

# Minus K Releases New Ultra-Low Frequency Vibration Isolation Workstation

November 14, 2006



Inglewood, CA - Minus K Technology, Inc., in a joint venture with Kinetic Systems, has released the MK26 Series Vibration Control Workstation™, specifically designed for ultra-low natural frequency applications and negative stiffness vibration isolators, to provide a compact, passive vibration isolation workstation, with excellent vertical and horizontal isolation efficiencies. Based on field testing and user evaluations, the Minus K 1/2-Hz vibration isolation workstation performs about 10 to 100 times better than high-performance air tables, depending on vibration isolation frequencies, and better than active or electronic-cancellation systems. The MK26 Series can be configured for a wide variety of applications and customized with a broad range of vibration isolation workstation accessories.

Minus K asserts that its negative stiffness vibration isolators employ a revolutionary concept in low-frequency vibration isolation. Vertical-motion isolation is provided by a stiff spring that supports a weight load, combined with a negative-stiffness mechanism (NSM). The net vertical stiffness is made very low without affecting the static load-supporting capability of the spring, the company reports. Beam-columns connected in series with the vertical-motion isolator provide horizontal-motion isolation. The horizontal stiffness of the beam-columns is reduced by the "beam-column" effect. (A beam-column behaves as a spring combined with an NSM.) The result is a compact

passive isolator capable of very low vertical and horizontal natural frequencies and very high internal structural frequencies, according to the company. Minus K claims its isolators (adjusted to 1/2 Hz) achieve 93% isolation efficiency at 2 Hz; 99% at 5 Hz; and 99.7% at 10 Hz.



## Features of the MK26 Series Vibration Control Workstation include:

- Ultra-Low Natural Frequencies
- Vibradamped Frame
- Customizable Accessories
- No Air Supply or Electric Power Needed - Easy to Use
- Choice of Tabletops
- Ergonomic Styling
- Class 100 Clean Room Compatible
- Class 10 Available
- No Maintenance

The MK26 provides for easy adjustment, as described by Minus K: The Vertical Load Adjustment Crank is a simple manual adjustment which compensates for changes in vertical load; the Vertical Load Adjustment Indicator lets you easily determine the optimum setting using this simple visual indicator; and the Vertical Stiffness Adjustment screw lets you easily dial in a guaranteed ½ Hz or less vertical natural frequency.

The unit has a maximum load capacity of 700 lbs., a maximum tabletop width of 48", and maximum tabletop depth of 36".

"The MK26 Workstation, as with all Minus K products, represents an important enabling technology," says Dr. David L. Platus, president and founder of Minus K. "By reducing building and floor vibrations to ultra-low levels, these systems enable vibration sensitive instruments and equipment to perform at unprecedented levels."

*SOURCE: Minus K® Technology, Inc.*