



Ventilation strategies

to protect against coronavirus

Are your ventilation strategies fit for purpose to protect against coronavirus?

It is now clear that hand washing and face masks alone cannot prevent the spread of coronavirus in indoor environments with **poor ventilation**, and that air conditioning systems could play an important role to **reduce transmission** rates. However, there are certain adjustments **facilities managers** could make that would further reduce the risk of transmission.

Follow these **useful tips** on how to run building services during COVID-19 pandemic:

DO:

Increase air change rates. This will dilute the airborne viral load



- › Maximise the amount of **air** being brought into the occupied spaces.
- › Systems that recirculate the air should be switched to **'full fresh air'**
- › **Recirculation** dampers can usually be **switched off** manually or by using electronic controls.
- › Return air from air handling units should be **minimised** and 'purging' carried out.
- › Run systems for longer and at **higher speeds** than normal.
- › Start running your systems at higher speeds **2 hours** before occupation.
- › Keep systems running at lower speeds overnight and at weekends to **purge** the building.
- › Exhaust ventilation systems of **toilets** should be on 24/7.

Use more window airing (when mechanical ventilation is not present)

- › It is important to keep **windows open** in different spaces in order to achieve **cross flows** through the building.
- › **NOTE** - However it is **not a good idea** to rely on simply opening windows. If there is **little or no wind**, this will have little effect, especially if the outside temperature is lower than the inside temperature, which will cause the air to flow out rather than in, resulting in even less air supply to the occupants.
- › **NOTE** - Outside air, if **polluted**, may create other **risks to health**. This is especially important to consider in urban areas. **Air purification** technologies could be used in certain circumstances.

Take into consideration whether new partition walls have been erected, or desks moved, as social distancing measures

- › This will **change** the way air moves around in the space and will affect whether **ventilation** is still **fit for purpose**.

Regularly check, clean and replace filters

- › Maintenance staff should wear **full PPE** to carry out this task.
- › **NOTE** – clogged filters are not a contamination source in this context, but they may **reduce supply airflow**.

CONSIDER:

Air purifiers can be useful in specific situations

- › To be effective, air purifiers need to have at least **HEPA filter** efficiency.
- › Devices that use **electrostatic filtration** principles (not the same as room ionisers!) often **work quite well**.

Introduce HVAC and office interior fogging to your regular maintenance routine

- › Fogging is a method of sterilisation, to **kill viruses**, bacteria and micro-organisms including **legionella** and fungicides.

Introduce duct cleaning to your regular maintenance routine

- › To meet cleanliness requirements **BS EN 15780** (Ventilation for Buildings. Ductwork. Cleanliness of Ventilation Systems).
- › Duct cleaning removes unwanted substances such as **debris and dust** and sanitising prevents **mould** building up in the system.
- › Duct and air sampling ensures **good quality air** is circulated through the HVAC units.
- › Pay particular attention to ensuring grilles on extract vents within **toilets** are clear.
- › Establish a regular inspection process. Every **12 – 24 months** is advised.

Humidifiers should be checked to maintain relative humidity levels are in line with recommendations for minimising airborne viruses

DO NOT:

- › **Increase humidification or indoor air temperatures** as these have no practical effect in killing the coronavirus.

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