# MAR GUM

**FEBRUARY 2022** 

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# **Editorial Focus**

**Indoor Comfort News spotlights** the latest offerings in refrigerants and green technologies, heating products, and residential ductless.

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# **Industry Events**

**Indoor Comfort News continues** its pictorial of IHACI's 41st Annual HVAC/R/SM Performance Contracting Product & Equipment Trade Show.

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# **Indoor People**

ICN puts the spotlight on the movers and shakers in the heating and air conditioning industry.

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# **IHACI Seeks Contractors to Beta-Test Visual Service**

By Ted Rieger Northern Calif. Correspondent

IHACI's new Visual Service program, a video-enabled field service technology for HVAC contractors designed to monitor and support work by HVAC technicians at job sites to promote quality service and installation, seeks contractors to participate in the beta-testing phase of this new program.

Visual Service (VS) is a technol-

ogy platform developed by HVAC contractors for HVAC contractors. It is designed to transform the HVAC industry by providing tools to train and support technicians, enhance service quality, and commission energy efficient systems more effectively. With VS, a contractor service manager can remotely monitor service calls

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# **Features**

# **CARB Dedicates New Southern California Headquarters in Riverside**

State-of-the-art facility named in honor of former longtime CARB Chair Mary D. Nichols.

The California Air Resources Board (CARB) and its partners recently dedicated a new state-of-the-art Southern California Headquarters in Riverside designed to carry CARB's acclaimed research and vehicle emissions testing into the future. The new structure, designed to house research and testing of next-generation vehicles, continues a more than 50-year legacy of CARB's previous labs where CARB set groundbreaking pollution standards for cars and trucks.

"Every element of the new Southern California Headquarters - Mary D. Nichols Campus, from the laboratory and vehicle test cells to the stunning architecture, reflects the high standards and notable achievements CARB is recognized for around the world," said CARB Chair Liane Randolph. "This new headquarters will be the incubator of innovative regulatory thinking and research, playing a pivotal role in the transition of transportation in California to zero-emission technologies. That will ensure that we accelerate our actions to protect those communities hardest hit by emissions from heavy truck traffic and



An outside view of CARB's new headquarters in Riverside, Calif.

freight transport."

The campus is named in honor of CARB's former Chair Mary D. Nichols whose career at CARB spanned four decades under three different California governors. Nichols is known worldwide for her unwavering commitment to air quality and public health and spearheaded much of California's progress towards those goals.

The 19-acre campus is located on land donated by the University of California, Riverside (UCR) and encompasses a cutting-edge laboratory and

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# DEPARTMENTS

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# **Training Classes**

Keep your skills up-to-date! See pages 20-21 for more information.



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# **Industry News**



# CALIFORNIA



# The SEER Group Buys Majority Stake in Aladdin Air

San Fernando Valley, Calif. – The SEER Group LLC announced its 20th acquisition, a majority stake in Aladdin Air Conditioning & Heating Inc., in Newbury Park, Calif. This is the seventh acquisition for The SEER Group this year.

Aladdin Air Conditioning & Heating is an air conditioning and heating company that has been serving the Ventura County and San Fernando Valley for over 30 years. The company will continue to be led by partner and general manager Wayne Beck.

"We are delighted to welcome Wayne and the Aladdin team into our SEER Group family," stated Darrin Erdahl, CEO and founder of The SEER Group LLC. "Wayne and the Aladdin team have built a wonderful brand, and we look forward to partnering with them as we

continue to expand our footprint in California and other markets across the nation."

Eric Beardemphl, The SEER Group LLC's president and partner, said: "Aladdin has a track record of providing market leading customer experiences and a long commitment to continual team member development. With our growing network of partners and the synergies that they contribute, along with the ongoing support that our group offers, we are thrilled about the future of Aladdin."

"After being in HVAC for over 45 years and owner of Aladdin Air Conditioning for over 20 years, I continue to be faced with the same obstacles," said Beck. "I am confident that our partnership with The SEER Group will provide the support necessary to get to that next level and beyond."

# Western Specialty Receives Awards

San Francisco, Calif. – Western Specialty Contractors Branches in San Francisco, Calif. and Cleveland, Ohio ended the year's fourth quarter on a high note, with each receiving an industry award.

Last October, Western's San Francisco Branch was named a 2021 International Concrete Repair Institute (ICRI) Project of the Year Award Finalist (Historic Category) for renovation and repurposing of the SMUD Museum of Science and Curiosity in Sacramento, Calif. Western's Cleveland Branch was honored in December with the Institute of Real Estate Management (IREM) Northern Ohio Chapter's Industry Partner of the Year Award.

Located on the banks of the Sacramento River at 400 Iibboom Street, the SMUD Museum was originally built in 1912 as a power station for the Pacific Gas and Electric Company (PG&E). By the 1940s, the facility was only being used for test purposes, as it had become an unofficial tent city during The Great Depression. For the next 50 years, the Beaux-Arts-style building went through numerous changes in ownership and uses and fell into disrepair.

In 2014, funding was finally in place to renovate/repurpose the historic building into a premier center for science education. Plans included stabilizing and renovating the structure; adding a two-story, 22,000-square-foot addition for a lobby, classrooms, offices and a café; and building a 110-seat planetarium with a hemispheric dome. The overall goal was to retain as much of the original power plant's structure and architecture as possible while using modernized products and techniques to restore and protect it from future damage.

Serving as the repair contractor on the project, Western Specialty Contractors' San Francisco Branch repaired the building's heavily spalled and cracked concrete walls; and rebuilt several horizontal grooves, arches, and cornices. Over 5,000 square feet of spall repair and approx. 3,000 linear feet of crack repair was performed on the building.

Once the concrete repairs were made, Western's team applied a corrosion inhibiting impregnation coating to the concrete walls to form a protective layer on the steel reinforcement surface. The building's entire façade was then coated with a one component, penetrating,

Continued on Page 6

# Baker

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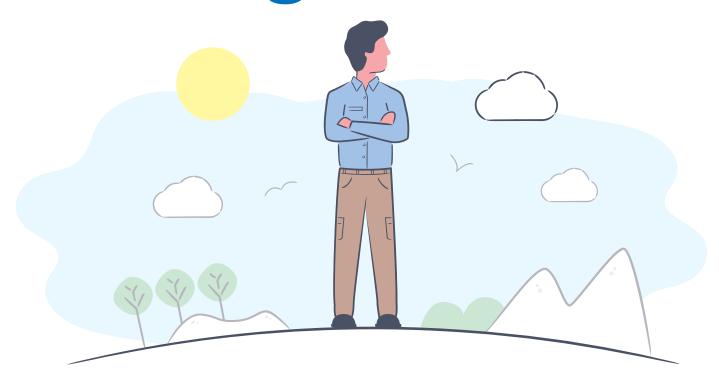
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# **Industry News**

## **Continued from Page 4**

adhesion-promoting primer, then two coats of an elastomeric, crackbridging, anti-carbonation, acrylic protective coating.

Western's restoration experts also masterfully retrofitted/restored the building's damaged cartouche to its original artistry, which featured a circular medallion held up by two male figures and a base elaborately decorated with a fruit, vegetable, and leaf motif.

Western's Cleveland Branch was honored last December with the IREM Northern Ohio Chapter's Industry Partner of the Year Award.

Established in 1933 to create a reliable, objective system of identifying quality property managers, today IREM is a source of educational and professional recognition for all types of income-producing property managers.

IREM's Industry Partners program is designed to foster professional relationships between chapter members and reputable service providers in the local area. This program offers the service provider community the opportunity to participate in chapter activities, and at the same time, help chapter members serve their clients and employers via recommendations of quality vendors.

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# Enaqua Buys Ownership from Grundfos

San Diego, Calif. – Grundfos and Enaqua management announce the parties have signed an agreement for the Enaqua management team to acquire 100% of the shares of Enaqua. This transaction

is expected to close within a short time. The acquisition represents a key opportunity for Enaqua management to leverage the company's expertise to strengthen its technology portfolio focused on UV water treatment.

"This acquisition is an exciting step in our journey," said Mark Wilke, Co-CEO of Enaqua. "This will allow us to continue to offer our customers the best available technology for their water treatment applications. We look forward to further strengthening our product portfolio and services, with all our customers in mind."

Rick McIntyre, Co-CEO of Enaqua further commented: "We are excited to (be able to) continue providing our customers with the State-of-the-Art UV Disinfection solutions that Enaqua has been known for throughout our long history"

Enaqua holds experience in UV water treatment for municipal wastewater disinfection and process water treatment, including food and aquaculture as well as re-use applications.



# Pandemic Prompts Rescheduling of Solar Forum

**Phoenix, Ariz.** – The Solar Forum, a conference designed to introduce HVACR contractors to solar power and the mechanical and electrical systems expected to play a bigger role as harnessing the sun's energy comes

into wider use, was postponed for 10 months due to the worldwide surge in coronavirus infections.

The event will now take place Nov. 14-15 at the Crowne Plaza at the airport in Phoenix, Ariz. The Solar Forum will be presented by the Air Conditioning Contractors of America (ACCA) and Pearl Certification, which provides third-party certification of high-performing homes. It had been scheduled for late January, also at the Crowne Plaza in Phoenix.

"While it is unfortunate that we must wait another few months to have this unique and first-of-its-kind event, the safety of our attendees, vendors, staff, and presenters remains our top priority," said Deb Weiner, manager of communications and strategic partnerships at ACCA, in an email.

The forum, sponsored by Mosaic, which arranges financing for home improvements that focus on sustainability, will feature educational sessions, new products and chances to network with contractors who work in HVACR and solar power.

The cost to attend is \$550 per person. For more information, visit www.acca.org/education/solarfo-



# Climate Specialists Donates to Austin Daycare Facilities

Austin, Texas – Climate Specialists, LLC, the Lakeway-based commercial and residential heating and air conditioning contractor,

announced that they have collaborated with RGF Environmental Group and donated a total of 18 state-of-the-art air purification systems to three local daycare facilities. Climate Specialists provided all the labor and materials needed for the installation and coordinated with RGF Environmental to donate 18 of their REME HALOLED whole home air purification units.

The three daycare facilities that received the generous donation are The Goddard School locations in Lakeway, Austin, and Circle C Ranch.

"At Climate Specialists, we care deeply for our community. We live and work in this community and raise our own families here, so it's important for us to give back," said Matthew Shaw, president of Climate Specialists. "Having clean air is essential, especially for children, and what better way to give back than to ensure we keep the next generation safe."

The donated units provide air purification while maintaining zero ozone compliance and not using any mercury. The units reduce smoke, odors, VOCs, allergens, dust, and particulate in the air while helping to eliminate airborne and surface microbials, bacteria, viruses, and mold.

Climate Specialists hope to continue to be able to give back to the community through similar campaigns going forward.

# Glasfloss to Expand Fla. Plant

**Dallas, Texas** – Don Kingston, CEO of Glasfloss Industries, announced the expansion of the Glasfloss Jacksonville, Fla. manufacturing plant. The new expansion is scheduled to be completed at the end of April 2022 and will add approximately 30,000 square feet to the facility.

"Our newest expansion of the Jacksonville plant will give us added manufacturing and shipping capacity. In addition, the ongoing modernization in the current plant will provide for a better work environment for our valued employees," said Kingston.

Established in 1936, Glasfloss Industries manufactures HVAC air filtration products in the United States. The company has been continuously owned and operated by the same family for over 85 years and serves all major commercial, industrial, and residential HVAC filtration markets.

# NATIONAL



# Carrier Announces Totaline Now Available to ICP Distributors

Indianapolis, Ind. – Carrier announced that it will make all Totaline universal aftermarket parts and supplies available to International Comfort Products (ICP) distributors, effective immediately. This recognized brand of aftermarket parts and supplies allows distributors to easily order the parts and supplies they need, as well as access resources to help market and sell them to dealers. Carrier is a part of Carrier Global Corporation, the leading global

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This program is funded by California utility customers and administered by Southern California Gas Company under the auspices of the California Public Utilities Commission. Program funds, including any funds utilized for rebates or incentives, will be allocated on a first-come, first-served basis until December 31, 2022 or until such funds are no longer available. This program may be modified or terminated without prior notice. The selection, purchase, and ownership of goods are the sole responsibility of customer. SoCalGas makes no warranty, whether express or implied, including the warranty of merchantability or fitness for a particular purpose, of goods selected by customer. Customers who choose to participate in this program not obligated to purchase any additional goods offered by manufacturer, vendor, service provider, or any other third party. Eligibility requirements apply; see the program conditions for details.

# **Industry News**

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provider of healthy, safe, sustainable, and intelligent building and cold chain solutions.

Finding the right parts for each job is critical when it comes to heating, ventilating, and air conditioning (HVAC) repairs. Totaline parts and supplies are universal, which means they are compatible with almost any brand of equipment. In addition, Totaline can now be the destination of choice for ICP distributors looking for motors and accessories, electrical components and accessories, indoor air quality products, semihermetic remanufactured compressors, heating and combustion components, tools and diagnostic equipment, even oils, chemicals, cleaners, and more.

With Totaline aftermarket parts and supplies, ICP distributors will have access to improved availability for even hard-to-find parts, an expanded line-up of available parts and supplies, improved ordering experience, and expanded marketing and training resources.

# Reedy Acquires Hays Service

**Deerfield, Ill.** – Reedy Industries, a leader in commercial and industrial HVAC, plumbing, and build-

ing controls services, has acquired Hays Service, a fourth-generation, family-owned HVAC services company in Macon, Georgia. With this acquisition, Reedy Industries expands their services density in the Southeastern U.S., maintaining focus on meeting the needs of customers in the commercial, industrial, health care, education, government, and senior living market segments.

Founded in 1945, Hays enjoys a proud heritage of customer loyalty, safety and operational excellence. The company provides HVAC maintenance services, including preventative and predictive maintenance programs, energy solutions, project design and retrofit, and specialized services, including industrial piping and millwright services. Cal Hays, president of Hays Service, joined the company in 1977 after graduating from Georgia Tech. "We're proud to join the Reedy Industries family of companies," Cal says, "and appreciate the opportunity to be part of an organization that shares our values and operating principles. We look forward to joining Reedy's other leading regional HVAC service providers across the country to create a brighter future for our customers and teams."

"Cal Hays and his son Calvin have done an amazing job of building on a long history of



HARDI'S EMERGING LEADERS PROGRAM GRADUATES.

service excellence," says Joe Kirmser, Reedy Industries CEO. "They have preserved the family values the company was founded on while adopting the latest technologies to help their loyal customers reduce operating costs and improve energy efficiency."

Hays Service is the seventeenth acquisition for Reedy Industries since 2019. "This partnership further extends our growth in the Southeast U.S.," Kirmser added, "and we look forward to adding even greater density in the region through strategic add-on acquisitions."

Reedy Industries serves critical environments in the commercial and industrial market spaces by focusing on HVAC, plumbing, and building controls services and solutions. Reedy Industries is actively

expanding the services it provides within the building envelope and is doing so through both organic growth and acquisitions. Reedy Industries was founded in 1930 and is headquartered in Deerfield, Ill., just outside Chicago. For more information, visit www.reedyindustries.com.

# HARDI Recognizes 2021 Emerging Leaders Graduates

Columbus, Ohio – Heating, Air-conditioning & Refrigeration Distributors International (HAR-DI) presented the 2021 Emerging Leaders program graduates with their awards at HARDI's 2021 annual conference. The graduates of the program completed the requirements established in the HARDI Emerging Leaders program and these individuals become the fifth graduating cohort since the program began in 2014.

The 2021 Emerging Leaders Program graduates were:

- Preston Brickner, HBB Pro Sales Group, Inc.
- Jarred Duebel, iO HVAC
  - Ian Eifert, Riley Sales, Inc.
- Seth Gordon, Thrifty Supply
- Justin Hilaire, EWC Controls, Inc.
- Lantis Hollis, Weathertech Distributing Company, Inc.
- Kris Reeves, Mitsubishi Electric Trane HVAC-US
- Taylor Meachum, ACR Supply Company, Inc.
- Alex Mesalam, Best Choice Supply Co.
- Joshua Patrick, South Central Co., Inc.
- Jen Pauley, cfm Distributors, Inc.
- Brian Phillips, Mingledorff's Inc.

"It's amazing to see so many talented Emerging Leaders complete the graduate track," said Nick Benton, vice president of operations, HARDI. "Each graduate has committed to becoming exceptional leaders within their own companies — completing self-evaluations, volunteering their time to HARDI, and creating a lasting cohort within the industry. We look forward to continuing to evolve this program and seeing more graduates in years to come."

# NADCA to Host Annual Meeting, Expo In-Person

Mt. Laurel, N.J. – The National Air Duct Cleaners Association (NADCA) – also known as the HVAC Inspection, Cleaning, and Restoration Association – announced that its 33rd Annual Meeting & Exposition will take place March 20-22, 2022 at the Gaylord Rockies Resort in Aurora, Colo

The event will bring together HVAC system cleaning professionals offering insight into best practices for business growth and the latest in industry equipment, tools, and technology. Attendees will learn new techniques, methods, and advancements for HVAC

Continued on Page 10



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# **Features:**

# **Bladeless Design**

Standard 4-way ceiling cassettes use blades on 4 sides of the unit to distribute air. This 4-sided distribution can cause up to 25% reduction in airfow and creates uneven room temperature, resulting in hot and cold spots. With bladeless technology and the use of 3 booster fans, the 360 Cassette provides even, horizontal airfow.

# **Directional Airfow Control**

The booster fans can be individually set at the same or different angles within a 10-60° range. The swing function is available when all 3 booster fans are operating in unison.

# Maximize Energy Savings

A Motion Detection Sensor (MDS) will automatically turn off or change the set temperature based on room occupancy and learn occupancy patterns to reduce run time between occupied and unoccupied times. Use of MDS is optional (sensor sold separately).

# Advanced Commissioning and Service

360 Cassette is equipped with a removable EEPROM chip on the main circuit board to store unit option settings, serial number, unit tag, and other field programmed data. This allows for ease of startup, commissioning, product registration, and future service work when using Samsung service software (S-Net 3).

# **Style Options**

The 360 Cassette is offered in both black and white for open-type (circle) and ceiling-type (square) fascia panel options.

Samsung offers custom printing on 360 Cassette panels so you can personalize the look and feel of your space with custom graphics or colors. Use your logo, color, pattern, or photograph in order to blend in or stand out.



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# **Industry News**

## **Continued from Page 8**

inspection, cleaning, and restoration, with conference sessions designed to offer education like no other.

Session topics include:

- Best practices for business operations
- Combatting airborne disease transmission
- Air duct cleaning after fire restoration
- Financial implications of safety programs
- Marketing solutions

"As we get closer to a post-pandemic world, there's so much to reflect on, like where the industry has been, where it's going, and what it means for air duct cleaning businesses around the world," said Jodi Araujo, CEM, NADCA's chief executive officer. "There's no better place than NADCA's Annual Meeting and Exposition to connect with leaders in the industry, exchange ideas for business growth, and learn tips to pivot and adjust focus when needed."

Technicians seeking the Air Systems Cleaning Specialist (ASCS) or Certified Ventilation Inspector (CVI) certification will have the opportunity to participate in the pre-conference training courses on Sunday, March 20, with exams for both certifications offered on Monday, March 21. The conference also provides attendees with the opportunity to gain continuing education credits necessary for certification renewals.

In addition, the exhibit hall will return in 2022, providing attendees with an up-close-and-personal view of new and innovative technology, equipment, and services available for the HVAC cleaning industry.

Due to continuing COVID-19 restrictions, registration may be limited, and onsite registration will not be available. To register or learn more about the event, including a detailed program agenda, visit https://annualmeeting.nadca.com.

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# Danfoss, FAMU-FSU Collaborate on Research, Scholarships

**Baltimore, Md.** – Danfoss and Florida State University have announced a multi-year collaboration in which Danfoss will fund scholarships and provide research opportunities for faculty and students at the FAMU-FSU College of Engineering, the joint engineering institution for Florida A&M

University (FAMU) and Florida State University (FSU). The five-year agreement, which was officially signed on Nov. 12, 2021, establishes the Danfoss FAMU-FSU College of Engineering Fund with a \$750,000 commitment from Danfoss.

"This agreement is an exciting new chapter in Danfoss' relationship with the FAMU-FSU College of Engineering," said Ricardo Schneider, president of Danfoss Turbocor – which is based in Tallahassee, home of the college. "We are excited to expand our support for the development of engineering talent in the community. These scholarships will help underrepresented minority students achieve their dreams of an engineering career, bring more diversity to the profession and create a talent pipeline for our Danfoss Turbocor business."

Each academic year, the Fund will award multiple grants - expected to be around 10 per year to undergraduate and graduate students from either university at the FAMU-FSU College of Engineering. Undergraduate fellowships will focus on first- or second-year engineering students, with a focus on first-generation college students or those who belong to an underrepresented group. Additionally, the Fund will support graduate research fellows and faculty fellows each year who are engaged in research that is of interest to Danfoss. Fellows will collaborate with selected students at the University of Southern Denmark (SDU) on graduate research projects. The students will likely spend time at each other's campus, with support from Danfoss and the Fund.

"This funding is another important step in the nearly decade-long collaboration between Danfoss and the FAMU-FSU College of Engineering, and it will be transformative in many ways," said Farrukh Alvi, senior associate dean for research and graduate studies at the FAMU-FSU College of Engineering. "They're providing financial support to our students who need and deserve it, while also creating a pathway for important research and international career connections that students would otherwise not have access to. This partnership is another notable step toward growing the number of career and researchready engineers from first-generation and underrepresented groups, a high priority for both organiza-

The collaboration with SDU will provide a path for SDU students to pursue graduate engineering study at the FAMU-FSU

College of Engineering in mechatronics, controls, material science, and aerodynamics. Danfoss faculty fellows will provide them with mentorship and advising. The SDU students will continue their collaborations with the Danfoss graduate research fellows with guidance from FAMU-FSU Engineering and SDU faculty.

Danfoss, headquartered in Denmark, has an ongoing relationship with SDU, sponsoring many activities through the company's Mads Clausen Foundation, and this agreement will expand and strengthen the existing relationship.

"We are very excited about the student exchange collaboration with Florida A&M and Florida State universities," said Henrik Johnsen Vindt, associate professor and assistant director of international affairs at SDU's Faculty of Engineering. "International qualifications are essential for our engineering students and this collaboration supports our effort to give future engineers a global mindset. The American students will enhance the international environment at our university, have the opportunity to experience Denmark and hopefully consider our business for employment in the future."

# HVAC Competitors Partner to Help Woman in Need

• • • • • • • •

Snohomish, Wash. – For the past eight years, Lorrie has lived with little to no heat in her 100-plus year old home. She couldn't pay her heating costs and in turn was unable to have any of the needed repairs done.

Early last year, Lorrie obtained a diabetic ulcer on her foot. Unable to afford insulin to control her diabetes (her insurance didn't cover costs and what she was due to pay, she was unable to afford) along with having bad circulation in her legs, she was unable to control the sore on her foot. She was admitted to the hospital, thinking she was having a bypass, but understanding the possibility of amputation. Unfortunately, she needed the amputation. Lorrie is now living with one leg in a 100+ year old home with a space heater to heat her house.

Lifetime Heating and Air Conditioning heard Lorrie's story and enlisted owner Bo Crouch with Emerald City HVAC and co-owner John Giacomi of CM Heating to provide the comfort and safety Lorrie was needing. Lifetime provided the new gas furnace while CM Heating and Emerald City HVAC generously donated the labor and materials to complete the project while working together to bring comfort and safety to a woman in need.

"We hope it will assist in bringing comfort to Lorrie and serve as a reminder that there are people in the community dedicated to serving the vulnerable," said Dwight Miller of Lifetime Heating. "Although we are close competitors, we band together to use our skills and experience to better the lives of those in our community who need it most."

"Ultimately, we are in the business of improving lives and delivering comfort," said John Giacomi of CM Heating. "We thought this seemed like a great opportunity to come together as fellow tradespeople and really make a difference. There are a lot of really great people in our industry, and it is awesome to be able to collaborate on this."

# HVAC Excellence Grants Accreditation to Valley Career and Tech Center

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Mount Prospect, Ill. – HVAC Excellence announced that the HVACR training program at Valley Career and Technical Center in Fishersville, Virginia has been granted accreditation.

Programmatic accreditation is an independent, third-party review of an educational program, comparing it to established, industry-accepted standards. These standards are designed to ensure that the future workforce receives the quality training required for success in the HVACR industry.

Upon a thorough review of all the documentation presented by the administration, faculty, and the onsite accreditation team, the HVAC Excellence accreditation review board unanimously decided to grant accreditation of the program.

# Greenheck Group Completes Purchase of Metal Industries

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Schofield, Wisc. – Greenheck Group, a global leader in the manufacturing and distribution of air movement, air control, and air tempering equipment, has completed the acquisition of Metal Industries. The addition of Metal Industries expands the Greenheck brand's portfolio of products adding grilles, registers, diffusers (GRDs) and air terminal units (ATUs) to its comprehensive product offering. The coming together of these two great brands further positions Greenheck as a trusted single-source supplier for complete ventilation systems.

The goal of this merger is to bring the strongest product offering from rooftop to entryway to customers, engineers, contractors, and mechanical representatives in order to create safe, healthy, comfortable spaces in commercial and institutional buildings.

Uniting two organizations with strong corporate cultures and values, Greenheck Group welcomes 600 employees to the team. As part of coming together, Greenheck also expands its manufacturing footprint with three additional factories and headquarters including an on-site test lab.

"We are excited to welcome the Metal Industries team to Greenheck. The combination strategically gives our customers a powerful option to solve all of their ventilation system needs," said Tim Kilgore, president of Greenheck Sales. "The team's passion to help customers and provide exceptional products is what has defined both companies and we look forward to what's ahead."

Founded in 1947, Metal Industries has a reputation for outstanding products, short lead times, on-time shipping and excellent customer service. This combination will offer customers the unique opportunity to access the expertise of a single organization for the majority of air distribution needs with unparalleled access to expertise, innovation and support.

The current leadership team of Grant Tyson, vice president of Sales, Air Distribution Products and David Hawkins, vice president of Operations, Air Distribution Products, will remain critical partners in the future growth of Greenheck.

"Like Greenheck Group, Metal Industries has long been focused on being the easiest company to do business with," states Grant Tyson, vice president of Sales. "We are excited to join the Greenheck Group team and look forward to our continued growth."

Greenheck will begin selling Greenheck branded GRDs and ATUs through their mechanical representatives, along with Metal Industries' brands MetalAire and USAire, in 2022.

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# **IHACI Seeks Contractors to Beta-Test Visual Service Tools/Technology**

## Continued from Page 1

or work performed by service technicians at multiple job sites and provide access to guidance and oversight for each job as needed.

IHACI Board member and HVAC contractor Bob Wiseman, president of Canoga Park Heating & Air Conditioning, is leading the VS development project. Explaining the benefits of VS for contractors and technicians, Wiseman said: "The HVAC industry has had a long-time problem bringing new people and technicians into the industry. Having an adequate number of qualified service employees will likely continue to be a challenge as the 'gray tsunami' of retiring older workers contin-

ues. A program such as VS, with an experienced service manager overseeing the work of new technicians through live, real-time video monitoring will more quickly give technicians confidence in their on-the-job skills. With VS, a bright technician can become a productive employee in a fraction of the time it traditionally takes a new technician to acquire the needed training and experience." VS is expected to enable contractors to eliminate, or greatly reduce, customer callbacks.

Technicians can use video-enabled Android mobile devices that they are already using. Wiseman said the VS system is a "tool manufacturer and brand agnostic," and can be used with a growing number of many common devices that use Bluetooth Low Energy (BLE) wireless technology. The VS program includes a "Triage" pathway for service calls, and a "Certification" pathway for new HVAC equipment and system installations. Initially, VS is primarily geared toward residential and light commercial HVAC system repair and installation, however, adaptation for use with larger systems is planned.

According to Wiseman, IHACI will provide the participating contractors with the VS-compatible tool sets and software for their technicians to use during the beta testing period. These tool sets will include testing instruments from Fieldpiece, The Energy Conservatory and UEI. Participating technicians will need to provide their own Android

phone. "Testing contractors will be expected to use the system software and tools for the testing period, and IHACI will provide training, information, and technical support," Wiseman said. The goal is to enroll about 12 contractors who commit to completing the Beta-testing period. Several IHACI contractors have already participated in alpha-testing the VS system to date. Following successful completion of the Beta-testing, VS could be made commercially available from IHACI for California HVAC contractors later in 2022, and eventually for HVAC contractors nationwide.

## Background

The concept for VS originated about five years ago from IHACI's

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Board of Directors Vision Committee whose members considered and determined priority needs for the HVAC industry and for IHACI to move the industry and the organization forward. The VS project has received funding for development and testing from the U.S. Department of Energy (\$150,000) and from the California Public Utilities Commission (\$250,000). Wiseman also introduced VS to the California Energy Commission in September 2021 at an Integrated Energy Policy Report workshop about HVAC system quality installation.

Contractors interested in participating in VS beta-testing should contact Wiseman at b.wiseman@visualservice.com

More information is available at www.visualservice.com.

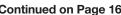
# **CARB New Facility**

**Continued from Page 1** 

advanced chemistry area, as well as administrative space for

The new facility offers greatly expanded vehicle emissions and testing capabilities built with the future in mind. It contains seven light/medium duty test cells, and three test cells large enough to accommodate the largest heavy-duty trucks and buses. With vehicle technologies rapidly changing, it was also designed to accommodate new test methods for future generations of vehicles and ensure emissions compliance with increasingly

striking architecture and every detail of the campus. Designed by ZGF Architects and built by Hensel Phelps, the new headquarters is built to be a green building for the future. At 402,000 square feet, it is designed to be the largest Zero Net Energy building in the United States - producing as much energy as it uses, aided by solar arrays throughout the campus that generate 3.5 Megawatts of electricity, and a chilled beam temperature management system that provides increased energy efficiency and occupant comfort. As a result, the facility achieves Leadership in Energy





approximately 460 employees. stringent standards. Sustainability drove the and Environmental Design **Continued on Page 16** 

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# 2-PART SERIES

**D&R International - Commercial Refrigeration**February 22 & 24 | 9 a.m. - 11 a.m.

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# Refrigerants and Green Technologies / Heating Products / Residential Ductless

Allied Air Enterprises LYNX 18 SEER



Allied Air Enterprises has expanded its line of home heating and cooling solutions with the new LYNX 18 SEER Inverter Heat Pump under the Ducane, Concord, and Allied brands. The LYNX 18 is quickly adaptable with AHRI-rated systems, offering compatibility with a wide range of

already existing indoor equipment. The LYNX 18 works with any conventional  $24\ V$  thermostat. The LYNX 18's five operating modes can increase energy savings by up to 22% annually. Other benefits include the Quiet Shift technology and sound-isolating compressor mounts that produce noise levels as low as 60 dBA; the Omniguard® Total Corrosion Protection Technology and a factory-installed Suction Line Filter Drier that help extend the unit's life; the Clean Sweep Defrost technology that helps to reduce the number of defrost cycles needed; and a simplified piping system to eliminate installation and operational complexities as well as the causes of potential leaks.

**More information:** www.alliedair.com

**Carrier Ductless Hybrid** 



Carrier recently launched a new line of hybrid solutions, which connects the 38MARB ductless single-zone outdoor unit to a Carrier residential indoor unit via 24-volt (24V) interface technology. These solutions offer homeowners versatility while also providing excellent energy efficiency. In addition, Carrier's ductless hybrid combinations can achieve a Seasonal Energy Efficiency

Ratio (SEER) up to 19 and a Heating Seasonal Performance Factor (HSPF) up to 12.5 (based on unit size and type).

Carrier ductless hybrid solutions are off-the-shelf combinations using already-available Carrier units, as the 38MARB can be paired with select existing Carrier air handlers, fan coils and furnaces. The combinations come to life with patented 24V interface technology that connects the indoor and outdoor units to perform seamlessly. In addition, the outdoor ductless unit performs using its inverter compressor to operate as a variable-speed unit.

Available in outdoor unit sizes from 12k-36k, ductless hybrid solutions are ideal for any size home, as multiple outdoor units can be paired with multiple fan coils or furnace case coils to accommodate any square footage in the home. Plus, these systems can also be operated using third-party thermostats.

"Our new ductless hybrid solutions offer a great amount of flexibility for homeowners and dealers alike," said Paul Rebelo, Managing Director North America, Ductless and VRF, Carrier. "Not only do the solutions offer impressive efficiency ratings, but they can be used in many combinations with current equipment. This will allow for supreme versatility in the equipment and systems our dealer network is able to offer its customers."

**More information:** www.carrierductless.com.

Daikin ATMO-SPHERA

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For the first time in North America, **Daikin** is launching a home comfort product featuring R-32, a refrigerant with one-third the Global Warming Potential (GWP) of the most common refrigerants currently being used in the United States and Canada.

The new Daikin ATMO-SPHERA system featuring R-32 refrigerant from Daikin North America LLC is a single zone, ductless system that gains impressive efficiencies over its R-410A predecessor line, the LV Series,

with up to 27.4 SEER, 13.8 HSPF and 16.3 EER ratings for ultra-efficient cooling and heating. Four sizes of indoor and outdoor heat pumps are available, from 9,000 to 24,000 BTU.

"Daikin has sold over 33 million R-32 systems in more than 100 countries and regions," said Takayuki (Taka) Inoue, Executive Vice President and Chief Sales and Marketing Officer. "We are excited to be the first to bring this proven technology to North America. With an estimated 160 million R-32 systems sold by Daikin combined with other manufacturers worldwide, we are confident R-32 has the all-around performance benefits to make it the ideal replacement for R-410A."

Daikin ATMOSPHERA's heat pump performance over its R-410A predecessor is substantial, offering greatly enhanced heating and cooling capacities. The units feature up to 100 percent rated heating capacity at 5°F WB (-15° C WB) and confirmed continuous operation as low as -13°F WB (-25°C WB). Rated cooling capacity is up to 100 percent at 115°F DB (46°C DB).

New hybrid cooling technology efficiently controls humidity, even in low-cooling loads, and maintains dehumidification effect after the target temperature is reached. Daikin ATMOSPHERA's novel "CLEAN" operation dries the interior of the indoor unit to reduce the amount of condensation present, while a detachable drain pan allows for easy cleaning.

With the indoor unit's built-in Wi-Fi, the system can be controlled via the internet with the Daikin Comfort Control App without the need for an additional adaptor. Daikin ATMOSPHERA's Intelligent Eye employs an infrared sensor to detect movement in the room. If the room is empty for 20 minutes, the set point is changed to start saving energy.

Installation is now more flexible with 50 percent longer piping lengths up to 49 feet, compared to other Daikin single zone systems.

Indoor units include a wireless infrared controller and are compatible with the full suite of optional s21-based single and multi-zone controls solu-



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# Refrigerants and Green Technologies / Heating Products / Residential Ductless

tions, including the Daikin One+ smart thermostat.

Daikin ATMOSPHERA is currently available in Washington, Oregon, and Florida.

Daikin ATMOSPHERA single zone systems are backed by a 12-year parts limited warranty. Complete warranty details available from your local dealer/contractor. To receive the 12-Year Parts Limited Warranty, online registration must be completed within 60 days of installation. Online registration is not required in California or Québec.

**More information:** www. DaikinAtmosphera.com and www.R32Reasons.com.

Lochinvar KNIGHT XL



Lochinvar, an industry leader in high-efficiency boilers and water heaters, announced the next generation of the KNIGHT® XL commercial boiler product family. Available in five models, ranging from 399,000 to 1 million BTU/hr, the advanced units feature a 97% thermal efficiency, a 10:1 turndown ratio and an updated heat exchanger.

The new KNIGHT XL models offer extended venting (up to 150 feet), backside connections and the ability to cascade multiple units for increased output, making it ideal for retrofit and new construction applications. It also comes standard with CON·X·US® Remote Connectivity and SMART TOUCH™ operating control technology, providing contractors and facility managers with connectivity and system control for easy monitoring and adjust

"At Lochinvar, we have a strong track record of advanced componentry, product reliability and sustained high-efficiency, making the KNIGHT XL product family a top choice for many engineers and contractors," said Dan Rettig, product

manager at Lochinvar. "Upgrading the units to offer more robust connectivity, technology and efficiency reiterates our continued commitment to excellence in sustainability and providing customer solutions."

The next generation of KNIGHT XL also features an advanced heat exchanger with larger tubing that requires less pump energy for higher system efficiency. Additionally, the new units will come with an upgraded air filtration system, borrowed from the Lochinvar CREST® condensing boiler line, to protect the burner by trapping particles in the filter.

Designed with a sleek, industrial design and sophisticated badging, the updated KNIGHT XL comes in five sizes – with a new 1 million BTU/hr unit – making it ideal for schools, commercial buildings, hotels and healthcare facilities. KNIGHT XL is also available in outdoor models.

**More information:** www.Lochin-var.com.

# NAVAC NRC62D Refrigerant Charger

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**NAVAC** now offers a sophisticated smart refrigerant charger that also features an exacting digital manifold gauge and precision wireless electronic scale. Weighing less than 40 lbs., the



NRC62D Smart Refrigerant Charger is designed to perform the tasks of several tools in one compact, easy to use unit.

User-friendliness is the unit's most striking attribute: The NRC62D offers automatic operation for intuitive, consistent system evacuation and refrigerant filling. This

automated evacuation and recharge process is a significant step up from traditional processes, which typically employ separate vacuum pumps, manifold gauges, charging scales, refrigerant tubing and other connection devices.

Key to the NRC62D's multifunctional appeal is the incorporation of a Digital Manifold Gauge, which features pressure and temperature displays as well as calculated super-heat and sub-cooling data. In addition, the unit includes a precision Wireless Electronic Scale, which can also be used as a standalone device. Enhanced

Continued on Page 17

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Thurs., February 17 – Part 2 Wed., February 23 – Part 3 Thurs., February 24 – Part 4

# MARCH 2022

IHACI Webinar
NATE HVAC/R Support Training
Instructors: Mitch Bailey / Jeff Painter
Wed., March 2 – Part 1
Thurs., March 3 – Part 2
Wed., March 9 – Part 3
Thurs., March 10 – Part 4

**APRIL 2022** 

IHACI Webinar
Electrical Module
Instructors: Mitch Bailey / Jeff Painter
Wed., April 6 – Part 1
Thurs., April 7 – Part 2
Wed., April 13 – Part 3
Thurs., April 14 – Part 4

All classes are currently scheduled as Webinars held 6:00 pm to 8:00 pm. Webinars are FREE of charge and online registration is required.



You can register online by visiting: pge.com/hvactraining. Attendees must register for each night separately and registration is on a first-come, first-served basis "PG&E" refers to Pacific Gas and Electric Company, a subsidiary of PG&E Corporation. ©2022 Pacific Gas and Electric Company. All rights reserved.

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# **Troubleshooting**

# A New Walk-In Cooler That's Never Performed Properly

By Jim Johnson Contributing Editor

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

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. Two previous trips by other technicians have not resulted in a solution to the complaint.

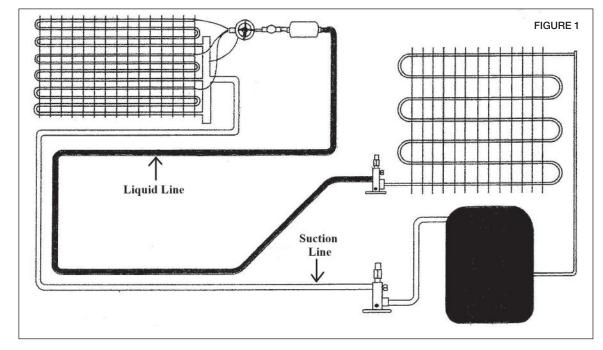
When you arrive, you confirm

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 installation 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@techtrainassoc.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 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**

To get this unit back on line, we need to replace the furnace control. A voltage check at terminals 2 and 4 of the S2 segment of the board proved that 120-VAC was not leaving the board to power the hot surface igniter.

The winner of last month's Troubleshooting is:

Kraig Ehrle Mesa, Ariz.



THE CHEMISTRY LAB INSIDE CARB'S NEW HEADQUARTERS.

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# **CARB New Facility**

**Continued from Page 12** 

(LEED) Platinum certification, and California Green Building Standards Code (CALGreen) Tier 2 standards.

As the state's leading center for assessing the environmental impacts of motor vehicles and other mobile equipment, CARB's laboratory will now take its place as one of the premier vehicle emissions testing facilities in the world. The new lab will accommodate testing for passenger cars, motorcycles, trucks and buses, lawn and garden equipment, small off-road engines and marine engines. A separate advanced chemistry laboratory allows researchers to carry out precise and accurate testing of vehicle fuels and evaporative analysis.

The new headquarters will also play a major role as an anchor in the developing Innovation District supported by the City and County of Riverside, and the Greater Riverside Chambers of Commerce.

Mutually beneficial agreements have also been signed with the educational community in the Riverside area including UCR, UCR's Center for Environmental Research and Technology (CE-CERT), the Riverside Community College District and the Riverside Unified School District. These agreements will utilize CARB's new facility to offer classes, facility tours and educational opportunities for faculty and students to advance research and inspire students at all levels and especially for disadvantaged communities – to learn more about air quality, the impacts of

climate change, and CARB's efforts to clean the air.

The cost of the new facility is \$419 million, which includes \$108 million for specialized laboratory and testing equipment, approved by the Legislature in 2016. Of those costs, \$154 million came from fines paid by Volkswagen for air quality violations related to the diesel car cheating case. Additional funds came from the Motor Vehicle Account, the Air Pollution Control Fund and the Vehicle Inspection Repair Fund.

The campus also features the largest collection of permanent public artworks addressing climate change worldwide. The dedication itself took place in the courtyard featuring a large sculpture of a fossilized gas station by Allora and Calzadilla. In keeping with that theme, and emphasizing the commitment of California to move away from its reliance on fossil fuels, the classic ribboncutting to mark the formal opening of the new headquarters was replaced by cutting a gas hose.

CARB's mission is to promote and protect public health, welfare, and ecological resources through effective reduction of air pollutants while recognizing and considering effects on the economy. CARB is the lead agency for climate change programs and oversees all air pollution control efforts in California to attain and maintain health-based air quality standards.



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# **Technical Training**

# Growing Green Technicians Part 148: Checking a New Split System Installation Air Flow with a Temperature Split Test

By Jim Johnson Contributing Editor

In last month's segment of this series, we discussed the importance of following proper procedures when soldering joints in the connecting tubing of split system comfort cooling equipment. In this segment, we'll follow up on ensuring that the refrigerant charge is correct. Everyone can agree that when a new split system is installed, it's a given that upon start-up, the refrigeration system's operation needs to be evaluated via superheat and subcooling test procedures.

After all, taking a green approach to completing the installation means that we need to take into consideration the factory charge in the condensing unit, along with the variable of the length of line set, and the quantity (if any) of refrigerant that needs to be added to ensure the proper operating pressures that will result in the efficient operation of the equipment.

So, the focus is on isolating the refrigeration system and checking pressures, converting them to temperature, checking tubing temperatures, and matching things up to determine if the superheat and subcooling are correct according to the charts provided by the manufacturer. However, there's a simple air flow test that an installer can take simultaneously with performing a refrigeration system evaluation. It's related to air flow.

In the same vein in which everyone can agree about the necessity of performing superheat and subcooling procedures, we can also agree that without the proper air flow through the indoor coil, the refrigeration system cannot perform properly. Taking this simple step involves a target temperature split chart like the one shown in **Figure One**.

This chart is like some generic target superheat charts that are available, but the targets are not superheat values, they are temperature differentials. To use the chart, we need to take four simple steps:

- 1. Allow the equipment to run for at least 15 minutes.
- 2. Take a dry bulb reading of the air entering the coil.
- 3. Take a wet bulb reading of the air entering the coil.
- 4. Calculate the target temperature differential.

For example, consider that we were in a situation where the heat load in the building is high (after all, it's a new start-up), and our dry bulb measurement was 83 degrees, and our wet bulb measurement was 67 degrees. What the chart would tell us is that the target temperature split across the coil would be 19.9 degrees. With this information at hand, we would take a dry bulb reading of the air entering the coil (return), and a dry bulb reading of the air exiting the coil (supply), and then do the arithmetic.

If our temperature drop is within + or - 3 degrees of our target temperature, we've taken a fundamental step in determining that the air flow through the indoor coil is correct. If the temperature drop is more than 3 degrees lower than our target, it indicates that the air flow is inadequate. And, since this is a new installation, it could mean that the solution is as simple as adjusting the supply registers for a

# **Editorial Focus**

**Continued from Page 15** 

features such as a brushless DC-driven vacuum pump and wireless temperature probes round out the NRC62D's multifaceted capabilities.

The NRC62D Smart Refrigerant Charger achieves a flow rate of 6 cubic feet per minute (cfm). Other features include tricolor refrigerant hoses, a built-in vacuum micron gauge for leak detection, and real-time status

and warning displays.

"The NRC62D Smart Refrigerant Charger exemplifies NAVAC's commitment to making the jobs of today's busy technicians simpler and more efficient without sacrificing precision," said Stephen Rutherford, VP of HVAC Tools Business for NAVAC. "Its 3-in-1 functionality does the work of several tools in a lightweight frame, eliminating the overall number of tools a tech needs."

**More information:** www. navacglobal.com.

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	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	7
70	20.9	20.7	20.6	20.4	20.1	19.9	19.5	19.1	18.7	18.2	17.7	17.2	16.5	15.9	15.2	14.4	13.7	12.8	11.9	11.0	10.0	9.0	7.9	6.8	5.7	4.5	3.
71	21.4	21.3	21.1	20.9	20.7	20.4	20.1	19.7	19.3	18.8	18.3	17.7	17.1	16.4	15.7	15.0	14.2	13.4	12.5	11.5	10.6	9.5	8.5	7.4	6.2	5.0	3.
72	21.9	21.8	21.7	21.5	21.2	20,9	20.6	20.2	19.8	19.3	18.8	18.2	17.6	17.0	16.3	15.5	14.7	13.9	13.0	12.1	11.1	10.1	9.0	7.9	6.8	5.6	4.
73	22.5	22.4	22.2	22.0	21.8	21.5	21.2	20.8	20.3	19.9	19.4	18.8	18.2	17.5	16.8	16.1	15.3	14.4	13.6	12.6	11.7	10.6	9.6	8.5	7.3	6.1	4.
74	23.0	22.9	22.8	22.6	22.3	22.0	21.7	21.3	20.9	20.4	19.9	19.3	18.7	18.1	17.4	16.6	15.8	15.0	14.1	13.2	12.2	11.2	10.1	9.0	7.8	6.6	5.4
75	23.6	23.5	23.3	23.1	22.9	22.6	22.2	21.9	21.4	21.0	20.4	19.9	19.3	18.6	17.9	17.2	16.4	15.5	14.7	13.7	12.7	11.7	10.7	9.5	8.4	7,2	5.9
76	24.1	24.0	23.9	23.7	23.4	23.1	22.8	22.4	22.0	21.5	21.0	20.4	19.8	19.2	18.5	17.7	16.9	16.1	15.2	14.3	13.3	12.3	11.2	10.1	8.9	7.7	6.5
77	-	24.6	24.4	24.2	24.0	23.7	23.3	22.9	22.5	22.0	21,5	21.0	20.4	19.7	19.0	18.3	17.5	16.6	15.7	14.8	13.8	12.8	11,7	10.6	9.5	8.3	7.0
78	-	-	-	24.7	24.5	24.2	23.9	23.5	23.1	22.6	22.1	21.5	20.9	20.2	19.5	18.8	18.0	17.2	16.3	15.4	14.4	13.4	12.3	11.2	10.0	8.8	7.6
79	-	-	-	-	-	24.8	24.4	24.0	23.6	23.1	22.6	22.1	21.4	20.8	20.1	19.3	18.5	17.7	16.8	15.9	14.9	13.9	12.8	11.7	10.6	9.4	8.
80	-		-	-	-	-	25.0	24.6	24.2	23.7	23.2	22.6	22.0	21.3	20.6	19.9	19.1	18.3	17.4	16.4	15.5	14.4	13.4	12.3	11.1	9.9	8.7
81	-	-	-	-	-	-	-	25.1	24.7	24.2	23.7	23.1	22.5	21.9	21.2	20.4	19.6	18.8	17.9	17.0	16.0	15.0	13.9	12.8	11.7	10.4	9.2
82	-	-	-	-	-		(41)	~	25.2	24.8	24.2	23.7	23.1	22.4	21.7	21.0	20.2	19.3	18.5	17.5	16.6	15.5	14.5	13.4	12.2	11.0	9.7
83	-	-	-	-	-	-	-	-	-	25.3	24.8	24.2	23.6	23.0	22.3	21.5	20.7	19.9	19.0	18.1	17.1	16.1	15.0	13.9	12.7	11.5	10.
84	-		-	-			-	-		25.9	25.3	24.8	24.2	23.5	22.8	22.1	21.3	20.4	19.5	18.6	17.6	16.6	15.6	14.4	13.3	12.1	10.

better balance of air flow.

Or it could mean that there is a more serious problem perhaps with the design of the supply plenum velocity bonnet or static take-off, or there is an issue with the return air system that is restricting air flow. If the measured temperature drop was more than 3 degrees higher than

our target, it would indicate that the air flow is excessive. This situation is far less common than that of inadequate air flow, but it has the same effect of diminishing the ability of the refrigeration system to accomplish its task of transferring heat efficiently.

If the testing we've described

here shows a temperature split outside of the + or -3 degrees target temperature, the next step in evaluating this system and determining where the problem could be involves static pressure test procedures we'll discuss in the next segment of this series.



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# NOVEMBER 16, 2021, PASADENA, CA



NEAL REEVES OF PACKARD, INC.



ROYAL SERVICE SUPPLIES: SUSAN CHIENG (LEFT) AND TOM PODGURSKI.



NATIONAL COMFORT INSTITUTE: DOMINICK GUARINO (LEFT) AND JEFF STURGEON.



J.B. WARRANTIES: CARLOS ARANDA (LEFT) AND BRETT CUE.



LG ELECTRONICS USA: KEN SAMMONS (LEFT) AND ROMEO SY.



DANKO MECHANICAL SALES COMPANY: RUDY SABONI (LEFT) AND SKEETER VAN DYKE.



THE COMMERCIAL VAN INTERIORS BOOTH.



JONATHAN VERHOFF OF GOGREEN FINANCING/FRONTIER ENERGY.



CALCERTS, INC.: JEREMY WIKSTROM (LEFT) AND ROY MITTLEIDER.



TAPE GUYS, LLC: GEARY MORRIS (LEFT) AND JERRY LAWRENCE.



EMERSON/WHITE-RODGERS (FROM LEFT): TIM HALL, DAVID OBESO AND CHUCK HERNANDEZ.



COLLEGE OF THE DESERT: JENNIFER BROWN (LEFT) AND PRUDENCE CHASE.



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# INSTITUTE OF HEATING AND AIR CONDIT 2022 TRAININ

CALIFORNIA QUALITY INSTALLATION, QUALITY MAINTENANCE AND QUALITY S

# **SOCALGAS, DOWNEY**

# **FEBRUARY**

## **Gas Heating Module**

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

Mon., Feb. 7 – Part 1 Tues., Feb. 8 - Part 2

# MARCH

# **System Diagnostics Module**

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

Mon., March 21 - Part 1 Mon., March 28 – Part 2

# **A**PRIL **System Diagnostics Module**

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

Mon., April 4 – Part 3

Mon., April 11 - Part 4

# MAY

# **System Performance Module**

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

Mon., May 2 - Part 1

Tues., May 3 - Part 2 Mon., May 9 – Part 3

Tues., May 10 - Part 4

# JUNE

# **Air Distribution Module**

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

Mon., June 6 - Part 1

Tues., June 7 - Part 2

Mon., June 13 - Part 3 Tues., June 14 - Part 4

# JULY

# **Chiller Module**

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

Tues., July 5 – Part 1 Tues., July 12 – Part 2

# **Commercial Cooling Tower Module**

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

Tues., Aug. 2 – Part 1

Tues., Aug. 9 – Part 2

# SEPTEMBER

# NATE CORE & Gas Heating Training

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

Wed., Sept. 7 – Part 1

Thurs., Sept. 8 - Part 2

Wed., Sept. 14 – Part 3

Thurs., Sept. 15 - Part 4

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

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

Wed., Oct. 5 – Part 1

Thurs., Oct. 6 - Part 2

Wed., Oct. 12 - Part 3

Thurs., Oct. 13 - Part 4

Sat., Oct. 15 - NATE Exam, 7:30 a.m.

# SOUTHERN CALIFORNIA EDISON, IRWINDALE

# **F**EBRUARY

# **Electrical Module**

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

Wed., Feb. 9 - Part 1

Thurs., Feb. 10 - Part 2

Wed., Feb. 16 - Part 3

Thurs., Feb. 17 - Part 4

# **MARCH**

# NATE CORE & Gas Heating Training

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

Wed., March 2 - Part 1

Thurs., March 3 - Part 2

Wed., March 9 – Part 3

Thurs., March 10 - Part 4

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

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

Wed., April 6 – Part 1

Thurs., April 7 – Part 2

Wed., April 13 – Part 3

Thurs., April 14 – Part 4

Sat., April 16 - NATE Exam, 7:30 a.m.

## **Chiller Module**

(Four-Night Class) Instructors: Mike Griffin / John Dalton Wed., May 4 - Part 1

Thurs., May 5 - Part 2

# **Commercial Cooling Tower Module**

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

Wed., May 11 - Part 1

Thurs., May 12 - Part 2

# JUNE **System Performance Module**

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

Wed., June 1 - Part 1 Thurs., June 2 - Part 2

Wed., June 8 - Part 3

Thurs., June 9 - Part 4

# SEPTEMBER

# **Air Distribution Module**

(Four-Night Class) Instructors: Mike Griffin / John Dalton Wed., Sept. 21 - Part 1

Thurs., Sept. 22 - Part 2

Wed., Sept. 28 – Part 3

Thurs., Sept. 29 - Part 4

# **O**CTOBER

## **AC/HP Refrigeration Module** (Four-Night Class) Instructors: Mike Griffin / John Dalton

Wed., Oct. 19 – Part 1

Thurs., Oct. 20 - Part 2

Wed., Oct. 26 - Part 3

Thurs., Oct. 27 - Part 4

# **N**OVEMBER **System Diagnostics Module**

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

Wed., Nov. 9 - Part 1

Thurs., Nov. 10 - Part 2 Tues., Nov. 15 - Part 3

Thurs., Nov. 17 – Part 4

# SOUTHERN CALIFORNIA EDISON, TULARE

# **FEBRUARY**

# **Gas Heating Module**

(Two-Night Class) Instructors: Mitch Bailey / Jeff Painter

Tues., Feb. 1 – Part 1

Wed., Feb. 2 – Part 2

# 2019 Title 24 Standards Training

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

Wed., Feb. 23 – Part 1

Thurs., Feb. 24 - Part 2

# **MARCH Boiler Module**

(Two-Night Class) Instructors: Mike Griffin/ John Dalton Wed., March  $16-{\sf Part}\ 1$ 

Thurs., March 17 – Part 2

# **Chiller Module**

(Two-Night Class) Instructors: Mike Griffin/ John Dalton Wed., March 23 – Part 1

Thurs., March 24 – Part 2

# **APRIL Air Distribution Module**

(Four-Night Class) Instructors: Mike Griffin/ John Dalton Wed., April 20 – Part 1

Thurs., April 21 - Part 2

Wed., April 27 – Part 3

# Thurs., April 28 - Part 4 MAY

# **System Diagnostics Module**

(Four-Night Class) Instructors: Mitch Bailey / Jeff Painter

Wed., May 11 - Part 1

Thurs., May 12 - Part 2

Wed., May 18 - Part 3 Thurs., May 19 - Part 4

# June **Electrical Module**

(Four-Night Class) Instructors: Mitch Bailey / Jeff Painter

Tues., June 7 - Part 1

Wed., June 8 - Part 2

Tues., June 14 - Part 3

# Wed., June 15 – Part 4

# **SEPTEMBER**System Performance Module

(Four-Night Class) Instructors: Mitch Bailey / Jeff Painter

Tues., Sept. 13 - Part 1

Wed., Sept. 14 – Part 2

Tues., Sept. 20 - Part 3 Wed., Sept. 21 – Part 4

# NATE CORE & Gas Heating Training

(Two-Night Class) Instructors: Mitch Bailey / Jeff Painter

Wed., Oct. 12 - Part 1 Thurs., Oct. 13 - Part 2

Wed., Oct. 19 – Part 3

Thurs., Oct. 20 – Part 4

# **N**OVEMBER NATE AC/HP Refrigeration &

Air Distribution Training (Two-Night Class) Instructors: Mitch Bailey / Jeff Painter

Wed., Nov. 2 - Part 1

Thurs., Nov. 3 - Part 2

Wed., Nov. 9 - Part 3

Thurs., Nov. 10 - Part 4 Sat., Nov. 12 - NATE Exam, 7:30 a.m.

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

# All Classes Are Being Offe

Classes begin at 6:00 PM Pacific Time and class Register at www.ihaci.or

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# **FEBRUARY**

# NATE HVAC/R New Hire Training

(Four-Night Class) Instructors: Mitch Bailey / Jeff Painter
Wed., Feb. 16 – Part 1
Thurs., Feb. 17 – Part 2
Wed., Feb. 23 – Part 3
Thurs., Feb. 24 – Part 4

# **MARCH**

# NATE HVAC/R Support Training

(Four-Night Class) Instructors: Mitch Bailey / Jeff Painter

Wed., March 2 – Part 1 Thurs., March 3 – Part 2 Wed., March 9 – Part 3 Thurs., March 10 – Part 4

# **APRIL**

## **Electrical Module**

(Four-Night Class) Instructors: Mitch Bailey / Jeff Painter

Wed., April 6 – Part 1 Thurs., April 7 – Part 2 Wed., April 13 – Part 3 Thurs., April 14 – Part 4

# MAY

# **AC/HP Refrigeration Module**

(Four-Night Class) Instructors: Mitch Bailey / Jeff Painter Wed., May 25 – Part 1 Thurs., May 26 – Part 2

# JUNE

## **AC/HP Refrigeration Module**

(Four-Night Class) Instructors: Mitch Bailey / Jeff Painter Wed., June 1 – Part 3
Thurs., June 2 – Part 4

# **Air Distribution Module**

(Four-Night Class) Instructors: Mitch Bailey / Jeff Painter

Wed., June 22 – Part 1 Thurs., June 23 – Part 2 Wed., June 29 – Part 3 Thurs., June 30 – Part 4

# **A**UGUST

# **System Diagnostics Module**

(Four-Night Class) Instructors: Mitch Bailey / Jeff Painter Wed., Aug 31 – Part 1

# **S**EPTEMBER

# **System Diagnostics Module**

(Four-Night Class) Instructors: Mitch Bailey / Jeff Painter Thurs., Sept.  $1-{\sf Part}\ 2$ 

Wed., Sept. 7 – Part 3 Thurs., Sept. 8 – Part 4

# **O**CTOBER

# NATE CORE & Gas Heating Training

(Four-Night Class) Instructors: Mitch Bailey / Jeff Painter

Mon., Oct. 10 – Part 1 Tues., Oct. 11 – Part 2 Mon., Oct. 17 – Part 3 Tues., Oct. 18 – Part 4

# **N**OVEMBER

# NATE AC/HP Refrigeration & Air Distribution Training

(Four-Night Class) Instructors: Mitch Bailey / Jeff Painter

Mon., Nov. 7 – Part 1 Tues., Nov. 8 – Part 2 Tues., Nov. 15 – Part 3 Wed., Nov. 16 – Part 4

Sat., Nov. 19 - NATE Exam, 7:30 a.m.

# **SAN DIEGO GAS & ELECTRIC**

# **F**EBRUARY

# NATE HVAC/R New Hire Training

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

Mon., Jan. 31 – Part 1 Tues., Feb. 1 – Part 2 Wed., Feb. 2 – Part 3 Thurs., Feb. 3 – Part 4

# **MARCH**

## **Non-Res ATE Training**

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

Tues., March 1 – Part 1
Tues., March 8 – Part 2

# **Non-Res MATT Training**

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

Tues., March 15 - Part 1
Tues., March 22 - Part 2

# **APRIL**

# **Electrical Module**

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

Tues., April 5 – Part 1 Tues., April 12 – Part 2 Tues., April 19 – Part 3 Tues., April 26 – Part 4

# <u>May</u>

# **AC & HP Refrigeration Module**

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

Wed., May 18 – Part 1 Thurs., May 19 – Part 2 Wed., May 25 – Part 3 Thurs., May 26 – Part 4

# **JUNE**

# **Air Distribution Module**

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

Wed., June 15 – Part 1 Thurs., June 16 – Part 2 Wed., June 22 – Part 3 Thurs., June 23 – Part 4

# **J**ULY

# **System Diagnostics Module**

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

Wed., July 6 – Part 1 Thurs., July 7 – Part 2 Wed., July 13 – Part 3 Thurs., July 14 – Part 4

# <u>August</u>

# **System Performance Module**

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

Wed., Aug. 3 – Part 1 Thurs., Aug. 4 – Part 2 Wed., Aug. 10 – Part 3 Thurs., Aug. 11 – Part 4

# <u>September</u>

## **Chiller Module**

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

Tues., Sept. 6 – Part 1
Tues., Sept. 13 – Part 2

## **Commercial Cooling Tower Module**

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

Tues., Sept. 20 – Part 1 Tues., Sept. 27 – Part 2

# **O**CTOBER

# **Boiler Module**

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

Tues., Oct. 4 – Part 1
Tues., Oct. 11 – Part 2

# **Commercial Refrigeration Module**

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

Tues., Oct. 18 – Part 1 Tues., Oct. 25 – Part 2

# November

# NATE CORE & Gas Heating Training

(Four-Night Class) Instructors: Mike Griffin / John Dalton
Mon., Nov. 21 – Part 1

Tues., Nov. 22 - Part 2 Mon., Nov. 28 - Part 3 Tues., Nov. 29 - Part 4

# **DECEMBER**

# NATE AC/HP Refrigeration & Air Distribution Training

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

Mon., Dec. 5 – Part 1 Tues., Dec. 6 – Part 2 Mon., Dec. 12 – Part 3 Tues., Dec. 13 – Part 4

Sat., Dec. 17 - NATE Exam, 7:30 a.m.

# red as Webinars

format is subject to change g (Training)

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





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# **Indoor People**



JOHN V. FARACI

Carrier Global Corporation announced that director **John V. Faraci** will not stand for re-election at the company's upcoming Annual Meeting of Shareowners on April 14, 2022. Faraci will continue to serve on the board until the Annual Meeting.

"On behalf of the board of directors and everyone at Carrier, I would like to express our sincere gratitude and thanks to John who, as executive chairman, shepherded us through our first year as an independent public company," said Dave Gitlin, Carrier chairman and chief executive officer. "On a personal level, I deeply appreciate John's mentorship. Carrier has greatly benefited from his judgment, leadership, and extensive experience as a public company director and former CEO."

Faraci, 71, has been a member of the Carrier Board since the company separated from United Technologies (since renamed Raytheon Technologies) in April 2020, and served as executive chairman until April 2021. He is a director of ConocoPhillips Company, PPG Industries, Inc., and United States Steel Corporation. Before joining the Carrier Board, he was chairman and chief executive officer of International Paper (paper, packaging, and distribution) from 2003 to 2014, and a director of United Technologies from 2005 to 2020.

"I joined the Carrier Board to assist Carrier through its initial transition from a newly-spun subsidiary of United Technologies to a prominent member of the industrials segment, with robust governance practices and a laser focus on creating long-term value for our shareowners," Faraci commented. "As I depart, I do so with full confidence that Carrier is poised for growth and in great hands under the Board's steward-ship and Dave's leadership."

Ritchie Engineering Company Inc. announced the hiring of **Anup Shetty** as project manager. Shetty brings expertise in engineering, marketing, product management, sales, and operations.

• • • • • • • •

Shetty served in the dual role

of project manager and product manager for the gas detector product line for Det-Tronics. The role included leading cross-functional teams for multiple new product development and process improvement projects from concept to completion, gathering market requirements, communicating with global stakeholders, identifying and mitigating risks, and developing and executing project plans.

He began his career as a design engineer for Schaevitz Engineering. His career includes roles of increasing responsibilities in systems engineering, marketing, product management, sales, and operations at companies such as Parker Hannifin, Eaton Hydraulics, Ecolab, and Thermo King.

Shetty earned his Master of Business Administration (MBA) from Case Western Reserve University, his Master of Science in Mechanical Engineering (MSME) from Kansas State University, and his Bachelor of Science in Mechanical Engineering (BSME) from Wichita State University. He is a certified Project Management Professional (PMP) and a Certified Scrum Product Owner (CSPO).



ANUP SHETTY

Rinnai America Corporation announced that **Shelley Kiley** has joined the organization as its vice president of operations. Kiley will oversee the completion of its new manufacturing plant in Griffin, Georgia. In addition, Kiley has assumed responsibility over all functional areas in manufacturing, supply chain, distribution, and logistics.

"I am very excited to join Rinnai America, and look forward to leading the operations team as we continue to drive operational excellence and expand our manufacturing capability in North America," said Kiley. "I look forward to supporting Rinnai, delivering on our promise of Creating a Healthier Way of Living, as well as spearheading the operational initiatives that will continue to drive growth."

Kiley has most recently spent three years leading a team of 650 within the supply chain and global



SHELLEY KILEY

operation strategy teams at Larson-Juhl. Prior to that, Kiley had a 11-year tenure with Moen Inc., where she progressed from plant manager to holding several executive leadership roles, including vice president of global supply chain and manufacturing, where she led 2,000 employees.

"We are very excited to welcome Shelley, as she will be instrumental in the continued growth of our manufacturing footprint in the U.S.," said Frank Windsor, president, Rinnai America Corporation. "She will be focusing on preemptive enhancements to meet needs of our customers and fostering a high-performance team, which will lead Rinnai towards achieving our expansion goals."

Chris Buelow has joined Dakota Supply Group (DSG) as vice president of sales and marketing. Buelow will oversee DSG's sales and marketing functions across its entire footprint in this role. He will be based out of DSG's Plymouth, Minnesota, office and be part of DSG's executive team.

. . . . . . . . .

Before joining DSG, Buelow has spent the past 12 years in progressive leadership positions at Milbank Manufacturing, an electrical manufacturer, most recently as senior vice president of sales and marketing. He has been active with the National Association of Electrical Distributors (NAED) and the National Electrical Manufacturers's Representative Association (NEMRA), serving on both of their Manufacturer's Council's in the past.

"Chris brings broad experience for product management, marketing and sales strategies for growing



CHRIS BUELOW

organizations," said Paul Kennedy, DSG's CEO. "His leadership will further solidify our efforts to provide a world-class customer experience."



NATALIE D'APOLITO

The Air Conditioning Contractors of America (ACCA) announced **Natalie D'Apolito** as ACCA's new communications coordinator.

As ACCA's communications coordinator, D'Apolito is responsible for creating and distributing a wide range of content. She joins ACCA after graduating from Ohio University in May 2020. D'Apolito is well-versed in content creation, public relations, and publishing. She brings experience from her previous role as the National Fisheries Institute's (NFI) media and communications intern, where she spent much of her time producing video newsletters and creating social media content. D'Apolito plans to use her previous experience to ensure ACCA members continue to receive efficient and comprehensive information.

In addition to the responsibilities listed above, D'Apolito will assist the marketing and communications team with producing the ACCA Now Magazine, sharing e-newsletters with ACCA members and additional HVAC professionals, and she will also be contributing content to ACCA's social media platforms and website.

. . . . . . . . .

NAVAC, the world's largest supplier of HVAC vacuum pumps in addition to a wide array of tools, gauges, charging machines, recovery units and other industry-specific items, has hired Kurtis Feil as central regional sales manager. In this position, Feil will spearhead sales efforts across the U.S. Midwest and Canadian province of Ontario, including onboarding several new representative distributors in these areas. He also will manage relationships with NAVAC's existing distribution channels, helping to ensure proper tools use and training.

Feil has over 18 years of sales and service management experience. Most recently, he spent two years as director of U.S. sales for Watsco/ Gree in the company's ductless and VRF segment. Prior to that, he served as regional sales manager for HVAC manufacturer Cambridge Resources.

Feil's certifications include completion of an "Art of Sales" course, designed to makes sales executives both more efficient and proficient. He is also "High Impact Selling" certified from the Kellogg School of Management at Northwestern University's rigorous assessment, training and workshop program. He resides in Crown Point, Ind. with his wife, Danielle, and three children.



KURTIS FEIL

Marco Rubino has been promoted to regional sales manager for Johnstone Supply's Syracuse and Rochester locations. Rubino will oversee the team of territory sales managers who work with HVACR contractors and facilities maintenance staffs in an area that includes all of Central New York, the North Country, the Finger Lakes, and Genesee Valley. He will also be responsible for all company sales initiatives.

Rubino, a certified building performance analyst for the past 11 years, joined Johnstone Supply in 2019 as a territory sales manager working out of the Syracuse location. Prior to joining Johnstone Supply he was an exterior project specialist with Lowe's.

"Marco has more than 12 years of sales and sales management experience in the HVAC and home remodeling industries, evidenced by his ability to consistently exceed the expectations of our customers," said Ken Livingston, owner of the Johnstone locations in Syracuse and Rochester.



MARCO RUBINO

# **Help Wanted**



## **Company Overview:**

The R.E. Michel Company was founded in Baltimore, Maryland in 1935 as a supplier to the home heating oil burner industry. Still family owned and operated, we have grown to be one of our nation's leading wholesale distributors of HVACR equipment, parts and supplies and we have more than 250 locations nationwide.

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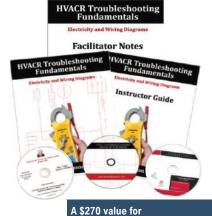
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