

# INDOOR COMFORT

MARCH 2021

THE VOICE OF THE INDUSTRY  
**NEWS**

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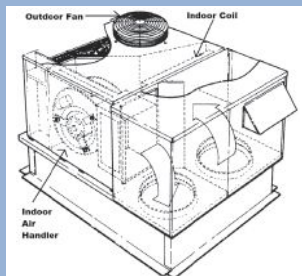
THE WEST'S LEADING MONTHLY NEWSMAGAZINE FOR THE AIR CONDITIONING, HEATING, REFRIGERATION, SHEET METAL AND VENTILATING INDUSTRIES



## Editorial Focus

What's new? What's improved? Find out here as ICN takes a look at the latest offerings in Tools and Test Instruments.

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## Troubleshooting

In this troubleshooting situation, you are responding to a customer's complaint that their heat pump is underperforming.

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## Indoor People

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

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## In Memoriam

### Susie Evans

The HVAC industry lost a dear friend on February 7, 2021, due to unknown causes. Susie Evans was the heart and soul of IHACI, and today there is a large void left by her premature passing.

For over three decades, Susie guided IHACI. She was there through good times and bad, through the growth years and recessions. She always had her finger on the pulse of the California HVAC industry. Susie was that go-to person to learn what was happening in the industry for countless state, utility, distributor, and even contractor members and representatives. If Susie didn't know about it, it probably didn't happen.

Susie was a woman of deep compassion. She understood the plight of contractors and had great respect for the trials and tribulations we endure daily. To her, these were causes worth fighting for. It wasn't just a job to Susie. It was a passion.

As the Executive Vice President of IHACI, she helped launch the IHACI education committee over 20 years ago. At a time when the direction of IHACI could have gone many different ways, Susie conducted a poll of members and found that more than anything, contractors wanted and needed training for their technicians. She was instrumental in growing IHACI training into a statewide program, ultimately putting 15,000 students per year through training.

Susie enjoyed the complete trust of the IHACI board. Under Susie's guidance, IHACI was able to fulfill all of its financial obligations and give back to the industry through



many different vehicles in addition to training. Susie arranged an annual trade show and golf tournament, as well as orchestrating *Indoor Comfort News*.

Perhaps Susie's greatest gift was her ability to lead contractors. The President of the IHACI board of directors must be a contractor, so every two years, a new contractor is promoted to that role. Susie had an amazing ability to nurture that relationship and help a contractor grow into the role. Some presidents did it with fear and apprehension, and some thrived in the role. But all had nothing but respect for Susie Evans.

As the heart and soul of IHACI, Susie will be missed by the entire industry. However, it would be Susie's desire for the industry that she loved and the organization that she so passionately nurtured to continue to thrive long into the future. To this end, we all must recommit ourselves to keeping the passion that Susie embodied alive for many decades to come.

Susie, we miss you.

## COVID-19 Update

### ASHRAE Task Force Releases Recommendations for Reducing Airborne Infectious Aerosol Exposure

The ASHRAE Epidemic Task Force has released new guidance to address control of airborne infectious aerosol exposure and recommendations for communities of faith buildings.

ASHRAE's Core Recommendations for Reducing Airborne Infectious Aerosol Exposure concisely summarize the main points found in the detailed guidance documents produced by the ASHRAE Epidemic Task Force. They are based on the concept that ventilation, filtration, and air cleaners can be combined flexibly to achieve exposure reduction goals subject to constraints that may include comfort, energy use and costs.

"This guidance outlines a clear approach for lessening the risk of infectious aerosol exposure for building occupants that can be applied



in a wide range of applications, from homes to offices to mobile environments such as vehicles and ships," said William Bahnfleth, ASHRAE Epidemic Task Force chair. "ASHRAE's Core Recommendations are based on an equivalent clean air supply approach that allows the effects of filters, air cleaners, and other removal mechanisms to be added together to achieve an exposure reduction target."

Specific recommendations include the following:

- Public Health Guidance
  - Follow all regulatory and statutory requirements and rec-

ommendations

- Ventilation, Filtration, Air Cleaning
  - Outdoor airflow rates

guidance for ventilation as specified by applicable codes and standards

- Recommendations on filters and air cleaners that achieve MERV 13 or better levels of performance

- Air cleaners usage
- Control options that provide desired exposure reduction while minimizing associated energy penalties

- Air Distribution

- Promote the mixing of space air

- HVAC System Operation
  - Maintain temperature and humidity design set points

- Maintain equivalent clean air supply required for design

Continued on Page 18



### IHACI 2021 Training Class Schedule

See Pages 24-25 for schedule and details.



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### XR14

TONS	SKU #
1.5	4TWR4018G1000A
2.0	4TWR4024G1000A
2.5	4TWR4030G1000A
3.0	4TWR4036G1000A
3.5	4TWR4042G1000A
4.0	4TWR4048G1000A
5.0	4TWR4060G1000A

### XR16

TONS	SKU #
1.5	4TWR6018H1000A
2.0	4TWR6024H1000A
2.5	4TWR6030H1000A
3.0	4TWR6036H1000A
3.5	4TWR6042H1000A
4.0	4TWR6048H1000A
5.0	4TWR6060H1000A

### XR17

TONS	SKU #
2.0	4TWR7024A1000D
3.0	4TWR7036B1000D
4.0	4TWR7048A1000D
5.0	4TWR7060A1000D



### XR16 (LOW PROFILE, SIDE DISCHARGE)

TONS	SKU #
1.5	4TWL6018A1000A
2.0	4TWL6024A1000A
2.5	4TWL6030A1000A
3.0	4TWL6036A1000A
3.5	4TWL6042A1000A
4.0	4TWL6048A1000A
5.0	4TWL6060A1000A

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*Please contact your Territory Manager or closest location to discuss your project.*

## Text To Pick Up Your Orders Fast!

Text your requests for curbside pick-up directly to our product experts at the participating locations highlighted below.

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

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<b>AZUSA</b> (626) 969-1874	<b>CHATSWORTH</b> (818) 341-5200	<b>EL CAJON</b> (619) 258-9382	<b>HAYWARD</b> (510) 782-9820	<b>MANTECA</b> (209) 239-6407	<b>PASO ROBLES</b> (805) 434-3114	<b>RIVERSIDE</b> (951) 784-0506	<b>SAN FERNANDO</b> (818) 364-9300	
<b>BAKERSFIELD</b> (661) 335-7200	<b>CHICO</b> (530) 893-2114	<b>FRESNO</b> (559) 538-6124	<b>INDIO</b> (760) 775-7400	<b>NEWBURY PARK</b> (805) 376-3576	<b>PITTSBURG</b> (925) 778-1237	<b>N SACRAMENTO</b> (916) 924-8661	<b>SAN JOSE</b> (408) 271-1685	

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(925) 778-1237

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## Industry News



### CALIFORNIA



#### WD-40 Donates to Habitat for Humanity Through Lowe's

**San Diego, Calif.** – Having a place to call home means more now than ever – and WD-40 Brand is helping to make that happen for families across the

globe by donating 50 cents to Habitat for Humanity International for every 12 oz. can of WD-40 Smart Straw® sold at participating Lowe's Home Improvement stores.

Through April 30, 2021, WD-40 Brand will donate up to \$50,000 to Habitat for Humanity International to assist the global nonprofit housing organization in creating a world where everyone has a decent, safe and affordable place to call home.

The effort marks the second year in which WD-40 Brand is supporting Habitat for Humanity.

"WD-40 Company values making things better than they are today with its products

and through partnerships with organizations like Habitat for Humanity," said Erin Bala, director of brand management and innovation at WD-40 Company. "Throughout the pandemic, Habitat for Humanity has continued to advocate for housing solutions that will allow more people to gain access to affordable housing and we're proud to help the organization achieve its goals."

"In 2021, we will continue to support communities around the world by helping families build and improve their homes," said Julie Laird Davis, vice president of corporate and cause marketing partnerships at Habitat for Humanity International. "The

need for affordable housing has never been greater and WD-40 Company's continued contribution will help communities become stronger and more resilient."

WD-40 Smart Straw, in the iconic blue and yellow can, has a permanently attached straw that flips up for a pin-point stream and flips down for a wider spray. America's #1 Multi-Purpose Lubricant provides more than 2,000 ways to professionals and DIYers to lubricate, penetrate, displace water, remove gunk and protect equipment.

Pick up a can of WD-40 Smart Straw in-store at Lowe's or online at [Lowe's.com](https://www.lowes.com).

Lowe's has been a long-time

supporter of Habitat for Humanity, including the Women Build initiative and other program and advocacy work. As a continuation of the partnership, 100% of all donations made through the Lowe's "Be the Change" campaign from January 2021 to March 31, 2021 will be donated to Habitat for Humanity International.

Learn more about WD-40 Brand at [wd40.com](https://www.wd40.com) and Habitat for Humanity at [habitat.org](https://www.habitat.org).

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#### ServiceTitan, Gensco Form Partnership

**Los Angeles, Calif.** – ServiceTitan has partnered with Gensco.

The new integration between the companies streamlines the supply chain to drive value for ServiceTitan and Gensco's residential, commercial, and new construction customers.

"This is all about giving contractors and their customers a better experience and relieving another major pain point they both experience," said Bret van den Heuvel, vice president of Equipment Sales at Gensco. "This partnership demonstrates that solutions to streamline workflows and enhance efficiency offer advantages to every party in the supply chain, from distributors to contractors to business owners and homeowners."

"Interactions between contractors and suppliers have depended on old-fashioned processes for too long," said Ara Mahdessian, CEO and co-founder of ServiceTitan. "Verifying, submitting, and reconciling used to require multiple software programs or physical paperwork, adding time and frustration to the process and increasing the risk of errors."

"With the new workflow offered by this integration, contractors and suppliers both benefit, and contractors can share the advantages with their customers in the form of optimized customer experience," he added.



## Education for Your Future

Energy Efficiency Starts Here



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.

### MARCH



#### Webinar

#### NATE HVAC/R Support Training

Instructors: Mike Griffin / John Dalton

Wed., March 3 – Part 1

Thurs., March 4 – Part 2

Wed., March 10 – Part 3

Thurs., March 11 – Part 4

### APRIL



#### Webinar

#### Electrical Module

Instructors: Mitch Bailey / TBA

Wed., April 21 – Part 1

Thurs., April 22 – Part 2

Wed., April 28 – Part 3

Thurs., April 29 – Part 4

### MAY



#### Webinar

#### AC & HP Refrigeration Module

Instructors: Mitch Bailey / TBA

Wed., May 19 – Part 1

Thurs., May 20 – Part 2

Wed., May 26 – Part 3

Thurs., May 27 – Part 4

**Webinars are FREE of charge and online registration is required.**

You can register online by visiting: [pge.com/hvactraining](https://pge.com/hvactraining)

Attendees must register for each night separately and registration is on a first-come, first-served basis.

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Continued on Page 6

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\*\*Limited to SCE customers within its service areas. Valid until March 31, 2021

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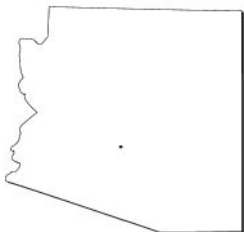
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## ARIZONA



### Redwood Services, Rite Way Join Forces

**Tucson, Ariz.** – Redwood Services (“Redwood”), a newly established home services firm focused on investing in leading HVAC, plumbing and electrical

services companies in growing U.S. markets, announced it has partnered with Rite Way Heating, Cooling & Plumbing (“Rite Way”).

Rite Way is one of Southern Arizona’s largest and most successful residential HVAC companies and offers a range of cooling, heating, plumbing, water and air quality services to homeowners in the area. For more than 60 years, Rite Way has served the Tucson metro area and has built a reputation of taking care of both customers and employees.

As a recognized leader in the industry, Rick Walter, president of Rite Way, retains a significant ownership stake and he and his team will continue to operate

and manage the business under the Rite Way banner and name. Redwood plans to support Rite Way strategically with capital and resources to enhance Rite Way’s growth as the premier employer and provider of essential home services in the Tucson region.

“An investment in Rick Walter’s vision for Rite Way demonstrates Redwood’s mission of partnering with people-focused home services companies. We are honored to have the opportunity to help Rite Way achieve the next chapter of growth, while protecting the company’s rich culture, brand and legacy,” said Richard Lewis, CEO of Redwood Services. “From our first conversations with Rick and his team, we were impressed with the culture, 60+ year track record in the Tucson marketplace, shared passion for people and focus on customer service. We picked a great partner in Rite Way and look forward to supporting the entire team under the leadership of Rick and General Manager Chris Sundin.”

“We’re excited to partner with Redwood Services on a collective vision of growing Rite Way,” said Rick Walter, president of Rite Way. “Redwood’s recognition and support of our people-focused culture is a driving difference that makes this partnership a great fit for us. Our employees, customers and the Tucson community will benefit from an even stronger operational framework which will allow us to continue to provide the best services and equipment.”

With more than 11,000 active customers, Rite Way has an A+ Better Business Bureau rating and 4.9-star rating on Google with over 2,000 reviews. Rite Way, which has a growing team of more than 140 associates, was named a “Tucson Favorite Employer” by the Arizona Daily Star.

## TEXAS



### Daikin Buys ABCO for Distribution in N.Y., East Coast

**Houston, Texas** – Daikin North America LLC, a subsidiary of Daikin Industries Ltd., announced a strategic alignment with ABCO HVACR Supply + Solutions. The acquisition of ABCO is an investment meant to support Daikin’s vision for growth in North America.

Daikin’s acquisition will support

the continued growth of ABCO. Daikin, along with other brands owned by Daikin, are new to ABCO. ABCO will begin promoting the full line of Daikin ductless, residential unitary, light commercial, and commercial HVAC products, as well as controls, air quality, parts, and accessories throughout their distribution footprint while continuing to fulfill existing obligations. Michael Senter will continue as ABCO’s CEO and ABCO’s senior management team will continue to be the leaders of ABCO in all facets of sales, operations, finance, and human resources. ABCO will also maintain the company name with established brand recognition in the Northeast.

“The strategic alignment with ABCO provides a dynamic foothold for Daikin in the Northeast where ABCO is a leading distributor of a broad range of HVAC products from residential to industrial,” said Takayuki “Taka” Inoue, executive vice president and chief sales and marketing officer of Goodman/Daikin North America. “We believe that Daikin’s portfolio offers a perfect fit to support the existing and future potential of ABCO distribution. Our vision for Daikin is to become North America’s leading indoor comfort solutions provider, and the acquisition of ABCO is a key, strategic milestone for Daikin in our continued effort to achieve our North American vision.”

“Both Daikin and ABCO are people-centered organizations,” said Senter. “This means each team member and every customer is recognized for their individual personalities and contributions. This fundamental belief in the integrity of relationships is essential to both organizations’ success. ABCO’s dedication to building strong, multi-generational relationships with our customers based on the highest levels of technical support, customer service, and application engineering is a great match for Daikin’s open-mindedness to new ideas and its commitment to engineering ingenuity in meeting current market demands and foreseeing future market and society needs.”

“This is an exciting collaboration among the Daikin North American businesses and the ABCO team,” said Jeff Drees, executive vice president, Sales, Marketing and Aftermarket for Daikin Applied Americas Inc. “Daikin Applied’s representatives will continue to be the authorized applied sales representatives in

the territory, and will benefit from ABCO’s technical skills and long-standing relationships in the marketplace.”

Under the new ownership of Daikin, ABCO will operate as a wholly-owned business unit of Daikin, while maintaining its headquarters location in Long Island City, New York, in addition to 17 fast-access branch locations, in six states, from Wilmington, Delaware, to Boston, with over 220 employees.

“I believe this is a major landmark moment for Daikin,” said Doug Widenmann, senior vice president and president, Daikin Business Unit. “Our strategic plans and successful growth accomplishments within this great organization have been unbelievably exciting. I am anxious to begin working with and learning from the ABCO management team who have successfully built a high quality, highly technical, sales and services organization, with state-of-the-art training facilities, focused on the success of their customers.”

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### Aire Serv Ranked a Top Franchise by Magazine

**Waco, Texas** – Aire Serv, a Neighborly company, recently ranked 355 overall in Entrepreneur magazine’s Franchise 500.

Aire Serv’s inclusion on the 2021 Franchise 500 follows a year of growth for the brand, with 27 agreements awarded and 29 new franchise locations opened in 2020.

“Placement in Entrepreneur’s annual Franchise 500 is such a highly sought-after honor in the franchise industry, and Aire Serv is honored to have been included in this prestigious list,” said Steve Truett, president of Aire Serv. “Given all the obstacles we had to overcome in 2020, being recognized as a top franchise opportunity feels better than ever and sets us up for continued growth and success in the new year.”

“2020 was a challenging year for everyone, but it was also a year of unusual opportunity,” said Jason Feifer, Entrepreneur editor-in-chief. “Franchises were able to be nimble and innovative, serving the needs of franchisees and customers in ways that will resonate for many years to come. We believe that, when we

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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, 2021 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.





Continued from Page 6

eventually look back on this time, we'll see it as a moment when many brands defined themselves for the future."

Aire Serv is one of 16 Neighborly brands to be included in this year's Franchise 500 ranking.

Allied Orion Breaks Ground in Texas

Houston, Texas – Allied Orion Group has broken ground on Granary Flats, a 324-unit, three-story, luxury apartment home community located in the Harvest Green Master-Planned Development in Richmond, Texas. Targeted to open in the 4th

quarter of 2021, Granary Flats will be the first multifamily property built in the 1,300-acre Johnson Development.

Developed by Allied Orion Group and designed by Sage Group, Granary Flats is located at 4647 Harvest Corner Drive in Richmond, Texas in the heart of Harvest Green and has access to an expansive hiking trail system, parks, playgrounds, lakes and community farm with fresh grown produce. Situated near the Grand Parkway and close to the Westpark Tollway, Highway 90 and US 69, Granary Flats offers an easy commute around Houston and is convenient to both Sugar Land and Katy.

Floor plans range from one to three bedrooms and feature kitchens with stainless

steel appliances, undermount sinks, white cabinetry, granite countertops and large islands, wood-style flooring throughout, garden tubs and other designer finishes. Amenities include a resort style pool, state-of-the-art fitness center, media room, and resident lounge with co-working spaces. In addition, the property will offer food truck parking for resident convenience.

"We are pleased to be developing and managing the first superior rental option in the Harvest Green neighborhood," said Ricardo Rivas, Chief Executive Officer of Allied Orion Group. "Granary Flats is the newest in our portfolio of high-end apartment homes under development in Houston and surrounding areas." Investment

Associate Ashley Zubizarreta added, "Allied Orion Group is excited to offer our future residents a high-end apartment home in a vibrant community that focuses on green living and sustainability and is zoned to excellent Fort Bend ISD schools."

Allied Orion Group is a leading fully integrated, multifamily real estate investment, construction and property management headquartered in Houston, Texas, with additional offices in Denver, Dallas and San Antonio. Allied Orion Group has acquired or developed more than 15,000 multifamily units with a total aggregate value of approximately \$1.3 billion and has a growing portfolio of 24,000+ apartment homes under management throughout the nation. For more information, visit [www.allied-orion.com](http://www.allied-orion.com).

RectorSeal Set to Expand, Enhance eCommerce

Houston, Texas – RectorSeal is enhancing and expanding an eCommerce system available to its customers.

"As more and more businesses operate from decentralized locations, RectorSeal must reflect that changing environment by providing enhanced tools and support programs," said Jeff Underwood, vice president, Sales and Marketing, RectorSeal.

The eCommerce platform is accessed directly at [www.rectorseal.com](http://www.rectorseal.com).

"We want to ensure that all of our customers have the option to use the eCommerce platform, so migrating the Metacaulk and TRUAire product lines is essential to our continuous focus of providing the best customer experience possible," said Underwood. "Our eCommerce platform is designed to be highly dynamic. That ensures we will continue to enhance and add new features as the site matures and as we remain reflective to changing customer needs."

Simplii Consulting Launches in U.S.

Dallas, Texas – Simplii Consulting announced that it has opened its doors for business with offices in Dallas, Texas, and Nashville, Tennessee.

Simplii Consulting's mission is "to provide HVAC, roofing, plumbing, security, electrical, pest control, and other home service industry partners exactly what they need to be successful."

"Our exclusive GroundGame, Strategy Deployment, and Know Your Numbers offerings will be game-changers within home services," said Simplii Consulting CEO and chief financial officer, Peggy Wells.

The executive team (Peggy Wells, CEO and chief financial officer; Amanda Gibbins, chief operating officer and general manager; and Tom Brittain, president of Home Services/CRO) has nearly 50 years of experience working with home services providers and product manufacturers.

Continued on Page 10



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Continued from Page 8

NATIONAL



Carrier Launches E-Commerce Website for IAQ

Indianapolis, Ind. – Carrier’s North America Residential HVAC team has launched its first-ever e-commerce website, CarrierAtHome.com, where consumers can purchase Carrier’s newest addition to its lineup of home indoor air quality products and learn more about the importance of indoor air quality in their living spaces. The intuitive, easy-to-navigate site features two sizes of Carrier’s new room air purifier that helps improve home indoor air quality with a high-efficiency filter that captures over 99% of airborne contaminants down to 0.3 microns in diameter including dust, dander and pollen. The purifiers feature a 3-in-1 filter that helps filter particulate matter and odors in spaces up to 550 square feet. Carrier is a part of Carrier Global Corporation (NYSE: CARR), a leading global provider of healthy, safe and sustainable building and cold chain solutions.

“We’re proud to launch our e-commerce site and unveil our new room air purifier,” said Justin Keppy, President, NA

Residential & Light Commercial, Carrier. “Indoor air quality has become a priority for many people and we’re excited to be able to offer affordable, effective solutions directly to consumers in a way we never have before. Whether you rent or own, these products are a great solution for your space.”

With a simple plug-in set-up process, consumers can immediately begin to filter and monitor their air. Benefits include:

- An easy-to-read air quality monitor to sense indoor air quality levels of the room and adjust airflow settings as needed.
- A high clean air delivery rate to efficiently return cleaner air to the living space.
- A 360-degree design to filter air from multiple angles.
- 18 fan settings able to quietly capture common allergens and asthma triggers in filtered air.

The new e-commerce site features the new room air purifier for rooms up to 400 square feet and for rooms up to 550 square feet. In addition, consumers can purchase replacement filters, as well as select sizes of 1” filters for your HVAC system.

CarrierAtHome.com also features an “Improve My Air” quiz, designed to help homeowners and renters determine which indoor air quality solution is a good fit for their spaces.

The room air purifier is just one of the products among a number of solutions offered through Carrier’s Healthy Homes Program that can aid in addressing indoor air quality. Other offerings include HVAC system filters with high MERV ratings; UV lights installed inside HVAC equipment; as well as humidifiers and dehumidifiers to help control humidity levels in the home which can help increase comfort and potentially save on utilities.

To learn more, please visit: <https://CarrierAtHome.com/>.

Williams Acquires Cozy Heating

Jeffersonville, Ind. – Williams announced that it has acquired Cozy Heating Systems LLC.

“Our acquisition of Cozy complements our overall gas heating offering so we can continue expanding both our product portfolio and existing channels,” said Mark Finnie, president of Williams. “This acquisition represents an important strategic opportunity to add to our capacity, geographic coverage, and strengthens our supply chain to better reach our customers. We are delighted to welcome the Cozy brand to Williams.”

“As we evaluated the best long-term strategy for our core business and for Cozy, Williams distinguished themselves with their commitment to quality and their longevity in the HVAC market,” said Jane Hardy, CEO of Cozy. “We are a family business focused on building strong brands; I’m excited that Cozy will continue under the Williams banner.”

PHCC Scholarship Now Accepting Applications

Falls Church, Va. – The 2021 scholarship program from the Plumbing-Heating-Cooling Contractors – National Association (PHCC) Educational Foundation is open, with 56 awards worth up to \$150,000 available this year.

The scholarships are primarily available to plumbing and HVAC apprentices who are employed by PHCC – National Association members. Awards are also available to trade school students studying plumbing or HVAC installation, service and repair, and to college students pursuing studies directly related to the plumbing-heating-cooling industry – such as mechanical engineering and business administration.

The deadline for applications and all supporting materials to be submitted is May 1, 2021. Applications and details on submission requirements can be found on the Foundation website at [phccfoundation.org/scholarships](http://phccfoundation.org/scholarships).

Awards range from \$1,000 up to \$10,000 each.

“\$150,000 is a record-breaking total for scholarship dollars available,” said Foundation Chair Kevin Tindall of Tindall and Ranson

Plumbing in Windsor, New Jersey. “I’m glad that we have such strong support for this program, and for Moen really stepping in with funding this year. That support is helping us all by getting more people working in our trade.”

Malco Products, SBC Opens Up Nominations for HVAC Pro of Year

Annandale, Mich. – Malco Products, SBC, one of the nation’s leading manufacturers of high-quality, American-made tools for the HVAC trade (Heating, Ventilation and Air Conditioning), has opened nominations for its 5th annual HVAC Trade-Pro of the Year Award program.

The HVAC Trade-Pro of the Year Award recognizes and celebrates outstanding, experienced HVAC technicians who are dedicated to the industry and on-the-job safety, as well as giving back to their communities.

Five nation-wide winners will receive \$1,000 worth of Malco tools of their choosing, and all qualifying trade professionals who submit an entry will receive a Malco cap and pair of gloves.

“We invite HVAC professionals to nominate themselves or a fellow technician for this year’s HVAC Trade-Pro of the Year Award. The past year has proven just how dedicated to safe, high-quality work and customer service the men and women in the HVAC industry are, and we are proud to recognize their efforts and community service,” said Malco president and COO Mardon Quandt.

Nomination forms are available until Wednesday, June 30, 2021, at [www.malcoproducts.com/hvac-trade-pro-2021](http://www.malcoproducts.com/hvac-trade-pro-2021). Winners will be announced in September 2021.

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

“Head of the Class” Student Recognition Program that partners with education programs across the country to recognize high-achieving students and entire graduating classes in the HVAC/ sheet metal, building construction and autobody repair fields.

For more information about Malco Products, SBC, visit [www.malcoproducts.com](http://www.malcoproducts.com).

Cochrane Supply to Expand in West

Madison Heights, Mich. – Cochrane Supply & Engineering announced plans to open a location in Denver, Colo. The company’s Colorado presence will be the first move in initiating its plans for a Western expansion.

Cochrane Supply & Engineering currently has locations in Michigan, Ohio, Kentucky and Indiana, as well as an affiliate in Canada (Canada Controls).

“I am very excited about this next chapter for Cochrane Supply,” said Scott Cochrane, president and CEO of Cochrane Supply & Engineering, as well as president of Canada Controls. “My father, Don Cochrane, Sr., started the company 54 years ago with one goal – to make our customers successful. And my passion to continue doing just that is what fueled our interest in expanding our reach and positive impact in the industry.”

Leading Cochrane Supply’s Colorado presence will be the company’s newly-hired Area Market Leader Carolyn Strassner.

“There is such an incredible amount of potential for our buildings here,” Strassner said. “The technologies out there and the strategies for implementing them are fascinating, and I’m fortunate to be on this new journey focused on supporting our customers in taking building experiences to the next level.”

Lochinvar Launches Fully Revamped VIP Contractor Program

Lebanon, Tenn. – Lochinvar, an industry leader in high-efficiency boilers and water heaters, announces significant updates to its time-honored Lochinvar VIP Contractor Program. Driven by customer insights, the program now offers a tailored user experience, customized reward selection, a streamlined submission process and distributor access.

New and existing customers are encouraged to enroll in the



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# Industry News

upgraded VIP Program by visiting [www.LochinvarVIP.com](http://www.LochinvarVIP.com). Once a customer enters the system, they will be served up content specific to their location and business. They will also have the option to upload orders in bulk, select rewards from a variety of offerings in any amount and access their activity reports in real-time.

Also new in 2020, distributors can sign up and register product for their VIP customers by logging into the same site and selecting the “distributor” title, simplifying the process and giving more customers access.

“At Lochinvar, we put our customers at the center of everything we do, and our VIP Contractor Program is no exception,” says Mike Lahti, vice president of sales, marketing and business development at Lochinvar. “We are thrilled to kick off another year of this valuable program; one that is truly driven by customer demand. Last year, contractors registered almost 5,000 products with some VIPs earning significant prizes, and we hope to continue this momentum.”

This year’s program also gives customers the chance to win product. The top three performers with the most products registered by March 31, 2021, will each win a KNIGHT® boiler. Users can also submit photos through the end of March for the Installation Showcase to display their Lochinvar projects and enter for a chance to win a KNIGHT boiler.

To learn more about this year’s program, visit [www.LochinvarVIP.com](http://www.LochinvarVIP.com).

## NAVAC Names Ice-Kold as Official Repair Partner

**Lyndhurst, N.J.** – NAVAC, the world’s largest supplier of HVAC vacuum pumps in addition to a wide array of tools, gauges, charging machines, recovery units and other industry-specific items, names Wisconsin-based Ice-Kold as its official repairs center partner. Ice-Kold will handle repairs for the full portfolio of NAVAC’s HVAC/R tools, which are designed to simplify and streamline the jobs of today’s busy service technicians.

Initially founded in 1978 as

Midwest Refrigeration, Ice-Kold has more than four decades of experience repairing HVAC/R tools – a timeframe spanning various industry technological advances and trends. For HVAC’s modern line-up of tools, then, the company is well-positioned to provide expedient, precise repairs that are as close as possible to original factory specifications.

NAVAC has a history of market-facing innovation. Among other new solutions, the company introduced the industry’s first DC Driven Smart Vacuum Pump and 4-Cylinder Commercial Grade Recovery Unit. NAVAC offers a wide selection of vacuum pumps from 2 cfm cordless to 23 cfm industrial grade pumps, and recovery units for various applications.

“We are excited to begin our partnership as NAVAC’s authorized tool repair center,” said Jared Saunders, General Manager for Ice-Kold. “After meeting with the NAVAC team, experiencing the sophistication of their tool solutions and understanding their commitment to customer service, it was clear that our approaches and dedication aligned well. We look forward to a successful, mutually beneficial partnership for years to come.”

“Ice-Kold is an experienced repair center serving HVAC contractors for over four decades. They share NAVAC’s values concerning excellent customer services. We are greatly looking forward to working together and offering a quality and efficient repair service for NAVAC HVAC contractors,” said Jason

Sierra, Sr. Manager – Technical Support for NAVAC.

For more information, [www.navacglobal.com](http://www.navacglobal.com).

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## Harris Named 2021 Top Workplaces USA

**St. Paul, Minn.** – Harris announced that it has been named in the 2021 Top Workplaces USA. This is the first year that Energage has taken its regional Top Workplaces awards to the national level.

“We want to thank our Harris team for making us a Top Workplace in 2021,” said Michel Michno, Harris CEO. “Back in 2016, we started a new strategic plan, part of which included making ‘Talent and Culture’ not only a strategic imperative, but our game-changer. Our team has

made tremendous progress on building a culture of dialogue and honest feedback. The recognition of Harris as a top workplace is an honor, as it demonstrates employee engagement, and we will continue our journey to make Harris the best place to work.”

Being selected as a top workplace is based solely on feedback of employees gathered through a third-party survey, which is administered by Energage, LLC.

“During this very challenging time, Top Workplaces has proven to be a beacon of light for organizations, as well as a sign of resiliency and strong business performance,” said Eric Rubino, Energage CEO. “When you give your employees a voice, you come together to navigate challenges and shape your path forward.”

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## CEC Determines Requirements Met for MATT Certification Program

By Ted Rieger  
Northern California  
Correspondent

California Energy Commission (CEC) staff recently determined that 365 certified Mechanical Acceptance Test Technicians (MATTs) are available in California. As a result, the CEC can proceed with implementing a plan to require that all mechanical acceptance tests for new nonresidential buildings, remodels and additions be performed by a certified MATT.

The CEC held a January 12 public workshop to begin a proceeding to determine that MATT certification requirements have been met and expects to implement a program plan following anticipated approval by the full

Commission at a March or April Business Meeting.

### Background

The 2005 Building Energy Efficiency Standards first required acceptance testing for mechanical systems in nonresidential buildings. These tests typically are performed by the installing technician. Acceptance testing involves verification that mechanical equipment and systems have been installed to approved design requirements, and the equipment, systems and controls have undergone and passed specific functional tests in accordance with the Energy Code.

The 2013 Building Energy Efficiency Standards specify that the CEC may require that these tests be done only by acceptance test technicians (ATTs) that are trained

and certified by approved Acceptance Test Technician Certification Providers (ATTCPs) to perform the required acceptance test if certain threshold requirements are met. The two threshold requirements that must be met are:

1. There is a minimum of 300 certified ATTs statewide.
2. Eligible professions have reasonable access to the requisite training to become a certified ATT.

Based on information requested from ATTCPs, CEC staff determined (as of the January workshop) that there are 365 certified MATTs trained to perform all the required mechanical acceptance tests listed in the Energy Code and all eligible professions have reasonable access to the certification training.

Four MATT training and certification program providers



Building automation technicians at a site project.

(ATTCPs) are approved by the CEC:

- California State Pipe Trades Council (CSPTC)
- National Environmental Balancing Bureau (NEBB)
- National Energy Management Institute Committee (NEMIC)
- Refrigeration Service Engineers Society (RSES)

The ATT program is separate from and differs from the Home Energy Rating System (HERS) program that requires a third-party HERS rater to perform HVAC system tests in new residential buildings under the Energy Code. Under the ATT program, acceptance testing in nonresidential buildings can be performed by the installing technician or contractor if they are a certified ATT, once the certification requirements become effective.

CEC staff expected to complete and release a report with an implementation plan by late January 2021, and propose that

the threshold requirements have been met and the plan be approved at a CEC Business Meeting on March 17 (at the earliest) or on April 14. The CEC staff report will address stakeholder concerns about access and availability of MATTs, including for smaller population rural counties, and concerns about enforcement of certification requirements by local building departments. CEC staff proposes the implementation plan include outreach and education efforts and materials to communicate the phase-in of implementation dates and requirements to all local building departments in California, and to licensed builders, engineers, architects, contractors and other stakeholders.

More information on the ATT program and the proceeding is available at the CEC website below.

<https://www.energy.ca.gov/programs-and-topics/programs/acceptance-test-technician-certification-provider-program/>

## U.S. Homeowners Placing Greater Focus on Homes' Indoor Air Quality

With Americans spending more time at home in the past year, they've placed a greater focus on their homes' health, safety, and comfort. A recent survey from YORK found more than one-quarter of homeowners plan to make safety improvements in their homes a top priority in 2021. Among these, 81% cited improving indoor air quality as primary focus.

In 2021, homeowners are recognizing the need for better air quality with nearly two in three (62%) believing that in-home air quality needs improvement, and four in five (81%) will make improving it a priority this year, especially those with children at

home.

"Ensuring the health and safety of any indoor environment, especially at home, has been the cornerstone of Johnson Controls for 135 years," said Tom Tasker, residential product manager, indoor air quality, Johnson Controls. "Nothing is more important than taking care of where you live, and it is our mission to protect the wellbeing of homeowners and their families by providing them with safe and clean air quality."

In the survey, homeowners confessed they have held back from bettering the quality of air in their home in the past due to a number

Continued on Page 27



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## Energy Commission Begins Proceedings on Flexible Demand Appliances

By Ted Rieger  
Northern California  
Correspondent

The California Energy Commission (CEC) held a virtual workshop December 14, 2020 to begin proceedings to develop regulations for flexible demand appliances as a new tool to manage electrical grid energy loads and maintain electrical grid reliability, as authorized by 2019 legislation, SB 49 Skinner (D-Berkeley).

SB 49 gives the CEC authority to develop and adopt flexible demand appliance standards across a range of appliances in the residential, commercial and industrial sectors under the Title 20 Appliance Efficiency Regulations. Goals and benefits of these new standards, in addition to grid load management and reliability, are to minimize electrical grid greenhouse gas (GHG) emissions, improve air quality, and provide savings to households and businesses on electrical bills.

Flexible demand appliances offer the capability to shift the timing of appliance electrical consumption to better match energy demand and supply, and enable excess renewable electricity production to be used rather than curtailed. Flexible demand is a load management strategy that allows a shift in the timing of electrical consumption through market price signals and appliance automation. Flexible demand, in contrast with demand response, may be implemented more frequently across many customers and in a way that could save customers money without inconvenience. Newer technologies and infrastructure are expected to enable new flexible demand programs to be significantly improved over older demand response programs, such as voluntary interruptible load air conditioner (AC) cycling programs, implemented by some utilities in the 1990s.

Flexible demand can be implemented through existing technology and infrastructure, such as automated metering infrastructure that is widely available in California. New flexible demand appliance standards will include communication protocol

requirements to enable appliances to respond to grid conditions, price signals, or GHG emissions content of electricity supplies or a combination. Although additional costs upfront associated with new appliance communication requirements could include telemetry, communication resource interfacing and installation, it is believed that the long-term benefits of flexible demand appliances will be economically cost-effective.

Examples of appliances that can be shifted to avoid peak loads include pool pumps, electric HVAC equipment, refrigeration, electric vehicle service equipment, electric clothes dryers, dishwashers, electric hot water tank heaters, and

heat pump water heaters.

Based on information provided at the CEC workshop by panelists and stakeholders, some appliances and products are already being considered to be developed with grid communication capabilities for use in utility demand response programs by the U.S. Environmental Protection Agency (EPA) EnergyStar Appliance Program and could be among the first appliances to be included by the CEC as flexible demand appliances. These include: central ACs and heat pumps, room ACs, pool pumps, and smart thermostats. In addition, states such as Washington and Oregon are adopting demand response requirements for certain types of electric water heaters, such as smart

water heaters and heat pump water heaters.

Consumer priorities to be considered by the CEC in developing regulations and programs are: cost-effectiveness and affordability, cybersecurity and reliability, consumer consent and ease of use, and product labeling to inform consumers.

Appliance manufacturer representatives at the workshop discussed the need for harmonization with standardized communication technologies, interfacing and protocol requirements to enable appliances to be manufactured and sold across all states and jurisdictions with similar technology.

CEC staff presented the

following schedule for next steps in the rulemaking process:

- 3rd Quarter 2021 – CEC Issues Staff Report
- 4th Quarter 2021 – Initiate Formal Rulemaking
- 2nd Quarter 2022 – Public Hearing, Public Comment Period Ends
- 3rd Quarter 2022 – CEC Adoption Hearing for Initial Standards
- 3rd Quarter 2023 – Effective Date of Initial Standards

More information about the program and rulemaking can be found at the CEC website:

<https://www.energy.ca.gov/proceedings/energy-commission-proceedings/flexible-demand-appliances>



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The non-sticky polyurethane coating on the palm and fingers features excellent grip, even against oils, fats, and greases, and can deliver enhanced puncture protection and abrasion resistance, all without adding bulk or reducing touch

sensitivity. In addition, the glove’s uncoated back and wrist improves ventilation. A seamless and stretchable full knit wrist provides a snug fit and prevents dirt, debris, and cold from getting inside glove. Color-coded cuffs easily indicate glove size. **More information:** <https://www.brassknuckleprotection.com/products/BKCR303>.

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for use in a variety of automotive applications including brake repair, engine bay work, suspension repair and more. Both models feature a hog ring anvil for easy socket changes, glass filled nylon housing that helps to resist the effects of harsh automotive chemicals and solvents, as well as an LED light ring for visibility in low-light environments. Available where DEWALT products are sold in early 2021, the XTREME Subcompact Series™ 12V MAX 1/2-In. and 3/8-In. Impact Wrenches will be sold both kitted and bare (tool only). Kitted units include two batteries, (1) 12V MAX Oil-Resistant 3.0Ah Battery (DCB124G), and (1) 12V MAX Oil-Resistant 5.0Ah Battery (DCB126G), as well as a DEWALT Charger (DCB112). **More information:** [www.dewalt.com](http://www.dewalt.com).

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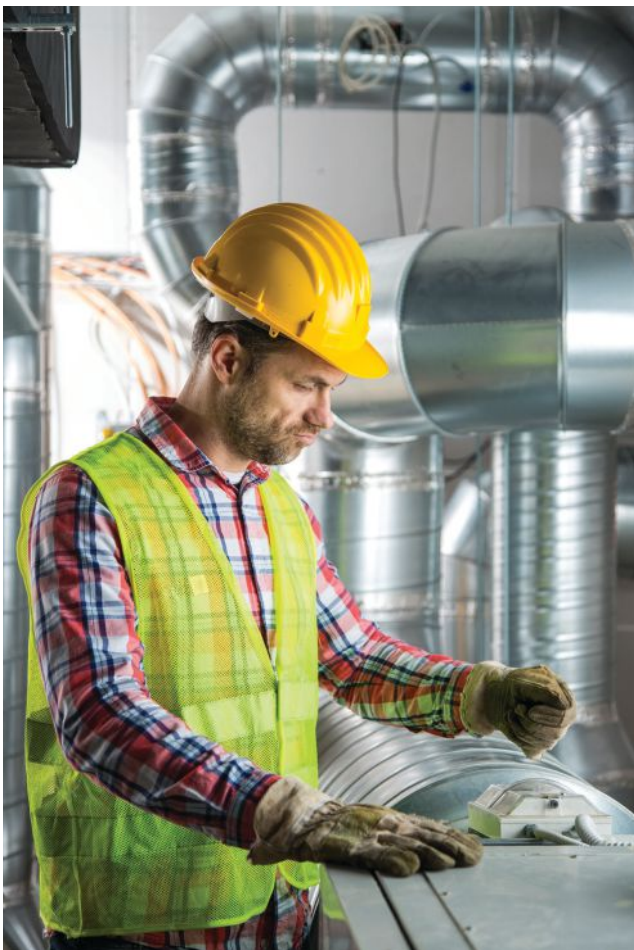
**Grundfos UP 10-16  
Digital Timer**



**Grundfos**, a global leader in water technology, has released the Grundfos UP 10-16 Digital Timer. The hot water recirculation pump, made for homes with a dedicated return line, includes an integrated digital timer that allows the pump to be programmed to only run when hot water is needed, resulting in more efficient water usage. “We’re pleased to launch another cost-effective, sustainable addition to the UP 10-16 range,” said Kirk Vigil, Grundfos vice president of sales for domestic buildings in the USA. “Now, with the new digital timer, you can run hot water on your own time. And like the other UP 10-16 models, it’s easy to install, runs quiet and can save up to 12,000 gallons of water per year by giving the homeowner instant hot water.” The Grundfos UP 10-16 range sets a new standard for energy-efficient hot water recirculation in residential homes. The pump’s low-noise

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- National Comfort Institute - Commercial System Performance 4-Part Series**  
March 2, 3, 9, 10 - 4-8 p.m.
- IHACI - NATE HVAC/R Support Training 4-Part Series**  
March 2, 9, 16, 23 - 6-8 p.m.
- National Comfort Institute - Airflow Testing and Diagnostics 2-Part Series**  
March 16 & 17 - 1-5 p.m.

▶ Reserve your seat today or check out other classes at [seminars.sdge.com](http://seminars.sdge.com).

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## Tools & Test Instruments

permanent magnet motor reduces energy consumption to as little as 5 to 8.5 watts. UP 10-16 pumps are easy to install and deliver reliable operation for buildings with a footprint of up to 2,000 square feet. The lead-free bronze housing complies with the latest U.S. safe drinking water standards. Three control modes – Basic, Temperature and Auto – make it easy for installers to select a pump that matches the needs of the homeowner.

**More information:** <https://bit.ly/3gzywfQ>.

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### RefTech Mobile App



Developed as a joint venture between Blue Mountain Consulting and Refrigeration Training Services, **RefTech** is an easy-to-use app to help service and install technicians troubleshoot both air conditioning and commercial refrigeration systems.

The app is designed for ac systems up to 10 tons and refrigeration systems up to 7.5HP with single compressors. Users can enter pressure and temperature values manually if using analog manifold gauges and temperature probes without wireless connectivity. RefTech currently also allows data input via the Sporlan SMART Bluetooth sensors. If the Bluetooth sensors remain within range the app will continually update the temperature and pressure values.

Diagnosis is performed by pressing the “Diagnose” button. The app can also help with repair suggestions for the detected fault by pressing the “Repairs” button. RefTech can operate in both IP and SI units and in SI units pressures may be input in either kPa or bar. The following 12 fault conditions can be diagnosed by RefTech: low charge, overcharge, noncondensables, dirty condenser, restriction after receiver, restriction before receiver, restricted metering device, inefficient compressor, dirty or iced evaporator, flooding TEV, low ambient controls needed and normal operation. The app will also display essential information such as superheat, subcooling, condenser split and evaporator TD.

**More information:** [reftechapp.com](https://reftechapp.com).

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### Testo Digital Manifolds



Further improving on its digital manifolds for the servicing and commissioning of air conditioning and refrigeration systems, **Testo** has introduced the next-generation of Smart Digital Manifolds.

The Testo 550s and testo 557s Smart Digital Manifolds feature many new improvements including a larger screen for increased visibility, improved guided measurement menus which allow automatic determination of important parameters, and increased Bluetooth connectivity to the new testo Smart App allowing for a variety of temperature, pressure, and humidity measurements using testo Smart Probes.

The Testo 550i Smart Digital Manifold is the first all-digital manifold. The testo 550i enables you to control your daily servicing and maintenance work on refrigeration, air conditioning systems, and heat pumps using the new testo Smart App on a smartphone or tablet. The smallest digital manifold on the market is equipped with a 2-way valve block and is compatible with a variety of Testo Smart Probes for fast, detailed measurements.

The Testo 552i Wireless Vacuum Probe expands the testo Smart Probes portfolio with the option of measuring vacuum wirelessly, fast, and with just one service port. For vacuum measurement, the Testo 552i automatically connects with the testo 550s and testo 557s Smart Digital Manifolds, as well as with the Testo 550i via the Testo Smart App and provides alarms within the App in the case of critical values.

Using the new Testo Smart App, stored measurement programs guide you step by step through the configuration and measurements. With the integrated documentation functions, reports can be created on site, and digital measurement protocols, including photos, can be sent as PDF or CSV files directly by e-mail.

You can also set up customer data and measurement sites at the touch of a button, and synchronization with the free testo DataControl PC software is done via Wi-Fi.

Testo is recognized as a leading global manufacturer of portable combustion analyzers, temperature, pressure, moisture, and thermal imaging instruments. Testo’s mission is to provide the best quality, service and value in test and measurement instrumentation.

**More information:** [www.testo.com](http://www.testo.com).

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### TSI Air Quality Monitor

Whether you are spending time inside a school, office building, manufacturing plant or healthcare facility, indoor air quality (IAQ) plays an important role in the health and satisfaction of every occupant.



To meet the increasing demands that IAQ professionals face in today’s world, **TSI Incorporated** has launched a new indoor air quality monitor that delivers more data, more efficiently.

The Q-Trak™ XP Indoor Air Quality Monitor unites gas and particle measurements with traditional IAQ parameters – in one lightweight, handheld instrument that is easy to use, configure and calibrate in the field.

Designed for IAQ and industrial hygiene professionals, this monitor allows you to add or change gas

sensors, so you can expand your indoor air quality assessment capabilities.

“We’re excited about the flexibility the new Q-Trak™ XP Indoor Air Quality Monitor brings to our customers,” said Kevin Chase, Global Product Manager for IAQ and Exposure Monitoring products at TSI. “The mix-and-match sensors allow IAQ professionals to easily configure the product for each specific project, reducing the need for multiple instruments and downtime in the field.”

The Q-Trak™ XP Indoor Air Quality Monitor is ideal for IAQ surveys and investigations, proactive IAQ monitoring in schools and office buildings, IAQ compliance testing, evaluating thermal comfort, and more

**More information:** [tsi.com/Q-TrakXP](https://tsi.com/Q-TrakXP).



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# Product Spotlight

## Google Nest's Smart Thermostat Pairs Seamlessly with Goodman's Open Protocol Strategy

With demand for smart home automation growing exponentially, Google and Goodman Manufacturing Company, L.P. (Goodman) have collaborated to launch the Nest Thermostat E + Goodman program designed for Goodman's extensive independent dealer network across the United States.

The new offering from one of North America's largest smart home thermostat brands marks the first time Google has offered a co-branded product and experience with a heating, ventilation and air conditioning (HVAC) manufacturer. With their

branded thermostat, Goodman® brand HVAC dealers now have a unique opportunity to tap into homeowners' mounting demands for home automation – on pace for 31 percent compound annual growth, according to research firm McKinsey & Company.

"The Nest Thermostat E + Goodman pairs effortlessly with new Goodman equipment," explains Rob Barnes, Vice President of Product Marketing for Goodman, "from base efficiency air conditioners to high-performing, multistage ComfortBridge™ products."

The Nest Thermostat E +

Goodman is enabled with Google Assistant so that homeowners can easily adjust their indoor comfort by using the 'Hey, Google' prompt with devices like a Nest Hub display or Nest smart speakers or even a mobile phone with the Google Assistant app.

"Both HVAC contractors and homeowners will find tremendous value with this Goodman-branded Google Nest thermostat," Barnes says, "from service alerts customized with dealer contact information to a 5-year limited warranty."

Homeowners can receive monthly, tailored Nest home reports delivering system performance and energy efficiencies of their Goodman HVAC system. If maintenance or service is needed, Nest HVAC monitoring can alert homeowners, providing dealer contact information and a means to book an appointment online with their Goodman brand dealer – a feature designed to help improve customer retention.

"These provide exciting advantages for HVAC contractors," says Gene LaNois, Google's Head of Professional Industry Partnerships. "Both our organizations saw the opportunity to more deeply integrate the HVAC system into the vision of the helpful home, while giving Goodman brand dealers something special of their own. Our HVAC monitoring feature helps every system become more informative."

### Exponential Growth

With 75 percent of connected-home devices purchased through service providers, according to McKinsey, the Nest Thermostat E + Goodman opens opportunities for HVAC contractors to continue stamping their imprint on the smart home segment. Those opportunities range from educating homeowners about the devices' energy-saving benefits to introducing customers to the entire suite of Nest products which work with the Nest Thermostat E + Goodman, including thermostats, doorbells, cameras, smoke + CO alarms, whole-home Wi-Fi systems, door locks, smart displays and speakers.

"The market for smart home technology installed by professionals continues to grow exponentially," LaNois explains. "As an HVAC contractor, if you're not already offering smart home solutions, this may be the perfect opportunity to get involved in a new business that helps draw in new customers, new technicians and new business prospects without relying on the weather."

Millions of Nest thermostats



already in the market are not associated with contractors. When Goodman brand HVAC dealers register as a Nest Pro, they have opportunities to access qualified jobs either through service work or potentially replacement, according to Barnes.

The 5-year limited warranty boffers an outstanding advantage for HVAC contractors and homeowners.

### "Open Protocol" a Plus

LaNois says Goodman's leadership position in the HVAC industry – plus its innovative, open protocol approach to communicating controls – set the stage for an ideal alliance with Google.

Barnes agrees, touting Goodman's pioneering ComfortBridge communicating technology. According to Barnes, "Goodman's ComfortBridge works with any 24-volt thermostat. This provides homeowners and HVAC contractors flexibility and freedom of choice to use any thermostat they like. And, of course, both consumers and dealers love the Nest thermostat."

"This collaboration with Google is very big news for the Goodman team and our network of independent dealers," says Barnes. "We're thrilled to launch the Nest Thermostat E + Goodman product and eager to explore future developments with Google. We're always looking for new ways to enhance our ability to maximize energy efficiency and system performance for our customers."

Dealers, to register as a Nest Pro

visit [g.co/nestpro](http://g.co/nestpro).

For more about the Nest Thermostat E + Goodman, visit [goodmanmfg.com/goodmangooglenest](http://goodmanmfg.com/goodmangooglenest).

### About Daikin

Daikin Industries, Ltd. (DIL) is a Fortune 1,000 company with more than 76,000 employees worldwide and is the world's number 1 air conditioning company. Daikin North America LLC (Daikin) is a subsidiary of DIL. Daikin and its affiliates manufacture heating and cooling systems for residential, commercial and industrial use and are sold via independent HVAC contractors. Daikin engineering and manufacturing is located at the Daikin Texas Technology Park near Houston, Texas. For additional information, visit [www.northamerica-daikin.com](http://www.northamerica-daikin.com).

### About Goodman

A member of DIL, Houston-based Goodman Manufacturing Company, L.P. is a leading manufacturer of heating, ventilation and air conditioning products for residential and light commercial use. Goodman brand products are predominantly sold through company-operated and independent distribution networks, with more than 1,000 total distribution points throughout North America. For more information, visit [www.goodmanmfg.com](http://www.goodmanmfg.com).

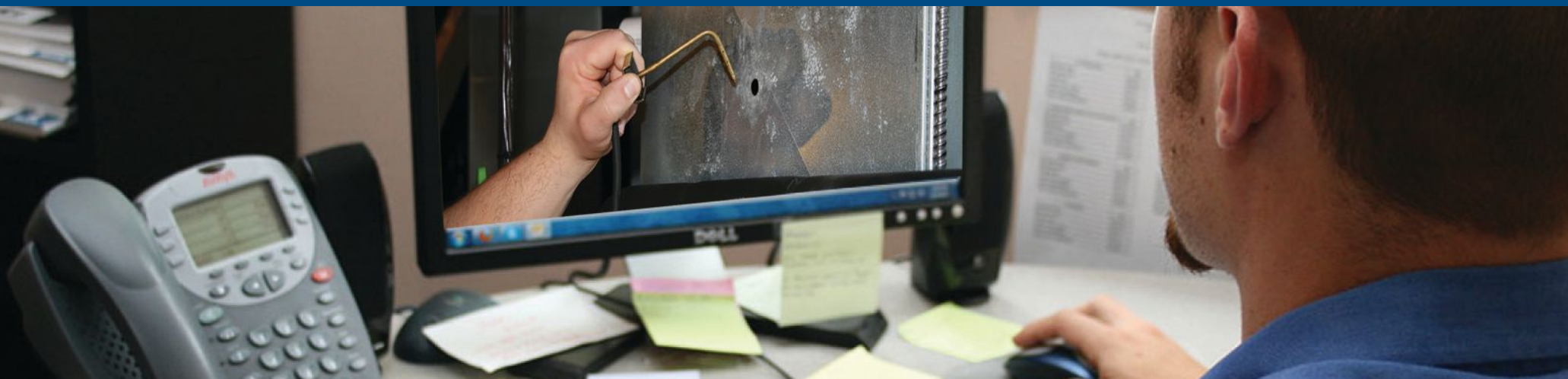
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[www.fieldpiece.com](http://www.fieldpiece.com)



# California Utility Hosted Online Live Training for HVAC Professionals



NCI High-Performance HVAC training is now available to HVAC professionals throughout California. Southern California Edison and Pacific Gas and Electric have partnered with NCI to provide advanced training and certification through its online, live classes.

These NCI classes also qualify for NATE (North American Technician Excellence), and BPI (Building Performance Institute) Continuing Education Credits.

## Here's how the training works:

**Certification classes:** These online, live classes are provided in 4-hour blocks. For example our Residential Duct System Optimization and Commercial System Performance classes each consist of four, 4-hour segments of training over a two week period. Students who participate in these classes will also qualify for online-proctored NCI certification exams after the training.

**Recertification classes:** NCI-certified professionals can recertify for two years by participating in these online classes taking place over two consecutive half-days. We currently offer recertification training towards NCI residential and commercial certifications.

In addition NCI is offering several technical and sales non-certification classes.

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



Upcoming California Training Calendar		
 <b>Pacific Gas and Electric Company*</b>	<b>Duct System Optimization Certification**</b> March 16-17, 23-24 8 am - 12 pm Pacific	16-hour training program Regular Price: \$690 Student fee: Just \$100 per student
 <b>SOUTHERN CALIFORNIA EDISON®</b>	<b>Residential Air Balancing Certification**</b> March 25-26 8 am - 12 pm Pacific	8-hour training program Regular Price: \$590 Student fee: Just \$50 per student
 <b>SOUTHERN CALIFORNIA EDISON®</b>	<b>Airflow Testing &amp; Diagnostics*</b> March 30-31 8 am - 12 pm Pacific	8-hour training program Regular Price: \$395 Student fee: Just \$50 per student
 <b>Pacific Gas and Electric Company*</b>	<b>Commercial System Performance Certification**</b> April 6-7, 13-14 8 am - 12 pm Pacific	16-hour training program Regular Price: \$690 Student fee: Just \$100 per student
 <b>Pacific Gas and Electric Company*</b>	<b>Performance-Based Selling</b> May 4-5, 11-12 8 am - 12 pm Pacific	16-hour training program Regular Price: \$690 Student fee: Just \$100 per student

\* Qualifies for 8 recertification hours

\*\* NCI Online Certification Exam included

**Take an NCI Course Today! Call 800-633-7058 or visit [ncilink.com/CALUtility](http://ncilink.com/CALUtility)**

This program is funded by California utility customers and administered by SCE and PG&E under the auspices of the California Public Utilities Commission.



# Product Spotlight

## Keeping Safety and Performance High When Temperatures Drop During Cold Months

By Brittany Lapidus  
Shurtape Technologies, LLC

Winter is here. Many parts of the country have already been hit by at least one real snowfall and the cold temperatures that come along with it. For dedicated contractors, carpenters and handymen across the country, work can't always be moved indoors until sunny skies and warmer temperatures come along. Pros who are up to the task of getting the job done no matter the weather need to keep in mind these important guidelines for staying safe, comfortable and productive while working in cold temperatures.

### Optimize your wardrobe for cold weather

Appropriate clothing is your most important cold weather resource. Workplace Safety North is based in Ontario, Canada, where fighting cold winters is serious business. Their recommendations for maintaining a comfortable temperature when working outdoors center around two key elements: layering and materials.

Loose-fitting layers not only trap body heat between them to maintain warmth, but they also enable the flexibility to adjust depending on your activities. Being able to adjust the number of layers once you start working up a sweat is essential. Otherwise, when the sweat begins to cool, it will make you colder than ever.

This is where the material comes into play. Closest to the body (think t-shirts, long underwear, socks, etc.), you want fabrics that

wick moisture away from your skin and into the next layer of fabric. Synthetic fabrics like polyester and polypropylene are smart choices. Avoid cotton socks, t-shirts and underwear. Once it gets wet from rain, snow or sweat, the cotton will start to extract heat from the body.

The next two layers are insulating layers. The first should be light – consider a lightweight fleece or a thin wool sweater. The next layer should be a heavier layer of fleece or wool. These are the layers that can be removed when you heat up. The outer layer should be wind and water resistant. Heavy duty nylon and other synthetic fabrics, and wax-impregnated cotton duck are among the options for coats, bibs, and other outer layers.

Don't forget your head, hands and feet – 30 to 50 percent of body heat is lost through the head. A warm knit toque or balaclava worn alone or under a mandatory hardhat will keep heat in. For feet, follow the same layering guidelines as the body: thin synthetic socks next to the skin to wick away sweat, followed by warm wool socks, then protected by weather-proof work boots. Hands get layers, too – wearing thin wool gloves inside heavier waterproof gloves or mittens allows you to remove the top layer to handle detail work without exposing bare skin to the elements.

Be prepared for wardrobe malfunctions. When unexpected holes or tears threaten to let the elements in, maintain your protective outer layer by keeping a roll of ferociously strong, weather-proof duct tape on hand to patch up anything from gloves to boots

to jacket sleeves.

### Optimize your fuel for cold weather

Your body works extra hard to keep warm out in the elements, so don't be afraid to give it some extra fuel. Eat snacks steadily throughout the day to keep up your calorie input. Whether for meals or snacks, experts recommend a combination of complex carbohydrates and protein to maintain energy and nutrition. Think whole wheat breads, bagels, or muffins with eggs, cheese, peanut or almond butter; fruit with yogurt, nut butter or cheese, etc.

Hydration is as important when working in the winter as it is in the summer – perhaps more so, since the sensation of thirst is stronger when it's hot than when it's cold. Cold air is also typically dryer than warm air, which means you can easily lose two quarts of water an hour during strenuous activity. Stay hydrated by drinking an average of four quarts of water during the workday, and avoid caffeinated beverages, which, like alcohol, impede the body's ability to heat itself.

### Optimize your tools for cold weather

Much like the human body, most tools don't function quite the same at 30 F as they do at 70 F. Cordless tools with lithium ion batteries are a prime example. It's fine to discharge the batteries (i.e. use the tools) at temperatures below 40 F, but not to store or charge them in cold temperatures. If you're at an outdoor job site



High performance weather-proof duct tape like T-Rex® Tape can prevent dangerous exposure by handling emergency repairs to boots, gloves or other cold-weather gear.

where you can't store or charge the battery at room temperature (roughly 72 F), keep it in your pants pocket when you aren't using it or keep a gel warmer in the tool bag.

Pneumatic tools are very valuable in cold weather. It's much easier to use a nail gun or stapler than it is to fumble with a hammer and nails with heavy gloves. Be sure to follow manufacturers' instructions for the proper cold-weather oil. Some suggest using a small magnetic oil pan heater to enable the compressor to start more easily. Experts also caution against keeping the compressor in a cold area while running the lines outside, as the warm air will create frost inside the cold hose, which will block the air flow. Instead of relying exclusively on winter weight oil, use an inline tool oiler with a specially formulated anti-icing air line lubricant to absorb

condensation and prevent freezing in the line.

As for smaller tools, be aware that plastic and rubberized parts exposed to frequent temperature fluctuations can break down or crack. It's important to have an emergency fix on hand to deal with issues like that. Duct tape is the typical go-to resource in such situations, but many adhesives fail to perform at cold temperatures. Some manufacturers do offer heavy duty, high-performance, all-weather duct tape that can be stored and used at below freezing temperatures, which is an excellent addition to your winter toolbox.

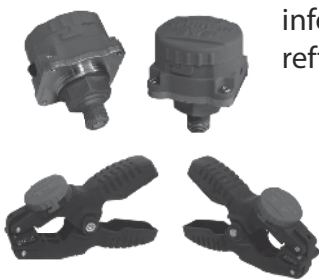
Every year, the weather becomes a little less predictable. No one ever knows for sure how long winter will last or how cold it may get. But it's always best to be prepared and be armed with the knowledge and the gear to take on whatever Old Man Winter decides to dish out.

## RefTech Mobile App for HVACR Diagnostics

Diagnoses 12 fault conditions in HVAC and Refrigeration systems and provides repair guidance



Compatible with Sporlan SMART Bluetooth Probes For further information visit [reftechapp.com](http://reftechapp.com)



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## ASHRAE Guidelines

Continued from Page 1

occupancy

- Operate systems for a time required to achieve three air changes of equivalent clean air supply

- Limit re-entry of contaminated air

- System Commissioning
- Verify that HVAC systems are functioning as designed

The task force's Communities of Faith Buildings guidance offers recommendations on conducting worship services under epidemic conditions.

"The intent of the Communities of Faith guidance is to offer those who operate and care

for buildings used for worship a plan for implementing short- and long-term HVAC strategies to reduce the possibilities of transmission of the SARS-CoV2-2 virus," said Rick Karg, ASHRAE Epidemic Task Force member. "The document also helps communities move toward a new 'normal' operation after this public health emergency nears an end."

Recommendations for Communities of Faith include the following:

- Identify HVAC system characteristics. Compile and review operation and maintenance manuals and schedules.

- Verify HVAC systems are well maintained and operating as intended. For maintenance,

follow the requirements of ASHRAE Standard 180 - 2018, Standard Practice for the Inspection and Maintenance of Commercial HVAC Systems.

- Consider PPE when maintaining HVAC systems including filters, coils and drain pans.

- Operate HVAC systems, if present, with system fan set to run continuously when building is occupied for services or cleaning.

- Operate the system for a time required to achieve three equivalent air changes of outdoor air (effect of outdoor air, filtration and air cleaners) before the first daily occupancy and between occupied periods, if appropriate. Three equivalent air changes can be calculated using ASHRAE's Building Readiness Guide.



# Troubleshooting

## An Under-Performing Package Unit Heat Pump

By Jim Johnson  
Contributing Editor

In this troubleshooting situation, you are responding to a customer's complaint about their heat pump, and you're not the first technician called in to service this equipment. The customer's description of the problem is that the unit is "running a lot, and not keeping the building warm".

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

1. The indoor temperature is 65 degrees.
2. The thermostat is set at 75-degrees and the fan switch is in the AUTO position.

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

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

The customer also reports that by this time, the weather was mild and since they didn't use the equipment until the temperature dropped low enough to require heat, they didn't follow up any further with the service company that had responded to their requests for service.

Moving to the roof to conduct an initial inspection of the equipment, you note that the compressor and outdoor fan motor are operating. You also confirm that the design of this system is such that the filter is located in the return air duct assembly. Removing the

cover on the filter slot, you find that the filter is the proper MERV rating for this equipment.

As your next step, you go back inside the house and, using an anemometer, you check the air flow at a bedroom supply register and find it to be 90 CFM.

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

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

If you believe you have the correct answer to one of Jim

Johnson's Troubleshooting Problems, please submit it by email to Jim Johnson at [icntroubleshooting@techtrainassoc.com](mailto: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 Problem

After eliminating the defrost thermostat as a possibility and initiating a defrost mode by using

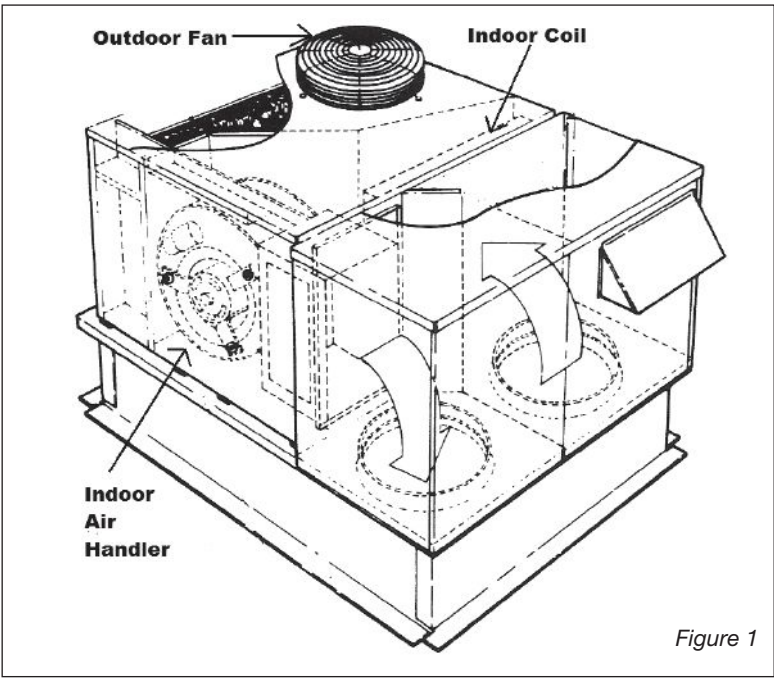


Figure 1

a jumper at the Speed Up pins on the control, proving that the reversing valve was not at fault and the defrost relay remained closed, we determined that the control

board needed to be replaced.

The winner of last month's troubleshooting is:  
**Richardo Allen Hart**

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## ASHRAE Announces 2020-21 Society Academic Scholarships Totaling \$167K

ASHRAE has announced the recipients of 30 Society scholarships, totaling \$167,000, for the 2020-21 academic year.

"We are extremely proud of the 2020-21 ASHRAE scholarship recipients," said Michel Hayek, chair of the ASHRAE scholarship trustees. "These individuals represent the future of the HVACR industry and ASHRAE is pleased to support this bright future by providing scholarship opportunities to students each year."

The following awards provide a \$10,000 scholarship:

- Willis H. Carrier Scholarships  
Kylene Landenberger, mechanical engineering, California Polytechnic State University-San Luis Obispo; and Molly Sizemore, architectural engineering, Pennsylvania State University, are the recipients of a Willis H. Carrier Scholarship established by the Carrier Corp.

- Reuben Trane Scholarships  
William Welch, mechanical engineering, University of California – Los Angeles; Owen Lutz, architectural engineering, Kansas State University; and Alexis Sheeto, architectural engineering, Pennsylvania State University, are the recipients of a Reuben Trane Scholarship, which is to be awarded over two years and was established by the Trane Co.

- Gordon V.R. Holness Engineering Scholarship  
Haley Webbert, mechanical engineering, University of Nevada

– Reno, is the recipient of the Gordon V.R. Holness Engineering Scholarship named in honor of ASHRAE Presidential Member Holness, P.E., fellow ASHRAE, life member, who served as the Society's president in 2009-10.

- Gordon V.R. Holness Engineering Technology Scholarship  
Andrew Scott, architectural engineering technology, Vermont Technical College, is the recipient of the Gordon V.R. Holness Engineering Technology Scholarship.

The following awards provide one-year \$5,000 scholarships:

- Frank M. Coda Scholarship  
Jon Cowart, electrical engineering, Pennsylvania State University, is the recipient of the Frank M. Coda Scholarship created in memory of ASHRAE's former executive vice president, who served from 1981-2004.

- Lynn G. Bellenger Engineering Scholarship  
Christina Adams, industrial engineering, California Polytechnic State University-San Luis Obispo, is the recipient of the Lynn G. Bellenger Engineering Scholarship which recognizes female undergraduate engineering students and is named in memory of the Society's first female president, who served as the Society's president in 2010-11.

- Alwin B. Newton Scholarship  
Xianchen Hao, architectural

engineering, University of Kansas, is the recipient of the Alwin B. Newton Scholarship named for an industry pioneer and ASHRAE fellow who was granted 219 patents.

- David C.J. Peters Scholarship  
Isabella Gayoso, mechanical engineering, Pennsylvania State University, is the recipient of the David C. J. Peters Scholarship created by Southland Industries to honor Peters, an advocate of recruiting quality.

- Duane Hanson Scholarship  
Christian Fauer, mechanical engineering, Auburn University, is the recipient of the Duane Hanson Scholarship established by Gayner Engineers and is named for the company's former president.

- Legacy Scholarship  
Sean Lacey, mechanical engineering, University of Akron, is the recipient of the Legacy Scholarship.

- ASHRAE Region IV Benny Bootle Scholarship  
Ian Durr, mechanical engineering, Kennesaw State University, is the recipient of the ASHRAE Region IV Benny Bootle Scholarship named for a former Region IV chair and regional director on the ASHRAE board of directors.

- James R. Bullock Jr. Scholarship  
Kayla McIntosh, architectural engineering, North Carolina A&T State University, is the recipient of the James R. Bullock, Jr. Scholarship named in memory of the late

Bullock Jr., P.E., life member of ASHRAE, who served as president of Environmental Air Systems Inc.

- Donald Brady Scholarship  
LeeRoy Nchinda, architectural engineering, North Carolina A&T State University, is the recipient of the Donald Brady Scholarship. The scholarship was created by Donald Brady, life member of ASHRAE and a presidential member of ASHRAE's North Piedmont Chapter.

- Prem Jain Scholarship  
Aashni Ujra, architectural engineering, Heriot Watt University, is the recipient of the Prem Jain Scholarship. The scholarship was created by Dr. Prem Jain, life member of ASHRAE, founder of ASHRAE's India chapter-at-large & presidential member of the ASHRAE India Chapter, founder and presidential member of ISHRAE (Indian Society of Heating, Refrigeration, and Air-Conditioning Engineers).

- General Scholarship  
Hunter Swope, architectural engineering, University of Cincinnati, is the recipient of the General Scholarship.

- Engineering Technology Scholarships  
Thomas Guilfoil, mechanical engineering technology, State University of New York – Canton and William Fretwell, architectural engineering technology, Vermont Technical, are the recipients of an Engineering Technology Scholarship.

- Freshman Engineering Scholarship  
Joseph Kawiecki, mechanical engineering, Purdue University, is the recipient of the Freshman Engineering Scholarship.

The following awards provide one-year \$3,000 scholarships:

- Henry Adams Scholarship  
Stephen Batsa, mechanical engineering, Dalhousie University, is the recipient of the Henry Adams Scholarship, named in memory of charter member and sixth president of ASHRAE's predecessor society, ASHVE.

- ASHRAE Region I Setty Family Foundation Scholarship  
William Hanna, mechanical engineering, Stevens Institute of Technology, is the recipient of the ASHRAE Region I Setty Family Foundation Scholarship named in honor of Boggarm Setty, fellow ASHRAE, life member.

- ASHRAE Region III Setty Family Foundation Scholarship  
Alexandra Brown, architectural engineering, Pennsylvania State University, is the recipient of the ASHRAE Region III Setty Family Foundation Scholarship.

- ASHRAE Region VIII Scholarship  
Simon Devlin, mechanical and aerospace engineering, Oklahoma State University, is the recipient of the ASHRAE Region VIII Scholarship.

- ASHRAE Central New York Chapter King-Traugott Scholarship  
Stanley Roberts, mechanical engineering technology, Sinclair Community College, is the recipient of the ASHRAE Central New York Chapter King-Traugott Scholarship named in memory of ASHRAE life members Fritz Traugott, Ph.D., fellow ASHRAE, and Harry King.

- High School Senior Scholarships  
Seth Hoffman, mechanical engineering, Iowa State University; Braeden Duwa, mechanical engineering, University of Alabama; Noah Czelusta, mechanical engineering, Columbia University and Seth Reissig, mechanical engineering, Baylor University, are the recipients of a High School Senior Scholarship.

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# Technical Training

## Growing Green Technicians Part 137: Understanding the Fundamentals of Heat Gain

By Jim Johnson  
Contributing Editor

While it's understood that an HVAC technician's task is not to design a system, but rather to evaluate, troubleshoot, and when necessary, make repairs and adjustments in order to ensure that equipment is operating properly, a fundamental understanding of heat gain through different types of materials can be helpful in dealing with a customer's complaint that their air conditioning equipment 'isn't cooling enough'. For example, consider the concept of U-Factors. The formal definition of which is as follows:

"A measure of thermal transmittance via conduction, convection, and radiation."

From a design perspective, these thermodynamic processes....conduction = the transfer of heat through materials by contact; convection = the transfer of heat via the movement of liquids and gases; and radiation = the transfer of heat through a space without relying on a medium such as solids or liquids....are related to estimating the cooling load of a structure, sizing the equipment, and determining the amount of air required to achieve the desired indoor comfort level in the conditioned space. From a service perspective, though, considering U-Factors simply adds to the service technician's common sense approach to explaining potential problems to customers. **Figure one** gives you an example.

It's universally understood by everyone that when it comes to heat gain in a building, window glass that allows for direct sunlight to enter the indoor space is number one on the hit parade of allowing heat transfer. In our illustration, this is shown from that simple universal understanding, along with some numbers to back it up. Our

illustration shows that one square foot of single-pane window glass has a U-Factor of 1.13 (the amount of heat allowed to flow through its material from warmer to cooler). It also shows that since the U-Factor of a residential wall is .25, which means that the same amount of heat transfer through that material would require a space more than four times that of the window glass.

Of course, it's a rare occurrence in this day and age to encounter a building that has single pane window glass, but this factor still serves as a common sense basis for understanding how different materials allow heat to move into a building and contribute to the load

that needs to be efficiently handled by the HVAC system.

Another point to consider here is that while the technician doesn't need to get the customer to understand the definition of the U-Factor itself, or even the different factors that apply to different types of construction materials, being able to explain simply that one square foot of un-shaded, single-pane glass allows as much heat into the building on a sunny day as 4 1/2 feet of wall space could go a long way toward the customer's understanding that if their system isn't performing like it should, and that it's not the equipment itself that is to blame.


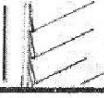



	WINDOW ORDINARY GLASS	U-FACTORS 1.13	SQUARE FEET COMPARED TO GLASS
	RESIDENTIAL WALL	.25	4 1/2
	RESIDENTIAL ROOF and CEILING	.31	4
	COMMERCIAL WALL	.33	3 1/2
	COMMERCIAL ROOF and CEILING	.40	3

Figure 1

The solution to their problem situation could be as simple as updating the windows, or even perhaps adding window awnings, or whatever building modifications

would be the best way to ensure that their HVAC system was achieving optimum performance and not wasting energy and money.

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Johnson Controls Announces Sustainability Commitments and Vision for Healthy Planet

Johnson Controls announced new environmental, social, and governance (ESG) commitments, science-based targets, as well as a net zero carbon pledge to support a healthy, more sustainable planet over the next two decades. The company's and customers' emissions reduction will be driven by Johnson Controls' OpenBlue technologies.

"Sustainability is at the heart of our business and fundamental to everything that we do as a company," said George Oliver, chairman and CEO, Johnson Controls. "Today's announcement reinforces our continued commitment to developing best in class climate solutions, and OpenBlue will empower our customers to streamline building operations and uncover energy efficiencies that will help meet their environmental goals. We continue to make sustainability a top priority for the company, our customers and our suppliers, and have set ambitious goals that will drive significant improvements in carbon emissions."

Johnson Controls' commitments are:

- Environmental Sustainability Commitments:
  - Set science-based targets

consistent with the 1.5°C Intergovernmental Panel on Climate Change scenario

- Reduce Johnson Controls' operational emissions by 55% and reduce customers' emissions by 16% before 2030
- Achieve net zero carbon emissions before 2040, in line with the United Nations Framework Convention on Climate Change Race to Zero and Business Ambition for 1.5°C criteria
- Invest 75% of new product development R&D in climate-related innovation to develop sustainable products and services
- Achieve 100% renewable electricity usage globally by 2040
- Customer and Supply Chain Commitments:
  - Double annual avoided emissions by 2030 through customer use of Johnson Controls OpenBlue digitally-enabled products and services
  - Create a supplier sustainability council with cohorts of suppliers, and their tier-one suppliers, and provide suppliers with training on sustainability best practices and OpenBlue digital tools in order to meet public sustainability goals
  - Weight sustainability equal to other key metrics in supplier performance evaluations and

Sustainability is at the heart of our business and fundamental to everything we do as a company.

E Environmental	S Social	G Governance
Achieve net zero carbon emissions before 2040	Double the representation of women leaders globally and minority leaders in the United States within 5 years	Link executive compensation to sustainability and diversity goals to drive leadership accountability
Set 2030 science-based targets consistent with the most ambitious 1.5°C IPCC scenario	Launch initiative to educate next generation of diverse sustainable building industry leaders; partnering with HBCUs	Maintain a Board diverse in gender, ethnicity, citizenship and skills
Double customers' annual avoided emissions by 2030 through Johnson Controls OpenBlue digitally-enabled products and services	Launch an initiative focused on underserved markets and increase spend with women and minority owned businesses	Sustainability oversight elevated to Board of Directors (Governance & Sustainability Committee)
Use 100% renewable energy by 2040		Non-Financial reporting align with recommendations of the Task Force for Climate-related Financial Disclosures (TCFD)
Direct 75% of R&D investment on new product development to sustainable solutions		History of transparency sustainability data publicly reported since 2002
Elevate sustainability as a key performance metric for preferred suppliers and create supplier sustainability council; provide training to help suppliers cut their emissions		

Johnson Controls

provide a preference for suppliers with excellent sustainability ratings

Social and Governance Sustainability Commitments:

- Intends to double the representation of women leaders globally and minority leaders in the United States within five years
- Launch an initiative to educate the next generation of diverse sustainable building industry leaders, in partnership with HBCUs
- Include sustainability and diversity goals in senior leaders'

performance assessments, which are linked to executive compensation to drive accountability

- Launch an initiative focused on underserved markets and increase Johnson Controls' spend with women and minority-owned businesses

"Our commitments reinforce the urgency to make positive changes that will improve the health of our planet, and we believe we are uniquely positioned to help customers and suppliers achieve

their sustainability goals, in addition to our own," said Katie McGinty, vice president & chief sustainability, government and regulatory affairs officer at Johnson Controls. "We are excited to step up the role we play and will continue to innovate and uncover new pathways to meet our goals which will contribute to healthier people, healthier places, and a healthier planet."

Demand for HERS Ratings Grows by 24% Despite Pandemic and Slowdown of U.S. Economy

Despite a pandemic and a slowdown of the U.S. economy, there were 24% more homes HERS rated in 2020 as compared to 2019.

In 2020, there were 299,755 homes in the United States that were HERS rated and issued a HERS Index Score. This broke

the record for the number of homes HERS rated in a year. The previous record from 2019, were 241,664 homes HERS rated.

The average HERS Index Score in 2020 was 58. This is 42% more efficient than a home built as recently as 2006. In 2019, the average HERS Index Score was 59.

The six leading states in terms of homes receiving a HERS Index Score were:

- Texas – 65,081
- Florida – 23,750
- Arizona – 20,966
- North Carolina – 20,622
- Colorado – 16,695
- South Carolina – 11,880

The states with the lowest average HERS Index Scores were:

- Vermont – 33
- California – 42
- Hawaii – 42
- Maine – 45
- Minnesota – 50

For a breakdown of the number of homes HERS rated in 2020

and the average HERS Index Score by state, visit <https://www.resnet.us/wp-content/uploads/2020-HERS-Activity-by-State.pdf>.

For a breakdown of the number of homes HERS rated in 2020 and the average HERS Index Score by climate zone, visit <https://www.resnet.us/wp-content/uploads/2020-HERS-Activity-by-Climate-Zone.pdf>.

Of greater significance is the energy bill savings that the families who purchased these HERS rated homes are receiving. It is calculated that the 2020 HERS rated homes will net over \$223 million in annual energy bill savings, as compared to the HERS reference home

In addition, it is calculated that the homes that were HERS rated in 2020 will reduce carbon dioxide emissions by over 1.3 million tons annually. These savings will, according to the EPA calculator, equate to 284,000 passenger vehicles being taken off the road for one year.

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Continued on Page 23





Jamie Williams

CoolSys announced that **Jamie Williams** has joined the company as chief information and technology officer (CITO). In this executive role, Williams will be responsible for developing and executing the CoolSys information technology vision and strategy. “As CoolSys accelerates its growth and leverages technology to differentiate the customer and employee experience, we are fortunate to have someone of Jamie’s caliber to lead our technology team,” said Adam Coffey, CEO at CoolSys. “He is an experienced leader who excels at solving critical business challenges with

the latest technology solutions and has earned a reputation as being a catalyst for change, combining innovation with business acumen to deliver creative solutions.” Prior to joining CoolSys, Williams was chief information officer (CIO) at Alterra Mountain Company. At Alterra, Williams oversaw the technology integration of what was previously seven separate companies and the launch of Alterra’s Ikon Pass product. Before Alterra, Williams spent nearly two decades in telecommunications. As CIO at Roger’s Communications Inc, Williams was a member of the executive team that led a turnaround resulting in a 60% increase in price per share. Prior to Rogers, Williams worked for Sprint for over 15 years where he held a variety of technology

leadership positions of increasing responsibility. He started his career in software development after earning a Bachelor of Science degree in physics at Rensselaer Polytechnic Institute and a Master of Science in information systems technology from George Washington University. “I’m excited about joining CoolSys and I look forward to contributing my expertise to support the company’s rapid growth,” Williams said. “This is a rewarding opportunity to work with a great team with a progressive vision for the company and an appreciation for the important role of technology to its success.”

• • • • •

In Memoriam

**David J. Chase** passed away on the morning of January 13, 2021

he was 88 years old. Dave had a 40 year career with Lennox International. At the time of his retirement in 1994 he was the Vice President of Government and Public Relations. Dave was a tireless advocate for the HVACR Industry and promoted the industry’s products and the contractor community at every opportunity. He chaired various committees including those with ARI/GAMA (AHRI) and worked with local, state and national political figures to assure they had an understanding of the importance of the Industry and the challenges faced. He helped launch the high efficiency gas furnace product segment with the introduction of Lennox’ Pulse gas furnace. Dave was also very proud of the work done to create the Lennox/Quaker-



David J. Chase

dale Annual Golf Tournament in Marshalltown, IA. The tournament has been an annual event for 33 years and has raised funds to help disadvantaged children. He always enjoyed returning to play some golf and catch up with old friends. In retirement, he kept tabs on the industry he helped grow and

Continued on Page 27

HERS Ratings Up

Continued from Page 22

“Homebuilders are increasingly seeing energy efficiency as a major selling point for buying a new home,” said RESNET Executive Director Steve Baden. “To take advantage of this opportunity, builders across the nation are presenting their homes’ energy performance in a way that every home buyer can understand, the home’s HERS Index Score. I expect that this trend will continue. It is particularly encouraging that the average HERS Index Score of homes HERS rated was 58. This is 42% more efficient than homes built as recently as 2006 and 72% more efficient than a typical home built in the 1970s. I congratulate the builders, HERS Raters and RESNET strategic allies that are leading the trend to mainstream high-performance homes in the market place. “RESNET, however, is not content with the current market share of homes that are HERS rated. In 2021, RESNET is launching its initiatives that will include increasing the demand for HERS Raters services through new opportunities in energy code compliance, water efficiency rating, and rating the installation of HVAC systems.”

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## MARCH

### System Diagnostics Module

(Four-Night Class Cont. to April)

Instructors: Mike Griffin / John Dalton

Mon., March 29 – Part 1

Tues., March 30 – Part 2

## APRIL

### System Diagnostics Module

(Four-Night Class Cont. from March)

Instructors: Mike Griffin / John Dalton

Mon., April 5 – Part 3

Tues., April 6 – Part 4

## MAY

### System Performance Module

(Four-Night Class)

Instructors: Mike Griffin / John Dalton

Tues., May 4 – Part 1

Tues., May 11 – Part 2

Tues., May 18 – Part 3

Tues., May 25 – Part 4

## JUNE

### Air Distribution Module

(Four-Night Class)

Instructors: Mike Griffin / John Dalton

Tues., June 1 – Part 1

Tues., June 8 – Part 2

Tues., June 15 – Part 3

Tues., June 22 – Part 4

## SEPTEMBER

### NATE Core & Gas Heating Training

(Four-Night Class)

Instructors: Mike Griffin / John Dalton

Tues., Sept. 7 – Part 1

Tues., Sept. 14 – Part 2

Tues., Sept. 21 – Part 3

Tues., Sept. 28 – Part 4

## OCTOBER

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

(Four-Night Class)

Instructors: Mike Griffin / John Dalton

Tues., Oct. 5 – Part 1

Tues., Oct. 12 – Part 2

Tues., Oct. 19 – Part 3

Tues., Oct. 26 – Part 4

## MARCH

### NATE HVAC/R Support Training

(Four-Night Class)

Instructors: Mike Griffin / John Dalton

Wed., March 17 – Part 1

Thurs., March 18 – Part 2

Wed., March 24 – Part 3

Thurs., March 25 – Part 4

## APRIL

### Electrical Module

(Four-Night Class)

Instructors: Mike Griffin / John Dalton

Wed., April 21 – Part 1

Thurs., April 22 – Part 2

Wed., April 28 – Part 3

Thurs., April 29 – Part 4

## MAY

### NATE Core & Gas Heating Training

(Four-Night Class)

Instructors: Mike Griffin / John Dalton

Wed., May 19 – Part 1

Thurs., May 20 – Part 2

Wed., May 26 – Part 3

Thurs., May 27 – Part 4

## JUNE

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

(Four-Night Class)

Instructors: Mike Griffin / John Dalton

Wed., June 16 – Part 1

Thurs., June 17 – Part 2

Wed., June 23 – Part 3

Thurs., June 24 – Part 4

## MA

### NATE HVAC/R S

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Instructors: Mike G

Wed., March

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Instructors: Mit

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### AC & HP Refrig

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Instructors: Mit

Wed., June

Thurs., June

Wed., June

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### System Diagn

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Instructors: Mit

Wed., Oct.

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Wed., March 10 – Part 3  
Thurs., March 11 – Part 4

**APRIL**  
System Performance Module  
(Four-Night Class)  
Instructors: Mitch Bailey / TBA  
Wed., April 21 – Part 1  
Thurs., April 22 – Part 2  
Wed., April 28 – Part 3  
Thurs., April 29 – Part 4

**MAY**  
Refrigeration Module  
(Two-Night Class)  
Instructors: Mitch Bailey / TBA  
Wed., May 19 – Part 1  
Thurs., May 20 – Part 2  
Wed., May 26 – Part 3  
Thurs., May 27 – Part 4

**JUNE**  
System Performance Module  
(Four-Night Class)  
Instructors: Mitch Bailey / TBA  
Wed., June 16 – Part 1  
Thurs., June 17 – Part 2  
Wed., June 23 – Part 3  
Thurs., June 24 – Part 4

**SEPTEMBER**  
System Diagnostics Module  
(Four-Night Class)  
Instructors: Mitch Bailey / TBA  
Wed., Sept. 15 – Part 1  
Thurs., Sept. 16 – Part 2  
Wed., Sept. 22 – Part 3  
Thurs., Sept. 23 – Part 4

**OCTOBER**  
Heating Training  
(Eight Class)  
Instructors: Mitch Bailey / TBA  
Wed., Oct. 20 – Part 1  
Thurs., Oct. 21 – Part 2  
Wed., Oct. 27 – Part 3  
Thurs., Oct. 28 – Part 4

**NOVEMBER**  
Refrigeration Training  
(Eight Class)  
Instructors: Mitch Bailey / TBA  
Wed., Nov. 3 – Part 1  
Thurs., Nov. 4 – Part 2  
Wed., Nov. 10 – Part 3  
Thurs., Nov. 11 – Part 4

**MARCH**  
System Diagnostics Module  
(Four-Night Class)  
Instructors: Mitch Bailey / TBA  
Wed., March 3 – Part 1  
Thurs., March 4 – Part 2  
Wed., March 10 – Part 3  
Thurs., March 11 – Part 4

**APRIL**  
System Performance Module  
(Four-Night Class)  
Instructors: Mitch Bailey / TBA  
Wed., April 7 – Part 1  
Thurs., April 8 – Part 2  
Wed., April 14 – Part 3  
Thurs., April 15 – Part 4

**MAY**  
Chiller Module  
(Two-Night Class)  
Instructors: Mitch Bailey / TBA  
Wed., May 5 – Part 1  
Thurs., May 6 – Part 2

**Commercial Cooling Tower Module**  
(Two-Night Class)  
Instructors: Mitch Bailey / TBA  
Wed., May 12 – Part 1  
Thurs., May 13 – Part 2

**JUNE**  
Boiler Module  
(Two-Night Class)  
Instructors: Mitch Bailey / TBA  
Wed., June 2 – Part 1  
Thurs., June 3 – Part 2

**Commercial Refrigeration Module**  
(Two-Night Class)  
Instructors: Mitch Bailey / TBA  
Wed., June 9 – Part 1  
Thurs., June 10 – Part 2

SAN DIEGO GAS & ELECTRIC

**MARCH**  
NATE HVAC/R Support Training  
(Four-Night Class)  
Instructors: Mike Griffin / John Dalton  
Tues., March 2 – Part 1  
Tues., March 9 – Part 2  
Tues., March 16 – Part 3  
Tues., March 23 – Part 4

**APRIL**  
Electrical Module  
(Four-Night Class)  
Instructors: Mike Griffin / John Dalton  
Wed., April 7 – Part 1  
Thurs., April 8 – Part 2  
Wed., April 14 – Part 3  
Thurs., April 15 – Part 4

**MAY**  
AC & HP Refrigeration Module  
(Four-Night Class)  
Instructors: Mike Griffin / John Dalton  
Wed., May 5 – Part 1  
Thurs., May 6 – Part 2  
Wed., May 12 – Part 3  
Thurs., May 13 – Part 4

**JUNE**  
Air Distribution Module  
(Four-Night Class)  
Instructors: Mike Griffin / John Dalton  
Wed., June 2 – Part 1  
Thurs., June 3 – Part 2  
Wed., June 9 – Part 3  
Thurs., June 10 – Part 4

**JULY**  
System Diagnostics Module  
(Four-Night Class)  
Instructors: Mike Griffin / John Dalton  
Wed., July 7 – Part 1  
Thurs., July 8 – Part 2  
Wed., July 14 – Part 3  
Thurs., July 15 – Part 4

**AUGUST**  
System Performance Module  
(Four-Night Class)  
Instructors: Mike Griffin / John Dalton  
Wed., Aug. 4 – Part 1  
Thurs., Aug. 5 – Part 2  
Wed., Aug. 11 – Part 3  
Thurs., Aug. 12 – Part 4

**SEPTEMBER**  
Chiller Module  
(Two-Night Class)  
Instructors: Mike Griffin / John Dalton  
Wed., Sept. 1 – Part 1  
Thurs., Sept. 2 – Part 2

**Commercial Cooling Tower Module**  
(Two-Night Class)  
Instructors: Mike Griffin / John Dalton  
Wed., Sept. 8 – Part 1  
Thurs., Sept. 9 – Part 2

**OCTOBER**  
Boiler Module  
(Two-Night Class)  
Instructors: Mike Griffin / John Dalton  
Wed., Oct. 6 – Part 1  
Thurs., Oct. 7 – Part 2

**Commercial Refrigeration Module**  
(Two-Night Class)  
Instructors: Mike Griffin / John Dalton  
Wed., Oct. 13 – Part 1  
Thurs., Oct. 14 – Part 2

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

**Commercial HVAC Instructors Wanted**

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

- HVAC/R/SM Industry Certifications
- Commercial Components and Applications
- Boilers
- Chillers

Help Wanted

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

Help Wanted

resumes to the IHACI office for review and evaluation by IHACI's Education Committee. Please send resumes to: [s.evans@ihaci.org](mailto:s.evans@ihaci.org) or fax to 818-551-1115.

**Hiring Outside Sales Professionals**  
**AT OUR LOCATIONS IN CALIFORNIA**

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Responsibilities include:

- Calling on accounts
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- Valid Driver's License and reliable vehicle is a must
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Benefits include:

- Competitive salary with an incentive program
- Expense reimbursement
- Medical, dental, disability, 401K, life, and more

Help Wanted



**Company Overview**

The R.E. Michel Company was founded in Baltimore, Maryland in 1935 as a supplier to the home heating oil burner industry. Still family owned and operated, we have grown to be one of our nation's leading wholesale distributors of HVACR equipment, parts and supplies and we have more than 250 locations nationwide. For consideration and to apply online please visit our website at <https://www.remichel.com/WebServices/WebContent/start/jobs> **REMICHEL.COM**

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HVAC owner operated company in Lake Tahoe, CA & NV, 20 years established in area. Gross receipts \$265K. 3,500 sq. ft. home with 1,500 sq. ft. shop on 20K sq. ft. lot including adjacent buildable 20K sq. ft. lot for sale or rent. Business \$165K OBO. Real estate – Please inquire (530) 416-1864.

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The Institute of Heating and Air Conditioning Industries publishes  
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Indoor People

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stayed in touch with many friends over the years. Dave leaves behind wife Mary and 4 children David Jr, Douglas, Laurie, and Christopher, who followed his father into the Industry and is currently with Research Products/Aprilaire.

He will be warmly remembered and deeply missed.

.....



Joseph Wright

DENSO Products and Services Americas, Inc., an affiliate of leading global automotive

Home IAQ Study

Continued from Page 12

of reasons.

- Nearly three in four (73%) said they have faced at least one barrier to improving their home's air quality, such as a lack of resources and know-how.
- Thirty percent of those who struggled to take steps to improve air quality of their home said they weren't sure where to begin.
- Others said they were blind to the fact they could improve it (22%) or felt they didn't have the necessary tools or skills to make a difference (19%).
- Nine percent didn't know how to access their HVAC system.

Despite some barriers, the majority of homeowners have already taken steps to make the air in their home safer or plan to in the year ahead. This includes cleaning their kitchen ventilation systems above their cooking range, having their air ducts professionally cleaned, and replacing products entirely from air filters to entire HVAC systems. Others are seeking more natural solutions like purchasing more plants, placing air purifiers in rooms throughout the home, and cutting back on or eliminating the use of certain harsh chemicals in order to make the air in their home safer.

supplier DENSO Corp., has named **Joseph Wright** as its new director of Americas Operations. Wright is responsible for overseeing all DENSO shipping and receiving operations across North America, including DENSO's warehouse and distribution centers in California and Indiana.

Wright brings more than 20 years of experience in warehousing, transportation, global logistics, procurement and production to the position. His other areas of

expertise include budget management, vendor negotiations, quality control, regulatory compliance, customer service, and employee engagement as well as e-commerce and retail sales.

"We're excited to have Joseph join our team and propel us to a higher level of operational excellence," said Kazu Yanagawa, vice president of DENSO's Supply Chain Management Group. "In addition to our superior products, the DENSO brand stands for unbeatable customer service. Joseph's acumen and experience will help

us continue to build on all these strengths."

Wright's extensive professional experience is rooted in the auto industry where he managed transportation and logistics operations for leading automakers – Hyundai, Kia, Mazda, Toyota and General Motors – and their subsidiaries for more than 17 years. Over time, with his responsibilities increasing from regional to national oversight, he directed shipping and receiving operations,

contract negotiations, vendor proposals, budgets and workers.

Wright has also worked in the medical technology industry as the global logistics manager of Endologix Inc. Prior to joining DENSO, he served as director of logistics and transportation for Brandable Inc., a brand management and product development company, where he managed transportation, customs, inventory, budgets, retail orders and third-party logistics operations.

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The Nest thermostat E + **Goodman** packs brains and brawn into one powerful product. Homeowners get what they want: a simple user interface, remote control<sup>1</sup> and monthly system performance reports<sup>2</sup>. **Goodman** dealers will love the seamless installation of the Nest with any new **Goodman** system. All backed by a 5-year limited warranty\* from **Goodman** and VIP dealer technical support from Google.

To sum it up – The Nest thermostat E + **Goodman** = exceptional indoor comfort.

\*The full text of **Goodman** limited warranty on this product may be viewed at [www.goodmanmfg.com/products/controls](http://www.goodmanmfg.com/products/controls), or may be requested in paper by contacting us at 19001 Kermier Road, Waller, TX 77484.

<sup>1</sup> Requires working internet and Wi-Fi

<sup>2</sup> Email sign-up required to receive monthly report

For more info visit [www.goodmanmfg.com/goodmangooglenest](http://www.goodmanmfg.com/goodmangooglenest)

