

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

CELEBRATING THE PAST, PRESENT, & FUTURE!

COMPLIMENTARY ADMISSION!



HVAC/R/SM PERFORMANCE CONTRACTING PRODUCT AND EQUIPMENT TRADE SHOW

TUESDAY, NOVEMBER 7, 2023 PASADENA CONVENTION CENTER 11:00 AM- 7:00 PM



SCAN TO PRE-REGISTER WE ARE GOING TICKETLESS!

Exhibitor Directory	20-21
IHACI Hands-On Training Demo	43
Seminar Schedule	44-45
Off-Site Parking/Trade Show Floor Plan	46



454 W. Broadway Glendale, CA 91204 CHANGE SERVICE REQUESTED

INDOOR COMFORT NEWS

%FERGUSON HVAC

BLAST OFF WITH

RIF



PLEASE JOIN US FOR THE 2024 RUUD[®] VIRTUAL DEALER MEETING

Wednesday, December 6, 2023 8:00 a.m. - 11:00 a.m. (P.S.T.)

Launch your business to new heights!

YOU WILL LEARN ABOUT:

- Ruud Products
- Training Opportunities
- Pro Partner[™] Program including the Cornerstones and how they can increase your business
- Rebates and what they mean to you and your customer
- Advertising Opportunities
- Other Business Growth Opportunities



REGISTER TODAY: https://gr1.be/GZ31 129

Text us now at one of our locations for the answers you need. Monday–Friday, 7:00 a.m. – 4:00 p.m.*

ARIZONA

GILBERT (480) 824-4250 GLENDALE (602) 246-6982 MESA (480) 832-3438 **NE PHOENIX** YUMA (928) 329-6420 (480) 308-8200 **S PHOENIX** (602) 438-8945

NEVADA W PHOENIX** HENDERSON NEW! (623) 474-7200 (725) 294-0178 PRESCOTT LAS VEGAS (928) 759-0222 (702) 260-9388 TUCSON (520) 670-1100

CALIFORNIA

j de le

9 .

ANAHEIM (Cerritos) (714) 520-6440 ANAHEIM (Claudina) (714) 520-0026 BAKERSFIELD (661) 335-7200 CATHEDRAL CITY (760) 770-6762 CHATSWORTH (818) 341-5200

снісо (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) 239-6407 NEWBURY PARK (805) 376-3576

ONTARIO (909) 969-2272 PASO ROBLES (805) 434-3114 PITTSBURG (925) 778-1237 POMONA (909) 517-3810 RIVERSIDE (951) 784-0506

Call your local store to verify hours as they may vary. W. Phoenix number applies to all AZ locations. **ROHNERT PARK (707) 293-2652 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

1111



BUNDLE UP!

FIND OUT HOW WE CAN HELP YOU SAVE WHILE SUPPLIES LAST



XR16 SLIM HP 220V BUNDLE SEER1

1.5 – 5.0 Tons

CALL FOR PRICING

BUNDLES INCLUDE:

- XR16 Slim Heat Pump
- M Product
- Single Stage
- Multi-Positon Trane® TEM4 Air Handler 220V



XR16 SLIM HP 115V BUNDLE SEER1

1.5 - 5.0 Tons

CALL FOR PRICING

BUNDLES INCLUDE:

- XR16 Slim Heat Pump - M Product
- Single Stage
- Multi-Position Trane POV – 115V
- Trane Multi-Position Coil with Bi-Flow TXV

FREE^{*} TRANE THERMOSTAT

Add a FREE Trane 4H | 2C Stage Programmable Thermostat

TTCONT724AS42DA





Add an Aerus Air Scrubber A9960052

*Offer valid at participating California Ferguson HVAC locations. Must take delivery by October 31 2023. No substitutions allowed. While supplies last. Limit one free stat per bundle purchase. Pricing subject to change without notice. Taxes not included.



COMFORTABLY CALIFORNIA HEAT PUMP FIELD SWITCHING INCENTIVE

- Ask your TM or Ferguson Associate how to qualify
- Learn more: https://switchison.org/contractors/incentive-resources
- Scan the QR code

Access local inventory from the field. Get answers you need. Text us Monday–Friday, 7:00 a.m.–4:00 p.m. or call your local store to verify hours as they may vary.

CALIFORNIA NEVADA ANAHEIM CATHEDRAL CITY **CULVER CITY** FRESNO INDIO ONTARIO POMONA N SACRAMENTO HENDERSON (760) 775-7400 (909) 969-2272 (909) 517-3810 (916) 924-8661 (725) 294-0178 (714) 520-6440 (760) 770-6762 (310) 391-2291 (559) 538-6124 NEW! CHATSWORTH RIVERSIDE LAS VEGAS DUBLIN LANCASTER PASO ROBLES S SACRAMENTO AZUSA GILROY (626) 969-1874 (818) 341-5200 (925) 828-4875 (408) 846-6469 (661) 945-6902 (805) 434-3114 (951) 784-0506 (916) 210-7993 (702) 260-9388 BAKERSFIELD снісо **EL CAJON** HAYWARD NEWBURY PARK PITTSBURG ROHNERT PARK VICTORVILLE (661) 335-7200 (530) 893-2114 (619) 258-9382 (805) 376-3576 (925) 778-1237 (707) 293-2652 (760) 241-6284 (510) 782-9820

FERGUSONHVAC.COM

©2023 Ferguson Enterprises, LLC 0923 3505





CALIFORNIA



Fieldpiece Honored with Cultural Excellence Award

Orange, Calif. – Fieldpiece Instruments, the leading manufacturer of HVACR tools pros trust, announced they were recognized with the prestigious Kepner-Tregoe Critical Thinking Cultural Excellence Award. Kepner-Tregoe (KT) is the pioneer of rational process development, and the KT Excellence award is bestowed to an organization that displays outstanding performance in developing an environment and support structure that enables critical thinking skills to flourish and thrive.

Fieldpiece's nomination was remarkable given that over 100 award submissions were received from companies worldwide. After a successful implementation of the KT methodology, the leadership team developed a solid plan for encouraging process excellence in all areas related to operational performance and client satisfaction. The overall impact was a laser-focused drive toward the successful implementation of its 3-year strategic plan. For this truly outstanding achievement, Fieldpiece was recognized as a global benchmark and has now become part of the historical record and legacy of having won a coveted KT Global Excellence Award.

"KT methodology is one of the foundational tools we use to help align our thinking and continuously innovate," stated Cameron Rouns, chief executive officer of Fieldpiece. He continued, "The ability to create a systematic way of driving organization-wide critical thinking skills in areas such as problem solving, decision and root- cause analysis, as well as opportunity assessments for business improvements and team engagement, allow us to thrive. We are honored to be recognized for developing these core values as an integral part of our operating model.

Fieldpiece Instruments is an innovative technology company focused on helping industry professionals do their jobs easier, faster, and better. It delivers on this promise through industryleading devices and a broad range of professional-grade tools and technology inspired by real-world application and field use. Fieldpiece is focused on serving the HVACR industry exclusively, enabling HVACR professionals to become masters of the trade. Discover more at www.fieldpiece.com, and follow Fieldpiece on Facebook, Instagram, YouTube and LinkedIn.

Kepner-Tregoe is a global leader in management consulting and problem solving. For more than 65 years the company has helped organizations analyze complex problems, make decisions, and effectively implement change. With a proven approach and extensive expertise, Kepner-Tregoe has established itself as a trusted partner to virtually all the Fortune 100 companies.

• • • • • • • • •

CEC Data Shows Progress in Carbon Neutrality Goals

Sacramento, Calif. – Data from the California Energy Commission (CEC) highlight California's continued progress toward building a more resilient grid, achieving 100 percent clean electricity and meeting the state's carbon neutrality goals.

Analysis of the state's Total System Electric Generation report shows how California's power mix has changed over the last decade. Since 2012:

• Solar generation increased nearly twentyfold from 2,609 gigawatt-hours (GWh) to 48,950 GWh.

• Wind generation grew by 63 percent.

• Natural gas generation decreased 20 percent.

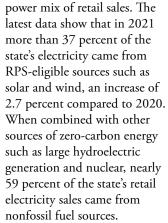
• Coal has been nearly phased-out of the power mix.

In addition to total utility generation, rooftop solar increased by 10 times generating 24,309 GWh of clean power in 2022. The state's expanding fleet of battery storage resources also help support the grid by charging during the day using excess renewable power for use in the evening.

"This latest report card showing how solar energy boomed as natural gas powered electricity experienced a steady 20 percent decline over the last decade is encouraging," said CEC Vice Chair Siva Gunda. "Even as climate impacts become increasingly severe, California remains committed to transitioning away from polluting fossil fuels and delivering on the promise to build a future power grid that is clean, reliable and affordable."

Senate Bill 100 (2018) requires 100 percent of California's electric retail sales be supplied by renewable and zero-carbon energy sources by 2045. To keep the state on track, last year Governor Gavin Newsom signed SB 1020, establishing interim targets of 90 percent clean electricity by 2035 and 95 percent by 2040.

The state monitors progress through the Renewables Portfolio Standard (RPS), which tracks the



The total system electric generation report is based on electric generation from all in-state power plants rated 1 megawatt (MW) or larger and imported utility-scale power generation. It reflects the percentage of a specific resource compared to all power generation, not just retail sales. The total system electric generation report accounts for energy used for water conveyance and pumping, transmission and distribution losses and other uses not captured under RPS.

The continued rise in renewables and decline in fossil fuel use come as the state experiences an unprecedented barrage of climate impacts, from heat waves to drought and wildfires.

In 2022, California experienced its eighth warmest and ninth driest year over the past 128 years. Temperatures in California have risen almost 3 degrees Fahrenheit since the beginning of the 20th century, and the six warmest years on record have all occurred since 2014, according to the National Oceanic and Atmospheric Administration.

In the past three years, unprecedented summer heat waves driven by climate change have put tremendous stress on California's power grid, driving demand to new highs and creating a precarious situation for the ability of the power grid to meet additional demand. State energy forecasters predict these erratic and intense weather events will continue, creating a tight energy supply in the coming years until additional energy production is brought on-line.

To better equip the grid for the years ahead, Governor Gavin Newsom signed legislation in 2022 to create the Strategic Reliability Reserve. The reserve serves as a bulwark

Continued on Page 6

<section-header><text><text>

SLIMDUCTTMSD

The best quality for the best installers.



- Premium protection
- Aesthetic cover
- 3 size options (3", 4" and 5.5")
- 4 colors (White, Ivory, Brown and Black)
- Easy assembly
- 78" duct lengths

Visit us at IHACI - Booth 513

Learn more at www.InabaDenko-America.com

Follow us on 🞯



Industry News

Continued from Page 4

during grid emergencies and is an important tool in the energy transition. The reserve consists of demand response programs and other power resources that can be deployed in the event of an energy emergency.

The California Public Utilities Commission has ordered 18,800 MW of new clean resources to come on-line by 2028. Efforts are underway to foster the development of long-duration energy storage and offshore wind energy projects in the coming decades to continue diversifying and expanding the state's clean energy portfolio.

The California Energy Commission is leading the state to a 100 percent clean energy future. It has seven core responsibilities: developing renewable energy, transforming transportation, increasing energy efficiency, investing in energy innovation, advancing state energy policy, certifying power plants and preparing for energy emergencies.



ASHRAE Wraps Up Building Conference

Austin, Texas – Embodied carbon and operational energy were the focus of the 2023 ASHRAE Building Performance Analysis Conference, held recently in Austin, Texas.

The theme of the conference, "Holistic Building Analysis: Linking Operational Energy, Embodied Carbon and Comfort," centered on a comprehensive approach to evaluating and designing buildings.

"This year's conference emphasized the importance of considering not only a building's energy consumption during operation, but also its carbon footprint throughout its lifecycle, while keeping occupant comfort and wellbeing in mind," said John Bynum, conference chairman. "This theme challenged building professionals to rethink traditional building practices and adopt integrated strategies to create more sustainable and livable buildings."

The two-and-a-half-day conference, which drew 240 building industry professionals, included keynotes, paper presentations, seminars, vendor demonstrations, panel discussions, and debates from more than 90 presenters.

Keynote sessions featured presentations from Jason DeGraw ("Extreme Events and the Role of Modeling in a Resilient Future"), Duncan Cox ("Whole Life Carbon, Is This the Right Approach?"), and Alejandra Menchaca ("Early Design: The Greatest Opportunity to Influence Performance").

The most-attended sessions were: "Modeling for Carbon and Embodied Energy I," which covered aspects of building and construction decarbonization; the Fishbowl Session, a panel discussion moderated by Dennis Knight, the 2023-24 ASHRAE president-elect; and "Occupant Health, Wellbeing and Comfort," which included three presentations on occupant comfort in indoor and outdoor settings from both thermal and visual perspectives.

In conjunction with the conference, the 2023 LowDown Showdown modeling team competition had teams of architects, engineers, designers, and energy modelers working together to create building designs that solve real-world efficiency challenges. This year's competition asked teams to envision a creative reuse of the Houston Astrodome to provide needed urban amenities and to do so within the constraints of reduced fossil fuel use and reduced carbon emissions.

First place was awarded the Carbon Lighters team. See the team's complete project overview on the modeling challenge webpage, ashrae.org/2023LDSd.

Next year's conference will be rebranded as the 2024 ASHRAE Conference for Integrated Design, Construction & Operations, and is scheduled for June 24-26 in Indianapolis, Indiana. The conference will be hosted in conjunction with the 2024 ASHRAE Annual Conference.

For more information, visit ashrae.org/cidco24.

• • • • • • • • •

Winsupply in Texas Sponsors NFL Player's Foundation

El Paso, Texas – Winsupply Local Companies Sun City Winnelson and Winsupply El Paso TX have decided to team up to become the primary sponsor of Aaron Jones' Yards for Shoes, benefitting The A&A All The Way Foundation.

Aaron Jones is the starting running back for the Green Bay Packers. During his second year in the NFL, Jones led the league in yards per carry with an average of 5.5 yards per attempt. In recognition of his outstanding performance on the field and his charitable work, Aaron was nominated for the highly esteemed Walter Payton NFL Man



GREEN BAY PACKERS RUNNING BACK AARON JONES.

of the Year award in 2021.

For several years, Aaron and his family have been organizing shoe drives in their hometown of El Paso. In 2020, they decided to expand their efforts by launching the Aaron Jones' Yards for Shoes campaign.

For the fourth year, the Aaron Jones' Yards for Shoes campaign will be active for the 2023/2024 NFL Green Bay Packers' regular season, which runs for 17 games. For every rushing yard Aaron Jones has during the Packers' games, a pair of shoes will be donated to an elementary or middle school child in El Paso, with a maximum of 1,500 pairs. Since its inception, the campaign has produced an inspiring total of 1,996 pairs of shoes.

"Yards for Shoes isn't just about football; it's about the power of teamwork, both on the field and in our communities," said Jones during the kick-off. "These shoes are a symbol of our commitment to helping kids and creating a brighter future together."

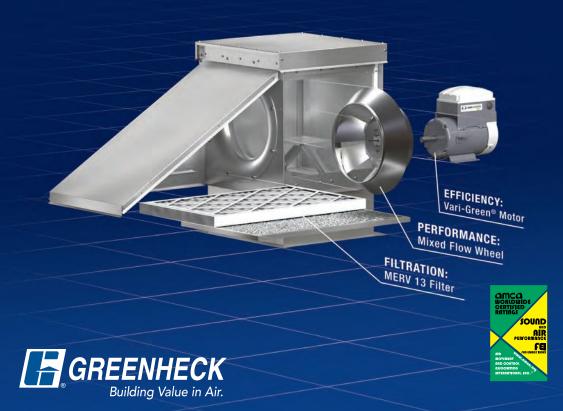
"Investing in the well-being and future of our communities is at the heart of everything we do at Winsupply," says Dean Moore, president/general manager of Sun City Winnelson. "We are honored to be part of Yards for Shoes and to witness the power it brings to children in the community."

Winsupply is in the business of creating and enabling entrepreneurs to achieve their dreams through wholesale distribution. We call this "The Spirit of Opportunity," and it motivates each and every business decision that is made.

As one of America's leading suppliers of materials for residential and commercial construction, Winsupply Inc. owns a majority equity stake in more than 660 local companies

Continued on Page 8

Introducing: Clean, Outdoor Air



Greenheck's model KSQ roof supply fan is designed, engineered and tested to be the performance leader. Multiple intake and discharge configurations provide application flexibility with a mixed flow wheel that improves airflow and efficiency while reducing sound and footprint. Introduce more clean outdoor air into your application with the KSQ.



Specify with Confidence. Specify Greenheck.

SOCALGAS RESIDENTIAL REBATES

Offer customers rebates on high efficiency equipment and installations.

Rebates include:

- Up to \$4500 rebate on ENERGY STAR[®] certified solar thermal water heater with gas back-up.
- Up to **\$1000** rebate on ENERGY STAR certified natural gas furnaces.
- Up to \$1200 on qualifying ENERGY STAR certified natural gas tankless water heaters.
- Up to \$75 rebate on high-efficiency natural gas storage water heaters

Learn more at: **socalgas.com/rebates**

For additional product information, visit marketplace.socalgas.com

This program is funded by California utility customers and administered by Southern California Gas Company (SoCalGas) under the auspices of the California Public Utilities Commission. Program funds, including any funds utilized for rebates or incentives, will be allocated on a first-come, first-served basis until December 31, 2023 or until such funds are no longer available. This program may be modified or terminated without prior notice. The selection, purchase, and ownership of goods are the sole responsibility of customer. SoCalGas makes no warranty, whether express or implied, including the warranty of merchantability or fitness for a particular purpose, of goods selected by customer. Customers who choose to participate in this program not obligated to purchase any additional goods offered by manufacturer, vendor, service provider, or any other third party. Eligibility requirements apply; see the program conditions for details.





Industry News

Continued from Page 6

across the United States. Collectively, Winsupply is known as "The Winsupply Family of Companies" and includes Win-branded locations, Noland Company, Carr Supply, APCO, and other acquired regional suppliers.

.

Trades School Opens in Dallas Metro Campus

Irving, Texas – StrataTech Education Group has opened a Tulsa Welding School (TWS) campus in Irving, Texas.

The TWS Dallas Metro location is the fourth TWS campus and the fifth trade school for StrataTech (which also includes The Refrigeration School Inc. in Phoenix). The Dallas Metro TWS campus will offer professional welder and refrigeration technologies programs in addition to an all-new electrical lineworker program.

TWS has provided hands-on, instructor-guided training for more than 70 years. Dallas Metro is the second TWS location in Texas, joining the Tulsa Welding School & Technology Center in Houston. Together, the schools will work with students, workforce, and employers across the state to address a skilled labor shortage and help meet growing demand for trades workers, a press release from StrataTech said.

"We are thrilled to expand Tulsa Welding School into the Dallas metro area," said Mary Kelly, president and CEO of StrataTech, in the release. "Texas is ripe with opportunity for skilled tradespeople, and we are looking forward to providing greater access to education and resources needed to train to become skilled trade professionals. We are focused on empowering our students to change their lives and make an impact in the communities they serve."

Demand for skilled trades workers is at an all-time high, and the U.S. Bureau of Labor Statistics predicts an expected average of about 723,400 openings per year based on growth and replacement needs within the construction and extraction industries.

The professional welder program at TWS Dallas Metro will train students in the skills needed for entry-level employment. Students will receive hands-on training in structural welding, flux core welding, and pipe welding from instructors with years of professional experience. The refrigeration technologies program will train



THE NEWEST TULSA WELDING SCHOOL CAMPUS IS IN IRVING, TEXAS, IN THE DALLAS-FORT WORTH AREA.

students in the fundamentals of HVACR technologies, preparing them for entry-level opportunities in refrigeration service and maintenance. Both the professional welder and refrigeration technologies programs can be completed in as few as seven months.

TWS Dallas Metro is the first TWS campus to include StrataTech's 15-week electrical lineworker program. The electrical lineworker program will train students for entry-level employment in electrical power distribution construction, maintenance, troubleshooting, and repair. In addition to pole construction and climbing courses, students can receive optional certifications in bucket rescue, pole-top rescue, and first aid, and earn their Occupational Safety and Health Administration (OSHA) 10 card.

The new campus will also provide local employers opportunities to train their workforces through StrataTech's StrataSkills program. StrataTech launched StrataSkills in 2022 to serve as a workforce development and retention solution for companies that employ electricians, welders, and HVACR technicians. TWS Dallas Metro will offer short-term, customized training programs to Dallas-area manufacturers, fabricators, and construction companies.



Southern Home Services Acquires HVAC Contractor

Gaithersburg, Md. – Southern Home Services has acquired Presidential Heating & Air Conditioning Inc., a local residential contractor specializing in HVAC, IAQ, and electrical services.

The acquisition strengthens Southern Home Services' offerings and market share with its first business unit in Maryland, and further solidifies its position as a leader in the home services industry, a press release from the company said. The acquisition also aligns with the company's mission of providing superior customer service and becoming the go-to provider of comfort, safety, and energy solutions for homeowners, the company said.

"The addition of Presidential Heating & Air Conditioning Inc. to the Southern family of brands is an exciting milestone for us," said Bryan Benak, Southern's CEO. "Our remarkable regional growth over the past few years is a testament to our unique business model. This acquisition plays a crucial role in expanding our footprint in the greater Mid-Atlantic area, a key market for us."

"We are thrilled to welcome Presidential Heating & Air Conditioning Inc. to the Southern Home Services family of brands," said Jarrod Brinker, chief strategy officer. "Our home office will provide expert support while preserving their local brand identity. This seamless integration will enhance operations and allow us to maintain unparalleled customer support."

Presidential Heating & Air Conditioning has served the Gaithersburg area for forty years.

.

Viega Plans New \$200M Factory in State of Ohio

Broomfield, Colo. – Viega LLC, a manufacturer of metal pipe fittings and valves, will build a new factory in Shalersville, Ohio, and plans to make its ProPress and MegaPress products there.

"This is an exciting time at

Viega, as our growth continues to prompt the expansion of our North American footprint," said Markus Brettschneider, CEO and president of Viega, in a press release. "We look forward to expanding our presence in this part of the country to further support our customers."

Construction of the planned 180,000-square-foot facility is scheduled to begin in November, and the factory is expected to open in early 2025, the company said.

The 80-acre parcel in Shalersville, which is about 40 miles southeast of Cleveland, and the construction of the new plant represent an investment of approximately \$200 million. Viega's business continues to grow in the U.S., and the additional plant will help support the increased demand for Viega products, the company said. The project aligns with the company's sustainability goals, which include reducing the carbon emissions associated with importing products by manufacturing more of them in the U.S.

The new facility will be completely carbon neutral from the start, in support of the company's long-term goal of achieving netzero carbon emissions for all its plants by 2035.

"The expansion of our operations into Ohio shows our commitment to creating highly skilled jobs in the U.S.," said Marki Huston, head of manufacturing at Viega. "Our goal is to build more sustainable manufacturing processes and continue developing tomorrow's workforce. With production scheduled to begin in early 2025, we expect to start hiring for positions as soon as January 2024, bringing more than 68 new jobs to the area over the next few years."

Viega recently announced investments in new equipment for its McPherson, Kansas, manufacturing and distribution facility. In addition, Viega supports its customers and partners through distribution centers in Reno, Nevada, and Carlisle, Pennsylvania, with more North American expansion planned for 2024 and 2025.

Viega worked with local, regional, and state organizations, including Team NEO, JobsOhio, the Portage Development Board, and the Shalersville-Streetsboro Joint Economic Development District, on tax-credit assistance and the selection of the 80-acre site.

"We have a great manufacturing legacy, dedicated talent pool, and future-oriented industry resources to support Viega's new operations," said Team NEO chief executive Bill Koehler. "Along with JobsOhio and our local partners, we welcome Viega to the Northeast Ohio region. We are confident they will thrive here."

.

Malco Announces HVAC Trade-Pro of the Year Winners

Annandale, Minn. – Malco Products, one of the nation's leading solution developers and manufacturers of a variety of high-quality tools for the HVAC and building construction trades, announced the winners of its annual HVAC Trade-Pro of the Year Award program. The 2023 HVAC Trade-Pro of the Year Award recognizes and honors exceptional HVAC professionals who are dedicated to the industry, on-the-job safety and their communities.

The 2023 program recognized five top HVAC contractors and technicians from across the U.S.:

• Jared Alexander, Lead HVAC Installer, DeZiel Heating & Air, Buffalo, Minnesota

• Jennifer Manzo, Owner, Valeriani Air Conditioning, Naples, Maine

Ricky Meyers, Owner and Operator of Meyers Heating and Air, LLC, Fredericksburg, Virginia
Lee Fores, Instructor and HVAC Owner, Southwest Texas

Junior College & Air-Tek Heating & Cooling, Uvalde, Texas • Bob Kler, Instructor, Brownson Technical School, Anaheim,

California "Malco is proud and inspired by the 2023 HVAC Trade-Pro of the Year winners for their commitment to their trade and communities," said Malco president and CEO Rich Benninghoff. "These HVAC professionals go above and beyond to share their talents with the industry and support important causes."

Each of the winners will receive a Malco tool kit valued at \$1,000, awarded by their local distributor. Nominations for Malco's 2024 HVAC Trade-Pro of the Year program will open in January 2024.

As a strong supporter and advocate of careers in the trades, Malco donates significant quantities of in-kind products and apparel annually to a variety of skilled trade education programs, competitions and events across the country, including high school, post-secondary technical and apprenticeship programs, regional apprenticeship contests and SkillsUSA state and

Continued on Page 10



SIMPLEST SOLUTIONS TO ELECTRIFICATION

new

D

AV SERIES

NEW AEF SERIES MODULAR BLOWER

- Easy furnace replacement
- 5-Speed ECM motor
- Matches with standard evaporator coils for 2-piece installation
- Fully painted cabinet
- Replace with same footprint & return configurations
- Shorter than typical furnace allowing for installation into existing space with minimal changes to ducting
- Uses existing 120 V electrical service—avoids expense of running a new 240 V circuit

AM & AX SERIES LOW PROFILE AIR HANDLERS

- 3-speed PSC or 5-speed ECM available in 120 V and 240 V
- blower motor
- Lower height for easy installation
- Narrow widths for tight installations
- Single piece installation solution including blower and coil

AV SERIES VARIABLE-SPEED AIR HANDLER

- Variable-speed ECM available in 120 V and 240 V blower motor
- Hydronic options available

WHY ADP?

AEF SERIES

QUALITY

• #1 U.S. producer of residential evaporator coils

AM & AX SERIES

- Extensive air handler product offering to accommodate any application need
- In-house innovation labs and extensive quality testing (including leak testing)
- Drain pans include Microban® technology to fight mold and mildew
- TXV factory installed with threaded connections no brazing



FLEXIBILITY

- Products designed to match perfectly with any system
 Product variations that allow for quick installation and easy access
- We solve problems to enhance the comfort of your customer
- Wide range of products 10,000 SKUs
- Multi-position flexibility to fit any space

TO LEARN MORE, CONTACT YOUR LOCAL US AIR SALES REPRESENTATIVE.

NEW LOCATION!

TORRANCE, CA 20525 Manhattan Place Ph: 424/389-0735

www.us-ac.com • 🗘 🖸 🌶

 ARIZONA
 P

 Avondale
 6

 602/572-2953
 P

 Deer Valley
 6

 623/580-4101
 T

 Fort Mohave
 5

 928/768-2197
 Mesa

480/813-4628

Peoria CALIFORNIA 623/334-8302 Anaheim Phoenix 714/776-3170 602/253-2771 Bakersfield Tucson 661/322-7222 520/903-3117 Burbank 818/840-0089 Cathedral City 760/770-4520

 CALIFORNIA
 Chatsworth

 Anaheim
 818/678-1750

 714/776-3170
 City of Industry

 Bakersfield
 626/854-6868

 661/322-7222
 Concord

 Burbank
 925/349-3712

 818/640-0089
 El Cajon

 Cathedral City
 619/258-0672

El Centro 760/370-5530

Escondido 760/291-1281

Fairfield 707/424-6050

Fresno 559/266-8169 Hesperia 760/948-8045

Lake Forest 949/837-8104

Lancaster 661/726-5106

Los Angeles 323/897-6969

USt ir conditioning

 Modesto
 Oxnard

 209/577-2335
 805/988-3650

 Newbury Park
 Palm Desert

 805/376-1723
 760/200-5225

 North Highlands
 Paso Robles

 916/482-3572
 805/328-9353

 Ontario
 Redding

 909/987-5016
 530/722-0144

 Oxnard
 Riverside

 805/988-3650
 951/786-3500

 Palm Desert
 S. San Francisco

 760/200-5225
 650/871-8100

 Paso Robles
 San Bernardino

 805/238-9353
 San Bernardino

 909/885-3206
 San Diego

 S30/722-0144
 S58/279-9750

 San Jose
 Sar

 408/278-1555
 70

 San Leandro
 Sig

 510/618-2300
 Sig

 6Santa Barbara
 St

 805/962-2999
 20

 Santa Fe Springs
 Fe

 562/801-5432
 95

 Santa Rosa
 Torran

 707/566-9810
 424/33

 Signal Hill
 Valenc

 562/981-2010
 661/60

 Stockton
 Van N

 209/466-4153
 818/40

 Temecula
 West L

 951/296-6557
 310/92

Visit us at the

IHACI Show!



Booth #401

800/937-7222

NEVADA ls Sparks 5270 775/329-3455 UTAH 1244 Salt Lake City 7-9936 801/485-8071 or 800/333-8436



Industry News

Continued from Page 8

national conferences. Malco also coordinates the "Head of the Class" Student Recognition Program that partners with education programs across the country to recognize high-achieving students and entire graduating classes in the HVAC/ sheet metal, and building construction industries.

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

.

Carrier Launches New HVAC Tech Training Center

Indianapolis, Ind. – Carrier has launched its new 6,000-squarefoot training center on the West Side of Indianapolis with a ribbon cutting ceremony and several local distributors, public officials, and the Department of Energy present. The event was hosted at one of the largest gas furnace manufacturing plants in the world, Carrier's Center of Excellence for gas furnace production. The launch of the technical training center marks the completion of a multi-milliondollar investment by Carrier in training the next generation of skilled HVAC technicians. The



A CARRIER UNIT INSIDE OF THE NEW INDIANAPOLIS TRAINING CENTER.

center is opening in advance of the 2025 refrigerant phasedown where Carrier technicians will be trained on products using Puron Advance[™] (R-454B), Carrier's next generation lower-GWP refrigerant, in preparation. Carrier is part of Carrier Global Corporation (NYSE: CARR), global leader in intelligent climate and energy solutions.

Over the next 10 years, it is estimated that there will be a 400,000 HVAC technician shortage that may negatively impact homeowner experiences, increase wait times for installation and maintenance of units, and leave business owners with

the challenge of finding qualified employees. Carrier's new technical training center aims to address this challenge by training more technicians with state-ofthe-art technology and labs. The center includes six distinct labs featuring 41 fully functional systems; including three ducted system labs, operational two-pipe and the future three-pipe VRF labs, and a ductless lab, which includes Crossover systems to train on the latest ducted and ductless combinations. Carrier's existing self-paced, online training courses average 11,000 hours of technical training consumed each year. As a result of this new, inperson technical training center,

annual capacity for an additional 30,000 hours of hands-on training has been added.

Carrier focuses on making the highest quality HVAC solutions that matter for people and the planet for generations to come. The network of Carrier distributors and factory authorized dealers will have exceptional training available through the lab to help ensure home HVAC systems are installed properly, alleviating some of the training challenges facing the industry and ensuring homeowner satisfaction. Carrier's commitment to addressing the technician shortage is further exhibited by its Tech Up program, an ongoing effort to develop and empower the next generation of HVAC technicians.

"Bringing this enhanced technical training center to our dealers has been top of mind as we consider the effects the ongoing technician shortage is having on the industry," said Braden Cook, Senior Director of Product Management, Training and Service, Carrier. "Offering our complete suite of industry-leading products for comprehensive, handson training is just another way we are ensuring our dealers have the best technicians and installers supporting homeowners everywhere." For more information visit

https://www.carrier.com/residential/ en/us/.

• • • • • • • • •



Pacific Systems Group is an adaptive partner that assists consulting engineers, distributors, mechanical contractors, and building owners in designing HVACR systems, providing efficient and cost effective indoor environmental solutions. In order to meet the specific demands of your project, Pacific Systems Group capitalizes on its strong relationship with manufactures of HVACR equipment. Pacific Systems Group's team of sales engineers has an intimate knowledge of each product design and its application. This combination of quality products, training and experience is instrumental to the success of your custom HVACR system.



Heritage Acquires AMSCO Supply

Atlanta, Ga. – Heritage Distribution Holdings, the U.S. platform for global HVAC wholesaler Beijer Ref, has signed an agreement to acquire the assets of AMSCO Supply ("AMSCO"), a wholesale HVAC distributor serving contractors in the Midwest and Southwest United States including Oklahoma, Kansas, Missouri, and Texas – territories adjacent to our current holdings. AMSCO has annual sales of approximately \$45 million.

Founded in 1974 and headquartered in Tulsa, Oklahoma, AMSCO Supply is a familyowned company with more than 45 years of experience. The AMSCO team comprises skilled professionals committed to providing solutions for different HVAC market segments, such as residential add-on replacements and commercial projects. The company has strong alignment with Heritage Distribution's key suppliers.

AMSCO will continue to operate under its own brand, in both distribution and marketing. The existing management will roll-over investment into Heritage Distribution and continue to run the business. The acquisition is expected to have a minor positive impact on the group's result and position. AMSCO Supply employs approximately 50 people. Alex Averitt, CEO of Heri-

tage Distribution, comments: "We are excited to welcome

AMSCO to the Heritage Distribution family and expand Beijer Ref's U.S. platform into adjacent areas. As we continue to grow through strategic acquisitions, we are adding new customers and enabling more people to live healthier and more comfortable lives."

Heritage Distribution Holdings is the fastest-growing HVAC/R distributor in the US. With a focus on being the market leader in each local geography, HDH is expanding its footprint by partnering with businesses that share a tenacious commitment to customers, employees, and suppliers. From after-hours emergency service, to stocking our customer's warehouses, the HDH family is fully invested in being the critical link in the supply chain that enables people to live healthier and more comfortable lives.

Continued on Page 12



No-cost online training that can help you get ahead

Access online classes from the comfort of your home or office



NOVEMBER CLASSES

4-PART SERIES IHACI - NATE Core Gas Heating November 13, 14, 20, & 21 | 6-8 p.m.

ON-DEMAND

ITsAboutQ.net - Online Training Program - Technician Education & Certification hvacredu.net/sdgetraining

Reserve your seat today and check out other classes at **seminars.sdge.com** or simply scan the QR code.

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

 $\ensuremath{\mathbb C}$ 2023 San Diego Gas & Electric Company. All copyright and trademark rights reserved. S2380054 0923



Industry News

Continued from Page 10

Uponor Celebrates Grand Opening of Experience Center

Apple Valley, Minn. – Uponor North America celebrated the grand opening of its newly constructed Uponor Experience Center located at its regional headquarters in Apple Valley, Minn.

Boasting 4,500 square feet of hands-on displays, full-scale residential and commercial training areas, and cutting-edge innovation showcases, the new Uponor Experience Center is a flexible education and discovery space designed to advance the technical skills of current and potential customers. In addition, it will help foster innovation within the plumbing and HVAC industry and provide an immersive experience for employees and visitors alike.

The new Uponor Experience Center occupies the company's previous customer training area, which was originally built in 2000 and renovated in 2010. It is at the center of the North American headquarters campus, surrounded by corporate offices, an R&D facility, and manufacturing space.

"The opening of our new Uponor Experience Center signifies

the importance we place on keeping the needs of our customers, employees, and key stakeholders top of mind as we continue our mission of becoming the global leader in sustainable water and energy solutions," says Uponor North America President Andres Caballero. "The 'X', as our employees have begun to call it, is a culmination of our rich history and decades of innovation coming together to generate awareness and create enthusiasm for moving water more efficiently, effectively, and sustainably."

With original concepts beginning back in 2020, the Uponor Experience Center was several years in the making. The thoughtful design, which takes into consideration the company's rich Finnish roots, resulted from many months of internal team collaboration, as well as feedback from customers, partners, and industry influencers.

As guests move through the front doors toward the back of the space, they first experience displays depicting who Uponor is as a company along with the customers served and the unique value provided to key audiences and the industry. Then, there are product showcases and interactive displays for plumbing, fire safety, radiant heating/cooling, hydronic piping,



A LOOK INSIDE OF UPONOR'S NEW EXPERIENCE CENTER IN MINNESOTA.

and pre-insulated piping system solutions for residential and commercial markets. Finally, there is an oversized training area, featuring both wood and steel structures, where professionals will learn proper hands-on installation techniques as well as how Uponor's emphasis on problem-solving and productivity delivers results for their businesses.

"We wanted the Uponor Experience Center to extend beyond simply training customers on our products and systems," says Vice President of Sales Matt Bahr. "As a result, we've created a holistic experience that spans a broad spectrum of who we are as a company, showcasing the depth and breadth of our product portfolio and sustainable solutions as well as providing access to the best trainers in the industry."

With the focus not only on customers but also employees and those in the community, Director of Training Des Clancy says the planning team was very thoughtful about creating an elevated experience for everyone.

"At any given time, we will have contractors, builders, engineers, owners, students, employees, civic leaders, and other guests coming through the doors," he says. "From tours and training, to onboarding and education sessions, the Uponor Experience Center offers something for everyone, and we are proud to showcase all we are offering to the industry and our community."

Modine Donations Help Students in Four States

.

Racine, Wisc. – Modine Manufacturing Co. recently donated more than 600 backpacks containing school supplies to students in Virginia, Michigan, Rhode Island, and Wisconsin in order to lend a helping hand and reduce the financial stress on families and schools of the back-to-school season.

"We wanted to show the community that we care for our children inside and outside the classroom," said Kimberly Raduenz, manager of strategic marketing at Modine's IAQ division, in a press release. "While our core purpose is engineering a cleaner and healthier world, we recognize that many students need more than just excellent indoor air quality at school. We wanted to help children start the school year off on a positive note." In Virginia, Modine representatives visited F.W. Kling Elementary and Enderly Elementary, both part of the Buena Vista School District. In Michigan, Modine and its local Michigan representative, Bolhouse LLC, provided supplies to the Jenison Public Schools.

Modine donated backpacks to Webster Avenue Elementary in Providence, Rhode Island, during an event that included a local food truck.

"Back-to-school shopping can be difficult and overwhelming for some students," said Maria E. Acevedo, family ambassador at Webster Avenue Elementary. "Modine eased that concern with their generous donation of school supplies, backpacks, and water bottles, embodying community commitment at its best. Not only did families receive school supplies, everyone in attendance at our back-to-school celebration enjoyed hot, fresh food. We're very thankful for this partnership and look forward to it for many years to come."

In Racine, Wisconsin, where Modine is headquartered, the company donated backpacks, water bottles, and school supplies through three Community-Oriented Policing (COP) houses. These physical homes, strategically placed within residential neighborhoods, are staffed by law enforcement professionals and other service providers and open to the public to help strengthen relationships and facilitate building stronger communities.

"At Modine, we believe it's our responsibility to give back to our communities," Raduenz said. "Whether it's providing a backpack full of school supplies or installing a unit ventilator, we want schools to look at us as a partner in creating a safe and healthy learning environment through both our products and our actions."

.

Shurtape Wins Safety Awards

Hickory, N.C. – PXL BR Duck Pro® by Shurtape® BR Code™ Heavy Duty, Permanent Scannable Labels, an innovative new product from Shurtape Technologies, an industry-leading manufacturer and marketer of adhesive tape and consumer home and office products, has won four categories in the prestigious 2023 Occupational Health & Safety New Product of the Year Awards. The recognition underscores Shurtape's commit-

Continued on Page 14



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

リショをはい CLEAN AIR Ш Who'd Like Cleaner Air?

Explorer[®]-IAQ Thermostats Feature a Built-in Air Quality Sensor.

Clean, healthy indoor air has never been more important. That's why our Explorer-IAQ thermostats include an exclusive Air Patrol® feature to continuously monitor and control indoor air quality. When needed, they automatically circulate polluted air through the HVAC's filtration system, so you and your customers can breathe easy.

- Built-in Wi-Fi, Bluetooth, and Sub-GHz radios
- Displays IAQ levels on free mobile app and website
- Compatible with easy pairing VenNet wireless sensors



We are your #1 Source for Venstar Thermostats and Accessories – Visit us today!





www.us-ac.com • 🗘 🖸 🎔

ARIZONA Avondale 602/572-2953 Deer Valley 623/580-4101 Fort Mohave 928/768-2197 Mesa 480/813-4628

Peoria 623/334-8302 Phoenix 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 El Centro 760/370-5530 City of Industry 626/854-6868 Escondido 760/291-1281 Concord 925/349-3712 Fairfield 707/424-6050 El Cajon 619/258-0672 Fresno 559/266-8169

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 Ontario 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 San Jose 408/278-1555 S. San Francisco 650/871-8100 San Leandro 510/618-2300 San Bernardino 909/885-3206 Santa Barbara 805/962-2999 San Diego 858/279-9750 Santa Fe Springs 562/801-5432

Santa Rosa 707/566-9810 Signal Hill 562/981-2010 Stockton 209/466-4153 Temecula 951/296-6557

Torrance 424/389-0735 Idaho Falls 208/542-5270 Valencia 661/666-9544 Meridian 208/672-1244 or 800/727-9936 Van Nuys 818/464-3387 West Los Angeles 310/928-6660

IDAHO

800/937-7222

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

Industry News

Continued from Page 12

ment to advancing safety and efficiency in the workplace.

Now in its 15th year, the Occupational Health & Safety New Product of the Year Awards Program recognizes outstanding product developments that improve worker health and safety. Shurtape emerged as one of the frontrunners, with PXL BR labels winning in the following categories:

Asset Tracking/Management

• EHS Software

• Inspection Documentation/ Automation

• Lockout/Tagout and Machine Guarding

The PXL BR labels are part of Shurtape's broader portfolio of Duck Pro by Shurtape BR Code Scannable Solutions, powered by



SHURTAPE'S DUCK PRO PRODUCTS RECENTLY WON FOUR CATEGORIES FROM THE OCCUPATIONAL HEALTH & SAFETY PRODUCT OF THE YEAR AWARDS.

Panasonic

the BitRip[®] app. These labels are preprinted with unique codes that can be scanned with the free BitRip app on a mobile device and used to track shipments, organize construction materials, monitor service and repairs, verify safety certifications for equipment and personnel and much more across a variety of industries, jobsites and applications. "We are immensely proud to see our PXL BR Duck Pro by Shurtape BR Code Heavy Duty Labels recognized across four categories in the 2023 Occupational Health & Safety New Product of the Year Awards," said Tammy Gentry, Senior Product Manager, Insights and Innovation Team at Shurtape Technologies. "This achievement underscores our commitment to innovation and our

focus on providing solutions that enhance safety and productivity in various workplace environments."

Products in the new BR Code Scannable Solutions line include: • PC 627 BR: Scannable duct tape

codes for indoor or outdoor use • FL 227 BR: Scannable paper

tape codes for multi-surface applications that demand easy removal

• PSL BR: Permanent scannable labels for indoor or outdoor use on

flat surfaces

• PXL BR: Heavy duty permanent scannable labels for flat-surface applications that demand extreme durability and performance

How BR Code Scannable Solutions and the BitRip App Work:

• First, download the free BitRip app on a mobile device from the Apple Store or Google Play.

• Next, stick a BR Code label to any object you want to track or organize – tools, equipment, building materials and more.

• Scan the label's code through the BitRip app, which automatically captures a timestamp and the geolocation of the object to which the label is attached.

• Make notes, add voice memos and upload pictures, videos and PDF documents to the app, associating them with the label.

• Using the app, share the information with others, create project teams and set notifications to keep everyone updated in real time.

The Duck Pro° by Shurtape° BR Code™ product line is now available through participating Shurtape distributors. The BitRip° app can be downloaded for free from the Apple App Store for Apple devices or the Google Play store for Android devices. Learn more at Shurtape.com/BRCode.

• • • • • • • • •

Window Heat-Pump Units Planned for NYC Public Housing

Albany, N.Y. - The state of New York is moving forward with its Clean Heat for All Challenge, a partnership between the New York Power Authority (NYPA), the New York State Energy Research and Development Authority (NYSERDA), and the New York City Housing Authority (NYCHA) to develop a new electric HVAC product that can better serve the heating and cooling needs of existing multifamily buildings and hasten the transition to fossil-fuel free HVAC equipment.

By this winter, 72 coldclimate, packaged window heatpump units will be installed at NYCHA apartments to provide

Continued on Page 17



Deliver healthy homes and apartments on every project. Panasonic energy recovery ventilators provide balanced ventilation options that remove stale, contaminated indoor air and replace it with fresh filtered air from outdoors for healthy living in every space. Combine them with our compatible Swidget controls that monitor, detect, and auto-activate.

NEW Intelli-Balance[™] 100 ERV mirror model. Simplifies ducting when installed in tandem with the Intelli-Balance[™] 100 ERV non-mirror model in adjacent multi-family units.

Learn more about code compliant, balanced air solutions, visit na.panasonic.com/us/ERVs



YOUR ENERGY EDUCATION STARTS HERE



Our Energy Education Centers in Irwindale and Tulare offer online, in-person, and on-demand classes to help you advance your career in clean energy, and make better energy decisions for your home or business.

Stop by our booth #405 & #407 at the IHACI Trade Show! Learn more about our classes and how you can rent a tool for free from our Tool Lending Library.



Join our email list at **on.sce.com/eec-email** to be informed about the latest classes offered by our Energy Education Centers.



Register to take our free classes at **sce.com/classes** or scan the QR code.

Programs are funded by California utility customers and administered by Southern California Edison under the auspices of the California Public Utilities Commission.

© 2023 Southern California Edison. All rights reserved.



Get rewarded and recognized for championing best practices!

The Quality Residential HVAC Services (Quality HVAC) program helps contractors become champions of industry best practices and customer needs. By enrolling, contractors will earn incentives, get ahead of market changes through no-cost trainings, and stay ahead with comprehensive support and resources.

Benefits

- Quality services keep contractors competitive and up to speed in a changing market.
- No-cost sales trainings can help companies communicate the value of their services to customers.
- Receive up to an additional 30% to 70% of the TECH Clean California incentive amount for providing quality bids on projects.

Enrollment is easy!

Visit

QualityHVAC.frontierenergy.com to get started.

Here's what you'll need:

- Company contact information
- CSLB license number and expiration date
- A copy of the company liability insurance
- List of industry and trade certifications
- Two customer references

The Quality Residential HVAC Services Program is funded by California utility customers under the auspices of the California Public Utilities Commission and implemented by Frontier Energy under a contract awarded by San Diego Gas & Electric Company (SDG&E®). Customers who choose to participate in this program are not obligated to purchase any additional services offered by the Implementer. The trademarks used herein are the property of their respective owners.

Services	Tier I	Tier II	Quality Kicker
Quality Bid	\$350	\$700	TBD
Quality Installation	\$500	\$1000	TBD
Quality Maintenance	\$350	\$700	TBD
Quality Maintenance Call	\$150	\$300	TBD

Industry News

Continued from Page 14

heating and cooling while reducing greenhouse gas emissions from public housing in New York City. The units will be comprehensively monitored and assessed over the course of the upcoming winter, and the information gained incorporated into a plan to install 30,000 units at NYCHA buildings over several years, a press release from the state said.

"By investing in the development and installation of energy-efficient heat pumps at NYCHA facilities, New York State is fulfilling its promise to ensure all New Yorkers have access to affordable and comfortable housing," Gov. Kathy Hochul said in the release. "The Clean Heat for All Challenge directly addresses the decarbonization of buildings - New York's largest source of greenhouse gas emissions - with a thoughtful approach and use of innovative technology that focuses on the safety, comfort, and livability of NYCHA residences."

'The innovative heat-pump units being installed at public housing in New York City this fall are only the start of the Power Authority's commitment to deliver energy-efficient heating and cooling systems for NYCHA residents," said NYPA CEO Justin E. Driscoll. "This first phase of unit installations will provide us with the insight we need to honor the initial investment of producing and installing all 30,000 units, benefitting residents with reliable heating and cooling and shrinking New York City's carbon footprint."

Under the Clean Heat for All program, NYCHA will purchase and install the new equipment as well as provide additional improvements to building envelopes and domestic hot water systems. NYPA is providing upfront financing and supporting the implementation of the challenge, including with \$70 million in financing approved by the NYPA Board of Trustees in 2022, to fund the development of cold-climate, packaged window heat pumps. NYSERDA is providing \$13 million for the demonstration phase, including procurement specification development, initial purchasing, and monitoring and performance assessment, with funds approved through the Regional Greenhouse Gas Initiative Operating Plan.

The packaged window heat-pump units developed to meet the Clean Heat for All Challenge will enable rapid, low-cost electrification of space conditioning in multifamily buildings by reducing or eliminating many of the cost drivers inherent to installing existing heat-pump technologies in occupied apartments, including electrical system upgrades, lengthy refrigerant piping, and drilling through walls. The heat pump manufacturers – Midea America and Gradient Comfort – will each supply 36 units this fall for comprehensive monitoring over the course of the upcoming winter. NYCHA began installing Midea America's units in July and will begin installing Gradient's units in December.

Midea America, which was awarded a contract for 20,000 units, is a global appliance manufacturer founded in 1968 with headquarters in China and the U.S., 11 factories around the globe, and an annual output of 67 million units. Founded in 2015, Gradient Comfort is a startup based in San Francisco, California, that was awarded a contract to manufacture 10,000 units. The company intends to manufacture the product in the United States.

The Clean Heat for All Challenge directly supports the goals of New York State's Climate Leadership and Community Protection Act (Climate Act) and the New York City Climate Mobilization Act, which both call for a 40% reduction in greenhouse gas emissions from buildings by the year 2030. By leveraging NYCHA's portfolio of 2,198 residential buildings, Clean Heat for All is designed to spur innovation and the growth of the cold-climate window heat-pump market in the United States by positioning NYCHA as an early adopter of this technology while also providing NYCHA residents with modern systems of heating and cooling that they can directly control.

THIS IS EFFICIENCY Title 24, Part 6 compliant Puro-green® Extended Surface MERV-13 rated Air Filters Standard 2" depth for easy installation Save 10% on "Will Call" HVAC filter customer pick-up. Three easy steps! Send your order including logistics contact Parker will stage the order and call you for pick-up · Load it and go! 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. Visit Booth 603, the 43rd IHACI Annual Trade Show at the Pasadena

Convention Center.

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

© 2023 Parker Hanni in Corporation



ENGINEERING YOUR SUCCESS.

CSLB Study Seeks to Research Scope of Unlicensed Construction Practices

By Ted Rieger Northern Calif. Correspondent

At a Board meeting Sept. 14, Contractors State License Board (CSLB) Registrar David Fogt announced the release of a Request for Proposal (RFP) to seek a consultant to study the scope of unlicensed construction practices in California to help CSLB evaluate personnel and resource needs to address unlicensed activity. This will include a focus on unlawful construction activity by predatory contractors in declared disaster zones where consumers can be particularly vulnerable. The Board previously approved spending \$75,000 on the contract for the

consultant study.

The CSLB recently awarded a contract to Cooperative Personnel Services for \$68,000 to conduct a CSLB workload and process improvement study, now underway, with a focus on CSLB enforcement investigations and how complaints are handled, to determine whether CSLB has enough investigators and consumer service representatives, and to look at opportunities for improvement.

Registrar Fogt Advances National Initiatives

Fogt was recently named President of the National Association of State Contractors Licensing

Agencies (NASCLA), an organization he has been actively involved with for the past six years serving on its Board and Executive Committee. NASCLA members represent 31 states and 44 contractor regulatory agencies. "This has provided me the opportunity to promote and recommend national consumer protection initiatives, to inform consumers about the benefits of hiring licensed contractors," Fogt said. He said he has also approached his NASCLA involvement related to how it benefits the Board and the State of California, and discussed projects he has helped promote and initiate.

This year, NASCLA launched

a national contractor database, to help state licensing agencies access information on licensed contractors who apply for licenses in more than one state. He said eight states are now participating in the database program. It is expected to expand and include information in the database on disciplinary actions against contractors to assist in evaluating applications and investigating contractor activities if they work across state lines.

NASCLA has developed two videos to be used as Public Service Announcements that Fogt showed during the Board meeting. One video presents the benefits of licensure for both the public and the industry with a focus on consumer



when shopping for a home solar system, how to hire the right contractor, and how to avoid solar energy scams. Solar contractor practices and contracts have been significant problems in California. NASCLA will promote these videos nationwide. NASCLA and CSLB will post the videos on their websites for viewing, and make them available to other industry groups to post on websites and use for outreach and education. See www.nascla.org for more information.

protection. The other video

is targeted toward consumers

on how to protect themselves

Consumer Complaints Increase

The Board discussed the significant increase in consumer complaints regarding contractor practices over the past fiscal year and its effects on Enforcement staff's workload, that has resulted in a backlog of case investigations, and longer than normal processing times for case handling and resolution. For Fiscal Year (FY) 2022-23, the CSLB received 17,574 reactive consumer complaints regarding both licensed and unlicensed contractors. A significant number of complaints involve residential solar contractor practices, with the Board receiving an average of 200 solar complaints a month. However, during the same time period, the CSLB assisted consumers in obtaining total awards of \$36.9 million in restitution to financially injured parties. As of the September 14th Board meeting, the Enforcement Division had 23 vacant positions, about a 10 percent vacancy rate, but is actively recruiting to fill the vacancies

CSLB Budget Rebounds to Healthy Status

Partly related to recent increases in licensing fees, and a rebound to more normal levels of license applications and renewals, the CSLB budget and reserve fund have regained healthy levels after facing a projected budget imbalance and experiencing shortfalls due to lower revenues two years ago. For FY 2022-23, the CSLB's authorized budget

Continued on Page 41

Learn, connect, & level up at the event for HVACR





Register for free at ahrexpo.com

- A -

AC Pro 11700 Industry Ave. Fontana, CA 92337 951-893-4492 Booth(s) 617

Action Duct Cleaning

2333 N. Lincoln Ave. Altadena, CA 91001 626-791-7870 Booth(s) 404

A-Gas

1100 Haskins Road Bowling Green, OH 43402 419-867-8990 Booth(s) 304

Agentis Air

7524 Standish Pl. Ste. 120 Rockville, MD 20855 617-651-2334 Booth(s) 111

Airex Manufacturing, Inc.

72170 Durham Way Ste. D Thousand Palms, CA 92276 760-343-2277 Booth(s) 417, 419, 518

Airzone

1800 SW 1st Ave., Ste. 203 Miami, FL 33129 954-940-2137 Booth(s) 303

Appion Tools

2800 S. Tejon St. Englewood, CO 80110 720-782-4230 Booth(s) 402

Aprilaire

1011 E. Main St. Madison, WI 53703 800-334-6011 Booth(s) 810

AQC Industries 2920 Centre Pointe Drive Roseville, MN 55113 651-209-0050 Booth(s) 305

- B -

Baker Distributing Company 26008 Business Center Dr. Redlands, CA 92374 909-796-9660 Booth(s) 510

13703 W 200 S Draper, UT 84020 801-822-8329 Booth(s) 718

BILL

Brownson Technical School 1110 Technology Cir. #D Anaheim, CA 92805 714-774-9443 Booth(s) 410

- C -

California Energy Commission (CEC) 715 P Street MS-37 Sacramento, CA 95814 916-776-0760 Booth(s) 210

CARSES/RSES

10357 Los Alamitos Blvd. Los Alamitos, CA 90720 310-600-8800 Booth(s) 504

CDI Curbs 12702 Biola Ave. La Mirada, CA 90638 888-234-7001 Booth(s) 522

CHEERS

1610 R St. Ste. 200 Sacramento, CA 95811 800-424-3377 Booth(s) 411

CLEAResult Consulting, LLC 180 Grand Ave. #850

Oakland, CA 94612 619-379-9638 Booth(s) 110

Climatech International 90 Brentwood Lane

Valley Stream, NY 11581 516-250-4100 Booth(s) 619

ComStar Refrigerants 20-47 128 Street College Point, NY 11356 718-445-7900 Booth(s) 309

Conduit Tech 444 Somerville Ave. Somerville, MA 02143 650-246-4862 Booth(s) 306

Copeland / White Rodgers

5931 E. Carter Lane Pahrump, NV 89061 775-513-2045 Booth(s) 205

Covered California 1000 N. Alameda St. Los Angeles, CA 90012 916-206-4283 Booth(s) 311

- D -

Danko Mechanical Sales Company 21175 N. 9th Place, Ste. 300 Phoenix, AZ 85024 602-298-9360 Booth(s) 521, 523, 525, 527

Denco 1011 W. Foothill Blvd. Azusa, CA 91702 626-815-9444 Booth(s) 222, 223, 224, 225, 226, 227

Department of Energy HVAC PATHS 12949 Alcosta Blvd. San Ramon, CA 94583 510-444-8707 Booth(s) 121

- E -

El Camino College 16007 Crenshaw Blvd. Torrance, CA 90506 (310) 660-3593 Booth(s) 709

Energy Code Ace 4777 N. Irwindale Ave. Irwindale, CA 91706 626-995-7431 Booth(s) 409

Energy Masters 21026 Victory Blvd., Ste. G Woodland Hills, CA 91367 818-292-0172 Booth(s) 808

ESCO Institute / HVAC Excellence P.O. Box 521 Mount Prospect, IL 60056 800-726-9696 Booth(s) 807

EWC Controls, Inc. 8418 Misty Oak Way Antelope, CA 95843 916-220-1878 Booth(s) 421

- F -

Ferguson HVAC® 2750 S. Towne Ave. Pomona, CA 91766 951-613-1642 Booth(s) 201, 301

Fieldboss 590 Madison Ave II Ste. 2100 New York, NY 10022 416-256-4995 Booth(s) 108

Fieldpiece Instruments, Inc. 1636 W. Collins Ave. Orange, CA 92867 714-634-1844 Booth(s) 317

> Flaretite 7723 Kensington Ct. Brighton, MI 48116 810-750-4140 Booth(s) 117

- G -

Geary Pacific Supply 1360 N. Hancock St. Anaheim, CA 92807 623-824-6000 Booth(s) 109

Global, The Source 1648 Northlake Pass Universal City, TX 78148 800-531-5967 Booth(s) 302

GoGreen Financing (EGIA) 3800 Watt Ave. Sacramento, CA 95821 209-605-2336 Booth(s) 517

Google Nest Pro 500 W 2nd St Ste. 2400 Austin, TX 78701 281-636-9774 Booth(s) 413

- H/I -

Healthway Family of Brands 3420 Maple Ave. Pulaski, NY 13142 315-298-2904 Booth(s) 519

Howard Industries

8855 Washington Blvd. Culver City, CA 90232 310-837-9100 Booth(s) 418, 420, 422, 424, 426

Hudson Technologies

300 Tice Blvd. Ste. 290 Woodcliff, NJ 07677 845-512-6054 Booth(s) 403

HVAKR

7701 S Reed Ave. Reedley, CA 93654 661-645-0431 Booth(s) 813

Inaba Denko America

19750 S Vermont Ave. Ste. 140 Torrance, CA 90502 310-943-7520 Booth(s) 513

iPermit

31225 La Baya Dr. #213 Westlake Village, CA 91362 818-735-7876 Booth(s) 704

- J/K/L -

JP Lamborn Co. 3663 Wawona Ave. Fresno, CA 93725 559-493-3540 Booth(s) 505

Kwik Model 3D

P.O. Box 537 Thornton, CA 95686 916-747-3792 Booth(s) 802

L.H. Dottie Company

6131 Garfield Ave. Commerce, CA 90040 (323) 725-1000 Booth(s) 503

Lennox Industries

4000 Hamner Ave. Eastvale, CA 91752 951-332-3667 Booth(s) 707

LG Air Conditioning Technologies 4300 North Point Pkwy. #200 Alpharetta, GA 30022 770-356-7014 Booth(s) 501

- M -

Mainstream Engineering 200 Yellow Place Rockledge, FL 32955 321-631-3550 Booth(s) 801

MA-Line

P.O. Box 866 Arlington Heights, IL 60006 847-956-8200 Booth(s) 710

MarketAir, Inc. P.O. Box 10330 New Brunswick, NJ 08906 732-985-8226 Booth(s) 218

Mobile Air and Power 15116 Canary Ave. La Mirada, CA 90638 951-219-3276 Booth(s) 307

Motor City Buick GMC 3101 Pacheco Rd. Bakersfield, CA 93313 661-617-8663 Booth(s) 329

Mr. Cool, LLC HVAC 48 Remington Way Hickory, KY 42051 615-913-6837 Booth(s) 209, 211

My Metal Business Card 511 S. Harbor Blvd. Ste. Q La Habra, CA 90631 714-213-8155 Booth(s) 308

- N -

NATE

2111 Wilson Blvd. #410 Arlington, VA 22201 877-420-6283 Booth(s) 702

National Comfort Institute

(NCI) P.O. Box 147 Avon Lake, OH 44012 800-633-7058 Booth(s) 511

NEBB

8575 Grovemont Circle Gaitherburg, MD 20877 301-591-0494 Booth(s) 520

- P -

P.I.P.E. / Southern California Pipe Trades 500 Shatto Pl. #200 Los Angeles, CA 90020 213-448-7221 Booth(s) 313

Pacific Rim Mechanical 9125 Rehco Road San Diego, CA 92121 619-417-3666 Booth(s) 708

Pacific Systems Group 3855 PCH #16 Torrance, CA 90505 310-373-7175 Booth(s) 703, 705

Panasonic Eco Systems 2 Riverfront Plaza Newark, NJ 07102 916-250-8737 Booth(s) 113

Paradise Chevrolet Commericial Fleet 27360 Ynez Rd. Temecula, CA 92591 951-699-2699 Booth(s) 717, 719, 721, 723, 725, 727, 729, 818, 820, 822,

> PHCC Los Angeles 2869 Glenview Ave. Los Angeles, CA 90039 323-913-7335 Booth(s) 507

824, 826

Phoenix Manufacturing, Inc. 3655 E Roeser Road Phoenix, AZ 85040 602-437-1034 Booth(s) 713

- Q/R -

Quality Residential HVAC Program (Frontier Energy) 12949 Alcosta Blvd. San Ramon, CA 94583 510-444-8707 Booth(s) 119

R.E. Michel Company One RE Michel Dr. Glen Burnie, MD 21060 410-553-3745 Booth(s) 601

Rapid Duct Testing & Air

Balancing Inc. 401 N. Verdugo Rd. #B Glendale, CA 91206 818-552-2044 Booth(s) 509

Robertshaw 1222 Hamilton Parkway Itasca, IL 60143 630-260-3400 Booth(s) 804

Rotobrush International 612 E. Dallas Rd. Grapevine, TX 76051 800-535-3878 Booth(s) 207

Rottiers Sales Associates 3117 Fite Circle Ste. #104 Sacramento, CA 95827 916-723-7130 Booth(s) 213

Royal Service Supplies 1712 S. New Ave. San Gabriel, CA 91776 626-281-6850 Booth(s) 618

- **S** -

Service Nation 750 Canyon Dr. #230 Coppell, TX 75019 877-262-3341 Booth(s) 502

Sierra Commercial Truck Center 1450 S. Shamrock Monrovia, CA 91016 626-247-4573 Booth(s) 423, 425, 427, 429, 526

> Sigler Wholesale Distributors 205 S. Puente St. Brea, CA 92821 714-578-5292 Booth(s) 701

Simpro Software 329 Interlocken Pkwy. #100 Broomfield, CO 80021 855-338-6041 Booth(s) 310

SoCal Sheet Metal Apprenticeship 633 N. Baldwin Park Blvd. City of Industry, CA 91746 626-968-3340 Booth(s) 508 Southern California Edison Energy Education Center 6050 N Irwindale Ave. Ste. #E Irwindale, CA 91702 626-812-7556 Booth(s) 405, 407

Southern California Gas Company

555 W. 5th Street, ML 19A5 Los Angeles, CA 90013 213-231-8259 Booth(s) 803

State of California Department of General Services 605 W. Santa Ana Blvd.,

Bldg. 28 Ste. 140 Los Angeles, CA 90013 714-558-4657 Booth(s) 711

Style Crest, Inc. 2450 Enterprise St. Fremont, OH 43420 419-333-5794 Booth(s) 203

SUPCO 2230 Landmark Place Allenwood, NJ 08720 800-333-9125 Booth(s) 112

- T/U -

TECH Clean California 449 15th St. #400 Oakland, CA 94612 510-482-4420 Booth(s) 100

Teslong 17795 Sky Park Circle Ste. G Irvine, CA 92614 949-877-7666 Booth(s) 220

Tru Tech Tools 3425 Gilchrist Rd. Ste. B Mogadore, OH 44260 888-224-3437 Booth(s) 406

Uniweld Products, Inc. 2850 Ravenswood Rd. Fort Lauderdale, FL 33312 954-584-2000 Booth(s) 613 US Air Conditioning Distributors 16900 Chestnut St. City of Industry, CA 91748 626-854-4500 Booth(s) 401

- V/W/Z -

Visual Service by IHACI (VS)

454 W. Broadway Glendale, CA 91204 818-551-1555 Booth(s) 621

Vital Utility, LLC

3951 Fairmount St. Los Angeles, CA 90063 213-344-9584 Booth(s) 806

Walter's Mercedes-Benz

Sprinter of Riverside 7979 Auto Drive Riverside, CA 92504 951-441-6281 Booth(s) 129

We Green Energy Solutions

3675 Ruffin Rd Ste. 320 San Diego, CA 92123 888-991-4377 Booth(s) 811

Williams

250 W. Laurel St. Colton, CA 92324 763-807-9963 Booth(s) 408

Wright Sales Co.

112 Harvard Ave. #281 Claremont, CA 91711 760-634-7601 Booth(s) 526, 602, 603, 604, 605, 606 607, 608, 609, 610, 611

ZONEFIRST

6 Aspen Drive Randolph, NJ 07869 201-794-8004 Booth(s) 609

AC Pro Booth(s) 617

AC Pro is a family-owned wholesale distributor that has been delivering outstanding customer service while supplying HVAC equipment, parts, and supplies to Southern California, Nevada, Arizona, and Utah for over 30 years. Our unwavering commitment to add value drives us to launch products, services, and locations to help your business grow. We provide the latest technologically advanced equipment and product, easy returns, instant warranty credits, after hours at no charge, custom sheet metal, and free trash drop off. At AC Pro, we are committed to integrity, quality craftsmanship, and long-term relationships with our customers. Visit acpro.com for more details!

Action Duct Cleaning Booth(s) 404

Action Duct Cleaning has provided meticulous HVAC cleaning services for thousands of industrial, commercial, and residential clients since 1978, with the most tenured, conscientious foremen in the business. Our President is a former NADCA board member and has served as Chairman of the Ethics Committee. Contact us: 800-371-2284 or actionduct.com.

A-Gas Booth(s) 304

A-Gas excels at providing complete lifecycle refrigerant management, including on-site recovery, reclamation, recertification, and destruction on a full range of refrigerants to build a more sustainable future. Be sure to stop and visit us at Booth 304 to learn more!

Agentis Air Booth(s) 111

Agentis Air closes the HVAC clean-air gap with our innovative Brio room air purifiers. Brio uses patented technology from the University of Washington for air cleaning with no CADR drop off, low maintenance and a low cost to own. See us at IHACI and learn about our HVAC Partners program.

Airex Manufacturing, Inc. Booth(s) 417, 419, 518

Airex Manufacturing engineers and manufactures high-performance, energy efficient HVACR solutions. Products like our Airex Pro System Kit vastly improve on traditional methods, through significant performance improvements, exceptional durability, and more comprehensive code compliance. Founded, headquartered, and exclusively manufactured in California, Airex Manufacturing was born out of our family's ethic of quality craftsmanship, exceptional service, and pride in one's work. Our belief in shared prosperity through the adoption of energy efficient solutions has led us to invest in education for the industry and to advocate for better regulations on state and federal levels, so together we can build a more efficient and sustainable world.

Airzone Booth(s) 303

At IHACI, Airzone will feature Easyzone, an integrated zoning solution for ducted Inverter/ VRF units, offering temperature and airflow regulation for up to six separate zones. Easyzone's patented airflow regulation system and exclusive control board eliminate the need for a bypass damper, resulting in energy consumption savings of up to 30%.

Appion Booth(s) 402

Appion leads the industry with quality recovery and evacuation machines and service tools. Starting with the creation of the industry favorite G5Twin Recovery Machine, Appion has continuously engineered an expansive line of machines and AC service tools with the needs of an HVAC/R technician at the forefront of their inspiration.

AprilAire Booth(s) 810

AprilAire is on a mission to make homes healthy. Headquartered in Madison, Wisconsin since 1954, AprilAire has been creating and delivering Healthy Air solutions to manage air purity, humidity, fresh air supply, radon mitigation, and temperature for all types of homes, in all environments. Learn more at www. aprilaire.com.

AQC Industries Booth(s) 305

AQC Industries has revolutionized underground air-duct systems for use in residential, commercial & industrial applications. The Blue Duct[®] pre-insulated & complete Duct System offers faster/ easier installation, energy & labor savings, corrosion avoidance, and leak-testability prior to backfill. AQC consistently provides highquality products, CAD & quotation services, and direct contractor sales/training/webinars.



Baker Distributing Company Booth(s) 510

Established in 1945, we bring over 75 years of business experience and knowledge of the HVAC and Commercial Refrigeration industries to our customers. Baker Distributing Company offers our customers a wide range of product lines, competitive pricing, superior service, and valuable timesaving services that position us as an industry leader. With over 200 sales centers in 24 states, we continue to grow and are positioned to serve the HVAC/R community.

BILL Booth(s) 718

BILL (NYSE: BILL) is a leader in financial automation software for small and midsize businesses (SMBs). We are dedicated to automating the future of finance so businesses can thrive. Hundreds of thousands of businesses trust BILL solutions to manage financial workflows, including payables, receivables, and spend and expense management.

Brownson Technical School Booth(s) 410

Brownson Technical School has offered hands-on HVACR training for 38 years. HVAC/R training is 1040 hours and one of only four HVAC Excellence accredited schools in California and one of two schools offering training and testing for Mechanical Acceptance Test Technicians which became mandatory 10-1-2021. (800) 799-9891 or visit: www.brownson.edu.

California Energy Commission (CEC)

Booth(s) 210 The California Energy Commission updates the Energy Code (Title 24, Part 6) every three years. The 2022 Energy Code encourages efficient electric heat pumps, strengthens ventilation standards, increases equipment efficiencies, adds requirements for electric-ready, DOAS, fans, indoor horticulture, and more. The 2022 Energy Code is in effect from January 1, 2023.

CARSES / RSES Booth(s) 504

RSES is the world's leading education, training and certification association for heating, ventilation, air conditioning and refrigeration professionals. RSES credentials include its Certificate Member and Certificate Member Specialist categories, as well as one of the largest EPA Section 608 certification programs in the industry. Local chapters meet monthly with free educational topics. Visit www.carses.com for details. For more information call 310-600-8800.

CDI Custom Curb Booth(s) 522

CDI custom curb adapters: Five (5) plants strategically located in Charlotte, Minneapolis, Dallas, Seattle, and Phoenix. Standard manufacturing time is 5 days; quicker options are available. Many 1-day delivery points; with most of the remaining USA at 2or 3-days transit time. It's FAST - EASY and FUN doing business with CDI!

CHEERS Booth(s) 411

CHEERS is a HERS Provider approved by the California Energy Commission to certify HERS raters and operate an online verification platform for energy code compliance. CHEERS also works with the EPA and DOE to implement incentive programs in California. Stop by CHEERS' booth to learn about free training opportunities!

CLEAResult Consulting, LLC Booth(s) 110

Comfortably CA offers resources and incentives to distributors, manufacturers, and retailers for selling high efficiency HVAC equipment, and provides no-cost training to contractors and technicians. Together, we're helping California feel good, while participating businesses out comfort the competition.

Climatech / Strutfoot Booth(s) 619

Climatech (Clim) has been the largest European manufacturer of accessories and rooftop support systems for the HVAC and Insulation industries since 1985. Our products follow SMACNA standards, with UL/NFPA 701 certification. Large stock in the USA is available. Our featured product at the IHACI show will be the battery-operated F-100 Cordless Portable Stud Welder machine, an AHR Expo Awards finalist in the "Tool Category Innovation Awards".

Contact us at americas.sales@ climatech.be or call our NY sales office at (516) 250-4100."

ComStar Refrigerants Booth(s) 309

ComStar, a 53-year-old Refrigerant & Chemical company, manufactures 300+ chemical products for HVACR trade professionals. ComStar has the lowest GWP refrigerant replacements for in-place, existing R22, R410a, R134a, R32, R404a, & R507 mobile and stationary systems. Call us with your questions at (800) 328-0142.

Conduit Tech Booth(s) 306

Stand out onsite and win more deals with Conduit Tech's software! Conduit leverages camera technology in tablets to build 2D

floor plans, 3D models and load calculations integrated into custom sales materials for every home in 15 minutes. Elevate your sales, and learn more at www.getconduit.com.

Copeland | White Rodgers Booth(s) 205

Copeland | White-Rodgers formally Emerson, would like to invite you to come by our booth 205 to check our New Line of Connected Controls that are a must have for any Service Vehicle. We will also be featuring our New Sensi Touch II, Sensi Lite Wi-Fi Thermostats as well as our New 75 Series, and PTAC Non-connected Thermostats.

Danko Mechanical Sales Company Booth(s) 521, 523, 525, 527

• Booth 521 - Ambro Controls is innovating how HVAC technicians braze, purge, charge, and seal HVAC systems. Our products focus on portability, ease of use, and superior performance. We're proud to offer a range of quality, technologically advanced, innovative gas-based tools.

• Booth 523 - RGF[®] was incorporated in 1985 for the purpose of designing, engineering & manufacturing total turnkey environmental systems to provide the world with the safest air, water, and food without the use of chemicals. We at RGF[®] strive to make the world a safer, cleaner, and better place to live for us, our children, and the next generation.

• Booth 525 - ICM Controls is a leader in Surge Protection and Line Voltage monitoring. Come by booth 525 to check out how best to protect your Variable Speed compressors and boards, against surge and voltage variations.

• Booth 527 - The Delta Breez FRS200 is a new fresh air ventilation system featuring an HVI airflow rating of 30-200 CFM with an ENERGY STAR-qualified ECM motor that runs continuously. Using only 33W at 200 CFM, homeowners can reduce their energy costs and carbon footprint.

Denco Booth(s) 222, 223, 224, 225, 226, 227 Denco Manufacturing Representatives is Proud to Represent:

• Samsung HVAC – Superior Quality Mini Splits including Residential, Light Commercial & VRF. Come check out our working trailer.

• Yellow Jacket – Serving the industry for over 70 years with High Quality Service tools including hoses, gauges, manifolds, vacuum pumps, recovery units and so much more. Live demonstrations showing off the newest in wireless technology.

• Blue Diamond – Condensate removal pumps and accessories for use in air conditioning and refrigeration. We pride ourselves on being one of the quietest in the market.

• Lucas Milhaupt – Innovative Metal Joining Solutions to connect the world around us. Come see live brazing demonstrations by Bob the Brazer

• Phenomenal Air - Plasma generators, cold plasma generator technology which kills viruses, bacteria, mold spores, fungus spores, eliminates allergens, odors and more.

• PDM – High Quality Polyethylene Preinsulated Linesets made in the USA.

• Eco2 – Heat Pump Water Heaters

Department of Energy HVAC PATHS Booth(s) 121

Learn about programs that prepare the residential HVAC workforce in new ways. If you're a contractor, technician, or student in the Inland Empire region, sign up to serve as a mentor or mentee, or learn how to sign up for free training and receive complementary state-of-the-art instruments.

Energy Code Ace Booth(s) 409

EnergyCodeAce.com is a "onestop shop" offering no-cost tools, training, and resources to help decode the requirements of California's Title 24, Part 6 building energy code and Title 20 appliance standards. It's funded by utility customers under the auspices of the CPUC and implemented by PG&E, SDG&E and SCE.

Energy Masters Booth(s) 808

"NEVER WAIT FOR A HERS TEST AGAIN! We offer sameto-next-day HERS testing and air balancing services, backed by our swift 24-hour certification turnaround time. With our dedicated team representing your company, you will have everything you need in time to pass inspection. Join us today at www.energymastersinc. com or visit our IHACI booth!"

ESCO Institute / HVAC Excellence Booth(s) 807

Learn While You Earn! Join us to learn about a new way to improve your knowledge of HVACR technologies and innovations while you are working. Visit our booth to discover how we can assist you in elevating your skills to new heights.

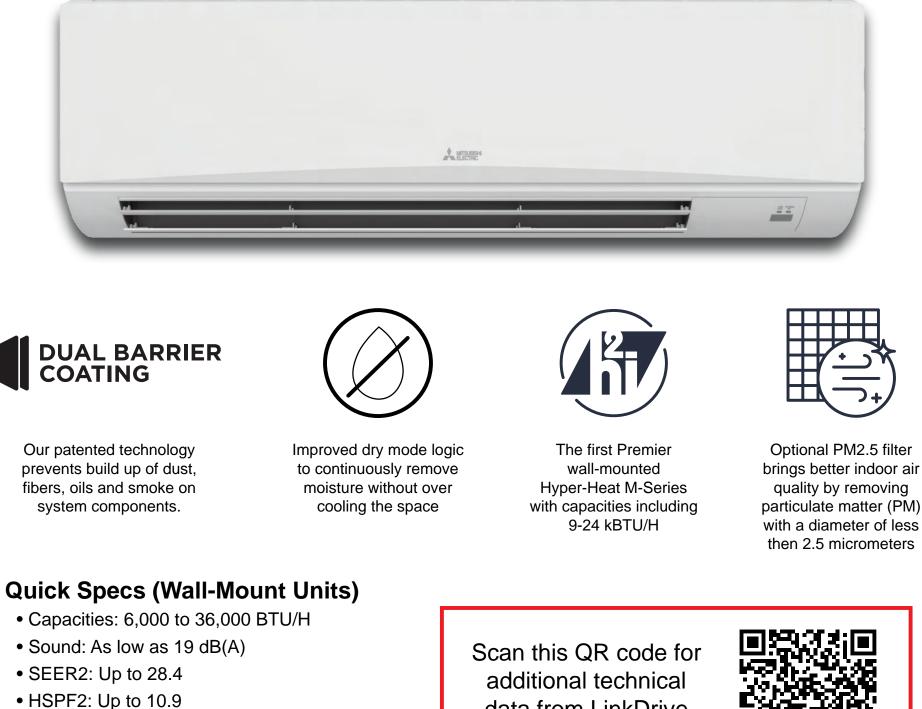
EWC Controls, Inc. Booth(s) 421 EWC Controls, Inc. manufac-

Continued on Page 26



The MSY/Z-GS Wall-mounted Indoor Units provide a variety of application options as a single-zone heat pump, multi-zone heat pump, or H2i® Hyper-Heating INVERTER® heat pump. Its counterpart, the MSY-GS, is a single-zone air conditioner for climates where heating is unnecessary. Also, a newly designed text-based remote control is standard with the GS Series.

Contact your distributor sales representative or Mitsubishi Electric Area Sales Manager now for additional information and pricing.



- COP: Up to 4.44
- ENERGY STAR®: Most systems

data from LinkDrive on the GS Series





The GS Series have a wide variety of applications



Extensive Range Capacity

The MSY/Z-GS wall-mounted indoor units offer our highest design flexibility. Combinations include single-zone (cooling only or heat pump) and multi-zone (heat pump or hyper-heating heat pump) systems, a large selection of size ranges from 6,000 to 36,000 BTU/H.

Powerful Operation

Depending on the capacity, the unit will automatically adjust the fan speed and set temperature for 15 minutes. Rapid cooling and heating will make the room comfortable quickly.

GS24, GS30/36 Models Only



Continued from Page 23

tures industry-leading residential and light commercial forced air zone control products, proudly in the USA. Our top quality, innovative products have won the Prestigious Dealer Design Awards eight times. Find out more at booth #421.

Zach Ponnequin, Regional Manager CA & NV; (916)220-1878 cell, (800)446-3110 Factory; zponnequin@ewccontrols.com

Ferguson HVAC[®] Booth(s) 201

Ferguson[®] proudly supports the Annual IHACI Tradeshow and Indoor Comfort News Magazine for 27 years. As a renowned industry leader and national distributor of residential and commercial heating and cooling equipment, we provide top-tier HVAC solutions, parts, and supplies featuring premium brands like Day & Night[®], Trane[®], RUUD[®], Mitsubishi Electric Ductless®, and VRF systems. We help HVAC Contractors gain access to 2023 and 2024 trade resources, event schedules, cutting-edge HVAC market insights, AQMD and Utility trends, IAQ and Connected advancements, and our growth journey via QR Codes. Explore more on the Feguson.com App at https:// www.ferguson.com. Your HVAC expertise, empowered.

Ferguson HVAC[®] Booth(s) 301

Ferguson[®] proudly supports the Annual IHACI Tradeshow and Indoor Comfort News Magazine for 27 years. As a renowned industry leader and national distributor of residential and commercial heating and cooling equipment, we provide top-tier HVAC solutions, parts, and supplies featuring premium brands like Day & shi Electric Ductless[®], and VRF systems. We help HVAC Contractors gain access to 2023 and 2024 trade resources, event schedules, cutting-edge HVAC market insights, AQMD and Utility trends, IAQ and Connected advancements, and our growth journey via QR Codes. Explore more on the Feguson.com App at https:// www.ferguson.com. Your HVAC expertise, empowered.

Night®, Trane®, RUUD®, Mitsubi-

Fieldboss Booth(s) 108

FIELDBOSS is an innovative, flexible, and scalable business management software built specifically for HVAC contracting companies to gain complete visibility into every aspect of their business. Built within the Microsoft cloud platform, FIELDBOSS consolidates financial, operational, and field service management into a single, all-in-one system, minimizing technical overhead, increasing efficiencies, and never needs replacing.

Fieldpiece Instruments Booth(s) 317

For over 30 years, Fieldpiece Instruments has partnered with HVACR pros to deliver high quality tool and test equipment to make your jobs easier, faster, and better. With our A2L compatible lineup and all-new hoses and fittings, Fieldpiece has you covered.

Flaretite Booth(s) 117

Clip the Drip! Celebrating 20 years of Proven Performance in the World's Toughest Environments. Flaretite Seals Provide the

Ultimate Solution for Eliminating Leaks!

-Copper Stamping w/ Loctite Coating

-Fits all 45° SAE fittings -Great for installing ductless systems

SLASH the cost of Servicing & Downtime!

MADE IN THE USA

Geary Pacific Supply Booth(s) 109

Serving the West since 1961, we are a 3rd generation, familyowned, customer service company that just happens to be in the HVAC distribution business.

We've built our reputation as a Solution-Driven Partner through our team's commitment to continuously ask "How Can We Help You?"

This friendly, honest approach is powered by our core principles and a passion to provide the best HVAC products, parts, controls, and supplies in the industry.

Our goal is to grow success through relationships that make life easier for our customers, team, vendors, and community at ALL 31 branch locations!

To learn more about Geary Pacific Supply, click here: https:// www.gearypacific.com/About-Us

Global/HVAC Master Distributor Booth(s) 302

Global is a leading master distributor of HVAC/R components to wholesalers throughout the United States, offering superior products and outstanding service. Our line offering continues to broaden, featuring an array of products including our exclusive line of USA Made Capacitors and Turbo200 products, relays, transformers, contactors, disconnects, whips, and more. Phone: 800.531.5967; Email: info@ globalthesource.com.

GoGreen Financing Booth(s) 517 Administered by the State of California with support from utilities, GoGreenFinancing.com is where California contractors go to find attractive financing options for their energy upgrade customers. GoGreen Home and GoGreen Business help contractors increase sales through quick approvals and flexible project scopes while customers enjoy exceptional rates and terms. Visit GoGreenFinancing. com for details.

Google Nest Pro Booth(s) 413

Join Google Nest Pro to explore our products and learn more about how you can grow your business by becoming a Nest Pro. Earn amazing rewards and get access to exclusive products, warranties, and stay connected to your customers all year with HVAC monitoring. Sign up now at g.co/nestpro.

Healthway Family of Brands Booth(s) 519

Healthway Family of Brands, located in Pulaski NY is a manufacturer of premium air purifiers. Healthway prides itself on our patented DFS technology which enables our systems to capture ultrafine particles, viruses, bacteria, gases & odors. We offer portable units as well as installed options that work with your home HVAC systems. We offer long filter life, a diverse product offering and contractor training. Website: https://www.healthway.com/; Email:gpirnat@healthway.com; Phone: 714-365-3512.

Howard Industries Booth(s) 418, 420, 422, 424, 426

Howard Industries, founded in 1960, is a family owned and operated independent wholesale distributor of air conditioning, heating, and refrigeration equipment, parts, and supplies. Our goal is to provide our customers with the highest quality products, unrivaled support, and the most expansive inventory selection in Southern California.

The relationships we build with our customers of all sizes go beyond business partnerships. We consider our customers an extension of our family. We are committed to providing our customers the product information, technical support, program offerings, and sales training that will help our customers grow and develop their companies.

As your dedicated HVAC supplier, just remember that the cornerstone of our business model will always be commitment to our customers' success.

Hudson Technologies Booth(s) 403

Hudson Technologies will pay you for your recovered refrigerant. Through our simple, hassle-free reclaim program we are able to turn your used refrigerant into a resource and put money back into your pocket. Stop by our booth to learn more about our buyback process and begin reaping the financial rewards!

HVAKR Booth(s) 813

HVAKR is the fastest and easiest HVAC design program on the market. Develop your basis of design, perform load calculation, and design HVAC systems all in HVAKR's intuitive web-based platform. Learn more at hvakr. com or by emailing davis@hvakr. com.

Inaba Denko America Booth(s) 513

Inaba Denko America supplies HVAC accessories engineered by Inaba Denko of Japan and provides support for distributors and contractors throughout North America. For over 45 years we've been manufacturing and providing the best quality products worldwide. Our products consist of insulated linesets, commercial and residential lineset covers, drain hoses and more.

Slimduct SD Lineset Cover is the ideal solution to conceal, protect, and beautify exposed linesets. Easy to install Slimduct SD is available in four colors and three sizes. Stop by booth #513 for a chance to win a Slimduct SD Black residential lineset cover kit!

Institute of Heating & Air Conditioning Industries, Inc. / Indoor Comfort News Booth(s) 625

The Institute of Heating and Air Conditioning Industries, Inc. (IHACI) is a nonprofit trade organization dedicated to the advancement of heating and air conditioning professionals throughout California. Membership benefits and services include free education and training opportunities, legislative advocacy, and business/professional referrals, just to name a few. IHACI produces the West's leading trade show of the HVAC/R/SM Performance Contracting industries, now in its 43rd year of production.

IHACI also owns and publishes Indoor Comfort News, the West's leading news magazine of the HVAC/R/SM Performance

WILLIAMS

NEW!

CARMELTM TG2030TN TOP VENT GAS WALL HEATER

The Next Generation of high performance vented wall furnaces is here! Natural gas powers the electrical components of the CARMEL[™] TG2030TN Top Vent Gas Wall Heater. Self-powered - once the digital thermostat calls for heat, the electronic hot surface ignitor starts the furnace, then thermoelectric power takes over and converts the heat to electrical energy for continued operation.



FEATURES

- 82% AFUE reduces carbon footprint while providing superior comfort.
- Hydrogen-blend ready and designed to produce ultra-low NOx emissions.
- Dynamic Response for energy savings and a constant and comfortable temperature
 just enough heat for your desired environment.
- No standing pilot eliminates seasonal relighting, saves energy and eliminates methane emissions.
- No AC power is required, no new wiring is needed during installation, and it continues to heat during a power outage.
- Quiet circulation fans blow heat off the unique twisted tube heat exchangers for improved comfort and air circulation.
- Easy to install fits into the same opening and uses the same venting as the traditional Monterey wall furnace

For all the details go to www.wfc-fc.com/carmel

Continued from Page 26

Contracting Industries. Incorporated in 1948, IHACI/ICN remains progressive in representing the needs of the heating and air conditioning industry. For information, contact IHACI/ICN at (818) 551-1555 or visit www. ihaci.org.

iPermit Booth(s) 704

We are a one-stop-shop for permit expediting, final inspections, and HERS testing. Our paperless system gives you "real time" status updates with easy access to all your documentation 24/7 from any device. Learn more about how we can save you time, hassle, and money, by visiting www.iPermitUSA.com.

JP Lamborn Co. Booth(s) 505

JP Lamborn will showcase several products and innovative ways to reduce waste, costs and improve acoustical performance in air distribution systems. Stop by Booth 505 to learn about JPL's, quality products, and creative ways to enrich your business. Don't forget to enter for a chance at winning a Raffle Prize!

Kwik Model 3D Booth(s) 802

Kwik Model with Energy Gauge Loads is an award-winning new 3D residential HVAC design software. It combines our innovative 3D user interface, Kwik Model, with Florida Solar Energy Center's (FSEC) ACCA approved EnergyGauge Loads. Fast, simple, and intuitive. Free training available. Visit Booth #802 for a live demo.

L.H. Dottie Company Booth(s) 503

Since 1965 L.H. Dottie's mission has been to provide HVAC installation solutions. Our growth over the decades has not come at the expense of our commitment to provide industry leading products and exceptional customer support. Our products continue to be used on the largest construction projects in the country.

Lennox Industries Booth(s) 707 Trust|Innovation|Quality

We work directly with our partners to provide the highest level of access, ease and accountability within the home comfort industry. We are dedicated to providing the most innovative and highest quality products, programs and training for our partners. We have consistently delivered on the values of Trust, Innovation and Quality.

LG Electronics, USA Booth(s) 501

LG residential and light commercial HVAC products are comprised of cutting-edge technologies which contribute to their efficiency, quality, and performance. From the impressive Art Cool[™] Series of duct-free products, to the advanced heating capabilities of LGRED° Technology, to the connectivity of LG ThinQ, LG





GRANDAIRE HAS YOU COVERED

From compressors to outdoor coils, GrandAire has you covered.* GrandAire products come with a 1-year Advantage replacement warranty that includes a labor credit.

What's Your Advantage?

- Easier to install
- Easier to service
- Quieter operation
- Smaller footprint
- Tin plated evaporator coils standard on SPP
- Now offering 16 SEER

Engineered & Manufactured by Carrier





*GrandAire Advantage Warranty is only valid with an AHRI matched system.

Labor credit is only valid with proper authentication from technical service advisor.

Bakerdist.com/GrandAire

offers solutions for wholehome comfort.

MA-LINE Booth(s) 710

The MA-LINE is a provider of a broad spectrum of specialty products for the HVAC/R industry. For many years, the MA-LINE has offered wholesalers thousands of quality products including instruments, tools, and supplies at competitive prices from a single source.

MarketAir, Inc. Booth(s) 218

Marketair specializes in innovative installation accessories for both ducted and ductless AC systems, also offering a range of highly specialized products for the VRF/VRV sector.

Included are: RoughinBox™ to protect linesets in minisplit roughins, Easybend lineset benders, RD and PD SERIES commercial lineset enclosures, TK Series support clamps for vertical VRF/VRV linesets, Easycollar cassette collars, Easyplenum prefabricated plenums for ducted airhandlers, minisplit drain adaptors and many other unique & hard to find products.

Mobile Air & Power Rentals Booth(s) 307

Mobile Air & Power Rentals provides temporary portable systems that solve a variety of HVAC problems.

Our inventory is designed to be used during system maintenance, emergencies, and as supplemental cooling. From 1-ton spot coolers to 1000-ton chillers we have the inventory and expertise to handle your rental cooling needs.

Motor City Buick GMC Booth(s) 329

Motor City Buick GMC shines as the #1 GMC dealer on the West Coast. Crowned Business Elite Dealer of the Year and nationally ranked at #4, we offer a spectrum of trucks tailored to all needs – from resilient workhorses to dependable companions. Your journey finds a perfect road with Motor City Buick GMC.

Mr. Cool, LLC HVAC Booth(s) 209, 211 As homeowners think about the functionality of their HVAC system, MRCOOL^{*} is

Continued on Page 30



THIS CODE UNLOCKS YOUR POTENTIAL





For quick, easy, and direct on-line enrollment, simply open your Smart Phone Camera and hover over the QR code and type IHACI in the search bar to access PG&E class registration.



PG&E offers free HVAC/R training courses designed to advance your skills.

Get started with advanced learning today!

www.pge.com/hvactraining

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.

OCT/NOV 2023

NATE CORE & Gas Heating (Four-Night Class) Instructor: Mitch Bailey Wed., Oct. 25 – Part 1 Thurs., Oct. 26 – Part 2 Wed., Nov. 8 – Part 3 Thurs., Nov. 9 – Part 4 In-Person/Onsite Webinar Option Available

NOVEMBER 2023

System Performance Module (Four-Night Class) Instructor: Mitch Bailey Mon., Nov. 20 – Part 1 Tues., Nov. 20 – Part 2 Wed., Nov. 27 – Part 2 Wed., Nov. 29 – Part 3 Thurs., Nov. 30 – Part 4 NOV/DEC EXAM: Saturday, Dec. 2 – 7:30 AM In-Person/Onsite Webinar Option Available



All classes are currently held 6:00 pm to 9:00 pm. Webinars are FREE of charge and online registration is required. You can register online by visiting: pge.com/hvactraining. Attendees must register for each night separately and registration is on a first-come, first-served basis. "PG&E" refers to Pacific Gas and Electric Company, a subsidiary of PG&E Corporation. ©2022 Pacific Gas and Electric Company. All rights reserved.

These offerings are funded by California utility customers and administered by PG&E under the auspices of the California Public Utilities Commission.

NATE STAN EXCEL

Continued from Page 28

ready to provide flexible comfort upgrade solutions like never before. The MRCOOL® Central Ducted Hyper Heat series offers something for everyone: an advanced yet affordable system; an easy-to-install system that can adapt to most installation conditions (upflow, downflow, vertical and horizontal); an energy-efficient system that doesn't compromise on comfort. With a 10-year parts and labor warranty*, you can trust in this MRCOOL® Ducted Air Handler and Condenser to bring you the comfort you crave while saving you money. Visit www.mrcool.com for more information. MRCOOL Comfort Made Simple.

My Metal Business Card Booth(s) 308

We help you STAND OUT. Make an instant impression and gain lifelong clients with metal business cards that show you invest in quality. Our designers know how to make you look good. Get your own metal business cards so your clients remember to call you when they need HVAC services.

National Comfort Institute, Inc. (NCI)

Booth(s) 511

The National Comfort Institute (NCI) and Southern California Edison are partnering to bring contractors cutting-edge training on how to perform higher quality installations and service on residential and commercial HVAC systems. Come visit NCI at Booth #511 to learn how to take advantage of this advanced training. 800-633-7058 / www.National-ComfortInstitute.com.

NEBB Booth(s) 520

Building owners are concerned about the cost-effective performance of the environmental systems within their buildings. This "green" goal can be best accomplished by having a building's environmental system properly tested, balanced and/or commissioned by a NEBB Certified Professional. Find out how we can help you at nebb.org.

North American Technician Excellence (NATE) Booth(s) 702

North American Technician Excellence (NATE) is the largest nonprofit certification organization for heating, cooling, ventilation, air-conditioning, and refrigeration

CONTROLS INC.

(HVACR) technicians. NATE exams represent real-world working knowledge of HVACR systems and validate the competency of service and installation technicians. Leading contractors, manufacturers, distributors and educators partner with NATE to develop skilled, certified technicians.

P.I.P.E. / Southern California Pipe Trades Booth(s) 313

Piping Industry Progress and Education Trust Fund (P.I.P.E.) is the Labor-Management cooperation committee and trust fund for the unionized plumbing, piping and HVACR industries in Southern California. We are the vehicle through which union contractors and union pipe trades workers advance the industry. Call (800) 457-7473 or go to www.pipe. org.

Pacific Rim Mechanical Booth(s) 708

Pacific Rim Mechanical is the premier mechanical contractor in Southern California. And we got there by strict adherence to one simple philosophy... ALWAYS DO THE RIGHT THING.

From Pre-Construction to retrofit and full service & maintenance, we place the highest priority on honesty, integrity and respect for our customers and employees.

Pacific Systems Group Booth(s) 703, 705

Pacific Systems Group is an adaptive partner that assists consulting engineers, distributors, mechanical contractors, and building owners in designing HVACR systems, providing efficient and cost effective indoor environmental solutions.

Manufacturers Represented: Carrier Ductless, Toshiba-Carrier VRF, Carrier VRF, Magic Aire, Aldes, Beckett Pumps, Hi-Velocity, Vents US and Vindus Fans. Contact: www.psghvac. com; (888) 909-HVAC; info@ psghvac.com.

Panasonic Eco Systems Booth(s) 113

Panasonic Eco Systems is committed to providing high quality ventilation products to meet constant changing codes. Performance driven ventilation is a key path to a better living environment and a unique must-have value. By helping improve indoor air quality, let's address a major health issue facing our industry together.

Paradise Chevrolet

Commercial Fleet Booth(s) 717, 719, 721, 723, 725, 727, 729, 818, 820, 822, 824, 826

Paradise Chevrolet Commercial & Fleet Vehicles – "We Bring the Dealership to You!!!"

Paradise Chevrolet is a leading dealer of commercial and fleet vehicles in Temecula, CA. We have been in business for over 30 years and have a reputation for excellence. We are an 8X Business Elite Dealer of the Year award winner, consistently ranked in the top 10 Nationally out of all GM Dealerships. We specialize in helping Small Business Owners and Major Fleet Customers maintain their fleets for optimal performance and productivity while staying focused on the newest safety and technology available in the Chevrolet product line.

We offer the largest inventory of Chevrolet trucks and vans in the entire Western United States that will fit all your business needs. We have everything from small vans for light-duty work to large trucks for heavy-duty jobs. We partner with virtually every commercial vehicle upfitter and equipment manufacturer in the industry to customize the vehicles to work seamlessly in your business.

In addition to their wide selection of vehicles and customization options, Paradise Chevrolet also offers a variety of other services, including:

• Our Fleet management program can help you manage your fleet vehicles, from maintenance and repairs, vehicle tracking, fuel management, and custom factory ordering.

• Delivery: Paradise Business Elite can deliver your fleet vehicles to anywhere in the United States.

• All contracts and documents can be delivered to your home or office to make the purchasing process both easy and convenient.

Paradise Chevrolet is committed to providing excellent customer service. We have a team of experienced professionals who are dedicated to helping you find the right vehicle for your business and get the best possible deal and service that will win your loyalty time and time again for the future.

PHCC Los Angeles Booth(s) 507

Since 1968, the Plumbing Heating Cooling Contractors of the Greater Los Angeles Area has provided skilled personnel for the PHC industry. Call today for hands-on training in Plumbing,



Compatible with all Zoning Systems. Check out all the Perks, It's Awesome!

EWCCONTROLS.COM

HVAC, and Backflow. We offer seminars throughout the year to meet the demands of today's job market. PHCC Los Angeles Training Program is a NCCER and DOL accredited program. We are now a NATE training and testing facility. www.phccglaa.org 323-913-7335

Phoenix Manufacturing, Inc. Booth(s) 713

We design, manufacture, and distribute quality and highly efficient evaporative cooling products for residential and commercial applications since 1975. New products listed below.

AeroCool RF Series rigid fan downdraft models can reduce the motor horsepower energy consumption by half in some circumstances. 2HP in 1PH or 3PH and 3HP up to 10HP in 3PH available up to 50,000 CFM.

EcoKool AG42 sidedraft direct drive axial fan 3HP 3PH up to 21,000 CFM. RF and AG have VFD, single point connection and BACnet options available. EcoKool variable speed is

perfect for makeup air for kitchen hoods. See all our products www. phoenixmanufacturing.com.

Quality Residential HVAC Program (Frontier Energy) Booth(s) 119

The Quality Residential HVAC Services (Quality HVAC) program offers tiered incentives for championing industry best practices on energy efficiency project bids. By enrolling, contractors earn direct incentives, get ahead of market changes through no-cost training, and stay ahead with comprehensive support and resources. Come visit our booth to learn more!

R.E. Michel Company Booth(s) 601

The R.E. Michel Company was founded in Baltimore, Maryland in 1935. Over the past 87 years, we have grown to be one of the largest distributors of HVACR and propane equipment, parts, and supplies. With over 300 locations operating in 31 states, we are the largest privately held HVACR/ Propane distributor in the nation. Our branches stretch from coast to coast and individually tailor their inventories for their local markets. Visit us today to experience our commitment to industry leading customer service, robust inventory, and cutting-edge technology!

Rapid Duct Testing Booth(s) 509

Need HERS testing or Air Balancing at an affordable rate? Rapid Duct Testing opened its doors 17 years ago and has grown simply by putting the customer needs first. No job is too small or too big. Greet us at our booth or call 818-552-2050 to discuss our services.

Robertshaw[®] Booth(s) 804

Robertshaw[®] offers the highest-quality residential and commercial HVACR controls through trusted brands including Robertshaw, Ranco[®], Paragon[®], Ranco[®] Rocket[™], Robertshaw[®] IgnitorPro[™] and partnership brands including Mersen, Skytech, Kidde, Tork, and Fenwal. Our portfolio includes new Pro-Series wall thermostats (industry-leading 6-year warranty) and Ranco Refrigeration System Solutions. Visit Robertshaw at booth #804.

Rotobrush International Booth(s) 207

Expand your opportunities with Air Duct Cleaning & Rotobrush. Stop by booth #207 to check out the new BrushBeast DR! The DR is the future of the air duct cleaning industry and features a direct drive system, more vacuum power, speed rotation settings, and more!

Rottiers Sales Associates Booth(s) 213

Ideal Tape offering a complete line of foil/insulation/cloth and UL181 HVAC tapes.

Modine is a manufacturer of Gas Fired/Electric/Steam/Hot Water Unit Heaters, Make-up Air units & Duct

Furnaces.

PRO1 Thermostats Simple, Affordable and EXCLUSIVELY for the Professional Trade.

UEI Test Instruments offers a complete line of test instruments. Meters, Temperature, Combustion, Refrigeration & Accessories.

Smartlock is a manufacturer of cutting-edge metal to metal sealing technology. These fittings eliminate brazing and flaring without leaks and no special tools required.

Royal Service Supplies Booth(s) 618

Contact Royal Service Supplies for high-quality HVAC products. We provide industry-leading innovation on our products, including variable air volume zone diffusers and packaged BACnet line of VAV controls operating on BACnet TCIP network systems. Our popular stainless steel 304 exterior ventilation caps are an excellent alternative for custom homes and multi-family complexes. They are easily installed for fresh-air, bathroom, kitchen, and dryer ventilation terminations.

Service Nation Booth(s) 502

Build your residential service business faster with Service Nation. A network of successful contractors, equipment and service providers help you tackle the everyday problems of owning a business. Plus, earn rebates and receive downloadable custom marketing material to make your phone ring! Join today at www.ServiceNation. com.

Sierra Commercial Truck Center Booth(s) 423, 425, 427, 429, 526 Sierra Commercial Truck

Continued on Page 32





Continued from Page 31

Center in Monrovia is a longtime IHACI member, and proud supporter of the HVAC community in Southern California.

At Sierra, customers are our priority, from the sole proprietor with one truck, to the largest fleets. Let us supply your next truck, whether it be an all-new Chevrolet Colorado, a 2500 Utility Truck, Ram ProMaster or Chevy Express Cargo Van, or even the mighty Chevrolet LCF 6500XD. As both a Chevrolet and Ram Commercial Dealer, we have an extremely diverse inventory.

Consult with our expert and experienced account managers to help maximize your efficiency and minimize your costs while on the job. We do our best work via text, e-mail, and phone, minimizing trips to the dealership and maximizing your business enterprises. On certain vehicles, you can take advantage of special factory discounts for Authorized Carrier, Bryant, Rheem/Ruud, Trane, and Lennox Dealers!

Sierra Chevrolet of Monrovia is your one stop shop for all commercial truck and van needs. We are located at 721 E. Central Ave, Monrovia CA, 91016. Call us for a quote at 626-325-0076. www. sierratruckcenter.com.

Sigler Wholesale Distributors Booth(s) 701

It's hard not to think of Carrier when we look at the past, present, and future of our industry. Where would we be without Willis Carrier? Since the first air conditioner in 1902, Carrier, and now Bryant as well, have continued to develop equipment to meet not only consumer needs, but also government guidelines. At Sigler, we are proud to partner with an industry leader and celebrate the past but continue to innovate for the future.

Simpro Software Booth(s) 310

Simpro is the total business management software for trade service businesses. From job quoting and scheduling to inventory tracking, invoicing and everything in between, Simpro's smart technology solutions and expert long-term support help businesses build, repair and power their future with complete control over operations. Click here to learn more!

SoCal Sheet Metal Apprenticeship Booth(s) 508

The Southern California Sheet Metal JATC is an apprenticeship program training sheet metal workers.

We offer free training and job placement to persons meeting our qualification standards. We also provide manpower to today's HVAC contractor who is signatory to Local Union 105 and to non-signatory contractors on prevailing wage jobs helping them reach their 20% requirement.

Southern California Edison Booth(s) 405, 407

Your Energy Education Starts Here

Our Energy Education Centers in Irwindale and Tulare offer online, in-person, and on-demand classes to help you advance your career in clean energy and make better energy decisions for your home or business. Sign up for a free class at sce.com/classes.

Southern California Gas Company Booth(s) 803

With over 150 years of service, SoCalGas[®] proudly delivers affordable, reliable, clean, and increasingly renewable natural gas service to 21.8 million customers across 24,000 square miles of Central and Southern California.

We understand the importance of caring for the environment while looking out for our customers. That's why we're working hard to ensure California's clean energy future maintains a balanced strategy- one that achieves greenhouse gas reductions while keeping energy affordable for families and businesses. SoCalGas offers energy efficiency programs that provide customers with incentives for making significant upgrades to their homes as well as buying more efficient appliances. For more information visit socalgas. com/upgrade.

Style Crest, Inc. Booth(s) 203

Manufactured housing HVAC is a distinct animal all its own and is once again a rapidly growing market which shouldn't be ignored by an HVAC contractor. Untap these market opportunities to grow your business with Revolv HVAC products, uniquely designed for manufactured housing and exclusively available from Style Crest.

SUPCO (Sealed Unit Parts Co.) Booth(s) 112

Technician Focused Always. This has been SUPCO's mission since day one, and we're proud to showcase new products that continue to simplify technicians' jobs. Come explore our exclusive TradeFox product line that brings technicians' inventions to life, along with the Pipe Vise brand of premium pipe tools and Solderweld brazing and soldering products.

TECH Clean California Booth(s) 100

TECH Clean California - Coming to IHACI 2023 with Industry



Experts & Live Program Support TECH Clean California is a statewide initiative aimed at accelerating the adoption of clean space and water heating technology. The program provides market incentives with workforce education and training opportunities to make it easier for distributors and contractors to stock, sell, and install low-emissions heat pumps that are better technology, have significantly higher energy efficiency, and produce lower carbon emissions.

In 2022, TECH Clean California funded over \$40 million in heat pump incentives, and in 2023, TECH released funds for another \$30 million in Singlefamily and Multifamily HVAC incentives. Coming later this Fall, over \$83 million in funding will become available through the TECH Clean California Statewide Heat Pump Water Heater (HPWH) initiative. Incentives start at \$3,100 for unitary heat pump water heaters, with additional opportunities for incentive kickers. There will also be incentives available for central HPWHs and HPWHs in commercial installations!

TECH Clean California will join this year's IHACI Trade Show in Pasadena. It will feature a demonstration stage where industry leaders and experts will share their knowledge on heat pump topics. Such heat pump-focused topics will include information on how to sell heat pump HVAC, perform heat pump HVAC load calculations and why they're essential, and optimize electric panels for heat pumps. Session hosts include the National Comfort Institute (NCI), Tom Kabat, Mitch Bailey, and Electrify My Home (EMH). We are bringing the experts to you and encourage you to take advantage of this opportunity to hear them speak on topics relevant to you and your business.

In addition to the demonstration stage, the booth will host the 'TECH Help Desk,' where attendees can get personalized support on all their program needs. Do you have a claim that keeps getting kicked back for corrections that you need help with? Are certain rules of the program or specific processes a bit confusing? Or do you need help navigating the numerous websites and resources of the program? If you've answered "Yes" to any of these questions, the TECH Help Desk is the perfect place to get real-time, in-person support on program questions. Whether or not you're an enrolled contractor, the team is there to support you!

Your feedback and questions will also help inform future program design and support that we provide.

The TECH Clean California team is led by Energy Solutions and partners with Ardenna Energy, the Association of Energy Affordability, Building Decarbonization Coalition, Electrify My Home, Frontier Energy, National Comfort Institute, Energy Outlet, Recurve Analytics, The Ortiz Group, Tre' Laine Associates, and VEIC. Find out more at www. techcleanca.com. The TECH Clean California initiative is funded by California ratepayers and taxpayers and administered by Southern California Edison Company under the auspices of the California Public Utilities Commission.

Teslong Technology Booth(s) 220

Teslong Technology was founded in 2009, as an innovative manufacturer of digital products to solve complex problems. Our products include inspection cameras, otoscopes, rifle borescopes, pipe cameras, and a line of thermal cameras—the perfect tools for tackling all kinds of HVAC, plumbing, electrical, or other industrial issues.

TruTech Tools Booth(s) 406

TruTech Tools is your online source for HVAC test and measurement tools. We carry everything from Fieldpiece Vacuum Pumps and Digital Manifolds to NAVAC Cordless Flaring and Tube Expanding Tools and more. Visit our booth at this year's trade show to see new tools from the top tool brands.

Uniweld Products, Inc. Booth(s) 613

Since 1949 Uniweld has employed over 300 workers who help design, manufacture, and distribute quality U.S. made products! Stop by the Uniweld booth to see their HVAC products: New MaxEvac Evacuation Kit, Electric/ Manual Ratchet + Clutch Flaring Tool and Take the EZ-Turn Challenge! Sign up for a free hat.

US Air Conditioning Distributors Booth(s) 401

US Air Conditioning Distributors is your One-Stop-Shop for equipment, compressors, supplies and parts for all brands of HVAC equipment. With 51 locations in California, Nevada, Utah, Idaho and Arizona, US Air Conditioning Distributors is one of the

largest HVAC distributors in the country. At the show we will feature York, Luxaire, Guardian, Samsung, and Eubank equipment; Source 1 Parts, QuietCool fans, and supply lines such as Modular Metals, Diversitech, Nu-Calgon, Malco, Venstar and Hart & Cooley. Count on US Air to have what you need, when you need it, with free next-day delivery, crane service, incredible inventory selection and experienced, friendly personnel.

Visual Service by IHACI (VS) Booth(s) 621

Visual Service by IHACI (VS) is a contractor service platform that provides for live system documentation and live mentoring of entry level apprentices by senior technicians. VS guides technicians through different stages of HVAC troubleshooting from basic triage to pressure profiles of duct systems and airflow calculations. Using Bluetooth tools and live video, VS provides a platform for proper supervision, commissioning, and certification of HVAC systems. Customer reporting provides a clear path to explaining and documenting the current status of an HVAC system. Come visit our booth to see the future of our industry!

Walter's Mercedes-Benz Sprinter of Riverside.

Booth(s) 129 More Professionals choose Walter's Mercedes-Benz Sprinter of Riverside.

Walter's Mercedes-Benz Sprinter of Riverside is an authorized dealer of Sprinter Vans. We're dedicated to the needs of heating, ventilation, and air conditioning professionals. We are proud to display at this year's IHACI Trade Show. Visit us at Booth #129, or contact our Sales Manager, Isaid Barragan IBarragan@waltsmb.com. We are family-owned and operated, celebrating over 50 years of selling and servicing Mercedes-Benz vans. As a leading provider of the Sprinter brand, you can be sure to get the finest in customer service at Walter's Mercedes-Benz Sprinter of Riverside. www. WaltersMercedesBenzSprinter. com.

We Green Energy Solutions Booth(s) 811

We Green Energy Solutions is the premier choice for HERS testing and permits in California. For over 10 years the state's leading contractors have come to rely on We Green to combine patient customer care with unusually rapid service. Don't settle for delays – call us today!

Williams Booth(s) 408

CARMEL™ TG2030TN 82% AFUE Top Vent Gas Wall Heater

Natural gas powers all electrical components. Self-powered - once the digital thermostat calls for heat, the electronic hot surface ignitor starts the furnace, then thermoelectric power takes over and converts the heat to electrical energy for continued operation. No AC power is required and no standing pilot to eliminate seasonal relighting. wfc-fc.com/carmel.

Wright Sales Company Booth(s) 526, 602, 603, 604, 605, 606, 607, 608, 610 & 611

Wright Sales Company is an industry leading manufacturer rep agency representing top manufacturers in the pacific western states of CA, AZ, NV, HI, N, CO, & ELP. Stop by our isle 602-611 for giveaways, raffles, and demonstrations!

• Aspen Coil is one of the largest independent evaporator coil and air handler manufacturers for the heating, ventilation, and air conditioning (HVAC) industry. Come learn about the company's product offering including a broad range of high-quality residential and light commercial evaporator coils, blowers, and air handling units for multi-family, single-family residential, and manufactured homes.

• Owens Corning From Duct Liner and Wrap to Duct Board and more – Owens Corning has an extensive portfolio of solutions to meet all your air distribution needs. Put more money in your pocket with ProCat[®] Professional Loosefill Insulation System. It is designed for contractors for use in open attic and closed cavity applications – AOR or RNC.

• Navac is a manufacturer of HVAC/R tools committed to technical innovation and R&D to deliver solutions that have taken over HVAC/R social media platforms. So, swing by for hands-on tool demonstrations and training with us to see why NAVAC dares to be different.

• Purolator is a premier source for HVAC air filtration for home, commercial, industrial, and institutional applications. With MERV ratings from MERV 4 to HEPA, the Purolator comprehensive line offers products in every category from disposable panel filters and pleated filters to high efficiency extended surface filters, including a wide variety of specialized applications.

• Dust Free[®] is a family owned and operated business headquartered in Royse City, TX, east of downtown Dallas. Dust Free[®] was established in July of 1982 as a manufacturing company specializing in air filtration equipment designed to benefit allergy patients who needed a clean indoor environment.

• RectorSeal is home to some of your favorite brands, Aspen Pumps, AC Leak Freeze, Slimduct, RSH Surge Protection, Safe-T-Switch, Novent Locking Caps, ProFit Quick Connect and more. Stop by the booth to spin the sample wheel and win while learning more about how to stock your trucks to make money.

• Shoemaker & TRUaire – manufactures the highest quality, most affordable residential and commercial grilles, registers, and diffusers. Stop by our booth to see the difference that our 100% Powdercoat coverage and Smooth glide technology make on your next job, backed by industry leading support and online tools.

• Gastite/Python is the leader in Corrugated Stainless-Steel Tubing (CSST) flexible gas pipe. Python is a new, innovative industry changing, flexible plastic line set (PERT). You want to be the first to check it out!

• Thermaflex is the global leader in the flexible duct product industry for both commercial and residential HVAC applications. Stop by and see our proprietary M-KE and EverClean Technologies.

• Friedrich Air Conditioning is a leading US manufacturer of premium room A/C and other home environment products, designed for residential and commercial applications. Constructed of the highest quality components, Friedrich products are built to exacting standards, and are among the most sophisticated, energy efficient and quietest available.

ZONEFIRST Booth(s) 609

ZONEFIRST has acquired ZONEX and will be displaying both companies' offerings of residential and commercial zoning systems. We are also introducing BLISS, our NEW wi-fi based zoning system that includes Invis-A-Stat, the first ever combination light switch and thermostat. With Invis-A-Stat, both lighting and temperature can be controlled via the touchscreen or the ZONE-FIRST BLISS app on any smart device.



As the **Institute of Heating and Air Conditioning Industries, Inc. (IHACI)** celebrates its 75th anniversary, we'd like to recognize our long-standing contractors who have supported us throughout the years.

Air Conditioning Service Co. ACSCO P.O. Box 6112 Altadena, CA 91003

> Air Engineering Service 12111 Branford St. Unit F2 Sun Valley, CA 91352

Air-Bree Htg & Air Cond 132 S. 5th Avenue La Puente, CA 91746

Air-Tro, Inc. 1630 S. Myrtle Ave. Monrovia, CA 91016

Aladdin A/C & Heating., Inc. 1090 Lawrence Dr., #105 Newbury Park, CA 91320

AMS Anderson Air Conditioning, Inc. 2100 E. Walnut Ave. Fullerton, CA 92831

Blake Air Conditioning & Service Co. Inc. 1175 N. Osprey Circle Anaheim, CA 92807

Brody-Pennell HVAC & Electrical Cont. 8599 Venice Blvd. Los Angeles, CA 90034

Bryant Heating & Air Conditioning 2075 E. Villa St. Pasadena, CA 91107

Canoga Park Heating & Air Conditioning 7227 Eton Ave. Canoga Park, CA 91303

> Canyon Air Systems 503 E. Route 66 Glendora, CA 91740

Castillo Htg & Air Cond 32105 Heather Lane Menifee, CA 92584

Certified Service 309 W. Verdugo Ave. Burbank, CA 91502

Comfort Control Corp. 28338 Constellation Rd #960 Santa Clarita, CA 91355

Connor Air Conditioning & Refrigeration 4931 N. Encinita Ave. Temple City, CA 91780

County Heating & Air Conditioning, Inc. 1948 W. Collins Ave. Orange, CA 92867

Cypress Heating & Air Conditioning 547 S. Loraine Ave. Glendora, CA 91741 Dependable Graham A/C Co. 2952 Century Pl. Costa Mesa, CA 92626

Dial One Sonshine Plumbing, Htg. & A/C 13202 Ranchwood Rd. Tustin, CA 92782

> FHA Services PO Box 1225 Apple Valley, CA 92307

Fisher Heating & Air Conditioning 239 Viking Avenue Brea, CA 92821

> George Haney & Son, Inc. 1260 Lincoln Ave. #1200 Pasadena, CA 91103

GW Richardson Htg. & A/C 28231 Avenue Crocker #100 Valencia, CA 91355

Ideal Comfort Heating & Cooling Corp. 10060 Fourth St. Rancho Cucamonga, CA 91730

> Johnson Refrigeration 255 N. Main St Blythe, CA 92225

Kahn Air Conditioning, Inc. 19434 Business Center Dr. Northridge, CA 91324

Kilowatt Heating, A/C & Electric 4925 Sepulveda Blvd. Sherman Oaks, CA 91403

> L.E.C. Service, Inc. 1865 W. 222nd St., Suite A Torrance, CA 90501

La Brea Heating & Air Conditioning Co. 6326 West Blvd. Los Angeles, CA 90043

> Lane's Air Conditioning PO Box 1993 Monrovia, CA 91017

Lenco Heating & Air Conditioning 11606 Exposition Blvd. W. Los Angeles, CA 90064

> Lindsey's Heating & A/C 333 N. Santa Anita Ave #16 Arcadia, CA 91006

Mechanic Refrigeration Co. Inc. (MRC) 5616 Corporate Ave. Cypress, CA 90630

Mike's Heating and Air Conditioning 519 Vicky Lane Placentia, CA 92870 Modern Air Conditioning Co. 1086 W. Lomita Blvd. Harbor Clty, CA 90710

Norwalk/La Mirada Plbg, & HVAC 11661 E. Firestone Blvd. Norwalk, CA 90650

Ontario Refrigeration Service, Inc. 635 S. Mountain Ave. Ontario, CA 91762

RACCO Heating & Air Conditioning 26740 Oak Ave. Ste. F Santa Clarita, CA 91351

> Regional Air 14543 Bledsoe St Sylmar, CA 91342

Rhino Air Conditioning & Heating 1104 Geranio Dr. Alhambra, CA 91801

Royal Service Air Conditioning Corp. 1712 S. New Ave. San Gabriel, CA 91776

> Rusher Air Conditioning 19626 S. Normandie Ave. Torrance, CA 90502

> Schirmeister/Vinci, Inc. PO Box 160 Tujunga, CA 91042

South Bay Heating & A/C 3300 E. 59th St. Long Beach, CA 90805

South Pacific Heating & Air 22539 Victory Blvd. Woodland Hills, CA 91307

Temperature Equipment Corp. 10667 Louise Ave. Granada Hills, CA 91344

Universal Air Conditioning Co., Inc. 18933 Pelham Way Yorba Linda, CA 92886

> Vic's Air Conditioning, Inc. P.O. Box 215 Thousand Palms, CA 92276

Violin Heating & A/C PO Box 950127 Mission Hills, CA 91395

Wukmir Heating & Air Conditioning Co. 11500 Ramona Blvd. El Monte, CA 91731

Product Spotlight

Leak Defense BuildAlert



Leak Defense has announced the release of BuildAlert, a new system that allows users to gain 24/7 visibility into their construction jobsite. It enables the ability to automatically turn off water in the event of a leak – both during and after working hours.

BuildAlert offers a comprehensive set of features designed to streamline and enhance water management at construction sites. With automatic controls, displays, and alarms, users have easy access to essential functions whether on or off the jobsite. The system utilizes remote ON/OFF capabilities accessible via a free PC or Mobile App, making it convenient to control operations as long as there's a jobsite internet connection.

For added convenience and security, BuildAlert allows users to schedule automatic scene/mode changes after hours. Furthermore, the system maintains jobsite water pressure to help ensure a steady supply of water. For advanced integration and customization, the system offers an optional API for input/output signaling to remote systems, output alarms, or building management systems/building automation systems (BMS/BAS).

More information: www.Leak-Defense.com/Commercial.

• • • • • • • • •

Brass Knuckle Read



A worker who wears corrective lenses is not exempt from wearing proper eye protection. Typical corrective eyeglasses don't provide the necessary impact and side protection of work-grade spectacles and goggles. These workers could wear over-the-glasses (OTG) protective eyewear. But, for a lessbulky, maximum-comfort solution, there is **Brass Knuckle** Read (BKREAD-6010).

Read is great-fitting, costeffective, super-light bifocal eye protection available in five diopter strengths: 1.0, 1.5, 2.0, 2.5, and 3.0. A durable polycarbonate frame provides extra side protection and all-day comfort. And of course, the clear lenses are ANSIrated hard-coated polycarbonate with BK-Anti-FOG.

BK-Anti-FOG lasts a full two minutes, 15 times longer than European EN 166/168, the only current documented standard in the world. It is permanently bonded to the lens, will not wear off or wash off, and retains its anti-scratch, anti-static, and UV protection properties.

The number of Americans between the ages of 55 and 64 in the workplace will increase by nearly 44 percent over the next decade. These workers will continue to read gauges and valve settings, set machinery controls, and monitor production screens on the plant floor. They will calibrate, cut, and tune. And they will take their protective eyewear off and slide on their readers to make this close work easier - unless we see the problem before the accident happens. Even the revised ANSI/SEA Z87.1-2015 standard recognizes the need for protective readers that offer magnification for the wearer. Brass Knuckle® meets this need with Read BKREAD-6010.

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

• • • • • • • • •

Gripple UniGrip 6

Gripple, one of the leading manufacturers of wire joining and tensioning solutions for building service applications, has expanded its innovative UniGrip wire suspension system to support heavier duty services, such as multi-tier conduit racks and large diameter mechanical pipework.

The new UniGrip 6, which was launched at the NECA Convention (9/29 to 10/2), delivers huge contractor benefits for projects such as hospitals, data centres and other large industrial and commercial builds, by replacing threaded rod and the associated handling challenges.

UniGrip 6 is independently tested and approved to support safe working loads of 800 lbs and features a 5" long ¾" UNC thread, designed for supporting double strut profiles with high load bearing capacity. The system is ICC and UL 2239 approved for the support of conduit.

The system speeds up the installation of heavy electrical conduit and containment, piping, ductwork, HVAC equipment and prefabricated module by using galvanised steel cable and Gripple's



selection of end fixings. These include pre-looped terminations for connecting to structural beams, ³4" stud ends for concrete anchors, and Gripple's patented push-in cable termination, for use with their 'Spider' universal cast in place insert.

These factory-made, compact, and pre-engineered kits deliver huge speed, simplicity and aesthetic benefits to the installation.

Sean Boyle, product manager at Gripple explains: "Our Unigrip range is extremely popular with contractors and we've released this latest system in response to demand for heavier duty cable support for major industrial projects. The system shares all the benefits for which the range is renowned, including being easy to use, lightweight, labour saving and highly effective."

Boyle adds "We see huge scope for this product with gigafactories, data centers, hospitals and industrial facilities where independently tested heavy duty wire suspension systems are essential."

With its compact design, you can fit 10 x 10ft drops into one small box, significantly improving handling and allowing for cutting without hot works. The high strength steel cable helps lower the buildings embodied CO2, as part of enhancing sustainability. Uni-Grip 6 has the highest load rating capability of any wire suspension system of its type.

More information: www.gripple.com.

.

Taco Comfort Solutions 1911ecm & 1915ecm



Taco Comfort Solutions is expanding its light commercial ECM pump offering with the 1911ecm and 1915ecm high-efficiency pumps.

The 1911ecm is a 425 watt, selfsensing, close coupled, mechanically sealed pump that features a high-efficiency volute, ECM motor, and an integrated frequency drive. It is easy to install and program, and provides a maximum 50 feet of head and 105 GPM.

The 1915ecm offers all the userfriendly features of the 1911ecm, but in a more powerful package. At 650 watts, the 1915ecm provides a maximum 65 feet of head and 120 GPM.

Simple yet versatile control options on both circulators include constant pressure, constant speed, proportional pressure, 0-10Vdc and parallel pump alternation. These standard features, combined with the intuitive user interface, allow for quick start-ups achieving optimum system efficiency and maximum comfort.

Both pumps are available in ductile iron for closed loop hydronic heating and cooling systems or stainless steel, NSF/ANSI/ CAN 61 & 372 Commercial Hot Certified for domestic hot water applications. Taco's 1915ecm is available now, and 1911ecm will be available in the 2nd Quarter of 2023.

More information: www.TacoComfort.com.

.

Spectronics GLO Seal



Spectronics Corporation announces the release of the GLO Seal[™] Single-Use Syringe Injector & Dual Adapter kit under their Spectroline brand. The GLO Seal syringe and adapter kit, SPE-SDSK-CS, contains a 0.3 oz (10 ml) syringe prefilled with GLO Seal, and one dual adapter for injecting into the system. GLO Seal is an OEM-Grade fluorescent UV dye combined with a powerful non-polymer sealant that can treat up to 2.5 tons (8,79kW) of cooling in this delivery method. The inexpensive price point allows for flexible entry into various different markets and applications.

The single-use disposable syringe injector is new for Spectroline and offers a convenient way to inject into the system with no additional tools needed. However, what makes this kit unique is the new Spectroline pivoting dual adapter. This was designed to treat systems with ease as a versatile 2-in-1 tool that easily switches from ¹/4" and 5/16th flare fittings. The kit provides a fast and easy way to find and fix AC leaks and is a key component to have on hand to extend equipment lifespan, eliminate call-backs and prevent costly breakdowns through its 24/7 continuous leak detection and ongoing sealing.

As ductless mini-split systems are increasing in popularity due to their convenience of zoned comfort, energy efficiency, ease of installation, flexible sizing/configuration options, built-in air quality filters, and ability to provide both heating and cooling, Spectroline's new product is the perfect complementary tool. The new GLO Seal with Single-Use Syringe Injector & Dual Adapter finds and seals every leak in mini-splits and small appliances alike.

More information: www.spectroline.com.

• • • • • • • • •

Danfoss Aveo



The new **Danfoss** Aveo thermostatic radiator valve operators feature unique gas bellow technology. Research shows that gas thermostats regulate more accurately based on the desired set temperature than liquid thermostats, thereby lowering the amount of energy consumed. This results in up to 2 percent additional energy savings compared to traditional liquid bellows.

To help customers adjust room temperature more precisely, the Danfoss Aveo[™] also features tactile temperature setting, providing a subtle click feeling for every 1 °F (0.5 °C) change in temperature.

The Aveo[™] thermostats help customers save money in other areas as well. An anti-theft plugin accessory offers additional protection for the Aveo[™] thermostatic operator. This small plug-in makes it harder to remove the thermostat, which can only be done by using a special tool.

The Aveo[™] thermostatic radiator valve operators also have builtin temperature limitation options so building managers can limit room occupants from changing the thermostat temperature.

The new range of thermostatic operators also includes features developed with contractors in mind.

More information: www.danfoss.com.

.

Growing Green Technicians Part 169: Temperature Rise Testing, Fuel Pressure Checks

By Jim Johnson Contributing Editor

HVAC trainers, when they facilitate gas furnace servicing workshops, report that when they ask two fundamental questions regarding the installation and maintenance of gas furnaces, it's common for them to get a "no" answer.

The two questions:

1. Are you performing a temperature rise test?

2. Are you confirming that the proper fuel pressure is being applied to both the equipment, and to the fuel manifold?

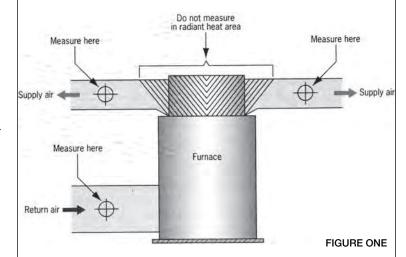
If a technician is taking a green approach to servicing HVACR systems, the answer to those questions should be "yes" whether the situation is accomplishing the installation of new equipment, getting the equipment back online with a repair, or performing a maintenance check at the beginning of the heating season.

One issue regarding the two questions is that it's often assumed that the necessary temperature rise, and fuel pressure checks were performed when the furnace was installed. The unfortunate truth is, while that may have been what happened, it's possible that the two basic evaluations were not performed. And, even if those tests were accomplished at the installation, equipment that has been in service for any length of time should be tested to confirm that it is still operating properly.

In some cases, all it takes on the part of the technician is to ask a customer a few simple questions about their thoughts on the performance of the equipment, such as whether or not all the rooms are comfortable. Often when a technician takes this approach, they get a response that begins with, "Well, now that you mention it...."

On the subject of the proper rise in temperature through the furnace cabinet, some manufacturers will list the information on the equipment tag as being within a given range of temperature such as 55 to 80 degrees, or they may list it as a specific number, such as 65 degrees. Whatever the case, performing a temperature rise test is a simple process of accurately measuring the return air temperature and the supply air temperature, then subtracting the return measurement from the supply measurement to determine what the rise is. (See Figure One)

In this example we're showing the proper locations for temperature measurement out of what is known as the "line of sight" of the heat exchanger so that the readings will be accurate. If a customer



reported that while most of the house was comfortable, while one of the rooms furthest from the furnace never seemed to get warm enough, performing a temperature rise test could be the solution to the problem.

If the correct temperature rise for equipment that employs a four-speed PSC blower motor was, for example, shown as 65-degrees on the equipment tag, but a test showed it to be 75-degrees instead, the fix for that problem could be as simple as adjusting the speed of the blower motor from a low-speed operation to medium-low. Making sure that blower motor speed is correct is not just a performance issue, but also relates to safe operation of the furnace.

Regarding a fuel pressure test, that's another issue related not just to the efficient operation of the equipment, but it's also a safety consideration because a properly operating burner will generate the lowest level of carbon monoxide possible. A gas valve such as the one shown in **Figure Two** is often equipped with ¹/₄" threaded openings on both sides of the valve, plugged with an Allen screw. These ports allow for the connection of a manometer.

In the case of natural gas, the recommended pressure applied to the equipment (the inlet of the valve) should be 5" to 7" water column pressure, and the subse-



quent manifold pressures should be 3.5" water column pressure. On an LP gas system, the equipment pressure should be 11" to 13", and the manifold pressure should be whatever the manufacturer shows on the equipment tag. When accomplishing equipment pressure tests, make sure that the furnace itself, along with all other fuel burning equipment in the building, is operating.

Taking this approach will ensure that the furnace will always have proper fuel pressure at the inlet of the gas valve regardless of the overall flow in the piping throughout the building. With the proper fuel pressure applied to the equipment, and subsequently to the burners, along with the proper air flow through the duct system, the furnace can operate efficiently and safely.

Troubleshooting

An Under-Performing Heat Pump

By Jim Johnson Contributing Editor

In this troubleshooting situation, you are responding to a customer's complaint about their heat pump, and you're not the first technician called in to solve this problem of "not keeping the home comfortable and running a lot."

This residence is a rental unit, and the equipment is a package unit shown in **Figure One**. Upon your arrival at the customer's home, you find the following conditions:

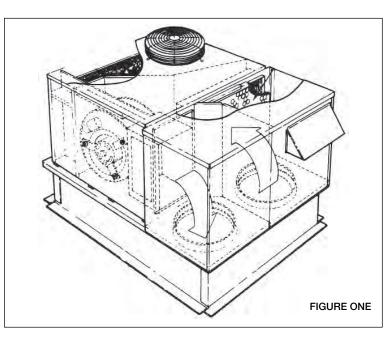
1. The indoor temperature is 65°F.

2. The thermostat is set at 75° and the fan switch is in the AUTO position.

The customer, whose complaints began when they moved in during the summer, confirms that the unit has been operating for over two hours. They also provide you with copies of the work orders from three previous service calls. On the first visit, the technician reported that refrigerant was added. The work order also shows no air filter was found, and one was installed.

On the second visit, the technician's report shows that an indoor fan relay was replaced due to the suspicion that it was intermittently preventing the indoor air handler from operating. The third work order states that the indoor fan motor was replaced due to the suspicion that it was intermittently overheating and kicking off on its internal overload protector, and refrigerant was also added again.

Moving to the roof to conduct an initial inspection of the equipment, you note that the compressor and outdoor fan motor are operating. You also confirm that the design of this system is such that



the filter is located in the return air duct assembly. Removing the cover on the filter slot, you find that the filter is the proper MERV rating for this equipment. As your next step, you go back inside the house and check the airflow at a bedroom supply register. You find the total airflow to be 90 cfm.

Then, you return to the roof and remove the access panel to the air handler. With the air handler remaining in operation, you go back into the residence to perform a second test on the same supply register. Your test shows that the airflow is now 120 cfm.

Your two-part troubleshooting question: What situation was overlooked on the previous service calls, and what do you need to do in order to get this equipment working properly again?

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

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

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

Replacing Yourself in Your Business: The First Steps in the Journey to Scale and Grow

By Lawrence Castillo IHACI Board Member

Happy November everyone. I'm writing this column from Austin, Texas. I'm here to speak to a group of over 1,000 contractors, many and most of whom are under \$2M in annual revenue. The concerns of small contractors are amplified at this time of the year, and I spoke with so many here this week that want to take the next step in their business but don't know where to begin. Let's examine a few realities for the small contractor:

Manpower:

I spoke with a number of contractors who don't know where to find new help and haven't placed enough importance upon it. No growth will ever happen for a small residential HVAC business until you acquire additional manpower. Most small contractors should be directing their recruiting efforts to trade schools and employee referrals. Regardless of which avenue, finding new talent is the only way ownership will be able to take the next step.

Call Count:

A growth plan cannot happen without those additional bodies, but you must have the work to keep them busy. If you plan to hire a revenue generating field position, the math will tell you exactly how many additional calls you will need to keep them working every day. Upon closer examination, you will often find that you already are receiving enough calls to keep your new employees working, but your call booking percentage is so weak that you are wasting some precious marketing dollars. If you can convert just 5% more call bookings, you won't need to spend more money. That training begins and ends in your call center.

Tracking Performance/KPI's:

The first step in revenue growth is measuring progress daily, weekly, and monthly. You should be reviewing your important numbers daily. Those numbers will lead you to where the opportunity is in your business for rapid growth.

Example: Your business did \$2.3 million last year, and you would like to do another million this year but you don't know how to get there. What questions should you be asking:

1)What number of inbound calls did we receive last year?

2) What percentage of inbound calls did we book?

3) What amount of revenue was installed daily by our installation crews?

4) How many installation crews are we running?

5) What number of installation jobs were quoted by our sales team?

6) What number of installation jobs were sold by our sales team?7) What was the average ticket for installation jobs sold by our sales team?

8) How many new bodies do we plan to hire in the next calendar vear?

9) Who is "re-hashing" the jobs we didn't sell and what is their success rate?

10) How many service/maintenance calls per day are our technicians running?

11) What was our acquisition cost for new customers last year?

12) What was our most successful and revenue generating marketing campaign?

13) What was our average service ticket last year?

These are a few of the many questions to ask so that you can do the math on how to get that next million in revenue, but the math will always lead you to where you want to go.

Management Structure:

If your business has under 10 employees, you need a key person to be able to handle the day to day if you are away. This person is a placeholder.

If you want to grow, the key person you will seek is someone that you can groom to handle the necessary tasks to grow the business, allowing you the free time to work on the bigger growth plan.

Replacing yourself won't be easy, and it will take time, but once you have the right candidate, and you get them excited about their future, you can begin to fly at 30,000 feet. Once you are there, you will see things differently, and be able to plan out the future growth and scaling of your business. No growth will ever happen for a small residential HVAC business until you acquire additional manpower. Most small contractors should be directing their recruiting efforts to trade schools and employee referrals.

Final Word:

Don't be discouraged. This may seem like a lot of change to get to where you want to go to, but if you follow these simple steps, you can begin the steps to freedom within your business.

Trade Show:

Later this month is the 43rd Annual IHACI Trade Show in Pasadena. Here in Southern California, it is our one day per year to reacquaint ourselves with old friends, make a few new connections, and to take pride in the spirit of our industry. More than anything, it is a chance to learn. The educational seminars are a great place to start, and this year, we have some great speakers and topics. Outside of the seminars, the floor of the trade show promises to be lively, full of great vendors, and to give us a glimpse of some of the newest and best that our industry has to offer for 2024.

We hope you can join us. See you there!!

IHACI Peer Groups:

The IHACI Peer Groups are our newest benefit, allowing IHACI members to establish a close network with other contractors with whom you regularly meet via Zoom to share and discuss ideas. If you have ever belonged to Nexstar, Service Roundtable, the Success Group, or any other best-practices group, you already understand how beneficial the relationships that you establish can be some of your most important. At IHACI, our goal with Peer Groups is to give our members a way to connect so that they can leverage each other to help make their businesses more successful.

Please join us to see how IHACI Peer Groups can help you to establish relationships with other like-minded contractors who share some of the same struggles and issues that you face every day in your business. Please contact me at lawrence@brodypennell.com to ask questions about how to join.

Lawrence Castillo is the President/ Operating Partner of Brody Pennell Heating & Air Conditioning in Los Angeles and is a Board Member of IHACI. Castillo is nationally respected as one of the residential HVAC/plumbing industry's top operators and has generated record revenue growth for some of the West Coast's most respected and wellknown companies over the past 20+ years. Lawrence can be reached at Lawrence@brodypennell.com

Danfoss Opens "Smart Store" Innovation Center to Accelerate Energy Efficiency in Food Retail

Danfoss opened the doors recently to the Application Development Center within the 'Smart Store' supermarket, which is part of a full Decarbonization Park including several innovation centers for applications such as heat pumps, heat recovery, next-generation district heating networks, and data centers. The new Application Development Center will offer the cooling and heating industry the opportunity to access state-of-the-art test facilities and expert support, for field testing new components and cloud technologies for both small and large applications.

Danfoss has built a new Smart Store supermarket at its headquarters that will lead the way for climate-friendly food retail with energy-efficient heating and cooling technologies. The store is expected to be 50% more energy efficient than a traditional store, and 90% of the space heating needs for the entire store will be provided by a heat recovery unit that captures excess heat produced by the cooling systems. The supermarket has two refrigeration systems that run independently, ensuring that product testing does not interfere with the operations of the supermarket.

Energy as a Service: Saving energy while decreasing upfront costs

Refrigeration is a delicate balance. If you use too much cooling you waste energy, if you use too little you risk food loss. With smart controls and digital monitoring, retailers can optimize capacity and demand, allowing them to respond to anomalies in a timely manner preventing energy and food losses. The store will be managed by Danfoss and ANEO Retail's partnership, and their unique service model, "Energy as a service (EaaS)", which allows grocery stores to subscribe to technical facilities as a service, reducing their operational expenses and time spent on issue management. The concept allows supermarkets to implement the most energy-efficient equipment without large investments and high up-front costs. The store's refrigeration and comfort cooling systems run exclusively on natural refrigerants (CO2), which have the lowest possible global warming potential score.

"The new 'Smart Store showcases the incredible possibilities we have ready today with existing solutions for natural refrigerants, energy efficiency, and sourcing renewables –all in one installation," says Jürgen Fischer, President Danfoss Climate Solutions." We are proud to officially welcome customers and partners to the Application Development Center today, to take the next steps together to reimagine the future and develop new heating and cooling technologies that pave the way towards zero emission food retail."

The occasion was celebrated with an open house event for Danfoss partners and customers who have contributed to the site. Peder Gabrielsen from the European Environment Agency offered a keynote speech, followed by a site tour of the event led by Danfoss leadership. Interested organizations can now get in touch to schedule their own site visit.

"With the fluorinated gas (F-gas) Regulation in Europe we are seeing a reduction of F-gas emissions and the Kigali Amendment to the Montreal Protocol is driving the refrigerant transition at a global level. The example we see here today is a good example of movement in the right direction. When energy efficiency and low global warming potential refrigerants work in tandem, we can vastly cut emissions from heating and cooling," says Peder Gabrielsen. "The need to use energy more efficiently and to reduce costs is constantly growing. Innovation like what we see here has a key role to play in finding the best solutions," he added.

For more information, visit www.danfoss.com.

Johnson Controls York Launches Energy-Efficient, Air-to-Water Heat Pump

Efficient performance and low-GWP refrigerant make YMAE a sustainable heating and cooling solution for schools and offices.

Johnson Controls, the global leader for smart, healthy and sustainable buildings, announced the launch of the next-generation YORK[®] YMAE Air-to-Water Inverter Scroll Modular Heat Pump - a high efficiency air-to-water heat pump for the North American market. The YORK YMAE is a sustainable, future-ready solution for offices and schools that want to minimize their environmental impact and electrify their heating and cooling. The YORK YMAE uses R-454B, a refrigerant that cuts climate impact by nearly 80% compared with R-410A refrigerant. The YMAE will be offered in single and packaged-module configuration.

"The YORK" YMAE heat pump is a proven industry leader around the world, and we're proud to further optimize its design and make it available to a new market," said Andrew Graybill, director of product management for air-cooled chillers, Johnson Controls. "Its efficient performance and low-GWP refrigerant will empower customers in North America through a sustainable, future-ready heating and cooling solution."

By utilizing low-GWP R-454B, the YMAE is compliant with upcoming regulations by the U.S. Environmental Protection Agency (EPA) through the American Innovation and Manufacturing (AIM) Act. The AIM Act directs the EPA to phase down hydrofluorocarbon (HFC) production and use by 85% over the next 15 years, with the next major phasedown going into effect Jan. 1, 2024. In addition to the YMAE, YORK will use R-454B across all its scroll compressor products. As a global leader in sustainability, Johnson Controls was a strong voice in support of passage of the AIM act and works hard to advance policies that spur the kinds of clean technologies that can tackle climate change.

Using the award-winning YORK AmichiTM platform as a foundation, the advanced YORK YMAE



THE YORK YMAE AIR-TO-WATER INVERTER SCROLL MODULAR HEAT PUMP.

features all new hardware, including new-to-market, electronic vapor injection (EVI) scroll compressors, updated heat exchangers and an optimized frame. EVI technology significantly improves system capacity and efficiency and allows the YMAE to provide high water temperatures at low ambient conditions. Highly flexible, the modular YMAE features two-pipe and four-pipe versions and serves a wide range of applications. The four-pipe system makes it possible to simultaneously heat and cool different areas of a building by moving heat from one area to another, improving efficiency and occupant comfort. The heat pump's modular design makes it possible to multiply capacity with a minimal footprint. Up to four modules can be kitted together, factory-tested and shipped as a single unit, simplifying installation and speeding up commissioning. The YMAE joins the YORK family of heat pumps which serve applications that range from small commercial buildings to district heating, and is part of the OpenBlue platform of connected equipment.

The YORK YMAE will be available on a short lead time. Units will be available to order and begin shipping this year. Product details can be found in Johnson Controls Solution Navigator, a one-stop, real-time platform that speeds up and simplifies the building management process and makes it easy to find products that best meet application needs.

To learn more about the YORK YMAE air-to-water heat pump, visit www.york.com/commercialequipment/chilled-water-systems/ ymae_heat_pump_chiller_ch or search for "YMAE" in the Johnson Controls Solution Navigator.

Danfoss Expands Oil-Free Turbocor Portfolio

Danfoss has expanded its oil-free Turbocor[®] portfolio to include the TGS380 and TTS450 models, offering a high-capacity, energyefficient solution for use in comfort cooling, intensive ambient environments, and data center applications.

The new TGS380 and TTS450 compressors provide exceptional flexibility and efficiency to customers worldwide, operating in both heating and cooling applications, at extreme temperatures, and across a range of low Global Warming Potential (GWP) refrigerants.

Thanks to an expanded operating map, the TGS380 and TTS450 can be used in water-to-water heat pumps and heat-recovery applications, generating hot water up to 68°C (154°F). Both compressors can be used in air-cooled chiller applications operating in extreme ambient temperatures of up to 52°C or 125°F. They generate water temperatures up to 30°C or 86°F when used in data-center applications.

Rogerio Federici, Vice President of Sales and Marketing at Danfoss Turbocor[®]: "As temperatures rise, we must design flexible solutions that work in any ambient environment and across multiple market segments, but our responsibility does not stop there." Danfoss quality means that we help create energy savings for our planet while delivering flexible, reliable solutions for engineers, installers, and building owners."

Eddie Rodriguez, senior product manager for Danfoss Turbocor in North America, affirmed, "These two new

models extend the benefits of oil free compressor technology to even more cooling and heating applications operating in extreme environments. Our innovative solutions will reduce energy consumption and help decarbonize heating and cooling systems, making them ideal for use in data centers and aircooled chillers."

Danfoss Turbocor[®] offers the only oil-free compressors that can operate in both heating and cooling applications and at high ambient temperatures while providing a larger, more precise capacity option. In air-cooled chiller applications, OEMs can reduce the number of compressors in their chiller designs, in favor of a simpler solution. This can reduce costs and allow for easier installation and less maintenance.

The latest additions to Danfoss Turbocor[®] are compliant with re-



DANFOSS TURBOCOR COMPRESSOR.

frigerant regulations in the EU and North America. The Turbocor[®] TGS380 is optimized to use low-GWP refrigerants HFO-1234ze and R515B, while TTS450 is optimized to use R134a and low-GWP R513A, which can help customers comply with evolving regulations, minimize carbon emissions, and meet increasing environmental standards.

Danfoss Turbocor[®] compressors feature a unique magnetic bearing technology that eliminates the need for compressor oil management, resulting in less maintenance and greater energy efficiency throughout the system. Magnetic bearings also contribute to a longer expected machine life, as they are not subject to the performance degradation or mechanical wear associated with oiled compressors and offers the largest range of oil-free compressors for low GWP refrigerants.

Carrier Brings Smarter Servicing to Homes with InteliSense

Earlier this year, Carrier debuted its patent-pending Inteli-Sense Technology – an industry first for fully connected, digitallyenabled lifecycle solutions and advanced smart technology in



HVAC. Units are shipping to homes with Carrier's latest product launch, the fully redesigned, 2023- compliant Performance[™] Series gas furnaces, with fan coils, heat pumps and air conditioners slated for later in the year to complete the full suite. Carrier is part of Carrier Global Corporation (NYSE: CARR), global leader in intelligent climate and energy solutions.

Available exclusively on the Carrier Performance Series, Inteli-Sense gives dealers and homeowners the power of remote diagnostics and real-time updates for a truly smart choice in HVAC. Cutting-edge sensors in the units communicate with the full system via the ecobee for Carrier Smart Thermostat, store that data in the privacy-protected Carrier cloud, and deliver it remotely to a Carrier expert, making troubleshooting and maintenance easier, quicker and more accurate. Dealers will know when an issue arises and what parts are needed to fix it before stepping foot on a property, saving time and money on repeat service calls.

"Homeowners and dealers want servicing calls done fast, efficiently and right the first time," said Justin Keppy, President, NA Residential and Light Commercial HVAC, Carrier. "InteliSense Technology means less downtime at home, less time waiting on parts, and more time enjoying the premium comfort and energysavings associated with Carrier products. The future of smart HVAC is here and changing the way we help keep customers comfortable."

For more information, visit https://www.carrier.com/residential/en/us/.

'Invisible' Heater Design Elevates Comfort, Aesthetics at Residential Skyscraper

To adequately heat the 111 Murray Street residential skyscraper in New York, the owner sought an effective way to maintain the aesthetic of the mostly glass building without being obtrusive to its design. Custom convection style heaters, mounted in the building's millwork by Faber Industrial Technologies, proved to be the game-changing resolution.

'Convection heaters provide warmth and heat to a specific area or room by circulating air and heating it using a highly efficient electric element," explained Andrew Martin, Manager of Product Management with Marley Engineered Products. "Designed for quiet, controlled comfort, they are ideal for both residential and commercial applications, including living rooms and bedrooms, offices, hallways, lobbies, conference rooms, retail stores and buildings with floor-to-ceiling windows."

Installing Heaters while Maintaining Aesthetics

Located in the Financial District and Tribeca neighborhoods in Lower Manhattan, 111 Murray Street is a 792-foot-tall residential skyscraper with 156 luxury condominiums and 2,100 square feet of retail space on the ground floor. Due to mechanical constraints exacerbated by the building's slim design, hot water was not available in most of the upper residences, rendering hydronic heating systems impractical. Therefore, the client requested Berko ASL3 convector heaters from Marley Engineered Products to be installed for elegant, supplemental comfort for heat loss, condensation prevention and continuous warmth throughout each condo. The challenge, however, came from their preference to keep the heaters hidden for aesthetic reasons.

"The varying heights and angles of the millwork in each condo limited our ability to install the heaters directly where we wanted them," said Christopher Smith, a heater manufacturing representative with Faber Industrial Technologies. "Therefore, we needed a custom design that enabled us to mount the heaters properly while also keeping them out of sight."

Another issue was revealed when the contractor requested the materials be delivered to each floor. Working in tandem with Technical Air Systems, Inc., a regional supplier of HVAC equipment to the metropolitan New York and New Jersey areas, Marley Engineered Products' customer service and shipping teams were instrumental in coordinating the delivery of the convector heaters in a congested lower west side intersection between West Side Highway and Murray Street.

The solution involved fabricat-

ing and supplying custom dual inlet convector heaters, which were then mounted within the millwork of each condominium unit. Using a thermocouple array, the engineering team at Marley tested the Berko ASL3 convectors - at 125 watts per foot and 120V - inside a customer-supplied demo millwork section sent from New York City. After making some adjustments to the design, thermal couplers were utilized on both the heaters and their enclosures to ensure their surface temperatures were within Marley Engineered Products' limits to pass a UL site inspection.

Next, Smith coordinated with the electrical and mechanical contractors on-site to fit the heaters into each condo's temperature control system using power relays. The result was an "invisible solution" in which none of the controls or heaters could be seen in the residential units.

"Innovation and collaboration converged as we tailored a custom heating solution, seamlessly blending functionality and aesthetics," explained Smith. "In fabricating this 'invisible solution' for the client, our dedicated team and the coordination of skilled contractors transformed these condos into spaces that harmonize comfort and elegance and exemplify the blending of form and function."



THE SOLUTION INVOLVED FABRICATING AND SUPPLYING CUSTOM DUAL INLET CONVECTOR HEATERS, WHICH WERE THEN MOUNTED WITHIN THE MILLWORK OF EACH CONDOMINIUM UNIT.

The success of the project not only resulted in an extremely satisfied customer but also left the contractors pleased with the uninterrupted delivery and installation of the heaters. They were further impressed when the custom heater and millwork system passed the UL site inspector's test after just one evaluation. To acknowledge the innovative approach and exceptional achievements demonstrated by the Faber team in overcoming the challenges faced during this project, Marley Engineered Products awarded Smith the 2023

Jim Herring Memorial Silver Fox Award at its recent national sales meeting.

"This award for excellence in solution design embodies the spirit of Herring, who was always up for a challenge and most happy when solving a unique heating or ventilation problem," said Sean Pesce, Acting Director of Sales for Marley Engineered Products. "Chris and his team perfectly captured Jim's talent for finding creative solutions to the most complex issues and left a lasting impression on the client."

Crafting Comfort and Sustainability at HMTX Industries World Headquarters in Conn.

HMTX Industries, a familyowned global luxury vinyl tile (LVT) flooring manufacturer, has always placed the human experience at the center of its mission. Serving diverse markets in the construction and renovation industries, HMTX is committed to sustainability, envisioning a future where humans can build, create, and thrive together.

In 2020, HMTX held a design summit to explore impactful actions that could embody their core values as a company. This summit led to the commissioning of a new world headquarters in Norwalk, Connecticut. Designed in alignment with the Living Building Challenge Petal Certification, the most stringent green building rating system in the world, this headquarters was conceptualized as a human-centered space where employees, artists-in-residence, and visitors could find comfort and inspiration.

The ambitious goals for this project presented a unique

challenge for the building and mechanical contractors involved: to create the greenest building in Connecticut without sacrificing a single aspect of comfort. In facilities of this scale, the HVAC often contributes 40% of the building's overall energy consumption: HVAC efficiency would be central to the success of the project. Shawmut Design and Construction collaborated with Airzone, a leading HVAC control solution manufacturer, to develop a sophisticated zoned HVAC system that met HMTX's exacting requirements.

The Challenge

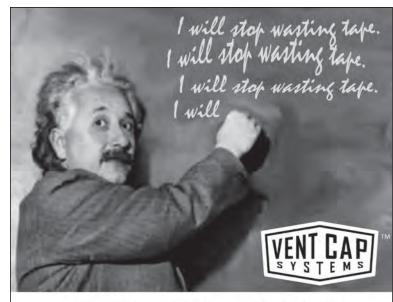
The 24,000 square-foot facility's diverse use of space – from a dramatic three-story atrium and divisible co-working spaces to private offices and design studios – created complex requirements for heating, ventilation, and air conditioning. Some of these spaces, permanently occupied by HMTX employees, needed a consistent level of comfort, while others required a more flexible approach to temperature control.

Adding another layer to the complexity, HMTX had committed to a carbon-zero building in pursuit of the Living Building Challenge (LBC). This commitment meant using only electricity that could be generated on site. Furthermore, the LBC demands that the building prioritizes the health and happiness of the occupants, ruling out any energysaving measures that would compromise their comfort.

"The Living Building Challenge is a relatively new process with extremely stringent requirements," says Thomas Munson, Sr. Project Manager, Shawmut Design and Construction. "It pressed us to start completely fresh in terms of everything from materials sourcing and staging to system design."

The location of the facility in Norwalk, Connecticut, added yet another dimension to the challenge. The HVAC system needed to adapt to a wide range of temperatures year-round, with average summer highs in the mid-80s and winter lows in the teens. The spring months in Norwalk are particularly unpredictable, often swinging from

Continued on Page 40



FREE Vent Cap MiniPack WITH DUCT BLASTER® PURCHASE www.VentCapSystems.com/news

Indoor People



ERICA AMEVO



MATT BAHR

Uponor North America (Uponor) has named **Erica Amévo** as vice president of Human Resources and **Matt Bahr** as vice president of Sales. Erica will be based in the Twin Cities of Minnesota, and Matt will be based in Washington, D.C. Both positions will report to Andres Caballero, president, Uponor North America, and will also be members of the company's Senior Management Committee (SMC).

As the interim vice president

of Human Resources for the past eight months and with more than 17 years in the field, Erica has dedicated the majority of her career to supporting the most important asset of any organization: its people. Beginning as the Operations training manager with Uponor more than 10 years ago, then moving from senior manager to director before becoming the interim vice president of Human Resources, Erica holds a wealth of experience developing and implementing innovative HR strategies. She also has previous experience in both Operations and Accounting, in addition to Human Resources, prior to joining Uponor.

In her permanent role as vice president, she will provide strategic leadership to ensure Uponor continues to recruit and retain the very best to advance the company's People-First initiatives. Her role includes developing strategies to address talent acquisition and retention, employee training, engagement, compensation, and benefits, as well as HR policies and practices, and community relations. She will also collaborate closely with global HR teams to implement shared initiatives and alignment with North American needs. In addition to continuing to serve on the SMC, she will also be a part of the Global HR Leadership Team.

Erica holds a Bachelor of Science in Communication Studies from the College of St. Catherine in St. Paul, Minn., and has earned several certifications, including SHRM/HRCI (PHR), Korn Ferry Leadership Architect, and the University of Minnesota College of Education Continuing Education (HR Generalist).

As the new vice president of Sales, Matt moves into this role with 11 years of experience in sales and sales operations. For seven years, he has served Uponor in several roles with escalating responsibility, including sr. director of Sales in the U.S., Regional Sales director, business development manager, and technical sales representative. Before Uponor, he held sales management positions at Victaulic and Hayward Flow Control.

In his new role, Matt is responsible for providing a hands-on approach to generating new sales, cultivating new and existing client relationships, and driving the sales process to meet revenue and growth targets. He will oversee field sales in North America, rep agency relationships, Inside Sales, Customer Service, Sales Operations, and Training, while also partnering closely with Marketing to align on programming and channel strategies to enable strong customer experiences. He will also oversee the Canada business to ensure growth, profitability, and alignment to the North American business strategy.

Matt holds a Bachelor of Arts in Communication from the University of Colorado in Boulder, an MBA from Concordia University in Irvine, Calif., and is currently completing an Executive Master's in Leadership at Georgetown University in Washington, D.C. He has also completed several business and leadership training programs, including Oliver Wight, Carew International, and Dale Carnegie. Additionally, he is a national affiliate member of MCAA as well as a member of AIM/R, ASPE, and ASHRAE.

"I am excited to promote Erica and Matt into these key leadership roles to advance our People-First culture and to accelerate our profitable growth trajectory," says Andres Caballero, president, Uponor North America. "They are both extremely talented individuals with an exemplary history at Uponor that has elevated our HR and Sales organizations as well as the company as a whole. I'm confident their respective strengths, coupled with their determination and passion, will continue to provide excellence in leadership and advancement for Uponor."

.

Malco Products, SBC, one of the nation's leading solution developers and manufacturers of a variety of high-quality tools for the building trades, announced that its safety and environmental manager,

"This project required a high degree of complex integration between the HVAC and other building systems, and the Airzone team was extremely committed to making that communication work," says Munson. "In the end, we were able to create a sophisticated HVAC system that was very user-friendly."

The Results

The HMTX World Headquarters Building officially opened its doors in October 2022. Upon opening, the facility was energypositive, with over 100% of the building's power requirements met by solar power gathered using on-site photovoltaic (PV) panels. Owing to the ultra-efficient envelope and mechanical systems of the building, it operates at just 40% of the energy usage intensity of similarly sized and located facilities.

HMTX CEO Harlan Stone shared his thoughts on the success of the project: "We needed a very sophisticated solution to accomplish this. Our building does not use any electricity from the grid.



CHRIS STRAND

Chris Strand, has been appointed to the Minnesota Department of Labor and Industry's Occupational Safety and Health Review Board (OSHRB).

OSHRB acts as the final arbiter in contested occupational safety and health administration (OSHA) citations that have gone through the full appeal process without resolution. Strand, who has more than three decades of experience in safety management, will serve as the management representative on the three-member board. Strand was appointed to the board by Governor Tim Walz and will serve a three-year term.

"I am excited and honored to serve on the Occupational Safety and Health Review Board for the state of Minnesota," said Chris Strand, safety and environmental manager at Malco Products. "I look forward to working with my fellow board members to ensure Minnesota's work environments are equitable, healthy and safe."

In addition, we don't burn any fossil fuel. We are net-zero carbon. All of this is because of the sophisticated HVAC that we have, running entirely on electricity created from the sun and our building."

Munson regards the project as a serious, but ultimately rewarding design challenge. "I'd gladly take on another project like this. It was an incredible learning experience, and a bridge towards our future," he reflects. "The HVAC industry is transitioning towards more energy-efficient systems. We're seeing more fan-coil and VRV systems in commercial application in lieu of large air-handling units. Ultimately, though, energy management is holistic. It all has to work together."

This project serves as a beacon of what can be achieved when innovative technology, sustainable practices, and a human-centered approach come together. The HMTX World Headquarters stands not only as a testament to their commitment to sustainability and human comfort, but also showcases the possibilities of future-focused HVAC solutions.

Case Studies Continued from Page 39

near-freezing to balmy temperatures in a single day.

To meet the demands of the HMTX project, an HVAC system needed to be extraordinarily adaptive, responsive, and efficient. It needed to provide comfort to a wide range of space types and activities, operate within the constraints of a zero-carbon mandate, and adapt to the highly variable Connecticut weather. This was a tall order, but one that Shawmut was prepared to take on.

The Solution

The HMTX World Headquarters design team took a holistic approach that blended low-tech solutions with state-of-the-art automated systems. The HVAC system leveraged the building's biophilic design, which included passive cooling through operable windows and skylights throughout the facility. The design also incorporated natural light to reduce dependence on electrical lighting, with façade optimization and sunshade louvers. This necessitated an HVAC system that could adapt to varying temperatures in sunnier zones, accounting for additional heat.

An LG VRF Heat Recovery System facility formed the heart of the HMTX HVAC system. The systems consists of 26 ducted units, nine of which are equipped with an Airzone zoning system. Most zones have 4-5 dampers. In areas where multiple dampers serve the same zone, HTMX has the flexibility to later subdivide the space into multiple zones and control each space independently. Airzone's patented airflow regulation mechanism enables zoned temperature regulation without the need for a bypass damper, resulting in significant energy savings compared to a traditional VAV system.

"Airzone has been committed to developing sustainable HVAC solutions for decades," says Victoria Garcia Massimo, National Operations Manager for Airzone North America. "We've created solutions to address every gap where waste creeps in, from plenum mechanisms, to programming, to IoT interoperability. Using these solutions, Airzone customers can realize energy savings of up to 60 percent."

Shawmut used these Airzone controllers to establish seasonal base temperature set points for the entire facility. The set point automatically adjusts throughout the year, enabling the system to operate at peak efficiency. Occupants can further tweak the temperature in specific zones to their preference, ensuring optimal comfort. Unoccupied spaces automatically revert to the baseline temperature after a preset period, further optimizing energy use.

The Airzone controllers integrate via BACnet with the Automated Logic Building Management System responsible for the facility's overall power management and monitoring, rainwater management, and building automation. This ensures a harmonious, efficient, and sustainable operation of the entire facility, aligning with the goals set for the HMTX World Headquarters.

Indoor People

"Chris' expertise creating safe work environments for employees and improving workplace safety culture makes him an excellent choice for this appointment," said Rich Benninghoff, Malco president and CEO. "His team's commitment to best practices is a model for worksite safety, and his leadership and attention to detail are major reasons why Malco has been able to maintain our strong safety track record for many decades."

The OSHA Safety and Health Achievement Recognition Program (SHARP) recognizes small business employers who have used OSHA On-Site Consultation Program services and who operate exemplary safety and health programs. Malco first earned recognition as a SHARP participant in March 2004 and has continuously maintained this status. In addition, the company is a past recipient of the Minnesota Safety Council's Governor's Safety Award.

.



AMY HARLAN

Amy Harlan, who has an extensive background in electronics and device connectivity, is the new business development manager for device connection technology at WAGO Corp., a global electronics technology firm.

Harlan has spent more than eight years in a similar role, preparing herself for her new position with WAGO, and has also spent time in the field as a sales representative and regional sales manager.

A chance to work for a strong organization that embodies team culture and growth was a big factor in Harlan's motivation to join WAGO, according to a press release from the company.

"I want to work as a team to build the device connection technology portfolio as well as become an expert on it, particularly in the lighting and EV (electronic vehicle) industries," Harlan said.

• • • • • • • • •

Thermosystems LLC, a commercial heating, ventilation and air-conditioning (HVAC) manufacturers' representative serving Chicago, northwest Indiana, and



MIKE MURRAY

central and southern Illinois, announced it has appointed **Mike Murray** as President. Murray, who has been with the firm for more than 10 years as a leading sales engineer, is replacing John Dolan, one of the company's co-founders, who is retiring after 22 years of service.

"This is an exciting time to lead Thermosystems," Murray said. "In 2019, Daikin Applied invested in the firm, which helped advance our sales and service capabilities. We also just had a record year in all three of our divisions – Applied Equipment Sales, Building Systems Solutions and Service. Thanks to John's leadership, and the hard work and accomplishments of the entire organization, we have a solid foundation for years of additional growth."

As President, Murray is responsible for setting and implementing the company's strategic vision. His leadership team includes Vice President of Sales Paul Pasternock, another Thermosystems co-founder; Pasternock will continue to direct the Applied Equipment Sales division. In addition, Vice President of Operations Ryan Kelly will oversee the Building Systems Solutions division and manage interdepartmental operations.

Tracy Dorman and Nina

Campos will continue to lead the Service division and accounting group, respectively. Together, the leadership team has more than 75 years of experience with Thermosystems and 150 years of experience in the HVAC industry.

"We've seen tremendous growth over the past 22 years," said outgoing President Dolan. "With Mike and the rest of the executive team, Thermosystems is positioned for continued success."

Murray earned a bachelor's degree in industrial engineering from Purdue University, and an MBA in corporate finance and real estate from New York University's Stern School of Business.

• • • • • • • • •

Oatey Co., a leading manufacturer in the plumbing industry since 1916, announced that **Mickey McMillan** has joined the organization as Vice President, Corporate Controller.

With extensive experience in executive-level financial management, McMillan is a seasoned operational and strategic leader across all financial disciplines. He will use his wide range of expertise to lead Oatey's U.S. and global accounting operations, helping position Oatey for continued growth. Prior to joining Oatey, McMillan served as Vice President of Global Financial Shared Services at Synthomer, where he oversaw a team of more than 100 associates across the Americas, Europe and Asia. He also held previous leadership positions at A. Schulman, Inc.

"Oatey has a reputation for producing high-quality products while also taking great care of its customers and associates," said McMillan. "I am honored to be joining the Oatey team and look forward to



MICKEY MCMILLAN

contributing to the organization's ongoing success."

"Mickey's track record of providing outstanding leadership along with his expertise in financial management makes him the ideal addition to our senior leadership team," said Neal Restivo, Oatey's Chief Executive Officer. "I am extremely pleased to welcome him to Oatey."

McMillan is a resident of Stow, Ohio, and holds a bachelor's degree in accounting from The University of Akron. He is also a Certified Public Accountant (CPA) and a member of the University of Akron School of Accountancy Advisory Council.

.

The Continental Automated Buildings Association (CABA) board is pleased to announce the appointment of **Scott Cochrane** of Cochrane Supply & Engineering to the CABA board of directors.

"I have long been a fan of CA-BA's work to promote positive advancements in the BAS industry," said Scott Cochrane, president and CEO of Cochrane Supply. "I am thrilled with the opportunity to help drive this important mission by engaging with and learning from other CABA members."

A multiple award-winning lead-

er in smart building automation and controls, Cochrane Supply & Engineering offers products for commercial and industrial building comfort, safety, and security as well as world-class technical support, development, and training.

Under Scott Cochrane's leadership, the company has grown significantly, opening 11 branch locations in six states and Canada (Canada Controls). An advisory council member for top industry manufacturers, like Honeywell and Johnson Controls, he is also co-editor of automatedbuildings. com and executive chairman of Controls-Con, the smart building controls conference hosted by Cochrane.

"Scott is warmly welcomed by our board of industry leaders and drivers," said Greg Walker, CEO of CABA. "A connected and engaged thought-leader, his deep knowledge and broad connections offer strong support for our vision to create the smart buildings of the future."



SCOTT COCHRANE

• • • • • • • • •

Goettl Air Conditioning & Plumbing president **Jake Gress** is being promoted to CEO. In his new role, Gress will spear-

Continued on Page 47

Troubleshooting Continued from Page 36

Answer to Last Month's Troubleshooting Question

The next step is to find out what the problem is in the indoor air handling system. A TESP of 1.2 inches w.c. is excessive, indicating that the air flow over the heat exchanger is severely limited.

CSLB Update

Continued from Page 18

from the Governor was \$80 million, and its FY spending totalled that amount. However, the CSLB had revenue of \$95.6 million for FY 2022-23, higher than expected and 16 percent higher than the previous year. This gives the CSLB a reserve fund of \$23.9 million, equal to 3-4 months of operations. As a special fund state agency, the CSLB generates all its revenue through licensing fees and enforcement fines. It operates and budgets with a goal of maintaining several months of reserve funds to continue operations during economic downturns and periods of reduced revenues.



INSTITUTE OF HEATING AND AIR CONDITIONING INDUSTRIES, INC. [HAC] PRESENTS

2023 TRAINING CLASS SCHEDULE

CALIFORNIA QUALITY INSTALLATION, QUALITY MAINTENANCE AND QUALITY SERVICE (CAQI/QM/QS) & NORTH AMERICAN TECHNICIAN EXCELLENCE (NATE)

SOUTHERN CALIFORNIA EDISON, IRWINDALE

NOVEMBER

System Performance Module (Four-Night Class) Instructors: Mike Griffin / John Dalton Wed., Nov. 1 – Part 1 Thurs., Nov. 2 – Part 2 Wed., Nov. 8 – Part 3 Thurs., Nov. 9 – Part 4

SOUTHERN CALIFORNIA EDISON, TULARE

NOVEMBER

NATE AC/HP Refrigeration
 & Air Distribution Training
 (Four-Night Class) Instructors: Mitch Bailey / John Dalton
 Wed., Nov. 1 – Part 1
 Thurs., Nov. 2 – Part 2
 Wed., Nov. 15 – Part 3
 Thurs., Nov. 16 – Part 4
 Sat., Nov. 18 - NATE Exam, 7:30 a.m.

PACIFIC GAS AND ELECTRIC COMPANY, STOCKTON

OCTOBER/NOV

NATE CORE &
 Gas Heating Training
 (Four-Night Class) Instructors: Mitch Bailey
 Wed., Oct. 25 – Part 1
 Thurs., Oct. 26 – Part 2
 Wed., Nov. 8 – Part 3
 Thurs., Nov. 9 – Part 4
 This class will be presented In-Person and webinar from the ETC.

November/Dec

NATE AC/HP Refrigeration
 & Air Distribution Training
 (Four-Night Class) Instructors: Mitch Bailey
 Mon., Nov. 20 – Part 1
 Tues., Nov. 21 – Part 2
 Wed., Nov. 29 – Part 3
 Thurs., Nov. 30 – Part 4
 Sat., Dec. 2 - NATE Exam, 7:30 a.m.
 This class will be presented In-Person and
 webinar from the ETC.

SAN DIEGO GAS & ELECTRIC

NOVEMBER

NATE CORE & Gas Heating Training (Webinar) (Four-Night Class) Instructors: Mike Griffin / John Dalton Mon., Nov. 13 – Part 1 Tues., Nov. 14 – Part 2 Mon., Nov. 20 – Part 3 Tues., Nov. 21 – Part 4

DECEMBER

NATE AC/HP Refrigeration
 & Air Distribution Training (Webinar)
 (Four-Night Class) Instructors: Mike Griffin / John Datton
 Mon., Dec. 4 – Part 1
 Tues., Dec. 5 – Part 2
 Mon., Dec. 11 – Part 3
 Tues., Dec. 12 – Part 4
 Sat., Dec. 16 - NATE Exam, 7:30 a.m.





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

All Classes are scheduled for In-Person EXCEPT Where Noted.

All In-Person classes subject to change based on IOUs/CA COVID requirements. Classes begin at 6:00 PM Pacific Time and class format is subject to change Register at www.ihaci.org (Training)

SPONSORED BY: Institute of Heating and Air Conditioning Industries, Inc.



Classes 6:00 PM • 2023 Training Class Schedule (Subject to Change).



LIVE HANDS-ON

HVAC System Service and Diagnostics Using Wireless Probes and Digital Data Acquisition Applications & Programs.

Visit us at the end of aisle 100.

Come see the most accurate, productive, and fastest procedures all HVAC/R residential and commercial service technicians should be using when measuring and diagnosing their systems in the field!

- If you are still using analog gauge manifolds and pocket temperature thermometers to measure, service, charge, evacuate and diagnose your systems in the field then you need to come see a better way of doing it.
- Even if you are using more modern digital analyzing manifolds and wired test probes in the field then you need to come see a better way of doing it.
- Take advantage of the latest products that many HVAC/R testing and instrument manufactures are offering to the service and diagnostic technician today. Learn how a combination of wireless test and instrument probes along with digital data acquisition applications and programs that the technician can run on their smart phone will save their most precious commodity....their time!
- Bottom line, come see what today's technology can do for you, your family, your company, your Clients, and the State of California!



Most HVAC C-20 contractors are not aware that as of October 1, 2021, ALL Authorities Having Jurisdiction (Building Departments) now require Mechanical Acceptance Testing for ALL Non-Residential projects in the State of California. Come get a much better understanding of what the most popular Mechanical Acceptance Tests are all about as well as talk to industrial experts regarding these new Title 24 requirements.

INSTITUTE OF HEATING AND AIR CONDIT

WORKFORCE DEVELOPMENT & BUILDING A CAREER PATH TO HVAC/R/SM PERFORMANCE CONTRACTING

2023 HACISE

PANEL PRESENTATION: 11:30AM - 1:00PM BALLROOM A



This seminar is targeted to students seeking a career in HVAC as well as existing employees seeking career direction and educational opportunities. Working professionals in the industry will discuss continuing education opportunities, wages, what they are looking for in future employees and different job opportunities available in the HVAC/R/SM Performance Contracting industries. The question-and-answer period will allow students to ask questions about their career opportunities, advancement, growth, development, and longevity in the HVAC field.

PRESENTED BY IHACI

PANEL DISCUSSION: Dean Gilford, President, IHACI, & President, Kilowatt Heating, Air Conditioning & Electric, Bob Wiseman, Secretary/Treasurer, IHACI & President, MightyServ, Steve Adams, Vice President, IHACI, & Director of Sales, Ferguson HVAC, Lawrence Castillo, Board of Directors Member, IHACI & President, Brody Pennell, John Dalton, IHACI Education & Training Lead, Universal Air Conditioning Co., Kristin Heinemeier, Engineering Manager, Frontier Energy.

PREPARING FOR REGULATIONS: NOT JUST TAKING AIM AT HFCS

1:30PM - 3:00PM BALLROOM A



Regulations can be confusing and seemingly difficult to adhere to, especially for HVACR contractors. The AIM Act, which phases down the production and importation of HFCs, including another step down in 2024, is one of the most publicized regulations at the federal level. California is also implementing local regulations to further promote the use of reclaimed refrigerants. What do those regulations mean to you and your customers and how can you prepare for these regulatory changes?

In this session, you will get an overview of key pieces of legislation (the AIM Act, California's SB 1206), the intent behind the legislation, and how they will impact contractors.

PRESENTED BY A-GAS

SPEAKER: Michael Borchard, supports the HVACR industry by partnering with contractors and other businesses to streamline their refrigerant recovery processes through A-Gas Rapid Recovery and Rapid Exchange and give them access to A-Gas' refrigerant buyback program.

SYSTEM EFFICIENCY: A KEY IN DECARBONIZATION

3:30PM - 5:00PM BALLROOM A

The session provides insight into the ASHRAE/ANSI 221-2020. ASHRAE 221 is a recognized field measurement system for determining heating and cooling system operational efficiencies. The protocol estimates installed system efficiency and takes into consideration measured airflow, duct tightness and delivered heating and cooling compared to electrical energy input.

CLEAResult

This session provides an overview of the process preparing attendees for the primary on-line and inperson sessions. Included is a discussion covering Heat pump sizing as part of the necessary decarbonization and whole house electric transformation. As homes become all-electric it is important that high efficiency systems aren't just installed without verifying installed system efficiency. The material covers furnace, heat pump and air conditioner efficiency.

PRESENTED BY CLEARESULT CONSULTING

SPEAKER: Gary Wollin, CFO Wollin Group.

MINAR SCHEDULE

A CLOSER LOOK AT A2L REFRIGERANTS

11:30AM - 1:00PM BALLROOM B



In this breakout session you will learn why we're moving to lower Global Warming Potential (GWP) refrigerants, ASHRAE 34 flammability testing and best practices working with mildly flammable refrigerants. Also, what to expect with the new A2L refrigerant disposable tank design will be discussed. Please join the Chemours presenter, John A. Milkint, (West Coast Territory Manager) with over 30 years of HVAC industry experience for this presentation of information with Q/A.

PRESENTED BY CHEMOURS

SPEAKER: John A. Milkint, PE, LEED AP, Chemours - West Coast Territory Manager.

SELLING INDOOR AIR QUALITY SOLUTIONS

1:30PM - 3:00PM BALLROOM B

Customers are increasingly aware that Indoor Air Quality (IAQ) may have a significant impact on their indoor comfort. For many homeowners, IAQ is not an accessory, but an essential need. HVAC dealers who are trained to identify, evaluate, and resolve IAQ issues are more likely to seize and close these value-added sales opportunities.



This session will cover Indoor Air Quality basics, with a brief overview of pollutants and source control. Discussion will also include solutions based on building science and mechanical approaches.

PRESENTED BY THE NEW FLAT RATE

SPEAKER: John Ellis, Business Development Manager and Field Service Trainer for The New Flat Rate.

CALIFORNIA RESIDENTIAL HVAC TECHNICIAN EDUCATION AND TRAINING PROGRAMS

3:30PM - 5:00PM BALLROOM B

The need for trained residential HVAC technicians in California has never been greater. Innovative programs are emerging to meet the training needs for this skilled workforce, in order to supplement the existing Community College programs and utility training offerings.



This session will introduce three new programs that look at the preparation of the workforce in new ways. The US Department of Energy is funding a pilot program in the Inland Empire region to provide a "soup-to-nuts" approach to recruiting students, training them, introducing them to the workplace, and enhancing their skills once in the workforce. A third-party statewide utility program provides incentives to contractors whose workers provide higher quality bid, installation, and maintenance services—training is an integral part of this program. Finally, IHACI has developed smart phone/tablet apps that help the user understand how a system is performing, and train them, in the process.

PRESENTED BY FRONTIER ENERGY

MODERATED BY: Kristin Heinemeier, Engineering Manager, Frontier Energy, Inc.



TOR A SPED BADA

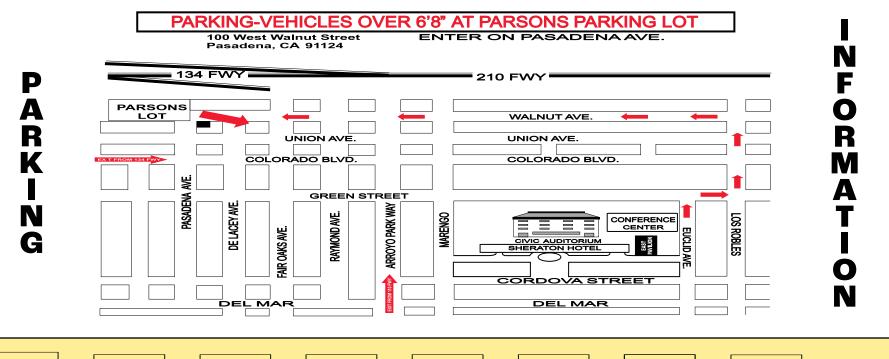
PASADENA CONVENTION CENTER TUESDAY, NOVEMBER 7, 2023 11:00 AM - 7:00 PM

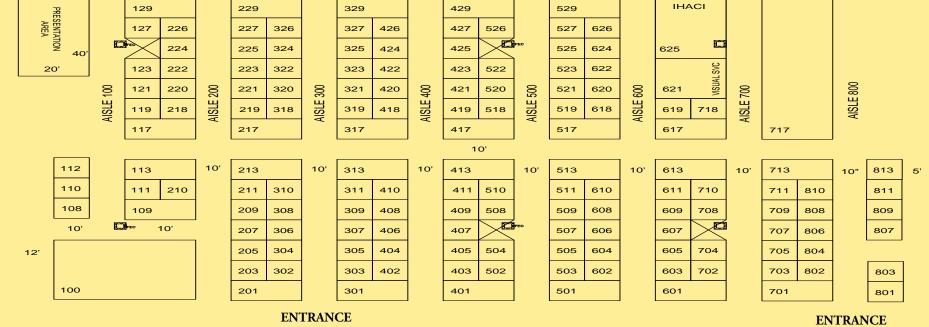
LOCATION: PARSONS PARKING LOT (located directly off the 134 and 210 freeways) 100 WEST WALNUT STREET, PASADENA, CA 91124 ENTER ON PASADENA AVE. \$16 per vehicle Free shuttle provided to and from the Convention Center 7 a.m. to 8 p.m.

SUPPOR TING THE HVAC INDUSTRY SINCE 1948

ERSARY!

ALL OTHER VEHICLES PLEASE USE PASADENA CONVENTION CENTER PARKING 300 EAST GREEN STREET, PASADENA CA 91101





IHACI's 43rd HVAC/R/SM TRADE SHOW FLOOR PLAN

Business for Sale

HVAC Business for Sale Beautiful Sedona, Verde Valley, Arizona.

After 41 prosperous years owners are ready to retire. Tools, Equipment, Inventory, 2 Trucks. Asking \$275,000. Great opportunity! Call Rose Ph: 928-301-0676



Richie Eisenbach United Refrigeration Inc.

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

your job.

PERFORMANCE.

Business for Sale

HVAC Business for Sale 22 year old HVAC company for sale in Santa Barbara, CA. Factory dealer for York and Samsung. Aerobrush, Rotobrush and sheet metal shop. Owner needs to retire due to medical reasons. 1 million in sales per year. Great internet and customer reviews. Comes with all trucks, service van and install equipment. Call 805-705-0377 if interested.

NEW IHACI MEMBERS

- Flynn's Heating & Air Buellton, CA
- Healthway Family of **Brands** Pulaski, NY
- We Green Energy Solutions San Diego, CA Carlos O. Escobar-Cota
- Lynwood, CA • Michael Richards
- Lakewood, CA Chris Galvin
- Tehachapi, CA Curtis Gruenstein Tehachapi, CA

Learn, grow, and develop as a professional in your chosen field with

Business for Sale

Profitable HVAC Company With over 40 years in operation, this HVAC company in Cerritos, CA has built an impeccable reputation for excellence, reliability, and quality service. Enjoy the trust and respect of a loyal customer base. Profitable operation with a ready to go service truck, innovative software, a complete in-house sheet metal shop, comprehensive inventory, established phone lines and client database. Asking \$250,000. Call 562-865-6490.

Indoor People

Continued from Page 41

head the company's day-to-day operations, driving strategic growth initiatives and reinforcing Goettl's commitment to delivering service and comfort solutions for customers. Ken Goodrich, the current CEO, will continue to lead in the pivotal role as chairman of Goettl.

Gress brings with him a wealth of experience in managing larger organizations, making him the ideal candidate to lead Goettl into a phase of significant expansion, the company said in a press release. "I am honored by the trust



JAKE GRESS

that Ken Goodrich has placed in me and the team to build upon Goettl's numerous successes," Gress said. "Our goal is to Goettlize the nation and create growth opportunities for our team members.'

As chairman, Goodrich will focus on leading the company's efforts in mergers and acquisitions, innovations, and exploring business opportunities. Goodrich's approach was instrumental in the acquisition of Goettl by Cortec in 2021. This strategic move facilitated the company's expansion through acquisitions in key markets across four states, while also implementing scalable systems, streamlined processes, and improved customer satisfaction across all branches.

The promotion of Gress follows the recent appointment of John Landefeld to the position of CFO.

ADVERTISE IN INDOOR **COMFORT NEWS**

CALL TODAY! (818) 551-1555

Advertiser Index

ADVERTISER ICN PAGE
AHR Expo 202419
Baker Distributing Company28
Energy Code Ace12
EWC Controls30
Ferguson HVAC - RUUD2
Ferguson HVAC - TRANE
Frontier Energy16
Greenheck
Howard Industries48
Inaba Denko America5
Mitsubishi Electric24, 25
Pacific Gas & Electric (PG&E)29
Pacific Systems Group, Inc10
Panasonic Life Solutions14
Parker Hannifin17
Pro Source / Pro Lift41
R.E. Michel Company18
Rotobrush International23
San Diego Gas & Electric (SDG&E)11
Sierra Chevrolet
SoCal Edison15
SoCal Gas7
USACD
USACD Venstar13
Williams27
Vent Cap Systems
Zonefirst
20101101



Air Conditioning Industries publishes INDOOR COMFORT NEWS

IHACI OFFICERS

Dean Gilford, President Kilowatt Heating, A/C & Electric

Steve Adams, Vice President Ferguson HVAC

Bob Wiseman, Secretary/Treasurer MightyServ

Mark Ramirez, Past-President Comfort Climate Control

BOARD OF DIRECTORS

Mitch Bailey Bailey's Heating & Air, Inc.

Jim Batts Lifetime Board Member

Harvey Bringas Southern California Gas Company

Lawrence Castillo Brody-Pennell Heating & Air Condition

> Steve Clinton Southern California Edison

> > LADWP

Lyman Lockwood George Haney & Son, Inc

Jeb Ball Fieldpiece Instruments

Eugene Silberstein ESCO Group

Penny Yonan-Padgett US Air Conditioning Distributors

> IHACI **Carlos Ruiz**

Executive Director Mary Ann Garcia

Bonnie Moreno Kave Weiss Program Coordinators

Program Assistan

Jackie Ortega Office Assist

Summer Aguilar Membership and Events Coordinator

> Debbie Thompson Accountant

INDOOR COMFORT NEWS

Gilbert Rivera

Karina Ball Sales Account Executive

Ted Rieger Northern California Correspondent

> Jim Johnson Contributing Editor

Rick Torres / Calavera Graphics Pre-Press Consultar

INDOOR COMFORT NEWS is not responsible for unsolicited materials. Although every precaution is taken to ensure 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

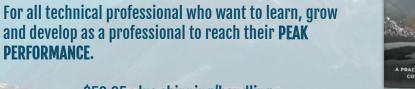
FOR THE TECHNICAL PROFESSIONAL PEAK PERFORMANCE This book by Jim Johnson takes a straightforward, tell-it-like-it-is approach on subjects such as what it BY: IIM JOHNSON communication skills, sales skills, and other topics that are just as important to you as the technical side of

\$59.95 plus shipping/handling

really means to be a professional, along with



esco press https://techtrainassoc.com v.escogroup.org 520-625-6847 **Technical Training Associates Skill Development Through Specialized Training**



FORMA





AMERICAN STANDARD: ALMOST AS POPULAR AS FREE MONEY.

It's hard to get everyone to agree on something—but we've come close. American Standard's proven quality, ease of use and customer satisfaction make it easy for dealers to love—and sell.



In stock at all 6 locations today!

Anaheim 600 E Cerritos Ave, Anaheim, CA 92805 (714) 991-4441

Escondido 960 S Andreasen Drive #C Escondido, CA 92029 (760) 743-7300 Culver City 8855 Washington Blvd. Culver City, CA 90232 (310) 837-9100

Riverside

2000 Spruce St #2649

Riverside, CA 92507

(951) 784-8800

Downtown LA 1514 Maple Ave. Los Angeles, CA 90015 (213) 747-5121

Van Nuys 7500 Van Nuys Blvd, Van Nuys, CA 91405 (818) 782-3600