MITIGATING COVID-19 IN THE WORKPLACE
As employees return to the workplace, it is important to understand how proper ventilation can protect occupants of buildings from viruses or pollutants like COVID-19.

According to American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE), infectious aerosols can be disseminated by pathways that include air distribution systems and interzone airflows. Strategies have been found to be effective at controlling transmission, include optimized airflow patterns, directional airflow, zone pressurization, dilution ventilation, in-room air-cleaning systems, general exhaust ventilation, and controlling indoor temperature and relative transmission.

The lower the concentration of the virus, the less likely viral particles are inhaled, make contact with eyes or nose, or fall out of the air to surfaces.

WE’RE HERE TO HELP.

The following modifications to building HVAC system operations should be considered for non-healthcare buildings from American Society of Heating, Refrigerating, and Air Conditioning Engineers (ASHRAE).

- Increase outdoor air ventilation
- Improve central air and other HVAC filtrations to MERV-13 or the highest level achievable
- Keep systems running as long as possible (24/7 ideally)

CHOOSE THE RIGHT PRODUCTS

- TD-MIXVENT AND TD-SILENT In-line Fans
- FB Filter Box with MERV13 Filter Option
- reFresh All-in-One Unit with MERV13 Filter Option
- SQD/eSQD
- MERV13 Filters
UNDERSTANDING THE CODE

INTERNATIONAL MECHANICAL CODE (IMC) 2018
SECTION 403.3.2.1 OUTDOOR AIR FOR DWELLING UNITS

“An outdoor air ventilation system consisting of a mechanical exhaust system, supply system, or combination thereof shall be installed for each dwelling unit. Local exhaust or supply systems, including outdoor air duct connected to the return side of an air handler, are permitted to serve as such a system. The outdoor air ventilation system shall be designed to provide the required rate of outdoor air continuously during the period that the building is occupied.” (International Code Council, 2020)

$$Q_{OA} = 0.01 A_{floor} + 7.5 (N_{br} + 1)$$

Where:
- \(Q_{OA}\) = outdoor airflow rate, cfm
- \(A_{floor}\) = floor area, \(ft^2\)
- \(N_{br}\) = number of bedrooms, not to be less than one

Exception: The outdoor air ventilation system is not required to operate continuously where the system has controls that enable operation for no less than 1 hour of each 4-hour period. The average outdoor air flow rate over the 4-hour period should not be less than that prescribed above.

REAL-LIFE APPLICATION

The split system detail to the left shows the professional designer an example of how to utilize a powered outside air solution.
S&P PRODUCT SOLUTIONS

FB FILTER BOX WITH MERV13 FILTER OPTION

TD-MIXVENT
In-line Duct Fans

TD-SILENT IN-LINE FANS
In-line Duct Fans

REFRESH ALL-IN-ONE UNIT
WITH MERV13 FILTER OPTION
Centrifugal Filtered Supply Fan

SQUARE/ESQUARE
WITH MERV13 FILTER OPTION
Direct Drive Square Inline Centrifugal Duct Fans

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