

Hine Automation's February Newsletter



Message From Scott:

The purpose of this newsletter is to share the latest happenings with Hine Automation! In our February newsletter we spotlight our newest content video series, beginning with **The Hine Advantage**.

We also have several new product updates, including a **Case Study focused on Aligners**, an update on our recent **Reliability Robot Test**, and some exciting news regarding our recent **Collaboration With a Top Thin-Film Developer**.

If you have any questions, feel free to reach out to sales@hineautomation.com. We'd love to hear from you

Share Your Experience With Hine!

The Hine Advantage



Case Study: Optical Aligners



Hine Optical Aligners Include Intelligent Alignment Algorithms to Provide Rapid and Reliable Positioning

CHALLENGE: The Need to Create a High Level of Repeatability

Integration, automation, and customization drive the semiconductor industry to identify new ways companies can lower costs and improve the time it takes to deliver a product to market.

Wafer pre-aligners are widely used and can be an effective and timely solution when determining proper alignment of a wafer. The alignment process begins when the optical sensor unit detects the edge of the wafer and calculates the central deviation and notch position, which sends the results to the robot. There are variants—for example, the wafer may have shifted position, so when the robot picks it up, it is outside its optimum position. Industry standards exist on how much variance is acceptable. However, a millimeter shift here or there may move the wafer beyond its target zone and the “acceptable” variance may no longer be acceptable for the customer.

For OEMs in the semiconductor industry, as well as OEMs looking to retrofit existing systems, precision positioning in wafer handling can provide more flexibility, less downtime, and a significant cost savings. The right aligner with the latest technologies plays a critical role in positioning wafers accurately before they are transferred onto the exposure platform. The ability to do so with extreme precision and repeatability can greatly improve the entire manufacturing process.

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Hine Partners With Leading Thin-Film Developer

Hine Automation, a worldwide supplier of automation solutions, has announced that it has partnered with a top thin-film developer. The collaboration spawned the delivery of a three-chamber vacuum transport system using Hine's Constellation HA-400 handler, a Cassette-To-Cassette Vacuum Transfer System, to one of the world's leading nanoelectronics research companies.



Rather than the conventional “cluster” design, Hine’s resulting modular design allows for loading and unloading of 100 – 200mm wafers for transportation to up to six process modules.

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10M Cycles Milestone

The first Reliability Robot has just passed 10 million cycles!!

This test started in September 2016 and has run for over 5 years.

We noted three failures which we turned into design improvements. These improvements are now part of a second robot, also in test, currently with over 7 million cycles and counting.

This is a significant milestone for Hine Automation. Not many companies in our industry run any type of reliability testing - let alone reaching 10M cycles.

Stay tuned for an official Case Study on this project - to be published in our newsletters and on the Hine Automation website!



Check Out Our New & Improved
Website!

We would love to hear your thoughts for our upcoming newsletters!



Thank you for following our emails for monthly updates on **semiconductor and robotic industry news**, **recent HA product launches**, and other helpful resources.

Are there certain topics you would like to see covered in a future Hine Automation newsletter? If so, please email us at news@hineautomation.com with your ideas.

www.hineautomation.com

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