Compressor maintenance strategies for the food processing industry

Imtiaz Rastgar, Chairman at Rastgar Air Compressors, advises on the most effective predictive and preventative maintenance strategies for compressed air users in the food processing industry.

Businesses of all sizes have become increasingly wary of purchasing a compressed air system that's available for a lower upfront cost, only for issues to arise further down the line. This then means that any savings originally realised have been lost on service and maintenance costs.

As a result, owners are moving away from considering the initial purchase price for a piece of equipment alone and starting to focus more on whole life costs. Servicing and maintenance costs are no longer seen as separate entities, but rather parts of a greater whole.

Effective maintenance strategies can help businesses save money, improve operational efficiencies, reduce downtime, increase productivity and deliver peace of mind. What, then, are the most effective strategies that compressed air users can implement?

The real cost of using non-genuine parts

Non-genuine spare parts and lubricants are typically cheaper than a manufacturer's original parts and, when trying to cut back on costs, it can be tempting to opt for these.

Nevertheless, it is widely accepted that using non-genuine parts can be detrimental to a compressed air system's overall performance and can have a negative impact on a machine's efficiency and energy consumption.

In some cases, the wrong spare part can cause real damage. This can potentially result in the system failing completely. The outcome not only an expensive repair bill, but costly unexpected downtime too.

Of course, any compressed air system – whether a new or existing one – will need components such as filters, valves, seal and oil to be periodically replaced. But by replacing these with a non-genuine alternative, there can be no guarantee that the manufacturer's warranty will be upheld.

Genuine parts will have been manufactured to meet the same standards as the compressor that they are intended for. So, they will have passed the manufacturer's stringent testing regimes, in a quality-controlled environment, to ensure your system continues to operate reliably.

Minimizing Leaks, Maximizing Profit

Did you know industry averages suggest energy costs represent over 80 per cent of a compressor's whole life costs? As such, operators need to make sure performance is not being affected by any issues such as pipe work leakages.

Pipework leakages are a large factor in compressed air energy wastage, accounting for 35 per cent of total air consumption. There are many reasons for leaks in a compressed air system, including shut-off valves and manual condensate valves being left open, and leaking hoses, couplings, pipes, flanges and pipe joints. Such oversights and deterioration can be expensive. According to the Carbon Trust, just one 3mm leak could cost a company over £700 a year in wasted energy.

Data-logging equipment can help pinpoint inefficiencies, identify any compressed air leaks and manage equipment performance. In the case of pipework leakages, using a flow meter is a reliable method of evaluating compressed air generation and downstream inefficiency costs. Indeed, finding and repairing one 3mm leak could potentially save enough money to cover the cost of purchasing one.

Smart Digital Insights

With Industry 4.0 driving companies to share and analyse data every step of the way, this is creating a real opportunity for compressed air users to consider how data can improve performance and help identify and inefficiencies.

One of the biggest changes in Industry 4.0 is the move from closed, proprietary products to open ones. Traditionally, a product operates and connects to a brand's own proprietary protocols and data transfer mechanisms.

This closed system can be problematic for those using compressors. Most businesses, over time and throughout various product lifecycles, will have purchased units from a range of brands.

To meet this need, Gardner Denver has introduced a new digital platform, iConn.

iConn is a cloud-based, air management platform, which has been developed to deliver advanced analytics, enabling you to stay in control of your compressed air installation. The system provides historic, real-time, predictive and cognitive analytics, allowing users to rectify potential issues before they happen.

Crucially, iConn is an open platform, supporting ancillary and compressed air products from other brands. iConn can help provide a platform that delivers truly meaningful compressed air insights, no matter who the manufacturer is.

Learn more cost saving strategies using predictive maintenance at www.rastgar-co.com ◆