IAQ CONNECT

EVENT GUIDE

September 27th | 11–7pm

655 New York Ave NW, Washington, D.C.

IAQ + SUSTAINABILITY

NETWORK WITH INDUSTRY PEERS AND EXPERTS

Meet leaders in Commercial HVAC who are helping clients save money while electrifying their buildings and protecting occupant health with the IAQ Procedure.

Tour compelling design solutions using the IAQ Procedure and see the latest technologies to save money while decarbonizing and protecting IAQ.

SUSTAINABLE IAQ DESIGN

INCREASING PRESSURE + IAQ RESILIENCY

As electricity prices are rising, penalties for commercial building carbon emissions are increasing, and pollution is threatening human health. The pressure to design low-cost, efficient HVAC systems that provide excellent IAQ is mounting.

Learn how to use the IAQ Procedure to help commercial buildings comply, avoiding penalties while saving first costs and ongoing costs and providing excellent IAQ.

IAQ PROCEDURE + BUILDING COMPLIANCE

An event focused on compelling design solutions using the IAQ Procedure and the latest technologies to save money while decarbonizing and protecting IAQ.

AGENDA

REGISTRATION OPENS
11:00 AM
Registration preferred, walk-ins welcome

SUSTAINABLE IAQ DESIGN TOURS
12:00 PM – 7:00 PM

NETWORKING WITH IAQ & SUSTAINABLE EQUIPMENT & SYSTEM PARTNERS
12:00 PM – 7:00 PM

EDUCATION SESSIONS
12:00 PM
All Electric VRV/VRF Systems with Low GWP Refrigerants

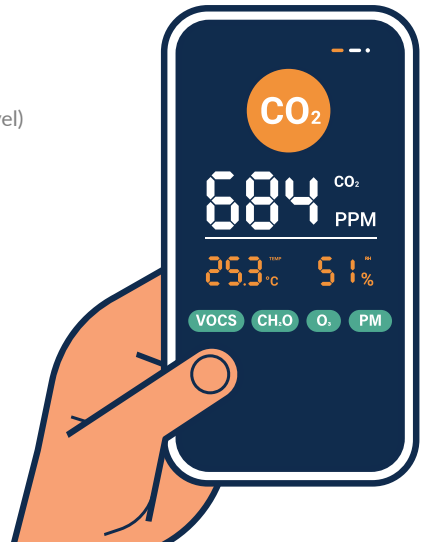
2:00 PM
Optimizing Energy Efficiency & IAQ utilizing the ASHRAE 62.1 IAQ Procedure

4:00 PM
ASHRAE Standard 241 "Control of Infectious Aerosols"

6:00 PM
Designing Healthy Buildings with High-Efficiency Energy Recovery
(Engenium Office – Suite MZ02; Mezzanine Level)

OPEN BAR AND RECEPTION
4:00 PM – 5:00 PM
Cocktail Hour in Engenium Office: Suite MZ02 (Mezzanine Level)

5:00 PM – 7:00 PM
Open Bar & Reception on Rooftop



Hosted By Engenium Group

EDUCATION SESSIONS

12:00 PM
All Electric VRV/VRF Systems with Low GWP Refrigerants

DESCRIPTION: VRV/VRF systems provide a flexible, cost-effective, all-electric HVAC system that helps decarbonize buildings. However, the move to lower GWP refrigerants has raised concerns from owners, designers, and contractors about the future viability of this technology.

In this session, we will discuss the latest code landscape, low GWP refrigerant options, and the impact when designing a VRV/VRF system.

Presenting: Daikin Comfort Technologies

2:00 PM
Optimizing Energy Efficiency & IAQ utilizing the ASHRAE 62.1 IAQ Procedure

DESCRIPTION: Commercial building owners, designers, and service providers are looking for solutions to meet today's challenges with rising costs, the push to decrease carbon emissions, and demand for healthy building environments. Many times, these challenges are in direct conflict with one another.

In this session, we will discuss recent updates to the commercial building ventilation standard, ASHRAE 62.1-2022, that encourage the use of the IAQ Procedure, and we will compare different ventilation design approaches and how they link to the above challenges. We will also compare IAQP-based design with approaches that use Demand Control Ventilation (DCV) and Energy Recovery.

Presenting: enVerid Systems, Inc.

4:00 PM

ASHRAE Standard 241 "Control of Infectious Aerosols"

Updated (June 2023)

DESCRIPTION: ASHRAE standard 241 acknowledges the crucial role of maintaining good indoor air quality (IAQ) in controlling the spread of infectious diseases. Its primary objective is to establish minimum requirements to substantially reduce the risk of disease transmission of infectious aerosols in various indoor spaces. The standard applies to new buildings, existing buildings, and major renovations, encompassing the design, installation, commissioning, operation, and maintenance of outdoor air systems and air cleaning systems.

In this session, we will discuss key areas covered by the standard including:

1. *Ventilation*
2. *Filtration*
3. *Air Cleaning*
4. *HVAC System Operation and Maintenance*
5. *Building Occupancy*

Presenting: ASHRAE 241 Committee member and ASHRAE Distinguished Lecturer

6:00 PM

Designing High-Efficiency Ventilation Systems for a Changing Climate

(Engenium Office – Suite MZ02; Mezzanine Level)

DESCRIPTION: Air to air heat exchangers help to significantly reduce the energy consumption of ventilation air for residential and commercial buildings. However, rising temperatures and humidity levels around the globe create the need to condition ventilation air even further.

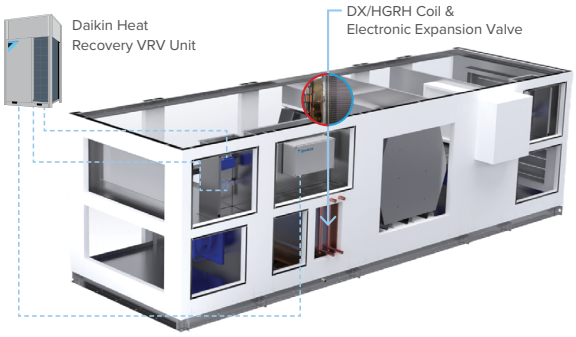
In the first part of this session, we will discuss the different types of air-to-air heat exchangers and the integration of VRV/VRF systems to H/ERV units to control not just temperature, but also the humidity of ventilation air – in an all-electric way!

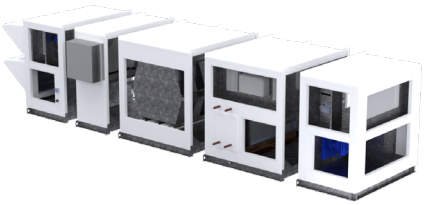
In the second part, we will discuss how ventilation systems must be proactive when unprecedented natural events occur, such as forest fires and pandemics. We will talk about different operation modes and the recipe for good IAQ under standard and extreme events.

Presenting: Oxygen8

Counter-flow Core Heat and Energy Recovery with VRV Integration

- Higher recovery effectiveness (75-80% SRE, 60-65% LRE) for transferring heat and humidity
- Factory-brazed expansion valves and factory-mounted controllers make on-site installation and start-up easy
- All-electric solution allows for accurate temperature and/or humidity control



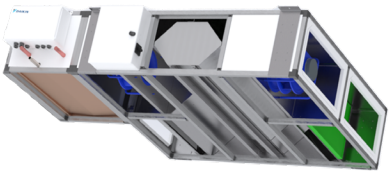


Ventum+ H/ERV – up to 10,000 cfm

- Highest efficiency ventilation solution from Oxygen8
- 100% outside air, recirculation section coming soon
- Modular construction: Units shipped in smaller sections for easy installation
- Complete split solution: Fully integrated coil sections are housed internally

Ventum ERV – up to 3,000 cfm

- Variable speed plenum ECM fans
- 100% outside air
- DDC controls integrate seamlessly with Daikin VRV
- Low-profile: 18 – 32” depth to free up valuable building space



What is Sorbent Ventilation Technology® (SVT®)?

- SVT is a non-toxic sorbent-based air cleaning technology designed to capture carbon dioxide, ozone, and a wide range of volatile organic compounds (VOCs) including formaldehyde.
- When applied in combination with the ASHRAE 62.1 Indoor Air Quality Procedure (IAQP), SVT not only safely cleans indoor air but also reduces outside air requirements by as much as 80 percent.
- SVT is tested in accordance with ASHRAE 145.2 to remove CO2, VOCs and other contaminants without producing any by-products using sorbent filtration.

CONSULTING · SPECIFYING engineer 2021 PRODUCT OF THE YEAR Gold

HLR 100 Series

- The HLR 100 series includes compact modules that use SVT to remove VOCs and other contaminants.
- The new HLR 100C module is designed for easy rooftop installation to fit standard roof curbs.
- The award-winning HLR 100M is a small indoor module that integrates with a wide range of central or zone-based HVAC systems.

HLR 200 Series

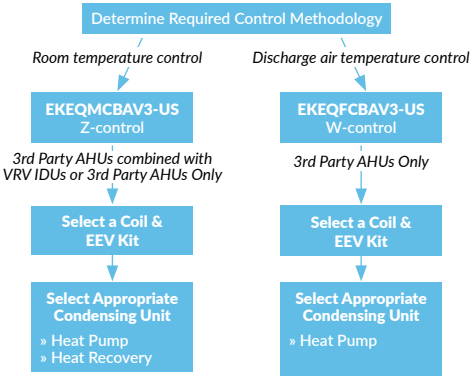
- The HLR 200 series modules include a built-in heater and performs a regeneration process to clean the sorbents and expel contaminants outside the building.
- The HLR 200M is for indoor installation and was named Product of the Year at the 2019 AHR Expo.
- The HLR 200R is designed for rooftop installation.
- Ideally suited to integrate with custom and semi-custom airside systems, including systems with dedicated outside air systems (DOAS) and energy recovery ventilation (ERV) components.

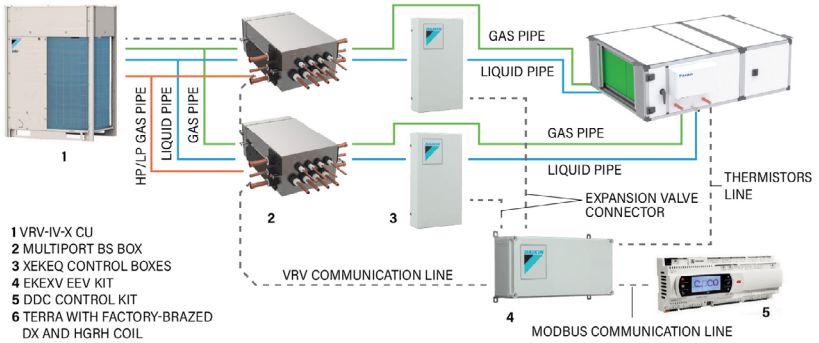
BROUGHT TO YOU BY

Daikin VRV

Air Handling Unit Integration Kit

- Daikin VRV condensing units partner to optimize DOAS operation by others through highly efficient inverter compressor operation while modulating DOAS refrigerant flow with Daikin Electronic Expansion Valve kits.
- Daikin VRV Expansion Valve Kits allow connection of VRV Condensing Unit to a DOAS containing a DX HP coil with HGRH Coil.





Variable Refrigerant Temperature

Variable Refrigerant Temperature continuously adjusts both the inverter compressor speeds and refrigerant temperature in cooling and heating allowing our systems to meet the building load with the highest levels of seasonal efficiency at all times.

daikinapplied.com

Rebel Applied

Packaged Rooftop w/SVT

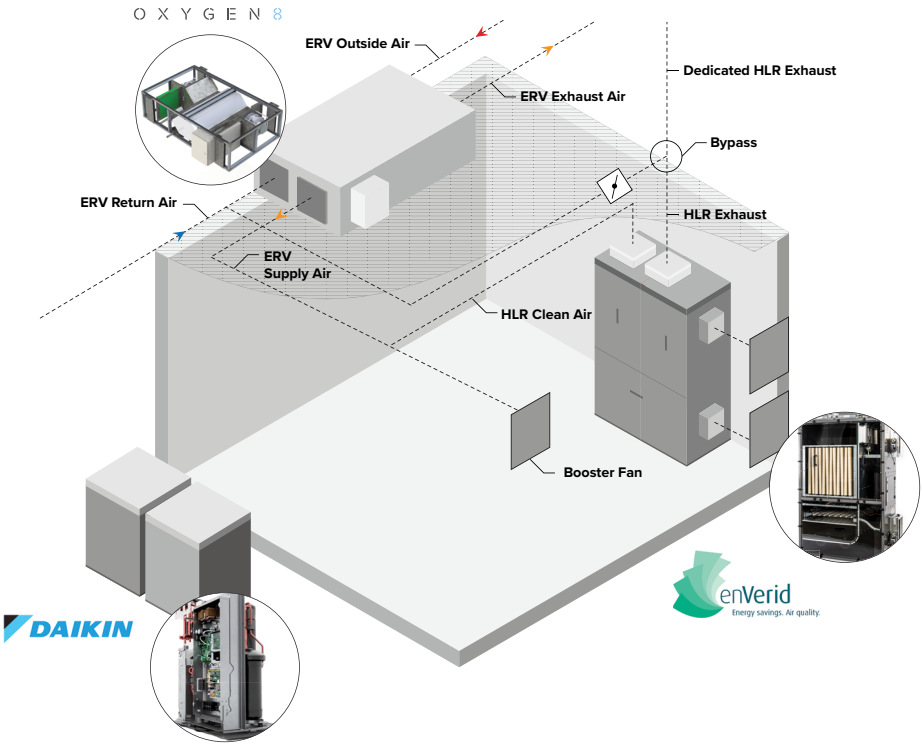
Vision and Skyline

Semi-Custom Air Handlers w/SVT

- Products offering integration of SVT will reduce outdoor air loads, resulting in smaller chillers, and less peak and lifecycle energy consumption, providing a solution that also supports electrification when paired with heat pump-driven technologies.
- Right-size building ventilation, energy costs and equipment by applying SVT with the ASHRAE Standard 62.1 IAQ Procedure (IAQP).

SUSTAINABLE IAQ

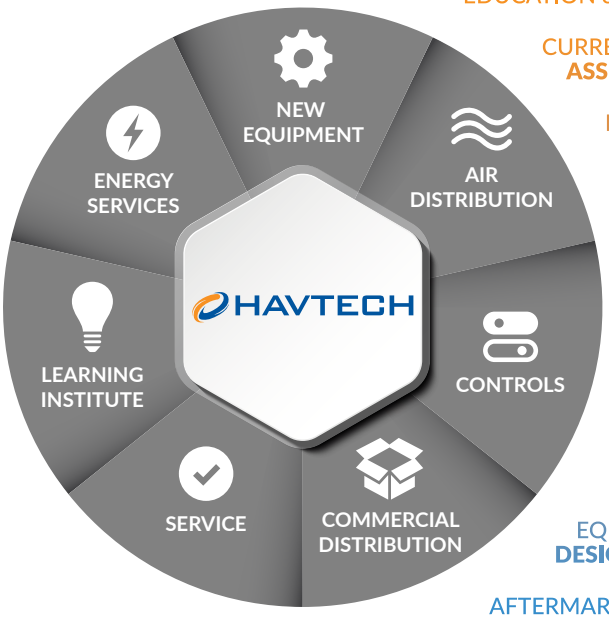
Engenium took a “clean-first approach” focused on sustainable ventilation. The heart of the system is an enVerid Systems HVAC Load Reduction® (HLR®) module that actively cleans the contaminants from indoor air. This air filtration is supplemented with an Oxygen8 energy recovery ventilator (ERV) that makes use of an enthalpic energy recovery core—the most efficient type available. These technologies work in tandem to provide constant airflow without the need for any dedicated mechanical cooling in the primary HVAC system.



Innovative Expertise at Your Fingertips

With more than 40 years of experience representing the leading manufacturers of commercial hvac, the Havtech team provides innovative solutions as a trusted partner for equipment, service, parts, controls and training.

As a leader in the HVAC industry, Havtech is committed to improving indoor air quality and reducing our environmental impact through decarbonization and electrification. We work closely with our manufacturing partners to provide high-efficiency equipment and advanced controls that improve ventilation, filtration and air purification. Our team stays at the forefront of sustainability best practices to deliver healthy, energy-efficient indoor environments.



EDUCATION & **TRAINING**

CURRENT EQUIPMENT **ASSESSMENT**

RETROFIT **DESIGN**

INSTALLATION **SUPPORT**

WARRANTY **SERVICES**

PROCUREMENT

PROPOSE ALTERNATIVES

ENERGY & UTILITY **CONSULTATION**

EQUIPMENT **DESIGN & SELECTION**

AFTERMARKET **PARTS**

MAINTENANCE & OPERATIONS SUPPORT

BROUGHT TO YOU BY

Join your friends from Havtech, Daikin Comfort, enVerid Systems, Engenium Group, and Oxygen8 to discuss the important changes and regulations affecting the way we design buildings.

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OXYGEN 8

enVerid
Energy savings. Air quality

DAIKIN

Engenium Group

HAVTECH