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## Xylem Tech Prevents 500B Gallons of Flooding in 2021

■ SPECIAL TO CONTRACTOR

RYE BROOK, NY – Solutions from global water technology company Xylem (NYSE:XYL), helped prevent more than 500 billion gallons of polluted water from flooding communities in 2021, according to its annual Sustainability Report. The report highlights the Company's work with customers and partners to solve the world's greatest

► Turn to Xylem, page 10



Xylem and Planet Water deliver water tower to Vietnam community.

## DOE: New Standards for Commercial Water Heaters

■ SPECIAL TO CONTRACTOR

WASHINGTON, DC — The U.S. Department of Energy (DOE) today proposed new energy-conservation standards for commercial water heating equipment, including gas storage, instantaneous water heaters, and gas hot water supply boilers. The proposed standards would require commercial water heaters to incorporate condensing technology, which significantly reduces energy consumption by extracting additional heat from the

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## IAPMO Supports Sen. Baldwin's Healthy Drinking Water Affordability Act

■ SPECIAL TO CONTRACTOR

WASHINGTON, DC — The International Association of Plumbing and Mechanical Officials® (IAPMO) strongly supports The Healthy Drinking Water Affordability Act, or The Healthy H2O Act, which would provide grants for water testing and treatment technology directly to individuals, nonprofits and local governments in rural communities.

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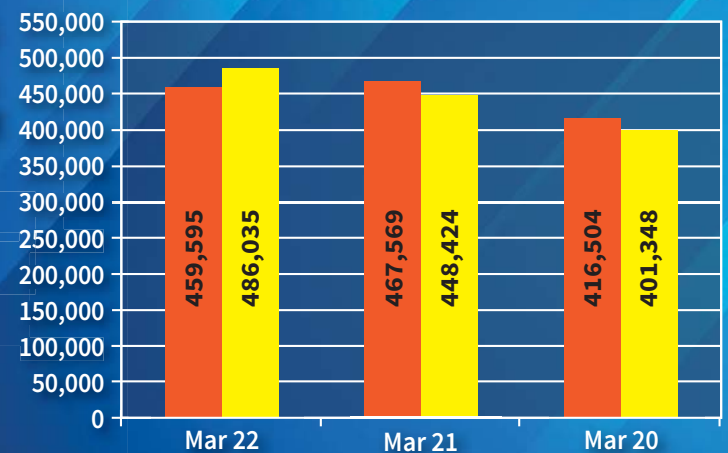
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### CONTRACTOR INFOCUS

#### U.S. SHIPMENTS OF RESIDENTIAL STORAGE WATER HEATERS

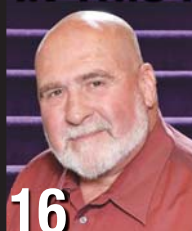
Mar 2020 - Mar 2022

■ Residential Electric  
■ Residential Gas



SOURCE: AHRI (ahricommunications@ahrinet.org)

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# 2022 Emerging Water Technology Symposium Held in San Antonio

■ SPECIAL TO CONTRACTOR

SAN ANTONIO, TX — The seventh Emerging Water Technology Symposium returned as an in-person event for the first time in four years, bringing together industry, manufacturing, water utility and government leaders from around the world. A focus of this year's event was on resources communities require to build safe and resilient plumbing systems as well as meet the growing list of challenges to America's drinking water.

The May 10-11 event at the Westin Riverwalk, San Antonio was co-convened by the Alliance  
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Pete DeMarco addresses symposium attendees. DeMarco announced his plans to retire at the conclusion of the 2022 EWTS.

# G. E. Appliances Opens \$70M High-Tech Water Heater Manufacturing Facility

■ SPECIAL TO CONTRACTOR

CAMDEN, SC — GE Appliances (GEA), a Haier company, on May 11th officially opened its \$70 million state-of-the-art water heating manufacturing plant in Camden, South Carolina. The site will serve as the company's Center of Excellence for water heater manufacturing and was built for future expansion. Since 2016, GE Appliances has invested \$2 billion in its U.S. manufacturing and distribution operations, adding more than 3,000 new employees

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One of the 140 employees at G. E. Appliances' new Camden, SC facility.

# NKBA Report Finds Industry Bullish on 2022

■ SPECIAL TO CONTRACTOR

HACKETTSTOWN, NJ – The National Kitchen & Bath Association (NKBA) – the world's leading non-profit trade association for the kitchen and bath industry, has released its Kitchen & Bath Market Index (KBMI) for Q1 of 2022. The quarterly report, which is aimed at measuring the health of the kitchen and bath industry, found that the industry enjoyed a successful opening quarter of the

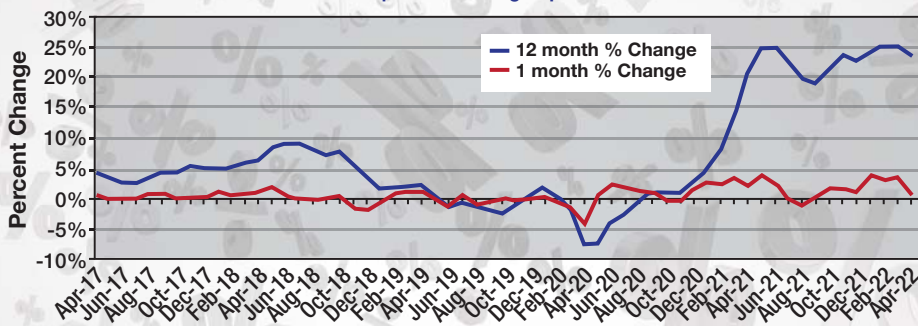
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## CONTRACTOR INFOCUS

### Producer Price Index Percent Change Inputs to Construction Industries

April 2017 through April 2022



Source: U.S. Bureau of Labor Statistics

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# Editorial Offices

**EDITORIAL STAFF**  
 Group Editorial Director-Buildings & Construction  
 Mike Eby, meby@endeavorb2b.com  
 Editor-In-Chief  
 Steve Spaulding, sspaulding@endeavorb2b.com  
 Editor-At-Large  
 John Mesenbrink, jmesenbrink@endeavorb2b.com  
 Contributing Writer  
 Kelly Faloon  
**COLUMNISTS**  
 • Al Schwartz, Management • Scott Milne, Plumbing •  
 • Pat Linhardt, Hydronics • Patti Feldman, Technology •  
 • Matt Michel, Marketing •  
 Art Director, Susan Lakin  
 Marketing Coordinator, Susan Johnson  
 Ad Services Manager, Deanna O'Byrne  
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 Audience Development Manager, James Marinaccio

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 Energy, Buildings & Construction, Reggie Lawrence  
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Cust. Serv.: Endeavor Business Media, P.O. 3257, Northbrook, IL 60065-3257 U.S.

Phone: 847-559-7598 • Toll Free 877-382-9187 (Outside U.S.) • Fax: 847/564-9453 contractor@omeda.com

CORPORATE OFFICE: Endeavor Business Media, 331 54th Ave N., Nashville, TN 37209, U.S. www.endeavorbusinessmedia.com.

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In Brief

**Central Sales, Inc.**, the Des Moines, IA-based sales representative firm, has been awarded the **Geberit** line of products to represent in Iowa, Nebraska, Kansas, and Missouri. Headquartered in Des Moines, Iowa, Central will help expand coverage. The company has additional offices in Omaha and St. Louis, Missouri.

**Oatey Co.** recently named **J&K Sales** the top-performing manufacturer representative for its Wholesale Business Unit in 2021, recognizing the agency's exceptional partnership and accomplishments. Oatey also named Chase Freeman, Vice President, **Spirit Group**, the inaugural winner of its Bob Bender Legacy Award.

**Malco Products, SBC** announced that Phil Sponsler was recently appointed to its board of directors. Sponsler brings a great deal of experience in creating operational excellence and driving continuous improvement. Since 2000, he has been the president and general manager of Orbitform, which creates engineered and manufactured assembly solutions for the automotive, industrial, medical, hand tool and aerospace industries.

Brian Smith has joined **Wiegmann Associates** as a Project Manager. Smith is responsible for managing new and renovation HVAC construction projects in a range of industries including industrial, pharmaceutical and high-rise student living buildings. Smith brings 20 years of experience in mechanical engineering of new construction projects, from design to completion, for pharmaceutical and food and beverage distribution projects.

**Trane Technologies** has announced it is one of just 11 companies worldwide to date to have its net-zero carbon emissions targets approved by the **Science Based Targets initiative (SBTi)**, a coalition of the Carbon Disclosure Project, the United Nations Global Compact, World Resources Institute and the World Wide Fund for Nature. As a Net-Zero Approved company, Trane Technologies commits to reaching net-zero GHG emissions across its value chain by 2050 from a 2019 baseline.

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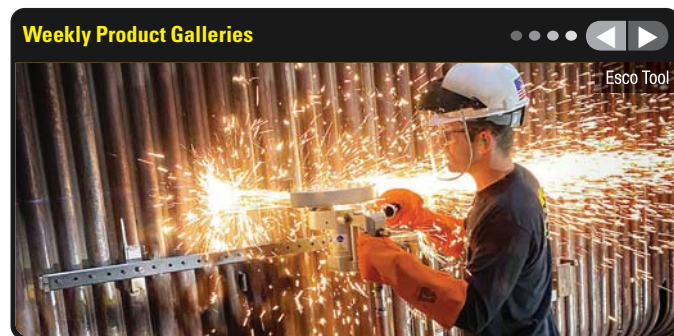
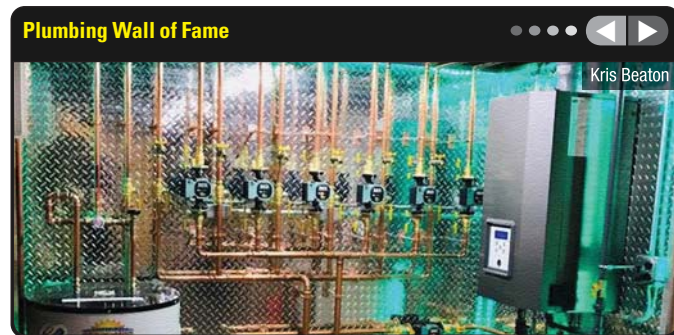
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## Top Stories

- Building Safety Month Concludes
- Dept. of Labor Announces New Compliance Assistance Materials
- Sloan Opens New Showroom, Office Space in Downtown Chicago
- A. O. Smith's Jim Stern Named WQA President

## Videos & Media Galleries



### BOOKMARK OUR CORONAVIRUS NEWS PAGE

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## INDUSTRY PERSPECTIVES

- ▶ Want to know what is on the mind of Ed O'Connell, business coach and consultant?
- ▶ Want to know about how to get the flow rates right in hydronics from master trainer Steve Swanson?
- ▶ Want to know what the 14 characteristics are of a professional plumbing company? Matt Michel will tell you.

If so, our Industry Perspectives page is the place for you! Visit Industry Perspectives today at

[contractormag.com/industry-perspectives-0](http://contractormag.com/industry-perspectives-0)

Want to converse with experts in the plumbing and hydronics industries? Then check out **CONTRACTOR's Industry Perspectives**, serving up thoughtful, conversational content from the industry experts you have gotten to know so well at [www.Contractormag.com](http://www.Contractormag.com).

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# PILC Meeting Discusses Industry Advocacy

BY JOHN MESENBRINK OF CONTRACTOR'S STAFF

SAN ANTONIO, TX —Last month, the Plumbing Industry Leadership Coalition (PILC) gathered for its annual meeting for industry leaders to listen, learn and share in regard to defining the role of the plumbing industry. Members from the International Association of Plumbing and Mechanical Officials (IAPMO), American Society of Plumbing Engineers (ASPE), Plumbing Manufacturers International (PMI), International Code Council (ICC), Plumbing-Heating-Cooling Contractors Association (PHCC), Alliance for Water Efficiency (AWE), American Supply Association (ASA), United Association (UA), select trade media and others, offered insights and voices from their particular constituency.

## Advocacy

During the meeting—co-convened this year with the Emerging Water Technology Symposium [see pg. 3 – Ed.] — government relations took center stage, especially on the advocacy front.

One such topic that grabbed the headlines there was the Infrastructure Package and the intricacies that are attached to it. According to PMI CEO/ Executive Director, Kerry Stackpole, PMI remains a strong supporter of the bipartisan Infrastructure Investment and Jobs Act that Congress passed, and President Biden signed into law in November 2021 to address decades of under-investment in the nation's infrastructure system. Alongside major investments in transportation, electric vehicles, internet, and roads, the legislation earmarks \$55 billion for clean water and water infrastructure projects. It represents some of the most significant investments from the federal government in the water sector in decades.

"PMI continues to advance policies that strengthen plumbing manufacturers and the American economy at the federal level. As Congress works to address current issues such as rising inflation, China competition issues and the war in Ukraine, PMI remains actively engaged with lawmakers," says Stackpole.



The annual PILC meeting brings together members from IAPMO, ASPE, PMI, ICC, PHCC, AWE, ASA, the UA, select trade media and others.

## This year's in-person PILC meeting included advocacy initiatives and updates on government relations.

### Infrastructure Package Nuggets

- Much of the funding will be coming through the **Clean Water State Revolving Fund (CWSRF)** and the **Drinking Water State Revolving Fund (DWSRF)**. These programs are federal-state partnerships that provide communities with low-cost financing for water infrastructure projects and each program will receive \$11.7 billion over five years. A good portion of the funding being distributed come from the state revolving funds. Each state will have a priority list of projects up for SRF funding
- It is estimated that there are between 6 million to 10 million lead service lines in the United States. Much of the drinking water infrastructure in older U.S. cities was built before 1950. The new infrastructure law also includes \$15 billion to support lead removal projects, with \$3 billion being distributed to states and cities in 2022. Forty-nine percent of the state revolving funds must be provided to disadvantaged communities. PMI strongly supported this funding, and not placing matching or cost-share requirements on the states or local governments. Money can go toward direct removal of lead pipes, as well as efforts like identification of lead pipes, as well as the planning and design of new projects.
- While this funding is a good start, industry experts estimate the actual cost of fully replacing all lead pipes in the U.S. could be \$60 billion. Additional investments will be needed from the federal government and state authorities.
- PMI also supports full funding for the **Water Infrastructure Improvements for the Nation (WIIN)** Act. Within WIIN funding is the Voluntary Lead Testing in

Schools and Child Care Drinking Water grant program for states territories, and tribes to test for lead in schools and childcare facilities.

### The Future of NIST

During the PILC meeting, guest speaker, Natascha Milesi-Ferretti of the National Institute of Standards and Technology (NIST), discussed the organization's efforts on plumbing research. Not only a benefit to our industry but to all U.S. citizens, encouraging NIST to reopen its research efforts is critical. NIST had a plumbing tower and a plumbing research office that was ultimately disbanded in the late 70s, and early 80s, and since then, there has been little to no federal effort and research on plumbing systems in the United States.

"However, after many years, with countless visits to NIST, supporting the research efforts, having legislation, and having Congressional hearings with the head of NIST testifying on Capitol Hill, it is exciting that this research is now moving forward once again at NIST," says Dain Hansen, Executive Vice President, Government Relations, The IAPMO Group.

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# IAPMO Supports Drinking Water Act

## ► Continued from page 1

Introduced by U.S. Sen. Tammy Baldwin (D-Wisconsin), The Healthy H2O Act would provide grants for water quality testing and the purchase and installation of point-of-use or point-of-entry water quality improvement systems that remove or significantly reduce contaminants from drinking water. The U.S. Department of Agriculture (USDA) would provide the grants directly to individuals and nonprofits or local governments to help people go through the process of water testing and then finding and installing a water treatment product to address their situation.

## Oversight and Testing

Communities across the United States face threats to their drinking water from a number of contaminants, including lead, arsenic, nitrates, volatile organic compounds (VOCs), PFOA,

PFOS, hexavalent chromium-6, and others. While public water systems monitor for these threats and treat water before it is distributed to points of use, nearly 43 million households primarily in rural communities rely

Act would provide grants for rural communities to increase access to the many technologies for testing and water treatment at the point of use.

“Every Wisconsin community deserves access to clean drinking wa-

ter and an environment free of toxic chemicals. Across our state, communities are struggling to identify and treat known and emerging chemicals that endanger our health, especially for children,” Baldwin said. “My legislation will cut costs and expand ac-

## Collaboration is Key

Through its Community Plumbing Challenges (CPC), IAPMO’s nonprofit organization, the International Water, Sanitation and Hygiene Foundation (IWSH), collaborates with local governments, nonprofit organizations and volunteer tradespeople to identify and address water and sanitation-related issues in rural areas where access to clean, safe water and sanitation is limited or compromised. Baldwin invited IAPMO Director of Workforce Training and Development/IWSH North America Project Manager Randy Lorge, who has been integral to the success of CPCs in South Africa, Indonesia, and the United States, to be her virtual guest for President Biden’s State of the Union address March 2.

“IAPMO believes that everyone should have access to clean water and sanitation. This is why we support the introduction of The Healthy H2O Act and applaud Senator Baldwin for her leadership on this issue,” said Dain Hansen, IAPMO’s executive vice president of Government Relations. “IAPMO has long championed solutions around the globe that lead to lasting quality water and sanitation services. Today, many communities across the United States face challenges with their drinking water—an issue that is only compounded in underserved neighborhoods. Water filtration technologies play an important role meeting those challenges immediately. We recognize this as an essential piece of legislation that helps our country take a critical step in closing the clean drinking water access gap in the U.S.”

The Healthy H2O Act is also supported by The Water Quality Association (WQA), The National Ground Water Association (NGWA), The Water Council, NSF International, American Supply Association (ASA), Water Systems Council, Water Well Trust, and The Groundwater Foundation. [G](#)

**The Healthy H2O Act would provide grants for water quality testing and the purchase and installation of point-of-use or point-of-entry water quality improvement systems.**

exclusively on groundwater delivered through private wells for their drinking water. This water is not subject to the same regular oversight and testing for contamination, which can delay identification of and response to health threats. The Healthy H2O

ter and an environment free of toxic chemicals. Across our state, communities are struggling to identify and treat known and emerging chemicals that endanger our health, especially for children,” Baldwin said. “My legislation will cut costs and expand ac-

# DOE: New Standards for Commercial Water Heaters

## ► Continued from page 8

combustion process. Energy efficiency is a key component of President Biden’s plan to reduce climate pollution while delivering savings.

“Water heating accounts for a considerable share of energy costs and domestic carbon emissions,” said Kelly Speakes-Backman, Principal Deputy Assistant Secretary for Energy Efficiency and Renewable Energy. “Modernizing commercial water heater technology will slash energy costs for schools, hospitals, and small businesses while removing carbon and methane from our atmosphere.”

## Projected Savings

If finalized, the proposed standards would save businesses and operators \$140 million per year in operating costs. Over the next 30 years, the new standards are projected to generate \$2.4 billion in savings, with an average life-cycle cost saving of \$301 for a commercial building operator of a

gas-fired storage water heater. According to the Energy Information Administration, gas water heating accounts for 18 percent of natural gas consumption in commercial buildings,

which is primarily driven by inefficient, non-condensing water heating equipment that allows excess heat to escape.

In addition to the projected 30-year cost savings, the new standards will reduce carbon emissions by an amount equivalent to the annual emissions of 4.8 million homes. The new standards will also cut methane emissions by an amount equivalent to the annual emissions of 2.3 million gasoline cars.

## Soliciting Feedback

If implemented within DOE’s proposed timeframe, the new standards would come into effect in 2026. Next month, DOE will host a public

meeting via webinar to solicit public feedback on the proposed rulemaking. For further information, contact the Appliance and Equipment Standards Program staff at [ApplianceStandardsQuestions@ee.doe.gov](mailto:ApplianceStandardsQuestions@ee.doe.gov).

DOE’s Building Technologies Office implements minimum energy conservation standards for more than 60 categories of appliances and equipment. To learn more, visit the Appliance and Equipment Standards Program homepage. [G](#)

**The proposed standards would require commercial water heaters to incorporate condensing technology.**



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# Xylem Tech Prevents 500B Gallons of Flooding in 2021

► **Continued from page 1**

water challenges. It also details Xylem's progress to reduce its operational footprint, including cutting Scope 1 and 2 greenhouse gas (GHG) emission intensity by 12 percent and water use by 22 percent, versus 2019.

## Responsibility to Make a Difference

"It's a great privilege to have a leading portfolio of technologies and services to help our customers and communities solve the water challenges so central to a more sustainable world," said Patrick Decker, president and CEO of Xylem. "We have a responsibility to make a difference, working alongside our customers and partners, and the communities we all serve. That's why our sustainability report is more than a set of numbers. It's a report card on the difference we're making, together, and a dashboard of progress in our mission to solve water."

"Last year, we intensified our efforts around three key areas. First, we're helping our customers become more

effective stewards of their water resources, particularly through our digitally enabled solutions and services. Second, we're addressing climate mitigation by helping decarbonize the water sector through high-efficiency technologies and our own net-zero

customers reuse more than 285 billion gallons of water. Building on its work to accelerate the decarbonization of the water sector, the Company's solutions helped customers reduce their carbon footprint by 0.73 million metric tons of CO<sub>2</sub>.

and cut fleet GHG emissions in the US by 19 percent.

## Water-Related Disasters

In 2021, amid intensifying severe weather events, Xylem increased its humanitarian support for communities impacted by water-related disasters, providing expertise, technology and equipment to more than 15 countries. Xylem reached 1.4 million people with water education, in large part driven by the launch of a new three-year partnership with UNICEF in India.

"2021 was a year in which we continued to operationalize our sustainability commitments throughout the organization," said Claudia Toussaint, Xylem's Chief People and Sustainability Officer. "We built more robust internal reporting and controls, established subject matter expertise across functional areas like product development, operations and supply chain, and integrated sustainability into all that we do—from factory floor to the boardroom. Crucially, we also took steps to structure our workplace in a way that best supports the personal and professional growth of our diverse, 17,000-strong team—the driving force in our mission to solve water."

## The company's latest sustainability report tracks progress in meeting global water challenges.

carbon commitments. Lastly, we continue to work to advance equitable access to clean water and sanitation around the globe."

## Decarbonizing the Value Chain

Xylem provides advanced solutions and services that enable utilities, industrial companies and other water consumers to optimize their networks while achieving their own sustainability goals. As one of many examples, in 2021, Xylem's technologies helped

Last year, Xylem formalized its commitment to achieve net zero carbon emissions across its own value chain before 2050. In addition to reducing its Scope 1 and 2 net GHG emission intensity by 12 percent, Xylem is now running more than half its major facilities on 100 percent renewable electricity. In 2021, the Company embarked on an ambitious fleet electrification program which delivered a 31 percent reduction in fleet GHG emissions in Europe in its first year of the program,

# NTEA Announces 2022 Executive Leadership Summit

FARMINGTON HILLS, MI — Commercial vehicle industry leaders will gather in Baltimore, Maryland, when NTEA hosts its Executive Leadership Summit at the Hyatt Regency Baltimore Inner Harbor with a full-day program Oct. 18, 2022, and an evening welcome reception Oct. 17.

"Our industry is critical to keeping all aspects of the economy moving," said Steve Carey, NTEA president and CEO. "Executive Leadership Summit provides a forum for the business owners and senior management teams of commercial vehicle companies to come together to share ideas, learn from key experts and take away insights that could be put to immediate use within their organizations."

Executive Leadership Summit addresses the dramatic marketplace dynamics currently impacting work truck industry companies. During this event, economists, industry leaders and government agencies will share



targeted information, including key trends, forecasts and insights. Content is designed to further commercial vehicle industry knowledge, growth and profitability.

Topics covered include:

- Work truck industry overview and macroeconomic update from NTEA's staff economist
- Supply chain issues affecting manufacturers
- Industry leader panel with representatives from General Motors Fleet, Navistar and Allison Transmission discussing current

market challenges and opportunities

- A situational analysis of trends within the commercial vehicle population with NTEA staff and representatives from S&P Global Mobility and Commercial Truck Trader
  - A view of the future of the commercial vehicle industry
- Registration for NTEA's Executive Leadership Summit will open this summer. Visit [ntea.com/executivesummit](https://ntea.com/executivesummit) for further information and to sign up for event updates.

## Highlights

Other key highlights detailed in the report, and driving progress toward Xylem's sector-leading 2025 sustainability goals, include:

- Engaged nearly 6,000 diverse global youth in water innovation programs such as Xylem Ignite and Stockholm Junior Water Prize, fostering the next generation of water sector talent;
- Contributed 113,000 employee volunteer hours, with 78 percent of employees participating in activities to solve water in their local communities; and
- Engaged 400 suppliers in the WASH4WORK pledge for access to safe water, sanitation and hygiene (WASH).

To learn more about Xylem's sustainability progress, download *Making Water's Future Sustainable*.



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- **Continued from page 12** measured through DOE First Hour Rating on a 50-gallon model.
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The plant is vertically integrated and will produce units starting from coils of steel.



More than 50 team leaders and maintenance employees completed more than 5,700 hours of training in robotics, welding and mechatronics.

### Focus on the Pro

In 2020, GE Appliances announced the launch of Air & Water Solutions, a channel dedicated to serving the unique needs of professional contractors and wholesale distributors in the plumbing, heating, ventilation, and air conditioning industry. Air & Water Solutions combines GEA’s innovative

portfolio of products with a dedicated team of sales professionals, training centers, and support resources for professional contractors.

“Our entrance into the plumbing and HVAC channel is focused on professional contractors who are on the front lines and never stop creating solutions for their customers,” said Jim

Skaggs, vice president of sales for GE Appliances Air & Water Solutions. “We are committed to matching their passion with a broad product portfolio, winning innovation, an iconic brand, and on-demand technical support. Our pros never stop, so neither will we—and that includes our Camden manufacturing team!” **C**

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by Al Schwartz  
PLUMBING CONTRACTOR



# Missing the Point

I recently read an article about AR (Augmented Reality), and how it is the new “it” thing in our ever-expanding universe of digital enhancements to the trades. The article, by a firm called Global Research, made much of the fact that while 55% of the respondents said they were looking into AR and the concepts behind it, few were going to purchase the technology. The article glossed over this fact, other than to mention it, and made assumptions as to why. They then laid out their case for why we need such tech.

What was left unsaid or unreported is the fact that most, if not all, of the companies interviewed can’t find enough bodies to put into the field to do the work. They are less concerned with attracting young people to play virtual games, (regardless of what they are called, they are in reality, games) in an office setting than they are in finding, training and retaining qualified people to do the work.

## Cool Tech?

While making much of how this technology would bring young people into the trades because... it’s cool?... cutting edge?... like some video game??? The authors seem to have missed a salient point: this tech does absolutely nothing to help with the labor shortage of “guys in the trenches spinning the wrenches.”

It seems that this is the case across the board for most of the new digital “enhancements” shown on the pages of this magazine and other trade publications. Everyone seems to be enamored of the latest new thing in the digital realm. What is missing from this equation is the link between the digital world and reality. In this and many other, cases there is none.

I’d be the first one to admit that there are products out there that have made being in business easier and more profitable, especially for the small shops. Job cost control, vehicle control, point of purchase sales, etc. have benefited enormously from the advances in digital and interactive technology. Likewise, running a large business with many dozens of employees and/or ser-



**High tech does absolutely nothing to help with the labor shortage of “guys in the trenches spinning the wrenches.”**

vice trucks has been made infinitely easier by the advent of accounting, scheduling, supply ordering/inventory and tracking software.

Probably the biggest advantage in the digital realm to the average contractor is communications. Between smart phones, email, Zoom and other pieces of tech, communications have become almost instantaneous. This has had the effect of shrinking miscommunication errors to almost zero and has opened the door to virtual project management programs like BIM, which are invaluable as field aids when working on complex projects.

## Missing the Point

Still, there is a disconnect between all this cool new technology and field operations at a basic level. Virtually

none of this new digital technology addresses the actual work being done in the field. Can anyone tell me how hiring young people to play with virtual reality programs gets that soil pipe underground done? Or who is going to top-out that multi-story project?

In my humble opinion, the folks who make these software “solutions” to industry problems are missing the point of it all. At a quick read, it appears that virtually no consideration is being given to the actual work that needs to be done. Oh, sure, you can manipulate your mouse or other digital tools and make pretty pictures, flow charts, schedules, and such, but where does that get you if there is no one out there actually putting the systems together in real time? There may come a

time, probably sooner than later, when robots are trained to install plumbing or HVAC piping, but that time is not now. Right now we need people to enter the trade to actually work at it, not play augmented reality programs because they are cool.

## Opposing View

I would hope that dissenting opinions such as this one are, if not welcome, at least taken at face value. We, as a nation, have quite simply lost the idea of what it is to actually work for a living. I mean physical work. While it might be cool to watch robots in futuristic movies and television programs do all the work, it is not happening now. By catering to those who would rather sit and play video games than get up and get their hands dirty, we are aiding and abetting a crisis of our own making.

While it is good that this technology has a platform for trade people to parse and review, it is equally important that opposing views be shared. To have access to new and cutting-edge technology is important, especially today. Having said that, however, it is equally important to acknowledge that without the people to implement the actual installation of the material and equipment in real time these new programs aren’t worth the electrons they are written with.

Since the trades are not homogeneous, and encompass all facets of a base industry (construction) which keeps the nation moving forward, it does not make any sense to lure new people into the trades with new digital toys without first addressing the acute problem of getting people to do the work in reality. End of rant, as you were. **G**

*The Brooklyn, N.Y.-born author is a retired third generation master plumber. He founded Sunflower Plumbing & Heating in Shirley, N.Y., in 1975 and A Professional Commercial Plumbing Inc. in Phoenix in 1980. He holds residential, commercial, industrial and solar plumbing licenses and is certified in welding, clean rooms, polypropylene gas fusion and medical gas piping. He can be reached at allen@proquilldriver.com.*

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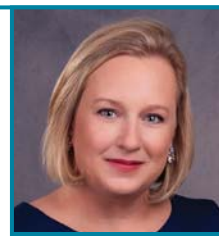
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by Katherine Lehtinen  
SENIOR VICE PRESIDENT, BRAND AND DIGITAL MARKETING, OATEY CO.



# Entrepreneurship in the Skilled Trades

The skilled trades offer security like none other. No matter how the marketplace or the economy may shift, we will always need plumbers, welders, electricians, and builders to build our homes, keep the lights and water on, and pave our roads.

If you're a business-minded tradesman, a trade business may be an avenue for success. A skilled trade offers a great opportunity to own your own business or even grow within an established company. High demand is one reason to become self-employed and start your own business.

However, there are a few factors to consider before jumping ship and starting a small trade business. To shed light on entrepreneurship in the trades and how to operate at the utmost efficiency, we sought some insights from third-generation plumber Mike Corsillo.

## Multi-Generational

Corsillo has a background familiar to many professional plumbers: tagging along with his dad to job sites as a kid, thinking what fun it was to be at work with him. These good memories cemented his career choice—joining his father and brother at Corsillo Plumbing & Sewer Cleaning. In 1998, he launched the New Construction Division (NCD) of the family business.

But after many years as one company, Mike set out on his own in 2004, establishing NCD Corsillo Plumbing in suburban Cleveland, Ohio. The name, of course, pays homage to his family's history and his own future in the plumbing business. Corsillo's company has installed plumbing in hundreds, if not thousands, of new homes while also handling remodels even during the recent pandemic. With 22 employees and 14 trucks, Corsillo's trading area extends roughly 80 miles from the headquarters office in Chardon, Ohio.

## Demands of Ownership

Corsillo emphasizes while owning a business is rewarding, it's important to keep in mind what it means to be a business owner. "You might have all the right tools and trade skills to



Mike Corsillo drives out to a job site.

## Oatey Co. talks opportunities, challenges and technology with a successful plumbing contractor and business owner.

start your own business, but have you considered the sacrifice and stress that comes with it?" he asks.

"As a business owner, I'm working 24/7," says Corsillo. "I'm constantly getting calls, and it doesn't matter what time of day it is."

As Corsillo explains, when you're just an employee on the job site, you're there for only eight to nine hours. Then you go home with no other job-related worries. You're not concerned about payroll, paying your vendors, maintaining your equipment, insurance claims, warranties, etc.

The point is, being an entrepreneur is not easy. "I think we need to change our perspective a little and focus on how a hard-working employee can make an established business better," Corsillo says.

"If you're able to increase a company's revenue, a great owner will share that revenue with you in the form of a raise and employee benefits."

Corsillo believes advancing within an established company may be a better path to follow, rather than taking the all-too-common advice: "If you're a good plumber. You should just go

start your own plumbing company."

Corsillo explains that the industry is seeing a lot of two-person and three-person shops, where compensation or revenue is equivalent or relatively low, compared with the wage they could receive when working for a large plumbing company that would typically involve less sacrifice and stress.

"I think we need to start expanding some of these bigger companies, and the owners, like myself, have to reward hardworking employees in a significant way." Corsillo notes that he is not discounting ownership, explaining, "There are plenty of successful plumbing companies out there."

## The Manpower Problem

However, Corsillo shares a hard truth: "Right now, I have four members on my team who have the potential to run a ten- to fifteen-person crew. But I can't find those workers for them to manage because the manpower is not there. If I had the workforce available, I would have the opportunity to triple the size of my business."

What often happens is a strong-willed worker with the skills and the

drive to be an entrepreneur leaves a company because they are frustrated. They then start a business and take on contracts they can't handle. Corsillo uses the example of roughing in new-construction homes.

The new business owner can likely rough in about two houses a month. However, the builder has six homes in need of plumbing rough-ins. The new business owner is now left with a dissatisfied builder who subsequently approaches a larger plumbing company. Now there's a bidding war.

And you guessed it: The bigger company will be able to outbid the smaller, new-business owner just because they're able to handle not just two, but all six houses. But, if the new-business owner chose to stay with his employer and help grow the established company, he could have been running that division and probably be making more money with less pressure.

Again, Corsillo stresses that a tradesperson can successfully run a business and make a very good living. It just takes a certain level of commitment, dedication, and sacrifice.

## Measuring Success

According to Corsillo, your company's success depends on how well you treat your employees.

"I believe a successful trade business has to offer certain benefits to their employees, such as coverage under BWC, health insurance, a savings or 401K plan, disability, and life insurance policies."

Corsillo adds that you also must provide your employees with the tools to succeed on the job site, from construction vehicles to new technology. Furthermore, Corsillo believes good relationships with vendors are key so "you can have consistent work."

He adds that you should be prepared to face many obstacles and potentially devastating losses. For example, in the plumbing industry, a major problem may be water damage. "Water damage means mold remediation, which means big expenses," explains Corsillo. His advice? Limit the potential for leaks to occur by installing high-quality products.

➤ **Turn to Entrepreneurship, page 40**

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# Under 30 All Stars of 2022

By Kelly L. Faloon

Meet some young people who have chosen to pursue a career in the skilled trades, and find out about their hopes for the future.

**W**elcome again to one of our favorite annual features, CONTRACTOR's Under Thirty All Stars, where we interview young people pursuing careers in plumbing & heating and talk to them about the reasons they chose the skilled trades, how their journeys are progressing, and about their hopes for the future.

Hiring and retaining skilled workers has ranked as a top concern of plumbing contractors in every reader poll this magazine has conducted the past decade. As Mike Corsillo in this month's Forum (pg. 18) said, "If I had the workforce available, I would have the opportunity to triple the size of my business."

With trade and vocational schools not turning out enough skilled workers to supply the need, more and more contracting businesses have taken to in-house workforce development programs, often offering new workers "earn as you learn" positions. And time and again we hear that the most important qualities for those new hires are things that can't be taught.

First, mechanical aptitude; knowing which end of a wrench is up. And second—and maybe more important—a good attitude; a willingness to learn, to work hard, to get along with other people. If those two things are there, then everything else can be taught. Read on to hear about some young people who exemplify that attitude, and their perspectives on the industry.

★ ★ ★ ★ ★  
**ANDY J. EGAN CO.,**  
**Grand Rapids, Mich.**



★ **Lance Marklevitz**

Age: 29

Title: Service Project Manager

My dad has been in the trades for about 35 years. I remember going to work with him once a year for “bring your kid to work day,” and I liked the atmosphere of construction. I grew up on our small farm and learned the values of hard work and that nothing comes for free.

I’ve always enjoyed working with my hands fabricating, welding, working on cars and farm equipment. I knew I wanted to get into a career that could challenge me both mentally and physically.

I’m currently working as our service project manager, quoting and managing smaller-scale HVAC service projects. I’ve been in this position for almost a year. I have been working with Andy J. Egan Co. for almost 10 years, and I enjoy the fact that there’s a different challenge every day.

I feel as if every day you have the opportunity to learn something. As the service trades evolve with new technology from industry manufacturers, there’s always something to learn and educate yourself on.

My plan for the future is to keep learning. Keeping up with equipment manufacturers’ latest and greatest technologies helps us give our customers the best possible systems for their applications.



★ **Dylan Pancoast**

Age: 30

Title: Grand Rapids Service Manager

Growing up, I always gravitated toward hands-on work. I enjoyed the challenge of building something, repairing something that was broken, or taking something apart to figure out how it worked. These traits pushed me to look into pursuing a career within the skilled trades industry.

In my current role, I manage day-to-day operations of our service department. This includes bidding and selling service work, maintenance contracts, managing jobs, supporting technicians in the field and ensuring that we deliver the best service possible for our customers. I enjoy the fast pace and ever-changing work environment.

I am still pretty new in my current role, so my plans for the future as of now are to continue to learn, develop and grow within this position and try to stay ahead of the industry changes.

**Meet the Young Water Specialists**

The 2022 Emerging Water Technology Symposium concluded with a presentation by Team HydroPuris where they presented their new filtration system.



A power point slide -- with active video in the upper left corner -- from the Young Water Specialists presentation at the 2022 EWTS.

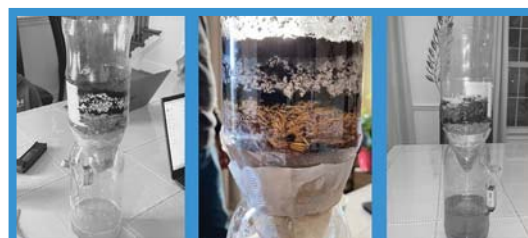
SAN ANTONIO, TX -- The final presentation on the final day of the EWTS was by the Young Water Specialists. Each year it is held the Symposium seeks out a group of young people studying science and engineering with water industry applications and talks to them about their work and plans for the future.

This year the group was Team HydroPuris, competitors in the eCybermission Competition, a virtual STEM competition for grades 6-9 created by the US Army. The team of 8th graders were: **Shrey Agarwal**, Hallie Wells Middle School and researcher; **Armaan Jain**, Herbert Hoover Middle School and designer; **Akshay Jilla**, Hallie Wells Middle School and community outreach; and **Rohan Shah**, Herbert Hoover Middle School and technologist.

The result of their efforts was a water filtration system that would be affordable to produce and simple to construct from readily available materials—ideal for for communities that have been displaced by natural disasters or conflicts. Their system uses a two plastic bottle design with gravel, sand, coffee filters, lemon peel, seaweed, rice husk and coconut fiber for filtration media. The final component is an LED-UV light to kill microorganisms.

The team put their filter through multiple rounds of testing and refinement which involved both a pH sensor and a turbidity sensor they programmed themselves using C++.

In the Q&A that followed their presentation, all members of the team expressed an interest in furthering their studies in science, engineering and programming.



The HydroPuris two-bottle filtration system.



# ANDERSON PLUMBING, HEATING & AIR, El Cajon, Calif.

## ★ Kevin Walsh

Age: 28

Title: Maintenance Technician

My father was a carpenter and he used to bring me to jobs on the weekend and in the summer. We built decks and

did home renovations together. I'm curious by nature about tools and mechanics, and I always had a knack for fixing things. I grew up in a DIY-type of environment, so there was always some sort of project going on at home or around the neighborhood.

I did well in school and got into a good college, but I found myself losing interest quickly in the academic world. So, I left college and soon after I was lucky enough to get hired at a small construction company doing a variety of tasks in a variety of trades. I learned a lot over those three years. I later moved to San Diego and eventually heard about the HVAC program that Anderson Plumbing, Heating & Air was offering to prospective students. I jumped on the opportunity.

Right now, I am a maintenance technician at Anderson PHA. I have been with the company since January 2021. I attended the 90-day pre-apprenticeship program and was offered a full-time position upon completion.

What I like most about this work is the troubleshooting aspect of the job. Every day is a challenge and I'm constantly learning something new. I've been lucky to have some good teachers and techs who've helped me along the way.

My plan is to become the best technician I can be. I acquired my Universal EPA certification; my goal is to become NATE-certified. I am going to get some years under my belt before I consider starting my own business—but it is definitely part of my plans for the future.

## ★ Will Seng

Age: 27

Title: Design Consultant

I love the idea that I don't have to sit at a desk all day. I get to travel around most of Southern California, meeting all kinds of new people who come from all different types of backgrounds and life experiences. It's a great way to learn and experience something completely different every day.

I've been a design consultant for a little over two years. The exciting thing about my job is that I'm still learning. There's always something new that pops up or a different way to perfect my craft. I think it's a very intriguing career because there's no way to do it perfectly; but you can improve every time you do it.

➤ Turn to All Stars, page 24

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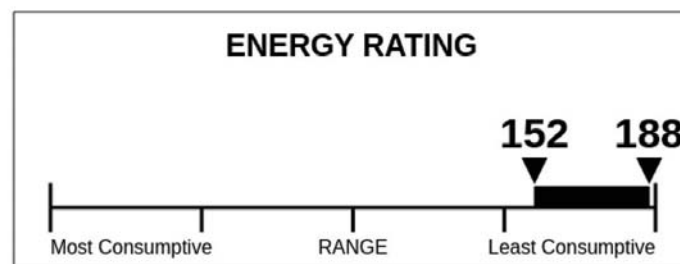
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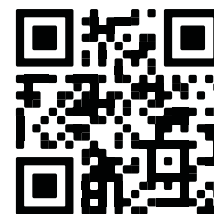


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► **Continued from page 22**

I love the job because I'm very competitive. As my income is based primarily on commission, I'm constantly striving to learn new ways to be better. If I have a great month and then an off month, it eats at me and I can take steps to learn more and make sure it doesn't happen again.

Because I've been with Anderson Plumbing, Heating & Air and in the trade for a shorter period of time, I don't have any crazy future plans right now. I want to keep working here for the foreseeable future to make sure I can become the best design consultant that I can be.

★ **Jesse Salcido**

Age: 29

Title: Service Technician

What drew me to this career was watching my father succeeding in this trade

and becoming a homeowner. Making customers happy made him happy.

The work I am doing now is all service and repair. I've been in plumbing for more than 14 years. I attended PHCC school, graduated and got certified in all types of plumbing materials as well as tools. I personally love different experiences every day—from fixing a water line to replacing a toilet to running a big gas line.

My plans for the future are to becoming a field supervisor: to go out in the field and make sure everything is done safely and correctly, as well as making sure all plumbing meets code requirements. The next step in my training will be to learn HVAC so I can be called a "triple threat"—be good in all aspects.

★ **Michael Probst**

Age: 28

Title: HVAC Service Technician

What drew me to HVAC was the fascination of how buildings and houses stay cooled and heated.

I've been doing HVAC service/install for about nine years. I went to school for one year and learned the basics, and started working for Anderson Plumbing, Heating & Air right after I turned 19. What I like about the work is that every day is different; you never know what you are going to see or who you will meet.

My plan for the future is to continue working in service but also to get into HVAC equipment sales. I have all the certificates I need at this time in my career. The end goal is to hopefully have my own small HVAC business.

★ **Ben Rowley**

Age: 28

Title: HVAC Maintenance Technician

The skilled trades provide a reliable, long-term source of income and continuing education. I was drawn to a career that uses my affinity toward problem-solving and my mechanical ability.

I identify and prevent common issues with residential heating and air-conditioning equipment through planned maintenance. After completing a three-month apprenticeship program, I advanced to working on my own. I enjoy traveling around the

**ANDERSON**  
**PLUMBING,**  
**HEATING & AIR**

county and knowing that no two days are ever the same.

Eventually, I see myself working in commercial/industrial refrigeration, but my current goal is advancing into residential service and repair. A NATE certification would facilitate my career advancement. I have no plans to pursue starting my own business; I am happy to be employed by a reliable, resilient company that knows who I am and where I come from.

★ **Eden Teklu**

Age: 29

Title: Project Manager

I enjoy the fact that I get to meet and help all types of people every day.

I've been a design consultant for nearly five years. I love what I do and I'm always learning new things in this industry. Something I like about this career is that every day is different and I get a new experience.

I plan on staying in the trades and working for Anderson Plumbing, Heating & Air long-term. I want to continue to grow in my position and take care of customers.

★ **Edwin Nunez**

Age: 20

Title: Install Apprentice

What drew me to pick this career is that it is high-demand, fast-paced and fun.

The work I'm doing right now is HVAC install. I have nearly two years working in HVAC and I've learned how to install a full furnace and the more technical side of the job.

What I like the most about the work is that I'm doing something different every day, the work is fun and the people I work with make it better.

My plan for the future is to become a lead installer. The next step in my training is to work with lineset covers, building platforms and learn the more technical side like working with 24V.

In the future, I would like to get the NATE certification and start my own company. **C**

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**tekmar**<sup>®</sup>  
A WATTS Brand

by Patrick Linhardt  
HYDRONICS MANAGER AT CORKEN STEEL PRODUCTS CO.



## Annotation

**Y**ou know that sinking feeling that you get in your gut? The one that happens when you consider that you might have given some poor advice or not paid enough attention to detail until it's too late. That "Oh S\*\*t" moment that you realize could have been avoided. It happens to everybody that works in the field, where every job is different.

I like hydronics because I have been exposed to such a variety of equipment, radiation, piping techniques, etc. Every building I walk into reveals to me a new twist, usually in a good way of learning something new, but unfortunately sometimes in a bad way.

### Routine Job

This job seemed routine enough. A nice couple in the neighborhood near Cincinnati's historic observatory wanted to add a radiator to their enclosed porch/solarium. It's an old part of town with plenty of big trees shading this room. It wouldn't be for growing plants, but for enjoying a good book on a winter day, when they weren't in Florida.

The contractor and I met them at the end of the summer. Their idea was to have the new radiator heating that space by Thanksgiving when their family would be in town. The contractor had done a heat loss of the space, so we knew what output we would need. Our first question was where in the room would they like their new radiator.

You could tell they liked radiator heat. They weren't interested in anything but a nice chunk of warm cast iron to heat this room, since they were so pleased with the performance of cast iron radiation throughout the rest of the house—except where some previous contractor had tried to use a propeller fan unit heater attached to duct work to heat a kitchen remodel.

That's one of those bad ideas I run across sometimes. Since that didn't work, which didn't surprise me, they had an electric kick space heater installed under one of the cabinets. Their love of cast iron wasn't as strong as their desire for more cabinet space. I



**Every building I walk into reveals to me a new twist, usually in a good way, but unfortunately sometimes in a bad way.**

see that all the time, but I'm not here to judge.

The system is two pipe steam, circa 1915. Other than the kitchen, they said everything was toasty and evenly warm. I loved to hear that, but wondered if what we are about to do was going to affect their cast iron nirvana.

### Checking the Boiler Room

Once we got the location determined, we went downstairs to look at the piping. On the way we stopped at the boiler room, always a good idea to get as complete a picture as possible. I don't know how many boiler rooms I've been in during my career, from the nasty to the sublime, but never before were there original oil paintings on the walls. Turns out the man of the house has a studio on the third floor and is quite good.

Of course we weren't there to appreciate art. I'm looking for the end of the steam main(s) and dry return(s). As with a lot of two pipe systems, there was only one vent at the end of the dry return. This is the vent that releases all the air from the radiation and riser piping. I explained that we want that air to pass out of the vent as quickly as possible to allow the steam to distribute quickly

along the main to evenly reach the radiator risers.

When I mentioned that, they mentioned that some of the upstairs radiators had automatic vents. That's one of those twists that keep me haunting basements, trying to figure out what somebody in 1915 thought the present was trying to do. Two pipe radiators aren't supposed to have vents, except in some very old systems where each radiator return is piped individually to a wet return. This wasn't one of those systems.

We moved to the area under the porch, a nice tall garage that now functions as a workout room. There is a branch steam main that runs right through, feeding a few risers on that side of the house. There was also a dry return running parallel to the steam main. And best of all, there were available tapings on both where a radiator had been removed.

Typically, two pipe steam radiators are connected on the supply side with a  $\frac{3}{4}$ " radiator valve and on the return side with a  $\frac{1}{2}$ " trap or vapor device. The sizes were right on the available tapings, so the contractor did some measurements while I went back to discuss the art in the boiler room with the resident artist.

### The Call You Hate to Get

The homeowners approved the bid, material was ordered, and the installation complete right before Thanksgiving. That's when I got the call that it didn't heat. Well, it heated a little bit, but not much more than the first few sections on a 20 section radiator. We decided to meet the next available day that they could schedule their steam tech.

When we got there, the rest of the house was fine. Steam seemed to be at the riser of our troublesome radiator and through the valve, but not much further. I had the tech break a union on the return riser down in the garage. Air and black water came flying out. At this point it looked like an air removal problem. My initial theory was that air wasn't passing quickly enough, so just a little steam could enter, since steam and air can't be in the same space.

We suspected that downstream of the union, on the dry return there would be a blockage. Since it was old pipe, the homeowner agreed to have it replaced. That had no effect on our problem, so I was back again. I made sure that the valve on the non-functioning unit heater contraption was shut off and there was no steam in the main dry return, since steam in the return can block the removal of air. Check and check.

### Light Bulb Moment

So I was standing in the doorway of the garage when the feeling started. In this case, I was glad that something finally made sense. At least it fit my code: "If something is wrong in a system, fix that first." What I was looking at was the supply riser from the existing steam main. It ran horizontally for at least eight feet, it was only  $\frac{3}{4}$ ", and it didn't have much pitch before it went up through the floor to the new radiator. The light bulb went off as the gut sunk. I was going to have some explaining to do.

If you look at steam pipe sizing charts, like I was supposed to do, it will tell you that the supply riser pipe size for this size radiator is  $\frac{3}{4}$ ". But the charts also

➤ **Turn to Annotation, page 32**

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## Rinnai Opens New Griffin, GA Facility

By **TERRY MCIVER**, FOR CONTRACTOR

GRIFFIN, GA — Rinnai America concluded one chapter and began another on April 21, with the grand opening of a new manufacturing facility in Griffin, Georgia, to be known as RAM Lakes, located about one hour due south of Atlanta. The facility will provide the total global inventory of Rinnai's new RE Series tankless water heater for residential applications. Commercial tankless products are produced in another facility located less than one mile away.

The first RE Series unit rolled off the line at 6:15 am that morning and was later signed by all employees at the conclusion of the tour, to be placed on display. Manufacturing employees working as cross-functional teams will produce 420 units per line, per shift, for a total of 1,260 units per day.

The facility establishes Rinnai America as the only tankless water heater company to manufacture units entirely in North America and is the full realization of a dream of Rinnai's Japan-based ownership, to have just such a facility in North America, first expressed in 2014.

### Full Day of Meeting, Touring

The day was filled with activity, as more than 100 guests from industry media and local and state governments and educators were provided with a tour of the office and manufacturing facility, followed by lunch and the signing of the first unit.

Rinnai America President Frank Windsor welcomed guests and shared some of Rinnai's recent history leading to this day. Windsor has supported the organization's vision for future growth by leading the development of Rinnai's North American manufacturing strategy, the expansion of the company headquarters in Peachtree City, Georgia and the introduction of a product innovation strategy designed to expand the company's product offerings.

"The journey to begin this manufacturing process (in North America) has been an exciting time. When I joined the organization in 2014 we were essentially a sales and marketing company that was taking a Japanese product and modifying it for the



Rinnai executives gathered around the first tankless unit produced at the company's new Griffin, GA facility.



Griffin employees gather to sign the first unit off the assembly line. A total of 150 manufacturing employees were hired in March, and another 270 will eventually be brought on board.

**A new facility in Griffin, Georgia will produce more than 1200 RE Series tankless water heaters per day. A grand tour was provided.**

North American market," Windsor recalled. "At the time, the president of Rinnai America was a 40-year Rinnai veteran, Takashi Sonoda, who shared with me his dream that someday Rinnai America would manufacture water heaters in the US." (<https://www.rinnai.us/announcements/rinnai-america-corporation-welcomes-takashi-sonoda-as-new-president>).

Windsor continued to say Rinnai's global organization recognized the significant potential for the North

American tankless water heater market and made the decision to invest in Rinnai America as a major growth vehicle for Rinnai Corporation.

Windsor said that plan resulted in a substantial monetary investment, with the new corporate headquarters in Peachtree City, which was an \$18 million investment; a \$10 million investment in a new world class innovation center also in Peachtree City, along with this new Griffin manufacturing and distribution center, which was a \$70

million investment. Non-condensing commercial tankless water heaters are manufactured at a facility that opened in 2018, located less than a mile from this new plant.

"In the last four years, our company has invested \$100 million to show our commitment to the North American market and be in a situation for substantial growth," Windsor said. "In 2020, amidst all the chaos that was going on with the pandemic, our company chose to invest in and break ground for this facility we are standing in today," he said.

Windsor expressed gratitude, "for the hard work and dedication our team has put forth for this initiative, which is critical to our organization's future growth and success."

Windsor also thanked Georgia state and local leaders for their support during the site selection process, and to various RAM Lakes team contributors:

- David Luckie, executive director of the Spalding County development
- Griffin Mayor Doug Hollberg
- The QuickStart training organization
- Shelley Kiley, Rinnai vice president of Griffin, Ga. operations
- Derrick Black, Rinnai vice president, product manufacturing.
- Hidekatsu Naruse, Rinnai America facility senior operations advisor
- Bob Potts, plant manager
- Jay Yu, manager, operations strategy
- José Aponte, engineering manager
- Chris Wilson, project Coordinator
- All Rinnai America (RAM) team members.

"We're proud to be part of the Griffin community, and we want to have a positive impact here," Windsor said.

### Talent Magnet

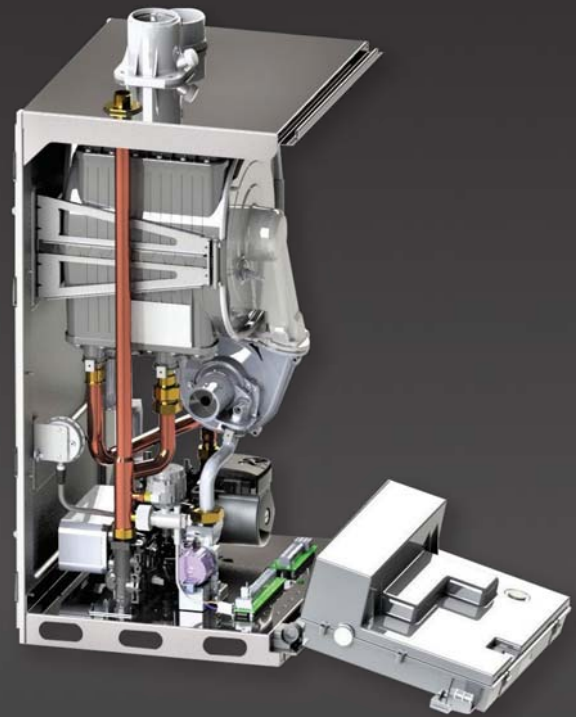
More than 400 people will be employed at the RAM Lakes plant, and there is great interest among local talent. A job fair staged early in the year attracted 450 applicants. A total of 150 manufacturing employees were hired in March, and another 270 will eventually be brought on board.

➤ **Turn to Rinnai, page 44**

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- 2. We Provide the Products You and Your Customers Need.** Whether it's residential or commercial, our Built to be the Best<sup>®</sup> products fit your customers' needs. They're built For The Pro<sup>®</sup> for easier installation to save you time.



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**SEE ALL THE WAYS WE ARE HERE FOR THE PRO<sup>®</sup>.**

**Visit [bradfordwhite.com/resources](http://bradfordwhite.com/resources)**

## A. O. Smith Earns 4th Energy Star® Award

ASHLAND CITY, TN — A. O. Smith, a leader in water heating and water treatment solutions, is proud to announce its 2022 ENERGY STAR® Sustained Excellence Award from the U.S. Environmental Protection Agency and the U.S. Department of Energy for its commitment to providing professionals and homeowners with energy efficient solutions. A. O. Smith is one of only a few water heating companies to receive the ENERGY STAR Partner of the Year designation four years in a row.



A quality control worker on the line at an A. O. Smith manufacturing facility.

“Sustainability and energy efficiency are at the forefront of everything we do at A. O. Smith. This is a tremendous honor that recognizes our continued efforts across our company and our portfolio of industry-leading products,” said Francois Lebrasseur, A. O. Smith business development manager, utilities. “We are grateful to our partners at ENERGY STAR for their continued support of our sustainability initiatives, and we look forward to evolving our work with ENERGY STAR as we continue to create a greener future for all.”


Many accomplishments and collaboration lead to this prestigious award, including but not limited to:

- The successful launch of the **iCOMM™ Remote Monitoring Technology** for Residential products, allowing homeowners to set specific temperatures and operating modes from their phone.
- The launch of A. O. Smith’s latest ENERGY STAR® product, the **Cyclone XL** which operates at 1 million BTU/hr with a smaller

- footprint than other units
  - The introduction of a ZIP Code enabled rebate finder powered by **EcoRebates** that helps consumers find rebates and tax credits for their new high efficiency water heaters
- Each year, the ENERGY STAR program honors a group of businesses and organizations that have made outstanding contributions to protecting the environment through superior energy achievements. ENERGY STAR award winners lead their industries

in the production, sale, and adoption of energy-efficient products, homes, buildings, services and strategies. These efforts are essential to fighting the climate crisis and protecting public health.

“We know it’s going to take all of us working together to tackle the climate crisis, and the 2022 ENERGY STAR award-winning partners are demonstrating what it takes to build a more sustainable future,” said EPA Administrator Michael S. Regan. “These companies are showing once again that taking action in support of a clean energy economy can be good not only for the environment, but also for business and customers.”

Winners are selected from a network of thousands of ENERGY STAR partners. For a complete list of 2022 winners and more information about ENERGY STAR’s awards program, visit [energystar.gov/awardwinners](http://energystar.gov/awardwinners). 

## Bradford White Earns 2022 Energy Star® Partner of the Year Award

AMBLER, PA – Bradford White Corporation, an industry-leading American manufacturer of residential, commercial, and industrial water heating and storage products, has announced that it has received the 2022 ENERGY STAR Partner of the Year Award for Sustained Excellence from the U.S. Environmental Protection Agency and the U.S. Department of Energy.

reduce energy consumption and carbon emissions helps commercial facilities managers and homeowners throughout North America make a real difference for our planet and save on their monthly energy bills, too.”



### A Testament to Innovation

“Receiving this award for the third year in a row is a testament to Bradford White’s consistent innovation when it comes to engineering, manufacturing and marketing energy efficient products,” said Carl Pinto, Jr., senior director of marketing communications for Bradford White.


“Our company’s commitment to creating reliable, sustainable products that

“We know it’s going to take all of us working together to tackle the climate crisis, and the 2022 ENERGY STAR award-winning partners are demonstrating what it takes to build a more sustainable future,” said EPA Administrator Michael S. Regan. “These companies are showing once again that taking action in support of a clean energy economy can be good not only for the

environment, but also for business and customers.”

### Essential Efforts


Each year, the ENERGY STAR program honors a group of businesses and organizations that have made outstanding contributions to protecting the environment through superior energy achievements. ENERGY STAR award winners lead their industries in the production, sale, and adoption of energy-efficient products, homes, buildings, services, and strategies. These efforts are essential to fighting the climate crisis and protecting public health.

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## Annotation

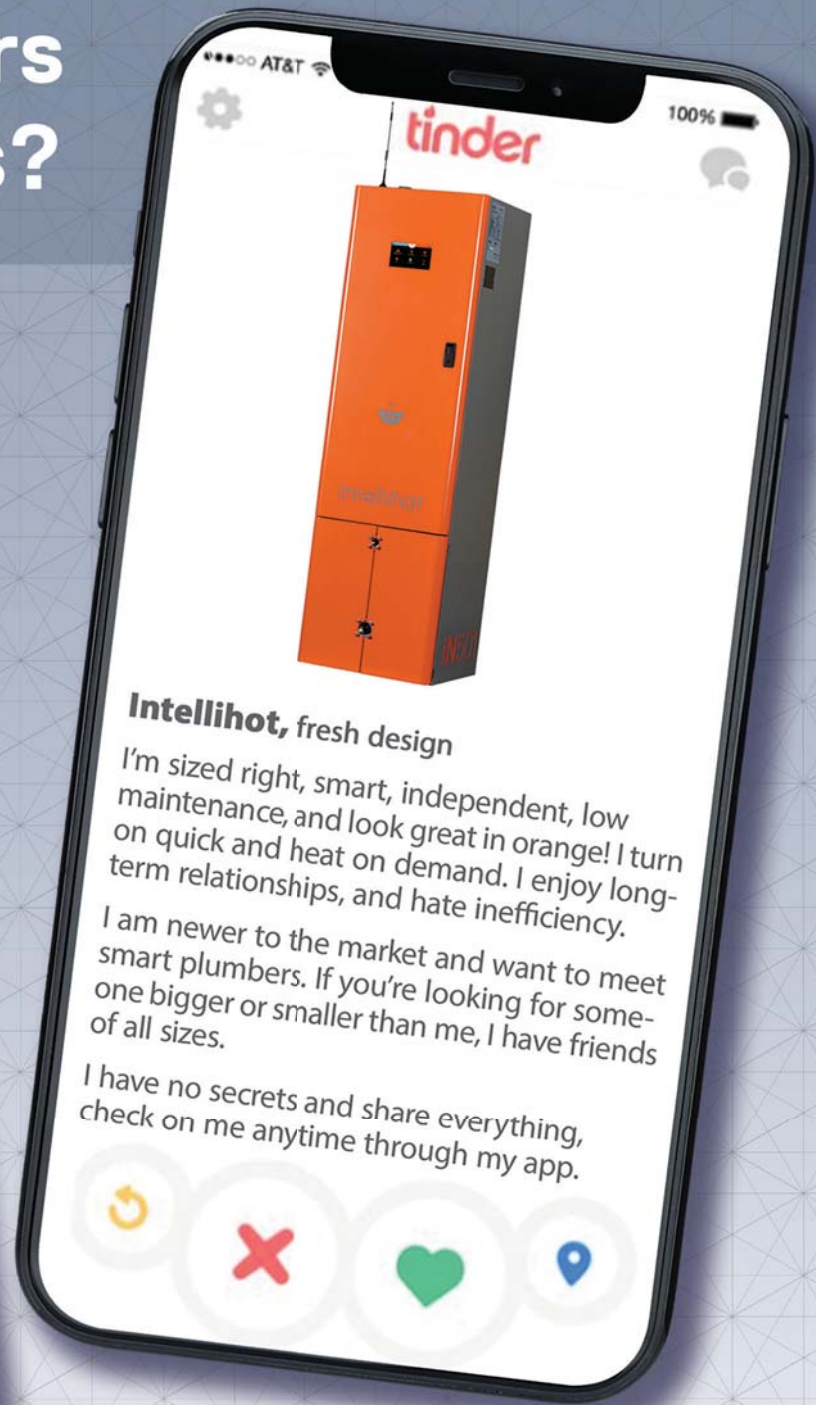
► **Continued from page 26**  
have an annotation at the bottom. In my Field Guide, it is on page 161 and states “Use one pipe size larger for: counter flow mains and horizontal run outs over 6 feet.” Right there for the world to see (but for me to forget) when we talked about hooking up this radiator.

The length of the horizontal runout, its pipe size, and its pitch determine how much steam is going to pass to the radiator. If you don’t get it right, it comes back to torment you. The contractor ate the cost of re-piping the horizontal supply riser to 1” and increasing the pitch. Works like a charm, now.

The boilers finally came in for the missing expansion tank job. Hopefully next month the mystery will be solved. 

*Patrick Linhardt is a thirty-seven-year veteran of the wholesale side of the hydronic industry who has been designing and troubleshooting steam and hot water heating systems, pumps and controls on an almost daily basis. An educator and author, he is currently Hydronic Manager at the Corken Steel Products Co.*

# What If Water Heaters Had Tinder® Profiles?



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by Patti Feldman  
COMPUTER AUTHORITY



# Text Messaging & Business Management

**Chiirp** ([www.chiirp.com](http://www.chiirp.com), 801/806-4804) is a text messaging platform for business designed to maximize the conversion rate of initial contact by a visitor to a company website from lead as a potential customer by consistently following up with texting, email, estimates, appointment reminders, (either immediately or down the line), review requests, automated follow-up for repeat business using automated text messaging, two-way text messaging, and follow-through drip campaigns.

The solution can be used on the desktop and in the field, with the mobile apps for iOS and Android. Chiirp is founded on the premise that, over the past number of years, SMS has become a very effective method of digital marketing to potential customers.

## How it Works

Leads can be captured from anywhere, including: forms on your website, Facebook Lead Forms, QR codes, inbound calls/texts, and third party lead vendors like Angi or Thumbtack. Chiirp can also put a chat widget on your website that instantly starts a conversation. The chat widget can direct the conversation to the right department or representative and can send alerts to team members when a new lead chat starts. Chiirp can use your existing business existing phone number or you can get a new local or toll-free number.

Customers text your business and the leads flow into the Chiirp Messenger. If a customer responds, you continue through normal business channels. If customer does not respond, Chiirp lets you send out follow-up automatically as frequently and as far out as you want through drip messaging.

You can control the rate of drip campaign- e.g. from frequently at the beginning to less frequently but consistently going forward. (You also have the option of following up with voice mail, email mail, or phone call.)

A Pipeline Builder lets your company track the flow of leads and trigger the

appropriate SMS campaign for follow-up. For example, you can set up automated repeat business texts at whatever frequency you want (e.g. monthly, 4x a year, yearly) and can personalize messages.

You can also broadcast messages to all your contacts or use filters to send to select lists. It is also possible to send

solution, and with Zapier, which allows users to integrate third party web applications and automate workflows.

**Pricing:** based on how many automations you want to build and the level of support you want

**vcita** ([www.vcita.com](http://www.vcita.com), 855/824-8244) is a business management platform suitable for small companies with

## How it Works

Analytics-powered reports help monitor the performance of different aspects of their business – bookings, clients, payments, marketing, and staff to create custom reports.

vcita also offers a lead capturing widget that can be added to any company website, allowing potential clients to interact with the business through their website. When a potential client contacts a business through the widget, a new client card is automatically generated in the software, allowing business owners to interact and convert the lead into a paying customer.

The software's marketing tools allow for the creation of professional email and SMS campaigns in a few minutes and accommodate segmentation of an audience in several ways. It also offers a library of email templates that can streamline marketing. The number of email campaign recipients can go up to 10,000 according to the plan chosen (Business or Platinum). It also comes with a bank of SMS credits

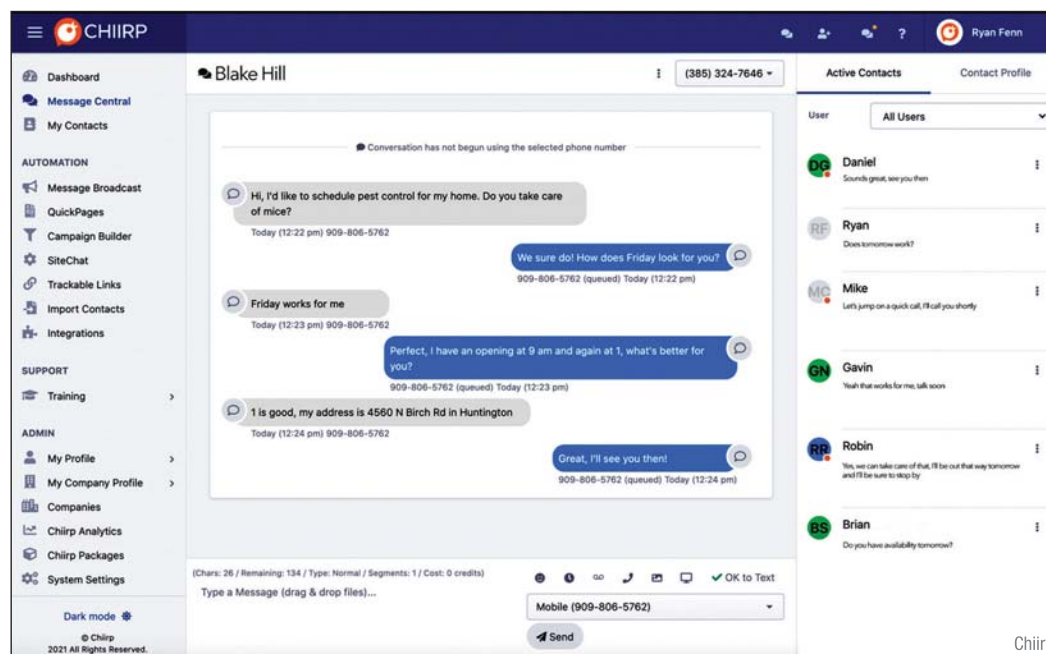
starting at 100 for the Essentials plan that can be expanded according to business needs.

All plans can send estimates and branded invoices, charge credit cards and receive payments online via third-party payment processing and e-wallet platforms, including Stripe, Square, PayPal, and Venmo. The software allows contractors to streamline and automate their payment collection process using automated billing, payment reminders, and the option to collect payment when a client books a service.

The platform integrates seamlessly with many popular business software solutions, including Zoom, Quickbooks and Zapier.

**Pricing:** Monthly or annual billing. Free trial available.

*Patti Feldman writes articles and web content for trade magazines and manufacturers of building products. She can be reached at [productpad@yahoo.com](mailto:productpad@yahoo.com).*



The Chiirp dashboard.

## Reviews of the Chiirp text messaging platform and the vcita business management platform.

pre-recorded voicemails direct to your customers' voicemail inboxes. After completion of a job, Chiirp can send out automated review requests and follow up for repeat business.

The Chiirp mobile app enables texting back and forth with customers, the option to broadcast texts, and the ability to send targeted texts from a mobile computing device.

Chiirp offers deep integration with field service solutions HouseCall Pro, Service Titan, and Service Monster, enabling a company to trigger follow up all the way down to tags, specific timelines, job types, business units, etc. It also integrates with Responsi-Bid, a sales funnel automation software

up to twenty team members that provides contractors and other home and office professionals with tools to help manage day-to-day operations.

The solution, available in three scaled plans (Essential, Business, Platinum) and including a free mobile app for Apple or Android, includes a secure, branded client portal from which clients can view services, schedule appointments, make payments, share files, and message the business 24/7 from any device.

The software supports a wide range of business and payment workflows including digital estimates and invoices, automated billing, and prepaid service and product packages.

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by Matt Michel  
MARKETING AUTHORITY



# 14 Ways for Plumbers to Use Video

It seems no one reads anymore. It's a video world. For many people, the first stop is not a search engine, it's YouTube. Plumbers need more video, but often get stuck on what. Here are 14 types of videos you can make for your company.

Before starting, get past the notion that all videos need to be slick, professional productions. There might be times when you want that, but often you can produce videos using desktop software (e.g., animated videos) or your mobile phone. The key is to get started, be human, and engage people. Perfection can come down the road.

## 1. Company Brochure

One of the first videos to consider is a company video. Who are you? Why are you better than other plumbers? What makes your company stand out? How are you unique? How did the company get started? What are your promises or pledges to your customers? This is one of the few areas where it might make sense to outsource the video production.

## 2. Recruiting

If you are experiencing a shortage of labor, create a recruiting video. One HVAC contractor created an effective one that was essentially a slide show of what it was like to be a technician. The images are panned or zoomed using desktop software with a peppy soundtrack. The pictures selected told a story of a job that's important, but not easy, and rewarding.

You could simply answer questions. Why should someone work for your company? What do you offer in terms of pay and benefits? What makes you better than your competitors?

## 3. What to Expect...

What should consumers expect when you are replacing a water heater? What should people expect when you are doing a sewer pipe relining? What should people expect when you roll a truck on a service call? What should people expect if there's a problem after a call?

## 4. Customer Testimonials

When a customer is really happy with



The key is to get started, be human, and engage people. Perfection can come down the road.

the service provided by one of your plumbers, spiff the plumber to ask her if she would say it on camera because it would really help him out. Customer testimonials are gold.

## 5. Employee Introductions

Have each employee introduce himself or herself and describe their jobs, what they like about your company, and something personal. For plumbers in the field, these can be sent to the homeowners at the time of service in lieu of a photograph. This by itself will help you stand out.

## 6. Mission and Values

Tell people about your company's mission and your values. Simply state your mission and a set of defined values. What do you stand for? What won't you stand for? Why do you think the job your company performs is important?

## 7. Events

Make videos of any company events. Be fun. Engage people. Carry this into the community by making videos of community events, home shows, and so on. Say, "We're here at such and such event and you can see what's happening..."

## 8. Truck Tour

Super trainer, Joe Cunningham likes to joke that our trucks are where we keep our secret stuff. Don't keep it a secret. Take people on a video tour of one of your trucks. Explain the tools that you keep on hand. Talk about the inventory. Tell people that when you roll a truck to their home of business, you are rolling a small warehouse full of parts.

## 9. Basic Troubleshooting

Avoid nuisance calls by giving people basic troubleshooting, leading up to the point where a pro should be called to the job. For example, show people how easy it is to replace the flapper on a leaky toilet. If the toilet is still leaking, the homeowner is instructed to call you.

## 10. Products and Services

Make a separate video about every product and service you offer. For example, you could show a food disposer, what matters in the purchase of one, and why you recommend the one you carry. You could weigh two identical looking faucets, with one from a supply house and the other from a big box to show the difference in quality.

You could show people video from a camera job.

## 11. Did You Know...

A lot of homeowners are probably unaware that a plumber can put in a gas line for a backyard natural gas barbecue grill. Create a small video on the things you do and the products you offer that people might be unaware of, such as whole house water filtration.

## 12. Answer Questions

Think of the questions consumers ask and answer them. Ask how much is a service call? Explain the cost to roll a truck and explain what you charge to show up. Ask how much you charge per hour? Then, explain how you use a national pricing service and charge by the job, not the hour, so that people know the price before work begins and do not pay more when a job runs long.

## 13. Stories

Some of the most memorable videos are simply plumbers telling stories. Tell stories about the weird things that you have seen on service calls. Tell stories about funny things that have happened.

## 14. Procedures

Create a company video page and load video procedures. For example, demonstrate the way you want people to answer the phone. Demonstrate the way a plumber greets a customer. Demonstrate where you want the trucks parked (i.e., perpendicular to the street, at the end of the drive so the billboard on the side is visible to all of the neighbors up and down the street) and how to gain permission to park there because of safety reasons. You can even make more technical procedure videos for your plumbers to watch in the field.

The most important video you will always be the next one. Get started. 

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by Brandon Schumm

PRODUCT MANAGER FOR LARGE SUBMERSIBLE MOTORS AT FRANKLIN ELECTRIC



# Maximize Pumping with Permanent Magnets

As natural and human resources get stretched, the need for equipment that runs efficiently has become more critical than ever. This is especially true in pumping systems, where consistent and reliable water management is essential. Efficient solutions can often deliver positive financial benefits and yet still provide the reliability—including steady operation and consistent performance—that's needed.

Permanent magnet (PM) motors have been in use for decades, and their higher efficiency operation is bringing their performance benefits to the spotlight. PM rotors require no electrical power, making them more efficient, especially at reduced speeds and partial loads. PM motors operate more efficiently using rare earth magnets that perform with no slip. This translates into lower input power for the same output power, saving on operational costs every time the motor runs. Also, lower current means that specific components of the system—including variable frequency drives (VFDs), motor cables and filters—might result in smaller size requirements and, consequently, become less costly.

The advancement and use of variable speed technology within the pumping industry coupled with the benefits provided by PM motors means contractors can trust that this solution will provide cost-effectiveness and efficiency.

## PM Motors Perform in Submersible Applications

A PM motor in a submersible pump may lead to lower total cost of ownership (TCO), more efficient operation, better performance and less downtime. Consider:

- PM motors run with an efficiency rate of about 90 to 94 percent.
- PM motors deliver strong performance across a range of speeds for longer motor life and strong overall performance.
- PM motors operate with no slip. Their speed is constant regardless of load, delivering consistent



Permanent magnet motors run with an efficiency rate of about 90 percent, which is 10 to 12 percent greater than standard induction motor energy consumption.

water distribution at all times.

- When paired with a pump in submersible installations, PM motors offer high efficiency operation and speed.

systems can run at a synchronous speed, providing improved hydraulic performance. With no slip, the motor speed is consistent and will not vary regardless of load.

## Learn more about how these submersible motors can power your most important water wells.

- PM motors, of the same diameter and horsepower, can weigh 30 to 40 percent less than their induction motor counterpart.

### Peak Efficiency

Higher efficiency in pumping operations can lead to long-term benefits and major cost savings for pump operators in any industry since PM motors run with an efficiency rate of above 90 percent. They run this efficiently since their rotor does not need to be magnetized, concentrating all the power into motor shaft rotation. No energy is lost due to magnetization of the

According to field trial data for PM motors, typical high-duty rate systems can have a payback of one to two years. Paired with a VFD, a system can optimize performance and maximize system life while relying on real-time monitoring, protection and customizable application-specific programming software as needed to cover customer and building requirements. These efficiency savings also position owners and operators for the future. Energy efficiency across a broad range of operations and infrastructure-related equipment is continuing to be prioritized at both the national



A permanent magnet motor well pump replacement.

and local levels. PM motors assure energy-saving benefits to meet compliance considerations now and as regulations evolve.

### A Broad Spectrum of Speeds

Select VFDs have been enhanced to seamlessly be paired and perform with PM motors. In the past, variable frequency for these types of installations frequently led to an intimidating and complex setup process; now, new solutions have been engineered to deliver ease-of-use. It's not only easier to upgrade from a traditional system to one that is compatible with PM technology for more efficient operations, but it's also a less involved process to set up a VFD overall.

VFDs are the most popular electronic device used to vary the speed of a pump and for good reason. A PM motor paired with a VFD delivers energy savings and advanced speed control. An induction motor will run at the slip speed at its rated voltage (ie. ~3,460 rpm for 60 Hz). If you try to increase the speed of an induction motor above 60 Hz, it will run in a weakened field, thereby lowering your efficiency. In contrast, PM motors have no slip and are designed to run with a synchronous speed at their rated voltage. This means users are not compromising speed for efficiency. When running a PM motor with a VFD, users can enhance and expand the pump operating range by gaining optimized efficiency.

Last but not least, when a pumping system runs with PM motors, users not only experience a higher peak in efficiency but over a larger range of horsepower (hp), allowing users to cover various ranges without needing to stock dozens of different motors. This reduces inventory, overhead and costs.

### Installation & Maintenance

One final, often overlooked, benefit is the ability of PM motors to work in complex applications where submersible pumps are preferred. For example, if a user is installing a pump

➤ **Turn to Maximize, page 49**



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# Entrepreneurship in the Skilled Trades

## ► Continued from page 18

Finally, to be a successful business owner; you must be dedicated to your business, while finding a way to streamline business operations, Corsillo notes:

“It’s easy to get caught up in the daily operation of your company, so finding ways to save time and increase efficiency is essential, and that’s where technology comes in.”

## Streamline Operations via Technology

The construction industry is not known for adopting new technologies quickly; however, new technologies have played a key role in the success of NCD Corsillo Plumbing, according to Corsillo. From communication and on-site equipment to new-product innovations, technology increases

job-site safety and impacts his team’s productivity and effectiveness.

**Communication:** Corsillo recommends providing your team with high-tech smartphones to use on job sites to ensure effective communication. “My team does problem-solving or troubleshooting on a job site through FaceTime, photos and video,” explains Corsillo. “The questions they answer

via iPads and phones save so much time in the field.”

Corsillo says it’s a game-changer just to pull up a spec sheet, reference an online plumbing code, or watch an instructional video on site.

**Equipment:** Technology keeps employees safe and makes jobs more technically advanced. Corsillo references cordless drills and nailers as examples: “We’re able to rough-in a whole house without any hazardous cords on the job site.


“The new products available to us are incredible,” he continues. “I mean, the drills we used twenty years ago were five times the size of what’s available to us now.”

**New products:** Corsillo says his crews love utilizing new-product technology using a universal supply box from Oatey as an example that speeds installation and minimizes materials.

“We are always looking for ways to streamline our materials,” says Corsillo. “We want the customer to know they are getting the latest and greatest products in their new home. Just like cell phones: No matter what you have, the new one always seems better. We are trying to do that with plumbing products.”

**Software:** Corsillo notes that his business relies heavily on scheduling, invoicing, and other software programs to expedite their paperwork. NCD Corsillo Plumbing uses TSheets, a web-based and mobile time-tracking and employee-scheduling app, for all its scheduling needs.

According to Corsillo, TSheets also serves as his team’s digital timecard.

“When they start their workday, they can see their whole schedule and a brief description of where they’re going. They simply click on the address, and it gives them GPS, so they get to the job site on time.” 

*Katherine Lehtinen is Senior Vice President, Brand and Digital Marketing, at Oatey. She joined the company in 2017 as Director of Marketing, bringing nearly 20 years of experience in sales, marketing and brand management. Katherine is a proven leader and marketing expert with a strong understanding of the residential and commercial plumbing industry.*

## PILC Meeting Discusses Industry Advocacy

### ► Continued from page 6

Today, NIST’s research includes understanding the effects of water heater temperature and water use patterns on occurrence and concentration of opportunistic premise plumbing pathogens (OPPPs) in an existing plumbing system to identify strategies to reduce growth and public health impacts

As members of the House and Senate enter a conference process to reconcile differences between the House-passed America COMPETES Act of 2022 (H.R. 4521) and the Senate-passed **United States Innovation and Competition Act** (USICA), PMI is urging conferees to include the **National Institute of Standards and Technology (NIST) for the Future Act**. It is included in the America COMPETES Act.

According to PMI’s Stackpole, the bill reauthorizes NIST for five years, and it establishes innovative programs to support U.S. global competitiveness and makes crucial investments including funding for the Manufacturing Extension Partnership, cybersecurity vulnerability research initiatives, and premise plumbing research to promote new and innovative technologies that can improve the safety and water efficiency of our plumbing systems in buildings, hospitals, and homes.

“NIST is a critical agency that supports U.S. competitiveness through precision measurement research, partnership with industry, facilitating and developing standards, and support for U.S. manufacturing,” says Stackpole.

### Other Advocacy Initiatives

**Get the Lead Out of Assisted Housing Act** (S. 4047) – This bill recently

introduced in the Senate directs the Department of Housing and Urban Development (HUD) to update its standards to include inspecting for lead in service lines and lead in plumbing, creates a Healthy Homes Lead in Drinking Water Grant Pilot Program to provide grants to states and local governments to be used to create a lead service line inventory, testing for lead in the drinking water at childcare centers and schools, and testing for lead at public facilities like public water fountains and remediation. In addition, it requires notification of tenants of the level of lead in drinking water found and must offer interim controls, such as the installation of water filters known to remove lead.


Say it isn’t so! Behind the scenes, plumbers will tell you that “flushable wipes” are a solid revenue generator for business. **The Non-Flushable Wipes Legislation—WIPPES Act**, a bill introduced by senators Susan Collins (R-Maine) and Jeff Merkley (D-Ore.), and Representatives Lowenthal (D-Calif.) and McLain (R-Mich.), sets standards for the labeling of non-flushable products. The WIPPES Act directs the Federal Trade Commission, in consultation with the EPA, to issue regulations on “Do Not Flush” labeling requirements for products defined in the bill, which includes baby wipes, household wipes, disinfecting wipes, or personal care wipes.

**The Healthy H2O Act**, sponsored by Senator Baldwin (D-Wis.), creates a USDA grant program to help at-risk households and licensed childcare facilities improve their drinking water. *[For more details turn to pg. 1.]*

**The WASH Sector Development Act**, introduced by senators Wyden (D-Ore.), Merkley (D-Ore.) and Heinrich (D-N.M.), establishes a Water and Sanitation Needs Working Group to more accurately survey and report households in the U.S. that do not have complete access to services. It also requires the EPA to report on the cost estimate for capital improvements needed to ensure that all households in the U.S. have access to reliable drinking water and adequate sanitation, with cost estimates aggregated by Congressional district.

### The Slow Pace of Government

“When working with the federal government, one must understand that it will be an inherently slow process,” says Hansen. “Laws are not changed overnight, regulations cannot be reversed quickly, and policies are rarely overturned promptly.”

Ultimately though, when the advocacy pays off through hard work and determination, there is a sense of deep gratification, and knowing it was done for the right reasons, makes it much more satisfying. “We are literally changing and improving people’s lives through some of the work we conduct and policy victories we achieve,” says Hansen. “Working on major research initiatives, collaborating with governments on critical WASH funding, or by identifying national policies that can be modified to lay the path to make buildings safer and more efficient, expanding access to the basic right of clean, safe drinking water, dignified sanitation, are all the fundamental tenants for the work to which we engage.” 

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# Digital Tools, Collaboration & Codes

The digital transformation has been reshaping the way we collaborate in construction for some time now. With various stakeholders coming and going throughout the lifecycle of a building, modern digital collaboration is key in creating and maintaining a building that is safe and functional.

Think of the evolution from drafting tables to CAD and Revit software, for example. With modern software, designers can collaborate using visual aids. The software provides a platform for the team to discuss challenges and discrepancies in the design and construction process, streamlining the path to the desired final product. Now, it's hard to imagine work before these technologies.

## Codes and Standards are Going Digital, Too

Digitization is now transforming fire and life safety codes and standards in the same way. The days of lugging around clunky, sticky note-filled code books are falling behind us, and we're ushering in a new era where we have all codes and standards at our fingertips.

Fire and life safety codes and standards permeate every aspect of the design, construction and maintenance of a facility, so it's critical that they're accessible, navigable and provide all stakeholders with the ability to easily collaborate. And while code books are written in black and white, anyone in the field knows that they're living documents, and the way requirements apply to real-world scenarios is not always cut-and-dried.

Digitization helps the latest codes and standards changes, such as tentative interim amendments (TIAs), errata and formal interpretations, get disseminated quickly so everyone has access to the most up-to-date information. It also makes the codes and standards more interactive and can bring them to life with enhanced content, visual and audio aids, annotation features, sharing capabilities and more.

For contractors, this digital application can provide value in several ways



**It's critical that codes are accessible, navigable and provide stakeholders with the ability to collaborate.**

by helping to coordinate across teams, document project specific requirements or equivalencies and even upskill the next generation of tradespeople.

## Streamlining Precision Across Teams

Digitizing codes and standards helps contractors coordinate with one another more efficiently and accurately. Building designs may look perfect on paper, but as multiple trades come onto the site to install equipment, piping, wiring, etc., slight modifications can have a ripple effect on other trades. For example, a fire protection contractor might enter a building to find that the electrician already hung the lights, and now the sprinkler head will be too close to the lighting fixture to be compliant.

In these instances when the as-built condition is different than the planned condition, contractors can easily pull up sections of code on any device to review in-person or send via email. From there, they can confirm they're looking at the same section of code and determine a plan to ensure safety and compliance in the building. This same coordination can also take place with AHJs during inspections or any time multiple parties need to sit down and flesh out

their respective interpretations of specific codes and standards. Digitizing this process helps reduce miscommunication, resolve disagreements faster and complete projects quicker while ensuring all building and life safety aspects are accurate and up to code.

## Documenting Diverse Code Requirements and Project-Specific Variances

Codes and standards requirements vary from project to project, jurisdiction to jurisdiction, etc., and it's not uncommon for contractors to work in multiple states that enforce different editions of the code. Digital platforms grant contractors access to multiple publications and their various editions on mobile devices as small as a smartphone. And within this vast digital library, users can easily search by section or keyword across publications, bookmarking information as needed for quick access to those sections they find themselves coming back to frequently.

Additionally, there may be equivalencies permitted by the AHJ which allow for the use of alternative means to meet the intent of the code or standard. Capturing these instances in an organized, well-documented manner,

however, can be a challenge. Contractors need a platform where they can house notes taken during the construction process and locate it quickly when questions arise. Luckily, digital hubs enable contractors to add searchable notes alongside sections of code to document these equivalencies. These notes can then be seamlessly handed off to facility managers so that when it comes time for inspections or renovations, there's a digital history available.

## Preserving Veteran Knowledge to Bridge the Skills Gap

As industry veterans retire and fewer young workers join and stay on job-sites, the skilled labor sector is facing a skills shortage. The construction industry will need to attract nearly 650,000 additional workers on top of the normal pace of hiring in 2022 to meet the current demand for labor, and with more than one in five construction workers over the age of 55, it's critical to find avenues to pass down veteran knowledge and up-skill the next generation of qualified tradespeople.

There's a huge opportunity for digitized codes and standards to lend a hand in documenting veteran knowledge and sharing it with new employees. Imagine if the 45-year veteran could easily create a knowledge base to bestow his industry expertise onto new employees instead of taking his note-filled book out the door with him on retirement day. Creating a digital history ensures that expertise doesn't disappear from the organization when its employees do.

In addition to sharing institutional knowledge, technology has also made great strides in offering interactive, accessible online training for employees seeking to advance their careers. When learning about codes and standards today, contractors can leverage videos, interactive modules, industry-specific content, situational content and more anywhere at any time. This can make training more engaging and

➤ **Turn to Digital Tools, page 49**



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Photos by Terry McIver

## Rinnai Opens New Griffin, GA Facility

► **Continued from page 28**

“We need many talented members to join us. Those here with friends and family, share what you saw and let them know we’d love to have them be part of our team. You will also hear plans for future expansions, more production lines and [the need for] more people,” Windsor concluded.

### Location Key to NA, Global Strategy

Shelley Kiley, vice president of operations, said the rollout of the first RE Series tankless water heater was an exciting event for team members who were involved in the facility’s planning and site selection, and in the design and

say the whole team is proud that they came in within four percent of budget and had only six weeks of delay on the entire project from start to finish. Everyone in this room has played an important role in bringing Rinnai’s vision and strategy of manufacturing in the local market to reality,” Kiley said. She echoed Windsor’s thanks to state and local government officials as well as Griffin Regional College and Southern Crescent Community College.

“As Frank stated, the new manufacturing facility is very important for our continued growth in



The brazing furnace.

development of the new RE Series tankless water heater.

Kiley has cultivated deep experience throughout a 30-year career, having most recently spent three years leading a team of 650 within the supply chain and global operation strategy teams at Larson-Juhl. Prior to that, Kiley had a distinguished 11-year tenure with Ohio-based Moen, Inc. where she rapidly progressed from plant manager to holding several executive leadership roles, including vice president of global supply chain and manufacturing.

“Over the last two years, it has been challenging for the entire team who worked tirelessly through a lot of challenges: COVID, global supply chain issues, and escalation of pricing and materials for the construction. I would

North America. We’re going to be manufacturing 100 percent of the volume of this new non-condensing water heater. It puts a lot of pressure on us. We can’t call Japan and ask for more units. We have to make them all here.

“This is also important globally,” Kiley added, “because it opens up capacity in Japan for those employees to produce other products for the North American market.”

Derrick Black, vice president of product manufacturing, came to Rinnai after 25 years in the automotive manufacturing and other industries.

“About five years ago, Frank Windsor approached me to lead this project,

The new production facility in Griffin, GA.

and I jumped at the opportunity,” Black said. He described the plan to have three assembly lines running around the clock, and the equipment to make it happen.

“We have three stamping presses to produce many of our components, a combustion chamber and a heat exchanger assembly. We have a local supply base here in Georgia for stamping and other components. Truly, this is a North American manufacturing base,” Black said.



Clarence McKenzie in the stamping department.



The fin stamping machine.

### Many Tour Stops

During the tour, Kyle Brookins, quality manager, and Toru Gisa, quality liaison, described the function of the Rinnai quality department.

“Our responsibility is to cover the product that comes in and make sure that product is good to the time it goes out,” Brookins said. “We start with a receiving inspection of critical components, which are gas components and other critical components as well as validating parts from local suppliers. From there, we have a Quality Team for

fabrication activity and assembly line.”

Tanika Peoples, senior human resource generalist, described Rinnai’s six cultural beliefs that are behind all company operations: Captivate Customer; Process First; Drive Change; Build Trust; Innovate Now; Develop You!

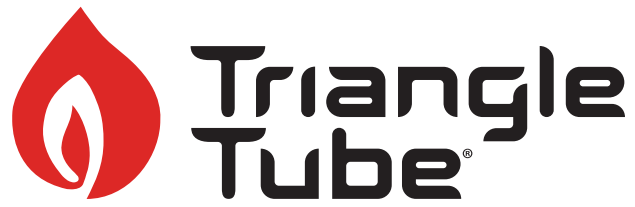
“These six cultural beliefs are part of the fabric of our organization, and you will see them posted around the facility. “Our strategic priority is to attract, retain and develop top talent. We will have about 400+ employees to support this facility by end of this year,” Peoples said.

Training manager Myles Threatt described the various training categories, which includes soft skills training, hands-on manufacturing, safety and ergonomics, emotional intelligence and the importance of working in cross-generational teams.

“We’re number one in our industry because we build a high-quality product,” Threatt said. “When we started this training venture, we joined forces with another ‘Number 1’ organization, QuickStart. QuickStart is part of the technical college system in Georgia and has been instrumental in designing and implementing training throughout the state for industry leaders over a long history. With their help we’ve skilled up and scaled a brand new workforce,” Threatt continued. “It required QuickStart to design a 24-hour hands-on training experience that gives our team members the basic tools skills and materials they’ll use on a daily basis. This gives them the confidence to build a high-quality product. Also, they have provided standard soft skills and lean manufacturing forces, which we use to equip our team members and prepare them to understand manufacturing in general,” as well as training in Rinnai manufacturing and cultural standards.

A detailed tour of the manufacturing floor provided an up-close look at plate fabrication, fin manufacturing, brazing, component assembly and packing. Clarence McKenzie, lead for the fin stamping team, said 18,000 copper heat exchanger fins are stamped per hour. **C**

Terry McIver is editor-in-chief of Contracting Business.



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# 2022 EWTS Held in San Antonio

► **Continued from page 3**

for Water Efficiency (AWE), the American Society of Plumbing Engineers (ASPE), the International Association of Plumbing and Mechanical Officials (IAPMO) and Plumbing Manufacturers International (PMI).

## Safer, More Resilient Systems

“As an industry we have a number of high priority research needs that relate to water quality as well as water and energy efficiency,” IAPMO Executive Vice President of Advocacy and Research Pete DeMarco explained in discussing the importance of the symposium. “This year’s event brought together some of the brightest minds industry has to offer all focused on how we make our plumbing and mechanical systems safer and more resilient to meet the challenges ahead.”

In his opening remarks, DeMarco pointed to a number of accomplishments for which the EWTS has served as a springboard, including the development of the *Green Plumbing and Mechanical Code Supplement* (now the Water Efficiency and Sanitation Standard WE•Stand); ANSI/ASHRAE Standard 188-2018, Legionellosis: Risk Management for Building Water Systems; ASSE 12000 series on infection control and water quality, which is in IAPMO’s *Uniform Plumbing Code (UPC®)*; and IAPMO’s Water Demand Calculator, whose second version was released in 2020.

“This symposium provides a much-needed platform for stakeholders across the industry to gather, discuss the latest research, and then discuss how



Networking is an important component of any EWTS, and this meeting offered several opportunities.



PMI CEO Kerry Stackpole offers remarks during the first day of the EWTS.

we can take action,” he said. “It is a highly valuable event, and I look forward to seeing it continue to grow in the future.”

PMI CEO Kerry Stackpole spoke at the event and said the relationships between the organizations represented at EWTS had likely never been more important than they are now. He said that while the best and brightest among us devised medical solutions to the COVID-19 pandemic, the plumbing industry also played an important role.

“What’s also important is how our industry responded,” he said. “Our industry’s experience and our focus became touchless faucets, antimicrobial surfaces, water purification systems, all kinds of energy-efficient devices focused on safe and responsible plumbing. We all had a contribution to make and I think our industry stepped up.”

Stackpole said wildfires, flooding and drought that different regions of the United States are experiencing put those in the industry in a position to shape the future.

“Your active engagement here, in your communities back home, and in the marketplace of ideas, where we will have opportunities to share ideas with one another, will make all the difference,” he said. “You actually are able to turn the dial on this, and I think that’s really exciting.”

## Keynote Speakers

This year’s keynote speakers were Robert Puente, president and CEO of the San Antonio Water System (SAWS), and Don Johnston, senior operations director, Indonesia, for *Water.org*.

Puente’s presentation looked at three ways in which SAWS, which serves 2 million customers over four counties, uses innovation to deliver water to its customers: advanced metering deployment, “smart” manhole covers, and conservation.

“It’s all about innovation,” he said. “And I think if you talk to our employees, although they will tell you that it’s their idea, we know that they got their idea from coming to events like this. Every good idea, you should expect it to be stolen, to be used by someone else, and you should be flattered by that. I think anything that you look at here started somewhere else, and we went to conferences in other cities and were able to bring back the ideas to SAWS to really get the innovation aspect in this.”

In delivering his keynote address remotely from Jakarta, Indonesia, Johnston spoke about the global water and sanitation crisis’s impact on low-income households—one in nine people lack access to safe water, one in three do not have access to a toilet—and some potential solutions. Working with financial institutions and water utilities, as well as sister company WaterEquity, Water.org helps bring affordable financing to people in need of water.

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“In about 19 years of work on the ground, we’ve seen water and sanitation access reach more than 45 million people through more 10 million microloans disbursed to households with capital of \$3.7 billion mobilized,” he said.

### Presentations and Panel Discussions

In his presentation, Phillip White, manager of plumbing and mechanical inspections for the city of Vancouver, British Columbia, shared how his city addressed the problem of insufficient sewer capacity when it came to capturing large amounts of rainfall through water reuse technologies. One development, the Oakridge Centre, utilized the IAPMO Water Demand Calculator and is expected to have the largest non-potable water system in North America.

Another speaker, Special Pathogens Laboratory Executive Vice President/Founder Dr. Janet Stout, looked at approaches and products for mitigating the risk of Legionellosis in point-of-use and point-of-entry



Julius Ballanco (far left) offers his insights during a panel discussion while (left to right) Dr. Janet Stout, James Dipping, Christoph Lohr and Matt Freije look on.

building water systems. Improved water management requires knowledgeable Legionella prevention and water service providers, which can come from

certification to ASSE/IAPMO/ANSI 12080 for Legionella Water Safety and Management Personnel.

Over the two days of the symposium 28 podium presentations were delivered on such diverse topics as *Hot Water Circulation -- Benefits, Design and Technologies* (Frank Schmidt, International Market Developer, Kemper) and *The Role of Safety and Performance Requirements in Reinventing the Toilet* (Sun Gil Kim, Senior Program Officer, Bill and Melinda Gates Foundation).

The first day concluded with a panel discussion featuring Julius Ballanco, President, JB Engineering; James Dipping, Director of Plumbing Engineering at Environmental Systems Design, Inc.; Matt Freije, CEO, HC Info; Christoph Lohr, VP Strategic Initiatives, IAPMO; Kurt Steenhoek, International Representative, UA; and Janet Stout, Executive VP and Founder, Special Pathogen Laboratory. The topic of the discussion was *Effective Risk Management of Building Water Systems for Pathogen Control*, and it was moderated by *CONTRACTOR*'s Editor-in-Chief, Steve Spaulding.

The second day saw another panel discussion featuring Ron Burke, CEO and President, AWE; Dain Hansen, Executive Vice President, Government Relations, IAPMO; Ed Osann, Senior Water Policy Analyst, NDRC; and Stephanie Salmon, Washington Representative, PMI. The panel's topic was *Implications of the Infrastructure Investment and Jobs Act on Drinking Water and Wastewater*, with Nicole Krawcke, Chief Editor of *Plumbing & Mechanical* and *PM Engineer* taking on moderating duties.

IAPMO will provide sessions from the EWTS on-demand in the near future. To be notified when they are available, register at [www.ewts.org/2022-ewts](http://www.ewts.org/2022-ewts).

## Kohler Co. Announces Completion of Plumbing Products Warehouse in Huntsville, AL

KOHLER, WI – Kohler Co., a global leader in kitchen and bath products, opened a state-of-the-art warehouse in Huntsville, Alabama, to support growing customer demand for its high-volume STERLING Vikrell bath and shower fixtures.

This greenfield build comprises a total of 546,000 square feet and is located near Kohler's existing manufacturing plant, which produces STERLING Vikrell products that are popular among the nation's top single-family homebuilders, home improvement retailers, and a vast number of multi-family developers, plumbers, and remodelers.

“In the past, our business has been constrained by a lack of warehouse storage, which challenged us in providing the level of consistent quick delivery our customers expect,” said Norb Schmidt, Senior Vice President-Kitchen & Bath Operations. “The new warehouse and enhanced stocking strategy will greatly reduce lead times and improve delivery efficiency. We are pleased to expand our presence in Huntsville and Madison County and contribute to the local economy.”

On Tuesday, May 10, Kohler Co. leaders celebrated the warehouse completion with a ribbon-cutting ceremony on-site, which included company CEO David Kohler, and Senior Vice President-HR, Stewardship & Sustainability Laura Kohler, along with Kohler associates, local officials and Burns & Mc-



The distribution warehouse comprises 546,000 square feet and is located near Kohler's existing manufacturing plant, which produces STERLING Vikrell products.



Kohler Co. CEO David Kohler (center) is shown cutting the ribbon, and was joined by (left to right) Dale Strong, Chairman-Madison County Commission; Tommy Battle, Mayor- Huntsville; Ginger King, VP, HR-Kohler Kitchen & Bath; Norb Schmidt, SVP-Kohler Kitchen & Bath Operations; Laura Kohler, SVP-Kohler Co. HR, Stewardship & Sustainability; David Kohler; Tom Adler, CFO-Kohler Co.; Shawn Oldenhoff, President-Kohler Kitchen & Bath North America; Paul Finley, Mayor-Madison; and Mike Fenske, President & GM-Global Facilities, Burns & McDonnell.

Donnell, the design-build contractor for the project.

The Huntsville warehouse opening comes on the heels of Kohler announcing in February, the construction of a second Vikrell production facility and distribution center in Casa Grande, Arizona, which is set to be operational by August 2023 to support the company's growing customer base in the western U.S.

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# NKBA Report Finds Industry Bullish on 2022

► **Continued from page 3**

year, growing 12.6% in Q1, with industry professionals expecting further growth as the year continues.

## An Industry Adapting

“Despite a number of ongoing economic hardships, from material shortages to higher labor costs, we’re excited to see our industry continue to grow and be optimistic about the future,” said Bill Darcy, Chief Executive Officer, NKBA. “As the world shifts toward a new normal, we’ve seen the kitchen and bath industry continue to adapt to the times by evolving e-commerce practices, stocking up on available products, and turning toward historically underutilized brands to fulfill customer needs.”

While price points have continued to rise, demand for remodeling projects has stayed strong, enabling the industry to continue to grow in the new year. In the KBMI Q1 report, all kitchen and bath industry segments reported high single-digit sales growth year-over-year (YOY) except for manufacturers, who reported double-digit sales growth of 10.3%. Not only were sales numbers up compared to 2021, but quar-

ter-over-quarter (QOQ) sales accelerated for all segments of the industry.

## Confidence Moving Forward

2022 full-year sales growth expectations have also increased after a successful first quarter, with professionals anticipating +15.1% growth for the year, up from the 9.4% reported just

three months ago. In the latest KBMI report, the kitchen and bath industry rated future business conditions a 78.6 on a 100-point scale, displaying cautious optimism about the future of the industry. Rising interest rates and low resale inventory have been tailwinds for big remodeling projects as consumers leverage home equity and other discretionary income to ‘trade up in place.’ Despite additional inflationary pressures potentially pricing out some homeowners, the industry reported a healthy num-

ber of backlogged projects, allowing the sector to feel confident about the road ahead.

“From manufacturers and designers to contractors and retailers, the entire kitchen and bath industry has had to adjust to the ever-evolving times that we live in. Despite the ongoing headwinds and potential unknown chal-


lenges ahead, all signs currently suggest that 2022 will be another strong year for the industry,” continued Darcy.

## Key Findings

- **Material Shortages Cause Delays and Cancellations:** As the ongoing worldwide material shortage continues, kitchen and bath industry professionals have reported serious delays to their projects. Forty-three percent (43%) of building and construction firms report most of their projects were behind

schedule in Q1 2022. Firms have tried to get out ahead of projects by pre-ordering as often as they can, however, industry-wide backorders and shipping delays prevent them from maintaining timelines. A further consequence of these material delays has been client cancellations due to long timelines, as 46% of building and construction firms had clients cancel and/or postpone projects in Q1. While this is a slight improvement from Q4 2021’s 50% cancellation/postponement rate, the trend continues to be a concern for the industry moving forward.

- **Luxury Products In Demand, Come With Longest Lead Times:** The KBMI for Q1 2022 found that luxury products once again are the most popular category for consumers. However, these products also come with the longest wait times. An increasing number of industry professionals (55%) report differing lead times across luxury, mass market, and entry-level products/materials. Seventy-nine percent (79%) of those indicating a difference say lead times for luxury products/materials are the longest. Consumers choosing to move forward with big project remodels are often opting for high-end products, associating quality and durability with the higher price tag.
- **Labor Remains Elusive and Expensive:** Industry professionals reported labor availability as having a significant impact on their businesses and their ability to keep up with demand, rating the overall impact a 6.7 on a 10-point scale. Industry professionals continue struggling to find qualified labor, raising rates by 18% on average to retain and/or attract talent. Seventy-six percent (76%) of designers are increasing labor rates 21% on average to retain existing employees, saying competition for qualified labor is fierce.

To learn more, visit [nkba.org](http://nkba.org). 

**Growth bolstered by an increase in price points despite material shortages and higher labor costs.**

## Uponor Pipe-cutting Ceremony Celebrates Hutchinson Expansion

APPLE VALLEY, MN — Uponor North America (Uponor) held a ceremonial “pipe-cutting event” to mark the opening of its \$5.5 million, 25,000-square-foot expansion to the Hutchinson, Minn., facility. This new space will increase the company’s PEX-a pipe extrusion production capacity by more than 10 percent, while growing highly skilled jobs in Hutchinson in the coming years. The expansion project broke ground in July 2021 with PCL Construction as the general contractor, Tekton Engineers as the structural engineer, Focal Point Partners as the electrical subcontractor, and Legend Companies as the mechanical subcontractor. The renovated space will allow Uponor to move forward with a major investment in next-generation extrusion technology.

**Michael Rauterkus**, president and


CEO, Uponor Group, took part in the event. This was his first trip to visit Uponor facilities across North America since joining the company in August 2021. He toured the Hutchinson production facility, met with team members, and helped cut the ceremonial pipe.

“Today was a special day for Uponor North America,” Rauterkus said during the event. “Seeing this investment become a reality and knowing what is possible from a manufacturing potential, I am certain Uponor will continue to make positive impacts on the Hutchinson area. I am eager to see what happens next with this team.”

“This expansion reinforces our commitment to Hutchinson and the team members who help us deliver for our



**Michael Rauterkus, president and CEO, Uponor Group, (center) joins business leaders as he cuts the ceremonial PEX-a pipe to mark the opening of the company’s \$5.5 million, 25,000 sq. ft. expansion in Hutchinson, Minn.**

customers. I want to thank our construction partners for their efforts in designing and building this space, as well as our global partners across Uponor who saw the potential in what our Hutchinson team could achieve with this major investment,” said **Jon Sillerud**, vice president, Operations, Uponor North America. 

# Bringing Collaboration Up to Code with Digital Tools

► **Continued from page 42**

help retain workers. Plus, off-the-page learning is great for younger, tech-savvy generations.

## The Digital Future

With so many stakeholders coming and going throughout the lifecycle of a building, collaboration must expand beyond one-off emails and walks around the jobsite together to ensure the highest level of visibility, accuracy and efficiency. Contractors today need the ability to access information and communicate anywhere, anytime, on any device. The digitization of fire and life safety codes and standards empowers construction professionals to streamline collaboration, reduce miscommunication, document project-specific equivalencies, retain generational knowledge and more. By leaving physical code books in the past, we unlock a new standard of safety and efficiency. [C](#)

## Maximize Pumping with Permanent Magnets

► **Continued from page 38**

in a misaligned well, a submersible pump is typically the better solution, which will experience wear, tear and reduced longevity. Does a user need high flow from a reduced diameter borehole? Submersibles are typically operated at higher speeds since the pump and motor are close coupled, enabling them to move more water with a slimmer diameter pump. This changes the pump size and therefore can offer the opportunity to drill a smaller borehole for the installation of the smaller diameter pump and motor. [C](#)

*Brandon Schumm is the product manager for large submersible motors at Franklin Electric. He previously worked in the gearbox industry specializing in sales, marketing and product development for electric drives, including permanent magnet motors. He can be reached at [brandon.schumm@fele.com](mailto:brandon.schumm@fele.com). For more information, visit [franklinwater.com](http://franklinwater.com).*

*Val Ziavras is an engineer in the NFPA technical services division where she contributes to the development of technical content for NFPA. Previously, she served as the staff liaison for the Fire Code Technical Committee and several*

*Safety to Life and Building Code Technical Committees. Prior to joining NFPA, Val worked at a consulting engineering firm designing sprinkler systems. She received her Bachelor of Science degree in Mechanical Engineering and Master*

*of Science degree in Fire Protection Engineering from Worcester Polytechnic Institute. Val is also a registered professional engineer in the discipline of fire protection in the Commonwealth of Massachusetts.*

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The indoor unit contains an integrated hydronic buffer tank, sleek user interface with smartphone app control and a high-efficiency, dual-ECM pump module. The modular design of both units provides ease of installation.

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▲ **PRIMARY COMMERCIAL MINI-SPLIT LINE** is an energy-efficient and cost-effective ductless heating and cooling solution. The new wall-mount unit is compact and lightweight. The system has a wide temperature range, performing in low-ambient temperatures down to -13° F (for the 24K model) and down to -4° F in heating mode for all other models.

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## ▶ IQ2001 COMMERCIAL TANKLESS WATER HEATER

delivers approximately 2.0 million Btu/hr. with a turndown ratio of 66:1. Designed for very large volume, commercial applications, up to three floor-standing units can be cascaded for up to 160 gallons per minute at a 70° F rise. It eliminates single-point failure with the patented Masterless Cascading technology.

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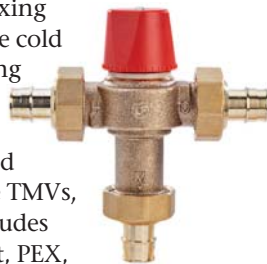
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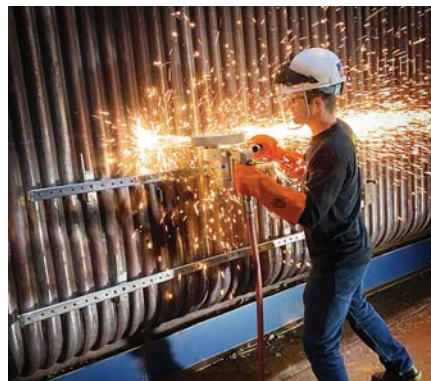
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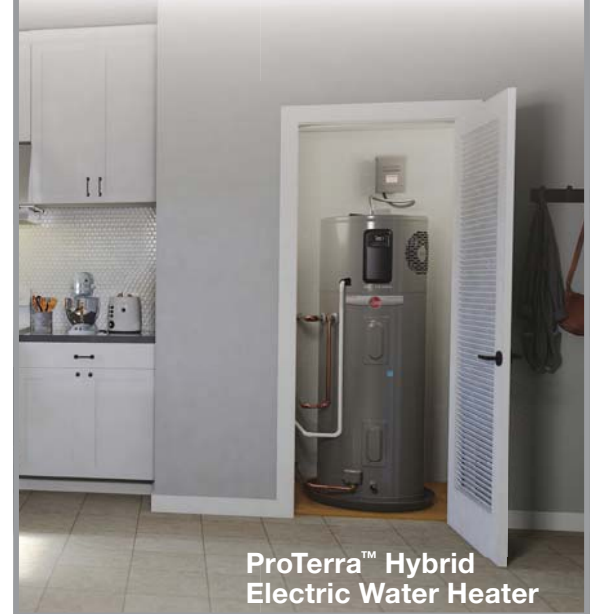
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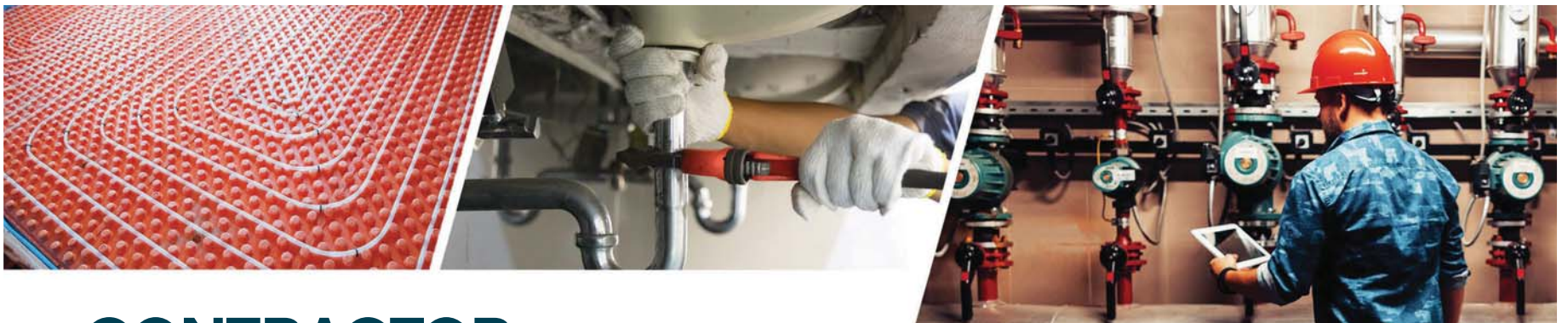


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NEW EBOOK FROM CONTRACTOR

# Download the Best of Pat Linhardt

Patrick Linhardt is a thirty-seven-year veteran of the hydronics industry who has been designing and troubleshooting steam and hot water heating systems, pumps and controls on an almost daily basis.

Pat has been a regular monthly columnist for CONTRACTOR Magazine since 2019, where his column has become the cornerstone of our Hydronics & Radiant section. We are proud to publish this selection of his recent work, and hope these columns serve to educate and inspire a new generation in the industry.

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# WORKFORCE DEVELOPMENT

The workforce crisis is as bad as it has ever been. Call it a perfect storm: older workers retiring, younger people choosing not to enter the trades, and a tight labor market that has contracting firms fighting tooth-and-nail to find and keep the existing skilled hands.

Here is a selection of 5 articles that will help you navigate this labor turbulence and enable you to develop and maintain your 21st century workforce.

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## WORKFORCE DEVELOPMENT



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by Steve Spaulding  
EDITOR-IN-CHIEF



# Things to Remember from San Antonio

**E**arly this May I flew out to San Antonio to attend the 7th Biennial Emerging Water Technology Symposium (you can read our full coverage starting on pg. 3). It's a special show—with a special place in my heart—for several reasons.

I took on the top job here at *CONTRACTOR* back in February of 2018. The first show I went to in my new capacity was the 6th EWTS held in sunny Ontario, CA. Even though I had been working for *CONTRACTOR* since 1996 it was also my first time attending the show.

I am still feeling very unsure of myself at the time, but I received a warm welcome from people like Russ Chaney and Pete DeMarco (respectively, CEO and Executive VP for Advocacy and Research at IAMPO), Kerry Stackpole (who had recently become CEO of PMI) and my fellow members of the trade press.

What also helped me get over my jitters was that Pete DeMarco put me right to work, moderating part of the symposium and a panel discussion. It's hard to be nervous about your new job

when you're overwhelmed by your fear of public speaking!

Aside from my personal associations, the show is special in that it brings all the major industry advocacy groups together to discuss priorities and talk about the

## It's hard to be nervous about your new job when you're overwhelmed by your fear of public speaking!

major issues. And all of this happens in a manageable-sized group of about 100 or so attendees.

So, what are the important things I remember from my trip to San Antonio?

Let me get my punchline out of the way: I remember the Alamo. It was just a short walk from my hotel. It was smaller than I thought it would be but all the history that infuses that building makes a powerful impression.

But to get back on topic, I learned we sometimes take the quality of our water for granted here in North America.

People simply assume that what's coming out of the tap is contaminant- and pathogen-free, and that assumption causes problems. System designers who are trying to take extra steps to ensure safety conflict with builders

trying to manage costs. Water management planners conflict with facility managers who are understaffed, under-equipped, or who sometimes don't see the urgency.

Next, climate change already straining municipal water systems. The keynote speaker this year was Robert Puente, President and CEO of San Antonio Water System. Although San Antonio gets most of its water from an aquifer that's in good shape, the city is making a major investment in smart metering in an effort at conservation.

The flip side of the coin was presented by Philip White, Manager of Plumbing and Mechanical Inspections for the City of Vancouver (Canada), where his city faces some dangerous consequences from insufficient sewer capacity; even moderate rainfall can cause closures of beaches and fisheries. The city is trying to adapt with good landscaping, non-potable reuse strategies, detention tanks and other solutions.

Also, soberingly, I learned from Sun Gil Kim, Senior Program Officer for the Bill and Melinda Gates Foundation that toilets remain a life-and-death matter for most of the world. 3.6 billion people lack safely managed sanitation. 494 million practice open defecation. Diarrheal disease kills more than 350,000 children under five every year.

Lastly, I learned that Pete DeMarco—who invited me to my first EWTS—will be retiring soon. His intelligence, warmth, administrative acumen, and constant work to bring people together will be greatly missed. I wish him all the best in whatever his next chapter holds. **C**

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