



# Vision<sup>®</sup> and Skyline<sup>®</sup> Semi-custom Air Handlers

Skyline Outdoor Air Handler  
900 to 51,000 cfm

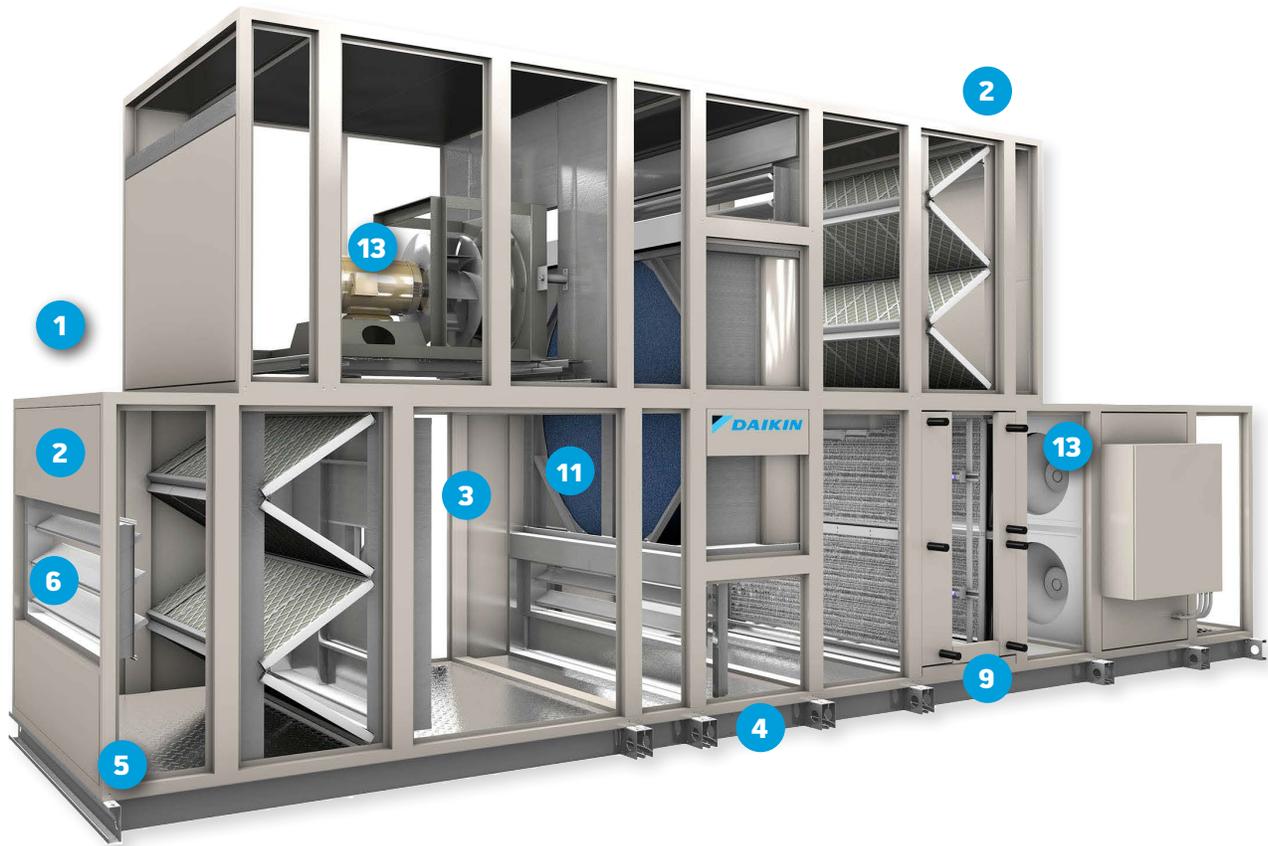


Vision Indoor Air Handler  
900 to 84,500 cfm



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# 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 FOAM-INJECTED 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



## 7 DAMPER HOODS WITH SCREENS

- Direct rain, snow and debris away from openings



## 8 OPTIONAL PIPING VESTIBULE

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

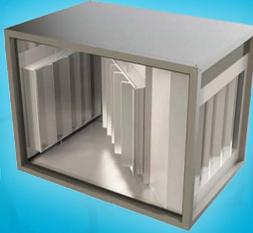


## 9 STAINLESS STEEL, DOUBLE-SLOPED DRAIN PAN

- 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

## 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



## 11 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. Reduce that cost with energy recovery options that condition and transfer heat/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 costs up to 60%
- Meets ASHRAE Standard 62.1



Energy Recovery Wheel

Fixed Plate Energy Recovery

## MAKE THE MOST OF YOUR SPACE

In addition to Vision and Skyline's broad selection of DWDI, AF, FC, 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% narrower than models with direct-drive motors and 52% narrower than models with belt-driven fans. When floor space is a premium, a fan array frees up valuable space 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.

## 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 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.

## FACTORY MOUNTED FAN CONTROLLER

The MicroTech 4 controller offers advanced technology with adaptive algorithms making equipment configuration and fan array management easier.

The optional controller is factory installed on the unit, with the option for remote mounting, and can be configured for constant air volume, variable air volume, or fan tracking applications. Fan performance can be monitored via standard, factory installed airflow measurement. System operation and diagnostic information is readily available via the on-board display, for simple, intuitive troubleshooting.



# PUTTING THE IQ IN IAQ

Both Vision and Skyline IAQ solutions are designed to deliver quality indoor air with sustainable and energy efficient technologies.

## BUILDING CONTAMINANT SOLUTIONS

Occupant and building material emissions are a common IAQ issue for buildings. CO<sub>2</sub> generated by space occupants is a common driver of ventilation rates and is one of the most common building contaminants to be managed. Off-gassing from furniture, building materials and the like introduces volatile organic compounds, like formaldehyde, into the air. Daikin technologies for building contaminants focus on ventilation that maximizes effective clean air changes in the space with the lowest energy consumption.

### SORBENT VENTILATION TECHNOLOGY (SVT)

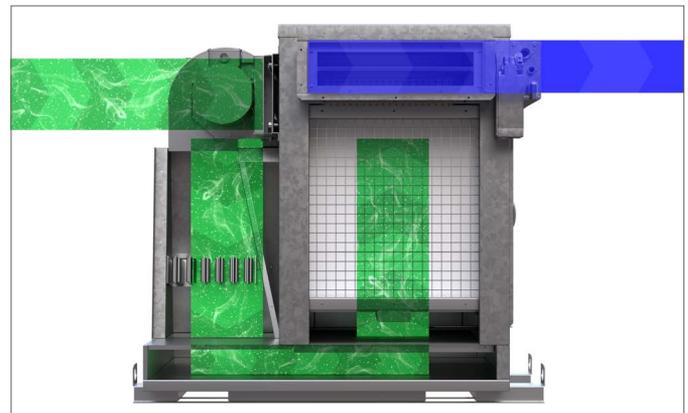
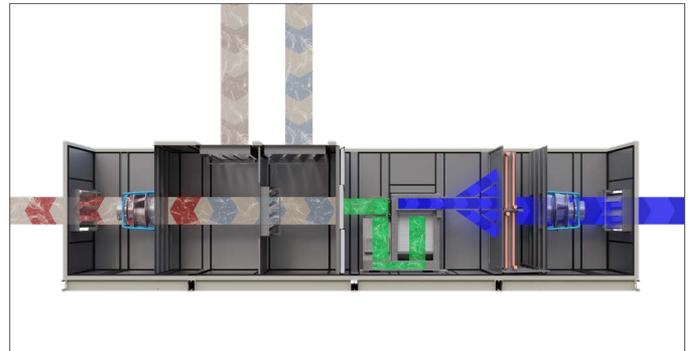
SVT is tested in accordance with ASHRAE 145.2 to remove CO<sub>2</sub>, VOCs and other contaminants using sorbent filtration. When applied using ASHRAE 62.1's IAQ Procedure (IAQP), SVT provides cleaner air and reduces HVAC energy use by up to 30%.

**Better Air:** Promote better IAQ by removing building and occupancy related contaminants.

**Retrofit Flexibility:** Increase occupancy of served spaces without requiring increases in building infrastructure.

**Energy Cost:** Reduce outdoor air by up to 80%, and save up to 30% in HVAC energy use.

**Sustainability:** By reducing HVAC unit energy use by up to 30%, SVT offers a sustainable decarbonization solution that reduces indirect carbon emissions while enhancing building air quality.



### PHOTO-CATALYTIC-OXIDATION (PCO)

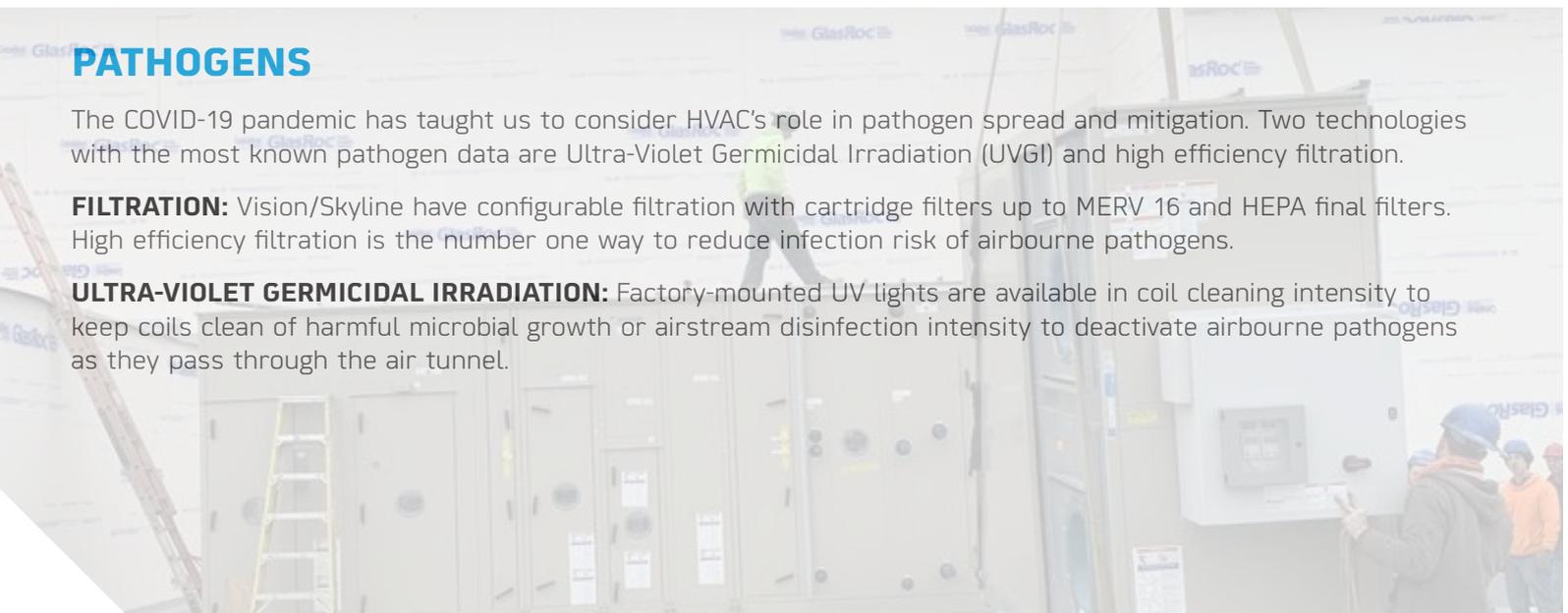
UVGI photons react with a Titanium Oxide (TiO<sub>2</sub>) mesh panel to create a powerful oxidizing agent called a hydroxyl radical. As the air passes through the UVGI powered catalyst, the radicals oxidize gaseous organic compounds such as odors and VOCs, reducing them to trace compounds, CO<sub>2</sub> and H<sub>2</sub>O. PCO systems are ideal where ventilation loads are driven by non-occupancy related emissions like Casinos, Airports, and Office buildings.

## PATHOGENS

The COVID-19 pandemic has taught us to consider HVAC's role in pathogen spread and mitigation. Two technologies with the most known pathogen data are Ultra-Violet Germicidal Irradiation (UVGI) and high efficiency filtration.

**FILTRATION:** Vision/Skyline have configurable filtration with cartridge filters up to MERV 16 and HEPA final filters. High efficiency filtration is the number one way to reduce infection risk of airborne pathogens.

**ULTRA-VIOLET GERMICIDAL IRRADIATION:** Factory-mounted UV lights are available in coil cleaning intensity to keep coils clean of harmful microbial growth or airstream disinfection intensity to deactivate airborne pathogens as they pass through the air tunnel.



# 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 quiet operation.

## FLEXIBILITY 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.

- A** 26" - 122" (2" increments)
- B** 36" - 142" (2" increments - std.)
- C** 144" - 228" (4" increments - ext.)



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FOR MORE INFORMATION ABOUT OUR COMPLETE OFFERING OF HVAC SYSTEMS AND SOLUTIONS, VISIT [DAIKINAPPLIED.COM](http://DAIKINAPPLIED.COM).

