

COVID-19 Work Safely Protocol

Employer Checklist No. 8 - Ventilation

These checklists have been prepared to help employers, business owners and managers to get their business up and running again in a way that will help prevent the spread of COVID-19. This Checklist addresses ventilation, which is one of the key control measures to reduce the transmission of COVID-19 in the workplace. It is important that in following this guidance, your building continues to comply with existing health and safety, fire safety and building regulations.

Ventilation is an important factor in reducing the risk of aerosol transmission indoors, where individuals may be in close contact, potentially for longer periods of time and in poorly ventilated areas. Ventilation will not stop the spread of COVID-19 on its own and that is why it is only part of a hierarchy of risk controls. It is not a substitute for other infection prevention measures, such as vaccination, physical distancing, cleaning, face coverings, maintaining good hand and respiratory hygiene, staying at home if feeling unwell and working from home where possible.

No.	Control	✓Yes	✓No	Action Required
Ventilation Checklist				
1	Are you aware how all workspaces, including the canteens, toilets and changing areas, are currently ventilated i.e. by natural or mechanical means or combination of both?			
2	Can natural ventilation / fresh air intake be increased e.g. by opening windows? Let in as much fresh air as possible. If workers share a space with others, the windows should be opened regularly, especially between users, to help reduce the risk. Increasing natural cross ventilation by opening windows / doors / vents, especially those opposite each other, will facilitate a quick exchange of room air for fresh air.			
3	Are rooms aired as frequently as possible to improve ventilation? Air rooms, between users or regularly throughout the day. i.e. open all windows and doors fully to maximise the workspace ventilation. This may be best done when the room or area is unoccupied, and at the beginning and end of the day. Note: Fire doors should not be propped open unless fitted with approved automatic closers so that they function as fire doors in the event of an alarm or fire.			
4	If mechanical ventilation is in place, is it operating efficiently? (see Mechanical Ventilation Systems section below).			
5	Have any features in the workplace been identified which might affect ventilation? e.g. is there large machinery in use which might impede cross ventilation air flow, or items blocking vents etc.			

No.	Control	✓Yes	✓No	Action Required
6	Have any poorly ventilated work areas been identified? i.e. poorly ventilated areas increase the risk of transmission (see section below).			
7	Has the size of the workspace (s) been considered? i.e. the larger the area, the lower the risk since the virus droplets will have a better chance to be diluted and less likely to build up.			
8	Has the number of employees / persons occupying shared workspaces been reduced where possible? The more people together means more viral particles and the need for more ventilation. i.e. reducing the number of people who use or occupy an area can reduce risk.			
9	Has the amount of time spent in shared work areas with limited space, been reduced? i.e. reducing / staggering the time people spend together in shared work spaces to a minimum can reduce risk of the virus spreading.			
10	Have you identified the type of work activities that take place in the workspace(s) and if they increase the risk? i.e. activities that make you breathe deeper, for example physical exertion or shouting, may increase generation of aerosols and increase the risk of transmission requiring increased ventilation or other control measures.			
11	Have you reviewed the Work Safety Protocol’s section on Heating, Ventilation and Air-Conditioning (HVAC)? Have you seen the ventilation posters and other resources available at hsa.ie/covid19 ?			
12	Have you communicated all control measures, including the ventilation measures to your workers so they know how these measures will help prevent the spread of COVID-19 in the workplace?			

No.	Control	✓Yes	✓No	Action Required
Mechanical Ventilation Systems (Heating, Ventilation, Air Conditioning HVAC) (if in use) Checklist				
13	Is the mechanical system being used correctly and operating efficiently as per its design? It is important to make sure that mechanical ventilation systems and /or extractor fans are used correctly. If unsure, contact the manufacturer or your service engineer			
14	Is the mechanical ventilation system regularly maintained, as per the manufacturer’s instructions, by a trained and competent person? The correct filters must be used as per the manufacturer’s specifications and air filters should be properly sized and within the recommended service life.			
15	Can the system be optimised to maximise the air changes / fresh air intake? i.e. the amount of fresh air should be maximised and the recirculation minimised, as far as systems allow. Do not adjust mechanical settings without expert advice.			
16	Has air recirculation been disabled where possible? Recirculation of air should be avoided where possible or the air may need to be filtered (e.g.through a HEPA filter).			
17	Is the ventilation system kept running for as long as possible? i.e. continually, or at least for extended periods before and after use/occupancy such as extending the hours of nominal HVAC operation to begin two hours before the building is occupied and two hours after the building has emptied.			
18	Have demand-controlled ventilation settings been turned off, where necessary?			
19	Where fitted, are toilet / rest / changing room extractor fans functional and kept running?			
20	Have the possible impact(s) of any introduced changes to ventilation systems been considered? i.e. on workers’ comfort levels, and staying compliant with occupational health and safety, fire safety or building regulations?			
21	Has airflow direction been considered? i.e. avoid airflow directed onto individuals or across groups of individuals			
22	Has the ventilation system(s) been checked to ensure that it is not recirculating air to other poorly ventilated areas of the workplace where workers could be exposed?			

No.	Control	✓Yes	✓No	Action Required
Poorly ventilated work areas				
23	Have poorly ventilated work areas been identified? e.g. enclosed work areas in regular use with no natural or mechanical ventilation, areas with no outdoor air supply or that are stuffy or smell bad. CO ₂ monitors may assist in determining poorly ventilated areas. See Section 5.D Heating, Ventilation and Air Conditioning of the Work Safely Protocol .			
24	Has an assessment of the work area been carried out to determine what additional control measures could be implemented?			
25	Have methods to increase ventilation been considered? e.g. installation of vents.			
26	Have desk fans been removed and ceiling fans taken out of use in poorly ventilated areas? i.e. they may only recirculate the virus droplets rather than removing the virus from the workspace.			
27	If a CO ₂ monitor is used to assess or monitor ventilation, is it a type suitable for measuring indoor air quality? CO ₂ monitor should also be correctly positioned and used as per the manufacturer / supplier's instructions. CO ₂ monitors should be CE marked, based on NDIR technology and have a measurement range up to at least 2,000 ppm.			
28	If a CO ₂ monitor is used to assess or monitor ventilation, is there a clear protocol of the action to be taken depending on the CO ₂ monitor levels? CO ₂ concentrations of above 1400-1500 ppm are likely to indicate poor ventilation. In this instance, measures should be taken to increase ventilation (open windows) or adjust occupancy.			
29	Where concerns still remain regarding poor ventilation, can portable room air exchangers or air cleaners (e.g. with HEPA filters) improve indoor air flow / quality? Such equipment should be suitable and correctly installed, used and maintained. Consideration should also be given to hazards introduced by the equipment such as noise and emissions. See Section 5.D Heating, Ventilation and Air Conditioning (HVAC) in the Work Safely Protocol for further information on HEPA filters.			

No.	Control	✓Yes	✓No	Action Required
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Other actions to consider following ventilation changes				
30	Have you covered any relevant changes in your COVID-19 Response Plan? (See template COVID-19 Response Plan).			
31	Have you included any relevant updates in your risk assessments and safety statement? Other devices such as ozone-generating devices and air disinfection devices may present additional chemical hazards in the workplace. Their use must be justified by a risk assessment and their use is not recommended in occupied spaces.			
32	Have you included information on any relevant changes to your emergency plan?			

Name: _____ Signature: _____ Date: _____

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