

(See vibration isolation technology @ [www.minusk.com?pdf](http://www.minusk.com?pdf))



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# New Compact, Negative-Stiffness Vibration Isolator from Minus K Technology Reduces Low-Frequency Vibrations While Supporting Heavy Payloads

### Abstract:

New CM-1 isolator can be combined into multi-isolator systems to support heavy payloads while taking up very little room, and using no air or electricity.

Minus K Technology, a leading manufacturer of passive vibration isolation products, has just released a compact, high-capacity, low-frequency negative-stiffness isolator designed to support heavy payloads while reducing low-frequency vibrations. The new CM-1 isolator comes in several capacity ranges to match vibration-sensitive instruments such as SPMs (AFMS, STMs, etc), micro-hardness testers, profilers, interferometers, electron microscopes, or other imaging systems, for weight loads from 50 to 800 lbs.

The CM-1 can deliver a vertical natural frequency of 1/2 Hz or less, which can be achieved over the entire load range. Horizontal natural frequency is load dependent. 1/2 Hz or less can be achieved at or near the nominal load.

As with all Minus K isolators, the CM-1 is completely passive, using no air or electricity. The new isolators can be combined into multi-isolator systems to support heavy payloads while taking up very little room themselves. The CM-1 isolators can be placed on pedestals to bring them to an appropriate height to retrofit existing air tables, enabling existing table top systems to achieve much better isolation.

If needed, the CM-1 isolators can be customized to achieve user-specific needs. For example, different horizontal and vertical frequencies, damping, etc. They can also be made cleanroom and vacuum compatible.

Weight: Approximately 26 lbs.

Dimensions: 7.875" W x 7.875" D x 8.5" H

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## **About Minus K Technology, Inc.**

Minus K® Technology, Inc. was founded in 1993 to design, manufacture and market state-of-the-art vibration isolation products based on the company's patented negative-stiffness-mechanism technology. Minus K products are used in a broad spectrum of applications including nanotechnology, biological sciences, semiconductors, materials research, zero-g simulation of spacecraft, and high-end audio. The company is an OEM supplier to leading manufacturers of scanning probe microscopes, micro-hardness testers and other vibration-sensitive instruments and equipment. Minus K customers include private companies and more than 200 leading universities and government laboratories in 42 countries.

Dr. David L. Platus is the inventor of negative-stiffness mechanism vibration isolation systems, and President and Founder of Minus K Technology, Inc. ([www.minusk.com](http://www.minusk.com)). He earned a B.S. and a Ph.D. in Engineering from UCLA, and a diploma from the Oak Ridge School of (Nuclear) Reactor Technology. Prior to founding Minus K Technology he worked in the nuclear, aerospace and defense industries conducting and directing analysis and design projects in structural-mechanical systems. He became an independent consultant in 1988. Dr. Platus holds over 20 patents related to shock and vibration isolation.

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