



# FPC

Fire Protection Contractor magazine

The Most Widely-Read Sprinkler Industry Publication

October 2024

\$8



## Fire Pumps

also

*Expert Witnessing*

# Maximize Storage. Minimize Wasted Space.

cULus Listed ESFR Sprinklers for Roof Deck Heights up to 48 ft.



## Model P25

- 40 ft. tall storage
- 5 ft. min. aisle width
- 50 psi operating pressure
- Single- and double-row open frame racks



## Model N28T6

- 43 ft. tall storage
- 4 ft. min. aisle width
- 35 psi operating pressure
- Single-, double-, and multiple-row open frame racks



## Model N28T3

- 43 ft. tall storage
- 4 ft. min. aisle width
- 35 psi operating pressure
- Single-, double-, and multiple-row open frame racks
- 3 in. transverse flue spaces in single- and double-row open frame racks



- See Reliable Technical Bulletins 070 and 082 for complete details and limitations.
- Reliable has developed, and ASTM International has published, an Environmental Product Declaration (EPD) for the Model P25, N28T6 and N28T3 sprinklers.

# Reliable®

[reliablesprinkler.com](http://reliablesprinkler.com)



SEE  
OUR  
**48'**  
LINEUP



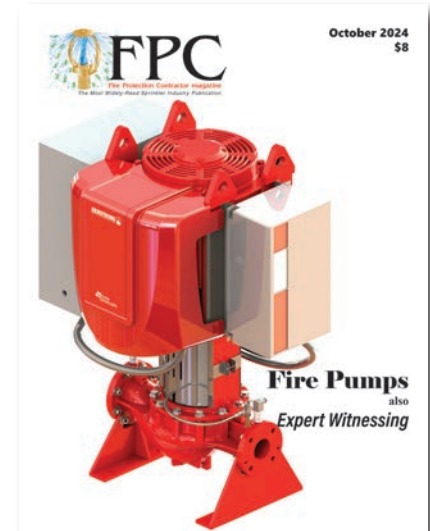
~ ON THE COVER ~

## FIRE PUMPS

- 14 Comments by Ken Wagoner**  
**Understanding the Basics of Fire Pumps**  
*By Travis Montembeault*  
**Comments by Craig Brown (FPC, 2017)**  
**Peerless FireConnect**
- 15 Armstrong Enclosed Fire Pump Packages**  
*From Armstrong Fluid Technology*  
**eFirePump.com**

## EXPERT WITNESSING

- 16 Comments by Ken Wagoner**  
**How to Survive a Deposition** *By Kelly P. Reynolds (FPC, 2014)*  
**Tips on Expert Witnessing** *From Clay Claiborne (FPC, 2014)*



Cover photo courtesy of Armstrong Fluid Technology. See the Fire Pumps feature starting on page 14. Catch some timeless tips and firsthand knowledge on Expert Witnessing on page 16. Part Two of the Underground article is found on page 22, a fun list of 'Did You Know' on page 19... and so much more!

### COLUMNS

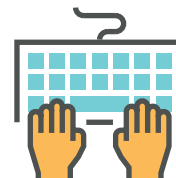
- 18 Software:**  
*PayPerCALC for Commercial and Residential Fire Sprinkler Hydraulic Calculations On Demand*  
*By Dr. Sang H. Wong*
- 22 Underground: Part Two**  
*The Mysteries, Dangers, and Risks of Underground Piping Repair* *By Tom Hartel*
- 36 Software:**  
*What is the Connected Apprentice?* *From iBusiness Technologies*

### NEWS

- |  |  |
|--|--|
| Biden-Harris Panders to Union, Hurts 90% of Workers .....7       | Public Housing Authority Sprinkler Installations .....10 |
| Labor Dept. Challenges Injunction on <i>Davis-Bacon</i> Rule...7 | Fire Sprinklers Mandatory in UK New Care Homes .....12   |
| Tax Foundation Says Compliance Costs Surge 32% .....8            | Fire Sprinkler Associations Making News.....26           |
| Nonresidential Construction Spending Dips 0.2% in July...8       | Construction Backlog Indicator Down.....38               |
| Construction Job Openings Plunge .....10                         | Holly Gray-Salmon, Young Prof. of the Year Award .....38 |

### DEPARTMENTS

- |                           |                             |                             |                               |
|---------------------------|-----------------------------|-----------------------------|-------------------------------|
| Advertisers Index ..... 6 | Collector's Corner ..... 38 | NewsBriefs..... 7           | Software ..... 18, 36         |
| Association News..... 26  | Company News ..... 20       | Notebook..... 38            | Subscription Service ..... 35 |
| Calendar ..... 34         | Editorial..... 4            | People ..... 30             | Survey ..... 13               |
| Cartoon..... 38           | Letters ..... 6             | Scriptures ..... 12, 34, 38 | Underground ..... 22          |
| Classifieds ..... 37      | New Products ..... 28       | Seminars & Events..... 32   |                               |



## A MORE PERFECT UNION

### The Preamble to the Constitution

**W**e the People of the United States, in Order to form a more perfect Union, establish Justice, insure domestic Tranquility, provide for the common defense, promote the general Welfare, and secure the Blessings of Liberty to ourselves and our Posterity, do ordain and establish this Constitution for the United States of America.

On July 4, 1776, the American colonies adopted a *Declaration of Independence* that affirms:

“all men” are “endowed by their Creator with certain unalienable Rights.”  
...among these rights are “Life, Liberty, and the pursuit of Happiness.”  
...the purpose of government is to “secure these rights.”

Please Vote for “Life, Liberty, and the pursuit of Happiness.”

Big Government is anti-liberty.

Save the Economy, Stop High Inflation, Protect our Borders, Fight Crime, Save America.

# Vote

**FPC magazine**, Fire Protection Contractor  
ISSN: 1043-2485

**Volume 47, No. 10**  
Since 1978

**EDITOR & PUBLISHER** Brant R. Brumbeloe | **ASSOCIATE EDITOR & PRODUCTION MANAGER** Tami L. Collins  
**ASSOCIATE EDITOR & OFFICE MANAGER** Leigh Petersen | **ASSOCIATE EDITOR & OFFICE ASSISTANT** En Brumbeloe  
**ADMINISTRATIVE ASSISTANT** Lillian Brumbeloe | **FOUNDER** Haden B. Brumbeloe, P.E., F.P.E.

**FPC/Fire Protection Contractor** is published for the benefit of fire protection contractors, engineers, designers, sprinkler fitters, apprentices, fabricators, manufacturers, and distributors of fire protection products used in automatic fire sprinkler systems.

**Circulation:** Last month, September 2024, our circulation was 1,768 copies and 57 digital subscriptions. We have subscribers throughout the United States and Canada and several foreign countries and territories.

**Readership:** Fire sprinkler contractors and systems designers make up most of our circulation. Readers include architects, engineers, fabricators, manufacturers, suppliers, unions, fitters, universities, libraries, etc., totaling over 40 categories.

**Subscription Rates:** In the U.S.: 3 years/\$171, 2 years/\$124, 1 year/\$68. Mexico and other countries, \$145 per year (payable in U.S. dollars), First Class International. Canadian rates are (USD): 3 years/\$272, 2 years/\$192, 1 year/\$102 (5% GST included). Digital rates: \$55 per year.

**Advertising deadlines** for display ads is the first of each month for insertion in the following month's issue.

**All rights reserved.** Material may be reproduced or republished with credit to source and author (when indicated).

**Submittals:** All letters, articles, and photographs are welcome and should be directed to Editor's attention. Material will not be returned unless accompanied by self-addressed, stamped envelope.

**Disclaimer:** The information contained herein is correct to the best of our knowledge. *FPC* will not knowingly publish false information, but individual authors and letter writers are responsible for the facts they represent. Recommendations and suggestions are made without guarantee as to result since conditions of use are beyond our control. The contents are intended only as a source of information.

**FPC/Fire Protection Contractor** is published monthly in Auburn, California; Phone: (530) 823-0706, Website: [www.fpcmag.com](http://www.fpcmag.com), E-mail: [info@fpcmag.com](mailto:info@fpcmag.com) by Haden B. Brumbeloe & Associates, Inc. Periodicals postage paid at Auburn, California and additional mailing offices.

**POSTMASTER:** Send address changes to  
**FPC/Fire Protection Contractor**  
**P O Box 370**  
**Auburn, CA 95604-0370**





# THE FOREFRONT OF **FABRICATION**



**SCAN TO  
LEARN MORE**

As fabrication evolves, so do we. We stay on the leading edge of technology and technique to give our customers the best in the business. For us, that looks like automatic welding, data-driven processes and ISO certification. For you, that looks like reduced risk, improved consistency, more accurate timelines and industry-leading quality specifications. For a commitment to continual improvement, choose Ferguson Fire & Fabrication.

VISIT US ONLINE AT **FERGUSON.COM/FIRE**

©2024 Ferguson Enterprises, LLC 0824 6852887



## *Here Are Some Short Remarks on Both Fire Pumps and Expert Witnessing...*

### **Fire Pumps:**

As the fire pump is the choke point in a hydraulically designed sprinkler system it's worth making the effort to obtain a 'certified' pump curve from the manufacturer. Doing so will alleviate questions regarding the discharge from the pump at the required pressure for the system design.

If the fire pump selected is diesel-driven the quantity of the fuel supply to be provided should be clearly indicated on the plans. Most manufacturers show the fuel consumption in their literature and this is worth noting on the plan.

The pressure maintenance pump and fire pump start and stop points as clarified in NFPA 20 should be provided clearly on the plan.

### **Expert Witnessing:**

If you are to take on such work, it is critical to note that you will testify only to what is supported by manufacturer's data and the applicable codes and standards. Supporting documentation for such testimony will add a strong level of credibility to any such testimony.

If you are asked to testify to a position that is in conflict with the manufacturer or the codes and standards, I believe you have ceased to become an "expert" and have now taken on the role of an "advocate."

Both comments are based on my experiences throughout my career, the latter of which went a long way to supporting

the article I wrote for you regarding codes being your friends. That experience still pushes up my blood pressure, so I spend less time thinking about it.

— Ken Wagoner, SET  
Parsley Consulting  
[www.parsleyconsulting.com](http://www.parsleyconsulting.com)



### **Corrections**

Please find below edits, corrections, and clarifications to the article **CPVC Fire Sprinkler Systems** by Scott Harrison that was published in the September 2024 edition of *FPC* magazine on page 14.

Please note these changes in your copy of *FPC*.

#### **1. Page 14, Paragraph 4**

Bullet point #2:

Please change 1500F to 150°F.

Please change "CPVC Sweep 900 Elbows" to "CPVC Sweep 90° Elbows."

Bullet point #3:

Please change.... "lengths for 3/8" or 1/2" drywall" to "lengths for 1/2" or 3/8" drywall."

#### **2. Page 15 Fitting Photos:**

Please delete the word "Transparent" from "Sweep Elbow Group Transparent."

Please change the description on the Tee from "Back-2-Back" to "Back-to-Back."

Please change the description on the Cross from "Back-2-Back Cross" to "Back-to-Back Cross."

## **Advertisers Index**

Aegis Technologies, Inc. ....	29	General Air Products.....	9
AFS Services .....	25	Huguenot Laboratories .....	12
AGF Manufacturing .....	33	Hydratec, Inc. ....	7
ARGCO .....	30, 31	Metraflex Company .....	36
Backflow Direct .....	17	Pace Machinery Group, Inc. ....	13
Compufire .....	37	Pittsburg Tank & Tower Co., Inc. ....	28
Dyne Fire Protection Labs .....	8	Raimondo Fire Systems .....	34
Easyflex USA .....	40	Reliable Automatic Sprinkler Company.....	2
eFirePump.com .....	15, 34	Talco Fire Systems .....	10
Elite Software .....	27	Victaulic Company .....	11
Ferguson Fire & Fabrication, Inc. ....	5	Viking Corporation .....	21
FirePumpParts.com .....	37		



## National

### Latest Biden-Harris Order Panders to Unions, Harming 90% of the Construction Workforce

Associated Builders and Contractors (ABC) released the following statement in response to an executive order that favors unions and is likely to undermine competition to build taxpayer-funded infrastructure projects.

"This gift to unions is discouraging for the overwhelming majority of the U.S. construction industry workforce – nearly 90% – that works for nonunion employers," said Ben Brubeck, ABC Vice President of Regulatory, Labor and State Affairs. "It also will hurt taxpayers and the overall construction industry, as both benefit from inclusive, win-win

policies that welcome all contractors and workers to rebuild America, even if they decide not to affiliate with labor unions.

"The executive order will undermine the efficient and economical delivery of taxpayer-funded infrastructure, clean energy, and manufacturing projects and is consistent with the Biden-Harris administration's politically motivated policy schemes. These policies steer taxpayer-funded infrastructure contracts to unionized businesses and create jobs exclusively for union members at the expense of everyone else and the rule of law...."

**"ABC opposes exclusionary policies and instead advocates for all construction workers to be welcome to build taxpayer-funded construction projects because that creates the most value for taxpayers," said Brubeck. "ABC strives to create an environment in which people and companies succeed and flourish based on free-market principles."**

## National

### Labor Dept. Challenges Injunction on Davis-Bacon Rule

On August 22, 2024, the Department of Labor officially filed a notice of their intent to appeal the recent motion for a nation-wide preliminary injunction blocking the provisions being challenged by The Associated General Contractors of America (AGC) to the DOL's expansion of *Davis-Bacon* coverage. Pending any further action in court, the nation-wide injunction remains in place.

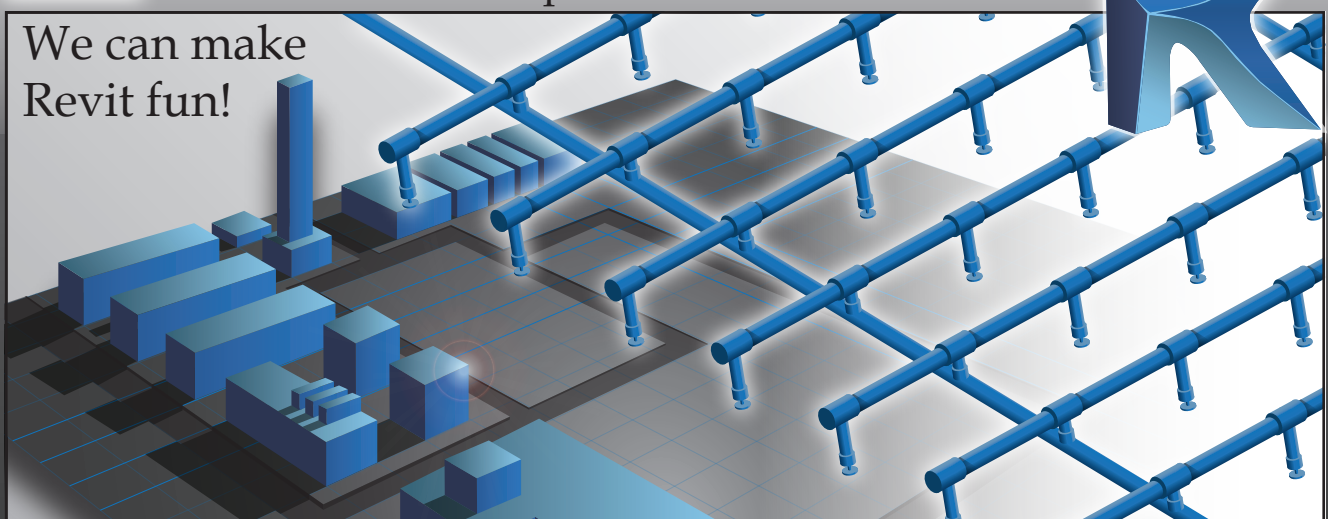
AGC originally filed a narrowly tailored lawsuit in federal court against the Department, challenging the agency's unlawful expansion of *Davis-Bacon* coverage to truck drivers and material suppliers owned and operated by general contractors or subcontractors.



## HydraCAD for Revit

Excellence in sprinkler software since 1972

We can make  
Revit fun!



### Do Everything in Revit

- HydraCAD for Revit
- HydraCALC for Revit
- HydraLIST for Revit



## HYDRATEC

64 Haverhill Road • Route 111 Windham, NH 03087  
Tel (603) 434-0502 www.HydraCAD.com

**Autodesk®**  
Authorized Reseller

**Navisworks®**  
Authorized Reseller





AGC originally filed a narrowly tailored lawsuit in federal court against the U.S. Department of Labor, challenging the agency's unlawful expansion of Davis-Bacon coverage to truck drivers and material suppliers owned and operated by general contractors or subcontractors.

In addition, the Association also challenged the retroactive imposition of Davis-Bacon requirements where they applied but owners forgot to include them in the contract and is also temporarily halted by this ruling.

All of these are provisions of the massive U.S. DOL Davis-Bacon final rule that took effect on new contracts on or after October 23, 2023.

#### National

## Tax Foundation Says Compliance Costs Surge 32%

Efforts to simplify the federal tax code have failed to reverse decades of regulatory and legislative changes that have made it more complex.

This according to an item published September 6, 2024, by Jim Tyson on [www.constructiondive.com](http://www.constructiondive.com).

The cost of tax compliance at large companies surged 32% from 2017 to 2023, with blame falling on increasingly complicated international rules, the corporate alternative minimum tax, and changes under the *Tax Cuts and Jobs Act of 2017*, the Tax Foundation said.

Multinational companies on average spent \$25.6 million to comply with income tax rules in 2022 or 2023, the Tax Foundation found in a survey of 21 corporations.

The companies, on average, increased funds allocated to tax compliance by 29% from 2017 until 2023, the Tax Foundation said. "While the sample size is small and limited to relatively large companies, evidence points to economies of scale in tax compliance costs, meaning smaller companies are disproportionately burdened and disadvantaged by tax complexity."

The *Internal Revenue Code* has ballooned roughly 40% during the past three decades, from 3.1 million words in 1994 to 4.3 million words in 2021,

according to a paper released in December 2023 by the National Bureau of Economic Research. It is the largest and most complex tax code among six countries reviewed in the study.

"Filing costs and complexity have been growing over time," the researchers said, noting that most taxpayers "would be willing to pay for simplifying the tax system."

U.S. taxpayers this year will spend more than 7.9 billion hours complying with the tax code at an estimated annual compliance cost of \$413 billion, based on average hourly compensation, the Tax Foundation said.

#### National

## Nonresidential Construction Spending Dips 0.2% in July

National nonresidential construction spending decreased 0.2% in July, according to an Associated Builders and Contractors (ABC) analysis of data pub-

# NFPA 25 Sprinkler Testing



Free sample kits



Free shipping



Results in 5 business days or less

Some restrictions apply



**DYNE**  
FIRE PROTECTION LABS  
AN NFPA GLOBAL SOLUTIONS™ COMPANY

Request your **FREE** sample kit today to get started!  
[dyneusa.com](http://dyneusa.com) [lab@dyneusa.com](mailto:lab@dyneusa.com) 800-632-2304



# VAPOR Pipe Shield

A less expensive, more effective corrosion mitigation solution for dry pipe and pre-action fire sprinkler systems.

*Full system protection.*

With Purge:

**10**

Days

Without Purge:

**21**

Days

**Tested and proven.**



To Learn More



lished by the U.S. Census Bureau. On a seasonally adjusted annualized basis, nonresidential spending totaled \$1.21 trillion.

Spending was down on a monthly basis in 11 of the 16 nonresidential subcategories. Private nonresidential spending decreased 0.4%, while public nonresidential construction spending was up 0.2% in July.

“Nonresidential construction spending declined for the second consecutive month in July but remains just 0.4% below the all-time high established in May,” said ABC Chief Economist Anirban Basu. “While Hurricane Beryl, which interrupted construction activity along the Gulf Coast in early July, contributed to the month’s weak construction spending data, the cumulative effect of high interest rates likely bears more blame. This is particularly true for nonresidential spending in the private sector, which fell 0.4% for the month and is up just 4.5% over the past year.

“Less than half of contractors expect their sales to increase over the next six months, according to ABC’s Construction Confidence Index, a clear indication that the industry is eagerly awaiting lower interest rates. Fortunately, it’s all but certain that the Federal Reserve will begin lowering rates at its September meeting. The remaining question is whether it will be a 25- or 50-basis point cut.”

For more information visit: [www.abc.org](http://www.abc.org).

## National

# Construction Job Openings Plunge By 51,000

The construction industry had 248,000 job openings on the last day of July, according to an Associated Builders and Contractors (ABC) analysis of data from the U.S. Bureau of Labor Statistics’ Job Openings and Labor Turnover Survey (JOLTS). JOLTS defines a job opening as any unfilled position for which an employer is actively recruiting. Industry job openings decreased by 51,000 in July and are down by 103,000 from the same time last year.

“Construction job openings plunged for the second straight month in July,” said ABC Chief Economist Anirban Basu. “Much of this decline is likely due to the residential sector. More housing units were completed in June than in any month dating back to 2007, and the number of housing units under construction has fallen about 8% since the start of the year.

“That’s not to suggest that the non-residential segment has not also seen a decline in its demand for labor. The share of construction jobs that are currently unfilled has fallen to the lowest level since early 2018, and a portion of that contraction is due to weakness in certain segments like commercial and lodging. Despite the dearth of openings,

contractors continue to lay off workers at a historically slow pace, and fewer than one in seven contractors expect their staffing levels to decline over the next six months, according to ABC’s Construction Confidence Index.”

## Minnesota

# Public Housing Authority Completes Sprinkler Installation at 42 High-Rises

The Public Housing Authority committed to upgrading all its high-rises after tenants were killed in a fire at the Cedar High Apartments in 2019.

This according to an article by Susan Du published August 12, 2024, in *The Minnesota Star Tribune*.

Mary McGovern, public housing tenant and President of the Minneapolis Highrise Representative Council, spoke at an event marking the end of work to install sprinklers in Minneapolis’ older public housing.

Unit by unit, floor by floor, appointment after appointment, Minneapolis Public Housing Authority (MPHA) staff worked around tenants to build a warren of sprinklers in the ceilings of every high-rise building in its portfolio.

Federal law has required automatic fire suppression systems in new public housing high-rises since 1992, but the

# TALCO FIRE SYSTEMS

## ULV UL Listed NFPA-20 FIRE PUMP

Ideal for 13R applications such as:

- Mixed Use Residential/Commercial Buildings
- Smaller Apartment Complexes
- Assisted Living Centers

Now Available: Talco Fire Exclusive

**VIRTUAL JOCKEY PUMP**

Intelligent Pressure Maintenance Without a Physical Jockey Pump



RESIDENTIAL & COMMERCIAL FIRE PUMP SPECIALISTS  
1-800-878-8055 [WWW.TALCOFIRE.COM](http://WWW.TALCOFIRE.COM)



5 Models:  
50 - 250 GPM  
Designed for  
use at  
208V or 230V

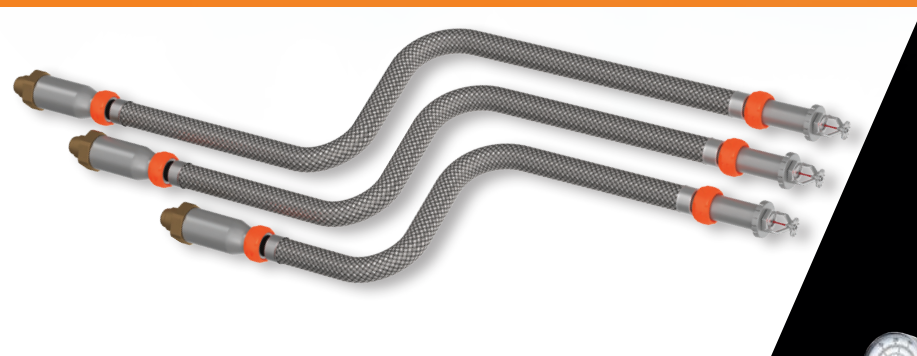


SCAN ME





## EXPLORE THE ULTIMATE RESIDENTIAL FIRE PROTECTION CATALOG

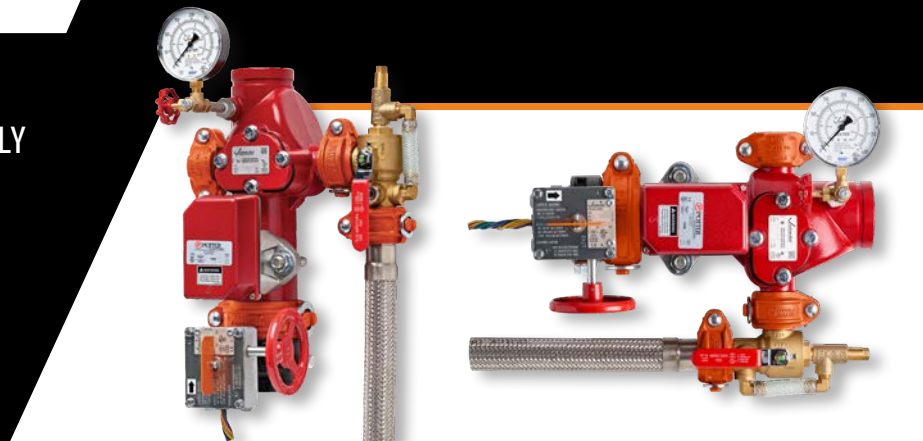


### VICFLEX™ SERIES VS1 FLEXIBLE DRY SPRINKLER

- Allows for simple installation that meets or exceeds NFPA 13 installation requirements
- Protects balconies & breezeways when paired with the Style VB1 bracket
- 2" cULus bend radius

### SERIES UMC UNIVERSAL MANIFOLD CHECK ASSEMBLY

- Compact design saves space in tight-quarter installations such as hallways and stairwell landings
- Includes all necessary premounted components per NFPA
- Field configurable to both floor control and shotgun riser assemblies



### COMPREHENSIVE SPRINKLER CATALOG

- Pendant | K3.0, K4.9, K5.6, K6.9
- Concealed Pendant | K4.9, K5.6
- Horizontal Sidewall | K4.2, K4.4, K5.6
- 1" cover plate adjustment available

SCAN TO VIEW OUR FULL  
RESIDENTIAL SPRINKLER CATALOG

© 2024 VICTAULIC COMPANY. ALL RIGHTS RESERVED.

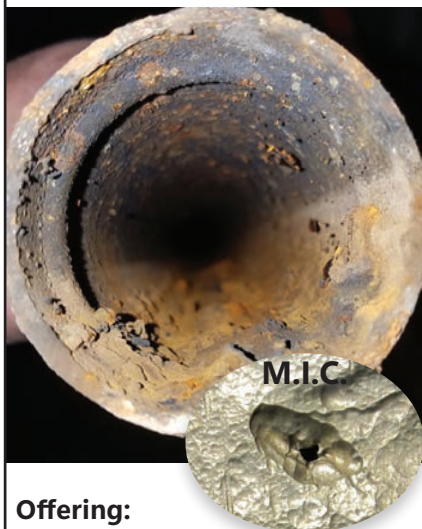


**HUGUENOT**  
LABORATORIES

**M.I.C.  
Corrosion & Bacterial  
Specialists**

**With Huguenot Labs you get:**

- 50+ Years in the Water Treatment and Fire Sprinkler Industry
- UL Listed Products for the Fire Sprinkler Industry



**Offering:**

- Laboratory Services
- Fire Protection System Chemical Treatment Programs
- Patented Equipment Systems
- Consulting Services
- Test Kits available

**Huguenot Labs provides  
the only two UL Listed  
corrosion and bacterial  
inhibitors on the market!**

**Contact us  
TODAY!**

**(800) 228-3793**  
sales@huguenotlabs.com

**WWW.HUGUENOTLABS.COM**

vast majority of MPHA's high-rises, constructed in the 1960s and 70s, were exempt.

As a result, when a 2019 blaze engulfed the 25-story Cedar High Apartments, there were no sprinklers to put out the fire, and five people died. The following year, MPHA set a goal to install fire suppression at all its outdated high-rises by the end of 2025.

This summer, the last sprinkler was screwed into the last building that still needed them: the four-story Sibley Triangle Manor in northeast Minneapolis. The morning of August 12, a small army of elected officials, public housing workers, and tenants gathered on the front lawn of Dickman Park Apartments – another building in Northeast that was recently completed – to celebrate what MPHA CEO Abdi Warsame called a “bittersweet” milestone.

“That snowy November day, I remember vividly the scene in the aftermath of the fire that claimed the lives of five residents,” Warsame said. “You could feel the heaviness, you could feel the grief in the air as emergency vehicle lights illuminated our neighborhood. My heart remains with those who also lost friends, family, and neighbors.”

MPHA considers all of its buildings that are denser than its scattered-site family housing to be “high-rises.” In 2020 only 16 of MPHA's 42 high-rises had fire suppression systems. Upgrading all the others a year early was made possible by funding at almost every level of government.

Elected officials who had contributed to fundraising efforts for the sprinklers in attendance included Sens. Amy Klobuchar and Tina Smith, Rep. Ilhan Omar, Minneapolis Mayor Jacob Frey, and Minneapolis City Council Member Robin Wonsley.

“Across the city residents share a certain kinship with each other,” said McGovern. “When something tragic happens in one building, we are all impacted by it one way or the other. Likewise, we share our collective sense of relief and peace of mind knowing that our apartment, our buildings, our neigh-

bors, ourselves, are safer from the threat of fire.”

**United Kingdom**

## **Fire Sprinklers to Become Mandatory in New Care Homes**

An article by Cristina Lago posted September 2, 2024, on [www.constructionmanagement.co.uk](http://www.constructionmanagement.co.uk), said fire sprinklers will become mandatory in all new care homes in England irrespective of height starting March 2, 2025.

The mandate follows a 2022 government consultation to amend *Approved Document B* of the building regulations to install sprinklers in new care homes, regardless of building height.

The consultation came after Chartered Institute of Building (CIOB) Fellow Steven Miles and his wife Claire, whose mother died in a care home fire in 2017, campaigned for sprinklers to become mandatory in all care homes. The CIOB supported this campaign.

Until this amendment to *Approved Document B*, there was no blanket recommendation for sprinklers in this type of facility.

New care homes will be expected to limit compartment sizes to 10 beds while ensuring self-closing devices are fitted to doors. Building Safety Minister Rushanara Ali announced the update on September 2.

“Sprinklers enhance fire protection where residents may be reliant on others for help and assistance, especially if a building evacuation is needed,” she said. “Many care home providers already include sprinklers in new designs. For those that do not yet provide for sprinklers, again, I recognize that businesses and investors seek certainty. So, care homeowners and developers will benefit from a six-month transition period until the guidance comes into effect and will then have a further six months to enable work on current development projects that are underway, or about to start, to continue.” □

*To set high standards for someone else, and then not live up to them yourself, is something that God truly hates. But it pleases him when we apply the right standards of measurement.*  
— Proverbs 11:1 The Passion Translation (TPT)

## Would you help us help you?

*We'd greatly appreciate it if you would take a few minutes to answer the following questions, which can be found, filled in, and submitted to us on our website at: [www.fpcmag.com/readersurvey](http://www.fpcmag.com/readersurvey). You may also e-mail your answers to: [info@fpcmag.com](mailto:info@fpcmag.com).*

1. What do you think is the biggest problem/concern in the fire sprinkler industry today?
2. What would you like to see covered (or covered more in depth) in *FPC*?
3. What field of the fire sprinkler industry do you work in? (Manufacturer, designer, pipefitter, business owner, etc.)
4. Would you recommend *FPC* to others?

*Please feel free to add any other comments you believe would be of value to the fire sprinkler industry. All responses will be kept confidential.*

**YOUR *NEW* PORTABLE PIPE SHOP**

Takes the place of the Die Head on the Carriage

**PACE™ 4075**  
1" proprietary IGS™ groove Roll Grooving Attachment Chucks into PT™ Power Drive and Ridgid™ 300 Power Drive IGS GROOVES VICTAULIC™

**CUT, REAM & GROOVE**  
without changing out equipment

**GO, NO-GO GAUGE INCLUDED**

**PACE MACHINERY GROUP, INC.**  
4N944 Old LaFox Road • Box 359  
Wasco, Illinois 60183  
Toll-Free: 1-800-327-3552 • 1-630-377-1750  
FAX: 1-630-377-0274 • [www.pacemachinery.com](http://www.pacemachinery.com)

p/n 4075

p/n 4080

**PACE™ 4080 1-1½" Groover**  
The most efficient small groover. Change your Ridgid™ 300 into an efficient grooving tool by removing the threading die head and inserting the 4080 grooving tool. That easy, ready to cut, ream and groove.

**FEATURES**  
Many have a Ridgid™ 300  
Cost Efficient  
Simple to Operate  
Portable  
No Mess...No Oil

RIDGID® is a registered trademark of RIDGID®, Inc.  
IGS™ is a trademark of VICTAULIC CO OF AMERICA



# Fire Pumps

**A**s the fire pump is the choke point in a hydraulically designed sprinkler system, it's worth making the effort to obtain a 'certified' pump curve from the manufacturer. Doing so will alleviate questions regarding the discharge from the pump at the required pressure for the system design.

If the fire pump selected is diesel-driven, the quantity of the fuel supply to be provided should be clearly indicated on the plans. Most manufacturers show the fuel consumption in their literature and this is worth noting on the plan.

The pressure maintenance pump and fire pump start and stop points as clarified in NFPA 20 should be provided clearly on the plan.

— Ken Wagoner, SET, Parsley Consulting, [www.parsleyconsulting.com](http://www.parsleyconsulting.com)

**A**n article entitled *Understanding the Basics of Fire Pumps* by Travis Montembeault, Peerless Pump Company, posted on [www.pumpsandsystems.com](http://www.pumpsandsystems.com) said: A fire pump is any type of purpose-driven pump used within a fire protection system. It can be driven by diesel engines, electric motors, or even steam and is used to provide increases in water pressure to meet the design requirements of a fire protection system.

*[Please let us know about any steam driven fire pumps you are aware of.]*

The article further states: Fire pumps do not create a water supply. Instead, they create pressure from an existing water supply, such as a city supply line or a storage tank, by converting mechanical energy into hydraulic energy.

Fire pumps are necessary when the water supply available does not generate the necessary hydraulic pressure required to meet demand of a fire protection system such as **automatic sprinklers** and **standpipes**, or even **foam systems**.

And: When it comes to best practices for fire pump design and installation, the National Fire Protection Association (NFPA) *20 Standard for the Installation of Stationary Pumps for Fire Protection* provides the guidebook. NFPA 20 provides guidance for fire pumps and their installations, but does not provide listings and defers to the authority having jurisdiction (AHJ) as the entity with the final say on installations. The AHJ could be the local fire chief or it could be the insurer – it depends on locale.

With regard to listings, groups such as Underwriters Laboratories (UL) and Factory Mutual (FM) provide UL Listings and FM Approvals on products that meet their testing requirements along with their own individual publication standards, UL448 and FM1311. NFPA 20 does not provide listings or approvals but acts as the guide for best practice. If a fire pump has the UL and FM stamp of approval, the manufacturer has gone through the most stringent requirements to be able to provide their pumps for fire protection, giving peace of mind that the pump will operate when it is needed.

Up until recently, users only knew if the fire pump was on from a remote alarm but had no idea what it was actually doing. Was it flowing water or running at dead head? Was overall flow increasing over time in a fire event or had it plateaued, signaling the fire had been contained? How often was the pressure maintenance (jockey) pump running, and was there a potential leak in the system? What is the pump room temperature and is the system at risk of freezing?

Recent weather events in Texas caused many systems to freeze and break, leading to costly replacements – temperature monitoring and alerts could have helped with early action and prevention.

These were all unanswerable questions before IIoT remote monitoring solutions came to the forefront for fire pump systems. Now they are readily available, making for a more informed fire protection manager.

*For the complete article visit: [www.pumpsandsystems.com](http://www.pumpsandsystems.com)*

*“Some problems are easy to identify and inexpensive to repair... start performing basic tests first...”*

— Alexandra Witowski  
from Fire Pump Failure, *FPC*, 4/2012

*“Variable speed applications to match an existing pump’s shutoff pressure in a high rise are another useful place for variable speed fire pumps. Electric variable speed pumps exist but come at a much higher relative premium compared to the diesel variant.”*

— Craig Brown in  
Variable Speed Diesel  
Driven Fire Pumps, *FPC*, 11/2017

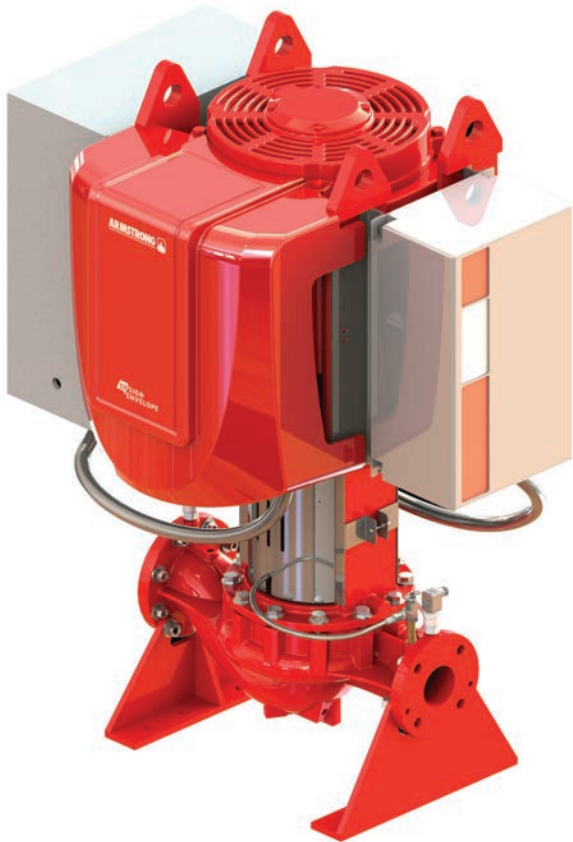
## Peerless FireConnect®

Peerless FireConnect® is the first cloud-based solution capable of modernizing any fire pump system – giving you real-time, remote monitoring of the fire pump system whenever, wherever you need it.

With the Peerless FireConnect® app, you have all the information you need right at your fingertips, allowing you to effectively monitor your system and make decisions remotely.

Learn more at:  
[www.peerlesspump.com](http://www.peerlesspump.com)

*What fire pumps do you like to specify and install, and why?  
Please send reactions, thoughts, and comments to:  
[info@fpcmag.com](mailto:info@fpcmag.com)*



For more information on fire pumps or Design Envelope technology contact your local Armstrong representative, or visit: [www.ArmstrongFluidTechnology.com](http://www.ArmstrongFluidTechnology.com).

**Armstrong Enclosed Fire Pump Packages** combine a fire pump system, piping, electrical and exhaust components, and a weather-proof enclosure to house the system.

Armstrong Enclosed Fire Pump Packages are designed, built, and tested in a controlled ISO 9001 factory environment and shipped to site ready for installation.

Because the assembly and electrical wiring are already complete, Enclosed Fire Pump Packages are easy to install, which reduces on-site labor hours and shortens construction project timelines.

**S. A. Armstrong Limited**

23 Bertrand Avenue  
Toronto, Ontario  
Canada, M11 2P3  
(416) 755-2291

**Armstrong Pumps Inc.**

93 East Avenue  
North Tonawanda,  
NY 14120-6594  
(716) 693-8813

**WHO SAID THIS?**

*"Fire pumps are the heart of fire protection systems."*

**eFirePump**

Hundreds of Products. Everything Fire Pump.

With over 30 years of experience, eFirePump is proud to be the premier supplier of fire pump products in the United States. Located in the Midwest, we can ship quickly to the entire USA, Canada, and Mexico. We can also ship to many other countries. eFirePump is your one stop source for fire pump parts.

Their website categories include:

Adapters  
Fire Department Connections  
Fire Hose  
Fire Pumps  
Fire Pump Flow Meters  
Fire Pump Controllers  
Fire Pumps & Jockey Pumps  
Fire Pump Repack & Repair Kits  
Flanged Fittings  
Gauges  
Hydrant Diffuser  
Jockey Pumps  
Jockey Pump Controllers  
KTR  
Literature & Guides

Pressure Reducing Hose Valve/  
Standpipe Flow Test Device  
Quote Request  
Relief Valves  
Sensing Line Kits  
Signs & Identification Plates  
Test Headers  
Tools & Equipment  
Valves  
Water Storage Tanks & Accessories

eFIREPUMP.com  
10751 Indian Head Industrial Blvd  
St. Louis, MO 63132  
(314) 916-FIRE (3473)  
[sales@efirepump.com](mailto:sales@efirepump.com)



*At [efirepump.com](http://efirepump.com)  
you'll find:*

- Fire pump and controller repair/replacement parts.
- Fire and jockey pump controllers.
- Calibrated gauges, pitot kits, casing and main relief valves, test headers, flow meters, accessories, and more.

*What's that "e" stand for anyway?*

Find out more at:  
[www.efirepump.com](http://www.efirepump.com)



## Pointers on Expert Witnessing, etc.

### Expert Witnessing:

If you are to take on such work, it is critical to note that you will testify only to what is supported by manufacturer's data and the applicable codes and standards. Supporting documentation for such testimony will add a strong level of credibility to any such testimony.

If you are asked to testify to a position that is in conflict with the manufacturer or the codes and standards, I believe you have ceased to become an "expert" and have now taken on the role of an "advocate."

Comments are based on my experiences throughout my career...

— Ken Wagoner, SET  
Parsley Consulting  
[www.parsleyconsulting.com](http://www.parsleyconsulting.com)

### How to Survive a Deposition

By Kelly P. Reynolds  
(FPC, 2014)

Sometime in your professional career, you will most likely be required to give a deposition or testify in open court. The purpose of the deposition is to see what you will say under oath in court and then later see if you will give different testimony when on the stand.

Here are some of the tricks attorneys will use during a deposition to confuse you.

1. In the discovery phase, the attorney will ask you if you have complied with his request for all documents and e-mails relevant to the case. Just tell him that you searched your e-mail files for your client's name, printed out everything that came up, and gave the printouts to your attorney.

You don't have to answer just *yes* or *no*. You can respond that "This question cannot be answered with a simple yes or no answer."

2. You may be asked subtle questions different from what you are expecting, such as, "Before you made the mistake, did you consider a course of correction?" By answering the question, you admit that you made a mistake.

3. You may be cut off before you can answer the question. Insist that the attorney give you time to answer the question.

4. After you answer the question, the attorney remains silent and stares at you. He is hoping to make you uncomfortable so you will fill this silence with more testimony. Once you have answered his question, keep silent and don't respond to this trick.

5. The attorney may frame a question that may be against the best interests of your case. When you feel trapped, just say "I'm not certain." If the attorney repeats the question, take your time and repeat the same answer. Do not guess!

6. The attorney may try and make you angry. Don't fall for this trick. In a deposition, it's what you say, not the expression on your face. Don't get upset and say something on record that could be used at the trial.

7. The attorney is very friendly. This is another trick, hoping you let down your guard and say something you shouldn't.

Don't speak about the case with anyone except your attorney. That person you spoke to may also be subpoenaed to testify to what you told them.

**Most Important** – Don't get rattled if you don't understand the question. The pause of time on the stand is your ally.

#### About the Author:

Kelly P. Reynolds, Building Code Consultant, is one of the foremost code consultants serving government and industry since 1979. He can be contacted at: [codexperts@aol.com](mailto:codexperts@aol.com).

### Tips on Expert Witnessing

- Check the background of the case... is it the client's desire to win, or to find the truth? If it's truth... proceed.

- When being an expert witness, the most important question is, who's likely 'at fault'?

- Then, the next question is, "Can the opposition find (and pay for) an expert with greater qualifications than mine, and who would also 'take the job'?" If they can, be careful! You might suggest to your client a different (more expert) witness. As one big shot once said, "He who has the most knowledge, wins."

- Of course, the more complicated the situation, the more likely there will be no expert that can 'prove' his point, especially if he is using 'modeling.' Fire protection 'art' is not fully compatible with so-called 'technical facts/conclusions,' especially those that may not even exist.

— Clay Claiborne (in FPC, 2014)

**P.S.** Remember, you probably won't be able to listen to the opposing expert witness' testimony!

Send your thoughts to:  
[INFO@FPCMAG.COM](mailto:INFO@FPCMAG.COM)



# MEET THE NEW FEATHERWEIGHT CHAMP

Ames Deringer™



## Shop Fire System Solutions TODAY

**Knock out the competition** with the shortest, lightest, and only all-stainless steel backflow preventer in the industry.

- **Free shipping** on **ALL** valves
- **24-hour shipping** on select orders

*Only at [BackflowDirect.com](http://BackflowDirect.com)*



## PayPerCALC for Commercial and Residential Fire Sprinkler Hydraulic Calculations On Demand

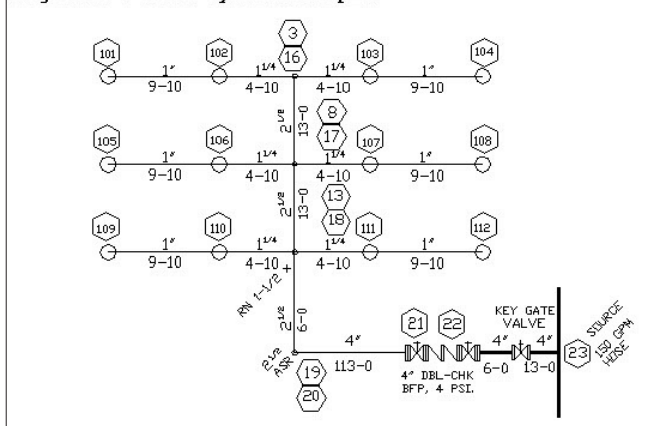
By Dr. Sang H. Wong

**P**ayPerCALC is a fire sprinkler hydraulic calculation service available on demand. Originally developed for fire sprinkler designers and engineers, it has been used by many others, including an architect in Inglewood, California, homeowners in Windsor, California, and New Haven, Connecticut, to prepare and submit residential fire hydraulic calculations for permit and approval. It is particularly useful for companies that rarely need to do hydraulic calculations. PayPerCALC is based on the ease with which graphic and numerical information can be sent and received by fax and e-mail.

### A. The Fire Sprinkler Sketch

The most efficient way to communicate data about a proposed project is by way of sketches or drawings as shown in Figure 1. For those not familiar with such drawings, the PayPerCALC site provides sample drawings on sprinkler piping plans and how to select the design area.

Figure 1 : Tree System Example



The piping plan marks the path taken by water as it travels from the supply source to the fire sprinklers located in the design area. NODE numbers are used to mark critical points along this path, e.g., the location of fire sprinklers, changes in pipe diameter, risers, and backflow valves. This information must be presented and conveyed in a numerical format that is compatible with software data requirements. The sketch can be transmitted to us by fax or as a graphic file (gif, jpg, tif), a PDF document, or a CAD drawing file (dwg, dxf).

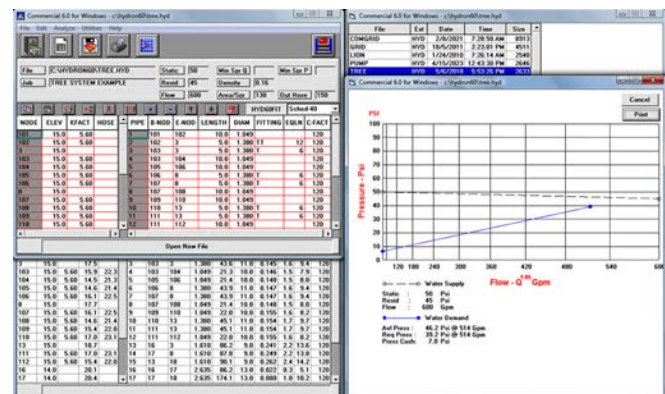
### B. The Excel Data Entry Form

Microsoft Excel is a convenient way to present and convey numerical data. We provide a Microsoft Excel data entry template as shown in Figure 2.

The NODE section of the template accepts NODE numbers, elevations, K-Factors, and Domestic water demand. The PIPE section accepts pipe length, diameter, fittings, and the Hazen-Williams C-Factor.

The PayPerCALC website provides instructions on how to complete the form and send it by e-mail.

The data we receive on the Excel form is compared with the NODE numbering shown on the sketch. The data is then transferred from the Excel form to our Residential Fire Sprinkler Hydraulics package as shown in Figure 3. We run a preliminary calculation to check the results. The calculations



must meet the requirements of the design criteria specified in NFPA-13D/13R, e.g., minimum pressure, minimum flow, and density. We consult with the customer regarding any changes in the design needed to meet the requirements of NFPA-13D/13R. We then complete a final calculation and prepare the Submittal Report.

### C. Submittal Report in PDF

The Submittal Report is a detailed analysis published as a PDF document shown in *Figure 4*. The report cover sheet dis-

HYDRONICS: COMMERCIAL FIRE SPRINKLER HYDRAULICS 6.0 - SUBMITTAL. Page 1				
ENGINEERS : A.B.C. FIRE PROTECTION.				
ADDRESS : 1234 Fremont Bl, Suite 609, Fremont CA 94554.				
JOB : Lion Town Market				
DATE: 08-23-2020 FILE: C:\HYDRON60\LION.HYD				
SOURCE   STATIC : 50 Psi RESIDUAL : 45 Psi FLOW : 600 Gpm				
NODE NO.	ELEVATION Feet	K-FACTOR	PRESSURE Psi	DISCHARGE Gpm
101	15.0	5.60	13.8	20.8
102	15.0	5.60	15.2	21.8
38	15.0		16.8	
103	15.0	5.60	15.2	21.8
104	15.0	5.60	13.8	20.8
105	15.0	5.60	14.0	21.0
106	15.0	5.60	15.4	22.0
8	15.0		17.0	
107	15.0	5.60	15.4	22.0
108	15.0	5.60	14.0	21.0
109	15.0	5.60	14.1	21.0
110	15.0	5.60	15.5	22.1
13	15.0		18.0	
111	15.0	5.60	16.3	22.6
112	15.0	5.60	14.8	21.6
16	14.0		19.3	
17	14.0		19.6	
18	14.0		20.6	
19	14.0		22.7	
20	0.0		31.1	HOSE 100.0
21	0.0		33.6	
22	0.0		37.6	
23	0.0	SOURCE	37.9	508.5
SPRINKLERS FLOWING		: 12	Heads	
AREA PER SPRINKLER		: 130	Sq Ft	
REQUIRED DENSITY		: 0.160	Gpm/Sq Ft	
COMPUTED DENSITY		: 0.160	Gpm/Sq Ft	
TOTAL SPRINKLER FLOW		: 258.5	Gpm	
INSIDE HOSE STREAM		: 100	Gpm	
OUTSIDE HOSE STREAM		: 150	Gpm	
TOTAL WATER REQUIRED		: 508.5	Gpm	
TOTAL SPRINKLER PRESS		: 33.9	Psi	
FIXED PRESS LOSS		: 4.0	Psi	
SUPPLY PRESS AVAILABLE		: 46.3	Psi	
DEMAND PRESS REQUIRED		: 37.9	Psi	
PRESSURE CUSHION		: 8.4	Psi	
MAXIMUM VELOCITY		: 15.2	F/S	
Copyright (2020) by Hydronics Engineering 34119 Fremont Bl, Suite 609 Fremont, CA 94555 (800) 845-9819				

plays the name of the contractor, job location, design criteria, and the flow at the base of riser. The first page is a listing of the pressure and flow occurring at each NODE and provides a summary. Subsequent pages list pressure losses, velocity, and flow in each segment of PIPE. The flow and pressure graph is displayed on the last page. The document can be sent to the customer by e-mail.

### About the Author:

Dr. Sang H. Wong is CEO of Hydronics Engineering. He is a graduate of the University of California, Los Angeles where he studied computer science and water resources engineering. Sang worked as a fire sprinkler designer for several companies in the San Francisco Bay area including Grinnell Fire Protection in Dublin, California. Hydronics Engineering has developed eight fire sprinkler hydraulics applications for computers running on DOS, Windows, and Apple Macintosh. They have been developing hydraulic calculation software for fire sprinklers, fire standpipes, and fire hydrants for over 30 years.

For more information contact: Hydronics Engineering, 34119 Fremont Blvd., Suite 609, Fremont, CA 94555; 800-845-9819, Fax 510-474-1438, sales@hydronicseng.com, www.hydronicseng.com/paypercalc.htm.

## Did You Know?

- *FPC's* first edition was printed in March 1978 as a 4-page Newsletter?
- *FPC's* founder, Haden Brumbeloe, was a retired sprinkler man?
- *FPC* was instrumental in the founding of AFSA?
- *FPC* has served fire sprinkler contractors every single month since March 1978?
- *FPC* posts both our Classified ads and Calendar items on our website?
- *FPC's* motto is 'How can we help a Fire Sprinkler Contractor this day?'
- *FPC* is available in both print and digital subscriptions?



**FPC magazine**  
PO Box 370  
Auburn, CA 95604  
530.823.0706  
www.fpcmag.com  
info@fpcmag.com





**OLIVER FIRE PROTECTION & SECURITY'S** *Blue Flash Newsletter*, September 2024, includes Trends and Insights within the Fire Protection & Security Industry.

*What is a 5<sup>th</sup> Year Sprinkler Inspection?* is a featured article. Maintaining your fire sprinkler system in excellent condition is not only advisable but mandatory. A fifth-year inspection, as outlined by NFPA 25, involves a thorough internal examination of your fire sprinkler system. This inspection, conducted every five years, ensures your system operates correctly and complies with essential fire safety *Standards*.

Read the full article here: <https://oliverfps.com/what-is-a-5th-year-sprinkler-inspection>.

Other articles include: *The Importance of Inspection, Testing, and Maintenance of Emergency and Exit Signs*, and *The 10 Most Common Problems Found During a 5<sup>th</sup> Year Inspection*.

Oliver Fire Protection & Security is located in King of Prussia, Pennsylvania. See their website at: <https://oliverfps.com>.

**THE FAMILY BUSINESS CONSULTING GROUP** (FBCG) has worked with over 3,000 enterprising families around the world, since 1994, to achieve one common goal: protect the integrity of the family and the enterprise for future generations.

FBCG has helped thousands of families solve complex problems and find a way forward.

Relationships, management, ownership, and governance all impact the health of the enterprise and harmony of the family. But research shows that careful planning and smart structures result in better outcomes.

FBCG offers help with: Succession and Continuity Planning, Organizing and Educating the Family; Ownership Alignment; Board Development and Search; Preparing the Next Generation; Communication and Conflict Resolution; Strategic Planning; Policy Development; and more.

They also offer seminars.

For more information contact: The Family Business Consulting Group, Inc., 8770 W. Bryn Mawr Ave., Ste 1340W, Chicago, IL 60631; (773) 604-5005, [info@thefbcg.com](mailto:info@thefbcg.com), [www.thefbcg.com](http://www.thefbcg.com).

**THE MACOMB GROUP'S** Fire Fabrication Division now has production capacity in Michigan, New Jersey, North Carolina, Ohio, and Pennsylvania.

For the second time in as many months, The Macomb Group, Inc. is pleased to announce that it has completed another acquisition. Carlstadt, New Jersey-based **TRIDENT FIRE & FABRICATION, LLC** is the newest member of their growing operations.

"After Macomb's merger last year with Pennsylvania-based **Deacon Industrial Supply**, it was only a matter of time before we expanded further east," commented former Deacon owner Bill Vail, now an Executive Vice President and shareholder of The Macomb Group. "Trident provides instant access to the attractive New York metropolitan area, with a very reputable team led by Peter Braid, who is a 25-year industry veteran. We couldn't be more pleased with what Peter and our newest colleagues have accomplished since founding the business just a couple of years ago."

Trident was founded by brothers Peter and Jonathan Braid, along with their childhood friend Joe Tomas. CEO Peter Braid commented, "We were less than three years into our strategic plan when The Macomb Group proposed accelerating our growth with further access to capital, inventory, and a coveted roster of leading vendors in the fire protection industry." Jonathan Braid added, "With daily replenishment from Deacon's 153,000 sq. ft. distribution center just 100 miles away in Harleysville, Pennsylvania, this is truly a game changing event for Trident and its customers. Peter Braid will lead The Macomb Group's fire fabrication activities in the Tri-State area.

The Macomb Group is a leading wholesale distributor of pipe, valves, and fittings. Founded in 1977, the company now has 29 service branches and over 650 employees in 10 states.

For more information visit: [www.macombgroup.com](http://www.macombgroup.com).

**PYE-BARKER FIRE & SAFETY**, the largest fully integrated and full-service fire protection, life safety, and security services provider in the United States, has acquired **PHOENIX FIRE SYSTEMS**, a fire suppression, special hazards, and fire alarm services provider.

With this addition, Pye-Barker gains six new locations in Illinois, Wisconsin, Kansas, and Colorado, providing new launching points for Pye-Barker to offer full fire-code compliance. Pye-Barker is now in 41 states across the U.S.

Phoenix Fire Systems specializes in fire suppression systems for mission-critical applications, installing, inspecting, testing, and maintaining special hazard systems and integrated smoke detectors, fire alarms, and more.

Founded in 1997 by fire protection veteran Kirk Humbrecht, Phoenix Fire has loyal customers as far as Antarctica.

In this transaction, Pye-Barker also gains Basic Fire Protection, a fire extinguisher service and testing company founded in 1978, and FESSCO, founded in 1994 and specializing in vehicle fire suppression systems and extinguishers. Both Illinois-based companies were previously acquired by Phoenix Fire and Humbrecht.

"I'm proud of the reputation Phoenix Fire Systems has built in the industry, one that prioritizes the safety of our customers through cutting-edge technology, expert staff, and customer-centered service," said Humbrecht, owner and President at Phoenix Fire. "Pye-Barker is the right choice for a partner. I know they'll continue to care for our customers like family, just as we have these past 27 years."

"Phoenix Fire's team knows their craft and their customers, and that's a winning combination for a successful business," added Bart Proctor, CEO at Pye-Barker. "Working with the industry's best has helped us grow Pye-Barker to the nation's leader in fully integrated life safety systems..."

For more information visit: [www.pyebarkerfs.com](http://www.pyebarkerfs.com). □

## VSF303 UV/IR Flame Detector



## Fast and Accurate Detection in FIVE Seconds!

Identify a hydrocarbon fuel pan fire at over 128 ft. in less than just five seconds with the new FM Approved VSF303 UV/IR Flame Detector! It's equipped with configurable relays and controlled heated optics to withstand harsh weather conditions, like snow and ice.

This explosion proof ultraviolet-infrared flame detector is designed for hazardous industries (such as waste and recycling management plants, chip manufacturing facilities, refineries, etc.) where fast detection is critical, and continuous false alarms are not an option.

Learn more on our website at [vikinggroupinc.com](http://vikinggroupinc.com).



To view our full detection and control solutions line-up, head to our website at or by scanning the QR code.



*Underground water piping systems are the veins and arteries of our nation. They transport something that's vital to everyone's well-being and are essential for protecting lives and property from fire and smoke damage.*

*As with your own internal circulatory system, when problems develop in these piping systems they can cause serious health and safety concerns. Water piping leaks and failures have been known to pose significant hazards for nearby residents, work crews, adjacent infrastructure, motorists, and even the local economy.*

*The tradesmen and women that service these systems and repair breakages do so at great personal sacrifice and risk, often under very trying circumstances. They are the first responders for breakdowns in the nation's water supply system, and, as such, they deserve our respect, consideration, and gratitude.*

## The Mysteries, Dangers, and Risks of Underground Piping Repair

By Tom Hartel

*See Part One in the September edition of FPC.*

*For the complete article, contact the author.*

Here are some of the more common complications.

**Age of the affected piping system:** If a leak or a failure has occurred in a piping system, there's a good chance that it's an older system. That means that there could be instabilities throughout the system, not just where the leak is occurring.

If that's the case, work crews will need to take that into consideration and try to put as little stress on the entire system while they repair the issues.

**Leak chasing:** It may surprise people to know that once you've repaired a leak in one section of a piping system, leaks may start to appear in other weaker areas of the system. After all, the age and wear-and-tear on the pipe system that contributed to the original leak remain present throughout the system. Additionally, the annual winter freeze and thaw cycle is particularly harsh on underground pipes.

The initial leak may have eased water pressure in other parts of the system. But with that leak now repaired, the pressure may build back up and create problems in other, vulnerable parts of the system. In other words, a recently repaired leak has now become the strongest part of the fire loop!

**Contamination:** You might think that aside from being... well...dirty, the ground surrounding a water piping system would generally be safe. However, it's not unusual for viruses, bacteria, pollutants, and other contaminants to be present in the ground around piping infrastructure.

This means that as work crews repair the leak and replace the damaged piping, they have to take extreme care to ensure that contaminants aren't introduced into the piping infrastructure and the water that nearby businesses and residents use.

**Boulders:** We tend to think of boulders as purely above-ground phenomena, but, believe it or not, it's not unusual for work crews to encounter huge underground boulders when they excavate. This obviously complicates a job because boulders may be too large to simply lift out of the ground. They may have to be blasted or jackhammered into more manageable-sized pieces that can then be more easily and safely removed.

**Spoils removal:** It's not widely known that when a repair crew digs up the ground, they can't simply refill the hole with the dirt they previously removed. In accordance with EPA regulations, excavated soil must be considered as spoils and taken for testing and disposal to an EPA-approved testing site. This clearly adds time, effort, and cost to repair projects.

**Necessity of hand digging:** Even though heavy machinery performs much of the excavation at a work site, it's also often the case that crews will need to hand dig at the site, which adds time and labor costs. Hand digging is required for a number of reasons, including ensuring that no working sections of the pipe system are damaged during excavation and ensuring that no stones or contaminants are able to enter any newly installed piping. This includes having to work around buried cable TV, electrical, telephone, internet, high pressure natural gas lines, and other lines.

**Danger from nearby construction:** It's not unusual for excavations to occur in areas that are proximate to other types of construction or road repair. In these situations, crews need to be wary of falling slag and other debris coming from those nearby work sites. Each member of an excavation crew must have the complete and implicit trust of every coworker. This is considered to be highly dangerous work!

*“Each member of an excavation crew must have the complete and implicit trust of every coworker. This is considered to be highly dangerous work!”*



**Ancient artifacts and wildlife:** Anyone who's spent time doing excavation work knows that when you dig up Mother Earth, you really never know what you're going to find. It's not unheard of for excavation crews to encounter what may be ancient artifacts or even fossils as they go about their work.

Obviously, when that happens, work is interrupted and the appropriate experts are called in to assess the finds and determine what they are and how many of them may be present in the work site.

Even above ground, work crews sometimes have to contend with wild animals or even hooligans looking to rob the crew or steal tools, thereby requiring special precautions to be taken.

**The cost of water piping system repair:** As mentioned earlier, repairing and replacing piping infrastructure can be very complex. Not surprisingly, that complexity can generate significant costs.

Repair crews often include a number of tradesmen employing a variety of different skills and equipment. The cost of that labor and equipment drives most of the expense for these repairs.

In addition, crews must have continual 24/7 access to fuel, emergency power, and lighting. And due to the hazards related to the work, everything and everyone needs to be insured, which includes Explosion, Collapse, and Underground coverage (XCU).

Since piping failures don't recognize weekends, there are also labor costs related to overtime and Sunday work. There are also situations where shifts have to extend through the night, since restoring fire protection and potable water is of paramount importance. Nursing homes, prisons, hospitals, and tire storage facilities cannot have their fire protection systems out of service for an extended period of time. A fire protection system should not be out of service for more than 10 hours, unless nine specific steps have been taken (NFPA 25 Section 15.5.1.).

For all of these reasons, when a piping leak or failure occurs there are often significant costs associated with repairing it. Fortunately, insurance can often cover all or part of the expenses described here.

## A Case Study

Here's a short case study of a repair that occurred during the summer of 2023. A company in the Chicago suburbs was called to fix an obvious underground leak that was observed nearby. This case study provides a clear example of the logistical complexity and amount of equipment involved in these types of repairs.

We received a call to repair an underground water pipe leak in an area business park. This was a looped system that served a dozen buildings.

Once that happened, we:

- Contacted utility locator JULIE and the U.S. Infrastructure Corp. to ensure accurate assessment of underground utilities.
- Mobilized a repair fleet (dump truck, trailer, backhoe) along with material, stone, supplies, tools, trench box,

foreman, and crew (approximately \$900,000 in equipment).

The leak had been running for weeks and the ground was completely saturated, creating excess mud and generally unsafe conditions. There were also a variety of utilities in the area that we had to work around. We then:

- Located the main "Buffalo Box" (b-box) water shut off valve.
- Opened the earth.
- Pumped water from the hole.
- Performed additional hand digging so as to not damage the working sections of the pipe.

We had fixed a leak on this same pipe system a year earlier. Our initial inspection found that the section we had previously repaired was holding pressure correctly. The problem was in a different section of the pipe system.

When the leak couldn't be precisely located, we had to call in a specialized leak locating company to assist. We then secured the site with safety fencing and cones, barricades, and caution tape.

During the days when this work was performed, the heat index in the area reached 120 degrees. So the working conditions for the

crew were extremely difficult and demanding.

Once we knew the leak's exact location, we excavated, exposed the leak, provided necessary shoring, a trench box, and CA-7 stone for bedding. We then demolished and removed the leaking pipe section and replaced it with 16' of new pipe.

Valley Foreman Rich K. pressure-tested the system and concluded there were additional leaks occurring. We had to excavate to expose those leaks and perform repairs similar to those already described. (Imagine a six-person crew working in blazing sun the entire day while wearing full safety gear covered in sweat and grime from head to toe. Mosquitoes were feasting on the crew as well.)

Eventually, we were able to confirm that the system was repaired and holding full pressure.

We then had to:

- Reset the electric fire pump, jockey pump, and fire alarm system.
- Load up the dirt and spoils and remove them to an EPA-approved testing site (multiple trips).
- Set bushes and shrubbery aside for the on-site landscaper to replant.
- Finish grading the area.
- Clean and sweep up the asphalt driveway near the work zone.
- Haul all the heavy equipment, tools, barricades, and fuel back to the shop.
- Notify the building tenants, building owner, property manager, fire, water, and building departments.

This is just one example of what was required to safely and correctly repair these types of underground piping system leaks.

## Excavations Can Serve Up Surprises

As mentioned previously, when digging up the ground, you never know exactly what you might encounter. Sometimes you

*"Anyone who's spent time  
doing excavation work  
knows that when you dig up  
Mother Earth, you really never  
know what you're going to find."*

uncover not just leaks and aging pipes; you make truly bizarre discoveries.

I'm personally aware of excavations where work crews found:

- An unopened case of vintage whiskey (from the prohibition era).
- Dinosaur eggs.
- A buried safe with money inside.
- An ancient coffin in an unknown graveyard.
- A fossilized mammoth tusk.

It's often said that outer space holds many mysteries. But as you can see, there are some very strange and puzzling mysteries buried below our feet.

## Work Crews Deserve our Gratitude and Respect

Because underground water piping systems really are the veins and arteries of our nation, it's not overstating things to say that the crews that work on these systems are genuine first responders that we all need to be thankful for. They truly are "surgeons of the earth" who help ensure the health and safety of local businesses and communities by providing a reliable supply of fresh water.

Similar to doctors or paramedics, there are times when the crews that work on piping repair have to be on call. When they're on call, they need to be drug- and alcohol-free and ready to respond at a moment's notice. Family and personal life have to be put on hold. In other words, if a tradesman is on call, he or she cannot be out of town or enjoy a can of beer at a family cookout.

As mentioned previously, they often have to work in both bitter cold and desert-like heat, along busy highways and around potentially dangerous utilities and chemicals. So it's critical that they're routinely alert, knowledgeable, and conscientious.

They are also far more highly skilled than they are often given credit for. An experienced backhoe operator could "pick a quarter off of your shoulder without you even knowing it."

For all of these reasons, we should always treat these crews with respect, admiration, and genuine gratitude.

## You Often Get What You Pay For

The statement that "you get what you pay for" may be a cliché, but when it comes to underground piping repair, it's also a valid caution that buyers should beware.

As noted previously, underground piping repair involves a number of skilled union tradesmen driven by pride plus a substantial amount of costly equipment, so it's never inexpensive. That cost leads some businesses and municipalities to lean toward the lowest bidders when repairs are necessary.

The problem is that the rock-bottom bid can sometimes reflect short cuts, quick fixes, poorly maintained equipment, and inferior materials. Having to fix an underground pipe leak is certainly an unwelcome expense, but having to dig up and re-repair a pipe that was recently "fixed" is truly burdensome and a further drain on finances.

Therefore, choose wisely and look beyond the cost alone if and when you need to repair an underground pipe system. Making the right choice can be the difference between "one-and-done" and enduring an underground Groundhog Day. Does your underground contractor offer daily video and photographs of the

repair to keep you informed and help with the insurance claim process? Will your contractor be around a year from now to honor a potential warranty claim?

### About the Author:

Tom Hartel is President of Valley Fire Protection Systems, an award-winning fire protection contractor that is based in St. Charles, IL. Valley is a full-service, third generation company that also operates a plumbing and backflow prevention division. We are licensed and perform work in Illinois, Indiana, Ohio, Michigan, and Wisconsin. Hartel can be reached at: (630) 761-3168, [www.valleyfire.com](http://www.valleyfire.com).

*Special thanks to longtime underground surgeons Rich K., Kevin L., and Chris G. for providing factual content for this article.*

### End of Part Two

*See Part One in the September edition of FPC.*

*For the complete article contact the author.*

*"The problem is that the rock-bottom bid can sometimes reflect short cuts, quick fixes, poorly maintained equipment, and inferior materials."*

**G**overnment is instituted for the common good; for the protection, safety, prosperity, and happiness of the people; and not for profit, honor, or private interest of any one man, family, or class of men.

—John Adams

Thoughts on Government, 1776



# Your Fire, Sprinkler or Suppression Company

## is WORTH MORE THAN YOU THINK!

### Business is BOOMING. SELL Your Business Now!

*Your fire security expert, Rory Russell, has qualified buyers READY to purchase your business today at top dollar with the best terms / no holdback.*

- FIRE ALARM
- FIRE SUPPRESSION
- INTEGRATION
- CENTRAL STATION MONITORING
- SECURITY
- VIDEO
- MEDICAL ALERT
- GUARD



**Rory Russell's**

**A F S**  
ACQUISITION &  
FUNDING SERVICES

**CALL RORY RUSSELL  
AT 1-800-354-3863**

Talk to Rory Russell to get the most recent and complete Business Valuation for your company and see for yourself how much your business is currently worth.

**Don't Wait! We Are Closing Deals Now - approaching 1 billion in closings:**

Ponoma, NY .....\$575,000  
Detroit, MI.....\$600,000  
Los Angeles, CA .....\$810,000  
Mt. Vernon, NY .....\$1 Million  
Boston, MA .....\$1 Million  
Northern GA .....\$1.3 Million  
Jackson Hole, WY .....\$1.8 Million  
Clifton, NJ .....\$1.8 Million  
Fort Pierce, FL.....\$2.8 Million  
Orlando, FL .....\$11 Million

#### **MOST RECENT CLOSINGS:**

AMS Security - Palm Desert, CA  
Hartline Alarm Company - Lake Wales, FL  
Fire Alarm Services - San Francisco, CA  
Acadian Monitoring Services - Lafayette, LA  
All American Monitoring - Sarasota, FL  
Yarnell Security Systems - Lancaster, PA  
Malfy Alarm - Falmouth, MA  
Ameritronics Systems - Brownstown, MI  
4 Alarm Services - Albuquerque, NM



## Georgia

The Georgia Fire Sprinkler Association is holding the 25<sup>th</sup> Annual Bob McCullough Golf Tournament on **October 25, 2024**, at the Chateau Elan, 6060 Golf Club Drive, Braselton, Georgia. The tournament begins with registration/check-in at 8:00 a.m. with a shotgun start at 10:00 a.m.

*ACE Training – Proper Application and Use of NFPA-25* (2017 Ed) is happening **November 19-21, 2024**, at SPP Pumps, 2905 Pacific Drive, Norcross, Georgia, from 8:00 a.m.-5:00 p.m., with eight (8) contact hours each day (Tuesday-Thursday).

The fee is \$650 for non-members, \$450 for members, plus a separate test fee.

For more information contact: Georgia Fire Sprinkler Association, 1525 Broadmoor Blvd., Buford, GA 30518; (770) 355-0774, [www.georgiafiresprinkler.org](http://www.georgiafiresprinkler.org).

## New York

The New York Fire Sprinkler Contractor's Association held a General Membership Meeting on Wednesday, September 11, 2024, at The Inn at New Hyde Park.

The guest speaker was Jacqueline Wilmot, P.E., Research Project Manager at the NFPA Research Foundation.

The topics covered included: Fire Service Response in

Storage Facilities; Electrification Transition; Obstructions and ESFR Sprinklers; and Gap Analysis for Protection of Automated Storage and Retrieval Systems.

The next General Membership Meeting is scheduled for Wednesday, **November 13, 2024**, with a 5:00 p.m. cocktail hour, and a 6:00-8:00 p.m. buffet dinner & meeting, also held at The Inn at New Hyde Park. The speaker and topic are to be announced.

For more information contact: NY Fire Sprinkler Contractor's Association, 510 Broadhollow Road, Suite 305A, Melville, NY 11747; [newyorkfsca@gmail.com](mailto:newyorkfsca@gmail.com), (516) 886-7077, [www.nyfsca.com](http://www.nyfsca.com).

## Northern Calif./Nevada SFPE

Northern California-Nevada Society of Fire Protection Engineers (NCNSFPE) meeting of September 19, 2024, was held at Holmes, 235 Montgomery Street, #1250, San Francisco, California. The event included happy hour, their monthly presentation, networking, appetizers, and drinks.

The program addressed the United States Department of Energy (DOE) requirements. As fire protection engineers (FPEs), knowing the applicable codes and standards will set us up for project success. The United States Department of Energy (DOE) has its own unique rules and regulations that most FPEs are unfamiliar with. This a 60-minute training discussed DOE-specific requirements and how to ensure compliance with local, state, and national codes and standards.

Ian De Vries, a fire prevention specialist at Lawrence Berkeley National Laboratory (LBNL), provided information on how to identify and comply with DOE rules and regulations for non-nuclear facilities, starting with a brief history of LBNL and a discussion of DOE *Order 420.1c* and DOE *Standard 1066*. A look at NFPA *Standards* that are enforced at LBNL provided insight to the differences between California and national requirements. To wrap things up, examples were provided of recent and ongoing projects at LBNL that showcase how conflicting code requirements can influence a project.

The Northern California/Nevada Chapter of SFPE will hold its annual golf tournament and scholarship fundraiser at the beautiful Lake Chabot Golf Course located in Oakland, California on Friday, **November 8, 2024**. Registration starts at 7:00 a.m., with a shotgun start at 8:00 a.m. – rain or shine.

For more information contact: NCNSFPE, 25 Crescent Drive A138, Pleasant Hill, CA 94523; [admin@ncnsfpe.org](mailto:admin@ncnsfpe.org).

## Northern Calif. Sac Valley

The Sacramento Valley Chapter of the American Fire Sprinkler Association is holding an afternoon of fun at TopGolf Roseville on Thursday, **November 7, 2024**, from 2:00-7:00 p.m.

This is for their annual fundraiser supporting the Firefighters Burn Institute. You don't have to be a golf player to enjoy this facility.

There will be contests such as Hole-in-One with a prize of

### And the winner is...?



Don't Forget to share the results  
of your Benefit event with those of  
us who couldn't be there!

Tell us:  
*Who benefitted from your event?*

*Who won the tournament?*

*Share some great photos with us!*

Send to your Benefit Report to:  
Brant Brumeloe, Editor  
FPC magazine  
[info@fpcmag.com](mailto:info@fpcmag.com)

\$10,000, Beat the Pro, and Long Drive.

Attendees come to enjoy great company for play, food, drink, networking with others in our industry, and a raffle, all while contributing to such a great organization.

Contract members can support this event with five players in your own bay at \$300 with one industry representative (sponsor), who will join your bay to complete the limited number of six players per bay and help host your day.

For Associate members, sponsorships are available to host Contest Bays (limit of three), Team Bays (14 with limit of three), or Food & Reception (limit of four, please check our website for details). The bays are yours to utilize as you wish to network with that bay's team of players and host them during this event. Contest Bay sponsors will be able to network with all teams.

Anyone can join – contractors, fitters, designers, office staff, associates, family, friends, and AHJs. Remember: it's a fundraiser for a great cause so the more the merrier!

There will be appetizers and an award ceremony following play.

For more information contact: Paulene Norwood, Executive Director, Sacramento Valley American Fire Sprinkler Association, (916) 296-0635, [www.sacvalleyafsa.org](http://www.sacvalleyafsa.org).

## Oklahoma

The Oklahoma Fire Sprinkler Association will hold their 7<sup>th</sup> Annual Boondoggle on **April 2-4, 2025**, at the Hard Rock Hotel & Casino Tulsa.

This event begins Wednesday, April 2, 2025, with 7:30 a.m. golf registration at the Hard Rock Champions Grill, followed by an 8:00 a.m. tournament start at the Hard Rock Golf Course. Lunch will start at noon.

The golf awards and lunch will be at the Hard Rock Champions Grill.

On Thursday, April 3, 2025, there will be a 7:00 a.m. breakfast, a 7:30 a.m. vendor Meet & Greet, an 8:30 OFSA Welcome and Introductions, followed by breakout seminars, including "Fire Sprinkler Inspection Class" presented by NFSA, and two additional seminars after lunch.

That evening features a vendor reception at 7:00 p.m., and a 7:30 p.m. dinner buffet.

On Friday, April 4, 2025, there will be more events and seminars, with closing remarks and door prize announcements 2:00 p.m.

For more information contact: Oklahoma Fire Sprinkler Association, 6442 Creek Wood Drive, Sand Springs, OK 74063; [www.ofsa.info](http://www.ofsa.info).

## Virginia

Meeting #167 of the Virginia Chapter of AFSA will be held Tuesday, **October 8, 2024**, at the Double Tree by Hilton Williamsburg, 50 Kingsmill Road, Williamsburg, Virginia.

The AFSA Directors Board meeting will start at 10:00 a.m., lunch will be served at 12:00 p.m., and the AFSA Members meeting will run from 1:00 - 3:00 p.m.

The program will feature Bob Caputo, President of AFSA National. He will be discussing what's new and what AFSA can do for you.

The Vendor Presentation will feature Jeff Lewis with VSC. Jeff will update everyone on the efforts of the Board to work with local school systems to reach future employees.

On the following day, **October 9, 2024**, the 31<sup>st</sup> AFSA-VA Burn Survivors Golf event, benefitting the Burn Camp and Foundation, will take place at the Williamsburg National Golf Club in Williamsburg, Virginia.

For more information contact: Virginia Chapter of AFSA, [www.virginiaafsa.org](http://www.virginiaafsa.org), [exediraafsava@gmail.com](mailto:exediraafsava@gmail.com).

## Texas

The Fire Sprinkler Contractors Association of Texas is holding their Scottish Rite 2024 golf event on **October 14, 2024**, from 10:00 a.m.-5:00 p.m. at the Trophy Club Country Club, 500 Trophy Club Drive, Trophy Club, Texas.

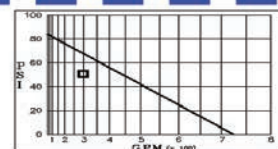

The DFW 4<sup>th</sup> Qtr Chapter Luncheon will be **November 5, 2024**, 11:00 a.m.-1:00 p.m. at the Winewood Grill, 1265 South Main St., Grapevine, Texas.

The Houston 4<sup>th</sup> Qtr Chapter Luncheon will be **November 6, 2024**, 11:00 a.m.-1:00 p.m., at the Cadillac Bar, 1802 Shepherd Drive, Houston, Texas.

The Austin 4<sup>th</sup> Qtr Chapter Luncheon, will be **November 7, 2024**, 11:00 a.m.-1:00 p.m., at the Frank Fickett Center - Heritage Room, 12500 N. Interstate Hwy 35, Austin, Texas.

For more information contact: Fire Sprinkler Contractors Association of Texas, PO Box 14, Walburg, TX 78673; (512) 844-6632, [www.fscatx.org](http://www.fscatx.org).





1st FLOOR SPRINKLER LAYOUT


**FIRE performs all necessary hydraulic calculations as required by NFPA. Computes flow rates, velocities & pressure drops.**

- Fast & Accurate
- Dynamic Error Checking
- Allows Tree, Grid & Hybrid Systems
- Up to 1000 Sprinklers
- NFPA 13 Style Reports
- Supply/Demand Graph
- Built-in Pipe Data With C Values and Diameters
- Fire Pump Analysis
- Auto Fitting Equivalent Length Calculator
- Automatic Pipe Sizing
- Automatic Peaking Calculations
- Standpipe Calculations
- Tree & Grid Builder
- User Defined Pipe Types
- Constant Loss Pressure Items
- AutoCAD Compatible
- **Only \$495/up**

**Elite Software**  
**1-800-648-9523**  
Download free software at  
**[www.elitesoft.com](http://www.elitesoft.com)**

OVER 30+ PROGRAMS!

2700 Arrington, College Station, TX 77845 979-690-9420





## Sammy X-Press Drill/Drive Anchors

Sammys Threaded Rod Anchors introduced the Sammy X-Press Drill/Drive Anchors and Installation Tool, designed to fasten threaded rod to metal deck or purlin when access to the back of the substrate is limited. Eliminating the need to build

costly trapeze supports, you will save hours of labor each day. With a fresh drill bit on each installation, Drill/Drive Anchors take the speed of installing Sammy X-Press® to the next level.

Simplify your workflow and significantly reduce installation time with the built-in drill point. Say goodbye to the hassle of replacement drill bits.

- No dull drill bits
- No need to change out drill bits
- No need to search for drill bits
- No strut or clamp required
- No more multi-step installation

For more information contact: Brady Heller, Product Manager, Sammys Threaded Rod Anchors; (224) 341-2104, [bheller@itwccna.com](mailto:bheller@itwccna.com), [www.sammysanchors.com](http://www.sammysanchors.com).

# PITTSBURGH TANK & TOWER GROUP

An ESOP Company Since 1919

*"100 years and still climbing"*

## WWW.PTTG.COM

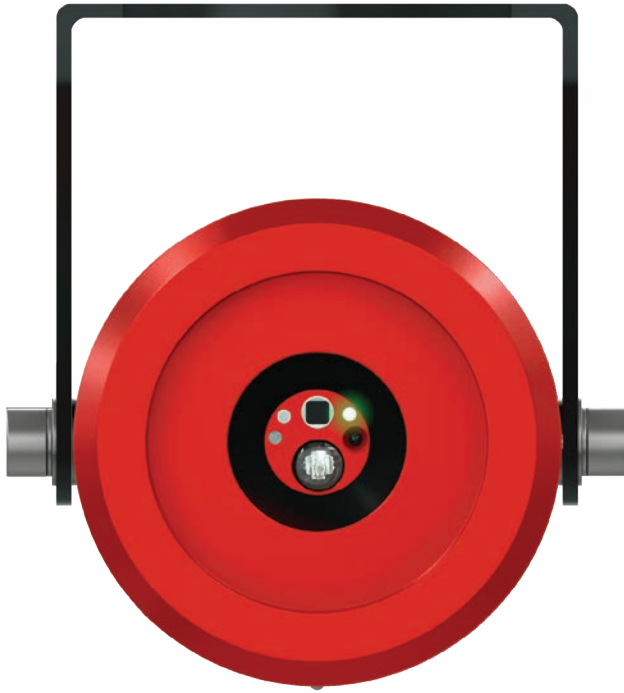
INSPECTIONS	REPAIR	TANKS
<b>NEW TANKS</b> (270) 826-9000 ext. 2601	<b>EXISTING TANKS</b> (270) 826-9000 ext. 4601	

Sammy's has products for Steel, Wood, Concrete, and Metal Decks.

The website includes lists of Approvals and Reports, Sales Drawings, and Installation Videos.

Visit: [www.sammysanchors.com](http://www.sammysanchors.com)





## Viking's FM Approved VSF303 UV/IR Flame Detector

*Warns of Dangerous Hydrocarbon Pan Fuel Fires over Long Distances in Under Five Seconds*

Viking Group, Inc., a Michigan-based manufacturer and distributor of fire protection solutions, announced the addition of a new ultraviolet infrared flame detector to its alarm and detection portfolio. The new detector takes, at most, only five

seconds to detect dangerous hydrocarbon pan fuel fires from up to 128' away.

The FM Approved VSF303 UV/IR Flame Detector is an explosion proof ultraviolet (UV) infrared (IR) flame detector. The device delivers superior performance, responding to hydrocarbon liquid fuel and gas fires at long distances. Utilizing the latest IR flame detection algorithms, the VSF303 UV/IR detector ensures maximum false alarm immunity in markets like oil and gas, chemical, manufacturing, recycling plants, storage, aviation, and more!

"The new UV/IR detector adds a unique solution to the existing detection portfolio from Viking, making it a more well-rounded and complete solution," says Holland Smith, General Manager – Alarm & Detection Portfolio.

Additional features from the FM Approved VSF303 UV/IR Flame Detector include convenient and continuous optical testing, adjustable sensitivity levels for application flexibility, microprocessor-controlled heated optics for operation through harsh weather events, and significantly enhanced false alarm immunity through multi-spectrum IR design.

For more information visit: [www.vikinggroupinc.com](http://www.vikinggroupinc.com). □

Viking Products include: Fire Sprinklers, Valves & Systems, Foam Systems, Special Hazards, Piping Systems, Electrical Products, and more.

*For over 100 years Viking has led the way in developing innovative and efficient products to make the world safer from fire. From traditional fire sprinklers and valves to clean agent and foam solutions, Viking offers the products needed worldwide to tackle fire challenges.*

For more information visit: [www.vikinggroupinc.com](http://www.vikinggroupinc.com).

Please send your  
**New Product**  
announcements to:  
[info@fpcmag.com](mailto:info@fpcmag.com)

Please include photos.

### NEWS RELEASES.

Be Brief, 200 words or less.  
Give facts and omit sales pitches.

Answer the basic Who, What, When, Where, and Why questions with concrete, to-the-point sentences.

End with company name, address and phone numbers, and contact name.

[info@fpcmag.com](mailto:info@fpcmag.com)

**LESS LABOR • FEWER LEAK POINTS • REDUCED COSTS**



Compare Your Costs to

# DROPSTER™

REDUCING NIPPLE



The Dropster fire sprinkler reducing nipples  
are your way to earn more money on  
every system install.

LEARN HOW YOU CAN  
SAVE ON LABOR, TIME & COST  
AT [GETDROPSTER.COM](http://GETDROPSTER.COM)!









© Aegis Technologies, Inc. US Patent No. 9,586,253



**John Denhardt**, PE, ET, FSFPE, CWBSP, and **Scott A. Futrell**, PE, FSFPE, CFPS, CFEI, SET, will present an in-person SFPE Post-Conference Seminar on **October 9-10, 2024**, on ***Sprinkler Design for Engineers***.

This two-day course is based on NFPA 13 and 20 *Standards*. The course is designed to provide participants with the tools needed to design and install fire sprinkler systems in accordance with building and fire codes. The course will cover introductory aspects that are essential for engineers who are new to sprinkler system design, classification of the hazards and commodities to be protected, confirmation of the hydraulic date and preliminary hydraulic design, and preparation of design documentation. In addition, more advanced topics such as application of new technologies, protection of high-piled storage, and computer-generated hydraulic calculations are also included (15 PDHs).

**Cary Webber**, CFPS, Reliable Automatic Sprinkler Company Inc., presented *A Tale of Six Cities* at the AFSA conference in Denver on September 19, 2024.

Using information provided by top fire protection contractors, he reviewed the similarities and differences between AHJ requirements for the same high-rise building constructed in

six major cities (tentatively Los Angeles, New York, Seattle, Denver, Atlanta, and Chicago). Water supply, fire pumps, standpipes, and pressure regulation are just a few of the requirements being looked at. In addition to the unique technical requirements, each contractor had the opportunity to comment on the most difficult challenges they face when performing this type of work.

Cary Webber, Director of Technical Resource Application, has over 45 years of experience in the fire protection industry, having held positions as a designer, estimator, project manager, service manager, and inspections manager.

He joined Reliable in 2012 as a Technical Services Manager for the West Coast region and was promoted to Director in 2017.

He holds a B.A. in Business Administration from the University of Washington and an A.A.S. degree in Mechanical Engineering Technology from Spokane Community College.

He has been NICET certified as a Level IV Senior Engineering Technician (SET) in water-based systems layout and is an NFPA Certified Fire Protection Specialist (CFPS). Cary currently sits on the NFSA Engineering and Standards, NFPA 11, 13, 15, 25, and 30 committees.

**Jeff Lewis**, CET, CFPS, VSC Fire & Security, Inc., will give an update on the efforts of the AFSA Virginia Chapter's Board work with local school systems to reach our future employees.

This will be on October 9, 2024, at Meeting #167 of the Virginia Chapter.

Jeff Lewis is Vice President of Inspections for VSC Fire & Security, Inc. He holds an A.A.S. degree in Fire Protection Technology from Guilford Technical Community College and a B.S. Degree in Occupational Safety and Health with a concentration in Fire Science from Columbia Southern University.

His NICET certifications include Level III in the Inspection and Testing of Water-Based Systems, Level III in Special Hazards Suppression Systems, Level II in Fire Alarm Systems, and Level II in the Inspection and Testing of Fire Alarm Systems.

He is also an NFPA Certified Fire Protection Specialist. Lewis served as a member of the review committee for the AFSA ITM Inspector Development Program and is currently serving on the Board of Directors for the Virginia Chapter of the AFSA.

At the AFSA Conference in Denver, he covered *ITM: What Can We Do to Improve Reliability?*, and presented a seminar on *NFPA 25 and the Service Technician*.

**Bob Caputo**, President of American Fire Sprinkler Association, will be the featured speaker on October 8, 2024, at the Virginia Chapter of AFSA's meeting. He will be discussing what's new and what AFSA can do for you.

Caputo is a well-known industry expert. He has Chaired and served as a member on several NFPA committees, including chairing the NFPA 16 Technical Committee (Foam & Water Sprinkler Systems), NFPA 24, and NFPA 291. He has contrib-

## THE MOST VERSATILE PORTABLE ROLL GROOVERS ON THE MARKET

**1" to 12" pipe  
Schedule 40  
up to 8"**

**Swap out shafts  
in 30 Seconds**

**Most Cost Effective  
in the Industry**







### ARGCO RGM SERIES

- RGM-840 Max Strength
- RGM-440 Lighter Weight
- for in-the-air grooving





uted to the NFPA 13 (2013 and 2016 editions) and NFPA 25 (2014 edition) *Handbooks*, and developed AFSA programs, including its Project Management Tools and ITM Inspector Development programs.

Caputo has served as a member of the Oklahoma State University School of Fire Protection Engineering Advisory Board. He is the recipient of numerous awards, including *Fire Protection Contractor* magazine's "Person of the Year," San Diego County Fire Chief's Association's "Fire Prevention Officer of the Year," and AFSA's highest honor, the Henry S. Parmelee Award.

**Fausto Velasco** is the owner of Freedom Fire Protection, Inc. where he is celebrating 19 years in business! Freedom Fire Protection, Inc., operates out of Ripon, California.

Velasco has over 40 years expertise in the fire sprinkler industry. He began his career in design and then transitioned to field installation. As an expert installer with knowledge in his trade like no other, he is accredited with training several fitters today that are now considered some of the best in the trade.

He later worked for several years as a commercial estimator and construction manager.

In 2005, he earned his California C-16 Fire Protection Contractor's License and Freedom Fire Protection, Inc. was established. Fausto is the lifeline of this company. It is because of the relationships he has built over the years in this industry, the integrity he lives by, and his faith in God, that FFPI is what it is today.

For more information visit: <https://freedom-fire.net>.

**Darion Morgan, CPA**, is now with Telgian Engineering & Consulting (TEC) as Vice President of Finance/Controller. Morgan's responsibilities include leadership of all of TEC's financial aspects including planning, compliance, and reporting, as well as providing business intelligence and insights to our operations and business development teams. Additionally, Morgan will support continued growth efforts as they enter their next phase of growth and expansion.

"A dynamic and effective leader, Darion's financial experience and leadership ability, combined with exceptional business acumen, will be an invaluable asset to TEC as we enter our growth period," says company President Leonard Ramo.

Morgan brings more than 25 years of finance experience to Telgian, including extensive knowledge of budgeting, forecasting, financial planning and analysis, accounts payable and receivable, taxes, external audit management, Treasury

management, bank negotiations, and contract. Prior to joining TEC, Morgan served as Chief Financial Officer for The Ginn Group in Peachtree City, Georgia.

Telgian Engineering & Consulting, LLC (TEC) is a full-service global engineering and risk mitigation consultancy.

For more information visit: [www.Telgian.com](http://www.Telgian.com). □

You are never too old  
to set another goal or  
to dream a new dream.  
— C.S. Lewis

**FLOW TESTING REIMAGINED**

- STACKABLE
- WELDED STEEL
- UL LISTED
- MADE IN USA

**RIPTIDE™** FIRE PUMP FLOW TESTING EQUIPMENT  
UNIT EX29051 THE RIPTIDE FLOW TESTING SYSTEM

CLASSIFIED **UL** HYDRA-TAP

AS TO FLOW MEASUREMENT ACCURACY SPECIFIED BY THE MANUFACTURER WHEN INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS

**ARGCO**





## SFPE Annual Conference & Expo

October 6-8, plus 9-10, 2024 – Louisville, KY

The SFPE Annual Conference & Expo will be held October 6-8, 2024, plus 9-10, 2024 (post conference seminars) in Louisville, Kentucky.

Some of the programs include:

*Rickhouse Fires - Can It Be Contained?* presented by Todd Spalding, Fire Chief, Bardstown Fire Department.

History has shown that bourbon rickhouse fires cause losses in the millions. New building designs, specifically of 55,000-barrel rickhouses, include **sprinkler systems**. When sprinkler systems are activated in these structures, it allows earlier notification for fire department response. Will the earlier notification for fire department response and **sprinkler suppression** contain the fire enough for extinguishment?

*Pushing the Boundaries – Harnessing Artificial Intelligence in Fire Protection Engineering Practice*, presented by Milosh Puchovsky, PE, FSFPE, Worcester Polytechnic Institute.

Artificial Intelligence (AI) holds immense promise for revolutionizing fire protection engineering, offering the potential for innovative solutions to enhance safety and mitigate risks in the built and wildland environments. AI-powered predictive modeling and virtual testing platforms, AI-supported data acquisition and analytical software, AI-driven fire detection and monitoring systems, and AI-enhanced autonomous robotic and drone systems are just a few of the developing technologies poised to make significant impacts. However, the practical implementation of AI in fire protection engineering practice is not without its limitations and challenges. This presentation delves into the nuanced opportunities and constraints that shape the boundaries of AI application in fire protection engineering and summarizes a series of collaborative value creation exercises with WPI's Center for Innovation and Entrepreneurship and several academic departments.

Special Events include: The **Women in Fire Protection Engineering** present "*Recruitment: Leading the Charge for the Next Generation of Women FPE's.*" Join SFPE's Women in Fire Protection Engineering Special Interest Group for a lunch panel discussion on challenges in recruiting the next generation of fire protection and safety engineers, with an emphasis on bringing more women into the profession. Hear from a panel of SFPE members on how to make fire protection a more appealing and rewarding career for women and early career professionals. This program is sponsored by FM.

A Pre-Conference Professional Development Seminar includes: **SFPE Ethics Series and Peer Review for Fire Protection Engineers** on October 6.

This seminar covers ethics for fire protection engineers, an overview of ethics, and how the practice of engineering relates to ethics. It will also explain the ethical obligations of an engineer, the SFPE Code of Ethics, and typical ethical challenges faced in the field. There will also be an exploration

of the practices and principles involved in the independent evaluation of engineering work products.

In Person Post-Conference Seminars on October 9-10, 2024, include: *Sprinkler Design for Engineers* by John Denhardt, PE, ET, FSFPE, CWBSP and Scott A. Futrell, PE, FSFPE, CFPS, CFEI, SET.

This two-day course is based on NFPA 13 and 20 *Standards*, and is designed to provide participants with the tools needed to design and install fire sprinkler systems in accordance with building and fire codes. The course will cover introductory aspects that are essential for engineers who are new to sprinkler system design, classification of the hazards, and commodities to be protected, confirmation of the hydraulic data and preliminary hydraulic design, and preparation of design documentation. In addition, more advanced topics such as application of new technologies, protection of high-piled storage, and computer-generated hydraulic calculations are included.

For more information visit: [www.sfpe.org](http://www.sfpe.org).

## AFSA Virginia Chapter Meeting

October 8, 2024 – Williamsburg, VA

Meeting #167 of the Virginia Chapter of AFSA will be held Tuesday, October 8, 2024, at the Double Tree by Hilton Williamsburg, 50 Kingsmill Rd., Williamsburg, Virginia; (757) 220-2500.

The schedule includes the AFSA Directors Board meeting at 10:00 a.m., lunch served at Noon, and the AFSA Members program from 1:00 - 3:00 p.m.

The program will feature Bob Caputo, President of AFSA National. He will be discussing what's new and what AFSA can do for you.

The Vendor Presentation will feature Jeff Lewis with VSC. Jeff will update everyone on the efforts of our Board to work with local school systems to reach our future employees.

On the following day, **October 9, 2024**, the 31<sup>st</sup> AFSA-VA Burn Survivors Golf event will take place to benefit the Burn Camp and Foundation at the Williamsburg National Golf Club, in Williamsburg, Virginia.

## Fire Pump Maintenance Master Workshop

October 15-17, 2024 – Atlanta, GA

An in-person Fire Pump Maintenance Master Workshop presented by Fire Tech Productions, Inc. (FTP), will be held October 15-17, 2024, at SPP Pumps at 2905 Pacific Drive, Norcross, near Atlanta, Georgia.

This three-day intensive is for the experienced Fire Pump Service Technician. It combines concentrated fire pump maintenance and servicing experiences and lab exercises with in-depth instruction from industry experts.

Some of the Master topics includes: Proper NFPA 25 Pump System Requirements; Examination methods; Diagnosing system issues; and Annual services of diesel-driven engines.

Workshop registration includes: In-depth Hands-On lessons - A combination of hands-on labs (maintenance and troubleshooting) and classroom time will be used to study such topics as: Tabbed NFPA 25 *Standard*, *Fire Pump Maintenance Field Guide*, lunches, snacks and drinks, and more.

There will be a Networking Event Dinner the first night of the workshop to network and connect with other attendees and instructors in the industry.

Other FTP products and services include: NICET Certification, Hands-On Workshops, a bookstore, FAQs, Fire Alarm Systems, Inspection & Testing of Fire Sprinkler Systems, NFPA Code Books & *Standards*, Blog, Water-Based Systems Layout, Fire Pump Maintenance, Reference Textbooks, Special Hazards Systems, Inspection & Testing of Fire Pumps, and much more.

For more information, including Event Overview, Learning Objectives, Lab Overview, Related Products, and more, visit: [www.learning.firetech.com](http://www.learning.firetech.com).

## Hose Monster University

October 31-November 1, 2024 – Cranston, RI

The Hose Monster Company's Hose Monster University is coming to the Johnson Controls Frederick Grinnell Training Facility, 1467 Elmwood Avenue Cranston, Rhode Island, on October 31-November 1, 2024, from 8:00 a.m. - 4:00 p.m.

Calling all fire protection professionals! If maintaining water distributions systems and accurate pump testing are at the top of your priority list, the Hose Monster Company invites you to join us at the Johnson Controls Frederick Grinnell Training Facility. This is an opportunity to receive hands-on training with unrivaled Hose Monster products and software, brush up on the latest fire codes and standards, as well as network with some of your peers. Pass a quiz at the end of the session and you will leave us a certified Hose Monster Technician!

In this session, attendees will train on the complete line of Hose Monster products, including: Smart Monsters, Pitotless Nozzles, Little Hose Monsters, Big Boy Hose Monsters, In-line Pitotless Nozzle Kits, and more.

There will be in-depth instruction on: Fire Pump Testing, Hydrant Flow Testing, Standpipe & PRV Testing, Fire Apparatus Testing: Protocol & Theory, Forward Flow Testing, and Backflow Devices.

For more information visit: [www.hosemonster.com/hose-monster-university](http://www.hosemonster.com/hose-monster-university). □

Please send your Seminar, Meeting,  
and Events announcements to:  
[info@fpcmag.com](mailto:info@fpcmag.com)

For more dates visit:  
[www.fpcmag.com/calendar](http://www.fpcmag.com/calendar)  
[www.firesprinkler.org/education-training/](http://www.firesprinkler.org/education-training/)  
[www.nfsa.org/training/](http://www.nfsa.org/training/)  
[www.nfpa.org/Events/Webinars](http://www.nfpa.org/Events/Webinars)



**YOU WOULDN'T JUMP WITHOUT A PARACHUTE**

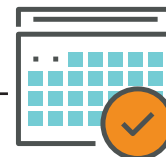
**DON'T REPLACE ANOTHER AUXILIARY DRAIN WITHOUT A**

**FLOODELIMINATOR**

The AGF **FLOODELIMINATOR** is a fail-safe that stops the flood of water caused by auxiliary drains that freeze and break, are maintained improperly, vandalized, or broken by accidents. They enable facilities to recover faster with less clean-up and expense. Why would you ever replace another auxiliary drain without one?

PRODUCT VIDEO

AUXILIARY



**Raimondo** Fire Systems

## 13D Pump Systems

**Right Size. Right Price.  
Just Add Water.**

**Economical - Custom Built  
No Assembly**



300 & 400 gallon, standard  
& deluxe models available.  
All Tank Sizes Available.

Call  
Tom Raimondo **781-279-4344**  
[www.raimondofiresystems.com](http://www.raimondofiresystems.com)



**At [efirepump.com](http://efirepump.com)  
you'll find:**

- Fire pump and controller repair/replacement parts.
- Fire and jockey pump controllers.
- Calibrated gauges, pitot kits, casing and main relief valves, test headers, flow meters, accessories, and more.

*What's that "e" stand for anyway?*

Find out more at:  
[www.efirepump.com](http://www.efirepump.com)

**eFIREPUMP**  
.com

# Calendar

**October 6-8, 2024**

**2024 SFPE ANNUAL CONFERENCE**  
Louisville, KY  
[www.sfpe.org](http://www.sfpe.org)

**October 6-12, 2024**

**FIRE PREVENTION WEEK**  
*Plan to Promote Fire Sprinklers!*

**October 7, 2024**

**KFSCAF ANNUAL GOLF OUTING**  
Frankfort Country Club, Frankfort, KY  
Michelle Jacobi, KY Fire Spk.  
Contractors Association Foundation  
[michelle@ksae.com](mailto:michelle@ksae.com), (502) 223-5322  
[www.kfsca.org](http://www.kfsca.org)

**October 9, 2024**

**31<sup>ST</sup> AFSA-VA BURN SURVIVORS GOLF**  
*Benefits Burn Camp and Foundation*  
Williamsburg Nat'l Golf Course  
Williamsburg, VA  
Bob Beckwith  
[bbeckwith@cavalierfire.com](mailto:bbeckwith@cavalierfire.com)  
or, [timothy.loscomb@eaglefire.com](mailto:timothy.loscomb@eaglefire.com)

**October 10, 2024**

**FIRE SPK. CONTR. ASSOC. CHARITY**  
*Benefits Burn Centers*  
Strawberry Farms G. C., Irvine, CA  
Larry Seligman, (626) 673-5345  
[larry@apfs.com](mailto:larry@apfs.com)

**October 11, 2024**

**GBA BOWLING TOURNAMENT**  
*Benefits Association Programs*  
Dublin, CA  
AFSA - Greater Bay Area Chapter  
[www.afsa-gba.org](http://www.afsa-gba.org)

**October 14, 2024**

**34<sup>TH</sup> SCOTTISH RITE CHARITY GOLF**  
*Benefits Scottish Rite Children Hospital*  
Trophy Club C.C., Trophy Club, TX  
Sarah Kiefer, (512) 844-6632  
[sarah@fscatx.org](mailto:sarah@fscatx.org), [www.fscatx.org](http://www.fscatx.org)

**October 25, 2024**

**25<sup>TH</sup> BOB McCULLOUGH MEMORIAL**  
*Benefits Children's Fire Ed. & More*  
Chateau Elan, Braselton, GA  
Mindy McCullough Buckley  
[mindy@allsouthsprinkler.com](mailto:mindy@allsouthsprinkler.com)  
[www.georgiafiresprinkler.org](http://www.georgiafiresprinkler.org)

**October 29, 2024**

**16<sup>TH</sup> LFSA GOLF TOURNAMENT**  
*Camp I'm Still Me*  
Santa Maria G.C., Baton Rouge, LA  
Ellen Ballard, (318) 841-1494  
Louisiana Fire Sprinkler Association  
[eballard@firetechsystems.com](mailto:eballard@firetechsystems.com)  
[www.lafiresprinkler.org](http://www.lafiresprinkler.org)

**November 15, 2024**

**NORCAL-NV SFPE GOLF EVENT**  
*Benefits Scholarships*  
Tilden Park G.C., Berkeley, CA  
Patrick Kogoma, (925) 997-3247  
[patrick.kogoma@ffic.com](mailto:patrick.kogoma@ffic.com)  
[www.ncnsfpe.org](http://www.ncnsfpe.org)

**December 6, 2024**

**GARY WENNES MEMORIAL GOLF**  
*Benefits Arizona Burn Foundation*  
Wigwam G.C., Litchfield Park, AZ  
Matthew Virtue, Cell (602) 376-4818  
[matthew.virtue@Viciaulic.com](mailto:matthew.virtue@Viciaulic.com)

**December 10, 2024**

**GFSA CHRISTMAS GATHERING**  
*Benefits Toys for Tots*  
Hamilton Mill, GA  
[mindy@allsouthsprinkler.com](mailto:mindy@allsouthsprinkler.com)  
[www.georgiafiresprinkler.org](http://www.georgiafiresprinkler.org)

~ 2025 ~

**May 7-9, 2025\***

**ANNUAL SEMINAR AND NORTH  
AMERICAN FIRE SPRINKLER EXPO**  
JW Marriott, Nashville, TN  
NFSA, [www.nfsa.org](http://www.nfsa.org)

It's wrong to penalize good behavior,  
or make good citizens pay for the crimes of others.  
— Proverbs 17:26 The Message



**June 16-18, 2025\***

**NFPA CONFERENCE & EXPO®**

Las Vegas, NV

[www.nfpa.org](http://www.nfpa.org)

**July 22-25, 2025\***

**SOUTHERN FIRE SPRINKLER SUMMIT**

Theme = *Caddyshack*

Hilton Pensacola Beach, FL

Pensacola, FL

Ellen Ballard, (318) 841-1494

[www.southernfiresprinklersummit.org](http://www.southernfiresprinklersummit.org)

**October 14-19, 2025\***

**AFSA CONVENTION, EXHIBITION**

**& APPRENTICE COMPETITION**

Washington, D.C.

[www.firesprinkler.org](http://www.firesprinkler.org)

**October 20-24, 2025**

**CASA ANNUAL CONFERENCE**

Vancouver, BC

[www.casa-firesprinkler.org](http://www.casa-firesprinkler.org)

**FERGUSON FIRE & FABRICATION**

**2024 TRADE PRO TOUR**

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

**Oct. 3:** West Chester, OH

**Oct. 18:** Las Vegas, NV

**Oct. 25:** Phoenix, AZ

**Nov. 7:** West Palm Beach, FL

**Nov. 14:** Springfield, VA

**FIRE TECH PRODUCTIONS**

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

**Oct. 1-2:** *Inspect. & Test. of FSS*

San Antonio, TX

**Oct. 15-17:** *Fire Pump Maint.*

Atlanta, GA

**Oct. 15-17:** *Fire Alarm/Detect.*

Indianapolis, IN

**Nov. 12-14:** *Fire Pump Maintenance*

Atlanta, GA

**Dec. 3-4:** *Inspect. & Testing of FSS*

Atlanta, GA

**Dec. 5-6:** *Insp./Testing of Fire Pumps*

Atlanta, GA

**NATIONAL FIRE PROTECTION ASSOCIATION**

[www.nfpa.org](http://www.nfpa.org)

*Check online for Dates and Courses including Online Training Series: NFPA 13, NFPA 13 Storage; NFPA 25; NFPA 20: Installation of Stationary Pumps for Fire Protection (2016); NFPA 13, Standard for the Installation of Sprinkler Systems (2019).*

**& much more...**

**NATIONAL FIRE SPRINKLER ASSOCIATION**

[www.nfsa.org](http://www.nfsa.org)

**Oct. 15:** *Tech Tuesday: Modifications to Existing Sprinkler Systems*

**Nov. 5:** *Inspection & Testing, Tampa, FL*

**& much more...**

**OKLAHOMA FIRE SPRINKLER ASSOCIATION**

[www.ofsa.info](http://www.ofsa.info)

**Oct. 2, Nov. 6, & Dec. 4:** *OK Alarm,*

*Locksmith, and Fire Spk. Committee*

*Meetings*

**Other Dates by Organization**

**AMERICAN FIRE SPRINKLER ASSOCIATION**

[www.firesprinkler.org](http://www.firesprinkler.org)

*Check for more Dates/Courses online.*

**Oct. 2-4:** *Sprinkler Hydraulics Workshop*

**Oct. 14-25:** *Intermediate Design School*

**Nov. 4-22:** *Beginning Design School*

**Nov. 6-7:** *Advanced Hydraulics Workshop*

**Nov. 6-7:** *Beginning ITM Workshop*

**Nov. 13-15:** *Intermediate ITM Workshop*

**& much more...**



**Other Future Meeting Dates:**

AFSA, [www.firesprinkler.org](http://www.firesprinkler.org)

**Sep. 25-29, 2026, San Antonio, TX\***

**\*FPC plans to attend**

**Send your  
Calendar items  
and News to:  
[info@fpcmag.com](mailto:info@fpcmag.com)**



**Category:**

- ☐ Fire Sprinkler Contractor
- ☐ Independent Designer
- ☐ Consultant/Engineer
- ☐ Supplier/Fabricator (circle)
- ☐ Manufacturer, please specify

☐ Other \_\_\_\_\_

To pay by credit card go to:  
[www.fpcmag.com](http://www.fpcmag.com) for details.

**Digital Subscriptions:**

**\$55 per year, go to:**

[www.fpcmag.com/subscriptions](http://www.fpcmag.com/subscriptions)  
to subscribe!

**PAYMENT IN U.S. FUNDS MUST ACCOMPANY ORDER**

**U.S.:** ☐ 1 Year \$68 ☐ 2 Years \$124 ☐ 3 Years \$171

**Canada:** ☐ 1 Year \$102 U.S. ☐ 2 Years \$192 U.S. ☐ 3 Years \$272 U.S.

**Canadian Subscribers: 5% GST is included in your cost. (#133454751 RT)**

**Mexico/Overseas:** ☐ 1 Year \$145 U.S. ☐ 2 Years \$275 U.S. ☐ 3 Years \$399 U.S.

**First Class International**

**Subscription Form**

Name: \_\_\_\_\_

Company: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: ( \_\_\_\_\_ ) \_\_\_\_\_ E-mail: \_\_\_\_\_

**Send this completed form, with payment, to:  
FPC, PO Box 370, Auburn, CA 95604**

ALL2023

## What is the Connected Apprentice?

From iBusiness Technologies



**C**onnected Apprentice (CA) was developed by iBusiness Technologies who then partnered with Apple to provide an iPad-based technology bundle for trade training centers. It modernizes instruction and prepares apprentices for digital jobsites. Training centers adopting CA continue to use their existing curriculum; however, digital versions of their instructional materials plus industry specific software gets preloaded to their iPads.

These software packages are the industry standard that graduating apprentices use at their worksites. The turnkey bundle provides preloaded iPads, Mobile Device Management, training, U.S.-based support, and membership to the User Group community.

Devices arrive at training centers preloaded and ready to use out-of-the-box! Additional software gets pushed

over-the-air at any time. CA is the exclusive iPad provider to national unions including United Association (Plumbers, Pipefitters, Sprinkler Fitters, HVACR) and ITI (sheet metal, air conditioning).

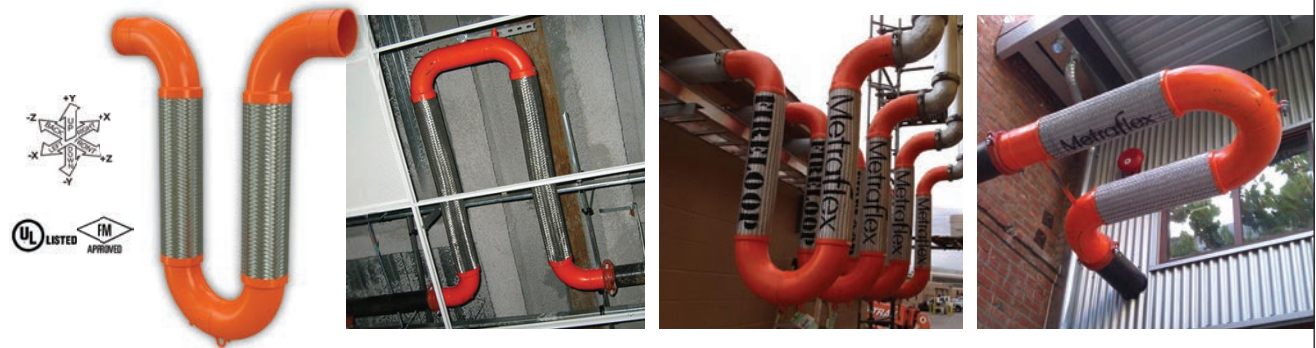
Steve Metzman, Founder and CEO of iBusiness Technologies, can speak to an array of topics including the following:

- How technology is transforming training programs for skilled trades
- How vocational schools are using Connected Apprentice to entice young adults into the trades
- How CA simplifies testing and distance learning
- How CA implements industry-specific apps and trainings that apprentices can use upon graduation

For more information contact: iBusiness Technologies, 800-434-7963, [inquiries@connectedapprentice.com](mailto:inquiries@connectedapprentice.com), <https://connectedapprentice.com>. □

## Flexible, Code-Compliant Protection for Fire Sprinkler Systems.

**Metraflex**  
for pipes in motion  
FIRE PROTECTION DIVISION



The extremely flexible **Fireloop®** expansion joint is capable of movement in all directions, with sizes able to accommodate movements up to  $\pm 45$  inches. It meets NFPA13 guidelines, is UL listed and FM Approved.

**Expansion U-Loops, Expansion V-Loops, In-Line Expansion Joints, Flexible Connectors, and more.**

For more information about Metraflex's complete Fire Protection Division product line, visit [Metrafire.com](http://Metrafire.com) or dial 1-855-347-3587.



© 2024 The Metraflex Company

# Classified Advertising

## CLASSIFIED ADVERTISING INSTRUCTIONS:

◆ Basic rate is \$35.00 for 50 words or less • \$70.00 for 51-100 words • \$105 for 101-150 ◆ E-mail us the text of your ad (no PDFs, please) and send your payment, or mail your text with your payment. (We accept checks, or to pay with a credit card using PayPal, contact us at (530) 823-0706 or e-mail: [info@fpcmag.com](mailto:info@fpcmag.com) for details.) ◆ Classified ad deadline is the 5<sup>th</sup> of each month for insertion in the following month's edition. ◆ Mailing date for *FPC* is the fourth Friday of each month (i.e. October is mailed by September 27). ◆ For any advertiser wishing to remain anonymous, we can assign a box number to your ad for an additional \$5.00 per month, and replies will be forwarded upon receipt by fax, e-mail, and/or mail. (You will likely get a better response by opening a generic e-mail account, i.e., [gmail.com](mailto:gmail.com) or [yahoo.com](mailto:yahoo.com) for direct reply.) ◆ Classified ads are text only. If you would like to add special formatting, color, or a logo, you must run a display ad. (Ad Design Services are available for an additional charge.) **Classified Ad Special: Run 6 months for the price of 5 — \$175 for ads of 50 words or less.**

### HELP WANTED

**Wanted** — Fire Sprinkler Designers. 5 plus years of experience. Hydratec or similar experience required. Remote work available. Excellent pay, benefits, paid holidays, vacation, etc. Send inquiries to: [info@fpcmag.com](mailto:info@fpcmag.com), or *FPC*, PO Box 370, Auburn, CA 95604, and include **Attn: Box#Des02.22**.

### DESIGN SERVICES

**Need Drawings?** — Submittal drawings, working drawings, surveys, calculations, cut sheets, and material lists. We can do it all! NICET Certified. Great prices. Excellent work. Nationwide services. Millennium Fire Protection Design, (616) 844-1401, [www.MFPCAD.com](http://www.MFPCAD.com).

**CADfps, LLC** — Providing fire sprinkler system CAD drafting services nationwide! NICET-certified and FPE-degreed professionals in the industry. Preliminary drawings, coordination drawings, shop drawings, calculations, stocklists, and more. For free quote contact: (281) 256-2789, [support@cadfps.com](mailto:support@cadfps.com); [www.cadfps.com](http://www.cadfps.com).

**STEWART FIRE DESIGN** — Over 30 years of design experience and has been in operation since 1988. We offer design, survey, and stocklist of any type of sprinkler system. We design for sprinkler contractors all across the country, location is not an issue. Our design staff of five offers: AutoSPRINK design, 3D BIM Modeling, as well as MicroStation. We are NICET Level IV certified. For a design quote contact: Kent Stewart, [Kent@stewartfpc.com](mailto:Kent@stewartfpc.com), (501) 794-6950.

### SALES

**DES ASSOCIATES** offers UL FM Fire Sprinkler Products - Flexible Drops; Fire Pumps; Jockey Pumps; Fire Sprinklers; Butterfly Valves; Commercial and Residential Riser Check Valves; Shotgun Riser Valves; Water & Hose Valves; Adapters & Fittings; Hydrant Accessories; Foam Tanks; Water Storage Tanks - Above Ground Bolted & Welded Steel; and Underground Fiberglass Tanks. DVBE Certificate #2026104 may help you get new business! Please call for pricing!!! Contact: Dennis Sekermestrovich, [oldseker@yahoo.com](mailto:oldseker@yahoo.com), (951) 541-4045.

**Duyar Valve** manufactures quality UL FM Valves, Riser Manifolds, Sprinkler Heads, Waterflow Detectors, Pressure Switches, etc. With sales in 85 foreign countries, they recently started selling in the United States. In the Western U.S. and for more information contact: Dennis Sekermestrovich, DES Associates, (951) 541-4045, [oldseker@yahoo.com](mailto:oldseker@yahoo.com). DVBE Certificate #2026104

### FPC PACKAGE DEAL

**Ad Promo Package Deal:** 1) See 12 Ways, send items and articles. 2) A Business Card Ad (Value \$153); 3) A text-only Classified ad 6X (\$175); 4) plus a paid Subscription to *FPC* (\$68). A \$396 value. All yours for only \$250! Contact: *FPC/Fire Protection Contractor*, (530) 823-0706, [info@fpcmag.com](mailto:info@fpcmag.com). □

“Successful men and women keep moving. They make mistakes, but they don’t quit.”

— Conrad Hilton

#### Fire Water Storage Tanks

*Corrugated, bolted, steel, above ground  
Fiberglass underground*

Let us provide your tank requirements.

**[www.firewaterstorage tank.com](http://www.firewaterstorage tank.com)**

#### Contractor, Designer, RMA, and RME

*Confidential Services*

Let us assist you with  
Fire Protection licensing.

**[www.fireprotectionlicenses.com](http://www.fireprotectionlicenses.com)**

#### Fire Pump Parts

*Available for most manufacturers.*

Quick, accurate delivery of  
packing and repair kits.

**[www.firepumpparts.com](http://www.firepumpparts.com)**

#### Fire Pump Controller Replacement

*Electric, diesel, and jockey*

Let us provide you a new controller.

**[www.firepumpcontrollerreplacement.com](http://www.firepumpcontrollerreplacement.com)**

#### Fire Pump House Packages

*Pre-piped/wired skid and houses*

Save time and money with  
a complete package.

**[www.pumphousesystems.com](http://www.pumphousesystems.com)**







## Collector's Corner

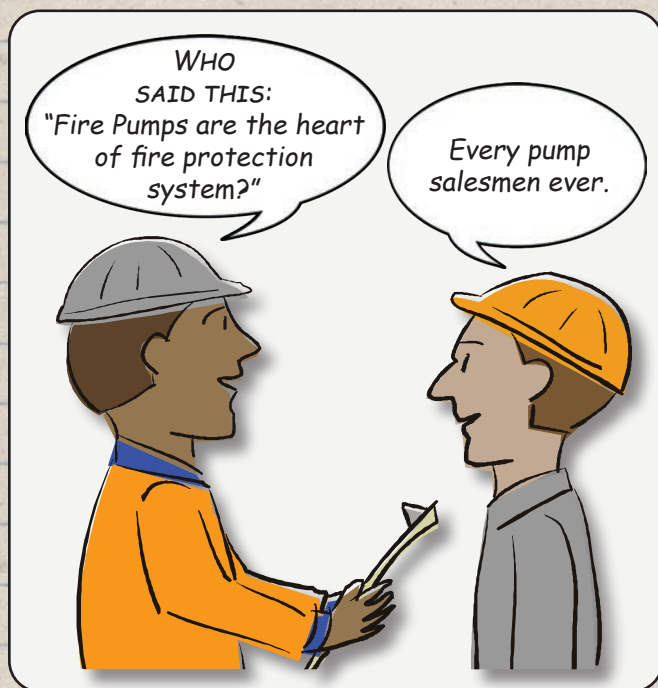


**T**his is a cleaned up 1929 Globe that came off a remodel project.

— Clayton Lane, President/Partner  
James Lane Air Conditioning & Plumbing  
Wichita Falls, TX

Please send your pics of classic fire sprinklers and other old fire protection system items. We love this stuff.

[INFO@FPCMAG.COM](mailto:INFO@FPCMAG.COM)



**A**ssociated Builders and Contractors reported that its Construction Backlog Indicator fell to 8.2 months in August, according to an ABC member survey conducted August 20 to September 5. The reading is down 1.0 months from August 2023.

"As predicted, confidence among contractors is slipping," said ABC Chief Economist Anirban Basu. "While ABC contractor members are still anticipating expanding sales and employment, profits margins are increasingly under pressure as project owners face high borrowing and construction delivery costs in the context of a slowing economy. Many projects have been postponed, resulting in recent backlog declines, most notably in the South."

**Holly Gray-Salmon**, Vice President of Finance at Foothill Fire Protection, Inc., is the winner of AFSA's NextGen Initiative's (NGI) 2024 Young Professional of the Year Award (YPY). The YPY Award was presented to Gray-Salmon during the General Session at AFSA43: Convention, Exhibition, & Apprentice Competition in Denver, Colorado.



Gray-Salmon will be the ninth winner of the YPY award, which recognizes the outstanding talent and achievements of newcomers in the fire sprinkler industry. These professionals, aged 40 and under, are activists and innovators and are praised for their passion and sense of community.

### VOTE:

"...if My people who are called by My name will humble themselves, and pray and seek My face, and turn from their wicked ways, then I will hear from heaven, and will forgive their sin and heal their land."

— 2 Chronicles 7:14, NKJV



# ***FPC Keeps Giving!***

*Check off that gift-giving list quickly  
with FPC's BOGO offer!*

See [www.fpcmag.com/bogo-offer](http://www.fpcmag.com/bogo-offer) for details!

**BUY  
ONE**

**GET  
ONE**





TAKE IT TO THE  
***NEXT LEVEL!***

WITH EASYFLEX'S **NEWLY UPGRADED**  
ULTRA PERFORMANCE FLEXIBLE SPRINKLER FITTINGS

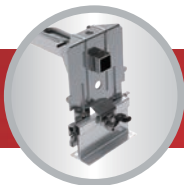
**NEW**  
**1-1/4" ID**

## BRACKET SYSTEMS



**OGSB**

FOR T-BARS



**TBS**

FOR T-BARS



**HCB**

FOR HAT CHANNELS



**MSB**

FOR METAL STUDS



**WSB**

FOR WOOD BEAMS



**OSSBW**

FOR SIDE WALLS



**OSSBJ**

FOR SHELLS

info@easyflexusa.com • 888.577.8999 • easyflexusa.com

