RoHS Compliant

NBK®

No.E-9942

Built-in Vibration Isolation Mounts (Heavyweight Type)

Material Plate: FC200 Surface Treatment Painting

This mount is for incorporation into other equipment and uses expanded polyurethane vibration isolation material which offers excellent vibration isolation.

Applications

Isolation of Vibrations From External Sources

- Isolates transmission of vibrations from external sources such as to precision measuring instruments, inspection equipment, and machining tools.

Suppression of Vibrations Transmitted to External Devices

- Suppresses vibrations from vibrations sources such as pumps and generators from being transmitted to external devices.

Features

This is able to isolate low-frequency vibrations

- Able to isolate low-frequency vibrations by using expanded polyurethane, which surpasses rubber-based vibration isolation materials.

Suitable for a Wide Range of Loads

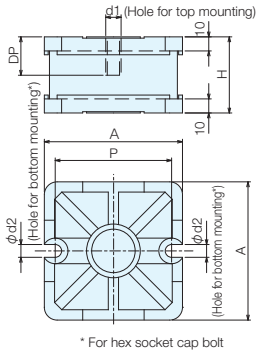
- Suitable for a wide range of loads from 400 N to 14700 N.

Wide Variety of Vibration Isolation Materials

- 2 to 5 different types of vibration isolation materials are available for each size. This allows you to minimize differences in size even for different loads.

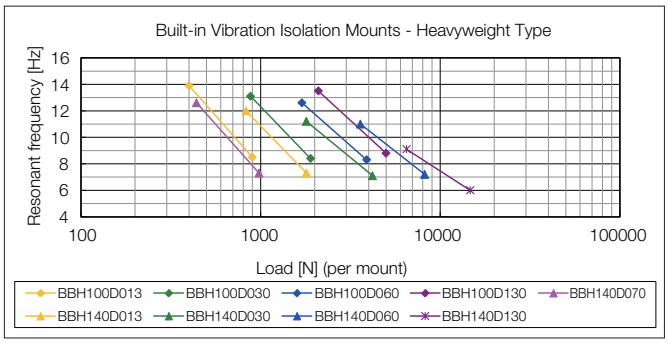
Built-in stopper mechanism

- Has a built-in stopper mechanism for handling large vibrations such as earthquakes.



* For hex socket cap bolt

Characteristic Data



Selection Points

Read the resonant frequencies of the mounts depending on the load from the table on the left and select the mount where the resonant frequency is 1/2 (0.5 times) or less the frequency of the vibration you want to isolate.

Selection Examples	If you want to isolate the vibrations from a motor running at 2,400 rpm with a load of 500 N on each mount

- The vibration frequency generated by the motor is 2,400 rpm/60 seconds = 40Hz.
  Therefore, select mounts that have a resonant frequency of 40 Hz/2 = 20 Hz or less.
- The BBH140D070 (resonant frequency of approx. 12 Hz with a 500 N load) or BBH100D013 (resonant frequency of approx. 13 Hz with a 500 N load) are suitable for this case.

Jig Set-up Systems (Q-lock)
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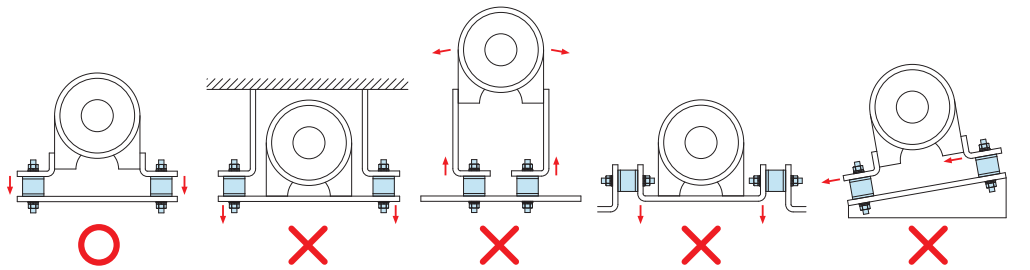
Specifications

Order No.	No.	Vibration Isolation Material Color	Size [mm]						Maximum Allowable Load N	Resonant frequency	Target Vibration Frequency	Vibration Isolation Material Deformation	Mass (kg)
			A	P	d1 (Course Thread)	d2	H	DP		[Hz]*1	[Hz]*2	[mm]*3	
109438	BBH100D013	Dark yellow	108	91	M12 × 1.75	10	59.5	15	400 - 900	9	17 -	4	1.6
109439	BBH100D030	Dark green							880 - 1900	8	17 -	4	1.7
109440	BBH100D060	Dark blue							1700 - 3900	8	17 -	5	1.7
109441	BBH100D130	Purple							2100 - 5000	9	18 -	4	1.7
109442	BBH140D007	Pink	148	126	M16 × 2.0	12	72.0	20	440 - 980	7	15 -	5	3.5
109443	BBH140D013	Dark yellow							830 - 1800	7	15 -	5	3.5
109444	BBH140D030	Dark green							1800 - 4200	7	14 -	6	3.7
109445	BBH140D060	Dark blue							3600 - 8200	7	14 -	6	3.8
109446	BBH140M097	Dark magenta							6500 - 14700	6	12 -	9	3.9

*1: The resonant frequency is the calculated value when the maximum allowable load is applied.
*2: The target vibration frequency is the frequency that is subject to vibration isolation. This is based on the frequency where the vibrations when the maximum allowable load is applied are attenuated to 1/2 to 1/3.
*3: The vibration isolation material deformation is the calculated value when the maximum allowable load is applied.

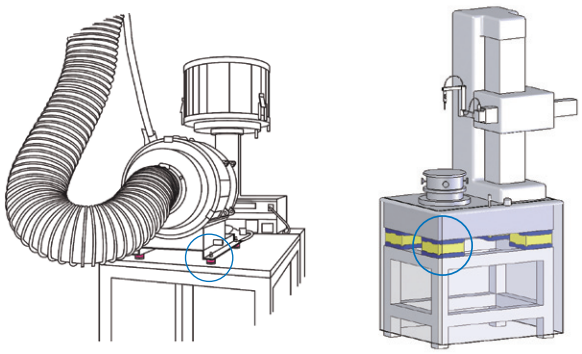
⚠ Usage Warnings



Correct usage (Compressive load) | Use suspended from the ceiling (Tensile load) | Use for objects with a high center of gravity (Tensile load) | Use in horizontal orientation (Shear load) | Use on slanted surface (one degree or more) (Shear load)

- If the resonant frequency of the mount is $1/\sqrt{2}$ (0.7) times or higher than the vibration frequency you want to eliminate, damping effect will not act and the vibrations will be amplified.
  The mount should be used loaded under compression.
- It cannot be used with a tensile or shear load. (Refer to the examples above)
  You should also ensure that the mounts are not loaded with tensile or shear loads during transport and storage. The mount may become damaged if subjected to tensile or shear loads.

Usage Examples



For devices with a high center of gravity, swaying of the device can be reduced by installing anti-vibration products at a position near the center of gravity inside the device.

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