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SEPTEMBER 2022

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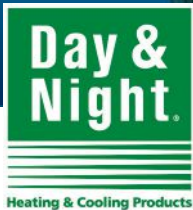
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INDOOR COMFORT NEWS



NEW MINIMUM EFFICIENCIES

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U.S. DEPARTMENT OF
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Beginning January 1, 2023, the D.O.E. is increasing the minimum efficiencies for central air conditioners and heat pumps.

- For air conditioners in the Southwest, the minimum efficiency will increase from 14.0 to 15.0 SEER under today's test procedure. The national heat pump minimum efficiency will increase from 14.0 to 15.0 SEER.
- Ferguson HVAC / Day & Night® is here to educate you and train your employees to be prepared for the upcoming required change.

SOUTHWEST REGION			
2023 Minimum Efficiencies			
System Type	Current Minimum	New Minimum with M Ratings	New Minimum with M1 Ratings
Split System AC (AC < 45k Btu/h)	14.0 SEER	15.0 SEER	14.3 SEER2
	12.2 EER	12.2 EER*	11.7 EER2**
Split System AC (AC ≥ 45k Btu/h)	14.0 SEER	14.5 SEER	13.8 SEER2
	11.7 EER	11.7 EER*	11.2 EER2**

* 10.2 EER if equipment is at or above 16.0 SEER ** 9.8 EER2 if equipment is at or above 15.2 SEER2

AC PRODUCT LINEUP

2023				
Tier	Model Family	Stage	Coastal Option	Tonnage Range
Ion™ System	CVA9	5	No	2 – 5
	C4A7T	2	No	2 – 5
	C4A6S	1	No	1.5 – 5
Performance Series	N4A7T	2	Yes	2 – 5
	S4A5S	1	No	1.5 – 5
	N4A5S	1	Yes	1.5 – 5
	N4A4S	1	No	1.5 – 5
R-Series	R4A5S	1	No	1.5 – 5
	R4A4S	1	No	1.5 – 5

HP PRODUCT LINEUP

2023				
Tier	Model Family	Stage	Coastal Option	Tonnage Range
Ion System	CVH8	5	No	2 – 5
	C4H7T	2	No	2 – 5
	C4H6S	1	No	1.5 – 5
Performance Series	N4H7T	2	Yes	1.5 – 5
	S4H5S	1	No	1.5 – 5
	N4H5S	1	Yes	1.5 – 5
R-Series	R4H5S	1	No	1.5 – 5

Note:
There will be no changes to three-phase product.

2023 Region Key
SW = Compliant in all regions
SE = Compliant in Southeast and North
N = Compliant in North only

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Industry News



CALIFORNIA



Fieldpiece Takes Home ACHR News Annual Awards

Orange, Calif. – Fieldpiece Instruments, a proven industry leader known for delivering innovative and high-quality HVACR test tools for more than 30 years, received accolades for two of its newest products at the 2022 Dealer Design Awards. Fieldpiece took home the silver in the hand tools category for its 10 CFM Vacuum Pump, VPX7 and bronze in the electronic tools category for its Infrared Refrigerant Leak Detector, DR82.

Now in its 18th year, the Dealer Design Awards is hosted by ACHR News and was created to recognize contractor-oriented products and tools with features that support the installation, maintenance and overall service needs of the HVACR industry. An independent panel of contractors judged more than 132 entries to determine this year's winners.

"Receiving not just one but two awards at this year's Dealer Design competition validates the hard work the Fieldpiece team does day-in and day-out to innovate, engineer, design and build tools for HVACR professionals by HVACR

professionals to help them succeed on the jobsite," said Fieldpiece Instruments' Vice President of Sales and Marketing Jeb Ball. "We are honored to take home these wins; and look forward to continuing to design products that make the important work HVACR pros do easier, faster and better."

Earning silver in the hand tools category, the Fieldpiece 10 CFM Vacuum Pump, VPX7 is small, lightweight and portable – making it easy to carry up and down ladders, and its powerful 10 CFM DC motor is tough enough for even large commercial or refrigeration applications. Plus, it features Fieldpiece's patented RunQuick® Oil Change System which lets technicians change oil without powering down or losing vacuum, and it has four in-line ports, offering techs plenty of room to run multiple hoses without tangles or clutter.

Fieldpiece's Infrared Leak Detector, DR82 – honored with a bronze award in the electronic tools category – gives technicians superior sensitivity in the field - <0.03-ounces per year, and the most consistent leak detection across all refrigerants. Its sensor is designed to last about ten years; it has the added protection of a replaceable water-blocking filter that keeps moisture and contaminants from reaching the sensor, preventing contaminant-related failure; and its rechargeable 10-hour lithium-ion battery powers the unit for a full day of testing. A large LCD display shows a numerical value representing leak size and a bar graph indicating the intensity of the leak; the backlit display can be seen in dark places or in direct sun; and three sensitivity levels adjust at

the push of a button to find leaks even in refrigerant contaminated environments.

For more information about these two award-winning products or any of Fieldpiece's other innovations, visit Fieldpiece.com.

TEXAS



Modine Partners with Texas Airsystems

Houston, Texas – Modine Manufacturing Company is partnering with Texas AirSystems, an independent representative for commercial HVAC manufacturers, to expand access to the Airedale product line. As part of the partnership, Airedale by Modine will be represented by Texas AirSystems in the Texas market while providing an array of HVAC solutions to potential clients.

"At Modine, we strive to revolutionize the HVAC industry by proactively offering new innovative solutions to meet the needs of our customers," said Kimberly Raduenz, manager of strategic marketing for the IAQ division at Modine. "Equally as important as product development are the relationships built with the contractors we serve and Texas AirSystems has built a reputation on building and maintaining strong partnerships that provide tangible value. This new partnership with Texas AirSystems not only expands the reach and notoriety of our Airedale line, but it empowers contractors to confidently select the perfect match for their project from an array of solutions offered by Modine. It's a win-win for everyone involved."

Modine specializes in a variety of ventilation and heating solutions for diversified markets. With a focus on providing optimal HVAC services, the Airedale product line offers solutions ranging from the ClassMate DX Cooling and Heat Pump to the Sentinel Vertical Unit Ventilator.

Representing over 80 manufacturers, Texas AirSystems offers systems with a flexibility of equipment and solutions to best match each application. Their team partners with industry professionals and end users to provide energy-efficient, value-added solutions to complex projects.

"At Texas AirSystems, we work hard every day to build better partnerships. That's the ultimate benefit we offer our manufacturers and customers – that we are always looking for ways to win for our partners," said Al Amerson, executive vice president at Texas AirSystems. "Our new partnership with Airedale is going to make Texas AirSystems a better partner for the clients we serve across Texas. Their innovative comfort systems are designed to improve existing conditions bringing immense value to our customer partners. From elementary schools to higher education, educators trust Airedale to provide optimal learning environments with responsible energy consumption. That ideal combination provides our customer partners in the K-12 vertical market with clean, temperature-controlled air for a safer and more productive place to learn."

.....

Winsupply Buys First Source Electrical

Houston, Texas – Winsupply Inc., one of the largest distributors in the nation, has completed the purchase of First Source Electrical. Located in Houston, Texas, First Source's 110 square-foot building is a full-line distributor of commercial, multi-family, residential and low-voltage electrical supplies.

"We are excited to welcome First Source Electrical to our already growing electrical portfolio within the Winsupply Family of Companies. We share a common culture that prioritizes our contractors, vendor partnerships and employees," says Greg Holbrook, Winsupply's Vice President of Due Diligence and Financial Integration. "This partnership helps us continue to align with our vendor partners and add additional value to our current Local Companies."

The location will continue doing business as First Source Electrical.

Winsupply is one of America's leading suppliers of materials for residential and commercial construction and owns a majority stake in more than 640 local companies across the United States. Collectively, Winsupply is known as "The Winsupply Family of Companies" and includes Win-branded locations, Noland Company, Carr Supply, Security Plumbing & Heating Supply, APCO, and other regional suppliers the company has acquired.

NATIONAL



Uponor Earns National Top 10 National Award

Apple Valley, Minn. – In addition to being named a 2022 Top Workplaces USA award recipient, ranked the #1 Top Manufacturing Workplaces in Minnesota in 2022; and recognized eight times as a Top Workplace in the State of Minnesota since 2012, Uponor North America has now been ranked number 10 in Engage's National Manufacturer Top Workplaces list out of 349 similarly sized companies. This is the first time Uponor has earned a top 10 national ranking in this category.

The National Manufacturer Top Workplaces honor is determined through feedback gathered during an annual employee survey. Uponor employees were asked to rate their overall job experience, as well as satisfaction with criteria such as wages, benefits, and company culture.

"Recognitions like this national award reinforce what we already know — Uponor is a great place to work and build a career," said Andres Caballero, president, Uponor North America. "Industry honors are important, but having our employees' survey responses name our company as a top national manufacturer is very special. We will continue to do all we can to reinforce our corporate values and lead with a people-first culture."

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Greenheck Celebrates 75th Anniversary

Schofield, Wisc. – Greenheck, the global leader in engineering and manufacturing air movement, control, conditioning, and distribution equipment, is

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Continued from Page 4

celebrating its 75th anniversary. Founded by brothers Bob and Bernie Greenheck upon their return home from World War II, the company started out as a small sheet metal shop in Schofield, Wisconsin. In its early days, Greenheck manufactured a variety of metal products but soon found its niche in its first HVAC product – a powerless gravity ventilator. Today, Greenheck offers the industry's most comprehensive product line of ventilation equipment from the roof to the room including fans and ventilators, make-up air units, energy recovery ventilators, kitchen ventilation systems, dedicated outdoor air systems, indoor air handlers, dampers, louvers, laboratory exhaust systems, grilles, registers, diffusers, and air terminal units.

"Bob and Bernie Greenheck's business philosophy was based on the core values of reinvestment in our people and operations, dedication to continuous improvement, and the determination to be the easiest company to do business with," said Tim Kilgore, President of Greenheck Sales. "These enduring values guide our company to this day through our extraordinary team members, strong sales partners and suppliers, and constant product innovation to meet changing customer needs."

Greenheck continuously works with its mechanical representative



network, consulting engineers, and mechanical contractor customers to design and manufacture products that improve indoor air quality and provide healthy and safe environments in commercial, institutional, and industrial facilities such as schools, hospitals, warehouses, offices, data centers, restaurants and more. To accommodate this growing product line, Greenheck developed its Computer Aided Product Selection (CAPS®) program during the 1980s and later introduced the web-based eCAPS® program in 2015 to make product selection easier for engineers, contractors and its representative network. Greenheck also expanded its manufacturing reach throughout the years to be closer to the customer. In addition to Wisconsin, manufacturing campuses and facilities are currently located in California, Florida, Kentucky, North Carolina, Oklahoma, Tennessee, Mexico and India.

Never living in the past, Greenheck continues to find ways to better serve its customers and meet the challenges of the future. Energy efficiency, indoor air quality, and net-zero buildings are among the leading factors driving innovation in the design of air

movement and control products. Greenheck is leading the HVAC industry in the development of materials, technology and standards to address these factors and ensure customer ventilation needs are met.

A family-owned company, founder Bob Greenheck still serves as chairman emeritus of the board of directors that today includes three generations of the Greenheck family. The Bernard A. Greenheck Education Center and the Robert C. Greenheck Innovation Center, located on the Schofield, Wisconsin campus, ensure Greenheck's industry-leading position in education, standards, product quality and product innovation continue now and into the future.

For more on Greenheck's 75-year history, visit www.greenheck.com/anniversary.

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Heartland Home Services Acquires Hurlburt HVAC

Grand Rapids, Mich. – Heartland Home Services ("Heartland"), the Midwestern leader in HVAC, plumbing and electrical home services, is pleased to announce that it has acquired Hurlburt Heating, AC, & Plumbing ("Hurlburt"), a leading provider of HVAC services in Western Wisconsin. The addition of Hurlburt creates an extension

into a core Midwestern market of Wisconsin, allowing Heartland to serve more customers every day.

Hurlburt has been a family-owned and -operated business since 1959. President Greg Mericle stated, "Partnering with Heartland will allow us to continue our strong presence in the community and will empower us to give more resources to our dedicated team, allowing us to serve our customers even better."

"We couldn't ask for a better partner than the team at Hurlburt Heating, AC & Plumbing. Their dedication to their workforce and their community involvement embodies what we aspire to here at Heartland. Together we will accelerate the potential of their operation by sharing our combined strength. We are stronger with this team on our side," added Heartland Home Services CEO Bill Viveen.

Owners Greg and Amy Mericle will stay on along with their dynamic management team and knowledgeable technicians.

Terms of the transaction were not disclosed.

Heartland is the leading technology-enabled provider of repair, replacement and maintenance services for the HVAC, plumbing and electrical markets in which we operate. The Company operates through 35 brands across several states. The Company collectively serves over 1,000,000 customers annually with 1,700+ team members through a collec-

tion of industry-leading brands that date back to 1904.

Visit www.heartlandhsc.com for more information about Heartland Home Service family of brands.

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Hennepin Tech Granted HVAC Excellence Accreditation

Brooklyn Park, Minn. – HVAC Excellence announced that the HVACR training programs at Hennepin Technical College in Brooklyn Park and Eden Prairie, Minnesota have been granted accreditation.

"Having the unique opportunity to visit HVACR educational programs from across North America, I found Hennepin Technical College HVACR programs at Brooklyn Park and Eden Prairie excellent facilities for others to emulate. The commercial refrigeration program at the Eden Prairie campus is an excellent facility to prepare students for success in supermarket refrigeration," said Steven H. Allen, LEED AP, CSME, accreditation specialist.

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.

.....

Lennox Forms Partnership with Hudson Tech

Woodcliff Lake, N.J. – Hudson Technologies Inc., a provider of sustainable refrigerant products and services to the HVACR industry, and Lennox International Inc., a provider of energy-efficient climate-control solutions, announced they have entered into an agreement to align their efforts to meet the CARB Regulation Order for Certified Reclaimed Refrigerant Use Requirements for Manufacturers of AC Equipment. Under

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Continued on Page 8



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Continued from Page 6

the agreement, Hudson will be the exclusive supplier of certified reclaimed refrigerants to Lennox for the aftermarket support of their residential HVAC systems.

“Hudson continues to lead the way in sustainability and we are focused on supporting our industry partners in their efforts to ensure compliance with regulations around the use of reclaimed refrigerant and the transition to more environmentally friendly gases,” commented Brian F. Coleman, president and CEO of Hudson Technologies. “We are pleased to partner with Lennox through this strategic alliance, which illustrates

our joint commitment to increasing the recovery, reclamation and reuse of refrigerants, as well as fostering activities which reduce greenhouse gas emissions, create economic incentives for return of used refrigerants and support the circular economy.”

“Driving innovation excellence in our products, services, and operations is at the core of our business strategy and embedded into our processes,” added Eric Zito, director, sustainability and product lifecycle of Lennox International Inc. “This partnership with Hudson will assist us in supporting the aftermarket refrigerant needs of our customers through the use of reclaimed refrigerant, a practice

that aligns with our unwavering commitment to reducing environmental impact.”

• • • • •

Johnson Controls, Accenture Join Forces on OpenBlue Centers

New York, N.Y. – Accenture (NYSE: ACN) and Johnson Controls (NYSE: JCI), the global leader for smart, healthy and sustainable buildings, are collaborating to deliver and operate two new OpenBlue Innovation Centers. The centers will drive Johnson Controls’ rollout of building control system products and services using technologies such as artificial intelligence (AI), digital twins, internet of things (IoT), 5G and the cloud. The goal is to accelerate advanced automation in building operations to achieve greater sustainability, safety, security and user experiences.

Johnson Controls OpenBlue is an AI-enabled suite of connected solutions and services that integrates with customers’ operational technology. The system collects and primes data from buildings and applies machine learning at the edge and in the cloud – comparing the data against optimized AI performance models. The result is the ability to micro-manage real-time building performance, saving cost and energy as well as enhancing environments.

“We have a fantastic opportunity to accelerate carbon reduction in buildings by weaving in new features built on advanced technology into OpenBlue, further enabling our customers to achieve their sustainability targets,” says Vijay Sankaran, Johnson Controls chief technology officer. “Accenture’s expertise in platform engineering, integration and sustainability will help us to deliver these enhanced capabilities faster – accelerating how quickly we can cut emissions, energy and cost out of projects and helping our customers to reduce their operational costs sooner.”

Accenture will assist Johnson Controls by implementing leading-edge technologies on the OpenBlue platform. This includes AI-driven analytics to optimize space utilization, O2 vs. CO2 saturation in airflows, as well as infectious disease risks and other environmental information. Digital twins will be used to enable Johnson Controls to model, analyze, and make decisions on maintenance, upgrades, and sustainability – replacing physical prototypes to help reduce resource use, carbon emissions, cost, and time to market. 5G and IoT will also be used for faster and higher capacity data transmission, with remote management and control of connected devices.

“The better and more sustainable we can make buildings – the smarter, more attractive, healthier and efficient they will become – and the better they will be for people and our planet,” said Peter Lacy, Accenture’s global Sustainability Services lead and chief responsibility officer. “It’s about creating environments focused on well-being and productivity of occupants, while protecting the environment of our planet. Digitizing building operations is an essential first step toward these goals.”

With around 40 percent of carbon dioxide (CO2) emissions globally generated by the building sector, research from Accenture found that technology such as digital twins, digital replicas of physical assets or processes, can cut energy use and carbon emissions in half. Further evidence from Accenture research found that companies with a higher sustainability performance – across environmental, social and governance (ESG) indicators – perform better financially.

“Companies should not have to make trade-offs between their business and sustainability goals, and an effective technology strategy can address this,” said Paul Daugherty, Accenture’s group chief executive – Technology and chief technology officer. “Together with Johnson Controls, we will harness technology in new ways, use effective ESG measurement tools and engage the power of ecosystems to solve environmental problems within the building environment.”

The new OpenBlue Innovation Centers, opening in Bangalore and Hyderabad, are aligned with Johnson Controls’ innovation in building technology and the strong Johnson Controls network of OpenBlue Innovation Centers across the globe.

• • • • •

NAVAC Wins Two ACHR Dealer Design Awards

Lyndhurst, N.J. – NAVAC, the world’s largest supplier of HVAC vacuum pumps in addition to a wide array of tools, gauges, charging machines, recovery units and industry-specific items, took top honors in the Hand Tools category of The ACHR News’ prestigious Dealer Design Awards. The company’s recently introduced NTE11L BreakFree® Power Tube Expander won Gold, while its popular NEF6LM BreakFree® Power Flaring Tool was recognized with a Bronze in the same category – a near-sweep for NAVAC.

NAVAC’s battery-driven NTE11L BreakFree® Power Tube Expander offers effortless, efficient and precision expansion for tubes in the 3/8” to 1-1/8” range. The tool is capable of performing its duties in just 12 seconds with the touch of a single button, and its long-lasting, rechargeable lithium battery allows up to 200 expansions per charge and recharges in just 30 minutes. Other features include an LED flashlight, a battery power indicator and a “Quick-Connect” design to switch expanding heads in just two seconds.

Meanwhile, NAVAC’s NEF6LM BreakFree® Power Flaring Tool is the industry’s lightest cordless flaring tool. Weighing less than three pounds, it produces precise, automatic flares in a fraction of the time compared to traditional flaring methods. It can create flares in five sizes, ranging from 1/4” to 3/4”. Designed to perform reliably in harsh environments, the NEF6LM Cordless Power Flaring Tool also offers quick-connect functionality.

Featuring easy, one-button operation and a luminous LED flashlight, the NEF6LM Cordless Flaring Tool can complete a flare in just 15 seconds and can make over 100 flares per charge. Like the NTE11L, the device is fully charged in just 30 minutes.

As a technician in today’s technology-driven landscape, it can be frustrating when tools fall short of the demands of modern-day HVAC equipment. NAVAC’s cordless tubing tools are user-friendly, with positioning and securing the tube taking mere seconds. From there, all the operator does is press the button – also in a matter of seconds.


NEWS Publisher Sarah Harding stated, “These awards give us a unique opportunity to recognize the outstanding research and development efforts that go into many of the products serving the HVACR industry and the awards issue gives our readers an opportunity to read about innovative installation and service solutions.”

“NAVAC is proud to introduce the BreakFree® Power Tubing Expander,” said Zhuk Zhang, Director of Products for NAVAC. “Following in the footsteps of its predecessor, the Breakfree Power Flaring Tool, we continue to empower con-

Continued on Page 10

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GAW14L30C21S	2.5	14	29-1/4	36-1/4	29-1/4	150
GAW14L36C21S	3.0	14	35-1/4	33-1/4	31-3/4	195
GAW14L42C21S	3.5	14	35-1/4	33-1/4	31-3/4	195
GAW14L48C21S	4.0	14	38	36-1/4	34-1/4	200
GAW14L60C21S	5.0	14	38	42-1/4	34-1/4	215



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- Powdercoat paint further protects external panels
- Louvered coil protection – Two stamped steel louvered panels protect the coil from mechanical damage
- High efficiency micro channel aluminum coil is manufactured using an improved material
- Compressors are protected internally by a high pressure relief valve and a temperature sensor, and externally by the system high pressure switch
- Liquid line filter-drier is factory installed to protect the compressor against moisture and debris
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Industry News

Continued from Page 8

tractors to automate tubing processes that will save time, energy and ultimately their bottom line. It is an honor to be recognized by one of the industry's most respected, widely-read publications, and we look forward to introducing additional award-winning products in the future."

For more information, www.navacglobal.com.

Service World Expo Set for Oct. 18-21

Tampa, Fla. – Residential Home Service Contractors have seen a boom in business because people were at home, working remotely, and took that opportunity to

upgrade or work on home projects. HVAC, Plumbing, Electrical, and Remodeling contractors have been busier than ever. In addition to this boom in business, there have been new challenges in the industry.

A few of the major obstacles facing home service contractors include:

- Labor shortages in the trades
- Supply chain disruptions in labor, raw materials, computer chips, triggering inventory shortages, equipment pricing increases, and uncertainty in manufacturing outputs.
- New regulations in HVAC equipment efficiencies.

Contractors are looking for answers and guidance on how to navigate through these challenges.

Contractors are looking for supply chain partners and business solutions.

Contractors are looking for

strategies on recruiting, retaining, and developing top talent.

In October, Service World Expo is being held to address some of these issues and to give tools to contractors in HVAC, Plumbing, Electrical, and Remodeling to overcome these new challenges. To help contractors continue to grow and become more profitable during this time, Service World Expo is bringing in 42 industry specific speakers, over 200 industry exhibitors, and three amazing keynote speakers including 2-time national champion and first round NFL draft pick Tim Tebow.

Service World Expo is the largest, must-attend conference, trade show, and networking event for residential contractors involved in Plumbing, HVAC, Electrical, or Remodeling service who want to ignite growth and performance in their companies.

Held on October 18-21, 2022, at the Tampa Convention Center in Tampa, Fla., the event will encompass compelling content, cutting-edge educational breakouts, a product showcase that is more tailgate party than tradeshow and out-of-this-world entertainment events.

For more information on Service World Expo, visit www.ServiceWorldExpo.com, email jamie@ServiceWorldExpo.com, or call 844.742.3970.

NADCA to Host Fall Conference in N.J.

Mt. Laurel, N.J. – The National Air Duct Cleaners Association (NADCA) – also known as the

HVAC Inspection, Cleaning, and Restoration Association – announces that its highly anticipated Fall Technical Conference will take place September 15-17 at the Hard Rock Hotel and Casino in Atlantic City, New Jersey.

NADCA's Fall Technical Conference is an annual event that is extremely popular with air duct cleaning technicians throughout every stage of their careers. It features hands-on training in every aspect of HVAC system cleaning. Plus, technicians seeking Air Systems Cleaning Specialist (ASCS) or Certified Ventilation Inspector (CVI) certifications will have the opportunity to participate in the pre-conference training course, with exams for both certifications also offered during the conference.

The event will offer a robust educational program, with advanced, industry expert-led sessions featuring topics like Cleaning Related to Fire/Water Restoration Projects, Everything Mold, Specialized Environment Cleaning, Setting Yourself Apart in the Residential Market, Project Management, Emerging HVAC Technology, and more.

In addition, several sessions will focus on the more technical side of the job, with topics like HVAC 101 for Residential and Commercial Systems, Customer Service, and Safety. Attendees will also have the opportunity to roll up their sleeves and practice technical skills through the hands-on training stations for tasks like properly cutting and closing access openings, performing coil cleaning, and much more.

"Fall Tech is a not-to-be-missed event for air duct cleaning technicians. It provides extremely valuable hands-on training and education – there's no other event like it," said Jodi Araujo, CEM, NADCA's Chief Executive Officer. "We're excited to bring back our popular virtual reality training this year. It allows attendees to put on a headset and dive right into a real mechanical room in a commercial facility or a residential project, giving them another great experience for fine-tuning their skills and learning new tips that they can bring back to the job site."

NADCA's 2021 Fall Technical Conference is scheduled for September 15-17. To register or learn more about the event,

Continued on Page 12



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ON-DEMAND

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hvacredunet.com/sdgetraining

D&R International – Commercial Heat Pump Water Heating Online Education

learn.drintl.com/commercial-hpwh-training-sdgc

ENERGY CODE ACE

Codes & Standards – 2019 Title 24, Part 6 Essentials

energycodeace.com



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including a detailed program agenda, visit <https://nadca.com/fall-tech/2022>.

R-22 Refrigerant Smuggler Nabbed in Florida

Miami, Fla. – In July, 69-year-old Jorge Murrillo pled guilty in federal district court in Miami to conspiring to violate the Clean Air Act (CAA) by importing over 300,000 kilograms of illegal R-22, worth over \$1.5 million, into the United States from China. R-22 is a widely used refrigerant for residential heat pump and air conditioning systems. The CAA regulates air pollutants, including ozone-depleting

substances such as R-22. The CAA and its implemented regulations established a schedule to phase out the production and importation of ozone-depleting substances, with a complete ban starting in 2030. To meet its obligations under an international treaty to reduce its consumption of ozone depleting substances, the United States issued baseline consumption allowances for the production and importation of R-22 to individuals and companies. To legally import R-22, one must hold an unexpended consumption allowance.

According to court records and a Factual Statement filed in Court, Murrillo smuggled large quantities of R-22 into the United States to sell on the black market. Murrillo and his co-defendant would negotiate with a Chinese manufacturer for the purchase of large quantities of R-22 and then import them into South Florida ports. At no point

did Murrillo or his companies or associates hold unexpended consumption allowances that would have allowed the legal importation of R-22. Between June and August 2007, Murrillo conspired to, and otherwise smuggled, approximately 309,536 kilograms of HCFC with a market value of \$1,525,670, into the U.S. Murrillo resided outside the United States from the time of his indictment in 2012 until his arrest in Miami in May 2022.

Murrillo's co-defendant, Norberto Guada, was previously convicted, in 2012, of illegally importing R-22, and served a federal prison sentence. Senior U.S. District Judge Donald L. Graham has set Murrillo's sentencing hearing for September 20 in federal district in Miami. Murrillo faces up to five years in prison.

EPA, Criminal Investigation Division, and HSI Miami investigated the case. Customs and

Border Protection assisted. Related court documents and information may be found on the website of the District Court for the Southern District of Florida at www.flsd.uscourts.gov or at <http://pacer.flsd.uscourts.gov>, under case number 12-cr-20514.

Southern HVAC Buys Allen's HVAC

Elizabethtown, Ky. – Southern HVAC Corporation announced the acquisition of Allen's Air Conditioning & Heating. For over sixty years, Allen's has offered home comfort solutions for homeowners in the greater Elizabethtown, Hodgenville, Bardstown, Leitchfield, and south Louisville, Kentucky markets.

"We are optimistic about the future with Southern and Allen's

working together," said David Allen, president and CEO of Allen's. "This transaction has allowed me to take a step back from the business with the comfort of knowing our customers and employees will be treated well and taken care of as part of the larger Southern HVAC family. After researching Southern HVAC, and working with them on this transition, I'm very confident that they will continue to build upon the Allen's long-standing reputation in the central Kentucky region. I know I made the right decision for our customers, and for our employees."

"I am excited about the opportunity I have to lead the Allen's organization moving forward," said Sheila Browning. "I have worked with David for over 28 years and he has provided me with the tools to be successful and lead Allen's

Continued on Page 23

Editorial Focus

Performance Contracting, Geothermal and Heating Products



With capacities of up to 1MW, the **Airedale SmartCool ONE**'s design features include a deep chilled water coil that delivers a large surface area for maximum cooling capacity, with low and high flow coil geometries to optimize pressure drop. Backward curved 630mm EC fans ensure that the coil capacity is matched with powerful airflow to deliver on that potential, with a modified fan plenum to improve operational efficiency. Filtration options include both ISO-C-80 and ISO-C-90 (MERV 8 & 11 for 60Hz units) and are positioned on the coil face to minimize pressure drop.

More information: www.airedale.com.

Atmocube, an IAQ monitor for commercial buildings and public spaces, measures PM1, PM2.5, PM10, CO2, formaldehyde, TVOC levels, and tracks relative humidity, temperature,

atmospheric pressure, background noise, and light intensity. The device connects to Atmocube's Cloud Dashboard and to Building Management Systems (BMS) over MQTT, Modbus RTU and Modbus TCP. Interfaces: Wi-Fi (802.11 b/g/n @ 2.4GHz), Bluetooth 4.1, USB-A, RS-485. Air quality data can be broadcasted to public displays, viewed on the web by scanning a QR code, or on Atmocube's mobile app. Frontal tiles can be customized and sensor upgradability is possible: CO, O3, and occupancy radar.

More information: www.atmotube.com/atmocube.



Johnson Controls, the global leader for smart, healthy and sustainable buildings, has announced an update to Metasys, the company's industry-leading Building Automation System (BAS) that provides the foundation for fully optimized building management. Metasys' intuitive design integrates HVAC and non-HVAC systems into one platform for maximum operator efficiency. The Metasys 12.0 release is designed for fast troubleshooting in

the field, to maintain the latest IT security and networking standards and to reduce installation time and costs. It also provides Metasys users with older software a significant opportunity to upgrade their systems. "Metasys 12.0 builds on the proven automation and ease of use our customers expect from Metasys," said Bill Schwebel, vice president and general manager, Global Building Automation Systems and Controls. "Rigorously tested to ensure successful deployments and upgrades, we enhanced Metasys to streamline workflows and optimize user efficiency. We also introduced BACnet/SC compliance, which is an updated industry interoperability standard we helped design, making it simple for customers to stay up-to-date with the latest IT security requirements." BACnet/SC Compliance and MQTT Support Enhances Networking / Improves System Security

The Metasys 12.0 release improves system security by following the new BACnet Secure Connect (BACnet/SC) interoperability standard for current IT security protocols, helping to further secure communications among Metasys IP components. In addition, expanded FIPS 140-2 Level 1 compliance, a U.S. government security standard, ensures Metasys meets current government standards.

MQ Telemetry Transport (MQTT), a standard messaging protocol for the Internet of Things (IoT), is ideal for connecting remote devices with a small code footprint and minimal network bandwidth. Metasys 12.0 offers MQTT support for next-generation network engines to easily exchange Metasys data with popular IoT platforms and applications across the system. **More information:** www.johnsoncontrols.com.



High-performance Lossnay RVX2 ERV units from **Mitsubishi Electric Trane HVAC US (METUS)** improve comfort and efficiency by repurposing heat from exhaust air stream to condition filtered outdoor air supplied for ventilation. Designed to save energy in commercial and light commercial settings, Lossnay is a total heat exchange ventilation system with a low-maintenance cross-flow energy-exchange core made of a specially treated, cellulose-fiber membrane for temperature (sen-

sible heat) and humidity (latent heat) exchanges. Lossnay RVX2 helps building owners, engineers, and architects improve IAQ and ventilation while satisfying new and evolving efficiency requirements. **More information:** www.mitsubishicomfort.com.

Midea EVOX

The **Midea EVOX** cold climate heat pump delivers premium heating, cooling and humidity control, all from an environmentally natural source. The heat pump is an air source system that harvests the free, natural energy found in outside air and then supplies the home with efficient and renewable heating and cooling. By eliminating the need for homeowners to rely on fossil fuels for climate control, they must no longer choose between incredible heating performance and energy savings. For example, The EVOX M-POWEVI is designed specifically for areas that experience extreme cold, can deliver 100 percent or

Continued on Page 13

Performance Contracting, Geothermal and Heating Products

Continued from Page 12

more heating output down to -4°F and is capable of superior heating performance down to -13°F outdoor temperatures.

Many of Midea's EVOX Heat Pumps are Energy Star compliant and hold a top spot for energy ratings within the industry, with a high coefficient of performance (COP), heating seasonal performance factor (HSPF) and seasonal energy efficiency ratio (SEER). For colder months or optimizing operational cost, EVOX systems can also be paired with existing gas furnaces to provide a reliable source of heat under the most extreme climates.

More information:
www.midea.com.

Reliable Louvers



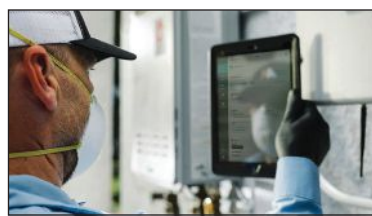
The 1.5-inch-deep, horizontally-bladed stationary louver from **Reliable** is Florida Building Code-certified (FBC# 40250.1) for high-velocity hurricane zones (HVHZ) and specifically designed for use with ductless packaged terminal air conditioner (PTAC) units.

Developed with OEM customers in mind, the AEL-42-7020-MD permits ample fresh air ventilation without compromising PTAC system performance. With ever-increasing extreme weather events, the combination of protection against windborne debris while providing fresh air safely has been a challenge. The AEL-42-7020-MD achieves both to help building owners create healthier environments with peace of mind.

More information:
www.reliablelouvers.com.

ServiceTitan Titan Intelligence (TI)

Titan Intelligence (TI) from **ServiceTitan** is a suite of AI solutions for the trades. These new features provide home and commercial service providers with actionable insights and recommendations, enabling them to optimize, automate, predict, and innovate across



every aspect of their business by harnessing the power of data.

Natively built into ServiceTitan, TI will deliver trade-specific AI capabilities across its entire suite of new data products and feature enhancements.

With aggregated intelligence and insights, and educational content products on data and analytic literacy, TI will evolve into powerful AI solutions that supercharge trades businesses and empower

contractors to reach the level of success they deserve.

More information: www.servicetitan.com.

SunTouch ConnectPlus Thermostat

With the SunStat ConnectPlus Thermostat from **SunTouch**, customers can remotely access and control their floor warming system, using voice control with Alexa and Hey Google. The thermostat connects to Wi-Fi and features an automatic clock setting, current outdoor temperature reading, warm weather compensation, warm weather shutdown, a stylish new design with glass front



and capacitive touch screen, and remote access through the Watts Home mobile app. In addition, it features a voltage level detector and ammeter with diagnostic screen and wireless technology of 915MHz for connecting accessories (SunStat Relay R4 and ConnectPlus Smart Sensor).

More information:
www.suntouch.com.

Climatemaster Tranquility 22 Digital



The Tranquility® 22 Digital from **Climatemaster** is a game-changing new geothermal heat pump that is the first in the industry to integrate digital communicating controls, two-stage capacity, variable-speed fan and variable-

Continued on Page 18

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.



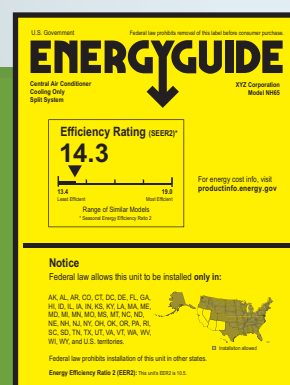
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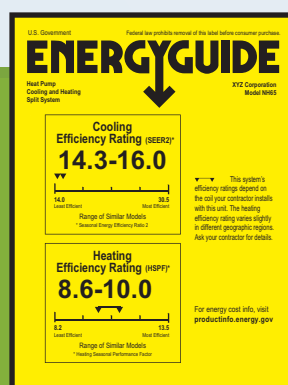
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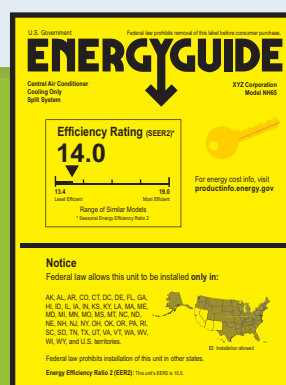
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Carrier, Bryant Announce Winners of Distributors' Education Foundation Scholarships

Carrier and Bryant have announced the recipients of this year's Carrier & Bryant Distributors' Education Foundation scholarships. Recipients will receive funding for their post-secondary or vocational program during the 2022-2023 school year. Carrier and Bryant are part of Carrier Global Corporation (NYSE: CARR), the leading global provider of healthy, safe, sustainable and intelligent building and cold chain solutions.

Established in 1981 the Carrier & Bryant Distributors' Education Foundation was created to commemorate the late William A. Blees for his many years of service as an advisor to Carrier and Bryant distributors. Since inception, the foundation has awarded scholarships to over 400 students. Today, the foundation continues

to serve the children, grandchildren and employees of distributors and contractors while also honoring the industry's founder, Willis Carrier.

Willis Carrier attended Cornell University on a full, four-year merit scholarship. He earned a bachelor's degree in electrical engineering, became a successful inventor and businessperson, and, in 1902, invented the founding principles of modern air conditioning. Willis Carrier was a consummate scientist and an educator who attended college on scholarship, just as our recipients will in his honor.

"The Carrier & Bryant Distributors' Education Foundation scholarships are a special way for us to say 'thank you' to our contractors and distributors for their expertise and support," said Justin Keppy, President, NA Residential & Light Commercial HVAC, Carrier.

"This year's outstanding scholarship recipients embody all of the values and characteristics we look for in future leaders, and we're proud to support their educational endeavors just as Willis Carrier was supported in his."

Scholarships from the foundation are available to children, grandchildren and employees of Carrier and Bryant distributors and contractors and their employees throughout the U.S. Students are awarded the scholarship based on academic achievement, extracurricular activities, demonstrated leadership potential, and personal motivation. A short essay about the candidates' educational and career aspirations is required during the application process. There were 119 total applicants from 27 states for this year's scholarships.

The 2022 Carrier & Bryant Dis-

tributors' Education Foundation scholarship recipients include:

- Jordan Acuna, San Marcos, Calif.
- Jacob Baker, Monroe, N.C.
- Joshua Bedwell, Candler, N.C.
- Halle Bittlinger, Hebron, Ky.
- Yvette Castaneda, Mission Viejo, Calif.
- Lillian Cleaves, Lima, Ohio
- Audry DeSantis, Springfield, Ohio
- Domiy DiTomasso, Hahira, Ga.
- Mary Drinkard, Rome, Ga.
- Gary Faulks, Stamford, Texas
- Eva Griffin, Springfield, Ill.
- Derek Helsten, New London, Wisc.
- Mary Kulis, Kent, Ohio
- Anne Leaman, Willow Street, Penn.
- Addyson Lingafelter, Griffin, Ind.
- Shayna Lloyd, Eden, N.C.
- Camden Meadows, Cartersville, Ga.
- Josiah Paul, Stoutsville, Ohio
- Rachel Rawlings, Chilli-

- cothe, Ohio
- Myora Slaughter, Blue Springs, Mo.
- Rachel Strausman, Moorpark, Calif.
- Cheyanne Wandrey, Boone, Iowa

For more information about Carrier or Bryant, please visit <https://www.carrier.com/residential/en/us/> or www.bryant.com.

Founded by the inventor of modern air conditioning, Carrier is a world leader in high-technology heating, air-conditioning and refrigeration solutions. Carrier experts provide sustainable solutions, integrating energy-efficient products, building controls and energy services for residential, commercial, retail, transport and food service customers.

Bryant has been dedicated to delivering the highest quality in customer comfort and satisfaction since 1904. In addition to its best-in-class network of distributors and dealers, Bryant offers exceptional reliability and energy efficiency through an extensive line of durable heating and cooling products. Bryant is a part of Carrier Global Corporation, a leading global provider of innovative healthy, safe and sustainable building and cold chain solutions. For more information, visit www.bryant.com.



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ASHRAE Announces 2022 Student Design Competition Winners

ASHRAE announced the winners of 2022 ASHRAE Student Design Competition and The Setty Family Foundation Applied Engineering Challenge. The competitions recognize outstanding student design projects, promote teamwork and allow students to apply their practical design knowledge of energy-efficient HVAC systems.

This year's Student Design Competition focused on the design of a new 23,300 m², two-story performing arts building on a higher education campus in Sydney, New South Wales, Australia. As part of the project, new HVAC systems were designed for the performing arts building. The building consists of offices, classrooms, studios, performance halls, auditorium, offices, food services, and parking area.

Teams competed in one of the three categories:

- HVAC Design Calculations
- HVAC System Selection

- Integrated Sustainable Building Design (ISBD)

First place in the HVAC Design Calculations category was awarded to Cheung Wan Ki, Chow Sze Wah, Sum Ho Yin and Yung Ho Lam of the University of Hong Kong, Pok Fu Lam, Hong Kong. Dr. Benjamin P.L. Ho was the team's supervisor.

Placing first in the HVAC System Selection category were Donald Black, Jr., Mason Blank, Sarah Halstead, Isabella Zuccaro and Weston Kimmey from Pennsylvania State University, State College, Pennsylvania. William Bahnfleth Ph.D., P.E. was the team's advisor.

Receiving first place in Integrated Sustainable Building Design category were Bagus Rangin, Edward Joshua, Harrys Argaditya, Nadhira Izzatur, Rzuki Ramadan and Sutan Azhari from Universitas Indonesia, Depok, West Java, Indonesia. Ardiyansyah and Dr. Ing

Continued on Page 26

Contractors Face 142 Legal Actions After Series of Statewide Stings and Sweeps

Contractors State License Board (CSLB) enforcement operation part of a national effort to warn consumers about dangers of hiring unlicensed or uninsured contractors.

A series of statewide stings and sweeps conducted by the Contractors State License Board (CSLB) identified unlicensed activity in the California construction industry, putting consumers at risk.

During the undercover sting and sweep operations 142 legal actions were taken, primarily for unlicensed and uninsured practice.

One of the many ways unlicensed contractors can hurt homeowners is because they have not met minimum competency requirements, do not have a license bond, or carry workers' compensation insurance, putting consumers at risk.

"Unlicensed individuals can be dangerous for consumers," said David Fogt, CSLB Registrar. "Unlicensed contractors have not met licensing requirements, undergone background checks and don't carry the proper insurance," Fogt said.

From June 6 to 24, 2022, CSLB partnered with local law enforcement to conduct three undercover sting operations in South Lake Tahoe, El Dorado County; Salinas, Monterey County; and in Redding, Shasta County. Undercover stings target unlicensed contractors, with investigators contacting the suspects through their advertisements.

The suspected unlicensed operators came to the sting locations to place bids on projects including ceramic and mosaic tile, concrete, deck work, fencing, flooring, landscaping, painting, plumbing, sheet metal, and tree services. As a result, a total of 40 legal actions were filed and 32 people are subject to misdemeanor criminal charges for contracting without a license. Unlicensed contractors can face penalties of up to six months in jail and/or a fine of up to \$15,000 if they bid or contract for work valued at more than \$500.

Fifty-three sweep operations of construction sites were also conducted in Contra Costa, El Dorado, Fresno, Kern, Los Angeles, Marin, Monterey, Napa,

Orange, Placer, Sacramento, San Benito, San Bernardino, San Luis Obispo, San Mateo, Santa Barbara, Santa Clara, Santa Cruz, and Ventura counties that resulted in 102 legal actions against licensed and unlicensed contractors. Twenty-six of the legal actions were for unlicensed contracting and 38 Stop Orders were issued which halted all employee labor at active job sites where contractors did not have workers' compensation insurance for their employees.

The enforcement actions were part of a nationwide effort coordinated by the National Association of State Contractors Licensing Agencies designed to make consumers aware of the importance of hiring licensed contractors and the

risks of using unlicensed operators.

"Nationwide enforcement operations are key to educating consumers about the risks of not checking a contractor's license," Fogt said. "It takes only seconds to find a contractor's license information on the CSLB's website to confirm they are licensed."

During the stings and sweeps, six individuals were also cited for requesting an excessive down payment. In California, a home improvement project down payment can't exceed 10-percent of the contract total or \$1,000, whichever is less, and subsequent payments may not exceed the value of working being paid for. This misdemeanor charge carries a maximum penalty of six months in jail and/or a fine of

up to \$5,000.

During operations, unlicensed individuals were given information on getting licensed and were invited to attend one of CSLB's Licensed to Build workshops. CSLB also created a new B-2 licensing classification for home remodeling with the goal of promoting the growth of small businesses and increasing consumer protection.

For their protection, CSLB recommends that consumers get at least three bids and check references before hiring someone for a construction job. Consumers can quickly check if a contractor is licensed on CSLB's online Instant License Check.

From the License Check, consumers can also view the contrac-

tor's individual license page, which indicates if the contractor is carrying workers' compensation insurance for employees. Contractors without workers' compensation insurance should not have workers on the jobsite. Consumers can find a list of licensed contractors in their area by using CSLB's Find My Licensed Contractor.

CSLB operates under the umbrella of the Department of Consumer Affairs and licenses and regulates nearly 285,000 contractors in California. In 2021, CSLB helped consumers recover more than \$44 million in ordered restitution.

For more information, visit www.cslb.ca.gov.



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

SEPTEMBER 2022

**IHACI Webinar
System Diagnostics Module
(Four-Night Class, continued from Aug)**
Instructor: Mitch Bailey
Thurs., Sept. 1 - Part 2
Wed., Sept. 7 - Part 3
Thurs., Sept. 8 - Part 4

OCTOBER 2022

**NATE Core and Gas Heating Training
(Four-Night Class)**
Instructor: Mitch Bailey
Mon., Oct. 10 - Part 1
Tues., Oct. 11 - Part 2
Mon., Oct. 17 - Part 3
Tues., Oct. 18 - Part 4

NOVEMBER 2022

**NATE AC/HP Refrigeration &
Air Distribution Training
(Four-Night Class)**
Instructor: Mitch Bailey
Mon., Nov. 7 - Part 1
Tues., Nov. 8 - Part 2
Wed., Nov. 16 - Part 3
Thurs., Nov. 17 - Part 4

Exam: Saturday, 11/19/2022 @7:30 am

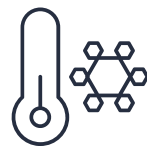
All classes are currently scheduled as Webinars held 6:00 pm to 8:00 pm.
Webinars are **FREE** of charge and online registration is required.

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.
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Introducing the New intelli-HEAT™ Product Line

Mitsubishi Electric has launched a new product series - intelli-HEAT™. The intelli-HEAT Dual Fuel System provides cost-effective, efficient, and environmentally friendly cooling and heating all year round. intelli-HEAT mounts in-line with an existing thermostatically controlled furnace and ductwork. During periods of extreme cold, intelli-HEAT switches to the current gas furnace based on capacity and economic balance points, creating a true dual fuel system.



Cold Climate heat pump with furnace integration



Superior efficiency AC replacement solution



Intelligent comfort control manages operation between heat pump and furnace



Reduces fossil fuel consumption and emissions to align with greenhouse gas reduction goals



Compatible with single or multi-zone systems which provides a true zoning solution



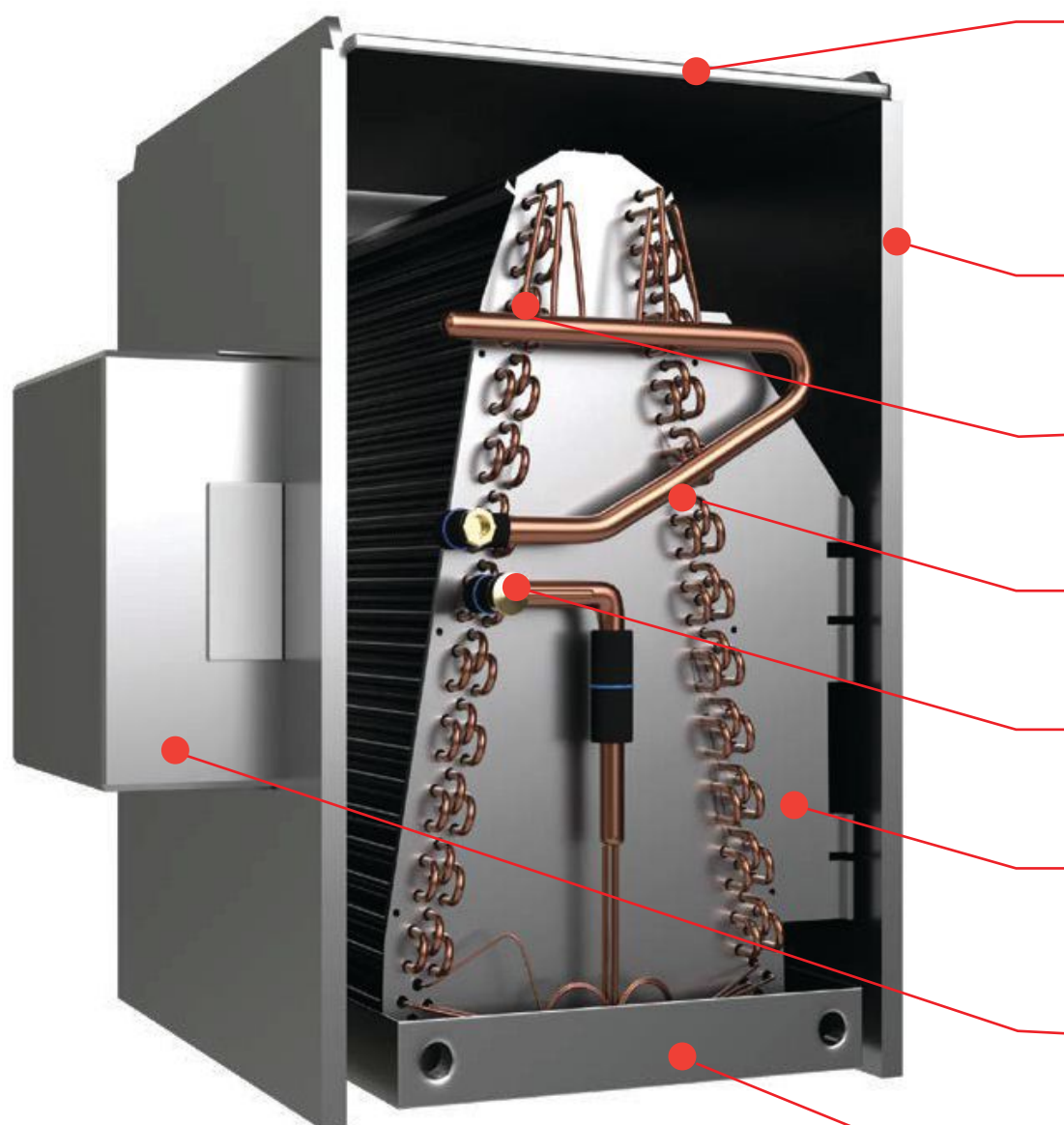
Blending of technologies for comfort, cost effectiveness and environmental benefit



Compatible with any thermostatically controlled furnace

intelli-HEAT

Key Benefits and Features



Available in multiple sizes and capacities:

- 18, 24, 30 kBtu/h | 14.5", 17.5" wide | 26.4" height
- 36, 42 kBtu/h | 17.5", 21" wide | 31" height

Single-zone: PUY, PUZ, and PUZ H2i

Multi-zone: MXZ, MXZ H2i, MXZ-SM, and MXZ-SM H2i

Flexible Installation:

- Vertical, downflow and horizontal left/right
- Control box can be mounted anywhere

Oxygen-free copper coils provide up to six times the longevity of standard copper coils

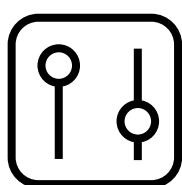
Smaller tube diameters with grooved design technology provide a higher heat transfer efficiency

Flare piping connections for quick, clean, and simple installations with no need for brazing

Best in industry condensation management

Intelligent comfort control system automatically switches between heat pump and furnace operation to ensure comfort and maintain efficiency

High quality drain pan material with low moisture absorption and high heat capability



Optimum Switchover Control

Economic and capacity balance points ensure homeowner comfort by automatically switching between heat pump and furnace operations as needed.



Single and Multi-Zone Options

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Hyper-Heating Options

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Growing Green Technicians Part 155: Efficient Removal of Sensible, Latent Heat

By Jim Johnson
Contributing Editor

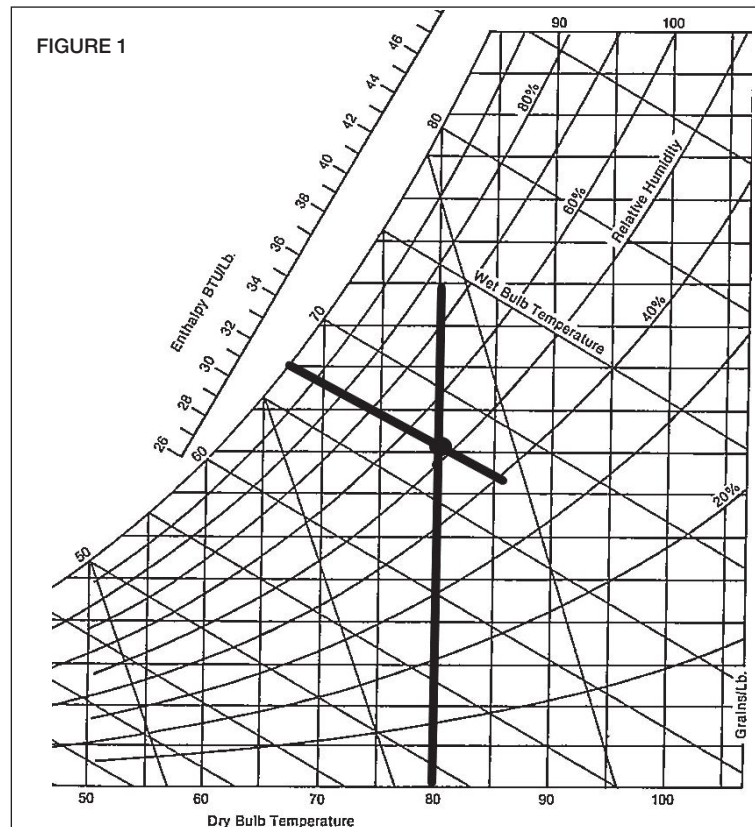
In last month's segment in this series, we discussed the concept of sensible and latent heat gain with a focus on the factor of SHR (Sensible Heat Ratio), and how a system has to work harder to achieve a comfort level in the building if the SHR is calculated to have a higher latent heat load. In this installment we'll look into the mechanics of removing the two kinds of heat from a psychrometric perspective.

We'll begin with the term "State Point" which refers to the process of plotting existing conditions on a psychrometric chart prior to the operation of the equipment. (See **Figure One**)

In this illustration, note that the dry bulb temperature plotted is 80° F, and our plot point is also shown near, but above the 50% relative humidity line. With our initial plot point at the location where these two factors intersect, what follows is that our wet bulb temperature would be at 67° F. We're using the 80-degree dry bulb and higher-than-50%-humidity as our example since it is a temperature and moisture level that is traditionally beyond the comfort zone of most building inhabitants. The concept to keep in mind here is that once this baseline has been established, the psychrometric chart can be used to illustrate a problem.

If the level of sensible heat removal is too high and the removal of latent heat is not accomplished efficiently and properly, the operation of the equipment won't result in maximum comfort, a situation we're showing in **Figure Two**.

In this example, we've achieved a significant drop in dry bulb



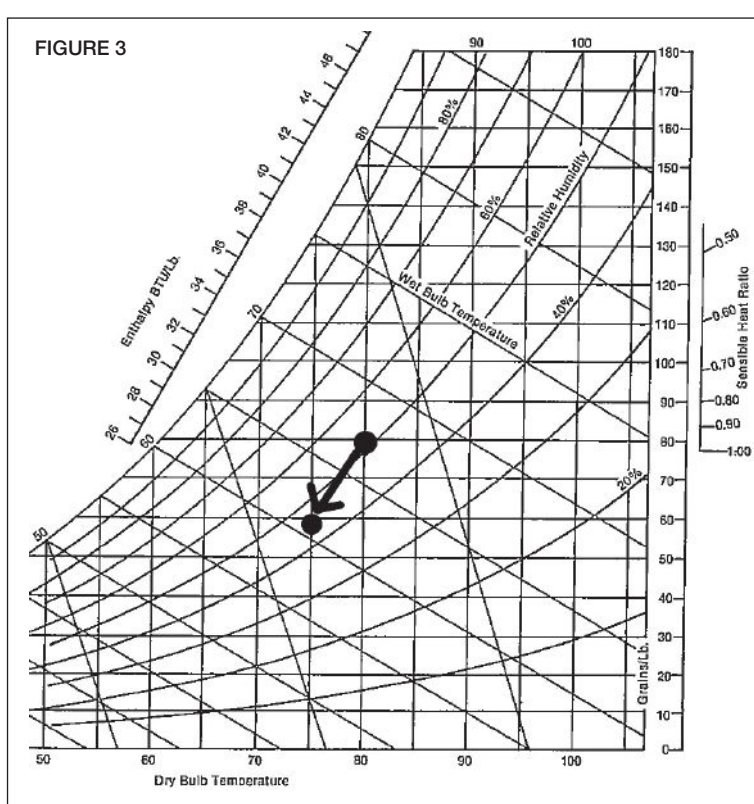
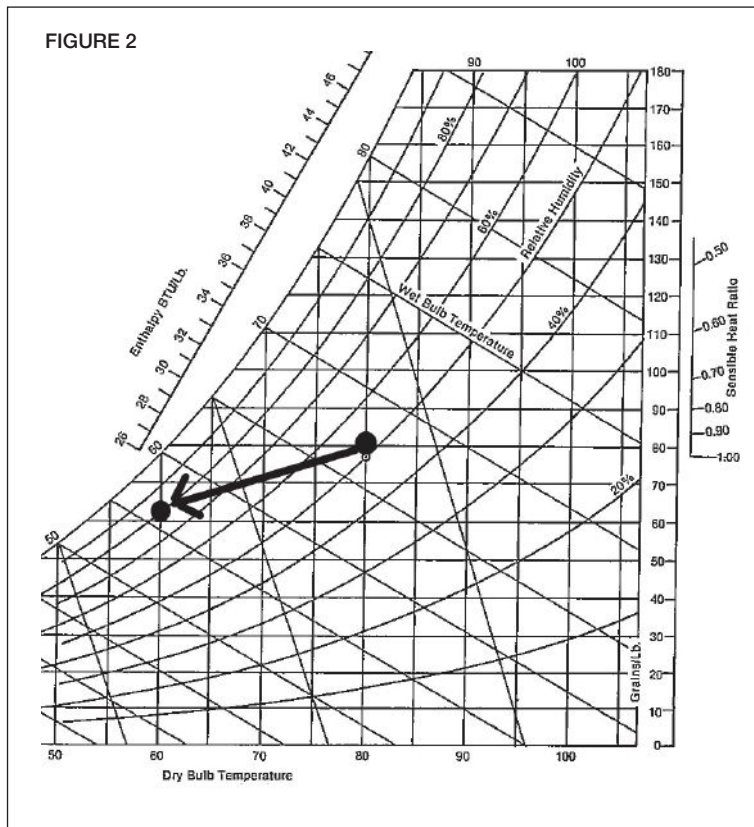
temperature, all the way from 80-degrees to 60-degrees, but we haven't accomplished a balanced removal of heat and moisture. This is indicated by the fact that our relative humidity is now near 80%, far beyond the level of comfort we need in a conditioned space. We also need to mention here that with this revised dry bulb temperature and relative humidity, our wet bulb temperature would be near 56-degrees, another factor that would contribute to discomfort for our building occupants.

Moving on the Figure Three, our illustration here is showing a balanced removal of heat and moisture.

Here, we've only dropped the dry bulb temperature down from 80 to 75 degrees, and, in the process, our humidity is now near the 45% mark. Also,

our wet bulb temperature in this situation will drop only 6 degrees, down from the original 67°F to 61°F. The bottom line to consider here is that when the operation of the equipment resulted in the conditions shown in Figure Two, the volume and velocity of the air flow through the duct system was excessive. The end result in that example of equipment operation would be a chilly environment that would leave our occupants chilly and uncomfortable.

In **Figure Three**, however, with air flow conditions normal, the equipment was able to achieve a balance of both sensible and latent heat removal, which would mean that our occupants, whether their activity could be considered near sedentary, or reasonably active, would feel comfortable in regard to both temperature and humidity.



Editorial Focus

Continued from Page 13

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Tranquility® 22 Digital units also break new ground in optimized comfort, efficiency, and serviceability, utilizing industry first and exclusive Two-Way Communicating Controls as a standard option with every unit. The digital two-way communicating controls make installation and service of the system easy and effective by allowing monitoring, configura-

tion and diagnosis of the system on a Communicating Digital Thermostat. Furthermore, two-way communication between the intelligent components inside the system ensures precise coordination of operation to achieve optimized comfort AND efficiency. A homeowner can see and give their dealer the fault code and possible causes to help prepare for a service call. Once on the job, a dealer can see what the operating conditions of the unit were at the time of the fault, to help narrow down diagnosis.

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Troubleshooting

A Walk-In Restaurant Cooler That's Not Performing

By Jim Johnson
Contributing Editor

In this month's troubleshooting situation, you have been called in to solve an ongoing problem with a refrigeration system in a restaurant. This R-134A unit employs a standard mechanical TXV metering device (see **Figure One**) and is designed to maintain a box temperature of 40-degrees. Our illustration shows the proper operation of this type of equipment, and what the state of the refrigerant would be in the different sections of the system during a run cycle.

The restaurant manager's explanation of the problem to the dispatcher is that while the box temperature is near normal early in the morning after the restaurant has been closed overnight, the unit isn't capable of maintaining anywhere near the proper temperature during the day, even

when traffic in and out of the cooler is kept to a minimum.

When you arrive, you discover that the problem with this equipment began several weeks ago, and one technician made four trips in response to the ongoing complaint, adding refrigerant on three occasions. Subsequently, it was reported that an evaporator air flow problem was found and corrected, and the refrigerant charge was corrected. The customer also explains that after the last service call, while the temperature of the box improved somewhat, it's still not satisfactory.

Based on the information from the customer and your pressure check of the system showing a higher-than-normal high side operating pressure, you arrange to have the box emptied and the unit shut down overnight. Returning in the morning and establishing a stabilized ambient temperature of 76-degrees, your check of the re-

frigerant pressure of the equipment shows 92 PSIG.

Your troubleshooting question:

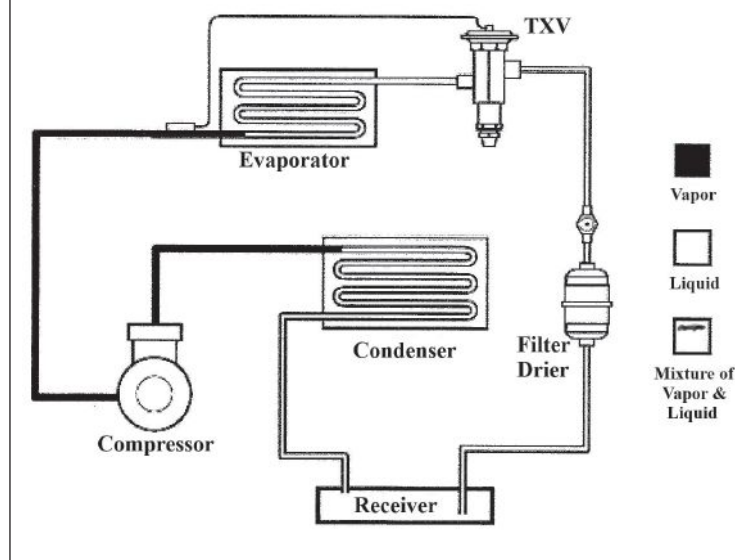
What is the underlying cause of the poor performance of this equipment?

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

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."

FIGURE 1



Answer to Last Month's Problem

The tests that showed an extreme temperature drop and a higher-than-normal static pressure proved that the indoor coil is restricted.

The winner of last month's Troubleshooting is:

Gerald Stow
Mountain Home, Ark.

Small Business Information

Service Manager Excellence Part 1

By Jim Johnson
Contributing Editor

A defendant was on trial for murder. There was strong evidence indicating his guilt, but there was no corpse. In his closing statement, the defense attorney decided that he had a foolproof way to ensure a verdict in favor of his client. "Ladies and gentlemen of the jury," he said. "I have a surprise for you.

Within one minute, the person that everyone thinks is dead will walk into this courtroom."

He looked toward the courtroom door. The jurors were all stunned, and they sat transfixed, staring at the door. After a long minute, nothing happened. Finally, the lawyer said, "Actually, I made it all up about the dead man walking in. But you all looked at the door with anticipation. So, that means you had reason-

able doubt about the victim being killed, and if there is reasonable doubt, then you have to come back with a verdict of 'not guilty.'"

When the jury came back after a short deliberation, they said "guilty." "What!" exclaimed the lawyer, "You couldn't arrive at that conclusion if you had any reasonable doubt, and I saw all of you stare at the door, which showed that you had reasonable doubt."

"You're right," said the jury foreman, "you looked at the door, and we looked at the door, but your client didn't."

Whatever your specific situation in service management and supervision, you're facing some challenges, (among them being the person responsible for making sure that everybody you supervise knows what they're supposed to do in any given situation) and you need to know how to meet those challenges. So here you are....

You've always kept a good work ethic, strived to keep learning, dedicated yourself to doing your job in the best way possible, and you've been promoted. You've made the decision to take on your new responsibilities because that's the way you move up the income ladder, the way you keep moving ahead in your career.

Or, maybe you're not exactly brand new at this management thing and you're looking for information on how to do your job or manage

your business more effectively than you have in the past.

And sometimes there are things you need to know and consider that are, well, not exactly comforting to know or consider when it comes to supervision, but, as they sometimes say in Texas..." If you have to swallow a bucket of frogs, you might as well get the biggest one done first." So, here is some of that less than comforting stuff.

Some Hard Facts About Service Management/Supervision....

...Management is not a popularity contest.

...Management is not easy. That's why many people either don't do it well, or don't do it at all.

...Often, the biggest personal challenges we face as supervisors is overcoming fears.... the fear of change, the fear of failure, and the fear of not having complete control over our lives.

...The only real "job security" we have is our knowledge and skills.

...A supervisor's best protection against lawsuits (yes, you hate the idea of having to deal with this issue, but you know you might have to sometime) is knowing the right thing to do and doing it consistently. 73% of employee versus employer lawsuits are won by the em-

ployee and the amount awarded can often be in the hundreds of thousands of dollars.

...15% of your success as a supervisor is related to your technical skills.

...85% of your success as a supervisor is related to your people skills.

...People in a work environment don't want to be managed. People want a leader, and a leader must lead by example. (No, you won't be perfect all the time and you can be sure you'll be reminded when you're not, so just accept that.)

...It takes more than a desire to make more money or advance in your career to be an effective supervisor. It takes dedication, hard work, being open to constant self-examination, and a willingness to consider what everyone, whether you report to them or whether they report to you, has to offer in the way of advice, suggestions, and criticisms.

And the hardest fact of all...

...A service manager/supervisor has to be confident enough to gamble on their belief in their

Continued on Page 24

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- Design combination ratio of 50 -184%**
- Simplified chassis design and integral inverter check function for easier serviceability.
- Advanced flash injection technology provides increased heating performance in low ambient conditions and expanded frequency range for improved efficiency and performance. In addition, 13% larger scroll displacement provides the same capacity at lower RPMs compared to previous models.
- Extended piping length up to 722 ft., vertical separation up to 361 ft., and 164 ft.³ between the highest and lowest indoor units. Conditions apply.



Active Artificial Intelligence (AI) Technology:

AI Defrost

Learns and trends fan motor current to detect ice formation on the condenser coil during heating operation. This also detects temperature in order to increase heating operation duration between defrost cycles to reduce overall defrost cycle duration.

AI Low Refrigerant Monitoring

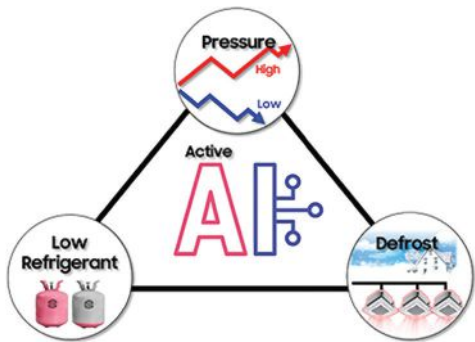
Uses data from various sensors embedded in indoor and outdoor units to determine the amount of refrigerant required to maintain the system and ensure the best performance². The system also monitors the refrigerant volume in real time during operation and displays a warning code for checkup on the outdoor unit PCB and in central controls.

AI High and Low Pressure Control

Learns the recent cooling operation pattern¹ so that the memory cycle status can help reach a targeted low pressure to create the cooling environment desired by the user. To control high pressure, the system automatically recognizes the installed system pipe length and vertical separation and adjusts the target high pressure and reduces unnecessary high pressure, thereby reducing the energy used by the compressor by up to 15%¹.

Refrigerant Volume Reduction

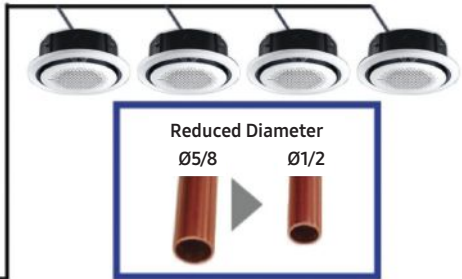
High performance sub-cooling control allows reduction of the main liquid pipe diameter from the outdoor unit to the first HR MCU or Y-joint to reduce overall system charge by an average of over 30%. Accordingly, the installation site can reduce not only the cost of refrigerant, but also the cost of piping and insulation. Conditions apply.



Outdoor Capacity (tons)	Liquid Pipe				Difference per Foot
	Standard Diameter (in.)	Additional Refrigerant	Reduced Diameter (in.)	Additional Refrigerant	
6	3/8	0.645 oz./foot	N/A	N/A	
8					
10					
12	1/2	1.344 oz./foot	3/8	0.645 oz./foot	52%
14					
16	5/8	1.935 oz./foot	1/2	1.344 oz./foot	31%
18					
20					



Example: 18 ton



**Restrictions apply.
¹Conditions apply. Refer to technical documents for more information.
²Requires an initial dedicated refrigerant check function during commissioning.
³Applies to heat pump models. Heat recovery models provide 131 ft. between the highest and lowest indoor units.



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New Products

Nu-Calgon ULTRA Concentrate



Nu-Calgon has launched a new ULTRA Concentrate line of coil cleaners. These quart-sized cleaners provide the quality and value of the classic formulas, while taking up less space on the shelf and contractors' trucks.

We are introducing Nu-Brite ULTRA Concentrate, Tri-Pow'r HD ULTRA Concentrate and Evap Pow'r ULTRA Concentrate as the newest additions to our coil cleaning lineup. The ULTRA Concentrate quart bottles can be shipped "Limited Quantity" via UPS/Fedex, which provides wholesalers with significant cost savings when shipping it to their customers. They are also easy to carry on rooftops, and they can be used in Nu-Calgon's Coil Gun and other sprayers.

One quart of Nu-Brite ULTRA Concentrate or Tri-Pow'r ULTRA Concentrate can be diluted to make up to 8 gallons of effective cleaner, while Evap Pow'r ULTRA Concentrate can make up to 9 gallons.

More information: www.nucalgon.com.

Nu-Calgon ULTRA Concentrate



Fantech has developed a Radon Alarm designed to alert homeowners if their active soil depressurization (ASD) radon mitigation system fails. The product launch meets Section 1001 of the American Association of Radon Scientists and Technicians (AARST) CCAH national standard, which recommends using a radon alarm and is being increasingly adopted by states.

Radon is an odorless, colorless, and tasteless gas present in some soil, rock, and water. When radon infiltrates the air in homes and buildings, it can cause severe health issues and even death. ASD radon mitigation systems actively

draw the air and gas from below the home's slab or vapor barrier and exhaust it through a PVC pipe at the roofline.

Fantech's new radon alarm, which mounts easily onto the ASD's PVC pipe in under two minutes, measures pressure differential changes based on internal sensors. An integrated teach-and-test feature sets the alarm trigger pressure level and confirms normal operation with audible and visual indicators. The alarm alerts residents at risk of a malfunctioning system and carcinogenic gas intrusion with audio and visual notifications.

Additional convenience features built into the alarm system include a seven-day snooze function and a time delay that can be set to 24 or 96 hours, as well as permanent audible enable or disable capability. An audible and visual signal on the alarm indicates low battery.

"Radon kills more than 20,000 people per year, so radon testing and mitigation are essential for protecting the health of home occupants. This radon alarm adds an additional layer of protection and is essential for all households to monitor their radon mitigation systems," said Taf Dzingai, Project Engineer for Fantech.

More information: www.fantech.net.

Taco Comfort Solutions 0026e ECM Circulator

Taco Comfort Solutions has expanded their family of easy to use, high-efficiency ECM circulators with the addition of the 0026e. With a maximum of 26 feet of head and 44 GPM, the new variable-speed circulators offer up to 85 percent energy savings over a conventional circulator.

These circulators are available with cast iron or NSF/ANSI 61 & 372 certified stainless steel volutes, ideal for either closed-loop heating systems or domestic hot water systems. The circulator offers a convenient, rotatable control box for a professional look, no matter the orientation of the installed circulator.

The easily-installed, easily-programmed 0026e circulator features five simple settings; low, medium, high, Taco's exclusive active-ADAPT® self-adjusting proportional pressure, and 0-10v control. Its variable speed performance



curves are equivalent to Taco's 0010, 0011, 0012, 0012 and 0014 models. Ideal for large residential and light commercial hydronic heating, chilled water cooling and domestic hot water systems. The circulator is dual-voltage 115V/230V and the 6.5" rotated flange-to-flange dimension retrofits most circulators in its class.

The new circulator includes exclusive features that make Taco's ECM high-efficiency circulators easy to use, including SureStart® automatic unblocking and air purging, BIO Barrier® black iron oxide protection, dual electrical knockouts, six-inch stranded leads, and recessed flange nut-grabbers for easier fit up.

More information: www.TacoComfort.com.

FabricAir Rack Flow System



FabricAir Inc., the original manufacturer of fabric HVAC duct, introduces the FabricAir Rack Flow System, the agricultural industry's only air delivery system for multi-tier grow racks that doesn't use sheet metal duct or plenums.

Rack Flow consists of fabric duct, high efficiency fans, variable speed controllers, and a suspension system of stainless steel cables and powder-coated mounting brackets. The system is designed for multi-tier cannabis growing as it delivers conditioned ambient air through the racking into the plant canopy to prevent yield-restricting microclimates.

Rack Flow is the only multi-tier rack air delivery system designed by an air distribution manufacturer. The lightweight system is adaptable to all rack brands and compatible with any lighting grid. FabricAir guarantees the grow industry's highest CFM/watt efficiency.

Rack Flow ducts are supplied with conditioned ambient air from two high-efficiency, ETL-listed, Energy Star® fans. Growers can adjust the air flow to accommodate different stages of grow cycles. Fans come standard with variable speed digital controllers, are easily integrated with grow automation systems (GAS) and are compatible with feedback controls. Rack Flow's fans are controllable using

0-10V or pulse wave modulation (PWM) formats. Rack Flow uses two premium antimicrobial, flame-retardant and durable fabric cloud ducts that span the length of the rack.

Rack Flow far outperforms all other rack air delivery systems because of the following advantages:

- Uses a proprietary linear venting that produces uniform, predictable airflow and velocities
- Doesn't use metal plenums or ductwork that are labor intensive to install and clean
- ECM Fans cut power consumption by up to half versus conventional AC fans
- Fans conform to UL-507 and CSA C22.2 standards
- Can be quickly disassembled, laundered and reassembled up to six times faster than conventional systems

More information: www.fabricair.com/en/rack-flow.

Fujitsu General America, Inc. Airstage Integration Manager

For use with Airstage VRF systems, Fujitsu General America, Inc. is introducing its all-new Airstage Integration Manager™, optimized for the Niagara Framework by Tridium Inc.

A dramatic evolution in the integration of Airstage systems, this new controller features a new global design that functions with legacy systems and is also scalable for future needs.

The Airstage Integration Manager is a compact controller and integration platform for connecting Airstage VRF and devices to any commercial Building Management System (BMS). It is compatible with all Airstage VRF models, and includes a guided configuration tool, basic monitoring and control functions, an alarm console, and cloud-based access.

The licensing model for the Airstage Integration Manager controller is simple, and features native Airstage and standard open-protocol drivers, including BACnet, LonWorks, and Modbus. Optional IO and field bus expansion modules provide flexibility and expandability.

In larger facilities, multi-building applications and large-scale control system integrations, Niagara 4 Supervisors can be used with Airstage Integration Manager controllers to aggregate information, including



alarms and historical and real-time data to create a single unified application. Configuration and control software is custom-designed for Airstage systems. No experience with the Niagara platform is necessary.

Users can easily check system status from the front panel LEDs of the unit to diagnose network issues. The controller is available to purchase pre-licensed for 25 or 125 Airstage devices (indoor + outdoor units). Device license upgrades, in increments of 50, can be purchased in the future as needs grow.

More information: www.Fujitsu-General.com.

Brass Knuckle BKKN100 and BKKN200



Jobs that rely on kneeling to perform tasks – think construction, roofing, masonry, and others – can put workers at significant risk for musculoskeletal disorders (MSDs). According to the Bureau of Labor Statistics, MSDs are the most common injuries reported in these occupations. Personal protective equipment (PPE) in the form of knee pads can help reduce the risk of injury and minimize joint fatigue. Brass Knuckle, an innovative leader in PPE, offers two levels of knee protection with BKKN100 Light-Duty and BKKN200 Heavy-Duty.

Brass Knuckle BKKN100 Light-Duty is an ethylene-vinyl acetate (EVA), cushioned, and adjustable knee pad. One-size-fits-all for convenience, a single strap with hook-and-loop closure easily customizes fit to keep the pad in place for hours of lightweight comfort and protection.

Brass Knuckle BKKN200 Heavy-Duty provides all-day protection with a hard, contoured polyethylene cap. The knee pad conforms to the shape of the knee cap to enhance patella stability and reduce risks of impact and injury. It's high-level protection for tough jobs. The rounded, abrasion-resistant cap allows for safer pivoting and heavy-duty work on the knees while foam padding throughout maximizes wearer comfort. It also is one size with an adjustable strap to keep the pad where it should be.

More information: <https://www.brassknuckleprotection.com/>.

Court Delivers Blow to Calif. Trucking Industry: Many Owner-Operators May be Deemed Misclassified

From the Law Offices of
Atkinson, Andelson, Loya,
Ruud and Romo

On June 30, 2022, the United States Supreme Court denied review of the California Trucking Association's ("CTA") challenge to Assembly Bill 5 ("AB 5"). Enforcement of AB 5 in the trucking industry had been put on hold since the CTA filed a lawsuit challenging the law when it took effective in January 2020. The Supreme Court's denial of review clears the way for AB 5 to be enforced against motor carriers operating in California. AB 5 may disqualify many current owner-operators from being properly classified as independent contractors in California. California Trucking Ass'n v. Bonta, 996 F.3d 644, 649 (9th Cir. 2021), cert. denied sub nom. CA Trucking Assn. v. Bonta, No. 21-194, 2022 WL 2347627 (U.S. June 30, 2022).

Briefly, AB 5 codified the ABC test, which is used to determine whether workers are properly classified as employees or independent contractors. The ABC test presumes that a worker is an

employee (and not an independent contractor) unless the hiring entity can prove that the worker:

1. Is free from the control and direction of the employer in performing work, both practically and in a contractual agreement.
2. Performs work that is outside the usual course of the employer's business.
3. Is usually engaged in an independently established trade, occupation or business of the same nature as the work performed for the employer.

The Bonta case challenged the application of AB 5 and the ABC test to motor carriers. The CTA, on behalf of its independent contractor driver members, argued that the application of AB 5 to the transportation industry was preempted by the Federal Aviation Administration Authorization Act ("FAAAA"), 49 U.S.C. § 14501(c)(1). The FAAAA provides that states "may not enact or enforce a law, regulation or other provision having the force and effect of law related to a price, route or service of any motor car-

rier, ... broker or freight forwarder with respect to the transportation of property."

The CTA's legal challenge focused largely on prong B of the ABC test. To avoid misclassification liability, under prong B, a business must show its independent contractors perform work that is outside the usual course of the motor carrier's business. For motor carriers, being able to show that the work of a driver is distinct from the work of the motor carrier that hired them is a significant challenge.

The District Court for the Southern District of California found the FAAAA preempted AB 5 and issued an injunction, finding that AB 5's application to motor carriers impermissibly impacted their prices, routes, and services. The State of California appealed the court's injunction to the 9th Circuit Court of Appeals, which

was reversed on April 28, 2021. The 9th Circuit court found that application of AB 5 to motor carriers did not sufficiently impact the prices, routes, or services of motor carriers to fall within the preemptive scope of the FAAAA. This reversal cleared the road for AB 5 to take effect, impacting the current independent contractor model used by many trucking companies in California.

On June 23, 2021, the 9th Circuit stayed the reversal, pending CTA's appeal to the U.S. Supreme Court. The stay previously issued by the 9th Circuit directs that its mandate take effect immediately upon the denial of certiorari by the Supreme Court. The Supreme Court's recent refusal to review the Bonta case leaves the 9th Circuit's decision intact.

Although further legal chal-

lenges to AB 5 and the ABC test are likely, motor carriers operating in California should immediately evaluate the classification of any California independent contractor drivers. Do not hesitate to contact your AALRR counsel or the authors to determine what, if any, steps should be taken to comply with AB 5 in light of this recent development.

This AALRR publication is intended for informational purposes only and should not be relied upon in reaching a conclusion in a particular area of law. Applicability of the legal principles discussed may differ substantially in individual situations. Receipt of this or any other AALRR publication does not create an attorney-client relationship. The Firm is not responsible for inadvertent errors that may occur in the publishing process.

Industry News

Continued from Page 12

into their next chapter of growth. Since we've started talking with Southern, I've seen first-hand the structure, training and focus they provide to their employees. With the backing of Southern, I'm confident our management team will continue to see sustained success and growth all while making sure the customer comes first."

The acquisition of Allen's by Southern HVAC represents their first investment in the state of Kentucky. Southern intends to add additional brands throughout the region over the next several years.

"Allen's is a highly recognizable brand and is broadly known as one of the clear leaders in heating, air conditioning, indoor air quality and other home performance contracting services," said Jarrod Brinker, chief strategy officer at Southern HVAC. "We are excited Allen's chose to partner with Southern and look forward to growing the brand throughout central Kentucky."

Nelson Mullins served as legal advisor to Southern HVAC. Mike Coyle of Kerrick Bachert served as legal advisor to Allen's. Alan Hardwick, of Alan Hardwick

Consulting Services, served as exclusive advisor to Allen and Allen's Air Conditioning Inc.

"I have worked as a consultant to the seller many times and I must say that this process with Southern HVAC has been one of the smoothest, most well organized, that I've had the pleasure of being a part of, and Allen's is certainly one of the finest companies I've had the pleasure of working with," said Hardwick. "This is certainly a win-win-win event for Allen's, its customers and employees, and Southern."

Headquartered in Maitland, Florida, Southern HVAC operates heating, air conditioning, plumbing, and electrical home service businesses in the United States. As part of the broader Southern HVAC team, Allen's Air Conditioning & Heating joins Southern HVAC's family of nineteen other service brands across nine states.

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Case Studies

Trailer Blazing: One-of-a-Kind Mobile Trailers Provide Temporary Heat on Demand at University

The University of Virginia sought a way to quickly provide temporary heat during construction projects while also reducing boiler rental expenses. The solution was the development of two innovative mobile boiler trailers that provide on demand heat where it's needed.

The University of Virginia is a public research university in Charlottesville, Va., founded in 1819 by Thomas Jefferson. It is the flagship university of Virginia and home to the Academical Village, a UNESCO World Heritage Site.

Like many large, historic universities across the country, especially in the Midwest and Northeast, the University of Virginia utilizes central steam heating plants that pipe steam and heating water to campus buildings.

The university is in the second year of a five-year project to convert its steam systems to low temperature hot water for more efficient heating across the grounds.

"During a pipe or heat exchanger replacement, we would typically rent boilers to heat the affected buildings," said Cameron Ratliff, associate director of utilities distribution with the University of Virginia. "However, boiler rental costs were expensive, and so we were looking for a more cost-effective solution for temporary heat."

The university team came up with an innovative idea: build its own custom mobile boiler trailer.

Building the Trailers

Collaborating with Ferguson Plumbing Supply, its main supplier for pipes and fittings, and SE Burks, an HVAC solutions and equipment company, the university facilities team came up with the idea to develop a mobile heating system using a 7½ x 20 ft. trailer



THE FIRST MOBILE BOILER TRAILER DEVELOPED BY THE UNIVERSITY OF VIRGINIA FEATURES WEIL-MCLAIN ULTRA BOILERS.

and an 8½ x 24 ft. trailer as the housing. The team selected four Weil-McLain boilers to serve as the heart of each system.

"We developed our first mobile heating trailer with four Weil-McLain Ultra boilers for a total output of 1.2 million BTUs to provide temporary heat if a building's heating went down," said Ratliff.

The Weil-McLain Ultra boiler is designed to operate in low temperature condensing applications and features a coated cast aluminum heat exchanger, up to 94% AFUE efficiency and high-grade stainless steel burner with quiet operation. In addition to the boilers, the trailer was outfitted with connections for fuel, water and electricity.

It didn't take long for the University of Virginia to put the mobile boiler trailer into action.

"Carruthers Hall lost its boilers during the winter, and we had our 1.2 million BTU trailer connected in one day to provide temporary heat while we serviced the boilers,"

said Ratliff.

With the success of the first trailer, the University was determined to build a second mobile heating trailer with even more heating capacity.

"The design for our second trailer required a powerful, efficient boiler that could meet our target BTUs while also fitting in an 8½ x 24 ft. trailer," said Ratliff. "I researched the Weil-McLain SlimFit unit, and it seemed perfect for the application. We chose the 750K BTU SlimFit models as they were the largest units we could fit and because they operate on either propane or natural gas."

Wes Collings from SE Burks offered guidance on selecting the boilers, and the facilities department teams installed the boilers.

"The SlimFit was an ideal choice for the small footprint of these trailers and because of the unit's easy serviceability," said Collings.

"The university included extra pipe connections so two more units can be added to increase the capacity even more."



WEIL-MCLAIN SLIMFIT BOILER UNITS HOUSED IN THE SECOND MOBILE TRAILER DEVELOPED AT THE UNIVERSITY OF VIRGINIA.

The SlimFit boiler's narrow housing enhances maneuverability for confined spaces and weight restricted areas. The design also increases usability and access for installing contractors, consulting engineers and facility managers for commercial retrofit projects.

With the four SlimFit units installed, the University now has a second boiler trailer with a total heating capacity of 3 million BTUs with the option to add two more boilers to increase it to 4.5 million BTUs if needed, for larger heating season applications.

As the university transitions from steam heat, the facilities team also is creating temporary connections for easy connectivity to the trailers.

"We are removing heat exchangers and inserting blending loops with PICV valves and temperature regulators, so all of our buildings are directly connected to the plants," said Ratliff. "Should we have an emergency breakdown, we can simply pull up the trailer and it's plug and play."

Temporary Heating on Demand

"We now can heat the majority of our facilities on grounds at any time with these trailers without having to rent boilers," said Ratliff. "Waiting for a rental boiler is not an ideal option during the heating season when these systems are in peak demand."

Ratliff also notes that the small size of the trailers is advantageous, too.

"The trailers are easy to move around the grounds," he said.

Besides having on-demand heat as needed, the university is experiencing significant expense savings from expensive boiler rentals.

"Our University CFO is not only intrigued by these trailers but also quite thrilled with the cost savings," Ratliff added.

Ratliff noted it was a team effort to design the mobile heating systems.

"We really enjoyed putting out heads together to build these trailers," he said. "It really is the perfect application for our university; the cost savings alone make it so worth it."

Service Excellence

Continued from Page 20

skills and abilities.

Do you think that last statement goes too far? If so consider it from the pure perspective of being an effective supervisor.

FACT: Supervisors are people who decide things. Sometimes they decide right, and sometimes they decide wrong, but they decide. And when you look at it from that simplistic perspective, it means that every time you decide, there's risk involved. It might be a low-level risk with an easy fix, or it might be a high-level risk, which means that,

at some point in your career, there might be a situation in which you have to be confident enough to gamble on your belief in yourself.

We don't for a moment mean to insinuate that it's like gambling in a casino where the odds of the success of the house are heavily weighed against your success. We mean calculated risks. And calculated risks, while still a risk, are undertaken with skills as a support system. And there are 10 skills that will allow you to deal effectively with the hard facts we mentioned.... and allow you to take calculated risks. Here they are:

1. Leadership
2. Hiring Wisely, Retaining

the Best, and When Necessary, Sucking It Up and Firing the Worst

3. Delegating
4. Time Management
5. Building Effective Teams
6. Coaching Effectively
7. Dealing Effectively with Negativity
8. Crises Management
9. Setting Goals
10. Developing Your Career

Through Life-long Learning
You'll likely agree that the skills we've listed (along with a few others you can probably think of) are necessary for effective supervision and service management, and while it's easy to think "easier

said than done" when considering a list like this at its face value, there's a simple, yet important point we want to make about understanding the process of developing the above-mentioned skills. There's an underlying philosophy to succeeding at it, and it's simple.

Some people may harbor the belief that that it's difficult accepting responsibilities, that some people just "aren't cut out" to take on the challenges of accepting responsibility. But here's a simple way to think about it. Anyone who thinks that accepting responsibility is difficult or complicated, needs to consider how much responsibility they accept every

time they get behind the wheel of a vehicle.

Everyone who drives accepts the responsibility to do several things simultaneously and do them just right all the time. And the bottom line on driving is that if someone isn't simultaneously doing all the things it takes to drive a vehicle, and doing them just right consistently, the result is disaster.

So, if you're one of the approximately 95% of the population who regularly engages in driving, you're already on your way to developing the necessary skills to achieve excellence in service management.

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Action Duct Cleaning	Fieldpiece Instruments	Rottiers Sales Associates
A-Gas	Flaretite, Inc.	Service Roundtable
Airex Manufacturing, Inc.	GE Appliances Air & Water Solutions	Sigler Wholesale Distributors
Airzone	Global The Source	Sirris Abatement
Albritton Company	GREE / Tradewinds	SoCal Gas Company
Alliance Environmental Group	Howard Industries	SoCal Pipe Trades / P.I.P.E.
Apoodr Inc.	Hudson Technologies	SoCal Sheet Metal Workers Apprenticeship Local 105
AQC Industries	Inaba Denko America	Soleus Air West
Benoist Company	Interplay Learning	Southern California Edison
Brownson Technical School	iPermit	Style Crest, Inc.
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California Energy Commission	JP Lamborn Co.	TECH Clean California / Frontier Energy
CARSES/RSES	LG Electronics USA, Inc.	Teslong
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Climatech International	Mainstream Engineering (QuickProducts)	Thermaflex
Coded Energy, Inc. / Kwik Model 3D	MarketAir, Inc.	TrickleStar, Inc.
CoolAutomation	National Comfort Institute (NCI)	Trinity Warranty Solutions
Danko Mechanical Sales Company	NEBB	TruTech Tools
Denco	North American Technician Excellence (NATE)	Uniweld Products, Inc.
DiversiTech Corporation	Pacific Systems Group	US Air Conditioning Distributors
Divvy	Panasonic Life Solutions	Visual Service by IHACI (VS)
Emerson / White-Rodgers	Particles Plus, Inc.	Walter's Mercedes-Benz Sprinter of Riverside
Energy Code Ace	PHCC Los Angeles Training	Wright Sales Company
Energy Masters and Development, Inc.	R.E. Michel Company	ZoneFirst
ESCO Institute / HVAC Excellence	Rapid Duct Testing	
	Resideo	

Carrier Global Celebrates the 120th Anniversary of Modern Air Conditioning

Where were we 120 years ago? Before we had bubble gum, short-wave radios, Albert Einstein's Theory of Relativity, or airplanes, Willis Carrier came up with one cool invention: modern air conditioning. Originally developed to solve humidity problems plaguing a printing press in Brooklyn, New York, Carrier's innovation has gone on to enable entire industries, power new possibilities and impact lives in all corners of the world. Carrier is a part of Carrier Global Corporation (NYSE:CARR), the leading global provider of healthy, safe, sustainable and intelligent building and cold chain solutions.

Over the past 120 years, modern air conditioning – and the company born out of it – has fundamentally changed the way people live, work, learn and play. We helped give rise to the summer blockbuster. We kept travelers cool and comfortable on trains and ships. We fueled the skyward expansion of cities around the



WILLIS CARRIER, THE INVENTOR OF MODERN AIR CONDITIONING.

world, helped preserve history, and enabled the start of the digital age. Air conditioning has facilitated the rise of the modern indoor environment: one that improves the health, productivity, and comfort of the people inside.

"At Carrier, we're committed to developing heating and cooling solutions that improve the health and safety of consumers while reduc-

ing carbon emissions," said Justin Keppy, President, NA Residential & Light Commercial HVAC, Carrier. "We look forward to building on 120 years of industry-leading innovation for a more sustainable future."

Carrier's forward-thinking solutions of today build on the ingenuity of Willis Carrier's invention. We innovate to solve for some of

the world's greatest challenges, including climate change and public health. For example:

- As part of Carrier Global Corporation's 2030 Environment, Social & Governance (ESG) Goals, we are targeting carbon neutrality across our operations and aiming to reduce our customers' carbon footprint by more than one gigaton.

- As COVID-19 shined a light on the criticality of public health, we launched our Healthy Buildings Program to provide healthier and safer indoor environments. Through products such as our Abound suite of connected solutions, our goal is to make indoor air "visible" – so good air quality becomes as important and expected as safe drinking water.

- Carrier invests in important research including the COGfx Study series, led by researchers from the Harvard T.H. Chan School of Public Health, that demonstrated better thinking and better health can

be found inside healthier buildings with enhanced ventilation.

With 120 years to be proud of, we're looking ahead to the next 120, as the innovation that changed everything is still changing the world. Learn more about Carrier's legacy of innovation, as well as the complete history of modern air conditioning, at Carrier.com.

Founded by the inventor of modern air conditioning, Carrier is a world leader in high-technology heating, air-conditioning and refrigeration solutions. Carrier experts provide sustainable solutions, integrating energy-efficient products, building controls and energy services for residential, commercial, retail, transport and food service customers. Carrier is a part of Carrier Global Corporation, the leading provider of healthy, safe, sustainable and intelligent building and cold chain solutions. For more information, visit www.carrier.com or follow @Carrier on Twitter.

ASHRAE Student Design Competition

Continued from Page 14

Ova Candra Dewi S.T., M.Sc. were the team's advisors.

In the 2022 Setty Family Foundation Applied Engineering Challenge, students were challenged to design an ultra-cold refrigeration system for vaccine delivery that is capable of being transported to all global locations. The system could be designed as a stand-alone container, or in such a way that it can be retrofitted into an existing truck. The temperature was required to remain steady and maintain at -70°C. The system took into account multiple system variables, including space temperatures, humidity, envelope, portability, and outdoor conditions to determine the best possible environment for the vaccines.

Axel Dawne, Farhan Afdhalul Ihsan, Febricetta Zahraetzia Sarwono, I Made Wiratathya Putramas, Joel Frederciko Sumbowo and Kanita Prameswari from the Bandung Institute of Technology, Bandung, Indonesia received first place. Rahmat Romadhon, S.T., M.T. was the team's advisor.

The projects will be recognized during the 2023 ASHRAE Winter Conference, February 4-8 in Atlanta, Georgia. The Winter Conference is

held in conjunction with the ASHRAE co-sponsored AHR Expo, which will be February 6-8 at the Georgia World Congress Center.

For a full list of Student Design Competition and Applied Engineering Competition winners (First, Second, Third and Rising Star), please visit the Competitions page on www.ashrae.org.

Founded in 1894, ASHRAE is a global professional society committed to serve humanity by advancing the arts and sciences of heating ventilation, air conditioning, refrigeration, and their allied fields.

As an industry leader in research, standards writing, publishing, certification and continuing education, ASHRAE and its members are dedicated to promoting a healthy and sustainable built environment for all, through strategic partnerships with organizations in the HVAC&R community and across related industries.

The Society is showcasing integrated building solutions and sustainability in action through the opening of the ASHRAE Global Headquarters building in metro-Atlanta, Georgia.

For more information and to stay up-to-date on ASHRAE, visit ashrae.org.

Indoor Air Quality – How to and How Do You Do!

The New Flat Rate President shares her journey into the world of IAQ.

*By Danielle Putnam
President, The New Flat Rate
Advisory Board Member,
Women in HVACR*

"Is Your House Making You Sick?" the billboard asked, as it perched high in the sky, up above Cleveland Highway in Dalton, Georgia. The logo was unmistakable. My dad had another sign up in town for his HVAC business.

I was a junior in high school and worked in my dad's business as what I considered to be the Office Manager position. Typical boss's kid, right? We always think we're worthy of the more important roles, when in reality, I wasn't the Office Manager; I simply answered the phones and ran parts to job sites. A few of my high school friends worked in the business, too, as install helpers. Yes, I thought it was cool that my dad owned his own business, and I enjoyed boasting about it to my friends. "My dad's shop is the big building under the overpass up the North bypass."

But back to the question posted on the billboard: "Is Your House Making You Sick?" This all-too-familiar question wasn't just on this billboard; it was in surveys, flyers, postcard mailers...and often, the phone would ring from across the

U.S. somewhere. Someone not even in our hometown would call my dad, looking for help. These folks would call because a beloved family member had an illness determined to be coming from within their home, but they hadn't been able to find and solve the problem. People would hear about and find my dad on the internet after looking for what they usually said was approximately two years. Two years of searching for someone to help them with their Indoor Air Quality. What an underserved market.

IAQ was our specialty. I knew that; everyone in town knew that, and the question, "Is Your House Making You Sick?" was the line that marketed the IAQ leads my dad would go on to sell the high-ticket jobs that all too often kept our HVAC business out of famine.

What others shrugged off as a customer who was impossible to please, my dad understood as someone who simply hadn't gotten their problem solved yet. He didn't stamp them as complicated or frustrating; he stamped them as a person who was seriously uncomfortable and unwell, and he saw an opportunity to make a difference. My dad had (and still has) a deep-rooted passion for helping people and solving their problems, and nothing made him happier than knowing that he finally solved someone's health issues... well, that and the big check that

came with it, of course.

Yet still...I didn't grasp the 'aha, oh my, wow' discovery until last week.

Even after 25 years in the industry and a lifetime of IAQ talk, I still hadn't internalized how crucial IAQ work was until last week...and then I connected the dots.

Fast forward 25 years of being in the industry, and a lifetime of hearing my dad talk about IAQ, yet it didn't hit a chord until recently. That's right. Here at The New Flat Rate, we determined to write a menu pricing system for Indoor Air Quality, a pricing system that would help contractors learn to price this type of work, paired with a training system and "how-to" check list of materials, supplies, and best practices.

Sitting in that conference room, armed with white boards, smart boards, laptops, recordings, stacks of data, and the lifetime experience of Rodney Koop and John Ellis, who had spent most of their lifetime in the pursuit of helping homeowners discover and solve their Indoor Air Quality issues, my eyes began to open. I started to connect the dots.

Day after day, Rodney and John discussed the environment of the home. Keeping what's 'in' in and keeping what's 'out' out, sealing off contaminants, infiltra-

Continued on Page 30

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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

OCTOBER



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

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

OCTOBER

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

NOVEMBER

System Diagnostics Module

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

Wed., Nov. 9 – Part 1

Thurs., Nov. 10 – Part 2

Wed., Nov. 16 – Part 3

Thurs., Nov. 17 – Part 4

SOUTHERN CALIFORNIA EDISON, TULARE

SEPTEMBER

System Performance Module

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

Tues., Sept. 13 – Part 1

Wed., Sept. 14 – Part 2

Tues., Sept. 20 – Part 3

Wed., Sept. 21 – Part 4

OCTOBER



NATE CORE & Gas Heating Training

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

Wed., Oct. 12 – Part 1

Thurs., Oct. 13 – Part 2

Wed., Oct. 19 – Part 3

Thurs., Oct. 20 – Part 4

NOVEMBER



NATE AC/HP Refrigeration & Air Distribution Training

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

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.

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AUGUST-SEPTEMBER

**System Diagnostics Module
(POSTPONED)**

Rescheduled for December

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

Wed., Aug. 31 – Part 1

Thurs., Sept. 1 – Part 2

Wed., Sept. 7 – Part 3

Thurs., Sept. 8 – Part 4

OCTOBER

 **NATE CORE & Gas Heating Training**

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


Mon., Oct. 10 – Part 1

Tues., Oct. 11 – Part 2

Mon., Oct. 17 – Part 3

Tues., Oct. 18 – Part 4

NOVEMBER

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

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

Mon., Nov. 7 – Part 1

Tues., Nov. 8 – Part 2

Wed., Nov. 16 – Part 3

Thurs., Nov. 17 – Part 4

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

DECEMBER

System Diagnostics Module

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

Wed., Dec. 7 – Part 1

Thurs., Dec. 8 – Part 2

Wed., Dec. 14 – Part 3

Thurs., Dec. 15 – Part 4

SEPTEMBER

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

OCTOBER

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.



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JEFF DREES

Daikin Industries, Ltd. announced that **Jeff Drees** has been selected as the new chief executive officer and president of Daikin Applied Americas. Drees currently serves as executive vice president of sales, marketing and aftermarket at Daikin Applied, and will replace Mike Schwartz who is retiring at the end of August after 11 years leading the organization.

“This is an exciting time to be in the HVAC and building solutions industry,” Drees said. “The work we do has a profound impact on the world at large, helping customers address issues such as reducing carbon emissions and improving indoor air quality. I’m honored to lead these efforts and add to the significant growth the business has experienced over the last decade.”

Daikin Applied designs and delivers innovative heating, ventilation and air-conditioning (HVAC) technology that not only offers superior comfort, but helps provide healthy, safe and sustainable environments. Its offerings include equipment, service, controls and systems integration for commercial and industrial facilities, encompassing the full customer lifecycle.

Drees joined Daikin Applied in 2020 and has helmed the organization’s solutions transformation, expanding the portfolio of offerings and adding new capabilities through key acquisitions. He is a staunch advocate for customers, as well as Daikin’s sales representatives and employees.

“Jeff’s leadership is critical to developing the strategy, plan and

portfolio required to meet local and global challenges – air quality, decarbonization, digitalization,” said Hirokazu Hirao, director of Daikin’s Applied Solution Business Division, which includes Daikin Applied. “He is uniquely qualified to shape this organization to solve our customers’ problems and help us attain the top position in North America.”

Drees came to Daikin with experience in commercial engineering and operations. He held executive positions in private equity, as well as serving in significant business unit roles at Flowserve and Schneider Electric. He started his career in the United States Air Force, and holds a Bachelor of Science degree from Southern Illinois University and an MBA from Aurora University.

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BENJAMIN BRAITSCH

Hunter Industrial Fans, a division of the Hunter Fan Company, has added **Benjamin Braitsch** as channel director for the company’s Jan Fan division. In 2019, Hunter Industrial acquired Jan Fan.

As channel director, Braitsch will oversee Jan Fan’s sales strategy and focus on developing, nurturing and growing the business in partnership with the brand’s key accounts and distributors. Braitsch will also manage administration and customer support for sales, logistics, distribution, delivery, and more.

Braitsch previously served as president and CEO and market development director for Airmaster Fan Company, responsible for all strategic business aspects as well as developing marketing and sales strategies and brand partnerships.

During his five years as president and CEO of Airmaster Fan Company, Braitsch increased profit margins by 10% and kept employee turnover below 6%.

“Ben has a proven track record of excellence in achieving sales goals, increasing profit margins, expanding customer bases, and cultivating productive and engaging workplace environments,” said Mark D’Agostino, senior vice president and general manager of Hunter Industrial. “We’re confident that the Jan Fan division will experience outstanding growth under his direction.”

.....

SecureAire Technologies announced **Kathy Parry** as the company’s new vice president of commercial sales. Parry is a strategic business executive with nearly two decades of HVAC industry experience. In her new position, Kathy will lead the sales operations for North America and expand SecureAire’s reach in the global commercial market.

“We are incredibly proud to welcome Kathy Parry to the SecureAire family. She brings a wealth of knowledge on air purification as well as a proven track record of helping companies grow,” said Frank Stamatos, president and CEO of SecureAire. “Parry will further accelerate SecureAire’s recent success, as we have blown through our 2021 sales goals and expanded quickly across the U.S.”

Parry has deep expertise in sales, business development, marketing, and organic growth. Before joining SecureAire, she served as sales director for Nashville-based Flaktgroup Woods Air Movement Ltd, helping to re-establish their business in North America. She also served as a member of the Air Movement & Control Association’s Marketing Committee for nearly a decade. Parry earned a master of business administration from Syracuse University’s Whiteman School of Management.

Following a multi-million-dollar capital raise at the end of 2020, SecureAire has made several senior hires, including Puneet Sapra as chief operating officer and Mark Mastrioianni as vice president of marketing and communications. SecureAire exceeded its goals over the past year, and Parry’s addition to the team will support the company in continuing these positive trends.



KATHY PARRY

.....

AirSept, a leading manufacturer of award-winning innovative repair solutions for the automotive aftermarket, is pleased to announce the addition of **Marion Parkes** as the company’s new Procurement Manager. Parkes is responsible for both direct and indirect strategic sourcing strategies and processes and will oversee the establishment of best practices for procure-to-pay processes for all transactions. She also manages all vendor relationships and contractual KPIs and metrics to ensure product pricing, discounts and rebates are properly applied.

Parkes has over 20 years of experience in supply chain management and retail disciplines and is proficient in Dynamics, D365, Manhattan Inventory Optimization and Scorecard Management. She is based at AirSept’s corporate headquarters in Atlanta.

Parkes was formerly Purchasing Manager for Genuine Parts Company, where she was responsible for purchasing and inventory of over 300 million dollars of finished goods at five hubs supporting 57

NAPA distribution centers. She has extensive experience in under car and heavy-duty product categories. As the lead on the NAPA inventory steering committee, she was adept at improving inventory turns, spend, profit and service levels while also making recommendations on purchasing policies, product quality, process improvement and vendor collaboration.

AirSept President Aaron Becker said, “This is a new position for AirSept and one that has long been needed, especially after the last two years of challenging supply chain issues. We are fortunate to have Marion join us to manage vendor relations, forecasting, inventory planning and quality control. She has excellent team-building skills that have been apparent since day one, a penchant for detail, and is skilled at sourcing the highest quality materials while also achieving cost savings. As we move to aggressively introduce AirSept products to new markets, we are very fortunate to have someone with Marion’s depth of expertise as part of our growing senior leadership team.”



MARION PARKES

.....

The U.S. Green Building Council (USGBC) announced that **Lisa Revitte** has joined as chief operating officer, supporting both USGBC and Green Business Certification Inc. (GBCI). In this newly created role, Lisa will support business leaders in a variety of areas including facilities,

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The New Flat Rate

Continued from Page 26

tion, ionization, weatherization... and many more ‘ation’ words... the list went on. With every menu we wrote, I grasped even more understanding of how underserved the need is, and how the industry as a whole is underequipped to help homeowners with their IAQ from discovery to resolution and ongoing maintenance.

I walked to our bedroom and

rolled up the gorgeous 4” thick, 12x12 shag area rug and had my husband haul it out to the dumpster.

And I went home Friday night, poured a glass of champagne, toasted with my husband, and said, “Honey, we’re making some changes because our house is making you sick;” then I walked to our bedroom and rolled up the gorgeous 4” thick, 12x12 shag area rug and asked him to carry it out and haul it to a dumpster. That’s right. Even I, who had heard that ques-

tion my whole life, didn’t grasp how important IAQ was for my family and how important it was for my contracting members and friends to have an easy way to offer, price, and serve the IAQ market in their areas. And the market is huge!

Think about it with me. Don’t you know those people who are always sneezing or sniffing? Who have the constant nuisance of a cough or a tickle in their throats? Who always just feel a little under the weather? They

simply chalk it up to “Oh, I’ve always had this cough.” I’ll bet at least one person has popped into your mind just thinking about it. We might all have ‘always’ had a pesky symptom, but it doesn’t mean we are supposed to, and it doesn’t mean we have to! Let me rephrase that. It doesn’t mean your friends and family and community members have to be sick, and you can be the one to help them!

This is not a promo for our product. This is a wow. True expertise is developed over time,

and if you’re looking to get into the IAQ market to help bring diversification to your business, or perhaps you’ve experienced the satisfaction of helping a customer who desperately needed your help, but don’t know how to market for more of those leads in the future...then the question for you is, “Is Your House Making You Sick?” Test it in your marketing and let me know what happens. My guess? You’ll be pleasantly surprised.

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Indoor People

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finance, human resources, legal, and technology. “Lisa is an outstanding complement to our global leadership team,” said Peter Templeton, president and CEO, USGBC and GBCI. “I am confident in her ability to help strengthen the capabilities and performance of our

organizations as we work to address urgent challenges facing our communities worldwide. It is an important time for USGBC and GBCI, and having an experienced COO is vital as we continue to pursue our mission at even greater speed and scale. Lisa’s expertise will be fundamental as we seek to transform USGBC’s strong legacy of leadership into the platform of partnership, collaboration, and innovation we need to advance a prosperous and equitable future.” Lisa has 20 years of operations



LISA REVITTE

experience and served as the chief operating officer for the Brady Campaign to Prevent Gun Violence, and most recently held the same position at FOX Architects LLC. Prior to that, Lisa served USGBC and GBCI from 2006-2014 in various capacities including director of operations for GBCI and director of enterprise performance for USGBC and GBCI. Lisa brings a wealth of knowledge in managing finance, human resources, technology, compliance, and project management. Lisa holds a Master of Business Administration degree from the George Washington University, and a Bachelor of Science degree from the University of Michigan.

USGBC and GBCI are currently conducting a strategic review to act on opportunities for improvement across their programs and operations. The review will ensure the organizations are well positioned to scale their work to support unprecedented public and private sector commitments to advancing health, decarbonization, equity, and other ESG goals through green building.

GOLD KEY
Contest Winner

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



Brett Shanley
RSD Total Control

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

NEW IHACI MEMBERS

- **Bill Glockner**, Indio Cooling A Division of Hirsch Pipe & Supply – San Juan Capistrano, CA
- **Michelle Eaton**, Sauermann Hauppauge, NY
- **Bruce Cheney**, Anchors Aweigh Energy LLC, San Diego, CA
- **Steve Fraser**, La Palma, CA
- **Igor Mitburg & Christian Rodriguez**, CoolAutomation, Wilmington, DE
- **LG Electronics USA, Inc.**, Linda Barton, Alpharetta, GA
- **M L Filters**, Manuel Lopez, Chino, CA

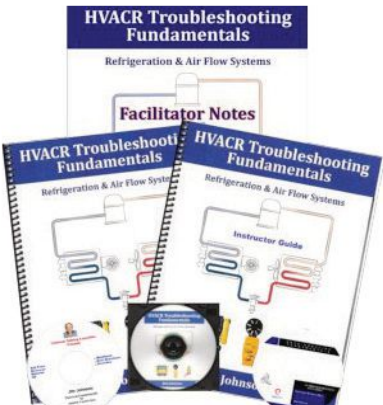
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