

Schwank Case Study



Liebherr Erskine Park, NSW AUSTRALIA

The Facility

Liebherr is an international leader in the manufacturing of construction machinery specialising in cranes, aircraft parts, and mining with over 38,000 employees in over 130 countries, Liebherr has been long-standing for over 32 years.

The Erskine Park, NSW facility was newly built in 2012 with a number of workshops designed for the repairs and maintenance of crane machinery. With over 80 staff in this facility, ensuring comfortable working conditions throughout the year was of utmost importance.

The size of the space heated with high efficiency Schwank Gas Radiant Overhead Tube Heaters was approximately 2600m² with a mounting height between 9.5m-12m and 4 zones. Air changes were estimated around 1.5 per hour and the estimated heat loss of the facility was approximately 580 kW.

The Issue

The team at Liebherr, Erskine Park wanted a solution that not only satisfied staff comfort levels, but would also conserve energy and reduce long-term running costs. Liebherr-Australia commissioned Thiess, a leading construction and services contractor in Australia for the construction and redevelopment of the Erskine Park facility. Additionally, the exclusive distributor of Schwank heaters in Australia, Devex Systems, worked directly with Liebherr and Thiess to co-ordinate, design and oversee the installation of this project.

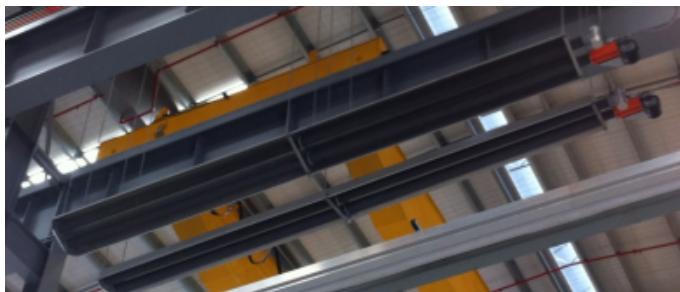
For several years now, Liebherr has standardised facility heating using only Schwank heating on an international scale – a true testament to the superior quality of this product. Schwank Gas Radiant Overhead Tube Heaters were therefore specified as the obvious choice for heating the Erskine Park location.

Implementation

Twelve calorSchwank tube heaters (5 x 40U & 7 x 30U) were specified in the design for this application after taking into consideration the large enclosed area of the space that required heating and its ceiling height. The designed comfort setting for the area being heated was 16°C as measured by a black bulb.

The calorSchwank ensured low running costs and a fast pay back as the heaters were required to run for long periods of time. The radiant heat factor of the calorSchwank was extremely high sitting at 70% and its modulation capabilities allowed for better overall control of the system and higher efficiency. The design of these heaters helped to minimise the amount of convection heat thereby achieving a high radiant factor and improving the efficiency.

calorSchwank Gas Radiant Overhead Tube Heater



A single Schwank ThermoControl Plus M4 controller applied to 4 heating zones at the Erskine Park facility was used to control the heating system. It was also set up to control the Ridge Ventilator, enabling appropriate ventilation and the proper disposal of combustion gases when the burners were running.

ThermoControl Plus M4 Controller



Results

Schwank Gas Radiant Overhead Tube Heaters are a high efficiency heating solution that yielded excellent results across financial, operational and environmental fronts. These systems allowed for optimum temperature control throughout all zones which resulted in improved comfort for all staff. These German-made tube heaters have a fast pay-back and have proven their exceptional efficiency reducing energy consumption by up to 50% when compared to traditional heating systems used to warm large spaces.



Devex Systems specialises in heating, cooling and insulation solutions for new and existing buildings in residential, commercial and industrial environments.

For more information on any of our product lines, please contact us at:
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