

PitchBook Data, Inc.

Nizar Tarhuni Executive Vice President of Research and Market Intelligence

Paul Condra Global Head of Private Markets Research

James Ulan Director of Emerging Technology Research

Institutional Research Group

Analysis



Jim Corridore
Senior Research Analyst,
Industrials
jim.corridore@pitchbook.com

Data

Nick Zambrano
Data Analyst

pbinstitutionalresearch@pitchbook.com

Publishing

Designed by **Josie Doan**

Published on June 11, 2025

Contents

Key takeaways	1
Introduction	2
HVAC overview	3
Why PE likes HVAC	4
Platform building and exit strategies	5
Recent deal activity	5
Valuations	6
Market size and geographic breakdown	6
Major public companies and Q1 2025 earnings	8
Technology trends and innovation	10
Challenges, risks, and outlook	12

INDUSTRY RESEARCH

Clearing the Air on HVAC

PE deal and exit activity in heating, ventilation, and air conditioning

PitchBook is a Morningstar company providing the most comprehensive, most accurate, and hard-to-find data for professionals doing business in the private markets.

Key takeaways

- In 2024, the HVAC industry experienced unprecedented PE engagement, totaling 55 deals—a 72% increase from 2023 and the highest annual total since at least 2017 (the first year covered in this report).
- PE firms are increasingly investing in the HVAC sector due to its combination of essential services, recurring revenue streams, and significant growth potential. The industry’s fragmented nature offers ample opportunities for consolidation, allowing PE firms to build scalable platforms through roll-up strategies. Additionally, the consistent demand for HVAC services, driven by factors like climate change and energy efficiency regulations, ensures steady cash flows, making it an attractive investment even amid economic uncertainties.
- The Trump administration’s imposition of tariffs—25% on steel and aluminum imports, later increased to 50%—has introduced cost pressures for HVAC manufacturers reliant on these materials. Furthermore, tariffs on components from countries like China, Vietnam, Taiwan, and Japan have disrupted supply chains. Despite these challenges, the HVAC sector’s domestic focus and essential service offerings have helped maintain its attractiveness to investors.

Introduction

The heating, ventilation, and air conditioning industry, referred to as the HVAC industry, is a behind-the-scenes, backbone industry that is not flashy or glamorous but has solid growth characteristics and is needed by every home, office, hospital, and factory to create safe, comfortable, and energy-efficient environments. While it is easy to take for granted, HVAC is one of the most critical layers of infrastructure in the built world. It is also increasingly tech enabled and in vogue within the PE industry, as evidenced by its deal activity, which is on a strong growth trajectory.

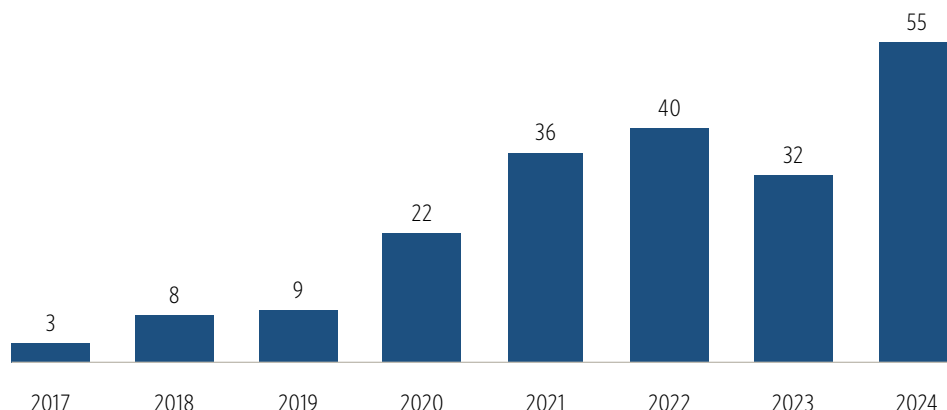
Within the PitchBook ecosystem, HVAC is classified as a subcategory of the construction & engineering vertical. For a full taxonomy of the construction & engineering PE ecosystem, see our [construction & engineering launch report](#).

We have chosen to highlight the HVAC subcategory due to its strong deal and exit activity, along with characteristics of the HVAC space that PitchBook believes make the subcategory attractive to PE investors. These characteristics include participation in a highly fragmented industry that is undergoing consolidation, the ability to gain operating efficiencies by gaining scale with suppliers, the ability to reach ever-larger customers with a broader footprint, and the potential to leverage new technologies onto existing businesses to improve efficiency and quality while lowering costs.

For these reasons, we expect deal activity to remain strong in the subcategory despite economic headwinds related to tariffs and slowing global economic growth. HVAC is somewhat insulated from some of these trends due to the space largely being a domestic one, with less exposure to tariffs on the service side. However, the parts required by the HVAC industry do face inflation due to being sourced largely from overseas suppliers.

In 2024, 55 deals closed in the HVAC subcategory, up 72% from the 32 deals that took place in 2023 and up 38% over 2022's 40 deals. 2024 saw the largest amount of deals in the HVAC space during the period from 2017 to 2024, which is the time frame we are tracking in this report. This data supports our characterization of the HVAC industry as a subcategory that remains attractive to the PE space.

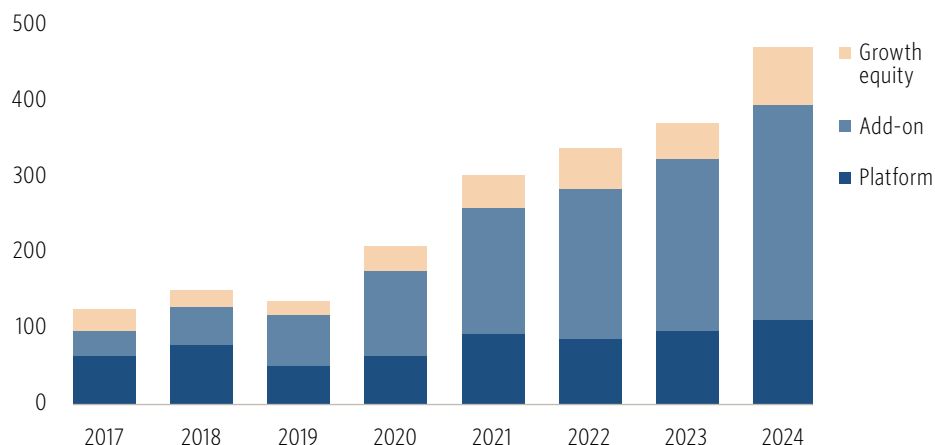
HVAC PE deal count



Source: PitchBook • Geography: North America and Europe • As of December 31, 2024

Our HVAC category is part of our larger specialty construction category, which is also seeing robust deal activity. The 18 separate subcategories within specialty construction saw 466 deals in 2024, up 27% over 2023's 367 deals and up 39% over 2022, which had 335 deals. Specialty construction has seen steady growth in deal activity over the past eight years. PE investors are historically drawn to these fragmented types of subcategories, which can be combined and scaled up.

Specialty construction PE deal count by type



Source: PitchBook • Geography: North America and Europe • As of December 31, 2024

HVAC overview

At a basic level, HVAC systems manage three things: temperature, airflow, and indoor air quality. Heating systems keep buildings warm in the winter, typically through furnaces, boilers, or increasingly, electric heat pumps. Ventilation systems bring in fresh air, filter out pollutants, and control humidity. Air conditioning keeps buildings cool during warmer months, with systems ranging from small residential units to massive commercial-scale chillers. These systems do not just provide comfort—they are essential for health, productivity, and in many cases, regulatory compliance.

The industry's reach is broad. In the residential market, HVAC systems are a central component of both new construction and the growing renovation market, especially as homeowners seek to reduce energy costs or upgrade older homes. In commercial real estate, HVAC is linked to tenant satisfaction and energy performance. In industrial and specialized facilities, like datacenters or hospitals, climate control is mission critical. As a result, demand for HVAC products and services tends to be steady, with long-term growth tied to construction cycles, replacement needs, and evolving energy standards.

The industry itself is layered and decentralized. Equipment manufacturers—companies like Carrier, Trane, Johnson Controls, and Daikin—design and produce the hardware. Distribution often runs through large regional wholesalers, while installation and service are typically handled by a highly fragmented network

of contractors. Increasingly, there is a shift underway: The real value is not just in selling equipment, but in servicing it. Long-term maintenance contracts, performance upgrades, and energy optimization services are becoming major growth drivers, offering more predictable and higher-margin revenue streams.

In recent years, HVAC has found itself at the center of much larger conversations about climate change, building decarbonization, indoor air quality, and the digitization of infrastructure. Policy shifts, like those embedded in the US Inflation Reduction Act and Europe's Fit for 55 plan, are pushing buildings to adopt more efficient, lower-emission systems. Electrification and the move away from fossil fuels are accelerating the adoption of advanced heat pump technology. Meanwhile, smart sensors, cloud controls, and building management systems are making it possible to monitor and optimize HVAC performance in real time.

Put simply, HVAC is not just about heating and cooling. It is about how buildings perform, how they impact the climate, and how they adapt to a world of rising energy costs and tighter environmental expectations. For investors and operators alike, this means a traditionally stable industry has entered a period of accelerated change—and opportunity.

Why PE likes HVAC

Private equity has long been drawn to the HVAC space, and for good reason. It is a fragmented industry with strong fundamentals, recurring revenue opportunities, and a steady stream of demand tied to essential infrastructure. But what has changed in recent years is the intensity—and sophistication—of that interest. As the broader built environment undergoes an energy and technology transformation, HVAC has emerged as one of the most attractive corners of the construction and building services landscape.

At a high level, HVAC checks several key boxes for financial sponsors. The sector combines recession-resistant service demand with long-lived assets, a steady replacement cycle, and favorable tailwinds from regulation and sustainability initiatives. Many HVAC businesses operate with relatively low capital intensity, high-margin service arms, and strong cash conversion, making them ideal candidates for leveraged buyouts or platform builds.

Additionally, HVAC is highly fragmented. Outside of the major original equipment manufacturers (OEMs), most of the market—especially installation, service, and distribution—is made up of independent contractors and regional players. This creates clear pathways for roll-ups and buy-and-build strategies, particularly when paired with the centralization of back-office functions, digital tooling, and professionalized management. For firms with experience in field services, facilities management, or residential services, HVAC often represents a natural adjacency. Notably, when HVAC companies scale up, they can access bidding on ever-larger projects that they once were too small to compete for.

There is also an ESG angle. HVAC systems are a central lever in efforts to reduce carbon emissions from buildings, which account for roughly 40% of global energy-related carbon dioxide emissions.¹ That has drawn in infrastructure funds and climate-focused investors looking to back companies that enable electrification, energy efficiency, and indoor air quality improvement—especially as policies like the US Inflation Reduction Act unlock funding and incentives across residential and commercial markets.

In Europe, the shift toward energy-efficient heating and cooling has fueled acquisition interest in heat pump specialists and building systems integrators—often at double-digit EBITDA multiples, especially when tied to energy efficiency or ESG outcomes.

Platform building and exit strategies

Many investors are taking a platform approach, acquiring a core regional provider and layering on smaller tuck-ins to expand geographic coverage or capabilities. The service side of HVAC, in particular, lends itself well to this model. Companies with a strong technician base and predictable maintenance revenue can be scaled through M&A, with centralized dispatch hubs, unified systems for customer relationship management, and shared marketing infrastructure.

Exit strategies vary. Some platforms are being prepared for sale to larger sponsors or infrastructure funds, while others aim for IPOs or sales to strategic buyers—such as OEMs looking to vertically integrate service networks or distributors expanding downstream.

Recent deal activity

Deal flow in the HVAC subcategory has remained robust over the past few years, with platform and add-on activity occurring across the US and Europe. Service-focused companies—particularly those offering HVAC maintenance, retrofitting, and energy management—have been especially popular targets.

Notable recent transactions include:

- **February 25, 2025:** Service Logic, one of the largest independent HVAC service providers in the US received \$100 million in debt from Leonard Green & Partners. The deal valued Service Logic in the multibillion-dollar range and positioned it as a platform for continued M&A.
- **February 7, 2025:** TDH Refrigeration, a provider of commercial HVAC services for supermarkets based in Nashville, Tennessee, was acquired in a \$15.5 million LBO by The Arcticom Group via its financial sponsor Ares Capital.
- **December 19, 2024:** Sila Services, an HVAC service provider headquartered in King of Prussia, Pennsylvania, was acquired through an estimated \$1.5 billion LBO by Goldman Sachs and Antares Capital, supported by \$424 million of mezzanine

¹: "Bringing Embodied Carbon Upfront," World Green Building Council, September 2019.

financing. Churchill Asset Management, Constitution Capital Partners, and Morgan Stanley Investment Management exited in the deal, which was advised by William Blair & Company, Baird, and The Carlyle Group. The deal valued Sila at 1.8x revenue.

- **November 29, 2024:** MARS, a provider of HVAC equipment based in Hauppauge, New York, raised \$160 million in debt financing to be used for future acquisitions, with Monroe Capital acting as advisor. The company was acquired through an LBO by Platinum Equity in July 2024 for an undisclosed amount in a transaction supported by \$5.3 million in debt.

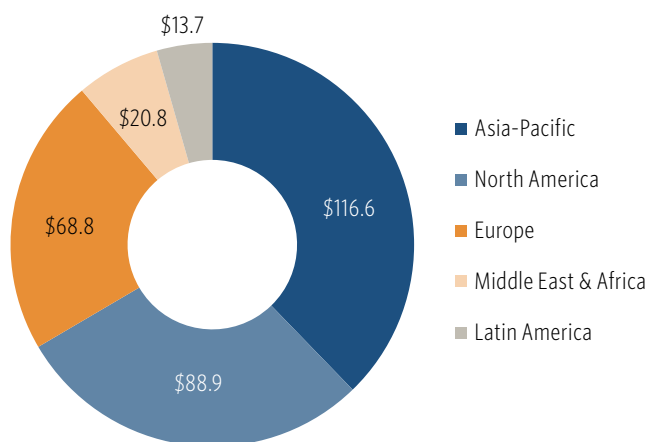
Valuations

Valuations remain healthy but selective. Service-heavy businesses with recurring revenue, strong customer retention, and regional density often command 10x to 12x EBITDA or more. Pure-play contractors without differentiation tend to trade at lower multiples unless bundled into a larger platform. Competitive intensity is increasing, with both middle-market and large-cap funds active in the space, not to mention infrastructure firms and strategics as well.

Market size and geographic breakdown

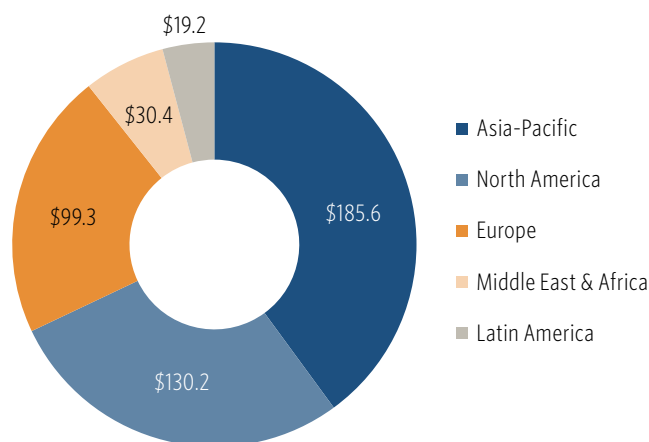
The global HVAC market was valued at approximately \$311 billion in 2024. It is expected to grow at a 5.8% CAGR through 2034, eventually reaching an estimated \$545 billion.² While the industry is global, its growth drivers, market structure, and regulatory environments vary significantly by region.

Share of 2024 HVAC revenue (\$B) by region



Sources: [Grand View Research](#), [Arizton Advisory & Intelligence](#), [Global Market Insights](#), [Mordor Intelligence](#) • Geography: Global • As of June 11, 2024

Share of projected 2030 HVAC revenue (\$B) by region



Sources: [Grand View Research](#), [Arizton Advisory & Intelligence](#), [Global Market Insights](#), [Mordor Intelligence](#) • Geography: Global • As of June 11, 2024

2: "HVAC Market Size - by Product Type, by End Use, by Installation, by Distribution Channel, Growth Forecast, 2025 - 2034," [Global Market Insights](#), April 2025.

North America

The North American market remains one of the largest globally. According to Global Market Insights, the US HVAC market alone was valued at \$88.9 billion in 2024,³ driven by upgrades to aging infrastructure, policy support (notably the Inflation Reduction Act), and growing demand for heat pumps and smart climate systems. The Inflation Reduction Act, signed into law in 2022, is injecting billions in incentives for high-efficiency HVAC systems, particularly electric heat pumps and refrigerant technologies with low environmental impact.

In the US, states such as California, Texas, and Florida represent the largest individual markets due to their extreme seasonal climates and large housing stocks. Electrification policies in the Northeast and Midwest are also spurring new investment in retrofit projects and clean heating upgrades.

Europe

Europe's HVAC market was estimated at \$68.8 billion in 2024, according to Arizton Advisory & Intelligence, and is set to rise to \$99 billion by 2030, marking a CAGR of 6.3%.⁴ Growth should be driven heavily by regulatory and environmental imperatives. The European Union's Fit for 55 initiative and national bans on gas-fired heating systems in countries like Germany and the Netherlands are pushing widespread adoption of heat pumps.⁵

However, according to the European Heat Pump Association,⁶ heat pump sales in Europe fell by 21% in 2024, hurt by governments changing support schemes for heat pumps, a sluggish EU economy hurt by a rising cost of living, and low gas prices, which together discouraged investment in heat pumps. France, Italy, and Germany lead the continent in the number of heat pumps installed in Europe.

Asia-Pacific

Asia-Pacific (APAC) is the largest and fastest-growing HVAC region. Mordor Intelligence reports that the Asia-Pacific commercial HVAC market is estimated at \$82 billion in 2025 and is expected to reach \$116.9 billion by 2030, growing at a CAGR of 7.4%.⁷ China dominates in both production and consumption, driven by rapid urbanization, expanding infrastructure, and middle-class housing upgrades.

Japan remains a global leader in inverter and variable refrigerant flow (VRF) technology, thanks to firms like Daikin and Panasonic, while India and markets in Southeast Asian—particularly Vietnam and Indonesia—are seeing rapid growth in demand from a relatively low base. Government programs promoting green buildings and energy efficiency are beginning to take hold across several APAC

3: "HVAC Market Size - by Product Type, by End Use, by Installation, by Distribution Channel, Growth Forecast, 2025 - 2034," Global Market Insights, April 2025.

4: "Europe HVAC System Market Size, Share & Industry Trends Growth Analysis Report by Equipment, Heating, Air Conditioning, Ventilation, End-User, by Region, and Segment Growth Forecast, 2025 - 2030," Arizton Advisory & Intelligence, May 2025.

5: "EU Fit for 55: Navigate Your Emissions Management Journey," Lloyd's Register, n.d., accessed June 6, 2025.

6: "Market Data," European Heat Pump Association, n.d., accessed June 6, 2025.

7: "Asia Pacific Commercial HVAC Market Size & Share Analysis - Industry Research Report - Growth Trends," Mordor Intelligence, n.d., accessed June 6, 2025.

countries, particularly as power grid resilience and cooling-related energy use come under scrutiny.

The Middle East and Africa

The Middle East HVAC market was estimated at around \$1.2 billion in 2024, according to Mordor Intelligence, and is set to rise at a CAGR of 7.9% to reach \$1.7 billion by 2030.⁸ Growth is likely to be driven by large-scale commercial and infrastructure projects in the Gulf Cooperation Council countries.⁹ With summer temperatures regularly exceeding 100 degrees Fahrenheit, cooling is nonnegotiable. Countries like Saudi Arabia and the United Arab Emirates are investing heavily in high-efficiency cooling systems and LEED-certified developments.

In Africa, the market remains nascent but promising. Urbanization in Nigeria, Kenya, and South Africa is creating new demand, though challenges around electricity access and affordability continue to constrain growth.

Latin America

The HVAC market in Latin America is experiencing steady growth, driven by factors such as urbanization, rising temperatures, and increasing demand for energy-efficient solutions. According to Grand View Research, the Latin America HVAC systems market generated a revenue of \$13.7 billion in 2024 and is projected to reach \$19.2 billion by 2030, growing at a CAGR of 5.8% from 2025 to 2030.¹⁰

Air conditioning systems dominate the market, accounting for the largest revenue share in 2024. This trend is expected to continue, with air conditioning remaining the most lucrative and fastest-growing equipment segment during the forecast period.¹¹ By country, Brazil is anticipated to register the highest CAGR from 2025 to 2030, reflecting its significant role in the regional market's expansion.¹²

Major public companies and Q1 2025 earnings

The HVAC industry is anchored by several large public companies that serve as bellwethers for the sector. These firms not only lead in terms of scale and global reach but also help set the pace for innovation, energy efficiency, and service delivery. Their performance in the first quarter of 2025 sheds light on how the broader industry is adapting to rising demand, regulatory shifts, and investment in new technologies.

Carrier Global, one of the most recognizable names in the HVAC space, continues to play a central role in the global climate control market. In Q1 2025, Carrier reported \$5.2 billion in revenue, slightly down YoY, but still ahead of analyst expectations. The company posted adjusted earnings per share of \$0.65,¹³ beating consensus forecasts. One of the standout figures from the quarter was a sharp rebound in

8: "Middle East and Africa Commercial HVAC Market Size & Share Analysis - Industry Research Report - Growth Trends," Mordor Intelligence, n.d., accessed June 6, 2025.

9: "Gulf Cooperation Council," Ministry of Foreign Affairs, Kingdom of Bahrain, n.d., accessed June 6, 2025.

10: "Latin America HVAC Systems Market Size & Outlook," Grand View Research, n.d., accessed June 6, 2025.

11: Ibid.

12: Ibid.

13: "Carrier Reports Strong First Quarter 2025 Results," Carrier Global Corporation, May 1, 2025.

free cash flow—\$420 million compared to a negative outflow the previous year. Looking ahead, Carrier raised its full-year earnings guidance and reaffirmed its sales expectations of around \$23 billion. The company also announced a \$1 billion investment to expand manufacturing operations in the US, aimed at boosting domestic production of heat pumps and battery assemblies—both core components of the building electrification movement.

Trane Technologies, another global leader, delivered a strong start to the year with Q1 revenue climbing 11% to \$4.7 billion.¹⁴ Earnings came in well above expectations, with adjusted earnings per share rising 26% YoY to \$2.45. The company emphasized growth across both residential and commercial segments, as well as continued demand for energy-efficient systems. Management reaffirmed its full-year guidance, noting that performance is trending toward the high end of its projected range.

Johnson Controls reported revenue of \$5.4 billion in the first quarter of 2025, a 4% increase from the prior year, and adjusted earnings per share of \$0.64, which beat analyst estimates.¹⁵ The company cited strong demand from key verticals such as datacenters and institutional buildings, as well as momentum in its building automation and smart systems segments. Johnson Controls raised its full-year outlook on earnings per share to a range of \$3.50 to \$3.60, underscoring its focus on integrating HVAC performance with digital building management and sustainability targets.

Lennox, with a strong presence in the North American residential and light commercial markets, reported Q1 revenue of \$1.1 billion, representing modest 2% growth. Adjusted earnings per share reached \$3.37,¹⁶ slightly above expectations. The company maintained its full-year revenue outlook and narrowed its earnings-per-share guidance range to between \$22.25 and \$23.50.

Daikin, the world's largest HVAC manufacturer by revenue, continues to demonstrate stable growth out of Japan. For its full fiscal year ending in early 2025, Daikin posted \$33 billion in revenue—an 8.1% increase from the previous year—and net income of \$1.8 billion.¹⁷ While margins remain under some pressure due to cost dynamics, the company has steadily expanded its global footprint, with a growing emphasis on high-efficiency and inverter-based systems. Daikin's results point to continued strength in overseas markets, especially in Asia and Europe, where demand for energy-efficient solutions is accelerating.

Taken together, these companies offer a window into the HVAC industry's near-term performance and long-term potential. Their earnings reflect a mix of resilient demand, strategic investment, and growing alignment with decarbonization and digitization trends. While each company faces its own set of challenges—from input inflation to currency headwinds—the overarching narrative is one of steady growth and evolving opportunity.

14: "Trane Technologies Reports Strong First Quarter Results; Reaffirms Guidance Range and Expects to Perform Towards High-End," Yahoo Finance, Business Wire, April 30, 2025.

15: "Johnson Controls Reports Strong Q1 Results; Raises FY25 Guidance," Johnson Controls, February 5, 2025.

16: "Lennox Reports First Quarter Results," Lennox International, April 23, 2025.

17: "Financial Results for the Fiscal Year Ended March 31, 2025," Daikin Industries, May 8, 2025.

Technology trends and innovation

The HVAC industry is in the midst of a quiet but significant transformation. Once defined largely by mechanical engineering and incremental efficiency improvements, HVAC is now at the convergence of energy, software, and environmental policy. Driven by the need for lower emissions, smarter buildings, and a more responsive grid, HVAC systems are being reimagined—not only in how they perform, but how they are integrated, managed, and monetized.

The rise of heat pumps

Perhaps no technology has captured more attention in recent years than the heat pump. Once seen as suitable mainly for temperate climates, modern electric heat pumps have made dramatic gains in performance, even in cold weather regions. These systems can both heat and cool, making them a year-round solution and a key enabler of building electrification.

Policy is accelerating adoption. In the US, the Inflation Reduction Act provides generous tax credits and rebates for high-efficiency electric heat pumps. The EU and several national governments across Europe have set targets for phasing out gas boilers, with heat pumps positioned as the preferred replacement. According to the International Energy Agency, global heat pump sales grew by 11% in 2022, but declined 3% in 2023 and 10% in the first half of 2024 (latest available), with the decline due to lower heat pump sales in Europe offset by small growth in China and the US.¹⁸ That momentum has carried into 2024, especially in residential retrofits.

Smart HVAC and building automation

Digitization is another major theme reshaping the industry. Today's HVAC systems are increasingly connected—fitted with sensors, cloud connectivity, and advanced controls that allow for real-time optimization. This is not just about smartphone apps for home thermostats. In commercial and industrial settings, HVAC is now a key layer in smart building platforms that manage lighting, occupancy, energy use, and indoor air quality from a single interface.

Software is unlocking new business models. Remote diagnostics and predictive maintenance are reducing downtime. Service providers are leveraging analytics to proactively schedule repairs before failures occur, improving uptime and customer satisfaction. For building owners, the return on investment comes from energy savings, extended asset life, and ESG reporting.

Companies like Johnson Controls, Trane, and Honeywell are increasingly positioning themselves as software and solutions providers—not just equipment manufacturers. Their offerings now include subscription-based digital platforms that integrate HVAC with broader building management systems.

¹⁸: "Clean Energy Market Monitor – November 2024," International Energy Agency, November 2024.

Energy efficiency and electrification

With buildings accounting for roughly 40% of global energy use, HVAC systems are central to decarbonization efforts. High-efficiency units, variable speed motors, demand-controlled ventilation, and energy recovery systems are now standard offerings in many commercial installations. Beyond individual unit efficiency, the industry is moving toward system-level optimization—designing HVAC as part of a building’s overall energy strategy.

Electrification is a key part of this shift. Moving away from fossil-fuel-based heating toward electric heat pumps and VRF systems helps buildings align with climate goals and regulations. In regions with clean power grids, this change can significantly reduce emissions. Manufacturers are investing heavily in research & development to ensure next-generation systems can meet both performance and environmental standards.

Refrigerant innovation and regulation

Another technological challenge is refrigerant regulation. Older refrigerants like R-22 and R-410A are being phased out due to their high global warming potential (GWP). The US Environmental Protection Agency, through the American Innovation and Manufacturing Act, has initiated a gradual phasedown of these compounds. Europe, Japan, and other markets are also implementing strict limits.

This is driving a shift to low-GWP alternatives such as R-32 and R-454B, which require new compressor designs and safety protocols. For HVAC manufacturers, this means redesigning products and retooling supply chains—but it also opens opportunities for differentiation and regulatory alignment.

Modular and decentralized systems

On the design front, modular HVAC units are becoming more popular, particularly in retrofit and multifamily applications. These systems offer flexibility, lower installation costs, and faster deployment. Decentralized systems, such as packaged terminal heat pumps and rooftop units, are being enhanced with digital controls and load balancing features, making them smarter and more efficient.

In larger buildings, VRF systems continue to gain ground. Their ability to simultaneously heat and cool different zones while optimizing compressor loads makes them attractive in mixed-use spaces and multistory buildings.

Air quality and wellness

Since the COVID-19 pandemic, indoor air quality (IAQ) has moved from a niche concern to a mainstream requirement. HVAC systems are being upgraded or specified with enhanced filtration, UV light treatment, and continuous air monitoring. Commercial landlords and institutional facility managers are prioritizing IAQ as a health and risk management strategy—particularly in schools, hospitals, and offices.

Technologies like bipolar ionization, active carbon filtration, and carbon dioxide sensors are being incorporated into new system designs and retrofits. For HVAC providers, this trend is opening new service lines and bundling opportunities in health-focused building solutions.

Challenges, risks, and outlook

While the HVAC industry is benefiting from strong macroeconomic trends—like the global push toward energy efficiency, decarbonization, and smart infrastructure—it also faces a range of structural and cyclical challenges that will shape how the sector evolves in the years ahead. Understanding these dynamics is critical for investors, operators, and strategic decision-makers alike.

Trump administration roadblocks

In March 2025, US President Donald Trump imposed a 25% tariff on all steel and aluminum imports, which was later doubled to 50% in May 2025. These metals are essential for manufacturing HVAC components such as compressors, coils, and structural frames. The increased tariffs are likely to lead to higher production costs. The Trump administration has also implemented tariffs on various components imported from China, Vietnam, Taiwan, and Japan that are used in HVAC systems. This has raised costs and disrupted supply chains.

Notably, the US and China have agreed to a 90-day temporary reduction on tariffs. The US 125% tariff on Chinese imports announced on April 2 will be reduced to 10%. The 20% tariff on Chinese imports announced February 4 and increased March 4 will remain.¹⁹ China will lower its 125% retaliatory tariff to 10%. However, on June 2, China said the US had violated terms of this truce, creating a risk of a further China retaliation in coming days.²⁰ This news is changing daily, with complex and wide-ranging implications for industries like HVAC.

The Department of Energy under Trump has postponed implementation of new energy efficiency standards for HVAC technology, which has created uncertainty. Voluntary programs like Energy Star and WaterSense have been targeted for elimination as well. The overriding result of these changes is increased uncertainty on costs, supply chain availability and direction on regulation. Ultimately, these actions make it more difficult for companies to reach decisions and could slow PE dealmaking in the space as well.

Supply chain and input costs

The post-pandemic world has continued to present logistical challenges. HVAC systems rely on a complex mix of components—copper, aluminum, compressors, semiconductors, and refrigerants—that have all faced pricing volatility or availability issues since 2020. Although conditions have improved, lead times remain inconsistent, and OEMs are still dealing with backlogs and fluctuating materials costs.

19: "State of U.S. Tariffs: May 12, 2025," The Budget Lab at Yale, May 12, 2025.

20: "China Says US Has 'Severely Violated' Tariffs Truce," BBC News, Peter Hoskins and Laura Bicker, June 1, 2025.

Skilled labor shortages

One of the most persistent constraints in the HVAC industry is a shortage of qualified labor, especially in installation and service roles. According to the US Bureau of Labor Statistics, demand for HVAC technicians is expected to grow 5% between 2022 and 2032, but the pipeline of trained workers is not keeping pace. This shortage is particularly acute in the residential and small commercial segments, where local contractors face rising demand but lack workforce capacity.

Regulatory uncertainty and compliance complexity

The regulatory landscape for HVAC continues to evolve—particularly around refrigerants, emissions, and energy efficiency. While these changes are well intentioned and align with sustainability goals, they also add cost and complexity for manufacturers and contractors. Compliance varies across regions, requiring businesses to localize products and supply chains. The US, EU, and APAC country-specific standards all impose different timelines and technical requirements.

Margin pressures in commoditized segments

While service and software offer attractive margins, many HVAC equipment categories remain highly competitive and price sensitive. Smaller contractors and distributors may struggle to compete with larger vertically integrated players or navigate new technologies without major investments. Inflation, rising labor costs, and more expensive refrigerants are also squeezing margins—particularly in middle-market commercial projects and value-oriented residential builds.

Fragmentation and integration complexity

Despite ongoing consolidation, the HVAC industry remains fragmented at the contractor and service level. M&A activity is helping to create regional or national platforms, but integrating disparate systems, cultures, and customer bases is a nontrivial task. For private equity and strategic buyers, scaling HVAC platforms means tackling operational inefficiencies and investing in professionalization across sales, dispatch, finance, and compliance functions.