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What the heck is a HIGH-PERFORMANCE HVAC SYSTEM?





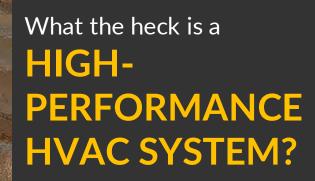
Is this a HIGH-PERFORMANCE AUTOMOBILE?

What the heck is a HIGH-PERFORMANCE HVAC SYSTEM?





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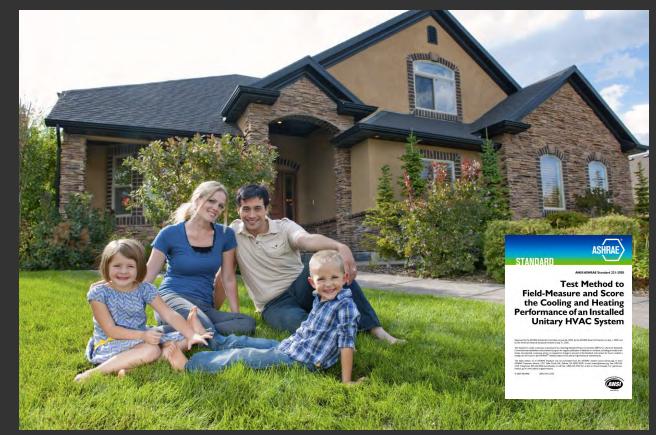


Homeowners are unaware that their home could easily be safer, healthier, more comfortable, and energy efficient.

They tolerate rooms that are uncomfortable; too much dust; uncontrolled humidity; and hazardous conditions.

That's just the way it is...

National Comfort Institute, Inc.



North American homeowners waste millions of dollars every year trying to resolve safety, health, comfort, and efficiency concerns.

ASHRAE 221-2020 can help justify HVAC system renovation sales that earn higher net profits and more five-star reviews, all at the same time.





STANDARD

ANSI/ASHRAE Standard 221-2020

Test Method to Field-Measure and Score the Cooling and Heating Performance of an Installed Unitary HVAC System

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ASHRAE 221-2020 is the first industry standard that helps **HVAC** contractors **combat** these very common problems



An installed system's performance deteriorates because of **less-than-perfect design** and **installation practices** and **poor maintenance**



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The ASHRAE 221 purpose is to score the performance of a system, typically field fabricated by the installing contractor, that represents an end-product different from its comprising parts, one that has traditionally not been scored.





Sell High-Performance HVAC through Homeowner Education



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ASHRAE 221 in a nutshell... Actual Performance

Rated Performance

Heating System Performance Ratio
Cooling System Performance Ratio
Installed Cooling System Efficiency

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This field test method is necessary because laboratory rated equipment capacity and efficiency are not intended to represent actual system performance once the equipment is installed in a building



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Use this industry standard to identify issues, educate customers, and justify investments in highly profitable **HVAC** system renovation work

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How can you use ASHRAE 221 to identify issues?



This test and scoring method may be used by field practitioners to score a system **before** and after system repairs and upgrades.

The score before upgrades documents the deterioration caused by defects in the installed system and helps identify what may be done to improve the performance and efficiency of the system.

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How can you use ASHRAE 221 to educate customers?



The purpose of this standard is to prescribe a field evaluation and test method to <u>measure and score</u> <u>the performance</u>, in terms of <u>delivered</u> cooling or heating capacity or cooling efficiency, of an installed unitary HVAC system.

> Mr. & Mrs. Smith, if a contractor doesn't measure the performance of your heating and cooling system, how do you know you're getting what you paid for?

of an installed unitary HVAC system. Mr. & Mrs. Smith, if a contractor doesn't

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Sell High-Performance HVAC through Homeowner Education



ANSI/ASHRAE Standard 221-2020

Test Method to

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In fact, the typical ducted HVAC system only delivers 57% of the equipment's rated capacity to the home. We believe that your family deserves much more than 57%, don't you?.



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How can you use ASHRAE 221 to justify investments in profitable HVAC jobs?



This test and scoring method may be used by field practitioners to score a system before and <u>after</u> system repairs and upgrades.

The system is again tested and scored after system repairs and upgrades are completed using the same methodology. The difference between the before and after score provides an estimate of the improvement in performance and efficiency of the installed system.

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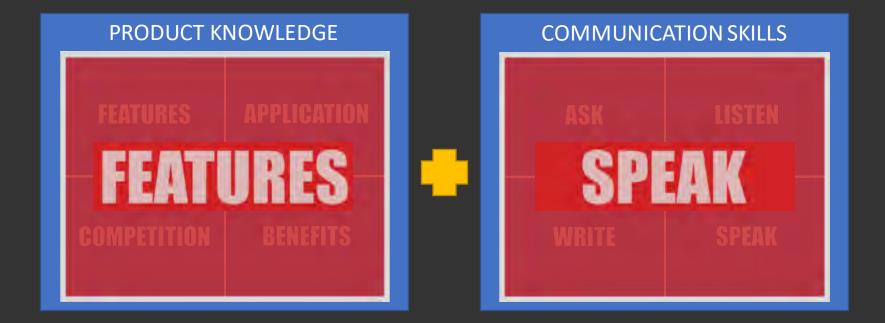
How do we convert "geek speak"

> to language understood by homeowners?





Homeowner Education is Key!





"The single biggest problem in communication is the illusion that it has taken place."

I Bernard Shaw.



THE ILLUSION OF COMMUNICATION





MUNICATION





ILLUSION OF THE COM











What causes unsafe, unhealthy, uncomfortable, and inefficient HVAC system operation?





Less-than-perfect system designs, careless installation practices, and poor maintenance... (all driven by the low-bid mindset)



Look through your customers' eyes...



Ask. Listen. Write.



... it will change the way you think...



...and it will change the way you respond.



HIGH-PERFORMANCE HVAC



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Eliminates competitors and increases sales success by turning technical jargon into understandable benefits that delights customers.





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