANNIVERSARY HISTORY BOOK IS AVAILABLE TO ORDER NOW!

Available in time for the holidays

\$50 EACH

Check or Credit Card
Accepted

Pick-up @ SES or
during a Hybrid
Chapter Meeting



Contact Theresa Card for orders:
vpt.aspe.emc@gmail.com or 248.988.4708



ASPE EASTERN MICHIGAN CHAPTER
WWW.ASPE.ORG/EASTERN-MICHIGAN

ASPE Mentoring Program

The Women of ASPE are excited to introduce ASPE's new Mentoring Program!

This program, which is available to all members of the Society, has been designed to connect ASPE members who have a particular skill set (mentor) with individuals (mentee) who are searching to acquire the same skills to develop and make progress toward their personal and professional goals.

Who Is a Mentor?

A mentor is someone who can help the mentee develop skills for success and long-range career planning, is able to be a good listener, is willing to share experiences and views, is willing to commit time and effort, provides an "open door" to questions and problems, points out both strengths and opportunities for improvement, and has a vested interest in the growth and development of their mentee.

Benefits to the mentor:

- Satisfaction in helping someone mature, progress, and achieve goals
- Meeting and sharing experiences with other mentors
- Personal ongoing support to help the mentee succeed
- Personal fulfillment through contribution to the Society and the individual

Who Is a Mentee?

Having a mentor can contribute to a successful and satisfying career. Without a mentor, that learning occurs mostly through trial and error. With a mentor, even experienced professionals can benefit from the experiences and expertise of someone who has withstood the trial and can help the mentee avoid the mistakes. Similarly, those new to the industry will discover that being a mentee shortens the learning curve for acquiring the skills and knowledge most critical to a fruitful career.

Benefits to the mentee:

- Discover new talents about yourself
- Career satisfaction
- Expand your personal network
- Maximize your strengths

For more information click below:

<https://connect.aspe.org/aspe-mentor-match/mentoring>



intellihot™ Intelligent Hot Water Supply Boilers
Endless Water. Zero Waste.

Heating Boilers
Hot Water Supply
Pool/Spa Heaters
Storage Tanks
Complete Parts Stock



High Efficiency Water Heaters
High Efficiency Heating
Boilers
Custom System Solutions

Snowmelt Systems
Radiant Floorheat Systems



Gas Fired Heat Pumps
Heat Recovery Chillers



Natural Gas / Propane / Electric
3,000 to 4,000,000 BTU's
- ALSO -
Holby Thermostatic Mixing Valves



KERR PUMP AND SUPPLY
www.kerrpump.com

Jamie Caporosso: jamie@kerrpump.com
12880 Cloverdale, Oak Park, MI 48237
Ph.: (248) 543-3880 Fax: (248) 543-3236

Liquid Pumps
Vacuum Pumps
Heat Exchangers
Blowers
Related Equipment
and Accessories

Sales • Service • Repair



AURORA FIRE PUMPS

Compact Fire Pump Systems

- UL Listed/FM Approved Aurora Fire Pump
- UL Listed/ FM Approved Fire Pump Controller
- Capacities of 50-750 Gpm.
- Pressures of 40-160 Psi.
- Aurora Model PVM (close coupled to an ODP motor.)

Vertical Split Case Electric Drive Fire Pump

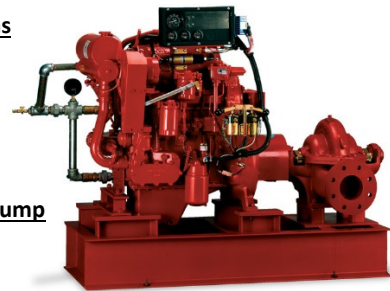
- Electric Driven
- For Commercial, Industrial and Marine use only.
- UL Listed/ FM Approved/NFPA-20 Design

Horizontal Split Case Diesel Drive Fire Pump

- Diesel and Electric driven available.
- Flows at 250 gpm to 5000 gpm.
- Pressures available up to 490 Psi.

PLEASE INQUIRE TO KERR PUMP FOR PRICING,
SELECTIONS, OR TESTING ON EXISTING.
ALSO, PLEASE SEE www.aurorapump.com

Michigan's Oldest Supplier of Pumps and Process Equipment - 1905



BALFREY & JOHNSTON, INC.

Manufacturers' Representatives
 13050 Northend
 Oak Park, MI 48237
 Ph 313 864-2800 Fax 313 864-7219
George D. Johnston: george@balfrey-johnston.com
 balfrey-johnston.com

J.W. SALES, INC.

Manufacturers' Representative
 1570 E. Highwood
 Pontiac, MI 48340
 O: 248.745.8590 F: 248.745.0889
Thomas Huck: thomash@jwsalesinc.net
 C: 248-602-1575
Michael Fedorinchik: mikef@jwsalesinc.net
 Jwsalesinc.net

BURKE AGENCY, INC.

Manufacturers' Representatives
 2605 E. Oakley Park Road, Suite A,
 Commerce Twp, MI 48390
 Ph 248 669-2800 Fax 248 669-3310
Brian Burke, Peter Lapham, John Taylor
 bburke@burkeagency.com
 burkeagency.com

KERR PUMP AND SUPPLY

Manufacturers' Representatives
 12880 Cloverdale
 Oak Park, MI 48237
 Ph 248 543-3880 Fax 248 543-3236
Tyler Palchak: tpalchak@kerrpump.com
 Direct: 248-826-9414
 kerrpump.com

DALE PRENTICE COMPANY

Manufacturers' Representatives &
 Application Engineering Solutions Provider
 26511 Harding Avenue
 Oak Park, MI 48237
 Ph 800 536-4700 Fax 248 339-5559
Michael Cullen: mcullen@prenticeco.com
 Mobile 248 302-5924
 prenticeco.com

LOCHINVAR

High Efficiency Water Heaters and Boilers
 45900 Port Street
 Plymouth, MI 48170
 Ph 734 454-4480 Fax 734 454-1790
Jason Loverich: jloverich@lochinvar.com
 lochinvar.com

DAVE WATSON ASSOCIATES, INC.

Manufacturers' Representatives
 1325 W. Beecher St.
 Adrian, MI 49221
 Ph 517 263-8988 Fax 517 263-2328
Rick Johnston: rjohnston@davewatson.biz
 davewatson.biz

MAJOR/LOZUAWAY & ASSOCIATES, INC.

Manufacturers' Representatives
 1117 W. Grand Blanc Rd.
 Grand Blanc, MI 48439
 Ph 810 234-1635 Fax 810 234-8389
Mike Ostrowski: moski@lozuaway.com
 Mobile 810 287-6983
Bill Campbell, PE: bill@lozuaway.com
 Mobile 810-287-0029

**DIVERSIFIED SPEC. SALES, INC./
HOWLEY AGENCY SALES CO.**

Manufacturers' Representative
 13261 Northend Ave.
 Oak Park, MI 48237-3265
Brendan Burdette: bburdette@dsshowley.com
 Ph 248 398-2400 Fax 248 547-4905
 diversifiedspec.com

NEW CENTURY SALES, INC.

Manufacturers' Representatives
 1715 Traditional Dr.
 Commerce Township, MI 48390
 Ph 248 960-1147
Ross Beck: rossb@newcenturysales.com
 Mobile 734 673-2119
Todd Hiler: toddh@newcenturysales.com
 Mobile 513 633-2609
 newcenturysales.com

HS/BUY VAN ASSOCIATES, INC.

Manufacturers' Representatives
 56 S. Squirrel
 Auburn Hills, MI 48326
Jarrett Armstrong
 Ph 888 472-8982 Fax 248 852-0298
 info@hsbuyvan.com
 hsbuyvan.com

PAULA. BAKER

ASSE Region #4 Director - Mid West
 ASSE International
 18927 Hickory Creek Drive, Suite 220
 Mokena, IL 60448
 Ph 313 399-3072 Fax 248 585-1437
Paul Baker: paul.baker@ualocal98jatc.org
 www.asse-plumbing.org

PERFORMANCE ENGINEERING GROUP

Engineered Water Products
32955 Industrial Rd.
Livonia, MI 48150

Alan Deal: adeal@performanceengineering.com
Ph 734 266-5300 Fax 734 266-5310
performanceengineering.com

R.L. DEPPMANN COMPANY

Manufacturers' Representatives
46575 Magellan Drive
Novi, MI 48377

Gerry Potapa Jr., CPD, Paul Prentice, LEED AP®
Mark Fine, LEED AP®, Chris Lieder
Ph 800 589-6120 Fax 248 354-3763
sales@deppmann.com
deppmann.com

PROGRESSIVE PLUMBING SUPPLY

Wholesale Distributor
31239 Mound Road
Warren, MI 48092

Ph 586 756-8662 Fax 586 756-9077
ppsupplyco.com

Locations: Warren, Detroit, Mt. Clemens, and Oxford

TAGGART-KNIGHT GROUP

Manufacturers' Representatives
37686 Enterprise Ct.
Farmington Hills, MI 48331

Gary O. Taggart
Ph 248 553-4388 Fax 248 553-4653
info@taggartco.com
taggartknight.com

QUALITY WATER & AIR, INC.

Manufacturers' Representative
1402 Souter
Troy, MI 48083

Georgann Kummer, WBE
Ph 248 589-8010 Fax 248 589-8016
qualitywaterair@cs.com
qualitywaterair.com

V. E. SALES COMPANY

V. E. Sales is your source for
the finest quality flow control solutions.
25200 Jefferson Ave.
St. Clair Shores, MI 48081

Thomas Van Egmond
Ph 586 774-7760 Fax 586 774-1490
vesalesinc.com



INCREASE
EXPAND
GROW
MULTIPLY

Place your ad here and expand your company!



2021-2022 ASPE EMC Board

President

Pam Hartsell, CPD, PMP
Strategic Energy Solutions
4000 W. Eleven Mile Rd.
Berkley, MI 48072
(248) 399-1900 x 222
Fax: 399-1901
president.aspe.emc@gmail.com

VP Technical

Theresa Card, P.E., CPD,
LEED AP BD+C
Strategic Energy Solutions
4000 West 11 Mile Rd
Berkley, MI 48072
(248) 399-1900 ext 223
vpt.aspe.emc@gmail.com

VP Legislative

William Grayzar, CPD
28150 Greenfield Rd.
Southfield, MI 48076
(248)569-1430 ext.333
bill@dsonline.com

VP Membership

Kristin Simoneaux, P.E., CPD,
LEED AP
2338 Coolidge Hwy. #100
Berkley, MI 48072
(248) 336-4700
kristin.simoneaux@stantec.com

VP Education

Theresa Card, P.E., CPD,
LEED AP BD+C
Strategic Energy Solutions
4000 West 11 Mile Rd
Berkley, MI 48072
(248) 399-1900 ext 223
vpt.aspe.emc@gmail.com

Treasurer

Rachel Gendich
Strategic Energy Solutions
4000 W. Eleven Mile Rd.
Berkley, MI 48072
(248) 399-1900
Fax: 399-1901
treasurer.aspe.emc@gmail.com

Administrative Secretary

Brianne Hall, P.E., CPD,
LEED AP BD+C, GGP
FTC&H
39500 Mac Kenzie Dr. Suite 100
Novi, MI 48377
(248) 324-4780
bhall@fishbeck.com

Corresponding Secretary

George Johnston II
13050 Northend Ave
Oak Park, MI 48237
(313) 864-2800 Fax: 864-7219
george2@balfrey-johnston.com

Chaper Affiliate/Liaison

Dann Holmes
(248) 921-0582
r2al@aspe.org

AYP Liaison

George Bellman
Strategic Energy Solutions
4000 W. Eleven Mile Rd.
Berkley, MI 48072
(248) 399-1900 x222
Gbellman72@gmail.com

WOA Liaison

Theresa Card, P.E., CPD,
LEED AP BD+C
Strategic Energy Solutions
4000 West 11 Mile Rd
Berkley, MI 48072
(248) 399-1900 ext 223
allethe@gmail.com

Directors

Michael Melaragni, CPD
38958 Lapham Drive | Livonia, MI
48154-1014
(734) 591-9339
mjmelaragni@yahoo.com

Kari Rosteck
(313) 318-6555
kari.rosteck@gmail.com

John Nussbaum, IPP, FASSE,
FASPE
(248) 866-1400
jrnussbaum@comcast.net



SPONSOR ADVERTISING OPPORTUNITY INFORMATION

ASPE EMC News is published 9 times per year - September through May.

Yearly advertising for a Business Card ad, which also includes a full Line Card in our sponsors guide:
\$200.00 for members and \$250.00 for non-members.

Graphic Ads - Full Year (9 Issues): Quarter page - \$250.00 ○ Half page - \$350.00 ○ Full page - \$550.00

Checks should be made payable to ASPE EMC and mailed to: Rachel Gendich – Treasurer
c/o Strategic Energy Solution, 4000 W. Eleven Mile Rd., Berkley, MI 48072

Email all digital artwork to: Theresa Green, Newsletter Editor at: theresa.m.green@outlook.com

Circulation 260 - Distributed to: Engineers, Contractors, Inspectors, and other industry professionals in Michigan.

PAY FAST, PAY EASY
Secure Payments Accepted By

