The COMPRESSOR

AACP E-Newsletter

JULY 2023

Event Spotlight: Apprenticeship Graduation & Baseball Networking Event

On June 17, AACP celebrated 2022-2023 Apprenticeship program graduates! Graduates enjoyed a Bowie Baysox game at Prince George's Stadium. Graduates were honored with a graduation ceremony to celebrate their hard work and accomplishments. The graduation ceremony was followed by networking, family friendly fun, the

Upcoming Events

AACP Annual Golf Tournament 2023
Friday, September 8
Raspberry Falls Golf & Hunt Club

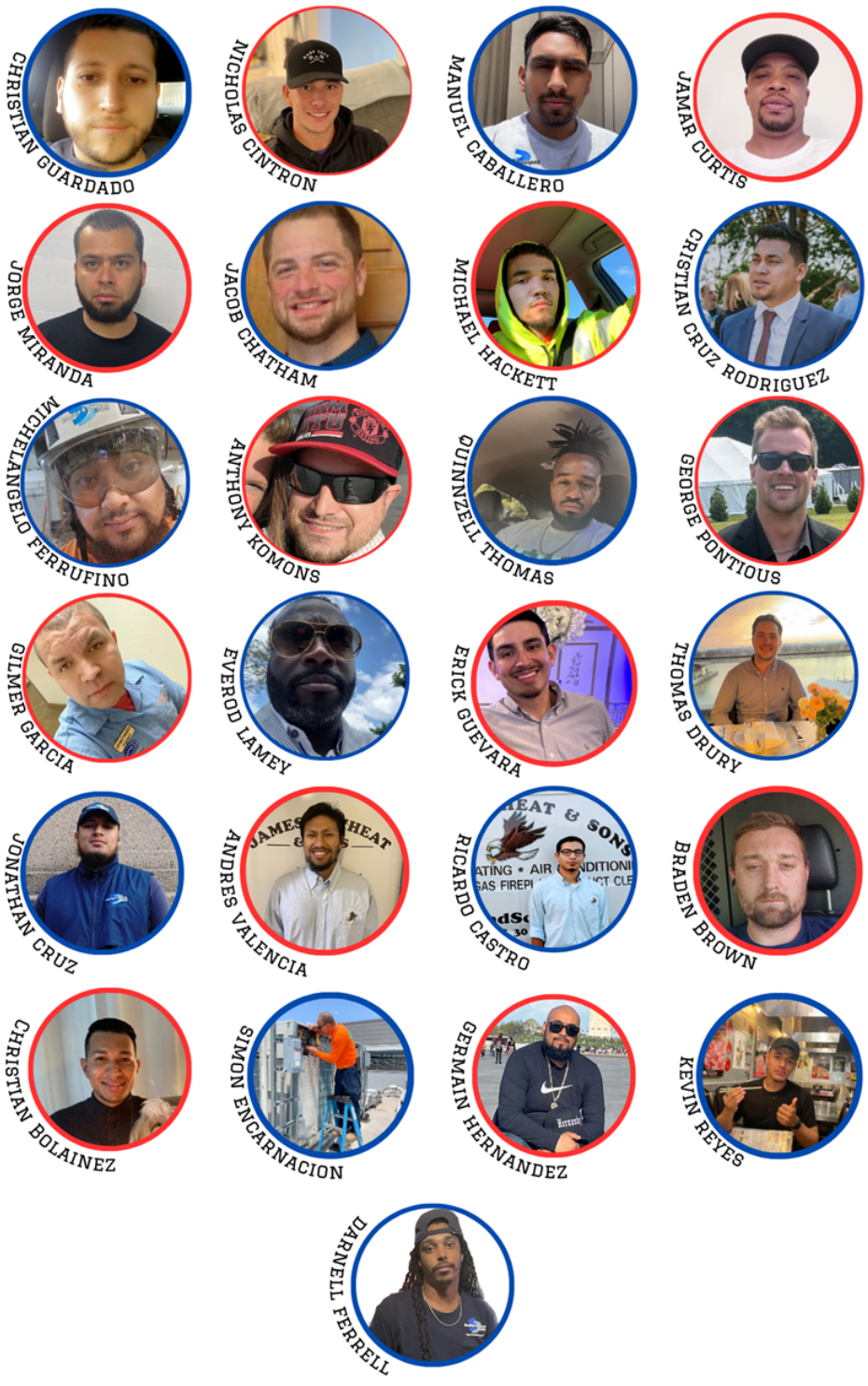
Save the Date:
October 20, 2023 - Heat Exchanger Experts

Bowie Baysox vs. Richmond Flying Squirrels game, and fireworks!

Events

Congratulations to 2022-2023 Apprenticeship Program Graduates!

Congratulations to the 2022-2023 graduates! The hardworking, dedicated graduates of our HVAC/R Technician Program are shown below. We commend their hard work, long hours, and dedication to furthering their knowledge and professional skill sets. Congrats grads!



Not pictured: Geoffrey Edwards, Carlos Escobar, Robert Gunter, Matthew Hynes, Francisco Lemus Diaz, Jose Maltez Sanchez, Paul Spriggs, Colin Whitaker, Brayan Santos Cruz, and Timiko Norris

Industry News

Merger will Boost Availability of Innovative Thermostats to HVAC/R Distributors

Reprinted from HVAC Insider

Corp., North America's leading manufacturer and supplier of components and related products for heating, ventilation, air conditioning and refrigeration (HVAC/R), entered into a definitive agreement to purchase Pro1 Thermostats, a leader in heating and cooling technology. This acquisition will reinforce DiversiTech's position in the HVAC/R Industry and expand its product offerings.

Pro1 Thermostats has a proven track record of delivering innovative products to the HVAC/R Industry, making it a perfect fit for DiversiTech. The successful launch of the next generation of thermostats and Pro1 Connect App offers simple, affordable & professional WIFI thermostat models designed for nearly every application. The Pro1 WIFI models are easy to install, simple to operate and provide the convenience to operate your thermostat from anywhere.

"We are thrilled to be joining forces with the team at Pro1," said Andy Bergdoll, CEO of DiversiTech. "Their focus on developing contractor friendly control solutions as well as their commitment to the professional channel makes them a great fit with DiversiTech. We look forward to supporting Pro1's product development program and enabling them to leverage DiversiTech resources and infrastructure to build even stronger wholesaler partnerships."

"Pro1 was founded in 2007 with the mission to exclusively focus and service the needs of the HVAC/R Contractor base," said Jeff Edgar, Pro1 Founder. "I'm thrilled that the Pro1 brand, HVAC/R Contractor focus, and strong industry reputation will grow even stronger under the DiversiTech portfolio."

"We're excited to join DiversiTech and accelerate our growth plan," stated Steve Mykytyn, Pro1 President. "Equally important is that our company values are aligned on the focus on the professional HVAC/R trade. I am honored to be joining the DiversiTech team and to have the chance to work with some of the best minds in the industry," he said. "Together, we will build on Pro1's strong foundation and take it to the next level."

Minimum Wage Increase July 1

Minimum wages will increase in some Maryland Counties, including Montgomery County. DC minimum wage will remain constant at $15, MD will remain constant at $13.25, and VA will remain constant at $7.25.

Minimum Wage Chart, July 2019-January 2025

Note: This chart reflects the laws currently in effect through the "Last updated" date given above. For the sake of simplicity, the figures given assume that an employer has at least 15 employees. Wage rates applicable to entities with fewer than 15 employees are not shown, though they may be lower. Additionally, those laws, like all laws, may be subject to change. Any specific questions may require further legal consultation.

	U.S. Federal (FLSA)	D.C. (D.C. Min. Wage Law)	MD – Statewide (MWHL)	MD – Mont. Cty. (Montgomery County Ordinance)	MD – P.G. Cty. (Prince George's County Ordinance)	VA (Virginia Minimum Wage Law)
July 1, 2019	$7.25/hour	$14.00	$10.10	$13.00 (Large - 51+ ees) $12.50 (Med. - 11-50 ees)	$11.50	$7.25 (same as FLSA)
Jan. 1, 2020	$7.25	$14.00	$11.00	$13.00 (Large) $12.50 (Med.)	$11.50	$7.25
July 1, 2020	$7.25	$15.00	$11.00	$14.00 (Large) $13.25 (Med.)	$11.50	$7.25
Jan. 1, 2021	$7.25	$15.00	$11.75	$14.00 (Large) $13.25 (Med.)	$11.75	$7.25
July 1, 2021	$7.25	$15.00	$11.75	$15.00 (Large) $14.00 (Med.)	$11.75	$7.25
Jan. 1, 2022	$7.25	$15.00	$12.50	$15.00 (Large) $14.00 (Med.)	$12.50	$7.25
July 1, 2022	$7.25	$15.00	$12.50	$15.00 (Large) $14.50 (Med.)	$12.50	$7.25
Jan. 1, 2023	$7.25	$15.00	$13.25	$15.00 (Large) $14.50 (Med.)	$13.25	$7.25
July 1, 2023	$7.25	$15.00	$13.25	$15.00	$13.25	$7.25
Jan. 1, 2024	$7.25	$15.00	$14.00	$15.00	$14.00	$7.25
July 1, 2024	$7.25	$15.00	$14.00	$15.00	$14.00	$7.25
Jan. 1, 2025	$7.25	$15.00	$15.00	$15.00	$15.00	$7.25

Pandemic Highlighted HVAC Labor Shortage, Which Continues

Reprinted from HVAC Informed

Demand for HVAC services spiked during the coronavirus (COVID-19) pandemic. Low interest rates, government stimulus checks and a greater emphasis on home improvement (because more people were spending time at home) drove new business for HVAC companies.

However, labor shortages limited companies' ability to meet the demand. In some cases, money was left on the table. There was another impact of the pandemic on industry labor trends: HVAC contractors kept working, even when much of the economy was shut down.

Pandemic highlighted the importance of HVAC

As a whole, the COVID-19 pandemic accentuated the importance of a career in HVAC

As a whole, the COVID-19 pandemic both accentuated the importance of a career in HVAC and highlighted the shortage of employees to fill those careers. In the aftermath of the pandemic, the labor shortage in the HVAC industry seems worse than ever.

One factor working against employment growth in the HVAC sector is the misconception among high school students that a college degree is required to achieve economic prosperity in any future career.

Sadly, the 'value' of a college education in the marketplace can sometimes be elusive or even illusory for graduates. It is not uncommon to hear

of a recent liberal arts graduate working at minimum wage to pay off exorbitant student loans.

Need for more high school programs in HVAC

High school counselors push college as the default route for high school students, even among students whose aptitude may point in other directions. Trade school has, for too long, been seen as a fallback position rather than as a worthy pursuit for the future. Fortunately, there are exceptions, including some high school programs that are preparing students for HVAC careers.

In short, neglecting the need to direct new members of the workforce toward skilled trades, such as HVAC is at the root of the current (and future) labor shortage.

Adapting to the needs of the demographic

Attracting younger employees – the Gen Zs and eventually the Gen Alphas – requires adapting to the needs of this demographic. Younger folks want to work for a company that is environmentally friendly, diverse and inclusive, and is sensitive to the needs of employees.

They also tend to get bored easily, are more willing to change jobs, and are looking for Meaning (with a capital M) in the career they choose. They are also looking for a well-defined career ladder, through which they can build their future.

Careers in HVAC evolving with technological progress

Some new technologies can reduce or simplify the labor involved in the installation

Careers in HVAC are evolving with the progress of technology. Although HVAC installation still

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involves a lot of hands-on work, the trend is toward technical tools that require a higher level of skill, more thought, and expertise in addition to the grunt work. Here is another factor useful in addressing labor shortages: Some new technologies can reduce or simplify the labor involved in the installation.

Experience is a factor when seeking out the best HVAC candidates. However, experience is a sword that cuts both ways. Sometimes ‘experience’ includes ingrained bad habits that an employer can avoid with proper training of a neophyte. On the other hand, a company can save training costs with a seasoned master who can be productive on their first day.

Offering internship opportunities and mentoring programs

Recent trade school or even high school graduates are a source of HVAC candidates. Companies can leverage this source of employees, by keeping in touch with nearby training institutions and by offering internship opportunities and mentoring programs.

Online job boards and websites point to potential HVAC candidates, but the choices are limited to candidates that are actively seeking employment or to change jobs. That’s only about 15% of the workforce. Many of the best candidates currently have other jobs and would need to be recruited to change positions. Employing recruiters can be expensive, although they only get paid if they provide a successful candidate.

Social media can provide a source of candidates

Social media can provide a source of candidates. Employers should build their social media strategy

to portray their company as a solid business and a great place to work. Focusing on building customer relationships in social media has the side effect of introducing potential job candidates to the company's spirit and character.

Another source for job candidates is employee referrals from current employees. A bonus program for employees who refer a new team member can drive the process.

Industry Articles

Independent Contractors Versus Employees, Non-Competes, and Marijuana Legalization

By Frank Kollman

Frank Kollman is a graduate of the Johns Hopkins University (1974) and the Syracuse University College of Law (cum laude, 1977), where he was an editor of the law review and the Survey of New York Law.

Frank has practiced law in Maryland since 1977 and established the Kollman & Saucier Firm in 1988. Frank has consulted with the AACP organization for well over 35 years.

Government agencies are still on the warpath to narrow the definition of an independent contractor. Misclassification of employees as independent contractors has been called "fraud" in the construction industry by many states, and the consequences of misclassification are significant and can be disastrous for the employer.

Employees can sue for discrimination; independent contractors cannot. Employees are treated differently for tax purposes, which can create huge liabilities for back taxes for employers who misclassify. If an employee is hurt

on the job, workers' compensation is the sole remedy; independent contractors can sue for negligence, generally for more money than workers' comp benefits. Many individuals prefer being independent contractors because they evade taxes and come and go as they please.

My rule of thumb on classification is a lot like the adage "if it walks like a duck and quacks like a duck, it's a duck." If you are not positive an individual is a true independent contractor, he or she is likely an employee. Moreover, a true employee does not become an independent contractor by cutting the grass, painting a room at the office, or doing some other tasks after hours different from their normal duties.

The National Labor Relations Board has changed its rules, again, on deciding if certain workers are employees covered by that federal law on unionization or merely independent contractors. On June 13, 2023, the NLRB said that it would no longer employ the "Entrepreneurial Opportunity" test to determine independent contractor status. In other words, the Board used to take into account the worker's own desires to be an independent contractor in deciding status. Going forward, the Board will use the common-law ten (1) factor test.

That test takes into account: (1) the control the employer has over the work; (2) whether the worker is in a business or occupation; (3) whether that occupation is usually done by a specialist without supervision; (4) the skill required in the occupation; (5) whether the employer or worker supplies the tools and place of work; (6) the length of time the worker is "employed;" (7) whether the employer pays by the time or by the job; (8) whether the worker's work is a part of the regular business of the employer; (9) whether the employer and worker believe they are creating an employer-employee relationship; and (10) whether the employer is or is not in business. Like I said, "if it quacks like a duck."

And while I have your attention, the NLRB is also taking aim at restrictive covenants and non-competition agreements with employees (which, ironically, are frequently part of independent contractor agreements). Essentially, The NLRB wants to outlaw such agreements for non-supervisory employees, including salespeople, as violations of their rights under the National Labor Relations Acts to engage in concerted activities relating to wages, hours, and working conditions. Future rulings would apply to non-supervisors because supervisors do not have the same rights as employees under the NLRA.

The Federal Trade Commission and various state legislatures (New York, for example) are also taking shots at non-compete agreements. Essentially, these

laws would still keep trade secret agreements intact, but would severely hamper employers who introduce workers to their customers then find that the worker has negotiated with a competitor to get hired and steal that customer away. By the way, lawyers - who enforce these restrictive covenants - are not ethically permitted to sign such agreements themselves. It is an interesting form of hypocrisy.

The NLRB will continue to engage in mischief against employers as long as the "most pro union President in history" remains in the White house and Democrats control the Senate. The NLRB is firmly in the control of persons with extensive union backgrounds and strong pro-union sentiments. Despite this, unionization in the private sector is still way down. Unionization's largest growth has been with government workers the past 30 to 40 years.

And finally, states are legalizing marijuana at a breakneck pace. These laws, however, should have no effect on workplace drug and alcohol policies. Legalization does not mean protection. Whiskey is legal, but grounds for workplace discipline. The same will be true with marijuana. The only difference, however, is medical marijuana. Requests for medical marijuana accommodation are covered by the ADA, and employers are required to discuss accommodation with the employee, but they are not required to allow unsafe behavior as part of that accommodation.

Ensuring Safety in Electrical Work

Reprinted from John Welch, P.E., CEM LinkedIn blog

Electrical work, which includes diverse duties like repairs, maintenance, and installations, is a crucial component of facility management. These jobs include inherent risks, even though they are necessary for a facility to run well. In this blog, we'll examine the significance of safety precautions for electrical work and stress how important it is to put safety first in all work-related activities.

Safety precautions are essential when working with electricity.

Concern for safety should always come first when performing electrical work. Safety procedures that are broken can result in serious mishaps, injuries, property damage, and even fatalities. Facilities managers may safeguard their workers, contractors, and the facility itself from any risks by putting in place

strict safety procedures, guaranteeing a secure working environment for everyone involved.

Equipment and Tools

It is crucial to have the proper tools and equipment in order to complete electrical work safely and efficiently. Facilities managers ought to spend money on high-quality machinery that complies with industry standards and is appropriate for the particular electrical tasks at hand. Additionally, everyone working in the electrical industry should have access to and wear the appropriate safety equipment, such as insulated gloves, safety glasses, and protective clothes. In addition to improving safety, this equipment lowers the chance of mishaps and injuries.

Hazardous Substances

Handling and storing dangerous goods, such as batteries, chemicals, and flammable substances, is a common part of electrical work. To ensure that these products are handled properly, facility managers must give identification and labeling of these materials first priority. To avoid unintentional exposure or leaks, adequate storage facilities should be offered, such as special cabinets or chambers. To further reduce environmental effects and uphold regulatory compliance, it is essential to develop correct disposal procedures for hazardous items.

Electrical Safety

For facility managers and their teams, understanding electrical hazards is essential. A few of the risks connected with electrical work include arc flash events, fires, and electrical shocks. Facilities managers should perform extensive risk assessments, identify potential dangers, and take the required safeguards before beginning any electrical task. De-energizing circuits, utilizing the required safety precautions such as circuit breakers and ground fault circuit interrupters, and making sure the correct lockout and tagout procedures are carried out are all examples of this. Facilities managers may considerably lower the likelihood of accidents and make the workplace safer by giving electrical safety top priority.

Conclusion

In conclusion, facilities managers should prioritize safety above all else when it comes to electrical operations. Facilities managers can promote a culture of safety among their staff by educating them on the value of safety precautions,

providing the proper tools and equipment, managing hazardous items responsibly, and adhering to electrical safety regulations. Safety is given top priority since it not only safeguards people and property but also increases production and reduces downtime brought on by accidents or injuries. Let's keep in mind that everyone is responsible for maintaining safety, and we can make sure that electrical work is done securely and safely by taking preventive steps.

We have emphasized the key components of electrical job safety in this blog. Facilities managers may safeguard people, maintain the integrity of their buildings, and create a safer working environment by putting the discussed methods into practice. Let's put safety first and make electrical work risk-free for everyone involved.

The Blind Spot of Modern Smart Thermostats

Reprinted from ACHR News

With more stylish and elegant form factors than their predecessors, a digitalized user interface, and mobile application control that allows for more sophisticated scheduling, smart thermostats appear to give homeowners complete control over their home climates. But have they actually improved outcomes when it comes to accuracy, consistency, and efficiency? Have they actually made homes more comfortable? Surprisingly, the answer to that question is often no. The cause? Incompatibility between smart thermostats and HVAC systems resulting in set temperature variance, noisy and inefficient system operation, and the dreaded “thermostat deadband.” Let’s dive into the nature of this communication breakdown and the problems it creates for professionals servicing this space and their customers.

Rapid Growth in Both Smart Thermostat and Inverter Markets

Several contributing factors, such as the adoption of hybrid work models and the exacerbation of heat waves in specific regions of the U.S., have resulted in an emerging trend characterized by individuals spending greater amounts of time at home than ever before. With this increased time inside comes heightened demand for interior climate control and greater usage of heating and cooling resources. This use of energy is expensive, as “using air conditioners and electric fans to stay cool accounts for nearly 20% of the total electricity used in buildings around the world today,” according to a report from

the International Energy Agency. Motivated both by rising energy costs and sustainability concerns related to climate change, consumers have grown more desirous of energy-efficient living. One result of the confluence of these trends is the growth in popularity of smart thermostats, the best of which can save homeowners up to 8% on energy bills according to U.S. Environmental Protection Agency (EPA) data used for Energy Star certification. The smart thermostat market has expanded steadily in recent years, with that growth projected to continue through the 2020s.

These trends have also influenced the growth of the market for inverter/VRF HVAC control systems, which offer more sophisticated and efficient control than traditional, single-speed electromechanical units. Unlike their single-speed system counterparts, which operate on an on/off or all-or-nothing dichotomy, inverter/VRF HVAC systems are capable of adjusting fan speed and airflow to provide full heating/cooling when called for but then automatically adjust to keep an environment at a precisely set temperature. It is estimated the global inverter/VRF market will grow from $17.6 billion (2020) to $31.9 billion (2025) at a compound annual growth rate (CAGR) of 12.7%, with the U.S. identified as the fastest-growing inverter/VRF market.

Given the rapidly expanding markets, it would be logical to think the easy interface of today's smartest thermostats and operational efficiency of the best inverter/VRF HVAC controllers could combine to create an exceptionally comfortable and cost-efficient experience for homeowners and an easily interoperable install for HVAC pros. However, that is strictly not the case.

The Incompatibility Problem Between these Increasingly Popular Products

While smart thermostats come with many user-friendly features, they have not been developed to control inverter/VRF equipment intelligently. In fact, when coupled with a smart thermostat, most features and benefits of inverter/VRF equipment are lost due to lack of adequate two-way communication. These industries have grown in a relatively siloed fashion in the U.S., so even though smart thermostats and inverter/VRF equipment may both be compatible with select protocols, they aren't able to communicate nuanced commands completely. Put simply, when today's smart thermostats are connected to connected and energy efficient inverter/VRF HVAC solutions, those systems effectively lose all the features and functionality that make the unit intelligent and default back to operating like a single-speed HVAC system would.

What's the Result of Thermostat-VRF/Inverter Incompatibility?

Imagine being in your living room, wanting to set the temperature to 68°F. You use a smartphone app to adjust your smart thermostat. The thermostat sends the command to your HVAC system controller, which turns on the system until it reaches about 67°, then off until it rises to 69°/70° before turning on again. This cycle creates the "Thermostat Deadband," resulting in homeowners rarely experiencing their desired temperature consistently. The operation is also noisy, as the HVAC system runs at full capacity each time it restarts. This "all-or-nothing" approach is less energy efficient, similar to stop-and-start city driving versus smooth highway cruising. These drawbacks disappoint homeowners expecting benefits from their purchases and burden installers who must either explain this complex issue or spend time attempting to resolve it.

What Can Be Done to Address the Incompatibility?

Today's most sophisticated smart thermostats and most efficient VRF/inverter HVAC control units have excellent functionality — they just need to send and receive commands for that functionality more fluently. The growing divide between smart thermostats and HVAC systems has led to issues with temperature accuracy, consistency, and efficiency, resulting in homeowner dissatisfaction and increased challenges for the professionals integrating these systems. However, there are innovative solutions specifically designed to address these compatibility issues. As the demand for energy-efficient living continues to rise, it's essential for consumers and industry professionals alike to explore and adopt these solutions, bridging the communication gap between smart thermostats and inverter/VRF systems. By doing so, we can unlock the full potential of these technologies, creating comfortable and cost-effective home environments while minimizing the negative impacts on our planet.

Attend AACP's Annual Golf Tournament on September 8th

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