

CASE STUDY

RESTORING HISTORY WITH FUTURE TECHNOLOGY

Located in Neutral Bay on the north shore of Sydney Harbour, HMAS Platypus is a totem of Australia's naval history. Originally commissioned in 1967 as a sheltered anchorage for six Oberon Class submarines, Platypus was decommissioned in 1999 when those subs had also completed their service. The site was refurbished in 2019 into a waterfront precinct open to the public.

The aim of the refurb was to maintain the history of the site, while making the buildings more contemporary for the modern public. The design brief from the client, spoke specifically a bout keeping a free flowing e lement b etween t he internal and external environment. The team at HMS Platypus wanted to ensure the design had **minimal** environmental impact and was incredibly energy efficient.

Big Ass Fans supplied a number of large (Essence) fans to increase ventilation and maximise occupant comfort in the updated buildings. Air

conditioning is an effective cooling solution, but very energy intensive, and in a project like this where the buildings are designed to be open and let wind through - this was not an option. The Essence fans that were installed ranged from 2.4-4.3 metres diameter and provide the same air movement as 64 standard ceiling fans, at just a fraction of the wattage. High torque direct drive motors deliver the requisite power to keep the blades moving, while keeping operation almost silent.



We worked closely with the architects and designers to really understand what the requirements were. We looked at things like window placement, building shape and position, because they all play a role when designing for thermal comfort. To ensure our solutions would work, we used software models to look at how the fans affected ventilation and the overall cooling effect within the building.

In a time where the global temperature is rising and people - particularly in large public or commercial

spaces - rely more and more on air conditioning to maintain thermal comfort, fans are a great solution. Industrial size fans can move significant air volumes quickly, silently, and more importantly, without using a significant amount of energy. They added both functional and aesthetic value to HMAS Platypus, as they will do for any space

