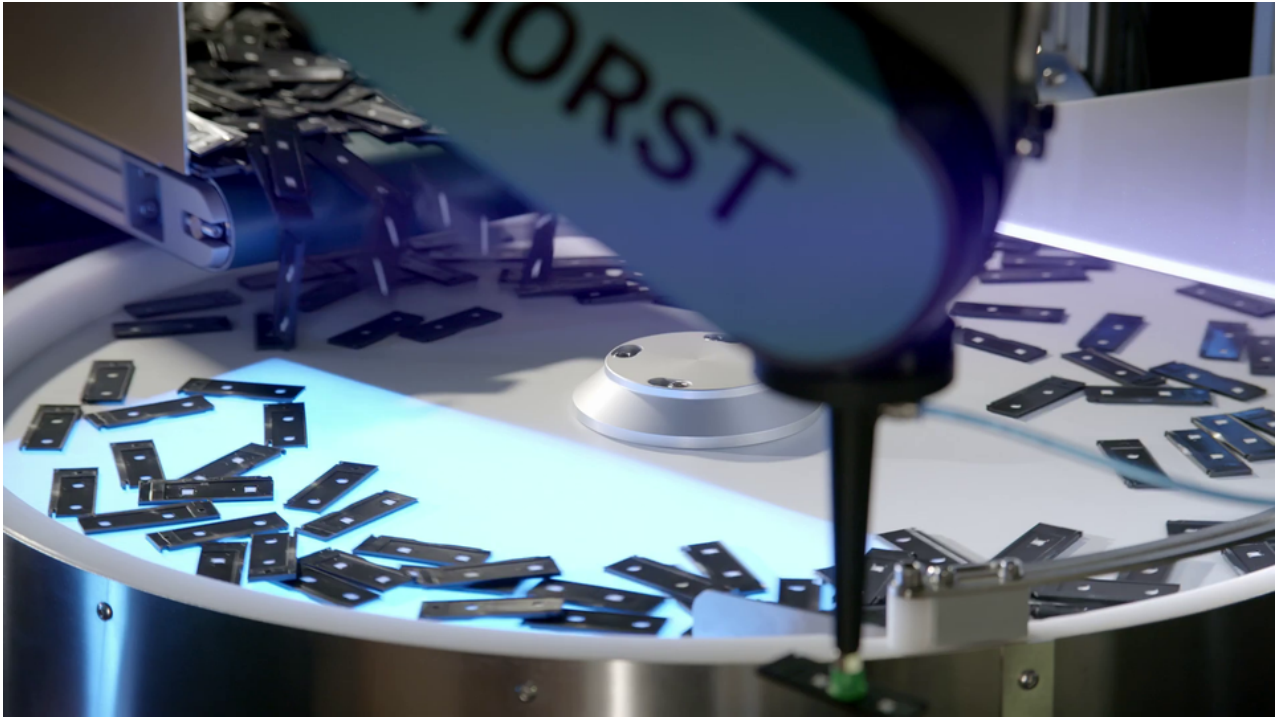


# Ars Automation

## Application notes

### Advancing Precision in Product Feeding: Streamlining Laser Marking Operations for Complex and Delicate Parts

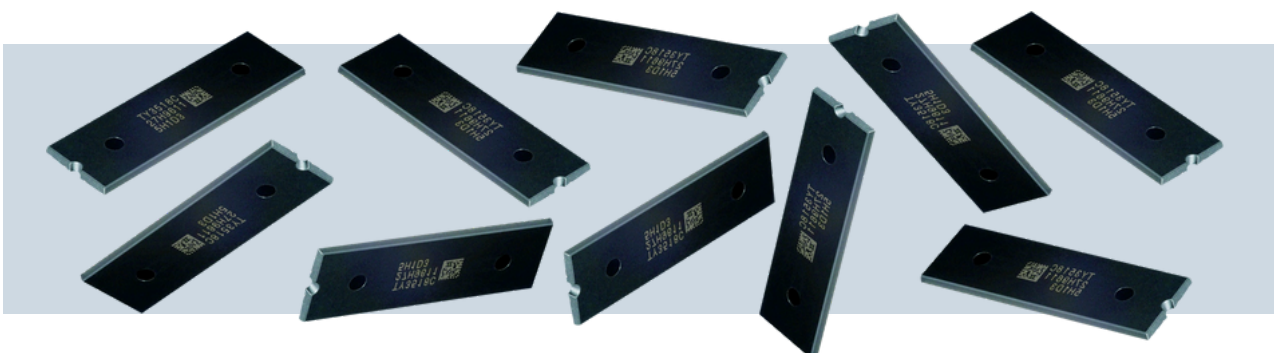


#### Industry insights

In the complex field of laser marking and high-speed cutting (HSC) processing, LaserFIX24 has been shaping the industry for over a decade. With its headquarters in Langenhagen, Germany, the company excels in providing a wide array of marking and processing services, including laser marking, laser cutting, digital printing, and 3D printing.

#### Handled parts

LaserFIX24's production challenge centered on the precise handling of a diverse range of delicate components, which necessitated exact placement for a complex dual-sided laser marking process. In response to this, the enterprise sought an automated solution designed to swiftly manage the separation and orientation of a large volume of parts, thereby streamlining and elevating the precision of their laser marking operations.



# Ars Automation

## Application notes

### The configuration

The solution implemented to streamline this process included a conveyor hopper that accurately doses parts into a FlexiBowl® 650 set to its traditional operating mode. This configuration is adept at separating, singulating, and orienting the components. An integrated vision system transmits the precise coordinates to a Horst robot, facilitating the pick-and-place tasks and subsequently positioning the parts for the Trotec Speedmarker 700, which executes the laser marking with high precision.



## FlexiBowl® 650

### Traditional Operating Mode

### Results

By developing a custom PLC programming, LaserFIX24 reaped the benefits of a seamless integration between the FlexiBowl® system and the Horst robot. This synergy yielded an automated system that not only enhanced the efficiency of their operations but also maintained the delicate handling required for their complex array of parts. The FlexiBowl® proved to be particularly versatile, demonstrating its capacity as an ideal solution for feeding diverse components with varying sizes and shapes.

This integration facilitated a significant leap in operational capability, allowing for the precise management of parts with a nuanced approach that traditional systems could not achieve. The adaptability of the FlexiBowl® ensures that LaserFIX24 is well-equipped for future development, ready to accommodate new part types as they expand their services. The result is a robust, flexible automation system.

### Key points



Plastic Industry



Laser Marking



FlexiBowl® 650



Horst Robot



Accurate placing