

allen·martin

case study



HAYES TUBES

SIMPLE INSTALLATION, SOPHISTICATED CONTROL

Hayes Tubes is located at Stourbridge in the West Midlands and manufactures welded steel tube and conduit. Over the years, the company has taken a number of significant steps towards improving its energy efficiency, for example by installing power factor correction equipment. However, it was not until it discovered that its heating system was being used unnecessarily in the middle of summer that the firm realised the savings which could be made by bringing space heating under greater control.

Hayes Tubes' main factory was heated by five floor-mounted, gas-fired warm air heaters, fitted with thermostats, each incorporating a time clock. Although the clocks were pre-set, it was a simple matter to modify the settings or override them completely. As a result, the heaters were often running when not required. To rectify the situation, the firm installed a Building Energy Management System with a central processor unit and outstations for each of the heaters. The system was programmed for optimum start/stop, set point temperature control, frost protection during unoccupied periods, zoned time switching and weekly occupancy levels. To allow for variations in programmed occupancy levels, override timers were incorporated. These allowed extended use of the factory heaters, but only for an hour at a time, not throughout the whole summer!

The total cost of the project, including installation, was around £6,500. In its first year, it cut energy consumption for space heating by more than 40% and produced cost savings of over £5,300. Payback on investment in the new control system was achieved in less than 15 months.