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SEPTEMBER 2023

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NEWS

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CALIFORNIA



\$58M in Incentives Now Available for All-Electric Homes

Sacramento, Calif. – Builders and developers can tap into \$58 million in funds from the California Energy Commission (CEC) to lower the building costs of new climate-friendly residences.

Now accepting applications, the California Electric Homes Program (CalEHP) helps advance the state's energy efficiency goals, including reducing greenhouse gas emissions from buildings by spurring significant market adoption of all-electric construction and on-site energy storage.

The program offers financial incentives and technical assistance to builders and developers of new, market-rate homes with all-electric appliances and equipment. Funds are available on a first-come, first-served basis, with the program timeline planned for the next five years – unless funds are fully reserved.

In 2023, incentives for multifamily and single-family dwellings start at \$1,750 and \$3,500, respectively, per residential unit. Additional incentives are available based on geographic location and the installation of above-code measures such as energy storage.

The program addresses climate change by encouraging the use and acceptance of all-electric construction practices and focusing on energy savings. Participating projects are required to install:

- Heat pumps for space and water heating
- Induction cooking
- Thermostatic-mixing valves
- Segregated circuits
- Communicating thermostats.

The CalEHP website (<https://www.energy.ca.gov/programs-and-topics/programs/california-electric-homes-program-calchp>) has information on incentives, technical assistance and building project requirements as well as links to an online application and program contact information.

“Electricity is the backbone of California’s clean energy transition. All-electric buildings are simply a better product. They are healthier for occupants and save energy by using the most efficient technologies,” CEC Commissioner J. Andrew McAllister said. “CalEHP is helping accelerate all-electric construction so that more Californians can experience the benefits of

low-emission living.”

CalEHP is a sister program to the CEC’s Building Initiative for Low-Emissions Development (BUILD) Program that offers \$60 million in financial incentives and technical assistance to builders of new, all-electric homes for low-income residents. Each eligible developer can use up to 300 hours of free building electrification technical assistance and up to \$2 million in incentive monies. To date, BUILD has awarded \$10.8 million for 21 low-income multifamily projects, with another \$23 million requested for 60 projects.

Together, these programs support the wider adoption of advanced building design and all-electric technologies in market-rate and affordable housing. Wider adoption helps increase market share and lowers the cost for these technologies.

The barriers to building decarbonization are falling in California, thanks to new developments in technology, updates to the state building energy efficiency standards’ Energy Code, and programs such as CalEHP and BUILD. For homeowners of existing buildings, funding from the CEC’s Equitable Building Decarbonization Program – which will pay for low- and no-cost retrofits and incentives – and laws such as the Inflation Reduction Act address the same issue.

More information can be found at www.energy.ca.gov.

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CoolSys Expands in Mid-Atlantic Region

Brea, Calif. – CoolSys, a provider of sustainable refrigeration, HVAC, energy, and engineering solutions, has acquired Lima Co., a provider of commercial and industrial HVAC, refrigeration, plumbing, and energy services throughout Eastern Pennsylvania, Delaware, Maryland, and New Jersey.

The acquisition expands the CoolSys offerings and strengthens its market presence in the Mid-Atlantic region, the company said in a press release.

“We’re excited to have Lima Co. join the CoolSys family of companies,” said Rick Frier, chairman and interim CEO at CoolSys.

“A proven market leader, Lima Co. and its management team have built a strong reputation by combining industry expertise and a client-focused approach. Their values align perfectly with our mission at CoolSys to provide best-in-class service, quality products, and technology at competitive prices.”

“Our goal has always been to provide quality services at a fair price for our clients by combining the right people and the right approach to deliver the right results,” said founder and president Bob Lima. “We look forward to maintaining these core values as part of CoolSys, where our dedicated em-

ployees can continue to service our clients at an outstanding level while bringing them new resources and capabilities from a forward-thinking, market-leading, national company.”

ARIZONA



UTI Launches New Trades Programs

Phoenix, Ariz. – Universal Technical Institute Inc. (UTI), which provides workforce education programs in transportation, skilled trades, energy, and health care, launched programs in Airframe and Powerplant, HVACR, Wind Power, Industrial Maintenance, and Welding at four of its UTI campuses recently, and is admitting new students in nine more programs at five additional campuses.

The remaining programs begin classes in August and September and include Robotics & Automation.

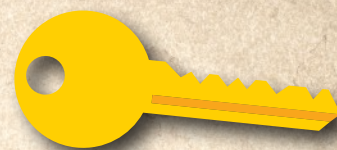
These program expansions are a step in the execution of the company’s growth and diversification strategy, first announced in early 2021, UTI said in a press release.

Approximately 70 students started in the five programs launched in July. Once fully operational, these programs will annually be able to support more than 1,000 students seeking careers in the skilled trades and energy sectors.

“The acquisition of MIAT College of Technology and the continued success of our welding programs have allowed us the opportunity to expand our UTI division program offerings across our national campus footprint,” said Jerome Grant, CEO at UTI. “The program expansions, along with the two new UTI campuses launched in 2022, and the acquisition of Concorde Career Colleges this fiscal year, are a key element of our growth and diversification strategy.”

With the current program

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Continued on Page 6

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FEATURES

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- Reduced carbon footprint - fits into the same opening and uses the same venting as the traditional Monterey wall furnace.

- Power kit required. Select between:
 - AC Power Supply Kit (M119046)
 - External Power Supply Kit (M119015)



M119046



M119015

For all the details go to www.wfc-fc.com/carmel

Continued from Page 4

expansion effort, the Company is optimizing its existing UTI campus footprint to include Airframe and Powerplant, HVACR, Industrial Maintenance, Robotics and Automation, and Wind Power in addition to the current automotive, diesel, welding, motorcycle, and marine mechanic programs. Including the July launches, new programs are currently planned across nine campuses in seven states. Potential future expansions may also be considered.

UTI is a leading provider of training for students preparing for careers as professional automotive, diesel, collision repair, motorcycle, marine, CNC machining and welding technicians. Visit www.uti.edu for more information.

TEXAS



RectorSeal Announces New Territory Coverage

Houston, Texas – RectorSeal LLC, a leading manufacturer of quality HVAC/R and plumbing products, announces new territory coverage for several manufacturer's representative companies. The changes support RectorSeal's vision to provide a single, industry-leading customer

experience with a unified factory direct and manufacturer representative support function.

The following manufacturer's representative coverages are effective immediately:

- Pacific Product Sales (PPS) will support the complete offering of RectorSeal and Shoemaker product lines in Alaska, Idaho, Montana, Oregon, and Washington. PPS has been supporting the HVAC/R industry in the Pacific Northwest since 1987. PPS recently merged with Cascade Sales, Inc., and together provide deep expertise in air movement, ductless, and HVAC/R representation.
- MJM Associates, Inc. coverage will include Colorado, Utah, and Wyoming for the full line of RectorSeal and Shoemaker products. The company repre-

sents superior manufacturers to the HVAC/R and Plumbing industries and offers sales support, product training, application assistance, and technical support to wholesale distributors, engineers, and contractors.

- Wright Sales Company will cover Hawaii, Arizona, California, Nevada, New Mexico, and El Paso, TX, offering the full line of RectorSeal and Shoemaker products. Since 1991, the company has emphasized a pull-through approach to the marketing and selling of HVAC/R products. With a focus on product training, the company enjoys long-term relationships with customers and manufacturers through digital marketing and thorough communication.

"I believe that these changes reflect the core values of RectorSeal," said Ryan Spadero, Vice President of Sales at RectorSeal. "We are always

ready to do the hard work to earn our customer's loyalty. With the continued support of our manufacturer representatives, we strive to provide the highest levels of customer service, support, and innovation."

Since 1937, RectorSeal has offered products that have built a steadily growing and loyal following among contractors due to differentiated and proven product performance.

Further, the company is often the first to tackle and solve challenges professional trade contractors face.

In 2015, RectorSeal became part of CSW Industrials, Inc. (Nasdaq: CSWI), and it now plays a leading role in CSWI's Contractor Solutions segment.

NEXYA

NEXYA Mini Split Price List 2023

| MODEL # | DESCRIPTION | NET PRICE |
|--------------------|--|-------------|
| C/SENIH09EI | Nexya 9000 BTU R410 115V | \$ 537.00 |
| SENIH09EI | Indoor Unit Nexia 9000 BTU R410 115V | |
| CENIH09EI | Outdoor Unit Nexia 9000 BTU R410 115V | |
| C/SENIH12EI | Nexya 12000 BTU R410 115V | \$ 566.00 |
| SENIH12EI | Indoor Unit Nexia 12000 BTU R410 115V | |
| CENIH12EI | Outdoor Unit Nexia 12000 BTU R410 115V | |
| C/SENIH18EI | Nexya 18000 BTU R410 220V | \$ 752.00 |
| SENIH18EI | Indoor Unit Nexia 18000 BTU R410 220V | |
| CENIH18EI | Outdoor Unit Nexia 18000 BTU R410 220V | |
| C/SENIH24EI | Nexya 24000 BTU R410 220V | \$ 945.00 |
| SENIH24EI | Indoor Unit Nexia 24000 BTU R410 220V | |
| CENIH24EI | Outdoor Unit Nexia 24000 BTU R410 220V | |
| C/SENIH30EI | Nexya 30000 BTU R410 220V | \$ 1069.00 |
| SENIH30EI | Indoor Unit Nexia 30000 BTU R410 220V | |
| CENIH30EI | Outdoor Unit Nexia 30000 BTU R410 220V | |
| C/SENIH36EI | Nexya 36000 BTU R410 220V | \$ 1,183.00 |
| SENIH36EI | Indoor Unit Nexia 36000 BTU R410 220V | |
| CENIH36EI | Outdoor Unit Nexia 36000 BTU R410 220V | |

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Pricing does not include shipping from our warehouse

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The Nexya line of Inverter drive heating and cooling mini split systems come in a variety of capacities (9K-36K), available in 115V and 230V with efficiencies up to 24 SEER.

UNITS IN STOCK READY FOR IMMEDIATE SHIPMENT!

| Specifications | | 9,000 | 12,000 | 18,000 | 24,000 | 30,000 | 36,000 |
|----------------------------------|-------|--------------------------|--------------------------|-------------------------|--------------------------|--------------------------|--------------------------|
| Cooling capacity ⁽¹⁾ | BTU/H | 9,000 | 12,000 | 18,000 | 24,000 | 30,000 | 36,000 |
| Heating capacity ⁽¹⁾ | BTU/H | 9,000 | 12,000 | 18,000 | 26,000 | 30,000 | 36,000 |
| Energy Efficiency Ratio | EER | 13.8 | 12.5 | 13.5 | 13 | 10.5 | 13.5 |
| Sound power ⁽²⁾ | dBA | 54 | 54 | 60 | 62 | 60 | 60 |
| Voltage | V | 115 | 115 | 208/230 | 208/230 | 208/230 | 208/230 |
| Seasonal Energy Efficiency Ratio | SEER | 23 | 22 | 24 | 21 | 18.6 | 17.5 |
| Indoor Dimensions | W/H/D | 31.57" x 7.87" x 11.61" | 31.57" x 7.87" x 11.61" | 42.64" x 9.61" x 13.23" | 42.6" x 9.21" x 13.27" | 49.57" x 11.1" x 14.25" | 49.57" x 11.1" x 14.25" |
| Outdoor Dimensions | W/H/D | 30.12" x 11.93" x 21.85" | 30.12" x 11.93" x 21.85" | 35.04" x 13.46" x 26.5" | 37.24" x 16.14" x 31.89" | 37.24" x 16.14" x 31.89" | 37.24" x 16.14" x 31.89" |

(1) Test condition: Data refers to conditions and parameters as required by DOE requirements governing this product type. HEATING MODE: Outdoor Ambient Temperature DB 45°F/7°C WB 43°F/6°C; Indoor Ambient DB 68°F/20°C - WB 59°F/15°C COOLING MODE: Outdoor Ambient Temperature DB 95°F/35°C WB 75°F/24°C; Indoor Ambient DB 81°F/27°C - WB 66°F/19°C

(2) Test conditions for sound ratings are conducted as per DOA rating conditions, conducted in a soundchamber performed at a distance of 3.3 feet (1 meter). Minimum sound pressure values are rated in ventilation mode only.



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sales@olimpiaspplendidusa.com



Interplay Teams Up with Southern Home Services

Austin, Texas – Interplay Learning, a provider of online skilled trades training, will be the exclusive training content engine and designated learning management system (LMS) for Southern Home Services Corp., a home services provider with more than 25 locations.

The partnership between Interplay and Southern was announced recently. Southern, based in Maitland, Florida, has more than 20 locations, over 10 states, and provides HVAC, plumbing, electrical, and generator service and replacement.

Management at Southern recognized the need for a standardized technical training and development system across its expanding portfolio of companies, and aligned with Interplay to deliver unified training to its more than 750 technicians, a press release from Interplay said. By leveraging Interplay's digital learning platform, technicians at every Southern location will have access to training tools and resources, including three-dimensional simulations and virtual-reality experiences.

Interplay's diverse content catalog will ensure that technicians across various skill levels and trades can enhance their knowledge, acquire new skills, and earn essential career-building industry certifications, Interplay said. The platform's skills-assessment tool will play identify and address technicians' skills gaps,

Continued on Page 8



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Offer customers rebates on high efficiency equipment and installations.

Rebates include:

- Up to **\$4500** rebate on ENERGY STAR® certified solar thermal water heater with gas back-up.
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- Up to **\$1200** on qualifying ENERGY STAR certified natural gas tankless water heaters.
- Up to **\$75** rebate on high-efficiency natural gas storage water heaters

Learn more at: socalgas.com/rebates

For additional product information, visit marketplace.socalgas.com



This program is funded by California utility customers and administered by Southern California Gas Company (SoCalGas) under the auspices of the California Public Utilities Commission. Program funds, including any funds utilized for rebates or incentives, will be allocated on a first-come, first-served basis until December 31, 2023 or until such funds are no longer available. This program may be modified or terminated without prior notice. The selection, purchase, and ownership of goods are the sole responsibility of customer. SoCalGas makes no warranty, whether express or implied, including the warranty of merchantability or fitness for a particular purpose, of goods selected by customer. Customers who choose to participate in this program not obligated to purchase any additional goods offered by manufacturer, vendor, service provider, or any other third party. Eligibility requirements apply; see the program conditions for details.

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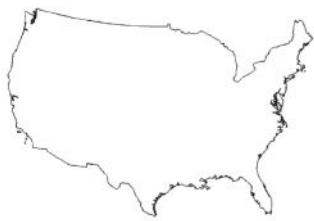
Continued from Page 6

providing targeted learning paths to bridge those gaps. The training program will also assist Southern in improving recruitment, addressing labor shortages, reducing call-backs, and driving revenue growth throughout its extensive network.

“Training equals next month’s, next quarter’s, and next year’s revenue dollars,” said Matt Ellenberg, the training manager at Southern. “This partnership with Interplay is an investment in our technicians’ career development and a driver of future revenue.”

“Interplay is thrilled to work with Southern Home Services in setting a new benchmark for technical education across the trades,” said Doug Donovan, CEO of Interplay.

NATIONAL



Hudson Tech Refrigerant Named Top Product

Woodcliffe, N.J. – Hudson Technologies, Inc. (NASDAQ: HDSN), a leading provider of innovative sustainable solutions to the Heating, Ventilation, Air Conditioning, and Refrigeration industry – and one of the nation’s largest refrigerant reclaimers – announced

that its EMERALD Refrigerants™ line of products has received recognition as the prestigious Top Product of the Year in the Environment + Energy Leader Awards program. The awards program aims to commend excellence in products and projects that deliver significant energy and environmental benefits.

Many refrigerants used in the HVACR industry have a high Global Warming Potential and impact the atmosphere with the unintended release of greenhouse gases. EMERALD Refrigerants™ are certified reclaimed refrigerants, recovered and “made” in the US by Hudson. EMERALD Refrigerants™ help reduce the unintended release of greenhouse gases to the atmosphere and, as a recycled product, combat the environmental impact associated with the production of new virgin refrigerant.

EMERALD Refrigerants™ allow continued use of installed equipment at optimal design conditions to reduce energy consumption and avoid costly system replacement.

Sarah Roberts, Co-President of E+E Leader, emphasized the rigorous selection process, stating, “This year’s entrants had to surpass an exceptionally high bar to qualify for an award, thanks to a seasoned and discerning judging panel as well as stringent judging criteria. The outstanding qualities and remarkable achievements of the Hudson EMERALD Refrigerants™ captivated the attention of the program’s distinguished panel of judges, with one judge remarking that the ability to capture and repurpose gas is advantageous for environmental preservation, as any instance of reclaiming and reusing resources

contributes to a positive impact on the environment.”

Bosch Unveils Online Resource for Contractors

Watertown, Mass. – Bosch Home Comfort (formerly Bosch Thermotechnology), a leading global source of high-quality heating, cooling and hot water systems, recently launched Bosch Home Comfort PRO, HVAC contractors’ new one-stop shop for their every servicing need.

This new portal improves upon the features offered by Bosch’s previous ABC program, brandishing a host of valuable new tools and rewards for loyal installers. Its industry benchmark user interface (UI) is designed for optimal user-friendliness and future-facing flexibility, allowing the platform to evolve and improve over time.

“Bosch’s new PRO program was designed to streamline administrative tasks and consolidate the most essential resources HVAC professionals utilize regularly so they can devote more of their time to their customers,” said Will Barber, customer programs specialist at Bosch. “We’re thrilled to invite our existing installer base to immerse themselves in this new and improved digital portal, and confident that contractors previously unaffiliated with Bosch will be just as impressed with the invaluable selection of tools we have conveniently located in one easy-to-navigate space.”

Bosch Home Comfort PRO offers three tiers of membership – Silver, Gold and Platinum – and integrates the following resources:

- Product registration incentives
 - o Supported by a simple, intuitive registration form, contractors can earn points toward monetary rewards for tracking registrations (1 point = \$1 value). A list of all registerable products and their point eligibility is available for download.
- Revitalized dealer locator / lead generation tool
 - o Become an advertised Bosch Home Comfort PRO installer, enjoying exclusive benefits and higher algorithmic placement based on contractor status.

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From extensive testing at the factory to years of running in homes, our Ion™ Series air conditioners and heat pumps are built to last. Our 10-year No Hassle Replacement™ Limited Warranty gives your customers peace of mind. If a major component fails early, we’ll replace the whole system.*



See warranty certificate for details.

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*To the original owner, a 10-year parts limited warranty upon timely registration of new equipment. Warranty period is 5 years if not registered within 90 days. Jurisdictions wherein warranty benefits cannot be conditioned on registration will automatically receive a 10-year parts limited warranty. See warranty certificate for complete details.

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Continued on Page 10

The York[®] HMM7 Horizontal Discharge Heat Pump:

2-5 Ton • Standard 24 Volt Controls • Works With Conventional Air Handling Units and Evaporator Coils • Price Competitive With Standard Heat Pumps



- Up to 18 SEER/10.5 HSPF
- 40% more compact than standard heat pump units and can be installed in tighter spaces – ideal for high-density areas
- 36% quieter operating sound; as low as 54 dBA
- Capable of dual-fuel operation when paired with an existing or new furnace, using a Venstar thermostat
- Can be installed in conjunction with existing furnace for lower installation cost and potentially avoid electrical service upgrade**
- Modulating technology maintains exact temperatures by operating from 35-100% capacity
- No unique installation procedures required
- Long line set length (up to 246 ft)
- Designed to work with standard ECM indoor air handlers
- Includes a standard 10-year Compressor Limited Warranty and 10-year Parts Limited Warranty; extended warranties available for a full system replacement (product registration required)

*Contractor enrollment required. Rebate available for residential fuel replacement and certain dual fuel installations. Contact tech.inof@energy-solution.com for more info, or visit us-ac.com/techclean/
**Verify AHRI combination rating with existing furnace

Eligible for new TECH Clean CA rebate for \$1,000 unit*

The YORK[®] HMM7 Heat Pump is designed to provide all the comfort and technology of a high efficiency unit at the cost of a base-tier vertical unit for residential customers. It's an ideal solution for homes that require a compact design and comes in several models and tonnages with flexible installation options and innovative features.

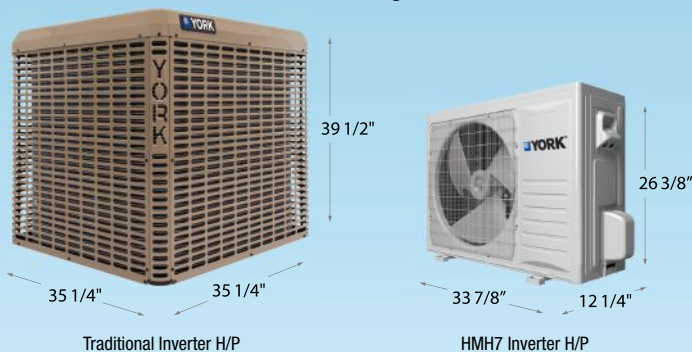


NEW, low-cost cooling-only unit now available!

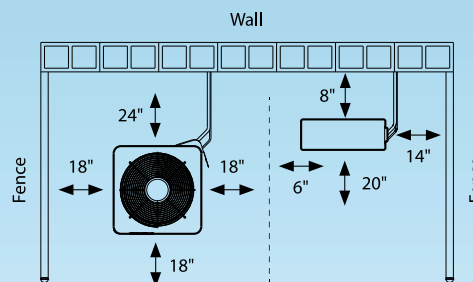
| Model | Tons | SEER | HSPF | Height (Inches) | Width (Inches) | Depth (Inches) | Operating Weight (Lbs) | Sound Range (dBA) Low-High* |
|------------|------|------|------|-----------------|----------------|----------------|------------------------|-----------------------------|
| HMH72B241S | 2 | 17.5 | 9.0 | 26 3/8 | 33 7/8 | 12 1/4 | 112 | 54-65 |
| HMH72B361S | 3 | 18.0 | 10.5 | 33 | 37 3/8 | 13 3/8 | 155 | 56-68 |
| HMH72B481S | 4 | 18.0 | 9.5 | 54 5/8 | 37 3/8 | 13 3/8 | 227 | 62-69 |
| HMH72B601S | 5 | 17.0 | 10.0 | 54 5/8 | 37 3/8 | 13 3/8 | 251 | 62-73 |

*High sound rated in accordance with AHRI Standard 270.

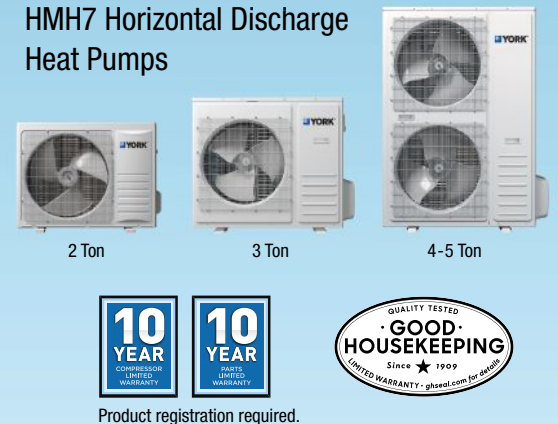
40% smaller footprint compared to traditional vertical discharge units



Traditional, Vertical Unit Minimum Clearances vs. HMM7 Minimum Clearances



HMM7 Horizontal Discharge Heat Pumps



Product registration required.

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o Search capability is customizable by service focus – allowing customers to search by products, service and/or coverage – and is proven to generate homeowner leads (>12,000 page views per month).

New contractors who are interested in joining the PRO program can sign up at <https://www.bosch-homecomfort.com/us/pro> for the United States or <https://www.bosch-homecomfort.com/ca/pro> for Canada. Contractors who previously worked with Bosch through the ABC program will enjoy sustained membership and will need to onboard to the new platform now using the above links.

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Carrier Air Purifiers Donated for Recovery Efforts

East Palestine, Ohio – In support of the East Palestine community affected by a train derailment that occurred earlier this year, Carrier has teamed up with Refrigeration Sales Corp. and Second Harvest Food Bank of the Mahoning Valley to donate 500 room air purifiers to recovery efforts. The units monitor the room air quality and deliver cleaner indoor air by adjusting air intake levels up to 18-speeds for optimal purification. Carrier is a part of Carrier Global Corporation (NYSE: CARR), global leader in intelligent climate and energy solutions.

“We’re proud to support the East Palestine community,” said Justin Keppy, President, NA Residential



500 ROOM AIR PURIFIERS WERE DONATED BY CARRIER AS PART OF THE RECOVERY EFFORTS FOR VICTIMS OF THE RECENT TRAIN DERAILMENT IN OHIO.

& Light Commercial HVAC, Carrier. “As residents continue navigating recovery efforts, our units will empower them to take control of their indoor environment. From filtering out harmful particulates in the air to odor mitigation, homeowners’ peace of mind is our top concern.”

At a press event hosted in late June, Mike Iberis, Second Harvest Executive Director, said, “This is an example of people helping people. The people of East Palestine have gone through a disastrous situation. They are struggling down there and folks at Carrier knew that. When we approached them, they responded with this wonderful donation of 500 air purifiers.”

Carrier’s innovative air purifiers improve the quality of indoor air and have been independently tested and certified by the Association of Home Appliance Manufacturers with high Clean Air Delivery Rate ratings for pollen, dust and tobacco smoke. In addition, the units:

- Capture 99.7% of airborne particles 0.3 microns in size.
- Combine three different filtration solutions and layers to remove

particulate and odors.

- Have Smart Auto mode to allow the unit to automatically adjust fan speeds based on air quality level.

- Include an air quality monitor that continuously samples incoming air and indicates air quality with an easy-to-read LED screen.

Carrier encourages homeowners to maximize the use of their air purifier by learning more about the benefits at <https://www.carriera-home.com/blogs/air-purifiers>.

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Leap Partners Makes 3 HVAC Acquisitions

Nashville, Tenn. – Leap Partners continues its rapid growth with an expansion in Kentucky and entries into the HVAC and plumbing markets in Georgia, North Carolina, and Missouri through its recent acquisitions of Comfort Design, Premier Indoor Comfort Systems, and Aire Solutions.

“Our mission is to acquire and grow reputable HVAC and plumbing companies in the Southeast,” said John Cerasuolo, the CEO of Leap Partners, in a press release. “These three companies all have great leaders and highly qualified technicians, making them all excellent additions to our portfolio.”

Established 32 years ago, Comfort Design, in Owensboro, Kentucky, is an air conditioning and heating service company that serves the communities of Western Kentucky. The former owner, Chris Hagerman, will continue to lead his team, which will continue to be called Comfort Design.

Premier Indoor Comfort Systems is a full-service heating and air conditioning company with two locations, in Canton, Ga., and Whittier, N.C., that has been serving customers for more than 23 years. The former owner, Steve Samson, will continue to lead his team, and the company will also keep its name.

For more than 35 years, Aire

Solutions, of Poplar Bluff, Missouri, has provided heating and air conditioning services to Southeastern Missouri. The former owner, Tim Funke, will continue to lead his team and will operate it as Aire Solutions.

Over the last 15 months, Leap Partners’ portfolio has grown to include 10 HVAC, plumbing, and electrical companies across Alabama, Kentucky, Tennessee, Georgia, North Carolina, and Missouri. In addition to partnering with well-respected and established companies, Leap Partners’ companies are striving to provide industry-leading customer service.

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\$150M in DOE Grants to Help Train Energy Contractors

Washington, D.C. – Some \$150 million in funding from the U.S. Department of Energy (DOE) will help train a new generation of residential energy contractors.

Funded by the federal Inflation Reduction Act (IRA), the State-Based Home Energy Efficiency Contractor Training Grants Program will provide grants for states to reduce the cost of training, testing, and certifying residential energy-efficiency and electrification contractors.

The program will provide states with funds, also referred to as contractor training grants, to develop and implement workforce training programs for residential efficiency and electrification projects to help Americans save money on their energy bills, the DOE said in a press release.

This funding will attract and educate new workers in the energy efficiency industry, train existing workers, and support business owners in making homes healthier and more energy efficient, keys to advancing the Biden administration’s climate agenda and the strategy for growing the economy from the middle out and bottom up.

“As our nation moves towards a clean energy future, there is a growing demand for trained, certified workers to make homes more energy efficient,” said Secretary of Energy Jennifer M. Granholm. “Thanks to President’s Biden’s Investing in America agenda, this historic investment will strengthen our

nation’s clean-energy workforce and economic opportunity, attract new talent, and help tackle the climate crisis.”

Workers trained by contractor training grants will be prepared to implement energy upgrades that could potentially qualify for rebates under the Home Energy Rebates Program and help save consumers money on their energy bills. Authorized by the Inflation Reduction Act, the program will issue \$8.8 billion to state energy offices to retrofit and electrify homes.

DOE has released the Administrative and Legal Requirements Document, which provides guidance for states, territories, and Washington, D.C. to apply for funding that assists with the development and implementation of contractor training grant programs that meet their local workforce needs. Applications are due September 30, 2023.

To support the goal of building a clean and equitable energy economy, all applicants must submit a Community Benefit Plan that describes how their proposal will support local community and labor engagement; invest in our nation’s workforce by creating an environment for success; advance diversity, equity, inclusion, and accessibility within the workforce; and contribute to the administration’s Justice40 Initiative.

Visit www.energy.gov to stay up to date on program announcements, including an upcoming webinar that will answer questions regarding the application process.

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Maine Exceeds Goal of 100K New Heat Pumps

Fairfield, Me. – The state of Maine has – well ahead of schedule – surpassed its goal of installing 100,000 new heat pumps by 2025, a milestone that represents significant progress in reducing its reliance on heating oil, lowering heating costs, and curbing harmful carbon emissions.

To continue Maine’s momentum, Gov. Janet Mills has unveiled a new target: installing another 175,000 heat pumps by 2027, thereby bringing the number of heat pumps installed in Maine homes, businesses, and public buildings during her time in office to 275,000, according to a press release from the state. If the target is achieved, Maine will have more than 320,000 heat

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Pacific Gas and Electric Company is pleased to offer the following HVAC/R training courses specifically designed to advance the skills of HVAC/R professionals.

SEPTEMBER 2023

System Diagnostics Module

(Four-Night Class)

Instructor: Mitch Bailey

Wed., Sept. 6 – Part 1

Thurs., Sept. 7 – Part 2

Wed., Sept. 13 – Part 3

Thurs., Sept. 14 – Part 4

In-Person/Onsite

Webinar Option Available

OCT/NOV 2023

NATE CORE & Gas Heating (Four-Night Class)

Instructor: Mitch Bailey

Wed., Oct. 25 – Part 1

Thurs., Oct. 26 – Part 2

Wed., Nov. 8 – Part 3

Thurs., Nov. 9 – Part 4

In-Person/Onsite

Webinar Option Available

NOVEMBER 2023

System Performance Module

(Four-Night Class)

Instructor: Mitch Bailey

Wed., Nov. 20 – Part 1

Thurs., Nov. 21 – Part 2

Wed., Nov. 29 – Part 3

Thurs., Nov. 30 – Part 4

NOV/DEC EXAM:

Saturday, Dec. 2 – 7:30 AM

In-Person/Onsite

Webinar Option Available



All classes are currently held 6:00 pm to 9:00 pm.

Webinars are FREE of charge and online registration is required.

You can register online by visiting: pge.com/hvactraining. Attendees must register for each night separately and registration is on a first-come, first-served basis.

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Continued from Page 10

pumps installed across the state.

Maine's heat-pump progress stems from legislation, signed by Mills in 2019, that established the state's heat-pump target of 100,000, enhanced heat-pump rebate incentives through Efficiency Maine, and established a low-income heat-pump program at MaineHousing. Through these programs, approximately 104,000 heat pumps have been installed.

Mills spoke about reaching the 100,000 heat-pump milestone at Kennebec Valley Community College in Fairfield, where she had unveiled the initial goal in 2019. Following that announcement, the Maine community college system expanded its heat-pump workforce programs, and has trained 558 heat pump technicians to date, including more than 250 at KVCC, which opened an all-new heat-pump workforce training lab in early 2021.

The governor was joined for the announcement by White House national climate advisor Ali Zaidi, who extended his congratulations to Mills and the state for their climate leadership.

"Our transition to heat pumps is creating good-paying jobs, curbing our reliance on fossil fuels, and cutting costs for Maine families, all while making them more comfortable in their homes – a hat trick for our state," Mills said. "We are setting an example for the nation, and with our new and ambitious goal, we will continue to lead the way when it comes to embracing efficient, climate-friendly technologies that strengthen our economy, protect our environment, and save people money."

"Maine is paving the way for states across the country seeking to build a clean energy future that protects our climate and creates good-paying jobs for all Americans," said Zaidi.

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Hoshizaki America Adds 3 Rep Firms

Peachtree City, Ga. – Hoshizaki America Inc. has expanded its sales team with three new manufacturers' representative groups that will be representing Hoshizaki's refrigeration lines. Preferred Source, Gabriel Group, and Elevate Foodservice Group will serve as agents in the Northern Texas, Midwest, and Northeastern territories, respectively.

"Each of these manufacturers'



MAINE GOV. JANET MILLS TOURS THE HEAT-PUMP WORKFORCE LABORATORY AT KENNEBEC VALLEY COMMUNITY COLLEGE, WHERE SHE WAS JOINED BY (FROM LEFT) WHITE HOUSE NATIONAL CLIMATE ADVISOR ALI ZAIDI, MAINE COMMUNITY COLLEGE SYSTEM PRESIDENT DAVID DAIGLER, AND DAN BURGESS, DIRECTOR OF THE GOVERNOR'S ENERGY OFFICE.

representative firms have outstanding reputations in the industry," said Scott Meyer, Hoshizaki's vice president of regional sales, "and will help support Hoshizaki's brand awareness in refrigeration as well as specification in the market. We're delighted to have all three join our growing sales channel partners."

Elevate Foodservice Group is a manufacturers' representative agency specializing in food-service equipment and supplies. Its coverage area includes Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont. The company was founded by Mitch Marcotte in 2020. Elevate Foodservice Group utilizes multiple test kitchens along with culinary, inside, and outside sales teams that collectively provide support to operators and channel partners.

Gabriel Group is an organization of highly qualified individuals dedicated to quality representation of selected food-service manufacturers. Starting in 1981, Gabriel Group has grown to represent several of the premier equipment and supply manufacturers in the industry. The people of Gabriel Group have worked to provide exceptional service backed by consistent integrity. They pride themselves on comprehensive, dedicated full-service representation of top manufacturers and strive to offer food-service operators the latest and most up-to-date products to complement industry trends.

Preferred Source is a leading manufacturers' representative firm based in Dallas, Texas. With a commitment to representing quality products, innovation, and exceptional customer service, Preferred Source delivers a comprehensive range of front- and back-of-house solutions to the food-service industry.

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Ferguson Acquires 3 Distribution Companies

Newport News, Va. – Ferguson recently announced the acquisition of three distribution companies: Bruce Supply Corp., a plumbing distributor; The Kennedy Companies, a waterworks distributor; and S. G. Torrice, an HVAC distributor.

All three acquisitions closed in the fourth quarter of the Ferguson fiscal year that ended July 31. Together, the companies generate annualized revenues of approximately \$450 million.

"Bruce Supply, Kennedy, and S. G. Torrice are great cultural fits for Ferguson and will help us better serve commercial mechanical, waterworks, and plumbing and HVAC trade professionals in key growing markets across the U.S.," said Kevin Murphy, Ferguson CEO, in a press release. "All three companies have great reputations and associates with strong local customer relationships that will help fuel our future organic growth."

Bruce Supply Corp. is a plumbing distributor that serves commercial, mechanical, residential, HVAC, and fire and fabrication contractors in the New York City area. Founded in 1969, Bruce is headquartered in Brooklyn and has six locations in New York and New Jersey. With this acquisition, Ferguson enhances its plumbing, pipe, valve and fittings, hydronics, and fire protection and fabrication offerings in the NYC area, the company said.

Founded in 1973 and headquartered in Mount Laurel, N.J., Kennedy is a distributor of piping and related water, storm, sewer, and erosion-control products. Kennedy has nine locations in New Jersey, Pennsylvania, Virginia, and North Carolina. Its acquisition by

Ferguson expands the company's pipe, valve, and fittings, geotextile, stormwater, and erosion-control capabilities to more water and waste treatment plant and municipal customers in the Mid-Atlantic region, the company said.

S. G. Torrice is a distributor of HVAC equipment, parts, and supplies in the New England region. Founded in 1958, it is headquartered in Wilmington, Mass., and has 15 locations in Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont. With the closing of this previously announced acquisition, Ferguson can further serve dual-trade plumbing and HVAC professionals in the New England region, the company said.

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ASHRAE Names Student Design Competition Winners

Atlanta, Ga. – ASHRAE has announced the winners of its 2023 Student Design Competition and the Setty Family Foundation Applied Engineering Challenge.

The competitions recognize the talents and problem-solving skills of students in HVACR, building sciences, and engineering.

This year's Student Design Competition focused on the design of a new laboratory building: a large single-story building with a rooftop penthouse located in Cairo, Egypt. The total building area was approximately 2,515 square meters.

As part of the project, new HVAC systems were to be designed for the facility. The building consisted of a wet bench lab, dry bench lab, research support offices, a common area for circulation, a secured high-density data center room, the penthouse, a common reception area, offices, storage, a resting pods room, and a social room.

Teams competed in one of the three categories: HVAC Design Calculations, HVAC System Selection, or the Setty Family Foundation Net-Zero Energy Design.

First place in the HVAC Design Calculations category went to Jackson Fritch, John Latta, and Clayton Riley of the University of Nebraska. David Yuill, Ph.D., P.E., was the team's advisor. Pete Uhing, P.E., and Brian Kolm, P.E., were the team's industry mentors.

Placing first in the HVAC System Selection category were Lawrence Copestick, Hasan Shwaish, Hitaishi Gopaul, Cian Silaghi, and Zain Tariq of the University of

Sheffield, Sheffield, England. Craig Wootton was the team's advisor.

Receiving first place in the Setty Family Foundation Net-Zero Energy Design category were Thomas Crook, Girish Gudnavar, Mirza Baig, Alex He, and Rodrigo Gonzalez of Loughborough University, Loughborough, England. Dimitris Tseno was the team's advisor.

In the Setty Family Foundation Applied Engineering Challenge, students designed a portable IAQ health meter to detect contaminants in spaces and display the levels of different toxins. The system considered multiple system variables, including space temperature, humidity and contaminant level, as outlined in ASHRAE Standard 62.1, Ventilation and Acceptable Indoor Air Quality, as well as outdoor conditions and other IAQ issues.

Lie Kevin Marcellino Gunawan, Andrew Tanuwijaya, Nur Fharhan Al Fariz, Frederick Ebenezer Leonard, Muhammad Maulvi Mirza Chairat, and Muhammad Arghy Rafidan of the Bandung Institute of Technology, Bandung, Indonesia, won first place. Poetro Lebdo Sambegoro MSME, Ph.D., was the team's advisor.

First-place teams in the Net-Zero Energy Design and Applied Engineering categories will each receive a cash prize of \$5,000 in addition to \$5,000 for the team to travel to the 2024 ASHRAE Winter Conference, January 20-24 in Chicago, Illinois.

Winners of the HVAC Design Calculations and HVAC System Selections will receive a cash prize of \$2,000 as well as funding for a representative from their team to attend the 2024 ASHRAE Winter Conference. The projects will be recognized during the conference.

For a full list of Student Design Competition and Applied Engineering Competition winners, visit www.ashrae.org.

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Daikin Expands in Northwest Region

Seattle, Wash. – Daikin Comfort Technologies North America, Inc. (Daikin) subsidiary Air-Reps acquired the operations and employees of two companies: Integrated Systems and Controls, LLC (Integrated) and InControl. Both companies are currently located in the Seattle metro region and have been in business for many years.

Integrated Systems is nationally recognized for their OEM startup and warranty support services.

Continued on Page 14

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They address some of the most challenging sites and situations relative to complex equipment and applications.

InControl represents many controls and energy management products including control monitoring and metering. The addition of InControl's products and controls support is complimentary to Daikin's continued technology development.

These acquisitions will help Daikin, in conjunction with AirReps, to meet the commercial market's need for integrated services. The combined capabilities these additions will offer Daikin's VRV and Light Commercial business include service capability, remote monitoring, and predictive maintenance programs.

"Both acquisitions will greatly enhance the capabilities of AirReps and will allow us to provide a more comprehensive array of services for our customers," said Takayuki (Taka) Inoue, Executive Vice President and Chief Sales and Marketing Officer for Daikin Comfort Technologies. "This will include an expanded variety of products, controls support and service from start-up and warranty to long term maintenance and repair."

Daikin Industries, Ltd. (DIL) is a Fortune 1,000 company with more than 96,337 employees worldwide and is the world's #1 indoor comfort solutions provider. Daikin Comfort Technologies North America, Inc. (DNA) is a subsidiary of DIL, providing Daikin, Goodman, Amana® and Quietflex brands products. DNA and its affiliates manufacture heating and cooling systems for residential, commercial and industrial use and are sold via

independent HVAC contractors. DNA engineering and manufacturing is located at Daikin Texas Technology Park near Houston, TX. For additional information, visit www.northamerica-daikin.com.

RIDGID Employees Participate in Donation Drive

Elyria, Ohio – RIDGID®, a part of Emerson's professional tools portfolio, and its employees donated more than 400 food and personal care items, including vegetables, canned goods, box meals, pasta and soup to Elyria's Pioneer Freedge as part of a donation drive sponsored by Mosaic, an Emerson employee resource group focused on serving the community, celebrating diversity and creating an inclusive work environment for people working away from their home location.

The Freedge, located at the Elyria Public Library South Branch, is a place where people can leave surplus food items for others to take, reducing food waste and promoting community connections. It operates on the principle of "take what you need, leave what you can."

"RIDGID is proud to be able to make a donation to the Freedge thanks to the generosity of our employees," said Billy Yrad, industrial designer, RIDGID, and coordinator, Mosaic for Emerson. "One of the goals of Mosaic is to participate in activities that bring us together as a community and helping to fill the communal refrigerator is a wonderful way for us to connect and have a positive impact with



RIDGID AND ITS EMPLOYEES DONATED MORE THAN 400 FOOD AND PERSONAL CARE ITEMS TO ELYRIA'S PIONEER FREEDGE. (SUBMITTED)

our Elyria neighbors."

The donation is the latest Mosaic-led supply drive for community benefit. The group last collected school supplies to provide Elyria school students with needed supplies to kick-off the new school year. The group has also participated in several community service activities with Leaders of Today, a local organization helping the youth of Lorain County.

To learn more about RIDGID, visit RIDGID.com.

Emerson's professional tools business, which includes RIDGID as well as the Greenlee® and Klauke® brands, provides the industry's broadest portfolio of advanced, reliable tools and technologies for the mechanical, electrical and plumbing trades globally. Visit emerson.com/professionaltools for more information.

BDR Launches New Virtual Course

Seattle, Wash. – Business Development Resources (BDR), a trusted provider of business coaching and training services for the HVAC, plumbing, and electrical industries, announces HVAC 101 for the Counter, a new live virtual course series that empowers HVAC distributor counter teams with essential knowledge to improve customer service, efficiency, and revenue generation.

"Your parts counter team must have a foundational understanding of the products you sell and how they work," said Matt MacArthur, BDR's Director of Training. "This allows them to deliver a higher level of customer service and efficiency, which leads to increased average tickets and greater customer satisfaction and loyalty."

HVAC 101 for the Counter, scheduled for three sessions in October and November, gives at-

tendees an overview of different types of HVAC equipment and their components, including gas furnaces, heat pumps, air conditioners, and ductless units. In the sessions, attendees will learn why it's important to know HVAC systems and their components and how they work and operate, the different components and accessories available for each type of system, and communication skills for interacting with customers at the counter.

HVAC 101 for the Counter is presented in three two-hour sessions so teams can train without being pulled off the counter for an entire day. The sessions include:

- Gas furnaces, components, and accessories (Oct. 12)
 - Heat pump and air conditioner components and accessories (Oct. 26)
 - Ductless heat pumps, components, and accessories (Nov. 9)
- HVAC 101 for the Counter is part of the ongoing Counter Intelligence training series, designed to provide distribution parts counter and inside sales employees with the knowledge and skills they need to succeed by growing sales and building stronger customer relationships.

To learn more about BDR's HVAC 101 for the Counter training course, visit <https://www.bdrco.com/event/counter-intelligence-hvac-101-for-the-counter/>.

Danfoss Plans RETHINK Live Events on Net Zero Buildings

Baltimore, Md. – Danfoss Climate Solutions invites HVAC consulting engineers, contractors, OEMs, and end users to attend expert-led sessions exploring "The Journey to Net Zero Buildings" on September 7 and September 14.

This year's edition of RETHINK Live North America is dedicated to exploring issues around creating smarter and more energy-efficient buildings to help build a more sustainable future.

Urbanization is changing the global landscape. Cities continue to grow at a fast pace, which means decarbonizing buildings is more important than ever. Nearly 40% of the world's CO2 emissions come from buildings.

"We have decided to carry on with the RETHINK Live event

series to continue advocating for the importance of decarbonization; especially when it comes to buildings. The numbers are clear, and the time to act is now," said Vikas Anand, vice president for sales for Danfoss North America.

Registration is open for the following sessions:

- How to accelerate our journey to Net Zero buildings. A panel discussion on building greener, healthier, and more resilient buildings. Thursday, September 7, 1-2 p.m. Eastern time.
- Danfoss Smart Store: Getting to Net Zero buildings and the role of smart technology. A Danfoss food retail expert shows how Danfoss is leveraging smart technologies to reduce carbon emissions, improve energy efficiency, and make the green transition easier and more effective. Thursday, September 14, 1-1:45 p.m. Eastern time.
- Data Center Trends. Danfoss data center experts talk about how to best achieve ESG and sustainability goals through decarbonization. Thursday, September 14, 2-2:45 p.m. Eastern time.

• How hydronic balancing helps heat-pump systems deliver year-round efficiency. A session addressing how to get the highest possible seasonal coefficient of performance (SCOP) from a heat pump – boosting flow and temperature stability, increasing system lifetime, and maintaining consistent seasonal performance. Thursday, September 14, 3-3:45 p.m. Eastern time.

For registration and further details on the sessions, please follow this link: <https://bit.ly/44E0LnH>

RETHINK Live is a global event series from Danfoss Climate Solutions, launched in 2021.

Honeywell Forms Partnership with Interise for Small Business Program

Atlanta, Ga. – Honeywell has entered into a partnership with Interise, a not-for-profit with award-winning small business programs, to create a pipeline of minority- and women-owned business enterprise (MWBE) subcontractors for Honeywell and others in and around Boston.

The program, called Interise Equity Contractor Training Sponsored by Honeywell, is accepting applications for the 2023 inaugural year.

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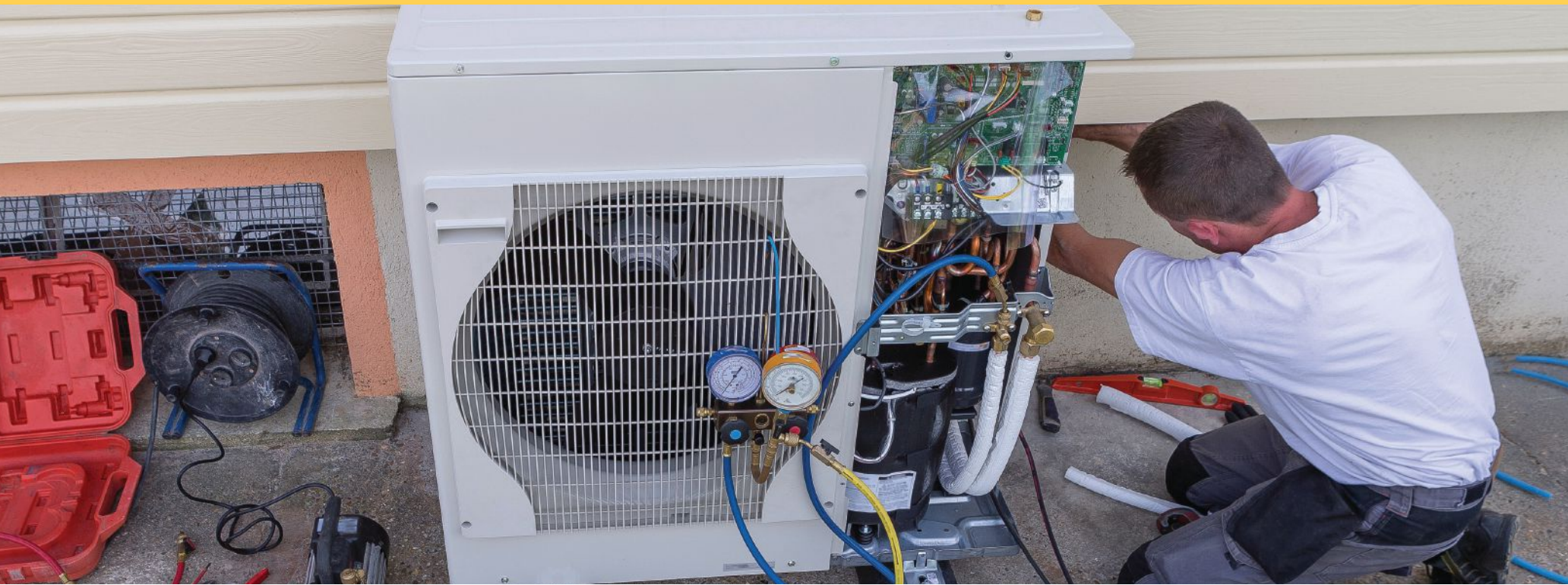
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Oct. 4 & 5 | 8 a.m. to 5 p.m. PT | Tulare, CA

IHACI Non-Res Acceptance Testing Employer Training (Two-Part Series)

Oct. 11 & 12 | 6 p.m. to 9 p.m. PT | Irwindale, CA

IHACI NATE Certification Training (Eight-Part Series)

Oct. 11, 12, 18, 19, Nov. 1, 2, 15 & 16 | 6 p.m. to 9 p.m. PT | Tulare, CA

NCI Residential Air Balancing Certification Training*

Oct. 12 | 8 a.m. to 5 p.m. PT | Anaheim, CA

IHACI Non-Res Acceptance Testing Technician Training (Two-Part Series)

Oct. 18 & 19 | 6 p.m. to 9 p.m. PT | Irwindale, CA

Low GWP Refrigerants – Concerns, Transition and Safety

Oct. 24 | 6 p.m. to 8:30 p.m. PT | Webinar

Non-Invasive Refrigerant Charge Verification of Existing HVAC Systems

Oct. 25 | 6 p.m. to 8:30 p.m. PT | Webinar

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GS Series Premier Wall-Mounted Units

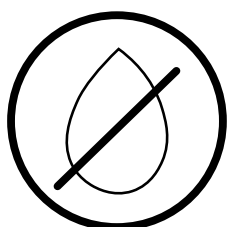
The MSY/Z-GS Wall-mounted Indoor Units provide a variety of application options as a single-zone heat pump, multi-zone heat pump, or H2i® Hyper-Heating INVERTER® heat pump. Its counterpart, the MSY-GS, is a single-zone air conditioner for climates where heating is unnecessary. Also, a newly designed text-based remote control is standard with the GS Series.

Contact your distributor sales representative or Mitsubishi Electric Area Sales Manager now for additional information and pricing.



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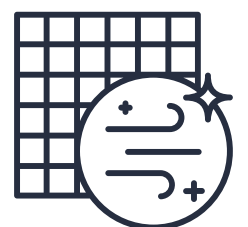
Our patented technology prevents build up of dust, fibers, oils and smoke on system components.



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The first Premier wall-mounted Hyper-Heat M-Series with capacities including 9-24 kBTU/H



Optional PM2.5 filter brings better indoor air quality by removing particulate matter (PM) with a diameter of less than 2.5 micrometers

Quick Specs (Wall-Mount Units)

- Capacities: 6,000 to 36,000 BTU/H
- Sound: As low as 19 dB(A)
- SEER2: Up to 28.4
- HSPF2: Up to 10.9
- COP: Up to 4.44
- ENERGY STAR®: Most systems

Scan this QR code for additional technical data from LinkDrive on the GS Series



The GS Series have a wide variety of applications



Extensive Range Capacity

The MSY/Z-GS wall-mounted indoor units offer our highest design flexibility. Combinations include single-zone (cooling only or heat pump) and multi-zone (heat pump or hyper-heating heat pump) systems, a large selection of size ranges from 6,000 to 36,000 BTU/H.

Powerful Operation

Depending on the capacity, the unit will automatically adjust the fan speed and set temperature for 15 minutes. Rapid cooling and heating will make the room comfortable quickly.

GS24, GS30/36 Models Only

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Carrier Abound Net Zero



Carrier's Abound Net Zero Management, a digitally-enabled lifecycle sustainability solution that provides building owners and managers a way to measure, track, view and report energy and carbon performance across their entire property portfolio to help meet environmental, social and governance (ESG) goals.

Abound Net Zero Management provides tracking and reporting of information in a single application, making energy and emissions data accessible to key stakeholders including health and safety professionals, and energy and facility managers. Users can generate different reports on energy consumption, GHG emissions and proactively identify conservation actions for buildings.

The features of Net Zero Management allow an organization to track and analyze energy performance in an individual building, across multiple sites or benchmark against a set of buildings. Customers can then identify underperforming equipment or buildings, prioritize specific energy and carbon reduction measures, fix operational issues such as inefficient scheduling and institute new energy and carbon reduction initiatives.

More information:
www.carrier.com



Daikin Applied Trailblazer HP



The Trailblazer HP from **Daikin Applied** is an air-cooled scroll chiller that uses heat pump technology to deliver electricity-powered heating and cooling for commercial buildings and industrial processes. The air-to-water heat pump chiller provides a reversing function that allows the chiller to switch between cooling and heating modes based on the tempera-

ture requirements of the space or process being conditioned.

In a cooling application, the refrigeration cycle allows for heat removal from the internal space, dissipating excess heat into the external air. In heating mode, the refrigeration cycle reverses and transfers heat absorbed from the outside air into the internal space or process.

Available as a stock unit, Trailblazer HP's design allows for easy installation in new and retrofit applications, making it ideal for office buildings, schools, commercial retail spaces and a range of other facilities.

More information:
www.daikinapplied.com



LG Multi V i



The **LG Multi V i** is a wholly redesigned, innovative, intelligent, and interactive variable refrigerant flow (VRF) all-electric cooling and heating system.

Multi V i includes many specifications and new features, including an A.I. Engine, Edge computing architecture, real-time weather-based control, and remote software and firmware upgradability.

Multi V i has a single refrigerant circuit that connects many indoor units to one outdoor unit. It provides options to maximize energy efficiency while minimizing operational costs for a wide range of commercial applications.

The Multi V i's capacity capabilities range from 6 to 44 tons in single and dual frame modular configurations, offering engineers and building owners flexibility in performance and design. LG's Multi V i features an inverter compressor that improves energy efficiency and enhances compressor reliability.

More information:
www.lg.com/us



Lochinvar Veritus

Lochinvar's Veritus Heat Pump Water Heater (HPWH) serves as a sustainable option providing energy savings and reliable domes-



tic hot water for a wide variety of commercial applications.

ECM pumps, fans and a scroll compressor work together to enable Veritus to operate with a high coefficient of performance (COP), optimize heat transfer and minimize emissions.

Veritus heat pumps are modular, meaning units can be manifolded together, ensuring ample hot water supply, built-in redundancy and capacity matching for larger commercial water heater demands.

The unit's competitive footprint and modular design allow for versatile application in healthcare, fitness clubs, multifamily and other commercial buildings, aligning with recent regulations promoting high efficiency heat pumps.

The modular design affords installing contractors the option to transport individual models to a rooftop in a freight elevator, rather than having to move larger models as one piece.

More information:
www.lochinvar.com



Midea IN Cassette



The **Midea** central inverter heat pump system represents the latest innovations in inverter heat pump technology, offering homeowners and HVAC service providers a flexible, energy-efficient electric heating and cooling system that doesn't compromise on comfort. Midea heat pumps qualify under the Inflation Reduction Act's criteria, making users eligible for tax credits up to \$2,000 – on top of rebate offerings from utility companies that incentivize homeowners to replace gas or traditional electric HVAC systems using heating strips.

The Midea IN Cassette represents a breakthrough in heat pump technology given its built-in design, blend-in style and energy efficiency. The IN Cassette is ready-to-fit into the home joist spaces, making it an ideal option

for new homes, additional spaces and conversions at a later date. Users can precisely heat and cool the needed spaces and spots throughout their homes – its industry-exclusive compact size means it can fit just about anywhere.

With the HangUp Installation, hangers with optimized anti-cutting design are easy to grab and lift up, preventing hands from scratching by the sharp edge. The PushIn Installation technology contains unique & exclusive screws-in design for easy installation options. Installers can plug in the IN Cassette unit between the joist and fix it on the beams with screws. No more climbing up and down, as the Elevation Panel itself can lower and raise. By activating the Elevation Panel function on the remote, or smart controller, the panel will go straight down to you for easy filter access. The built-in water pump can discharge the condensate water, so there's no need to add an extra water pump to the side of the unit.

With leading energy efficiency (up to 18.4 SEER2), cold climate performance (capable of 100% heat output down to -4 degrees Fahrenheit) and compatibility (able to mix and match with existing ducted and ductless equipment), Midea is making heat pump technology mainstream in American homes.

Midea heat pump systems take customer and contractor concerns into account. There is something for everyone: an advanced yet affordable system; an easy-to-install system that can adapt to most of the installation conditions and changing demands; an energy-efficient system that doesn't compromise on comfort. Midea systems are designed to provide flexible and compatible HVAC improvement solutions for every home or business.

Traditional heat pump systems may encounter lockout in severe conditions, but this is not the case for the Midea line of heat pumps. With the EVOX Extreme Cold Climate Heat Pump, Midea systems can deliver 100% or more heating output in temperatures down to -4°F.

Designed in close collaboration with U.S. HVAC contractors, Midea heat pump systems are also a game changer thanks to their unprecedented flexibility, providing versatile solutions to solve many of the most pressing barriers for contractors and consumers including the ability to mix and match with existing equipment (even non-communicating) and

the ability to adapt to most installation conditions.

More information:
www.midea.com



RenewAire HE10



The new **RenewAire HE10** is a redesign of the current HE Series of commercial energy recovery ventilators (ERV) and replaces the HE1X and the new HE07 joins the HE Series as a redesign of the former EV450 ERV.

The new HE Series redesigns offer backward curved impellers and EC motors as a standard. The HE10 and HE07 also have significant CFM increases in ranges of 250-1,150-CFM and 200-700-CFM, respectively.

The HE07 offers balancing capabilities, due to independent exhaust and supply air blower motors, versus the former EV450's single blower motor. The dual motors enable field-adjustable exhaust/supply air balance ratios for efficiency and effectiveness.

The HE Series' other features include the latest generation of UL-listed G5 static-plate core, availability of Dial-A-Flow digital controller or compatible BMS controlling, tested and passed under AHRI 1060, differential pressure control that accommodates both 2-inch MERV 8 standard filters or higher static with 2-inch MERV 13 option, and new motor, impeller and AC/DC power supply, meets IEC-2021 Fan Efficiency Index (FEI) guidelines, and more.

More information:
www.renewaire.com



Saniflo U.S.A. Sanicondens

Saniflo U.S.A. has introduced a sleek, lower-profile version of its Sanicondens Best condensate pump, with nearly double the tank volume and capable of serving multiple mechanical systems, up to a total of 500,000 Btu per hour.

Like its two-in-one predecessor, the new Sanicondens Best Flat combines a condensate pump with

Continued on Page 20



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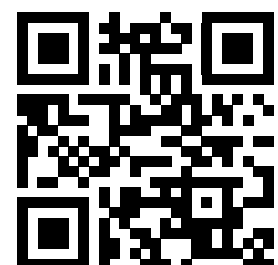
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Continued from Page 18

pH-neutralizing pellet tray into a single, space-saving, environmentally friendly solution for today's ultra-high-efficiency condensing equipment, both residential and commercial: boilers, water heaters, air-conditioning and refrigeration systems, and other appliances.

Condensing technology saves

energy by maximizing the amount of heat energy transferred to the water during the combustion process. A by-product of this high-efficiency process is water, or condensate, that tends to be acidic because of the chemical reaction caused by the heat of the gas burner. The higher the efficiency rating, the higher the acid level in the water runoff.

If this runoff drains through a

home's or a building's plumbing system, piping could corrode over time. Pumping the waste outdoors or into sanitary sewers could contaminate the groundwater or degrade the local water infrastructure. For homes with septic tanks, condensate waste might also destroy the good bacteria that is essential to keeping the system operating properly.

"Many times, condensate cannot

drain adequately via gravity, usually because the application lacks conventional, below-floor drainage," explains Saniflo CEO Regis Saragosti. "This problem can cause property damage or even create health hazards by adversely affecting indoor air quality."

But the Sanicondens Best Flat uses a built-in neutralizer

to boost the pH of the acidic condensate before it can be discharged into a drain line – thus preventing corrosion. Its streamlined design incorporates two 1-inch inlets: on the side and the other on the top near the neutralizer tray. Condensate entering the system automatically activates a float mechanism that, in turn, starts the motor whose spindle/shaft drives the impeller. The condensate is neutralized as it comes into contact with the neutralizer pellets in the tray before being pumped safely away through a 3/8-inch discharge line into the sanitary sewer or a septic tank.

Made of a durable polypropylene, the 12-pound Sanicondens Best Flat may be installed on a level floor surface or wall-mounted, using a plastic mounting guide. This guide is first screwed into the wall, so that the condensate pump can easily slide into it. "It is a very simple installation," says Saragosti.

More information:
www.saniflo.com.



.....
**Uponor
Smatrix Pulse**

Uponor is introducing the newest dimension of smart home technology with Smatrix Pulse – a solution that offers precise wireless comfort control of radiant heating and cooling along with forced-air heating and cooling in multiple zones throughout a structure. Now, contractors can install faster and easier, and homeowners can enjoy the ultimate luxury of radiant and air-side comfort with one system that connects to a smart home assistant and can also be controlled remotely via an app.

Designed for single-family residences in new construction, retrofit, and remodel applications, Smatrix Pulse provides connection to a smart home assistant for voice-activated control and allows remote control anywhere with Internet via the Smatrix Pulse App, which can be downloaded from Google Play or the Apple App Store.

The system provides faster, easier installations for professionals with the app's Installation Wizard, which requires no Internet, and the wireless thermostats – which have a maximum distance of 98 ft. (30 m) from the controller – eliminate the time, cost, and hassles of running wires. In addition,



Contractor Collaborative Platform



Program Overview

The Contractor Collaborative Platform (CCP), a collaboration between SoCalGas and Affinity Engineering (AE), provides participating contractors with a \$200 bonus for every qualifying energy-efficient central natural gas furnace and \$150 bonus for every qualifying energy-efficient natural gas tankless water heater they install at single family, multifamily (in-dwelling), and/or commercial properties within the SoCalGas service territory and have an active SoCalGas account.

How to Participate

Contractors must first enroll through AE. After completing a no-cost energy efficiency training and being accepted into the program, participants should submit paid invoices and other required project information for bonus processing and approval. Contractors will also need to attend an additional energy efficiency training every six months to maintain CCP eligibility.

Available Bonuses and Rebates

Participating contractors must install natural gas furnaces and/or tankless water heaters that meet the following annual fuel utilization efficiency (AFUE), uniform energy factor (UEF), or thermal efficiency (TE) requirements.

| Product Type | Property Type | Required Efficiency | Rebate Amount* | CCP Bonus |
|-----------------------|---------------------------|-----------------------|------------------|-----------|
| Furnace | Single Family | 92%+ AFUE | \$115-\$1,000 | \$200 |
| Tankless Water Heater | Single Family | .82+ UEF | \$80-\$1,000 | \$150 |
| | Multifamily (In-Dwelling) | .82+ UEF | \$80 | |
| | Commercial | .81+ UEF (<200 kBtuh) | \$.45-\$7/ kBtuh | |
| .84+ TE (≥200 kBtuh) | | \$3-\$15/ kBtuh | | |

* Rebates belong to SoCalGas account holders but may be signed over to contractors.

End users may also utilize the SoCalGas Home Energy Efficiency Rebate, Multifamily Rebate, or Energy Efficiency Rebates for Business Programs to obtain rebates. For rebate information, visit socialgas.com/rebates.

Contact

Affinity Engineering
903-265-9652
CCP@affinityengr.com



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The Contractor Collaborative Platform (CCP) Program is funded by California utility customers and administered by SoCalGas under the auspices of the California Public Utilities Commission, through a contract awarded to Affinity Engineering. Program funds, including any funds utilized for contractor bonuses, will be allocated on a first-come, first-served basis until such funds are no longer available. This program may be modified or terminated without prior notice. Contractors who choose to participate in this program are not obligated to purchase any additional goods or services offered by Affinity Engineering or any other third party. The selection, purchase, and ownership of goods and/or services are the sole responsibility of contractors. **SoCalGas makes no warranty, whether express or implied, including the warranty of merchantability or fitness for a particular purpose, of goods or services selected by contractors. SoCalGas does not endorse, qualify, or guarantee the work of Affinity Engineering or any other third party.** Affinity Engineering is a SoCalGas authorized contractor responsible for implementing this program through 3/31/2024. Eligibility requirements apply; see the program conditions for details.

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the innovative auto-balancing technology eliminates the need for manual balancing, adding even greater efficiencies for installers, while also providing faster system reaction times and greater energy savings for homeowners.

“Smatrix Pulse is the ultimate comfort control solution for both installers and homeowners,” says Aaron Stotko, director, Segment Marketing, at Uponor. “It provides greater productivity and profitability potential for professionals along with more precise system control anytime, anywhere for homeowners.”

The control system includes one or multiple controllers, an optional communication module (for Internet and smart home connectivity), an antenna (for systems without Internet or smart home connectivity), an expansion module, a relay module, digital thermostats, mini sensors, and actuators.

A single controller configures up to six thermostats, eight actuators, and one remote relay using local networks. Adding an expansion module adds six more thermostats, eight more actuators, and one more remote relay to the controller. For extremely large residences, a controller with antenna can connect up to four controllers and expansion modules for a total of 48 zones.

More information:
www.uponor.com/smatrix-pulsecontrol.



U.S. Boiler Citadel and Citadel XL

The Citadel from **U.S. Boiler** is available in five capacities (399 - 1000 MBH) and the Citadel XL is available in 1250 and 1500 MBH capacities.

AHRI certified and rated up to 97% thermal efficiency (98% for water heater), the Citadel is available in either a natural gas or propane configuration. The Citadel can be stacked two-high without the need for accessory racking systems, while the Citadel XL can be stacked with a rack system. Zero side and top clearance

optimizes the amount of BTUs offered per square foot. Because the Citadel is designed for the widest variety of applications, it's sold complete out of the box. Included at no additional cost are the low water cutoff and high and low gas pressure switch making the boilers CSD-1 compliant.

A standard, reinforced 3-in-1 vent connector facilitates the use of polypropylene, CPVC or stainless steel venting on the Citadel. Venting of up to 300 equivalent feet (combined) of vent in AL29-4C, polypropylene or CPVC is acceptable. Modbus communication also comes standard.

In addition to standard 10:1 turndown and 300 GPM maximum flow rate, an outdoor model is also available for all but the largest models at no additional charge.



Citadel XL models are available with 208/60hz/1ph and 230/60hz/1ph electrical options.

More information:
www.usboiler.net.



Weil-McLain ECO Tec

The future of residential comfort heating has arrived with the introduction of the ECO[®] Tec high-efficiency boiler from **Weil-McLain**, North America's leading boiler

manufacturer. The new ECO Tec is a high-quality boiler that meets nearly all residential application needs including multi-zone and combi applications. It features a long-lasting fire tube heat exchanger and is available in combi versions with response time and domestic hot water (DHW) output designed to meet the demanding needs of residential replacement applications. ECO Tec is easy to install, use and service, operates whisper quiet, and is among the most energy efficient residential boilers available today.

ECO Tec is available in four heat only sizes ranging from 80 to 199 MBH. The combi versions are available in three sizes – 110, 150 and 199 MBH – with hot water output up to 5.4 gallons per minute (GPM) and features Weil-



McLain's advanced ECO BOOST[™] technology to provide rapid DHW response. ECO Tec also includes built-in zone control, connects up to four thermostat inputs and features an easy-to-use setup wizard and heating system presets.

“ECO Tec is a premium residential boiler designed to provide entire home comfort and offers

Continued on Page 27



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UP TO 20 SEER Inverter Heat Pump



Inverter Compressor
Compressor modulates up and down to meet the required heating or cooling load. This modulation dramatically decreases energy consumption!



High Efficiency
A fully inverter driven compressor delivers efficiency levels up to 20 SEER with select systems.



Quiet Operation
Standard operation produces a mere 62 decibels making this one of the quietest units on the market.



Comfort In Any Environment
Ultra units can provide heat when outdoor temperature is as low as -22 degrees fahrenheit and provides cooling when outdoor temperature is as high as 130 degrees fahrenheit.



Installation Flexibility
The side discharge outdoor unit can fit in tight spaces where a standard unit cannot.

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Troubleshooting

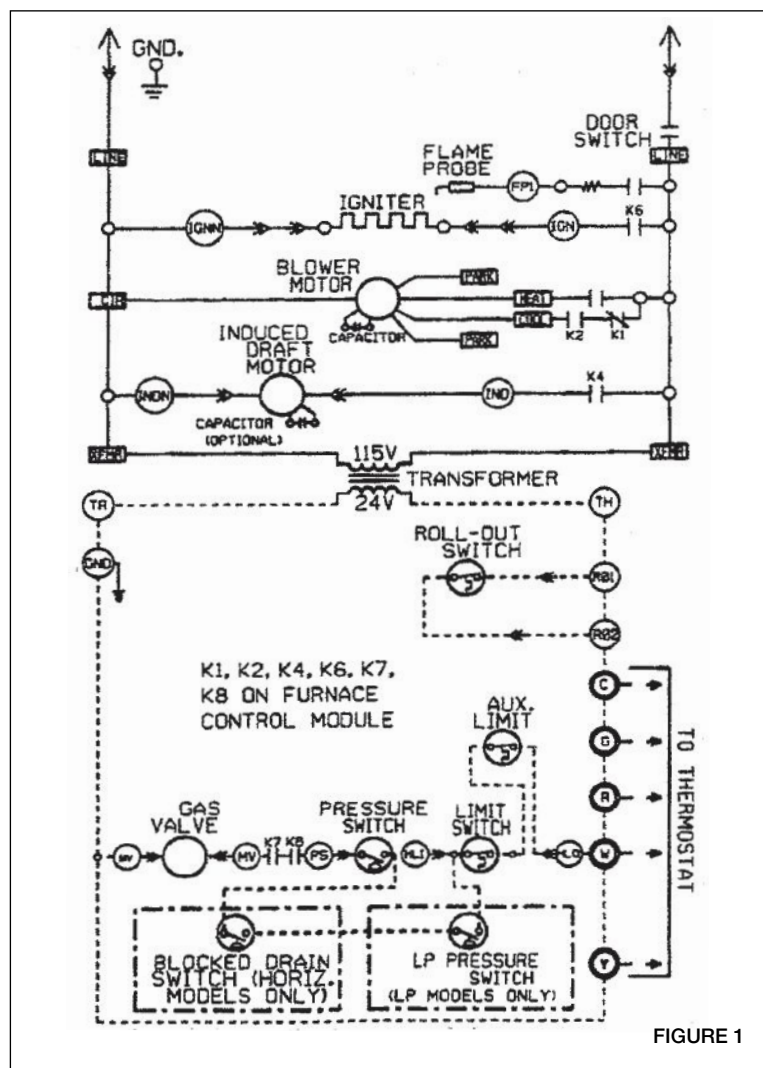


FIGURE 1

A Gas Furnace That's Operating Intermittently

By Jim Johnson
Contributing Editor

This month's troubleshooting situation centers around a natural gas, induced draft, hot surface ignition system furnace. This is a new installation that has been accomplished in anticipation of the upcoming heating season, and the problem is that during the initial start-up the unit did not perform properly.

The customer's description of the problem is that in one test cycle, the glow coil will ignite the fuel properly, while in another test, the burner shuts down prematurely. They also note that in some cases when the unit is started, the induced draft motor operates, then shuts down before the ignition is accomplished, but after disconnecting the power supply, the draft motor operates long enough to allow ignition, which can lead to burner ignition and blower motor operation in some instances. However, even if a complete sequence of operation is accomplished, the furnace shuts down prematurely

even though the thermostat is set above the room temperature.

Since your initial evaluation of the mechanical and fuel aspects of this installation show no issues, you begin troubleshooting the electrical system (see the schematic diagram in **Figure One**), and you verify the power supply with the following tests:

.... L1 and L2 connections to the unit: 115 VAC

.... Checking at the wiring connection at the power-in connection of the door switch to ground: 0 VAC

.... Checking the opposite side of the line to ground: 115 VAC

Your troubleshooting question: *What is the next step we need to take in servicing this equipment?*

If you believe you have the correct answer to one of Jim Johnson's Troubleshooting Problems, please submit it by email to Jim Johnson at icntroubleshooting@techtrainassoc.com or by U.S. Mail to: Technical Training Associates, PO Box 2259, Green Valley, AZ 85622-2259.

Mail to: Technical Training Associates, PO Box 2259, Green Valley, AZ 85622-2259.

In your email subject line please include "Troubleshooting Answer" and indicate which month the question you are responding to was published.

Correct answers will be entered into a drawing and will be eligible to receive a copy of Jim Johnson's video "Evaluating Refrigeration Systems: Troubleshooting & Identifying Problems."

Answer to Last Month's Troubleshooting

This equipment is unable to maintain proper cabinet temperature due to a mechanical failure of the compressor.

The winner of last month's troubleshooting is:

Youn Sungjin

Technical Training

Growing Green Technicians Part 167: Fittings in Air Flow Systems

By Jim Johnson
Contributing Editor

We're heading into early fall weather soon, which is a good time to discuss some of the air flow performance issues technicians may encounter while responding to customer requests for maintenance checks and tune-ups this time of year.

Looking back to the recent severe summer conditions, we're reminded that technicians often find themselves dealing with complaints that some systems are just not keeping the building near that 75-degree/50% relative humidity comfort level we want to achieve while maintaining sufficient air flow throughout the conditioned space. And looking ahead to upcoming winter conditions, we want to consider that while some areas a building may be comfortable during the heating season, other areas are too warm, or a particular room in a structure is always too cool.

There are several aspects for technicians to consider in regard to these situations, such as balanc-

ing by adjusting supply registers, or testing for proper temperature rise in the heating mode. When looking deeper into the situation, though, technicians taking a green approach to evaluating system performance can also consider not just the operation and balance of the supply duct system itself, but whether the original design of the distribution system may have been affected by unexpected construction situation or other factors. In **Figure One** we're showing a simple illustration of an air handler with what is known as a standard elbow.

This is considered to be a good installation because of two factors that are considered regarding elbow design. These factors, known as CR (Curve Ratio) and RR (Radius Ratio), explain the rate of turn in an elbow, and from a numbers perspective it's generally accepted that an elbow with a curve ratio of 0.5 and a radius ratio of 1.5 will promote proper air flow through the supply duct system.... at least as proper as it can be.

The bottom line on any elbow is that even if it's as good as it can be, it doesn't perform perfectly when

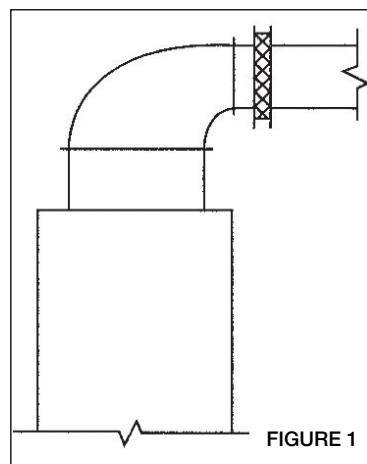


FIGURE 1

it comes to allowing air to change direction. As **Figure Two** shows, there will always be some turbulence created when air exits the discharge side of an elbow.

This illustration shows what happens in a given segment of a straight duct run after the air is delivered from the elbow. The term that relates to this type of turbulence is AR (Aspect Ratio), which describes a given amount of friction loss in an elbow or a straight run of duct based on the width and depth of a fitting or section of ductwork. It is generally accepted that a ratio in the range of 0.75 to 3.0 will not adversely affect the flow of air.

However, what also shows here is that even if this system is

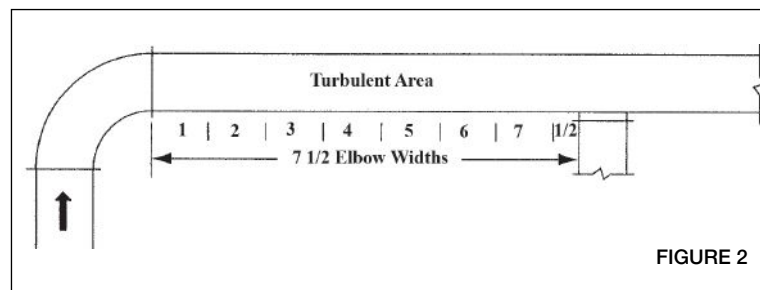


FIGURE 2

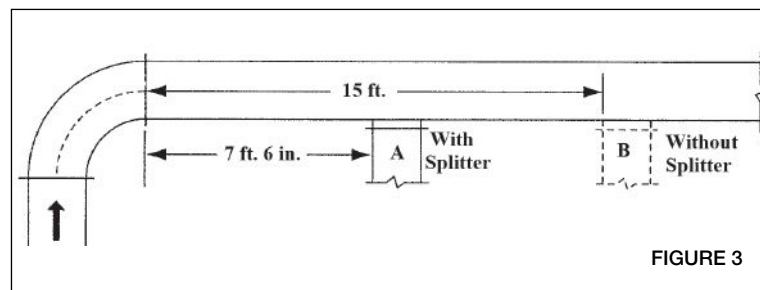


FIGURE 3

operating properly and according to design, a take-off has to be a minimum distance away from the elbow discharge in order to deliver air properly to a branch. In this case, it's shown as 7 1/2 elbow widths, which in this example is actually 15 feet in length.

Getting back to the point we mentioned earlier about an unexpected construction situation, if a take-off had to be installed closer to the elbow discharge, that branch duct would not deliver supply air properly. Which leads us to the installation of a splitter in

the elbow. As **Figure Three** shows, this modification to the fitting would allow us to position the take-off as required according to the construction restrictions, closer to the elbow, and taking this step would promote proper air flow through the branch duct.

The end result of modifying the elbow with a splitter installation would be that a balance of air flow in both the cooling and heating modes could be achieved, ensuring that the equipment would operate efficiently and ensure the desired comfort level in the building.

Product Spotlight

Fieldpiece Instruments Launches Innovative Interchangeable HVACR Hoses, Accessories

Fieldpiece Instruments, the leading manufacturer of HVACR tools pros trust, announced the launch of a new line of hoses and fittings featuring two key types of premium hoses: charging hoses and vacuum hoses, with accompanying accessories and a variety of different fittings perfect for all HVACR charging, recovery and evacuation needs.

“Every Fieldpiece product is designed to make the HVACR pro’s job easier, faster and better – and our new hose line is no exception,” explains Jeb Ball, vice president of sales and marketing at Fieldpiece Instruments. “Our A2L-compatible, black hoses can withstand extreme use, and their unique color tagging system increases versatility in the field by making hoses easy to identify and customize.”

Fieldpiece designed its charging and vacuum hoses in a universal black to allow each hose in a set

to function as a spare for any other, removing limitations that technicians typically experience when using traditional yellow, blue and red colored hoses.

Sturdy colored tags snap onto each hose for identification and customization. This contemporary approach reduces the number of spare hoses field techs must carry and decreases errors by allowing technicians to easily mark hoses that are specific for particular use cases or refrigerants. Additionally, the highly flexible hoses allow a tight bend radius ideal for cramped locations and compact storage, provide a good grip even in oily hands, and won’t degrade over time from UV and oil exposure.

Fieldpiece hoses also feature durable triple-ring crimped fittings for increased reliability even at high pressure, and greater pull strength than a traditional single-crimp or



NEW FIELDPIECE A2L COMPATIBLE HOSES AND FITTINGS FOR REFRIGERANT CHARGING AND RECOVERY.

hex-crimp where if one crimp fails, the entire hose fails. With triple-ring crimped fittings, redundant crimping ensures the hose still maintains pres-

sure – extending hose life with fewer leaks and less frequent need for replacement.

Fieldpiece hoses also have smaller diameter low-loss fittings and low-abrasion, knurled brass fittings, offering an improved feel while still providing a solid grip. An added premium feature is the compact ball valve knob design that reduces inadvertent refrigerant release if bumped, protecting users from accidental refrigerant burns.

All hoses are UL 1963-compliant, third-party tested and compatible with industry standards (SAE J2196, SAE J2888 and SAE J513) for refrigerant recovery and recycling. Hoses are A2L-ready with durable four-layer construction; have neoprene gaskets for a lasting seal even when exposed to harsh temperatures and lubri-

cants; and are certified for 4000 psi burst pressure and 800 psi working pressure.

Fieldpiece charging hoses are available in 3-packs or individually to fit both a quarter inch standard and five-sixteenths inch split system service ports. Vacuum hoses are sold individually to mate with either three-eighths or quarter inch port sizes. Accessories such as ball valve and open hose extensions as well as straight and angled split system adapters are part of the new lineup along with replacement gaskets and extra hose color tags.

To learn more about Fieldpiece hoses and accessories, see the Fieldpiece website: <https://www.fieldpiece.com/product-category/hoses-and-fittings> and visit your local Fieldpiece distributor for purchase: <https://www.fieldpiece.com/where-to-buy>.

Industry News

Continued from Page 14

The initiative will also support Honeywell Energy Solutions Group’s existing multi-phase Energy Savings Performance Contract (ESPC) program with Boston as part of the Renew Boston Trust program to help achieve energy and carbon reductions in city-owned historic buildings. Honeywell was recently awarded one phase of the project, in part due to its collaboration with Interise, which enables the company to significantly exceed the city’s minimum MWBE requirements, with 85% of the contract value going to MWBE contractors.

“Older buildings mean older systems, which is why we set out to help the city of Boston achieve its sustainability and infrastructure goals. Along the way, we found an opportunity to also complement the city’s diversity and inclusion activities by starting at the foundation – its inspiring workforce,” said Stefano D’Agostino, vice president and general manager of Sustainable Buildings Honeywell.

In 2021, a report commissioned by the city found that just 11% of city contracts went to businesses owned by women or people of color, with only 1.2% being awarded specifically to Black- or Hispanic-owned businesses.

To combat this disparity and create a competitive MWBE contractor pool in the Boston area, Honeywell and Interise are working to provide the owners of small

businesses with the knowledge and networks needed to grow their businesses. Using Interise’s StreetWise MBA curriculum, contractors can gain a strong focus on business management and procurement expertise.

“Interise is thrilled to work with Honeywell to bring much-needed assistance to minority- and women-owned businesses in Boston,” said Darrell Byers, CEO, Interise. “These small business owners face challenges on a daily basis, and our programs aim to provide them with practical knowledge and practices they can use to thrive, as well as support the small business ecosystem in making system changes for better outcomes.”

The Interise Equity Contractor Training Sponsored by Honeywell program is free and consists of 13 sessions that will meet for three hours every other week, subject to availability and eligibility requirements.

Honeywell since 2019 has supported upgrades to municipal buildings around Boston, including schools, fire stations, police stations, and libraries. Honeywell leads planning, design, construction, and support services while working with local contractors to execute projects, which include upgrades to HVAC systems and lighting, water conservation, building weatherization, solar power, and more.

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Product Spotlight

New Tech Providing Contractors with More Options for Light Commercial, Residential

During the past decade or so, HVAC systems have evolved dramatically. Installers who left the field a decade or so ago would recognize only some of the main system components. What's changed – and still evolving – are many of the operations and controls that greatly enhance system function and efficiency.

In 2005, an air conditioning system considered “high efficiency” might have offered 14 SEER. Today, systems don't even enter the high efficiency category with less than 26 SEER – an efficiency jump of 30 to 80 percent or more. (Each rise of 1-SEER represents roughly a 10% improvement in energy consumption.) Split system heat pump systems now also offer COPs (coefficient of performance) ratings as high as 4 or 5 – meaning that they provide 400 to 500 percent efficiency!

In the ultra-high efficiency category, air-to-air split and VRF (variable refrigerant flow) heat pump systems offer operational efficiencies all the way up to 33+ SEER, and at ambient temperatures as low as -15°F, without the expense and invasive installation required by geothermal systems.

VRF systems initially entered the domain of commercial systems. They've since moved confidently into the residential market, allowing incredible installation and comfort flexibility. When VRF systems first came to the U.S., only large, three-phase systems were available. Today, much smaller, single-phase VRF systems are rapidly gaining prominence in the light commercial and residential market. These systems provide longer refrigerant line lengths, more numerous indoor zones per outdoor unit and larger capacities per system.

Larger, three-phase VRF systems have the ability to provide heat recovery, which allows load-sharing and simultaneous heating and cooling throughout a building. Fujitsu's Airstage heat recovery VRF systems extract thermal energy from areas that need cooling, rejecting it into spaces that need heat.

Many advances have also been made in the pairing of traditional HVAC systems with a host of sustainable technologies such as solar PV, power storage, split heat pump water heaters and energy recovery ventilation (ERV). It's amazing what a 5 to 10 kW solar array can provide toward the operation of these amazingly efficient systems, especially when paired with technology like Tesla

Powerwall batteries for storage capacities of 20 to 50 kWh or more.

Federal mandates and incentives have also changed. Descriptions like “strategic electrification” – predicated on the assumption that the electric grid will become increasingly renewable with greater use of solar, wind, and other renewable technologies – and “decarbonization” have also appeared into our industry's vernacular, with far-reaching significance.

Smarter technology

Old school, on-off technology for any type of HVAC equipment has lost its appeal entirely. The new approach is the use of equipment that continuously modulates its capacity to match real-time heating or cooling loads.

Inverter technology in air conditioners and heat pumps is accomplished through a single-phase 220-volt circuit that's run to the condenser, where it's converted to 380-volts DC and is then channeled through a bank of capacitors to provide a stable, clean electrical current. DC current is then modified to simulate three-phase AC current. Three-phase motor speeds are then accurately controlled, with refrigerant flow metered to match blower and compressor speeds.

All the homeowner needs to do is set the desired temperature or humidity level and leave the rest up to the equipment. The “brain” behind it: a computerized logic module in the outdoor unit that communicates with system sensors and indoor air handlers. Together, the indoor and outdoor units are continually monitoring temperatures inside and out. Sensors feed this information to the logic module. If anything goes wrong, a fault code identifies the challenge. This way, homeowners can often take care of minor issues without the need to call for service. Or, if a technician is needed, they can respond to more detailed fault codes.

Inspired Green Builder

A decade ago, one of the “greenest” home builders in North Carolina, a firm widely recognized for green innovation and commitment to environmental sustainability, took their commitment to high efficiency HVAC to a new level.



A SERVICE TECHNICIAN ATTENDING TO A FUJITSU AIRSTAGE VRF SYSTEM.

Anne & Bradshaw General Contractors, Inc., based in Wrightsville Beach, NC chose “green build” as their strategic path. “We've never regretted the move,” said Pamela Fasse, general contractor and partner in the firm. “I've considered myself an environmental builder for many years, with a focus on energy efficiency and sustainability, but went all-out ‘green’ for good reason.

“We feel it's important to stay current with conservation techniques to minimize cost without sacrificing comfort,” added Fasse. “There's a level of global responsibility at work, but we force ourselves to think locally.”

One of the key contributors to Anne & Bradshaw's green-build approach was the embracing of ductless mini split air conditioning and heat pump systems. My husband and I settled on equipment manufactured by Fujitsu, a product line that exceeded our expectations. We were especially impressed with the manufacturer's variable-speed mini-split line.” The line now includes over 60 heat pump systems with capacity ranges of 9,000 to 48,000 BTUs.

“The systems are ideal for heating and cooling, and they're a great match to our green-build emphasis,” said Fasse. “Mix-and-match evaporators allow me to create the perfect climate control for any size space.”

Versatile, adaptable VRF

Today, multiple VRF evaporators can be connected to the system allowing for optimal temperature control zoning.

VRF systems can serve a broad range of applications including single and multi-family units, hotels, condominiums, schools and churches. In addition, variable refrigerant flow can be applied in commercial projects – and now,

even larger homes – where design flexibility and temperature control zoning is needed. Depending on the manufacturer, capacities range from two to more than 30 tons of cooling per system with the ability to connect up to 48 indoor evaporators.

Humidity solutions, too

Southern Florida's tropical climate provides a number of design considerations that HVAC professionals north of the Mason-Dixon Line aren't often confronted with. Not the least of these, reducing humidity within mechanical and conditioned living spaces is critical to ensure indoor air quality.

Even under normal operating conditions, preventing condensation and mold accumulation on ductwork and equipment located outside of the conditioned space can be a challenge. Making extraordinary demands of an ordinary cooling system can lead to a number of consequences, from underperformance to mold growth.

Greg Borek is president of B&B Cool Air, based in Lehigh Acres, Fla. He runs the 42-year-old cooling company with his brothers, Matthew and Frank Jr.

“When I met with homeowners recently, they'd been without air conditioning for a few weeks while trying to find a contractor that could properly address their comfort issues,” said Borek. “Their previous unitary system had failed and they were running a portable cooler in the bedroom for the time being. The challenge was that they're adamant about maintaining indoor temperatures between 64°F and 73°F, and yet, they're quite environmentally conscious.”

The 2,000 square-foot, 50-year-old home had been cooled by a three-ton, 12 SEER central system until the compressor failed. Not

only was it undersized for the demand of keeping the house cooler than average, but the ductwork throughout the home was leaking.

B&B Cool Air conducted a block load calculation, designing for a 66°F setpoint at an outdoor temperature of 95°F. The home required nearly five tons of cooling, which included duct loss.

“Initially, the homeowners were adamant that they wanted a new unitary system,” said Borek. “We found that we could maintain temperature by installing a five-ton, inverter-driven unit and sealing or replacing the ductwork, but condensation on the ductwork and air handler would remain a real concern.”

The home sits right on the water, which adds to the challenge of Florida's humid climate. The ductwork runs through a small attic space. Borek suggested installing ductless heat pumps instead of a unitary system to avoid the condensation issue altogether, but the homeowners wanted to further explore their unitary options.

“I explained that if there was to be a unitary system installed, we insisted on installing a dehumidification system in the attic in addition to sealing the ductwork,” said Borek. “What finally tipped the scales in favor of a ductless system was the ability for the homeowners to conserve energy by cooling only the rooms they were using at any given time, instead of cooling the entire house. They liked the concept of letting unoccupied spaces idle at warmer temperatures for energy efficiency.”

“To us, the environmental advantage of cooling only occupied spaces is a tremendous benefit,” said the homeowner. “In my old house, it very much annoyed me to cool the entire home when, at night, I only needed AC in the 300 square-foot bedroom.”

Ductless meets the need

B&B Cool Air has been a Fujitsu Elite dealer since early 2019. Their loyalty to Mark Rambo, at Ferguson Fort Myers, initiated the switch to Fujitsu.

“Ultimately, we installed two multi-zone systems at the home, a two-zone and a four-zone; 18,000 and 36,000 BTUH, respectively.”

Over the first few months after the retrofit, the homeowners contacted B&B Cool Air multiple times to express their appreciation. The system was more comfortable and controllable than they'd expected.

Industry Events

PHCC Summit Results in Collaboration, Solutions on Workforce Development, Education

Proving the value of constructive collaboration, Plumbing-Heating-Cooling Contractors – National Association (PHCC) leaders and the association's industry partners and major sponsors exchanged ideas and solutions for mutual benefit during PHCC's Industry Summit in Dallas, Texas, in July. The Summit – a chance to make a meaningful impact on issues and opportunities facing plumbing and HVACR contractors and the industry – was hosted by Rheem Manufacturing, a PHCC Corporate Partner.

"I learned early on that constructive collaboration was essential for success," PHCC – National President Dave Frame told attendees at the Summit. "By exchanging ideas, learning from each other, and establishing new relationships, we can further our mission of advancing the industry not only for our own organizations but also to protect public health, safety, and the environment."

Indeed, the group of industry leaders spent the day exploring ways to better collaborate on crucial industry initiatives, namely regulatory issues, advocacy, workforce development, education and training, and sustainability.

Regulatory updates – particularly trends in decarbonization/electrification – were a key take-away for Summit participants. PHCC–National Vice President of Regulatory Affairs Chuck White led a discussion on how PHCC and its industry partners can work together to ensure that contractors and their employees have the information they need to effectively advocate for reasonable regulatory mandates and prepare for upcoming changes. "The complexity of regulations impacting our industry amplifies the need for collaboration on advocacy efforts and to establish effective communication channels to keep industry professionals informed to ensure compliance," he said.

During the Summit, attendees

discussed how to set contractors up with financing options for customers interested in purchasing new HVAC equipment. Other topics addressed included how manufacturers can help develop information on heat pump water heaters (the benefits of new products, when to expect return on investment, etc.) for contractors to pass on to customers, as well as how they can improve hands-on training opportunities through PHCC state and local chapters.

In the area of workforce development, several PHCC partners and sponsors shared some transformative efforts, including supporting an apprentice program for at-risk female high school students, working directly with school guidance counselors to promote the trades, and more. "While workforce challenges are not new to this industry, it remains the number one concern for PHCC members," said PHCC Vice President of Business Development Elicia Magruder. "PHCC and the PHCC Educational Foundation have numerous resources available to help our chapters and members promote careers in the trades, but we still need to do more to ensure a continuous pipeline of skilled workers."

Of the event, Rheem Vice President of Residential AC Randy Roberts said, "Manufacturers can't be successful unless we hear and respond to the challenges and needs of our customers. PHCC's Industry Summit took that up a level, allowing us to engage with contractors, suppliers, and other manufacturers to focus on the current issues our customer base is experiencing and identify how we can all help each other to support and advance our industry."

PHCC already is building on the energy and commitment exhibited during the Summit, moving to implement many of the solutions discussed as well as making arrangements for its next Industry Summit. "The ideas



INDUSTRY PROFESSIONALS CONVENED AT THE PHCC SUMMIT HELD IN DALLAS, TEXAS.

shared serve as a strong foundation for future collaboration among PHCC, the PHCC Educational Foundation, and our industry partners," said Frame. "By working together, we can address industry challenges, foster growth, and ensure a prosper-

ous future for the plumbing and HVACR industry."

The PHCC National Association, formed in 1883, provides legislative advocacy, education, and training to approximately 3,500 plumbing and HVACR

businesses and 65,000 technicians. Members of PHCC have access to a wide variety of services designed to increase their professionalism, grow their business, and improve profitability. For more information about PHCC, visit phccweb.org.

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Indoor People



PAT ROSSETTO

Pat Rossetto, the president of Duro Dyne, a manufacturer of sheet metal accessories and equipment for the HVAC industry and a part of NSI Industries, has announced his retirement.

“Throughout the years, Pat has been an invaluable asset to Duro Dyne, holding various

key positions that have played a pivotal role in shaping the brand’s success,” said NSI HVAC president Robert Hennessy in a press release.

“We cannot thank Pat enough for his unwavering guidance, leadership, and insight during his decades with Duro Dyne, as his profound impact has been invaluable in making the brand the market leader it is today,” added G. R. Schrottenboer, the NSI CEO. “Pat’s absence will be felt, and he will be missed.”

Starting with the company as Duro Dyne’s territory manager from 1987-1999, Rossetto held the role of product manager from 2002-2008, and vice president of sales from 2008-2014. Rossetto has been the company’s president for the past nine years, leading Duro Dyne with unwavering vision and

unparalleled passion, the company said.

“It has been quite a journey these past 36 years, and I wouldn’t trade a minute of it,” said Rossetto. “The changes I’ve seen in both the brand and the marketplace have been remarkable. And the friendships I’ve made along the way mean the world to me. Duro Dyne is in great hands, and I look forward to watching the brand continue to grow.”

• • • • •

CornerStone One has added **Mike Stahl** as senior HVAC project manager, placing him in charge of one of the fast-growing divisions of the plumbing, earthwork, HVAC, and site utilities operation based in Brookfield, Wis.

“Mike joins our team with more than 10 years of large-scale project

management experience,” said Steve Adkins, president at CornerStone One. “We look forward to seeing the projects he and his team bring to fruition.”

Stahl holds a degree in Construction Management from Milwaukee School of Engineering (MSOE). Before joining CornerStone One, Stahl was a project manager with Butters-Fetting of Milwaukee. Stahl’s project portfolio includes schools, healthcare facilities, office buildings, high-rise construction, and wastewater treatment plants. With his expertise in pre-construction, construction planning, and project management, Stahl is a crucial addition to the growing team at CornerStone One.

“I’m thrilled at the opportunity to contribute to this team and



MIKE STAHL

take the HVAC division to new heights,” said Stahl. “Our prefab operation is unmatched and the HVAC division is going to keep growing. I look forward to being a part of it.”

Founded in 2003 by Steve Adkins, CornerStone One is a

Continued on Page 30

Editorial Focus

Continued from Page 21

great value, priced below most premium boilers available today,” said Mike Boyd, product manager with Weil-McLain. “It features exceptional domestic hot water performance and was developed with Weil-McLain’s next generation, easy-to-use Unity 2.0 control with touch screen display. Contractors will appreciate the ease of installation, use and service, while homeowners will enjoy high performance and energy-efficient comfort home heating.”

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(Four-Night Class) Instructors: Mike Griffin / John Dalton

Wed., Sept. 6 – Part 1

Thurs., Sept. 7 – Part 2

Wed., Sept. 13 – Part 3

Thurs., Sept. 14 – Part 4

OCTOBER

📍 NATE AC/HP Refrigeration &

Air Distribution Training (Webinar)

(Four-Night Class) Instructors: Mike Griffin / John Dalton

Wed., Oct. 4 – Part 1

Thurs., Oct. 5 – Part 2

Wed., Oct. 25 – Part 3

Thurs., Oct. 26 – Part 4

Sat., Oct. 28 - NATE Exam, 7:30 a.m. (In-Person/Onsite)

SOUTHERN CALIFORNIA EDISON, IRWINDALE

SEPTEMBER

System Diagnostics Module

(Four-Night Class) Instructor: John Dalton

Wed., Sept. 20 – Part 1

Thurs., Sept. 21 – Part 2

Wed., Sept. 27 – Part 3

Thurs., Sept. 28 – Part 4

OCTOBER

Non-Res ATE Acceptance

(Two-Night Class) Instructors: Mike Griffin / John Dalton

Wed., Oct. 11 – Part 1

Thurs., Oct. 12 – Part 2

Non-Res ATT Acceptance

(Two-Night Class) Instructors: Mike Griffin / John Dalton

Wed., Oct. 18 – Part 1

Thurs., Oct. 19 – Part 2

NOVEMBER

System Performance Module

(Four-Night Class) Instructors: Mike Griffin / John Dalton

Wed., Nov. 1 – Part 1

Thurs., Nov. 2 – Part 2

Wed., Nov. 8 – Part 3

Thurs., Nov. 9 – Part 4

SOUTHERN CALIFORNIA EDISON, TULARE

SEPTEMBER

System Diagnostics Module

(Four-Night Class) Instructors: Mitch Bailey / John Dalton

Wed., Sept. 20 – Part 1

Thurs., Sept. 21 – Part 2

Wed., Sept. 27 – Part 3

Thurs., Sept. 28 – Part 4

OCTOBER

📍 NATE CORE & Gas Heating Training

(Four-Night Class) Instructors: Mitch Bailey / John Dalton

Wed., Oct. 11 – Part 1

Thurs., Oct. 12 – Part 2

Wed., Oct. 18 – Part 3

Thurs., Oct. 19 – Part 4

NOVEMBER

📍 NATE AC/HP Refrigeration &

Air Distribution Training

(Four-Night Class) Instructors: Mitch Bailey / John Dalton

Wed., Nov. 1 – Part 1

Thurs., Nov. 2 – Part 2

Wed., Nov. 15 – Part 3

Thurs., Nov. 16 – Part 4

Sat., Nov. 18 - NATE Exam, 7:30 a.m.

Note: When registering for a training class please make sure you honor that commitment and show up on time and prepared. If you cannot attend, please call (818) 551-1555 and cancel in ample time. Thank you.

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SEPTEMBER

Electrical Module (Webinar)

(Four-Night Class) Instructors: Mike Griffin / John Dalton

Mon., Sept. 11 – Part 1

Tues., Sept. 12 – Part 2

Mon., Sept. 18 – Part 3

Tues., Sept. 19 – Part 4

OCTOBER

System Diagnostics Module (Webinar)

(Four-Night Class) Instructors: Mike Griffin/John Dalton

Mon., Oct. 16 – Part 1

Tues., Oct. 17 – Part 2

Mon., Oct. 23 – Part 3

Tues., Oct. 24 – Part 4

NOVEMBER

NATE Core & Gas Heating Training (Webinar)

(Four-Night Class) Instructors: Mike Griffin/John Dalton

Mon., Nov. 13 – Part 1

Tues., Nov. 14 – Part 2

Mon., Nov. 20 – Part 3

Tues., Nov. 21 – Part 4

DECEMBER

NATE AC/HP Refrigeration &

Air Distribution Training (Webinar)

(Four-Night Class) Instructors: Mike Griffin/John Dalton

Mon., Dec. 4 – Part 1

Tues., Dec. 5 – Part 2

Mon., Dec. 11 – Part 3

Tues., Dec. 12 – Part 4

PACIFIC GAS AND ELECTRIC COMPANY, STOCKTON

SEPTEMBER

System Diagnostics Module

(Four-Night Class) Instructor: Mitch Bailey

Wed., Sept. 6 – Part 1

Thurs., Sept. 7 – Part 2

Wed., Sept. 13 – Part 3

Thurs., Sept. 14 – Part 4

This class will be presented In-Person and webinar from the ETC.

OCTOBER/NOVEMBER

NATE Core & Gas Heating Training

(Four-Night Class) Instructor: Mitch Bailey

Wed., Oct. 25 – Part 1

Thurs., Oct. 26 – Part 2

Wed., Nov. 8 – Part 3

Thurs., Nov. 9 – Part 4

This class will be presented In-Person and webinar from the ETC.

NOVEMBER/DECEMBER

NATE AC/HP Refrigeration &

Air Distribution Training

(Four-Night Class) Instructor: Mitch Bailey

Mon., Nov. 20 – Part 1

Tues., Nov. 21 – Part 2

Mon., Nov. 29 – Part 3

Tues., Nov. 30 – Part 4

DEC EXAM: Saturday, Dec. 2 – 7:30 a.m (In-Person/Onsite)

This class will be presented In-Person and webinar from the ETC.



EXCEPT Where Noted.
LOCAL COVID requirements.
format is subject to change
rg (Training)

This program is funded by California utility customers under the auspices of the California Public Utilities Commission.



Indoor People

Continued from Page 27

commercial plumbing and HVAC contractor, and now employs more than 100. The company offers plumbing, earthwork, HVAC, site utilities, and more. CornerStone One's prefabricated systems are designed and assembled in the firm's headquarters facility in Brookfield.

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BRIAN COX

NAVAC, the world's largest supplier of HVAC vacuum pumps in addition to a wide array of tools, gauges, charging machines, recovery units and industry-specific items, has hired industry veteran **Brian Cox** as Director of Sales for its Industrial Vacuum Business unit. The announcement comes on the heels of strong 2022 North American sales for the company, both in Industrial Vacuums and its other major business unit, HVAC Tools.

Cox has more than three decades of sales and business development experience in the industrial vacuum sector. Most recently, he oversaw business development for Nashua, NH-based Pfeiffer Vacuum, a prominent industry player. Earlier in his career, Cox held management-level roles with Leybold USA and Busch Vacuum Solutions, among other compa-

nies.

Over its first five years operating in North America, NAVAC has quickly established itself as a major supplier to the HVAC/R sector. This is evidenced not only by upwardly-trending sales, but also a growing workforce and inroads into a variety of high-leverage markets.

Cox earned a M.S. in Business Management from University of Massachusetts, and an MBA from Rivier University.

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Oatey Co., a leading manufacturer in the plumbing industry since 1916, announced that **Matt Stem** will join the organization as Vice President, Distribution and Global Logistics, reporting to Scott Voisinet, Senior Vice President, Supply Chain.

With nearly 25 years of experience in logistics and operations, Stem comes to Oatey from Spray Products Corporation, where he served as Vice President, Operations. He has also held a variety of manufacturing and distribution leadership roles with organizations such as Shearer's Snacks, Technical Consumer Products and State Industrial Products.

In his new role at Oatey, Stem will lead Oatey's robust distribution network, driving long-term strategy and ensuring exceptional delivery for customers and partners. By partnering with distribution center leaders and cross-functional partners, he will use industry best practices and processes to drive continued business results and enable ongoing growth.

"Matt is a seasoned operations leader with demonstrated expertise in managing distribu-



MATT STEM

tion networks," says Voisinet. "I look forward to his contributions and leadership as we continue to optimize our operations in support of Oatey's growth goals."

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Uponor North America (Uponor) announced **Anna Picchetti** as the new Vice President of Marketing & Strategy. In her role, Anna will oversee Channel Marketing, Portfolio, Analytics, Sustainability, Segment, Engagement, Brand, and Communications. She will report to Uponor North America President Andres Caballero and be a key member of the company's Senior Management Committee.

Anna joins Uponor with 20 years of experience in Marketing and Operations across industrial, technology, and medical device



ANNA PICCHETTI

industries. She brings a wealth of experience developing forward-thinking strategies with a strong track record of execution at industry-leading brands such as Tennant, SPS Commerce, and Honeywell. She has worked at the forefront of innovations like autonomous vehicles and renewable energy, managed high-growth SaaS products and positioning, and transformed customer experiences.

"To help us move our business and aggressive growth goals forward, it was important we found a senior leader who can lead market disruption and drive innovation and segment growth initiatives all while guiding channel development, portfolio management, and go-to-market strategies," says Caballero. "I'm confident Anna's approachable leadership style will

be a good cultural fit, as she has a proven track record of engaging teams by intentionally listening, learning, and setting clear expectations and outcomes."

Anna earned a Master of Business Administration degree from the Carlson School of Management at the University of Minnesota. She is a member of the Women United Committee for the Greater Twin Cities United Way chapter and is also a member of Chief, a network for women in the C-Suite as well as senior executives and vice presidents. In addition, she is a USA Hockey-certified coach with a local youth hockey program.

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Kevin O'Rourke has been promoted to vice president of sales, wholesale products, at Mestek Inc.

O'Rourke joined Smith Cast Iron Boilers, a Mestek Inc. company, in 1998 as a factory-direct territory manager, where his performance and professionalism allowed him to steadily progress through the organization.

He began his career in wholesale distribution with The Portland Group with roles in both sales and branch management over the span of 17 years. During this time O'Rourke became an integral part of the success of The Portland Group, mastering the skills of distribution management.

After serving as a territory manager for Smith Cast Iron Boilers, he was promoted to the Northeast regional sales manager for Mestek's Residential Comfort Group, which included not only Smith Cast Iron Boilers but also Sterling Baseboard, Argo Baseboard, and Beacon Morris to name a few. O'Rourke showed his talents regionally by solidifying and growing all distribution outlets in his region. His hands-on approach and "go-getter" personality made him the obvious choice for his next stop as national sales manager, North America, for all residential comfort group products.

In his new position, O'Rourke will continue to service accounts throughout North America, work-



KEVIN O'ROURKE

ing in cooperation with Mestek's network of sales representatives, wholesale distributor partners, and contractors. In Canada, he will also be responsible for the newly acquired Slant/Fin Baseboard brand.

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DANIEL QUINONEZ

The Plumbing-Heating-Cooling Contractors – National Association (PHCC) Educational Foundation is happy to announce that **Daniel Quinonez** joined the staff team as Executive Director as of June 1st. With a rich background in association management and public affairs, Quinonez brings a wealth of knowledge and experience to lead the foundation in its mission to support the plumbing, heating, and cooling industry.

Before joining the PHCC Educational Foundation, Quinonez served as a Senior Account Executive for the Kellen Company, a prominent Association Management Company. In this capacity, he served as the Executive Director for the Roof Coatings Manufacturers Association (RCMA) and the Professional Electrical Apparatus Reconditioning League (PEARL), playing a pivotal role in expanding and promoting these organizations through various initiatives, including education, outreach, technical advancement, and advocacy.

Quinonez's career has taken him across the country, representing esteemed organizations within the building industry. Notably, he served the National Association of Home Builders (NAHB) in Washington D.C., where he advocated for the home building community. His expertise also contributed to the International Council of Shopping Centers, the Grocery Manufacturers Association, and the Consumer Healthcare Products Association.

In addition to his accomplishments in association management, Quinonez has a distinguished military background. He served in the United States Army Reserves for twelve years, demonstrating his commitment to public service.

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With his background and extensive experience, he aims to contribute to the foundation's educational mission and advance the industry's development.



MARK ROTHENHAUSEN

Goodway Technologies, a global leader in industrial maintenance and cleaning/sanitation solutions,

announces the promotion of **Mark Rothenhausen** to Senior Director, Sales Operations. For nearly 23 years, Rothenhausen has played an instrumental role in growing Goodway Technologies' annual sales growth and contributing to continuous improvement initiatives.

In his new role, Rothenhausen will focus on developing and improving sales outcomes, and enhancing the customer experience. He will continue direct supervision of the Domestic Customer Support Team, leverage company software systems to improve forecasting, and collaborate with sales and operations to ensure availability of material and finished products for faster delivery. His responsibilities also include playing a pivotal role in leading training efforts for employees and assisting

with customer-facing training.

"Mark has a natural ability to facilitate a smooth workflow between sales, operations and logistics and brings a deep understanding of our products, applications, internal operations and market knowledge," said Tim Kane, President and CEO of Goodway Technologies. "His full range of skills and experience will bring a more effective and streamlined sales lead-to-shipment workflow process to Goodway Technologies."

Rothenhausen began his career at Goodway Technologies in 2000 as a Sales Engineer and worked his way up to Sales Team Manager for the Eastern Territory team. He eventually took on the roles of Domestic Sales Manager and National Sales Director.

Indoor People

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Expressing his excitement about his new role, Quinonez stated his dedication to serving the Foundation and promoting the growth and progress of the plumbing, heating, and cooling industry.

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Postmaster: Send address changes to
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