

INDOOR COMFORT

FEBRUARY 2023

THE VOICE OF THE INDUSTRY
NEWS

www.indoorcomfortnews.com

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



Business Matters

Guest columnist Lawrence Castillo discusses how to keep your business profitable into the first quarter of the year.

Page 14



Editorial Focus

ICN spotlights the latest offerings in refrigerants and green technologies, heating products, and residential ductless.

Page 18



Industry Events

ICN continues its pictorial of IHACI's 42nd Annual HVAC/R/SM Product & Equipment Trade Show.

Page 26

Industry Education

Fieldpiece Instruments Aligns with SkillsUSA for Annual Scholarship

Fieldpiece to present \$25K in scholarship funds to support rising stars in the HVACR industry.



Fieldpiece Instruments, a leader in tool and test instruments for HVACR professionals for more than 30 years, is pleased to announce the second annual #MasteroftheTrade Scholarship. Fieldpiece partnered with SkillsUSA to administer the distribution of more than \$25,000 in 2023 scholarship opportunities designed to give back to the HVACR industry it proudly serves. The #MasteroftheTrade Scholarship will support 13 SkillsUSA students studying HVACR in their junior or senior year of high school, or as college or postsecondary students, granting them funds to continue their education in a college or postsecondary HVACR technology program. Seven \$2,500 criteria-based postsecondary education scholarships will go to SkillsUSA HVAC students and a total of \$10,000

in scholarships will go to the six gold, silver and bronze medal-winning high school and college/postsecondary students who top the leader-boards of the National Leadership & Skills Conference (NLSC).

"As a sincere advocate for the HVACR community, Fieldpiece strives to support both new and seasoned professionals in the HVACR industry," said Tony Gonzalez, technical training manager at Fieldpiece Instruments. "Our commitment goes beyond simply designing and developing HVACR tools that enhance the way techs work. Fieldpiece is de-

Continued on Page 24

Inside

Editorial Focus

Got HVAC?

Calif. Dairy Installs Environmentally Friendly CO2 Chiller

After months of hard work from the teams at APRO Refrigeration and San Joaquin Valley Dairy Equipment (SJVDE), South Creek Dairy in Earls, Calif., is now producing milk with the climate in mind. The project culminated with the commissioning of a PROGreen Solutions 100-hp chiller system that replaces chemical-based refrigerant with a natural CO2-based solution.

"Field commissioning always starts off with a group training session, even with many of the same technicians previously involved in the first CO2 project. The group training allowed everyone the chance to get their questions answered and set the stage for a smooth commissioning," said Damon Reed, leader of the PROGreen Solutions team.

South Creek Dairy's owner, Christopher Jongsma, traveled with his grandfather to PRO's production facility in Mocksville, North Carolina, where Reed introduced them to transcritical and subcritical CO2 (R-744) refrigeration and provided hands-on equipment training that included safety training. Jongsma also made several visits to his Uncle Bill's farm in Pixley, California, where the first PROGreen system was recently installed.

"Damon and I talked about the value of the training sessions (in North Carolina) many times,"



SOUTH CREEK DAIRY RECENTLY INSTALLED A PROGREEN SOLUTIONS 100-HP CHILLER SYSTEM, WHICH USES CO2 TO KEEP MILK TEMPERATURES AT 37.5°F.

said Jongsma. "To be involved as an owner and have an understanding of how the system operates and the fine-tuning, it has been a great experience."

The first phase of the installation included switching from their old chiller system to the new R-744-based system. They closed out the first three milking sessions with over 3,900 cows milked per session, with final milk temperatures

Continued on Page 24

DEPARTMENTS

Industry News 4

Technical Training 23

Troubleshooting 25

Indoor People 30

IHACI 2023

Training Classes

Keep your skills up-to-date!
See pages 28-29
for more information.



INDOOR COMFORT NEWS
454 W. Broadway
Glendale, CA 91204
CHANGE SERVICE REQUESTED

2023 D.O.E. REGULATION CHANGES



WE ARE READY FOR WHAT'S NEXT

The Day & Night® Air Conditioner line gets you access to equipment designed for the 2023 DOE Regulation changes.



ION™ SYSTEMS: The premium Ion air conditioners are paired with our Ion™ System. Control with Wi-Fi®¹ capability to optimize performance and maximum comfort control.

CVA9

- Quiet performance (as low as 56 decibels)*
- Five stages of variable-speed compressor operation
- 10-Year No Hassle Replacement™ Limited Warranty*
- 10-Year Parts Limited Warranty*



C4A7T

- Quiet performance (as low as 70 decibels)*
- Two-stage compressor; Two-speed fan
- 10-Year No Hassle Replacement™ Limited Warranty*
- 10-Year Parts Limited Warranty*

C4A6S

- Quiet performance (as low as 71 decibels)*
- Single-stage compressor operation
- 5-Year No Hassle Replacement™ Limited Warranty*
- 10-Year Parts Limited Warranty*



SYSTXZNSMS01

- SMART SENSOR FOR ION ZONING SYSTEM
- Displays indoor/outdoor temperature and indoor humidity levels
- 10-Year Parts Limited Warranty*

PERFORMANCE SERIES: Economical, budget-friendly and maintains comfort even in the hottest of summers, coolest of



N4A7T

- Two-stage compressor; Two-speed fan
- 10-Year Parts Limited Warranty*

N4A5S | N4A4S

- Single-stage compressor
- 10-Year Parts Limited Warranty*

R-SERIES: Economical, budget-friendly and maintains comfort even in the hottest of summers, coolest of winters. air conditioners are paired with our Ion System.



R4A5S

- Scroll compressor
- 10-Year Parts Limited Warranty*

A Proud Member of the Carrier Family
©2023 Carrier. All Rights Reserved.

90% GAS FURNACES:



G97CMN | G96CTN | G96VTN

- 10-Year No Hassle Replacement™ Limited Warranty*
- 10-Year Parts Limited Warranty*
- Lifetime Heat Exchanger Limited Warranty*

G95CSU

- Ultra-Low NOx model
- 5-Year No Hassle Replacement™ Limited Warranty*
- 10-Year Parts Limited Warranty*
- Lifetime Heat Exchanger Limited Warranty*

N95MSU | R95MSU

- Ultra-Low NOx Models
- 10-Year Parts Limited Warranty*
- 20-Year Heat Exchanger Limited Warranty*

80% GAS FURNACES:



G80CTL

- 10-Year No Hassle Replacement™ Limited Warranty*
- 10-Year Parts Limited Warranty*
- Lifetime Heat Exchanger Limited Warranty*

G80VTL

- 5-Year No Hassle Replacement™ Limited Warranty*
- 10-Year Parts Limited Warranty*
- Lifetime Heat Exchanger Limited Warranty*

N80VSL

- 10-Year Parts Limited Warranty*
- 20-Year Heat Exchanger Limited Warranty*

N80MSN | N80MSL | R80MSN | R80MSL

- 10-Year Parts Limited Warranty*
- 20-Year Heat Exchanger Limited Warranty*

G80CTU

- 5-Year No Hassle Replacement™ Limited Warranty*
- 10-Year Parts Limited Warranty*
- Lifetime Heat Exchanger Limited Warranty*

N80MSU | R80MSU

- Ultra-Low NOx Models
- 10-Year Parts Limited Warranty*
- 20-Year Heat Exchanger Limited Warranty*



REGISTER FOR TRAINING TODAY: danddealerresourcecenter.com

*Please see dayandnightcomfort.com for all disclaimers.

¹Wi-Fi® is a registered trademark of the Wi-Fi Alliance Corporation.

TO GET \$50 OFF YOUR NEXT ORDER, VISIT: FERGUSON.COM

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	S PHOENIX (602) 438-8945	YUMA (928) 329-6420
GLENDALE (602) 246-6982	W PHOENIX** (623) 474-7200	
MESA (480) 832-3438	PRESCOTT (928) 759-0222	NEVADA
NE PHOENIX (480) 308-8200	TUCSON (520) 670-1100	LAS VEGAS (702) 260-9388

CALIFORNIA

ANAHEIM (714) 520-0026	CHICO (530) 893-2114	GILROY (408) 846-6469	MANTECA (209) 239-6407	PITTSBURG (925) 778-1237	N SACRAMENTO (916) 924-8661	SAN RAFAEL (415) 459-3798
BAKERSFIELD (661) 335-7200	DUBLIN (925) 828-4875	HAYWARD (510) 782-9820	NEWBURY PARK (805) 376-3576	POMONA (909) 517-3810	S SACRAMENTO (916) 210-7993	SANTA CLARITA (661) 287-3142
CATHEDRAL CITY (760) 770-6762	EL CAJON (619) 258-9382	INDIO (760) 775-7400	ONTARIO (909) 969-2272	RIVERSIDE (951) 784-0506	SAN GABRIEL (626) 458-2432	VAN NUYS (818) 779-0894
CHATSWORTH (818) 341-5200	FRESNO (559) 538-6124	LANCASTER (661) 945-6902	PASO ROBLES (805) 434-3114	ROHNERT PARK (707) 293-2652	SAN JOSE (408) 271-1685	VICTORVILLE (760) 241-6284



**Call your local store to verify hours as they may vary. West Phoenix number applies to all AZ locations.



RUNTRU™ BY TRANE®

From the brand you trust: TRANE.



ULTRA-LOW NO_x GAS/ELECTRIC PACKAGED UNIT

CALIFORNIA EXCLUSIVE

- ▶ 4YCL4 Ultra-Low NO_x
- ▶ Durable and Innovative Design
- ▶ Quiet Operation
- ▶ High Altitude Testing
- ▶ Versatile Installation
- ▶ Dual-Powered



13.4 SEER2 ULN GAS/ELECTRIC PACKAGED UNIT

MODEL	LENGTH	WIDTH	HEIGHT (W/O BASE RAILS)	HEIGHT (WITH BASE RAILS)	UNIT WEIGHT	SHIPPING WEIGHT	ELECTRICAL
4YCL4024B1055A	55.8	47.5	31.3	35.0	390	406	230-60-1
4YCL4030B1070A	55.8	47.5	31.3	35.0	390	406	230-60-1
4YCL4036B1070A	55.8	47.5	31.3	35.0	390	406	230-60-1
4YCL4042B1100A	55.8	47.5	35.3	39.0	438	455	230-60-1
4YCL4048B1100A	55.8	47.5	35.3	39.0	438	455	230-60-1
4YCL4060B1100A	55.8	47.5	43.3	47.0	490	507	230-60-1

SEER2, or Seasonal Energy Efficiency Ratio, measures how efficiently a unit can cool your home in the summer. The higher the SEER2 number, the less energy you'll use.

RunTru Limited Warranty:

- 5-year limited warranty for functional parts
- 10-year warranty for functional parts with registration
- 20-year warranty for heat exchanger

TO GET **\$50 OFF** YOUR NEXT ORDER, VISIT: [FERGUSON.COM](https://www.ferguson.com)

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



CALIFORNIA

- ANAHEIM**
(714) 520-6440
- CATHEDRAL CITY**
(760) 770-6762
- CULVER CITY**
(310) 391-2291
- FRESNO**
(559) 538-6124
- INDIO**
(760) 775-7400
- ONTARIO**
(909) 969-2272
- POMONA**
(909) 517-3810
- N SACRAMENTO**
(916) 924-8661
- LAS VEGAS**
(702) 260-9388



Industry News



CALIFORNIA



Rooter Hero Opens New Location

San Francisco, Calif. – Rooter Hero Plumbing & Air, a plumbing and HVAC company serving residential and commercial locations in California and Arizona, has opened a new location in the metro San Francisco area, expanding its reach into the Bay Area.

“We are excited to bring the Rooter Hero brand into the Bay Area North region,” said Rooter Hero co-founder and CEO John Akhoian. “This location will help us provide the residents in Sonoma and Marin counties with the top-level plumbing services Rooter Hero has become known for. We are grateful that our California family provides continued support so that we can continue to grow.”

The new office is located at 5772 Commerce Blvd, Rohnert Park, CA 94928 and offers a wide range of plumbing services. General Manager Patrick Fee said the location will

phase in HVAC services beginning sometime toward the end of 2023. Fee runs the Bay Area North location along with David Lyons, who serves as the office’s local service manager.

“John Akhoian’s leadership and innovation continues to make Rooter Hero one of the best home service companies in California,” Fee said. “Without the support of the entire Rooter Hero leadership team, we wouldn’t see the kinds of successes in expansion that we are experiencing. We are looking forward to building a relationship with the residents in the Bay Area North service area.”

Since 2011, Rooter Hero has offered plumbing services to residents throughout California. By 2019, with the purchase of four locations in the Phoenix, Arizona, area and another location in San Jose, California earlier this year, the company has branched out into the heating and air conditioning markets.

“With the success of our Phoenix and San Jose area locations, we’re certain we’ll be able to provide the plumbing and HVAC services the people in the north Bay Area need,” Akhoian said. “Patrick and David have demonstrated their abilities to deliver the dedication and service record needed for this location to achieve its goals. We will be cheering on their victories.”

.....

Service Champions Group Buys M and M HVAC

Brea, Calif. – Service Champions Group, a national platform provider of plumbing, heating, and air conditioning services, announced the signing of a definitive agreement under which it has agreed to acquire locally owned and family operated M and M Heating, Cooling, Plumbing and Electrical of Longmont, Colorado. Established in 1998 by Eric Meiers, M and M specializes in indoor air quality solutions for residential and commercial properties. This acquisition marks Service Champions’ continued expansion and strengthened market position in the Denver metropolitan area adding to its 2021 acquisition of Swan Heating and Air Conditioning Inc. an established player in the Loveland and Denver metro areas.

Frank DiMarco, Service Champions’ CEO continues to be firmly focused on the future and speaks of the M and M acquisition as well as new business opportunities with genuine excitement.

“There is a common thread running through all the things we focus on at Service Champions and the companies we look to acquire. Growing our national footprint with the right partners

is a must,” DiMarco said. “The dedicated customer experience is paramount. Being the best in the business is in our DNA. There is a real meaning about what differentiates you and what makes you authentic. We look for those qualities and practices in the companies we look to partner with. M and M has been built from the ground up on those principles. Their day-to-day high standards of operation echo our culture and operating philosophy. The acquisition of M and M expands our ability to better deliver compelling services to more consumers in greater Denver.”

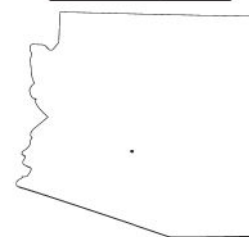
M and M founder and president, Eric Meiers said he was honored by the Service Champions partnership.

“We have long been admirers of Service Champions and have seen first-hand the level of service and professionalism surrounding their work. Their teams continually strive to provide effective strategies to ensure immediate and long-term improvement to the homes of their customers,” said Meiers. “They also take care of their own. It’s about respecting and honoring, but also about what drives the future. We carefully thought-through possible partners and did our due diligence

when considering this acquisition. The Service Champions history, mission, values and culture speaks for itself. We look forward to playing a role in the future growth of this exceptional organization. It’s a privilege to join Frank DiMarco, his team and the impressive legacy of Service Champions.”

The acquisition of M and M continues Service Champions’ commitment as a home services company to further enhance and grow its national footprint throughout the United States. Service Champions is a portfolio company of Odyssey Investment Partners. Clew Partners originated the transaction and served as advisor to Service Champions.

ARIZONA



EVAPCO Names New Sales Rep for Arizona Area

Phoenix, Ariz. – CHC has been named by EVAPCO as manufacturer’s representative for Arizona, expanding their responsibilities in the Western U.S.

“CHC has extensive knowledge of EVAPCO’s capabilities, technology and product lines,” said Jamie Facius, VP, North America Sales. “For years, they’ve served us elsewhere as a valuable partner in the West. They know the importance of developing fruitful relationships in the markets they serve.

“I’m very excited to see that we can expand the role of CHC,” added Facius. “Their expertise in the market, with our technology and its specification, make them a great fit for us. We look forward to growing with them!”

CHC was founded as a manufacturer’s representative in 1957, with operations in Alaska, Wash., Ore., Nev., Northern Calif., and now Arizona. CHC is led by Bob Polizzi and Mike Petterson.

EVAPCO provides a full spectrum of global product solutions for the commercial HVAC, industrial refrigeration, power generation and industrial process markets with 78 active patents on the market today. Headquartered in Taneytown, Maryland, EVAP-

Find the GOLD KEY and UNLOCK a PRIZE

Somewhere hidden inside the pages of Indoor Comfort News lies a golden key ! If you’ve discovered it, please email us the page number and location (e.g., page 4, inside USACD advertisement). The first correct email will receive a prize, courtesy of Indoor Comfort News!

Email your response to:
advertising@indoorcomfortnews.com

Note: Winners cannot win more than once in 12 months.



CO products are engineered and manufactured in 25 locations in 10 countries and supplied through a sales network of more than 170 offices. Learn more at evapco.com.

TEXAS



Daikin Acquires Williams Distributing

Waller, Texas – Williams Distributing, Co. (Williams), a distribution powerhouse for heating, ventilation and air conditioning equipment and residential building products in the Great Lakes region, has been acquired by Daikin Comfort Technologies North America, Inc. (Daikin). With Williams' territory covering a significant portion of the Midwest, this strategic acquisition supports Daikin's vision to expand the use of inverter heat pump technology in cold climates. Williams' Northern location provides additional cold climate product testing and development opportunities for Daikin's innovative, cold climate technologies, providing access to resources and people with advanced field expertise for continued research and development.

Headquartered in Grand Rapids, Michigan, Williams is one of several regional distributor acquisitions made in recent years by Daikin – a subsidiary of Daikin Industries, Ltd. (DIL), the largest manufacturer of HVAC systems worldwide – as the indoor comfort provider continues to strengthen its contractor relationships, services, and product offerings across North America.

Founded in 1968, the full-service distributor of HVAC products uniquely brings to Daikin a rich mix of residential building products for builders, contractors, consumers, and architects serving the kitchen and bath, plumbing, garage door and hearth markets. Williams Distributing is a nationally recognized distributor and supplier for these building products of which Daikin is excited to incorporate into their portfolio. Known for a deep inventory of available products, exclusive relationships with key brands and robust customer service, Williams operates 32 locations, including 27 dedicated HVAC sales coun-



ters, across Michigan, Indiana, and Ohio. Second and third generation family members owned and operated the full-service distribution business, leading 575 skilled, long-tenured employees.

"During this journey, Daikin was able to separate themselves with their professionalism and support," remarked Jim Williams, former Chairman of the Board and majority owner for Williams. "As I evaluated opportunities, it became apparent to me that Daikin's strong focus on people, access to leading technology, along with its commitment to growth and industry leadership, solidified my confidence that the best future for the entire Williams team was to be led by Daikin. Our experience with Daikin has proven that its people-centered management philosophy meshes perfectly with our mission. We're thrilled to join the world's number one indoor comfort solutions provider, sharing a vision that we believe leads to bright futures for both employees and customers alike."

"Bringing Williams Distributing with its skilled team members, attentive customer service and extensive locations into the Daikin family strengthens our position in the Great Lakes region," said Takayuki Inoue, Executive Vice President and Chief Sales and Marketing Officer for Daikin. "Williams has long been an important, successful partner for Daikin, Daikin Applied, Goodman and Amana® brand HVAC products. The acquisition of this outstanding distributor is another significant step on our path to make Daikin the #1 indoor comfort solutions provider in North America."

Attaining double-digit growth for three straight years, Williams recently expanded its HVAC parts and accessories portfolio by

acquiring the business of Shoemaker, Inc., a distributor of HVAC, hydronics and plumbing supplies serving Michigan and Indiana.

Demand for HVAC in the Great Lakes region surpasses many areas of the country, according to Heating, Air-Conditioning & Refrigeration Distributors International (HARDI), an industry association. The region has seen some of the largest growth in ducted HVAC shipments of any region over the past five years, according to a HARDI market intelligence report.

Williams is regularly honored by its vendors with annual awards based on customer service, speed of delivery and extensive product availability. Williams even earned the coveted Harold V. Goodman award – named for the legendary founder of Goodman Air Conditioning & Heating, a brand owned by Daikin and manufactured at the sprawling Daikin Texas Technology Park just outside Houston, home to more than 7,000 employees.

"The Williams family relationship with Daikin brands goes back

more than 50 years, beginning with Amana brand HVAC and eventually becoming the largest independent Goodman distributor in the region," said Jeffrey Beaton, President and COO of Williams. "Joining Daikin makes for an exciting evolution of our long-standing partnership. We look forward to continuing what Williams is known for: differentiating through a broad inventory of available product, 24- to 48-hour delivery, best-in-class salesforce, extensive training, robust technical support and customer service."

The Williams deal follows the December 2022 acquisition of Venstar, Inc., a prominent controls and energy management systems provider, as Daikin works to transform the North American HVAC market with its innovative indoor

Continued on Page 6

EFFICIENCY BEYOND MEASURE



Visit Us
at AHR!
BOOTH
B2555

The 3-IN-1 Combustion Analyzer for Safe, Accurate Diagnostics.

The **YELLOW JACKET® Combustion Analyzer CA502** delivers ambient CO and flue gas gas monitor, manometer and analyzer functionality in one compact tool. Includes two gas sensors for O₂ (oxygen) and CO (carbon monoxide). The two-minute combustion efficiency test with rapid reporting in YJ Combustion App can be emailed for records and printed on-site using the optional wireless Bluetooth® printer (included in CA502P).

- High CO protection for a longer sensor life
- Pre-calibrated, field-replaceable O₂ sensor
- Simultaneous display of six readings + 15 programmed fuels

To learn more, connect at: yellowjacket.com/product/combustion-analyzer/



in @ f



Industry News

Continued from Page 5

comfort technologies – including high-performing inverter and heat pump solutions, and products featuring R-32, an open-source refrigerant with one-third the Global Warming Potential (GWP) of the most used refrigerants in the U.S. and Canada.

For more about Daikin Comfort Technologies, visit northamerica-daikin.com.

.....

HVAC Excellence Makes Certification List in Texas

Houston, Texas – The Texas Education Agency (TEA), having reviewed nearly 900 industry certifications, has released its list

of Industry Recognized and Valued Certifications (IBCs). HVAC Excellence is proud its exams, available from ESCO Group, are included in this list.

Texas Education Code (TEC) Section 39.053 addresses student learning outcomes. The IBCs are part of a national movement to bolster reliance on third-party certifications to validate students have the retained knowledge necessary for employment. Under TEC Section 48.156 the state is authorized to provide a one-time reimbursement to districts and open-enrollment charter schools to help defray the cost of IBC exams taken by students in Grades 9-12.

The Texas Education Agency decision to include the HVAC Excellence Certifications in their IBCs will allow Texas schools to align their programs with the larg-

est, most recognized certifier in the HVACR industry, with over 400,000 tests administered.

Inclusion on this list means state Perkins funds can be used to defray cost on the following HVAC Excellence Certifications: Heating, Electrical, & Air Conditioning Technology (H.E.A.T.) Student Outcome Assessments, and the following Employment Ready Certifications, Air Conditioning; Electrical, Gas Heat, Heat Pumps, and Light Commercial Air Conditioning.

.....

Lennox Wins GOOD DESIGN Award

Richardson, Texas – Lennox Industries has been recognized with a 2022 GOOD DESIGN Award in the Building Materials category

for its Dave Lennox Signature Collection SL25XPV heat pump. Presented by The Chicago Athenaeum: Museum of Architecture and Design and Metropolitan Arts Press Ltd., the annual awards program highlights design excellence worldwide.

The GOOD DESIGN program received a record-breaking number of submissions from manufacturers and industrial and graphic design firms from over 55 countries, all representing designs ranging from sustainability, superior design, and unparalleled function. Submissions to the program are judged by a jury of design professionals and industry specialists on criteria for the highest aesthetic in terms of design, new technologies, function, energy efficiency, and sensitivity to the environment, among others.

“On behalf of Lennox Industries

and our world-class engineering and product teams, we are honored to be part of this year’s distinguished GOOD DESIGN Awards program,” said John Whinery, VP of product management, Lennox Industries. “The SL25XPV is the most precise and efficient heat pump on the market, representing Lennox’ dedication to sustainability-driven innovation and unwavering focus on quality.”

The variable-capacity SL25XPV heat pump is an ENERGY STAR certified product, reducing greenhouse gas emissions and meeting rigorous energy efficiency levels set by the U.S. Environmental Protection Agency. The technology allows homeowners from even the coldest climates in the U.S. to take advantage of up to 58% in cost savings per year. The SL25XPV is part of the Dave Lennox Signature Collection and Lennox’ Ultimate Comfort System.

NATIONAL



NCI, The Energy Conservatory Form Partnership

Branson, Mo. – National Comfort Institute (NCI) and The Energy Conservatory (TEC) are partnering to provide high-end performance tools and instruments to the HVAC and building performance industries. As a result, TEC joins the ranks of partners in the NCI Member Rewards Program and will join the NCI team in Branson as part of the High-Performance HVAC Summit 2023.

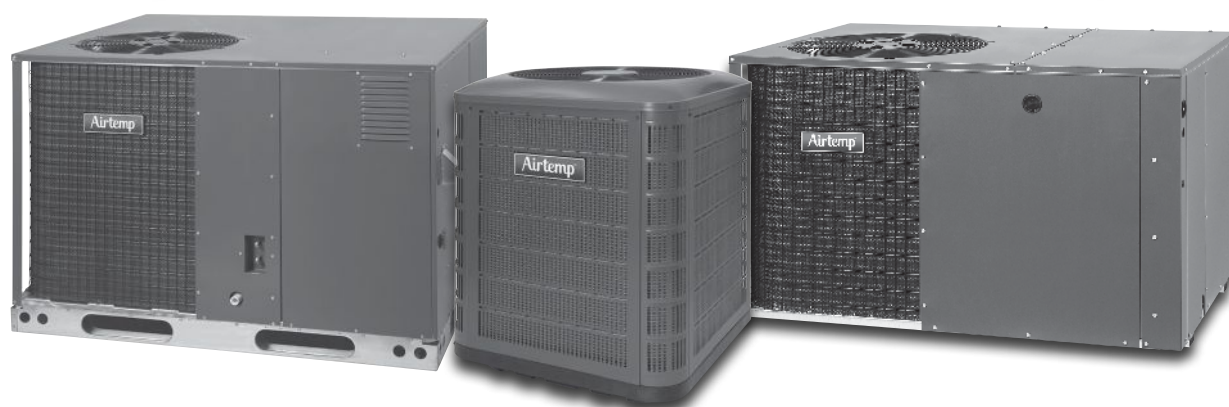
As part of this partnership, effective immediately, NCI will no longer directly sell tools and instruments through its own website. The organization’s members and students from their training classes will be able to purchase TEC tools and instruments directly from the TEC website, especially their Digital TrueFlow® Solution.

TEC will provide special discounts as well as fast and

Continued on Page 8



SEER2 EQUIPMENT IN STOCK!



distributed exclusively by

R.E. MICHEL COMPANY



WHOLESALE DISTRIBUTORS • AIR CONDITIONING • HEATING • REFRIGERATION
PROPANE • EQUIPMENT • PARTS • SUPPLIES

— Since 1935 —

We're Open Every Saturday Morning!

remichel.com

Connect with us on



GILBERT, AZ
480-571-3710

MESA, AZ
480-968-0168

PEORIA, AZ
602-269-0300

PHOENIX, AZ
602-841-7385

SCOTTSDALE, AZ
480-725-9928

TOLLESON, AZ
(SW Phoenix)
602-973-8063

TUCSON, AZ
520-795-1484

YUMA, AZ
928-248-2576

ANAHEIM, CA
714-635-5956

EL CAJON, CA
619-449-9550

ESCONDIDO, CA
760-291-4745

FRESNO, CA
559-459-0100

IRVINDALE, CA
626-962-0286

LONG BEACH, CA
562-200-0089

ONTARIO, CA
909-987-4207

PASO ROBLES, CA
805-434-1460

POMONA, CA
909-392-5626

RIVERSIDE, CA
951-271-8290

SAN JOSE, CA
408-477-1799

SANTA MARIA, CA
805-621-7070

TEMECULA, CA
951-308-2661

THOUSAND PALMS, CA
760-343-0754

UNION CITY, CA
510-483-8031

VAN NUYS, CA
818-781-3123

ALBUQUERQUE, NM
505-884-2660

LAS VEGAS, NV
702-733-7230



SOCALGAS RESIDENTIAL REBATES

Offer customers generous 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 **\$1000** on qualifying ENERGY STAR® certified natural gas tankless water heaters.
- Up to **\$75** rebate on ENERGY STAR® certified natural gas storage water heaters.



Learn more at: socalgas.com/rebates

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

©2022 Southern California Gas Company. Trademarks are property of their respective owners. All rights reserved. N22H186A



Continued from Page 6

free shipping to NCI members and students.

NCI will continue selling resale products and proprietary support materials, including CO Monitors, Duct Saddles, clipboards, labels and tags, and brochures, through its website. They will also continue to sell hats, shirts, mugs, and other NCI branded products through their Swag Store.

“National Comfort Institute is always on the lookout for superior test instruments for our members and students,” says NCI President and CEO Dominick Guarino.

“TEC’s Digital TrueFlow kits are among those. Of course, NCI supports all The Energy Conservatory’s testing products.

“Furthermore, we are excited to be part of this partnership because of Energy Conservatory’s recognition and support of our advanced HVAC training.”

“We are excited to be partnering with NCI”, says Steve Rogers, President of TEC (The Energy Conservatory). “They built their reputation by providing a structured process for delivering High-Performance HVAC systems, with a focus on air-side analysis. Our partnership enhances the process with the right set of measurement tools to make it easier and faster. Key among them is the new Digital TrueFlow grid and DG-8 micromanometer focused on residential HVAC air flow. By working closely together, NCI and TEC are delivering not only a simpler approach and more confidence in the analysis – we are also providing reports to help contractors justify the work and get paid to do the right job to solve occupants comfort issues.”

National Comfort Institute is the nation’s premier High-Performance HVAC training, certification, and membership organization focused on helping heating, air conditioning, building performance, and plumbing contractors to grow their businesses and become more profitable. The organization has trained and certified more than 30,000 industry professionals in various disciplines, including system diagnostics and design, indoor air quality, air balancing, carbon monoxide analysis, and combustion efficiency. To learn more, please visit the NCI website at www.nationalcomfortinstitute.com.

The Energy Conservatory (TEC) manufactures the Minneapolis Brand precision diagnostic equipment and develops processes to solve comfort, energy use, and air quality problems in buildings. From blower doors to digital pressure gauges, airflow measurement tools, as well as testing and productivity apps and software tools, TEC is considered a leading provider of performance testing tools for the HVAC and Building Science Industries. Visit their website at energyconservatory.com.

AAON Achieves Platinum Mark for Sustainability

Tulsa, Okla. – AAON, Inc. (NASDAQ: AAON), a leader in innovation and production of premium-quality, high-performance, and energy-efficient HVAC products for commercial, and industrial buildings announces the achievement of Platinum Level in the 2022 Sustainability Alliance Scor3card verification program.

The Company received a Platinum score in 2021 and 2020, Gold in 2019, and Bronze in 2018. A Scor3card Platinum level requires completing more than 85 percent of eligible directives, in the categories of:

- Communication
- Community Resilience
- Energy
- Healthy Work Environment
- Material Management
- Transportation
- Water
- Diversity and Inclusion

In AAON’s Environmental, Social Governance (ESG) report for 2021, the Company highlighted significant progress in sustainability practices, including waste and water reductions, recycling, innovative product achievements, healthy work environments, and DEI practices.

AAON leads the industry with a new innovative product through engineering, manufacturing, and testing our Zero Degree Cold Climate Air Source Heat Pump.

- Reported a 65% reduction in water withdrawal and recycled 17% more metals.
- In 2021, 64% of AAON products were non-fossil fuel consuming.
- Recorded a 10% improvement in energy usage intensity at AAON’s facilities.

“AAON is proud of its growing workforce, showing 69% diversity. “Sustainability is at the core of our business strategies and corporate citizenship efforts. AAON continues to level up in reducing the energy intensity of our own facilities, while also researching and developing new product solutions for the evolving environmental standards,” said Gary Fields, AAON President and CEO. “We strive to be a steward of society, by leading our people and managing our facilities to benefit the long-term growth of our communities. By participating in the Sustainability Alliance Scor3card program, we continue our commitment to measure and improve performances in these areas.”

About The Sustainability Alliance Scor3card

The Sustainability Alliance provides education, tools, and resources to inform and engage businesses and individuals in the three areas of sustainability: social responsibility, economic vitality, and environmental stewardship – people, profit, planet. The Alliance is committed to the resiliency of our community, success of our business members, and ensuring a healthy planet for generations to come. Scor3card is an online sustainability tracking and assessment tool for organizations who want to track and improve their sustainability plans. Using the triple bottom line strategy, Scor3card en-

gages organizations around three areas of sustainability: people, profit, and planet. This holistic approach to sustainability allows organizations to engage their employees, bolster their economic growth, and become better environmental stewards.

AprilAire Completes IAQ Refrigeration Transition

Madison, Wisc. – AprilAire, a leading provider of professional grade Healthy Air solutions for homes, announced it has completed its transition ahead of schedule to the exclusive use of certified reclaimed refrigerant in its range of healthy indoor air quality solutions.

The seamless conversion, well in advance of the California Air Resources Board (CARB) Regulation Order transition date, was made possible by its partnership with Hudson Technologies, Inc. (NASDAQ: HDSN), a leading provider of innovative and sustainable refrigerant products and services to the Heating, Ventilation, Air Conditioning, and Refrigeration industry – and one of the nation’s largest refrigerant reclaimers.

“We chose to partner with Hudson Technologies due to their proven commitment to sustainability and technical leadership in recovering, reclaiming, and reusing refrigerants to reduce waste and greenhouse gas emissions. This is another important milestone as we implement innovative solutions to make our products more environmentally friendly,” commented Jimmy Pendley, President of AprilAire.

Brian F. Coleman, President and Chief Executive Officer of Hudson Technologies, added, “We’re pleased to work with AprilAire in their efforts as an early adopter to meet the CARB Regulation Order for Certified Reclaimed Refrigerant. We believe our partnership with AprilAire is a great example of how our mutual focus on sustainability can make a difference and set the pace for an entire industry.”

Carrier to Expand Digital Solutions Available on AWS

Palm Beach Gardens, Fla. – Carrier Global Corporation, a global provider of healthy, safe, sustainable, and intelligent building and cold chain solutions, announced that it has signed a strategic collaboration agreement with Amazon Web Services Inc. (AWS), to offer

additional Software-as-a-Service (SaaS) solutions in AWS Marketplace. These solutions will include SaaS offerings in the areas of HVAC performance, sustainability, and safety and security. The collaboration is part of Carrier’s growing investment in digitally enabled lifecycle solutions designed to inspire confidence in the health and safety of indoor environments.

“Carrier is already delivering digital solutions like Abound and Lynx to its building and cold chain customers on AWS, and we see tremendous industry opportunities to do even more together,” said Bobby George, senior vice president and chief digital officer, Carrier. “The strategic collaboration agreement between Carrier and AWS is a multi-year engagement that brings investments together to accelerate our digital capabilities, our go-to-market initiatives and deliver even more value to our customers through digital solutions.”

The strategic collaboration agreement builds on Carrier’s ongoing work with AWS after joining the AWS Partner Network (APN) in 2021 to deliver digital solutions like Abound and Lynx to new types of customers. The Abound digital platform, powered by AWS, offers a suite of smart connected solutions for healthier, safer, and more sustainable buildings. Abound aggregates, analyzes, and visualizes data collected from various building systems, equipment, and sensors and provides in near real-time insights about indoor air quality, thermal comfort, and energy usage. Abound is installed across a wide range of verticals including commercial real estate, sports and entertainment venues, healthcare facilities, schools, hotels, and retail.

Using AWS IoT Core, analytics and machine learning (ML) services, Carrier’s Lynx digital platform gives customers around the world enhanced visibility, increased connectivity, and actionable intelligence across their cold chain operations to improve outcomes for temperature-sensitive cargo, including food, medicine, and vaccines. Both Abound and Lynx were recognized by Fast Company as 2022 World Changing Ideas.

“Customers across various industries are looking for digital solutions to increase efficiencies, gain insights, and better operate their businesses. Working

WANT TO SAVE ON CRANE COST?

PRO-LIFT

LIGHTWEIGHT
AIRCRAFT
ALUMINUM

PATENT
PENDING

EASY TO OPERATE

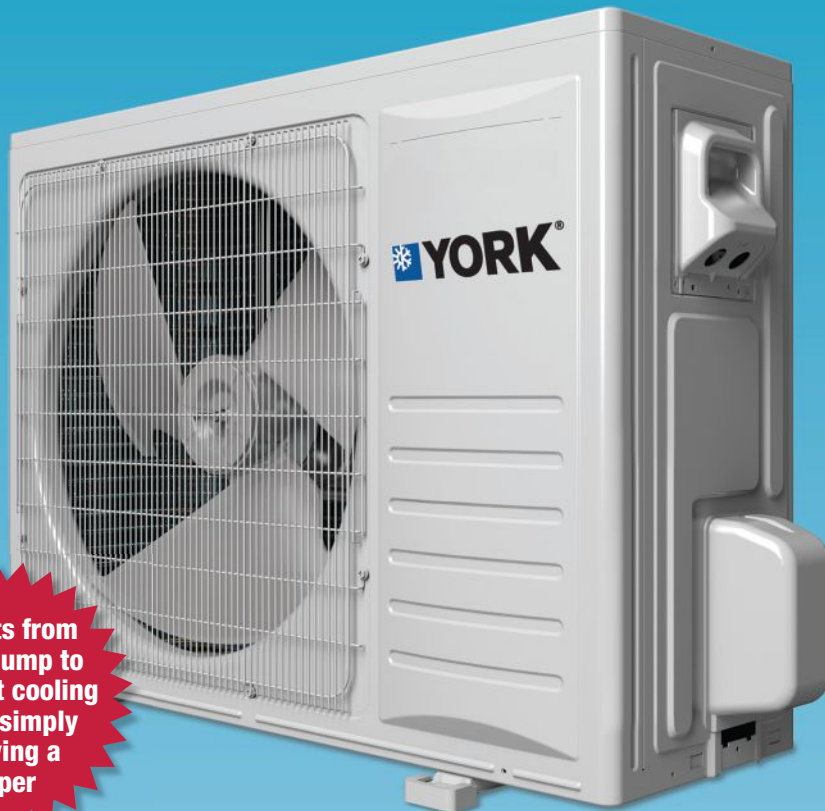
BATTERY
OPERATED



CALL TODAY (972) 939-3231 • WWW.PRO-LIFT.COM

The York® HMM7 Horizontal Discharge Heat Pump:

2-5 Ton • Standard 24 Volt Controls • Works With Conventional Air Handling Units and Evaporator Coils • Price Competitive With Standard Heat Pumps



Converts from a heat pump to a straight cooling unit by simply removing a jumper

- Up to 18 SEER/10.5 HSPF
- 40% smaller footprint compared to traditional vertical discharge units
- 36% quieter operating sound; as low as 54 dBA
- Capable of dual-fuel operation when paired with an existing or new furnace, using a Venstar thermostat
- Inverter system and modulating technology
- Modulating technology maintains exact temperatures by operating from 35-100% capacity
- 40% more compact than standard heat pump units and can be installed in tighter spaces – ideal for high-density areas
- No unique installation procedures required
- Long line set length (up to 246 ft)
- Designed to work with standard ECM indoor air handlers
- Includes a standard 10-year Compressor Limited Warranty and 10-year Parts Limited Warranty; extended warranties available for a full system replacement (product registration required)

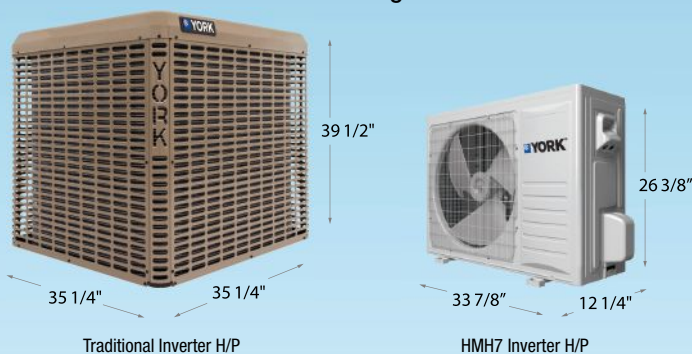
The YORK® HMM7 Heat Pump is designed to provide all the comfort and technology of a high efficiency unit at the cost of a base-tier vertical unit for residential customers. It's an ideal solution for homes that require a compact design and comes in several models and tonnages with flexible installation options and innovative features.



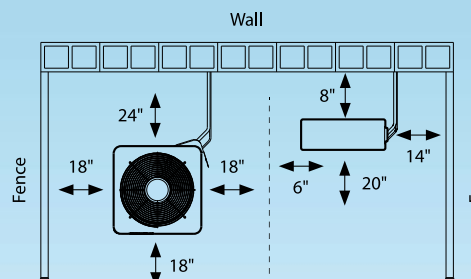
Model	Tons	SEER	HSPF	Height (Inches)	Width (Inches)	Depth (Inches)	Operating Weight (Lbs)	Sound Range (dBA) Low-High*
HMM72B241S	2	17.5	9.0	26 3/8	33 7/8	12 1/4	112	54-65
HMM72B361S	3	18.0	10.5	33	37 3/8	13 3/8	155	56-68
HMM72B481S	4	18.0	9.5	54 5/8	37 3/8	13 3/8	227	62-69
HMM72B601S	5	17.0	10.0	54 5/8	37 3/8	13 3/8	251	62-73

*High sound rated in accordance with AHRI Standard 270.

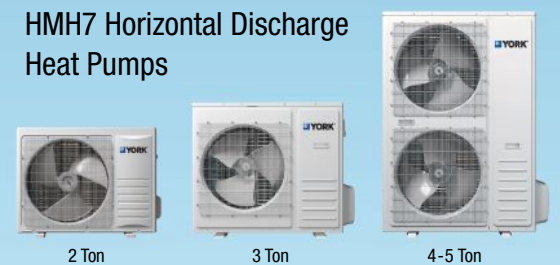
40% smaller footprint compared to traditional vertical discharge units



Traditional, Vertical Unit Minimum Clearances vs. HMM7 Minimum Clearances



HMM7 Horizontal Discharge Heat Pumps



Product registration required.

YORK®

SAMSUNG
HVAC. Built brave.

USAirconditioning
DISTRIBUTORS

GUARDIAN
Always on Duty.

QuietCool
ADVANCED WHOLE HOUSE FANS

www.us-ac.com •

800/937-7222

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 Concord 925/349-3712 Burbank 818/840-0089 Cathedral City 760/770-4520	Chatsworth 818/678-1750 City of Industry 626/854-6868 Fairfield 707/424-6050 El Cajon 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	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 S. San Francisco 650/871-8100 San Bernardino 909/885-3206 San Diego 858/279-9750	San Jose 408/278-1555 San Leandro 510/618-2300 Santa Barbara 805/962-2999 Santa Fe Springs 562/801-5432	Santa Rosa 707/566-9810 Signal Hill 562/981-2010 Stockton 209/466-4153 Temecula 951/296-6557	Valencia 661/666-9544 Van Nuys 818/464-3387 West Los Angeles 310/928-6660	IDAHO Meridian 208/672-1244 or 800/727-9936 Idaho Falls 208/542-5270	NEVADA Sparks 775/329-3455 UTAH Salt Lake City 801/485-8071 or 800/333-8436
--	--	--	---	---	---	---	---	--	--	---	---	--	---

Continued from Page 8

together with Carrier, AWS will make it easier for customers to use cloud infrastructure to deliver additional capabilities and increasing value,” said Flemming Kongsberg, director, Business Application Alliances, AWS. “We’re excited to work with Carrier to bring new cloud-based digital solutions that will help companies reduce complexity and enhance their operational advantage.”

Distech, ASP Launch Cybersecurity Apprenticeship Program

Jacksonville, Fla. – Distech Controls, an innovation leader connecting people with intelligent building solutions, has expanded its training and workforce development relationship with Automation Strategy & Performance (ASP), a workforce solutions company, to launch a new OT Cybersecurity Specialist apprenticeship program.

The program helps upskill employees of system integrators and distributors with critical IT skills needed to address the cybersecurity risks in operational technology networks.

“By working with the team at ASP, we were able to design and deploy a cybersecurity training program in less than four months, specifically for our system integrator and distributor network,” said Mathieu Houle, vice president of customer experience, Distech Controls.

The 120-day Cybersecurity Apprenticeship Sprint was an initiative run by the U.S. Department of Labor in coordination with the White House Office of the National Cyber Director, Departments of Commerce, Homeland Security, Defense, and other federal agencies to equip the nation’s economic sectors with greater numbers of qualified cybersecurity workers.

The OT Cybersecurity Specialist apprenticeship program is the second offering made available by ASP to Distech Controls’ global network of hundreds of system integrators and distributors, following the Automation Specialist apprenticeship program, which launched in 2020.

Both apprenticeship programs provide enrolled companies with access to effective solutions to develop skills needed by those working on energy systems, HVAC systems, lighting, access control,

and more. ASP was recognized at the White House this past November for the successful development of its cybersecurity program, which meets the National Standards of Apprenticeship and provides workforce training to address vulnerabilities in smart infrastructure. “We are proud to collaborate on this next phase of our apprenticeship training program, by offering cybersecurity training to support our customers in helping keep companies, their buildings, and their data protected. To be the first smart infrastructure manufacturer to deploy this program is truly an honor,” said Houle.

According to the Society of Human Resources Management (SHRM), 64 percent of IT executives cite talent shortages as the most significant barrier to the adoption of emerging technology compared with just 4 percent in 2020.

“Distech Controls has been a great partner as our firm focuses on strategic workforce development challenges faced by the smart infrastructure industry,” said Melissa Boutwell, President, ASP. “As demand for integrated automation continues to grow, employers need technology that reduces the amount of time workers need to spend in training. Distech Controls technology, paired with our ASP programs, delivers a necessary and essential workforce solution for both our customers.

ASP has worked with Distech Controls since 2020 to provide customized apprenticeship programs for its worldwide network of system integrators and distributors.

Distech Controls system integrators and distributors looking to utilize the OT Cybersecurity and Automation Specialist apprenticeship programs offered by ASP and Distech Controls can visit here.

For more information, please contact Alan Byrd, Alan Byrd & Associates, Alan@Byrdconnections.com

Automation Strategy & Performance, Inc. is a strategic workforce development partner for employers in the smart infrastructure sector of the automation industry. We solve the top five workforce problems faced by employers in our industry, the top one being upskilling.

ASP was founded by Melissa Boutwell in 2018 after a 30-year career in the automation industry as an operational leader, systems integrator, owners’ representative and college professor.

For more information, please visit ASP-INT.com

Distech Controls connects people with intelligent building solutions through our forward-thinking technologies and services. We partner with customers to deliver innovative solutions that can provide better health, better spaces, and better efficiencies. Our passion for innovation, quality and sustainability guides our business, which serves multiple market segments through worldwide business divisions, service offices and a superior network of Authorized System Integrators and Distributors. Distech Controls Inc. is a subsidiary of Acuity Brands, Inc. For more information visit www.distech-controls.com.

Hudson Tech Ranks No. 5 on Forbes 100 Best Small Companies List

Woodcliff Lake, N.J. – Hudson Technologies Inc., a refrigerant reclaiming and provider of sustainable refrigerant products and services to the HVACR industry, announced that it was ranked No. 5 on the 2023 Forbes List of the 100 Best Small Companies in America.

Forbes used data from FactSet to compile its annual list of America’s Best Small Companies by screening more than 1,000 companies with a market value between \$300 million and \$2 billion to find 541 companies that also had positive sales growth over the past 12 months and a share price of at least \$5. Financial institutions, REITs, utilities, royalty trusts, and limited partnerships were excluded, as were companies that have been public for less than one year. The ranking is based on earnings growth, sales growth, return on equity, and total stock return for the latest 12 months available and over the last five years. Forbes gave more weight to the latest year’s data in the ranking. All data is as of November 11, 2022.

“We’re pleased to have received a top five ranking on the Forbes 100 Best Small Companies list and are grateful for this distinction and recognition,” said Brian F. Coleman, president and chief executive officer of Hudson Technologies. “This achievement is a testament to the efforts of our employees across the company in delivering on the unique capabilities and service that Hudson offers our customers and industry partners.”

One Hour HVAC Launches Women Entrepreneur Recruitment Contest

Columbia, Md. – One Hour Heating & Air Conditioning, the #1 largest[1] HVAC service provider and franchisor in the United States, announced the launch of its annual HVAC Entrepreneur Recruitment (HER) Contest to highlight women in the HVAC industry and find female entrepreneurs who are interested in owning their own business in a leading industry. The contest highlights One Hour Heating & Air Conditioning’s ongoing dedication to diversity and encourages women in the trades to join the HVAC leader’s team of strong, experienced franchise owners, technicians, managers, and executives.

To help combat the earnings gap in which women have earned 97% of what men earned in 2021[2], One Hour’s HER contest will honor one grand prize winner with a complimentary set up and new franchise initial training fee to help her open her own One Hour Heating & Air Conditioning franchise in her community. Women holding an active HVAC license and certification in the United States or wishing to obtain licensing and certification can visit One Hour Heating & Air Conditioning’s HER Contest landing page to download the entry form and enter for a chance to win. Entries are currently open and close at 5pm ET on January 31, 2023. The total prize is valued at approximately \$43,000.

“At One Hour, we truly value the women in our HVAC family and the breadth of contributions they are responsible for within our franchise system and the dedication they show to their teams and customers. Currently 7% of women in the U.S. own an HVAC company[3] and we would love to help that percentage skyrocket as we are dedicated to diversity and inclusion and pride ourselves on creating a space for women in the field,” said Mark Dawson, CEO of One Hour Heating & Air Conditioning. “We are excited to unearth even more talented female entrepreneurs and open the door to many more women in HVAC.”

For nearly two decades, One Hour Heating & Air Conditioning has helped an expansive franchise network of qualified leaders and HVAC technicians achieve success while creating space for entrepreneurs to enter the trade space. The company’s dedication to driving entrepreneurs to their highest

potential and offering franchisees a solid network of support and the tools for success has led to One Hour bringing top-rated HVAC services to over 300 locations around the United States.

To learn more about the contest, view official rules, or to nominate a woman in HVAC, please visit <https://marketing.onehourheatandair.com/oha-her-contest-1>.

RIDGID Celebrates 100th Anniversary

Elyria, Ohio – RIDGID®, a part of Emerson’s professional tools portfolio, is celebrating a major milestone this year: 100 years of designing and building innovative tools trusted on jobsites around the world and handed down from generation to generation. To commemorate the occasion, RIDGID will spend the year 2023 celebrating the trades, their impact on our world, and the brand’s legacy.

“A lot has changed over the past century, but one thing that has remained constant is the dedication of the skilled trades to build a stronger tomorrow. RIDGID is honored to be by their side every step of the way,” said Heather McLin, vice-president of marketing, professional tools for Emerson. “From our iconic pipe wrench that started it all to our newest tool solutions, every product we make is designed to help trade professionals get jobs done easier and more efficiently. That’s a legacy that will never change.”

In 1923, the Ridge Tool Company invented the modern straight pipe wrench, introducing it to the world under their brand RIDGID. Since then, every step forward has been with the tradesperson in mind. Today, RIDGID’s pipe wrench design is the best-selling pipe wrench in the world and many of the wrenches that were sold back in the 1920s and 30s are still in use today.

The RIDGID commitment to quality has never wavered, RIDGID’s signature red heavy-duty straight pipe wrench bodies are still cast at its ductile iron factory in Erie, PA, assembled at its headquarters in Elyria, OH, and then shipped from its distribution facility in Cambridge, Ohio.

Along with these locations, RIDGID has grown over the past century with global facilities that help keep up with demand from around the world. The company’s product line has also grown. RIDGID launched power threading solutions in 1948; drain clean-

SERVING THE WEST'S HVAC NEEDS SINCE 1967

SINGLE ZONE

MULTI-ZONE

WALL MOUNT
CEILING CASSETTE
CONCEALED DUCT



**Visit Dial® at the 2023 Builders Show in Las Vegas, NV
Jan. 31-Feb. 2 Booth C2664**

**All Dial® Mini-Split Systems are AHRI Listed, ETL Certified and are backed by
a 7 years compressor / 2 years parts warranty.**

**AZ - Southern AZ & CA - High Desert Region,
Riverside County (East of Beaumont), Fresno
Ron Schelle
520-909-0361**

**AZ - Phoenix & Northern AZ
Bryce Knudsen
602-758-1400**

**NM, TX - El Paso
Ray Portugal
915-276-1139**

**MT, WY, ID, CO, UT, NE, SD, NV, OR, WA
& CA - Northern CA, Sacramento, LA County,
Orange County, Riverside County (West of Beaumont)
Kirk Jensen
801-458-6331**

**All Other Locations
Jim Henderson
602-799-1703**



**www.dialmfg.com/ms
INVENTORY LOCATED IN PHOENIX, AZ**

Continued from Page 10

ing equipment in 1967; press tools in 1999 and most recently, pipe patching last year as it continues its proud tradition of innovation. Now, more than 100 patents and 100 years later, RIDGID continues to deliver purpose-built tools that are known around the world for their ability to complete jobs more quickly and reliably. They currently offer more than 300 tools for the plumbing, mechanical and HVAC professional. From specialty pipe wrenches and drain cleaning equipment to pipe inspection and press solutions, each tool that carries the RIDGID name is designed and crafted for strength, effectiveness and legacy. Whether it is used for clearing

a drain line at someone's home, keeping a hospital up-and-running by repairing a pipe with a press tool, or installing pipe for a new commercial build, trade professionals rely on RIDGID tools to help them build and maintain infrastructure around the world. Looking to the future, RIDGID remains dedicated to the trades and to building the tools of performance skilled trade work demands. "Our first hundred years is just the beginning," said Becky Brotherton, director of engagement marketing, RIDGID for Emerson. "From day one, RIDGID has had a dedicated team that strives for best in quality, product innovations, technical support and customer service. We are committed to the professionals using

our tools as well as the future of the trades. There's a reason why RIDGID has been trusted by the trades for 100 years and why they will be for the next 100 years too." The company recently introduced a pipe patching kit, a new product category for the brand, and are also set to introduce additional new tools this year. Each reflect the forward thinking of the brand and their commitment to meeting the needs of current and future customers. RIDGID is also involved in extensive efforts across several workforce development initiatives. They offer continuing education and hands-on training for plumbers, along with supporting scholarships and apprenticeships with several national organizations including SkillsUSA, The Plumbing-Heating-Cooling Contractors Educational Foundation,

and the Mechanical Contractors Association of America. In recognition of its milestone anniversary, RIDGID will be holding giveaways of commemorative anniversary wrenches and other brand swag throughout the year. Early this year they will also be launching "RIDGID Wrenched 100," a specialty beer developed in collaboration with Unplugged Brewing Company located less than a mile away from RIDGID headquarters in Elyria. In addition, the company will host commemorative events at major trade shows. To learn more, individuals are invited to visit RIDGID.com/100 or their social channels - @RIDGIDTools on Facebook, @RIDGIDTools on Instagram, and @RIDGIDTools on TikTok.

Trane, American Standard Launch Link Technology

Davidson, N.C. – Trane Residential (Trane) and American Standard Heating & Air Conditioning (American Standard), two residential HVAC brands, have announced the national launch of Link, their communication technology, designed to simplify installation, commissioning, and remote monitoring of variable speed HVAC systems. Following a regional roll out in spring 2022, independent Trane and American Standard dealers can now sell and install Link nationwide. "Link is a new revolutionary technology that will change the way technicians and homeowners think about their HVAC system," said Jason Bingham, president of Trane Residential HVAC and Supply. "Through Bluetooth and Wi-Fi connections, technicians will be able to monitor and troubleshoot HVAC systems directly from their phone, which enables even more efficient service calls and troubleshooting to take place as the technology provides the exact data they need on their own smart device, and in turn will reduce the number of visits they will have to make." Created to provide technicians with a plug and play experience, Link technology assists with installation accuracy through automated HVAC system configuration, charging, and testing. Integrated into Trane and American Standard's new line of variable speed systems, Link technology connects the units through a centralized brain and alerts technicians of any equipment faults. Should an equipment fault be identified, Link provides technicians with a full description and list of potential causes. Benefits of the technology extend beyond installation. Once a homeowner opts into the diagnostics program, technicians can also remotely monitor the system; receive alerts from any faults; as well as view, edit, and adjust thermostat settings as necessary. This saves time for both the technician and homeowner, as every issue may not require a home visit. If a home visit is necessary, the technician can arrive onsite with the parts needed to

NEXYA



NEXYA "FACTORY DIRECT" PRICING		
MODEL #	DESCRIPTION	NET PRICE
C/SENIH09EI	Nexya 9000 BTU R410 115V	\$ 544.00
SENIH09EI	Indoor Unit Nexia 9000 BTU R410 115V	
CENIH09EI	Outdoor Unit Nexia 9000 BTU R410 115V	
C/SENIH12EI	Nexya 12000 BTU R410 115V	\$ 583.00
SENIH12EI	Indoor Unit Nexia 12000 BTU R410 115V	
CENIH12EI	Outdoor Unit Nexia 12000 BTU R410 115V	
C/SENIH18EI	Nexya 18000 BTU R410 220V	\$ 767.00
SENIH18EI	Indoor Unit Nexia 18000 BTU R410 220V	
CENIH18EI	Outdoor Unit Nexia 18000 BTU R410 220V	
C/SENIH24EI	Nexya 24000 BTU R410 220V	\$ 912.00
SENIH24EI	Indoor Unit Nexia 24000 BTU R410 220V	
CENIH24EI	Outdoor Unit Nexia 24000 BTU R410 220V	
C/SENIH30EI	Nexya 30000 BTU R410 220V	\$ 1,115.00
SENIH30EI	Indoor Unit Nexia 30000 BTU R410 220V	
CENIH30EI	Outdoor Unit Nexia 30000 BTU R410 220V	
C/SENIH36EI	Nexya 36000 BTU R410 220V	\$ 1,201.00
SENIH36EI	Indoor Unit Nexia 36000 BTU R410 220V	
CENIH36EI	Outdoor Unit Nexia 36000 BTU R410 220V	

Pricing does not include line sets, disconnect switch, or other parts/accessories
Pricing does not include shipping from our warehouse

The Nexya line of Inverter drive heating and cooling mini split systems come in a variety of capacities (9K-36K), available in 115V and 230V with efficiencies up to 24 SEER.



Specifications		9,000	12,000	18,000	24,000	30,000	36,000
Cooling capacity ⁽¹⁾	BTU/H	9,000	12,000	18,000	24,000	30,000	36,000
Heating capacity ⁽¹⁾	BTU/H	9,000	12,000	18,000	26,000	30,000	36,000
Energy Efficiency Ratio	EER	13.8	12.5	13.5	13	10.5	13.5
Sound power ⁽²⁾	dBA	54	54	60	62	60	60
Voltage	V	115	115	208/230	208/230	208/230	208/230
Seasonal Energy Efficiency Ratio	SEER	23	22	24	21	18.6	17.5
Indoor Dimensions	W/H/D	31.57" x 7.87" x 11.61"	31.57" x 7.87" x 11.61"	42.64" x 9.61" x 13.23"	42.6" x 9.21" x 13.27"	49.57" x 11.1" x 14.25"	49.57" x 11.1" x 14.25"
Outdoor Dimensions	W/H/D	30.12" x 11.93" x 21.85"	30.12" x 11.93" x 21.85"	35.04" x 13.46" x 26.5"	37.24" x 16.14" x 31.89"	37.24" x 16.14" x 31.89"	37.24" x 16.14" x 31.89"

(1)Test condition: Data refers to conditions and parameters as required by DOE requirements governing this product type.
HEATING MODE: Outdoor Ambient Temperature DB 45°F/7°C WB 43°F/6°C; Indoor Ambient DB 68°F/20°C - WB 59°F/15°C
COOLING MODE: Outdoor Ambient Temperature DB 95°F/35°C WB 75°F/24°C; Indoor Ambient DB 81°F/27°C - WB 66°F/19°C
(2)Test conditions for sound ratings are conducted as per DOA rating conditions, conducted in a soundchamber performed at a distance of 3.3 feet (1 meter). Minimum sound pressure values are rated in ventilation mode only.



www.olimpiaspplendidusa.com
sales@olimpiaspplendidusa.com



Continued on Page 31



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.

JANUARY-FEBRUARY 2023

Introduction to Heat Pumps (Two-Night Class)

Instructor: TBA
Tues., Jan. 31 – Part 1
Thurs., Feb. 2 – Part 2

HVAC System Testing for Energy Efficiency (Two-Night Class)

Instructor: TBA
Tues., Feb. 7 – Part 1
Thurs., Feb. 9 – Part 2

FEBRUARY 2023

Gas Heating Module (Two-Night Class)

Instructor: Mitch Bailey
Wed., Feb. 1 – Part 1
Thurs., Feb. 2 – Part 2

HVAC/R New Hire Module (Four-Night Class)

Instructor: Mitch Bailey
Wed., Feb. 15 – Part 1
Thurs., Feb. 16 – Part 2
Wed., Feb. 22 – Part 3
Thurs., Feb. 23 – Part 4

MARCH 2023

NATE HVAC/R Support Training (Four-Night Class)

Instructor: Mitch Bailey
Wed., March 1 – Part 1
Thurs., March 2 – Part 2
Wed., March 8 – Part 3
Thurs., March 9 – Part 4

Air Distribution Module (Four-Night Class)

Instructor: Mitch Bailey
Wed., March 22 – Part 1
Thurs., March 23 – Part 2
Wed., March 29 – Part 3
Thurs., March 30 – Part 4



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

You can register online by visiting: pge.com/hvactraining. Attendees must register for each night separately and registration is on a first-come, first-served basis.
"PG&E" refers to Pacific Gas and Electric Company, a subsidiary of PG&E Corporation. ©2022 Pacific Gas and Electric Company. All rights reserved.
These offerings are funded by California utility customers and administered by PG&E under the auspices of the California Public Utilities Commission.



What To Do When the Phone Isn't Ringing

By Lawrence Castillo
IHACI Board Member

Editor's Note: ICN welcomes new guest columnist Lawrence Castillo, president/operating partner of Brody Pennell Heating & Air Conditioning in Los Angeles and board member of IHACI. A well-respected veteran of the industry for more than 20 years, Castillo will be writing about topics focused on business operations.

As the new year begins, all of us residential contractors are facing the inevitable fact that it gets much more difficult to establish growth and maintain momentum in the first quarter of the year.

This month, some contrac-

tors don't have enough service calls for our technicians, many are sending installers home without work and the bigger picture has them worrying about being able to make payrolls and get vendors paid. Contractors are checking the weather daily, hoping and praying for a miracle winter storm thinking that this will save them.

Truthfully, the only thing that will save contractors from praying for miracles every winter is to have a written plan, months in advance, on how to stay profitable and sane through the holidays and into the first quarter of the year.

The top contractors in the nation are planning a year in advance to insulate themselves against interruptions that will hurt their opera-

tion. If you are still growing your business, and are finding yourself and your employees impacted by the offseason downturn in revenue, here are the things you should be doing to make sure next winter isn't the same exercise:

Establish a written annual budget/manpower plan:

Based upon historical data, you can predictably forecast the call volume that you can expect in slower months. This allows capacity planning so that you can make necessary adjustments to manpower and marketing.

Review marketing spend:

Using the written annual budget you have built, you now have the



FOLLOW THESE TIPS AND YOUR PHONE MIGHT BE RINGING SOON.

power to pencil out what your marketing spend needs to be each month to fulfill your call-count/manpower needs. Your marketing plan should be completed for the next 12 months, and costs for each month and medium should be calculated.

Create opportunities from your own service base:

As the slower months arrive, we must spend our marketing dollars wisely. One way to keep costs in check is to create your sales leads from your service calls. Sophisticated contractors market for tune-ups, and turn those maintenance calls into sales leads. This way you spend your marketing money once and to create both a service call and a sales lead.

Hold your technicians highly accountable:

At this time of the year, performance on service calls is critical, and opportunities can't be wasted. If your techs aren't generating service agreements, hold them accountable. If they aren't generating five-star reviews, hold them accountable. If they aren't turning sales leads, hold them accountable.

Someone in your building should be doing daily analysis on yesterday's calls so you can correct deficiencies in real time. If Johnny Technician is out driving your van around collecting only the diagnostic fee three times a day, then your daily call-by-call analysis will keep you aware of what is going on in your service department. You now have the knowledge and power to bring Johnny in, ask some questions, review his performance, and provide some coaching. Wasted service calls can translate into tens of thousands in lost service/install revenue.

Assign calls based on performance:

Particularly important, but your dispatcher should be assigning calls based upon technician success. The best calls go to the technicians who have earned them through revenue generation. Routes are never built logistically, rather they are built with the success of the company in mind. Old calls are

ARE YOU GETTING PAID FOR YOUR RECOVERED REFRIGERANT?



Hudson will:

- Pick up your cylinders from your location, handle all logistics, and PAY YOU!
- Buyback virtually any used CFC, HCFC, HFC, or HFO refrigerants.
- Facilitate your compliance with new EPA tracking and reporting requirements.

HUDSON
TECHNOLOGIES
Reclaiming the Future Together.

(800) 277-3490 | www.hudsontech.com

Continued on Page 30



Further your energy career with online training

Access no-cost classes from the comfort of your home or office



FEBRUARY CLASSES

2-PART SERIES

IHACI - Gas Heating Module

February 6 & 7 | 6 p.m. - 8 p.m.

Commissioning of Healthcare Facilities & Hospitals

February 14 | 9 a.m. - 10 a.m.

2-PART SERIES

IHACI - 2022 Title 24 Module

February 27 & 28 | 6 p.m. - 8 p.m.

ON-DEMAND

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

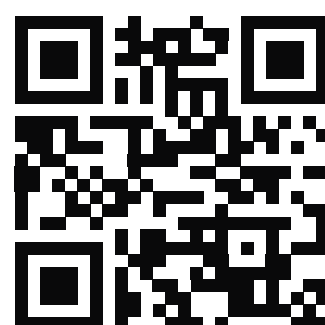
hvacredunet.net/sdgetraining



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

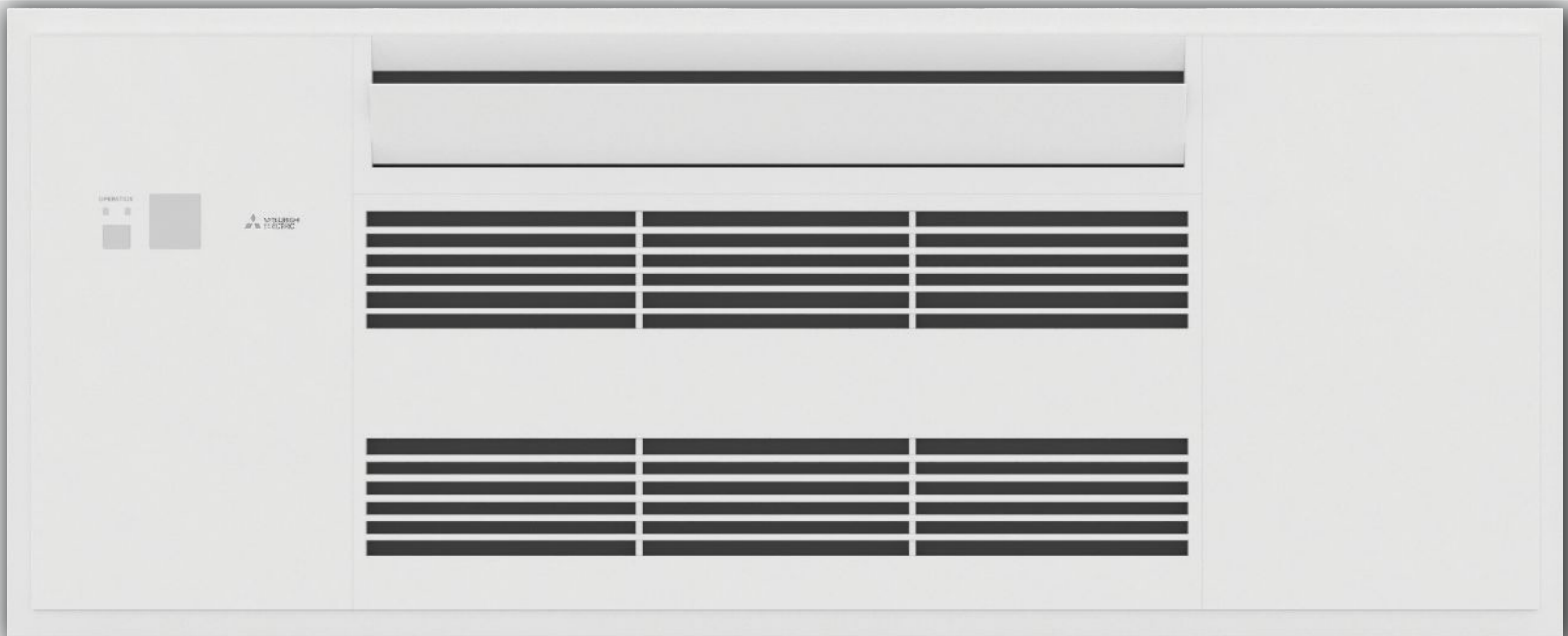
Some programs are funded by California utility customers and administered by San Diego Gas & Electric® under the auspices of the California Public Utilities Commission.

© 2023 San Diego Gas & Electric Company. All copyright and trademark rights reserved. S2380003 0123



Introducing the New EZ FIT® 6K BTU Ceiling Cassette

The smaller MLZ-KY EZ FIT® One-way Ceiling Cassette recesses between I-joists, providing a clean flush-mount appearance. The slim body design fits into shallow ceiling cavities making the EZ FIT a perfect selection for new construction projects, hotels, office spaces or any room upgrade. Compatible with multi-zone heat pumps and featuring high/low ceiling airflow settings, automatic vane control and is easily serviceable from below. The new smaller EZ FIT is specifically designed to provide personalized room comfort for multiple applications.



MLZ-KY06NA Dimensions
W: 33-3/16 x D: 11-7/8 x H: 7-11/16

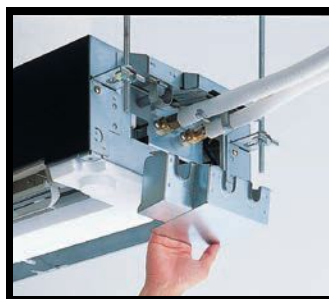
Compact Design

With its slim and compact design, new MLZ-KY model can be installed between a conventional joist and I-Joist.



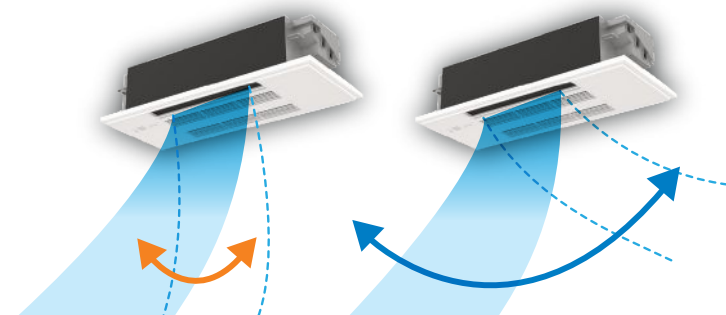
Serviceable from the Bottom

You have total access to the inside of the unit without requiring a service access panel.



Auto Vane Controller

Outlet vanes can be moved left and right, as well as up and down using the remote controller, improving airflow control.

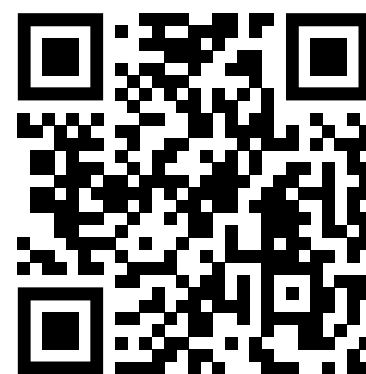




Key Features of the MLZ-KY06NA

- Designed to fit between I-joist spacing
- Stylish, square design panel
- Built-in condensate lift mechanism (19.6")
- Serviceable from the bottom (electrical and flare connections)
- Adjustable fan speeds and vane directions
- Washable antibacterial and deodorizing filter
- Multiple control options available:
 - Hand-held Remote Controller (provided with unit)
 - kumo cloud® smart device app for remote access
 - Third-party interface options
 - Wired or wireless controllers
 - Pocket inside the access panel for kumo cloud® Wireless Interface

Scan this QR code to watch a short video on the MLZ series products



Refrigerants and Green Technologies / Heating Products / Residential Ductless

Bosch IDS Premium Heat Pump



The IDS Premium Connected heat pump from **Bosch** features wireless connectivity to the Bosch EasyAir App, allowing contractors to access the information they need to conduct on-site installation, troubleshooting, and warranty registration. Homeowners can use the Bosch EasyAir app to monitor their energy usage and receive critical alerts, as well as contact their contractors for maintenance and repairs.

The IDS Premium Connected provides a premium 20-plus SEER energy efficiency, and sound levels as low as 56 dBA. The fully modulating inverter compressor offers 36% to 130% capacity with modulation in 1% increments.

This system also has a heating seasonal performance rating of 10.5 and can provide heating even when outdoor temperatures drop as low as -4°F. The accompanying air handler includes a two-stage x13 electronically commutated motor blower for enhanced humidity control and an all-aluminum coil for superior corrosion resistance.

The IDS Premium connected outdoor unit is available in 36 kBTU and 60 kBTU capacity.

More information: www.bosch-thermotechnology.us.

• • • • •

Carrier Performance Series Ductless System



Carrier recently launched a new Performance™ Series high wall ductless system including the 40MAHB indoor unit and 38MARB outdoor unit, and the multi-poise 40MBAA air handler. As the latest, fully communica-

tive additions in Carrier's evolving ductless line of heating and cooling offerings, the products provide versatility and energy efficiency, as well as single and multi-zone capabilities. The indoor high wall 40MAHB unit provides seasonal energy efficiency ratio (SEER) ratings up to 28.1 and heating seasonal performance factor (HSPF) ratings up to 13.0 and is available in sizes 9k through 36k. The 40MBAA boasts SEER ratings up to 20.0 and HSPF ratings up to 10.0, and is available in sizes 24k, 36k and 48k.

The 40MAHB indoor high wall unit includes the Airflow Direction feature, which automatically controls the louver direction up and down, or left and right. Other standard features include a built-in relative humidity sensor; the Follow Me feature, which allows the temperature to be changed from the handheld remote; an auto restart function; three modes of standard operation; and occupancy sensors.

The 40MAHB offers simplified installation and maintenance. Plus, increased total piping length and enhanced piping lift enable greater breadth of application and installation. There are also a wide variety of control options including a wireless remote controller, an optional wired remote controller, 24V interface and Wi-Fi kit.

The 40MAHB is backward compatible with the 38MA*R and the 38MARB is backward compatible with 40MAQ, 40MBCQ, 40MBFQ, 40MBDQ, and 40MBAA, allowing for greater flexibility when upgrading older system components without requiring complete system replacement.

The 40MBAA multi-poise air handler has a variable-speed ECM motor that synchronizes with the Carrier® Inverter Ductless heat pump single zone 38MARB size 24k, 38MBRB sizes 36k/48k, or with select 38MGR multi-zone models. Using Carrier's 38MGR multi-zone system allows a homeowner to connect to as many as five ductless indoor fan coils. With increased flexibility and performance, including temperature control and zone air circulation, these systems can adjust motor speeds and comfort capacity as conditions change, delivering soothing, consistent temperatures and quiet operation, which can help save on energy bills.

In addition, the Carrier Ductless 24V interface for the 40MBAA

can be built in or stand alone. Both options allow single and multi-zone systems to be compatible with third-party thermostats. Included features like customizable airflow adjustments and self-configuring capabilities provide application flexibility and easier servicing.

"We're pleased to introduce both the Performance Series high wall ductless system and the 40MBAA air handler as they provide versatile and efficient choices to complement our existing line of ductless solutions," said Paul Rebelo, Managing Director North America, Ductless and VRF, Carrier. "These models offer ease of installation, maintenance and flexibility for the contractor, while providing installation versatility, energy efficiency and multi-zone capabilities for the homeowner."

More information: www.carrierductless.com.

• • • • •

Facilities Resource Group TTS Synergy Series



Facilities Resource Group, LLC (FRG), a leading provider of single-source, turnkey commercial domestic hot water solutions, recently unveiled the TTS Synergy Series to help engineers, contractors and commercial facility owner-managers streamline and accelerate the process of changing out a centralized water heating system.

The result is a powerful, high-performance, tankless rack solution with a turndown ratio of 66:1 that will provide more than 1,600 gallons of hot water per hour, yet is compact enough to fit through a standard mechanical room doorway. Most importantly, TTS systems are pre-engineered and prefabricated to install quickly and without complications, minimizing costly downtime for commercial operators.

One Point of Connection: The most compelling aspect of this total tankless solution is its dynamic, One Point of Connection feature. TTS multi-unit assemblies are designed and built at FRG's Michi-

gan facilities, and then shipped to the job site fully assembled.

The standard package consists of an aluminum frame rack holding from two to six Noritz NCC199CDV Commercial Condensing Water Heaters with maximum inputs of 199,900 Btu/hour and maximum flow rates of 11.1 gallons per minute. Also included are the system controller, water and gas manifolds, expansion tank, breaker box with circuit breakers, digital pump controller with timer, surge protector, building recirculation pump and isolation valves – all pre-installed and pre-piped to the attached water heaters.

The prefabrication is so extensive, the installer needs to make only a single connection apiece for the water, power, gas, vent, condensate drain and building-recirculation lines. These half dozen connections are a small fraction of the numerous, complex hookups technicians would need to make, were they to build the system from scratch.

In addition, the TTS is designed to be common vented, further reducing job site materials and wall and roof penetrations, as well as the labor needed to complete the combustion-air and exhaust systems.

To further speed installation, the TTS offers a wheel kit option with commercial-grade casters to facilitate moving the rack from shipping crate to its final location. Measuring 80-inches high and 31.5 inches wide, regardless of the number of tankless units incorporated, the compact TTS rack will easily pass through a standard, mechanical-room doorway. Whether two, four or six heaters are combined, the multiple tankless units are carefully positioned within the aluminum frame to conserve space while maintaining all the necessary clearances for service.

Storage Tank Option: The TTS is available in 10 different configurations: from two to six tankless water heaters with and without a 120 Gallon storage tank. The latter is for commercial applications involving large spikes in demand, usually for short durations, that are best met through storage, rather than directly from a multi-unit tankless setup. Check valves are included, fully installed, to eliminate any chance of backflow contamination.

As with the other pre-installed components, completing the storage-tank installation involves

a single connection to an ECM system pump, which moves heated water from the tankless heaters to the tank. With the ECM technology, gas flow through the burner is continuously modulated to match actual demand, rather than running all-out all the time. Besides maximizing efficiency and storage-tank recovery, combining tankless with storage also helps extend component life cycles.

More information: <https://webfrg.com/>

Johnson Controls Supervisory Controllers



Johnson Controls introduces a series of FX Supervisory Family software and hardware releases that together provide new ways to maximize return on building investments.

The latest release is Niagara Analytics 2.0, a data analytics extension to the Niagara Framework® available on FX Servers and FX Supervisory Controllers. It gives users the ability to apply a variety of analytical algorithms and diagnostics to system data, and then discover and mitigate previously unknown operational issues, extending the life of equipment and controls.

The recently-released FX80 Supervisory Controller provides a one-size-fits-all hardware platform that includes modular accessories and flexible licensing (device or point) to scale affordably and handle jobs of any size and complexity. Additional features include:

- Powerful processor and large amount of memory
- Two onboard Ethernet ports, two onboard isolated RS-485 ports with integral EOL and one Wi-Fi interface port
- New expansion modules for additional communication ports
- Enabled for use of wireless devices

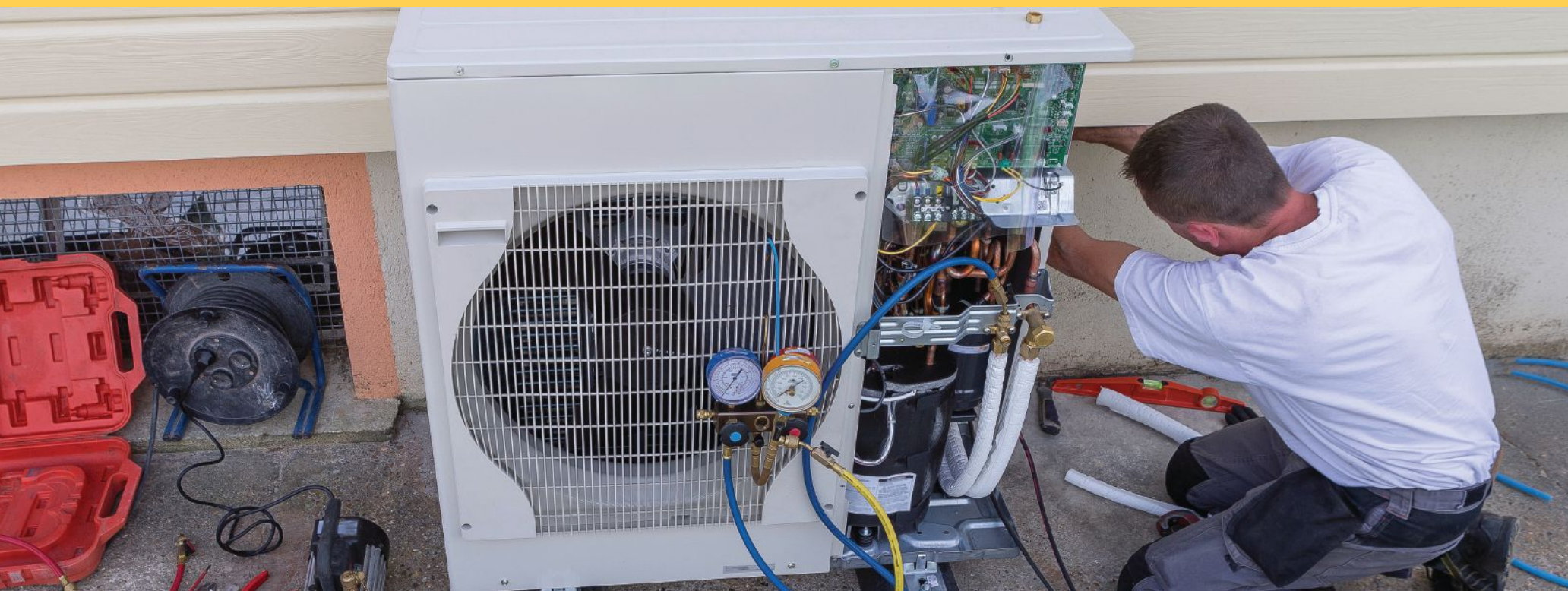
• Johnson Controls factory-installed N2 protocol driver for ease of N2 controller integrations

The new FX80 can now run on both Niagara 4 or Niagara AX™ based software for cost-effective

Continued on Page 20

LEARN THE LATEST HVAC/R PERFORMANCE TECHNOLOGIES

We offer free HVAC/R online and in-person classes with certifications to help you improve your customer's system performance.



3D Residential HVAC Design – No CAD Required (Two-Part Series)

March 1 & 2 | 1 p.m. – 4 p.m. PT | Online

Basic Heating, Ventilating & Air Conditioning

March 7 | 8:30 a.m. – 12:30 p.m. PT | Online

IHACI Boiler Module (Two-Part Series)

March 8 & 9 | 6 p.m. – 9 p.m. PT | Tulare, CA

IHACI (CAQI/QM/QS) Air Distribution Module (Four-Part Series)

March 8, 9, 15 & 16 | 6 p.m. – 9 p.m. PT | Irwindale, CA

ICE-O-MATIC Ice Machine Service Training

March 14 | 6 p.m. – 9 p.m. PT | Tulare, CA

IHACI Chiller Module (Two-Part Series)

March 22 & 23 | 6 p.m. – 9 p.m. PT | Tulare, CA

Low Global Warming Potential (A2L & A3) Refrigerants Introduction & Application

March 30 | 1 p.m. – 4 p.m. | Online

ItsAboutQ.net On-Demand HVAC/R Programs & Courses

Available 24/7, 365 days a year



Register to take our classes and see all our HVAC/R offerings at
on.sce.com/hvac 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.

Refrigerants and Green Technologies / Heating Products / Residential Ductless

Continued from Page 18

migration options for current Facility Explorer installations.

More information: <http://www.johnsoncontrols.com/buildings/building-management/facility-explorer>.

Noritz America EZ Series



The newly upgraded EZ Series of Residential Condensing Tankless Water Heaters from **Noritz America** now offers an improved and industry-leading Uniform Energy Factor of 0.96, while maintaining a 25-year warranty – also an industry-best – on its redesigned, dual stainless-steel heat exchangers. The higher UEF should deliver substantial energy savings and lower monthly fuel bills to the home or business owner over the extended life of these highly durable water heaters.

The key to both the warranty and the efficiency gain – up from 0.95 UEF for the previous EZ Series – is the unique blending of two types of high-grade stainless steel in the heat exchangers, using the material that best supports each

component's function. The primary heat exchanger is made of a higher tensile strength stainless material to resist heat shock and cracking under the high temperatures it routinely handles. The secondary exchanger extracts latent heat from the combustion process, producing an acidic condensate. As a result, it features a stainless material that is especially adept at resisting corrosion and scale buildup, even after years of demanding usage.

The upgraded EZ Series also offers an industry-first: A Steady BTU (SBTU) Mode that eliminates concerns over high incoming water temperatures, particularly in warmer regions of the country. Both EZ models, the EZ98DV and the EZ111DV, have minimum BTU per hour outputs of 18,000. But the series' breakthrough, burner-control technology reduces the effective minimum input by more than two thirds – to under 5,000 BTU per hour – whenever incoming water temperatures approach 90°F.

Other key enhancements to the upgraded EZ Series, delivering greater installation flexibility, include:

- **Faster common venting:** Each EZ unit now has a fully integrated non-return valve (NRV) to streamline common venting for up to two heaters with no need for additional accessories. Because the NRV is not an add-on, but built right into the tankless water heater, operational safety is assured, preventing the harmful exhaust of one water heater from back-flowing into the other, non-operating unit. Installation time and cost are significantly

reduced by eliminating the need to install the NRV externally between the water heater and the common-vent header.

- **Longer vent lengths:** The new EZ Series models can also direct-vent, using either 2-inch or 3-inch PVC or CPVC or rigid polypropylene materials. In addition, vent lengths have been extended: 65 feet for 2-inch pipe, up from the previous 60 feet; and 150 feet for three-inch pipe, up from the previous 100 feet.

Both models are available in their own "EZTR Bundle" packages (EZTR50 and EZTR75) that include materials and accessories for direct indoor replacement of 50- and 75-gallon, tank-type water heaters.

More information: <http://www.ezseries.noritz.com>.

RectorSeal LLC Aspen Mini White Silent+



RectorSeal LLC, a leading manufacturer of quality HVAC/R and plumbing accessories, and a wholly owned subsidiary of CSW Industrials, Inc. [NASDAQ: CSWI], has introduced the Aspen Mini White Silent+ condensate pump, a flexible, convenient option that complements the high-wall ductless units of all leading residential and commercial manufacturers.

This new-generation mini pump fits easily beneath such units, and the slim, stylish profile design offers installation options and quick access for routine maintenance. In addition:

- The Aspen Mini White Silent+ incorporates new ultra-quiet technology that limits any vibration caused by water pulses, thus reducing sound transfer, while a resilient mounting further minimizes fluctuation and noise.

- The soft-start capacitance technology driven by a fully variable speed motor optimizes the pump speed in response to the unit's flow rate.

- The pump's advanced design with fully potted electronics provides resistance to shock and vibration and prevention of moisture and corrosion.

A core benefit of the Aspen Mini White Silent+ condensate pump is its flexible installation. The unit is designed to fit beneath a high-wall indoor ductless cassette positioned within the ductless unit's shadow line. The pump has a reversible inlet that allows for both left and right installations, and the unit's easy-access panels mean there is no need to disturb the evaporator when cleaning the unit's filter.

Reservoir clips are positioned for easy removal and replacement, and the Aspen Mini White Silent+ accepts a standard five-eighths inch drain hose from the ductless unit.

An optional easy-fit installation insert hides power cables and pipework when routed through the knock-out points of the ductless cassette mounts.

More information: www.rectorseal.com.

Rheem Endeavor

Rheem, a leading global manufacturer of water heating and HVACR products, has introduced the all-new Endeavor™ Line of Gas Furnaces, Air Handlers, Split and Packaged Air Conditioners, Split and Packaged Heat Pumps and Packaged Gas Electric units. This new line is fully compliant with the new 2023 Department of Energy regulations.

Rheem's goal is to increase energy efficiency and reduce emissions, an effort that continues to drive change in the HVAC industry. In support of these efforts, the Department of Energy is also introducing significant regulation changes in energy efficiency criteria and ratings for both residential and commercial equipment in 2023. Rheem has fully embraced these new regulations as an opportunity to innovate new technologies to create an even better product line for contractors and homeowners.

Rheem leveraged this opportunity to reimagine its product line, designing for it to be even smarter and more compact to ensure the line is the company's most energy-efficient, reliable and sustainable offering ever. Rheem is also vigilant about the additional regulation changes coming in 2025 and is working to ensure the Endeavor line is ready to meet those standards by designing a line that works with both waves of regulation changes.

The Rheem Endeavor Line includes the following products:



Gas Furnaces

Available in a range of high efficiencies that work for a range of customers, every Rheem Endeavor Gas Furnace is designed to deliver comfort and optimal savings, allowing for lower utility bills.

- **Peace of Mind:** Including one of the top industry warranties with up to 10 Year Limited Parts + up to Limited Lifetime Heat Exchanger + up to 10-Year Conditional Unit Replacement.

- **Energy Efficient:** Featuring higher AFUE ratings and increased energy savings, many Endeavor models carry an ENERGY STAR® certification and apply for utility service rebates.

- **Smart Controls:** Endeavor gas furnaces offer the latest in sensor technology and the EcoNet monitoring system is on more models, allowing on-the-go control and receipt of system alerts by the homeowner via the EcoNet® Smart Thermostat and EcoNet App.

- **Quiet Comfort:** Designed with sound-dampening features such as insulated cabinets, solid bottoms and innovative airflow technologies.

- **Smart Features:** Built-in Bluetooth connectivity makes it faster and easier for the contractor to install and service on select Classic® and Classic Plus® Series systems using Rheem's Contractor App.

Air Conditioners

With the Rheem Endeavor Line of Air Conditioners, every model is designed to deliver high efficiency and dependable energy savings.

- **Peace of Mind:** Includes leading industry warranties with up to 10 Year Parts + up to 10 Year Conditional Unit Replacement.

- **Curb Appeal and Quiet Operation:** Designed with curb appeal in mind, along with integrated sound-dampening features such as refrigerant tubing and fan blade design, the composite base pan, compressor sound blankets and innovative compressor and drive technologies.

- **Energy Efficiency:** Provides increased energy savings month after month with higher efficiency with SEER2 and EER2 ratings. Also features, a 7mm condenser coil to reduce refrigerant requirements by up to 15%, in line with Rheem's

Duct Leakage Testing?



MAKING GREEN FASTER™



CHEAPER



SAFER



FASTER



www.VentCapSystems.com

Editorial Focus

sustainability mission.

- **Ultimate in Comfort:** Providing the ultimate comfort including inverter-driven, variable speed, scroll or twin rotary compressor technology and cooling operations that allow Rheem's Endeavor line Prestige® and Classic Plus® Series air conditioners to continuously meet customer's ever-changing cooling needs.
- **Smart Features:** Built-in Bluetooth connectivity makes it faster and easier for the contractor to install and service Prestige® and Classic Plus® Series systems using Rheem's Contractor App.

Heat Pumps

A versatile solution for every home, Rheem Endeavor Line of Heat Pumps features super-efficient technology and outstanding durability.

- **Peace of Mind:** Includes one of the best warranties in the industry with up to 10 Year Parts + up to 10 Year Conditional Unit Replacement.

- **Energy Efficient:** Provides more energy savings with higher SEER2, EER2 and HSPF2 ratings due to the higher efficiency of Rheem's heat pump. With households generating 72% of greenhouse gas emissions, switching to a heat pump can make a big difference for the environment.

- **Curb Appeal and Environmental-Friendly:** Features built-in curb appeal and a 7mm condenser coil to reduce refrigerant requirements by up to 15%, in line with Rheem's sustainability mission.

- **Quiet Operation:** Designed with sound-dampening features such as refrigerant tubing and fan blade design, the composite base pan, compressor sound blankets and innovative compressor and drive technologies.

- **Ultimate in Comfort:** Inverter-driven, variable speed, scroll or twin rotary compressor technology features cooling and heating operations that allow Rheem's Endeavor Line Prestige® and Classic Plus® Series heat pumps to continuously meet the customer's ever-changing heating and cooling needs.

- **Smart Features:** Built-in Bluetooth connectivity makes it faster and easier for the contractor to install and service Prestige® and Classic Plus® Series systems using Rheem's Contractor App.

Air Handlers

Designed with comfort in

mind, the Rheem Endeavor Line of Air Handlers offers high energy efficiency, dependably quiet operation and reduced energy bills.

- **Peace of Mind:** Covered with one of the best warranties in the industry with up to 10 Year Limited Parts.

- **Optimal Comfort:** Using variable speed motor technology that allows for modulating (between 40% and 100% of capacity), three-stage (high, medium, low) or two-stage (high, low) heating and cooling operation, ensures a steady stream of just-right airflow to maintain the customer's comfort level preference while providing superior humidity control.

- **Smart Controls:** Features the latest in sensor technology and the EcoNet monitoring system are on more models allowing on-the-go

control and receipt of system alerts by the homeowner via the EcoNet Smart Thermostat and EcoNet App.

- **Quiet Comfort:** Air handlers sound levels range from quietest to quiet with insulated air handler cabinets and truly variable speed airflow technology.

- **Smart Features:** Built-in Bluetooth connectivity makes it faster and easier for the contractor to install and service Prestige® and Classic Plus® Series systems using Rheem's Contractor App.

Packaged Air Systems

Save valuable space and relax in dependable comfort with the Rheem Endeavor Line of Packaged Air Conditioners, Packaged Heat Pumps, Packaged Dual Fuel and Packaged Gas Electric Units.

- **Peace of Mind:** Covered by

one of the best warranties in the industry with up to 10 years Conditional Parts + Limited Lifetime Stainless Steel Heat Exchanger (Residential Applications).

- **Energy Efficient:** With a higher SEER2, EER2 and HSPF2 rating, the higher the efficiency of the packaged system the more energy savings month after month.

- **Smart Controls:** New models launching in 2023 will feature the latest in sensor technology and the EcoNet monitoring system on select Classic Plus® Series models allow on-the-go control and receipt of system alerts by the homeowner via the EcoNet Smart Thermostat and EcoNet App.

- **Smart Features:** New models launching in 2023 will feature built-in Bluetooth connectivity makes it faster and easier for the

contractor to install and service select Classic Plus® Series systems using Rheem's Contractor App.

More information: Rheem.com/Endeavor.

• • • • •

Trane Precedent



The all-electric Precedent packaged rooftop heat pump from Trane is available in 12.5- to 25-ton capacities.

The Precedent line meets the

Continued on Page 23

Baker
Distributing Company

KEYS TO SUCCESS IN 2023

Take some time to make sure you are in a good position for a successful year. Consider Tempstar's tips for success in 2023:



Offer Financing

With consumers paying more for just about everything, financing will likely be a key factor during the sales process in 2023.

- Signing up with Wells Fargo Retail Service is quick and easy.
- Consider adding the Wells Fargo at-home application link to your website.
- Tempstar offers seasonal financing promotions!



Explore Training Opportunities

My Learning Center is your central location for professional training resources that help strengthen your career and business.

- Access training on products, business acumen, finance and regulations.
- Create an account and receive individualized training and certificates.
- Baker offers local training on Bakerdist.com/events!



Become an Elite Dealer

Take advantage of the tools, benefits, and resources provided by the Tempstar Elite Dealer program.

- Extended Warranties
- Preferred Financing Rates
- Online Review Generation
- Online Training Credits
- Incremental Volume Rebate
- Dealer Locator Priority
- Marketing Funds



For additional information, contact your Baker Representative or find a location near you at Bakerdist.com/store-locator

Bakerdist.com/tempstar

LET'S DO GREAT THINGS TOGETHER.



STRENGTH IN NUMBERS.



BECOME AN IHACI MEMBER TODAY.

For quick, easy, and direct on-line enrollment, simply **open your Smart Phone Camera** and **hover over the QR code** to access the membership application.

Technical Training

Growing Green Technicians Part 160: Total External Static Pressure, Coil, Filter Pressure Drop

By Jim Johnson
Contributing Editor

In a perfect world of HVAC, air flow through every piece of equipment, to the supply, and back through the return duct system, would always be accomplished perfectly through proper design, installation, and maintenance. However, technicians who take the time to accomplish system performance checks on equipment will attest that an air flow system that is operating at an optimum level is more often the exception rather than the rule.

The fundamental process related to finding and correcting air flow problems begins with an understanding of TESP, Total External Static Pressure. And, as **Figure One** shows, accomplishing an initial check of the volume of air flow through the duct system can begin with employing a digital manometer and testing at points A and B.

As our device shows here, the TESP is 0.52 wc (Water Column Inch), which is what we can, in many cases, consider to be near normal operation, allowing the equipment to accomplish the temperature differential necessary to keep the building occupants comfortable, while operating with a reasonable level of efficiency. Consider for a moment, though, that the initial test reading found when checking directly at the return plenum and the supply plenum is beyond what is considered normal, specifically excessive with a higher than normal TESP. What other tests could be accomplished to pinpoint the

source of the air flow problem?

In the case of this specific piece of equipment, one answer to that question is to accomplish a test at points A and C shown on our illustration. Checking here where the air enters and leaves the evaporator will provide information on the condition of the coil. In the same way that the overall TESP is accomplished by considering the high and low pressures of air flow, when measuring with a manometer here, the procedure is to subtract the leaving pressure from the entering pressure to determine how much drop there is through the coil.

In an ideal situation for many types of equipment, the pressure drop through an evaporator coil should be no more than 40% of the manufacturer's rated static pressure of the air handling system. Based on the 0.52 wc in our initial test, that would mean that the pressure drop through our coil should be 0.208 wc. If it's significantly beyond that, a dirty coil could be an issue.

We say "could be" because some coils can be more restrictive due to their design, and have higher pressure drop than others. If you're not sure, check your reading against the manufacturer's coil pressure drop data to confirm whether or not the coil may be restricted either because it's dirty, or may have damaged fins.

Another specific test that can be accomplished is at points D and E in our illustration, which provides information on the pressure drop of the filter. In this case, the common recommendation is that this pressure drop should not exceed 20% of the rated static pressure of

the equipment. And what we want to consider here is that it's not just a dirty filter that can be an issue. The MERV rating of the filter being used in a particular piece of equipment needs to be correct for the type of equipment.

If, for example, the equipment calls for a filter with a MERV rating of 6, and the consumer, thinking that a filter with a MERV of 13 would do a better job of keeping the air clean decides to install the more restrictive one, the performance of the system could be affected, resulting in complaints about overall comfort in the building, and cost of equipment operation.

Taking a green approach to following up on customer complaints of "never really comfortable" or "runs too much" requires an understanding of TESP considered from all angles and possibilities.

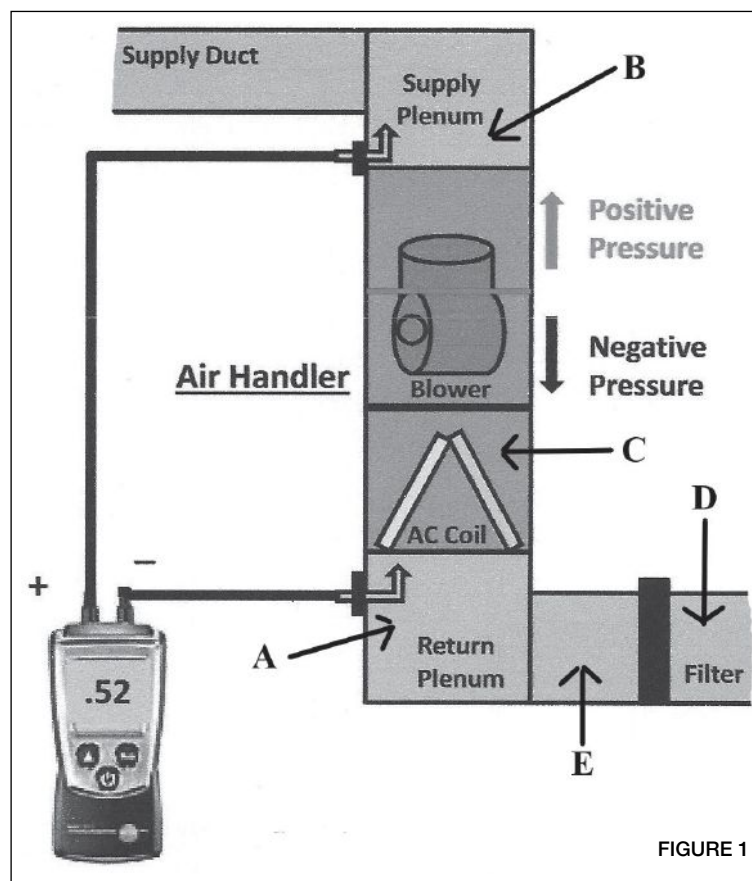


FIGURE 1

Editorial Focus

Continued from Page 21

U.S. Department of Energy (DOE) 2023 energy efficiency standards. All next-generation units released to date are now available in a high-efficiency model that exceeds those standards by 25% or more.

It features hinged access to the control panel, color-coded

wiring, keyed connectors, and no fan belts to adjust or replace. It arrives ready to install, and most replacements don't require a curb adapter.

The new Precendent next-generation units also offer single- and multizone variable air volume (VAV), comply with ASHRAE 90.1-2019, and include a 3-year parts warranty.

More information: www.trane.com.

**ADVERTISE IN
INDOOR
COMFORT
NEWS
CALL TODAY!
(818) 551-1555**

SIERRA AUTO GROUP COMMERCIAL TRUCK CENTER

Ram and Chevrolet Commercial Vehicles
Your one stop shop for light & medium duty truck and vans



2022 Chevrolet Express Commercial Cutaway RWD
#D315001



2023 Chevrolet Silverado 2500HD RWD
#D315001



2022 Ram 1500 Classic RWD
#BS25065



2022 Ram 3500 Chassis Cab RWD
#B287733

If we don't have it... We'll build it for you

Just ask for Commercial Trucks
866.996.9753

Sierra Truck Center | www.sierratruckcenter.com
1450 S. Shamrock Ave, Monrovia, CA 91016

BUSINESS LINK



**BUSINESS
ELITE**

Industry Events

Leading Commercial EV Manufacturers to Attend Work Truck Week '23

Diversity leadership panel participants, full educational conference schedule announced.

NTEA has added exclusive update sessions from five electric vehicle (EV) manufacturers to the Work Truck Week® 2023 educational conference. These EV sessions join the dozen OEM updates previously announced. During the sessions, manufacturer representatives will cover important technical information about their vehicle chassis, design and powertrains. The Association also has released more information about the Special Session: Leadership Journeys – Highlighting Diverse Experiences.

Work Truck Week, North America's largest work truck event, is held at Indiana Convention Center in Indianapolis March 7–10, 2023. It encompasses Green Truck Summit, The Work Truck Show®, Ride & Drive, and more. Green Truck Summit takes place at JW Marriott Indianapolis, adjacent to Indiana Convention Center, on March 7. Work Truck Week educational sessions run

March 7–9 and Work Truck Show exhibits are open March 8–10. Ride & Drive, which lets attendees experience commercial vehicles featuring the latest advanced fuels and technologies, is available March 8–9. Register at worktruckweek.com.

For more than 20 years, leading work truck chassis manufacturers have shared their latest chassis specifications and designs, reviewed body and equipment installation options and provided insight into future commercial vehicle plans during Work Truck Week OEM update sessions. This information is invaluable to upfitters and body builders looking to optimize their body and equipment designs and installation plans. As new EV chassis manufacturers have come online, fleet and commercial customers are looking for upfitters who can provide solutions using the new platforms.

“Our update sessions offer truck and body equipment manufacturers, installers and upfitters the opportunity to get the facts they need to support their end-user

customers and manage their businesses,” explains Kevin Koester, NTEA managing director. “There are a lot of questions and concerns about how to upfit electric vehicles, and as North America's premier commercial vehicle event, Work Truck Week is an ideal venue to facilitate these conversations.”

The EV update sessions will be held on Thursday, March 9. Participating manufacturers are Cenntro Automotive Corporation, Lion Electric, Lordstown Motors, VIA Motors Inc. and Xos Inc.

Other OEM update sessions begin Tuesday, March 7, and run through Thursday, March 9. Participating companies include Chevrolet Commercial Vehicles, Daimler Truck North America, Ford Pro, Freightliner Custom Chassis, Hino Trucks, International Truck, Isuzu Commercial Truck of America, Kenworth Truck Company, Mack Trucks, Mercedes-Benz USA, Peterbilt Motors Company and Ram Commercial.

In addition to the OEM updates, the Work Truck Week 2023 educational program includes a



ATTENDEES AND MANUFACTURERS AT LAST YEAR'S WORK TRUCK WEEK.

variety of targeted sessions where industry experts and thought leaders share strategies to help improve efficiency, implement best practices and grow operations. Concurrent sessions address market data and industry trends, vehicle engineering and compliance, government relations, advanced fuels and vehicle technology, workforce development and more. Registered Conference Package attendees can access on-demand materials from many of the concurrent sessions after the event concludes through their WTW23 Planner.

In-depth special sessions

A new special session is scheduled for Thursday, March 9. During Leadership Journeys – Highlighting Diverse Experiences, leaders from various segments of the commercial vehicle community will share their unique experiences and pathways to success during an interactive panel discussion moderated by NTEA Board Chair Tina Albright, VP of HR/safety at TBEI Inc. Confirmed partici-

Continued on Page 25

Cover Story

Fieldpiece, SkillsUSA

Continued from Page 1

voted to the future of the industry and is proud to help ensure young up-and-coming professionals are well-equipped with tools, knowledge and resources to support their future success. Whether supporting techs through free online training resources like Fieldpiece University, an online platform designed to keep industry professionals at the top of their game; or supporting the path to an HVACR career with scholarships like #MasteroftheTrade, we want to see our community thrive!”

Through this continued scholarship offering, Fieldpiece

Instruments also sheds light on the shortage of trained labor in the HVACR industry. With more than 110,000 unfilled HVAC technician jobs, Fieldpiece hopes to help spread the word about the positive career opportunities the industry offers.

“There is a critical need for more HVACR technicians,” said Chelle Travis, executive director at SkillsUSA. “We sincerely thank Fieldpiece Instruments for supporting SkillsUSA and our nation's future workforce. We are rolling up our sleeves every day to support career and technical education as we forge meaningful partnerships with industry. Working together with Fieldpiece Instruments, we can help close the

skills gap.”

To apply for the seven #MasteroftheTrade Scholarships, applicants must be SkillsUSA members enrolled in its HVACR or general construction programs who plan to study HVACR at the college or postsecondary level in the class of 2023-24 (high school seniors) or 2024-25 school year (high school juniors). The scholarship application must include a resume and either an essay (300 words or fewer) or a video (1-3 minutes) answering the question: “Why have you chosen a career in HVACR?” The scholarship opened on Dec. 1 and applications must be submitted by April 1, 2023. Scholarship recipients will be announced on May 16, 2023.

CO2 Chiller Project

Continued from Page 1

of 37.5°F.

The second phase included setting up the PROHeat onboard heat recovery system. The teams worked together on an updated hot water piping strategy, which can heat water to 170°F without using any propane or natural gas.

“We owe a big thanks to

both the Jongsma Family and the team at San Joaquin Valley Dairy Equipment for stepping up and partnering on these initial projects,” said Jim VanderGiessen, CEO of PRO Refrigeration. “They are helping us prove that CO2, or R-744, is a real solution that dairy producers need to consider today.”

Ben Anders, installation manager for SJVDE, stated “the installation and startup of this chiller system went very smoothly. Really,

there were no major obstacles to overcome and overall, it went extremely well.”

All indications are that the dairy producers also see the value. After Anders' team completes the South Creek Project, they will shift their focus towards two more scheduled PROGreen projects in the San Joaquin Valley region.

Auburn, Wash., based PRO Refrigeration, Inc., is a leading cooling technology and equipment

company for craft beverages and dairy in the US. The company provides innovative solutions for delivering chilled fluid from -45° F to +45° F. In 2020, PRO created their PROGreen Solution Team focused on natural refrigerants and shifting away from PRO's usage of chemical-based refrigerants. Visit www.prochiller.com/progreen for more information on their shift to natural refrigerants.

Jongsma serves almost 4,000

animals on his Dairy Farm where he continues an extended family history of dairy farming that began 65 years ago. Located in Earlmart, Calif., this farm has been in the business of milk production since 2004.

San Joaquin Valley Dairy Equipment has been providing wholesale machinery and equipment for dairy farms since 1992. They are based in Tulare, Calif., with a secondary location in Bakersfield.

Troubleshooting

A Split System Heat Pump Problem

By Jim Johnson
Contributing Editor

In this month's troubleshooting problem, the equipment that needs servicing is a split system heat pump, manufactured under the brand name Grandaire (ICP, Lewisburg, Tennessee). The indoor unit model number is WAP-T304A2 and the outdoor unit model number is WCH5304K-GA100. This is a 2.5 ton unit in a residential installation.

The information you receive from the dispatcher is that the customer's explanation of the problem is that the unit is operating erratically. Specifically, when the thermostat is satisfied at the end of a cycle, the compressor shuts down, but the outdoor fan motor seems to continue operating at a slower-than-normal speed.

Additional information about this situation is that it also seems that sometimes, on a call for operation, the outdoor fan motor does not want to start, causing the compressor to shut down after starting and attempting to run through a cycle. And, there are two factors to consider regarding the history of this equipment.

1. The dual capacitor was replaced approximately a month prior to this service request due to low microfarad readings.

2. The unit is located in an area affected by a hurricane, which caused a power supply interruption.

3. The contactor had been replaced after the storm and the power to the area was restored.

When you arrive, you check the power supply at the disconnect box and confirm that there is power to the outdoor unit. After confirming the erratic operation described above, you remove the equipment access panel and check the wiring diagram shown in **Figure One**. Comparing the diagram to the wiring you see, you note that L1 is connected to terminals 23 on the contactor and L2 is connected to 21.

You troubleshooting question: *What is the next step you need to take in repairing this unit?*

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

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

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

Answer to Last Month's Troubleshooting

The installation error was the use of a suction line that was too small. In a proper installation, the maximum temperature drop between the evaporator outlet and compressor should be 3-degrees. In our situation, the temperature drop was excessive and the compressor was running at a higher-than-normal temperature, indicating an insufficient volume of refrigerant vapor to the compressor.

The winner of last month's Troubleshooting is:
Mike Houdak

Work Truck Week '23

Continued from Page 24

pants include Amy Dobrikova, vice president of fleet solutions at Blink Charging Co., and Exavious (Za) Farley, founder/CEO at Black Fleet Network.

Also on Thursday, Creating a Roadmap to Increase Truck Dealer Commercial Vehicle Sales is designed to provide a blueprint for success to help truck dealers grow their business. It's led by Ken Taylor, president at Ken Taylor & Associates. Indiana LTAP returns

with a fleet educational program on The Importance of Selecting the Right Equipment for Your Municipal Fleet. Purdue Road School offers two sessions, Indiana Statutes and Rules for Professional Engineering Licensure and Professionalism and Ethics in the Practice of Engineering.

For more details on all Work Truck Week sessions, visit worktruckweek.com/schedule. Register at worktruckweek.com or contact NTEA (info@ntea.com or 800-441-6832) for more information.

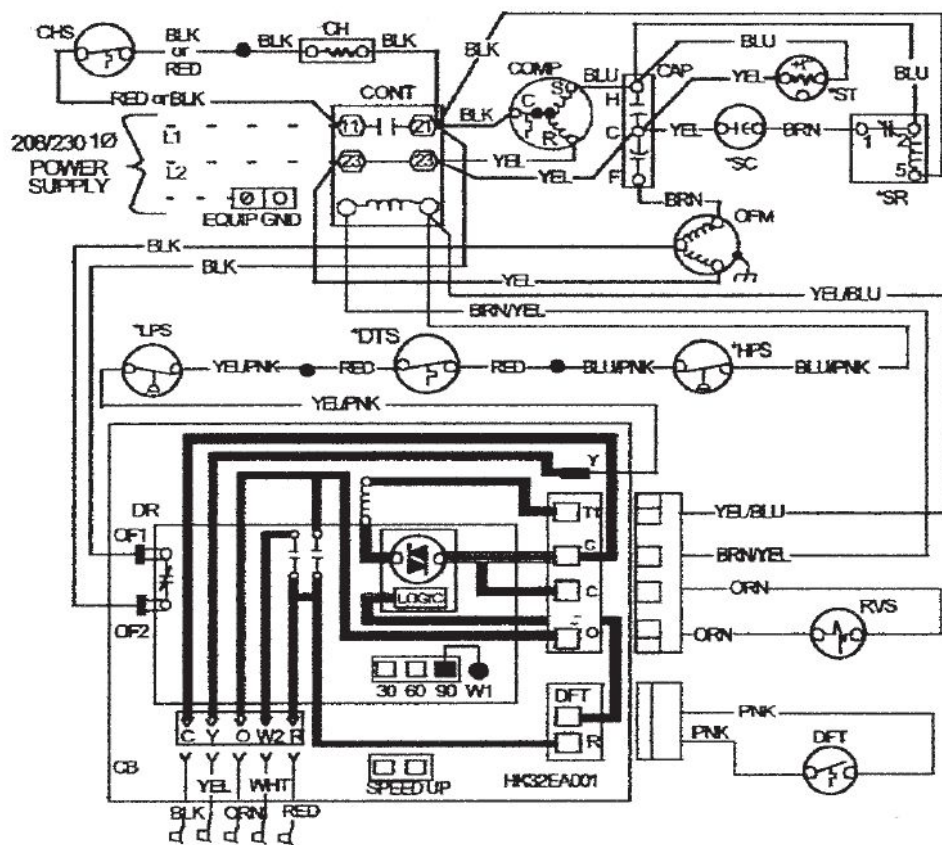


FIGURE 1



Now Available

Low-GWP Refrigerants Certification Exam



Low GWP Refrigerants

The Industry's Refrigerant Certification



Study Guide Available in the NATE Online Store

WWW.NATEX.ORG

IHACI'S 42nd ANNUAL HVAC/R/SM PERFORMANCE CONTRACTING PRODUCT & EQUIPMENT TRADE SHOW

NOVEMBER 15, 2022, PASADENA, CA



TRADE SHOW ATTENDEES TRY THEIR LUCK AT THE ROULETTE TABLE.



CRAIG MOODY OF STYLE CREST, INC.



THE AIR CONDITIONING TRADE ASSOCIATION BOOTH: (FROM LEFT) ROB GILPATRICK, KRISTINA MOJICA, DANIELLE CREIGHTON.



"ELVIS" IS IN THE BUILDING.



PARADISE CHEVROLET: DIANA BEEN (LEFT) AND JUDEE BENDER.



"GROW YOUR HVAC BUSINESS WITH HEAT PUMP WATER HEATERS" SEMINAR.



TONY ALBERS OF USAIRCONDITIONING DISTRIBUTORS WITH VENSTAR MODELS.



THE A-GAS BOOTH.



THE DIVERSITECH BOOTH: NEAL REEVES (LEFT) AND CHRIS FOSTER.



THE 3M BOOTH: MICHELLE WALIN (LEFT) AND RACHEL SAMDAHL.



THE GENERAL ELECTRIC BOOTH: KEVIN BOCK (LEFT) AND TIM ELLIS.



HICIDRO CAMPA OF CAMINO REAL CHEVROLET.



THE AC PRO BOOTH: (FROM LEFT) MICHAEL HAMILTON, DAVID SILVA, MELISSA MEDINA, SAM LAVOY.



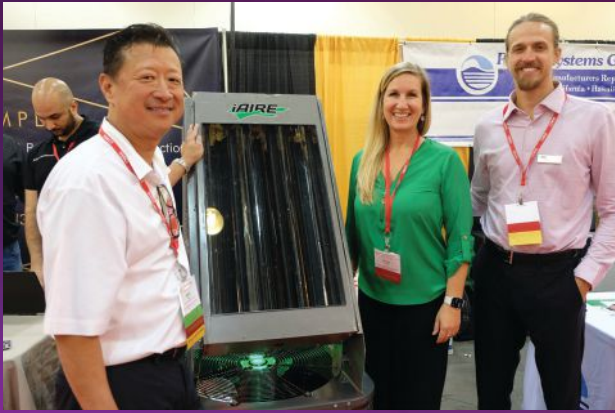
THE ROYAL SERVICE SUPPLIES BOOTH: (FROM LEFT) WANNIS ARZOMALIAN, TOM PODGURSKI, KAREN YU, LALO JUAREZ.



THE INABA DENKO BOOTH: (FROM LEFT) TAKAYUKI SAWA, BRUCE HAMMOND, KARINA AHARONIAN, JUSTIN TERHUNE.



THE ROTTIERS SALES ASSOCIATES BOOTH: (FROM LEFT) DONOVAN SIMPSON, SCOTT REMILLONG, ERIC BUCHANAN, STACY SHANK.



THE PACIFIC SYSTEMS GROUP BOOTH: BOBBY HAHN (LEFT), KARINE LEBLANC, DANNY PAICE.



THE R.E. MICHEL COMPANY BOOTH: (FROM LEFT) TIM WILBUR, LOUIE ARCINIEGA, DAVID PENA, DENNIS MELTON.



THE IPERMIT BOOTH: (FROM LEFT) IAN JACOBY, GREG COBB, DANIEL RODRIGUEZ, DANNY VARGAS.



KYLE MOORE OF THE L.H. DOTTIE COMPANY.



THE FIELDPIECE INSTRUMENTS BOOTH: STEWART NEVILLE (LEFT) AND RUBEN DUARTE.



THE DANKO MECHANICAL SALES BOOTH.



THE VISUAL SERVICE BOOTH: (FROM LEFT) BOB WISEMAN, CHARLES NANCE, ROBERT SCOTT.



THE INTERPLAY LEARNING BOOTH: MARTY ABELL (LEFT) AND ANDREW NESSELROAD.



SEE YOU AT THE NEXT IHACI TRADE SHOW
NOVEMBER 7, 2023

INSTITUTE OF HEATING AND AIR CONDITIONING

2023 TRAINING

CALIFORNIA QUALITY INSTALLATION, QUALITY MAINTENANCE AND QUALITY SERVICE

SOCALGAS, DOWNEY

FEBRUARY

Gas Heating Module

(Two-Night Class) Instructor: Mike Griffin

Wed., Feb. 1 – Part 1

Thurs., Feb. 2 – Part 2

MARCH

Electrical Module (Webinar)

(Four-Night Class Cont. to April) Instructors: Mike Griffin / John Dalton

Wed., March 1 – Part 1

Thurs., March 2 – Part 2

APRIL

Electrical Module (Webinar)

(Four-Night Class Cont. from March) Instructors: Mike Griffin / John Dalton

Wed., April 5 – Part 3

Thurs., April 6 – Part 4

MAY

AC/HP Refrigeration Module

(Four-Night Class) Instructor: John Dalton

Wed., May 3 – Part 1

Thurs., May 4 – Part 2

Wed., May 24 – Part 3

Thurs., May 25 – Part 4

JUNE

Air Distribution Module

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

Wed., June 21 – Part 1

Thurs., June 22 – Part 2

Wed., June 28 – Part 3

Thurs., June 29 – Part 4

JULY

System Performance Module

(Four-Night Class Cont. to August) Instructors: Mike Griffin / John Dalton

Wed., July 26 – Part 1

Thurs., July 27 – Part 2

AUGUST

System Performance Module

(Four-Night Class Cont. from July) Instructors: Mike Griffin / John Dalton

Wed., Aug. 2 – Part 3

Thurs., Aug. 3 – Part 4

SEPTEMBER

NATE CORE & Gas Heating Training (Webinar)

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

Wed., Sept. 6 – Part 1

Thurs., Sept. 7 – Part 2

Wed., Sept. 13 – Part 3

Thurs., Sept. 14 – Part 4

OCTOBER

NATE AC/HP Refrigeration & Air Distribution Training (Webinar)

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

Wed., Oct. 4 – Part 1

Thurs., Oct. 5 – Part 2

Wed., Oct. 25 – Part 3

Thurs., Oct. 26 – Part 4

Sat., Oct. 28 - NATE Exam, 7:30 a.m.

SOUTHERN CALIFORNIA EDISON, IRVINDALE

FEBRUARY

Electrical Module (Webinar)

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

Wed., Feb. 8 – Part 1

Thurs., Feb. 9 – Part 2

Wed., Feb. 15 – Part 3

Thurs., Feb. 16 – Part 4

MARCH

Air Distribution Module

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

Wed., March 8 – Part 1

Thurs., March 9 – Part 2

Wed., March 15 – Part 3

Thurs., March 16 – Part 4

APRIL

AC/HP Refrigeration Module

(Four-Night Class) Instructor: John Dalton

Wed., April 12 – Part 1

Thurs., April 13 – Part 2

Wed., April 19 – Part 3

Thurs., April 20 – Part 4

MAY

NATE CORE & Gas Heating Training

(Four-Night Class) Instructor: Mike Griffin

Wed., May 10 – Part 1

Thurs., May 11 – Part 2

Wed., May 17 – Part 3

Thurs., May 18 – Part 4

JUNE

NATE AC/HP Refrigeration & Air Distribution Training

(Four-Night Class) Instructor: John Dalton

Wed., May 31 – Part 1

Thurs., June 1 – Part 2

Wed., June 7 – Part 3

Thurs., June 8 – Part 4

Sat., June 10 - NATE Exam, 7:30 a.m.

SEPTEMBER

System Diagnostics Module

(Four-Night Class) Instructor: John Dalton

Wed., Sept. 20 – Part 1

Thurs., Sept. 21 – Part 2

Wed., Sept. 27 – Part 3

Thurs., Sept. 28 – Part 4

OCTOBER

Non-Res ATE Acceptance

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

Wed., Oct. 11 – Part 1

Thurs., Oct. 12 – Part 2

Non-Res ATT Acceptance

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

Wed., Oct. 18 – Part 1

Thurs., Oct. 19 – Part 2

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

FEBRUARY

Gas Heating Module (Webinar)

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

Tues., Feb. 7 – Part 1

Wed., Feb. 8 – Part 2

2022 Title 24 Standards Training

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

Wed., Feb. 22 – Part 1

Thurs., Feb. 23 – Part 2

MARCH

Boiler Module

(Two-Night Class) Instructor: John Dalton

Wed., March 8 – Part 1

Thurs., March 9 – Part 2

Chiller Module

(Two-Night Class) Instructor: John Dalton

Wed., March 22 – Part 1

Thurs., March 23 – Part 2

APRIL

Air Distribution Module

(Four-Night Class) Instructors: Mike Griffin / Mitch Bailey

Wed., April 12 – Part 1

Thurs., April 13 – Part 2

Wed., April 19 – Part 3

Thurs., April 20 – Part 4

MAY

System Performance Module

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

Wed., May 10 – Part 1

Thurs., May 11 – Part 2

Wed., May 17 – Part 3

Thurs., May 18 – Part 4

JUNE

AC/HP Refrigeration Module

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

Tues., June 6 – Part 1

Wed., June 7 – Part 2

Tues., June 13 – Part 3

Wed., June 14 – Part 4

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
All In-Person classes subject to change based on I
Classes begin at 6:00 PM Pacific Time and class
Register at www.ihaci.org

CLASS SCHEDULE

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

SEPTEMBER

System Diagnostics Module

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

Wed., Sept. 20 – Part 1

Thurs., Sept. 21 – Part 2

Wed., Sept. 27 – Part 3

Thurs., Sept. 28 – Part 4

OCTOBER

NATE CORE & Gas Heating Training

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

Wed., Oct. 11 – Part 1

Thurs., Oct. 12 – Part 2

Wed., Oct. 18 – Part 3

Thurs., Oct. 19 – Part 4

NOVEMBER

NATE AC/HP Refrigeration & Air Distribution Training

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

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.

SAN DIEGO GAS & ELECTRIC

FEBRUARY

Gas Heating Module (Webinar)

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

Mon., Feb. 6 – Part 1

Tues., Feb. 7 – Part 2

2022 Title 24 Standards Training (Webinar)

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

Mon., Feb. 27 – Part 1

Tues., Feb. 28 – Part 2

MARCH

NATE HVAC/R New Hire Module (Webinar)

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

Mon., March 6 – Part 1

Tues., March 7 – Part 2

Mon., March 13 – Part 3

Tues., March 14 – Part 4

NATE HVAC/R Support Training Module (Webinar)

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

Mon., March 20 – Part 1

Tues., March 21 – Part 2

Mon., March 27 – Part 3

Tues., March 28 – Part 4

APRIL

Electrical Module (Webinar)

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

Mon., April 3 – Part 1

Tues., April 4 – Part 2

Mon., April 10 – Part 3

Tues., April 11 – Part 4

AC/HP Refrigeration Module (Webinar)

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

Mon., April 17 – Part 1

Tues., April 18 – Part 2

Mon., April 24 – Part 3

Tues., April 25 – Part 4

MAY

System Diagnostics Module (Webinar)

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

Mon., May 8 – Part 1

Thurs., May 9 – Part 2

Mon., May 15 – Part 3

Thurs., May 16 – Part 4

JUNE

Air Distribution Module (Webinar)

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

Mon., June 5 – Part 1

Tues., June 6 – Part 2

Mon., June 12 – Part 3

Tues., June 13 – Part 4

System Performance Module (Webinar)

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

Mon., June 19 – Part 1

Tues., June 20 – Part 2

Mon., June 26 – Part 3

Tues., June 27 – Part 4

JULY

Non-Res ATE Training (Webinar)

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

Wed., July 5 – Part 1

Thurs., July 6 – Part 2

Non-Res MATT Training (Webinar)

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

Wed., July 12 – Part 1

Thurs., July 13 – Part 2

Chiller Module (Webinar)

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

Wed., July 19 – Part 1

Thurs., July 20 – Part 2

AUGUST

Commercial Cooling Tower Module (Webinar)

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

Wed., Aug. 9 – Part 1

Thurs., Aug. 10 – Part 2

Boiler Module (Webinar)

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

Wed., Aug. 16 – Part 1

Thurs., Aug. 17 – Part 2

Commercial Refrigeration Module (Webinar)

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

Wed., Aug. 23 – Part 1

Thurs., Aug. 24 – Part 2

SEPTEMBER

Electrical Module (Webinar)

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

Mon., Sept. 11 – Part 1

Tues., Sept. 12 – Part 2

Mon., Sept. 18 – Part 3

Tues., Sept. 19 – Part 4

OCTOBER

System Diagnostics Module (Webinar)

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

Mon., Oct. 16 – Part 1

Tues., Oct. 17 – Part 2

Mon., Oct. 23 – Part 3

Tues., Oct. 24 – Part 4

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 Dalton

Mon., Dec. 4 – Part 1

Tues., Dec. 5 – Part 2

Mon., Dec. 11 – Part 3

Tues., Dec. 12 – Part 4

PACIFIC GAS AND ELECTRIC COMPANY, STOCKTON

FEBRUARY

Gas Heating Module (Webinar)

(Two-Night Class) Instructor: Mitch Bailey

Wed., Feb. 1 – Part 1

Thurs., Feb. 2 – Part 2

NATE HVAC/R New Hire Module (Webinar)

(Four-Night Class) Instructor: Mitch Bailey

Wed., Feb 15 – Part 1

Thurs., Feb 16 – Part 2

Wed., Feb 22 – Part 3

Thurs, Feb 23 – Part 4

MARCH

NATE HVAC/R Support Training Module (Webinar)

(Four-Night Class) Instructor: Mitch Bailey

Wed., March 1 – Part 1

Thurs., March 2 – Part 2

Wed., March 8 – Part 3

Thurs., March 9 – Part 4

n EXCEPT Where Noted.
OUS/CA COVID requirements.
format is subject to change
rg (Training)

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





JAMIE DABBS

TD Industries recently promoted **Jamie Dabbs** to lead its strategic initiatives as TD's vice president, safety, health and environmental. With more than 13 years of experience at TD, Dabbs has worked to enhance TD's safety efforts by introducing and leveraging technology such as the Samba Safety Motor Vehicle Records (MVR) monitoring system, Samsara fleet camera system, video-based pre-task safety plans (PTSPs), and the TD Safety App. Dabbs will work out of TD's headquarters in Dallas, Texas.

Dabbs began his career with TD Industries in July 2008 as a Dallas safety manager.

.....

NAVAC, a supplier of HVAC vacuum pumps in addition to a wide array of tools, gauges, charging machines, recovery units and industry-specific items, has hired HVAC sector veteran **Thomas Boelens** as its newest sales manager for the Central region, which includes the entire Midwest and Rocky Mountain regions.

Boelens comes to NAVAC with more than 25 years of experience in the HVAC industry. Most recently, he spent seven years as the Central regional sales manager at Panasonic. He also has held execu-

tive roles at Honeywell, Robertshaw, and Invensys Controls, with a focus on aftermarket distribution and small OEM sales.

Boelens' professional background also includes retail and merchandising positions with Walmart, Acosta, and Anderson Merchandisers. For NAVAC, this experience makes him especially valuable for working with distributors that are particularly proactive with marketing and promotional strategies.

Prior to beginning his career, Boelens served six years in the U.S. Army as a military policeman.

"Thomas brings a proven track record of successful sales and relationship building in the HVAC sector," said Luis Ochoa, director of sales, Northern division for NAVAC. "His merchandising background, retail experience, and professional accreditations will make him even more effective in his new role and we're delighted to welcome him to the NAVAC team."

Boelens earned a B.S. in marketing from Illinois State University. Among other professional education distinctions, he gained accreditation as a certified purchasing manager from DePaul University, as well as a certificate in energy management from the Association of Energy Engineers.



THOMAS BOELENS



STEVEN LAKIN

Danfoss announced that **Steven Lakin** has joined the company as its new director of public and industry affairs. Lakin is a government relations and public affairs professional with experience working across multiple industries, with industry associations and with policymakers at the state and federal level.

Most recently, Lakin was the deputy commissioner of labor and industry for the State of Maryland (2016-2022). Previously, he served in leadership roles for several contracting associations and worked for two members of Congress, two governors and one U.S. president.

"I am excited to join Danfoss and bring my experience in both the public and private sector," said Lakin. "Danfoss is an industry leader in energy efficiency and sustainable technologies and I look forward to working with key industry and government stakeholders at this critical junction where innovations in climate and sustainable solutions are gaining momentum in our national conversation."

Steven has a bachelor's degree in political science with a minor in communications from the University of Florida.

.....

Nebraska Plumbing, Heating & Cooling announced that it has appointed **Tina Buck** as brand relations/project specialist.

In her role, Buck will serve as the key contact, coordinator, and promoter for all matters relating to the Nebraska brand and will handle special projects as assigned. She will also organize and facilitate employee relations and retention programs, and manage internal, operations-related projects.

Buck has 17 years of experience in the industry and has previously held various retail bank positions. An 18-year resident of Warwick, New York, she is a volunteer and involved in the Warwick Valley Rotary Club and Warwick Valley Rotary Foundation. Additionally, Buck is a Notary Public and holds an Inventory Management Certification.



TINA BUCK

.....

Shafer Services Plus, an HVAC and plumbing company, announced the appointment of **Alison Lange** as president. For the past two years, Lange has served as Shafer's marketing leader and, more recently, as their interim residential HVAC manager. She replaces former president, Chase Anderson, who will be transitioning into a full-time role with Shafer's parent company, Pro Plus



ALISON LANGE

Service Group.

"From day one, Alison has always gone above and beyond her job through her service level and ability to lead by example," said Anderson. "As I began to make preparations for transitioning fulltime to our parent description company, Pro Plus Service Group, I knew there was no better leader than Alison to chart course for the next era of one of San Antonio's oldest companies. I have seen her consistently do the right thing for our team members and our customers. She's the type of person people want to work with and one that we're all better for knowing."

Raised in West Texas, Alison brings with her a legacy of hard work and service. She waited tables ten hours a day to put herself through college, graduating Magna Cum Laude from Angelo State University with a Bachelor of Arts in communications and an English minor — all within three years. She spent the next 25 years becoming a marketing leader in San Antonio, where she has served education, tourism, culinary, literacy, health, technology, home services, government, non-profit, and corporate sectors.

Continued on Page 31

Business Matters

Continued from Page 14

a reward. Treat them as such.

Rehash missed sales opportunities:

Every unsold sales lead your company runs needs to be

ADVERTISE IN
INDOOR
COMFORT
NEWS
CALL TODAY!
(818) 551-1555

touched a minimum of twice. Once when your selling technician/salesperson runs the call, and the next touch is the person in your building who is calling behind and rehashing the unsold opportunities. Somewhere between 50% and 70% of the time, you aren't selling the job while in the house. It should be someone's dedicated job to work daily on those quoted and not sold leads to try to convert them. An effective inside salesperson can be just as productive selling the jobs not sold in the field as some of your outbound salespeople are.

Make sure your technicians are selling service memberships:

The service agreements you sell in January become work for your

techs in June (when you run the first visit of the agreement) and next January (when you run the second). It is wholly unacceptable for technicians to not be converting their calls into membership customers at least 1/3 of the time. If they aren't converting, then you need to examine their process. If a technician is providing a wow experience, most people are begging to be members so that they can have you back out to their home next year.

Don't be afraid to make difficult decisions:

Everyone that works for your company is counting on you to make the necessary changes in the business everyday (nobody else is going to). Ask tough questions

and hold people accountable.

Touch your Service, Sales, and Installation Departments daily to find out if you are under/overbooked, to keep an eye on your call count for today and for the next week, to see how many holes there are to fill in your install schedule.

- Ask your managers:
- "What is your plan and what are we doing today to fix this?"
 - "Who is managing this?"
 - "What are we doing to make sure this doesn't happen again next week or next month?"

Final Word

There is no silver bullet that will keep your business from the periodic effects of seasonality. The best way to protect your busi-

ness and employees from being impacted in January/February is a bunch of little things done regularly throughout the entire year, as discussed above.

The place to start is a written plan and budget, a simple step that will help to pay dividends next January. If you are failing to plan, you are planning to fail.

Happy New Year to all of you. I raise a glass to all of you who have made the decision that 2023 is the year you will implement process, hold people accountable, and make the decisions necessary to have your best and most profitable year yet.

Lawrence can be reached at Lawrence@brodypennell.com.

Continued from Page 30

Her leadership helped Shafer achieve its top two performing years in the company's 135-plus-year history. Additionally, Alison oversaw rebranding and launched Shafer Serves, a philanthropic program that has donated more than \$55,000 in equipment and services to local non-profits and community members such as

Boys and Girls Clubs of San Antonio, SA Youth, Guide Dogs of Texas, military veterans, and The San Antonio Food Bank. "I am honored to lead a San Antonio legacy organization into its next generation," said Lange.

Heatcraft Refrigeration Products, LLC, a manufacturer of commercial refrigeration equipment and systems, has promoted **Bob Landi** to vice president and general manager. In this role, Landi will apply his proven operations and

supply chain acumen to continue to grow the business and deliver customer-centric solutions. Prior to his promotion, Landi served as vice president of operations at Heatcraft. During that time, he led significant operational improvements within the Tifton and Stone Mountain, Georgia, manufacturing facilities that resulted in record-level growth and production throughout. Landi started at Heatcraft in 2002 as a manufacturing engineer and worked his way up within the company to serve as safety special-



BOB LANDI

ist and production manager before being promoted to director of operations in 2011.

Industry News

Continued from Page 12

repair the system. Link currently offers connectivity to a line of Trane and American Standard variable speed units that include:

- Trane XV20i and American Standard Platinum 18 heat pumps

- and air conditioners;
- Trane and American Standard TAMX air handlers;
- Trane and American Standard S8V2-C Furnaces.
- Corresponding Link-enabled smart thermostat and system controller; and
- Accessories – SmartCharge™ Solenoid Kit, Air Handler Pressure Transducer Kit, etc.

Now, technicians can ensure a speedier setup as Link technology allows the technician to use a Bluetooth mesh connection and the Diagnostics Mobile App on their phone or tablet to self-identify the equipment and walk them through the installation. Another benefit of Link is that it can be remotely controlled and all software updates

take place automatically over Wi-Fi, as well as with Link-integrated air handlers and smart thermostats. "With the integrated Link technology, Trane and American Standard variable speed system owners can have peace of mind knowing that their system was properly installed and is running smoothly year-round," said Bingham. "In fact, when installation is complete, due to the Link technologies' richer data set, technicians can now provide homeowners a list of test runs, and the equipment installed. This information can also help them get ahead of future service or repair needs identified via ongoing remote monitoring of the installed system." As a result of Link's regional debut, the technology has already been named 'The ACHR NEWS' Gold-winner of its 2022 Dealer Design Awards within the HVAC Residential Equipment category. Additionally, due to its diagnostic capabilities, Trane Link received special recognition from the 2022 Integrated Home Competition.

NEW IHACI MEMBERS

- **Goettl**
Rancho Santa Margarita, CA 92688
- **Gerald "Gerry" Carter**
Visalia, CA 93277

GOLD KEY Contest Winner

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

Ashley James
Sigler Wholesale Distributors

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

ADVANCE YOUR TECHNICIAN'S ELECTRICAL SKILLS WITH THIS TRAINING BUNDLE!

Check out our **HVACR Troubleshooting Fundamentals: Electricity & Wiring Diagrams Training Package** for HVACR Educators, Service Managers and Lead Technicians

This training package includes:

- One (1) Student Textbook
- One (1) Instructor Guide, print copy with answers to student workbook pages
- One (1) Instructor Guide PowerPoint with answers to student workbook pages and End-of-Course Exam
- One (1) PowerPoint: *HVACR Troubleshooting Fundamentals: 15 Electrical Troubleshooting Scenarios*
- One (1) DVD/Video: *Electrical Fundamentals for HVACR Technicians* (Run Time: 120 Minutes)
- One (1) DVD/Video: *Proper Use of Test Instruments* (Run Time: 60 Minutes)
- One (1) bonus Facilitator's Guide that will provide any instructor or trainer a detailed breakdown on utilizing all the resources in this package in a training program.

A \$270 value for **\$215.00** (Includes Shipping & Handling)

Purchasing this combined resource package saves you 20%!

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

Technical Training Associates
Skill Development Through Specialized Training

Advertiser Index

ADVERTISER	ICN PAGE
Baker Distributing Company	21
Dial Manufacturing	11
Ferguson HVAC - Day & Night	2
Ferguson HVAC - TRANE	3
Howard Industries	32
HudsonTech	14
IHACI Membership Ad	22
Mitsubishi Electric	16, 17
NATE.....	25
Olimpia Splendid.....	12
Pacific Gas & Electric (PG&E)	13
Pro Source / Pro Lift.....	8
R.E. Michel Company	6
San Diego Gas & Electric (SDG&E)...	15
Sierra Chevrolet	23
SoCal Edison.....	19
SoCal Gas.....	7
USACD.....	9
Vent Cap Systems	20
Yellow Jacket.....	5

The Institute of Heating and 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
Canoga Park Heating & Air Conditioning

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 Conditioning

Steve Clinton
Southern California Edison

Tyler Keene
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
Program Assistant

Bonnie Moreno
Kaye Weiss
Program Coordinators

Summer Aguilar
Membership and Events Coordinator

Debbie Thompson
Accountant

INDOOR COMFORT NEWS

Gilbert Rivera
Editor

Karina Ball
Sales Account Executive

Ted Rieger
Northern California Correspondent

Jim Johnson
Contributing Editor

Rick Torres / Calavera Graphics
Pre-Press Consultant

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

Cooling and Heating Any Room. Any Home. Anywhere.



HOWARD INDUSTRIES

WHOLESALE DISTRIBUTORS / PARTS • SUPPLIES • EQUIPMENT

HEATING • AIR CONDITIONING • REFRIGERATION • SHEET METAL

We provide a variety of heating and air conditioning solutions to maximize comfort and efficiency for every possible setting.

In stock at all 6 locations today!

American Standard
HEATING & AIR CONDITIONING



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

Culver City
8855 Washington Blvd.
Culver City, CA 90232
(310) 837-9100

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

Escondido
960 S Andreasen Drive #C
Escondido, CA 92029
(760) 743-7300

Riverside
2000 Spruce St #2649
Riverside, CA 92507
(951) 784-8800

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