

# ASPE Richmond Chapter NEWS



December 2012

Next Scheduled Meeting (see menu on page 2)

Date: December 10, 2012

Time: 11:30 am - 1:00 pm

Place: The Holiday Inn Express -  
9933 Mayland Dr.

Richmond, VA. 23233

Speaker: Paul grant

Topic: Emergency Eyewash and  
Shower Equipment

Price: \$20.00

## President's Report

Tina Capece, CPD – Chapter President

I would like to thank Jay Otto for providing lunch for everyone who came to see his presentation on the Practical Design and Implementation of Water Reuse Systems and Utilization. We had standing room only with over 48 members and that was about 95 percent designers and engineers.

Please see Rick O'Berry's note for the Virginia Beach/Norfolk area. If you don't know already it was voted by National that we can start our Satellite chapter in the Virginia Beach/Norfolk area. Thanks to everyone who helped and signed the partitions. This has been something that we tried over 15 years ago, so it is truly a great accomplishment. So thanks to Rick O'Berry, CPD and Chad Luettel, CPD for taking on this task and successfully getting it done. I hope that all the members in the Virginia Beach and Norfolk area take full advantage of the local satellite chapter. Continue on Page 2

ASPE - Richmond Chapter Newsletter - December 2012

## BOARD OF DIRECTORS

### PRESIDENT

Tina Capece, CPD  
H&A Architects and Engineers  
804-521-7035  
tina.capece@ha-inc.com

### VICE PRESIDENT - TECHNICAL

Eric Scott, CPD  
H&A Architects and Engineers  
804-420-1608  
E.Scott@ha-inc.com

### Vice President - Legislative

Stanley Hunt  
Design Plumbing Service, LLC  
804-241-0614  
designplumbingservice@yahoo.com

### Vice President - Membership

Elis R. Lowry Jr., CPD (Randy)  
Baskervill  
804-343-1010  
rlowry@baskervill.com

### Vice President - Education

Josh Landis  
H&A Architects and Engineers  
804-521-1051  
j.landis@ha-inc.com

### Treasurer

Jeff Bew LEED AP BC+C  
H&A Architects and Engineers  
804-822-3018  
j.bew@ha-inc.com

### Administrative Secretary

Jay Otto  
Otto Sales  
804-798-2600  
jayotto@ottosales.com

### Corresponding Secretary

Position currently not held

### Historian

Position currently not held

### AFFILIATE LIAISON/ RESOURCE

#### ENHANCEMENT CHAIR

William G. Lesemann Jr.  
Lesemann & Son  
804-752-6301  
blesemann@wglesemann.com



*Menu for Decembers meeting*  
*Lasagna w/ meat sauce*  
*Baked Manicotti*  
*Baked Mediterranean Pasta*  
*Salad*  
*Assortment of Deserts*

## Contest !!!! Each Month

We will collect your business card at the door and randomly select one card, if your card is selected you will receive a \$20.00 and your card will be advertised in the newsletter. Last month winner is below.....We will also have a separate drawing for a MaxxGlobal Stinger Elite X1-LED Flashlight (waiting on order) this has the ASPE LOGO and is valued at \$89.99



Kevin Sherlock • CPD  
 Senior Associate  
 DEPARTMENT MANAGER

Mechanical Electrical Plumbing  
 Construction Administration  
 Life Safety Project Management  
 Commissioning BIM

HC Yu and Associates  
 Consulting Engineers

Phone: 804.262.6500  
 Mobile: 804.221.7805  
 Direct: 804.616.3720  
 kevin.sherlock@hcyu.com

8040 Villa Park Drive, Suite 800  
 Richmond, Virginia 23228

## Continued President's Report

The table-top are a great success, we had the following sponsors for last month's meeting - Jay Otto of Otto Sales - Craig Parker of Carotek, Inc. (he was a sponsor only last month) - Bill Lesemann of WG Lesemann and Son - Trey Anderson of TLA - Peter Pastore of RMI, and Robbie Johnson of Soter-Martin Sales & Marketing

**ADVERTISEMENTS:** We have cut our prices for the Advertisement for the newsletter early since we have meet our goal, so please take advantage of the new prices and advertise. You will not find a ASPE Chapter that has as low of rates as we do.

This month's meeting is on Emergency Eyewash and Showers Equipment and is presented by Paul Grant - Eastern Region Sales Manager/Guardian Equipment.

**National Mentoring Month is January, and as I mention in last month's email the ASPE RICHMOND CHAPTER would like to show our appreciation by giving out several mentoring awards. This month's award will be given to Lewis Breedlove, CPD of HCYU. We want it to be a surprise as to whom wrote the letter to nominate Lewis for this award, so at the meeting we will disclose all this information. The letter and photos will be in next's month newsletter.**

Last month door prize winner was Kevin Sherlock, CPC of HC YU and Associates he received \$20.00 and his card is featured in this month's newsletter.

In January we will have two LEED classes provided for our members and non-members to attend. Please see page 4 for more information on dates and cost.

I look forward to seeing you this month

Tina Capece, CPD  
 President  
 ASPE Richmond Chapter

## Membership Dues Hardship Waiver

Society offers a hardship waiver for members who have lost their jobs. Go to [www.aspe.org](http://www.aspe.org) for more details on applying for this benefit.

You may not think this helps, but it allows a member to stay active and take advantage of ASPE programs, both local and national.

## Technical Report

Eric C. Scott, CPD

I would like to thank everyone who came out to the November meeting. A special thanks to Michael Gauthier of Highland Tank Company for his presentation on Design and Implementation of Water Reuse Systems and Utilization.

This month the topic and speaker will be on **Emergency Eyewash and Shower Equipment** as presented by **Paul Grant - Eastern Region Sales Manager/Guardian Equipment**.

I would like to invite everyone to provide me feedback on the topics presented monthly and if there is a topic you would like to learn more about please let me know. I really appreciate everyone's input and look forward to seeing you there.

Please contact me at [e.scott@ha-inc.com](mailto:e.scott@ha-inc.com).

## CLASSIFIED AD

### H&A. Advancing the built environment!

**H&A Architects & Engineers** is a multi-disciplined, full-service consulting architectural and engineering firm with offices located in Richmond, VA; Virginia Beach, VA; and San Diego, CA. At H&A we create a built environment that enables people to succeed! Our core principles and strong focus on client relationships have us committed to providing groundbreaking answers for diverse and challenging questions. Join H&A and you will become part of a team of innovative thinkers and some of the industry's most talented individuals. Using cutting edge technologies, renewable energy systems, and an emphasis on quality we are **designed for success!** At H&A we are not just committed to enabling our clients to succeed... we are committed to our team succeeding by creating a friendly, yet challenging environment, offering competitive benefits, and developing talent through training and growth opportunities.

We are seeking a dynamic **Plumbing Designer** that shares our vision and is seeking an exciting and rewarding career! Responsibilities include designing plumbing systems such as sanitary, storm, and water systems. He/she will also design a variety of energy and water-saving systems including rainwater harvesting, greywater, and solar thermal systems.

#### Requirements:

- 5+ years experience
- Specific knowledge of plumbing systems including sizing of piping in accordance with the International Plumbing Code
- 2+ years of experience with Revit, including multiple complete (start to finish) projects
- U.S. Citizenship
- The ability to obtain a government security clearance

Qualified candidates may apply online at <http://ha-inc.com/careers/openings/> Employer maintains a drug-free workplace!  
EOE, M/F, D/V



**January 17th (8hr class) Cost \$325.00 per person (30 attendees maximum)**

***LEED® Building Design and Construction Exam Prep Training***

AIA 8 Learning Units

**Learning Objectives**

- Identify the technical aspects of the LEED rating system as it pertains to sustainable building
- Gain an advanced understanding of the LEED credit categories: Sustainable Sites, Water, Energy and Atmosphere, Material Resources, Indoor Environmental Quality, and Innovation in Design, as well as Regional Priority
- Become familiar with the multiple rating systems covered in this division: New Construction, Schools, Core and Shell
- Develop a system to integrate the intents, concepts, and strategies associated with LEED credits across the various rating systems
- Prepare for successful completion of the LEED AP Building Design and Construction Exam, the second tier to becoming a LEED Accredited Professional

**January 24th (4hr class two part class) Cost \$180.00 per person (30 attendees maximum)**

***(Part One) Energy Modeling in High Performance Building Design***

AIA 2 Learning Units

**Learning Objectives**

- Apply the concepts of energy modeling and how it contributes to building design
- Identify the correct use of modeling in a project
- Analyze the implementation of energy modeling and analysis of first-cost options and VE options
- Prepare and contribute to the execution of energy modeling as a member of the project team

***(Part Two) Specifying for a Successful LEED Project – Words Matter***

AIA 2 Learning Units

**Learning Objectives**

- Be able to identify how various specification approaches treat LEED-related issues, and subsequently prepare project specifications effectively
- Develop an integral system to incorporate green building and LEED product and procedure criteria into standard project specifications
- Analyze how additional product criteria impacts the administration of the construction phases for all parties
- Achieve a greater understanding of and appreciation for the collaborative process



## November meeting photo's





## LETTERS FROM OUR READER

### CLOACINA: GODDESS of the SEWERS

By Jon C. Schladweiler, Historian, Arizona Water & Pollution Control Association

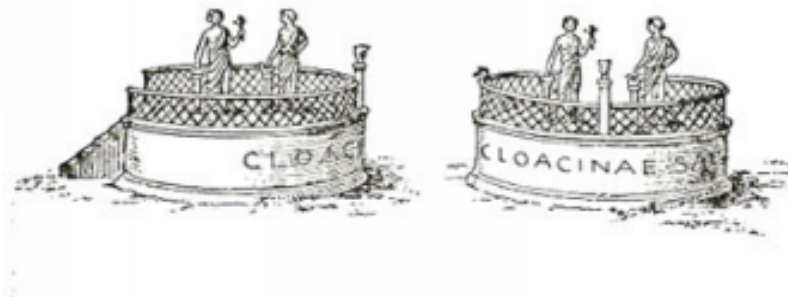
Mankind has routinely sought, through the ages, strength and guidance from the spirit world. The Romans, during the course of their Empire (650 BCE – 400 AD), worshipped many deities ... one of them being the Goddess Cloacina – in whom they placed their faith/trust for the wellbeing of Rome's sewers (and workers); a facet of Rome's public works infrastructure that was considered vital to their desired way of life - good health through sanitation.

Cloacina was the patron goddess of the Cloaca Maxima (the *main* drain of the City) and the city's overall sewer system. Over time, the Romans came to also think of her in a multitude of other ways including; as the goddess of purity, the goddess of filth and the protector of sexual intercourse in marriage. As such, over the ages, she came to be affiliated with Venus; and, gradually became known to many as the Venus Cloacina.

The first "sewer" segments (as opposed to Rome's initial surfaced and open topped drainage ditches) of the Cloaca Maxima were started in the late 500's BCE; the craftsmen were Etruscan – Rome's neighbors to the North. Soon thereafter, it is told that a statue of a woman was found in the sewer. She became known as the Goddess Cloacina; a deity that likely had its origin in the mythology of the Etruscans. Cloacina's name is possibly derived from either the Latin verb "*cloare* or *cluere*" (to wash, to purify or to clean) or, from the Latin word *cloaca*, meaning "sewer". The need for the Goddess of the Sewers soon became recognized as an important aspect of the Romans' lifestyle/beliefs during the next 600 or more years - as Rome grew and its sewer system was completed.

Recognition was paid to Cloacina in many ways:

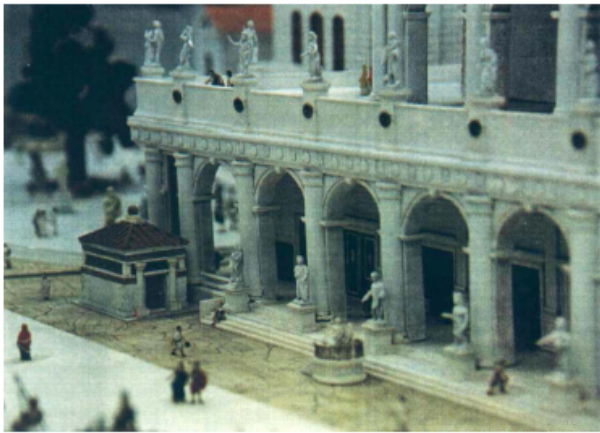
- A shrine (aka: Sacrum Cloacina) was built in her honor in the Forum, in front of the Basilica Aemilia; directly above the Cloaca Maxima Sewer. [In fact, it is believed that an entranceway (i.e., a "manhole") to the sewer was once present within the physical confines of the shrine.] Only the foundations of the original shrine remain evident today.



*Sketch of the Sacrum Cloacina in Rome*



*Ruin of the Sacrum Cloacina showing its circular foundation. Source: University of California Los Angeles*



*Model of the Basilica Aemilia showing the Sacrum Cloacina in the foreground. Source: Robert W. Garbisch*

- Certain of the Roman coins minted in the times following the death of Julius Caesar (44 BCE) had an image of the Shrine of Cloacina embossed on one side of them.



*42 BCE Roman coin showing the Sacrum Cloacina. Source: www.wildwinds.com*

- Rhymes, Poems and Prayers:

“Then Cloacina, goddess of the tide,  
Whose sable streams beneath the city glide  
Indulged the modish flame, the town she roved,  
A mortal scavenger she saw she loved.”

A prayer that might have been offered by a Roman to Cloacina:

“O Cloacina, Goddess of this place,  
Look on thy suppliants with a smiling face.  
Soft, yet cohesive let their offerings flow,  
Not rashly swift nor insolently slow.

One can only hope that the spirit of Cloacina has remained with us through the ages; and, is still available to help with the well being of our sewers and of the people who work so hard to plan, design, construct, administer, operate and maintain them today.

Faith may indeed work wonders!

**FINALLY  
WELCOME  
ASPE  
VIRGINIA BEACH / NORFOLK  
SATELLITE CHAPTER  
1ST MEETING IN FEBRUARY  
READ BELOW**

My name is Rick O'Berry from Bowman, Foster and Associates, an engineering design firm in Norfolk. I have been involved in plumbing design now for about 12 years and wondered why we have no local ASPE chapter in Hampton Roads. After a year of collaborating with Tina Capece and my colleague, Chad Luettel the ASPE board approved the Hampton Roads Satellite chapter during the Expo/Convention Board meetings in Charlotte!

We are very excited about our first meeting in February and ask that you help our new satellite chapter start out on the right foot by getting involved!

The first meeting will be on the Southside (the exact location to be determined) and we are currently working on the topic. If you're interested in attending the meetings please e-mail me at [roberry@bfa-eng.com](mailto:roberry@bfa-eng.com) or Chad at [cluettel@bfa-eng.com](mailto:cluettel@bfa-eng.com) for more information.

Thanks and we will see you in February to start out 2013 right!







# WG LESEMAN & ASSOCIATES, INC.

11182 HOPSON ROAD SUITE A  
ASHLAND, VIRGINIA, 23005  
PH: 804-752-6301 FAX: 804-798-2859

## **AERO Manufacturing**

[www.aeromfg.com](http://www.aeromfg.com)

## **Aqua Bath** (In Stock in Ashland)

[www.aquabath.com](http://www.aquabath.com)

## **BeaconMedaes** (In Stock in Ashland)

[www.beaconmedaes.com](http://www.beaconmedaes.com)

## **Bradley Corporation** (In Stock in Ashland)

[www.bradleycorp.com](http://www.bradleycorp.com)

## **Eemax Inc.** (In Stock in Ashland)

[www.eemaxinc.com](http://www.eemaxinc.com)

## **Filtrine**

[www.filtrine.com](http://www.filtrine.com)

## **ISIMET**

[www.isimet.com](http://www.isimet.com)

## **MAPA Products** (In Stock in Ashland)

[www.mapaproducts.com](http://www.mapaproducts.com)

NSF & Non-NSF Scullery sinks, Kitchen Equipment, Custom sinks, Work Tables, Hand sinks, and Accessories

ADA Compliant Acrylic Tubs and Showers, Bariatric Units, Psychiatric Units, Whirlpools, and Solid Surface Surrounds.

Medical Gas Equipment: Outlets, Zone Valve Boxes, Area & Master Alarms, Nitrogen Control Cabinets, Hoses a& Hose Reels, High Pressure & Liquid Manifolds, Medical & Lab Air Compressors, & Medical, Lab & WAGD Vacuum Pumps.

Washfountains, MG & Express Lavatory Systems, Solid Surface Countertops, Individual & Group Showers, Security Fixtures, Emergency Fixtures, Navigator Thermostatic Mixing Valves, & Patient Care Units.

Instantaneous Electric Water heaters: Single Point, Flow Controlled, Marin/RV, Thermostatic, Whole House, Emergency Fixture, Digital Readout, & Thermostone Units

Quality Drinking water solutions for Filling Stations, Designer fountains, Purifiers, Filters, Sterilizers, Wall, Remote and Free-standing Chillers and Plenum Flow Schematic designs.

Laboratory Utility Controllers, (Gas, Electric, Water), Remote & Local Panic Systems, , Monitoring Beacons & Alarms, Emergency Shower Monitoring, & Solenoids.

Roof Top Pipe Supports: Standard, Value Line, Heavy Duty, & Seismic/Wind Restraint. Duct Supports, Bridging Systems, Roof Hydrants, Roof Top Electrical Disconnects, Heavy Duty Walk Pads, & Expansion Tank supports.

## **MIFAB** (In Stock in Richmond)

[www.mifab.com](http://www.mifab.com)

## **Milwaukee Valve**

## **Hammond Valve**

[www.milwaukeevalve.com](http://www.milwaukeevalve.com)

[www.hammondvalve.com](http://www.hammondvalve.com)

## **Sloan Valve Company** (In Stock in Ashland)

[www.sloanvalve.com](http://www.sloanvalve.com)

## **Stern-Williams Co.** (In Stock in Ashland)

[www.sternwilliams.com](http://www.sternwilliams.com)

## **Tyco Thermal Controls/ Raychem** (In Stock in Ashland)

[www.tycothermal.com](http://www.tycothermal.com)

Specification Drainage: Cast Iron, PVC, Nickel Bronze & Stainless Steel. Floor, Area and Trench Drains, Cleanouts, & Carriers. Interceptors: Grease (Standard, Semi-Automatic, and Fully Automatic), Oil, Lint, & Fuel Interceptors. Access Doors. Trap Primers including Electronic. Water Hammer Arrestors, Wall and Yard Hydrants.

Full line of Ball, Butterfly, Gate, Globe and Check valves in cast iron, steel, bronze, and brass. High Performance butterfly valves. Full line of plumbing valves.

Flushvalves: Manual, Battery and Hardwire Sensor, Piston & Diaphragm Type, Bed Pan Washers, Naval & Dolphin Valves.

Faucets: Battery, Hardwire, and Light Powered, Manual Quick-Top, , Water Free Urinals, Surgical Scrub Sinks, Act-O-Matic Shower Heads, & PWT Prison Control System.

Service Sinks, Shower Floors, Mop Hangers, Faucets & Accessories, Shower Cabinets, Outdoor Drinking fountains & Showers.

Heat Trace, HWAT Temperature Maintenance, Snow Melt, De-Icing, & Floor heating systems.



**2nd Place**

## **QuantumFlo, Inc.** **iQFlo**

**I**ntroduced in April 2012, this automated process is designed to optimize pressure to the inconsistent demands of facilities' contingent pumping situations.

The new operating system, iQFlo, uses an exclusive QuantumFlo algorithm that eliminates typical PID problems in variable speed pressure control. It also enhances power savings and system energy performance, helping in efforts to reduce the carbon footprint of inefficient competing pumping packages. With many facilities seeking solutions that comply with regulations and save money, QuantumFlo's iQFlo offers a cost-effective solution to fill the needs of the market.

The innovation of the iQFlo stems from the new technology that the company developed, as well as realizing the weaknesses of systems currently used in the market. QuantumFlo's new technology ensures short payback periods on pump retrofits and new pump packages using the new iQFlo system, making it an easy investment for decision makers in the industry. Representative partners are available to recommend the most efficient and effective solutions for project managers, architects and industry consultants.

Although variable speed technology has significantly reduced the cost of pressure boosting over the past 10 to 15 years, many manufacturers who developed these systems based their basic sequencing on their existing "constant-speed" controllers. Constant speed controllers simply look at the system pressure, and if it drops, the pump turns on. If the system pressure is constant for a pre-configured time, the system turns off and the process is reset.

Properly designed variable speed controllers are designed to only consume the exact amount of energy required for a given demand by applying a percentage of pump energy. Constant speed is like driving your car with the gas pedal to the floor and regulating the speed with your brake pedal. Variable speed understands that, by changing the fuel consumption, such as backing your foot off the gas pedal, that significant energy savings can be realized. This time, when other pumps are running at full speed but there is no longer a demand, is called stand-by losses. This is time that the pump is waiting for a timer to tell it to shut down.

Since variable frequency drive (VFD) control regulates the energy consumption all the time, these stand-by losses are mitigated. Unfortunately, due to inexperience with VFD control by the industry, nearly all manufacturers still use these timers to wait for a time to begin forcing a reduction in speed (therefore energy) since the control technology is still based on



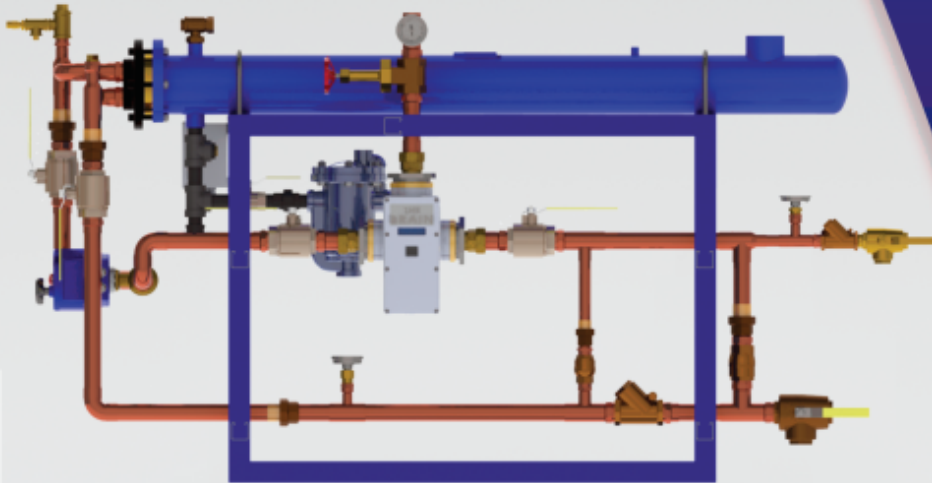
constant speed systems.

In addition to the wait-time, most VFD-based PID algorithms will stall when the pressure is at a steady-state condition (neither high nor low versus set point) causing the system to remain in this stand-by loss condition rather than reducing to minimum speed. These two conditions are (in many cases) the difference between a 50 percent energy reduction and an 88 percent energy reduction with iQFlo. To truly capitalize on the energy efficiency of the drive, deliver lower life-cycle cost and improve payback revenue, the stand-by loss component must be addressed.

iQFlo is a departure from the standard technology, which takes existing firmware on the drive and basic sequencing code and makes it work as well as possible to sequence the pumps on or off when demand is present or void. Nothing has been customized to address the stand-by losses because the software in the VFD is rudimentary and general. iQFlo has taken this software off the VFD and developed a new solution with special algorithms designed to eliminate stand-by losses and increase the speed at which the system cost is recovering costs since it is evaluating the energy impact of the system every 10 milliseconds, changing the speed and impact of the energy usage continuously. This software takes the control off the drive and centralizes all decision-making within the programmable logic controller (PLC), which operates at speeds up to 100 times faster than the firmware loaded on the VFD.

*Armstrong Introduces Digital-Flo™*

*Instantaneous Hot Water*



**Digital Accuracy  
with  
Instantaneous  
Response**

Armstrong blends revolutionary digital water temperature control technology with instantaneous heat exchanger design to deliver Digital-Flo™, an industry changing series of water heaters.

- **Capable of maintaining  $\pm 2^{\circ}\text{F}/1^{\circ}\text{C}$  temperature at system draw off between 0 and 165 GPM.**
- **Powered by low voltage electronics.**
- **Eliminates the need for pneumatic controls.**
- **Programmable hot water system safety shutdown.**
- **Programmable high/low temperature alert function.**
- **Constant steam pressure prevents stall - no pump trap.**
- **Component self-diagnostics.**
- **Performance monitoring, data logging and reporting.**
- **Integral building management system connectivity.**
- **Low surface temperature option for hard water applications.**

*Call today and let us introduce you to the newest revolution in water heaters*



**CAROTEK, INC.**

The Power of Solutions

Phone: 804.279.8800

[www.carotek.com](http://www.carotek.com)

8807 Whitepine Road • North Chesterfield, VA 23237

GEORGIA • NORTH CAROLINA • SOUTH CAROLINA • TENNESSEE • VIRGINIA



**Armstrong®**



## Virginia Marketing Associates

Please feel free to email us ([Virginiamarketing@verizon.net](mailto:Virginiamarketing@verizon.net)) for full line catalogues on any of the manufacturers you find of interest. Visit us at [www.VirginiaMarketingAssociates.com](http://www.VirginiaMarketingAssociates.com). You can access links under the Products Tab to all of our offerings. We have wholesale distribution throughout Virginia and Maryland.

### Some of the lines We Proudly Represent:



In a rapidly changing paradigm of energy conservation and sustainable energy alternatives, it is important that the M/E/P/FP design professionals stay abreast of industry developments. At Dunlap & Partners, we ask, "What If" and explore the possibilities.

For further information please visit us at:

2112 W. Laburnum Ave. Suite 2  
 Richmond, Virginia  
 Phone: 804.358.9200  
 Fax: 804.358.2928  
[www.DunlapPartners.com](http://www.DunlapPartners.com)

### Project Highlight

The goal of this area of the monthly newsletter is to highlight a project with a special/unique or difficult design or installation/construction feature. Examples could be a Leadership in Energy and Environmental Design (LEED) project, a project installation in an occupied building, emergency domestic water systems or a difficult installation due to existing conditions or difficult coordination with structure.

This section will include a picture of the project and a written description from an individual involved with the project. This provides the opportunity for the membership to highlight one of their projects and also provides notoriety for the company. This opportunity is open to all members of the Baltimore Chapter of ASPE.

To highlight your project contact



# TOWERING OVER THE COMPETITION WITH QUIET RELIABILITY . . . WISPERFLO™

THE MOST ENERGY EFFICIENT PUMPING SOLUTIONS  
FOR YOUR BUILDINGS OF TOMORROW



WTC TOWER 1  
INSTALLED FEB 2010



## QuantumFlo™

an exponential leap in technology

QuantumFlo, Inc. • 210 Springview Commerce Drive  
Bldg. 150 • DeBary, FL 32713 • [www.quantumflo.com](http://www.quantumflo.com)

Certified IAPMO  
NSF 61, Annex G



# BAY ASSOCIATES GROUP

---

&

---

## MELENEY EQUIPMENT, LLC.

### MANUFACTURERS

### PRODUCT DESCRIPTION

**Cla-Val Company**  
[www.cla-val.com](http://www.cla-val.com)

Control Valves: Remote, Flow, Electrical, Liquid Level Pressure Regulators, Check Valves, Float Valves Specialty Valves

**Encon Safety Products**  
[www.econsafety.com](http://www.econsafety.com)

Emergency Shower and Eyewash Equipment, Portable Safety Products, Tempered Water Systems, Freeze Protected Showers and Water Blending Solutions

**Hubbell/ Electric Heater Co.**  
[www.hubbellheaters.com](http://www.hubbellheaters.com)

Instantaneous and Storage Electric Water Heaters, Heavy Duty Cement Lined Storage Tanks, Hazardous Location Heaters, Booster Heaters, Solar Hot Water Systems

**Humidifirst**  
[www.humidifirst.com](http://www.humidifirst.com)

Ultrasonic Humidifiers, Mist-Free, Mist-Pac, Stainless Steel

**HydroMax, Inc.**  
[www.hydromax.net](http://www.hydromax.net)

Reverse Osmosis, Deionized Water and High Purity Water Systems

**Kingspan Group**  
[www.kingspan-thermomax.com](http://www.kingspan-thermomax.com)

Flat Plate and Evacuated Tube Collectors for Solar Thermal Water Heater Systems

**Lawler Manufacturing**  
[www.lawlervalve.com](http://www.lawlervalve.com)

Thermostatic Mixing Valves for Domestic Water and Emergency Equipment, Combination Temperature and Pressure Valves, Photographic Control Valves

**Oventrop**  
[www.oventrop-na.net](http://www.oventrop-na.net)

Pex Tubing, Hydronic Floor Heating, Snow Melting, Radiant Systems

**PVI Industries, Inc.**  
[www.pvi.com](http://www.pvi.com)

ASME Water Heaters For All Energy Sources, Storage Tanks, Instantaneous Water Heaters, Flex Fuel Heaters using Solar, Geo-Thermal, Waste Heat & Switchable Fuels

**Reimers, Inc.**  
[www.reimersinc.com](http://www.reimersinc.com)

Electric Steam Boilers for Humidification, Steam Cleaning, Sterilization, Comfort Heating, Dry Cleaning, Laboratories, Food Service, Steam Baths and Process Steam

**Riverside Hydronics (PVI)**  
[www.riversidehydronics.com](http://www.riversidehydronics.com)

Storage Tanks ASME, Steel Firetube and Finned Copper Boilers, Energy-Matched Combined Systems, Clean Steam Generators, Electric Water Boilers

**Thermon Manufacturing Co.**  
[www.thermon.com](http://www.thermon.com)

Electric Heat Tracing Systems, Domestic Hot Water Temperature Maintenance, Freeze Protection for Pipes, Control and Monitoring Systems, Roof and Gutter Deicing, Snow Melting and Floor Warming Cables

**Tricon Piping Systems**  
[www.triconpiping.com](http://www.triconpiping.com)

Pre-Fabricated, Pre-Insulated Piping Systems, Secondary Containment and Conduit Piping Systems for Industrial and Commercial Applications

**Wessels**  
[www.westank.com](http://www.westank.com)

ASME and non-ASME Expansion Tanks, Hydropneumatic Tanks, Storage Tanks, and Air Elimination Equipment

**Vibro Acoustics**  
[www.vibro-acoustics.com](http://www.vibro-acoustics.com)

Vibration Isolation and Seismic Restraint Systems for HVAC Equipment

## BAY ASSOCIATES GROUP, INC.

1432 FRONT AVENUE LUTHERVILLE, MD 21093  
PHONE 410-825-6616 FAX 410-825-6618  
WWW.BAYASSOCIATES.COM



P.O. Box 26886, Richmond, Virginia 23261 ~ 2009 Roane Street, Richmond, Virginia 23222 ~ Telephone (804)321-4444 ~ Fax (804)321-3112

### **Bell & Gossett**

Centrifugal Pumps, Heat Exchangers  
Vertical Turbine Pumps, Hydronic Specialities, Packaged Systems,  
Submersible Sump & Sewage Pumps

### **Hoffman Specialty**

Steam Traps, Vent Valves, Pressure & Temperature Regulators,  
Condensate Pumps, Boiler Feed Units

### **Domestic Pump**

Boiler Feed Units, Condensate Units, Vacuum Pumps, High  
Temperature Condensate Equipment

### **McDonnell & Miller**

Boiler Safety Controls, Flow Switches, Liquid Level Controls

### **TecFlo**

Variable & Constant Speed Booster Packages, Heat Transfer  
Packages

### **RBI**

Copper Finned Tube Boilers, Volume Water Heaters

### **Hydro Therm**

Condensing Gas - Fired Boilers

### **Smith**

Residential & Commercial Cast Iron Boilers

### **Hamilton Engineering (Evo)**

Condensing Boilers, High Efficiency Water Heating & Hydronic  
Boiler Systems

### **Heat-Timer**

Automatic Temperature Controls, Boiler Sequencing Controls,  
Outdoor Resets, Radiant & Snowmelting Controls

### **Pro Tech Systems, Inc.**

High-Performance Chimneys & Vents

### **The John Wood Company**

ASME & Commercial / Custom Pressure Vessels

## ***Professionally Serving Virginia Since 1944***

### **Dri-Steem Humidification Co.**

Steam Injection, Gas-Fired, Electric Steam & Evaporative  
Humidifiers

### **Cemline**

Stonesteel Tanks, Water Heaters,  
Unfired Steam Generators

### **Delta Cooling Towers, Inc.**

HDPE Corrosion Resistant

### **Keflex**

Pump Connectors, Expansion Joints,  
Pipe Guides

### **Holby Valve Company**

Thermostatic Tempering Valves

### **Vertiflo Pump Company**

Vertical Sump, Sewage, Self Priming & Industrial Pumps

### **G & L Pumps**

Stainless Steel, Bronze and Cast Iron Pumps  
End Suction, Multi-Stage, and Vertical Styles

### **Town & Country Plastics**

Chemical Resistant Tanks constructed of Plastic,  
Fiberglass & Stainless Steel

### **O.C. Keckley Co.**

Industrial Grade Y-Strainers, Basket Strainers, Check Valves,  
Pressure & Temperature Regulators, Float Valves & Solenoid  
Valves. Constructed in Cast Iron, Bronze, and Stainless Steel

### **Weksler Glass Thermometer Corp.**

Pressure gauges, Thermometers & Accessories

### **Minnesota Flexible Corp.**

Metal, Rubber, Teflon Expansion Joints and Pump  
Connectors, and Accessories. Custom built to meet your  
specifications.



# We Aim To Stay On Top



**PLAD is a manufacturer of pumps and systems.**  
*Clean Water • Process Water • Pressure Boosting • Rain Water*

**Head Office:** 1.450.965.0224  
**Fax:** 1.450.965.1571  
**Email:** [sales@plad.com](mailto:sales@plad.com)  
**Web:** [www.plad.com](http://www.plad.com)

## **John Largen & Associates**

"Providing Quality and Value when Installing an Engineered  
Pipe and Sleeve System"

**John Largen**

Email: [johnlargen03@aol.com](mailto:johnlargen03@aol.com)

Phone: (804) 270-1283

4613 Greenbrooke Drive - Glen Allen, VA 23060

Mobile (301) 602-4257 - Fax (804) 270-1284



TOTO®

From left to right: Pint Urinal with EcoPower® Flush Valve, Gooseneck Wall-Mount EcoPower Faucet, Clean Dry™ Concealed Hand Dryer, and Wall-Mount High-Efficiency Toilet with EcoPower Flush Valve

## PEOPLE-FIRST INNOVATION™

With more "firsts" than anyone else, TOTO leads the world in innovating eco-friendly products that simply perform better. That means peace of mind, knowing that your TOTO fixtures will perform at the highest level, day in and day out, year after year, and look beautiful doing it.

TOTOUSA.COM | 800.350.8686

©2012 TOTO U.S.A., Inc.

Full Name, Position  
Company  
Phone Number  
Street Address  
City, State Zip Code



Represented by Soter-Martin Sales and Marketing  
804-550-2164  
[www.sotermartin.com](http://www.sotermartin.com)