



DAVID BROWER CENTER

Event Venue Ventilation

The David Brower Center's (DBC) heating, ventilation, and air-conditioning system includes a state of the art radiant heating and cooling for the primary heating and cooling in the office spaces. It exchanges heat by both convection and radiation with the environments they are designed to heat or cool. The radiant system provides heat in the winter or pulls heat in the summer directly from the occupants. The meeting and conference rooms use water-to-air heat pumps to satisfy the heating and cooling requirements. The ventilation system is a dedicated outside air system (DOAS) that provides 100% fresh outside air directly into the building's spaces through an underfloor air distribution (UFAD) system, which avoids overhead ducts and diffusers.

As a LEED Platinum certified building, DBC meets high standards for indoor environmental quality requirements by using filtered outdoor air in our event spaces. The MERV 13 rated filters used in our meeting and shared-use spaces keep out more particulate matter than those used in standard buildings, and are being cleaned and replaced with increased frequency during the public health threat. Dampers and air handlers are pumping in more air to the spaces. They are regulated by the CO quantity in the room. Our Chief Building Engineer counterbalances that by manually overriding the system to allow more air flow from the dampers and air handlers.

In our efforts to maintain the highest level of health and safety possible for our building residents, clients, and guests, we are maximizing the fresh air circulation in all spaces. Because we do not have a traditional HVAC system with forced air; indoor temperatures may feel cooler than "normal" due to the increased fresh air circulation. We advise you to bring extra layers when visiting the Brower Center in order to better control your personal comfort.

FAQ

Q: I read that closed-circuit HVAC systems do not provide protection against COVID-19. What type of system does the Brower Center have?

A: *The ventilation system is a dedicated outside air system (DOAS) that provides 100% fresh outside air directly into the building's spaces through an underfloor air distribution (UFAD) system, which avoids overhead ducts and diffusers. It is amongst the healthiest buildings in the East Bay.*

Q: How long does it take for your air system to complete a full exchange of air when people are in one of the event rooms?

A: *One of the requirements of our LEED Platinum certification is to have the ability to exchange the air once per hour. Event spaces with windows may have a slightly higher exchange rate.*

Q: How long does it take to have 100% fresh, outdoor air inside an event room after it has been vacated?

A: *Within the hour. The air ventilation system will be kept on during all operating hours and during all client occupancy hours to maximize circulation.*

Q: If I bring in air purifiers for my event, how effective will they be in aiding your existing system?

A: *Most consumer level/grade air purifiers available to the general public will not provide much further purification in our event spaces as the square footage is too great.*

Q: Will placing fans in the room help dissipate droplets and aerosols?

A: *Yes and no. Fans do help air movement, however they must be strategically placed so that the air is not directed upward or toward anyone's face. If you'd like to use fans in your event space, please consult with your House Manager for best placement.*

Q: How often are your air ventilation systems inspected, maintained, and cleaned?

A: *Inspections are performed daily. Most filters are replaced every two months, depending on frequency of use, building occupancy (We have fewer visitors in the summer months and windows can be kept open) and the outdoor conditions (when AQI is low, during fire season, for example)*

Q: Why don't you use filters that are rated higher than MERV 13?

A: Pre-pandemic, we were using MERV 8 filters as that is what our system was designed for. The air pressure in DBC is not as forceful as in other buildings as we rely on radiant cooling and heating. After research and consultation, we've decided to not use filters rated higher than MERV 13 because of the sensitivity of our ventilation system. More restrictive filters have the potential to overwork the building's air pumps. Instead of pushing the air through the system, it could actually suppress the air movement because that filter is not as porous; it restricts the air flow. Building ventilation systems designed for medical and scientific use such as laboratories and hospitals are typically amongst the only systems that use filters rated higher than MERV 13.

Q: So wait, what about fire season? Do you restrict the intake of outdoor air into the building?

A: Unfortunately we cannot entirely restrict the intake of outdoor air as the DOAS system does not include any closed-circuit features. The system does filter out particulate matter generated by fires however it cannot entirely combat the smell of smoke. The air handler makes use of carbon based filters which does help the smell a bit. We change the filters more frequently during fire season.

If you have further questions or concerns, please email events@browercenter.org