

# INDOOR COMFORT

JANUARY 2023

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**NEWS**

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THE WEST'S LEADING MONTHLY NEWSMAGAZINE FOR THE AIR CONDITIONING, HEATING, REFRIGERATION, SHEET METAL AND VENTILATING INDUSTRIES



## Calif. Joins National Coalition Strengthening Building Performance Standards

California officials announced the state has joined the National Building Performance Standards Coalition, a White House-led initiative to accelerate building performance standards across the country. President Joe Biden

launched the coalition to establish a partnership of more than 30 state and local governments that will share results and best practices for delivering cleaner, healthier, and more affordable buildings while creating jobs, lowering costs, and

prioritizing frontline communities.

The announcement was made during a recent White House press call to unveil the first-ever Federal Building Performance Standard, which will cut energy use and electrify equipment and appliances

in 30 percent of the country's 300,000 existing federal buildings by 2030.

State and local governments joining the coalition are committed to inclusively design and implement equitable building

performance standards and complementary programs and policies through legislation or regulations.

"The state of California is once again leading by example, pledg-

Continued on Page 14

## Daikin Acquires Venstar, Inc.

Millions of North American homeowners and businesses rely on Venstar technology for advanced comfort control and energy management.



THE VENSTAR SURVEYOR SYSTEM.

Daikin Comfort Technologies North America, Inc. (Daikin) has acquired Venstar, Inc. (Venstar), a prominent controls and energy management systems provider whose technology and indoor comfort solutions are used in millions of residences and light commercial applications across the United States, Canada and Mexico.

The acquisition, announced by Daikin – a subsidiary of Daikin Industries, Ltd. (DIL), the largest manufacturer of HVAC systems worldwide – complements the

growing market for Daikin's environmentally friendly indoor comfort technologies, including its high-performing inverter and heat pump solutions, and products featuring R-32, an open-source refrigerant with one-third the Global Warming Potential (GWP) of the most commonly used refrigerants in the U.S. and Canada.

Venstar, founded in 1992 and

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## IHACI's Annual HVAC/R/SM Trade Show Pictorial

ICN takes a look back at last November's big industry event (more pics on Page 20).



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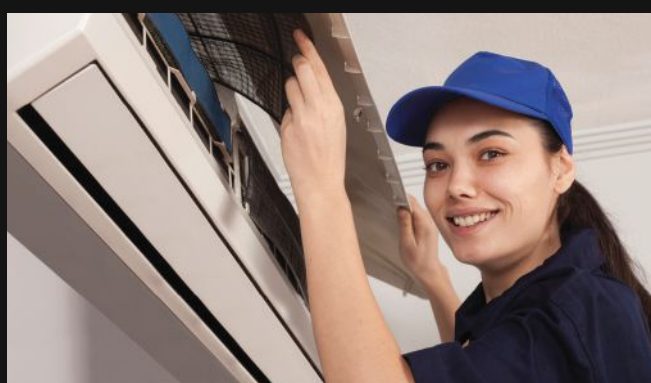
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2023

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for more information.



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# Industry News



## CALIFORNIA



### CSLB Investigation Leads to Arrests

**Sacramento, Calif.** – The Contractors State License Board (CSLB) is announcing that as a result of its investigation, three people have been charged in a consumer fraud and identity theft scheme.

Pedro De Jesus Diaz, Mahsa Karaimaghahi and Elaheh Esfahani Salahi, also known as Ella Salahi, have pleaded not guilty in the case, with a preliminary hearing scheduled for January 19. The Los Angeles County District Attorney's Office has filed burglary, grand theft, diversion of construction funds and other related charges against the suspects.

Diaz used at least two business names: Bright Energy Inc. and P&E Consultants, known collectively as the Diaz Companies. The investigation determined that beginning as early as October 2017, the Diaz Companies presented themselves as a company

that was experienced in providing highly efficient products, such as solar panels, roofing and heating or air conditioning units, and obtaining financing for such projects. Diaz Companies targeted the elderly and non-English-speaking communities.

However, Diaz, Salahi, Karaimaghahi and Diaz Companies are not licensed contractors in California.

In an effort to appear legitimate and persuade victims to provide their personal information for construction loans, Diaz Companies also made a variety of false claims including that Diaz Companies was working with the Los Angeles Department of Water and Power (LADWP). The investigation found Diaz Companies would provide victims a LADWP flyer and falsely claim an upcoming law mandated that all residences have solar panels.

Diaz Companies was enrolled in the state's Property Assessed Clean Energy (PACE) loan program. PACE allows property owners to obtain funding for energy improvement projects as a tax assessment on their property tax bills. Between 2018 and 2019, the defendants have been accused of making false and misleading statements to nine consumers to do construction on their homes.

The defendants allegedly used the homeowners' personal information to apply for loans without permis-

sion. Even though Diaz Companies had obtained these loan funds for construction projects, the construction at the victim's residences varies in status of completion: completed with problems, partially complete or no construction at all.

The investigation revealed that victims provided Diaz Companies with personal information that enabled Diaz Companies and affiliated entities to obtain payments from lenders of approximately \$843,000.

"Consumers considering installing a residential solar energy system should review important information available on the CSLB Solar Smart page," said CSLB Registrar David Fogt. "Homeowners should also use the CSLB's website to secure three bids and check the license of the contractor before agreeing to any home improvement project."

"Consumers should be able to participate in programs that can benefit them without being preyed upon by people using deceptive practices," Los Angeles County District Attorney George Gascón said.

When consumers enter into a home improvement project, they need to remember that the maximum down payment allowed is \$1,000, or 10 percent of the total project cost, whichever is less, and subsequent payments must not exceed the value of materials and worked performed.

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### Service Champions Group Buys Service Wizard HVAC

**Brea, Calif.** – Service Champions Group, a provider of plumbing, heating, and air conditioning services, announced it has reached an agreement to acquire Service Wizard Heating & Air Conditioning, a provider of air conditioning, heating, and air quality services in Austin, Texas. Service Wizard is a second-generation family business, with brothers Charles and John Osgood at the helm. This acquisition marks Service Champions' first step into the Texas market. Service Champions is a portfolio company of Odyssey Investment Partners.

Frank DiMarco, Service Champions' CEO, has been focused on acquiring businesses that fit the Service Champions culture, business model, and operating philosophy.

"At Service Champions we continue to be focused on new business opportunities. We challenge ourselves to explore opportunities that bring value to our existing portfolio and to our customer base. The acquisition of Service Wizard will be a significant accelerant for the company as we look toward

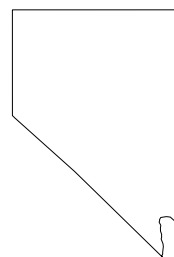
future growth with companies that align with the foundation of Service Champions," said DiMarco. "Our customers are at the forefront of everything we do. Charles and John Osgood have been in the Austin Air Conditioning industry for more than 40 years. They learned the value and reward of a happy customer as young men working at their family business, Osgood Heating and Air Conditioning. They know Austin, they know their customers and they consistently strive to offer great value and high-quality service. We are thrilled to welcome them to the Service Champions family as we continue to grow our national footprint."

Service Wizard Founder, Charles Osgood, echoes DiMarco's point of view.

"Our customers mean the world to us. That's why our team holds ourselves to the highest standards of behavior and service. We know this is in Service Champions' DNA. Integrity is at their very core. Joining the Service Champions family allows us to provide a greater level of service to our community while remaining true to our values," said Osgood.

The acquisition of Service Wizard continues Service Champions' commitment to expand its service area throughout the United States.

## NEVADA



### Goettl Buys SoCal Airflow Pros, 4 Seasons HVAC

**Las Vegas, Nev.** – Goettl Air Conditioning & Plumbing, a provider of HVAC and plumbing services, announced two newly acquired businesses: SoCal Airflow Pros in Rancho Santa Margarita, California and 4 Seasons Heating & Cooling in Reno, Nevada. Both are a part of Goettl's "Goettlize the Nation" strategy and will serve as significant additions to Goettl's market presence.

SoCal Airflow Pros, a veteran-owned and operated HVAC contractor providing services to the

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Continued on Page 6



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SENIH09EI	Indoor Unit Nexia 9000 BTU R410 115V	
CENIH09EI	Outdoor Unit Nexia 9000 BTU R410 115V	
C/SENIH12EI	Nexya 12000 BTU R410 115V	\$ 583.00
SENIH12EI	Indoor Unit Nexia 12000 BTU R410 115V	
CENIH12EI	Outdoor Unit Nexia 12000 BTU R410 115V	
C/SENIH18EI	Nexya 18000 BTU R410 220V	\$ 767.00
SENIH18EI	Indoor Unit Nexia 18000 BTU R410 220V	
CENIH18EI	Outdoor Unit Nexia 18000 BTU R410 220V	
C/SENIH24EI	Nexya 24000 BTU R410 220V	\$ 912.00
SENIH24EI	Indoor Unit Nexia 24000 BTU R410 220V	
CENIH24EI	Outdoor Unit Nexia 24000 BTU R410 220V	
C/SENIH30EI	Nexya 30000 BTU R410 220V	\$ 1,115.00
SENIH30EI	Indoor Unit Nexia 30000 BTU R410 220V	
CENIH30EI	Outdoor Unit Nexia 30000 BTU R410 220V	
C/SENIH36EI	Nexya 36000 BTU R410 220V	\$ 1,201.00
SENIH36EI	Indoor Unit Nexia 36000 BTU R410 220V	
CENIH36EI	Outdoor Unit Nexia 36000 BTU R410 220V	

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Cooling capacity <sup>(1)</sup>	BTU/H	9,000	12,000	18,000	24,000	30,000	36,000
Heating capacity <sup>(1)</sup>	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 <sup>(2)</sup>	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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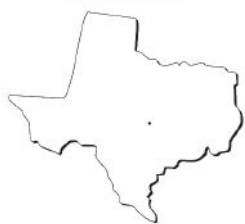
Continued from Page 4

Southern California area, marks the fifth Goettl branch in the Southern California region. Goettl will work with SoCal Airflow Pros' Cody Novini, leveraging his leadership and industry expertise to continue building a strong presence in Southern California.

4 Seasons Heating & Cooling, an HVAC company serving Reno residents since 2008, will signal Goettl's entry into the Reno market, further expanding its Nevada operations. Mike Miller will continue to lead his team and grow Goettl's market share in Northern Nevada.

"We've identified these businesses as key acquisitions for scaling the Goettl brand and adding talent to the team," said Ken Goodrich, CEO of Goettl. "We are looking forward to serving these markets with the unparalleled quality of work Goettl is known for and that's something that excites us. Both Cody and Mike have done great work building out their teams and we are happy to welcome them to the Goettl family."

## TEXAS



### Interplay Learning Partners with Pacifica Hotels

**Austin, Texas** – Interplay Learning, the leading provider of online and VR training for the essential skilled trades, has partnered with Pacifica Hotels, the largest owner

and operator of boutique hotels along the Pacific Coast, to provide comprehensive hospitality and safety training that enables Pacifica Hotels to rapidly upskill entry-level maintenance engineers and cross train experienced engineers to prepare them for a full range of hospitality services including HVAC, plumbing, facilities maintenance, and electrical.

Interplay Learning's on-demand video training and hands-on 3D simulations help hotel maintenance engineers rapidly develop on-the-job skills and practice hands-on troubleshooting in a risk-free environment. With Interplay's effective, flexible training platform in place, hospitality companies can meet the ongoing challenge of the skilled trades labor shortage by rapidly training new workers and maximizing team performance.

"Our new training platform powered by Interplay Learning allows Pacifica Hotels to affirm our commitment to providing the ultimate experience for our guests," said Myisha Smith, corporate director of training for Pacifica Hotels. "It's transforming the hiring and onboarding process, so it takes less time to equip new engineers to meet our high standards of performance and quality. The shortage of skilled service engineers in our industry is a chronic challenge, but Interplay Learning's innovative training solutions and dedicated hospitality catalog offer our management teams greater flexibility in recruiting and hiring decisions. Interplay Learning is helping Pacifica Hotels save time and money by streamlining operations while empowering us to continue delivering premium experiences across our growing portfolio of properties."

Interplay Learning offers hospitality companies and their teams expert-led video-based training, knowledge checks, and hands-on 3D simulations. The on-demand course content in English and Spanish provides flexibility so team members can practice anytime, according to their learning style, using a tablet, computer or virtual reality. Small, easily digestible formats mean team members can learn a little at a time or combine multiple short lessons into longer learning sessions.

"Pacifica Hotels approaches training and development with the same intention and focus they bring to the guest experience and their portfolio of properties," said Doug Donovan, Interplay Learning's founder and CEO. "Their leadership team recognizes that training drives productivity and growth, especially with the challenges of the current employment market. Interplay Learning helps companies like Pacifica Hotels expand their talent pool and accelerate skills development. When companies can hire more engineers or technicians and get them out in the field more quickly, they have the opportunity to establish a meaningful market advantage."

Pacifica Hotels is the largest owner and operator of boutique hotels on the Pacific coast. Pacifica Hotels' 40 independent and flag properties in key California cities from San Diego to San Francisco, as well as Hawaii, feature outstanding locations, AAA 3 and 4-diamond ratings, upgraded amenities, and high guest service standards.

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### A-Gas Expands Operations in Texas

**Rhyme, Texas** – After recent heavy investment in the expansion of their capacity in the U.S., A-Gas is completing the construction of its latest refrigerant separation towers at its Rhyme, Texas plant. The expansion project, which began earlier this year, represents A-Gas' continued commitment to deliver cutting-edge technology aimed at substantially increasing the quantity of reclaimed refrigerant gases, bringing new capacity online in 2023 to supply the U.S.

"The demand for high-quality reclaimed refrigerants grows yearly," said Mike Armstrong, president of A-Gas Americas, "As the United States phases down virgin HFCs, technologies like this will provide an efficient and valuable service to our customers and supply partners. Through the utilization of existing products, we can minimize waste, extend product lifecycles, limit emissions, and provide more



A-GAS SEPARATION TOWERS AT ITS RHOME, TEXAS FACILITY.

circular economy solutions to our customers."

Expanding the recovery and reclaim of refrigerant gases is essential for the implementation of the production and consumption phase down of HFCs under the AIM Act. Recovery and reclaim, along with other refrigerant management practices, could prevent the emissions of 90 billion tons of carbon dioxide-equivalent, according to The 90 Billion Ton Opportunity: Lifecycle Refrigerant Management, a recent report by a trio of environmental groups.

A-Gas' new separators will be operational in early 2023 and will more than double the separation capacity at the current site – addressing a critical need highlighted by the NGO report. A-Gas also added an AHRI-certified laboratory at the Rhyme plant, making it their second AHRI lab in the U.S.

The new separation equipment and AHRI lab will enable the reclamation of mixed refrigerants received from customers across the U.S.. Even the most complicated mixes of refrigerants can be separated into valuable components and reconstituted into AHRI-700-certified products through this technology. In bringing this capability online, millions of additional pounds of reclaimed refrigerant can be safely returned to the marketplace annually.

"This technology continues to push forward responsible lifecycle refrigerant management in the U.S.," said Taylor Ferranti, commercial vice president of refrigerant management at A-Gas. "It ensures our valued customers have access to a long-term, sustainable supply of reclaimed refrigerants for all their needs without compromising their values. Our Rapid Recovery network can continue to safely recover refrigerant while our reclamation processes bring that material to AHRI-700 grade for future use."

Ferranti added, "In 2022, A-Gas is proud to have had a record year for reclamation. Our investment in this technology shows our contin-

ued commitment to supply the industry with reclaim, supporting the circular economy."

## NATIONAL



### NCI, TruTech Tools Form New Partnership

**Sheffield Lake, Ohio** – National Comfort Institute (NCI) and TruTech Tools, Ltd. are partnering to provide tools and instruments to the HVAC and building performance industries. As a result, TruTech joins the ranks of partners in the NCI Member Rewards Program and will join the NCI team in Branson, Mo., as part of the High-Performance HVAC Summit 2023.

As part of this partnership, effective immediately, NCI will no longer directly sell tools and instruments through its own website. Instead, they will link to an NCI-branded page on the TruTech website at [nclink.com/trutech](https://nclink.com/trutech). Through this NCI-branded store, NCI members can purchase NCI specialty products, tools, and instrument packages at a special member discount.

NCI will continue selling resale products and proprietary support materials, including CO Monitors, Duct Saddles, clipboards, labels and tags, and brochures, through its website. They will also continue to sell hats, shirts, mugs, and other NCI branded products through their Swag Store.

This partnership will also benefit students attending

Continued on Page 8



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Continued from Page 6

NCI training classes. Students will receive special discount codes for their TruTech purchases.

In addition, TruTech, which recognizes NCI as an industry leader in advanced high-performance training, will promote its advanced technical training on the TruTech website. TruTech will be featured on NCI's website as an industry partner.

"We look forward to a long-term relationship with the team at TruTech as we work together to help industry professionals become advanced craftsmen in their trade," says NCI CEO Dominick. "TruTech is a strong supporter of our training, and they see it as instrumental to raising the bar in the HVAC industry. We both see the High-Performance approach as a tremendous value to the industry and want to support its advancement."

Bill Spohn, president, CEO, and co-owner of TruTech Tools, says, "Since I first met Dominick Guarino and Rob Falke in the mid-1990s, I've been impressed with their technical approach to training. I believe that NCI has a terrific mission to help HVAC contractors and their technicians and installers become professional craftsmen. TruTech has a parallel mission to help provide the tools, access to education, and training to help contractors do better work. What a perfect harmonization for TruTech to focus on the tools while NCI focuses on education and training."

"Our mission and purpose is to help technicians create better environments for people by using our niche to provide HVAC and building performance tools and

best practices. We look forward to this relationship blossoming as we move forward."

BDR Expands New Profit Launch Session

Seattle, Wash. – Business Development Resources (BDR), the training and business coaching authority for home services industry professionals, has scheduled an additional session of Profit Launch in February to meet the growing demand for the premier live online business planning workshop for HVAC, plumbing, electrical, and home services contractors.

The newly announced session of Profit Launch is scheduled for Feb. 1-3.

"Business owners are looking for guidance on successfully navigating the challenges facing our industry and taking advantage of the many opportunities for growth available," said Kim Archer, Vice President of Coaching at BDR. "By expanding Profit Launch, we're ensuring that more leaders in-home services have access to the industry's most comprehensive and trusted strategic business planning solution."

Profit Launch helps business owners and managers prepare for the future by developing and refining a detailed, personalized five-year business plan that ensures their company's financial security and supports its strategic goals.

"A comprehensive business plan is the foundation of any successful company," Archer said. "At Profit Launch, service business owners learn how to build a business that gives them the freedom they deserve. We help them develop and implement a plan to enjoy the rewards of their hard work and ensure

they have everything they need to support their teams, families, and communities."

The Profit Launch virtual platform delivers compelling content and interactivity in a unique hybrid event that includes live and recorded webinar sessions, private breakout rooms, accessibility for multiple team members, and easy file transfers. The platform also connects participants with essential tools and resources through BDR Preferred Industry Partner vendor booths.

The four original Profit Launch business planning sessions from September – December sold out in early October. To register for Profit Launch or more information about BDR's industry-exclusive business planning, visit <https://www.bdrco.com/profit-launch/>.

AAON Selects Replacement for R-410A Refrigerant

Tulsa, Okla. – AAON, Inc., a leader in innovation and production of premium-quality, high-performance, and energy-efficient HVAC products for commercial, and industrial buildings, announces that it has selected the lower Global Warming Potential (GWP) R-454B refrigerant, replacing R-410A in its products.

AAON anticipates it will begin using R-454B refrigerant in select products by the end of the third quarter of 2023 and will transition the full product line to the lower GWP refrigerant well before the anticipated refrigerant regulation phase-out dates.

"After testing and evaluation, AAON selected R-454B for a variety of reasons. R-454B has a low 466 GWP, which results in less overall impact on the environment and potentially has a longer useful life against future refrigerant regulations," said Brent Stockton, AAON Director of Engineering. "Capacity and refrigerant properties are also similar to R-410A, meaning the changeover will require less time and lower the cost to redesign our products."

"AAON manufactures the most sustainable equipment in the commercial HVAC industry," said Gary Fields, AAON President and CEO. "We are committed to providing our customers with the best solutions to meet the ever-evolving environmental regulations."

BellSimons Opens METUS Training Center in Maine

Waterville, Maine – Mitsubishi Electric Trane HVAC US LLC (METUS), a leading supplier of Ductless and Ducted Mini-split and Variable Refrigerant Flow (VRF) heat-pump and air-conditioning systems, is proud to announce that BellSimons Companies, a wholesaler of heating, ventilation, air conditioning, and refrigeration (HVACR) equipment and METUS distributor, has opened a Mitsubishi Electric Authorized Training Center (MATC) in Waterville, Maine. This is the first MATC operated by BellSimons.

The 1,400-square-foot facility offers Maine-based contractors the opportunity to gain hands-on training experience with the latest Mitsubishi Electric heat pump technology. Contractors can learn how to install and service innovative variable-capacity heat pump technology to deliver exceptional comfort experiences in New England homes.

At an Open House event, contractors, METUS and BellSimons representatives had the opportunity to tour the facility and learn about the comprehensive training and resources now available in their community. Training sessions began in the summer and are available monthly.

"We're excited to open a Mitsubishi Electric Authorized Training Center in the state of Maine and our first at BellSimons," said Brian Boland, marketing manager, BellSimons Companies. "This training facility will serve the very best and brightest of the HVAC industry who have embraced the heat pump technology to grow their business and better serve homeowners throughout Maine."

"Although the trend in training continues to move to online platforms, METUS believes there is no substitute to a hands-on approach to technical learning," said Brannon Williams, director, residential business, Northeast Business Unit, Mitsubishi Electric Trane HVAC US. "This training center will put contractors in the position to learn and provide a superior level of service and support to their customers."

BellSimons Companies was founded in 1940 and is a family-owned New England-based distributor for heating, air-conditioning, refrigeration and plumbing equipment, controls and supplies. With employees across over 30 locations, BellSimons offers service and inventory for the wholesale



INSIDE BELLSIMONS NEW METUS TRAINING CENTER.

HVAC/R and plumbing industry. For more information about METUS, visit [MitsubishiComfort.com](https://MitsubishiComfort.com).

NEMI Collaborates with Biden Administration on Air Quality

Falls Church, Va. – The National Energy Management Institute Inc. (NEMI) has collaborated with the Biden administration on the Better Air in Buildings website in order to provide building owners and managers, school districts and other officials with the information they need to find an area contractor who can perform ventilation verification and indoor air quality assessments, repairs and upgrades.

NEMI, a not-for-profit organization, provides education on emerging markets, new technology and advances in manufacturing and construction processes.

This summer, as schools prepared to reopen, the White House was faced with high demand for contractors from school officials across the country looking for skilled, trained and certified technicians to perform ventilation verification and indoor air quality assessments.

The NEMI staff was already working on such a resource, so it pivoted to provide the assets the Biden administration called for, with the Better Air in Buildings website. The website was conceived and created in 12 weeks (lightning speed for most websites) and launched at the beginning of August.

"The goal of it was to create a simple conduit between the person who wants to improve ventilation in their building and the contractor who can do that work and who knows what they're doing, who has a skilled, trained and certified workforce," said Chris Ruch, NEMI Inc. director of education.

Potential customers can visit the Better Air in Buildings website, learn about ventilation verification and request information on contractors providing the service in their region. The request is then

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- Outdoor unit static pressure up to 0.32" WC allows ducting of discharge air for installation in enclosed spaces
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  - Cooling: 41-77F (5-25C) as standard, 14-77F (-10-25C)\*
  - Heating: 77-131F (25-55C)\*\*
- IPLV as high as 20.5

## Features:

### Application

Apartment/condo complex, office buildings, data centers, hospitality, educational facilities, institutional, and process cooling

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Easy to combine and fit multiple units even when space is limited. Its compact size reduces the time, cost, and effort to transport, move and install a system.

- Dimensions: 71"L x 30"W x 67"H per module
- Weight: 959 lbs. per module

### Great for Retrofit Projects

Provides superior manageability when combined with our optional Fan Coil Unit (FCU) Control Kit and Fan Coil Interface Module to control and integrate third-party fan coil units to Samsung central and local controls.

### Wide Temperature Range

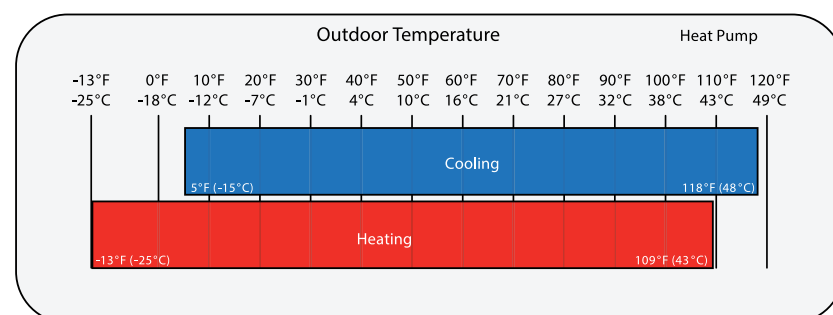
- Cooling operation outdoor temperature range from 5-118°F (-15-48°C)
- Heating operation outdoor temperature range from -13-108°F (-25-43°C)

### Flash Injection Technology

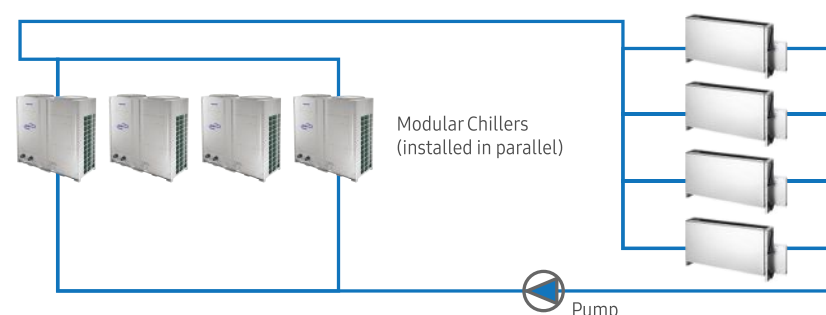
Features flash injection compressor technology that increases heating performance with a two-phase refrigerant that is activated during heating mode in low ambient conditions.

### Operation Patterns

Features three operational patterns for fine-tune system operation for various applications: standard, rotation, and efficiency.



Please refer to the Technical Data Book and installation manual for full details of operating ranges. Optional settings to automatically adjust leaving water temperature based on outdoor ambient temperature or indoor ambient temperature.



\*When using brine solutions. Please see technical data book or installation manual. \*\*Optional settings to automatically adjust leaving water temperature based on outdoor ambient temperature or indoor ambient temperature. DVM-Pro software is required to properly design DVM S systems. DVM-Pro design software is available for download on SamsungHVAC.com. © 2021 Samsung. HVAC CHLFL 06.2021-V1

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602/572-2953	Phoenix	714/776-3170	City of Industry	Escondido	Lake Forest	Newbury Park	Palm Desert	S. San Francisco	San Leandro	Signal Hill	Van Nuys	208/672-1244	775/329-3455
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623/580-4101	Tucson	661/322-7222	Concord	Fairfield	Lancaster	North Highlands	Paso Robles	San Bernardino	Santa Barbara	Stockton	West Los Angeles	Idaho Falls	Salt Lake City
Fort Mohave	520/903-3117	Burbank	925/349-3712	707/424-6050	661/726-5106	916/482-3572	805/238-9353	909/885-3206	805/962-2999	209/466-4153	310/928-6660	208/542-5270	801/485-8071
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Continued from Page 8

received by regional indoor air quality representatives who provide the customer with a list of previously vetted contractors.

Once the website was launched, the information was pushed out to members of Congress and federal agencies that could benefit from it – such as the Department of Education, Environmental Protection Agency, Department of Energy, General Services Administration and Department of Transportation – by the International Association of Sheet Metal, Air, Rail and Transportation (SMART) workers.

“The information was given to them so they know, as they’re trying to push out federal dollars, this is a resource to find the people to do the work,” said Tiffany Finck-

Haynes, SMART government relations representative and liaison between NEMI and the Biden administration on this project.

“As the White House was working with schools for reopening this school year, this was one of the many resources they had to open safely. It was a natural fit. It was an extension of what we’re already doing, what’s already happening.”

Although the NEMI staff didn’t know the call from the Biden administration was coming, it was ready. Building ventilation verification and indoor air quality resources, as well as educating contractors, began prior to the pandemic, Ruch said.

“This is really what NEMI has been angling at for the last five years, getting involved with all these groups,” he added.

A statement released by the White House said, “Effective ventilation and air filtration are important parts of COVID-19 prevention. In addition to other layered prevention strategies, taking actions to improve indoor air quality can reduce the risk of exposure to particles, aerosols and other contaminants, reduce the spread of COVID-19 and improve the health of building occupants.”

“The Administration is collaborating with organizations that provide expert guidance and technical support from skilled, trained and qualified technicians to help make indoor air quality improvements easier for schools to navigate. HVAC professional organizations, including the American Society of Heating, Refrigerating and Air-Conditioning Engineers

(ASHRAE), SMART, NEMI and SMACNA [the Sheet Metal and Air Conditioning Contractors’ National Association], are committed to working with schools to help them develop and implement plans to improve ventilation and can help schools get connected to local technical experts.”

For additional information, visit the Better Air in Buildings website at <https://www.betterairinbuildings.org>.

Johnson Controls  
10th Year Supporting  
American Red Cross

**Milwaukee, Wisc.** – Johnson Controls (NYSE: JCI), the global leader for smart, healthy and sustainable buildings, announced the Johnson Controls Foundation’s \$500,000

donation to the American Red Cross Annual Disaster Giving Program (ADGP) to support future disaster responses across the U.S.

Since 2012, the Johnson Controls Foundation’s support of the Red Cross ADGP has helped the Red Cross pre-emptively prepare to meet the rapid needs of those impacted by disasters. Annual ADGP donations help to improve the organization’s strong infrastructure and support its efforts to acquire trained volunteers, innovative technologies and critical resources required to provide relief and support in times of crisis.

“The Johnson Controls Foundation is proud to celebrate our tenth year as a member of the American Red Cross Annual Disaster Giving program,” said Katie McGinty, president, Johnson Controls Foundation, and vice president and chief sustainability and external relations officer. “Protecting the communities where Johnson Controls employees and our customers live, work, learn and play is of the utmost importance – and thanks to the Red Cross, these communities have the support they need when disaster strikes.”

Every year, the Red Cross responds to more than 60,000 disasters large and small across the U.S., providing comfort and hope to people during times of uncertainty and distress.

Donations to the ADGP are more important than ever before to power Red Cross readiness and strengthen response efforts with large disasters like hurricanes, floods and wildfires increasing in frequency and intensity.

“Partners like the Johnson Controls Foundation are truly extraordinary because they understand the importance of having vital resources in place before a disaster strikes,” said Anne McKeough, chief development officer at the American Red Cross. “We are extremely grateful for these forward-thinking donors who ensure we stand ready to help people in their darkest hours, whenever and wherever we’re needed most.”

To learn more about Johnson Controls’ philanthropic efforts, visit: <https://www.johnsoncontrols.com/corporate-sustainability/community/philanthropy>.

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Modine Celebrates Opening of U.S. Chiller Plant

Rockbridge, Va. – Modine Manufacturing Company, a provider of thermal management technology and solutions, officially marked the launch of its new production facility in Rockbridge, Virginia, with a ribbon-cutting ceremony. The newly repurposed plant, previously a warehouse, will manufacture cooling solutions under the Aire-dale by Modine brand to capture opportunities in the growing data center industry. The ribbon cutting ceremony was attended by Modine employees and local government officials, including Representative Ben Cline (VA-06), Lexington Mayor Frank Friedman, and representatives from the Rockbridge County Board of Supervisors and the Virginia Economic Development Partnership.

Neil Brinker, Modine president and CEO; Eric McGinnis, president, Modine Climate Solutions; and Rockbridge Plant Manager Thomas Johnson hosted guests on a tour of the new facility and explained why it is ideally located to serve the U.S. data center market. Virginia is the largest data center market in the world and Northern Virginia is home to more than 20% of all known hyperscale data centers worldwide.

“The demand for data is growing exponentially,” said Brinker, “and the Rockbridge plant positions Modine to offer a full range of cooling solutions to serve North America customers in the growing data center market. The products we manufacture here are one way Modine is engineering a cleaner, healthier world.”

“Modine has a proud history in Virginia,” said McGinnis. “I’m delighted to open a new chapter on that with the official opening of the Rockbridge manufacturing plant. The support we’ve received from the local area has been instrumental in getting to this point and we’re starting to see the benefits now in terms of jobs and economic growth. Virginia is at the heart of the global data center market so there is no better place to be to serve our clients.”

Brinker thanked the government agencies for their support, which included a \$194,000 grant from Virginia’s Opportunity Fund. Grant funds supported recruitment efforts that enabled the plant to exceed its initial target of creating 60 new full-time roles. Brinker said that Modine expects to have



REPRESENTATIVES OF THE MODINE MANAGEMENT TEAM, WITH OFFICIAL GUESTS. DAVE GIFFORD, ASSOCIATE VICE PRESIDENT OF CORSCALE IS SHOWN CUTTING THE RIBBON.

more roles to fill in the next 12 months as the facility completes on going work to launch an on-site test facility.

Dave Gifford, associate vice president of Corscale, cut the ribbon and declared the plant open. The first six chillers manufactured at the new plant were recently delivered to Corscale’s Gainesville Crossing, Virginia data campus following extensive testing at the Airedale headquarters in the U.K.

Munters to Build All New Site in the U.S.

Amesbury, Mass. – Market demand for precise temperature and humidity control has grown considerably, driven by the expansive electrification and digitalization trends. Munters’ new facility will significantly increase capacity, offer improved workflows, and provide a more inviting and comfortable environment for employees. Also key to this development will be providing even higher levels of customer service and satisfaction in Munters’ target markets, including lithium-ion battery production, food processing, and more.

The new facility will house fabrication, assembly, rotor production, a new R&D lab, as well as a service training academy. In-line with Munters’ sustainability goals, investments will be made in equipment that doesn’t rely on fossil fuels, and renewable energy sources will be used for the building’s electrical consumption. The plan is to be fully operational at the new site during 2024.

“Munters is again making important investments in our global footprint and in our growing markets. Our dedication to providing outstanding customer experiences with our core dehumidification products, solutions, and services in the Americas region is clear,” said Henrik Teiwick, group vice president and president, Business Area AirTech. “This new facility

will have reduced carbon dioxide emissions, increased energy efficiency, and a significant share of renewable electricity for our operations, supporting Munters’ journey toward a sustainable world.”

Global Property Developers Corporation will be the developer for the new Munters facility. Economic development incentive dialog is underway with the City of Amesbury and the Commonwealth of Massachusetts.

“Munters has been part of the Amesbury community for 60 years. Our business has flourished here, and we continue to grow,” said Andrew Cook, senior vice president, Americas, AirTech. “We’re the largest employer in the community and many of our employees live in Amesbury or the surrounding area, so being able to bring the entire workforce to our new site – plus expand it – is absolutely fantastic! We’re looking forward to continuing our solid relationships with the City and Global Property Developers.”

One Hour Heating Launches Annual HVAC Contest

Columbia, Md. – One Hour Heating & Air Conditioning announced the launch of its annual HVAC Entrepreneur Recruitment (HER) Contest to highlight women in the HVAC industry and find female entrepreneurs who are interested in owning their own business in a leading industry. The contest highlights One Hour Heating & Air Conditioning’s ongoing dedication to diversity and encourages women in the trades to join the HVAC leader’s team of strong, experienced franchise owners, technicians, managers, and executives.

To help combat the earnings gap in which women have earned 97% of what men earned in 2021, One Hour’s HER contest will honor one grand prize winner with

a complimentary set up and new franchise initial training fee to help her open her own One Hour Heating & Air Conditioning franchise in her community. Women holding an active HVAC license and certification in the United States or wishing to obtain licensing and certification can visit One Hour Heating & Air Conditioning’s HER Contest landing page to download the entry form and enter for a chance to win. Entries are currently open and close at 5 p.m. E.T. on January 31, 2023. The total prize is valued at approximately \$43,000.

“At One Hour, we truly value the women in our HVAC family and the breadth of contributions they are responsible for within our franchise system and the dedication they show to their teams and customers. Currently 7% of women in the U.S. own an HVAC company and we would love to help that percentage skyrocket as we are dedicated to diversity and inclusion and pride ourselves on creating a space for women in the field,” said Mark Dawson, CEO of One Hour Heating & Air Conditioning. “We are excited to unearth even more talented female entrepreneurs and open the door to many more women in HVAC.”

To learn more about franchising opportunities with One Hour Heating & Air Conditioning in your area, visit <https://www.onehourheatandair.com/franchise>. One Hour Heating & Air Conditioning is part of the Authority Brands family.

Redwood Services Invests in Apollo

Memphis, Tenn. – Redwood Services (“Redwood”), a home services firm focused on investing in leading residential HVAC, plumbing and electrical services companies in growing U.S. markets, announced it has invested in Apollo Heating, Cooling and Plumbing (“Apollo”).

Apollo was founded in 2004 to serve homeowners in Northeast Ohio. The business has more than 60 employees and 4,500 active customers. Apollo provides heating and cooling, as well as plumbing, sewer and drain services to residents across Greater Akron.

“Apollo has demonstrated strong revenue growth and they are just getting started,” said Richard Lewis, CEO of Redwood Services. “Across the Redwood family, we have seen Partners’ success built on consistently delivering high-quality, wholistic solutions to the

residents in their communities. Nick and his team personify that commitment, which gives us tremendous confidence that they are a fit for the Redwood family and we are a fit for them.”

As part of the investment, Nicholas Leisinger will retain a significant minority ownership stake. The Apollo team will continue to operate and manage the business under the Apollo banner and name, while Redwood offers operational, strategic and financial support to enhance the company’s growth.

“At Apollo, we feel partnering with Redwood will only expand our growth and people-centric approach to business. They have already begun assisting us in operational areas across the business as well as connecting us with other Partners within the Redwood family,” said Nicholas Leisinger, President of Apollo. “In a field that is consistently innovating with technologies to improve service offerings, Redwood’s deep expertise and network can connect us to vendors who have the best products to evolve and grow our business.”

Apollo is Redwood’s eighth platform investment, following investments in Mississippi-based Environment Masters, Arizona-based Plumbing Medic, Indianapolis-based Service Plus, Cincinnati-based Arlinghaus, Fresno-based Allbritten, D.C.-based John C. Flood, and Tucson-based Rite Way.

Rheem Receives 2023 CES Innovation Award

Atlanta, Ga. – Rheem’s ProTerra® Plug-In Heat Pump Water Heater has been named a CES 2023 Innovation Award winner in the Sustainability, Eco-Design & Smart Energy category.

The CES Awards program is an annual global competition honoring outstanding design and engineering in 28 consumer technology product categories. More than 2,100 products were submitted for consideration this year.

Water heating is the second highest energy user in a home and over seven million water heaters are replaced each year. Rheem’s ProTerra Plug-In Heat Pump Water Heater is a smart, drop-in replacement for gas-to-electric water heater conversions and a groundbreaking innovation that helps homeowners lower energy use and reduce their carbon footprint.

Continued on Page 14



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## Calif. Joins National Coalition Strengthening Building Performance Standards

Continued from Page 1

ing to reduce carbon emissions from existing buildings across the state. Combined with the White House's new Federal Building Performance Standard, nearly one-quarter of buildings nationwide will be more sustainable," said Brenda Mallory, chair of the White House Council on Environmental Quality. "The Biden-Harris Administration is grateful for Governor Newsom and the California Energy Commission's partnership in the fight to make America's buildings more efficient, affordable, and resilient."

"We are proud to be part of this effort as California increases its commitment to addressing

the climate crisis with the Governor's ambitious heat pump goal and a historic \$54 billion budget investment including \$1 billion for building energy improvements," said California Energy Commission (CEC) Commissioner Andrew McAllister. "Through this new coalition, we look forward to sharing our experience and learning from others about policies and processes that can move the needle towards healthier buildings and a more sustainable future."

Because of their sheer number, buildings have significant impacts on indoor and outdoor air pollution and community health. Greenhouse gas emissions from buildings currently represent 35 percent of total energy-related emissions in

the United States. Better building performance is needed for the nation to reach its goal of reducing emissions by 50 to 52 percent from 2005 levels by 2030.

California developed the nation's first energy conservation standards for buildings and appliances in the 1970s. Since then, the state has continued to establish cost-effective standards and incentives that benefit consumers. California's standards are adopted by other governments around the world.

Every three years, the CEC adopts forward-thinking and cost-effective building energy efficiency standards for new construction and substantial renovations through its Energy Code covering energy use, insulation, ventilation and more. Together with the

coalition's emphasis on upgrading existing buildings to achieve minimum levels of energy or climate performance, California will be able to decarbonize the building sector faster.

Federal agencies support the coalition partners with technical assistance and program funding with the U.S. Department of Energy helping set emissions reductions goals by using better data collection tools. The Environmental Protection Agency will also provide new tools that calculate localized greenhouse gas emissions to inform reporting, compliance, and assessment. Non-governmental and labor organizations will provide support in the areas of workforce engagement, equity strategies, localized

policy design, and stakeholder engagement.

The California Energy Commission, formally the Energy Resources Conservation and Development Commission, is the primary energy policy and planning agency for California.

Created in 1974 and headquartered in Sacramento, the Commission's core responsibilities include:

- Advancing State Energy Policy
- Achieving Energy Efficiency Investing in Energy Innovation
- Developing Renewable Energy
- Transforming Transportation
- Overseeing Energy Infrastructure
- Preparing for Energy Emergencies

The Commission is a division of the California Natural Resources Agency, which is under the direction of Cabinet Secretary Wade Crowfoot. One of its prominent responsibilities is maintenance of the California Energy Code.

### Industry News

Continued from Page 1

"Rheem has been focused on innovating around sustainable replacement options to help homeowners and multifamily property owners cut energy usage and reduce carbon emissions," said Scott Cohen, Director, Marketing & Training, Rheem. "To be recognized by CES is an honor and a testament to the enormous positive impact this technology can have."

The ProTerra Plug-in technology allows homes that have been set up for gas appliances the ability to switch to a more efficient electric heat pump water heater without having to incur costly electric panel upgrades. The ProTerra heat pump water heaters are five times more efficient than a traditional gas tank water heater and can reduce energy consumption by up to 80 percent.

A complete list of the CES Innovation Award honorees can be found at CES.tech/innovation and click to view additional details on Rheem ProTerra Plug-in Heat Pump as a CES 2023 Innovation Award Product Honoree.



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





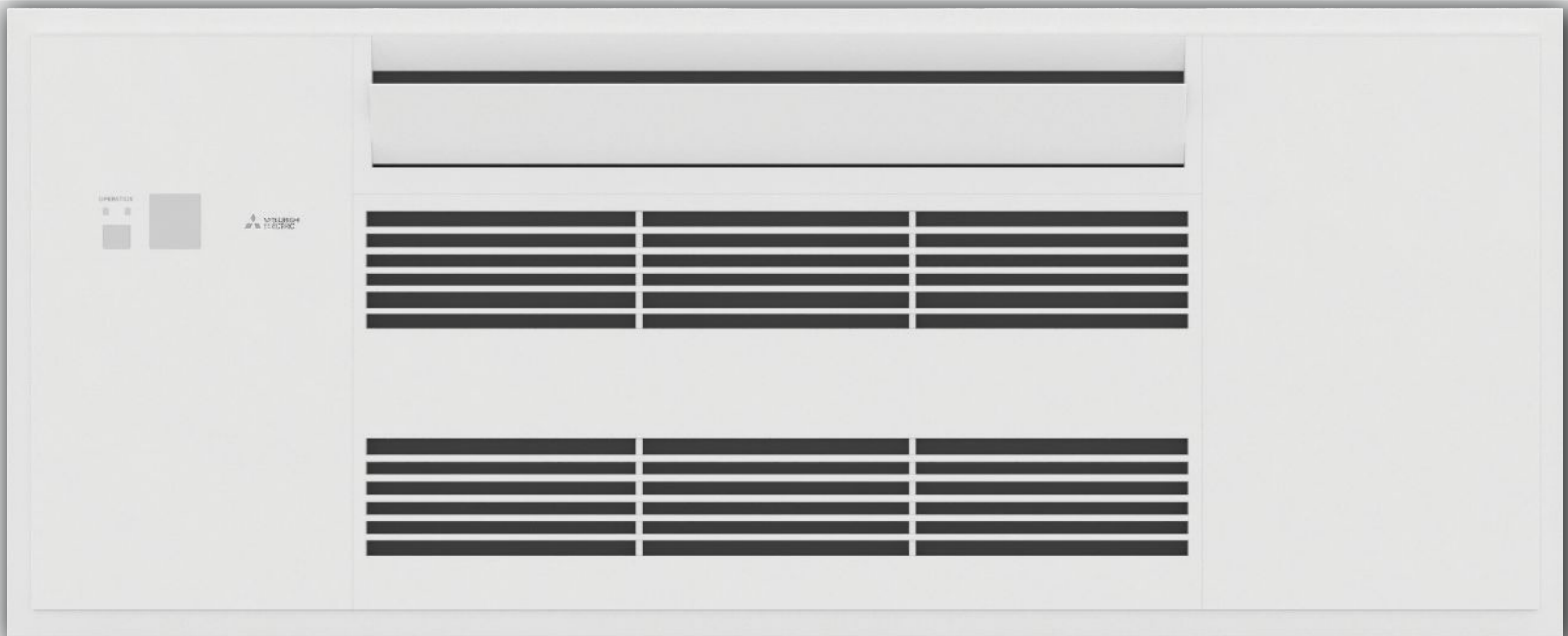
Venstar Inc. is a leading thermostat and energy management system (EMS) manufacturer, known for providing value to its customers via ease of use and installation, proven cost savings, improved energy efficiency, quality and reliability. Founded in 1992, Venstar is one of the largest thermostat suppliers in the world and designs and produces Venstar-branded products, as well as OEM thermostat products for the biggest names in HVAC. For more information, visit [www.venstar.com](http://www.venstar.com).

ICN JANUARY 2023 15



# Introducing the New EZ FIT® 6K BTU Ceiling Cassette

The smaller MLZ-KY EZ FIT® One-way Ceiling Cassette recesses between I-joists, providing a clean flush-mount appearance. The slim body design fits into shallow ceiling cavities making the EZ FIT a perfect selection for new construction projects, hotels, office spaces or any room upgrade. Compatible with multi-zone heat pumps and featuring high/low ceiling airflow settings, automatic vane control and is easily serviceable from below. The new smaller EZ FIT is specifically designed to provide personalized room comfort for multiple applications.



MLZ-KY06NA Dimensions  
W: 33-3/16 x D: 11-7/8 x H: 7-11/16

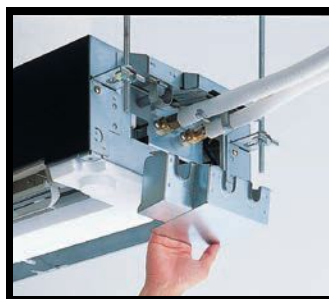
## Compact Design

With its slim and compact design, new MLZ-KY model can be installed between a conventional joist and I-Joist.



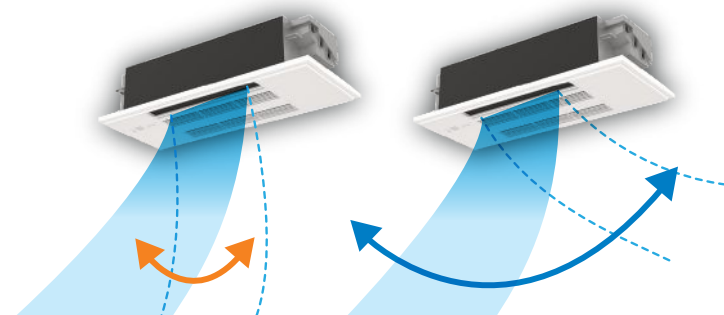
## Serviceable from the Bottom

You have total access to the inside of the unit without requiring a service access panel.



## Auto Vane Controller

Outlet vanes can be moved left and right, as well as up and down using the remote controller, improving airflow control.



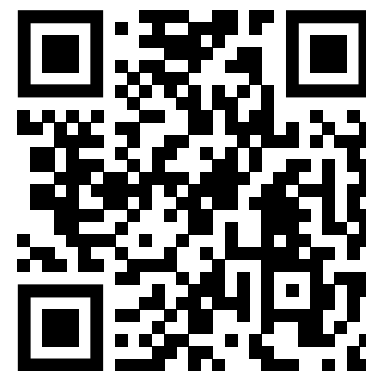




## Key Features of the MLZ-KY06NA

- Designed to fit between I-joist spacing
- Stylish, square design panel
- Built-in condensate lift mechanism (19.6")
- Serviceable from the bottom (electrical and flare connections)
- Adjustable fan speeds and vane directions
- Washable antibacterial and deodorizing filter
- Multiple control options available:
  - Hand-held Remote Controller (provided with unit)
  - kumo cloud® smart device app for remote access
  - Third-party interface options
  - Wired or wireless controllers
  - Pocket inside the access panel for kumo cloud® Wireless Interface

Scan this QR code to watch a short video on the MLZ series products





HVAC Business & Contractor Technologies/Green Technologies/Heating Products

Business Development Resources Equipment Exchange



**Business Development Resources (BDR)**, a training and business coaching authority for home services industry professionals, announces the launch of a unique online resource to help HVACR dealers work together to ensure they are properly equipped for new 2023 efficiency standards. BDR's Equipment Exchange allows individual dealers to connect online and arrange transfers of equipment impacted by a range of changing local, state and federal energy regulations that took effect on Jan. 1, 2023.

"With the unprecedented number of new standards starting at the beginning of 2023, dealers may find some of their inventory is outdated overnight," said Bruce Wiseman, president and owner of BDR. "BDR's new online Equipment Exchange network allows individual dealers to post their available equipment, see listed products, and negotiate agreements so everyone has the equipment they need to serve their customers."

The Equipment Exchange is a free service for dealers directly affected by rapidly changing energy standards and is intended for limited exchanges. BDR is not involved in any transactions and recommends dealers always contact their distributor partner first for their product needs.

"The goal of our Equipment Exchange is the overall benefit of our industry during a period of enormous potential disruption," Wiseman said. "Without a program like this, dealers could be stuck with equipment they can't use, forcing them to absorb significant losses or pass them on to contractors and their customers. BDR remains committed to the distributors who are an essential part of this industry."

**More information:** <https://www.bdrco.com/exchange/>.

Ecoer Heat Pumps

**Ecoer**, manufacturer of highly efficient variable speed inverter heat pumps, has announced it

now offers an "out-of-the-box" ten-year warranty on both parts and labor for its flagship line of heat pumps at no charge to end users.

North American President Rick Warner said that the manufacturer's confidence also extends to the renaming of its heat pump product line. "We're now calling our inverter heat pumps the ESi Decades series, because they offer our end users decades worth of peace of mind." He adds that the ten-year parts and labor warranty is available on all units installed by a trained Ecoer contractor.

Available in two condensing unit sizes, ESi Decades heat pumps are equipped with a cellular-based two-way communication capable IoT Gateway System that allows for remote monitoring and adjustments by professional installers. With the Ecoer Smart Service System (ESSS), contractors and end users can receive alerts and recommendations for a variety of operational conditions and provides real-time historic data on heating and cooling conditions.

**More information:** <https://www.ecoer.com/contractor/>.



Johnson Controls Solution Navigator



**Johnson Controls**, the global leader for smart, healthy and sustainable buildings, introduces Solution Navigator, a comprehensive digital experience that easily navigates the product life cycle in Building Automation Systems, Fire, Security, HVAC and Industrial Refrigeration to create a next generation of customer enablement tools. Customers can select, price, quote, order, track shipments, locate replacement parts, process warranty claims,

access training and track marketing programs, making this platform unique in the industry given the breadth of products included and depth of capabilities supported.

Through the transformative digitally enriched experience, Solution Navigator enhances the previous Navigator and legacy regional platforms by focusing on simplified navigation with a mobile-first approach providing users with the integrated tools and systems required to allow for channel partners to seamlessly interact with Johnson Controls across the product lifecycle and provide capabilities to their downstream end customers.

"When talking to our Johnson Controls customers about what matters to them in a modernized version of Solution Navigator, we understood the importance of creating a platform that allows for tools, products, support and expertise across the entire lifecycle to be available at one single resource," said Renee Joseph, global vice president of Customer Enablement. "Solution Navigator's technologies bring all of our capabilities together and drive a world-class customer experience that saves customers time and positions them to grow their businesses."

Solution Navigator's global customer enablement tools is being deployed across all product business units and regions all while providing a common look and feel for customers facilitated by a unified platform that is focused on having an interface that is both intuitive and fast. The Solution Navigator mega menu simultaneously increases product choices and reduces clicks for users, making the 'add to cart' process take between 30-45 seconds, a 30-second improvement from the previous version.

**More information:** [www.solutionnavigator.com](http://www.solutionnavigator.com).

Napoleon NS18 Heat Pump

The **Napoleon NS18** heat pump has new, more efficient technology that features a variable-inverter compressor and vapor injection technology to heat a home in temperatures as low as -30°C (-22°F) and cool it on sweltering days as hot as 54°C (129°F).

It also operates on electricity, helping homeowners reduce their carbon footprint and reduce energy costs without sacrificing comfort.



RectorSeal Calci-flush

**RectorSeal**, a leading manufacturer of quality HVAC/R and plumbing tools and accessories, and a wholly owned subsidiary of CSW Industrials, Inc., introduces Calci-flush™ standard tank water heater flush.

Calcium and scale build-up is a leading cause of premature tanked water heater failure. Unless the tank is adequately flushed on a regular schedule, its heating ability will be hindered by the formation of calcium deposits that are released through normal operation or when chemicals enter an unmonitored breakdown product at elevated temperatures. Eventually, these built-up compounds can lead to a call for a replacement or result in unsafe operating conditions.

When used properly, Calci-flush helps eliminate calcium and scale buildup and restore circulation and water pressure in about 60 minutes. Using Calci-flush as part of a water tank maintenance program helps extend the life and performance of a standard water heater.

Available in a gallon jug, Calci-flush is easy to use. After the water to the tank is turned off and the tank is drained, simply connect the Calci-Flush container to the tank's drain valve with the included hose adapter. Calci-Flush enters the water tank via gravity flow and starts to work immediately. In approximately 30-60 minutes, the water tank can be flushed, refilled, refreshed, and ready to deliver optimized performance. Calci-Flush is NSF certified.

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.

**More information:** [www.rectorseal.com](http://www.rectorseal.com).

Nortek Global HVAC Reznor UEZ



**Nortek Global HVAC (NGH)** announces the release of three new capacities for the Reznor® UEZ condensing gas-fired unit heater. This industry-leading model supplies fuel-efficient heating to ensure cost-effective operation while promoting the safety and comfort of building occupants.

Features of the launch include:

- Three new sizes: 55, 85, and 110 MBH.
- Certifications for industrial/commercial use and residential, non-living space applications (such as workshops and garages).
- 93% fuel efficiency for cost-effective operation.
- Improved sustainability and reduced environmental impact.
- Outside air used for combustion, eliminating drafty infiltration problems, and improving building performance and comfort.
- Bright status light, hinged access door, and seven-segment error code display on the control board for easier service and maintenance.
- Appliance-grade finish that is attractive for residential applications while robust enough for commercial and industrial applications.

The line is expertly designed, tested, and backed by 134 years of Reznor heating experience. The new sizes enable large and small spaces to be heated efficiently while reducing operating costs and the building's carbon footprint. These additional capacities provide one-stop-shopping for all unit heater needs.

"Expanding the portfolio of our most efficient products helps homeowners, buildings owners, and facility managers achieve their financial and sustainability goals; all while supporting their building occupants' safety, health, and productivity," said Joe Patterson,

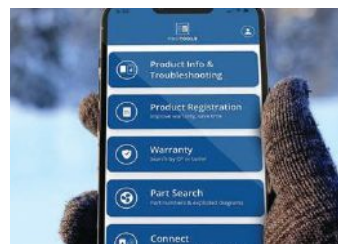
## HVAC Business & Contractor Technologies/Green Technologies/Heating Products

Reznor General Manager.

**More information:** [www.reznorhvac.com](http://www.reznorhvac.com).

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### Weil-McLain ProTools App



Just in time for heating season, **Weil-McLain** has updated its ProTools™ App with enhanced features to provide contractors and service technicians with the support they need to streamline customer visits and provide clients with a premium experience. Available for iOS and Android devices, the app now allows heating professionals to work virtually with Weil-McLain's Tech Support team to problem-solve issues as they occur on the job site.

"Our goal is to continuously optimize this platform by adding additional features that make service technicians' and installing contractors' jobs easier – especially during the busy heating season period," said David DeVries, Director of Product Management with Weil-McLain. "The new Site-Call video assistance opens new opportunities for service technicians to receive instant support from our Tech Support team."

Service technicians who run into complications while on the job can contact Weil-McLain Tech Support for Site-Call video and receive immediate real-time assistance. After requesting support, they simply accept the call from Tech Support on their smartphone and

share a live video of the issue they are experiencing on the job site. Tech Support will then highlight the issue on the service technician's screen and propose corrective action to solve it.

"This new feature provides heating professionals with immediate access to our support team and also allows them the opportunity to learn new methods for troubleshooting, maintenance and boiler setup," added DeVries. "As we prepare for what could be another colder than normal winter, we want to ensure service technicians have all the digital tools and knowledge they need to help expe-

dite customer visits while providing homeowners a best-in-class service experience."

The Weil-McLain ProTools App helps enhance service technicians' hydronic expertise by putting a variety of Weil-McLain boiler product information at their fingertips. From reviewing fault codes for troubleshooting and accessing how-to videos to viewing product manuals and schematics and quickly finding parts, the app has become a one-stop resource for boiler installation and maintenance.

**More information:** [www.weil-mclain.com](http://www.weil-mclain.com).

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### York Air Handlers



The new **York** air handlers feature high-efficiency blowers that use up to 10% less energy and feature a modular architecture ideal for space-constrained applications.

When matched with new outdoor condensers by Johnson Controls, the handlers meet the DOE 2023 efficiency standards. The new line features an A-shaped coil design, which provides more balanced refrigerant flow and results in long-lasting performance and lower energy usage. The portfolio features two models: a fixed-speed model with a two-stage motor that can operate in a low/med/high fashion; and a variable-speed model, which matches operation to the exact speed needed, consuming less energy and reducing noise levels.

**More information:** [www.york.com](http://www.york.com).

# ARE YOU #2023READY?

## Here's What's Changing

The Department of Energy (DOE) is increasing the minimum efficiencies for central air conditioners and heat pumps. The testing procedures for determining those efficiencies are changing as well.

## What you need to know

Are you ready for the new Department of Energy Changes?



Dealers and contractors who install non-compliant equipment will be required to replace the equipment and face fines of up to \$503 per unit, per day.



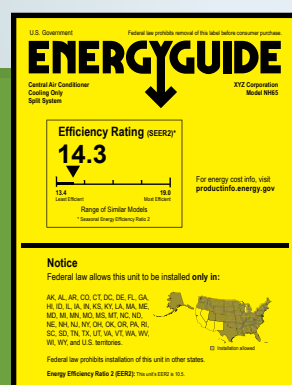
Train your technicians now on the new compliance standards.



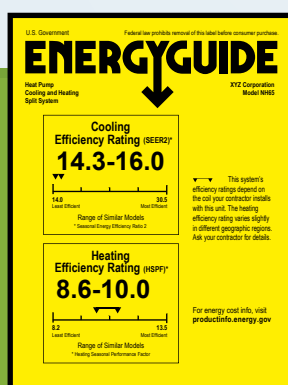
Scale down current inventory now to prepare for the new regulations and product launches.

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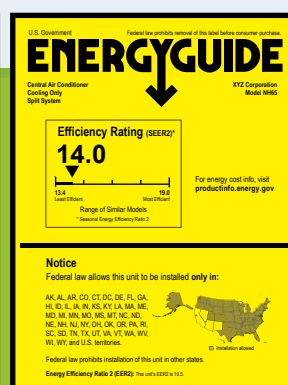
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# IHACI'S 42<sup>nd</sup> ANNUAL HVAC/R/SM PERFORMANCE CONTRACTING PRODUCT & EQUIPMENT TRADE SHOW

NOVEMBER 15, 2022, PASADENA, CA



THE INDOOR COMFORT NEWS/IHACI BOOTH.



"ELVIS PRESLEY" PERFORMING AT THE TRADE SHOW.



PACIFIC SYSTEMS GROUP: BOBBY HAHN (LEFT) AND JAY TORRES.



HUDSON TECHNOLOGIES: BRETT BRADLEY (LEFT) AND MICHAEL SCOTT.



ROY MITTLEIDER OF CALCERTS.



THE BENOIST COMPANY: ERIC QUANDT (LEFT) AND SAHSA VINNIKOV.



WELLS PLUMBING AND HEATING SUPPLIES: TIANJI GUO (LEFT) AND LEON YU.



STATE FARM: ARDELLE CASTILLO AND GARY LORGE.



DAVID MCINTOSH OF DUCT SADDLES.



DR. HENRY DER ANTONIAN OF EL CAMINO COLLEGE.



ROTOBRUSH: MICHELLE LANDERS AND JOHN KOVACS.



PANASONIC LIFE SOLUTIONS: NANETTE ANTOON AND KEVIN PALMER.





ROBERT ORTEGA OF AEROCOOL.



SIRRUS CHANDLER OF SAMSUNG.



TRADE SHOW PARTICIPANTS TRY THEIR LUCK AT THE CRAPS TABLE.



CY HVAC SUPPLY: RAY YU (LEFT) AND JASON CHOU.



EMERSON: (FROM LEFT) DENNIS MELTON, DAVID OBESO, TIM HALL.



THE AIREX BOOTH.



GLOBAL THE SOURCE: MARK HALL AND ASHLEY LYNDY.



COOL AUTOMATION: BEN SHIPLEY (LEFT) AND CHRISTIAN RODRIGUEZ.



"GROW YOUR HVAC BUSINESS WITH HEAT PUMP WATER HEATERS" SEMINAR.



THE USAIRCONDITIONING DISTRIBUTORS BOOTH.



ACTION DUCT CLEANING: DAVID MERCADO AND CIARA ANDERSON.



FERGUSON HVAC: (FROM LEFT) STEVE MATHIAS, JACQUELINE QUINN, DARYN JOHNSON.



LOOK FOR MORE PHOTOS IN UPCOMING ISSUES!  
SEE YOU NEXT YEAR, NOVEMBER 7, 2023!



# Technical Training

## Growing Green Technicians Part 159: Heating Equipment and Humidification

By Jim Johnson  
Contributing Editor

By the time HVACR technicians are deep into the winter season, it's likely that they've already had many discussions with customers regarding their concerns about their indoor environment being "too dry" or "chilly" even though the heating system is operating. Often, the customer's solution to this problem is to bump the temperature up a few degrees.... which usually means that it won't be long before they'll be reaching for the thermostat again to turn it down because it's now warmer than they want it to be in the building.

This sequence of events repeats and repeats, which results in wasted energy. From a green perspective, handling this situation for customers begins with a basic understanding of psychrometric principles.

The customer's assumption is that their heating system actually causes the air to simply "dry out", when it's more correct to say that the relative humidity of the air is decreasing. During the heating season, when the cool outside air that is necessary for ventilation and fresh air requirements is either leaking into a structure (not green) or is being brought into a

building via a system designed to control air intake (green), it contains a given level of moisture. While the intake air warms up, it will still contain that level of moisture, and the ability of that air to hold moisture will increase, making it seem more "dry".

From an energy-efficient perspective, a heating system that is not keeping the occupants comfortable due to the situation we've described above, the answer is to add a humidifier. From a fundamental perspective, there are general classes of humidifiers:

1. A humidifier that provides a mist of atomized water through a nozzle and into the duct system.
2. A humidifier employs a plate or rotating drum system to hold moisture, allowing it to enter into the duct system when the air flow passes over the pads or the container of water.

When it comes to gas furnaces, a plate type humidifier that employs pads and mounts with a flange (see **Figure One**), or a rotating drum



FIGURE 1

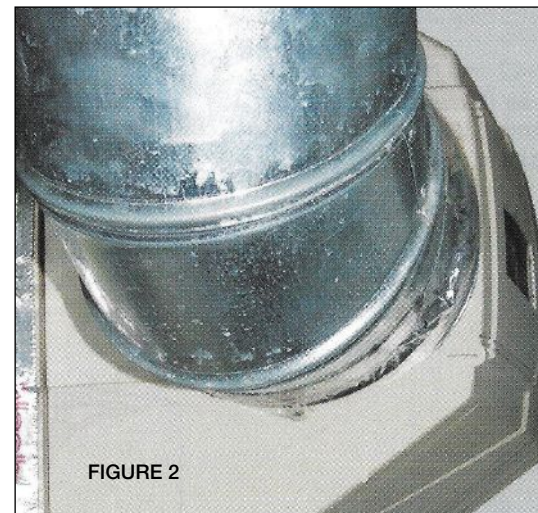


FIGURE 2

system (shown in **Figure Two**) will effectively humidify the air and it moves through the duct system.

However, in the case of a heat pump system, the lower supply air temperature of this type of heating equipment is typically not warm enough to cause water to evaporate effectively. In these cases, an atomized humidifier, such as the type we're showing in **Figure Three** would be required.

Whatever the heating equipment type, adding the correct type of humidification system and employing an effective control system will result in a more even comfort level in the building, while ensuring the efficient operation of the system.

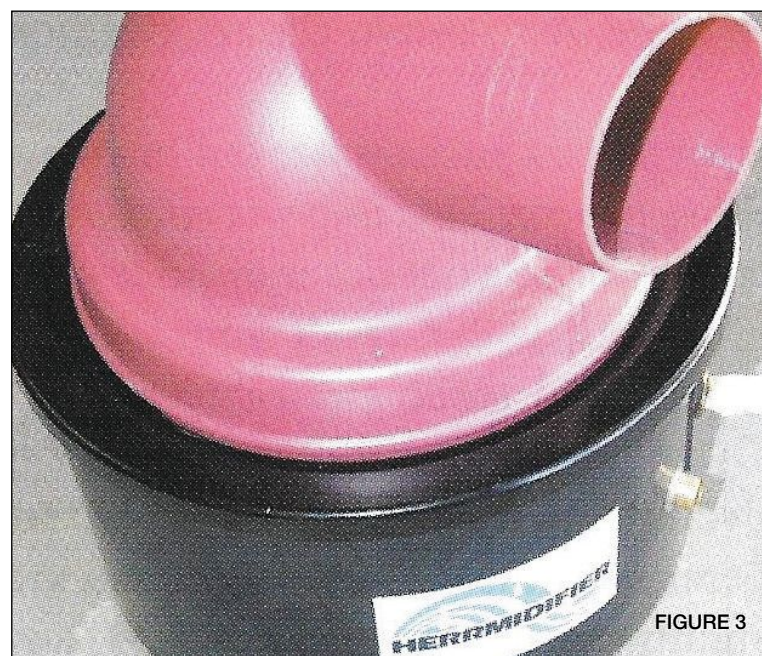


FIGURE 3

## Troubleshooting

### A New Walk-In That's Not Performing

By Jim Johnson  
Contributing Editor

In this month's troubleshooting situation, you are being asked to follow up on a one-week-old installation of a walk-in cooler in a small restaurant. The technicians installed the equipment, which employs a fan-cooled condenser (see **Figure One**) sitting on top of the cabinet, and a fixed-bore metering device. They also installed a liquid line filter-drier along with the connecting tubing they selected for the installation.

The system was liquid-charged the unit by weight according to the manufacturer's specifications prior to start-up. The specific complaint is that the design box temperature is never achieved, and items placed in the cooler spoil quickly.

When you arrive, you confirm that the unit is not performing properly, and you also note the following:

1. The operating pressures, checked at a suction and liquid line service valves, are lower than normal.
2. The compressor operating temperature is higher than normal.
3. A temperature test reveals a drop in temperature of 9-degrees between the outlet of the evaporator and the suction line near the service valve.

Your troubleshooting question: *What error was committed when this system was installed?*

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@techtrain-assoc.com](mailto:icntroubleshooting@techtrain-assoc.com) or by U.S. 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

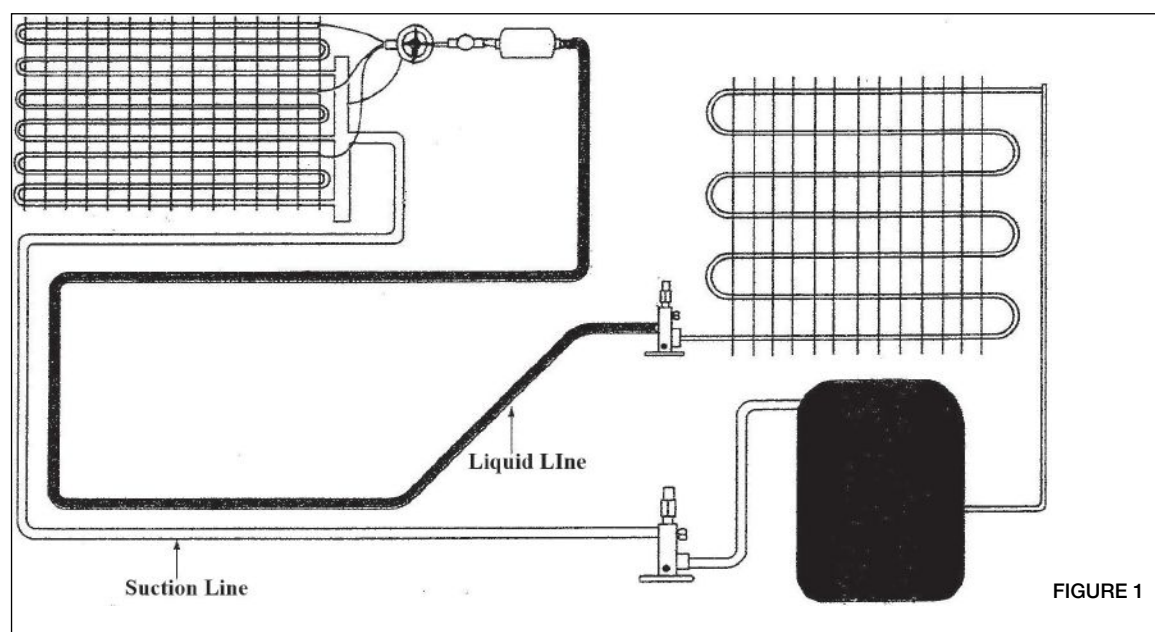


FIGURE 1

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:

The next step is to replace the Hot Surface Igniter. A resistance reading of more than 90 ohms proved that it is failing and unable to provide the proper current draw in order to accomplish the operation of the gas valve.



## California Energy Commission Celebrates 2022 Clean Energy Hall of Fame Awards Winners

The California Energy Commission (CEC) recently recognized six courageous leaders, presenting them with the Commission's 2022 Clean Energy Hall of Fame Award for their exceptional work in helping California achieve a 100 percent clean energy future for all.

The Clean Energy Hall of Fame is an annual event, and this year's winners were recognized at a ceremony at the California Natural Resources Agency Auditorium.

"Today we recognize appropriately, six people in particular who are doing the real work to change the very landscape of energy and our environment," said California Governor Gavin Newsom. "Each of their stories reminds us of the opportunities each of us have right now, no matter our age or profession, to make a difference."

Short summaries of the award-ees are below:

### Lifetime Achievement Award

Dr. Carol Zabin founded the University of California Berkeley Labor Center Green Economy Program. She received the Lifetime Achievement Award, which recognizes an individual with at least 20 years of experience advancing clean energy who is considered a leader in their community and has had a significant positive impact on California and environmental justice communities.

The Green Economy Program provides groundbreaking research and guidance on how the state can incorporate job quality and equity into climate policy. Her career has been dedicated to helping California policymakers recognize that workers and their unions are vital in the transition to a low-carbon future and that climate investments are more effective with labor standards and good labor practices.

### Youth Game Changer Award

Kelly Tung, president and executive director of the non-profit Youth Environmental Power Initiative (YEPI), received the Youth Game Changer Award. The award recognizes an individual 18 years of age or younger, or a leader of an organization focused on working with youth who are helping to advance California toward a clean energy future through innovative methods and inspiring a new generation of energy experts, entrepreneurs, and leaders to change the game.

The high school senior from Cupertino started YEPI to empower and mobilize youth on climate change through legislative advocacy and community engagement. Her organization has implemented environmental justice programs training participants to analyze how environmental quality problems disproportionately affect disadvantaged communities.

### Tribal Champion Award

Tishmall Turner, vice chairwoman of the Rincon Tribal Council of the Rincon Band of Luiseño Indians, was selected for the Tribal Champion Award. The award recognizes an individual who is a tribal member, tribal employee, or a person that works for a tribe who has advanced a clean energy future by combating climate change through innovative projects, long term service, dedication to implementing technology, or has served in a key coordinating role that has led to more equitable outcomes and/or transformational change for tribes or tribal communities in California.

She is the tribe's first chair of the Rincon Energy Commission and has led the development of multiple microgrids on the Rincon Reservation. Turner is working to increase clean energy use for the tribe while reducing overall energy costs. Her tribal advocacy merges her modern vision beyond the reservation with a passion for her culture and her identity as a tribal woman.

### Clean Energy Champions

Three Clean Energy Champions were honored for contributing to California's clean energy future through their bold moves, leadership, and innovative ideas, while helping transform communities in California through more equitable outcomes.

Sean Armstrong, Managing Principal of Redwood Energy, an all-electric affordable housing design firm based in Arcata. Between 2007 and 2020, he led North America in designing one in four zero-net-energy residences including nearly half of those developed in California. His environmental and social activism is informed by his struggles growing up as queer. The decarbonization advocate has co-authored guides on building electrification, provided technical support to more than 60 municipal natural gas bans nationwide and municipal methane bans in California, and helped develop retrofit-ready heat

pumps to lower costs and barriers to building electrification.

Nalleli Cobo, Cofounder of People Not Pozos (People Not Wells) and South Central Youth Leadership Coalition (SCYLC)

Cobo is a 21-year-old cancer survivor who cofounded People Not Pozos to secure safe and healthy neighborhoods and cofounded SCYLC to fight environmental racism. She launched her activism as a 9-year-old after enduring debilitating illnesses associated with an oil well across from her South Los Angeles home. She mobilized a grassroots movement to eradicate oil sites, which included suing the city of Los Angeles for permitting oil drills disproportionately in Latino and African-American communities. The successful lawsuit paved the way

Continued on Page 25

## CONGRATULATIONS

2022 CLEAN ENERGY HALL OF FAME AWARDEES!

 <b>Dr. Carol Zabin</b> Lifetime Achievement Award Founder, University of California Berkeley Labor Center Green Economy Program	 <b>Kelly Tung</b> Youth Game-Changer Award President & Executive Director, Youth Environmental Power Initiative
 <b>Tishmall Turner</b> Tribal Champion Vice Chairwoman, Rincon Tribal Council, Rincon Band of Luiseño Indians	 <b>Nalleli Cobo</b> Clean Energy Champion Cofounder, People Not Pozos & South Central Youth Leadership Coalition
 <b>Sean Armstrong</b> Clean Energy Champion Managing Principal, Redwood Energy	 <b>Dr. Martinex Kedziora</b> Clean Energy Champion Superintendent of Schools, Moreno Valley Unified School District

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## Danfoss Report: Huge Gap Between Energy Demand and Supply from Renewables

A new whitepaper from Danfoss, the Danish family-controlled engineering group, highlights the dramatic increase in global demand for energy and argues that, without urgent action to curb energy demand, the build-out of renewables will be insufficient to meet the needs of a growing population.

As world leaders met in Egypt for the COP27, Danfoss said it wants to offer practical policy recommendations for urgent action that political, corporate and community leaders must consider before, during and after COP27.

Statistics show that the current build out of renewables won't be even near sufficient if we don't at the same time curb our demand for energy.

According to the President & CEO of Danfoss, Kim Fausing, this whitepaper underlines the urgent need for climate leaders to include energy efficiency measures and electrification in their COP27 plans.

Kim Fausing says: "The world, particularly Europe, is following a one-sided approach to the energy crisis, focusing solely on the supply of energy, not enough on demand. For every dollar spent on energy efficiency, we can avoid spending more than 2 dollars on energy supply. The technology is available, and energy efficiency solutions can be used today across all sectors. If we don't act now to address the growing demand for energy it will be extremely difficult and more expensive to meet the Paris Agreement goal of staying below 1.5 degrees warming."

### Need for urgent focus on demand side

The whitepaper, titled 'The neglected demand side of the green equation', delves into the details of how energy efficiency is an enabler of electrification.

To reach net zero, experts agree that we must substitute fossil energy with renewable sources and electrify everything across all sectors.

However, to grow the role of electricity in the energy mix it is a fundamental, yet overlooked, fact that we need to reduce energy demand first.

Still the world's buildings, infrastructure, transport networks and vehicles continue to operate with great inefficiencies, wasting energy and heat on a grand scale. This new whitepaper tackles this problem head on by providing clear and practical policy recommendations for fixing the currently unbalanced equation, and by highlighting the key data and figures that should inform collective decision making on these issues.

For example:

- Energy efficiency solutions, if deployed on a global scale, can take the world one third of the way towards Net Zero (according to IEA).
- For every dollar spent on energy efficiency, we can avoid spending more than 2 dollars on energy supply.
- In the IEA's net zero scenario, by 2030 the global population will grow by 750 million people and the economy will be 40% larger than today, but final energy demand will need to be 5% lower.
- Cooling is a global blind spot in climate change mitigation. As economies grow and adapt to a warmer climate, growing demand for cooling has the potential to drive one of the most substantial increases in greenhouse gas emissions we have ever seen.
- Policymakers must urgently deploy solutions to reduce energy waste and electrify transport, industries, and buildings.
- For households alone, enhanced efficiency and related avoided energy demand could help contribute to reducing global household energy bills by at least USD 650 billion a year by 2030 in

## Clean Awards

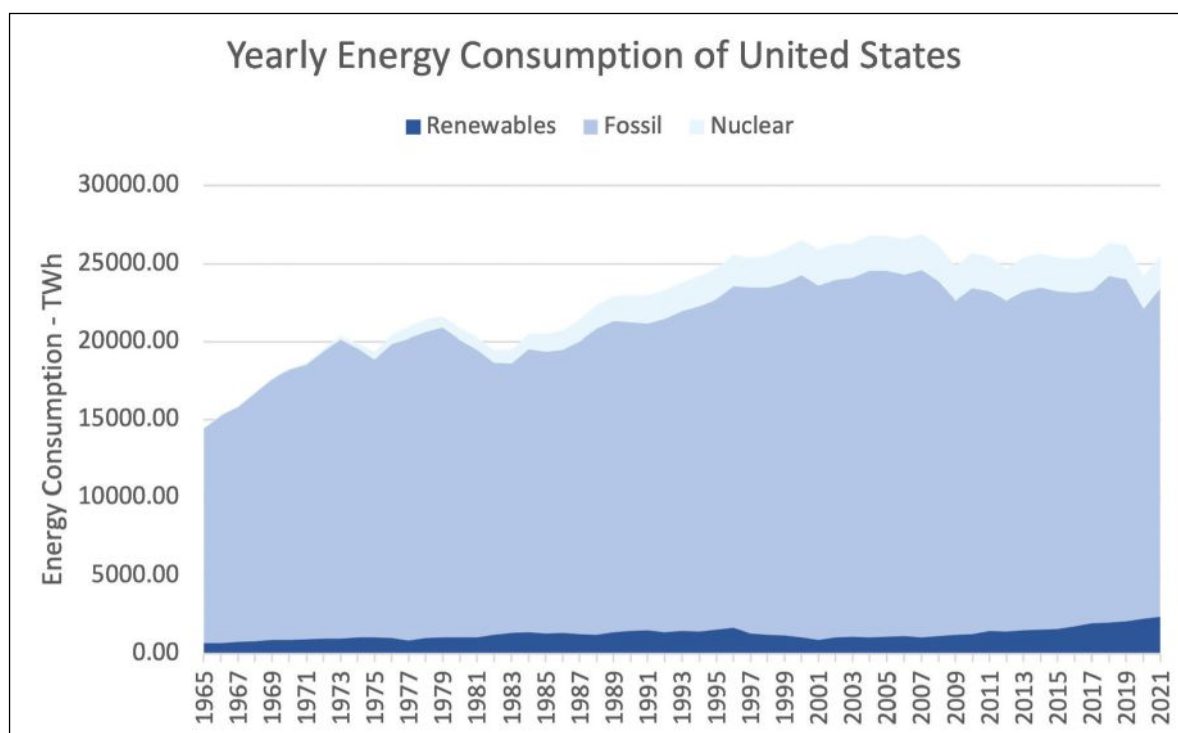
Continued from Page 23

for city- and countywide policy changes on oil extraction, phasing out the largest urban oil field in the country.

**Dr. Martinrex Kedziora,**  
Superintendent of Schools  
of the Moreno Valley Unified  
School District

Dr. Kedziora leads an urban

school district serving about 32,000 mostly Latino and African-American students. During his 40-year career in education, he has worked to advance diversity and equity to ensure all students succeed. The district is transitioning its school buses to clean energy sources with 42 of the 177 in its fleet becoming electric, the largest transition of its kind in California. This effort has been a passion project for him because Moreno Valley is a community with poor air quality.



the net zero scenario.

• Adding to this, higher investments to achieve these energy savings can support an extra 10 million jobs by 2030 in efficiency-related fields such as new construction and building retrofits, manufacturing and transport infrastructure.

Kim Fausing says: "In short, if we don't curb our demand for energy, the build-out of renewables will not be even near sufficient. We simply

will not have enough green energy to meet the demands of a growing population."

Kim Fausing adds: "Despite recent encouraging measures being taken in the EU, the current investment levels in energy efficiency are far from enough to meet our global climate goals. Governments have made headlines with mid-century targets but to a large extent failed to implement the im-

mediate solutions we have at hand. As U.S. President Biden said at COP26 in Glasgow last year, the eye of history is watching. It's time to step up, act and enshrine minimum energy efficiency requirements into law. The greenest energy is the energy you don't use, but in the current energy crisis, it's also by far the cheapest, and it's imperative if we want to meet the Paris Agreement goal."

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- 🔥 For Designers & Estimators
- 🔥 On Mechanical Systems

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to check out our curated  
HVAC Collection!



This program is funded by California utility customers and administered by Pacific Gas and Electric Company (PG&E), San Diego Gas & Electric Company (SDG&E) and Southern California Edison Company (SCE) under the auspices of the California Public Utilities Commission.



ASHRAE Highlights Refrigeration at 2023 Winter Conference in Atlanta Feb. 4 – 8

The technical program consists of eight tracks, which cover a variety of HVACR topics.

ASHRAE has released its technical program for the 2023 ASHRAE Winter Conference, and one of the tracks is dedicated to refrigeration and refrigerants. The other tracks include: Fundamentals and Applications; HVAC&R Systems and Equipment; Grid Resilience and Thermal Storage; Pathways to Zero Energy Emis-

sions and Decarbonization; Multi-family and Residential Buildings; Operations and Maintenance; and Building Simulation and Virtual Design in Construction.

The sessions on refrigeration include:

- Advances in Refrigerants and Refrigeration;
- Low-GWP Solutions for Commercial Refrigeration Industry;
- Review of Refrigerants and Systems for Ultra-Low Temperature Refrigeration Applications;

- Performance Assessment of High-Efficiency Refrigerated Display Cases with Low-GWP Refrigerants;
- Commercial Food & Beverage Refrigeration Equipment;
- Low-GWP Refrigerant for Ultra-Low Temperature Refrigeration;
- Comparative Study of Environmental Impact of Supermarket Refrigeration Systems Using Low-GWP Refrigerants; and
- Advanced Architectures for Commercial Refrigeration Systems

using Low Global Warming Potential Refrigerants

The Conference will be held February 4-8, 2023 in Atlanta, Georgia at the Omni Hotel at CNN Center. The event consists of over 100 technical sessions, tours, social experiences, and industry-specific committee meetings.

“The conference will focus on addressing the critical challenges we all face in rapidly evolving industry and policy landscapes. It will feature papers and programs

that are pertinent to the future of buildings and how they interact with people and the environment,” said Christine Reinders-Caron, chair of the committee for the conference. “Attendees will learn about the latest developments in building design and construction, from virtual design and simulation, to decarbonization and grid resilience.”

The full conference schedule is available online at [www.ashrae.org/conferences/2023-winter-conference-atlanta](http://www.ashrae.org/conferences/2023-winter-conference-atlanta).

New Products



Featuring a sleek, clean-lined design, **DryerWallVent Prime** allows professionals to provide homeowners with DryerWallVent color choices that go beyond the standard White, Tan, Brown and Black offering, adding versatility and the ability to blend with virtually any color palette.

“Now, with seemingly infinite options to beautify exteriors, builders have more control in making sure the exterior of a home is as beautiful as the interior,” said Todd Peach, vice president of marketing at InOvate. “This latest addition to the DryerWallVent family provides the same high quality features of our DryerWallVent venting solution while enabling a seamlessly integrated aesthetic for enhanced visual appeal.”

DryerWallVent Prime (Model DWV4P) is a paintable model that features PPG’s Enviracryl® and Envirocron® powder coatings, producing a uniform, weather-resistant finish. In addition, DryerWallVent offers rugged durability through its deep drawn Galvalume® heavy gauge steel construction.

Engineered for both vent replacement and new construction, DryerWallVent Prime meets or exceeds all code requirements for safe dryer venting. The vent mates easily to any four inch duct work for quick installation. Features such as a gravity-assist damper, integrated magnets and a drip edge provide extra protection from the

elements and pests while a large, clean opening and lightweight angled damper promote exceptional airflow efficiency.

**More information:** [www.DryerWallVent.com](http://www.DryerWallVent.com).

ADEY MC5 Cleaner & MC40+ De-scaler

ADEY, a U.K- based company whose pioneering MagnaClean CMX® range was recently rolled out in the United States and Canada, is introducing a line of innovative, concentrated system treatment formulas, designed to clean and protect older hydronic heating systems and retrofit installs. MC5™ Cleaner and MC40+™ De-scaler serve different purposes, but both were created to combat a frequently overlooked enemy of untreated hydronic heating systems – black sludge.

The MC40+ Hydronic Heating System Cleaner & De-scaler is a high-strength powdered chemical, specially designed to restore existing boiler systems by removing lime-scale deposits, calcium and magnetite. Rapid-performing MC40+ delivers an advanced clean, with a highly concentrated formula, in as little as one hour. It even comes with neutralizer packets to provide extra peace of mind if there is concern over residues being left in the system.

The second, MC5 Hydronic RAPIDFLUSH System Cleaner, is a high-performance, advanced-strength product, designed to



work with ADEY’s award-winning MagnaClean® flushing unit. Together, they effectively remove sludge, debris, and scale while delivering exceptional cleaning results quickly.

Key features summary MC40+:

- Specifically designed to remove heavy lime-scale and calcium deposits from older systems with known water-quality issues or plugged components, such as heat exchangers.
- Preferred option to clean and drain the system quickly.
- Faster-acting, with a working time range of one to four hours.
- Residential only – treats 33 gallons.

MC5:

- Designed for flushing; works best with ADEY’s MagnaCleanse flushing unit.
- Faster-acting than the MC3+® but provides more time than the MC40+. Whether old or new, if the system is to be flushed on the same day that it is cleaned, this is the preferred cleaner option.
- Working time range: from a minimum of 1 hour to a maximum of 7 days.
- Residential size only, treating 26 gallons.

**More information:** <https://www.adey.com/us>.

Brass Knuckle Gloves

The hand is the leading body part injured at work and treated in hospital emergency departments, with acute hand and finger injuries sending over one million workers to the emergency room annually in the United States. **Brass Knuckle®** offers a complete line of gloves for maximum protection along with comfort and dexterity – and the company strives to make specifying



gloves easier, with robust selection tools that make narrowing down glove choices a breeze.

In its effort to help make gloves fit better, Brass Knuckle shines in the “construction of the glove.” Gloves are tested and measured against the following criteria: longer wear life, maximum dexterity, defined flex points, plus a wide range of protective features. Application-specific glove construction is critical. Brass Knuckle leads in understanding fibers, coatings, special features, and other material construction attributes that blend protection and value.

Brass Knuckle offers three signature, application-specific glove lines, with multiple gradient options within each line. SmartCut™ gloves are cut-resistant from ANSI cut 2 through 5 and from 12 through 18 gauge. The cut lineup includes the company’s SmartShell™ glove, a favorite for impact protection. SmartSkin™ gloves keep hands dry from nasty and sometimes dangerous liquid hazards without compromising comfort. SmartFlex™ are superior general purpose gloves with construction that delivers unparalleled comfort. CleanHand® disposable gloves are also available.

Brass Knuckle provides two ways to find the perfect glove. An exclusive interactive tool allows you to choose gloves by type, gauge, shell, and coating. Or, use the Hand Protection Product Selector Guide and see the full line of Brass Knuckle gloves at a glance,

with 15 individual characteristics that define each glove.

**More information:** [www.brassknuckleprotection.com/](http://www.brassknuckleprotection.com/).

Johnson Controls Air Handlers

**Johnson Controls**, the global leader for smart, healthy and sustainable buildings, has announced the launch of a new, redesigned line of high-efficiency air handlers that will improve comfort, increase energy savings and provide lasting performance. The new air handlers feature high-efficiency blowers that use up to 10 percent less energy and feature a modular architecture ideal for space-constrained applications. In addition, these new air handlers – when matched with new outdoor condensers by Johnson Controls – meet the upcoming Department of Energy (DOE) 2023 efficiency standards that go into effect January 1, 2023. The new product line is available for YORK®, Luxaire®, Coleman®, Champion®, Fraser-Johnston®, Guardian® and Evcon™ brands.

Air handlers help consumers condition and circulate air throughout the home, working in tandem with heating and cooling equipment, such as an air conditioner, furnace or heat pump. The new line features an A-shaped coil design, which provides more balanced refrigerant flow and results in long-lasting performance and lower energy usage. The new portfolio of air handlers features two models: a fixed-speed model with a two-stage motor that can operate in a low/med/high fashion; and a variable-speed model, which matches operation to the exact speed needed, consuming less energy and reducing noise levels. Furthermore, the systems also



# New Products



reduce allergens with filters and indoor air quality options.

“Our completely redesigned air handlers offer exceptional performance and flexibility, featuring next-generation high-efficiency blowers with multiple airflow settings that support Johnson Controls’ commitments to sustainability,” said Charles Hurd, director of residential product management, Global Ducted Systems, Johnson Controls. “The systems can be matched to a homeowner’s specific comfort and efficiency needs. Additionally, the systems were designed with rigid cabinet construction for lasting performance and features that simplify installation and maintenance.”

The new streamlined air handlers feature multi-position designs for up-flow, down-flow and horizontal applications, along with a compact, 21-inch casing depth providing flexibility and ease of access in space-constricted areas like attics and basements. The air handler is factory-installed with non-braze, bolt-on connectors, and toolless filter access streamlines installation and maintenance. Additionally, Air Conditioning, Heating, and Refrigeration Institute (AHRI) certified performance matches – which are a group of products that when used as a combined system meet the DOE 2023 efficiency standards – have also been provided for existing and new 2023-compliant outdoor systems to increase flexibility for distributors and contractors. This will help to ensure a smooth product transition when the DOE 2023 efficiency standards go into effect.

**More information:** [www.johnsoncontrols.com](http://www.johnsoncontrols.com).

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## Greenheck SQ Direct Drive Mixed Flow Inline Fans

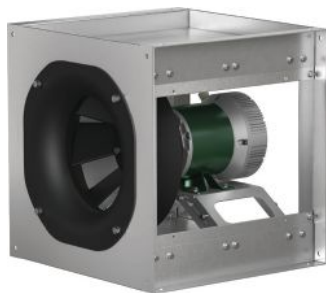
Greenheck’s line of SQ direct drive mixed flow inline fans offering a unique combination of high efficiency, low sound, and ease of installation in a square housing design continues to expand and add enhancements. With the addition of sizes SQ-7 and SQ-9 covering

lower CFM selections from 100 to 2,300 cfm, the SQ mixed flow line is now available in twelve sizes, 7-33, with performance ranges up to 27,800 cfm and up to 3 in. wg.

A new side discharge option helps to reduce system effect, improves system performance, and reduces installation labor as fans are configurable with a variety of discharge options – inline, left, right, or any combination of the three. The new configurations also help to reduce the overall footprint of the fan and ductwork. An insulation option providing both noise reduction and condensation control is recommended for applications where fans are placed in acoustically sensitive locations. Additional options and accessories are also available.

Model SQ is available with a single-phase or three-phase direct drive Vari-Green® motor up to 10 hp for improved energy efficiency and low maintenance. AMCA certified for Sound and Air Performance and Fan Energy Index (FEI), Greenheck SQ mixed flow square inline fans are ideal for indoor and outdoor supply, exhaust, return, or make-up air systems in clean air applications such as multifamily, offices, manufacturing, education and health care facilities.

**More information:** [www.greenheck.com/products/air-movement/fans/inline-fans/mixed-flow-fans](http://www.greenheck.com/products/air-movement/fans/inline-fans/mixed-flow-fans).



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## Bell & Gossett Glycol Make-up Unit

Bell & Gossett, a Xylem brand, has unveiled an updated version of its Glycol Make-up Unit GF60 (GMU), a pressurized solution designed for closed hydronic heating or cooling systems.

The Bell & Gossett Glycol Make-up Unit GF60 (GMU) is an automated 110V diaphragm pump with digital control. Each engineered package is designed to maintain critical minimum pressure levels to make up for losses that may occur due to leakage. It comes with everything required for easy installation.

“All critical components required for maintenance are easily accessible under a removable top cover,” said Jim Wilkinson, product manager, packaged systems, Xylem Inc. “This eliminates the need to access



awkwardly oriented components located on the underside of similar packages on the market.”

The automated system operates as needed to add water or water-glycol solution to a closed loop heating, chilled water, process, snowmelt or radiant heat system.

The versatile unit can handle output pressures from 7.5 to 70 psi and has a self-priming pump.

And unlike a traditional pressure switch, cut-in and cut-out pressure adjustments can be made easily using a digital display.

Digital control enables users to continuously monitor unit performance. In the event of a leak, the system immediately notifies the operator that the fluid level is dropping. The GMU safely shuts off the pump if the storage tank level gets too low, and a pressure relief valve provides protection from excess pressure.

“The package automatically notifies the operator if a leak develops,” said Wilkinson. “There’s also a low level protection that will stop pump operation if the fluid level becomes critically low.”

Additional features include:

- Self-filling system
- A ½-inch connection with a check valve for easy installation
- Translucent polyethylene solution container with lid
- An accumulator tank to prevent excessive pump cycling
- Air vent valve purges air on initial start-up and allows manual agitation of solution

**More information:** [www.Xylem.com](http://www.Xylem.com).

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## Daikin Applied Vision & Skyline

Daikin Applied announced that both its Vision® and Skyline® air handlers will be enhanced with Sorbent Ventilation Technology™ (SVT™) from enVerid Systems, creating the industry’s first total-air-quality system that combines the benefits of sorbent media with a class-leading, semi-custom air handler. This news comes a year after Daikin Applied announced the upgraded Rebel Applied™ packaged rooftop system with SVT.

Vision and Skyline with SVT will continue to address common IAQ issues in buildings. For example, the integrated SVT system from Daikin improves IAQ by removing CO<sub>2</sub>, volatile organic compounds (VOCs) such as formaldehyde, and other contaminants using sorbent filtration that captures pollutants while allowing oxygen and water to pass through freely, resulting in cleaner air. The integrated system can reduce outside ventilation by as much as 80 percent, providing greater control of humidity and comfort while trimming annual operating expenses by up to 30 percent.

“Whether a customer wants an air handler and chiller combination, or a packaged rooftop system, we’re now able to bring the benefits of integrated SVT to a broad range of applications,” said Jim Macosko, vice president of product marketing and applications, Daikin Applied. “This enhancement boasts several benefits as a more sustainable and efficient solution, serving as a gateway toward our energy-efficiency and net-zero-buildings goals.”

## Cost Savings & Reduced Carbon Emissions

The use of SVT will reduce outdoor air loads, resulting in smaller chillers, and less peak and lifecycle energy consumption, providing a more sustainable building solution that also supports electrification when paired with heat pump-driven technologies. Moderate to high outdoor air applications, including schools, spend up to 50 percent of their energy cost to condition outdoor air. By cutting outside airflow rates while maintaining building air quality, chiller plants can be downsized, with significant reductions in comprehensive energy costs. Also,



SVT reduces peak cooling and heating loads, resulting in reduced carbon emissions.

## A Fully Integrated Solution

Integrating SVT into the Vision and Skyline air handlers makes sizing, installation and facility design easier for new and retrofit construction. The integrated system allows engineers and building owners to right-size the ventilation for each zone in a single, integrated air-handling unit — with one set of ducting and one mechanical space. Adding SVT for more ventilation to the same space increases IAQ or building occupancy without having to condition extra outside air in retrofit applications.

**More information:** [www.daikin-applied.com](http://www.daikin-applied.com).

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## Avery Dennison Performance Tapes



Avery Dennison Performance Tapes announced a portfolio of interior surface bonding solutions for the building and construction segment. The Avery Dennison Interior Surfaces portfolio offers nine pressure-sensitive tape con-

Continued on Page 31

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# INSTITUTE OF HEATING AND AIR CONDITIONING

# 2023 TRAINING

CALIFORNIA QUALITY INSTALLATION, QUALITY MAINTENANCE AND QUALITY SERVICE

## SOCALGAS, DOWNEY

### JANUARY

#### NATE HVAC/R Support Training (Webinar)

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

Wed., Jan. 4 – Part 1

Thurs., Jan. 5 – Part 2

Wed., Jan. 11 – Part 3

Thurs., Jan. 12 – Part 4

### FEBRUARY

#### Gas Heating Module

(Two-Night Class) Instructor: Mike Griffin

Wed., Feb. 1 – Part 1

Thurs., Feb. 2 – Part 2

### MARCH

#### Electrical Module (Webinar)

(Four-Night Class Cont. to April) Instructors: Mike Griffin / John Dalton

Wed., March 1 – Part 1

Thurs., March 2 – Part 2

### APRIL

#### Electrical Module (Webinar)

(Four-Night Class Cont. from March) Instructors: Mike Griffin / John Dalton

Wed., April 5 – Part 3

Thurs., April 6 – Part 4

### MAY

#### AC/HP Refrigeration Module

(Four-Night Class) Instructor: John Dalton

Wed., May 3 – Part 1

Thurs., May 4 – Part 2

Wed., May 24 – Part 3

Thurs., May 25 – Part 4

### JUNE

#### Air Distribution Module

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

Wed., June 21 – Part 1

Thurs., June 22 – Part 2

Wed., June 28 – Part 3

Thurs., June 29 – Part 4

### JULY

#### System Performance Module

(Four-Night Class Cont. to August) Instructors: Mike Griffin / John Dalton

Wed., July 26 – Part 1

Thurs., July 27 – Part 2

### AUGUST

#### System Performance Module

(Four-Night Class Cont. from July) Instructors: Mike Griffin / John Dalton

Wed., Aug. 2 – Part 3

Thurs., Aug. 3 – Part 4

### SEPTEMBER

#### NATE CORE & Gas Heating Training (Webinar)

(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.

## SOUTHERN CALIFORNIA EDISON, IRVINDALE

### JANUARY

#### Gas Heating Module (Webinar)

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

Wed., Jan. 18 – Part 1

Thurs., Jan. 19 – Part 2

#### 2022 Title 24 Standards Training (Webinar)

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

Wed., Jan. 25 – Part 1

Thurs., Jan. 26 – Part 2

### FEBRUARY

#### Electrical Module (Webinar)

(Four-Night Class) Instructor: John Dalton

Wed., Feb. 8 – Part 1

Thurs., Feb. 9 – Part 2

Wed., Feb. 15 – Part 3

Thurs., Feb. 16 – Part 4

### MARCH

#### Air Distribution Module

(Four-Night Class) Instructors: Mike Griffin / Jayme Carden

Wed., March 8 – Part 1

Thurs., March 9 – Part 2

Wed., March 15 – Part 3

Thurs., March 16 – Part 4

### APRIL

#### AC/HP Refrigeration Module

(Four-Night Class) Instructor: John Dalton

Wed., April 12 – Part 1

Thurs., April 13 – Part 2

Wed., April 19 – Part 3

Thurs., April 20 – Part 4

### MAY

#### NATE CORE & Gas Heating Training

(Four-Night Class) Instructor: Mike Griffin

Wed., May 10 – Part 1

Thurs., May 11 – Part 2

Wed., May 17 – Part 3

Thurs., May 18 – Part 4

### JUNE

#### NATE AC/HP Refrigeration & Air Distribution Training

(Four-Night Class) Instructor: John Dalton

Wed., May 31 – Part 1

Thurs., June 1 – Part 2

Wed., June 7 – Part 3

Thurs., June 8 – Part 4

Sat., June 10 - NATE Exam, 7:30 a.m.

### 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

### JANUARY

#### Electrical Module (Webinar)

(Four-Night Class) Instructors: Mitch Bailey / TBA

Wed., Jan. 11 – Part 1

Thurs., Jan. 12 – Part 2

Wed., Jan. 18 – Part 3

Thurs., Jan. 19 – Part 4

### FEBRUARY

#### Gas Heating Module (Webinar)

(Two-Night Class) Instructors: Mitch Bailey / TBA

Tues., Feb. 7 – Part 1

Wed., Feb. 8 – Part 2

#### 2022 Title 24 Standards Training

(Two-Night Class) Instructors: Mike Griffin / Jayme Carden

Wed., Feb. 22 – Part 1

Thurs., Feb. 23 – Part 2

### MARCH

#### Boiler Module

(Two-Night Class) Instructor: John Dalton

Wed., March 8 – Part 1

Thurs., March 9 – Part 2

#### Chiller Module

(Two-Night Class) Instructor: John Dalton

Wed., March 22 – Part 1

Thurs., March 23 – Part 2

### APRIL

#### Air Distribution Module

(Four-Night Class) Instructors: Mike Griffin/ Mitch Bailey

Wed., April 12 – Part 1

Thurs., April 13 – Part 2

Wed., April 19 – Part 3

Thurs., April 20 – Part 4

### MAY

#### System Performance Module

(Four-Night Class) Instructors: Mitch Bailey / TBA

Wed., May 10 – Part 1

Thurs., May 11 – Part 2

Wed., May 17 – Part 3

Thurs., May 18 – Part 4

### JUNE

#### AC/HP Refrigeration Module

(Four-Night Class) Instructors: Mitch Bailey / TBA

Tues., June 6 – Part 1

Wed., June 7 – Part 2

Tues., June 13 – Part 3

Wed., June 14 – Part 4

**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.

**All Classes are scheduled for In-Person**  
**All In-Person classes subject to change based on I**  
**Classes begin at 6:00 PM Pacific Time and class**  
**Register at [www.ihaci.org](http://www.ihaci.org)**



# CLASS SCHEDULE

SERVICE (CAQI/QM/QS) & NORTH AMERICAN TECHNICIAN EXCELLENCE (NATE)

## SEPTEMBER

### System Diagnostics Module

(Four-Night Class) Instructors: Mitch Bailey / TBA

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 / TBA

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 / TBA

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.

**SAN DIEGO GAS & ELECTRIC**

## FEBRUARY

### Gas Heating Module (Webinar)

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

Mon., Feb. 6 – Part 1

Tues., Feb. 7 – Part 2

### 2022 Title 24 Standards Training (Webinar)

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

Mon., Feb. 27 – Part 1

Tues., Feb. 28 – Part 2

## MARCH

### NATE HVAC/R New Hire Module (Webinar)

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

Mon., March 6 – Part 1

Tues., March 7 – Part 2

Mon., March 13 – Part 3

Tues., March 14 – Part 4

### NATE HVAC/R Support Training Module (Webinar)

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

Mon., March 20 – Part 1

Tues., March 21 – Part 2

Mon., March 27 – Part 3

Tues., March 28 – Part 4

## APRIL

### Electrical Module (Webinar)

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

Mon., April 3 – Part 1

Tues., April 4 – Part 2

Mon., April 10 – Part 3

Tues., April 11 – Part 4

### AC/HP Refrigeration Module (Webinar)

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

Mon., April 17 – Part 1

Tues., April 18 – Part 2

Mon., April 24 – Part 3

Tues., April 25 – Part 4

## MAY

### System Diagnostics Module (Webinar)

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

Mon., May 8 – Part 1

Thurs., May 9 – Part 2

Mon., May 15 – Part 3

Thurs., May 16 – Part 4

## JUNE

### Air Distribution Module (Webinar)

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

Mon., June 5 – Part 1

Tues., June 6 – Part 2

Mon., June 12 – Part 3

Tues., June 13 – Part 4

### System Performance Module (Webinar)

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

Mon., June 19 – Part 1

Tues., June 20 – Part 2

Mon., June 26 – Part 3

Tues., June 27 – Part 4

## JULY

### Non-Res ATE Training (Webinar)

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

Wed., July 5 – Part 1

Thurs., July 6 – Part 2

### Non-Res MATT Training (Webinar)

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

Wed., July 12 – Part 1

Thurs., July 13 – Part 2

### Chiller Module (Webinar)

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

Wed., July 19 – Part 1

Thurs., July 20 – Part 2

## AUGUST

### Commercial Cooling Tower Module (Webinar)

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

Wed., Aug. 9 – Part 1

Thurs., Aug. 10 – Part 2

### Boiler Module (Webinar)

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

Wed., Aug. 16 – Part 1

Thurs., Aug. 17 – Part 2

### Commercial Refrigeration Module (Webinar)

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

Wed., Aug. 23 – Part 1

Thurs., Aug. 24 – Part 2

## 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**

## SCHEDULE TBA

Schedule will be announced in  
the February issue of ICN



n EXCEPT Where Noted.  
OUS/CA 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.







COLLEEN KEYWORTH

Formed this year, the International Network for Women in Cooling (INWIC) has appointed its first president and president-elect. **Colleen Keyworth** was voted in by the board as president to serve as of January 1, 2023, with Dr. Ina Colombo-Youla as president-elect to succeed her in 2024.

The official appointments were made after a unanimous vote during the recent quarterly INWIC board meeting. Representatives from 12 of the 13 founding partners attended the virtual meeting, despite the vast time zone differences, and voted on the nominations that had been previously submitted.

“We want to formally congratulate our newly appointed leaders and wish them all the best in their mission to create a path where none has been before,” said the INWIC secretariat. “We are confident that INWIC can make a great difference with such strong leaders at the helm.”

Keyworth currently resides as the 2022 president of Women in HVACR and has served on the Board of Women in HVACR group for the last nine years. During her tenure, the organization has grown from 100 to over 900 members. She is also the director of sales and marketing for Online-Access for an HVACR web marketing company located in Michigan in the United States.

.....

Systemair North America, a manufacturer of commercial ventilation products, has appointed **Jeff Bredeson** as its president. In this new role, Bredeson will lead all aspects of Systemair’s activities in North America, including the sales organization and the company’s three factories, located in Lenexa, Kansas; Bouctouche, New Brunswick; and Tillsonburg, Ontario, as well as Systemair’s Fantech and Greentek residential ventilation divisions.

Bredeson’s lengthy career in building products includes diverse leadership experience in the HVAC and pump industries, most

recently serving as president of fan manufacturer, S&P USA Ventilation Systems. Prior positions include president of Hydroflo Pumps, vice president of sales at Taco Comfort Solutions, and senior vice president and general manager of Hunter Fans’ Industrial Division.

“Jeff is a disciplined leader with a strong focus on market and commercialization, extensive analytical skills, and expertise in lean manufacturing and Six Sigma,” said Roland Kasper, CEO for Systemair. “His proven track record of leading companies to achieve aggressive, profitable growth will not only help Systemair grow our North American business, but also increase capacity to help scale the business and individual departments to meet future demand.”

Among Bredeson’s first initiatives with Systemair will be conducting growth evaluation and analysis and setting short- and long-term goals based on the current product portfolio, production capacities/capabilities, and target market segments.

“The pandemic has driven increased attention on indoor air quality and elevated the importance of ventilation systems for building owners and occupants. That, combined with an increased focus on energy efficiency and sustainability, indicates the timing is right to initiate and execute new growth strategies,” Bredeson said. “Knowing our role in the market, operating with high integrity, and understanding our strengths and weaknesses will be some of the keys to leveraging these opportunities for long-term success.”

Bredeson will operate from Systemair’s facility in Lenexa, Kansas and will report to Systemair CEO Roland Kasper and Global Product Director Pablo Varela.



JEFF BREDESON

.....

**Gavin Hale** joined the Propane Education & Research Council as vice president in charge of business development, PERC President and CEO Tucker Perkins announced. In this role, Hale will help grow awareness of propane’s technological versatility in the commercial



GAVIN HALE

and residential construction industries.

“Gavin is a proven leader with a wealth of experience in new product development, a robust understanding of engine markets, and expertise in complete powertrain integration,” Perkins said. “We are excited to have him on board to help seize the opportunities ahead for our industry.”

Hale arrives at PERC from Deutz Corporation, where he served as director of new power system business development and market and technology development. In this dual role he developed and executed a five-year, \$400 million business growth strategy and led an international team in developing Deutz’s first compact propane spark ignited engine. Prior to his time at Deutz, Hale worked for Power Solutions International (PSI) as their vice president of sales. Before PSI, he had a long and successful career serving as manager for new business development at Caterpillar Machine Engines.

A native of the United Kingdom, Hale has a degree in automotive engineering from Accrington and Rossendale College, Nelson and Colne Technical College, located in Nelson, Lancashire, England. He holds a Six Sigma Black Belt, as well as numerous vocational and business certifications.

At PERC, Hale will bring his knowledge and experience to bear leading business development efforts and directing the development of renewable fuel strategies for applications like power generation, combined heat and power systems, and water heating. Hale will start his career at PERC working from his home in Monroe, Georgia.

.....

Malco Products, SBC, one of the nation’s leading solution developers and manufacturers of a variety of high-quality tools for the building trades, announced that **Michael Hemmesch** has joined the company as its director of business intelligence. In this role, Hemmesch will lead and partner

on several strategic projects across the business, focusing on enhancing Malco’s analytical capabilities to evaluate key strategic growth decisions.

Hemmesch comes to Malco as a proactive leader in finance and accounting with a successful track record of improving financial profitability and increased efficiency for various global leaders in manufacturing including DeZURIK and Xerox. He brings a decade of managerial experience within financial planning and analysis and reporting.

Hemmesch’s background includes aptitudes in variance analysis, forecasting, auditing and more. He holds a Bachelor of Science degree in both accounting and finance from St. Cloud University, and was previously licensed as a Certified Public Accountant.

“Mike’s proven track record of evaluating and executing key company strategic projects is the perfect combination for our company as we push ahead into our growth plans. We are glad to welcome him to our team,” said Rich Benninghoff, Malco president and CEO.



MICHAEL HEMMESCH

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Johnson Controls (NYSE:JCI), the global leader for smart, healthy and sustainable buildings, has named **Lei Schlitz** as vice president and president, Global Products. In this role, Schlitz will lead the Global Products business, succeeding Jeff Williams who retired earlier this year. She will be based in Milwaukee, Wisconsin.

“There is a multibillion-dollar addressable market in front of us, with unconstrained growth opportunities to deliver increased customer value through a wide range of building portfolio products,” said George Oliver, Chairman and CEO, Johnson Controls. “Lei brings a wealth of experience and knowledge to the role, and she will be an asset to Johnson Controls as we accelerate our solution offerings and leverage our scale to capture this incredible market opportunity.”

Schlitz joins Johnson Controls from Illinois Tool Works (ITW), where she most recently held the



LEI SCHLITZ

role of executive vice president, Automotive OEM segment. Throughout her 14-year career at ITW, she held a number of progressive roles including, vice president, Research and Development; group president, Global Ware-Wash & Refrigeration Business and Food Equipment, Asia Pacific; and executive vice president, Food Equipment Group.

Prior to ITW, Schlitz spent 7 years at Siemens Energy & Automation, most recently as the business manager for Emerging Businesses, Residential Product Division. Prior to that, she served as director of Product & Manufacturing Engineering, Low Voltage Group. Earlier in her career, Schlitz spent time at both General Electric and Eaton Corporation.

Schlitz holds a doctorate in mechanical engineering from the University of Wisconsin- Milwaukee and a bachelor’s degree in engineering mechanics from Tsinghua University, China.

.....

Oatey Co., a leading manufacturer in the plumbing industry since 1916, today announced that **Juli Musch** has joined the organization as Senior Vice President and Chief Financial Officer.

With more than 30 years of experience in financial management, Musch is a proven executive with a wide range of expertise across finance, treasury, accounting, and other business disciplines. She comes to Oatey from Arden Companies where she served as Chief Financial Officer for the past decade, responsible for treasury, accounting, taxes, pricing and legal activities. Previously, she served in leadership positions at Besser



JULI MUSCH



Company and Kmart.

“Oatey is an industry leader committed to serving its customers, associates and communities,” Musch commented. “I am excited to join this dynamic organization and help build upon its proven track record of success.”

“Juli is a proven leader and her financial and business expertise will be invaluable as she partners with our senior leadership team to

develop and execute our strategic plans,” said Neal Restivo, Oatey’s Chief Executive Officer. “I look forward to her many contributions as we continue to serve our customers and enhance and grow our business.”

Air Pros USA, a residential and commercial air conditioning services company, has announced the appointment of **Robert DiPietro** as president. With over 15 years of leadership experience, DiPietro will oversee Air Pros USA’s strategy and operations management teams to support market expansion and sales goals.

“Robert is an industry leader whose talent in organic growth and acquisition strategy, and data-driven approach to operations, will be an asset to our team. Robert’s executive roles in multi-national public organizations pro-

vide invaluable and complementary experience to our business,” said Anthony Perera, founder and CEO of Air Pros USA. “We strive to build long lasting relationships with every customer we service, even as we become one of the fastest growing HVAC companies in the nation. Robert’s hands-on, customer-centric leadership style aligns with our vision as we expand existing relationships and introduce ourselves to new markets.”

Most recently, DiPietro served as managing director of HVAC at HomeServe, a publicly traded, independent provider of home repair and service solutions. Prior to his role at HomeServe, he worked for Staples, where he managed technology services and launched and grew Staples EasyTech to over \$100 million in revenue.

“It is my goal to lead Air Pros USA forward into the next stages



ROBERT DIPIETRO

of success and solidify the company’s presence as a trusted expert to customers and industry partners,” said DiPietro. “Air Pros USA will continue to grow in markets with distinctive weather patterns that can pose an additional set of needs and challenges to residential and commercial customers. Whether it’s extreme heat, blizzards, or hurricanes, I am excited to collaborate with our teams and achieve something that hasn’t been done before for their customers.”

### GOLD KEY Contest Winner

The winner of last month’s ICN Gold Key contest is:



**Cara Contreras**  
Connor Air Conditioning & Heating Inc.

Contreras is the winner of a \$50 Amazon gift card, courtesy of ICN. Congrats!

### NEW IHACI MEMBERS

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Covina, CA 91722
- **DS3 - LLC**  
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- **Shawn Stead**  
Imperial Beach, CA 91932

### New Products

Continued from Page 27

structions featuring a variety of adhesive technologies applicable for bonding materials to commercial and residential interior surfaces.

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