

High-Performance Climate Changer[®] Air Handlers

Delivering the climate precision you need through customizable solutions and Trane expertise.



Your industry demands a lot from an air handler.

Healthcare facilities. Manufacturing plants. Life sciences labs. Data centers. High-end commercial buildings. Educational institutions.

All these buildings have one thing in common. They need an air handler that can deliver customer-driven specifications around temperature and humidity control, airborne contaminants, sound output and/or energy efficiency.

That's what Trane custom air handlers do best. With our comprehensive portfolio of custom AHUs, Trane can help you meet your business and organizational goals by designing and building an air handler that delivers precise performance, even for the most challenging spaces and applications.

From the design stage to final installation, our building professionals provide the ongoing support and consultation you need, leveraging deep systems and application knowledge to optimize not only the performance of your air handler, but your entire HVAC system.

Trane keeps your broader goals in mind, too.

Is your organization driving toward sustainability and decarbonization? Are there regulatory challenges on the horizon? What about your KPIs—reducing downtime, increasing connectivity, lowering energy costs, improving ROI, planning for the future, etc.?

When you engage Trane for a custom air handler solution, we'll collect and assess information that will also help us advise you on ways that your HVAC system could contribute to your broader business objectives. We care what you care about, and we can deliver tailored, data-driven strategies to optimize your building today and into the future.

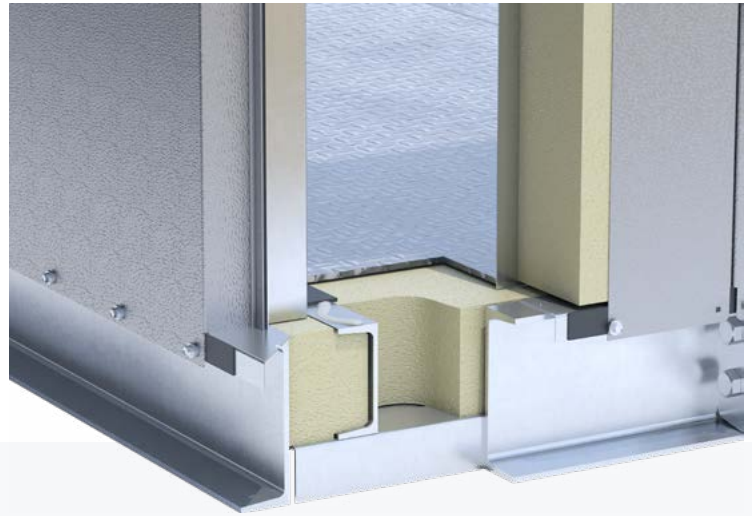
Why custom?

Simply put, a Trane custom air handler gives you exactly what you need. No compromises. No complications. No worries.

- Designed to meet any need
- Wide range of energy efficiency options
- Superior casing construction
- Open protocol for easy integration
- Lowest leakage rates in the industry
- Industry-leading dehumidification options
- Ultra-quiet operation
- Trane design expertise
- Factory-tested
- Ease of service

Top-to-bottom absolute thermal barrier to reduce harmful humidity.

Trane custom air handlers deliver premium thermal performance. The no through-metal construction of the casing, including roof, base and panel seams, minimizes heat transmission and keeps condensation from forming on the exterior. This reduces the impact of humidity on the casing and avoids creating slip hazards in the mechanical room. With this level of structural integrity and thorough testing by Trane engineers, we can deliver predictable thermal and humidity performance while providing key guidance to your consulting engineers.



Optional factory-installed controls simplify installation and optimize performance.

You can choose to order your Trane custom air handler equipped with comprehensive control options that utilize industry standard open protocols. Symbio® unit controls link the air handler with your building automation system, giving you seamless control over zones throughout your building. With factory-installed controls, there are no holes to drill through the air handler's casing, protecting its structural integrity and thermal performance. Take your controls one step further by connecting to a building management system that provides 24x7 access to your equipment and data that arms you with the knowledge to optimize your building's operation.

FlexFit™ for difficult spaces.

The Performance FlexFit™ solution ensures that your energy-efficient Trane air handler can be assembled on-site and commissioned to deliver the performance you want—even in the most challenging spaces.

With the FlexFit solution, you receive fast delivery and assembly options that best meet your space requirements. Depending on your preference, it can arrive fully preassembled from the factory ready to be installed, or if space is an issue, we can ship it disassembled with detailed instructions on how to assemble it on-site.

To simplify and expedite the process even further, you can elect to have a Trane representative on-site to oversee the assembly of the unit. In addition to the FlexFit solution, Trane provides many installation options to support your scheduling needs.

Lab-tested data ensures the high performance your operations demand.

During the manufacturing process, we conduct inline testing on custom air handlers using prediction tools and software to predict key parameters—including leakage, deflection, acoustics and thermal measurements—to ensure product performance. Trane is the only manufacturer to provide moisture carryover prediction for cooling coils.

We test every custom AHU at the end of the line to verify its ability to meet your performance requirements. You can even be there during the testing if you'd like. Contact your account manager for more information.



Trane Performance Climate Changer®

The industry's most comprehensive custom air handler portfolio



Model CSAA—Customizable configurations

Model CSAA air handlers deliver exceptionally low air leakage rates made possible by exclusive manufacturing techniques, superior casing, a wide variety of fan options and advanced energy recovery options. Fully integrate your air handler into a building management system via factory mounted, wired and tested BACnet® communicating controls.

Custom Features:

- L/240 deflection
- Complete no through-metal design
- <60,000 cfm
- Std components
- +/- 8-inch SP
- Factory leakage & deflection testing
- SST inner casing
- VFD per fan



Model PSCA—Adjustable to fit your needs

Model PSCA air handlers give you custom flexibility to meet any building space or cooling load requirement. Casing options include choice of R-13 or R-19 wall panels and doors, aspect ratios customized to meet mechanical room or roof visibility requirements, and variable length sections that allow you to optimize your unit to meet desired performance, application and service needs.

Model PSCA air handlers offer all the features of CSAA air handlers plus:

- 3-inch foam
- Variable aspect ratio
- DDP/VFD flexibility
- +/- 10-inch SP
- Variable length sections
- Motor removal rail



Model TCFS—Simplified installation

Model TCFS air handlers can be assembled on-site and commissioned to deliver the performance you want—even in the most challenging spaces. Using this option, you can choose to have your air handler arrive preassembled from the factory ready to be installed.

If space is an issue, we can ship it disassembled with detailed instructions on how to assemble it on-site.

Model TCFS air handlers offer all the features of PSCA air handlers plus:

- 4-inch foam
- <140,000 cfm
- Fully stainless steel or aluminum for corrosive environments
- >6 fans
- FlexFit™ construction
- Service corridors
- +/- 12-inch SP
- 1-inch dimensional flexibility LxWxH

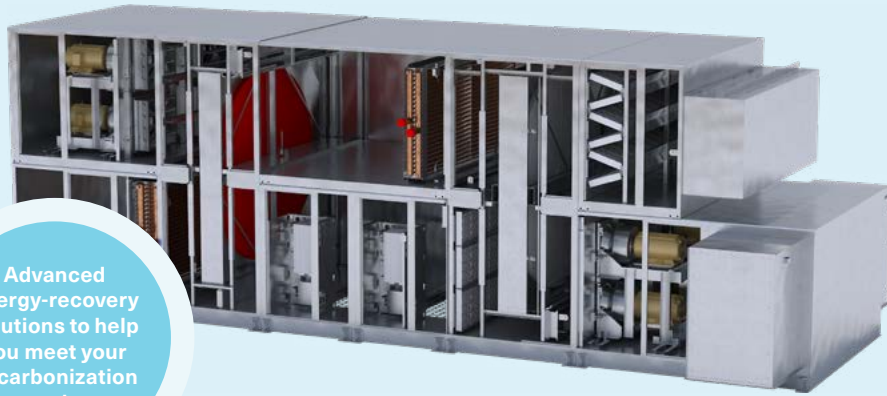


Model TCPA—Most flexible solution

TCPA air handlers have been delivering complete custom solutions for decades. Structural and casing materials choices include stainless steel, aluminum, galvanized and coated steel. Our creative designs solve critical performance and arrangement issues, while providing optimum longevity weight benefits.

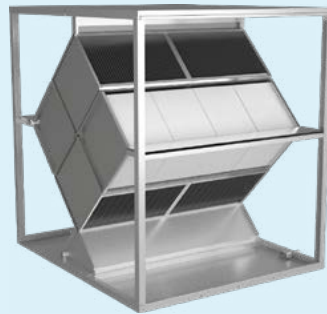
Model TCPA air handlers offer all the features of TCFS air handlers plus:

- 200,000+ cfm
- Side-by-side airflow
- Specialized configurations
- OSHPD certification
- NOA certification
- Water/steam piping
- Packaged mechanical room
- Custom DX capacity
- Wash-down construction



When dehumidification is required, a **Trane CDQ® system** can be added to your Performance Climate Changer® air-handler unit to remove double or even triple the amount of moisture from the air as compared to traditional designs. CDQ technology is perfect for dry storage, hospital operating rooms, laboratories, schools and other building applications where maintaining low humidity levels is vital.

Advanced energy-recovery solutions to help you meet your decarbonization goals.



Air-to-air plate heat exchangers are a great solution to recover sensible energy (heat only) from an exhaust airstream, with little or no cross-contamination. These exchangers may also be used for free reheat in dehumidification applications, including dedicated outdoor air systems. Where exhaust air is not available, exchangers can be used in series to heat the dehumidified air.

The sensible-assisted membrane (SAM™) from Trane substitutes membrane modules into half of the fixed-plate heat exchanger framework. This boosts the effectiveness and lowers the pressure drop compared to other designs and enables total-energy recovery. SAM also allows different airflow configurations for better design flexibility.

The patented Trane Dual Exhaust Energy Recovery system captures energy that would otherwise be lost by directing exhaust air from a building and its restrooms into a specifically designed energy wheel arrangement that recovers energy from multiple airstreams while minimizing recirculation of toilet exhaust—in a single unit with a more efficient fan and motor arrangement.

AHRI® 1060–certified energy wheels recover energy from the exhaust airstream, transferring it to the air being distributed throughout a building and reducing the workload on chillers and boilers, lowering energy use and utility bills. Energy wheels are available in both indoor and outdoor arrangements and can be applied in both a 100 percent outdoor air unit and a mixed air unit. Trane® energy recovery software can model your specifications to show the benefit of payback analysis.

Your custom Performance Climate Changer® air handler is backed by the expertise of the Trane service network. While we can design your AHU with optional features that make it easy to service yourself, you can also opt to engage Trane experts through a service agreement. It's the best way to ensure that your custom AHU meets your business needs now and into the future.

Visit **Trane Custom Air Handlers** to learn more, or go to **Trane® Select Assist™** to begin configuring your custom air handler.



Trane – by Trane Technologies (NYSE: TT), a global climate innovator – creates comfortable, energy efficient indoor environments through a broad portfolio of heating, ventilating and air conditioning systems and controls, services, parts and supply. For more information, please visit trane.com or tranetechnologies.com.

All trademarks referenced in this document are the trademarks of their respective owners.

© Trane. All Rights Reserved.

CLCH-SLB031-EN
05/09/2023