Trane Performance Climate Changer Air Handlers

Optimizing the learning environment

Effective classrooms

Research continues to provide evidence that the environment inside the classroom correlates strongly to student and teacher performance. Numerous studies have established links between classroom and workplace performance and environmental factors such as airflow, lighting, humidity and temperature. Trane® Performance Climate Changer™ air handlers are uniquely configured and have many available features for optimal classroom environments.

Customizable for campus environments

Higher education environments require a higher level of HVAC system capabilities. With Trane® Performance Climate Changer™ air handlers, all the heating and cooling requirements of campuses can be achieved without taking more from budgets — helping to keep tuition in check and shift more dollars to core priorities.

Increased energy efficiency for reduced costs

Trane® air handlers are designed with standard and optional components to reduce energy consumption and lower utility costs — so more of budgets can be spent on core educational priorities.

- **Advanced energy recovery options** include AHRI 1060-certified energy wheels, which 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. 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, the exchanger can be used in series to heat the dehumidified air.
- **Exceptionally low air leakage rates** are made possible by exclusive manufacturing techniques and superior casing construction, which can reduce energy consumption by up to 30 percent — an important benefit for promoting a more environmentally sustainable campus.
- **A wide variety of fan options** includes Stacked Direct-Drive Plenum (SDDP™) fan arrays, which offer increases in part- and full-load energy efficiency.

Reliability

- No-through-metal construction and double-wall casing panels with up to 4 inches of high-performance foam insulation helps mitigate exterior condensation and humidity-related problems.
- Redundancy is crucial in learning environments. Trane Stacked Direct-Drive Plenum (SDDP) fan arrays contain multiple fans that can help keep HVAC systems working. With no belts requiring tension adjustment or changing, SDDP fan arrays are not only reliable, but also require less maintenance.
- Outdoor air handlers have features like welded integral base frames, low-velocity hoods and moisture eliminators to prevent water intrusion and corrosion problems.

Engineered for easier installations

Trane understands that new air handlers often are ordered to replace older units, which can mean fitting into tight spaces. That's why our air handlers are engineered with removable panels, and can have multiple shipping splits, making it easier to navigate through narrow spaces. When space restrictions are critical, with our FlexFit option, units can be dry fit in the factory to ensure proper fit. The unit's panels and components are then labeled and photographed before it's disassembled, packaged and delivered.

Comfort on campus

Improved air quality

- **Trane Catalytic Air Cleaning System (TCACS)** reduces organic and inorganic contaminants for dramatically improved indoor air quality.
- **Cool Dry Quiet (CDQ™) desiccant dehumidification wheels** can reduce uncomfortable indoor humidity and the risks of associated problems, such as mold growth, while consuming very little energy.
- **AMCA 611-certified Traq™ airflow monitoring and measuring dampers** ensure appropriate levels of outside air to help maintain good indoor air quality without the excessive energy consumption associated with over ventilation.

Reduced noise levels

- SDDP fan arrays can produce less noise than one large fan — and direct-drive technology is quieter than belt-driven options.
- Discharge plenums are specifically engineered to reduce air turbulence and improve sound attenuation.
- Silencers are available on the fan inlet and discharge to reduce noise more efficiently than duct-mounted silencers.

Trane: Making buildings better for life

At Trane, we have over one hundred years of experience helping higher education customers around the world improve learning environments, implement green campuses and achieve better financial and operational performance.

For more information about Trane air handler solutions for higher education, visit **Trane.com/PerformanceAHU** or contact your Trane account manager.

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