

Displacement Ventilation (DV)

- DV systems focus on cooling the occupied zone which can potentially reduce up to 30% of total air volume required to condition a space.
- Up to a 46% reduction in outdoor air required due to higher ventilation effectiveness based on ASHRAE 62.1 2019
- Increased chiller efficiency with warmer supply and return air temperatures
- Various diffuser options and mounting styles: Cylindrical, half-round, flat faced, wall mounted, ceiling mounted, duct hung, etc.



Chilled Beams

- Total air volume reduction from +1 CFM/sf with overhead systems to 0.2 – 0.7 CFM/sf with chilled beams.
- Up to 30% energy savings by using more water to transport energy in a building than air.
- Energy savings and air volume reduction potential in healthcare applications based on ASHRAE 170
- Elimination of reheat possible with 100% outdoor air applications.
- Multifunctional design allows for integrated features such as additional diffusers, returns, access panels, and LED lighting that can reduce coordination and footprint of the ceiling



Underfloor Air Distribution

- Reduction in total fan energy possible with low static pressure of 0.05" w.g. – 0.08" w.g. required to pressurize underfloor plenum
- Increased free cooling and economizer usage with 62F – 64F supply air temperatures
- Up to a 46% reduction in outdoor air required due to higher ventilation effectiveness based on ASHRAE 62.1 2019
- Simple flexible design with multiple control strategies available to prioritize occupant comfort and energy efficiency



Fan Powered Series DOAS Terminal units

- Used in conjunction with DOAS air handlers to reduce the total volume of rooftop supply air by up to 85%.
- Smaller air handlers and ductwork result in less ceiling space utilization by the HVAC system.
- High efficiency electronically commutative motors, with up to 90% efficiency and fully variable speeds without a frequency drive.
- Temperature and ventilation rate are controlled independently allowing for optimized energy efficiency, thermal comfort, and compliance with ASHRAE 62.1 ventilation.
- Up to 36 MBH of sensible cooling per unit, consolidating overhead equipment size and reducing cost.
- Measurable and adjustable ventilation rate integrated into the terminal, eliminating the need for more ventilation only equipment.
- Recirculated air for thermal comfort can be filtered with a MERV 13 filter leading to industry best IAQ.
- Dry cooling coils do not require a drainage system and lower the risk of mold and bio growth in the HVAC system.

