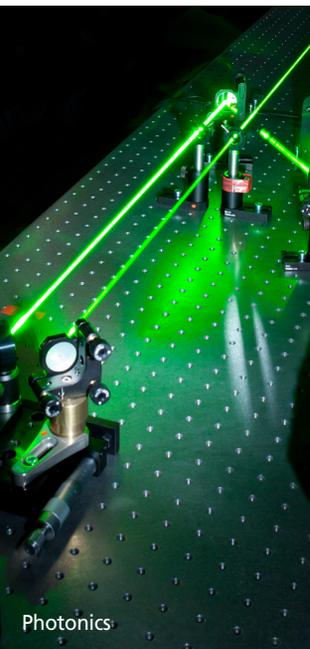
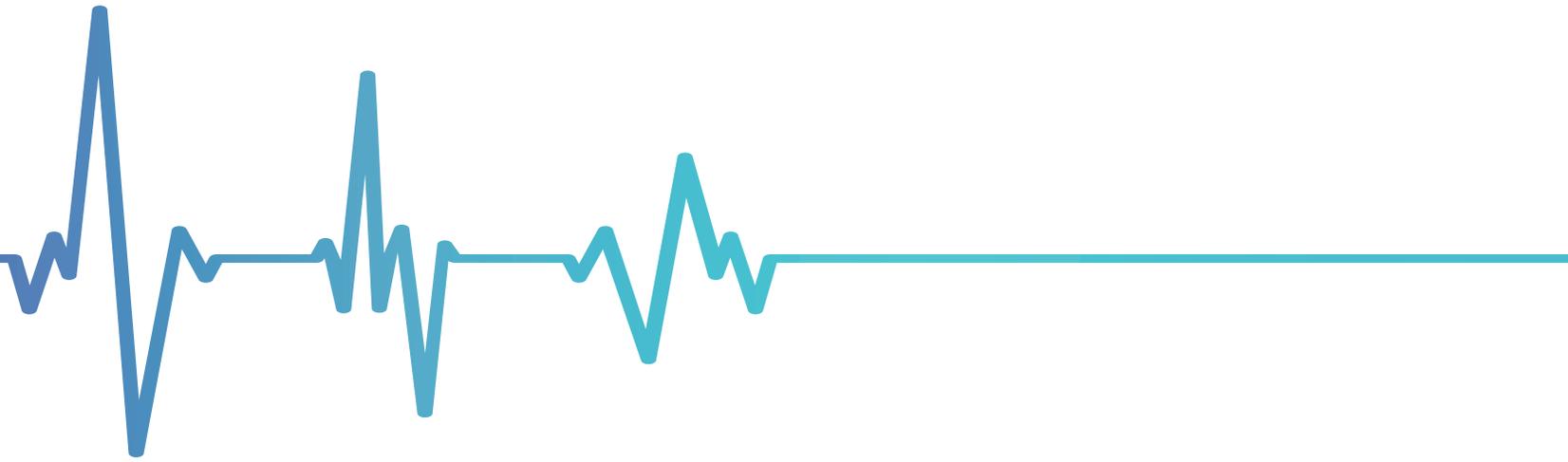
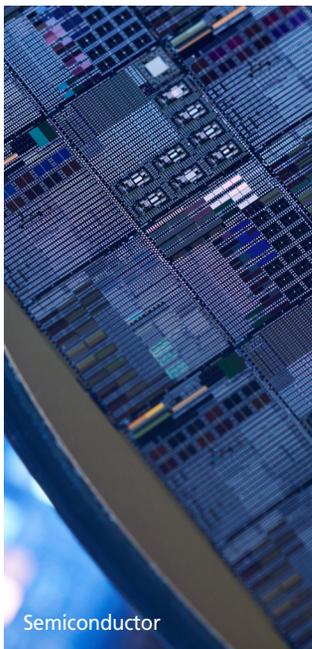


VIBRATION ISOLATION SYSTEMS



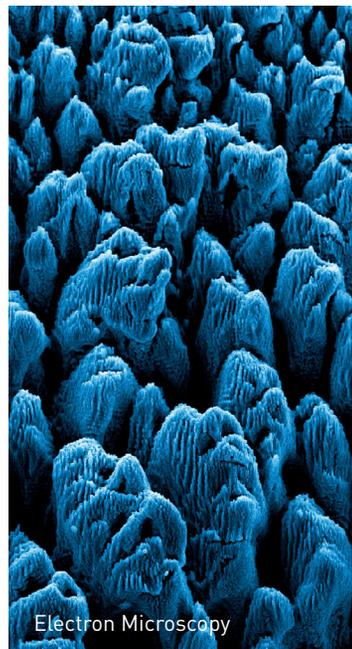
Photonics



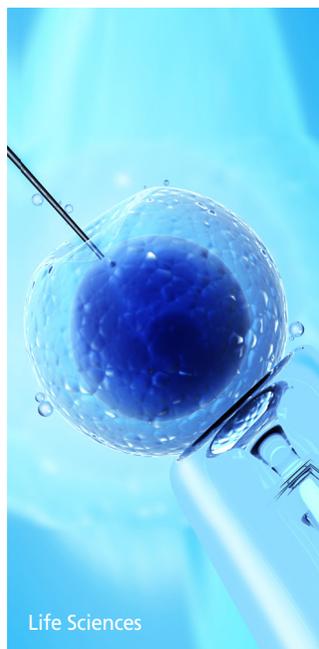
Semiconductor



Metrology



Electron Microscopy



Life Sciences

DVIA-U Series

Modular Active Vibration Isolation Platform



Features

· Active Isolation Technology

DVIA-U series incorporates sensors and actuators with the feedback and feedforward control systems excellently reduces vibrations in 1 – 10 Hz range and achieves the fast settling time.

· Modular Architecture Isolation Platform

DVIA-U series is a modular, low-profile platform that can be directly installed under measuring tools of various sizes and shapes. Furthermore, DVIA-U isolators can be integrated into either base or desk platforms.

· No Air

Integrated metal springs in DVIA-U series control high frequency vibrations and an air compressor is not required.

· On-Site Tuning for Maximum Performance

Vibration levels vary with environment, location, vibration sources, etc. Therefore, we offer on-site tuning by our experienced engineers to guarantee the maximum performance level and customers' satisfaction. The engineer conduct a site survey to measure vibration data which is used to tune the feedback and feedforward control systems, maximizing vibration isolation performance.



DVIA-UD Series



DVIA-UB Series

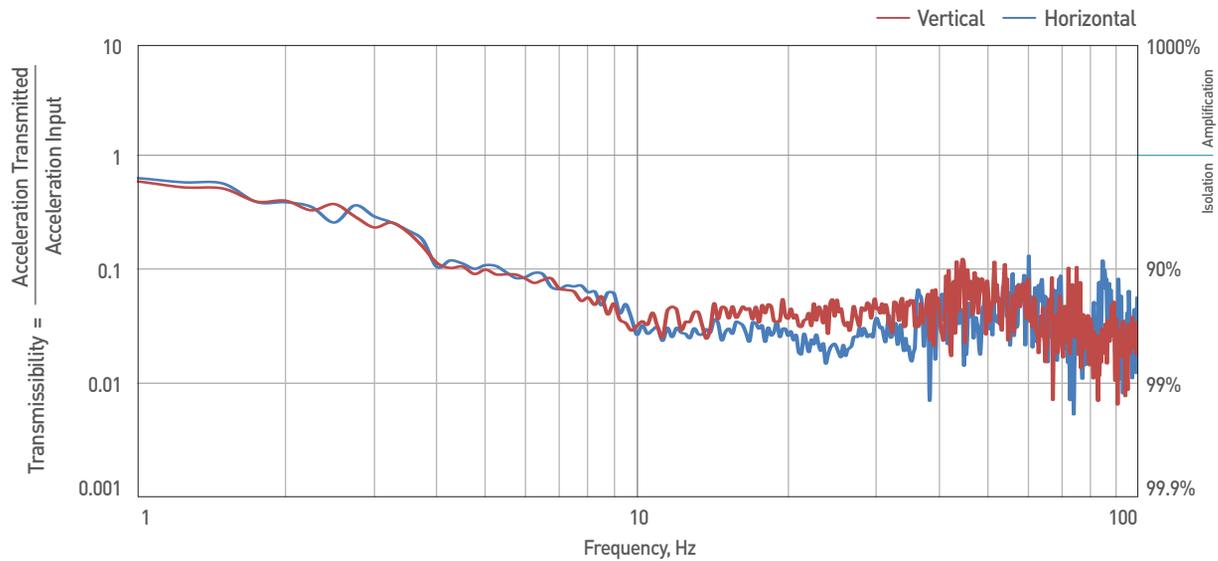
· Desk Platform Option (DVIA-UD series)

DVIA-UD series is an ergonomic desk isolation platform with integrated DVIA-U active vibration isolators, enables users to sit and perform the most demanding applications comfortably. DVIA-UD can be custom designed to fit specific application dimensions and form factors.

· Base Platform Option (DVIA-UB series)

DVIA-UB series is a base isolation platform with integrated DVIA-U active isolators, designed for tall and heavy metrology tools such as electron microscopes.

Vibration Isolation Performance



Specifications

Model No.		Modular Platform		Desk Platform	Base Platform
		DVIA-U350	DVIA-U700	DVIA-UD350	DVIA-UB700
Dimensions (W x D x H)	Isolator Unit	783 x 205 x 96 mm	818 x 220 x 96 mm	783 x 205 x 96 mm	818 x 220 x 96 mm
	Platform	n/a		Customize to Fit	
Maximum Load Capacity		150 – 350 kg	350 – 700 kg	150 – 350 kg	350 – 700 kg
Actuator		Electromagnetic Actuator			
Maximum Actuator Force		Vertical : 6 N Horizontal : 3 N	Vertical : 12 N Horizontal : 6 N	Vertical : 6 N Horizontal : 3 N	Vertical : 12 N Horizontal : 6 N
Active Isolation Range		0.5 – 100 Hz			
Degrees of Freedom		6 degrees			
Vibration Isolation Performance		≥90% at ≥4 Hz			
Settling Time		≤0.3 sec*			
Input Voltage (V)		AC 80 – 260 V / 50 – 60 Hz			
Power Consumption (W)		Maximum 65 W <20 W in normal	Maximum 195 W <60 W in normal	Maximum 65 W <20 W in normal	Maximum 195 W <60 W in normal
Operating Range	Temperature (°C)	5 – 50 °C			
	Humidity (%)	20 – 90%			

*0.3 sec settling time is measured after 90% reduction of input. (The settling time varies with several conditions, such as payload, force, natural frequency, etc.)



Cell Sorter Metrology



Electron Microscopy

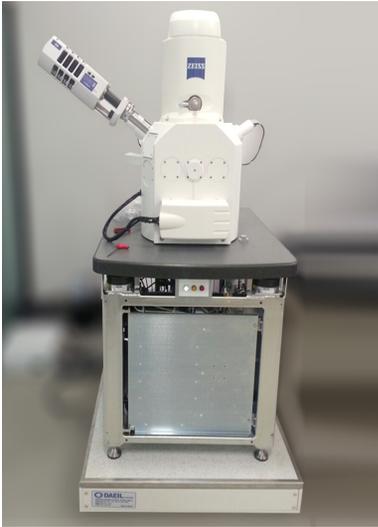
Applications

- Scanning Electron Microscopy (SEM)
- Transmission Electron Microscopy (TEM)
- Scanning Tunneling Microscopy (STM)
- Scanning Probe Microscopy (SPM)
- Nuclear Magnetic Resonance Spectroscopy (NMR)
- High-Performance Metrology Tools

DVIA-UB Case Study #1

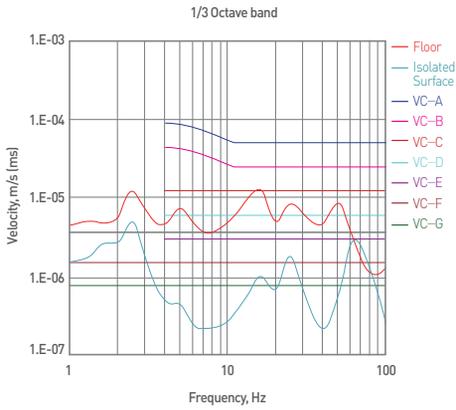
ZEISS EVO18 SEM

- The site survey indicated the floor vibration was VC-B in z-axis, VC-E in x-axis and VC-D in y-axis.
- DVIA-UB reduced the floor vibration to VC-E in all axes.
- After installing the DVIA-UB, the measured sample image has improved.

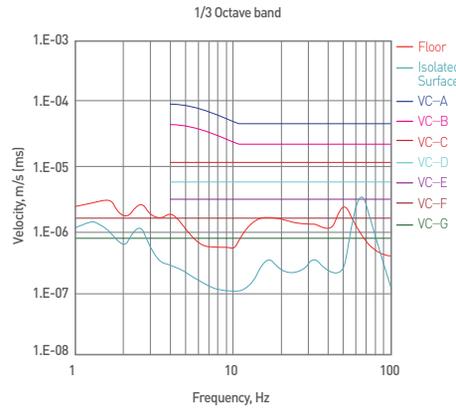


VC-Curves		
Test Direction	Floor	Isolated Surface
Z-axis	VC-B	VC-E
X-axis	VC-E	VC-E
Y-axis	VC-D	VC-E

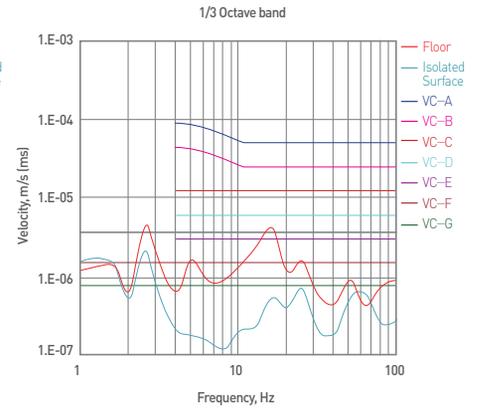
Z-axis



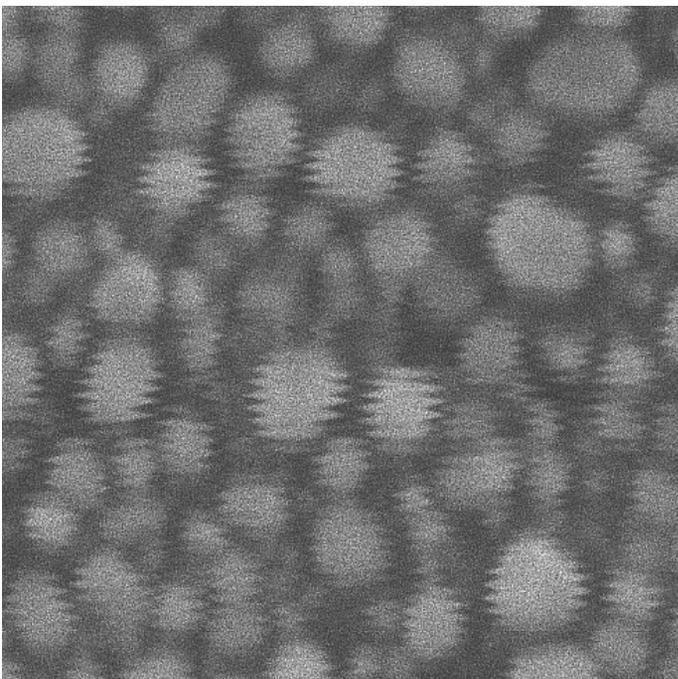
X-axis



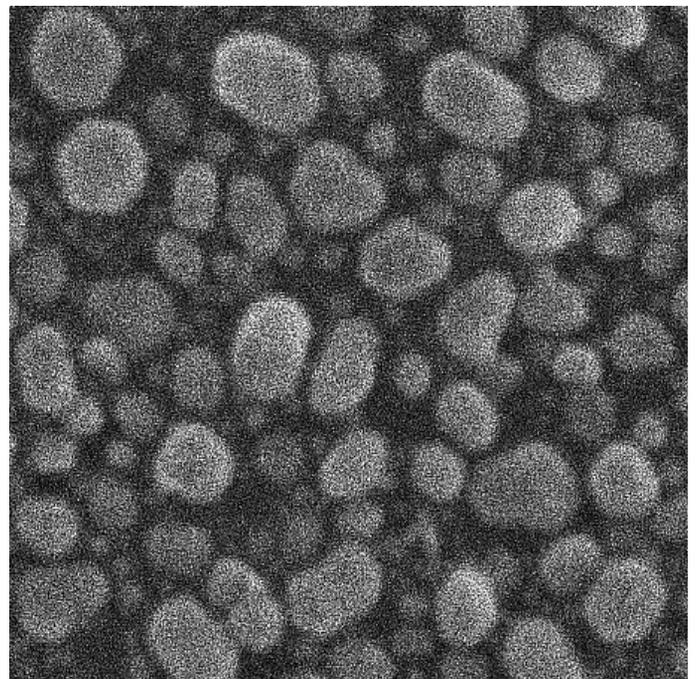
Y-axis



Before



After



DVIA-UB Case Study #2

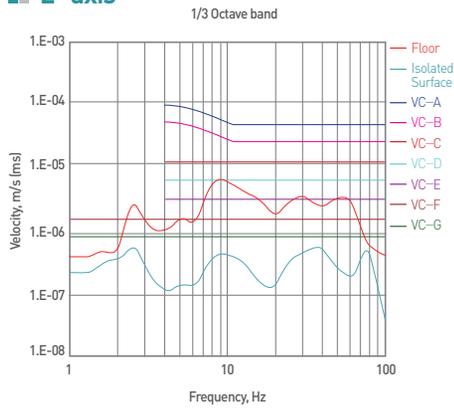


SEM

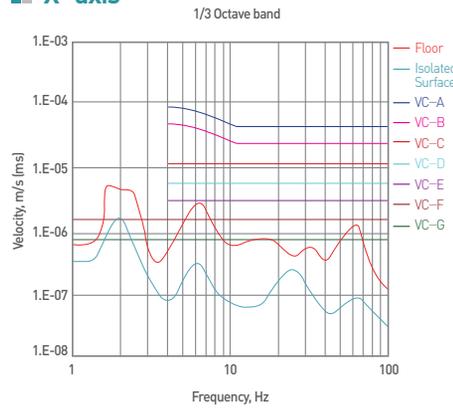
- The site survey indicated that the floor vibration was VC-C in z-axis, VC-E in x-axis and y-axis.
- DVIA-UB reduced the floor vibration to VC-G in z-axis, VC-F in x-axis and y-axis.

VC-Curves		
Test Direction	Floor	Isolated Surface
Z-axis	VC-C	VC-G
X-axis	VC-E	VC-F
Y-axis	VC-E	VC-F

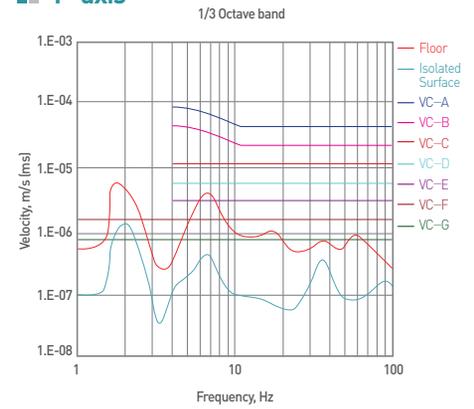
Z-axis



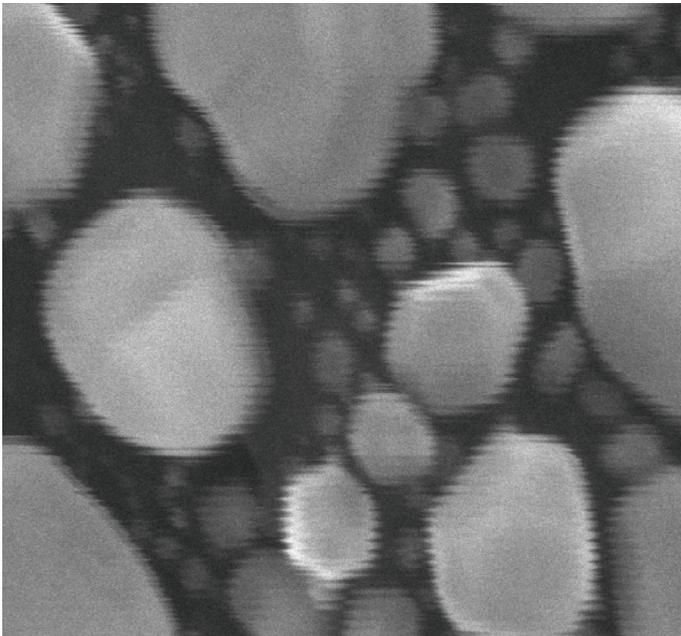
X-axis



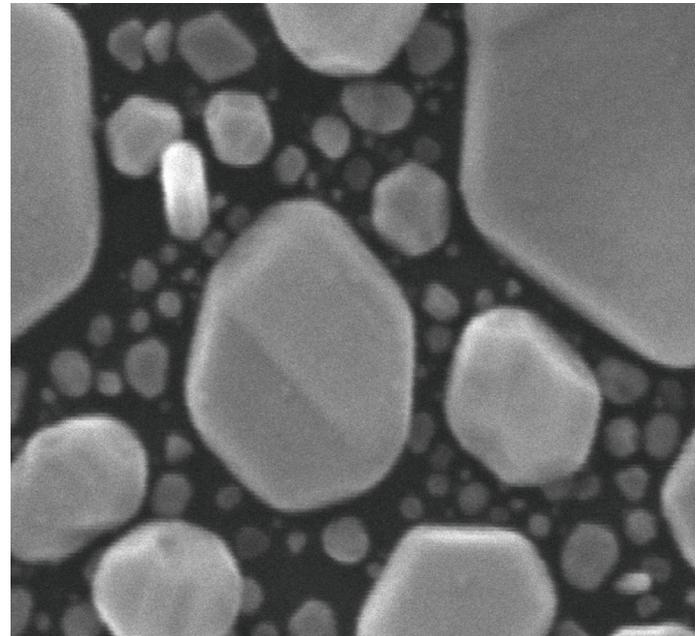
Y-axis



Before



After





Enabling Vision for the Future.

 **DAEIL SYSTEMS**

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Enabling Vision for the Future.

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