

Fan Coil Unit Group

COVID-19 and fan coils, August 5, 2021

There is a significant amount of information available with respect to the operation and use of fan coils and COVID-19. Here is a summary of the latest guidance which, if followed, would allow Fan coils to be used.

REHVA recommendation is to operate mechanical ventilation systems in commercial buildings 1 hour before and after usage time is enough if the building would be ventilated with 3 volumes of outdoor air is provided at that timeⁱ

In rooms with fan coils only, the first priority is to achieve adequate outdoor air ventilation. There are two possible options to achieve ventilation:

1. Active operation of window opening together with the installation of CO₂ monitors as indicators of outdoor air ventilation;
2. Installation of a standalone mechanical ventilation system (either local or centralised without recirculation, according to its technical feasibility). This is the only way to ensure a sufficient outdoor air supply in the rooms at all times.

Fan coil units have coarse filters that practically do not filter smaller particles but may still collect potentially contaminated particles.ⁱⁱ

Regular filter replacement and maintenance works shall be performed with the system turned off, while wearing gloves and respiratory protection and disposed of in a sealed bagⁱⁱⁱ.

If there is a good outside air ventilation supply (either mechanical or natural) to the room or zone then the action of the fan coil unit fan will help de-stratify the air and reduce the chance of pockets of stagnant air, helping to dilute any airborne pathogens.

If a room or zone has no or very little outside air ventilation provision then the action of a fan coil unit could create air movement that is likely to spread any airborne viral particles throughout the room and the advice is to turn off the fan coil unit fan^{iv}.

The documents referenced below will give further information on transmission routes, etc.

As further guidance becomes available, this document will be revised.

References

i - <https://www.rehva.eu/activities/covid-19-guidance/rehva-covid-19-guidance> page 11.

ii, - <https://www.rehva.eu/activities/covid-19-guidance/rehva-covid-19-guidance> page 14.

iii - <https://www.rehva.eu/activities/covid-19-guidance/rehva-covid-19-guidance> page 15

iv - [CIBSE COVID-19 Ventilation Guidance Version 5 16 July 2021](#) page 18