

CASE STUDY

Morrisons Gadbrook increase resilience, energy efficiency and capacity with a new compressed air system

Company: Morrisons Manufacturing Gadbrook

WM Morrisons Supermarkets plc, trading as Morrisons is one of the largest supermarket chains in the country.

Founded in 1899, its HQ is located in Bradford West Yorkshire with multiple manufacturing sites throughout the UK, Morrisons Gadbrook, based in Northwich, is one of the largest produce distribution depots in its network, packing fruit and vegetables.

Project overview:

Review the existing plant equipment and airlines at the Gadbrook manufacturing site. Provide recommendations on the entire compressed air system, including compressed air generation, control and distribution.

What was needed:

The existing fixed speed air compressors and associated equipment were inefficient and unreliable. There was a lack of resilience with the site heavily reliant on hire equipment.

The existing system did not allow for growth or expansion and in terms of energy efficiency, there was potential for big savings.

A complete turnkey solution was necessary.

What we did:

The first step was to carry out a full energy audit and visual inspection of the site, installing data and pressure loggers throughout the air system.

Based on the air demand profile and to allow capacity for growth, PPS installed two Atlas Copco 110Kw variable speed drive (VSD) air compressors with integral dryers and filtration. This meant the site now had a full duty standby system. Using VSD technology provided potential annual energy savings of over £21,500.

A control/monitoring system was also set up to enable full visualisation and offer KPI reporting with PPS training and support. At a glance, they can view machine service data, uptime, monitor energy efficiency and receive status alerts.

With our in-house installation team, PPS reconfigured the existing compressor house, to accommodate the larger machinery. Whilst maintaining the live system, PPS installed a full ring main throughout the entire site, replacing the existing 20-year-old Durapipe plastic pipework, which given its curing time for any repairs and replacement on a 24/7 site, was far from ideal. The new aluminium ring main is lightweight, energy efficient and quick to install/modify.

Key benefits:



100% duty standby system for full resilience



Reduced service costs with optimisation on running hours



Significant energy savings over £21k per annum achieved via Atlas Copco variable speed drive air compressors



Full turnkey project with remote monitoring and visibility



Remote monitoring with full visualisation

Why Pennine Pneumatic Services?

"PPS have been working with Morrisons Manufacturing sites for almost two years now, they know they can trust us to give them honest guidance for their full systems.

"From start to finish on the Gadbrook project, Ron, Martin and the team were very clear about the needs and expectations of Morrisons. We worked within these boundaries and delivered the project during live production, to budget within a timely manner.

"The Gadbrook team were a pleasure to work with and helped create a great working partnership."

Matt O'Connor, Operations Director, PPS



"I was naturally nervous about replacing our complete pneumatic system during full production. From our initial meetings, PPS were completely professional and remained so throughout the whole project - high levels of safety and courtesy were maintained. I had zero interruption to the plant, the engineers fully understood the needs of my plant and worked around us. It was a completely painless project."

Ron Stromberg, Site Engineering Manager, Morrisons Gadbrook



"From concept to commissioning, PPS have provided a cost effective and professionally executed solution to our needs all carried out with a friendly and reliable attitude. The system PPS designed and installed has proven reliable and energy efficient and has met all our expectations. I would not hesitate in recommending PPS."

Martin Farrell, Reliability Engineer, Morrisons Gadbrook

