



TRANE®

Custom Performance Climate Changer™ air handlers

Expertly designed and built to meet your specific requirements



Experience and expertise to meet any custom air-handling requirement



Trane® Performance Climate Changer™ air handlers make up the broadest air handler portfolio in the industry, offering a solution for even the most unique situations.

Custom Performance Climate Changer air handlers can be configured to fit the most challenging spaces and difficult 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.

From 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.

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.



Casing options include galvanized steel, stainless steel or aluminum.



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.

Feature	Performance Climate Changer	Custom Performance Climate Changer
Capacity (CFM)	1,500 to 60,000	1,500 to 200,000+
Variable Aspect Ratio	✓ ✓	✓ ✓ ✓
Construction Materials	✓ ✓	✓ ✓ ✓
Fan Type	✓ ✓	✓ ✓ ✓
Casing	✓ ✓	✓ ✓ ✓
Coil Flexibility	✓ ✓	✓ ✓ ✓
Factory Testing	✓ ✓ ✓	✓ ✓ ✓

✓ - Level of flexibility

Simplifying the complex

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-through-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.



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

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 the best moisture carryover limits in the industry
- Direct-Drive Plenum (DDP) fans
- Traq™ airflow monitoring stations
- Energy recovery wheels
- Unit sound data based on AHRI 260 tests
- Cool Dry Quiet (CDQ™) desiccant dehumidification system
- Trane Catalytic Air Cleaning System (TCACS)

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.

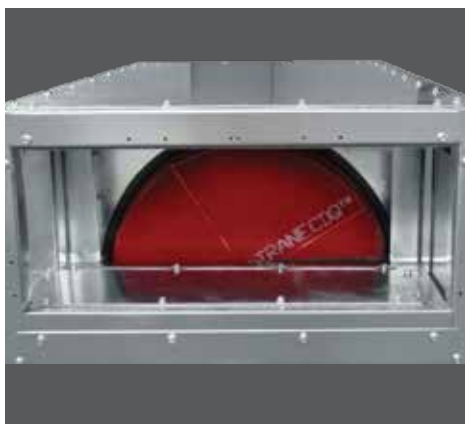
Ultra-quiet operations

Trane provides AHRI 260–tested acoustical performance. And unlike other manufacturers, Trane measures the entire air handler unit — 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 air stream, 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 Recover (DEER) 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 air streams 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 air stream, 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.



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.

The right people for the job

Art meets science in the Trane® Custom Performance Climate Changer™ air handler. We combine expertise and experience with a robust quality assurance process to provide you with the best and most reliable air handler to meet your specific needs.



Scan the code or visit
Trane.com/CustomPerformanceAHU
to learn more.



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