



The Duct Man

HVAC Industry News You Can Use

ZONEFIRST at E.P. HOMIEK

ZoneFirst commercial zoning systems use multiple thermostats to control motorized dampers that direct conditioned air only to zones that need it. Use any thermostat, compatible with any HVAC system. The result: better occupant comfort, increased productivity, balanced temperatures, and lower energy costs.

E.P. Homiek will be presenting a ZoneFirst seminar in early 2019, details to be announced soon.

\$100 Gift Card

What's the tech doing in this photo? Be the first to guess and win a \$100 Gift Card to LONGHORN STEAKHOUSE



BE THE FIRST TO SUBMIT
THE CORRECT ANSWER TO
NEWS@EPHOMIEK.COM TO WIN!*

*Previous photo contest winners and E.P. Homiek employees and their families are not eligible

SMART TECHNOLOGY: Is Your Business Being Left Behind?

To any HVAC contractor still avoiding today's smart technologies and interconnected devices, *right now* is the time to get plugged in because demand is rising faster than you might think. If you're not willing to up your game now, chances are your business will be left behind by more forward-thinking contractors.

Today's homes are more connected than ever. Prices are dropping on wireless thermostats, security cameras, doorbells, alarm systems, locks, and lighting that can be accessed and controlled from smart phones and TVs, computers. Demand for voice assistant devices like Amazon Alexa and Google Home is rising at breakneck speed by homeowners of all ages, including baby boomers, who are becoming increasingly aware of the plethora of smart technology available to them. For the HVAC contractor, this means sales opportunities are greater with every day that goes by.

Time to get on board.

Honeywell offers a line of customizable, easy-to-install connected devices including wireless thermostats, ductless controllers, detection and security devices, hydronic and potable water solutions, IAQ products, and more. E.P. Homiek Sheet Metal & HVAC Supply sells Honeywell's full line of home comfort solutions.

For more information call our Lakewood location at 732-364-7644 or Union at 908-688-9104, or visit <https://forwardthinking.honeywell.com/>.



NO-WAIT CUSTOM 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.

For more information, please call our Union location at 908-688-9104, or Lakewood at 732-364-7644.



Refrigerant Moisture Infiltration and Evacuation

Moisture in refrigerant lines is a condition that can cause serious problems in an HVAC system. When moisture levels in a refrigeration system aren't adequately controlled it can ultimately lead to reduced compressor efficiency, accelerated system corrosion, and possible compressor failure.

Moisture infiltration can occur in a number of ways, beginning with improper evacuation of the refrigeration system during manufacture or installation. Moisture can also enter openings in a leaky system, motor windings, or through improper handling of refrigerant or lubricants that allows exposure to outside air. It can enter through malfunctioning or over-saturated driers, and water can even leach out of plastic system components at elevated temperatures.

A common symptom of moisture infiltration is freezing in the refrigerant flow orifice, which blocks refrigerant flow. Moisture can react with refrigerant and/or synthetic POE lubricants, leading to acid formation in the system that can corrode metals in the expansion valve, deteriorate insulation in motor windings, and cause copper plating. Sludge can form in POEs exposed to outside air, allowing them to absorb moisture. The sludge can clog strainers, expansion valves and capillary tubes and reduce lubrication performance, causing damage to the compressor. Unfortunately, only the freezing problem is readily apparent in smaller HVAC systems, and the condition can go unnoticed until the compressor fails.

Moisture can be removed from a refrigeration system through evacuation with a vacuum pump. Application of a high vacuum lowers pressure in the system to allow the water to boil at atmospheric temperature, then draws off vapor through the pump. Various factors dictate the time required to remove all moisture, so service technicians making these determinations must be properly trained in evacuation to ensure complete system dehydration. Another alternative is installation of an inline filter drier for the liquid line, suction line, or both.



Dirt Streaks Around Vents: The Causes & How to Get Rid of Them



When dirt streaks appear around supply vents, a common assumption is that they are caused by dirty filters or ductwork. More often than not, however, this is not the case. So where is this dirt coming from? There are a few possibilities.

- 1. The dirt is coming from the room itself.** Air leaves a supply vent at high velocity, creating turbulence in the air. This turbulent air interacts with dust, candle soot, fibers, dander, or other impurities that might be present in the room, and louvers propel this air across a concentrated area surrounding the vent.
- 2. The dirt is seeping from leaking supply boot penetrations.** Supply boot penetrations that are not sealed properly allow particulates – insulation fibers, cellulose dust, etc. – from adjacent unconditioned space to be drawn into the airstream. The particles mix with the conditioned air and are blown across surrounding surfaces.

Under both scenarios, dirt gradually adheres to wall and ceiling surfaces, especially in spaces where humidity levels are too high or too low.

Once dirty ductwork or filters have been ruled out, seal any gaps around the supply boot penetration. If the dirt source comes from within the space, and the problem can't be easily eliminated (stop burning all those candles!), consider installing collars around the affected vent to direct the air downward instead of across the wall or ceiling.