

## Hine Automation's August Newsletter

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

We are always open to your suggestions! If there is something you'd like to see featured in an upcoming issue, please drop us a note at [news@hineautomation.com](mailto:news@hineautomation.com).

### Product Highlight: HA-7x series Optical Aligners



The HA-7x series Optical Aligners provide swift and cost-effective centering and angular positioning of wafers up to 300mm in diameter. When a robot picks a wafer from a cassette, the robot cannot know exactly where and how that wafer is positioned. An aligner is used to remove the “guesswork”.

Although our HA Aligners are designed specifically for use with Hine Automation vacuum robots, these can also operate in a **stand-alone mode and with robots from other manufacturers**.

The HA-74/75/76 aligners are the ideal choice when the process chamber needs to:

1. Have the fiducial (specific point of reference) oriented to a particular axis of the chamber AND/OR
2. Have the substrate/wafer placement of higher precision than the cassette tolerance provides.

The Hine Aligners feature an optical detection system composed of a laser-through beam and a CCD Array. This detection system and its mechanical system, with brushed DC motors and ferrofluidic feed-through, work together to give reliable performance in high-vacuum and ultra-clean applications.

#### Method of Alignment of the HA-7X ALIGNER

| Incoming Wafer Position                          | Alignment Target                              | Misalignment Measurement   | Orientation Correction   | Centering Correction   |
|--|---|--|--|--|
|  |   |  |  |  |
| Incoming wafer is not aligned as desired by user | Desired wafer alignment is configured by user | Aligner measures the amount of orientation misalignment and centering misalignment | Aligner rotates to the desired orientation and corrects for orientation misalignment | Aligner sends correction vector to the handler and corrects centering misalignment |

Without aligners, wafers would require positioning by hand, increasing the probability of misplacement and manufacturing inefficiencies.



### Global Capital Equipment Contract Manufacturer Places Significant Order with Hine Automation for Cassette Load Ports and Integrated Optical Aligners

Hine Automation, a worldwide supplier of automation solutions, today announced it has received a single purchase order from one of the largest capital equipment contract manufacturers in the world. This customer provides manufacturing and supply chain solutions for the most innovative companies around the globe.

The purchase calls for Hine's Cassette Load Ports (CLP) and Integrated Optical Aligners (HA-75C) - essential to meet the customer's increased production capacity needs. Hine is providing a cost-effective, off-the-shelf solution, with added customization, to enable the high-volume contract manufacturer to integrate the solution into its own offerings. This customer has forecasted orders for multiple CLPs and HA-75Cs in 2021 and a significant number of units over the next several years.

“We have always worked closely with our customers to offer quality solutions to help meet their strategic goals,” said Scott Craver, chief executive officer, Hine Automation. “I believe this agreement speaks to our reputation as a trusted provider of high-performance products and world-class customer service that can directly address our customers' requirements, no matter how large.”

The expectation for higher performance and customization is what led the customer to Hine. Craver added, “Our commitment to delivering the most innovative solutions requires us to frequently evaluate our own operations. As a result, we made an investment with this order, and we will continue to invest in our processes and people so that we remain a leader in the industry and will be better positioned to compete with large volume manufacturing requirements.”

Hine sets the bar for state-of-the-art robotic components and automation systems. In addition to unprecedented quality in manufacturing and collaborative customization in design, Hine has become known for its trustworthy and dependable support, which can significantly shorten a customer's time from start-up to production.

# Brand Promise Focus: Value Highlights

This month's **Brand Promise Focus** is on Hine's **Value Highlights**. This segment highlights the value we provide our customers through our products, the cutting-edge technology we use, the experience of our team, the anticipated growth of our market as well as growth we have seen over time.



**VALUE HIGHLIGHTS**

-  Products – leading provider of automation solutions for critical applications
-  Proprietary technology and experience in atmospheric and vacuum components
-  Experienced management team focused on customer satisfaction and technology development
-  Thin film automation end markets experiencing robust growth in future periods
-  Multiple vectors of growth
-  Strong historical and projected growth

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



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](mailto:news@hineautomation.com) with your ideas.

[www.hineautomation.com](http://www.hineautomation.com)

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