



Trane[®] Horizon[™]
Outdoor Air Units
Make-Up Air Units
Dedicated Outdoor Air Solutions





Expand Your Horizons

The Trane® Horizon™ family of products is a complete line of outdoor air supply solutions. This newly upgraded and expanded offering is now a comprehensive technology portfolio for commercial and industrial ventilation applications.



Building Life

Trane is committed to being the dependable partner your company needs. The confidence in our products is backed with industry-leading warranty coverage, and supported by an unrivaled national network of parts and service providers. Generations of collective expertise means we have the depth of knowledge necessary to foster innovative solutions that support the people and productivity for the life of—and the lives in—all of your buildings.

One of our top priorities is a commitment to constant vigilance regarding industry trends and regulatory drivers for technology advancements. This customer-focused product planning allows us to work ahead of the curve to offer the latest performance innovations.

Trane Horizon Outdoor Air Units

The Trane Horizon series of Dedicated Outdoor Air System (DOAS) Units are a complete line of supply air dehumidification products designed specifically for the year-round treatment of outdoor air. With newly expanded Variable Speed compressors with eFlex™ technology, redesigned units, sustainable heat pump options and a cost competitive price point, it is a solution unrivaled in the industry for outdoor air and dew point design challenges.

DOAS Units dehumidify outdoor air before it is introduced to a building's air delivery system. This results in tightly controlled humidity, a lightened latent load and improved overall

energy efficiency. The Trane Horizon line includes a detailed moisture-removal efficiency calculation to ensure optimum comfort. The Air-Conditioning, Heating, & Refrigeration Institute (AHRI) has developed a new industry standard to specifically test and rate DOAS Units. The certification program tests DOAS Units at outdoor design and part-load conditions in order to rate the unit's Moisture Removal Capacity and Moisture Removal Efficiency. In these tests, both the evaporator and the condenser are tested at identical OA (outdoor air) conditions. The sum of the tests result in an Integrated Seasonal Moisture Removal Efficiency (ISMRE) rating, which makes it easy to understand and compare units.

Trane Horizon Make-Up Air Units

The Trane Horizon series of Make-Up Air Units is an established line of proven outdoor supply air products. The extensive line features both Direct Fired and Indirect Fired gas heat units in a range of sizes.



All Around Comfort

Trane® Horizon™ Outdoor Air Units offer a complete range of heating and cooling options, including:

- Variable Speed Compressors
- Direct Gas Fired Heat
- Indirect Gas Fired Heat
- Electric Heat
- Water-Source Heat Pump (WSHP)
- Air-Source Heat Pump (ASHP)
- Direct Expansion (DX)

Tailored For Terminal

Providing room neutral air to terminal units for final conditioning to the set point selected by occupants is quickly becoming a requirement. For a complete solution, we recommend pairing your Horizon Outdoor Air Unit with one of the high efficiency options from the Trane family of Terminal Units, including:

- Water Source Heat Pump
- Fan Coil
- Unit Ventilator
- Blower Coil



Trane Horizon Outdoor Air Units

Model	Tonnage	Airflow
OAB	3 to 9 Tons	500 to 3000 CFM
OAD	5 to 15 Tons	625 to 4,000 CFM
OAG	10 to 30 Tons	1000 to 7500 CFM
OAK	12 to 30 Tons	1500 to 9000 CFM
OAN	30 to 54 Tons	3750 to 13,500 CFM

Natural Comfort

Trane is proud to introduce Water-Source and Air-Source Heat Pump options, the latest expansion of the comprehensive integrated system capabilities for the Horizon family.

The Goldilocks Model

Before embarking on the Horizon Outdoor Air Unit upgrade project, Trane analyzed customer feedback regarding the need for a unit that filled the gap between the biggest and smallest offerings on the market. This inspired a complete redesign, resulting in a more compact cabinet and improved performance. The Horizon model OAG now has features that rival any comparable size model on the market, including:

- Sleek 61" tall cabinet profile
- Compact cabinet footprint
- Higher heat capacity



The design innovations that have made the OAG model an industry standout are also being deployed across the entire line of Horizon Outdoor Air Unit models.

Sleek Skylines

The Horizon model OAG's low profile cabinet makes it an ideal solution for meeting building code requirements in municipalities with aesthetic restrictions for rooftop installations.

Innovative Offering

For outdoor air applications excluding sleeping quarters, Trane Horizon is the only manufacturer in the industry offering a direct gas-tiered heat option, providing near 100% thermal efficiency. No change in unit footprint with direct gas-fired heating option!

Next Generation Solutions

Don't Take Chances... Take Control



Fully Customizable

- Dew Point Temperature
- Set Point Temperature
- Discharge Temperature

Variable Conditions

The unpredictable nature of outdoor air introduces an unacceptable level of risk for many ventilation supply air applications.

Precision Control

Horizon Dedicated Outdoor Air Units cool outdoor air to dehumidify, then adjusts to programmed room neutral supply air specifications.

Dependable Solution

Building system integration monitors conditions 24/7 and automatically adjusts to ensure desired dew point delivery at all occupant loads.

The efficient removal of moisture from air supply:

- protects structural integrity.
- promotes occupant health.
- ensures occupant comfort.

Moisture management is an important issue in HVAC science, and the Trane® Horizon™ series of DOAS Units are a cutting-edge solution in this product category.

DOAS Units that lower the dew point of the intake air are emerging as the efficient, effective system for managing Outdoor Air ventilation needs.

Automated Efficiency

DOAS Units feature an automated Economizer Cycle that shuts down the dehumidification function when natural outdoor air conditions meet the programmed specifications for delivery air dew point and set point.

Reduce Reuse Recover

Energy Recovery Ventilation (ERV) options provide up to 75% percent recovery and minimal pressure loss for maximum efficiency.

Beltless Benefits

Direct Drive Plenum fans eliminate belt drive energy losses and minimize energy use.

Performance Standards

Removing water from the air is referred to as dehumidification, and Integrated Seasonal Moisture Removal Efficiency is a detailed part-load, moisture removal efficiency calculation of how well a dedicated outdoor air solution performs in various conditions. With the development of AHRI 920, the certification program includes a dehumidification standard for up to 100 percent outdoor air and includes an equipment ISMRE (Integrated Seasonal Moisture Removal Efficiency) rating. Horizon Outdoor Air Units were proactively designed for alignment with this performance benchmark.

Advanced Controls

Horizon Outdoor Air Units feature the Tracer™ UC600 unit controller as standard. This fully configurable and programmable controller supports seamless integration at the building system level through universal BACnet compatibility.



Effective Engineering

In addition to featuring premium efficiency motors as standard equipment, Trane Horizon Outdoor Air Units are designed with an array of advanced energy-saving technologies, including:



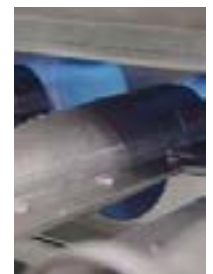
Direct Drive Plenum Fan



WSHP Compressor



Energy Recovery Wheel



True Modulating Burners

It's Not The Heat, It's The Humidity

The critical importance of managing the moisture content of ventilation air is getting the attention it needs in relation to occupant health, occupant comfort and structural integrity. Dedicated Outdoor Air System (DOAS) Units that lower outdoor air dew point are emerging as the efficient, effective solution for addressing ventilation requirements.

Lighten The Load

The more moisture present in indoor air, the harder air conditioning systems have to work to achieve cooling. Because occupancy and operations further increase humidity levels, the smart solution is to integrate a Horizon™ DOAS Unit to handle the latent loads, which then allows terminal units to efficiently handle the sensible loads. This also results in greater energy efficiency.

It's Not About A/C

Horizon Dedicated Outdoor Air Units dehumidify outdoor air before it is introduced to a building's air delivery system. This results in tightly controlled humidity, lighter latent loads and improved overall efficiency. This piece of the HVAC puzzle isn't about temperature control, it's about moisture removal.

A Trane Horizon Dedicated Outdoor Air Unit integrated with your building's HVAC system can prevent a significant amount of water from entering your building every day.

Trane® Horizon Dedicated Outdoor Air Units are an unrivaled solution for outdoor air applications all year round, in all conditions:

- Fluctuating seasonal humidity
- Regional (coastal) humidity
- Fluctuating occupancy
- Partial loads
- Unoccupied hours

Design Detail

Engineers are now considering Moisture Removal Capacity (MRC) per ton of air in HVAC system design.



Hospitality



Education



Healthcare



Food Service



Recreation



Automotive

Visit [Trane.com/Horizon](https://www.trane.com/horizon) to learn more about Horizon outdoor air solutions.



Timeless Solutions

The Horizon™ family of outdoor air solutions has the equipment to meet your building's needs, whether it's the fundamental performance of a legacy make-up air system or the precision control of a state-of-the-art dedicated outdoor air system.

Still Going Strong

Trane® Horizon Make-Up Air Units are a proven outdoor air ventilation technology that continues to deliver superior performance, supporting healthy work environments and optimal productivity.

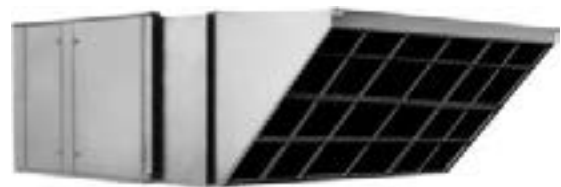


Trane Horizon Indirect Gas Fired Make-Up Air Units

Trane Horizon Indirect Fired Make-Up Air Units are a packaged solution suitable for commercial and industrial facility applications that require heating, cooling, ventilation and makeup air. This line features:

- 10 unit sizes, 1,600 to 64,000 CFM
- Indoor and rooftop units
- Floor mount or ceiling suspension (indoor)
- Curb mount (outdoor)
- Left and right hand control configurations

Optional cooling selection includes DX, chilled water or evaporative modules.



Trane Horizon Direct Gas Fired Make-Up Air Units

Trane Horizon Direct Fired Make-Up Air Units are designed to meet regulatory requirements for ventilation air and prevent the problems associated with negative pressure conditions inside industrial and commercial facilities. This line features:

- 12 rooftop unit sizes, 800 to 13,000 CFM
- 12 indoor unit sizes, 900 to 9,800 CFM
- Horizontal and vertical configurations
- Floor mount or ceiling suspension
- Horizontal, top or down flow discharge

Solution Savvy

There are a number of factors to consider when determining whether a Horizon™ Dedicated Outdoor Air System Unit or Make-Up Air Unit is the fresh air supply solution your building needs.

	Dedicated Outdoor Air Unit	Make-Up Air Unit
Primary Function	Provide a supply of dehumidified, temperature adjusted outdoor air to meet ventilation code requirements. This also prevents negative air pressure conditions created by the need to exhaust interior air, and prevents the property, health and comfort problems created by the introduction of moisture that is present in outdoor air.	Provide a supply of outdoor air to meet ventilation code requirements. This also prevents negative air pressure conditions created by the need to exhaust interior air.
Primary Application	Non-residential buildings with high or fluctuating ventilation rates that require dedicated conditioning of outdoor air to maintain comfort and/or support proper performance of other building systems.	Commercial and industrial facilities.
Packaged Solutions	Packaged solutions available to pre-condition intake air include: <ul style="list-style-type: none"> • Dehumidification • Cooling • Heating • Filtration • Energy Recovery • Antimicrobial UV 	Packaged solutions available to pre-condition intake air include: <ul style="list-style-type: none"> • Filtration • Heating • Cooling
Systems Integration	Units are designed for full integration with building automation systems.	Units are designed for full integration with building automation systems.
Compatibility	Designed for integration with a wide variety of system types, including: <ul style="list-style-type: none"> • Constant Air Volume (CAV) • Variable Air Volume (VAV) • Variable Refrigerant Flow (VRF) 	Designed for integration with a wide variety of system types, including: <ul style="list-style-type: none"> • Constant Air Volume (CAV) • Variable Air Volume (VAV) • Variable Refrigerant Flow (VRF)
IAQ Impact	Facilitates the removal of contaminants from interior air. Eliminates the introduction of excess airborne moisture, preventing dangerous mold growth.	Facilitates the removal of contaminants from interior air.

Beyond Balance

Fresh air ventilation code compliance is of course an important consideration, but make-up air technology plays a far greater role that promotes optimal efficiencies, indoor air quality and occupant health. By providing balanced pressure for exhausted systems, Horizon Make-Up Air Units prevent the formation of negative pressure conditions and the associated risks.



Drafts

Drafts and cross-currents increase under-negative pressure, which may cause an uncomfortable and potentially unhealthy work environment.



Backdrafts

Backdrafts can cause the products of combustion to condense in flues, leading to equipment corrosion.



Increased Static Pressure

Functional capacity of each exhaust fan and its ability to remove contaminants is reduced.



Restricted Air Movement

Removal of air carrying industrial contaminants – including particulate or flammable gasses – is impeded, negatively impacting indoor air quality and putting worker health and safety at risk.

Visit [Trane.com/Horizon](https://www.trane.com/horizon) to learn more
about Horizon Outdoor Air Solutions.



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](https://www.trane.com) or [tranetechnologies.com](https://www.tranetechnologies.com).

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