

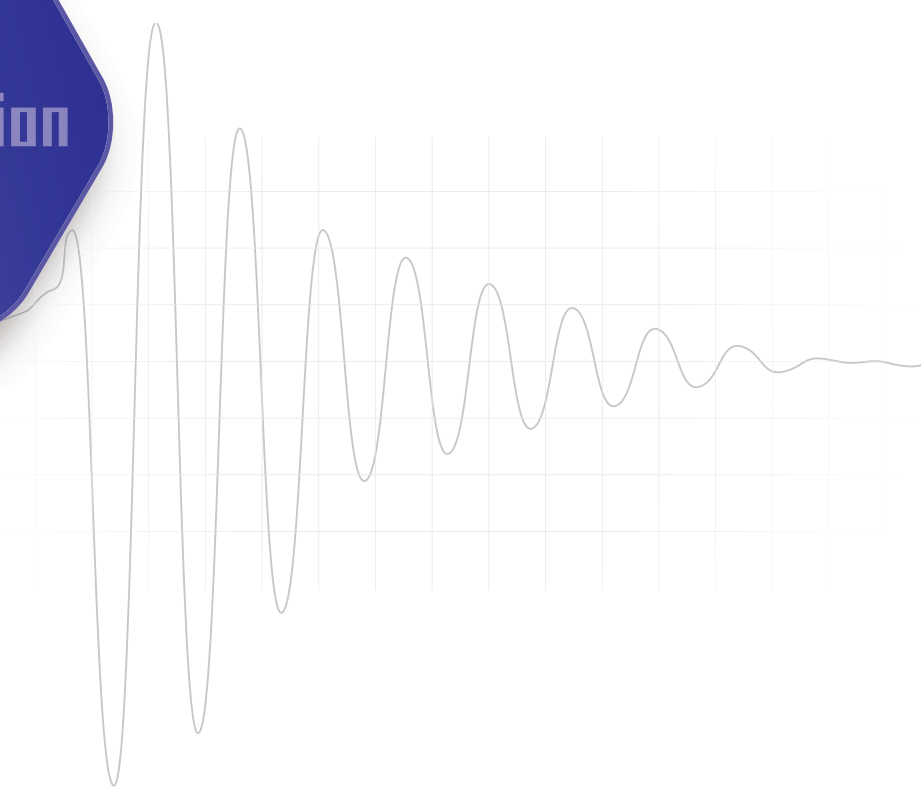
Vibration Countermeasure

- Active Vibration Isolation System
- Pit-type Isolation Platform

$$:= \int_{-\infty}^{\infty} f(x) e^{-2\pi i x \xi} dx$$



Floor Vibration



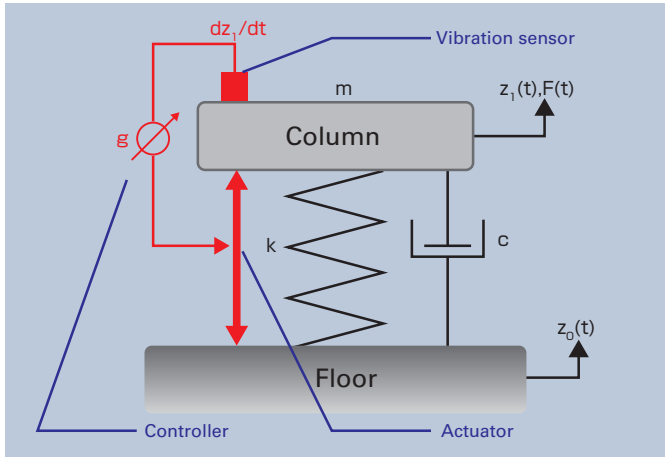


Vibration Isolation

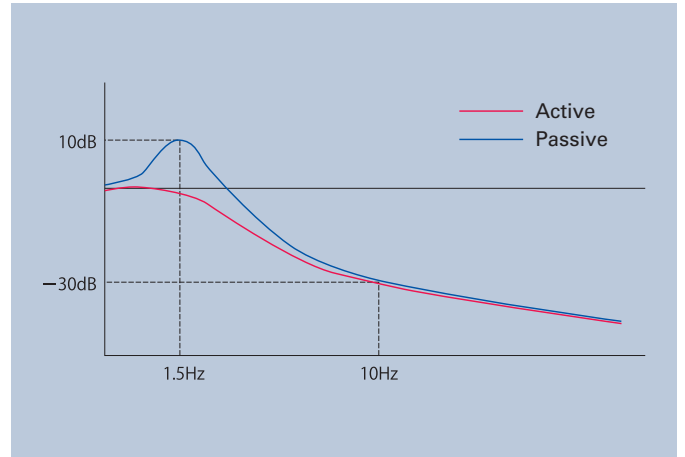
Active/Passive isolation system, Pit

For the increasingly sensitive, high-performance scientific instruments, it has become an essential installation site in order to ensure the instrument performance. JEOL offers an extensive range of solutions to reduce the impact of floor vibration on instrument performance due to floor vibration.

Active Isolation System



Active Isolation System schematic

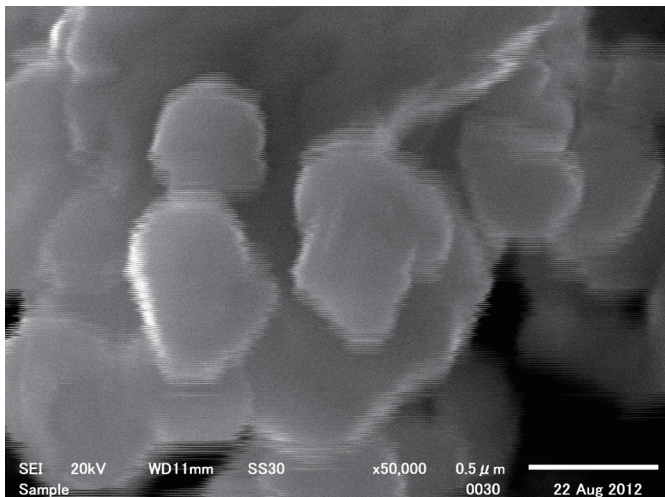


Vibration transmissibility Horizontal axis: frequency Vertical axis: Amplitude

Vibration is detected by the sensor mounted above the instrument, triggering the actuator to output a force in the opposite direction to cancel the vibration. This makes it possible to attenuate vibration amplification due to resonance, which cannot be avoided with a passive isolator. By performing the optimal tuning to match the unique vibration conditions at each installation site, the full performance of the Active Isolation system can be achieved, preventing any negative impact on instrument performance.

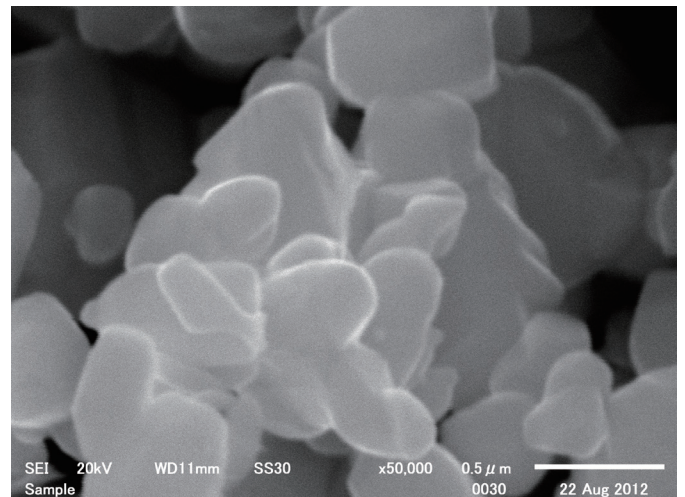
Active Isolation System

Observation with JSM-6510 Sample: ZnO Mag: x50,000



Active OFF

Floor vibration causes noise on the contours of the observation target, and the image is not clear.



Active ON

The vibration attenuation effect of the Active Isolation System suppresses the effects of the floor vibration, providing sharp, clear images.

It is extremely important to effectively attenuate the floor vibration at the top line of active isolation systems specially designed to prevent any drop

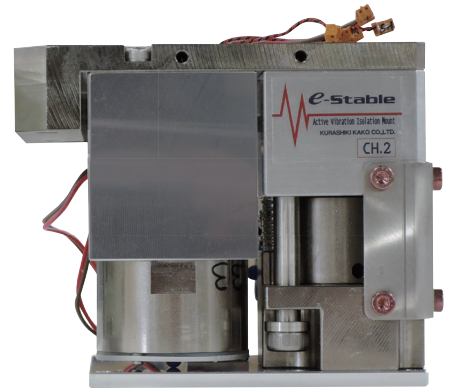
Product lineup

■ Built-in type Active Isolation System

This is an Active Isolation System that is installed as a replacement for the standard anti-vibration mounts of the instrument. The effects due to vibration are eliminated more effectively, without compromising the appearance or usability of the instrument For



For JEM-ARM300F
(TCN300)



For Tungsten SEM
(J-EST-L100C-5529)

■ Platform type Active Isolation System

This is a platform type Active Isolation System which is designed to be placed under the instrument. It is applicable to a variety of models, particularly SEM instruments.



For Tungsten SEM
(EST-L5HR-6037)

■ Pit type isolation platform

For a high center-of-gravity instrument like an ultra high voltage electron microscope, the low-frequency floor vibrations are effectively eliminated by this system. Combining with an Active Isolation system, it is possible to achieve even higher vibration isolation performance.



For Ultra High Voltage TEM



Active Isolation System Compatibility Table

	Compatible	Built-in Active	Platform type Active	Passive vibration
EM	JEM-ARM300F	TCN300	-	-
	JEM-ARM200F	EST-L6H-4700		
	JEM-F200	TCN75X		
	JEM-2100F			
	JEM-2200FS			
	JEM-2800			
	JEM-2100Plus			
	JEM-1400Plus	-		
SM	JSM-7100F	TCN50X	-	-
	JSM-7200F	-		
	JSM-7610F	TCN50X		
	JSM-7800F			
	JSM-7800FPRIME			
XM	JXA-8530F	TCN50X	-	-
AP	JAMP-9510F	TCN50X	-	-
MP	JSM-6010Plus	-	EST-L100C-5523	PAM-45
	JSM-IT100		EST-L5HR-6037	
	JSM-6510		EST-L5HR-6037	
	JSM-IT300			
IB	JIB-4000	-	EST-L5HR-6037	-
	JIB-4610F		EST-L5HR-6346	

- Notes
- When planning to purchase environment countermeasure products an installation site survey will be required in advance.
 - For instruments that are not listed in the compatibility table, please inquire directly to determine what options are available.
 - In some cases it may not be possible to install the platform-type active isolation system or the pit-type isolation platform, depending on the building structure and situation of installation site.

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