



Atmospheric Robots

Wafer Handling Robotic
Components



HAtm-5.0 Atmospheric Robot

Wafer Handling Robotic Components

FEATURES

- ▶ Simplified Integration
- ▶ Compact Design including integrated controller
- ▶ High reliability of > 10 million MCBF
- ▶ Self-contained control system
- ▶ RS-232/Ethernet control Interface
- ▶ 3-axis motion control
- ▶ Standard and custom size arm segments
- ▶ Payload up to 0.5 kg.
- ▶ Standard and custom End Effectors for SEMI standard wafers & custom substrates
- ▶ The best replacements for the Zbot and Orbitran robots

OPTIONS

- ▶ End effector types: Vacuum chuck, Edge gripper
- ▶ Wafer mapping sensor
- ▶ Single / Dual end effector blades
- ▶ Custom vertical strokes
- ▶ Track mounting
- ▶ Custom payloads



Hine atmospheric robots are high-performance substrate handling solutions for semiconductor applications. These SCARA type robots provide reliable and clean transfer mechanism for atmospheric front ends. Hine atmospheric robots transfer a wide variety of substrates including SEMI standard wafers, reticles and masks.

HAtm-4.0 Atmospheric Robot

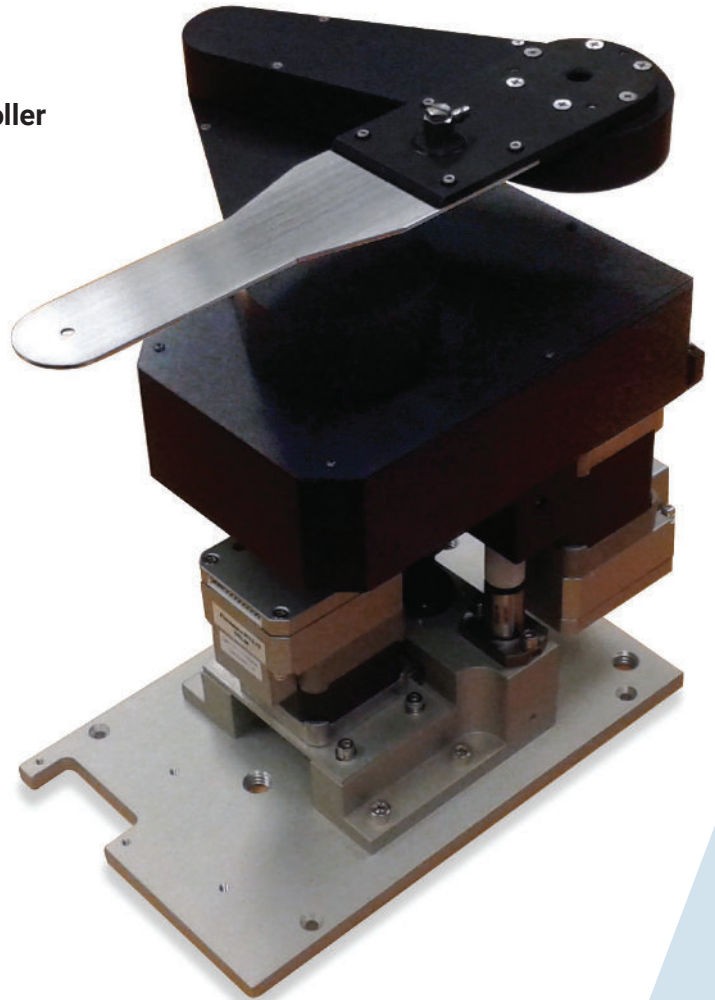
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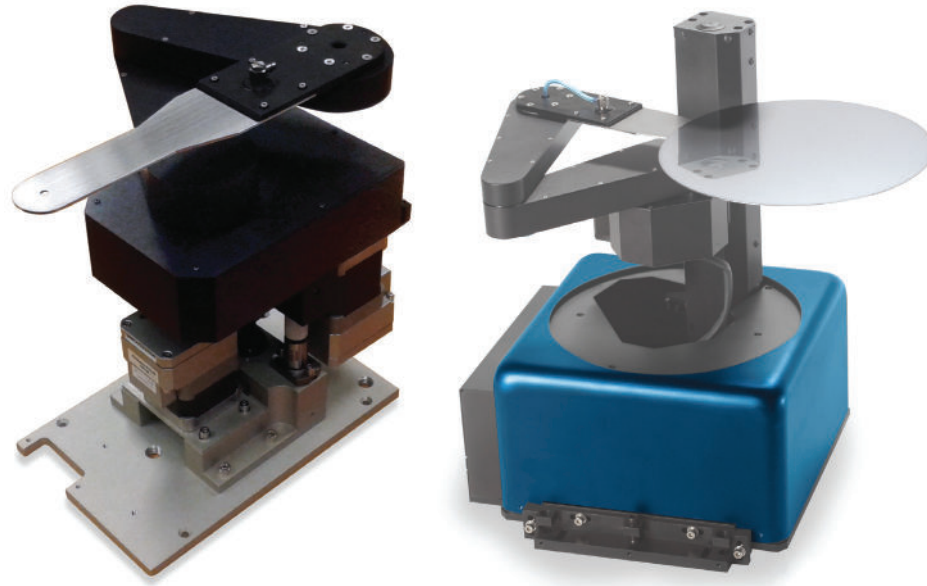


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Specifications - ROBOT	HAtm-4.0	HAtm-5.0
"Z" Travel	10mm	184mm (Standard size, others are available)
"Z" Repeatability	±0.1mm	
Reach Repeatability	±0.1mm	
Rotation	365 ° from "home" position	
Rotation θ Repeatability	±0.01°	
Maximum Payload	0.5Kg: standard load units	
Weight	5 Kgs	5 Kgs
Power	24VDC @ 3.0 Amps	
Temperature Limit	100°C Max	
MCBF	>1.5 x 10 ⁷ Cycles	
Control Interface	RS-232 and Ethernet	
Safety Features	Over travel	



About Hine Automation

Hine Automation, LLC is a designer and manufacturer of automation systems and robotic components. We serve Original Equipment Manufacturers (OEMs) in the semiconductor, solar, flat panel display and related industries across the globe. Our robotic components satisfy a wide range of needs; from flexible research and development environments to stringent manufacturing environments. Combining our unsurpassed quality and reliability with modular and versatile designs to meet today's automation challenges, our products provide functional and economical solutions.

OUR MISSION

Our goal is to design and manufacture the most cost effective automation solutions and deliver unparalleled customer service and support

OUR STRENGTHS

- ▶ Demonstrated Reliability
- ▶ Cost Effective Solutions
- ▶ Custom Solutions
- ▶ Lightning Speed Response and Turn-around Times
- ▶ Knowledge, Experience-driven Designs.

OUR PRODUCTS

- ▶ **Integrated Wafer Handling Systems:**
 - Atmospheric Systems
 - Vacuum Systems
- ▶ **Wafer Handling Load Locks:**
 - Vacuum Load Locks
 - Custom Load Locks
- ▶ **Wafer Handling Robotic Components:**
 - Atmospheric Elevators
 - Atmospheric Aligners
 - Atmospheric Robots
 - Atmospheric Cassette Load Ports
 - Vacuum Elevators
 - Vacuum Aligners
 - Vacuum Robots
 - Vacuum Cassette Load Ports