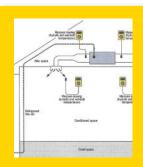


MAY 2021

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Troubleshooting

The equipment in this month's troubleshooting situation is a split system that has only been in service for two years, but there is a lot of history.

Page 15



Editorial Focus

What's new? What's been improved? Find out here as ICN takes a look at the latest offerings in Motors and Drives, Compressors and Controls.

Page 16



Indoor People

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

Page 29

COVID-19 Update

Report: COVID-19 Driving Surge in Home Improvement Projects

Majority of respondents willing to spend up to \$2,000 on cleaner, healthier air.

study released by Aeroseal ALLC found the pandemic has made indoor air quality (IAQ) an increasing focus of home improvement projects.

The study includes insights from 309 respondents, half of which are worried about IAQ during COVID-19. Of those respondents, 67% are willing to pay for

cleaner, healthier air - suggesting up to \$2,000 is on budget for this HVAC-focused project.

Contractors Helping Create New Normal

It's predicted that post-pandemic life will see a permanent increase in people working from home full- and part-time. Spending more time at home is making homeowners more aware of their environ-

Continued on Page 14

NAW, Wholesale Distributors Partner with NFL for Stadium Vaccination Sites

The National Association Wholesaler-Distributors The National Association of (NAW) and wholesaler-distributors across the country announced a partnership supporting mass vaccination sites at multiple NFL stadiums with donations of needed personal protective equipment and other items, including gloves, sani-

wipes. The first mass vaccination sites to receive donations were the Detroit Lions' Ford Field and the Pittsburgh Steelers' Heinz Field.

Continued on Page 15

Industry News

tizer, pumps, masks, shields, and

Project Spotlight

Northern California School District Improves IAQ with the Help of Carrier OptiClean Units

Manteca Unified School District plans to use air scrubbers in every classroom.

o prepare for its facilities fully reopening to students and staff, northern California's Manteca Unified School District has installed 1,500 Carrier OptiClean™ Dual-Mode Air Scrubber & Negative Air Machines to purify the air in classrooms across its 30 schools. The OptiClean units will help to improve indoor air quality (IAQ) for the district, as its more than 27,000 students, teachers and staff return to campuses. Carrier is a part of Carrier Global Corporation (NYSE: CARR), a leading global provider of healthy, safe and sustainable building and cold chain solutions.

We've spent the last several



JORGE RODRIGUEZ, CUSTODIAN AT MCPARLAND SCHOOL IN MANTECA UNIFIED SCHOOL DISTRICT, WITH THE DISTRICT'S FIRST DELIVERED OPTICLEAN UNIT.

months analyzing every facet of our organization in order to develop a comprehensive strategy designed to create a healthier environment for our students and staff," said Dr. Clark Burke, Superintendent, Manteca Unified School District. "The air quality

in our area is often affected by the extensive local agricultural industry and lately, regional wildfires have also contributed to poor air quality. After reviewing a number of indoor

Continued on Page 14

DEPARTMENTS

Industry Education 21

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EGIA Launches Contractor Event Planning Website

Sacramento, Calif. – The Electric & Gas Industries Association (EGIA) announced the launch of the EGIA Contractor University event services website. The new service aims to streamline

the event planning process for manufacturers, distributors, and all industry companies that hold events.

"Whether online or in-person, there's nothing quite like the education, motivation, and overall experience of a live event," said Bruce Matulich, CEO and Executive Director of EGIA.

"The new EGIA Contractor University event services offering creates a one-stop shop of the contracting industry's biggest names for companies to find the perfect speaker for their next event, whether they're booking a keynote for a 2,000-person conference, a 30-minute Zoom presentation for their immediate team, or anything in between."

In addition to listing price ranges and areas of specialty for each personality, the EGIA Contractor University event services website allows visitors to filter by topic or speaker, view video excerpts of previous presentations, and scroll through detailed presentation descriptions, outlines, and downloadable marketing toolkits. For companies looking for a more holistic approach to event planning, fully turn-key event administration services are available, with packages that include everything up through promotional event marketing, event hosting, technical support, and much more.

For more information on the Contractor University website, visit www.egia.org.

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CoolSys Acquires Duquette Refrigeration

Brea, Calif. – CoolSys has announced the acquisition of Duquette Refrigeration.

"CoolSys has made significant strides in growing its presence across the country over the past few years," said Adam Coffey, CEO of CoolSys. "The acquisition of Duquette Refrigeration represents another step towards our goal to become a true, nationwide service provider. As one of the premier refrigeration companies in New England, Duquette Refrigeration has established long-term client relationships and an outstanding reputation. We look forward to welcoming the Duquette Refrigeration team to the CoolSys family."

RepCo to Serve as Manufacturer's Rep for Elitech

San Jose, Calif. – Elitech Technology Inc. has appointed HVAC RepCo to represent Elitech's gas leak detectors and HVACR service tools in Alabama, Arkansas, Colorado, Connecticut, Florida, Georgia, Illinois, Indiana, Kentucky, Kansas, Louisiana, Massachusetts, Mississippi, Missouri, North Carolina, New Mexico, New Jersey, New York, Ohio, Oklahoma, Pennsylvania, South Carolina, Tennessee, and Texas.

ARIZONA



RYNO Launches Roundtable

Phoenix, Ariz. – RYNO Strategic Solutions recently launched its RYNOx Service Summit roundtable.

"We created RYNOx Service Summit to connect contractors of various sizes with some of the biggest, and most respected leading contractors in the industry in an intimate, more meaningful setting in hopes of helping expedite new relationships for future growth for all attendees," said Chris Yano, CEO of RYNO. "2021 offers an opportunity for tremendous growth for our clients and partners, and getting an upclose and personal experience at RYNO headquarters with some of the smartest and most innovative experts in our industry is a great way to kick-start that trend."

Thirty-two contractors, business owners, and other leaders attended the one-day in-person event to meet with peers and gain business insights from the industry's thought leaders and personalities. Keynote speakers for RYNOx Service Summit included Gary Vaynerchuk, social media mogul and CEO of VaynerMedia; Jens Pulver, former UFC lightweight champion; Ken Haines, CEO of the Wrench Group; Ken Goodrich, CEO of Goettl Air Conditioning & Plumbing; and Leland Smith, CEO of Service Champions.

"The first RYNOx Service Summit exceeded our expectations and delivered measurable value and real-world takeaways for everyone who attended," said Yano. "There was a lot of enthusiasm for growth and new ideas at the event. Bringing the people at the forefront of our industry together in one intensive experience helped us all take stock after an eventful year and demonstrated the energy and dedication that are hallmarks of home service professionals."



Abacus Opens in Austin, Texas

Austin, Texas – Abacus Plumbing, Air Conditioning & Electrical, a Wrench Group company, announced the grand opening of its newest location in Austin, Texas.

"We are very excited about serving customers in Austin," said Alan O'Neill, founder and CEO of Abacus Plumbing. "It's a natural fit for our business. Abacus Plumbing was built upon the pillars of honesty, integrity, teamwork, and respect, which we believe will be

Continued on Page 6



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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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- Coated steel wire fan guard, coated external fasteners, and pre-treated G90-equivalent galvanized steel chassis components resist corrosion and rust creep
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- 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
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Continued from Page 4

well-received by Austin homeowners. We look forward to providing the outstanding level of service for Texas families that we have since we first opened our doors."

Abacus Plumbing expects to employ approximately 75 people at the new location by 2023.

EVAPCO Selects Delta T as HVAC Rep in SE Texas

Houston, Texas – Taneytown, Md.-based EVAPCO has selected Delta T Equipment as its manufacturer's representative to serve the Southeast Texas region. The Houston-based HVAC distributorship offers a broad array of products and services to consulting engineers, contractors and end

"At EVAPCO, we strive to bring better solutions to the heat transfer industry," said Jamie Facius, VP of North America Sales. "Delta T shares our deep commitment to customer service, which is why we're so excited about this new relationship. Together, we can deliver innovative products and support throughout the Southeast Texas region."

Delta T Equipment was featured by the Houston Business Journal on their 2012 and 2018 "Houston Fast 100," a list of Houston's fastest growing companies, and by Inc. Magazine on their "Inc. 5000" list of fastest growing private companies in America. Paul McCarver, CEO and Founder of Delta T Equipment, said, "It



THE DELTA T EQUIPMENT TEAM IN HOUSTON, TEXAS.

is outstanding relationships with premier partners like EVAPCO, Inc. that have propelled Delta T Equipment into 16 years of sustained growth."

EVAPCO provides a full spectrum of global product solutions for the commercial HVAC, industrial refrigeration, power generation and industrial process markets with

over 200 active patents on the market today. Headquartered in Taneytown, Maryland, EVAPCO products are engineered and manufactured in 26 locations in 10 countries and supplied through a sales network of more than 170 offices.

SkillCat Releases Free EPA 608 Certification Program

Houston, Texas – SkillCat announced the release of a free online EPA (Environmental Protection Agency) certification course & exam. SkillCat's EPA certification online is fully accredited by the EPA to offer online EPA training & an online proctored EPA exam.

Students can take the full course online or on a mobile phone, go through the online exam with a virtual proctor, and print out their EPA card immediately after course completion.

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Nortek Names AC Supply Co. Wholesale Distributor

Dallas, Texas - Nortek Global HVAC (NGH), a leading manufacturer of HVAC equipment, has named AC Supply Co. its HVAC wholesale distributor of Frigidaire® and Gibson® residential heat pump, air conditioner, gas furnace and air handler brands for the Dallas-Fort Worth metropolitan area. The third-generation, familyowned AC Supply operates locations in Arlington, North Richland Hills in addition to its Fort Worth Westside and 36,000-square-foot Downtown headquarters.

The Frigidaire and Gibson product lines rolled out April 1 and represent the first unitary equipment product offerings in the history of the 62-year-old distributor, which previously concentrated only on HVAC parts and accessories. AC Supply prepared for the expansion into unitary equipment by doubling its space by moving its Arlington and North Richland Hills locations to a 32,000-square-foot warehouse and a 22,000-square-foot facility, respectively.

Consequently, AC Supply will be inventorying approximately 60 models ranging from Gibson's value-oriented units to Frigidaire's premium models. Combined, the two brands provide contractors with a "betterbest" lineup that's competitive with any brand, price and feature in the HVAC market,

Continued on Page 8

Learn more at www.evapco.com. of Delta T Equipment, said, "It industrial process markets with Baker **Heating and Cooling Product Distributing Company** YOUR COMMERCIAL **HVAC HEADQUARTERS Motor Loyalty** Dedicated In-house Commercial Specialists Program. Extended Parts Warranty Commercial Leasing Program March 1 - May 31, 2021 Diverse Product Line www.bakerdist.com/nidec-motor-loyalty-program Industry's First New X-Vane Technology

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- Up to \$1000 on qualifying natural gas tankless water heaters.
- Up to \$175 rebate on ENERGY STAR® certified natural gas storage water heaters.
- Up to \$1000 rebate on ENERGY STAR certified natural gas furnaces.

Learn more at: socalgas.com/rebates



Continued from Page 6

according to Rob Hawk, national director strategic accounts, NGH.

"This monumental investment in a new product offering and partnership with Nortek puts us in the right place at the right time," said Randy Boyd, president. "Dallas-Fort Worth is experiencing exponential population growth and a strong housing market, which have created a strong unitary equipment demand that is outpacing supply."

Frigidaire continues to outpace the unitary industry in premium features and now offers a new color palette featuring a powdercoat paint process that eliminates sharp edges and reduces corrosion, fading, chipping, and scratching.

Besides equipment, the agree-

ment includes NGH's renowned Elite Marketing Program tools and assistance at https://www.nortekhvac.com/marketing-programs/. Contractors will be provided optional website building, tabletfriendly sales assistance programs, rebate offers, Customer-For-Life direct mailers, brochures, e-newsletters, logos and other marketing tools. AC Supply's in-house resources also assist contractor marketing efforts through Facebook ads, SEO, and other online aids, in addition to their own contractor training on selling, installing and servicing products.

For more information about NGH products and to access the online literature library, contractors should visit www.nortekhvac.

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NATIONAL



ACCA Announces 2021 Fall Meetings

Alexandria, Va. – ACCA is holding two back-to-back fall meetings, bringing together hundreds of contracting professionals for educational programs and networking events from November 1-3, 2021, at the New Orleans Marriott in New Orleans, Louisiana.

ACCA Office and Operations Managers Forum (November 1-2) addresses the challenges and opportunities of running a service business. ACCA's Service Managers Forum (November 2-3) features educational programs that help contractors and business leaders.

Presenting at this year's fall meetings include keynote speaker, Jacob Schick, CEO of 22KILL. Top industry professionals presenting include Renee Lucas, LCS Heating and Cooling, LLC.; Matt Marsiglio, Flame Furnace; Craig Elliott, NICE Heating & Air; and Matt Akins and Melissa Broadus, Air Conditioning Contractors of America, among others.

"The 2021 ACCA Fall Meetings are a must attend event for our industry," said Bart James, ACCA president and CEO.
"ACCA has been working hard to bring in-person events back to our

industry because we know the value found in our events for our members. The face-to-face interactions coupled with educational material is something our members and corporate partners have been itching for since the beginning of the pandemic, and ACCA is ready

DiversiTech Buys Fresh-Aire UV

Duluth, Ga. – DiversiTech Corp., a leading aftermarket manufacturer and supplier of highly-engineered components for residential and light commercial heating, ventilating, air conditioning and refrigeration (HVAC/R), announced today that it has merged with Fresh-Aire UV, a leader in the Indoor Air Quality (IAQ) industry.

"The addition of Fresh-Aire UV, a market leader in Indoor Air Quality (IAQ), into the DiversiTech brand portfolio further strengthens our product leadership and our ability to deliver unmatched product breadth, service and convenience to our customers," said Andy Bergdoll, DiversiTech CEO. "The IAQ product range will bolster our core offering and further strengthen our value proposition to our HVAC/R Distribution Partners."

UV-C light has been shown to reduce certain airborne and surface viruses, bacteria and mold. Fresh-Aire UV's awardwinning UV-C disinfecting light and carbon odor control products for commercial and residential HVAC/R systems include Blue-Tube UV®, a popular germicidal UV light, the revolutionary APCO-X® PCO/Carbon air treatment system, and Mini LED, the first LED light system designed specifically for mini-split AC systems.

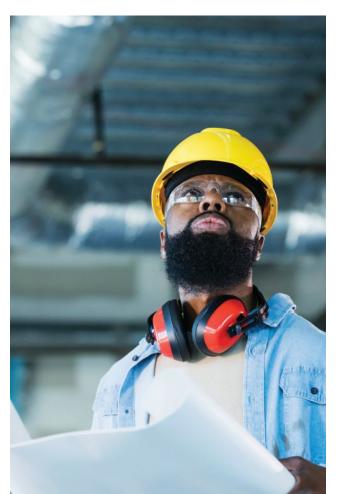
Fresh-Aire UV is continually striving to engineer, develop, and market products to meet the demand for a greener world and a healthier environment. The popular germicidal UV light systems for central air systems helps improve Indoor Air Quality, enhances HVAC/R system performance, and reduces maintenance costs.

"Joining forces with DiversiTech will provide us with a greater level of scale, resources and capabilities to accelerate our growth and bring Fresh-Aire UV to an even wider audi-

Continued on Page 10

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Access online classes from the comfort of your home or office



National Comfort Institute - Residential System Performance 4-Part Series

May 4, 5, 11, 12 | 8 a.m. - 12 p.m.

National Comfort Institute -Refrigerant Side Performance

4-Part Series

May 13, 14, 20, 21 | 8 a.m. - 12 p.m.

D&R International – Central Heat Pump Water Heater Systems: Design & Maintenance Deep Dive

4-Part Series

May 17, 19, 24, 26 | 9 a.m. - 11 a.m.

D&R International - Indoor HVACD Equipment & Systems

May 26 | 1:30 p.m. - 3 p.m.

IHACI - AC & Heat Pump System Module 4-Part Series

May 5, 6, 12, 13 | 6 a.m. - 8 a.m.



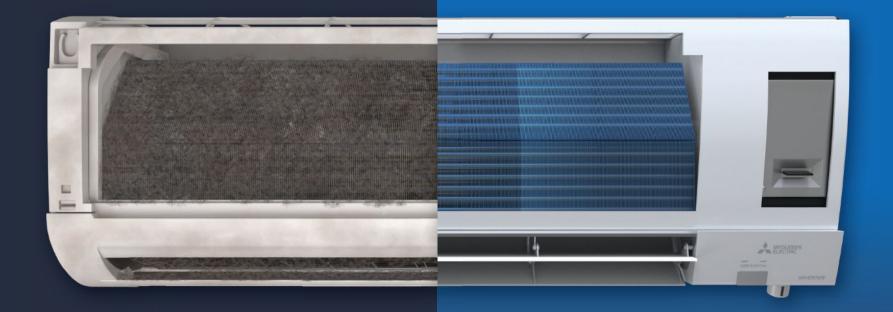
Reserve your seat today or check out other classes at **seminars.sdge.com**.

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Continued from Page 8

ence," stated Chris Willette, Fresh-Aire UV President and CEO.
"All while preserving our unique culture and unwavering commitment to innovative products."

"Fresh-Aire UV and Diversi-Tech are focused on our HVAC/R Distribution Partners and Contractors," stated Ron Saunders, Fresh-Aire UV VP of Sales, "and we will continue to work to develop and deliver state-of-the-art products to meet the current demand of this surging market."

For more information about DiversiTech®, go to diversitech.com. For more information about Fresh-Aire UV®, go to freshaireuv.com.

Carrier Donates \$250K to Habitat for Humanity Charity

Indianapolis, Ind. – Carrier is proud to support Habitat for Humanity International's "Home is the Key" campaign, aimed at unlocking more families' futures with homeownership – a fundamental steppingstone to better health, more financial freedom and security. The company began its fundraising effort with an initial \$250,000 donation to the campaign and continued to raise awareness through out the month of April by engaging its distributor and dealer network and employees



VOLUNTEERS AT A HABITAT FOR HUMANITY WORKSITE. CARRIER DONATED \$250,000 TO THE ORGANIZATION'S "HOME IS THE KEY" CAMPAIGN.

through advertising, social media, and digital outreach efforts. Carrier is a part of Carrier Global Corporation (NYSE: CARR), the leading global provider of healthy, safe and sustainable building and cold chain solutions.

Launched in 2017, "Home is the Key" is one of Habitat for Humanity's signature fundraising and awareness campaigns, taking place annually in April. With support from Carrier, as well as funds raised through "Home is the Key," more families can partner with Habitat to secure the strong foundations a safe, decent, and affordable home provides.

"Habitat for Humanity is an organization that is very dear to us at Carrier, and we have been fortunate enough to be able to support its efforts for the last several decades," said Justin Keppy, President, NA Residential & Light Commercial, Carrier.

"The 'Home is the Key' campaign is designed to inspire individuals and businesses to donate to Habitat for Humanity during the month of April to help more families build a decent, affordable place to call home. In addition to the many fundraising and awareness efforts we have planned, we are engaging our employees and distributor and dealer networks to support this campaign."

Along with its support of "Home is the Key," Carrier employees have helped build one Habitat home a year in Indianapolis since 1998, and the company has donated an HVAC system to every Habitat home built in the city since 1995. In addition, Carrier has supported Habitat for Humanity International as a Gold Level Sponsor at the 2018 and 2019 Jimmy & Rosalynn Carter Work Project, and during the aftermath of Hurricane Harvey, Carrier donated 100 ductless units to assist in the re-build. Carrier has provided financial support, product donations - including from Carrier's Healthy Homes suite of indoor air quality solutions - and countless employee volunteer hours to local

Habitat organizations.

"We're proud to have the support of companies like Carrier as we look to continuously help homeowners create stronger and healthier lives for themselves and their families," said Julie Laird Davis, Vice President of Corporate and Cause Marketing Partnerships at Habitat for Humanity International. "Habitat has built a strong relationship with Carrier over the last several decades and we're grateful for the contributions they've made to our efforts. We are looking forward to making an impact together again during this year's Home is the Key initiative."

To learn more, please visit: carrier.com/homeisthekey.

Harris Acquires HVAC Controls & Specialties

St. Paul, Minn. – Harris announced that it has acquired HVAC Controls & Specialties. With the acquisition, Harris will extend its workforce in Idaho – from Boise and the Treasure Valley, to Jerome, Burley, McCall, and Sun Valley.

HVAC Controls & Specialties will be incorporated by Harris and led by Executive Vice President of Service + Building Automation Bob Swanger.

"This acquisition reflects our continued commitment to serve customers throughout Idaho," said Swanger. "Specializing in automation, mechanical, and energy solutions, we knew Todd's business would merge well with ours and that his group of highlytrained workers would complement Harris' team in serving new and existing customers. Our values align as well. Todd has operated his company as a close-knit family business with a culture that emphasizes loyalty, strong ethics, and a 'do it right or don't do it'

"It's about delivering peace

of mind and excellence to our customers," Swanger continued. "Building owners know their facilities will be maintained with the highest level of quality and performance. This offers a great opportunity to grow and manage BAS and service at Harris and bring our expertise to more customers in this region."

HVAC Controls & Specialties President Todd Petersen started his career working in general construction. After an injury, he went on to study electrical instrumentation. He worked in pneumatic and direct digital controls before starting his own company nearly 30 years ago.

"I'm very excited about this next stage of our business," said Petersen. "As part of the Harris family, we will be able to maximize resources and capabilities for our customers and provide great opportunities for our team."

Honeywell to Buy Majority Stake in Fiplex Comm

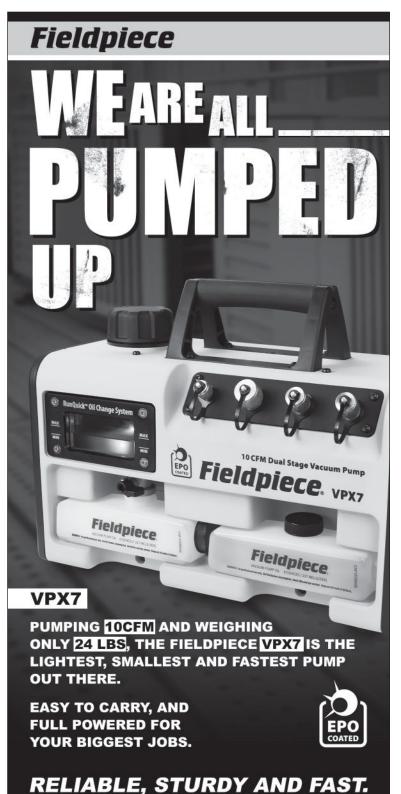
Charlotte, N.C. – Honeywell has signed an agreement to acquire a majority stake in Fiplex Communications Inc.

'We are looking to reshape how communications and connectivity within buildings work," said Vimal Kapur, president and chief executive officer, Honeywell Building Technologies. "The addition of Fiplex's products and software allows us to move toward creating the next generation of fire and life safety solutions to keep both building occupants and first responders safer. The Fiplex team brings superior engineering talent and unique capabilities for wireless communications that will enable us to enhance our in-building communications offerings and complement our innovative, industry-leading solutions."

"Honeywell has long demonstrated leadership in the fire and life safety industry, and we are pleased to join their team," said Matias de Goycoechea, chairman and chief technology officer, Fiplex. "We look forward to working with Honeywell to expand our technological advancements and to support the creation of betterconnected buildings."

Terms of the investment were not disclosed, and there is no change to Honeywell's financial outlook as a result of the acquisition. The acquisition is pending customary deal closing conditions.

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NADCA Debuts 2021 Edition of ACR Standard

Mt. Laurel, N.J. – The National Air Duct Cleaners Association (NADCA) – also known as the HVAC Inspection, Cleaning, and Restoration Association – has released its 2021 edition of ACR, The NADCA Standard for the assessment, cleaning, and restoration of HVAC systems.

The NADCA Standards Committee has finalized the 2021 edition of ACR, The NADCA Standard, which reflects necessary updates to the Standard after new testing was conducted by EMSL Laboratories. The ACR is an international standard that defines the minimum performance and procedural requirements for air duct cleaning. It includes information for assessing new and existing HVAC systems, evaluating and verifying the cleanliness of HVAC system components, preventing jobrelated hazards such as exposure to workers and occupants and cross-contamination of the indoor environment, and guiding the cleaning and restoration of HVAC systems to a specific level of cleanliness.

The new edition of the ACR has evolved from proceduralbased guidelines, standards of care, and research originating from NADCA and associated organizations. This document is written for use by anyone involved in the HVAC cleaning and restoration industry including specifiers, consultants, and contractors. Users of the document should stay updated and informed about changes in the industry, and implement changes in technology and procedures, as appropriate, while following applicable federal, state, provincial, and local laws and regulations.

"The ACR is considered the global standard of care for the HVAC cleaning and restoration industry, and it's available as a free download on our website," said NADCA CEO, Jodi Araujo, CEM. "The NADCA Standards Committee has worked diligently to make sure the 2021 edition covers every angle to assist individuals and entities in establishing and maintaining their professional competence while working in the duct cleaning industry. The 2021 edition will be continually reviewed, evaluated, and

validated through practical application in the field, and revised as necessary."

ACR, The NADCA Standard: 2021 Edition, is available for free download at http://bit.ly/3tyfEVB.

State Water Heaters Joins NASCAR's Jeb Burton Team

Ashland, Tenn. – Jeb Burton, driver of the No. 10 Chevy Camaro for Kaulig Racing, will compete in the full 2021 NAS-CAR Xfinity Series race season and contend for the NASCAR Xfinity Series Championship. The No. 10 car will carry primary sponsorship from Nutrien Ag Solutions for most of the season. In addition,



JEB BURTON, NASCAR DRIVER, WITH HIS NO. 10 CHEVY CAMARO.

State Water Heaters will serve as a primary sponsor on the No. 10 at Richmond Raceway in September, as well as a full-year associate sponsor.

State, a leader in the water heating industry has been involved with the Burton family since 2007. The relationship began when State sponsored Ward Burton (Jeb's father) in the NASCAR Cup and Truck series, and continued when Jeb made his

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NASCAR debut in 2012. State is also a long time supporter of the Burtons' Wildlife Foundation.

"With ties to racing and the outdoors, the Burton family has always had a natural connection with our State Water Heaters wholesalers and contractors. Because of that connection, Ward and Jeb are great ambassadors for the State brand," said Jeff Storie, director of marketing for State Water Heaters. "We're excited that Jeb is getting the chance to compete every week with Kaulig Racing in the No. 10 Camaro. Keeping our tie to Jeb and Ward is important for us because our customers relate to them so well due to a shared love for racing, hunting, and fishing. We look forward to seeing what Jeb can do on track over the course of the full NASCAR season in Kaulig's Chevys."

State Water Heaters is a leading manufacturer of commercial and residential water heaters. For more than 60 years, State Water Heaters has built dependable, long-lasting water heaters for commercial and residential applications. State remains fixed on manufacturing durable products that last longer. For more information, visit www. StateWaterHeaters.com.

Trane Establishes New Operations in Dayton, Ohio

Dayton, Ohio – Trane by Trane Technologies is establishing new operations in Dayton, Ohio, to

Continued on Page 12



(209) 466-3136

Continued from Page 11

serve the market effective immediately.

Trane will expand its existing workforce as part of the new operation and plans to hire additional engineers, energy services specialists, and technicians throughout 2021. Trane associates will partner with local engineers, contractors, commercial building owners, and facility directors to provide energy management and HVAC systems, services, and aftermarket parts solutions.

"Trane is excited to expand our operations in Ohio," said Seth Rothey, area general manager for Trane in Dayton. "We understand the unique needs of the Dayton market, and we look forward to working with building owners

12 ICN MAY 2021

and facility managers in the region to deliver the people, partnership, and technology needed to support their building wellness and energy efficiency goals."

"Our commitments to customers and communities also serve a bolder purpose: to challenge what's possible for a sustainable world," said Oakley Roberts, regional general manager for Trane. "Through our 2030 Sustainability Commitments, we will reduce our customers' carbon emissions by one gigaton; achieve carbon-neutral operations; and significantly invest in education and workforce development, housing and comfort, and food and wellness programs that create happy and healthy communities and opportunity for all. We look forward to uplifting the Dayton community through this work.'

Winsupply Names Thomas Pipe and Supply Company of the Year

Dayton, Ohio – Winsupply Inc. has named Thomas Pipe and Supply (Arizona), its overall Company of the Year. Each year Winsupply recognizes its top performing companies in plumbing, HVAC, industrial, electrical, waterworks, pumps, turf irrigation, and fire fabrication.

The top performing companies, locations and presidents in their respective industries plus individual award winners include:

• Overall: Thomas Pipe, a Winsupply Co., Whalen Ward, president

- Plumbing: Winsupply of Albuquerque, N.M., Joe Jindra, president
- HVAC: Winsupply of Houston, Texas, Jason Greagrey, president
- Industrial: Baltimore Windustrial, Michael Brown, president
- Electrical: Tacoma Electric, a Winsupply Co. (Wash.), Charlie Silva, president
- Waterworks: Kansas City Winwater (Mo.), Scott Wilson, president
- Fire Fab: Newburgh Windustrial (N.Y.), Dean Lucas, president
- Pumps: Cedar Rapids Winpump (Iowa), Terry Whitney, president
- Turf Irrigation: Wyatt Irrigation, a Winsupply Co. (Santa Rosa, Calif.), Scott Leytem, president
 - Turn-Around: Winsupply of

GILBERT, AZ 480-571-3710 El Paso (Texas), Rene Tirres, president

- Rookie of the Year: Tucson Winsupply (Ariz.), Zach Konstanzer, president
- Digital: Winsupply of Tampa Bay (Fla.), John German, president

"The companies we selected are led by some of the best and brightest," said Rob Ferguson, president of Winsupply Local Company Group. "These entrepreneurs prove that the spirit of opportunity is thriving. They repeatedly show that having an owner in each location can produce above average results. I'm proud of all of our presidents who are recognized this year."

Motion Celebrates 75th Anniversary

Birmingham, Ala. – Motion Industries Inc. announced that it has achieved the 75-year milestone of business success.

"Motion's success is a reflection of the hard work of all our team members and suppliers, as well as the trust of our customers, since our founding in 1946," said Randy Breaux, Motion president. "We appreciate the support of everyone who has played a role in our proud history and look forward to exponentially building on our success during the next 75 years and beyond."

Various activities in celebration of this important milestone are planned throughout the anniversary year to engage employees, vendor partners, and customers. New advertising and other communications will highlight the anniversary as well.

In 1946, the year following the end of World War II, two friends – a U.S. Marine Corps veteran and a U.S. Navy veteran – purchased the industrial parts supply business Owen-Richards and opened its first location in Birmingham. Over the years, the company expanded beyond Birmingham, first regionally and then nationally, and finally into Canada and other countries.

"Co-founders William Spencer and Caldwell Marks might be amazed – but not surprised – that 75 years later, the business would grow from that one location to over 700 branches, distributions centers, and fabrication/repair centers spanning from North America to the Asia Pacific," said Breaux. "Employees would grow in



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number from the first handful to more than 7,000 employees throughout these global locations; and, sales would grow from \$500,000 plus in year one to over \$5.5 billion annually."

Founded as Owen-Richards in 1946, Spencer and Marks renamed the company "Motion Industries" in 1972. The name conveyed the company's purpose of keeping machinery - and industry - in motion.

ZoomLock **Virtual Roadshow** Launches

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Washington, Mo. - The Sporlan Division of Parker Hannifin Corporation announced the ZoomLock Virtual Roadshow launch.

The self-guided tour keeps contractors in the know of the latest ZoomLock MAX pressto-connect and ZoomLock PUSH push-to-connect refrigerant fitting updates. The interior mimics the original ZoomLock truck with the same look and feel. Visitors can watch videos, download collateral, and see the latest updates for the products. One such update would be the added long-radius elbows to the product line-up.

"We are excited to launch the ZoomLock Virtual Roadshow and connect with existing and future customers using this virtual platform," said Dustin Searcy, marketing manager, Sporlan Division. "The selfguided virtual roadshow truck is a way to do that and update contractors on our latest Zoom-Lock MAX and ZoomLock PUSH product offerings."

Panasonic Earns ENERGY STAR

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Newark, N.J. - Panasonic is proud to announce that it has received the 2021 ENERGY tained Excellence Award for its continued leadership and superior contributions to ENERGY STAR from the U.S. Environmental Protection Agency and Panasonic has earned this accolade nine years in a row.

that has made a long-term commitment to fighting climate change and protecting public health through energy efficiency. They are among the nation's leaders in driving value for the environment, the economy, and the American people.

"Panasonic is thrilled to receive this prestigious ENERGY STAR award, which highlights our dedication to the research, development and design of energy-efficient indoor air quality solutions," said Naoki Kamo, President, Panasonic Life Solutions Company of America. "By focusing on sustainable, healthy living, we strive to create healthy homes that will reduce energy costs and respect key elements of green building."

Winners are selected from a network of thousands of ENERGY STAR partners. For a complete list of 2021 winners and more information

about ENERGY STAR's awards program, visit energystar.gov/awardwinners.

Whalen Company **Opens New Facility** in Rome, N.Y.

Rome, N.Y. - The Whalen Company announced the completion of the new Cold Point manufacturing facility in Rome, N.Y. The Whalen Company purchased Cold Point Corporation in June of 2017.

With the expansion of the new facility, we will be able to increase our manufacturing capabilities and provide customers with more aftermarket options," said Steve Schreppel, general manager/director of engineering at Cold Point.

"We are excited to see the new facility come online and begin to produce units," said Tony Landers, vice president of sales and marketing at The Whalen Company. "Having Cold Point as our official aftermarket

manufacturer frees up manufacturing capacity in our Easton, Maryland, facility and provides multiple manufacturing locations to better meet the needs of our customers when demand surges."

"Our new state of the art facility will increase efficiency, quality of our products, and reduce lead time," said Sam Vivirito, aftermarket sales manager at Cold Point.



WHALEN'S NEW FACILITY IN ROME, N.Y.

Construction on the 50,000 sq. ft. building was finalized on March 22. The new facility will have an additional 33,000 square feet and two additional lines compared to the previous facility. In addition to the manufacturing lines, the facility will house the aftermarket engineering department, office space, customer training facility, and a new warehouse area.



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Webinar **AC & HP Refrigeration Module**

Instructors: Mitch Bailey / TBA Wed., May 19 - Part 1 Thurs., May 20 - Part 2

> Wed., May 26 - Part 3 Thurs., May 27 - Part 4



Webinar **Air Distribution Module**

Instructors: Mitch Bailey / TBA Wed., June 16 - Part 1

Thurs., June 17 - Part 2 Wed., June 23 - Part 3

Thurs., June 24 - Part 4

SEPTEMBER



Webinar **System Diagnostics Module**

Instructors: Mitch Bailey / TBA

Wed., Sept. 15 - Part 1

Thurs., Sept. 16 - Part 2

Wed., Sept. 22 - Part 3

Thurs., Sept. 23 - Part 4

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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Northern California School District Installs Carrier OptiClean Units to Support IAQ

Continued from Page 1

air quality solutions available, we are confident that the OptiClean product is the right fit for our needs. By placing an OptiClean unit in each classroom, we feel that we'll not only help improve our IAQ, but also provide peace of mind to our students, their parents and staff."

"Schools and school districts continue to evaluate the IAQ of their facilities and what can be done to help improve those environments for their students and staff," said Justin Keppy, President, NA Residential &

"We're pleased to be working with Manteca Unified School District by providing one part of the solution for healthier and safer indoor environments. Our OptiClean units can help reduce contaminants in classroom air and inspire confidence for parents, students, teachers and staff as school

Light Commercial, Carrier.

learning."

Manteca Unified School District is one of several in California to choose OptiClean equipment as part of its IAQ solution. Among others are southern California's San Bernardino City Unified

districts safely return to in-person

School District and Alvord Unified School District. The two recently purchased 3,700 and 1,500 units respectively, in anticipation of the return of their collective 80,000 students, teachers and staff.

The OptiClean Dual-Mode Air Scrubber & Negative Air Machine has been named one of *TIME's* 100 Best Inventions of 2020. It was developed through rapid innovation in early 2020 to help support infectious isolation rooms in hospitals as a negative air machine. *TIME* featured the OptiClean Air Scrubber & Negative Air Machine in the Medical Care category of its prestigious annual list that recognizes 100 ground-breaking inventions that are making the world better and smarter.

OptiClean is one of a number of solutions offered through Carrier's Healthy Buildings Program, which was recently expanded to help K-12 students, teachers and staff safety return to in-school instruc-

tion. The new BluEdge K-12 program provides an outcome-based approach to help schools easily select the best IAQ kits for their needs, with attractive pricing and easier implementation.

For more on Carrier's portfolio of Healthy Building solutions, visit corporate.carrier. com/healthybuildings.

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



THE CARRIER OPTICLEAN UNIT WITH DIFFUSER.

For more information, visit carrier.com or follow @Carrier on Twitter.



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Home Improvement

Continued from Page 1

ment and more likely to make home improvements as a result.

Who makes these improvements is evenly split between the do-it-yourself route and hiring professional contractors. Regardless of this, 80% of homeowners are comfortable with contractors entering their homes during the pandemic. But they cite mask-wearing as being a critical measure to have in place. It reinforces the contractor is following COVID-19 safety protocols, including wearing gloves, social distancing, and clearly outlining the safety measures they have in place.

Awareness of IAQ Importance is Increasing

The study is the latest in a series commissioned by Aeroseal showing

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a greater awareness of IAQ. The company's last study focused on people's attitudes about returning to work during the pandemic. As more people return to work in a range of environments – including large and small offices, hospitals, schools, retail, and other small business spaces – they believe their workplace's IAQ is the single most important factor in protecting their health and

"Air is not something we can see or easily clean, like your hands, a doorknob, or a table," said Dr. Mark P. Modera, director of the UC-Davis Western Cooling Efficiency Center, and advisor to Aeroseal. "Considering we already spent 90% of our time indoors before COVID-19 hit, it's understandable more Americans are worried about indoor air quality."

And while concern about IAQ has increased, it's not clear if homeowners know how to address the issue. Of those respondents who are upgrading their home, or planning to do so, only 9% noted some kind of repair or upgrade to their HVAC system was being made (see chart).

Proper Ventilation is Key to Clean, Healthy Air

As these homeowner preferences come to light, scientists are stressing the importance of proper ventilation in preventing the spread of COVID-19. It's being cited as being as important as social distancing, wearing masks, and washing hands regularly. A

Remodeling Project	# of
Project	Projects
Bathroom Remodel/ Upgrade	17%
Kitchen Remodel/ Upgrade	9%
HVAC Sys- tem Repair/ Upgrade	9%
Painting	8%
Floor	8%
Roof	5%
Basement	4%
Deck	3%
Appliances	3%
Windows	3%
Misc/Other	28%

home's HVAC system – the air conditioner, furnace, and ducts – must be working properly.

But the HVAC system cannot establish proper airflow and ventilation with leaky ducts. According to the Department of Energy, most homes have ductwork leaks. Leaky ducts take longer to remove contaminated air from a room. And by staying in the room longer, contaminated air increases the risk of infections spreading.

Troubleshooting

A Follow-Up on an Ongoing, Two-Year Complaint

By Jim Johnson Contributing Editor

The equipment in this month's troubleshooting situation is a split system that has only been in service for two years, but there is a lot of history; several service calls since the equipment was installed, and an on-going complaint from the customer that the system just doesn't keep their manufactured home comfortable.

Several technicians have reported that they checked the refrigerant charge. One technician reported adjusting the OBD (Opposed Blade Damper) supply registers in an effort to achieve a better balance of air flow throughout the three bedrooms, living room, dining room and kitchen. Another technician replaced the indoor blower motor with an exact

Answer to Last Month's Problem

We need to replace two of the four elements in this unit. Our tests showed voltage applied to all of the elements in a parallel circuit, but two of the units were not drawing any current, indicating that they are open.

The winner of last month's Troubleshooting

Ron Glassi

Vaccination Sites

Continued from Page 1

NAW is currently sourcing items for additional teams including the Atlanta Falcons, Carolina Panthers, and Seattle Seahawks.

"As our country moves to a new phase in our pandemic recovery, it is no surprise that wholesaler-distributors are delivering by donating needed supplies to mass vaccination sites across America," NAW President and CEO Eric Hoplin said. "NAW and wholesaler-distributors across the country are proud to help NFL teams and vaccination sites because we know how important it is to safely get more shots in arms."

Donated items already in use include more than 300,000 medical gloves, thousands of gallons of sanitizer and sanitizer pumps, thousands of face masks and shields, and thousands of disinfectant wipes.

OEM replacement motor and capacitor. None of the previous service calls solved the problem and the customer complaint that the house often seems "sticky".

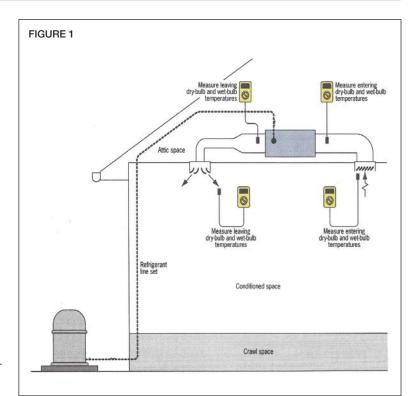
After considering the previous work performed, you elect to do a series of temperature tests on the duct system. Figure One (image courtesy of RSES) shows the test points at which you measured both the dry bulb and wet bulb temperatures in both the return and supply duct assemblies. When you calculate your results with a psychrometric chart, you note that there is a significant specific humidity change in the return duct

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

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

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."





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Motors and Drives, Compressors and Controls

eControls WC365



The WC365 from **eControls** was designed as a low-cost alternative to zoning. It manually directs more airflow to where it's needed so that the upstairs and downstairs spaces are cooled or heated at the same rate, eliminating the complaint that the upstairs is too hot.

Installed on any wall in the home, it controls two plug-and-play, modulating dampers that control airflow to the upstairs and downstairs. The homeowner turns the knob to direct more airflow to the area desired. Directing more airflow upstairs partially closes the downstairs damper, forcing more conditioned airflow upstairs. Directing more airflow downstairs partially closes the upstairs damper, forcing more conditioned airflow downstairs.

The dampers never fully close and the airflow through the equipment remains unchanged, eliminating the need for bypass. The wireless control eliminates all wiring within the living space of the home. Only two wires to connect to equipment R and C and plugand-play dampers eliminate wiring errors.

More information: www.econtrolsusa.com.

Emerson Lumity

The Lumity supervisory control platform from **Emerson** is designed to streamline facility management and simplify these operational complexities by enabling top-down visibility and robust control of all systems within a network.

The Lumity supervisory control platform gives users two facility management control device options: the all-new Lumity supervisory control E3 with an integrated touch-screen display, and the Lumity supervisory control SS (also known as Site Supervisor) with optional mounted display.

The new platform provides visual store management and robust control of refrigeration systems and buildings. With the same form and fit as the previous version E2 controller, the Lumity E3 controller is a quick drop-in replacement to the E2.

The Lumity SS controller delivers the same robust performance in a smaller footprint. Both hardware options are fully backwards compatible with I/O Net and MultiFlex devices.

The Lumity supervisory control platform also highlights the information needed for action and resolution; priority alerts are visible in red. Users can access and operate



from anywhere on all types of mobile devices. They can also manage data locally, on a network, or through the Emerson cloud.

More information: www.emerson. com.

Greenheck Vari-Green



Greenheck has added three-phase motors to its line of Vari-Green® electronically commutated (EC) motors.

The product accepts 208-230V and 460V power supply and is available in sizes ranging from 1 to 10 hp. Typical turndown is factory-set at 75%, and speed can be controlled via an onboard dial or a 0-10 VDC control signal. It is compatible with all Vari-Green controls and other controls such as a building automation system and has an auxiliary contact for motor status or damper actuation. The product can be ordered with select sizes of Greenheck models SQ inline fans, AER axial fans, and models G and CUE power roof ventilators.

More information: www.green-heck.com.

Infinitum Electric IE

This electric motor from **Infinitum** powers commercial HVAC fans

for more sustainable heating and cooling. The printed circuit board (PCB) motor is IoT-enabled.

The lightweight component is IE5 efficient, field-serviceable, and produces low acoustic noise. Comefri will use the company's IEs205 10-hp motor to power commercial plenum fans used in commercial and industrial buildings.

Up to 50% lighter, the product has fewer structural requirements and features cloud-connected IoT capabilities that enable remote monitoring of key operational data such as power, speed, and temperature. Over-the-air software updates to motors also enable customers to benefit from new features and enhance existing efficiency and operations.

More information: www.infinitumelectric.com.

Johnson Controls FCP Thermostat

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The FCP Thermostat from **Johnson Controls** is designed for two-pipe and four-pipe fan coil units with up to a three-speed fan, conventional packaged terminal air conditioners (PTAC), and heat pump PTAC with or without

auxiliary heat.

As a non-connected and non-wireless thermostat, it is a cost-conscious solution ideal for high-rise offices, apartments, hospitality, primary and secondary schools, and government buildings.

Described as an approachable digital unit, the product has a compact design and comes prewired for simplified installation. The device features a quick setup menu for commissioning and an improved large display with adjustable backlight for optimal user experience. It is remote sensor-ready to ensure compatibility with applicable sensors, such as occupancy, pipe changeover, or remote temperature sensors.

The non-programmable, plus seven-day programmable options allow users to better manage occupancy, save energy and costs, and optimize the HVAC system. The FCP Thermostat also includes the option for custom branding to build awareness and keep the HVAC manufacturer or supplier top-of-mind for future business.

More information: www. johnsoncontrols.com.

Modine Manufacturing Control System

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Equipped with a 32-bit microprocessor for fast processing speed, the MCS Carel pCOO-EM+ programmable controller from **Modine Manufacturing** features a number of I/Os for complex HVACR applications.

The controller is fully configured at the factory for the customer's preferred application settings to make job-site startup and commissioning easier. The new control system has a wide range of damper, supply fan, and temperature control strategies to handle a vast array of applications; real-time display of operating characteristics, run-time logging, and alarm notification with a snapshot of unit sensors to improve maintenance and unit diagnosis; and real-time clock with scheduler to create custom operating schedules, including up to seven periods per day and either on/ off or occupied/unoccupied



ComStar has the LOWEST GWP, non-flammable retrofit replacements for R-410A, R404A, and R507

ComStar International proudly announces RS-51 (R470B) and RS-53 (R470A) as the lowest GWP replacements for R404A, R507, and R410A in existing systems.

ComStar's RS-51 has a **GWP of 717**. This is less than 20% of the GWPs of R404A and R507.

ComStar's RS-53 is the world's only retrofit replacement for existing R410A systems. At 909, RS-53's GWP is effectively 56% ower than R410A.

EPA, SNAP approved, and ASHRAE A-1 certified.

Editorial Focus

controls. It also includes userlevel and service-level screens with individual password protection to provide flexible access to control settings based on user type.

More information: www.modine.com.

Regal Beloit Corporation Hub City SS

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Regal Beloit Corporation announced a line extension of the Hub City SS (stainless steel) HERA High Efficiency Right Angle Gear Drive.

The SS HERA, with polished 316 stainless steel housings, is IP69K-certified to withstand sustained high-temperature, high-pressure washdown. It is also HACCP-compatible and BISSC-certified. The SS HERA can be bundled with Leeson Stainless Washguard all-stainless motors. It is available with the HubLoc keyless bushing system and new stainless steel HubCap bolt-on split covers.

Regal offers online tools and apps for both iPhone and Android users to assist with SS HERA selection. Users may select the right product using physical parameters. The product search and 3D configurator are user-friendly, quick to navigate, and provide native CAD files.

More information: www.regalbeloit.com.

Yaskawa America, Inc. HV600

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The Drives & Motion division of Yaskawa America, Inc. is excited to release HV600 Variable Speed Drives and packages for sale and shipment immediately.

The HV600 family of drives employs the latest advancements in variable speed control for HVAC applications. In addition to its wide product range, enjoy effortless setup with HV600's high con-

Motors and Drives, Compressors and Controls

trast display and connectivity with Android mobile devices. Whether you need simple fan control with integrated BAS communication, advanced bypass control, or multiplex pump control, look no further than the HV600 family to meet a wide range of variable speed needs in building automation.

As Yaskawa's new variable frequency drive for building automation, the HV600 will address every application handled by the Z1000 plus more, due to greatly improved ease of use and advanced functions.

Standalone HV600 drives include the following features:

- High-resolution multilanguage display with setup wizards and data logging
- DriveWizard Mobile for convenient and easy interaction
- Programming without main power via embedded USB port
- Enhanced embedded BAS protocol communications
- Advanced control for induction, permanent magnet, and synchronous reluctance motors
- Integrated EMC filter for RF conformance and 5% impedance for power quality
- Available in IP20/UL Type 1, IP55/Type 12, and IP20/ protected chassis standalone versions

HV600 Bypass and Configured packages are offered in Narrow UL Type 1 and Enclosed UL Type 1, 12, and 3R versions, with a wide variety of power and control options up to 100 kA SCCR.

Bypass packages include a highly integrated bypass controller with electronic motor overload, as well as single point access for all power connections, control connections, and configurations settings, ensuring complete synchronization of drive and bypass.

More information: www. yaskawa.com.

Danfoss VZH Scroll Compressor

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Danfoss has boosted the part load performance and the operating maps of its leading VZH variable speed scroll compressor range

The third-generation commercial inverter scrolls retain the strengths of the previous version, with the addition of the Intermediate Discharge Valve (IDV) technology for enhanced seasonal efficiency, and a wider operating map. The



products are particularly suitable for comfort reversible applications and computer room air conditioning (CRAC) units.

Features and benefits of the new generation variable-speed scrolls include:

- Prequalified Danfoss compressor and drive package for time to market and reliability
- Accurate temperature control and humidity management for high energy efficiency and comfort
- Low start-up current, and manageable acoustic level with variable

speed technology

- A complete line-up of models from 4 to 26 TR (up to 52 TR in hybrid tandems) all with IDV technology for superior part-load efficiency
- Wider operating map to cover more types of applications
- Smaller OEM inventory on larger models with the transition from two high-, low-pressure ratio to a single IDV model

Looking to the near future, multi-refrigerant capability is in the pipeline for the VZH range, including R452B and R454B, and a version derived from VZH will also be released for R32. This will enable OEMs to respond to future challenges in the refrigerant landscape, while addressing energy efficiency regulations.

VZH compressor and ETS Colibri electronic expansion valves: innovative solutions for IT cooling

Precise close control air conditioning systems are crucial for areas where cooling is business-critical, such as data centers, mobile phone network exchanges, and server rooms. Danfoss' VZH compressor and ETS Colibri® electronic expansion valve offer an affordable solution to deliver the precision needed.

The ETS Colibri® electronic stepper motor valve with direct driven bi-polar motor delivers precise liquid injection into evaporators. The unique in-line design includes a balanced cage and slider assembly to ensure tight shut-off flow in both directions, providing optimal system operation.

More information: airconditioning.danfoss.com.

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HERS Rating Air & Hydronic Balancing Permit Expediting & Retrieval



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www.RapidDuctTesting.com

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New Products

Marketair Inc. Disconnect Standby Switch



Marketair Inc., an Edison, N.J.-based supplier of specialized and innovative installation components for the North American HVAC market, introduces the Disconnect Standby Switch (DSS), the industry's only electrical disconnect box with a ready-access standby portable generator port/switch for powering residential or light commercial air conditioner/heat pump condensers during power outages.

As North American power unreliability increases due to an aging electric grid and intensified weather-related events, the DSS—combined with a portable generator—ensures quick, reliable indoor air comfort within minutes for homeowners and tenants during power outages.

The DSS differs from common condenser electrical disconnect boxes, because it features a three-position toggle that switches from-"PWR" (house power), "OFF" (disconnect mode), and "GEN" (generator position). It's wired the same as a conventional disconnect box, but uses a plugand-play whip. If a power outage or brownout occurs, condenser power can resume within seconds by connecting a working generator's extension cord to the DSS's grounded three-wire male 120V receptacle (four-wire on 240V models) and activating the standby switch. No rewiring is required.

Assembled in the USA with UL-listed components, the DSS was developed specifically for air conditioners/heat pumps. It's constructed of a 6 x 6 x 6-inch (152 x 152 x 152-mm) aluminum. corrosion-resistant, NEMA-rated weatherproof box (when in use). The transparent plastic, codecompliant locking cover allows sightlines to the interior power status LED red (generator) and green (house power) lights. It's available in three voltage/amperages: 1) DSS15-15 amp/120V; 2) DSS25-25 amp/240V; and DSS30-30 amp/240V.

Other DSS features include:

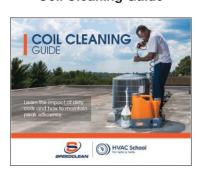
- Available with an optional 75KA surge protector;
- All aluminum, stainless steel and plastic construction for coastal salt environments;
- Packaged in a white, bar-coded 8 x 8 x 8-inch (203 x 203 x 203-

- mm) cardboard box with illustrations (5-lbs gross (2.2-k));
- Becomes a life/safety guarantee for heat pump systems during winter outages;
- Designed for both ductless and smaller unitary systems;
- One-year limited warranty/ lifetime limited warranty on surge protector;
- When combined with a portable generator, the DSS offers indoor air comfort while saving tens of thousands of dollars on a whole house generator purchase;
- Double pole/double throw switch prevents back-feed during power outages;
- Ideal for zero lot line situations or when local property codes don't permit permanently-installed generators.

The DSS is available at many participating North American HVAC/R wholesale distributors or direct from Marketair.

More information: www.mar-ketair.com

SpeedClean/HVAC School Coil Cleaning Guide



SpeedClean and HVAC School

have collaborated to educate contractors on the importance of coil cleaning and how vital it is to a thorough maintenance program. They have released a free guide to highlight the correct way to clean coils and share best practices. The complimentary e-book called "Coil Cleaning Guide" provides a real-world example and the data to show the real impact on efficiency and system longevity of cleaning coils.

"Cleaning coils is more than a quick spray of water with the garden hose," says Mike Hardy, vice president of SpeedClean. "Depending on the coils and the type and thickness of buildup, there are different solutions to cleaning. It's important to understand which one will be most effective and provide the best results."

The information included in the e-book contains:

- Reasons for coil cleaning
- Broad impacts of dirty coils
- Challenges to proper coil cleaning
 - Coil cleaning preparation list
 - Cleaning tools for coils
 - Tips and best practices

- Specific applications
- Do's and don'ts
- Before and after cleaning test
- Before and after cleaning data

"We want to demonstrate how cleaning coils can impact system efficiency and performance, while also extending the life of the equipment," says Bryan Orr, founder of HVAC School. "The guide includes a before and after cleaning test that offers data and results from a real-world application to show the impact of coil cleaning."

You can download the free "Coil Cleaning Guide" e-book by visiting the SpeedClean website. If you would like more information on SpeedClean's specialty professional maintenance tools and equipment, visit www.speedclean. com for product and distributor information or call 888-700-3540. You can also check out the "Mini-Split Maintenance Best Practices" e-book that SpeedClean and HVAC School developed to provide education on the proper way to clean and maintain ductless systems.

More information: www.speed-clean.com.

Nu-Calgon pH-Treat Condensate Neutralizer

Nu-Calgon has launched a new line-up of pH-Treat condensate neutralizers for the HVAC industry. Previously available in only a disposable package, the pH-Treat line has been expanded to include refillable cartridge and tank models.

With the popularity of fuel-fired, high-efficiency furnaces in certain regions, international/national plumbing codes dictate corrosive condensate must be treated before it goes into the drain. That's where pH-Treat comes in. pH-Treat neutralizes acidic condensate so it does not damage drains, sewer systems or concrete. The devices also aid with maintaining a safe environment for bacteria in septic systems.

The new pH-Treat line-up includes refillable cartridge types that can save the end user money over the service life of the furnace. These cartridges also offers the flexibility of being installed vertically or horizontally – with greater neutralizing capacity.

Another new addition to the pH-Treat line-up is a combina-



tion neutralizer/pump for when condensate needs to be neutralized and then pumped to another location. And finally, Nu-Calgon now offers a pH-Treat neutralizing tank for commercial applications that require more capacity.

More information: www.nucalgon.com.

Interplay Learning SkillMill

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Interplay Learning, a provider of online and VR training solutions for the HVAC industry, has launched new Commercial HVAC Courses.

Interplay's SkillMill™ is the only training platform that delivers on-demand, online Commercial HVAC courses designed to engage a digital-first generation with field-like 3D and VR simulations

You can browse the new Commercial HVAC course catalog here – it includes subjects such as Fluid Cooler Preventive Maintenance 3D/VR, Chiller Systems, Fluid Cooler Seasonal Maintenance, Chiller Troubleshooting, EPA Section 608 Prep Course: Core, Troubleshooting Motors, Rooftop Unit Troubleshooting, Leak Check and Evacuation, and much

Ranging from beginner basics to advanced troubleshooting scenarios, it gives technicians the ability to upskill with expert-led 3D and VR simulation-based training. It also helps avoid sending a technician to a job before they are field-ready - that can result in costly callbacks and scheduling conflicts with an already understaffed workforce. Companies can utilize assessment mode to ensure techs are well-versed in the diagnosis and troubleshooting of Commercial HVAC equipment, prior to sending them into the field. Get clear visibility into existing skills gaps.

The courses can be selected through filters – such as Level (Beginner, Intermediate, Advanced), Skills (EPA Section 608, Overview, Safety, Troubleshooting), Application (Commercial or Residential), Industry (Facilities Maintenance or HVAC), Equipment Type and also Content Type (New, Sim Based, Video Based).

More information: www.interplaylearning.com.

FabricAir Colors & Prints Program

FabricAir®, Lawrenceville, Ga., a leading manufacturer of fabric HVAC duct and accessories, introduces the Colors & Prints Program (C&PP) for quick, affordable and precise surface printing on fabric duct with custom colors, repetitive patterns and graphics. The C&PP expedites custom color and pattern ventilation projects by 75-percent, reduces custom color costs and cuts waste, while offering end-users the industry's best technology for color matching in commercial and institutional facilities.

The C&PP's printed custom color segment uses an industryunique feature of a 6 x 4-foot (1.8 x 1.2-meter) fabric palette with 1,100 printed colors for selection. The palette is shipped free to the end user to match and choose the best color for a cooling, heating or ventilation project. All colors appear differently under various lighting color temperatures and on surface mediums, regardless of CMYK, Pantone TPX, RAL and other specification codes. Therefore, the fabric color palette allows end-users to view the fabric type, printed technology and color under their own unique space lighting conditions to ensure an exact match when interior design and aesthetics are critical. The end-user can also optionally request a larger 8.5 x 11-inch (216 x 279-mm) swatch of the chosen color and fabric for a final matching "whatyou-see-is-what-you-get" confirmation and satisfaction.

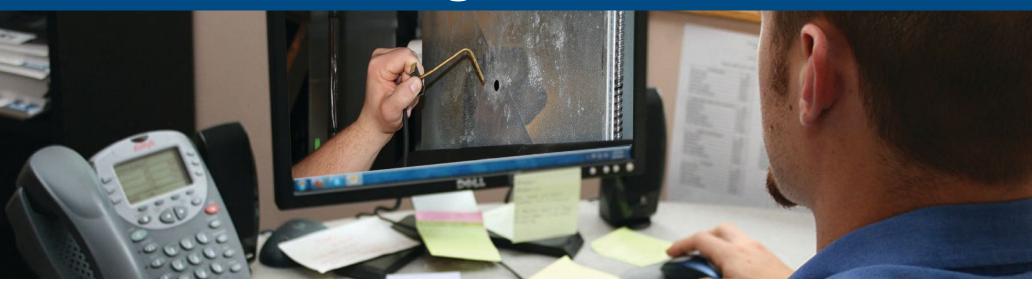
The C&PP's printed pattern segment offers the end user a nearly infinite number of repetitive patterns available through online stock photo services such as Shutter Stock or Google Search. Using printing technology perfected in the sports apparel industry, FabricAir's technology can now depict any imaginable repetitive patterns. Some examples are coffee beans for a café, vegetables for a produce department, camo for military facilities or tiger stripes for a zoo exhibit.

Both the printed custom colors and patterns do not affect the fabric's weight, longevity, form/function, flexibility, NFPA 90A-2018 fire ratings, or the permeability in FabFlow™ designs where air disperses partially through the fabric.

More information: www.fabricair.com.



California Utility Hosted Online Live Training for HVAC Professionals



National Comfort Institute, Inc., (NCI) High-Performance HVAC training is now available to HVAC professionals throughout California. Southern California Edison and Pacific Gas and Electric have partnered with NCI to provide advanced training and certification.

These NCI classes also qualify for NATE and BPI Continuing Education Credits.

NCI offers cutting-edge HVAC training programs from technical, business, sales, and marketing perspectives. Learn from our knowledge experts how to solve airflow and comfort issues others miss every time, lead your team to success, improve your sales approach, and develop Key Performance Indicators (KPIs) that keep you and your staff accountable.

Our online, live classes are provided in 4-hour blocks. For example, our Residential Duct System Optimization program consists of four, 4-hour segments of training over a two week period. Students who participate in certification classes will also qualify for online, proctored NCI certification exams after the training, sponsored by our partners.

National Comfort Institute thanks the following Investor-Owned Utilities for hosting this training for HVAC professionals throughout California:



Upcoming California Training Calendar		
southern california EDISON®	Commercial System Performance May 18-19, May 25-26 8am - 12pm Pacific Certification Exam Included!	16-hour training program Regular Price: \$690 Student fee: Just \$100 per student Registration Closes: May 11 2021
Pacific Gas and Electric Company	Improve Economizer Performance May 18-19, May 25-26 4pm - 8pm Pacific Certification Exam Included!	Four 4-hour sessions over four days Regular Price: \$690 Student fee: Just \$100 per student Registration Closes: May 11, 2021
southern california EDISON®	Performance-Based Selling May 25-26, June 2-3 8am - 12pm Pacific	16-hour training program Regular Price: \$795 Student fee: Just \$100 per student
southern california EDISON®	Improve Economizer Performance June 8-9, June 15-16 8am - 12pm Pacific Certification Exam Included!	Four 4-hour sessions over four days Regular Price: \$690 Student fee: Just \$100 per student Registration Closes: June 1, 2021
Pacific Gas and Electric Company	Commercial Air-side Online Recertification* June 10-11 8am - 12pm Pacific	8 hours - two 4-hour sessions Regular Price: \$395 Student fee: Just \$50 per student

^{*} You must be NCI certified to be able to attend NCI Online recertification classes



New Products

Carrier Transicold NaturaLINE Units



Robotic kiosks that provide automated and contactless dispensing of groceries for consumers are being refrigerated by **Carrier** Transicold NaturaLINE® units, which use the natural refrigerant carbon dioxide (R-744).

Typically used on marine shipping containers to protect perishables and frozen food shipped between continents, NaturaLINE units can also be used on land. The units store perishables and now transfer groceries directly from retailer to consumer through an advanced kiosk made by Estonian robotics innovator Cleveron.

For more than a decade, Cleveron has developed "click and collect" automated solutions for a variety of applications, and the grocery kiosk is among its newest. At a time when consumers' health and safety is the highest priority, the Cleveron 501 kiosk offers a convenient and touchless 24/7 alternative to in-store shopping or pickup, as well as home delivery.

The 20-foot and 40-foot long refrigerated shipping containers equipped with NaturaLINE units were a natural choice for the Cleveron 501 application, according to Mihkel Ilp, chief operating officer at Cleveron.

"We realized that combining refrigerated shipping containers and our robotics would enable us to create a product that is easy to transport and quick to install, and that also delivers solid cooling and withstands the forces of nature," said Ilp. "Carrier was selected as our preferred partner because of its long history in the field of refrigeration and shipping containers, and because Carrier offers the Natura-LINE system with R-744 refrigerant."

NaturaLINE unit's natural refrigerant has an ultra-low GWP value of 1, the lowest among all other container system refrigerants currently in use. Ilp added that NaturaLINE's sustainability appeals to its customers, many of which are large multi-national grocery retailers with significant green initiatives, working toward carbon neutrality.

NaturaLINE units are recognized for tight temperature control, a factor that is important given the variety of locations where Cleveron 501 kiosks are located. They can be installed in parking lots near grocery/retail operations, near office buildings, in busy city centers and other locations where retail space is scarce or expensive.

The system is easy to use. Customers place orders online and are given a time for pickup. The retailer then picks, bags and places frozen and perishable items in totes that the Cleveron 501 kiosk automatically stores in the appropriate temperature-controlled compartment. When the customer arrives, a code is scanned from their phone, and the kiosk quickly dispenses their order.

To date, Cleveron 501 kiosks using Carrier Transicold's NaturaLINE units have been deployed throughout Europe in grocery/ retail environments, sharing a footprint with sustainable in-store R-744-based systems by Carrier Commercial Refrigeration Europe. Cleveron 501 systems have also

been deployed in the Middle East, Australia, New Zealand, and the United States.

More information: www.carrier.com.

YELLOW JACKET SuperEvac



Ritchie Engineering Company, Inc., a leader in service tools for HVAC/R and automotive professionals and manufacturer of YEL-LOW JACKET® products, is proud to introduce the next generation of SuperEvac[™] Vacuum Pumps – the SuperEvac™ PLUS II. Designed for use with A2L systems, the integration of a brushless DC (BLDC) motor to drive the vacuum pump provides several technological advantages over AC motor driven vacuum pumps. While maintaining an ultimate vacuum of 15 microns and many of the other unique characteristics of the SuperEvac[™] Vacuum Pump, the high torque BLDC motor in the SuperEvac™ PLUS II is more efficient and has a longer life. Add the ability to start and operate in severe low voltage conditions and extreme temperatures, the service tech now has a premium vacuum pump that is ready every time. The BLDC motor is lighter weight than AC motor designs. Offered in 4, 6, 8 and 11 CFM models, the SuperEvac™ PLUS II has a 2-year warranty and is made in the USA. Ritchie Engineering Company/YELLOW JACKET® continues to strengthen its position as the premier vacuum pump manufacturer in the HVAC/R market.

More information: https://yellowjacket.com/product/superevacplus-ii-vacuum-pumps/.

Brass Knuckle Spectrum

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Spectrum from **Brass Knuckle** features N-FOG™ anti-fog lens protection. It permanently bonds to the lens and will not wear off or wash off. Its anti-fog protection exceeds European EN 166/168. Spectrum features bowed, superflex rubber temples that ratchet for custom fit. They touch the wearer only behind the ears, eliminating pressure points. These ratcheting flexible temples offer a face-hugging design that inspires compliance. The

second-generation PivotEase™ nosepiece slides up and down and pivots on a hinge for added secure fit. Spectrum also has its anti-scratch, anti-static, and UV protection properties. Options include clear lens (won't distort vision or colors), smoke lens (allover tint for normal outdoor conditions), amber lens (low-light conditions), and two mirror lenses (indoor/outdoor clear and blue). Note that the two mirror options do not include N-FOG technology.

More information: www. brassknuckleprotection.com.



Milwaukee Steel Work Cart

Milwaukee is pleased to announce the addition of a 40" Steel Work Cart to their widely popular offering of steel storage solutions

The new 40" Steel Work Cart is constructed with a reinforced frame, 5" industrial casters, and a 700lbs weight capacity for ultimate durability. The cart includes 100lb soft close drawer slides, built in power center for instant access to power, removeable storage cups, and an integrated wire spool holder. For added utility, the 40" Steel Work Cart also comes equipped with moveable utility shelves.

More information: www. milwaukeetool.com.



Refco Mfg. Ltd. Tritector Leak Detector

The Tritector from **Refco Mfg. Ltd.** is a leak detector on the market with three exchangeable nozzles for the detection of refrigerants (including A2Ls), combustible gases, and tracer

The features and benefits of the Tritector include exchangeable and replaceable sensors (one leak detector for all applications), intelligent recognition of the installed sensor and automatic software adjustment, and fast and easy exchange of sensors. It also includes a flexible power supply (use either AA batteries or an USB cable to operate the Tritector) with up to 12-hour battery life and an auto switch-off after 10 minutes.

The Tritector resets every 30 seconds, or the reset function can be set to manual. It has three adjustable sensitivity levels for the exact location of leaks, a 16-inch flexible probe for hard-to-reach places, immediate reaction due to sensor positioning in the nozzle, and visual and acoustic signaling of a detected leak.

It also has a four-color LCD display with all operational information and leak concentration level at a glance. It is available for just refrigerants or for refrigerants, combustible gases, and tracer gases all in one. The sensors are available also individually, either as an addition or a spare part.

More information: www.refcoswiss.com.

U.S. Boiler Company Alta Combi Boiler

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U.S. Boiler Company has released the new Alta Combi boiler, the industry's first and only gasadaptive combi boiler with 10:1 turndown.

The all-new Alta Combi high efficiency condensing boiler offers best in class, next-generation gas adaptive technology that provides the shortest installation time and lowest operating costs. The powerful gas-adaptive technology offers true "no touch" combustion setup. There are no manual throttle or offset adjustments. Engineered for five-minute start-up, the boiler's control system provides continuous, automatic self-calibration of burner combustion by adapting to component wear, variations in fuel, environment, and vent air pressure to provide safe, efficient, and clean combustion at all times.

Converting from natural gas to LP is simple. No additional parts or conversion kits are needed. The Alta also includes a sensor-less reset, which performs the functions of a conventional outdoor

Continued on Page 21



Seven Safety Tips to Protect Construction Workers from Extreme Heat

Summer is a great time for construction work, but a brutal time for construction workers. Excessive heat and sun exposure pose significant dangers, such as sunburn, dehydration, heat cramps, heat exhaustion and heat stroke. Every year, construction workers become ill on the job and some even lose their lives due to heat exposure.

To protect its workers from the extreme summer heat, Western Specialty Contractors manages a heat illness training program and a safety hotline for its employees.

As part of the program, training is provided to all employees and supervisors who work in high temperatures. Training topics include: how heat can affect the body, how to identify the signs and symptoms of various heat-related illnesses, and what to do if a co-worker is experiencing symptoms of a heatrelated illness. Western also regulates the hotter environment by providing water and shade to workers and by having supervisors and safety managers monitor the heat index so that the proper protective measures can be taken.

"It is important particularly during the summer months that outdoor workers drink plenty of fluids to help prevent dehydration, which is the primary cause of heat cramps and heat exhaustion," said Cameron Samuel, Assistant Safety Director at Western Specialty Contractors.

Editorial Focus

Continued from Page 20

reset without the need to install an outside sensor.

Domestic hot water response time is virtually instantaneous. Domestic hot water temperatures are maintained under all demand conditions, and the unit's DHW recirculation system can be set to either economy or comfort mode.

At 95% AFUE, The Alta
Combi is currently available
with 136 MBH DHW input
(3.7 GPM) / 120 MBH heating
input. However, stay tuned!
U.S. Boiler Company will be
releasing a larger Alta Combi
boiler (200 MBH DHW / 150
heating) and numerous heatingonly Alta models (80, 120, 150
and 180 MBH) later this year.

More information: www. usboiler.net.

Samuel, who has training and experience managing the health and safety of outdoor workers, offers the following tips for preventing heat-related illnesses on a construction jobsite:

- Drink water frequently and drink enough water that you never become thirsty. Drink water or other non-caffeinated, electrolytic beverages and make sure that your drinks are always cool, not room temperature. Adding a lemon slice to water can make plain water more drinkable.
- Wear light-colored, loose-fitting, breathable clothing made from natural materials such as cotton. Avoid wearing non-breathing synthetic clothing. Wear safety glasses with UV protection, sunscreen and brimmed hard hats.
- Gradually build up to heavy work. If possible, do the hardest work during the coolest time of the day. Workers who are suddenly exposed to working in a hot environment face additional hazards to their health and safety. New workers and those returning from time away need to be extra careful in making sure they stay hydrated.
- Take more breaks in extreme heat and humidity. Move to the shade or a cool area such as an air-

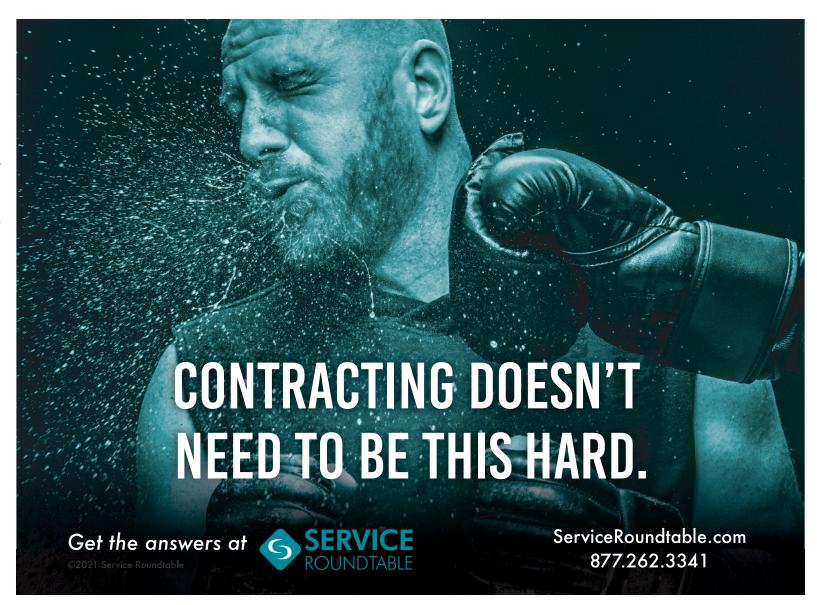
conditioned building or car when possible but try not to go in and out of air conditioning too much as it will make it harder for you to adjust to the heat. Use cooling fans whenever possible.

- Select your lunch carefully. Junk food is high in fat and preservatives and will put a high caloric load on the digestive system. Try eating a bigger breakfast, so you're not as hungry at lunch. Eat light lunches that include fruits, vegetables and salads.
- Keep an eye on your co-workers and be alert for signs of heat exhaustion. Early symptoms include lethargy, disorientation, stumbling, dropping tools, slurred speech or unresponsiveness. Heat stroke is a medical emergency requiring a 911 call and immediate cooling.
- Check your urine frequency and color throughout the day. Water intake is adequate when urine is clear or light yellow. When the desire to urinate is less than twice per day and/or you are producing a dark yellow urine, you may be dehydrated.

By training employees on the early signs of heat exhaustion, taking the proper precautions, and employing tips like the ones listed above, outdoor workers will greatly reduce the risk of heat-related dangers.



BEAT THE HEAT AT WORKSITES: DRINK WATER FREQUENTLY AND DRINK ENOUGH WATER THAT YOU NEVER BECOME THIRSTY.



www.indoorcomfortnews.com ICN MAY 2021 21

Company Spotlight

SoCal-Based Mechanical-Electrical-Plumbing Powerhouse Serves Both Coasts

Southland Industries was founded in Long Beach, California, in 1949 as a Southern California-based supplier of residential heating solutions. After years of growing organically and expanding their services and capabilities, they are now one of the nation's largest MEP (mechanical/electrical/plumbing) building systems experts.

Today, Southland has 3,200 employees who serve most of the East and West Coast regions, as well as a Mountain West Division with offices in Tempe, Arizona and Las Vegas. The company's capabilities encompass everything within each stage of the building lifecycle, including customized engineering, construction, building automation, service, and energy solutions.

"When Southland expanded to the East Coast in the mid-1990s, we were the first true design-build contractor in the area," explained J. Gilbert, Mid-Atlantic Division plumbing supervisor. Gilbert has been with the company for 12 years and has presided over substantial growth during his tenure.

"At that time, other installers had no choice but to hire outside professional firms for design and engineering work," continued Gilbert. "We had that capability in-house, which really set us apart from the competition. We're now one of the largest MEP firms in the country."

According to Mike Dye, senior purchasing agent, much of Southland's work in the Mid-Atlantic region includes government contracts, data centers, and pharmaceutical and educational customers. The company's ability to bring every element of a project into consideration, including building automation and energy solutions, is a big advantage for large corporations and govern-

ment agencies.

Professional plumbing

In 2017, Southland outgrew its existing offices and fabrication shop in Lorton, Va., and moved to a new facility in Laurel, Md.

The new facility, like all others owned by Southland, is a one-stop-shop for mechanical customers. The building's 240,000 square feet is occupied by administrative offices, an engineering department, a sheet metal shop, mechanical piping (hydronic) fabrication space, plumbing, and a process piping area. It houses 100 union workers, including 30 plumbers.

"Southland Industries pre-fabricates components for every single project we're on, and plumbing pre-fabrication is no exception," said Gilbert. "The ability to work in a controlled environment, minimize jobsite waste, and reduce onsite labor is a huge advantage."

One of the company's most frequently used plumbing products are commercial water closet carriers. As one would expect, they're used on every job. Dye purchases hundreds each year through local manufacturer's representative, The Joyce Agency, based in Chantilly, Va.

"The QT QuickTurn™ closet carrier is one of dozens of Watts products we source through Kevin Cerretani at The Joyce Agency," said Gilbert. "Its design expedites both the prefabrication process here at the shop and the final installation in the field."

Plumber Joe Gencavage assembles many of the carrier systems in the fab shop. There, water supply, vent, and waste water piping is cut to length, attached to the carriers,





(AT TOP) SOUTHLAND INDUSTRIES 240,000 SQUARE-FOOT FACILITY IN LAUREL, MD. SERVES CUSTOMERS ON THE EAST COAST; (ABOVE) INSIDE, THE SPRAWLING FACILITY HOUSES 100 UNION WORKERS, INCLUDING 30 PLUMBERS.

and disassembled for later use in the field.

"The enamel finish on the QT QuickTurn carrier is great, as are the no-hub vent and wastewater connections and the dual threaded boss for supply water pipe support," said Gencavage. "For install crews, the ability to adjust the face plate left and right makes the job easier. Same goes for the side-facing carrier support legs. It's a nicely streamlined design."

The new carrier system was one of several new products brought to Southland by The Joyce Agency in 2019.

Partnered for growth

"We've had a strong relationship with Southland for 15 years," said Cerretani, who's been with The Joyce Agency for 29 years. "I think that has been one source of success for both companies."

The Joyce Agency's plumbing division provides pipe, water closet

and lavatory carriers, drainage products, flush valves, plumbing fixtures, sinks, water coolers, electric tankless water heaters, safety equipment, steam components, acid waste piping and laboratory fixtures to Southland. The agency's main facility in Chantilly has three divisions: plumbing, architectural products, and HVAC.

"We're very happy with the Watts products and the breadth of their line, but one of the biggest advantages of buying Watts products for us comes through our relationship with The Joyce Agency," said Gilbert. "We can count on them to get products to us in a timely manner and provide exceptional service."

The Joyce Agency represented a different carrier line for 23 years, switching to Watts six years ago. Cerretani has found that many of the costly options offered by other manufacturers are standard features in the Watts line.

"The epoxy coating on the carriers is one example of a Watts standard feature," said Cerretani. "Another feature we like on the QT QuickTurn is the O-ring seal and ABS nipple. Pushing the nipple into place is much faster than threading the nipple into place."

"The true superstars in the supply chain are the folks in our quotations group, the commercial inside sales group, and our warehouse personnel," continued Cerretani. We have an open line of communications with the folks at Southland to streamline the process of product selection, submittals, and providing the right material on time. I'm blessed to work with the professionals at Southland, as well as my Joyce Agency associates."

"Watts and The Joyce Agency both really set themselves apart when it comes to customer service," said Dye. "They're the experts, and we lean on them both during the design phase and beyond."





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2021 TRAINING

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System Performance Module

(Four-Night Class)

Instructors: Mike Griffin / John Dalton

Tues., May 4 - Part 1

Tues., May 11 - Part 2

Tues., May 18 - Part 3

Tues., May 25 - Part 4

JUNE

Air Distribution Module

(Four-Night Class)

Instructors: Mike Griffin / John Dalton

Tues., June 1 - Part 1

Tues., June 8 - Part 2

Tues., June 15 – Part 3

Tues., June 22 – Part 4

SEPTEMBER

NATE Core & Gas Heating Training

(Four-Night Class)

Instructors: Mike Griffin / John Dalton

Tues., Sept. 7 – Part 1

Tues., Sept. 14 – Part 2

Tues., Sept. 21 - Part 3

Tues., Sept. 28 - Part 4

OCTOBER

NATE AC/HP Refrigeration & Air Distribution Training

(Four-Night Class)

Instructors: Mike Griffin / John Dalton

Tues., Oct. 5 - Part 1

Tues., Oct. 12 - Part 2

Tues., Oct. 19 - Part 3

Tues., Oct. 26 - Part 4



MAY

NATE Core & Gas Heating Training

(Four-Night Class)

Instructors: Mike Griffin / John Dalton

Wed., May 19 - Part 1

Thurs., May 20 - Part 2

Wed., May 26 - Part 3

Thurs., May 27 - Part 4

JUNE

NATE AC/HP Refrigeration & Air Distribution Training

(Four-Night Class)

Instructors: Mike Griffin / John Dalton

Wed., June 16 - Part 1

Thurs., June 17 - Part 2

Wed., June 23 – Part 3

Thurs., June 24 - Part 4

SEPTEMBER

AC & HP Refrigeration Module

(Four-Night Class)

Instructors: Mike Griffin / John Dalton

Wed., Sept. 15 - Part 1

Thurs., Sept. 16 - Part 2

Wed., Sept. 22 - Part 3

Thurs., Sept. 23 - Part 4

OCTOBER

Air Distribution Module

(Four-Night Class)

Instructors: Mike Griffin / John Dalton

Wed., Oct. 20 - Part 1

Thurs., Oct. 21 - Part 2

Wed., Oct. 27 - Part 3

Thurs., Oct. 28 - Part 4

NOVEMBER

Non-Res ATE Training

(Two-Night Class)

Instructors: Mike Griffin / John Dalton

Mon., Nov. 1 - Part 1

Thurs., Nov. 4 - Part 2

Non-Res MATT Training

(Two-Night Class)

Instructors: Mike Griffin / John Dalton

Mon., Nov. 15 - Part 1

Thurs., Nov. 18 - Part 2

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16 - Part 1

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23 - Part 3

24 - Part 4

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Boiler Module

(Two-Night Class)

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Commercial Refrigeration Module

(Two-Night Class)

Instructors: Mitch Bailey / TBA

Wed., June 9 – Part 1

Thurs., June 10 - Part 2

SEPTEMBER

System Diagnostics Module

(Four-Night Class)

Instructors: Mitch Bailey / TBA

Wed., Sept 1 - Part 1

Thurs., Sept 2 – Part 2

Wed., Sept 8 - Part 3

Thurs., Sept 9 - Part 4

OCTOBER

NATE Core & Gas Heating Training

(Four-Night Class)

Instructors: Mitch Bailey / TBA

Mon., Oct. 18 - Part 1

Tues., Oct. 19 - Part 2

Mon., Oct. 25 - Part 3

Tues., Oct. 26 – Part 4

NOVEMBER

NATE AC/HP Refrigeration & Air Distribution Training

(Four-Night Class)

Instructors: Mitch Bailey / TBA

Mon., Nov. 1 - Part 1

Tues., Nov. 2 – Part 2

Mon., Nov. 8 - Part 3

Tues., Nov. 9 - Part 4

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Instructors: Mike Griffin / John Dalton

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Thurs., May 6 - Part 2

Wed., May 12 - Part 3

Thurs., May 13 - Part 4

JUNE

Air Distribution Module

(Four-Night Class)

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Thurs., June 3 - Part 2

Wed., June 9 - Part 3

Thurs., June 10 - Part 4

System Diagnostics Module (Four-Night Class)

Instructors: Mike Griffin / John Dalton

Wed., July 7 – Part 1

Thurs., July 8 - Part 2 Wed., July 14 - Part 3

Thurs., July 15 - Part 4

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Wed., Aug. 4 - Part 1

Thurs., Aug. 5 - Part 2

Wed., Aug. 11 - Part 3

Thurs., Aug. 12 – Part 4

SEPTEMBER

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Boiler Module

(Two-Night Class)

Instructors: Mike Griffin / John Dalton

Wed., Oct. 6 - Part 1

Thurs., Oct. 7 - Part 2

Commercial Refrigeration Module

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Instructors: Mike Griffin / John Dalton

Wed., Oct. 13 - Part 1

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Technical Training

Growing Green Technicians Part 139: Understanding U-Factors, Insulation

By Jim Johnson Contributing Editor

This is the time of year that technicians are called upon to perform a seasonal inspection and perform preventive maintenance on comfort cooling systems, the main objective of which is to give the customer peace of mind. And from their perspective, it is just that simple. They understand that having their HVACR system checked can prevent having to deal with a breakdown in the middle of summer. And, of course, the main factor that's on their mind is the "Freon" level in their equipment, which, as professionals, we understand should be the least of their concerns. So, our job is to accomplish the necessary checks on the electrical and air flow systems in the equipment and perform the appropriate temperature tests to evaluate the performance of the equipment and educate the customer in the process.

For an HVACR professional, going beyond the basics of educating the customer about preventive maintenance, and taking a green approach to evaluating system performance involves a fundamental understanding of the principles of load estimating. And, the basis for that understanding begins with the simple idea of the difference between radiation and conduction,

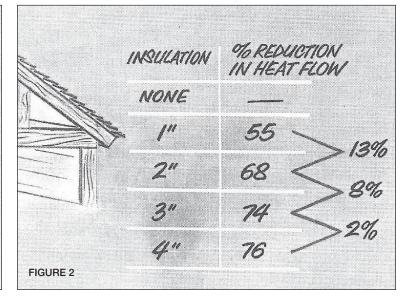
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FIGURE 1		

and how insulation affects the transmission of solar heat. Heat from the sun that comes into the building through glass transfers immediately into the conditioned space. And, as we've explained in the previous segments of this series, the U-Factor (the value applied to the quantity of heat that flows through one square foot of material) for glass is by far the highest of all building materials.

That's radiation. And, when we consider the process of adding insulation in a wall or roof to create dead air space and slow down the transfer of heat, that's where the process of conduction comes into play. In **Figure One**, we're showing how having insulation to a struc-

ture effects the reduction of heat flow into the conditioned space.

As this chart shows, adding one inch of insulation creates the most significant reduction in the transfer of heat; 48%. The chart also shows that adding a second inch of insulation doesn't have the same effect percentage-wise. Going from one to two inches only reduces the heat flow percentage by a factor of 14. And, adding another inch for a total of three inches, achieves an additional reduction of only 8%. When the amount of insulation typically found in a 2 x 4 frame wall is bumped up from 3" to 3 5/8" inches, the additional reduction is only 2%. So, as the chart shows, the total reduction of heat



transfer from the outside to the inside with 3 5/8" of insulation is 72%

When considering the roof of a structure, the chart in **Figure Two** shows different numbers, but it illustrates the same type of effect on the reduction of heat flow.

From a service technician's perspective, the thing to consider is what happens if the maximum insulation is not there, or if the insulation has been compromised due to work being done inside a wall or in an attic space. This is what we mean when we say that a technician taking a green approach to HVAC servicing doesn't just focus on the box that the equipment is housed in, but instead takes into

consideration the entire building envelope and how problems with the structure will affect the performance and the cost of operating the system.

Following up when applicable with an inspection of the attic space to ensure that the minimum standard 6" of insulation has been accomplished, or using an infrared camera that will, through thermal images, reveal any problems with the structure's insulation, allows the technician to educate the customer about what may be required beyond "checking the system's Freon level" in order to ensure that their comfort cooling system will achieve its designed level of performance.

CEC Update

California Releases Report Charting Path to 100 Percent Clean Electricity

The California Energy Commission (CEC), California Public Utilities Commission (CPUC) and California Air Resources Board (CARB) recently released the first joint agency report and a summary document examining how the state's electricity system can become carbon free by 2045.

The report is the initial analysis called for in Senate Bill 100 (SB 100, De León, Chapter 312, Statutes of 2018), the state's landmark policy requiring that renewable and zero-carbon energy resources supply 100 percent of electric retail sales to customers by 2045. The bill was signed into law in 2018 and calls for these resources to replace fossil fuels for generating electricity in the state.

The 178-page report finds that the goals of SB 100 can be achieved in different ways, but reaching them will require significant investments in new and existing technologies and an increased, sustained build-out of clean energy projects to bring new resources on-line. The report modeled various scenarios to examine sample paths to carbon-free energy. It will be followed with additional analyses of energy reliability and evolving conditions.

"The results of this preliminary analysis show that it is indeed possible to achieve a 100 percent clean electricity future. The threat posed by climate change requires us to think and act boldly today," said CEC Chair David Hochschild. "Building a carbon-free grid is foundational to achieving our climate goals and will provide good paying jobs and cleaner air to those who need it most."

Highlights from the report include the following:

• To reach the 2045 target while electrifying other sectors to meet the state's economywide climate

goals, California will need to roughly triple its current electricity grid capacity.

• California will need to sustain its expansion of clean electricity generation capacity at a recordbreaking rate for the next 25 years. On average, the state may need to build up to 6 gigawatts (GW) of new renewable and storage resources annually. By comparison over the last decade, the state has built on average 1 GW of utility solar and 300 megawatts (MW) of wind per year. Over the next three years, electricity providers regulated by the CPUC will add another 8 GW of clean energy resources.

• In addition to social benefits such as less air pollution and improved public health, transitioning to a carbon-free electric system will also create thousands of jobs such as manufacturing and installing wind turbines and solar panels and developing new clean energy technologies.

• Modeling of the core scenario for achieving 100 percent clean electricity showed a 6 percent increase in total annual electricity system costs by 2045, compared to the estimated cost of achieving 60 percent renewable electricity by 2030.

• Advancements in emerging technologies, increased demand flexibility and cost declines in existing technologies may decrease the total electricity resource requirements and implementation costs. These topics, along with reliability, will be examined more closely in future analyses.

• A clean electricity grid is necessary to achieve economywide carbon neutrality. Using clean electricity to power transportation, buildings and industrial operations helps decarbonize these sectors of the economy, which, along with electricity generation, account for 92 percent of the state's carbon emissions.

"Achieving 100 percent clean electricity by 2045 is not only a bold pursuit, but a wise one," said CPUC President Marybel Batjer. "Such action is required to avoid the worst impacts and costs of climate change and to ensure the delivery of safe, affordable, reliable and clean power to all Californians."

California has already made significant progress toward a clean energy future. Due to many efforts that promote renewable energy, energy efficiency and the storage technologies needed to retire fossil fuel resources, the state's electricity mix is already more than 60 percent carbon free. About 36 percent of that comes from renewable sources, predomi-

Continued on Page 27

Legislation Would Mandate Workers' Compensation, License Fee Hike Sought

By Ted Rieger No. California Correspondent

At a teleconference meeting March 25, the Contractors State License Board (CSLB) reviewed the status of 2021 California legislation to increase contractor license fees, require workers' compensation insurance for all contractors, increase penalty fees for contractor violations, and other bills introduced this session affecting CSLB operations.

License Fee Increase Proposal

As a state special fund agency, CSLB relies entirely on fees set by statute or regulation and collected from licensed contractors and applicants. CSLB's main revenue source is license renewal fees that are nearly 70 percent of total revenue. CSLB currently faces a structural budget imbalance projected for future years, with revenues from current fee levels being insufficient to fund the Board's programs and services.

Based on a 2020 fee study, CSLB proposes to increase the statutory minimum and maximum ranges for fees by about 25 percent to allow greater flexibility to maintain financial solvency and restore funding reserves to about four or five months by fiscal year (FY) 2025-26. Under the proposal, active renewal fees would be higher for larger corporate licensees (that require more staff time to process) than for sole/individual owner licensees

CSLB approved an emergency regulation that increased license renewal fees by \$50, effective February 1, 2020. The CSLB also implemented an expenditure



reduction plan to save money to address reduced revenues and the anticipated budget shortfall.

CSLB chief of legislation Michael Jamnetski said efforts to find an individual legislator to author a standalone bill to increase license fees were unsuccessful, not surprising he said, given general reluctance to increase costs for any business due to economic conditions associated with the COVID-19 pandemic. However, he expressed optimism that a fee increase would still occur through one of two methods: a bill carried by the Assembly Business and Professions Committee with an effective date of January 1, 2022; or as part of the state budget process as a budget trailer bill for FY 2021-22. Jamnetski said CSLB's umbrella agency, the Department of Consumer Affairs, is also committed to getting the CSLB funding through a fee increase to maintain its critical

2021 Bills Introduced: Workers' Comp, Penalty Fees

• SB 216 Dodd (D-Napa) – Mandatory Workers' Comp Coverage. This CSLB supported bill would initially require three license classifications – C-20 HVAC, C-8 Concrete, and C-49 Tree Service contractors--to obtain and maintain workers' compensation (WC) insurance beginning January 1, 2022 even if the contractor has no employees. Beginning January 1, 2025, all active licensed contractors and applicants for licensure would be required to obtain and maintain WC insurance even if the contractor has no employees. The CSLB would no longer accept WC exemptions.

• AB 569 Grayson (D-Concord) - Civil Penalty Fine Increase, Letters of Admonishment, This CSLB supported bill would increase the civil penalty maximum fine limit for specified violations of contractors' law from \$5,000 to \$8,000 and would increase the enhanced civil penalty fine limit for specified violations from \$15,000 to \$30,000. This bill also expands the enhanced civil penalty limit to apply to certain violations related to WC insurance coverage. This bill would also authorize CSLB to include additional minor violations in a Letter of Admonishment (LOA) for the same contractor. Existing law allows CSLB to issue a LOA to a contractor for less egregious violations that do not pose health and safety risks or high sums of damage to consumers, but it limits LOAs to a single viola-

CSLB Minor Work Exemption

Two bills were introduced to increase the CSLB's \$500 minor work exemption. The Board voted to oppose both bills, although some Board members favored an increase and did not vote with the majority to oppose.

Based on a 2020 fee study, CSLB proposes to increase the statutory minimum and maximum ranges for fees by about 25 percent to allow greater flexibility to maintain financial solvency and restore funding reserves to about four or five months by fiscal year (FY) 2025-26.

• AB 899 Cunningham (R-San Luis Obispo) – Would require the CSLB to annually adjust the current \$500 amount of the minor work exemption for requiring a contractor's license by regulation to reflect the rate of inflation as measured by the Consumer Price Index or another reliable and accepted calculation method

• SB 304 Archuleta (D-Pico Rivera) – Would increase the maximum contract price eligible for the minor work exemption for requiring a contractor's license to \$1,000 from the current \$500, and would prohibit a person from using the exemption if they employ any workers to perform services for which a license is required. Would also authorize the amount of a "service and repair contract" to increase to a maximum of \$1,500 from the current \$750.

Another bill is being watched related to reducing barriers to licensure.

• AB 1026 Smith (R-Hesperia)

– License Fees, Veterans. Would require the CSLB to provide a 50 percent reduction in the initial license fee for honorably discharged members of the U.S. Armed Forces or the California National Guard.

Operations, COVID and Budget Issues

The overall CSLB budget has been impacted in part by the inabil-

ity to process licenses in as timely a manner due to COVID restrictions. However, CSLB has moved to offer online processing for license applications and renewals and contractors are increasingly using these online services. These include the ability to take online signatures for renewals of licenses with only one qualifier, and online renewals for Home Improvement Salesperson (HIS) registrations. In addition, contractors can now pay fines for citations online.

Under enforcement operations, CSLB has reduced arbitration costs and expenditures for legal assistance made to the Attorney General's Office and the Office of Administrative Hearings. Enforcement functions have been impacted by staff vacancies, reduced hours, and the redirection of some CSLB staff to serve as contact tracers for the state's COVID efforts. Statewide COVID restrictions resulted in postponed examinations for license applicants and a higher than normal testing backlog, but CSLB is working to reduce license and examination processing times.

CSLB is working to fill two key positions that recently became vacant due to staff departures. Enforcement chief Missy Vickery retired, and long-time public affairs chief Rick Lopes transferred to another state agency.

Clean Electricity Continued from Page 26

nantly wind and solar.

"We know reaching carbon neutrality is critical to avoiding the worst impacts of climate change and achieving our climate goals," said CARB Chair Liane Randolph. "Zero-carbon electricity is also critical for displacing combustion of fossil gas and petroleum to deliver needed public health benefits, especially in our frontline communities."

The report was developed using computer modeling and incorporates existing studies; the state's energy, climate, equity and public health priorities; and information gathered through a yearlong series of public workshops throughout

the state

Although the report examines the challenges and opportunities for a carbon-free electricity system, the three agencies highlight that it is only a first step in an ongoing effort. The agencies also note that costs, performance and innovations in zero-carbon technologies will change over the next 25 years.

Additional Multiagency Actions

The CPUC, California Independent System Operator and CEC are implementing actions to prevent electricity shortages and ensure delivery of clean, reliable and affordable energy in response to the August 2020 extreme heat wave. Among the actions are expediting the regulatory and procurement processes to develop

additional resources that can be on-line by summer 2021 and ensuring that the generation and storage projects under construction are completed as scheduled.

This year, CARB will also begin the process to update the Assembly Bill 32 Climate Change Scoping Plan, which will assess progress towards reducing GHG emissions 40 percent below 1990 levels by 2030 and chart the path to carbon neutrality by 2045. The SB 100 report is one of the foundational reports that will inform the development of the next scoping plan. The CARB board will consider acting on the scoping plan in late 2022.

For more information on the California Energy Commission, please visit www.energy.ca.gov.



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California Enacts Law Providing New Bank of Supplemental Paid Sick Leave

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

On March 19, 2021, the State of California took action to ensure that employees statewide have access to a new bank of COVID-19 supplemental paid sick leave ("SPSL"), due to the lingering effects of the COVID-19 pandemic. Governor Newsom signed Senate Bill 95 ("SB 95") into law on March 19, which requires employers with more than 25 employees to provide up to 80 hours of SPSL to employees. This requirement applies to certain public entity employers, including cities, counties, school districts, county offices of education, community college districts, housing authorities, transit agencies, water districts, and other special districts ("public employers"). SB 95 takes effect 10 days following its enactment into law, on March 29, 2021, and will expire on September 30, 2021.

Background on Law

California extended pandemicrelated paid sick leave to employees in 2020. On September 9, 2020, the California Legislature passed legislation (Assembly Bill 1867) to provide 80 hours of SPSL benefits to employees of private sector employers with 500 or more employees. AB 1867 also required public employers to offer SPSL benefits to health care providers and emergency responders, if those public employers excluded those employees from receiving paid sick leave under the federal Families First Coronavirus Response Act ("FFCRA"). AB 1867 expired at the end of the 2020 calendar year.

Given the ongoing public health crisis posed by the COVID-19 pandemic, California's Legislature determined that employees' need for additional paid sick leave benefits remained. SB 95 is the result of the Legislature's expedited assistance on that issue.

Reasons for Using Leave

SB 95 has notable differences from AB 1867 and the FFCRA with respect to the reasons for which employees can use this new bank of 80 hours of SPSL. Under AB 1867, employees could use SPSL if they were unable to leave home to perform work, and met one of the qualifying reasons listed below. SB 95 expands upon AB 1867, as employees may use this new bank of SPSL if they are (i) unable to work or (ii) unable to telework, and meet one of the reasons listed below. SB 95 also

expands the number of reasons for which employees may use SPSL. Consistent with SB 95, employees who are unable to work or telework may use SPSL if any of the following applies:

- The employee is subject to a federal, state, or local quarantine or isolation period related to COVID-19, as defined by an order or guidelines of the State Department of Public Health, the federal CDC, or a local health officer who has jurisdiction over the workplace.
- The employee is advised by a health care provider to self-quarantine due to concerns related to COVID-19.
- The employee is attending an appointment to receive a vaccine for protection against contracting COVID-19.
- The employee is experiencing symptoms related to a COVID-19 vaccine that prevent them from working or teleworking.
- The employee is experiencing symptoms of COVID-19 and seeking a medical diagnosis.
- The employee is caring for a family member who is subject to a federal, state, or local quarantine or isolation order or guidelines related to COVID-19, or who has been advised by a health care provider to self-quarantine or self-isolate due to concerns related to COVID-19.
- The employee is caring for a child whose school or place of care is closed or otherwise unavailable for reasons related to COVID-19 on the premises.

As with other COVID-related paid leave, public employers may not require employees to use other leave (paid or unpaid) before using

Interaction between SB 95 and Cal/OSHA's ETS

The Legislature chose to remove one of the qualifying reasons contained in AB 1867, namely when an employee was prohibited from working by the employer due to health concerns related to the potential transmission of COVID-19. Legislative history for fast-tracked SB 95 suggests that this rationale was removed due to the perception that it was unnecessary in light of Cal/OSHA's **Emergency Temporary Standards** ("ETS"). Among other workplace regulations, Cal/OSHA's ETS require public employers to "continue earnings" and benefits for employees who must be excluded from work due to exposure to COVID-19 in the workplace. The Legislature did clarify that public

employers may require employees to first exhaust their bank of SPSL under SB 95 before receiving "exclusion pay." This clarification provides useful assistance to public employers grappling with excluded essential workers.

Amount of Leave and Pay

SB 95 provides an entirely new bank of SPSL. If employees were eligible to receive SPSL under AB 1867 or emergency paid sick leave under FFCRA and exhausted this paid leave, they will still receive a new bank of SPSL under SB 95. Full-time workers will be entitled to 80 hours of SPSL. Part-time workers will be entitled to a prorated amount of SPSL depending on the circumstances. Further, a different bank rule applies to "active firefighters." If they work more than 80 hours for a public employer in the two weeks preceding the use of COVID-19 SPSL, "active firefighters" will be entitled to an amount of leave equal to the total number of hours that the employee was scheduled to work in those preceding two weeks.

SB 95 diverges from AB 1867 and FFCRA in the amount of pay due for SPSL. For non-exempt employees, each hour of SPSL shall be compensated at the highest of the following rates:

- The employee's regular rate of pay for the workweek in which the employee uses the SPSL, regardless of whether the employee actually works overtime in that workweek.
- The employee's total nonovertime wages divided by the employee's total hours worked in the full pay periods occurring during the prior 90 days of employment;
- The state minimum wage; or
- The local minimum wage to which the employee is entitled.

For all employees, SB 95 caps SPSL benefits at the same amount as prior COVID-19-related legislation (i.e. the FFCRA and AB 1867) – \$511 per day and \$5,110 in the aggregate.

Offset

SB 95 also provides a limited off-set for public employers, in which they may credit qualifying paid leave against the bank of SPSL required by the law. If an employee received COVID-19-related paid sick leave after January 1, 2021, could use this paid leave for the same reasons outlined above, and earned compensation at the same rates outlined above, the public employer may deduct this prior paid sick leave from the bank of SPSL otherwise owed to that employee. This offset would not

apply to otherwise-qualifying paid leave used in 2020.

Notice and Paystub Requirements

As with AB 1867, public employers must provide notice to employees of their rights to use the new bank of SPSL. SB 95 directs the Labor Commissioner to draft a model notice template within seven days of the effective date of the bill, i.e. April 5, 2021. Public employers may provide this notice to employees electronically, such as via email.

Public employers must also include this bank of SPSL on employees' itemized wage statements. SB 95 includes additional requirements that differ from AB 1867, including:

- Public employers must identify this bank of SPSL on wage statements as a discrete bank of paid leave separate from regular paid sick leave.
- For part-time employees, public employers must calculate employees' initial entitlement to their bank of SPSL, using the calculation outlined above, and update that calculation on subsequent wage statements as the employee uses leave.

The wage statement requirement goes into effect at the start of the next full pay period after the effective date of SB 95 (i.e. March 29, 2021).

Retroactivity

Of principal concern to employers, the Legislature drafted SB 95 to apply "retroactively to January 1, 2021." The bill explains that it applies retroactively "in order to protect the economic well-being of covered employees who took leave" after the expiration of AB 1867 and the FFCRA.

SB 95 identifies how public employers can process retroactive payments, as follows:

- A public employer must provide an employee with a retroactive payment for the period of leave if:
- o (1) the employee took leave on or after January 1, 2021 which would otherwise have qualified as COVID-related SPSL under SB
- o (2) the public employer did not provide paid leave (including paying at the rates identified above) to the employee upon oral or written request.
- For retroactive leave payments, the number of hours of leave corresponding to the amount of the retroactive payment may be deducted from the total bank

of SPSL hours that the employee would otherwise receive under SB 95.

• Public employers must provide retroactive payments to employees on or before the next full pay period after an employee requests such payment (orally or in writing), and must reflect this payment on the corresponding wage statement.

This process presents several daunting challenges for public employers. First, the overall mandate to provide retroactive payments poses enormous practical and/or administrative issues for public employer staff, particularly when staff did not document the reasons or other details pertaining to prior leave requests. In that event, it is unclear how public employers can accurately review and confirm whether an employee's prior leave use is eligible for a retroactive payment. For example, unclear or missing documentation may make it difficult for public employers to determine whether the leave was sought for a reason that would have met one of the qualifying bases outlined above for SB 95's SPSL. Second, the retroactive payment requirement will necessarily involve substantial monetary payments, which may be difficult for agencies experiencing budgetary and/or fiscal shortfalls due to the ongoing pandemic.

Third, the mandate may involve liability exposure for unpaid wages. If an employee believes that they are owed wages for leave taken between January 1, 2021 and March 28, 2021 based on SB 95's retroactive requirement, it is unclear whether this mandate would also trigger statutory penalties imposed by state wage and hour statutory law - even if public employers provide retroactive compensation for unpaid leave previously taken. SB 95 also does not specify whether public employers can restore other forms of paid leave previously used to cover an absence that would have otherwise been eligible for the new bank of SPSL, or whether the new law requires that this retroactive payment be provided as cash compensation. Absent subsequent clarification from the Legislature in a clean-up bill, this issue may require litigation to resolve.

SB 95 imposes complex and urgent provisions, requiring public employers to update their policies on pandemic and/or state paid sick leave and to develop protocols to begin administering this new bank of leave in short order. Public

Continued on Page 29

Indoor People



JOHN PATE

IAC Supply Solutions Inc. has hired John Pate as an automation specialist. Pate will be responsible for providing leadership regarding sales, strategic planning, and regional growth to IAC's Automation Support Team. He will be heavily involved in IAC's automation services and projects, as well as in providing support to customers regarding products and networks. Additionally, Pate will serve as a technical liaison between IAC and its automation software partners. He will also be responsible for supporting IAC's Jackson, Tennessee, and Glen, Mississippi, locations.

Before joining IAC, Pate served as a business development manager for Logical Systems LLC. Prior to that, he spent two decades at Tri-State Armature and Electrical Works. During that time, Pate served as an automation specialist and then as the company's business development manager. He brings more than 35 years of automation experience to IAC's team.

"John's combination of busi-

ness development and automation experience is rare to come by," said Darrell Smith, president of IAC. "He's had great success in this role, and I'm looking forward to seeing the new ideas and methods he will bring to IAC's Automation Support Team."

XOi Technologies has named **Connor Kelly** the company's director of business development and partnerships.

.

In his new role, Kelly will collaborate with marketing, sales, and senior management to develop and implement strategies and initiatives that will drive XOi's business.

"Connor brings a unique combination of skill, drive, and experience to this position," said Aaron Salow, founder and CEO of XOi. "He's serving as a bridge between some essential departments as we position XOi for a period of innovation and growth. And he's already proven himself to be a fit with our culture – Connor has been involved in the tech and startup industries in Nashville for several years, so he really understands XOi's emphasis on being a great place to work while making customer experience a top



CONNOR KELLY

priority."

Kelly, a University of Maryland, College Park graduate, previously held business development, sales and management positions at Built Technologies, Emma Inc., Advanced Network Solutions, and Ease Technologies. His official duties at XOi include identifying and developing new business and partnership opportunities and strategies; managing sales and client relationships; leading strategic initiatives for partnerships; and collaborating with senior management on goals, planning, and forecasting.

"It's an exciting time to join XOi," Kelly said. "The field service technology field is advancing and growing so rapidly, and XOi is at the front of those developments. We're working hard to reach some major immediate goals and also to plan a roadmap for future growth, which takes innovation, passion, and collaboration. Those are traits I've demonstrated throughout my career and that I see on display every day at XOi."

The Harris Products Group, a Lincoln Electric company, announced that **Kimberly Elliott** has joined its executive team as vice president of Strategy and Technology. In this role, she will support Harris' growth strategy by expanding Harris' market presence through new products and acquisitions.

Elliott joins Harris after having served in several executive capacities with American Greetings Corporation, including her most recent role where she led the company's Asian operations. Previously, she led the American Greetings account team for a North American retailer, where



KIMBERLY ELLIOTT

she managed commercial activities and operations associated with over \$800 million in sales.

In addition to having led global and cross-functional teams, Elliott has extensive experience in strategic management, manufacturing technology, and engineering that is complementary to Harris' Higher Standard 2025 Strategy goals and objectives.

Elliott began her professional career as a senior metallurgical engineer with Alcoa, where she developed manufacturing processes and oversaw critical programs. Later she managed the successful development and launch of new products manufactured in 13 international facilities. She also worked for several years with Booz & Company, where she helped clients develop comprehensive strategies for growth.

Elliott earned a bachelor's and a master's degree in materials science and engineering at Case Western Reserve University, and an MBA with concentrations in marketing and strategic management from the University of Chicago.

"Kim's background aligns with our 2025 strategy, which is focused on operational excellence and continued innovation and product development," said Harris Products Group President David Nangle. "Her global experience will prove to be a valuable asset to our team and our international growth."

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Dr. James Marsden joined RGF Environmental Group Inc. as the Executive Director of Science and Technology. Dr. Marsden was first introduced to RGF in 2001 when he was hired as a consultant by The BOC Group (British Oxygen Corporation), one of the world's largest industrial food and medical gases companies, to evaluate RGF technology. Along with two other Ph.D. professors, Dr. Marsden validated RGF's proprietary technology and has been an independent industry associate of RGF ever since. Dr. Marsden's addition to the team in this critical role, during this unprecedented period of growth, will ensure continued technological advancements, support our valued customers, and maintain RGF's leadership position in the air, food, and water purification industry.



DR. JAMES MARSDEN

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Legal Lines Continued from Page 28

employers may contact the authors of this Alert or their usual AALRR counsel if they have questions, or would like assistance in preparing their agency to follow the requirements of SB 95.

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.



www.indoorcomfortnews.com

Product Spotlight

Lennox Air Purification Systems with Carbon Clean 16 May Prove Effective Against COVID

Following months of testing, Lennox announces product claim to help prevent virus in ongoing commitment to consumers' health and safety.

Lennox Industries announced its PureAir™ and PureAir™ S Air Purification Systems, with the Lennox Healthy Climate™ Carbon Clean 16® air filter, remove over 99% of the virus that causes COVID-19 from the air. After months of rigorous testing at a highly reputed, independent laboratory, this announcement is further evidence of Lennox' relentless commitment to delivering unmatched, wholehome air purification for perfect air.

Lennox' residential air filtration systems are hospital-grade air filtration systems that remove over 99% of virus particles, including the common cold, influenza and viruses 4x smaller than SARS-

CoV-2. They are even more efficient – 99.9% to be precise – at removing larger particles, like mold spores, pollen, dust and pet dander. Unlike other air purification systems, the PureAir™ and PureAir™ S systems produce no ozone, a common lung irritant. Better still, they actively work to reduce ozone generated by other sources in your home.

"This year, more than ever, we all recognize the critical importance of clean air and how it is vital to our health," said Quan Nguyen, Vice President and General Manager, Lennox Industries Residential. "At Lennox, we have long pursued the highest level of indoor air quality on behalf of our customers. During this pandemic, we've increased our investments in air purification technologies in our pursuit of perfect air, so consumers can breathe easy."

The Lennox Healthy Climate™ Carbon Clean 16° air filter was tested by LMS
Technologies, Inc.,
an independent
filtration research
and testing lab that
has been used by
Lennox for over two
decades. The lab
performs unbiased,
controlled testing
with standardized
test procedures to
ensure statistically
verified results.

When paired with

the PureAir™ S Air

Purification System or the Lennox

Healthy Climate™ Carbon Clean

16® air filter, a Lennox HVAC

system provides unrivaled air

filtration and the ultimate level of
indoor air quality to ensure the
health and safety of homeowners
and their families. Part of Lennox'

Ultimate Comfort System™, the

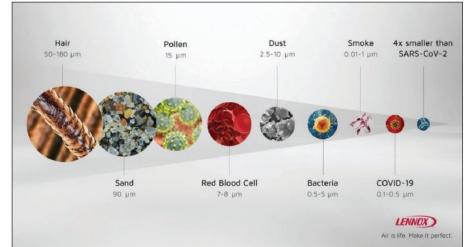
PureAir™ S air purifier offers seam-

less precision in air quality and

intelligently works with other units in the Ultimate Comfort System™ to stay finely tuned to the home for reliably clean air.

"We understand that indoor air quality is a higher priority now more than ever before," said John Whinery, VP of Product, Lennox Industries. "While COVID-19 has changed the world around us, it hasn't changed our unwavering commitment to delivering consistently clean, comfortable air to homeowners through our Lennox Healthy Climate™ and Ultimate Comfort System™ indoor air quality products."

For more information on Lennox' product capabilities and ongoing dedication to the health and wellness of consumers, please visit Lennox.com/Residential.



Indoor People

Continued from Page 29

With over 40 years in the food industry, numerous scientific publications, and the development of several antimicrobial interventions, Dr. Marsden joined Chipotle in 2016 as Executive Director of Food Safety and continues to serve on its Advisory Council. An expert in working with government officials and regulators, he has advised the White House on food safety and testified on numerous occasions to the United States Congress, the US Food and Drug Administration (FDA), and the US Department of Agriculture (USDA). He was also an official adviser during the development of the Hazard Analysis and Critical Control Point (HACCP) Food Safety Regulation. After working for several food and technology providers, he served as Vice President for Scientific Affairs at the American Meat Institute and President of the AMI Foundation. In 1994, he became the Regent's Distinguished Professor of Food Safety and Security at Kansas State University. Dr. Marsden is an invited member of The New York Academy of Sciences, one of the oldest scientific societies in the United States.

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KAI Design is excited to announce the hiring of **Sanja A. Zilic**, LEED AP BD+C as Senior Interior Designer at its Dallas-Fort



SANJA A. ZILIC

Worth office.

In her new position, Zilic will be responsible for developing and supervising the interior design team and guiding them through all stages of the design and construction process, which includes interpreting program requirements, surveying building interiors, developing working plans, making material and furniture selections and reviewing specifications and contracts for services and sustainable design.

"My main goal is to provide mentorship to the interior design team by encouraging a fun and collaborative atmosphere by promoting innovative design strategies and sustainability with communities in mind," said Zilic. "As a team member, I work to exceed client expectations through precision and excellence."

Zilic has eight years of industry experience. Prior to KAI, she worked as an Interior Designer II for Perkins + Will in Dallas and as a Junior Designer with Planning Design Research (PDR) in Houston.

She has a Bachelor of Architecture from the University of Houston College of Architecture and she is LEED AP BD+C certified.

"We are keen to have Sanja Zilic join our KAI Design team in our Dallas-Fort Worth studio as a Senior Interior Designer, Sanja is driven to create thoughtful, well-articulated designs that exceed her clients' program and design aspirations," said KAI Managing Partner Brad Simmons. "Her portfolio spans a range of markets and project types. As an Interior Designer, she has shown the ability to fluidly move between diverse design challenges with a restrained clarity in her approach and outcome. Sanja brings a collaborative energy and attitude to our team and is well aligned with the KAI culture, values and mission."

When not working, Zilic stays engaged with TexProtects: Champions for Safe Children and spends time at home in Dallas with her dog, Hercules. She enjoys painting, playing the piano, outdoor activities, reading books, working out and traveling.

• • • • • • • •

Armstrong Fluid Technology has announced that **Simon Allan** has been named global director, Standard Building Products, and a member of the company's leadership board.

Allan joined Armstrong in 2018 with responsibility for Armstrong's U.K. and European wholesale strategy and the development of the circulator market in those mar-



SIMON ALLAN

kets. In mid-2019, he assumed the interim role of sales director, U.K., and has led the team through a period of transformation and change, including the 2020 coronavirus business interruption.

In his new role, Allan will report directly to Armstrong CEO Todd Rief and continue to be located in the U.K. As the director of Standard Building Products, he will provide global general management leadership for the circulator business, including product development, and work with sales leaders to grow the business.

Prior to joining Armstrong, he held a series of senior management positions with Wolseley U.K. He came to Wolseley from RS Components Electrical & Electric Manufacturing.

• • • • • • • •

The Electric & Gas Industries Association (EGIA) announced the addition of **Jeff Revlett** to its growing team. Revlett brings thirty years of experience with manufacturers, distributors, and residential HVAC businesses to EGIA.



JEFF REVLETT

Over the course of his career, Revlett has worked in many facets of the HVAC industry, having held senior management positions in two residential HVAC businesses and management roles at Lennox, York, and Goodman. He also founded Innovative Profit Solutions.

"It's rare that someone with Jeff's unique combination of experience with HVAC manufacturers and distributors is available, particularly someone who has also seen the industry from the contractor's point of view," said Bruce Matulich, EGIA's CEO.

In his role as general manager of member services, Revlett overseas all aspects of EGIA membership, from acquisition to account management. Revlett also spearheads strategic partnerships for EGIA, establishing and maintaining alliances with equipment manufacturers, distributors, and suppliers. Revlett will also take a key leadership role in the process for identifying, planning, and delivering new EGIA Contractor University training content for EGIA members.

Help Wanted



Institute of Heating and Air Conditioning Industries, Inc. (IHACI) Commercial HVAC

Instructors Wanted

IHACI is looking for qualified Commercial HVAC/R/SM instructors to join its education team. These are evening classes (typically 4 nights/4 hrs. per night.) Locations: Chatsworth, Downey, Irwindale, San Diego, Stockton, and Tulare, CA. We offer competitive hourly rates, mileage reimbursement, hotel/ meal accommodations when needed. Previous training experience very helpful.

HVAC/R/SM disciplines -Candidates should indicate all applicable areas of expertise.

- HVAC/R/SM Industry Certifications
- Commercial Components and Applications
- Boilers
- Chillers
- Water Towers
- Refrigeration Systems

Help Wanted

- Water Source Heat Pumps
- Fan Coils & Air Handlers
- 1. Instructors should have a minimum of twenty (20) years of actual field experience in the HVAC/R/SM industry.
- 2. Instructors should have recognized HVAC/R/SM industry
- 3. Instructors should have the ability to teach face-to-face, HVAC/R/SM material as determined by the IHACI Education Committee (typical 80 to 160 seminar attendees).
- 4. Instructors should have minimum computer skill sets to present existing and future formatted IHACI curriculum.
- 5. Instructors should be able to pass HVAC/R/SM work history and security background checks.
- 6. Instructors should be able to travel as needed to the different training venues.
- 7. Instructors must be able to attend required education and training meetings.

Interested instructor candidates should submit their resumes to the IHACI office for review and evaluation by IHACI's Education Committee. Please fax resumes to 818-551-1115.

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Help Wanted



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Management

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 - Basic math skills
- Knowledge of material handling equipment
- Valid driver's license, safe driving record

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Business for Sale

HVAC Company in Ridgecrest California; 46 years in business, \$400K in gross receipts, Office/ Shop is 4200 sq. ft, full sheet metal shop, 10 ft. brake, 10 ft power shear. Sale of business is \$300k. Owner willing to stay on train new owner. Building is available for purchase or rent; please inquire through owner: Jerry Gentry, jgent70@gmail.com or (760) 382-7588.

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Help Wanted

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