H-ZERO (H0)

Innovative, high-performance, all-in-one design eliminates external controller and interconnecting cables

Modular, compact body with minimal footprint allows for easy tabletop mounting

Advanced real-time motion control kernel delivers accurate motion profiling along smooth continuous trajectories for radial and in-line stations

High customizability, comprehensive set of software utilities, and powerful native wafer handling language facilitate rapid integration into OEM application environments

Distributed control architecture allows for seamless integration with linear tracks, prealigners, and other peripheral components

Driven by ultra low inertia brushless motors for smooth, instant response

Class 1 clean-room compatible

H-ZERO SPECIFICATIONS

<table>
<thead>
<tr>
<th>Axis</th>
<th>Range of Motion</th>
<th>Maximum Velocity</th>
<th>Maximum Acceleration</th>
<th>Axis Repeatability</th>
</tr>
</thead>
<tbody>
<tr>
<td>T</td>
<td>365° between hard stops</td>
<td>300°/s</td>
<td>1500°/s²</td>
<td>±0.01°</td>
</tr>
<tr>
<td>R</td>
<td>11.10 in. fully extended arm</td>
<td>30 inch/s</td>
<td>300 inch/s²</td>
<td>±0.001 in. (0.025mm)</td>
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<tr>
<td>Z</td>
<td>7.6 in. between hard stops</td>
<td>10 inch/s</td>
<td>30 inch/s²</td>
<td>±0.001 in. (0.025mm)</td>
</tr>
</tbody>
</table>

Wafer Diameter: Up to 8 in. (200 mm)

Payload: 0.45 lbs. (0.200 kg)

Encoders: Incremental, 10000 pulse/motor shaft revolution

Motor Type: Ultra low-inertia, brushless

Weight: 17.5 lbs. (8 kg)

Operating temperature: 50°F to 104°F (10°C to 40°C)

Facility Requirements:
- Power: Line Voltage 100VAC to 240VAC
- Vacuum Supply: 11.8 in Hg (-5.8 psi)/0.1 CFM airflow

MTBF: > 60000 hours

MCBF: > 10,000,000 cycles