

TODAY'S A/C

& REFRIGERATION NEWS

Serving the Southeast Region

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



FEFPA Summer Convention at the Boca Raton Hotel & Spa (see page B4)



Blacks Supply Hosts Nu-Calgon Demo Days (see page B6)



PBACCA - FACA Apprenticeship Association Graduation Ceremony (see page B11)



Tropic Supply Events in July (see page 20)

MEP Coalition Meets with Legislators



Jeff Schlichenmeyer
Publisher

groups and associations, are shocked, surprised and alarmed by what's happening.

A contingent representing the MEP Coalition attended the Country and Western Boots & BBQ Legislative Hobnob sponsored by the Associated Builders and Contractors (ABC). Thanks to Pat Ambrose, Chairman of Board for FRACCA, Brian Hastings,

We recently released a report entitled "Florida's Failure to Regulate" which demonstrates how most states have already acted to prohibit ratepayer subsidized utility expansion and unfair competition. Since then, we have reached out to and have been contacted directly by many legislators, industry reporters and editors who

Director of ACCACF, and Paula Hubbard, Executive Director of FRACCA for representing the industry and making our case for legislative and regulatory action.

Left unchallenged, FPL will continue their expansion into home services using their established branding and recognition, customer lists, infrastructure and market power to decimate our businesses and dominate our markets. They are unfairly using ratepayer funded resources from their regulated utility to force their way into new revenue streams and higher profits. Their goal is to leverage their market power, aggressively recruit our employees, use predatory pricing to steal our customers and put us out of business. Together, we will fight FPL's use of their name and logo, public resources and economies of scale to give them a competitive advantage in this market. For more information, please visit us at www.mepcoalition.org.



Pat Ambrose, Brian Hastings, and Paula Hubbard

Travis Refrigeration Installs Donated YORK® HVAC System in Mortgage-Free Home Gifted to a U.S. Military Veteran

Milwaukee, WI – (July 15, 2019) – Recently, Travis Refrigeration partnered with other local contractors and Building Homes for Heroes during a Welcome Home ceremony in Lehigh Acres, FL for USMC Corporal Yancy Green. Throughout his service, Green has suffered many injuries that have impacted his mobility. His injuries require specific modifications to his home in order to live safely and focus on his recovery.

To support Green, Johnson Controls donated a YORK® heating and cooling system with a Wi-Fi® capable YORK® touch-screen thermostat to better assist him with adjusting his home's temperature without the need to get up. Travis Refrigeration donated the HVAC installation services for the veteran's new home.

"Having the support of companies like Johnson Controls and Travis Refrigeration gives us the opportunity to honor injured veterans with a mortgage-free home," said Chad Gottlieb, director of construction development, Building Homes for Heroes. "The custom-

ized amenities companies like Johnson Controls are able to bring to these homes allows veterans to live their lives in greater comfort and dignity."

Building Homes for Heroes is a national organization that recognizes those who serve in the United States Armed Forces by supporting the needs of severely wounded or disabled soldiers and their families.

The organization strives to build or renovate quality homes and donate them, mortgage-free, to injured veterans nationwide.

"There is no greater honor than giving back to the veterans that have sacrificed for our country.

We are proud to provide USMC Corporal Yancy Green with a comfortable

environment in his new home," said Jason Travis, Owner, Travis Refrigeration & Air Conditioning.

The YORK brand of Johnson Controls has been a proud sponsor of Building Homes for Heroes since 2014. Building Homes for Heroes invites anyone wishing to volunteer or donate to contact Building Homes for Heroes at info@buildinghomesforheroes.org. To learn more visit www.buildinghomesforheroes.org.



USMC Corporal Yancy Green was gifted a beautiful mortgage-free home



AHREXPO®

ORLANDO • FEB 3-5 • 2020



The Ware Group
Saving You Time. Making You Money.



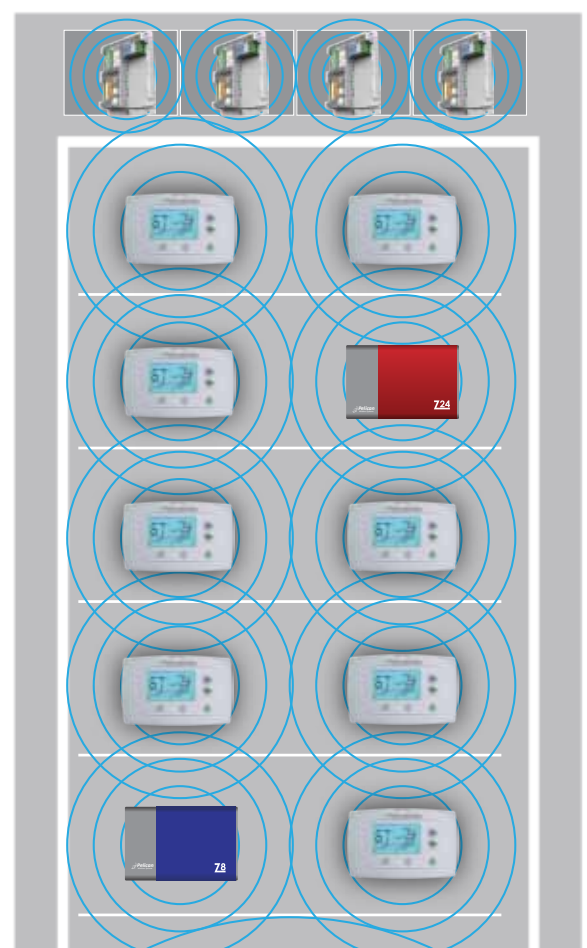
PELICANBASICS

CONTROL ALWAYS AT YOUR FINGER-TIPS

Web-Based + Intuitive + Affordable

State-Of-The-Art Wireless Building Control

- Self-Healing Wireless Mesh Network
- One Gateway Scalable up to 2000 Devices
- Single IP Address Secure Connection
- Internet Remote Access and Control
- CO2 and Humidity Sensing Stats
- 24 and 8 Zone Zoning Panels
- Wireless Accessory Relay Panel
- Remote Temperature Sensors
- Open Door Switches



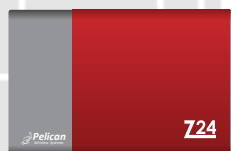
Gateway



Thermostat



Zone Panel (8)



Zone Panel (24)



RTU
Economizer
Control



▲ www.JohnstoneWareGroup.com

The Third, Fourth, and Fifth Law of Profits

Ruth King's Contractors Cents



HVAC Channel.tv

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

Reach her at ruthking@hvacchannel.tv.

Law #3: Continuous profits are critical, Law #4: Recurring revenue is vital, Profit Law #5 is to Price for Profit

Continuous profits are critical to long term survival. And, continuous, predictable losses are insane. Yet, many contractors plan for, and expect, a loss in the first quarter every year. They hope for a hot summer to make up for the first quarter. Why would you do this? Why wouldn't you put things in place to at least break even in first quarter? Then, if the summer is not hot, your year will still be profitable.

A break even, or even small positive first quarter is dependent on maintenance clients. Maintenance clients are your recurring revenue which is also critical for profitability and wealth (more about this when I cover the wealth laws).

One of the biggest keys to having a break even or profitable first quarter is your attitude. If you sit back, do nothing, and say, "That's the way it is," then you will get what you expect. When you plan your yearly marketing activities, contact your maintenance clients and customers who have used your company in the past, and execute those plans, you have a greater chance that the first quarter will be at least break even.

The need for recurring revenue, i.e. maintenance plans, has been known for years – customers experience lower utility bills, more comfort in their home/office, equipment lasts longer, and more. From a company perspective, a large maintenance client base provides increased cash flow, less seasonality, referrals, and predictable replacement sales and referrals.

Here's a major reason a thriving maintenance program is critical: A contractor called me. He was tired, in his 60's, and wanted to sell his business. What was the value (i.e. wealth) of his business? Unfortunately he had no maintenance plans and business that was

not very profitable. As a result, the business was not worth much. All of his years of hard work amounting to less than \$100,000 of value.

Contrast this sad situation with another contractor I started working with in 1999. He and a partner had just bought the company they worked for from their boss. The company generated less than \$1,000,000 in sales when they purchased it. Fast forward to 2015. The partners sold the business for \$9 million in cash. The reason the business was so valuable was the number of maintenance plans they had. The new owners stepped in and generated \$10 million the year after the sale because of the relationships the business had generated through maintenance.

The major mistake I see companies make with growing maintenance programs is thinking that maintenance is a loss leader and that the losses can be "made up" through service and replacement sales.

HVAC companies are NOT supermarkets who advertise a phenomenal deal on milk to lure you into the store. Then, the milk is at the back of the supermarket so you see everything you might possibly need and walk out of the store with much more than milk!

Contractors cannot afford a loss leader. Maintenance plans must at least break even after taking overhead costs into consideration. Continuous profits depend on recurring revenue.

Pricing for profit is actually easy using the net profit per hour methodology. Unfortunately some contractors price by figuring out what their competitors are charging and making their pricing a little less. This is insane. How do they know their competitor is covering all of his costs? And, their competitors may have economies of scale that they don't have. A sound pricing policy uses the profit and loss statement starting at net profit.

Net profit + overhead = gross profit + direct costs = selling price

To price properly, you also need to estimate the number of hours it will take to complete the job. What net profit per hour do you want to earn? Then add the company's overhead cost per hour. That equals the gross profit per hour. Multiply the gross profit per hour times the number of estimated hours to get the total gross profit. Determine the direct costs (cost of goods sold). Your selling price is the addition of the total gross profit and the direct costs.

Overhead cost per hour: Overhead cost per hour is defined as total overhead costs divided by the number of billable or revenue producing hours. It is easily calculated at the end of your fiscal year. Your profit and loss statement shows you the total overhead. Divide that number by the billable hours that you had.

A billable or revenue producing hour is an hour that is used by you or your employees in the creation of a product or performance of a service. It does not include vacation hours, holiday hours, training/meeting hours, sick time, or other time you paid your field employee for when he was not producing a product or service.

Let's price a replacement job using net profit per hour pricing. Assume: It is estimated to take 16 hours to install the replacement system. The crew performing it earns \$35 per hour. Equipment/materials cost is \$1,500. Payroll costs are covered in overhead cost of \$30 per hour. The company wants to earn \$100 per hour. What should your company charge for this job? Net profit = \$1,600 (\$100 X 16), Overhead = \$480 (\$30 X 16), Direct cost = \$700 (\$35 x 16) + 1,500 = 2,060 (this is now correct), The job price is \$4,140.

Make sure you are charging enough this summer to ensure you have cash left after you pay your bills.

ENGINEERED FOR STRENGTH CONDENSER MOUNTING PRODUCTS

Aluminum Condenser Stand



Hurricane season is here, but we have you covered.

Our Condenser Stand is Engineered to meet the current **FBC** requirements.

FEATURES

- T5 & T6 Aluminum
- Full weld on foot and supports
- Withstands wind speeds up to 160 mph
- Available for 1-6 unit systems
- Adjustable width from 21.5" to 30"
- 18" or 24" Legs



ROOF TOP APPLICATIONS ✓

FLOOD ZONE APPLICATIONS ✓

OFFERING YOU THE GOLD STANDARD SINCE 1982

We've been dedicated to providing you with the best Products and Services for 37 years and counting.

The next time you drop by your Supplier, ask for our products by name:
The Metal Shop



In Memoriam Benton McCarley



Memory Benton McCarley, age 80, of Madison, FL departed this life on July 7, 2019 after battling an extended illness. Benton was born on June 20, 1939 in Spartanburg, SC to John and Blanche McCarley. He grew up in Clifton, SC and graduated from Cowpens

High School. He had a passion for the game of baseball and played through his high school years and on in to Junior College. He was drafted by the Pittsburgh Pirates. He went on to play for the Men's American Legion Softball League and the Men's National Softball Championship in 1969. He served in the United States Army as a drill sergeant and transitioned to the Army Reserves. He had many successful years being self-employed in the HVAC industry and received multiple awards in this industry. He has always been an avid NASCAR, Clemson Tiger and Madison County Cowboy fan. Benton loved God and his family more than anything in this world and he was a member of Hopewell Baptist Church in Madison, FL.

Venstar Announces New Ultra-Low-Power Wi-Fi Mini Temperature Sensor for Remote Management of Air Temperatures



CHATSWORTH, Calif., July 2, 2019 — Venstar®, a leading thermostat and energy management systems supplier, today announced its new ultra-low-power Wi-Fi® Mini Temperature Sensor (ACC-TSENWIFIMini). Compatible with Venstar's ColorTouch®, Explorer® and Explorer Mini Wi-Fi connected thermostats, the new mini Wi-Fi sensor enables users to remotely measure indoor and outdoor air temperatures. Using two AAA batteries, the mini sensor is expected to stay powered longer than a year, assuming solid Wi-Fi connection. "With Venstar's new Wi-Fi Mini Temperature

Sensor, users can remotely measure air temperatures to ensure the most balanced and comfortable indoor environments," said Steve Dushane, president and CEO of Venstar.

Venstar Wi-Fi Temperature Sensor Mini Model (ACC-TSENWIFIMini):

Multiple Uses:

- Remote temperature sensor
- Outdoor temperature sensor
- Indoor room temperature averaging
- Walk-in refrigeration temperature monitoring

Features include:

- Easy setup using the Venstar Configurator App
- Automatic temperature averaging when multiple sensors are used

- Up to 8 sensors per subnet
- Operating temperatures of zero to 120 degrees Fahrenheit with alkaline batteries or -20 to -130 degrees Fahrenheit with lithium batteries
- Small size (2.5 inches deep x 2.5 inches wide x 1 inch deep)
- Powered by two AAA batteries (included)
- Expected battery life of more than a year (assuming strong constant Wi-Fi signal strength and connection)
- Compatibility with most residential and commercial Venstar thermostats

Venstar Inc. is a leading thermostat and energy management system (EMS) manufacturer, known for providing value to its customers via ease of use and installation, proven cost savings, improved energy efficiency, quality and reliability. Founded in 1992, Venstar is one of the largest thermostat suppliers in the world and designs and produces Venstar-branded products as well as OEM thermostat products for the biggest names in HVAC. Venstar's Surveyor is a leading energy management system, typically saving small-box retailers 20–35 percent of their energy costs, which translates to tens of millions of dollars in savings each year and dramatic reductions in CO2 emissions. Surveyor currently controls the energy usage of 30,000+ retail locations across the United States, Canada, Puerto Rico and Mexico.

For more information, visit Venstar: www.venstar.com

ROBINAIR

Professional refrigerant recovery, tools, and accessories for today's HVAC/R technician



RG6
Portable Refrigerant
Recovery Machine



15500
VacuMaster 5 CFM
Vacuum Pump



LD7, LD5, & LD3
Full Line of Refrigerant
Leak Detectors

Joseph Lilly Named Area Sales Manager for Goodman Distribution South Florida Region



Joseph Lilly

Joseph Lilly has taken the leadership role as Area Sales Manager for Goodman Distribution in the South Florida region. His territory includes from Bradenton to Ft. Pierce and south.

Born in Florida, he lived in the Tampa Bay area most of his life until his wife and 2 year old son recently moved to Bradenton, FL.

Joseph started in the HVAC industry in 1993 as a technician for a mechanical company based in Tampa, where he worked for about twelve years, then was employed with Trane in Tampa for five years as a territory sales manager.

For a few years Joseph worked at Florida Air Conditioning Distributors where he sold commercial and applied products. In March of 2013, he started his employment with Goodman as a TSM, then moved into the Daikin territory sales manager role when Daikin unitary products were launched. In two years Joseph was promoted into the divisional ductless/VRV manager for Goodman where he covered 5 states and managed a sales team.

Please welcome Joseph in his new position. He can be reached by phone at 727-514-4411 or by email at Joseph.Lilly@goodmanmfg.com.

Hardcast to Acquire Gripnail Corporation Business

WYLIE, TEXAS, July 31, 2019 – Carlisle Hardcast LLC (Hardcast), a wholly owned subsidiary of Carlisle Construction Materials LLC, announced today it has acquired the assets of Gripnail Corporation (Gripnail), creators of the original HVAC mechanical insulation fastener and application equipment, based in East Providence, RI. Gripnail manufactures fastening solutions for the HVAC industry, specifically, mechanical and weld pin fasteners as well as equipment that attaches duct liner to sheet metal air ducts. In addition, Gripnail manufactures metal tacks to fasten light loads such as name tags and wiring harnesses to pumps, valves and other types of machinery. The business acquired from Gripnail will become part of Carlisle Hardcast, within the Carlisle Construction Materials (CCM) segment of Carlisle Companies Incorporated.

Hardcast, based in Wylie, TX, is comprised of Hardcast Duct Sealants and Insulation Adhesives, DynAir Duct Hardware and Accessories, and the Nexus 4-Bolt Flange Closure System. As industry leaders in solutions for the HVAC air distribution system, both companies represent a combined 107 years of experience and focus on manufacturing excellence in the United States and Canada.

Chris Ryding, CEO of Gripnail Corporation said, "Becoming part of Hardcast and Carlisle affords great opportunity for our employees, customers and for the HVAC industry as a whole. We are all ready to make a bigger impact together."

Sal Fasanella, General Manager of Hardcast said, "Gripnail joining Hardcast represents many exciting opportunities to expand resources and broaden our collective footprint in the air-distribution space. This acquisition fits with Hardcast's plans to provide more complete solutions and support for the HVAC sheet metal industry."

NEW TRACCA CHAPTER Now Officially Started!

The Tallahassee Refrigeration & Air Conditioning Contractors Association is not new to the HVACR Industry, but it is the NEWEST Chapter of FRACCA, the Florida Refrigeration and Air Conditioning Contractors Association. TRACCA makes the 9th Chapter across Florida, and will be marketing to grow the Association. Monthly General Meetings are happening NOW! Join us for a Meeting, and let your VOICE be Heard! For more information contact Patrick Barineau or Carre Welsh at TRACCAFL@gmail.com



Dan Griffin - NFACCA & Past FRACCA President, Paula C. Huband - Exec Director, FRACCA, Rick Sims - SWACCA & FRACCA President, Patrick Barineau - TRACCA President, Carré Welsh - TRACCA V-Pres, Amanda Godwin - Secretary Treasurer

ALWAYS BY YOUR SIDE

FORANE® 427A - THE EASY R-22 RETROFIT™

Minimize the work for R-22 retrofits in air conditioning, heat pumps, and refrigeration systems.

- ✦ NO OIL CHANGE NEEDED IN MANY INSTALLATIONS
- ✦ COMPARABLE CAPACITY TO R-22
- ✦ NEARLY IDENTICAL PRESSURES TO R-22
- ✦ LOWER DISCHARGE TEMPERATURES
- ✦ NO TXV REPLACEMENT REQUIRED
- ✦ COPELAND DISCUS® AND BITZER APPROVED
- ✦ UL CLASSIFIED

Visit ark.ma/fc-todays-ac-4c to learn more.



Forane is a registered trademark and The Easy Retrofit is a trademark of Arkema.

FORANE®
REFRIGERANTS
BY ARKEMA

forane.com 800-245-5858

Danfoss Partners With Master Distributor To Support Sales Of Cooling Products To North American HVACR Wholesalers

Danfoss announced its new partnership with master distributor Motors & Armatures, Inc. (MARS), wherein MARS will serve all HVACR wholesalers throughout North America with the sale and support of aftermarket Danfoss products for air-conditioning and refrigeration applications.

MARS, which is headquartered in Hauppauge, New York, has distribution facilities near St. Louis, Missouri, and in Mississauga, Ontario, and more than 65 representatives throughout the US and Canada.

MARS will stock Danfoss components and compressors for air-conditioning and refrigeration applications, and begin servicing regional and independent wholesalers immediately, with plans to begin supporting Danfoss' existing wholesale partners by early 2020.

"We look forward to partnering with MARS, which for more than 70 years has been exclusively focused on distribution," said Joel Eggart, sales director – indirect sales, Danfoss Cooling. "We believe MARS will help us strengthen our distribution channel and, most importantly, to serve wholesalers throughout the region with the same reliable technologies they have come to expect from Danfoss."

"We are excited to add Danfoss products to our offering. This will be a great complement to our existing product portfolio. Danfoss has a strong reputation for quality and reliability and, our strong network will ensure we are able to expand the availability of Danfoss products in the market," said Frank Mehler, Senior Vice President, Marketing & Sales at MARS.

Danfoss engineers advanced technologies that enable us to build a better, smarter and more efficient tomorrow.

In the world's growing cities, we ensure the supply of fresh food and optimal comfort in our homes and offices, while meeting the need for energy-efficient infrastructure, connected systems and integrated renewable energy.

Ritchie Introduces The YELLOW JACKET® Adjustable Temperature Probe Strap

BLOOMINGTON, MN (July 1, 2019) – Ritchie Engineering Company, Inc., the leader in service tools for HVAC&R professionals and manufacturer of YELLOW JACKET® products, is proud to introduce the Adjustable Temperature Probe Strap.

For use with P51 Titan and ManTooth™ families of Digital Manifolds, this thermistor-style Adjustable Temperature Probe Strap (67031) allows the user to accurately measure temperatures from -40°F to 266°F (-40°C to 130°C) on pipes as large as 6 inches in diameter. With a 6-foot cable length, the adjustable temperature probe's far reach can provide measurements for a plethora of applications. Made in the USA and backed by a one-year warranty.

The YELLOW JACKET® brand name is synony-

mous with the highest quality and most complete line of HVAC/R tools in the industry. The brand's roots go back to 1946 when Ritchie Engineering Company, Inc., a manufacturers' representative organization, became a hose manufacturer. With an emphasis on quality and service, Ritchie Engineering, based in Bloomington, Minnesota, trademarked the hose as the YELLOW JACKET® Charging Hose in 1950. Since then, the company has been engineering, manufacturing, and continuously improving the YELLOW JACKET® hose while

adding new products to its portfolio. Today, YELLOW JACKET® products are sold worldwide through a network of authorized HVAC&R and automotive wholesalers. For more information, please call (952) 943-1333 or visit our website at www.yellowjacket.com.



SFACA Welcomes New Executive Director



Stacey Miller

(CORAL SPRINGS, FL, July 2019) The South Florida Air Conditioning Contractors Association (SFACA) is proud to announce and welcome Stacey Miller with Landmark Business Services as the Association's new Executive Director.

Miller will be responsible for the daily operations and management of SFACA, including the onboarding of new members and planning of the Association's meetings and events. She brings to the Association more than 15 years of experience in trade association management includ-

ing numerous local, statewide, national and international affiliations. "I am very encouraged by the experience Stacey brings to SFACA and look forward to improved use of technology and a more robust programming schedule," said Skip Farinhas of GMC Air Conditioning Services and current President of SFACA.

Originally from Long Island, NY, Stacey has resided in Broward County for 22 years. She is active in commercial and residential construction trade organizations tri-county as well as several philanthropic ventures with local charities including the construction storefront at Junior Achievement of South Florida. In 2016, she was recognized by the Boys and Girls Club as one of 100 Outstanding Women in Broward County.



**YOUR PHONE HAS IT.
YOUR TABLET HAS IT.
NOW YOUR MANIFOLD
HAS IT TOO.**

**TOUCH-SCREEN TECHNOLOGY COMES
TO HVAC/R SYSTEM MEASUREMENT.**

P51-870 TITAN™ DIGITAL MANIFOLD

- ✦ 4.3" full color, touch-screen display
- ✦ Connects to smartphone via Bluetooth® and the ManTooth® app
- ✦ On-board data logging
- ✦ Vacuum sensor, hoses and carrying backpack included

YELLOW JACKET®

Find us on www.yellowjacket.com

York Factory Direct

More than just quality equipment

Experience the York Factory Direct Difference

- Equipment is Designed, Engineered, and Assembled in the US
- Full line of parts & supplies
- Aggressive consumer rebates and salesperson spiffs
- Standard 1 year labor
- Factory backed extended labor warranties
- Expert tech support
- Free training
- Free residential equipment delivery
- Contractor focused...We have your back!

 **YORK**[®]
INSTALL CONFIDENCE



#theyorkdifference

SOURCE
HVAC Supply Center



DORAL

8491 NW 23rd Street
Doral, FL 33172
786-437-9603

FORT MYERS

9353 Laredo Avenue
Fort Myers, FL 33905
239-694-0291

FORT PIERCE

801 S. Kings Highway
Fort Pierce, FL 34945
772-742-7138

JACKSONVILLE

6631 Executive Park
Court N.
Suite 210
Jacksonville, FL 32216
904-440-7620

LARGO

12161 62nd Street, Suite 300
Largo, FL 33773
727-431-1444

MELBOURNE

605 Distribution Drive
Suite 2
Melbourne, FL 32904

ORLANDO (HUB)

4127 Seaboard Road
Bldg. 902
Orlando, FL 32808
407-362-9750

POMPANO BEACH

1280 NW 22nd Street
Pompano Beach, FL 33069
954-545-9500

SARASOTA

7910 25th Court E, Suite 109
Sarasota, FL 34243
941-536-9828

TALLAHASSEE

5215 West Tharpe Street
Tallahassee, FL 32303
850-241-0191

TAMPA

3409 Cragmont Drive
Tampa, FL 33619
813-663-9332

WEST PALM BEACH

1719 Okeechobee Road
West Palm Beach, FL 33409
561-618-3830





Trade Talk:

By Tommy Castellano
Owner, Castellano A/C Services
in Tampa, Florida



Planning Your Work And Working Your Plan!

A common denominator in all of the “how-to” guides I’ve read on starting a business is that of writing a plan. Ironically, this “start a business” best practice is also the best approach to staying in business. Does your business have a plan?

The most common complaint I hear from business owners is, “I’m having trouble growing my business.” My typical response is, “Why do you think your current plan isn’t working?” The typical answer is, “What plan?” I conclude with, “You just identified your problem!” Many of the businesses I meet with, regardless of how long they have been in business, do not have a documented strategic plan to direct their actions and resources. Businesses that have a plan know where to focus and rarely grapple with business decisions. It is a sequential approach developed called M.O.S.T. (Mission, Objectives, Strategies and Tactics). Once you have a mission, the planning process involves three steps.

Step 1: Develop objectives that articulate accomplishments toward advancing your mission. A well-crafted objective is specific, measurable, realistic and assigned. Example: Increase sales revenue in the Service Dept. 10% to \$1,000,000.00 by December 31, 2017, assigned: Service Manager/Business Owner.

Step 2: Create strategies that define a specific path or initiative designed to accomplish an objective. A well-crafted strategy defines a course of action to take as all or part of achieving an objective. Example: Establish a sales force to increase sales.

Step 3: Establish tactics to coordinate activities for each strategy. Tactics cover all actions, from

group projects to individual tasks, necessary to effectively implement a strategy. They define “who” does “what” by “when” and are based on your available human and financial resources.

Each level of planning—objectives, strategies and tactics—are aligned to the planning level above it, and strategies support an objective, and tactics support a strategy. One objective will be supported by one or more strategies, and each strategy will be supported by several tactics (which represent an action or work plan).

It doesn’t matter whether you are starting a new business or trying to grow an existing business, nor does it matter the size or sector of your business; strategic planning is a best practice that should not be overlooked.

Because of the flexible nature of plans, limit the number of objectives you want to accomplish, and keep to a short set of strategies for each. Otherwise, you may end up with too many actions to deal with...in strategic planning, less is more. You should also align the timing of your plan to your fiscal year to make budgeting easier. Use the M.O.S.T. planning process to make what many experience as an arduous undertaking far simpler.

This best practice will increase the likelihood of your success and longevity.

Staying in business is the objective and sticking to a plan takes discipline. But that is another subject.

Until next time.

Tommy Castellano

The Mini UV LED by Fresh-Aire UV® Wins Third HVAC/R Product Design Award



Jupiter, Fla.--Fresh-Aire UV®, Jupiter, Fla., a leading manufacturer of indoor air quality (IAQ) products, won a Gold product design award for its Mini UV LED on July 29 in the “IAQ Category” of the

16th annual Dealer Design Awards (DDA) sponsored by the trade magazine Air Conditioning, Heating & Refrigeration News (ACHR News).

The DDA was the Mini UV LED’s third HVAC/R industry design award after being named an IAQ category finalist in the 2019 AHR Innovation Awards in January and recognized as “one of the 10 best technologies of 2018” by the Service World Expo last November. The Mini UV LED was judged by the DDA’s independent panel of HVAC contractors and competed against 79 other product entries in other various categories.

The patented product features a customizable, cut-to-length 40-inch-long LED array embedded on a 1/2-inch-wide (12.7-mm) self-adhesive, flexible strip that easily fits the constraints of mini-splits and other HVAC equipment with cramped spaces. The LED array’s output maintains mini-split blowers, drain pans and coils free of mold and other biological contaminants without producing airborne ions, ozone, reactive oxygen species (ROS) or other respiratory-damaging irritants. A March 2019 third-party party test confirmed the LED’s deactivation efficacy as 99-percent for biological contaminants such as *Aspergillus niger* (mold) within six hours of exposure.

“We’re proud of the research and development our HVAC/r industry manufacturers put into new product innovations; the DDA is our opportunity to recognize their efforts,” said Mike Murphy, Group Publisher, The News, which is distributed nationally to more than 33,000 members of the HVAC/R and allied industries.




Your #1

SOURCE FOR

Commercial Split Systems & Package Units



Ask our dedicated in-house commercial specialists for quotes, submittals and special requests.

STOP BY YOUR LOCAL BAKER OR FLORIDA COOLING TODAY!

45 LOCATIONS TO SERVE YOU

Boynton Beach
(561) 806-7075
Clearwater
(727) 572-0181
Clearwater
(727) 449-1230
Daytona
(386) 255-5023
Daytona Beach
(386) 274-5345
Doral
(305) 592-3510
Fort Myers
(239) 939-1649
Fort Walton Beach
(850) 344-1761
Gainesville
(352) 336-8778
Gainesville
(352) 376-3212
Jacksonville
(904) 519-5550
Jacksonville
(904) 407-4477
Jacksonville
(904) 354-6685
Jacksonville
(904) 988-9478
Kissimmee
(407) 933-8008

Lake City
(386) 755-2009
Lakeland
(863) 668-8186
Lakeland
(863) 687-8178
Lecanto
(352) 344-5300
Leesburg
(352) 728-6222
Melbourne
(321) 768-0220
Merritt Island
(321) 452-5010
Naples
(239) 597-7172
New Port Richey
(727) 847-0445
Ocala
(352) 732-5271
Orange City
(386) 878-4444
Orange Park
(904) 272-7700
Orlando
(407) 296-7727
Orlando
(407) 849-6090
Palatka
(386) 866-7013

Panama City
(850) 215-4200
Pensacola
(850) 434-7581
Pompano
(954) 691-0210
Port Richey
(727) 847-1047
Sarasota
(941) 366-5804
Sebring
(863) 314-4494
St. Augustine
(904) 824-1001
St. Petersburg
(727) 525-6926
Stuart
(772) 220-3093
Tallahassee
(850) 576-8102
Tampa
(813) 885-7641
Tampa
(813) 740-8704
Tampa
(813) 217-5913
Vero Beach
(772) 562-7141
West Palm Bch
(561) 848-1416

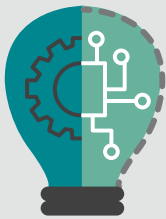


embraco

Leaders in Natural Refrigeration


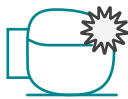





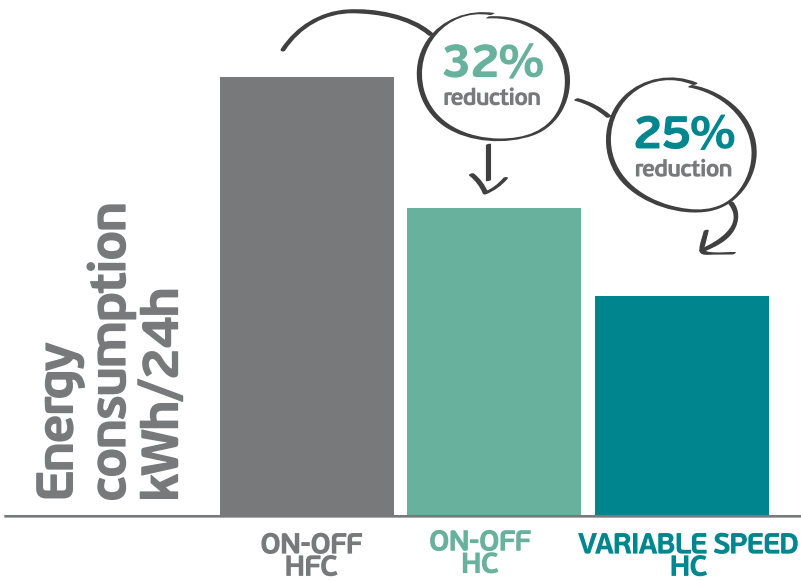
Embraco solutions developed for natural refrigerants offer a desirable combination of efficiency and sustainability while delivering reliability for the end users.



Our pioneerism in research has led us to develop the **Embraco Fullmotion** variable speed compressor with **propane (R-290)** refrigerant. The revolutionary technology reduces the negative impacts on climate change, offers greater longevity and improves temperature control.

KEY BENEFITS FOR THE END USERS

-  **ENHANCED EFFICIENCY**
-  **INCREASED LIFESPAN AND RELIABILITY**
-  **IMPROVED TEMPERATURE STABILITY**
-  **FUTURE PROOF SOLUTION**
-  **MORE MERCHANDISING SPACE AND FLEXIBILITY**



FOR MORE INFORMATION VISIT EMBRACO.COM



DOWNLOAD EMBRACO TOOLBOX APP



PRODUCT SELECTOR

Ritchie Introduces The YELLOW JACKET® Flex Flow™ Hoses 1/4" To 5/16"

Servicing mini-splits made easier with less connections

BLOOMINGTON, MN (July 18, 2019) – Ritchie Engineering Company, Inc., the leader in service tools for HVAC&R professionals and manufacturer of YELLOW JACKET® products, is proud to introduce the FLEX FLOW™ HOSES 1/4" to 5/16".

By effectively combining the popular Flex Flow hose with a 1/4" to 5/16" coupler, our newest Flex Flow hoses make the servicing of mini-splits easier. With less connections, the risk for leaks is lowered, too. Available in Yellow, Blue or Red, they carry all the characteristics of the highest quality hose in the industry. These are a great addition to our Flex Flow product line.

The 1/4" to 5/16" Flex Flow hoses are 9" long with a 1/4" connector on one end and a 5/16" connection on the other. Each hose includes a ball valve at one end for ultimate control of refrigerant flow.

With an emphasis on quality and service, Ritchie Engineering, based in Bloomington, Minnesota, trademarked the hose as the YELLOW JACKET® Charging Hose in 1950. Since then, the company has been engineering, manufacturing, and continuously improving the YELLOW JACKET® hose.



Guideline N Updates Remove Paint Color Assignments for Refrigerant Containers

Arlington, Va. — Significant changes to refrigerant container color protocol will commence in January 2020, as outlined in the Air-Conditioning, Heating, and Refrigeration Institute's (AHRI) Guideline N, Assignment of Refrigerant Container Colors. Guideline revisions, first published in 2015, specify that all refrigerant containers should have the same paint color, RAL 7044, to reduce confusion among similarly colored refrigerant containers.

"Misidentifying refrigerants can lead to serious safety issues because refrigerants have different operating pressures and physical properties, including potential flammability" said Helen Walter-Terrinoni, AHRI Vice President of Regulatory Affairs. "It can also cause equipment damage if refrigerants are used in the wrong applications. The updated guideline will ensure that refrigerants continue to be used correctly and safely."

AHRI Guideline N previously stipulated that specific colors be used for refrigerant containers as an additional means of refrigerant identification. However, with the increased number of refrigerants approved for use and the respective increase in the number of colors assigned to these refrigerants, there was concern over the potential misidentification of similarly colored containers. More than half of respondents to an AHRI survey of refrigerant users found that con-

tainer colors had caused confusion. This confusion was likely to increase as new refrigerants are added to the market.

The U.S. Code of Federal Regulations (CFR) Title 49 for hazmat transportation regulations and CFR Title 29 for occupational safety and health regulations require that all hazardous material containers, including refrigerant cylinders and drums, be labeled to clearly identify the contents. These container labels and markings should always be used as the primary means of identification for hazardous materials, including refrigerants. AHRI will continue to assign PMS colors for printed materials only, including the label on containers and the outer packaging of DOT39 cylinders, the guideline still requires that all flammable refrigerants include a red band on the shoulder or top of the container. The changes do not apply to products already packaged.

While AHRI Guidelines act as recommendations from industry and are not required by law, virtually everyone in the industry adheres to Guideline N and all users should be aware that the cylinder and drum label or silkscreen will now serve as the primary means of properly identifying the type of refrigerant in a cylinder or drum. As with all AHRI standards and guidelines, Guideline N is free to download from AHRI's website.

New Refrigeration Standards: What This Means for the HVACR Industry

This update to ASHRAE Standards is the first step to introducing the next generation of refrigerants, like HFOs, which would reduce greenhouse gas emissions of air-conditioning and refrigeration systems.

The standards include an update to the flammability categories for A2L. A2Ls are lower flammability refrigerants and can be used in homes for human comfort once the standard is adopted by the International Code Council (ICC). The ICC is the association dedicated to developing model codes and standards used in the design, build and compliance process to

construct safe, sustainable, affordable and resilient structures.

ASHRAE and the ICC have a strong partnership with an understanding of how each other's roles in education, standards, and guidelines interconnect to create better buildings and safer communities. Through collaboration, ASHRAE and the ICC work to develop fundamental criteria for energy efficiency, resource conservation, water safety, land use, site development, indoor environmental quality, and building performance that can be adopted broadly.

SMART SNAKES

Visit www.smartsnakes.com for videos

Finally a Drain Snake for Air Conditioning Drain Lines



20' Stainless Shaft

Passes Through 3/4" PVC 90° Fittings

Reduced Call Backs
Eliminates Nuisance Clogs

Ideal for Clearing Multi Story Common Drain Risers



SMART SNAKES

Email: sales@smartsnakes.com

407 502 8527



General Filters
Incorporated

GeneralAire® MAC Air Cleaners



GeneralAire® MAC Air Cleaners

- Standard With MERV 11
- Cartridge Filter
- Snap-Action Doors
- Automotive Grade UV Plastic
- 10-Year Warranty

Second Wind™ UV Air Purifiers



The Second Wind™ 2124-Z 'The Zephyre' UV Air Purifier

- UL Classified
- FDA Approved as a Class II Medical Device
- 24V
- 14" Lamp
- To 4,000 Square Feet

Breathe in the Difference. Breathe Healthier

(866) 476-5101
www.GeneralFilters.com

General Filters, Inc. 43800 Grand River Ave Novi, MI USA 48375



ECONOMIC MOTORS ELECTRIC

The HVAC Supply Center

Now In Stock at all Locations!

New!

AmeristarTM

HEATING & COOLING

Affordable, Dependable Heating and Cooling Systems from a Brand You Can Trust



The Ameristar Advantage

**Value - Efficiency - Quiet Operation
Durability - Safety - Compact Design**

Transferable Warranty*

Your reliable Ameristar system may help you sell your home. During either the 60-day Product Registration Period or within 90 days following the sale of the home you have the opportunity to purchase a Registered Limited Warranty Transfer Option, which may allow the balance of your Registered Limited Warranty to be transferred to a subsequent homeowner.

**contact your branch for Specific Details*



**Fantech Products are also
in Stock at Economic Electric!**



Your HVAC Replacement Specialist - www.economicmotor.com

ECONOMIC MOTORS ELECTRIC

The HVAC Supply Center

Corporate Office: 828 SW 12th Avenue - Pompano, FL 33069 Phone 305-471-0196 Fax 954-545-9100

South Miami
19200 SW 106 Avenue
Miami, FL 33157
305-235-0311

Doral
4075 NW 79th Avenue
Miami, FL 33166
305-471-9610

North Miami
18620 NE 2nd Avenue
Miami, FL 33179
305-651-0311

Pompano Beach
870 SW 12 Avenue
Pompano Beach, FL 33069
954-786-9090

Davie
12980 S. Road 84
Davie, FL 33325
954-916-0999

West Palm Beach
2611 Old Okeechobee Road
WPB, FL 33049
561-683-6262

Myles' Electric
3101 SE Carnivale Court
Stuart, FL 34994
772-283-1633

Boynton Beach -New
4020 Thor Drive
Boynton Beach, FL 33426
561-737-1551

HARDI Distributors Report 2.8 Percent Revenue Decline in June

COLUMBUS, Ohio, July 30, 2019— Heating, Air-conditioning & Refrigeration Distributors International (HARDI) released its monthly TRENDS report, showing the average sales performance by HARDI distributors was a decline of 2.8 percent during June 2019. The average annualized sales growth for the 12 months through June 2019 is 9 percent.

“This was the second consecutive month when the average monthly sales performance was a decline. We have not had back-to-back declines since battling the remnants of the last recession in early 2010. The decline is understandable given the challenges in June,” said HARDI Market Research & Benchmarking Analyst Brian Loftus. “All the regions had one less billing day than the prior year. Five of the regions had fewer cooling degree days than June 2018. And the heavy rain from May persisted into June in parts of the Southwest and Southeast.”

The Days Sales Outstanding (DSO), a measure of how quickly customers pay their bills, continued to be unusually low for this time of year. “Typically the DSO increases during the second calendar quarter as cooling season gets rolling,” said Loftus. “That was not the case this year with soft sales that have been paid promptly.”

“We see softer end market demand from the housing market with declining existing home sales and relatively flat housing permits,” said Loftus, “but the underlying economy appears very healthy.” GDP growth in the second quarter was more than 2% once again. That is encouraging performance for HARDI members along with the 4.3% growth of Personal Consumption Expenditures that included a 13% increase in durable goods, a gain of 6% for non-durable goods, and 2.5% for services.

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.

HARDI members market, distribute, and support heating, air-conditioning, and refrigeration equipment, parts and supplies. HARDI Distributor members serve installation and service/replacement contractors in residential and commercial markets, as well as commercial/industrial and institutional maintenance staffs.

Trane Unveils Building and Community Investments in Tyler to Deliver Environmental, Social and Business Benefits



TYLER, Texas, July 25, 2019 – Trane®, a leading global provider of indoor comfort solutions and services and a brand of Ingersoll

Rand, today held a celebration of its business, social and environmental sustainability. Mayor Martin Heines and other community dignitaries joined Trane business leaders, customers and employees to:

- Celebrate the high-performance, energy efficient Trane and American Standard HVAC products manufactured in Tyler
- Cut the ribbon on a \$5.3-million renovation to the facility to modernize its offices and showroom, and create a space for its new dealer diagnostics center
- Present three grants from its charitable foundation to further children's education, workforce development, and economic mobility in Tyler

Trane unveiled its efficient renovated space and new Nexia® dealer diagnostics center, which enables HVAC dealers and contractors to remotely monitor and diagnose HVAC performance and efficiency. The investment creates a healthy, comfortable, and aesthetic workspace, and makes the site a destination for customers.

“This is a celebration of our commitment to customers, employees, and our community,” said Ted Crabtree, integrated supply chain leader for Trane Residential HVAC and Supply. “As a major employer in the area, we are excited to make these investments in our facility. They help to make this a great place to work, and create a showplace for customers and partners. In addition, with our grant giving, in-kind donations, and volunteer outreach, we strive to help the people in our community live and thrive.”

Trane leaders presented \$15,000 in grants to:

- Discovery Science Center, to sponsor 40 campers grades K-6, and waive fees for lower-income children
- Chapel Hill Career Center and Technical Education's brazing program, to complete a brazing room for up to 120 students; Trane also donated

equipment for the training room and are installing to mirror Trane methods

- Whitehouse Independent School District Education Foundation, to support STEM education in title 1 schools. Whitehouse ISD has a high concentration of economically disadvantaged students

The donations are part of the company's commitment to strengthen economic mobility and bolster the quality of life in the communities where it operates and serves.

“We're grateful for this grant, which supports our Maker Space and Robotics camps and helps us further our mission,” said Chris Rasure, executive director from Discovery Science Place. “We have been partnering with Trane for many years through volunteering, funding and board involvement to champion STEM education here in our East Texas community. This is one more example of how the company helps kids build passion for learning and knowledge of technology and science.”

The Tyler building investments and donations are in line with the company's 2030 Sustainability Commitments, which it announced last month upon accepting the World Environment Center's 35th Annual Gold Medal for International Corporate Achievement in Sustainable Development. The company designed these commitments to:

- Meet the challenge of climate change including reducing customer carbon footprint from buildings, homes and transportation by one gigaton1 CO2e— equivalent to the annual emissions of Italy, France and the United Kingdom combined.
- Transform its supply chain and operations to have a restorative impact on the environment including achieving carbon neutral operations and giving back more water than we use in water-stressed areas.
- Increase opportunity for all, strengthening economic mobility and bolstering the quality of life of our people including gender parity in leadership roles, a workforce reflective of our community populations, maintaining livable market-competitive wages and broadening community access to cooling comfort, housing and food.

To learn more, visit www.IngersollRand.com/2030.

RectorSeal® Wins Product Design Award for TripleGuard™ Water Leak Property Protection System



Houston--RectorSeal® LLC, a manufacturer of quality HVAC/R products, won a product design award July 29 for its TripleGuard™, a smart water leak monitoring, detection and prevention system designed to protect commercial and residential property from water damage. Judged by an independent panel of HVAC contractors, TripleGuard competed against 79 other product design entries in 13 categories and won a Bronze award in the “Components & Accessories” category of the 16th annual Dealer Design Awards (DDA) sponsored by the weekly trade magazine Air Conditioning, Heating & Refrigeration News (The News).

While the plumbing industry currently has many water leak detectors, few brands actually proactively stop water flow and subsequent property damage while also enabling the user with cloud-based control remotely or onsite via smartphones or the Internet. TripleGuard is designed for any real estate owner or manager overseeing property with dish washers, clothes washers, sinks, water heaters, hydronic/plumbing piping and other potential water leak sources.

TripleGuard consists of two products that are maintenance-free and installable in less than an hour: 1) the TripleGuard Smart for Cloud-based monitored facility leak protection; and 2) the TripleGuard Active appliance leak shutoff, designed mainly for single source protection, such as water heaters.

“Statistics reveal North American water damage insurance claims total billions of dollars annually and 250-gallons (946-liters) of water can potentially leak daily from just an 1/8-inch (3-mm) crack in a pipe,” said Brian Ilagan, TripleGuard senior product manager, RectorSeal.

RectorSeal also won a second DDA Bronze award for its new Rooftop Pipe Support (RPS), a five-inch-high (12-cm) polymer shell for mounting HVAC/R, electrical, plumbing and condensate piping, or ductwork, walkway grates and solar panels on commercial flat rooftops without roof penetration.

“We're proud of the research and development our HVAC/r industry manufacturers put into new product innovations; the DDA is our opportunity to recognize their efforts,” said Mike Murphy, Group Publisher, The News, which is distributed nationally to more than 33,000 members of the HVAC/R and allied industries.

**Get
TODAY'S A/C
every month**

**SUBSCRIBE
ON-LINE**

www.todays-ac.com

**Extended
Range**
Up to 350 Feet!

Be sure.

testo

Next Generation Smart Probes from Testo

- testo 549i now includes a 45° angled connection
- testo 115i is designed for rooftop applications
- testo 605i features a foldable probe to 90°



For more info visit www.testo.com/smartprobes

Performance Pointers

by David Richardson



Decrease Your Extended Warranty Liability

Many HVAC companies offer extended service warranties, some as much as 12 years from the installation date. Extended warranties cover the customer cost of repairs during the warranty period. With a little extra attention during installation and maintenance, you can limit how much you pay for extended warranties. Otherwise, you may risk losing any profit you had in the job and have an unhappy customer who heads for your competition. Let's look at some installation details you should confirm to reduce your warranty liability.

Proper Equipment Selection

The first detail might sound obvious, but it's easy to overlook. Make sure any equipment you offer extended warranties on is matched to work together. It's amazing how many issues this can prevent up front.

I never understood why some contractors would put a new heat pump on a 15-year-old air handler. They offer a warranty on the heat pump but remain silent about the existing air handler and other system components. Low price got them in the door, but they typically end up owning a nightmare.

For a system to perform near its rated capacity in the field, equipment components must be installed in a way that best reflects how they are intended to operate by the manufacturer. When components are mismatched, equipment fails to perform as designed, reducing system performance. The results are a rise in failures and complaints which increase your liability.

Purging and Evacuation

Another field variable to consider is the impact of refrigerant lines that connect the outdoor and indoor sections of split system equipment. If they are not designed and installed according to manufacturer specifications, further problems will occur.

Avoid them by purging refrigerant lines with nitrogen while soldering or brazing to prevent scale formation. Scale coats the inside of the copper lines and can be washed off by polyolester (POE) oil result-

ing in a restricted metering device. This reduces heat transfer, system performance, and could prematurely wipe out a compressor. A flowmeter assures the right amount of nitrogen moves through the lines.

Proper evacuation is also important to system longevity since it removes moisture and non-condensables from the refrigerant lines. Use a micron gauge to verify you pulled adequate vacuum and that it will hold once isolated from the manifold. Don't rely on your manifold's suction gauge to determine proper vacuum.

Fan Airflow

Low airflow causes more warranty issues than any other problem. For equipment to have any chance at a long and useful life, fan airflow must be correct. If it is low, everything else will be wrong.

In cooling mode, a fan should typically move between 350 to 400 cfm (cubic feet per minute) per ton. If you're testing a three-ton system, this means the fan should move approximately 1050 cfm ($350 \times 3 = 1050$) to 1200 cfm ($400 \times 3 = 1200$) across the indoor coil.

Undersized and restrictive duct systems are a top cause of low airflow. Restrictive indoor coils and air filters can also contribute to this issue, even when clean. It's important to understand that these problems make it impossible to get an accurate refrigerant charge. Before you hook up refrigerant gauges and adjust charge, first check fan airflow.

Refrigerant Charge

Refrigerant charge is the fourth installation detail you'll want to confirm. Don't just open the service valves and/or weigh-in the charge and assume all is good.

Check superheat to assure the compressor isn't flooded or starved for refrigerant. You must also check subcooling to assure the condenser has the proper amount of liquid refrigerant flowing to the metering device.

Beyond the refrigerant charge, you must have proper start up procedures to assure equipment performs as designed. Don't just power up the equipment, turn it on, and walk away. Take the time to measure static pressure, airflow, equipment temperatures, voltage, and current. If a defect exists, these measurements often will reveal them.

Maintain the Investment

It's not enough to install the equipment correctly. To assure it continues to provide the same performance level when installed new, maintenance is needed to assure components remain clean, perform well, and continue to transfer heat properly.

No matter how well you install the equipment, it has moving parts and electronics that can and will fail. Any extended warranty must require regular maintenance to reduce your risk of paying for labor and repairs that can be avoided.

Make sure the most common items that lead to equipment failure are regularly tested and their readings documented in the service history. Run capacitors, air filters, coil cleaning, and blower wheel cleaning all need regular attention.

A great maintenance plan will keep your customers happy and their investment in tip-top shape, so that you can maintain a long-lasting relationship for years to come.

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 an HVAC contractor or technician interested in learning more about performance testing, contact him at davidr@ncihvac.com or call 800-633-7058. NCI's website www.nationalcomfortinstitute.com is full of free technical articles and downloads to help you improve your professionalism and strengthen your company.

GROW YOUR BUSINESS WITH JB WARRANTIES!



- ✓ **COVERS ALL BRANDS OF EQUIPMENT**
- ✓ **LABOR RATES UP TO \$300 PER HOUR**
- ✓ **FAST ONLINE CLAIMS PROCESSING**

Don Seaward - Florida Regional Manager

✉ don@jbwarranties.com ☎ 904.334.9602

Will Basko - South East Regional Manager

✉ will@jbwarranties.com ☎ 469.642.1129

JBWARRANTIES.COM

ELECTROFIN® AND INSITU® WARRANTY & COATINGS MAINTENANCE CLEANERS

Coming Soon to Home Depot Supply, Amazon, ModineCoatings.com and EVERYWHERE RectorSeal® products are sold!

RectorSeal® GulfClean™ Coil Cleaner and Salt Reducer are formulated specifically for Modine ElectroFin® and Insitu® coatings warranty program. Designed to protect equipment exposed to soluble salts, these products are easy to apply in a 2-step process.

Insitu® coil and cabinet protection
MODINE

ElectroFin® heat transfer coatings
MODINE



For more information on GulfClean™ please call or email us
+1-813-689-4282 | info@modinecoatings.com
Or visit our online store at: www.MODINECOATINGS.com

HVACR Programmatic Accreditation Turns Twenty



Twenty years, programmatic accreditation of HVACR educational programs began in the United States. In the late 1990's technology was rapidly changing and many schools and school systems worried that their technology programs may not be keeping up with all of the advances. One of these systems, the Tennessee Board of Regents wanted to verify they were preparing their students to be competitive in the workplace. To accomplish this, they mandated that all career and technical education programs attain third-party, programmatic accreditation.

Programmatic accreditation is an independent, non-governmental, third-party review of an educational program. The process identifies educational programs that possess the resources, and administrative support, to prepare students for entry-level positions in the HVACR industry.

At that time the Tennessee Board of Regents discovered that no national accreditation agency had ever been established for the Heating, Ventilation, Air Conditioning and Refrigeration (HVACR) industry. Furthermore, when contacting various industry groups, none were interested in establishing one. That is until they contacted HVAC Excellence, an organization dedicated to improving the technical competency of the HVACR industry.

In 1999, HVAC Excellence having established the national standards for HVACR educational programs, launched the HVACR industry's first accrediting body.

These standards require a thorough examination of: mission of program, administration responsibilities, finances and funds, student services, instruction design and program elements, physical facilities, equipment and tools, cooperative training and instructor qualifications. HVAC Excellence programmatic accreditation identifies educational programs that possess, the resources and administrative support, to prepare students for entry level positions in the HVACR industry.

The initiative that begin in Tennessee, has grown into a national movement towards higher standards in HVACR educational

programs. There are now accredited programs aligned to the HVAC Excellence standards across North America.

Now in its twentieth year, the demand for third party validation continues to grow. To assist instructors through the process, HVAC Excellence has published a more comprehensive programmatic accreditation website.

The new site provides:

- Programmatic accreditation standards
- The process to earn accreditation
- An overview of the onsite accreditation visit
- Biographical information on accreditation team leaders
- The benefits of accreditation
- A list of HVAC Excellence Accredited Programs

Learn more about programmatic accreditation at <https://www.escogroup.org/accreditation/>.

AHRI Releases May 2019 U.S. Heating and Cooling Equipment Shipment Data

U.S. shipments of central air conditioners and air-source heat pumps totaled 1,005,646 units in May 2019, up 3.5 percent from 971,246 units shipped in May 2018. U.S. shipments of air conditioners decreased 2 percent, to 659,423 units, down from 673,010 units shipped in May 2018. U.S. shipments of air-source heat pumps increased 16.1 percent, to 346,223 units, up from 298,236 units shipped in May 2018.

Year-to-date combined shipments of central air conditioners and air-source heat pumps increased 2.2 percent, to 3,609,723, up from 3,531,224 units shipped during the same period in 2018. Year-to-date shipments of central air conditioners decreased .1 percent, to 2,262,364 units, down from 2,264,988 units shipped during the same period in 2018. The year-to-date total for heat pump shipments increased 6.4 percent, to 1,347,359, up from 1,266,236 units shipped during the same period in 2018.

ARMSTRONG AIR®
The Professional's Choice

Make The Right Choice! Become an Armstrong Air Dealer!

At Saez we understand that as we join forces together, we are not just partners, but a family, seeking the best interest for each other as we work together toward our success

Go Pro! The right balance between energy use, temperature and humidity.

**Pro Series available from 14-20 SEER
Convenient Financing Options
available on all Pro Series Units**

SAEZ DISTRIBUTORS
AIR CONDITIONING & REFRIGERATION

Miami Main 8290 N.W. 25th Street Miami, Florida 33122 Tel: 305-592-2330 Fax: 305-477-0709	Hialeah Branch 9615 N.W. 80th Avenue Hialeah Gardens, Florida 33016 Tel: 305-821-4766 Fax: 305-821-4936
Kendall Branch 11550 SW 120th Street Miami, Florida 33176 Tel: 305-971-6400 Fax: 305-971-6401	Broward Branch 5610 N.W. 12 Avenue Fort Lauderdale, Florida 33309 Tel: 954-358-1315 Fax: 954-358-1312

New A3 Refrigerant Testing Results Issued

Abstracts of 400 words are due Oct. 15. To submit an abstract or for more information on the Fourth International Conference on Efficient Building, visit ashrae.org/beirut.

“The objective of this project was to test for leaks and ignition of refrigerant R-290, or propane, in whole room scale conditions,” said AHRI Vice President of Research Xudong Wang. “The testing scenario simulated a packaged terminal air conditioner and a mini-split air conditioner in a typical motel room, and a single door reach-in cooler and a three-door reach-in cooler in a convenience store,” said Wang. “Test re-

The Air-Conditioning, Heating, and Refrigeration Institute (AHRI) is the trade association representing manufacturers of air conditioning, heating, commercial refrigeration, and water heating equipment. An internationally recognized advocate for the industry, AHRI develops standards for and certifies the performance of many of these products. AHRI's 300+ member companies manufacture quality, efficient, and innovative residential and commercial air conditioning, space heating, water heating, and commercial refrigeration equipment and components for sale in North America and around the world.



Buy a 16+ SEER single-stage **Goodman** brand system,
and get a **Clean Comfort** Media Air Cleaner for **FREE**
OR
get a Touch-Screen **ProStat** Thermostat for only **\$19!**

PR56420

**PROSTAT™**

FREE Media Air Cleaner w/ 16+ SEER system – PC1066
\$19 Touch-Screen ProStat w/ 16+ SEER system – PC1085

Introducing...

Low Profile Condensate Pump

Smart Electric™



New Compact Pump only 5" tall

- High Impact ABS 1/4 Gallon Tank
- 6' Power Cord with Grounded 3-Pronged Plug and 20' Shut-Off head
- Thermal Overload Protection available in 115V or 230V
- New Generation Float Arm for Enhance Reliability
- Two Stage Motor Switch Float (Start - Stop)
- Built in Automatic Overflow Safety Switch
- Replaceable 3/8" O.D. Barbed Discharge Valve with 3 Inlet Drain Openings
- Built-in Wall Mounting Tabs and Rubber Pads for Vibration Dampening
- Suitable for Gas Furnace Condensate Applications
- Max. Water Temperature up to 120°F
- One Year Limited Warranty

Smart Condensate Pump available in 115V or 230V

- Vertical type Rust Proof ABS 1/2 Gallon Tank
- Thermal Overload Protection
- Stainless Steel motor shaft with 6' power cord
- Built-In check valve and 3 drain holes
- 15' or 20' Shut-Off head
- Replaceable 3/8" O.D. Barbed Discharge Valve
- Built-in Wall Mounting Tabs
- 20' tubing (optional)



12201 N.W. 107th Avenue • Medley, FL 33178
Phone: 305-500-9898 • Fax: 305-500-9896

www.smartelectricusa.com

ASHRAE Releases 2019-2024 Strategic Plan

ATLANTA (July 1, 2019) – ASHRAE is pleased to announce the release of a new strategic plan to guide the society's work over the next five years. The ASHRAE 2019-2024 Strategic Plan describes the society's core values, mission and vision for future success, while also identifying areas where ASHRAE will direct its attention and resources over the next several years.

The previous plan, released in 2014, resulted in several significant accomplishments, including the extension of ASHRAE's global presence, a greater role in the residential sector and higher levels of volunteer involvement. The new plan's initiatives reflect the society's longstanding commitment to the HVAC&R industry, while leveraging the opportunities and addressing the challenges that are taking place in the fast-evolving built environment.

The new strategic plan outlines two initiative areas: 1) Built Environment of the Future; Resilient Buildings and Communities and Indoor Environmental Quality. 2) Future of ASHRAE Organizational Streamlining; Improve Chapter Engagement, Capacity and Support.

"In developing our new strategic plan, we closely considered the changing landscape of our industry as well as the diversity of our membership," said Darryl K. Boyce, P.Eng., 2019-20 ASHRAE Presi-

dent. "We sought wide-ranging involvement from ASHRAE members and key industry organizations on how to best position ASHRAE to meet our internal and external challenges and the result is a concise, straight-forward plan based on the values that have motivated the members of our society for close to 125 years."

Some key action items outlined in the plan include:

- Promote best practices that enable adaptability, resilience and recovery of buildings and communities related to the challenges of the design and construction process.
- Accelerate thought leadership and understanding of indoor environmental quality (IEQ) and its implications for occupants' health and wellness.
- Streamline the organization's internal governance to adapt to regional differences and allocate valued time and resources to the most impactful pursuits.
- Evaluate and improve methods to better engage chapters, regions and the members they serve in an integrated way.

For more information on the 2019-2024 ASHRAE Strategic Plan, please visit ashrae.org/strategicplan.

DOE Proposal Could Affect Product Efficiency Standards

by Ryan Berlin, digital content manager of Facilitiesnet.com

As the Trump Administration offers new policies on the environment and energy efficiency, A Department of Energy proposal would ease the ability of manufacturers to temporarily avoid testing to determine whether their products meet federal efficiency standards, according to Utility Dive.

It's a "quietly issued proposal that could seriously undermine U.S. energy efficiency standards," according to Andrew deLaski, executive director at the Appliance Standards Awareness Project (ASAP).

There are a variety of reasons that DOE allows manufacturers to apply for interim waivers from testing — some new products can't be tested with existing procedures, or existing tests are inadequate, deLaski told Utility Dive.

The current system works relatively well, he said. But under DOE's proposal, interim waivers would be granted if the DOE failed to act on a request within 30 days.

"Because the recent history of waiver applications indicates that it is difficult for DOE to respond to such requests within 30 days, interim waivers would in many, if not most cases be automatically granted under DOE's proposal," deLaski wrote in a recent blog post.

"It upends the reliability of the regulatory system, if your competitor might be able to self-assign a waiver that says they don't have to comply," he said.

DOE could later determine the manufacturer's waiver application should be rejected, but deLaski notes they would then be given a 180-day grace period before being required to use the uniform DOE test procedure.

"In other words, it would receive six more months to continue selling non-compliant products that unfairly undercut the competition and potentially harm buyers," deLaski wrote. And there will be no guarantee the process would not just begin again with a new application.

Registration Is Open For HARDI Pulse 2019 In New Orleans

Registration is now open for the Heating, Air-conditioning & Refrigeration Distributors International (HARDI) 2019 Annual Conference: Pulse which will take place this December 7-10, 2019 in New Orleans, Louisiana. The conference gives members the chance to discuss significant areas of opportunity in the industry and how to better unite all levels of the supply chain.

With this year's location in New Orleans, HARDI mixed the rich jazz culture of the city with industry discussion to create the Pulse theme. Pulse is an ode to the musicality of New Orleans. That's why this year

the Pulse Conference was created to strengthen the rhythm of the HVACR wholesale industry as a unit.

"HARDI has worked hard this year to better understand the current state of wholesale distribution. The Pulse Conference will be the perfect opportunity for us to share the findings of our research through our first annual State of the Industry report," says Talbot Gee, CEO of HARDI. "Our strategic plan is predicated on a proactive and regular set of intel and data to guide how the association works, to ensure that wholesale distributors are the channel of choice for HVACR manufacturers and contractors."

Your leak detection & sealant solution just got

BRIGHTER

PREMIUM DYE.

POWERFUL SEALANT.

GLO SEAL™

Repair and detect all AC&R leaks with our 2-in-1 premium dye and powerful sealant

FOR MORE INFORMATION, SCAN QR CODE

SPECTROLINE®
LEAK DETECTION

RectorSeal® Introduces Flaretite, the HVAC/R Tubing Flare Leak Preventative

RectorSeal®, Houston, a leading manufacturer of quality HVAC/R tools and accessories, has been named the master distributor in the North America and Australia HVAC/R markets for the Flaretite seal. Flaretite, Brighton, Mich., is the industry's first gasket-like seal designed specifically for making a tight, leak-resistant connection between flared tubing connections used in air-conditioning/refrigeration applications.

The Flaretite seal is a stamped copper ring with concentric ridges formed by a baked-on Loctite Vibra-Seal coating. The ridges create multiple sealing points of contact to prevent leaks from copper tubing flare connections used with 1/4, 3/8, 1/2, 5/8, and 3/4-inch (6, 7.5, 12, 16, 19-mm) refrigeration linesets. The purple (color-coded for HVAC/R applications) coating is a dried, pliable sealant that flexes into pits, micro depressions, scratches and other imperfections that potentially lead to refrigerant leaks from copper tubing flares. Flaretite also features three stamped notches to help clip-seal it and hold it in place during compression fitting tightening.

"The Flaretite seal is tried and true and has over a decade of proven performance in the refrigeration industry," said Kirk Lewandowski, director of operations, Flaretite.

Flaretite also complements the 2018 introduction of RectorSeal's PRO-Fit™ Precision Flare Kit, the next generation pipe flaring tool for copper and aluminum tubing used in air conditioning and refrigeration applications. Using the PRO-Fit in conjunction with Flaretite provides the ultimate in leak prevention for flared connections.

Flaretite is packaged in 21 skus with four-color labeling:

- Clamshell J-hook merchandiser of 10 units in all five sizes;
- Clamshell combo mini-split kit of two different size pairs that fit inlet and outlet flare sizes of a lineset's liquid and suction lines;
- Four compartment case that houses 36-pieces of nine units each in 1/4, 3/8, 1/2, 5/8-inch sizes;
- Box of 100 in all five sizes;
- And a box of 200 in

1/4, 3/8, 1/2, 5/8-inch sizes. Flaretite carries a one-year warranty. For additional information on the Flaretite and PRO-Fit Precision Flare Kit or other HVAC/R products from RectorSeal, visit www.rectorseal.com email: marketing@rectorseal.com; or call 800-231-3345. The RectorSeal LLC is a leading manufacturer of chemical and specialty products designed for professional tradesmen. Steady growth over the years has been maintained through a commitment to providing high quality products and services.



Report Unlicensed Contractors with the DBPR Mobile App



1. Verify licenses by name or license number.
2. File a complaint, including descriptions and photos.
3. Your information is immediately sent to DBPR.

The DBPR Mobile app is free to download and is available on the iTunes and Google Play app stores.

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.

In addition to the mobile app, you can also report unlicensed activity to DBPR by:
 Calling 1.866.532.1440
 Emailing ULA@myfloridalicense.com
 Online at www.MyFloridaLicense.com



WE NOW CARRY
RUUD® EQUIPMENT
 AVAILABLE AT FLORIDA FERGUSON HVAC LOCATIONS

NOW OPEN IN ORLANDO, FLORIDA

Ferguson HVAC is committed to partnering with customers to deliver and supply materials with world-class service and accuracy. Our knowledgeable team is dedicated to serving southern Florida by providing the products needed for residential, commercial and new-construction applications.

Contact your nearest Ferguson HVAC location for:

- Air conditioners
- Air handlers
- Gas furnaces
- Heat pumps
- Package units
- Thermostats

FERGUSON
 HVAC

NOW OPEN ORLANDO

3401 WD Judge Rd, Suite 150
 Orlando, FL 32808
 (407) 768-6000

NOW OPEN WEST PALM BEACH

1851 Old Okeechobee Road
 West Palm Beach, FL 33409
 (561) 446-9915

ALSO SERVING DORAL NOSOTROS HABLAMOS ESPAÑOL

8303 N.W. 27th Street, Suite 21
 Doral, FL 33122
 (305) 534-1463

For other locations, please visit FergusonHVAC.com.

FERGUSONHVAC.COM

©2019 Ferguson Enterprises LLC 0719 1382176



Tropic Supply Events in July

Allied, Tecumseh, Yellow Jacket & Fluke Demo Days



Mike Makransky of Tecumseh demonstrated the breakdown of a hermetic compressor to Ed Neuman of Air Pro Mechanical

Tropic Supply hosted Allied, Tecumseh, Yellow Jacket and Fluke Demo Days during the month of July. Glenn Paetow, an Allied Factory Representative, gave a hands-on partial teardown of the Allied air handler and condenser.

Mike Makransky from Tecumseh had very informative demo days on the value of repair vs. replace, and how to avoid the failure of a hermetic compressor. Tropic customers could also enter for a chance to win one of three \$100 Tropic Supply Gift Cards.

Ryan Reynolds of EV Dunbar gave live demonstrations of the Fluke T6-1000 and T6-600 electrical testers along with Yellow Jacket's P51-870 full colored touch screen digital manifold/micron gauge.

For more information on future events, visit the Tropic Supply website www.tropicsupply.com/eventscalendar.



Don Geary, Frank Barron, Anjanette Ferreira and Wayne Sullivan of Tropic Supply, with Ryan Reynolds of EV Dunbar



Anjanette Ferreira of Tropic Supply, Vincent McKay of M&S Air Conditioning, Ryan Reynolds of EV Dunbar



The South Florida Tropic Supply Sales Representatives attended the Allied Demo Day in North Miami



Mike Makransky of Tecumseh gave helpful information on R290 and replacement refrigerants to Gene OBrien of Plan and Spec



Christina Moss of Southeastern Grocers, Glenn Paetow, Allied Factory Representative, and Harry Palenzuela of Tropic Supply



Tropic customers were able to enter for a chance to win a Yellow Jacket P51-870 full colored touch screen digital manifold



Jud Weeks of Southeast Mechanical, Glenn Paetow, Allied Factory Representative, and Hadayat Eghtessadi of Aventura AC



Mike Makransky of Tecumseh (right) gave some current refrigeration market trends to the North Ft. Lauderdale Tropic Supply Team



Glenn Paetow, Allied Factory Representative, Victor Silverman of Edd Helms, and Alex Garrido of Tropic Supply



Ryan Reynolds of EV Dunbar, Jamar Rhoulhac of All Year Cooling, and Anjanette Ferreira of Tropic Supply

Danfoss Refrigerant Week Will Equip Contractors And Installers For Refrigerant Change

Danfoss' annual Refrigerant Week event will return for the third time from September 16-20. This year, the focus will be on equipping contractors and installers for refrigerant change and presenting the solutions that are ready today.

The global event will prepare contractors and installers—along with retailers, wholesalers, operators, and OEM engineers—to handle the refrigerant transition's accelerating pace through a packed program of webinars, podcasts, and local training events.

All webinars will be scheduled to allow contractors and installers to tune in live for subjects including:

- Handling flammable refrigerants
- New developments in CO2 technology
- Moving on from R-404A and R-22
- Global refrigerant trends that impact your business

- Digital tools to help conversion

Sessions will cover air conditioning and industrial, commercial, and food retail refrigeration. Content will be available in many different languages, and every live webinar and podcast will be available on-demand following the event.

Torben Funder-Kristensen, head of public and industry affairs, Danfoss Cooling, said:

"Refrigerant transition is an issue that affects contractors and installers all around the world, and the global nature of our Refrigerant Week reflects that. We want to help professionals everywhere to stay abreast of the latest issues and trends, but more importantly, to contribute to the conversation and give their view."

We based the program on frequently asked questions from HVACR professionals—so whether you want to know more about transitioning from R-404A and handling A2L and A3 refrigerants, or you simply

want the latest practical information on leading-edge CO2 technologies, we're confident there's something for everyone. 2019 is a particularly important milestone in HVACR; we celebrate 32 years since the Montreal Protocol came into effect. And the results are remarkable: the world has moved away from CFCs to help stop ozone depletion and we're now even seeing recovery of the ozone layer.

But as we enter a new phase of environmental concern with skyrocketing CO2 emissions, it's never been more important to discuss and debate refrigeration on a supranational scale—including the new amendments to the Montreal Protocol. We're proud of how Danfoss' Refrigeration Week facilitates these conversations and we're delighted how much it has grown in three years."

The agenda will be available at refrigerants.danfoss.com. Sign up now to get updates.



Mic-Drop Reasons

To Buy



from Tropic Supply

- 1. KNOWLEDGE** – We started selling Ruud in 1984, even before we became the primary distributor of the line in 2008. That's 35 years of experience. Knowledge is power, and our extensive experience allows us to deliver FAST and ACCURATE service.
- 2. INVENTORY** – As an independently-owned, family-run business, we do not manage to Wall Street expectations. Public shareholders do not govern our decision-making process, including how much inventory to carry. You will find all Tropic locations well-stocked with the Ruud equipment you need.
- 3. THE TROPIC WAY** – We have a “Do the Right Thing” business mantra. **How** we do business is as important as the business we do. Our success lies in our commitment to do the right thing by our customers, suppliers and team members. Our customers are not numbers on a balance sheet, they are members of our family – and are treated as such.
- 4. FREE DELIVERY** – With over 60 of our own trucks and drivers on the road statewide, we can deliver to your shop or jobsite quickly – at no cost to you!
- 5. LOCATION, LOCATION, LOCATION** – We have 22 resource centers statewide, with multiple locations in major metropolitan areas, making it fast and easy to get the Ruud you need.



Call or visit your local Tropic Supply Resource Center today!

Cape Coral (T-11): (239) 989.0088
 Daytona Beach (T-19): (386) 258.8337
 Delray Beach (T-9): (561) 279.2710
 Ft. Lauderdale N. (T-2): (954) 565.4803
 Ft. Lauderdale S. (T-4): (954) 522.2874
 Ft. Myers (T-8): (239) 278.1117
 Ft. Pierce (T-6): (772) 465.4707
 Jacksonville (T-18): (904) 332.0990

Miami N. / Export (T-1): (305) 652.7717
 Miami S. (T-3): (305) 255.0438
 Mid Miami (T-7): (305) 638.9673
 Naples (T-10): (239) 643.7118
 Ocala (T-22): (352) 512.6980
 Orlando (T-17): (407) 219.3255
 Port Charlotte (T-12): (941) 255.8330
 Sarasota (T-14): (941) 378.0910

St. Petersburg (T-23): (727) 373-4003
 Sunrise (T-20): (954) 835.6020
 Tallahassee (T-21): (850) 300.6595
 Tampa E. (T-15): (813) 514.1198
 Tampa W. (T-16): (813) 514.9939
 West Palm Beach (T-5): (561) 684.3997

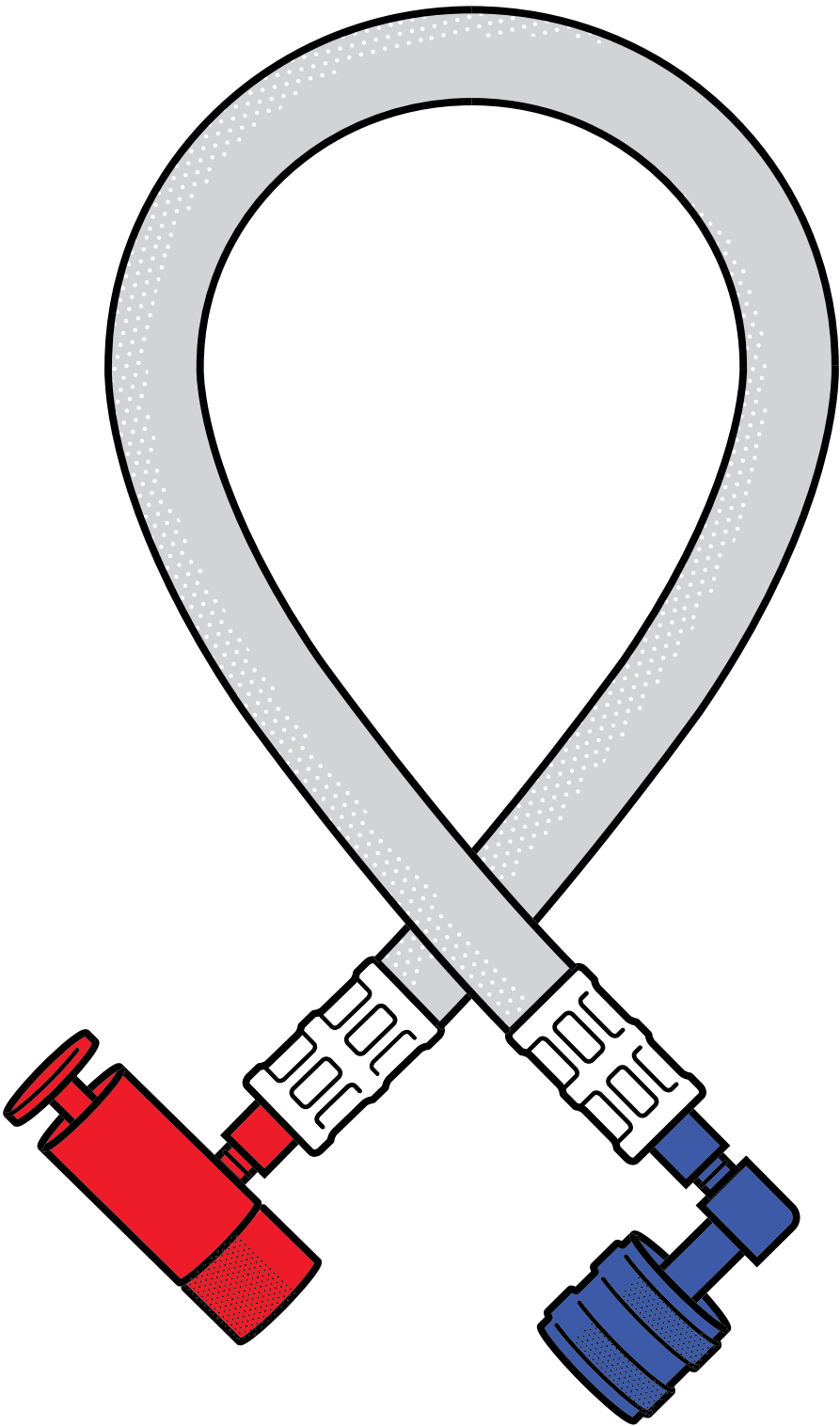
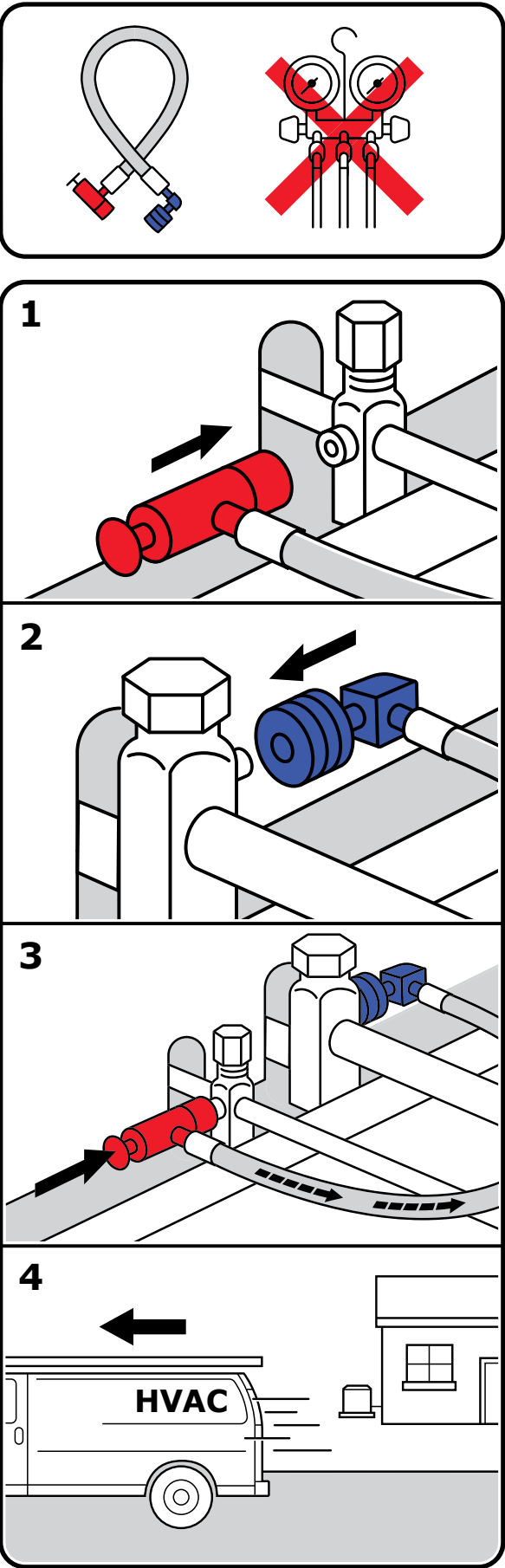
COMMITTED TO YOU AND YOUR BUSINESS, ALWAYS

www.tropicsupply.com



FLEX INJECT[®]

SEALANTS AND ADDITIVES



Watch how easy at [DiversiTech.com/flexinject](https://www.DiversiTech.com/flexinject)

Flex Inject Sealant Advanced (PN#985), Flex Inject Sealant Total (PN#995), Flash Detect Inject (PN#990), Super Change Inject (PN#991) and Boost Juice Inject (PN#992)

HEAT REJECTION

THROWING OUT THERMODYNAMIC THRASH

article by
Andrew C. Ask, P.E.



It's August. Rich people from New York City are vacationing on Long Island. Europe is pretty much shut down for the month. Heat is being rejected for lack of interest.

Heat rejection is the process by which we remove and dispose of waste (usually) energy, as a result of air conditioning. What you may not be aware of is it has a lot to do with what air conditioning system we choose, like deciding to eat at a restaurant that has the best bathrooms, not the best food. To better understand the concept we are going to review some basic thermodynamics.

The First Law of thermodynamics tells us energy can be neither created nor destroyed. This is a useful concept in my world; I use it every day. If I do 12,000 BTUH of R.E. (cooling), I know that energy has to go somewhere—first into the refrigerant and then...we're going to get into that. The Second Law is actually more important but I don't understand it so I make do with the First Law.

So how is heat rejection different from "air conditioning?" Sounds like the same thing. Moving heat from cool to warm requires Work, the energy consumed by the compressor and condenser fan. That energy turns into heat, is added to the refrigerant, and becomes part of heat rejection. In thermodynamics, it's called Heat of Compression. The formula is Refrigerating Effect (R.E.) + Heat of Compression (H.O.C.) = Gross Heat Rejection (G.H.R.):

$$\text{R.E.} + \text{H.O.C.} = \text{G.H.R.}$$

H.O.C. can be as much as 25% of R.E. It's why cooling towers are rated at 15,000 BTUH per ton. Don't ignore it when selecting a cooling tower—you'll be short; like forgetting to add overhead and profit to direct costs when bidding.

"H.O.C." is easy to compute: just add compressor kW to condenser fan kW.

Incidentally, G.H.R. is trash only if you have no need for heat. It can be recovered to heat another

part of the building, domestic water, or a swimming pool. H.O.C. contributes to global warm

It might help to think of waste heat as trash, to be disposed of; properly. And somebody or something has to remove it; doesn't walk out by itself. The energy expended to carry it to the curb, haul it away, and take it to the landfill becomes more waste. Think of that additional energy separately as we go through this.

If you live in a cabin in the woods, far from anyone else, you might just toss trash out the window. My uncle built a fishing cabin by the Mississippi River when he came back from World War II and that is exactly what he did. Beer cans went over the side of the boat directly into the river. By the middle of the 1950's the trash pile was very high. He now had neighbors who didn't want the trash in their backyard. Time for a new plan. Collect the garbage in a can and haul it back to town Sunday night. Eventually, the fishing village hired a truck to pick up trash and take it to a dump. You're getting the idea.

When we remove heat from a building during the air conditioning process, we don't destroy it. Rather, we move it to somewhere else—outside the building—and the process very much resembles trash removal. But, *as an environment becomes more urban, trash removal becomes more complex.*

Single family homes reject heat to a condensing unit next to the house—the equivalent of tossing garbage out the window. Multiple condensing units in larger homes may exceed manufacturer's maximum line length, in which case you need a different plan. Back in 2000, single-speed condensing units in high rise condos could be installed on the roof 200' above (but only 30' below, a physics lesson we will skip today). We solved an urban heat rejection problem, but not with high SEER equipment.

A better idea for the high rise was to install a Water Source Heat Pump (WSHP) system. The entire water-cooled refrigeration cycle is self-con-

tained at the AHU, rejecting heat to a core water system. In high rises and most other large buildings, water goes to a cooling tower where it is cooled by evaporation, rejecting heat to the outdoor air, through a latent process (air cooled equipment reject heat sensibly).

Once heat has been rejected to water, wells, ponds, lakes, or the ocean can take the place of a cooling tower. We call that process *geothermal*.

No room for any of the above downtown in a large city? Run pipe under the street to a central chiller plant. Heat is still rejected to a cooling tower or the river, but now at the energy plant.

The advent of VRF—Variable Refrigerant Flow—is changing our heat rejection strategy. Heat can now be transported long distances through complex piping networks in all size and shape of buildings and then rejected directly to the outdoor air—using sensible heat transfer. Water in pipes is no longer part of our lives. Condensing units can be far away, high or low.

Notice how we now decide what system to install. We used to debate chiller vs. DX; Constant vs. Variable Air Volume; air vs. water-cooled; pneumatic vs. electric controls (yes, I'm that old). Now the decision is VRF vs. whatever is in second place, usually multiple 16 SEER split systems or rooftops; or WSHP in tall buildings.

This is all well and good—we're basing our HVAC Concept on the Heat Rejection strategy; necessary, good planning. But how about thermal comfort and humidity control? That's also important. It's like choosing the restaurant with the best bathrooms, not the best food. I'm all for clean, accessible toilets, but also give some thought to what I'm going to eat. By the way, I hate being rejected. *Until next month then...stay tuned.*

Andy Ask is a Cape Coral HVAC Engineer and Consultant to Ultra Aire Dehumidifiers in Madison, WI.

STOP OVERCOOLING. START DRYING.



Industry experts agree that energy efficient building techniques have reduced air conditioning runtime, resulting in the need for dedicated dehumidification in homes. Overcooling to control relative humidity is not an effective or economical solution and can lead to comfort and health issues.

Ultra-Aire™ Whole House Ventilating Dehumidifiers provide dedicated dehumidification, mechanical outdoor air ventilation, and superior MERV-13 filtration to create an indoor environment that is healthy, comfortable, and protected.

THE INDUSTRY'S MOST COMPLETE LINE OF WHOLE HOUSE VENTILATING DEHUMIDIFIERS.

WWW.ULTRA-AIRE.COM



The Royal Treatment



WeatherKing offers dependable, high-efficient, smart products to keep your customers' castles comfortable and within budget. Combine quality, comfort, and value backed by the leading manufacturer of HVAC equipment. Contact your Territory Manager, Gemaire Sales Center or visit gemaire.com/weatherking for more info.



Try WeatherKing today!



Visit your local Gemaire Sales Center

Boynton Beach (561) 738-5609 3422 Quantum Boulevard Boynton Beach, FL 33426	Kendall (305) 254-3959 13840 SW 119th Avenue Miami, FL 33186	New Port Richey . . . (727) 849-9181 6514 Orchid Lake Road New Port Richey, FL 34653	Sarasota (941) 312-2366 7245 16 Street East, Suite 101 Sarasota, FL 34243
Cape Coral (239) 800-7001 925 East Industrial Cr, Unit 5 Cape Coral, FL 33909	Kissimmee (407) 738-4700 939 Armstrong Blvd. Kissimmee, FL 34741	Ocala (352) 629-7117 1600 NE 8th Rd. Ocala, FL 34470	Sebring (863) 382-3800 4310 Commercial Drive Sebring, FL 33870
Clearwater (727) 446-5067 1750 N Belcher Road Clearwater, FL 33765	Lakeland (863) 666-8507 2950 Maine Avenue Lakeland, FL 33801	Orlando (407) 648-0888 4141 N John Young Parkway Orlando, FL 32804	St. Petersburg (727) 522-3133 3250 44th Avenue North St. Petersburg, FL 33714
Daytona Beach (386) 274-1113 831 Bill France Blvd. #160 Daytona Beach, FL 32117	Marathon (786) 831-4495 11060 Overseas Highway Marathon, FL 33050	Panama City (850) 769-1130 2470 Industrial Drive Panama City, FL 32405	Tamarac (754) 222-5093 6001 Hiatus Road, Suite 1 Tamarac, FL 33321
Fort Myers (239) 337-1310 11975 Amedicus Lane Fort Myers, FL 33907	Melbourne (321) 722-1200 465 Distribution Drive Melbourne, FL 32904	Pensacola (850) 477-8075 202 East Stumpfield Road Pensacola, FL 32503	Tampa East (813) 621-0891 6610 E Adamo Dr Tampa, FL 33619
Ft. Walton Bch (850) 862-2100 821 B Navy Street Ft. Walton Bch, FL 32548	Miami (305) 592-2915 2031 NW 79th Avenue Doral, FL 33122	Pompano (954) 917-4160 1708 Park Central Blvd. North Pompano Beach, FL 33064	Tampa West (813) 887-3737 5101 Tampa West Blvd. Tampa, FL 33634
Hollywood (954) 963-1883 3201 SW 22nd Street # 3265 Hollywood, FL 33023	Murdock (941) 255-1788 18230 Paulson Drive Murdock, FL 33954	Port St. Lucie (772) 340-5505 659 N.W Enterprise Drive Port St. Lucie, FL 34986	Mobile 251) 660-1460 4720 Rangeline Road Mobile, AL 36619
Jacksonville (904) 733-2415 2899 Powers Avenue, #2 Jacksonville, FL 32207	Naples (239) 594-7433 6134 Taylor Road Naples, FL 34109	Riviera Beach (561) 842-6311 3735 Prospect Ave Riviera Beach, FL 33404	Valdosta (229) 241-9184 4530 Val North Drive Valdosta, GA 31602

Visit **GEMAIRE.COM** to order WeatherKing today!



New From Regal - Evergreen VS Variable Speed Replacement Motors

A Regal Brand



ECM MADE EASY™



Evergreen®

WHAT YOU'LL SEE

Join Ken Darin from Regal Beloit to learn:

- How Evergreen VS can replace **ALL** of your variable speed ECM indoor blower motors.
- How to save time and money by completing calls the same day, including after-hours calls, and reduce time on calls using parts on your truck.
- The two different configurations of VS for 16-pin and 4-pin applications.
- How to install both the Evergreen VS and user interface for 16-pin applications.
- How the Evergreen VS is a plug and play replacement in 4-pin applications.

DEMO DAYS

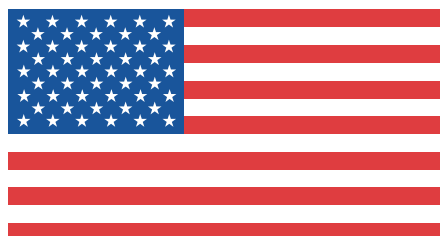
Tues., Aug. 6	T-08 Fort Myers Resource Center	8:00 a.m. – 11:00 a.m.
Wed., Aug. 7	T-11 Cape Coral Resource Center	8:00 a.m. – 11:00 a.m.
Thurs., Aug. 8	T-14 Sarasota Resource Center	8:00 a.m. – 11:00 a.m.
Fri., Aug. 9	T-15 East Tampa Resource Center	8:00 a.m. – 11:00 a.m.
Tues., Aug. 13	T-01 North Miami Resource Center	8:00 a.m. – 11:00 a.m.
Wed., Aug. 14	T-05 West Palm Beach Resource Center	8:00 a.m. – 11:00 a.m.
Thurs., Aug. 22	T-22 Ocala Resource Center	8:30 a.m. – 11:30 a.m.

Call or visit your local Tropic Supply Resource Center today!

Cape Coral (T-11): (239) 989.0088	Miami N. / Export (T-1): (305) 652.7717	St. Petersburg (T-23): (727) 373-4003
Daytona Beach (T-19): (386) 258.8337	Miami S. (T-3): (305) 255.0438	Sunrise (T-20): (954) 835.6020
Delray Beach (T-9): (561) 279.2710	Mid Miami (T-7): (305) 638.9673	Tallahassee (T-21): (850) 300.6595
Ft. Lauderdale N. (T-2): (954) 565.4803	Naples (T-10): (239) 643.7118	Tampa E. (T-15): (813) 514.1198
Ft. Lauderdale S. (T-4): (954) 522.2874	Ocala (T-22): (352) 512.6980	Tampa W. (T-16): (813) 514.9939
Ft. Myers (T-8): (239) 278.1117	Orlando (T-17): (407) 219.3255	West Palm Beach (T-5): (561) 684.3997
Ft. Pierce (T-6): (772) 465.4707	Port Charlotte (T-12): (941) 255.8330	
Jacksonville (T-18): (904) 332.0990	Sarasota (T-14): (941) 378.0910	



**RED
WHITE
& TUBE**



- ✓ Made in the USA
- ✓ UL Recognized to 700 PSI
- ✓ Engineered and Tested for R410A
- ✓ 10-year Warranty



**Your air conditioning equipment is only
as reliable as the tube that connects it.**

For superior performance and value,
only one brand checks every box.
Choose quality. Choose Streamline®.

Streamline®
Tube • Fittings • Valves

1-800-348-8464 • muellerstreamline.com

 **MUELLER
STREAMLINE CO.**

Carrier's Updated Mobile App Makes Chiller Selection Easier and Faster

CHARLOTTE, N.C., July 24, 2019 — Carrier has added a host of new capabilities to its Carrier® Chillers mobile app allowing consulting and facilities engineers to select chillers faster and easier. Using cloud technology, the app automatically updates and in just three steps users can obtain key technical data and product features for Carrier air-cooled and water cooled chillers. Carrier, a world leader in high-technology heating, air-conditioning and refrigeration solutions, is a part of Carrier, a leading global provider of innovative heating, ventilating and air conditioning (HVAC), refrigeration, fire, security and building automation technologies.

“Capitalizing on recent advancements in technology, we have improved the functionality of the Carrier Chillers mobile app making it simpler for our customers to select the chiller they need with real-time accuracy,” said Chris Opie, vice president, Product Marketing & Platform Strategy. “The updated technology can also reduce search and results delivery time, which makes using it an even better experience.”

The Carrier Chiller app allows HVAC system and design engineers to input the required capacity along with a chiller and compression type then receive key technical data and product features for the units that meet those specific requirements. By entering their zip code from any screen, users can also connect with a local Carrier expert to obtain further information and sales support.

This app, as all Carrier apps, is free and available for download to internet-connected Apple®* and Android™** devices at carrier.com/commercial. For more information, visit our website carrier.com/commercial.

Founded by the inventor of modern air conditioning, Carrier is a world leader in hightechnology heating, air-conditioning and refrigeration solutions. Carrier experts provide sustainable solutions, integrating energy-efficient products, building controls and energy services for residential, commercial, retail, transport and food service customers

Message from FRACCA President Rick Sims



Four to five years from now, remember where you were when you found out that NEC2020 (National Electric Code 2020) will require GFCI (Ground Fault Circuit Interrupter) protection for hard wired 208/240-1-60 air conditioning equipment serving single family dwellings. NEC2020 will be issued August 2019 (expect Florida to adopt in 4 to 5 years). This changes many things that we don't even think about today. It's not shocking to anyone that NEC2020 expands required uses of GFCI protection because we know it saves lives and so supports the purpose of the NEC. Few expected hardwired central air conditioning equipment to be included on the expanded list when so little testing has been done.

GFCI devices save lives by interrupting operation (cutting the power) within fractions of seconds when even a few milliamps of power appears to have found ground. If you know about them, you know they can cause nuisance power interruption and have extreme low tolerance for motor winding issues that otherwise go unnoticed. Because of GFCI propensity to nuisance trip, they are not used on safety critical circuits (such as alarms) NEC recognizes and exempts certain power supplies as vital to safety.

Our technicians are accustomed to diagnosing components that are only protected for over-current, overload and short circuit but not ground fault. Technicians know how to diagnose various motor circuits by comparing rated amps to actual amp draws. They can measure a short to ground or shorted windings. But even if all of this checks out, the GFCI will interrupt power if any part of the circuit indicates that a few milliamps are finding ground. GFCI tripping will be your newest frequent service call.

The varnish on motor windings is a very thin film, it loses its resistance over time. Currently,

damp, dirty or worn windings can leak to ground without disrupting operation so long as the current is not excessive, and the internal overload stays cool enough. Motors will have to be replaced sooner if they keep tripping the GFCI. Manufacturers already warranty electrical components if they draw excessive current or trip breakers. Soon they will have to provide systems that are assured to provide sustained operation without tripping a much less tolerant GFCI along with the fuse or circuit breaker. Motor windings are the obvious first concern, but I also predict that conflicts may arise between the GFCI and the other technologies we use; things that we haven't even thought of yet. We've got lots of tech already going on with all of our inverters and digital components. As of today, few of these technologies has been seriously tested for GFCI compatibility. Manufacturers have a short amount of time to test their stuff and work things out to avoid nuisance tripping of GFCI devices. Let's hope they do.

We have four or five years to prepare our workforce. Electrical apprenticeship programs have been all over GFCI technology since the 1990's but I don't think too many of our HVAC apprenticeship programs covers the topic sufficiently to meet future challenges. I recently discussed this with an electrical apprenticeship instructor who is eager to lend a hand. Ask your technicians how 240V single phase GFCI protection works. Ask them what is being detected and from where? Does it work the same when there is a neutral? My guess is that most of our technicians will need some supplemental training.

While challenging, it makes things safer for our techs who are arguably the ones most exposed to electrocution hazard due to ground fault. I just hope the motive behind it was more about safety than selling more GFCI devices. Nobody doubts that there may be nuisance tripping and technology conflicts, but if we work hard enough and are smart enough to get it right saving lives is certainly a worthy goal. Someday, GFCI protected AC will eventually just become the normal way we do things to stay safe.

SURGE PROTECTIVE DEVICE

introducing... SPD50UL

Extra compact UL Type 1 Surge Protective Devices (SPDs) designed to protect single phase electrical distribution systems against the harmful effects of transient surges. SPD50UL has a significant advantage in abnormal over-voltage & high fault current safety and thus ensures industry's highest level of safety and performance.

FEATURES:

- UL 1449 4th Type 1 SPDs with SCCR up to 200kArms
- Patented thermally protected MOV (PTMOV) technology
- High surge energy capability with 50kA per phase ratings
- 2 Modes of Protection (L-N, L-L)
- LED status indicator
- NEMA 4X enclosure
- 5-YEAR WARRANTY

COMPANY	SmartElectric	Diversitech	SUPCO®	Intermatic®	Intermatic®	ICM®	5-2-1®	Mars	Mars
MODEL NO.	SPD50UL	STXH240S05	LBK10	Defender	AG3000	ICM517	SPD150	83905	83904
Nominal Voltage	120/240 Vac Split-phase 2W+G	120/240 Vac Split-phase	120/240 Vac Split-phase 2W+G	120/240 Vac Split-phase 2W+G	120/240 Vac Split-phase 2W+G	120/240 Vac Split-phase 2W+G	120/240 Vac Split-phase 2W+G	120/240 Vac Split-phase 2W+G	120Vac Single phase
Certification SPD TYPE	UL Type 1 SPD	UL Type 1 SPD	UL Type 2 SPD	UL Type 2 SPD	UL Type 1 OR 2 SPD	UL Type 2 SPD	TUV	UL Type 1 or 2 SPD	UL Type 1 or 2 SPD
UL listed	UL 1449 Ed. 4	UL 1449 Ed. 4	UL 1449 Ed. 4	UL 1449 Ed. 3	UL 1449 Ed. 4	UL 1449 Ed. 3	NO	UL 1449 Ed. 4	UL 1449 Ed. 4
Surge component technology	PTMOV	TPMOV	TPMOV	TPMOV	TPMOV	MOV w/ Thermal Fuse	MOV w/ Thermal Fuse	TPMOV	TPMOV
Normal discharge rating (in)	10 kA	20 kA	10 kA	10 kA	10 kA	5 kA	10 kA	10kA	10kA
Clamping voltage	150 V	150 V	150 V	150 V	150 V	130 V	150 V	no data	no data
*Short Circuit current Rating (SCCR)	200KA	200KA	10kA	20KA	20KA	100KA	20KA	22kA	22kA
Max.Continuous Operating Voltage (MCOV)	150/320 V	150/300 V	150/300 V	150/300 V	150/300 V	130/260V	150/300 V	150/300 V	150 V
VPR	700VAC (L-G) 1200VAC (L-L)	600VAC L-N/G 1000VAC L-L	600VAC L-N/G 1000VAC L-L	700VAC L-N/G 1200VAC L-L	700VAC L-N/G 1200VAC L-L	800VAC L-N 900VAC L-L	600VAC L-N/G 900VAC L-L	800VAC L-N 1200VAC L-L	700VAC L-N
Enclosure Type	NEMA 4X	NEMA 4X	NEMA1	NEMA3	NEMA 4X	no data	no data	NEMA 3R	NEMA 3R
Disconnect equipment when self sacrifice?	YES	YES	YES	NO	NO	NO	NO	NO	NO



<https://www.youtube.com/watch?v=-gL44tXiXu8&feature=youtu.be>

Copy the link above and watch the 2 minute video.



www.smartelectricusa.com
TOLL FREE: 866-591-9898
Fax: 305-500-9896
Sales email: sales@eairllc.com



FEFPA Summer 2019 Conference

Boca Raton Resort and Club

July 15-18, 2019

The FEFPA Summer Conference was held at the Boca Raton Resort and Club on July 15th-18th. Throughout the conference the panelists were engaged in discussions which challenged traditional thinking in public education. There were sessions on legal issues, new trends, project delivery, technical

aspects of facilities planning and more.

The Florida Educational Facilities Planners Association (FEFPA) was started in the early 1960's as a cooperative effort between a small group of school districts' facilities planners and the Department of Education, Office of Educational Facilities (OEF).

When the community colleges came into being, those planners began to participate and recently, along with university planners, practicing architects, engineers, product manufacturers, and vendors have been encouraged to participate and become members and associate members.



Leon Essex, Penny Anderson, Greg Duggan, Luis Rinzivillo, and Frank Suranyi of AccuAir Inc (Bard)



Frank Suranyi of AccuAir Inc (Bard) speaks with Dennis Griffith of Alachua County Public Schools



The AccuAir (Bard) booth was busy during the FEFPA conference



William Barimo of Miami-Dade Schools, Frank Suranyi and Luis Rinzivillo of AccuAir Inc (Bard)



Time to break for a nice lunch and visit with the exhibitors!



Luis Rinzivillo and Frank Suranyi of AccuAir Inc (Bard) greet two FEFPA attendees



Jesse Colston and Sandy Tulecki of Tampa Bay Trane



“Getting the Most Out of Your Roof Assets” in the Estate Ballroom with Robert Moses, Mark Humbaugh and Tony Connery of The Garland Company



Michael Montan, Cindy Dickerson, and Fausto Frias of Carrier Enterprise



ENGINEERED HVAC PRODUCT SPECIALISTS AND DISTRIBUTORS

THE BARD SOLUTION EXPERTS

THE ADVANTAGE IS ACCUAIR – YOUR SOURCE FOR ENGINEERED PRODUCTS!



SPECIALTY & ENGINEERED PRODUCTS

- VARIABLE/STEP CAPACITY HIGH EFFICIENCY (UP TO 12.0 EER/16.5 IPLV)
- VERY LOW INTERIOR SOUND (DOWN TO LESS THAN 40dB)
- ENERGY RECOVERY – TOTAL ENTHALPY
- HOT GAS REHEAT DEHUMIDIFICATION
- VENTILATION INCLUDING EXHAUST
- SPECIALTY ENERGY CONSERVATION CONTROLS – BACnet COMPATIBLE
- SOUND PLENUMS – ISOLATION CURBS

For design and specification assistance please give us a call or find us online

877.322.2824 • www.accuaironline.com

FRANK SURANYI • frank@accuaironline.com
GREG DUGGAN • greg@accuaironline.com
PENNY ANDERSON • penny@accuaironline.com
LUIS RINZIVILLO • luis@accuaironline.com

2900 W. Orange Avenue, Suite 130
Apopka, Florida 32703



Fantech Replacement Roof Fans

Get what you need, when you need it

In stock today at your local Economic Electric Supply Store



Visit www.fantech.net for performance information and selections or stop by your local Economic Electric Supply Store for expert advice.

ECONOMIC ELECTRIC MOTORS *The HVAC Supply Center*

Doral Branch
4075 NW 79th Ave
Doral, FL, 33166
Phone: 305-471-0196

South Miami Branch
19100 SW 106th Ave. #13
Miami, FL, 33157
Phone: 305-235-0311

Pompano Branch
880 SW 10th Ave
Pompano Beach, FL, 33069
Phone: 954-786-9090

West Palm Beach Branch
2611 Old Okeechobee Rd
West Palm Beach, FL, 33409
Phone: 561-683-6262

Davie Branch
12980 W State Rd 84
Davie, FL, 33325
Phone: 954-916-0099

North Miami Branch
18640 NE 2nd Ave
Miami, FL, 33179
Phone: 305-651-0311

International Division
870 SW 12 Ave
Pompano Beach FL 33069
Phone: 305-471-0196 ext 224

Or visit their website at
www.eemotors.com for all your
HVAC needs.

Boynton Beach New Location
4020 Thor Drive
Boynton Beach, FL, 33426
Phone: 561-737-1551
Opens at 7 a.m. Monday - Friday

 **fantech**[®]
a systemair company

BLACKS SUPPLY

Hosts Nu-Calgon Demo Days in July

July 23, Eustis - July 24, Orlando - July 25, East Orlando - July 26, Leesburg

During the month of July, Blacks Supply hosted a Nu-Calgon Demo Day at each of their four locations. Jody Long, the Nu-Calgon company representative gave product demonstrations of their expanded product line including proper Rx11 lineset flushing, Odor Block pan tabs, Re-New, EasySeal, and the new line of iWave products from GPS for improved indoor air quality. Breakfast and Lunch were provided.

Blacks Supply Inc., an independent, family

owned Air Conditioning Wholesaler has been serving Orlando and Central Florida for over 30 years. From commercial duct systems to residential air conditioning systems to manufactured housing package units,

Blacks Supply has an inventory of products from over 200 vendors. Their knowledgeable and customer service focused employees can help you in all aspects of the HVAC industry including new

construction, renovation, service, warranty, parts and specialty products. Their dedication to the industry has made Blacks Supply the choice of local HVAC contractors.

Visit one of their 4 locations in Orlando, East Orlando, Leesburg and Eustis to see why their products and people make an unbeatable team. When you need the right product at the right time and in the right location Blacks Supply has the staff to help you.



Jody Long of Nu-Calgon with Sam Rhodes and Jose Lopez of A/C Rescue



Jody Long of Nu-Calgon with Khin Ung and Edgar Manzanares of Corman and Sons



Karl Kroeplin and Mark Hemphill of Irvine Mechanical with Jody Long of Nu-Calgon,



Jody Long of Nu-Calgon, Edward Adie and Mutt Stroud of Blacks Supply



Jody Long of Nu-Calgon with technician from American AC



Vladimir Paul of HVAC Depot getting a smoke test demonstration with the new iWave product

Bacharach Introduces MVR-SC Controller for Networking VRF Leak Detectors



July 18, 2019, - - Pittsburgh, PA - - Bacharach, a leading provider of HVAC-R gas instrumentation and monitoring solutions, today introduced the new MVR-SC controller designed to seamlessly pair with MVR-300 refrigerant monitors to provide real-time status of refrigerant leaks throughout a facility.

The key functions of the MVR-SC include:

- Centralized alarming for MVR-300 VRF leak detectors
- Network set-up and MVR-300 Modbus ID assignment
- System monitoring
- Seamless integration with MVR-300

The MVR-SC eliminates the need to integrate VRF leak detection into a BAS controller and the related custom programming expense. By implementing a hybrid Ethernet serial network the MVR-SC simplifies the Modbus integration, provides fast response for

fault detection and troubleshooting and is quickly deployed in any size facility.

The MVR-SC monitors up to 100 MVR-300 devices and has an integrated audible alarm. The MVR-SC has an intuitive user interface built on a color, touchscreen display.

VRF systems are being increasingly deployed in multi-tenant building such as hotel, dormitories, assisted living facilities, and offices. The Bacharach VRF leak detection system, which includes the MVR-300 and MVR-SC, improves occupant safety in the case of a VRF system leak.

Bacharach is a provider of cleantech solutions for gas and refrigerant leak detection and identification, refrigerant tracking, combustion and emissions analysis instrumentation, and high-purity oxygen gas analysis in commercial and industrial applications. Bacharach products make the heating, ventilation, air-conditioning, refrigeration (HVAC-R), and process industries safer, cleaner, and more energy-efficient, enabling customers to increase productivity, reduce costs, and protect lives and the environment.

SWACCA and Service Roundtable Join Forces to Provide Additional Member Benefits



SWACCA and Service Roundtable have entered into an affiliate agreement to provide you, the SWACCA member, additional benefits.

What is Service Roundtable?

Formed by leading contractors, Service Roundtable offers an array of HVAC technicians, Electrical, Solar, and Remodelers best practice tools to help you generate leads, close more sales, market your company, recruit technicians, the price for profit, manage your service agreements, and create an exit strategy.

What additional benefits do I receive?

- Rebates on equipment
- Group buying specials
- Employee training modules, videos, and podcasts
- Profit Newsletter - contractor-focused
- Resource for over 3,000 pieces of customizable business forms and marketing templates
- Financially supports SWACCA
- Provider nationally recognized speakers for member presentations

Costs

Joining the Service Roundtable is \$50/month. After your 6th month as a member, SWACCA will issue a \$150 rebate check for joining. Additionally, if you sign up during July and August, Service Roundtable will donate \$25 of your payment to the MEP Coalition to fight FPL's unfair competition.



**AHR
EXPO®**

**ORLANDO
FEB 3-5
2020**

Unexpectedly More!

UNIWELD® SmarTECH® Wireless Digital Manifold

The Uniweld SmarTech Wireless Digital Manifold communicates with your Android or iOS smart device using our free downloadable app. The SmarTech™ app, with 111 refrigerant profiles, calculates and displays the system's real time pressures, temperatures, Superheat and Subcooling in a user friendly format.

SmarTech's digital accuracy takes the guess work out of properly charging a system for maximum efficiency and optimal performance.



**EXCLUSIVE
SMART
CHARGE
ZONE™**
(SEE BACK
FOR DETAILS)



**PART#
USMAN145**
includes 5 Ft.
Hose Set



**Blue EZ Turn hose with
1/4" Male Flare "T" Fitting**



UNIWELD® PRODUCTS, INC.
Fort Lauderdale, FL 33312
Customer Service:
800.323.2111 • 954.584.2000 • F
www.uniweld.com • info@uniweld.com



**Ball Valve
Vacuum Rated
to 20 Microns!**
Specifically designed
for the HVAC/R
industry to
hold Vacuum
and Pressure.

“THE DUCT-FREE ZONE”

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



VRF Rejected? Not so fast! Sadly, something called the *Hydronic Industry Alliance Commercial* continues a misguided and sophomoric campaign to vilify the Variable Refrigerant Flow VRF tide of products which has been a tsunami to the hydronic manufacturers and their antiquated products.

I want to start by reminding you of my roots in the HVAC industry...I was born in the Bronx and grew up in northern New Jersey, the epicenter of the hydronic heating North East. I started my career with the HydroTherm Boiler Company, being mentored by Elwood Weaver, Executive Vice-President, the man I call my spiritual father and an icon in the boiler industry. Hydronics is in my DNA and it was, and is my first love as far as my career is concerned.

When my wife and I purchased our home 25 years ago, we essentially gutted the place and my choice of HVAC systems for the home was an oil-fired boiler (natural gas still not available on the mountain where we live) with a radiant floor distribution system (slab on the first floor and in the floor joists for the second floor) with an 80 gallon indirect water heater utilizing both the boiler and two thermal solar panels as it's heat source.

When we built my shop on our property back in 2001, I again chose hydronics...

The shop is a 24' X 28' prefabricated structure. It has two floors for a total of 1,344 sq/ft. The structure is very well insulated. Currently, the building is heated by an LP fueled, 90%+ efficient condensing boiler with radiant floor heat in the slab on the first floor and in the floor joists of the second floor.

Electric usage from 9/26/18 – 3/28/19 was 1,401 KWH at a cost of \$376.63 LP usage from 8/8/18 – 3/11/19 was 585 gallons at \$4.09 / gallon = \$2,392.65 Total utility cost from the winter of 2018 / 2019 was \$2,769.28

The current AC system is a 10 SEER Small Duct High Velocity SDHV system.

Electric usage from 5/29/18 – 9/26/18 was 429 KWH for a total cost of \$234.90

Spending almost \$2,800.00 annually to heat the shop has become excessive and frankly, economically infeasible. I had considered a geothermal option about 6 years ago but the cost of vertical drilling was extremely expensive and excavating for trenching was not an option because of the amount of rock on the property (it's a mountain remember).

I wish I had calculated at the time, the cost of installation for the hydronic radiant floor system (HEAT) and the small duct high velocity system (COOLING), but I didn't. Suffice it to say, there was substantial equipment cost and though the labor was my own, labor cost based on prevailing wage of the day would have been significant because both these systems, I think you will agree are very labor intensive.

So, what I have decided to do with the help of my friends at GREE is to install a GREE GMV MINI VRF system for both heating and cooling in the shop.

The outdoor unit is a GREE GMV-36WL/A-T(U) with two GREE GMV-N18G/A3A-D(U) in-

door units. The GREE GMV MINI VRF system has the greatest potential for utility savings in the heating mode. It will be very interesting to see how the system performs both in comfort and cost in the northeast.

You can follow me on LinkedIn and see the progress of the installation over the next 6 weeks. I'm documenting the entire install in PPT and video format for future training purposes so I'm taking my time.

Variable Refrigerant Flow represents the best of what HVAC has to offer in 2019.

- Lower equipment cost
- Less installation labor
- More efficient operation. ...at least in the example of my shop.

Hydronics Rejected...NO! I would never be that ignorant and petty, but clearly the times they are a changin' and the hydronic manufacturers are feeling the heat (pun intended). Instead of putting their time and resources into silly, bush-league ad campaigns, they should concentrate on bringing hydronics up to the new standards of 2019 and beyond.

ABOUT THE AUTHOR: Gerry Wagner is the Vice President of HVAC Technical Training for Tradewinds Climate Systems. He has 38 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



VRF SYSTEMS
COMMERCIAL
RESIDENTIAL



IN STOCK

MINI GMV5 SERIES
HEAT PUMP

- One pipe run | No branch boxes
- High efficiency Inverter
- 24K to 56K ODU with up to 9 Indoor Units
- Solar ready models
- Wired | Wireless | Smart Zone | Central Controller

GMV5 SERIES
HEAT RECOVERY | HEAT PUMP | SOLAR | WATER COOLED

- High efficiency ALL DC inverter
- 6Ton to 30Ton modules with up to 60 Indoor Units
- Auto address technology
- AHU kit available for retrofit solutions
- WIFI and BMS Integration options


CONTACT US FOR MORE INFORMATION
10300 NW 19TH STREET, SUITE 105 DORAL, FL 33126 | PHONE: 786-621-8250 | EMAIL: SALES@BOREALINTL.COM

ASHRAE Releases New HVAC Applications Handbook

ATLANTA (July 11, 2019) – ASHRAE announced the release of its 2019 ASHRAE Handbook—HVAC Applications.

The newly published HVAC Applications volume comprised of 65 chapters covering a broad range of facilities and topics was written to help engineers design and use equipment and systems described in other Handbook volumes. Main sections cover comfort, industrial, energy-related and general applications, as well as building operations and management.

The 2019 edition includes three new chapters: Indoor Swimming Pools (Chapter 6), Indoor Airflow Modeling (Chapter 59), Occupant-Centric Sensing and Controls (Chapter 65).

Some other updates include: Educational Facilities (Chapter 8) provides updated design criteria, and a new section on central plant optimization for higher education campuses and educational facilities for students with disabilities.

Health Care Facilities (Chapter 9) has been extensively rewritten to address current health care requirements.

Solar Energy (Chapter 36) has added updated guidance on solar thermal collectors and photovoltaic applications, with new information on design and performance of photovoltaic systems and on installation and operation guidelines for photovoltaic systems, with new practical examples.

Integrated Building Design (Chapter 60) has been completely rewritten to give more detail on Integrated Building Design (IBD) process.

Mold and Moisture (Chapter 64) revises the order of risk factors for mold to better reflect their relative importance and added information from ASHRAE RP-1712 to advise on components and configuration of dedicated outdoor air (DOAS) systems to help avoid mold growth in schools, universities, and military barracks during extended periods of unoccupied-mode HVAC operation.

ASHRAE has completed distribution of complimentary copies to members and is now offering this essential resource to the public. The 2019 ASHRAE Handbook—HVAC Applications is available in two editions: I-P (inch-pound) or SI (International System) units of measurement. The cost of the print bound volume is \$220 in I-P or SI.

Individual chapters may also be purchased as digital downloads in PDF format. To purchase, visit ashrae.org/bookstore.

Founded in 1894, ASHRAE is a global professional society committed to serve humanity by advancing the arts and sciences of heating ventilation, air conditioning, refrigeration and their allied fields.

As an industry leader in research, standards writing, 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.

For more information and to stay up-to-date on ASHRAE, visit ashrae.org and connect on LinkedIn, Facebook, Twitter and YouTube.

Registration Now Open for 2020 ASHRAE Winter Conference

ATLANTA (August 1, 2019) – Registration is open for the 2020 ASHRAE Winter Conference, to be held Feb. 1-5 at the Hilton Orlando. Registration for the conference provides entry to the co-sponsored AHR Expo, held Feb. 3-5 at the Orange County Convention Center.

The ASHRAE Winter Conference features eight conference tracks, tours, social events and a keynote speech from retired NFL referee Ed Hochuli.

The conference presents the latest topics in the HVAC&R industry through a technical program featuring more than 100 sessions and 300 speakers.

“The 2020 ASHRAE Winter Conference will feature a strong technical program including presentations and discussions on best design practices and standards, incorporation of innovative technologies, and cutting edge approaches applicable to a wide range of buildings-related engineers, architects, and professionals,” said Melanie Derby, conference chair.

Apply by Jan. 10 to sit for an ASHRAE Certification exam. Exams will be administered on Feb. 5 in these key fields: Building Operations, Commissioning, Energy Assessment, Energy Modeling, Healthcare Facility Design, High-Performance Building Design, and HVAC Design, a new program.

The AHR Expo hosts more than 1,800 exhibitors and attracts crowds of 65,000 industry professionals worldwide. ASHRAE Winter Conference registrants will have full access to the AHR Expo with a conference badge.

In addition, ASHRAE conducts more than 600 meetings during the course of the conference, with over 100 specific technical topics in HVAC&R technology addressed. The meetings are open to the public.

More Cooling Power, Less Energy Waste: 5 Reasons to Switch to Variable Speed Compressors with Hydrocarbon Refrigerants

By John Prall, Technical support Engineer, Embraco North America



One of the most fiscally responsible shifts in current refrigeration technology is the migration to using Variable Speed Compressors (VSCs) with Hydrocarbons (HCs). Replacing traditional on-off compressors that use Hydrofluorocarbons (HFC) with this innovative combination can lead to increased energy savings, temperature stability and reduced global warming potential. Here are five good reasons why leading refrigeration appliance manufacturers, like Embraco, are suggesting businesses make the switch.

Energy and Cost Savings

A traditional on-off compressor operates at a constant speed and will switch on and off according to your equipment's energy demand. This operational pattern requires abrupt power loads when starting and can lead to wasted energy after the target temperature is reached but the motor has not yet turned off.

A VSC starts at a lower speed, ramps up its speed a few minutes later and adjusts current to provide needed power depending on the system's conditions. In vertical commercial freezer applications, switching to a VSC from a traditional on-off compressor can result in reduced energy consumption by 33 percent and an energy savings payoff within the first six months.

Equipment Longevity

Regular wear and tear are largely reduced with the “soft start” model of VSCs. The slower ramp up time reduces starting currents and excludes parts like start relays and start or run capacitors. This reduces overall stress, prolonging the life of your equipment and reducing maintenance and part replacement frequency.



Temperature Control

Applications operating at lower temperatures, like freezers, return the most significant ROI because the higher temperature delta between the product temperature and the ambient temperature allows systems to recover from door openings faster. This leads to compressors operating at lower, energy-saving speeds. The ability to better regulate temperature also makes VSCs great for food preservation and medical applications, where products are very sensitive to temperature oscillations.

Going Green

When switching from a hydrofluorocarbon (HFC) refrigerant, like R-404A, to a natural refrigerant, like R-290, the global warming potential of the gas drops from 3922 to 3, and the total refrigerant charge drops from 350g to less than 150g, significantly reducing your direct carbon footprint. Switching to a natural refrigerant can reduce energy consumption by up to 20 percent, and by additionally switching to a VSC energy consumption can be reduced by another 20 percent.

More Merchandising Space

A more compact and efficient equipment layout, using the combination of natural refrigerants and a VSC, generates the same cooling capacity required of an on-off compressor using HFC gas. This frees up more merchandising space in commercial cabinets without changing external dimensions of the commercial cabinets, in turn, allowing manufacturers more creativity in designing equipment and providing more flexible layout options to stores.

Pairing the two innovative refrigeration solutions ultimately increases energy savings, cabinet space and return on investment while reducing pulldown time and carbon footprint. Given these reasons, a switch to VSCs, like Embraco's Full-motion line, and natural refrigerants like R-290 is only becoming more logical, and will continue to increase energy efficiency without compromising performance.

John Prall serves as a Technical Support Engineer at Embraco North America. His responsibilities include providing engineering technical support for commercial and aftermarket customers, including assisting customers in selection and application of hermetic compressors. He also trains customers on compressor technology and market trends through customer visits, trade show presentations and webinar activities.

Prall has more than 15 years of experience in the commercial refrigeration industry. Prior to his role at Embraco, he held several roles ranging from engineering to product management at a leading food retail equipment manufacturer. Prall holds a BS in Mechanical Engineering from the Rochester Institute of Technology in Rochester, New York.

Honeywell Home



Thoughtfully designed. Expertly engineered.

THE HONEYWELL HOME T SERIES

Fits your business to a T.



Intuitive setup that fits your technicians to a T

Every T Series thermostat features on-screen menus with familiar installer setup (ISU) steps, helping to eliminate the learning curve that can come with a new product.

Faster installs that fit your operation to a T

With the new UWP mounting system, you can standardize your training program, install process and truck stock – helping your techs get in and out and on their way more quickly.

Easy upsell that fits your revenue model to a T

The T Series has a snap-together design that enables you to easily move customers from a non-connected to a connected thermostat without having to replace the wall plate.*

*C-wire required

The T10 Pro Smart and T6 Pro Smart seamlessly integrate with Smart Home Partners like Google Assistant and Amazon Alexa for customers who want to control all their smart home devices with voice commands or a single app.



Arco Supply Is Your Source For Honeywell Resideo Products!

Serving South Florida for Over 40 Years

Arco Supply, Inc.

Refrigeration and Air Conditioning Equipment and Supplies

715 Barnett Dr. Lake Worth, FL 33461 www.arcosupply.com

Phone: 561.586.3331 Fax: 561.586.2330



Florida Air Conditioning Apprenticeship Graduation July 31st, 2019



The Florida Air Conditioning Apprenticeship Association (FACAA), in conjunction with the Palm Beach Air Conditioning Contractors Association (PBACCA), honored 27 2019 graduates at a banquet held on July 31, 2019 at The Embassy Suites in West Palm Beach, Florida.

More than 120 instructors, employers, friends, families and other industry members attended the event to congratulate the graduates and celebrate with them. FACAA Program Director and past PBACCA President Steve Sparks and FACAA Committee Mem-

bers hosted the banquet, which began with the PBACCA General Membership Meeting. Steve congratulated the graduates for their commitment, thanked their families for the sacrifices they endured and recognized the sponsoring employers for enabling the students to participate over the past four years.

The Keynote Speaker was Senator Lori Berman who was one of only a handful of legislators to score 100% on the "People First Report Card" measuring legislative votes that put the interest of people over the powerful.

Steve Sparks introduced the instructors and presented the graduates, along with Rhonda Hutchison. Graduates received their certificates along with gifts from Tropic Supply and the Florida Refrigeration and Air Conditioning Contractors Association.

Abanoub Zakhra was named Graduate of the Year and received an award from Peter Montana of the HVAC Insider and Rob Mayhew of Tropic Supply.

Steve reminded them of the PBACCA Maury Jacob Scholarships that is available to assist all motivated students.



Steven Sparks, Lashonda Johnson, Lyn Gomez Highsmith, Rhonda Hutchison, and Dave Hutchison



Back: Instructor Kelly McCann, Archibal Pierre Louis, Hector Morales, Ezekiel Mejia Garcia, Xaver Fonseca, Danny Fernandez, Keith Duane, Front: Richard Bowman, Jonathan Burleson, Anthonie Carreras, Austin Crumbly



Back: Instructor Kelly McCann, Abanoub Zakhra, Brian Usher, Chris Thompson, Randall Sprenger, Zach Simmons Front: Sean Redmond, Ben Roberts, Michael Ruiz, Blake Schroeder,



Reinaldo Martinez, Michael Ruiz, Archibal Pierre Louis, Maerline Pierre Louis



Everett and Maria Hill, Jeremiah Vasquez, Zeke and Heather Garcia, Aydn, Brooklyn, David and Katiln Jenkins of Palm Air



Sean Crumbly, Austin Crumbly, Erica Baldwin, Lori Crumbly



FACAA Program Director and PBACCA past President Steve Sparks spoke to the graduates and attendees



Everyone enjoyed the buffet prepared by the Embassy Suites



More than 120 instructors, employers, friends, families, and industry members attended the event to congratulate the graduates and celebrate with them.



Keynote Speaker, Senator Lori Berman emphasized the importance of serving others and giving back to your community



Steve Sparks and Rhonda Hutchison announced the graduates



FACAA Instructors: Shyam Patel, Kelly McCann, Alex Valdez, and Patrick Mesmer



Rhonda Hutchison, with the Graduate of the Year, Abanoub Zakhra, received an award from Peter Montana of Florida HVAC Insider



Rhonda Hutchison, with Graduate of the Year Abanoub Zakhra, received some nice gifts from Rob Mayhew of Tropic Supply



Chris Rhoads, Brian Usher, Richard Bowman, Kelly McCann, and Dave Hutchison of CMI Air Conditioning

Danfoss Symposium Explores Deep Retrofits And The Path Toward Resilience, Efficiency, And Sustainability



Cities and states are now assuming a leadership role on climate, resilience, and energy efficiency, and the 33rd Danfoss EnVisioneering Symposium convened thought leaders from industry, advocacy, and policy on June 4 in Washington, DC, to examine paths on which state and local government might drive the deep building retrofits that are critical to a sustainable built environment.

"At our symposium on resilience last year, we saw that cities were starting to act forcefully on resilience, energy efficiency, and carbon reduction policy. Even more is happening now," Lisa Tryson, director of corporate communications at Danfoss, said in her introductory remarks. "With the lack of federal leadership, states and cities are where the real action is occurring—making firm commitments to cut carbon emissions and provide a genuinely resilient infrastructure. And that's happening through transparency, benchmarking, grading and labeling, and smart connected buildings."

"However, the American building stock as a whole turns over at a rate of only one percent per year. Transformation that takes a century to complete is not transformation. That means the existing building stock needs to be retrofitted for efficiency and resilience—and those retrofits need to be deep."

Cities are moving forward with climate goals at an unprecedented rate. Together with strategies to make their infrastructure more resilient to climate shocks, that movement finds its greatest opportunity in existing buildings. But, those buildings need a strong, dynamic interface with the grid and energy storage, load reduction, and renewable energy sources to have the best grid economics.

Bosch Thermotechnology Corp. Releases Inverted Ducted Packaged System

Watertown, Mass., July 23, 2019 – Bosch Thermotechnology adds to its heating and cooling product portfolio with the announcement of its first-ever Inverter Ducted Packaged (IDP) air-source heat pump system, which offers peak efficiency and the latest compressor technology packaged in a single unit.

The new system's design has a foundation in Bosch's Inverter Ducted Split air-source heat pump system, which was redesigned to have all components located in one cabinet: the ideal packaged system for easy residential and light commercial installations.

The IDP features a seasonal energy efficiency ratio (SEER) rating of 19, an energy efficiency ratio (EER) of 12.5, and a heating seasonal performance factor (HSPF) of 10. The convenient two-way design allows for both horizontal and down flow installations, making installation easy, as does the system's compatibility with most standard 24 VAC heat pump thermostats.



The IDP's two-stage electronically commutated motor (ECM) x13 blower provides enhanced dehumidification and quiet operation, and the fully modulating inverter drive precisely matches the heating or cooling load for maximum efficiency. The IDP's inverter compressor offers 25 to 110 percent capacity, with modulation in 1 percent increments.

"The release of the Inverter Ducted Packaged system combines Bosch's top air-source heat pump features with a convenient single cabinet design for multiple installation options," said Katie Woodling, product manager at Bosch Thermotechnology. "Bosch is excited to continue expanding its air-conditioning product lineup, and making advancements that fit our customers' needs."

The IDP meets the requirements for ENERGY STAR and will comply with the Department of Energy consumer central air conditioner and heat pump direct final rule that will become effective Jan. 1, 2023.

R-8 vs R-6 Ductwork and Duct Leakage Test for Existing Residential Duct Changeout/Replacements

Earlier this year RACCA met with Building Officials, Chief Mechanical Inspectors and Inspectors from Hillsborough and Pinellas County jurisdictions regarding inconsistent interpretations of when R-8 and R-6 Ductwork is required. Subsequent to the meeting, we received information from the following jurisdictions that neither R-8 ductwork nor a duct leakage test is required when performing an existing residential duct replacement.

The exemption from installing R-8 does not apply if the building is considered a Renovated Building (defined as estimated cost of renovation exceeds 30

percent of the assessed value of the structure).

City of Tampa - Hillsborough County - City of St. Petersburg - Pinellas County - City of Temple Terrace

If there are contractors who have been notified that R-6 is not acceptable for replacement on an existing residential building, please let the RACCA office know so that we may contact the Building Official to discuss the interpretation and provide additional information as needed. We hope this Alert is helpful as you work through these busy summer months.

Any questions may be addressed to the RACCA office at racca@racca-florida.org or 727-209-5745.



CONFERENCE

Register now at www.WomenInHVACR.org

ALOFT BOSTON SEAPORT DISTRICT HOTEL

BOSTON, MASSACHUSETTS

SEPTEMBER 25 - 27, 2019



ROSANN SDOIA
BOSTON MARATHON SURVIVOR



DR. LOIS FRANKEL
PRESIDENT OF CCI, AUTHOR & COACH



EMILY SAVING
EXECUTIVE VICE PRESIDENT AT HARDI



LORI TSCHOHI
MANAGING MEMBER OF EAGLE PIPE MECH

2019



16TH ANNUAL WOMEN IN HVACR CONFERENCE

Don't miss the WHVACR Annual Conference, featuring fantastic speakers, as we explore: "CONNECT. CULTIVATE. GROW."

Join us for this exciting event as you reconnect with old friends and network with other women leaders in the HVACR industry.

**THIS SUMMER
INSTALL
QUALITY &
EFFICIENCY**

INSTALL Ducane
**AIR CONDITIONING
AND HEATING**



**WE HAVE YOU
COVERED**

**with GREAT PRODUCTS
AND OUTSTANDING SERVICE**

**YOUR *Best!* HVAC
ONE STOP
SHOP!**

OLDACH
REFRIGERATION, AIR CONDITIONING & VENTILATION SUPPLIER

www.oldachusa.com

[OldachUS](https://www.facebook.com/OldachUS)



Kissimmee Store
1001 Armstrong Boulevard 34741
407-530-5599



Orlando Store
3004 Silver Star Road 32808
407-270-9670

North Park Innovations Releases New iManifold® PULSE!™



ELLICOTVILLE, N.Y. – Aug. 1, 2019 – North Park Innovations Group, the manufacturers of iManifold®, a leading HVAC/R diagnostic

platform, announced today the release of the iManifold® PULSE!™, a groundbreaking commercial HVAC monitoring product for contractors and building owners.

The iManifold PULSE! is a leave-behind HVAC analytic device that technicians can install on each unit, regardless of the brand they service. With a nominal monthly subscription fee, the device continuously monitors the HVAC unit and immediately alerts contractors and property managers when the unit's performance declines or malfunctions.

"The iManifold PULSE! benefits both HVAC contractors and commercial building owners because the money, time and energy saved will allow them each to focus those resources elsewhere," said Bill Northrup, CEO of North Park Innovations Group. "We anticipate this product will completely revolutionize the way HVAC units are serviced and maintained. It will be like having a trained techni-

cian monitoring each unit 24/7."

With today's pressing labor shortage in the entire HVAC industry, the iManifold PULSE! brings a much-needed value-add to HVAC teams across the country, as it will multiply an individual technician's reach and service capabilities. For building owners, it eliminates the hassle of emergency system shutdowns and repairs.

It's also expected to reduce a building's carbon footprint, saving an estimated 12% or more of HVAC electricity that would otherwise have been wasted due to non-optimal operations.

"There are millions of rooftop HVAC units in the United States alone that are not equipped with artificial intelligence of this caliber, so the amount of savings that is now possible for building owners is truly astronomical," said Northrup. "We're constantly striving to identify the needs of our customers, and we see the iManifold PULSE! as an invaluable tool that will benefit commercial HVAC contractors and building owners alike."

The iManifold PULSE! is now available for commercial rooftop HVAC units, with residential, refrigeration, chillers and other applications coming soon.

To learn more about the iManifold PULSE!, visit www.imanifold.com/pulse.

HVAC Program Now Available to Students at Florida Career College in Boynton Beach

BOYNTON BEACH, Fla., July 2, 2019 /PRNewswire/ -- Florida Career College is excited to announce the addition of Heating, Ventilation and Air Conditioning (HVAC) program to the Boynton Beach campus's program offerings. With this addition, all Florida Career College locations will now offer HVAC career training. Students have the opportunity to train and receive the hands-on skills they need to be successful in this ever growing and in-demand career field.

"We are ecstatic here at the Boynton Beach campus to be adding this new program offering to our students," says John Schuman, Regional VP of Operations at Florida Career College. "There is a growing need for skilled workers in the field of heating, ventilation, and air conditioning. We aspire to make an impact on our students, as well as the community, by providing the opportunity to build a career in the HVAC industry."

Students who have always had an interest in HVAC or those who want to train for a new career can take advantage of this new program. All students who enroll in the new Heating, Ventilation and Air Condi-

tioning program will not only train in the classroom but will gain valuable knowledge and skills in the lab too. Our HVAC lab is set up with industry relevant equipment and designed to provide students with real-life simulations to help prepare and train them for success in their new career.

The HVAC program can be completed in as few as 9.5 months and prepares students for two important certifications in the HVAC industry. Throughout the modules, students will build upon their knowledge from the previous module and put it all together to create a solid foundation for their future career in HVAC.

The demand for HVAC technicians continues to grow and the Bureau of Labor Statistics estimates that employment will grow by 15% until 2026, which is much faster than the average for all occupations.

Students can enroll now in the Heating, Ventilation and Air Conditioning program at the Boynton Beach campus. The first class will start on Monday, July 29. You can learn more about the Heating, Ventilation and Air Conditioning (HVAC) program and all other programs offered at floridacareercollege.edu.

Edd Helms Group Selects growOPTIMUM as the Best Choice for Growing Legal Cannabis in and for Florida

FORT LAUDERDALE, Fla., Aug. 2, 2019 /PRNewswire/ -- We are proud to announce that Edd Helms Group (EDHD.PK) has selected growOPTIMUM as the best choice for growing legal cannabis in and for Florida

They are also entering into a new partnership with growOPTIMUM, trusted experts in controlled-environment agriculture. "This is an exciting time for us, and we're thrilled to be entering into this venture with a partner like growOPTIMUM," said Wade Helms, Chairman & President of Edd Helms Group.

"The Edd Helms Group name is already so well-known and respected in this area, whether it has been attached to building projects, electrical work or as one of Florida's most respected commercial HVAC companies," said Brandon Philips, Facility

Design Champion of growOPTIMUM.

Both companies are elated to be taking part in this week's 2019 U.S. Cannabis Conference & Expo being held August 3rd & 4th at the Hyatt Regency Downtown Miami in booth 307, and look forward to networking with other leaders in this new legal cannabis sector.

At growOPTIMUM, we like to say We Know the Grow. But what does that mean? It means we know the physics required to control temperature and humidity, medical technical requirements, and how they impact facility design.

We know how to assess your facility to spot potential issues before they become major problems, to design and build a facility that will meet the requirements of your grow. We know how to help you grow optimally.

Friedrich Launches Dedicated Spanish-Speaking Technical And Customer Service Line

SAN ANTONIO, Texas—Friedrich Air Conditioning Co., a leading U.S.-based manufacturer of heating, cooling and other room air conditioning products, has launched a Spanish-speaking Technical and Customer service line, making it among the first in the industry to offer a dedicated service specifically for Spanish-speaking customers.

The Spanish-speaking line is available by calling Friedrich's main customer service line, 1-800-541-6645, and selecting option 9. It will operate Monday-Friday, 8 a.m. – 5 p.m. CT, the same hours and days as Friedrich's other customer service phone line.

"The goal is to help ensure all of our installers, contractors and customers get the assistance and support they need, quickly and easily," said Sean Olds, Friedrich Chief Operations Officer. "Friedrich's focus is to continually improve the service experience for our partners and customers, and this is a big part of that commitment."

The launch of a Spanish-speaking Technical and Customer service line is another example of Friedrich's dedication to personalized customer service. Rather than using an automated or third-party resource that is typical for today's industry, all Friedrich's Technical Assistance employee experts are located at the company's San Antonio headquarters and have years of experience in the field and fielding calls and inquiries from customers.

Friedrich's customer service team also has a close connection to the company's product and engineering managers and state-of-the-art onsite lab. That makes Friedrich one of the only air conditioning companies to make such a strong commitment—not only to onsite testing, quality control and product innovation—but to customer support.

For more information about Friedrich Air Conditioning Co. products and customer service offerings, visit www.friedrich.com

New Powerful Foaming Aerosol Coil Cleaner



St. Louis, MO – Nu-Calgon has launched a new aerosol version of Tri-Pow'r HD with an actuator that creates a powerful foaming spray for coil cleaning. Tri-Pow'r HD is a detergent, degreaser and deodorizer all in one, making it the best choice for cleaning all types of coils, including microchannel.

Tri-Pow'r HD Aerosol provides a powerful foaming spray to assist in lifting debris off coils. It's ideal for cleaning air-cooled condensers, evaporators, permanent filters, fan blades and more. Although typically rinsed after cleaning, Tri-Pow'r HD can be used for evaporator "no-rinse" applications where ample condensate will self-rinse the coil.

With positive emulsion technology, Tri-Pow'r HD Aerosol is highly effective in removing grease and grime. Tri-Pow'r HD emulsifies or converts greasy deposits into a fluid or liquid form that can be easily flushed. It also contains a surfactant for "wetting" the greasy deposits as well as corrosion inhibitors for protecting equipment surfaces.

Tri-Pow'r HD Aerosol is non-acid, non-toxic, biodegradable and metal safe.

For over 70 years, Nu-Calgon has been providing quality specialty chemical products for the HVACR market. The company's complete line of products includes coil cleaners, descalers and refrigeration oils, as well as products for indoor air quality, water treatment, ice machine maintenance and other applications. For more information, visit www.nucalgon.com.



AHREXPO®

CO-SPONSORS



The World's Largest HVACR Marketplace

Orlando FEB 3-5, 2020



REGISTER NOW! FREE for a limited time @ AHREXPO.COM






Always get the best!



Distributor Benefits:

- Low wholesale pricing
- Proven Contractor product
- Oakridge Nat'l Lab tested
- Free Store Front displays

Needs only 27" x 19" Floor Space

Contractor Benefits:

- Installs in 10 mins. or less
- Improves HVAC efficiency
- Stops Air Infiltration year round
- Make **\$100.00** profit per install



Sold at your local distributor!
If not, call:
(704) 892-5399 or
www.attictent.com

Mitsubishi Electric Trane HVAC US Introduces JP Model 115 Volt Heat Pump



SUWANEE, Georgia – July 18, 2019 – Mitsubishi Electric Trane HVAC US (METUS), the exclusive provider of Zoned Comfort Solutions® and leading supplier of Variable Refrigerant Flow (VRF) heating and cooling systems, introduces two MSZ/MUZ-JP Model 115 Volt Heat Pumps.

Part of the METUS M-Series product line-up, each 115 Volt Heat Pump system utilizes one breaker spot in an electrical panel versus the typical two breaker spots. A single zone system, the MSZ-JP model indoor unit and corresponding MUZ-JP model outdoor unit are ideal for residential and light commercial applications, such as hotels and restaurants. Available in 9 and 12 kBtu/h capacities, the system has a seasonal energy efficiency ratio (SEER) of 17.0, a heating season performance factor (HSPF) of 9.3-11.00 and an energy efficiency ratio (EER) of 9.9-12.0.

“We know ease of installation is very important to our customers,” said Brinnon Williams, director of product planning, Mitsubishi Electric Trane HVAC US. “HVAC contractors can install our 115 Volt Heat Pump in most situations with minimal electrical upgrades.”

The outdoor unit heat exchanger has been treated with Blue Fin anti corrosion treatment to slow corrosion caused by airborne salt and sulfur in coastal and high sulfur areas.

Additional features of the JP model 115 Volt Heat Pump include:

- Quiet operation: as low as 22 dB(A) for the indoor unit
- Low ambient heating down to - 4 degrees Fahrenheit
- Wireless enabled (optional feature) with the ability to pair with kumo cloud® software and other thermostats when using the Thermostat Interface
- Washable air filters and anti-allergy enzyme filter mechanisms
- ECONO COOL mode delivers air at higher set point but in a swing motion, so it feels cooler which provides optimum comfort with energy savings
- 12-hour timer which allows for one ON/OFF cycle during a 12-hour period

For more information on MSZ/MUZ-JP model 115 Volt Heat Pumps and the complete line of heating and cooling solutions from Mitsubishi Electric Trane HVAC US, visit www.mitsubishicomfort.com.

FLIR Announces Environmental Meter for HVAC/R Professionals



ARLINGTON, Va.– FLIR Systems, Inc. (NASDAQ: FLIR) announced the multi-purpose FLIR EM54 environmental meter for heating, ventilation, air conditioning, and refrigeration (HVAC/R) measurements. The FLIR EM54, based on

hygrometer technology, identifies deviations from ambient relative humidity levels, which can cause static hazards at manufacturing sites and discomfort in homes and offices. This high-quality, easy-to-operate meter helps users quickly and accurately identify symptoms of clogged HVAC/R filters, duct leaks that reduce airflow, and overloaded systems.

The highly accurate FLIR EM54 is ideal for inspecting ducting, electrical motors, thermal equip-

ment, and other system components in residential, commercial, and industrial facilities. Equipped with an external vane anemometer for wide-range, high-resolution air velocity measurements, the FLIR EM54 allows users to check air speed at duct inlets and outlets quickly and precisely. This allows for simplified duct airflow calculation and efficient troubleshooting.

The EM54 includes a Type-K contact temperature probe to allow users to check electric motors and thermal equipment components for proper operating temperatures. The EM54 also calculates wet bulb and dew point temperature.

The FLIR EM54 environmental meter features an intuitive set of function keys, making it easy-to-use, and easy-to-read with a backlit multi-function display, a MIN-MAX-AVG recording function, and a programmable auto power off timer. The rugged, multi-purpose diagnostic tool comes with a three-year limited warranty.

LIVE THE DREAM IN THE FABULOUS FLORIDA KEYS!



PRICE REDUCED






This is your chance to own one of the most reputable and profitable Air Conditioning/Refrigeration businesses in the Keys. Located in Big Pine Key and in business over 20 years this locally owned family run business is one of the best in the Keys. Fantastic highway exposure, 5 business vehicles, inventory and clientele included with this sale. Exclusive Carrier dealer. Building is divided into three units with three half bathrooms. Use them all or lease out part of it. Large lot with ample parking and room for storage. Do not miss out on this rare opportunity. Listing agent is related to owners.
RONDA THRELKELD, REALTOR CBSREC
305.240.1410 Keysplaces@hotmail.com
www.keysplaces.com

Cool Walls Can Save As Much Energy As Cool Roofs

by Naomi Millán, senior editor of Building Operating Management

Cool walls have the potential to save as much or more energy as cool roofs in warm sunny parts of the United States, according to a study from the U.S. Department of Energy's Lawrence Berkeley National Laboratory (LBNL).

Researchers analyzed more than 100,000 building simulations and found that in climate 1A to 4B, cool walls could save 4.6 percent of annual HVAC costs for medium-sized office buildings and up to 11 percent for stand-alone retail stores. The study accounted for both energy savings in the cooling season and elevated energy costs in the heating season.

The savings from cool walls would be greatest for buildings built before the 1980s, because later codes called for better insulation in wall assemblies. A lower amount of insulation relative to what's on the building's roof is another reason cool walls perform favorably, even though they receive less direct sunlight than the roof.

Painting exterior walls with light colored paint would be one way to move in the direction of cool walls, though there are also cool paints available in a wide-variety of colors that can reflect infrared radiation, keeping the surface cooler. Cool walls, and cool roofs, save energy by reflecting solar energy before it can be absorbed as heat, and doing a good job at radiating absorbed heat as well. This helps to reduce demand for cooling in the building.

There is no formal definition of cool walls yet, but the Cool Roof Rating Council voted on June 12 to amend its bylaws to expand into rating of wall surface products, according to LBNL.

Fujitsu General America Expands Unitary Ducted Equipment Offering

Fujitsu General America has expanded its line of unitary ducted products. They now offer a broader selection of residential air conditioners, heat pumps, and gas furnaces as well as a new line of light commercial equipment.

These new high-efficiency residential split system products, residential packaged units, and light commercial rooftop equipment allows Fujitsu to compete with all major competitors in the marketplace.

New residential products include air conditioners with two-stage or fully-modulating inverter scroll compressors with efficiencies up to 20 SEER and 13 EER. Fujitsu gas furnaces now offer 80 percent AFUE models with LoNox options, and 96-98 percent AFUE models with two-stage or fully-modulating gas valves and ECM motor technology.

New light commercial package rooftops are available in three through 25 tons, including air conditioning only, gas/electric, heat pump, and re-heat models in a wide variety of efficiency options



Noteworthy is Fujitsu's 7.5-12.5-ton platform, compatible with some competitive manufacturer footprints, eliminating the need for adapter curbs while also aligning with gas/other utility connections.

"With the introduction of these products, the complete Fujitsu unitary offering is well-positioned to satisfy the needs of any distributor and their contractor or dealer base," stated Brian Michael, Director of Unitary Products Business. For more information on the Fujitsu General unitary line of equipment, please visit www.fujitsugeneral.com

AHRI Supports Energy Savings and Industrial Competitiveness Act

Arlington, Va. — The Air-Conditioning, Heating, and Refrigeration Institute (AHRI) today offered its support for the Energy Savings and Industrial Competitiveness Act, introduced today by Senators Rob Portman (R-Ohio) and Jeanne Shaheen (D-N.H.).

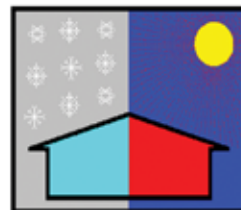
"This bill would implement several energy efficiency measures across the residential, commercial, and industrial sectors," said AHRI Vice President of Government Relations Samantha Slater. "Initiatives outlined in the legislation would enable our member companies to leverage private capital, provide long-term market certainty, spur economic growth, and create jobs."

In its letter of support, AHRI noted that energy efficiency measures are the quickest, cheapest, and cleanest way to tackle growing energy demand. Energy efficiency offers real solutions to deal with the short- and long-term economic and environmental problems associated with rising energy use while saving money, lessening dependence on imported energy sources, reducing pollution, and improving our nation's global competitiveness.

Elite Software

Over 20 Hvac Design Programs!

Hvac Load Calcs (Both ACCA and ASHRAE), Duct Sizing, Energy Analysis, Sales Proposals, Pipe Sizing, Gas Vent Sizing, Psychrometrics, Refrigerant Line Sizing and free links to EnergyGauge, EnergyPro, ResCheck, and REM/Rate software.



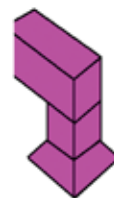
New!

Rhvac Online \$49/up ACCA approved Manual J, D, and S calculations. Works on phones, tablets, iPads, and computers

\$199/up To add CAD Drawing Features, Graphic Sales Proposals, Bill of Materials, & Gas Vent Sizing



- Unlimited Free Phone & Email Support
- Manual & Graphic Data Entry Options
- Displays Psychrometric Chart
- Unlimited Cloud Project Storage
- Equipment Data - All Manufacturers



800-648-9523

Download free demos

www.elitesoft.com





Keep Up-to-Date with

myNATE

Track certifications, CE hours, C3 listings, or update your information anytime at the MyNATE portal.

Toll Free: 877-420-6283 (NATE) asknate@natex.org

Here is how we stack up



When it comes to filter bases, nothing compares to the quality we put into ours. We have been a leader in the business for more than 30 years. Whether it's our flagship, the Accommodator, or the more economical Baseline 2.0, you are assured of a product that is built well, cost competitive and guaranteed. Go to our website and learn more about our full line of products.

McDaniel Metals



Houston • Dallas • Phoenix
www.mcdanielmetals.com

SPECIAL EVENTS





AHREXPO®

WE'LL SEE YOU IN **ORLANDO!**

THE WORLD'S LARGEST HVACR MARKETPLACE

Orlando FEB 3-5 • 2020



FLORIDA STATE CERTIFIED
MECHANICAL LICENSE AVAILABLE

Contact Don at: 1949drb@gmail.com for information, serious inquiries only.



COMMERCIAL UV SALES MANAGER

RGF is seeking an experienced Commercial UV Sales Manager for our growing air division. Minimum of 3 years' experience in the commercial UV market is required.
Please send resume to Mat Charles at mcharles@rgf.com

PROFESSIONAL ADMINISTRATOR AVAILABLE

Are you a Board member for a not-for-profit trade or professional association that is overwhelmed with the day to day operations? Does the Board need to concentrate on the vision and services for its members? Our 30-year old professional management company in partnership with your Board can free up your Board's time and allow the association to strengthen financially and organizationally. Services include: accounting, event management, educational programming, membership management, member communications. Interested? We are standing by to assist you. Send an email in confidence to associationpartnership@gmail.com.

AIR CONDITIONING COMPANY FOR SALE

Established A/C company on Fl. Gulf Coast (near Tampa). In business over 20 years. 2.2 million in 2017 5% net, 1.8 million in 2017. No debt except 1 truck (7 others in total). Large customer base and great reputation. Owner willing to stay on in sales and estimating and license. \$500,000 Firm. No brokers! Send inquires to: A/C Company, PO Box 646, Tallavast, Fl. 34270

EXPERIENCED MANUFACTURERS REPRESENTATIVE

Highly motivated, experienced manufacturers representative seeking opportunity with customer service oriented HVACR rep. agency. Please contact hwdbch@gmail.com.

BLACKS SUPPLY
POSITIONS AVAILABLE

Central Florida HVAC Distributor accepting applications for several positions that are currently available. If you are looking for opportunity to stretch and grow with a company? This is the place! Compensation and benefits relative to position and experience. For info email: tracy@blackssupply.com

Advertisers
in this Issue

AccuAir - Bard	B4
AHR EXPO Orlando	B15
Arco Supply	B10
Arkema Forane 427A	5
ATTIC TENT	B16
Baker FCS	8
Blacks Supply	B19
Boreal GREE VRF	B8
DiversiTech	22
Elite Software	B17
Economic Electric Motors / Fantech	11&B5
Embraco	9
Ferguson HVAC	19
Gemaire	24
General Filters	10
Goodman Distribution	16
JB Warranty	14
Johnstone Supply / Florida	B20
Johnstone Supply / Ware Group	2
McDaniel Metals	B17
Modine / GulfClean	14
Mueller Industries	B2
Oldach USA	B13
Robinair	4
Saez Distributors	15
Smart Electric	17&B3
SmartSnakes	10
Source 1 / York	7
Spectroline	18
Testo	13
The Metal Shop	3
Tropic Supply	21&B1
Ultra-Aire Dehumidifiers	23
Uniweld Products	B7
Women In HVAC/R	B12
Yellow Jacket	6

TODAY'S A/C NEWS

August 2019
Volume 31 / Number 1
Today's A/C & Refrigeration News
is published monthly,
(12 times a year)
by Today's A/C & Refrigeration News
P0 BOX 451821,
Ft Lauderdale, FL 32170
Ph: 954-674-1580 / FAX 866-320-2773
E-mail: jeff@todays-ac.com
Application to mail at periodicals postage
rates is pending at Longwood, FL
and additional mailing offices.

POSTMASTER:
Send address changes to
Today's A/C & Refrigeration News
P0. Box 451821,
Ft Lauderdale, FL 33345

Jeff Schlichenmeyer, Publisher
Copyright © 1988-2019 in series
Today's A/C & Refrigeration News

Today's A/C & Refrigeration News is a tabloid size trade newspaper published specifically for air conditioning contractors, refrigeration technicians, and other trades related to the HVACR & IAQ industries in Alabama, Georgia, Florida, South Carolina, North Carolina, & Tennessee

The publisher of Today's A/C & Refrigeration News does not assume responsibility of statements made by advertisers, or press releases, and reports opinions expressed by suppliers, wholesalers, manufacturers and contractors as quoted. This newspaper may contain forward-looking statements by manufacturers, advertisers and public relations firms. They are believed to be within the meaning of Section 27a of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. Although the Today's AC News believes that the expectations reflected in such forward-looking statements are reasonable, it can provide no assurance results will meet or exceed such expectations due to factors that include, but are not limited to, risks associated with market conditions, new products, and risks associated with rapid technological change. All brand names mentioned are trademarks of their respective owners. Reprinting or other duplication of any material or articles within the publication or on our Web site is not permitted without written permission of the publisher.

For advertising sales contact:
Jeff Schlichenmeyer 954-674-1580
jeff@todays-ac.com

August Product Specials at Blacks Supply!



Air Oasis
Global Leaders in Air Purification

NANO INDUCT™

The FIRST Induct Air Purifier with Rotational UV Shield Technology.



AHPCO Technology
Replicating Nature and The Sun

The NANO INDUCT quickly reduces:

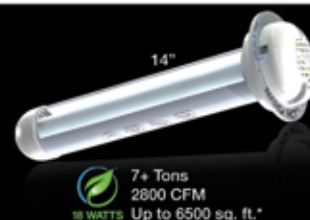
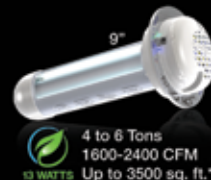
- Mold
- Bacteria
- Viruses
- VOCs & odors
- Aeroallergens

- Installs Directly inside your HVAC System
- Filterless
- Covers up to 7+ Tons (2800 CFM) Up to 6500 sq. ft.*
- Maintenance Free for 2 years
- 100% Made in America

- 360 degree rotation
- Help protect HVAC from harmful UV rays
- You decide the level of UV exposure
- Allows air to pass through the unit for treatment
- Allows catalytic molecules to disperse into the surrounding air.

The Air Oasis® nano Induct uses less electricity than a 45-Watt light bulb, saving you money and saving the environment every day.

*May vary depending on climate zone.



BI-POLAR®

Whole House Air Purifier

Bi-Polar quickly reduces:

- ♦ Allergens
- ♦ Smoke, pollen & air borne dust
- ♦ Static Electricity
- ♦ Mold, bacteria & viruses
- ♦ VOCs & odors
- ♦ Particulates



Bi-Polar Ionization
Bringing Mother Nature Indoors

- ♦ Installs Directly inside AC Units
- ♦ Filterless
- ♦ Ozone & Chemical Free
- ♦ Covers up to 6 tons (2400 CFM)
- ♦ Low maintenance
- ♦ 100% Made in America

The size of a Smart Phone with the power to cover an entire home.

Come to **BLACKS SUPPLY** for all of your HVACR & IAQ Needs!

BLACKS SUPPLY

Blacks Supply
1206 W. Pine Street
Orlando
407-422-0181

Blacks Supply
310 W. Badger Ave.
Eustis
352-589-8884

Blacks Supply
1015 Thomas Ave.
Leesburg
352-360-0050

Blacks Supply
2231 Forsyth Rd.
East Orlando
407-678-0377

COUNTER INTELLIGENCE.



Johnstone Supply Ware Group Gainesville
Scott Tschida, David Bellamy, Patty Cox,
Ryan Ward & Jacob Knight



Johnstone Supply Naples
David Dyson, Sergio Ruiz, Ariel Socarras,
George Woodman, David Resch



Johnstone Supply Ware Group Boynton Beach
Teizuhn Edwards, Billy Kapopoulos,
Ken Pearson, Palmer Young



Johnstone Supply Ware Group West Palm Beach
Mike Adcock, Alvaro Gutierrez, Jennifer Shorrock,
Gary Gustafson, J. C. Caban



Counter Intelligence to Meet Your Needs!

- **You need products** – we have over 50,000 at our fingertips
- **You have questions** – our knowledgeable staff have the answers
- **You need confidence** – our ongoing training insures that our staff are up-to-date on the latest
- **You need matches** – our amazing product cross-reference tool will quickly match exactly what you need, and is exclusive to Johnstone Supply
- **You need service** – our friendly staff are laser-focused on providing you outstanding service with personality!

We make it easy for you! Visit www.johnstonesupply.com or give us a call for information or to receive our 2,000 page catalog



Jacksonville [904] 354-0282
Jacksonville South [904] 641-2282
Gainesville [352] 378 2430
Ocala [352] 873-4443
Melbourne [321] 676-4177
Naples [239] 643-3446
Boynton Beach [561] 572-2507
Orlando [407] 849-0573
Port Richey [727]-817-0248
Ft. Lauderdale [954] 971-9350
West Palm Beach [561] 689-3366

Dania Beach [954] 921-8070
Fort Myers [239] 275-3533
Miami [305] 917-0900
Ft. Pierce [772] 468-0211
Tallahassee [850] 576-5922
Clearwater [727] 561-9309
Panama City Beach (850) 235-8050
Boca Raton (561) 869-0212
Sanford (407) 324-8003
Lakeland (863) 665-4045

Sarasota (941) 753-8491
Cape Coral (239) 242-8796
Kendall (786) 249-4828
Miami Lakes (786) 476-7340
Stuart (772) 781-0102
Cutler Ridge (786) 430-0777
Doral (305) 592-8605
Daytona Beach (386) 265-6400
Pensacola (850) 436-2008
Ft Walton Beach (850) 362-6880
Brandon (813) 424-3180