

THERMANN CASE STUDY – Crowne Plaza Terrigal Pacific



PRODUCT
9 x 50L &
6 x 32L Thermann
Commercial Flow
manifolded systems

LOCATION
Internal

GAS TYPE
Natural Gas

OPTIONS
System controller, Remote controller



DETAILS

► STATE

New South Wales

► LOCATION

Terrigal

► BUSINESS

Hotel

Crowne Plaza Terrigal Pacific is a beachfront hotel and consists of 199 rooms, two restaurants, bars, a gym and a pool.

The hotel was serviced by a total of 14 x Rheem HD 275 gas storage water heaters located in various plant rooms. The main system comprised 6 of these units, and was on its last legs. The hotel was looking for a solution that would reduce their running costs and emissions, with better reliability, redundancy and BMS integration.

The solution was to replace each plant with a modern tankless gas condensing hot water system.

The first system to be upgraded was the main plant comprised of 5 x Thermann Commercial 50L internal condensing continuous flow water heaters. They were manifolded on a frame with integrated dual UPS 32-100 building ring main pumps.

Advantages of the upgrade

The new water heaters provided lower running costs and emissions due to condensing technology that recycles waste heat with a second heat exchanger for higher thermal efficiency. The old storage system was rated at 78% efficiency, whilst the new Thermann 50L is rated at 95%. Removing the need for stored water also resulted in even less system heat losses.

Improved redundancy was very important due to the fact that hot water is critical to keep the hotel running and to ensure their customers are happy. The smart tankless design is set up so all water heaters & pumps are electronically connected and designed to automatically switch to the next working water heater or pump in case of a fault. With the old system, if a tank

was to fail it would need to be manually isolated.

The modular design was an important consideration as the plant room was only accessible by stairs. The new system was partially assembled on site. The biggest component was 1.5m X 1.5m and only 55kg. Assembly of the system was quick and easy. Once the frame was assembled, the water heaters were hung and flexible connections connected.

Improved flueing

The new system has a coaxial flue that draws air for combustion through the flue from outside. The old system drew air from within the room. This was potentially problematic had the flueing leaked or if the ventilation was blocked.

BMS connectivity

All tankless systems have the ability to output basic run fail signals. If a 'fail signal' is observed on the BMS, the system can be checked and an error code will show on the controller. These systems can also be connected to IoT, that will text and email any errors when they occur and provide monitoring for plug in time, burn time, hourly usage, daily usage patterns & more.

The new plant has been running perfectly during the hotels busiest days including hosting a World Cup soccer team and a very busy Christmas period. It's proven to be a vast improvement over the previous system.

The new system was deemed so successful, that 4 other plant rooms have since been upgraded with a combination of Thermann Commercial continuous flow manifolds.