HVAC CONTRACTING NEWS

How Improper HVAC Installation Is Fueling a Wave of Lawsuits

Lawsuits and lax standards are exposing cracks in the HVAC industry.

By Hannah Belloli

May 29, 2025

In 2018, the Department of Energy (DOE) conducted a study that found that 70-90% of newly installed residential HVAC systems were installed with significant, detectable faults. That's 70-90% of HVAC systems that weren't operating at their fullest potential. Many of them still aren't.

And people are catching on.

There's been a recent uptick in scrutiny around HVAC installations, and lawsuits are beginning to play a major role. Homeowners want justice, and rightfully so. After all, with all the recent advancements in standards, training, equipment — not to mention software that gives contractors the ability to monitor HVAC system performance remotely — why, and how, are some HVACR contractors still not getting it right?

The answer: Likely, they aren't following today's HVAC standards or compliances.

Why Lawsuits Emerge

In some cases, HVAC contractors who aren't installing equipment properly are finding themselves in court across from unhappy former customers.

Nate Adams, founder of Nate the House Whisperer, isn't surprised. In fact, he's been anticipating these legal actions for years.

“In 2019, furnaces moved from PSC to ECM/X13 motors, so they got significantly more sensitive to static pressure,” he said. “I've been hearing of significant callback and failure rates on new installs, so this seemed like a likely outcome.”

Adams is of two minds on this issue. On one hand, HVAC contractors have enough to deal with already. These lawsuits don’t help. But on the other hand, for the homeowner, seeing a new HVAC system break down after just a few years is incredibly frustrating.

And these lawsuits don’t seem to be stopping anytime soon. What’s more likely is they’ll become even more of a commonality in order to enforce quality in HVAC installations.

“It's sad to say, but lawsuits are often a key component of change,” Adams said. “Mixed with the fact that private equity firms make much larger targets for lawsuits, I think it's likely we will see more of this. The risk will depend on the laws in individual states.”

It's important to note that there were signs that these lawsuits were coming — e.g., the study conducted by the DOE in the first place, the aforementioned changes in furnace motor technology, and callbacks. These lawsuits are also not isolated incidents but instead, a systemic issue.

“There are several lawsuits brewing in the South against builders for poor dehumidification in new homes,” said Adams. “With new equipment having lower dehumidification capabilities than in the past, I expect this will be an issue over time as well. Lawsuits tend to be like a dam breaking — once a successful lawsuit is litigated on a new subject, other lawyers tend to follow. It's often like a floodgate. That may or may not be the case here, but it seems likely, particularly against larger firms that are viewed to have significant assets to chase.”

Standards

The week of April 20, Tim Anderson, an attorney at Anderson Law in Virginia, posted on Facebook that he had ten consultations with Virginians who had oversized HVAC equipment installed by “big companies.”

Anderson made it clear that he isn’t an HVAC contractor — but each time he comes across a case like this, the ductwork is too small to handle the airflow. Those in the HVACR industry know this will lead to the unit being air-starved, which causes it to

malfunction. He continued to say that in each of these cases, the HVAC company that installed these systems goes out to the home to “fix” the issue — but ultimately, the systems continue to fail, because the system is too big.

“The installers know this, but don’t want to eat the cost to replace the system, or upgrade the ductwork,” Anderson wrote.

When this happens, it’s a direct violation of the Virginia Consumer Protection Act. And currently, Anderson is suing a major HVAC contractor for actual and treble damages and Anderson’s client's attorney fees.

“And it appears I will be busy with many more clients facing similar circumstances,” Anderson’s post concluded.

In light of these lawsuits, standards that ensure proper installation sizing are increasingly important.

“At ACCA, we see our standards as the foundation for quality, reliable HVAC system design and installation,” said Wes Davis, director of technical services at the Air Conditioning Contractors of America (ACCA). “As the ANSI-recognized standards development organization for residential HVAC system design, our role is to provide HVAC professionals with clear, proven guidance for properly calculating a home’s heating and cooling loads, selecting equipment sized to meet those loads, and designing a duct system to deliver that conditioned air efficiently and evenly.”

When HVACR professionals abide by the standards that are in place, they aren’t just ensuring homeowner comfort and satisfaction — they’re also protecting themselves from liability.

“Our goal is to make these requirements clear, practical, and consistent, so HVAC professionals can confidently deliver predictable, high-performance comfort in homes across all climates,” Davis said.

According to Davis, three key ACCA standards in particular work together as the backbone of proper residential HVAC system design, forming a comprehensive process to deliver systems that perform as intended:

-ACCA/ANSI Manual J, which provides the procedures for accurately calculating a home’s heating and cooling loads;

-ACCA/ANSI Manual S, which ensures that equipment is selected to meet those calculated loads without excessive oversizing, which can lead to comfort issues, increased energy costs, and even moisture problems;

-and ACCA/ANSI Manual D, which guides the sizing of the duct system based on the blower's capacity, system components, duct layout, and fittings to maintain proper airflow.

Training On Today's Standards

Now, all this is not to say there aren't good HVAC professionals out there who are properly sizing equipment — professionals who are dedicated to performing quality work, keeping their customers happy, and achieving long-term business success.

For the contractors who are now worried the legal system is coming for them next — or those who just want to ensure they are following the right standards to avoid legal battles — there are a few things they can do.

For starters: Train.

"Train your sales and install teams on a few critical items," said Adams. "Test current static pressure and flow to understand what existing duct systems can handle, size as small as possible to reduce airflow needs so existing ducts are likely to be sufficient, offer near equipment duct upgrades with media filters to reduce static pressure, flow nitrogen while brazing, and pull a deep vacuum under 100 microns with new linesets or 300 microns with existing linesets to reduce contaminants in the system. Aside from ductwork, these do not need to add much, if any, time to installs with the right tools."

HVAC professionals also need to recognize that without a comprehensive design process, they can't accurately determine the required system airflow or the appropriate amount of air each room or space needs.

"The ACCA/ANSI 5 Quality Installation Standard establishes the procedures, performance metrics, documentation requirements, and minimum criteria for an HVAC system's operational performance," said Davis. "It addresses key areas such as airflow (or waterflow), refrigerant charge, on-rate, combustion safety, electrical measurements, system controls, duct system tightness, and air or water balancing."

HVAC contractors who want to avoid legal battles also need to get certified. After all, proper system design is only the foundation (the first step, not the last) of an installation done right.

“HVAC professionals take pride in the details — like dialing in the actual system airflow or verifying all the performance elements outlined in the standard,” said Davis. “These are the details that matter. Unfortunately, most homeowners don’t recognize the complexity involved, or the level of expertise required to deliver this caliber of workmanship. Too often, they equate it with installing a common household appliance. ACCA’s Quality Installation (QI) Certificates offer HVAC professionals a quick, credible way to communicate their expertise and differentiate their services from cut-rate competition.”

The best advice ACCA can give to contractors trying to avoid lawsuits is to trust the process, document work, and manage customer expectations.

“One of the great benefits of following the design standards is the insight you gain about how a home will perform,” Davis said. “You’ll know if certain rooms might experience bigger temperature swings because of the direction large windows face, or if simple improvements like air sealing and insulation could allow for a smaller, more efficient system. Use that information to have honest, upfront conversations with your customers.”

Clearly communicating with homeowners on design conditions, what their systems are designed to handle, and any limitations the system might have can also prevent potential misunderstandings and disputes.

“It’s always good to resolve issues before they escalate,” said Davis. “It’s not about avoiding blame — it’s about delivering better outcomes and protecting your business for the long haul.”

Complying With Compliance

Fixing this issue starts with the HVACR industry understanding that true compliance with today’s standards goes beyond legal obligations — it’s about respecting the process and the quality outcomes it produces. Because codes alone don’t create a good HVAC technician.

“It takes education, experience, and business owners who build a culture where quality work is expected and respected,” Davis said.

Those in the HVAC industry know it’s not for the faint of heart. To run a good business while keeping customers satisfied and at the same time, trying to

differentiate themselves from the competition isn't easy. But it's harder when a contractor isn't following today's standards or complying with today's compliances.

"The HVAC professionals who embrace compliance to standards, invest in their people, and commit to doing it right the first time are the ones that stand out and build lasting reputations," Davis said. "So, how do we make compliance the norm? We educate homeowners, HVAC professionals, and inspectors alike. When everyone understands the value of standards compliance, it will be easier to expect it and enforce it."