



Electroheat Pro Case study

Casuarina Rec Club

State-of-the-art heat pump the solution for NSW recreation centre pools



The Casuarina Rec Club in the far northern NSW town of Casuarina Beach is a state-of-the-art recreation and training facility consisting of a recreation centre, gym, tennis court and two heated swimming pools.

The pools are an integral part of the club; there is an outdoor 300,000 litre, 25-metre training pool and an indoor 100,000 litre learn-to-swim pool. In 2013 the club's old heat pump rusted and failed. Waterco was consulted to provide assistance to identify and install a suitable pool heating system.

The pools are used throughout the year from early in the morning to late at night, so the heating system had to be able to support this requirement.

The overriding priority for the two pools was constant temperature control. The indoor pool had to be maintained at 28 degrees, suitable for the learn-to-swim clientele, while the outdoor pool needed to maintain a constant 26 degrees, suitable for squad and 'serious' swim training.

The Waterco Electroheat PRO 96 heat pump was deemed the perfect solution; it has a 96 kW heat output, which was ample to provide the desired pool temperatures. Two systems were installed – one for each pool.

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Zane Solar and Pool Heating Manager.



During the colder months, the heat pumps operate 10 – 12 hours a day, but in summer they are not required as much due to warmer air temperatures. The Electroheat PRO 96 can be easily adjusted to the desired water temperatures and thus saves in heating costs as it heats on demand, not just at an ongoing temperature.

The Electroheat PRO 96 has been designed to heat commercial pools with a maximum flow rate of 680 litres/minute and COP of 6.2. It operates with ozone friendly R410A refrigerant, which has dual benefits – it is kinder to the environment and improves the heat pump's performance.

In addition, the heat pump's dual high performance hermetic scroll compressors run at increased efficiency, with less noise and vibration compared with products using other refrigerant types.

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At the technological forefront

The Electroheat PRO 96 features electronically controlled temperature management, continuous digital temperature display, fault diagnostic system and inbuilt protection devices like auto defrost control, flow switch, refrigerant pressure monitoring and compressor protection timer. Additionally, its powder coat steel cabinet is designed for easy access to major components for scheduled maintenance.

Upon installation of the system, the staff of Casuarina Rec Club were taught how it worked and how to operate the digital touchpad panel, which provides a simple, easy to use, visual way to check the temperature.

“With the new heating system installed, the club can expect to have no issues with pool water temperature control,” says Shelley. “They can keep the pool open whenever needed with no limitations of opening hours, as the heat pump will automatically control the pool water temperature.

“This positively affects the club's bottom line, as there is no impediment to opening hours, allowing them to maximise their return on investment.”

Prior to the winter season when the system is constantly used, the pool maintenance supervisor needs to check the gas in the compressors and the evaporators are clear of debris for superior air-flow.

