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FEATURES

2010 Plumbing Systems Specification Guide

It’s back! ASPE’s official Plumbing Systems Specification Guide for 2010 is the sole feature of the December 2009 issue. Once again we’ve brought you the most comprehensive directory of plumbing manufacturers, product suppliers, and organizations in the industry. Browse the product categories and then look up the contact information for relevant suppliers in the alphabetical listing. It couldn’t be easier!

14 Manufacturer List
35 Manufacturers by Category

GETTING TECHNICAL

6 Lessons Learned ............................................. J. Joe Scott, II, CPD, FASPE
Length Does Matter

8 Focus on Fire Protection ............................................. Frank Murphy, PE
Room Integrity Considerations for Clean Agent System Applications

12 Hydronics for Plumbing Engineers ......................... Roy C.E. Ahlgren
Filling Large Systems

46 The Green Column ............................................. Winston Huff, CPD, LEED AP
Water Meters: A Facility’s Cash Register

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Length Does Matter

I have noticed a recurring field condition during project reviews that I think warrants discussion. The condition is the length of piping between floor drains and their associated traps. While this may seem to be an insignificant item, I think that once you consider all of the associated implications, the situation may become of more concern.

Floor drains and their associated piping are involved in almost every project, small and large. What I keep finding in the field is the installation of floor drain piping with a distance between the floor drain and the trap more than the code-prescribed maximum 24 inches. International Plumbing Code (IPC) Section 1002.1 states: “Each plumbing fixture shall be separately trapped by a water-seal trap, except as otherwise permitted by this code. The vertical distance from the fixture outlet to the trap weir shall not exceed 24 inches, and the horizontal distance shall not exceed 30 inches measured from the centerline of the fixture outlet to the centerline of the inlet of the trap.’’

I found it interesting that one of the contractors called me later to inform me that the 24-inch maximum dimension only pertained to lavatories and that floor drains were exempt from the requirement since they are not a plumbing fixture. I asked him to go back and review how the code defines a plumbing fixture. The IPC defines a plumbing fixture as “a receptacle or device that is either permanently or temporarily connected to the water distribution system of the premises and demands a supply of water therefrom; discharges wastewater, liquid-borne waste materials, or sewage either directly or indirectly to the drainage system for the premises; or requires both a water supply connection and a discharge to the drainage system of the premises.’’ Per this definition, I find it very difficult to define a floor drain as anything other than a plumbing fixture. (It should be noted that the other model plumbing codes contain the same language as the IPC.)

Why is this an issue? The length of the tailpiece has a direct correlation to the drain’s susceptibility to trap siphonage. The longer the tailpiece, the faster the water is moving when it gets to the trap and the less likely it is to refill the trap properly with tail flow after the effluent stops. (This can be compounded by improper venting of the floor drain, but I will not try to explain all of the intricacies of proper venting in this short column, as many books already have been written on that subject.)

So what does that really mean? It means that we are less likely to have traps that are functioning to keep sewer gases out of occupied areas of a building. It will drive a person crazy trying to keep traps filled with water when the water simply moves through the trap anyway. However, the problem can be more than just an unpleasant smell. Another potential issue is SARS. Yes, I know that the United States did not have a significant problem with SARS when it surfaced a few years ago, but one of the reasons we did not have a problem was because our codes require venting and provide for the maintenance of trap seals. If we did not have this in our codes, then the SARS outbreak may have been a lot closer to home than we would have liked.

Take the time to check the distances in your projects. I was very surprised to find this issue when I visited four different project sites within a month. After discussing the issues and reasons why the tailpieces needed to be smaller, the contractors were very willing to make the changes, but four out of four projects is too large of odds and really deserves to receive some attention. Now if I could only get them to read and understand the issue of water hammer and why we need to have water hammer arrestors… Oh well, that was an issue a few columns ago.
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Room Integrity Considerations for Clean Agent System Applications

Total-flooding clean agent fire suppression systems are often specified to protect critical equipment installations such as data processing and telecommunications centers or storage facilities for high-value articles or documents that could be damaged or destroyed by water-based suppression systems. Clean agents derived their name from the fact that they leave nothing behind after discharge, and therefore require no post discharge cleanup.

Probably the most well known clean agent is Halon. This suppression agent was the industry leader in clean agent applications until the late 1980's when halogenated hydrocarbon based substances were determined to play a significant role in ozone depletion. Halon has subsequently been phased out and replaced with a variety of more environmentally friendly clean agents. The most popular replacement for Halon agents was HFC-227ea commonly know by its trade name FM-200. This popularity was driven by its comparable cost, storage volume, and concentration requirements, which are very similar to Halon, making replacement of existing systems relatively easy.

Currently available clean agents can generally be categorized as either halocarbon agents or inert gas agents. Halocarbon agents, such as FM-200, suppress fires primarily through a chemical reaction that interrupts the combustion process. Inert gas agents like IG-541, commonly known as Inergen, suppress fires by reducing the oxygen concentration in the protected area to a level below 14%, which yields an atmosphere with insufficient oxygen to support combustion.

For clean agent suppression systems to function properly the agent must reach a specified concentration level within the protected area and sustain that level for a specified period of time, typically 10 minutes. Each agent has its own unique and acceptable range of concentration levels that must be achieved to ensure extinguishment and prevent re-ignition. It is also important in facilities that are normally occupied, that the concentrations not exceed the maximum acceptable level for safe egress from the area after discharge. For example, FM-200 must achieve a minimum concentration level of 6.7 percent to extinguish a flame, and has a maximum allowable concentration of 10.5 percent for a 5 minute maximum permitted human exposure time. Similarly, inert gas agents like Inergen are designed to achieve a 35-40 percent concentration which reduces the oxygen level in the protected area to between 12-13 percent. This reduced oxygen level is adequate to facilitate extinguishment as well as provide for a safe egress from the space.

As you can see from these examples the tolerances for acceptable agent concentrations are relatively tight. A variety of factors goes into determining exactly how much agent must be stored and discharged to achieve the desired concentration, and that process is best left to the system manufacturers. The intent of this article is to focus on a variety of issues that could jeopardize the performance of the suppression system by allowing the agent to leak out of the room or be mixed with air entering the room, resulting in dilution of these critical concentration levels.

ENSURING ENCLOSURE INTEGRITY

Providing for proper containment of the agent within the protected area or enclosure commonly is referred to as “enclosure integrity.” NFPA 2001 (2008): Standard on Clean Agent Fire Extinguishing Systems includes procedures for verifying enclosure integrity under Annex C: “Enclosure Integrity Procedure.” Section C.2.8: “Leakage Control” provides guidance on identifying sources of leaks as well as methods for reducing or eliminating the leakage paths.

Two aspects of the enclosure design need to be addressed to ensure proper enclosure integrity. One is construction of the enclosure envelope itself, including walls, floors, and ceilings. The other deals with any required penetration of the enclosure, including doors, windows, ductwork, pipe, and cables. The fire protection engineer must ensure that all members of the design team—including the architect, building systems engineers, and IT designers—understand how their elements must be designed to provide proper envelope integrity.

ARCHITECTURAL CONSIDERATIONS

All walls surrounding the protected area should be designed to fully enclose the area from the structural floor slab to structural slab or roof deck above. Another acceptable design alternative is to provide a solid drywall ceiling extending wall to wall over the entire protected area. However, this approach may not be practical in many installations where access to the ceiling space is required routinely.

When a raised floor system is provided within the space, the enclosure walls must go all the way to the structural slab. If the
The damper controls should be interfaced with the agent release system such that the dampers close prior to the discharge of the agent. If the protected space is provided with in-room air-conditioning units that supply air to a raised floor supply plenum, it is recommended that these units be shut down to reduce the possibility that they might expel the agent from the below floor area.

Even if a protected enclosure is designed and built to be as tight as possible, a certain degree of leakage must be expected to occur. During the retention period, the agent/air mixture, being heavier than air, generally will leak out of lower openings. Air will enter through openings high in the room at the same rate to replace it. If air-moving devices in the room are shut down, this incoming air tends to collect at the top of the room. If the in-room air-conditioning units remain in operation, they will cause this fresh air to become mixed with the agent and prematurely reduce the concentration level throughout the space.

Any ductwork passing through the protected area also should be sealed to prevent leakage of air, which might result in a pressure imbalance. Ideally, you want to achieve a condition where the protected area is neutral in pressure to the surrounding areas.

Consideration should also be given to designing a means for ventilating the space in the event of an agent discharge or a fire event to aid in the post fire removal of the agent and products of combustion. This ventilation system should be designed such that it is manually operated under the control of the fire response personnel.

**PLUMBING SYSTEMS CONSIDERATIONS**

All pipe penetrations of the enclosure should be sealed airtight between the pipe and the wall or floor construction. Where sleeves are provided for penetrations, the joint between the sleeve and the wall must be caulked, as well as the void between the sleeve and the pipe passing through it. Any floor drains located within the protected area should be provided with seal traps of adequate depth (sometimes referred to as "deep seal traps") that they will not be purged by the increase in room pressure when the agent is discharged. Automatic trap primers also should be provided to ensure that the traps remain filled at all times. Timer activated solenoid type trap priming devices are preferred over pressure actuated units due to their increased reliability and ability to introduce a greater supply of water to the traps.

**CABLE PENETRATION CONSIDERATIONS**

Provisions must be made for data cables to enter and exit the room. This typically is the most challenging aspect of maintaining the future integrity of the enclosure, given that data center spaces are constantly undergoing change as the result of equipment upgrades and extension of new IT services throughout the building.

Cable tray penetrations of the enclosure should be avoided, as bundles of cables lying in trays are more difficult to seal (see Figure 2). Where possible, cable trays should be terminated on
FOCUS on FIRE PROTECTION

each side of the enclosure separation, and round conduit or sleeve penetrations than can be easily sealed should be provided to allow for passage of the cables (see Figure 3). A sufficient quantity of spare sleeves should be provided in the design to allow for future cable installation. All unused penetrations for future use should be provided with removable airtight caps or plugs.

ELECTRICAL SYSTEM CONSIDERATIONS

In addition to the sealing around electrical conduit penetrations of the enclosure wall, penetrations of the wall for the installation of electrical devices, such as electrical receptacles, light switches, fire alarm devices, and similar equipment, must be considered. Gas-ketted cover plates and caulking of the joint between the recessed electrical box and the surrounding wall area should be specified.

SEALING MATERIALS

In many cases, the enclosure walls may be required to be fire rated. In these instances, all of the caulking and sealant materials required to provide an airtight enclosure also need to be a UL-listed firestopping material and installed in accordance with their listing requirements.

If the enclosure walls are not rated, the sealant materials must be suitable for the environment and materials to which they will be applied and must have a flame spread rating that is compatible with the flame spread requirements for the construction of the enclosure.

ENCLOSURE INSPECTION, TESTING AND LEAK IDENTIFICATION

Upon completion of construction, a thorough visual inspection of the enclosure must be made to confirm that all of the above-described features have been appropriately incorporated. Be sure to thoroughly examine the entire enclosure, including above the ceiling and below the floor for any unsealed penetrations, gaps in construction, or wall openings that have not been provided with dampers. Don’t forget to verify sealing of penetrations of the floor slab below the raised floor and the slab or deck above the suspended ceiling. Where dampers have been installed, verify that the proper type has been provided. Any deficiencies identified should be corrected prior to conducting the integrity testing required by NFPA 2001.

The clean agent discharge system should be disabled prior to conducting testing of the automatic control sequences to prevent an unwanted discharge of the agent. All automatic and manual control sequences then should be activated and verified. The inspection should confirm proper closure of all dampers, shutdown of HVAC equipment, and release of any automatic door closures. Once all openings have been confirmed as properly sealed and the space is confirmed to be in the agent discharge configuration, the enclosure is ready for the integrity testing procedure to be conducted.

A door fan test is the commonly accepted integrity testing procedure and is used as an alternative to performing full-function discharge tests. NFPA 2001 Annex C provides detailed guidance for conducting this type of test. Generally, this operation utilizes a specially designed and calibrated fan assembly that is installed in an entrance doorway to the protected enclosure (see Figure 4). Pressure-sensing equipment is installed in the room to measure the static pressure within the space.

During door fan testing, the fan is operated in both a positive pressure mode and then in a negative pressure mode. The air flow volume and room pressure measurements observed during the tests are entered into a computer program, along with data on the room volume, surface areas, suppression agent type, volume of agent to be discharged, concentration requirements, and hold time to be achieved and maintained. The program then calculates theoretical concentration levels for the space over the required hold time based on the measured rate of leakage. If the program determines that the rate of leakage is too high, the enclosure must be re-inspected and the sources of leakage identified and corrected.

The basic method for locating leakage sources is to use a smoke pencil or other approved smoke source to check air movement at all penetrations and enclosure construction joints. The door fan should be operated to pressurize and depressurize the enclosure while the smoke stick is passed in front of potential leakage sources and the smoke is observed for movement. Other more advanced method of determining leakage sources that do not rely on smoke include the use of highly sensitive acoustical sensors that can detect air movement through openings or infrared scanning equipment if a temperature difference exists between the inside and outside of the enclosure.

Figure 4 Fan assembly for door fan test

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Upon successful completion of testing, the fire protection engineer should undertake one more very important activity: Educate the owner and operators of the facility of the importance on maintaining the enclosure integrity. Operations and maintenance training of the clean agent system and controls commonly are required by most specifications, but training on maintaining enclosure integrity often is overlooked. The training requirements in the construction specifications should include provisions for informing all facility personnel who potentially could be involved in future modifications or maintenance of enclosure on the significance of maintaining the enclosure integrity. The training should emphasize that uncontrolled modifications of the enclosure could result in a failure the clean agent system’s ability to properly suppress a fire.

Requirements and procedures for periodic room integrity inspections should be explained, and the client should be advised to establish a documented administrative control program that includes enclosure integrity maintenance requirements. This program should define procedures for inspecting and documenting all future modifications to the facility. It should be pointed out that such a program would eliminate the requirements for annual inspections per NFPA 2001. The program also should identify that an analysis of the clean agent system must be made by a qualified individual if any changes in the room configuration are proposed that might modify the volume or arrangement of the protected area. This analysis would determine if any modifications to the clean agent system are required, such as reconfiguring the distribution system or changing the volume of agent required to provide the specified concentration level.

**SUMMARY**

The process for ensuring enclosure integrity requires attention to detail, beginning with development of the construction documents prepared by multiple disciplines on the design team, followed by thorough inspections and testing of the enclosure construction. The process is not complete until all stakeholders in operating and maintaining the facility are trained and a control program has been established to ensure the enclosure integrity is maintained as long as the clean agent system is in service. It is incumbent upon the project fire protection engineer to ensure that this process is followed so the successful performance of the clean agent system can be expected should its operation ever become required.

**FRANK MURPHY, PE,** is the director of engineering and lead fire protection engineer for the AECOM Design National Capitol Office in Arlington, Virginia. He has more than 30 years of experience in the design of fire protection systems for institutional, commercial, educational, and research facilities. For more information or to comment on this article, e-mail articles@psdmagazine.org.
“Why in the world did they do that?”

In reviewing the plans for a very large hydronic system, I noticed that the designer had included parallel system fill pumps. These weren’t the large circulating pumps—they were just the small pumps used for filling the system initially. At first, I thought that was odd.

Later, a reader of this column wrote to suggest that it would be useful to discuss the details involved in filling a large, closed loop, industrial cooling water system. That got me to think about those parallel fill pumps again.

**SMALL SYSTEMS**

In the January/February 2004 column “What’s the Pressure?”, I discussed one of the components of pressure in a hydronic system. I called it the initial, or cold fill, pressure. That’s the pressure that must be established when the system is initially vented and filled. In small systems, a ½-inch or ¾-inch pressure-reducing valve (PRV) is used to connect the hydronic system to the city water supply. The valve establishes the initial pressure required to:

- Overcome the elevation difference from the fill point to the top of the system
- Provide a small residual pressure at the top to allow venting and prevent boiling in heating systems

After the system is filled and started, the PRV can be used to replace small losses that will occur over time due to routine service and changes in system components.

In a large system, the same PRV would not be acceptable because it would take too long to fill the system. Perhaps the city supply pressure is not adequate to fill and pressurize the system. Maybe the system uses glycol-water or some other heat transfer fluid. A PRV connected to the city supply can only dilute the system fluid.

The system fill pump, or makeup unit (see Figure 1), is the solution to all of these large system issues.

**TYPICAL MAKEUP UNIT, NORMAL OPERATION**

The unit tank contains water or glycol-water. The system is full of properly pressurized liquid. Small losses over time reduce the pressure. The fill pump starts on low pressure at the pressure switch, transferring liquid from the tank through the PRV to the system. It also stores some liquid under pressure in the makeup unit diaphragm tank. The pump stops at the high-pressure switch setting, which can be set higher than the PRV setting to minimize pump starts due to small losses after the system is filled. The low-water cutoff prevents pump operation if no liquid is in the tank, and the alarm signals the need to refill the tank.

**INITIAL FILL PROBLEMS**

For initial system fill, the PRV could be bypassed, allowing greater flow (more rapid fill). In fact, the flow could be too great since the system is empty; therefore, friction loss is minimal.

Imagine a very flat system curve. That’s what the pump “sees” when it starts to fill the system. The pump will run out on its curve with all the usual consequences: cavitation, high radial loading on the pump bearings, and maybe even motor overload and shutdown. It’s possible to keep the pump on its curve by throttling at the pump discharge or by restricting flow from the system air vents, but that increases the time required to fill the system.

Pumps in parallel can provide the large initial volume of flow, with each pump operating on its curve. During initial fill, the system acts like an open system, so elevation differences have...
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E-mail: sales@amtpump.com
www.amtpump.com

American Plumber
502 Indiana Ave., Sheboygan, WI 53081
P: 920-457-9435 • TFP: 800-645-5428 • F: 888-588-9388
www.americanplumber.com

American Standard
1 Centennial Avenue, Piscataway, NJ 08855
P: 732-980-3000 • TFP: 800-442-1902 • F: 732-980-3335
www.americanstandard-us.com

American Standard Water Heaters
2808 Metropolitan Place, Pomona, CA 91767
P: 909-595-0560 • TFP: 800-900-9063 • F: 909-392-7302
E-mail: sales@waterheating.com
www.waterheating.com

American Valve, Inc.
P.O. Box 35229, Greensboro, NC 27425
P: 336-373-0101 • F: 336-876-0109
E-mail: sales@americanvalve.com
www.americanvalve.com

American Water Heater Co.
P.O. Box 4056, 500 Princeton Rd., Johnson City, TN 37602
P: 423-283-8157 • TFP: 800-937-1037 • F: 423-283-8137
E-mail: jay.harms@awhc.com
www.americanwaterheater.com

AMES Co., Inc.
P.O. Box 1387, Woodland, CA 95776
P: 530-666-2493 • F: 530-666-3914

Aqua Bath Co., Inc.
921 Cherokee Ave., Nashville, TN 37207
P: 615-227-0017 • TFP: 800-232-2284 • F: 615-227-9446
E-mail: salesinfo@aquabath.com
www.aquabath.com

Company Description
The Aqua Bath Co. is a manufacturer of fine acrylic bathtubs and showers. We specialize in the ability to customize our units for your needs or challenges. We market and distribute ADA-compliant units for the healthcare industry, while providing a complete line of units for the institutional accessible, hospitality, and residential markets.

Contacts
Technician/Director: Joe Parchem

Aqua Glass Corp.
320 Industrial Park, Adamsville, TN 38310
P: 731-632-0911 • F: 731-632-1557
www.aquaglass.com

Aqua-Rex LLC
2230 W. Chapman Ave., Orange, CA 9268
TFF: 877-640-2170
E-mail: info@aqua-rex.com
www.aquarx.com

Aquarius by Praxius Industries
435 Industrial Rd., Rt 1 Box 460, Savannah, TN 38372
P: 901-925-7656 • F: 901-925-4290
E-mail: mspears@aquariusproducts.com
www.aquariusproducts.com

Aquatherm, Inc.
1041 Orem Blvd., Provo, UT 84058
P: 801-805-6657
www.aquathermpipe.com

Aquatic Industries, Inc.
11880 RR 224 West, Leander, TX 78641
P: 512-259-2255 • TFF: 800-555-5324 • F: 800-421-3633
www.aquaticwhirlpools.com

Aquion/Rainsoft
2080 E. Lunt, Elk Grove Village, IL 60007
P: 847-437-9400 • TFF: 800-642-3426 • F: 847-437-1594
www.rainsoft.com

Arcom Master Systems
323 East 500 South, Salt Lake City, UT 84111
TFF: 800-424-5080 • F: 801-521-9163
www.arcomnet.com

Arkema, Inc.
2000 Market St., Philadelphia, PA 19103
Big Dipper Thermaco, Inc.
646 Greensboro St., Asheboro, NC 27204
E-mail: info@thermaco
www.big-dipper.com

Bio-Microbics, Inc.
8450 Cole Parkway, Shawnee, KS 66227
P: 913-422-0700 • TFP: 800-753-3278 • F: 913-422-0808
E-mail: sales@biomicrobics.com
www.biomicrobics.com

Company Description
With a worldwide emphasis on improving water quality, people everywhere are recognizing the need for new technologies and infrastructure to support growing populations and protect our fragile ecosystem. Bio-Microbics, Inc. manufactures proven, affordable, and reliable wastewater and storm water transfer and treatment technologies that can help make quick, sustainable, and affordable infrastructure improvements around the world.

Contacts
Marketing Communications Cordinator: Beth Davis
Vice President: Raymond Peat

BJM Pumps
123 Spencer Plains Road, Old Saybrook, CT 06475
P: 860-399-5937 • TFP: 877-256-7867 • F: 860-399-7784
E-mail: sales@bjmpumps.com
www.bjmpumps.com

Blanco
110 Mount Holly Bypass, Lumberton, NJ 08040
P: 609-668-6200 • TFP: 800-451-5782 • F: 609-914-0937
E-mail: jkorneluk@blancoamerica.com
www.blancoamerica.com

Blue Angel
100 Production Dr., Harrison, OH 45030
P: 800-237-9877 • F: 800-868-9093
E-mail: info@blueangelwater.com
www.blueangelwater.com

Bock Water Heaters
P.O. Box 8632, Madison, WI 53708
P: 608-257-2225 • TFP: 800-794-2491 • F: 608-257-5304
E-mail: bwfsales@bockwaterheaters.com
www.bockwaterheaters.com

Boginet, Inc.
Rt. 924, Hazleton, PA 18201
P: 570-454-2584 • F: 570-454-7980
E-mail: ghelmuth@bradfordwhite.com
www.biomicrobics.com

Bow
5700 Cote de Liesse, Montreal, Quebec H4T 1B1 Canada
P: 518-561-0190 • TFP: 800-852-8527 • F: 518-561-6277
www.bradfordwhite.com

Bradford White Corporation
725 Talamore Drive, Ambler, PA 19002
www.bradfordwhite.com

Company Description
Bradford White Corporation is a full line manufacturer of residential, commercial, and industrial products for water heating, space heating, combination heating and storage applications. The company is headquartered in Ambler, PA, and has manufacturing facilities in Middleville, MI, Niles, MI, Rochester, NH, and a distribution center in Mississauga, ON, Canada.

Trade Marks
Combil™, ef Series™, Hydrojet® Total Performance System, Defender Safety System®, EverHot®, TTW®, Vitraglas®, Combil™

Contacts
VP Sales & Marketing: Bruce Carnevale
Dir. Corp. Adv: Fred Battimo
VP Eng: Michael Gordon
President & COO: N. J. Giuffre

Bradley Corp.
W142 N 9101 Fountain Blvd., Menomonee Falls, WI 53051
P: 262-251-6000 • TFP: 800-272-3539 • F: 262-251-5817
E-mail: info@bradleycorp.com
www.bradleycorp.com

Company Description
The industry’s exclusive source for plumbing fixtures, emergency fixtures, partitions, solid plastic lockers, and washroom accessories, serving commercial industrial, healthcare, recreation, and education markets nationwide.

Trade Marks
Bradpack®, Crescent™, Express®, Frequency™, Quadra-Fount®, Sentry®, Terreon®, Tri-Fount™

Contacts
Mkt. Mgr.: Kris Alderson

Bosch Water Heating
340 Mad River Park, Waitsfield, VT 05673
P: 802-496-4436 • TFP: 866-642-3197 • F: 802-496-9006
E-mail: administrator@boschpro.com
www.boschpro.com

Bootz Industries
1400 Park Street, P.O. Box 18010, Evansville, IN 47719
P: 812-423-5401 • F: 812-429-2254
E-mail: webmaster@bootz.com
www.bootz.com

Bosch Water Heating
340 Mad River Park, Waitsfield, VT 05673
P: 802-496-4436 • TFP: 866-642-3197 • F: 802-496-9006
E-mail: administrator@boschpro.com
www.boschpro.com

Bow
5700 Cote de Liesse, Montreal, Quebec H4T 1B1 Canada
P: 518-561-0190 • TFP: 800-852-8527 • F: 518-561-6277
www.bradfordwhite.com

Bradford White Canada, Inc.
1869 Sismet Rd., Mississauga, ON L4W 1W8 Canada
P: 905-238-0100 • F: 905-238-0105
E-mail: info@bradfordwhitecanada.com
www.bradfordwhite.com
BrassCraft
39600 Orchard Hill Place, Novi, MI 48375
P: 248-305-6000 • F: 248-305-6014
www.brasscraft.com

Company Description
Brass-Craft, a Masco Co., is a leading manufacturer of gas and water plumbing products for use in the new construction and repair/remodel markets. BrassCraft is headquartered and has manufacturing facilities in the U.S. We continue to remain competitive through major investments in our manufacturing facilities and by employing American workers.

Trade Marks
Safety + Plus ™; Speedway ™; SureConnect ™; Procoat ™; Safety + Plus Advantage ™; SPEEDIPLUMB ™; SPEEDIPLUMB ™ PLUS

Contacts
President: Don Woody
Vice President: Jeff Jollay
Sr. VP of Sales: Jim Whiteherse
Sr. Vice President: Wade Henderson

Brenner Co.
55 Jiffy Rd., Somerset, NJ 08875
P: 732-873-1500 • F: 732-873-8847

Briggs Plumbing Products, Inc.
P.O. Box 71077, Charleston, SC 29415
P: 843-569-7887 • TFP: 800-888-4458 • F: 843-569-2091
E-mail: info@briggsplumbing.com
www.briggsplumbing.com

Bryan Boilers, a Division of Bryan Steam LLC
783 North Chili Ave., Peru, IN 46970
P: 260-871-2760 • F: 260-871-2150
E-mail: inquiry@bryansteam.com
www.bryanboilers.com

Burnham–U.S. Boiler Co., Inc.
P.O. Box 3079, Lancaster, PA 17604
P: 717-397-4701 • F: 717-293-5827
E-mail: info@burnham.com
www.burnham.com

Burt Process Equipment, Inc.
1050 Sherman Avenue, Hamden, CT 06514
E-mail: info@burtprocess.com
www.burtprocess.com

Busch LLC
516 Viking Dr., Virginia Beach, VA 23452
P: 757-463-7800 • TFP: 800-872-7867 • F: 757-463-7407
E-mail: marketing@buschusa.com
www.buschusa.com

California Faucets
5231 Argosy Dr., Huntington Beach, CA 92649
P: 714-891-7797 • TFP: 800-822-8855 • F: 714-891-2478
E-mail: info@call faucets.com
www.call faucets.com

Callabresi Combustion Systems, Inc.
1311 Armory Rd., Salina, KS 67401
P: 785-825-2599 • F: 785-825-5271
E-mail: jerryccs@sbcglobal.net

Cambridge-Lee Ind.
86 Tube Dr., Reading, PA 19605
P: 610-926-4144 • TFP: 800-523-8263 • F: 800-255-7317
www.camlee.com

Canaris Corp.
7905 Eagle Palm Drive, Riverview, FL 33578
P: 813-621-8643 • F: 813-626-2178
E-mail: sales@canaris.com
www.canaris.com

Canplas LLC
500 Veterans Dr., Barrie, ON L4M 4V3 Canada
P: 303-373-1918 • TFP: 888-461-5307 • F: 303-373-1923
E-mail: plumbing@canplas.com
www.canplasplumbing.com

Caroma USA
2746 East Coolidge Avenue, Orange, CA 92867
P: 714-538-8547 • F: 714-538-7152
www.caromausa.com

Caroma USA, Inc.
2650 NE Aurora Dr., Hillsboro, OR 97124
P: 503-681-2720 • F: 503-681-2150
E-mail: info@cashacme.com
www.cash.com

Cast Iron Soil Pipe Institute
3595 Shallowford Road, Chattanooga, TN 37421
P: 423-892-0137 • F: 423-892-0817
E-mail: blevan@mindspring.com
www.cisti.org

Ceco
6200 Alameda, Huntington Park, CA 90255
P: 323-588-8108 • F: 323-583-3226

Cemline Corp.
P.O. Box 55, Freeport Rd., Cheswick, PA 15024
P: 724-274-5430 • TFP: 800-245-6268 • F: 724-274-5448
www.cemline.com

Centoco Mfg. Corp.
P.O. Box 32872, Detroit, MI 48232
P: 519-948-2300 • TFP: 800-265-3666 • F: 519-945-7281

Central Brass
2950 E. 55th St., Cleveland, OH 44127
P: 216-883-0220 • TFP: 800-321-8630 • F: 800-338-9414
E-mail: sales@centralbrass.com

Cerro Flow Products, Inc.
3000 Mississippi Ave., Sault, MI 62206
P: 618-874-8603 • TFP: 888-237-7611 • F: 618-337-3010
E-mail: fsenter@cerroflow.com

Cerro Flow Products, Inc.
3000 Mississippi Ave., Sault, MI 62206
P: 618-337-8602 • TFP: 888-237-7611 • F: 618-337-6958
E-mail: fsenter@cerroflow.com
www.cerroflow.com

Cesco Brass Ltd.
3000 Mississippi Ave., Sault, MI 62206
P: 704-348-6450 • TFP: 800-438-6091 • F: 800-553-1605
E-mail: contactus@charlottepipe.com
www.charlottepipe.com

Company Description
Charlotte Pipe is a manufacturer of thermoplastic and cast iron piping systems for pressure and drainage applications, including cast iron soil pipe, ABS, PVC, Corzan CPVC, FlowGuard Gold, and CHEMDRAIN chemical waste pipe and fitting systems.

Trade Marks
CORZAN®, FlowGuard Gold®, CHEMDRAIN™, True®

Contacts
Technical Services Manager: Bill Morris
Director, Marketing: Bradford Muller

Chart Industries, Inc.
452 Seventh St. N.W., New Prague, MN 56071
P: 952-758-4484 • TFP: 888-877-3093 • F: 952-758-8293
E-mail: cathy.dols@chart-ind.com
www.chart-ind.com

Chicago Faucets
2100 Clearwater Dr., Des Plaines, IL 60018
P: 847-803-5000 • TFP: 800-323-5060 • F: 847-803-5454
www.chicagofaucets.com

Company Description
Chicago Faucets, a member of the Geberit Group, is the leading brand of commercial faucets and fittings in the United States, offering a complete range of products for schools, laboratories, hospitals, office buildings, food service, airports, and sports facilities. Whatever your requirements may be, Chicago Faucets’ extensive standard and made-to-order product offerings are sure to meet or surpass your needs. For additional information, visit chicagofaucets.com or call 800-323-5060.

Trade Marks
HyTronic®; E-Tronic®; Marathon®; Quaturn®

Contacts
Dir. of Marketing: John Fitzgerald
MANUFACTURERS LIST

Component Hardware Group, Inc.
P.O. Box 2020, Lakewood, NJ 08701
TFF: 800-526-3694 • F: 732-364-8110
E-mail: akraft@componenthardware.com
www.componenthardware.com

Company Description
Component Hardware Group, Inc. (CHG), based in Lakewood, NJ, is a leading manufacturer and distributor of plumbing, hardware and specialty products for the foodservice, commercial, institutional, healthcare, and cruise line industries. For over 27 years, CHG has built a reputation of high quality, exceptional service and product innovation evident in our well-known brands: Encore® premium plumbing, SANIGUARD® treatment, Sanishower® hand showers, SaniGrasp™ door hardware, DrainerMaster™ rotary drains, Quick-Wash® hand sink faucet actuators and TOP-LINE™ economy plumbing. Our Encore® line of premium plumbing features low-flow aerators and pre-rinse sprays, and our new line of low-lead plumbing fixtures is certified to NSF 61, Section 9, Annex G to satisfy California AB-1953 and Vermont S-152 requirements. CHG also has a new line of stainless steel plumbing products to meet emerging no lead requirements.

Trade Marks
Encore® premium plumbing; TOP-LINE™ economy plumbing; SaniShower® hand showers; DrainerMaster™ rotary drains; Quick-Wash® hand sink faucet actuators

Contacts
Marketing Product Manager: Alan (A.J.) Kraft

Conbraco
P.O. Box 247, Matthew, NC 28106
P: 704-841-6000 • F: 704-841-6020
E-mail: conbraco@conbraco.com
www.conbraco.com

Conine Mfg Co., Inc.
P.O. Box 6561, Tyler, TX 75711
P: 903-894-6150 • TFF: 800-537-5859 • F: 903-894-6702
E-mail: info@conine.com
www.conine.com

Connecticut Stamping & Bending Co.
206 Newington Ave., New Britain, CT 06050
P: 860-225-4637 • TFF: 800-966-6964 • F: 860-229-4328
E-mail: brad_barlow@macristy.com
www.macristyindustries.com

Consolidated Plumbing Industries (CPI)
135 Fox Rd., Suite A, Knoxville, TN 37922
P: 423-690-1558 • TFF: 800-489-8274 • F: 800-323-4034
E-mail: jennifer@durapex.com
www.durapex.com

Containment Solutions
5150 Jefferson Chemical Road, Conroe, TX 77301-6834
TFF: 877-CST-TANK
E-mail: containment@ containment.com
www.containment.com

Cooper B-Line
509 W. Monroe, Highland, IL 62249
P: 618-654-2184 • TFF: 800-851-7415 • F: 618-654-5449
E-mail: cpeeler@cooperbline.com
www.cooperbline.com

Copper Development Association, Inc.
260 Madison Ave., New York, NY 10016
P: 212-251-7200 • TFF: 800-CDA-DATA • F: 212-251-7234
E-mail: plumbing@cdacooper.org
www.copper.org

Cranco Pumps & Systems
420 Third Street, Piqua, OH 45356
P: 937-773-2442 • F: 937-773-2238
E-mail: crane@craneumps.com
www.craneco.com

Company Description
Manufacturer of submersible pump effluent, sewage, grinder pumps, self-priming trash, sewage, water pumps, and end-suction and split-case chilled water pumps.

Trade Marks
Barnes; Deming; Burks; Weinman

Contacts
Marketing Manager: Chuck Drake
Sales Manager: Dan Ellis
Product Line Director: Glenn Wieczorek

Cran Valve Group
19241 David Memorial Dr., Ste. 150, Shenandoah, TX 77385
P: 281-298-5468 • F: 281-298-1920
www.stockham.com

Croker Division, Fire-End & Croker Corp.
7 Westchester Plaza, Elmsford, NY 10523
P: 914-592-3640 • F: 914-592-3892
E-mail: info@croker.com
www.croker.com

Crown Boiler Co.
36331 St., Philadelphia, PA 19134
E-mail: sales@crownboiler.com
www.crownboiler.com

CSA International
175 Rexdale Blvd., Toronto, ON M9W 1R3 Canada
P: 416-747-2688 • F: 416-401-6536
E-mail: plumbing@cda.copper.org
www.csa-international.org

Culligan
One Culligan Pkwy., Northbrook, IL 60062
P: 847-205-5779
E-mail: info@culligan.com
www.culligancommercial.com
**Delany Products**
P.O. Box 411, Charlottesville, VA 22902
P: 434-296-0166 • TFP: 888-566-7784 • F: 434-977-3596
E-mail: info@delanyproducst.com
www.delanyproducst.com

**Company Description**
Manufacturer of flush valves for use with water closets and urinals. A full line of valves are manufactured, including those operated by remote push-button (Hydro-Flush), by electric sensor operation (Sensor-Flush), and by battery-powered sensor (Impulse). Delany Flush Valves also manufactures an inline bedpan diverter valve and sensor-operated faucets.

**Trade Marks**
Flushboy; Presto; Hydro-Flush; Sensor-Flush; Impulse; Infinite

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**Delta Faucet Co.**
55 East 111th St., Indianapolis, IN 46280
P: 317-848-1812 • F: 317-574-5567
E-mail: spetrin@deltafaucet.com
www.deltafaucet.com/commercial

**Company Description**
Delta Faucet Company, the world leader in residential and commercial faucets, is leading the industry with breakthrough performance and technological advancements from our patented Brilliance anti-tarnish finishes to residential electronics to revolutionizing shower systems with H2Okinetic Technology.

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**Delta P Systems, Inc.**
460A LPGA Blvd, Holly Hill, FL 32177
P: 386-236-0950 • TFP: 800-508-4218 • F: 386-236-7814
E-mail: dave@deltapsystems.com
www.deltapsystems.com

**Digital Analysis Corp.**
P.O. Box 95, 716 Wisons Drive, Skaneateles, NY 13152
P: 315-685-0760 • TFP: 877-685-0760 • F: 315-574-5567
E-mail: info@digital-analysis.com
www.digital-analysis.com

**Diversified Heat Transfer, Inc.**
1710 Flushing Ave., Ridgewood, NY 11385
P: 718-386-6666 • TFP: 800-221-1522 • F: 718-386-7809
E-mail: dht@dhtnet.com

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**Ebara Fluid Handling**
1651 Cedar Line Dr., Rock Hill, SC 29303
P: 803-327-5005 • F: 803-327-5097
E-mail: sales@pumpsebara.com
www.pumpsebara.com

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**Dormont Mfg.**
6015 Enterprise Drive, Export, PA 15632
P: 724-733-4800 • TFP: 800-367-6668 • F: 724-733-4808
www.dormont.com

**DreamMaker Bath & Kitchen by Worldwide**
1020 N. University Park, Waco, TX 76707
TFP: 800-583-9099 • F: 254-745-2588
E-mail: dreammaker@dwyergroup.com
www.dreammaker-remodel.com

**Durgo, Inc.**
1719 Trade Center Way, #1, Naples, FL 34109-1862
P: 239-592-9899 • F: 239-592-9906
E-mail: info@durgo.com
www.durgo.com

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**Dynatech**
36030 Rayalton Rd., Grafton, OH 44044
TFP: 800-446-9001 • F: 440-748-2444
E-mail: dynatech@ohio.net
www.dynatech-diamond.com

**E.L. Mustee & Sons**
5431 W. 164th St, Brook Park, OH 44142
P: 216-267-3100 • F: 216-267-9997
E-mail: info@mustee.com
www.mustee.com

**EASTMAN–EZ-FLO International**
2750 E. Mission Blvd, Ontario, CA 91761
P: 909-947-5256 • TFP: 800-666-3700 • F: 909-947-5775
E-mail: clara@ez-flo.com
www.eastmanplumbing.com or www.ez-flo.com

**Easy Heat, Inc.**
2 Connecticut S. Dr., East Granby, CT 06026
P: 860-653-1600 • TFP: 877-656-6331 • F: 860-653-4938
www.easyheat.com

**Eaton Corp.**
Eaton Center, Cleveland, OH 44114-2584
P: 216-523-4400 • TFP: 800-386-1237 • F: 416-479-7014
E-mail: courtesy@etn.com
www.eaton.com

**Eaton Electrical**
2256-29th Street NE # 10, Calgary, AB T1Y 7G4 Canada
P: 403-717-2000 • F: 403-717-0567
E-mail: chefirepump@eaton.com
www.eaton.com

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**Domestic Pump**
2800 N. Austin Ave., Morton Grove, IL 60053
P: 847-966-3700 • F: 847-965-8379
E-mail: fhs.webmaster@dlt.com
www.domesticpump.com
FlowGuard Gold®; Corzan® FlowGuard Gold and Corzan pipe and fittings. The innovative FlowGuard Gold®/Corzan® CPVC plumbing systems for use in fire sprinkler applications, offering the same easy installation and corrosion resistance as iron pipe sizes (IPS) up to 16” in diameter. Fittings for larger diameter requirements, Corzan pipe and fittings available in copper tube size (CTS) FROM 1/2” TO 2”. For specifications! Falcon Stainless is the recognized brand leader for flexible water connectors. Accept no substitutions! The innovative FlowGuard Gold®/Corzan® CPVC plumbing system, which is constructed of durable chlorinated polyvinyl chloride (CPVC), offers a number of advantages that make it ideal for new construction and replacement applications. FlowGuard Gold pipe and fitting are available in copper tube size (CTS) FROM 1/2” TO 2”. For larger diameter requirements, Corzan pipe and fittings can be utilized. Corzan pipe and fittings are available in iron pipe sizes (IPS) up to 16” in diameter. Fittings for transitioning between FlowGuard Gold CTS and Corzan IPS are available. Building on the CPVC technology used to make today’s advanced plumbing systems, we also offer today’s most specified non-metallic fire sprinkler system in the world: BlazeMater® CPVC Fire Sprinkler Systems for use in fire sprinkler applications, offering the same easy installation and corrosion resistance as FlowGuard Gold and Corzan pipe and fittings.
**MANUFACTURERS LIST**

**Goldak, Inc.**  
P.O. Box 1988, Glendale, CA 91209  
P: 818-240-2666 • F: 818-244-6818  
E-mail: sales@goldak.com  
www.goldak.com

**G-O-N LLC (Glue on Nozzle)**  
15445 N. Greenway-Hayden Loop C-14, Scottsdale, AZ 85260  
P: 480-948-9059 • F: 480-957-8697  
E-mail: sales@glueonnozzle.com  
www.glueonnozzle.com

**Gorman-Rupp Co.**  
P.O. Box 1217, Mansfield, OH 44901-1217  
P: 419-755-1011 • F: 419-755-1251  
E-mail: grsales@gormanrupp.com  
www.grrpm.com

**Goulds Pumps**  
2881 E. Bayard St., Seneca Falls, NY 13148  
P: 315-568-2811 • F: 315-568-2418  
www.goulds.com

**Company Description**  
Gorman-Rupp Pumps manufacturers the high performance, high quality pumps and pumping systems required for lasting service in the construction, municipal, water, wastewater, sewage, industrial, petroleum, fire, agricultural, and OEM markets. Our extensive line of pumps includes self-priming centrifugal, standard centrifugal, submersible, trash, priming assisted, and rotary gear.

**Trade Marks**  
Aqua Force®; S-Drive®; Sumpthing®; Aquavar®; Aqua Boost®; SSV®; pressure boosters, and controls.

**Graham Corp.**  
20 Florence Ave., Batavia, NY 14020  
P: 585-343-2216 • F: 585-343-1097  
E-mail: equipment@graham-mfg.com  
www.graham-mfg.com

**Grease Removal Systems, Inc.**  
2675 W.2365 S., Suite 5, West Valley City, UT 84119  
P: 801-582-7177 • F: 801-582-7179  
www.greaseremovalsystems.com

**Great Lakes International, Inc.**  
1905 Kearney Ave., Racine, WI 53403  
P: 262-634-2386 • F: 262-634-6259  
E-mail: sales@greatlakesintl.com  
www.greatlakesintl.com

**Green Turtle**  
201 S. Tryon St., Ste. 1475, Charlotte, NC 28202  
TFP: 777-428-8187 • F: 704-295-1734  
www.robois@greenturtletech.com

**Grice Engineering Inc.**  
121 E. Burbank Ave., Janesville, WI 53547-8037  
P: 608-757-1333 • TFP: 800-800-3213 • F: 608-757-1452  
E-mail: sales@softisteel.net  
www.softisteel.com

**Company Description**  
We’ve got you covered! The Softi-Steel® System is a universal utility enclosure system that conceals any size, type, or combination of exposed fire sprinkler systems, plumbing, and piping. The Softi-Steel® System comes available in a vast array of profiles, sizes, finishes, and gauges customized to meet your project’s exact requirements! Our Softi-Steel® System provides a secure, attractive, and durable interior soffit at an economical price and is delivered nationwide within two to three weeks of ordering. Additionally, our Softi-Steel® System is FM approved and comes backed with a 10-year limited warranty. Call 1-800-3213 or visit www.softisteel.com for budget pricing.

**Trade Marks**  
The Softi-Steel® System

**Contacts**  
Contract Sales: Allen Stowers  
President: Jack Grice, PE  
Marketing Sales Coordinator: Jasmin Steiner

**Griffin Products, Inc.**  
P.O. Box 90, Wills Point, TX 75169  
P: 972-873-6388 • TFP: 800-379-9709 • F: 903-873-6389  
E-mail: sales@griffinproducts.com  
www.griffinproducts.com

**Grohe America**  
241 Covington Dr., Bloomington, IL 60108  
P: 630-582-7711 • F: 630-582-7722  
E-mail: info@groheamerica.com  
www.groheamerica.com

**Group Thermo, Inc.**  
1290 Famularo Dr., SO. Plainfield, NJ 07080  
P: 908-757-8955 • F: 908-757-1153  
E-mail: info@ergomax.com  
www.ergomax.com

**Guardian Equipment**  
1140 N. Branch St., Chicago, IL 60642  
P: 312-447-8101 • TFP: 800-690-7700 • F: 312-447-8101  
E-mail: info@gesafety.com  
www.gesafety.com

**Company Description**  
Guardian Equipment is a leading manufacturer of emergency eyewash and shower technologies.

**Guardian Fire Equipment, Inc.**  
3430 NW 38th Street, Miami, FL 33142  
P: 305-633-0361 • F: 305-638-4632  
E-mail: lisa@guardianfire.com  
www.guardianfire.com

**Hammond Valve**  
16550 W. Stratton Dr., New Berlin, WI 53151  
P: 262-432-2702 • TFP: 800-348-6544 • F: 262-432-2703  
E-mail: info@hammondvalve.com  
www.hammondvalve.com

**Hansa America, Inc.**  
1770 Corporate Dr., #580, Norcross, GA 30093  
P: 678-334-2142 • TFP: 678-842-6721 • F: 678-334-2148  
www.hansamerica.com

**Harmco Filtration Products**  
7169 N 49th Terrace, P.O. Box 14066, N. Palm Beach, FL 33407  
TFP: 800-327-3246 • F: 561-845-2474  
E-mail: sales@harmco.com  
www.harmco.com

**Harsco Industrial, Patterson-Kelley**  
100 Burson St., East Stroudsburg, PA 18301  
P: 570-476-2811 • TFP: 877-728-5351 • F: 570-476-2418  
www.pattkelco.com

**Company Description**  
Harsco Industrial, Patterson-Kelley serves the commercial heating industry with the best-known and most respected products in the field. Our specialized, high-performance boilers and water heaters are known for quality, durability, and value. We are working to enhance the future through green technologies and global infrastructure solutions, proudly serving industries that are fundamental to global economic growth and progress.
CONTACTS

Southern Regional Manager: C.R. Phillips
Western Regional Manager: Doug Bolasevich
Northern Regional Manager: Norm Marshall
Marketing Manager: Stephanie Murphy
National Sales Manager: Walt Rykowski

Harvel Plastics, Inc.
300 Kuebler Rd., P.O. Box 757, Easton, PA 18044-0757
P: 610-252-7355 • F: 610-253-4436
E-mail: harvel@harvel.com
www.harvel.com

Haws Corp.
1455 Kleppe Lane, Sparks, NV 89431
P: 775-359-4712 • F: 775-359-7424
E-mail: info@hawsco.com
www.hawsco.com

Heat Controller, Inc.
1900 Wellworth Ave., Jackson, MI 49203
P: 517-787-2100 • F: 517-787-9341
www.heatcontroller.com or www.addison-hvac.com

Heat Transfer Products, Inc.
120 Baley Rd., P.O. Box 429, E. Freetown, MA 02717-0429
P: 508-763-8071 • F: 508-763-3769
E-mail: sales@htproducts.com
www.htproducts.com

Heat-Fab, Inc.
130 Industrial Blvd, Turners Falls, MA 01376
P: 413-863-2242 • F: 413-863-4803
E-mail: dclarke@heat-fab.com
www.heat-fab.com

Heatlink USA, Inc.
89 54th St. S.W., Grand Rapids, MI 49548
P: 616-532-4266 • TFP: 800-968-8905 • F: 616-532-3922
www.heatlink.com

Heat-Timer Corp.
20 New Dutch Ln., Fairfield, NJ 07004
P: 973-575-4004 • F: 973-575-4052
www.heat-timer.com

Henkel Loctite Corp.
1001 Trout Brook Crossing, Rocky Hill, CT 06067
TFF: 800-562-8483 • F: 860-571-5465
E-mail: info@loctite.com
www.loctite.com

Henry Group
141 Calle Iglesia, San Clemente, CA 92672
www.heat-fab.com

Highland Tank
One Highland Rd., Stowtown, PA 15563
P: 814-893-5701 • F: 814-893-6126
E-mail: staff@highlandtank.com
www.highlandtank.com

FREEZE FLOW™

Hoeptner Perfected Products
7796 Oak Springs Circle, Gilroy, CA 95020
P: 408-847-7615 • F: 408-847-0675
E-mail: work@garlic.com
www.freezeflow.com

Company Description
Manufacturer and designer of sanitary yard hydrants,
hydrants meet ASSE 1057 sanitary yard hydrant standard.

Trade Marks
Freeze Flow®

Contacts
Owner: Herb Hoeptner

Hoffman Speciality
8200 N. Austin, Morton Grove, IL 60053
P: 847-966-3700 • F: 847-965-8379
E-mail: fhs.webmaster@itt.com
www.hoffmanspecialty.com

Company Description
Manufacturer of a complete line of steam traps,
regulators, and valves.

Trade Marks
BearTrap®

Holtby Tempering Valve Co., Inc.
1146 Second Ave., New York, NY 10024
P: 212-838-6363 • F: 212-838-6367
E-mail: holtby23@aol.com
www.holtbytemperingvalve.com

Holyoke Fittings, Inc.
850 Stanley Ave., Brooklyn, NY 11208
P: 718-649-0710 • TFP: 800-222-0215 • F: 718-272-2956
E-mail: sales@holyokefittings.com
www.holyokefittings.com

Honeywell Water Controls
65 Access Rd., Warwick, RI 02886
P: 401-289-3042 • F: 419-289-2674
E-mail: hydromatic_info@pentairpump.com
www.hydromatic.com

Hot Aqua, Inc.
141 Calle Iglesia, San Clemente, CA 92672
www.heatlink.com

Hot Box Enclosures
924 Lane Ave., North Jacksonville, FL 32254
P: 904-783-0204 • TFP: 800-736-0238 • F: 904-783-6965
E-mail: sales@hot-box.com
www.hot-box.com

HR Systems, Inc.
4792 LaVista Road, Tucker, GA 30084
P: 770-934-8463 • F: 770-934-7696
E-mail: hass@hrsystems.com
www.hrsystems.com

Hydromax, Inc.
3 Brunel Road, Dunbarton, Scotland, DD2 4RG United Kingdom
P: 212-838-6363 • F: 212-838-6367
E-mail: holtby23@aol.com
www.holtbytemperingvalve.com

Hydromaxx, Inc.
3 Brunel Road, Dunbarton, Scotland, DD2 4RG United Kingdom
P: 212-838-6363 • F: 212-838-6367
E-mail: holtby23@aol.com
www.holtbytemperingvalve.com

Hydropneumatic, Inc.
1001 El Camino Ave., Corona, CA 92879
P: 909-372-2732 • TFP: 800-262-2732 • F: 909-738-0458
www.anaco-husky.com

Hydrotek International, Inc.
5055 Forsyth Commerce Road, Ste. 124, Orlando, FL 32807
TFF: 800-922-9883 • F: 866-670-5380
E-mail: wsdat@hydronekintl.com
www.hydrotekintl.com

Hydrotherm
260 N. Elm St., Westfield, MA 01085
P: 413-564-5515 • F: 413-568-9613
www.hydrotherm.com

IAPMO
20001 Walnut Dr. S., Walnut, CA 91789
P: 909-595-8449 • F: 909-594-3690
www.iapmo.org

IDEAL Clamps
3200 Parker Drive, St. Augustine, FL 32084
P: 904-829-1000 • TFP: 800-221-0100 • F: 704-825-1121
E-mail: jlambert@tomkingsamg.com
www.idealclamps.com

Infloor Heating Systems
900 Hamel Rd., P.O. Box 253, Hamel, MN 55340
P: 763-478-9660 • TFP: 800-588-4470 • F: 763-478-0768
www.infloor.com

Inline Industries, Inc.
4701-A Little John St., Baldwin Park, CA 91706
P: 626-813-6188 • F: 626-813-6188
E-mail: inline@ballvalve.com
www.ballvalve.com

IDEAL Clamps
3200 Parker Drive, St. Augustine, FL 32084
P: 904-829-1000 • TFP: 800-221-0100 • F: 704-825-1121
E-mail: jlambert@tomkingsamg.com
www.idealclamps.com

Hydronek, Inc.
1001 El Camino Ave., Corona, CA 92879
P: 909-372-2732 • TFP: 800-262-2732 • F: 909-738-0458
www.anaco-husky.com

Hydrotek International, Inc.
5055 Forsyth Commerce Road, Ste. 124, Orlando, FL 32807
TFF: 800-922-9883 • F: 866-670-5380
E-mail: wsdat@hydronekintl.com
www.hydrotekintl.com

Hydrotherm
260 N. Elm St., Westfield, MA 01085
P: 413-564-5515 • F: 413-568-9613
www.hydrotherm.com

IAPMO
20001 Walnut Dr. S., Walnut, CA 91789
P: 909-595-8449 • F: 909-594-3690
www.iapmo.org

IDEAL Clamps
3200 Parker Drive, St. Augustine, FL 32084
P: 904-829-1000 • TFP: 800-221-0100 • F: 704-825-1121
E-mail: jlambert@tomkingsamg.com
www.idealclamps.com

Infloor Heating Systems
900 Hamel Rd., P.O. Box 253, Hamel, MN 55340
P: 763-478-9660 • TFP: 800-588-4470 • F: 763-478-0768
E-mail: info@infloor.com
www.infloor.com

Inline Industries, Inc.
4701-A Little John St., Baldwin Park, CA 91706
P: 626-813-6188 • F: 626-813-6188
E-mail: inline@ballvalve.com
www.ballvalve.com
Isomet
103 W C.J. Wise Pkwy, P.O. Box 129, Naples, TX 75568-0129
T/F: 866-897-0737 • F: 903-897-0740
E-mail: pap@isimet.com

Istec Corp.
92 Main, Sparta, NJ 07871
P: 973-726-7090 • F: 973-726-8707
E-mail: sales@istec-corp.com
www.istec-corp.com

ITT
8200 N. Austin Ave, Morton Grove, IL 60053
P: 847-966-3700 • F: 847-965-8379
E-mail: fhs.webmaster@itt.com
www.bellgossett.com

Company Description
ITT Fluid Handling manufactures pumps, circulators, valves, heat transfer, air management, packaged systems, controls, steam traps, regulators, commercial pool and waterpark pumps, and fire pumps. Manufacturer of pumps, valves, circulators, heat transfer packaged systems, controls & accessories for plumbing & pressure boosting.

ITT Flygt
600 Mile Crossing Blvd., Rochester, NY 14624
P: 585-426-0280 • T/F: 892-392-0983 • F: 585-426-3947
E-mail: bob.jacobs@fluids.ittind.com

ITT Residential & Commercial Water
8200 N. Austin Ave, Morton Grove, IL 60053
P: 847-966-3700
www.bellgossett.com

ITW Buildex / Sammy Super Screw
1349 West Bryn Mawr, Itasca, IL 60143
P: 800-323-4539 • F: 630-595-3569
E-mail: abasalay@itwbuildex.com
www.itwbuildex.com

J.C. Whitlam Manufacturing Co.
200 West Walnut St., Wadsworth, OH 44282
P: 330-334-2524 • T/F: 800-321-8358
E-mail: sales@jcwhitlam.com
www.jcwhitlam.com

J.W. Harris Co., Inc.
4501 Quality Lane, Mason, OH 45040-1971
P: 513-754-2000 • T/F: 513-754-4333 • F: 513-754-8778
E-mail: salesinfo@jwharris.com
www.jwharris.com

2781 Gunter Park Dr. East, Montgomery, AL 36109
P: 334-277-8520 • F: 334-277-7236

E-mail: sales@jrsmith.com
www.jrsmith.com

Company Description
Jay R. Smith Mfg. Co.® produces a full line of quality engineered specification drainage products.

Trade Marks
Flood-Gate®, Guardian Dual Check®, LineBacker®, Enviro-Flow®, Remediator®, Smith Yellow Pages®, Sanic-Stop®, Twist-To-Floor®

Contacts
VP of Marketing: Charles White
VP of Engineering: Jerry McDonal
VP of Sales: John Roberts

JM Manufacturing
9 Peachtree Hill Road, Livingston, NJ 07039

John Guest USA
180 Passaic Ave., Fairfield, NJ 07004
T/F: 800-945-4872 • F: 877-775-4329
E-mail: info@jguusa.com
www.johnguest.com

JOMAR Group
7234 Miller Drive, Warren, MI 48092
P: 800-325-5690 • F: 800-628-4194
dan.blake@jomar.com
www.jomar.com

Josam Co.
2501 S. Front St., Michigan City, PA 19148
P: 800-365-6726 • F: 800-627-0008
www.josam.com

Joslyn Clark Controls
2013 W. Meeting Street, Lancaster, SC 29720
P: 803-289-1304 • F: 803-286-6624
E-mail: kmattew@dncan.com
www joslync Clark.com

Just Manufacturing Co.
9233 King St., Franklin Park, Ill 60131
P: 847-678-5150 • T/F: 847-678-6817
E-mail: justmf g@justmf.com
www. justmf.com

JWC Environmental
290 Paularino Ave., Costa Mesa, CA 92626
P: 949-833-3883 • T/F: 800-221-2277 • F: 949-833-8858
E-mail: jwc@jwc.com
www.jwc.com

KBI (King Bros. Industries)
29101 The Old Road, Valencia, CA 91355
P: 800-822-1963 • F: 800-554-6077 • F: 952-835-2218
E-mail: badavis@jllindustries.com
www.jllindustries.com

Kidde Fire Fighting
150 Gordon Dr., Exton, PA 19341
P: 610-363-1400 • F: 610-524-9073
E-mail: bdrake@kidde-fire.com
www.kidde-fire.com
Kinetico, Inc.
10845 Kinsman Road, P.O. Box 193, Newbury, OH 44065
P: 440-564-9111 • TFP: 800-944-9283 • F: 440-564-9541
www.kinetico.com

Kohler Co.
444 Highland Dr., Kohler, WI 53044
P: 920-457-4441 • TFP: 800-456-4537 • F: 920-457-4441
E-mail: christopher.meece@kohler.com
www.kohler.com

Kolbi Pipe Markers
746 Pincrest Dr., Prospect Heights, IL 60070
P: 800-499-8450 • TFP: 800-499-8450 • F: 800-596-3057
E-mail: kolbi88@msn.com
www.kolbipipemarkers.com

Kusel Equipment
820 West St., p.o. Box 87, Watertown, WI 53094
P: 920-261-4112 • TFP: 920-261-3151
E-mail: sales@kuselquipment.com
www.kuselquipment.com

Company Description
For over 150 years Kusel Equipment has provided quality equipment to the dairy, meat, and food processing industries. Kusel Equipment offers a complete line of stainless steel floor drains and trench drains suitable for any food processing, beverage, or pharmaceutical applications. Custom drains are our standard. Many are NSF listed.

Contacts
Product Manager: Cindy Schade

KWC Faucets, Inc.
1770 Corporate Dr., #580, Norcross, GA 30093
P: 678-334-2121 • TFP: 888-KWC.FCTS • F: 877-329-5921
www.kwcfaucets.com

Laboratory Enterprises
3225 Harvester Rd., Suite 101, Kansas City, KS 66115
P: 913-384-6175 • TFP: 877-386-6535
E-mail: sales@labenterprises.net
www.labenterprises.net

Laing Thermotech, Inc.
830 Bay Blvd., Suite 101, Chula Vista, CA 91911
P: 619-575-7466 • F: 619-575-2739
E-mail: bhutslar@lainginc.com
www.lainginc.com

Lakos Filtration Systems
1365 N. Clives, Fresno, CA 93727
P: 559-255-1601 • TFP: 800-344-7205 • F: 559-255-8039
E-mail: info@lakos.com
www.lakos.com

Lasco Bathware
8101 E. Kaisor Blvd., Suite 200, Anaheim, CA 92808
P: 714-993-1220 • F: 714-998-3062
E-mail: info@lascobathware.com
www.lascobathware.com

Lasco Fittings, Inc.
414 Morgan Street, P.O. Box 116, Brownsville, TN 38012
P: 731-772-3180 • TFP: 800-776-2756 • F: 731-772-0835
E-mail: sales@lascofittings.com
www.lascofittings.com

Lavelle Industries
655 McHenry St., Burlington, WI 53105
P: 262-763-2344 • TFP: 800-528-3553 • F: 262-763-5607
E-mail: korky@lavelle.com
www.korky.com

Lawler Manufacturing Co., Inc.
5340 E. 25th St., Indianapolis, IN 46218
P: 317-261-1212 • F: 317-261-1208
www.lawlevillage.com

LDR Industries, Inc.
600 North Kilbourn Ave., Chicago, IL 60624
P: 773-265-3000 • TFP: 800-545-5230 • F: 773-265-2374
E-mail: service@ldrind.com
www.ldrind.com

Legend Valve & Fitting, Inc.
5125 Filomena Dr., Shelby Township, MI 48315
P: 800-752-2082 • TFP: 800-835-4457
E-mail: service@legendvalve.com
www.legendvalve.com

Leonard Valve Co.
1360 Elmwood Ave., Cranston, RI 02910
P: 401-461-1200 • TFP: 800-797-4456 • F: 401-941-5310
E-mail: info@leonardvalve.com
www.leonardvalve.com

Company Description
Leonard has been the leader in water temperature control valves and systems for commercial/institutional and residential applications since 1913. We developed the first thermostatic bimetal, our Dura-trol®, which is a solid element constructed of bronze and stainless steel alloys.

Trade Marks
Aquatrol®; Showwmaster®; Surfashower®; Advantage®; Photomaster®; Dura-Trol®; Megatron®; PAM®

Contacts
President: E. Niles Wilcox
National Sales Manager: Peter Gobis

Leslie Controls
12501 Telecom Dr., Tampa, FL 33637
P: 813-978-1000 • F: 813-977-0174
www.mainsanel.com

Life Medical Networks, Inc.
5450 Dunwoody Mill Ct., Atlanta, GA 30360

Little Giant Pump Co., dba Franklin Electric Water
3810 N. Tulsa, Oklahoma City, OK 73112
P: 405-947-2511 • F: 405-947-8720
www.littlegiant.com

LSP Products Group
3689 Arrowhead Dr., Carson City, NV 89706
P: 770-884-4242 • F: 770-884-4343
www.littlegiant.com

LTC Copper/DA Fehr, Inc.
1327 Long Run Road, Friedensburg, PA 17933

Maid-O-Mist
1327 Long Run Road, Friedensburg, PA 17933

Mainline Backflow Products, Inc.
12530-128 Street, Edmonton, AB T5L 1C9 Canada
P: 780-413-7204 • F: 780-457-1210
E-mail: tomc@backwatervalve.com
www.backwatervalve.com

Mansfield Plumbing Products
P.O. Box 620, Perrysville, OH 44864-0620
P: 800-543-2550 • F: 800-984-7802
E-mail: techsupport@mansfieldplumbing.com
www.mansfieldplumbing.com

Contact Information
National Sales Manager: Chuck Schwabe
Marketing Coordinator: Laurie Pfaff
Director of Sales & Mktg: Randy Waldron

3217 N. Pulaski Rd., Chicago, IL 60641

www.kolbipipemarkers.com

www.mansfieldplumbing.com

www.backwatervalve.com

www.mansfieldplumbing.com

www.mansfieldplumbing.com

www.mansfieldplumbing.com

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www.mansfieldplumbing.com
MAPA Products
103 CI Wise Parkway, PO Box 129, Naples, TX 75568
TPF: 877-297-2371 • F: 903-897-2781
E-mail: rod@mapaproducts.com www.mapaproducts.com

Company Description
Adjustable rooftop pipe and equipment support systems, exclusive seismic and wind resistant supports, unique rooftop pedestal hydrants, and electrical disconnects.

Contacts
President: Phil A. Parker
Sales Director: Rod Holbrook

Marlo, Inc.
2227 South St., Racine, WI 53404
P: 262-681-1300 • F: 262-681-1318
E-mail: info@marlo-inc.com www.marlo-inc.com

Master Control Systems
P.O. Box 27, Brewster, NY 10509
P: 845-278-7570 • TFP: 800-431-2082 • F: 845-278-6952
www.mastercontrols.com

Matco Norca
P.O. Box 27, Brewster, NY 10509
P: 845-278-7570 • TFP: 800-431-2082 • F: 845-278-6952
E-mail: matco-norca.com www.matco-norca.com

Metropolitan Industries, Inc.
37 Forestwood Dr., Romeoville, IL 60446
P: 815-886-9200 • TFP: 800-323-1665 • F: 815-886-6932
E-mail: sales@metropolitanind.com www.metropolitanind.com

Company Description
Metropolitan Industries manufactures a wide array of pre-packaged water pressure booster systems, self-priming pump stations, submersible pumping systems, above- and belowground prefabricated pump vaults, control panels, green water systems, and custom electrical controls and equipment for the commercial, industrial, and municipal markets.

Trade Marks
SUMPO®, Pump Guard™, Pump Guard Plus™, The Pumping World’s One Stop Shop ™

Contacts
President: John Kochan Jr.
Chicago Sales: Mike Poxon
National Sales: Mike Tierney

MG Piping Products Co.
7560 Fern Ave., Stanton, CA 90680
P: 714-761-8055 • TFP: 800-761-8055 • F: 714-761-3710
E-mail: ric@mgcoupling.com www.mgcoupling.com

Microphor
452 East Hill Rd., Willis, CA 95490
E-mail: info@microphor.com

Mid-America Fittings
7604 Wedd, Overland Park, KS 66204
P: 913-962-7277 • TFP: 800-633-6771 • F: 800-592-7277
www.midamericafittings.com

Mid-West Instrument
6500 Dobry Dr., Sterling Heights, MI 48314
E-mail: mlueck@midwestinstrument.com www.midwestinstrument.com

MIFAB
1321 West 119th Street, Chicago, IL 60643-5109
P: 773-341-3001 • TFP: 800-465-2736 • F: 773-341-3046
E-mail: mwhteside@mifab.com www.mifab.com

MIFAB®; BEECO

Contacts
President: Michael Whiteside

Millipore
290 Concord Rd., Billerica, MA 01821

Minnesota Rubber & Plastics
1100 Xenium Ln N., Minneapolis, MN 55441
P: 952-927-1400 • F: 952-927-1470
E-mail: webmaster@mrnrubber.com www.mrnrubber.com

Miro Industries, Inc.
2700 South 900 West, Salt Lake City, UT 84119
TPF: 800-768-6978 • F: 800-440-7958
E-mail: sales@miroind.com www.miroind.com

Mission Rubber Co.
P.O. Box 2349, Corona, CA 92878
P: 800-854-9991 • F: 800-637-4601
E-mail: david@missionrubber.com www.missionrubber.com

Modern Welding Co., Inc.
One Modern Way, Newark, OH 43055

Modular Services Co.
109 NE 38th Street, Oklahoma, OK 73105

Moen, Inc.
109 NE 38th Street, Oklahoma, OK 73105

Options. The Pumping World’s One Stop Shop ™
MIFAB®; BEECO

President: Michael Whiteside

Millipore
290 Concord Rd., Billerica, MA 01821

Minnesota Rubber & Plastics
1100 Xenium Ln N., Minneapolis, MN 55441
P: 952-927-1400 • F: 952-927-1470
E-mail: webmaster@mrnrubber.com www.mrnrubber.com

Miro Industries, Inc.
2700 South 900 West, Salt Lake City, UT 84119
TPF: 800-768-6978 • F: 800-440-7958
E-mail: sales@miroind.com www.miroind.com

Mission Rubber Co.
P.O. Box 2349, Corona, CA 92878
P: 800-854-9991 • F: 800-637-4601
E-mail: david@missionrubber.com www.missionrubber.com

Modern Welding Co., Inc.
One Modern Way, Newark, OH 43055

Modular Services Co.
109 NE 38th Street, Oklahoma, OK 73105

Moen, Inc.
25300 Al Moen Dr., North Olmsted, OH 44070
P: 440-962-2000 • TFP: 800-553-6336 • F: 440-962-2770
www.moencommercial.com
Murdock-Super Secur
15125 Proctor Ave., Gt of Industry, Ca 91746
P: 626-333-2543 • TFP: 800-453-7465 • F: 626-855-4860
E-mail: info@murdock-supersecur.com
www.murdock-supersecur.com

Company Description
Leading manufacturer of outdoor drinking fountains and
toilet fixtures. Pet fountains, pool and beach showers,
and parks and recreation buildings are available as well.

Trade Marks
SafeWater™

Contacts
VP: Bob Murdock

MWI Plumbing
4695 North Ave, Oceanside, CA 92056

Namco Division
P.O. Box 530127, Dallas, TX 75355
E-mail: jtracky@namco-dlv.com
www.namco-dlv.com

NAPHC
180 S. Washington St., Falls Church, VA 22046
P: 703-237-8100 • F: 703-237-7442

Nash, a Gardner Denver Product
9 Trefoil Dr., Trumbull, CT 06611-1330
P: 203-459-3900 • TFP: 800-553-6274 • F: 203-459-3988
E-mail: nash@gardnerdenver.com
www.gdnash.com

National ITC Corp. (formerly P.I.P.E.)
501 Shatto Place, Suite 201, Los Angeles, CA 90020
P: 877-457-6482 • F: 213-351-7632
E-mail: mike@nationalitc.com

NECO Equipment Co.
205 Second St, Saugerties, NY 12477
P: 212-721-2200 • F: 212-721-0434
E-mail: dave@necoequipment.com
www.necoequipment.com

NEOPERL, Inc.
171 Mattatuck Heights, Waterbury, CT 06705
P: 203-756-8891 • F: 203-754-5868
E-mail: info@neoperl.com
www.neoperl.com

NIBCO® Press System®
industrial, and fire protection markets.

NIBCO, Inc.
1516 Middlebury St., Elkhart, IN 46516
P: 574-295-3000 • TFP: 800-234-0227 • F: 574-295-3307
www.nibco.com

Company Description
NIBCO has a winning combination of quality products,
innovative design, and excellent customer service. NIBCO
manufactures valves, fittings, pipe hangers, supports,
and seismic bracing for the residential, commercial,
industrial, and fire protection markets.

Trade Marks
TOLL®, ChemAir®, ChemTrol®, TOL-Brace™, NIB-SEAL®,
NIBCO® Press System™

Contacts
Dir. of Marketing: Bill Geers
Mgr. of Strategic Comm.: Sally A. Boyer

Niles Steel Tank
725 Talamore Dr., Ambler, PA 19002
E-mail: mbetterly@nilestl.com
www.nilestl.com

Noble Co., The
P.O. Box 350, Grand Haven, MI 49417-0350
P: 231-799-8000 • TFP: 800-878-5788 • F: 231-799-8850
E-mail: sales@noblecompany.com
www.noblecompany.com

Nomaco Insulation
3006 Anaconda Road, Tarboro, NC 27886
TFP: 866-876-2684 • F: 866-876-2688
E-mail: tsstephans@nomaco.com
www.nomacoinsulation.com

Noritz America
11160 Grace Avenue, Fountain Valley, CA 92708
P: 714-433-2905 • TFP: 866-765-7489 • F: 714-241-1514
E-mail: info@noritz.com
www.noritz.com

North Star Water Conditioning
1890 Woodlane Drive, Woodbury, MN 55125
TFP: 800-531-7427 • F: 800-351-7421
www.northstarconditioning.com

Northeast Medical Consulting, Inc.
75 West Liberty St., Hubbard, OH 44425

Ondine
665 North Baldwin Park Blvd., City of Industry, CA 91746
P: 626-369-1841 • TFP: 800-423-9485 • F: 626-369-3316
E-mail: cs@interbath.com
www.ondineshowers.com

OPEC LLC
1150 Cobb International Place, Suite E, Kennesaw, GA 30152
P: 770-955-5155 • TFP: 800-969-0339 • F: 770-955-5995
E-mail: sales@opella.com
www.opella.com

Orion Fittings
2850 Fairfax Trafficway, Kansas City, KS 66115
P: 913-342-1653 • F: 800-777-1653
E-mail: info@orionfittings.com
www.orionfittings.com

Paloma Industries, Inc.
2151 Eastman Ave, Oxnard, CA 93036
P: 805-278-5499 • F: 805-278-5468
E-mail: palomausa@raypak.com
www.palomatankless.com

NORTHSTAR WATER CONDITIONING
Manufacturers List

Park Environmental Equipment
7015 Fairbanks N. Houston Rd., Houston, TX 77040
P: 713-937-7602 • TFP: 888-611-7275 • F: 713-937-4254
E-mail: sales@park-usa.com
www.park-usa.com

Company Description
For over 25 years, Park has been committed to providing the water distribution, wastewater, and storm water industries with innovative products. With a strong emphasis on product design, Park is known for providing engineered solutions to cities, design professionals, and contractors. Our goal is to deliver products pre-assembled and pre-tested, ready for hookup and use.

Trade Marks
StormTrooper™; Trash Trooper™; Lab Tank™;
GreaseTrooper™; OilTrooper™; BreakTank™;
MeterVault™; Go Trooper™

Contacts
Vice President: George Eberly III
Engineering: Will Smith

Parker Boiler Co.
5930 Bandini Boulevard, Los Angeles, CA 90040
P: 323-727-9800 • F: 323-722-2848
E-mail: sales@parkboiler.com
www.parkerboiler.com

Parker Hannifin Corp., Seal Group
6035 Parkerland Blvd., Cleveland, OH 44124
TFP: 800-200-2678 • F: 209-576-7025
E-mail: bdrake@kidde-fire.com
www.powhatan.com

Powers a Division of Watts Water Technologies, Inc.
1400 E. Lake Cook Road, Buffalo Grove, IL 60089
P: 847-229-0218 • TFP: 800-669-5430 • F: 847-229-0526
E-mail: info@powerscontrols.com
www.powerscontrols.com

Plumberex Specialty Products
P.O. Box 1684, Palm Springs, CA 92263-1684
P: 760-343-7363 • TFP: 800-475-8629 • F: 760-343-7366
E-mail: info@plumberex.com
www.plumberex.com

Plumbing & Drainage Institute
45 Bristol Drive, Easton, MA 02375
P: 800-589-8956 • F: 508-230-3529
E-mail: bill@pdionline.org
www.pdionline.org

Plumb-Pro
P.O. Box 380, Wadsworth, OH 44282-0380
P: 330-334-2524 • TFP: 800-321-8158
E-mail: sales@jcwhitlam.com
www.powersystems.com

Pequea Systems
7720 N. Lehigh Ave., Niles, IL 60714
P: 847-966-2235 • F: 847-470-1204
E-mail: marketing@permapipe.com
www.permapipe.com

Powerex
150 Production Drive, Harrison, OH 45030

Powers a Division of Watts Water Technologies, Inc.
1400 E. Lake Cook Road, Buffalo Grove, IL 60089
P: 847-229-0218 • TFP: 800-669-5430 • F: 847-229-0526
E-mail: info@powerscontrols.com
www.powerscontrols.com

Powhatan
150 Gordon Dr., Exton, PA 19341
P: 610-363-1400 • F: 161-052-4907
E-mail: bdrlake@kidde-fire.com
www.powhatan.com

Precision Boilers, Inc.
5727 Superior Drive, Morristown, TN 37814
P: 423-587-9390 • TFP: 800-448-2031 • F: 423-581-7749
E-mail: pbl@precisionboilers.com
www.precisionboilers.com

Precision Plumbing Products, Inc.
7021 NE 79th Court, Portland, OR 97218
P: 503-256-4010 • F: 503-253-8165
E-mail: sales@jcwhitlam.com
www.powersystems.com

Presealed Systems
285 Barnes Blvd., Rockledge, FL 32955
P: 321-305-5926 • TFP: 800-321-8358
E-mail: info@plumberex.com
www.plumberex.com

Price Pfister, Inc.
19701 Da Vinci, Lake Forest, CA 92610
P: 949-672-4409 • F: 949-672-4805
www.pricepfister.com

Prier Products
415 East 139th Street, Grandview, MO 64030
P: 816-761-3700 • TFP: 800-362-9055 • F: 800-362-1463
E-mail: sales@prier.com
www.priermfg.com
QuantumFlo, Inc.
210 Springview Commerce Drive, Building #150, DeBary, FL 32713
P: 386-753-9702 • F: 386-753-9703
E-mail: dave@quantumflo.com
www.quantumflo.com

Company Description
QuantumFlo was founded to promote and simplify new pumping technologies to the market. As engineers shift from old, inefficient, constant-speed pumps to variable speed, MODBUS, adaptive, and LEED-friendly systems, no company has committed to the advancement of these technologies. . . until now. Genius E, Genius V, Prodigy, WhisperFlo products and rainwater and graywater systems.

Contacts
Founder & CEO: David P. Carrier

QuikWater
8939 W. 21st St., Sand Springs, OK 74063
P: 918-241-8880 • F: 918-241-8718
E-mail: sales@quikwater.com
www.quikwater.com

Quincy Compressor
701 N Dobson Ave, Bay Mineeet, AL 36507

Radiant Engineering, Inc.
501 E. Peach, Ste. A, Bozeman, MT 59715
P: 406-587-6036 • F: 406-587-1617

Raypak, Inc.
2151 Eastman Ave., Oxnard, CA 93030
P: 805-278-5300 • F: 805-278-5489
www.raypak.com

RBI
260 N. Elm St, Westfield, MA 01805
P: 413-568-9571 • F: 413-568-9613
www.rbiperimeterheaters.com
www.rbiperimeterheaters.com

RectorSeal
2601 Spewink Dr., Houston, TX 77055
P: 713-263-8001 • TFP: 800-231-3345 • F: 713-263-7577
E-mail: jtomassello@rectorseal.com
www.rectorseal.com

Red Jacket Water Products
500 E. 59th Street, Davenport, IA 52807
TFP: 866-325-4210 • F: 866-325-4211
E-mail: redjacketwaterproducts.com
www.redjacketwaterproducts.com

Red-White Valve Corp.
20600 Regency Lane, Lake Forest, CA 92630
P: 949-859-1010 • TFP: 800-222-7982 • F: 949-859-7200
E-mail: info@redwhitevalveusa.com
www.redwhitevalveusa.com

Reliability Industries
2842 E. Business 30, Columbia City, IN 46725
P: 260-248-8188 • TFP: 800-444-3134 • F: 800-444-4587
E-mail: cmiller@reliabilityindustries.com
www.relialblityindustries.com

REHAU, Inc.
103 Fairview Park Dr., Elyria, OH 44035
P: 800-431-1588 • F: 800-848-6051
E-mail: info@reliablesprinkler.com
www.reliablesprinkler.com

ReHAU, Inc. Heating & Plumbing
1501 Edwards Ferry Rd., NE, Leesburg, VA 20176
TFP: 800-247-9445 • F: 800-627-3428
E-mail: info@reha-na.com
www.reha-na.com

Reihle Com.
20535 S.E. Frontage Road, Joliet, IL 60431
P: 815-397-6174 • TFP: 800-545-7098 • F: 815-397-6174
4455 Boeing Drive, Rockford, IL 61109
www.rothenberger-usa.com
E-mail: pipetools@rothenberger-usa.com
P: 815-397-6174 • TFP: 800-545-7098 • F: 815-397-6174

Roth Industries, Inc.
30 East Industrial Road, Branford, CT 06405
E-mail: info@rothusa.com
www.rothusa.com

Robert Manufacturing Co.
10667 Jersey Boulevard, Rancho Cucamonga, CA 91730-5110
P: 909-987-4654 • TFP: 800-877-6237 • F: 989-989-6911
E-mail: info@robertmfg.com
www.robertmfg.com

Rockford Separators
P.O. Box 5963, Rockford, IL 61125
P: 815-229-5077 • TFP: 800-747-5077 • F: 815-229-5108
www.rockfordseparators.com
E-mail: ssrsem@inwave.com
www.rkfsseparators.com

Ross ADT
35 Pond Park Rd., Hingham, MA 02043
TFP: 800-474-3556 • F: 866-274-3556
E-mail: info@rorna.com
www.rilero-burners.com

Riello Burns North America
35 Pond Park Rd., Hingham, MA 02043
TFP: 800-474-3556 • F: 866-274-3556
E-mail: info@rorna.com
www.rilero-burners.com

Ritschle, Inc.
7222 Parkway Dr., Hanover, MD 21076
P: 410-712-4100 • F: 410-712-4148

Rinnai Corp.
103 International Drive, Peachtree City, GA 30269
TFP: 800-621-9419 • F: 678-364-8643
E-mail: marketing@rinnaius.com

Robert Manufacturing Co.
10667 Jersey Boulevard, Rancho Cucamonga, CA 91730-5110
P: 909-987-4654 • TFP: 800-877-6237 • F: 989-989-6911
E-mail: info@robertmfg.com
www.robertmfg.com

Rockford Separators
P.O. Box 5963, Rockford, IL 61125
P: 815-229-5077 • TFP: 800-747-5077 • F: 815-229-5108
E-mail: ssrsem@inwave.com
www.rkfsseparators.com

Roof Anchor, Inc.
2700 S. 900 W., Suite 200, Salt Lake City, UT 84119
P: 801-411-3914 • TFP: 801-839-2929
E-mail: sales@roofofanchor.com
www.roofofanchor.com

Rooftop Anchor Support, Inc.
2700 South 900 West, Suite 101, Salt Lake City, UT 84119
P: 801-975-8885 • F: 801-975-6351
E-mail: sales@rooftopsleeper.com
www.rooftopsleeper.com

Ross ADT
30 Byron Street, Dundee, DD3 6QX England
E-mail: info@rossadt.com
www.rossadt.com

Rostra Tool Co
30 East Industrial Road, Cranford, NJ 07016

Roth Industries, Inc.
268 Bellevue Ave, South, Watertown, NY 13601
TFP: 888-266-7684 • F: 866-462-2914
E-mail: info@rothusa.com
www.rothusa.com

Rothenberg USA
4455 Boeing Drive, Rockford, IL 61109
P: 815-397-6174 • TFP: 800-545-7689 • F: 815-397-6174
E-mail: pipetools@rothenberger-usa.com
www.rothenberger-usa.com

Rovenso Piping Sys., Inc.
20353 S.E. Frontage Road, Joliet, IL 60431
P: 815-741-6700 • F: 815-741-4229
E-mail: marketing@rovenso.com
www.rovenso.com

RTI–PEX Piping Systems Heating & Plumbing
11 Farber Dr., Bellport, NY 11713

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Runtal North America, Inc.
187 Neck Rd., P.O. Box 8278, Ward Hill, MA 01835
P: 800-562-2621 • F: 978-372-7140
E-mail: info@runtalnorthamerica.com
www.runtalnorthamerica.com

Ruud Water Heaters
101 Bell Rd., Montgomery, AL 36117
P: 334-260-1500 • F: 334-260-1562
www.ruem.com

Safe-T-Cover
2710 Landers Avenue, Nashville, TN 37211
E-mail: aladams@safe-t-cover.com
www.safe-t-cover.com

Sanitarios Lamuja SA de CV
Félix U. Gómez 4047 Nte., Monterrey, Nevo Leon, 64510 Mexico
TFF: 866-821-2811
E-mail: customersupport@vortens.com

Company Description
Vortens
Owned by the Lamosa Group, a leader in the construction industry since 1890, Vortens was introduced in 1996 to fulfill a need for a quality plumbing fixtures exclusively for wholesale distributors and contractors in the United States and Canada. Vortens designs and manufactures a creative variety of toilets, lavatories, bidets and urinals that set the pace for forward-thinking style, innovation and performance.

Contacts
Vortens U.S. Customer Service:
Toll - Free: 866-821-2811
customerservice@vortens.com

Vortens U.S. Office:
1498 Brookpark Drive
Mansfield, OH 44906
Phone: 800-417-5129
Fax: 419-756-3905
ussales@vortens.com

Vortens Canadian Office:
P.O. Box 2615
Richmond Hill, ON
L4E 1A6 Canada
Phone: 905-737-7134 / 416-938-1898
Fax: 905-737-9804
canadiansales@vortens.com

Vortens Corporate Office:
Sanitarios Lamusa, S.A. de C.V.
Félix U. Gómez 4047 Nte.
Monterrey, N.L., México 64510
Phone: 866-821-2811
customersupport@vortens.com
marketing@vortens.com

Schier Products Co.
2500 S. 170th St., New Berlin, WI 53151
TFF: 800-827-7119 • F: 800-827-9664
E-mail: inquiry@schierproducts.com
www.schierproducts.com

Company Description
SCHOTT, the manufacturer of KIMAX Glass Drainline, is a leading worldwide glass and special materials manufacturer. KIMAX drainline helps engineers to design sustainable laboratories by offering the key features of adaptability, modularity, maximum corrosion resistance, and the lowest life-cycle costs in the industry.

Scientific Plastics, Inc.
1016 Southwest Blvd., Kansas City, KS 66103
P: 913-432-0322 • TFF: 800-548-0448 • F: 913-432-0549
E-mail: sales@scientificplastics.com
www.scientificplastics.com

Company Description
Scientific Plastics manufactures the "OIL SMART" Water Pump Switches.

SeeWater, Inc.
121 North Dillon St., San Jacinto, CA 92583
P: 951-487-8073 • TFF: 888-733-9283 • F: 951-487-0557
E-mail: info@seewaterinc.com

Company Description
SeeWater is a manufacturer of pump controls, alarms, and control panels, including the environmentally safe Oil Smart® product line. Since 1995, Oil Smart® products have yielded significant environmental and economic benefits in rewatering pumping operations.

Trade Marks
Oil Smart®, Water Smart®, Liquid Smart®
Contacts
VP of Marketing: Michael Johnson
President: Ron MacDonald

Sellers Engineering Co.
P.O. Box 48, 918 W Walnut St., Danville, KY 40423-0048
P: 859-236-3181 • F: 859-236-3184
E-mail: sellers@sellersengineering.com
www.sellersengineering.com

Company Description
Sellers Engineering Company is a manufacturer of pump controls, alarms, and control panels, including the environmentally safe Oil Smart® product line. Since 1995, Oil Smart® products have yielded significant environmental and economic benefits in rewatering pumping operations.

Trade Marks
Oil Smart®, Water Smart®, Liquid Smart®
Contacts
President: Ron MacDonald

Sentinel Hydrosolutions, LLC
288 Distribution Street, San Marcos, CA 92078

Simpson-Dura-Vent, ProTech Division
400 S. Pearl St., Albany, NY 12203
P: 518-463-7284 • TFF: 800-766-3473 • F: 518-463-5271
E-mail: ptssales@duravent.com
www.protechinfo.com

Sharon Piping & Eqpt./Sharpe Valves
1260 Garnet Dr., Northlake, IL 60010
P: 708-562-9221 • F: 708-562-1055
E-mail: ronwar@earthlink.net
www.sharpevalves.com

Shurjoints Piping Products
4735 E. Cheyenne Ave., #100, Las Vegas, NV 89115
P: 702-644-4492 • TFF: 877-476-6833 • F: 702-644-1091
E-mail: office@shurjoints.com
www.shurjoints.com

SJE-Rhombus
4735 E. Cheyenne Ave., #100, Las Vegas, NV 89115
P: 702-644-4492 • TFF: 877-476-6833 • F: 702-644-1091
E-mail: office@shurjoints.com
www.shurjoints.com

Shurjoints Piping Products
4735 E. Cheyenne Ave., #100, Las Vegas, NV 89115
P: 702-644-4492 • TFF: 877-476-6833 • F: 702-644-1091
E-mail: office@shurjoints.com
www.shurjoints.com

Simpson-Dura-Vent, ProTech Division
400 S. Pearl St., Albany, NY 12203
P: 518-463-7284 • TFF: 800-766-3473 • F: 518-463-5271
E-mail: ptssales@duravent.com
www.protechinfo.com

Sharon Piping & Eqpt./Sharpe Valves
1260 Garnet Dr., Northlake, IL 60010
P: 708-562-9221 • F: 708-562-1055
E-mail: ronwar@earthlink.net
www.sharpevalves.com

SJE-Rhombus
P.O. Box 1708, Detroit Lakes, MN 56502
P: 218-847-1317 • TFF: 888-342-5753 • F: 218-847-9617
E-mail: sj@sjerhombus.com
www.sjerhombus.com

Company Description
SJE-Rhombus is an innovative manufacturer of high quality plumbing products including commercial drainage products, water hammer arresters, and trap primer valves. Other products include hangers and brackets, preformed copper, and specialty products. Lifetime warranty includes free replacement of any defective product manufactured by SJE-Rhombus including labor costs to remove and replace.

Trade Marks
Finish Line, Mini-Rester, Halo Drain, TKO, Test Titan, Square Max, Fat Max, Prime Perfect

Contacts
Commercial Design Mgr: Lilliard Richardson
National Sales Manager: Wade Long

SJE-Rhombus
P.O. Box 1708, Detroit Lakes, MN 56502
P: 218-847-1317 • TFF: 888-342-5753 • F: 218-847-9617
E-mail: sj@sjerhombus.com
www.sjerhombus.com

Company Description
SJE-Rhombus pump and control switches, alarm systems, and control panels are used in residential, commercial, industrial, and HVAC applications. Used to monitor and control water and or wastewater in the following applications: aerobic treatment, condensate return, grinder pumps, lift stations, pressure boosters, sumps, sewage systems, storm water systems, and wells.
Sloan Valve Co.
10500 Seymour Ave., Franklin Park, IL 60131
TFF: 800-982-5839 • F: 800-822-0683
E-mail: customerservice@sloanvalve.com
www.sloanvalve.com

Company Description
The leader in water efficient products, Sloan Valve has provided quality products for over 100 years. Founded upon the flushometer, Sloan recently introduced fixtures for a perfect combination. Please visit us at sloanvalve.com.

Trade Marks
Optima®

Contacts
Dir. of Technical Support: John Watson

Stern-Williams Co., Inc.
P. O. Box 8004, Shawnee Mission, KS 66208
P: 913-362-5635 • F: 913-362-6689
E-mail: sales@sternwilliams.com
www.sternwilliams.com

Company Description
Stern-Williams manufactures a complete line of commercial mop service sinks; institutional/handicap accessible and custom-size shower floors; freestanding shower cabinets in four finishes; outdoor body/foot showers; and pet fountains and drinking fountains in powder-coated metal, stainless steel, and aggregate stone.

Contacts
Robert Donahue: President

Stiefel Eltron, Inc.
17 West St., West Hatfield, MA 01088
P: 413-247-3380 • TFF: 800-582-8423 • F: 413-247-3369
E-mail: info@stiefel-eltron-usa.com
www.stiefel-eltron-usa.com

Stockham Valves & Fittings
2129 3rd Ave. S.E., Cullman, AL 35055
P: 205-398-2659 • TFF: 800-786-2542 • F: 205-398-1920
www.stockham.com

Strahman Valves, Inc.
725 SE 15th St., #3, Pompano Beach, FL 33060
P: 954-499-9900 • F: 954-272-7287
E-mail: info@strahmanvalves.com
www.strahmanvalves.com

SuperKleen Washdown Products
1 Edwards Court, #101, Burlington, CA 94010

Swan Corp.
The One City Centre, St. Louis, MO 63101
P: 314-231-8148 • F: 314-231-8165
E-mail: info@swanstone.com
www.swanstone.com

Symmons Industries, Inc.
31 Brooks Dr., Braintree, MA 02184-3804
P: 781-848-2250 • TFF: 800-796-6667 • F: 800-961-9621
www.symmons.com

Strom Plumbing by Sign of the Crab
3756 Ome Circ, Rancho Cordova, CA 95742
P: 916-638-2722 • F: 916-638-2725
E-mail: customerservice@signofthecrab.com
www.signofthecrab.com

Studor, Inc.
11256 47th St. North, Clearwater, FL 33762
P: 727-734-7750 • TFF: 800-447-4721 • F: 727-734-7753
E-mail: info@studor.com
www.studor.com

Sunroc LLC
60 Starlifter Ave, Kent City AcroPark, Dover, DE 19901
P: 302-678-7800 • TFF: 800-478-6762 • F: 302-678-7809
E-mail: ngreewald@sunroc.com
www.sunroc.com

SyncroFlo, Inc.
6700 Best Friend Rd., Norcross, GA 30071
P: 770-447-4443 • F: 770-447-0230
E-mail: info@syncroflo.com
www.syncroflo.com

Company Description
Manufacturer of water booster systems for commercial, municipal, fire, HVAC, and irrigation systems.

Trade Marks
IronHeart; Eagleye; Gator; Propogator; NiteOwl; PRISM

Contacts
President: John Kahen
VP of Sales: Jonathan Gaillard
Director: Richard Hanson

System Sensor
3825 Ohio Avenue, St. Charles, IL 60174
P: 630-377-6674 • TFF: 800-736-7672 • F: 630-377-7871
E-mail: info@systemsensor.com
www.systemsensor.com

T&S Brass and Bronze Works, Inc.
P.O. Box 1088, 2 Saddleback Cove, Travelers Rest, SC 29690
P: 864-934-4002 • TFF: 800-476-4103 • F: 864-934-3518
E-mail: tssbrass@tssbrass.com
www.tssbrass.com
MANUFACTURERS LIST

TACO, Inc.
1160 Cranston St., Cranston, RI 02920-7335
P: 401-942-8000 • F: 401-942-2360
www.taco-hvac.com

Takagi Industrial Co. USA, Inc.
5 Whatine, Irvine, CA 92618
P: 949-770-7117 • TFP: 888-882-5244 • F: 949-770-3171
E-mail: takagi@takagi.com
www.takagi.com

Talgo Fire Systems
5691 S.E. International Way, Ste. D, Milwaukie, OR 97222
TFP: 800-878-8055 • F: 503-653-8797
E-mail: talco@teleport.com
www.talcofire.com

Tapmaster, Inc.
20175 Township Road 262, Calgary, Alberta, T3P 1A3 Canada
P: 800-791-8117 • F: 403-275-5928
www.tapmaster.ca

Thermoplastic Valves, Inc.
53 South Seventh Street, Emmaus, PA 18049
P: 610-967-6388 • TFP: 866-242-5890 • F: 610-967-6448
www.plasticvalves.com

Thrusch Co., Inc.
340 W. 8th St., P.O. Box 228, Peru, IN 46970
P: 765-472-3351 • TFP: 800-755-8110 • F: 765-472-3968
E-mail: customerservice@thurshco.com
www.thurshco.com

Tigerflow Systems, Inc.
4034 Mint Way, Dallas, TX 75237
P: 214-337-8780 • TFP: 800-783-6756 • F: 214-333-2742
E-mail: sales@tigerflow.com
www.tigerflow.com

Titeflex Corp./Gasline Division
603 Hendee St., Springfield, MA 01139-0054
P: 413-739-5611 • TFP: 800-662-0208 • F: 413-739-7235
E-mail: gaslite@titeflex.com
www.gastite.com

Tolco, a brand of Nibco
1375 Sampson Ave, Corona, CA 92879
P: 909-737-5599 • TFP: 800-786-5266 • F: 909-737-0330
E-mail: sales@tolco.com
www.tolco.com

Tomlinson Industries
13700 Broadway Ave., Cleveland, OH 44125-1992
P: 216-587-3400 • TFP: 800-945-4589 • F: 216-587-0733
E-mail: gstrunak@tomlinsonind.com
www.tomlinsonind.com

Topp Industries, Inc.
P.O. Box 420, Rochester, IN 46975
P: 574-224-8680 • F: 574-223-6106
E-mail: sromsted@toppindustries.com
www.toppindustries.com

Trac Pipe
451 Creamery Way, Exton, PA 19341
P: 610-524-7272 • TFP: 800-671-8622 • F: 610-524-7282
E-mail: tracpipe@omegaflex.net
www.tracpipe.com

Tramco Pump Co.
1500 W. Adams Street, Chicago, IL 60607
P: 312-243-5800 • F: 312-243-0702
E-mail: sales@tramcopump.com
www.tramcopump.com

Transair
7205 E. Hampton Ave, Mesa, AZ 85209
P: 480-830-7764 • F: 480-325-3571
www.transair-usa.com

Trenton Pipe Nipple Co.
3000 Cabot Blvd. W., Ste. 300, Langhorne, PA 19047
E-mail: sales@trentonpipe.com
www.trentonpipe.com

Tri Palm International
222 Campus View Blvd., Columbus, OH 43235
P: 614-861-1350 • F: 614-861-5750
E-mail: mlaing@oiswassercoolers.com
www.oiswassercoolers.com

Triangle Tube
1 Triangle Ln., Blackwood, NJ 08012
P: 856-228-8881 • F: 856-228-3584

Trim-Lok, Inc.
6855 Hermosa Circle, Buena Park, CA 90622
P: 714-562-0500 • TFP: 888-874-6565 • F: 714-562-0600
E-mail: info@trimlok.com
www.trimlok.com

Tri-Tech Medical, Inc.
810 Center Rd., Bald E, Avon, OH 44011
P: 440-937-6244 • TFP: 800-253-8692 • F: 440-937-5060
E-mail: sales@tri-techmedical.com
www.tri-techmedical.com

Truebro, Inc.
202 Industrial Park Lane, Collierville, TN 38017
TFP: 800-340-5969 • F: 901-853-5008
www.truebro.com

T-Flex Metal Hose Corp.
2391 S. Rd. 247, West Lebanon, IN 47991
P: 765-891-4403 • TFP: 800-255-6291 • F: 765-893-4114
E-mail: truflex@t-flex.com
www.t-flex.com

Tsurumi America, Inc.
1625 Fullerton Ct., Glendale Heights, IL 60139
P: 630-766-5900 • TFP: 888-878-7864 • F: 630-766-6445
E-mail: info@tsurumiamerica.com
www.tsurumiamerica.com

Company Description
Established in 1924, Tsurumi is one of the world’s leading
submersible pump manufacturers serving commercial
markets in over 45 countries. With discharge sizes
from 2” to 8” and horsepower ranges up to 30 hp, our
cutter, non-clog, grinder, and corrosion resistant pumps
comprise the core of our engineered products division.

Contact
Business Development Mgr.: Ben Rieboldt

Tyco Fire & Building Products
451 N. Cannon Ave, Lansdale, PA 19446
www.grinnell.com

Tyco Thermal Controls
300 Constitution Drive, Menlo Park, CA 94025
P: 650-474-7614 • F: 650-474-7385
E-mail: rvanbrun@tycothermal.com
www.tycothermal.com

Tyler Pipe Co.
11910 County Rd 492, Tyler, TX 75706
P: 903-882-5511 • F: 903-882-2522
1 Triangle Ln., Blackwood, NJ 08012
P: 847-272-8800 • F: 847-272-8129
www.ul.com

Tri-Valve Systems
www.ultimatevalve.com

UNASCO
P: 707-763-5413 • TFP: 800-773-5413 • F: 707-763-5487
921 Transport Way, Petaluma, CA 94954

UNASCO
www.unasco.com

Tyler Pipe Co.
11910 County Rd 492, Tyler, TX 75706
P: 903-882-5511 • F: 903-882-2522
www.tylerpipe.com

Underwriters Laboratories, Inc.
www.ul.com

Trencher Systems
www.trenchersystems.com

Two People Pipes
2501 North 30th St., Grand Forks, ND 58203
P: 701-780-7659 • TFP: 800-714-9720 • F: 701-780-7659

Trencher Systems
www.trenchersystems.com

2010 Plumbing Systems Specification Guide

Plumbing Systems & Design DECEMBER 2009
WWW.PSDMAGAZINE.ORG
Union Brass Mfg. Co., Inc.  
2955 Lone Oak Circle, Eagan, MN 55121  
P: 651-454-8858 • F: 651-454-1228  
E-mail: john@unionbrass.com  
www.unionbrass.com

Unique Fittings and Flanges  
4023 Westhollow Pky., Ste. 108, Houston, TX 77082  
TФ: 800-752-9947 • F: 281-531-8823  
www.uniquefittingsandflanges.com

Victaulic  
5925 148th St. West, Apple Valley, MN 55124  
www.victaulic.com

VC Systems & Controls, Inc.  
8811 Venture Cove, Tampa, FL 33637  
P: 813-987-2151 • TФ: 800-881-3123 • F: 813-985-6536  
E-mail: kate@vcsystems.net  
www.vcsystems.net

Company Description  
VC Systems & Controls, Inc. manufactures and sells custom packaged pumping systems, packaged sump and sewage pump stations, domestic water storage tanks, and fire pump packages. Our services include engineering support from conception and AutoCAD drawings to the finished design. We take pride in offering “outside the box” engineering.

Contacts  
President: Henry G. Vickery  
Sales Engineer: Jon Vicerky  
Technical Service Manager: Mike Trautman

Viega  
301 N. Main, Suite 900, Wichita, KS 67202  
P: 316-425-7400 • TФ: 877-843-4262 • F: 800-976-9817  
E-mail: insidesales@viega.com  
www.viega.com

Viessmann Mfg. Co.  
45 Access Rd., Warwick, RI 02886  
P: 401-732-0667 • F: 401-732-0590  
E-mail: mail@viessmann-us.com  
www.viessmann.us

Viking Group, Inc.  
210 N. Industrial Park Rd., Hastings, MI 49058  
P: 269-945-9501 • TФ: 800-968-9501 • F: 269-945-9599  
E-mail: techsvcs@vikingcorp.com  
www.vikinggroupinc.com

Vitra USA  
305 Shawnee North Drive, Suite 600, Suwanee, GA 30024  
P: 770-904-6830 • TФ: 877-658-4892 • F: 770-904-6891  
E-mail: info@vitra-usa.com  
www.vitra-usa.com

W.J. Wadsworth & Associates  
51675 N. Industrial Drive, Hancock, MI 55104  
P: 906-482-3750 • F: 906-482-2585  
www.wadsworth.com

WADC-HydrOMax  
P.0. Box 2027, Tyler, TX 75710  
P: 903-882-2668 • TФ: 800-879-9233 • F: 908-882-2543  
E-mail: jstenklyft@tylerpipe.com  
www.waddraains.com

Wadsworth W.J. & Associates  
516 West Campus Dr., Arlington Heights, IL 60004  
P: 847-394-4490 • F: 847-394-4666

Ward Manufacturing, Inc.  
P.0. Box 9, Blossburg, PA 16912-0009  
P: 570-638-2131 • TФ: 800-248-1028 • F: 570-638-3410  
E-mail: tom.gleason@wardmfg.com  
www.wardmfg.com

Warm Rain  
1400 Selby Ave., St. Paul, MN 55104  
P: 651-287-2657 • TФ: 800-999-6077 • F: 651-287-2658  
E-mail: ted@warmrain.com  
www.warmrain.com

Warm Rain Corp.  
51675 N. Industrial Drive, Hancock, MI 55104  
P: 906-828-3750 • F: 906-828-2585  
E-mail: ted@warmrain.com  
www.warmrain.com

WATCO Manufacturing Co.  
1220 S. Powell Rd., Independence, MO 64057-2724  
P: 816-796-3900 • TФ: 800-821-8576 • F: 816-796-0875  
www.watcomfg.com

Water Control International  
10500 Seymour Ave., Franklin Park, IL 60131  
P: 847-671-4300 • TФ: 800-875-9116 • F: 847-671-4611  
E-mail: custservice@soalanvalve.com  
www.soalanvalve.com

Water Matrix  
331 Towers Rd., Suite 3, Woodbridge, ON L4L 6A2 Canada  
P: 905-850-8080 • TФ: 800-668-4420 • F: 905-850-9100  
E-mail: marketing@watermatrix.com  
www.watermatrix.com

Water Quality Association  
4151 Naperville Road, Lisle, IL 60523

Water Saver Faucet  
701 W. Erie St., Chicago, IL 60610  
P: 312-666-5500 • F: 312-666-8597  
E-mail: info@wsslab.com  
www.wsslab.com

Waterless Co., Inc.  
1050 Joshua Way, Vista, CA 92081  
P: 760-727-7723 • TФ: 800-244-6364 • F: 760-727-7775  
E-mail: sales@waterless.com  
www.waterless.com

Watts  
815 Chestnut St., N. Andover, MA 01845-6098  
P: 978-688-1811 • F: 978-794-1848  
E-mail: watts@wattswater.com  
www.watts.com

Watts Drainage Products  
100 Watts Road, Spindale, NC 28160  
P: 828-288-2179 • TФ: 800-338-2581 • F: 804-228-9938  
E-mail: enpoco@n2020.net  
www.watts.com

Watts Radiant  
4500 E. Progress Place, Springfield, MO 65803  
P: 417-864-6108 • TФ: 800-276-2419 • F: 417-864-8161  
E-mail: mfries@wattsradiant.com  
www.wattsradiant.com

Webstone  
116 Queensbury Place NE, Poplar Grove, IL 61055  
P: 815-765-0551 • TФ: 800-225-9529 • F: 800-336-5133  
www.webstonevalves.com

Weil Pump Co., Inc.  
WS7 N14363 Doerr Way, Cedarburg, WI 53012  
P: 262-377-1399 • F: 262-377-0515  
E-mail: sales@weilpump.com  
www.weilpump.com

Weil-McLain  
500 Blaine St., Michigan City, IN 46360-2388

Weil Pump Co., Inc.  
500 Blaine St., Michigan City, IN 46360-2388

Weiss-McLain  
500 Blaine St., Michigan City, IN 46360-2388

Welldand Manufacturing Corp.  
601 West 11th, San Angelo, TX 76903  
P: 915-655-6778 • TФ: 800-747-0534 • F: 915-655-0325  
E-mail: wendland@wendlandmfg.com  
www.wendlandmfg.com

Wessels Co.  
101 Tank St., Greenwood, IN 46143  
P: 219-879-6561 • F: 219-877-0556  
E-mail: advertising@well-mclain.com  
www.well-mclain.com

Wells Enterprises  
875 Bassett Road, Westlake, OH 44145  
P: 440-871-2160 • TФ: 800-783-7890 • F: 440-835-8283  
www.wellsenterprises.com
WILKINS, a Zurn Co.
1740 Commerce Way, Paso Robles, CA 93446
P: 805-222-5356 • F: 805-222-5350
E-mail: wilkins@zurnwcmind.com
www.wcmind.com

Company Description
Wilkins is the industry leader for innovative backflow preventers and pressure regulators used in new construction, replacement, and retrofit applications. Other products include wye strainers, automatic control valves, water hammer arrestors and expansion tanks.

Trade Marks
Wilkins; Aqua-Gard

Contacts
Director of Brand Marketing: Rachel Wiley-Steffen
VP of Marketing and Sales: Rick Fields

Zurn Engineering
Water Solutions
1801 Pittsburgh Ave., Erie, PA 16502
P: 814-455-0921 • TFP: 877-875-1404 • F: 814-875-1270
E-mail: zurn-info@zurn.com
www.zurn.com

Company Description
Zurn Industries, based in Erie, PA manufactures the largest offering of engineered water solutions in the industry, including a wide-spectrum of green plumbing products. Zurn includes Specification Drainage, AquaFlush flush valves, AquaSense sensor-operated plumbing products, AquaSpec commercial faucets, Wilkins, Zurn Light Commercial, Flo-Thru, Chemical Drainage Systems, Zurn PEX Plumbing Systems and Zurn Radiant Heat. This wide variety of products and our commitment to quality make Zurn a leading manufacturer of plumbing products and accessories!

Trade Marks
Aqua Spec®; Wilkins®; AquaFlush®; Flo-Thru®; Aqua Parts®; Zurn PEX®; EcoVantage®

Contacts
Director of Brand Marketing: Rachael Wiley-Steffen
MANUFACTURERS by CATEGORY

IPEX USA LLC
IPS Corp., Weld-On Division
J.C. Whittam Manufacturing Co.
Oatey Co.

Plastic Pipe

Pipe Repair

Pipe Inspection Equipment

Pipe

Pipe Fittings

Pipe, Drain

Pipe, Galvanized

Pipe, PVC

Pipe, Plastic

Pipe, Polyethylene

Pipe, Water

Pipe, Steel

Plastics

Plumbing

Pocket Smooth-Wall

Pocket Valve

Point of Use

Positioner

Potable Water

Pressure

Pressure Gauge

Pressure Regulator

Pressure Reducing Valve

Pressure Reducing Valve Assemblies

Pressure Switch

Pressure Switch, Remote

Pressure Transmitter

Pressure Transmitter, Remote

Pre-Insulated Pipe

Printed Circuit Board

Printer

Printing Equipment

Programming

Proportional Integartion Derivative

Protective Coating

Protective Coating System

Proximity Switch

Purolite

Pump

Pump, Sand

Pump, Sewage

Pump, Trash

Pump, Volute

Pump, Wastewater

Pump, Water

Pump, Waste

Pumps

Pumps, Fire Equipment

Pumps, Hydronic

Pumps, Irrigation

Pumps, Well

Pumps, Waste

Pumps, Waste Water

Pumps, Water

Q
c

Qwik-Lok

Quick Connect Fittings

Quincy

Quintrex

Quintrex, Remote Control

R
c

Rainbird

Rainfall

Rainfall Measurement

Rainfall Sensor

Rainfall System

Rain Sensor

Rainfall

Rainfall Sensor

Rainfall System

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Rainfall
Piping
Grice Engineering, Inc.

Fireplaces
Tomlinson Industries

Drinking Fountains/Water Coolers (see also Coolers and Fountains)
Acorn Aqua
Acorn Engineering Co.
Central Brass
Elkay Manufacturing
Harvel Corp.
Heepner Perfected Products
Murdock-Super Secur
Stern-Williams Co.
To Palm International
Willoughby Industries, Inc.

Equine Safety Products
BrassCraft
Apollo Stainless, Inc.
Hubbard Enterprises/HOLDRITE
Metalflex Co.

Toto, a brand of Nicso

Enclosures
Advanced Process Technologies
Crane Plumbing
Kohler Co.
Noble Co.,
The Steam Plumbing by Sign of the Crab
Bathtub-Shower, Acrylic
Aqua Bath Co., Inc.

Equipment
Advanced Process Technologies
Hot Box Enclosures
Park Environmental Equipment

Insulated
Hot Box Enclosures

Advanced Technology Systems
Bath & Workshop
Blanco
Speaker Co.
TS&B Brass and Bronze Works, Inc.
Willoughby Industries, Inc.

Bathtub
Danze, Inc.

Combination Drinking Fountain & Sink
TS&B Brass and Bronze Works, Inc.

Commercial
Bradley Corp.
Delany Products
Gerber Plumbing Fixtures LLC
Sloan Valve Co.
Sprakmal Co.

Energetic
Finance Industry

Building Enclosures
S 推

Shower
Willoughby Industries, Inc.

Energy Management Systems
Hot-Timer Corp.

Evaporative, Faucet
BrassCraft
Central Brass
Delta Faucet Co.

Eye Wash Stations
Acorn Engineering Co.
Acorn Safety
Advance Jessica
Champion America
Eemax, Inc.
Encon Safety Products
Guardian Equipment
Haws Corp.
Lab Equipment
Seton Distribution Products
Spakmal Co.
Thermon Manufacturing Co.
Water Saver Faucet

Fasteners
Cooper B-Line
ERICO
ITW Builders / Sammys Screw
Titeplugs, Inc.

Faucets
Advance fabco
Advanced Modern Technologies Corp.
Aero Manufacturing
American Standard
Anchorage Mfg. Co.
Brigg Plumbing Products, Inc.
California Faucets
Central Brass
Chicago Faucets
Component Hardware, Inc.
Danze, Inc.
Delta Faucet Co.
Elkay Manufacturing, Inc.
Elkay Inc.
Elkay Manufacturing
Engineered Brass Co.
Franke Commercial USA
Freedom Faucets, Phoenix Products
Gerber Plumbing Fixtures LLC
Grande America
Intaman
Just Manufacturing Co.
Kohler Co.
Lab Equipment
LOR Industries, Inc.
Mato Inc.
Micropore, Moen, Inc.
Muller Industries
Muller/BBK Industries, Inc.
RFI International
SoluPlus LLC
Phoenix Products, Inc.
Powder, a Division of Watts Water Technologies, Inc.
Prier Products
Spakmal Co.
Sterling-Williams Co.
Storm Plumbing by Sign of the Crab

Water Conservation
Lead-Free
Danze, Inc.

Waterworks
Danze, Inc.

Water Saver Faucet

Laundry Trays
Danze, Inc.

Freedom Faucets, Phoenix Products
Phoenix Products, Inc.

Lavatory
Danze, Inc.

Freedom Faucets, Phoenix Products
Phoenix Products, Inc.

Sloan Valve Co.
Spakmal Co.

Fire Protection Equipment
AC Fire Pump Systems
American Fire Technologies
Amitol, Inc.
Aral/Thyco, Inc.
Armstrong Pumps, Inc.
ASCO Power Technologies/Fluidot Products
Aurora Pump
Canartis Corp.
 Champion America
Clarke Fire Protection Products, Inc.
Covetco Containment Solutions
Croker Division, Fire-Rite & Croker Corp.
DustShield Systems Inc.
Eaton Electrical
Elkhart Brass Mfg. Co.
ERICO
Fairbanks Morse Pump
Fire Corp.
Fleishhead Industries, Inc.
Fortune Valve
Girrae Engineering, Inc.
Guardian Fire Equipment, Inc.
Harvey Plastics, Inc.
Highland Tank
Hubbell Industrial Controls, Inc.
IPEX USA LLC

Phoenix Products, Inc.
Tomlinson Industries
Wall
Danze, Inc.

Sloan Valve Co.
Styer Plumbing Co.

Sunco Manufacturing Inc.

Water-Saving/Metering
Gerber Plumbing Fixtures LLC
Menscher
Sloan Valve Co.
Tapmaster, Inc.

Faucets/Valves, ADA Compliant
Advanced Modern Technologies Corp.
California Faucets
Central Brass
Chicago Faucets
Component Hardware Group, Inc.
Danze, Inc.
Delany Products
Delta Faucet Co.

Wall Supply Faucets

Sloan Valve Co.

Stern-Williams Co.

T&S Brass and Bronze Works, Inc.

Industrial
Sloan Valve Co.
Stern-Williams Co.

T&S Brass and Bronze Works, Inc.

Institutional
Delany Products
Gerber Plumbing Fixtures LLC
Phoenix Industries, Inc.

T&S Brass and Bronze Works, Inc.

Kitchen
Danze, Inc.

Freedom Faucets, Phoenix Products
Phoenix Products, Inc.

Kitchen/Swing Spout
Blanco
Danze, Inc.

Freedom Faucets, Phoenix Products
Phoenix Products, Inc.

Kitchen Sink
Blanco
Danze, Inc.

Freedom Faucets, Phoenix Products
Phoenix Products, Inc.

Laboratory
Danze, Inc.

Freedom Faucets, Phoenix Products
Phoenix Products, Inc.

Laundry Faucet
Danze, Inc.

Freedom Faucets, Phoenix Products
Phoenix Products, Inc.

Lead-Free
Danze, Inc.

Freedom Faucets, Phoenix Products
Phoenix Products, Inc.

Sloan Valve Co.
Spakmal Co.

Sewer Faucet

Spare Parts

Commercial
Bradley Corp.
Delany Products
Gerber Plumbing Fixtures LLC
Sloan Valve Co.
Sprakmal Co.

Stern-Williams Co.

T&S Brass and Bronze Works, Inc.

Copper

Copper Fence

Ductwork

Fire Stop Systems

Fillers
Central Brass
Franchi Fixtures, Phoenix Products
Noble Co.,
The Phoenix Products, Inc.

Sloan Valve Co.

Speakman Co.
Tapmaster, Inc.

Sloan Valve Co.
Stern-Williams Co.

T&S Brass and Bronze Works, Inc.

Water Supply/Faucets

Sloan Valve Co.

T&S Brass and Bronze Works, Inc.

Watershed Fixtures

Sloan Valve Co.

T&S Brass and Bronze Works, Inc.

Faucet
Danze, Inc.

Freedom Faucets, Phoenix Products
Phoenix Products, Inc.

Faucet/Valve

Medco Manufacturing Co.

Central Brass

T&S Brass and Bronze Works, Inc.

Water Supply/Faucet

Sloan Valve Co.

T&S Brass and Bronze Works, Inc.

Watershed Fixtures

Sloan Valve Co.

T&S Brass and Bronze Works, Inc.

Faucet
Danze, Inc.

Freedom Faucets, Phoenix Products
Phoenix Products, Inc.

Faucet/Valve

Faucet/Valve

Sloan Valve Co.

T&S Brass and Bronze Works, Inc.

Faucet
Danze, Inc.

Freedom Faucets, Phoenix Products
Phoenix Products, Inc.

Faucet/Valve

Sloan Valve Co.

T&S Brass and Bronze Works, Inc.

Faucet
Danze, Inc.

Freedom Faucets, Phoenix Products
Phoenix Products, Inc.

Faucet/Valve

Sloan Valve Co.

T&S Brass and Bronze Works, Inc.

Faucet
Danze, Inc.

Freedom Faucets, Phoenix Products
Phoenix Products, Inc.

Faucet/Valve

Sloan Valve Co.

T&S Brass and Bronze Works, Inc.
Lasco Fittings, Inc.  Lewis Pipe Co.  PEP Plastic Engineered Products  Reliable Automatic Sprinkler Co., Inc.  
Fabricated  
IPX USA LLC  Lasco Fittings, Inc.  
Flare  
BrassCraft  
Mid-America Fittings  
Galvanized  
SharJour Pipe Products  Ward Manufacturing, Inc.  
Grooved  
Carbon Steel  
Tyco Fire & Building Products  Victaulic  
Iron  
Mid-America Fittings  
Steel Pipe Products  Ward Manufacturing, Inc.  
Laboratory, Air  
Western Enterprises  
Laboratory, Vacuum  
Western Enterprises  
Lead-Free  
Chicago Faucets  
FBC Building Solutions  
Mid-America Fittings  
NIBCO, Inc.  
Uponor  
Pipe, Brass  
Flare  
Jasom Co.  
Mid-America Fittings  
Pipe-Service Saddle  
IPX USA LLC  Lasco Fittings, Inc.  
Plastic  
FBC Building Solutions  
IPX USA LLC  Lasco Fittings, Inc.  
Mid-America Fittings  
Mueller/RBI Industries, Inc.  
NIBCO, Inc.  
Novocon, Inc.  
Pep Plastic Engineered Products  Rostra Tool Co.  
Vega  
Push-In Tube  
Cash Acme, a Division of Reliance  
Worldwide  
Mid-America Fittings  
Transair  
Watts  
Stainless  
Falcon Stainless, Inc.  
Jasom Co.  
Mid-America Fittings  
Tyco Fire & Building Products  
Vega  
Fittings, Pipe  
Campion LLC  
Dae Hing Precision Co. Ltd.  
Freedom Plastics, Inc.  
Groat Lakes International, Inc.  
Jasom Co.  
LDI Industries, Inc.  
Mercury Plastics, Inc.  
Mueller Industries  
Novocon, Inc.  
Robert Manufacturing Co.  
SCOTT North American Inc.  
Siuo Chief Manufacturing Co.  
Transair  
Tyler Pipe Co.  
Aluminum  
Transair  
Asbestos Cement  
Anderson Metals Corp., Inc.  
Brass  
Anderson Metals Corp., Inc.  
Mid-America Fittings  
Mueller/RBI Industries, Inc.  
Transair  
Cast Iron  
Anaco/Iny Red  
Anmol International, Inc.  
Mid-America Fittings  
Star Products  
Ward Manufacturing, Inc.  
Compression  
IPX USA LLC  Mid-America Fittings  
Copper  
Anwil International, Inc.  
Mueller/RBI Industries, Inc.  
NIBCO, Inc.  
SharJour Pipe Products  
T-Bolt Industries, Inc.  
Tyco Fire & Building Products  
Vega  
Dielectric  
Anwil International, Inc.  
Drainage  
Camps LLC  
Fiberglass  
Pep Plastic Engineered Products  
Galvanized  
Anwil International, Inc.  
Mid-America Fittings  
SharJour Pipe Products  
Grooved  
Anwil International, Inc.  
SharJour Pipe Products  
Tyco Fire & Building Products  
Vega  
Iron  
Mid-America Fittings  
Malleable  
Anwil International, Inc.  
Mid-America Fittings  
Ward Manufacturing, Inc.  
Plastic  
Camps LLC  
FBC Building Solutions  
IPX USA LLC  
John Guest USA  
Lasco Fittings, Inc.  
Mercury Plastics, Inc.  
Mid-America Fittings  
Mueller/RBI Industries, Inc.  
Novocon, Inc.  
Pep Plastic Engineered Products  Rostra Tool Co.  
Uponor  
Vega  
Stainless Steel  
Anwil International, Inc.  
Falcon Stainless, Inc.  
IPX USA LLC  
Mid-America Fittings  
Tyco Fire & Building Products  
Vega  
Steel  
Anwil International, Inc.  
Union  
Anwil International, Inc.  
Welded  
Anwil International, Inc.  
Fixture Trim (see also Faucets)  
Advanced Modern Technologies Corp.  
Central Brass  
Fixtures, Plumbing  
Acrilene  
Advanced Modern Technologies Corp.  
American Standard  
Best Bath Systems  
Bradley Corp.  
Camuno USA  
Central Brass  
Chicago Faucets  
Component Hardware Group, Inc.  
Eljer Plumingware, Inc.  
Elkay Manufacturing  
Gerber Plumbing Fixtures LLC  
Griffin Products, Inc.  
Jasom Co.  
Just Manufacturing Co.  
Laboratory Enterprises  
Lasco Bathroom  
Manfisal Plumbing Products  
Maan, Inc.  
Sloan Valve Co.  
Zum Engineering Water Solutions  
Bathroom Operated  
Advanced Modern Technologies Corp.  
Delaya Products  
Gerber Plumbing Fixtures LLC  
Flushometers  
Delaya Products  
Kohler Co.  
Sloan Valve Co.  
Floors, Soldering, Welding & Brazing  
Hercules Chemical Co.  
J.W. Harris Co., Inc.  
RectorSeal  
Fountains  
Acorn Aqua  
Central Brass  
Elkhay Manufacturing  
Hoepner Perfected Products  
Murdock Super Scaer  
Stern-Williams Co.  
Drinking  
Acorn Aqua  
Central Brass  
Hoepner Perfected Products  
Metcalf Industries  
Stern-Williams Co.  
Willoughby Industries, Inc.  
Eye Wash  
Bradley Corp.  
Guardian Equipment  
Water Saver Faucet  
Lead-free Drinking  
Central Brass  
Chicago Faucets  
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Stern-Williams Co.  
Wash  
Bradley Corp.  
Intersan  
Willoughby Industries, Inc.  
Freestanding Equipment, Pipe  
HOUGHTONBERGER USA  
Gaskets and Packing  
Advance Products & Systems  
Anwil International  
Cast Iron Soil Pipe Institute  
Star Pipe Products  
Gauges  
Allied Healthcare Products, Inc.  
Mid-West Instrument  
Pressure  
Watt generators  
Globe Valves  
Leslie Controls  
Lochmar Corp.  
Hot Water  
Bryan Boilers, a Division of Bryan  
Steam  
Bryan Boilers, a Division of Bryan  
Steam LLC  
Cermine Corp.  
Graham Corp.  
Glue Make-Up Package  
Bell & Gossett  
Hoffman Specialty ITT  
Wessol Co.  
Grab Bars  
Best Bath Systems  
Bobrick Washroom Equipment, Inc.  
Component Hardware Group, Inc.  
Connecticut Stamping & Bending Co.  
Leonard Valve Co.  
Willoughby Industries, Inc.  
Grease/Oil Removal Units, Automatic  
Ashland Trap Distribution Co.  
Drain-Net  
Grease Removal Systems, Inc.  
Green Turtle  
Highland Tank  
International GRID  
Joanos  
MIFAB  
NSF International  
Pep Plastic Engineered Products  
Plumbing & Drainage Institute  
PS International  
Rockwood Separators  
Shark Products Co.  
Thermon Manufacturing Co.  
Tyeer Pipe Co.  
Watts Drainage Products  
Zum Engineering Water Solutions  
Grooving Machines  
Heron, Inc.  
Hand Cleaners  
Hercules Chemical Co.  
J.C. Willham Manufacturing Co.  
Hand Dryers  
Sensor Operated  
Bradley Corp.  
Sloan Valve Co.  
Stiebel Eltron, Inc.  
Hand Trucks  
Pipe Tyes, Inc.  
Handles, Faucet  
Central Brass  
Component Hardware Group, Inc.  
Hamper, (see also Brackets)  
Anwil International, Inc.  
Cooper B-Line  
IRCO  
Hubbard Enterprises/HOERSTEIT  
ITW Builders/ Sammy Screw Mino Industries, Inc.  
Heads  
Central Brass  
Onide  
Storm Plumbing by Sign of the Crab  
Wolferine Brass, Inc.  
Shower  
Acorn Safety  
California Faucets  
Central Brass  
Sloan Valve Co.  
Willoughby Industries, Inc.  
Wolferine Brass, Inc.  
Spray, Shower Bath  
California Faucets  
Wolferine Brass, Inc.  
Sprinkler, Fire  
Viking Group, Inc.  
Heat Exchangers  
Bell & Gossett  
Hoffman Specialty ITT  
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AJAX Boiler, Inc.  
Bryan Boilers, a Division of Bryan  
Steam LLC  
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Heat Pump Water Heater  
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Easy Heat, Inc.  
JCR Manufacturing Co.  
Heat Transfer Equipment, Boilers  
AJAX Boiler, Inc.  
Graham Corp.  
Linhypor Corp.  
Parker Boiler Co.  
Heaters  
Chemotron Laboratories  
Linhypor Corp.  
Parker Boiler Co.  
PVT Industries Ltd.  
Rittal Corp.  
Rutland Nordic Kastenhus, Inc.  
Tem-Air  
Ceiling  
Rutland North America, Inc.  

## MANUFACTURERS by CATEGORY

### Sinks & Basins

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<thead>
<tr>
<th>Category</th>
<th>Manufacturers</th>
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<tbody>
<tr>
<td>Hospital</td>
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Water Meters: A Facility’s Cash Register

The City of New York is looking at a unique way to increase public awareness of water efficiency and help the public interact with the city to save money by installing publicly accessible water meters in government buildings. The meters would be installed in building entrances for everyone to view. Taxpayers can see how water-efficiency strategies are saving their money, and they can notify the building operator of excessive water usage.

Companies know how much paper towels cost every year, but they have little knowledge about how much water costs. In some cases, company owners do not install water-efficient plumbing fixtures or monitor how much water costs because the cost of water often is covered in their lease agreement.

Cars have gas gauges, so why not put a water gauge on a building? Could this be a way to save companies some money? My company’s Green Committee meets to discuss ways we can be green, and energy and water are always topics. This discussion typically ends with little being done because our water and energy costs are included in the lease payment. Why should we pay to install water-efficient plumbing fixtures when it will save our landlord money but not us?

Water and energy cost money. We are in tough economic times, and people are motivated to follow green practices to reduce water and energy consumption. The money saved with these meters will pay for them in a short time. What holds us back from taking action?

Many times it is the absence of water meters. They are easy to install, easy to monitor, and easy to maintain. So why are they not installed?

This article gives plumbing engineers some tools to sort through this issue and design a plumbing system with meters to help owners run efficient organizations.

GREEN LEASES

A 400,000-square-foot, 100-year-old warehouse in my area was renovated into office spaces more than 10 years ago. Because of the layout of the building, gas and electric meters were installed for each tenant. In the last few years, it has maintained at least 90 percent occupancy.

The building is surrounded by new offices and condos that are having difficulty finding tenants with the economic downturn. How can the old building maintain its high occupancy rate? Tenants say one reason is that they like the flexibility of paying for their own utilities. In tough times, they can reduce consumption and see results the next month on their bill. The problem is that most tenants do not have this ability.

A group called Building Owners and Managers Association International (BOMA) has published the Guide to Writing a Commercial Real Estate Lease, Including Green Lease Language, which covers some of these issues. Green leasing helps tenants reap rewards for reducing water and energy. It is a radical departure for landlords who include energy and water costs in the lease payments. However, data shows that tenants use less water and energy when they have meters and pay their own water and energy bills. Green leases should provide for metering or submetering of electricity and water. The contract should address the cost and responsibility of installing the meters, periodically reading the meters, and sharing the data. Landlords and tenants should have the right to actual usage data and agree on how the data can be used.

At the end of the process, the lease should reward the party who bears the costs with some or all of the benefits so there is an appropriate return on investment and payback period. This can be a win for the tenant because they can control their water and energy usage and take operational measures to reduce consumption. As a result, they will reap the rewards of lower water and energy bills. The community benefits by the reduced energy and water usage.

WATER CONSERVATION FOR WATER AND SEWER PLANTS

Another unseen benefit of individual meters is that companies are more concerned about community efforts to reduce water and sewer usage. We no longer can simply build a new water and sewer treatment plant to match development. Many municipalities are realizing that they are going to have to undergo expensive infrastructure upgrades. Combined storm water and sewer systems are not allowed to dump untreated flow into natural sources during rain events. The costs of these expensive upgrades are passed to water users. In some areas, water and sewer distribution main upgrades cannot be accomplished. The end result is that these areas cannot be developed because no municipal water or sewer system serves the development.

Some municipal programs provide money for companies to trade their old plumbing fixtures for new efficient fixtures, which reduces overall operations costs for the municipality and tenants. In some cases, the rate increases for water and sewer system upgrades can be postponed. Some areas are finding it cheaper to offer rebates than to make expensive distribution system upgrades.
WHERE SHOULD METERS BE INSTALLED?

Let’s start with the obvious: Every building should have a meter. Like many other cities, New York City had many buildings with no water meters connected to the municipal water system. In the late 1980s, the city was using more than 200 gallons of water per person, so the city started several programs to reduce water use. One program included installing water meters in buildings. As a result, water consumption was reduced—it’s now about 130 gallons per person.

Plumbing fixtures are not the only systems that use water and create wastewater in buildings. For instance, in New York City, 28 percent of the water used in a typical office building serves the heating and cooling equipment. Landscaping uses another 27 percent, while the kitchen uses 11 percent (see Figure 1).

Thus, irrigation systems also should be metered. According to a recent study on the amount of water used to irrigate crops, the crop that used the most water was turf grass. Lawns produce no food; however, they require more water than any other crop. This creates another problem because lawns are usually over-fertilized. Over-watering creates water runoff. Over-fertilization mixes with the runoff and creates a hazardous toxic mix in natural waterways. Toxic algae blooms are problems in the ocean and beaches at the mouths of rivers dumping into the ocean. They also create large dead zones in oceans.

In some areas, municipal water bills contain one charge for water and another charge for sewer treatment. When the water is not returning to the wastewater treatment plant, the water rate decreases. To obtain the reduced rate, an approved meter is required. Operators should have a procedure to monitor the water to the irrigation system to verify that water is not wasted with over-watering or leaks. (The U.S. Environmental Protection Agency’s WaterSense program lists approved irrigation contractors.)

Mechanical system water also should be metered. In large buildings, cooling towers, boilers, and process water systems typically are piped separately from the building’s potable water system. As a result, it is not difficult to install a meter on these systems.

Cooling towers should have several meters. Efficient facilities should monitor and improve the cooling tower’s cycles of concentration, which is calculated as the ratio of the concentration of...
As I write this, the remains of Hurricane Ida are dumping monsoon-like rains across most of the East Coast. It has been raining steadily now for the past 48 hours. The governor of Virginia has declared a state of emergency, and sure enough, water is seeping into my basement. The problem is not that I have a leaky basement. No—I have water in my basement because the drain tile surrounding my house’s foundation is directed to a low spot in the rear and then turns back into a sump pit at the lowest level.

I went to sleep with a dry basement and awoke to find that the float for the sump pump had wedged itself between the pit wall and the discharge pipe. The constant on-off action caused the sump pump to walk to one side of the 12-by-12-inch pit and jam the float.

The lowest level of my four-story house does not have a floor drain because the basement is 4½ feet below the sewer invert, which exits the building at the level above. I assume this is why the sump pit and the drain tile are installed as they are.

As I ran the wet-vac around the basement floor, I suddenly realized what kind of system is installed in my home. It is a storm water harvesting system—and a pretty good one at that.

I seriously doubt the builder had storm water harvesting in mind 40 years ago when building this house. He did, however, know a thing or two about hydraulics. He installed a system unique to this unit that directs excess storm water to a single location where it can be collected or pumped away. Otherwise, the foundation and basement walls would be subjected to the whims of hydraulic pressure.

Four decades later, I can use this ancient drain tile configuration to harvest storm water. With very few modifications and the addition of a tank or cistern, I’ll be all set. Heck, I even can apply for LEED credits!

At the APSE Convention in Long Beach, California, last year, I attended a seminar on storm water harvesting. I remember discussing this “emerging technology” with several engineers in the room. Since then, I have worked on many projects in which graywater recycling and storm water harvesting systems were installed. In dealing with the contractors, engineers, and architects on the various projects, I got the impression that this water management stuff is foreign territory, especially to local code officials.

As we discovered during the recent ICC meetings, local code officials and inspectors are loath to learn about new plumbing technologies such as siphonic roof drains or single-stack venting. The same goes for storm water harvesting. Some code officials (not all) seem to treat these systems as alien technology. Many local ordinances have been passed with vague language allowing varied interpretations by code officials.

I still grit my teeth when I recall several lengthy phone conversations, as well as myriad e-mails and face-to-face meetings, all in an attempt to figure out what to do with discharge from the area drains on an outdoor pool deck. A recent ordinance had been adopted concerning graywater, with language making it almost impossible to design a compliant solution, but that’s another article.

The Ancient Art of Plumbing

All of this talk about emerging technologies reminds me of a piece I read in the July 2009 National Geographic. It was about the Imperial City of Angkor located in central Cambodia. At the height of its power and influence in the 13th century, the capitol of the Khmer Empire was the most extensive urban complex in the world. The city covered nearly 400 square miles, roughly the same area as the five boroughs of New York City, and supported as many as 750,000 people.

The only way to maintain this population concentration was the ability to harness, collect, and deliver fresh water both for human consumption and farming. In Southeast Asia, months of monsoon rains are followed by months of near drought. The plumbing engineers in the 13th century built a massive complex of canals, ponds, and reservoirs. Huge earthworks directed monsoon runoff to irrigation ponds that kept the rice paddies flooded during the dry season. This was highly developed storm water harvesting at its best dating back eight centuries.

You can find many more examples of the ancient art of plumbing. The Egyptians tamed the Nile and used that seemingly endless water source to develop an incredible civilization some 3,500 years ago. Mayan engineers in the 2nd century figured out how to make water flow uphill. They even had redundant backup systems in case repairs were required. The Mayan technology can be traced back as far as 2,000 BC. The Romans had their aqueducts and heated baths, and the list goes on and on.

Before any great civilization could flourish, it first had to learn to harness water.

Moving forward, plumbing engineers will be asked to come up with new and innovative ways to conserve water. The demand for
potable water will only increase as time goes by. I think we first should look to the past. The plumbing trade is as old as civilization, and much can be learned from our ancient forefathers.

Even recent history can teach us some old tricks. I remember as a child running around my grandfather's tobacco farm. Whenever we got thirsty, we would find one of the many rain barrels that stood next to most of the buildings and barns. A ladle always was hooked on the edge so we could quench our thirst. Was it potable? Who cared?

**BRING BACK THE RAIN BARREL!**

Can we drink out of rain barrels today? I'm quite sure millions still do. In fact, in an interesting study just completed in Australia, Monash University researchers looked into the health of families who drank rainwater and found it safe to drink.

Associate Professor Karin Leder led the research sponsored by the Department of Epidemiology and Preventive Medicine in conjunction with Water Quality Research Australia. “This is the first study of its kind,” Professor Leder said. “Until now, there has been no prospective randomized study to investigate the health effects of rainwater consumption, either in Australia or internationally.”

The study involved 300 volunteer households in Adelaide that were given a filter to treat their rainwater. Only half of the filters were real; the rest were “sham” filters that looked real but did not contain filters. The householders did not know whether they had a real filter or not. Families recorded their health over a 12-month period, after which time the health outcomes of the two groups were compared.

To quote Professor Leder again: “The results showed that rates of gastroenteritis between both groups were very similar. People who drank untreated rainwater displayed no measurable increase in illness compared to those that consumed the filtered rainwater.”

Health authorities have doubts about drinking rainwater due to safety concerns, particularly in cities where good-quality water is available. These findings about the low risk of illness from drinking rainwater certainly imply that it can be used for activities such as showering, where inadvertent or accidental ingestion of small quantities may occur.

My favorite quote from the professor is: “Expanded use of rainwater for many household purposes can be considered, and in current times of drought, we want to encourage people to use rainwater as a resource.”

That does it for me. All I need is a storage tank, and my 40-year-old storm water harvesting system will be good to go. I just hope I don’t have to show a code official! **PSD**

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to appear in the system curve. As the system fills, elevation differences, pressure, and friction losses increase. Imagine the system curve getting steeper. Now the pumps can destage until the last pump shuts off when the pressure switch setting on the makeup unit is achieved. This all is based on the fact that the time to fill is critical. Typically, the fill time for hydronic systems is not critical.

Maybe those parallel fill pumps weren’t so odd after all. **PSD**

**REFERENCES**


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WANTED
Programs • Seminars • Workshops

The 2010 ASPE Convention is the premier educational and professional development opportunity for plumbing engineers and designers. The Convention program format provides for a variety of time slots for technical and professional development programs. Attendees will be offered a mix of 1½-hour and 3-hour technical education and professional development program sessions, seminars and workshops. In addition, special six-hour engineering and design seminars and interactive workshops may be offered (e.g., CPD Review Examination). All technical and professional development programming will offer CEUs/PDHs. ASPE CEUs/PDHs are accepted for registration, credentialing and licensing in every state in the U.S.

Presentation Guidelines

Presentations should include: an introduction to the system(s) under consideration, when appropriate; relevant terms and definitions; formulas; applicable codes and equipment descriptions and specifications. Programs should include: full discussion of the system design objectives and parameters and should incorporate one or more realistic design projects to be solved by the attendees — presenters should be prepared to provide appropriate guidance and leadership. All programs shall have relevant handout material that includes all the information presented, incorporates copies of all visual materials, includes documentation of completed design project(s) or example(s) and includes formulas, completed calculations and illustrations.

Presentation Submittals

Each proposal submittal should include a 150 to 250 word abstract or description of the proposed seminar or workshop. Information provided should include:

• How the program will enhance the skills of the professional plumbing engineer/designer.
• What practical or professional skills will be augmented and strengthened.
• How the attendee to this session will benefit directly.
• What benefits will this seminar have for the attendee’s employer.
• Is the session considered beginner, intermediate or advanced.
• Why a participant should attend this seminar/workshop.
• Handouts that will be incorporated into the seminar/workshop.
• Audio and visual media and materials that will be used.

Presentations must be non-proprietary in nature as the Education Programs of the Convention are about learning—not selling products.

BIOGRAPHY

Please include a one-page, 100 to 250 word biography (not résumé) for each presenter (a photo is also recommended). Please be sure to include prior seminar or presentation experience.
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The technical article you must read to complete the exam is located at www.psdmagazine.org. Just click on “Plumbing Systems & Design Continuing Education Article and Exam” at the top of the page. The following exam and application form also may be downloaded from the website. Reading the article and completing the form will allow you to apply to ASPE for CEU credit. If you earn a grade of 90 percent or higher on the test, you will be notified that you have logged 0.1 CEU, which can be applied toward CPD renewal or numerous regulatory-agency CE programs. (Please note that it is your responsibility to determine the acceptance policy of a particular agency.) CEU information will be kept on file at the ASPE office for three years.

Note: In determining your answers to the CE questions, use only the material presented in the corresponding continuing education article. Using information from other materials may result in a wrong answer.

CE Questions — “Elementary and Secondary Schools” (PSD 163)

1. Grades six through eight typically are referred to as what?
   a. elementary school
   b. middle school
   c. junior high
   d. high school

2. Showers typically are located in what type of school?
   a. middle school
   b. junior high
   c. senior high
   d. all of the above

3. When gathering information, the designer should determine _______.
   a. school population
   b. which fixtures require hot water
   c. the total number of fixtures per room
   d. both a and b

4. Which of the following often requires the most significant hot water load in secondary schools?
   a. kitchen
   b. swimming pool
   c. showers
   d. toilets

5. Which of the following is a hot water demand category for schools?
   a. shower
   b. kitchen
   c. general purpose
   d. all of the above

6. What is the hot water demand for a single residential-type dishwasher at 140°F final temperature?
   a. 30 gph
   b. 20 gph
   c. 8 gph
   d. 4 gph

7. What is the hot water demand for a single triple-pot sink at 140°F final temperature?
   a. 15 gph
   b. 45 gph
   c. 90 gph
   d. 180 gph

8. Single-tank conveyor-type commercial dish machines typically consume ______ of rinse water per load.
   a. 416 gph
   b. 347 gph
   c. 277 gph
   d. none of the above

9. Shower load = Number of showerheads x Flow rate per shower x _______.
   a. Amount of time showerheads are used per hour
   b. Number of people using the shower per hour
   c. Sex of the user
   d. Average age of the user

10. How much 140°F hot water is needed to create 380 gph of general-usage demand for an elementary school?
    a. 200 gph
    b. 266 gph
    c. 320 gph
    d. 380 gph

11. How much hot water is needed for 23 showers with 2.5-gpm heads if five six-minute showers are taken per hour?
    a. 175 gph
    b. 500 gph
    c. 1,725 gph
    d. none of the above

12. In the second example in the chapter, you must take ______ into account when sizing the equipment for general-purpose and shower demand.
    a. concurrence of general and normal shower demand
    b. large shower demand after practice
    c. use of clothes washers during after-practice showering
    d. all of the above
Continuing Education Answer Sheet

Elementary & Secondary Schools (PSD 163)

Questions appear on page 52. Circle the answer to each question.

| Q 1. | A | B | C | D |
| Q 2. | A | B | C | D |
| Q 3. | A | B | C | D |
| Q 4. | A | B | C | D |
| Q 5. | A | B | C | D |
| Q 6. | A | B | C | D |
| Q 7. | A | B | C | D |
| Q 8. | A | B | C | D |
| Q 9. | A | B | C | D |
| Q 10. | A | B | C | D |
| Q 11. | A | B | C | D |
| Q 12. | A | B | C | D |

Appraisal Questions

Elementary & Secondary Schools (PSD 163)

1. Was the material new information for you? □ Yes □ No
2. Was the material presented clearly? □ Yes □ No
3. Was the material adequately covered? □ Yes □ No
4. Did the content help you achieve the stated objectives? □ Yes □ No
5. Did the CE questions help you identify specific ways to use ideas presented in the article? □ Yes □ No
6. How much time did you need to complete the CE offering (i.e., to read the article and answer the post-test questions)?
Technical Exhibition Roundup

The exhibitors were effusive with their compliments of this year’s Technical Exhibition. They were especially pleased that the show floor had a constant flow of heavy traffic. They also appreciated how the giant Tailgate Party was integrated within the Exhibition and how it helped everyone feel more comfortable and fully engaged with the exhibitors.

Comments from the exhibitors included:
“Once again, a fantastic show. “Sorry I missed the last Symposium, it won’t happen again.”“This was just the perfect size: not so big that you were lost in a huge hall, but just a good size so everyone could see you and you had time to spend with everyone that was interested.”“A great idea to have the exhibit in conjunction with the PCA [Plumbing Contractors of America]. It provided a varied audience and different interest points for our product.”

The attendees indicated that they loved the integrated Tailgate Party and its food selection. Everyone filled their stomachs, and good feelings and good cheer were evident throughout the event.

The Tailgate Party provided the basis for a successful event: plenty of food and drink. Everywhere you turned were hamburgers, hot dogs, brats, french fries, popcorn, peanuts, soft drinks, beer, pretzels, candy, ice cream, and cookies.

With the sponsorship and hosting of the Eastern Michigan Chapter and the arriving attendees registering for the 2009 Symposium, the Exhibition area soon filled up and provided a constant stream of what the exhibitors said was “good traffic.” Moreover, many exhibitors indicated that we hit the “nail on the head” with the mix of engineers and contractors. It provided a “quality mix of attendees,” something that every exhibitor likes to see.

Despite the economic malaise that has spread throughout the United States, the turnout for the Symposium, while not as high as originally budgeted (before the economy went south), the event was well attended.

As with previous Symposium Exhibitions, the show floor was limited to sponsors of the Symposium.

The continued support of the Platinum, Gold, Silver, and Friend sponsors is very much appreciated, and the exhibition show floor “belongs” to these supporters.

Special Thanks to the Eastern Michigan Chapter and its Host Committee

Members:
Paul R. Bladdick
The LBP Co. Inc.
White Lake, MI

Esteban Cabello, PE, FASPE
JRED Engineering Inc.
Dearborn Heights, MI

George D. Johnston
Balfrey & Johnston
Oak Park, MI

Barry Pines, CPD
C&R Plumbing & Heating Inc.
Shelby Township, MI

Cynthia A. Zatto
VE Sales Co.
St. Clair Shores, MI

Chair: John R. Nussbaum
Plumbing & Heating Industry of Detroit
Detroit, MI

2009 Plumbing Engineering and Contracting Technical Symposium
A Special Thank You to the 2009 Technical Product Exhibition and Symposium Sponsors

During the Thursday evening Technical Product Exhibition and the Tailgate Party, special plaques were presented to each of the exhibiting sponsors. In all of the pictures that follow, ASPE President Julius A. Ballanco, PE, CPD, FASPE, presents the plaques.

Please note that by request, Julius dressed for the occasion of the Tailgate Party. Since his two children went to different colleges, he wore a Purdue sweatshirt under a University of Miami jacket.
Silver Sponsors
(Manufacturers) (continued)

Silver Sponsor Froet President Craig Froeter receives a Silver Sponsor Plaque from ASPE President Julius Ballanco (right)

Silver Sponsor Syncroflo Market Manager Glenn Klein and Owner Rich Hanson receive a Silver Sponsor Plaque from ASPE President Julius Ballanco (right)

Silver Sponsor CSA International Technical Advisors Franco Difolco and Ned Dickey receive a Silver Sponsor Plaque from ASPE President Julius Ballanco (right)

Silver Sponsor Lochinvar District Sales Manager Jason Loverich receives a Silver Sponsor Plaque from ASPE President Julius Ballanco (right)

Silver Sponsor Mingfab President Michael Whiteside and Owner Georgann Grudich receive a Silver Sponsor Plaque from ASPE President Julius Ballanco (right)

Silver Sponsor Mifab President Michael Whiteside and Owner Georgann Grudich receive a Silver Sponsor Plaque from ASPE President Julius Ballanco (right)

Silver Sponsor Zurn Business Development Manager Jim Stafford receives a Silver Sponsor Plaque from ASPE President Julius Ballanco (right)

Silver Sponsor Bradford White Director of Commercial and Technical Sales Mark Taylor and Specialty Sales Coordinator Brad Taylor receive a Silver Sponsor Plaque from ASPE President Julius Ballanco (middle)

Silver Sponsor Sloan Valve’s Representatives for Michigan Matthew Sleper and Bob Thomas receive a Silver Sponsor Plaque from ASPE President Julius Ballanco (right)

Silver Sponsor Mueller Industries Vice President of Product and Process Development Tommy Jamison and Product Development Manager Chris Mueller receive a Silver Sponsor Plaque from ASPE President Julius Ballanco (left)

Silver Sponsor Josam Director of Engineering Brian Tubaugh and COO Barry Hodgkien receive a Silver Sponsor Plaque from ASPE President Julius Ballanco (right)

Silver Sponsor JB Engineering Owner Julius Ballanco receives a Silver Sponsor Plaque from ASPE Executive Director Stan Wolfson (right)
Certificates of Appreciation for their Friend sponsorships were presented to American Hometec, Bradley, Delta Faucets, and Viking.

A Special Thank You to the 2009 Technical Symposium Chapter Sponsors

During the Saturday lunch, special sponsorship plaques were presented to the ASPE chapters that sponsored the 2009 Technical Symposium.

Eastern Michigan President John Nussbaum (left) receives a Diamond Sponsorship Plaque from ASPE President Julius Ballanco.

Los Angeles Chapter President Hal Alvord (left) receives a Diamond Sponsorship Plaque from ASPE President Julius Ballanco.

Portland Chapter President Chris Scott (left) receives a Diamond Sponsorship Plaque from ASPE President Julius Ballanco.

Washington, D.C., Chapter President Juan Rojas (left) receives a Platinum Sponsorship Plaque from ASPE President Julius Ballanco.

Past Los Angeles Chapter President Vivian Enriquez (left) receives a Platinum Sponsorship Plaque from ASPE President Julius Ballanco.
A Special Thank You to the 2009 Technical Symposium

GOLD CHAPTER SPONSORS

Phoenix Chapter President Dorothy Thrasher (left) receives a Gold Sponsorship Plaque from ASPE President Julius Ballanco

Wisconsin Chapter Vice President, Technical, Robert Mutsch (left) receives a Gold Sponsorship Plaque from ASPE President Julius Ballanco

SILVER CHAPTER SPONSORS

Houston Chapter President Cyril Unger (left) receives a Silver Sponsorship Plaque from ASPE President Julius Ballanco

Buffalo-Niagara Chapter member Joe Eppolito (left) receives a Silver Sponsorship Plaque from ASPE President Julius Ballanco

Baltimore Chapter President John Jung (left) receives a Silver Sponsorship Plaque from ASPE President Julius Ballanco

Southwestern Ohio Chapter Vice President, Legislative, Ron Bartley (left) receives a Silver Sponsorship Plaque from ASPE President Julius Ballanco
One of the American Society of Plumbing Engineers’ major educational events is its Technical Symposium held in odd-numbered years. The Symposia continue to evolve, and each succeeding event provides even greater educational and networking opportunities.

The concentration etched on attendees’ faces and the well-attended program sessions attested to a very successful 2009 Technical Symposium. Despite the economic malaise that has settled throughout the United States, attendance surpassed the most optimistic expectations. Five tracks incorporated three-hour program sessions providing an in-depth technical and educational experience.

The presenters used a range of teaching and presenting techniques, from PowerPoints to basic ink drawings, and each presenter provided interesting material, covering technical subjects and imparting useful information and knowledge for the plumbing engineering and design professional.

Everywhere you looked, attendees were networking, making new friends, greeting old friends, and getting up close and personal with the presentors. The Technical Symposium remains the premier event for plumbing engineers, designers, and contractors to get together in a relaxed atmosphere alternating with intensive technical education and professional development programs.
Technical Symposium Chairs

The Technical Symposium co-chairs begin planning for the Symposium more than a year in advance, and the success of the technical and professional development programs are the culmination of their work. The chairs invest a lot of effort, dedication, commitment, and time to bring the Symposium to fruition. This year, Co-chairs Joe Vela (Boston Chapter) and Esteban Cabello (Eastern Michigan Chapter) were presented with ASPE Certificates of Appreciation, which read: For commitment and dedication to the growth and prosperity of the Society and advancement of the profession as the co-chairman of the 2009 ASPE Technical Symposium.

A highlight the ASPE Technical Symposium and Convention is the opportunity it provides the Society to pay homage to the tireless workers and many volunteers who contribute their time so generously on behalf of ASPE. To accommodate the number of awards being given, this year awards luncheons were held on both Friday and Saturday.
Chapter Membership Growth and Retention Awards

Capital Region New York Chapter Vice President, Legislative, Robert Wilson (left) receives a Chapter Membership Growth Award from ASPE Vice President, Membership, Jeff Ingertson.

Charlotte Chapter member Thomas Sharp (left) receives a Chapter Membership Growth Award from ASPE Vice President, Membership, Jeff Ingertson.

Orange County Chapter President Felor Rezayat (left) receives a Chapter Membership Growth Award from ASPE Vice President, Membership, Jeff Ingertson.

Minnesota Chapter President Craig Johnson (left) receives a Chapter Membership Retention Award from ASPE Vice President, Membership, Jeff Ingertson.

St. Louis Chapter Vice President, Legislative, Eric Rogers (left) receives a Chapter Membership Retention Award from ASPE Vice President, Membership, Jeff Ingertson.

New York City Chapter Vice President, Technical, Leon Perkolaj (left) receives a Chapter Membership Growth Award from ASPE Vice President, Membership, Jeff Ingertson.

Dallas/Ft. Worth Chapter Vice President, Technical, Larry Bartlett (left) receives a Chapter Membership Growth Award from ASPE Vice President, Membership, Jeff Ingertson.

Richmond Chapter member John Cain (left) receives a Chapter Membership Retention Award from ASPE Vice President, Membership, Jeff Ingertson.
2008–09 Membership Awards

Chapter Award of Merit

The annual ASPE Chapter Awards of Merit are presented to recognize the extraordinary contributions made by the chapters on behalf of the Society. This award captures the spirit of dynamic volunteerism and is awarded on the basis of a chapter’s accomplishments during the past year as measured by 11 distinct areas. Everything a chapter does, from newsletters and technical meetings to joint programs with other engineering-related organizations, is examined.
Each year, ASPE recognizes the outstanding work and tireless efforts of membership volunteers and the chapters that are the very heart of the Society. These chapters and volunteers make the Society work and grow. Membership awards are presented to the chapters and show the name of the vice president of membership for that year.
Chapter Award of Merit

(continued)

Boston Chapter Vice President, Technical, Richard Dean (middle) receives a Chapter Award of Merit from Appointed Region 1 Director Bill O’Donnell and ASPE Vice President, Technical, Bill Hughes

Capital Region New York Chapter Vice President, Legislative, Robert Wilson (middle) receives a Chapter Award of Merit from Appointed Region 1 Director Bill O’Donnell and ASPE Vice President, Technical, Bill Hughes

Central New York Chapter Vice President, Legislative, Bruce Dewey (middle) receives a Chapter Award of Merit from Appointed Region 1 Director Bill O’Donnell and ASPE Vice President, Technical, Bill Hughes

New Jersey Chapter President Karl Yrjanainen (middle) receives a Chapter Award of Merit from Appointed Region 1 Director Bill O’Donnell and ASPE Vice President, Technical, Bill Hughes

New York City Chapter Vice President, Technical, Leon Perkolaj (middle) receives a Chapter Award of Merit from Appointed Region 1 Director Bill O’Donnell and ASPE Vice President, Technical, Bill Hughes

Philadelphia Chapter member Dawn Bishop (middle) receives a Chapter Award of Merit from Appointed Region 1 Director Bill O’Donnell and ASPE Vice President, Technical, Bill Hughes

Past Los Angeles Chapter President Vivian Enriquz (left) receives a Chapter Award of Merit from Region 4 Director Matt Bell

Orange County Chapter President Felor Rezayat (left) receives a Chapter Award of Merit from Region 4 Director Matt Bell

Phoenix Chapter President Dorothy Thrasher (left) receives a Chapter Award of Merit from Region 4 Director Matt Bell

Portland Chapter President Chris Scott (left) receives a Chapter Award of Merit from Region 4 Director Matt Bell

San Diego Chapter member Dean Merrick (left) receives a Chapter Award of Merit from Region 4 Director Matt Bell

San Francisco Chapter member Samuel Poquiz (left) receives a Chapter Award of Merit from Region 4 Director Matt Bell
The News | The Awards

2009 ASPE Tribute Awards

Over the past few years, many chapters have forgiven their older, unpaid dues rebates to help the Society. By these chapters forgiving all of their old dues rebates, the Society was able to show a favorable financial balance sheet and thus was able to purchase its own office building. These chapters will forever be engraved onto a bronze plaque that will be permanently attached to the building. For the interim, a special Tribute Plaque was presented to these chapters as of the date of the Symposium. The Plaque reads: In Recognition for Its Commitment and Dedication to the Growth, Health and Prosperity of the Society For The Forgiveness of All Its Past Dues Rebates That Made It Possible For the society To Purchase Its Own Office Building.

Baltimore Chapter President John Jung (right) receives a plaque for his chapter’s contribution to the ASPE Building Fund from ASPE President Julius Ballanco.

Philadelphia Chapter Fundraising Chair Bill O’Donnell (right) receives a plaque for his chapter’s contribution to the ASPE Building Fund from ASPE President Julius Ballanco.

Central Ohio Chapter President David Dexter (right) receives a plaque for his chapter’s contribution to the ASPE Building Fund from ASPE President Julius Ballanco.

Boston Chapter Vice President, Technical, Richard Dean (right) receives a plaque for his chapter’s contribution to the ASPE Building Fund from ASPE President Julius Ballanco.

Richmond Chapter member Vic Hines (right) receives a plaque for his chapter’s contribution to the ASPE Building Fund from ASPE President Julius Ballanco.

Cleveland Chapter President Michael Drab (right) receives a plaque for his chapter’s contribution to the ASPE Building Fund from ASPE President Julius Ballanco.
2009 ASPE

Central New York Chapter member Bonnie McClellan (right) receives a plaque for her chapter’s contribution to the ASPE Building Fund from ASPE President Julius Ballanco.

Buffalo-Niagara Chapter Product Show Chair Joe Eppolito (right) receives a plaque for his chapter’s contribution to the ASPE Building Fund from ASPE President Julius Ballanco.

Eastern Michigan Chapter President John Nussbaum (right) receives a plaque for his chapter’s contribution to the ASPE Building Fund from ASPE President Julius Ballanco.

Greenville Chapter member Pat Whitworth (left) receives a plaque for his chapter’s contribution to the ASPE Building Fund from ASPE President Julius Ballanco.

Nashville Chapter Newsletter Editor Gary Mahoney (left) receives a plaque for his chapter’s contribution to the ASPE Building Fund from ASPE President Julius Ballanco.

Washington, D.C., Chapter President Juan Rojas (right) receives a plaque for his chapter’s contribution to the ASPE Building Fund from ASPE President Julius Ballanco.

West Coast Florida Chapter President Curtis Ray (left) receives a plaque for his chapter’s contribution to the ASPE Building Fund from ASPE President Julius Ballanco.

Los Angeles Chapter President Hal Alvord receives a Building Fund plaque on behalf of the British Columbia Chapter from ASPE President Julius Ballanco.

Pittsburgh Chapter Vice President, Legislative, Jerry Valenti (left) receives a plaque for his chapter’s contribution to the ASPE Building Fund from ASPE President Julius Ballanco.
Tribute Awards (continued)

Rochester Chapter Vice President, Technical, Terry Brown (left) receives a plaque for his chapter’s contribution to the ASPE Building Fund from ASPE President Julius Ballanco.

Atlanta Chapter member Lisa Lewis (left) receives a plaque for her chapter’s contribution to the ASPE Building Fund from ASPE President Julius Ballanco.

East Tennessee Chapter Product Show Chair Greg Farmer (left) receives a plaque for his chapter’s contribution to the ASPE Building Fund from ASPE President Julius Ballanco.

Central Florida Chapter President Eric Knauth (left) receives a plaque for his chapter’s contribution to the ASPE Building Fund from ASPE President Julius Ballanco.

North Florida Chapter Vice President, Technical, Kenny Haun (left) receives a plaque for his chapter’s contribution to the ASPE Building Fund from ASPE President Julius Ballanco.

Western Michigan Chapter President Don Glennie (left) receives a plaque for his chapter’s contribution to the ASPE Building Fund from ASPE President Julius Ballanco.

Charlotte Chapter member Thomas Sharp (left) receives a plaque for his chapter’s contribution to the ASPE Building Fund from ASPE President Julius Ballanco.

Phoenix Chapter President Dorothy Thrasher (left) receives a plaque for her chapter’s contribution to the ASPE Building Fund from ASPE President Julius Ballanco.
Best Chapter Annual Report

Boston Chapter Vice President, Technical, Richard Dean (left) receives a Special Certificate of Accomplishment for the Best Annual Report from ASPE Secretary/Treasurer Gary Mahoney

Chicago Chapter Vice President, Membership, Mark Mannarelli (left) receives a Special Certificate of Accomplishment for the Best Annual Report from ASPE Secretary/Treasurer Gary Mahoney

Dallas/Ft. Worth Chapter President Bryan Hutton (left) receives a Special Certificate of Accomplishment for the Best Annual Report from ASPE Secretary/Treasurer Gary Mahoney

Houston Chapter President Cyril Unger (left) receives a Special Certificate of Accomplishment for the Best Annual Report from ASPE Secretary/Treasurer Gary Mahoney

Phoenix Chapter President Dorothy Thrasher (left) receives a Special Certificate of Accomplishment for the Best Annual Report from ASPE Secretary/Treasurer Gary Mahoney

Atlanta Chapter Vice President, Membership, Chris Rohling (left) receives a Special Certificate of Accomplishment for the Best Annual Report from ASPE Secretary/Treasurer Gary Mahoney
San Francisco Chapter member Samuel Poquiz (left) receives a Special Certificate of Accomplishment for the Best Annual Report from ASPE Secretary/Treasurer Gary Mahoney.

New Jersey Chapter President Karl Yrjanainen (left) receives a Special Certificate of Accomplishment for the Best Annual Report from ASPE Secretary/Treasurer Gary Mahoney.

Capital Region New York Chapter Vice President, Legislative, Robert Wilson (left) receives a Special Certificate of Accomplishment for the Best Annual Report from ASPE Secretary/Treasurer Gary Mahoney.

Eastern Michigan Chapter President John Nussbaurn (left) receives a Special Certificate of Accomplishment for the Best Annual Report from ASPE Secretary/Treasurer Gary Mahoney.

Alabama Chapter President Carol Johnson (left) receives a Special Certificate of Accomplishment for the Best Annual Report from ASPE Secretary/Treasurer Gary Mahoney.

Central Ohio Chapter Vice President, Technical, Mark Simpson (left) receives a Special Certificate of Accomplishment for the Best Annual Report from ASPE Secretary/Treasurer Gary Mahoney.

HELP RING IN THE FUTURE OF ASPE 2010 ASPE
Philadelphia, Pennsylvania
October 30 to November 3, 2010
Engineered Plumbing Exposition & Biennial Convention

The Longest Continually Active and Largest Plumbing Engineer, Designer, Specifier Exposition and Technical Education Event in the World
Netbook Prize--

Friday Diamond Sponsor prize winner
John Synder (right) receives an ASUS
netbook from ASPE President Julius
Ballanco

Friday Diamond Sponsor prize winner
Greg Morin (right) receives an ASUS
netbook from ASPE President Julius
Ballanco

Friday Platinum Sponsor prize winner
Laurence Lane (right) receives an ASUS
netbook from ASPE President Julius
Ballanco

Friday General Drawing prize winner
Joe Eppolito (right) receives an ASUS
netbook from ASPE President Julius
Ballanco

Friday Diamond Sponsor prize winner
John Nussbaum (right) receives an ASUS
netbook from ASPE President Julius
Ballanco

Friday Gold Sponsor prize winner
Cory Powers (right) receives an ASUS
netbook from ASPE President Julius
Ballanco

Friday Silver Sponsor prize winner
Frank Taylor (right) receives an ASUS
netbook from ASPE President Julius
Ballanco

Saturday Diamond Sponsor prize winner
Patrick Cooper (left) receives an ASUS
netbook from ASPE President Julius
Ballanco

Saturday Diamond Sponsor prize winner
Chris Scott (left) receives an ASUS
netbook from ASPE President Julius
Ballanco

Saturday Platinum Sponsor prize winner
Juan Rojas (left) receives an ASUS
netbook from ASPE President Julius
Ballanco

70 Plumbing Systems & Design DECEMBER 2009
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2009 Plumbing Engineering and Contracting Technical Symposium

A Joint Presentation of the University
The Views | The Highlights
-Drawing Winners

Friday Diamond Sponsor prize winner Hank Koppelo (left) receives an ASUS netbook from ASPE President Julius Ballanco.

Friday general drawing prize winner Jeff Knighton (right) receives an ASUS netbook from ASPE President Julius Ballanco.

Friday Platinum Sponsor prize winner Elizabeth Snyder (right) receives an ASUS netbook from ASPE President Julius Ballanco.

Saturday Platinum Sponsor prize winner Dennis Cavallaro (left) receives an ASUS netbook from ASPE President Julius Ballanco.

Saturday Diamond Sponsor prize winner Robert Frey (left) receives an ASUS netbook from ASPE President Julius Ballanco.

Saturday Diamond Sponsor prize winner Stuart Fisher (left) receives an ASUS netbook from ASPE President Julius Ballanco.

Saturday general drawing prize winner Lingyan Gorsuch (left) receives an ASUS netbook from ASPE President Julius Ballanco.

Saturday Silver Sponsor prize winner Jim Miller (left) receives an ASUS netbook from ASPE President Julius Ballanco.

Saturday Gold Sponsor prize winner Robert Mutsch (left) receives an ASUS netbook from ASPE President Julius Ballanco.

Saturday general drawing prize winner Chad Comfort (left) receives an ASUS netbook from ASPE President Julius Ballanco.

2009 Plumbing Engineering and Contracting Technical Symposium

DECEMBER 2009  Plumbing Systems & Design  71
Thirty years ago, I took the Professional Engineer (PE) exam, and I received my license four months later. I still remember the day the letter arrived from the state of Illinois. It was a wonderful feeling. Plus, my boss gave me an instant raise of $100 per month. In those days, that was a 5 percent raise for being a PE.

The most important part of being a Professional Engineer is living by the engineering code of ethics. Every time you renew your license, you must agree to adhere to that code. What is truly unique is our charge as engineers: Our first obligation is to the public, which is pretty simple and straightforward. This obligation is what makes engineering such a noble profession. It is not our clients that we worry about first—it is the public. We have a commitment to use our knowledge and expertise to improve mankind.

This issue recently came to the forefront when I attended the International Code Council (ICC) code change hearings in Baltimore. While I was testifying on a particular subject, someone offhandedly remarked that I was testifying because I was receiving a fee. I took great offense to the insinuation and said so. I let it be known that I firmly believed that the code change was for the good of the public.

The code change in question would require all ports for filling a refrigerant system to be locked. The key for such a lock would be under the control of a certified air-conditioning technician. I became passionate about this code change after listening to Mona Casey testify last year. Mona’s son died after huffing refrigerant from their air-conditioning unit, and her story moved me to tears. It also enlightened me. I had no idea that huffing refrigerant is highly addictive, similar to heroin. Kids are doing it to get high, but since it doesn’t show up in the bloodstream, no test will show you are using a drug.

Her son died the second time he huffed refrigerant. As it turns out, the refrigerant, being heavier than air, sits in the bottom of the lungs and displaces oxygen, eventually suffocating the individual. Unlike the other substance with which kids experiment to get high, refrigerant is very lethal, but you never see any national headlines about this problem. One of the reasons is that if attention is brought to the problem, more kids will learn how to do it, and the death rate will increase. That is why a simple code change to require the access port to be under lock and key makes perfect sense to me.

When Mona first presented the concept during the last code change cycle, I saw that she needed help in presenting her case. After all, she was simply acting as a concerned mother trying to prevent other tragedies. She had no idea how the code change process worked. I stepped forward, as did many colleagues. We know how to get code changes approved, and we all helped push Mona’s change through the system.

The 2009 International Mechanical Code and 2009 International Residential Code require all new air-conditioning systems to have the refrigerant port under lock and key. This code change cycle we hope to add to the provision by requiring a lock and key anytime the system is serviced, which would help protect all existing systems.

Those who helped Mona with the code change did not receive a fee, nor did they want one. They helped her because it was the right thing to do. After all, our first obligation in the engineering profession is to help the public.

When Mona’s change was approved last cycle, I was full of good feelings. I was proud of the code change process for doing the right thing. I was proud of the engineering community for stepping forward and helping the cause. I was proud of Mona for having the strength to carry this message forward after suffering such a tragedy.

I have since added a lock to the air-conditioning unit for my house. You may want to consider doing the same thing.

We truly are a noble profession. Thank you to all for being a part of such a great profession. In this holiday season, I would like to wish all of you a Merry Christmas, Happy Chanukah, and Happy New Year.∗

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**Eligibility Requirements**

1. Enrolled, as of the application year, as a full-time student in a college, university, or technical school and:
   - Has maintained a minimum overall grade point average of 3.0 on a 4.0 grading scale, or its equivalent
   - Plans to attend school on a full-time basis as of the fall or summer semester of the application year
   - Is enrolled in a school or program of engineering

2. A senior high school student who:
   - Will graduate as of June of the application year
   - Has a minimum grade point average of 3.0 on a 4.0 grading scale, or its equivalent
   - Plans to matriculate into a college, university, or technical school on a full-time basis as of the fall or summer semester of the application year
   - Has been officially accepted by the school
   - Plans to enroll in a school or program of engineering

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**Application Process**

You can find the official application package here: aspe.org/new/ASPE_Scholarship/Steele_Scholarship.php

All portions of the application package must be complete. The Scholarship Selection Committee reserves the right to reject any and all applications.

**Application deadline is January 31, 2010.**
Growing Membership: What You Need to Know to Help

JEFFREY L. INGERTSON, CPD, 2008–2010 ASPE VICE PRESIDENT, MEMBERSHIP

The title for this article is “Growing Membership,” but with the way things have been going, a better title would be “Growing Membership and Keeping the Membership We Have.” Retention for the last few months has not been going as well as it could. The hard work of our Membership Director Stacey Kidd and Membership Coordinator Jinnie Yoo has stemmed any dramatic falloff, but more needs to be done—not just by chapter boards of directors, but also by all ASPE members.

I know in the last few membership newsletters I have written about retention, to the point of agony to some, but I cannot stress enough what will happen if we do not retain more of our membership. Why? First, keeping the membership strong helps ASPE remain a strong and constant voice in issues affecting the plumbing engineering profession. Second, retaining membership translates into revenues—actual and potential. Third, it takes from four to six times less effort to keep an existing member than to recruit a new one.

What can you as an ASPE member do to help your chapter membership vice president retain and grow your chapter’s membership?

KNOW WHAT ASPE IS
You must be convinced of the benefits of belonging to ASPE. The ASPE Membership Recruitment and Retention Manual says, “If you are not convinced of the Society’s reason for being and that its mission is professionally valuable and career enhancing, nothing you can say or do will convince a potential or existing member otherwise. If you believe in the mission of ASPE, then no matter what the national or local economic situation, plumbing engineers will have needs that require filling and expectations that ASPE can meet. Although, typically, membership dues and subscriptions are some of the first expenditures cut in an economic downturn, it becomes your task to introduce plumbing engineers and designers to the concept that the value of membership in the Society surpasses the cost of the membership dues. There will always be potential and existing members that will need convincing—some will just take more convincing than others.”

In these tough economic times, we must believe in what we do, or we cannot succeed.

KNOW WHAT ASPE HAS TO OFFER
Before you can convince anyone to join ASPE or renew their dues, you need to know the benefits of membership. There are two levels of benefits:

1. Benefits about the Society
   The basic Society benefits include the following:
   - **Plumbing Engineering Design Handbook** This is the most definitive collection of general plumbing practices in the field of plumbing engineering. The handbook consists of four volumes, which are updated and revised on a rotating annual basis.
   - **Plumbing Systems & Design** The Society’s magazine covers a wide spectrum of topics important to the profession and to daily practices in the field.
   - **ASPE Report** The Society’s newsletter is incorporated within PS&D magazine to keep members abreast of Society activities and issues impacting the profession.
   - **ASPE Pipeline** E-mailed biweekly, this newsletter is a good source for news and events in the plumbing engineering industry.

2. Benefits for affiliation with a chapter
   - **Leadership Recognition** is offered to chapters for their leadership within the industry and provides formal recognition of outstanding professionals with advanced skills in the design and specification of plumbing systems.
   - **Networking** Monthly chapter meetings provide the basis for building personal and professional contacts with plumbing engineers, designers, and manufacturers. Chapters offer a unique opportunity for peer-to-peer and professional-to-professional interaction in an informal and friendly setting. Camaraderie is what ASPE is all about.
   - **Education and Professional Development** Chapters offer technical presentations at their monthly meetings and special one- and two-day technical seminars and workshops—exceptional opportunities for education and professional growth and development.
   - **Certified in Plumbing Design Program** The CPD program is an international certification program for engineers and designers of plumbing systems. The certification program provides the profession, the plumbing industry, and the general public with a single, comprehensive qualification of professional competence for engineers and designers of plumbing systems. The CPD is the only international credential program in the plumbing engineering field. It sets the standards for leadership within the industry and provides formal recognition of outstanding professionals with advanced skills in the design and specification of plumbing systems.
   - **Technical Symposium** Offered in non-Convention years, the Symposium provides a unique forum for the most comprehensive and intensive plumbing engineering and design seminars and workshops available anywhere. The hands-on workshops provide plumbing engineers with information about new developments in the industry and new techniques for practical implementation in the field.
   - **Biennial Convention and Engineered Plumbing Exposition** Offered in even-numbered years, this is the premier educational and professional development event for plumbing engineers and designers. The Convention features a comprehensive program of educational, technical, and professional development presentations and seminars designed to enhance professional knowledge and foster awareness of new techniques. The concurrent EPE highlights the latest products and services of interest to plumbing engineers. It is the largest exposition dedicated entirely to the field of plumbing engineering.

   **Continuing Education Units** ASPE offers the opportunity to earn CEUs at technical program sessions at the Convention, EPE, and Technical Symposium, as well as for numerous e-learning opportunities such as webinars.

   **Members-only ASPEnet Access** A special section on aspe.org allows members to download numerous publications and other information critical to the plumbing engineering profession.

   **Publication and Education Program Discounts** All Society publications, education programs, and other services and products are offered at special discounted rates to ASPE members. A member’s savings on just one popular ASPE publication can equal the annual membership dues.
Clearing Up Confusion and Asking for Manners

STANLEY M. WOLFSON, ASPE EXECUTIVE DIRECTOR

Prior to the close of the 2009 Technical Symposium, a number of chapters donated to the ASPE Building Fund with the impression that they would be on the main foundation plaque to be placed in the headquarters lobby. That is not the case.

ASPE Office Building Foundation Plaque

The only chapters that will be permanently inscribed on the main foundation plaque are those that returned all of the past dues rebates owed to the chapter. How the rebates were returned—whether simply forgiven or used for sponsorships or products and services—is not important. What is important is that these chapters forgave all past due rebates.

Another important item is when the dues rebates were forgiven. Last spring, the board pushed the chapters to forgive the past dues rebates to remove a major liability from the Society’s balance sheet. Why? In its search for new office space, the Society was considering purchasing a headquarters building. However, to do so, we needed to reduce the amount owed to the chapters.

Why didn’t we just say it was because we were thinking about purchasing a building? The answer is simple: Even with the forgiven dues rebates, the possibility of ownership seemed very remote.

After a long search and prolonged negotiations, a small miracle happened. All the stars aligned, and we found a building we could afford—at a reasonable price and requiring the least possible amount of cash as a down payment—as well as a bank that was willing to finance the project.

Thus, the main building foundation plaque belongs to those chapters that forgave all of their past dues rebates. Without them, a headquarters building would continue to be a dream. To encourage more chapters to become building foundation members, the board pushed the deadline for forgiving dues rebates to the end of the Technical Symposium. By then, everyone knew that the forgiveness was to help with the purchase of the building, and it was hoped that more chapters would participate.

It was disappointing to see how many chapters decided to not forgive all of their dues rebates. However, the board has set up a payment plan, and they will get their money.

Building Fund Plaque

A second plaque in the office lobby will be dedicated to everyone who donates to the ASPE Building Fund. The plaque will be updated on an ongoing basis as chapters, individuals, or companies give whatever amount they are able, and those amounts will be consolidated into the total.

Additional monies are vital for the fund. The building purchased needed some renovations, especially new HVAC, and in addition, as funds become available, the building’s mortgage will be paid down as quickly as possible. The Society, as a nonprofit, does not benefit from carrying a mortgage and/or paying interest.

All Clear?

I hope this explains the difference between the two plaques and the reasons behind them. We want to be sure that everyone contributing to the fund is recognized properly. We also want to show special thanks to those chapters that helped ASPE build the financial foundation necessary to own the building by forgiving all their old dues rebates.

Now What?

As said above, we will continue to need donations to the ASPE Building Fund until we can retire the mortgage debt. For those chapters that are owed past dues rebates, repayments will begin January 1, 2012. The total amount owed will be divided by 300 (for a 25-year payback) and will be paid in monthly installments, along with the regular dues rebate amount, until the past dues rebate amount reaches zero.

Again, Thank You

I can’t thank enough those chapters that forgave all their old dues rebates and made it possible for the Society to purchase its own office building. We will be sure that the permanent plaque is worthy of your sacrifice.

Whatever Happened to Manners?

I recently heard a voicemail left for one of the ASPE staff. This staff person has an especially hard job and always seems to bear the brunt of the membership’s problems—such as their records, their payments or lack of, or the number of notices they receive.

Our Membership Director, Stacey Kidd, is one of the nicest people I know and is one of the hardest working staff at the Society. Remember, Stacey has to follow all the policies that have been put in place by the board of directors regarding membership: renewals, upgrades, student memberships, lapsed memberships, and the like. What she does is controlled by policies that have been developed over the years.

Stacey treats everyone with respect. Unfortunately, all too often she is treated like a non-person who is supposed to sit back and take all the venom that someone wants to spew about the Society. Interestingly, I am here, as the executive director, to handle such calls. For some reason, most of those who have something to spew about do not call me—perhaps because I’m not going to listen to you rant and rave like you expect a staff person to do.

Here is the latest story. We sent one member—who happened to be a chapter officer—the usual three invoice notices. In numerous calls from our retention coordinator, he said he’d put the check in the mail, yet we never received it.

Since we didn’t receive his dues, we sent him the final good-bye letter. When someone who is a chapter officer is dropped from the membership rolls, the chapter president is notified that the individual no longer can continue in that position. We also notify everyone that the individual has been removed from the ASPE database as a chapter officer.

In 99 percent of such cases, the problem is resolved calmly, rationally, and professionally. In this case, the individual decided to leave an abusive voicemail, which basically said: “Who do you think you are? I’ve been a member of the Society, off and on, for umpteen years.
You're just some staff person who has barely been there for any time. I have five times the experience with the Society that you do. Who do you think you are telling me I can't be an officer of the chapter anymore? You don't have that right. You wrote an e-mail to the chapter president telling him all this, and it's all b******. I insist that you immediately write a retraction e-mail and call me and apologize. Here is my number."

(I was really tempted to publish that number. By the way, sometimes we tape calls, and we have this one in all its glory.)

Please remember that the staff is here to help you. They are not here to hinder you or to make things harder. In 99 percent of such situations, all goes well. More often than not, the remaining one percent just wants to vent, blame someone else, or find a way around the policies. I ask those people to remember that our staff is doing all they can to help and support you. They want things to go smoothly, just as you do. So please, don't act like a jackass. The staff will thank you.

**A Special Thank You to Moen**

Wow, what a nice surprise! George Spear, Kristin Meyers, and Jamie Dalton from Moen recently came to our new building for a meeting, and they noticed that we have some very old plumbing fixtures, especially sink handles. They advised us to obtain touchless faucets, and even offered to send some. Of course we said okay, not thinking much more about it.

Yet a box arrived the other day, and in it were four of Moen’s touchless faucets. We’ll get them hooked up as soon as possible, thanks to the good people at Moen.

To Moen goes a special salute. They saw a need and didn’t wait for us to ask. We appreciate their proactiveness.

**A Few Extra Thank You’s**

At the 2009 Technical Symposium, the Dallas/Ft. Worth Chapter presented the Society with a plaque and a promise for a $5,000 donation to the ASPE Building Fund. The PCA (Plumbing Contractors of America) presented the Society with $2,500 for the fund. On the spot, John Nussbaum, president of the Eastern Michigan Chapter, handed over a personal check for $100, and Barry Pines presented us with a crisp $100 bill as personal donations.

Again, thank you to everyone who donates to the ASPE Building Fund.

**New ASPE Members**

Welcome to all new Society members. When you choose a chapter affiliation, you have twice the advantage. Not only can you be involved at the national level, you also can participate in chapter functions and programs. To all members, old and new, this is your Society. Your involvement enhances the plumbing engineering field as well as ASPE. Suggestions about how to make your Society more beneficial to both fellow members and all involved in the industry are welcome.

**Atlanta Chapter**
- Kim L. Cross
- Paul Gedrange, GE
- Bill Rittenger

**British Columbia Chapter**
- Ron Braun, PE
- Joseph Cheung

**Central Texas Chapter**
- Joseph David Evans
- Quang Huu Nguy

**Charlotte Chapter**
- Brian Wood Helms

**Connecticut Chapter**
- John R. Boudreau

**Denver Chapter**
- Armando Escalante
- Eugene Mitchell

**Eastern Michigan Chapter**
- Hank Duane Koppelo
- Damon Troy Pietraz
- Collin Schafer

**Houston Chapter**
- Ronnie M. Trahan
- Christopher David Young

**Intermountain Chapter**
- Darren T. Foster

**Kansas City Chapter**
- Anthony James Kerns

**Los Angeles Chapter**
- Reza Bahador
- Kyu Lee, GE
- Zay Y. Soe

**Member at Large**
- Glenn E. Kline

**Minnesota Chapter**
- Dan Hubbard
- Licia Allien Oligmueller, PE

**New York City Chapter**
- Michael DelForno
- Virginia Guillian
- Morton M. Hirsch, PE
- Reginald Lambert
- Lucky Ng
- Guy William VanDeVaart

**Northern California Chapter**
- Logan Brimer, PE

**Orange County Chapter**
- Chris J. Smith

**Overseas Chapter**
- Wai Kin Wong

**Philadelphia Chapter**
- Michael James Berry, GE

**Phoenix Chapter**
- Scott Danboise

**Pittsburgh Chapter**
- Christopher Vario

**Quebec Chapter**
- Francis Gelinas, GE

**Raleigh Chapter**
- Elton L. Smith, PE

**San Diego Chapter**
- Kevin Hastings, PE

**San Francisco Chapter**
- Assem H. Adas
- Ralph R. Bautista
- John Espinosa, PE

**Washington, D.C., Chapter**
- Matt Hinson, PE

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tation sharing. Chapter affiliation is the most convenient and effective strategy to remain abreast of current trends, code changes, and technologies affecting the plumbing engineering profession.

**ASPE RESOURCES FOR CHAPTER MEMBERSHIP VICE PRESIDENTS**

Each month, the ASPE Membership Department sends four reports to each chapter vice president of membership:
1. ASPE membership standings
2. Chapter roster
3. Chapter roster of new members
4. Chapter roster of dropped members

These reports are sent via e-mail in Excel format. A CD-ROM can be sent upon request. In addition, any chapter vice president of membership may request the following special lists unique to his or her chapter:
1. Nonmembers who have purchased a product or service from ASPE
2. Previous members who are no longer active
3. Supplemental lists of nonmembers and/or former members, such as individuals receiving *Plumbing Systems & Design* magazine and individuals interested in or already in the field of plumbing design

**REACHING OUT TO MEMBERSHIP—PAST, PRESENT, AND FUTURE**

Now that you have the means to contact the membership in your chapter, let’s look at the ways you can be effective. Remember, a chapter’s own members are the best source for finding prospects. As stated in the *ASPE Membership Recruitment and Retention Manual*, “Of special note are the affiliate members. The affiliates have broad contacts in the profession and are in contact with virtually anyone who does business in the plumbing engineering arena.”

**Build a Volunteer Core**

Help build a volunteer core of members within the chapter. This could be a growth and retention committee, who will call on, write to, or if needed visit a member whose dues will soon lapse. This committee also could help the membership vice president plan growth and retention programs. Be sure to involve all the chapter membership to solicit diverse ideas and think outside the box.

**Communications**

Regular communication with the chapter membership and with the Society is vital to maintain interest in what you’re trying to accomplish. The best way to do this is by attending the monthly meetings and getting involved with the chapter newsletter. Write an article about retention to solicit ideas and post those ideas for discussion.

**You Are What You Write**

We all are besieged with snail mail, phone calls, and e-mail. In deciding what form of communication to use, take into consideration who you are contacting and what you need to say. As stated in the *ASPE Membership Recruitment and Retention Manual*, “The key to communications success is for the material to command immediate attention and entice the targeted individual or group to read the material. The best communication is one that is personal and direct. Even more important is the message that provides the catalyst for the recipient to take positive action steps. Try this: If you think the membership material or written communication is ready to be distributed, have someone who is not a member and someone who is not in the profession go over the material. Take all criticism as useful.”

I am lucky—when possible, my wife proofreads what I write.

**Themes**

Themes are an important way to push ideas, concepts, and programs across a vast array of members. “Themes help build excitement and interest in the membership (and retention) campaign, in the Society, and the chapter. A theme will often provide the necessary incentive to attract or interest the recipient. … Be sure the theme is consistent, has one message, and is fully integrated into the membership (retention) campaign letters, newsletter, website, chapter meetings, and all other written materials and events.”

**Membership Recruitment Communiqué**

Even though letters often are considered a slow form of communication, we sometimes have the need to write on paper. As stated in the *ASPE Membership Recruitment and Retention Manual*, “The membership recruitment letter should incorporate the essential ingredients to ensure a successful recruitment campaign. First, you will need to include material that will inform the individual as to why they need the Society and the chapter. When writing a recruitment letter, consider the prospect’s viewpoint. If you were the prospect, what would you want from the Society and the chapter? Second, the letter needs to somehow induce the perspective member to open the envelope and to read the enclosed material. To achieve this, write in a clear, simple, upbeat, and positive style that offers up the benefits and value of joining the Society and the chapter.”

The *Membership Recruitment and Retention Manual* contains quite a few membership recruitment letters to help you decide the best communication tool for your needs.

**Membership Retention Communiqué**

As I have mentioned in my newsletters and in the beginning of this article, retention is imperative. It is a process in which all ASPE members should be involved. “The retention process begins as soon as a member joins and is the responsibility of all chapter officers. Membership retention depends on myriad factors—chapter technical programs, chapter newsletter, the opportunities to meet and make professional and business contacts. … Not every ASPE member renews automatically—some require additional persuasion and personal attention. There are hundreds of approaches to writing a renewal letter. Should you focus on the loss of benefits for not renewing? Should you concentrate on the benefits of renewing? Surprisingly, a large number of delinquent members need only a simple reminder to pay their dues, a phone call, or a simple e-mail. … There is no one perfectly right way to convince a member to renew his/her membership. … The first most effective communication tool will be to direct the letter to the member’s needs concerns, interests, and professional career advancement. The second most effective communication tool is a letter that provides a strong, positive, and honest intent.”

The *Membership Recruitment and Retention Manual* contains quite a few membership retention letters to help you.

**THE MANTRA**

In the *Membership Recruitment and Retention Manual* is a vice president, membership mantra. I say this should be the mantra for all chapter board members and ASPE members alike.

- The member is the most important person in the Society and in my chapter.
- Members are the reason there is a Society; without them, we’d close our doors.
• The members are not dependent on us; we are dependent on the members.
• Each member does us, the Society, and the chapter a favor by joining; I am not doing him/her a favor when I don’t accommodate his/her needs.
• Members are the Society; they are not outsiders.
• The only way for the Society and the chapter to keep its members is for everyone to provide the best service.
• As I deal with each member, I will pay attention to him/her as though he/she was the only member.
• I will treat all members equally, no matter what their race, sex, religion, or nationality.
• To barely or merely meet a member’s needs and requirements will result in the loss of that member.
• It is my job to help make a member’s life easier.
• I will under-promise and over-deliver to each chapter member.
• I will take personal responsibility for satisfying each chapter member.
• Members aren’t dollars; they are human beings with feelings, like my own.
• A member comes with needs and wants; my job is to help fill those needs and wants.
• I will never make negative comments about a member to another member.
• I will never gossip about a member to another member.
• I will demand success from my actions.
• I will not merely be satisfactory; I will excel.

• I will continually battle inefficiency, mediocrity, and inattention.

CHECKLISTS
I am not sure how many of you know, but I recently received my pilot’s license. For anyone who has taken the classes, flown the necessary hours, and received his ticket, you know one of the most critical things to learn is checklists. In the ASPE Membership Recruitment and Retention Manual is a chapter vice president, membership material checklist that you absolutely must check out.

ASPE MEMBERSHIP COMMITTEE
When I was elected to the office of vice president, membership, I decided to utilize the standing Membership Committee to its fullest extent. I asked Brian Salisbury to be the membership chair, and to date there are three committee members, two from Region 1 (Juan Rojas and David Bailey) and one from Region 4 (Jeff Reed). I need two members from each region, so if you would like to get involved please contact either myself (aspevpm@aspe.org) or Brian (bsalisbury@rmcotton.com), and we would be glad to welcome you.

CREDIT WHERE CREDIT IS DUE
I know I have referred to the Membership Recruitment and Retention Manual consistently in this article, but the information inside this manual is exactly on point and I feel no need to reinvent the wheel while having such a well-written manual with which to work. I need to give credit where credit is due, so my thanks to Stan Wolfson, ASPE executive director, and his staff for their work on the Membership Recruitment and Retention Manual.

Membership Report
Tired of not knowing if your imported pipe meets the standard? **HAVE NO FEAR!**

Rosco’s cast iron pipe-sniffing dogs are here!

**THE K-9 NOSE KNOWS:**

1 **BARK** means it meets the standard.
2 **BARKS** mean it’s questionable.
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Our highly trained pipe-sniffing dogs can be rented by the hour. Guaranteed to tell you if your imported cast iron meets the standard.

For more information: Call 1-877-K9-SNIFF OR Visit RoscosDogs.com
Are You Taking Advantage of ASPE’s Educational Programs?

BY DIANE WINGARD, CPD, ASPE 2008–2010 VICE PRESIDENT, EDUCATION

In the past few years, ASPE has taken full advantage of the Internet to provide educational materials for our members and nonmembers. The most successful program is our webinar series. Webinars are broadcast live with the option of obtaining CEUs or PDHs. Some are sponsored by manufacturers, allowing ASPE to provide them for free to the membership. Others are pay-per-view events with discounted rates for members, and nonmembers are encouraged to join ASPE to get the discounted rate.

The first webinar aired January 9, 2008. Larry Oliver presented “Green Building: Sustainable Plumbing System Design and the Plumbing Codes,” which was sponsored by Sloan Valve. This was the beginning of what is now a library of 12 archived events. Subsequent webinars covered siphonic roof drainage, green opportunities in medical gases, water heater sizing, grease interceptor sizing, LEED points strategies, natural gas and propane sizing, graywater systems, fire suppression using clean agents, and how to become an expert witness. Sponsors have included Jay R. Smith, Armstrong Hot Water Group, and Bradley Corp.

Once a sponsored webinar has been archived on ASPE’s website, members can view it as many times as they want. Being able to access the files as the need arises is a great benefit to our members. The beauty of the archived version is that members can use these webinars as refresher courses to reference over and over again at their leisure.

Work is progressing on the 2010 series. With the success of the program, we are planning 11 webinars next year.

Many paid webinar participants share the webinar with others in their offices. However, since only the registered participant receives the CEUs/PDHs, we strongly encourage other viewers to register so they also can earn continuing education units.

Webinars are only a portion of the ASPE online educational experience. A series of PowerPoint programs also has been developed. Available to date are PowerPoints on structural adhesives, fuel gas systems, foam systems, venting systems, construction administration, solar water heating, fire pump design and testing, defective trap seal identification, water reclamation, and water purification.

Also available are the audio files from the 2008 ASPE Convention technical programs. The 32 sessions include quizzes for those needing CEUs/PDHs.

ASPE is realizing its goal of making educational material for members and nonmembers readily available. The prices for the products are very affordable compared to other educational providers.

Education never stops. The Education Committee now is working to include the technical sessions from the 2009 Technical Symposium and already has started on more PowerPoint presentations, and ASPE Director of Education Cliff Reis is planning the next batch of webinars. The demand for material is huge, but ASPE is up to the challenge of providing our members with high-quality products.

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What Is a Fellow?
The ASPE Fellow program recognizes Society members of established reputation who have made significant, sustained contributions to the plumbing engineering and design profession, the Society, and/or the plumbing industry in the areas of contracting and manufacturing. A member conferred as an ASPE Fellow shall retain the designation as a lifetime honor.

Who Is Eligible to Become a Fellow?
Nominees must be either life members of the Society or current members of ASPE with membership in good standing for the past 10 consecutive years. Priority shall be given to members who have contributed to the plumbing engineering, design, contractor field, or the plumbing industry for a decade or more after receiving their PE or CPD. Becoming an ASPE Fellow is based on accomplishments and contributions.

How Are Fellows Selected?
In selecting Fellows, the Fellows Selection Committee evaluates the significant and sustained contributions of each nominee. Criteria to be considered include:
• ASPE chapter and Society growth
• ASPE chapter and Society leadership
• Technical and practical research in the field of engineering, with emphasis on plumbing engineering and design
• Engineering technical accomplishments by or for ASPE or other related organizations (as evidenced by publications, awards, or similar)
• Intellectual and leadership contributions in the advancement of education programs for the profession and industry
• Championing of local, state, or federal legislation, including codes
• Advancements and contributions in the theory or practice of plumbing engineering, design, contracting, or manufacturing, including education and academia

How to Nominate Someone for the College
Any ASPE member may nominate any other member to be a Fellow candidate; however, a member cannot nominate him/herself. A nominator must complete the nomination form and find two additional members who are willing to complete the reference form or write letters of reference. (The nominator also must complete a reference form for his/her candidate). The nominator or one of the people providing a reference must be an ASPE Fellow who is a current member in good standing of the Society.

Deadline
Nomination forms and all reference materials must arrive at the ASPE office, marked ASPE FELLOW, by January 15, 2010. Any incomplete nominations/applications or missing reference material will invalidate the candidate; no material received after this date will be accepted.

Where Forms Can Be Found
Visit www.aspe.org to find more information about the College and download the nomination and reference forms.
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Proximity™ Sensing Technology is the next generation in responsive hands-free functionality that contributes to water efficiency. This revolutionary technology transforms the entire faucet into a sensor, automatically responding when approached. There are no optics or infrared to maintain. All backed by the industry’s best 5-year limited warranty. Another way that Delta is more than just a faucet.

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