



NEWPORT VACUUM COMPATIBLE PRODUCTS

As a world leading supplier of vacuum compatible components and systems, Newport offers vacuum opto-mechanics, manual positioning, motorized positioning and vibration control solutions. With a large catalogue of standard vacuum products, selecting an optimal vacuum stage or component for your application is easy. For vacuum applications requiring integrated motion and opto-mechanic solutions, Newport technical staff can direct you to the best combination of vacuum products to optimize performance in your application. Newport has technical sales staff available to help you determine the optimal system configuration for your vacuum application.

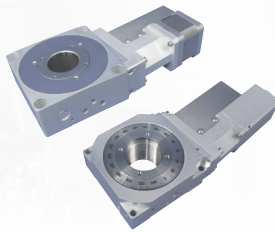
Vacuum Compatible Motion Control



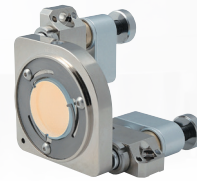
Vacuum Motorized Actuators



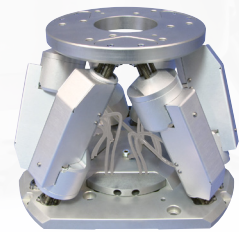
Vacuum Motorized Linear Stages



Vacuum Motorized Rotation Stages

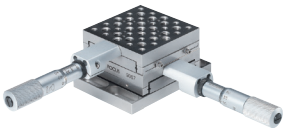


Vacuum Motorized Mirror Mounts



Vacuum Hexapods

Vacuum Compatible Opto-Mechanics & Manual Positioners



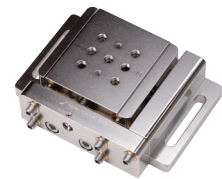
Vacuum Compatible Translation Stages



Vacuum Compatible Adjustment Screws



Vacuum Compatible Mirror Mounts



Vacuum Compatible Alignment Stages

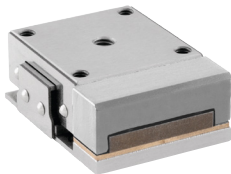


Vacuum Motorized
Actuators

Vacuum Compatible Motorized Actuators

Newport motorized actuators can be found supporting vacuum motion applications at leading research institutions worldwide. With a diverse and growing selection of vacuum compatible actuators, selecting an optimal actuator for your application is simple and easy. Newport actuators are designed for easy integration into opto-mechanics, manual positioning stages, or in stand-alone configurations. With expertise acquired over 50 years of providing precision motion control solutions, Newport actuators offer innovative engineering that guarantees high performance, extended lifetimes, reliable use, and integrated safety features.

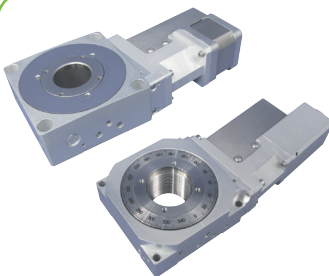
As a single point provider of vacuum actuators, vacuum manual stages and vacuum opto-mechanics, Newport can provide you with optimal solution for actuator driven motion in vacuum. Contact Newport for more information on compatibility of your selected actuator with opto-mechanics and manual positioning stages.



Vacuum Motorized
Linear Stages

Vacuum Compatible Linear Stages

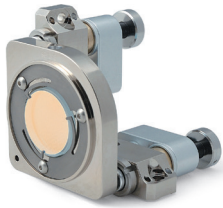
Newport vacuum compatible linear translation stages offer excellent motion performance. Each linear stage is built and prepared for use under vacuum to 10^{-6} hPa (7.5×10^{-7} Torr). With a wide selection of vacuum compatible linear stages from nanopositioners to micropositioners, Newport vacuum compatible linear stages can address the translation needs of the most demanding vacuum motion applications.



Vacuum Motorized
Rotation Stages

Vacuum Compatible Rotation Stages

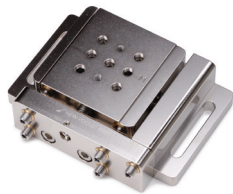
Newport vacuum compatible rotation stages are built and prepared for use under vacuum to 10^{-6} hPa or (7.5×10^{-7} Torr). Engineered with expertise acquired over 50 years, Newport rotation stages are ideal for a wide range of applications from piezo positioning of optics and sensors to rotation stages capable of supporting 100kg loads.



Vacuum Motorized
Mirror Mounts

Vacuum Compatible Motorized Mirror Mounts

Newport vacuum compatible motorized mirror mounts provide an excellent solution to motorized positioning of optical components. Based on two very successful piezo positioners, Agilis and Picomotor, these mounts guarantee excellent motion performance, in-position stability, uninterrupted use and extended life. Agilis mounts feature the Agilis direct piezo motor, offering excellent adjustment sensitivity and reliable use at the cost of a manual mount. The 8817-6-V and 8817-8-V are built on the popular stability mount, providing excellent motion performance and set-and-forget stability.

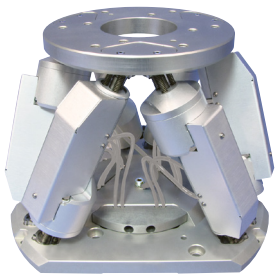


Vacuum Compatible
Alignment Stages

Vacuum Compatible Alignment Stages

These all-in-one Kinematic Device Alignment Stages offer four-axis or five-axis precision control over the orientation of a mounted optic or device, such as a modulating crystal, in an existing optical path. Multiple actuators in a single positioner allow straightforward, compact positioning of perpendicular linear travel and tilt, as well as focus if needed.

- Single stage with 4 or 5-axis fine alignment of optics
- Over 8° tilt range in θ_x and θ_y , and 3 mm linear travel in XY
- Precise alignment with 4.4 μm per 5° turn in linear translation
- Low platform height



Vacuum Compatible
Hexapod

Vacuum Compatible Hexapods

The HXP50V6-MECA 6-Axis Hexapod is a parallel kinematic motion device that provides six degrees of freedom: X, Y, Z, pitch, roll, and yaw. The HXP50V6 has a 5 kg centered load capacity and is a cost-effective solution to complex motion applications that demand repeatability and accuracy in up to six independent axes. Contrary to the image of hexapods being complex and highly priced, the HXP50V6 hexapod is not only affordable but extremely easy to use.



Motion Controllers

Motion Controllers for Vacuum Applications

Newport offers an array of motion controllers for vacuum applications, from single axis to 8 axis integrated controllers. A special feature of Newport controllers is reducing the holding torque of the motors while in position, thereby reducing the heat dissipated into the chamber.

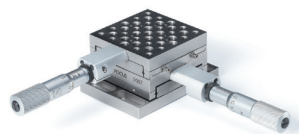


Clean and Low-Outgassing Mirror Mounts

Vacuum Compatible Mirror Mounts

With special materials, cleaning and packaging, our low outgassing mirror mounts are designed for applications in demanding clean and vacuum environments.

- Designed for vacuum and clean applications
- Compact size ideal for OEM applications
- Low outgassing stainless steel and nickel plating



Vacuum Compatible Translation Stages

Vacuum Compatible Translation Stages

These vacuum compatible, high-performance, stainless-steel translation stages are designed to move components smoothly and rigidly with the highest precision. Each of the crossed-roller-bearing stages are clean assembled, use low vapor pressure grease, and provide <math><150 \mu\text{rad}</math> angular deviation for single or multi-axis travel.

- Vacuum compatible crossed roller bearing stages to 10^{-6} Torr
- Stages are clean assembled and use low vapor pressure grease
- Precision control and smooth translation with <math><150 \mu\text{rad}</math> deviation
- Ultrastable, sub-micron performance



Low-Outgassing Adjustment Screws

Vacuum Compatible Adjustment Screws

Our low outgassing adjustment screws are designed for demanding vacuum environments.

- Designed for 10^{-6} Torr Vacuum Applications
- Miniature and High Resolution Versions
- Integrated Locks, Allen Key Adjustment

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Newport is a brand within the MKS Instruments Light & Motion 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