

## Hine Automation's July 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).*

### Hine Automation Continues to Challenge Itself to Bring Flexibility and Customization to Each Unique System



With decades of experience designing and manufacturing automation systems and robotic components, there's one thing that never gets old—change. At Hine, we pride ourselves on our deep level of industry knowledge, and as a result, customers have come to expect a higher level of quality in manufacturing, customization in design, and flexibility.

Reliability and cost-effectiveness are the top two considerations when customers are looking to partner with Hine. We also understand how important it is to our customers that we are dependable and flexible at the same time. With Hine's forward-thinking and ability to quickly adapt to innovations in the semiconductor industry, we have consistently delivered quality solutions to customers for years.

Looking to address varying wafer sizes, [Denton Vacuum](#), a leading provider of thin film deposition technologies, partnered with Hine in an effort to increase efficiencies and minimize downtime to provide faster development times to their customers.

Silicon semiconductor processing is well established, and wafers have been produced at a standard size for years. However, III-V semiconductors are typically deposited on less easily available substrates such as indium phosphide or sapphire. Larger sapphire wafers (4" and 6") took time to become available, and cost competitive with smaller wafers (2" and 3").

For this reason, it is common to use different wafer sizes for different products. Older products will tend to be qualified on smaller wafer sizes, and it is not cost-effective to requalify them on larger substrates. It is not economically viable to have separate production lines for each wafer size. Therefore, wafers of different sizes go through the same system, and when you are mixing wafer sizes, there is a considerable amount of downtime if the system needs to be reconfigured for different wafer sizes.

To address Denton's challenges and improve uptime, Hine's automation enabled the process to be run all together through one system without any hardware changes, as if the wafers were all the same size. Hine's wafer transfer functionality of a Load Lock with batch processing of a Cassette Load Port system transfers wafers into (and out of) the process chamber under vacuum conditions. By not breaking vacuum and managing tooling changes to accommodate different wafer sizes, Denton is able to increase productivity and meet the needs of their customers' tight manufacturing schedules. Utilizing Hine's automation, Denton has streamlined production and has more time to focus on their thin film process, where they add the most value for their customers.

Hine works with OEMs from all over the globe to provide flexible and cost-effective solutions. We are committed to supporting our customers in the semiconductor industry with automation and robotic components so you can focus on what you do best.

For more information on Hine and its ability to integrate with OEM products, contact [sales@hineautomation.com](mailto:sales@hineautomation.com).

### Product Highlight: HAtm-5.0



Hine's Atmospheric Robot, the HAtm-5.0, is an important addition to our solid product base. The HAtm-5.0 has been around since the early years of when it was designed to replace Brooks' Zbot model robot.

Back in 2011 the 20 year old <Brooks> robots in-the-field were wearing out but were not supported. Customers using the robots also wanted improvements to the robot that they believed would increase device yield from the wafers the robot handled.

Granted that newer designed robots were available BUT they were a different form factor that weren't able to be drop in replacements and were MUCH more expensive, especially to customers who had to replace a large number of them.

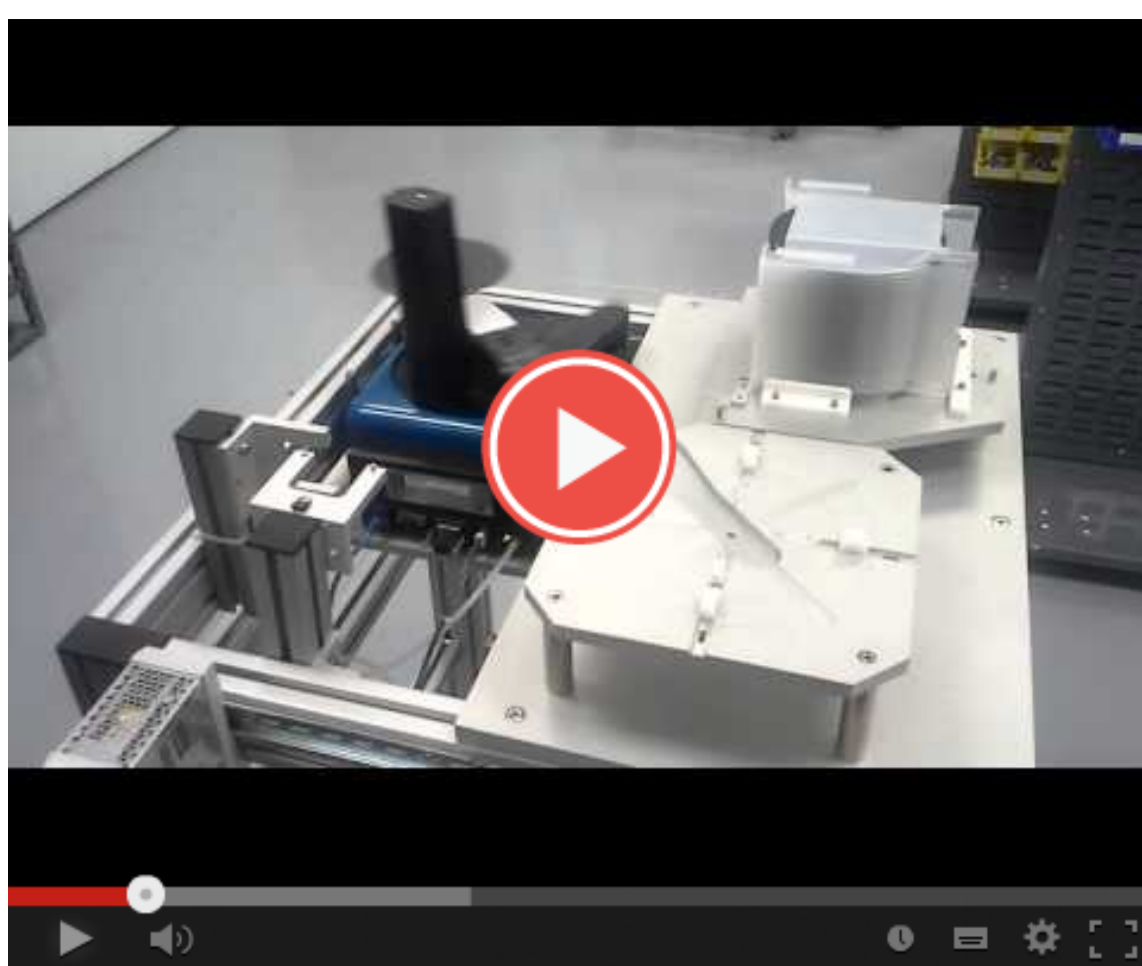
#### FUN FACTS:

- The Zbot has a "Frog Leg" design while the HAtm-5.0 uses an "Elbow" arm design.
- The HAtm-5.0 was not initially blue but changed color to make it stand out.

In a nutshell, the HAtm-5.0 transfers semiconductor substrates to and from cassettes. It can be configured with standard and custom End-Effectors to handle wafer sizes up to 200 and 300mm.

The adoption of the HAtm-5.0 robot into new and legacy products has been remarkable, driving demand and doubling our shipments from last year. To keep up with demand we've prepared work cells that allow a robot to be built and tested in one day.

If you would like more information about Hine Automation's HATm-5.0, contact [sales@hineautomation.com](mailto:sales@hineautomation.com).



## Documentation Packages with Every Product!

Understanding the operation of complex machines can be a challenge. As a result, all product shipments contain a USB key with relevant information on the setup and operation of each HA device.

In recent months, Hine has taken an active role in reviewing these product documentation packages to determine the most relevant contents for each product line. Operating manuals have been created, redesigned, and updated to reflect Hine's most recent data and configurations. Then the manuals have been specifically included in each product's USB key along with any other pertinent product drawings.

Each USB key includes the following files and folders-

### FILES

- Hinedocumentation
- HineDocuments
- HineICO\_
- READ ME- Accessing Document Package Files
- Serial Tag-600-070

### FOLDERS

- As Shipped Parameters
- Leak Plots
- Pdfs
- QA Documents



Hine USB Key

The READ ME file specifically explains the contents of each folder and how to efficiently find and view the included documents. All Documentation Packages include some type of operating manual, sometimes more than one particularly with large devices such as handlers.

Keep a look-out for the USB key in your next shipment!

## Brand Promise Focus: Approach

This month's **Brand Promise Focus** is on Hine's **Approach**. Our Approach refers to the way we achieve **efficiency** and **cost-effectiveness** for our customers through the products we manufacture utilizing the **knowledge** and **skills** of our team.

We pride ourselves on producing equipment that is **agile** and **effective** for our customers.

Below are some highlights of **Hine's effectiveness**:

- Our experience drives our design.
- Our knowledge and skills are equal to none.
- We are nimble and quick to act and respond.



[Check out our New & Improved Website!](#)

## 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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