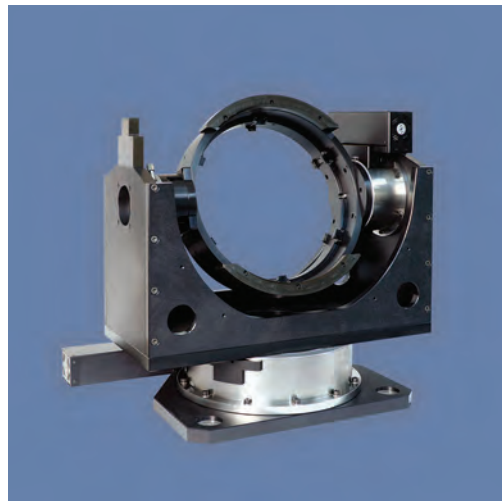


CUSTOM SOLUTIONS FOR MOTION CONTROL

HIGH-PRECISION MOTION SYSTEMS SOLUTION PROVIDER





OEM - DEVELOPING FOR THE FUTURE

MKS Newport is a trusted supplier of OEM solutions to Semiconductor Capital Equipment Manufacturers and leading Tier One manufacturers. Our growing OEM division is known for precision, compact design, and exceptional reliability, making our products essential to semiconductor advancements.

Your Project Matters

Our OEM strategy is designed to give you a competitive edge in your market by providing direct access to our vast expertise in engineering, manufacturing, logistics, and service. We dive deep into evaluating every product, subassembly, or subsystem

Applications

Call us for your system requirements in:

- Wafer & Mask Inspection
- Lithography
- Hybrid Bonding
- Laser Annealing
- Laser Micromachining
- Test & Metrology
- Flow Cytometry
- Tomography
- Silicon Photonics

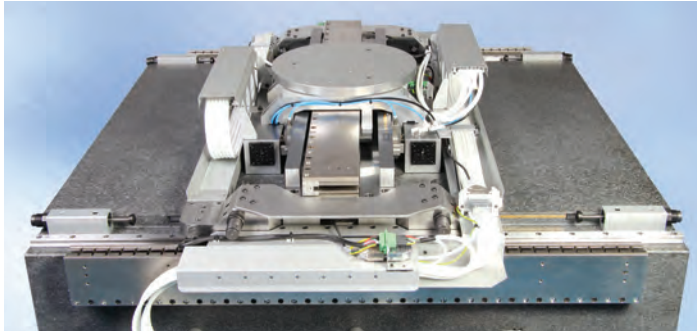
from various angles to conduct a rapid and comprehensive feasibility review. Through this initial assessment, we clearly define the substantial value we can bring to your project, leveraging our core technologies and strengths to ensure your success.

Full Design and Manufacturing Control

Our OEM project leaders follow a structured procedure to manage your project. Complete Bills of Materials (BOMs) are developed and managed through our formal Engineering Change Order (ECO) process, with all assembly and testing procedures fully documented.

The Optimum in Quality Control

MKS Newport operates under the registered quality system ISO 9001. Our quality system is independently audited, and we also conduct routine internal audits to ensure compliance. We focus on integrating quality into our processes and monitor performance through closed-loop metrics.



MARKET-LEADING SYSTEMS SOLUTIONS

CUSTOM SOLUTIONS TO MEET YOUR CHALLENGES

MKS is a globally recognized leader in advanced technology products and solutions for fields such as Semiconductor, Laser Micromachining, Advanced Automation, Photonics and Life & Health Science.

Comprehensive Design and Development

Our motion team specializes in every aspect of high-precision systems, from design and manufacturing to onsite installation.

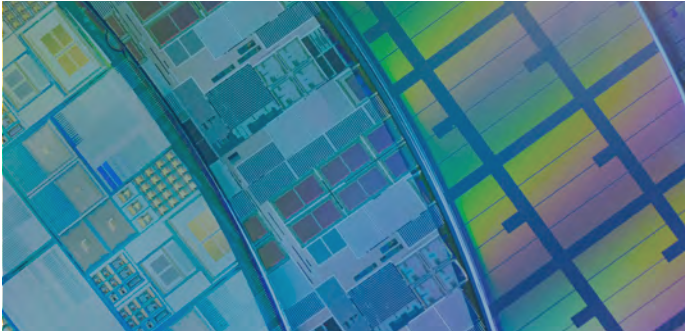
With over 500 years of combined experience in multi-axis motion component design, we understand your specific needs through applications engineering, project management, and operational excellence.

We have deployed over 2,000 tools globally, many operating 24/7 in the semiconductor industry, particularly in wafer inspection and lithography. Our capabilities also include flat panel display (FPD) inspection and laser scribing for thin-film photovoltaic panels and LED manufacturing.

Markets Served

Our custom systems serve a comprehensive range of markets including:

- Semiconductor & Microelectronics
- Industrial Metrology & Manufacturing
- Aerospace & Defense
- Industrial Micromachining
- Research
- Life & Health Sciences
- Silicon Photonics
- Flat Panel Display
- PCB Manufacturing





ENGINEERED SYSTEMS

MKS Newport provides a variety of standard motion products and OEM building blocks, along with custom motion systems tailored to specific application needs. Our engineering team focuses on high-precision solutions for both research and industrial users.

Whether you need a modified standard product, a simple sub-assembly, or a complex multi-axis system, we are your ideal partner. We conduct feasibility studies, recommend the best solutions, and offer ongoing support throughout the system's lifespan, backed by extensive testing during manufacturing and on-site evaluations.

We typically offer four levels of custom motion systems:



Special Coating: Hexapod with black anodization



RVU240: Vacuum, high torque, high stiffness, high resolution rotary stage

1. Customized Standard Products

Our standard products can be customized in numerous ways to fit different requirements, such as: cable length, connectors, lubrication, high load design, high resolution or high spring strength and more. The custom product engineering team will handle your special requirements with the highest efficiency.

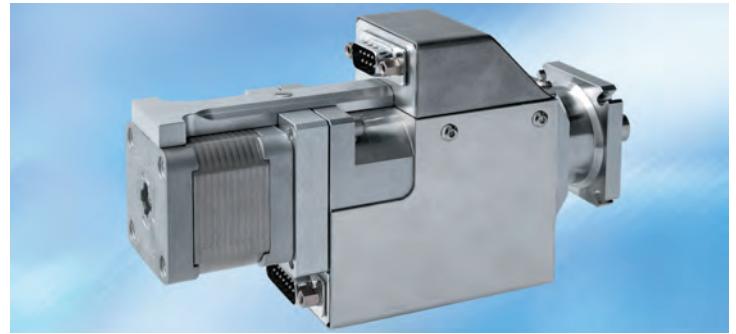
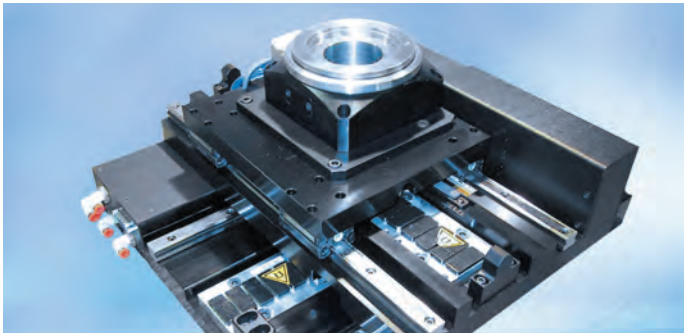
2. Custom Products for Specific Environments

For years, our product engineering team has been designing and manufacturing special motion devices for niche applications, such as high energy laser fusion systems and synchrotrons. Other

Environmental Preparation

For applications that require special environmental preparation, you can rely on MKS Newport's extensive product lines and vast experience in applications. Over the years, we have mastered the small but critical details necessary for operation in these special environments.

- Clean room
- High or low temperature environments
- Vacuum: 10^{-3} hPa (7.5×10^{-4} Torr)
- High Vacuum: 10^{-6} hPa (7.5×10^{-7} Torr)
- Ultra High Vacuum: 10^{-9} hPa (7.5×10^{-10} Torr)
- Non-magnetic and High energy
- EUV (Extreme Ultra-Violet)



examples include high class clean room compatible, vacuum compatible, non-magnetic or extended temperature range customization of standard products.

We have delivered countless solutions to research, semiconductor, military and aerospace customers looking for the best combination of ultra-high precision motion and environmental preparation.

Preparation for these types of challenging environments requires a deep understanding of material science, as each level of specification will drive its own set of allowable materials. We typically modify our standard products taking into consideration the compatibility of grease or lubricants, cable

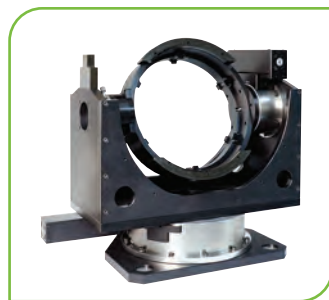
insulators, motors, electronics (limit or origin switches), hardware (material and purge holes), surface finishes (no anodization) and materials (porosity). Accompanying these special material considerations are manufacturing processes and facilities specifically developed to ensure the highest level of product performance.

3. Custom Systems With Limited Engineering

Explore our cost-effective solutions made from standard Newport catalog components. We optimize their performance to meet your needs and conduct thorough metrology checks before delivery to ensure compliance with global specifications.



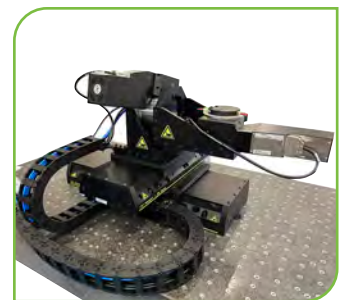
Sensor calibration bench for car-safety systems in automotive industry.



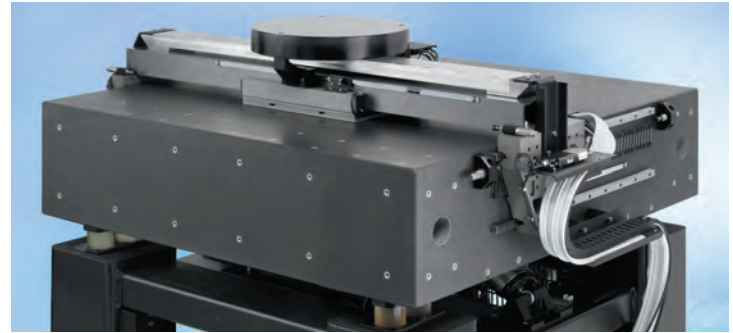
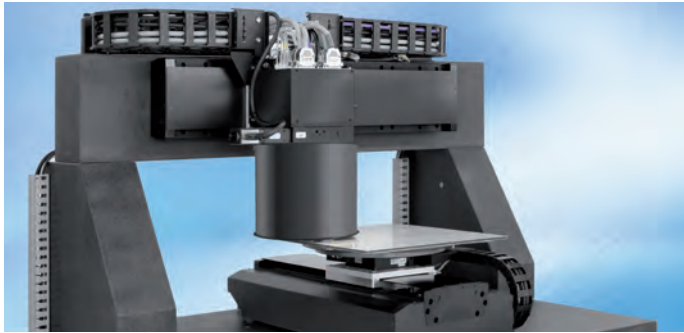
Azimuth/elevation gimbal with 350 mm diameter for LIDAR analysis, target tracking or optical sensor testing.



X-Y-theta assembly entirely built by standard products:



Medium complexity assembly built with standard products with minimal custom engineering



4. Advanced Integrated Platforms

MKS Newport leverages decades of experience in motion solutions to collaborate with customers in developing customized OEM technology platforms tailored to specific applications. These platforms have been successfully implemented alongside OEM partners in the semiconductor industry, particularly in wafer inspection and lithography applications. Additional applications include flat panel display (FPD) inspection and processing, as well as laser scribing of thin-film photovoltaic panels.

To support the customer's product development process, MKS Newport engages in early collaborative discussions to identify requirements and solutions. This ensures that the optimum platform is agreed upon. Collaboration continues throughout the implementation of the motion platform into the customer's final product.

Metrology and Acceptance Test

- Extensive metrology capabilities and resources are used to test, analyze and measure critical system specifications to achieve excellence in quality, precision and performance. The best available metrology tools are used to provide customers with real performance data.

5 Levels of Metrology

- Depending on your need, the Newport technical team can propose 5 distinct and complementary levels of metrology with your custom motion solution. We will provide calibration data with our advanced products clearly stating the guaranteed specifications.

Metrology Tools

- Interferometers
- Autocollimators
- Modal tests systems
- Environmental chambers
- High precision encoders with optical grid
- Temperature controlled metrology room
- Real time acquisition
- Vibration isolated platform
- Compliance testing (ESD test bench)

WHY MKS?

CRITICAL TECHNOLOGIES

World-class technology and development capabilities for leading-edge processes



PROVEN PARTNER

Recognized leader delivering innovative, reliable solutions for our customers' most complex problems



OPERATIONAL EXCELLENCE

Consistent execution across all aspects of our business



COMPREHENSIVE PORTFOLIO

Largest breadth of product and service solutions for the markets we serve



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Newport is a brand within the MKS Instruments Photonics

Solutions division. The Newport product portfolio consists of a full range of solutions including precision motion control, optical tables and vibration isolation systems, photonic instruments, optics and opto-mechanical components. Our innovative Newport solutions leverage core expertise in vibration isolation and sub-micron positioning systems and opto-mechanical and photonics subsystems, to enhance our customers' capabilities and productivity in the semiconductor, industrial technologies, life and health sciences, research and defense markets.

For further information please visit www.newport.com

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