



WAREHOUSE LOADING BAY

This case study highlights an installation by Shadow Industrial in a small loading bay, where precise heating control was essential for maintaining optimal conditions. Given the limited space, it was crucial to select the right heaters to ensure heat was maximised, providing consistent warmth throughout. The focus was on choosing both the most suitable heating units and controls to optimise energy efficiency, comfort, and flexibility. By tailoring the system to the space's operations, we delivered a solution that effectively managed heating while meeting the specific demands of the environment and the workers occupying the space.



The Challenges

A key challenge in this installation was the large bay doors, which allowed heat to escape when opened, disrupting the effort to maintain consistent temperatures inside the loading bay with traditional heating systems. As a result, a solution was required that didn't rely on heating the air, as this would be effectively wasted whenever the doors were opened. This led to the implementation of Shadow Industrials Short wave infrared heaters.

Additionally, the configuration of the roller doors prevented ceiling-mounted heaters from being installed, limiting the options for heater placement. To overcome this, we had to carefully consider alternative installation methods, ensuring the heaters were positioned to effectively distribute warmth without compromising the flow of operations.

Worker comfort was also a key consideration, as the loading bay housed desks where workers frequently packaged and picked products. Keeping the workers warm was essential to ensure productivity and well-being.

By selecting the right type of heaters and strategically placing them, we were able to optimise heat retention in the space, ensuring both operational efficiency and a comfortable working environment despite these challenges.

Implementation

The heaters were wall-mounted to ensure effective heat distribution while maintaining the functionality of the bay doors. The Shadow 3kW Industrial unit was positioned to provide heat coverage to the benches where workers were picking and packing products, providing targeted warmth to enhance comfort in these high-traffic areas. The Shadow 6kW units were placed higher up, ensuring it effectively heated the main loading area of the bay.

To avoid interference with vehicles backing in and out, the heaters were carefully positioned to ensure they didn't obstruct the flow of operations. This thoughtful arrangement allowed for optimal warmth throughout the space without compromising the use of the doors or the movement of vehicles.

The customers opted for a hands-on approach to controlling the heating, choosing commando sockets to allow them to alternate which heaters were on at any given time. This decision was also influenced by a more limited budget, as it provided full flexibility at an affordable price. By using this system, they could manage energy consumption and maintain the desired temperature without exceeding their budget.

The Outcome

In conclusion, the installation of the wall-mounted heaters, strategically positioned to target key areas, provided an effective solution to the challenges posed by the large bay doors and the layout of the space. The customers' decision to use commando sockets for flexible control, while working within a more modest budget, allowed them to optimise energy use and ensure comfort. The result was a more comfortable working environment for the staff, particularly when the weather turned cooler, leading to improved productivity and a better overall experience within the loading bay.

In terms of energy savings, the site recorded that they saw a huge improvement in energy consumption. By having the heaters on throughout most working hours (9am - 5pm), they were able to report a much higher energy saving than with their previous system.

THE SYSTEM

To meet the specific requirements of the space, we implemented a tailored heating solution. The key components of the installation included:

Shadow 6kW Infinity Heater (x1):

The Shadow 6kW Infinity Heater was installed higher up the wall to effectively heat the main loading area. Its compact design and powerful output provided consistent warmth across the space, ensuring comfort even in cooler weather, while short-wave infrared technology focused heat on surfaces, reducing energy loss.

Shadow Vertical 6kW Industrial Infrared Heater (x1):

The Shadow Vertical 6kW Industrial Infrared Heater was positioned closest to the doors, providing targeted heat for the area used during vehicle loading and unloading. Its vertical design ensured efficient heat distribution without obstructing the movement of vehicles.

Shadow 3kW Industrial Infrared Heater (x1):

The Shadow 3kW Industrial Infrared Heater was placed near the benches to provide direct heat to workers in the packing and picking areas. Its compact size and targeted output ensured a comfortable environment without wasting energy, helping to improve productivity during cooler weather.



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