



CASE STUDY
FOOD & BEVERAGE

New compressors help food manufacturer's bottom line

Gardner Denver distributor AFS Limited (AFS) has delivered a bespoke compressed air solution at a national food manufacturer's London plant, without any loss of productivity. The solution will reduce energy consumption, resulting in projected yearly savings of approximately £23,000.

The manufacturer is a household name in the United Kingdom and a vast selection of its products are sold in supermarkets nation-wide. Its production facility in London uses large amount of compressed air in its industrial manufacturing operations.



"The newly-installed compressors will result in reduced gas and electricity costs, leading to projected energy consumption savings of £13,340 per annum. The installation of Smart Air Master and its reduction of non-productive energy will save in the region of another £10,000 per annum."

Overview

- ▶ **Customer**
National Food Manufacturer
- ▶ **Location**
London
- ▶ **Application**
Increased compressed air volume for new manufacturing processes
- ▶ **Products**
2 x CompAir L80F compressors, Smart Air Master control system
- ▶ **Customer Benefit**
Reduction of energy consumption resulting in projected yearly savings of approximately £23,000

Andy Ryan, Managing Director at AFS

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Benefits at a glance

- ▶ High-efficiency, low running speed compressors installed, ensuring BRC compressed air standards are achieved
- ▶ Installation of control system optimises energy efficiency and control of new compressors
- ▶ Provision and management of air supply during equipment refurbishment and installation, avoiding disruption of existing plant processes
- ▶ Energy savings of £23,000 a year projected

Full turnkey package

In order to provide adequate redundancy and ensure plant security for new manufacturing processes, the manufacturer needed to increase the volume of compressed air used to 2,200cfm. Specifically, the processes required 1600cfm (45.3m³/min) of compressed air on a continuous, 24/7 basis.

Following a full energy audit, AFS commissioned a full turnkey package, comprising two CompAir fixed-speed L80F high-efficiency, low running speed compressors complete with internal fridge dryer packages, heat recovery technology and food grade oil to ensure BRC compressed air standards are achieved.

Andy Ryan, Managing Director at AFS, explains: "The company's primary concern throughout the project was the continuity of compressed air supply during the refurbishment of equipment and installation, pipework and commissioning stages.

"This was made possible through AFS's provision and management of a 1600cfm portable system, which included compressors, desiccant dryers and filtration. This provided a seamless supply of compressed air throughout the project's lifetime with no disruption to existing plant processes.

"We also carried out a detailed scoping exercise using energy data-logging and analysis in order to calculate the company's new total capacity requirements and specify a system that would work with its existing compressed air provision."



"The Smart Air data-logging system provided us with a series of undisputable facts and figures to demonstrate the feasibility of investing in new compressor technology. We were also able to utilise this data to ensure AFS specified a system that is fit for purpose and suitable for the daily demands placed on it."

Andy Ryan
Managing Director at AFS

Smart Air Master

AFS also installed the Gardner Denver Smart Air Master control system to further optimise efficiency and control the two new L80F fixed speed and two existing 95kw variable speed compressors operating on-site. The new installation allows the company to select the optimum compressor running profile to minimise energy consumption.

About the installation, Ryan said: "The Smart Air Master system is optimised to run the fixed speed units fully loaded on a continuous, 24/7 basis, using recovered energy to provide hot water for a boiler feed pre-heat application.

"Completed on-time, within budget and safely to the agreed standard and scope of supply, its installation will secure plant availability and reliability for continuous operation."