



SATISFIED CUSTOMERS AND AUDIT-READY CLEANLINESS LEVELS THROUGH AIR CLEANING



CUSTOMER

BOC
Brinsworth



LOCATION

Rotherham
(UK)



SECTOR

Industrial
gases



DUST
REDUCTION

Up to 80 %

AT A GLANCE

“Our employees are healthier and happier as a result of us using air cleaning devices. And we can show our customers and suppliers around our facilities with pride.”

Neil Broadbent, Site Production Manager,
GB & Ireland

CHALLENGES

BOC Brinsworth is one of the largest suppliers of industrial, medical and specialist gases in the UK and Ireland.

Air purification in the chemical industry is a particularly complex issue. The dust levels at BOC Brinsworth, for example, were extremely high and clearly taking their toll. Employees were absent due to illness and suffered from asthmatic symptoms, for example. Cleaning requirements amounted to about 15 to 20 hours per week. And as if that weren't enough, all of the filling processes had to be interrupted during cleaning processes, as safety is a top priority in the production of industrial gases. This had a negative impact on productivity. What's more, the facilities also failed to meet the minimum requirements in terms of eco-audits and customer visits.

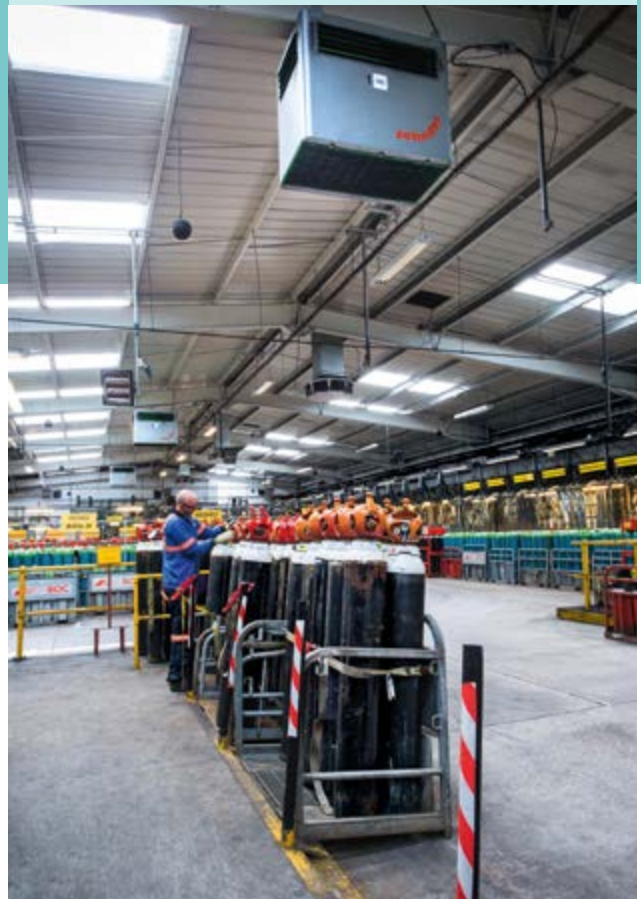
ABOUT BOC BRINSWORTH

BOC is the largest provider of industrial, medical and special gas products in the UK and Ireland. The company has been producing atmospheric gases, including Oxygen, Nitrogen and Argon for over 120 years. Its portfolio today includes thousands of different gases and mixtures, as well as related equipment and services.

Internationally BOC is a member of The Linde Group, a world leading gas and engineering company with almost 50,000 employees working across 100 countries worldwide.

BENEFITS

The introduction of air cleaning devices meant the dust load was significantly reduced, which led to significant improvements in the health of the employees. After commissioning the air cleaning systems from Zehnder Clean Air Solutions, work-related asthmatic symptoms also fell by over 80%. Use of the professional air cleaning devices also resulted in a reduction of up to 87% in the level of cleaning required – time that the employees can now use productively. Customer satisfaction is currently at an all-time high, as the glass bottles are delivered in first class condition. The audit by the Ministry of Defence was also thoroughly positive.





The BOC Brinsworth Material Packaging Group (MPG) site was experiencing intolerable levels of dust. This created an unhealthy and unpleasant working environment. **Workers were enduring ‘Black Nose’ syndrome and some were even suffering from asthma attacks struggled to breathe.**

Dust would accumulate on BOC’s gas cylinders and then spread through the warehouse each time a cylinder was moved or lifted. That wasn’t all though, the black forklift truck tyres generated more dust as they drove around the warehouse, chafing against the concrete floors.

It was a never-ending problem. Each time a gas cylinder was moved or a vehicle delivered or collected cylinders, more dust was created.

“There was a physical cloud of dust hanging in the warehouse. All it took was a short time spent inside the facility for black dust to settle in your nose. The air in the warehouse also had a noticeably unpleasant taste.” - Neil Broadbent, Site Production Manager, BOC UK & Ireland

In an attempt to combat the dirt and dust, staff cleaned the site at the end of each eight-hour shift – and yet the sweeping only polluted the air more.

Professional cleaners were called in and monthly deep cleans were carried out but nothing provided a long-term solution.

“Our attempts at cleaning the warehouse only circulated the dust and spread it even further throughout the facility. This was worrying – our facility was substandard for the purpose of environmental audit or customer visits and we also had concerns about our staff’s wellbeing.”

Create a better working environment

It was clear that the BOC Brinsworth employees were in urgent need of a better working environment. Management realised that they would lose staff if they didn’t improve the quality of air in the workplace.

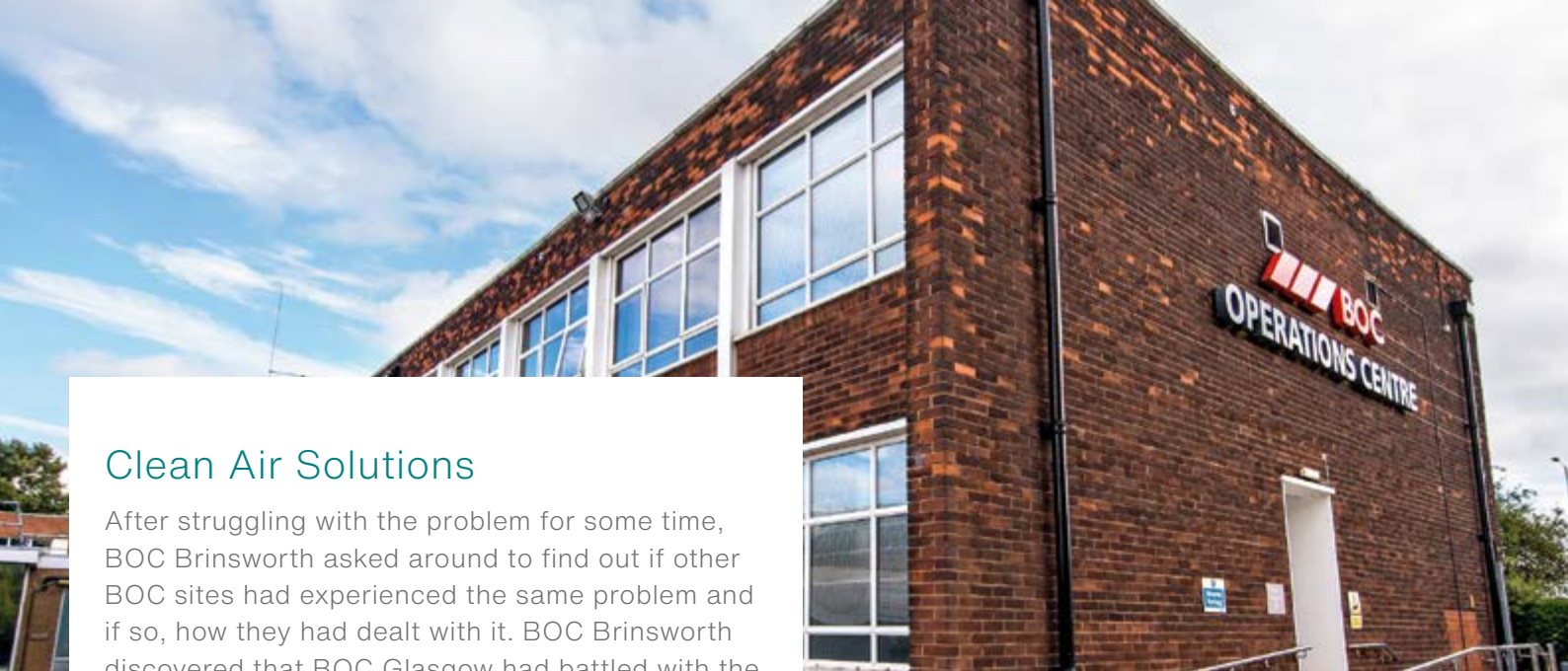
“At the end of a shift, staff would leave the facility **looking like they worked on the coalface.** They were covered in dust and we had to upgrade our shower and welfare facilities to meet the workers’ needs. We had some employees off on recurring sick leave or experiencing occupational health issues with asthma related complaints and the mood in the workplace was grim.”

Not only were workers experiencing adverse health issues from the high levels of dust in constant circulation, they had to spend valuable time cleaning the site each day. In fact, 30 to 40 operatives (over 3 shifts) – at the end of each eight-hour shift – had to down tools and start cleaning. This amounted to staff spending a staggering 15 to 20 hours cleaning each week.

BOC works with gas, so to ensure absolute safety at all times, all filling processes had to be shut down in order to carry out cleaning activities. This meant that the excessive time cleaning not only took up the employees’ valuable time, but also reduced productivity company-wide.

“Creating an efficient, clean and safe site was of paramount importance. We couldn’t carry on this way. Something drastic had to be done.”





Clean Air Solutions

After struggling with the problem for some time, BOC Brinsworth asked around to find out if other BOC sites had experienced the same problem and if so, how they had dealt with it. BOC Brinsworth discovered that BOC Glasgow had battled with the exact same issues – until it installed Zehnder's air purification systems in Q4 2013. The Brinsworth management team got in touch with Zehnder and the journey to clean air began.

Zehnder came to the Brinsworth facility and collected samples, measured the dust content in the air and conducted a series of lab tests. Zehnder then presented its findings, summarised the problem and suggested BOC Brinsworth install Zehnder Clean Air Solutions to reduce the dust in their facility by at least 50%.

Fully convinced by the information they received and impressed by the Zehnder team's knowledge and expertise, BOC Brinsworth installed Clean Air 6 units within its Medical Filling, Medical Storage, and Industrial Filling areas in 2014. **The difference in the air quality was almost immediate.**

Reaping results

Subsequent testing has revealed that dust levels at the BOC Brinsworth site have been reduced by 70 to 80%. The impact of this was significant. **Productivity improved greatly and cleaning time has been reduced from approximately 3 hours a day to just 1 to 2 hours twice a week.**

Employee health also improved. **Prior to installing the Zehnder units six workers suffered from asthma, now, five of these no longer have work-related asthmatic issues.**

Feedback from a recent Ministry of Defence audit was also excellent. What's more, customer satisfaction is at an all-time high as customers now receive their gas cylinders in a much better, cleaner condition.

"Now that the air at our site is cleaner, it's a much nicer place to work and our employees are healthier and happier. We can also show customers and suppliers around our facilities with pride as it always looks, and feels, clean and presentable."

Due to the success of the BOC Brinsworth and Glasgow installations, Zehnder now supplies five other BOC sites in the UK with Clean Air Solutions. The results so far are equally good. "This is a partnership – Zehnder looks after us. We have a good relationship with the service team. It's like a marriage – we work closely together."



#startwithcleanair

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