

# VIB 1.000

Metallic Spring Steel Isolators



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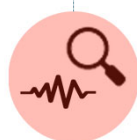
vibcon®



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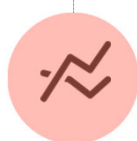
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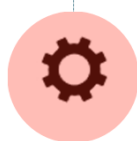
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## Information

VIB 1.000 Series have a dumping factor of almost zero, therefore they provide maximum efficiency when isolating machinery or facilities. Two main goals are achieved:

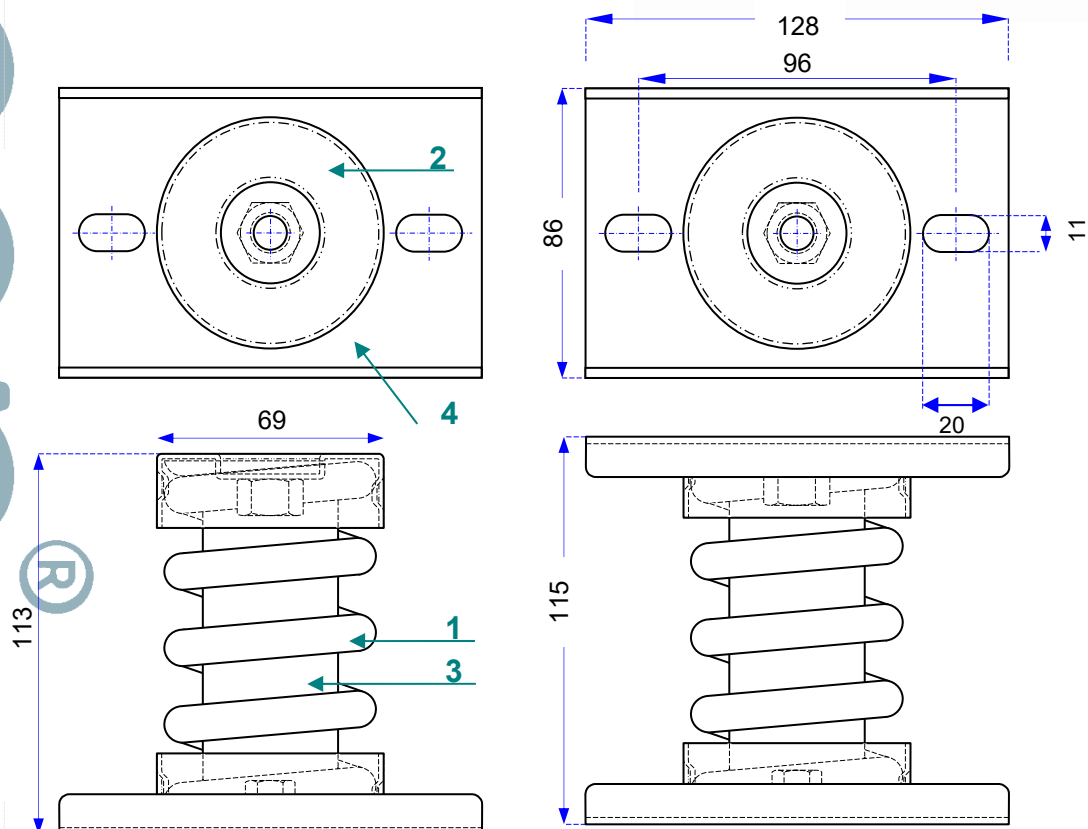
Decreasing vibrations transmission  
Reducing structural noise

Highly recommended for insulating machinery operating at low working cycles (above 600 rpm).

Natural frequency 3-7 Hz  
Frecuencia Natural de 7 a 3 Hz



## Description and Dimensions





## Description and Dimensions

1. VIB 1.000 Series is a standard steel spring with high resistance that is compliant with DIN standards, subsequently treated with shot peeling to extend its resistance to fatigue under permanent conditions of stress. Surface finish coated with EPOXY protection.
2. Steel framework with mechanical anchoring which prevents the spring from removing. Thanks to the special glue that joins the spring to the housing, direct contact between pieces is avoided thus reducing metallic noise.
3. Closed internal flexible polyethylene filler, to prevent solid elements from entering and damaging the spirals under load.
4. Metal base, with rib for increased stiffness. Oval holes to facilitate its centering and anchoring to the ground.



## Physical Analysis

Vibcon Model	Minimum and maximum static compression load in daN <sup>(1)</sup>					Isolators's Weight [kg]
	MINIMUM load	MINIMUM deflection	MAXIMUM load	MAXIMUM deflection	OPTIMUM Load [daN]	
VIB 1.100	10	2,5 mm [±5%]	100	25 mm [±5%]	20-92	0,7
VIB 1.125	13		125		25-115	0,8
VIB 1.150	15		150		30-138	0,8
VIB 1.200	20		200		40-184	0,9
VIB 1.250	25		250		50-230	1,0
VIB 1.300	30	2,3 mm [±5%]	300	23 mm [±5%]	60-276	1,0
VIB 1.400	40		400		80-368	1,1
VIB 1.500	50		500		100-460	1,1
VIB 1.600	60		600		120-552	1,2
VIB 1.700	70		700		140-641	1,5
VIB 1.800	80		800		160-732	1,5

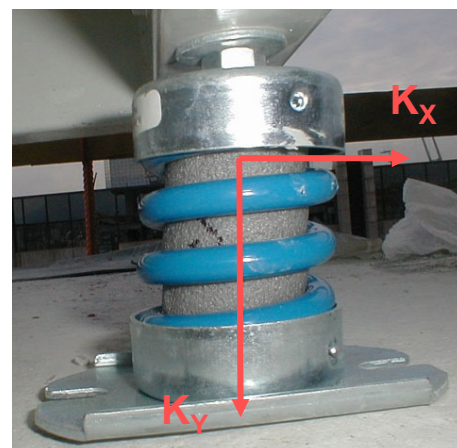
Nota1: 1 daN. =1 kp =1 kgf

Nota2: K Constante elástica del aislador



## Physical Analysis

- Working temperature range: -90°C to 200°C
- Stiffness ratio  $K_X / K_Y = 0,7$

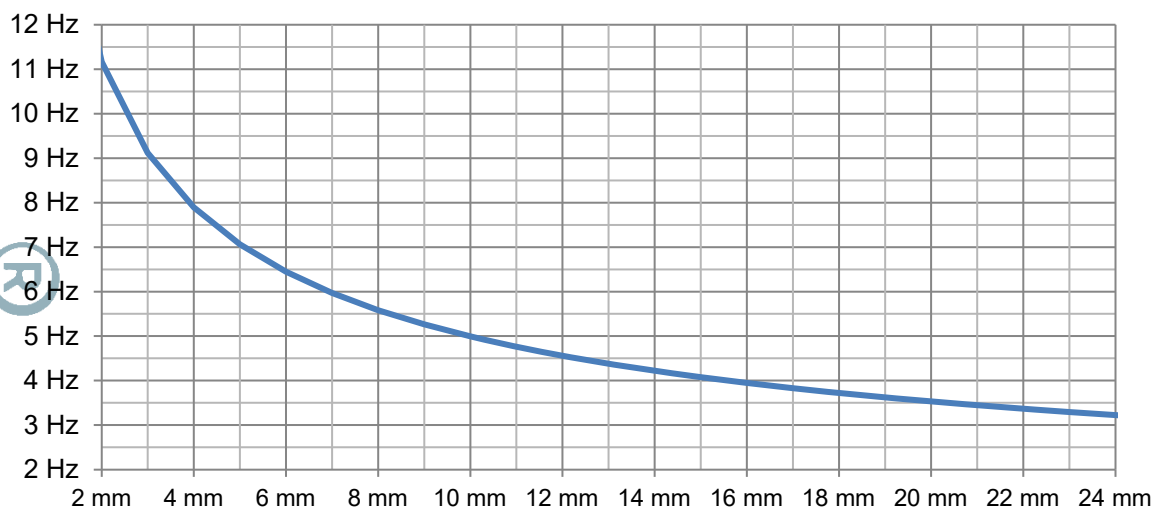


Should the structure where the isolator is attached expand, isolators may shift laterally the maximum values shown in the following table:

Compression [mm]		Shear/compression [mm]	
Max. shift	25 mm	Max. shift	10 mm



## Graph: Dynamics (Natural Frequency)



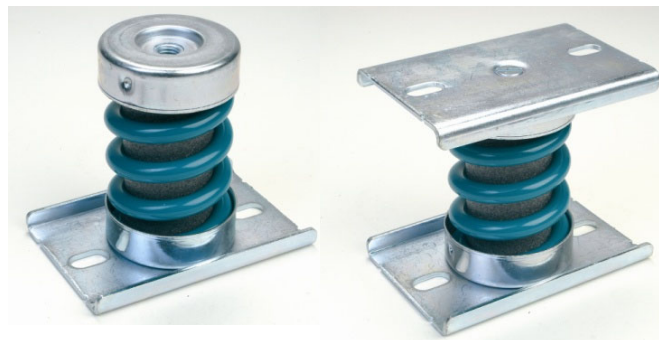




## Versiones de Suministro i montaje

VIBCON VIB 1.000 isolators are supplied in two different versions to facilitate their installation.

Version	Description	Notes
B	With 1 base and anti-slip mat	Galvanized finish
BB	With 2 bases and anti-slip mat	
EB	With 1 base and anti-slip mat	Antioxidant EPOXY coating finish
EBB	With 2 bases and anti-slip mat	



VIB 1.000 B and VIB 1.000 BB



VIB 1.000 EB and VIB 1.000 EBB

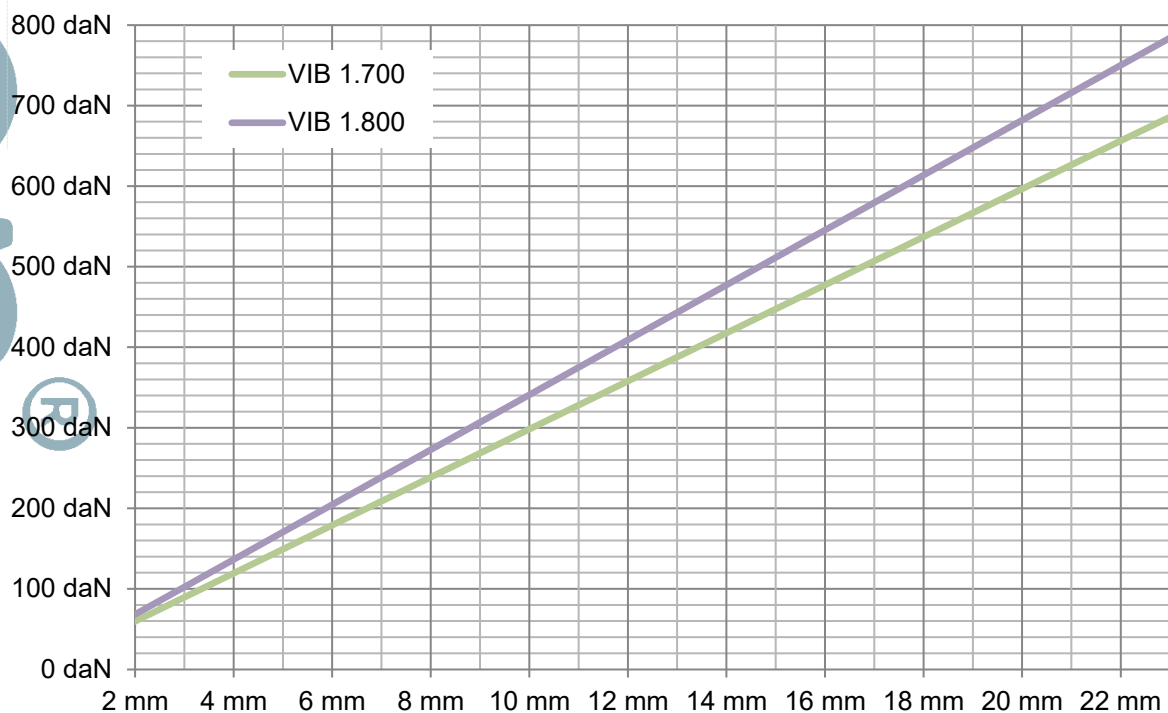
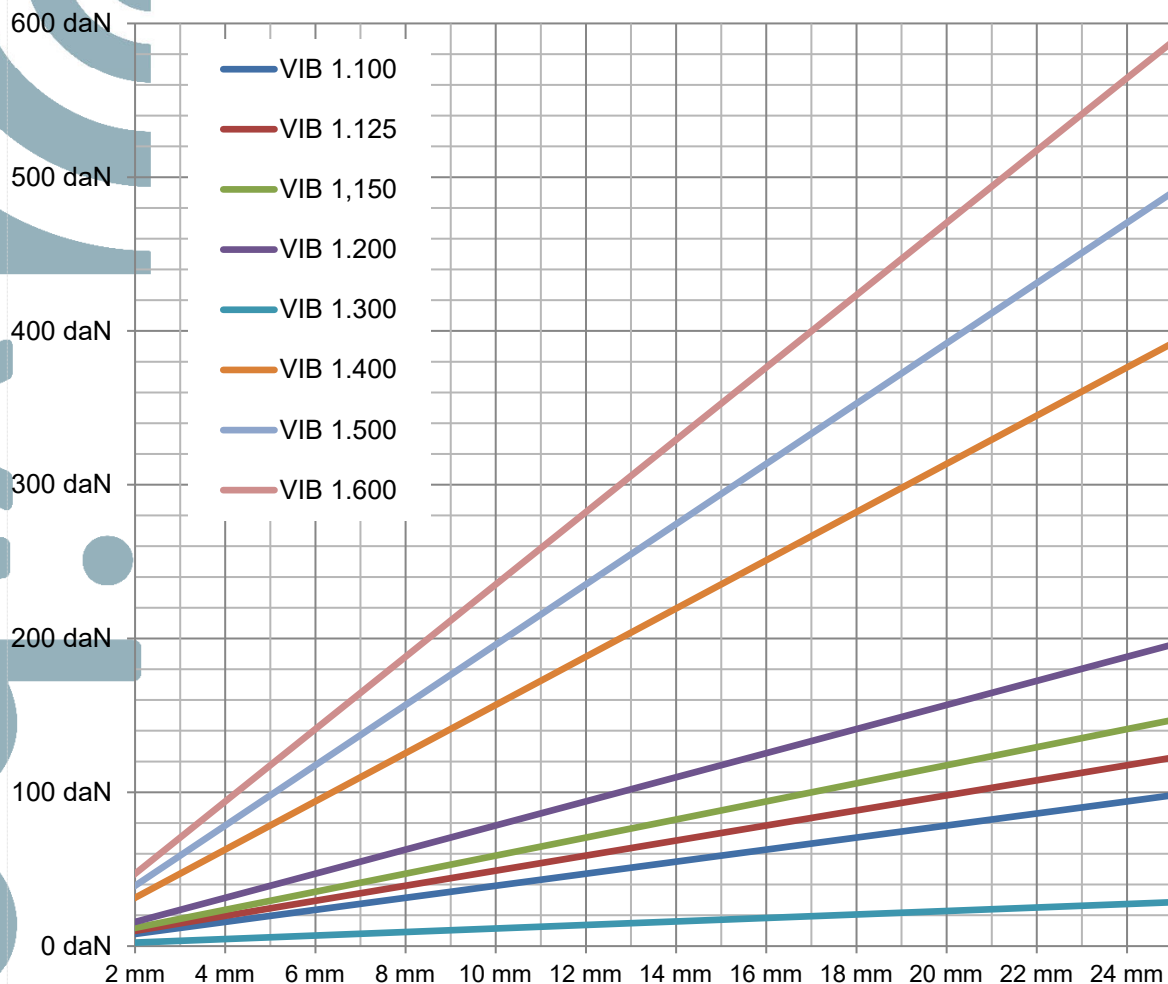
### ACCESSORIES:

- Levelling nuts and bolts
- Anti-slip mats
- Neoprene rubber mats





**Graph: load Static deflection**

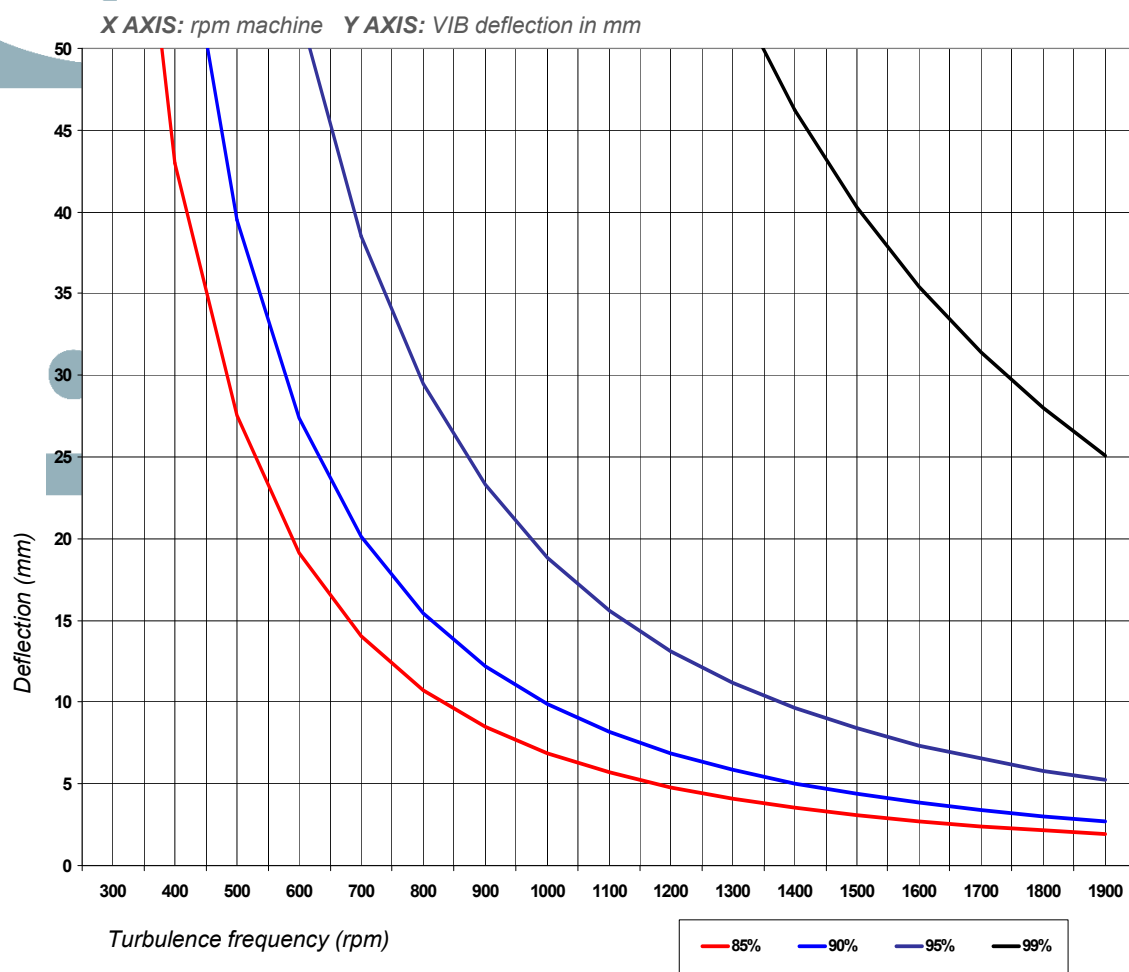




## Insulation Grade Graph

This graph is used to select the precise compression deflection for obtaining an Insulation Grade, expressed in %, depending on the minimum revolutions of the equipment.

This graph is only valid for Vibcon metal spring isolators and is not applicable for any other countertype on the market.



**EXAMPLE:** Air-water cooling plant: fans at 900 rpm and compressors at 1500 rpm.

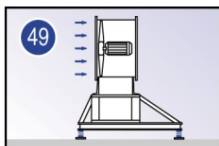
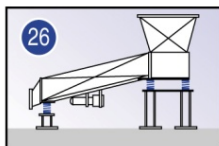
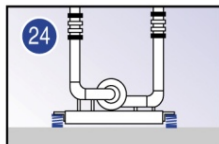
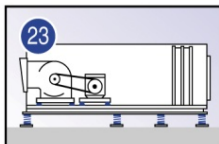
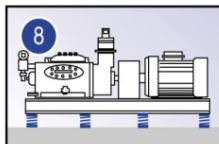
- The TURBULENCE FREQUENCY is taken as the minimum revolutions, i.e., the rpm of the fans= 900 rpm.
- For compliance with the RITE an insulation of  $\geq 90\%$  is required
- A vertical line is drawn on axis x in 900 until it intersects with the curve of 90%
- Then a horizontal line is drawn from the intersection point obtained to the axis, to OBTAIN THE MINIMUM DEFLECTION (12 mm) the load insulator must comply with the insulation conditions based on RITE.
- If once under load the insulator is compressed to obtain a deflection of  $> 12\text{mm}$ , it will be compliant with RITE



## CRITERION FOR SELECTING THE INSULATION GRADE

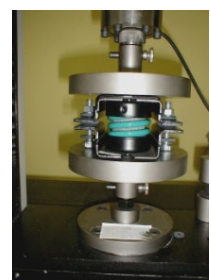
ZONE	Description	GRADE IN %
NON-CRITICAL ZONE	Industrial warehouses on industrial estates Basements. Areas far from places that are sensitive to structural noise and vibrations.	85%
CRITICAL ZONE	Roofs of apartment blocks, offices or public buildings. Zones that are sensitive to the transmission of structural noise and vibrations.	90-95 %
VERY CRITICAL ZONE	Auditoriums, theatres, cinemas, congress halls, hospitals, etc. Zones in which very low levels of noise and vibrations are required.	>95%

### Uses



- Thermal facilities
- Vibrating sieves
- Floating bedframes
- Ventilation boxes
- Compressors
- Etc.

Isolators for benches: See  
VIB 1.000 BL





Vibroacústica Control y Aislamiento S.L.