

HVAC Solutions Powered By Precision Converting





After a brief downturn surrounding the pandemic, the HVAC world is poised to bounce back better than ever.

There are a number of key trends that are fueling growth in the industry, with energy-efficiency demands and increased new building construction at the forefront. Now more than ever, it's important for HVAC professionals to look toward the future in the soon-to-be \$83B industry.

Precision Converting is a trusted 3M partner with nearly 35 years of experience in the HVAC industry. Read on to learn about the current state of the industry, common problems and solutions we come across on a daily basis, and the Precision Converting difference.

HVAC Trends And Projections

While the HVAC industry didn't come to a complete halt in 2020, the COVID pandemic proved to be a challenging time. A worldwide supply chain crisis limited access to vital parts and components, leaving customers upset, and companies scrambling to meet demand.

As we approach 2023, the industry has steadily rebounded on the back of a nearly recovered supply chain and the elimination of social distancing mandates. According to industry information from ACCA and Mordor Intelligence, industry revenue is predicted to hit nearly \$83 billion by 2026 — compared to just \$58 billion in 2020 with a compound annual growth rate (CAGR) of 6.1%.

Moving forward, there are a number of trends fueling growth and innovation in the HVAC industry for vears to come:

Energy Efficiency Demands: Sweeping governmental regulations across the country are calling for more energy-efficient consumer appliances and equipment. Heating and cooling account for roughly 50% of an average household's electricity usage, and companies in the HVAC industry will need to prioritize energy-saving innovation in their new product offerings and replacement equipment.

Decarbonization: From appliances to airlines, the world's top companies and governments are pushing for a decarbonization effort that will shape all industries. HVAC included. Going hand in hand with energy efficiency, the pressure will be on HVAC manufacturers to reduce the carbon footprint of their products.

Growing Construction: Data published by the U.S. Census Bureau and the Bureau of Labor Statistics found that yearly construction spending rose by roughly \$500B from 2010 to 2018, and is expected to reach \$1.58 trillion by 2028. Homes and apartments need HVAC systems, and the massive increase in new construction spells nothing but good things for the industry.

Supply Chain Rebound: In the short term, the worldwide supply chain is still recovering from COVID-caused disruptions. At the moment, general logistics is still a work in process while crucial HVAC components such as electrical chips continue to be in short supply. However, the future looks bright for a rebounding global supply chain, and in the next few years, it is expected to be back better than ever with improved systems and processes that will no doubt fuel HVAC industry growth.

Key Challenges in the HVAC Industry Today

Just as with any technical industry, the HVAC world is consistently innovating and evolving. New design choices and product advancements allow heating and cooling units to become more efficient, but with that growth comes increased consumer and regulatory demands.

The industry has become more advanced than ever before, and companies need to constantly be mindful of some of the industry's key challenges.

Challenge #1 **Fire Resistance**

The regulations of the past are consistently revised in the HVAC industry, as they are frequently outpaced by the technological capabilities of the future. By January 2024, companies dealing with air conditioners, heat pumps, dehumidifiers and flammable refrigerants, among others, will need to be compliant with the test-based standard of UL 60335-2-40. This regulation deals with flammability and overall fire resistance, and meeting these requirements can be challenging for a company without proper guidance.

Precision Converting can assist HVAC manufacturers to meet the impending UL 2-40 requirement by offering products that are UL 723 certified a standard that meets the UL 2-40 demand. Our full UL 723 certified offerings include:

Foams: Our UL 723 foams work as an excellent insulator to prevent condensation build-up on surfaces in HVA plenums, pipes and pans. These foams are also helpful to reduce vibration, deaden sound, and seal holes, seams and ductwork.

Gasketing: Precision Converting's UL 723 gasketing solutions not only provide a leak-tight seal in metal ductwork, but also reduce vibrations from motors and fans to increase efficiency.

Insulation: Our efficient thermal UL 723 insulation for pipes and ductwork can be used in HVAC assemblies to improve energy efficiency, provide optimal sound deadening, fire protection and help to increase overall safety.



Sealant: Our UL 723 sealants are ideal for thermal insulation and vapor sealing across HVAC systems of different pressures. These sealants work as strong, flexible adhesives forming a durable bond against air and thermal leaks.

Tapes: We can ensure an airtight bond on joints and seams with our UL 723 tape for HVAC applications. These foil tapes deliver high performance across different temperature ranges with maximum strength and improved aesthetics in fiberglass duct boards and flexible air ducts.

Challenge #2 **Noise** and **Vibration Insulation**

Given the size and complexities of HVAC units, noise and vibration insulation are two major issues that designers and engineers need to keep at the forefront of their product considerations. Too much vibration can cause a host of problems such as sub-optimal performance. product deterioration and even premature product failure. Not to mention, noise pollution is a real thing. Consumers and their neighbors want no part of an HVAC unit that can be heard a few doors down.

To combat this, at Precision Converting we offer a wide range of products and solutions that assist in noise and vibration control. We can supply gaskets, pads, foams and connectors that not only limit this common problem, but stop it in its tracks.

Challenge #3 **Design and Product Testing**

Any design or implementation can look good on paper, but the true test of a product's merit is how it fares in real-world applications. HVAC design and manufacturing engineers — as well as production and quality managers — face challenges like faster cost efficiencies, faster cycle times, vibration fatigue, improving efficiencies and the need for innovation. That's not even accounting for potential design errors such as improper tolerances, poor design considerations or something more drastic such as using a sub-optimal material.

You need a supplier with a broad product portfolio, a large footprint and the application expertise to solve any challenge your business will face. That's why at Precision Converting, we aren't simply a business partner, but a resource. We have the industry experience and capabilities to supply the right materials and product knowledge to improve the design and performance of HVAC equipment. We can help manufacturers test out new products before a large order is made to ensure everything holds up to operational and regulatory standards.

After nearly 35 years in business, we can truly say we have seen it all — and we use that experience to help your organization succeed.

Precision Converting's Full Line Of HVAC Solutions

We at Precision Converting are the leading solution provider for HVAC manufacturing. Our proven experience in the industry allows us to provide design solutions that help you optimize your production, innovate operations and reduce costs.

With products from world-class vendors like 3M and Henkel, we ensure you get the best materials for every stage of your manufacturing process. As a result, you will create more robust, quieter and more reliable HVAC equipment.

Some of the other products we carry for the HVAC industry include:

Adhesives: We are experts when it comes to holding things together. From common adhesives and sealants to specialty blends from top manufacturers like LOCTITE. Wacker, Insulcast and Lord, we leave no gap unfilled.

Coafings: Whether it is an internal or external application, we can supply a multitude of coatings for the HVAC industry. We carry heat cure. UV cure and room temperature curing products to fit any need.

Sealants: Precision Converting's sealing solutions are ideal for both thermal insulation and vapor sealing across HVAC systems of different pressures. These options form a durable seal against air and thermal leaks, acting as a strong, flexible sealant.

Tapes: All of our tape options deliver high performance across different temperature ranges with maximum strength and improved aesthetics in fiberglass duct boards and flexible air ducts. We ensure an airtight bond on joints and seams with a full line of industrial tapes from 3M and more.

The Precision **Converting Difference**

For nearly 35 years, Precision Converting has been a manufacturing and assembly leader in the HVAC industry, and we can bring a wealth of experience and a track record of excellence to your operations.

Whether you are in need of adhesive solutions or sourcing the right material, contact our experts today to get started with the Precision Converting Difference.

For more information about our HVAC product offerings, or any other HVAC solutions that we provide, please visit www.precisionconverting.com.



www.PrecisionConverting.com 800.482.4440