



The Duct Man

HVAC Contractor News You Can Use



NO-WAIT DUCTWORK

Waiting days, or even weeks, for custom ductwork can result in costly job delays and dissatisfied customers.

E.P. Homiek's expert team of sheet metal technicians can provide 1-2 day turnaround on all residential and light commercial fabrications year round, as well as 1-2 hour emergency fabrication service. We offer free delivery, competitive pricing, and all work is guaranteed.

HVACR License Renewal Continuing Education Update

As of the time of publication of this newsletter, the New Jersey Board of Master HVACR Contractors has authorized Continuing Education to be provided online through May 31, 2020. They have stipulated that all online classes be fully interactive and must be followed by a question-and-answer period.

The Board has not stated as of this time whether online training will be extended through June 2020. There has been no indication that the renewal date of July 1, 2020 will be extended beyond this date.

Renewal notifications were mailed in early May. Contact the Board if you have not received yours.

How ECMs Benefit Your Customers: Increased comfort, lower utility bills, IAQ advantages

When the Department of Energy announced in 2014 that the Fan Furnace Efficiency Rating (FER) would go into effect on July 3, 2019, it immediately became apparent that most residential gas furnaces equipped with permanent split capacitor (PSC) motors simply could not achieve the required efficiency. Manufacturers have made the shift from PSC to energy-efficient



electronically commutated motors (ECM) in order to comply with the new standard. Though ECM-equipped furnaces cost more up front, the DOE estimates they will pay for themselves in about five years by reducing motor energy consumption by up to 46%.



Electronically commutated motors use microprocessor controllers to precisely modulate motor speed in response to changing conditions. When a change in torque is sensed, the ECM ramps RPM up or down to maintain the programmed CFM. High cooling demand, clogged filters, and condensation on the evaporator coil are all conditions that increase static pressure, as will a dirty filter or duct issues, causing the ECM to increase the speed of the motor, and reduced moisture on the coil or changing dirty filters can result in a decrease in speed.

On average, an ECM motor use 25% less energy than a PSC motor, and as much as 75% less energy during times of continuous fan demand due to its ability to operate at slower speeds. There are a number of benefits to running the fan continuously. Temperature differences are more easily controlled between spaces, particularly in multi-level homes, without excess noise or the feeling of draftiness often associated with PSC systems. Additionally, it allows continual operation of IAQ equipment such as UV-C, whole house air cleaners, advanced filtration, and ionization devices – an appealing feature for consumers who are increasingly interested in indoor air quality due to COVID-19.





HVAC Service and the Art of Good Listening

We've all encountered bad listeners in our private and professional lives. We state our budget constraints but we're shown the deluxe model. "A little off the top" becomes a scalping. Two-way conversations turn into tedious monologues.

The **goal of every HVAC contracting business** should be to build trusting relationships through exceptional customer service, an essential component of which is **the ability to listen**. Far too many technicians fail in listening to their customers, oftentimes because they're doing too much of the talking. They may "hear" what their customers are saying, but override their concerns or fail to come to understand their needs. Still others absorb what is said, but their seeming indifference leaves customers feeling frustrated, irritated or dismissed. What might seem like a minor problem to an HVAC technician could be the object of severe upset or distress.



Listening is not the same as "hearing". **It is a conscious activity – a skill – that builds trust and confidence**, and it should be a part of employee training in every HVAC business. Practicing good listening skills will result in **greater customer satisfaction and retention, increased sales, and more referrals**.

- *Maintain good eye contact*
- *Give feedback ("I see", a nod of the head)*
- *Ask thoughtful, pertinent questions*
- *Avoid interrupting and allow them to finish speaking*
- *Paraphrase and repeat the client's stated questions and concerns to show you understand them*
- *Empathize with their frustrations*
- *Don't argue, even when the customer is unreasonable*



THE PLASMA CUTTER

There are four fundamental states of matter in physics: solid, liquid, gas, and plasma. Plasma is a superheated ionized gas that can occur under specific conditions in which a gas is subjected to heat or a strong electromagnetic field. Plasma is the most abundant form of visible matter in the universe, occurring naturally in lightning, stars, and static electricity. Examples of man-made plasma can be seen in everyday objects like neon signs, fluorescent lights, and plasma TVs.

Plasma, or arc, cutting is a process that employs plasma to cut through any type of conductive material including stainless steel, aluminum, brass and copper. The plasma is formed by applying an electrical arc to

a constricted jet of compressed gas (usually air), creating an electrically-conductive channel of plasma. The extreme heat of the plasma melts through the workpiece, and the high velocity of the gas flow blows away the molten metal, producing a clean cut, or kerf.

Plasma cutting is fast, precise, and relatively low cost, and can be used on metals up to one inch thick. It is ideal for use in sheet metal fabrication shops like E.P. Homiek, and is commonly used in the automotive industry, industrial construction, and in salvage and scrapping.