Volume 32 / Number 8

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Florida, Georgia, Alabama, Tennessee North Carolina, South Carolina



ASHRAE Wraps Up Successful Virtual Winter Conference (see page B3)



Tropic Supply Hosts Tim Talks Cooper&Hunter Webinar Series on Zoom (see pages 8)



Ducane/OLDACH Winners in SCCA Cabin Fever Enduro and Regional Sprint Races (see page 16)



Ductless Products Focus Issue

Achieving Total Home Comfort with Zoned Comfort Solutions

cook in their bedroom or

relax in their home gyms.

Each room in a home has

different comfort requirements based on how and

when it's used. With Zoned

Comfort Solutions[®] by

Mitsubishi Electric Trane

HVAC US, a leading sup-

plier of Ductless and Duct-



Publisher

ed Mini-split and Variable Refrigerant Flow (VRF) heat-pump and air-conditioning systems, homeowners can achieve total home comfort by customizing cooling and heating for each area of their home.

Defining Comfort Zones With this technology, it's

simple to assign bedrooms, kitchen, living room, office, basement and other spaces to different "zones" so each room is always comfortable. Once homeowners decide on

the temperature for a specific zone, the system quietly maintains the set point while using the least amount of energy needed.

How does it work? The essential components of a zoned air-conditioning and heating system are the outdoor unit, the indoor unit and the smart comfort controls. The system operates by transferring heat to and from an outdoor unit to one or more indoor units.



Homeowners don't The units are connected by pipes containing refrigerant, which absorbs heat.

> In cooling mode, the refrigerant absorbs heat inside the home and produces colder air by transferring refrigerant from the indoor units to the outdoor unit, where the heat is expelled.

> In heating mode, the process is reversed, and the refrigerant absorbs heat outside of the home and provides warmth by transferring the refrigerant from the outdoor unit to the indoor units. This all-electric method of heat transfer is more efficient than burning fossil fuels to generate heat like a conventional system.

> The outdoor unit's INVERTER enables it to quickly change the amount of power it uses and the

amount of refrigerant it transfers to and from the indoor units. With the INVERTER, the outdoor unit only uses the precise amount of power needed to reach each zone's preferred temperature.

Homes vary in sizes and layout, but Zoned Comfort

Solutions are completely customizable. Indoor units, either wall-mounted, recessed ceiling cassettes or floor units, can be strategically placed throughout the home based on the cooling and heating needs of each room or zone.

For more information on Zoned Comfort Solutions and available products, visit www.mitsubishicomfort.com.

RGF® Environmental Group Releases Independent Test: PHI-PKG14 PHI-CELL® Inactivates Greater than 99.9% of SARS-CoV-2 Virus in the Air and on Surfaces

Port of Palm Beach, Fla (February 26, 2021) – tory particles, the test results are important for build-RGF® Environmental Group, Inc., a leading envi- ing owners and operators seeking a proven solution to ronmental design and manufacturing company, has combat SARS-CoV-2 in the air and on surfaces inside

SFACA Monthly Zoom Meeting and Board Installation (see page B6)

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released the results of an independent, third-party the occupied or air-conditioned space.

test that indicates the PHI-PKG14 PHI-CELL® product with Photohydroionization® technology inactivates greater than 99.9% of the SARS-CoV-2 virus in the air and on inoculated surfaces.

> SARS-CoV-2, commonly known as coronavirus, is the virus that COVID-19. causes Given the CDC's that determination SARS-CoV-2 is an



PHI-PKG14 PHI-CELL® product with Photohydr resulted in greater than 99.9% inactivation of the SARS-CoV-2 virus within the occupied space at 36". 72" and 84" distance from the PHI-CELL®

or talks. Large virus particles fall out of the air and onto surfaces, resulting in surface contamination, however small virus particles can stay airborne for hours," noted Dr. James Marsden, Executive Director of Science & Technology at RGF® Environmental Group. "Similar to RGF's REME HALO®, the PHI-PKG14 PHI-

"SARS-CoV-2 virus particles

or aerosols are produced when an

infected person coughs, sneezes

airborne virus, meaning it spreads from CELL® neutralizes greater than 99.9% of the SARSperson-to-person via aerosols and respira- CoV-2 virus in the air and on contaminated surfaces." go to page 4



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TODAY'S AC & REFRIGERATION NEWS

Cash, Profit, or Profitability?

Ruth King's Contractors Cents

Operating your business on cash is insane. Operating your business on profits is ok. Operating your business on profitability is best. When you operate your business on cash you have no clue if you are profitable or not. You only care if you have cash in the bank to pay your bills. As long as you are growing, even if you are not profitable, you will have the cash.

I often tell the story of a contractor who started a business and grew it to \$2 million just paying attention to cash. When the company hit \$2 million in revenues growth stopped and the problems began. Soon he couldn't take his discounts and sometime had a problem paying payroll. To make a long story short, he was smart enough to call me. My analysis showed he was losing a nickel for ever dollar he took in the door! This went on for 12 years.

Because it was "just a nickel" the cash flow masked the problem since cash increased as the company grew. Since they never paid attention to profits and profitability they never knew the company was unprofitable. When growth stopped the lack of profits was exposed: lack of proper cash flow.

Ok. What's wrong with operating your business on profit? Actually, nothing. Operating on profit is a short term view. If you have profit one month you may or may not have a profit the second month. And, you don't know whether your profits are increasing on a long term basis since you are focused solely on the month to month profit. You might get really concerned with a loss one month and forget about the following month because the company was profitable. Yo-yo profit and loss can be a recipe for disaster.

The best focus? Profitability. Profitability is sustained profits. It is the ability to always fund operations through the profits of your company. A month's loss is concerning and the reasons for the loss need to be determined. However, if the company has increasing profitability, the one month loss will not kill the company. The best way to determine if your company has increasing profitability is to calculate the company's current ratio: current assets divided by current liabilities. As long as you have categorized all of the assets and liabilities correctly, an increasing current ratio from month to month means increasing profitability. The only exception to this rule is extraordinary events such as a huge tax payment, purchasing or selling a vehicle, etc. or PPP loans that you obtained and got forgiven.

Focus on profitability, then profits, and then as long as you collect your money, you will have enough cash to run operations.

Next Topic: The Yin and Yang of Financial Statements - Here are two contractors in opposite ends of the financial spectrum.

Contractor Yin: This contractor just started my Make Your Financial Statements Fun and Sexy online class. He had been operating his business out of his checkbook for the past 40 years and realized the error of doing this. He didn't know what his receivables, inventory, and payables were. He didn't know whether his service work or his jobs were profitable.

He has an accounting software system but never really used it. The accountant did his taxes with the information in his checkbook.

Did he have cash to survive for the past 40 years? Yes. Did he earn a profit for the past 40 years? Who knows. What did I tell him to do?

First, congratulations on getting financials in order, even starting after 40 years in business. Second, it makes no sense to go backwards and enter the financial information in the computer for 2020 and before. The past is gone. Let's focus on 2021 and what you can do in this year and future years.

The only thing we will do is create the company's balance sheet. The starting point for January 1, 2021 will be the balance sheet from last year's tax return.



Industry expert Ruth King has helped contractors get and stay profitable for more than 25 years.

Reach her at ruthking@hvacchannel.tv.

Third, the only back data that needs to be entered is January, 2021 information. Thankfully it is February and only one previous month needs to be entered.

With this information entered in the computer accounting system, the company owner can make good business decisions on accurate financial data... and determine if the company is profitable moving forward.

Contractor Yang: This contractor owns a \$10 million plus company. The P&L has all of the categories defined properly. The P&L says it is a profitable company. But...The balance sheet and the P&L don't match. There is something wrong with the balance sheet. If the balance sheet is accurate, the company would have huge cash flow issues...which it doesn't. There are not enough current assets (i.e. cash, accounts receivable, and inventory) to operate a \$10 million plus company.

Something is wrong. Do I know what it is yet? No. However, someone is probably taking assets from the company. How do you do this? Journal entries that never hit the Profit and Loss statement. At the end of each month you as the owner should review all journal entries made for the month and for previous months. It's one of the easiest ways to steal.

If you are using QuickBooks, you should put a password in to prevent entries being made previous to a specific date. This protects yourself. Without this password, someone can easily put an entry in months or years ago (hopefully by accident). And, you'd never know by looking at the current financial statements.

Make sure your balance sheet data supports the data on your profit and loss statement. Hopefully you are not contractor yin or yang. If you are, take action to correct your financials...and if someone IS stealing from your company, as shocking and hard as it is, find out who that person(s) is and put that person in jail!



Economical

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Bard Q-TEC DX HP, New and

Updated Model Introduction



АРОРКА, FLORIDA (February, 2021) – AccuAir, Inc., a Bard heating and cooling systems specialist and distributor serving educational and commercial customers throughout Florida, has announced the introduction of the new, updated Q-TEC models to its Indoor Mount Heat Pump

product line. The Q-TEC is an

indoor / floor mounted, packaged indoor unit listed under AHRI-390 (SPVH) designed for new construction, renovation projects for schools, modular buildings and light commercial buildings.

As Frank Suranyi, AccuAir's Engineered Products Manager, points out the "Single Package Vertical Heat Pump Unit" is not a new concept, but the updated Q-TEC DX unit has several new exclusive features and upgrades making it a superior product choice for the educational market place. For singlezone applications to improve people comfort and reduce energy consumption, the Q-TEC product line is uniquely well suited for classrooms, assembly halls and other large areas requiring cooling, heating, ventilation and humidity control.

The Q-TEC is a more budget-friendly system that offers high-end features and valuable benefits to users and occupants of facilities.

Q-TEC Upgrades:

- · Floor mounted, vertical, indoor unit that fits neatly by an exterior wall with aesthetic outdoor louver for ventilation
- Ease of installation: A single package unit including various factory installed ventilation options and integral energy recovery ventilator (ERV)
- Space saving: Vertical configuration requires very little floor space, utilizing vertical space instead
- Ease of installation with no field assembly required, including duct free supply plenum or vertical supply with connection to ductwork
- Retrofitting existing buildings is a snap with an existing window opening being used to provide intake/exhaust of fresh air ventilation
- The unit is quiet enough for the smallest classroom and powerful enough for large office spaces, community and civic halls, places of worship and other similar facilities
- Ventilation: ERV per ASHRAE 62.1 and FL Bldg. Code Chapter 4, independent adjustment to supply and exhaust air for room pressurization to limit outdoor air infiltration
- Custom color finishes for the ventilation louver, including N.O.A. Miami-Dade hurricane rating if required
- Occupancy based control of outside air provides precise ventilation to each classroom

- Highly efficient AHRI Certified Energy Recovery Wheel minimizes, reduces energy costs and increases comfort while meeting ventilation code requirements
- Numerous controllers and controls options
- Protective coil coating options
- **Optional MERV-13 filter options**
- Rollers make the unit easy to move **Engineered Features:**
- Environmentally friendly non-fiberglass, foil faced insulation
- New design, whisper quiet operation
- Two, aesthetic front doors open 180 degrees for easy service
- 11.0 EER efficiency to meet the latest DOE energy mandates
- HGRH mechanical dehumidification with electronic expansion valve (EEV)
- ٠ Easy filter access
- Enclosed condenser motor with ball bearings
- High efficient Scroll compressor ٠
- ٠ Green Fin Hydrophilic evaporator coil (mold & mildew prevention and superior water run-off)
- *Balanced Climate TM Technology; adjustable for high latent cooling, increased moisture removal capacity

Available sizes: 2.0 Ton, 2.5 Ton, 3.0 Ton, 4.0 Ton, 5.0 Ton / Available voltages: 230-1-60, 230-3-60, 460-3-60.

For additional information and or design assistance please contact: Frank Suranyi, MBA, Member ASHRAE Engineered Products Manager, AccuAir, Inc. 407 / 259-0089, www.accuaironline.com

Low GWP Refrigerant **Safety: Flammable** and Mildly Flammable **Refrigerants Training**

As the HVACR industry continues to move forward and innovate, the refrigerants that were once so commonplace are now being phased down. Replacing them are more energy efficient and environmentally friendlier refrigerants, known as Low GWP refrigerants. Many of these new refrigerants are classified by ASHRAE as A2L, or slightly flammable.

With numerous changes to building codes and industry standards to accommodate the safe use of Low GWP refrigerants, those working in the HVACR industry need a reliable source of information and training to keep pace with innovation. ESCO's Low GWP Refrigerant Safety Program fills that need.

The Low GWP Refrigerant program manual, which is available in both printed and digital format, covers:

- Refrigerant safety
- Introduction to Low GWP refrigerants
- Refrigerant properties and characteristics

RGF® Environmental Group Releases Independent Test: PHI-PKG14 PHI-CELL® Inactivates Greater than 99.9% of SARS-CoV-2 Virus in the Air and on Surfaces

(continued from cover story)

- PHI-PKG14 PHI-CELL® product with Photohydroionization® technology inactivates greater than 99.9% of SARS-CoV-2 virus in the air on inoculated surfaces
- By actively treating the air inside the occupied space, the PHI-PKG14 PHI-CELL® eliminates the need for virus particles to travel through the HVAC system filters or UV air purification system
- Versatile magnetic mount installation for packaged units and air handlers up to 250 tons
- Independent, third-party testing provided by Innovative Bioanalysis

Testing Protocols and Results

Testing was performed at the Innovative Bioanalysis Laboratories in Cypress, California. RGF's test procedure used the SARS-CoV-2 virus inside a large HVAC systems. Because of its versatile magnetic

chamber (1,280 cu. ft.) representing a real-world air-..... conditioned office or home. The virus was nebulized into the space simulating a sneeze or cough from an infected person. With the PHI-PKG14 PHI-CELL® operating inside the chamber, the virus was reduced on contact, resulting in a greater than 99.9% reduction of the virus within the simulated real-world space at 36", 72" and 84" distance from the cell. Testing of the PHI-PKG14 PHI-CELL® active air purification system indicated that the SARS-CoV-2 virus is significantly neutralized within the occupied space, and significantly reduced risk of person-toperson infection by respiratory particles and aerosols. The PHI-PKG14 PHI-CELL® eliminated the need for virus particles to travel through the HVAC system filters or UV air purification system. PHI-PKG14 PHI-CELL® Product Overview and Applications



Purification System leverages PHI-CELL® technology to actively treat the air inside conditioned spaces. This product is specifically designed for package

mount installation, the Package PHI Unit can be used in a wide variety of applications. Adjustable magnetic feet attach without fasteners to the blower unit, simplifying installation. The Package PHI Unit is effective where ductwork is difficult to access or where modification to existing or HVAC systems is not an option. These units can also be used in con-

- The refrigeration cycle
- Working with refrigerant blends
- Proper installation and service guidelines
- Flammable refrigerant considerations
- Explanation of the associated codes and standards for A2L refrigerants

The instructor resource materials include a 204-slide PowerPoint presentation that correlates directly with the manual. Each slide contains speaker notes to aid the instructor through the presentation and provide additional talking points.

A certification exam is available to validate that a person has retained the information presented in the program. The closed-book certification exam for this program is 50 questions, covering the following competencies: General Flammable Refrigerant Safety Knowledge, Core ACR Knowledge, Flammable System Service Safety, Flammable System Installation Safety, and Flammable Refrigerant Transportation and Handling Safety.

For more information please visit escogroup.org. or contact ESCO Institute at 800 726-9696.

The magnetic-mount Package PHI Unit – Air Dr. James Marsden at Dr.IAQ@rgf.com.

James Marsden, PhD - Executive Director of Science and Technology

junction with RGF's new PKG Rack™ system enabling installation for up to eight package units in one application.

DISCLAIMER: The summary and any comments herein are based on the results from an independent laboratory study performed under controlled conditions and are not in any way medical claims. The product(s) and technologies described are not medical devices and are not intended to diagnose, treat, cure, or prevent any disease, virus or illness.

For more information on testing, please contact



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Samsung Expands Exclusive WindFree^{™*} Advanced Cooling Technology

Samsung is expanding WindFreeTM advanced cooling models to offer residential, light commercial and commercial WindFreeTM solutions. Samsung's exclusive WindFreeTM Cooling technology provides end-users with a cool indoor climate and optimal energy efficiency without the discomfort of direct cold airflow.

Samsung's WindFreeTM 2.0 system can be configured for 2-step operation, cooling the space with the louver open until the room nears set temperature. WindFreeTM operation will start automatically closing the louver and disperse cold air through micro holes on the unit's front panel to gently cool the space with still air* without blowing air directly onto occupants. The WindFreeTM feature is optional and can be enabled using Samsung's SmartThings application or system control options. WindFreeTM operation is available in cooling mode only.

The advanced cooling technology is not limited to single zone residential applications. Samsung's Wind-Free[™] 2.0 presents convenience and energy savings to multi-zone residential and light commercial appli-

cations when used with Samsung's Free Joint Multi (FJM) system. The WindFreeTM 2.0 is also compatible with Samsung's residential Max Heat® 2.0 and FJM Max Heat® condensing units, which have the ability to provide 100% heating performance at 5°F (-15°C) with high heating output at -13°F (-25°C).

Samsung's WindFree[™] 2.0 is equipped with built-in Wi-Fi, allowing voice control with Bixby 2.0[^] and monitoring from anywhere with an internet connection through Samsung's SmartThings application[†]. Users can remotely regulate temperature, adjust settings, receive real time updates about performance and daily energy usage, as well as troubleshoot solutions when a repair is needed. The unit also features AI technology through its AI Auto Mode which allows the system to learn how the end user controls the system and adapts itself to optimize comfort and efficiency.

Samsung will continue to bring innovative technologies to the HVAC industry. Learn more about Samsung HVAC America at www.samsunghvac. com.



*The WindFreeTM unit delivers an air current that is under 0.15 m/s while in WindFreeTM mode. Air velocity that is below 0.15 m/s is considered "still air" as defined by ASHRAE 55-2013 (American Society of Heating, Refrigerating, and Air-Conditioning Engineers).

 $^{\dagger}Available$ for download on the GoogleTM Play store and App Store[®]. A network connection is required. Samsung application account is necessary.

^Bixby voice recognizes English (U.S.), Mandarin Chinese and Korean. Not all accents, dialects, and expressions are recognized. The list of features that can be controlled by voice command via Bixby will continue to expand. Mobile functionality compatible with Samsung Galaxy 8 series or higher with Bixby function. Samsung Account log-in and data network (Wi-Fi or internet connection) required to fully operate Bixby features.

American Homeowners Placing Greater Focus On Their Homes' Indoor Air Quality

MILWAUKEE – February 2, 2021 – With Americans spending more time at home in the past year, they've placed a greater focus on their homes' health, safety and comfort. In fact, 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.

Indoor air can often contain bacteria, mold, dust, pet dander, allergens and hazardous airborne transmissions without proper filtration and humidity control, causing air quality in most homes to be 100 times worse than the air outside.

"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 of reasons.

Nearly three in four (73%) admit they have faced at least one barrier to improving their home's air quality, such as a lack of resources and know-how. 30% of those who struggled to take steps to improve air quality of their home admit they weren't sure where to begin. Others confess 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%). 9% 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.

YORK® offers a range of residential heating and cooling products to help homeowners improve air quality and create a safe, healthy and clean environment at home. To learn more about YORK® air quality solutions, such as whole home air cleaners, humidifiers and controls, visit www.york.com/residential-equipment/indoor-air-quality.

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Tropic Supply Hosts Tim Talks Cooper&Hunter Webinar Series on Zoom



per & Hunter training was a 2-part webinar series that began in early January and completed the first week of February.

Tim Murphy from Tropic Supply was

the facilitator. Tim is a technical support specialist providing over-the-phone tech support, product training, and job site consultations. Tim believes in

providing real-world solutions, quality training and friendly technical support, all with the goal of building long-term relationships with contractor customers. Prior to joining Tropic Supply, Tim spent 26 years in South Florida working for his family business,

specializing in commercial refrigeration, light commercial, residential, and mini split HVAC systems. Tim holds a State A License as a HVAC contractor and has been in the field most of his life.

In the first session, Tim focused on installing



Tim Murphy from Tropic Supply talks about installing and troubleshooting Cooper & Hunter mini splits

The Tim Talk Coo- and troubleshooting Cooper & Hunter mini splits. This webinar featured several helpful installation tips, and how to avoid unnecessary callbacks. Tim discussed the most common error codes and how to troubleshoot.

> In the second webinar, attendees learned about Cooper & Hunter maintenance tips, cleaning tips, and everything IAQ related to mini splits. Tim elaborated on basic maintenance tips and tricks with a step-by-step breakdown for coil cleaning and fan blade removal. Another segment of the training covered indoor air quality products that are compat-

> > ible with Cooper & Hunter mini splits and how to install them.

Each attendee had the option to participate in webinar quiz questions. Each webinar had 4 quiz questions, and the first person to enter the correct answer in the chat box won one of

4 prize packs from Cooper & Hunter.

For future webinar details and registration information, please visit your local Tropic Supply Resource Center or visit the events calendar at www. tropicsupply.com/eventscalendar.



Tim discussed basic maintenance tips and tricks with step-by-step breakdown for coil cleaning and fan blade removal

RITCHIE Intrduces The SuperEvac[™] **Plus II Vacuum Pump**

SuperEvac™ Plus II Brushless DC (BLDC) Vacuum Pumps Ready Every Time!



BLOOMINGTON, MN (February 22, 2021) -Ritchie Engineering Company, Inc., the leader in service tools for HVAC/R and automotive professionals and manufacturer of YELLOW JACKET® products, is proud to introduce the next generation of SuperEvacTM Vacuum Pumps – the SuperEvacTM PLUS II. Designed for use with A2L systems, the integration of a brushless DC (BLDC) motor to drive the vacuum pump provides several technological advantages over AC motor driven vacuum pumps.

While maintaining an ultimate vacuum of 15 microns and many of the other unique characteristics of the SuperEvacTM Vacuum Pump, the high torque BLDC motor in the SuperEvac[™] PLUS II is more efficient and has a longer life. Add the ability to start and operate in severe low voltage conditions and extreme temperatures, the service tech now has a premium vacuum pump that is ready every time.

The BLDC motor is lighter weight than AC motor designs. Offered in 4, 6, 8 and 11 CFM models, the SuperEvac[™] PLUS II has a 2-year warranty and is made in the USA. Ritchie Engineering Company/YELLOW JACKET® continues to strengthen its position as the premier vacuum pump manufacturer in the HVAC/R market.

For more details, visit https://yellowjacket.com/ product/superevac-plus-ii-vacuum-pumps/.

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Frade Talk: By Tommy Castellano

Owner, Castellano A/C Services in Tampa, Florida



How To Stay Motivated

There may be times when negativity seems to surround you, suffocating your dreams and destroying your hope. When that happens, many go through their day being absorbed with negativity and accepting it as a way of life. While you can't always control what happens to you, you can control how you respond to it. Try to create a positive environment for yourself and you'll begin to become more motivated to achieve your dreams and goals. Here are a few ways to stay motivated through rough times:

Have an attitude of expectancy. You will get what you expect. Expect something great to happen for you every day and it will. Say aloud each morning to yourself in the mirror, "I expect something good to happen for me today!"

Take control over what you can and stop worrying about what you can't. Some things are within your control, while other things are not. Learn to recognize the difference. Refuse to worry about circumstances beyond your control. Don't allow yourself to become so emotionally entangled that it paralyzes your progress. Things may not always work out perfectly, but the sooner you get over them, the quicker you move on to your next victory. Only you can control your own actions and reactions.

Read and listen to positive information. If you fill your mind with uplifting and inspiring information, it will keep you motivated. Go to the bookstore or library today and find at least one book on a positive topic that will give you a boost. You need constant reminders telling you that you are capable of achievement.

Be with positive people as often as possible. Negative people and conversations will have you focused on all the wrong things and may take your focus off of your goals. Seek out positive people and don't engage in negative conversations. Instead, choose to remain neutral or just don't participate at all. If you find yourself caught in the middle of a conversation that is going in the wrong direction, change the subject to something productive. Try saying something like, "I am focused on finishing this new project. I'm really excited about it." If you are stuck on the phone with a negative person, you could cut it short by telling them, "I have an important appointment/meeting/conference call in five minutes and I need to finish preparing for it now."

Speak positive. Words have a creative force. Regardless of what is going on around you, speak out loud what you want to happen. Write out an affirmation that you can say daily and put it up somewhere that you are sure to see it every day, like your bathroom mirror or your refrigerator.

Learn from your mistakes, instead of repeating them. We all make mistakes; the key is to learn from them and keep on moving. Conduct regular self-evaluations and examine how you handled situations and what you could do differently next time. Write down possible solutions and outcomes so when you are faced with a problem you can properly think through the best way to handle it.

Make a plan. There is a very popular saying: "If you fail to plan, you plan to fail." When you take time to plan, you allow yourself to think through the entire process from beginning to end. This can spark ideas, improve productivity and ensure a great outcome. Once you have a written agenda, you are immediately going to be motivated to accomplish it. Without one, you have nothing to run with and end up feeling stuck. Write out your to-do list the night before. Identify the three most important things that you must accomplish the next day and start with those first. Build a support team. Having the right team in place to help you is crucial to your success. You will be amazed at what you and your team can accomplish when you are all motivated and working toward the same goal. It is worth the effort to put the right support system in place. Make a list of some winning people in your circle that you can partner with, exchange ideas with and who can help you get things done.

An infectious, positive attitude can shift your entire life. Infusing your mind with positive thoughts will cause you to produce more positive results in your life. Right now you're getting as many opportunities as you think you can have. You're making just the amount of money you really believe you can. To break into making what you've only dreamed of and wished for, you must start thinking, believing and speaking like you're already worth that number! Purposefully infusing your life with a positive perspective will keep you motivated and eliminate all negative sources out of your life.

Until next time Tommy Castellano

I am inviting you to join the FLACCPA family of contractors. Florida-ACCPA is a non-profit trade association open to all licensed contractors. Florida-ACCPA is the professional alliance designed exclusively for today's HVAC/R contractor! Our goal is to provide our members with the best contractor resources available to be successful today, and for many years to come. Call Lisa Tamargo and get brought up to date on the successes we are having as members. Phone: (813) 210-4949 Email: info@ florida-accpa.org



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MARCH 2021



Message from FRACCA President Rick Sims



I am enjoying sharing FBC2020 code updates with you. We have less than fifteen minutes covering all of the changes to mechanical and energy codes (few changes) and the remaining forty-five minutes to discuss a totally new section all about residential dehumidifiers. FBC2020 is our first code edition that has a new section exclusively to address installations of dehumidifiers. There are two new sections; one covering all DH units and another specifically for Ducted DH units. The new dehumidifier requirements were adopted into the Residential Energy code for FBC2020.

Previously our code did not specially call out anything unique to dehumidifiers; provisions for drains and cooling coils were (and still are) found in the mechanical code for DH units and all other devices containing a chilled wet coil and drains. Requirements for drain lines and overflow protection were not changed and can still be found in the mechanical code; as well as other installation requirements for "appliances" that may also apply. The new section in FBCENERGY2020 does not take any of these away.

Previous to FBC2020 you could just about assure code compliance by simply following the manufacturers installation instructions; that is no longer the case in Florida. FBC2020 outlaws many DH unit installation practices that are allowed in 49 other states and outlaws some configurations even if installed exactly as directed by the DH unit manufacturer. In Florida, it is now a requirement that ducted dehumidifiers that connect to a central AC system may not discharge "Upstream" of any cooling coil. It is no longer legal to discharge a ducted DH unit directly into a return air plenum, in Florida. This applies to all ducted DH units. Even when manufacturer's installation instructions show that this as a proper installation configuration; sorry, not the case in Florida.

In case you don't know; when ducted DH Units discharge warm dry air into the return air plenums upstream of a chilled cooling coils, the resulting elevated RA temperature degrades the performance of the central air system. I have seen this mistake many times in the field; every summer I am shown moldy condos where this has happened; last summer there were too many. It occurs when both the DH unit and AC system are operating simultaneously. It is the specific problem that this code modification seeks to prevent. In most cases it is easily resolved by reconfiguring controls so that DH unit operation does not occur simultaneously with cooling mode operation. Integrated controls can prevent simultaneous operation and prevent the issue. This is a practical solution but is not recognized in the new code.

The new code does not make exception for DH Units that operate only after cooling mode has cycled off. The heated DH unit air is not harming AC performance (coil is not chilled anyway) but is illegal just the same. Yes; we pointed this out. No; nobody cared, the changes were approved unanimously by both the FBC Energy TAC and the building commission. None of the DH Unit manufacturers showed up to oppose it.

After code approval was final, I had several DH Unit manufacturers representatives call me and complain and ask what could be done about it. Nothing! The new DH Unit codes had been already been approved. There is no longer any configuration where a ducted DH unit is allowed to discharge upstream of a chilled coil in Florida even if that air from that DH unit is also chilled and so is impossible for capacity losses to occur. There are several listed DH units that do not discharge heated air and do not cause the problem that this new code seeks to correct; even when it makes no sense at all, it is now the law in Florida. This is not the worst thing about this new code; I'll tell you what that is next month.

Cooper&Hunter Turns To The Web To Offer Nate-Certified Trainings





The current pandemic has introduced new obstacles for businesses around the globe, but Cooper&Hunter has taken it all in

stride, adapting to new practices so they may continue to provide quality air conditioning solutions with competitive price tags. based trainings focus heavily on dehumidification and anti-corrosive aspects while in cold states, like Colorado, more emphasis is placed on Hyper Heat technology and capabilities. Furthermore, Cooper&Hunter can offer their trainings in multiple languages, including English, Spanish, Russian, Ukrainian, and Mandarin.

Our most recent trainings, hosted by Tropic Supply and HVAC specialist Timothy Murphy, accommodated 135 guests under the moniker "TIM Talks". Murphy reported excellent interaction throughout the training, with attendees eager to learn more about Cooper&Hunter's innovative product line.

Following a training with Baldwin Winair Co., company President Tony Smith reached out to say "Thank you again for such a great day of training for the guys. I had more positive comments coming out of that class than I've had in a long, long time, and I feel like it will be helpful to our sales. Also, I want to convey that I feel we have a strong business relationship with Cooper&Hunter and look forward

to growing with you guys in years to come. We appreciate having a business partner we can count on."

With more than 20 years of experience in air conditioning and ventilation, Cooper&Hunter has grown into a leading HVAC market player Products under the Cooper&Hunter brand are exported to more than 30 countries and regions around the world. Scan the QR code below to complete our Training Request Form.

Goodman Launches Inverter-Driven Residential AC with Up to 24.5 SEER Performance



Goodman is launching its highest efficiency-rated residential air conditioner, the inverter-driven Goodman® brand GVXC20.

Capitalizing on inverter technology, Goodman® brand GVXC20 air conditioners can reach rated efficiencies up to

24.5 SEER and 15 EER. Goodman's latest inverter systems are ComfortBridge technology compatible, allowing for easy commissioning and diagnostics via the CoolCloud mobile application.

Operating at a more energy-conserving speed, Goodman's inverter systems help prevent common temperature swings experienced with non-inverter, single- and two-stage units that constantly turn on and off. For homeowners, inverter-driven systems can reach indoor comfort settings quicker, while continually dehumidifying the home to balance the heat load.

"The increased efficiency and operation of our inverter systems also reduce wear and tear on the compressor, contributing to durability and longevity of the system," adds Ehren Kiker, Senior Product Manager, Residential Outdoor Splits for Goodman.

Like all Goodman indoor comfort products, the

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The company has always shown great initiative in educating contractors and distributors about C&H technology and equipment and, in order to keep momentum on this front, they've recently pivoted to online trainings.

Cooper&Hunter's NATE-Certified courses, which are often organized in collaboration with their distributors, are now being hosted on the Zoom platform.

The trainings include a brand introduction, overview of products and features, detailed installation instruction for various units (including refrigerant piping, electrical settings, and wiring), and a discussion about inverter technology (how it works and its benefits). Error codes and troubleshooting are also covered, in addition to customer service and warranty overview.

Unlike other brands, C&H trainings are customized regionally, highlighting equipment and features based on popularity and relevance in the immediate surroundings. For example, Florida-





new inverter line is designed, engineered and assembled in the United States at Texas Technology Park – a massive, 4.2 million square-foot facility where nearly 8,000 people work.

"Homeowners will find a new level of acoustical comfort indoors and out with our new Goodman inverter systems because they operate at lower sound levels without the constant on/off of single- and twostage systems," Kiker says,

A unique aspect of the Goodman inverter line is its ability to utilize ground-breaking ComfortBridge communicating technology that works seamlessly with any single-stage thermostat, while continuously gathering data, making automatic adjustments for peak performance. Using the CoolCloud app, technicians can wirelessly connect to ComfortBridge, saving time and effort commissioning, servicing and more.

The new products are backed by Goodman's Lifetime Compressor Limited Warranty, 10-Year Unit Replacement Limited Warranty and a 10-Year Parts limited warranty. Complete warranty details are available from your local dealer or at goodmanmfg.com.





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High-Efficiency, Enhanced Indoor Comfort Made Easy



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RGF® Environmental Group Introduces the LUCIDIUM Pulse™ Commercial UV System



Port of Palm Beach, Fla. (February 16, 2021)-RGF® Environmental Group, Inc., a leader in environmental design and manufacturing, is pleased to introduce the LUCIDIUM Pulse[™] electrodeless commercial UV system, after 2 years of rigorous testing. The LUCIDIUM Pulse[™] can be used as a coil cleaner, air purifier, and in food sanitation applications. The system is extremely powerful, generating four (4) times the UV-C output of a 60-inch lamp when tested per ASHRAE 185.2. The unit was tested on over 3 million on/off cycles with no measured UV degradation. The LUCIDIUM Pulse™ uses RGF patented technology with further patents pending.

Features of the LUCIDIUM PulseTM:

- Much higher germicidal UV output, four (4) times higher compared to a conventional commercial UV lamp
- More surface area treatment coverage with fewer lamps
- 5-year warranty
- Unlimited on and off cycling, with no lamp degradation effects



- Completely sealed glass envelope with no filaments or other penetrations
- Capable of purifying fast moving air within the HVAC system
- Can be wired to cycle with the HVAC blower, reducing overall power

consumption, as powered only when needed For coil cleaning applications, Pulse

lamps can be cycled using a timer, providing UV treatment only as required, further reducing overall power consumption

Full UV output is instantaneous, no long warm-up periods like other lamps

No filaments, therefore cannot add to solarization

The LUCIDIUM Pulse[™] is currently in limited production at RGF's new vertically integrated, environmentally friendly ISO 9001:2015 certified facility in Lakeland, FL and will soon be available through RGF's existing HVAC distribution channels.

RGF manufactures over 500 environmental products and has a 35+ year history of providing the world with the safest air, water and food without the use of chemicals. RGF is an ISO 9001:2015 certified research and innovation company, holding numerous patents for wastewater treatment systems, air purifying devices, and food sanitation systems. Situated in the heart of the Port of Palm Beach Enterprise Zone, RGF Headquarters span 9 acres, with 130,000 square feet of manufacturing, warehouse and office facilities. RGF has recently upgraded its facilities, creating an increased vertical approach to manufacturing, further allowing the company to provide the highest quality and best-engineered products on the market. For more information, visit RGF.com.

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RectorSeal® Enhances eCommerce System to Support Outstanding **Customer Satisfaction**



Houston, TX, February 9, 2021 – As a leader in providing programs that support its outstanding legacy of customer support, RectorSeal is enhancing and expanding an

eCommerce system available to its customers.

RectorSeal's eCommerce platform is designed to allow manufacturer representatives, distributors, end-users, and RectorSeal's sales staff access to the company's complete product line 24/7/365. "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 & Marketing, RectorSeal. "Business hours are more fluid now than ever before. It's our goal to be available whenever and wherever our customers have a product need to fill."

The eCommerce platform is accessed directly at www.rectorseal.com. Features of the secure, easy-to-use eCommerce platform include options to research specific products, order products, track orders, review invoices, interact with customer service staff, and more.

Users of the eCommerce system will have the ability to view customized pricing, set multiple delivery dates and locations, and view order history. Moreover, the platform is mobile responsive, allowing for a consistent experience regardless of the operating system when connecting via computer or phone. "Of special interest to our customers is the ability to review product specifications, learn why our products perform better, and what applications work best with our products, all before making a final purchase," suggests Underwood.

"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," advises Underwood."

Ducane/OLDACH Winners in the SCCA Cabin Fever Enduro Race and Regional Sprint Races

Ducane Air Conditioning and Heating, along with Oldach Distributors in Orlando, were sponsors of the Race Factory Team, who were winners in the 2021 SCCA Cabin Fever Enduro Race and Regional Sprint Races that were held on February 13th and 14th, at the Sebring Raceway Track, in Sebring Florida.

Seasoned race car drivers Sergio Sanjenis and Juan Ferrer competed in the STU Class. The car is a 1993 Honda Civic owned by Jorge Ortiz. Crew Chief is Juan Carlos Giol and their General Manager is Enrique Gelpi.



Sergio Sanjenis, Oldach Marketing Director, standing next to his race car, a 1993 Honda Civic sponsored by Ducane/Oldach

The race results are as follows: In the 3 hour Enduro Race: 1st Place STU Class. In the Regional Sprint Race: 2nd Place STU Class, 3rd Overall and in the SARC Sprint Race: 1st Place STU Class, 1st Place Overall.

The Sebring races have existed each spring for more than 60 years on Sebring's demanding road course.

It is the granddaddy of all North American sports car races and draws teams and drivers from all over the world. Central Florida Region is proud to be a significant part of this event.



Drivers Juan Ferrer and Sergio Sanjenis, were winners in the SCCA Cabin Fever Enduro Race and Regional Sprint Races at Sebring Raceway

HVACR Program Standards Update

HVAC Excellence is pleased to announce the release of their 2021 HVACR programmatic accreditation standards manual. The publication of this document is in accordance with the organization's commitment to conducting annual reviews of the educational standards that have been widely accepted in the HVACR industry. This document has been prepared and approved by members of HVAC Excellence's accreditation review board, in conjunction with a panel of industry stakeholders.

The accreditation review board, comprised of subject matter experts, experienced HVACR instructors, and school administrators, meets annually to evaluate the alignment of existing standards to changes and trends in education, legislation, and industry requirements. The 2021 version of the accreditation standards manual reflects the proposed and agreed upon changes that were brought up during the review board's fall 2020 meeting. As part of the review process, the board also worked to improve the readability and ensure the spirit of the standards are clearly defined.

HVAC Excellence undergoes this comprehensive process on an annual basis to ensure its educational standards are clearly stated, comprehensive, and meeting the ever-changing needs of our industry. This process is absolutely required if the high standards associated with programmatic accreditation are to be maintained. Visit https://www.escogroup.org



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"THE DUCT-FREE ZONE"

By Gerry Wagner, Vice President HVAC Technical Training **Tradewinds Climate Systems**



The history of the mini split: Prior to my time at Tradewinds Climate Systems, I did some contract work for Heat Controller. Inc. out of Jackson, MI. You know them by the brand name Comfort-Aire.

I had the pleasure of learning the history of the mini split from a man who lived it, Mr. Don Peck, the CEO of Heat Controller at that time and an employee there for over 50 years. Don was always proud to tell me that the FIRST mini split was developed by Heat Controller... here are his exact words...

"The first introduction in 1965 was the Comfort Aire Twin which was a window air conditioner with a split cabinet design that allowed the window to close into the center of the unit with the compressor and the condenser fan on the outside of the window and the indoor fan on the inside making for a very quiet application.

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The Twin Pac, the first mini split, was an offshoot of the Twin and was originally developed for Sears in 1969 and went by the name "Sears Modular Central Air Conditioning System". They offered two sizes, a 6000 (115 V) and 16000 (230 V). The original units had only 8' of refrigerant lines and were quick connect and included a double wrench kit for making the connection. In 1971 the Twin Pac were made available under the Comfort Aire label. Three sizes were then offered, (6000, 11000 and 16000). The line set

accessories were also changed to allow for up to 19' between the indoor and outdoor units. WW Grainger and Harry Alter Co were probably the largest wholesale customers. The product went away when the federal government instituted the first EER rating of 8.0, in the late 1980's as the product was classified as a split system rather than a room unit."



Here is an actual piece of literature for the Comfort-Aire Twin Pac...Look at the indoor unit... seems like EV-ERYTHING was woodgrain back in the 70's!

Don always made a point to say that in 1974, the Comfort-Aire Twin Pac won the product of the year award in the state of Michigan...it beat out the 1974 Ford Mustang. Now, you might say that just about anything should have beaten this car...



...but those of us who are old enough to remember know that Ford sold a bunch of these cars and for any non-automotive product to win in Michigan was unheard of at the time!

Now, let's climb into the 1982 DeLorean DMC-12

and set the flux capacitor to 2021...52 years forward from the introduction of the first mini split in North America. In those 52 years we went from the lunar module to the space shuttle to Space-X.

We went from the 1969 Ford Mustang Mach 1 with a 390 cu.in. 6.4 litre V8 motor to the 1974 Mustang II with a 2.3 litre 4 cylinder motor to the 2021 Mustang Shelby GT500 with a supercharged 5.2 litre V8 producing 760 HP.

...and we went from the Comfort-Aire Twin Pac in 1969 with an EER of something less than 8 to the GREE Sapphire ...



Here we have the GREE Sapphire high wall mount unit ...

A 12K Sapphire IDU is just 39.9" long X 12.1" high X 8.7" deep. No funky woodgrain but rather a simple, discrete clean appearance.

The Comfort-Aire Twin Pac of the early 1980's left the market because it could not meet the EER of 8 required back in the day...the Sapphire? The 12K Sapphire has an EER of 15.3 and a SEER of 30.5 (the 9K Sapphire has an EER of 16.7 and a SEER of 38).

Oh yeah...and the Comfort-Aire Twin Pac had a maximum lineset length of 19', well the GREE Sapphire SAP24HP230V1A has a maximum lineset length of 164'...no that's progress!

ABOUT THE AUTHOR: Gerry Wagner is the Vice President of HVAC Technical Training for Tradewinds Climate Systems. He has 41 years in the HVACR industry working in manufacturing, contracting and now training. You can contact Gerry by email: gwagner@twclimate.com and also please visit our website: www.twclimate.com





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FJM (Multi-Zone) Maintenance, **Cleaning and IAQ**



Tuesday, March 16, 2021 8:00 am - 9:00 am Zoom Webinar

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Class Description:

Join Tim Murphy from Tropic Supply to learn Samsung FJM maintenance tips, cleaning tips, and everything IAQ related to mini splits. Topics include:

- Basic Maintenance Tips and Tricks
- · Step-by-Step Breakdown for Coil Cleaning and Fan Blade Removal
- Indoor Air Quality Products Compatible with Samsung FJM Units and How to Install Them

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Technical Support Specialist, Tropic Supply

Tim Murphy is a technical support specialist providing over-the-phone tech support, product training, and job site consultations. Tim believes in providing real-world solutions, quality training and friendly technical support, all with the goal of building long-term relationships with contractor customers. Prior to joining Tropic Supply, Tim spent 26 years in South Florida working for his family business, specializing in commercial refrigeration, light commercial, residential and mini split HVAC systems. Tim holds a State A License as a HVAC contractor and has been in the field most of his life.

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ASHRAE Wraps Up Successful Virtual Winter Conference



ATLANTA (February 15, 2021) - The 2021 ASHRAE Virtual Winter Conference concluded with more than 1,800 people in attendance over three and a half days and presentations from industry thought leaders from around the world.

The conference which ran from February 9-12, featured 59 live sessions, 27 Q&A chats with presenters of Conference Paper Sessions and 80+ on-demand sessions. In the weeks leading into the conference, committee members also participated in meetings of technical, standards and standing committees, developing guidance for the future of the industry and ASHRAE.

The technical program included numerous, highly attended sessions, on the diverse topics surrounding rapid changes in technology, policies, tools and engineering practices related to the pandemic. Top sessions included 'Building Operation and COVID-19: Standard of Care,' 'What Did Building Do During the Pandemic, and How to Make your Buildings More Resilient' and 'Lessons from Managing Infrastructure through the COVID Shutdown.' Other highly attended sessions include cutting edge labs, IAQ, ASHRAE standards, ethics, controls and energy efficiency. Attendees also observed new equipment and products demonstrated by conference sponsors.

"The ASHRAE Virtual Winter Conference provided an ideal place for our members and industry professionals to connect directly with each other, to explore the latest research and learn how to address the challenges that we all face in establishing healthy indoor environments for building occupants," said 2020-21 ASHRAE President Charles E. Gulledge III, P.E. "We were pleased to be able to showcase the new and exciting ways we're moving ASHRAE forward as a society and how our resources have become an invaluable asset as the world learns more about the relationship between infectious disease mitigation and indoor air quality."

The conference kicked off with the ASHRAE Meeting of the Members, including a Secretary's Report from ASHRAE Executive Vice President Jeff Littleton and the State of the Society address from President Gulledge, updating the membership on the traction gained from his society theme, "The ASHRAE Digital Lighthouse and Industry 4.0." Both spoke on recent society accomplishments including a successful research promotion campaign, the work of ASHRAE's Epidemic Task Force during the pandemic, the establishment of a diversity task group, government affairs involvement and the opening of ASHRAE's new Global Headquarters. "ASHRAE volunteers remain committed to sharing their valuable time, wisdom and expertise – they remain steadfast in their determination to make the world a better place through ASHRAE," said Littleton during his report. "Thank you to the thousands of volunteers at the society, regional and chapter levels that have adapted and persevered - and in many cases flourished – under these trying circumstances. Because of you, ASHRAE will emerge from the pandemic stronger and more influential than ever before." The accomplishments of 165 outstanding ASHRAE members were recognized during special honors and awards segments each day, including the elevation of 16 members to level of ASHRAE Fellow.



ing, publishing, certification and continuing education, ASHRAE and its members are dedicated to promoting a healthy and sustainable built environment for all, through strategic partnerships with organizations in the HVAC&R community and across related industries. The Society is showcasing integrated building solutions and sustainability in action through the opening of the ASHRAE Global Headquarters building in metro-Atlanta, Georgia. The state-of-theart, high-performing net-zero-energy efficient global headquarters building is a destination venue for industry representatives, visiting from around the world, who are looking to experience cutting-edge engineering and architectural interventions.



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10:00 - 10:15 Welcome All Attendees

10:15 - 10:30 Cotney - Tray Batcher, Attorney Legal Update Regarding Covid & PPP

10:30 - 10:45. Cotney - Clayton Osteen, Attorney & Lobbyist

10:45 - 11:15 Christine Ramirez, Partner, SE Florida Dale Carnegie Training

11:15 - 11:45 Carter Stanfield, Refrigerants & 2021

11:45 - 12:00 Federated - 2021 - Austin Bass, Introduction

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How to Measure Air Handler Filter Pressure Drop

A question I have gotten a few times the past creases total external static pressure (TESP), so the month is how to measure filter pressure drop on the internal filter of an air handler. They are always a challenge to access, so I thought we would revisit the subject. Let's look at the wrong ways and right ways to handle this common installation.

Air Filters Add Airflow Resistance: Air filters create resistance to airflow. They can also reduce a fan's air-moving ability up to 50%. You can measure the filter's pressure drop to see how much it affects airflow through it. It takes less than a minute to do the test and is often the missing piece that identifies a problem in many residential systems.

Air handlers with internal filter racks are difficult to measure filter pressure drop. The challenge is because the filter is mounted against the indoor coil. There is little room to take pressure measurements after the filter.

To deal with this configuration, technicians often resort to testing variations that could lead to inaccurate measurements. The most common of these variations involves measuring pressure with the air filter installed and then removed.

The Wrong Way to Test Filter Pressure Drop: Typically, a technician using this incorrect test method first measures static pressure after the internal coil in the air handler, with the filter installed. They take this reading between the coil and the inlet to the blower. Then they take a second static pressure measurement in the same location with the filter removed. They subtract the two readings from each other to determine filter pressure drop.

Here's an example: Pressure is measured after the air handler coil with the filter installed and found to be .40" w.c. (inches of water column). The filter is removed, and a second pressure measurement is taken. The new pressure with the filter removed is .52" w.c. This results in a calculated filter pressure drop of .12" w.c. (.52 - .40 = .12).

Why It's Incorrect: This test may sound good on the surface, but the result will be an inaccurate filter pressure drop. This is because removing the filter dematch to find the filter pressure drop doesn't calculate. Remember this rule: as static pressure decreases, fan airflow increases.

Once you place the filter back into the air handler, the fan must overcome the added resistance of the filter. TESP increases and fan airflow decreases. The readings are not taken under similar conditions - fan airflow has changed. Failing to recognize this interaction could lead you to chase a filter problem that doesn't exist.

The Correct Way to Measure Filter Pressure Drop: To avoid the scenario above, you need to test the system under normal operating conditions - not simulated ones. To keep from altering system conditions, you must get a pressure reading after the filter - a feat many technicians claim is impossible on this installation. However, if you have the right static pressure probe, the reading is easy to get.

Did you know you can make a static pressure probe? Use an 18" piece of 1/4-inch soft copper tubing - the type you would use to hook up a humidifier or ice-maker. Email me a request and I will send you the instructions on how to make one. With the 18" straight static pressure probe, you can get in between the filter and the coil with no problem.

After you make the probe, install two test ports for measuring pressures. The following steps are for filter pressure drop on an air handler with an internal filter rack only.

1. Install a 3/8" test port into the return duct on the entering air side of the equipment (return plenum). This is your pressure measurement before the filter, as air enters the air handler.

2. Remove the filter door from the air handler and install a 3/8" test port near the top of the filter door. Measure with a tape measure to assure the port allows your probe to go between the filter and coil. Note: It's best to avoid drilling into the filter door while it's on the air handler you don't want to damage a drain pan.

3. Re-install the filter door onto the air handler. The port on the filter door provides access for your pressure measurement after the filter, just before air enters the coil.

4. Turn on the system and assure the fan is operating at its highest speed.

5. Turn on your digital manometer, or if using an analog manometer, level and zero it.

6. Attach a hose to the (-) port of the manometer or (low) port of the Magnehelic and insert the straight static pressure probe into the opposite end of the hose.

7. Insert the straight static pressure probe into the 3/8" test port you installed before the filter and record the reading.

8. Insert the straight static pressure probe into the 3/8" test port you installed in the filter door, after the filter, and record the reading.

9. Subtract the two pressures to determine filter pressure drop.

Diagnose Filter Pressure Drop Readings: In a perfect world, filter pressure drop should not exceed 20% of the fan's maximum rated TESP. You can find this rating on the air handling equipment's data plate on the blower door.

Let's say you're testing filter pressure drop on an air handler that's maximum-rated TESP is .30" w.c. Multiply the maximum rated TESP by 20% or .20 to come up with the ideal filter pressure drop. In this example, filter pressure drop should not exceed .06" w.c. $(.30 \ge 20\% = .06).$

If filter pressure drop exceeds 20% of the maximum rated TESP, use a less restrictive filter type, increase the filter surface area, or move it to another location where you have more room.

David Richardson serves the HVAC industry as a curriculum developer and trainer at National Comfort Institute, Inc. (NCI). NCI specializes in training that focuses on improving, measuring, and verifying HVAC and Building Performance.

If you're interested in learning more about static pressure and air filters, contact David at davidr@ncihvac.com or call him at 800-633-7058. NCI's website www.nationalcomfortinstitute.com is full of free technical articles and downloads to help you.



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SFACA Monthly Zoom Meeting Fresh-Aire UV - Residential and Commercial Products

Wednesday February 3rd at 4:00pm. The guest Air Conditioning. 2021 Officers & Board Congratspeakers were Ron Saunders and Aaron Engel of ulations! Alfredo Andrial of Brown & Brown of

Fresh-Aire UV. The presentation was on understanding air quality control, UV light disinfection for HVAC applications, and activated carbon air purifiers.

After the presentation, SFA-CA recognized their Officers and Board of Directors. New changes in the board included President/ Membership Chair, Kelly Dexter

of Air Quality Control Environmental. Secretary/ Energy, Inc. Treasurer Codes Co-Chair, Gregg D'Attile of Art Plumbing, Air Conditioning & Electric.

Immediate Past President was Skip Farinhas of GMC Air Conditioning Service. Past President

SFACA held their monthly zoom meeting on and FRACCA Rep. Doug Lindstrom of Lindstrom

Florida. Gonzalo Azpurua of Refri-Xpertise. Jeff Campen of Pyke Mechanical. Ed Lawton of Enterprise Fleet Management. MEP Co-Liaison Howard Pearl of Pride Air Conditioning and Appliance, Inc. Program/Education Chair James Schaefer of York. Bob Volin of Air Design Concepts. Codes/Licensing Co-Chair Mark Worrell of State

The next SFACA meeting will be via zoom on March 3rd at 4pm. The special guest speaker is Rich Shavell who will discuss Important Tax Updates that Contractors Need to Know.

PBACCA Zoom Meeting **"Situations" HVAC Contractors MUST** Avoid



Schelle Wood

The Zoom webinar was held on Thursday, February 18, 2021, from 12:00 PM to 12:40 PM. Schelle Wood of Dolphin Sheet Metal was the speaker at this important PBACCA Zoom webinar. She spoke on the topic: Top 5 "situations" HVAC contractors MUST avoid

Schelle is a licensed

Sheet Metal Contractor, and owner of Dolphin Sheet metal. She is the 2021 chair of the Florida Construction Industry Licensing Board. First appointed to the CILB in 2016, Schelle has since chaired the CILB Recovery Fund Committee and the CILB Probation Committee. Dolphin has been a member of PBACCA for decades.

Schelle brings unique insight and perspective from her trade experience and service on the CILB. She has seen the pitfalls that can cost contractors fines, suspension, or even loss of license. Every PBACCA member benefited from attending this Zoom webinar. There was a Q&A session at the end of the presentation. This webinar was offered at no cost by the Palm Beach Air Conditioning Contractors Association.

ASHRAE Provides Testimony at Congressional Hearing on COVID-19 Safety

ATLANTA (February 4, 2021) – ASHRAE is slated to provide witness testimony in a congressional hearing on COVID-19 risks and response in transportation systems, held by the U.S. House Committee on Transportation and Infrastructure on Thursday, February 4 at 11:00 a.m. eastern time.

The hearing titled "Protecting Transportation Workers and Passengers from COVID: Gaps in Safety, Lessons Learned, and Next Steps," will examine COVID-19 safety gaps in the protection of transportation workers and passengers.

"Protecting the transportation workforce and passengers, many of whom are essential workers, is critical for all of us, as those traveling can rapidly spread the coronavirus over large distances," said 2020-21 ASHRAE President Charles E. Gulledge III, P.E. in his remarks to the committee. "I am delighted that you have called upon the chair of ASHRAE's Epidemic Task Force who is one of the leading experts in this field. On behalf of the entire ASHRAE organization, we offer continued technical support to this congressional committee as it works on policies and legislation to make transportation systems safer and healthier." Among the six witnesses scheduled to testify at the hearing, ASHRAE Epidemic Task Force chair William P. Bahnfleth, Ph.D., P.E., will give a testimony on behalf of ASHRAE. "In response to the pandemic, ASHRAE formed an Epidemic Task Force last March, which I was appointed to chair," said Bahnfleth. "The Task Force is comprised of volunteer members who are experts in the fields of air conditioning, ventilation, filtration and air cleaning. It includes practitioners as well as researchers and academics like myself who have fo-

cused their careers on making indoor environments safer and healthier. Importantly, as part of ASHRAE, the task force like all activities at ASHRAE, is free from commercial interests. Our guidance, standards, and other resources are based on science and consensus. The Task Force has produced hundreds of pages of guidance materials, conducted more than a hundred instructional webinars and courses, held briefings for policy makers, and developed summaries of this guidance that can be more accessible to the general public."

In his testimony, Bahnfleth will speak on the need to take an "end to end" approach in assessing the exposure risks related to transportation, examining not only modes of transportation, but ground facilities associated with travel. He will also share the results of case studies investigating the transmission of CO-VID-19 as it relates to transportation, as well as a perspective on HVAC system upgrades, design strategies and safety measures. "For the safety of those who must travel, it may be possible to upgrade the HVAC systems of some modes of transportation by improving ventilation, increasing filter efficiency and adding air cleaning technologies where applicable," said Bahnfleth. "However, as noted previously, there are limitations to the kind and extent of upgrades. This lesson - that risk can be significant and that our transportation systems currently may not provide the desired level of protection to workers and passengers, should be reflected in the design of future trains, buses, automobiles and ships. ASHRAE is committed, within its sphere of expertise, to helping ensure that the safest possible conditions are provided for all who need and want to travel, today and in the future."

HARDI Distributors **Report 21.4% Percent Revenue Increase** in December

COLUMBUS, Ohio, February 1, 2021 - Heating, Air-conditioning & Refrigeration Distributors International (HARDI) released its monthly TRENDS report, showing the average sales performance by HARDI distributors was an increase of 21.4% percent during December 2020. The average annual sales growth for the 12 months through December 2020 is 4.1% percent.

"What a great way to end a challenging year!" said HARDI Market Research & Benchmarking Analyst Brian Loftus. "This December was helped by an extra billing day but even adjusting for that the sales growth would have been in the 16% area against 7.4% last year."

The Days Sales Outstanding (DSO), a measure of how quickly customers pay their bills, is 44.5 days. "It looks like DSO has settled back to normal after being unusually brief this summer," said Loftus. "This level is comparable to December in 2017 and 2018."

"While the health challenges and the employment disruption are heartbreaking, much of the economy keeps churning along," said Loftus. "Q4 GDP was up 4% after a 30% decline six months ago, low mortgage rates have the housing market soaring, and the latest Industrial Production report was stronger than expected. It all seems fragile and temporary until there is broad distribution of potent vaccines."

HARDI members do not receive financial compensation in exchange for their monthly sales data and can discontinue their participation without prior notice or penalty. Participation is voluntary, and the depth of market coverage varies from region to region. An independent entity collects and compiles the data that can include products not directly associated with the HVACR industry.



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AHRI Releases December 2020 U.S. Heating and **Cooling Equipment Shipment Data**

U.S. shipments of central air conditioners and airsource heat pumps totaled 564,143 units in December 2020, up 10.9 percent from 508,788 units shipped in December 2019. U.S. shipments of air conditioners increased 6 percent, to 321,891 units, up from 303,688 units shipped in December 2019. U.S. shipments of air-source heat pumps increased 18.1 percent, to 242,252 units, up from 205,100 units shipped in December 2019. Year-to-date combined shipments of central air conditioners and air-source heat pumps increased 10.1 percent, to 9,328,762 units, up from 8,469,615 units shipped during the same period in 2019.

Year-to-date shipments of central air conditioners increased 10.3 percent, to 5,910,284 units, up from 5,359,775 units shipped during the same period in 2019. The year-to-date total for heat pump shipments increased 9.9 percent, to 3,418,478, up from 3,109,840 units shipped during the same period in 2019.

Wireless Gas Detection Enhances Safety, Eases Installation and Maintenance

For contractors, building owners, and real estate management firms looking to enhance safety while easing installation and maintenance in a wide range of new and retrofit facilities, advanced wireless gas detection systems are increasingly the "go to solution" for monitoring toxic gases in associated parking structures and shipping/loading bays.

In these types of projects, dangerous gas exposure typically comes from carbon monoxide and nitrogen dioxide from vehicle exhaust in the parking garages.

Although wired installations have long been utilized to install gas monitoring networks in these structures, new advanced wireless systems are proving increasingly effective, particularly for retrofits or expansions of existing systems.

"With advanced wireless gas detection systems capable of communicating through Wi-Fi, Bluetooth, etc., users can observe current conditions via their PCs, tablets, phones or any smart device with realtime alarms in case of emergency," says Robert Presser, Vice-President of Acme Engineering.

Acme is an ISO 9001:2015 certified manufacturer of environmental controls and systems with integrated mechanical, electrical and electronic capabilities. The company has expertise providing equipment for monitoring a variety of gases such as carbon monoxide, nitrogen dioxide, carbon dioxide, hydrogen, ammonia, and refrigerants.

According to Presser, the easy installation of wireless gas detection devices can often result in wider, more complete coverage of large enclosed, semienclosed, or remote parking structure areas than traditional wired systems, which may be less feasible.

In addition, he states that the flexibility of wireless sensor placement can also improve safety by enabling positioning where it is most needed, unencumbered by the limitations of routing electrical lines or conduit.

While wireless gas detection systems can sig-



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nificantly ease installation in new facilities, in some older structures requiring retrofits this approach can sometimes be almost the only feasible solution.

"In older facilities, everything HVAC was a standalone 120-volt unit, which required interwiring relays to start the fan," says Presser. "You had line voltage coming in, you had control line voltage going out to a relay board where you were doing your fan logic. There was no software; it was all hard-wired. In really old facilities, you might even find a pneumatic sampling system gas detection device, which was literally as big as a refrigerator."

Traditionally, obstructions such as steel beams and concrete walls also make it difficult to run wiring. A truly reliable wireless system can make it unnecessary to drill through a wall or penetrate a steel beam to run wire and conduit. This approach can eliminate much of the electrical costs, including the costly labor of licensed electricians, while expe-

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diting the project.

Acme has developed a wireless version of its Multi-Gas Monitoring System (MGMS) system that incorporates Wi-Fi capability, so it isn't necessary to have a control panel as the sole point to receive feedback from the gas detection network. In addition, when retrofits or expansions of an existing system are necessary, additional wireless detectors can be simply added without sorting through complicated system configurations. For more info, visit Acme Engineering Prod. Inc. at acmeprod.com

OSHA Issues New COVID-19 Guidance for Employers

Last week the Occupational Safety and Health Administration (OSHA) posted updated guidance regarding COVID-19, primarily focusing on the prevention of spreading the virus in the workplace. This is not an enforceable order or regulation. Some suggestions and best practices highlighted in the guidance include, but are not limited to, the following:

- Designating a workplace coordinator to oversee COVID-19 prevention programs and other related matters
- Acknowledging and informing employees on how they may be exposed while at work and taking steps to reduce said exposure
 - Employees should remain physically distant in the workplace
 - Physical barriers should be in place where distancing is not possible
 - Employers should supply employees with appropriate PPE and hygienic supplies (face coverings, surgical masks, etc.)
 - Routine cleanings should be performed using products known by the EPA to fight the virus
 - Wearing face covering complimentary to (not as a replacement for) physical distancing
 - Workers who have been vaccinated should continue following preventative measures such as physical distancing and the use of face coverings
 - If employees are exposed, measures should be adopted to allow them to be separated from others and sent home
 - An employee who showed symptoms should be placed in isolation until at least 10-days after the first symptoms appeared and they have been 24 hours without having a fever.
 - Healthcare providers may determine an indi-

- Workers should also be educated on the availability of testing options/requirements along with their protection from retaliation if they raise concern regarding COVID-19
- It is the employer's responsibility to report work related cases of COVID-19 on their form 300 logs

Again, it is important to note that this guidance is not a standard or regulation. It is for planning and informational purposes for employers. With that said, there have been talks within the Biden Administration about issuing enforceable order(s) in the future in respect to COVID-19 in the workplace. ACCA will keep members informed regarding any updates on this issue. OSHA will continue to update this guidance over time to reflect developments in science, best practices, and standards, and will keep track of changes for the sake of transparency. In addition, OSHA expects to continue to update guidance relevant to particular industries or workplace situations over time.





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The Florida Department of Business and Professional Regulation recently launched the "Report Unlicensed Activity" function within the DBPR Mobile app, allowing consumers to report unlicensed activity in real time.

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Friedrich Introduces Space-Saving HVAC Solution

SAN ANTONIO, Texas-Friedrich Air Conditioning Co., a leading U.S.-based manufacturer of air conditioners and other home environment products, has introduced a space-saving 7,000Btu version of its award-winning VRP® (Variable Refrigerant Packaged) Heat Pump system to address the needs of the lodging industry for a high-efficiency, cost-effective in-closet heating solution that delivers outstanding indoor air quality for smaller spaces.

Designed to accommodate the latest trends in the lodging industry where smaller, better insulated rooms are increasingly common, the smaller unit called VRP® studio, takes up less space, provides effective heating, cooling and dehumidification, and yet still allows customized comfort and sophisticated indoor air quality capabilities in compliance with ASHRAE 62.1 requirements for MUA (make-up air). The smaller sized VRP studio unit allows for retrofit into existing Vert-I-Pak or VRP applications to help create quieter, cleaner and more comfortable environments while offering simplified installation and maintenance benefits.

The VRP studio joins the family of award-winning Friedrich VRP solutions which includes one-, two- and three-ton in-closet, single packaged units suitable for larger hotel rooms and suites, multi-family and other applications. VRP studio is based on the company's innovative technology that features variable refrigerant flow and a Precision Inverter compressor that delivers powerful cooling and heating performance, increased efficiencies and reduced sound-all without the cost or complexity of a large central air system. Now available with Friedrich's enhanced FreshAireTM IAQ options, VRP units also incorporate the latest design and best practices for exceptional indoor air quality with powerful MUA capabilities, enhanced MERV 13 filtration, air purification and UV-C technologies to help eliminate pathogens and pollutants.

"Our newest VRP model packs bigtime performance and plug-and-play benefits into a smaller configuration, giving the lodging industry an outstanding, customizable solution for maximizing guest comfort and satisfaction even in tight spaces" said TJ Wheeler, Friedrich Senior Vice President – Sales & Marketing.

Portable Generator Manufacturers Set New Standard for Safe **Generator Use**

February 2, 2021—Portable generators are vital to the building trades, acting as a convenient, easyto-move source of spot power on job sites. But, like any tool, safe and proper use is critical to a safe outcome. With portable generators, that means never operating a generator indoors or in any enclosed spaces, thereby limiting exposure to carbon monoxide (CO). Some crews might be tempted to bring generators inside, believing an unfinished structure provides adequate ventilation. But the risks are real and, until recently, there was no comprehensive industry standard to ensure safety.

That all changed with the updated ANSI/PGMA G300-2018 Safety and Performance of Portable Generators Standard (G300), which includes a requirement that portable generators include automatic carbon monoxide (CO) shut-off technology. While each manufacturer's approach is unique, all generators that meet the standard automatically sense CO levels that approach dangerous levels, shutting off the portable generator engine before carbon monoxide concentrations exceed 800 ppm (parts per million). Once the engine has been shut down, a notification light remains illuminated for a minimum of five minutes after shutoff occurs.

Extensive testing in indoor, outdoor, and "real world" situations demonstrates that these shutoffs will prevent more than 99% of fatalities from exposure to CO from a portable generator.

Susan Orenga, executive director of the Portable Generator Manufacturers' Association, explains that "nearly all fatalities associated with misuse of portable generators happen inside. We want to ensure consumers understand the issues of misusing a portable generator, so PGMA developed its extensive Take it Outside[™] education and awareness campaign."

Orenga stresses nothing is more important than proper use, but adds, "having the shutoff requirement in the G300 standard is a potentially lifesaving failsafe."

While CO safety is the big news in the updated standard, the G300 standard contains a comprehensive guide for every facet of portable generator safety and performance, covering topics like general electrical construction requirements, properly guarding moving parts, preventing mechanical hazards and electrical shock hazards, as well as strict testing that manufactures have to pass, including temperature tests, drop tests, and more.

ANSI/PGMA G300-2018 has buy-in from portable generator manufacturers because it was created by the industry's own Portable Generator Manufacturers' Association with the assistance of industry experts. This gives ANSI/PGMA G300 the advantage over any conflicting standards because ANSI/ PGMA G300 is already familiar to manufacturers and incorporated into products.

It is also the only comprehensive standard for the safety and performance of portable generators. Other standards might cover one or some aspects of safety and/or performance, whereas ANSI/PGMA G300 is all-encompassing.

Running a portable generator outside—far from doors and windows in well-ventilated areas—is the only way to maintain safety. Users can be assured that portable generators bearing the notice that they are ANSI/PGMA G300 compliant are the among safest, rigorously tested, highest-performing portable generators on the market.

The Portable Generator Manufacturers' Association (PGMA) is a trade association that seeks to develop and influence safety and performance standards for our industry's products. The Association is also dedicated to educating consumers and tradespersons on the safe use of portable generators and has developed the Take it Outside[™] campaign to support its mission. Formed in 2009, PGMA members include major manufacturers of portable generators sold in North America and a significant majority of the industry. www.pgmaonline.com.

Member companies include: American Honda Motor Co., Briggs & Stratton Corporation, Champion Power Equipment, DuroMax Power Equipment, Firman Power Equipment, Generac Power Systems, Harbor Freight Tools USA, Inc., Yamaha Motor Corp USA, Figaro USA, Inc., and GenTent Safety Canopies.



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LG Electronics Headlines Net Zero Showhomes: 'New American Home' And 'New American Remodel

For Second Year in a Row, NAHB Selects Award-Winning LG Home Appliances, Consumer Electronics, Solar and HVAC Solutions for Official IBSx 2021 Showcase Homes



ORLANDO, Fla., Feb. 9, 2021 / PRNewswire/ -- Innovative home appliances, consumer electronics, solar panels and HVAC

technologies from LG Electronics are delivering high performance, unparalleled home connectivity, enhanced convenience, and energy efficiency to The New American Home® (TNAH) and The New American Remodel® (TNAR), the official show homes of the 2021 International Builders' Show® virtual experience (IBSx).

The National Association of Home Builders (NAHB) chose LG as Platinum Partner for the show's two featured "Net Zero" homes in the heart of central Florida. TNAH and TNAR are state-ofthe-art showcase houses illustrating how any home can be transformed into a high-performance, hightech space when integrating today's building and appliance innovations to reduce energy consumption, increase efficiency and enhance daily life.



Advanced Renewable Solar Energy Solutions for Net Zero Homes

Key to TNAH's and TNAR's environmental sustainability and aesthetically appealing designs are rooftop installations of high-efficiency solar modules from residential solar energy leader LG Business Solutions USA. LG NeON® 2 60-cell solar panels, the company's best-selling modules, will help power both homes to support their Net Zero designs. Designed with aesthetics in mind, these panels use thin, circular-shaped wires that give it a minimalistic appearance, thanks to its award-winning Cello TechnologyTM. The implementation of this technology also improves the opportunity for light absorption resulting in an increase of power output.

LG modules are among the most popular in the U.S. residential solar market both for new construction and renewable-energy upgrades to existing homes. Across its portfolio, they feature high power outputs and outstanding durability that perform well in a variety of environments and weather conditions. The LG NeON 2 panels are high-efficiency modules that generate more power from the same amount of sunlight than lower-efficiency modules of the same size while blending in unobtrusively to the look and feel of the home's design. The NeON 2 panels are backed by LG's strong 25-year product and enhanced performance warranty.

LG's innovative smart appliances in 2021's TNAH and TNAR deliver added convenience with advanced technologies and come equipped with elevated design and designer-grade finishes. Led by the "LG Ultimate Laundry Rooms," a number of home appliance innovations from the LG Builder division are featured, including:

- LG STUDIO WashTowerTM (model WSEX200HNA/WSGX201HNA): Featured in TNAH, this industry-first single-unit, vertical laundry solution takes up half the floor space, giving consumers the flexibility to elevate their laundry experience while still tackling ultra-large loads. With an exclusive form factor, the smartly designed LG STUDIO WashTower inspires users to reinvent their laundry room design and laundry routine. Housed in a sleek package complete with LG STUDIO's exclusive Noble Steel finish, this laundry solution features the unique Center ControlTM panel for the easiest access ever, built-in intelligence, and advanced cleaning to make laundry day easier than ever. The ENERGY STAR certified LG STUDIO WashTower also includes a large capacity washer at 5.0 cubic feet that can tackle king-size bedding and more and a custom dryer rack for added convenience.
- LG STUDIO Styler Steam Closet (model S5MSB): Also found in TNAH, the LG STUDIO Styler refreshes, deodorizes and sanitizes with the gentle power of steam no chemicals needed. The new model features expanded capacity with room for five hangers and an additional pants hanger in the door for perfect creases, delivering unmatched flexibility - no plumbing required. Featuring an LG STUDIO-exclusive finish, Black Tinted Mirror for a full-length reflection, this smart steam closet transitions easily into any décor or space and CERTIFIED asthma & allergy friendly by the Asthma & Allergy Foundation of America.

For the ultimate in convenience, all featured LG laundry products are equipped with smart technology and can be controlled from anywhere with the LG ThinQ® mobile app or voice commands via Amazon Alexa and the Google Assistant. Users of LG's smart appliances (not including LG Styler) also have the benefit of extra peace of mind with LG's AI-powered customer support innovation, LG Proactive Customer Care. Developed to reimagine the customer experience and help users get the most of their appliances, Proactive Customer Care immediately alerts owners to potential problems before they occur, expedites repairs when needed, and offering useful maintenance tips to keep LG appliances performing their best.

perience to TNAH and TNAR, the homes feature a wide assortment of 4K Ultra HD TVs from LG Electronics, selected by the NAHB and the home designers as exclusive consumer electronics partner. Highlights include the unparalleled viewing experience of LG OLED 4K TVs, which offer perfect blacks and awesome color for impressive picture quality.

Advanced TVs featured in TNAR include the award-winning 65-inch LG OLED Gallery TV in the main great room, a 45-inch LG OLED TV in the cabinet of the kitchen as well as a 55-inch pop-up TV in the second floor lounge and additional 50inch LCD models in the first floor bedroom, exercise room and first floor office. Featured in TNAH are 77- and 65-inch LG OLED Gallery TVs in the family room adjacent to the kitchen. Complemented by LG sound bars, the LG OLED TVs are also featured in the master bedroom and guest bedrooms while other top-of-the-line LG TVs are installed within the cabana. Home offices include LG UltraWide computer monitors.



Super-Efficient and Sleek Air Conditioning **Technologies**

Featuring efficient advanced HVAC systems and controls from LG Air Conditioning Technologies USA, TNAR embeds LG air conditioning solutions that complement the home's unique design characteristics.

TNAR boasts two award-winning LG Multi VTM S 5-ton Heat Recovery outdoor units. They are connected to several LG Vertical Air Handler units, which feature LG inverter technology and offer discrete and flexible installation, effortlessly complementing the high-end design of the home while ensuring unmatched comfort. Seamlessly integrated with LG's own controls solutions, these customizable home comfort solutions are easily controlled via wall-mount or with a smartphone using the LG ThinQ app.

Both homes have achieved National Green Building Standard "Emerald" certification, EN-ERGY STAR building certification, and Net Zero status from the U.S. Green Building Council. Thousands of building professionals from around the world come to tour the homes and learn how to incorporate countless ideas into their projects. Tours of the homes are offered virtually. Visit The New American Home's virtual experience as well as The New American Remodel's virtual experience to learn more about the construction process, as well as the final showcase homes. The final version of the homes will be available indefinitely on buildersshow.com.



Convenience and Design from Smart Appliances for a Better Life at Home

The chef's kitchens in both homes feature builtin appliances - advanced pro-style ranges, column refrigerators, freezers, wine refrigerators and more - from LG's fast-growing luxury brand, Signature Kitchen Suite. (See separate news release.)



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About LG Electronics USA

LG Electronics USA, Inc., based in Englewood Cliffs, N.J., is the North American subsidiary of LG Electronics, Inc., a \$56 billion global innovator in technology and manufacturing. In the United States, LG sells a wide range of innovative home appliances, home entertainment products, mobile phones, commercial displays, air conditioning systems, solar energy solutions and vehicle components. The "Life's Good" marketing theme encompasses how LG is dedicated to people's happiness by exceeding expectations today and tomorrow. LG is a 2020 EN-ERGY STAR® Partner of the Year. www.LG.com.

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ACCA Forms Partnership with High Level Marketing

Alexandria, VA (Feb 17, 2021) - The Air Conditioning Contractors of America (ACCA) announces that High Level Marketing (HLM) has joined ACCA's corporate partner program. HLM takes an educational-first approach to digital marketing with its clients, ensuring the best possible outcomes. Having experience marketing hundreds of HVACR companies nationwide, HLM brings a proven track record and insights to benefit the ACCA members. With more customers preferring digital interactions in 2021, HLM and the ACCA are poised to bring new ideas and technologies to the growing HVACR industry.

ACCA's corporate partner program enables HVAC industry suppliers, manufacturers, and service providers to demonstrate their extraordinary commitment to ACCA members and the contracting industry through year-round support of the association's activities. The corporate partner program also provides increased access to ACCA's nationwide network of contractors through tailored communications and marketing campaigns throughout the year.

"Having a strong online presence is a must for businesses to have a competitive edge and to succeed," says ACCA Manager of Communications and Strategic Partnership, Deb Weiner. "High Level Marketing has the tools for HVAC businesses to get ahead, and we are very pleased to have High Level Marketing's support in contractor excellence."

When asked about the partnership, HLM CEO and Co-Founder Wes Mathews responded, "The sole goal of our business is to help our clients win more business. We create, develop, launch, measure, and modify websites and digital marketing strategies on our clients' behalf. While we are passionate about using the latest technology to deliver highly enriched websites and digital marketing strategies, we also have an appreciation for the growth challenges businesses face in this new world moving forward."

HLM Co-Owner and Chief Technology Officer, Jon Bowerman, added "We are proud to be in partnership with the ACCA and excited about the launch of our new educational programs and opportunities. It is only by listening and focusing with our industry partners that we can understand and appreciate how far we have come; and equally important, create the vision for where we want to go."

For more information on ACCA's corporate partner program, please contact Deb Weiner, manager of communications and strategic partnership at deb. weiner@acca.org or (703) 824-8862.



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SWACCA Honors Theo Etzel, Conditioned Air

February is a special month for the Southwest Air Conditioning Contractors Association (SWAC-CA). Annually the association installs its newly elected officers and board members and announces prentice in the production housing department at the its Pioneer Award recipient. This year, 60 SWACCA age of 18 and was able to work and grow with the on Why Flammable Refrigerants are Coming Now. members and guests were in attendance to congratulate Theo Etzel of Conditioned Air, Naples, Florida as he accepted the 2021 SWACCA Pioneer Award. Presenting the award was Tim Dupre, Conditioned Air's CEO and SWACCA Past President. This prestigious award is given In recognition of 40 plus years as a leader and role model and for paving the way for future professionals in the Southwest Florida HVAC

industry. Tim introduced Theo by using himself as a testimonial to Theo's leadership and employee mentoring skills. Tim was hired by Theo as an ap-

Directors Ken Danziger, Tropic Supply; Jon Kunz, Conditioned Air; Michael Porter, Carrier Enterprise; and Rick Sims, Johnsons Air Conditioning.

Rick Sims closed the evening with a presentation The next SWACCA meeting is scheduled for March 10 as a joint meeting with ASHRAE. Matt Michel, Service Roundtable/Service Nation CEO is the schedule guest speaker. Coming in from Texas, he will be speaking on What is Your Leadership Style From Behind or From in Front? He is a dynamic speaker both SWACCA and ASHRAE members are excited to introduce to their members and guests.

company. Twenty-three years Tim is now the CEO.

In addition to the Pioneer Award, the Officers and Directors elected for one and two-year terms respectively were installed by FRACCA President Rick Sims. They are the following:

Mike Antonucci, President; Jim Britton, Vice President, Gulf Shore Cooling; Peter Pietruszko, Secretary/Treasurer, Speedy Air Conditioning and



Theo Etzel of Conditioned Air, Naples, accepted the 2021 SWACCA Pioneer Award from Tim Dupre

Newly installed officers and directors from left: Jon Kunz, Ken Danziger, Don Condee, Tim Dupre, Jim Britton, Peter Pietruszko, Mike Antonucci

Rick Sims was the guest speaker on New Flammable Refrigerant Regulations

Carrier Launches i-Vu® Pro v8 Software, Expanding Operational Insights with New Tools

KENNESAW, GA., Feb. 2, 2021 — Carrier has released i-Vu® Pro v8 software for the iVu® building automation system. This latest update features new commissioning and visualization tools to help building owners and operators gain more insights on how their heating, ventilating and air conditioning (HVAC) systems are operating. In addition, the software now supports the latest industry-standards for building automation, providing enhanced interoperability, usability and security. Carrier is a part of Carrier Global Corporation (NYSE: CARR), a leading global provider of healthy, safe and sustainable building and cold chain solutions.

"The latest i-Vu software tools provide building operators with more visibility into their day-to-day operations, and more visibility into what's working and what's not," said Mark Jones, business manager, Controls, Carrier. "In addition, our ongoing commitment to industry standards allows customers to stay up-todate with the latest technologies."

The new i-Vu Pro software features the ACxelerate commissioning tool, which provides automated and continuous commissioning for Variable Air Volume (VAV) systems. The tool, which is used by Carrier Controls Experts and Commissioning Agents, initiates automated tests to exercise dampers and reheat valves in a VAV system. Faults can easily be identified and the automated tests can be repeated until faults are no longer present. A final verification report provides building owners with proof that their VAV system is operating as designed. The ACxelerate tool can be executed on an ongoing basis to help facilities staff ensure that original VAV performance persists and their VAV systems remain optimized, preventing losses in energy efficiency and comfort levels.

New visualization tools are also features of the latest software release, including thermographic floorplan graphics that are rendered as Scalable Vector Graphics (SVG). These color floorplans provide quick insights on comfort and operating conditions and can be scaled up and down without losing image quality. In addition, enhancements have been made to i-Vu's custom reporting engine, allowing building operators to easily sort, search and link to building data within reports. Both tools give operators the real-time visibility needed to help improve operational efficiencies and maximize energy management in their buildings.

The latest open industry-standards are also included. The i-Vu Pro v8 software now supports Project Haystack, an open source initiative that provides standard naming conventions for building equipment and operational data. This enables increased usability when accessing data from HVAC equipment such as chillers, rooftop units and air handling units, as intuitive, self-descriptive names can be used to map the data inside i-Vu's visualization and reporting tools.

The i-Vu® Pro v8 software has been upgraded to support the latest BACnet® standards for enhanced interoperability and security, including BACnet protocol revision 19 and BACnet Secure Connect (BACnet/SC). BACnet/SC provides a security framework for building automation systems, using standard internet protocols and widely used security conventions. Full BACnet/SC system compatibility also requires new i-Vu hardware, which is currently under development.

Lastly, support for IPv6 and Java 11 are included in the latest software, as well as security enhancements per Carrier's ongoing commitment to customer security. The new i-Vu® v8 Pro software is available through Carrier sales offices worldwide. For more information on the i-Vu building automation system, please visit carrier.com.

Fieldpiece Instruments Announces New Website Launch and New Product Introductions in 2021

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Whoever refreshes others will be refreshed

Orange, Calif., February 16, 2021 – Fieldpiece Instruments, a leading HVACR tools and test instruments specialist, announces the launch of its newly redesigned website at www.fieldpiece.com. The new site features improved functionality, a dynamic and modern design and easier navigation to help HVACR professionals learn more about Fieldpiece's products and services as well as stay up to date with the latest HVACR information.

"Our new website aligns with our company's vision for growth and expansion in 2021 and into the future," said Rachel Newport, Fieldpiece's Director of Marketing. "We hope it provides our customers and those looking for better ways to service HVACR systems, with a resource for product knowledge and HVACR education." In addition to the website launch in 2021, Fieldpiece will be expanding its product portfolio with innovative new HVACR tools and test instruments in 2021. HVACR pros will want to stay tuned to learn more about the new products as they become available.

Fieldpiece's redesigned website will include a blog that will be regularly updated with customer spotlights, HVACR pro tips and product updates. Visitors are encouraged to explore the new website and sign up for Fieldpiece's e-newsletter at www.fieldpiece.com.



ASHRAE Epidemic Task Force Releases Updated Building Readiness Guide

ATLANTA (February 2, 2021) – As the performance of many HVAC systems in buildings are still being evaluated, the ASHRAE Epidemic Task Force has updated its reopening guidance for HVAC systems to help mitigate the transmission of SARS-CoV-2.

"The Building Readiness Guide includes additional information and clarifications to assist designers and commissioning providers in performing pre- or post-occupancy flush calculations to reduce the time and energy to clear spaces of contaminants between occupancy periods," said Wade Conlan, ASHRAE Epidemic Task Force Building Readiness team lead. "New information includes the theory behind the use of equivalent outdoor air supply, method for calculating the performance of filters and air cleaners in series, and filter droplet nuclei efficiency that help evaluate the systems' ability to flush the building."

Major updates to the building readiness guidance include the following:

Pre- OR Post- Flushing Strategy Methodology: The strategy has been updated to include the use of filter droplet nuclei efficiency, which is the overall efficiency of filter based on viable virus particle sizes in the air, to assist in determining the impact of the filter on the recirculated air on the equivalent outdoor air. This allows the filter efficiency as a function of particle sized, using on ASHRAE Standard 52.2 test results, to be estimated based on the expected size distribution of virus-containing particles in the air. This calculation is currently based on Influenza A data and will be updated as peer-reviewed research becomes available for the distribution of particle sizes that contain a viable SARS-CoB-2 virus. Additionally, a chart added to help determine the time to achieve 90%, 95%, or 99% contaminant reduction if the equivalent outdoor air changes per hour is known.

Flushing Time Calculator: There is now a link to a view-only Google Sheet that can be downloaded

for use, to help determine the available equivalent outdoor air changes and time to perform the flush. This sheet is based on a typical mixed air AHU with filters, cooling coil, with potential for in AHU air cleaner (UVC is noted in the example), and in-room air cleaning devices. Provided efficiencies of MERV rated filters are based on the performance of over 200 actual filters from MERV 4 through 16, but the tool also allows users to enter custom characteristics for specific filters.

This sheet also calculates the filter droplet nuclei efficiency based on the cited research but allows a user to adjust the anticipated distribution of virus as desired. It also allows specification of the zone (room) air distribution effectiveness from ASHRAE Standard 62.1 to account for the impact of the HVAC system air delivery method on the degree of mixing. Default calculations assume perfect mixing. Finally, the tool allows for the target air changes to be adjusted if an owner wants to achieve a different percent removal in lieu of the recommended 95%.

Heating Season Guidance: the guide now includes data to consider for heating of outdoor air and the potential impact on pre-heat coils in systems.

Adjustments to Align with Core Recommendations: The Core Recommendations were released in the last month and this guidance document needed to be updated to ensure that the information provided aligned with the intent of those recommendations. This included minimum outdoor air supply and filter efficiency requirements and their role in an equivalent outdoor air supply-based risk mitigation strategy.

The guidance still addresses the tactical commissioning and systems analysis needed to develop a Building Readiness Plan, increased filtration, air cleaning strategies, domestic and plumbing water systems, and overall improvements to a systems ability to mitigate virus transmission. To view the complete ASHRAE Building Readiness guide and other COVID-19 resources, visit ashrae.org/COVID-19.

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