

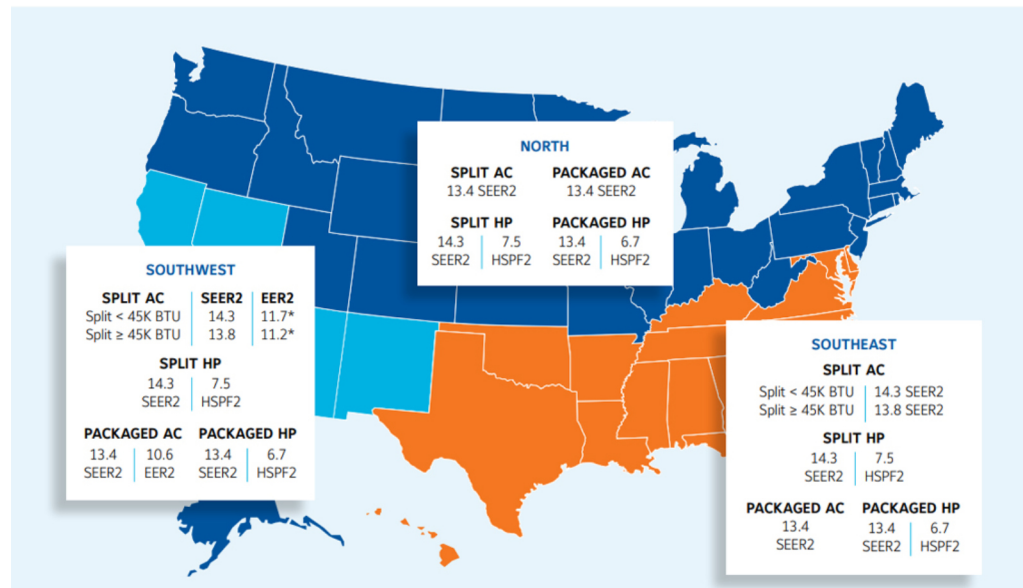
# The Duct Man

[www.ephomiek.com](http://www.ephomiek.com)

HVAC Contractor News You Can Use

## New SEER2 Standards to Go Into Effect in 2023

Big changes are coming to the HVAC industry starting on January 1, 2023, when the Department of Energy's new SEER2 standard will go into effect for all newly-manufactured commercial and residential air conditioners and heat pumps. The most significant changes will occur in southern regions of the U.S.



The SEER rating, or seasonal energy efficiency ratio, measures a unit's cooling output during a typical cooling season divided by the total electric energy input. SEER efficiency standards are split into three regions, North, South, and Southwest. The new SEER2 standard will increase the minimum efficiency requirements of new residential equipment by about 7%, or the equivalent of one SEER point. For the North region, the new SEER2 minimum

will be 13.4, or 14 SEER. The new heating seasonal performance factor, or HSPF2, for heat pump efficiency, will increase by 0.6 to 6.7 for most new equipment in all regions.

**So what do these new SEER2 ratings mean for HVAC contractors installing residential equipment? Here in the North region, purchase and installation of residential equipment built before January 1, 2023, will still be permitted until inventory is depleted. All equipment manufactured after that date will be subject to the new SEER2 testing procedures and efficiency standards.**

New SEER2 regulations in the **South and Southwest regions** are much more stringent, requiring equipment to be installed no later than December 31, 2022, unless they meet the new SEER2 minimums.

On the commercial side, HVAC equipment will be entering the second phase of DOE efficiency changes on January 1, 2023. The first phase, which went into effect in 2018, increased minimum efficiency by 13%, and the second phase will increase efficiency by an additional 15%. Commercial SEER requirements do not have regional standards and compliance is based on equipment ship dates or building permit dates, per local codes. Commercial equipment built prior to December 31, 2022 can be sold and installed after that date, but contractors must educate themselves on the SEER requirements for their area.

### FREE WEBINAR

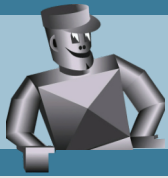
#### Superheat and Subcooling

Thursday 11/10/22  
4:30 to 5:30 p.m.

REGISTER

Call 732-364-7644 or send name, company, and email to [reception@ephomiek.com](mailto:reception@ephomiek.com).





## William Hans Joins E.P. Homiek Sales Team

As a former heating and air conditioning contractor who's been in the trade for more than 40 years, Will Hans has a deep understanding of the unique needs, challenges, and concerns of the HVAC business owner.

*"My goal at E.P. Homiek is to provide customers with the best solutions to make their projects as profitable and as successful as possible" – Will Hans*

Please join us in welcoming Will to our sales team!

Direct: 732-503-7760 | Email: [whans@ephomiek.com](mailto:whans@ephomiek.com)

## 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, or through improper handling of refrigerant or lubricants that allows exposure to outside air. It can enter through malfunctioning or oversaturated 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.