TVIB 100

Metallic Spring Steel Isolators

vibcon®

Vibroacústica Control y Aislamiento S.L.

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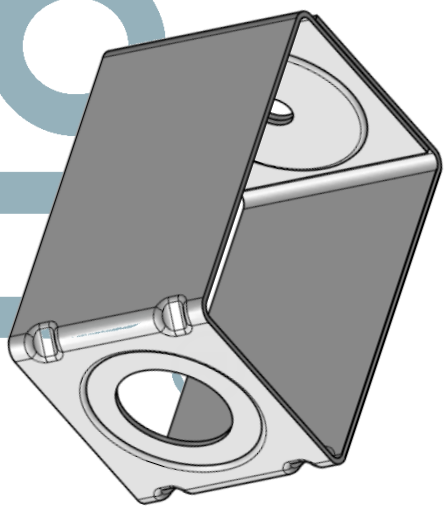
Information

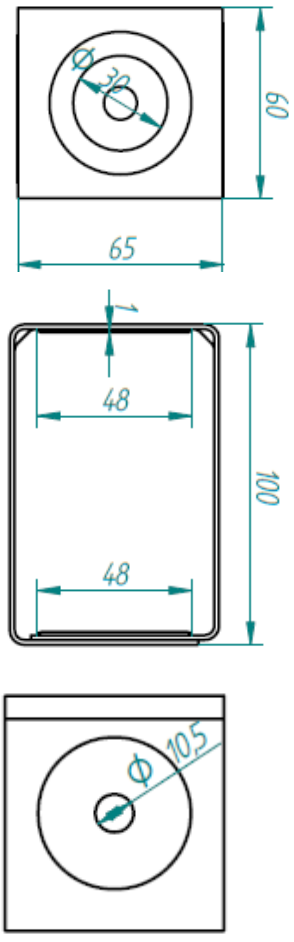
This series avoid the transmission of vibrations to the building when hanging machinery and structures from ceilings, with the same properties as VIB 100 Series.

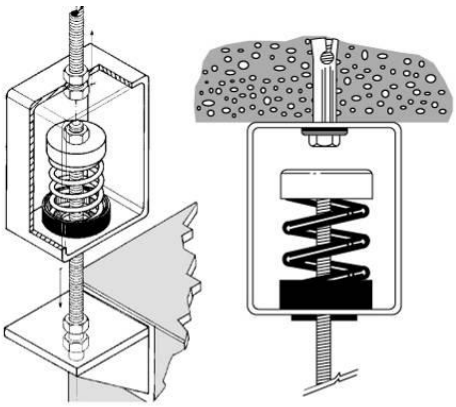
Although they hang from the ceiling, the springs are compressed thanks to its outer casing which is stiffly anchored to the slab.

Highly recommended for insulating machinery operating at low working cycles (above 700 rpm).

Description and Dimensions







Internal spring insulator: with standard M8 (optional M10)

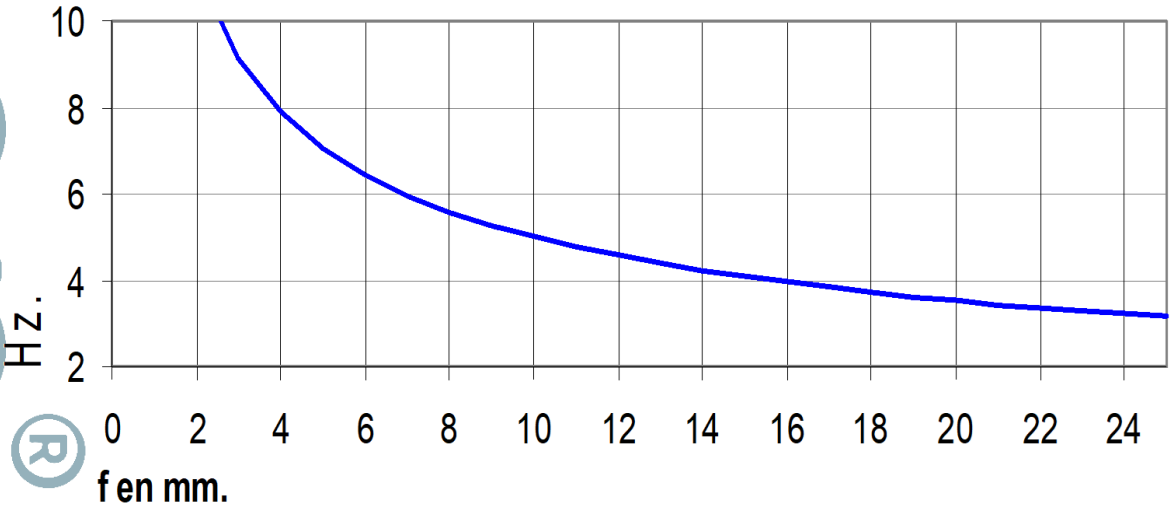
Physical Analysis

Vibcon Model	Minimum and maximum static compression load in **daN** (1)					Isolator's weight (g)
	MINIMUM load	MINIMUM deflection	MAXIMUM load	MAXIMUM deflection	OPTIMUM load	
TVIB 005	0,5	2,3 mm	5	23 mm	1-4	520
TVIB 015	2		15		3-14	530
TVIB 025	3		25		5-23	547
TVIB 050	5		50		10-46	561
TVIB 075	8		75		15-69	587
TVIB 100	10		100		20-92	603
TVIB 125	13		125		25-114	605

***Note**:1 daN =10 kp=1 kgf*

- Working temperature range: -90ºC to 200ºC
- Stiffness ratio $K_X / K_Y = 1$
- Admissible overload: 50% of its maximum load

Graph: Dynamic (Natural Frequency)



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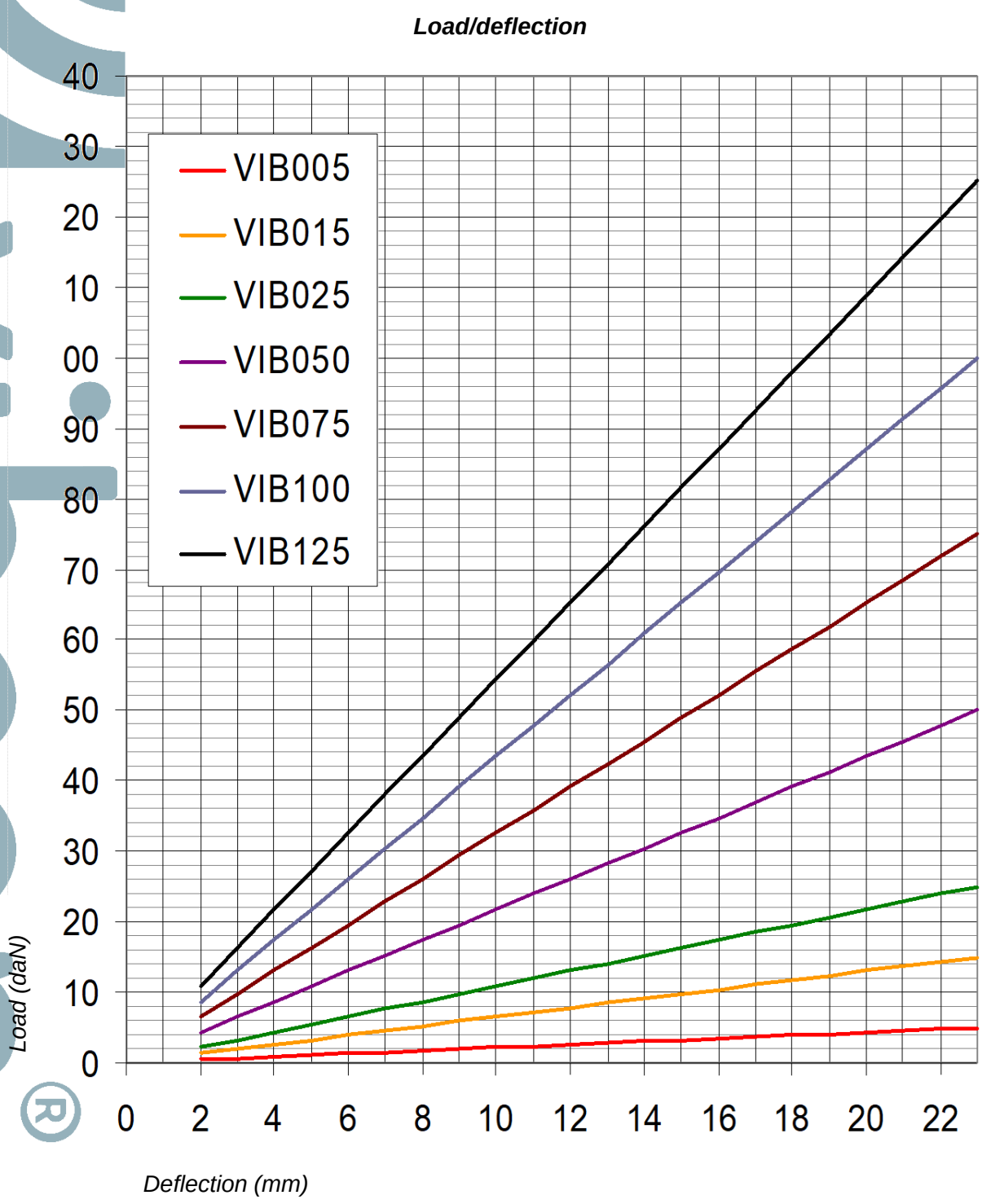
Graph: Statics



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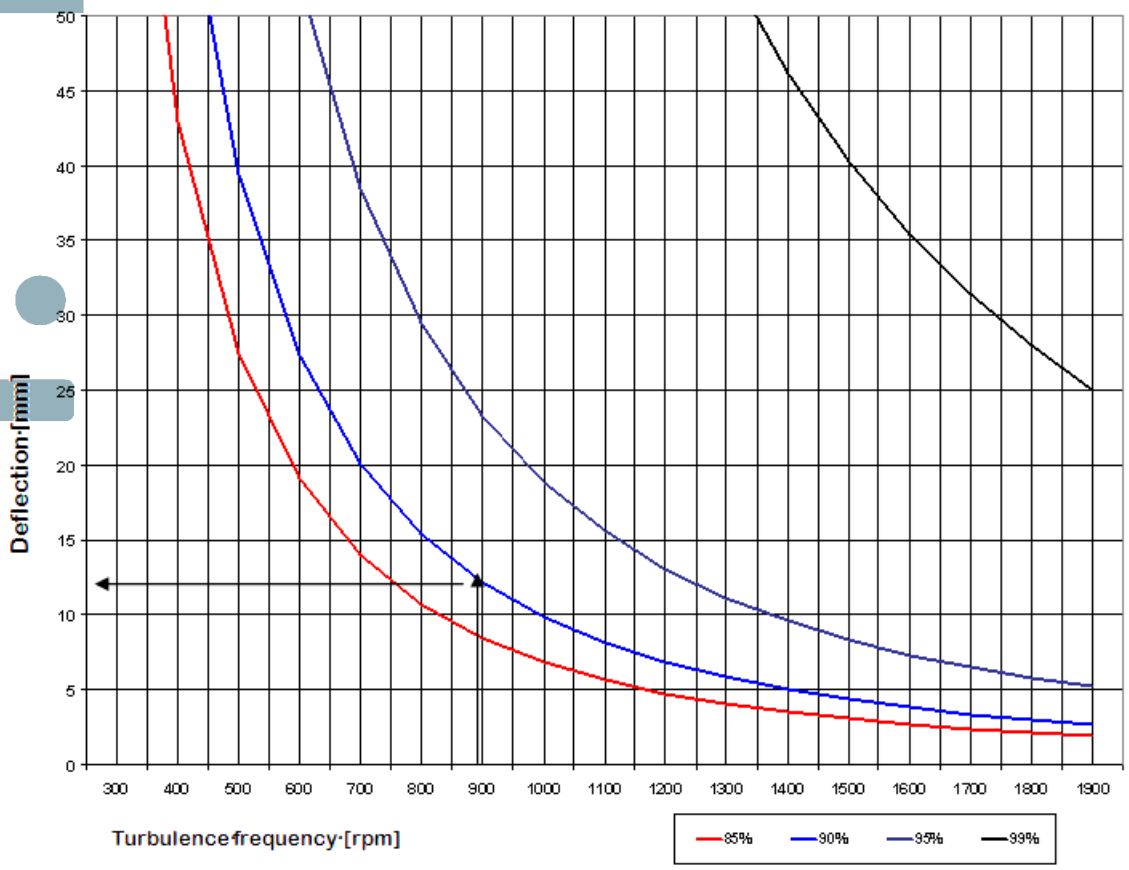
Insulation Grade Graph

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 insulators and is not applicable for any other countertype on the market.

***X AXIS:** rpm machine* ***Y AXIS:** TVIB 100 deflections in mm*



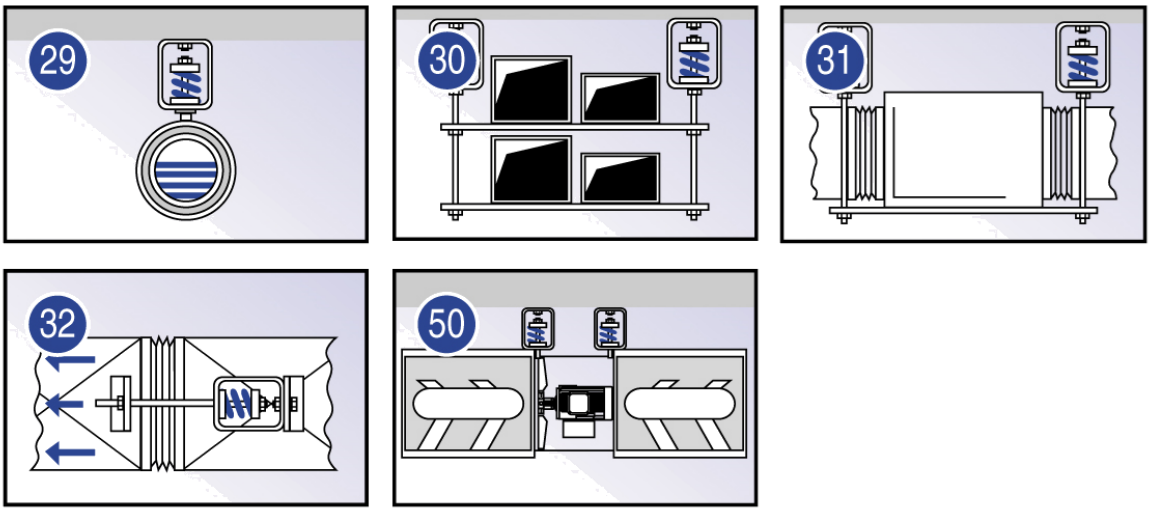
EXAMPLE: Air-water cooling plant: fans at 900 rpm and compressors at 1500 rpm.

- 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 ≥ al 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 > 12mm, 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



- Acoustic ceilings
- Hanging ventilation boxes
- Hanging ducts and pipes
- Hanging fancoils and air conditioners
- Turbo smoke extractors
- Etc.

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