

COVID-19 and Commercial Building HVAC

Recommended Reopening Checklist

According to ASHRAE, HVAC systems in commercial buildings play a vital role in mitigating the spread of viral outbreaks. In this post-pandemic phase, it is critical to ensure that indoor air quality controls and HVAC systems adhere to the new operating protocols. In accordance with recommendations from ASHRAE, Facilio has put together a quick-read checklist for real estate operators and facilities managers to ensure safe restarting of property operations.

Conduct checks to evaluate operational ability

- Run preventive maintenance for complete disinfection of components, like filters, grilles, diffusers, indoor unit coils, and so on.
- Inspect fans, dampers, bearings, drive belts, pump operations, control valves, actuators, variable-speed drives, etc. for condition assessment.
- Check outdoor air intakes to make sure they are clear of debris and obstructions
- Check on water quality in chillers and boilers. Verify control dampers and actuators are functioning throughout their full control range.

Maintain fresh air circulation

- Eliminate recirculation or minimize to the extent possible.
- Consider relaxing temperature setpoints indoors.
- Run the HVAC system in 100% airside economizer mode when there are occupants.
- Monitor and adjust the fan(s) to achieve the desired airflow.
- Install additional fresh air ducts if buildings don't have adequate ventilation.
- Keep doors and windows open if buildings have less complex HVAC systems.
- Exhaust ventilation systems of toilets should always be kept on 24/7. Ensure that negative air pressure is created, that will avoid the fecal-oral transmission.

Improve air filtration and cleaning

- Change filters as scheduled or more frequently based on the clog status of the filter.
- Perform preliminary checks to find if the AHU system can accommodate a higher efficiency filter (like MERV-15) for improved IAQ.
- If a system can't handle high-MERV filters, due to issues like undersized ductwork, perform ductwork modifications to implement better filtration.
- Closely supervise proper disposing of all used filter components per the guidelines.
- Install portable room air cleaners with HEPA filter and perform UV germicidal irradiation for added protection to occupiers.

Monitor temperature and humidity conditions

- Maintain relative humidity at 40-60% RH and temperature at 70 – 75 degrees F
- In humid climates, use fans to increase air movement
- Do not reduce economizer operation for improved minimum relative humidity.
- Check for proper moisture absorption in the airstream while restarting older humidifiers.
- Avert mold growth and other moisture issues by ensuring no condensation in interior spaces.

How can we help?

This checklist is part of our larger program, REbuild from Facilio, an adaptive operational toolkit to help real estate owners restart properties with confidence. Find out more at <https://facilio.com/rebuild/>