

# VIBRATION ISOLATION

## Introduction

Vibrations generated by rotating machine components are transmitted through the frame into the foundation and subsequently into the building fabric. Such fabric vibrations may be radiated from distant locations as nuisance noise or as annoying, perceptible vibrations indicated by fabric damage. Introducing vibration isolators between the machine frame and the foundation attenuate the vibrations allowing the installation of sensitive instrumentation or equipment in the near vicinity.

## Anti vibration mounts

Q.E. International B.V. represents the Paulstra / Vibrachoc range of isolators. High quality all-steel and steel/ polymer isolators provide the solution to most of the vibration problems encountered. For those extraordinary cases custom-designed units are proposed so that, in every case, Q.E. is able to offer the optimum resolution of the vibration problem.



## Applications

Vibration isolators find application in many divisions of industry. Among them are:

Vehicles: Trucks, trailers, road vehicles, locomotives

Machinery: Lathes, milling machines, pillar and radial drills, hydraulic and mechanical presses, printing machines, textile machinery.

Rotary and vibrating machines: Motors, generators, compressors, centrifugal fans, pumps, dryers, sieves, test benches.

Marine and off-shore: Prime movers, main and auxiliary, the exhaust system.

Military: The protections of electronic equipment from vibrations and shocks.

## Which anti vibration mount is suitable for your application?

To select the correct isolator for your application certain basic data is needed. A faulty selection may lead to insufficient isolation of the vibration or, worse, a resonance that amplifies the vibration.

### Basic data needed:

- Machine rotary speed (RPM)
- The mass of the machine
- Determination of the Centre-of-Gravity of the supported system
- Number of supports.

### Selection of the anti vibration mount

When the basic data has been determined reference may be made to the accompanying tables to find the best solution to your application. You may, always, request more extensive information from Q.E. International B.V.

### How much damping may be expected from the selected isolator?

Select the rotary speed (RPM) or the excitation frequency (Hertz) that is to be damped. Draw a vertical line that crosses the natural-frequency of the vibration isolator. At the intersection of the two lines you will see a diagonal line that shows the damping of the selected vibration.

## Contact

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Product range	AXIAL FLEXIBILITY	AXIAL AND RADIAL FLEXIBILITY + ANTI-REBOUND				AXIAL FLEXIBILITY	AXIAL AND RADIAL FLEXIBILITY + ANTI-REBOUND	AXIAL AND RADIAL FLEXIBILITY	AXIAL AND RADIAL FLEXIBILITY + ANTI-REBOUND	AXIAL FLEXIBILITY	MULTIAXIAL FLEXIBILITY	Product range
		V118-DG V118-MG V318 V318-D VIH5023 VIH5025	V164 V168	V402-MG	VIH751 VIH752	SP539-***	VIH-6000 VIH-6100	VIH1114 VIH1115 VIH1116 VIH1134 VIH1135 VIH1136 VIH1209	7002 MV801 MV803	VE101 VE111 VE112 VE113 VIN30*	VIBCABLE	
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5	Natural frequency = 10 to 25 Hz	Natural frequency = 11 to 25 Hz	Natural frequency = 8 to 22 Hz	Natural frequency = 15 to 22 Hz	Natural frequency = 15 to 25 Hz	Natural frequency = 12 to 18 Hz	Natural frequency = 1.5 to 9 Hz	Natural frequency = 5 to 10 Hz	Natural frequency = 3.5 to 6 Hz	Natural frequency = 7 to 25 Hz	5	
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