

Case Study

Food manufacturer reduces cost by 75% and turnaround times by 90% thanks to Surface Technology

A leading international baked snack business, which manufactures many of the UK's favourite biscuit, cracker and crisp brands, was looking for a faster, more cost-effective maintenance solution for one of its production lines.

Operating multiple manufacturing sites throughout the UK and internationally, the company in question had a comprehensive maintenance plan for their manufacturing equipment. However, it was felt that the existing maintenance plan for the crinkle cut crisp production process could be improved.

THE CHALLENGE

One of the manufacturer's popular products are crinkle cut crisps.

With tonnes of starch passing down hoppers and chutes, along lines and through serrated rollers before being cut and baked, it was imperative that their equipment was capable of efficiently producing thousands of packets of crinkle cut crisps each day without slowdown or unplanned stoppages.

Regular contact with the potato starch causes the serrated rollers to wear and lose their non-stick properties. This results in production slowdown and increases the frequency of production stoppages to clear and clean product build up.

Processing tonnes of material each day, serrated rollers had an established maintenance schedule to ensure they were re-coated to protect against the abrasive, sticky qualities of the sheets of potato which passed beneath the rollers.

The maintenance required involved a 16-hour production shut down as the rollers took 8 hours to strip and another 8 hours for the next set to be fitted. The worn set would then be shipped across the Atlantic to a company in the US, where they were re-coated before being shipped back to the UK. This ongoing maintenance plan involved a 12-week turnaround and significant cost for the manufacturer.

THE SOLUTION

As a leading provider of food safe coating services for food manufacturing equipment, Surface Technology was identified as a UK-based solution for the maintenance of the manufacturer's serrated rollers.

The technical team at Surface Technology understood that the optimum coating solution would need to provide the wear resistance necessary to protect against the abrasive potato starch material processed by the serrated rollers. An FDA approved food safe coating was a prerequisite for any potential solution.

A coating with excellent non-stick properties for the product to be processed efficiently, without sticking was also essential.

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A double reinforced, high release, high wear coating was identified as having all of the characteristics necessary for the serrated rollers.

Using an FDA approved blend of food safe coatings, the solution offered a surface finish with outstanding hardness and non-stick properties.

THE RESULT

Surface Technology's solution reduced the turnaround time for the maintenance of the food manufacturer's serrated rollers from 12 weeks to just 1 week. The cost of the maintenance also fell by 75%.

Present at the installation of the re-coated serrated rollers, Surface Technology's Technical Manager, Ian Beckwith, was able to see the first batch of production flowing through the serrated rollers.

The manufacturer was delighted with the finish as they saw the sheets of potato starch smoothly roll beneath the serrated rollers without sticking, before being cut into crisps and baked.



Discuss
your coating
requirements
further

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