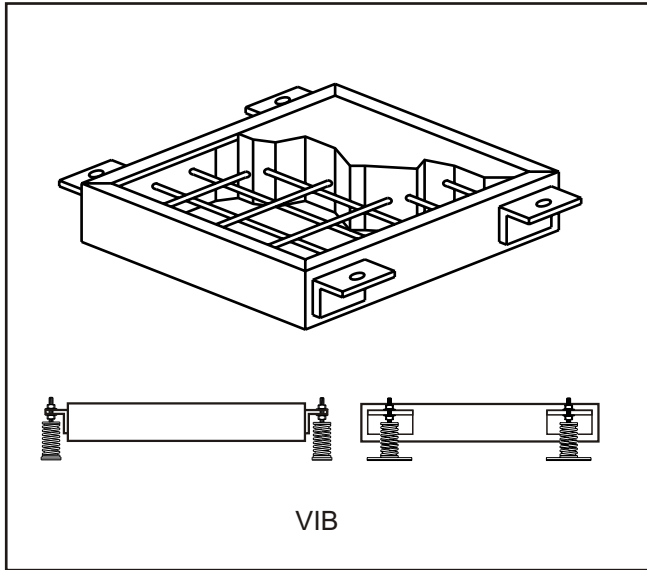


# INERTIA BASES

## Model VIB



### APPLICATIONS

Inertia bases are designed to reduce noise and vibration transmission between plant equipment and the building structure. They are usually supported on helical steel spring mounts and are used to:-

- Provide stability to a system.
- Lower the centre of mass.
- Reduce coupled mode problems.
- Minimise the effect of external forces.
- Ensure an even load distribution.
- Add rigidity to the plant / equipment.
- Reduce the effect of centre of mass estimates.
- Provide suitable anti-vibration mount fixings.
- Reduce vibratory movement due to plant start-up and run-down as the resonant frequency is passed.

Max' Plant Weight (kg)	Frame Length L (mm)	Frame Width W (mm)	Frame Depth D (mm)	Concrete Weight (kg)	Product Code (MODEL-L-W-D)
50	500	500	150	90	VIB-0500-0500-150
70	750	500	150	135	VIB-0750-0500-150
100	750	750	150	202	VIB-0750-0750-150
140	1000	750	150	270	VIB-1000-0750-150
180	1000	1000	150	360	VIB-1000-1000-150
240	1000	1000	200	480	VIB-1000-1000-200
300	1250	1000	200	600	VIB-1250-1000-200
380	1250	1250	200	750	VIB-1250-1250-200
450	1500	1250	200	900	VIB-1500-1250-200
540	1500	1500	200	1080	VIB-1500-1500-200
460	1250	1250	250	937	VIB-1250-1250-250
570	1500	1250	250	1125	VIB-1500-1250-250
680	1500	1500	250	1350	VIB-1500-1500-250
790	1750	1500	250	1575	VIB-1750-1500-250
920	1750	1750	250	1837	VIB-1750-1750-250
810	1500	1500	300	1620	VIB-1500-1500-300
950	1750	1500	300	1890	VIB-1750-1500-300
1100	1750	1750	300	2204	VIB-1750-1750-300
1260	2000	1750	300	2520	VIB-2000-1750-300
1440	2000	2000	300	2880	VIB-2000-2000-300

### SPECIFICATION

VIB - a formed steel frame (pre-galvanised) fitted with steel reinforcing bars, BZP steel 'outrigger' mounting brackets and supplied with anti-vibration mounts appropriate to the plant type and the category / efficiency of the vibration isolation required.

Heavy steel sections, such as RSC and RSA, may be used where necessary. These can incorporate 'inboard' mounting brackets.

Inertia Bases are normally supplied to site ready for filling with concrete.

A concrete mix having a ratio of 4 parts gravel : 2 parts sand : 1 part cement should be used to give a concrete density of approximately 2,400 to 2,500 kg/m<sup>3</sup>.

Heavy steel inertia plates can be used for small plant items where an inertia base would be too bulky.

### OPERATING PARAMETERS

Ensure operation is within the following parameters:-

The vertical distance to the combined centre of mass from the top of the spring mounts must be less than horizontal distance.

The spring mounts must be outside the 'boundary' of the rotating mass.

All equipment must be rigidly coupled together as one mass on a single platform.

The mass of the platform must be very large compared to the mass of the plant, i.e. the platform must be twice that of the plant.

Flexible pipe connectors must be of the 'restrained' or 'tied' type.