



future's  
in the making

上海昊量光电设备有限公司

中国区代理

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## Vibration Control Solutions AVOS



## AVOS AR

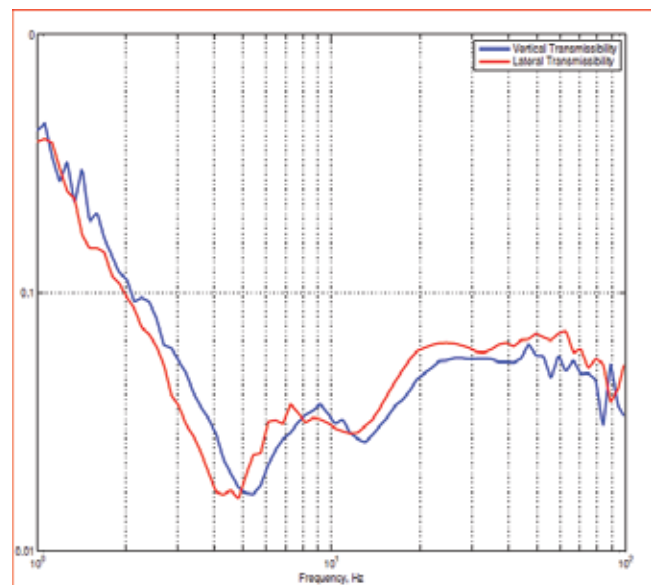
### The Most Advanced Active Vibration Isolation System

A lightweight and compact table top active vibration isolation system that counteracts unwanted vibrations for sensitive equipment. The streamlined design allows it to seamlessly become part of the workstation environment, and its straightforward composition requires no follow-up tuning. Developed by engineers, physicists and leading industry consultants with expertise in precision instruments, AR effectiveness at significantly reducing vibrations and disturbances marks it as a revolutionary and critical tool for laboratory use.



#### Performance and Specifications

Active vibration control	0.5 - 100 Hz wide bandwidth
6 degree of freedom active control	
Highly damped step respond	
Load Capacity	20 - 150 Kg
Device weight	20 Kg
No tuning requires	Simple installation
Dimensions	500x400x80 mm Fits most lab AFM
Leveling	+/- 5 mm
Power	90-240VAC 50/60Hz 150 Watts
Average power consumption ~ 30W	
Can operate in series with tool's internal vibration isolation system	
Custom dimensions and special attachments available upon request	



## AVOS AR platform

### AVOS AR Products Line – Active Vibration Systems

Among others, we offer solutions for standalone systems and integrated OEM systems:

- Standalone Off-The-Shelf Products
- Integrated OEM Solutions
- Customized Solutions (If our off-the-shelf products are not compatible with your needs, we are happy to tailor our technology to create a customized solution)

AR xxx Products Line	Device Capabilities	Device Dimensions (mm)	Load Capacity (kg)
STAR 75	Active vibration isolation system	400x500x80	15-75
AR 75i	Active vibration isolation system	300x450x65	15-75
AR 100	Active vibration isolation system	400x500x80	40-100
AR 150	Active vibration isolation system	400x500x80	70-150
AR 180	Active vibration isolation system	500x600x80	80-180
AR 200	Active vibration isolation system	600x800x80	90-200
AR 150-s	Active vibration isolation system with built-in shaker	400x500x80	70-150
AR 180-s	Active vibration isolation system with built-in shaker	500x600x80	80-180
AR 200-s	Active vibration isolation system with built-in shaker	600x800x80	90-200

## AVOS AR Built-in Shaker Capabilities

- Allowing to test how target system or device performs under different vibration conditions
- Adjustment for different frequencies and amplitudes
- Reproducing real-world environmental conditions to verify target system internal components responses to vibrations
- Built-in ability to collect and analyze data

## The Most Advanced Vibration Absorption Systems ST



A lightweight and compact vibration absorption systems allow to significantly reduce unwanted vibrations translated to working environment from noisy pumps, compressors, etc. Developed by engineers, physicists and leading industry consultants with expertise in vibration isolation and precision instruments, ST systems significantly absorb vibrations and disturbances.

## ST Products Line – Vibration Absorption Systems

ST Products Line	Device Capabilities	Device Dimensions (mm)	Load Capacity (kg)
ST 75	Vibration absorption systems	300x450x35	15-75
ST 100	Vibration absorption systems	400x500x80	40-100
ST 150	Vibration absorption systems	400x500x80	70-150
ST 180	Vibration absorption systems	500x600x80	80-180
ST 200	Vibration absorption systems	600x800x80	90-200
ST 1200	Vibration absorption systems stationed on 4 independent isolators	200x200x75 single isolator	100-1200
ST 2000	Vibration absorption systems stationed on 4 independent isolators	200x200x75 single isolator	200-2000
ST 4000	Vibration absorption systems stationed on 8 independent isolators	200x200x75 single isolator	800-4000



Specifications	
Available option: 4 isolators in system	Total available load: 2000 kg
Available option: 8 isolators in system	Total available load: 4000 kg
Available option: system	Total available load: up to 200 kg
Highly damped respond to step and oscillating inputs	
Patented architecture	Simple installation - No tuning require
Application-specific designs/products/capabilities to meet your needs	
Ability to support massive machines, tools, systems	

# AVOS MD 300

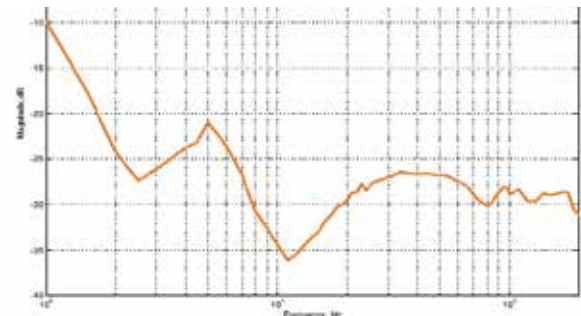
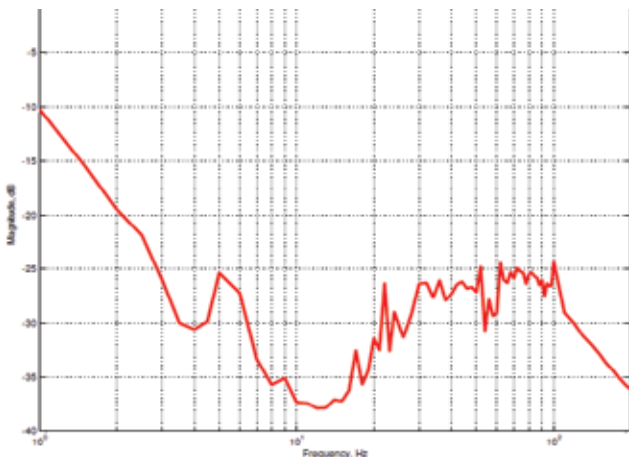
## The Most Advanced Active Vibration Isolation Systems



Our lightweight and compact modular active vibration isolation systems counteract vibrations affecting sensitive equipment. The streamlined design allows easy installation procedure and its straightforward composition requires no follow-up tuning. Developed by engineers, physicists and leading industry consultants with expertise in precision instruments, AVOS MD 300 effectiveness at significantly reducing vibrations and disturbances marks it as a revolutionary and critical tool.

Stationed on multiple, independent isolators - up to 8 isolators - AVOS MD 300 has the capacity to support load capacities of massive machines and heavy tool systems.

Specifications	
Available option: 4 isolators in system	Total available load: 1200 kg
Patented architecture	Highly damped step respond
Active vibration control bandwidth 0.5 Hz - 100 Hz	
Active vibration Isolation in all six degree of freedom	
Power and communication box for centralized control	Simple installation – No tuning require
Load per single isolator 100 - 300 kg	Single isolator dimensions 200x200x75 mm
Application-specific designs/products/capabilities to meet your needs	
Ability to support massive machines, tools, systems	
Transmissibility charts	
Vertical	Horizontal



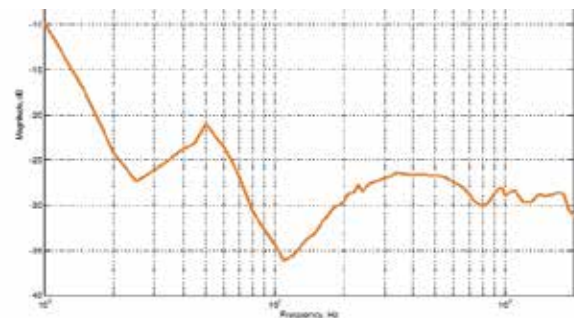
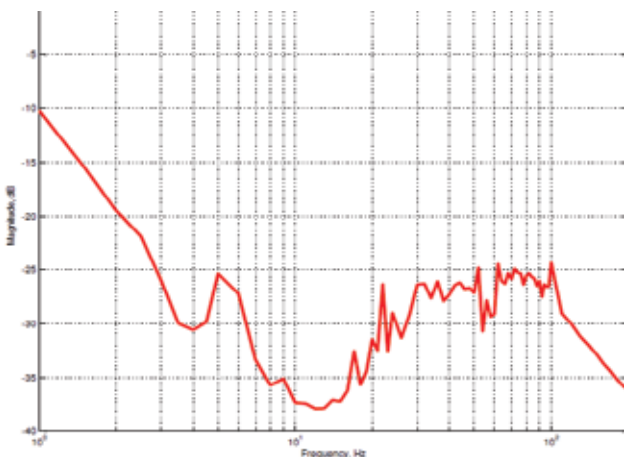
# AVOS MD 500

## The Most Advanced Active Vibration Isolation Systems



Our lightweight and compact modular active vibration isolation systems counteract vibrations affecting sensitive equipment. The streamlined design allows easy installation procedure and its straightforward composition requires no follow-up tuning. Developed by engineers, physicists and leading industry consultants with expertise in precision instruments, AVOS MD 500 effectiveness at significantly reducing vibrations and disturbances marks it as a revolutionary and critical tool. Stationed on multiple, independent isolators - up to 8 isolators - AVOS MD 500 has the capacity to support load capacities of massive machines and heavy tool systems.

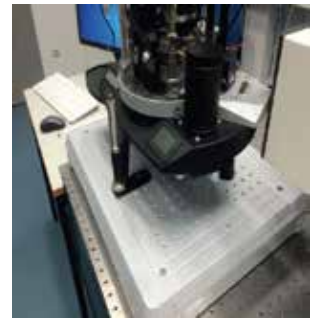
Specifications	
Available option: 4 isolators in system	Total available load: 2000 kg
Available option: 8 isolators in system	Total available load: 4000 kg
Patented Architecture	Highly damped step respond
Active vibration control bandwidth 0.5 Hz - 100 Hz	
Active vibration isolation in all six degree of freedom	
Power and communication box For centralized control	Simple installation – No tuning require
Load per single isolator 200 - 500 kg	Single isolator dimensions 200x200x75 mm
Application-specific designs/products/capabilities to meet your needs	
Ability to support massive machines, tools, systems	
Transmissibility charts	
Vertical	Horizontal



## Active Vibration Isolation Solutions for AFM, STM, Desktop SEM, Digital Microscopes, etc...

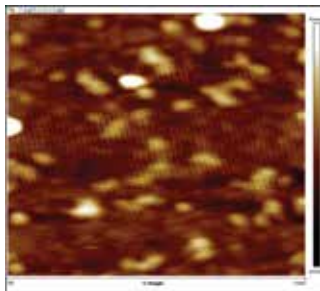


A lightweight and compact AVOS AR active vibration isolation systems that counteracts unwanted vibrations for various high resolution microscopes. The streamlined design allows it to seamlessly become part of the workstation environment, and its straightforward composition requires no follow-up tuning.

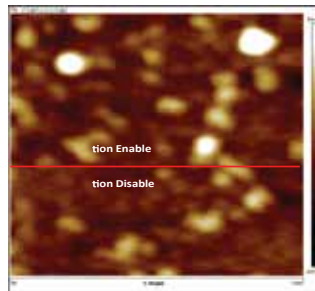


## Images Comparison

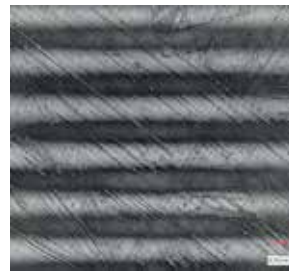
Without Vibration Isolation



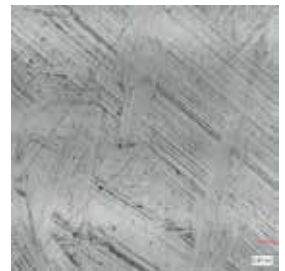
With Vibration Isolation



Without Vibration Isolation



With Vibration Isolation



## Key benefits

- Patented architecture
- Active vibration isolation in all six degree of freedom
- Shortest in height, lightest in weight
- Improved microscope performance and image quality
- Easy integration into workstation environment
- No follow-up tuning required
- Fully decoupled architecture isolates vibrations coming from the floor and vibration generating by the tool



# Active Vibration Isolation Solutions for SEM/TEM Microscopes



Compact modular active vibration isolation systems counteract vibrations affecting SEMs and TEMs. Stationed on multiple, independent isolators - up to 4 isolators - AVOS MD has the capacity to support load of massive machines up to 4000 kg. Low profile isolators 270x210x75 mm provide simple installation which doesn't require microscope lifting and maintenance.



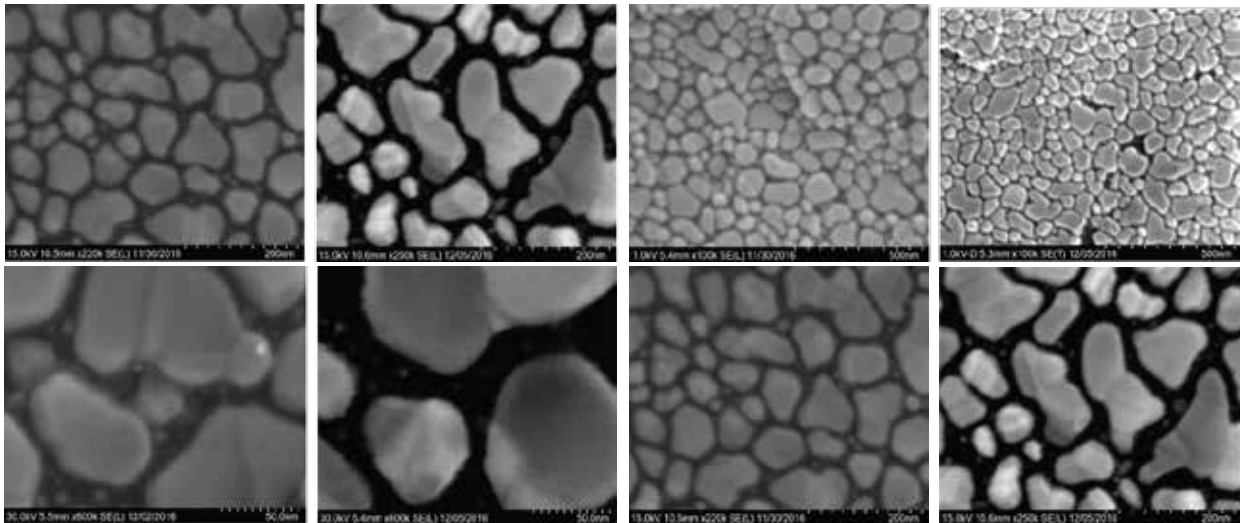
## Microscope Images Comparison

Without Vibration Isolation System

With Vibration Isolation System

Without Vibration Isolation System

With Vibration Isolation System



## Key Benefits

- Patented architecture
- Active vibration isolation in all six degree of freedom
- Shortest in height, lightest in weight
- No follow-up tuning required
- Improved microscope performance and image quality
- Easy integration into SEM/TEM workstation environment

## Active Vibration Isolation Solutions for Semiconductor Industry



Compact modular active vibration isolation systems counteract vibrations affecting sensitive equipment. Stationed on multiple, independent isolators - up to 8 isolators - AVOS MD has the capacity to support load of massive machines up to 4000 kg. Low profile isolators 200x200x75 mm provide simple installation and maintenance.



A lightweight and compact AVOS AR active vibration isolation systems that counteracts unwanted vibrations for sensitive equipment. The streamlined design allows it to seamlessly become part of the workstation environment, and its straightforward composition requires no follow-up tuning.



### Ostec Technology benefits for semiconductor industry

- Patented Architecture
- Active Vibration Isolation in all Six Degree of Freedom
- Increased Machine throughput
- Improved Tool's performance and image quality
- Minimized production failures
- Easy integration into Tools and Workstation environment
- Shortest in height, lightest in weight
- Fully decoupled architecture isolates vibrations coming from the floor and vibration generating by machine, like moving stages, fans, internal motors
- Ability to support massive machines
- No follow-up tuning required

### Products and Solutions

- Standalone Off-The-Shelf Products - Portfolio of 15 devices in 3 main products lines
- Integrated OEM Solutions - Our technology can be integrated into the tools of other manufacturers
- Customized Solutions - Tailor our technology to create a customized solution