Trane Performance Climate Changer Air Handlers

Built with science in mind

Controlled environmental conditions are vital to life sciences

The biotech and pharmaceutical fields must adhere to tight tolerances for temperature, humidity and other environmental factors. Additionally, organizations are being challenged to use less energy to reduce operating costs. Trane® air handlers can be relied on to dependably and efficiently maintain highly regulated conditions throughout life science facilities.

An HVAC system that meets your needs — without compromise

Life sciences manufacturing and research facilities operate under highly regulated environments. Lab employees rely on HVAC systems to keep their research moving day after day in comfortable, clean environments. Trane® Performance Climate Changer™ air handlers can deliver the high indoor air quality you need — and the energy efficiency you want.

Superior performance, reliability and efficiency

Trane® Performance Climate Changer™ units help reliably maintain critical temperatures to meet the needs of highly regulated labs and research facilities. Multiple standard and optional features work together to reduce energy consumption and lower utility costs while improving occupant comfort.

- **Reliability you can count on.** Redundancy is crucial in laboratory environments. Trane Stacked Direct-Drive Plenum (SDDP™) fan arrays contain multiple fans for redundancy to 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.
- **Washdown construction** option allows thorough cleaning of interior components to remove contaminants and maintain high air quality. The unit's floor design includes a continuously welded turned-up lip around the base perimeter with drains in each section, while casing choices include aluminum and stainless steel for corrosion resistance.
- **Superior casing construction** techniques include double-wall casing panels that are up to 4 inches thick and injected with high-performance foam insulation, which keeps leakage rates low to maximize energy efficiency and reduces energy consumption by more than 30 percent.
- **AMCA 611-certified Trane Traq™ airflow monitoring and measuring dampers** control and document ventilation airflow to ensure appropriate air levels while avoiding excessive energy consumption.

Improved indoor air quality

High indoor air quality is vital to occupant comfort and life science and lab facility requirements.

- **The Trane Catalytic Air Cleaning System (TCACS)** uses both MERV-13 filtration and the power of photo-catalytic oxidation to dramatically improve indoor air quality, reducing the presence of both organic and inorganic contaminants, including disease-causing viruses and bacteria.
- **Trane Cool Dry Quiet (CDQ™) desiccant dehumidification wheels** can help control and manage building humidity. With CDQ technology, critical dehumidification levels can be improved 20 to 300 percent by delivering dew-point temperatures 5°F to 10°F lower than traditional cooling coil systems. CDQ technology breaks the dew-point barrier, supplying a dew point that is lower than the refrigerant or chilled water temperature without having to add additional cooling devices to achieve the same results. Equally important, a CDQ system can reduce energy consumption by up to 60 percent compared to a cooling coil with reheat. CDQ technology is just one of the humidity management options available from Trane.
- **A wide variety of fan options** includes Stacked Direct-Drive Plenum (SDDP) fan arrays to increase part- and full-load energy efficiency.

Trane: Making buildings better for life

At Trane, we have over one hundred years of experience helping customers around the world improve indoor environments and achieve better financial and operational performance.

For more information about Trane solutions for life sciences and research facilities, visit **Trane.com/PerformanceAHU** or contact your Trane account manager.

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