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MEETING FORMAT

6:00 – 6:30	Social
6:30 – 6:45	Announcements & Table Tops
6:45	Dinner Served
7:00 – 8:00	Presentation

DATE:	April 26 2023
TIME:	6:00pm to 8:00pm
PLACE:	Olive Grove Restaurant
TOPIC:	Booster Pump Applications
SPEAKER:	QuantumFlo

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Newsletter questions? Please contact [Nikita Patel](#)



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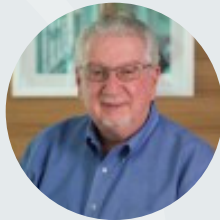
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- As a paid advertiser, you will have your advertisement in the newsletter for one full year (9 editions) and company logo displayed on the Chapter website.
- Ads for the year will begin in the September issue and run through the May issue.
- All ads must be paid in full prior to the advertisement being included in the newsletter.
- Advertiser must provide ads in high resolution PDF format. Logo must be provided in .jpeg format, 200px wide size
- Cost per advertisement is as follows:
 - Full Page \$ 750.00
 - Half Page \$ 500.00
- Please contact Nikita Patel or Chuck Swope
- Make checks payable to Baltimore Chapter of ASPE. Please contact the Chapter Treasurer with any questions.



Chuck Swope, PE, CPD, LEED AP BD+C
Chapter President

The President's Report

As spring blooms and we welcome the month of April, it's time to check in with our ASPE community and share some updates on what's been happening in our chapter. Firstly, we would like to express our gratitude to all of our members for their continued support and dedication to advancing the plumbing engineering profession. We are proud of the work we've done in the past year, and we're excited to continue building on our successes. Don't forget to sign up for our annual Golf Outing, Joint Event with the Local 486, and naturally our regular meetings. I did want to take a moment to discuss our industry as a whole, with a few lessons that are cornerstones of a successful project.

Coordination is an important aspect of plumbing engineering. As buildings become more complex, it's essential that all trades work together to ensure that systems are installed properly and that they function as intended. By communicating effectively with other trades, we can help prevent issues from arising and ensure that projects are completed on time and on budget.

I'd also like to highlight the important role that contractors play in our industry. Contractors are responsible for implementing the designs that we create, and their work can have a significant impact on the success of a project. It's important that our work demonstrates clear intent for the contractors to ensure that they understand our designs and that they have the resources they need to execute them properly.

In addition to our events, we want to remind everyone about the importance of staying engaged with our ASPE community. We encourage all members to take advantage of our online resources, including our discussion forums and job board. This is a great way to connect with other professionals and stay up to date on the latest industry news and trends.

Lastly, we want to thank all of our members who have volunteered their time and expertise to help advance our chapter's mission. Your contributions are invaluable, and we couldn't do it without you.



You're Invited!

JOINT EVENT



THIRD ANNUAL

JOIN OUR **SPEAKERS** AS THEY LEAD THREE CASE STUDY DISCUSSIONS



BJ Allen

Warfel Construction

With his years of experience in MEP consulting and healthcare construction, join BJ as he discusses the importance of communication throughout the various stages of a project.



Kathy Dwyer

E.J. Dwyer and Co

It doesn't matter what type of building you're working in, health and safety is always important! Join Kathy while she discusses various types of gas safety equipment and the benefits of each one.



Nikita Patel

Sherman Engineering

Writing specs for Engineers is a daily task for Nikita, but one thing never changes. The customer usually wants the lowest cost options. Join her for a discussion on value ADDED specs and how to implement them.

JOIN US
THURSDAY
APRIL 6
5-7 PM





Join Laura Loziuk, Northeast Regional Sales Manager at Tyler Pipe and Coupling, and BJ Shrader, Regional Manager Technical Services at McWane Plumbing Group as they provide a hands-on training experience for joining cast iron pipe. This is a great demonstration for new, and seasoned industry professionals.



Join Harold Moret, Project Manager at Copper Alliance (left) for a demonstration on copper joining methods, including soldering, brazing, and press-to-connect. Then, go to Jesse Myers, Service Director at Sherman Engineering (right), for a demo on NFPA 99 approved MedLok fittings and Meditrac tubing.



Owen Murphy, Technical Sales Engineer at Meditrac (left), and Don Levensood, Business Development Manager at MedLok (right) will be assisting Jesse for these demonstrations and will be available to provide credentialing exams to any ASSE 6010 Installers during the demonstration.



Jacob Otto, left, and Joey Adams (right), both handle outside sales for Otto Sales and will be joined by Leonard Water for a demonstration on digital mixing valve installations, piping, and operation. They will also share cleaning and disinfection tips.

JOIN OUR TRAINERS AS THEY PROVIDE HANDS ON PRODUCT DEMOS



**JOIN US
THURSDAY
APRIL 6
5-7 PM**





ASPE BALTIMORE CHAPTER GOLF OUTING and COOKOUT

Friday, April 28, 2023
The Timbers at Troy
Columbia, Maryland
\$125 / Golfer

- Prizes for Team Play
- Door Prizes
- Longest Drive Prizes
- Closest to the Pin Prizes

SCHEDULE

7:30 AM	Registration/Check-In/Breakfast		
8:30 AM	Shotgun Start Scramble Format "Captain's Choice" Mulligans Available	1:30 PM	Cookout (Hamburgers, Hot Dogs, etc.)
		2:00 PM	Awards & Prizes

Sponsors and Participants, please contact/return registrations to:

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 James Posey Associates
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 Baltimore, MD 21117
 Phone: (410) 265-6100

You can register and donate directly through our website this year!

You can still register via the website and pay by check, just register electronically and choose "Bypass Payment". Then, send a check and a note to Dave at the address to the left.

Make checks payable to ASPE Baltimore Chapter.
Reservations will be confirmed when check and participant information is received.

PLEASE RETURN COMPLETED FORMS BY APRIL 14, 2023

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No. of Golfers: _____ @ \$125 each Total for Golfers: \$ _____

Sponsorship Level: _____ Total Sponsorship: \$ _____

Total Amount: \$ _____

2023 ASPE Baltimore Chapter Golf Outing Sponsorship Levels

- **Tee Marker (with Foursome)** **\$125.00**

- **Tee Marker (without Foursome)** **\$150.00**

- **Drink Cart Sponsorship** **\$600.00**
(Includes tee marker and drink cart sign)

- **Cookout Sponsorship** **\$600.00**
(Includes tee marker and cookout sign)

- **Cart Sponsorship** **\$600.00**
(Includes tee marker and cart signs for each cart)



All proceeds from the Golf Outing will benefit future Chapter events and activities.

Please make checks payable to: **ASPE Baltimore Chapter**

Mail registration and payment to:

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Attn: David K. Goodell

11155 Red Run Boulevard

Baltimore Maryland, 21117




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Chris Imhof, PE, CPD
 Vice President- Legislative

Legislative Report

WSSC Water to Amend WSSC Plumbing and Fuel Gas Code

WSSC Water has approved a resolution to amend and update Chapter 14.25.010 of the WSSC Code of Regulations, the WSSC Plumbing and Fuel Gas Code (Code). The Code, which relates to regulations for plumbing, gasfitting, sewer and drain cleaning, site utility work, cross-connection control, and industrial and special waste, has various proposed changes or amendments. This edition of the Code shall be known as the 2021 WSSC Plumbing and Fuel Gas Code. The Code adopts, with amendments, the 2021 editions of the International Plumbing Code and International Fuel Gas Code.

The 2021 WSSC Plumbing and Fuel Code will become effective April 1 and may be viewed on the WSSC Water website at: wsscwater.com/codebooks

For additional code-related information, contact Technical Standards Engineering Manager Chris Imhof at christopher.imhof@wsscwater.com or 301-206-8514.

I will also be presenting at the May 24, 2023 Baltimore ASPE Meeting.

Chris Imhof, PE, CPD
 Vice President – Legislative





Julian Chiveral, LEED AP BD+C
Vice President- Technical

Technical Report

Greetings, ASPE members!

April is upon us, and you know that means the weather can be unpredictable. One day it could be sunny and 70 degrees, and the next, you're shoveling snow off your front porch. But hey, that's just part of the charm of living in this great area.

Speaking of charm, let's take a moment to thank the attendees and presenter from our previous monthly meeting. Mark Smullen, fire pump aficionado at STH Inc., gave a fantastic presentation on fire pumps, when they're needed and how to size them. It's always great to hear from experts in the field and learn from their experiences. If you have any questions or fire pump needs, you can reach his team via email at Quotes@sthinc.com.

Our next chapter meeting will be on April 19. We'll be discussing booster pumps, which are critical for maintaining water pressure in many plumbing systems. Our presenter for the evening is brought by Jay Otto, owner of Otto Sales. Jay has been working in the plumbing industry for years and is involved with several ASPE chapters including our own! Jay and Ed Ross with QuantumFlo, are sure to provide valuable insights on this important topic.

Don't forget to mark your calendars and join us for what promises to be an informative and engaging discussion. And if you just can't get enough of ASPE, we will be hosting a joint event with Local 486 Plumbers & Steamfitters at their training school on April 6th. As always, if you have any ideas or suggestions for future meetings, please don't hesitate to reach out to our ASPE board. Until next time, stay safe and enjoy the unpredictable April weather!

Julian Chiveral, LEED AP BD+C
Vice President - Technical



Nikita Patel, PE
(Region 1) AYP Liaison | Education Chair



Education Report
Joint ASPE/UA486 Event

I am really excited for our joint event this Thursday, 4/6! If you didn't get the chance to register, please stay tuned for next month's newsletter to hear some feedback on how it went. Unfortunately registration has closed.

This year, we will have hands on training, including cast iron pipe joining methods; copper brazing, soldering and pressing; medical gas fittings and pipe, and demonstrations on digital mixing valves. Let's take a moment to thank our primary event sponsor, Laura Loziuk with Tyler Pipe. She has been crucial in planning this event for three years!

In addition to the hands on event, we'll have a few short technical presentations

1. Communication between key players involved in a project by BJ Allen with Warfel Construction.
2. Specifying digital mixing valves by Kathy Dwyer of E.J. Dwyer Co.
3. Pitching value added specs, not just cost effective specs by yours truly.



ASPE Tech Symposium

The ASPE Tech Symposium Committee has begun planning what is sure to be a great few days for Engineers in WA later this year. The ASPE Education Committee and Board are hard at work reviewing all the submissions to curate the best learning experience possible for you!

Who is this event for?

Anyone working in various professions related to plumbing system design:

- Plumbing Engineers/Designers
- Mechanical Engineers/Designers
- Sales Engineer
- Estimator
- Sales Reps.
- Applications Engineer
- Technicians
- Master Plumbers
- Specifiers
- Consultant

Technical Sessions

Friday, September 29 // time
Saturday, September 30 // time
Sunday, October 1 // time

ASPE's Tech Symposium features professional development sessions designed to help plumbing industry professionals at all career levels learn new skills or refresh their design repertoire. Each session is taught by an expert in the field and offers 0.15 CEUs that can be used for license and certification continuing education requirements.

The complete technical education session schedule will be released in early summer.

2-Day Product Show

Thursday, September 28 // 4:00 p.m. – 8:00 p.m.
Friday, September 29 // 9:45 a.m. – 1:15 p.m.

The 2023 ASPE Tech Symposium Product Show is a unique chance for you to have one-on-one face time with the manufacturers who make the products you specify. It's an excellent chance to get your product questions answered by the experts and possibly even influence future product designs. Join your peers, grab a drink, and enjoy a bite to eat at this engaging two-day event.

All 2023 ASPE Tech Symposium sponsors will be exhibiting at the Product Show.

AYP Report

I can personally assure you the AYP Leadership Academy at the Symposium is one you won't want to miss! This exclusive event will bring together young professionals from across the country to learn key skills. CEUs are available for participating. The event is limited to the first 35 who RSVP, so complete your registration as soon as it is live this month!

In more local news, registration for our Baltimore AYP event is now open for Top Golf! Please save your spot quickly, as we are limited attendance to the first 15 who RSVP.

BALTIMORE AYP PRESENTS



TOP GOLF BALTIMORE EVENT

10 MAY 2023

1411 Warner St

Baltimore, MD 21230

6:00-8:00PM

Join us for two hours of unlimited gameplay at Top Golf in Baltimore. While you're not practicing your aim, sit back and relax with some food and drinks with your peers within ASPE!

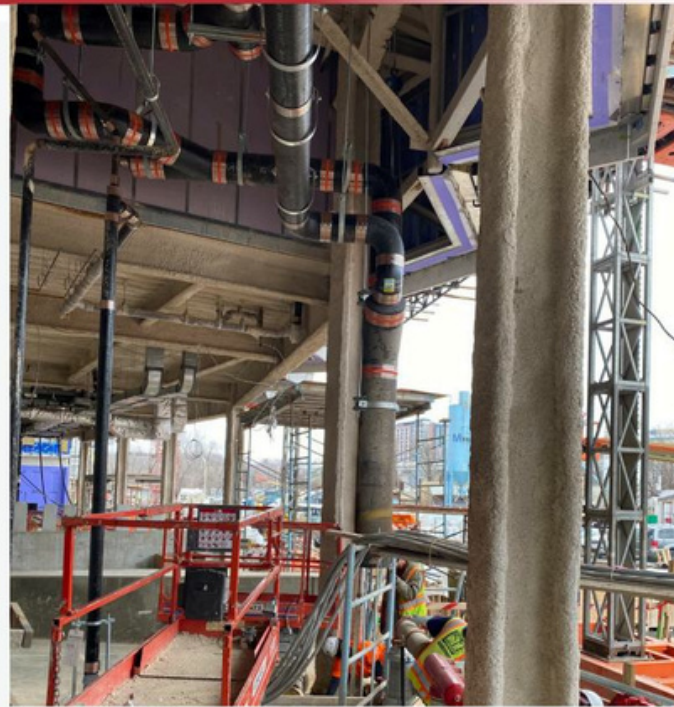
Registration is limited, so please reserve your spot early!



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[Top Golf Registration](#)

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On-Premises Nitrogen Generation to Address CO2 Supply Concerns for Breweries

As these gases serve similar purposes in brewery processes, replacing one with the other is viable where a specific gas may not be required. Read on to learn about technologies that can aid in this endeavor.

February 3, 2022; Written by: Garrett Rinker

Supply chain issues in recent years have forced many companies to reconsider their entire business approach. Greater priority has been placed on maintaining a steady inflow of required resources.

A recent shortage of carbon dioxide supplies has put additional strain on businesses nationwide, particularly those in the brewing industry. This shortage can be attributed to a combination of several factors, including the continuation of general supply chain issues, high demand for carbon dioxide over the summer months, and elevated hydrocarbon levels observed in September 2022 in the carbon dioxide from the Jackson Dome, one of the nation's largest sources for the gas.

One strategy to remove some uncertainty in a supply chain is to reduce the number of third-party vendors involved in the business. For example, it may be worthwhile for companies purchasing goods from a vendor to produce those goods on-premises, if possible.

This article aims to provide a potential solution for breweries facing delayed deliveries and price increases associated with carbon dioxide: using on-premises nitrogen generation to serve as a partial or full replacement for purchasing liquid carbon dioxide for some processes.

CO2 and N2 Use

Carbon dioxide and nitrogen have various usages in breweries. They are used as process gases (primarily for the movement of fluids while maintaining an inert environment) and for giving beverages distinct taste and visual characteristics.

Carbonation gives beer its fizzy appearance and prevents spoilage. Most beer produced in breweries is carbonated by directing a flow of carbon dioxide through the beverage. This lowers the required process time for carbonation from weeks (via natural carbonation) to days. Beer produced commercially in America is typically highly carbonated and light.

During fermentation of the brewing process, carbon dioxide is released as a byproduct when yeast digests sugars. Technology exists to capture and reuse a portion of the released carbon dioxide during brewing, which reduces the volume of gas needed to be purchased.

However, cost and production limitations have prevented many smaller breweries from purchasing these technologies since they are generally more practical in large-scale applications.

CO2 and N2 Use

Carbon dioxide and nitrogen serve similar purposes in brewery processes. Replacing carbon dioxide with nitrogen is a viable solution for blanketing, purging, moving liquids, etc., where a specific gas may not necessarily be required. Both carbon dioxide and nitrogen are considered inert gases, as they do not readily react with other substances. Nitrogen, for example, can be used as a process gas without altering the carbonation characteristics of the beverage and is usually added to kegs for pressurization.

Because of the nationwide carbon dioxide shortage, brewers began investigating the practicality of switching some of their carbon dioxide processes to use nitrogen, explains Billy Chestnutt, industrial sales manager at South-Tek Systems. The manufacturer's BeerBlast Nitrogen Generators use nitrogen to push beer to the tap. "The applications for nitrogen that we see in the brewing process include purging/blanketing of tanks, pushing product from tank to tank, pre-purge on canning lines, running the keg washer, nitrogenating beer and testing in the quality assurance lab," he notes.

In addition, many breweries recently began producing “nitrogenized beers,” which only involve nitrogen during brewing rather than a blend of carbon dioxide and nitrogen.

For comparison, brewing ales and lagers typically involve a 70% carbon dioxide and 30% nitrogen blend, whereas stouts and porters tend to use a 25% carbon dioxide and 75% nitrogen blend. Nitrogenized beers tend to have a smooth taste and a lasting foam head. Beer is usually nitrogenized by forcing nitrogen into the beverage at high pressures since nitrogen does not naturally combine with it like carbon dioxide.

Generating Nitrogen

The three main processes by which nitrogen is separated from oxygen and other substances in the air are the following:

- Cryogenic distillation
- Membrane systems
- Pressure swing adsorption (PSA)

Each of these processes has a range of product nitrogen flow rates and purities in which they are better suited to operate than the others.

Cryogenic distillation was the first of these processes to be developed, dating back to 1895. It is the process by which liquid nitrogen is obtained.

It involves cooling an input flow of air below the boiling points of its constituents. The difference in boiling points of these constituents allows for their separation. The required temperature to liquefy the components of air during this process is extreme; at atmospheric pressure, the boiling points of nitrogen and oxygen are approximately -320 F and -297 F, respectively.

Cryogenic distillation provides the greatest purity of nitrogen of the three nitrogen generation processes (more than 99.9995%). However, it is more energy-intensive and costly than membrane or PSA systems, making it economically viable only for large-scale systems.

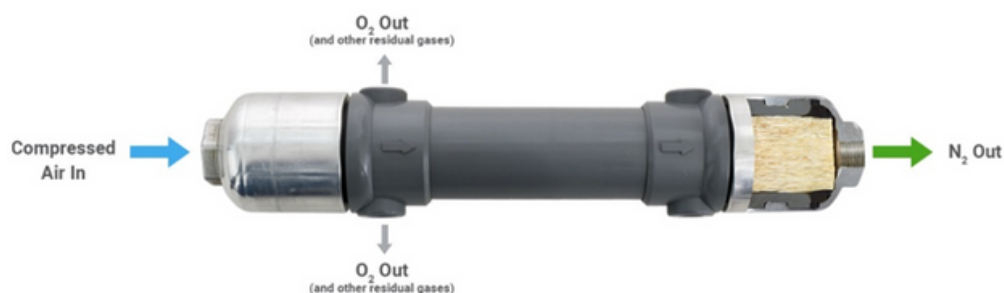
Membrane and PSA technologies, not widely used for nitrogen separation until the 1980s, are recommended for on-premises nitrogen generation for brewery applications. Let’s take a closer at both:

Membrane Separation

Membrane systems operate via selective permeation, where differences in gas molecule diffusion rates through a packed container of hollow fibers drive separation. The hollow fibers selectively permeate oxygen, water vapor and other impurities from an input flow of compressed air, leaving nitrogen as a product.

Membrane systems can typically provide nitrogen at a purity of 99.5% and are recommended for applications where a flow rate of less than 1,000 standard cubic feet/hour (SCFH) is required, though greater flow rates can be achieved depending on membrane sizes.

Figure 1 shows an example of a membrane filtration device designed for nitrogen separation from a compressed air input.



Pressure Swing Adsorption

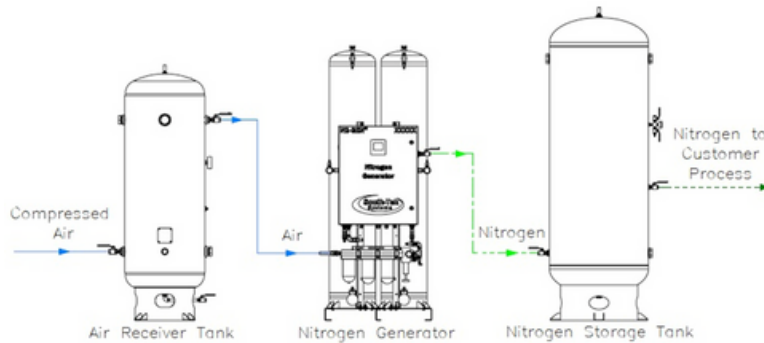
The typical PSA process involves two pressure vessels (referred to as sieve beds) filled with carbon molecular sieve (CMS). This material selectively adsorbs gas molecules at pores on its surface. These pore sizes are on the scale of Angstroms, a unit of measurement equal to 0.1 nanometers.

When pressurized, gas molecules begin to fill the pores. Oxygen and nitrogen have molecular sizes of 2.99 and 3.05 Angstroms, respectively. Since oxygen molecules are smaller than those of nitrogen, more oxygen molecules are adsorbed at the pores of the CMS.

During the PSA process, only one of the sieve beds actively separates nitrogen from an input of compressed air. While one sieve bed is active, the other is exhausting gases stored in the CMS from the previous cycle. The rate of adsorption in the CMS of the active sieve bed will decrease with time, as the CMS can only hold a finite amount of gas molecules.

Eventually, the output nitrogen purity from the active sieve bed will start to drop (a point referred to as breakthrough). The input flow of air is then switched to the other sieve bed, and the cycle repeats itself. PSA systems can supply a wide range of nitrogen purities and flow rates; nitrogen purities can range from 95% to 99.999%, and typical flow rates can vary anywhere from 50 to 35,000 SCFH. Factors affecting nitrogen purity and flow rate include input air flow rate, the mass of CMS used, cycle timing, adsorption pressure, etc.

Figure 2 is a basic schematic of how a nitrogen generation system is generally arranged. Two tanks (one for input air and one for product nitrogen) are recommended for most applications to stabilize system pressures when the PSA cycle switches the input air flow between sieve beds.



Benefits of On-Premises Generation

PSA systems designed for separating carbon dioxide from other gases exist, though these systems are best applied when a large input flow of flue gas is available, making them unfit for a brewery setting. The average cost of liquid carbon dioxide (due to the impact of recent supply and demand) is about \$3.50/kg, or approximately \$18/CCF (representative of the gas phase at standard conditions).

Costs associated with nitrogen in liquid bulk tanks, liquid dewars and high-pressure cylinders are approximately \$1/CCF, \$5.50/CCF and \$25/CCF, respectively. However, nitrogen generated on-premises can cost as little as \$0.10/CCF, representing the electrical power required to operate the system.

The initial cost of a nitrogen generation system may be greater than high-pressure cylinders and liquid nitrogen containers. Still, most companies will reach a return on investment within 12 to 18 months with proper system sizing based on process demands.

Breweries typically experience savings associated with gases of 50% to 75% by switching to on-premises nitrogen generation. If a regular maintenance schedule is followed, PSA nitrogen generation systems can have a life expectancy of 15 to 20 years.

Approximately 79% of ambient air is nitrogen, so the system will never have a shortage of gas to process. An on-premises nitrogen generation system provides a reliable supply of process gas, one that does not continually depend on third-party vendors.

Hey Young Professionals!

REGION 1 AYP PRESENTS:

Not All Alloys are Created Equal

presented by

LAUREN BERENATO



Lauren Berenato is the National Specifications Manager for Jomar Valve. She joined Jomar in February of 2016. Within her role at Jomar, she educates Engineers, designers, contractors, and manufacturer's rep agencies on designing the most efficient systems.

Within ASPE, Lauren serves on the Region 1 Board as the Affiliate Liaison. She is also involved with the American Supply Association's Women in Industry Division where she is the founding member of the Women in Industry Leadership Book Club. Lauren has been published in *Plumbing and Mechanical Magazine* as well as MCAA's magazine.

Lauren has her Bachelor of Science from Lehigh University in Industrial Engineering, her Juris Doctor from DE Law School, and her Master's in Patent Law from the University of Notre Dame.

WHO

THIS WEBINAR IS OPEN TO ALL REGION 1 ASPE YOUNG PROFESSIONALS

WHAT

1. VALVE MATERIALS
2. BRASS VS. BRONZE
3. DEZINCIFICATION
4. MATERIALS FOR APPLICATIONS

WHEN

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How it Works: The thermal actuator at the heart of the CircuitSolver® modulates the valve between open and closed in response to changing water temperature. This continuous response to temperature variation enables each hot water branch to quickly and consistently direct hot water flow to where it is needed – No manual balancing required.

Note: The valve never fully closes, allowing a small amount of bypass flow to the return to avoid deadheading the recirculation pump.

CircuitSolver® Placement Do's and Don'ts

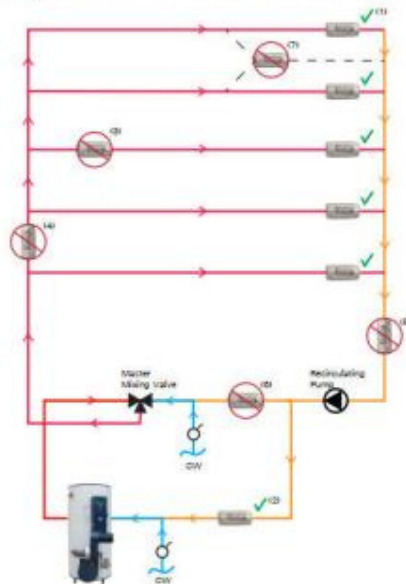
- (1) ✓ at the end of each branch/riser
- (2) ✓ in the return line back to the water heater
- (3) ✗ not in the middle of a branch/riser
- (4) ✗ not in a supply line
- (5) ✗ not in the return line
- (6) ✗ not after the recirculating pump
- (7) ✗ don't combine 2 branches/ risers

Valve Selection

Size: Select the size equivalent to the branch/riser feeding the return line.

Temperature: Select the set-point temperature equal to the desired return temperature.

Example: A standard CircuitSolver® installed on a 3/4" branch/riser with a 120°F return temperature would be CS-3/4-120.



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Since 1970

CircuitSolver® (CS)



CircuitSolver® Union Assembly (CSUA)



CircuitSolver® Union Strainer Assembly (CSUAS)



And many more!



POWERS INNOVATIONS

DIGITAL MIXING SOLUTIONS ENABLE THE SAFE, EFFICIENT DELIVERY OF HOT WATER IN COMMERCIAL AND INSTITUTIONAL FACILITIES. BOTH PRODUCTS HAVE THE SAME FUNCTIONALITY BUT AT DIFFERENT FLOW CAPACITIES AND HELP TO PREVENT SCALDING WHILE SAVING ENERGY.



INTELLISTATION®

The IntelliStation®, with its large-capacity valves, is designed for use in hospitals, universities, and large hotels. The digital water mixing and recirculation solution can be integrated into a building automation system (BAS) to allow facilities managers to remotely monitor and control water temperatures. Help mitigate Legionella and other waterborne pathogens with the high-temperature sanitization mode. Key capabilities include a digital temperature regulation within $\pm 2^{\circ}\text{F}$ to ASSE 1017, even during low and zero demand periods, and is field configurable without the need for a laptop or special software.

INTELLISTATION® JR

IntelliStation® Jr. provides safe hot water consistently and on-demand for smaller applications than IntelliStation. It is also ASSE 1017 compliant, available in 3/4" through 2" sizes, and has a programmable temperature set-back/scheduling program that lowers water temperature when the building is unoccupied. Register the Jr. with the Watts OnSite mobile or web app for remote temperature control, monitoring, and visibility across locations and sublocations.

Scan the QR Code below to access the Selexit Configuration Tool.





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DURAGUARD® PRODUCT LINE



Public health and safety are a common concern. Targeted for commercial applications, Bemis has a comprehensive offering of seats with DuraGuard® Antimicrobial Built-In Seat Protection™ and STAY·TITE™.

WHAT IS DURAGUARD?

DuraGuard is an antimicrobial property built into the toilet seat to inhibit the growth of bacteria. The active ingredient in DuraGuard is zinc pyrithione, a non-VOC (volatile organic compound), broad-spectrum, highly effective antimicrobial agent used to control mold, mildew, yeasts, fungi, algae, gram positive and negative bacteria. DuraGuard does not protect users or others against bacteria, viruses, germs, or other disease-causing organisms.

WHAT IS STAY·TITE?

STAY·TITE Seat Fastening System™ anchors the toilet seat to the bowl by using a patented bolt design with a finned bushing and glass-filled nylon nut, eliminating the need to retighten the seat to the bowl after installation.

**CONTACT YOUR REP FOR
ADDITIONAL INFORMATION**

OFFICE



HOSPITALITY



SCHOOLS



HEALTHCARE



Schedule of Events

<u>DATE</u>	<u>TOPIC</u>	<u>PRESENTER</u>
SEPTEMBER 9	Enhance Revit Design to Increase Design Efficiency	Microdesk - Boston Chapter
SEPTEMBER 15	Industry Night on the Terrace	MCA
SEPTEMBER 28	Lab Gas Design Using the NIH DRM	Sherman Engineering - Nikita Patel
OCTOBER 26	Commercial Water Softening & RO Systems	Canature Water Group
NOVEMBER 14	Valve Material Applications	Jomar - Lauren Berenato
DECEMBER 14	Natural Gas Design	OmegaFlex
JANUARY 25	VPMIA Code Review	Amtron
FEBRUARY 19-25	Engineer's Week	-
FEBRUARY 22	Sprinkler Design	UMD - Ken Isman
MARCH 22	Fire Pumps	STH
APRIL 6	Joint ASPE/UA486 Event	-
APRIL 26	Booster Pumps	QuantumFlo
APRIL 28	Annual Golf Outing	-
MAY 24	WSSC Code Update	WSSC - Chris Imhof
JULY 29	Summer Holiday Party	-

MONTHLY
SPONSORSHIP
OPPORTUNITIES

Tabletop Presentations: \$100 to provide a tabletop presentation of equipment or material relative to the plumbing profession. The tablespots will be set up from the beginning to the end of the monthly meeting and provides the opportunity to provide a brief (under 5 minutes) presentation.

Please make checks payable to the Baltimore Chapter of ASPE. Contact Kathy Dwyer or Chuck Swope if interested