**JUNE 2021** 

THE VOICE OF THE INDUSTRY

www.indoorcomfortnews.com

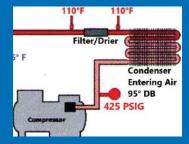
THE WEST'S LEADING MONTHLY NEWSMAGAZINE FOR THE AIR CONDITIONING, HEATING, REFRIGERATION, SHEET METAL AND VENTILATING INDUSTRIES



### **Editorial Focus**

What's new? What's been improved? Find out here as ICN takes a look at the latest offerings in Residential Cooling.

Page 18



### **Troubleshooting**

In this month's problem, a customer is complaining that the temperature in their store won't get comfortable in the warmer part of the day.

Page 21



### **Indoor People**

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

Page 29

## **Environmental Protection Agency Moves Forward with Phasedown of HFCs**

Phasedown will decrease US' production of HFCs by 85% over the next 15 years.

The U.S. Environmental Protection Agency (EPA) is proposing its first rule under the American Innovation and Manufacturing (AIM) Act of 2020 to

phase down the production and consumption of hydrofluorocarbons (HFCs), highly potent greenhouse gases commonly used in refrigerators, air conditioners, and many other applications. The AIM Act directs EPA to sharply reduce production and consumption of these harmful pollutants by using an allowance allocation and trading program. This phasedown will decrease the production and import of HFCs in the United States by 85% over the next 15 years. A global HFC phasedown is expected to avoid up to 0.5 °C of global warming by 2100.

'With this proposal, EPA is

taking another significant step under President Biden's ambitious agenda to address the climate crisis," said EPA Administrator Michael S. Regan. "By phasing down HFCs, which can be hundreds to thousands of times more powerful than carbon dioxide at warming the planet, EPA is taking a major action to help keep global temperature rise in check. The phasedown of HFCs is also widely supported by the business community, as it will help promote American leadership in innovation and manufacturing of new

**Continued on Page 16** 

### **COVID-19 Update**

### **ASHRAE Supports USGBC IAQ Schools Survey, Report on Pandemic Measures**

With technical support from ASHRAE, the Center for Green Schools at the U.S. Green Building Council (USGBC) published a new report on indoor air quality measures that schools have taken in response to the pandemic.

The report titled "Preparation in the Pandemic: How Schools Implemented Air Quality Measures to Protect Occupants from COVID-19," presents the survey responses of school districts representing more than 4,000 schools serving over 2.5 million students in 24 states, on the protocols and

operations plans implemented to mitigate the spread of COVID-19.

"Maintaining proper ventilation and good indoor air quality are vital in keeping school buildings healthy and operating as energy efficiently as possible," said 2020-21 ASHRAE President Charles E. Gulledge III, P.E. "This report provides a wide-scale, foundational framework to school leaders and lawmakers alike towards the implementation of new build-

Continued on Page 29

### **Features**

### **RIDGID Sponsors 'Miracle Mechanical Project'** to Help Family in Need

Project to support trade professionals giving back to the community.

RIDGID, a part of Emer-son's professional tools portfolio, recently announced their sponsorship of the first Miracle Mechanical project, a new initiative that completes plumbing, heating and air conditioning work for those in need at no-cost to the homeowner. The non-profit, headquartered in Georgia, is spearheaded by plumbing

and mechanical contractor Brent Ridley.

"I have been doing tool reviews for many years, but I wanted to do more with my platform and really try to help some folks," said Ridley, who along with working as a contractor is also a tool reviewer and co-host of the Tool Pros podcast.

The Miracle Mechanical team recently completed its first project for homeowner Nick Hendricks and his family in Monroe, Geor-

**Continued on Page 21** 



MEET FAMILY'S COOLING AND HEATING NEEDS.

DEPARTMENTS Industry News 4

**Industry Events 20** 

Case Study 22

Classifieds 31

SAVE THE DATE! TUESDAY. **NOVEMBER 16, 2021** 

IHACI's 41st Annual HVAC/R/SM **Performance Contracting Trade Show** 

Pasadena Convention Center Pasadena, CA More info, visit www.IHACl.org

### **IHACI 2021 ONLINE Training Classes**

Keep your skills up-to-date by enrolling now! See Pages 24-25 for more details.

Гітте Воск, АВ РЕВМІТ ИО. 1884

**DIA9** adatzoa .2.u OTS TASA9

Glendale, CA 91204 454 W. Broadway

INDOOR COMFORT NEWS

CHANGE SERVICE REQUESTED









# BE THE HIGH-EFFICIENCY HERO

smartsense

*smartsense* 



## **SAVE YOUR CUSTOMERS MONEY** WHEN THEY UPGRADE

- MR. DAN YOUR HOMETOWN HERO



### **CONSTANT COMFORT™ AIR CONDITIONERS**

### **DELUXE 19 AIR CONDITIONER WITH SMARTSENSE (CVA9)**



- Up to 19 SEER cooling
- Up to 13 EER cooling
- As low as 56 decibels
- Communicating capability
- Two-stage operation
- Inverter variable speed compressor
- 10-Year No Hassle Replacement<sup>™</sup> Limited Warranty
- 10-Year Parts Limited Warranty



- Up to 17 SEER cooling
- Up to 13 EER cooling
- As low as 70 decibels
- · Communicating capability
- · Two-stage operation
- 10-Year No Hassle Replacement<sup>™</sup> Limited Warranty
- · 10-Year Parts Limited Warranty

### CONSTANT COMFORT™ HEAT PUMP SERIES

### **DELUXE 18 HEAT PUMP WITH SMARTSENSE (CVH8)**



- Up to 19 SEER
- Up to 11.0 HSPF
- · As low as 56 decibels
- · Communicating and self-configuring capabilities
- · Two-stage operation
- Inverter variable speed compressor
- 10-Year No Hassle Replacement<sup>™</sup> Limited Warranty

### **DELUXE 16 HEAT PUMP TWO-STAGE (CCH6)**



- Up to 17.5 SEER
- Up to 13.5 EER
- Up to 9.5 HSPF
- · As low as 68 decibels
- · Communicating and self-configuring capabilities
- · Two-stage operation
- 10-Year No Hassle Replacement<sup>™</sup> Limited Warranty

### WI-FI® COMMUNICATING CONTROLS

### ION™ SYSTEM CONTROL WITH UP TO 8 ZONES (SYST0101CW)



- Advanced Wi-Fi remote access touchscreen control
- System maintenance reminders
- · Zoning capable for up to 8 zones
- · Our best comfort managing control
- limited warranty
- · Humidity control
- · Dual fuel system management



**SCAN HERE** to see The Adventures of Mr DaN.



### CHECK OUR STOCK AND TEXT YOUR PRODUCT QUESTIONS QUICKLY

Send a text directly to our product experts at the participating locations highlighted below. Monday – Friday, 7:00 a.m. – 4:00 p.m.

### ARIZONA | NEVADA

GILBERT (480) 824-4250

**GLENDALE** 

(602) 246-6982

**MESA** 

(480) 832-3438

**NE PHOENIX** (480) 308-8200

**S PHOENIX** 

(602) 438-8945

W PHOENIX\* (623) 474-7200 **PRESCOTT** (928) 759-0222

**NW TUCSON** (520) 670-1100

YUMA

(928) 329-6420

**LAS VEGAS** (702) 260-9388

\*W Phoenix number applies to all Arizona locations | Gilbert and W. Phoenix are open on Saturday.

### **CALIFORNIA**

**ANAHEIM** (714) 520-0026

**BAKERSFIELD** 

(661) 335-7200

**CATHEDRAL CITY** (760) 770-6762

**CHATSWORTH** 

(818) 341-5200 CHICO

(530) 893-2114

DUBLIN (925) 828-4875 **EL CAJON** (619) 258-9382

**FRESNO** 

(559) 538-6124

**GILROY** (408) 846-6469

**HAYWARD** (510) 782-9820

INDIO

(760) 775-7400

**LANCASTER** (661) 945-6902 **MANTECA** (209) 239-6446

**NEWBURY PARK** (805) 376-3576

**ONTARIO** 

(909) 982-9699

**PASO ROBLES** (805) 434-3114

**PITTSBURG** (925) 778-1237

**POMONA** (909) 517-3810 **RIVERSIDE** (951) 784-0506

**N SACRAMENTO** (916) 924-8661

**S SACRAMENTO** (916) 210-7993

**SAN GABRIEL** (626) 458-2432

**SAN JOSE** (408) 271-1685

SAN RAFAEL (415) 459-3798 **SANTA CLARITA** (661) 287-3142

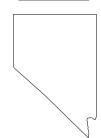
**VAN NUYS** (818) 779-0894 VICTORVILLE

(760) 241-6284





### NEVADA



# Trane Establishes New Operations in Las Vegas

**Las Vegas, Nev.** – Trane is establishing new operations in Las Vegas, Nev., to serve

the market effective immediately. Trane's expansion in Las Vegas builds on a series of transitions to company-owned operations in the U.S. this year, including the greater Dayton, Ohio; Tampa, Fla.; and Louisville, Ky., markets.

Trane will expand its workforce in Las Vegas 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 this vibrant market," said Erick Johnson, area general manager for Trane in Las Vegas. "We have long served the Nevada business community, and we understand the unique needs of the Las Vegas market. With expanded operations, we can better serve customers across Southern Nevada and surrounding states. We look forward to working with building owners and facility managers in the region to deliver the people, partnership, and technology needed to support their building wellness and energy efficiency goals."

Trane has operated in Nevada for more than 20 years, including

through the company's commercial sales office in Reno.

"Trane has a lot to bring to the Las Vegas market; our commitments to customers and communities extend well beyond HVAC solutions," said Adam Wittwer, 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 Las

Vegas community through this work."

. . . . . . . . .

### HVAC Excellence Announces Plans for 2022

Las Vegas, Nev. – For those involved in training the current and future HVACR workforce, HVAC Excellence will be offering a hybrid education conference in 2022, providing face-to face, in-person training, and exhibits, then continued learning online.

The face-to face portion will be held March 21-23, 2022, at the South Point Hotel, in Las Vegas, Nev. At the South Point, attendees will meet with industry leaders, and exhibiting companies, that support HVACR education, who can assist them in improving their programs. Once the activities at the South Point conclude, attendees will continue their learning online.



# Abacus Teams Up with Austin FC

Austin, Texas – Abacus Plumbing, Air Conditioning & Electrical announced its partnership with Austin's new professional soccer team. As Austin FC begins its inaugural season in Major League Soccer, Abacus will serve as the organization's official plumbing, air conditioning, and electrical partner.

"We couldn't be more excited to join the team at Austin FC," said Abacus Plumbing Founder and CEO Alan O'Neill. "We're looking forward to serving our new Austin customers and to cheering on many wins with the city's first major league team."

As part of the deal, Abacus will be a presenting partner of "Conditioning the Team", a behind-the-scenes look at getting and keeping an elite team fit and comfortable. Additionally, Abacus will be a featured sponsor during television and radio

Continued on Page 6



Visit **Bakerdist.com** to find a location near you.

New Location Alert: Victorville, CA

GROW YOUR BUSINESS IN **2021**:



ASK US ABOUT OUR **ONCALL AIR** SALES PLATFORM & **CREDIT FOR COMFORT** CONSUMER FINANCING.

4 ICN JUNE 2021 www.indoorcomfortnews.com



# Introducing TRIO Plus.

The Portable Air Purifier that meets **CDC and ASHRAE recommendations** to kill COVID-19 in Schools.



# TRIO Plus

# HEPA, PRO-Cell™ & UVC Portable Air Purifier

### Why are Portable Air Purifiers the Best Solution for Schools?

Schools now have access to millions of government funding dollars to install CDC- and ASHRAE-recommended air purification systems that require HEPA filters and UV lights. However, schools with rooftop units can't install in the duct work because the air pressure drops through the HEPA filter. And the filter drop would be too much for wall hung units or ductless splits. A portable unit that simply plugs into the wall is the right choice to ensure



Innovative Bioanalysis confirmed the TRIO Plus achieved a 99.99% efficacy against coronavirus, specifically SARS-CoV-2, the virus that causes COVID-19 within 30 minutes



3 **UVC** Germicidal **Purification** Reduces bacteria, viruses, mo**l**d, and fungi



Multi-stage True HEPA Filtration Traps particles such as mold, bacteria, dust, dander, pollen, and viruses

### TRIO Plus can clean the air in a room up to 3,300 square feet in one hour and 1,650 square feet in 30 minutes.

Specifications							
Model	Dimensions W x H x D	Weight (lbs)	Airflow (CFM)	CADR	Coverage 3 Air Changes per Hour (ACH) Square Feet	Coverage Room Size @ 3 ACH	μW/cm²@ Surface
TRIO Plus	17.3" x 28" x 9"	26.2	440	295	1100	33 x 33	10,620





Consistent with WHO, ASHRAE and CDC guidance for addressing Airborne Viruses - High Efficiency Filtration and UVC Air Treatment



SAMSUNG

HVAC. Built brave.







800/937-7222

www.us-ac.com • ♠◎¥ ARIZONA Avondale 602/572-2953 Deer Valley 623/580-4101 Fort Mohave 928/768-2197

480/813-4628

623/334-8302 602/253-2771 Tucson 520/903-3117

CALIFORNIA Anaheim 714/776-3170 Bakersfield 661/322-7222 Burbank 818/840-0089

Cathedral City

760/770-4520 Chatsworth 818/678-1750 City of Industry 626/854-6868 Concord 925/349-3712

310/204-2230 El Cajon 619/258-0672 El Centro 760/370-5530 Escondido 760/291-1281 Fairfield

707/424-6050 Fresno 559/268-9347 Hesperia 760/948-8045 Lake Forest 949/837-8104

661/726-5106 Los Angeles 323/897-6969 Modesto 209/577-2335 Newbury Park 805/376-1723 North Highlands

916/482-3572 Ontario 909/987-5016 Oxnard 805/988-3650 Palm Desert 760/200-5225

805/238-9353 Redding 530/722-0144 Riverside 951/786-3500 650/871-8100 909/885-3206 San Diego 858/279-9750 San Jose 408/278-1555 San Leandro 510/618-2300

562/981-2010

805/962-2999 209/466-4153 Santa Fe Springs 562/801-5432 Santa Rosa 707/566-9810 Valencia 661/666-9544 Signal Hill 818/464-3387

IDAHO 208/672-1244 or 800/727-9936

NEVADA Sparks 775/329-3455 UTAH Salt Lake City 801/485-8071 or 800/333-8436

### **Continued from Page 4**

broadcasts of Austin FC games. Abacus will also have in-stadium visibility via fascia LED ribbon boards, and will sponsor one of the team's fan sweepstakes.

"Austin FC is pleased to welcome Abacus as part of our organization," said Austin FC President Andy Loughnane. "We are excited to join forces with a Texas-bred company as we launch Q2 Stadium and our club."

### Hilti Launches On-Demand Training for Contractors

. . . . . . . . .

**Plano, Texas** – Hilti North America, a global leader providing inno-

vative tools, technology, software and services to the commercial construction industry has launched Hilti Academy, a comprehensive on-demand training platform for contractors. The announcement affirms Hilti's investment in the digital transformation of the construction industry and strengthens its leadership as a provider of productivity solutions.

Hilti Academy is a digital learning platform that offers contractors access to on-demand when it is most convenient. The 30 to 60-minute courses cover various topics including, powder actuated and gas actuated operator training, health and safety trainings, and Adhesive Anchor Installer certification pre-training with more topics such as firestop coming soon.

Anyone can access the Academy

by using a current Hilti account or creating a new one. Most modules are completed fully online with an accompanying quiz. The platform automatically saves records for up to two years to download and print for records. Hilti Academy not only allows users to manage all Hilti education and records, it also allows the ability to manage team members' education by assigning learning modules and being able to monitor who has received their documentation

"As technology transforms the construction industry, our digital services portfolio will continue to expand and adapt to meet rapidly changing customer needs, especially during this unprecedented time," said Rafael Garcia, Senior Vice President of Marketing at Hilti North America. "Hilti experts have

been facilitating digital trainings for some time now through ASK HILTI. Hilti Academy is an expansion and a service that's dedicated to contractors. Providing online training and digital access to our experts proves that Hilti will continue to offer our customers essential resources to improve the way they do business."

In recent years, Hilti has made major investments to digitize the construction industry and simplify workflow for its customers with its innovations including easier tracking assets (ON!Track); traceable fastenings (TraceFast), and the acquisition of assets of concrete technology startup Concrete Sensors

For more information, visit www.hilti.com.

• • • • • • • •

### RectorSeal Releases Training Class Schedules

**Houston, Texas** – RectorSeal has released a monthly, live, distance-training schedule for distributors and contractors in the professional trades.

RectorSeal's live, distancetraining classes offer the opportunity for distributors and contractors to participate in web-based training classes featuring live, interactive training environments. Professional, NATE-certified trainers lead the scheduled training classes.

"Proper training is critical to users of RectorSeal products," said Delicia Shyu, marketing and communications director. "Our goal is to make participation in training classes as easy as possible. The live, distance-training concept allows us to deliver exceptional classes from many of the industry's best trainers in an environment that offers the flexibility needed in today's business climate."

Registration for all livedistance training classes is available at https://rectorseal. com/webinars.

### Nortek Global Expands in Texas

. . . . . . . . .

Houston, Texas - Nortek Global HVAC (NGH), a leading manufacturer of HVAC equipment, has named Winston Water Cooler, Lubbock, Texas, and Winsupply of Rio Grande Valley, Mission, Texas, as HVAC wholesale distributors of its residential unitary equipment brands. Winston Water Cooler now carries approximately 40 models of Maytag® unitary equipment and will also have several of NGH's Gibson® models available for multi-housing projects. Winsupply will feature approximately 30 Maytag and Frigidaire® split air conditioner and air handler models.

The agreements illustrate NGH's recent aggressive expansion into the Texas market, which is exploding with growth. "We definitely have an expanded focus on the state of Texas, and these new distributors illustrate our concentration into areas where our brands didn't previously have a presence," said Rob Hawk, national director strategic accounts,

**Continued on Page 8** 

# THIS IS EFFICIENCY



Title 24, Part 6 compliant
MERV-13 rated
Standard 3" doubt for one

Standard 2" depth for easy installation

Improving the quality of indoor air and outdoor air has never been more critical. Our durable, moisture-resistant, 100% synthetic media provides exceptionally high filtration efficiency with low-pressure drop. Visit **parker.com/HVAC** or call us to locate a Parker distributor near you.

866-247-4827 www.parker.com/HVAC

© 2021 Parker Hannifin Corporation



ENGINEERING YOUR SUCCESS.

6 ICN JUNE 2021



SoCalGas Residential Rebate Programs Offer Customers Generous Rebates on High Efficiency Equipment and Installations.

### SoCalGas Residential Rebates Include:

- Incentives up to \$1000 per unit to HVAC distributors to stock, sell, and promote high-efficiency heating systems through the High-Efficiency Furnace Upstream Program. 97% AFUE and above furnaces qualify.
- 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**

NGH.

Both distributors will offer NGH's renowned Elite Marketing Program tools and assistance at https://www.nortekhvac.com/marketing-programs/. Contractors will be provided optional website building, tablet-friendly sales assistance programs, rebate offers, Customer-For-Life direct mailers, brochures, e-newsletters, logos and other marketing tools that some contractors may not have in-house.

The seven-month-old Lubbock franchise, founded by partners Kirk and Keith Craddick is one of 30 Winston Water Cooler locations in the Texas, Nevada, New Mexico and Arizona. The 25,000-square-foot operation will allocate about 35-percent of its

space to Maytag air conditioners, heat pumps, air handlers, gas furnaces and parts. The Craddicks have a combined 25-years HVAC experience in both commercial/residential contracting and wholesale. "We saw that larger distributors were no longer attending to what contractors need in the form of personal relationships and customer service," said Keith Craddick. "When we saw one of the premier unitary equipment brands (Maytag) available for distribution in Lubbock, we jumped at the chance."

Winsupply of Rio Grande Valley was formed last January as a stand-alone location for the 600-plus Winsupply Family of Companies in 45 states. Ernie Pena III, president, and Joseph Midkiff, vice president, bring a combined

20 years HVAC distribution/ contracting experience and operate from a 16,550-square-foot store/warehouse. Frigidaire and Maytag were chosen to anchor the operation because of "Nortek's reputation with unitary equipment that has enormous brand awareness," according to Midkiff. "We're concentrating on residential equipment, parts and supplies now, but eventually we'd like to add Nortek's light commercial brands too," added Pena. "Building a brand from the ground on up in the Rio Grande Valley is exciting for us."

The young company's territory stretches eastward to South Padre Island and with partial distribution in Laredo and Corpus Christi. It has already established contractor incentives and charity

programs for the underserved local community. For every Frigidaire purchase, contractors get complementary installation accessories under the Frigidaire Freebees program, plus 10 free meals are donated to a local food bank.

### **N**ATIONAL



# Airxcel Buys Custom Air Products & Services

**Wichita, Kan.** – Airxcel, a leading designer, manufacturer, and dis-

tributor of the most functionally critical products for the specialty HVAC markets and the Recreational Vehicle ("RV") industry, announced that it has acquired Custom Air Products & Services (CAPS), a leading manufacturer and supplier to the specialty HVAC markets with best-in-class service capabilities

Airxcel is widely recognized as a committed and preferred partner to a long list of specialty HVAC clients. For more than 30 years, Airxcel has served as the steward of some of the most well-known brands in the specialty HVAC space, delivering expertly engineered products tailored to specific applications. Airxcel is committed to the customer experience and the company's employees work tirelessly to provide comprehensive service and support before, during, and after every single sale.

Taylor Norris, CAPS CEO, said: "Our team is excited to be joining Airxcel and accelerating our innovation and growth initiatives. Airxcel has a great track record of driving accelerated growth and adding value to customers and CAPS is eager to be a part of this new strategic growth opportunity."

Based in Houston, Texas, CAPS is a Full-Service company specializing in the design, manufacturing, installation, modification, and servicing of specialty HVAC equipment for industrial and commercial applications. They manufacture and service a variety of equipment, ranging from wall mount systems, portable chillers and packaged units, as well as custom air handlers and packaged units.

"In addition to our engineering expertise, our sales team is the most trusted in the industry and is specially trained to identify and solve customers' specific HVAC and environmental challenges," stated CAPS President John Boger.

"We're excited to welcome CAPS and its employees to the Airxcel family. We've had a longstanding commercial relationship with CAPS and are looking forward to partnering with Taylor and John to lead the business forward," said Jeff Rutherford, Airxcel President and CEO. Rutherford adds, "We are committed to building our specialty HVAC platform and will continue to add products, capabilities and expert service to support our custom-

Free online training that keeps you ahead of the curve

Access online classes from the comfort of your home or office



D&R International - Selling Residential HPWHs in Replacement Scenarios

June 1 | 8 a.m. - 9:30 a.m.

IHACI - Air Distribution Module 4-Part Series

June 2, 3, 9, 10 | 6 a.m. - 8 a.m.

D&R International - Overcoming Installation Barriers for Residential HPWHs in Replacement Scenarios

June 2 | 8 a.m. - 9:30 a.m.

D&R International - Chilled Water Systems 4-Part Series

June 22, 24, 29 & July 1 | 5:30 p.m. - 7 p.m.

D&R International - Greenhouse Controls & Commissioning

June 23 | 1:30 p.m. - 3 p.m.

D&R International - Air Handling Systems Efficiency - HYBRID module

2-Part Series

June 24 & July 1 | 8 a.m. - 9:30 a.m.

ITsAboutQ.net - Online Training Program - Technician Education & Certification
On-Demand



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

Some programs are funded by California utility customers and administered by San Diego Gas & Electric® under the auspices of the California Public Utilities Commission.

© 2021 San Diego Gas & Electric Company. All copyright and trademark rights reserved. S2170041 0521



Continued on Page 10



The JP Series is a 115 volt low-cost/high SEER heat pump that's perfect for a wide variety of applications from a small home office to a tiny home

## JP Series 115V System Key Features and Benefits

- Efficiency: 17.0 SEER/9.0 HSPF
- Available capacities: 9,000/12,000 BTU/H
- Blue fin coating on outdoor unit for increased coil protection and longer life
- Four fan speeds: Low, Medium, High, Super-high
- INVERTER-driven heat pump
- Cooling operation range: 14° F to 115° F
- Heating operation range: -4° F to 75° F
- Recommended fuse/breaker size (outdoor unit): 15A
- Multiple control options available:
  - Hand-held Remote Controller (provided with unit)
  - kumo cloud ® smart device app for remote access
  - · Third-party interface options
  - Wired or wireless controller
- 12-hour timer
- ECONO COOL mode
- AUTO restart
- Washable air filter
- Optional anti-allergy enzyme filter





For more information and to find your local distributor, please visit: https://www.mitsubishipro.com/find-distributor



**Small Home Offices** 

Sun Rooms



**Alternative Dwellings** 



Garages



**Tiny Homes** 

### **Continued from Page 8**

ers and their evolving needs."

With the acquisition of CAPS, Airxcel continues to position itself as an industry leader that values the diversity of its premier brand lineup. Rutherford added, "Airxcel will continue to grow and thrive within the industries we serve as long as we stay true to our mission to provide superior customer service, strong and supportive partnership, and a constant pursuit of unmatched product expertise and innovation."

As is the case with all Airxcel acquisitions, the CAPS brand and management structure will remain intact. "We value and preserve each of our business' unique identities and CAPS is a premier

brand with a strong market presence," said Rick Aldridge, Airxcel Specialty HVAC Group President. Aldridge adds, "We will build upon CAPS' strengths and leverage Airxcel's operational expertise to support future growth, as we do across all of our brands."

# Carrier Digital Platform Recognized with 2021 Award

Palm Beach Gardens, Fla. – Carrier's Lynx digital platform, being co-developed with Amazon Web Services, Inc. (AWS), was selected by Fast Company as a finalist in the Food category and an honorable mention in the Best World Changing Idea North America category, as

part of their 2021 World Changing Ideas Awards.

"The Lynx platform will combine AWS's Internet of Things (IoT), analytics, and machine learning services with Carrier's refrigeration and monitoring solutions to deliver Carrier's customers in the transport, food, and pharmaceutical industries capabilities for end-to-end tracking of cargo, real-time alerts about cargo and equipment conditions," said David Appel, president, Refrigeration, Carrier. "Intelligent, automated processes with Lynx can help reduce risks caused by human error and empower our customers to make quicker, better informed decisions about how to best move perishable cargo."

"Tackling world changing ideas is something we strive to do every day with our customers," said Michael MacKenzie, general manager, AWS IoT. "We're honored and excited to see the co-developed Carrier Lynx platform recognized as one of those game-changing ideas. We're working closely with Carrier to transform how food, medicine, vaccines, and more are transported and monitored globally to help address the needs of people all around the world."

# Thermostat Recycling Launches Annual Mercury Contest

. . . . . . . . .

**New York, N.Y.** – Thermostat Recycling Corporation (TRC) has launched its 10th annual Banish Mercury Off the Planet competi-

The contest recognizes members

of Heating Air-Conditioning Refrigeration Distributors International (HARDI) that collect the most mercury-containing thermostats.

"The coronavirus had an immense impact on our industry, but it was refreshing to see how our partners continued to persevere with the collection of mercury-containing thermostats," said Danielle Myers, operations and compliance manager, TRC. "They exemplified a commitment and can-do spirit in our cause to help create a safer environment by continuing to drop off the units collected."

The contest officially began May 1 and concludes Oct. 31.

HARDI members need not sign up to enter the contest. All they must do is return thermostats collected through the bins that TRC places in HARDI wholesale member branches throughout the United States.

HARDI members are in every state and have collection bins where their customers – HVACR contractors – can deposit the thermostats.

The Banish Mercury Off the Planet contest, originally called the Big Man on Planet until 2018, names winners in three categories:

- Distributor that recycles the most pounds of mercury overall
- Distributor that recycles the highest average pounds of mercury (total pounds divided by branch count locations that submitted a collection bin)
- Distributor with the highest participation rate (for distributors with more than 10 locations)

TRC will publicly recognize the winners of each category at HARDI's annual conference, Dec. 4 to 7, 2021, Palm Desert, California.

. . . . . . . . .

### EPA Announces Energy Star 2021 Award Winners

Washington, D.C. – The Environmental Protection Agency (EPA) announced its list of 2021 Energy Star Sustained Excellence Award winners. The award winners are identified as Energy Star Partners of the Year. Included on the list were Hoshizaki, Panasonic, A.O. Smith, and Bradford White.

"Hoshizaki America is proud to be named 2021 Energy Star Partner of the Year for the tenth

Continued on Page 12

# **LINESET DUCT AND FITTINGS**

# **SLIMDUCT** SD

- Heavy Duty lineset cover
- UV, weather and fire resistant
- 3 sizes, 5 color options
- Premium protection
- Snaps together for quick install
- Adaptable solution





ΙΝΔΒΔ DENKO

www.inabadenko-america.com

10 ICN JUNE 2021

# DRIVE-UP A/C INSTALLATION!

Replacing an R-22 unit with Guardian's compatible R-407C unit is comparable with the new "drive-up" mandates we are all facing. Quicker, easier, less expensive and little or no time required inside the home.



GAW • 14 SEER • R-407C • 1 PHASE

LX SERIES 14 SEER CONDENSING UNIT						
Model Number	Nom. Ton	Nom. Seer	Width	Height	Length	Weight
GAW14L18C21S	1.5	14	29-1/4	30	29-1/4	135
GAW14L24C21S	2.0	14	29-1/4	30	29-1/4	135
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



Always on Duty.

**Reduce labor costs by replacing old R-22 condensing** units with the Guardian alternative refrigerant unit. **Compatible with R-22 coils and linesets!** 

### **Easy Changeout and Installation**

- Independent panels provide quick access for unit setup
- Installation time is reduced by easy power and control wiring access
- Factory installed filter-drier means less time spent brazing and charging the system
- Small base dimension and reduced unit clearances make for easier retrofits

### **Quality Construction and Durability**

- Coated steel wire fan guard, coated external fasteners, and pre-treated G90-equivalent galvanized steel chassis components resist corrosion and rust creep
- Powdercoat paint further protects external panels
- Louvered coil protection Two stamped steel louvered panels protect the coil from mechanical damage
- High efficiency micro channel aluminum coil is manufactured using an improved material
- Compressors are protected internally by a high pressure relief valve and a temperature sensor, and externally by the system high pressure switch
- Liquid line filter-drier is factory installed to protect the compressor against moisture and debris
- Warranty: 5 year limited parts and compressor warranty

Shipped with a holding charge. Agency listed - UL 1995 / CSA 22.2 Performance certified to ANSI/AHRI Standard 210/240.



### ASK US ABOUT IAQ OPTIONS!

We carry a variety of air cleaning products including UV lights. **UV/PCO** air cleaners, ionizing air cleaners, and more.



SAMSUNG

HVAC. Built brave. www.us-ac.com • 🗘 ⊙ 💆







800/937-7222

ARIZONA Avondale 602/572-2953 Deer Valley 623/580-4101 Fort Mohave 928/768-2197

480/813-4628

623/334-8302 602/253-2771 Tucson 520/903-3117

CALIFORNIA Anaheim 714/776-3170 Burbank 818/840-0089

Cathedral City 760/770-4520

818/678-1750 City of Industry 626/854-6868 Concord 925/349-3712 Culver City 310/204-2230

El Cajon 619/258-0672 El Centro 760/370-5530 Escondido 760/291-1281 707/424-6050

Fresno 559/268-9347 Hesperia 760/948-8045 Lake Forest 949/837-8104 Lancaster 661/726-5106

Los Angeles 323/897-6969 Modesto 209/577-2335 Newbury Park 805/376-1723 North Highlands 916/482-3572

909/987-5016 Oxnard 805/988-3650 Palm Desert 760/200-5225 Paso Robles 805/238-9353

Redding 530/722-0144 Riverside 951/786-3500 S. San Francisco 650/871-8100 San Bernardino 909/885-3206

San Diego 858/279-9750 San Jose 408/278-1555 Santa Barbara 805/962-2999

Stockton 209/466-4153

Santa Fe Springs 562/801-5432 Temecula 951/296-6557 Valencia 661/666-9544 Signal Hill 562/981-2010 Van Nuys 818/464-3387

IDAHO Boise 208/672-1244 or 800/727-9936

NEVADA Sparks 775/329-3455 UTAH Salt Lake City 801/485-8071 or 800/333-8436

### **Continued from Page 10**

year in a row," said Kris Miller, vice president of Engineering.
"Our commitment has been to continually concentrate efforts and resources on energy efficiency – a commitment we plan to further grow in the upcoming year and beyond."

"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."

"Energy Star is one of the most trusted voices for energy efficiency," said Carl Pinto, Jr., senior director of marketing communications for Bradford White Corporation. "Being selected as Partner of the Year for two years in a row reflects Bradford White's commitment to leading our industry in providing highquality, energy efficient products."

"Sustainability and energy efficiency are at the heart of everything we do at A. O. Smith," said Francois Lebrasseur, utility segment market development manager for A. O. Smith. "We are honored to be recognized as a three-time Energy Star Partner of the Year, and now Sustained Excellence Award winner. Our company is constantly striving to create innovative products and solutions to protect our environment, save energy and provide the best solutions possible for our customers. As the industry moves towards a more environmentally focused and energy efficient future, we will continue to make sustainability a top priority."

# Biden Invites CEO of Johnson Controls to Climate Summit

. . . . . . . . .

Milwaukee, Wisc. – Johnson Controls announced that its chairman and CEO George Oliver has been invited by U.S. President Joe Biden to participate in the virtual Leaders Summit on Climate.

"I am honored to accept President Biden's invitation to join him and other world leaders calling for urgent climate action," said George Oliver, chairman and CEO, Johnson Controls. "It is especially important to establish a roadmap to limiting the rise of global temperatures as we get closer to the COP26 climate conference scheduled for November in Glasgow. Transition-

ing to a lower-carbon economy is an opportunity to build back better, as we recover from the COVID-19 pandemic. Providing clean, sustainable and energy efficient solutions creates jobs while building strong, resilient, global economies."

According to the White House, a major theme of the summit will be the broad economic benefits of climate action, with a strong focus on job creation. This will explore both the economic benefits of green recovery and long-term decarbonization and the importance of ensuring that all communities and workers benefit from the transition to a clean energy economy.

Representing both Business Roundtable and Johnson Controls, Oliver will address these topics in a session on April 23 as well as the role buildings can play to slash both emissions

### Malco Products Recognized for Safety Practices

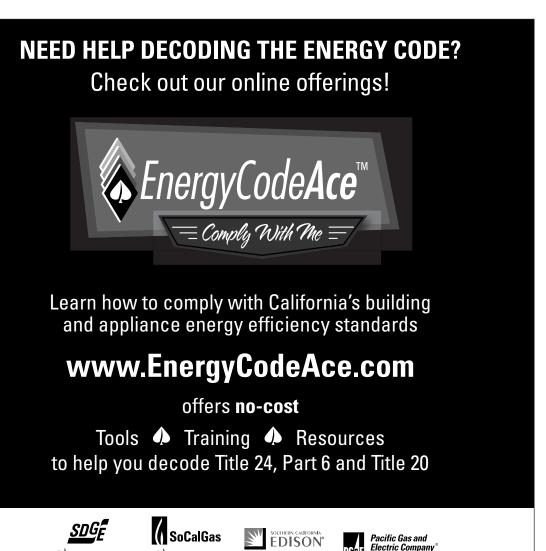
Annandale, Minn. – Malco Products, SBC, was recognized for excellence in workplace safety and health during the 2021 Virtual Minnesota Safety and Health Conference, May

Malco earned the 2020 Meritorious Achievement Award in Occupational Safety, and is one of 221 employers to be honored through the 2021 awards program coordinated by the Minnesota Safety Council.

"We take pride in creating a safe, healthy and productive workplace for each of our employees, and are honored to once again be recognized by the Minnesota Safety Council," said Malco President Rich Benninghoff. "By designing innovative, ergonomic tools, Malco is also committed to extending that safety culture to our customers."

The annual Governor's Safety Awards program has honored Minnesota employers with exceptional safety performance since 1934. Applicants are judged on several years of injury data as it compares with national industry statistics, and on their progress in implementing a comprehensive safety program.

Malco, which has earned recognition through the program 13 times since 2004, received recognition for incident numbers that are better than the industry average, and for



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



12 ICN JUNE 2021 www.indoorcomfortnews.com

high scores on a rigorous safety program evaluation scale.

"In a year that has challenged all of us in ways we never imagined, we are very pleased to recognize Malco Products, SBC, for their award," said Paul Aasen, president of the Minnesota Safety Council. "Safety demands extraordinary attention in a normal year, double that attention this past year. Thank you, Malco, for keeping your employees safe."

Malco is also proud to be certified through the Minnesota Safety and Health Achievement Recognition Program (MNSHARP) for working with management and employees to develop safety and health programs that go beyond basic compliance with applicable OSHA standards for long-term prevention of job-related injuries and illnesses.

The Minnesota Safety Council, founded in 1928, is a non-governmental, not-forprofit organization dedicated to improving the quality of life in Minnesota by preventing unintentional injuries. Malco has been a member of the Council for over 30 years.

For more information about Malco Products, SBC, visit www.malcoproducts.com.

### **Motion Announces** 2021 Supplier of the Year Winner

Birmingham, Ala. – Motion Industries Inc. named NSK "2020 Supplier of the Year."

"2020 was a tough year in general, so for NSK to move to the top of the ranks is impressive," said Joe Limbaugh, Motion executive vice president of supply chain, Operations Support, Marketing and Enterprise Excellence. "Our standards as measured through our Supply Chain process are rigorous, and improvement takes understanding, dedication, and overall hard work. NSK rose to the occasion and we are proud of their accomplishments. Suppliers who finished in our Top 50 are the 'best of the best' in our industry."

"NSK is committed to delivering value to our customers above and beyond being experts in our own business by demonstrating expertise in our partners' and customers' business," said Reid Jajko, vice president aftermarket business unit, NSK Americas. "Our success is not defined by the

sale of a bearing; it is defined by our ability to positively impact our partners' operations. I cannot imagine a greater affirmation of our commitment than to receive this acknowledgement from Motion."

### **NCCA Launches New Website**

Cleveland, Ohio - The National Coil Coating Association (NCCA) launched a new mobile-friendly website that includes new images, expanded educational material and improved navigation tools.

The new design includes more education about designing and manufacturing with prepainted metal, including case studies, tutorials and manufacturing solutions. The Cost Comparison Analysis

form helps manufacturers evaluate the long-term savings of converting from in-house painting to coil-coated

The expanded education section includes more helpful information about coil-coated metals, such as aesthetic and functional properties, green benefits, its cost savings for transportation products, and processing tips.

"The flexibility, high efficiency, and green benefits of coil coated metal are driving the demand for prepainted metal in many industries," said Derek Deakins, chair of NCCA's Marketing Committee. "So, we wanted to make the website mobile-friendly and easy to navigate, with beautiful imagery of coil coating applications."

The new website also explains how coil coating is used in building products, major appliances, transporta-

tion, HVAC, furniture, and other goods such as metal packaging containers, lighting fixtures, storage units and electrical cabinets.

The National Coil Coating Association (NCCA) is the leading association of businesses engaged in the process of coating coiled metals. Founded in 1962, NCCA consists of coaters and suppliers to the coil coating process that are at the forefront of the industry. Coil coating is an automated process that permits a high degree of customized coatings to produce a cost-effective, environmentally friendly, quality product. Prepainted metals are used in a wide variety of industries including construction, appliance, transportation, automotive, HVAC and many more.

For more information, go to

www.coilcoating.org or contact NCCA at 216-241-7333 or email at ncca@coilcoating.org.

. . . . . . . . .

### **Williams Distributing Announces Merger** with Shoemaker

Grand Rapids, Mich. - Williams Distributing announced its merger of Shoemaker Inc. into the Williams family business. Both companies are family owned and operated.

"Maintaining those family values and feel was important to everyone," said Mike Koster, CEO of Williams Distributing.

'We are very excited to be

**Continued on Page 14** 



Maestro A/C & Heat Pump with no outdoor unit!

THE SOLUTION WITH NO ARCHITECTURAL IMPACT















Features:

Inverter Compressor and Variable Speed Motor Heating & Cooling Capacity up to 11,600 btu/h Installation Versatility: Low and High Wall

Easy Installation & Maintenance

Remote Control (standard)/Wall Thermostat (optional)

115V 1 phase power

### California

**Dublin** 925.833.8032

**Arizona** North Phoenix 480.305.0100 **Phoenix** 602.437.2823 **Mesa** 480.844.1140

**Tucson** 520.323.8783

**Yuma** 928.329.9682 Nevada Las Vegas 702.798.1234

OLIMPIA



www.olimpiasplendidusa.com sales@olimpiasplendidusa.com

www.indoorcomfortnews.com ICN JUNE 2021 13

### **Continued from Page 13**

joining the Williams Distributing family," said Dave Shoemaker, president of Shoemaker Inc.
"Maintaining the values of our family-owned business and utilizing the many skills and talents of the people that make up our organizations enable us to become a stronger and more effective HVAC distributor for both our customer and vendor partners. We are looking forward and committed to serving the HVAC trade together."

Shoemaker will continue to operate under the Shoemaker Brand, as a division of Williams Distributing Co. Both management teams and employees will stay intact.

. . . . . . . . .

### Winsupply Names Vendor of Year Winners for 2020

**Dayton, Ohio** – Winsupply Inc. has named its Vendor of the Year winners for 2020.

"This past year was unprecedented and full of unforeseen challenges," said Amy Souders, Winsupply's vice president of vendor relations. "Through it all, Winsupply local companies managed to be amazingly successful. We are so appreciative for our vendor partnerships and the support they've provided."

The Winsupply Preferred Vendors that won in each category were chosen by Winsupply local companies. Nominees were based on several criteria, the most important of which was being a leader in growing the

segment's business over the past year. They were also judged on selling to a breadth of locations that buy the vendor's product, providing strong support at the local level, and consistent volume and growth.

Vendor of the year Winners by Industry:

- HVAC: Diversitech
- Plumbing Rough-In: Viega
- Plumbing Finished: Navien
- Waterworks: Advanced Drainage Systems
  - Irrigation: Rain Bird
  - Pumps: Zoeller

- Industrial/Fire: Spears
- Electric: Topaz Electric/ Lighting

Winsupply also named Bonnie Mason from Viega the National Account Manager of the Year. Winsupply has decided to present Milwaukee with the Outstanding Achievement Award.

### HARDI Presents In-Person Summer Social Event

. . . . . . . . .

Columbus, Ohio – Heating, Air-conditioning & Refrigeration Distributors International (HARDI) opened registration for a brand-new 2021 event, HARDI Summer Social.

This one-time-only event will replace the annual Focus Conference this year, and the track-based Focus Conference will return in 2022.

The new Summer Social event will focus on bringing HVACR executives back together after 14 months without travel and in-person events. Attendees will have the option to choose amongst provided activities, including golf and a river cruise, as well as multiple networking receptions for all to attend.

is to bring together peers who have not had a chance to connect in person over the last year and to help reignite strategies for 2021 and beyond.

The goal of this new event

The two-day event will take place in St. Louis, Mo., from June 23-24.

To register and for more information on HARDI's Summer Social visit https://hardinet.org/events/summer-social.

. . . . . . . . .

### Climate Pros Buys Precision Mechanical

Glendale Heights, Ill. – Climate Pros announced the acquisition of Precision Mechanical Contracting.

"Precision is a remarkable group of people, led by its founder Jim Salamone and business partner Mark Hansberry." said Todd Ernest, founder and CEO of Climate Pros. "They have a culture that closely mirrors ours, which made them a perfect fit for Climate Pros. We have been

Continued on Page 19



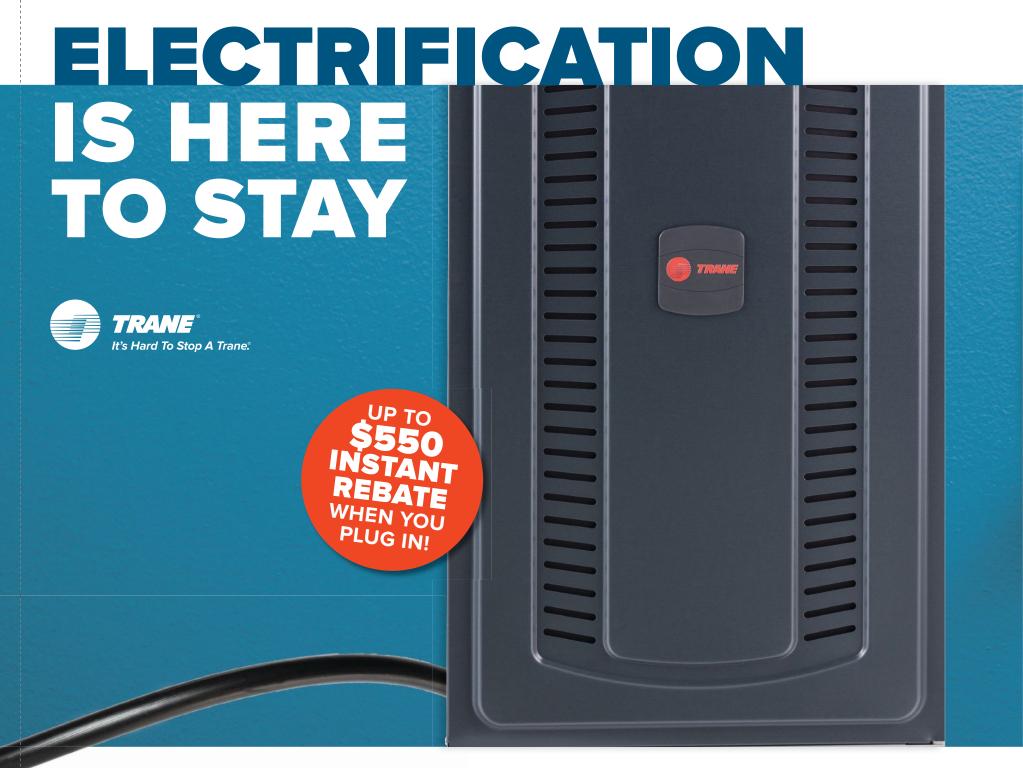
- HORIZONTAL DISCHARGE
  AIR ON OUTDOOR UNIT
- ULTRA HEATING & COOLING CAPABILITIES
- CONVENTIONAL, 24 VAC THERMOSTAT CONTROL
- HIGH EFFICIENCY, UP 20 SEER / 10.5 HSPF

**GREE** 

GREECOMFORT.COM

14 ICN JUNE 2021 www.indoorcomfortnews.com

# #FERGUSON HVAC



### COMPATIBLE WITH OUR ENTIRE TRANE AND RUNTRU FAMILY



### **Get Your Rebate.**

Text us now at one of our locations to learn more about the instant rebate of up to \$550.

Monday – Friday, 7:00 a.m. – 4:00 p.m.

### CALIFORNIA | NEVADA

**ANAHEIM** (714) 520-6440 **AZUSA** 

**AZUSA** (626) 969-1874 **BAKERSFIELD** 

**BAKERSFIELD** (661) 335-7200

(760) 770-6762

**CHATSWORTH** (818) 341-5200

**CHICO** (530) 893-2114

**CULVER CITY** (310) 391-2291

**EL CAJON** (619) 258-9382 **FRESNO** (559) 538-6124

**GILROY** (408) 846-6469 **HAYWARD** 

(510) 782-9820 INDIO (760) 775-7400 **LANCASTER** (661) 945-6902

MANTECA (209) 239-6446 NEWBURY PARI

**NEWBURY PARK** (805) 376-3576

**ONTARIO** (909) 969-2272

PASO ROBLES (805) 434-3114 PITTSBURG (925) 778-1237 POMONA (909) 517-3810 RIVERSIDE

RIVERSIDE (951) 784-0506 N SACRAMENTO (916) 924-8661 **S SACRAMENTO** (916) 210-7993 **SAN JOSE** 

(408) 271-1685 **LAS VEGAS, NV** (702) 260-9388

FERGUSONHVAC.COM
©2021 Ferguson Enterprises, LLC 0421 2625429

## **Environmental Protection Agency Moves Forward with Phasedown of HFCs**

**Continued from Page 1** 

climate-safe products. Put simply, this action is good for our planet and our economy."

"By phasing down hydrofluorocarbons (HFCs), which are powerful greenhouse gases, implementation of the AIM Act will create hundreds of thousands of good paying jobs that will combat climate change," said Sen. Thomas Carper (D-DE), chairman of the Senate Environment and Public Works Committee. "In joining the rest of the world in reducing the use of HFCs, we will help avoid an increase of 0.5°C of global warming by the end of the century. Passing the AIM Act was a momentous climate achievement that will help

save our planet, and today we are one step closer to its benefits being a reality."

"The AIM Act is one of the most significant environmental policy laws passed in recent years," said Karen Meyers, vice president of Rheem Manufacturing, and chairman of the Alliance for Responsible Atmospheric Policy. "This HFC allocation rule is key to achieving an orderly HFC phasedown in the United States, creating a uniform federal approach to this effort, and capturing significant projected environmental and economic benefits. Alliance member companies look forward to working with EPA on rapid completion of this first AIM Act rule, as well as moving

to next generation compounds and user technologies and improving refrigerant management."

"The U.S. Climate Alliance welcomes this next step from EPA to phase down highly potent HFCs across the country. National standards will ensure all communities have access to higher quality

products, and that we are giving U.S. industry the best opportunity to innovate and lead the global transition to HFC alternatives," said U.S. Climate Alliance Executive Director Julie Cerqueira. "Alliance states

Year	Consumption & Production Allowance Caps as a Percentage of Baseline	Estimated Consumption and Production Allowance Caps in MMTEVe*			
Proposed Baseline**		Consumption: 299 MMTEVe Production: 375 MMTEVe			
2022–2023	90 percent	Consumption: 269.1 Production: 337.5			
2024–2028	60 percent	Consumption: 179.4 Production: 225.0			
2029–2033	30 percent	Consumption: 89.7 Production: 112.5			
2034–2035	20 percent	Consumption: 59.8 Production: 75.0			
2036 & after	15 percent	Consumption: 44.9 Production: 56.3			

<sup>\*</sup> Baselines are expressed in million metric tons of exchange value equivalent (MMTEVe), which is numerically equivalent to one million metric ton of CO2 equivalent (MMTCO2e).

have been leading the charge in reducing HFC emissions in recent years and now have a strong federal partner in this push. It's a win for jobs, a win for our economy, and it will help us achieve our bold state

GILBERT, AZ 480-571-3710

MESA, AZ 480-968-0168

PEORIA, AZ 602-269-0300

PHOENIX, AZ 602-841-7385

SCOTTSDALE, AZ

TOLLESON, AZ

(SW Phoenix) 602-973-8063

TUCSON, AZ 520-795-1484

YUMA, AZ 928-248-2576

**ANAHEIM, CA** 714-635-5956

**EL CAJON, CA** 619-449-9550

**ESCONDIDO, CA** 760-291-4745

FRESNO, CA

**IRWINDALE, CA** 

LONG BEACH, CA 562-200-0089

ONTARIO, CA 909-987-4207

**PASO ROBLES, CA** 

POMONA, CA

**RIVERSIDE, CA** 951-271-8290

**SAN JOSE, CA** 408-477-1799

SANTA MARIA, CA 805-621-7070

**TEMECULA, CA** 

THOUSAND PALMS, CA 760-343-0754

UNION CITY, CA 510-483-8031

VAN NUYS, CA 818-781-3123

ALBUQUERQUE, NM 505-884-2660

LAS VEGAS, NV 702-733-7230

and federal climate goals."

The AIM Act is a significant environmental law from the U.S. Congress in recent years – co-sponsored and passed with bipartisan support. Backed by a coalition of industry and environmental groups, it provides regulatory certainty across the United States for phasing down HFCs and ushers in the use of more climate friendly and efficient alternatives.

EPA estimates that the present value of the cumulative benefits of this action is \$283.9 billion from 2022 through 2050, and that the proposal will yield cumulative compliance savings for industry. In 2036 alone, the year the final reduction step is made, this rule is expected to prevent the equivalent of 187 million metric tons of carbon dioxide (CO2) emissions - roughly equal to the annual greenhouse gas emissions from one out of every seven vehicles registered in the United States. The total emission reductions of the proposal from 2022 to 2050 are projected to amount to the equivalent of 4.7 billion metric tons of CO2 – nearly equal to three years of U.S. power sector emissions at 2019 levels.

EPA conducted an environmental justice analysis that determined overall reductions in greenhouse gas emissions from this rule would benefit populations that may be especially vulnerable to damages associated with climate change, such as the very young, elderly, poor, disabled, and indigenous populations. As the proposal moves forward, EPA will further consider the impacts on

EPA's proposal would set the HFC production and consumption baseline levels from which reductions will be made,

establish an initial methodology **Continued on Page 20** 

To Serve You BETTER! Airtemp **COOLING & HEATING SYSTEMS** Airtemp distributed exclusively by R.E. MICHEL COMPANY WHOLESALE DISTRIBUTORS • AIR CONDITIONING • HEATING • REFRIGERATION PROPANE • EQUIPMENT • PARTS • SUPPLIES - Since 1935 -We're Open Every Saturday Morning! Connect with us on remichel.com

at-risk communities.

<sup>\*\*</sup> These proposed baselines are based on currently available data, and the final figures may change based on an evaluation of all available data and information received prior to the final rulemaking



## The Benefits of Membership

- Education and Training
- NATE CEU's
- Accredited College Courses
- Indoor Comfort News
- Membership Directory
- Group Legal Service
- Legislative Advocacy
- NEWSbriefs

- Trade Shows: Latest in technological advancements/products
- Insurance Referrals and Programs
- Special Events
- Unity through Membership Involvement
- Entertainment Packages



Institute of Heating and Air Conditioning Industries, Inc. 454 West Broadway | Glendale, Ca 91204 www.IHACl.org | IHACl@IHACl.org (818) 551-1555 | F: (818) 551-1115

# **Residential Cooling**

American Standard Smart Home



American Standard launched American Standard Home, a smart home integration platform that offers advanced HVAC system control and diagnostic features. Formerly Nexia, the new integrated app will help HVAC professionals ensure home HVAC systems are optimized for performance.

American Standard Home integrates with several smart home platforms. The most common use is connecting an American Standard smart thermostat to remotely update temperature, apply a schedule, and automate home comfort experience.

"As we look at the time we've spent indoors over the last several months, we know how important it is for our HVAC systems to create comfortable living spaces, while providing the convenience homeowners crave," said Mel Fox, senior product manager, Trane

Technologies. "Innovative, userfriendly and practical, American Standard Home provides a seamless integrated experience for our connected homeowners."

**More information:** www. americanstandard-us.com.

Bosch Thermotechnology Climate 5000

. . . . . . . . .



Bosch Thermotechnology announced the release of its Climate 5000 Mini-Split Gen 2, a ductless system suitable for both residential and light commercial applications. The new, second-generation minisplit lineup expands the first generation lineup with enhanced performance, redesigned wall-mounted units; new four-way cassettes; and concealed ducted systems.

The Climate 5000 Mini-Split Gen 2 is a versatile heating and cooling option that is easy to install, easier to use, and delivers consistent temperature and humidity levels throughout desired spaces by making a series of automatic adjustments. An ENERGY STAR® rated single-zone and multi-zone system, it uses a combination of efficient technologies to achieve up to 25 SEER, significantly exceeding the 14 SEER requirement for ductless systems set by the Environmental Protection Agency.

Unique to the Climate 5000 Ductless System 2.0 Series, the mini-split offers a HyperHeat System – a heating and cooling function that does not require additional accessories to maintain comfortable temperatures even when outdoor conditions dip as low as -22 degrees Fahrenheit.

"The second generation of our Climate 5000 series provides ondemand comfort that is flexible, simple to install and easy to maintain," said Andrew Archambault, senior product manager for Bosch Thermotechnology. "The reduced ductwork offerings comprise a smaller footprint, and some models allow for longer refrigerant piping than traditional systems. These improvements maximize contractors' efficiency by enabling them to quickly complete new installations."

The Climate 5000 Mini-Split Gen 2 is equipped with advanced energy-saving inverter drive technology that minimizes expenses while maintaining sound levels as low as 20 dBA when silence mode is activated. Each unit features a turbo function that offers faster cooling and heating than traditional systems to deliver optimal comfort. The redesigned, wall-mounted indoor units are available in new four-way cassette and concealed ducted options.

Optional wired wall thermostats and 24V interfaces are also available. The 24V interface will allow the Climate 5000 Mini-Split Gen 2 to work with 24V thermostats such as the Bosch BCC100 and BCC50, as well as various standard thermostats on the market. The wired-wall thermostat works in all indoor environments and offers a "Follow Me" feature that detects room temperatures.

**More information:** www. bosch-thermotechnology.us.

Carrier Infinity



Testing by the University of Colorado Department of Civil, Environmental, and Architectural Engineering found that the **Carrier** Infinity Whole Home Air Purifier inactivates 99% of coronavirus trapped on the filter. Other third-party testing has concluded that it also inactivates 99% of select viruses and bacteria trapped on the filter, such as a common cold virus surrogate Streptococcus pyogenes and human influenza.

The air purifier works with most HVAC systems produced by both Carrier and other manufacturers and treats the air flowing through an HVAC system's air handler using a threestep charge, capture, and kill process. The charge phase creates a cloud of electrically charged ions that attach themselves to airborne dust, pollen, viruses, germs, and other particles as they pass through. The capture phase pulls the ionized particle toward an oppositely charged, pleated filter and captures it at an extremely high rate. During the kill phase, captured airborne microbes remain on the pleated

filter instead of recirculating back into the home and are subjected to an intense electric field.

**More information**: www.carrier. com.

. . . . . . . . .

Fujitsu General America J-IV



Fujitsu General America Inc. has released the new single-phase J-IV and J-IVs Airstage VRF heat pump systems to replace the J-II and J-IIs lines. The systems serve heating and cooling applications between 3- and 5-ton capacities, making them ideal for the residential and light commercial markets.

The new air-to-air heat pumps feature expanded heating operation ranges, offering powerful heating capacity at an outdoor ambient temperature of -15°F. The J-IVs offers efficiency levels up to 19.7 SEER and is available in 3- and 4-ton capacities, while the J-IV offers up to 19.8 SEER and is available in 3-, 4- and 5-ton capacities. J-IV models also allow up to 150% connection capacity of indoor units.

Installers can connect up to nine indoor units to each 3-ton condensing unit, 12 indoor units per 4-ton condensing unit, and 15 indoor units to each 5-ton condensing unit. With more than 11 types of indoor units ranging from 4,000 to 96,000 BTUH, the J-IV and J-IVs meet a broad range of design requirement and aesthetics.

Other enhancements include the ability to reduce electrical circuit breaker sizes, several improvements to base pan including base pan heaters, and the addition of durable metal fan guards, updated wiring, and fan motor to meet low ambient specifications.

**More information:** www. fujitsugeneral.com.

### **Google Nest**

The **Google** Nest Thermostat features a new interface and updated controls, displaying information – like the temperature or heating/cooling mode – on the screen while introducing a swipe-and-tap interface on the side of the device to perform common functions. It also features a clean, sleek design



www.indoorcomfortnews.com

## **Editorial Focus**



and comes in a number of colors to complement a variety of homes – Snow, Charcoal, Sand, and Fog. Its plastic parts contain 49 percent recycled post-consumer plastic.

Along with the new offering is a Nest Thermostat Trim Kit. Sold separately, the kit includes a trim plate and steel plate for installing the thermostat over an electrical box, all in perfectly matched Nest Thermostat colors and made from 75% recycled post-consumer plastic.

With HVAC monitoring, the product can help catch many heating and cooling system issues early. It can send an alert via the Home app or email if something does not seem right.

**More information:** www.store. google.com.

### Mitsubishi Electric Trane HVAC US Deluxe Wall-mounted Single-Zone

. . . . . . . . .



The Deluxe Wall-mounted Single-zone System from Mitsubishi Electric Trane HVAC US (METUS) includes the new Deluxe Wall-mounted Indoor Unit with Dual Barrier Coating and new outdoor heat pump model with Hyper-Heating Inverter® plus (H2i plus™) technology.

The Deluxe Wall-mounted

Indoor Units feature the patented next-generation Dual Barrier. Hydrophilic particles (including dust and dirt) and hydrophobic particles (like oil and grease mist) can accumulate on the heat exchanger, air ducts, and fan over time, reducing an HVAC system's heating or cooling efficiency. When applied on the inside of the heat exchanger, vanes, air duct, and blower wheel, the Dual Barrier Coating

The high-performing coating reduces maintenance requirements and maintains high efficiency levels throughout years of operation, resulting in energy savings.

limits particle build-up, improv-

ing durability, efficiency, and

indoor air quality.

Deluxe Wall-mounted Indoor Units are available in an extensive range of sizes and include an improved remote controller featuring backlit display with easy-to-read operation modes.

The Deluxe Wall-mounted H2i plus™ System also includes MUZ-FS heat pump outdoor units equipped with new-to-market H2i plus™ technology. H2i plus provides up to 100% heating capacity at outdoor ambient temperatures as low as -5° F. H2i plus is designed for continued performance down to -13° F without the need for supplemental heat.

More information: www. mitsubishicomfort.com.

# Unico System M1218

The **Unico** System has revamped its workhorse air handler unit, which delivers 1 to 1.5-tons of nominal cooling, to match the modular nature of its larger capacity units.

Formerly a single packaged unit, the new Unico System M1218 air handler is now a

# Industry News Continued from Page 14

working with them for a few years and they have proven to be a fantastic company who gets the job done. We are very excited to join with Precision's talented team to expand our presence in the Northeast. With this addition to the Climate Pros family, we now expand our service offering in a new region allowing us to better serve our mutual customers and further establish us as a nationwide service provider. We

are super excited to welcome them to our team!"

"The cultural alignment of Precision Mechanical Contracting and Climate Pros is truly remarkable," said Jim Salamone. "I am so incredibly excited to introduce our customers and employees to this new organization. When I observe the visionary results of the Climate Pros founder and CEO, Todd Ernest, it brings about a sense of ease and satisfaction in knowing that we have just brought the future forward for our entire team."

## **Residential Cooling**



separate module, making the already small unit even more adaptable for easy installation in tight spaces.

The M1218 air-handler unit consists of various modules that are easily latched together. The modules can be arranged in vertical-up-flow, vertical-counter-flow and horizontal-flow configurations. They can be combined as heating-only, cooling-only, or heating and cooling.

"We made this change after receiving feedback from our Unico Preferred Contractors," said Unico, Inc. president Phil Coerper. "The reconfiguration of the M1218 is just

the latest step in our efforts to make Unico System installation as easy and hassle-free as possible for professional installers. Single packaged units are still an option with the Unico Vertical Air Handler Unit (V-AHU) series for installers needing combined units for closet installations and small mechanical area projects."

The M1218 redesign joins other contractor-centric programs recently launched by Unico, including a UniConcierge dedicated internal team for assisting HVAC contractors, and the Text-A-Tech (314-222-2487) feature to provide technicians in the field with real-time answers and installation advice via their smartphones.

**More information:** www.unicosystem.com.

Westinghouse BTUh Wall Mounted Model



Westinghouse has added a new, single zone 36,000 BTUh wall mounted model to its feature-rich, competitively-priced line of minisplit heat pump systems for the U.S. and Canadian markets.

Like the other models in the Westinghouse mini-split heat pump line, the 36,000 BTUh model features a variety of features typical of high-end models, including a base pan heater, wireless remote control, and five indoor fan speeds.

**More information:** www. WestinghouseAC-USA.com.



# HERS Rating Air & Hydronic Balancing Permit Expediting & Retrieval



COMPLIMENTARY ON-SITE TEAM EDUCATION & 24/7 SELF-SERVE PORTAL!

OUR MISSION STATEMENT -Providing unparalleled customer service and rapid care to our valuable customers is what drives us at Rapid Duct Testing. SERVICING CALIFORNIA

RATED 5.0 ★ ★ ★ ★ ★ ON GOOGLE REVIEWS

**CONTACT:** 

Tel. 855.NEED.HERS info@rapidducttesting.com

www.RapidDuctTesting.com

www.indoorcomfortnews.com ICN JUNE 2021 19

## Registration Opens for 2021 ASHRAE Virtual Annual Conference on June 28

Featuring new and expanded offerings in current practices and updates on research, the 2021 ASHRAE Virtual Annual Conference will be held June 28-30, 2021. Registration is now open.

"The rich technical content and strong sense of community that participants will experience at the 2021 ASHRAE Virtual Annual Conference mirrors the Society's commitment to providing industry leading research and resources to the global built environment," said 2020-21 ASHRAE President Charles E. Gulledge III, P.E. "The conference will offer innovative solutions to today's most critical building challenges, as we work towards a more sustainable future."

The conference will feature over 100 live and on-demand sessions with updates from Society leaders and virtual networking events.

Technical sessions will address the latest information surrounding the COVID-19 pandemic, along with eight other tracks on various building systems topics. Attendees will hear updates from the ASHRAE Epidemic Task Force and the Task Force on Building Decarbonization.

Interactive Technical Panels and Forums will allow attendees to share their experiences and to ask questions. Topics are as follows:

- Importance of Achieving Verified Net Zero Goals
- Lessons Learned from Adapting BAS to Meet Changing Requirements
- What Indoor Farmers Need and Want from their HVAC System
- Controlled Environment Agriculture and the Future of Secure and Sustainable Food Production
  - The Efforts of ASHRAE



Chapters to Help Reduce Risks of COVID-19 Transmissions

- Post Pandemic Resiliency Measures for Transportation Facilities
- Is there a Magic Formula for Combining Multiple Air Cleaning Technologies to Improve Air Quality?

The 8th Annual Research Summit will present active research critical to the development of the HVAC&R industry and built environment.

Some 80+ papers will make up the Research Summit, which features on-demand presentations, a live author summary, a live Q&A session and a seminar on research funding opportunities.

The conference will also include

Roundtable Discussions and Meet Ups, Sponsor Technology Demonstrations, Research Summit and the opportunity to connect with sponsors in real time.

Outgoing ASHRAE President Charles E. Gulledge III, P.E. will provide his farewell address on the 2020-21 Society theme, "The ASHRAE Digital Lighthouse and Industry 4.0." 2021-22 ASHRAE President Mick Schwedler will present his inaugural address on "Personal Growth. Global Impact. Feed the Roots." Members will be recognized for the industry and society accomplishments throughout the conference during Honors and Awards segments. Major contributors to ASHRAE's Building campaign and scholarship donors will also be recognized.

The cost to attend the virtual conference is \$285 for ASHRAE members (\$505 for non-members, which includes an ASHRAE membership for one year). For additional pricing, please visit ashrae.org/2021annual. Company packages are available at a discounted price per person.

Downloads of conference proceedings are available, including technical papers, conference papers and extended abstracts. Professional development hours can be earned for all on-demand sessions and more than 35 live sessions upon successfully completing a short quiz. Registration includes access to all the technical content on-demand for 18 months

To learn more and to register, visit ashrae.org/2021annual.

# SHORT ON SPACE?

The Rheem® Sound & Space Constraint Solution is ideal for applications where a traditional condenser just won't fit.

The side discharge heat pump allows for flexible installation in tight outdoor locations, including zero lot line boundaries, multifamily housing, condominiums and rooftop terraces. So when the install challenge calls for a small solution, this one really fits.



For complete details of the limited and conditional warranties, including



### **System Benefits At-A-Glance**

COOLING EFFICIENCY: 19 SEER / 12 EER

HEATING EFFICIENCY: 10.7 HSPF

OUTDOOR SOUND LEVEL:

Levels as low as 53 dB(A) contribute to extremely

HEAT PUMP COMPRESSOR:

/ariable-speed, inverter-driven otary compressor

AIR HANDLER MOTOR:

nodulating airflow

AIR HANDLER EVAPORATOR COIL:

OPTIONAL ELECTRIC HEAT:

Thermostat (Model No. RXRSRY or RXRNRUZ\*) required as a tool to configure electric heat and other function codes

LIMITED WARRANTY<sup>1</sup>:
Parts—10-year



The new degree of comfort.

### **HFC Phaseout**

### **Continued from Page 16**

for allocating HFC allowances for 2022 and 2023, and create a compliance and enforcement system. EPA intends to use the approach established through this rulemaking to issue allowances for 2022 by October 1, 2021, and plans to revisit the approach for subsequent years in a later rulemaking. In addition to proposing to establish a general HFC allowance pool and a set aside pool (e.g., for new market entrants), the proposal outlines how EPA plans to issue allowances for specific applications listed in the AIM Act that the agency was directed to provide allowances for, such as mission-critical military applications.

EPA will accept comments on this proposal for 45 days after publication in the Federal Register and hold a public hearing. The agency plans to finalize this rule later this year.

### Background

The AIM Act, which was included in the Consolidated Appropriations Act, 2021, provides EPA new authorities to address HFCs in three main areas: phasing down the production and consumption of listed HFCs, maximizing reclamation and minimizing releases of these HFCs and their substitutes in equipment (e.g., refrigerators and air conditioners), and facilitating the transition to next-generation technologies

by restricting the use of HFCs in particular sectors or subsectors. Under this third authority, EPA recently received five petitions from industry, states, and environmental organizations to address HFC use in refrigeration, air conditioning, and other applications.

The AIM Act's phasedown is consistent with the global phasedown of HFCs outlined in the Kigali Amendment to the Montreal Protocol on Substances that Deplete the Ozone Layer, an international agreement ratified by more than 115 countries.

This proposal is the first to provide an estimate of the social costs of HFCs, or the monetized benefits from a decrease in emissions of HFCs, corresponding reductions in global warming, and the avoided damages. In April, EPA finalized a rulemaking under the Significant New Alternatives Policy (SNAP) program that listed new refrigerant options for use in retail food refrigeration, residential and light commercial air conditioning, and heat pump equipment. These additional options have lower global warming potentials and provide additional flexibility for industry, supporting the transition to alternatives needed to meet the AIM Act's HFC phasedown reduction steps.

On April 22, as a part of the Paris Agreement, the United States pledged to reduce national greenhouse gas emissions by 50 to 52 percent below 2005 levels by 2030. Due to the significant reduction of highly potent HFCs, this proposed rulemaking is an important step toward meeting that commitment.

# **Troubleshooting**

### A Convenience Store That's Not Comfortable

Bv Jim Johnson Contributing Editor

In this troubleshooting situation, the customer, who can't provide you with any helpful information about the history of this comfort cooling system since they just recently purchased the business, is complaining that the temperature inside their small convenience store won't get comfortable in the warmer part of the day.

One piece of information they can provide is that they recently renovated, removing a wall, expanding what was formerly warehouse area into retail space.

The equipment is a threephase, 5-ton rooftop unit that is charged with R-410A (see

Figure One), and when you evaluate the operation of the system, you find the following:

... A visual inspection of the filters and coils proves that they are clean, and there is water in the condensate drain pan.

...An accurate check of the supply air shows it to be 65-degrees dry

...Both the condenser and evaporator fan motors are operating

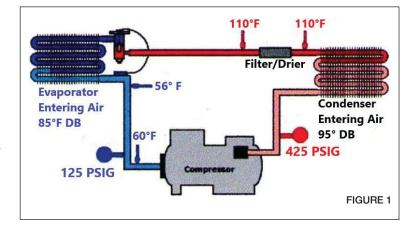
You also note that after several hours of continuous operation, all system components remained relatively unchanged. All continued to operate, and none shut down on any safety controls.

Your troubleshooting question: What is your diagnosis of this situa-

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

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

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



### Answer to Last Month's Question

The next step in servicing this equipment is to find and repair the leaking return duct system. When we measured a significant difference in specific humidity, it proved that air from the warm, humid attic space is leaking into the return plenum.

> The winner of last month's problem is: Jim Butcher Heating & Air Lakeside, Calif.

### **RIDGID Project**

**Continued from Page 1** 

gia. Hendricks had been seriously injured in a car accident. While he was recovering, the family's home began experiencing septic system issues.

The repairs mean everything to us at a time like this," Hendricks said. "It had come to a point that we were afraid when it rained that the toilet downstairs would overflow due to groundwater getting in the septic and backing up through the toilet! Any time it rained the toilet would bubble and gargle and it was very unsettling."

The Miracle Mechanical team repaired the septic system issues to prevent sewage from backing up in the house. They also installed three new toilets, repaired kitchen sink piping and installed a new electric water heater.

"At RIDGID we're committed to not only supporting the trades, but also giving back to the community," said Becky Brotherton, Senior Marketing Communications Manager, RIDGID for Emerson. "It's a privilege for our team to be a financial supporter of the work Miracle Mechanical is doing to help others."

Learn more about Miracle Mechanical and the Hendricks family project by visiting www. youtube.com/watch?app=deskt op&v=0FL3hvxn2sY.

Visit emerson.com/professionaltools for more information.

# **Education for Your Future**



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



### 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

### **OCTOBER**



### Webinar **NATE Core & Gas Heating Training**

Instructors: Mitch Bailey / TBA

Wed., Oct. 20 - Part 1

Thurs., Oct. 21 - Part 2

Wed., Oct. 27 - Part 3 Thurs., Oct. 28 - 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.

"PG&E" refers to Pacific Gas and Electric Company, a subsidiary of PG&E Corporation. ©2017 Pacific Gas and Electric Company. All rights reserved. These offerings are funded by California utility customers and administered by PG&E under the auspices of the California Public Utilities Commission. Scan PG&E QR code with



www.pge.com/hvactraining

www.indoorcomfortnews.com ICN JUNE 2021 21

# **Case Study**

## Virginia Winery Toasts Efficient Marley Engineered Heaters to Warm Outdoor Spaces

It's no secret that the pandemic has had a devastating impact on restaurants, bars, and wineries. With indoor seating restricted in so many places around the country, business owners have had to look for practical and cost-effective solutions to comfortably - and safely – service their customers in an outdoor setting. As the weather turned colder, this became more of a challenge. Two Twisted Posts (TTP) Winery in Purcellville, Va., successfully met this challenge by selecting infrared radiant heaters from Marley Engineered Products to warm their outdoor areas.

Working with O.T. Hall & Son, Inc., a family-owned electrical manufacturer's representative firm that has covered the Maryland, D.C., Virginia and Delaware markets since 1920, Brad Robertson, the owner of TTP, approved the installation of QMark infrared

heaters from Marley Engineered Products to heat the outdoor spaces. Ideal for indoor/outdoor, total or spot heating use, the infrared heaters feature heavy gauge bright anodized aluminum reflectors and a steel enclosure.

"Radiant technology puts warmth right where you need it, without having to heat – or pay for heating – the surrounding air," said Mike Jennings, inside sales representative with O.T. Hall. "With no need for a fan or exhaust, radiant heaters provide a safe, quiet heating alternative for many indoor and outdoor spaces. We offer a variety of radiant heater configurations, sizes, reflector angles and elements so that we can customize the right heater for the project and for a customer's specific performance and design pageds."

"Heating the outdoor air with an open flame or forced-air heaters



would be less efficient as that heat would just rise up and leave the space through the roof vents," said Robertson. "Also, we have an all wood barn structure where open flames are not a good option. We sought a low-maintenance, efficient and easy to control method to keep people seated outdoors comfortable



ABOVE LEFT: A TECHNICIAN INSTALLS A MARLEY ENGINEERED PRODUCTS RADIANT HEATER INSIDE OF THE TWO TWISTED POSTS WINERY'S (ABOVE) SPACIOUS INTERIOR.

enough to stay and drink our wine."

The radiant heaters from Marley were installed in covered areas including a crush pad with three open sides and on a covered porch along the length of the building. These areas feature 14-foot ceilings with no insulation and are open to the elements.

From the original engineering diagram and with the size, spacing and location of the heaters, the installation was projected to increase the temperature of the large space to within 20 degrees of the outside temperature. In the outside space next to the building, it was projected to increase by 10 degrees.

To help deter wind and precipitation, Robertson also installed removable vinyl tent sidewalls around the outdoor spaces.

### Winery Patrons Toast Warm Conditions

With the heaters fully operational, Robertson placed a thermometer in the area to monitor the temperatures of the spaces.

"On one check date, we had a temperature outside of around 32 degrees and a reading in the heated covered area of around 58 degrees," he said. "Similarly, on a date when the outside temperature was 40 degrees, we had covered area readings of 60 degrees. These readings validate the engineer's predictive performance and are making our outdoor areas much more comfortable for visitors."

Robertson expects the added operational cost from the installation of the heaters to be minimal and much lower when compared to using propane to heat the same areas. He also believes his revenues should increase slightly because of the

additional seating areas.

"We were able to turn our patio into an ideal seating area because of these efficient heaters and this kept us open during the CO-VID pandemic," said Robertson. "Without these heaters we would have likely been forced to close for the winter season and not only would have lost revenue but may also have lost long-time employees and customers if we were closed for an extended period."

Now, wine connoisseurs can spend more time comfortably enjoying the high-quality bottles that TTP Winery produces.

"We look forward to extending our outdoor season and using our outdoor space for special event groups that we previously had to turn away," added Robertson.

Marley Engineered Products is a leading North American designer and manufacturer of reliable comfort heating and ventilation solutions for residential, commercial and institutional buildings. Founded in 1926, the company's expertise in thermal engineering began in 1922 with the inception of the Power Plant Equipment Company, which later became the Marley Company.

Today, Marley Engineered Products is recognized by contractors, architects, engineers and HVAC professionals for providing a wide range of high-performance, reliable heating and ventilation equipment. Marley Engineered Products' brands include QMark® and Berko®, providing a wide range of innovative, quality engineered, commercial, industrial, and residential electric comfort heaters as well as ventilation solutions.

Marley Engineered Products' manufacturing operations are based in Bennettsville, S.C., with regional sales representatives located throughout the U.S. and an administrative office in Burr Ridge, Ill. Visit the website at www.marleymep.com.

# Serra Truck Center

# Chevrolet Commercial Vehicles Your One Stop Shop for Light & Medium Trucks and Vans









## If We Don't Have It... We'll Build It for You

**Just ask for Commercial Trucks** 877.278.0333 or 626.932.5652



Sierra Truck Center | www.SierraTruckCenter.com 1621 South Magnolia Ave. Monrovia, CA 91016

22 ICN JUNE 2021 www.indoorcomfortnews.com



# Put confidence at the center of your renovations.

When your customers want to make more areas in their home more comfortable, turn to the highly efficient Carrier ductless systems. No ductwork is required, so you can have confidence you can transform room additions, attics, sunrooms and pretty much any other space into a more comfortable place.

carrierductless.com



## Institute of Heating and Air Condit

# 2021 TRAINING

## CALIFORNIA QUALITY INSTALLATION, QUALITY MAINTENANCE AND QUALITY S

### **SOCALGAS, DOWNEY**

## **SOUTHERN CALIFORNIA EDISON, IRWINDALE**

### **PACIFIC GAS AND ELECTR**

### **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

**IHAC** 

NATE AC/HP Refrigeration

& Air Distribution Training

JUNE

(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

### **O**CTOBER

**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

# Ju

Air Distribu

(Four-Nig

Instructors: Mit

Wed., June

Thurs., June

Wed., June

Thurs., June

### SEPTE

**System Diagn** 

(Four-Nig

Instructors: Mit

Wed., Sept

Thurs., Sept

Wed., Sept

Thurs., Sept

OCT

NATE Core & Gas

(Four-Nig

Instructors: Mit

Wed., Oct.

Thurs., Oct.

Wed., Oct.

Thurs., Oct.

Nove

NATE AC/HP

& Air Distribu

(Four-Nig

Instructors: Mit Wed., Nov.

Thurs., Nov

Wed., Nov.

Thurs., Nov.

All Classes Are Being Off

Classes begin at 6:00 PM Pacific Time a Register at www.ihaci.

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



# CLASS SCHEDULE

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

**RIC COMPANY, STOCKTON** 

**SOUTHERN CALIFORNIA EDISON, TULARE** 

**SAN DIEGO GAS & ELECTRIC** 

### tion Module

<u>NE</u>

ht Class)

ch Bailey / TBA

16 - Part 1

17 - Part 2

23 - Part 3

24 - Part 4

### MBER

ostics Module

ht Class)

ch Bailey / TBA

15 - Part 1

: 16 - Part 2

22 - Part 3

23 - Part 4

### OBER

**Heating Training** 

ht Class)

ch Bailey / TBA

20 - Part 1

21 - Part 2

27 - Part 3

28 - Part 4

### **MBER**

Refrigeration

tion Training

ht Class)

ch Bailey / TBA 3 - Part 1

. 4 - Part 2

10 - Part 3

11 - Part 4

### JUNE

**Boiler Module** 

(Two-Night Class)

Instructors: Mitch Bailey / TBA

Wed., June 2 - Part 1

Thurs., June 3 - Part 2

### **Commercial Refrigeration Module**

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

\*\*Exam: Saturday Nov. 13 @7:30AM

\*\*: IN PERSON EXAM IF CALIFORNIA / EDISON APPROVED

### JUNE

**Air Distribution Module** 

(Four-Night Class)

Instructors: Mike Griffin / John Dalton

Wed., June 2 - Part 1

Thurs., June 3 - Part 2

Wed., June 9 - Part 3

Thurs., June 10 - Part 4

### JULY

**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

### **AUGUST**

**System Performance Module** 

(Four-Night Class)

Instructors: Mike Griffin / John Dalton

Wed., Aug. 4 - Part 1 Thurs., Aug. 5 – Part 2

Wed., Aug. 11 - Part 3

Thurs., Aug. 12 – Part 4

### **SEPTEMBER**

**Chiller Module** 

(Two-Night Class)

Instructors: Mike Griffin / John Dalton

Wed., Sept. 1 - Part 1

Thurs., Sept. 2 – Part 2

### **Commercial Cooling Tower Module**

(Two-Night Class)

Instructors: Mike Griffin / John Dalton

Wed., Sept. 8 - Part 1

Thurs., Sept. 9 - Part 2

### **OCTOBER**

**Boiler Module** 

(Two-Night Class)

Instructors: Mike Griffin / John Dalton

Wed., Oct. 6 - Part 1

Thurs., Oct. 7 - Part 2

### **Commercial Refrigeration Module**

(Two-Night Class)

Instructors: Mike Griffin / John Dalton Wed., Oct. 13 - Part 1

Thurs., Oct. 14 - Part 2

### COSPONSORED BY

Institute of Heating and Air Conditioning Industries, Inc., Southern California Gas Company, San Diego Gas & Electric, Southern California Edison, and Pacific Gas and Electric Company













# ered as Webinars

nd are subject to change org (Training)

# **Technical Training**

# **Growing Green Technicians** Part 140: Balance in a DX **Evaporator Refrigeration System**

By Jim Johnson Contributing Editor

DX (Direct Expansion) refrigeration equipment are systems in which the air that passes through the coil is the direct heat exchange medium and employed in every category of refrigeration system application imaginable: Comfort cooling systems, heat pumps, medium temperature food storage equipment, and low temp systems such as food freezers and ice machines. And, in each one of those systems, regardless of the specific application, the key to proper operation of the equipment is maintaining a balance between the amount of refrigerant that is entering the evaporator and the level of the heat load that the evaporator is exposed to.

In some systems, a fixed bore metering device such as a capillary tube or orifice is employed. In others, the metering device can modulate and vary the refrigerant flow into the evaporator. One example of this is the thermostatic expansion valve system shown in Figure One.

Considering this simplified illustration, we can see the first (and most fundamental) approach to being green and ensuring that this system will be able to operate as efficiently as possible. The point here is to note the location of the TEV remote bulb as it is shown attached to the suction line and accomplish a visual inspection. In some cases, due to the type of metals used in the construction of a sensing bulb, there can be a reaction between it, and the copper tubing it is attached to,

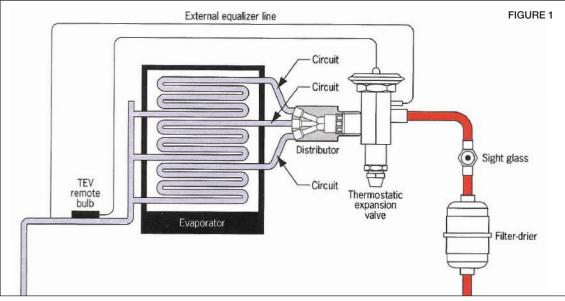
causing corrosion that can affect the ability of the bulb to react to the temperature change of the suction line.

And, of course, if the bulb cannot properly sense the suction line temperature and modulate the operation of the valve body, then the balance between the amount of refrigerant in the coil and the exposed heat load cannot be maintained. Once we are certain that the bulb is properly positioned on the tube and that the surfaces of the bulb and suction line are clean, the next step in understanding the balance the system is through the process of superheat, an illustration of which is shown in Figure Two.

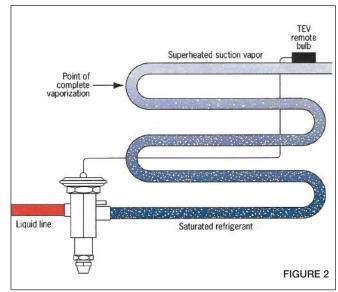
With the saturated refrigerant entering the evaporator coil and changing in state from a liquid to vapor, heat transfer (work) is being accomplished. However, once the refrigerant has reached the state of complete vaporization, while we're not doing actual work anymore, we're still gaining heat....superheat.

And it is at this point that temperature and pressure measurements are accomplished to ensure proper balance of the system.

As an example, consider that some manufacturers may recommend a superheat value of 6° to 8°F for medium temperature applications and a value of 4° to 6° F for low temp equipment. These recommendations are directly related to the outlet of the evaporator, however, and in many situations, there will not be an

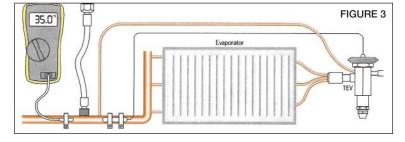


TEMPERATURE	REFRIGERANT				
°F	12	22	134a	502	
12	15.8	34.7	13.2	43.2	
13	16.4	35.7	13.8	44.3	
14	17.1	36.7	14.4	45.4	
15	17.7	37.7	15.1	46.5	
16	18.4	38.7	15.7	47.7	
17	19.0	39.8	16.4	48.8	
18	19.7	40.8	17.1	50.0	
19	20.4	41.9	17.7	51.2	
20	21.0	43.0	18.4	52.4	
21	21.7	44.1	19.2	53.7	
22	22.4	45.3	19,9	54.9	
23	23.2	46.4	20.6	56.2	
24	23.9	47.6	214	57.5	
25	44.0	40.0	22.0	58.8	
26	25.4	49.9	22.9	60.1	
27	26.1	51.2	23.7	61.5	



access valve available to measure the pressure directly at the outlet of the coil and the temperature of the tubing at that same location. (See Figure Three)

That being the case, we would have to measure the suction pressure at the access valve that is available at the compressor, which involves the entire suction line rather than just the evaporator coil. And when we take a pressure measurement at the compressor,



we need to consider that in a properly installed system, the pressure drop in the suction line should not be more than a 2° F change in refrigerant

saturation temperature, which in the example of an R-134a system, would equate to a 2 PSIG pressure drop in a system. And taking that approach and applying it to a temperature/ pressure chart such as the one shown in Figure Four will allow us to evaluate the superheat of a system.

An actual pressure measurement of 20 PSIG at the compressor, providing that the suction line is properly installed, would equate to 22 PSIG at the evaporator outlet. And, when you consult the TP chart and locate the 22 PSIG reading under the R-134a column, then read to the left, you find that the corresponding temperature is 25° F.

Which brings us to the final step of comparing our calculated temperature of 25° to our measured temperature of 35°

and employing simple arithme-



www.VentCapSystems.com

Duct Leakage Testing?

**Continued on Page 27** 

# **Product Spotlight**

### Grundfos Endorses the Use of High-Efficiency IE5 Motors and Pump Solutions Globally

E-motors are the ideal solution for better efficiency and reducing energy consumption.

It is said that as much as half of the world's electricity is consumed by motors. Motor-driven systems in the industry sector alone consumes 64% of the electric energy, while the commercial sector consumes 20% and the residential sector consumes 13%. There is a growing focus on improving the efficiencies of motors and reducing energy consumption to meet the carbon emission targets around the world. There is a lot of excitement around the world of motors, given the recent high profile investments in this area, validation from key governments and industry leaders to further promote the development and adoption on energy efficient motors across the various sectors.

The International Efficiency (IE) standards stipulate the energy efficiency and basically has set five levels of motor efficiency: IE1 to IE5. The highest efficiency level being IE5 the 'Ultra-Premium Efficiency'. These IE codes serve as a reference for governments who specify the efficiency levels for their minimum energy performance standards for motors in their respective countries.

Pumps account for a large portion of this electricity consumed across the various sectors, especially in industries and commercial sectors. As a world leading manufacturer of pumps and pump equipment, Grundfos makes electrical motors of exceptional quality. Grundfos has several decades of experience in building state-of-theart electronic controlled pumps (E-pumps) and been manufacturing its own motors with integrated frequency converters with energysaving and speed control functionality for domestic, commercial, and industrial pump applications. In fact, the world's first speed controlled pump with integrated frequency converter saw the light of day in its laboratories back in the late 1980s, and, ever since, Grundfos has worked intensively to optimise and extend its E-pump program every year.

Grundfos is dedicated to keep at the forefront of the technological development, introducing truly innovative solutions for the benefit of its customers and the environment. Grundfos' E-pumps with integrated frequency converter are designed with total control, customer convenience, and environmental sustainability in mind. Grundfos' MGE E-motors exceeds the IE5 requirements - for example, looking at a MGE 11.0 kW 3x380-500V medium speed, the IE5 requirement for the motor efficiency is 93.2 %, but the Grundfos MGE E-motor exceeds that by more than 2 % by having a motor efficiency of 95.7 % at 380V/2600 rpm. The PDS (Power Drive System, including Variable Frequency Drive or VFD) efficiency of a MGE 11,0 kW reaches as high as 93.2 % at 380V/2900 rpm. So even including the VFD the MGE motor matches the IE5 requirements for the motor part itself.

Commenting on the growing focus and adoption of E-Motors, Markus Brandstetter, Chief Technology Officer, Grundfos says "Digital transformation is inevitable across the various segments and we at Grundfos are proud to pioneer in creating the products and digital solutions of the future. Our focus on developing IE5 E-motors is strategic not only for our business, but we see that it is a critical solution to alleviate the world's energy and climate issues. E-motors are known to not only improve the efficiency of the entire system but also help in reducing energy consumption and helping us mitigate climate change. This is what we push further to the benefit of our customers and end-users in reducing cost and CO2 emissions."

High-efficiency E-pumps with IE5 motors contribute substantially to energy savings and reduced CO2 footprint. Grundfos estimates that the yearly avoided CO2 emission can be significant. In 2020 alone the avoided CO2 emissions from Grundfos E-pumps was 270,000 tons.

## Technical Training

Continued from Page 26

tic to show that our superheat is 10°. And this is the right level of superheat for this system, proving that we have enough superheat to ensure that all the refrigerant

entering the compressor will be vapor, and proving that we do not have excessive superheat. In short, we have proven that we are maintaining the balance between the refrigerant flow through, and heat load on, the evaporator coil, and the system is operating efficiently.



THE GRUNDFOS E-MOTOR.

Further, the in-built application control in MGE E-Motors reduces not only the energy consumption of the pump itself but also optimizes the performance and efficiency of the entire system.

Grundfos is witnessing a strong market trend where more pumps are being fitted with VFDs and control units. The market for VFDs, including those applied with pumps, is witnessing a projected annual growth

of around 6% in the coming years due to growing urbanization, industrialization and rising government mandates for energy efficiency. Another growth driver is the need for manufacturers to optimize their manufacturing processes and cut operational costs, and even small reductions in speed and flow lead to significant energy cost savings.

### Why choose an E-Motor?

E-motors offer increased functionality, making them easy to use in a wide-range of complex applications. These E-motors provide a range of benefits over standard motors such as:

- The MGE E-motor provides superior energy efficiency even beyond IE5 standard
- IE5 motor losses are at least 30% lower than the IE3. This alone reduces the energy consump-

tion by 10% with a typical pump load profile

- The pump, motor and frequency converter are perfectly matched for optimized pump efficiency
- Choosing the right control mode in MGE for the application can provide even more energy savings for the entire system of up to 75% compared to uncontrolled pumps.

# Energy and cost savings with optimised efficiency

The Grundfos MGE E-motors are the most energy efficient yet. These permanent magnet synchronous motors (PMSM) are designed especially for frequency converter operations and optimised for pump applications and high part-load efficiency. The motor PMSM also has a built-in frequency con-

**Continued on Page 28** 

# CERTIFIED HVAC PROFESSIONAL (CHP-5)



### **LEARN** AT WORK

With the Certified HVAC Professional (CHP-5), technicians can earn their NATE certification while training in the field. The CHP-5 certification pathway is a series of 5 short exams that NATE created to mesh technician's on-the-job training with their test preparation.

### **STUDY ONLINE**

NATE has partnered with **HVACRedu.net** and **Interplay Learning** to provide technicians with online courses and virtual reality trainings that prepare technicians for each CHP-5 exam.

### **CERTIFY** AT HOME

Technicians can choose to take their exams from home at a time that fits their schedule using NATE's remote Live Online Proctored Exams.

Register your technicians at: www.NATEX.org

NATE is the leader in developing and recognizing professional HVACR technicians.

North American Technician Excellence (NATE) is the largest non-profit certification organization for heating, ventilation, air conditioning and refrigeration technicians.

CUSTOMER SERVICE: 877-420-6283 | EMAIL: asknate@natex.org



www.indoorcomfortnews.com ICN JUNE 2021 27

# **Product Spotlight**

### **Grundfos E-Motors**

**Continued from Page 27** 

verter that enables variable-speed operation with benefits in pump applications ranging from energy savings, process control, extra functionalities, built-in motor protection, higher performance and more compact pumps, reduced water hammer due to long ramp times and low starting currents.

This results in lower energy and lifecycle costs. Adjusting the speed of the pump based on demand, rather than throttling the system flow with a valve, also results in no excess pressure causing stress in the system and noise in the valve due to cavitation and reduced power

consumption due to lower pump speed.

Grundfos' MGE E-Motors are currently utilized in a wide range of its pumps, including the multi stage pump ranges CRE, CME, MTRE the single stage pump ranges TPE, NBE, NKE and Booster systems that serve multiple applications.

# Looking beyond just motors to the entire system

Grundfos iSOLUTIONS brings a new era of intelligence to pump systems and water technology with solutions that look beyond individual components and optimise the entire system. Powered by the company's deep understanding of water, Grundfos iSOLUTIONS utilises intelligent pumps, cloud connectivity and digital services. Together they enable real-time monitoring, remote control, fault prediction and system optimisation to help you reach a new level of performance.

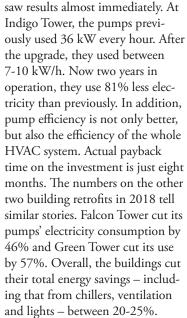
Grundfos iSOLUTIONS delivers the optimal combination of pumps, drives and auxiliary components for the specific application, incorporating special features and functions and building on application knowledge and experience. iSOLUTIONS allows easy integration of pumps, drives, measurement, controls, protections, and communication, saving you valuable engineering, installation and commissioning time.

# Recent installations and their impact

Grundfos has many success stories from around the world on how E-Motors and iSOLU-TIONS are helping its customers solve their water management issues as well as helping them converse water and energy, thereby reducing their costs and carbon emissions.

• Buildings unlock up to 80% energy savings with simple pump swaps: Taka Solutions (an energy consulting company) worked with Grundfos to determine the problems around the existing HVAC (heating, ventilation and air conditioning) pumping systems in three buildings belonging to H&H Property Management and Development in Dubai - Indigo Towers (residential), Green Tower (commercial) and Falcon Tower (residential). These building were experiencing unusually high electricity costs. A Grundfos Energy Check determined that the buildings were equipped with oversized pumps, inefficient operation and poor balancing in their constant, primary chiller systems and these pumps ran at constant speed. Thus, Grundfos recommended changing to close-coupled, endsuction pumps with variable

frequency drives – intelligent NB-E pumps. These could provide the exact flow requirements to the chillers without wastage and improve the Delta-T to five degrees Celsius. A simple, turnkey solution. H&H



• Effective monitoring helps resolve operational issues - saving water and cost while increasing production: Based on the findings of the Grundfos iSOLUTIONS MONITOR, CPKelco based in Køge, Denmark, installed two new CRNE3-23 pumps with an 11 kW MGE motor. This solution has not only helped solving CPKelco's problems but it also had a positive long-term effect on their CAPEX and OPEX. CAPEX, because the offered solution had a lower cost than the old system; and OPEX, because of energy savings and a 50% reduction in water consumption, as well as savings on service and a higher production. This is a fantastic example of how Grundfos can help its customers not only monitor their pumps, but also the system in which they are installed.



WILLIAM GRANTS AND SONS DISTILLERY.

• At Grant's distilleries in United Kingdom, Grundfos replaced the fixed-speed CR pumps for boiler feed on four steam boilers with a steam capacity from 12.5 tons to 30 tons with a steam pressure of 10 bar, with Grundfos iSOLU-TIONS CRIE15-8 pumps with MGE motors. They also removed the modulating valve from the boiler. The CRIE pump controls the level in the steam boilers, going up and down in speed depending on demand. At the same time, the Grundfos pumps use built-in functions in the drive – that is limit-exceed and signal relay output - to control a bypass valve to secure flow through the economiser when the burner is running but the boiler is not calling for water. All control is handled by the drive at exactly the right time to have a safe and efficient boiler operation and reduce complexity. The outcome has been a 40 percent energy saving on one pump alone which equates to about 5.000 GBP a year. On top of that a 6 % saving on the gas usage for the boiler as a result of the more stable level control.

Three words, which can easily describe Grundfos' MGE-motors are reliable, customizable and energy efficient. Since it was first introduced in the 1990s, these motors have set the standard in the business. This, combined with the digitalization of pumps, is changing the game for most industries right now, enabling new opportunities previously not possible, but also disrupting the normal.

# Fieldpiece



# Introducing the VPX7, VP87 and VP67 vacuum pumps

The Fieldpiece VPX7, VP87 (DC motor) and VP67 (AC motor) models are lighter, more durable and faster than anything on the market — pumping 6-10 CFM and weighing between 24 to 29 lbs. The perfect fit for residential and commercial jobs, they are small, but mighty. Light, but durable. Easy to

carry, but full-powered for your biggest jobs.

Get faster evacuations with convenience, every time with Fieldpiece.



RunOuick

**Oil Change System** 



To learn more visit www.fieldpiece.com

### Johnson Controls, Hitachi Form Compressors Partnership

Johnson Controls announced a partnership with its joint venture company, Johnson Controls-Hitachi Air Conditioning, to offer wide-scale distribution of its Hitachi horizontal scroll compressors in North America. The ZS and DS series horizontal scroll compressors are now available to North American-based refrigeration equipment manufacturers through Johnson Controls sales representative.

"As refrigerated equipment machine compartments become smaller, horizontal scroll compressors are the perfect solu-



THE HITACHI HORIZONTAL SCROLL COMPRESSOR.

tion to save space, reduce energy consumption, and minimize noise and vibration," said Bill Merritt, director of business development, Johnson Controls. "Hitachi first introduced its horizontal scroll compressor in the early 2000s, and today, we are pleased to not only offer a product that delivers excep-

tional performance and reliability but has also undergone rigorous testing and continuous design enhancements."

Johnson Controls-Hitachi Air Conditioning horizontal scroll compressors will be made available in phases. The first phase includes the ZS and DS series single-speed horizontal scroll compressors that range in capacity from one-half to three horsepower. Phase two will include availability of larger capacity vertical scrolls, and inverter driven horizontal and vertical scroll compressors for both refrigeration and air conditioning applications.

# **Indoor People**



MICHAEL RAUTERKUS

Uponor's board of directors has appointed Michael Rauter**kus** as president and CEO of Uponor Group and chairman of the executive committee. He will join the company and assume the CEO responsibility on August 21, 2021.

Michael Rauterkus' most recent operative role was the CEO of Grohe AG. Prior to this, he has worked in various roles at Grohe since 2006. Earlier in his career, he worked for companies like in Hasbro Inc., Levi Strauss & Co., and Kraft Jacobs Suchard (now Mondelez).

"I am very pleased that Michael Rauterkus has accepted the assignment to lead Uponor into the next phase and I look forward to working with him," said Annika Paasikivi, chair of the board of directors, Uponor Corporation. "Michael is a seasoned visionary leader with strong strategic competence. He understands the dynamics of our industry inside out."

"I am very excited to join Uponor, a leading iconic brand in the industry with a global presence," said Rauterkus. "I love this industry, as water delivery and energy efficiency are essential for everyday life of people. I look forward to learning the Uponor business, meeting the Uponor teams in the markets, visiting the production sites, and discussing with our customers and shareholders of Uponor's future plans. It is a great opportunity to lead over-100-yearold Uponor to its next development phase."

Uponor announced on February 12, 2021, that Jyri Luomakoski will leave his position as president and CEO on August 21, 2021.

Scott M. Asbjornson, AAON vice president, finance and chief



SCOTT M. ASBJORNSON

financial officer (CFO), notified AAON Inc. of his decision to retire from the company to pursue other interests, effective immediately. Concurrently, the company's board of directors has appointed Rebecca A. Thompson as vice president, finance and chief financial officer, effective

Asbjornson has served as vice president, finance and CFO since August 2012. Prior to that, he served as president (2010-2012) and vice president (2007-2010) of AAON Coil Products Inc., the company's wholly-owned subsidiary, and from 1988 to 2007, held various accounting and finance positions at the company.

"I want to thank Scott for his numerous contributions to AAON

during his lengthy career with our company," said Gary D. Fields, AAON CEO and president. "Scott served as CFO during a period of transformative growth for the company and did so while always focusing on creating value for our stockholders. Please join me in congratulating Scott on his wellearned retirement. We wish him all the best as he enters the next phase of his life.'

"The promotion of Rebecca to the CFO position is an ideal step in our ongoing succession planning process," said Fields. "Scott identified Rebecca's talents over 10 years ago and led the company's recruitment - and ultimate successful hiring - of her in 2012, and in recent years has actively worked to prepare Rebecca for this new role at the company."

Rebecca A. Thompson, 42, joined the company in 2012 as chief accounting officer and assumed the additional role of treasurer in 2017. Prior to joining the company, she served as a senior manager at Grant Thornton LLP, where she had 11 years of experience in the assurance division. Thompson is a licensed certified

public accountant and graduated from the University of Tulsa with a Bachelor of Science in Accounting and Master of Information Systems and Accounting.

"In Rebecca's 10 years with the company, she has consistently demonstrated her immense capabilities," said Fields. "She has been an integral part of the development and successful execution of our business plan and I very much look forward to continuing working with her as she steps into this new role."

Shashwat Nath has joined Watts as Senior Product Manager, Shut-off Valves. He has overall responsibility for the strategy, new product development, and product management of Watts solutions for ball valves and butterfly valves, as well as its range of AquaLock™, ANKA, and APEX plumbing system fittings.

He brings to Watts extensive experience in product management for large product portfolios across several industry verticals. He also

Continued on Page 30

### **IAQ Schools Survey**

Continued from Page 1

ing design guidelines and to advance health and sustainability goals, while instilling confidence in the places where people learn."

The results of the survey show that schools have implemented some protective measures to improve IAQ, prioritizing ventilation and filtration to reduce the transmission of the virus. However, school districts still have unmet needs and face numerous challenges related to costs and outdated building infrastructure.

"Indoor air quality continues to be a critical concern as more teachers and students are returning to the classroom," said Anisa Heming, director of the Center for Green Schools at USGBC. "Increasing clean air circulation for our teachers and students is vital to promoting public health and is a key green building strategy for school buildings. Our aim with this report is to inform policymakers and nonprofits that support our schools of the challenges that our education institutions face in combatting the spread of COVID-19, particularly given the deficient state of many school buildings across

the country."

Additional findings from the survey include:

- The most-frequently cited challenge to implementing protective air quality measures at schools was that school buildings were not designed to support the strategies that were being recommended.
- School districts that have been able to act have leaned heavily on their mechanical systems, such as

increasing air supply through HVAC systems or upgrading filters to implement protective air quality measures for students and teachers.

- Only two-thirds of respondents were regularly monitoring IAQ before the pandemic, indicating that providing time, staff, and funding for regular monitoring and data collection has not been a priority for many districts in the past.
  - Respondents want to continue

the measures implemented during the pandemic, citing student and teacher health. Seventy percent of school districts plan to continue some or all of the strategies they've implemented.

"As schools re-open and develop health and safety plans to mitigate airborne transmission of COV-ID-19, many are prioritizing and upgrading current HVAC systems to provide the highest indoor air

quality for building occupants," said Corey Metzger, ASHRAE Epidemic Task Force Schools team lead. "We know that improved indoor air quality has a positive impact on student performance and general well-being and I'm hopeful that more schools will consider and implement the guidance provided by ASHRAE."

To download the full report, visit ashrae.org/COVID19.

# **BECKETT CONDENSATE PUMPS**

TRUSTED SINCE 1948

### Quieter Design Is Ideal For:

• Ductless/Mini Split Systems Computer Room A/C



Scan Code For Full Details



MS602ULCQ Model Shown

Rated 240V • 53 ft. Max lift • Safety Switch Included

Proudly Represented by:



Arizona, California, Hawaii, Nevada 888.909.HVAC • PSGHVAC.com

### **HVAC Manufacturer's Reps:**

Bobby Hahn, Danny Paice, Jay Torres Janell DiResta, Kacie Muhonen, Brandon Scheuermann

BeckettUS.com





www.indoorcomfortnews.com ICN JUNE 2021 29

# **Indoor People**

### **Continued from Page 29**



has extensive experience related to IoT systems, both hardware and software.

. . . . . . . . .

McElroy announces the appointment of Geoff Koch, P.E., as vice president of product devel-

opment, who will help lead the

continuing evolution and global

impact of McElroy pipe fusion equipment.

Koch joins McElroy after nearly 25 years with Ditch Witch, where he was vice president of product development. At McElroy, he will be responsible for design, prototype build and testing of all new equipment in addition to supporting McElroy's current and extensive line of pipe fusion products.

"Geoff has a track record of engagement and success across many diverse engineering areas and has repeatedly proven his ability to coach and lead teams to create innovative solutions that meet customer demands, including unique applications of specialty tools and machines," said McElroy CEO Chip McElroy.

Koch has an extensive background in sustaining engineering, clean sheet product development, systems engineering, electronic and

GEOFF KOCH

software design, machine control and electrical system integration, and regulatory compliance. He has a bachelor's degree in mechanical engineering and a master's degree in engineering and technology management, both from Oklahoma State University.

Bradford White Corporation has named Rich Simons senior vice president and general manager of

. . . . . . . . .

Laars Heating Systems Company.

"I've often said that Rich is the epitome of a general manager, because he can bring insight and ideas to every facet of the Laars Heating System's business," said Bruce Carnevale, president and CEO of Bradford White Corporation. "His broad knowledge base, tireless work ethic, and industry experience have made him an invaluable part of our corporate leadership team."

Simons, a graduate of Case Western Reserve University and the University of Minnesota Carlson School of Business, joined Laars in 2016 as vice president and general manager. His responsibilities encompass the overall operation of the business as well as its strategic direction and financial results. Simons has more than 30 years of experience in the boiler industry.

"The opportunities that we are taking to deliver innovative customer solutions have never been better and we are excited about our future," Simons said.



"It's about our customers and our people, and as a member of the Bradford White family, I am very proud of what we have accomplished."

"When Rich arrived at Laars, his priority was to spend time with our customers and manufacturers' representatives so he could truly understand their needs and learn about any challenges they were experiencing," Carnevale said. "Under his leadership, the Laars team has brought new products to market in record time and implemented improvements across the major functional areas of the company."



ROBERT GILLIS

Danfoss appointed Robert Gillis as key account manager for its hydronic heating business in North America.

He will focus on supporting the growth of hydronic heating applications within the Northeast United States and Eastern Canada through Danfoss' line of hydronic comfort controls.

Gillis has more than 20 years of engineering and application experience in HVAC equipment and building controls, including as a sales engineer for HVAC equipment and automatic temperature control system manufacturers, and as a Northeast sales application engineer for Johnson Controls Inc.





### **AIR CONDITIONERS & HEAT PUMPS**

· Quiet, Efficient Comfort



RESIDENTIAL PRODUCTS IN STOCK &

READY TO INSTALL NOW!

### **GAS FURNACES**

- **Exceptional Quality &** Reliability
- **Direct Spark Ignition** System



### **COMMERCIAL PACKAGE AND SPLIT SYSTEMS**

- Up to 12.5 Ton Available
- Single/Two-Stage Cooling
- Gas/Electric & Heat Pump



# **RESIDENTIAL PACKAGE**

- Gas/Electric & Heat Pump
- **Durable Long-Lasting** Performance

### ARS IS THE ONE STOP SHOP FOR ALL OF YOUR HVAC AND REFRIGERATION NEEDS

\*Complete system consists of condensing unit, furnace and coil or heat pump condensing unit and air handler. May not be combined with any other offer or program. Standard pricing applied.



**ANAHEIM** 

**CORONA** 

GLENDALE

**MODESTO** 

(209) 523-3288

**SACRAMENTO SAN DIEGO** 

SAN FRANCISCO

SAN LEANDRO

**SANTA ROSA** 

**STOCKTON** 

S SAN FRANCISCO (650) 583-1194

**LOCATIONS IN** AZ, TX, NV, NM, & VA

### **Help Wanted**



### **Company Overview:**

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

For consideration, apply on our career page at REMICHEL.COM

Benefits include:

- Competitive pay
- Medical, Dental, Vision,

Disability, 401K, Life and MORE!

### **Help Wanted**

### Hiring: Outside Sales **Professionals**

Union City, CA, Fresno, CA and San Jose, CA Responsibilities include:

- Calling on accounts
- Developing and building strong customer relationships Minimum Qualifications:
- 3 years sales experience required
- Knowledge or experience in HVACR required
- Valid Driver's License and reliable vehicle is a must
- Excellent people, communication and computer skills

### Hiring: Counter Sales and Warehouse/

Drivers for Van Nuys, CA! Multiple openings available!

- Understand of heating and cooling matrix
  - Basic math skills
- Knowledge of material handling equipment
- Valid driver's license, safe driving record

### For Sale

### **Business for Sale**

Small light commercial HVAC company for sale, servicing Inland Empire & Orange County, CA. Includes 2012 Ford E-150 van filled with parts. You will be ready to start work right away. \$80,000

Call (951) 545-7774 for more information.

### Air Duct Cleaning Equipment

. . . . . . . . .

Owner retiring after long succesful business. Two enclosed cargo single axel trailers. Three air duct certified HEPA filtered vacuum systems.

\$27,000 OBO Phil - Fresno, CA (559) 255-4872 Call for details and pics

### **Advertiser Index**

ADVERTISER	<b>ICN PAGE</b>
American Refrigeration	
Supplies (ARS)	30
Baker Distributing Compan	ıy4
Carrier Corporation	23
Dial Manufacturing	12
Energy Code ACE	12
Ferguson HVAC	
Ferguson HVAC	
Ferguson HVAC	15
Fieldpiece Instruments	28
Goodman	32
Gree Electric	14
IHACI Membership	17
IHACI Training Schedule	24
Inaba Denko America	10
JP Lamborn Co	18
Mitsubishi Electric	9
North American Technician	
Excellence (NATE)	
Olimpia Splendid USA	13
Pacific Systems Group, Inc	29
Parker Hannifin	
PG&E	
Pro Source / Pro Lift	
Rapid Duct Testing	
Rheem	20
R.E. Michel Company	16
San Diego Gas	
& Electric (SDG&E)	
Sierra Chevrolet	
SoCalGas	
Technical Training Associat	
USACD	
USACD	
Vent Cap Systems	26

American Refrigeration	
Supplies (ARS)	30
Baker Distributing Company	4
Carrier Corporation	23
Dial Manufacturing	12
Energy Code ACE	12
erguson HVAC	2
erguson HVAC	3
erguson HVAC	15
Fieldpiece Instruments	28
Goodman	32
Gree Electric	14
HACI Membership	17
HACI Training Schedule	24
naba Denko America	10
JP Lamborn Co	
Mitsubishi Electric	9
North American Technician	
Excellence (NATE)	
Olimpia Splendid USA	13
Pacific Systems Group, Inc	
Parker Hannifin	
PG&E	
Pro Source / Pro Lift	26
Rapid Duct Testing	19
Rheem	
R.E. Michel Company	16
San Diego Gas	
& Electric (SDG&E)	
Sierra Chevrolet	22
SoCalGas	
Technical Training Associates	
JSACD	5

# INDOOR COMFORT NEWS

The Institute of Heating and Air Conditioning Industries INDOOR COMFORT NEWS

**IHACI OFFICERS** 

Mark Ramirez, President

Comfort Climate Control

Carlos Ruiz, Vice President

Southern California Gas Company

Dean Gilford, Secretary/Treasurer

Kilowatt Heating, A/C & Electric

BOARD OF DIRECTORS

Steve Adams

Ferguson Heating & Cooling

Jim Batts

Los Angeles Department of Water and Power (Retired)

Steve Clinton

Southern California Edison

**Eric Linares** 

Ingersoll Rand

Robert Scott

RASENT Solution

**Bob Wiseman** 

& Air Conditioning

Penny Yonan Padgett

US Airconditioning Distributors

Gilbert Rivera Edito

Karina Ball

Advertising Sales Professional

Ted Rieger Northern California Correspondent

Jim Johnson

Contributing Editor

Rick Torres / Calavera Graphics

Lisa Marie De Roma

Ari ManSonHing

INDOOR COMFORT NEWS is not responsible for unsolicited materials. Although every precaution is taken to re the accuracy of statements, IHACI assumes no responsibility.

Postmaster: Send address changes to INDOOR COMFORT NEWS

454 W. Broadway, Glendale, CA 91204 Phone (818) 551-1555



### Want to develop an in-house training program to upskill your technicians?

### **Check out our HVACR Troubleshooting Fundamentals Technician Training Package** For Trainers & Service Managers!

This training package includes:

- Two Trainer Textbook Resources That Include A Technician Textbook & An Instructor Guide & PowerPoint Presentation Containing The Answers To The Questions In The Workbook
- Two Video Training Programs That Include A Resource Disc Containing Quiz Questions & **Resource Materials**
- Two HVACR Troubleshooting Fundamentals **PowerPoint Programs**
- Two Copies Each of Two Technician Textbooks
- Additional Free Bonus Video Program That Includes A Resource Material Disc



A \$745 value for only \$633!

These resources can be implemented into your in-house staff development program, technicians-in-training use their textbook for study and accomplishing end-ofchapter exercises.

At your regularly scheduled training sessions, the Instructor Guide and/or Power Point gives you the opportunity to assess technician progress, and the DVDs allow you to present video segments to supplement the training process.



Order today at: https://techtrainassoc.com or call 520-625-6847

www.indoorcomfortnews.com



## With bypass-less zoning solutions from Clean Comfort<sup>™</sup>.

Help eliminate hot and cold spots or uneven temperatures in customers' homes. Offer these energy-efficient products to help lower energy bills and unnecessarily cool or heat unused rooms. Your customers will thank you for getting the most out of their HVAC system.

### Our complete family of Clean Comfort products helps to improve indoor air comfort and air quality:

### **Filtration**



- 5-Stage Air Treatment
- Hepa Air Cleaner
- Media Air Cleaner
- Electronic Air Cleaner
- Hybrid Air Cleaner
- Replacement Filters

### Dehumidification



• Whole-Home Dehumidifier

### Humidification



- Whole-Home Humidifier
- Bypass Evaporative Humidifier
- Steam Humidifier

### **Purification**



- In-Duct Air Purifier
- Coil Purifier
- For Furnaces
- For Air Handlers

### **Ventilation**



- Heat Recovery Ventilator (HRV)
- Energy Recovery Ventilator (ERV)

### Zoning



- Premium Bypass-Less Zoning Panels
- Economy Zoning Panels