Ars Automation Application notes

Case Study: a flexible solution for feeding sustainable disposable cutlery



Industry insights

In the sector of biodegradable cutlery production, where our partner Foxbot AG has implemented its project, the need for sustainable and optimized manufacturing solutions is paramount. As we continue to grapple with the implications of waste and environmental concerns, the demand for efficient, flexible, and sustainable solutions increases. A flexible system, like FlexiBowl®, not only minimizes waste and maximizes productivity but also cuts down production times and operating costs. More importantly, it stands capable of adapting to the dynamic shifts in market demands.

Handled parts

This project tackles the production of sustainable and compostable disposable cutlery. Given their large size and tendency to overlap when bulk-handled, these items present unique challenges.



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The configuration

Our partner, Foxbot AG, has incorporated the FlexiBowl[®] model 650 into the production line, which works in conjunction with an Epson Robot. The robot picks spoons from the FlexiBowl[®] disc, orients and places them in the correct position for the coating process. Additionally, we implemented an external re-centering unit and an accurate bulk feeder drop control. This configuration ensures a controlled and orderly handling process, thereby maintaining a constant flow of spoons and minimizing space usage.



FlexiBowl® 650 Traditional Operating Mode

Precision and Efficiency

The distinguishing feature of this system lies in its flexibility and efficiency. Despite handling a product that is prone to overlapping, the integration of FlexiBowl® 650 and the Epson Robot ensures precise insertion and positioning of the spoons. This approach allows for quick changes in production, while maintaining an optimized layout and reducing the need for additional equipment investments.

Results

The FlexiBowl[®] solution demonstrates exceptional precision and a significantly reduced error rate, guaranteeing a reliable and efficient production process. Furthermore, the system maintains a lean and flexible production layout, which is ideally suited for future business developments.

Key Points











Food & Beverage

Coating Process

FlexiBowl® 650

Epson Robot

Precise Insertion