

DESTRATIFICATION & AIRFLOW CIRCULATION

Nuneaton

Nuneaton Signs

KEY POINTS

- £600 saving in 1st month
- 23% reduction in gas consumption
- Optimised both heating & cooling
- Immediate improvement in comfort
- Supported Net Zero commitment
- 50% energy efficiency funded
- Heat loss reduced significantly
- Minimal disruption with out-of-hours installation



CLIENT

Established in 1982, Nuneaton Signs Ltd is an awardwinning UK sign manufacturer and a social enterprise, providing employment and training opportunities for people with disabilities. Committed to sustainability and efficiency, the company manufacture road, commercial and bespoke signage for a wide range of clients.

CHALLENGE _____

As part of its Net Zero commitment, Nuneaton Signs commissioned an independent energy audit to identify opportunities for reducing energy waste and improving efficiency. This revealed a significant temperature imbalance between the floor and ceiling across its 1,500m² facility, which featured a sloped ceiling, measuring 5.75m at the walls, rising to 6.75m at the apex.

The ceiling accumulated a significant amount of heat from the HVAC system despite not being particularly high, leading to severe thermal stratification. This forced upstairs office areas to use air conditioning even during winter, in efforts to maintain comfort on the shop floor. This was a clear indication of energy wastage, increasing energy consumption and costs.



SOLUTION

Following a free site survey and energy/carbon reduction estimate, Airius installed 14 Model 25 Standard Series destratification fans across the two workshop areas, both fitted with independent speed controllers.

Installed over the walkways at 6 metres and the apex, the Airius fans continuously recirculate high-level warm air to the floor in colder months to balance temperatures throughout the facility, reducing heat loss, maximising heating efficiency and lowering energy costs.

This significantly reduced heating output and improved comfort, while reducing air conditioning demand in upstairs offices. In warmer months, the improved airflow circulation enhances cooling, reducing the need for energy-intensive air conditioning.

TESTIMONIAL

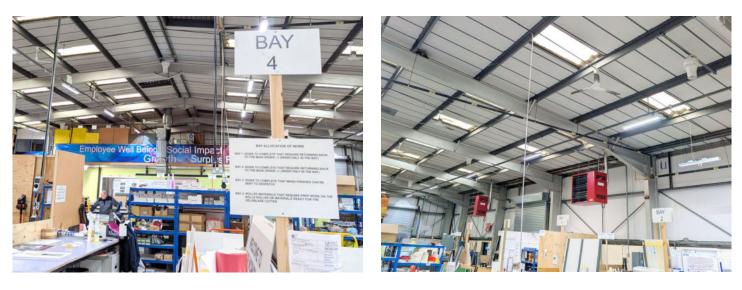
"Since installing the Airius fans, we've seen an immediate impact on both our energy efficiency and the working environment for our employees. The system has helped US while reduce costs maintaining a more comfortable temperature throughout the year."

Lee Hatton QSHE LEAD

With 50% funding secured through the Warwickshire Business

Energy Advice Services (WBEAS) Business Support Programme, the project was even more cost-effective. Installation took place outside normal working hours, ensuring no disruption to production.

Delivering immediate energy reductions, the Airius system cut gas consumption by 23% in the first month, saving nearly £600, while also improving employee comfort at all levels of the facility and significantly reducing carbon emissions.









TESTIMONIAL

"As part of our **Net Zero commitment**, we were looking at ways to **improve our energy efficiency** within our sign making facility.

After carrying out an energy audit, destratification fans were identified as an option to help improve building efficiency as we noticed **a significant difference in the temperature between the working floor areas and the offices towards the roof** of the building. The indifference in temperatures within the facility meant that **upstairs office areas were using air-con in the winter months meaning we were wasting energy**.

Since the installation of the destratification fans we have noticed **a significant improvement which has meant a more comfortable working environment** for all employees on the shop floor and within the upstairs offices.

In the 1st month of reporting since installation **we reduced our** gas consumption by 23%, saving us nearly £600! Cost saving is really important to us as a Social Enterprise, as we at Nuneaton Signs reinvest 100% of our surplus back into our company ethos of providing meaningful employment and training for people with disabilities through the manufacture and sale of signs.

The project was even more viable as we managed to obtain 50% funding thorough the Warwickshire Business Energy Advice Services (WBEAS) Business support programme.

Nothing was too much trouble for the Airius team. From the 1st meeting with Paul and Izzie we knew this was the company we were going to use for our new destratification fans. They were knowledgeable and enthusiastic about their product giving them an advantage over other providers we had met.

We were provided with a detailed proposal outlining our financial and CO₂ improvements **enabling us to make a thoughtful decision to make sure this was the right choice for us.**

The install team were fantastic too, arriving on site and getting straight to work. They also worked with us so that the fans could be installed whilst providing minimal disruption to production, **providing an all-round professional service.**"

Lee Hatton - QSHE Lead







Airius are the world leaders in destratification fan solutions, saving an average of 35% in HVAC energy costs by recirculating heated air which has risen to the ceiling back to the floor, or by distributing cooled air more efficiently. This reduces energy consumption, costs and cuts the carbon footprint of any building, whilst also improving comfort and environmental control.

