



Case Study

Chilled Beam Longevity



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Exploring the adaptability of Frenger's Chilled Beam solutions for diverse applications

Chilled Beams: The key to a long-lasting HVAC system

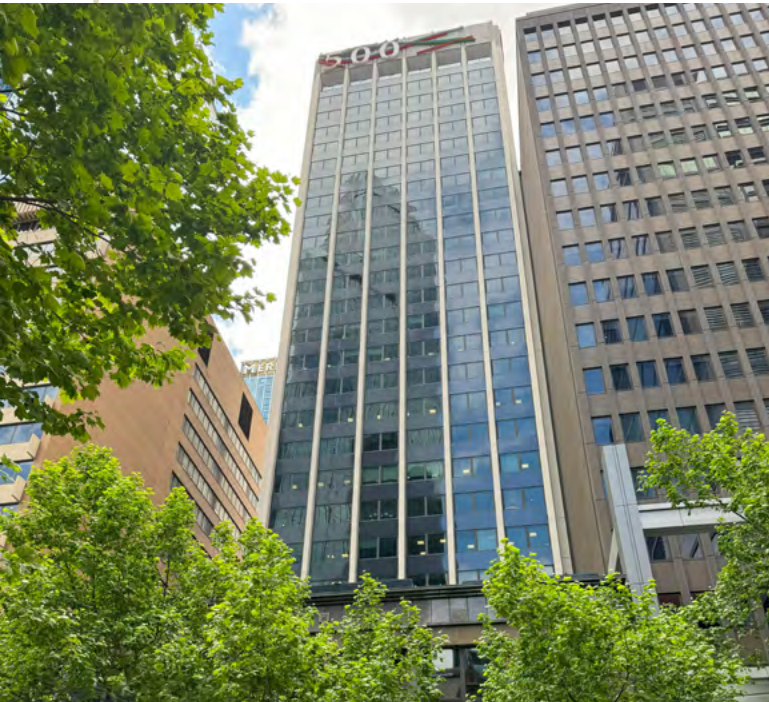
Over the decades, we have supplied our Chilled Beam solutions to prestigious office and commercial projects worldwide. Many of these projects continue to utilise their original Frenger Chilled Beams, a testament to their exceptional longevity and flexibility.

Showcasing their adaptability, many projects installed with our Chilled Beams have undergone refurbishments and redesigns while retaining the original systems, highlighting the success of our Chilled Beam technology in supporting future cellularisation.



King Cross, Building R7 with Multi-Service Chilled Beams

Previous Frenger Projects



500 Collins Street

Combining heritage and modern architecture, 500 Collins Street has a history of investing in sustainable technologies that not only benefit the environment but also benefit the wellbeing of building occupants.

The 48-year-old tower became the first existing building in Australia to achieve "WELL Certification" at the Platinum level and was Australia's first fully refurbished, multi-tenanted office building to achieve a 5 Green Star Office Design rating.

Located in Melbourne's Central Business District (CBD), Frenger first supplied the multi-award-winning building in 2005, with both Ceiling Integrated Chilled Beams (CICB) and Multi-Service Chilled Beams (MSCB), which are all still in operation 20 years on since their installation.

Chilled Beam technology provided all tenants with access to outside air ventilation rates at a level 50% greater than the minimum required by Australia standards.





500 Collins Street original installation - 2005



500 Collins Street photo - 2024

55 Baker Street

The iconic 55 Baker Street was completely refurbished and redeveloped in 2007, proving modern design principles can be applied well to existing buildings.

The myth that chilled beams cannot be flexible was disproved on the 55 Baker Street project, as demonstrated by the pre-planned MSCB joining infill locations, which allowed for the future cellularization of the office space on 3 metre and 1.5 metre grid arrangement.



Frenger's order value was £7.6 million with 4,500 units in excess of 11km being installed inside of 55 Baker Street making it the world's largest Active Multi-Service Chilled Beam project. Frenger were selected by Blyth & Blyth for the £160 million refurbishment of London & Regionals '55 Baker Street'.

Our MSCBs are still used in the 55 Baker Street offices to this day, continuing to provide high levels of thermal comfort to building occupants, with areas of the building recently been upgraded from T5 lamps to LED lighting by Frenger, utilising our LED replacement service which is available for all our previously supplied MSCB's to help increase the life span of the products.



55 Baker Street original installation - 2007



Recent 55 Baker Street



Transport House

In 2008, Frenger supplied Australia's first Multi-Service Chilled Beam project to Transport House, located in Sydney's central business district (CBD).

Over 240 MSCBs were shipped over to Sydney providing the highest quality thermal comfort to building occupants in the important heritage listed building.

Frenger's Multi-Service Chilled Beams continue to be used in Transport House to this day, showcasing the flexibility of Chilled Beam design and its ability to blend into continuously changing architectural aesthetics.





Transport House original installation - 2008



Transport House photo - 2024

65 Southwark Street

The extensive refurbishment of the Harlequin Building, 65 Southwark Street, back in 2012, was supplied by Frenger with our 'Slim Line' Active Multi-Service Chilled Beams (MSCBs) with seamless T5 lamps integrated within the extruded polycarbonate side pods.

In February 2024 the production of T5 lamps was enforced in the UK, aiming to move towards a more sustainable and efficient lighting solution, LED lighting emerged as the superior solution against the no longer required fluorescent lamps.

As a result of these new regulations, in 2023, Frenger upgraded the luminaires in the MSCBs that they had previously supplied to 65 Southwark Street from T5 Lamp Lighting to more energy-efficient and longer-lasting LED lighting.





65 Southwark Street original installation - 2012



65 Southwark Street image - 2024

Recent High-Profile Projects

Aston Martin F1 Headquarters

Frenger are proud to have supplied the new £200 million pound Aston Martin Formula One (AMF1) team factory with our Compact Active Multi-Service Chilled Beams (MSCBs) with integrated LED lighting.

Frenger played a crucial role in the design process, which included hosting key partners at their UK Technical Facility and assuming a pivotal role in the lighting design to reduce uplighting.



Aston Martin F1 HQ image



20 Finsbury Circus

Frenger supplied the multi-million pound office refurbishment with our Active Multi-Service Chilled Beam units complete with continuous LED lighting and our Chilled Ceilings.

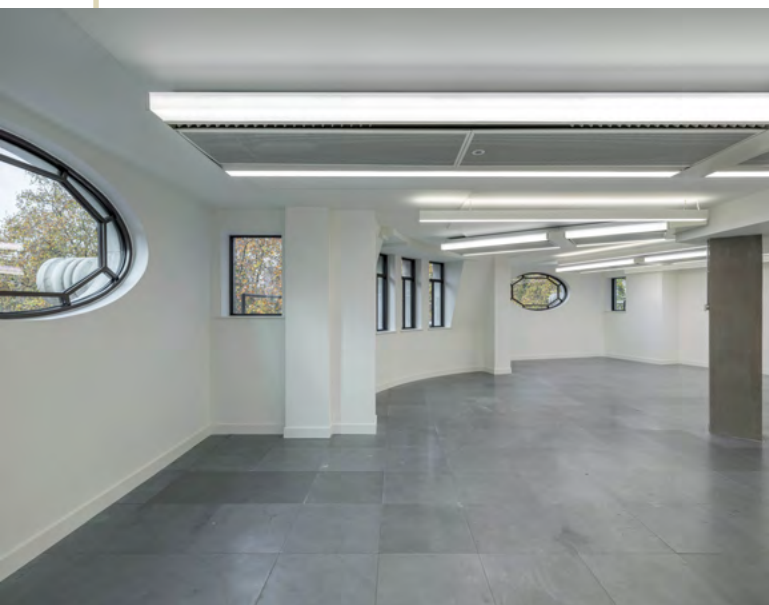
A key aspiration behind the refurbishment was to increase sustainability and reduce the environmental impact of the building, with the building going on to achieve a BREEAM 'Excellent' rating.



Frenger's Compact Active MSCB



Frenger's Chilled Ceiling Tile





Dogger Bank Windfarm O&M Base

Frenger supplied the multi-million pound Dogger Bank Windfarm Operations & Maintenance (O&M) base with our Slimline Compact Active Multi-Service Chilled Beam units, X-Wing 'Radiant' Passive Chilled Beams, and our Electric Radiant Heating Panels.

The recently opened base contains the infrastructure required to operate the windfarm including office, training, and welfare spaces for around 200 people and support the 277 offshore wind turbines.



Dogger Bank Windfarm image

Chilled Beam Flexibility



262 High Holborn Active Multi-Service Chilled Beams

Future Cellularisation

Chilled Beams provide a long-life, minimal maintenance HVAC solution, which can be used for a range of industry applications. Due to the products containing no moving parts, product life expectancy can be well in excess of 25 years, continuing to provide high levels of thermal performance associated with all Frenger's HVAC products.

Both Frenger's range of Active and 'Radiant' Passive Chilled Beams can be designed to accommodate flexible workspace for future cellularization / partitioning. Our Chilled Beam units can be manufactured, sized and orientated to a pre-agreed planning grid, typically 3m x 3m or can be as little as 1.5m x 1.5m, although the smaller the planning grid for greater flexibility, the greater the cost. 3m x 3m is a typical and usually a most cost-effective planning grid for cellularization..

--- = Potential Partition Locations

