Ars Automation Application notes

Case study: Perfume Filling & Capping Solution |



The industry

The cosmetics industry demands rapid production cycles, flexibility for small-batch manufacturing, and extremely delicate handling to maintain product integrity. GH Développement, on behalf of a major cosmetics client, designed and implemented an automated cell to optimize and accelerate perfume filling and capping operations. The delicate nature of glass perfume bottles—prone to rolling and challenging to handle with precision—posed unique automation challenges.

Handled parts

The challenge was to ensure the reliable feeding and precise positioning of delicate glass perfume bottles, which are highly prone to rolling, making accurate handling difficult in conventional automation systems. Moreover, the cosmetics industry demands frequent product changes due to small production batches, requiring a highly flexible system capable of rapid format adjustments.



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The Configuration

To address these challenges, GH Développement implemented a flexible, automated solution combining ABB robotics with FlexiBowl® technology.

- FlexiBowl® 800 with Spike Disc: The FlexiBowl®, equipped with a specially designed spike disc, effectively prevents the bottles from rolling. This ensures gentle handling and stable positioning of the glass bottles, significantly reducing misfeeds and disruptions.
- ABB Delta Robot: The ABB delta robot rapidly and accurately picks and places perfume bottles from the FlexiBowl® directly onto the filling and capping stations, maintaining high precision and efficiency throughout the process.





FlexiBowl® 800 Traditional Operating Mode

The results

This automated filling and capping solution significantly improved the client's production efficiency and product handling capabilities. By integrating ABB robotics with FlexiBowl® feeding technology, the system achieved consistently high throughput (60 ppm), minimized downtime during product changes, and ensured the precise handling of delicate cosmetic products—meeting the industry's strict quality and efficiency standards.

Key points



Beauty & Cosmetics



Filling Process



FlexiBowl® 800



ABB



Delicate Products