



**ADVANCING
VENTILATION**

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.

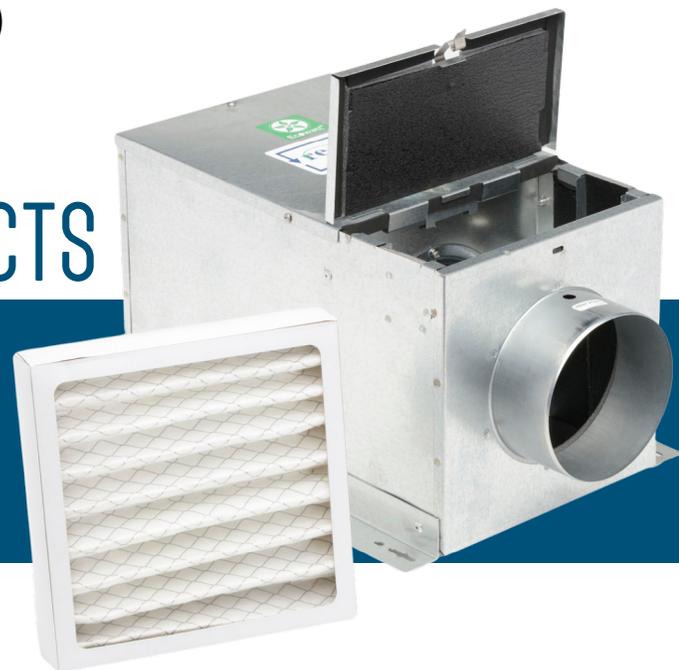
The following modifications to building HVAC system operations should be considered for non-healthcare buildings from American Society of Heating, Refrigerating, and Air Conditioning Engineers (ASHRAE).



- 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



REFRESH ALL-IN-ONE UNIT

All-in-one units to introduce fresh, filtered air from the outside into the residence

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 require rate of outdoor air continuously during the period that the building is occupied." (International Code Council, 2020)

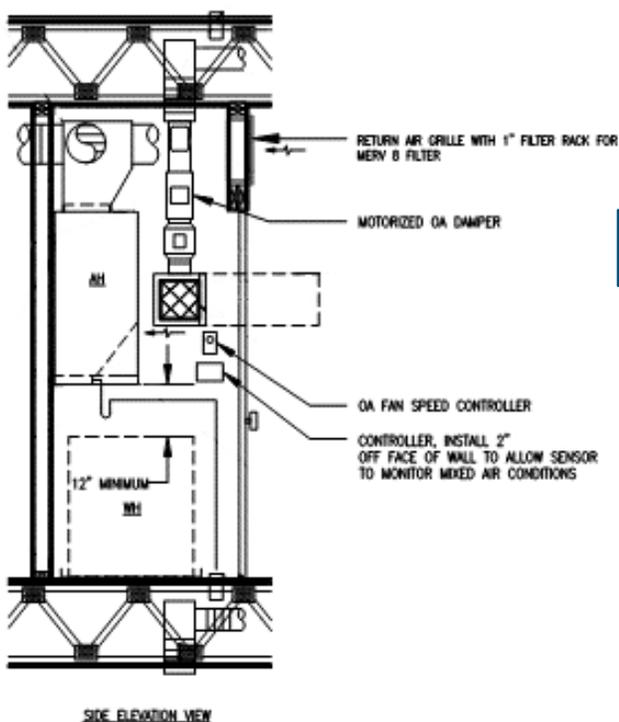
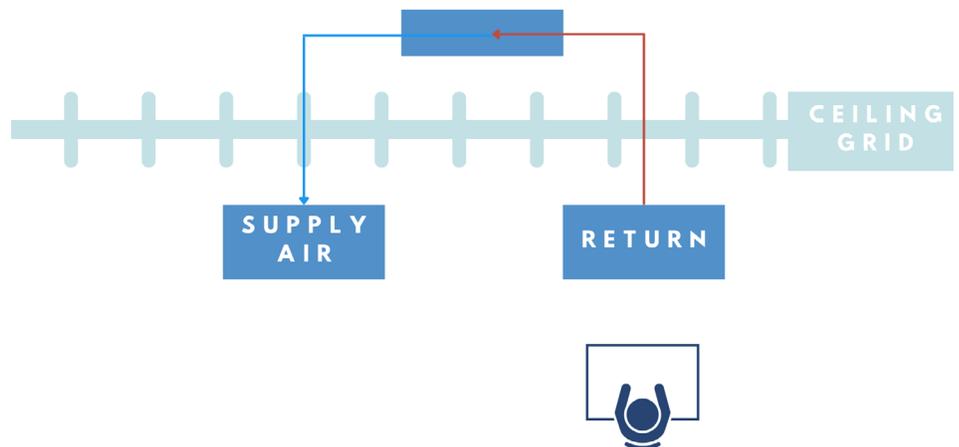
$$Q_{OA} = 0.01A_{\text{floor}} + 7.5(N_{br} + 1)$$

Q_{OA} = outdoor airflow rate, cfm

A_{floor} = floor area, ft²

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.

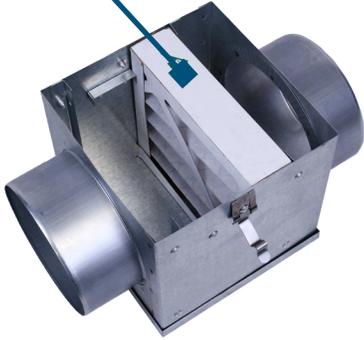


REAL-LIFE APPLICATION

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

MERV13 FILTER



FB FILTER BOX WITH
MERV13 FILTER OPTION



TD-MIXVENT
In-line Duct Fans



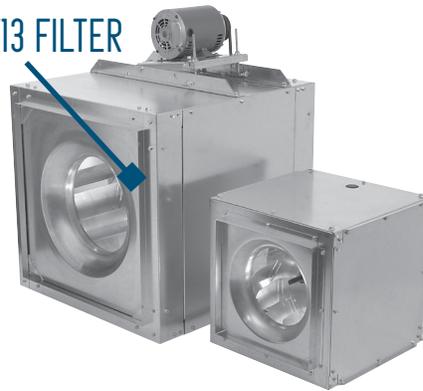
TD-SILENT IN-LINE FANS
In-line Duct Fans

MERV13 FILTER



REFRESH ALL-IN-ONE UNIT
WITH
MERV 13 FILTER OPTION
Centrifugal Filtered Supply Fan

MERV13 FILTER



SQD/ESQD
WITH MERV 13 FILTER
OPTION
Direct Drive Square Inline
Centrifugal Duct Fans

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