SHADOW
Industrial Infrared

CASE STUDY

GOODS WAREHOUSE

A small goods warehouse required a heating solution that could maintain a comfortable working environment without excessive energy costs. With efficiency and reliability as key priorities, they turned to Shadow Industrial for a system that would deliver warmth while keeping energy consumption under control.

This case study explores how Shadow Industrial designed a tailored infrared heating solution, enhancing both comfort and efficiency in a demanding industrial setting.

"The heating system has made a huge difference – faster heating, lower energy costs, and a much more comfortable working environment for the team."

-Martin, Warehouse Manager

The Challenges

To create an effective heating system for the warehouse, several key factors had to be considered:

- **Temperature Stability –** Frequent opening of large doors let in cold air, disrupting the internal climate. The heating system needed to counteract this and maintain a comfortable working temperature.
- **Energy Efficiency –** Heating the entire warehouse at all times would be wasteful. A solution was needed that provided warmth where required without excessive energy consumption.
- **Flexibility & Control –** Different areas of the warehouse had varying levels of activity. The heating system had to be adaptable, allowing targeted warmth in busy zones while minimising energy use in less frequently occupied spaces.

Shadow Industrial's infrared heaters met all these requirements. Their ability to heat people and objects directly rather than just warming the air - ensured consistent comfort, even in areas affected by cold draughts. Plus, with a zoned control system, heating could be adjusted easily for maximum efficiency and convenience

Contact Us:
info@shadowindustrial.co.uk

Implementation

The warehouse featured three aisles of racking used for product storage. While the entire space required heating, the business needed a solution that offered flexibility - allowing them to heat specific aisles as needed, rather than running a full-system operation at all times. Since not all aisles were occupied continuously, a controllable heating system was essential to optimise energy use and reduce costs.

By opting for a three-zone controller, they gained the ability to heat each aisle independently, ensuring warmth was provided only where and when it was needed. This approach not only improved working conditions but also enhanced energy efficiency, helping to reduce unnecessary energy consumption and lower operating costs.

Additionally, because infrared heating warms people and objects directly rather than heating the air, the system was highly effective in combating heat loss from frequently opened doors. Unlike traditional convection heating, which struggles with fluctuating temperatures, the infrared solution ensured that workers remained warm even in a dynamic warehouse environment.

The Outcome

Since installing Shadow Industrial's infrared heating system, feedback has been overwhelmingly positive. The system delivers warmth across the warehouse, even during the coldest months, and workers have noticed a significant improvement in comfort - particularly near frequently opened doors, where cold draughts had previously been an issue.

The ability to target heating in high-use areas has been especially valued, ensuring warmth where it's needed without wasting energy in less occupied sections. This efficiency has not only reduced energy consumption but also created a more comfortable and productive work environment.

Additionally, the three-zone control system has been praised for its ease of use and convenience, allowing staff to adjust heating as needed without hassle. Overall, the new system has transformed the warehouse into a warmer, more efficient space, enhancing working conditions throughout the year.

THE SYSTEM

To meet the specific heating needs of the facility, Shadow Industrial supplied a tailored infrared heating solution with the following components:

Shadow Infinity 12kW Industrial Infrared Heater (x1):
The 12kW unit provided efficient heat across expansive spaces, ensuring comfort throughout, even in high-ceilinged sections.

Shadow Infinity 18kW Industrial Infrared Heater (x1):
Placed in the largest aisle of the facility, the 18kW heater delivered powerful heat output, efficiently covering vast spaces , ideal for zones with high heat loss.

Shadow Infinity 6kW Industrial Infrared Heater (x1):
For the smaller aisle of the facility with the least foot traffic, a 6kW heater was installed. This unit was chosen for its ability to provide energy-efficient warmth that didn't require high output, ensuring comfort without wasting energy.

6kW Remote Control Variable Heater Controllers (receivers) (x6): This enabled the heaters to be controlled by the Master Controller

3 Zone Master Controller (x1):
The 3 Zone Master Controller was used to regulate the heaters independently across the different zones of the facility. This allowed precise control, ensuring that the larger areas were heated efficiently while maintaining a lower temperature in the smaller, less frequented zones.

SHADOW
Industrial Infrared

Unit 9 Stort Valley Industrial Estate
Bishop's Stortford
Hertfordshire
CM23 2TU

CONTACT US

E: info@shadowindustrial.co.uk
W: www.shadowindustrial.co.uk
T: 01279 466500