

ASPE NEW YORK CITY CHAPTER news

JANUARY 1, 2010

VOLUME 37, NO. 5

CIRC 415

2009/2010 N.Y.C. CHAPTER BOARD OF OFFICERS

President - Leon Perkolaj, P.E.

AKF Engineers

1501 Broadway, Ste 700, New York, N.Y. 10036

T: (212) 354-5656 F: (212) 354-5668

Technical V.P. & Newsletter Editor -

Philip Parisi Jr., P.E.

Jaros, Baum & Bolles Consulting Engineers

80 Pine Street, N.Y.C., N.Y. 10005

T: (212) 530-9409 F: (212) 269-5894

Legislative V.P. - Vincent Rotoli, C.P.D.

Jaros, Baum & Bolles Consulting Engineers

80 Pine Street, N.Y.C., N.Y. 10005

T: (212) 530-9410 F: (212) 269-5894

Membership V.P. - Marco Barbera, P.E.

Woods & Jaye, Sales Co.

33-09 37th Avenue, Long Island City, N.Y. 11101

T: (718) 786-8260 F: (718) 786-5393

Treasurer - Rick Sorvillo, C.I.P.E., C.P.D.

Port Authority. Trans Hudson Corp.

One PATH Plaza, 7th Flr, Jersey City, N.J. 07306

T: (201) 216-6206 F: (201) 216-6493

Administrative Sec. - Salvatore Rachiele

Joseph R. Loring and Associates, Inc..

21 Penn Plaza, 14th Flr., N.Y.C., N.Y. 10001

T: (646) 674-6115 F: (212) 563-7382

Correspondence Sec. - Jared Donnhammer

AKF Engineers

1501 Broadway, Ste 700, New York, N.Y. 10036

T: (212) 354-5656 F: (212) 354-5668

SUPPORT STAFF

ASPE/ASSE & Affiliate Liasion

Robert Zeuner

Edwards, Platt & Deely

368 Wyandanch Ave., North Babylon, N.Y. 11703

T: (631) 253-0600 F: (631) 253-0303

ASPE Monthly Meeting

Speaker: Jason Janz from

Takagi Tankless Water Heaters

Topic:

Sustainable Energy & Efficient Design of Tankless Water Heater Technology in Commercial Apps

Date:

Wednesday, January 6, 2010

Location:

*Heartland Brewery Chop House
127 West 43rd Street*

Between 6th Ave and Broadway

Time:

Social 5:15 pm - 6:30 pm

Technical Session

6:30 pm - 8:00 pm

Sponsor:

Altherm Inc. and

Takagi Tankless Water Heaters



The ASPE NEWS is a publication of the New York City Chapter of the American Society of Plumbing Engineers. The Society or Chapter assumes no responsibility for any advertisements, statements by any officer or member which may be construed as an approval or disapproval, or official position of the Society, of the material contained herein. Local Chapters are not authorized to speak for the Society.



AMERICAN SOCIETY OF PLUMBING ENGINEERS

NEW YORK CITY CHAPTER

P.O. BOX 293, GRAND CENTRAL STATION

NEW YORK, NEW YORK, 10163



ATTENTION

all 35' & 30' High Buildings
The Best Sprinkler to Install

THE N252 EC

**FM
APPROVED**



Extended Coverage with No In-Rack Sprinklers
Huge Savings on Materials & Labor

Covering Solid-Pile, Palletized and Single, Double, Multiple Row
Racks for Class I-IV and Cartoned Unexpanded Plastics

Building Height: 30' Storage Height: 25' Coverage: up to 196 sq ft (14x14')

K-14.0 ESFR	K-16.8 ESFR	K-25.2 ESFR	K-16.8 CMDA	Ultra K-17	N252 EC
100 sq. ft.	100 sq. ft.	100 sq. ft.	100 sq. ft.	100 sq. ft.	196 sq. ft.
50 psi	35 psi	15 psi-UL 20 psi-FM	22.7 psi (.80)	22 psi	30 psi
12 sprinklers	12 sprinklers	12 sprinklers	2000 sq. ft.	15 sprinklers (1500 sq. ft.)	6 sprinklers (3 sprinklers on 2 lines)
1200+ gpm	1200+ gpm	1200+ gpm-UL 1352+ gpm-FM	1600+ gpm	1200+ gpm	Sys. demand 828+ gpm
250 gpm HS	250 gpm HS	250 gpm HS	500 gpm HS	500 gpm HS	250 gpm HS

FEB. 2009

**NEW FM
RULING
IMPROVED
FLOWS**

Building Height: 35' Storage Height: 30' Coverage: up to 144 sq ft (12x12')

K-14.0 ESFR	K-16.8 ESFR	K-25.2 ESFR	N252 EC
100 sq. ft.	100 sq. ft.	100 sq. ft.	144 sq. ft.
75 psi	52 psi	20 psi-UL 30 psi-FM	40 psi
12 sprinklers	12 sprinklers	12 sprinklers	8 sprinklers (min. of 1200 sq. ft.)
1455+ gpm	1452+ gpm	1352+ gpm-UL 1656+ gpm-FM	Sys. demand 1275+ gpm
250 gpm HS	250 gpm HS	250 gpm HS	250 gpm HS

**NEW FM
RULING
IMPROVED
FLOWS**

- Wet Pipe or Pre-action Systems (when they meet the equivalency of a wet system).
- Approved for Non-combustible Obstructed Construction.
- Refer to Reliable Bulletins 008 & 908 for more information.
- Refer to FM Global's Data Sheets 2-8N, 2-2 & 8-9 for installation and design of CMSA and extended coverage sprinklers.

**PATENT
PENDING**

Reliable

TECHNOLOGY • QUALITY • SERVICE

1.800.431.1588

www.reliablesprinkler.com

The Reliable Automatic Sprinkler Co., Inc.
Manufacturer & Distributor of Fire Protection Equipment



**AMERICAN SOCIETY OF PLUMBING
ENGINEERS
NEW YORK CITY CHAPTER**

From the President's Desk

Dear Members:

Thank you for making the New York City Chapter what it is. The Holiday Party was an event that I won't soon forget and all of you are the reason for that - 151 attendees! Trust me, even if you didn't attend you was there due to the fact that your colleagues and friends were either thinking of you or were dropping your name, in the nicest way possible of course.

The swearing in of the new Board was performed by none other than past president Mr. Hershel Weiss. We, the new Board that is, mumbled our responses to the oath and our way into legality. Rick Sorvillo presented Hershel with a plaque in gratitude for his service as outgoing president. Well deserved, thank you again Hershel. Stephanie Giorgio, Peter Ralph Lantin, and Ernest Gallo were presented reimbursement checks by none other than Marco Barbera, who had a swearing in ceremony of his own, in honor of Vincent Rotoli's excellent suggestion for dues reimbursement. That suggestion has resulted in a more design professionals joining ASPE. This benefits everyone in the long run. Professional contacts can help in a myriad number of ways; anyone who's been in this business for some time can attest to that.

My thanks go out to those vendors and manufacturer's representatives who brought gifts that were raffled off at the party; Dellon Sales, GA Fleet, PVI and Active Fire Sprinkler. Morty Hirsh was too generous – he literally brought enough wine for everyone. There was some left over and it will be distributed at the January meeting. If I have forgotten anyone who brought gifts please remind me and I will be sure to mention it - I may have been too busy trying to get a mini burger. In all seriousness your generosity is a testament to the profession and the spirit of those who practice it. I cannot thank you all enough.

This may get to you after the Holidays and the start of 2010. If that is the case I hope that your Holidays were happy and that your celebrations for the New Year were filled with joy and epic thoughts for the coming year.

Best Regards,

Leon Perkolaj, P.E.

NIBCO®

AHEAD OF THE FLOW

NIBCO, the recognized leader in the valve industry for over 50 years, is and will continue to be a reliable solution for your valve specification needs. Privately held, NIBCO is a domestic manufacturer of a full line of high quality Gate, Globe, Check, Ball, and Butterfly valves for Commercial Industrial and Fire Protection systems. Continually increasing investment in capacity, manufacturing and state of the art business systems allows NIBCO to meet and exceed your valve specification needs today and into the 21st century. For online valve selection and specification guides, visit our website at www.nibco.com.

NIBCO INC.

Craig Mulvaney

Regional Director-Valves & Controls

VM: 800.234.4642 ext. 8063

FAX: 800.234.0557

email: mulvaney@nibco.com

The Broad Range of NIBCO Products Includes:



- Ball Valves**—one, two, three piece styles, threaded, solder, socket, butt weld end, med gas
- Bronze, Carbon, Stainless bodies (¼"-3")
 - Flanged Carbon and Stainless bodies (½"-12")



- Butterfly Valves**—lug, wafer, flanged, grooved
- 2"-48"
 - 150, 200, 250, 285 and 300 PSI ratings
 - High Performance Butterfly Valves
 - Bubble tight dead end service at full pressure rating



- Gate, Globe, Check & Angle Valves**
- Bronze, Cast Iron, and Ductile Iron bodies
 - Bronze/stainless/alloy trims
 - Class 125, 150, 200, 250, and 300



- Fire Protection Valves**—NYC MEA/BSA & ULFM Approvals, AWWA
Actuation & Controls Pneumatic and Electric

Circuit Balancing Valves

- Threaded, Solder (½"-2")
- Flanged, Grooved (2½"-12")



For more information, visit us at: www.nibco.com

SPEAKMAN® INNOVATIVE PLUMBING SOLUTIONS

Wales-Darby
2910 EXPRESS DRIVE South
ISLANDIA, NY 11749
Phone: 631.585.6800

SPEAKMAN®

Absolutely the best.

www.speakmancompany.com/engineering
sales@speakmancompany.com



Low Flow
Shower Systems
GREAT PERFORMANCE AND
SAFETY AT LOW FLOWS



Vandal Resistant
Sensor Faucets
ALL-IN-ONE FAUCET -
ALL COMPONENTS ABOVE COUNTER



Combination
Eyewash Faucets
TWO PRODUCTS - ONE INSTALLATION -
100% COMPLIANT



Battery-Operated
Flush Valves
EASY INSTALL - SIMPLE
MAINTENANCE - ALWAYS FLUSHABLE



No Lead
Commercial Brass
WE GOT THE LEAD OUT



December Meeting Minutes

December Holiday Party Meeting Minutes

Submitted and written by: Salvatore S. Rachiele

Minutes from the December 2, 2009 meeting of the NYC Chapter of ASPE.

ASSE President Dominick Agostino welcomed and greeted everyone. Dominick then introduced NYC ASPE President Leo Perkolaj who thanked everyone for making the New York City Chapter what it is and joining us this evening. Leon thanked the board for all their hard efforts in the preparation of the holiday party. Leon then introduced Past ASPE President Hershel Weiss who then conducted the installation of the new NYC ASPE officers. The officers are President: Leon Perkolaj, Vice President Technical: Phil Parisi Jr., Vice President Legislative: Vincent Rotoli, Vice President Membership: Marco Barbera, Treasurer: Rick Sorvillo, Administrative Secretary: Salvatore Rachiele, Correspondence Secretary: Jared Donnhammer.

Rick Sorvillo presented Hershel with a plaque in gratitude for his service as outgoing president.

Marco Barbera was introduced. Marco issued reimbursement checks to Stephanie Giorgio, Peter Ralph Lantin, and Ernest Gallo.

Steve Jaye of Woods and Jaye, presented a speech remembering his partner Dick Woods and we all toasted him.

ASSE President Dominick Agostino presented Quarter Century Club Awards to: 25 years Bob Zeuner, 25 years Derek Smith and 35 years Tom (Gaetano) DiPietro.

Best Regards,



Salvatore S. Rachiele

**AMERICAN SOCIETY OF PLUMBING ENGINEERS
NEW YORK CITY CHAPTER**





CULLEN
HUGH J. CULLEN ASSOCIATES

Factory Authorized Distributors for



WWW.CANARIIS.COM



UL Listed Packaged Pumping Systems

Canariis Corporation is a UL listed Packaged Pumping System manufacturer. Every packaged pumping system manufactured is electrically, hydrostatically and flow tested at job conditions prior to shipment. The manufacturing and testing is designed to assure ease of installation, simplified start-up procedures, and many years of trouble free service.

HUGH J. CULLEN ASSOCIATES

10 MEMORIAL DRIVE NEPTUNE, NJ 07753 T 732.988.9600 | F 732.988.3750



CULLEN
HUGH J. CULLEN ASSOCIATES

PACKAGED PUMPING STATIONS

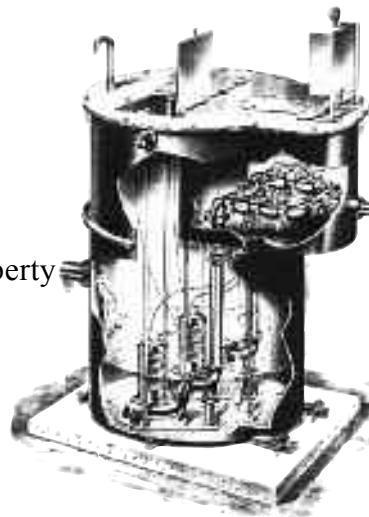
Sales | Service | Rentals

T 732.988.9600 | F 732.988.3750

PUMPS: Centrifugal, Trash, Diaphragm, Submersible, Booster Systems

Repairs | Service

- A.B.S., Allied, Allis Chalmers, Alyan, ANi, Armstrong,
- AURORA, B&G, BJM, Barnes, Boydco, Burks, Canariis, Chicago,
- Clow, Corcoran, Davis, Deming, Domestic, EMU, Ebara,
- Environment One, Fairbanks Morse, Federal, Flygt, Flo-Pak, Fybroc
- Gorman-Rupp, Hydr-o-matic, Ingersoll Rand, Goulds, Grundfos, Liberty
- Ketcham, Marlow, Myers, Pacific, Paco, Swaby, Syncroflow
- Warren, Weil, Weinman, Worthington, Yeomans

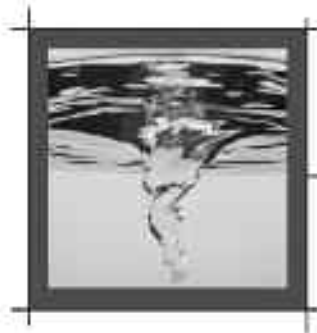


Sales | Design | Service | Fast Free Estimates

732.988.9600 Call Today!

WWW.CULLENASSOCIATES.COM

10 MEMORIAL DRIVE NEPTUNE, NJ 07753



woods & jaye sales co., inc.
intelligent plumbing sales

*The Smart Choice for Service.
The Source for Quality in All your Specifications.*

*Professionals who demand the best and need quality results in every project
RELY ON THESE FINE MANUFACTURERS.*

SMITH



CUSTOMER
DRIVEN

Specification Drainage Products, Polymer
Concrete and Fiberglass Surface Drainage
Systems, Oil-Water Separators



Armstrong

Intelligent System Solutions
STEAM • AIR • HOT WATER

High Efficiency Commercial
Water Heaters and Exchangers
Thermostatic, Electronic, and Digital
Temperature & Mixing Valves



Haws
corporation

Drinking Fountains &
Electric Water Coolers



Water Hammer Arrestors
Trap Primers and
Water Distribution Valves



Pipe Coupling Systems for Hubless
Pipe and Fittings



Kindred Commercial
A full range of stainless steel sinkware,
urinals and washroom accessories



Support Systems for Rooftop
Pipe, Conduit and
Mechanical Equipment



Plastic Sleeves for Forming
Holes in Concrete



INNERLYNX - Pipe Sleeves
and Seals



Water Leak Alarm w / Automatic Water
Shutoff Valves

METCRAFT

Stainless Steel Security and Hospital
Fixtures and Accessories



INTERSAN

Wash Stations, Modular Lavatory
Systems and Wall Showers

pipe-tytes, Inc.

Specialty Products for
the Building Trade



Innovative Fire-stopping and
Waterproofing Systems



Warm Air Hand Dryers



Cast Iron Solvent, Fully-Vented Drainage,
Waste & Vent Plumbing System



Corrosion Resistant, Silicon Iron
Drainage Pipe

Service, Quality, and Expertise Trusted for Over 40 Years!

33-09 37th Avenue, Long Island City, New York 11101 • Tel: 718-786-8260
Fax: 718-786-5393 • E-mail: sales@woodsnyjaye.com • www.woodsnyjaye.com

THE TOTO THEORY OF SUSTAINABILITY

$$E = H_2O$$

SIMPLY REVOLUTIONARY



EcoPower™ Flush Valve



EcoPower™ Faucet

SELF-GENERATING HYDROPOWER.
A SIMPLE STATEMENT IN SUSTAINABILITY.

EcoPower™ Flush Valves and Faucets put water to work – supplying the very energy they consume. The flow of water spins the high efficiency turbine to both create and store power. Because each turn of the turbine powers and re-charges the EcoPower™ system, TOTO has eliminated the need for hard-wiring or routine battery replacement. It's that simple. It's that revolutionary. It's that sustainable.

TOTO U.S.A., Inc.
25 Mercer St.
New York, NY, 10013
917.237.0665

www.totousa.com



Remarkable Control... Safety Sensitive

TEMPERING VALVES FOR DOMESTIC HOT WATER APPLICATIONS

When precise water temperature control is critical, Heat-Timer's Tempering Valve is the solution

This valve provides the most accurate water temperature under all conditions, even at very low flows with as little as a 1 PSI pressure drop. And this accuracy can be achieved with the valve installed in any position, vertically, horizontally, or diagonally.

Heat-Timer's Tempering Valve is ideal for any application where domestic hot water must be controlled at all times and under all conditions.



Temp Valve

When water temperature control and convenient operation are needed, the ETV delivers

This electronic tempering valve accurately regulates water temperature for a wide variety of applications. The large, easy-to-read display and user-friendly adjustment module can be located conveniently, up to 500 feet from the valve. This allows outlet water temperature to be monitored at a glance and for the temperature to be adjusted without having to access the valve piping.



ETV

When temperature monitoring is critical, the TMC brings greater peace of mind.*

In addition to providing an alarm whenever temperature reaches a critical point, when incorporated with a solenoid valve, the TMC effectively interrupts system activity until the problem is resolved.

For more information call a Heat-Timer representative.



TMC



20 New Dutch Lane, Fairfield, NJ 07004 • 973-575-4004 • Fax 973-575-4052 • <http://www.heat-timer.com>

SPONSOR RATES
N.Y.C. ASPE NEWS

(10 ISSUES)

Sept. 2009 thru August 2010

Note: Full Summer Issue!

New Sponsors are pro-rated!

1 7/8" x 3 1/4" --- \$250.00

3 3/4" x 3 1/4" --- \$450.00

3 3/4" x 6 3/4" or

7 3/4" x 3 1/4" --- \$750.00

HALF PAGE --- \$1,200.00

FULL PAGE --- \$2,250.00

One Time Single 8 1/2" x 11"
insert flyer --- \$250.00

(Sponsor provides the insert)

Call Philip Parisi for additional
info at (212) 530-9409.

SPONSOR'S
CORNER



If you are interested in sponsoring a meeting, give Jared Donnamiller a call at (212) 354-5656 for all of the details.

ASAD SALES
ASAI CORP.

201 Montrose Road, Westbury, N.Y. 11590

T: (516) 333-4488 F: (516) 333-9486

www.asadsales.com

ACORN ENGINEERING

Prison Fixtures, Wash Fountains,
Stainless Steel Plumbing Fixtures,
Patient Care, Terrazzo, Scrub Sinks

ACORN VAC

Vacuum Plumbing Systems

ACORN AQUA

Drinking Fountains, Water Coolers,
Murdock Hydrants

CHROMOMITE HEATERS

Instant Hot Water Heaters

ELMDOR MANUFACTURING

Access Doors & Roof Flashings

ERICO

Pipe Support Systems

HOMESTEAD VALVES

Lubricated Plug Valves,
Eccentric Valves

HOT BOX

Engineered Enclosures for Backflows
& Pumps

MERIT BRASS

Brass, Stainless & Chrome
Fittings, Nipples, & Pipe

MILWAUKEE VALVE CO.

Bronze, Iron, Steel, Gate, Globe,
Check, Butterfly, Butterbal, FP
Valves, Actuation

MISSION HEAVYWEIGHT
COUPLINGS

Heavy Duty No-Hub couplings

NAPAC INC.

Industrial, Plumbing and Fire
Protection Fittings

O.C. KECKLEY CO.

Steam & Liquid Control Valves,
Strainers

POTTER ROEMER

Fire Protection Equipment

VIEGA / VANGUARD

Radiant Heat, Snowmelt,

Fosta-Pex, Viega Pex,

Manabloc Manifolds

WHITEHALL

Hydrotherapy and Health Care
Products

ZURN IND. / WILKINS

Backflow Preventers, Control Valves,
Regulators

ZURN IND. / AQUA-SPEC

Complete Line of Comm. Faucets

ZURN IND. / AQUA-FLUSH,
AQUA-SENSE

Flush Valves & Sensor Products

ZURN IND. / TEMP-GARD

Pressure Balancing Shower Valves
and Faucets

ZURN IND. / FLO-TRU

Trench Drain Products

ZURN IND. / DRAINAGE

Spec. Drainage & Support System

ZURN IND.

Corrosive Waste Drainage Systems

ZURN COMMERCIAL FIX-
TURES

Low Consumption Plumbing Fixtures
to meet LEED

requirements in addition to traditional
Commercial products.

Pumps

KETCHAM
PUMP CO.
INC.

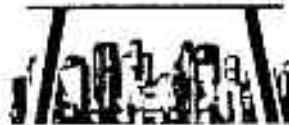
Sales and
Service

34-20 64th St.
Woodside, N.Y.
11377

T: (718) 457-0800

F: (718) 672-1408

Our 105th Year



40-25 Crescent Street
Long Island City, NY, 11101
(718) 729-4900

FAX (718) 428-0661

OUR 135TH YEAR
WOOD & STEEL TANKS
STEEL STRUCTURES
ASME U & R STAMPS

ZURN AQUA-SPEC
COMMERCIAL-
FAUCETS

offer lead-free design with a
quarter turn disc cartridge.
Styles include, lavatory labora-
tory, service sink, metering
and kitchen
faucets along
with health care
and medical
products for the



Represented by:

ASAD SALES
ASAI CORP.

201 Montrose Road,
Westbury, N.Y. 11590

T: (516) 333-4488

F: (516) 333-9486

commercial and institutional
markets. Features include
a high quality
nickel/chrome finish,
ADA code compliancy, and
complete interchangeable with
Chicago Faucet.

PLATSKY CO INC.

T: (516) 333-9292

298 Montrose Road, Westbury, N.Y. 11590

F: (516) 333-9446

BRASSCRAFT MFG. CO.: Supplies & Stops, gas connectors,
shr. hds, comp. & flare ftgs, ADA Compliant

BRIGGS PLUMBING FIXTURES:

Residential & ADA Products

CHARLOTTE PIPE & FOUNDRY CO.: Extra Heavy, Service
Wgt & No-Hub CI Pipe & Ftgs, Couplings, PVC Pipe & Fittings,
DWV, ABS, Sch. 40, Sch. 80, SDR 35

ELKHART PRODUCTS: Wrot Copper & Cast Fittings

Sinks, Mop Basins, ADA Compliant,

Express Press, Push-on Copper Fittings

IPS CORPORATION: Washer Boxes, Studor Vent

LASCO: Fiberglass & Acrylic Tubs, Showers, Bases, Whirlpools,
ADAAG; ANSI code Complying Barrier Free & assisted care
units

LITTLE GIANT: Sewage, Effluent, and Sump Pumps

WARD MFG. : Malleable & CI Steam & Drainage Fittings

HENRY QUENTZEL

Plumbing Supply Co.

Pipe-Valves-Fittings and
Fabrication for Water Mains, Fire
Sprinkler & Standpipe,
HVAC & Plumbing.
Stocking Distributors.
NYC's Largest Stock of
Mech'l Joint & CI P-V-F

- VICTAULIC
- NIBCO
- STOCKHAM
- MILWAUKEE
- CHARLOTTE
- DRESSER
- FEBCO
- WATTS
- WILKINS
- NEPTUNE METER
- FORD METER BOX

"NEXT DAY
DELIVERIES TO
THE NYC METRO
AREA AND L.I."

CERTIFIED W.B.E. NYS

Andrew Quentzel
379 Throop Ave., Bkln, NY, 11221
T: (718) 455-6600 F: (718) 919-8579
www.quentzel.com

EDWARDS PLATT & DEELY, INC.



368 Wyandanch Ave,
West Babylon, N.Y., 11703

T: (631) 253-0600

F: (631) 253-0303

www.epdreprs.com

BEMIS / CHURCH - Toilet Seats
CHICAGO FAUCET - Institutional, Lab &
Food Service

DORMONT - Gas Connectors
GUARDIAN EQUIP. - Safety Equipment
HALSEY TAYLOR - Water Coolers
JUST MFG. - Stainless Steel Sinks
ORION - Acid waste piping systems
POWERS - Thermostatic / PB
Mixing Valves

SLOAN - Flush Valves
STATE/AMERICAN - Res./Com. Wtr Htrs
WATTS - Backflow Devices, Ball Valves,
Regulators, ACV's

WATTS - Closet/Lavatory Carriers,
Drains, & Spec'n Plbg Equip
WILLOUGHBY - Penal / Patientcare Fixt.
ZOELLER - Sewage / Sump Pumps

We're Throwing Something New Into The Mix.

Presenting The Full Line Of Thermostatic Mixing Valves From Watts

Next time you specify a thermostatic mixing valve, ensure the water temperature is safe with the new Watts mixing valves. These bronze and brass bodied valves offer precise

temperature control and high reliability. The Watts L11 and MMV mixing valves are ASSE 1016 list for single-fixture applications, with the capacity to service multiple fixtures. They can be preset to any temperature between 60° F and 120° F and can be wall mounted or cabinet mounted at point of use. They also feature a tamper-resistant cover for added security. For supply applications, Watts offers the Model 1170. It can be preset between 100° F and 180° F. Designed to meet ASSE 1017 requirements, it features the same superior engineering as our point-of-use valves. For a more reliable, longer-lasting mixing valve, be sure to specify Watts.



**WATTS
REGULATOR**

Represented by:

Edwards Platt & Deely, Inc.

369 Wyandanch Ave, N. Babylon, N.Y., 11703
T: (631) 253-0600 F: (631) 253-0303



Engineered Water Heating Solutions

ASME WATER HEATERS

- **Any Energy** - Gas, Oil, Gas/Oil Electric, Steam, and Hot Water (plus any combination of two energies in the same tank including solar and waste heat)
- **Any Recovery** - Inputs range from 140,000 to more than 5 million Btu/h
- **Any Capacity** - Instantaneous, semi-instantaneous or storage heaters with tanks capacity up to 4500 gallons
- **Any Efficiency** - From the current ASHRAE minimum of 80% all the way up to 99% thermal efficiency with gas (and at full fire!)
- **Unsurpassed Anti-corrosion Technology** - Removable, solid-bronze tank connections, electronically tested and continuous tank linings, PTFE-coated heat exchangers, and more! Absolutely no "glass" linings and absolutely no anode rods!
- **Long Comprehensive Warranty Coverage** - Tank warranty coverage available from 5 to 20 years and includes failure due to scale buildup (scale warranty does not require inspection and/or maintenance, or link water conditions)



Commercial Boiler Systems and Controls



Centauri® Plus Condensing Boilers
1,500,000 • 1,800,000 • 2,000,000 Btu

- Up to 99% thermal efficiency at low fire with low return temperature
- Patented inward fired burner technology capable of NOx less than 10ppm and turndown of 20-to-1
- No minimum flow rate
- Complete integration in VFD loops
- No minimum return water temperature
- Complete integration into outdoor reset and low temperature heating loops
- Direct vents for up to 100 equivalent feet through 6-inch diameter

PVI NEW YORK SALES

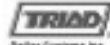
KURT HAZARD, Mgr.
(203) 270-7227
Fax: (203) 270-7337

MITCHELL CASTELL
(516) 756-1708
Fax: (516) 756-3003

HYDRAE PRODUCTS
WATER HEATERS
AIR SYSTEMS
VALVES
RADIANT HEAT &
SHEW-WALTY SYSTEMS
AQUAPLEX®
PLUMBING PIPE SYSTEMS
AQUASAP™ RESIDENTIAL
FIRE PREVENTION SYSTEMS
HIGH-EFFICIENCY BURNER SYSTEMS
SOLE HEATING SYSTEMS
AIR CONDITIONING SYSTEMS
CONVECTORS
BASEBOARD RADIATION
GAS/PROPANE UNIT HEATERS
RECREATIONAL HEATERS
CABINET HEATERS/CONVECTORS
PIPING ACCESSORIES
EXPANSION TANKS
ANALYZERS & MONITORS
HEAT RECOVERY VENTILATORS
CLEAN AIR FRESHENERS/CLEANERS
TEMPERED FLEXIBLE GAS PIPING
PRESSURE BOOSTER SYSTEMS
CONDENSATE RETURN UNITS
BOILER FEED PUMPS
SHOWER EXHAUSTS
STAINLESS STEEL VENTING SYSTEMS



Application Engineers &
Manufacturer's Representatives
HVAC & Plumbing
Mechanical Systems Specialists



N.Y. SALES OFFICE & WAREHOUSE
2910 EXPRESS DRIVE SOUTH
ISLANDIA, NEW YORK 11749
631-585-6800
FAX: 631-585-6838
www.walesdarby.com
e-mail: info@walesdarby.com

DEA SALES INC...

21 WATERVIEW DRIVE
OSSINING, N.Y., 10562
T: (914) 589-2596
F: (914) 941-6638

MIFAB

SPEC DRAINAGE & FIXTURE SUPPORT
TRAP SEAL PRIMERS
CLEANOUTS

LEONARD VALVE

THERMOSTATIC WATER MIXING VALVES,
EMERGENCY DRENCH & EYEWASH
MIXING VALVES

OASIS/SUNROC

ELECTRIC / PRESSURE WATER COOLERS,
POINT OF USE UNITS

PASCO

VINYL SHOWER PAN LINERS,
COMMERCIAL FAUCETS

CONTACT:

DAVID EPSTEIN

deasalesinc@optonline.net

HIGH-POWERED
***** ECO-FRIENDLY PERFORMANCE *****



eF SERIES



The Ultra-Efficient, Ultra-Flexible,
Ultra-Green eF Series® from Bradford White

Powerful and precise performers, eF Series commercial water heaters are known for incredible delivery and super fast recovery. They are also the perfect choice for building managers and business owners that want to "Go Green."

Eco-Friendly models offer remarkable efficiency savings as high as 99.1%! The newest version, a 100-gallon, 399,999 BTU/yr powerhouse, gives you the highest output so far - 521 gallons of hot water in the first hour of use!

eF installers will benefit from extremely versatile venting options. These flexible water heaters can be vented vertically or horizontally and are approved for unbalanced, direct vent closed combustion applications. Just as importantly, building occupants will appreciate the Ultra-quiet operation of all eF Series models.

At Bradford White, we believe in giving you a feature-packed, premium product at the best possible price. We proudly back quality and value into each and every product we manufacture. And remember: ask your wholesaler for Bradford White. It doesn't say it, but it's why!

eF SERIES® FEATURES

- Up to 99.1% thermal efficiency
- 60 Gallon in 125,000, 150,000 and 199,999 BTUs
- 100 Gallon in 150,000, 199,999, 250,000, 300,000, and 399,999 BTUs
- Self-cleaning Hydrojet® Sediment Reduction System
- Electronic controls
- Premix power burner
- Submerged combustion chamber
- Zero-inch clearance chamber



Built to be the Best™
www.bradfordwhite.com
800.523.2931

©2008 Bradford White Corporation. All rights reserved.



manufacturer's representative
5 Albertson Ave. • Albertson, NY 11507
www.dellonco.com
Phone: 516.625.2626
Fax: 516.625.3030

P.E.P.

SPECIALIZING IN PLASTIC ENGINEERED PRODUCTS

FIBERGLASS, PLASTIC & TEFLON
PIPES, VALVES & FITTINGS, DOUBLE
CONTAINMENT SYSTEMS, TANKS,
FABRICATION, PUMPS, DUCT,
GRATING, LININGS & COATINGS
"CUSTOM DESIGN"

JOHN MATONIS

Vice President

"WE WANT TO EARN YOUR BUSINESS"

OFFICE: 908-534-6111 FAX: 908-534-5287 CELL: 908-672-5948

www.pep-plastic.com www.peptanks.com

e-mail: jmatonis@pep-plastic.com

50 Tannery Road . Building 3 . Branchburg, New Jersey 08876

24-HOUR EMERGENCY SERVICE

T&C CUSTOM ENGINEERED
TANKS & SYSTEMS

Better Grade: Chemical, Acid & Corrosion Resistant
Plastic, Fiberglass & Stainless Steel Products.



- TANKS
- DRAINS
- SUMPS
- HOODS & BLOWERS
- INTERCEPTORS
- HOUSINGS
- PUMPS / MIXERS
- PIPES - VALVES - FITTINGS
- SINKS & ACCESSORIES
- PH MONITORING EQUIP. & ALARMS

Chemical, Water and Wastewater Handling or Treatment Equipment and Systems. Numerous Applications, Including Mixing & Storage.

- Neutralizing & Dilution Tanks & Systems
- Underground Fuel Oil & Gasoline Storage
- Chemical & Water Holding & Mixing
- Grease, Oil & Sediment Interceptors
- Sumps for Pumps & Ejectors
- Fume Hoods, Blowers & Ducting
- Floor Drains, Trench Drains & Roof Drains
- Custom Fabrications
- Polypropylene & Other Plastic Pipe & Fittings & Valves
- Chemical & Lab Sinks, Countertops & Work Stations

TYPES OF MATERIALS

- Polyethylene (HDPE)
- Polypropylene (PP)
- Polyester Fiberglass (FRP)
- Stainless Steels (SS)
- Steels
- Other Materials

Chemical & Wastewater Treatment & Collection System Specialists



PO Box 269 • Morganville • N.J. 07751 U.S.A

NEW T: (732) 780-5300 NEW F: (732) 294-0001

www.tandcplastics.net

Ultra High-Efficiency Pint Urinal System

Washbrook™ FloWear® 0.125 gpf

www.americanstandard.com



87% Water Savings™

Urinal & Flush Valve Combine for Optimal Performance with Only 1 PINT of Water

- Easy to Install
- Can Replace Many Existing Urinals
 - Simple & Quick Change
- Stainless Finish Flush
- Reduces Water Consumption
 - 1/2" Flush Valve Easy to Mount Behind Porcelain or Heavy Glaze
- Valve Can Operate Manually
- Without Power
 - Made of Durable, Dura-Flex Resin
 - Made for Reliability to Operate
- Hygienic "Teach-Free" Operation

FOR MORE INFORMATION:

DELLON SALES
(516) 625-2626

American Standard
Style That Works Better

Are waterless urinals a health hazard or a water saver's friend?

Source: <http://www.worldplumbinginfo.com/article>
February 5, 2009

It's not often that plumbing makes the daily news, but in late 2005 the Los Angeles Times ran a story about a controversial ruling on waterless urinals by the International Association of Plumbing and Mechanical Officials (IAPMO) Standards Council.

The controversy began in early 2005 when the Council ruled that waterless urinals would not be included in the United States' Uniform Plumbing Code.

That decision was subsequently appealed by waterless urinal manufacturer, Falcon Waterfree Technologies, which secured the support of 20 California water districts in presenting its case.

However, at the November appeal hearing, the anti-waterless-urinal case was argued by a sanitary engineering expert, supported by the California State Pipe Trades Council in association with grass-roots lobby group, Communities for a Better Environment.

Dr Fox argued that "... the no-flush urinal ignores hard-learned lessons on sanitation and reverses over a century of practice by failing to provide consistent cleaning of the urinal wall and replacing the permanent seal with one that has to be changed every 30 to 90 days."

Furthermore Dr Fox noted apparent deficiencies in waterless urinals relating to alleged sewer gas leakage, odor, wall deposits, sealant integrity, pipe deposits, maintenance and aerosolization.

It was a compelling argument. After all, the main function of the permanent water seal and flush action in modern toilets and urinals is to prevent sewer gases and pathogens – such as dysentery, typhoid and SARS – from finding their way into the bathroom or restroom environment.

Yet waterless urinals have been installed in many different kinds of buildings in the US including schools, universities, sports stadiums, McDonalds' restaurants, Wal-Mart's, resorts and offices.

For every reported failure, you'll find a success story about how the flush-free fixtures have brought water savings and other benefits to that facility without apparent health problems.

So what's the case for waterless urinals – and

should they be allowed in the US and other countries with rigorous national plumbing Codes?

Floating barrier to sewer gases

The United States National Energy Policy of 1992 requires urinals manufactured after 1 January 1994 to use no more than 3.78L (1 gallon) per flush. The previous standard was 11.35L (3 gallons) per flush, but higher flush volumes are common in older buildings.

This means that replacing urinals in a facility more than 10 years old with water-free ones offers an opportunity to save water, sewer, installation and maintenance costs, since they require no water to flush, no piping, and no flush valves or other control hardware.

According to European company Ernst (www.ernst-systems.com), the first water-free urinal was invented in 1894 by Swiss engineer Fritz Ernst.

The modern Ernst Water-free Urinal is a specially designed syphonic trap containing a biodegradable, low-density, viscous barrier liquid that floats on top of the urine to form a seal. This floating seal prevents drainpipe odors from coming back into the restroom.

Most water-free urinals available today – such as Falcon, Uridan, Duravit, Waterless and McDry – also use this floating seal principle, based on a barrier liquid either supplied in a pre-measured amount with a replaceable cartridge, or as a refill for topping up liquid seal traps at specified intervals.

There is another type of no-flush urinal with a mechanical trap that automatically closes after use. Brands based on this principle include Franke, Keramag and Sphinx. (US sources interviewed for this story stated that the US Code prohibits the use of traps with moving parts for protection against sewer gases.)

The seal's the thing

In the US, the growing demand for 'green' offices and commercial buildings – boosted by the launch of a building rating system called LEED™ (Leadership in Energy and Environmental Design) in 1999 – has led to rapid uptake of water-saving technologies.

Falcon Waterfree Technologies offers a range of vitreous china urinals with a replaceable liquid-seal cartridge, and its website (www.falconwater-

free.com) has many examples and case studies documenting annual water and sewer use savings for customers.

The company's vice-president government affairs, Danny Gleiberman, says the no-flush operation also reduces opportunities for vandalism (no handles or valves to damage) and fits in with the 'touch-free' restroom concept.

According to Mr Gleiberman, the Falcon Waterfree cartridge is the only liquid-seal trap in the US with a bayonet locking device that allows the replacement cartridge to be firmly locked in place, preventing the escape of sewer gases.

"As to the objection that no-flush urinals are less hygienic than flushing ones, we can cite independent scientific research that shows this is not the case. Water and dampness provide a breeding ground for pathogens, and the aerosol action of flushing spreads them to all surfaces in the restroom."

Installation and maintenance

Like any plumbing fixture, water-free urinals need to be installed and maintained according to manufacturers' instructions and plumbing regulations.

"One of the requirements in the US plumbing code is for a minimum (downward) slope for drain pipes in all plumbing applications," Mr Gleiberman says.

"However, with retrofits, many of the old piping systems installed in the past don't meet today's code.

"We train installers on retrofits to make sure that the correct slope for the code is there so waste is allowed to drain away."

Another training point is the proper use of cleaning chemicals, because improper cleaning can break down or flush away the biodegradable sealant in water-free urinals. Mild cleaners are recommended and, indeed, will do the job – without water in the urinal, there is no mineral build-up and studies show there are fewer bacteria in the bowl.

"There is not any more work required for cleaning staff to clean water-free urinals – it's just a bit different," Mr Gleiberman says.

"We make information available wherever possible – the printed instructions that come with the replacement cartridge have a pictorial diagram illustrating proper maintenance and cleaning, along

with our phone number and website printed directly on the cartridge."

An urban planner by trade, Mr Gleiberman is on the Board of the Los Angeles chapter of the Green Building Council, and has a strong commitment to sustainable development and the LEED rating system.

Testing the water in Asia

Falcon Waterfree cartridges can now be found in a range of urinals sold in China under the brand-names American Standard (US), Inax (Japan), HCG (Taiwan) and Sunnystone (Singapore and Malaysia). Ditmar Gorges, executive vice-president in charge of Falcon's Asian market and based in Manila, says that interest is particularly strong in northern China, where clean water is scarce and where water supply and sewer rates are high, compared to the south. "In China there is a huge commitment from the government to do something about water conservation in the north. This is driven by an organisation called NDRC – National Development and Reform Commission – which supervises the Ministries and sets all kinds of policies, from the environment to the price of coal.

"The NDRC is keen to consider making water-free urinal technology mandatory in some regions." Another market that is responding to water-free urinals – and at surprising speed, according to Mr Gorges – is the Philippines. In this case, it was not the government behind the push, rather CEOs of companies such as McDonalds and local fast-food rival, Jollibee, keen to establish their credentials as good corporate citizens.

From flush to flushless

The Sloan Valve Company (www.sloanvalve.com) is a name synonymous with flush-valve technology in the US.

William Elvis Sloan designed the Royal Flushometer in 1906 to replace the old high-volume cistern-type water closet, which flushed 23L (6 gallons) of water per flush. The Royal remains the company's biggest selling flushometer, gracing millions of flushing urinals throughout the world.

In recent years, Sloan has turned its attention to helping customers gain points towards LEED certification.

Now it offers water-free urinals (with Falcon

cartridges), alongside solar faucets, dual-flush commercial flushometers, tank-style pressure-assisted flush toilets and electronic sensor-activated urinal valves.

“There is a definite trend towards incorporating water-conserving measures within new building designs,” says Jim Allen, LEED-accredited water conservation manager with the Sloan Valve Company.

“A recent study reported that in 2004, approximately 2% of the new US non-residential construction market comprised green buildings, which translates to a \$3.3 billion a year industry, a figure that could rise to \$10 billion by 2010.

“Because water conservation is an integral part of the LEED program, water-saving technologies are bound to experience significant growth as this trend continues.

“In some cases, water costs in the US are doubling and tripling. This is raising the consumer’s awareness of the value of water and driving conservation efforts.

“Water-free urinals are a more efficient means of eliminating waste, and while it seems counter-intuitive that a flush-valve manufacturer would market such a technology, it’s absolutely in alignment with our history and our mission.

“We have water-free urinal installations in applications ranging from schools, hospitals, and office buildings to stadiums and airports.

“They do, however, require the commitment of building supervisors to keep their cleaning and maintenance crews properly trained and educated. But, when properly cared for, the savings can be tremendous.”

In the front-line

Water conservation is critical to California, where the debate on flush versus no-flush urinals has caught the public’s interest. Already the State imports water from the neighbouring States of Arizona and Nevada and from the Colorado River.

A keen supporter of the technology – Michael Foster, Green Building coordinator with the City of San Jose, California – has become used to meeting resistance when seeking approvals for new or retrofit installations. Mr Foster’s role is to ensure that sustainable design principles are incorporated into the design and construction of San Jose’s public facilities.

San Jose’s potable supply is supplemented by a system that supplies high-quality recycled water from its tertiary treatment plant to public, commercial and industrial customers in three cities through a 100-mile-long pipeline.

Public and some private sector facilities near the pipeline must be connected to this system in order to reduce potable water use. The recycled water is used for flushing toilets, landscape irrigation and air-conditioning cooling towers.

During summer months, San Jose uses up to 56 million L (15 million gallons) of recycled water.

“California tends to lead the way when it comes to environmental initiatives. As an example, we have the most stringent energy code anywhere in the US,” says Mr Foster.

“But, at the moment, water-free urinals are seen as a novelty by the local plumbing community and, as a result, have not been fully embraced.”

Approval process

“To get a waterless urinal approved in a San Jose facility, you have to apply for an alternative method and means, an application proving the product you’re installing is equal to, or better than, what is required by the existing plumbing code.

“The reason is that the plumbing code calls for a ‘flushing action’ in the toilets.

“San Jose currently has two city facilities with water-free urinals, out of half a dozen projects constructed over the past four years. The projects with water-free urinals were approved by a city plumbing official who was supportive of the concept.

“The objections depend on who you talk to and when you talk to them. One day, it will be that water-free urinals don’t work. The next day, it’s that they breed bacteria and other airborne pathogens.

“Our experience in the field indicates that waterless urinals are a viable alternative if we can overcome scepticism about this new technology.”

Mr Foster knows of at least one case where waterless urinal ‘failure’ was, in fact, a lack of understanding on the part of facilities managers to ensure that maintenance staff were following manufacturer’s instructions.

Mr Foster visited the site and discovered that the replaceable cartridge had not been changed over at the specified interval. After maintenance staff had been instructed to follow the correct replacement and cleaning procedure, the odour

problem disappeared.

“When we went back later and asked the maintenance staff, ‘Does it take you more time to do it?’, they said, ‘No. The only difference is we have to change the cartridge’. - and that takes all of about 30 seconds!”

Seeing it first hand

What about those plumbing officials who have doubts about the effectiveness and safety of waterless trap technology? You can't go past seeing the evidence first-hand, says Mr Foster.

“Software developer Adobe Systems Incorporated, manufacturer of Adobe Acrobat and other desktop publishing software, wanted to retrofit its three office towers with water-free urinals.

“The city plumbing official had reservations, but he did allow the company to install two pilot fixtures alongside two traditional fixtures in their newly completed third tower for comparison testing.

“A year later, they pulled the urinals off of the wall, inspected them, and found, if anything, that the waste lines serving the waterless urinals were cleaner and had less build-up than the traditional urinals.

“On the basis of that study, he concluded that water-free urinals should be, and subsequently have been, approved for Adobe Towers.

“The new policy in San Jose is that waterless urinals can be approved for commercial buildings that have professional building maintenance staff. “Right now, waterless urinals are on the cutting edge – and it takes a while for people to embrace new technologies.”

The right conditions

Waterless urinals are not the only way of saving water in the toilet – dual-flush systems, for example, can also contribute significantly to water conservation.

But there may be a good case for using them if you can answer a few key questions in the affirmative:

- Are the connecting drainlines Code-compliant, i.e. do they have a minimum positive slope?
- Have maintenance and cleaning staff been instructed on correct procedure for maintaining the liquid-seal trap (i.e. cartridge changeover or barrier liquid

top-up at manufacturer-specified intervals; use of mild, non-alkaline cleansers)?

- If odor is a problem, are surrounding surfaces, particularly porous ones such as grout in tiles, washed down regularly to clean up ‘slops’?

Waterless urinals research

Source: <http://www.worldplumbinginfo.com/article/> November 19, 2009

In an effort to integrate water-sensitive urban designs into current practice the National Plumbing Regulators Forum (NPRF) for Australia and New Zealand formed the Australasian Scientific Review of Reduction of Flows on Plumbing and Drainage Systems (ASFlow) Committee to conduct research into the effects reduced flows are having on drainage systems.

The first stage of the ASFlow project was to conduct research into the impacts of waterless urinal discharges. The NPRF ASFlow Project Committee has conducted a number of laboratory and field tests which have identified the potential for fitting and drainline blockages from Struvite (magnesium ammonium phosphate).

Struvite is the main scale material which builds up immediately downstream of waterless urinals causing major blockages when not properly managed.

The trials have shown added flows to main pipes servicing waterless urinals will prevent rapid build-up of Struvite but highlighted the need for on-going maintenance of the urinal's outlet pipe at regular intervals to control the build-up of Struvite.

Current situation

The NPRF through its Technical Advisory Committee has facilitated an amendment to the Plumbing and Drainage Standards AS/NZS 3500.2: 2003 Part 2: Sanitary plumbing and drainage to manage the build-up of Struvite in sanitary plumbing and drainage systems.

The amendment will provide provisions to minimise the risk of blockages by requiring a minimum of 2 fixture units e.g. 2 hand basins to be installed upstream of each waterless urinal.

While this requirement will assist in preventing blockages of main drain lines the trials demonstrated it will not prevent build up of Struvite in the discharge pipe from the waterless urinal to the main

drain line as discussed above.

Supplementary timed flushes may, however, reduce this problem. Retro-fitted waterless urinals may have discharge pipes which exacerbate the build up of Struvite, and such installations may require alternative flushing or cleaning regimes.

At this stage it is recommended that facility owners and managers arrange for waterless urinals be inspected and cleaned at periods of no less than six months, until a more appropriate maintenance interval can be established for each facility.

The maintenance interval will be dependent on a number of factors such as usage patterns, waterless urinal type, drainage design and other factors. Waterless urinals require a different cleaning regime from conventional urinals, and cleaning contractors will need to be appropriately trained to ensure that odour-seal cartridges are not damaged or compromised during the cleaning process.

The users of waterless urinals may also need educating in order to reduce problems and overcome prejudices.

For further information contact the plumbing regulator in your state, territory or country.

Watersave launches Uridan Stainless Steel Waterless Urinals

Source: [http://www.worldplumbinginfo.com/article/July 30, 2009](http://www.worldplumbinginfo.com/article/July%2030,%202009)

Watersave Australia has launched the Uridan stainless steel waterless urinals into the Australian market.

Uridan Waterless Urinals have been market leaders in Europe for the past 16 years. Watersave Australia first brought Uridan waterless urinals to Australia more than six years ago and since then they have led the market with their stylish Danish design and hygienic, odour free application.

Paul Marsh Managing Director from Watersave Australia says, "Our industry feedback indicates a strong demand for a stainless steel version of our popular Uridan Waterless Urinal, in particular among designers of public infrastructure."

"There is a growing market focus on measures to reduce water consumption and the resulting CO2 emission," Paul says.

"With waterless urinals, Australians are increasingly catching on to what the Europeans have known for more than 16 years, that the Uridan

waterless urinals are an essential component in an organisation's sustainability strategy."

In addition to their stylish architect preferred good looks, the Uridan waterless urinals save literally millions of litres of potable water each year. Research demonstrates they are a cleaner, more hygienic and odour free alternative.

Uridan Stainless Steel is perfect for settings where stainless steel is the traditionally preferred material of choice, including public amenities such as schools, council toilet blocks or railway stations. Stainless Steel Uridan Waterless Urinals are available in three sizes and bring the total suite of Watersave Australia's waterless urinals to fourteen models including ceramic, fibreglass and now stainless steel.

Reduced flush volume and drainline testing

Source: [http://www.worldplumbinginfo.com/article/February 16, 2009](http://www.worldplumbinginfo.com/article/February%2016,%202009)

Does reduced flush volume have a negative effect on the performance in the drain line? One manufacturer was keen to find out.

The increasing practice of reducing the volume of water used to flush sanitary fixtures is raising some drain line performance questions across the plumbing world, and for good reason.

While fixture manufacturers focus on the performance of their products in the laboratory, we can't ignore what effect these new technologies are having on the overall performance of the plumbing system.

Reduced-flow, single-flush toilets began to appear in Europe in the 1970s, particularly in the Scandinavian region with products from Gustavsberg and Ifo.

Then, and even to this day, water authorities around the globe raised concern about lowering the volume of flush water, when they didn't know the effect such a reduction in quantity would have upon the flow within the associated drain lines.

Australia is the second-driest inhabited continent on earth and has major issues with maintaining adequate supplies of potable water in both city and country regions. Thus water conservation is considered very important for the nation's growing cities with their reliance on unsustainable water supplies.

In 2007, Australia has even more significant issues with its dwindling water supply due to the prolonged effect of a severe one-in-one-hundred-

year drought affecting many parts of the country.

Australian sanitary manufacturer Caroma is the dominant supplier of sanitary fixtures to the Australian and New Zealand markets, which have a combined population of 25 million. In 1993 the company launched the first 6/3 dual-flush toilet, using just 6L (1.6 US gallons) for full flush and 3L (0.8 US gallons) for half-flush. This was the first instance when the technologies of both reduced-flush and variable-flush volumes were integrated.

Manager of Caroma's research and design department, Dr Stephen Cummings a leader in his field, has long held the view that while the involved and exacting process of designing and manufacturing toilet suites is of paramount importance, a critical issue is that the suite must be considered part of a 'balanced plumbing installation'.

"Much of the critical design and production process is based upon the need to retain as much of the energy of the flushing water for as long as possible within the pipeline system. This flow transportation performance can be easily impeded if the drain-lines taking the waste discharge from the toilet bowl are incorrectly or poorly installed.

"The construction of pipe-work with correct workmanship, gradient, true bore, smooth jointing and quality materials are all essential factors that will significantly affect the overall performance," Dr Cummings says.

Dr Cummings initiated the design and construction of a pipeline test rig at the corporation's Sydney manufacturing centre several years ago. The elevated test platform, situated approximately 4m (12 feet) above ground level, allows toilet suites of various designs to be easily connected to 100mm (3.9 inches) and 80mm (3.1 inches) diameter drain lines. These clear plastic drain lines, that extend for some 60m (200 feet) and form the longest test installation of its kind in the world, enable the test team to easily observe the waste flow performance from up to five of WCs set up on the rig using varying drain line grades configurations and low-flush discharges.

A number of intensive test programs were carried out over several years incorporating national and international Standards and procedures where applicable. The research program provided valuable information regarding the flow and behaviour of waste through the toilet bowl and the drain line

when using various low-flush discharge volumes.

By using various low-flush volumes, combined with the introduction of synthetic solids and toilet paper, the researchers gained valuable information and a better understanding of the performance criteria required to achieve a 'balanced plumbing installation'.

Test rig supports and pipeline hangers have been designed and installed to replicate conditions experienced in the field. Gradients were accurately achieved initially by the use of a dumpy level, which proved to be very successful in achieving a continuous and correct gradient.

More recently, the researchers have utilized current electronic levelling devices to obtain an easier and even more accurate process of levelling. While adjustment is labour-intensive, the rig will allow a variety of tests to be carried out at a number of gradients, and differing pipeline sizes and fitting conditions can also be tested.

In 2004 Caroma again set a new low benchmark for the industry when it introduced the first 4.5L/3L (1.2/0.8 US gallons) dual-flush toilet system.

However, simply reducing the volume of water entering a cistern bowl can lead to issues and many researchers, suppliers and water authorities have invested time and resources in undertaking reviews.

The real science behind producing a reduced-flush performance toilet is in matching the flow of water from the cistern to the precisely designed configuration of the toilet bowl. In one action the flow from the cistern into the bowl needs to remove solids and paper as well as cleanse the bowl, but even then using ultra-low-flush volumes the task is not complete.

The characteristics of the head of water exiting the trap and flowing down the drain line is critical to the long-term performance of the complete plumbing system.

As Dr Cummings explains: "the key requirement between the WC and drain line is to fully discharge the waste from the bowl outlet using initial part of the flush and then to achieve steady flow conditions within a minimum distance within the drain line system in order for the waste to effectively clear the drain line.

A significant amount of development work has been involved in performance matching the

bowl and sump configuration with the reduced flush volume discharged from the cistern. Importantly, the performance observed on the testing rig was validated in trials in the field with existing drain line installations.

Most Australians live in single-level housing, characterised by long-run drain lines. In single-level housing the performance of such drain lines is critical, whereas in multi-storey apartment blocks plumbing stacks are far more forgiving.

Caroma's 4.5/3L SmartFlush™ technology was launched onto the market after an extensive field trial program was conducted in Melbourne in conjunction with Yarra Valley Water and other major water authorities in Australia.

The program included retrofitting 100 SmartFlush toilet suites into private homes that had previously been fitted with toilets of varying higher-flushing volumes. A number of locations were included of 'above average' difficulty, in terms of the length of the minimum grade line, varying grades along the line, old earthenware pipes, and toilets isolated from any assistance from upstream fixtures.

According to John Park of the Plumbing Industry Commission (PIC), 10 sites, with a range of drain materials from old earthenware to PVC, were selected for inspection by CCTV. "No blockages occurred during the trial, and to the best of our knowledge there have been no blockages since," he says.

The PIC protects consumers' health and safety by administering the licensing and registration system for plumbing practitioners, and promoting and enforcing plumbing standards in Victoria.

In addition to research into technical performance, Caroma also surveyed the homeowners, who confirmed their satisfaction with the performance of the new toilets, including bowl cleaning and removal of waste. The SmartFlush product was then unconditionally released to the market with the support of water companies and regulators nationally.

Extreme testing at minimum grade
New Zealand's building code differs from that of Australia. A recently updated New Zealand drainage compliance document (Acceptable Solution G13/AS2) permits gradients on a DN 100 drain (nominal 100mm diameter, i.e. 4 inches diameter) to be significantly flatter than in most other parts of the

world, down to a minimum gradient of 1:120 (0.83%).

This minimum gradient was based on evidence from several local authority regions where flat gradient drains had been permitted in order to overcome difficulties connecting to relatively shallow sewers in areas of flat topography.

The compliance document requires that at all times the drain be laid at the 'maximum practical gradient' (Grade of Drains: clause 3.5.2). In addition, the document also requires that where the grade of 1:120 is employed the relevant levels must be determined by 'verifiable levelling devices' with 'Laser or Dumpy Levels being recommended' (Construction: clause 5.2.2). It should be noted that at this gradient the maximum drain discharge unit loading is limited to 104 fixture units.

Caroma considered that a field trial under such conditions would provide an important further test of its SmartFlush product as part of a complete plumbing system, so a number of range models using the 4.5/3L technology were selected and installed.

Brent Mallinson, a plumbing consultant based in Christchurch on New Zealand's South Island, who runs Plumbing Design and Consultancy Ltd, was selected to manage and monitor the field trial. He chose eight new home sites that met the criteria, and with the assistance of builders and homeowners, arranged the installation of some 20 toilets.

Each site was CCTV-recorded before the homeowners took up residence and then on a monthly basis over the next year. The owners also completed user-satisfaction questionnaires before and after the trial. The video inspection results produced some interesting observations. A number of the uPVC drain line installations were found to be poorly installed with rough and burred joints, use of excessive solvent cement, construction debris left in the pipe, and sections of pipe with negative grade.

These installation issues surprised the test team as New Zealand operates an extensive plumbing installer apprenticeship program and plumbing is a regulated industry.

Over the period of the inspections, any occasional waste build-up noticed on the CCTV reports was directly attributed to rough joints, builder's debris that had entered the drain during construc-

tion, or negative gradient sections. Importantly though, no drain blockage was reported by the occupants over the period of the trial, in conditions far more severe than was originally intended. However, one thing that the trial did emphasize was that an important task that couldn't be neglected by any plumbing engineer/specifier was to ensure that the installation standards of contractors and their staff were regularly checked, as drain lines couldn't be expected to be as forgiving when attached to low-flow fixtures.

Regrettably, these problems have also occurred in Australia and elsewhere in the world. As societies come to grips with the ever-decreasing availability of water as a valuable commodity, it is the responsibility of everyone involved to realize that as the trade and industry 'pushes the boundaries' there is a need to apply good and safe practices at all times if we are to achieve the goal of reducing our water consumption.

From the toilet cistern to the authorities' sewer main, each component of the installation requires a 'matched performance' to ensure adequate and continuous energy exists to provide an efficient and water-conserving solution to the increasing problem of water consumption.

Benefits of field trials

Not only were the users satisfied with the performance, but the local authority was also satisfied that this extensive field trial proved the performance of the system outside of the traditional scope of testing in research laboratories.

Such field trials are important in demonstrat-

ing system performance to water authorities, which are often reluctant to allow new technologies even though water is in short supply – the health of the community is always of paramount importance.

Hydraulic consultant Cliff Hensby, who assisted with the research, believes the local authority made a courageous decision to allow the trial to proceed in the interests of valuable research.

"The intent was to provide new information regarding the performance of drain line flow at such minimal gradients. If extreme installation conditions exist on a site the trials could then assist those involved in making the correct decision as to whether or not such an installation was prudent and in everyone's interests. The grade is extreme and should not be viewed as the normal process and applied universally," Hensby says.

"The essential benefit from the research has been confirmation of Dr Cummings' contention that to achieve water conservation objectives the entire plumbing system should be of the highest standard and each element needs to be considered as part of a complete and balanced installation.

"Much of the information and benefits of the research are naturally introduced into Caroma's manufacturing programs.

However, the broader industry also receives benefits as the lessons of the test program are fed back to the various relevant authorities and committees. Again, this is an example of a manufacturer working with the industry, and through those combined efforts, the entire community obtains real benefits."



Since 1913, Leonard Valve Company has been the quality leader in the manufacture of thermostatic water mixing valves. All Leonard valves are factory preassembled and tested before shipment, and we offer a complete range of products to meet all of your temperature control requirements.

1360 Elmwood Avenue
Criston, RI 02910
Ph. (401) 222-1204
Fax (401) 941-8310
www.leonardvalve.com
info@leonardvalve.com
SANTA RITA Alliance
www.santaritaalliance.com

Leonard Representative:
DCA Sales, Inc.
21 Waterview Drive
Chester, NY 10562
Ph. (914) 589-2536
Fax (914) 941-8638
dca@leonia.com



dellon

July 2008

www.dellonco.com

DELLON SALES CO • 5 ALBERTSON AVE • ALBERTSON, N.Y. 11507 • 516.625.2626 • FAX 516.625.3030

Manufacturer's Representative For:

American Standard America's premier line of commercial and high end residential fixtures

Anaco Couplings No-hub, specialty couplings, transition couplings and end caps

Anvil Int. Gruvlok, malleable & cast iron fittings, hangers, strut, nipples, Anvil Star

Bemis - Olsonite Seats Wood and plastic toilet seats

Bradford White High quality residential & commercial water heaters & indirects

Crane Plumbing Residential & commercial chinaware, steelware & AnnoPlus tubs

Coyne & Delany Flush valves & sensor products

Deco - Lav Decorative vessels, lavatories and bath furniture

Arco Industries Hydronic zone controls, relays, and baseboard

Dunkirk Boilers Gas and oil fired hot water and steam boilers

Eernax Instantaneous electric point of use water heaters and mini tank heaters

Elbay Mfg Residential and Commercial sinks, faucets and electric water Coolers

Flat Terrazzo & molded stone bases and mop sinks, Commanders, laundry tubs

Fire End & Croker Commercial, institutional & industrial fire protection equipment

Husky Couplings Heavy-Duty no-hub couplings for commercial applications

In-Sink-Erator Food waste disposers, instant hots, and mini tank water heaters

McGuire Mfg. Heavy Duty commercial cast brass traps, strainers, stops and supplies

Mr. Steam Residential & Commercial steam bath generators & towel warmers

Mueller Industries Copper Tube, copper fittings, steel pipe, PVC & ABS DWV fittings

Nuline / Broan Full line of medicine cabinets

Plumberey Full line of ADA approved hard and soft trap covers

Rockford Separators Grease, oil, & solids interceptors including custom made separators

Roth Industries Solar Panels, Radiant heating systems, dust containment oil tanks

Sloux Chief Water hammer arrestors, laundry machine boxes, trap primers, hangers

T&S Brass Full line of commercial, food service, metering, and electronic faucets

Teco Fire Products Sprinkler heads, valves and devices, Blazemaster pipe & fittings

Tyler Pipe Cast iron soil pipe, fittings, Roof/Wall systems, couplings

Wade Drains Specification drainage products, carriers, AHT poly trench drain

Watco / Woodford Full line of bath wastes/ Wall, yard, and roof hydrants

Product tester #473



He chased 6 girls. Dug up 12 rocks. Found 4 beetles. Jumped off the wings 19 times into the mud. And now he's been ordered to wash up before he dares set foot back in Mrs. Sanders' classroom. Timmy

doesn't care that you've installed T&S

faucets. That they've been failure-tested to

100,000 cycles. That, like all T&S products,

they're made from nearly indestructible

components. That you can get a replacement

part overnight (on the extremely rare chance you should ever need

one). Frankly, Timmy doesn't even care whether or not your T&S faucets

work. But you can, thanks to all the Timmys out there. Yes, indeed, boys

will be boys. Install T&S.



RELIABILITY
BUILT IN
CERTIFICATION

RELIABILITY BUILT IN™

www.tsbusiness.com • 800.426.4103

T&S plumbing products represented in New York City by:
Dellon Sales Company • 516-625-2626



AMERICAN SOCIETY OF PLUMBING ENGINEERS NEW YORK CITY CHAPTER

Membership Dues Reimbursement Program

Here's how it works...

1. You must be a first time registration applicant...meaning you have never been registered with ASPE national and
2. You must be willing to attend at least 4 monthly meetings within the one year period of your membership.

What to do.....

1. Fill out the ASPE Registration form found within the monthly newsletter or at http://aspe.org/new/About_ASPE/aspe-membership.php
2. Bring the filled out registration form along with a check for the amount owed for registration (based on member type) to the next chapter meeting or mail it in to ASPE National at the address listed on the application.
3. Bring along the bottom portion of this page....find an ASPE board member to collect the application.. He will fill out the record card for your first meeting.
4. Attend 3 more meetings from the start date..at each meeting you attend, bring the card along in order to have it signed-off. (fill out the date and topic)
5. At the end of the technical presentation, have a board member sign-off the card.
6. Once you have attended 4 meetings, write your address on the back of the Record Card and leave it with a board member. You must also have your membership number (which you will have received from ASPE) filled out.

Your reimbursement will then be mailed to you.

NYC Chapter ASPE Reimbursement Program RECORD CARD

Member Name: _____ **Start date:** _____

Membership Number: _____ **Amount of Dues:** _____

Meeting Record:

	Date	Topic	NYC ASPE Sign-off
1.			
2.			
3.			
4.			

Disclaimer: This program will be available to all non-members until the funds which support it are exhausted. Announcements will be made regarding duration of this program.

CHICAGO FAUCETS

a Geberit company

Excellence in Reliability and Performance.

Chicago Faucets, a member of the Geberit Group, is the leading brand of commercial manual and electronic 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 product offering is designed to meet any commercial application.

Learn to Work...
The Right Way.



Chicago Faucets is proudly represented by

Edwards, Platt & Deely

368 Wyandanch Avenue
North Babylon, New York 11704
631/253-0600



Service... at the push of a button.

A leader in pumps, water heaters
and HVAC controls!

Representing:

Flo-Pak
Patterson Fire Pumps
RECO USA
Yeomans Chicago
Leslie Controls
Thrush
JL Wingert

Call today...

(212) 244-8878

or visit...

www.leonardpowers.com

Ten Sales Engineers • Full CAD Capabilities • Specification Support Services • Product Selection and Application Engineering Assistance • Computer Assisted Sizing Tools • 30 Factory-Trained Service Technicians • NYC based 24/7 Service Center • One Million Dollars of Local Inventory



Leonard Powers INC

LPI Controls INC

Manufacturer Representative of Engineered Products

519 West 27th Street
New York, 10001
P (212) 244-8878
F (212) 563-4761

Founded in 1880 and a part of
HARSCO since 1974,



Patterson-Kelley is the name you know and trust for industry-leading Engineered Water Heating Solutions.

We are now uniting with Harsco under a single identity to better serve our customers and use our collective expertise to deliver unique, value-added solutions.



Our Reach is Global,
Our Service is Personal

HARSCO
INDUSTRIAL
Patterson-Kelley

Proudly represented by:



113 DeWitt St., Ste. 2013
Garfield, NJ 07026
P) 973-772-9224
F) 973-772-9226

METRO REP

Manufacturers Representatives

169 New Hyde Park Road
Franklin Square, New York 11010
Tel: 516-616-4650 Fax: 516-616-4605
e-mail: metrorepny@aol.com

LINE CARD

- Gerber Plumbing Fixtures, LLC** Complete line of commercial & residential vitreous china; chrome & decorative finish faucets, drains & fittings, including electronic, hands free faucets & flush valves.
- Danze** Decorative faucets for residential and hotel use, bath accessories, shower heads.
- Acryline** Acrylic residential bath fixtures; featuring air hydro-massage systems.
- Beneke** Full line of residential, commercial and industrial toilet seats.
- Houzer** Stainless steel sinks, under & top mount, & accessories.
- Jet Swet** Specialty line of water restriction tools.
- Michigan Brass** Tub spouts; J-bends; shower heads & handheld products; overflow & trip waste plates; pop-ups for lavatory drains; shower arms & flanges; tank levers, kitchen hoses & sprays.
- PHD Mfr** Pipe hangers and devices; strut and strut accessories.
- Robotoolz** Complete line of laser leveling devices.
- Wobblelight** Self-righting work light.
- J. John Alimo Lance Silverman**

MEDIGAS[®] SERVICE & TESTING

Division of MEDIGAS[®] Life Safety Group

Because Life Matters

Services

- Medical Gas Installations
- Verifications / Certifications
- Design / Build Consultation
- Auto-Cad Mapping
- Service & PM Programs
- BeaconMedaes Equipment Sales Rep/Dealer
- MGPFO Credentialed Verifiers
- NITC /ASSE Credentialed Installers



Educational Seminars

- NITC /ASSE Medical Gas Certification Classes
6010 Installer, 6020 Inspector & 6005 Specialist
- NYS DOS CEU, AIA & PE Accredited Seminars

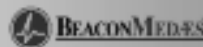
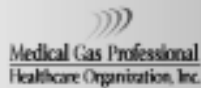
Contact: Jennifer Carley

(800) 437-1591 ext. 10

1655 Sycamore Ave., Bohemia, NY 11716

Ph: (631) 563-4040 Fax: (631) 563-4187

www.medigasservice.com | jenniferfc@medigaslifesafety.com



A Veteran Owned Business

FIRESTOP SOLUTIONS

Division of MEDIGAS[®] Life Safety Group

Because Life Matters



Providing Firestop Installations

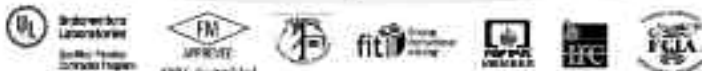
- ◆ UL Approved Firestop Contractor
- ◆ FM 4991 Accredited
- ◆ Rated Barrier Reconstruction
- ◆ New & Existing Construction
- ◆ Union & Non-Union Projects
- ◆ NYC, NYS & NFPA Code Compliance

Contact Jennifer at **(800) 437-1591** ext. 10

1655 Sycamore Ave., Bohemia, NY 11716

Ph: (631) 563-4040 Fax: (631) 563-4187

www.firestopsolutions.com | jenniferfc@firestopsolutions.com



VENCO SALES INC.

MANUFACTURERS REPRESENTATIVE OF QUALITY HEATING EQUIPMENT
e-mail: venco@vencosales.com

John Venno
Tom Quinn
Frank Beecher
Bob Dakin
Jake Greenwood
Ron Dyke
Jay Veroni
Tom Dwyer
Ron Olson
Chris McGarry
Jerry Rimmer
Rob Morrison
Seige Lamite

25 Woodhull Ct.
Northport, NY
11768

Phone:
631-734-0782
Fax:
631-734-4659



Application Engineers & Manufacturer's Representatives
HVAC & Plumbing
Mechanical Systems Specialists



A.O. Smith Water Heaters

Proudly represented by
Wales-Darby, Inc.

Application Engineers:

Artie Fernandez

John Knowles

Ray Schmitt

NY Sales Office, Training Center & Warehouse


2910 Express Drive South Islandia, NY 11749

631-585-6800 Comm'l FAX: 631-471-4950

www.walesdarby.com e-mail: infany@walesdarby.com

YOU AND YOUR PRODUCTS DESERVE THE VERY BEST !

 UL Listed, FM Approved and NYC Approved
Fire Pump Controllers:
Electric
Diesel
Manual Wound Rotor

 Responsive Customer Service for:
Specification Assistance
Application Questions
Field Service and Support



 UL Listed Industrial Controls for:
Tank Fill
Sump & Sewage
Domestic Water

 Responsive Manufacturing Team
Provides Quick Ship Deliveries
for Tight Construction Schedules

Firetrol Products
Asco Power Technologies



<http://www.firetrol.com>

email: sales@firetrol.com

Crossroads One, 5625 Dillard Drive, Suite 117 • Cary, NC 27511 • (919) 460-5200 • Fax (919) 460-5250



HARPER INTERNATIONAL

"Quality Fluid Control Solutions"

Providing Expert Design Support Maintenance Programs & Emergency Services Since 1974

VAL-MATIC	Butterfly, Plug, Check Valves, Air Release Valves
CLA-VAL	Pressure, Relief, Surge Control, Tank Level Valves
JRGURED	Swiss Precision Pressure Reducing Valves
WIKA	Pressure Gauges, Switches & Instruments

For Assistance Contact: Fred Haines or Tom Kuehnell

www.SolutionsByHarper.com Tel 800.551.2733 or 203.323.2600 Fax 203.323.7100



*The fastest way to join
HVAC, plumbing and fire
protection piping*

9 **The copper connection for 2"-6" Type K, L, M, or DWV couplings, fittings, reducers & adapters.**

N.Y.B.S.A.
approved 1/23/90
Cal.# 880-895M
Bull No. 5-Vol. LXXV

9 **The Pressfit system for Schedule 5 steel pipe from 3/4" to 2".**

N.Y.-DOB
approved
8/29/91
MEA#259-91-M

*The complete line of grooved and plain end
mechanical piping products.*

VICTAULIC COMPANY OF AMERICA

WORLD HEADQUARTERS
P.O. Box 31
Easton, P.A., 18044-0031
T: (215) 559-3300
F: (215) 250-8817

NY METRO BRANCH
4901 Kesslerville Rd.
Easton, P.A., 18042
T: (800) 742-5842
F: (800) 437-6573

"We are One with Water"

The largest selection of Pressure Boosting Pumps, Packages and Water Heaters in the New York/New Jersey Metropolitan area.



Consultant to the Consultants

We invite you to contact us for application and selection assistance.

Wallace Eannace Associates, Inc.

719 Sesquicentennial Avenue, Franklin Lakes, New Jersey 07417
Phone: 201-691-9330 or 800-852-4891 • Fax: 201-691-4298
50 Newtown Road, Plainville, New York 11803
Phone: 516-451-9300 or 800-452-1191, Fax: 516-451-9307
Find us on the Web at: wza-inc.com

Hands-free faucet or medical miracle?



The Delta® 591T Electronic Faucet. Its convenient, hands-free operation facilitates hand-washing compliance, reducing the spread of infectious agents. Cuts water usage, too. Delta. We work wonders with Water™. 800-345-DELTA.



255 Humphrey Street, Englewood, NJ 07621

Phone: 800-258-4376 Fax: 201-871-0314

Email: info@altherm.com



EDWARDS, PLATT & DEELY, INC.
631-253-0600

SYMMONS® Maxline™
the smart choice™

Maxline can reduce the risk of scalding by limiting the maximum temperature to individual or multiple fixture fittings:

- Kitchen and lavatory faucets
- Sensor and metering faucets
- Tempered water to bathtubs



Design Features

- Listed to ASSE Standard 1070 and ASSE Standard 1017 and CSA B125.3 certified
- Minimum flow rate is .5 gpm (1.9 L/min)
- All brass body with brass and stainless steel internal components
- Ultra-sensitive temperature response element



Symmons Industries, Inc., 10-01 50th Ave, Long Island, NY 11101
Tel: 718-361-3006 • www.symmons.com

MIFAB®

IT JUST MAKES SENSE!

To choose MIFAB because you can specify our heavy duty load rated (5000-7499 lbs.) cast 304 stainless steel products at the same cost as the industry common, light duty rated nickel bronze (usually under 2,000 lbs.)



- "THEY WILL NOT DISH"
- "THEY WILL NOT DISCOLOR"
- "BAREFOOT FRIENDLY STRAINER SLOTS"
- So, doesn't it make sense to specify MIFAB with stainless steel Top Assemblies!

"ESPECIALLY WHEN THEY COST NO MORE!"

To see the entire MIFAB line, order your own copy of our expanded product catalog. Go to www.mifab.com or call 1-800-465-2736

DRAINS • ACCESS DOORS • INTERCEPTORS
TRAP SEAL PRIMERS • HYDRANTS

DEA Sales Tel: (914) 589-2596 Fax: (914) 941-6638

High Efficiency = Smart

Digital Control = Brilliant

Flo-Eco is more than 95% efficient. And 100% intelligent.

Introducing Flo-Eco™, a complete line of fully condensing, storage type water heaters, for use with either natural or LP gas. The innovative space-saving design, quality construction and flexible configuration options make Flo-Eco the smart choice for efficiency and life-cycle value.

Combining Flo-Eco™ with the Brain® Digital Re-circulating Valve (DRV) offers a truly intelligent system and a revolutionary approach to hot water generation and temperature control. All in a single packaged solution. And all fully compatible with Building Automation Systems on the BACnet™, LonWorks™, and Modbus protocols, as well as through a Web browser interface.

Flo-Eco high efficiency water heaters are designed to operate in condensing mode at system demand flow rates as low as 3 GPM – resulting in higher efficiencies across the entire operational cycle.

Because Flo-Eco does this without costly and complicated modulating burners, Flo-Eco delivers higher energy savings when compared to other condensing water heaters.

To learn how Armstrong can deliver a truly brilliant hot-water solution, contact your Armstrong Hot Water Group representative or visit armstronginternational.com/flo-eco

Flo-Eco water heaters carry an industry leading 10-year tank warranty and a 5-year heat exchanger warranty, and The Brain (DRV80) carries a complete five-year warranty on all component parts.



Represented locally by:
Woods and Jaye Sales Co., Inc.
Marco Barbera
33-09 37th Avenue,
Long Island City, NY 11101
Phone: 718-786-8260
Cell: 347-228-7887
sales@woodsandjaye.com

Local Factory Support:
Mike LaBrunda
46 Condit Court
Roseland, NJ 07068
Phone 973-618-0760
Fax 973-618-0734
labrunda@armstronginternational.com



Armstrong International, Three Rivers, MI 49033
armstronginternational.com

Flo-Eco™

©2006 Armstrong International, Inc.

Water Savings • High Performance • Reduced Costs

ZURN



EcoVantage™ Ultra Water Saving Urinal System

Zurn continues to demonstrate leadership in plumbing system innovation. The Z5798 ultra low consumption (1/8 gpf) urinal system is the latest product in that pioneering spirit. It leads the way with ultra low water consumption, latest in sensor technology, and high quality vitreous china.

Z5798 System Features

- High efficiency alternative to waterless urinals – optimized distribution plate and water trap pass all ASME A112.19.2 urinal performance tests.
- Ultra low water consumption – 85% water savings compared to a 1.0 gallon urinal.
- Conserves more than 30,000 gallons per year – fast payback calculations on retrofit.
- Easy to retrofit – in many cases urinal can be retrofitted to existing carrier and outlet rough-ins.
- Sensor flush valve with Smart technology – sanitary, hands-free operation.
- Battery operated – optimized electronics deliver 200,000 cycle or three year battery life.
- Zurn One System warranty – guaranteed paired performance from one manufacturer on the entire system.

ZURN

ZURN PLUMBING PRODUCTS GROUP COMMERCIAL FIXTURES OPERATION
2610 SOUTH WORK STREET, FALCONER, NY, U.S.A. 14733
PHONE: 716/665-1132 FAX: 716/665-1135 WWW.ZURN.COM

Proudly Presented By
ASAP Sales Corp. Inc.
201 Montrose Rd.
Westbury, NY 11590
Phone: 516-333-4488
Fax: 516-333-9486

GreenSpec
LISTED



RUBBERFLEX
Handle Assembly

**DELANY
FLUSHBOY**

The advanced design of the "Rubberflex" handle ensures highly efficient, maintenance-free performance. As the handle is depressed, the rubber flexer compresses to create the sealing action.



Delany
FLUSH VALVES

Coyne and Delany Co.
P. O. Box 411
Charlottesville, VA 22902
Tel: (434) 296-0166
www.coynedelany.com

QUIMBY

EQUIPMENT CO., INC.

35 Central Drive
Farmingdale, NY 11735

Representing

- **ITT A-C FIRE PUMPS UL / FM LISTED**
Horizontal...Vertical...Packages...13 R...13 D...Electric...Diesel
Sprinkler...Standpipe - Automatic - Manual
- **GRUNDFOS PUMPS**
Boiler Feeds...Pressure Booster...Circulators...Metering Pumps
- **BARNES PUMPS & CONTROLLERS**
Sewage...Sump...(Simplex, Duplex, Triplex)...Grinder...Packages
- **SICO WATER BOOSTER SYSTEMS**
Copper Manifolds . . . Custom Build . . . Quick Delivery
- **FLOWAY PUMPS**
Vertical Turbine...Water Wells...Booster Pumps...UL/FM Listed

- Serving the Industry Since 1929
- Professional Start-up Assistance

T: (631) 454-8411 F: (631) 454-8417

www.quimbyinc.com

LAWRENCE LOWY ASSOCIATES

113 DeWitt Street - Suite 203, Garfield, N.J. 07026
T: (973) 772-9224 F: (973) 772-9226

THERMON MANUFACTURING COMPANY

The Heat Tracing Specialists With Commercial Heating Cables and Controls for Every Application:

- Piping Freeze Protection with Constant Wattage and Self Regulating Cables
- Hot Water Temperature Maintenance Systems
- Roof & Gutter De-Icing Systems
- Sidewalk & Driveway Snow Melting Systems

PATTERSON-KELLEY COMPANY

Indirect-Fired Commercial Water Heaters Including:

- COMPACT Semi-Instantaneous Design
- SERIES 500 CONTROL-FLO Storage Heater
- P-K Storage Water Heaters
- SERIES 380 Unfired Steam Generators

AMERICAN THERMAL PRODUCTS

GILSULATE 500 XR

- Thermal Insulation & Corrosion Protection for Underground Piping and Tanks

SCALESAFE - Water Treatment to Prevent Scale

- Safely Applied to Cooling Towers, Boilers, IceMachines, Laundry Equipment, Dishwashers and Potable Water Systems
- Inhibits Corrosion of Piping and Plumbing Fixtures
- No Electric Power hook-up required.

CARTER PUMP INC. - Wastewater Pumps Featuring:

- Pneumatic Sewage Ejectors

McTIGHE OIL / WATER SEPARATORS

- Single Wall / Double Wall Construction
- Rectangular or Round Tanks
- PETRO-PAK Construction



CROKER DIVISION

Fire-End & Croker Corp. 7 Westchester Plaza Elmsford, NY 10523

Representatives in All Major Cities



We offer a complete line of fire protection products

800-759-FIRE
info@croker.com

Fax: 914-692-3892
www.croker.com

-SINCE 1930-

HOLBY TEMPERING VALVE

AN AUTOMATIC
ALL BRONZE
THERMOSTATICALLY OPERATED
WATER BLENDING DEVICE



APPROVED

by the
ANSI / AMERICAN SOCIETY
OF SANITARY ENGINEERING
STANDARD No. 1017

APPROVED

by the
BOARD OF STANDARDS AND APPEALS
CITY OF NEW YORK
CAL. #578 - 48 - SM

DISTRIBUTED BY
PLUMBING and HEATING SUPPLIERS

HOLBY VALVE COMPANY, INC.

1146 Second Avenue, New York, N.Y. 10021-8540
U.S.A.

Phone (212) 838-6363

Fax (212) 838-6367



FEDERAL PUMPS

The Federal Pump Corporation. Established in 1927.



higher standards by design

We've been proudly manufacturing pumps for over 80 years, to provide the industry with the most reliable products and services available. We plan to continue producing quality pumps and accessories into the 21st century, and are here to help plan, produce, and install the right pump for your application. Visit our detailed web site to view our product line of pumps and accessories.

CONDENSATE & VACUUM UNITS • BOILER FEED UNITS • SUMP PUMPS • SEWAGE PUMPS • CLOSE-COUPLED PUMPS
FLEXIBLE-COUPLED PUMPS • HORIZONTALLY SPLIT CASE PUMPS • WATER SUPPLY SYSTEMS • ACCESSORIES

TEL: (718) 451-2000

federalpumps.com

FAX: (718) 629-0367



Immediate Member Benefits:

The Plumbing Engineering Design Handbook: The most definitive collection of general plumbing practices in the field of plumbing engineering. The ASPE Handbook consists of forty-seven chapters divided into four volumes. New members receive one of four volumes immediately upon joining and the revised volume thereafter.

Plumbing Systems & Design Magazine: Members immediately begin receiving *Plumbing Systems & Design* magazine. This bimonthly magazine covers a wide spectrum of topics important to the profession and to daily practices in the field.

The ASPE Report: The Society's bimonthly newsletter, incorporated with-in the *Plumbing Systems & Design* magazine, keeps members abreast of Society activities and issues impacting the profession.

Publication and Education Program Discounts: All publications, education programs, and other services and products of the Society are offered at special discounted rates to ASPE members.

Collegial Interaction and Networking

Every ASPE member not only belongs to ASPE worldwide, but has the opportunity to belong to one of 59 Chapters organized throughout the United States and Canada. Chapters sponsor seminars, conduct monthly technical meetings, publish newsletters and offer special peer-to-peer and professional-to-professional interaction and networking opportunities.

Professional Growth and Development

The ASPE Biennial Convention and Engineered Plumbing Exposition (EPE) 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 is the largest Exposition dedicated entirely to the field of plumbing engineering.

The ASPE Technical Symposium is offered in non-Convention years and provides a unique forum for the most comprehensive and intensive half-day and full-day plumbing engineering design seminars and workshops available anywhere. The "hands-on" workshops provide the plumbing engineer with information about new developments in the industry and new techniques for practical implementation in the field.

Technical Seminars and Workshops sponsored by ASPE offer one- or two-day programs conducted by leading industry professionals. Each educational program focuses on a specific area of plumbing engineering.

Continuing Education Units (CEUs): ASPE offers the opportunity to earn Continuing Education Units at selected technical program sessions at the biennial Convention, the Technical Symposium and at stand-alone Seminars and Workshops. CEUs are nationally recognized units of achievement that may be used as evidence of increased performance capabilities and for job advancement.

The Society shall be open to anyone involved in, or having a special interest in, the design, specification or drawing of plumbing systems. **Dues:** Please choose the appropriate membership classification and remit dues with this application. In the event the membership classification is changed, a corrected dues statement (or dues overpayment refund) will be sent with your notice of election.

The required \$25 Application Fee (U.S. dollars) is nonrefundable. There is no application fee for student membership.

Membership Classifications

Membership classification (Grade) will be conferred based on Article II of the ASPE Bylaws as follows:

Full Member: Eight (8) years of experience in plumbing engineering or related engineering field, a minimum of four (4) years of which must have been in a position of responsibility for the design of plumbing systems or in a position of responsibility for the design of systems and components related to, or incorporated within, plumbing engineered and designed systems. A maximum of four (4) years of experience may be waived by the Society Membership Committee for: (a) Education: one-half (1/2) year for each completed year in a curriculum related to plumbing engineering; (b) Engineering Registration: four (4) years for Professional Engineer registration in a field that includes plumbing engineering; (c) CPD certification: two (2) years. Dues: \$185.

Associate Member: Professionals engaged in plumbing design as consultants or engineers with fewer than eight years of industry experience. Dues: \$165.

Affiliate Member: Any individual involved in the production or marketing of plumbing products. Dues: \$185.

Special Member: Professionals in related fields, such as contractors, or those with a special interest in plumbing design whose professional background do not match the requirements for any of the other categories may apply for Special membership. Dues: \$185.

Governmental Member: Anyone employed by municipal, state, or federal governments for one of the following reasons:

- Checking and/or inspection of plumbing plans and installations;
- The formulation of codes, rules, requirements and regulations pertaining to the planning, designing and installation of plumbing systems, or any portion of a plumbing system;
- Research and development of plumbing systems design criteria. Exception: Persons employed by a government agency for the purpose of designing and/or specifying plumbing systems, who shall be eligible to be Full or Associate members, provided they have fulfilled the experience required as outlined for each respective classification. Dues: \$185.

Student Member: Any individual attending a recognized university or college full time (12 credit hours per term minimum) in a curriculum related to plumbing design. Dues: \$25.



AMERICAN SOCIETY OF PLUMBING ENGINEERS

8614 W. Catalpa Avenue, Suite 1007 1009 • Chicago, IL 60656-1116
 (773) 693-ASPE • Fax: (773) 695-9007
 E-mail: info@aspe.org • Internet: www.aspe.org

MEMBERSHIP APPLICATION

(Please Print or Type)

Chapter Use Only

P	
S	
D	
S	
T	

Incomplete applications will not be processed.

Mr. Ms. Mlle. Mlle. Mps. Mrs.
 First Name _____ (Nickname) _____ Middle Name _____ Last Name _____

Birth Date: Mo _____ Day _____ Year _____

Check all that apply: P.E. CPD Graduate Engineer

I Have previously applied for or held membership in the Society.
 I Have not

RESIDENCE Street Address _____ City _____ State _____ ZIP _____

Check Preferred Mailing Address

Home Phone () _____ E-Mail _____ (required)

BUSINESS Organization Name _____ Phone () _____ Fax () _____

Street Address _____ City _____ State _____ ZIP _____

I Wish to Affiliate with the _____ Chapter.
 (Name of Chapter)

EDUCATIONAL RECORD

Name of Institution	Course or Major	Date From	Date To	Graduation Date	Degree or Diploma
High School					
College/University					
Technical School					
Others					

PROFESSIONAL EXPERIENCE (This section must be completed as it affects membership grade classification. List chronologically, beginning with the present. Work description must be clear and concise: e.g., plumbing, piping, fire protection, HVAC, etc. Use additional sheet as necessary.)

Date (Mo/Yr)	Firm Name and Address	Class* (see below)	Title	Description of Work	Degree of Responsibility
From To					

*Classification of Firm: A - Arch./Engr. or Const. Engr. B - Govt. Agency C - Mfr. or Mfr's Rep.
 D - Educ. Inst. E - Contractor F - Other (Explain) _____

REGISTRATION (P. E.)

State: _____ Certificate No.: _____ Branch: _____

REFERENCES (References should be an engineering profession. ASPE members preferred. ASPE reserves the right to contact references.)

Name	Address	Telephone

Certification by Applicant

The undersigned certifies that all statements made herein are correct and, if elected to the Society, agrees to adhere to the Society's Bylaws and accept the Classification conferred by the Society. Upon becoming a member, the applicant will endeavor to advance the objectives of the Society and the plumbing engineering profession.

Signature of Applicant _____ Date _____

Sponsor: _____ (PLEASE PRINT)

Member Type	Amount	Amount Due (Enter Amount)
<input type="checkbox"/> Full	\$185	\$ _____
<input type="checkbox"/> Associate	\$165	\$ _____
<input type="checkbox"/> Affiliate	\$185	\$ _____
<input type="checkbox"/> Special	\$185	\$ _____
<input type="checkbox"/> Governmental	\$185	\$ _____
<input type="checkbox"/> Student	\$ 25	\$ _____
Application Fee (except students) \$25		
TOTAL AMOUNT DUE		\$ _____
Payment Information:		
<input type="checkbox"/> Enclosed is my check payable to ASPE.		
Please charge my: <input type="checkbox"/> Visa, MasterCard		
<input type="checkbox"/> Discover Card <input type="checkbox"/> American Express		
Card # _____		
Exp. Date: ____ / ____ / ____		
Signature: _____		
Date: _____ Telephone: _____		

© Copyright 2007 American Society of Plumbing Engineers. All Rights Reserved.

American Society of Plumbing Engineers member dues are not deductible as a charitable expense, but may be deductible as a business expense.

ANNOUNCEMENTS!

*What's New and Exciting in
the world of Plumbing?*

Employment Announcement: Plumbing & Fire Protection Engineer wanted with Rail Transit experience. New York State Professional Engineer and the ability to use Microstation are all pluses. If interest please e-mail your resume to Rick Stamm at, Rstamm@mta-esa.org.

Announcement: The American Society of Plumbing Engineers, New York City Chapter Board of Officers would like to wish everyone and your families a Happy and Healthy Holiday season. We are looking forward to beginning another year together in 2010 with great interesting topics and speakers each month. Happy New Year!!!



Happy New Year

We Are Flow Solutions We Are Service



- AERCO
- ACE
- HUBBELL
- ITT FLYGT
- SPENCER TURBINE
- PEERLESS PUMP
- RAYCHEM
- SYNCFLO



G. A. Fleet Associates, Inc.

For more information call: **914-835-4000**
or fax: **914-835-1331**

55 Calvert Street, Harrison, NY 10528
www.gafleet.com

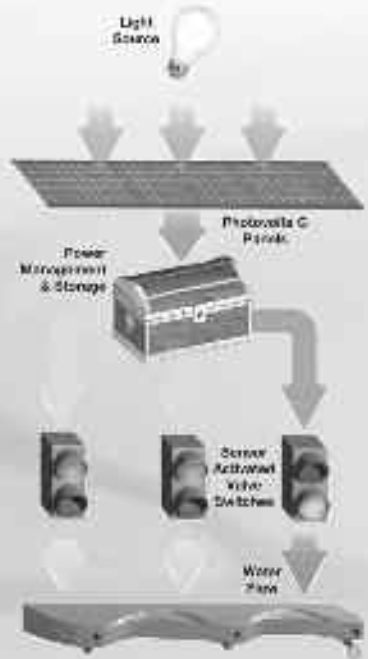
INTRODUCING THE ndite[®] LIGHT-POWERED HANDWASHING FIXTURE



- No Batteries
- Light-Powered
- No Electrical Hook-Ups
- Years of Maintenance-free operation



How it works



Faucets



Washroom Accessories



Thermostatic Mixing Valves
Valves



Emergency Fixtures



Washfountains



Your One Source Supplier

Represented by Walsh Sales Associates
80 Allen Boulevard, Farmingdale, NY 11735
Phone: (631) 420-7400 Fax: (631) 420-7415
e-mail: walshsales@aol.com

A.O. Smith, c/o Wales Darby Inc.,
2910 Express Drive South, Islandia, N.Y. 11749,
T: (516) 585-6800 F:(516) 585-6838

Altherm Inc.,
255 Humphrey St., Englewood, N.J. 07631,
T: (800)-ALTHERM, F: (201) 871-0314

American Pipe & Tank Lining Co.,
538 W. 35th St., N.Y.C., N.Y. 10001,
T: (212) 736-6618, F:(212) 465-1734

American Standard Inc.,
1 Centennial Avenue, Piscataway, N.J. 08856,
T: (732)980-3405, www.americanstandard-us.com

Armstrong International, Inc.,
Three Rivers, Michigan
T: (269) 279-3602 www.armstrong-intl.com

ASAP Sales Corp.,
201 Montrose Rd., Westbury N.Y. 11590,
T: (516) 333-4488 F:(516) 333-9486 www.asapsales.com

Bradford White c/o Dellon Sales Co.,
325 Merrick Ave., E. Meadow, N.Y. 11564,
T:(516) 357-9090, F:(516) 357-9104

Bradley, c/o Walsh Sales,
80 Allen Blvd., Farmingdale, N.Y. 11735,
T: (631) 420-7400, F: (631) 420-7415

Canaris Corp., c/o Cullen Assoc.,
10 Memorial Drive, Neptune, N.J. 07753,
T: (732) 988-9600 F: (732) 988-3750

Coyne & Delany Co.,
P.O. Box 411, Charlottesville, VA 22902
T: (434) 296-0166 www.coynedelany.com

Cullen Associates
10 Memorial Drive, Neptune, N.J., 07753,
T: (732) 988-9600, F: (732) 988-3750

DEA Sales,
21 Waterview Drive, Ossining, N.Y., 10562
T: (914) 589-2596 F: (914) 941-6638

Dellon Sales Company
5 Albertson Avenue, Albertson, N.Y. 11507,
T: (516) 625-2626 F: (516) 625-3030

Edwards, Platt & Deely,
368 Wyandanch Ave., North Babylon, N.Y. 11703,
T: (631) 253-0600 F: (631) 253-0303 www.epdreps.com

Federal Pump Corp.,
1144 Utica Ave., Bkln, N.Y. 11293
T: (718) 451-2000 F: (718) 629-0367

Firetrol Inc.,
106 MacKenan Drive, Cary, N.C. 27512
T: (919) 460-5200 F: (919) 460-5250 www.firetrol.com

Fire-End & Croker Corp.,
7 Westchester Plaza, Elmsford, N.Y. 10523,
T: (800) 759-3473 F: (914) 592-3892
email:info@croker.com www.croker.com

G.A. Fleet Associates
55 Calvert St., Harrison, N.Y., 10528
T: (914) 835-4000 F: (914) 835-1331

Harper International Inc.,
1012 Washington Blvd, Stamford, C.T., 06901,
T: (800) 551-2733 or (203) 323-2600 F: (203) 323-7100
www.SolutionsByHarper.com

Heat Timer Corp.,
20 New Dutch Lane, Fairfield, N.J., 07004,
T: (973) 575-4004 F: (973) 575-4052 www.heat-timer.com

Holby Valve Co. Inc.,
1146 2nd Ave., N.Y.C., N.Y. 10021
T: (212) 838-6363, F: (212) 838-6367 www.holbyvalve.com

Ketcham Pump Co. Inc.,
34-20 64th St., Woodside, N.Y. 11377,
T: (718) 457-0800 F:(718) 672-1408

Lawrence Lowy Associates,
113 DeWitt St., Suite 203, Garfield, N.J. 07026
T: (973) 772-9224 F: (973) 772-9226

Leonard Powers Inc.,
519 W 27th Street, New York, N.Y. 10001
T: (212) 244-8878 F: (212) 563-4761

Leonard Valve Co.,
1360 Elmwood Ave., Cranston, R.I. 02910, U.S.A.,
T: (888) 797-4456 F: (401) 941-5310
email: info@leonardvalve.com www.leonardvalve.com

Medi-Gas Inc.,
1655 Sycamore Ave, Bohemia, N.Y., 11716
T: (631) 563-4040 F: (631) 563-4187

Metro Rep,
169 New Hyde Park Road, Franklin Sq., N.Y. 11010
T: (516) 616-4650 F: (516) 616-4605
email: metrorepy@aol.com

Mifab c/o DEA Sales,
411 Glenwood Drive, Briarcliff, N.Y., 10510
T: (914) 589-2596 F: (914) 941-6638 www.mifab.com

Nibco Valve Co.,
1516 Middlebury Street, Elkhart, I.N. 46515-1167,
T: (973) 886-5322 F: (574) 295-3307 www.nibco.com

Patterson-Kelley Inc.,
100 Burson St., E. Stroudsburg, P.A. 18301,
T: (570) 421-7500 F: (570) 476-7247 www.patkelco.com

P.E.P.,
50 Tannery Rd., Branchburg, N.J. 08876
T: (800) 407-3726, (908) 534-6111 F: (908) 534-5287
email: pep@pep-plastic.com www.pep-plastic.com

PVI Industries LLC,
P.O. Box 834, Newtown, CT. 06470,
T: (203) 270-7227 F: (203) 270-7337 www.pvi.com

Quantzel Plumbing Supply
379 Throop Ave., Bklyn, N.Y. 11221,
T: (718) 455-6600 F: (718) 919-8579

Quimby Equip. Co. Inc.,
35 Central Drive, Farmingdale, N.Y. 11735,
T: (631) 454-8411 F: (631) 454-8423
email: quimbyeqp@aol.com www.quimbyequipment.com

Reliable Automatic Spk. Co. Inc.,
103 Fairview Park Drive, Elmsford, NY 10523,
T: (800) 431-1588 F: (800) 848-6051
www.SolutionsByHarper.com

Rosenwach Tank Co. Inc.,
40-25 Crescent St. L.I.C., N.Y., 11101,
T: (718) 729-4900 F: (718) 482-0661

Sloan, c/o Edwards, Platt & Deely
368 Wyandanch Ave.,
W. Babylon, N.Y. 11703,
T: (631)253-0600 hF: (631)253-0303

Speakman, c/o Woods & Jaye,
33-09 37th Ave, L.I.C., N.Y., 11101
T: (718) 786-8260 F: (718) 786-5393

Symmons Valve,
31 Brooks Dr., Braintree, M.A. 02184
T: (617) 848-2250 F: (617) 843-3849
www.symmons.com

T&S Brass & Bronze
2 Saddleback Cove, P.O. Box 1088,
Traveller's Rest, S.C. 26990-1088,
T: (864) 834-4102 F: (864) 834-3518 www.tsbrass.com

TOTO USA
21 Mercer Street, New York, New York,10013,
T: (917) 237-0665 www.totousa.com

Town & Country
P.O. Box 269, Morganville, N.J., 07751
T: (732) 780-5300 F: (732) 294-0001
www.tandcplastics.net

Venco Sales Inc.
25 Woodhull Ct., Northport, N.Y. 11768,
T: (631) 754-0782 F: (631) 754-4659
email: venco@vencosales.com

Victaulic Co. of America,
4901 Kesslerville Rd., Easton, P.A.
18042, T: (800) 742-5842 F: (800) 437-6573

Wales Darby Inc.,
2910 Express Drive South, Islandia, N.Y.
11749, T: (631) 585-6800 F: (631) 585-6838

Wallace Eannace Associates,
50 Newton Rd., Plainview, N.Y.
11803, T: (516) 454-9300 F: (516) 454-9307
www.wallaceannace.com

Walsh Sales Assoc. Ltd., 80 Allen Blvd., Farmingdale,
N.Y. 11735, T: (631) 420-7400 F: (631) 420-7415
www.walshsales.com

Watts, c/o Edwards, Platt & Deely,
368 Wyandanch Ave., W. Babylon, N.Y. 11703,
T: (631) 253-0600 F: (631) 253-0303

Woods & Jaye Sales, 33-09 37th Ave., L.I.C., N.Y., 11101
T: (718) 786-8260 F: (718) 786-5393
email: sales@woodsnyjaye.com www.woodsnyjaye.com

Zurn, c/o ASAP Sales Corp.,
201 Montrose Rd., Westbury, N.Y., 11590,
T: (516) 333-4488 F: (516) 333-9486

STEEL TANKS • FUEL OIL TANKS • WOOD TANKS • PLUMBING • COOLING TOWERS



**Repair, Replacement, Retrofit of Cooling Towers
Hot & Cold Water Filtration Systems
Lining & Coating
Backflow Devices**

**One Call Does It All. . .
DO IT TODAY !**



AMERICAN CONTRACTING CO., INC.

**AMERICAN PIPE &
TANK LINING CO., INC.**

MANHATTAN COOLING TOWER, INC.

11-42 46th Road, Long Island City, N.Y. 11101

Tel: (212) 736-6618

Fax: (212) 465-1734