



Case study

How cleaner air helped Stackright build a stronger business.



Customer:
Stackright Ltd



Sector:
Metalworking



Location:
Skelmersdale (UK)



Dust reduction:
Up to 76%

At a glance.

About Stackright Ltd

Stackright Ltd is a UK metal fabrication specialist manufacturing engineered portable cabins and modular buildings for a wide range of commercial sectors. Combining welding, cutting, fabrication, packing and logistics under one roof, the company continues to invest in its people, facilities and production standards to support long-term growth.

Challenges

As production increased, Stackright faced growing challenges from welding fumes, metal dust and plasterboard particles spreading throughout the facility. Before customer visits, production often had to pause while airborne contaminants and visible haze dispersed. Concerns around employee wellbeing, workplace conditions and ISO requirements continued to grow. The business wanted to reduce airborne contamination and create a cleaner, healthier working environment that inspired confidence among employees, customers and future recruits.

Every customer visit came at a cost.

Before existing customers or prospective clients visited the factory, production had to pause while the team cleaned parts of the facility and waited for the blue haze to disperse. As Stackright's production continued to grow, so did airborne welding fumes, metal dust, wood dust and plasterboard particles. The business wanted the quality of its working environment to reflect the quality of the products leaving the factory, but keeping pace with production made this increasingly challenging.

Management saw cleaner air as more than a health and safety objective. They wanted to create a workplace where customers felt confident visiting, employees enjoyed working in, and one that supported higher ISO standards, future growth and long-term staff retention.

Existing control methods required upgrading.

Like many fabrication businesses, Stackright already had several engineering controls in place to manage airborne contaminants at source. However, these

Benefits

Following the installation of Zehnder's air cleaning systems, average airborne particulate levels reduced by 76%, with peak concentrations falling by 85%. Staff immediately noticed the difference, and night-vision CCTV footage confirmed dramatically cleaner air with the lights off. Reduced dust, lower cleaning requirements and improved workplace conditions have strengthened customer confidence, supported workplace culture and operational efficiency, and helped create a healthier environment where employees feel valued and protected.



measures alone could not prevent welding fumes, metal dust, grinding dust, fabrication debris, paint overspray and other airborne particles from spreading throughout the wider facility. Welding, cutting, grinding, fabrication, painting, forklift movements and general production activity allowed fine particles to remain airborne and circulate well beyond the point of generation. These contaminants settled on machinery, fixed structures and horizontal surfaces, impacting employees across the facility, including those not directly involved in the processes that generated them.

Recognising that the current methods weren't solving the wider problem, Stackright approached Zehnder to better understand how airborne contamination was behaving throughout the facility. Rather than replacing the existing engineering controls, Zehnder recommended a complementary ambient air cleaning solution designed to continuously remove airborne contaminants that conventional control measures could not effectively capture. By filtering fine particles suspended throughout the workplace, the system reduced the spread of contaminants beyond the point of generation and helped create a cleaner, healthier working environment across the facility.

The proof was already on camera.

The most compelling evidence did not come from an air quality report. It came from Stackright's own CCTV system.

Using the site's night-vision CCTV cameras, the team compared footage recorded before and after the Zehnder ambient air cleaning system was installed. Before installation, airborne particles could be seen moving continuously through the production hall. At approximately 5 pm, when production stopped, the air cleaning system continued operating at around three to four air changes per hour. The cameras captured airborne particles gradually disappearing from the air. This provided a powerful visual demonstration of the system removing contaminants that had previously remained airborne during production and long into the night.

The visual evidence was later corroborated by air quality monitoring, which confirmed significant reductions in airborne particle concentrations across the facility.

Key outcomes

- Night-vision CCTV provided clear visual evidence of airborne particulate migration before installation.
- After production stopped, the Zehnder system continued operating and visibly removed suspended particles from the air.



“The biggest surprise wasn't just what we felt, it was what we saw. Watching our CCTV footage after the Zehnder units were installed, the airborne dust had virtually disappeared. It completely changed how we viewed our working environment.”

Simon Greenwood, SHEQ Manager





- Average airborne particulate concentrations reduced by 76% with peak airborne particulate concentrations reduced by almost 85%.
- Stackright was able to both see and measure the improvement in air quality throughout the production facility.

Cleaner air strengthened the business.

The improvements quickly extended far beyond air quality.

Key outcomes

- Better air quality, resulting in less production down-time and preparation ahead of customer visits.
- Greater confidence in showcasing the facility to customers at any time.
- A cleaner, healthier, and safer working environment, recognised and valued by employees across the business.
- Stronger support for ISO accreditation objectives and efforts to win new customers.
- Significantly less airborne contamination settling on fixed structures and horizontal surfaces across shared working areas.
- A workplace that better reflects the professionalism, quality and standards of the Stackright brand.
- Cleaner air also strengthened the company's culture.
- By visibly investing in employee wellbeing, Stackright demonstrated that protecting its people was just as important as achieving production targets. Staff recognised the difference, apprentices entered a cleaner working environment from day one, and the business reinforced its reputation as an employer

committed to a professional culture and long-term career development.

Cleaner air became a competitive advantage.

For Stackright, cleaner air delivered far more than lower levels of airborne dust and fumes. It reduced the need to pause production and prepare the factory ahead of customer visits, made audits easier, and created a cleaner, healthier, and more professional working environment for employees, apprentices, and visitors alike.

Investing in air quality also reinforced a clear commitment to employee wellbeing without compromising productivity. Staff noticed the difference in the working environment almost immediately, while existing customers and prospective clients experienced a facility that genuinely reflected the quality, professionalism, and engineering standards of the products being manufactured.

Cleaner air did more than improve the workplace. It enhanced operational efficiency, strengthened the company's professional image and supported future growth. It also gave Stackright greater confidence to welcome customers, auditors and prospective clients without disrupting production. The investment supported its people, reputation and long-term success, while strengthening its ability to win new business.