

Vision[®] and Skyline[®] Semi-custom Air Handlers



Flexible design solutions to match building applications





Skyline Outdoor Air Handler 900 to 65,000 cfm

Custom solutions without a custom price



Vision and Skyline semi-custom air handlers provide education, government, healthcare, and office buildings with efficient, high quality, sustainable design solutions for improving indoor air quality and comfort. Our indoor and outdoor air handlers share many performance enhancing features and options between each other, in extremely flexible configurations. Both allow consulting engineers to build the ideal air handler to meet demanding applications needing reduced footprint, boosted efficiency, improved indoor air quality and comfort, and quiet operation.

Flexible design to meet your space requirements

Each Vision and Skyline air handler is of modular platform construction, featuring 2" incremental dimensioning that gives engineers unlimited design capabilities to incorporate valuable features and options into your air handler to specifically match application requirements. Daikin's lean and versatile manufacturing processes present you with the power to create an affordable air handler with many of the same premium features and options typically found only in competitors' expensive "custom" designs. With Vision and Skyline, you are unrestricted to creativity as the configurable design possibilities are unlimited in scope. If you can dream it, we can build it.



Features and benefits



1] Modular design flexibility

- Allows custom selection and configuration of components to meet performance and application requirements

2] Durable, weather tight cabinet

- Cross-broken top panels eliminate standing water
- Standing"C" cap over seams provides a watertight seal
- Drip shield on all sides and over doors
- Pre-painted frames and panels
- Stainless steel liners option

3] Double-wall construction

- Reduces dirt accumulation and facilitates cleaning
- Protects insulation and improves IAQ

4] Heavy-duty base rail

- Standard base rail in varying heights (4" to 12") or curb ready design forms weather tight seal on roof curb
- Lifting lugs facilitate easy rigging
- Optional single-piece ship, curb ready base

5] Patented gasketed frame channels & R-13 foaminjected panels

- Eliminates metal-to-metal contact between paneling and framework to minimize air leakage
- Provides superior strength
- Promotes high IAQ and long life

6] UltraSeal[™] low leakage dampers

- Maximizes operating efficiency with tight seals
- Reduces operating costs





- Direct rain, snow and debris away from openings

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8] Optional piping vestibule

- Encloses piping within easy access cabinet
- Variable depths to meet your piping requirements

9] Stainless steel, double-sloped drain pan

- Prevents standing water and corrosion to inhibit mold growth and improve IAQ
- Recessed into floor with low point drain connection

10] Angled economizer

- Free cooling when outdoor conditions prevail
- Meets local requirements for fresh air provision



- Integrates operation with mechanical cooling
- Increases efficiency with demand control ventilation
- Superior control with outdoor air monitor

11] Energy recovery (see below)

- Recovers up to 70% of lost energies
- Increases efficiency
- Wheel or fixed plate configuration
- Factory installed and tested

Boost Efficiency with Energy Recovery Solutions

The financial burden to condition ventilation air accounts for up to 50% of your building's total energy cost. Easily save on that cost with energy recovery options that condition and transfer heat and moisture energies between exhaust and ventilation air streams—effectively recovering 70% of lost energies to dramatically increase operating efficiency.

- Factory-installed and tested
- Available in 100% outdoor air (OA) or economizer configurations with exhaust fans
- AHRI-certified and UL-recognized wheel
- Cuts winter humidification energy costs by up to 60%
- Meets ASHRAE Standard 62.1

12] Extended coil and drain connections

- Saves installation costs and reduces maintenance
- Aids in proper drainage

13] Direct-drive variable speed ECM or VFD fan motors

- Increase system reliability and efficiency by eliminating belts and bearing setscrews
- Increase energy savings at light-load conditions
- Superior fan efficiencies with airfoil design

14] Skyline factory roof curb (not shown)

- Designed specifically to match custom modular design flexibility
- · Variable heights (16" to 30") to meet installation requirements



15] Seismic-certified

- Meets IBC and OSHPD certification requirements
- Pre-approved for faster building occupancy
- Increases equipment protection and durability
- Compliance label for inspection



Energy recovery wheel



Reduced footprint, increased efficiency, and quiet

Make the most of your space

In addition to Skyline's broad selection of DWDI, AF, FC, and single and dual direct drive plenum fans, fan array configurations are also available with direct drive or ECM fans that are your key to smooth operations and reliable comfort.

ECMs mount directly to their impellers for a compact design that eliminates almost three feet of cabinet space. That's 46 percent narrower than models with direct-drive motors and 52 percent narrower than models with belt-drive fans. When floor space is at a premium, ECM fan array frees up valuable square footage for use where it's needed most.

Efficient and quiet ECMs

For ECMs, the inverter is an integral component of each motor — a step up from more expensive and space-requiring variable frequency drives. The ability to modulate the speed of individual ECMs allows them to operate more efficiently at part load conditions, resulting in improved energy savings.



Direct-drive cabinet



ECM fan array cabinet





Dependable operation, redundancy, and reduced maintenance

ECM fan array offers redundancy for mission-critical applications requiring uninterrupted airflow. With options to configure for n-1 fans, fan array will always provide operational backup when in the event it's needed.

In addition, very little maintenance is required for ECM fans. Their technologically advanced design reduces the need for mechanical maintenance and attributes to reliable performance throughout the ECM's extended lifecycle.

FlowGrid sound muting performance

The optional FlowGrid grill is factory-installed over each fan's air intake to ensure even quieter performance, by reducing the blade-passing noise and the lower frequency octave bands by up to eight decibels.

An upgrade to the already-quiet ECM fan array, FlowGrid technology adds premium sound muting performance to any Vision or Skyline air handler, which can be especially crucial for sound-sensitive applications.



Comprehensive systems for optimum performance



thing to do for our customers, our community, the environment, and ourselves. As the global HVAC leader, Daikin Applied has a unique opportunity to make a difference in sustainable initiatives and to continue to lead the industry in environmental solutions.



For more information about our rooftop systems with advanced technologies, contact your local Daikin Applied sales office or visit www.DaikinApplied.com to find an office near you.



