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MINUS K'S FP-1 NEGATIVE-STIFFNESS VIBRATION ISOLATION PLATFORM SUPPORTS SEMS, TEMS AND LARGE METROLOGY SYSTEMS

Specifically designed for SEMs (scanning electron microscopes), TEMs (transmission electron microscopes) and large metrology systems, the FP-1™ Negative-Stiffness vibration isolation floor platform from Minus K® Technology, Inc. enables low frequency vibration isolation for weight loads from 500 lbs. to over 12,000 lbs. The FP-1 can achieve natural frequencies of 0.5 Hz or less, vertical and horizontal.

Negative-Stiffness isolators provide a unique and completely mechanical concept in low-frequency vibration isolation for the field of large load systems. In particular, the transmissibility—the vibrations that transmit through the isolator—is substantially improved over other systems, providing better isolation performance without the need for air or electric power. Also, substantial isolation can be provided for vibrations as low as 1 and 2 Hz.

Minus K has just announced the standardization of their Negative-Stiffness SM-1™ isolators, thus lowering the cost of the FP-1 platforms making them more accessible to universities and laboratories on tight budgets.

Minus K has had very good success with their FP-1 platforms and SM-1 isolators. One installation of a Negative-Stiffness FP-1 platform enabled a SEM on a badly vibrating second floor to go from 100,000 magnification to 500,000 magnification and revealed components of cotton fibers that could not be seen previously. A national laboratory replaced its air isolators with Negative-Stiffness SM-1 isolators using its existing platform for an electron microscope. Researchers marveled over being able to get a high-resolution image and have it remain until the next day. With actual results like these being

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reported, Minus K has seen a dramatic increase in their SEM and TEM inquires.

The FP-1 platform typically utilizes two or three Negative-Stiffness SM-1 isolators, as the basic building blocks of the platform. Additional SM-1 isolators can be added to achieve higher capacity systems. They can be arranged in many geometrical configurations to suit varied application and customized to achieve user-specific needs. For SEMs and some TEMs only the column console is isolated or in some cases the column, display and other components are isolated on the platform.

Customized SM-1 isolators were selected for the ground testing of NASA's James Webb Space Telescope at the Johnson Space Center. A major factor in selecting Minus K is its ability to not only isolate vibrations vertically, but also horizontally at less than 1 Hz.

Minus K Technology works with many instrument manufacturers and academic laboratories providing custom systems and a line of standard bench top and table vibration isolation products. Minus K has made custom vibration isolation systems for NASA, JPL, DOD, European Space Agency, German Space Center and the James Webb Space Telescope (JWST) Project. The company was founded in 1993 to develop, manufacture and market state-of-the-art vibration isolation products based on its patented Negative-Stiffness technology.

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