



MONITION

Case Study

Condition monitoring keeps the coffee flowing for leading coffee manufacturer

The reduction of downtime at the UK plant has
prompted a global roll-out of the solution.

Condition monitoring keeps the coffee flowing

Downtime costs UK manufacturing more than £180 billion every year. Faulty machinery is responsible for around £31,000 in losses per company, and an astonishing 70% of businesses accept downtime erodes customer satisfaction¹.

The need to fit in with just-in-time manufacturing and delivery schedules means the damage done by unexpected downtime gets amplified. There's no latent capacity waiting to pick up the slack, no spare stock ready to ship. That's why ensuring machines are always operating efficiently is a priority.

Condition monitoring, using sensors to detect faults before they become apparent, can avoid unscheduled outages. The data generated also improves predictive and preventative maintenance based on the actual performance of components in service.

RS Monition takes the complexity out of the process of condition monitoring.

The challenge

Producing some of the world's finest instant coffee is all about spin – a spinning cone column (SCC) to be precise. It's at the heart of the process, and each SCC is specifically built for the factory in which it is installed.

The machine is so specialised that, if it is damaged beyond repair, it can take up to 26 weeks to manufacture, deliver and install a replacement. So there's no room for error if you want to keep the coffee flowing.

The SCC uses steam stripping to extract and recover coffee aromas in a natural way, so that they can be used to enhance the instant coffee. The problem is that product can build up in the column, causing it to spin unevenly.

Unbalanced rotation can cause significant damage to the machine. If the cone becomes damaged, it takes several days to remove and, if a replacement is needed, it has to be specially manufactured in Australia.

While the factory waits, production will be cut to a third of normal output. So, when RS Monition advised a leading coffee manufacturer to install **condition monitoring equipment** on the SCC at its factory the company took the advice seriously.

The solution

RS Monition had already demonstrated that **condition monitoring could save downtime and money** by assessing vibration in different parts of a plant. Although the maintenance team kept a spare SCC on site, they were keen to avoid breakdowns.

Now the system detects any imbalance in the cone's rotation, so that it can be stopped for cleaning – a relatively quick process which causes only minimum disruption to the factory's 24-hour production.

¹ Source: www.themanufacturer.com/articles/machine-downtime-costs-uk-manufacturers-180bn-year

The outcome

Regular cleaning, prompted by condition monitoring, allows the plant to run for longer between cleans, increasing overall productivity. It has been so successful in increasing the asset's performance that the manufacturer has awarded RS Monition a contract to install similar equipment on all SCCs at their factories worldwide.

RS Monition Technical Lead, Carl Dowson, has already overseen the installation at the company's factory in Bremen, Germany, and will be heading to Malaysia soon to install condition monitoring at their factory.

“It makes perfect sense: when we see a vibration level, we can automatically trigger a cleaning cycle. Cleaning takes just 45 minutes which means the rest of the plant can keep working. And it's a lot less disruptive than a 26-week outage.

“The same issues affect this equipment wherever it is installed around the world. We have provided a global solution to what is a global problem. In this case the return on investment was less than one week.”



To find out more about how we can work with you, contact your RS Account Manager or email us at connectedthinking@rs-components.com

Discover the benefits of Condition Monitoring



Increased asset reliability



Extended asset life



Reduced machine failure



Reduced “Mean time to repair” (MTTR)



Reduced downtime



Reduce costs