

BSkyB Believe in Better building

Passivent, working in partnership with Arup, designed, manufactured and supplied a natural ventilation system for the BSkyB building (now Sky Believe in Better Building), situated in West London.



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End client:
BSkyB

Architect:
Arup Associates

Main contractor:
Mace

Structural engineer:
Arup Associates

Technology used:
Passivent SoundScoop® acoustic air transfer ventilation units

The BSkyB Believe in Better building is a multi-use, four-storey building which houses offices and training facilities for Sky employees. It is also home to the Sky Academy, an educational facility which uses the power of television, creativity and sport to help young people unlock their potential and gain the skills, experience and self-belief they need to prepare them for a world of work.

A 3000m² building, the BSkyB Believe in Better Building is the UK's tallest commercial timber structure (at the time of writing this case study). The building and its architect Arup Associates have won numerous awards for innovative design and construction.

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**building
product design**

The challenge

A key objective of the design of the building was to optimise the health and wellbeing of its occupants and visitors. Air quality was particularly important, with the need to provide some natural ventilation, instead of 100% mechanical air flow.

This resulted in ventilation and acoustic challenges given the building's multi-purpose use and the internal layout of the building, which comprised a mix of training areas, many with partition walls to enhance flexibility, break out areas and a large atrium area. The ventilation solution needed to accommodate quiet areas for learning along with the noisier areas used by regular tours of visiting school children.



The solution

Working closely with architect Arup Associates and main contractor Mace, Passivent devised an innovative hybrid natural / mechanical ventilation strategy comprising a direct air handling unit and natural ventilation.

A key part of this ventilation strategy was the supply of 58 Passivent SoundScoop acoustic air transfer ventilation units.

Combining exceptional acoustic attenuation with very low airflow resistance, the SoundScoop units provide natural ventilation airflow through the building, allowing an air path to still be available for mechanical airflow when needed.

With an optimised acoustic design for the transfer of air between noisy and noise sensitive places, the SoundScoop units allow fresh air through the building walls into the corridors while minimising the transfer of noise into quiet areas.

Nick Beswick, sales director at Passivent said: "SoundScoop has been developed to attenuate the mid frequency band of between 500-2000Hz that speech and noise circulation fall into, which makes it the perfect choice for this application."

"Arup's acoustic experts and product designers worked with Passivent to ensure that SoundScoop achieves market leading acoustic attenuation and airflow. We get very excited about clever products like SoundScoop that can simultaneously improve occupant wellbeing and building efficiency," said Joseph Smith, product designer and engineer at Arup. He continued, "I'm delighted that an independent team from Arup Associates chose to specify SoundScoop on BSkyB – it's validation of the product's market leading performance."

Passivent offers natural and hybrid ventilation solutions for a broad range of sectors including education, commercial, leisure, care, healthcare and residential.

