



Bournemouth Collegiate Prep School

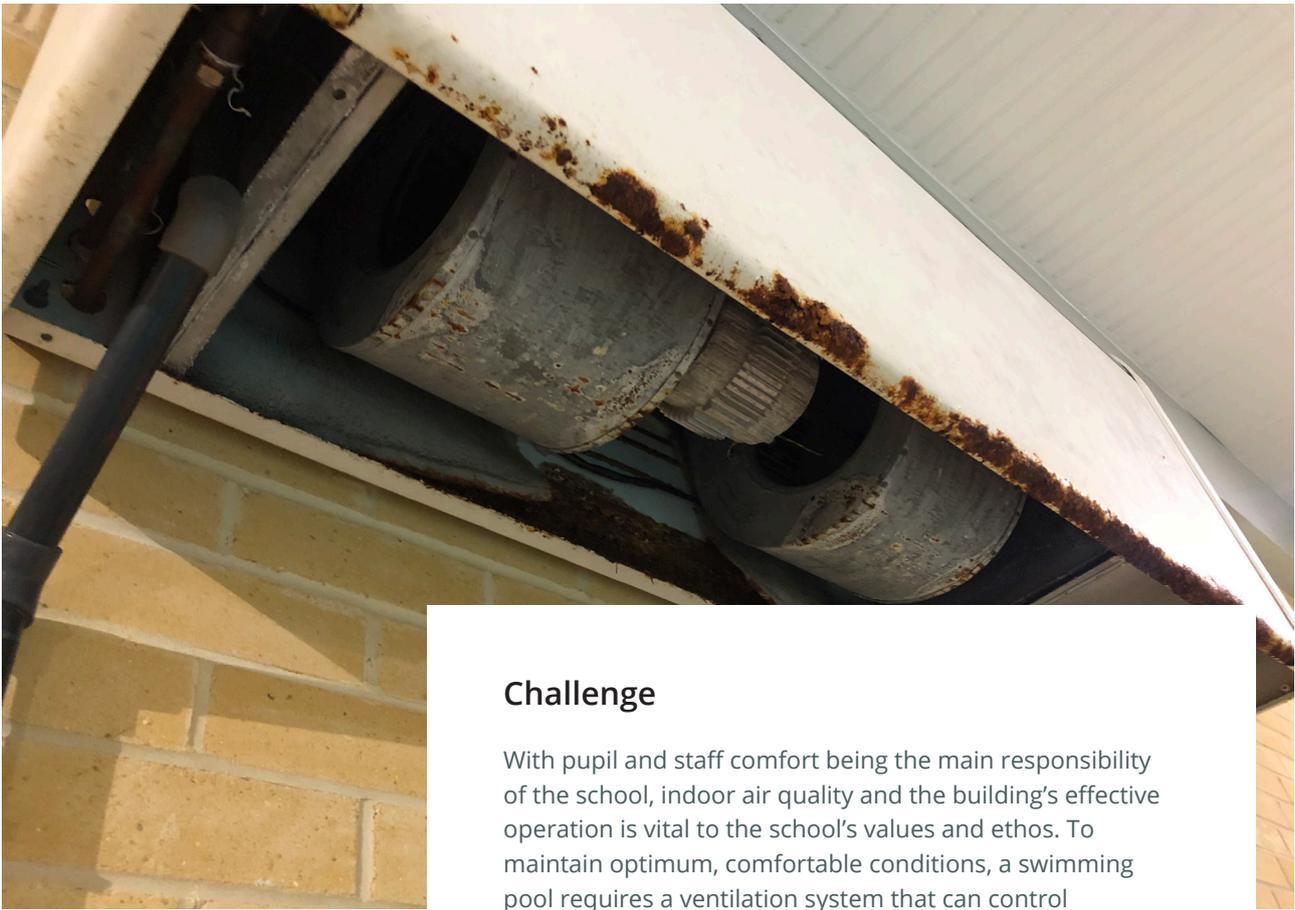
Case Study

Design, supply and installation of a VES MAX bespoke swimming pool air handling unit and air distribution system.

Working directly with Bournemouth Collegiate Prep School, VES were asked to undertake a full technical survey of their existing swimming pool ventilation solution which was proving to be very ineffective.

Bournemouth Collegiate Prep School was established in 1899 in Poole to provide non-denominational education for young ladies with a strong Christian ethos. It was originally called Bournemouth Collegiate School, but after its move to larger premises at Wentworth Lodge, it gradually came to operate as Wentworth School. In 2009 the school became co-educational, merging with Wentworth College to form the new Bournemouth Collegiate Prep School.

Client	Bournemouth Collegiate Prep School
Sector	Leisure
Challenge	Improve indoor air quality and building operation
Success	A complete HVAC solution designed and installed by VES



Challenge

With pupil and staff comfort being the main responsibility of the school, indoor air quality and the building's effective operation is vital to the school's values and ethos. To maintain optimum, comfortable conditions, a swimming pool requires a ventilation system that can control temperature and humidity.



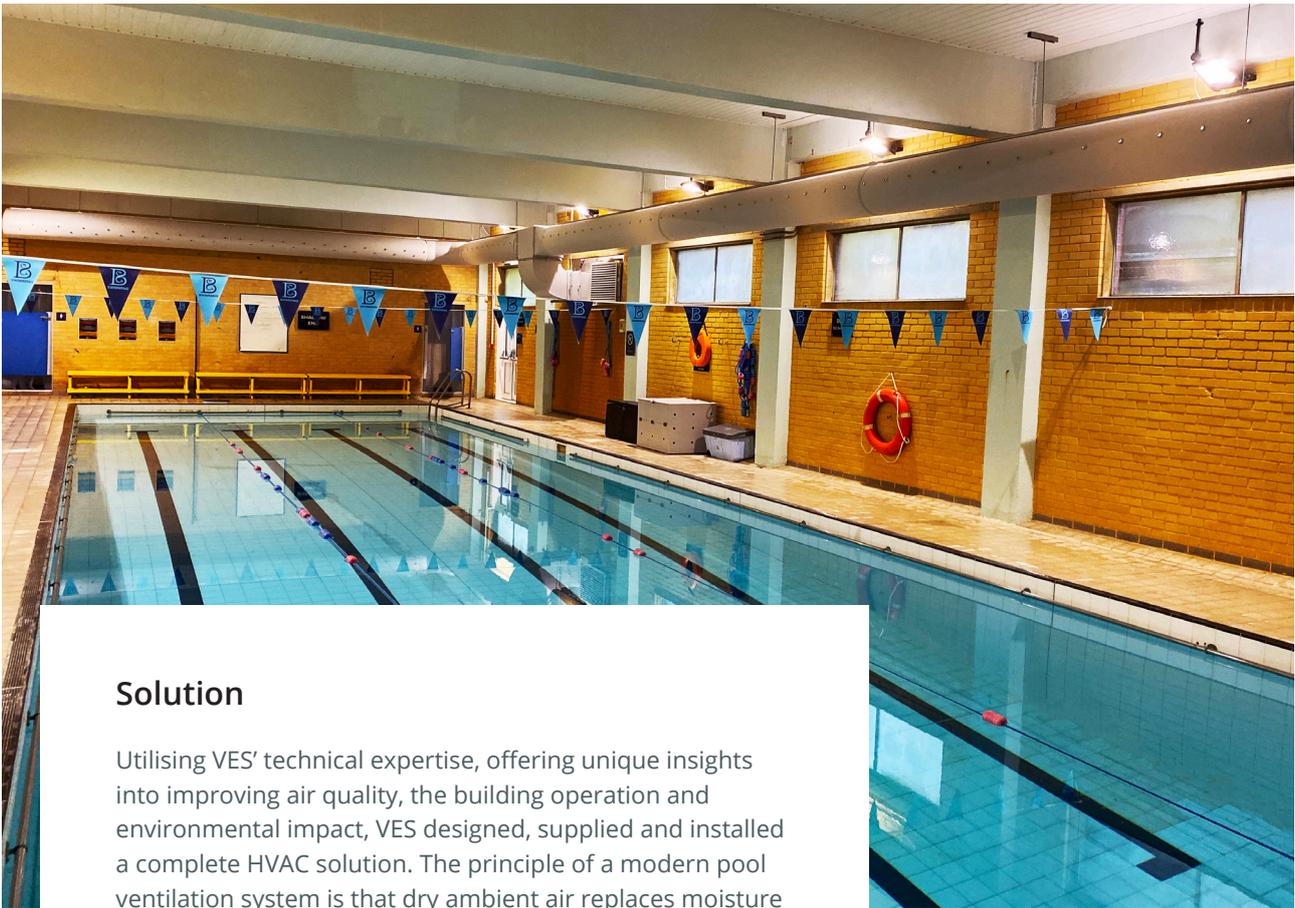
Restrictive access



Pool hall before fabric ducting

VES conducted a technical survey at Bournemouth Collegiate Prep School and it was evident there was no mechanical ventilation. The existing de-humidification units at either end of the pool hall were no longer operational. This was causing poor indoor air quality and damage to the building's fabric due to condensation.

The pool hall is situated at the back of the school with restricted access and a narrow walkway around the perimeter of the building. Due to the access restrictions to the new AHU location, the new unit would require flat packing and re-building on-site.



Solution

Utilising VES' technical expertise, offering unique insights into improving air quality, the building operation and environmental impact, VES designed, supplied and installed a complete HVAC solution. The principle of a modern pool ventilation system is that dry ambient air replaces moisture laden pool air. As the existing pool hall did not have any mechanical ventilation, there was a requirement for a new air distribution system to be installed to ensure fresh air can be supplied and the moisture laden pool air can be exhausted to atmosphere.

Due to the restrictive access to the new AHU location, the new MAX bespoke swimming pool AHU with integral controls was supplied in flat pack format and re-built on site.

One of the double pane windows along the external wall was removed to create an entry point for the new supply and extract ductwork into the pool hall without a requirement for intensive builder's work. The external supply ductwork was connected to air socks with directional nozzles within the pool hall to ventilate and heat the space effectively. The directional nozzles were positioned to ensure air was passed across the pool surface and the windows to minimise condensation.



New bespoke MAX AHU



New external ductwork



Air socks with directional nozzles



We had a requirement for an air handling unit at our prep school site swimming pool and VES came up with the most cost effective and economic design at a competitive price. This is the second time we have used VES' services and they have proved both competitive and professional each time.

Facilities Manager, [Bournemouth Collegiate Prep School](#)

Results

By installing a new bespoke MAX heat recovery air handling unit and air distribution system, indoor air quality within the space has drastically improved and eliminated the condensation issues.

Building performance has been enhanced by utilising our integral controls package, and a comfortable environment is now maintained for pupils and staff.