

PROJECT SHOWCASE

WESTMEAD HOSPITAL, ORAL HEALTH BUILDING DENTAL SUCTION UPGRADES



Value

\$1.5 million

Client

Nepean Blue Mountains
Local Health District

Services provided:

- Highly complex engineering design
- Asbestos environment
- Services replacement
- Liaising with German producer during install
- Largest oral health facility in Australia
- 250+ dental chairs

Description

The Westmead Hospital dental suction plant was at the end of its 40-year service, requiring extensive upgrades. The system was constantly running at maximum capacity, providing extremely poor performance at a very low efficiency. Time restrictions became a key factor in this project as the old plant had been found to be deteriorating rapidly.

The first step was to refurbish the plant rooms to be able to house the new equipment. German company Duerr Dental was engaged to supply the new suction system via importation. The new plant is designed around a “ramp up and ramp down” system to accommodate the demand pulled by the amount of users of the suction, in turn saving a huge cost due to wear and tear and power usage. These factors, along with the incorporated Duerr network, allows users to easily monitor maintenance requirements, enabling easy serviceability as well as increased future capacity.

Engaging software consultants enabled the complex operation of upgrading the alarm system to be accomplished. The difficulty of this task was due to the intricacy involved in integrating the hospital's current, outdated BMS alarm system with the new German software.

The old tanks were unable to be removed due to size, weight and a high mercury content caused by amalgam present from fillings. To cut the tanks for removal, heat application was required which, if applied to the mercury, would create a hazardous gas, hence the tanks remaining in place with an enclosure constructed for housing.

All works were carried out in the hospital service tunnels which had to be completed under asbestos control measures due to the tunnels at the time being contaminated.

The specification was produced by Steenson Varming consultant, Ben Savage, and all requirements were met for commissioning and sign off as per the deadlines set by the Western Sydney Local Health District Oral Health Director.