

# CONCORDE SIMULATOR CASE STUDY

We Revitalise Spaces with Fresh Air Solutions, enabling a more comfortable environment for all

[www.bvs-ltd.co.uk](http://www.bvs-ltd.co.uk)



## OBJECTIVES

BVS faced several objectives when tasked with finding a ventilation solution for the Concorde flight simulator at Brooklands Museum. The simulator had been closed since the pandemic due to a lack of ventilation in its sealed environment, posing a risk to delicate and irreplaceable electronics. The primary objective was to engineer a ventilation system that could be implemented within the tight confines of the simulator. BVS had to design a solution that would effectively circulate fresh air while maintaining the integrity and functionality of the flight deck, instrumentation, and controls. The ventilation system needed to ensure a safe and comfortable environment for visitors, allowing them to once again experience the thrill of flying Concorde without compromising the preservation of this iconic piece of aviation history.

## SOLUTION

Their selection for the project, following an extensive survey and approval of their report and ductwork routes by the sim technical team, led to the installation of a comprehensive heat recovery ventilation package. BVS incorporated black-painted ductwork within the projector section and strategically positioned supply air grilles near the pilot's seat and at the engineer's console, utilizing displacement ventilation for effective extraction.

An important aspect of the ventilation solution was the removal of potentially Covid-containing aerosol particles. BVS successfully implemented a system that ensured efficient ventilation and a safe environment. Not only did the ventilation system surpass the promised air volume delivery by over 50%, but it also maintained CO2 levels within the recommended range of 6-700 parts per million (PPM), well below the maximum of 800PPM for optimal ventilation. The system achieved nearly one air change per minute, all while avoiding draughts and excessive noise.



Building Ventilation Solutions

## AT A GLANCE

### CHALLENGES

- Preservation of Electronics
- Balancing Visitor Experience & Preservation
- Limited Space Within The Simulator

### BENEFITS

- Enhanced Safety Within The Simulator
- Improved Visitor Experience
- Preservation of Aviation History



## THOMASINA SANDS

Founding Director

We are of course delighted that we have helped Concorde 'fly' once again & that our client is very happy.