



Custom Performance Climate Changer[®] Air Handlers

Unleashing the potential of your building
through customizable solutions.





Going beyond to meet your specific building needs

Trane helps unleash the potential of your building and drive outcomes that deliver efficiency and occupant comfort for your unique building design and purpose. To that end, our air handlers make up the broadest portfolio in the industry, offering a distinct solution for any building.

Custom Performance Climate Changer® air handlers can be configured to fit the most challenging spaces and requirements. Whether you need ultra-quiet operation, specialized ventilation-monitoring capabilities, a unique footprint or critical humidity control, we can design and build your air handler to your exact specifications. To make your ordering process easier, air handler units are now available in the Mobile Trane Official Product Selection System (TOPSS®) program.

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

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-thru-metal design
- <60,000 cfm
- Std components
- +/- 8-inch SP
- Factory leakage & deflection testing
- SST inner casing
- VFD per fan
- Factory-programmed controls
- Trane Catalytic Air Cleaning System (TCACS), Cool Dry Quiet (CDQ®) desiccant dehumidification system



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
- Extruded aluminum doors
- 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



Custom air handlers are now available in Mobile TOPSS®. Visit Trane.com/CustomPerformanceAHU for more information on the products or go to WebTOPSS.com.

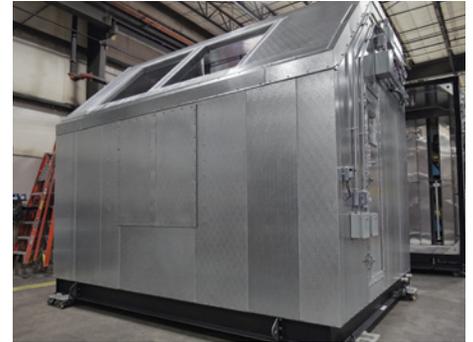
Simplifying the complex

Expertise

Trane has the experience and expertise to customize the right air handler for your building — no matter how challenging the design. We leverage 40 years of experience manufacturing custom air handlers and over 100 years of designing industry-leading HVAC solutions and will work with you through every step of the process.

Design flexibility

To ensure the right fit, our custom air handlers are built to meet variable footprint dimension requirements. These options allow you to meet thermal performance, weight considerations, corrosion resistance or acoustic performance needs — all while minimizing leakage and deflection. Whatever your space requirements, the air handler will deliver the air quality, efficiency and reliability you need.



Casing options include galvanized steel, stainless steel or aluminum.

Easy installation

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 particular 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.



Highest standards

Trane incorporates superior construction methods to deliver the industry's highest reliability standards and lowest leakage rates — meeting ASHRAE® 111 Class 6 or better — for maximum energy savings and lower operating costs. You can choose double-walled casing panels up to 4 inches thick and injected with high-performance foam insulation to reduce air leakage and deflection, resulting in maximized energy efficiency and minimized utility costs. Our no-thru-metal casing, including fasteners, minimizes thermal transmission and prevents condensation. Optional fan arrays allow up to 100 percent redundancy and deliver up to 10 percent increased efficiency.



Predictable performance

When designing a custom air-handling system, we ensure reliability and accuracy by providing lab-tested data through our prediction tools for leakage, deflection, acoustics and thermal performance. It's the surest way to deliver the most value for your building.

Trane is the only manufacturer to provide verified and guaranteed moisture carryover data to customers, validating that there is no moisture carryover even at face velocity over 500 feet per minute.

Validated performance for the air handler is available with options such as the following:

- Coils with high-efficient fin design optimized to the nearest fin-per-foot
- Coils with tested moisture carryover limits
- Direct-Drive Plenum (DDP) fans
- Traq™ airflow monitoring stations
- Energy recovery wheels
- Unit sound data based on AHRI® 260 tests
- CDQ® desiccant dehumidification system
- TCACS



Direct-Drive Plenum fan arrays allow up to 100 percent redundancy for greater systems reliability and up to 10 percent increased efficiency.



Factory tested

Testing and validating an air handler before it leaves the factory confirms that its actual performance matches what was predicted during the selection process to best support your needs. We invite you to witness the testing of your custom air-handler unit at the factory. Contact your account manager for more information.



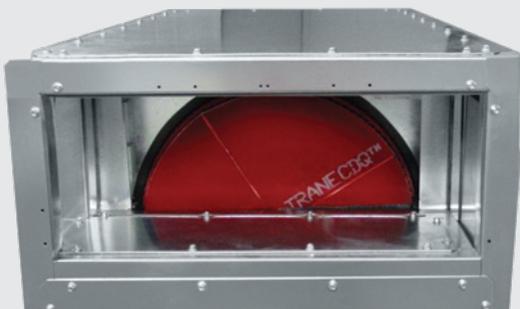
Ultra-quiet operations

Trane provides AHRI 260–tested acoustical performance. And unlike other manufacturers, Trane measures the entire air handler — not just individual components — to ensure it operates at the quiet sound levels you require. Optional Trane Acoustics Program (TAP™) modeling software accurately predicts and compares system sound levels to ensure that you don't have to over- or under-design your air handler to receive the acoustical performance you desire.



Factory-installed controls

Performance Climate Changer® air handlers offer one of the most comprehensive factory-packaged, open protocol controls systems available. Controls are engineered, mounted, wired and tested in the factory. This reduces installation time and expense and ensures system consistency and reliability. Factory mounting also reduces the leakage problem that can occur when controls are installed on-site and eliminates the risk of damaging the custom casing.



Trane CDQ system

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 options

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.



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.

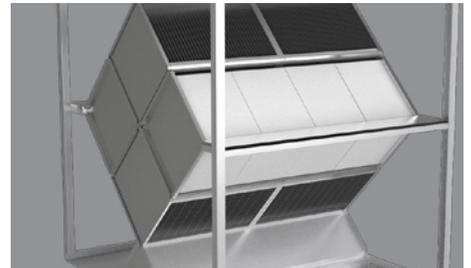


Air-to-air plate heat exchangers are a great solution to recover sensible energy (heat only) from an exhaust airstream, with little or no cross-contamination. These exchangers may also be used for free reheat in dehumidification applications, including dedicated outdoor air systems. Where exhaust air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



Total-energy recovery with sensible-assisted membrane.

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. SAM also allows different airflow configurations for better design flexibility.



Custom Performance Climate Changer® air handlers have optional features that make servicing easy, and they're backed by the expertise of the Trane service network. Our team is dedicated to improving the comfort, reliability and performance of your building.

Visit Trane.com/CustomPerformanceAHU
to learn more or go to WebTOPSS.com to order.



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.

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