



RECOMMEND AND VALIDATE EQUIPMENT SOLUTIONS

OVERVIEW

Relative Humidity (RH) is an important factor when monitoring and managing the Indoor Air Quality (IAQ) of a customer's home. However, you can't manage what you don't measure. In this case study we show HVAC professionals how they can leverage the HAVEN ecosystem to better manage their customers' RH, and use reliable data to recommend and validate equipment solutions.

RELATIVE HUMIDITY BASICS

Relative humidity (RH) is a measure of the water vapor content of air. Essentially, it is the amount of water vapor present in air expressed as a percentage (%RH) of the amount needed to achieve saturation at the same temperature.

CONTAMINANTS	10%	20%	30%	40%	50%	60%	70%	80%	90%
Bacteria & Viruses									
Fungi / Mold									
Dust Mites			IDEAL RH						
Respiratory Infections									
Allergic Rhinitis & Asthma									
RELATIVE HUMIDITY	10%	20%	30%	40%	50%	60%	70%	80%	90%

As an HVAC professional, RH is an important factor to consider when monitoring your customers IAQ. Why?

High humidity levels lead to mold growth, dust mites, and bacteria: the extra moisture provides microorganisms with the perfect environment to thrive. Dust mites can exacerbate respiratory issues such as Asthma. Mold and bacteria, (including the type that causes Legionnaires' disease), are also potentially lethal if they multiply and enter air ducts, which eventually blows them into the living areas of the home. High humidity also has a negative effect on your customer's home, which can result in expensive repairs to hardwood flooring and furniture.

Low humidity levels can lead to an uncomfortable indoor environment, causing dry/cracked skin, bloody noses, and chapped lips, as well as exacerbating respiratory diseases.

So how do you manage the RH levels of your customer's home? You can't manage what you don't measure, and that's where HAVEN comes in.

AVEN Case Study



APPROACH

This homeowner has the HAVEN Monitor installed: a duct-mounted whole-home IAQ monitor that measures Particulate Matter (PM), Volatile Organic Compounds (VOCs) and of course Relative Humidity (RH). As the data below shows, this customer's baseline RH is in a range of 70-80%: much higher than the EPA's recommended range of 30-60%. They were at risk for mold and bacterial growth and needed a permanent equipment solution to solve their problem. So, on June 26th, the homeowner's HVAC professional installed a whole home dehumidifier.



HAVEN Pro Web Portal - Customer Drilldown - Relative Humidity Data





RESULTS

As you can see from the HAVEN Pro Web Portal data, the addition of the dehumidifier has immediately corrected the high RH, and brought it back into the EPA's recommended range between 30-60%. The HVAC Pro also connected the HAVEN Controller, which now activates the dehumidifier on-demand based on the Monitor readings.

CONCLUSION

The ability to validate new equipment solutions through reliable data helps HVAC professionals build and maintain trust with their customers, and gives them the peace of mind that the solution they've invested in is actually doing what it's supposed to. The Monitor and Pro Web Portal provide HVAC Pros the insights they need to make filtration, ventilation, and de/humidification equipment recommendations, that they can stand behind with confidence. The Controller adds peace of mind that emerging IAQ events in the home are automatically brought under control. To learn more about the HAVEN ecosystem, and to become a HAVEN Pro: visit www.haveniaq.com

